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OVERSEAS GEOLOGICAL SURVEYS  
MINERAL RESOURCES DIVISION

STATISTICAL  
SUMMARY OF THE  
MINERAL INDUSTRY

WORLD PRODUCTION,  
EXPORTS AND IMPORTS

1956-1961



LONDON  
HER MAJESTY'S STATIONERY OFFICE

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### **CHANGES IN THIS ISSUE**

In the tables of trade of aluminium, copper, lead, nickel, tin and zinc, descriptions based on the Standard International Trade Classification have been adopted and, where necessary, the statistics have been revised. This change enables more complete and comparable quantities to be shown of each country's imports and exports of these metals in all unwrought and semi-manufactured forms.

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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, British 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 Northern Rhodesia, Nyasaland and Southern Rhodesia, production statistics are recorded separately but the trade statistics are given for the Federation as a whole.

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

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.

From 1958 onwards 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 year 1961 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.86) and Petroleum and Allied Products (pp. 234, 246).

**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	1956	1957	1958	1959	1960	1961
<b>COMMONWEALTH COUNTRIES</b>						
Kenya—						
Pumice (b) .. ..	1,635	2,071	733	2,246	2,420	696
Southern Rhodesia—						
Corundum .. ..	3,971	4,024	4,102	2,499	3,432	2,493
Tripoli .. ..	—	—	—	—	147	365
Tanganyika—						
Corundum .. ..	—	—	—	(a) 9	—	(a) 4
Garnet .. ..	15	80	120	181	133	—
Canada—						
Garnet .. ..	—	—	—	—	29	29
Grindstones .. ..	—	—	—	54	9	7
India—						
Corundum .. ..	352	444	389	211	246	324
Garnet .. ..	178	—	—	361	n.a.	n.a.
Australia—						
Garnet .. ..	85	70	36	65	97	63
New Zealand—						
Pumice (b) .. ..	7,614	15,171	23,082	28,395	43,932	32,712
<b>OTHER COUNTRIES</b>						
Belgium—						
Grindstones .. ..	64	64	44	47	49	57
France—						
Pumice (b) .. ..	12,801	7,840	6,296	1,842	889	1,200
Millstones .. ..	1,623	2,619	2,519	797	1,230	2,000
Sharpening stones .. ..	1,923	73	742	467	523	}
Germany (Federal)—						
Pumice (d) .. ..	3,541,000	2,912,000	2,906,000	3,607,000	4,234,000	5,266,000
Greece—						
Emery .. ..	7,000	7,000	7,000	7,000	7,000	n.a.
Pumice .. ..	70,000	54,681	44,298	64,000	80,000	n.a.
Pumicite .. ..	84,000	78,200	84,311	84,000	180,000	n.a.
Iceland—						
Pumice (b) .. ..	(c) 17,000	13,484	r (c) 10,000	r (c) 9,000	(c) 8,000	(c) 8,000
Italy—						
Pumice .. ..	205,454	231,511	252,958	361,582	419,698	n.a.
Sharpening stones .. ..	1,277	2,192	2,038	1,760	320	n.a.
Whetstones .. ..	699	669	384	630	472	n.a.
Portugal—						
Tripoli .. ..	1,773	1,440	1,034	1,852	1,046	756
Spain—						
Tripoli .. ..	11,650	12,371	11,481	10,322	12,357	n.a.
Garnet .. ..	208	248	363	216	180	n.a.
Sweden—						
Grindstones and whetstones .. ..	875	597	787	n.a.	n.a.	n.a.
Canary Islands—						
Pumice (b) .. ..	1,501	—	—	1,640	1,441	(c) 1,470
Egypt—						
Pumice .. ..	(c) 150	1,639	1,058	2,461	2,953	3,871
Malagasy Republic—						
Garnet .. ..	158	345	233	—	—	—
Mozambique—						
Corundum .. ..	—	—	—	—	—	—

\*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.

PRODUCTION OF NATURAL ABRASIVES (cont.)

Long tons

Producing Country and Description	1956	1957	1958	1959	1960	1961
<b>OTHER COUNTRIES</b> (cont.)						
South Africa—						
Corundum .. .. .	1,846	1,382	1,890	555	110	142
Garnet .. .. .	—	16	—	—	—	—
United States (d)—						
Emery .. .. .	10,851	10,619	6,863	7,638	7,294	5,518
Garnet .. .. .	8,761	8,729	10,985	13,007	9,395	10,765
Pumice and pumicite						
(a) (b) .. .. .	1,323,405	1,631,230	1,761,568	2,032,250	1,973,540	2,197,000
Tripoli .. .. .	40,187	45,283	42,004	47,293	51,529	48,787
Grindstones .. .. .	(c) 2,490	1,344	761	965	n.a.	n.a.
Grinding pebbles .. .. .	2,080	2,591	1,772	1,513	1,011	n.a.
Argentina—						
Garnet .. .. .	534	706	281	n.a.	n.a.	n.a.
Turkey—						
Emery .. .. .	6,282	4,063	3,363	4,753	6,706	8,195

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

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

	1956	1957	1958	1959	1960	1961
Silicon carbide ..	71,846	74,394	69,221	77,007	75,546	n.a.
Fused alumina ..	162,348	194,810	97,774	135,999	166,165	n.a.

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):

	1956	1957	1958	1959	1960	1961
Silicon carbide ..	85,516	111,329	98,621	118,266	118,946	112,255
Aluminium oxide ..	174,311	204,028	109,704	141,421	174,916	122,278
Metallic abrasives ..	125,406	117,413	90,321	113,142	100,342	97,781

(United States plants only)

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

(a) The amounts sold for abrasive purposes were as follows:

1956 .. .. .	33,989 long tons
1957 .. .. .	18,897 " "
1958 .. .. .	n.a.
1959 .. .. .	n.a.
1960 .. .. .	n.a.
1961 .. .. .	n.a.

(b) Including volcanic cinders used principally for ballast which amounted to 530,947 tons in 1956, 689,629 tons in 1957, 935,652 tons in 1958, 1,332,363 tons in 1959, 1,436,652 tons in 1960 and 1,362,000 tons in 1961.

(c) Including oilstones and other sharpening stones.

(d) Sold or used by producers.



EXPORTS OF ABRASIVES\*

Long tons

Exporting Country and Description	1956	1957	1958	1959	1960	1961
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom—						
Abrasives, natural ..	2,543	2,322	1,442	2,339	2,829	2,195
do. artificial ..	2,417	3,221	3,209	3,744	4,435	3,991
Grinding wheels, etc. ..	4,579	4,547	4,150	4,968	5,752	6,777
Other manufactured abrasives ..	336	296	310	357	342	301
Rhodesia and Nyasland—						
Corundum ..	3,399	4,027	4,343	2,940	3,342	2,620
Canada—						
Natural abrasives, including diatomaceous earth ..	40	52	21	59	15	5
Artificial abrasives, crude ..	237,478	273,690	168,393	216,869	244,946	194,328
Artificial abrasive wheels, etc. ..	(£6,344)	(£9,181)	(£15,105)	(£78,204)	(£26,121)	} (£46,821)
Grindstones ..	(£33,688)	(£17,098)	(£26,161)	(£24,117)	(£17,028)	
Hong Kong—						
Grinding and polishing wheels, etc. ..	(£23,779)	(£15,120)	(£11,642)	170	175	86
Malaya—						
Grinding and polishing wheels, etc. ..	64	54	52	87	101	59
New Zealand—						
Pumice (a) ..	1,093	1,569	1,082	1,128	995	1,155
<b>OTHER COUNTRIES</b>						
Austria—						
Natural abrasives ..	710	802	729	41	15	1
Millstones and grindstones ..	568	325	392	6	5	9
Artificial abrasives ..	2,060	3,328	2,720	2,236	4,385	5,707
Belgium-Luxemburg						
E.U.—						
Natural abrasives ..	42	33	35	101	120	112
Corundum, artificial ..	8	4	46	53	80	187
Millstones, grindstones, etc. ..	71	81	65	64	(b) 517	(b) 779
Denmark—						
Emery ..	3	3	8	2	—	—
Millstones and grindstones ..	270	293	385	37	2	6
Finland—						
Grindstones, etc. (b) ..	93	388	120	261	n.a.	n.a.
France—						
Corundum and emery	185	205	462	724	260	100
Pumice ..	11	12	19	56	30	37
Other natural abrasives	48	80	60	257	107	314
Millstones and grindstones ..	799	846	876	804	701	817
Whetstones ..	38	73	60	41	46	76
Carborundum ..	1,459	1,604	1,351	2,720	2,660	2,059
Corundum, artificial ..	5,028	5,548	5,613	6,775	9,978	14,487
Germany (Federal)—						
Emery ..	256	209	197	321	394	533
Pumice ..	862	194	(c) 545,755	(c) 495,421	(c) 649,977	(c) 680,570
Other natural abrasives	2	1	7	40	9	4
Millstones, grindstones, etc. (b) ..	2,602	2,439	2,206	2,447	1,898	1,871

\*See also Aluminium, Diamonds and Diatomaceous earth.

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

(b) Including artificial.

(c) Including pumice and pumicite for construction purposes.

## EXPORTS OF ABRASIVES (cont.)

Long tons

Exporting Country and Description	1956	1957	1958	1959	1960	1961
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
Germany (Federal) <i>(cont.)</i>						
Carborundum .. .. .	<i>n.a.</i>	<i>n.a.</i>	4,200	3,358	5,384	6,160
Corundum, artificial ..	11,324	12,871	14,368	16,287	20,907	17,235
Greece—						
Emery .. .. .	4,579	8,258	5,872	3,316	6,090	5,218
Pumice .. .. .	10,850	38,135	41,006	20,799	2,180	11,951
Italy—						
Pumice .. .. .	54,919	54,565	68,256	90,948	104,209	98,860
Emery and corundum ..	43	169	78	46	319	571
Tripoli .. .. .	40	45	142	38	48	88
Millstones .. .. .	116	133	262	} 386	431	353
Grindstones .. .. .	87	129	124		85	73
Whetstones .. .. .	95	74	50	85	73	78
Carborundum .. .. .	108	175	267	882	3,928	5,929
Corundum artificial ..	19	200	318	316	1,480	1,544
Netherlands—						
Natural abrasives ..	2,965	3,317	2,853	3,007	3,876	4,088
Norway—						
Natural abrasives ..	25	8	9	—	—	2
Carborundum .. .. .	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	13,463	16,720	16,503
Sweden—						
Emery .. .. .	5	—	—	1	2	—
Other natural abrasives	1	8	4	15	11	43
Carborundum .. .. .	580	331	290	765	710	555
Corundum, artificial ..	473	552	706	852	1,227	1,360
Millstones, grindstones, etc. .. .. .	200	142	108	132	126	158
Switzerland—						
Carborundum, emery, etc., crude .. .. .	56	74	167	22	} 2,169	1,958
do. do. ground .. ..	1,568	1,723	1,632	2,017		
Malagasy Republic—						
Garnet .. .. .	109	323	244	1	49	99
Mozambique—						
Corundum .. .. .	8	—	—	—	—	<i>n.a.</i>
South Africa—						
Corundum .. .. .	1,458	1,635	1,206	1,048	108	143
Mexico—						
Pumice, etc. .. .. .	190	21	—	232	735	231
United States—						
Corundum .. .. .	222	186	149	81	49	86
Emery powder .. .. .	1,727	1,046	984	1,216	1,002	1,035
Grindstones .. .. .	384	295	250	358	285	110
Whetstones, etc. ..	56	88	91	152	166	89
Other natural abrasives	63,480	65,650	10,677	9,398	9,245	10,140
Aluminium oxide, fused	11,079	9,587	8,156	8,155	9,792	10,525
Carborundum .. .. .	7,001	6,830	9,506	7,347	7,316	10,921
Unfused alumina ..	30	50	68	59	97	77
Other crude artificial abrasives .. .. .	71	138	89	93	99	130
Japan—						
Emery .. .. .	124	187	150	172	126	155
Other natural abrasives	147	131	68	61	118	127
Grindstones, etc. ..	100	141	152	173	215	159
Artificial abrasives ..	407	263	293	359	345	445
Turkey—						
Emery .. .. .	8,561	7,843	6,468	7,096	6,975	9,649

## IMPORTS OF ABRASIVES\*

Long tons

Importing Country and Description	1956	1957	1958	1959	1960	1961
COMMONWEALTH COUNTRIES						
United Kingdom—						
Emery .. .. .	3,923	4,209	2,314	} 3,024	2,850	4,416
Garnet concentrates—						
Unground .. ..	298	431	455	} 8,019	10,224	9,322
Ground .. .. .	392	394	339			
Other natural abrasives	8,125	7,277	6,787			
Aluminium oxide ..	25,207	23,067	27,957	14,226	24,570	14,238
Carborundum .. ..	11,246	9,539	7,883	9,161	14,030	12,510
Grinding wheels of hard abrasives .. .. .	119	} 151	177	319	370	540
Grindstones and whetstones .. .. .	36					
Other manufactured abrasives .. .. .	99	—	—	—	—	—
Malta—						
Pumice .. .. .	13	78	81	141	73	102
Kenya and Uganda—						
Grindstones, etc. ..	74	45	46	62	59	60
Mauritius—						
Grindstones, etc. ..	43	44	30	60	58	54
Tanganyika—						
Grindstones, wheels, etc. .. .. .	22	18	13	21	8	12
Canada—						
Pumice, etc. .. .. .	(£88,239)	(£94,935)	(£109,144)	(£74,625)	(£71,816)	(£59,073)
Emery, etc. .. .. .	(£88,303)	(£92,868)	(£86,096)	(£89,533)	(£74,322)	(£66,716)
Artificial abrasives, ground .. .. .	(£848,412)	(£820,892)	(£703,823)	(£877,375)	(£752,561)	(£833,720)
Buhrstones .. .. .	(£266)	(£219)	—	—	—	—
Emery and artificial abrasives manufactures	(£188,795)	(£223,650)	(£203,924)	(£234,754)	(£208,550)	(£194,207)
Grindstones and wheels	(£931,892)	(£886,165)	(£774,907)	(£940,982)	(£860,635)	(£831,574)
Jamaica—						
Natural abrasives ..	5	5	3	5	2	6
Grindstones .. .. .	11	6	10	12	12	11
Trinidad and Tobago—						
Grindstones and wheels	18	15	19	25	22	n.a.
Ceylon—						
Grindstones .. .. .	(£11,368)	(£9,969)	(£9,529)	(£11,848)	(£13,909)	(£12,581)
Cyprus—						
Grindstones and millstones .. .. .	(£2,437)	(£3,926)	(£3,440)	(£6,751)	(£8,417)	(£7,757)
Hong Kong—						
Grinding and polishing wheels, etc. .. .. .	(£46,509)	(£40,316)	(£35,049)	257	324	218
India—						
Natural abrasives ..	n.a.	2,384	986	1,973	(a) 3,679	(a) 1,650
Carborundum .. .. .	n.a.	231	175	116	(a) 223	(a) 202
Malaya—						
Grinding and polishing wheels, etc. .. .. .	450	408	368	462	476	407
Australia (b)—						
Emery .. .. .	107	79	132	93	108	—
Corundum .. .. .	84	26	93	13	35	—
Pumice .. .. .	1,440	1,210	1,414	1,174	1,215	1,046
Grindstones, etc. ..	89	113	87	99	183	228
Garnet grains .. ..	25	41	48	53	41	50
Tripoli .. .. .	300	244	306	454	303	465
Other natural abrasives	45	99	151	81	472	457
Artificial abrasives ..	2,372	2,887	2,793	3,132	2,813	4,202

\*See also Aluminium, Diamonds and Diatomaceous earth.

(a) Years ended March 31 following that stated.

(b) Years ended June 30 of that stated.

## IMPORTS OF ABRASIVES (cont.)

Long tons

Importing Country and Description	1956	1957	1958	1959	1960	1961
<b>COMMONWEALTH COUNTRIES</b>						
<i>(cont.)</i>						
<b>New Zealand—</b>						
Pumice .. ..	—	2	—	1	—	—
Corundum, emery, etc.	11	9	18	13	19	20
Other natural abrasives (£N.Z.)	(£3,565)	(£3,602)	(£2,966)	(£1,968)	(£3,808)	(£4,169)
Carborundum, etc. ..	69	50	79	69	44	74
Grindstones, etc. (£N.Z.)	(£12,966)	(£17,007)	(£15,022)	(£12,896)	(£15,856)	(£16,481)
<b>Irish Republic—</b>						
Grindstones, oilstones, etc. .. ..	113	102	122	111	136	171
<b>OTHER COUNTRIES</b>						
<b>Austria—</b>						
Natural abrasives ..	258	221	200	173	160	107
Artificial abrasives ..	2,910	2,644	3,000	2,269	3,337	3,591
Pumice .. ..	616	510	417	410	659	835
Grindstones .. ..	158	64	86	147	221	146
Millstones .. ..	117	83	97			
<b>Belgium-Luxemburg</b>						
<b>E.U.—</b>						
Natural abrasives ..	2,403	4,688	945	1,117	1,063	1,491
Corundum, artificial ..	1,119	1,196	1,094	1,130	1,524	1,604
Millstones, grindstones, etc. .. ..	199	236	161	166	(a) 1,014	(a) 1,170
Carborundum .. ..	1,575	1,262	1,040	1,204	1,463	1,918
<b>Denmark—</b>						
Emery, etc. .. ..	360	466	380	1,641	616	416
Pumice .. ..	1,400	1,406	1,696	2,008	1,986	2,655
Carborundum .. ..	993	608	697	317	429	287
Millstones and grindstones .. ..	142	150	210	134	134	83
<b>Finland—</b>						
Emery, pumice, etc. ..	561	500	479	591	531	434
Carborundum .. ..	260	263	275	351	290	493
Millstones, grindstones, etc. (a) .. ..	918	739	726	984	<i>n.a.</i>	1,460
<b>France—</b>						
Emery and corundum	1,668	830	3,030	399	1,811	1,854
Pumice .. ..	59,572	91,961	81,843	42,734	37,979	23,726
Other natural abrasives	160	8	412	164	151	303
Millstones and grindstones .. ..	195	103	196	271	178	233
Whetstones .. ..	167	94	130	193	142	60
Carborundum .. ..	1,776	1,793	1,805	1,124	2,012	4,065
Corundum, artificial ..	1,023	860	723	494	899	1,110
<b>Germany (Federal)—</b>						
Emery .. ..	1,340	1,293	991	537	1,457	866
Pumice, etc. .. ..	6,194	6,459	6,144	6,182	9,576	8,310
Other natural abrasives	135	76	150	436	1,212	1,415
Millstones, grindstones, etc. (a) .. ..	502	276	331	300	281	582
Carborundum .. ..	<i>n.a.</i>	<i>n.a.</i>	1,551	2,375	3,450	4,868
Corundum, artificial ..	683	499	398	530	2,539	2,117
<b>Iceland—</b>						
Millstones, etc. ..	8	13	16	24	12	14

(a) Including artificial.

## IMPORTS OF ABRASIVES (cont.)

Long tons

Importing Country and Description	1956	1957	1958	1959	1960	1961
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
<b>Italy—</b>						
Emery and corundum ..	1,014	1,545	1,896	1,376	2,277	2,651
Tripoli .. .. .	543	639	586	536	938	1,244
Millstones .. .. .	32	142	36	} 326	340	455
Grindstones .. .. .	100	89	95		20	28
Whetstones .. .. .	23	15	15	20	28	51
Corundum, artificial ..	2,719	3,002	2,959	2,822	4,996	4,811
Carborundum .. .. .	2,375	2,181	1,863	1,304	2,028	2,667
<b>Netherlands—</b>						
Emery .. .. .	4,137	3,980	3,723	3,362	4,616	4,193
Other natural abrasives	2,085	1,698	1,907	2,117	1,670	614
Millstones and grindstones ..	147	142	132	170	(a) 1,247	(a) 1,311
Corundum, artificial ..	905	1,464	1,526	1,820	2,236	2,246
Carborundum .. .. .	479	579	657	739	861	523
<b>Norway—</b>						
Natural abrasives ..	768	552	581	362	429	436
Whetstones .. .. .	3	1	3	2	3	2
Corundum, artificial ..	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	378	557	626
<b>Portugal—</b>						
Emery, etc. .. .. .	447	512	613	579	191	351
Pumice .. .. .	257	201	242	219	115	176
Millstones etc. .. .. .	64	63	42	75	20	64
<b>Spain—</b>						
Emery powder .. .. .	22	15	21	112	<i>n.a.</i>	<i>n.a.</i>
Carborundum .. .. .	340	1,268	395	553	381	572
<b>Sweden—</b>						
Emery .. .. .	468	586	405	487	728	635
Pumice .. .. .	192	205	263	} 584	416	361
Other natural abrasives	605	801	1,019		584	416
Carborundum, etc. ..	1,911	2,517	1,815	2,582	3,819	2,947
Corundum, artificial ..	2,984	3,519	2,630	3,281	7,585	5,390
Grindstones, etc. ..	160	128	121	} 176	94	121
Millstones .. .. .	41	51	48		176	94
<b>Switzerland—</b>						
Emery, crude .. .. .	811	343	532	304	} 625	1,353
Carborundum, emery, etc., ground ..	2,110	2,194	1,874	1,992		
Millstones .. .. .	49	51	83	57		
Grindstones .. .. .	174	202	169	198		
Whetstones .. .. .	17	17	12	16	26	19
Corundum, artificial ..	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	3,532	3,751
<b>Yugoslavia—</b>						
Natural abrasives ..	1,090	1,217	1,418	1,179	570	1,091
Carborundum .. .. .	51	<i>n.a.</i>	53	323	289	670
<b>Algeria—</b>						
Emery, corundum, etc.	11	95	78	241	102	<i>n.a.</i>
Pumice (b) .. .. .	18,883	23,191	32,625	43,671	45,947	<i>n.a.</i>
Millstones and grindstones ..	143	84	181	136	113	<i>n.a.</i>
<b>Congo Republic—</b>						
Natural abrasives ..	34	27	22	12	<i>n.a.</i>	<i>n.a.</i>
Corundum, artificial ..	65	128	227	129	<i>n.a.</i>	<i>n.a.</i>
<b>Egypt—</b>						
Natural abrasives ..	1,921	2,383	1,105	2,555	2,034	<i>n.a.</i>
Millstones .. .. .	5	21	27	16	1	<i>n.a.</i>
Grindstones .. .. .	20	14	—	6	16	<i>n.a.</i>
Whetstones .. .. .	—	—	—	3	1	<i>n.a.</i>
<b>Malagasy Republic—</b>						
Natural abrasives ..	24	91	65	22	15	15

(a) Including artificial.

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

## IMPORTS OF ABRASIVES (cont.)

Long tons

Importing Country and Description	1956	1957	1958	1959	1960	1961
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
Morocco—						
Millstones and grindstones .. ..	50	30	46	46	56	50
Natural abrasives .. ..	1,152	131	23	35	30	96
South Africa—						
Emery .. ..	42	41	96	123	105	<i>n.a.</i>
Pumice .. ..	53	62	73	60	63	<i>n.a.</i>
Other abrasive .. ..	(£184,574)	(£189,850)	(£186,205)	(£171,616)	(£186,319)	<i>n.a.</i>
Abrasive wheels and discs .. ..	(£63,303)	(£66,605)	(£70,044)	(£70,455)	(£124,859)	<i>n.a.</i>
Grindstones, millstones, etc. .. ..	(£5,488)	(£2,933)	(£4,375)	(£5,349)	(£3,084)	<i>n.a.</i>
Sudan—						
Grindstones .. ..	67	119	104	104	<i>n.a.</i>	<i>n.a.</i>
Tunisia—						
Pumice .. ..	199	7	550	25	11	252
Millstones and grindstones (a) .. ..	91	58	109	77	440	79
Cuba—						
Grindstones .. ..	700	639	1,035	246	<i>n.a.</i>	<i>n.a.</i>
Guatemala—						
Emery .. ..	22	22	24	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Mexico—						
Emery and carborundum	1,077	1,049	1,306	741	746	1,125
Pumice .. ..	10	360	7	15	27	9
Millstones and grindstones .. ..	722	795	784	680	828	887
United States—						
Corundum, crude .. ..	1,658	3,664	4,183	2,978	2,370	2,139
Emery, crude .. ..	1,750	1,191	11	1,000	—	1,000
Corundum and emery, ground .. ..	429	645	462	8	3	15
Pumice, crude .. ..	17,399	31,413	34,476	19,393	5,853	6,168
do. manufactured .. ..	1,174	1,897	1,673	3,561	3,496	3,628
Tripoli, etc. .. ..	—	8	38	15	34	—
Crude artificial abrasives	206,998	251,351	140,830	201,357	223,352	176,784
Argentina—						
Emery .. ..	1,751	2,759	2,628	1,919	1,540	2,359
Grindstones .. ..	—	1	1	—	5	18
Oil stones .. ..	—	—	—	—	—	1
Brazil—						
Emery, pumice, etc. .. ..	66	69	63	51	99	101
Carborundum .. ..	491	460	478	452	462	470
Millstones, grindstones, etc. .. ..	814	284	173	144	166	158
Chile—						
Emery .. ..	22	68	24	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Carborundum .. ..	15	7	11	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Millstones, grindstones, etc. .. ..	314	290	185	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Colombia—						
Emery and pumice .. ..	58	81	50	52	65	35
Tripoli and other natural abrasives .. ..	213	149	87	32	39	49
Millstones and grindstones (a) .. ..	143	107	156	136	176	196
Peru—						
Emery and pumice .. ..	38	34	38	55	34	38
Millstones, grindstones, etc. (a) .. ..	90	89	59	86	99	109
Venezuela—						
Natural abrasives .. ..	82	114	66	88	102	99
Carborundum .. ..	86	85	113	77	38	41

(a) Including artificial.

## IMPORTS OF ABRASIVES (cont.)

Long tons

Importing Country and Description	1956	1957	1958	1959	1960	1961
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
Burma—						
Natural abrasives ..	—	—	47	471	453	55
Indonesia—						
Emery .. .. .	235	109	33	47	106	<i>n.a.</i>
Other natural abrasives	195	121	76	37	39	<i>n.a.</i>
Iran (b)—						
Emery, etc. .. ..	17	9	12	21	29	<i>n.a.</i>
Iraq—						
Emery, pumice, etc. ..	28	10	9	4	28	<i>n.a.</i>
Grindstones, whetstones, etc. .. ..	148	160	170	149	256	<i>n.a.</i>
Japan—						
Emery .. .. .	161	190	44	106	157	194
Other natural abrasives	242	366	393	472	517	594
Grindstones, etc. ..	2	33	2	6	10	10
Artificial abrasives ..	212	623	451	479	834	1,772
Lebanon—						
Emery .. .. .	5	7	—	6	5	<i>n.a.</i>
Pumice, etc. .. ..	6	4	11	10	673	<i>n.a.</i>
Millstones .. .. .	81	20	7	35	(a) 130	<i>n.a.</i>
Philippine Republic—						
Emery .. .. .	135	277	176	122	211	313
Pumice .. .. .	3	2	42	31	—	4
Other natural abrasives	147	176	69	45	39	70
Syria—						
Emery .. .. .	103	1	98	30	<i>n.a.</i>	<i>n.a.</i>
Pumice, etc. .. ..	1	11	1,065	867	<i>n.a.</i>	<i>n.a.</i>
Thailand—						
Natural abrasives ..	399	492	549	538	485	607
Turkey—						
Natural abrasives ..	1	3	—	1	—	—
Millstones and grindstones (a) .. ..	391	263	186	127	561	648

(a) Including artificial.

(b) Years ended March 20 of that following.

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

Long tons

Producing Country	1956	1957	1958	1959	1960	1961
<b>COMMONWEALTH COUNTRIES</b>						
Ghana (a) .. ..	137,872	185,403	207,120	147,833	224,472	196,072
Jamaica (b) .. ..	3,141,688	4,595,943	5,721,990	5,125,603	5,744,791	6,663,120
British Guiana (c) .. ..	2,480,966	2,201,903	1,585,879	1,674,416	2,471,190	2,373,615
India .. ..	99,266	107,898	166,188	214,548	377,470	468,000
Malaya .. ..	264,444	325,629	262,354	381,747	451,958	409,881
Pakistan .. ..	3,000	3,316	1,977	2,139	574	405
Sarawak .. ..	—	—	136,319	206,848	284,830	253,389
Australia .. ..	10,329	7,707	6,909	14,985	69,435	25,976
<b>TOTAL .. ..</b>	<b>6,137,565</b>	<b>7,427,799</b>	<b>8,088,736</b>	<b>7,768,119</b>	<b>9,624,720</b>	<b>10,390,000</b>
<b>OTHER COUNTRIES</b>						
Austria .. ..	21,744	21,972	23,198	23,602	25,595	17,729
France .. ..	1,438,799	1,662,852	1,800,625	1,729,283	2,034,654	2,155,000
Germany (Federal) .. ..	4,800	4,600	3,700	4,400	3,752	4,165
Greece .. ..	686,958	820,487	842,682	903,970	869,741	1,280,000
Hungary .. ..	878,600	893,140	1,032,441	941,634	1,169,748	1,336,860
Italy .. ..	271,426	257,478	294,307	289,596	308,088	316,791
Roumania .. ..	51,000	60,000	72,000	70,000	87,000	68,000
Spain .. ..	6,921	8,069	8,213	7,538	2,532	5,500
U.S.S.R. (e) .. ..	2,190,000	2,410,000	2,710,000	2,950,000	3,445,000	4,000,000
Yugoslavia .. ..	867,497	874,211	721,000	802,000	1,009,000	1,213,000
Guinea .. ..	444,400	360,100	325,000	296,220	1,356,052	1,738,775
Mozambique .. ..	3,705	4,963	4,672	4,216	4,764	4,597
Dominican Republic (b) .. ..	—	—	—	759,000	678,000	(d) 700,000
Haiti (b) .. ..	(f)	263,000	280,000	255,000	268,000	263,000
United States (b) .. ..	1,744,000	1,416,000	1,311,000	1,700,000	1,998,000	1,228,000
Brazil .. ..	68,653	62,546	68,750	95,466	118,856	(e) 140,000
Surinam .. ..	3,430,000	3,324,000	2,941,000	3,376,000	3,400,000	3,351,000
Indonesia .. ..	298,510	237,653	338,473	381,137	389,429	413,225
<b>TOTAL (d) .. ..</b>	<b>12,500,000</b>	<b>12,700,000</b>	<b>12,800,000</b>	<b>14,600,000</b>	<b>17,200,000</b>	<b>18,200,000</b>
<b>WORLD'S TOTAL (d) .. ..</b>	<b>18,600,000</b>	<b>20,100,000</b>	<b>20,900,000</b>	<b>22,400,000</b>	<b>26,800,000</b>	<b>28,600,000</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):

	1956	1957	1958	1959	1960	1961
Metallurgical .. ..	1,721,098	1,628,172	1,076,510	1,154,713	1,645,457	1,089,071
Chemical .. ..	76,930	84,405	75,606	92,916	143,926	142,387
Refractory .. ..	215,401	125,190	95,030	146,374	160,966	203,442
Abrasive .. ..	111,872	164,382	96,910	123,425	148,033	168,923

Exports of calcined ore are shown on page 12.

(d) Estimated.

(e) United States Bureau of Mines estimate.

(f) A stockpile of 250,000 tons was built up during the development period 1955 to 1956.

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

Year	Long tons
1956 .. ..	38,276
1957 .. ..	48,515
1958 .. ..	40,323
1959 .. ..	41,377
1960 .. ..	41,785
1961 .. ..	41,115



PRODUCTION OF ALUMINIUM

Long tons

Producing Country	1956	1957	1958	1959	1960	1961
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom (a) ..	27,582	29,404	26,354	24,519	28,921	32,294
Canada .. .. .	553,858	497,067	566,162	530,027	680,368	592,119
India .. .. .	6,501	7,784	8,185	17,081	17,967	18,095
Australia .. .. .	9,143	10,624	r 10,906	11,370	11,655	13,204
<b>TOTAL .. .. .</b>	<b>597,084</b>	<b>544,879</b>	<b>r 611,607</b>	<b>582,997</b>	<b>738,911</b>	<b>655,712</b>
<b>OTHER COUNTRIES</b>						
Austria .. .. .	58,474	58,474	55,996	64,528	66,897	66,585
Czechoslovakia .. .. .	20,869	16,425	25,980	(d) 34,500	(d) 39,000	(d) 49,000
France .. .. .	147,433	157,402	166,168	170,279	234,723	275,000
Germany—						
Federal (b) .. .. .	145,035	151,408	134,606	148,778	166,269	170,000
East (c) .. .. .	30,000	32,000	34,000	34,000	39,000	39,000
Hungary .. .. .	34,260	25,585	38,892	44,947	48,752	50,256
Italy .. .. .	62,701	65,161	63,038	73,802	82,327	82,037
Norway .. .. .	90,490	94,134	119,444	143,644	162,198	168,847
Poland .. .. .	21,500	20,038	22,088	22,400	25,600	46,800
Spain .. .. .	13,334	14,929	15,865	22,284	23,597	27,754
Sweden .. .. .	12,262	13,356	13,493	15,277	15,732	17,860
Switzerland .. .. .	29,600	30,569	31,000	33,827	39,103	41,337
U.S.S.R. (d) .. .. .	450,000	490,000	540,000	620,000	670,000	880,000
Yugoslavia .. .. .	14,430	17,848	21,339	18,941	24,674	26,974
Cameroun .. .. .	—	r 7,411	31,358	41,647	43,246	43,010
United States (e) .. .. .	1,499,066	1,471,169	1,397,819	1,744,743	1,798,659	1,699,742
Brazil .. .. .	6,179	8,745	11,698	17,812	17,887	(d) 18,000
China (d) .. .. .	10,000	20,000	26,600	69,300	78,700	98,000
Formosa .. .. .	8,621	8,129	8,442	7,367	8,131	8,874
Japan .. .. .	64,955	66,905	83,242	98,558	131,119	151,272
<b>TOTAL .. .. .</b>	<b>2,700,000</b>	<b>2,800,000</b>	<b>2,800,000</b>	<b>3,400,000</b>	<b>3,700,000</b>	<b>4,000,000</b>
<b>WORLD'S TOTAL</b>	<b>3,300,000</b>	<b>3,300,000</b>	<b>3,500,000</b>	<b>4,000,000</b>	<b>4,500,000</b>	<b>4,600,000</b>

(a) In addition secondary metal was recovered as follows:

1956 .. .. .	117,679 long tons
1957 .. .. .	108,385 " "
1958 .. .. .	109,746 " "
1959 .. .. .	121,373 " "
1960 .. .. .	129,812 " "
1961 .. .. .	131,024 " "

(b) In addition secondary metal was recovered as follows:

1956 .. .. .	85,864 long tons
1957 .. .. .	88,332 " "
1958 .. .. .	100,154 " "
1959 .. .. .	111,276 " "
1960 .. .. .	131,580 " "
1961 .. .. .	133,311 " "

(c) Estimated.

(d) United States Bureau of Mines' estimate.

(e) In addition secondary metal was recovered as follows:

1956 .. .. .	303,364 long tons
1957 .. .. .	323,053 " "
1958 .. .. .	258,531 " "
1959 .. .. .	321,363 " "
1960 .. .. .	294,152 " "
1961 .. .. .	303,989 " "

## EXPORTS OF ALUMINIUM, ETC.\*

Long tons

Exporting Country and Description	1956	1957	1958	1959	1960	1961
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom—						
Alumina and hydrate ..	26,308	32,725	38,243	33,424	26,349	23,829
Unwrought (a) ..	9,681	6,896	2,124	3,664	3,925	5,408
Scrap (a) ..	15	52	55	134	94	2,800
Semi-manufactures (a)	51,320	41,880	35,357	49,507	49,267	53,165
of which—Foil..	5,469	5,357	6,035	7,418	7,157	6,096
Powder ..	791	725	529	954	983	510
Aluminium sulphates ..	42,136	34,619	34,841	30,263	38,457	33,486
Ghana—						
Bauxite ..	137,872	185,403	207,120	147,833	224,472	196,072
Canada—						
Alumina ..	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	16,853
Unwrought (a) ..	454,459	427,384	432,534	451,198	492,995	434,857
Scrap ..	8,019	11,502	11,262	14,444	24,616	26,285
Semi-manufactures (a)	6,725	11,454	14,331	22,594	27,012	20,639
of which—Foil..	405	210	153	132	117	131
Jamaica—						
Bauxite (b) ..	2,575,121	3,641,353	4,799,037	4,196,793	4,147,555	4,974,802
Alumina ..	207,332	435,746	373,108	399,210	665,361	703,483
British Guiana—						
Bauxite, dried ..	1,789,765	1,734,064	1,168,637	1,242,381	1,787,963	1,235,556
do. calcined ..	317,878	287,130	195,649	272,305	306,958	370,761
Alumina ..	—	—	—	—	—	120,161
Hong Kong—						
Unwrought (a) ..	271	7	24	5,054	10,380	4,722
Scrap ..	267	94	229	334	542	797
Semi-manufactures (a)	429	723	1,006	1,105	1,231	2,048
of which—Foil..	177	357	180	184	88	62
India—						
Bauxite ..	4,405	8,467	20,549	23,189	(c) 92,129	(c) 148,974
Aluminium sulphate ..	<i>n.a.</i>	246	129	135	(c) 449	(c) 62
Malaya—						
Bauxite ..	251,853	340,624	246,605	363,809	447,996	284,357
Unwrought (a) ..	16	10	10	16	4	17
Semi-manufactures (a)	333	225	160	286	275	241
of which—Foil..	3	2	14	80	34	35
Aluminium sulphates ..	211	477	242	341	347	126
Sarawak—						
Bauxite ..	—	—	92,840	202,925	260,120	256,442
Australia—						
Bauxite ..	—	—	—	—	29,778	30,489
Unwrought (a) ..	4	762	—	78	20	7
Scrap (a) ..	6	155	123	587	659	564
Semi-manufactures (a)	30	83	135	162	282	345
<b>OTHER COUNTRIES</b>						
Austria—						
Bauxite ..	6,962	6,765	8,516	6,498	5,584	7,671
Unwrought (a) ..	24,002	22,524	31,695	37,642	21,399	27,858
Scrap ..	2,469	3,240	4,681	4,027	4,011	3,537
Semi-manufactures (a)	7,786	7,224	6,300	11,712	9,383	14,323
of which—Powder ..	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	573	584	828
Belgium-Luxemburg—						
Alumina and hydrate ..	1	1	1	15	109	8
Unwrought ..	577	421	738	590	252	105
do. alloys ..	37	110	289	325	674	496

\*In these tables the description "unwrought" aluminium corresponds to item 684.1 of the Standard International Trade Classification and comprises ingots, blocks, unwrought bars, etc. "Semi-manufactures" corresponds to S.I.T.C. 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.

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

Long tons

Exporting Country and Description	1956	1957	1958	1959	1960	1961
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
<b>Belgium-Luxemburg—</b>						
<i>(cont.)</i>						
Scrap .. .. .	110	387	2,586	1,489	1,788	1,998
Semi-manufactures (a)	18,063	19,633	25,908	33,740	43,081	51,317
Aluminium sulphates ..	28,487	18,097	16,407	16,583	17,504	12,329
<b>Denmark—</b>						
Refined cryolite .. ..	18,930	21,638	20,655	21,320	23,197	24,576
Unwrought .. .. .	49	22	224	68	30	14
do. alloys .. .. .	235	642	800	1,027	1,355	1,400
Scrap .. .. .	197	290	298	613	703	849
Semi-manufactures (a)	561	444	529	860	1,327	788
of which—Foil.. .. .	111	93	123	280	233	191
<b>France—</b>						
Bauxite .. .. .	320,109	320,232	303,794	271,288	312,097	252,264
Cryolite .. .. .	—	3	79	118	79	2
Alumina .. .. .	96,325	113,738	172,215	184,685	139,413	136,148
do. hydrate .. .. .	8,631	11,136	7,677	17,388	12,579	15,802
Unwrought .. .. .	12,962	13,169	39,359	32,758	56,428	104,775
do. alloys .. .. .	1,824	2,772	9,630	18,037	14,208	17,076
Scrap (a) .. .. .	452	448	1,531	2,328	1,513	2,262
Semi-manufactures (a)	6,906	7,446	11,283	16,911	25,858	26,296
of which—Foil.. .. .	1,428	1,906	2,125	3,951	6,858	5,439
Powder .. .. .	47	137	186	300	495	183
Aluminium sulphates ..	5,479	6,489	6,283	6,905	9,436	6,828
<b>Germany (Federal)—</b>						
Bauxite and cryolite ..	21	74	165	668	406	458
Alumina .. .. .	71,506	75,987	84,749	90,357	66,398	72,706
do. hydrate .. .. .	17,809	17,941	18,631	25,109	24,776	26,897
Unwrought .. .. .	599	5,059	3,646	1,093	1,713	2,407
do. alloys .. .. .	844	1,877	605	659	982	1,359
Scrap (a) .. .. .	98	174	23	196	215	512
Semi-manufactures	22,254	21,589	24,674	31,486	37,336	41,094
of which—Foil.. .. .	8,172	8,561	9,669	12,959	15,946	15,857
Powder .. .. .	1,072	1,086	1,562	1,311	1,579	1,445
Aluminium sulphates ..	36,471	39,567	n.a.	n.a.	n.a.	n.a.
<b>Greece—</b>						
Bauxite .. .. .	658,874	769,024	823,243	841,198	891,358	1,033,511
<b>Hungary—</b>						
Bauxite .. .. .	369,674	459,419	529,977	458,915	490,959	689,508
Alumina .. .. .	87,238	88,097	85,376	112,201	119,241	142,666
Unwrought .. .. .	6,047	1,841	17,067	8,272	9,693	8,582
<b>Italy—</b>						
Alumina .. .. .	40,130	38,389	53,098	41,973	42,844	29,028
do. hydrate .. .. .	1,087	16	637	89	90	46
Unwrought .. .. .	3,132	1,058	8,872	9,284	894	17
do. alloys .. .. .	—	1	187	379	323	70
Semi-manufactures (a)	3,796	3,627	5,362	6,234	5,407	6,688
of which—Foil.. .. .	163	395	445	537	979	849
Aluminium sulphates ..	3,381	2,152	4,470	2,219	8,733	10,530
<b>Netherlands—</b>						
Unwrought (a) .. .. .	652	654	2,207	1,726	647	2,393
Scrap .. .. .	1,398	1,567	4,123	1,611	1,847	2,167
Semi-manufactures (a)	4,535	5,059	6,690	7,961	9,018	10,074
of which—Foil.. .. .	1,439	1,866	2,033	2,462	3,186	3,232
Powder .. .. .	254	331	234	300	147	81
<b>Norway—</b>						
Alumina .. .. .	4	5	—	1	2	2
Unwrought .. .. .	78,259	71,054	108,085	125,786	125,853	138,658
do. alloys .. .. .				4,234	10,105	5,327
Scrap .. .. .	134	96	124	158	420	353
Semi-manufactures (a)	4,400	4,083	4,108	4,412	5,103	4,332
of which—Foil.. .. .	31	40	48	83	95	45

(a) Including alloys.

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

Long tons

Exporting Country and Description	1956	1957	1958	1959	1960	1961
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
Roumania—						
Bauxite .. ..	<i>n.a.</i>	<i>n.a.</i>	36,400	80,700	86,700	32,500
Spain—						
Unwrought .. ..	—	—	—	180	10,887	3,934
Semi-manufactures (a)	—	—	—	327	2,229	4,202
Sweden—						
Unwrought (a) .. ..	706	459	3,042	1,815	76	82
Scrap .. ..	308	2,482	2,524	1,685	904	686
Semi-manufactures (a)	2,408	3,550	3,004	5,778	6,401	5,919
of which—Powder .. ..	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	166	378	228
Aluminium sulphates ..	7,506	9,426	9,598	9,794	9,617	9,181
Switzerland—						
Unwrought and scrap ..	2,709	2,927	8,522	10,924	} 7,342	5,983
do. alloys .. ..	2,044	2,551	3,856	3,760		
Semi-manufactures (a)	3,619	3,330	3,776	4,812		
U.S.S.R.—						
Cryolite .. ..	1,300	1,000	100	100	3,100	3,100
Unwrought .. ..	59,000	84,100	113,100	76,200	67,000	84,600
Yugoslavia—						
Bauxite .. ..	668,754	688,916	583,019	592,019	790,398	915,107
Alumina and hydrate ..	13,594	12,502	3,592	23,450	19,317	14,000
Unwrought .. ..	2,595	2,541	5,384	—	—	—
Scrap .. ..	528	1,262	1,274	1,191	59	1,176
Semi-manufactures ..	619	2,225	5,925	9,862	14,229	11,745
Algeria—						
Scrap (a) .. ..	779	567	781	867	1,053	<i>n.a.</i>
Cameroon—						
Unwrought .. ..	—	6,763	21,938	38,586	41,408	45,416
Guinea—						
Bauxite .. ..	449,844	369,436	259,454	275,693	693,703	346,024
Alumina .. ..	—	—	—	—	168,669	384,663
Mozambique—						
Bauxite .. ..	2,688	4,477	2,916	6,138	4,389	<i>n.a.</i>
Dominican Republic—						
Bauxite .. ..	—	—	—	481,266	774,716	854,577
Greenland—						
Cryolite .. ..	38,276	48,515	40,323	41,377	41,785	41,115
Haiti—						
Bauxite (b) .. ..	—	373,000	370,629	338,151	395,000	335,000
United States—						
Alumina, etc. .. ..	14,921	60,993	11,868	17,403	29,317	150,683
Cryolite .. ..	191	148	147	157	202	149
Unwrought (a) .. ..	30,909	25,987	47,064	108,308	254,446	115,054
Scrap (a) .. ..	17,258	16,219	16,880	28,718	70,994	73,219
Semi-manufactures ..	16,205	19,302	14,156	14,858	21,192	31,126
of which—Foil .. ..	380	791	264	506	1,177	1,515
Powder (Al content)	313	424	296	371	302	266
Aluminium sulphates ..	14,402	17,580	8,807	12,935	10,970	12,691
Brazil—						
Bauxite .. ..	16,569	3,115	3,445	2,803	2,018	1,673
Surinam—						
Bauxite .. ..	3,427,564	3,324,649	2,820,000	3,338,000	3,577,000	3,350,000
Formosa—						
Unwrought .. ..	3,926	3,269	1,775	2,045	60	2,403
Semi-manufactures (a)	—	—	11	608	921	1,251
Indonesia—						
Bauxite .. ..	308,301	253,815	385,544	243,087	342,454	414,083

(a) Including alloys.

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

EXPORTS OF ALUMINIUM, ETC. (cont.)

Long tons

Exporting Country and Description	1956	1957	1958	1959	1960	1961
OTHER COUNTRIES (cont.)						
Japan—						
Cryolite .. ..	—	—	101	22	—	—
Alumina .. ..	28,479	6,174	50,527	94,529	77,854	102,222
do. hydrate ..	2,104	1,530	695	281	1,443	2,318
Unwrought ..	2,867	235	4,340	169	6	14
Semi-manufactures (a)	7,127	4,341	6,621	7,801	9,000	10,517
of which—Foil ..	589	675	831	1,077	1,663	2,265
Aluminium sulphates ..	2,424	2,632	3,997	14,117	9,567	12,640

(a) Including alloys.

## IMPORTS OF ALUMINIUM, ETC.\*

Long tons

Importing Country and Description	1956	1957	1958	1959	1960	1961
COMMONWEALTH COUNTRIES						
United Kingdom—						
Bauxite .. ..	315,030	354,460	350,742	327,188	375,316	395,014
Cryolite .. ..	2,232	2,203	3,622	3,458	3,578	3,855
Alumina .. ..	42	280	239	6,080	7,048	4,672
Unwrought .. ..	211,351	184,375	186,311	227,864	257,801	195,549
do. alloys .. ..	20,940	6,818	24,011	22,282	52,733	40,336
Scrap (a) .. ..	339	623	1,594	6,698	15,695	5,712
Semi-manufactures (a)	1,060	1,513	3,448	6,451	13,504	21,084
of which—Foil.. ..	543	857	1,176	1,578	1,848	1,777
Ghana—						
Unwrought (a) .. ..	1,022	1,189	793	2,510	1,849	2,604
Semi-manufactures (a)						
Kenya—						
Unwrought (a) .. ..	331	691	1,053	832	1,634	1,209
Semi-manufactures (a)	576	787	881	1,009	1,267	773
of which—Foil.. ..	112	119	152	174	211	183
Mauritius—						
Semi-manufactures (a)	185	178	200	196	201	136
Nigeria—						
Semi-manufactures (a)	1,780	2,084	1,508	2,257	2,445	1,865
Rhodesia and Nyasaland—						
Semi-manufactures (a)	684	772	676	695	1,198	1,113
of which—Foil.. ..	94	57	76	90	137	213
Sierra Leone—						
Semi-manufactures (a)	103	104	108	42	56	316
Tanganyika—						
Semi-manufactures (a)	467	508	452	370	285	162
Uganda—						
Semi-manufactures (a)	453	565	548	473	686	299
of which—Foil.. ..	28	41	44	44	77	87
Zanzibar—						
Semi-manufactures (a)	16	9	12	18	5	8
Barbados—						
Semi-manufactures (a)	(£8,176)	121	34	61	12	33
Jamaica—						
Semi-manufactures (a)	894	877	618	983	1,645	1,384
Canada—						
Bauxite and alumina—						
For refining .. ..	2,115,296	2,026,327	1,934,371	1,849,998	2,468,174	1,976,385
For other purposes ..	196,880	241,628	134,615	165,625	195,100	158,715
Cryolite .. ..	16,348	14,212	6,103	5,369	7,446	3,601
Unwrought .. ..	1,252	1,895	10,050	761	447	567
Scrap .. ..	1,130	221	220	552	895	1,384
Semi-manufactures (a)						
(excluding Foil) .. ..	15,124	12,632	7,789	7,449	6,579	8,543
of which—Powder .. ..	142	323	136	146	134	60
Foil .. ..	(£332,394)	(£350,091)	(£364,828)	(£335,584)	(£448,458)	(£441,451)
Aluminium sulphates ..	12,371	14,394	6,355	7,484	8,877	4,318
Trinidad and Tobago—						
Aluminium sulphates ..	521	1,847	303	336	298	n.a.
British Guiana—						
Semi-manufactures (a)	207	483	168	222	342	264
Aluminium sulphates ..	321	343	424	480	510	n.a.
Aden—						
Semi-manufactures (a)	34	146	172	149	290	245
Ceylon—						
Semi-manufactures (a)	2,400	1,159	1,918	1,667	2,317	2,515
of which—Foil.. ..	268	371	406	411	354	220

\*See footnote on p.12 concerning the descriptions "unwrought" aluminium and "semi-manufactures" used in these tables.

(a) Including alloys.

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

Long tons

Importing Country and Description	1956	1957	1958	1959	1960	1961
<b>COMMONWEALTH COUNTRIES (cont.)</b>						
Hong Kong—						
Bauxite .. .. .	152	169	315	412	623	745
Unwrought (a) .. .. .	1,294	1,596	2,572	10,081	16,420	9,941
Scrap .. .. .	24	5	56	70	39	14
Semi-manufactures (a) .. .. .	2,625	1,751	1,300	1,393	2,529	2,020
of which—Foil.. .. .	362	891	242	406	643	478
North Borneo—						
Semi-manufactures (a)	40	56	121	53	77	63
India—						
Cryolite .. .. .	n.a.	590	1,649	917	(b) 1,662	(b) 3,918
Alumina .. .. .	n.a.	592	59	9,945	(b) 12,188	(b) 9,264
Unwrought .. .. .	2,818	5,748	7,049	6,743	(b) 10,283	(b) 7,941
do. alloys .. .. .	n.a.	9	66	63	(b) 13	(b) 21
Scrap .. .. .	n.a.	1,815	126	—	(b) 20	(b) 64
Semi-manufactures (a) .. .. .	11,192	14,961	12,049	12,205	(b) 14,709	(b) 17,194
of which—Foil.. .. .	n.a.	647	849	1,625	(b) 2,638	(b) 2,004
Powder .. .. .	n.a.	132	70	171	(b) 77	(b) 73
Aluminium sulphates .. .. .	273	314	293	38	(b) 1	(b) 1
Malaya—						
Unwrought (a) .. .. .	2	4	1	10	9	2
Semi-manufactures (a) .. .. .	3,921	2,501	1,668	2,567	3,641	3,963
of which—Foil.. .. .	156	196	204	414	391	585
Aluminium sulphates .. .. .	3,578	3,064	4,432	4,268	6,778	8,431
Pakistan—						
Unwrought (a) .. .. .	1,119	9,414	1,551	12,416	4,625	5,853
Semi-manufactures (a) .. .. .	921	1,530	757	840	926	5,446
Aluminium sulphates .. .. .	1,304	1,440	6,556	1,205	1,430	3,762
Sarawak—						
Semi-manufactures (a)	75	54	73	91	153	130
Aluminium sulphates .. .. .	155	79	72	82	149	192
Australia—						
Bauxite .. .. .	38,891	45,147	69,473	66,746	96,200	51,799
Cryolite .. .. .	541	1,475	1,597	858	1,123	n.a.
Alumina and hydrate (c) .. .. .	799	630	746	356	384	692
Unwrought (a) .. .. .	10,223	8,374	14,813	19,268	26,432	16,141
Scrap (a) .. .. .	139	10	102	24	231	282
Semi-manufactures (a) .. .. .	5,282	5,564	5,816	6,247	10,932	4,714
of which—Foil.. .. .	1,938	2,193	2,409	2,788	3,909	2,002
Powder .. .. .	564	531	486	670	678	396
New Zealand—						
Unwrought .. .. .	289	387	820	801	666	2,086
Semi-manufactures (a) .. .. .	2,493	3,053	4,385	3,991	5,076	4,078
of which—Foil.. .. .	380	369	769	535	573	798
Irish Republic—						
Unwrought (a) .. .. .	1,925	2,289	2,392	3,519	3,328	3,604
Semi-manufactures (a) .. .. .	2,109	1,213	1,391	1,822	1,585	1,662
of which—Foil .. .. .	437	573	636	636	460	416
Aluminium sulphates .. .. .	3,643	3,368	3,966	3,619	3,479	3,524
<b>OTHER COUNTRIES</b>						
Austria—						
Bauxite .. .. .	964	5,522	6,076	123	10,390	18,176
Cryolite .. .. .	207	280	203	266	328	344
Alumina .. .. .	123,028	104,430	99,207	131,001	115,281	155,118
do. hydrate .. .. .	3,296	3,147	3,306	3,314	3,779	3,862
Unwrought (a) .. .. .	104	194	258	389	274	138
Semi-manufactures (a) .. .. .	101	134	414	1,261	1,537	1,467
Aluminium sulphates .. .. .	119	90	118	1,583	1,614	1,652

(a) Including alloys.

(c) Years ended June 30 of that stated.

(b) Years ended March 31 following that stated.

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

Long tons

Importing Country and Description	1956	1957	1958	1959	1960	1961
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
<b>Belgium-Luxemburg—</b>						
Bauxite .. .. .	2,357	1,465	1,520	16,574	7,201	4,991
Alumina .. .. .	229	262	463	263	587	1,150
do. hydrate .. ..	10,010	8,654	8,645	9,302	9,012	7,899
Unwrought .. ..	31,904	25,194	38,465	43,313	57,265	56,511
do. alloys .. ..	1,458	2,116	2,939	5,296	6,106	12,030
Scrap .. .. .	1,539	2,363	2,446	1,294	1,355	1,972
Semi-manufactures (a)	5,370	5,638	5,868	7,827	9,699	12,843
of which—Foil ..	1,743	1,963	2,258	2,984	3,316	3,601
Powder .. ..	562	437	454	489	452	332
Aluminium sulphates ..	744	557	172	974	644	1,333
<b>Denmark—</b>						
Bauxite .. .. .	1,066	703	576	205	400	600
Crude cryolite .. ..	27,753	(b) 33,000	(b) 28,000	28,977	33,372	32,769
Unwrought .. ..	3,136	3,665	4,252	6,299	6,026	5,005
do. alloys .. ..	119	156	45	93	1,259	980
Scrap .. .. .	154	686	731	802	421	821
Semi-manufactures (a)	3,697	4,294	4,802	7,068	8,569	8,194
of which—Foil ..	797	576	1,071	1,547	2,076	2,148
Powder .. ..	57	94	58	85	123	119
Aluminium sulphates ..	3,996	3,318	3,993	4,082	5,034	4,117
<b>Finland—</b>						
Alumina .. .. .	81	53	180	73	1,577	7,699
do. hydrate .. ..						74
Unwrought (a) .. ..	2,766	2,571	4,661	7,182	3,953	5,496
Semi-manufactures (a)	7,356	7,395	5,987	9,538	12,827	10,965
of which—Foil ..	506	609	419	548	416	750
Powder .. ..	315	371	229	392	458	310
Aluminium sulphates ..	20,772	20,823	21,961	21,486	30,270	14,995
<b>France—</b>						
Bauxite .. .. .	19,392	23,166	38,625	44,251	59,687	118,823
Cryolite .. .. .	1,532	1,341	2,540	1,437	1,934	2,178
Alumina .. .. .	15	104	265	173	43,726	133,818
do. hydrate .. ..	52	25	22	35	28	33
Unwrought .. ..	6,918	8,687	28,654	32,805	53,287	41,834
Scrap (a) .. .. .	588	306	96	31	179	513
Semi-manufactures (a)	3,028	2,498	2,234	2,001	3,155	4,051
of which—Foil ..	1,820	1,049	718	839	1,653	2,028
Powder .. ..	32	57	54	29	60	61
Aluminium sulphates ..	19	17	2	2	—	3
<b>Germany (Federal)—</b>						
Bauxite .. .. .	1,291,409	1,236,567	1,055,234	897,596	1,322,085	1,538,597
Cryolite .. .. .	2,943	1,807	1,586	1,378	2,155	2,265
Alumina .. .. .	99	69	403	92	340	27,303
Unwrought .. ..	36,131	38,562	58,620	74,097	163,191	124,725
do. alloys .. ..	2,426	1,429	8,005	14,547	14,959	11,800
Scrap .. .. .	22,753	18,232	28,320	27,941	38,854	45,188
Semi-manufactures (a)	1,714	1,052	2,065	2,978	8,307	11,614
of which—Foil ..	244	107	135	351	438	732
Powder .. ..	56	33	508	259	203	307
<b>Germany (East)—</b>						
Bauxite .. .. .	n.a.	252,006	226,323	251,203	264,150	258,707
Alumina .. .. .	15,347	41,852	18,141	14,674	25,508	22,795
<b>Greece—</b>						
Unwrought .. ..	1,165	1,295	1,829	2,497	4,335	5,380
Foil .. .. .	290	375	436	434	n.a.	274
Aluminium sulphates ..	555	640	426	431	n.a.	n.a.
<b>Hungary—</b>						
Cryolite .. .. .	3,406	1,717	1,969	2,314	2,426	2,948
Unwrought .. ..	200	10,970	1,890	2,578	492	—
<b>Iceland—</b>						
Semi-manufactures ..	431	591	218	199	352	279

(a) Including alloys.

(b) Estimated.



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

Long tons

Importing Country and Description	1956	1957	1958	1959	1960	1961
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
<b>Italy—</b>						
Bauxite .. .. .	109,095	259,767	180,758	232,518	275,678	257,809
Cryolite .. .. .	689	494	394	266	364	541
Alumina .. .. .	40	90	148	780	389	681
do. hydrate .. .. .	673	510	83	137	343	405
Unwrought .. .. .	9,331	12,343	4,633	13,649	29,384	21,382
do. alloys .. .. .	2,504	4,668	962	2,130	4,143	3,919
Scrap .. .. .	7,390	10,244	8,512	14,732	36,361	29,470
Semi-manufactures (a)	1,573	1,509	2,012	3,101	6,159	6,564
of which—Foil .. .. .	711	869	1,395	2,344	2,893	2,856
Powder .. .. .	18	56	8	23	119	128
Aluminium sulphates ..	840	246	243	483	511	n.a.
<b>Netherlands—</b>						
Bauxite .. .. .	4,257	5,891	7,938	7,701	3,493	4,839
Cryolite .. .. .	169	222	120	170	211	206
Alumina .. .. .	5,138	5,200	5,447	7,209	875	745
do. hydrate .. .. .						
Unwrought (a) .. .. .	9,879	8,312	8,933	14,026	14,449	13,518
Scrap .. .. .	347	570	989	1,322	2,265	2,795
Semi-manufactures (a)	11,986	10,449	10,633	13,660	17,632	17,545
of which—Foil .. .. .	2,310	2,111	2,029	2,713	3,513	3,865
Powder .. .. .	119	102	127	138	122	179
Aluminium sulphates ..	10,152	11,064	12,290	11,269	9,691	9,113
<b>Norway—</b>						
Bauxite .. .. .	35,042	28,104	36,083	35,439	28,115	29,502
Cryolite .. .. .	3,021	4,196	6,099	3,310	4,041	2,763
Alumina .. .. .	142,102	190,937	193,623	305,289	322,889	297,377
Unwrought .. .. .	1,095	127	1,557	32	354	1,952
do. alloys .. .. .	110	156	155	156	187	418
Semi-manufactures (a)	1,916	1,989	2,013	3,691	6,138	6,238
of which—Foil .. .. .	113	144	139	211	232	254
Powder .. .. .	n.a.	n.a.	n.a.	209	225	185
Aluminium sulphates ..	9,262	8,617	9,570	10,155	10,519	11,899
<b>Poland—</b>						
Alumina .. .. .	36,421	48,945	39,428	40,990	53,037	86,000
Unwrought .. .. .	3,933	4,684	6,426	9,939	13,633	5,873
<b>Portugal—</b>						
Cryolite .. .. .	13	33	15	28	27	17
Unwrought (a) .. .. .	380	718	554	379	577	1,877
Semi-manufactures (a)	3,015	2,697	3,046	3,323	3,914	3,685
of which—Powder .. .. .	105	93	76	80	96	88
Aluminium sulphates ..	1,887	2,012	2,153	2,588	3,046	2,880
<b>Spain—</b>						
Bauxite .. .. .	21,559	18,617	17,544	8,942	23,203	39,587
Alumina and hydrate ..	26,037	31,067	40,614	36,244	62,132	82,635
Unwrought and scrap ..	2,901	5,053	10,921	6,380	1,718	4,198
Semi-manufactures (a)	202	128	419	204	409	1,116
of which—Powder .. .. .	11	11	15	11	6	14
<b>Sweden—</b>						
Bauxite .. .. .	23,616	7,963	3,144	12,939	5,476	25,281
Cryolite .. .. .	(b) 1,028	(b) 1,260	(b) 775	409	673	758
Alumina and hydrate ..	26,509	27,296	18,529	30,065	33,171	23,733
Unwrought .. .. .	19,546	15,768	20,634	18,315	21,846	19,764
do. alloys .. .. .	n.a.	n.a.	n.a.	2,864	5,824	3,879
Scrap .. .. .	343	93	5	44	85	176
Semi-manufactures (a)	6,569	6,719	6,759	11,085	15,245	13,127
of which—Foil .. .. .	620	767	1,050	2,337	2,598	2,237
Powder .. .. .	n.a.	n.a.	n.a.	415	594	382
Aluminium sulphates ..	5,432	684	309	1,183	2,816	4,635

(a) Including alloys.

(b) Including artificial.

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

Long tons

Importing Country and Description	1956	1957	1958	1959	1960	1961
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
<b>Switzerland—</b>						
Bauxite .. .. .	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	951	2,677
Cryolite .. .. .	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	1,012	1,043
Alumina .. .. .	59,192	61,840	59,575	55,000	85,888	91,066
Unwrought and scrap (a)	9,574	10,209	7,019	16,399	16,142	10,336
Semi-manufactures (a)	316	251	1,515	3,483	4,955	6,946
Aluminium sulphates ..	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	3,927	4,152
<b>U.S.S.R.—</b>						
Bauxite (b) .. .. .	300,900	398,400	443,000	447,200	422,000	447,800
Unwrought .. .. .	9,500	—	—	—	—	—
<b>Yugoslavia—</b>						
Cryolite .. .. .	1,211	907	951	758	420	344
Unwrought .. .. .	1,024	1,582	—	5,784	15,536	10,082
Semi-manufactures (a)	244	247	254	262	326	563
<i>of which—Foil..</i> .. .	18	47	117	47	113	181
<b>Algeria—</b>						
Bauxite .. .. .	2,362	2,953	1,575	2,315	2,165	<i>n.a.</i>
Unwrought (a) .. .. .	1,130	865	595	303	520	<i>n.a.</i>
Semi-manufactures (a)	901	1,405	1,269	2,001	2,464	<i>n.a.</i>
<i>of which—Foil..</i> .. .	592	876	582	974	1,366	<i>n.a.</i>
<i>Powder</i> .. .. .	28	104	40	174	120	<i>n.a.</i>
Aluminium sulphates ..	677	810	815	745	887	<i>n.a.</i>
<b>Angola—</b>						
Semi-manufactures ..	29	95	102	74	43	341
Aluminium sulphates ..	227	335	207	69	121	770
<b>Cameroun—</b>						
Alumina .. .. .	—	—	70,576	80,039	73,618	102,753
<b>Congo Republic—</b>						
Cryolite .. .. .	35	59	50	3	<i>n.a.</i>	<i>n.a.</i>
Alumina and hydrate	233	197	148	—	<i>n.a.</i>	<i>n.a.</i>
Semi-manufactures ..	1,695	1,833	1,761	1,633	<i>n.a.</i>	<i>n.a.</i>
<i>of which—Foil..</i> .. .	55	59	69	60	<i>n.a.</i>	<i>n.a.</i>
Aluminium sulphates ..	1,276	669	1,612	1,459	<i>n.a.</i>	<i>n.a.</i>
<b>Egypt—</b>						
Unwrought and scrap ..	129	216	647	1,463	439	<i>n.a.</i>
Semi-manufactures ..	1,164	1,025	1,427	1,466	2,121	<i>n.a.</i>
<i>of which—Foil..</i> .. .	365	475	462	637	726	<i>n.a.</i>
Aluminium sulphates ..	8,746	13,234	17,758	12,506	<i>n.a.</i>	<i>n.a.</i>
<b>Malagasy Republic—</b>						
Aluminium sulphates	50	127	300	184	182	198
<b>Morocco—</b>						
Bauxite .. .. .	1,458	—	—	—	2,436	—
Semi-manufactures (a)	716	719	1,174	1,021	1,853	1,634
<i>of which—Foil..</i> .. .	155	75	397	234	440	312
<i>Powder</i> .. .. .	44	67	113	78	67	55
Aluminium sulphates ..	1,945	501	1,209	1,484	1,932	1,617
<b>Mozambique—</b>						
Semi-manufactures (a)	69	81	84	95	134	<i>n.a.</i>
<b>South Africa—</b>						
Unwrought .. .. .	4,510	6,575	6,761	7,301	11,104	10,199
Semi-manufactures (a)	2,013	1,508	1,606	1,234	2,253	<i>n.a.</i>
<i>of which—Foil..</i> .. .	213	249	111	74	94	<i>n.a.</i>
<i>Powder</i> .. .. .	43	35	43	62	81	<i>n.a.</i>
Aluminium sulphates ..	3,132	3,977	3,367	3,496	3,163	<i>n.a.</i>
<b>Tunisia—</b>						
Unwrought and scrap (a)	18	7	39	194	133	105
Aluminium sulphates ..	377	107	316	324	<i>n.a.</i>	<i>n.a.</i>
<b>Costa Rica—</b>						
Semi-manufactures (a)	155	214	280	256	298	332
<b>Cuba—</b>						
Semi-manufactures (a)	1,750	2,462	2,189	1,887	<i>n.a.</i>	<i>n.a.</i>
Aluminium sulphates ..	1,707	1,204	541	535	<i>n.a.</i>	<i>n.a.</i>

(a) Including alloys.

(b) Imports from Greece.

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

Long tons

Importing Country and Description	1956	1957	1958	1959	1960	1961
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
Guatemala—						
Aluminium sulphates ..	789	1,052	999	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Mexico—						
Bauxite, calcined ..	—	2,167	3,695	3,534	5,892	8,808
Alumina and hydrate ..	4,604	5,152	3,517	4,125	6,274	3,609
Unwrought ..	7,878	8,690	12,208	9,381	11,026	10,152
Semi-manufactures ..	943	657	586	639	601	574
Aluminium sulphates ..	661	856	830	705	695	706
United States—						
Bauxite ..	5,669,833	7,098,000	7,915,000	8,149,000	8,739,000	9,062,000
do. calcined ..	148,676	67,376	29,515	108,657	118,653	70,360
Cryolite ..	20,645	29,207	21,595	19,734	15,598	12,334
Alumina and hydrate ..	3,487	1,592	47,943	115,506	79,048	168,948
Unwrought (a) ..	193,215	198,355	227,966	214,264	138,131	177,879
Scrap ..	23,207	14,527	8,859	9,749	4,502	5,359
Semi-manufactures ..	21,638	19,043	27,426	49,248	37,060	48,448
of which—Foil (b) ..	1,476	1,564	2,474	4,044	4,312	4,421
Aluminium sulphates ..	3,159	2,908	3,289	5,083	4,855	4,396
Argentina—						
Bauxite ..	17,138	12,598	26,574	15,953	29,492	39,530
Ingots and bars ..	19,524	12,385	12,927	9,155	11,887	28,776
Brazil—						
Cryolite ..	1,108	645	944	685	1,053	1,018
Alumina ..	106	193	15	2,821	51	30
do. hydrate ..	200	178	671	604	862	714
Unwrought (a) ..	12,548	12,532	13,984	8,785	14,580	18,052
Semi-manufactures (a) ..	1,216	927	692	689	259	237
of which—Foil ..	3	96	116	10	25	29
Powder ..	134	151	100	19	42	24
Scrap ..	889	—	1	—	—	—
Aluminium sulphates ..	524	11	46	1	—	50
Chile—						
Unwrought ..	819	779	1,205	881	1,762	<i>n.a.</i>
Bars, sheets and alloys ..	390	95	45	133	166	<i>n.a.</i>
Aluminium sulphates ..	5	22	1	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Colombia—						
Bauxite ..	37	30	1,771	3,025	4,635	4,453
Alumina and hydrates ..	69	115	44	439	681	423
Unwrought (a) ..	1,804	1,175	2,210	2,952	2,965	3,318
Semi-manufactures (a) ..	4,145	2,438	1,437	1,255	1,543	1,214
Aluminium sulphates ..	8,041	7,591	4,788	398	170	514
Ecuador—						
Semi-manufactures ..	<i>n.a.</i>	190	245	213	<i>n.a.</i>	<i>n.a.</i>
Aluminium sulphates ..	979	596	672	809	<i>n.a.</i>	<i>n.a.</i>
Peru—						
Unwrought (a) ..	86	178	152	206	462	557
Semi-manufactures (a) ..	981	982	841	960	1,373	2,021
Aluminium sulphates ..	2,068	2,086	4,182	3,016	3,297	3,743
Uruguay—						
Unwrought ..	<i>n.a.</i>	806	1,342	1,425	2,065	<i>n.a.</i>
Aluminium sulphates ..	<i>n.a.</i>	4,661	2,943	3,202	3,258	<i>n.a.</i>
Venezuela—						
Unwrought ..	78	41	433	615	730	726
Aluminium sulphates ..	1,990	3,905	3,598	4,993	4,041	10,202
Burma—						
Unwrought ..	113	275	171	173	241	377
Formosa—						
Bauxite ..	36,146	41,277	40,636	32,051	24,416	56,273
Foil ..	175	168	3	2	7	9

(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	1956	1957	1958	1959	1960	1961	
<b>OTHER COUNTRIES</b>							
<i>(cont.)</i>							
Indonesia—							
Semi-manufactures (a)	2,000	2,820	3,018	3,519	2,734	<i>n.a.</i>	
Aluminium sulphates ..	5,089	2,454	7,199	5,271	8,065	<i>n.a.</i>	
Iran (b)—							
Unwrought (a)	<i>n.a.</i>	248	763	784	1,531	<i>n.a.</i>	
Semi-manufactures ..	<i>n.a.</i>	806	925	957	948	<i>n.a.</i>	
Iraq—							
Unwrought (a)	48	230	399	853	534	<i>n.a.</i>	
Semi-manufactures (a)	1,236	949	1,129	1,561	1,751	<i>n.a.</i>	
Aluminium sulphates ..	3,882	963	1,473	913	3,168	<i>n.a.</i>	
Israel—							
Unwrought and semi-manufactures ..	2,570	1,618	2,724	2,651	3,343	5,223	
<i>of which—Foil..</i>	180	218	95	10	17	<i>n.a.</i>	
Aluminium sulphates ..	468	617	617	571	3	<i>n.a.</i>	
Japan—							
Bauxite ..	397,528	484,951	509,054	816,669	1,077,343	1,141,236	
Cryolite ..	1,162	1,703	492	1,578	3,076	5,202	
Unwrought ..	2,484	8,994	400	14,589	22,604	31,877	
do. alloys ..	434	606	69	708	193	191	
Scrap ..	3,938	6,967	3,404	9,784	13,424	16,840	
do. alloys ..	1,721	1,281	1,621	2,724	5,011	14,508	
Semi-manufactures (a)	83	438	238	270	320	587	
Korea (South)—							
Aluminium sulphate ..	<i>n.a.</i>	<i>n.a.</i>	861	2,230	482	233	
Lebanon—							
Unwrought ..	629	359	182	220	385	<i>n.a.</i>	
Semi-manufactures ..	182	265	160	234	572	<i>n.a.</i>	
Philippine Republic—							
Unwrought ..	3,006	2,538	2,005	2,293	5,611	1,892	
Semi-manufactures (a)							1,307
<i>of which—Foil..</i>							157
Aluminium sulphates ..	2,468	4,142	4,112	5,919	3,192	<i>n.a.</i>	
Syria—							
Unwrought ..	92	127	243	79	<i>n.a.</i>	121	
Thailand—							
Unwrought (a)	268	277	78	219	327	562	
Semi-manufactures (a)	1,619	2,032	1,738	2,104	2,725	2,736	
<i>of which—Foil..</i>	233	274	285	145	502	421	
Aluminium sulphates ..	1,489	1,705	1,280	1,073	1,118	1,080	
Turkey—							
Unwrought (a)	67	183	175	679	254	489	
Semi-manufactures (a)	556	456	379	1,199	1,417	2,483	
<i>of which—Foil..</i>	166	224	174	336	818	752	
Aluminium sulphates ..	2,850	1,899	1,396	2,484	2,197	2,330	

(a) Including alloys.

(b) Years ending March 20 following that stated.

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

Long tons

Producing Country	1956	1957	1958	1959	1960	1961
<b>COMMONWEALTH COUNTRIES</b>						
Southern Rhodesia ..	65	79	143	99	95	65
Canada (a) .. ..	—	—	—	—	—	—
Australia (b) .. ..	287	485	692	628	154	117
<b>OTHER COUNTRIES</b>						
Austria .. .. .	437	508	616	762	915	871
Czechoslovakia (h) ..	1,600	1,600	1,600	1,600	1,600	1,600
France .. .. .	230	—	37	—	—	—
Italy .. .. .	277	199	167	207	210	247
Portugal .. .. .	—	10	6	6	—	—
Spain .. .. .	230	200	200	157	217	168
U.S.S.R. (h) .. .. .	5,000	5,000	6,000	6,000	6,000	6,000
Yugoslavia (c) .. ..	1,637	1,741	1,639	2,245	2,372	2,424
Algeria .. .. .	2,358	1,378	1,184	1,480	791	643
Morocco .. .. .	280	385	181	225	500	364
South Africa .. .. .	13,884	9,840	7,122	12,087	12,106	10,539
Guatemala .. .. .	—	13	(e) 42	(e) 87	(e) 106	30
Mexico .. .. .	4,484	5,120	2,704	3,234	4,164	3,552
United States (d) .. ..	562	633	629	605	567	615
Argentina .. .. .	2	7	10	—	—	—
Bolivia (g) .. .. .	5,026	6,249	5,159	5,412	5,238	6,602
Peru (i) .. .. .	954	821	861	708	804	705
Burma .. .. .	2	18	7	152	94	67
China (f) .. .. .	12,800	13,700	14,700	14,700	17,000	16,500
Japan .. .. .	553	424	266	303	267	192
Thailand .. .. .	37	2	—	10	—	38
Turkey .. .. .	949	1,100	(g) 1,506	(g) 1,232	1,357	1,220
<b>TOTAL* .. .. .</b>	<b>52,000</b>	<b>50,000</b>	<b>45,000</b>	<b>52,000</b>	<b>55,000</b>	<b>53,000</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): 1956—956; 1957—607; 1958—383; 1959—740; 1960—737; 1961—584.

(b) In addition the antimony content of antimonial slag obtained as a by-product of lead refining was as follows (long tons): 1956—616; 1957—724; 1958—664; 1959—652; 1960—632; 1961—562.

(c) Metal.

(d) Secondary metal was recovered as follows (long tons): 1956—21,523; 1957—20,147; 1958—17,424; 1959—17,896; 1960—17,950; 1961—17,380.

(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.

## EXPORTS OF ANTIMONY, ETC.

Long tons

Exporting Country and Description	1956	1957	1958	1959	1960	1961
COMMONWEALTH COUNTRIES						
United Kingdom—						
Regulus and refined ..	1,839	1,968	824	719	1,600	1,171
Rhodesia & Nyasaland—						
Ore .. .. .	237	211	137	<i>r</i> 257	272	222
Canada—						
Antimonial lead ..						
( <i>Sb content</i> ) ..	471	301	281	<i>r</i> 499	<i>r</i> 501	534
Hong Kong—						
Ore .. .. .	126	176	751	—	—	—
Sarawak—						
Ore .. .. .	10	—	—	—	—	—
Australia ( <i>a</i> )—						
Regulus .. .. .	1	5	133	—	12	—
OTHER COUNTRIES						
Austria—						
Ore .. .. .	629	810	937	878	1,029	1,780
Sulphide .. .. .	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	100	288	110
Belgium-Luxemburg						
E.U.—						
Oxide .. .. .	417	700	751	707	687	966
France—						
Ore .. .. .	—	5	—	394	5	—
Crude and regulus ..	256	127	160	115	280	135
Germany (Federal)—						
Ore .. .. .	—	—	—	1	53	—
Regulus, scrap, etc. ..	164	154	149	229	400	402
Oxide .. .. .	317	386	272	368	289	91
Italy—						
Regulus and scrap ..	—	133	65	—	1	—
Netherlands—						
Regulus .. .. .	11	58	15	40	54	34
Portugal—						
Ore .. .. .	—	20	—	—	—	—
Sweden—						
Ore .. .. .	96	52	53	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Regulus .. .. .	14	3	14	5	22	7
U.S.S.R.—						
Regulus .. .. .	1,800	1,600	1,100	2,300	2,500	3,400
Yugoslavia—						
Regulus .. .. .	1,384	1,344	1,574	1,896	1,970	2,039
Algeria—						
Ore .. .. .	4,512	4,890	5,468	5,272	3,552	2,360
Morocco—						
Ore .. .. .	906	844	—	734	546	1,129
South Africa—						
Ore .. .. .	20,377	12,381	14,519	19,447	20,451	16,292
Mexico—						
Ore and concentrates ..	10,787	12,721	5,625	6,441	9,098	9,343
Regulus and refined ..	706	469	313	586	538	128
United States—						
Ore .. .. .	28	57	42	147	756	6
Metal and alloys ..	30	3	35	8	53	30
Compounds .. .. .	188	189	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Bolivia—						
Ore ( <i>Sb content</i> ) ..	5,026	6,249	5,159	5,412	5,238	6,602
Regulus .. .. .	5	24	35	3	5	32
Peru—						
Ore and metal ( <i>Sb content</i> ) ..	1,122	745	571	734	948	901

(a) Years ended June 30 of that stated.

EXPORTS OF ANTIMONY, ETC. (cont.)

Long tons

Exporting Country and Description	1956	1957	1958	1959	1960	1961
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
Japan—						
Regulus .. ..	18	9	3	2	—	3
Sulphide .. ..	118	64	18	18	6	14
Thailand—						
Ore .. .. .	56	32	—	—	—	52
Turkey—						
Ore .. .. .	1,875	2,834	2,509	2,056	2,241	2,475

## IMPORTS OF ANTIMONY, ETC.

Long tons

Importing Country and Description	1956	1957	1958	1959	1960	1961
COMMONWEALTH COUNTRIES						
United Kingdom—						
Ore and concentrates (b)	15,018	11,237	11,274	11,063	15,623	11,733
Rhodesia & Nyasaland—						
Refined and regulus ..	105	98	27	47	50	183
Canada—						
Regulus .. .. .	805	801	361	523	377	372
Oxide .. .. .	117	163	144	228	195	160
Hong Kong—						
Ore .. .. .	2	106	897	—	—	—
India—						
Ore .. .. .	<i>n.a.</i>	342	935	1,579	(d) 1,172	(d) 1,268
Metal .. .. .	<i>n.a.</i>	21	34	81	(d) 17	(d) 1
Oxide .. .. .	<i>n.a.</i>	100	43	73	(d) 90	(d) 96
Sulphide .. .. .	<i>n.a.</i>	353	3	10	(d) 4	(d) 1
Australia (c)—						
Concentrates .. ..	532	530	103	36	105	271
Regulus .. .. .	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	238
New Zealand—						
Refined and regulus ..	94	96	172	90	82	152
Oxide .. .. .	112	(a) 14	35	28	14	21
OTHER COUNTRIES						
Austria—						
Regulus .. .. .	145	103	153	141	206	151
Belgium-Luxemburg						
E.U.—						
Regulus .. .. .	144	107	146	187	(e) 272	(e) 202
Oxide .. .. .	74	80	89	124	176	138
Denmark—						
Regulus .. .. .	307	274	324	400	228	313
France—						
Ore .. .. .	6,645	5,053	8,752	5,490	6,120	4,303
Crude and regulus ..	513	111	1	156	465	896
Sulphide .. .. .	4	2	2	1	2	—
Germany (Federal)—						
Ore .. .. .	1,125	1,419	1,305	2,142	2,027	2,175
Regulus, scrap, etc. ..	2,230	2,407	1,938	2,976	4,262	3,535
Oxide .. .. .	106	124	159	218	211	211
Greece—						
Regulus .. .. .	51	68	73	64	<i>n.a.</i>	<i>n.a.</i>
Italy—						
Ore .. .. .	—	102	352	157	965	1,002
Regulus and scrap ..	288	173	248	250	497	376
Oxide .. .. .	245	191	192	127	345	248
Sulphide .. .. .	12	14	15	14	11	<i>n.a.</i>
Netherlands—						
Regulus .. .. .	403	218	236	393	417	437
Oxide .. .. .	519	503	461	592	777	501
Norway—						
Regulus .. .. .	157	86	49	72	64	109
Portugal—						
Crude and alloys ..	43	47	55	57	<i>n.a.</i>	<i>n.a.</i>
Oxide .. .. .	2	4	1	9	<i>n.a.</i>	<i>n.a.</i>
Sulphide .. .. .	3	1	—	1	2	1
Spain—						
Sulphide .. .. .	5	—	—	—	<i>n.a.</i>	<i>n.a.</i>

(a) Excess of re-exports.

(d) Years ended March 31 following that stated.

(b) Including crude.

(e) Including scrap.

(c) Years ended June 30 of that stated.



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

Long tons

Importing Country and Description	1956	1957	1958	1959	1960	1961
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
Sweden—						
Ore .. .. .	223	113	31	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Regulus .. .. .	338	119	224	258	373	340
Switzerland—						
Regulus .. .. .	199	145	342	132	<i>n.a.</i>	<i>n.a.</i>
U.S.S.R.—						
Regulus .. .. .	6,900	100	3,400	—	—	—
Algeria—						
Regulus .. .. .	13	13	11	12	12	<i>n.a.</i>
Morocco—						
Regulus .. .. .	21	16	20	15	25	22
South Africa—						
Refined and regulus ..	213	325	152	90	113	<i>n.a.</i>
Mexico—						
Oxide .. .. .	15	23	19	10	25	24
United States—						
Ore ( <i>Sb content</i> ) ..	5,867	7,320	3,060	5,773	5,764	5,994
Crude .. .. .	41	34	122	158	21	11
Regulus .. .. .	3,858	4,832	3,823	3,948	4,885	4,386
Oxide .. .. .	1,321	1,691	1,459	1,835	2,114	1,786
Argentina—						
Ore .. .. .	530	669	1,369	652	296	611
Brazil—						
Regulus .. .. .	265	295	167	227	45	108
Oxide .. .. .	42	46	27	39	42	33
Sulphide .. .. .	187	124	92	116	186	101
Chile—						
Regulus .. .. .	95	51	15	<i>n.a.</i>	99	<i>n.a.</i>
Peru—						
Sulphides .. .. .	—	1	—	—	1	—
Uruguay—						
Regulus .. .. .	<i>n.a.</i>	39	13	32	21	<i>n.a.</i>
Venezuela—						
Regulus .. .. .	28	7	17	35	16	8
Indonesia—						
Regulus .. .. .	57	84	79	156	77	<i>n.a.</i>
Israel—						
Regulus .. .. .	31	56	42	25	35	<i>n.a.</i>
Japan—						
Ore and concentrates ..	3,855	3,064	2,278	4,934	5,283	6,369
Regulus .. .. .	3	1	6	83	9	—
Sulphide .. .. .	538	4	181	—	—	91

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

Long tons

Producing Country and Description	1956	1957	1958	1959	1960	1961
<b>COMMONWEALTH COUNTRIES</b>						
Southern Rhodesia—						
White arsenic .. ..	968	788	610	471	182	—
Canada—						
White arsenic (a) ..	799	1,651	1,037	705	770	137
<b>OTHER COUNTRIES</b>						
Belgium (b)—						
White arsenic .. ..	2,728	2,035	485	2,823	<i>n.a.</i>	<i>n.a.</i>
France—						
White arsenic .. ..	8,442	6,810	7,459	7,894	8,400	9,300
Germany (Federal) (b)—						
White arsenic, etc. ..	298	193	183	161	98	137
Greece—						
White arsenic .. ..	40	10	12	10	(c) 10	(c) 10
Italy—						
Mispickel ( <i>As content</i> ) ..	484	743	499	411	515	583
White arsenic .. ..	1,049	828	614	1,119	584	874
Portugal—						
Arsenic oxide (d) .. ..	1,339	1,336	969	599	<i>n.a.</i>	<i>n.a.</i>
Spain—						
Arsenic oxide (e) .. ..	260	230	189	286	412	264
Sweden—						
White arsenic .. ..	9,975	9,940	9,119	11,000	11,564	10,851
Mexico—						
Ores ( <i>As<sub>2</sub>O<sub>3</sub> content</i> ) ..	2,601	4,532	3,047	10,300	11,939	12,087
United States—						
White arsenic .. ..	10,894	9,369	10,275	4,633	<i>n.a.</i>	<i>n.a.</i>
Brazil—						
White arsenic .. ..	732	168	261	327	208	(c) 200
Peru—						
White arsenic .. ..	25	19	329	468	387	(c) 400
Japan—						
White arsenic .. ..	1,637	1,358	1,276	1,058	1,113	935

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.

(e) Content of ore.

EXPORTS OF ARSENIC, ETC.

Long tons

Exporting Country and Description	1956	1957	1958	1959	1960	1961
COMMONWEALTH COUNTRIES						
United Kingdom—						
White arsenic and other compounds of arsenic	4,388	3,727	3,123	2,546	5,996	6,774
Canada—						
White arsenic, etc. (a)	521	1,442	760	505	471	109
OTHER COUNTRIES						
Belgium-Luxemburg						
E.U.—						
Sulphide .. ..	120	72	128	49	<i>n.a.</i>	<i>n.a.</i>
White arsenic .. ..	2,728	2,035	485	2,823	<i>n.a.</i>	<i>n.a.</i>
Arsenates and arsenites	279	146	7	33	225	312
France—						
White arsenic .. ..	4,417	4,210	5,660	8,444	7,778	10,799
Arsenates .. ..	143	162	115	71	131	161
Germany (Federal)—						
White arsenic, etc. .. ..	298	193	183	161	98	137
Arsenates .. ..	794	346	376	782	386	182
Italy—						
White arsenic .. ..	27	5	9	3	50	2
Netherlands—						
Arsenates and arsenites	41	65	—	15	18	9
Portugal—						
White arsenic .. ..	1,482	1,173	1,046	383	34	77
Sweden—						
White arsenic .. ..	7,322	8,683	14,939	11,417	13,494	10,229
Metallic arsenic .. ..	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	92	244	182
Mexico—						
White arsenic, pure .. ..	5,221	3,056	1,689	5,346	6,454	6,072
do. crude	380	1,856	793	6,338	2,955	7,060
United States—						
Arsenate of lead .. ..	1,144	543	937	625	843	415
Arsenate of lime .. ..	280	1,241	569	55	129	299
Japan—						
White arsenic .. ..	59	45	53	10	16	12
Turkey—						
Ore .. ..	—	—	—	3	—	—

(a) Including arsenic contained in gold ores exported.

## IMPORTS OF ARSENIC, ETC.

Long tons

Importing Country and Description	1956	1957	1958	1959	1960	1961
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom—						
White arsenic .. ..	5,550	3,293	6,873	4,602	9,815	8,587
Canada—						
Sulphide and white arsenic .. ..	7	1	—	—	—	—
Arsenate of lead .. ..	60	33	58	38	29	26
Arsenate of lime .. ..	5	36	38	39	30	80
India—						
Arsenic and its oxides .. ..	437	483	90	297	(b) 406	(b) 602
Pakistan—						
Arsenic and its oxides .. ..	1	5	14	5	60	44
Australia (a)—						
White arsenic .. ..	3,273	1,778	1,877	2,595	2,618	2,183
Arsenate of lead .. ..	8	4	1	—	n.a.	n.a.
Other compounds .. ..	10	—	—	—	—	—
New Zealand—						
White arsenic, etc. .. ..	131	128	165	71	71	9
Arsenate of lead .. ..	41	25	30	18	9	11
<b>OTHER COUNTRIES</b>						
Belgium-Luxemburg						
E.U.—						
White arsenic .. ..	99	252	273	108	73	3
Denmark—						
Arsenate of lead .. ..	1	1	1	n.a.	n.a.	n.a.
France—						
Sulphide .. ..	—	—	3	8	4	8
Metallic arsenic .. ..	24	20	17	9	9	21
White arsenic .. ..	48	12	16	8	30	30
Germany (Federal)—						
White arsenic, etc. .. ..	2,183	1,830	2,645	3,358	4,248	2,789
Sulphide .. ..	25	15	19	10	9	8
Italy—						
White arsenic .. ..	516	253	288	211	418	449
Metallic arsenic .. ..	1	—	2	6	8	16
Netherlands—						
White arsenic .. ..	435	668	677	543	529	638
Arsenates .. ..	31	55	28	23	85	32
Norway—						
White arsenic .. ..	n.a.	n.a.	n.a.	50	63	51
Portugal—						
Metallic arsenic .. ..	—	1	1	1	n.a.	n.a.
White arsenic .. ..	13	4	16	12	9	8
Arsenate of soda .. ..	—	—	3	5	—	—
Yugoslavia—						
Metallic arsenic .. ..	10	n.a.	8	3	5	3
Algeria—						
White arsenic .. ..	13	10	3	22	11	n.a.
Sulphide .. ..	—	—	1	1	2	n.a.
Arsenates .. ..	44	30	41	17	17	n.a.
Congo Republic—						
White arsenic .. ..	—	2	—	—	n.a.	n.a.
Arsenates and arsenites .. ..	70	154	142	139	n.a.	n.a.
Malagasy Republic—						
Arsenates .. ..	5	8	12	9	12	16
Tunisia—						
Arsenates .. ..	—	1	—	1	—	1
Mexico—						
White arsenic .. ..	46	101	48	95	6	100

(a) Years ended June 30 of that stated.

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

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

Long tons

Importing Country and Description	1956	1957	1958	1959	1960	1961
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
United States—						
Metallic arsenic .. ..	40	61	28	38	65	59
White arsenic .. ..	5,734	9,049	8,504	17,309	11,450	17,396
Sulphide .. ..	38	19	56	19	14	25
Arsenates of lime and soda .. ..	129	(a) 146	(a) 77	(a) 68	96	(a) 94
Argentina—						
White arsenic .. ..	514	1,422	894	768	423	720
Brazil—						
White arsenic .. ..	969	778	730	701	846	675
Arsenates .. ..	—	4	10	30	30	28
Chile—						
White arsenic .. ..	22	21	22	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Arsenates .. ..	41	40	6	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Colombia—						
White arsenic .. ..	16	39	5	44	104	34
Uruguay—						
White arsenic .. ..	<i>n.a.</i>	46	172	299	296	<i>n.a.</i>
Arsenate of lead .. ..	<i>n.a.</i>	174	8	9	66	<i>n.a.</i>
Japan—						
White arsenic .. ..	—	—	—	1,524	1,124	2,445
Sulphide .. ..	16	19	21	38	25	23
Turkey—						
Arsenic compounds .. ..	21	27	—	32	50	74

(a) Arsenate of soda only.

## ASBESTOS

### PRODUCTION OF ASBESTOS

Long tons

Producing Country and Description	1956	1957	1958	1959	1960	1961
<b>COMMONWEALTH COUNTRIES</b>						
Bechuanaland Protectorate .. ..	1,210	1,412	<i>r</i> 2,014	1,259	1,145	1,718
Kenya—						
Anthophyllite .. ..	152	97	107	39	104	135
Southern Rhodesia .. ..	106,226	117,968	113,496	106,874	119,611	144,295
Swaziland .. ..	26,674	27,435	22,554	22,149	28,595	27,493
Uganda .. ..	2	—	—	—	—	—
Canada (a)—						
Chrysotile .. ..	905,579	934,005	826,188	937,883	998,621	1,047,942
<i>Crude</i> .. ..	640	555	540	386	295	146
<i>Fibre</i> .. ..	350,878	360,729	305,859	360,731	431,413	489,491
<i>Shorts and Waste</i> .. ..	554,061	572,721	519,789	576,766	566,913	558,305
Cyprus .. ..	13,728	13,418	14,727	12,878	15,259	14,060
India .. ..	1,230	1,718	1,162	1,344	1,684	1,445
Australia—						
Chrysotile .. ..	1,383	1,993	2,013	1,279	1,019	865
Crocidolite .. ..	7,286	11,105	11,887	14,680	12,921	14,087
New Zealand .. ..	329	206	405	572	284	333
<b>Total</b> .. ..	<i>r</i> 1,064,000	<i>r</i> 1,109,000	<i>r</i> 995,000	<i>r</i> 1,099,000	1,179,000	1,252,000
<b>OTHER COUNTRIES</b>						
Austria .. ..	—	—	—	—	192	504
Bulgaria .. ..	984	(c) 1,000	(c) 1,000	(c) 1,000	(c) 1,000	(c) 1,000
Finland .. ..	8,378	9,803	7,082	8,553	9,405	9,231
France .. ..	12,000	14,000	18,333	20,877	25,176	28,000
Greece .. ..	5	8	—	—	—	—
Italy .. ..	34,757	35,547	37,946	<i>r</i> 46,670	50,313	56,086
Portugal .. ..	31	57	88	35	129	19
Spain .. ..	—	—	—	17	4	—
U.S.S.R. (c) .. ..	450,000	450,000	490,000	540,000	590,000	790,000
Yugoslavia .. ..	3,718	5,471	5,322	4,239	5,330	5,990
Egypt .. ..	—	20	433	448	443	(c) 450
Eritrea .. ..	—	49	25	(c) 27	<i>n.a.</i>	<i>n.a.</i>
Morocco .. ..	339	118	—	—	—	—
Mozambique .. ..	180	136	177	66	20	145
South Africa—						
Amosite .. ..	44,729	50,713	62,297	64,036	61,277	61,816
Blue .. ..	54,632	66,831	69,812	72,444	69,421	83,750
Chrysotile .. ..	21,729	22,898	24,467	26,184	26,313	28,327
Tremolite .. ..	—	159	248	198	12	66
United States (d) .. ..	36,886	38,976	39,267	40,588	40,378	47,155
Argentina .. ..	44	284	254	286	(c) 290	(c) 290
Bolivia (b) .. ..	56	109	—	149	167	103
Brazil .. ..	3,338	2,370	3,407	<i>r</i> 11,004	13,027	(c) 14,700
Venezuela .. ..	5,197	7,490	8,173	4,547	3,870	581
China (c) .. ..	23,000	29,000	59,000	79,000	79,000	79,000
Formosa .. ..	105	239	42	134	433	39
Iran (e) .. ..	(c) 150	(c) 150	13	—	—	<i>n.a.</i>
Japan—						
Chrysotile .. ..	8,601	11,173	9,989	12,173	15,216	16,785
Amphibole .. ..	251	606	—	—	—	—
Korea (South) .. ..	50	86	20	79	621	304
Philippine Republic .. ..	—	—	—	50	32	74
Turkey .. ..	566	89	749	367	213	443
<b>Total*</b> .. ..	<i>r</i> 700,000	<i>r</i> 700,000	<i>r</i> 800,000	<i>r</i> 900,000	1,000,000	1,200,000
<b>WORLD'S TOTAL*</b> .. ..	1,800,000	1,800,000	1,800,000	2,000,000	2,200,000	2,500,000

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

(a) Sales and shipments.

(b) Exports.

(c) United States Bureau of Mines' estimate.

(d) Sold or used by producers.

(e) Years ended March 20 following that stated.

EXPORTS OF ASBESTOS

Long tons

Exporting Country and Description	1956	1957	1958	1959	1960	1961
<b>COMMONWEALTH COUNTRIES</b>						
<b>United Kingdom—</b>						
<b>Unmanufactured—</b>						
Fibre .. .. .						
Waste, incl. asbestic	6,442	5,959	5,199	6,178	7,749	7,014
Packing, etc. .. .	13,532	13,760	13,436	11,522	12,654	11,741
Cement products .. .	131,053	105,947	69,858	63,384	59,634	52,979
Yarn and cloth .. .	2,921	2,833	2,708	2,564	3,131	3,369
Other manufactures .. .	13,780	13,044	12,574	12,767	13,624	17,348
<b>Kenya—</b>						
Unmanufactured .. .	42	5	65	9	29	31
<b>Rhodesia &amp; Nyasaland—</b>						
Unmanufactured .. .	96,287	95,953	84,804	92,199	114,221	119,211
Cement sheets .. .	(£3,185)	(£828)	(£1,875)	(£1,392)	} (£1,599)	} (£1,153)
Other manufactures .. .	(£11,256)	(£1,161)	(£3,000)	(£631)		
<b>Canada—</b>						
Crude .. .. .	500	570	431	371	215	157
Fibre .. .. .	336,646	351,171	284,179	358,556	408,976	470,825
Shorts and waste .. .	523,497	568,403	489,167	546,360	544,821	526,232
Manufactured .. .	(£1,361,174)	(£701,529)	(£284,603)	(£263,977)	(£366,963)	(£345,378)
<b>Cyprus—</b>						
Unmanufactured .. .	12,504	11,886	13,118	14,403	15,328	15,805
<b>India—</b>						
Unmanufactured .. .	116	71	139	32	(a) 20	(a) 33
Manufactured (by sea)	(£51,367)	} 558	} 50	} 159	(a) 599	(a) 614
do. (by land) .. .	326					
<b>Malaya—</b>						
Sheets .. .. .	n.a.	7,205	5,548	2,841	3,267	5,594
Pipes .. .. .	n.a.	2,213	2,693	2,990	2,666	1,522
Other manufactures .. .	32	30	108	69	24	78
<b>Hong Kong—</b>						
Unmanufactured .. .	1	5	550	—	—	—
Manufactured .. .	(£33,506)	(£37,879)	(£13,711)	60	95	57
Cement products .. .	n.a.	n.a.	n.a.	341	310	269
<b>Australia (b)—</b>						
Unmanufactured .. .	6,859	11,644	10,002	7,694	11,394	7,344
Packing .. .. .	(£8,127)	(£31,498)	(£7,941)	(£111,546)	(£30,690)	(£13,538)
<b>New Zealand—</b>						
Cement products	(£N.Z.)	(£7,029)	(£6,560)	(£3,635)	(£4,314)	(£5,690)
		(£6,999)				(£6,999)
<b>OTHER COUNTRIES</b>						
<b>Austria—</b>						
Unmanufactured .. .	—	—	3	28	62	337
Manufactured .. .	88	137	490	(c) 1,187	(c) 1,567	(c) 1,717
Cement products .. .	8,240	7,360	5,332	(d) 4,735	(d) 5,541	(d) 6,082
<b>Belgium-Luxemburg</b>						
<b>E. U.—</b>						
Unmanufactured .. .	112	252	778	617	292	604
Manufactured .. .	891	776	609	612	(c) 995	(c) 2,821
Cement products .. .	149,389	122,594	113,603	161,556	(d) 220,922	(d) 218,089
<b>Denmark—</b>						
Unmanufactured .. .	128	160	103	62	26	30
Manufactured .. .	259	242	272	(c) 387	(c) 510	(c) 522
Cement products .. .	1,425	4,963	6,555	(d) 4,387	(d) 5,019	(d) 6,329

(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.

## EXPORTS OF ASBESTOS (cont.)

Long tons

Exporting Country and Description	1956	1957	1958	1959	1960	1961
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
Finland—						
Unmanufactured ..	4,923	6,992	5,985	5,273	5,463	5,580
Manufactured ..	442	391	342	443	577	647
France—						
Unmanufactured ..	1,917	3,630	3,005	6,169	10,619	11,210
Manufactured (a) ..	999	1,147	1,552	2,481	4,638	4,971
Cement products (b) ..	24,572	30,180	43,336	42,735	64,625	47,221
Germany (Federal)—						
Unmanufactured ..	224	271	108	218	222	913
Manufactured (a) ..	2,584	2,662	2,459	3,132	3,576	3,943
Cement products (b) ..	14,327	16,642	12,625	15,372	22,571	22,365
Italy—						
Unmanufactured ..	5,974	4,726	6,144	9,436	7,062	9,061
Manufactured (a) ..	346	356	439	659	915	1,061
Cement products (b) ..	32,379	34,407	25,810	33,261	50,253	52,706
Netherlands—						
Unmanufactured ..	66	25	16	34	35	259
Manufactured ..	1,032	1,095	1,193	1,535	(a) 1,824	(a) 8,386
Cement products ..	6,079	4,189	4,651	4,695	(b) 20,567	(b) 10,089
Portugal—						
Unmanufactured ..	6	31	40	56	34	31
Spain—						
Manufactured ..	149	101	120	116	(a)(b) 158	(a)(b) 456
Sweden—						
Unmanufactured ..	4	1	4	2	28	51
Manufactured ..	17	55	57	(a) 61	(a) 122	(a) 149
Cement products ..	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	6,723	13,507	18,036
Switzerland—						
Manufactured (a) ..	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	430	452
Cement products (b) ..	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	6,652	2,351
U.S.S.R.—						
Unmanufactured ..	88,100	101,800	115,600	126,600	143,800	156,100
Yugoslavia—						
Unmanufactured ..	3,679	4,536	5,016	6,030	5,134	4,226
Algeria—						
Cement products (b) ..	4,711	3,381	2,191	2,705	1,410	<i>n.a.</i>
Egypt—						
Unmanufactured ..	60	—	22	4	—	<i>n.a.</i>
Morocco—						
Unmanufactured ..	18	49	32	—	—	—
Cement products ..	5,907	4,230	5,168	5,888	7,348	10,389
Mozambique—						
Unmanufactured ..	58	369	322	66	79	<i>n.a.</i>
South Africa—						
Unmanufactured (c) ..	130,987	148,660	142,519	150,456	190,627	167,192
Sheets ..	(£31,279)	(£32,055)	(£37,972)	(£36,254)	(£58,116)	(£89,559)
Other manufactures ..	(£250,965)	(£87,704)	(£48,501)	(£101,950)	(£275,992)	(£143,707)
United States—						
Unmanufactured ..	2,498	2,477	2,622	3,855	4,876	3,189
Spun, woven and packing ..	1,076	1,293	1,041	1,039	1,181	1,149
Brake linings ..	(£1,921,625)	(£1,834,241)	(£1,641,444)	(£1,663,341)	(£1,597,200)	(£1,497,467)
Clutch facings ..	(£325,293)	(£374,277)	(£388,483)	(£405,393)	(£409,169)	(£410,464)
Pipe covering and cement ..	2,020	3,145	2,727	2,156	3,115	2,345
Other manufactures ..	17,033	15,615	12,465	9,849	8,894	10,090
Bolivia—						
Unmanufactured ..	56	109	—	149	167	103
Colombia—						
Cement products ..	1,664	882	177	168	256	363

(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	1956	1957	1958	1959	1960	1961
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
Peru—						
Manufactured .. ..	71	12	22	144	48	11
Venezuela—						
Unmanufactured ..	4,224	5,995	6,826	4,272	3,603	375
Japan—						
Unmanufactured ..	24	30	16	53	36	15
Manufactured .. ..	525	632	579	898	1,076	1,663
Cement products ..	1,124	1,061	529	896	1,155	462
Lebanon—						
Cement products ..	3,000	3,754	6,324	9,997	10,364	<i>n.a.</i>
Thailand—						
Cement products ..	<i>n.a.</i>	<i>n.a.</i>	79	815	1,423	1,197
Turkey—						
Unmanufactured ..	—	5	5	—	5	—

IMPORTS OF ASBESTOS

Long tons

Importing Country and Description	1956	1957	1958	1959	1960	1961
COMMONWEALTH COUNTRIES						
United Kingdom—						
Unmanufactured—						
Crude and fibre ..	124,505	112,341	109,765	121,531	158,315	154,942
Waste, including asbestic .. ..	21,635	24,638	21,566	11,887	9,870	11,582
Cement products ..	8,350	8,640	8,595	9,545	14,722	16,651
Other manufactures ..	234	863	1,028	932	2,541	4,780
Channel Islands—						
Manufactured .. ..	1,292	798	1,109	953	1,200	2,074
Malta—						
Manufactured .. ..	(£3,506)	(£4,941)	(£5,806)	(£6,966)	(£20,612)	(£30,034)
Gambia—						
Cement sheets and pipes	317	482	727	321	11	27
Ghana—						
Cement sheets, pipes etc.	18,888	14,240	11,958	18,814	20,804	21,584
Kenya—						
Manufactured .. ..	5,418	5,103	3,130	4,461	5,260	2,187
Mauritius—						
Manufactured .. ..	864	631	721	1,270	625	642
Nigeria—						
Cement sheets, pipes etc.	18,702	20,373	18,274	24,226	28,859	15,433
Rhodesia & Nyasaland—						
Cement sheets, etc. ..	(£87,864)	(£56,803)	(£44,793)	(£33,624)	} (£71,018)	} (£61,693)
Cement pipes .. ..	6,713	2,159	417	1,375		
Sierra Leone—						
Cement sheets and pipes	728	1,507	309	426	1,154	1,199
Tanganyika—						
Manufactured .. ..	2,600	1,526	1,226	698	1,560	1,304
Uganda—						
Unmanufactured ..	457	187	639	397	817	733
Manufactured .. ..	3,902	1,296	1,366	1,346	506	441
Zanzibar—						
Manufactured .. ..	404	397	205	257	197	318
Canada—						
Packing .. ..	180	164	135	172	201	291
Other manufactures ..	(£1,827,761)	(£1,799,192)	(£1,436,101)	(£1,397,962)	(£1,499,746)	(£1,494,336)
Barbados—						
Manufactured .. ..	n.a.	58	17	11	21	12
Bermuda—						
Sheets, etc. .. ..	(£7,818)	(£9,550)	(£6,221)	(£14,757)	(£6,345)	(£17,561)
Grenada—						
Manufactured .. ..	(£584)	(£415)	(£440)	(£85)	n.a.	n.a.
Jamaica—						
Unmanufactured ..	24	45	24	38	34	28
Manufactured .. ..	521	751	473	424	854	93
Cement products ..	809	996	383	548	334	2,405
St. Vincent—						
Sheets .. ..	4	22	1	12	33	42
Trinidad and Tobago—						
Cement products ..	523	1,103	485	607	469	n.a.
Other manufactures ..	370	442	417	1,084	305	n.a.
British Guiana—						
Cement sheets, etc. ..	785	872	636	2,409	2,671	n.a.
Other manufactures ..	1,102	187	727	73	199	n.a.
Ceylon—						
Unmanufactured ..	214	418	974	789	—	318
Cement sheets, etc. ..	16,424	11,745	7,375	6,605	6,036	72
Other manufactures ..	46	34	49	33	377	410
Cyprus—						
Sheets and pipes ..	1,740	2,632	1,537	2,044	1,805	3,207
Other manufactures ..	(£9,803)	(£17,019)	(£14,665)	(£28,769)	(£29,168)	(£36,355)

## IMPORTS OF ASBESTOS (cont.)

Long tons

Importing Country and Description	1956	1957	1958	1959	1960	1961
<b>COMMONWEALTH COUNTRIES (cont.)</b>						
Hong Kong—						
Unmanufactured ..	1	51	562	5	22	28
Manufactured ..	(£59,335)	(£121,179)	(£79,396)	234	373	465
Cement products ..	n.a.	n.a.	n.a.	24,656	29,457	34,697
India—						
Unmanufactured ..	15,391	16,032	18,065	22,387	(b) 21,724	(b) 21,384
Cement products ..	7,049	8,034	2,622	2,703	(b) 1,178	(b) 1,826
Packing ..	(£97,325)	1,953	842	2,874	(b) 1,288	(b) 2,276
Other manufactures ..	(£431,442)					
Malaya—						
Unmanufactured ..	2,321	2,763	1,903	2,240	2,823	5,321
Sheets ..	n.a.	18,099	19,200	19,601	20,170	25,123
Pipes ..	n.a.	795	136	738	460	239
Other manufactures ..	424	431	460	366	483	664
North Borneo—						
Manufactured ..	6	4	56	5	14	10
Pakistan—						
Cement sheets ..	2,320	1,434	493	499	102	397
Sarawak—						
Cement sheets ..	1,674	947	652	505	492	1,072
Other manufactures ..	—	14	11	46	17	134
Australia (a)—						
Unmanufactured ..	32,219	23,235	32,595	35,767	36,398	36,859
Packing, etc. ..	(£347,342)	(£388,630)	(£581,006)	(£449,316)	(£447,615)	(£555,484)
New Zealand—						
Unmanufactured ..	2,786	1,276	3,915	4,200	4,512	5,188
Manufactured (£N.Z.)	(£177,281)	(£189,805)	(£270,337)	(£192,874)	(£184,637)	(£256,376)
Cement products (£N.Z.)	(£194,752)	(£355,381)	(£209,254)	(£62,165)	(£42,424)	(£104,153)
Irish Republic—						
Unmanufactured ..	2,607	1,424	1,593	2,047	2,843	1,983
Manufactured ..	2,899	1,700	2,653	2,652	2,465	4,007
<b>OTHER COUNTRIES</b>						
Austria—						
Unmanufactured ..	7,783	10,248	10,994	10,185	12,565	20,611
Manufactured ..	132	180	205	(c) 246	(c) 331	(c) 266
Cement products ..	82	372	264	(d) 105	(d) 907	(d) 3,140
Belgium-Luxembourg						
E.U.—						
Unmanufactured ..	43,607	38,800	32,162	45,593	53,135	55,305
Manufactured ..	2,130	2,247	3,720	3,450	(c) 4,301	(c) 2,924
Cement products ..	3,716	808	796	996	(d) 1,447	(d) 2,278
Czechoslovakia—						
Unmanufactured ..	17,071	22,105	17,360	23,613	26,560	n.a.
Denmark—						
Unmanufactured ..	12,837	16,501	10,409	16,564	17,164	19,267
Manufactured ..	1,125	983	958	(c) 1,434	(c) 1,529	(c) 1,885
Cement products ..	193	254	146	(d) 7,595	(d) 11,639	(d) 20,926
Finland—						
Unmanufactured ..	1,948	2,536	3,158	2,556	4,376	6,175
Manufactured ..	358	300	375	376	446	711
France—						
Unmanufactured ..	55,260	66,497	66,366	60,579	67,505	76,785
Manufactured (c) ..	1,554	1,413	1,406	2,362	1,589	1,841
Cement products (d) ..	356	1,386	752	753	866	8,391

(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	1956	1957	1958	1959	1960	1961
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
Germany (Federal)—						
Unmanufactured ..	74,749	91,862	79,884	100,630	130,532	121,332
Manufactured (a) ..	1,019	1,587	2,187	2,286	4,484	4,447
Cement products (b) ..	10,798	22,322	39,887	47,259	132,622	73,246
Greece .. ..	418	193	178	179	<i>n.a.</i>	<i>n.a.</i>
Hungary—						
Crude .. ..	4,739	4,482	7,292	6,825	9,649	10,509
Iceland—						
Unmanufactured ..	56	59	55	38	36	28
Manufactured .. ..	43	28	31	58	35	22
Italy—						
Unmanufactured ..	20,318	30,168	19,357	14,307	29,138	43,139
Manufactured (a) ..	1,697	1,823	1,996	2,474	4,041	3,294
Cement products (b) ..	380	334	290	300	588	3,149
Netherlands—						
Unmanufactured ..	15,694	20,783	12,478	17,433	21,381	19,413
Manufactured .. ..	2,524	2,578	2,378	2,453	(a) 3,358	(a) 3,718
Cement products ..	69,287	53,139	45,704	62,715	(b) 78,103	(b) 88,500
Norway—						
Unmanufactured ..	3,672	4,672	4,327	5,422	6,808	5,981
Manufactured .. ..	1,371	987	1,024	(a) 2,630	(a) 3,547	(a) 2,998
Cement products ..	2,686	7,815	8,506	(b) 5,929	(b) 7,932	(b) 9,041
Portugal—						
Unmanufactured ..	2,910	3,275	1,603	1,743	2,309	2,561
Manufactured .. ..	56	136	79	62	(a) 272	(a) 425
Spain—						
Unmanufactured ..	12,090	17,562	10,284	16,367	14,224	22,935
Manufactured .. ..	610	560	83	102	(a)(b) 189	(a)(b) 540
Sweden—						
Unmanufactured ..	11,390	14,484	13,122	16,179	16,836	16,749
Manufactured .. ..	2,169	2,102	2,250	(a) 3,500	(a) 3,839	(a) 3,671
Cement products ..	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	14,333	16,786	16,100
Switzerland—						
Unmanufactured ..					8,557	9,134
Manufactured (a) ..	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	1,703	2,134
Cement products (b) ..					289	1,308
Yugoslavia—						
Unmanufactured ..	1,344	3,819	4,619	4,407	8,589	7,601
Manufactured .. ..	252	323	384	647	659	731
Cement products ..	21	220	117	—	1	39
Algeria—						
Unmanufactured ..	3,026	4,396	2,554	3,757	6,091	<i>n.a.</i>
Manufactured (a) ..	190	178	306	362	745	<i>n.a.</i>
Cement products (b) ..	2,206	6,583	13,864	14,261	9,365	<i>n.a.</i>
Angola—						
Unmanufactured ..	872	1,242	724	479	806	702
Manufactured .. ..	10	14	20	15	15	27
Congo Republic—						
Unmanufactured ..	1,196	2,855	1,938	1,028	<i>n.a.</i>	<i>n.a.</i>
Manufactured (a) ..	346	185	126	112	<i>n.a.</i>	<i>n.a.</i>
Cement products (b) ..	6,839	3,347	2,061	914	<i>n.a.</i>	<i>n.a.</i>
Egypt—						
Unmanufactured ..	7,226	3,598	4,523	3,527	6,479	<i>n.a.</i>
Manufactured .. ..	1,203	494	762	999	963	<i>n.a.</i>
Malagasy Republic—						
Manufactured (a) ..	97	121	81	125	110	88
Cement products ..	1,387	945	2,707	943	558	1,484
Morocco—						
Unmanufactured ..	973	1,056	1,670	1,016	2,634	2,077
Manufactured (a) ..	123	65	131	141	146	178
Cement products ..	1,319	560	255	203	234	109

(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	1956	1957	1958	1959	1960	1961
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
Mozambique—						
Unmanufactured ..	1,282	805	1,264	446	709	<i>n.a.</i>
Manufactured ..	21	28	22	17	33	<i>n.a.</i>
South Africa—						
Packing .. ..	(£266,691)	(£301,056)	(£291,185)	(£233,431)	(£243,499)	<i>n.a.</i>
Cement products	(£13,133)	(£5,730)	(£3,179)	(£7,770)	(£10,121)	<i>n.a.</i>
Other manufactures ..	(£59,007)	(£43,076)	(£80,468)	(£280,573)	(£135,058)	<i>n.a.</i>
Sudan—						
Manufactured ..	4,626	5,037	3,044	2,357	6,199	6,296
Tunisia—						
Manufactured (a) ..	13	30	44	45	62	70
Cement products (b) ..	<i>n.a.</i>	<i>n.a.</i>	1,999	3,457	6,870	5,830
Costa Rica—						
Manufactured ..	52	38	41	83	58	44
Guatemala—						
Unmanufactured ..	289	449	498	291	222	422
Manufactured ..	204	105	79	53	77	74
Mexico—						
Unmanufactured ..	10,387	9,293	10,187	8,301	13,208	15,074
Manufactured ..	698	1,343	791	1,236	860	803
Netherlands Antilles—						
Manufactured ..	939	827	487	562	370	205
Cement sheets ..	2,828	2,541	2,532	2,839	1,947	2,557
Nicaragua—						
Manufactured ..	116	111	58	17	31	24
Panama Republic—						
Manufactured ..	990	1,741	2,243	1,590	1,764	<i>n.a.</i>
Salvador—						
Unmanufactured ..	284	294	343	460	223	587
Manufactured ..	74	81	117	101	79	115
United States—						
Unmanufactured—						
Crude .. ..	49,321	49,518	50,819	49,513	42,954	38,915
Mill fibre ..	139,887	122,617	120,865	135,427	133,234	128,161
Other .. ..	426,783	437,447	403,612	451,709	421,575	383,418
Manufactured ..	26,831	19,859	12,104	29,450	40,439	32,102
Argentina—						
Unmanufactured and manufactured ..	5,577	9,437	9,193	8,125	11,565	12,371
Brazil—						
Unmanufactured ..	10,526	10,394	11,159	10,823	13,453	15,264
Manufactured ..	946	706	692	675	817	605
Chile—						
Manufactured ..	4,372	3,916	2,802	4,740	4,047	<i>n.a.</i>
Colombia—						
Unmanufactured ..	6,097	6,553	5,019	6,376	6,728	10,100
Manufactured ..	955	719	596	591	904	846
Ecuador—						
Unmanufactured ..	25	10	—	147	<i>n.a.</i>	<i>n.a.</i>
Manufactured ..	37	202	346	660	<i>n.a.</i>	<i>n.a.</i>
Peru—						
Unmanufactured ..	1,623	2,259	1,971	1,711	1,784	2,374
Manufactured ..	217	253	371	245	297	523
Surinam—						
Manufactured ..	490	1,408	934	979	1,955	<i>n.a.</i>
Uruguay .. ..	<i>n.a.</i>	1,614	1,152	1,888	1,823	<i>n.a.</i>
Venezuela—						
Unmanufactured ..	1,710	2,524	1,689	2,492	2,241	3,872
Manufactured ..	2,621	3,796	2,158	4,138	4,418	1,672

(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	1956	1957	1958	1959	1960	1961
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
<b>Burma—</b>						
Unmanufactured ..	—	—	481	194	461	665
Cement products ..	5,985	12,711	7,785	446	394	12
<b>Formosa—</b>						
Unmanufactured ..	501	906	400	417	1,030	820
Manufactured ..	370	524	204	262	254	147
<b>Indonesia—</b>						
Unmanufactured ..	68	179	224	703	579	<i>n.a.</i>
Manufactured ..	498	460	403	186	447	<i>n.a.</i>
Cement products ..	28,386	4,757	1,822	2,626	1,541	<i>n.a.</i>
<b>Iran (b)—</b>						
Unmanufactured ..	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	456	1,226	<i>n.a.</i>
Manufactured ..	<i>n.a.</i>	<i>n.a.</i>	49	87	243	<i>n.a.</i>
Cement products ..	<i>n.a.</i>	<i>n.a.</i>	1,602	1,426	1,759	<i>n.a.</i>
<b>Iraq—</b>						
Unmanufactured ..	485	1,095	91	269	443	<i>n.a.</i>
Manufactured ..	1,386	424	247	124	201	<i>n.a.</i>
Cement products ..	2,958	1,886	1,974	853	1,673	<i>n.a.</i>
<b>Israel—</b>						
Unmanufactured ..	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	(a) 3,152	6,510	<i>n.a.</i>
<b>Japan—</b>						
Unmanufactured ..	32,861	48,712	38,126	52,836	75,838	113,002
Manufactured ..	748	386	397	223	149	336
Cement products ..	175	556	195	325	221	158
<b>Lebanon—</b>						
Unmanufactured ..	1,009	1,636	1,712	1,357	2,222	<i>n.a.</i>
Manufactured ..	23	18	17	40	63	<i>n.a.</i>
Cement products ..	1,154	1,055	906	325	844	<i>n.a.</i>
<b>Philippine Republic—</b>						
Unmanufactured ..	1,033	766	332	945	1,216	830
Manufactured ..	363	365	522	933	621	200
Cement products ..	964	246	48	—	350	817
<b>Syria—</b>						
Cement sheets ..	1,129	782	2,582	1,774	2,151	512
Other manufactures ..	26	42	38	51	51	79
<b>Thailand—</b>						
Unmanufactured ..	45	3,551	3,426	2,215	6,331	3,531
Manufactured ..	1,210	120	93	568	211	281
Cement products ..	3,445	7,245	5,418	5,005	4,928	5,892
<b>Turkey—</b>						
Unmanufactured ..	492	—	960	890	463	734
Manufactured ..	457	172	159	701	1,313	906
Cement products ..	223	519	981	104	250	192

(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	1956	1957	1958	1959	1960	1961
<b>COMMONWEALTH COUNTRIES</b>						
<b>United Kingdom—</b>						
Barytes and witherite, unground .. ..	54,121	55,140	45,610	38,283	40,591	44,825
do. ground .. ..	21,477	22,788	13,442	22,796	19,615	37,106
Canada .. ..	286,460	203,614	174,749	213,363	137,761	158,887
Southern Rhodesia .. ..	—	—	30	213	—	—
Swaziland .. ..	461	313	428	411	179	405
India .. ..	6,315	12,913	15,657	13,338	13,371	15,469
Australia .. ..	6,009	9,778	6,802	6,214	11,417	19,202
Irish Republic .. ..	6,901	10,028	7,800	8,176	(b) 8,700	(b) 7,000
<b>OTHER COUNTRIES</b>						
Austria .. ..	3,048	3,488	4,194	3,632	4,326	2,499
France .. ..	54,502	75,380	119,584	85,053	104,340	69,000
Germany (Federal) .. ..	405,212	400,129	365,272	382,414	462,194	401,000
Germany (East) (c) .. ..	25,000	25,000	25,000	25,000	25,000	n.a.
Greece .. ..	25,753	128,169	151,455	127,691	100,181	(c) 120,000
Italy .. ..	92,031	111,558	109,800	r 119,406	141,004	125,275
Poland .. ..	11,023	(c) 11,000	(c) 11,000	(c) 11,000	(c) 11,000	36,751
Portugal .. ..	309	762	1,207	3,357	3,848	2,040
Spain .. ..	7,594	18,113	28,043	25,166	25,532	(c) 25,000
U.S.S.R. (c) .. ..	98,000	98,000	120,000	120,000	125,000	125,000
Yugoslavia (a) .. ..	78,449	88,189	76,082	113,010	101,794	81,734
Algeria .. ..	29,324	48,477	60,635	21,463	54,968	26,543
Egypt .. ..	79	262	2,037	1,801	2,559	(c) 3,000
Morocco .. ..	29,127	14,532	42,018	36,227	82,986	80,885
South Africa .. ..	2,422	3,008	2,429	2,103	1,677	1,752
Cuba (a) .. ..	—	20,354	10,653	n.a.	n.a.	n.a.
Mexico .. ..	(a) 210,529	(a) 383,516	(a) 194,063	(a) 177,303	266,481	244,780
United States .. ..	1,207,065	1,164,770	434,185	774,287	688,677	653,019
Argentina .. ..	17,100	22,557	16,604	17,716	(c) 18,000	(c) 18,000
Brazil .. ..	14,462	49,419	r 61,277	50,009	39,130	n.a.
Chile .. ..	425	768	n.a.	n.a.	n.a.	n.a.
Colombia .. ..	7,500	6,214	13,000	10,000	7,200	10,064
Peru .. ..	50,116	85,168	105,306	94,247	107,869	109,409
Burma .. ..	—	—	810	1,000	1,600	2,007
Iran (d) .. ..	n.a.	n.a.	1,004	1,700	13,000	14,000
Japan .. ..	18,373	24,566	14,741	19,045	22,461	28,788
Korea (South) .. ..	647	7	—	—	200	700
Philippine Republic .. ..	4,504	5,436	57	166	5,534	1,883
Turkey .. ..	—	1,885	5,389	2,700	n.a.	—
<b>TOTAL†</b> .. ..	<b>2,780,000</b>	<b>3,100,000</b>	<b>2,200,000</b>	<b>2,500,000</b>	<b>2,700,000</b>	<b>2,500,000</b>

\*Barytes unless otherwise stated.

†Excluding barytes known to have been produced in Bulgaria, Czechoslovakia, Norway, China and North Korea.

(a) Exports.

(b) Estimated.

(c) United States Bureau of Mines' estimate.

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

## EXPORTS OF BARIUM MINERALS, ETC.\*

Long tons

Exporting Country and Description	1956	1957	1958	1959	1960	1961		
COMMONWEALTH COUNTRIES								
United Kingdom— Barium compounds, excluding blanc fixe ..	3,044	3,618	2,419	4,295	4,393	4,160		
Canada— Barytes .. .. .	278,820	178,379	154,412	197,965	120,511	153,300		
India— Unground barytes ..	6,702	13,848	23,120	13,008	(b) 19,775	(b) 6,079		
Australia (a)— Ground barytes and Sulphate incl. blanc fixe	1,016	1,140	3,843	2,921	4,565	7,272		
Irish Republic— Unground barytes ..	9,680	9,157	9,812	8,425	9,675	8,420		
OTHER COUNTRIES								
Austria— Barytes .. .. .	—	15	2	—	25	30		
Belgium-Luxemburg E.U.— Barytes and witherite ..	1,370	1,195	223	1	} 33	438		
Barytes, ground .. ..	6	12	24	3				
Sulphate .. .. .	636	334	339	745			2,423	1,088
Carbonate .. .. .	180	26	12	—			118	126
Chloride .. .. .	40	54	1	4	6	36		
France— Barytes .. .. .	5,026	18,339	29,371	18,857	21,788	21,875		
Witherite .. .. .	90	—	30	—	—	—		
Chloride .. .. .	4,217	4,780	4,153	5,613	5,783	6,345		
Carbonate .. .. .	1,799	2,069	1,244	1,673	2,232	1,907		
Sulphate .. .. .	74	1,635	626	150	410	739		
Sulphide .. .. .	6	12	11	7	63	21		
Germany (Federal)— Barytes and witherite ..	116,823	104,671	121,184	117,937	134,083	121,937		
Carbonate .. .. .	7,593	6,402	7,528	11,722	14,782	14,360		
Chloride .. .. .	4,598	4,133	3,635	4,797	3,627	4,128		
Sulphate .. .. .	n.a.	n.a.	n.a.	15,167	15,858	16,609		
Greece— Barytes .. .. .	35,769	47,143	97,448	110,515	108,094	51,193		
Italy— Barytes .. .. .	30,085	39,179	41,613	34,536	33,095	38,012		
Witherite .. .. .	15	—	500	63	3	20		
Carbonate .. .. .	40	70	103	41	816	1,965		
Chloride .. .. .	461	307	194	487	1,014	1,464		
Sulphate .. .. .	13	—	11	181	344	361		
Sulphide .. .. .	186	26	31	69	103	n.a.		
Netherlands— Barytes .. .. .	393	82	1	102	87	19		
Sulphate .. .. .	903	586	1,919	1,920	2,141	2,199		
Sulphide .. .. .	3,979	3,801	3,181	3,222	3,408	3,275		
Portugal— Barytes .. .. .	n.a.	n.a.	n.a.	n.a.	1,580	601		
Spain— Barytes .. .. .	n.a.	n.a.	n.a.	n.a.	n.a.	34,983		
Sweden— Barytes and witherite ..	39	18	38	—	3	—		
U.S.S.R.— Barytes .. .. .	35,900	—	—	—	—	—		

\*For Lithopone, see "Zinc".

(a) Years ended June 30 of that stated.

(b) Years ended March 31 following that stated.



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

Long tons

Exporting Country and Description	1956	1957	1958	1959	1960	1961
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
Yugoslavia—						
Unground barytes ..	71,108	77,434	64,987	100,358	89,127	70,489
Ground barytes ..	7,341	10,755	11,095	12,652	12,667	11,245
Algeria—						
Barytes .. ..	19,041	21,815	11,802	3,167	3,101	<i>n.a.</i>
Sulphate .. ..	—	30	428	98	—	<i>n.a.</i>
Morocco—						
Barytes .. ..	21,751	17,208	20,450	24,355	55,401	73,522
Tunisia—						
Barytes .. ..	49	—	—	—	—	—
Cuba—						
Barytes .. ..	—	20,354	10,653	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Mexico—						
Barytes .. ..	210,529	383,516	194,063	177,303	156,083	124,655
Argentina—						
Barytes .. ..	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	1,545	866	827
Brazil—						
Barytes .. ..	14,623	21,210	59,606	46,308	47,047	41,723
Peru—						
Barytes .. ..	48,584	118,961	77,561	105,586	102,810	100,330
Japan—						
Barytes .. ..	—	123	—	—	—	325
Chloride .. ..	2	7	—	1	5	—
Sulphate .. ..	179	166	95	62	41	77
Korea (South)—						
Barytes .. ..	<i>n.a.</i>	<i>n.a.</i>	251	1,008	366	936

## IMPORTS OF BARIUM MINERALS, ETC.\*

Long tons

Importing Country and Description	1956	1957	1958	1959	1960	1961
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom—						
Unground barytes .. .. .	31,400	27,076	32,111	19,054	27,640	22,809
Ground barytes .. .. .	18,999	18,608	17,822	17,769	18,071	15,232
Barium compounds, excluding blanc fixe ..	3,021	2,459	2,507	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Canada—						
Barytes .. .. .	1,317	1,635	1,234	1,484	1,804	1,687
Blanc fixe .. .. .	400	332	400	905	1,076	1,021
Trinidad and Tobago—						
Barytes .. .. .	35,622	19,370	36,207	33,647	27,218	<i>n.a.</i>
India—						
Barytes .. .. .	29	68	66	18	(a) 5	(a) 8
Carbonate .. .. .	<i>n.a.</i>	175	206	488	(a) 646	(a) 160
Chloride .. .. .	<i>n.a.</i>	238	357	483	(a) 204	(a) 273
Sulphate .. .. .	<i>n.a.</i>	171	67	105	(a) 150	(a) 66
Pakistan—						
Barytes .. .. .	3,329	5,585	7,645	1,748	3,744	392
Australia (b)—						
Barytes ground .. .. .	285	102	137	503	151	160
Carbonate .. .. .	273	118	170	186	283	204
Chloride .. .. .	196	158	146	171	160	162
Sulphate incl. blanc fixe ..	518	534	490	421	520	530
Other compounds .. .. .	70	91	86	92	126	130
New Zealand—						
Barytes .. .. .	776	886	2,135	1,199	3,990	5,233
<b>OTHER COUNTRIES</b>						
Austria—						
Barytes .. .. .	7,343	5,418	5,627	7,259	9,006	8,665
Carbonate .. .. .	214	190	346	384	503	627
Chloride .. .. .	148	145	79	89	252	315
Sulphate .. .. .	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	334	395	287
Belgium-Luxemburg						
E.U.—						
Barytes and witherite ..	17,470	14,133	20,698	14,432	} 34,015	} 32,199
Barytes, ground .. .. .	5,739	7,556	6,205	6,298		
Sulphate .. .. .	1,524	1,752	1,452	1,477		
Carbonate .. .. .	1,904	2,079	1,575	1,955		
Chloride .. .. .	2,307	2,357	1,782	1,887		
Sulphide .. .. .	2,950	3,757	3,168	3,178	3,379	3,300
Denmark—						
Barytes .. .. .	41	1,020	922	685	841	738
Carbonate .. .. .	226	165	332	306	453	318
Chloride .. .. .	215	142	211	172	157	231
Sulphate .. .. .	983	1,166	1,094	539	435	306
Finland—						
Barytes .. .. .	420	165	345	351	} 349	} 402
Witherite .. .. .	15	—	—	—		
Chloride .. .. .	114	145	130	73		
Carbonate .. .. .	66	116	51	110		
Sulphate .. .. .	183	210	379	471		
France—						
Barytes .. .. .	36,372	25,891	43,592	62,608	54,605	53,501
Witherite .. .. .	615	—	—	—	89	154
Chloride .. .. .	1	—	—	—	11	19
Carbonate .. .. .	—	—	12	—	—	31
Sulphate .. .. .	1,422	954	574	611	720	696

\*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	1956	1957	1958	1959	1960	1961
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
Germany (Federal)—						
Barytes and witherite ..	16,276	23,745	27,175	7,945	14,644	9,804
Carbonate .. ..	—	—	—	763	1,543	1,709
Chloride .. ..	—	256	2	372	158	523
Greece—						
Sulphate .. ..	128	141	150	115	<i>n.a.</i>	<i>n.a.</i>
Iceland—						
Sulphate .. ..	12	7	2	9	12	17
Italy—						
Barytes .. ..	25	39	27	14	196	10,919
Witherite .. ..	498	972	—	1,937	2,574	1
Carbonate .. ..	401	262	253	159	262	29
Chloride .. ..	101	45	88	52	56	—
Sulphate .. ..	670	716	677	522	518	605
Sulphide .. ..	247	—	—	1	—	<i>n.a.</i>
Netherlands—						
Barytes and witherite ..	26,726	22,970	25,166	19,113	} 36,322	} 37,501
Barytes, ground .. ..	4,350	5,040	3,567	4,083		
Carbonate .. ..	1,614	2,053	3,028	3,667		
Chloride .. ..	241	451	261	314		
Sulphate .. ..	1,310	1,355	611	854		
Norway—						
Barytes .. ..	} <i>n.a.</i>	} <i>n.a.</i>	} <i>n.a.</i>	537	593	580
Carbonate .. ..				357	362	461
Chloride .. ..				200	174	169
Sulphate .. ..				241	185	196
Portugal—						
Barytes .. ..	101	127	224	174	59	100
Chloride .. ..	73	81	16	26	95	28
Sulphate .. ..	12	19	17	25	182	145
Sweden—						
Barytes and witherite ..	2,908	3,331	2,835	1,989	2,861	2,038
Sulphate .. ..	1,642	1,695	1,584	1,919	2,520	1,505
Carbonate and chloride	1,069	912	759	1,464	2,275	2,633
Switzerland—						
Barytes .. ..	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	1,931	2,932
Sulphate .. ..	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	1,754	1,954
U.S.S.R.—						
Barytes .. ..	13,500	21,000	23,400	32,300	59,500	70,000
Algeria—						
Barytes .. ..	—	—	6,238	4,230	12,261	<i>n.a.</i>
Sulphate .. ..	1	957	10	1	18	<i>n.a.</i>
Carbonate .. ..	281	181	14	4	2	<i>n.a.</i>
Congo Republic—						
Barytes and witherite ..	—	33	1	45	<i>n.a.</i>	<i>n.a.</i>
Chloride .. ..	5	2	2	92	<i>n.a.</i>	<i>n.a.</i>
Sulphate .. ..	271	453	233	608	<i>n.a.</i>	<i>n.a.</i>
Malagasy Republic—						
Barytes and witherite ..	<i>n.a.</i>	393	291	25	49	—
Morocco—						
Barytes .. ..	952	926	278	10	8	12
South Africa—						
Barytes .. ..	848	672	662	540	798	<i>n.a.</i>
Barium compounds .. ..	227	305	239	297	381	<i>n.a.</i>
Tunisia—						
Barytes .. ..	177	914	624	1,084	374	809
Sulphate .. ..	18	98	4	—	<i>n.a.</i>	<i>n.a.</i>
Cuba—						
Sulphate .. ..	250	183	178	245	<i>n.a.</i>	<i>n.a.</i>
Mexico—						
Barytes .. ..	3,942	1,364	644	896	368	355
Carbonate .. ..	118	201	305	331	445	426
Chloride .. ..	18	126	88	323	310	298

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

Long tons

Importing Country and Description	1956	1957	1958	1959	1960	1961
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
United States—						
Unground barytes .. ..	525,940	743,416	470,144	571,070	571,887	543,000
Ground barytes .. ..	329	378	902	1,467	41	6,221
Witherite .. ..	2,620	2,704	2,181	2,279	1,244	1,603
Carbonate .. ..	1,608	1,378	288	1,692	1,256	1,063
Chloride .. ..	1,230	1,256	1,229	1,348	897	909
Sulphate .. ..	916	1,292	1,405	1,569	1,454	1,230
Argentina—						
Sulphate .. ..	24	38	299	41	109	203
Barium compounds .. ..	236	378	64	176	255	290
Brazil—						
Carbonate .. ..	201	592	293	665	1,026	528
Chloride .. ..	57	151	192	364	363	896
Sulphate .. ..	426	557	177	379	457	585
Chile—						
Barytes .. ..	16	27	28	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Carbonate .. ..	16	1	10	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Chloride .. ..	—	2	1	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Sulphate .. ..	5	3	2	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Colombia—						
Barytes .. ..	3	2	1,614	1,620	440	—
Witherite .. ..	9	4	2	—	—	1
Carbonate .. ..	43	283	35	55	227	358
Chloride .. ..	1	19	2	15	57	4
Sulphate .. ..	2,004	32	2,225	2,685	451	7
Ecuador—						
Sulphate .. ..	<i>n.a.</i>	230	499	359	<i>n.a.</i>	<i>n.a.</i>
Peru—						
Carbonate .. ..	56	60	73	71	223	200
Chloride .. ..	3	41	28	83	105	67
Sulphate .. ..	26	30	38	38	334	70
Uruguay—						
Sulphate .. ..	<i>n.a.</i>	266	159	139	189	<i>n.a.</i>
Venezuela—						
Barytes .. ..	45,391	75,452	67,303	56,941	17,910	3,596
Carbonate .. ..	11	133	21	56	45	48
Chloride .. ..	212	283	317	505	361	618
Sulphate .. ..	37	47	45	50	34	46
Iraq—						
Barytes .. ..	16,628	28,150	12,149	22,207	5,410	<i>n.a.</i>
Japan—						
Barytes .. ..	4,368	6,508	2,540	10,714	18,212	8,863
Turkey—						
Barytes .. ..	41	2	—	319	971	63
Sulphate .. ..	26	16	15	76	19	342
Barium compounds .. ..	11	115	16	153	145	110

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

Long tons

Producing Country	1956	1957	1958	1959	1960	1961
<b>COMMONWEALTH COUNTRIES</b>						
Cyprus (a) .. .. .	958	785	894	1,009	219	—
India .. .. .	4,000	100	5,817	<i>n.a.</i>	<i>n.a.</i>	(b) 11,000
Australia—						
Bentonite .. .. .	1,404	742	37	133	382	587
Bentonitic clay .. .. .	63	187	116	152	190	—
New Zealand .. .. .	1,638	1,573	1,801	2,149	2,165	1,661
<b>OTHER COUNTRIES</b>						
Austria .. .. .	4,477	4,879	3,750	3,090	3,227	3,528
Greece .. .. .	4,000	10,143	17,000	20,000	24,000	<i>n.a.</i>
Italy .. .. .	49,891	38,626	49,905	86,106	124,536	<i>n.a.</i>
Spain .. .. .	2,738	2,247	4,708	6,481	4,761	<i>n.a.</i>
Yugoslavia .. .. .	54	4,793	<i>n.a.</i>	7,675	<i>n.a.</i>	<i>n.a.</i>
Morocco (Northern) .. .. .	881	} 4,897	<i>n.a.</i>	22,025	<i>n.a.</i>	<i>n.a.</i>
Morocco (Southern) .. .. .	<i>n.a.</i>					
South Africa .. .. .	—	—	—	2,609	3,421	4,042
United States (c) .. .. .	1,402,330	1,295,417	1,153,048	1,225,255	1,132,857	1,167,135
Argentina .. .. .	(b) 20,000	24,022	25,716	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Turkey .. .. .	—	—	600	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>

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

(a) Exports of bentonitic clay.

(b) Estimated.

(c) Sold or used by producers.

EXPORTS OF BENTONITE

Long tons

Exporting Country	1956	1957	1958	1959	1960	1961
<b>COMMONWEALTH COUNTRIES</b>						
Cyprus (a) .. ..	958	785	894	1,009	219	—
India .. .. .	<i>n.a.</i>	10	271	455	(b) 153	(b) 184
<b>OTHER COUNTRIES</b>						
Austria .. .. .	566	595	421	2	74	32
France .. .. .	437	1,441	2,370	3,673	3,790	<i>n.a.</i>
Germany (Federal) ..	<i>n.a.</i>	<i>n.a.</i>	1,637	891	189	1,127
Italy .. .. .	11,497	9,357	8,747	11,548	10,560	19,053
Yugoslavia .. .. .	914	4,794	10,125	6,878	11,595	9,405
Algeria .. .. .	26,960	31,118	36,150	26,014	27,650	<i>n.a.</i>
Morocco .. .. .	121	295	8,179	12,263	11,898	7,948
United States .. ..	<i>n.a.</i>	66,000	40,000	42,192	51,867	39,118
Argentina .. .. .	217	456	940	2,735	2,153	4,595

(a) Bentonitic clay.

(b) Years ended March 31 following that stated.

IMPORTS OF BENTONITE

Long tons

Importing Country	1956	1957	1958	1959	1960	1961
<b>COMMONWEALTH COUNTRIES</b>						
India .. .. .	<i>n.a.</i>	79	24	45	(c) 133	(c) 82
Australia (a) (b) ..	5,432	4,668	5,476	4,944	6,474	8,694
<b>OTHER COUNTRIES</b>						
Austria .. .. .	1,566	2,226	3,764	2,837	3,407	4,669
France .. .. .	15,318	9,808	31,493	31,407	22,694	<i>n.a.</i>
Germany (Federal) ..	<i>n.a.</i>	<i>n.a.</i>	1,782	1,934	3,053	3,828
Italy .. .. .	5,792	6,088	5,109	6,196	4,784	3,919
Portugal .. .. .	420	619	814	652	<i>n.a.</i>	1,050
Sweden .. .. .	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	7,190	9,640	9,649
Algeria .. .. .	53	777	5,461	7,841	6,063	<i>n.a.</i>
Morocco .. .. .	497	178	357	100	13	37
United States .. ..	417	119	49	828	197	652
Colombia .. .. .	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	1,254	2,803	2,301
Ecuador .. .. .	<i>n.a.</i>	643	189	213	<i>n.a.</i>	<i>n.a.</i>
Venezuela .. .. .	<i>n.a.</i>	20,313	8,651	7,159	3,114	3,722

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

(b) Including bentonitic clay.

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

Long tons

Producing Country	1956	1957	1958	1959	1960	1961
<b>COMMONWEALTH COUNTRIES</b>						
Kenya .. .. .	—	5	4	2	1	1
Northern Rhodesia .. .. .	12	5	11	2	2	—
Southern Rhodesia .. .. .	541	511	296	393	481	354
Swaziland .. .. .	—	—	—	2	5	6
Uganda .. .. .	88	70	77	209	419	997
India (b) .. .. .	3,000	1,121	536	—	893	790
Australia .. .. .	318	395	247	317	190	262
<b>OTHER COUNTRIES</b>						
Portugal .. .. .	218	170	46	36	29	34
Sweden .. .. .	—	—	25	(b) 37	—	—
Congo Republic .. .. .	r 1,660	r 1,487	r 949	r 250	330	140
Malagasy Republic .. .. .	151	265	161	423	626	746
Mozambique .. .. .	842	1,670	1,036	1,392	1,425	943
Ruanda-Urundi .. .. .	40	94	45	166	330	140
Somali Republic (a) .. .. .	16	—	—	—	—	—
South Africa .. .. .	119	635	412	181	291	171
South West Africa .. .. .	405	345	220	152	231	225
United States (c) .. .. .	397	465	(d) 460	(d) 379	(d) 454	(d) 1,002
Argentina .. .. .	1,537	1,402	896	576	659	(e) 690
Brazil .. .. .	2,073	1,296	r 1,173	r 865	1,669	n.a.
Afghanistan .. .. .	27	13	—	—	10	—
<b>TOTAL* .. .. .</b>	<b>11,500</b>	<b>10,000</b>	<b>6,600</b>	<b>r 5,400</b>	<b>8,000</b>	<b>8,000</b>

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

(a) Exports. Former British Protectorate only.

(b) Imports into the United States.

(c) Shipments from mine.

(d) Including lower grade beryllium ore as follows: 1958—37 long tons; 1959—87 long tons; 1960—237 long tons; 1961—719 long tons.

(e) United States Bureau of Mines' estimate.

EXPORTS OF BERYL

Long tons

Exporting Country	1956	1957	1958	1959	1960	1961
<b>COMMONWEALTH COUNTRIES</b>						
Rhodesia & Nyasaland ..	610	457	288	272	533	381
Uganda .. .. .	96	73	74	171	382	871
India (a) .. .. .	3,000	1,121	536	—	893	790
Australia .. .. .	309	397	146	—	148	167
<b>OTHER COUNTRIES</b>						
Italy .. .. .	—	—	—	67	179	37
Portugal .. .. .	233	156	52	79	29	—
Congo Republic ..	<i>n.a.</i>	400	1,257	446	412	(a) 196
Malagasy Republic ..	229	786	112	232	607	827
Morocco .. .. .	11	—	10	—	—	—
Mozambique .. .. .	860	1,330	1,001	1,496	1,402	(a) 977
Somali Republic (b) ..	16	—	—	—	—	—
South Africa .. .. .	195	478	382	95	217	64
South West Africa ..	354	278	259	99	89	91
Argentina .. .. .	2,091	1,497	527	2,978	1,033	1,329
Brazil .. .. .	1,912	2,212	1,401	2,613	3,417	3,128

(a) Imports into the United States.

(b) Former British Protectorate only.

IMPORTS OF BERYL\*

Long tons

Importing Country	1956	1957	1958	1959	1960	1961
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom (a) ..	441	909	295	255	18	26
<b>OTHER COUNTRIES</b>						
France .. .. .	76	1,119	1,080	545	861	776
Italy .. .. .	—	—	10	—	779	925
United States .. .. .	11,046	6,509	4,106	7,177	7,985	7,603

\*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	1956	1957	1958	1959	1960	1961
<b>COMMONWEALTH COUNTRIES</b>						
Uganda—						
Ore ( <i>Bi content</i> ) ..	—	1	7	7	2	1
Canada—						
Metal plus content of bullion and concen- trates exported ..	128	143	184	149	189	214
Australia—						
Concentrates ( <i>Bi content</i> ) .. ..	r 2	r 1	1	—	—	—
<b>OTHER COUNTRIES</b>						
France—						
Mispickel ( <i>Bi content</i> ) ..	50	44	50	45	50	52
Spain—						
Ore ( <i>Bi content</i> ) ..	66	93	50	27	15	12
Sweden—						
Metal (c) .. ..	39	54	49	27	36	36
Yugoslavia—						
Metal .. ..	109	98	76	89	103	97
Mozambique—						
Ore ( <i>Bi content</i> ) ..	—	3	1	10	14	22
South Africa—						
Ore ( <i>Bi content</i> ) ..	—	19	1	—	—	—
South West Africa—						
Ore .. ..	—	1	1	1	—	1
Mexico—						
Ore ( <i>Bi content</i> ) ..	621	348	187	235	268	1,047
Argentina—						
Concentrates ( <i>Bi content</i> ) (a) ..	9	21	26	60	n.a.	—
Bolivia (b)—						
Ore, etc. ( <i>Bi content</i> ) ..	33	40	109	r 218	180	208
Peru—						
Concentrates ( <i>Bi content</i> ) .. ..	1	10	9	} r 329	408	467
Lead bars ( <i>Bi content</i> ) ..	130	92	131			
Metal .. ..	152	257	240			
Korea (South)—						
Ore ( <i>Bi content</i> ) ..	177	107	89	101	142	149

\*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.

## EXPORTS OF BISMUTH, ETC.

Long tons

Exporting Country and Description	1956	1957	1958	1959	1960	1961
COMMONWEALTH COUNTRIES						
United Kingdom—						
Bismuth.. .. .	529	328	323	407	380	382
Bismuth salts .. ..	144	173	170	173	199	214
Uganda—						
Ore ( <i>Bi content</i> ) ..	—	—	(8 cwt.)	6	4	—
Canada—						
Bismuth.. .. .	59	64	r 157	r 134	128	174
OTHER COUNTRIES						
Belgium-Luxemburg						
E.U.—						
Bismuth.. .. .	5	1	27	63	51	51
France—						
Bismuth and alloys including scrap ..	59	64	34	58	54	64
Germany (Federal)—						
Bismuth.. .. .	74	81	158	205	152	136
Netherlands—						
Bismuth salts .. ..	n.a.	15	15	21	16	21
Spain—						
Bismuth.. .. .	11	48	35	25	—	—
Yugoslavia—						
Bismuth.. .. .	107	90	67	67	78	70
South Africa—						
Ore .. .. .	2	106	4	70	3	1
Mexico—						
Bismuth, refined ..	105	124	139	95	90	91
do. impure bars ..	588	231	134	198	198	1,323
United States—						
Matte, residues, etc. ..	5	51	16	89	—	67
Metal and alloys ..	128	71	141	80	70	75
Argentina—						
Ore .. .. .	6	22	15	48	—	—
Bolivia—						
Ore, etc. ( <i>Bi content</i> ) ..	33	40	109	218	180	208
Peru—						
Bars, etc. ( <i>Bi content</i> ) ..	297	338	346	277	339	326
Japan—						
Bismuth.. .. .	9	1	—	—	10	48
Korea (South)—						
Bismuth, unwrought ..	158	131	100	73	57	56

## IMPORTS OF BISMUTH, ETC.

Long tons

Importing Country and Description	1956	1957	1958	1959	1960	1961
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom—						
Bismuth .. .. .	323	424	407	455	471	216
Unwrought alloys (b) ..	564	278	128	123	124	340
Canada—						
Bismuth .. .. .	11	4	6	6	3	8
Bismuth salts .. .. .	(£7,807)	(£9,231)	(£7,524)	5	4	6
India—						
Bismuth and alloys ..	<i>n.a.</i>	19	42	49	(a) 38	(a) 60
Australia (c)—						
Bismuth .. .. .	16	19	16	17	16	17
Bismuth salts .. .. .	6	4	6	12	10	12
New Zealand—						
Bismuth and its salts ..	3	3	3	4	2	1
<b>OTHER COUNTRIES</b>						
Belgium-Luxemburg						
E.U.—						
Bismuth .. .. .	6	1	4	22	26	40
Bismuth salts .. ..	63	46	63	62	77	66
Denmark—						
Bismuth salts .. .. .	14	10	11	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
France—						
Bismuth and alloys including scrap ..	306	314	311	445	515	508
Germany (Federal)—						
Bismuth .. .. .	120	215	237	249	212	232
Italy—						
Bismuth .. .. .	26	18	17	27	38	35
Bismuth salts .. .. .	8	3	4	2	11	<i>n.a.</i>
Netherlands—						
Bismuth salts .. .. .	13	39	54	67	84	60
Spain—						
Bismuth .. .. .	1	—	—	1	13	23
Bismuth salts .. .. .	—	3	—	1	<i>n.a.</i>	<i>n.a.</i>
Morocco—						
Bismuth salts .. .. .	6	7	8	7	14	15
Mexico—						
Bismuth salts .. .. .	8	7	6	5	8	8
United States—						
Bismuth .. .. .	413	374	336	193	515	341
Argentina—						
Bismuth and its salts ..	14	2	1	1	2	5
Brazil—						
Bismuth .. .. .	2	2	1	2	3	5
Bismuth salts .. .. .	14	12	8	9	23	18
Chile—						
Bismuth .. .. .	—	4	2	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Colombia—						
Bismuth salts .. .. .	4	4	5	5	8	4
Peru—						
Bismuth salts .. .. .	1	1	1	1	—	1
Japan—						
Bismuth .. .. .	—	—	—	—	8	2
Turkey—						
Bismuth salts .. .. .	8	4	1	8	3	4

(a) Years ended March 31 following that stated.

(b) Containing more than 50% by weight of bismuth.

(c) Years ended June 30 of that stated.

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

Long tons

Producing Country and Description	1956	1957	1958	1959	1960	1961
Italy— Boric acid .. ..	3,633	3,489	3,405	2,450	2,615	1,744
United States (a)— Borates .. ..	486,319	483,146	471,615	553,523	571,956	538,047
Argentina— Borates .. ..	20,000	21,429	r 10,480	10,479	<i>n.a.</i>	<i>n.a.</i>
Chile— Boron minerals ..	9,037	5,696	8,296	5,665	2,873	<i>n.a.</i>
Turkey— Borates .. ..	32,948	26,946	68,306	78,985	68,736	63,999

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	1956	1957	1958	1959	1960	1961
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom—						
Borax .. .. .	595	270	802	1,149	935	656
Hong Kong—						
Borax .. .. .	1	11	36	95	21	28
India—						
Borax .. .. .	—	—	1	1	(d) —	(d) —
<b>OTHER COUNTRIES</b>						
Austria—						
Boric acid .. ..	1	3	1	4	—	—
Perborate of sodium ..	2,417	2,746	n.a.	2,587	n.a.	2,077
Belgium-Luxemburg E.U.—						
Borax .. .. .	1,067	669	199	14	33	102
Boric acid .. ..	19	4	5	4	8	10
Borates and perborates	14	119	20	666	1,370	2,881
France—						
Borax, refined .. ..	614	604	591	1,241	3,878	3,094
Boric acid .. ..	136	158	115	178	658	3,056
Borates and perborates	44	1,697	392	969	911	955
Germany (Federal)—						
Borates .. .. .	1,325	456	(b) 129	(b) 354	(b) 161	(b) 79
Boric acid .. ..	307	206	156	173	107	111
Perborate of sodium ..	11,107	11,192	(c) 9,171	(c) 9,132	(c) 8,522	(c) 8,432
Italy—						
Boric acid crude .. ..	—	1	—	3	—	} 3,578
do. refined .. ..	444	634	1,451	677	1,731	
Borax, refined .. ..	1,912	3,065	4,093	2,080	1,150	905
Perborates .. .. .	3	—	575	355	974	1,232
Netherlands—						
Borax .. .. .	351	406	359	425	202	167
Sweden—						
Perborate of sodium ..	59	52	79	157	47	16
Switzerland—						
Perborate of sodium ..	n.a.	n.a.	n.a.	n.a.	2,830	2,242
United States—						
Borax, borates and boric acid .. ..	217,612	191,515	210,343	226,494	268,398	240,421
Argentina—						
Borates of calcium and sodium .. ..	—	3,689	3,030	2,006	981	2,239
Japan—						
Borax .. .. .	2	5	2	2	5	4
Boric acid .. ..	20	11	3	53	21	5
Turkey—						
Borates .. .. .	(a) 17,500	21,646	50,452	60,525	60,552	63,305

(a) Estimated.

(d) Years ended March 31 following that stated.

(b) Borax only.

(c) Including other borates and perborates.

## IMPORTS OF BORATES

Long tons

Importing Country and Description	1956	1957	1958	1959	1960	1961
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom—						
Boron minerals .. ..	15,852	15,883	14,889	21,967	23,712	21,438
Borax, crude .. ..	35	—	—	—	—	—
do. refined .. ..	23,250	25,724	23,708	25,616	28,699	22,412
Boric acid .. ..	3,079	2,975	3,472	3,645	6,799	3,773
Rhodesia & Nyasaland—						
Borax .. ..	64	76	121	117	134	117
Boric acid .. ..	4	5	3	12	12	13
Canada—						
Borax .. ..	9,248	9,182	9,077	8,999	8,942	10,465
Boric acid .. ..	1,663	1,420	1,457	2,017	2,082	2,018
Hong Kong—						
Borax, refined .. ..	5,811	2,182	3,149	3,753	3,147	2,210
India—						
Borax .. ..	4,329	3,935	4,881	5,731	(b) 4,974	(b) 7,206
Boric acid .. ..	n.a.	875	303	717	(b) 1,042	(b) 1,046
Pakistan—						
Borax .. ..	516	267	7	651	644	404
Australia (a)—						
Boron minerals .. ..	n.a.	n.a.	n.a.	n.a.	783	1,093
Boron salts .. ..	3,171	2,545	2,519	3,495	3,940	4,311
Boric acid .. ..	985	1,150	1,049	1,080	1,427	1,046
New Zealand—						
Borax, crude .. ..	862	1,101	894	752	700	1,088
Boric acid .. ..	213	623	230	248	301	388
Irish Republic—						
Borax .. ..	845	1,299	933	779	914	1,001
<b>OTHER COUNTRIES</b>						
Austria—						
Borax, crude .. ..	3,899	3,483	3,552	4,259	3,047	4,103
do. refined .. ..	1	4	—	3	2	1
Boric acid .. ..	6	6	6	2	1	6
Perborate of sodium .. ..	—	1	n.a.	4	6	5
Belgium-Luxemburg						
E.U.—						
Borax .. ..	1,456	1,572	1,719	3,464	3,878	4,413
Boric acid .. ..	410	312	257	297	1,039	1,038
Borates and perborates	3,400	4,260	4,136	2,662	2,623	2,514
Denmark—						
Boron minerals .. ..	343	879	437	723	706	569
Borax .. ..	63	60	87	96	110	184
Boric acid .. ..	93	112	91	92	78	98
Borates and perborates	1,419	1,492	1,428	1,785	1,931	2,073
Finland—						
Borax .. ..	1,026	315	773	1,243	1,026	780
Boric acid .. ..	112	93	111	81	172	137
France—						
Boron minerals .. ..	18,082	13,798	21,492	20,096	25,721	25,584
Borax refined .. ..	9,951	10,537	11,574	10,472	13,400	13,990
Boric acid .. ..	1,184	761	2,767	745	1,521	1,589
Borates and perborates	821	625	502	568	559	560
Germany (Federal)—						
Boron minerals .. ..	30,977	25,622	32,318	26,810	39,874	37,736
Boric acid .. ..	4,891	4,615	4,356	5,399	7,363	6,275
Borates .. ..	9,016	8,819	(c) 9,434	(c) 11,704	(c) 13,228	(c) 12,580
Perborate of sodium .. ..	412	350	(d) 1	(d) 74	(d) 42	(d) 214

(a) Years ended June 30 of that stated.

(c) Borax only.

(b) Years ended March 31 following that stated.

(d) Including other borates and perborates

## IMPORTS OF BORATES (cont.)

Long tons

Importing Country and Description	1956	1957	1958	1959	1960	1961
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
Greece—						
Borax .. .. .	106	74	8	54	<i>n.a.</i>	<i>n.a.</i>
Boric acid .. ..	19	9	5	22	<i>n.a.</i>	<i>n.a.</i>
Italy—						
Boron minerals .. ..	15,901	10,059	11,925	18,961	28,291	36,631
Borax, refined .. ..	2,050	1,797	2,742	2,650	3,603	3,430
Borates .. .. .	30	—	2	5	1	378
Perborates .. .. .	554	1,009	—	99	—	168
Netherlands—						
Borax .. .. .	8,380	10,028	8,405	11,653	11,320	12,752
Boric acid .. .. .	712	793	850	1,160	934	1,572
Perborates .. .. .	839	852	887	1,147	2,213	3,390
Norway—						
Borax .. .. .	1,193	1,317	1,481	1,265	1,552	2,241
Boric acid .. .. .	1,415	1,492	1,824	48	629	342
Perborate of sodium ..	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	1,425	1,285	1,573
Portugal—						
Boric acid .. .. .	159	190	212	75	123	83
Borax .. .. .	830	760	1,090	821	1,056	776
Spain—						
Boric acid .. .. .	2	5	20	—	5	—
Borates .. .. .	6	34	—	—	6	9
Sweden—						
Borax .. .. .	3,018	2,887	2,499	2,696	2,134	2,879
Boric acid .. .. .	317	283	199	344	281	349
Perborate of sodium ..	1,666	1,622	3,586	1,027	2,416	3,049
Switzerland—						
Borax .. .. .	3,313	4,364	3,770	2,595	(a) 373	(a) 86
Boric acid .. .. .					365	253
Borates .. .. .	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	4,039	4,010
Perborates .. .. .					118	298
Yugoslavia—						
Boric acid .. .. .	34	19	1,088	94	179	339
Algeria—						
Borax .. .. .	48	100	166	83	96	<i>n.a.</i>
Boric acid .. .. .	7	8	13	11	7	<i>n.a.</i>
Perborates .. .. .	33	31	33	28	23	<i>n.a.</i>
Angola—						
Borax .. .. .	6	8	20	23	17	38
Congo Republic—						
Boric acid .. .. .	64	5	5	9	<i>n.a.</i>	<i>n.a.</i>
Borax .. .. .	56	82	54	30	<i>n.a.</i>	<i>n.a.</i>
Perborates .. .. .	87	46	209	131	<i>n.a.</i>	<i>n.a.</i>
Egypt—						
Borax .. .. .	213	225	484	313	274	<i>n.a.</i>
Boric acid .. .. .	21	47	73	140	169	<i>n.a.</i>
Morocco—						
Borax .. .. .	60	50	113	108	95	88
Perborates .. .. .	42	26	22	12	27	26
Mozambique—						
Borax .. .. .	7	4	4	8	7	<i>n.a.</i>
Boric acid .. .. .	1	3	1	—	3	<i>n.a.</i>
South Africa—						
Borax .. .. .	1,202	1,440	1,188	1,320	1,194	<i>n.a.</i>
Boric acid .. .. .	224	261	177	172	293	<i>n.a.</i>
Tunisia—						
Borax etc. .. .. .	1	2	2	29	43	42
Cuba—						
Borax .. .. .	276	430	340	316	<i>n.a.</i>	<i>n.a.</i>
Boric acid .. .. .	100	79	95	127	<i>n.a.</i>	<i>n.a.</i>

(a) Crude borax only.

## IMPORTS OF BORATES (cont.)

Long tons

Importing Country and Description	1956	1957	1958	1959	1960	1961
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
Mexico—						
Borax .. .. .	2,806	3,262	3,595	4,209	4,638	4,141
Boric acid .. .. .	624	506	432	535	744	737
Brazil—						
Boron minerals .. .. .	1,813	1,352	1,410	1,110	694	1,077
Boric acid .. .. .	761	975	575	686	386	586
Borax .. .. .	4,518	1,612	2,462	3,848	3,440	4,479
Borates .. .. .	16	71	15	11	4	2
Colombia—						
Borax .. .. .	484	435	249	217	370	375
Boric acid .. .. .	169	235	137	148	189	225
Perborate of sodium .. .. .	25	51	46	82	108	63
Ecuador—						
Borax .. .. .	8	9	8	32	<i>n.a.</i>	<i>n.a.</i>
Boric acid .. .. .	6	10	10	8	<i>n.a.</i>	<i>n.a.</i>
Peru—						
Borax .. .. .	338	330	355	438	435	324
Boric acid .. .. .	80	60	77	110	113	104
Uruguay—						
Borates .. .. .	<i>n.a.</i>	283	165	408	407	<i>n.a.</i>
Venezuela—						
Borax .. .. .	405	155	168	211	196	262
Boric acid .. .. .	100	90	67	105	74	207
Iran (a)—						
Borax .. .. .	403	155	221	163	—	<i>n.a.</i>
Boric acid .. .. .	5	8	<i>n.a.</i>	11	5	<i>n.a.</i>
Japan—						
Borax .. .. .	10,773	7,919	10,545	13,249	14,739	17,164
Boric acid .. .. .	1,909	2,250	2,455	4,715	4,943	5,032
Korea (South)—						
Borax .. .. .	<i>n.a.</i>	<i>n.a.</i>	139	189	367	296
Philippine Republic—						
Boric acid .. .. .	33	99	87	93	49	36
Syria—						
Borax .. .. .	39	37	94	50	<i>n.a.</i>	<i>n.a.</i>
Boric acid .. .. .	7	3	4	2	<i>n.a.</i>	<i>n.a.</i>
Thailand—						
Borax .. .. .	<i>n.a.</i>	118	702	445	300	565
Boric acid .. .. .	15	41	25	22	13	97
Turkey—						
Borax .. .. .	158	46	88	251	278	235
Boric acid .. .. .	33	5	12	3	31	48

(a) Years ended March 20 following that stated.



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

Lb. avdp.

Producing Country	1956	1957	1958	1959	1960	1961
France (a) .. ..	2,831,000	3,280,000	3,549,000	3,770,000	4,430,000	4,039,000
Italy .. ..	1,117,644	1,549,534	1,211,892	1,574,308	2,816,689	<i>n.a.</i>
Spain .. ..	316,815	478,659	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
United States (a) (b) ..	196,730,115	191,971,145	176,397,000	195,483,000	175,010,000	180,798,000
Israel .. ..	<i>n.a.</i>	(c)1,075,000	1,687,000	4,000,000	5,292,000	<i>n.a.</i>
Japan .. ..	2,751,000	2,529,000	3,296,000	3,474,000	4,301,000	6,120,000

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

(a) Sales.

(b) Including bromine content of compounds.

(c) Estimated.

**EXPORTS OF BROMINE, ETC.**

Lb. avdp.

Exporting Country and Description	1956	1957	1958	1959	1960	1961
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom— Bromides .. ..	537,500	533,300	376,000	481,000	698,000	647,700
<b>OTHER COUNTRIES</b>						
Belgium-Luxemburg						
E.U.—						
Bromine .. ..	—	—	4,400	—	—	—
Bromides, etc. .. ..	4,630	7,716	4,600	1,500	17,800	700
France—						
Bromine .. ..	176,590	357,369	347,200	901,000	1,303,200	901,200
Bromides .. ..	1,078,942	1,099,886	1,455,100	1,901,500	2,289,100	1,380,500
Germany (Federal)—						
Bromine .. ..	227,297	650,364	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Bromides .. ..	171,740	113,097	159,200	152,100	194,900	168,900
Italy—						
Bromine .. ..	7,271	3,527	—	—	59,609	—
Bromides .. ..	9,017	441	3,298	3,748	452	500
Netherlands—						
Bromides, etc. .. ..	275,578	429,901	798,000	1,082,000	<i>n.a.</i>	<i>n.a.</i>
United States—						
Bromine and compounds (a) .. ..	6,111,363	10,510,719	10,071,033	9,171,539	10,241,178	11,120,085
Israel—						
Bromine .. ..	—	961,000	1,687,000	2,209,000	2,601,000	2,313,000
Japan—						
Bromine .. ..	247	2,180	3,221	68	534	22,300
Bromine compounds .. ..	63,090	33,711	44,000	33,281	31,268	27,818

(a) Including organic compounds.

## IMPORTS OF BROMINE, ETC.

Lb. avdp.

Importing Country and Description	1956	1957	1958	1959	1960	1961
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom—						
Bromine .. ..	56,000	407,680	672,000	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Canada—						
Bromine .. ..	26,462	19,065	17,397	66,434	70,301	62,007
Bromide of soda ..	55,579	51,933	79,806	87,918	67,353	106,103
India—						
Bromine .. ..	<i>n.a.</i>	5,500	900	560	(b) 162,700	(b) 302,000
Bromide of potash ..	<i>n.a.</i>	38,000	6,400	220	(b) 150	(b) 1,850
Bromide of soda ..	<i>n.a.</i>	1,600	2,100	—	(b) 4	(b) 50
Australia (a)—						
Bromine .. ..	(£186)	(£186)	(£491)	(£412)	—	—
Bromate and bromide of potash	133,930	120,089	118,648	69,678	165,198	124,541
do. do. other	71,565	83,797	44,509	35,211	91,219	83,009
<b>OTHER COUNTRIES</b>						
Belgium-Luxemburg						
E.U.—						
Bromine .. ..	14,771	33,731	20,300	30,200	18,300	15,400
Bromides, etc. ..	541,235	574,745	661,200	534,800	749,100	911,400
Denmark—						
Bromide of potash ..	10,582	9,921	14,300	12,300	23,400	11,200
Bromide of soda ..	26,015	45,856	58,900	82,500	87,100	24,300
Other bromides ..	53,793	42,549	45,000	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
France—						
Bromides .. ..	220	11,684	400	2,600	1,100	3,100
Germany (Federal)—						
Bromine .. ..	5,732	329,591	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Bromides .. ..	19,842	31,306	149,900	90,600	25,100	22,900
Greece—						
Bromine .. ..	2,335	1,803	842	717	<i>n.a.</i>	<i>n.a.</i>
Italy—						
Bromine .. ..	220,477	76,942	110,700	311,407	698,788	1,023,600
Bromides .. ..	22,392	33,070	4,561	25,108	33,711	22,500
Netherlands—						
Bromine .. ..	227,076	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Bromides, etc. ..	233,690	288,806	335,000	423,000	403,000	247,000
Norway—						
Bromine .. ..	1,351	2,915	1,691	1,768	2,000	2,000
Portugal—						
Bromine .. ..	604	1,411	653	589	<i>n.a.</i>	1,100
Bromide of soda ..	1,413	776	1,063	745		
Bromide of potash ..	3,532	7,022	4,698	6,169	4,000	20,700
Bromide of ammonium	384	88	697	646		
Spain—						
Bromides .. ..	8,902	5,578	6,662	2	<i>n.a.</i>	<i>n.a.</i>
Sweden—						
Bromine .. ..	4,000	4,000	9,000	<i>n.a.</i>	7,000	22,000
Algeria—						
Bromine .. ..	—	3,527	—	200	—	<i>n.a.</i>
Bromides .. ..	17,417	18,298	26,700	10,600	20,700	<i>n.a.</i>
Congo Republic—						
Bromides .. ..	110,948	1,400	1,285	198	<i>n.a.</i>	<i>n.a.</i>
Morocco—						
Bromides .. ..	9,017	11,627	9,830	6,934	4,672	11,691
South Africa—						
Bromine .. ..	1,295	1,879	899	1,407	6,461	<i>n.a.</i>
Cuba—						
Bromine .. ..	562	30,377	6,788	<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.

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

Lb. avdp.

Importing Country and Description	1956	1957	1958	1959	1960	1961
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
Mexico—						
Bromine .. .. .	157,968	323,462	130,139	85,085	151,841	49,423
Bromides of potash and soda .. .. .	29,260	31,098	39,388	31,006	59,298	72,087
United States—						
Bromine and compounds	2,918	1,512	11,933	26,200	145,943	293,582
Argentina—						
Bromine and compounds	86,062	194,818	249,828	151,142	192,891	206,086
Brazil—						
Bromine .. .. .	1,468	2,258	1,142	6,508	2,469	1,512
Bromides .. .. .	207,810	70,592	133,073	311,418	779,923	672,000
Chile—						
Bromine .. .. .	79	289	293	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Bromides .. .. .	734	963	2,704	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Colombia—						
Bromine .. .. .	1,243	1,151	146	60	—	—
Bromides, etc. ..	8,514	24,734	11,914	21,160	17,701	14,125
Peru—						
Bromine .. .. .	265	362	163	478	604	522
Bromides .. .. .	17,586	10,655	10,781	11,584	3,413	5,593
Iran (a)—						
Bromides .. .. .	13,302	13,444	6,195	456	4,850	<i>n.a.</i>
Japan—						
Bromine compounds ..	6,160	2,635	3,109	201	—	7
Philippine Republic—						
Bromide of potash ..	18,488	22,115	4,535	24,295	18,973	<i>n.a.</i>
Thailand—						
Bromide of potash ..	5,483	3,818	20,704	20,386	17,245	25,513
Turkey—						
Bromine .. .. .	176	4,023	40	1,188	2,015	456
Bromides .. .. .	131,237	47,278	46,244	8,093	3,497	3,622

(a) Years ended March 20 following that stated.

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

Long tons

Producing Country	1956	1957	1958	1959	1960	1961
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom ..	112	102	124	138	105	97
Northern Rhodesia ..	52	56	17	—	26	19
Canada (b) .. ..	1,044	1,057	784	964	1,052	1,071
Australia .. ..	276	393	353	341	301	302
<b>OTHER COUNTRIES</b>						
Austria .. .. .	2	11	11	20	15	19
Belgium .. .. .	664	600	960	1,200	900	1,000
France .. .. .	107	173	172	240	250	246
Germany (Federal) ..	288	274	314	413	403	425
Italy .. .. .	186	234	201	246	262	341
Netherlands (e) .. ..	16	34	40	40	40	40
Norway .. .. .	124	109	107	127	108	103
Poland (g) .. .. .	242	250	256	265	280	290
Spain .. .. .	11	9	6	6	12	25
U.S.S.R. (g) .. .. .	300	400	435	449	462	490
Yugoslavia .. .. .	8	25	25	32	38	(g) 39
Congo Republic .. ..	273	407	482	467	497	522
South West Africa (a) ..	1,039	1,268	1,200	578	773	780
Guatemala .. .. .	48	37	23	—	55	42
Mexico (c) .. .. .	845	747	758	565	1,162	764
United States—						
Metal (d) .. .. .	4,738	4,710	4,318	3,840	4,545	4,439
Peru (f) .. .. .	48	46	85	n.a.	n.a.	n.a.
Japan .. .. .	395	390	430	483	559	713
<b>TOTAL* .. .. .</b>	<b>9,000</b>	<b>9,500</b>	<b>9,000</b>	<b>9,000</b>	<b>10,000</b>	<b>10,000</b>

\*In the case of South West Africa and Mexico the metal is 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.

- (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. In 1955 secondary (metal and cadmium content of compounds) amounted to 128 long tons.
- (e) Estimate. Source: "Metallgesellschaft".
- (f) Including cadmium content of concentrates.
- (g) Estimate. Source: United States Bureau of Mines.

## EXPORTS OF CADMIUM, ETC.

Long tons

Exporting Country and Description	1956	1957	1958	1959	1960	1961
<b>COMMONWEALTH COUNTRIES</b>						
Rhodesia & Nyasaland—						
Metal .. .. .	17	48	35	6	5	5
Canada .. .. .	858	867	564	884	918	888
Australia (a) .. ..	162	182	252	141	120	8
<b>OTHER COUNTRIES</b>						
Belgium-Luxemburg						
E.U.—						
Metal .. .. .	164	249	453	675	} 707	888
Scrap .. .. .	1	2	4	4		
France—						
Cadmium (incl. scrap) ..	14	2	1	5	17	23
Cadmium sulphide ..	1	1	1	—	—	5
Germany (Federal)—						
Cadmium .. .. .	95	57	57	83	106	77
Cadmium oxide ..	7	16	13	21	32	24
Italy—						
Cadmium (incl. scrap) ..	126	70	24	35	23	41
Cadmium salts .. ..	2	—	5	1	21	n.a.
Norway .. .. .	(d) 128	(d) 89	(d) 70	133	90	92
U.S.S.R. .. .. .	217	210	254	314	899	1,040
Congo Republic .. ..	168	443	425	576	(d) 500	(d) 500
South West Africa (b) ..	1,039	1,267	1,200	578	773	780
Mexico (c) .. .. .	730	746	695	468	1,094	696
United States—						
Metal, alloys, dross, flue dust, etc. .. .. .	573	309	259	402	1,093	313
Peru .. .. .	13	18	49	71	71	93
Japan .. .. .	152	116	114	57	4	22

(a) Years ended June 30 of that stated.

(b) Cadmium content of concentrates exported for treatment.

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

(d) Estimated.

## IMPORTS OF CADMIUM, ETC.

Long tons

Importing Country and Description	1956	1957	1958	1959	1960	1961
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom—						
Metal .. .. .	756	849	824	1,127	1,389	1,149
India—						
Cadmium .. .. .	<i>n.a.</i>	16	61	96	(a) 77	(a) 71
Australia (b)—						
Cadmium salts ..	2	1	1	2	—	—
<b>OTHER COUNTRIES</b>						
Belgium-Luxemburg						
E.U.—						
Metal .. .. .	41	37	63	74	} 112	122
Scrap .. .. .	1	15	10	2		
France—						
Cadmium .. .. .	358	398	438	389	655	641
Cadmium sulphide ..	20	15	14	14	25	22
Germany (Federal)—						
Cadmium .. .. .	604	472	521	630	942	797
Cadmium oxide .. ..	7	8	12	18	20	31
Italy—						
Cadmium .. .. .	10	9	—	36	92	58
Cadmium sulphide ..	2	4	5	5	10	<i>n.a.</i>
Sweden .. .. .	55	115	86	137	104	129
U.S.S.R. .. .. .	300	300	300	300	283	329
Yugoslavia .. .. .	7	6	4	2	1	1
Algeria .. .. .	1	1	—	1	1	<i>n.a.</i>
United States—						
Cadmium .. .. .	1,391	708	447	731	420	482
Flue dust (cadmium content) .. .. .	648	625	544	689	831	107
Argentina—						
Cadmium and salts ..	—	—	1	2	1	5
Brazil—						
Cadmium .. .. .	13	4	28	30	16	38
Cadmium salts .. ..	4	1	—	—	—	—

(a) Years ended March 31 following that stated.

(b) Years ended June 30 of that stated.

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

Long tons

Producing Country	1956	1957	1958	1959	1960	1961
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom .. .. .	12,763,000	11,962,000	11,666,000	12,591,000	13,280,000	14,150,000
Kenya .. .. .	183,596	202,630	r 236,113	r 308,002	335,766	325,000
Nigeria .. .. .	—	n.a.	(d) 112,990	120,700	155,000	327,000
Northern Rhodesia .. .. .	111,000	172,000	187,000	134,000	125,000	120,000
Nyasaland .. .. .	—	n.a.	39,000	34,219	30,000	n.a.
Southern Rhodesia .. .. .	459,000	476,000	596,000	n.a.	n.a.	n.a.
Uganda .. .. .	58,957	85,434	104,447	80,332	71,056	65,000
Canada (a) .. .. .	4,483,646	5,400,980	5,494,126	5,611,148	5,167,165	5,486,757
Jamaica .. .. .	130,000	140,000	176,000	194,000	209,000	213,000
Trinidad .. .. .	137,100	130,800	147,400	177,300	174,400	96,500
Ceylon .. .. .	83,371	48,195	79,079	93,463	83,623	80,473
Cyprus .. .. .	36,258	65,607	81,676	81,760	86,600	91,500
Hong Kong .. .. .	118,807	102,679	149,966	139,820	147,620	181,341
India .. .. .	4,929,000	5,602,000	6,068,000	6,825,000	7,720,000	8,114,000
Malaya .. .. .	102,300	112,200	108,400	189,500	281,900	327,000
Pakistan .. .. .	774,000	1,076,000	1,073,000	986,000	1,141,000	1,223,000
Australia .. .. .	2,103,000	2,285,000	2,417,500	2,574,600	2,747,400	2,813,000
New Zealand .. .. .	444,000	531,000	552,000	553,000	607,000	641,000
<b>TOTAL .. .. .</b>	<b>r26,917,000</b>	<b>r28,400,000</b>	<b>r29,290,000</b>	<b>r31,000,000</b>	<b>33,000,000</b>	<b>35,000,000</b>
<b>Irish Republic .. .. .</b>	<b>700,576</b>	<b>516,336</b>	<b>425,438</b>	<b>618,462</b>	<b>733,000</b>	<b>595,000</b>
<b>OTHER COUNTRIES</b>						
Albania .. .. .	63,761	69,112	77,000	72,000	73,000	73,000
Austria .. .. .	1,905,870	2,095,260	2,120,190	2,378,330	2,785,040	3,035,450
Belgium (b) .. .. .	4,590,000	4,631,000	3,993,276	4,368,480	4,318,620	4,678,792
Bulgaria .. .. .	845,000	866,000	919,000	1,410,000	1,561,000	1,724,000
Czechoslovakia .. .. .	3,098,000	3,614,000	4,045,000	4,669,000	4,971,000	5,259,000
Denmark—						
Portland cement .. .. .	1,083,826	1,046,285	951,000	1,214,073	1,248,173	} 1,550,000
Special cements .. .. .	84,512	99,226	100,226	153,983	170,866	
Finland .. .. .	944,400	930,500	910,800	1,151,400	1,232,915	1,319,900
France—						
Portland cement .. .. .	7,644,900	7,629,554	9,061,905	8,847,996	9,134,976	} (e)15,284,000
Portland blast furnace cements .. .. .	2,234,663	2,798,109	3,026,101	3,095,017	3,163,445	
Slag cements .. .. .	37,187	24,218	47,209	156,710	30,998	
Masonry cements .. .. .	441,233	746,496	437,341	358,004	375,118	
Natural cements .. .. .	124,824	196,438	355,324	172,606	119,177	
Special cements .. .. .	814,096	1,039,310	664,491	1,147,519	1,111,728	
Germany (Federal)—						
Portland cement .. .. .	13,694,000	13,489,000	r13,793,000	r16,339,000	17,778,000	19,192,000
Portland blast furnace cements .. .. .	r 4,302,000	r 4,289,000	r 4,479,000	r 5,130,000	5,849,000	6,515,000
Special cements .. .. .	579,000	733,000	r 811,000	1,022,000	886,000	1,007,000
Germany (East) .. .. .	3,217,000	3,405,000	3,502,000	4,139,000	4,953,000	5,192,000
Greece .. .. .	1,218,000	1,230,000	1,339,000	1,421,000	1,558,661	1,741,292
Hungary .. .. .	508,000	968,000	1,276,000	1,410,402	1,546,278	1,576,192
Iceland .. .. .	—	—	32,000	77,000	72,000	74,000
Italy .. .. .	11,160,031	11,762,357	12,398,150	13,852,190	15,386,035	17,300,460
Luxembourg .. .. .	160,000	187,000	192,509	188,977	206,395	227,520
Netherlands .. .. .	1,236,000	1,229,000	1,344,000	1,574,400	1,769,100	1,872,612
Norway .. .. .	880,891	1,000,953	1,014,939	1,112,784	1,132,962	1,156,000
Poland .. .. .	3,971,000	4,425,000	4,978,000	5,233,000	6,495,000	7,244,000

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

(b) Excluding natural cement.

(c) Estimated.

(d) Year ended March 31st of year following that stated.

(e) Excluding masonry cement.

PRODUCTION OF CEMENT (cont.)

Long tons

Producing Country	1956	1957	1958	1959	1960	1961
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
Portugal .. .. .	1,007,624	963,695	1,008,009	1,014,731	1,182,826	1,224,717
Roumania .. .. .	2,064,920	2,317,390	2,531,043	2,805,501	3,006,200	3,255,537
Saar .. .. .	324,000	345,000	288,000	307,000	(c)	(c)
Spain—						
Portland cement .. .. .	3,723,000	4,046,340	4,306,789	4,565,928	4,693,092	5,466,183
Natural cement .. .. .	406,423	469,326	495,031	500,475	490,495	n.a.
Other cements .. .. .	213,130	369,954	428,662	523,108	390,417	368,596
Sweden—						
Portland cement .. .. .	2,394,168	2,338,811	2,357,810	} 2,776,000	2,762,000	2,964,000
Other cements .. .. .	61,396	72,749	112,263			
Switzerland .. .. .	2,341,701	2,471,677	2,150,637	2,640,792	2,988,196	3,540,000
U.S.S.R. .. .. .	24,465,000	28,440,000	32,780,000	38,171,000	44,761,000	50,194,000
Yugoslavia .. .. .	1,530,000	1,952,000	1,936,000	2,185,000	2,360,000	2,299,000
Algeria .. .. .	658,800	699,700	808,900	941,500	1,045,000	1,054,800
Angola .. .. .	85,883	127,417	163,203	152,349	158,603	154,051
Canary Islands .. .. .	—	1,678	5,493	49,389	68,239	(g)
Cameroun .. .. .	13,000	11,000	11,000	(e) 11,000	—	—
Congo Republic .. .. .	451,649	457,670	385,260	339,925	(f) 200,000	(f) 175,000
Egypt .. .. .	1,330,000	1,443,000	1,489,000	1,750,000	1,823,000	1,810,000
Ethiopia (d) .. .. .	26,500	22,100	31,000	24,829	31,304	32,647
Morocco (Southern) .. .. .	572,000	428,400	396,200	493,300	570,700	620,400
Mozambique .. .. .	149,049	164,609	177,604	209,996	n.a.	208,828
Senegal .. .. .	143,184	156,000	147,000	168,000	165,100	179,100
Sudan .. .. .	66,000	59,000	88,000	98,000	119,000	82,000
Tunisia .. .. .	353,800	394,800	339,500	434,900	398,600	324,000
South Africa .. .. .	2,431,511	2,485,416	2,678,635	2,605,000	2,662,000	2,557,420
Cuba .. .. .	409,100	655,000	710,000	653,000	n.a.	n.a.
Dominican Republic .. .. .	242,688	275,974	265,324	186,520	166,984	n.a.
Guatemala (f) .. .. .	78,000	92,000	120,000	93,000	96,000	104,000
Haiti .. .. .	44,000	30,100	36,549	38,067	52,130	49,104
Honduras .. .. .	—	—	—	10,000	31,000	36,300
Mexico .. .. .	2,240,703	2,519,141	2,498,642	2,666,064	3,040,339	2,987,149
Nicaragua .. .. .	41,175	42,358	39,293	36,919	31,787	38,402
Panama Republic .. .. .	69,000	78,000	66,000	96,000	107,000	112,000
Salvador .. .. .	69,988	86,740	85,788	81,763	84,970	73,568
United States (a)—						
Portland cement .. .. .	53,116,400	50,092,600	52,282,600	56,918,800	53,547,900	54,404,800
Prepared masonry cement (b) .. .. .	2,669,900	2,467,700	2,410,600	2,720,100	2,442,800	2,398,500
Natural, slag and hydraulic lime cements .. .. .	189,300	106,000	87,300	73,500	95,300	37,800
Argentina .. .. .	1,996,687	2,327,000	2,432,000	2,330,000	2,599,000	2,799,000
Bolivia .. .. .	32,547	23,284	28,454	28,990	12,166	43,809
Brazil .. .. .	3,240,870	3,340,037	3,729,742	3,780,115	4,403,623	4,634,540
Chile .. .. .	759,000	714,000	715,000	823,000	815,000	856,000
Colombia .. .. .	1,201,181	1,192,154	1,194,100	1,326,335	1,363,048	1,542,300
Ecuador .. .. .	149,403	152,590	157,307	154,449	197,640	216,000
Paraguay .. .. .	13,364	12,131	7,287	7,100	14,000	16,000
Peru .. .. .	543,217	536,528	595,387	573,000	592,000	644,000
Uruguay .. .. .	334,000	410,000	426,000	415,000	408,000	383,000
Venezuela .. .. .	1,428,252	1,719,723	1,589,998	1,842,116	1,463,523	1,489,526
Afghanistan .. .. .	—	—	—	33,000	34,000	(e) 34,000
Burma .. .. .	37,900	34,838	30,021	35,630	44,194	38,945
China .. .. .	6,292,000	6,750,000	9,200,000	r12,080,000	12,500,000	e13,800,000
Formosa .. .. .	588,216	618,009	994,225	1,055,435	1,160,000	1,480,000
Indonesia .. .. .	143,000	247,000	294,000	339,000	381,000	438,000

(a) Including Puerto Rico.

(b) Excluding masonry cement produced by companies which purchase 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) Included with Spain.



## PRODUCTION OF CEMENT (cont.)

Long tons

Producing Country	1956	1957	1958	1959	1960	1961
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
Iran (c) .. .. .	220,942	308,444	r 403,642	569,668	784,666	(a) 790,000
Iraq .. .. .	(b) 514,915	(b) 658,833	(b) 650,120	(a) 600,000	786,836	906,160
Israel .. .. .	603,157	707,000	701,681	768,644	792,785	833,000
Japan—						
Portland cement .. .. .	12,149,000	} 14,940,000	14,748,000	16,996,000	22,183,000	24,243,000
Other cements .. .. .	668,000					
Jordan .. .. .	78,003	105,478	r 112,365	r 108,529	162,206	219,602
Korea (South) .. .. .	45,829	90,524	290,983	352,204	424,052	514,575
Korea (North) .. .. .	587,000	881,000	1,244,000	1,896,000	2,249,000	2,226,000
Lebanon .. .. .	479,827	551,427	498,510	731,698	840,254	860,639
Philippine Republic .. .. .	439,248	502,959	633,177	715,677	782,461	1,002,951
Syria .. .. .	320,406	309,976	402,000	441,000	481,000	531,000
Thailand .. .. .	392,000	396,000	449,000	r 475,000	433,000	637,000
Turkey .. .. .	914,633	1,241,278	1,492,562	1,706,659	2,005,611	1,995,971
Vietnam (North) .. .. .	<i>n.a.</i>	162,500	<i>n.a.</i>	375,200	399,300	446,000
<b>TOTAL (a) .. .. .</b>	<b>r204,000,000</b>	<b>r215,000,000</b>	<b>r229,000,000</b>	<b>r259,000,000</b>	<b>277,000,000</b>	<b>300,000,000</b>
<b>WORLD'S TOTAL (a) .. .. .</b>	<b>231,000,000</b>	<b>243,000,000</b>	<b>258,000,000</b>	<b>290,000,000</b>	<b>310,000,000</b>	<b>335,000,000</b>

(a) Estimated.

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

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

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

Long tons

Producing Country and Description	1956	1957	1958	1959	1960	1961
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom .. .. .	1,196,386	1,223,808	1,212,981	1,312,353	1,638,282	1,619,935
Kenya .. .. .	1,499	1,140	1,185	1,143	1,036	729
Nigeria .. .. .	213	18	75	5	4	—
Southern Rhodesia .. .. .	—	—	—	—	5,905	18,202
Swaziland .. .. .	—	—	—	—	—	52
Tanganyika .. .. .	18	—	98	77	219	n.a.
Hong Kong .. .. .	5,463	6,961	7,621	7,256	6,663	8,430
India .. .. .	154,579	180,513	182,136	250,588	344,000	365,000
Malaya .. .. .	1,155	1,510	1,200	1,282	1,223	1,571
Australia .. .. .	41,089	43,486	37,099	36,974	48,195	47,181
<b>OTHER COUNTRIES</b>						
Austria (crude) .. .. .	268,062	287,632	295,523	292,883	317,991	338,461
Czechoslovakia .. .. .	227,000	251,000	255,000	257,000	n.a.	n.a.
Denmark—						
Crude .. .. .	5,956	3,629	6,490	(c) 6,113	(c) 6,205	n.a.
Washed and pressed .. .. .	4,795	3,992	5,532	(c) 4,331	(c) 4,826	n.a.
Washed waste .. .. .	5,874	5,695	4,099	(c) 5,964	(c) 5,774	n.a.
France .. .. .	115,000	128,000	136,000	142,000	n.a.	n.a.
Germany (Federal) .. .. .	313,644	325,478	323,559	301,678	304,162	410,000
Greece .. .. .	20,000	5,187	17,000	2,500	26,000	n.a.
Italy—						
Crude .. .. .	53,425	60,167	59,492	90,248	85,444	n.a.
Kaolinic earth .. .. .	47,237	46,111	54,480	23,169	45,312	n.a.
Portugal—						
Crude .. .. .	23,860	20,674	34,066	16,759	} 46,126	} 48,894
Washed .. .. .	24,301	26,579	24,735	26,870		
Spain (crude) .. .. .	55,661	83,968	89,460	114,133	110,589	n.a.
Sweden (b) .. .. .	(d) 1,603	(d) 771	(d) 907	19,375	26,400	26,700
Egypt .. .. .	2,428	n.a.	8,964	11,041	n.a.	n.a.
Malagasy Republic .. .. .	25	19	—	—	—	—
Mozambique .. .. .	262	—	49	118	113	—
South Africa .. .. .	10,376	14,128	23,743	17,887	(b) 26,219	(b) 24,108
United States (a) .. .. .	2,008,857	1,949,719	1,984,094	2,263,816	2,437,903	2,446,264
Argentina .. .. .	28,000	22,031	18,684	n.a.	n.a.	n.a.
Chile .. .. .	2,854	n.a.	n.a.	n.a.	n.a.	n.a.
Colombia .. .. .	2,239	6,603	4,000	15,000	20,000	20,000
Peru .. .. .	(b) 104	65	48	n.a.	n.a.	n.a.
Iran (e) .. .. .	n.a.	n.a.	463	2,160	4,200	n.a.
Japan .. .. .	14,142	15,655	21,035	20,537	20,943	29,844
Korea (South) .. .. .	9,239	6,517	21,224	42,137	50,422	50,369

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

(a) Sold or used by producers.

(c) Production in major establishments only.

(b) Sales

(d) Washed.

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

## EXPORTS OF CHINA CLAY

Long tons

Exporting Country	1956	1957	1958	1959	1960	1961
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom .. .. .	758,651	774,861	754,153	834,903	1,003,923	1,117,440
Tanganyika .. .. .	10	—	5	42	70	74
Hong Kong .. .. .	4,107	5,268	4,920	4,292	7,474	5,805
India .. .. .	<i>n.a.</i>	243	283	302	(b) 217	(b) 744
Malaya .. .. .	151	175	81	83	97	79
<b>OTHER COUNTRIES</b>						
Austria .. .. .	30,146	34,723	31,549	27,190	31,712	35,091
Belgium-Luxemburg .. .. .						
E.U. .. .. .	207	16	2	29	76	133
Czechoslovakia .. .. .	27,000	105,000	112,000	131,000	142,000	<i>n.a.</i>
Denmark .. .. .	963	1,543	318	1,370	1,294	1,249
France .. .. .	8,301	8,172	8,368	21,969	39,209	45,559
Germany (Federal) .. .. .	22,336	22,325	23,607	20,372	26,595	33,300
Greece .. .. .	4,580	9,886	16,302	17,400	<i>n.a.</i>	<i>n.a.</i>
Italy .. .. .	172	206	322	37	135	93
Netherlands .. .. .	(a) 461	(a) 474	(a) 545	(a) 558	597	226
Portugal .. .. .	18,612	18,887	15,252	18,670	18,152	19,170
Spain .. .. .	3,801	4,343	3,098	3,731	6,837	13,717
Sweden .. .. .	6	—	—	—	18	159
Algeria .. .. .	69	—	—	—	—	<i>n.a.</i>
Morocco .. .. .	<i>n.a.</i>	<i>n.a.</i>	25	—	—	7
United States .. .. .	52,802	48,999	59,303	66,727	71,397	88,201
Argentina .. .. .	—	59	197	198	—	—
Brazil .. .. .	54	—	226	10	108	332
Japan .. .. .	415	205	1,166	196	1,385	2,390
Korea (South) .. .. .	<i>n.a.</i>	<i>n.a.</i>	13,387	5,098	12,117	12,063

(a) Including pipe clay.

(b) Years ended March 31 following that stated.

## IMPORTS OF CHINA CLAY

Long tons

Importing Country	1956	1957	1958	1959	1960	1961
<b>COMMONWEALTH COUNTRIES</b>						
Canada .. .. .	107,488	114,639	116,278	121,194	119,273	129,879
Hong Kong .. .. .	210	71	80	77	1,019	167
India .. .. .	8,664	4,284	5,809	4,288	(d) 6,710	(d) 10,444
Malaya .. .. .	41	24	31	122	119	212
Pakistan .. .. .	711	2,834	4,040	2,424	3,737	5,631
Australia .. .. .	9,168	6,631	2,502	14,654	9,093	14,890
New Zealand .. .. .	931	1,051	1,261	1,369	1,914	1,978
<b>OTHER COUNTRIES</b>						
Austria .. .. .	2,674	3,699	2,279	6,159	6,745	7,173
Belgium-Luxemburg .. .. .						
E.U. .. .. .	47,262	52,213	39,907	40,938	45,711	43,810
Denmark .. .. .	28,369	30,398	25,984	21,175	28,261	30,150
Finland .. .. .	57,218	58,683	61,870	57,007	91,471	101,276
France .. .. .	81,679	85,320	99,374	90,984	122,712	125,386
Germany (Federal) .. .. .	156,558	173,210	184,706	229,858	267,868	287,664
Italy .. .. .	91,336	103,133	94,361	110,905	158,135	183,183
Netherlands .. .. .	(b) 80,133	(b) 80,488	(b) 78,020	(b) 98,291	111,578	108,386
Norway .. .. .	33,647	37,037	33,874	38,887	47,152	56,293
Portugal .. .. .	32	162	144	133	169	802
Spain .. .. .	205	594	1,984	571	3,231	3,463
Sweden .. .. .	76,821	78,588	80,882	94,403	116,392	121,770
Yugoslavia .. .. .	4,180	8,053	9,006	6,402	6,883	8,386
Algeria .. .. .	3,090	3,812	3,306	3,220	3,700	n.a.
Angola .. .. .	20	20	13	—	17	40
Morocco .. .. .	1,854	1,803	1,724	2,023	2,395	1,885
Mozambique .. .. .	19	15	19	33	19	n.a.
South Africa (a) .. .. .	2,502	2,411	1,860	3,739	3,678	n.a.
Tunisia .. .. .	16	18	13	n.a.	n.a.	n.a.
Costa Rica .. .. .	n.a.	n.a.	n.a.	n.a.	1,822	381
Guatemala .. .. .	n.a.	n.a.	n.a.	2,686	2,369	1,219
Mexico .. .. .	1,828	2,903	3,840	9,904	11,345	7,744
United States .. .. .	129,413	119,917	120,296	126,014	113,677	118,251
Argentina .. .. .	1,221	2,500	1,745	637	5,121	6,113
Brazil .. .. .	140	219	40	107	122	399
Chile .. .. .	38	30	124	n.a.	n.a.	n.a.
Colombia .. .. .	160	197	586	678	762	2,205
Ecuador .. .. .	29	5	6	55	n.a.	n.a.
Peru .. .. .	360	680	492	532	478	401
Uruguay .. .. .	n.a.	1,042	798	1,969	2,276	n.a.
Venezuela .. .. .	n.a.	n.a.	n.a.	2,875	2,914	4,135
Indonesia .. .. .	1,372	976	753	909	1,640	n.a.
Iran (c) .. .. .	5	60	264	n.a.	186	n.a.
Japan .. .. .	12,173	15,655	14,277	14,811	31,687	36,178
Philippine Republic .. .. .	313	642	765	1,930	3,075	2,847
Turkey .. .. .	375	208	110	838	15	4

(a) Including Cornish or China stone.

(c) Years ended March 20 following that stated.

(b) Including pipe clay.

(d) Years ended March 31 following that stated.

# CHROME ORE AND CHROMIUM

## PRODUCTION OF CHROME ORE

Long tons

Producing Country	Estimated Cr <sub>2</sub> O <sub>3</sub> content						1961
	1956	1957	1958	1959	1960	1961	
<b>COMMONWEALTH COUNTRIES</b>							
Sierra Leone ..	19,580	15,716	14,236	17,834	5,378	(c) 8,988	8,200
Southern Rhodesia ..	400,868	583,996	552,540	484,918	596,791	527,581	192,000
Cyprus (a) ..	7,175	6,200	11,274	13,427	(c) 14,020	(c) 18,820	3,244
India ..	52,686	78,542	62,947	83,871	98,531	45,201	25,300
Pakistan ..	22,746	16,173	23,767	16,923	18,094	25,103	10,900
Australia ..	6,096	3,049	776	120	529	—	2,624
<b>TOTAL</b>	r 509,151	r 703,676	r 665,540	r 616,193	733,000	626,000	—
<b>OTHER COUNTRIES</b>							
Albania ..	130,086	164,648	198,000	243,100	281,500	(e) 295,000	n.a.
Greece ..	77,609	71,447	64,479	64,262	44,969	n.a.	35,000
U.S.S.R. (e) ..	728,000	760,000	790,000	840,000	902,000	906,000	n.a.
Yugoslavia ..	116,886	118,367	111,775	105,326	98,993	106,418	n.a.
Egypt ..	251	102	—	246	295	—	n.a.
Malagasy Republic ..	—	—	—	—	—	10,300	—
South Africa ..	616,835	655,014	621,483	669,534	759,751	883,683	274,000
Cuba ..	50,622	150,684	(e) 73,900	(h) 39,046	(h) 29,262	n.a.	n.a.
Guatemala ..	896	(b) 1,000	1,044	404	178	100	n.a.
United States (f) ..	185,412	148,354	128,388	(g) 94,113	(g) 95,282	(g) 73,000	73,052
Argentina ..	—	44	148	n.a.	n.a.	n.a.	—
Brazil ..	4,050	7,811	5,207	6,126	5,577	6,241	n.a.
Iran (d) ..	23,147	(c) 37,584	47,891	65,292	67,000	(e) 49,000	n.a.
Japan ..	39,238	45,728	41,210	56,766	66,423	69,063	11,100
Philippine Republic ..	697,856	714,048	409,735	643,166	722,840	630,189	13,700
Turkey ..	819,916	899,740	512,674	381,539	472,045	(f) 396,369	251,000
New Caledonia ..	48,153	63,241	46,700	43,271	38,542	36,083	394,000
<b>TOTAL</b>	r 3,540,000	r 3,800,000	r 3,100,000	r 3,300,000	3,600,000	3,600,000	25,500
<b>WORLD'S TOTAL</b>	4,050,000	r 4,500,000	3,700,000	3,900,000	4,300,000	4,200,000	4,200,000

(a) Figures relate to saleable production.

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

(e) Shipments from mine.

(f) Imports into the United States.

(g) Including saleable production only of metallurgical chromite.

(b) Estimated.

(c) Exports.

(e) United States Bureau of Mines' estimate.

(f) Excludes quantity consumed by American Chrome Company.

EXPORTS OF CHROME ORE, ETC.

Long tons

Exporting Country and Description	1956	1957	1958	1959	1960	1961
COMMONWEALTH COUNTRIES						
United Kingdom—						
Chromium metal ..	224	571	466	994	1,025	315
Rhodesia & Nyasaland—						
Ore .. .. .	455,969	625,775	367,037	492,304	482,715	424,993
Ferro-chrome .. ..	7,650	8,108	6,384	9,651	9,232	8,920
Sierra Leone—						
Ore .. .. .	18,774	16,378	11,211	5,011	14,719	8,988
Canada—						
Ferro-chrome .. ..	8,837	9,225	9,339	6,709	4,117	1,466
Cyprus—						
Ore and concentrates ..	5,826	5,070	11,840	12,176	14,020	18,820
India—						
Ore .. .. .	41,866	41,164	48,624	80,362	(a) 29,861	(a) 41,034
Pakistan—						
Ore .. .. .	34,800	12,805	12,447	13,775	10,880	12,942
OTHER COUNTRIES						
Austria—						
Ore .. .. .	2,692	1,148	1,445	158	246	623
France—						
Chromium metal ..	70	152	639	580	527	409
Ferro-chrome .. ..	10,130	11,887	10,623	21,000	18,526	16,218
Germany (Federal)—						
Ore .. .. .	4,183	577	569	574	521	7,190
Chromium metal ..	244	519	443	260	143	174
Greece—						
Ore .. .. .	39,522	44,379	29,208	20,783	28,594	27,945
Italy—						
Ferro-chrome .. ..	1,707	3,407	5	8,743	7,488	10,797
Norway—						
Ferro-chrome .. ..	22,594	19,338	14,307	30,604	34,097	21,252
Sweden—						
Ore .. .. .	11	2,821	—	—	3	—
Ferro-chrome .. ..	10,516	9,263	9,871	15,597	15,592	18,656
U.S.S.R.—						
Ore .. .. .	215,500	254,700	211,600	267,700	420,300	431,000
Ferro-chrome .. ..	n.a.	16,600	19,700	18,400	21,800	21,400
Yugoslavia—						
Ore and concentrates ..	54,772	35,580	14,180	24,507	19,675	5,538
Ferro-chrome .. ..	2,857	2,645	7,611	7,871	8,822	7,303
Egypt—						
Ore .. .. .	207	280	5	5	n.a.	n.a.
Malagasy Republic—						
Ore .. .. .	—	—	—	—	—	4,925
South Africa—						
Ore .. .. .	551,812	631,836	540,870	599,513	743,827	846,685
Cuba—						
Ore .. .. .	30,932	111,719	54,349	25,530	24,400	29,298
Guatemala—						
Ore .. .. .	1,060	726	—	445	n.a.	n.a.
United States—						
Ore .. .. .	1,542	747	640	9,893	4,629	9,343
Chromium metal ..	9	10	53	10	56	13
Ferro-chrome .. ..	4,943	4,049	1,714	5,470	13,918	7,004
Iran (b)—						
Ore .. .. .	27,932	37,584	36,642	44,395	36,789	66,601
Japan—						
Ferro-chrome .. ..	3,570	5,223	4,081	17,273	14,533	15,911
Philippine Republic—						
Ore and concentrates ..	588,350	627,983	390,560	735,250	783,346	621,466
Turkey—						
Ore .. .. .	631,869	562,102	507,854	301,050	380,130	382,541
New Caledonia—						
Ore .. .. .	48,413	60,048	41,096	44,041	44,154	21,750

(a) Years ended March 31 following that stated.

(b) Years ended March 20 following that stated.

## IMPORTS OF CHROME ORE, ETC.

Long tons

Importing Country and Description	1956	1957	1958	1959	1960	1961
COMMONWEALTH COUNTRIES						
United Kingdom—						
Ore .. .. .	143,373	187,747	178,236	165,092	292,169	256,918
Ferro-chrome .. ..	26,211	29,192	25,764	31,901	46,606	42,358
Ferro-silicon-chrome ..	2,313	2,097	1,744	1,623	3,595	2,984
Canada—						
Ore .. .. .	58,005	99,512	34,051	43,462	52,699	63,632
India—						
Ferro-chrome .. ..	77	259	131	271	(b) 410	(b) 803
Australia (a)—						
Ore .. .. .	7,312	6,039	8,660	6,804	16,728	16,902
Ferro-chrome .. ..	1,701	1,911	1,240	2,680	3,409	6,723
OTHER COUNTRIES						
Austria—						
Ore .. .. .	63,054	105,413	54,849	52,290	58,899	82,060
Ferro-chrome .. ..	8,384	9,218	5,927	11,254	14,009	11,660
Belgium-Luxemburg						
E.U.—						
Ore .. .. .	862	1,220	472	491	697	1,107
Chromium metal .. ..	12	55	8	6	14	9
Ferro-chrome and silico-chrome .. ..	2,813	1,834	2,031	2,759	4,258	4,161
Denmark—						
Ferro-chrome .. ..	356	132	236	321	450	437
Finland—						
Ferro-chrome .. ..	612	934	815	1,109	1,402	1,649
France—						
Ore .. .. .	146,367	126,604	103,969	151,202	185,677	194,624
Ferro-chrome .. ..	5	2	19	12	285	361
Germany (Federal)—						
Ore .. .. .	218,427	173,712	255,249	263,392	355,881	319,040
Chromium metal .. ..	3	4	6	8	40	48
Germany (East)—						
Ore (c) .. .. .	14,641	23,103	19,815	21,441	25,630	25,740
Hungary—						
Ore .. .. .	17,938	11,477	31,543	21,470	25,328	28,899
Ferro-chrome .. ..	1,695	2,207	1,754	2,130	2,260	3,419
Italy—						
Ore .. .. .	34,863	32,565	19,821	53,348	69,885	74,341
Chromium metal .. ..	8	6	33	5	19	19
Ferro-chrome .. ..	6,456	5,870	6,132	8,359	15,091	14,157
Netherlands—						
Ore .. .. .	457	94	569	708	1,235	844
Ferro-chrome .. ..	258	186	244	290	499	302
Norway—						
Ore .. .. .	85,461	59,993	46,293	72,432	92,332	99,934
Spain—						
Ore .. .. .	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	16,280
Ferro-chrome .. ..	332	203	402	950	581	1,314
Sweden—						
Ore .. .. .	64,508	87,283	59,545	108,768	138,723	105,184
Chromium metal .. ..	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	50	115	75
Ferro-chrome .. ..	8,082	5,430	2,398	6,318	13,164	7,288
Yugoslavia—						
Ore .. .. .	—	12,005	32,070	4,923	22,715	15,638
United States—						
Ore .. .. .	1,942,014	2,038,144	1,128,069	1,387,094	1,238,055	1,181,664
(Cr <sub>2</sub> O <sub>3</sub> content)	820,763	878,118	486,113	594,163	509,499	502,804
Ferro-chrome						
(Cr content) .. ..	23,195	27,598	14,255	57,202	30,523	16,694
Metal and alloys .. ..	365	1,209	2,077	2,558	811	618

(a) Years ended June 30 of that stated.

(c) Cr<sub>2</sub>O<sub>3</sub> content.

(b) Years ended March 31 following that stated.

IMPORTS OF CHROME ORE, ETC.

Long tons

Importing Country and Description	1956	1957	1958	1959	1960	1961
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
Brazil—						
Ferro-chrome .. ..	44	83	250	269	585	881
Chile—						
Ferro-chrome .. ..	2	56	19	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Japan—						
Ore .. .. .	133,467	245,797	73,414	256,852	274,723	319,367
Ferro-chrome .. ..	91	84	51	—	2	1,006



# COAL, COKE AND BY-PRODUCTS

## PRODUCTION OF COAL

(Including Brown Coal and Lignite)

Long tons

Producing Country and Description	1956	1957	1958	1959	1960	1961
<b>COMMONWEALTH COUNTRIES</b>						
<b>Great Britain—</b>						
<b>Mined—</b>						
Anthracite .. .. .	3,438,100	3,376,200	3,179,300	2,949,700	2,875,200	2,779,800
Bituminous .. .. .	206,487,300	206,682,700	198,295,800	192,323,400	183,176,300	179,157,500
<b>Opencast—</b>						
Anthracite .. .. .	723,500	620,600	765,900	656,100	719,800	767,400
Bituminous .. .. .	11,357,100	12,948,300	13,581,100	10,177,000	6,832,900	7,760,600
<b>Northern Ireland—</b>						
Bituminous .. .. .	1,550	3,508	2,971	5,362	4,965	12,527
<b>Nigeria—</b>						
Sub-bituminous .. .. .	787,209	815,271	924,419	741,757	561,995	597,365
<b>Southern Rhodesia—</b>						
Bituminous .. .. .	3,497,763	3,791,793	3,479,661	3,699,277	3,503,103	3,024,371
<b>Swaziland—</b>						
Anthracite .. .. .	—	—	—	1,423	11,469	964
<b>Tanganyika—</b>						
Bituminous .. .. .	1,488	1,046	1,109	1,739	2,264	2,000
<b>Canada—</b>						
Bituminous .. .. .	9,204,988	8,081,020	6,918,115	6,201,303	6,517,646	6,095,851
Sub-bituminous .. .. .	2,021,770	1,687,144	1,505,040	1,548,110	1,375,515	1,215,714
Lignite .. .. .	2,090,751	2,007,868	2,011,764	1,738,732	1,938,212	1,972,188
<b>India—</b>						
Bituminous .. .. .	39,280,148	43,504,996	45,340,447	47,066,109	} 51,810,000	55,180,000
Lignite .. .. .	—	3,674	6,465	8,213		
<b>Pakistan—</b>						
Lignite .. .. .	646,000	516,000	597,000	723,000	818,000	906,000
<b>Malaya—</b>						
Sub-bituminous .. .. .	182,479	152,711	66,452	75,634	6,847	—
<b>Australia—</b>						
Bituminous and semi-anthracite .. .. .	17,762,401	18,299,901	18,673,000	18,630,000	20,691,000	22,108,000
Sub-bituminous .. .. .	1,511,433	1,619,195	1,769,049	1,668,000	1,878,000	1,956,000
Brown coal .. .. .	10,559,801	10,740,989	11,643,629	13,034,605	14,967,202	16,278,147
<b>New Zealand—</b>						
Anthracite .. .. .	1,835	1,700	1,975	1,919	504	169
Bituminous .. .. .	799,226	830,290	836,684	838,990	799,621	756,363
Sub-bituminous .. .. .	1,621,206	1,602,584	1,702,707	1,798,352	2,051,703	2,011,546
Lignite .. .. .	205,449	177,889	178,668	170,333	160,215	156,647
<b>TOTAL .. .. .</b>	<b>312,181,000</b>	<b>317,466,000</b>	<b>311,481,000</b>	<b>304,059,000</b>	<b>300,700,000</b>	<b>302,740,000</b>
<b>Irish Republic—</b>						
Anthracite including dust .. .. .	163,131	163,265	139,215	152,584	(a) 157,000	} (a) 200,000
Semi-bituminous and other coal .. .. .	72,957	73,553	61,618	77,773	(a) 75,000	
<b>OTHER COUNTRIES</b>						
<b>Albania—</b>						
Brown coal and lignite .. .. .	220,572	232,010	252,000	284,000	285,000	(a) 300,000
<b>Austria—</b>						
Bituminous .. .. .	163,244	149,933	138,820	131,865	129,951	104,540
Brown coal .. .. .	6,623,533	6,768,660	6,391,039	6,122,495	5,879,024	5,571,311
<b>Belgium—</b>						
Anthracite and bituminous .. .. .	29,088,333	28,627,014	26,635,000	22,397,402	22,114,438	21,198,364

(a) Estimated.

## PRODUCTION OF COAL (cont.)

Long tons

Producing Country and Description	1956	1957	1958	1959	1960	1961
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
<b>Bulgaria—</b>						
Anthracite and bituminous .. ..	364,000	379,000	374,000	490,000	560,000	580,000
Brown coal and lignite..	10,282,000	11,322,000	12,155,000	14,600,000	16,290,000	17,700,000
<b>Czechoslovakia—</b>						
Bituminous .. ..	23,041,000	23,799,000	23,554,000	24,727,000	25,800,000	25,819,000
Brown coal .. ..	43,432,000	48,013,000	53,453,000	50,305,000	54,599,000	61,088,000
Lignite .. ..	2,136,000	2,198,000	2,487,000	2,550,000	2,882,000	3,184,000
<b>Denmark—</b>						
Lignite .. ..	1,370,000	2,520,000	2,406,000	2,268,000	2,273,000	2,129,000
<b>France—</b>						
Anthracite and bituminous .. ..	54,261,233	55,901,925	56,814,522	r56,697,049	55,082,224	51,531,000
Lignite .. ..	2,216,735	2,257,166	2,281,539	r 2,140,170	2,242,583	2,860,000
<b>Germany—</b>						
Federal Republic (b)—						
Anthracite .. ..	6,613,258	6,622,603	6,903,415	7,002,177	6,680,378	7,135,369
Bituminous (a) ..	125,721,160	124,477,081	123,633,000	r116,654,000	133,408,633	133,396,479
Pechkohle .. ..	1,717,083	1,781,942	1,748,717	1,751,484	1,754,782	1,735,060
Brown coal .. ..	93,814,516	95,557,192	92,240,870	r92,190,421	94,620,781	95,660,108
East Germany—						
Bituminous .. ..	2,700,000	2,710,000	2,858,000	2,796,000	2,678,000	2,629,000
Brown coal .. ..	202,598,000	209,237,000	211,574,000	211,391,000	221,904,000	233,184,000
<b>Greece—</b>						
Lignite .. ..	785,000	982,000	1,174,000	1,495,600	2,492,000	2,500,000
<b>Hungary—</b>						
Bituminous .. ..	2,334,000	2,241,000	2,585,000	2,691,000	2,802,000	3,024,000
Brown coal .. ..	14,751,000	15,289,000	17,491,000	18,246,000	19,139,000	20,065,000
Lignite .. ..	3,177,000	3,431,000	3,782,000	4,010,000	4,163,000	4,642,000
<b>Italy—</b>						
Anthracite .. ..	52,895	54,546	43,032	30,743	19,228	23,280
Bituminous .. ..	1,007,150	952,916	669,508	696,251	706,059	706,239
Brown coal .. ..	397,175	387,845	817,772	r 1,202,832	781,887	1,482,234
<b>Netherlands—</b>						
Bituminous .. ..	11,468,730	11,196,165	11,692,335	11,789,011	12,301,091	12,421,637
Brown coal .. ..	265,478	283,395	251,323	195,625	3,908	—
<b>Poland—</b>						
Bituminous .. ..	93,646,200	92,609,500	93,480,900	97,500,000	102,000,000	105,000,000
Brown coal .. ..	6,085,100	5,862,000	7,421,600	9,200,000	9,200,000	10,100,000
<b>Portugal—</b>						
Anthracite .. ..	407,014	490,897	558,190	518,876	428,000	463,000
Brown coal .. ..	143,720	180,782	153,892	156,939	154,000	156,000
<b>Roumania—</b>						
Anthracite and bituminous ..	187,965	247,000	295,000	295,000	325,000	340,000
Lignite .. ..	2,487,475	2,851,975	2,901,103	3,228,000	3,095,000	3,196,000
Brown coal .. ..	3,694,583	3,845,000	4,074,000	4,328,000	4,614,000	5,030,000
<b>Saar—</b>						
Bituminous .. ..	16,818,000	16,195,000	16,164,000	15,972,000	(c)	(c)
<b>Spain—</b>						
Anthracite .. ..	2,238,200	2,793,701	3,071,448	2,578,866	2,474,638	2,540,248
Bituminous .. ..	10,409,282	10,916,852	11,144,956	10,748,167	11,091,054	11,025,985
Lignite .. ..	1,897,655	2,478,825	2,629,434	2,069,094	1,734,306	2,050,885
<b>Spitzbergen—</b>						
Bituminous						
Norwegian mines ..	383,864	378,101	283,414	247,704	397,240	363,224
Russian mines (d) ..	344,298	387,909	379,751	450,694	472,808	391,642

(a) Including Stockheim hard coal.

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

Hard coal. 1956—1,139,554; 1957—r1,162,243; 1958—935,634; 1959—798,157; 1960—903,590; 1961—814,620.

Brown coal. 1956—41,087; 1957—60,979; 1958—44,390; 1959—38,894; 1960—76,638; 1961—71,828.

(c) Included with Germany (Federal).

(d) Exports.

PRODUCTION OF COAL (cont.)

Long tons

Producing Country and Description	1956	1957	1958	1959	1960	1961
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
Sweden—						
Bituminous .. ..	289,570	299,388	313,719	267,921	247,000	197,000
U.S.S.R.—						
Bituminous and anthracite .. ..	298,900,000	322,000,000	347,000,000	359,600,000	369,010,000	370,970,000
Lignite .. ..	123,500,000	134,000,000	141,000,000	138,900,000	c132,600,000	c127,440,000
Yugoslavia—						
Bituminous .. ..	1,215,000	1,207,000	1,188,000	1,276,000	1,263,000	1,292,000
Brown coal and lignite	15,617,000	16,435,000	17,598,000	19,498,000	20,092,000	22,401,000
Algeria—						
Bituminous anthracite .. ..	292,109	232,237	150,713	119,784	116,283	77,000
Congo Republic—						
Bituminous .. ..	412,874	426,223	289,675	262,616	174,000	67,472
Malagasy Republic—						
Bituminous .. ..	364	1,110	—	—	—	—
Morocco—						
Anthracite .. ..	474,400	512,771	501,944	457,324	405,983	403,700
Mozambique—						
Bituminous .. ..	214,851	265,711	243,674	252,569	265,367	315,791
South Africa—						
Anthracite and bituminous .. ..	33,071,166	34,219,253	36,499,340	35,876,381	37,570,611	38,939,978
Greenland—						
Bituminous .. ..	16,000	17,000	31,000	27,000	28,000	31,000
Mexico—						
Bituminous .. ..	1,385,862	1,398,355	1,447,477	1,551,716	1,748,000	1,789,000
United States—						
Anthracite .. ..	25,803,768	22,623,501	18,902,805	18,436,862	16,801,287	15,577,178
Bituminous .. ..	444,639,000	437,586,226	364,302,241	365,397,000	368,539,000	357,105,000
Lignite .. ..	2,570,000	2,327,984	2,166,997	2,482,000	2,452,000	2,694,000
Argentina—						
Lignite .. ..	146,670	205,424	257,000	295,800	266,900	330,000
Brazil—						
Bituminous and lignite	2,198,775	2,040,654	2,204,393	2,293,018	2,293,287	2,200,000
Chile—						
Bituminous .. ..	2,241,590	2,063,059	1,967,819	1,861,857	1,447,000	1,335,156
Columbia—						
Bituminous .. ..	2,000,000	2,539,112	2,200,000	2,500,000	2,700,000	2,600,000
Peru—						
Anthracite .. ..	15,401	16,978	105,072	} 170,000	159,000	164,000
Bituminous .. ..	127,793	121,360	114,781			
Venezuela—						
Bituminous .. ..	30,292	34,022	35,956	33,452	34,730	30,134
Afghanistan—						
Bituminous .. ..	24,000	27,000	33,213	36,000	46,000	52,000
Burma .. ..	1,345	738	—	1,369	112	1,586
China .. ..	108,620,000	128,000,000	270,000,000	342,300,000	413,000,000	(a)370,000,000
Formosa—						
Bituminous .. ..	2,489,103	2,870,028	3,131,172	3,506,856	3,899,373	4,169,663
Indonesia—						
Bituminous .. ..	815,158	705,958	714,168	627,551	647,877	540,449
Iran (b)—						
Bituminous .. ..	(a) 250,000	108,461	181,379	232,799	230,000	200,000
Japan—						
Anthracite .. ..	1,394,000	1,653,000	1,618,000	1,590,000	1,774,000	1,853,000
Bituminous .. ..	44,425,000	49,261,000	47,266,000	43,387,000	47,018,000	50,481,000
Lignite .. ..	1,496,300	1,636,219	1,557,448	1,445,501	1,386,246	1,288,342

(a) Estimated.

(b) Years ended March 20 following that stated.

(c) Owing to revised method of calculation, not strictly comparable with earlier years. Under previous method of calculation 1960 production equalled 136,090,000 long tons.

PRODUCTION OF COAL (cont.)

Long tons

Producing Country and Description	1956	1957	1958	1959	1960	1961
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
Korea (South)—						
Anthracite .. ..	1,786,700	2,402,661	2,628,706	4,071,083	5,265,500	5,791,400
Korea (North) .. ..	<i>a</i> 4,000,000	<i>a</i> 5,000,000	6,773,000	8,714,000	10,452,000	11,604,000
Philippine Republic—						
Bituminous .. ..	149,312	188,132	106,078	137,644	145,522	149,922
Thailand—						
Lignite .. ..	86,000	98,000	123,000	107,808	106,081	106,684
Turkey—						
Bituminous .. ..	5,795,310	6,176,017	6,446,963	6,420,846	6,207,446	6,281,000
Lignite .. ..	2,962,440	3,579,449	3,760,172	3,605,103	3,356,845	3,713,000
Vietnam (North)—						
Anthracite .. ..	1,196,000	1,068,000	1,473,000	2,167,000	2,534,000	<i>n.a.</i>
Vietnam (South)—						
Anthracite .. ..	2,071	12,175	20,384	20,000	27,000	<i>n.a.</i>
<b>TOTAL .. ..</b>	<b>r1,910,000,000</b>	<b>r1,980,000,000</b>	<b>r2,090,000,000</b>	<b>r2,180,000,000</b>	<b>2,280,000,000</b>	<b>2,260,000,000</b>
<b>WORLD'S TOTAL ..</b>	<b>2,220,000,000</b>	<b>2,300,000,000</b>	<b>2,400,000,000</b>	<b>2,480,000,000</b>	<b>2,580,000,000</b>	<b>2,560,000,000</b>

(a) United States Bureau of Mines' estimate.

PRODUCTION OF COKE

Long tons

Producing Country and Description	1956	1957	1958	1959	1960	1961
<b>COMMONWEALTH COUNTRIES</b>						
<b>Great Britain—</b>						
Gas-works—coke (a) ..	12,704,000	12,015,000	11,145,000	10,070,000	9,866,000	9,792,000
breeze (a) ..	2,862,000	2,712,000	2,634,000	2,470,000	2,474,000	2,384,000
Coke-ovens—coke ..	19,644,000	20,492,000	18,452,000	17,047,000	18,834,000	17,829,000
breeze ..	1,255,000	1,364,000	1,216,000	1,121,000	1,294,000	1,268,000
<b>Northern Ireland—</b>						
Gas works .. ..	159,300	115,000	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
<b>Southern Rhodesia .. ..</b>						
	214,629	226,977	186,149	291,879	226,796	(e) 172,691
<b>Canada—</b>						
Gas-works—coke ..	} 54,032	} 44,037	} 47,886	} 3,656,145	} 3,457,859	} 3,481,737
breeze ..						
Coke-ovens—coke ..						
breeze ..	3,813,125	3,633,821	3,062,029			
<b>India—</b>						
Gas-works .. ..	70,665	112,692	122,470	127,377	125,524	125,080
Hard .. ..	2,495,297	2,663,116	3,023,551	4,231,448	4,702,208	6,127,780
Soft .. ..	1,652,015	1,721,697	1,785,470	1,781,576	1,787,286	1,775,836
<b>Australia (d)—</b>						
Gas-works—coke ..	1,000,462	922,702	831,615	815,464	758,668	764,626
breeze ..	170,321	152,896	146,196	173,618	(f) 316,549	(f) 376,123
Coke-ovens—coke ..	2,058,426	2,234,458	2,295,737	2,196,650	2,376,097	2,738,505
breeze ..	170,513	203,979	182,390	170,190	(g)	(g)
<b>New Zealand (b)—</b>						
Gas-works .. ..	73,705	70,229	72,493	72,016	77,036	<i>n.a.</i>
<b>Irish Republic—</b>						
Gas works (c) .. ..	94,538	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
<b>OTHER COUNTRIES</b>						
<b>Austria—</b>						
Gas-works .. ..	443,977	397,358	319,259	265,928	258,288	249,906
Coke-ovens .. ..	1,688,218	1,824,297	1,602,967	1,524,766	1,808,218	1,753,878
<b>Belgium—</b>						
Gas-works .. ..	1,000	4,000	4,000	1,000	—	—
Coke-ovens .. ..	7,155,623	7,043,445	6,797,243	7,103,000	7,406,264	7,137,667
<b>Bulgaria .. ..</b>						
	9,997	11,582	10,302	8,878	20,037	<i>n.a.</i>
<b>Czechoslovakia—</b>						
Hard coke .. ..	7,211,000	7,367,000	7,254,000	7,754,000	8,324,000	8,402,000
Brown-coal coke ..	1,785,000	2,035,000	2,059,000	2,149,000	<i>n.a.</i>	<i>n.a.</i>
<b>Denmark (gas-works) ..</b>						
	544,000	528,000	519,000	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
<b>Finland (gas-works) ..</b>						
	95,553	104,824	124,000	128,000	136,000	<i>n.a.</i>
<b>France—</b>						
Gas-works (e) .. ..	1,588,000	1,509,000	1,324,800	r 1,004,000	684,300	433,000
Coke-ovens .. ..	12,093,573	12,407,742	12,306,281	r 12,930,134	13,419,321	13,262,000
Semi-coke .. ..	299,601	276,818	272,108	283,297	292,622	274,000
<b>Germany (Federal)—</b>						
Gas-works .. ..	5,657,000	5,374,000	4,882,000	4,935,000	5,138,000	4,870,000
Coke-ovens—hard coke	42,857,000	44,616,000	42,890,000	37,921,000	44,047,000	43,829,000
do. brown-coal coke ..	576,000	574,000	589,000	586,000	592,000	592,000
<b>Germany (East)—</b>						
Hard coke .. ..	2,751,000	2,773,000	2,949,000	3,085,000	3,155,000	3,035,000
Brown-coal coke ..	7,037,000	7,290,000	7,456,000	7,422,000	7,577,000	7,544,000
<b>Greece (gas-works) ..</b>						
	21,822	21,175	20,519	19,057	<i>n.a.</i>	<i>n.a.</i>
<b>Hungary—</b>						
Gas-works .. ..	378,000	408,000	416,000	425,000	441,000	429,000
Coke-ovens—hard coke	86,000	258,000	366,000	388,000	533,000	681,000
do. brown-coal coke	38,000	36,000	45,000	47,000	47,000	47,000

(a) Excluding coke used for heating retorts.

(e) Sales.

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

(f) Including coke-ovens.

(c) Including coke-breeze.

(g) Included with gas-works

(d) Years ended June 30 of that stated.

PRODUCTION OF COKE (cont.)

Long tons

Producing Country and Description	1956	1957	1958	1959	1960	1961
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
Italy—						
Gas-works .. ..	985,349	915,782	814,698	787,308	803,192	769,788
Coke-ovens .. ..	3,356,882	3,628,772	3,307,264	3,006,769	3,656,403	3,835,075
Luxemburg—						
Gas-works .. ..	36,000	35,000	35,000	34,000	36,000	35,000
Netherlands—						
Gas-works .. ..	767,000	648,000	558,000	430,000	287,000	232,000
Coke-ovens .. ..	4,186,000	4,215,000	4,058,000	4,063,000	4,486,000	4,574,000
Norway (gas-works) .. ..	58,961	55,309	48,632	48,483	45,983	46,038
Poland .. ..	10,344,000	10,725,000	10,967,100	11,400,000	11,700,000	12,400,000
Portugal (gas-works) .. ..	36,431	33,611	38,620	34,828	38,000	39,282
Roumania—						
Coke-ovens .. ..	251,666	428,572	553,708	599,784	806,755	924,681
Saar—						
Coke-ovens .. ..	4,139,930	4,255,660	4,109,535	} 4,367,000	(a)	(a)
Semi-coke .. ..	125,240	123,194	111,644			
Spain—						
Gas-works .. ..	257,698	249,775	264,514	268,114	243,951	232,045
Coke-ovens .. ..	1,622,898	1,853,977	2,018,637	2,369,221	2,532,905	2,578,468
Sweden (including breeze) .. ..	844,823	759,586	702,165	n.a.	n.a.	n.a.
Switzerland—						
Gas-works .. ..	503,713	500,539	450,640	460,551	476,170	(b) 300,000
U.S.S.R. .. ..	45,900,000	47,800,000	50,100,000	52,550,000	55,310,000	657,700,000
Yugoslavia—						
Gas-works .. ..	22,688	24,240	25,400	20,500	19,500	16,700
Coke-ovens .. ..	908,813	1,020,862	1,014,000	1,053,000	1,066,000	1,082,000
Algeria (gas-works) .. ..	86,174	90,135	86,435	87,277	91,177	n.a.
Libya—						
Gas-works .. ..	—	n.a.	(b) 5,000	(b) 5,000	(b) 5,000	(b) 5,000
South Africa—						
Gas-works .. ..	94,205	94,979	91,285	86,301	81,710	77,267
Coke-ovens .. ..	1,451,922	1,581,074	1,767,730	1,968,544	2,076,596	2,188,506
Mexico (coke-ovens) .. ..	565,000	674,000	587,000	671,000	822,000	742,000
United States—						
Coke-ovens—						
Coke .. ..	64,278,787	65,947,046	47,326,545	48,918,996	50,195,632	45,384,294
Breeze and screenings	4,260,547	4,341,602	3,264,462	3,313,364	3,308,434	2,979,611
Beehive—						
Coke .. ..	2,223,468	1,866,097	534,261	959,193	901,437	786,409
Breeze and screenings	88,375	45,115	52,239	66,265	33,633	47,790
Brazil .. ..	(c) 468,043	(c) 506,498	(c) 499,802	(c) 513,074	693,000	688,000
Chile .. ..	(b) 500,000	(b) 500,000	(b) 480,000	321,398	n.a.	n.a.
Colombia .. ..	246,000	235,000	276,191	244,160	244,300	197,000
Peru .. ..	23,967	30,865	32,403	31,000	29,000	33,000
Uruguay (gas-works)—						
Coke .. ..	29,578	28,955	30,001	27,764	31,065	23,105
Breeze .. ..	4,314	4,997	4,253	4,036	4,485	3,774
China (d) .. ..	5,400,000	6,600,000	18,000,000	22,000,000	25,000,000	22,000,000
Formosa .. ..	190,200	251,800	213,100	187,700	(b) 200,000	(b) 200,000
Iran (e) .. ..	n.a.	n.a.	n.a.	22,000	25,000	n.a.
Japan—						
Gas-works .. ..	2,644,000	2,971,000	2,840,917	3,172,889	3,660,982	3,736,845
Coke-ovens .. ..	4,196,000	4,715,000	4,388,192	5,188,015	6,380,352	8,366,879
Beehive, etc. .. ..	1,158,000	1,455,000	1,424,970	1,819,864	2,033,937	2,373,635
Korea (North) (d) .. ..	390,000	390,000	420,000	450,000	500,000	500,000
Korea (South) .. ..	—	3,000	1,300	—	—	—

(a) Included with Germany (Federal).

(b) Estimated.

(c) Volta Redonda only.

(d) United States Bureau of Mines' estimate.

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

PRODUCTION OF COKE (cont.)

Long tons

Producing Country and Description	1956	1957	1958	1959	1960	1961
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
Turkey—						
Gas-works .. ..	<i>n.a.</i>	99,336	108,739	(a) 115,000	(a) 100,000	119,000
Coke-ovens .. ..	494,841	538,532	547,930	521,102	520,938	502,000
Semi-coke .. ..	<i>n.a.</i>	79,108	80,025	81,320	82,437	81,000

(a) Estimated.

PRODUCTION OF BRIQUETTES

Long tons

Producing Country	1956	1957	1958	1959	1960	1961
<b>COMMONWEALTH COUNTRIES</b>						
Great Britain .. .. .	1,776,000	2,106,000	2,199,000	1,719,000	1,453,000	1,520,000
Canada .. .. .	671,861	352,249	182,187	136,727	72,484	60,113
Australia (a)—						
Brown-coal briquettes..	634,000	617,989	626,174	642,950	974,670	1,806,619
New Zealand .. .. .	<i>n.a.</i>	15,445	16,349	15,755	15,082	14,287
Irish Republic .. .. .	2,015	1,800	128	483	<i>n.a.</i>	<i>n.a.</i>
<b>OTHER COUNTRIES</b>						
Austria—						
Brown-coal briquettes..	6,891	12,118	2,405	—	—	—
Belgium .. .. .	r 1,798,000	r 1,806,000	1,020,000	985,959	1,061,505	1,145,476
Czechoslovakia—						
Coal briquettes.. .. .	<i>n.a.</i>	326,000	387,000	372,000	322,000	149,000
Brown-coal briquettes	<i>n.a.</i>	305,000	326,000	323,000	429,000	708,000
Denmark—						
Brown-coal briquettes ..	20,677	25,469	29,915	(e) 20,062	(e) 18,491	<i>n.a.</i>
France .. .. .	7,773,279	8,125,650	6,993,509	r 6,459,303	5,976,028	5,986,000
Germany (Federal)—						
Coal briquettes.. .. .	7,082,000	7,243,000	5,544,000	4,636,000	5,136,354	4,791,975
Brown-coal briquettes ..	16,690,000	16,560,000	16,177,000	14,965,000	15,003,894	15,270,209
Germany (East)—						
Brown-coal briquettes ..	50,819,000	52,523,000	53,155,000	53,197,000	55,162,000	57,080,000
Hungary—						
Brown-coal briquettes ..	530,000	569,000	755,000	855,000	918,000	958,000
Netherlands—						
Coal briquettes .. .. .	1,016,624	1,120,246	1,069,163	1,043,550	1,162,400	1,168,932
Brown-coal briquettes ..	76,985	80,165	73,931	62,860	61,500	72,888
Poland—						
Coal briquettes.. .. .	637,800	654,000	631,000	672,000	707,000	<i>n.a.</i>
Brown-coal briquettes ..	184,300	229,000	271,000	315,000	308,000	<i>n.a.</i>
Portugal .. .. .	99,915	89,842	73,852	59,039	52,668	46,000
Spain .. .. .	1,274,679	1,360,614	1,410,847	1,257,001	1,125,302	1,101,000
Switzerland (b) .. .. .	100,000	100,000	100,000	100,000	100,000	100,000
Algeria .. .. .	30,152	42,229	49,845	48,713	44,237	<i>n.a.</i>
Morocco .. .. .	9,666	18,587	17,392	15,031	<i>n.a.</i>	<i>n.a.</i>
Tunisia .. .. .	4,279	10,671	1,394	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
United States (c) .. .. .	1,355,839	986,412	924,340	773,321	664,629	510,950
Korea (South) .. .. .	—	300,000	334,866	455,048	450,000	579,134
Turkey (d) .. .. .	66,459	57,852	113,729	117,313	147,764	<i>n.a.</i>

(a) Years ended June 30 of that stated.

(b) Estimated.

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

1956—58,000; 1957—42,221; 1958—31,937; 1959—30,103; 1960—22,059; 1961—17,125.

(d) Sales.

(e) Production in major establishments only.



PRODUCTION OF COAL BY-PRODUCTS\*

Long tons

Producing Country and Description	1956	1957	1958	1959	1960	1961
<b>COMMONWEALTH COUNTRIES</b>						
<b>Great Britain—</b>						
Tar (crude) distilled ..	2,869,000	2,866,000	2,722,000	2,616,000	2,681,000	2,656,000
Tar (refined) .. .. .	608,000	588,000	538,000	556,000	547,000	560,000
Pitch .. .. .	534,000	446,000	512,000	464,000	412,000	418,000
Motor benzol .. .. .	204,000	189,000	168,000	116,000	115,000	128,000
Other motor spirits, etc.	90,300	82,700	56,700	5,700	5,700	6,300
Other refined light oils ..	197,600	227,500	226,700	260,000	287,000	258,000
Creosote-pitch mixture	879,000	1,050,000	899,000	857,000	1,051,000	904,000
Creosote oil .. .. .	479,000	428,000	433,000	380,000	410,000	400,000
White naphthalene .. ..	10,500	8,700	6,500	6,100	6,300	7,300
Hot-pressed do. .. .. .	22,600	19,600	23,500	29,300	22,600	16,800
Crude do. .. .. .	19,000	20,700	25,100	27,200	45,300	47,000
Pyridine bases .. .. .	1,500	1,300	1,600	1,500	1,400	1,300
Natural phenol .. .. .	13,600	14,900	18,600	18,200	18,500	20,600
Refined cresylic acid ..	67,000	69,000	64,000	67,000	75,000	66,000
Anthracene 40-50% .. ..	2,800	3,400	2,300	3,700	4,000	4,200
<b>Southern Rhodesia—</b>						
Tar (crude) .. .. .	<i>n.a.</i>	3,070	3,176	(c) 6,081	(c) 3,446	4,842
Motor benzol .. .. .	<i>n.a.</i>	544	507	(c) 415	(c) 562	608
Ammonia liquor .. .. .	<i>n.a.</i>	875	1,020	(c) 1,041	(c) 1,040	1,068
<b>Canada—</b>						
Tar (crude) .. .. .	231,791	223,854	183,948	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Tar (refined) .. .. .	19,571	15,264	16,482	11,678	<i>n.a.</i>	<i>n.a.</i>
Pitch .. .. .	119,817	107,732	102,230	113,054	<i>n.a.</i>	<i>n.a.</i>
Creosote oils .. .. .	45,861	57,067	45,600	48,325	<i>n.a.</i>	<i>n.a.</i>
Ammonium sulphate .. ..	34,806	27,276	26,234	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Benzol .. .. .	37,298	34,532	27,665	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Toluol, xylol and naphthalene .. .. .	10,633	10,018	9,531	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
<b>India (coke-ovens)—</b>						
Tar .. .. .	76,318	111,689	113,134	163,554	203,307	255,972
Benzol .. .. .	2,621	5,570	4,096	3,198	3,527	5,767
Benzene .. .. .	695	2,108	3,094	4,268	4,277	7,260
Toluol .. .. .	38	96	282	216	368	269
Toluene .. .. .	198	431	236	685	955	1,043
Solvent naphtha .. .. .	154	492	478	513	492	514
Pitch .. .. .	939	1,898	3,004	6,931	7,042	36,051
Naphthalene .. .. .	38	29	82	28	7	1,206
Ammonium sulphate .. ..	14,281	22,276	24,547	34,471	39,125	52,525
<b>Australia—</b>						
Tar (crude) (a) .. .. .	278,729	270,762	254,507	255,383	266,472	292,985
Tar (refined) (a) .. .. .	132,891	145,010	141,805	147,161	152,041	152,168
Tar oils (crude) (a) .. ..	<i>n.a.</i>	17,813	17,869	17,750	17,141	18,034
Benzol for blending .. ..	14,905	16,070	19,251	18,093	18,837	22,360
<b>New Zealand (b)—</b>						
Tar (gas-works) .. .. .	12,888	13,577	13,234	13,046	12,707	<i>n.a.</i>
<b>Irish Republic (gas-works)—</b>						
Tar .. .. .	14,403	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>

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

See page 86 for conversion rates.

See Nitrogen Compounds (pages 222-224) 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	1956	1957	1958	1959	1960	1961
<b>OTHER COUNTRIES</b>						
Belgium—						
Tar (crude) .. ..	244,406	248,150	243,310	253,548	263,572	265,157
Benzol (motor) .. ..	40,675	50,608	54,175	57,245	20,270	n.a.
do. industrial .. ..	8,633	8,598	8,184	8,941	26,104	n.a.
Benzene .. ..	11,834	4,869	n.a.	n.a.	n.a.	n.a.
Toluol and xylol .. ..	4,098	2,173	1,156	2,090	6,058	11,610
Solvent naphtha .. ..	1,535	827	386			
Denmark (a)—						
Tar (gas-works) .. ..	40,559	41,072	39,845	n.a.	n.a.	n.a.
Benzol (crude) .. ..	405	136	84	n.a.	n.a.	n.a.
Finland (gas-works)—						
Tar .. ..	n.a.	5,388	n.a.	n.a.	n.a.	n.a.
Benzol .. ..	n.a.	581	n.a.	n.a.	n.a.	n.a.
Ammonia .. ..	n.a.	343	n.a.	n.a.	n.a.	n.a.
France—						
Tar (crude) .. ..	682,749	698,154	713,190	705,186	700,000	645,004
Ammonium sulphate .. r	114,000	113,900	115,000	119,325	125,107	117,000
Benzol (crude) .. ..	127,542	131,153	135,757	144,558	151,700	152,161
Pitch .. ..	203,375	213,848	214,249	209,175	218,246	199,179
Naphthalene (crude) ..	30,169	24,697	32,080	43,424	45,588	50,902
Germany (Federal)—						
Tar (crude) .. ..	1,874,000	1,927,000	1,870,000	1,713,000	2,042,000	(b)1,764,000
Pitch .. ..	920,925	950,120	966,024	862,390	959,148	961,800
Tar oils .. ..	633,152	673,487	646,578	589,034	660,684	698,300
Naphthalene .. ..	87,417	97,687	91,342	108,525	126,253	140,400
Benzol (crude) .. ..	537,965	554,989	539,000	487,000	592,000	582,000
Refined benzols .. ..	504,241	554,115	559,887	511,186	642,173	620,400
Phenol .. ..	10,676	12,172	12,908	15,100	15,701	14,709
Cresol and xylol .. ..	18,570	20,823	20,422	25,317	24,323	23,787
Anthracene .. ..	39,749	40,619	39,496	32,597	32,514	35,323
Pyridine and bases ..	790	884	717	782	940	918
Italy—						
Tar .. ..	174,087	180,886	170,921	163,179	180,299	197,655
Ammonium sulphate ..	37,185	40,658	38,360	35,295	37,929	n.a.
Benzol (crude) .. ..	34,890	39,139	35,043	30,444	35,637	36,383
Naphthalene (crude) ..	7,101	6,969	6,751	6,109	8,848	8,874
Distillates .. ..	52,989	45,834	46,083	50,996	63,970	73,051
Benzol (refined) .. ..	21,995	21,831	20,413	23,548	27,659	30,365
Toluol and xylol .. ..	6,437	5,799	6,601	6,847	6,226	6,655
Pitch .. ..	62,141	57,092	53,226	59,045	76,574	82,896
Solvent naphtha .. ..	943	918	1,033	1,111	1,215	1,417
Norway—						
Tar (gas-works) .. ..	5,958	6,094	5,577	5,594	5,318	4,810
Poland—						
Tar (coke-ovens) .. ..	405,400	423,000	435,400	453,800	479,900	n.a.
Ammonium sulphate ..						
(coke-ovens) .. ..	104,300	107,300	110,600	113,100	115,700	n.a.
Benzol (coke-ovens) ..	131,100	137,100	139,200	140,200	147,700	n.a.
Naphthalene .. ..	25,061	n.a.	n.a.	n.a.	n.a.	n.a.
Portugal (gas-works)—						
Tar (crude) .. ..	3,722	2,053	n.a.	n.a.	n.a.	n.a.
Tar (refined) .. ..	116	44	n.a.	n.a.	n.a.	n.a.
Creosote .. ..	1,236	1,466	n.a.	n.a.	n.a.	1,363
Pitch .. ..	1,277	1,320	n.a.	n.a.	n.a.	1,147
Spain—						
Tar .. ..	83,768	141,173	107,787	130,613	n.a.	n.a.
Pitch .. ..	16,893	23,498	28,571	33,510	34,155	25,634
Benzol .. ..	16,991	22,355	32,491	35,640	39,157	32,897
Benzene .. ..	n.a.	4,505	5,084	3,595	7,742	6,445

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

(b) Coke-ovens only.

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

Long tons

Producing Country and Description	1956	1957	1958	1959	1960	1961
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
Spain <i>(cont.)</i> —						
Toluol .. .. .	<i>n.a.</i>	1,396	1,892	1,203	2,325	1,034
Toluene .. .. .	<i>n.a.</i>	724	788	1,150	798	1,501
Solvent naphtha .. .. .	<i>n.a.</i>	303	354	244	201	258
Anthracene .. .. .	<i>n.a.</i>	9,385	10,048	10,114	13,142	3,608
Naphthalene .. .. .	3,975	4,276	4,932	5,286	6,337	6,457
Ammonium sulphate .. .. .	134,523	143,962	180,933	213,482	324,737	<i>n.a.</i>
Creosote .. .. .	8,622	4,184	9,077	9,484	10,924	8,174
Sweden—						
Tar (crude) .. .. .	38,418	35,433	34,190	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Other tar .. .. .	30,518	29,076	31,958	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Pitch .. .. .	458	587	373	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Benzol, toluol, etc. .. .. .	4,032	4,262	3,401	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Distillates, etc. .. .. .	4,938	5,829	6,093	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Switzerland—						
Tar (crude) (gas-works)	29,434	28,999	27,282	26,608	28,561	<i>n.a.</i>
Yugoslavia—						
Benzol .. .. .	6,103	8,877	8,664	11,113	11,182	11,242
Algeria—						
Tar (gas-works) .. .. .	5,440	5,295	5,173	5,250	5,171	<i>n.a.</i>
United States—						
Coke-ovens—						
Tar (crude) .. .. .	3,559,090	3,732,796	2,860,326	2,793,710	2,938,289	2,706,743
Pitch .. .. .	915,633	825,896	736,134	640,808	929,046	1,049,227
Sulphate equivalent of ammonia produced (a) .. .. .						
Benzol .. .. .	870,359	905,112	660,036	639,913	656,644	618,807
do. motor .. .. .	581,420	597,508	394,266	399,437	451,088	400,684
Naphthalene (crude) .. .. .	(b)	4,931	3,736	1,337	2,070	2,762
Toluol and xylol .. .. .	79,044	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Solvent naphtha .. .. .	155,483	159,407	119,218	112,704	125,733	117,551
Creosote .. .. .	18,669	20,123	14,164	12,895	14,700	14,474
Phenol .. .. .	127,541	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Other light products .. .. .	4,859	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
All sources (c)—						
Tar (crude) .. .. .	21,334	27,050	15,510	10,499	12,288	11,707
Water gas and oil gas tar .. .. .						
Crude light oil (d) .. .. .	3,559,090	3,732,796	2,860,326	2,793,710	<i>n.a.</i>	<i>n.a.</i>
Benzol (e) .. .. .	205,726	179,915	121,970	65,342	<i>n.a.</i>	<i>n.a.</i>
Toluol .. .. .	979,187	1,006,197	730,903	710,120	<i>n.a.</i>	<i>n.a.</i>
Xylol .. .. .	1,121,967	1,105,160	957,233	1,157,060	1,524,410	1,817,930
Solvent naphtha .. .. .	139,941	139,359	105,320	100,110	<i>n.a.</i>	<i>n.a.</i>
Other light oil derivatives .. .. .	39,876	39,575	29,380	26,170	<i>n.a.</i>	<i>n.a.</i>
Naphthalene (crude) .. .. .	80,147	67,811	51,487	25,110	<i>n.a.</i>	<i>n.a.</i>
Creosote oil .. .. .	30,650	42,810	27,730	21,230	<i>n.a.</i>	<i>n.a.</i>
Tar, refined (f) .. .. .	219,388	187,619	154,056	189,863	<i>n.a.</i>	<i>n.a.</i>
Tar, road .. .. .	525,595	505,429	445,817	358,880	<i>n.a.</i>	<i>n.a.</i>
Distillate products, others .. .. .	164,235	182,050	182,050	123,070	<i>n.a.</i>	<i>n.a.</i>
Pitch of tar .. .. .	394,769	405,637	296,480	282,510	<i>n.a.</i>	<i>n.a.</i>
Pitch of tar coke .. .. .	124,353	149,111	98,417	80,210	<i>n.a.</i>	<i>n.a.</i>
	1,846,000	1,703,000	1,420,000	1,364,000	<i>n.a.</i>	<i>n.a.</i>
	28,000	25,000	26,000	31,000	<i>n.a.</i>	<i>n.a.</i>

(a) Actual ammonium sulphate produced was as follows (long tons):  
 1956—788,125; 1957—811,520; 1958—571,802; 1959—754,087; 1960—563,967; 1961—529,980.

(b) Included with "Other light products".

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

(d) Including some material produced from petroleum.

(e) Excluding motor benzol, which is included with "Other light oil derivatives".

(f) Used for paints, etc.

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

Long tons

Producing Country and Description	1956	1957	1958	1959	1960	1961
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
<b>Brazil (a)—</b>						
Tar .. .. .	49,862	53,000	45,253	52,274	<i>n.a.</i>	<i>n.a.</i>
Benzol .. .. .	3,969	5,000	3,861	3,112	<i>n.a.</i>	<i>n.a.</i>
Toluol and xylol .. .. .	1,185	1,000	909	705	<i>n.a.</i>	<i>n.a.</i>
Solvent naphtha .. .. .	100	60	63	59	<i>n.a.</i>	<i>n.a.</i>
Naphthalene .. .. .	2,087	2,184	1,875	1,718	<i>n.a.</i>	<i>n.a.</i>
Creosote oil .. .. .	1,791	3,000	2,434	2,345	<i>n.a.</i>	<i>n.a.</i>
Ammonium sulphate .. .. .	6,662	5,731	4,547	4,971	<i>n.a.</i>	<i>n.a.</i>
Pitch .. .. .	1,491	2,000	2,805	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Carbolic acid .. .. .	627	<i>n.a.</i>	926	415	<i>n.a.</i>	<i>n.a.</i>
<b>Colombia—</b>						
Tar .. .. .	6,400	<i>n.a.</i>	15,073	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Benzol .. .. .	1,848	4,057	5,367	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Ammonium sulphate .. .. .	2,000	2,810	2,947	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
<b>Uruguay (gas-works)—</b>						
Tar .. .. .	2,521	2,623	2,813	2,798	2,933	2,396
Benzol .. .. .	157	175	165	152	139	163
<b>Japan—</b>						
Tar .. .. .	601,307	631,813	655,411	776,405	888,853	1,053,536
Benzol (crude) .. .. .	117,000	130,582	126,656	160,223	196,929	243,701
do. (other) .. .. .	69,835	58,815	76,046	93,326	122,873	161,407
Toluol and xylol .. .. .	10,948	10,223	14,672	20,293	31,739	134,556
Solvent naphtha .. .. .	7,132	6,534	7,250	8,846	10,996	10,786
Creosote oil .. .. .	150,182	164,141	156,887	179,195	199,484	230,967
Carbolic acid (crude) .. .. .	7,275	6,862	<i>n.a.</i>	10,409	11,287	4,211
Naphthalene (crude) .. .. .	30,105	27,599	27,166	35,761	50,889	60,256
do. (refined) .. .. .	23,385	28,564	29,262	10,176	10,656	11,314
Anthracene .. .. .	4,712	6,450	6,107	7,904	11,621	13,322
Ammonium sulphate .. .. .	114,408	122,099	118,925	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
<b>Turkey—</b>						
Road tar .. .. .	<i>n.a.</i>	8,819	10,954	—	17,887	18,432
Pitch .. .. .	15,680	15,917	15,350	14,960	<i>n.a.</i>	<i>n.a.</i>
Benzol .. .. .	<i>n.a.</i>	4,894	4,963	4,404	4,581	4,244
Toluol and xylol .. .. .	<i>n.a.</i>	357	372	386	436	473
Solvent naphtha .. .. .	<i>n.a.</i>	175	48	25	80	43
Creosote .. .. .	<i>n.a.</i>	4,490	4,788	4,452	4,716	2,312
Carbolic acid .. .. .	<i>n.a.</i>	609	19	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Anthracene .. .. .	<i>n.a.</i>	121	85	45	169	6
Ammonium sulphate .. .. .	4,086	4,323	4,314	2,948	4,549	4,200
Naphthalene .. .. .	520	650	657	587	667	659

\*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	1956	1957	1958	1959	1960	1961
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom—						
Anthracite—						
smalls and graded ..	904,775	914,149	685,313	428,955	536,065	715,278
large .. .. .	197,766	190,118	138,488	99,549	86,856	73,583
other .. .. .	505,682	514,972	293,746	283,902	269,923	295,639
Bituminous—						
smalls and graded ..	2,621,772	1,801,445	1,808,495	1,842,330	3,148,244	3,535,068
unscreened .. .. .	1,019,677	858,174	273,213	178,211	221,573	171,316
large .. .. .	1,933,703	1,315,767	504,404	302,594	593,030	477,988
other .. .. .	1,358,591	1,432,064	519,025	339,303	286,850	328,188
Bunkers .. .. .	1,486,428	1,201,585	840,162	633,503	317,372	110,108
Coke, gas .. .. .	775,424	923,365	682,491	607,192	674,490	636,587
do. other .. .. .	1,579,419	1,821,322	709,413	758,742	876,837	842,582
Manufactured fuel ..	320,186	225,320	148,167	134,310	93,002	59,997
Tar .. .. .	114,660	89,250	73,297	55,146	69,678	68,281
Pitch .. .. .	263,843	232,625	179,524	166,840	184,338	168,717
Channel Islands (Jersey)						
Coke .. .. .	1,677	1,956	12,327	8,312	11,527	12,405
Tar .. .. .	—	—	—	3,147	3,762	2,885
Gibraltar—						
Coal (bunkers) (b) ..	29,156	34,000	12,000	6,000	6,812	<i>n.a.</i>
Malta—						
Coal (bunkers on merchant ships) (b) ..	700	1,298	218	34	—	—
Kenya—						
Coal (bunkers) (b) ..	8	—	14	63	66	176
Mauritius—						
Coal (bunkers) (b) ..	63	—	—	—	—	—
Nigeria—						
Coal (incl. bunkers) ..	98,393	101,761	98,248	74,561	26,780	51,041
Rhodesia and Nyasaland—						
Coal .. .. .	34,554	158,319	419,854	157,192	175,026	243,787
Coke .. .. .	62,188	113,784	60,885	62,881	70,869	111,736
Canada—						
Coal .. .. .	519,128	353,177	301,853	422,896	761,521	838,693
do. (bunkers) (c) ..	39,165	32,157	25,621	19,320	17,737	14,895
do. do. (a) .. .. .	370,076	384,852	300,431	238,257	257,114	222,549
Lignite .. .. .	11,378	672	419	112	16	<i>n.a.</i>
Coke .. .. .	111,191	102,875	102,163	113,009	111,392	155,621
Tar and pitch .. .. .	11,961	9,642	6,101	42	8	22,568
Bermuda—						
Coal (bunkers) (b) ..	541	360	—	—	—	—
Jamaica—						
Coal (bunkers) (b) ..	8,945	—	—	—	—	—
Trinidad and Tobago—						
Coal (bunkers) (b) ..	108	78	614	35	73	<i>n.a.</i>
Aden—						
Coal (bunkers) (b) ..	20,341	11,661	3,565	425	—	—
Ceylon—						
Coal (bunkers) (b) ..	18,781	8,519	2,274	713	324	447
Cyprus—						
Coal (bunkers) (b) ..	823	2,458	90	—	—	1
Hong Kong—						
Coal .. .. .	234,162	14,392	3,028	539	9,583	6,264
Coke .. .. .	149	127	942	955	839	210

\*For Ammonium sulphate, etc. see Nitrogen Compounds, pages 225-226.

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

(b) Foreign coal. (See imports.)

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

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

Long tons

Exporting Country and Description	1956	1957	1958	1959	1960	1961
<b>COMMONWEALTH COUNTRIES (cont.)</b>						
India—						
Coal (by sea) .. ..	915,596	} 1,591,572	1,713,872	1,374,660	(c) 1,129,383	(c) 919,409
do. (by land) .. ..	888,610					
do. (bunkers—domestic produce) ..	52,382					
Coke (by sea) .. ..	23,366	} 71,635	78,786	35,310	(c) 41,516	(c) 340
do. (by land) .. ..	54					
Tar and pitch (by land)	2,527					
		274	200	832	(c) 3,186	(c) 6,721
Malaya—						
Coal .. ..	31	—	15	5	1	—
do. (bunkers) (a) ..	16,389	7,476	4,322	1,361	82	54
Coke .. ..	443	449	364	332	489	496
Tar .. ..	72	151	53	69	28	18
Australia (d)—						
Coal .. ..	193,813	545,101	836,336	645,249	1,087,844	1,888,415
do. (bunkers) .. ..	38,749	9,065	11,608	8,187	8,117	179
Coke .. ..	66,590	129,392	112,760	8,823	75,502	81,075
New Zealand—						
Coal .. ..	—	2,902	1	7,142	18,157	13,559
do. (bunkers) .. ..	670	—	579	—	—	—
Coke .. ..	132	517	895	2,761	5	33
Tar .. ..	24	3	1	—	2	—
Irish Republic—						
Coal (bunkers) (a) ..	1,684	1,301	1,268	311	320	316
Coal and coke .. ..	7,618	16,667	7,522	4,532	21,808	61,297
<b>OTHER COUNTRIES</b>						
Austria—						
Bituminous .. ..	13	134	8	35	26	63
Brown coal .. ..	53,978	47,706	39,821	37,093	37,119	31,825
Coke .. ..	815	3	15	23	38	20
Tar .. ..	1,224	164	64	28	1	—
Pitch .. ..	16,985	18,087	5,169	2,772	2,932	3,854
Belgium-Luxemburg E.U.—						
Coal .. ..	4,475,513	3,868,304	2,779,509	2,216,472	2,187,163	2,730,488
do. (bunkers) (b) ..	18,934	14,113	6,596	7,222	15,252	8,270
Coke .. ..	839,405	742,984	828,762	625,642	736,973	624,729
Briquettes .. ..	597,477	683,954	184,721	150,948	176,007	140,306
Tar .. ..	3,822	4,626	5,885	20,373	15,251	12,512
Pitch .. ..	15,128	14,679	31,043	27,330	55,823	39,379
Czechoslovakia—						
Coal .. ..	759,000	764,000	1,482,000	1,565,000	2,160,000	2,408,000
Brown coal .. ..	1,253,000	1,516,000	1,246,000	1,295,000	1,420,000	1,342,000
Coke .. ..	1,236,000	1,141,000	1,028,000	1,190,000	1,296,000	1,348,000
Denmark—						
Brown coal briquettes	20,629	28,577	8,289	1,939	8,964	28,862
Tar and pitch .. ..	17,743	12,724	21,526	15,943	14,242	12,802
France—						
Anthracite .. ..	20,961	17,119	12,412	9,962	14,794	12,935
Bituminous .. ..	6,758,055	5,986,792	4,694,838	2,938,227	1,381,364	1,311,872
Brown coal .. ..	1,696	871	—	295	465	361
Coke .. ..	212,631	198,999	136,369	117,084	103,966	72,584
Briquettes .. ..	34,039	21,817	18,802	16,802	26,207	23,768
Brown coal briquettes	68	132	39	175	168	106

(a) Foreign coal (see imports).

(b) Bunkers for foreign ships only.

(c) Years ended March 31 following that stated.

(d) Years ended June 20 of that stated.

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

Long tons

Exporting Country and Description	1956	1957	1958	1959	1960	1961
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
France <i>(cont.)</i> —						
Coal, coke and briquettes—						
Bunkers (domestic produce) .. .. .	16,761	16,451	25,807	21,993	(a) 1,350	<i>n.a.</i>
do. (foreign produce)	34,825	34,576	11,351	7,315	<i>n.a.</i>	<i>n.a.</i>
Tar and pitch .. .. .	26,722	34,412	63,207	55,219	34,945	25,974
Germany (Federal)—						
Coal .. .. .	11,766,314	12,510,339	10,932,165	14,325,745	17,245,972	} 16,666,158
do. (bunkers) (a) .. .. .	257,760	240,402	118,125	100,591	89,180	
Brown coal .. .. .	8,715	13,166	23,171	71,303	214,519	245,032
Coke .. .. .	10,790,982	9,892,048	9,229,959	8,842,565	10,719,700	10,771,878
Coal briquettes .. .. .	617,437	608,294	411,219	322,589	355,006	357,468
Brown-coal briquettes	1,605,905	1,639,501	1,629,584	1,483,242	1,302,463	1,433,600
Tar and pitch .. .. .	82,657	110,591	162,114	185,779	265,348	251,130
Germany (East)—						
Coal .. .. .	10,612	15,196	9,649	8,570	984	198
Coke .. .. .	88,000	113,000	77,000	86,000	104,000	117,000
Brown coal briquettes..	4,392,000	4,678,000	6,092,000	6,249,000	6,239,000	6,107,000
Hungary—						
Coal .. .. .	212,465	30,517	92,000	<i>n.a.</i>	63,341	48,808
Italy—						
Coal (incl. bunkers) .. .. .	10,173	9,472	5,722	3,281	3,054	5,149
Coke .. .. .	104,038	101,361	19,253	36,617	115,369	163,649
Tar .. .. .	516	3,061	3,116	2,437	1,776	576
Pitch .. .. .	29,757	17,738	25,543	21,435	22,806	20,583
Netherlands—						
Coal .. .. .	938,565	972,327	1,296,324	1,776,649	2,131,176	2,318,849
do. (bunkers) .. .. .	(b) 194,382	(b) 160,724	(a) 6,832	(a) 6,686	(a) 1,481	(a) 1,496
Brown coal .. .. .	43,910	62,729	44,972	10,342	—	22
Coke .. .. .	2,016,468	2,016,521	1,658,470	2,024,599	2,269,911	2,438,035
Briquettes .. .. .	203,925	305,017	292,443	392,221	498,463	533,082
Brown coal briquettes ..	30,418	29,627	28,375	24,227	27,277	37,557
Tar .. .. .	6,304	1,692	208	1,246	18,437	27,931
Pitch .. .. .	10,750	22,923	25,655	16,120	6,281	6,932
Norway—						
Tar .. .. .	2,360	1,464	971	—	2,631	2,675
Pitch .. .. .	75	65	539	25	30	19
Poland—						
Coal .. .. .	18,884,000	13,146,000	15,948,000	15,753,000	17,221,000	16,783,700
Brown coal .. .. .	4,423,000	4,051,000	5,110,000	5,677,000	5,369,000	5,779,600
Coke .. .. .	2,247,000	1,895,000	2,036,000	2,036,000	2,053,000	2,104,800
Portugal—						
Coal .. .. .	138	96	183	110	67	2,563
do. (bunkers) (a) .. .. .	2,261	2,365	1,758	1,710	367	473
Tar and pitch .. .. .	75	75	82	69	11	18
Spain—						
Anthracite .. .. .	51,009	18,951	—	—	—	15,244
Bituminous (incl. bunkers) .. .. .	138,569	110,470	51,445	45,745	} (c) 19,066	(c) 20,760
Other coal .. .. .	13,265	15,596	18,571	16,342		
Coke .. .. .	103,437	80,249	534	698	(c) 23,664	(c) 27,140
Tar and pitch .. .. .	3	1	9	2	120	7
Spitzbergen—						
Coal (including bunkers)	680,782	721,518	685,078	656,213	784,151	705,043
Sweden—						
Coal .. .. .	—	30	39	966	427	36,094
Coke .. .. .	24,115	12,024	18,954	16,654	10,639	6,575
Tar, pitch, etc... .. .	7,249	6,530	4,774	23	17	4,494

(a) Bunkers for foreign ships only.

(c) Excluding exports to Spanish Dependencies.

(b) Including imported coal.

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

Long tons

Exporting Country and Description	1956	1957	1958	1959	1960	1961
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
Switzerland—						
Coal .. .. .	2,439	2,890	3,448	1,105	1	3
Coke .. .. .	7,495	2,371	1,707	5,435	2,326	310
Briquettes .. .. .	5,257	1,082	561	178	42	2,497
Tar and pitch .. .. .	(a) 855	(a) 396	(a) 485	(a) 412	245	13
U.S.S.R.—						
Anthracite .. .. .	1,562,700	1,747,300	1,861,100	1,810,000	1,792,200	2,172,100
Other coal .. .. .	4,020,400	6,886,500	7,932,700	9,084,200	10,328,300	12,706,100
Coke .. .. .	1,933,500	2,161,300	2,378,800	2,427,100	2,604,200	2,968,400
Pitch .. .. .	229,200	203,100	204,300	162,300	190,600	145,200
Yugoslavia—						
Bituminous .. .. .	51,783	29,686	65,697	95,332	104,655	98,812
Brown coal .. .. .	84,927	92,985	60,962	55,537	6,177	6,842
Lignite .. .. .	—	10,451	3,878	670	1,276	5,606
Briquettes .. .. .	—	—	30	36	49	39
Pitch .. .. .	93	7,463	10,200	7,679	11,203	21,057
Tar .. .. .	17,477	19,294	733	—	—	1,153
Algeria—						
Coal .. .. .	(c) 31,747	(c) 18,379	(c) 7,298	(c) 4,390	—	n.a.
do. (bunkers) .. .. .	65	59	—	—	—	n.a.
do. do. (b) .. .. .	11,570	13,174	3,422	2,703	1,103	n.a.
Coke .. .. .	1,639	1,709	7	18	51	n.a.
Tar .. .. .	18	6	—	—	—	n.a.
Canary Islands—						
Coal .. .. .	18	68	—	12	—	—
Cape Verde Islands—						
Coal (bunkers) (b) .. .. .	5,167	1,169	5	1	n.a.	n.a.
Ceuta—						
Coal .. .. .	855	868	485	76	—	—
do. (bunkers) (b) .. .. .	14,952	4,177	2,757	1,250	601	390
Egypt—						
Coal (bunkers for foreign ships) (b) .. .. .	—	140	187	26	n.a.	n.a.
Malagasy Republic—						
Coal (bunkers) .. .. .	49	108	6	3	—	—
Morocco—						
Anthracite .. .. .	210,395	251,672	211,621	206,566	185,091	194,130
Other coal .. .. .	23	11,277	8,550	13,627	46	816
Briquettes .. .. .	3,881	2,765	4,192	3,099	3,856	4,786
Mozambique—						
Coal (incl. bunkers) .. .. .	36,141	35,149	46,480	43,189	58,599	59,832
South Africa—						
Coal .. .. .	609,695	592,654	648,220	503,838	933,554	1,038,147
do. (bunkers) .. .. .	35,940	33,798	10,779	1,852	1,808	1,383
Coke .. .. .	350	440	1,985	1,630	12,656	8,931
Tar and pitch .. .. .	6,553	18,317	9,664	24,621	17,273	10,860
Mexico—						
Coal and coke .. .. .	200	—	325	20	334	—
Tar .. .. .	—	41	1	—	—	—
United States—						
Anthracite .. .. .	4,682,454	3,867,665	2,035,588	1,596,034	1,276,925	1,380,793
Bituminous .. .. .	61,207,704	68,254,937	44,904,805	33,261,992	32,581,630	31,226,830
do. (bunkers) .. .. .	445,506	374,429	320,106	326,612	274,832	n.a.
Coke .. .. .	585,462	734,146	350,729	410,912	315,193	397,529
Briquettes .. .. .	95,939	77,200	49,072	29,873	18,862	11,367
Tar and pitch .. .. .	51,077	51,925	59,634	27,628	107,106	65,096
Chile—						
Coal (including bunkers) .. .. .	48,713	61,080	49,939	r 61,168	31,849	n.a.
Coke .. .. .	6,629	3,446	3,149	n.a.	n.a.	n.a.

(a) Including pitch from petroleum.

(c) Including briquettes.

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



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

Long tons

Exporting Country and Description	1956	1957	1958	1959	1960	1961
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
Peru—						
Coal .. .. .	5,021	26,329	2,363	52,235	26,998	1,968
Venezuela—						
Coal .. .. .	—	—	2	237	—	—
Formosa—						
Coal (including bunkers)	105,020	29,753	29,833	89,432	186,073	232,549
Indonesia—						
Coal (including bunkers)	11,365	40,417	19,105	14,403	6,946	89
Iran (a)—						
Coal .. .. .	267	792	249	306	367	264
Japan—						
Coal .. .. .	540,963	118,425	169,238	54,769	21,429	56,065
do. (bunkers) ..	98,590	36,268	10,170	6,555	12,838	9,816
Coke .. .. .	16,193	2,160	3,240	14,147	6,639	8,119
Tar and pitch ..	18,053	12,608	19,026	7,909	18,907	14,569
Korea (South)—						
Anthracite .. ..	2	—	27,814	66,848	120,854	237,475
Lebanon—						
Coal .. .. .	1,401	1,937	890	1,022	(b) 1,706	n.a.
Coke .. .. .	888	998	747	620	416	n.a.
Briquettes .. ..	3,002	1,776	1,527	2,056	n.a.	n.a.
Turkey—						
Coal .. .. .	—	—	—	3,882	30,316	—
Vietnam (South)—						
Coal .. .. .	—	411	—	—	—	68

(a) Years ended March 20 following that stated.

(b) Including briquettes.

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

Long tons

Importing Country and Description	1956	1957	1958	1959	1960	1961
<b>COMMONWEALTH COUNTRIES</b>						
<b>United Kingdom—</b>						
Coal .. .. .	5,462,311	2,828,385	793,927	117,964	13,223	39,900
Coke .. .. .	1,404	914	5,834	4,416	3,291	2,109
Manufactured fuel .. .. .	17	—	—	4	6	56
Tar and pitch .. .. .	4,419	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
<b>Channel Islands—</b>						
Anthracite .. .. .	130,728	103,954	128,803	102,827	116,473	84,356
Bituminous .. .. .	181,093	165,191	160,873	147,094	130,950	105,076
Coke .. .. .	6,062	26	351	237	4,167	5,042
<b>Gibraltar—</b>						
Coal and coke ( <i>b</i> ) .. .. .	30,947	36,000	14,225	7,057	6,720	<i>n.a.</i>
<b>Malta—</b>						
Coal ( <i>c</i> ) .. .. .	6,652	6,758	7,222	2,796	2,079	2,089
Coke .. .. .	132	271	246	614	591	1,036
<b>Gambia—</b>						
Coal, coke and patent fuel .. .. .	—	3	7	103	—	3
Tar .. .. .	12	9	11	38	22	7
<b>Ghana—</b>						
Coal, coke and patent fuel .. .. .	86,606	109,295	105,668	79,058	36,870	54,032
Tar .. .. .	1,300	1,390	1,084	717	519	836
<b>Kenya—</b>						
Coal ( <i>c</i> ) .. .. .	42,543	32,244	35,082	35,985	38,900	35,528
Coke .. .. .	2,373	2,961	2,634	354	2,384	1,437
Tar .. .. .	33	20	7	6	6	( <i>a</i> ) 6
<b>Mauritius—</b>						
Coal ( <i>c</i> ) .. .. .	19,070	16,982	18,572	13,597	2,384	5,756
Coke .. .. .	424	381	273	244	466	255
Tar .. .. .	51	15	20	13	23	22
<b>Nigeria—</b>						
Coal, coke and patent fuel .. .. .	1,094	835	920	711	901	2,446
Tar .. .. .	525	601	804	715	1,343	1,138
<b>Rhodesia and Nyasaland—</b>						
Coal .. .. .	86,605	51,789	45,981	48,588	56,765	65,020
Coke .. .. .	—	—	( <i>d</i> ) 284	( <i>d</i> ) 99	( <i>d</i> ) 134	( <i>d</i> ) 35
Tar .. .. .	243	100	82	678	571	809
<b>St. Helena—</b>						
Coal .. .. .	204	381	64	67	45	67
<b>Sierra Leone—</b>						
Coal, coke and briquettes .. .. .	23,690	25,913	30,491	15,670	11,199	10,649
Tar .. .. .	154	144	239	211	140	<i>n.a.</i>
<b>Tanganyika—</b>						
Coal .. .. .	4,456	234	394	218	321	228
Coke .. .. .	866	628	370	188	424	516
Tar .. .. .	13	33	34	23	24	14
<b>Uganda—</b>						
Coal .. .. .	22	33	39	32	40	44
Coke .. .. .	223	139	2	17	82	76
Tar .. .. .	161	311	19	18	13	16
<b>Zanzibar—</b>						
Coal .. .. .	657	288	28	111	28	3

\*For ammonium sulphate, etc., see Nitrogen Compounds, pages 227-233.

(a) Excess of re-exports.

(b) Imported chiefly for bunkering purposes. (*See* exports.)(c) Includes coal imported for bunkering purposes. (*See* exports.)

(d) Including patent fuel.

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

Long tons

Importing Country and Description	1956	1957	1958	1959	1960	1961
<b>COMMONWEALTH COUNTRIES (cont.)</b>						
Canada—						
Anthracite .. .. .	2,244,410	1,712,300	1,381,951	1,361,166	1,098,667	858,329
do. dust .. .. .	28,471	6,894	7,351	70,895	59,786	86,454
Bituminous .. .. .	17,545,823	15,283,528	11,242,029	11,030,876	10,681,129	9,811,048
do. (a) .. .. .	370,076	384,852	300,431	238,257	257,114	222,549
Brown coal .. .. .	1,732	1,934	924	—	—	—
Briquettes .. .. .	113,146	65,452	37,339	21,894	13,864	8,571
Coke .. .. .	445,328	579,790	272,616	341,681	265,810	257,829
Tar .. .. .	2,726	6,083	3,426	1,798	2,155	1,756
Pitch .. .. .	54,417	62,027	55,168	51,684	71,653	95,059
Bahamas—						
Coal .. .. .	11	—	60	2	4	2
Barbados—						
Coal, coke, and patent fuel .. .. .	957	1,048	973	715	810	578
Bermuda—						
Bituminous (b) .. .. .	2,025	1,042	1,098	10	10	10
British Honduras—						
Coal and coke .. .. .	32	14	—	19	24	17
Grenada—						
Coal .. .. .	1	—	1	1	6	n.a.
Coke .. .. .	1	2	3	2	10	n.a.
Jamaica—						
Coal (b) .. .. .	5,348	984	400	235	255	210
Coke .. .. .	635	915	804	575	406	526
Tar .. .. .	68	44	43	62	28	22
Leeward Islands—						
Coal, coke and patent fuel .. .. .	1,817	7	208	13	n.a.	n.a.
St. Lucia—						
Coal .. .. .	34	57	5	13	n.a.	n.a.
Tar .. .. .	1	2	6	6	n.a.	n.a.
St. Vincent—						
Coal .. .. .	9	2	6	4	2	3
Trinidad and Tobago—						
Coal (b) .. .. .	(c) 177	1,066	827	1,160	1,289	n.a.
Coke .. .. .	71	65	153	304	89	n.a.
British Guiana—						
Coal .. .. .	350	568	495	152	224	n.a.
Coke .. .. .	83	77	98	42	42	n.a.
Patent fuel .. .. .	51	24	25	70	20	n.a.
Tar .. .. .	352	400	238	186	223	n.a.
Falkland Islands—						
Coal .. .. .	516	6	—	26	427	—
Coke .. .. .	827	173	95	75	243	129
Aden—						
Coal (b) .. .. .	25,048	13,747	—	1,319	1,452	1,635
Coke .. .. .	(c) 3	24	1	—	—	—
Ceylon—						
Coal (b) .. .. .	143,811	576,572	172,121	173,345	256,077	137,141
Coke .. .. .	3,843	2,459	2,730	1,238	240	2,246
Tar .. .. .	73	98	64	288	113	43
Cyprus—						
Coal (b) .. .. .	2,828	822	645	648	417	1
Coke .. .. .	1,460	407	27	—	165	186
Tar and pitch .. .. .	15	2	4	2	—	5
Hong Kong—						
Coal .. .. .	435,661	246,108	199,303	205,086	226,369	239,043
Coke .. .. .	7,264	5,715	5,762	5,226	6,076	4,112

(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	1956	1957	1958	1959	1960	1961
<b>COMMONWEALTH COUNTRIES (cont.)</b>						
India—						
Coal .. .. .	405	507	1,329	1,832	(b) 2,050	(b) 5,210
Coke .. .. .	1,982	123	1,070	20	(b) —	(b) 533
Tar and pitch .. .. .	352	5,674	87	34	(b) 2,543	(b) 1,410
Malaya—						
Anthracite .. .. .	19,302	18,634	15	27,623	23,931	26,964
Bituminous (c) .. .. .	60,728	70,871	1,875	1,100	9,669	14,244
Coke .. .. .	5,536	4,376	2,780	4,656	5,805	6,862
Tar .. .. .	320	230	473	492	150	507
Pakistan—						
Coal and coke .. .. .	1,328,000	1,316,000	1,396,666	955,979	2,090,833	1,240,380
Tar and pitch .. .. .	103	4,484	2,536	3,380	6,039	591
Australia (a)—						
Coal .. .. .	4,117	6,191	9,335	7,526	7,678	6,629
Coke .. .. .	3,444	8,206	9,778	6,845	8,802	9,768
Tar and pitch .. .. .	82	4,770	2,790	3,098	4,602	2,846
Fiji—						
Coal .. .. .	15,692	6,098	3,262	10,083	7,087	1,926
Coke .. .. .	315	165	218	183	211	211
Tar .. .. .	169	22	74	158	254	11
New Guinea (a)—						
Coal and coke .. .. .	35	56	27	35	26	19
New Zealand—						
Coal .. .. .	12,209	12,370	116	82	132	9,784
Coke .. .. .	310	293	—	57	55	357
Tar .. .. .	11,514	10,860	10,528	6,764	5,499	5,688
Pitch .. .. .	997	1,540	975	980	722	834
North Borneo—						
Coal and coke .. .. .	294	53	79	84	33	64
Papua (a)—						
Coal and coke .. .. .	62	49	33	51	25	21
Sarawak—						
Coal and coke .. .. .	20	14	14	27	171	23
Tar .. .. .	108	137	136	197	144	127
Western Samoa—						
Coal and coke .. .. .	98	6	7	126	155	n.a.
Irish Republic—						
Anthracite .. .. .	56,617	41,953	41,966	61,496	54,979	56,098
Bituminous (c) .. .. .	1,356,181	1,159,610	1,312,262	1,512,014	1,595,265	1,716,304
Coke .. .. .	16,718	14,399	6,540	6,801	7,248	6,986
Patent fuel .. .. .	58,555	33,731	12,467	4,044	2,524	2,777
Tar .. .. .	14,972	16,724	17,892	8,609	5,215	6,890
<b>OTHER COUNTRIES</b>						
Austria—						
Coal .. .. .	4,314,199	4,489,481	3,664,557	3,223,949	3,661,335	3,455,803
Brown coal .. .. .	237,415	305,424	237,181	118,564	66,233	42,785
Coke .. .. .	430,510	529,579	593,855	714,939	887,590	758,057
Briquettes .. .. .	553,694	601,742	536,947	481,691	537,741	501,363
Tar, pitch, etc. .. .. .	5,045	5,341	4,739	11,511	6,339	8,516
Belgium-Luxemburg						
E.U.—						
Coal .. .. .	5,041,838	5,484,679	5,557,903	5,027,969	4,061,418	4,169,341
do. coke .. .. .	3,660,885	3,859,965	3,625,196	3,641,645	4,071,186	4,083,023
do. briquettes .. .. .	74,599	93,377	106,777	103,154	127,624	158,173

(a) Years ended June 30 of that stated.

(b) Years ending March 31 following that stated.

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

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

Long tons

Importing Country and Description	1956	1957	1958	1959	1960	1961
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
<b>Belgium-Luxemburg</b>						
<i>E. U. (cont.)—</i>						
Brown coal .. ..	415	2,027	3,298	304	—	—
do. do. coke .. ..	232	369	1,223	34	36	169
do. do. briquettes ..	232,906	247,855	254,243	213,410	221,524	225,871
Tar .. ..	13,900	12,637	8,580	7,836	22,441	31,995
Pitch .. ..	72,667	69,248	31,002	2,735	555	4,801
<b>Czechoslovakia—</b>						
Coal .. ..	3,608,000	2,256,000	2,535,000	2,318,000	2,364,000	3,302,000
<b>Denmark—</b>						
Coal .. ..	3,280,582	3,087,659	2,639,299	2,809,220	3,894,049	3,721,965
Coke .. ..	2,195,050	1,280,325	1,484,467	1,125,538	1,320,859	1,162,289
Briquettes .. ..	24,234	17,111	20,029	9,241	8,359	5,042
Brown coal briquettes ..	176,929	119,420	196,044	129,258	168,444	180,908
Tar .. ..	8	66	42	90	80	40
Pitch .. ..	149	242	234	275	264	248
<b>Faroe Islands—</b>						
Coal .. ..	4,108	1,425	1,422	1,257	971	<i>n.a.</i>
<b>Finland—</b>						
Anthracite .. ..	160,492	192,688	246,105	191,651	204,920	172,970
Other coal .. ..	1,963,870	2,365,443	1,844,763	2,335,229	2,685,505	2,562,470
Coke .. ..	507,118	452,949	345,446	280,355	225,849	256,517
Tar .. ..	—	142	—	175	92	58
<b>France—</b>						
Anthracite .. ..	2,126,937	2,442,415	2,269,912	1,925,654	1,842,949	2,168,081
Bituminous .. ..	11,224,544	12,928,824	8,333,720	7,585,886	8,047,083	6,977,579
Lignite .. ..	1,831	1,395	922	169	79	1,310
Coke .. ..	4,637,778	5,006,125	4,388,705	4,014,797	4,972,098	5,481,533
Coal briquettes .. ..	472,677	864,146	456,437	418,416	418,812	432,283
Brown-coal briquettes ..	538,819	569,499	589,159	553,429	379,278	472,351
Tar and pitch .. ..	373,059	419,877	426,521	375,098	419,092	366,350
<b>Germany (Federal)—</b>						
Coal .. ..	18,131,033	21,087,887	15,926,954	8,248,236	6,583,296	6,678,059
Brown coal .. ..	990,743	937,762	895,505	982,526	1,061,554	1,098,146
Coke .. ..	793,122	476,825	233,124	434,502	530,961	388,257
Coal briquettes .. ..	303,966	163,772	57,652	131,505	214,434	212,436
Brown-coal briquettes ..	18,886	20,884	57,704	62,500	85,218	161,321
Tar and pitch .. ..	143,642	59,221	85,420	78,371	53,899	54,023
<b>Germany (East)—</b>						
Coal .. ..	5,552,000	5,662,000	7,280,000	7,956,000	7,901,000	7,811,000
Brown coal .. ..	4,503,000	4,084,000	5,166,000	5,759,000	5,444,000	5,858,000
Coke .. ..	2,235,000	2,647,000	2,413,000	2,559,000	2,487,000	2,790,000
<b>Greece—</b>						
Anthracite .. ..	44,622	54,392	24,953	17,620	8,765	<i>n.a.</i>
Other Coal .. ..	169,967	200,307	189,933	146,680	175,926	188,645
Coke .. ..	17,202	22,723	31,039	24,684	25,010	31,037
Tar .. ..	385	302	688	721	<i>n.a.</i>	<i>n.a.</i>
<b>Hungary—</b>						
Coal .. ..	827,911	2,388,523	1,124,149	1,207,493	1,408,160	1,697,589
Coke .. ..	1,067,251	1,085,358	1,127,718	1,045,519	1,025,560	930,947
Pitch .. ..	3,770	13,699	11,832	2,993	3,406	613
<b>Iceland—</b>						
Coal .. ..	42,017	33,291	29,811	27,644	21,136	17,118
Coke .. ..	3,321	1,499	3,054	2,182	2,256	1,296
Tar .. ..	102	120	103	111	16	41
<b>Italy—</b>						
Anthracite .. ..	1,002,693	1,145,821	} 8,658,672	949,203	8,267,162	} 9,548,672
Bituminous .. ..	9,344,070	10,027,813		6,789,150	1,388,111	
Lignite .. ..	31,072	21,128	50,173	13,890	18,833	23,062
Coke .. ..	26,263	113,487	257,470	163,994	247,523	237,213
Briquettes .. ..	242,687	262,450	194,550	236,429	322,037	363,202
Tar .. ..	2,495	6,370	4,473	2,529	465	411
Pitch .. ..	244	480	101	212	600	1,281

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

Long tons

Importing Country and Description	1956	1957	1958	1959	1960	1961
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
Netherlands—						
Coal .. .. .	a 8,556,655	a 8,692,925	6,983,495	6,404,506	6,986,864	7,045,810
Brown coal .. .. .	—	—	8,518	10,244	180,280	235,963
Coke .. .. .	429,761	492,656	289,316	405,990	365,316	306,425
Briquettes .. .. .	449,439	317,905	176,795	131,744	143,717	116,833
Brown-coal briquettes	304,923	300,756	301,312	261,490	246,445	234,560
Tar .. .. .	18,089	16,164	14,437	26,452	29,995	54,173
Pitch .. .. .	13,857	14,822	17,697	7,675	18,410	44,336
Norway—						
Coal (b) .. .. .	616,279	489,829	397,480	263,106	310,814	284,205
Coke .. .. .	718,685	569,379	501,580	598,680	735,568	690,157
Briquettes .. .. .	19,157	378	2,513	1,006	122	347
Tar and pitch .. .. .	6,475	7,195	11,100	32,971	43,832	42,682
Poland—						
Coal .. .. .	—	340,000	618,000	881,000	764,000	913,800
Brown-coal briquettes	15,000	203,000	492,000	1,292,000	403,000	582,900
Portugal—						
Anthracite .. .. .	12,700	15,251	9,991	6,049	8,141	28,592
Other coal .. .. .	435,287	508,863	355,851	285,994	336,391	338,756
Coke .. .. .	19,116	22,218	24,687	33,718	40,950	187,288
Briquettes .. .. .	5,078	3,103	2,710	650	245	2,506
Tar and pitch .. .. .	8,683	6,295	4,710	4,150	3,206	2,130
Roumania—						
Coal .. .. .	n.a.	n.a.	149,100	188,800	409,700	434,100
Coke .. .. .	n.a.	n.a.	606,400	688,700	645,400	471,700
Spain—						
Anthracite .. .. .	—	26	3,751	7,818	31	22
Bituminous .. .. .	324,642	615,683	1,085,122	815,139	302,858	210,859
Coke .. .. .	3,518	2	—	5,997	36,494	283,845
Tar and pitch .. .. .	88,951	62,281	59,420	48,249	37,770	26,018
Sweden—						
Anthracite .. .. .	73,495	61,121	29,977	31,535	33,596	30,042
Other coal .. .. .	2,463,000	2,630,000	1,657,000	1,700,469	1,864,455	1,797,756
Coke .. .. .	2,789,000	2,368,000	1,583,000	1,491,078	1,794,990	1,567,681
Briquettes .. .. .	104,975	36,353	62,898	23,991	14,381	11,468
Tar, pitch, etc. .. .. .	10,979	9,940	10,601	14,151	28,207	25,954
Switzerland—						
Coal .. .. .	2,215,745	2,383,739	1,645,461	1,648,646	1,921,852	1,640,619
Lignite .. .. .	754	786	307	610	544	472
Coke .. .. .	717,521	723,164	493,860	471,705	517,548	448,486
Briquettes .. .. .	336,766	321,514	302,311	234,507	227,343	247,809
Tar and pitch .. .. .	(c) 84,735	(c) 80,570	(c) 88,477	(c) 100,581	21,010	21,397
U.S.S.R.—						
Coal .. .. .	6,289,400	3,369,100	3,765,600	4,314,800	4,700,000	4,600,000
Coke .. .. .	591,400	365,100	667,300	620,100	647,600	637,800
Yugoslavia—						
Anthracite .. .. .	96,487	107,104	96,633	101,904	134,857	142,531
Other coal .. .. .	1,303,509	1,594,481	976,268	1,171,206	1,226,643	1,307,354
Coke .. .. .	42,779	19,532	45,148	237,727	298,911	193,003
Coke dust .. .. .	133	—	10,513	—	1,055	2,932
Tar and pitch .. .. .	394	642	2,474	5,515	4,063	3,821
Algeria—						
Coal .. .. .	296,135	483,250	504,462	406,818	328,045	n.a.
Coke .. .. .	111	253	265	197	211	n.a.
Briquettes .. .. .	4,083	4,568	4,629	3,435	3,659	n.a.
Tar and pitch .. .. .	1,417	4,514	7,090	8,478	15,438	n.a.
Angola—						
Coal .. .. .	22,016	53,232	15,207	17,082	44,566	n.a.
Coke .. .. .	1,547	4,558	2,239	2,609	1,594	1,507

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

(b) Excluding coal imported from Spitzbergen.

(c) Including pitch from petroleum.

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

Long tons

Importing Country and Description	1956	1957	1958	1959	1960	1961
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
Cameroun—						
Coal, coke, etc. . .	568	997	527	174	733	976
Canary Islands—						
Coal . . . . .	21,515	28,590	21,937	24,577	(f) 1,008	n.a.
Cape Verde Islands—						
Coal (a) . . . . .	—	21	1,505	665	59	n.a.
Ceuta—						
Coal (a) . . . . .	34,012	23,407	14,872	6,589	n.a.	n.a.
Congo Republic—						
Coal . . . . .	127,507	135,480	149,363	138,619	n.a.	n.a.
Coke . . . . .	105,479	108,969	76,884	68,029	n.a.	n.a.
Briquettes . . . . .	46	1	402	664	n.a.	n.a.
Pitch . . . . .	244	361	248	191	n.a.	n.a.
Tar . . . . .	795	208	263	1,173	n.a.	n.a.
Egypt—						
Coal . . . . .	64,147	118,086	74,892	42,870	44,673	n.a.
Coke . . . . .	12,707	65,494	202,955	43,885	127,774	n.a.
Briquettes . . . . .	10,494	650	26	—	104	n.a.
Tar and pitch . . . . .	—	—	12	289	82	n.a.
Equatorial African Community—						
Coal, coke, briquettes . .	64	152	127	230	229	110
Ethiopia (b)—						
Coal . . . . .	10,644	92	8,614	5,571	8,681	n.a.
French Somaliland—						
Coal . . . . .	305	69	175	12	60	—
French West Africa—						
Coal . . . . .	3,179	479	} (c)	(c)	(c)	(c)
Briquettes . . . . .	31,900	99				
Coke . . . . .	838	476				
Ivory Coast—						
Coal and briquettes . .	(d)	(d)	51	120	59	63
Coke . . . . .	(d)	(d)	169	114	128	172
Malagasy Republic—						
Coal and briquettes . .	3,786	4,266	10,949	12,591	17,362	4,593
Coke . . . . .	29	101	44	32	34	92
Tar and pitch . . . . .	128	140	70	93	56	59
Melilla—						
Coal . . . . .	17,908	22,457	11,129	6,988	n.a.	n.a.
Morocco—						
Coal . . . . .	96,639	(e) 70,045	78,158	63,329	81,391	84,185
Coke . . . . .	4,710	(e) 6,773	8,525	9,470	8,508	7,230
Tar . . . . .	3,543	25	37	1	3	1
Pitch . . . . .	1,143	704	2,204	1,259	1,303	861
Mozambique—						
Coal . . . . .	258,172	273,490	307,521	276,323	288,210	297,476
Coke . . . . .	573	660	1,081	1,026	1,025	n.a.
Tar, pitch and asphalt. .	3,893	5,242	8,939	6,052	4,716	n.a.
Reunion—						
Coal and briquettes . .	193	254	3,007	84	n.a.	n.a.
Senegal—						
Coal and briquettes . .	(d)	(d)	82	2,131	112	78
Coke . . . . .	(d)	(d)	413	399	234	294
South Africa—						
Coal . . . . .	40,163	49,820	54,962	26,899	1,818	n.a.
Coke . . . . .	13	26	12	4	3	n.a.

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

(b) Years ended September 10 of that stated.

(c) See under Ivory Coast and Senegal.

(d) See under French West Africa.

(e) Morocco (Southern) only.

(f) Excluding imports from Spain.

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

Long tons

Importing Country and Description	1956	1957	1958	1959	1960	1961
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
Sudan—						
Coal .. .. .	27,017	32,227	47,679	31,113	10,162	15,748
Coke .. .. .	—	—	—	295	<i>n.a.</i>	<i>n.a.</i>
Tar .. .. .	46	30	204	31	<i>n.a.</i>	<i>n.a.</i>
Togo—						
Coal and briquettes ..	107	7	—	—	—	566
Tunisia—						
Coal .. .. .	33,902	76,622	19,625	23,360	33,467	42,656
Coke .. .. .	13,239	10,635	16,481	5,366	10,012	9,143
Tar and pitch .. .. .	11	180	288	7	9	3
Cuba—						
Coal .. .. .	19,985	141,162	47,784	57,460	<i>n.a.</i>	<i>n.a.</i>
Coke .. .. .	38,285	39,893	40,647	69,222	<i>n.a.</i>	<i>n.a.</i>
Tar and pitch .. .. .	161	152	383	139	<i>n.a.</i>	<i>n.a.</i>
Dominican Republic—						
Coal, coke, briquettes, etc. .. .. .	938	280	1,427	628	384	<i>n.a.</i>
French West Indies—						
Guadeloupe—						
Coal .. .. .	1,160	1,125	888	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Martinique—						
Coal .. .. .	848	554	15	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Greenland—						
Coal .. .. .	10,958	13,177	9,464	7,556	17,485	<i>n.a.</i>
Guatemala—						
Coal .. .. .	124	403	460	152	123	56
Coke .. .. .	107	53	89	110	136	150
Honduras—						
Coal .. .. .	102	206	166	147	128	140
Coke .. .. .	27	19	21	4	—	10
Mexico—						
Coal .. .. .	53,098	55,677	39,302	56,632	47,137	49,375
Coke .. .. .	4,608	3,171	3,026	3,522	6,046	5,954
Tar .. .. .	260	324	237	209	1,253	296
Nicaragua—						
Coal .. .. .	19	21	19	15	16	9
Coke .. .. .	47	5	49	42	72	74
Panama Republic—						
Coal .. .. .	273	200	105	150	30	<i>n.a.</i>
Salvador—						
Coal .. .. .	127	179	138	176	111	93
Coke .. .. .	285	130	110	130	119	153
Tar .. .. .	87	50	79	56	57	58
St. Pierre and Miquelon—						
Coal .. .. .	9,133	12,200	12,133	9,302	10,920	9,912
United States—						
Anthracite .. .. .	41	1,016	3,896	2,351	1,318	707
Bituminous .. .. .	226,546	214,869	166,187	134,532	123,093	146,660
Lignite .. .. .	80	—	40	—	10	—
Slack and culm .. .. .	90,964	112,369	107,827	200,033	109,482	<i>n.a.</i>
Coke .. .. .	116,924	105,313	108,497	110,049	111,750	112,962
Briquettes .. .. .	284	759	164	165	5,961	6,552
Tar and pitch .. .. .	47,230	16,984	21,649	25,337	21,088	18,412
Argentina—						
Coal .. .. .	1,330,120	1,137,247	1,331,941	1,300,305	1,379,851	1,196,334
Coke .. .. .	151,756	133,766	101,600	68,055	69,092	44,532
Tar and pitch .. .. .	117	299	1,238	526	391	658
Bolivia—						
Coal and coke .. .. .	10,176	5,085	1,333	572	2,821	<i>n.a.</i>
Brazil—						
Coal .. .. .	878,712	879,900	557,602	624,458	1,018,764	844,645
Coke .. .. .	—	47,079	45,256	65,999	29,769	43,160



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

Long tons

Importing Country and Description	1956	1957	1958	1959	1960	1961
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
Chile—						
Coal .. .. .	33,012	283,760	98,095	23,506	262,049	<i>n.a.</i>
Coke .. .. .	837	866	569	632	780	<i>n.a.</i>
Tar and pitch .. .. .	5,051	3,513	5,529	8,776	24,669	<i>n.a.</i>
Colombia—						
Coal .. .. .	80	—	5	204	1	18
Coke .. .. .	—	48	83	40	30	49
Peru—						
Coal .. .. .	67	20	—	10	—	—
Coke .. .. .	834	641	655	690	1,828	18,365
Tar .. .. .	89	68	67	49	10	131
Surinam—						
Coal .. .. .	13	10	6	88	32	<i>n.a.</i>
Uruguay—						
Coal .. .. .	99,092	93,370	100,174	49,719	74,892	<i>n.a.</i>
Coke .. .. .	3,152	1,963	1,891	1,474	3,269	<i>n.a.</i>
Venezuela—						
Coal .. .. .	1,233	1,118	684	131	97	42
Coke .. .. .	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	733	578	12,958
Burma—						
Coal .. .. .	236,532	262,930	335,981	402,527	336,536	353,621
Coke .. .. .	13,184	15,876	5,396	11,917	10,790	7,493
Formosa—						
Coke .. .. .	3,562	4,474	4,375	4,884	—	—
Tar and pitch .. .. .	2,547	2,031	2,643	2,432	300	276
Indonesia—						
Coal .. .. .	42,423	36,741	20,830	41,655	34,281	<i>n.a.</i>
Coke .. .. .	827	4,264	150	3,624	254	<i>n.a.</i>
Tar .. .. .	425	822	98	147	212	<i>n.a.</i>
Iraq—						
Coal .. .. .	781	1,465	437	2,637	521	<i>n.a.</i>
Coke .. .. .	600	290	1,660	993	1,696	<i>n.a.</i>
Tar and pitch .. .. .	844	266	70	2,738	5,466	<i>n.a.</i>
Israel—						
Anthracite .. .. .	26,422	27,640	20,969	13,990	34,174	<i>n.a.</i>
Other coal .. .. .	897	1,297	596	10,120	70	<i>n.a.</i>
Coke .. .. .	—	—	3,801	6,409	11,544	<i>n.a.</i>
Japan—						
Anthracite .. .. .	457,158	724,749	497,460	511,210	814,411	1,102,018
Other coal .. .. .	3,303,660	5,605,450	4,074,973	4,380,232	7,346,876	9,881,599
Tar and pitch .. .. .	43	23,790	4,694	9,323	25,498	23,300
Korea (South)—						
Coal .. .. .	957,623	729,669	760,106	370,207	35,146	277,236
Lebanon—						
Coal .. .. .	2,558	4,046	1,999	4,410	(a) 1,083	<i>n.a.</i>
Coke .. .. .	1,762	1,423	3,101	2,376	4,036	<i>n.a.</i>
Briquettes .. .. .	7,744	—	—	2,740	<i>n.a.</i>	<i>n.a.</i>
Philippine Republic—						
Coal .. .. .	136	1	155	49	23	2
Coke .. .. .	7,573	5,643	6,353	8,114	8,849	7,523
Tar .. .. .	288	239	272	193	156	725
Portuguese India—						
Coal .. .. .	3,366	11,340	14,476	12,209	8,052	<i>n.a.</i>
Coke .. .. .	50	59	110	59	<i>n.a.</i>	<i>n.a.</i>
Syria—						
Coal .. .. .	1,385	1,522	906	1,533	274	<i>n.a.</i>
Coke .. .. .	784	1,104	1,408	1,829	2,285	2,239
Briquettes .. .. .	2,617	1,881	1,672	1,762	1,859	2,088
Thailand—						
Coal .. .. .	9,100	15,847	12,450	11,536	10,860	—
Coke .. .. .	1,071	2,389	1,658	1,399	2,618	2,389
Tar .. .. .	45	55	3	—	37	48

(a) Including briquettes.

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

Long tons

Importing Country and Description	1956	1957	1958	1959	1960	1961
OTHER COUNTRIES						
<i>(cont.)</i>						
Vietnam (South)—						
Coal .. .. .	59,950	47,938	63,469	15,333	10,553	5,184
French Polynesia—						
Coal .. .. .	984	9	1,009	—	—	25
New Caledonia—						
Coal .. .. .	264,048	180,859	160,742	144,570	136,941	66,328
Coke .. .. .	<i>n.a.</i>	174,042	67,956	32,084	128,554	199,534

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

Long tons

Producing Country	1956	1957	1958	1959	1960	1961
<b>COMMONWEALTH COUNTRIES</b>						
Northern Rhodesia (a) ..	1,021	1,357	1,644	2,027	1,862	1,721
Uganda (b) .. ..	140	500	500	660	<i>n.a.</i>	<i>n.a.</i>
Canada (c) .. ..	1,570	1,751	1,210	1,406	1,593	1,445
Australia (d) .. ..	12	12	15	14	14	17
<b>OTHER COUNTRIES</b>						
Finland (e) .. ..	1,375	1,620	1,898	1,908	<i>n.a.</i>	<i>n.a.</i>
Congo Republic (f) ..	8,945	8,061	6,398	8,298	8,092	8,195
Morocco .. ..	632	447	910	1,188	1,251	1,300
United States .. ..	1,605	1,850	2,162	1,337	<i>n.a.</i>	<i>n.a.</i>
New Caledonia .. ..	—	—	128	180	—	—
<b>TOTAL .. ..</b>	<b>15,300</b>	<b>16,000</b>	<b>15,000</b>	<b>17,000</b>	<b>16,000</b>	<b>16,000</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.

**METAL PRODUCTION OF COBALT**

Long tons

Producing Country	1956	1957	1958	1959	1960	1961
<b>COMMONWEALTH COUNTRIES</b>						
Northern Rhodesia ..	822	1,073	1,048	1,141	961	678
<b>OTHER COUNTRIES</b>						
France .. ..	368	258	395	301	525	540
Germany (Federal) (a) ..	865	853	978	1,380	1,501	1,591
Norway (c) .. ..	242	274	319	384	470	546
Congo Republic .. ..	5,029	5,525	4,717	5,926	5,530	6,384
United States (b) .. ..	2,216	1,954	1,624	1,099	688	<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. Annual production in the U.S.S.R. has been estimated as 900 long tons.

- (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
1956 ..	694	1959 ..	605
1957 ..	662	1960 ..	699
1958 ..	580	1961 ..	601

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

## EXPORTS OF COBALT, ETC.

Long tons

Exporting Country and Description	1956	1957	1958	1959	1960	1961
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom—						
Cobalt (a) .. ..	31	877	30	52	42	44
Cobalt oxide .. ..	249	314	394	316	244	274
Other compounds .. ..	404	534	557	684	648	684
Rhodesia and Nyasaland—						
Cobalt .. .. ..	724	1,078	934	1,329	1,176	540
Cobalt alloy .. ..	384	170	—	27	131	5
Canada—						
Ore (Co content) .. ..	7	7	—	—	—	—
Cobalt .. .. ..	640	962	457	304	377	270
Cobalt alloys .. ..	5	6	4	1	1	—
Cobalt oxides and salts ..	576	277	233	491	525	679
<b>OTHER COUNTRIES</b>						
Belgium-Luxemburg						
E.U.—						
Cobalt (b) .. ..	1,078	1,110	1,091	2,325	2,449	1,046
France—						
Ingots and scrap .. ..	19	34	18	62	87	228
Cobalt salts .. ..	1	4	1	6	18	6
Germany (Federal)—						
Cobalt (c) .. ..	286	381	453	796	788	820
Cobalt oxide .. ..	n.a.	n.a.	108	65	50	16
Norway—						
Cobalt .. .. ..	n.a.	n.a.	n.a.	314	382	626
Sweden—						
Cobalt .. .. ..	7	—	—	3	17	15
U.S.S.R.—						
Cobalt .. .. ..	137	145	206	196	214	261
Congo Republic—						
Cobalt .. .. ..	4,449	4,828	5,139	6,311	(d) 6,000	(d) 6,400
Cobalt-copper ingots ..	9,730	7,094	4,274	5,162	(d) 5,600	(d) 4,400
Morocco—						
Ore .. .. ..	6,298	4,727	8,196	10,845	12,027	5,243
United States—						
Ore and metal (c) ..	1,363	477	785	310	816	926

(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.

## IMPORTS OF COBALT, ETC.

Long tons

Importing Country and Description	1956	1957	1958	1959	1960	1961
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom—						
Cobalt .. .. .	734	738	707	927	1,653	1,417
Cobalt alloys .. .. .	134	76	49	28	18	12
Cobalt oxide .. .. .	591	386	317	561	808	932
Canada—						
Ore .. .. .	1	(800 lbs.)	—	—	—	—
Cobalt oxide .. .. .	5	5	7	11	9	13
Hong Kong—						
Cobalt oxide .. .. .	31	2	34	36	37	16
Australia (a)—						
Cobalt ingots, etc. .. .. .	34	43	38	58	83	46
Cobalt oxide .. .. .	21	11	36	15	9	17
Cobalt salts .. .. .	55	21	51	76	69	59
New Zealand—						
Cobalt salts .. .. .	280	291	315	341	330	372
<b>OTHER COUNTRIES</b>						
Denmark—						
Cobalt .. .. .	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	20	40	7
France—						
Ore .. .. .	4,673	3,801	6,593	6,920	6,678	9,162
Ingots and scrap .. .. .	74	44	18	49	172	157
Cobalt oxide .. .. .	55	58	141	85	115	68
Germany (Federal)—						
Ore .. .. .	46	—	1	—	—	<i>n.a.</i>
Cobalt (b) .. .. .	227	227	414	338	857	758
Cobalt oxide .. .. .	<i>n.a.</i>	<i>n.a.</i>	185	176	236	209
Italy—						
Cobalt (b) .. .. .	98	102	91	182	453	417
Cobalt oxide .. .. .	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	92	126	132
Portugal—						
Cobalt oxide .. .. .	—	1	3	5	2	1
Sweden—						
Cobalt .. .. .	110	129	79	158	321	308
Yugoslavia—						
Cobalt .. .. .	4	4	19	29	43	21
Mexico—						
Cobalt oxide .. .. .	22	31	12	30	36	29
United States—						
Ore (c) .. .. .	2,136	903	—	345	2,885	—
<i>Co content</i> .. .. .	901	371	—	16	140	—
Cobalt metal .. .. .	5,792	7,220	6,490	8,968	4,822	4,480
Cobalt oxide .. .. .	370	289	374	695	651	304
Cobalt salts .. .. .	178	163	105	124	103	71
Argentina—						
Cobalt salts .. .. .	13	29	28	46	36	36
Brazil—						
Cobalt oxide .. .. .	24	24	23	24	45	30
Japan—						
Ore .. .. .	4	25	—	—	1	—
Ingots, slabs and grains .. .. .	470	474	281	913	1,130	1,546
Cobalt oxide .. .. .	140	122	132	197	230	282

(a) Years ended June 30 of that stated.

(b) Including alloys and scrap.

(c) As recorded in official trade returns. According to U.S. Bureau of Mines includes cobalt alloy.

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

Long tons

Producing Country	1956	1957	1958	1959	1960	1961
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom .. .. .	9	11	13	11	16	14
Kenya (f) .. .. .	600	1,500	1,400	1,400	1,200	(b) 1,800
Northern Rhodesia (d) ..	397,736	428,851	393,814	534,673	567,255	565,656
Southern Rhodesia .. ..	1,725	2,881	7,527	10,729	13,506	13,610
Tanganyika .. .. .	1,140	1,052	1,581	1,081	1,254	99
Uganda .. .. .	2,884	10,467	10,000	(h) 11,943	(h) 14,515	(h) 13,163
Canada (g) .. .. .	316,839	320,633	308,137	352,919	392,198	396,996
Cyprus (e) .. .. .	35,265	38,996	32,691	35,695	34,907	28,201
India .. .. .	8,208	8,404	8,502	r 8,368	8,705	8,659
Australia .. .. .	54,547	59,255	75,715	94,950	109,435	94,630
Fiji .. .. .	n.a.	100	n.a.	n.a.	n.a.	n.a.
<b>TOTAL .. .. .</b>	<b>r 819,000</b>	<b>r 872,200</b>	<b>r 839,000</b>	<b>r 1,052,000</b>	<b>1,143,000</b>	<b>1,123,000</b>
Irish Republic .. .. .	—	—	652	4,229	(b) 6,000	(b) 5,800
<b>OTHER COUNTRIES</b>						
Austria .. .. .	6,961	2,341	2,467	2,474	1,993	1,926
Bulgaria .. .. .	5,200	7,100	7,000	10,800	13,900	n.a.
Finland (d) .. .. .	20,713	25,615	28,411	28,900	28,000	33,500
France (d) .. .. .	r 400	r 366	r 676	r 529	553	359
Germany—						
Federal Republic .. .. .	r 1,333	r 1,359	1,325	1,753	1,750	1,632
East (b) .. .. .	21,000	16,300	18,000	20,000	20,000	20,000
Italy .. .. .	2,128	3,482	3,637	3,518	2,948	2,373
Norway .. .. .	14,722	14,988	15,626	14,132	15,148	13,000
Poland (c) .. .. .	7,000	7,400	(b) 7,900	(b) 8,800	(b) 10,400	(b) 11,500
Portugal .. .. .	952	553	731	708	517	556
Spain (b) .. .. .	17,000	20,000	20,000	20,000	20,000	20,000
Sweden .. .. .	16,461	17,790	18,262	r 17,035	16,425	16,633
U.S.S.R. (b) .. .. .	400,000	400,000	430,000	430,000	450,000	470,000
Yugoslavia .. .. .	31,328	32,931	34,679	34,054	32,751	37,310
Algeria .. .. .	187	487	449	59	117	599
Angola .. .. .	1,444	1,678	1,506	1,726	1,882	912
Congo Republic (h) .. ..	246,016	238,418	233,810	277,639	295,955	289,672
Mauritania .. .. .	—	—	—	41	n.a.	n.a.
Morocco .. .. .	761	620	1,027	1,166	1,240	1,700
South Africa .. .. .	45,762	45,501	48,763	49,729	45,399	53,417
South West Africa .. ..	27,864	26,899	28,000	31,000	20,000	25,000
Upper Volta .. .. .	96	—	—	—	—	—
Cuba .. .. .	14,327	13,666	12,493	8,877	11,659	(b) 10,000
Haiti .. .. .	—	—	—	—	900	3,400
Mexico (d) .. .. .	53,998	59,643	63,937	56,369	59,377	48,535
Nicaragua .. .. .	—	—	—	894	4,820	6,178
United States (d) .. ..	985,854	970,410	874,401	736,470	964,437	1,040,317
Bolivia (a) .. .. .	4,373	3,857	2,741	r 2,080	2,060	1,931
Brazil (i) .. .. .	790	1,200	1,200	1,300	1,300	1,400
Chile (d) .. .. .	482,004	477,952	459,755	537,597	523,793	538,960

(a) Exports.

(b) Estimated.

(c) Source: United States Bureau of Mines.

(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): 1956—26,300; 1957—26,800; 1958—22,800; 1959—25,200; 1960—n.a.; 1961—n.a.

(f) Copper content of cement copper.

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

(h) Smelter.

(i) United States Bureau of Mines' estimate.

## PRODUCTION OF COPPER ORE (cont.)

Long tons

Producing Country	1956	1957	1958	1959	1960	1961
<b>OTHER COUNTRIES</b> (cont.)						
Ecuador .. .. .	12	15	47	132	99	99
Peru .. .. .	45,506	56,271	52,772	r 49,030	178,851	194,867
Burma (b) .. .. .	130	130	130	150	140	110
China (a) (b) .. .. .	12,000	15,000	30,000	40,000	40,000	60,000
Formosa (c) .. .. .	1,795	2,010	1,651	1,708	n.a.	n.a.
Israel .. .. .	—	—	256	3,300	4,300	4,700
Japan .. .. .	77,230	80,417	80,212	83,902	87,849	94,886
Korea (South) (b) .. .. .	700	450	350	250	300	250
Philippine Republic .. .. .	26,537	39,744	46,287	48,739	43,315	51,056
Turkey (a) .. .. .	24,372	24,016	22,174	23,468	25,806	19,678
<b>TOTAL .. .. .</b>	<b>r 2,600,000</b>	<b>r 2,600,000</b>	<b>r 2,600,000</b>	<b>r 2,600,000</b>	<b>2,900,000</b>	<b>3,100,000</b>
<b>WORLD'S TOTAL .. .. .</b>	<b>3,400,000</b>	<b>3,500,000</b>	<b>3,400,000</b>	<b>3,600,000</b>	<b>4,100,000</b>	<b>4,200,000</b>

Copper ore is also known to have been produced in Albania, Czechoslovakia, Hungary and Iran.

(a) Smelter.

(b) Estimated.

(c) Copper content of concentrates and cement copper.

## METAL PRODUCTION OF COPPER

Long tons

Producing Country	1956	1957	1958	1959	1960	1961
<b>COMMONWEALTH COUNTRIES</b>						
Northern Rhodesia .. ..	383,555	416,573	375,146	531,332	558,859	559,942
Uganda .. ..	150	7,465	10,831	11,943	14,515	13,163
Canada (a) .. ..	279,421	283,362	285,200	326,839	355,319	358,497
India .. ..	7,628	7,848	7,840	r 7,553	8,848	8,587
Australia .. ..	49,030	50,403	64,608	68,494	71,037	61,944
<b>TOTAL .. ..</b>	<b>r 719,784</b>	<b>r 765,651</b>	<b>r 743,625</b>	<b>r 946,161</b>	<b>1,008,578</b>	<b>1,002,133</b>
<b>OTHER COUNTRIES</b>						
Albania .. ..	567	910	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Austria (b) .. ..	9,900	8,755	9,397	10,358	11,575	11,680
Bulgaria .. ..	4,500	4,981	6,025	6,440	7,719	(g) 10,000
Finland .. ..	22,113	25,419	30,244	32,090	30,481	33,800
Germany—						
Federal Republic .. ..	54,400	63,300	69,000	63,100	61,400	63,300
East (e) .. ..	25,000	20,000	20,000	20,000	20,000	20,000
Italy .. ..	382	131	104	361	<i>n.a.</i>	<i>n.a.</i>
Norway .. ..	15,190	15,578	17,291	18,945	21,273	21,623
Poland .. ..	19,996	19,612	17,095	17,200	21,400	21,800
Portugal .. ..	<i>n.a.</i>	<i>n.a.</i>	4,281	4,853	5,191	5,754
Spain .. ..	6,197	5,892	4,960	6,835	8,072	11,969
Sweden .. ..	16,672	19,171	19,882	24,930	21,363	20,377
U.S.S.R. (c) (e) .. ..	400,000	400,000	430,000	430,000	450,000	470,000
Yugoslavia .. ..	28,920	33,202	33,140	34,694	35,165	30,381
Angola .. ..	1,273	1,600	1,369	1,396	1,400	800
Congo Republic .. ..	246,016	238,418	233,810	277,639	295,955	289,672
South Africa .. ..	43,466	42,374	47,684	48,074	45,399	51,395
Mexico .. ..	46,508	55,412	59,919	54,558	57,912	46,873
United States (d) .. ..	1,099,421	1,051,915	954,511	751,603	1,101,454	1,077,995
Bolivia .. ..	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	542	<i>n.a.</i>	<i>n.a.</i>
Chile .. ..	452,014	443,515	430,492	504,412	496,996	494,102
Peru .. ..	30,588	40,486	37,859	33,950	162,185	179,096
China (e) .. ..	12,000	15,000	30,000	40,000	40,000	60,000
Formosa .. ..	1,481	1,681	1,637	1,774	1,752	2,232
Japan (f) .. ..	91,019	107,251	101,769	152,396	184,371	199,625
Korea (South) .. ..	893	780	791	736	994	1,300
Turkey .. ..	24,372	24,016	22,174	23,468	25,806	19,678
<b>TOTAL .. ..</b>	<b>2,700,000</b>	<b>2,600,000</b>	<b>r 2,600,000</b>	<b>r 2,600,000</b>	<b>3,100,000</b>	<b>3,100,000</b>
<b>WORLD'S TOTAL .. ..</b>	<b>3,400,000</b>	<b>3,400,000</b>	<b>3,300,000</b>	<b>3,500,000</b>	<b>4,100,000</b>	<b>4,100,000</b>

(a) Copper content of blister and anode copper.

(b) Including secondary metal.

(c) May include secondary metal.

(d) In addition, secondary metal was recovered as follows (long tons): 1956—830,950; 1957—751,685; 1958—711,954; 1959—830,866; 1960—778,025; 1961—757,981.

(e) Estimated.

(f) In addition, secondary metal was recovered as follows (long tons): 1956—33,144; 1957—32,726; 1958—20,234; 1959—38,512; 1960—59,818; 1961—73,005.

(g) United States Bureau of Mines' estimate.



EXPORTS OF COPPER, ETC.\*

Long tons

Exporting Country and Description	1956	1957	1958	1959	1960	1961
<b>COMMONWEALTH COUNTRIES</b>						
<b>United Kingdom—</b>						
Unwrought .. ..	32,091	35,325	55,539	77,403	49,090	71,510
do. alloys .. ..	25,364	27,549	33,044	30,755	29,393	37,576
Scrap (a) .. ..	453	354	772	707	444	1,435
Semi-manufactures .. ..	88,423	100,861	126,698	56,322	64,304	38,035
do. alloys .. ..	18,973	21,370	24,110	26,314	27,731	34,716
Sulphate .. ..	47,811	28,427	26,515	31,086	25,366	19,463
<b>Kenya—</b>						
Unwrought (a) .. ..	—	2,474	3,328	3,167	3,053	3,667
<b>Rhodesia and Nyasaland—</b>						
Ore, concentrates and matte .. ..	6,604	14,362	23,184	31,543	39,341	24,798
Unwrought—						
Blister .. ..	152,596	171,169	146,273	160,178	151,070	146,802
Electrolytic .. ..	215,083	237,441	256,360	354,206	396,821	390,044
<b>Tanganyika—</b>						
Lead concentrates (Cu content) .. ..	1,138	1,052	1,581	1,068	1,247	n.a.
<b>Uganda—</b>						
Unwrought (a) .. ..	—	7,404	10,967	11,797	14,713	12,930
<b>Canada—</b>						
Ore, matte, etc. (Cu content) .. ..	36,602	41,561	27,068	28,634	42,529	38,298
Unwrought .. ..	156,111	177,494	200,569	198,604	248,273	237,720
Scrap, slag, etc. .. ..	13,030	10,965	9,899	5,568	10,291	(e) 6,959
Scrap alloys .. ..	7,414	8,338	6,324	6,603	11,014	8,448
Semi-manufactures (f) .. ..	10,639	10,530	12,833	15,080	18,977	24,744
do. alloys (d) .. ..	1,295	1,075	1,873	2,488	2,305	3,576
Wire .. ..	(£706,484)	(£201,213)	(£54,866)	(£145,526)	(£102,317)	(£106,737)
<b>Cyprus—</b>						
Ore and concentrates .. ..	119,211	139,192	115,125	123,519	115,784	101,585
Cupreous pyrites .. ..	171,032	226,334	228,821	307,026	248,931	138,477
Copper cement .. ..	3,700	3,900	4,068	3,693	2,212	1,759
<b>Hong Kong—</b>						
Unwrought (a) .. ..	—	—	97	20	31	23
Scrap .. ..	1,434	6,363	252	515	680	987
Semi-manufactures (a) .. ..	111	50	831	191	401	214
<b>India—</b>						
Semi-manufactures (a) .. ..	671	59	93	184	(b) 326	(b) 248
<b>Malaya—</b>						
Ore .. ..	1,351	1,600	—	2,163	1,239	1,511
Semi-manufactures (a) .. ..	114	165	163	116	129	222
Sulphate .. ..	19	6	2	6	9	12
<b>Australia (c)—</b>						
Ore, etc. (Cu content) .. ..	3,949	8,145	8,745	10,703	26,361	35,974
Matte .. ..	960	—	493	—	—	1
Unwrought .. ..	15,112	15,598	16,538	21,094	12,973	24,071
do. alloys .. ..	5	128	98	85	39	64
Scrap (a) .. ..	122	40	44	4,297	5,721	8,362
Semi-manufactures (a) .. ..	2,969	4,635	1,975	1,971	2,481	3,726
<b>Fiji—</b>						
Ore .. ..	597	—	983	97	47	—
<b>New Zealand—</b>						
Scrap (a) .. ..	2,017	1,870	1,370	268	1,824	1,439
<b>Papua—</b>						
Ore and concentrates .. ..	21	20	n.a.	n.a.	n.a.	n.a.

\*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) Years ended June 30 of that stated.

(d) Including refinery shapes.

(e) Scrap only.

(f) Excluding wire.

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

Long tons

Exporting Country and Description	1956	1957	1958	1959	1960	1961
<b>Irish Republic—</b>						
Ore and concentrates ..	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	26,893	30,255	28,024
Scrap .. .. .	1,550	1,087	1,063	1,086	1,325	1,491
<b>OTHER COUNTRIES</b>						
<b>Austria—</b>						
Ore .. .. .	2	—	—	—	—	—
Unwrought .. ..	1,418	801	777	1,301	1,229	1,312
do. alloys .. ..	—	163	189	117	109	106
Scrap (a) .. .. .	154	168	157	129	126	97
Semi-manufactures (a)	968	1,330	1,307	1,605	3,121	4,825
Sulphate .. .. .	1,030	1,517	1,076	59	233	1,262
<b>Belgium-Luxemburg</b>						
<b>E.U.—</b>						
Unwrought (a) (b) ..	133,648	117,486	133,943	163,387	169,387	195,223
Scrap .. .. .	614	528	2,377	3,387	2,836	5,819
Semi-manufactures (a)	40,559	37,190	43,578	41,893	59,254	60,810
Sulphate .. .. .	17,618	23,057	17,111	21,670	20,663	15,941
<b>Denmark—</b>						
Unwrought .. ..	436	200	205	173	272	5
do. alloys .. ..	321	328	170	335	224	144
Scrap (a) .. .. .	3,012	1,781	2,361	2,540	2,766	2,964
Semi-manufactures (a)	1,564	69	46	239	357	696
<b>Finland—</b>						
Unwrought (a) .. ..	1,263	2,144	10,707	8,758	4,767	5,501
Semi-manufactures (a)	1,498	375	2,001	1,581	2,030	2,991
<b>France—</b>						
Ore .. .. .	—	—	—	—	984	675
Matte .. .. .	20	1	—	44	4,373	2,658
Unwrought .. ..	647	470	585	4,563	10,574	7,510
do. alloys .. ..	1,035	98	164	6,272	12,915	6,719
Scrap .. .. .	403	62	58	119	3,345	3,203
do. alloys .. ..	141	813	257	4,876	10,737	15,188
Semi-manufactures (a)	7,782	8,399	12,229	23,532	24,051	22,309
Sulphate .. .. .	5,494	5,886	5,366	5,013	9,670	8,237
<b>Germany (Federal)—</b>						
Ore .. .. .	2,485	30	—	—	—	418
<b>Unwrought—</b>						
Unrefined .. .. .	2,434	600	1,480	1,104	548	45
Refined .. .. .	47,310	45,767	63,195	87,433	79,528	78,997
Alloys .. .. .	93	85	418	372	510	1,046
Scrap (a) .. .. .	1,280	1,368	4,519	6,257	6,519	11,230
Semi-manufactures (a)	68,563	71,798	90,997	105,839	68,741	57,414
Sulphate .. .. .	3,939	5,248	4,875	4,534	4,780	5,491
<b>Italy—</b>						
Ore .. .. .	—	1	—	3,272	2,015	2,246
Unwrought (a) .. ..	—	45	1	121	33	169
Scrap (a) .. .. .	1	—	—	772	60	121
Semi-manufactures (a)	7,521	7,943	11,308	12,909	11,310	13,234
Sulphate .. .. .	3,925	3,250	6,610	1,772	6,316	4,369
<b>Netherlands—</b>						
Ore .. .. .	—	—	—	722	4,133	6,804
Unwrought .. ..	771	853	795	1,480	849	264
do. alloys .. ..	4,231	3,432	5,734	6,414	6,468	6,009
Scrap (a) .. .. .	12,384	10,282	11,694	14,396	13,190	14,374
Semi-manufactures (a)	4,457	4,833	13,153	8,719	6,523	6,555
Sulphate .. .. .	27	33	27	18	27	50
<b>Norway—</b>						
Ore .. .. .	14,704	12,841	10,538	10,316	9,618	11,866
Matte .. .. .	13,842	13,005	12,759	17,552	16,811	19,568
Unwrought .. ..	14,393	14,212	16,635	17,394	18,029	18,756
do. alloys .. ..	1,541	1,986	2,250	2,283	2,327	1,875
Scrap (a) .. .. .	2,680	4,535	2,219	1,304	1,492	1,494
Semi-manufactures (a) ..	1,309	483	895	2,707	3,533	2,217

(a) Including alloys.

(b) Including matte.

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

Long tons

Exporting Country and Description	1956	1957	1958	1959	1960	1961
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
Portugal—						
Unwrought .. .. .	1,060	721	16	275	351	556
Semi-manufactures (a) }						
Sulphate .. .. .						
Spain—						
Unwrought (a) .. .. .	13	—	5	1,180	2,801	209
Semi-manufactures (a)	1	—	4	53	593	63
Sweden—						
Unwrought .. .. .	14,115	15,797	12,682	14,782	14,947	15,953
do. alloys .. .. .	1,638	1,675	2,839	2,828	1,511	1,745
Scrap (a) .. .. .	4,291	1,035	669	583	703	719
Semi-manufactures (a)	20,611	23,370	27,870	31,679	32,344	30,226
Sulphate .. .. .	—	5	—	2	3	2
Switzerland—						
Unwrought (a) .. .. .	1,095	1,466	2,698	3,310	2,599	1,706
Scrap (a) .. .. .	2,242	2,650	2,875	2,961	403	527
Semi-manufactures (a)	8,471	9,428	10,455	12,213	9,435	8,543
U.S.S.R.—						
Unwrought (c) .. .. .	51,600	59,600	43,100	57,900	63,400	59,400
Sulphate .. .. .	7,900	9,000	8,000	8,300	9,300	9,700
Yugoslavia—						
Unwrought .. .. .	1,253	197	1	—	—	—
Semi-manufactures (a)	3,089	7,471	3,817	10,859	12,635	13,163
Sulphate .. .. .	672	9,142	133	776	6,707	984
Algeria—						
Ore .. .. .	—	431	2,436	797	410	n.a.
Scrap (a) .. .. .	786	1,493	1,353	2,095	2,794	n.a.
Semi-manufactures (a)	1,149	1,477	1,797	1,411	1,797	n.a.
Angola—						
Ore .. .. .	5	—	—	—	—	—
Unwrought .. .. .	1,473	1,764	1,513	1,584	1,949	812
Congo Republic—						
Unwrought—						
Blister .. .. .	126,078	114,160	105,871	121,615	} b 280,000	(b) 300,000
Refined .. .. .	123,594	123,901	130,344	155,801		
Copper-cobalt ingots	9,730	7,094	4,274	5,162		
Morocco—						
Ore .. .. .	1,790	1,674	9,898	4,619	4,738	4,357
Scrap (a) .. .. .	1,031	793	586	1,330	1,407	1,266
South Africa—						
Copper-gold concentrates (Cu content) ..	503	} 1,580	754	441	—	238
Copper matte (Cu content) .. .. .	1,130					
Unwrought .. .. .	39,039	38,482	43,985	42,853	44,573	51,586
South West Africa—						
Ore (Cu content) .. .. .	436	1,361	827	2,195	2,153	4,537
Copper-lead ore (Cu content) (e) .. .. .	30,123	26,638	27,516	30,154	19,179	23,587
Upper Volta—						
Ore .. .. .	433	—	—	—	—	—
Cuba—						
Ore .. .. .	60,591	82,735	49,692	(d) 63,360	n.a.	n.a.
Scrap .. .. .	978	517	399	2,189	n.a.	n.a.
Mexico—						
Ore, concentrates, etc. ..	39,014	21,843	20,143	3,547	20,655	3,497
Unwrought .. .. .	45,338	43,329	42,493	41,466	34,306	24,074

(a) Including alloys.

(b) Estimated.

(c) Including wire.

(d) Including cupreus pyrites.

(e) Copper content of lead-copper-zinc ores and concentrates.

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

Long tons

Exporting Country and Description	1956	1957	1958	1959	1960	1961
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
<b>United States—</b>						
Ores, matte, blister, etc. <i>(Cu content)</i> .. ..	12,248	13,978	10,246	2,662	9,920	3,998
Unwrought .. ..	199,199	308,951	343,632	141,909	387,288	385,940
Scrap .. ..	22,929	43,740	19,519	9,572	54,195	31,479
do. alloys .. ..	45,076	62,496	25,448	26,255	109,783	104,155
Semi-manufactures ..	12,091	13,067	8,130	7,895	8,647	9,519
do. alloys .. ..	4,656	4,696	4,228	4,453	4,101	4,641
Sulphate .. ..	26,943	30,039	6,471	2,386	13,251	6,764
<b>Argentina—</b>						
Ores .. ..	2,855	2,801	2,705	2,983	1,383	1,590
Matte .. ..	—	—	246	224	241	209
<b>Bolivia—</b>						
Ore, etc. <i>(Cu content)</i> ..	4,373	3,857	2,741	2,080	2,060	1,931
Unwrought .. ..	—	—	88	117	175	117
<b>Chile—</b>						
Ores and concentrates	20,909	24,418	35,114	34,172	37,011	<i>n.a.</i>
Precipitate .. ..	3,097	4,100	3,252	3,300	3,915	<i>n.a.</i>
<b>Unwrought—</b>						
Blister .. ..	206,053	232,271	246,759	253,499	268,726	297,285
Refined .. ..	87,001	63,023	52,190	69,242	73,627	68,678
Electrolytic .. ..	123,283	149,948	101,236	146,793	138,770	144,817
<i>Cu content (b)</i> .. ..	445,027	477,431	425,217	501,262	514,130	534,075
Semi-manufactures ..	13,622	2,800	23,367	32,497	4,839	3,854
<b>Peru—</b>						
Ore <i>(Cu content)</i> .. ..	11,895	13,957	12,559	12,918	18,578	15,313
Matte, etc. <i>(do.)</i> .. ..	575	558	642	1,093	1,092	1,289
Precipitate <i>(do.)</i> .. ..	488	485	1,185	955	812	808
Unwrought <i>(do.)</i> .. ..	30,253	34,838	38,631	33,198	144,855	178,215
<b>Burma—</b>						
Matte .. ..	153	419	216	396	364	504
<b>Formosa—</b>						
Ore .. ..	8,657	9,547	10,580	12,992	6,496	8,661
<b>Japan—</b>						
Unwrought .. ..	2,767	1,657	1,335	1,451	1,585	1,336
Semi-manufactures <i>(a)</i>	5,466	3,646	11,082	10,901	11,271	12,249
Sulphate .. ..	11	11	51	27	8	160
<b>Korea (South)—</b>						
Unwrought .. ..	<i>n.a.</i>	<i>n.a.</i>	1,076	70	284	721
<b>Philippine Republic—</b>						
Ore and concentrates ..	87,524	125,961	178,061	156,279	171,694	243,420
Copper-gold-silver concentrates ..	48,329	36,589	22,421	7,398	19,010	22,797
Scrap .. ..	241	—	184	581	497	2,858
<b>Turkey—</b>						
Ore .. ..	—	—	—	15,887	747	—
Unwrought .. ..	18,892	14,406	12,495	10,874	17,765	8,051

(a) Including alloys.

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

## IMPORTS OF COPPER, ETC.\*

Long tons

Importing Country and Description	1956	1957	1958	1959	1960	1961
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom—						
Unwrought—						
Electrolytic .. ..	242,880	292,637	308,128	269,386	375,683	345,580
Other refined .. ..	34,099	45,238	51,370	49,324	53,504	34,790
Blister .. ..	106,290	115,182	95,878	95,233	111,961	140,445
Alloys .. ..	154	115	79	158	296	159
Scrap .. ..	1,414	1,343	438	575	2,043	371
do. alloys .. ..	2,542	2,669	493	1,105	4,261	1,591
Semi-manufactures (a)	2,357	2,364	3,423	3,366	6,323	4,340
Ghana—						
Semi-manufactures (a)	681	312	434	387	738	653
Kenya—						
Unwrought (a) .. ..	52	51	1	1	1	—
Semi-manufactures (a)	333	127	117	127	158	205
Sulphate .. ..	13	138	14	54	68	49
Mauritius—						
Semi-manufactures (a)	88	180	170	108	204	106
Nigeria—						
Unwrought and semi-manufactures (a) .. ..	498	621	606	605	630	858
Rhodesia and Nyasaland—						
Semi-manufactures (a)	820	1,207	1,485	1,380	996	829
Tanganyika—						
Unwrought (a) .. ..	66	10	1	—	5	—
Semi-manufactures (a)	220	125	100	127	111	79
Sulphate .. ..	69	41	31	18	6	—
Uganda—						
Semi-manufactures (a)	68	42	80	37	75	84
Zanzibar—						
Semi-manufactures (a)	2	28	9	4	5	3
Canada—						
Unwrought .. ..	2,269	3,727	1	93	22	3
Scrap (a) .. ..	6,009	3,444	1,613	3,424	2,781	3,654
Semi-manufactures .. ..	3,374	3,054	5,072	3,014	2,972	3,771
do. alloys .. ..	2,153	1,978	2,886	3,100	1,582	1,897
Sulphate .. ..	921	909	1,005	1,168	998	345
Barbados—						
Semi-manufactures (a)	(22,257)	80	78	107	81	112
Jamaica—						
Sulphate .. ..	4,523	4,021	2,608	1,479	1,647	762
Trinidad and Tobago—						
Sulphate .. ..	37	28	12	31	25	n.a.
Ceylon—						
Unwrought (a) .. ..	8	20	64	24	28	16
Semi-manufactures (a)	462	690	584	548	551	583
Cyprus—						
Semi-manufactures .. ..	43	57	50	84	138	111
Hong Kong—						
Unwrought (a) .. ..	158	708	51	90	103	281
Scrap .. ..	636	6,103	381	675	692	1,022
Semi-manufactures (a)	5,142	4,361	4,483	4,679	6,412	8,099
India—						
Unwrought .. ..	29,949	43,466	47,861	45,750	(b) 55,892	(b) 36,203
do. alloys .. ..	254	195	27	4	(b) 66	(b) 64
Scrap .. ..	473	1,048	2,155	3,031	(b) 3,330	(b) 2,330
Semi-manufactures (a)	9,554	5,807	2,985	3,461	(b) 5,747	(b) 6,069
Sulphate .. ..	1,247	1,738	431	30	(b) 3	(b) 1

\*See footnote on p.107 concerning the descriptions "unwrought" copper and "semi-manufactures" used in these tables.

(a) Including alloys.

(b) Years ended March 31 following that stated.

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

Long tons

Importing Country and Description	1956	1957	1958	1959	1960	1961
<b>COMMONWEALTH COUNTRIES</b> (cont.)						
Malaya—						
Unwrought (a) ..	54	137	91	23	64	63
Semi-manufactures (a)	1,564	1,902	1,079	1,032	1,920	2,288
Sulphate .. ..	252	252	47	140	164	240
North Borneo—						
Semi-manufactures (a)	42	71	63	96	77	96
Pakistan—						
Unwrought .. ..	35	220	264	712	157	2,112
Scrap .. ..	—	—	3	—	19	262
Semi-manufactures ..	1,418	4,061	1,651	1,428	1,792	3,309
Sulphate .. ..	63	156	52	18	42	87
Sarawak—						
Semi-manufactures (a)	82	71	23	159	57	195
Australia (c)—						
Ore and concentrates ..	28	—	—	—	—	—
Unwrought .. ..	4,691	3,251	1,550	2,342	1,965	6,746
do. alloys .. ..	72	14	33	10	48	26
Scrap (a) .. ..	40	(b) 106	272	55	73	351
Semi-manufactures (a)	2,969	2,088	3,248	2,577	3,301	3,039
Sulphate .. ..	311	165	175	175	338	623
New Zealand—						
Semi-manufactures (a)	6,000	8,295	9,671	8,488	10,448	11,237
Sulphate .. ..	393	1,088	288	212	221	42
Irish Republic—						
Semi-manufactures, etc.	1,075	896	1,328	351	1,866	1,547
Sulphate .. ..	1,932	1,838	2,272	2,423	2,301	2,569
<b>OTHER COUNTRIES</b>						
Austria—						
Ore .. ..	80	149	—	137	436	542
Unwrought .. ..	11,666	13,988	17,820	16,957	22,755	25,498
do. alloys .. ..	22	44	82	162	515	104
Scrap .. ..	2,340	737	1,408	158	813	1,532
do. alloys .. ..	1,169	737	445	1,049	1,152	1,118
Semi-manufactures (a)	2,032	1,823	2,459	3,225	2,995	4,011
Sulphate .. ..	3	—	1	—	2	1
Belgium-Luxemburg						
E.U.—						
Ore .. ..	3,257	1,016	3,521	5,561	9,133	5,750
Unwrought (a) (d) ..	189,888	177,231	181,649	194,949	270,204	272,778
Scrap .. ..	11,661	8,649	9,463	15,809	18,909	19,540
Semi-manufactures (a)	3,974	3,210	3,242	2,909	4,244	5,886
Sulphate .. ..	37	29	33	82	74	78
Denmark—						
Unwrought .. ..	2,647	3,983	3,938	4,647	4,928	3,551
do. alloys .. ..	169	823	293	141	323	183
Scrap (a) .. ..	108	259	57	224	72	279
Semi-manufactures (a)	11,112	12,433	15,125	17,998	19,189	22,011
Sulphate .. ..	1,700	2,219	2,415	2,669	2,248	3,025
Finland—						
Unwrought (a) ..	193	893	527	1,045	5,472	6,257
Semi-manufactures (a)	567	499	908	983	2,287	3,498
Sulphate .. ..	45	15	115	49	85	403

(a) Including alloys.

(c) Years ended June 30 of that stated.

(b) Excess of re-exports.

(d) Including matte.

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

Long tons

Importing Country and Description	1956	1957	1958	1959	1960	1961
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
France—						
Ore .. .. .	2,773	—	—	—	—	—
Unwrought—						
Unrefined .. .. .	4,915	5,293	4,800	4,969	5,672	10,413
Refined .. .. .	162,184	178,389	212,163	158,522	203,327	219,233
Alloys .. .. .	4,207	4,542	971	765	1,656	907
Scrap .. .. .	1,569	3,737	4,615	1,171	1,517	2,876
do. alloys .. .. .	3,132	9,820	6,036	1,908	2,777	3,649
Semi-manufactures (a)	2,339	2,560	2,909	2,927	3,548	4,729
Sulphate .. .. .	5,726	3,654	3,786	—	1,453	4,466
Germany (Federal)—						
Ore .. .. .	162,457	174,692	134,419	134,865	137,301	127,968
Burnt cupreous pyrites	1,070,968	953,579	1,103,666	1,198,628	1,345,843	1,209,333
Matte .. .. .	12,694	13,394	10,264	9,562	8,374	7,979
Unwrought—						
Unrefined .. .. .	68,567	86,819	101,883	95,457	118,396	120,142
Refined .. .. .	142,740	192,277	227,787	242,835	305,103	341,324
Alloys .. .. .	23,265	19,368	27,059	39,269	36,711	30,555
Scrap (a) .. .. .	54,070	41,413	37,324	34,987	61,385	33,594
Semi-manufactures (a)	12,406	8,933	19,080	33,880	21,906	27,204
Sulphate .. .. .	381	534	376	676	425	592
Greece—						
Unwrought .. .. .	225	991	1,826	2,726	3,172	1,872
Sulphate .. .. .	4,805	2,696	4,840	6,018	7,601	5,865
Hungary—						
Unwrought .. .. .	8,759	10,460	12,038	16,172	18,089	18,616
Sulphate .. .. .	14,205	14,481	14,847	10,679	4,682	6,216
Iceland—						
Semi-manufactures (a)	196	214	230	302	239	253
Italy—						
Unwrought—						
Unrefined .. .. .	13,234	10,629	10,074	2,792	15,736	12,066
Refined (a) .. .. .	95,031	108,655	95,193	108,035	174,462	183,021
Scrap (a) .. .. .	11,898	12,811	8,172	5,232	16,480	22,987
Semi-manufactures (a)	1,853	2,470	3,099	3,189	5,659	5,668
Sulphate .. .. .	2,018	3,337	4,026	4,099	2,165	2,073
Netherlands—						
Ore .. .. .	—	2	—	746	4,580	8,287
Unwrought .. .. .	22,385	19,564	28,302	25,992	31,561	29,547
do. alloys .. .. .	879	1,188	1,059	1,357	1,615	1,278
Scrap (a) .. .. .	2,587	2,312	4,007	4,275	4,608	4,858
Semi-manufactures (a)	38,325	33,076	28,849	23,156	41,607	45,772
Sulphate .. .. .	970	1,128	1,861	2,464	2,119	2,073
Norway—						
Copper-nickel matte ..	43,795	45,823	48,398	54,159	60,695	63,328
Unwrought .. .. .	3,858	4,329	5,257	3,428	4,430	4,247
do. alloys .. .. .	1,419	1,928	1,047	411	778	249
Scrap (a) .. .. .	158	426	377	168	330	318
Semi-manufactures (a)	11,395	12,204	13,025	13,852	15,717	17,708
Sulphate .. .. .	306	342	294	291	424	343
Poland—						
Unwrought .. .. .	8,844	9,480	23,408	25,569	20,533	32,331
Portugal—						
Ore and concentrates ..	24	1,389	1,863	3,780	3,250	4,132
Matte .. .. .	168	296	63	717	175	59
Unwrought (a) .. .. .	6,296	11,595	11,774	5,078	7,329	9,619
Scrap .. .. .	586	1,415	735	1,143	319	78
Semi-manufactures (a)	3,964	4,945	5,011	3,481	3,328	4,327
Sulphate .. .. .	2,916	2,939	4,998	5,962	6,906	8,842

(a) Including alloys.

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

Long tons

Importing Country and Description	1956	1957	1958	1959	1960	1961
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
Spain—						
Ore .. .. .	—	3,761	1,123	2,020	21,459	49,614
Unwrought (a) .. .. .	17,616	16,230	16,804	17,937	8,404	12,436
Scrap (a) .. .. .	5,854	2,362	4,225	4,590	4,349	10,219
Semi-manufactures (a) .. .. .	450	1,123	356	507	420	465
Sulphate .. .. .	1,637	244	2,330	1,519	104	90
Sweden—						
Ore .. .. .	19,617	28,419	29,849	31,718	25,763	18,400
Matte .. .. .	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	9,344	7,641	8,163
Unwrought .. .. .	50,919	47,694	52,794	54,245	74,280	71,232
do. alloys .. .. .	4,760	4,409	3,500	3,113	4,052	4,459
Scrap (a) .. .. .	1,851	1,598	892	1,030	4,548	1,479
Semi-manufactures (a) .. .. .	7,265	4,040	5,404	7,131	10,151	9,953
Sulphate .. .. .	901	783	507	913	696	441
Switzerland—						
Unwrought .. .. .	34,309	38,455	36,036	30,104	36,888	51,943
do. alloys .. .. .						
Scrap (a) .. .. .	851	1,151	557	724	1,371	493
Semi-manufactures (a) .. .. .	8,268	9,110	8,407	10,025	12,614	21,060
U. S. S. R.—						
Unwrought .. .. .	44,000	58,400	92,300	113,900	104,300	80,900
Yugoslavia—						
Unwrought .. .. .	—	6,162	6,278	2,193	9,562	10,284
Semi-manufactures (a) .. .. .	215	678	261	199	479	620
Algeria—						
Unwrought .. .. .	2,978	4,381	3,370	4,272	4,572	<i>n.a.</i>
Semi-manufactures (a) .. .. .	878	840	1,439	1,564	1,552	<i>n.a.</i>
Sulphate .. .. .	5,345	6,585	5,465	3,787	2,744	<i>n.a.</i>
Angola—						
Semi-manufactures (a) .. .. .	115	129	111	153	101	191
Sulphate .. .. .	16	14	43	62	17	7
Congo Republic—						
Bars, sheets, wire, etc. . . . .	364	343	188	93	<i>n.a.</i>	<i>n.a.</i>
Egypt—						
Unwrought and scrap .. .. .	1,046	384	2,386	2,426	2,695	<i>n.a.</i>
Semi-manufactures (a) .. .. .	1,601	354	1,168	994	1,050	<i>n.a.</i>
Sulphate .. .. .	1,448	595	1,701	73	1,327	<i>n.a.</i>
Malagasy Republic—						
Semi-manufactures (a) .. .. .	179	120	90	125	128	148
Morocco—						
Semi-manufactures (a) .. .. .	1,324	1,340	1,631	1,028	2,201	1,863
Sulphate .. .. .	64	147	73	83	29	35
Mozambique—						
Semi-manufactures (a) .. .. .	461	336	391	341	437	<i>n.a.</i>
South Africa—						
Unwrought .. .. .	17,535	18,616	23,407	14,093	22,423	22,828
do. alloys .. .. .	37	57	74	91	106	<i>n.a.</i>
Semi-manufactures (a) .. .. .	2,701	4,695	3,437	3,108	2,690	<i>n.a.</i>
Sudan—						
Sulphate .. .. .	640	101	436	642	600	447
Tunisia—						
Semi-manufactures (a) .. .. .	249	336	301	381	359	507
Sulphate .. .. .	564	723	666	699	684	620
Costa Rica—						
Semi-manufactures (a) .. .. .	38	47	78	109	103	131
Sulphate .. .. .	6,523	8,454	1,392	1,393	6,430	9,811
Cuba—						
Semi-manufactures (a) .. .. .	1,960	2,421	2,343	3,816	<i>n.a.</i>	<i>n.a.</i>
Dominican Republic—						
Sulphate .. .. .	704	342	<i>n.a.</i>	278	<i>n.a.</i>	<i>n.a.</i>

(a) Including alloys.



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

Long tons

Importing Country and Description	1956	1957	1958	1959	1960	1961
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
Guatemala—						
Semi-manufactures (a)	365	828	562	136	137	81
Sulphate .. .. . (c)	5,421	5,456	2,843	5	1,137	408
Honduras—						
Sulphate .. .. .	7,237	4,522	1,019	17	3,755	296
Mexico—						
Unwrought (a)	31	88	78	37	81	15
Semi-manufactures (a)	570	537	343	302	232	276
Sulphate .. .. .	146	25	1	1	1	2
Panama Republic—						
Sulphate .. .. .	5,066	5,500	1,198	1,382	2,443	n.a.
United States (d)—						
Cu content of—						
Ore and concentrates	72,089	74,386	81,069	8,356	21,819	21,875
Matte, precipitate, etc.	4,641	4,787	4,398	6,351	165	85
Unwrought—						
Blister .. .. .	246,504	268,871	123,779	182	434	5,294
Refined .. .. .	171,261	144,919	111,276	211,879	152,698	77,863
Scrap .. .. .	4,831	5,217	5,223	2,664	1,639	1,467
do. alloys .. .. .	3,848	4,146	3,751	1,122	276	348
Semi-manufactures .. .. .	26,256	25,707	37,647	48,382	41,490	19,160
do. alloys .. .. .	22,553	17,424	21,773	28,267	24,549	21,061
Sulphate .. .. .	584	109	181	515	983	285
Argentina—						
Unwrought .. .. .	2,892	21,682	33,450	19,631	21,338	29,316
Brazil—						
Ore .. .. .	388	1,132	—	—	168	—
Unwrought (a)	19,899	28,358	25,808	19,902	28,774	35,598
Semi-manufactures .. .. .	536	869	1,201	291	608	164
Sulphate .. .. .	4,697	3,500	4,456	2,553	4,328	3,142
Colombia—						
Semi-manufactures (a)	2,293	2,511	1,779	2,546	3,022	4,378
Sulphate .. .. .	7,690	7,963	2,366	11	683	104
Peru—						
Semi-manufactures (a)	603	677	627	610	665	894
Sulphate .. .. .	1,549	621	258	125	265	312
Uruguay—						
Semi-manufactures (a)	n.a.	867	183	514	501	n.a.
Venezuela—						
Sheets .. .. .	150	338	228	207	99	n.a.
Sulphate .. .. .	64	94	92	122	102	106
Formosa—						
Unwrought (a)	1,792	96	133	311	1,727	1,243
Semi-manufactures (a)	684	556	929	975	1,685	1,829
Indonesia—						
Semi-manufactures (a)	1,387	2,490	1,839	818	1,721	n.a.
Sulphate .. .. .	529	1,511	237	253	312	n.a.
Iran (b)—						
Unwrought (a)	n.a.	550	1,229	902	276	n.a.
Scrap .. .. .	321	519	435	824	870	n.a.
Semi-manufactures (a)	n.a.	2,317	3,357	3,250	2,515	n.a.

(a) Including alloys.

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

(c) Including carbonate.

(d) 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):

	1956	1957	1958	1959	1960	1961
Ore and concentrates	102,556	105,887	78,051	64,858	67,427	40,882
Matte .. .. .	6,528	5,532	4,623	7,990	4,508	1,434
Unwrought—						
Blister .. .. .	246,504	268,871	239,448	240,221	266,404	302,847
Refined .. .. .	171,201	144,919	114,700	191,123	127,419	59,692
Scrap .. .. .	5,128	5,177	6,304	5,531	2,418	3,778

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

Long tons

Importing Country and Description	1956	1957	1958	1959	1960	1961
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
Iraq—						
Semi-manufactures (a)	712	943	1,210	1,066	1,083	<i>n.a.</i>
Japan—						
Ore and concentrates ..	128,702	217,431	208,576	330,574	62,305	427,423
Matte .. .. .	25	3,259	14	6	1,571	5,392
Unwrought .. .. .	21,900	49,614	9,721	14,183	58,420	102,634
do. alloys .. .. .	173	321	295	121	167	65
Scrap .. .. .	23,241	55,749	2,669	1,444	7,755	10,336
do. alloys .. .. .	30,471	43,066	30,983	61,294	108,400	134,198
Semi-manufactures (a)	1,542	18,674	1,529	2,342	2,471	983
Lebanon—						
Semi-manufactures (a)	340	406	436	594	425	<i>n.a.</i>
Philippine Republic—						
Semi-manufactures (a)	2,630	<i>n.a.</i>	3,509	3,307	3,771	3,976
Sulphate .. .. .	244	272	173	80	139	<i>n.a.</i>
Thailand—						
Unwrought (a) ..	13	231	87	58	210	7
Semi-manufactures (a)	1,058	1,385	1,135	1,062	1,193	1,198
Turkey—						
Semi-manufactures (a)	1,166	497	573	609	483	423
Sulphate .. .. .	1,530	2,071	342	2,097	330	857

(a) Including alloys.

**DIAMONDS**  
**PRODUCTION OF DIAMONDS†**

Metric carats

Producing Country	1956	1957	1958	1959	1960	1961
<b>COMMONWEALTH COUNTRIES</b>						
Basutoland .. ..	620	2,500	6,664	8,713	95	<i>n.a.</i>
Ghana (b) .. ..	2,539,429	3,124,825	3,131,695	3,076,072	3,281,220	2,883,356
Sierra Leone .. ..	(a) 647,797	(a) 863,202	(a) 1,490,037	1,290,964	1,909,180	2,295,279
Tanganyika .. ..	358,717	390,971	521,064	643,277	548,376	685,000
British Guiana .. ..	29,816	29,037	33,091	62,328	101,004	112,680
India .. ..	1,499	790	1,540	682	1,159	1,313
Australia .. ..	383	312	158	37	6	—
<b>TOTAL .. ..</b>	<b>r 3,578,261</b>	<b>r 4,411,637</b>	<b>r 5,184,249</b>	<b>r 5,082,073</b>	<b>5,841,040</b>	<b>5,978,000</b>
<b>OTHER COUNTRIES</b>						
Angola—						
Gem .. ..	443,280	524,933	593,833	610,733	642,551	750,769
Industrial .. ..	296,755	339,439	407,403	404,955	414,276	396,669
Congo Republic—						
Gem .. ..	626,969	630,923	669,329	658,909	413,000	130,000
Industrial .. ..	13,383,509	15,015,807	16,004,145	14,196,261	13,046,563	18,000,000
Central African Republic			85,697	86,571	69,641	111,484
Gabon .. ..	145,837	109,231	—	—	—	—
Ivory Coast .. ..	389,880	247,138	164,315	187,950	199,120	549,330
Guinea .. ..	—	—	116,000	(a) 657,000	<i>n.a.</i>	<i>n.a.</i>
South Africa .. ..	2,585,728	2,578,975	2,702,250	2,838,332	3,141,463	3,787,862
South West Africa .. ..	988,653	996,965	903,576	930,659	935,382	905,815
Venezuela .. ..	93,833	122,597	90,004	94,986	70,867	134,176
<b>TOTAL* .. ..</b>	<b>r 19,300,000</b>	<b>r 20,900,000</b>	<b>r 22,000,000</b>	<b>r 20,900,000</b>	<b>20,200,000</b>	<b>26,000,000</b>
<b>WORLD'S TOTAL* .. ..</b>	<b>22,900,000</b>	<b>25,300,000</b>	<b>27,200,000</b>	<b>26,000,000</b>	<b>26,000,000</b>	<b>32,000,000</b>

†For values see next page.

\*Including an estimate for diamonds produced in Brazil. Diamonds are also known to have been produced in the U.S.S.R., Liberia and Indonesia but no statistics are available.

(a) Exports.

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

		<i>Companies</i>	<i>African diggers</i>
1956 ..	1,151,160	1,388,269	
1957 ..	1,455,249	1,669,576	
1958 ..	1,279,043	1,852,652	
1959 ..	1,335,614	1,740,458	
1960 ..	1,861,377	1,419,843	
1961 ..	1,635,689	1,247,667	

PRODUCTION OF DIAMONDS†

£ sterling

Producing Country	1956	1957	1958	1959	1960	1961
<b>COMMONWEALTH COUNTRIES</b>						
Basutoland (c) .. ..	4,000	17,000	65,000	63,000	1,000	<i>n.a.</i>
Ghana (b) .. ..	7,948,765	9,428,465	8,272,508	8,446,455	9,794,445	7,228,568
Sierra Leone .. ..	(a)3,457,385	(a)6,425,170	(a)7,183,787	(b)7,292,000	b 15,306,000	b17,922,000
Tanganyika (b) .. ..	2,864,714	3,401,448	4,463,782	5,274,871	4,772,888	5,727,000
British Guiana (b) ..	268,344	292,000	301,000	627,000	1,056,000	967,000
India .. ..	24,525	12,600	r 32,000	17,000	39,700	64,000
Australia .. ..	3,067	3,224	1,572	118	20	—
<b>TOTAL .. ..</b>	<b>r 14,570,000</b>	<b>r 19,580,000</b>	<b>r 20,320,000</b>	<b>r 21,720,000</b>	<b>30,970,000</b>	<b>31,909,000</b>
<b>OTHER COUNTRIES</b>						
Angola .. ..	4,266,000	6,161,000	7,134,000	7,382,000	6,624,000	b 7,420,000
Congo Republic—						
Gem (b) .. ..	1,474,000	1,625,000	1,791,000	1,751,000	817,000	<i>n.a.</i>
Industrial (b) .. ..	9,116,000	11,011,000	12,766,000	11,249,000	9,282,000	<i>n.a.</i>
Central African Republic						
Gabon .. ..	890,000	711,000	{ (b)487,000	(b) 458,000	(b) 509,000	(b) 386,000
Ivory Coast (b) .. ..			718,000	442,000	500,000	1,207,000
Guinea (b) .. ..	1,224,000	883,000	366,000	(a)1,858,000	<i>n.a.</i>	<i>n.a.</i>
South Africa (c) .. ..	12,665,931	14,569,000	15,392,000	15,667,000	17,693,000	18,971,000
South West Africa (c) ..	18,043,000	17,983,000	16,525,000	16,342,000	15,573,000	17,435,000
Venezuela .. ..	(b) 924,000	(b)1,207,000	(b) 570,000	(b) 715,000	(b) 558,000	b 1,220,000
<b>TOTAL* .. ..</b>	<b>r 51,000,000</b>	<b>r 57,000,000</b>	<b>r 59,000,000</b>	<b>r 58,000,000</b>	<b>56,000,000</b>	<b>66,000,000</b>
<b>WORLD'S TOTAL* ..</b>	<b>66,000,000</b>	<b>77,000,000</b>	<b>79,000,000</b>	<b>80,000,000</b>	<b>87,000,000</b>	<b>98,000,000</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)		
		<i>Gem</i>	<i>Industrial</i>	<i>Total</i>
1956 .. ..	50,542,240	24,003,770	74,546,010	
1957 .. ..	52,818,096	23,954,016	76,772,112	
1958 .. ..	49,420,695	16,122,691	65,543,386	
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 (January to November)	74,924,188	13,062,190	87,986,378	

EXPORTS OF DIAMONDS

Exporting Country and Description	1956	1957	1958	1959	1960	1961
<b>COMMONWEALTH COUNTRIES</b>						
Ghana .. .. Ct.	2,518,563	2,930,901	3,280,970	3,116,571	3,291,976	2,854,134
	£ 7,920,446	8,979,359	8,661,512	8,659,162	9,838,547	7,148,511
Sierra Leone .. Ct.	647,797	863,202	1,490,037	1,205,302	2,054,735	2,045,150
	£ 3,457,385	6,425,170	7,183,787	6,808,568	16,473,273	15,969,057
Tanganyika—						
Gem diamonds .. Ct.	170,679	170,674	231,312	250,176	258,370	} 684,900
	£ 2,211,326	2,518,917	3,436,889	3,506,623	3,644,877	
Industrial diamonds Ct.	186,859	201,928	284,141	304,494	278,203	} 5,762,000
	£ 653,810	723,787	978,166	1,041,114	977,065	
British Guiana .. Ct.	30,871	28,521	31,935	62,644	94,782	124,622
	£ 277,841	287,095	290,367	630,575	990,772	1,069,634
Hong Kong—						
Cut and polished Ct.	n.a.	n.a.	n.a.	34,531	56,578	53,838
	£ 1,007,045	776,916	1,205,231	1,760,903	2,613,485	3,128,138
Industrial .. ..	£ 25	—	1,940	5,889	—	57
Malaya—						
Cut and polished £	61,590	52,317	43,305	52,035	51,190	81,330
Australia (a)—						
Gem diamonds Ct.	229	—	165	—	480	422
	£ 1,833	—	1,312	—	3,286	1,122
<b>OTHER COUNTRIES</b>						
Belgium-Luxemburg						
E.U.—						
Cut and polished Ct.	890,232	793,876	761,785	949,921	1,082,159	1,087,704
	£ 32,387,209	30,258,537	28,863,065	35,893,793	41,343,531	44,540,637
Industrial, rough and bort .. .. Ct.	3,280,064	3,330,772	3,087,066	4,930,275	4,577,608	6,640,444
	£ 16,747,401	13,809,646	12,318,793	19,563,436	17,244,881	22,746,722
France—						
Uncut .. .. £	532,015	83,000	243,465	287,468	350,755	433,261
Cut .. .. £	1,128,806	1,147,000	1,198,417	1,185,461	1,455,000	1,388,633
Industrial diamonds £	56,221	34,000	44,385	46,447	59,508	16,201
Netherlands .. Ct.	n.a.	1,110,518	981,934	1,529,897	1,541,182	1,874,833
	£ 8,109,000	10,153,000	9,213,000	13,771,000	16,012,000	16,293,000
Dust .. .. Ct.	n.a.	n.a.	n.a.	n.a.	516,418	721,431
	£ n.a.	n.a.	n.a.	n.a.	528,000	729,000
Sweden—						
Industrial diamonds £	52,284	69,824	96,961	73,090	67,409	54,400
Angola .. .. Ct.	743,930	869,105	962,336	1,025,796	933,646	1,276,573
	£ 4,280,584	5,334,132	6,884,943	7,436,467	6,182,777	8,254,996
Congo Republic—						
Gem diamonds .. Ct.	643,092	626,442	713,805	660,594	451,679	n.a.
	£ 1,360,613	1,324,483	1,483,744	1,427,626	894,000	n.a.
Industrial diamonds Ct.	12,802,772	14,566,863	14,343,402	15,292,924	9,904,766	n.a.
	£ 8,286,627	9,633,213	10,571,279	10,862,308	7,047,000	n.a.
Central African Republic—						
Guinea .. .. Ct.	147,376	110,550	104,868	89,758	83,642	187,868
	£ 1,013,000	803,000	596,000	475,000	611,000	650,000
Ivory Coast .. Ct.	(b)	(b)	120,000	657,000	1,116,000	n.a.
	£ (b)	(b)	379,000	1,858,000	3,600,000	2,800,000
Ivory Coast—						
Uncut .. .. Ct.	388,370	307,900	165,910	230,930	197,805	531,390
	£ 1,221,000	1,100,000	725,000	543,000	497,000	1,168,000
Liberia .. .. Ct.	1,025,034	757,138	868,575	638,440	976,437	1,095,632
	£ 870,000	446,000	805,500	754,500	818,000	794,000
South Africa—						
Uncut .. .. Ct.	1,372,727	1,435,478	1,336,403	1,677,633	1,596,982	1,818,244
	£ 23,360,827	24,685,787	20,572,157	26,272,792	23,858,284	29,623,940
Cut and polished Ct.	112,885	118,569	117,420	136,243	129,545	138,718
	£ 8,526,112	10,136,932	10,110,481	11,745,220	11,115,174	12,280,549

(a) Years ended June 30 of that stated.

(b) Included with Ivory Coast.

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

EXPORTS OF DIAMONDS (cont.)

Exporting Country and Description	1956	1957	1958	1959	1960	1961
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
<b>United States—</b>						
Uncut .. .. Ct.	16,480	10,230	14,016	23,058	21,967	31,315
£	241,150	151,906	170,013	216,015	295,273	547,587
Cut .. .. Ct.	3,418	6,640	6,841	18,497	12,228	33,337
£	508,231	1,149,343	780,114	1,227,409	1,883,566	4,003,891
Industrial diamonds Ct.	11,725	54,413	96,014	178,595	306,331	475,211
£	34,977	194,908	191,012	300,302	461,600	650,851
Dust .. .. Ct.	210,841	199,252	123,194	172,787	321,373	490,327
£	220,014	223,111	134,636	156,562	300,584	484,491
Brazil .. ..	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Venezuela .. Ct.	81,246	91,377	72,889	82,936	58,287	57,277
£	779,000	776,000	462,000	624,000	459,000	521,000
<b>Israel—</b>						
Polished.. .. Ct.	263,707	345,401	342,136	477,617	627,163	738,975
£	8,825,334	12,610,727	12,234,113	16,701,758	21,735,184	25,106,727
Industrial .. Ct.	911	9,059	3,866	74,112	66,984	75,434
£	8,144	42,446	30,493	181,723	214,907	247,997
Dust .. .. Ct.	1,486	14,824	15,537	17,701	2,020	6,963
£	1,968	13,884	2,859	6,942	472	7,566

## IMPORTS OF DIAMONDS

Importing Country and Description	1956	1957	1958	1959	1960	1961
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom	Ct. 18,929,124	21,205,460	21,830,104	22,245,187	17,654,895	n.a.
(b) .. ..	£ 50,926,976	57,817,489	57,284,672	62,473,773	64,976,439	n.a.
Malta—						
Cut and polished	£ 4,633	2,039	2,038	1,219	487	236
Zanzibar .. ..	Ct. 65	—	—	—	6	49
	£ 2,669	—	—	—	220	5,523
Canada—						
Unset .. ..	Ct. 53,707	27,341	53,948	57,009	55,803	52,992
	£ 2,832,846	1,693,007	2,889,611	3,879,443	2,839,772	2,775,652
Dust, bort, etc. . .	Ct. 1,048,064	671,293	99,346	490,724	125,083	324,388
	£ 1,911,353	1,377,340	152,019	926,074	176,906	566,808
Bermuda .. ..	£ (a) 37,134	251,266	(a) 186,949	(a) 11,818	41,887	(a) 148,071
Ceylon—						
Cut and polished	Ct. 141	—	—	460	26,582	363
	£ 1,815	—	—	1,362	165,644	21,302
Hong Kong—						
Gem diamonds ..	Ct. n.a.	n.a.	n.a.	234,349	286,113	321,087
	£ 5,313,291	5,851,238	6,111,582	9,028,340	11,570,752	14,254,352
Industrial diamonds	£ —	—	660	8,445	2,088	7,300
India .. ..	£ 254,446	115,081	66,792	65,570	(c) 118,573	(c) 159,845
Malaya—						
Cut and polished	£ 410,813	374,886	326,476	376,134	372,127	265,043
Australia (d)—						
Industrial diamonds	Ct. 135,505	122,629	177,893	185,720	313,175	283,895
	£ 246,006	221,678	313,852	382,810	431,983	365,770
Other diamonds	Ct. 19,503	15,171	16,195	14,224	17,708	17,508
	£ 821,434	714,973	732,240	674,198	893,442	779,469
New Zealand—						
Industrial diamonds	£ (N.Z.) 253	299	985	2,788	9,837	5,370
Other diamonds	£ (N.Z.) 183,003	180,818	148,387	151,106	220,899	205,771
<b>OTHER COUNTRIES</b>						
Belgium-Luxemburg						
E.U.—						
Rough diamonds	Ct. 4,127,482	4,439,726	3,412,135	4,491,677	4,334,642	3,615,331
	£ 30,560,199	32,217,559	25,839,832	36,849,213	36,941,788	35,678,869
Cut diamonds ..	Ct. 175,385	140,826	90,759	161,523	301,490	256,641
	£ 5,867,427	7,565,402	5,711,800	9,142,770	15,099,970	14,143,737
Industrial, rough and						
bort .. ..	Ct. 2,380,334	2,305,611	3,057,280	5,699,477	6,273,589	8,597,046
	£ 4,837,399	4,551,764	6,542,242	12,886,902	12,726,377	17,740,487
France—						
Uncut .. ..	£ 3,013,001	2,521,000	2,578,858	2,399,472	2,755,656	2,131,579
Cut and polished	£ 2,512,535	2,058,000	1,882,849	2,130,968	2,493,600	2,688,875
Industrial diamonds	£ 5,050	7,000	5,661	6,186	7,917	13,573
Netherlands ..	Ct. n.a.	1,271,149	1,169,044	1,841,155	63,179	n.a.
	£ 7,575,000	9,690,000	9,517,000	12,356,000	1,004,000	n.a.
Dust .. ..	Ct. n.a.	n.a.	n.a.	n.a.	45,393	—
	£ n.a.	n.a.	n.a.	n.a.	48,000	—

(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.

## IMPORTS OF DIAMONDS (cont.)

Importing Country and Description	1956	1957	1958	1959	1960	1961
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
Norway .. .. Ct.	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	700	<i>n.a.</i>	2,000
£	4,427	2,943	2,536	3,872	2,446	750
Sweden—						
Industrial diamonds £	363,580	476,400	345,873	314,384	486,079	319,600
South Africa—						
Rough diamonds ..	(a)	(a)	(a)	(a)	(a)	(a)
Cut and polished Ct.	152	169	356	650	803	<i>n.a.</i>
£	4,709	5,201	11,088	18,664	29,749	<i>n.a.</i>
Mexico—						
Uncut .. .. Ct.	8,820	11,805	12,180	16,230	25,475	4,975
£	73,319	37,615	101,796	101,418	76,172	56,856
Industrial diamonds Ct.	43,080	13,420	81,600	152,075	133,785	189,400
£	17,230	15,857	4,495	26,051	97,862	75,593
United States—						
Uncut .. .. Ct.	1,176,832	997,162	r 1,929,808	1,578,170	1,365,529	2,274,923
£	30,759,347	27,659,498	r 25,823,132	33,552,700	31,142,300	40,953,502
Cut and polished Ct.	693,142	609,775	718,422	916,824	801,945	839,150
£	27,069,938	23,447,450	r 24,223,488	30,735,249	27,771,132	28,073,222
Industrial diamonds Ct.	16,165,477	12,218,301	9,500,632	12,605,782	12,024,104	13,462,739
£	26,175,465	17,937,087	13,379,252	21,699,108	17,351,002	23,696,181
Dust .. .. Ct.	238,750	386,203	568,921	489,436	1,121,241	746,707
£	249,191	425,171	540,985	587,592	1,088,732	784,214
Bort, manufactured Ct.	9,054	6,057	752	2,504	<i>n.a.</i>	<i>n.a.</i>
£	118,897	98,566	34,559	61,805	<i>n.a.</i>	<i>n.a.</i>
Israel—						
Rough diamonds Ct.	640,216	825,668	777,275	r 1,322,523	1,510,388	1,644,905
£	7,598,653	10,149,779	8,954,492	r 14,528,233	17,609,079	20,357,500
Industrial diamonds Ct.	325	13,299	26,111	31,222	23,885	<i>n.a.</i>
£	2,973	47,293	65,757	54,098	75,615	<i>n.a.</i>
Bort .. .. Ct.	42,394	27,844	32,058	17,622	27,487	<i>n.a.</i>
£	54,927	43,635	33,412	17,738	25,399	<i>n.a.</i>
Dust .. .. Ct.	450	6,470	6,318	7,790	3,383	<i>n.a.</i>
£	474	8,182	6,466	7,092	2,036	<i>n.a.</i>
Japan—						
Industrial diamonds Ct.	650,000	262,520	154,410	190,880	358,870	254,010
£	666,700	1,043,000	674,000	780,000	1,081,000	1,013,000

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

	Total imports		Re-exports	
	Carats	£	Carats	£
1956	16,045,898	9,576,021	18,328,251	25,141,452
1957	15,458,540	11,175,954	17,280,930	25,613,157
1958	16,881,479	12,326,528	11,961,930	18,346,577
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	17,121,264	12,835,560	19,227,908	34,674,533



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

Long tons

Producing Country	1956	1957	1958	1959	1960	1961
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom ..	23,160	22,811	25,138	(b) 17,000	14,780	22,250
Kenya ..	4,837	4,229	3,475	3,608	3,385	3,158
Southern Rhodesia ..	—	—	—	132	146	365
Canada (a) ..	2	107	24	4	39	22
Australia ..	5,789	6,221	4,240	5,089	9,335	5,461
New Zealand ..	136	3,158	5,657	7,278	6,243	3,536
<b>OTHER COUNTRIES</b>						
Austria ..	4,900	3,416	3,648	4,011	3,957	5,351
Denmark—						
Diatomaceous earth ..	27,974	30,231	r 25,589	32,479	n.a.	n.a.
Moler (b) ..	160,000	150,000	140,000	120,000	140,000	150,000
Finland ..	2,263	1,673	2,067	1,357	1,800	700
France ..	62,094	77,206	99,954	100,734	125,418	100,000
Germany (Federal) ..	65,081	68,358	63,516	54,261	47,534	55,692
Iceland ..	—	—	787	(e) 790	n.a.	n.a.
Italy ..	8,617	26,524	44,489	50,981	n.a.	n.a.
Sweden ..	1,110	1,176	1,125	682	2,400	700
Yugoslavia (e) ..	3,900	3,900	3,900	4,000	4,000	4,000
Algeria ..	23,523	9,250	26,000	25,903	21,957	31,000
Egypt ..	285	632	354	r 394	719	(e) 690
Mozambique ..	6	—	54	n.a.	94	354
South Africa ..	567	541	321	354	309	122
Costa Rica ..	6,015	(e) 1,600	1,969	2,165	(b) 2,000	(b) 2,000
Guatemala ..	(e) 14,000	18,400	18,920	—	—	—
Nicaragua ..	—	—	—	1,685	2,008	(e) 2,000
United States ..	(c) 328,952	(d) 401,589	(d) 401,589	(d) 401,589	n.a.	n.a.
Argentina ..	2,600	3,646	r 4,054	4,312	(e) 4,300	(e) 4,300
Colombia ..	—	246	196	296	245	(e) 245
Peru ..	30	34	104	227	1,146	(e) 1,200
Korea (South) ..	3,493	1,314	462	1,665	2,400	1,776

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

(a) Shipments.

(b) Estimated.

(c) Average annual production 1954—1956.

(d) Average annual production 1957—1959.

(e) United States Bureau of Mines' estimate.

## EXPORTS OF DIATOMACEOUS EARTH

Long tons

Exporting Country	1956	1957	1958	1959	1960	1961
<b>COMMONWEALTH COUNTRIES</b>						
Kenya .. .. .	1,460	1,235	1,415	942	882	1,185
<b>OTHER COUNTRIES</b>						
Belgium-Luxemburg						
E.U. .. .. .	134	184	139	470	899	792
Denmark—						
Diatomaceous earth ..	7,674	8,971	6,437	11,070	12,539	12,462
Moler .. .. .	119,480	109,940	91,314	78,396	86,091	91,604
Moler bricks .. .. .	18,557	20,860	22,128	21,308	28,111	29,884
Finland .. .. .	—	38	—	—	62	79
France .. .. .	1,674	1,675	2,156	2,842	8,184	2,977
Germany (Federal) .. .	2,229	2,442	2,106	2,220	2,942	3,955
Italy .. .. .	1,300	932	2,599	1,963	3,146	4,472
Norway .. .. .	—	11	—	—	1	2
Portugal .. .. .	51	66	54	133	112	305
Sweden .. .. .	62	57	69	62	45	69
Yugoslavia .. .. .	—	44	1	503	1,280	3,365
Algeria .. .. .	17,682	16,997	23,376	22,552	23,557	15,000
Chile .. .. .	10	40	28	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Japan .. .. .	64	148	82	77	155	139
Korea (South) .. .. .	<i>n.a.</i>	<i>n.a.</i>	684	10	—	—

## IMPORTS OF DIATOMACEOUS EARTH

Long tons

Importing Country	1956	1957	1958	1959	1960	1961
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom (a) ..	67,340	69,773	59,562	62,674	58,231	62,633
Canada .. ..	18,819	22,579	24,337	24,339	25,884	25,781
India .. ..	<i>n.a.</i>	289	765	1,266	(d) 695	(d) 1,241
Australia (b) ..	4,394	4,795	3,204	4,116	3,914	4,543
New Zealand ..	1,121	1,190	1,815	1,451	1,391	1,499
<b>OTHER COUNTRIES</b>						
Austria .. ..	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	2,110	1,449	1,250
Belgium-Luxemburg ..						
E.U. .. ..	3,324	2,874	2,535	3,457	4,098	3,450
Denmark .. ..	575	543	486	773	959	1,453
Finland .. ..	534	444	330	328	351	1,162
France .. ..	11,858	10,374	13,981	13,555	13,278	12,351
Germany (Federal) ..	70,629	61,008	55,782	48,685	59,292	61,541
Iceland .. ..	898	954	736	4	503	495
Italy .. ..	665	1,065	1,033	1,096	3,089	8,721
Netherlands .. ..	5,723	6,111	7,837	7,669	7,624	5,830
Norway .. ..	4,152	4,677	3,353	r 2,882	3,264	5,874
Portugal .. ..	344	534	521	720	932	1,357
Sweden .. ..	2,141	2,318	2,824	4,197	4,671	5,371
Switzerland .. ..	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	3,356	2,791
Yugoslavia .. ..	1	7	3	12	20	104
Algeria .. ..	45	107	165	196	147	<i>n.a.</i>
Egypt .. ..	1,380	1,638	1,349	3,266	1,910	<i>n.a.</i>
Morocco .. ..	260	271	313	685	643	456
South Africa .. ..	577	803	788	637	1,054	<i>n.a.</i>
Costa Rica .. ..	47	2	7	37	39	77
Cuba .. ..	2,818	2,596	2,775	1,364	<i>n.a.</i>	<i>n.a.</i>
Guatemala .. ..	26	67	81	89	78	88
Honduras .. ..	9	56	97	79	68	81
Mexico (c) .. ..	3,878	2,875	3,202	1,218	1,068	1,165
Salvador .. ..	1	59	33	47	180	116
Brazil .. ..	785	908	816	743	1,029	1,719
Chile (c) .. ..	51	96	169	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Colombia .. ..	496	701	773	986	1,193	1,035
Peru (c) .. ..	946	1,091	827	1,255	819	846
Venezuela .. ..	(c) 1,147	(c) 1,350	(c) 1,525	2,079	1,759	2,313
Japan .. ..	1,985	3,131	2,778	3,377	5,174	6,147
Lebanon .. ..	2,170	247	198	249	62	<i>n.a.</i>
Thailand .. ..	5	4	10	—	191	25

(a) Including the following amounts imported in bulk from Denmark :

1956 .. ..	48,462 long tons
1957 .. ..	48,627 " "
1958 .. ..	37,930 " "
1959 .. ..	37,963 " "
1960 .. ..	35,359 " "
1961 .. ..	43,110 " "

(b) Years ended June 30 of that stated.

(c) Including tripoli, etc.

(d) Years ended March 31 following that stated.

**FELSPAR**  
**PRODUCTION OF FELSPAR**

Long tons

Producing Country	1956	1957	1958	1959	1960	1961
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom—						
China stone .. ..	60,017	58,125	47,826	45,821	47,186	49,706
Kenya .. .. .	—	120	26	—	—	1
Nigeria .. .. .	14	—	—	—	—	—
Southern Rhodesia .. ..	—	—	400	—	—	—
Canada .. .. .	16,208	18,259	18,203	16,029	12,377	8,796
Ceylon .. .. .	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	32	106
Hong Kong .. .. .	20	1,156	1,653	1,716	2,511	1,206
India .. .. .	3,909	7,872	8,432	9,740	10,395	8,930
Australia (a) .. ..	18,629	8,819	7,016	6,750	8,414	6,995
<b>OTHER COUNTRIES</b>						
Austria .. .. .	2,677	2,612	2,613	3,445	4,573	3,907
Finland .. .. .	8,799	9,055	13,188	8,191	9,158	15,000
France .. .. .	71,000	65,000	84,000	79,200	74,000	92,000
Germany (Federal) (b) ..	172,717	188,268	187,503	186,019	237,647	258,320
Italy .. .. .	50,479	63,968	55,160	r 59,989	85,076	88,230
Norway—						
Unground .. .. .	63,973	51,000	46,000	60,000	65,000	(e) 64,000
Ground .. .. .	15,275	18,800	17,914	17,331	20,000	(e) 22,000
Portugal .. .. .	912	1,161	544	837	1,699	<i>n.a.</i>
Spain .. .. .	3,524	4,472	5,199	10,722	11,924	<i>n.a.</i>
Sweden (d)—						
Unground .. .. .	31,625	30,380	22,235	25,984	30,000	30,600
Ground .. .. .	20,875	22,588	20,549	20,177	24,300	25,400
Yugoslavia .. .. .	5,476	9,608	12,466	19,309	13,780	(c) 19,700
Eritrea .. .. .	12	394	413	1,476	984	2,953
Mozambique .. .. .	203	—	—	89	—	—
South Africa .. .. .	9,729	11,381	7,708	10,447	15,600	23,390
South West Africa .. ..	—	—	—	—	—	88
United States (d) .. ..	560,074	498,057	469,738	548,390	502,380	496,808
Argentina .. .. .	7,999	4,271	r 4,221	4,922	(c) 3,900	(c) 3,900
Chile .. .. .	826	r 984	984	1,476	1,095	2,953
Colombia .. .. .	—	5,905	3,937	14,763	15,000	<i>n.a.</i>
Peru .. .. .	—	—	—	—	242	992
Uruguay .. .. .	—	168	267	352	713	877
Japan .. .. .	48,665	43,417	44,507	60,196	91,453	50,986
Philippine Republic ..	—	49	74	1,684	3,895	14,526
<b>TOTAL*</b> .. .. .	<b>1,170,000</b>	<b>1,120,000</b>	<b>1,080,000</b>	<b>1,200,000</b>	<b>1,300,000</b>	<b>1,300,000</b>

\*Excluding felspar known to have been produced in Czechoslovakia, Roumania, U.S.S.R., Brazil, China and Vietnam.

Note.—Production of nepheline syenite in Canada was as follows (long tons): 1956—160,720; 1957—178,586; 1958—179,737; 1959—204,216; 1960—214,854; 1961—221,150.

(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) Sales.

(e) Estimated.

EXPORTS OF FELSPAR

Long tons

Exporting Country	1956	1957	1958	1959	1960	1961
<b>COMMONWEALTH COUNTRIES</b>						
Canada .. .. .	1,611	3,613	8,889	6,743	2,842	2,345
India .. .. .	<i>n.a.</i>	500	235	420	(c) 1,619	(c) 1,492
Australia (b) .. ..	340	92	—	10	—	—
<b>OTHER COUNTRIES</b>						
Austria .. .. .	47	21	35	(a) 249	(a) 274	(a) 344
Finland .. .. .	6,644	5,579	8,485	4,982	7,164	8,208
France (a) .. .. .	14,999	12,930	12,460	13,321	10,147	10,487
Germany (Federal) ..	6,077	7,703	7,075	8,706	11,557	13,393
Italy .. .. .	6,577	6,904	8,756	13,614	17,305	16,391
Netherlands .. .. .	4,569	3,232	4,556	6,045	(a) 7,110	(a) 2,251
Norway—						
Crude .. .. .	41,118	31,379	28,234	33,892	42,950	44,658
Ground .. .. .	12,333	15,724	15,106	15,205	19,229	16,308
Sweden .. .. .	39,449	36,224	32,739	(a) 35,774	(a) 37,587	(a) 38,449
Yugoslavia .. .. .	36	2,601	4,908	8,743	8,851	10,593
South Africa .. .. .	—	—	—	756	2,389	4,774
Japan .. .. .	874	719	932	955	1,291	1,653

Note.—Exports of nepheline syenite from Canada were as follows (long tons): 1956—124,379; 1957—146,734; 1958—142,929; 1959—159,036; 1960—172,587; 1961—173,748.

(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 FELSPAR

Long tons

Importing Country	1956	1957	1958	1959	1960	1961
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom ..	35,198	31,560	29,323	29,964	37,118	38,023
Canada .. .. .	175	215	1,018	1,037	1,195	1,537
New Zealand .. .. .	691	544	796	1,050	766	443
<b>OTHER COUNTRIES</b>						
Austria .. .. .	1,384	1,807	1,959	(b) 2,197	(b) 2,696	(b) 4,390
Belgium-Luxemburg						
E.U. (b) .. .. .	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	(b) 27,226	(b) 31,067
Denmark .. .. .	4,426	3,237	3,819	(b) 4,006	(b) 5,009	(b) 4,576
Finland .. .. .	3	35	3	780	(b) 231	(b) 395
France (b) .. .. .	8,251	4,878	3,954	3,506	6,482	7,347
Germany (Federal) ..	21,314	21,034	20,924	24,574	30,277	28,164
Italy .. .. .	2,410	4,506	3,943	4,879	7,857	8,218
Netherlands .. .. .	16,093	15,749	20,232	24,673	(b) 25,365	(b) 20,814
Sweden .. .. .	5	10	7	(b) 111	(b) 151	(b) 240
Algeria (b) .. .. .	498	380	694	415	738	<i>n.a.</i>
Congo Republic (a) ..	46	126	158	193	<i>n.a.</i>	<i>n.a.</i>
Morocco (b) .. .. .	203	315	316	278	360	251
Mexico .. .. .	5,187	4,060	2,783	4,156	3,662	1,911
United States .. .. .	1,632	4,041	6,657	5,205	7,024	2,553
Colombia (a) .. .. .	53	249	140	147	424	243
Venezuela .. .. .	1,214	1,596	2,078	3,378	3,102	<i>n.a.</i>
Israel .. .. .	1,212	1,860	847	1,438	1,042	4,798
Japan .. .. .	—	—	3	—	1,390	1,108

(a) Including fluor spar.

(b) May include some leucite and nephelite.

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

Long tons

Producing Country	1956	1957	1958	1959	1960	1961
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom (a) ..	91,550	93,274	77,505	83,105	97,543	85,396
Southern Rhodesia ..	842	87	4	9	17	—
Swaziland .. .. .	40	—	—	—	—	—
Canada .. .. .	125,063	59,147	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Australia .. .. .	745	700	930	471	7	4
<b>OTHER COUNTRIES</b>						
France .. .. .	83,404	107,398	95,628	98,594	133,344	187,000
Germany—						
Federal Republic ..	157,514	136,984	116,041	112,750	119,110	107,000
East (b) .. .. .	80,000	61,000	64,000	64,000	71,000	71,000
Italy .. .. .	122,924	142,326	145,461	155,439	159,783	148,048
Norway .. .. .	177	—	—	—	—	—
Spain .. .. .	72,572	86,999	89,056	87,784	109,266	137,025
Sweden (c) .. .. .	871	2,648	2,846	2,674	2,900	3,179
U.S.S.R. (b) .. .. .	145,000	145,000	160,000	170,000	190,000	210,000
Morocco .. .. .	122	—	—	—	—	776
South Africa .. .. .	31,308	31,345	43,081	62,783	101,384	85,591
South West Africa ..	—	21	4	126	—	—
Mexico .. .. .	(e) 321,533	(e) 348,042	(e) 277,201	(e) 304,631	361,150	392,220
United States (d) ..	294,392	293,636	285,279	165,260	205,162	183,110
Argentina .. .. .	13,000	7,629	r 12,731	16,062	15,700	(b) 15,700
Bolivia (e) .. .. .	267	—	—	—	—	—
Burma .. .. .	—	—	320	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
China (b) .. .. .	130,000	145,000	145,000	200,000	245,000	245,000
Japan .. .. .	7,956	7,627	5,419	5,075	9,025	14,577
Korea (South) .. ..	3,064	5,039	1,594	6,025	18,602	27,491
Thailand .. .. .	—	—	—	—	3,405	4,680
Turkey .. .. .	—	—	79	66	321	37
<b>TOTAL .. .. .</b>	<b>1,700,000</b>	<b>1,700,000</b>	<b>1,600,000</b>	<b>1,600,000</b>	<b>1,900,000</b>	<b>2,000,000</b>

Fluorspar is also known to have been produced in Belgium, Bulgaria 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	1956	1957	1958	1959	1960	1961
<b>COMMONWEALTH COUNTRIES</b>						
Canada .. ..	69,982	21,098	6	3,370	9,207	1,829
<b>OTHER COUNTRIES</b>						
France .. ..	3,613	1,846	4,801	13,136	18,104	37,705
Germany (Federal) ..	39,307	37,364	14,412	15,658	17,650	20,959
Italy .. ..	61,559	77,723	81,521	119,197	71,604	66,010
Norway .. ..	122	—	—	32	—	—
Spain .. ..	61,108	66,321	64,071	62,157	100,060	99,900
Sweden .. ..	1	26	241	311	280	343
Morocco .. ..	288	—	30	127	59	229
South Africa .. ..	17,452	21,721	32,210	51,781	69,439	77,338
Mexico .. ..	321,533	348,042	277,201	304,631	344,446	407,903
United States .. ..	175	674	3,012	1,022	409	301
Argentina .. ..	162	838	781	854	271	826
Bolivia .. ..	267	—	—	—	—	—
Korea (South) .. ..	12,702	10,208	11,607	18,065	28,115	32,856

## IMPORTS OF FLUORSPAR

Long tons

Importing Country	1956	1957	1958	1959	1960	1961
<b>COMMONWEALTH COUNTRIES</b>						
Canada .. ..	25,132	12,988	27,149	21,239	53,279	29,177
India .. ..	<i>n.a.</i>	7,986	5,330	12,298	(c) 3,760	(c) 8,001
Australia (a) .. ..	344	530	401	1,347	3,701	2,137
<b>OTHER COUNTRIES</b>						
Austria .. ..	9,548	9,125	9,420	11,070	14,763	12,444
Belgium-Luxemburg E.U. .. ..	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	8,157	6,819
Denmark .. ..	1,004	1,013	934	637	917	642
France .. ..	735	4,652	5,590	707	2,659	502
Germany (Federal) ..	13,614	10,897	1,422	3,733	14,606	69,245
Netherlands .. ..	5,233	7,484	6,300	5,734	9,755	7,148
Norway .. ..	1,131	1,061	978	1,828	1,837	2,724
Portugal .. ..	248	67	159	198	<i>n.a.</i>	<i>n.a.</i>
Sweden .. ..	8,762	8,675	8,412	8,370	12,270	13,196
U.S.S.R. .. ..	116,500	114,300	127,600	108,100	74,100	74,800
Yugoslavia .. ..	2,173	818	1,810	1,230	2,373	3,057
Algeria .. ..	262	65	104	156	96	<i>n.a.</i>
Congo Republic (b) ..	46	126	158	193	<i>n.a.</i>	<i>n.a.</i>
Mexico .. ..	1	53	—	4	2	—
United States .. ..	433,529	563,721	350,146	496,206	476,804	451,571
Brazil .. ..	1,011	960	281	831	310	639
Colombia (b) .. ..	53	249	140	147	424	243
Venezuela .. ..	250	214	540	149	103	166
Japan .. ..	49,641	57,458	36,156	70,625	99,019	123,857

(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	1956	1957	1958	1959	1960	1961
<b>COMMONWEALTH COUNTRIES</b>						
India .. .. .	5,457	(b) 8,500	(b) 13,500	(b) 14,000	n.a.	(b) 7,000
Australia .. .. .	235	215	120	136	90	192
<b>OTHER COUNTRIES</b>						
South Africa .. .. .	2,636	1,376	1,759	312	(c) 511	(c) 661
United States (a) .. .. .	372,960	326,876	319,538	365,734	364,576	376,947
Iran (d) .. .. .	n.a.	n.a.	1,585	1,506	1,800	n.a.

Fuller's earth is also produced in the United Kingdom, 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	1956	1957	1958	1959	1960	1961
<b>OTHER COUNTRIES</b>						
United States (a) .. .. .	n.a.	n.a.	6,626	8,871	10,746	n.a.

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

(a) As recorded by producers.

**IMPORTS OF FULLER'S EARTH**

Long tons

Importing Country	1956	1957	1958	1959	1960	1961
<b>COMMONWEALTH COUNTRIES</b>						
Canada .. .. .	(£52,461)	(£55,854)	(£58,625)	(£59,009)	(£69,069)	(£55,302)
Ceylon .. .. .	73	135	51	136	94	123
Australia (a) .. .. .	233	152	200	177	318	—
New Zealand .. .. .	200	196	226	127	274	260
<b>OTHER COUNTRIES</b>						
South Africa .. .. .	752	951	928	1,063	1,244	n.a.
Chile .. .. .	84	507	153	796	n.a.	n.a.
Peru .. .. .	606	568	610	450	963	1,782
Venezuela .. .. .	417	169	263	380	279	596

(a) Years ended June 30 of that stated.



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

Fine troy ounces

Producing Country	1956	1957	1958	1959	1960	1961
<b>COMMONWEALTH COUNTRIES</b>						
Bechuanaland Protectorate .. ..	590	190	215	198	203	261
Ghana .. ..	637,755	790,381	852,838	913,141	878,958	834,006
Kenya .. ..	13,843	7,388	7,753	9,145	8,646	12,299
Nigeria .. ..	440	389	644	848	779	543
Northern Rhodesia .. ..	3,367	3,270	3,729	4,685	5,527	4,279
Southern Rhodesia .. ..	536,392	536,849	554,838	566,883	562,702	570,095
Sierra Leone .. ..	102	—	—	—	—	19
Swaziland .. ..	252	7	—	—	806	1,325
Tanganyika (a) .. ..	69,699	63,485	67,777	96,802	106,711	100,095
Uganda (b) .. ..	237	182	278	334	650	383
Canada .. ..	4,383,863	4,433,894	4,571,347	4,483,416	4,628,911	4,425,820
British Guiana .. ..	15,024	15,286	16,503	3,164	2,170	1,562
India .. ..	209,251	179,182	170,090	165,400	160,600	156,500
Malaya (c) .. ..	19,200	10,600	21,400	25,400	19,700	11,900
Sarawak .. ..	599	883	864	2,450	3,326	4,132
Australia .. ..	1,029,821	1,083,941	1,103,980	1,085,104	1,086,709	1,068,748
Fiji .. ..	67,475	73,629	86,794	72,565	72,205	83,417
New Guinea and Papua .. ..	79,476	69,029	43,812	46,820	45,150	41,820
New Zealand .. ..	26,063	30,195	24,981	36,758	33,326	28,294
<b>TOTAL .. ..</b>	<b>r 7,093,000</b>	<b>r 7,299,000</b>	<b>r 7,528,000</b>	<b>r 7,513,000</b>	<b>7,617,000</b>	<b>7,345,000</b>
<b>OTHER COUNTRIES</b>						
Finland .. ..	18,229	21,895	22,152	23,374	20,351	20,602
France .. ..	30,608	35,170	35,560	42,150	46,040	48,680
Germany (Federal) .. ..	4,369	3,681	(d) 4,000	(d) 4,000	(d) 4,000	(d) 4,000
Greece .. ..	3,504	7,877	6,940	4,730	2,900	n.a.
Italy .. ..	5,948	6,346	4,802	3,261	3,310	600
Portugal .. ..	22,120	23,277	17,742	20,800	21,900	22,400
Spain .. ..	11,600	11,900	14,200	15,200	14,000	n.a.
Sweden .. ..	95,745	97,095	127,600	103,000	91,100	(d) 110,000
Yugoslavia .. ..	47,808	51,988	55,364	59,640	63,980	(d) 64,300
Angola .. ..	34	—	26	42	42	48
Cameroun .. ..	429	10,899	2,009	r 1,045	416	550
Central African Republic .. ..	300	560	850	r 495	300	100
Congo (Republic of) .. ..	6,800	6,830	5,530	r 4,630	3,670	3,380
Congo Republic .. ..	r 370,510	r 371,020	r 352,280	r 347,970	316,195	232,611
Egypt .. ..	7,697	3,026	1,812	2,486	1,000	(d) 1,000
Eritrea .. ..	3,215	4,501	6,430	16,718	5,144	5,529
Ethiopia .. ..	25,700	(c) 25,000	36,369	41,439	60,220	30,350
Gabon .. ..	36,590	20,800	15,200	r 16,200	17,700	15,300
Liberia .. ..	(e) 500	(e) 381	(d) 400	1,401	1,036	2,088
Malagasy Republic .. ..	758	758	720	200	300	350
Morocco .. ..	264	—	—	—	104	136
Mozambique .. ..	1,247	1,080	695	295	225	105
Ruanda-Urundi .. ..	3,340	3,220	3,860	3,100	1,566	817
South Africa .. ..	15,896,693	17,030,737	17,656,447	20,065,515	21,383,019	22,941,561
Sudan .. ..	3,100	1,158	1,571	1,419	2,116	1,500

(a) Including gold in lead concentrates exported amounting to 11,871 ounces in 1956, 9,192 ounces in 1957, 11,951 ounces in 1958, 10,391 ounces in 1959, 8,963 ounces in 1960 and 521 ounces in 1961.

(b) Exports.

(e) Purchases.

(c) Estimated

(d) United States Bureau of Mines' estimate.

## PRODUCTION OF GOLD (cont.)

Fine troy ounces

Producing Country	1956	1957	1958	1959	1960	1961
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
Upper Volta (c) ..	388	331	3,100	3,400	930	n.a.
Costa Rica (b) ..	300	300	300	n.a.	n.a.	n.a.
Cuba (e) ..	1,008	915	804	615	348	—
Dominican Republic ..	290	286	780	513	(e) 308	—
Guatemala (f) ..	360	360	370	—	—	—
Honduras ..	1,611	2,025	1,714	(e) 2,798	(e) 2,172	(e) 1,685
Mexico ..	350,250	346,328	332,250	313,662	312,400	268,678
Nicaragua ..	217,140	203,636	214,882	217,849	210,200	226,250
Salvador ..	3,271	2,508	2,372	2,393	1,100	—
United States ..	1,827,159	1,793,597	1,739,249	1,602,931	1,666,772	1,548,270
Argentina ..	6,858	7,729	r 1,830	(e) 1,782	(e) 201	(e) 1,000
Bolivia (d) ..	24,118	46,940	19,115	35,246	45,457	81,216
Brazil (a) ..	122,237	120,755	116,190	112,332	118,891	118,955
Chile ..	94,459	103,590	111,000	r 78,640	109,055	(f) 110,000
Colombia ..	438,347	325,114	371,715	397,929	433,947	401,060
Ecuador ..	15,076	16,247	19,445	r 18,568	15,209	15,210
French Guiana ..	5,800	8,940	18,000	15,000	18,900	7,900
Peru ..	159,074	161,831	159,127	150,299	141,001	133,570
Surinam ..	6,721	6,516	4,258	5,826	4,932	4,010
Venezuela ..	69,767	89,873	75,976	53,740	46,868	30,071
Burma ..	126	(d) 166	190	(d) 212	(d) 304	194
Cambodia ..	482	1,608	322	4,823	4,180	4,000
Formosa ..	32,900	20,500	21,200	13,500	15,700	17,500
Japan ..	241,422	252,563	260,630	261,547	260,000	294,534
Korea (South) ..	49,903	66,578	72,071	65,680	65,810	83,560
Philippine Republic ..	406,163	379,982	422,833	402,615	410,618	423,983
<b>TOTAL*</b> ..	<b>20,700,000</b>	<b>r21,700,000</b>	<b>r22,400,000</b>	<b>r24,500,000</b>	<b>25,900,000</b>	<b>27,300,000</b>
<b>WORLD'S TOTAL*</b> (excl. U.S.S.R.) ..	<b>27,800,000</b>	<b>29,000,000</b>	<b>29,900,000</b>	<b>32,000,000</b>	<b>33,600,000</b>	<b>34,600,000</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 has estimated the production at 10-11 million ounces in recent years.

(a) Mined gold only.

(d) Exports.

(b) Estimated.

(e) Imports into the United States.

(c) European producers only.

(f) United States Bureau of Mines' estimate.

**TOTAL EXPORTS OF GOLD\***

(Metal content)

Fine troy ounces

Exporting Country and Description	1956	1957	1958	1959	1960	1961
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom—						
Bullion, refined .. .. .	10,372,551	11,258,836	10,738,067	21,691,400	21,462,066	24,604,143
Coin .. .. .	53,000	41,000	564,000	345,207	350,165	868,860
Ghana—						
Bullion .. .. .	599,340	788,151	851,433	902,595	893,113	852,619
Kenya—						
Bullion .. .. .	13,636	7,284	7,753	9,054	8,645	12,100
Nigeria—						
Bullion .. .. .	—	230	—	—	—	—
Sierra Leone*—						
Bullion .. .. .	400	—	—	—	—	330
Rhodesia and Nyasaland—						
Concentrates, etc.* .. .	2,100	2,400	1,100	2,200	1,900	1,500
Bullion .. .. .	515,030	547,140	542,747	557,422	556,178	565,169
Tanganyika—						
Concentrates .. .. .	11,871	9,192	11,951	10,391	8,963	<i>n.a.</i>
Bullion (refined) .. .	59,293	54,088	56,299	85,403	98,046	99,574
Uganda—						
Bullion .. .. .	237	182	278	334	650	383
Canada—						
Bullion—						
Unrefined .. .. .	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	96,986	75,796
Refined .. .. .	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	6,125,624	3,658,605
British Guiana—						
Bullion .. .. .	6,224	7,699	10,163	654	—	<i>n.a.</i>
India—						
Bullion .. .. .	402	—	1,568	298	(b) —	(b) —
Malaya—						
Bullion .. .. .	14,990	9,348	10,023	18,256	4,559	278
Hong Kong—						
Bullion .. .. .	2,286,000	1,850,000	1,239,000	1,444,000	1,366,000	980,000
Sarawak—						
Bullion .. .. .	687	847	188	23	—	—
Australia (a)—						
Ores, etc. .. .. .	13,427	21,817	23,787	16,025	25,085	28,930
Bullion, refined .. .	523,940	908,224	405,307	203,096	653,097	2,552,869
do. unrefined .. .	7,724	42	—	—	—	—
Fiji—						
Bullion .. .. .	67,130	76,620	81,120	70,719	71,677	95,349
New Guinea (a)—						
Bullion .. .. .	71,519	78,363	54,542	47,153	40,321	43,363
New Zealand*—						
Auriferous quartz, etc.	—	—	—	—	6	—
Beaten, rolled or drawn	19,000	25,000	18,000	29,000	25,000	22,000
Papua (a)—						
Bullion .. .. .	491	397	454	410	128	75
Irish Republic*—						
Bullion .. .. .	1,000	1,700	2,000	1,300	600	1,500

\*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.

## EXPORTS OF GOLD (cont.)

Fine troy ounces

Exporting Country and Description	1956	1957	1958	1959	1960	1961
<b>OTHER COUNTRIES</b>						
Belgium-Luxemburg						
E.U.—						
Bullion and scrap ..	158,000	90,000	268,000*	216,000*	215,000	40,000*
Coin .. .. .	119,000	71,000	363,000	270,000	170,000	186,000
France—						
Bullion and scrap ..	3,372,000	2,403,000	3,197,000	709,000	644,000	1,011,000
Coin .. .. .	90,000	32,000	34,000	42,000	57,000	18,000
Beaten, rolled or drawn	70,000	55,000*	41,000*	102,000*	42,000*	49,000*
Germany (Federal)—						
Unwrought .. ..	38,000	49,000	105,000	101,000	112,000	127,000
Netherlands—						
Bullion, etc. .. ..	46,000*	303,000*	155,000*	27,000*	51,000*	77,000*
Coin .. .. .	382,000*	246,000*	33,000	48,000	4,000	5,000
Sweden*—						
Bullion .. .. .	43,000	44,000	37,000	37,000	49,000	49,000
Switzerland—						
Unwrought .. ..	52,000	79,000	225,000*	267,000	294,000	244,000
Cameroun—						
Bullion .. .. .	600	1,400	12,000	700	300	600
Congo Republic—						
Bullion .. .. .	363,000*	363,000*	332,000	317,000*(a)	300,000	n.a.
Equatorial African Community—						
Bullion .. .. .	43,000	30,000	24,000	17,000*	20,000	16,000*
Mozambique—						
Bullion .. .. .	63,000	600	1,000	184,000	—	n.a.
South Africa—						
Ore and concentrates*..	3,300	8,200	7,600	7,200	800	640
Bullion .. .. .	15,438,000	17,335,000	17,774,000	19,387,000	22,836,000	19,505,000
Sudan*—						
Bullion .. .. .	900	1,500	2,000	1,300	2,000	400
Upper Volta—						
Bullion .. .. .	—	—	—	—	1,000	7,000
Honduras—						
Ore and base bullion ..	1,611	2,028	2,484	3,061	2,286	2,310
Mexico—						
Bullion .. .. .	44,000	57,000	645,000	44,500	625,000	614,000
Nicaragua—						
Bullion .. .. .	215,746	196,133	208,398	208,805	198,189	210,748
Salvador—						
Bullion, etc. .. ..	3,000	3,000	2,000	2,000	1,000	—
United States—						
Ore and base bullion ..	19,962	23,953	26,929	20,498	9,196	13,717
Refined bullion.. ..	713,900	4,781,780	859,042	29,104	37,676	22,132,692
Argentina—						
Bullion and coin .. ..	27,000	2,485,000	1,433,000	4,500	9,000	—
Bolivia—						
Ore .. .. .	868	450	17,172	31,986	24,388	258
Bullion .. .. .	23,250	46,490	1,943	3,260	21,069	80,958
Chile—						
Ores and concentrates	74,326	70,310	58,151	55,585	49,014	n.a.
Colombia—						
Bullion .. .. .	419,221	114,674	—	—	—	—
Ecuador—						
Concentrates* .. ..	16,000	17,000	20,000	22,000	18,000	n.a.
French Guiana—						
Bullion .. .. .	1,000	9,000	16,000	16,000*	18,000*	8,000*
Peru—						
Ores, concentrates, etc.	34,329	31,407	52,913	92,620	57,325	54,416
Bullion .. .. .	68,268	259,458	278,433	21,300	35,295	18,946
Venezuela—						
Bullion*.. .. .	59,000	33,000	7,000	—	3,007,000	—

(a) Estimated.

EXPORTS OF GOLD (cont.)

Fine troy ounces

Exporting Country and Description	1956	1957	1958	1959	1960	1961
<b>OTHER COUNTRIES</b> (cont.)						
Philippine Republic—						
Ore and base bullion (a)	62,202	51,113	59,459	33,793	67,553	80,507
Refined bullion (a) ..	141,360	156,100	272,930	223,762	286,298	466,782
Lebanon—						
Coin .. .. .	121,000	106,000	42,000	56,000	n.a.	n.a.

(a) Imports into the United States.

**TOTAL IMPORTS OF GOLD\***

(Metal content)

Fine troy ounces

Importing Country and Description	1956	1957	1958	1959	1960	1961
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom—						
Ore, etc.* .. ..	44,000	50,000	45,000	31,500	49,800	34,000
Bullion—						
Unrefined .. ..	1,401,223	1,509,553	1,542,497	1,594,956	1,559,520	1,533,742
Refined .. ..	17,281,124	22,491,593	22,460,998	26,005,116	24,956,264	49,257,289
Coin .. ..	23,000	36,000	436,000	211,629	4,361	10,170
Malta*—						
Bullion and coin ..	11,900	7,300	8,000	7,600	8,600	8,300
Ghana—						
Bullion .. ..	249	—	—	—	533	160,190
Kenya—						
Bullion .. ..	150	247	96	110	123	294
Nigeria—						
Bullion and coin ..	405	672	331	—	20	—
Rhodesia and Nyasaland* Concentrates .. ..	200	300	600	900	1,700	2,350
Uganda—						
Bullion .. ..	590	876	367	444	563	240
Zanzibar*—						
Bullion .. ..	1,300	900	700	1,100	1,100	1,100
Canada—						
Bullion .. ..	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	147,166	122,222
Coin* .. ..	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	38,000	213,000
Jamaica*—						
Bullion and coin ..	300	1,000	170	100	25	—
Trinidad and Tobago—						
Bullion .. ..	1,869	5,456	6,215	6,981	6,000	<i>n.a.</i>
Ceylon*—						
Bullion (b) .. ..	22,000	11,000	45	11,250	11,000	11,000
Cyprus*—						
Bullion .. ..	400	2,600	3,200	5,000	4,200	6,000
Hong Kong—						
Bullion .. ..	2,208,000	1,853,000	1,236,000	1,450,000	1,403,000	986,000
Coin .. ..	18,000	3,500	—	—	—	—
India—						
Bullion .. ..	6,498	28,751	36,515	20,606	(d) 26,231	<i>n.a.</i>
Coin .. ..	372	422	306	142	(d) 978	<i>n.a.</i>
Malaya—						
Bullion .. ..	685	846	978	145	1,974	503
Sarawak—						
Bullion (c) .. ..	4,400	3,600	4,000	14,700	188,000	230,000
Australia(a)—						
Bullion .. ..	175,649	143,852	169,119	139,305	161,222	140,961
Fiji—						
Bullion .. ..	184	175	245	212	232	589
New Zealand—						
Bullion .. ..	1,834	3,381	3,484	3,485	5,915	4,816
Beaten, rolled or drawn	115	191	220	189	148	181
Irish Republic*—						
Bullion .. ..	1,400	—	—	—	—	—

\*See note on page 133.

(a) Years ended June 30 of that stated.

(b) Including partly worked.

(c) Including coin and partly worked.

(d) Years ended March 31 following that stated.

## IMPORTS OF GOLD (cont.)

Fine troy ounces

Importing Country and Description	1956	1957	1958	1959	1960	1961
<b>OTHER COUNTRIES</b>						
Austria—						
Bullion .. .. .	23,000	27,000	47,000	61,000	536,000	743,000*
Belgium-Luxemburg ..						
E.U.—						
Bullion, scrap, etc. ..	852,000	831,000*	1,579,000	665,000*	613,000*	558,000*
Coin .. .. .	87,000	68,000	141,000	154,000	312,000	240,000
Finland—						
Bullion and scrap ..	600	150	1,000	300	—	—
France—						
Bullion and scrap ..	3,828,000	2,655,000	2,674,000	1,740,000	3,800,000	6,428,000
Coin .. .. .	62,000	20,000	15,000	5,000	13,000	24,000
Beaten, rolled or drawn	100	3,000	3,000*	3,000	6,000	6,000*
Germany (Federal)—						
Unwrought* .. ..	971,000	1,388,000	1,484,000	1,432,000	1,945,000	2,408,000
Italy—						
Bullion and scrap ..	16,000	447,000	815,000*	10,492,000	10,049,000	1,476,000*
Netherlands—						
Bullion .. .. .	242,000*	137,000	160,000*	94,000	159,000	186,000
Coin .. .. .	13,000	111,000	2,000	400	100*	300
Norway—						
Sheets and rolled ..	8,000	200	12,000	2,000*	1,000*	1,500*
Sweden—						
Bullion* .. .. .	7,000	7,000	8,000	4,000	9,000	52,000
Switzerland—						
Unwrought .. .. .	43,000*	33,000	31,000	34,000	43,000	58,000
Algeria—						
Beaten, rolled or drawn	19,000*	20,000*	20,000*	17,000*	17,000*	n.a.
Egypt—						
Bullion .. .. .	400	—	400	700	1,000	n.a.
Coin .. .. .	—	200	20	—	—	n.a.
Mozambique—						
Bullion .. .. .	100,000	103,000	111,000	111,000	—	n.a.
Sudan—						
Bullion .. .. .	870	1,020	1,694	1,086	n.a.	n.a.
Mexico—						
Bullion .. .. .	573,000	573,000	1,000	859,000	573,000	1,000
United States—						
Ore and base bullion ..	1,197,136	1,185,917	1,099,484	444,416	460,579	456,139
Refined bullion .. ..	2,532,611	6,515,253	7,020,242	8,040,528	8,861,716	1,159,320
Coin* .. .. .	—	n.a.	24,000	n.a.	n.a.	n.a.
Brazil—						
Bullion .. .. .	1,000	1,000	700	200	500	200
Formosa—						
Bullion .. .. .	3,000	6,000	6,000	42,000	11,000	n.a.
Lebanon—						
Bullion and scrap ..	358,000	628,000	340,000	1,052,000	1,139,000	n.a.
Coin .. .. .	17,000	57,000	134,000	130,000	n.a.	n.a.
Philippine Republic—						
Bullion .. .. .	18,595	8,646	25,693	24,953	2,876	—
Syria—						
Bullion and scrap (a) ..	305,000	27,000	348,000	56,000	18,000	—

(a) Gross weight.

**GRAPHITE**  
**PRODUCTION OF GRAPHITE**

Long tons

Producing Country	1956	1957	1958	1959	1960	1961
<b>COMMONWEALTH COUNTRIES</b>						
Kenya .. .. .	533	943	660	567	994	—
Tanganyika (a) .. .. .	23	—	—	25	24	—
Canada .. .. .	—	—	—	—	—	3
Ceylon .. .. .	9,207	8,190	5,637	7,872	9,024	8,942
Hong Kong .. .. .	2,442	3,305	3,285	3,283	3,799	1,665
Australia .. .. .	10	—	—	—	—	—
<b>OTHER COUNTRIES</b>						
Austria (a) .. .. .	18,390	18,622	20,820	61,110	86,646	79,692
Germany (Federal) .. .. .	11,498	11,209	10,733	11,037	11,400	11,919
Italy .. .. .	2,849	2,762	3,922	3,086	3,659	4,004
Norway .. .. .	4,966	5,594	4,399	4,818	5,883	5,616
Spain .. .. .	295	271	364	408	257	(b) 290
Sweden (a) .. .. .	394	734	530	—	<i>n.a.</i>	<i>n.a.</i>
Yugoslavia .. .. .	—	984	886	984	(b) 1,000	(b) 1,000
Malagasy Republic—						
Flake .. .. .	9,431	8,130	4,930	5,164	6,950	7,645
Powder .. .. .	6,151	7,039	7,058	6,096	7,266	7,063
Morocco .. .. .	122	—	—	122	—	—
South Africa .. .. .	1,662	1,562	781	551	798	860
Mexico .. .. .	29,156	23,159	19,254	27,397	33,774	17,720
Argentina .. .. .	344	403	469	495	(b) 500	(b) 500
Brazil .. .. .	517	794	1,181	1,191	1,279	<i>n.a.</i>
Fotmosa .. .. .	2,040	881	817	554	490	(b) 500
Japan—						
Flake .. .. .	2,440	2,594	2,062	3,171	3,425	2,952
Amorphous .. .. .	914	2,113	1,346	805	1,021	473
Korea (South)—						
Flake .. .. .	520	256	143	149	689	1,205
Amorphous .. .. .	59,629	145,015	92,541	81,142	90,184	87,091
Korea (North) .. .. .	18,424	31,222	(b) 40,000	(b) 50,000	(b) 50,000	(b) 50,000
<b>TOTAL*</b> .. .. .	<b>200,000</b>	<b>300,000</b>	<b>240,000</b>	<b>290,000</b>	<b>340,000</b>	<b>310,000</b>

\*Excluding graphite known to have been produced in the U.S.S.R. and China. An allowance, however, has been made for graphite produced in India, Czechoslovakia and the United States.

(a) Crude.

(b) United States Bureau of Mines' estimate.



## EXPORTS OF GRAPHITE

Long tons

Exporting Country and Description	1956	1957	1958	1959	1960	1961
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom—						
Crucibles .. .. .	2,638	2,574	2,392	2,525	2,815	3,272
Kenya .. .. .	421	662	508	584	601	131
Tanganyika (crude) .. .. .	23	—	—	25	25	—
Canada .. .. .	2	—	—	—	—	—
Ceylon .. .. .	9,162	8,235	5,662	7,872	9,024	8,942
Hong Kong .. .. .	5,217	4,788	2,172	3,705	7,856	2,704
India .. .. .	<i>n.a.</i>	—	6	5	(c) 18	(c) 16
Australia (a) .. .. .	4	10	3	4	16	7
<b>OTHER COUNTRIES</b>						
Austria .. .. .	13,716	14,055	14,445	16,153	18,120	19,701
Belgium-Luxemburg						
E.U. .. .. .	22	32	60	26	25	96
Denmark .. .. .	40	20	1	—	2	8
France .. .. .	585	770	673	630	1,138	1,146
Germany (Federal) .. .. .	6,080	5,399	4,719	5,574	5,872	5,345
Italy .. .. .	1,358	1,813	1,449	1,238	1,565	1,668
Netherlands .. .. .	(b) 885	(b) 1,136	(b) 2,438	(b) 1,806	498	86
Norway .. .. .	5,102	5,626	4,257	4,395	5,329	6,080
Sweden .. .. .	2	1	—	26	—	49
U.S.S.R. .. .. .	4,500	4,200	3,700	4,700	3,700	4,400
Algeria .. .. .	244	68	231	259	104	<i>n.a.</i>
Malagasy Republic .. .. .	15,158	16,052	10,924	10,843	15,574	14,654
Morocco .. .. .	48	2	—	—	30	19
South Africa .. .. .	<i>r</i> 125	<i>r</i> 125	<i>r</i> 81	<i>r</i> 73	25	37
Mexico .. .. .	27,235	22,074	17,239	23,179	34,385	17,359
United States .. .. .	948	1,204	1,041	1,222	1,657	1,391
Brazil .. .. .	4	—	—	—	—	—
Japan .. .. .	443	356	488	787	616	619
Korea (South) .. .. .	95,551	142,634	67,373	43,943	54,558	56,543

(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	1956	1957	1958	1959	1960	1961
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom—						
Natural .. .. .	9,526	8,295	4,737	6,129	9,509	9,380
Artificial .. .. .	1,880	3,480	3,870	1,077	280	410
Mauritius—						
Crucibles .. .. .	5	5	2	1	2	—
Rhodesia and Nyasaland	64	57	108	54	26	52
Canada—						
Unground .. .. .	(£31,973)	(£27,645)	(£19,494)	(£23,797)	(£27,836)	(£16,714)
Ground, including manufactures .. .. .	(£296,503)	(£279,378)	(£333,050)	(£362,918)	(£332,999)	(£332,955)
Crucibles .. .. .	(£94,545)	(£88,557)	(£60,826)	(£83,347)	(£86,819)	(£76,008)
Hong Kong .. .. .	1,536	1,728	681	1,286	5,747	3,073
India—						
Graphite .. .. .	827	1,088	626	1,060	(a) 1,777	(a) 1,415
Crucibles .. .. .	496	n.a.	n.a.	n.a.	n.a.	n.a.
Malaya .. .. .	123	103	76	93	129	150
Pakistan—						
Graphite .. .. .	71	111	132	249	771	300
Crucibles .. .. .	—	15	—	65	63	n.a.
Australia (b) .. .. .	764	1,009	816	944	987	1,039
New Zealand .. .. .	30	52	54	44	54	108
<b>OTHER COUNTRIES</b>						
Austria—						
Graphite .. .. .	872	1,157	1,293	131	212	164
Crucibles, etc. .. .. .	181	215	185	194	193	195
Belgium-Luxemburg						
E.U. .. .. .	2,805	1,971	2,174	2,606	1,338	1,236
Denmark—						
Graphite .. .. .	1,061	1,208	578	475	502	402
Crucibles .. .. .	105	101	119	n.a.	n.a.	n.a.
Finland .. .. .	199	266	262	472	474	220
France .. .. .	4,534	4,782	4,197	3,874	5,065	5,137
Germany (Federal)	11,447	12,450	12,323	11,528	16,950	16,340
Greece .. .. .	183	167	111	156	n.a.	n.a.
Iceland .. .. .	24	10	20	20	10	15
Italy .. .. .	4,429	6,632	5,004	5,688	7,082	8,923
Netherlands .. .. .	(c) 1,131	(c) 1,059	(c) 900	(c) 814	854	399
Norway—						
Graphite .. .. .	258	346	185	83	300	602
Crucibles, etc. .. .. .	121	98	87	n.a.	n.a.	n.a.
Portugal .. .. .	84	56	80	124	91	118
Sweden .. .. .	982	1,668	1,087	736	844	854
Switzerland .. .. .	n.a.	n.a.	n.a.	n.a.	672	684
Yugoslavia .. .. .	521	953	658	800	1,170	1,154
Algeria .. .. .	1	4	8	9	22	n.a.
Congo Republic .. .. .	24	40	5	2	n.a.	n.a.
Egypt .. .. .	312	276	329	614	315	n.a.
Morocco .. .. .	3	5	19	15	29	20
Mozambique .. .. .	3	3	3	1	3	n.a.
South Africa .. .. .	118	151	390	162	346	n.a.
Tunisia .. .. .	3	3	1	1	2	4
Mexico—						
Graphite .. .. .	100	90	198	155	247	146
Crucibles .. .. .	212	205	193	174	304	264

(a) Years ended March 31 following that stated.

(c) Including artificial graphite.

(b) Years ended June 30 of that stated.

IMPORTS OF GRAPHITE (*cont.*)

Long tons

Importing Country and Description	1956	1957	1958	1959	1960	1961
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
United States (a) ..	42,684	37,073	24,144	33,074	42,235	26,398
Argentina .. ..	402	616	248	310	71	124
Brazil—						
Graphite .. ..	—	—	60	154	261	197
Crucibles .. ..	260	291	232	271	343	323
Chile .. ..	85	79	72	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Colombia (b) .. ..	29	38	81	77	192	76
Peru (b) .. ..	100	26	83	57	64	59
Uruguay .. ..	<i>n.a.</i>	37	—	13	22	<i>n.a.</i>
Venezuela .. ..	84	155	254	212	98	58
Burma .. ..	29	95	96	47	452	54
Formosa .. ..	1,521	2,123	1,293	841	1,021	980
Indonesia (b) .. ..	284	190	174	265	279	<i>n.a.</i>
Israel—						
Crucibles .. ..	59	34	60	39	24	<i>n.a.</i>
Lebanon (b) .. ..	35	11	6	29	35	<i>n.a.</i>
Japan .. ..	110,910	148,831	81,877	47,854	61,974	67,302
Philippine Republic .. ..	44	67	108	66	121	140
Syria (b) .. ..	5	23	16	27	<i>n.a.</i>	<i>n.a.</i>
Thailand .. ..	309	418	671	780	790	611
Turkey—						
Graphite .. ..	45	70	24	63	109	79
Crucibles, etc. .. ..	17	39	111	208	103	44

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

Year	Long tons
1956 .. ..	74
1957 .. ..	7
1958 .. ..	22
1959 .. ..	5
1960 .. ..	166
1961 .. ..	163

(b) Including artificial graphite.

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

Long tons

Producing Country	1956	1957	1958	1959	1960	1961
<b>COMMONWEALTH COUNTRIES</b>						
<b>United Kingdom—</b>						
Gypsum.. ..	1,689,600	1,699,200	1,486,800	1,586,400	1,732,800	1,889,000
Anhydrite .. ..	1,644,600	1,650,300	1,764,400	1,801,400	1,862,200	1,662,000
Kenya .. ..	1,908	(c) 4,846	10,905	13,117	16,863	19,768
Tanganyika .. ..	8,695	9,493	9,145	6,745	4,564	1,306
Canada (a) .. ..	4,375,237	4,202,254	3,550,637	5,342,272	4,547,466	4,517,641
Jamaica .. ..	124,876	189,161	599,591	385,567	221,560	97,363
Trinidad .. ..	432	2,336	2,777	4,850	6,467	2,804
Ceylon .. ..	492	744	136	6	n.a.	—
Cyprus (b) .. ..	124,000	144,000	139,000	194,000	200,000	200,000
India .. ..	853,600	921,987	781,846	846,139	981,000	852,000
Pakistan .. ..	36,200	64,064	66,095	97,243	89,541	99,598
Australia .. ..	463,355	478,436	504,938	516,791	580,878	595,464
Irish Republic .. ..	118,144	116,667	105,687	135,312	(b) 146,000	(b) 150,000
<b>OTHER COUNTRIES</b>						
<b>Austria—</b>						
Gypsum.. ..	349,090	364,305	415,612	414,880	440,656	468,989
Anhydrite .. ..	96,592	153,029	117,816	139,775	211,455	200,372
Belgium .. ..	34,221	35,809	42,896	—	—	—
Bulgaria .. ..	n.a.	n.a.	80,000	110,000	120,000	170,000
Czechoslovakia .. ..	171,000	208,000	n.a.	n.a.	n.a.	n.a.
France (a) .. ..	3,511,370	3,596,700	3,612,800	3,684,162	3,716,979	4,260,000
Germany (Federal) (d) .. ..	923,000	866,000	845,000	933,000	1,016,000	998,000
Germany (East) (d) .. ..	213,000	228,000	219,000	249,000	253,000	250,000
Greece .. ..	17,000	(b) 17,000	21,564	2,000	n.a.	n.a.
Italy (including alabaster)	865,135	943,046	1,222,179	1,951,488	1,874,179	n.a.
Luxemburg .. ..	8,036	9,523	9,990	9,621	8,320	9,278
Poland .. ..	348,000	n.a.	n.a.	n.a.	n.a.	n.a.
Portugal .. ..	54,206	63,626	42,684	53,400	60,664	70,813
Spain .. ..	1,157,046	1,585,718	(b) 2,211,000	(b) 2,479,000	(b) 2,413,000	n.a.
Switzerland .. ..	237,000	231,000	88,000	(e) 98,000	(e) 98,000	(e) 98,000
U.S.S.R. (f) .. ..	2,972,000	(e) 3,450,000	(e) 3,450,000	(e) 4,000,000	(e) 4,000,000	(e) 4,500,000
Yugoslavia .. ..	97,000	83,000	75,000	91,000	104,000	123,000
Algeria .. ..	52,131	75,196	125,041	169,100	173,774	n.a.
Angola .. ..	19,596	6,704	4,557	13,000	(e) 10,000	(e) 10,000
Congo Republic.. ..	10,000	11,000	(e) 10,000	—	—	—
Egypt .. ..	200,502	930,000	521,000	515,000	394,000	(e) 390,000
Morocco .. ..	46,295	n.a.	n.a.	n.a.	n.a.	n.a.
South Africa .. ..	186,940	160,618	228,217	199,751	192,692	170,624
Sudan .. ..	1,378	—	—	—	—	—
Tunisia .. ..	13,165	27,185	16,300	6,000	13,572	n.a.
Dominican Republic .. ..	75,051	72,129	75,206	155,999	319,572	(e) 290,000
Guatemala .. ..	—	6,000	15,000	n.a.	n.a.	n.a.
Mexico .. ..	487,000	804,000	733,000	815,000	778,000	765,000
United States .. ..	9,211,146	8,209,446	8,613,285	9,700,000	8,772,000	8,482,000
Argentina .. ..	146,000	150,683	r 174,762	113,000	(e) 110,000	(e) 110,000
Brazil .. ..	r 155,921	107,961	128,022	180,137	101,473	(e) 98,000
Chile .. ..	40,486	31,632	n.a.	n.a.	n.a.	n.a.
Colombia.. ..	50,000	55,000	49,000	70,000	70,000	75,000

(a) Including anhydrite.

(b) Estimated.

(c) Excluding gypsum used in the manufacture of cement.

(d) Crude estimated on production of calcined.

(e) United States Bureau of Mines' estimate.

(f) Excluding gypsum used in agriculture.

PRODUCTION OF GYPSUM (cont.)

Long tons

Producing Country	1956	1957	1958	1959	1960	1961
<b>OTHER COUNTRIES</b> (cont.)						
Burma .. .. .	—	—	—	1,925	1,035	840
Formosa .. .. .	12,270	6,283	9,943	10,178	10,461	11,746
Israel .. .. .	(a) 54,000	21,200	(a) 35,000	(a) 60,000	(a) 60,000	(a) 40,000
Japan .. .. .	372,677	470,357	471,069	532,097	722,949	713,106
Philippine Republic .. .. .	—	—	1,508	1,739	8,934	8,271
Thailand .. .. .	—	2,067	5,600	3,400	13,000	11,850
<b>TOTAL*</b> .. .. .	<b>31,700,000</b>	<b>33,000,000</b>	<b>33,000,000</b>	<b>38,000,000</b>	<b>37,000,000</b>	<b>38,000,000</b>

\*Excluding gypsum known to have been produced in Roumania, Cuba, China, Korea 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	1956	1957	1958	1959	1960	1961
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom—						
Calcined .. ..	14,842	17,491	11,576	9,179	11,147	12,762
Tanganyika .. ..	9,450	9,667	9,152	6,758	4,350	326
Canada—						
Crude .. ..	3,429,215	3,045,254	2,587,705	4,329,086	3,815,775	3,410,129
Calcined .. ..	133	21	14	333	29	—
Jamaica .. ..	120,583	178,986	587,759	370,905	207,682	82,886
Cyprus—						
Crude .. ..	25,424	41,687	27,067	52,304	107,560	24,437
Calcined .. ..	3,023	1,256	2,722	1,538	2,144	1,830
India .. ..	<i>n.a.</i>	1,510	1,385	756	(b) —	(b) —
Australia (a)—						
Crude .. ..	36,373	33,496	70,900	58,717	84,110	89,960
Calcined .. ..	7,582	5,181	5,709	2,118	2,337	3,388
Irish Republic—						
Crude .. ..	40,026	55,966	38,590	64,978	87,056	82,131
<b>OTHER COUNTRIES</b>						
Austria—						
Crude .. ..	24,135	22,013	26,167	25,175	27,169	32,552
Calcined .. ..	1,226	1,742	57	486	888	1,266
Belgium-Luxemburg						
E.U.—						
Crude .. ..	292	816	510	6	116	563
Calcined .. ..	9,701	9,692	9,871	12,493	12,835	13,095
Denmark—						
Crude and calcined ..	23	4	14	13	30	19
France—						
Crude .. ..	433,076	369,085	389,875	432,459	493,079	550,593
Calcined .. ..	60,310	70,362	65,957	74,672	93,440	109,120
Germany (Federal)—						
Crude and calcined ..	183,884	169,165	142,932	147,262	197,395	175,975
Germany (East)—						
Calcined .. ..	29,441	37,777	35,059	33,204	34,961	27,368
Italy—						
Crude .. ..	2,512	941	2,021	6,765	1,325	889
Calcined .. ..	769	403	517	4,248	8,084	6,929
Netherlands—						
Calcined .. ..	2,553	5,738	4,071	3,641	257	332
Portugal—						
Crude .. ..	635	710	884	628	636	369
Spain—						
Crude and calcined ..	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	4,552
Sweden—						
Calcined .. ..	9	11	307	205	98	142
Switzerland—						
Ground and calcined ..	106	75	63	95	157	104
Yugoslavia—						
Crude .. ..	23,977	15	—	9,511	88	—
Ground and calcined ..	5,076	4,497	1,559	2,441	1,178	216
Algeria .. ..	45	16	—	1	1	<i>n.a.</i>
Angola—						
Crude .. ..	2,399	5,257	3,918	3,005	8,473	8,286
Egypt—						
Crude and ground ..	18,898	20,304	12,509	22,564	23,456	<i>n.a.</i>
Calcined .. ..	8,967	19,956	25,105	9,970	16,713	<i>n.a.</i>
Morocco—						
Crude .. ..	14,066	15,413	26,188	22,691	14,661	30,490
Calcined .. ..	343	335	2,412	697	61	668

(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	1956	1957	1958	1959	1960	1961
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
South Africa .. ..	34,512	33,971	47,529	34,450	30,684	22,779
Dominican Republic ..	63,437	65,127	51,435	130,471	332,840	<i>n.a.</i>
Mexico—						
Crude .. .. .	423,600	493,042	545,054	772,398	656,530	700,667
Calcined .. ..	156	477	74	3	28	5
United States—						
Crude and calcined ..	18,533	21,828	25,783	12,778	15,182	17,744
Argentina .. .. .	1,674	544	33	1,006	3,059	945
Venezuela .. .. .	—	2,756	2,608	—	—	—
Iran (a)						
Crude .. .. .	<i>n.a.</i>	<i>n.a.</i>	5,884	1,376	579	<i>n.a.</i>
Calcined .. .. .	<i>n.a.</i>	<i>n.a.</i>	—	2,637	3,826	<i>n.a.</i>
Japan—						
Crude .. .. .	25	58	204	169	355	87
Calcined .. .. .	222	372	362	357	432	272
Syria .. .. .	963	5,171	6,892	12,136	<i>n.a.</i>	5,764

(a) Years ended March 20 following that stated.

## IMPORTS OF GYPSUM

Long tons

Importing Country and Description	1956	1957	1958	1959	1960	1961
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom—						
Crude, including						
alabaster .. ..	63,783	70,876	78,544	102,418	141,059	146,319
Calcined .. ..	1,163	1,669	842	945	726	1,072
Rhodesia and Nyasaland—						
Crude and calcined ..	34,493	34,509	38,999	30,839	28,166	23,469
Bermuda—						
Calcined .. ..	204	322	352	672	593	517
Canada—						
Crude and ground ..	62,889	82,267	96,462	105,205	53,581	59,000
Calcined .. ..	20,352	15,555	28,384	15,855	11,155	8,545
India—						
Crude .. ..	<i>n.a.</i>	27,954	4,918	1,101	(a) 825	(a) 287
Calcined .. ..	<i>n.a.</i>	97	101	29	(a) 175	(a) 115
New Zealand—						
Crude .. ..	35,702	47,413	58,595	57,662	65,363	71,525
Calcined .. ..	17,965	16,833	14,819	11,180	14,708	16,566
<b>OTHER COUNTRIES</b>						
Austria—						
Crude .. ..	10,945	1,375	6,856	14,376	11,772	9,234
Calcined .. ..	1,028	1,207	1,796	1,125	2,187	3,523
Belgium-Luxemburg						
E.U.—						
Crude .. ..	263,103	262,124	231,288	262,467	270,638	303,534
Calcined .. ..	39,779	47,794	40,052	34,943	36,759	40,683
Denmark—						
Crude .. ..	31,688	40,135	34,261	44,773	48,137	56,765
Calcined .. ..	6,140	5,720	7,132	5,991	5,710	5,797
Finland—						
Crude .. ..	51,424	41,455	37,883	63,099	58,914	68,664
Calcined .. ..	32,425	35,884	29,083	29,939	35,887	37,494
France—						
Crude .. ..	29,341	18,650	3,362	10,097	17,106	15,503
Calcined .. ..	1,090	1,019	1,017	2,702	3,194	2,511
Germany (Federal)—						
Crude and calcined ..	13,555	13,458	19,295	38,679	53,475	58,563
Greece—						
Calcined .. ..	196	182	185	125	<i>n.a.</i>	<i>n.a.</i>
Iceland .. ..	44	48	32	5,488	3,465	4,549
Italy—						
Crude .. ..	1	38	32	4	110	46
Calcined .. ..	176	67	117	301	338	544
Netherlands—						
Crude .. ..	57,426	70,361	59,952	63,524	92,316	84,084
Calcined .. ..	39,904	44,294	43,795	44,651	48,114	45,705
Ground .. ..	25,319	2,509	1,372	622	(b)	(b)
Norway—						
Crude .. ..	33,008	34,758	36,824	39,996	42,970	53,584
Calcined .. ..	4,514	4,370	4,779	5,996	4,382	4,000
Portugal—						
Crude .. ..	8,578	9,222	9,350	9,517	10,875	10,146
Calcined .. ..	16	16	22	21	17	14
Sweden—						
Crude .. ..	106,243	115,074	126,716	133,813	180,185	184,334
Calcined .. ..	20,940	23,740	19,792	19,465	20,519	21,719
Switzerland—						
Crude .. ..	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	9,263	14,954
Ground and calcined ..	500	496	632	1,633	7,168	8,153

(a) Years ended March 31 following that stated.

(b) Included with crude and calcined.



## IMPORTS OF GYPSUM (cont.)

Long tons

Importing Country and Description	1956	1957	1958	1959	1960	1961
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
Algeria—						
Crude .. .. .	—	4,922	39	2,854	2,264	<i>n.a.</i>
Calcined .. ..	3,652	7,866	6,328	9,938	11,167	<i>n.a.</i>
Angola—						
Crude and calcined ..	555	575	662	443	690	258
Congo Republic—						
Crude and calcined ..	10,763	10,753	10,459	9,146	<i>n.a.</i>	<i>n.a.</i>
Egypt—						
Crude and ground ..	2	—	—	—	—	<i>n.a.</i>
Calcined .. .. .	20	6	17	146	8	<i>n.a.</i>
Malagasy Republic	136	104	86	3,140	83	1,634
Morocco .. .. .	81	55	42	28	63	12
Mozambique—						
Crude .. .. .	6,225	7,827	9,012	10,355	12,508	<i>n.a.</i>
Calcined .. .. .	111	118	115	73	134	<i>n.a.</i>
South Africa—						
Crude and calcined ..	1,804	1,641	1,556	1,945	2,580	<i>n.a.</i>
Sudan .. .. .	295	200	356	318	<i>n.a.</i>	<i>n.a.</i>
Tunisia—						
Crude .. .. .	—	—	—	—	1	—
Calcined .. .. .	106	113	131	171	228	272
Costa Rica .. ..	73	78	79	128	121	116
Cuba .. .. .	3,851	4,235	4,323	2,307	<i>n.a.</i>	<i>n.a.</i>
Honduras—						
Calcined .. .. .	21	32	101	8	10	58
Mexico—						
Crude .. .. .	53	1,445	1,029	19	148	1
Panama Republic ..	3,910	<i>n.a.</i>	2,254	3,256	3,450	<i>n.a.</i>
Salvador—						
Crude .. .. .	3,358	3,039	2,564	846	1,429	1,445
Calcined .. .. .	22	39	30	34	337	41
United States—						
Crude .. .. .	3,880,478	3,870,060	3,613,392	5,474,665	4,737,336	4,434,876
Ground and calcined ..	1,023	777	703	915	1,035	1,006
Argentina—						
Crude .. .. .	—	137	32	27	24	146
Brazil—						
Crude .. .. .	79	33	13	26	22	23
Colombia—						
Crude .. .. .	17,027	9,151	11,072	17,884	24,743	2,491
Calcined .. .. .	334	269	362	411	616	504
Peru—						
Crude and calcined ..	65	79	58	88	76	168
Uruguay—						
Crude and ground ..	<i>n.a.</i>	8,783	20,529	33,174	9,283	<i>n.a.</i>
Venezuela .. .. .	214	114	122	121	75	85
Formosa .. .. .	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	24,325	24,822
Indonesia—						
Crude .. .. .	4,297	12,438	364	5,586	9,843	<i>n.a.</i>
Calcined .. .. .	93	60	88	53	309	<i>n.a.</i>
Israel—						
Crude .. .. .	98	—	—	16	79	<i>n.a.</i>
Calcined .. .. .	65	54	94	75	7	<i>n.a.</i>
Japan .. .. .	20,514	21,032	26,981	22,997	75,620	53,745
Korea (South) .. ..	<i>n.a.</i>	<i>n.a.</i>	4,925	8,564	18,035	20,862
Lebanon .. .. .	12,394	37,415	27,282	42,248	45,144	<i>n.a.</i>
Philippine Republic—						
Crude .. .. .	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	} 35,031
Calcined .. .. .	919	<i>n.a.</i>	534	675	611	
Syria .. .. .	10	48	23	12	<i>n.a.</i>	<i>n.a.</i>
Thailand—						
Crude .. .. .	5,105	962	546	208	163	196

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

Long tons

Producing Country	ORE										Estimated Iron Content			
	1956	1957	1958	1959	1960	1961	1956	1957	1958	1959	1960	1961		
<b>COMMONWEALTH COUNTRIES</b>														
United Kingdom (a) ...	16,245,400	16,902,100	14,612,400	14,869,500	17,087,400	16,518,000	4,386,000	4,564,000	3,945,000	4,163,000	4,614,000	4,460,000		
Sierra Leone ...	1,311,059	1,323,895	1,299,349	1,421,533	1,393,572	1,651,607	810,000	830,000	815,000	914,000	906,000	1,074,000		
Southern Rhodesia ...	114,245	132,829	142,416	127,679	155,954	381,868	65,600	76,400	81,900	73,400	89,700	219,600		
Uganda ...	(b) 1,005						n.a.							
Canada ...	19,953,820	19,885,870	14,041,360	21,864,576	19,241,812	18,199,404	10,975,000	10,937,000	7,723,000	12,020,000	10,583,000	10,010,000		
Hong Kong ...	122,963	94,182	105,125	119,893	117,043	117,364	69,000	53,000	59,000	67,000	66,000	66,000		
India ...	4,897,792	5,085,176	6,032,896	7,855,757	10,514,000	12,076,000	2,940,000	3,050,000	3,680,000	4,870,000	4,100,000	7,370,000		
Malaya ...	2,444,570	2,972,359	3,760,684	5,640,258	6,730,520	6,730,520	1,370,000	1,665,000	1,565,000	2,106,000	3,159,000	3,771,000		
Pakistan ...	7,012	23,313	2,027	2,250	5,421	3,804	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.		
Australia ...	3,913,545	3,800,823	3,917,424	4,140,693	4,355,464	5,342,891	2,536,000	2,463,000	2,539,000	2,700,000	2,814,000	3,438,000		
Fiji ...	2,777	1,300	2,977	11,692	24,000	10,000	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.		
New Zealand (b) ...	2,777	2,399	1,533	1,505	1,999	1,745	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.		
<b>TOTAL</b> ...	r 49,014,000	r 50,224,000	r 42,959,000	r 54,176,000	58,537,000	61,036,000								
<b>OTHER COUNTRIES</b>														
Albania ...	n.a.	n.a.	88,000	(d) 160,000	(d) 175,000	225,000	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.		
Austria ...	3,206,433	3,440,511	3,356,519	3,328,928	3,485,630	3,634,379	1,003,000	1,075,000	1,053,000	1,045,000	1,830,000	1,136,000		
Belgium ...	142,000	135,000	122,000	140,000	158,300	113,400	50,000	47,000	43,000	49,000	55,000	39,000		
Bulgaria ...	232,000	289,000	288,000	367,000	405,000	404,000	140,000	180,000	180,000	227,000	250,000	250,000		
Czechoslovakia ...	2,499,000	2,766,000	2,755,000	2,921,000	3,071,000	3,242,000	750,000	830,000	830,000	880,000	920,000	970,000		
Finland (c) ...	202,912	206,470	212,000	224,000	269,900	280,000	133,100	134,600	138,000	146,000	175,000	182,000		
France ...	51,871,976	56,872,817	58,533,462	59,975,714	65,906,692	65,524,000	15,812,100	17,387,000	17,725,000	r 18,077,000	19,768,000	19,650,000		
Germany—														
Federal Republic ...	16,660,466	18,031,083	17,701,007	17,777,478	18,570,614	18,568,486	4,441,000	4,751,000	4,670,000	4,712,000	4,919,000	4,932,000		
Eastern ...	1,729,000	1,455,000	1,482,000	1,574,000	1,616,000	1,617,000	520,000	440,000	440,000	470,000	480,000	485,000		
Greece ...	400,721	539,138	328,044	r 153,371	292,426	n.a.	205,000	276,000	158,000	79,000	150,000	150,000		
Hungary ...	300,000	273,000	365,000	r 432,000	508,000	595,000	93,000	85,000	113,000	134,000	157,000	184,000		
Italy ...	1,660,715	1,577,711	1,280,528	r 1,217,465	1,241,482	1,181,514	820,000	790,000	635,000	610,000	630,000	600,000		
Luxemburg ...	7,474,900	7,719,300	6,533,160	6,406,000	8,867,107	7,340,514	2,002,000	2,091,000	1,861,000	1,817,000	1,965,000	2,000,000		
Norway ...	1,525,472	1,522,976	1,575,604	1,521,612	1,631,243	1,643,480	977,000	968,000	1,000,000	976,000	1,039,000	1,043,000		
Poland ...	1,942,000	1,964,000	2,138,800	1,982,000	2,148,000	2,342,000	660,000	670,000	730,000	670,000	730,000	800,000		
Portugal ...	233,739	281,859	228,466	241,350	297,000	232,000	118,870	140,924	114,233	120,572	149,000	116,000		
Roumania ...	683,379	634,314	731,742	1,046,937	1,437,015	1,709,659	310,000	290,000	330,000	470,000	650,000	770,000		
Spain ...	4,409,766	5,155,739	4,953,969	4,536,400	5,548,470	5,941,000	1,980,000	2,479,000	2,427,000	2,248,000	2,753,000	2,950,000		
Sweden ...	18,648,137	19,608,904	18,022,913	18,061,046	21,442,000	23,178,000	11,123,000	11,564,000	10,853,000	r 11,011,000	12,900,000	13,900,000		
Switzerland (d) ...	129,000	114,000	59,000	59,000	123,000	85,000	50,000	50,000	30,000	30,000	50,000	30,000		
U.S.S.R. ...	76,846,000	82,838,000	87,413,000	92,899,000	104,858,000	116,319,000	46,100,000	49,700,000	52,400,000	55,700,000	62,900,000	69,800,000		

\* For detailed figures see page 150.

(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.

PRODUCTION OF IRON ORE (cont.)

Long tons

Producing Country	ORE						Estimated Iron Content					
	1956	1957	1958	1959	1960	1961	1956	1957	1958	1959	1960	1961
<b>OTHER COUNTRIES (cont.)</b>												
Yugoslavia	1,697,724	1,846,485	1,965,000	2,062,000	2,165,000	2,150,000	830,000	830,000	880,000	930,000	970,000	970,000
Algeria	2,586,294	2,746,401	2,297,938	1,896,908	3,384,027	2,822,000	1,470,000	1,470,000	1,236,000	1,037,000	1,805,000	1,524,000
Congo	n.a.	103,932	282,566	343,470	645,347	799,511	n.a.	n.a.	184,000	223,000	420,000	520,000
Congo Republic (e)	20,936	28,092	3,336	342,000	(f) 245,000	(f) 295,000	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Egypt	130,000	250,000	175,000	242,000	324,000	324,000	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Guinea	833,500	1,071,900	408,230	32,015	764,000	535,000	536,000	536,000	204,000	168,000	382,000	267,000
Liberia (b)	2,036,941	2,128,650	2,034,000	2,664,000	2,952,000	2,797,829	1,385,000	1,447,000	1,383,000	1,812,000	1,983,000	1,898,000
Morocco	1,773,541	1,845,217	1,514,385	2,245,043	1,552,116	1,438,829	1,040,000	1,040,000	800,000	620,000	780,000	815,000
South Africa	2,031,685	2,047,413	2,177,472	2,845,562	3,022,123	3,898,413	1,289,000	1,289,000	1,310,000	1,710,000	1,810,000	2,340,000
South West Africa	—	339	6,616	—	—	—	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Sudan	1,151,642	1,156,000	1,085,751	966,148	1,017,069	836,000	640,000	640,000	592,000	527,000	554,000	450,000
Tunisia	145,454	195,365	145,454	—	15,000	15,000	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Cuba	160,933	179,987	29,646	—	120,806	(f) 138,000	119,000	119,000	20,000	—	80,000	90,000
Dominican Republic	3,000	4,000	5,000	4,000	(f) 4,000	(f) 5,000	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Guatemala	801,000	(c) 925,000	(c) 925,000	880,000	924,000	1,190,000	559,619	559,619	r 572,301	526,865	513,122	676,150
Mexico	98,359,277	106,698,000	868,092,000	60,549,000	89,285,000	71,329,000	50,000,000	54,000,000	35,000,000	31,000,000	46,000,000	36,000,000
United States (c)	(d) 64,000	65,997	64,000	108,000	(f) 135,000	118,000	32,000	33,000	32,000	54,000	68,000	59,000
Argentina	r 4,010,479	4,898,090	5,102,870	3,694,756	4,766,864	5,172,465	2,730,000	3,330,000	3,370,000	6,140,000	6,440,000	6,440,000
Brazil	n.a.	n.a.	3,694,756	107,526	4,766,864	5,172,465	1,864,443	1,923,020	2,324,223	2,452,771	2,884,740	3,259,458
Chile	387,990	583,763	3,527,765	3,534,908	4,645,500	628,000	1,743,000	1,985,000	n.a.	1,980,000	3,860,000	3,130,000
Colombia	2,873,600	3,527,765	3,534,908	3,534,908	6,875,000	5,567,000	6,995,000	9,686,000	9,754,000	10,835,000	12,277,000	9,175,000
Venezuela	10,929,398	15,135,068	15,239,986	16,929,607	19,182,551	14,335,395	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Peru	n.a.	n.a.	1,821	3,692	15,670	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Burma (e)	14,000,000	16,000,000	28,000,000	45,000,000	55,000,000	45,000,000	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
China (g)	(b) 5,391	(b) 12,239	2,460,258	57,530	56,700	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Iran (g)	1,975,117	2,203,520	2,056,395	2,727,211	2,808,683	2,825,554	1,082,000	1,201,000	1,228,000	30,000	30,000	n.a.
Japan (d)	61,874	182,484	1,536,902	2,727,211	385,900	496,800	31,600	93,100	131,000	141,000	1,549,000	1,569,000
Korea (South)	n.a.	n.a.	1,536,902	2,666,000	3,059,000	73,400,000	n.a.	n.a.	n.a.	n.a.	n.a.	253,000
Korea (North)	31,403	n.a.	586	8,000	8,000	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Lebanon	1,417,480	1,325,099	1,081,379	1,210,764	1,120,785	1,152,061	14,000	19,000	11,000	1,000	4,000	668,000
Philippines Republic	2,504,381	2,907,077	2,886,556	3,025,269	4,615,343	5,491.2	822,000	769,000	627,000	702,000	650,000	n.a.
Portuguese India	5,684	8,833	14,517	5,978	11,294	5,912	1,453,000	1,712,000	1,675,000	1,755,000	2,538,000	n.a.
Thailand	915,784	1,145,812	935,890	859,103	722,988	745,671	3,800	5,800	9,600	4,000	7,000	34,000
Turkey	27,700	220,388	290,449	282,400	271,700	273,000	550,000	687,000	562,000	515,000	405,000	420,000
New Caledonia...	—	—	—	—	—	—	15,000	121,000	160,000	r 155,000	149,000	150,000
TOTAL	7345,000,000	7379,000,000	7355,000,000	7378,000,000	7378,000,000	455,000,000	455,000,000	455,000,000	436,000,000	436,000,000	497,000,000	497,000,000
WORLD'S TOTAL	394,000,000	429,000,000	798,000,000	432,000,000	513,000,000	497,000,000						

(a) Estimated.  
 (b) Exports.  
 (c) Usable ore.  
 (d) Including iron sand as follows (long tons): 1956—905,055; 1957—1,067,084; 1958—898,910; 1959—1,335,650; 1960—1,539,340; 1961—1,685,131.  
 (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 13,000 tons of iron oxide pigment material.

DETAILS OF PRODUCTION OF IRON ORE IN CERTAIN COUNTRIES

Long tons

Producing Country	1956	1957	1958	1959	1960	1961
<b>COMMONWEALTH COUNTRIES</b>						
<b>United Kingdom—</b>						
Hematite .. ..	452,600	446,700	453,100	447,900	434,900	414,000
<b>Jurassic ironstones—</b>						
Lower lias .. ..	4,485,300	4,905,700	4,691,000	4,764,000	5,411,600	5,547,800
Middle lias .. ..	3,460,000	3,189,600	2,628,300	2,137,900	2,551,100	2,061,000
Inferior oolite .. ..	7,847,500	8,360,100	6,840,000	7,519,700	8,656,500	8,495,200
<b>Sierra Leone—</b>						
Red ore .. ..	321,356	306,320	298,256	95,312	—	—
Concentrates .. ..	985,845	1,017,680	1,001,093	1,326,221	1,393,572	1,651,607
<b>OTHER COUNTRIES</b>						
<b>France—</b>						
Phosphoric .. ..	48,130,143	52,984,995	55,027,947	56,331,078	61,734,641	61,413,000
Medium phosphoric .. ..	3,427,076	3,592,075	3,180,114	3,301,552	3,804,362	3,818,000
Non-phosphoric .. ..	314,760	295,747	325,401	343,084	367,689	293,000
<b>Italy—</b>						
Iron ore .. ..	1,647,329	1,555,815	1,272,059	1,217,465	1,241,482	1,181,514
Manganiferous iron ore	13,386	21,896	8,469	—	—	—
<b>Luxemburg—</b>						
Siliceous iron ore .. ..	2,686,000	2,823,121	2,934,770	2,785,000	3,218,654	3,361,895
Calcareous iron ore .. ..	4,302,000	4,442,424	3,292,407	3,259,000	3,333,523	3,584,754
Ferruginous limestone ..	486,000	453,755	305,983	362,000	314,930	393,503
<b>Portugal—</b>						
Hematite .. ..	160,450	185,493	133,018	150,227	189,000	105,000
Magnetite .. ..	73,289	96,366	95,448	87,678	108,000	125,000
Limonite .. ..	—	—	—	3,445	—	2,000
<b>Sweden—</b>						
Manganiferous iron ore	115,000	46,000	61,000	68,000	n.a.	n.a.
Other iron ore .. ..	18,533,000	19,563,000	17,962,000	17,993,000	n.a.	n.a.
<i>By phosphorus content (a)</i>						
Under 0.006% .. ..	738,991	1,002,770	867,596	759,414	n.a.	n.a.
0.006% to under						
0.04% .. ..	2,551,620	2,656,578	2,408,765	2,007,354	n.a.	n.a.
0.04% to under 0.1% ..	600,263	362,971	353,240	494,494	n.a.	n.a.
0.1% to under 0.7% ..	6,328,578	7,214,504	7,689,223	5,901,942	n.a.	n.a.
0.7% to under 1% ..	1,286,296	1,213,508	—	1,157,401	n.a.	n.a.
1% and over .. ..	7,142,390	7,158,573	6,704,089	7,740,441	n.a.	n.a.
<b>United States—</b>						
<b>Ore containing less than 5% Mn—</b>						
Hematite (b) .. ..	81,143,609	86,691,000	50,931,000	44,236,000	68,147,000	50,883,000
Magnetite (b) .. ..	12,446,062	15,397,000	12,183,000	12,867,000	18,205,000	18,295,000
Limonite .. ..	3,202,450	3,250,000	3,843,000	2,381,000	1,641,000	1,473,000
Pyrite cinder and sinter .. ..	1,085,210	810,379	739,000	791,000	791,000	678,000
<b>Ore containing 5 to under 10% Mn .. ..</b>						
	481,946	549,129	386,473	273,541	506,551	95,855

(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.

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

Long tons

Exporting Country	1956	1957	1958	1959	1960	1961
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom .. .. .	786	758	708	974	563	555
Sierra Leone .. .. .	1,328,019	1,444,542	1,421,563	1,503,275	1,540,445	1,757,853
Canada .. .. .	18,094,080	17,972,769	12,391,314	18,552,487	16,942,140	14,868,166
Hong Kong .. .. .	123,705	103,876	108,492	124,152	122,472	127,390
India .. .. .	1,692,626	2,215,838	1,866,342	2,471,454	(b)3,140,124	(b)3,313,077
Malaya .. .. .	2,376,485	2,919,739	2,591,374	3,747,709	5,500,173	6,425,552
Fiji .. .. .	—	—	—	6,925	21,994	8,906
Irish Republic— Burnt pyrites .. .. .	31,322	28,583	25,809	17,003	30,434	17,366
<b>OTHER COUNTRIES</b>						
Austria .. .. .	53,628	48,995	48,245	48,698	19,704	9,862
Belgium-Luxemburg E.U.—						
Iron ore .. .. .	608,429	504,048	109,713	121,645	126,649	186,897
Burnt pyrites .. .. .	284,094	177,516	149,709	220,824	311,009	233,943
Denmark—						
Bog ore (a) .. .. .	143,497	120,176	99,840	77,395	63,194	56,022
Burnt pyrites .. .. .	90,114	96,780	98,753	96,650	96,835	94,625
Finland—						
Iron ore .. .. .	205,683	213,499	206,436	210,643	282,755	219,331
Burnt pyrites .. .. .	211,712	155,761	95,293	121,055	120,821	204,172
France—						
Iron ore .. .. .	13,721,110	14,085,265	15,041,047	19,697,439	26,726,549	25,446,172
Burnt pyrites .. .. .	449,624	333,830	281,161	360,063	497,461	395,713
Germany (Federal)—						
Iron ore .. .. .	332,183	364,825	325,839	289,904	239,774	253,659
Burnt pyrites .. .. .	21,983	11,187	1,011	9,028	17,661	4,968
Greece—						
Iron ore .. .. .	403,307	404,164	267,174	159,453	301,364	270,466
Burnt pyrites .. .. .	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	39,238	41,653
Italy—						
Iron ore .. .. .	41,051	69,010	12,988	2,428	7,366	25,813
Burnt pyrites .. .. .	361,028	440,415	434,799	436,371	706,707	664,308
Netherlands—						
Iron ore .. .. .	3,073	6,629	390	425	7,811	9,366
Burnt iron pyrites .. .. .	381,703	322,755	183,521	195,706	435,932	225,388
Norway—						
Iron ore .. .. .	1,242,322	1,223,611	1,140,922	924,823	1,173,143	1,123,546
Burnt pyrites .. .. .	74,420	79,869	63,405	76,254	115,829	100,829
Portugal—						
Iron ore .. .. .	236,285	248,398	185,158	189,125	234,152	93,540
Burnt pyrites .. .. .	185,801	190,660	130,628	230,658	254,946	102,675
Spain (c) .. .. .	3,211,573	3,414,038	2,122,403	1,769,293	3,123,329	2,822,961
Sweden—						
Iron ore .. .. .	17,032,000	17,191,000	14,576,000	15,224,177	19,500,385	19,944,000
Burnt pyrites .. .. .	166,061	190,524	123,212	146,345	168,140	178,000
Switzerland .. .. .	134,840	101,384	62,948	48,760	(c) 120,867	(c) 60,314
U.S.S.R. .. .. .	8,980,300	10,602,500	11,730,800	13,233,600	14,942,200	16,025,800
Yugoslavia—						
Iron ore .. .. .	—	69,145	156,962	17,779	88,932	121,753
Burnt pyrites .. .. .	—	8,690	49,713	19,840	—	—
Algeria—						
Iron ore .. .. .	2,450,057	2,701,907	2,286,737	1,991,343	3,517,342	2,736,684
Burnt pyrites .. .. .	21,087	8,710	5,487	2,000	10,338	<i>n.a.</i>
Angola .. .. .	6,000	91,184	219,460	322,055	537,180	486,687
Egypt .. .. .	1,191	44,983	10,574	11,682	<i>n.a.</i>	<i>n.a.</i>

(a) Used for purposes other than iron making.

(c) Including burnt pyrites.

(b) Years ended March 31 following that stated.

## EXPORTS OF IRON ORE (cont.)

Long tons

Exporting Country	1956	1957	1958	1959	1960	1961
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
Guinea .. .. .	819,560	1,003,342	328,549	186,031	715,413	525,804
Liberia .. .. .	2,036,941	2,128,650	2,034,501	2,664,960	2,915,686	2,791,829
Morocco—						
Iron ore .. .. .	1,812,201	1,908,281	1,278,579	695,005	798,129	1,879,282
Burnt pyrites .. .. .	2,410	4,188	12,255	9,698	1,087	17,423
South Africa .. .. .	27,867	11,637	7,706	166,208	466,911	558,135
Tunisia .. .. .	1,164,661	1,156,552	992,661	820,175	1,024,366	885,158
Cuba .. .. .	135,829	103,398	4,716	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Dominican Republic .. .. .	160,144	147,437	20,678	50,424	99,546	<i>n.a.</i>
Mexico .. .. .	132,503	235,359	220,050	114,120	153,355	120,829
United States .. .. .	5,508,296	5,002,153	3,573,000	2,967,000	5,236,190	4,916,173
Brazil .. .. .	2,701,511	3,494,006	2,786,412	3,925,454	5,157,051	6,182,424
Chile .. .. .	2,038,730	3,025,456	3,580,523	4,193,300	5,265,055	6,633,820
Peru .. .. .	2,631,339	3,619,109	2,470,195	3,267,400	5,088,840	5,484,569
Venezuela .. .. .	10,732,364	15,331,377	15,325,626	17,104,257	19,014,669	14,334,747
Iran (a) .. .. .	5,391	12,239	19,756	6,786	32,735	21,208
Korea (South) .. .. .	<i>n.a.</i>	128,273	185,668	198,217	230,388	436,809
Lebanon .. .. .	31,403	41,585	21,406	—	<i>n.a.</i>	<i>n.a.</i>
Philippine Republic .. .. .	1,928,222	1,128,193	1,039,674	1,258,347	1,217,550	1,289,000
Portuguese India .. .. .	2,046,770	2,678,408	2,466,767	3,627,863	5,562,820	6,458,127
Turkey .. .. .	235,372	505,342	262,212	131,262	301,013	250,210
New Caledonia .. .. .	21,159	193,311	306,537	283,649	272,834	253,322

(a) Years ended March 20 following that stated.

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

Long tons

Importing Country	1956	1957	1958	1959	1960	1961
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom ..	14,330,104	15,912,253	12,898,609	13,349,960	17,968,495	14,965,971
Canada .. .. .	4,525,769	4,052,704	3,047,237	2,500,894	4,514,596	4,132,280
India .. .. .	584	1,475	645	839	(d) 109	(d) 1,218
Australia (a) ..	41	108,992	268,187	279,226	249,150	277,299
Irish Republic ..	784	855	1,697	—	14	20
<b>OTHER COUNTRIES</b>						
Austria—						
Iron ore .. ..	994,492	1,115,344	1,027,342	649,323	1,586,422	1,276,474
Burnt pyrites ..	351,626	356,363	391,469	330,520	459,295	423,255
Belgium-Luxemburg						
E.U.—						
Iron ore .. ..	15,410,093	15,762,572	16,546,142	17,836,735	20,337,109	20,214,909
Burnt pyrites ..	89,932	61,857	58,981	179,122	87,853	111,275
Czechoslovakia ..	3,841,000	4,845,000	5,082,000	6,284,000	7,097,000	7,844,000
Denmark .. .. .	(b) 11,337	(b) 26,537	(b) 5,992	2,736	2,539	3,403
Finland .. .. .	115,136	160,371	122,199	124,572	159,474	142,947
France—						
Iron ore .. ..	633,353	1,034,583	987,116	939,109	1,482,127	1,671,789
Burnt pyrites ..	753	7,571	1,304	2,594	13,876	14,504
Germany (Federal)—						
Iron ore .. ..	17,543,584	18,820,236	16,693,767	19,719,971	33,122,454	32,156,698
Burnt pyrites ..	2,365,977	2,052,970	1,581,871	1,668,245	2,952,623	2,441,821
Germany (East) (c)	683,826	802,399	895,500	1,002,400	1,170,800	1,078,000
Hungary .. .. .	1,100,044	1,287,782	1,779,612	1,662,762	1,845,717	2,001,905
Italy .. .. .	1,260,244	1,727,149	2,337,722	1,608,330	2,579,586	3,254,662
Netherlands .. .	1,352,751	1,225,804	1,748,087	1,888,875	2,284,179	2,219,398
Norway .. .. .	96	5,051	21,974	2,945	10,700	13,486
Poland .. .. .	4,700,000	5,820,000	5,659,000	6,115,000	7,204,000	7,548,400
Roumania .. ..	n.a.	n.a.	740,900	802,100	902,600	1,246,700
Spain .. .. .	283,554	186,743	284,713	77,720	32,705	210,918
Sweden .. .. .	522	16,342	408	3,412	3,752	4,000
Switzerland .. .	61,469	60,918	45,828	45,148	(b) 8,840	(b) 7,738
Yugoslavia .. .	33,384	85,237	48,090	123,794	127,203	379,735
United States—						
Iron ore .. ..	30,410,652	33,651,000	27,544,000	35,617,000	34,584,899	25,807,019
Burnt pyrites ..	1,430	567	2,721	10,157	5,884	3,504
Argentina .. ..	n.a.	n.a.	n.a.	181,877	436,786	312,389
Formosa .. .. .	15,164	23,058	11,814	13,617	16,148	71,539
Japan—						
Iron ore .. ..	7,732,133	9,315,884	7,493,525	10,274,816	14,687,616	20,693,941
Burnt pyrites ..	13,075	1,181	—	21,036	110,968	209,897

(a) Years ended June 30 of that stated.

(c) Fe content.

(b) Including burnt pyrites.

(d) Years ended March 31 following that stated.

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

Long tons

Producing Country	1956	1957	1958	1959	1960	1961
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom .. .. .	13,170,100	14,282,600	12,974,500	12,582,500	15,762,900	14,747,100
Southern Rhodesia .. ..	58,827	71,100	75,700	70,600	<i>n.a.</i>	<i>n.a.</i>
Canada .. .. .	3,400,610	3,502,530	2,832,293	3,855,625	3,942,573	4,502,974
India .. .. .	1,958,083	1,911,250	2,101,942	3,144,118	4,197,200	5,040,000
Australia (b) (e) .. .. .	2,074,467	2,208,140	2,279,282	2,506,514	2,881,951	3,159,393
<b>TOTAL .. .. .</b>	<b>r20,662,100</b>	<b>r21,975,600</b>	<b>r20,263,700</b>	<b>r22,159,400</b>	<b>26,858,000</b>	<b>27,520,000</b>
<b>OTHER COUNTRIES</b>						
Austria .. .. .	1,709,243	1,929,325	1,789,313	1,807,553	2,196,499	2,226,570
Belgium .. .. .	5,678,951	5,492,532	5,431,759	5,871,000	6,449,236	6,343,000
Bulgaria .. .. .	10,200	54,859	89,419	174,125	188,744	200,000
Czechoslovakia .. .. .	3,230,000	3,507,000	3,714,000	4,177,000	4,621,000	4,892,000
Finland .. .. .	101,335	126,495	99,449	94,690	102,931	145,387
France (a) .. .. .	11,298,298	11,726,532	11,777,785	12,275,033	13,921,857	14,336,328
Germany—						
Federal Republic .. .. .	17,299,000	18,068,000	16,396,000	18,103,000	25,332,000	25,028,000
Eastern .. .. .	1,549,000	1,636,600	1,746,800	1,868,400	1,963,200	1,998,800
Hungary (b) .. .. .	732,000	755,400	944,200	1,086,550	1,229,519	1,285,769
Italy .. .. .	1,962,086	2,171,574	2,132,866	2,157,308	2,779,657	3,150,900
Luxemburg .. .. .	3,260,561	3,314,744	3,233,467	3,357,000	3,725,552	3,773,177
Netherlands .. .. .	651,200	689,500	898,800	1,121,400	1,324,300	1,433,300
Norway .. .. .	444,716	559,584	513,963	612,649	708,407	744,704
Poland .. .. .	3,450,800	3,624,000	3,803,100	4,305,000	4,491,000	4,695,000
Portugal .. .. .	<i>n.a.</i>	<i>n.a.</i>	16,262	35,260	40,424	120,382
Roumania .. .. .	573,706	675,271	725,224	832,983	998,116	1,081,869
Saar .. .. .	2,983,085	3,116,178	3,054,222	3,169,000	(c)	(c)
Spain .. .. .	927,865	985,285	1,320,853	1,696,623	1,897,002	2,159,149
Sweden .. .. .	1,389,180	1,518,950	1,391,723	r 1,479,426	1,606,300	1,867,300
Switzerland .. .. .	41,600	45,000	33,000	40,000	50,000	50,000
U.S.S.R. .. .. .	35,189,000	36,454,000	39,000,000	42,293,000	46,019,000	50,100,000
Yugoslavia .. .. .	636,078	726,000	767,000	888,000	1,003,000	1,038,000
South Africa .. .. .	1,340,800	1,401,600	1,556,700	1,779,000	1,961,700	2,291,200
Mexico .. .. .	401,139	422,217	487,745	621,258	764,989	<i>n.a.</i>
United States .. .. .	69,263,802	72,141,325	52,507,405	55,516,456	61,219,986	59,433,091
Argentina .. .. .	28,000	33,000	28,000	35,000	177,267	392,217
Brazil .. .. .	1,152,855	1,250,000	r 1,380,000	r 1,560,000	1,754,000	(d) 2,000,000
Chile (b) .. .. .	361,750	376,000	299,000	r 285,000	262,000	281,000
Colombia .. .. .	113,926	140,196	146,412	124,436	164,447	186,000
China .. .. .	4,750,000	5,850,000	13,470,000	20,200,000	27,100,000	(d) 21,700,000
Formosa .. .. .	8,485	10,935	6,427	8,280	<i>n.a.</i>	<i>n.a.</i>
Japan .. .. .	6,186,445	7,075,024	7,635,885	9,790,986	12,196,500	16,191,700
Korea (North) .. .. .	183,000	270,000	310,000	680,000	840,000	(d) 920,000
Thailand .. .. .	4,000	4,000	5,000	7,000	6,000	5,000
Turkey .. .. .	217,900	213,080	226,493	232,448	243,000	185,000
<b>TOTAL .. .. .</b>	<b>r177,100,000</b>	<b>r186,400,000</b>	<b>r176,900,000</b>	<b>r198,300,000</b>	<b>227,300,000</b>	<b>231,000,000</b>
<b>WORLD'S TOTAL .. .. .</b>	<b>197,800,000</b>	<b>208,400,000</b>	<b>197,200,000</b>	<b>220,400,000</b>	<b>254,200,000</b>	<b>259,000,000</b>

\* For details see page 155.

(a) Excluding electric furnace ferro-alloys.

(b) Excluding ferro-alloys.

(c) Included with Germany (Federal).

(d) United States Bureau of Mines' estimate.

(e) Including recovery from scrap.



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

Long tons

Producing Country	1956	1957	1958	1959	1960	1961	
<b>COMMONWEALTH COUNTRIES</b>							
<b>United Kingdom—</b>							
Hematite .. ..	1,547,400	1,570,500	1,237,100	1,021,000	1,187,100	1,136,800	
Basic .. ..	9,981,800	11,265,300	10,314,800	10,284,700	13,072,100	12,255,700	
Foundry .. ..	1,411,600	1,258,700	1,228,500	1,089,300	1,293,100	} 1,196,200	
Forge .. ..	45,000	29,300	19,500	39,300	5,200		
Direct castings ..	1,000	1,000	900	500	100		
Spiegeleisen (a) ..	29,400	13,200	27,400	25,000	25,600		29,600
Ferro-manganese (a) ..	153,900	144,600	146,300	122,700	179,700		128,800
<b>Canada—</b>							
Basic .. ..	2,669,841	2,865,546	2,380,094	3,172,255	3,202,271	3,736,346	
Foundry .. ..	134,245	93,598	39,067	204,324	248,143	328,675	
Malleable .. ..	381,810	360,812	312,606	358,041	369,609	332,653	
Ferro-alloys (c) ..	214,714	182,574	100,526	121,005	122,550	105,300	
<b>India—</b>							
Basic .. ..	1,367,276	1,494,751	1,579,659	2,265,491	2,973,314	3,537,000	
Foundry .. ..	440,056	294,511	423,245	767,604	1,015,660	1,010,000	
Other pig-iron ..	—	—	—	—	85,583	374,000	
Direct castings ..	122,198	112,694	72,527	44,026	34,976	40,000	
Ferro-alloys .. ..	28,553	9,294	26,511	66,997	87,847	93,000	
<b>Australia—</b>							
Pig-iron .. ..	2,074,467	2,208,140	2,279,282	2,506,514	2,881,951	3,159,393	
Ferro-manganese (b) ..	n.a.	18,075	23,136	17,511	6,440	n.a.	
Ferro-silicon (b) ..	n.a.	944	1,352	1,663	7,200	n.a.	
Ferro-nickel (b) ..	n.a.	992	384	—	646	n.a.	
Ferro-silico-manganese (b) ..	n.a.	—	—	162	—	n.a.	
Silico-manganese (b) ..	n.a.	—	—	—	1,698	n.a.	
Ferro-chrome (b) ..	385	301	339	610	597	n.a.	
<b>OTHER COUNTRIES</b>							
<b>Belgium—</b>							
Basic .. ..	5,527,012	5,347,330	5,306,517	} 5,756,000	{ 6,301,675	} 6,212,000	
Forge .. ..	9,349	9,029	16,100				
Foundry .. ..	125,607	120,340	90,025	93,000	93,733	107,000	
Ferro-alloys .. ..	16,983	15,833	19,117	22,000	20,238	24,000	
<b>Czechoslovakia—</b>							
Basic .. ..	2,912,000	3,148,000	3,359,000	3,701,000	4,049,000	4,283,000	
Foundry .. ..	274,000	313,000	313,000	424,000	507,000	539,000	
Ferro-alloys .. ..	44,000	46,000	42,000	52,000	65,000	70,000	
<b>France (d)—</b>							
<b>Phosphoric (over 1.4% P)—</b>							
Basic .. ..	9,512,717	9,775,737	9,981,745	10,711,249	12,086,358	12,342,936	
Foundry .. ..	229,083	266,258	219,144	184,430	181,221	170,300	
<b>Semi-phosphoric (from 0.5% to 1.4% P)—</b>							
Foundry .. ..	366,041	399,132	354,483	202,288	237,002	286,204	
Open hearth, basic ..	—	2,482	—	—	—	66,726	
<b>Hematite (less than 0.5% P)—</b>							
Foundry .. ..	256,046	286,615	276,655	276,349	327,024	360,900	
<b>Open hearth and Bessemer .. ..</b>							
Spiegeleisen .. ..	278,872	308,063	294,528	269,880	400,228	352,526	
Ferro-manganese ..	140,188	152,440	131,400	132,636	136,372	130,802	
Other pig-iron .. ..	241,798	248,997	219,215	212,283	243,877	270,148	
Germany (Federal)—	273,553	286,808	300,615	285,918	309,775	355,786	
<b>Hematite and malleable</b>							
Basic .. ..	823,000	864,000	784,000	648,000	933,000	1,001,000	
Foundry .. ..	11,131,000	11,450,000	10,716,000	11,954,000	16,454,000	16,000,000	
Foundry .. ..	749,000	739,000	564,000	522,000	696,000	678,000	

(a) Blast furnace ferro-alloys.

(c) Factory shipments.

(b) Years ended November 30 of year stated.

(d) Excluding electric furnace ferro-alloys.

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

Long tons

Producing Country	1956	1957	1958	1959	1960	1961
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
Germany (Federal) <i>(cont.)</i>						
Stahleisen .. .. .	3,941,000	4,373,000	3,817,000	4,465,000	6,667,000	6,662,000
Spiegeleisen .. .. .	} 328,000	} 324,000	} 247,000	} 233,000	} 274,000	} 267,000
Ferro-manganese						
Siegerland special						
Other pig-iron .. .. .						
Ferro-silicon .. .. .	328,000	318,000	268,000	281,000	308,000	420,000
Germany (East)—						
Foundry .. .. .	376,000	332,600	409,100	476,100	479,200	489,500
Open hearth .. .. .	789,700	889,400	929,000	939,300	1,024,900	1,054,300
Basic Bessemer .. .. .	361,000	394,800	385,100	419,400	437,000	421,900
Spiegeleisen .. .. .	22,000	19,800	23,600	33,600	22,100	33,100
Italy—						
Pig-iron .. .. .	1,843,838	2,039,187	2,027,229	2,064,570	2,640,469	3,008,079
Spiegeleisen .. .. .	19,048	15,903	21,797	3,811	6,500	6,838
Ferro-manganese .. .. .	43,383	50,626	26,468	22,556	29,971	32,658
Ferro-silicon .. .. .	32,615	39,946	29,950	22,501	45,335	50,994
Silico-manganese .. .. .	10,840	9,644	13,224	21,448	24,277	25,827
Ferro-chrome .. .. .	3,447	2,737	2,704	13,773	20,218	16,374
Ferro-titanium .. .. .	115	185	88	123	173	151
Ferro-tungsten .. .. .	59	87	35	52	96	87
Ferro-vanadium .. .. .	37	79	46	36	92	83
Ferro-molybdenum .. .. .	383	421	398	624	1,048	1,072
Silico-aluminium .. .. .	609	641	592	596	636	1,090
Other ferro-alloys .. .. .	7,712	12,118	10,335	7,218	10,842	7,647
Luxemburg—						
Basic .. .. .	3,260,561	3,314,744	3,233,467	3,357,000	3,725,552	3,773,177
Norway—						
Pig-iron .. .. .	188,184	241,197	255,420	332,429	368,377	372,065
Ferro-silicon .. .. .	105,876	148,945	122,164	124,940	170,148	190,279
Other ferro-alloys .. .. .	150,656	169,442	136,379	155,280	169,882	182,360
Saar—						
Basic .. .. .	} 2,731,387	} 2,848,770	} 2,826,084	} 3,169,000	} (a)	} (a)
Other pig-iron and ferro-alloys .. .. .						
Spain—						
Pig-iron .. .. .	898,612	947,229	1,281,474	1,645,956	1,855,747	2,109,860
Ferro-manganese .. .. .	21,617	23,628	24,216	29,976	25,686	22,088
Ferro-silicon .. .. .	7,393	13,746	14,025	19,555	14,697	18,477
Ferro-tungsten .. .. .	42	63	85	87	53	n.a.
Ferro-chrome .. .. .	196	291	673	725	405	n.a.
Ferro-phosphorus .. .. .	5	328	380	324	414	n.a.
Sweden—						
Pig-iron .. .. .	1,310,898	1,423,228	1,303,175	1,379,884	1,487,100	1,729,700
Ferro-manganese .. .. .	13,558	16,827	17,414	15,869	23,800	23,200
Ferro-silicon .. .. .	14,010	20,987	14,616	20,468	23,300	31,200
Ferro-silico-manganese .. .. .	10,911	12,964	11,133	10,741	11,600	11,800
Ferro-chrome .. .. .	26,578	30,597	26,232	36,530	38,700	50,900
Ferro-titanium .. .. .	51	130	370	128	—	—
Ferro-tungsten .. .. .	438	349	203	402	400	600
Ferro-molybdenum .. .. .	1,278	1,610	1,187	1,132	1,800	1,800
Ferro-vanadium .. .. .	162	102	129	200	300	400
Metallic silicon .. .. .	3,776	3,812	5,832	2,257	5,400	4,200
Silico-chrome .. .. .	6,827	7,550	10,756	11,184	12,600	12,400
Other ferro-alloys .. .. .	693	794	676	631	1,300	1,100
Yugoslavia—						
Pig-iron .. .. .	620,615	703,000	736,000	849,000	957,000	981,000
Ferro-alloys .. .. .	15,463	22,707	31,337	39,446	46,083	56,662
South Africa—						
Pig-iron .. .. .	1,278,400	1,337,900	1,488,800	1,676,200	1,792,000	2,099,900
Ferro-alloys .. .. .	62,400	63,700	67,900	102,800	169,700	191,300

(a) Included with Germany (Federal).

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

Long tons

Producing Country	1956	1957	1958	1959	1960	1961
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
<b>United States—</b>						
Basic .. .. .	55,034,596	58,372,986	43,852,362	46,530,622	52,018,846	51,919,214
Bessemer .. .. .	5,950,854	5,664,380	3,214,172	2,728,371	3,038,928	2,322,452
Low phosphorus .. .. .	450,169	517,869	285,963	334,356	345,768	157,212
Foundry .. .. .	2,141,380	2,035,050	1,433,954	1,679,668	1,310,141	1,216,263
Malleable .. .. .	3,095,640	3,088,688	2,057,950	2,221,296	2,386,496	1,877,432
Other pig-iron .. .. .	352,796	299,043	189,266	250,371	257,543	213,397
Ferro-manganese and spiegeleisen .. .. .	864,291	929,098	605,710	606,815	784,054	699,329
Ferro-silicon and silvery pig-iron .. .. .	722,576	643,874	400,264	575,649	611,731	476,987
Other ferro-alloys .. .. .	651,498	590,337	467,764	589,308	466,479	550,805
<b>Brazil—</b>						
Pig-iron .. .. .	1,134,158	1,231,889	1,363,677	1,534,954	1,722,212	<i>n.a.</i>
Spiegeleisen .. .. .	—	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Ferro-chrome .. .. .	258	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Ferro-manganese .. .. .	9,879	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Ferro-nickel .. .. .	319	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Ferro-silicon .. .. .	4,668	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Ferro-silico-manganese .. .. .	2,956	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
<b>Japan—</b>						
Pig-iron .. .. .	5,910,928	6,756,755	7,322,779	9,359,418	11,708,500	15,570,900
Spiegeleisen .. .. .	4,985	6,022	5,921	3,758	8,059	3,100
Ferro-chrome .. .. .	29,194	37,380	24,718	68,258	79,150	98,514
Ferro-manganese .. .. .	129,714	126,765	138,894	155,348	153,145	182,601
Ferro-molybdenum .. .. .	1,172	1,714	861	2,026	1,758	1,954
Ferro-phosphorus .. .. .	2,003	1,998	1,948	1,285	2,126	2,164
Ferro-silicon .. .. .	42,693	51,653	39,334	64,649	73,876	96,570
Ferro-titanium .. .. .	180	82	65	92	223	449
Ferro-tungsten .. .. .	620	1,077	280	570	1,178	1,677
Ferro-nickel .. .. .	20,576	33,201	11,816	32,879	52,492	61,658
Ferro-vanadium .. .. .	223	245	177	419	845	1,270
Silico-manganese .. .. .	36,524	46,255	64,843	57,001	56,782	94,335
Silico-chrome .. .. .	496	1,691	13,815	30,816	43,926	58,632
Calcium-silicon .. .. .	2,835	4,817	3,217	5,230	7,753	9,222
Other ferro-alloys .. .. .	4,302	5,369	7,217	9,237	6,686	8,608

## PRODUCTION OF STEEL INGOTS AND CASTINGS\*

Long tons

Producing Country	1956	1957	1958	1959	1960	1961
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom ..	20,658,900	21,699,100	19,565,700	20,186,400	24,305,000	22,086,100
Southern Rhodesia ..	56,688	65,493	70,300	45,300	<i>n.a.</i>	<i>n.a.</i>
Canada .. ..	4,733,216	4,525,133	3,892,380	5,269,184	5,169,259	5,773,504
India .. ..	1,737,929	1,710,191	1,813,070	2,428,953	3,234,017	4,019,000
Pakistan .. ..	10,364	11,695	9,450	9,052	7,371	8,517
Australia (f) ..	2,539,061	3,015,569	3,133,081	3,395,261	3,687,183	3,872,682
<b>TOTAL .. ..</b>	<b>r29,736,200</b>	<b>r31,027,200</b>	<b>r28,484,000</b>	<b>r31,334,200</b>	<b>36,450,000</b>	<b>35,800,000</b>
<b>OTHER COUNTRIES</b>						
Austria .. ..	2,044,733	2,469,245	2,355,364	2,472,409	3,112,578	3,052,380
Belgium .. ..	6,211,107	6,134,586	5,885,968	6,330,000	7,028,057	6,883,000
Bulgaria .. ..	127,500	156,658	207,249	226,315	269,457	325,000
Czechoslovakia ..	4,805,000	5,084,000	5,422,000	6,039,000	6,661,000	6,931,000
Finland .. ..	193,920	205,402	185,434	232,358	253,392	276,548
France .. ..	13,186,749	13,873,371	14,384,937	14,978,149	17,007,694	17,292,546
Germany—						491,003
Federal Republic ..	22,999,000	24,120,000	22,425,000	25,414,000	33,562,000	32,929,000
Eastern .. ..	2,696,000	2,848,800	2,994,900	r 3,156,700	3,284,300	3,390,000
Greece .. ..	74,000	(e) 74,000	112,000	89,000	(e) 125,000	(e) 130,000
Hungary .. ..	1,402,000	1,353,000	1,600,500	1,731,398	1,855,589	2,020,693
Italy .. ..	5,814,327	6,680,235	6,172,009	6,655,005	8,099,101	8,980,181
Luxemburg .. ..	3,401,136	3,437,522	3,325,456	3,605,000	4,019,192	4,047,827
Netherlands .. ..	1,033,600	1,166,500	1,414,800	1,643,400	1,911,800	1,939,500
Norway .. ..	285,467	344,018	365,562	419,672	482,552	491,003
Poland .. ..	4,935,100	5,220,000	5,574,000	6,062,000	6,575,000	7,120,000
Roumania .. ..	766,831	850,737	918,940	1,397,218	1,777,260	2,092,916
Saar .. ..	3,320,808	3,384,340	3,405,632	3,536,000	(d)	(d)
Spain .. ..	1,223,305	1,324,521	1,535,763	1,781,406	1,926,549	2,175,546
Sweden .. ..	2,361,002	2,443,404	2,369,099	r 2,776,578	3,166,000	3,501,000
Switzerland .. ..	168,000	230,000	240,000	246,000	271,000	292,000
U.S.S.R. .. ..	47,929,000	50,237,000	54,053,000	59,003,000	64,261,000	69,600,000
Yugoslavia .. ..	872,726	1,032,000	1,101,000	1,279,000	1,419,000	1,508,000
Egypt (e) .. ..	107,000	98,000	r 98,000	r 98,000	130,000	145,000
South Africa (a) ..	1,525,300	1,652,100	1,743,000	1,089,100	2,032,400	2,390,300
Mexico .. ..	874,381	1,032,891	1,097,000	1,306,782	1,515,222	1,700,000
United States (b) ..	102,871,561	100,638,390	76,120,433	83,434,046	88,644,286	87,512,940
Argentina (c) .. ..	200,000	218,000	241,000	210,853	272,669	434,000
Brazil .. ..	1,343,285	1,452,000	1,565,000	1,772,000	2,246,200	<i>n.a.</i>
Chile (c) .. ..	375,000	381,000	343,000	r 408,000	415,000	357,000
Colombia .. ..	88,955	112,577	116,166	107,926	151,041	176,000
China .. ..	4,390,000	5,270,000	10,910,000	13,140,000	18,160,000	e14,770,000
Formosa .. ..	78,000	87,000	105,000	156,000	196,000	195,000
Japan .. ..	10,930,977	12,371,638	11,926,604	16,365,957	21,788,740	27,821,909
Korea (North) .. ..	(e) 190,000	(e) 280,000	359,000	444,000	631,000	(e) 750,000
Korea (South) .. ..	10,000	17,859	20,422	39,237	50,528	45,913
Philippine Republic ..	—	56,000	65,000	(e) 62,000	(e) 62,000	(e) 70,000
Thailand .. ..	4,000	5,000	5,000	6,000	7,000	8,000
Turkey .. ..	189,939	172,737	157,788	210,872	294,295	317,824
<b>TOTAL .. ..</b>	<b>r248,900,000</b>	<b>r256,500,000</b>	<b>r240,900,000</b>	<b>r267,900,000</b>	<b>303,600,000</b>	<b>314,000,000</b>
<b>WORLD'S TOTAL ..</b>	<b>278,600,000</b>	<b>287,500,000</b>	<b>r269,400,000</b>	<b>r299,300,000</b>	<b>340,100,000</b>	<b>350,000,000</b>

\* For details see page 159.

(a) Excluding steel castings for which the amounts produced for sale were 52,500 tons, 41,200 tons, 60,200 tons, 58,900 tons, 46,700 tons and 45,400 tons in 1956, 1957, 1958, 1959, 1960 and 1961 respectively.

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

(c) Ingots only.

(d) Included with Germany (Federal).

(e) United States Bureau of Mines' estimate.

(f) Including recovery from scrap.

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

Long tons

Producing Country	1956	1957	1958	1959	1960	1961
<b>COMMONWEALTH COUNTRIES</b>						
<b>United Kingdom—</b>						
<b>Ingots and castings—</b>						
Open hearth, acid ..	985,700	960,700	761,500	615,700	658,100	610,500
do. basic ..	17,017,500	18,075,200	16,385,100	16,708,300	19,874,700	17,773,400
Bessemer, acid ..	230,100	250,400	229,200	214,700	294,400	254,000
do. basic ..	1,078,300	1,058,300	944,800	1,196,400	1,680,700	1,693,900
Ingots, electric ..	792,500	793,900	741,600	984,000	1,252,000	1,207,100
Castings, electric ..	405,200	417,300	384,200	364,400	433,500	440,900
All other ingots and castings ..	149,600	143,300	119,300	102,900	111,600	106,300
<b>Southern Rhodesia—</b>						
Ingots ..	55,378	64,063	68,800	43,800	84,400	<i>n.a.</i>
Castings ..	1,310	1,430	1,500	1,500	<i>n.a.</i>	<i>n.a.</i>
<b>Canada—</b>						
<b>Ingots—</b>						
Open hearth, basic ..	4,132,837	4,018,515	3,460,241	4,702,930	4,524,709	5,100,756
do. electric ..	492,539	384,529	345,225	475,066	558,121	574,384
<b>Castings—</b>						
Open hearth, basic ..	28,667	24,175	14,178	13,245	2,405	2,697
Bessemer ..	274	18	18	6	3	321
Electric ..	78,899	97,896	72,718	77,937	84,021	95,346
<b>India—</b>						
<b>Ingots—</b>						
Open hearth, basic ..	1,624,948	1,598,340	1,706,589	2,289,235	3,119,182	3,894,077
do. acid ..	—	—	—	16,910	—	—
Electric ..	70,994	63,582	60,005	76,208	72,035	69,339
Castings ..	41,987	48,269	46,476	46,600	42,800	56,000
<b>OTHER COUNTRIES</b>						
<b>Belgium—</b>						
Ingots, open hearth ..	658,941	622,398	564,324	580,000	599,137	530,000
do. Bessemer, basic ..	5,200,402	5,081,471	5,052,777	5,430,000	6,004,490	5,870,000
do. electric ..	276,482	351,941	202,999	246,000	363,898	381,000
Castings ..	75,282	78,776	65,868	78,000	60,532	102,000
<b>Czechoslovakia—</b>						
Open hearth ..	3,977,000	4,200,000	4,488,000	5,060,000	5,612,000	5,781,000
Bessemer ..	231,000	238,000	244,000	238,000	243,000	231,000
Electric ..	596,000	647,000	690,000	741,000	806,000	919,000
<b>Finland—</b>						
Ingots ..	182,488	192,740	174,252	221,300	241,648	261,767
Castings ..	11,432	12,662	11,182	11,058	11,744	14,781
<b>France—</b>						
<b>Ingots and castings—</b>						
Bessemer, acid ..	78,526	110,684	135,606	107,281	100,128	110,423
do. basic ..	7,914,062	8,247,933	8,546,479	9,116,375	10,292,741	10,239,699
Open hearth, acid ..	1,007	—	—	—	—	—
do. basic ..	4,195,671	4,413,398	4,454,386	4,482,433	5,048,899	4,981,810
Crucible ..	3,086	2,882	1,976	1,621	2,185	2,453
Electric ..	994,397	1,098,474	1,246,490	1,270,439	1,470,602	1,541,573
Other ..	—	—	—	—	93,139	416,588
<b>Of which—</b>						
Ingots ..	12,948,937	13,566,878	14,038,992	14,665,394	16,706,319	16,938,838
Castings ..	237,812	306,493	345,945	312,755	301,375	353,708
<b>Germany (Federal)—</b>						
<b>Ingots—</b>						
Open hearth ..	11,708,000	12,435,000	11,326,000	12,342,000	15,674,000	15,052,000
Bessemer, basic ..	9,647,000	10,015,000	9,035,000	10,562,000	14,671,000	14,141,000
Electric ..	848,000	1,025,000	1,209,000	1,444,000	1,707,000	1,836,000
Other ..	1,000	54,000	338,000	538,000	849,000	1,182,000
<b>Castings—</b>						
Open hearth ..	208,000	185,000	134,000	128,000	158,000	160,000
Electric ..	287,000	302,000	299,000	332,000	433,000	492,000
Other ..	123,000	104,000	84,000	68,000	70,000	66,000

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

Long tons

Producing Country	1956	1957	1958	1959	1960	1961
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
Germany (East)—						
Open hearth .. .. .	2,165,000	2,265,900	2,366,700	2,499,300	2,578,800	2,665,200
Bessemer, basic .. ..	310,200	334,500	334,400	349,100	373,800	364,400
Electric .. .. .	221,000	248,400	293,800	307,800	330,600	340,600
Other .. .. .	—	—	—	500	1,100	19,800
Italy—						
Ingots .. .. .	5,683,269	6,536,301	6,027,724	6,521,665	7,922,632	8,782,674
Castings .. .. .	131,058	143,934	144,285	133,340	176,469	197,507
Luxemburg—						
Bessemer, basic .. ..	3,321,667	3,364,604	3,251,634	3,520,000	3,939,227	3,973,662
Electric .. .. .	79,469	72,918	73,822	85,000	79,965	74,165
Norway—						
Ingots .. .. .	269,595	326,413	345,739	401,022	460,752	468,344
Castings .. .. .	15,872	17,605	19,823	18,650	21,800	22,659
Saar—						
Ingots—						
Open hearth .. .. .	734,549	738,362	756,109	(d) 802,000	} (e)	} (e)
Bessemer, basic .. ..	2,508,279	2,592,721	2,601,152	(d) 2,682,000		
Electric .. .. .	44,413	45,515	40,337	(d) 52,000		
Castings—						
Open hearth .. .. .	7,173	5,206	5,588	(c)		
Bessemer, acid .. ..	274	—	—	(c)		
Electric .. .. .	26,120	2,536	2,446	(c)		
Spain—						
Open hearth and						
Bessemer .. .. .	975,120	1,002,804	1,164,997	1,411,986	1,699,105	1,931,290
Electric .. .. .	248,185	321,717	370,766	369,420	227,444	244,256
Sweden—						
Open hearth, acid .. ..	274,875	271,695	229,333	r 292,933	322,000	338,000
do. basic .. .. .	556,385	535,984	526,319	r 624,271	752,000	864,000
Bessemer, acid .. .. .	41,204	37,439	28,360	r 35,465	33,000	26,000
do. basic .. .. .	409,991	427,315	434,084	r 398,853	400,000	478,000
Electric .. .. .	1,057,633	1,104,995	1,075,537	r 1,324,466	1,535,000	1,594,000
Other .. .. .	21,014	65,976	75,466	r 100,590	124,000	201,000
Yugoslavia—						
Open hearth .. .. .	819,002	970,000	1,027,000	1,178,000	1,301,000	1,371,000
Electric .. .. .	53,724	61,900	74,200	100,800	118,400	136,800
South Africa—						
Ingots—						
Open hearth and						
Bessemer .. .. .	1,396,500	1,472,000	1,535,500	1,591,800	1,755,300	2,112,300
Electric .. .. .	128,800	180,100	207,500	217,300	277,100	278,000
Castings (b) .. .. .	52,500	41,200	60,200	58,900	46,700	45,400
United States—						
Ingots and castings (a)—						
Open hearth, acid .. ..	600,532	562,546	337,147	396,414	360,329	351,584
do. basic .. .. .	91,221,419	90,203,326	67,412,312	72,522,333	76,753,515	75,096,694
Bessemer .. .. .	2,882,140	2,209,945	1,246,415	1,232,396	1,061,782	786,661
Oxygen converter .. ..	452,087	545,989	1,181,572	1,664,587	2,987,639	3,542,105
Electric and crucible	7,715,383	7,116,584	5,942,987	7,618,316	7,481,021	7,735,896
Of which—						
Ingots .. .. .	102,623,594	100,375,469	75,959,017	83,273,954	88,450,195	87,346,859
Castings .. .. .	247,967	263,921	161,416	160,092	194,091	166,081
Japan—						
Open hearth .. .. .	8,825,319	9,772,879	9,065,736	12,117,154	14,807,770	16,702,821
Bessemer, basic .. .. .	441,847	446,773	813,186	1,186,262	2,587,061	5,272,273
Electric .. .. .	1,663,811	2,151,986	2,047,682	3,062,541	4,393,909	5,846,815

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

(b) Produced for sale.

(c) Included with ingots.

(d) Including castings.

(e) Included with Germany (Federal).

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

Long tons

Exporting Country and Description	1956	1957	1958	1959	1960	1961
<b>COMMONWEALTH COUNTRIES</b>						
<b>United Kingdom—</b>						
<b>Pig-iron—</b>						
Forge and foundry ..	86,550	57,761	109,130	109,943	83,359	65,833
Refined .. ..	42,811	49,295	13,989	13,502	15,135	20,869
Other .. ..	14,174	22,078	28,568	34,514	47,030	58,375
<b>Spiegeleisen and ferro-</b>						
manganese .. ..	966	655	611	596	1,621	662
Ferro-tungsten ..	1,161	561	993	1,282	1,048	1,445
Ferro-molybdenum ..	439	161	296	333	245	246
Ferro-titanium ..	662	393	348	502	276	533
Ferro-vanadium ..	9	9	7	14	94	19
Ferro-niobium and ferro-						
niobium-tantalum ..	163	82	37	71	97	83
Other ferro-alloys ..	2,496	2,147	2,155	7,963	9,333	2,609
<b>Ingots, blooms and</b>						
billets .. ..	1,951	4,449	21,746	82,660	25,611	103,333
Old and scrap (a) ..	5,948	3,137	242,765	933,063	17,858	29,636
<b>Channel Islands (Jersey)—</b>						
Scrap .. ..	2,652	2,523	1,679	2,444	3,108	1,169
<b>Malta—</b>						
Scrap .. ..	8,915	10,893	7,021	10,793	8,072	11,378
<b>Nigeria—</b>						
Scrap .. ..	10,923	22,402	10,872	15,119	13,779	17,923
<b>Rhodesia and Nyasaland—</b>						
<b>Pig-iron .. ..</b>						
Ferro-chrome .. ..	5,022	10,599	1,882	35,603	44,814	117,837
Ferro-silicon .. ..	7,650	8,108	6,384	9,651	9,232	8,920
Ferro-silicon .. ..	64	—	—	—	—	—
<b>Trinidad and Tobago—</b>						
Old and scrap .. ..	11,604	13,199	5,159	12,240	14,036	<i>n.a.</i>
<b>Canada—</b>						
<b>Pig-iron .. ..</b>						
Spiegeleisen .. ..	230,024	515,714	300,528	418,156	431,433	537,656
Ferro-chrome .. ..	210	637	—	—	—	—
Ferro-chrome .. ..	8,837	9,225	9,339	6,709	4,117	1,466
Ferro-manganese ..	53,076	41,726	201	172	651	212
Ferro-silicon .. ..	68,438	58,004	31,254	31,884	47,235	43,704
Other ferro-alloys ..	554	690	505	438	1,002	701
<b>Billets, ingots and</b>						
blooms .. ..	44,246	58,200	52,239	66,182	303,701	291,457
Old and scrap .. ..	589,395	610,862	345,667	341,872	376,293	718,545
Tin-plate scrap .. ..	28,823	29,892	30,993	33,963	32,640	30,509
<b>Hong Kong—</b>						
<b>Pig-iron .. ..</b>						
Old and scrap .. ..	1,701	1,172	117	7,860	23,753	11,731
Old and scrap .. ..	96,897	71,277	100,341	200,634	244,016	206,010
Tinplate scrap .. ..	2,444	6,307	2,141	2,783	5,916	3,891
<b>India—</b>						
<b>Pig-iron .. ..</b>						
Ferro-manganese ..	13,686	406	—	50,566	(b) 98,720	(b) 72,594
Ingots, blooms and	<i>n.a.</i>	3,001	10,553	8,114	(b) 47,073	(b) 55,406
billets .. ..	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	(b) 67,479	(b) 22,718
Old and scrap .. ..	175,707	92,944	107,575	280,711	(b) 317,222	(b) 263,371
<b>Malaya—</b>						
<b>Pig-iron .. ..</b>						
Ingots, slabs etc. ..	277	1,229	502	275	127	53
Scrap .. ..	166	2	72	2,501	120	283
Scrap .. ..	115,147	99,179	60,897	89,501	74,570	70,279
Tin-plate scrap .. ..	2,601	1,894	4,373	1,647	1,959	3,518

(a) Excluding ships intended for breaking up as follows (gross tonnage): 1956—10,658; 1957—5,281; 1958—47,450; 1959—97,850; 1960—54,696; 1961—55,669.

(b) Years ended March 31 following that stated.

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

Long tons

Exporting Country and Description	1956	1957	1958	1959	1960	1961
<b>COMMONWEALTH COUNTRIES</b>						
<i>(cont.)</i>						
Australia (a)—						
Pig-iron .. ..	14,425	17,486	16,455	22,668	65,101	213,022
Ferro-alloys .. ..	1	23	7	9	14	16
Ingots, blooms and billets .. ..	987	1,575	2,529	561	21,431	2,038
Old and scrap .. ..	57,545	169,736	117,816	137,333	176,169	205,870
Tin-plate scrap .. ..	9,519	9,830	18,755	33,990	18,221	15,753
New Zealand—						
Scrap .. ..	53,526	88,699	60,858	52,257	55,221	14,976
Irish Republic—						
Old and scrap .. ..	18,523	23,360	18,064	13,632	28,626	17,880
<b>OTHER COUNTRIES</b>						
Austria—						
Pig-iron .. ..	333,178	255,369	67,662	73,669	36,790	9,990
Ferro-silicon .. ..	—	196	187	1,787	251	2,619
Other ferro-alloys .. ..	977	292	763	2,182	3,377	—
Ingots and blooms .. ..	61,619	157,031	22,905	11,310	58,598	59,887
Scrap .. ..	3,123	9,371	6,919	7,146	3,365	4,462
Belgium-Luxemburg						
E. U.—						
Pig-iron .. ..	19,516	26,228	29,817	46,909	58,940	43,894
Spiegeleisen .. ..	3,769	4,299	3,533	4,231	3,290	4,253
Ferro-manganese .. ..	4,477	14,088	13,150	13,698	16,017	16,644
Other ferro-alloys .. ..	68	11	741	466	5,083	7,793
Crude iron and steel ingots .. ..	8,822	4,436	4,390	18,222	82,689	50,115
Steel blooms and billets	355,264	545,944	762,624	497,200	827,505	679,312
Old and scrap .. ..	36,975	93,796	139,881	270,462	439,159	329,671
Denmark—						
Old and scrap .. ..	24,833	24,067	23,026	44,879	24,033	20,127
Finland—						
Pig-iron .. ..	1,838	27,802	32,069	22,446	32,205	40,818
Ferro-alloys .. ..	2	4	—	—	—	—
Old and scrap .. ..	2,077	1,681	1,431	5,642	2,733	1,950
France—						
Pig-iron .. ..	243,870	183,815	83,781	160,885	228,551	254,134
Spiegeleisen .. ..	4,725	425	410	8,041	12,036	14,142
Ferro-manganese .. ..	116,822	122,795	83,036	98,939	132,693	156,294
Ferro-silicon .. ..	4,055	5,812	4,670	12,881	24,923	30,275
Ferro-chrome .. ..	10,130	11,887	10,623	21,100	18,526	16,218
Other ferro-alloys .. ..	915	1,732	1,592	3,294	3,462	3,193
Ingots .. ..	79,363	84,069	1,971	24,164	81,497	68,355
Blooms and billets, forged or rolled .. ..	199,971	154,014	196,692	227,861	138,312	185,893
Old and scrap .. ..	544,010	643,651	579,296	1,217,162	1,203,386	1,142,799
Germany (Federal)—						
Pig-iron .. ..	343,452	493,903	333,314	379,152	654,027	834,876
Ferro-alloys .. ..	74,113	56,114	16,911	40,000	32,020	41,781
Rough, blooms, bars, ingots, etc. .. ..	242,952	492,171	547,973	938,779	1,014,155	1,353,355
Old and scrap .. ..	758,233	742,500	926,421	944,529	1,202,068	1,442,667
Greece—						
Scrap .. ..	4,298	1,900	49	—	n.a.	n.a.
Hungary—						
Pig iron .. ..	19,549	—	19,338	19,679	76,075	33,977
Iceland—						
Scrap .. ..	6,070	2,952	1,106	4,285	5,466	4,970

(a) Years ended June 30 of that stated.



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

Long tons

Exporting Country and Description	1956	1957	1958	1959	1960	1961
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
<b>Italy—</b>						
Pig-iron .. ..	2,525	232	448	2,610	1,390	198
Spiegeleisen .. ..	502	20	74	139	325	240
Ferro-manganese .. ..	736	211	322	4,005	3,123	2,352
Ferro-silicon .. ..	2,835	3,066	4,618	3,217	4,562	5,435
Ferro-silico-manganese .. ..	—	15	—	5,199	1,444	246
Ferro-chrome .. ..	1,707	3,407	5	8,743	7,488	10,797
Other ferro-alloys .. ..	23	—	39	7	2	18
Ingots .. ..	46,184	95,432	94,669	82,951	120,944	116,160
Blooms, billets, etc. .. ..	16,354	34,211	22,192	34,379	3,526	7,709
Scrap .. ..	1,589	15,514	437	967	1,324	1,054
<b>Netherlands—</b>						
Pig-iron .. ..	183,368	143,603	120,531	141,528	158,926	162,858
Ferro-alloys .. ..	27	86	125	85	157	434
Ingots, blooms and billets .. ..	372	138	2,468	654	675	4,678
Old and scrap .. ..	259,593	259,058	179,981	272,101	326,392	338,507
<b>Norway—</b>						
Pig-iron .. ..	42,811	44,288	58,414	95,071	108,432	117,957
Ferro-chrome .. ..	22,594	19,338	14,307	30,604	34,097	21,252
Ferro-manganese .. ..	74,264	77,719	41,844	61,938	50,497	46,450
Ferro-silicon .. ..	78,678	91,818	80,596	120,950	154,976	159,373
Ferro-silico-manganese .. ..	45,811	45,126	44,859	67,411	80,466	85,802
Other ferro-alloys .. ..	697	2,200	2,112	3,842	9,536	4,347
Ingots, blooms and billets .. ..	29,850	25,468	38,116	18,545	55,405	25,457
Old and scrap .. ..	11,545	4,705	5,693	6,436	4,582	5,513
<b>Portugal—</b>						
Pig-iron .. ..	—	—	16	16,623	24,049	14,795
Ferro-alloys .. ..	365	216	63	630	2,824	987
Old and scrap .. ..	23,071	24,757	22,505	20,562	25,761	16,393
<b>Spain—</b>						
Pig-iron .. ..	13,808	984	80,695	186,103	422,245	283,134
Ferro-silicon .. ..	—	—	—	500	8,209	11,665
Other ferro-alloys .. ..	53	149	—	—	4,595	5,783
Ingots, blooms and billets .. ..	4	—	—	18,607	376,065	234,473
<b>Sweden—</b>						
Pig-iron .. ..	40,925	33,533	37,376	37,429	43,938	69,721
Sponge iron .. ..	20,072	22,233	17,967	22,890	25,603	27,121
Ferro-manganese .. ..	740	1,229	1,382	2,693	1,650	2,540
Ferro-silicon .. ..	4,007	3,983	4,199	159	955	5,785
Ferro-silico-manganese .. ..	1	—	—	226	25	15
Ferro-chrome .. ..	10,516	9,263	9,871	15,597	15,952	18,656
Ferro-tungsten .. ..	59	48	64	184	126	20
Other ferro-alloys .. ..	404	362	492	955	1,727	1,602
Ingots .. ..	2,801	1,023	522	566	250	367
Blooms, billets, etc. .. ..	52,004	78,695	94,256	58,201	97,275	143,597
Old and scrap .. ..	9,578	11,274	8,307	10,164	12,541	13,868
<b>Switzerland—</b>						
Pig-iron and steel, etc. .. ..	5,733	10,872	3,880	6,362	392	346
Ferro-alloys .. ..	1,327	1,849	949	2,200	8,979	11,590
Old and scrap .. ..	2,657	4,397	3,149	3,943	5,729	6,155
<b>U.S.S.R.—</b>						
Pig iron .. ..	1,337,900	1,258,100	1,029,400	1,419,700	1,772,400	1,785,400
Ferro-manganese .. ..	30,900	41,000	45,000	49,700	50,000	50,800
Ferro-silicon .. ..	37,300	39,600	29,700	43,600	57,200	55,900
Other ferro-alloys .. ..	28,200	31,300	33,200	35,800	45,300	46,300
Steel ingots and billets .. ..	403,700	421,900	522,500	647,900	759,000	804,600
Scrap .. ..	54,800	54,300	53,800	104,000	167,400	219,100

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

Long tons

Exporting Country and Description	1956	1957	1958	1959	1960	1961
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
Yugoslavia—						
Pig-iron .. .. .	16,292	—	—	8,315	—	4,206
Spiegeleisen .. .. .	—	—	923	1,865	1,008	1,278
Ferro-chrome .. .. .	2,857	2,645	7,611	7,871	8,822	7,303
Ferro-manganese .. .. .	2,877	3,845	7,842	6,538	10,925	7,037
Silico-manganese .. .. .	493	787	197	886	1,162	2,504
Ferro-silicon .. .. .	563	605	6,126	9,723	9,322	8,105
Steel ingots .. .. .	80,820	46,510	19,208	12,807	—	—
Scrap .. .. .	667	—	—	116	1,166	11,187
Algeria—						
Old and scrap .. .. .	72,555	88,309	32,295	39,804	51,597	<i>n.a.</i>
Morocco—						
Old and scrap .. .. .	58,000	76,405	29,402	38,801	52,445	39,355
Mozambique—						
Scrap .. .. .	4,774	5,071	4,077	8,943	9,947	<i>n.a.</i>
South Africa—						
Pig-iron .. .. .	649	2,350	31,474	273,666	220,252	244,138
Ferro-alloys .. .. .	31,817	32,590	33,635	75,299	130,567	158,512
Ingots, blooms, billets, etc. .. .. .	415	42	37	34,207	19,551	17,268
Tunisia—						
Scrap .. .. .	55,667	61,507	14,653	21,322	29,811	19,732
Cuba—						
Old and scrap .. .. .	90,500	271,528	20,738	36,725	<i>n.a.</i>	<i>n.a.</i>
Mexico—						
Ferro-alloys .. .. .	3,166	2,996	395	2	—	2,574
United States—						
Pig-iron .. .. .	238,549	787,805	92,275	9,235	99,797	371,132
Ferro-manganese .. .. .	2,007	6,603	1,255	845	670	419
Ferro-chrome .. .. .	4,945	4,049	1,714	5,470	13,918	7,004
Ferro-molybdenum .. .. .	422	171	101	111	190	160
Ferro-vanadium .. .. .	124	120	68	135	144	107
Ferro-silicon .. .. .	1,888	2,365	1,943	9,427	4,912	31,040
Ferro-tungsten .. .. .	1	2	1	34	—	—
Ferro-titanium .. .. .	325	327	288	286	219	189
Other ferro-alloys .. .. .	67,613	45,160	39,904	44,845	46,198	31,159
Steel ingots, slabs, blooms, billets and sheet bars .. .. .	323,861	455,670	25,001	13,142	66,539	116,917
Scrap (a) .. .. .	5,660,947	5,690,604	2,598,575	4,387,537	6,326,729	8,447,727
Brazil—						
Pig-iron .. .. .	92,109	29,632	—	984	14,369	37,862
Ferro-alloys .. .. .	1,082	1,673	—	—	—	49
Chile—						
Pig-iron .. .. .	19,777	17,829	150	1,476	295	<i>n.a.</i>
Ferro-manganese .. .. .	2,996	5,712	5,822	2,735	2,971	3,682
Peru—						
Scrap .. .. .	11,924	8,842	—	—	—	—
Indonesia—						
Scrap .. .. .	79,016	53,709	13,996	26,544	6,428	8,312
Japan—						
Pig-iron .. .. .	48	4	11,023	76	148	—
Ferro-chrome .. .. .	3,570	5,223	4,081	17,273	14,533	15,911
Ferro-manganese .. .. .	53,131	35,490	47,900	33,269	38,914	14,249
Ferro-silicon .. .. .	1,132	595	1,013	1,253	405	18
Ferro-silico-manganese .. .. .	7,405	9,844	21,611	9,633	2,684	772
Other ferro-alloys .. .. .	5,607	11,203	513	504	458	794
Ingots, blooms and billets .. .. .	218,165	38,005	58,051	9,132	692	1,032
Scrap .. .. .	42	—	39	23	23	95
Korea (South)—						
Scrap .. .. .	—	—	1,503	663	—	500

(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	1956	1957	1958	1959	1960	1961
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
Lebanon—						
Scrap .. .. .	8,705	10,924	3,577	7,153	9,683	<i>n.a.</i>
Philippine Republic—						
Scrap .. .. .	33,451	36,913	—	162	—	—
Thailand—						
Scrap .. .. .	8,615	11,915	1,080	285	2,874	4,605
Turkey—						
Ingots and blocks ..	—	8,070	—	—	—	—
Old and scrap .. ..	3,862	11,476	261	1,020	1,041	5,388

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

Long tons

Importing Country and Description	1956	1957	1958	1959	1960	1961
COMMONWEALTH COUNTRIES						
United Kingdom—						
Pig-iron—						
Charcoal .. .. .	10,335	483	662	448	942	1,492
Forge and foundry ..	992	—	573	2,981	2,036	4,080
Hematite .. .. .	40,775	7,362	5,573	28,885	36,300	17,720
Basic .. .. .	490,125	305,237	137,130	58,480	178,019	4,922
Other pig-iron .. ..	5,611	4,165	6,892	5,385	4,092	4,436
Sponge-iron .. .. .	2,499	3,393	3,545	4,500	5,799	5,519
Spiegeleisen and ferro-						
manganese .. .. .						
Ferro-silicon .. .. .	41,674	83,254	18,087	28,807	35,375	41,830
Ferro-silicon-chrome ..	80,062	77,499	55,277	63,334	95,967	85,234
Ferro-chrome .. .. .	2,313	2,097	1,744	1,623	3,595	2,984
Silico-manganese .. ..	26,211	29,192	25,764	31,901	46,606	42,358
Other ferro-alloys .. ..	13,977	13,845	16,122	22,685	29,185	26,497
Iron and steel ingots ..	1,646	1,454	1,077	1,175	1,611	2,215
Blooms, billets, slabs—	115,501	11,420	711	833	30,551	28,369
Iron .. .. .	16	223	—	—	202	—
Steel .. .. .	256,881	234,905	82,675	1,768	222,574	70,757
Old and scrap (a) .. ..	981,447	665,574	64,766	2,873	277,609	22,648
Kenya—						
Pig-iron .. .. .	740	1,273	140	279	862	1,387
Ingots, blooms, etc. ..	2,076	1,555	1,753	1,360	1,768	1,495
Mauritius—						
Pig-iron, ingots, etc. ..	17	28	56	30	40	34
Rhodesia and Nyasaland—						
Pig, ingots, etc. . . . .	285	146	298	357	1,359	601
Tanganyika—						
Pig-iron .. .. .	24	80	74	37	75	101
Ferro-alloys .. .. .	272	488	805	790	666	394
Ingots, blooms, etc. ..	127	806	477	271	310	231
Canada—						
Pig-iron .. .. .	11,283	6,287	23,659	18,937	7,662	308
Sponge iron .. .. .	284	308	251	331	513	667
Ferro-manganese .. ..	1,956	664	2,217	2,084	13,835	10,772
Ferro-silicon .. .. .	589	723	1,101	2,263	3,455	3,846
Ferro-tungsten .. .. .	92	76	89	370	438	231
Silico-manganese .. ..	1,009	2,015	1,950	2,669	2,112	1,940
Other ferro-alloys .. ..	6,502	5,045	4,011	10,352	8,613	5,939
Ingots, blooms and						
billets .. .. .	12,244	18,994	5,011	11,254	27,396	5,200
Scrap .. .. .	662,467	431,137	258,397	587,822	524,877	313,878
Trinidad and Tobago—						
Pig-iron .. .. .	57	10	48	6	11	n.a.
Ingots, etc. .. .. .	55	775	132	846	685	n.a.
Ceylon—						
Pig-iron .. .. .	350	227	948	862	350	695
Ingots, blooms, billets..	4,630	3,201	2,483	1,600	2,425	3,809
Cyprus—						
Pig-iron .. .. .	687	1,899	—	10	33	—
Hong Kong—						
Pig-iron .. .. .	10,395	6,275	3,017	10,433	29,908	13,688
Ingots, blooms and						
billets .. .. .	959	1,504	561	594	1,418	640
Old and scrap .. .. .	20,141	30,281	14,234	24,439	27,573	25,677
Tinplate scrap .. .. .	8,166	12,113	8,932	13,093	16,660	12,055
India—						
Pig-iron .. .. .	47,420	113,608	100,443	67,993	(b) 10,870	(b) 1,672
Ingots, blooms and						
billets .. .. .	125,846	228,710	226,917	138,255	(b) 35,404	(b) 16,958

(a) Excluding ships intended for breaking up as follows (gross tonnage): 1956—28,717; 1957—18,297; 1958—4,740; 1959—38,051; 1960—284,532; 1961—37,407.

(b) Years ended March 31 following that stated.

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

Long tons

Importing Country and Description	1956	1957	1958	1959	1960	1961
<b>COMMONWEALTH COUNTRIES</b>						
<i>(cont.)</i>						
<b>India (cont.)—</b>						
Ferro-chrome .. ..	77	259	131	271	(b) 410	(b) 803
Ferro-manganese .. ..	291	275	200	150	(b) 155	(b) 519
Ferro-silicon .. ..	191	18	38	689	(b) 3,637	(b) 5,614
Other ferro-alloys .. ..	212	544	711	1,111	(b) 1,435	(b) 922
Old and scrap .. ..	23,271	8,966	4,553	29,807	(b) 12,983	(b) 6,669
<b>Malaya—</b>						
Pig-iron .. ..	3,847	3,599	2,346	2,761	3,958	4,277
Ferro-alloys .. ..	68	43	2	27	11	30
Ingots, slabs, etc. .. ..	490	1,500	3,362	2,343	3,543	3,673
Scrap .. ..	5,671	4,841	3,493	1,197	1,426	718
Tinplate scrap .. ..	5,974	7,489	7,765	8,735	12,568	12,563
<b>Pakistan—</b>						
Pig-iron .. ..	12,426	27,769	18,174	67,432	63,876	42,920
Ferro-alloys .. ..	—	104	81	74	359	1,145
Ingots, blooms and billets .. ..	52,204	85,215	85,061	56,302	39,750	228,214
Old and scrap .. ..	11	139	692	94	145	518
<b>Australia (c)—</b>						
Pig-iron .. ..	(a) 158	—	—	—	—	—
Ferro-manganese .. ..	10,357	2,781	4,908	3,650	18,634	36,026
Ferro-chrome .. ..	1,701	1,911	1,240	2,680	3,409	6,723
Ferro-molybdenum .. ..	114	158	129	140	106	525
Ferro-silicon .. ..	3,531	7,228	7,191	8,256	8,383	8,177
Other ferro-alloys .. ..	848	397	698	810	451	1,879
Other ingots and billets	345	187	34	6	7,504	410
Scrap .. ..	(a) 1,497	(a) 729	(a) 510	(a) 20	(a) 221	(a) 2,466
<b>New Zealand—</b>						
Pig-iron .. ..	8,553	5,480	9,755	7,332	8,107	9,238
Ferro-alloys .. ..	6	20	64	73	135	263
Billets and blooms .. ..	265	323	211	1,089	157	2,762
<b>Irish Republic—</b>						
Pig-iron .. ..	6,368	3,635	3,210	3,534	3,150	3,641
Ferro-alloys .. ..	455	295	348	519	655	573
Ingots, blooms and billets .. ..	5,620	1,114	5,077	13,015	3,601	5,658
Old and scrap .. ..	2	5	3	1	—	—
<b>OTHER COUNTRIES</b>						
<b>Austria—</b>						
Pig-iron .. ..	8,332	9,492	11,498	7,771	156,408	67,021
Spiegeleisen .. ..	n.a.	n.a.	n.a.	493	1,728	1,698
Ferro-manganese .. ..	7,219	7,518	8,268	5,818	9,473	8,679
Ferro-silicon .. ..	7,205	8,603	6,289	8,985	10,099	8,564
Other ferro-alloys .. ..	9,871	11,445	7,545	14,993	19,324	15,815
Ingots and blooms .. ..	5,062	1,151	2,574	14,824	10,197	3,212
Scrap .. ..	134,723	208,099	61,958	47,787	119,810	78,267
<b>Belgium-Luxemburg E.U.—</b>						
Pig-iron .. ..	406,118	304,020	227,278	336,614	364,542	379,182
Sponge-iron .. ..	151	302	205	260	752	1,064
Spiegeleisen .. ..	19,451	16,642	20,666	7,118	7,099	16,143
Ferro-chrome, etc. .. ..	2,813	1,834	2,031	2,759	4,258	4,161
Ferro-manganese .. ..	71,532	80,948	46,626	55,300	58,558	52,644
Ferro-silico-manganese	3,002	2,553	2,317	2,494	3,378	3,766
Ferro-molybdenum .. ..	177	242	65	265	482	532

(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	1956	1957	1958	1959	1960	1961
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
<b>Belgium-Luxembourg</b>						
<b>E.U. (cont.)—</b>						
Ferro-silicon .. ..	17,636	17,034	11,388	15,204	20,333	20,881
Ferro-tungsten .. ..	69	31	29	71	80	234
Other ferro-alloys .. ..	687	539	482	571	943	896
Crude iron and steel ingots .. ..	947	4,452	3,705	22,618	26,439	57,914
Blooms and billets .. ..	45,711	37,226	38,444	65,176	52,486	32,634
Old and scrap .. ..	704,917	527,466	304,605	240,913	192,680	193,644
<b>Czechoslovakia—</b>						
Pig iron .. ..	199,000	233,000	246,000	188,000	199,000	175,000
<b>Denmark—</b>						
Pig-iron .. ..	56,135	69,673	39,428	55,407	84,814	74,175
Ferro-chrome .. ..	356	132	236	321	450	437
Ferro-manganese, etc. .. ..	2,412	2,460	2,219	2,275	2,638	2,428
Ferro-silicon .. ..	4,617	3,609	2,321	1,829	3,964	3,426
Other ferro-alloys .. ..	40	69	64	187	522	259
Old and scrap .. ..	1,445	6,605	4,116	3,007	977	1,296
<b>Finland—</b>						
Pig-iron .. ..	6,465	5,302	1,834	3,788	2,927	2,682
Billets .. ..	48,450	51,882	15,431	135,800	135,217	103,657
Ferro-manganese and spiegeleisen .. ..	2,556	2,925	1,363	2,176	3,338	2,194
Other ferro-alloys .. ..	3,008	3,446	2,312	5,145	6,997	7,019
Old and scrap .. ..	47,051	49,639	48,006	75,693	94,006	101,353
<b>France—</b>						
Pig-iron—hematite .. ..	102,602	184,893	129,831	93,560	115,784	148,191
do. other .. ..	16,922	18,007	17,939	19,206	33,754	28,544
Spiegeleisen .. ..	16,561	26,816	16,552	10,786	7,317	2,151
Ferro-manganese .. ..	887	40	3,405	4,665	6,333	7,276
Ferro-silicon .. ..	126	176	66	12	81	1
Ferro-chrome .. ..	5	2	19	12	285	361
Ferro-nickel .. ..	13,566	16,492	11,195	10,005	23,248	20,957
Other ferro-alloys .. ..	24	163	21	267	154	674
Ingots .. ..	29,434	45,543	22,400	19,430	86,139	80,314
Blooms and billets, rolled or forged .. ..	115,431	127,895	256,700	315,174	637,978	680,485
Old and scrap .. ..	656,566	624,356	557,936	305,955	487,660	730,655
<b>Germany (Federal)—</b>						
Pig-iron .. ..	126,369	68,912	273,363	324,088	387,415	334,767
Ferro-alloys .. ..	73,756	72,410	99,420	159,273	224,964	242,207
Rough blooms, ingots, bars, etc. .. ..	247,827	248,348	204,960	272,956	563,425	279,656
Old and scrap .. ..	583,533	1,270,900	354,508	612,524	1,008,926	926,736
<b>Germany (East)—</b>						
Pig-iron .. ..	338,818	436,629	547,700	629,600	696,400	554,200
<b>Greece—</b>						
Pig-iron .. ..	33,920	33,105	55,190	74,830	13,658	n.a.
Ferro-alloys .. ..	929	1,003	1,200	741	543	n.a.
Ingots, blooms, slabs, etc. .. ..	86,187	73,298	91,137	78,661	104,155	74,390
<b>Hungary—</b>						
Pig iron .. ..	134,871	123,171	38,061	59,246	41,767	38,239
Ferro-chrome .. ..	1,695	2,207	1,754	2,130	2,260	3,419
Ferro-manganese .. ..	5,186	7,121	5,834	6,672	6,649	7,621
Ferro-silicon .. ..	—	1,669	1,378	143	2,828	1,445
Other ferro-alloys .. ..	386	310	203	218	153	368
Ingots .. ..	51,900	105,872	146,429	158,117	207,816	173,756
<b>Italy—</b>						
Pig-iron .. ..	335,981	381,921	329,628	370,340	689,614	870,005
Spiegeleisen .. ..	2,145	168	4,431	2,265	6,778	12,335
Ferro-chrome .. ..	6,456	5,870	6,132	8,359	15,091	14,157
Ferro-manganese .. ..	8,211	9,257	18,136	20,182	27,526	30,620

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

Long tons

Importing Country and Description	1956	1957	1958	1959	1960	1961
OTHER COUNTRIES						
<i>(cont.)</i>						
Italy <i>(cont.)</i> —						
Ferro-silicon .. ..	702	2,628	2,419	2,853	1,492	1,420
Ferro-silico-manganese ..	1,129	2,840	2,001	1,767	1,991	2,913
Ferro-molybdenum .. ..	276	303	(a)	(a)	(a)	(a)
Ferro-titanium .. ..	209	146	272	234	286	507
Ferro-tungsten .. ..	37	79	55	41	116	311
Ferro-vanadium .. ..	38	65	(a)	(a)	(a)	(a)
Other ferro-alloys .. ..	85	70	497	437	1,033	1,024
Ingots .. ..	42,402	113,097	64,998	83,008	213,503	77,703
Blooms, billets, etc. ..	97,032	80,389	95,497	109,174	397,059	669,605
Old and scrap .. ..	2,279,768	2,779,294	2,769,895	2,588,339	3,181,660	3,345,502
Netherlands—						
Pig-iron .. ..	22,711	20,981	13,692	17,144	22,704	13,610
Spiegeleisen .. ..	1,410	1,446	512	1,672	6,199	935
Ferro-manganese .. ..	7,100	10,278	9,103	8,806	12,807	14,210
Ferro-chrome .. ..	258	186	244	290	499	302
Ferro-silicon .. ..	3,548	3,837	2,188	2,665	3,797	5,249
Ferro-silico-manganese ..	513	277	229	372	452	896
Ferro-molybdenum .. ..	40	35	35	21	46	51
Other ferro-alloys .. ..	101	152	515	644	564	984
Ingots, blooms, billets, etc. .. ..	118,886	175,330	140,317	91,672	164,442	114,113
Old and scrap .. ..	60,276	63,505	52,373	64,884	94,016	36,956
Norway—						
Pig-iron .. ..	16,010	12,763	11,848	9,566	9,944	16,813
Ferro-alloys .. ..	221	1,495	199	106	168	4,817
Ingots, blooms, billets, etc. .. ..	7,862	3,913	7,460	1,720	2,459	11,753
Old and scrap .. ..	15,768	8,280	1,695	65	14,055	52,450
Portugal—						
Iron and steel ingots ..	10,452	12,306	12,202	1,749	156	1,113
Old and scrap .. ..	2,769	3,179	4,174	2,622	3,656	1,176
Roumania—						
Ferro-alloys .. ..	<i>n.a.</i>	<i>n.a.</i>	17,300	20,100	24,900	27,300
Spain—						
Pig-iron .. ..	1,285	14,384	2,615	1,048	715	1,470
Ferro-manganese .. ..	163	342	120	629	140	1,421
Other ferro-alloys .. ..	590	398	675	1,256	816	1,911
Ingots and blooms .. ..	5	1,444	858	130	509	278
Old and scrap .. ..	83,431	69,158	169,997	115,641	113,583	242,981
Sweden—						
Pig-iron .. ..	143,769	89,818	91,467	142,842	212,019	127,981
Spiegeleisen .. ..	221	88	59	98	118	139
Ferro-manganese .. ..	6,952	7,016	3,176	5,765	6,138	10,806
Ferro-chrome .. ..	8,082	5,430	2,398	6,318	13,164	7,288
Ferro-silicon and ferro-silico-manganese .. ..	5,110	4,249	2,319	6,024	8,989	9,476
Ferro-tungsten .. ..	158	141	62	185	411	396
Other ferro-alloys .. ..	1,919	4,139	1,314	1,518	5,273	3,636
Old and scrap .. ..	23,185	36,212	58,971	198,871	297,070	163,851
Switzerland—						
Pig-iron, steel billets, blooms, etc. .. ..	185,731	157,291	87,245	152,538	214,793	291,555
Ferro-alloys .. ..	4,580	4,490	5,201	4,230	9,139	10,718
Old, filings and scrap ..	22,910	12,134	9,717	48,613	44,002	17,997
U.S.S.R.—						
Pig-iron .. ..	489,700	150,000	157,100	135,900	205,100	132,100
Ferro-alloys .. ..	5,200	4,700	4,800	2,400	13,200	2,500

(a) Included with "other ferro-alloys".

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

Long tons

Importing Country and Description	1956	1957	1958	1959	1960	1961
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
<b>Yugoslavia—</b>						
Pig-iron .. ..	10,468	12,380	37,491	54,460	64,292	83,580
Ferro-alloys .. ..	683	553	537	854	1,172	1,042
Ingots .. ..	—	469	1	3,104	33,382	18,651
Scrap .. ..	21,987	55,975	36,916	20,010	63,072	123,102
<b>Algeria—</b>						
Pig-iron .. ..	491	413	495	641	403	<i>n.a.</i>
Spiegeleisen and ferro-alloys .. ..	626	552	775	808	898	<i>n.a.</i>
Ingots, blooms and billets .. ..	20,329	22,164	22,398	14,665	13,858	<i>n.a.</i>
Old and scrap .. ..	140	47	12	1,681	1,456	<i>n.a.</i>
<b>Congo Republic—</b>						
Pig-iron .. ..	1,686	647	289	95	<i>n.a.</i>	<i>n.a.</i>
Ferro-alloys .. ..	208	379	710	285	<i>n.a.</i>	<i>n.a.</i>
<b>Egypt—</b>						
Pig-iron and spiegeleisen .. ..	7,473	6,645	16,997	12,209	19,619	<i>n.a.</i>
Ferro-alloys .. ..	1,157	3,286	2,587	4,911	2,049	<i>n.a.</i>
Ingots, billets, etc. .. ..	535	200	2,976	26	295	<i>n.a.</i>
Scrap .. ..	2,305	3,322	4,068	7,721	4,783	<i>n.a.</i>
<b>Morocco—</b>						
Pig-iron .. ..	579	688	831	560	824	901
Ferro-alloys .. ..	151	138	141	96	135	168
Scrap, etc. .. ..	176	335	9,813	5,456	1,608	600
<b>South Africa—</b>						
Pig-iron and steel ingots .. ..	11,094	16,888	2,216	6	689	<i>n.a.</i>
Ferro-silicon .. ..	22	28	400	204	627	<i>n.a.</i>
Other ferro-alloys .. ..	186	205	175	240	184	<i>n.a.</i>
<b>Sudan—</b>						
Crude iron and steel .. ..	5,415	11,289	10,416	9,318	18,454	17,918
<b>Tunisia—</b>						
Pig-iron .. ..	59	106	144	189	118	100
Old and scrap .. ..	388	2,084	571	80	163	59
<b>Cuba—</b>						
Pig-iron .. ..	148	374	292	8,668	<i>n.a.</i>	<i>n.a.</i>
Ingots, blooms, etc. .. ..	—	40,214	38,413	27,932	<i>n.a.</i>	<i>n.a.</i>
<b>Mexico—</b>						
Pig-iron .. ..	27	—	5	—	—	429
Ferro-manganese .. ..	159	160	1,192	730	158	106
Other ferro-alloys .. ..	2,659	3,342	3,805	3,032	1,673	1,446
Ingots, blooms and billets .. ..	50,787	120,531	87,408	39,619	2,468	10
Scrap .. ..	302,892	293,608	288,036	378,445	371,683	351,553
Tin-plate scrap .. ..	28,740	15,933	6,446	10,804	12,184	8,942
<b>Salvador—</b>						
Ingots, blooms, billets .. ..	1,242	794	322	106	1,218	2,037
Scrap .. ..	859	420	274	298	321	154
<b>United States—</b>						
Pig-iron .. ..	291,697	201,238	187,271	624,637	295,399	336,768
Ferro-chrome .. ..	35,607	42,562	22,124	83,331	44,096	24,884
Ferro-manganese .. ..	143,038	301,856	57,082	80,412	107,341	198,133
Ferro-silicon .. ..	19,658	17,772	10,369	15,613	15,954	12,259
Ferro-titanium .. ..	101	114	90	113	74	163
Ferro-tungsten .. ..	479	225	87	294	100	191
Sponge iron .. ..	3,552	1,442	1,303	1,522	1,869	2,303
Bar-iron, slabs, blooms, etc. .. ..	83	101	61	73	65	54
Steel ingots, blooms, etc. .. ..	23,341	6,953	16,016	81,937	60,502	159,746
Scrap .. ..	199,050	181,613	264,160	239,142	123,828	210,105
Tin-plate scrap .. ..	29,137	31,431	32,824	37,151	36,402	29,499



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

Importing Country and Description	1956	1957	1958	1959	1960	1961
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
Argentina—						
Pig-iron .. ..	56,096	136,889	93,281	135,456	129,223	41,270
Ferro-manganese .. ..	1,908	—	—	—	292	415
Ferro-silicon .. ..	—	17,870	17,946	9,578	13,392	23,796
Ingots .. ..	438,246	415,594	630,941	559,085	442,721	720,552
Old and scrap .. ..	—	—	—	909	1,065	3,228
Brazil—						
Ferro-manganese .. ..	—	73	63	819	45	171
Ferro-silicon .. ..	205	53	78	2,156	355	57
Ferro-chrome .. ..	44	83	250	269	585	881
Other ferro-alloys .. ..	84	169	193	71	155	295
Chile—						
Pig-iron .. ..	108	238	51	<i>n.a.</i>	113	<i>n.a.</i>
Ferro-alloys .. ..	85	88	237	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Colombia—						
Pig-iron .. ..	—	—	—	5	—	—
Ingots, etc. .. ..	851	314	620	50	—	10
Blooms, billets, etc. .. ..	652	1	29	20	—	—
Ferro-alloys .. ..	1,761	2,161	976	4,058	3,611	2,105
Peru—						
Pig-iron .. ..	752	455	483	197	113	137
Ferro-alloys .. ..	280	326	334	460	428	1,042
Uruguay—						
Ingots .. ..	30,857	20,807	36,127	34,439	29,314	<i>n.a.</i>
Ferro-alloys .. ..	<i>n.a.</i>	308	290	328	222	<i>n.a.</i>
Venezuela—						
Pig-iron and scrap .. ..	2,926	255	19,677	19,827	231	238
Ferro-alloys .. ..	808	704	867	682	274	607
Ingots, blooms and billets .. ..	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	1,116	13,345	9,991
Formosa—						
Blooms, billets, etc. .. ..	4,363	4,624	4,584	1,942	4,092	10,061
Ferro-alloys .. ..	608	902	884	326	584	1,027
Old and scrap .. ..	37,609	38,821	44,912	68,843	142,146	180,443
Iran (a)—						
Old and scrap .. ..	4,288	3,548	1,746	848	4,129	<i>n.a.</i>
Israel—						
Pig-iron .. ..	2,903	10,371	14,306	24,044	21,457	<i>n.a.</i>
Ferro-alloys .. ..	<i>n.a.</i>	<i>n.a.</i>	477	1,121	1,820	<i>n.a.</i>
Japan—						
Pig-iron .. ..	307,949	930,467	2,290	272,621	980,531	2,027,909
Ferro-alloys .. ..	316	411	97	2	10	21,445
Ingots, blooms and billets .. ..	16,235	242,506	—	696	3,736	124,259
Old and scrap .. ..	2,537,273	3,275,553	1,326,785	3,987,543	4,355,670	6,900,920
Lebanon—						
Pig-iron .. ..	4,793	1,477	2,044	7,191	5,442	<i>n.a.</i>
Ferro-alloys .. ..	59	4	5	63	—	<i>n.a.</i>
Old and scrap .. ..	2,180	2,080	141	2,449	2,281	<i>n.a.</i>
Philippine Republic—						
Pig-iron .. ..	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	17,241	14,097
Ferro-alloys .. ..	493	620	1,074	712	502	150
Ingots, blooms and billets .. ..	13,167	33,083	2,583	1,416	1,856	6,831
Syria—						
Pig-iron .. ..	347	188	867	842	1,383	645
Scrap .. ..	571	817	686	1,426	1,337	1,475
Thailand—						
Pig-iron .. ..	324	514	606	435	501	315
Ferro-alloys .. ..	307	321	495	791	418	723
Turkey—						
Pig-iron .. ..	—	—	—	5,023	4,562	5,015
Ferro-alloys .. ..	711	357	1,049	369	955	3,627
Blooms, billets, etc. .. ..	—	—	—	12,077	24,265	—

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

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

Long tons

Producing Country	1956	1957	1958	1959	1960	1961
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom ..	7,267	8,094	4,165	1,809	1,420	1,592
Nigeria (a) ..	45	450	487	378	199	6
Northern Rhodesia (b) ..	15,200	15,078	13,043	14,400	14,429	15,148
Southern Rhodesia ..	17	23	—	—	17	31
Tanganyika (c) ..	5,116	4,851	4,465	5,715	6,185	345
Uganda ..	108	15	229	53	—	—
Canada (d) ..	168,620	162,039	166,679	166,693	183,616	206,426
Hong Kong ..	105	70	16	—	—	—
India ..	2,843	3,274	r 3,911	4,790	4,456	4,008
Australia ..	299,485	333,753	328,347	316,293	308,163	269,800
<b>TOTAL ..</b>	<b>r 498,800</b>	<b>r 527,647</b>	<b>r 521,342</b>	<b>r 510,131</b>	<b>518,485</b>	<b>497,356</b>
Irish Republic ..	2,285	1,852	—	1,318	(g) 1,400	(g) 1,000
<b>OTHER COUNTRIES</b>						
Austria ..	5,367	5,884	6,048	6,028	5,695	6,021
Bulgaria ..	54,000	62,100	69,500	79,200	82,400	(e) 79,000
Czechoslovakia (e) ..	5,900	5,900	5,900	r 6,000	6,400	6,400
Finland (f) ..	1,389	2,342	2,216	1,898	1,567	3,071
France ..	8,732	12,090	13,149	16,370	18,260	18,602
Germany—						
Federal Republic ..	64,448	r 69,940	r 59,953	r 51,681	49,106	48,777
East (g) ..	6,000	7,000	7,000	7,000	7,000	7,000
Greece ..	r 7,239	r 7,267	r 10,058	r 9,840	9,087	n.a.
Italy ..	49,030	52,970	53,589	47,970	46,328	44,304
Norway ..	792	884	2,099	2,220	2,482	2,254
Poland ..	32,500	29,500	32,600	34,800	38,600	37,200
Portugal ..	1,218	1,355	888	31	31	25
Roumania (b) (g) ..	11,000	11,000	11,000	11,000	11,000	11,000
Spain ..	60,207	64,191	68,491	68,992	71,744	81,677
Sweden ..	32,230	35,893	41,602	r 47,609	52,500	61,100
U.S.S.R. (b) (g) ..	260,000	280,000	300,000	320,000	340,000	370,000
Yugoslavia ..	85,945	88,664	88,423	90,990	89,780	95,153
Algeria ..	10,488	10,133	9,906	10,869	10,294	8,926
Angola (i) ..	92	17	88	12	n.a.	n.a.
Congo Republic ..	(e) 100	(e) 200	—	—	—	—
Congo (Republic of) ..	2,960	1,810	3,200	r 4,900	4,224	3,239
Egypt ..	118	250	(e) 290	690	79	36
Morocco ..	86,050	91,300	92,389	90,300	93,000	87,000
South Africa ..	812	1,092	32	150	121	91
South West Africa ..	86,348	82,453	74,818	69,242	63,800	62,000
Tunisia ..	23,078	23,525	22,160	17,860	17,630	16,560
Cuba ..	84	63	n.a.	—	—	—
Greenland ..	3,000	7,332	8,588	10,386	6,820	9,021
Guatemala (f) ..	8,006	11,192	7,846	5,697	8,422	8,445
Honduras ..	2,067	(h) 2,638	3,018	4,111	5,279	6,037

(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) Imports into the United States.

(i) Including lead in vanadium-lead ore as follows (long tons): 1956—62; 1957—4; 1958—80; 1959—12; 1960—n.a.; 1961—n.a.

## PRODUCTION OF LEAD ORE (cont.)

Long tons

Producing Country	1956	1957	1958	1959	1960	1961
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
Mexico (a) .. ..	196,457	211,482	198,734	187,668	187,658	178,462
United States (a) ..	315,023	301,979	238,729	228,202	220,240	233,858
Argentina .. ..	28,823	30,500	29,000	29,000	28,000	27,000
Bolivia (c) .. ..	19,641	23,488	21,648	21,429	20,985	19,998
Brazil (d) .. ..	4,371	3,462	4,562	r 4,330	3,947	(e) 3,900
Chile .. ..	3,212	2,775	2,514	r 2,285	2,405	n.a.
Colombia (g) .. ..	1,286	1	760	509	629	645
Ecuador .. ..	114	108	118	105	106	109
Peru .. ..	127,036	134,986	132,043	113,396	129,551	131,812
Burma .. ..	15,586	14,612	18,911	19,000	17,000	16,500
China (e) .. ..	36,000	r 40,000	r 50,000	r 65,000	80,000	90,000
Iran (e) (f) .. ..	16,700	16,700	16,700	14,700	14,700	14,700
Japan .. ..	29,058	35,502	36,114	35,575	39,191	45,549
Korea (South) (b) ..	1,300	850	1,200	200	900	850
Korea (North) (b) ..	30,000	35,000	40,000	45,000	45,000	45,000
Philippine Republic ..	2,106	801	1,264	349	120	99
Thailand .. ..	3,946	2,987	979	1,500	2,000	2,300
Turkey .. ..	5,573	4,146	3,019	2,137	1,744	1,673
<b>TOTAL .. ..</b>	<b>r 1,700,000</b>	<b>r 1,800,000</b>	<b>r 1,900,000</b>	<b>r 1,800,000</b>	<b>1,800,000</b>	<b>1,900,000</b>
<b>WORLD'S TOTAL ..</b>	<b>2,200,000</b>	<b>2,300,000</b>	<b>2,400,000</b>	<b>2,300,000</b>	<b>2,400,000</b>	<b>2,400,000</b>

(a) Amount estimated as recoverable.

(b) Estimated.

(c) Exports.

(d) Smelter.

(e) United States Bureau of Mines' estimate.

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

(g) Imports into the United States.

METAL PRODUCTION OF LEAD

Long ton

Producing Country	1956	1957	1958	1959	1960	1961
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom ..	6,699	7,431	3,710	1,410	1,092	1,052
Northern Rhodesia ..	15,200	15,078	13,043	14,400	14,429	15,148
Canada .. ..	132,022	127,621	118,738	120,800	141,527	153,421
India .. ..	2,497	3,175	3,334	3,895	3,716	3,606
Australia (c) ..	236,164	239,052	248,645	236,115	242,546	210,392
<b>TOTAL .. ..</b>	<b>392,600</b>	<b>392,357</b>	<b>387,470</b>	<b>376,600</b>	<b>403,310</b>	<b>383,619</b>
<b>OTHER COUNTRIES</b>						
Austria (b) .. ..	9,887	10,762	11,386	11,292	11,211	11,260
Belgium (b) .. ..	100,638	97,696	92,324	87,044	91,241	98,312
Bulgaria .. ..	5,913	18,995	25,658	32,223	39,768	40,000
Czechoslovakia (a) ..	9,000	9,000	9,000	9,000	9,000	9,000
France .. ..	62,324	72,622	72,118	70,150	75,405	69,700
Germany—Federal ..	114,658	135,665	132,130	147,172	145,332	139,000
do. East (a) (b) ..	30,000	22,100	25,000	25,000	25,000	25,000
Greece .. ..	3,405	3,560	3,866	3,680	3,042	(d) 4,000
Italy .. ..	40,037	39,022	47,243	44,320	42,908	44,437
Poland .. ..	34,600	35,137	35,200	38,100	39,100	39,200
Portugal .. ..	838	740	1,644	782	891	1,485
Roumania (a) .. ..	11,000	11,000	11,000	11,000	11,000	11,000
Spain .. ..	64,724	58,019	69,401	67,408	70,057	75,954
Sweden .. ..	22,815	24,483	32,548	36,267	43,850	38,160
U.S.S.R. (a) .. ..	260,000	280,000	300,000	320,000	340,000	370,000
Yugoslavia .. ..	74,562	77,264	82,950	84,046	87,735	88,973
Morocco .. ..	27,672	30,752	32,601	28,000	30,242	24,100
Tunisia .. ..	23,768	24,168	24,748	21,464	19,548	18,160
Guatemala .. ..	131	—	—	50	179	51
Mexico .. ..	193,591	197,703	192,622	185,967	164,019	187,350
United States (e) ..	484,171	476,315	419,090	304,362	341,461	401,397
Argentina .. ..	23,900	25,500	32,300	33,600	28,900	26,100
Bolivia (f) .. ..	1,572	2,314	784	223	46	—
Brazil .. ..	4,371	3,462	r 4,269	r 4,330	3,947	(d) 3,900
Chile .. ..	—	—	287	796	589	—
Peru .. ..	58,864	67,843	63,433	55,910	72,970	75,270
Burma .. ..	19,543	19,478	17,098	19,337	13,161	15,510
China (a) (b) .. ..	20,000	40,000	60,000	75,000	70,000	70,000
Iran (g) .. ..	1,411	(d) 690	935	(d) 900	1,143	(d) 980
Japan .. ..	40,756	48,281	37,869	59,957	68,273	74,530
Korea (North) .. ..	(d) 14,000	(d) 16,700	(a) 20,000	(a) 25,000	(a) 25,000	(a) 25,000
Turkey .. ..	(d) 2,000	(d) 2,000	2,657	1,612	393	(d) 490
<b>TOTAL .. ..</b>	<b>1,800,000</b>	<b>1,800,000</b>	<b>1,900,000</b>	<b>1,800,000</b>	<b>1,900,000</b>	<b>2,000,000</b>
<b>WORLD'S TOTAL ..</b>	<b>2,200,000</b>	<b>2,200,000</b>	<b>2,300,000</b>	<b>2,200,000</b>	<b>2,300,000</b>	<b>2,400,000</b>

(a) Estimated.

(b) Including secondary metal.

(c) Including lead in base bullion as follows :

Year	Long tons	Year	Long tons
1956 .. ..	41,658	1959 .. ..	50,310
1957 .. ..	46,891	1960 .. ..	52,723
1958 .. ..	57,171	1961 .. ..	48,090

(d) United States Bureau of Mines' estimate.

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

Year	Long tons	Year	Long tons
1956 .. ..	452,460	1959 .. ..	403,024
1957 .. ..	436,812	1960 .. ..	419,556
1958 .. ..	358,738	1961 .. ..	404,279

(f) Exports.

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

## EXPORTS OF LEAD, ETC.\*

Long tons

Exporting Country and Description	1956	1957	1958	1959	1960	1961
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom—						
Unwrought .. ..	7,141	10,962	12,732	9,340	15,317	25,913
do. alloys .. ..	1,534	1,387	2,383	2,796	2,697	3,086
Semi-manufactures (a)	2,241	2,585	2,764	2,613	3,064	2,489
White lead .. ..	1,663	1,744	1,815	1,769	2,179	2,140
Litharge, red lead, etc..	2,437	2,953	3,815	3,532	3,811	3,876
Nigeria—						
Ore and concentrates ..	105	908	780	1,208	838	522
Rhodesia and Nyasaland—						
Ore .. ..	8	96	—	10	57	15
Unwrought .. ..	14,620	12,260	10,938	13,124	12,052	10,951
Tanganyika—						
Concentrates (Pb content) .. ..	5,116	4,851	4,465	5,715	6,185	345
Uganda—						
Ore .. ..	117	61	100	200	67	—
Canada—						
Ore (Pb content) .. ..	44,620	39,435	48,287	47,970	45,835	63,363
Unwrought .. ..	71,101	75,483	82,456	82,368	86,115	105,033
Scrap .. ..	145	305	385	2,701	5,971	(a) 2,238
White lead .. ..	7	15	591	745	972	n.a.
Hong Kong—						
Ore and concentrates ..	200	175	117	—	—	—
Unwrought (a) .. ..	160	75	267	382	578	281
Scrap .. ..	76	16	104	70	67	225
Semi-manufactures (a)	23	12	6	6	9	4
Malaya—						
Unwrought (a) .. ..	697	464	686	884	537	593
Semi-manufactures (a)	18	13	20	19	24	24
Australia (b)—						
Ores and concentrates (Pb content) .. ..	46,401	60,431	72,515	69,574	60,054	60,655
Base bullion (Pb content)	29,603	53,156	48,166	59,273	48,920	53,365
Unwrought .. ..	145,987	167,380	164,060	143,828	121,420	127,055
do. alloys .. ..	593	714	447	365	921	4,983
Scrap (a) .. ..	10,011	9,230	6,573	2,970	1,241	531
Semi-manufactures .. ..	65	206	99	93	97	89
Red and white lead, etc.	1,644	1,455	1,477	1,489	1,798	2,061
Irish Republic—						
Ore and concentrates ..	4,022	3,162	882	2,121	2,245	1,249
Scrap .. ..	1,004	441	416	356	285	243
<b>OTHER COUNTRIES</b>						
Austria—						
Unwrought (a) .. ..	3,655	3,484	3,205	3,336	3,134	2,829
Scrap .. ..	—	64	15	—	—	10
Red and white lead, etc.	335	466	461	678	1,199	961

\*In these tables the description "unwrought" lead corresponds to item 685.1 of the Standard International Trade Classification and comprises base bullion, pigs, unwrought bars, etc. "Semi-manufactures" corresponds to S.I.T.C. 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.

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

Long tons

Exporting Country and Description	1956	1957	1958	1959	1960	1961
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
<b>Belgium-Luxemburg</b>						
E.U.—						
Unwrought .. ..	72,058	59,743	64,280	53,587	50,412	53,613
do. alloys .. ..	1,153	1,546	1,880	2,203	2,149	2,492
Scrap .. ..	458	140	2,641	555	1,668	1,191
Semi-manufactures (a)	4,359	4,393	3,807	5,016	4,327	6,479
Red and white lead, etc.	3,163	3,852	3,268	3,163	3,970	4,547
<b>Denmark—</b>						
Unwrought .. ..	2,699	6,413	9,869	7,967	4,055	5,230
do. alloys .. ..	4,713	3,399	3,731	3,773	4,398	3,251
Scrap .. ..	507	738	180	24	103	—
Semi-manufactures (a)	2	3	17	49	74	168
<b>Finland—</b>						
Unwrought (a) ..	1,075	—	1,222	400	369	124
<b>France—</b>						
Ore .. ..	274	1,901	1,983	4,536	19,170	8,367
Unwrought .. ..	6,740	10,851	15,171	11,478	6,243	4,699
do. alloys .. ..	547	367	1,407	1,462	942	1,382
Scrap .. ..	62	23	3	56	563	1,642
Semi-manufactures (a)	1,532	1,229	1,215	1,529	1,256	1,148
Red and white lead, etc.	4,494	4,595	4,692	6,430	7,286	4,850
<b>Germany (Federal)—</b>						
Ore .. ..	—	6,709	176	26	—	—
Unwrought .. ..	36,266	37,210	27,215	27,276	24,529	25,271
Scrap (a) .. ..	793	453	144	23	702	2,770
Semi-manufactures (a)	1,940	2,673	3,209	4,103	3,332	4,293
Red and white lead ..	9,920	9,251	7,861	10,975	9,722	10,725
<b>Greece—</b>						
Ore .. ..	6,772	10,487	16,952	14,299	16,159	14,185
Unwrought .. ..	602	—	330	—	6	<i>n.a.</i>
<b>Italy—</b>						
Ore .. ..	8,651	7,959	13,611	10,437	7,240	4,811
Unwrought (a) ..	5	280	1,069	286	18	4
Semi-manufactures (a)	49	35	25	20	1,281	184
Red and white lead ..	77	52	24	178	57	1,378
<b>Netherlands—</b>						
Unwrought .. ..	6,265	7,117	3,769	5,417	6,333	7,243
do. alloys .. ..	1,466	1,480	956	683	1,466	1,072
Scrap .. ..	383	779	772	1,013	1,655	3,178
Semi-manufactures (a)	1,645	1,529	1,892	3,576	3,547	2,994
Red and white lead ..	1,747	2,161	1,920	1,811	1,416	1,520
<b>Norway—</b>						
Ore .. ..	1,317	1,472	3,478	3,400	4,364	3,386
Unwrought (a) ..	114	47	184	285	215	462
Scrap .. ..	1,964	1,866	1,672	1,677	2,050	2,356
<b>Portugal—</b>						
Unwrought (a) ..	48	27	39	47	26	8
Semi-manufactures (a)	5	9	6	9	50	20
Red and white lead ..	—	—	—	—	53	42
<b>Spain—</b>						
Ore .. ..	—	—	—	—	2,490	1,165
Unwrought (a) ..	15,998	11,442	23,093	29,387	37,762	35,795
Semi-manufactures (a)	1,145	347	50	1,036	3,100	39
<b>Sweden—</b>						
Ore .. ..	15,090	17,722	12,425	12,296	9,028	22,443
Unwrought .. ..	5,093	9,967	16,693	18,770	17,352	14,306
do. alloys .. ..	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	1,903	2,177	1,576
Scrap .. ..	486	232	52	157	231	167
Semi-manufactures (a)	3	41	11	6	154	196
Red and white lead, etc.	681	847	1,267	1,462	1,658	1,606

(a) Including alloys.

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

Long tons

Exporting Country and Description	1956	1957	1958	1959	1960	1961
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
Switzerland—						
Unwrought .. .. .	173	27	61	83	—	6
Scrap .. .. .	2,296	2,181	1,956	2,445	2,032	2,092
Semi-manufactures .. .. .	—	1	25	1	83	78
U.S.S.R.—						
Unwrought .. .. .	39,900	54,000	61,200	56,300	68,700	100,700
Yugoslavia—						
Unwrought .. .. .	57,662	62,986	61,438	57,896	60,675	50,128
do. alloys .. .. .	595	738	344	4,696	4,349	4,190
Semi-manufactures .. .. .	612	531	486	510	1,981	3,785
Red lead .. .. .	570	151	187	154	307	245
Algeria—						
Ore .. .. .	9,345	8,514	11,290	8,566	5,729	<i>n.a.</i>
Unwrought (a) .. .. .	28	14	53	39	51	<i>n.a.</i>
Scrap .. .. .	2,085	1,510	2,286	2,485	3,692	<i>n.a.</i>
Red and white lead .. .. .	—	7	2	5	14	<i>n.a.</i>
Angola—						
Ore .. .. .	58	15	9	—	—	—
Congo Republic—						
Ore .. .. .	381	1,225	—	—	—	—
Congo (Republic of)—						
Ore .. .. .	5,905	3,937	5,643	8,568	7,189	2,603
Egypt—						
Ore .. .. .	40	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Morocco—						
Ore .. .. .	90,786	98,116	116,787	100,519	144,353	96,789
Unwrought .. .. .	26,575	30,436	26,558	29,102	26,359	23,411
do. alloys .. .. .	82	89	114	277	8	39
Scrap .. .. .	452	151	44	—	86	32
South Africa—						
Ore .. .. .	298	1,398	—	—	—	—
Unwrought .. .. .	—	60	49	63	92	67
Semi-manufactures .. .. .	17	7	47	1	4	2
South West Africa—						
Complex concentrates (Pb content) .. .. .	(b) 81,558	81,097	73,692	61,192	60,542	57,386
Lead-vanadium concentrates .. .. .	5,368	3,731	3,578	4,612	7,716	8,296
Tunisia—						
Ore .. .. .	937	2	—	—	—	—
Unwrought (a) .. .. .	25,214	22,486	23,126	19,463	16,446	18,745
Scrap .. .. .	409	342	342	284	457	415
Greenland—						
Ore .. .. .	3,605	8,327	9,435	10,654	10,602	12,567
Guatemala—						
Ore .. .. .	17,293	18,024	14,565	2,070	8,901	15,139
Honduras—						
Ore and concentrates .. .. .	4,073	5,680	5,486	7,632	5,407	7,847
Mexico—						
Ores and concentrates .. .. .	3,764	4,878	2,343	1,654	3,505	3,897
Unwrought—						
Refined .. .. .	143,074	153,329	141,170	133,913	129,487	148,155
Base bullion .. .. .	3,019	942	1,721	1,562	11,806	17,385
Antimonial .. .. .	7,280	11,827	5,738	12,138	1,440	1,578
Semi-manufactures .. .. .	13,359	5,969	595	—	—	—
Red and white lead .. .. .	5,956	8,600	8,775	12,168	14,721	18,151

(a) Including alloys.

(b) Including lead content of lead-vanadium concentrates.

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

Long tons

Exporting Country and Description	1956	1957	1958	1959	1960	1961
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
<b>United States—</b>						
Ore, mattes and base bullion ( <i>Pb content</i> ) ..	942	809	904	200	1,158	3,961
Unwrought .. ..	4,133	3,874	1,213	2,460	1,756	1,904
Scrap .. ..	1,097	790	906	1,019	2,302	4,610
Semi-manufactures ..	929	1,310	776	958	460	557
Red and white lead, etc.	2,684	3,514	3,076	2,838	1,891	2,056
<b>Argentina—</b>						
Ore .. ..	—	1,411	9	—	—	—
Unwrought .. ..	—	50	—	—	—	—
<b>Bolivia—</b>						
Ore, etc. ( <i>Pb content</i> ) ..	19,641	23,488	21,648	21,429	20,985	19,998
Unwrought .. ..	1,572	2,314	784	223	46	4
<b>Chile—</b>						
Ore and concentrates ..	3,455	4,607	4,883	<i>n.a.</i>	2,645	<i>n.a.</i>
<b>Colombia—</b>						
Ore .. ..	2,339	7	597	952	1,107	—
<b>Ecuador—</b>						
Concentrates .. ..	212	186	269	692	979	<i>n.a.</i>
<b>Peru—</b>						
Ore and concentrates ( <i>Pb content</i> ) ..	60,341	55,603	70,574	58,443	57,051	64,481
Unwrought ( <i>Pb content</i> ) ..						
Refined .. ..	58,086	61,678	63,400	54,612	58,789	75,510
Unrefined .. ..	321	234	213	—	62	221
<b>Burma—</b>						
Ore .. ..	1,867	2,765	911	900	648	396
Unwrought ( <i>a</i> ) .. ..	14,466	13,433	15,236	21,984	13,646	12,689
<b>Iran (<i>b</i>)—</b>						
Ore .. ..	37,851	26,040	22,182	23,875	12,298	20,938
<b>Japan—</b>						
Unwrought ( <i>a</i> ) .. ..	163	50	93	66	69	73
Semi-manufactures ( <i>a</i> ) ..	156	70	225	131	145	813
Red and white lead ..	25	6	83	19	13	18
<b>Korea (South)—</b>						
Ore .. ..	<i>n.a.</i>	<i>n.a.</i>	2,401	1,721	1,805	1,596
<b>Philippine Republic—</b>						
Ores and concentrates ..	105	727	772	177	—	—
<b>Thailand—</b>						
Ore .. ..	7,858	8,518	3,083	3,248	4,733	5,002
<b>Turkey—</b>						
Ore .. ..	—	—	—	3,199	2,323	2,313

(a) Including alloys.

(b) Years ended March 20 following that stated.



## IMPORTS OF LEAD, ETC.\*

Long tons

Importing Country and Description	1956	1957	1958	1959	1960	1961
COMMONWEALTH COUNTRIES						
United Kingdom—						
Unwrought .. ..	167,366	157,780	162,419	175,242	208,820	179,865
Scrap (a) .. ..	6,413	4,544	1,812	2,098	2,671	886
Semi-manufactures (a)	75	137	248	216	507	475
Litharge, red lead, etc. . .	11	—	—	—	—	—
Channel Islands—						
Unwrought and semi-manufactures (a) ..	101	94	109	119	131	150
Ghana—						
Unwrought (a) .. ..	269	270	371	277	236	52
Semi-manufactures (a)						
Kenya—						
Unwrought (a) .. ..	83	83	90	82	52	80
Semi-manufactures (a)	41	34	18	12	13	10
Mauritius—						
Unwrought (a) .. ..	—	—	21	1	—	10
Semi-manufactures (a)	19	66	69	43	34	37
Nigeria—						
Unwrought and semi-manufactures (a) ..	251	292	524	534	595	505
Rhodesia and Nyasaland—						
Semi-manufactures (a)	16	236	77	100	129	106
Red and white lead, etc.	46	51	103	164	190	137
Sierra Leone—						
Semi-manufactures (a)	16	15	10	13	32	92
Tanganyika—						
Unwrought (a) .. ..	36	41	17	7	5	11
Semi-manufactures (a)	21	12	16	7	8	7
Uganda—						
Unwrought (a) .. ..	30	12	19	24	48	10
Semi-manufactures (a)	16	11	10	2	4	6
Barbados—						
Semi-manufactures (a)	<i>n.a.</i>	72	60	55	152	51
Jamaica—						
Unwrought (a) .. ..	104	120	155	41	1	80
Semi-manufactures (a)	209	123	135	177	118	71
Trinidad and Tobago—						
Unwrought (a) .. ..	18	4	—	6	13	<i>n.a.</i>
Red and white lead, etc.	98	47	33	31	23	<i>n.a.</i>
Canada—						
Unwrought .. ..	94	1,346	1,489	1,616	553	1,001
Scrap .. ..	54	73	109	221	137	83
Semi-manufactures .. ..	68	38	44	117	40	56
White lead, red lead and litharge .. ..	1,170	1,388	1,524	1,346	1,090	1,008
Ceylon—						
Unwrought (a) .. ..	612	148	163	97	62	100
Semi-manufactures (a)	35	35	16	33	(b) 1	59
Cyprus—						
Semi-manufactures (a)	43	38	32	54	33	125
Hong Kong—						
Unwrought (a) .. ..	114	93	123	336	228	310
Scrap .. ..	18	9	28	38	20	11
Semi-manufactures (a)	58	91	155	88	92	166

\*See footnote on p. 175 concerning the descriptions "unwrought" lead and "semi-manufactures" used in these tables.

(a) Including alloys.

(b) Excess of re-exports.

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

Long tons

Importing Country and Description	1956	1957	1958	1959	1960	1961
<b>COMMONWEALTH COUNTRIES</b>						
<i>(cont.)</i>						
India—						
Ore .. .. .	525	102	110	130	(b) 100	(b) 79
Unwrought .. .. .	15,829	13,831	21,105	23,034	(b) 23,694	(b) 27,781
do. alloys .. .. .	<i>n.a.</i>	333	310	642	(b) 376	(b) 284
Semi-manufactures (a)	379	341	65	85	(b) 177	(b) 405
Litharge, red and white lead, etc. .. .. .	635	13	2	23	(b) 9	(b) 24
Malaya—						
Unwrought (a) .. .. .	200	254	204	296	454	670
Semi-manufactures (a)	137	97	117	73	151	156
North Borneo—						
Semi-manufactures (a)	16	16	17	19	23	25
Pakistan—						
Ore .. .. .	270	96	70	98	306	438
Unwrought (a) .. .. .	155	255	247	588	547	1,448
Semi-manufactures (a)	57	156	244	35	104	248
Litharge, red and white lead, etc. .. .. .	219	256	564	297	431	561
Australia (c)—						
Red and white lead, etc.	61	41	28	97	86	162
Fiji—						
Semi-manufactures (a)	46	66	24	10	32	47
New Zealand—						
Unwrought .. .. .	5,264	3,552	5,012	2,551	4,029	3,108
do. alloys .. .. .	211	1,061	206	796	308	2,107
Semi-manufactures (a)	—	4	5	4	6	6
Litharge, red and white lead, etc. .. .. .	1,505	1,475	1,575	1,507	1,415	1,030
Irish Republic—						
Unwrought .. .. .	236	219	258	419	359	497
Semi-manufactures (a)	279	87	230	130	106	77
<b>OTHER COUNTRIES</b>						
Austria—						
Ore .. .. .	4,886	5,000	5,492	5,118	4,921	4,577
Unwrought (a) .. .. .	4,974	6,041	8,169	9,367	12,666	10,277
Scrap .. .. .	—	15	11	—	261	233
Semi-manufactures (a)	29	120	141	215	375	243
Belgium-Luxemburg						
E.U.—						
Ore .. .. .	168,076	157,901	169,112	151,180	137,252	152,380
Unwrought .. .. .	19,729	18,194	15,520	17,469	19,374	13,954
do. alloys .. .. .	399	462	416	365	853	169
Scrap .. .. .	1,309	1,307	796	1,109	1,185	4,599
Semi-manufactures (a)	37	31	126	417	795	508
Red and white lead, etc.	1,810	1,834	1,305	1,374	1,214	1,050
Denmark—						
Unwrought .. .. .	11,012	16,906	22,250	23,052	16,620	18,878
do. alloys .. .. .	794	87	47	949	307	319
Scrap .. .. .	5,256	5,677	3,525	4,813	4,972	3,480
Semi-manufactures (a)	22	44	43	100	210	293
Red and white lead .. .. .	881	710	741	1,838	1,985	1,983
Finland—						
Unwrought (a) .. .. .	8,967	15,341	9,691	10,116	14,395	10,904
Semi-manufactures (a)	571	541	733	1,009	833	1,275
Red and white lead, etc.	1,026	514	558	582	471	443

(a) Including alloys.

(c) Years ended June 30 of that stated.

(b) Years ended March 31 following that stated.

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

Long tons

Importing Country and Description	1956	1957	1958	1959	1960	1961
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
France—						
Ore .. .. .	105,277	98,961	105,988	102,495	99,342	90,894
Unwrought .. .. .	55,429	49,171	48,895	44,364	55,713	63,602
do. alloys .. .. .	868	1,519	1,442	810	1,220	1,858
Scrap .. .. .	6,950	3,798	5,562	3,675	4,337	3,034
Semi-manufactures (a)	146	79	83	244	66	101
Red and white lead, etc.	938	584	418	1,613	1,978	2,110
Germany (Federal)—						
Ore .. .. .	83,431	95,918	127,821	140,707	151,751	144,394
Unwrought (a) .. .. .	52,706	43,109	47,089	66,049	86,404	75,330
Scrap (a) .. .. .	775	1,239	478	1,050	1,028	1,243
Semi-manufactures (a)	—	—	41	98	198	470
Red and white lead, etc.	938	698	1,919	2,865	3,953	4,419
Greece—						
Unwrought .. .. .	7	481	721	667	255	<i>n.a.</i>
Hungary—						
Unwrought .. .. .	7,711	7,298	7,712	8,185	10,540	11,021
Iceland—						
Unwrought .. .. .	94	101	141	165	176	224
Semi-manufactures (a)	24	24	24	29	27	32
Red and white lead .. .. .	16	13	22	28	24	21
Italy—						
Ore .. .. .	1,762	607	255	77	5,191	8,824
Unwrought (a) .. .. .	11,998	14,709	13,357	16,128	24,560	38,608
Scrap .. .. .	4,877	3,803	4,216	2,842	7,242	13,194
Semi-manufactures (a)	4	18	36	67	894	2,862
Red and white lead .. .. .	122	206	305	373	427	642
Netherlands—						
Ore .. .. .	12	19	12	4	3	1
Unwrought .. .. .	40,182	36,716	31,140	35,557	33,291	41,707
do. alloys .. .. .	904	7,459	2,065	9,300	11,932	13,853
Scrap .. .. .	4,197	3,952	3,121	2,238	2,795	1,287
Semi-manufactures (a)	1,593	1,505	1,004	2,005	2,191	2,592
Red and white lead .. .. .	5,680	5,698	5,309	5,494	6,014	5,952
Norway—						
Unwrought .. .. .	7,807	9,596	9,551	8,177	8,606	8,454
do. alloys .. .. .	856	1,091	1,088	1,378	1,479	1,224
Semi-manufactures (a)	1,191	809	937	848	1,014	1,083
Red and white lead .. .. .	484	508	532	659	718	700
Portugal—						
Unwrought (a) .. .. .	2,629	4,677	6,276	5,429	5,708	6,593
Scrap .. .. .	213	95	80	56	27	37
Semi-manufactures (a)	62	23	1	75	73	12
Red and white lead, etc.	122	152	150	116	166	172
Sweden—						
Unwrought .. .. .	12,891	14,518	11,185	9,384	9,474	8,688
do. alloys .. .. .	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	802	1,405	1,264
Scrap .. .. .	181	1,132	121	142	375	325
Semi-manufactures (a)	1,292	1,360	1,426	2,066	2,068	1,619
Red and white lead .. .. .	1,987	1,506	1,103	1,044	1,249	1,402
Switzerland—						
Unwrought .. .. .	14,131	15,604	17,519	16,971	18,673	21,917
Semi-manufactures	457	496	534	570	414	683
Red and white lead .. .. .	604	746	653	604	580	715
U.S.S.R.—						
Unwrought .. .. .	26,300	27,300	29,700	39,100	39,100	38,900

(a) Including alloys.

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

Long tons

Importing Country and Description	1956	1957	1958	1959	1960	1961
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
Algeria—						
Ore .. .. .	47	38	45	35	54	<i>n.a.</i>
Unwrought .. .. .	3,353	2,221	2,377	3,862	3,940	<i>n.a.</i>
do. alloys .. .. .	82	245	254	337	251	<i>n.a.</i>
Scrap .. .. .	84	—	—	—	20	<i>n.a.</i>
Semi-manufactures (a)	587	516	555	658	739	<i>n.a.</i>
Red and white lead, etc.	132	128	161	147	197	<i>n.a.</i>
Angola—						
Semi-manufactures ..	14	20	7	13	8	30
Red and white lead ..	38	54	34	52	53	38
Congo Republic—						
Unwrought and scrap ..	2,059	78	59	58	<i>n.a.</i>	<i>n.a.</i>
Red and white lead ..	108	131	102	108	<i>n.a.</i>	<i>n.a.</i>
Egypt—						
Unwrought and scrap ..	1,429	167	768	3,026	4,643	<i>n.a.</i>
Semi-manufactures ..	106	23	31	3	57	<i>n.a.</i>
Red and white lead ..	746	355	1,062	822	718	<i>n.a.</i>
Malagasy Republic—						
Unwrought (a) .. .. .	69	96	129	79	31	66
Semi-manufactures (a)	20	38	18	25	27	21
Red and white lead ..	38	46	43	16	17	11
Morocco—						
Semi-manufactures (a)	206	121	89	65	29	58
Red and white lead ..	76	69	100	84	117	152
Mozambique—						
Semi-manufactures (a)	65	77	81	96	150	<i>n.a.</i>
Red and white lead ..	41	15	9	45	25	<i>n.a.</i>
South Africa—						
Unwrought .. .. .	14,529	14,153	15,551	13,026	12,066	11,946
Semi-manufactures ..	178	76	136	117	22	<i>n.a.</i>
Red and white lead ..	119	171	240	149	154	<i>n.a.</i>
Tunisia—						
Ore .. .. .	1	1	1	1	3	3
Red and white lead, etc.	20	39	27	85	<i>n.a.</i>	<i>n.a.</i>
Costa Rica—						
Unwrought (a) .. .. .	58	40	22	68	39	23
Cuba—						
Unwrought .. .. .	124	317	203	345	<i>n.a.</i>	<i>n.a.</i>
Semi-manufactures ..	272	219	238	479	<i>n.a.</i>	<i>n.a.</i>
Mexico—						
Unwrought .. .. .	14	17	10	12	11	9
United States—						
Ore, matte and flue dust (Pb content) .. .. .	170,805	209,479	212,165	121,898	122,843	122,493
Bullion and base bullion (Pb content) .. .. .	28	23	371	31	262	211
Unwrought (Pb content)	234,111	287,239	314,071	234,493	190,310	220,828
do. alloys (Pb content) .. .. .	9,845	6,212	5,870	7,831	4,760	6,405
Scrap (Pb content) ..	18,271	6,764	7,696	7,051	4,998	3,477
Semi-manufactures ..	6,834	5,283	2,344	3,221	2,549	2,540
Red and white lead, etc.	4,984	7,591	7,589	11,538	13,755	15,821
Brazil—						
Unwrought .. .. .	9,703	19,967	11,653	11,978	8,464	13,283
do. alloys .. .. .	496	457	86	38	112	28
Red and white lead ..	315	405	656	636	612	1,008
Chile—						
Unwrought .. .. .	1,027	262	391	1,201	687	<i>n.a.</i>
Bars and sheets .. ..	239	258	82	342	<i>n.a.</i>	<i>n.a.</i>
Red and white lead ..	148	102	141	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>

(a) Including alloys.

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

Long tons

Importing Country and Description	1956	1957	1958	1959	1960	1961
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
Colombia—						
Unwrought (a) ..	1,253	1,109	1,610	1,267	1,441	1,204
Semi-manufactures (a) ..	68	167	59	130	113	97
Red and white lead ..	369	826	497	356	403	514
Ecuador—						
Unwrought .. ..	139	108	91	139	<i>n.a.</i>	<i>n.a.</i>
Red and white lead ..	19	210	38	40	<i>n.a.</i>	<i>n.a.</i>
Peru—						
Semi-manufactures (a) ..	62	50	37	44	39	103
Red and white lead ..	176	225	122	73	62	52
Uruguay—						
Unwrought .. ..	<i>n.a.</i>	2,085	1,683	2,280	1,866	<i>n.a.</i>
Red and white lead, etc.	<i>n.a.</i>	236	90	277	298	<i>n.a.</i>
Venezuela—						
Unwrought .. ..	573	2,148	1,102	1,515	1,104	1,861
Red and white lead ..	678	862	912	1,611	1,525	1,496
Formosa—						
Unwrought (a) ..	1,313	989	1,755	1,218	1,423	1,205
Semi-manufactures (a) ..	195	143	158	37	30	50
Red and white lead, etc.	34	122	136	141	141	95
Indonesia—						
Unwrought and scrap ..	838	490	361	1,527	1,271	<i>n.a.</i>
Semi-manufactures (a) ..	560	732	179	143	288	<i>n.a.</i>
Red and white lead ..	554	598	402	293	383	<i>n.a.</i>
Iraq—						
Semi-manufactures ..	150	31	220	70	170	<i>n.a.</i>
Israel—						
Unwrought .. ..	334	327	857	883	658	<i>n.a.</i>
Semi-manufactures ..	31	66	76	111	92	<i>n.a.</i>
Red and white lead ..	94	449	635	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Japan—						
Ore .. ..	24,944	46,911	26,694	37,786	41,332	68,090
Unwrought .. ..	17,662	39,547	3,340	2,027	22,224	43,590
Scrap .. ..	1,447	1,430	1,546	1,128	1,062	856
Semi-manufactures (a) ..	87	166	119	11	1	3
Red and white lead ..	1	2	1	2	1	—
Lebanon—						
Unwrought .. ..	135	258	213	339	236	<i>n.a.</i>
Semi-manufactures (a) ..	157	185	107	190	159	<i>n.a.</i>
Philippine Republic—						
Unwrought (a) ..	725	865	1,229	1,203	1,312	1,638
Semi-manufactures (a) ..						
Red and white lead ..						
Red and white lead ..	1,021	809	1,038	1,155	414	1,390
Syria—						
Unwrought .. ..	145	438	297	282	255	664
Red and white lead ..	53	51	58	111	<i>n.a.</i>	<i>n.a.</i>
Thailand—						
Unwrought (a) ..	82	395	515	1,026	701	643
Semi-manufactures (a) ..	204	193	115	96	103	66
Turkey—						
Unwrought (a) ..	1,782	869	330	2,328	1,690	549
Semi-manufactures (a) ..	559	342	11	184	227	316
Red and white lead ..	308	220	684	1,054	826	94

(a) Including alloys.

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

Long tons

Producing Country and Description	1956	1957	1958	1959	1960	1961
<b>COMMONWEALTH COUNTRIES</b>						
<b>Southern Rhodesia—</b>						
Amblygonite .. ..	577	109	1,638	<i>n.a.</i>	<i>n.a.</i>	77
Eucryptite .. ..	—	50	355	<i>n.a.</i>	<i>n.a.</i>	1,678
Lepidolite .. ..	75,535	83,522	57,767	<i>n.a.</i>	<i>n.a.</i>	21,462
Petalite .. ..	12,075	8,870	11,755	<i>n.a.</i>	<i>n.a.</i>	24,730
Spodumene .. ..	3,969	4,999	4,677	<i>n.a.</i>	<i>n.a.</i>	1,453
<b>Uganda—</b>						
Amblygonite .. ..	—	5	—	—	—	—
<b>Canada—</b>						
Lithium minerals ( <i>Li<sub>2</sub>O content</i> ) ..	2,138	2,295	1,720	1,230	91	230
<b>Australia—</b>						
Petalite .. ..	—	—	68	25	1	96
Amblygonite .. ..	—	—	—	—	15	24
<b>OTHER COUNTRIES</b>						
<b>Spain—</b>						
Amblygonite .. ..	51	6	—	—	25	—
<b>Congo Republic—</b>						
Spodumene ( <i>a</i> ) ..	64	1	—	—	—	—
<b>Mozambique—</b>						
Amblygonite .. ..	34	—	—	—	—	—
Lepidolite .. ..	986	338	86	89	<i>n.a.</i>	151
Petalite .. ..	25	—	—	—	—	—
<b>Ruanda-Urundi—</b>						
Amblygonite .. ..	1,782	2,070	10	2,648	2,294	<i>n.a.</i>
<b>South Africa—</b>						
Amblygonite .. ..	637	27	—	9	154	232
<b>South West Africa—</b>						
Amblygonite .. ..	742	478	477	216	143	121
Lepidolite .. ..	1,017	787	931	1,936	868	1,266
Petalite .. ..	3,281	4,754	6,612	2,488	3,683	2,268
<b>Argentina—</b>						
Spodumene .. ..	138	20	156	167	<i>n.a.</i>	<i>n.a.</i>
<b>Brazil—</b>						
Amblygonite ( <i>a</i> ) ..	<i>n.a.</i>	493	—	527	49	—
Spodumene ( <i>a</i> ) ..	<i>n.a.</i>	—	157	418	—	—

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	1956	1957	1958	1959	1960	1961
<b>COMMONWEALTH COUNTRIES</b>						
Rhodesia and Nyasaland—						
Lithium minerals .. ..	69,814	34,012	149,125	51,697	114,219	29,056
Lithium salts .. ..	42	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
<b>OTHER COUNTRIES</b>						
Congo Republic—						
Spodumene .. ..	64	1	—	—	—	—
Mozambique—						
Lepidolite .. ..	—	49	157	—	<i>n.a.</i>	<i>n.a.</i>
Ruanda—Urundi—						
Amblygonite .. ..	591	1,129	1,632	2,943	1,476	<i>n.a.</i>
South Africa—						
Lithium minerals .. ..	496	—	—	—	—	50
South West Africa—						
Amblygonite .. ..	593	828	627	117	—	68
Lepidolite .. ..	504	1,341	358	1,609	638	822
Petalite .. ..	3,216	5,765	4,704	1,261	1,753	2,104
Brazil—						
Amblygonite .. ..	<i>n.a.</i>	493	—	527	49	—
Spodumene .. ..	<i>n.a.</i>	—	157	418	—	—

## IMPORTS OF LITHIUM MINERALS\*

Long tons

Importing Country	1956	1957	1958	1959	1960	1961
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom (a) ..	7,100	4,800	6,000	5,100	10,500	4,000
<b>OTHER COUNTRIES</b>						
France (a) .. ..	3,200	5,400	500	400	200	—
Germany (Federal) ..	2,223	4,290	4,882	7,730	10,093	9,814
Netherlands (a) .. ..	1,900	3,200	5,800	6,400	4,200	5,000
United States (a) (b) ..	57,300	26,100	139,700	38,900	92,000	18,000
Japan (a) .. ..	200	30	600	1,400	3,000	2,000

\*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.

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

Long tons

Producing Country and Description	1956	1957	1958	1959	1960	1961
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom—						
Dolomite, crude (a) ..	2,400,000	2,700,000	2,600,000	2,800,000	3,100,000	2,800,000
Kenya—						
Magnesite, crude ..	—	105	492	2,808	30	1,723
Southern Rhodesia—						
Magnesite, crude ..	7,688	2,598	—	—	7,171	12,394
Dolomite .. ..	6,620	1,225	593	423	205	—
Tanganyika—						
Magnesite, crude ..	298	(c) 254	(c) 301	(c) 105	(c) 112	(c) 42
Canada—						
Magnesitic dolomite (b)	£1,012,066	£1,136,678	£926,433	£1,132,435	£1,204,194	£1,053,928
India—						
Magnesite, crude ..	91,711	88,885	102,590	155,472	153,862	206,431
Dolomite .. ..	98,857	140,961	174,666	320,113	639,417	710,000
Pakistan—						
Magnesite .. ..	—	21	—	396	434	161
Australia—						
Magnesite, crude ..	64,685	83,473	69,391	60,586	62,166	95,061
Dolomite .. ..	115,564	192,103	138,832	160,084	190,868	188,388
New Zealand—						
Magnesite, crude ..	730	602	1,200	n.a.	795	581
Dolomite .. ..	2,023	2,784	3,052	3,165	3,390	3,550
<b>OTHER COUNTRIES</b>						
Austria—						
Magnesite—						
Crude .. ..	1,066,520	1,154,078	1,201,906	1,182,239	1,599,735	1,770,273
Caustic (d) ..	88,359	98,364	98,688	101,668	118,782	127,690
do. powder (d) ..	40,039	38,872	38,132	39,898	46,440	51,573
Dead-burned (d) ..	384,154	418,263	413,803	376,698	491,642	533,760
Bricks (d) .. ..	214,607	236,094	227,350	183,237	256,074	290,080
Belgium—						
Dolomite—						
Crude .. ..	286,014	319,981	363,397	378,080	443,210	481,940
Calcined .. ..	257,693	246,804	241,123	248,430	302,440	294,910
Bulgaria—						
Magnesite, crude ..	138,871	(e) 138,000	(e) 147,000	(e) 147,000	(e) 147,000	(e) 147,000
France—						
Dolomite, crude ..	403,484	530,272	584,492	686,241	754,843	700,000
Greece—						
Magnesite—						
Crude .. ..	61,027	46,778	87,270	110,327	184,331	(e) 200,000
Caustic (d) .. ..	24,079	18,622	23,982	23,218	40,457	n.a.
Dead-burned (d) ..	—	—	8,089	21,599	25,826	n.a.
Italy—						
Magnesite, crude ..	4,864	7,600	5,804	6,752	5,879	6,677
Dolomite—						
Metallurgical ..	48,030	44,219	57,289	66,596	70,878	n.a.
Refractory, etc. ..	442,265	405,521	400,635	427,478	282,386	n.a.
Luxemburg—						
Dolomite, calcined ..	8,111	8,299	8,597	10,000	7,393	—
Norway—						
Magnesite—						
Crude .. ..	(a) 780	—	—	—	—	—
Dolomite .. ..	114,385	115,640	144,922	154,144	210,000	210,000

(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	1956	1957	1958	1959	1960	1961
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
Poland—						
Magnesite, crude ..	16,672	16,830	13,779	16,239	21,357	(d) 27,000
Portugal—						
Dolomite .. ..	2,165	1,673	2,087	2,400	2,600	2,707
Spain—						
Magnesite .. ..	24,010	36,120	34,323	39,793	47,535	(d) 49,000
Sweden—						
Dolomite, crude ..	89,132	53,600	43,557	50,440	61,400	49,100
Yugoslavia—						
Magnesite, crude ..	191,304	208,914	219,672	240,939	247,869	268,752
South Africa—						
Magnesite, crude ..	29,897	31,620	71,607	52,574	59,637	60,475
United States—						
Magnesite—						
Crude .. ..	613,008	605,794	440,162	530,631	445,114	538,979
Caustic (b) (e) ..	31,704	54,299	39,840	48,297	58,978	71,493
Dead-burned (b) (e)	384,481	417,610	370,423	462,447	451,706	534,794
Dolomite, crude (c) ..	4,943,000	4,758,000	n.a.	n.a.	n.a.	n.a.
Argentina—						
Dolomite .. ..	27,000	14,684	21,583	n.a.	n.a.	n.a.
Brazil—						
Magnesite .. ..	n.a.	n.a.	47,425	47,659	62,315	(d) 59,000
Dolomite .. ..	119,474	120,855	127,382	152,905	211,251	n.a.
Colombia—						
Dolomite .. ..	n.a.	n.a.	n.a.	n.a.	2,000	2,000
Peru—						
Dolomite .. ..	n.a.	34	747	n.a.	n.a.	n.a.
Uruguay—						
Dolomitic limestone ..	15,372	10,586	671	927	975	11,145
Formosa—						
Dolomite .. ..	4,472	6,593	10,747	14,250	14,771	21,832
Iran (a)—						
Magnesite .. ..	n.a.	n.a.	1,959	2,864	2,900	n.a.
Japan—						
Dolomite .. ..	1,041,210	1,166,470	1,380,859	1,309,430	1,675,402	1,844,771
Philippine Republic—						
Dolomite .. ..	—	—	—	—	12	7,137
Turkey—						
Magnesite .. ..	837	1,284	640	—	15	2,155

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) Including dolomitic lime calculated as raw stone.

(d) United States Bureau of Mines' estimate.

(e) Sold or used by producers.

PRODUCTION OF MAGNESIUM

Long tons

Producing Country	1956	1957	1958	1959	1960	1961
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom (a) ..	3,627	3,411	2,399	2,033	3,687	5,000
Canada .. .. .	8,577	7,487	6,068	5,448	6,508	6,911
<b>OTHER COUNTRIES</b>						
France .. .. .	1,498	1,565	1,694	1,730	2,109	2,042
Germany (Federal) (a) .. r	98	295	590	490	(b) 295	(b) 295
Italy .. .. .	3,675	3,723	4,113	4,435	5,273	5,507
Norway .. .. .	7,308	8,486	9,047	r 9,435	10,154	14,302
Poland .. .. .	141	134	(b) 147	(b) 147	n.a.	n.a.
U.S.S.R. (c) .. .. .	15,900	16,800	17,300	20,000	25,000	31,000
United States .. .. .	61,023	72,556	26,871	27,708	35,777	36,379
Japan .. .. .	77	421	987	1,539	2,110	2,212
<b>WORLD'S TOTAL* ..</b>	<b>102,000</b>	<b>115,000</b>	<b>69,000</b>	<b>73,000</b>	<b>91,000</b>	<b>104,000</b>

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

(a) Including re-melt alloys.

(c) "Metallgesellschaft" estimate.

(b) United States Bureau of Mines' estimate.

## EXPORTS OF MAGNESITE, ETC.\*

Long tons

Exporting Country and Description	1956	1957	1958	1959	1960	1961
<b>COMMONWEALTH COUNTRIES</b>						
<b>United Kingdom—</b>						
Magnesium and alloys ..	1,405	4,284	3,464	2,649	2,152	1,807
Magnesium compounds	13,796	17,603	15,952	36,476	16,864	20,801
<b>Rhodesia and Nyasaland—</b>						
Crude and calcined ..	7,212	2,255	—	—	6,195	12,057
<b>Tanganyika—</b>						
Crude .. .. .	243	254	301	105	112	42
<b>Canada—</b>						
Magnesium .. .. .	(£1,874,003)	(£1,692,377)	(£1,052,011)	(£1,442,226)	(£1,118,531)	5,384
Basic refractory materials .. .. .	13,238	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
<b>India—</b>						
Crude and calcined ..	34,546	21,443	19,585	27,548	(c) 29,071	(c) 30,956
Chloride .. .. .	164	16	173	49	(c) 8	(c) 41
<b>Australia (b)—</b>						
Crude and calcined ..	110	73	60	32	53	240
Sulphate .. .. .	7	10	8	7	—	—
<b>OTHER COUNTRIES</b>						
<b>Austria—</b>						
Crude .. .. .	368	549	569	599	728	593
Caustic .. .. .	79,221	82,196	80,420	87,043	95,230	95,494
Dead-burned .. .. .	148,471	150,413	130,754	169,487	212,142	234,126
Bricks .. .. .	179,013	201,299	184,846	r 151,000	218,000	251,815
Dolomite .. .. .	24,386	19,252	23,820	5,500	12,969	15,654
<b>Belgium-Luxemburg</b>						
<b>E.U.—</b>						
Crude .. .. .	1,079	659	5,188	5,029	394	10
Calcined .. .. .	5	141	144	86	55	83
Carbonate .. .. .	2	1	2	12	4	—
Chloride .. .. .	35	4	16	2	1	3
Sulphate .. .. .	59	156	14	66	74	48
Dolomite, crude	15,783	62,493	90,651	164,206	184,212	163,686
do. ground .. .. .	1,434	10,126	12,371	30,824	(d)	(d)
do. calcined .. .. .	152,698	143,990	138,548	132,482	150,174	164,296
Czechoslovakia—	35,000	75,000	85,000	103,000	122,000	114,000
<b>France—</b>						
Crude and calcined ..	109	259	468	84	108	778
Magnesium metal (a)	60	44	61	51	59	93
Carbonate .. .. .	258	493	401	581	636	714
Chloride .. .. .	1,202	875	1,070	392	1,937	1,440
Oxide and hydroxide ..	246	240	276	567	819	934
Sulphate .. .. .	267	308	194	111	74	102
Dolomite, crude	19,442	11,697	6,009	8,742	12,326	15,347
do. calcined .. .. .	3,352	3,606	4,348	3,395	4,387	4,685
<b>Germany (Federal)—</b>						
Crude and calcined ..	3,426	4,595	2,490	3,685	2,143	4,135
Carbonate .. .. .	449	509	411	444	629	338
Chloride .. .. .	15,596	15,255	13,298	15,342	17,838	19,233
Oxide and hydroxide ..	370	332	457	694	874	938
Sulphate .. .. .	43,884	44,373	44,375	48,461	47,686	50,596
Dolomite .. .. .	103,640	119,079	118,225	89,385	67,118	69,658
Kieserite .. .. .	58,788	64,025	63,226	78,396	89,552	126,538
<b>Germany (East)—</b>						
Sulphate .. .. .	19,275	21,574	19,874	19,408	20,083	21,110
<b>Greece—</b>						
Crude .. .. .	19,880	16,450	22,390	16,044	18,336	18,166
Calcined .. .. .	36,040	29,810	32,970	51,458	64,275	75,464

\* Magnesite unless otherwise stated.

(a) Including alloys and scrap.

(c) Years ended March 31 following that stated.

(b) Years ended June 30 of that stated.

(d) Included with crude and calcined.

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

Long tons

Exporting Country and Description	1956	1957	1958	1959	1960	1961
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
Italy—						
Crude .. .. .	46	28	9	7	90	103
Caustic .. .. .	41	13	8	22	133	74
Magnesium metal including alloyed .. .. .	3,033	2,924	3,259	4,379	4,300	4,369
Carbonate .. .. .	43	53	68	136	155	106
Chloride .. .. .	13	58	3	6	22	22
Oxide .. .. .	210	185	154	161	294	317
Dolomite, crude .. .. .	249	834	948	1,799	2,109	} 9,897
do. calcined .. .. .	3,096	3,296	3,998	2,749	5,849	
Netherlands—						
Crude .. .. .	291	357	532	369	628	722
Calcined .. .. .	15,263	13,879	11,574	13,710	16,819	23,942
Sulphate .. .. .	1,018	978	1,082	964	836	889
Norway—						
Crude .. .. .	30	—	—	—	—	100
Magnesium metal .. .. .	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	10,987	12,768	12,157
Oxide .. .. .	230	184	79	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Dolomite, crude .. .. .	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	37,876	43,053	45,782
Spain—						
Crude and calcined .. .. .	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	14,715
Dolomite, crude .. .. .	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	7,304
Sweden—						
Crude and calcined .. .. .	148	224	586	—	10	291
U.S.S.R.—						
Magnesium metal .. .. .	2,800	2,400	1,600	1,000	1,300	1,800
Yugoslavia—						
Crude .. .. .	—	46	—	—	426	2,628
Ground and dead-burned .. .. .	55,154	57,118	51,213	57,046	62,262	55,718
Bricks .. .. .	1,886	4,695	6,409	7,922	10,114	10,347
South Africa—						
Crude and calcined .. .. .	—	55	18	—	75	—
Mexico—						
Crude .. .. .	44	—	—	—	346	856
United States—						
Dead-burned .. .. .	7,735	24,250	47,447	77,008	82,310	109,501
Magnesium metal (a) .. .. .	3,025	1,088	184	1,429	3,988	5,500
Brazil .. .. .	1,949	1,968	1,240	207	645	3,701
Peru—						
Sulphate .. .. .	682	300	—	—	—	—
Japan—						
Dolomite .. .. .	889	1,663	2,301	2,223	1,056	2,037
Magnesium metal .. .. .	—	155	767	91	1	—
Carbonate .. .. .	605	500	621	955	1,288	2,109
Chloride and sulphate .. .. .	461	3,128	3,046	889	316	346

(a) Including alloys and scrap.

## IMPORTS OF MAGNESITE, ETC.\*

Long tons

Importing Country and Description	1956	1957	1958	1959	1960	1961
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom—						
Crude and calcined ..	58,041	68,900	29,145	19,128	94,646	151,454
Magnesium .. ..	3,167	3,322	2,044	3,491	4,391	5,480
Chloride .. ..	11,102	8,847	8,518	6,097	7,636	5,012
Canada—						
Magnesium alloys ..	(£133,395)	(£103,262)	(£93,688)	(£101,495)	(£123,731)	(£150,252)
Calcined and dead-burned .. ..	21,482	10,456	13,703	17,958	24,133	22,125
Carbonate and oxide ..	5,693	2,190	1,536	2,145	1,223	1,069
Sulphate .. ..	2,334	2,284	2,190	2,430	2,173	2,314
Bricks .. ..	(£247,401)	(£160,794)	(£120,083)	(£162,590)	(£252,179)	(£173,117)
Other salts .. ..	6,478	3,881	4,448	1,996	1,162	1,674
Hong Kong—						
Crude .. ..	—	—	—	256	158	73
India—						
Crude .. ..	n.a.	1,179	61	120	(c) 4	(c) —
Calcined .. ..	n.a.	202	855	—	(c) —	(c) —
Magnesium metal ..	n.a.	40	79	43	(c) 76	(c) 85
Carbonate .. ..	(b)	1,193	873	1,119	(c) 1,206	(c) 782
Chloride .. ..	3	1	1	1	(c) 2	(c) 21
Sulphate .. ..	1	1	—	—	(c) —	(c) —
Oxides .. ..	(b)	52	33	72	(c) 50	(c) 87
Other salts .. ..	1,500	320	18	46	(c) 37	(c) 22
Pakistan—						
Chloride .. ..	127	74	90	3	47	131
Sulphate .. ..	1,047	234	113	215	428	129
Other salts .. ..	113	291	397	355	179	n.a.
Australia (a)—						
Crude and calcined ..	5,128	2,535	2,576	7,288	8,743	12,815
Magnesium metal and powder .. ..	20	25	92	97	90	148
Oxide .. ..	128	116	154	158	304	222
Carbonate .. ..	233	138	148	159	143	164
Chloride .. ..	515	496	329	332	—	—
Sulphate .. ..	735	358	384	202	248	—
New Zealand—						
Crude .. ..	48	48	51	88	26	46
Sulphate .. ..	621	894	823	660	848	974
Other salts .. ..	241	270	279	249	309	353
Irish Republic—						
Magnesium salts ..	401	383	366	449	344	349
<b>OTHER COUNTRIES</b>						
Austria—						
Crude .. ..	11,639	5,923	6,061	28	11	2,148
Magnesium metal ..	n.a.	n.a.	n.a.	270	372	333
Chloride .. ..	2,826	2,830	2,427	2,023	2,052	1,840
Dolomite .. ..	1,596	1,776	1,433	2,012	2,250	2,246
Kieserite .. ..	7,239	8,691	8,563	n.a.	n.a.	n.a.
Belgium-Luxemburg						
E.U.—						
Crude .. ..	1,087	981	1,082	2,611	873	197
Calcined .. ..	2,978	2,297	2,189	4,534	3,057	4,299
Bricks .. ..	18,718	14,214	13,848	13,565	17,235	n.a.
Magnesium metal ..	296	329	510	321	428	370
Carbonate .. ..	526	508	276	330	225	243
Chloride .. ..	770	917	773	1,389	1,761	382

\* Magnesite unless otherwise stated.  
 (a) Years ended June 30 of that stated.  
 (b) Included, if any, with "other salts".

(c) Years ended March 31 following that stated.

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

Long tons

Importing Country and Description	1956	1957	1958	1959	1960	1961
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
Belgium-Luxemburg						
E.U. (cont.)—						
Oxide and hydroxide ..	402	331	285	390	519	407
Sulphate .. ..	2,425	2,434	2,483	2,511	3,640	1,727
Dolomite, crude ..	8,735	5,274	1,832	1,936	5,524	7,028
do. ground ..	54	30	315	143	(b)	(b)
do. calcined ..	6,146	6,922	5,261	4,437	6,541	5,863
Denmark—						
Crude .. ..	1,499	1,569	1,566	2,071	2,513	2,419
Chloride .. ..	647	439	538	567	537	831
Oxide .. ..	141	104	120	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Sulphate .. ..	1,213	1,338	1,520	1,149	1,409	1,474
Dolomite .. ..	10,896	11,204	11,935	12,474	12,520	11,231
Finland—						
Crude and calcined ..	1,243	899	413	753	906	1,140
Bricks .. ..	2,291	2,607	2,698	1,999	2,920	2,896
Oxide .. ..	40	20	58	156	<i>n.a.</i>	<i>n.a.</i>
Carbonate .. ..	128	105	64	139	87	105
Chloride .. ..	721	963	273	370	222	411
Sulphate .. ..	110	1,883	109	152	215	239
France—						
Crude .. ..	3,571	2,918	5,604	3,212	4,553	3,660
Calcined .. ..	17,799	17,611	24,279	17,944	20,131	23,232
Bricks .. ..	49,177	44,829	47,201	25,953	29,686	<i>n.a.</i>
Magnesium metal (a) ..	349	1,212	746	134	467	456
Carbonate .. ..	171	166	146	230	263	270
Chloride .. ..	299	256	174	207	42	40
Oxide and hydroxide ..	122	113	114	261	374	422
Sulphate .. ..	1,635	1,586	2,326	2,649	2,371	2,103
Dolomite, crude ..	15,037	17,423	28,511	16,819	18,157	29,999
do. calcined ..	182,662	176,013	176,282	139,570	144,775	135,460
Germany (Federal)—						
Crude .. ..	1,668	1,283	2,851	1,634	1,812	1,942
Caustic .. ..	108,555	97,965	88,156	100,145	108,902	108,487
Dead-burned .. ..	61,058	72,593	69,270	55,103	82,277	97,318
Magnesium metal (a) ..	14,004	11,936	13,744	17,763	26,301	25,980
Carbonate .. ..	171	171	191	295	429	291
Chloride .. ..	8	8	4	12	4	—
Oxide and hydroxide ..	131	195	318	507	1,043	2,061
Dolomite .. ..	25,494	23,024	23,607	18,108	23,298	103,213
Hungary—						
Dead-burned .. ..	37,462	35,309	45,629	42,907	49,468	58,605
Italy—						
Crude .. ..	4,602	4,470	4,275	3,136	8,069	11,328
Caustic .. ..	18,504	13,315	13,976	16,219	27,160	41,434
Chloride .. ..	3,033	2,704	3,385	3,001	3,352	3,399
Oxide .. ..	22	38	49	154	173	205
Sulphate .. ..	4,616	4,499	2,514	2,135	1,330	1,268
Netherlands—						
Crude .. ..	1,201	543	1,114	1,144	2,268	2,242
Calcined .. ..	18,082	15,525	13,382	15,357	22,629	31,488
Bricks .. ..	13,177	14,426	15,804	10,884	12,568	<i>n.a.</i>
Magnesium metal ..	125	134	176	175	189	154
Carbonate .. ..	391	506	474	508	533	441
Oxide and hydroxide ..	145	92	108	246	287	343
Sulphate .. ..	4,708	5,173	5,426	5,340	5,365	6,232
Chloride .. ..	2,717	2,046	1,785	1,882	2,092	2,264
Dolomite, crude ..	17,830	83,590	107,285	180,379	190,471	157,367
do. calcined ..	31,468	40,440	38,677	42,407	43,099	47,007
do. ground ..	5,024	2,256	1,330	68	(b)	(b)
Kieserite .. ..	12,082	11,240	14,225	17,654	<i>n.a.</i>	<i>n.a.</i>

(a) Including alloys and scrap.

(b) Included with crude and calcined.

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

Long tons

Importing Country and Description	1956	1957	1958	1959	1960	1961
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
Norway—						
Crude and calcined ..	545	367	368	383	2,948	4,864
Chloride .. ..	710	349	377	291	305	473
Sulphate .. ..	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	773	2,974	5,754
Dolomite .. ..	1,192	1,929	826	3,089	3,043	3,414
Portugal—						
Crude and calcined ..	336	378	613	565	200	673
Carbonate .. ..	111	96	85	118	105	111
Chloride .. ..	76	84	148	116	<i>n.a.</i>	<i>n.a.</i>
Oxide .. ..	8	509	519	512	508	271
Sulphate .. ..	1,208	1,575	1,149	1,344	1,581	1,141
Sweden—						
Crude and calcined ..	1,650	1,473	1,504	1,385	2,397	5,208
Bricks .. ..	13,191	13,784	13,590	14,777	21,777	24,350
Magnesium metal ..	260	283	320	445	404	411
Carbonate .. ..	140	172	218	244	332	206
Chloride .. ..	1,222	924	1,137	1,647	1,609	1,243
Sulphate .. ..	1,175	1,284	1,191	1,515	1,924	2,443
Dolomite .. ..	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	9,683	11,600	22,303
Switzerland—						
Calcined .. ..	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	2,699	3,467
Carbonate .. ..					186	205
Chloride .. ..					4,448	4,991
Sulphate .. ..					1,291	1,327
Dolomite, calcined ..					7,198	7,854
U.S.S.R.—						
Crude .. ..	39,600	29,600	—	—	—	—
Yugoslavia—						
Bricks .. ..	158	65	49	66	134	5
Magnesium metal ..	120	141	231	179	292	574
Algeria—						
Calcined .. ..	8	—	5	5	8	<i>n.a.</i>
Dolomite .. ..	2,397	2,187	2,468	2,126	2,489	<i>n.a.</i>
Congo Republic—						
Oxide .. ..	658	615	901	1,037	<i>n.a.</i>	<i>n.a.</i>
Sulphate .. ..	553	438	530	262	<i>n.a.</i>	<i>n.a.</i>
Chloride .. ..	3	10	19	30	<i>n.a.</i>	<i>n.a.</i>
Egypt—						
Magnesite and dolomite	3,218	4,304	3,587	1,454	6,309	<i>n.a.</i>
Sulphate .. ..	590	517	727	785	494	<i>n.a.</i>
Morocco—						
Chloride .. ..	150	202	152	4	46	3
Sulphate .. ..	26	178	26	35	92	147
South Africa—						
Carbonate .. ..	6,939	3,495	166	164	6,949	<i>n.a.</i>
Chloride .. ..	104	217	196	241	179	<i>n.a.</i>
Sulphate .. ..	1,313	1,489	2,057	1,608	1,677	<i>n.a.</i>
Cuba—						
Oxide .. ..	59	155	25	28	<i>n.a.</i>	<i>n.a.</i>
Carbonate .. ..	200	35	203	43	<i>n.a.</i>	<i>n.a.</i>
Sulphate .. ..	592	630	723	512	<i>n.a.</i>	<i>n.a.</i>
Mexico—						
Crude .. ..	611	381	284	3,548	4,120	3,418
Magnesium metal ..	354	468	319	346	350	322
Oxide .. ..	327	678	421	704	605	1,535
Sulphate .. ..	64	91	131	197	173	286
United States—						
Calcined .. ..	6,911	5,030	2,139	4,730	3,689	3,977
Dead-burned .. ..	84,718	66,968	70,783	134,199	102,346	46,437
Bricks .. ..	10,803	9,851	10,185	14,987	13,920	11,878
Magnesium metal, etc.	562	877	480	529	358	897
Oxide .. ..	176	368	317	244	238	221

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

Long tons

Importing Country and Description	1956	1957	1958	1959	1960	1961
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
<b>United States (cont.)—</b>						
Carbonate, precipitated	235	274	291	314	309	305
Chloride .. ..	312	385	612	848	1,048	903
Sulphate .. ..	9,917	9,437	6,846	11,027	9,037	8,956
do. calcined ..	27,534	29,731	29,728	28,500	24,255	44,803
Kieserite .. ..	6,097	4,020	5,049	5,917	12,561	6,890
<b>Argentina—</b>						
Crude .. ..	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	316	1,124	2,549
Carbonate .. ..	341	436	214	852	346	370
Chloride .. ..	63	174	—	—	183	100
Oxide .. ..	24	3	—	2	12	9
<b>Brazil—</b>						
Crude .. ..	3	—	38	—	—	—
Carbonate .. ..	310	430	194	379	515	205
Chloride .. ..	78	56	8	107	43	61
Oxide .. ..	68	98	45	69	77	92
Sulphate .. ..	845	1,022	327	469	443	1,015
<b>Chile—</b>						
Crude .. ..	29	49	60	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Calcined .. ..	827	2,465	847	1,952	2,628	<i>n.a.</i>
Sulphate .. ..	2,447	121	1	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Dolomite, crude ..	1,483	18,208	5,634	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
do. calcined ..	—	—	10,476	1,508	5,333	<i>n.a.</i>
<b>Colombia—</b>						
Crude and calcined ..	4,149	2,112	4,241	386	25	48
Carbonate .. ..	11	8	246	15	14	114
Chloride .. ..	11	23	14	109	13	17
Oxide .. ..	85	110	86	44	45	118
Sulphate .. ..	452	617	408	446	297	513
Dolomite .. ..	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	1,947	4,527	4,607
<b>Peru—</b>						
Crude and calcined ..	26	9	14	1,019	21	906
Carbonate .. ..	12	31	28	31	28	34
Oxide .. ..	5	3	3	4	4	3
Hydroxide .. ..	50	53	55	35	45	49
Sulphate .. ..	66	35	35	153	121	153
Chloride .. ..	3	3	2	8	4	4
<b>Venezuela—</b>						
Crude .. ..	149	776	1,951	159	239	378
Sulphate .. ..	103	154	170	263	255	358
<b>Japan—</b>						
Crude and calcined ..	94,876	121,766	66,894	112,754	99,297	93,715
Magnesium metal ..	4,526	3,281	16	—	—	6
<b>Korea (South)—</b>						
Crude .. ..	<i>n.a.</i>	<i>n.a.</i>	778	450	553	499
<b>Philippine Republic—</b>						
Carbonate .. ..	39	161	64	255	170	<i>n.a.</i>
Sulphate .. ..	210	208	250	239	188	<i>n.a.</i>
<b>Syria—</b>						
Ground and calcined ..	15	16	25	54	<i>n.a.</i>	<i>n.a.</i>
Sulphate .. ..	142	42	183	56	<i>n.a.</i>	<i>n.a.</i>
<b>Thailand—</b>						
Chloride .. ..	40	66	25	55	54	59
Sulphate .. ..	<i>n.a.</i>	337	215	344	95	344
<b>Turkey—</b>						
Carbonate .. ..	16	29	24	137	17	35
Chloride .. ..	—	4	—	155	56	94
Oxide .. ..	4	12	4	41	59	57
Sulphate .. ..	187	43	14	215	292	141



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

Long tons

Producing Country	Estimated Manganese Content						1961
	1956	1957	1958	1959	1960	1961	
<b>COMMONWEALTH COUNTRIES</b>							
Bechuanaland ..	—	212	12,690	17,980	22,350	28,337	n.a.
Ghana (a) ..	635,851	641,343	513,099	526,653	546,715	385,073	185,000
Northern Rhodesia ..	36,393	35,449	44,092	r 53,837	52,605	52,595	24,100
Southern Rhodesia ..	729	1,594	2,243	1,898	1,496	183	n.a.
British Guiana ..	—	—	—	—	110,546	193,038	83,000
India ..	1,736,609	1,654,187	r1,255,941	1,168,679	1,180,000	1,211,000	593,000
Malaya ..	—	—	—	—	2,877	6,366	n.a.
Pakistan ..	—	—	—	—	177	338	100
Australia ..	59,384	77,010	59,683	r 89,971	60,646	85,527	39,800
New Zealand ..	156	36	103	101	120	—	—
Papua ..	13	—	—	—	48	2	n.a.
Fiji ..	22,381	34,694	18,295	13,005	11,672	3,455	1,600
New Hebrides (c) ..	—	—	—	—	—	6,814	3,100
<b>TOTAL</b> ..	r2,492,000	r2,444,000	r1,906,000	r1,872,000	1,989,000	1,972,000	—
<b>OTHER COUNTRIES</b>							
Austria ..	—	200	300	424	—	—	—
Bulgaria ..	75,587	80,000	27,952	25,589	27,600	(b) 27,600	n.a.
Czechoslovakia ..	198,000	161,000	162,000	154,000	152,000	99,000	15,000
France ..	1,230	1,862	2,133	1,853	1,068	892	200
Greece ..	7,763	15,666	20,000	r 35,000	30,723	n.a.	n.a.
Hungary ..	(b) 84,000	157,900	178,900	151,900	121,300	b 118,000	n.a.
Italy ..	46,158	46,407	43,382	51,357	48,715	46,699	12,600
Portugal ..	3,132	5,389	4,896	6,878	7,319	11,154	n.a.
Roumania ..	231,298	261,074	197,102	194,000	172,000	203,000	12,000
Spain ..	32,232	40,734	35,953	40,110	21,952	13,754	7,500
Sweden ..	28,788	12,960	5,475	10,303	8,600	16,400	5,100
U.S.S.R. ..	4,860,000	5,067,000	5,281,000	5,429,000	5,785,000	5,878,000	2,650,000
Yugoslavia ..	11,390	10,072	9,877	7,956	13,104	13,925	n.a.
Angola ..	52,130	49,289	48,088	38,207	26,157	21,879	9,000

(a) Exports.

(b) United States Bureau of Mines' estimate.

(c) Concentrates.

PRODUCTION OF MANGANESE ORE (cont.)

Long tons

Producing Country	Estimated Manganese Content					
	1956	1957	1958	1959	1960	1961
OTHER COUNTRIES—(cont.)						
Congo Republic ..	324,330	361,225	332,804	380,085	367,995	292,000
Egypt ..	197,562	84,171	109,852	125,062	271,648	274,049
Ethiopia ..	—	—	—	f 1,300	9,109	6,889
Ivory Coast ..	—	—	—	—	60,600	122,700
Morocco ..	421,276	484,379	403,608	463,135	475,454	562,064
South Africa ..	686,071	703,467	834,021	954,645	1,175,118	1,395,294
South West Africa ..	51,127	80,054	92,009	44,145	60,214	44,906
Sudan ..	(a) 5,959	6,709	1,174	3,169	—	—
Cuba (b) ..	251,300	271,000	70,844	15,397	n.a.	n.a.
Mexico ..	f 153,000	f 200,000	f 167,300	f 162,400	f 153,000	f 139,200
Panama Republic ..	—	1,923	4,008	—	—	—
United States (c) ..	433,577	550,389	370,589	350,963	152,803	146,191
Brazil ..	r 7,951	r 9,959	r 14,671	r 19,070	21,652	f 20,000
Argentina ..	r 305,934	903,518	868,227	r 1,016,652	983,383	f 980,000
Chile ..	47,250	53,325	37,554	38,164	45,173	34,446
Peru ..	(d) 6,500	15,105	2,895	1,127	1,701	1,652
Venezuela ..	9,212	29,410	8,071	3,531	—	—
Burma (b) ..	1,150	452	1,255	541	289	175
China (f) ..	520,000	690,000	830,000	980,000	1,020,000	980,000
Indonesia ..	106,123	52,981	43,161	42,118	10,739	—
Iran (e) ..	(a) 6,392	(a) 13,417	7,091	2,600	7,600	f 5,000
Japan ..	280,514	284,373	291,312	342,588	318,867	299,318
Korea (South) ..	1,927	3,154	—	443	1,361	1,355
Philippine Republic ..	4,344	29,754	21,956	34,254	17,106	18,737
Portuguese India ..	230,273	192,710	101,615	108,072	105,294	f 98,000
Thailand ..	401	340	984	404	524	210
Turkey ..	59,792	55,822	22,250	35,126	27,778	30,000
TOTAL ..	r 9,700,000	r 11,000,000	r 10,700,000	r 11,300,000	11,700,000	11,900,000
WORLD'S TOTAL ..	12,200,000	13,400,000	r 12,600,000	13,200,000	13,700,000	13,900,000

(a) Exports.

(b) Concentrates.

(c) Shipments.

(d) Estimated.

(e) Years ended March 20 following that stated.

(f) United States Bureau of Mines' estimate.

## EXPORTS OF MANGANESE ORE, ETC.

Long tons

Exporting Country and Description	1956	1957	1958	1959	1960	1961
COMMONWEALTH COUNTRIES						
United Kingdom—						
Metal .. .. .	447	166	83	98	190	175
Ferro-manganese and spiegeleisen .. ..	966	655	611	596	1,621	662
Ghana—						
Ore .. .. .	635,851	641,343	513,099	526,653	546,715	385,073
Rhodesia and Nyasaland—						
Ore .. .. .	20,975	28,184	32,349	47,589	40,525	41,577
Canada—						
Spiegeleisen .. ..	210	637	—	—	—	—
Ferro-manganese .. ..	53,076	41,726	201	172	651	212
Hong Kong—						
Ore .. .. .	—	228	324	483	183	27
Manganese dioxide .. ..	217	481	1,652	3,316	135	80
India—						
Ore .. .. .	1,456,702	1,633,679	924,497	913,741	(b) 1,025,088	(b) 789,148
Ferruginous manganese ore .. .. .	52,458	81,333	35,690	56,388	(b) 123,449	(b) 160,168
Ferro-manganese .. ..	n.a.	3,001	10,553	8,114	(b) 47,073	(b) 55,406
Malaya—						
Ore .. .. .	20	10	—	—	2,953	—
Australia (a)—						
Ore .. .. .	4	5,620	32,236	17,432	52,598	46,976
Fiji—						
Ore .. .. .	19,318	27,415	22,498	20,630	1,788	2,265
Papua (a)—						
Ore .. .. .	28	18	—	—	—	1,830
OTHER COUNTRIES						
Belgium-Luxemburg						
E.U.—						
Ferro-manganese .. ..	4,477	14,088	13,150	13,698	16,017	16,644
Spiegeleisen .. .. .	3,769	4,299	3,533	4,231	3,290	4,253
France—						
Ore (c) .. .. .	2,591	1,420	1,145	899	4,815	756
Metal .. .. .	143	118	205	42	108	29
Ferro-manganese .. ..	116,822	122,795	83,036	98,939	132,693	156,294
Spiegeleisen .. .. .	4,724	425	410	8,041	12,036	14,142
Germany (Federal)—						
Ore .. .. .	853	2,417	4,499	5,078	5,014	6,477
Metal .. .. .	16	36	33	75	495	789
Greece—						
Ore .. .. .	12,667	17,169	22,315	29,302	30,395	27,189
Italy—						
Ore (c) .. .. .	1	1	1	28	262	547
Ferro-manganese .. ..	736	211	322	4,005	3,123	2,352
Netherlands—						
Ore (c) .. .. .	1,913	2,872	7,357	8,240	5,190	5,562
Norway—						
Ferro-manganese .. ..	74,264	77,719	41,844	61,938	50,497	46,450
Ferro-silico-manganese	45,811	45,126	44,859	67,411	80,466	85,802
Portugal—						
Ore .. .. .	3,819	4,973	2,184	5,047	4,321	1,976
Roumania—						
Ore .. .. .	n.a.	n.a.	73,600	76,900	65,500	73,600
Sweden—						
Ore .. .. .	2,604	518	595	1,086	717	743
Metal .. .. .	n.a.	n.a.	n.a.	47	92	29
Ferro-manganese .. ..	740	1,229	1,382	2,693	1,650	2,540
Ferro-silico-manganese	1	—	—	226	25	15

(a) Years ended June 30 of that stated.

(c) Including manganiferous iron ore.

(b) Years ended March 31 following that stated.

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

Long tons

Exporting Country and Description	1956	1957	1958	1959	1960	1961
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
U.S.S.R.—						
Ore .. .. .	903,000	793,200	819,800	963,500	957,600	881,800
do. (dioxide) .. .. .	13,800	12,700	7,300	8,500	8,900	9,100
Ferro-manganese .. .. .	30,900	41,000	45,000	49,700	50,000	50,800
Yugoslavia—						
Ferro-manganese .. .. .	2,877	3,845	7,842	6,538	10,925	7,037
Silico-manganese .. .. .	493	787	197	886	1,162	2,504
Angola—						
Ore .. .. .	35,270	23,155	8,913	38,752	33,546	12,795
Congo Republic—						
Ore .. .. .	328,911	324,262	313,711	297,837	(b) 300,000	(b) 300,000
Egypt—						
Ore .. .. .	262,766	20,300	19,689	158,993	205,846	(b) 270,000
Ivory Coast—						
Ore .. .. .	—	—	—	—	22,365	107,687
Morocco—						
Ore .. .. .	332,003	426,916	316,215	379,564	381,146	443,046
South Africa—						
Ore .. .. .	457,916	497,221	442,387	472,987	867,355	838,834
Sudan—						
Ore .. .. .	5,959	6,136	1,273	—	394	—
Cuba—						
Ore .. .. .	240,010	143,721	67,624	54,735	8,500	n.a.
Mexico—						
Ore .. .. .	155,044	213,974	225,000	158,102	162,816	174,359
<i>Mn content</i> .. .. .	60,950	78,409	77,120	75,720	70,686	58,872
Panama Republic—						
Ore .. .. .	—	1,923	4,008	—	—	—
United States—						
Ore .. .. .	5,476	4,705	4,359	5,091	4,588	6,722
Metal .. .. .	644	656	551	1,133	2,182	1,997
Ferro-manganese .. .. .	2,007	6,603	1,255	845	670	419
Brazil—						
Ore .. .. .	256,233	785,462	653,207	899,776	852,636	747,722
Ferro-manganese .. .. .	984	1,673	—	—	—	49
Chile—						
Ore .. .. .	17,037	34,151	19,648	23,858	20,735	9,804
Ferro-manganese .. .. .	2,996	5,712	5,822	2,735	2,971	3,682
Silico-manganese .. .. .	2,728	1,563	869	3,129	869	630
Manganese dioxide .. .. .	884	—	—	n.a.	n.a.	n.a.
Peru—						
Ore .. .. .	8,706	9,628	4,448	1,022	—	913
Venezuela—						
Ore .. .. .	n.a.	22,040	n.a.	n.a.	1	—
Burma—						
Ore .. .. .	757	343	426	—	—	—
Indonesia—						
Ore .. .. .	81,785	50,419	43,660	31,832	24,400	4,200
Iran (a)—						
Ore .. .. .	6,392	13,417	4,232	5,062	5,708	1,250
Japan—						
Ore .. .. .	242	146	—	398	842	960
Ferro-manganese .. .. .	53,131	35,490	47,900	33,269	38,914	14,249
Ferro-silico-manganese .. .. .	7,405	9,844	21,611	9,633	2,684	772
Korea (South)—						
Ore .. .. .	n.a.	n.a.	98	709	198	492
Philippine Republic—						
Ore .. .. .	14,451	33,501	30,532	26,042	17,405	24,720
Portuguese India—						
Ore .. .. .	162,347	188,155	124,222	152,270	155,313	n.a.
Thailand—						
Ore .. .. .	n.a.	399	378	98	58	108

(a) Years ended March 20 following that stated.

(b) Estimated.

EXPORTS OF MANGANESE ORE, ETC. (cont.)

Long tons

Exporting Country and Description	1956	1957	1958	1959	1960	1961
OTHER COUNTRIES (cont.)						
Turkey—						
Ore .. .. .	55,267	24,561	23,922	22,847	28,282	19,011
New Caledonia—						
Ore .. .. .	—	810	—	—	—	—

## IMPORTS OF MANGANESE ORE, ETC.

Long tons

Importing Country and Description	1956	1957	1958	1959	1960	1961
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom—						
Ore .. .. .	441,804	476,337	347,433	342,839	528,856	470,929
Metal .. .. .	249	481	649	1,101	1,511	1,655
Ferro-manganese and spiegeleisen ..	41,674	83,254	18,087	28,807	35,375	41,830
Silico-manganese ..	13,977	13,845	16,122	22,685	29,185	26,497
Canada—						
Ore .. .. .	185,694	117,249	37,553	105,763	50,313	67,871
Ferro-manganese ..	1,956	664	2,217	2,084	13,835	10,772
Silico-manganese ..	1,009	2,015	1,950	2,669	2,112	1,940
Hong Kong—						
Ore .. .. .	135	249	93	468	53	56
Manganese dioxide ..	1,747	2,111	3,503	5,104	2,235	2,422
India—						
Ore .. .. .	<i>n.a.</i>	475	8,771	5,846	(c) 5,442	(c) 6,412
Ferro-manganese ..	291	275	200	150	(c) 155	(c) 519
Malaya—						
Ore .. .. .	1,128	2,731	2,532	2,668	6,634	3,643
Australia (b)—						
Ore .. .. .	2,060	1,046	3,028	1,189	404	1,520
Metal .. .. .	37	82	42	76	96	78
Ferro-manganese ..	10,357	2,781	4,908	3,650	18,634	36,026
<b>OTHER COUNTRIES</b>						
Austria—						
Ore .. .. .	19,609	69,431	4,661	6,115	65,414	55,408
Spiegeleisen .. ..	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	493	1,728	1,698
Ferro-manganese ..	7,219	7,518	8,268	5,818	9,473	8,679
Belgium-Luxemburg E.U.—						
Ore (a) .. .. .	121,088	134,689	153,364	146,434	219,132	268,274
Ferro-manganese ..	71,532	80,984	46,626	55,300	58,558	52,644
Ferro-silico-manganese ..	3,002	2,553	2,317	2,494	3,378	3,766
Spiegeleisen .. ..	19,451	16,642	20,666	7,118	7,099	16,143
Czechoslovakia—						
Ore .. .. .	<i>n.a.</i>	<i>n.a.</i>	122,000	138,000	179,000	215,000
Denmark—						
Ore .. .. .	7,796	6,068	4,287	3,032	7,134	1,712
Ferro-manganese, etc.	2,412	2,460	2,219	2,275	2,638	2,428
Finland—						
Ferro-manganese and spiegeleisen ..	2,556	2,925	1,363	2,176	3,338	2,194
France—						
Ore (a) .. .. .	646,484	805,409	545,171	596,088	765,232	690,313
Metal .. .. .	3	2	44	—	45	315
Ferro-manganese ..	887	40	3,405	4,665	6,333	7,276
Spiegeleisen .. ..	16,561	26,816	16,552	10,786	7,317	2,151
Germany (Federal)—						
Ore .. .. .	416,872	486,093	335,690	312,140	350,870	500,742
Metal .. .. .	498	505	1,124	1,312	1,892	1,577
Germany (East)—						
Ore (d) .. .. .	71,889	82,652	74,159	86,795	95,677	77,748
Hungary—						
Ferro-manganese ..	5,186	7,121	5,834	6,672	6,649	7,621
Italy—						
Ore (a) .. .. .	121,698	132,533	56,735	72,323	136,729	136,582
Metal .. .. .	53	55	29	82	156	172
Spiegeleisen .. ..	2,145	168	4,431	2,265	6,778	12,335
Ferro-manganese ..	8,211	9,257	18,136	20,182	27,526	30,620
Ferro-silico-manganese	1,129	2,840	2,001	1,767	1,991	2,913

(a) Including manganiferous iron ore.  
 (b) Years ended June 30 of that stated.

(c) Years ended March 31 following that stated.  
 (d) Mn. content.

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

Long tons

Importing Country and Description	1956	1957	1958	1959	1960	1961
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
Netherlands—						
Ore (a) .. ..	34,748	37,977	25,722	75,110	47,271	83,177
Ferro-manganese .. ..	7,100	10,278	9,102	8,806	12,807	14,210
Ferro-silico-manganese .. ..	513	277	229	372	452	896
Spiegeleisen .. ..	1,410	1,446	512	1,672	6,199	935
Norway—						
Ore .. ..	214,300	282,338	193,757	214,651	303,505	225,348
Poland—						
Ore .. ..	405,000	238,000	243,000	264,000	328,000	261,700
Spain—						
Ore .. ..	91	3,036	18,046	50,171	37,497	66,369
Ferro-manganese .. ..	163	342	120	629	140	1,421
Sweden—						
Ore .. ..	38,254	39,392	72,299	79,490	54,006	86,962
Metal .. ..	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	772	799	605
Ferro-manganese .. ..	6,952	7,016	3,176	5,765	6,138	10,806
Spiegeleisen .. ..	221	88	59	98	118	139
Ferro-silico-manganese .. ..	227	1,580	308	1,287	2,559	3,279
Yugoslavia—						
Ore .. ..	16,645	23,340	24,642	32,143	46,540	37,539
Ferro-manganese .. ..	143	245	300	359	575	253
Algeria—						
Ore .. ..	20	5	25	31	30	<i>n.a.</i>
Mexico—						
Ferro-manganese .. ..	159	160	1,192	730	158	106
United States—						
Ore (over 35% Mn) .. ..	1,984,339	2,267,119	1,605,913	1,676,843	2,032,772	1,921,325
<i>Mn content</i> .. ..	899,321	1,042,171	747,411	792,572	966,266	940,410
Ore (10% to 35% Mn) .. ..	142,806	5,236	4,497	7,013	2,400	5,500
<i>Mn content</i> .. ..	29,951	1,623	1,406	2,162	817	1,763
Metal .. ..	—	—	—	29	217	504
Ferro-manganese .. ..	143,038	301,856	57,082	80,412	107,341	198,133
<i>Mn content</i> .. ..	110,672	230,197	44,215	62,707	82,673	151,941
Silico-manganese .. ..	—	—	—	—	—	—
<i>Mn content</i> .. ..	5,676	4,562	7,954	11,156	8,970	12,027
Argentina—						
Ferro-manganese .. ..	1,908	—	—	—	292	415
Brazil—						
Ferro-manganese .. ..	—	73	63	819	45	171
Chile—						
Ferro-manganese .. ..	29	—	—	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Silico-manganese .. ..	6	1	5	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Japan—						
Ore .. ..	203,311	223,986	170,245	274,188	238,172	362,774

(a) Including manganese iron ore.

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

Lb. avdp.

Producing Country	1956	1957	1958	1959	1960	1961
Austria (a) .. ..	441	487	—	—	—	—
Italy .. ..	4,736,000	4,826,000	4,462,000	3,483,000	4,217,000	4,211,000
Roumania .. ..	31,860	29,930	26,830	29,440	31,370	26,590
Spain .. ..	3,668,107	4,161,075	4,209,056	3,927,689	4,056,099	c 4,000,000
Yugoslavia .. ..	1,005,000	937,000	933,000	1,010,000	1,070,000	1,210,000
Tunisia .. ..	7,716	—	2,976	15,070	12,590	4,100
Mexico .. ..	1,484,000	1,601,211	1,714,303	1,247,910	1,528,670	1,380,000
United States .. ..	1,837,452	2,631,500	2,893,092	2,375,500	2,524,900	2,406,300
Bolivia .. ..	—	—	(d) 772	(d) 881	(d) —	(d) —
Chile .. ..	43,735	51,496	254,039	152,500	218,560	(c) 220,000
Colombia .. ..	—	7,500	15,000	7,200	11,320	14,525
Peru .. ..	25,477	31,248	150,680	192,000	230,600	n.a.
China (c) .. ..	1,300,000	1,300,000	1,300,000	1,700,000	1,700,000	2,000,000
Japan .. ..	633,375	902,299	828,411	1,230,000	2,553,000	1,930,860
Philippine Republic .. ..	229,140	255,588	252,396	269,000	231,100	240,700
Turkey .. ..	42,712	54,720	112,936	42,000	101,800	141,800
<b>WORLD'S TOTAL (b) ..</b>	<b>16,700,000</b>	<b>18,700,000</b>	<b>19,100,000</b>	<b>17,600,000</b>	<b>20,400,000</b>	<b>20,000,000</b>

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

- (a) Mercury content of copper concentrates.
- (b) Estimated.
- (c) United States Bureau of Mines' estimate.
- (d) Exports.



## EXPORTS OF MERCURY, ETC.

Lb. avdp.

Exporting Country and Description	1956	1957	1958	1959	1960	1961
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom—						
Mercury .. ..	66,947	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Canada—						
Mercury .. ..	5,953	1,425	2,830	10,458	1,918	<i>n.a.</i>
Hong Kong—						
Mercury .. ..	3,573	3,256	380	4,090	2,715	9,920
Malaya—						
Mercury .. ..	130	953	383	2,543	3,104	915
<b>OTHER COUNTRIES</b>						
Belgium-Luxemburg						
E.U.—						
Mercury .. ..	1,543	1,764	15,000	23,100	17,400	18,300
Mercury salts .. ..	20,724	16,755	2,200	3,700	—	200
France—						
Mercury .. ..	3,748	6,173	9,000	10,800	22,300	24,700
Mercury salts .. ..	22,083	14,330	13,900	11,200	14,800	16,300
Germany (Federal)—						
Mercury .. ..	42,108	40,565	15,000	34,200	996,900	467,400
Italy—						
Mercury .. ..	5,700,339	2,188,088	873,875	2,670,818	4,057,532	2,483,700
Mercury salts .. ..	24,079	9,442	27,040	2,822	68,083	<i>n.a.</i>
Netherlands—						
Mercury .. ..	4,000	2,000	2,000	40,000	1,074,000	463,000
Portugal—						
Mercury .. ..	—	165	—	44	<i>n.a.</i>	<i>n.a.</i>
Spain—						
Mercury .. ..	3,095,909	3,533,824	3,855,541	3,269,470	3,998,964	3,654,583
Mercury salts .. ..	16,592	46,775	64,767	101,329	224,228	259,455
Sweden—						
Mercury .. ..	6,614	2,205	29,000	<i>n.a.</i>	<i>n.a.</i>	13,000
Switzerland—						
Mercury .. ..	721	930	1,404	1,025	1,453	1,572
U.S.S.R.—						
Mercury .. ..	708,000	642,000	789,000	783,000	1,186,000	1,378,000
Yugoslavia—						
Mercury .. ..	653,663	521,078	312,666	380,260	520,899	735,916
Mercury salts .. ..	118,005	86,507	137,628	144,334	460,001	301,509
Mexico—						
Mercury .. ..	1,753,870	1,593,327	1,988,210	1,587,465	1,720,776	1,462,837
United States—						
Mercury .. ..	82,044	145,833	24,298	48,652	27,166	21,626
Bolivia—						
Mercury .. ..	—	—	772	881	—	—
Chile—						
Mercury .. ..	27,802	29,701	293,202	202,038	207,316	<i>n.a.</i>
Colombia—						
Mercury .. ..	—	1,124	10,251	1,984	—	9,193
Peru—						
Mercury .. ..	26,929	30,003	131,146	206,236	183,854	183,125
Japan—						
Mercury .. ..	317	1,210	384	11,460	2,873	1,554
Philippine Republic—						
Mercury .. ..	224,007	224,627	306,760	348,436	235,632	128,479
Turkey—						
Mercury .. ..	23,578	61,712	129,960	52,600	143,300	162,000

## IMPORTS OF MERCURY, ETC.

Lb. avdp.

Importing Country and Description	1956	1957	1958	1959	1960	1961
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom—						
Mercury .. ..	1,180,738	216,658	1,071,272	1,578,819	1,592,576	1,418,269
Rhodesia and Nyasaland—						
Mercury .. ..	10,109	11,948	6,591	17,380	10,615	11,655
Canada—						
Mercury .. ..	449,702	396,404	193,007	141,100	243,091	312,913
Mercury salts .. ..	(£661)	(£9,039)	(£3,999)	(£2,281)	(£2,542)	(£1,326)
Hong Kong—						
Mercury .. ..	19,901	28,722	11,163	26,720	32,115	43,486
India—						
Mercury .. ..	173,080	296,727	148,073	134,752	(b) 284,354	(b) 273,373
Mercury salts .. ..	n.a.	26,190	19,588	37,334	(b) 31,603	(b) 17,633
Malaya—						
Mercury .. ..	3,268	1,951	1,874	2,945	2,873	3,112
Pakistan—						
Mercury .. ..	304	7,110	—	2,499	8,477	31,605
Australia (a)—						
Mercury .. ..	64,096	61,546	59,447	76,106	97,726	156,164
Mercury salts .. ..	367,592	250,817	184,087	356,674	707,004	549,459
New Zealand—						
Mercury .. ..	6,366	5,384	6,250	19,467	10,545	5,804
Mercury salts .. ..	6,400	6,800	3,900	3,800	3,472	6,272
<b>OTHER COUNTRIES</b>						
Austria—						
Mercury .. ..	19,842	34,613	28,700	35,100	102,100	103,600
Mercury salts .. ..	24,030	16,314	24,000	n.a.	n.a.	n.a.
Belgium-Luxemburg						
E.U.—						
Mercury .. ..	85,098	99,869	89,900	81,400	73,600	75,000
Mercury salts .. ..	11,684	16,535	15,200	15,400	14,100	13,900
Denmark—						
Mercury .. ..	93,256	22,046	242,100	655,400	234,400	207,000
Finland—						
Mercury .. ..	65,111	150,018	57,552	150,468	92,594	55,000
France—						
Mercury .. ..	862,889	769,193	697,300	673,100	946,900	1,155,900
Mercury salts .. ..	661	2,205	8,200	13,400	12,600	40,600
Germany (Federal)—						
Mercury .. ..	1,181,237	1,140,892	1,148,200	1,194,500	2,844,200	2,056,700
Greece—						
Mercury .. ..	1,980	384	1,323	2,125	1,843	n.a.
Italy—						
Mercury .. ..	351	1,096	705	167,933	16,539	2,600
Mercury salts .. ..	30,151	38,140	47,115	46,712	35,069	n.a.
Netherlands—						
Mercury .. ..	176,370	304,238	106,000	163,000	1,162,000	578,000
Mercury salts .. ..	52,911	52,911	84,000	60,000	126,000	121,000
Norway—						
Mercury .. ..	14,332	40,016	12,599	20,000	35,000	31,000
Portugal—						
Mercury .. ..	7,939	27,950	26,103	12,346	15,000	28,900
Mercury salts .. ..	5,426	4,965	2,815	4,409	n.a.	4,600
Sweden—						
Mercury .. ..	372,581	154,324	154,000	194,000	159,000	196,000
Switzerland—						
Mercury .. ..	72,792	53,517	40,827	97,616	132,052	102,001
Algeria—						
Mercury .. ..	2,425	1,543	5,100	6,800	9,000	n.a.
Mercury salts .. ..	441	441	200	200	200	n.a.

(a) Years ended June 30 of that stated.

(b) Years ended March 31 following that stated.

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

Lb. avdp.

Importing Country and Description	1956	1957	1958	1959	1960	1961
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
Angola—						
Mercury .. ..	187	141	31	172	194	298
Mercury salts .. ..	64	68	24	99	42	234
Congo Republic—						
Mercury .. ..	3,948	4,583	606	3,309	<i>n.a.</i>	<i>n.a.</i>
Mercury salts .. ..	893	44	159	152	<i>n.a.</i>	<i>n.a.</i>
Egypt—						
Mercury .. ..	3,803	4,460	38,801	11,912	9,916	<i>n.a.</i>
Morocco—						
Mercury .. ..	721	1,045	1,292	697	840	1,528
Mozambique—						
Mercury .. ..	293	179	11	168	88	<i>n.a.</i>
South Africa—						
Mercury .. ..	42,818	49,806	51,963	44,716	122,125	<i>n.a.</i>
Sudan—						
Mercury .. ..	269	384	46	317	<i>n.a.</i>	<i>n.a.</i>
Tunisia—						
Mercury .. ..	220	110	220	397	400	747
Cuba—						
Mercury .. ..	3,602	3,960	3,075	2,679	<i>n.a.</i>	<i>n.a.</i>
Guatemala—						
Mercury .. ..	611	252	430	337	—	—
United States—						
Mercury .. ..	3,596,016	3,192,364	2,294,896	2,290,715	1,481,076	935,813
Mercury salts .. ..	27,985	18,891	8,685	40,302	114,305	90,700
Argentina—						
Mercury .. ..	71,452	8,918	72,215	127,163	36,654	13,532
Mercury salts .. ..	8,386	8,521	2,824	1,625	2,930	1,453
Brazil—						
Mercury .. ..	179,099	530,238	106,622	58,180	84,146	192,089
Chile—						
Mercury .. ..	820	338	409	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Mercury salts .. ..	1,935	1,832	1,661	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Colombia—						
Mercury .. ..	165,682	3,530	2,712	7,215	4,634	2,127
Mercury salts .. ..	19,061	52,649	9,546	15,895	15,053	9,156
Peru—						
Mercury .. ..	1,929	1,327	1,484	915	562	1,512
Mercury salts .. ..	717	1,023	500	659	686	397
Uruguay—						
Mercury .. ..	<i>n.a.</i>	1,380	14,072	90	551	<i>n.a.</i>
Venezuela—						
Mercury .. ..	434,143	46,623	38,590	14,121	14,383	8,682
Mercury salts .. ..	4,707	9,720	7,317	18,415	9,815	24,736
Formosa—						
Mercury .. ..	16,175	16,211	17,070	15,946	46,116	11,579
Indonesia—						
Mercury .. ..	19,019	11,947	5,463	9,129	8,278	<i>n.a.</i>
Iran (a)—						
Mercury .. ..	5,459	9	132	33	2,004	<i>n.a.</i>
Japan—						
Mercury .. ..	1,048,172	1,015,791	22,260	1,032	825	700,025
Korea (South)—						
Mercury .. ..	<i>n.a.</i>	<i>n.a.</i>	29,000	22,000	22,000	37,000
Lebanon—						
Mercury .. ..	132	315	351	315	<i>n.a.</i>	<i>n.a.</i>
Philippine Republic—						
Mercury .. ..	320	—	873	295	888	9,405
Thailand—						
Mercury .. ..	<i>n.a.</i>	831	8,375	1,411	4,645	17,170
Mercury salts .. ..	2,447	22,505	791	985	915	2,304
Turkey—						
Mercury salts .. ..	1,455	2,932	1,131	3,973	2,866	3,697

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

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

Lb. avdp.

Producing Country	1956	1957	1958	1959	1960	1961
<b>COMMONWEALTH COUNTRIES</b>						
Kenya—						
Block and sheet ..	—	—	16,000	21,908	1,244	222
Northern Rhodesia—						
Sheet .. .. .	5,821	627	1,940	210	530	—
Southern Rhodesia—						
Crude .. .. .	—	—	—	—	752,000	102,000
Block and sheet ..	124,000	70,000	106,000	1,220,000	90,000	64,000
Tanganyika—						
Sheet .. .. .	130,000	150,000	110,000	120,000	180,000	196,000
Waste .. .. .	280,000	—	25,000	190,000	—	—
Canada (c)—						
Rough mine-run or						
rifted .. .. .	40,826	2,577	4,608	8,641	118,407	} 2,061,970
Trimmed .. .. .	22,355	40,165	29,834	16,336	28,862	
Splittings .. .. .	2,000	16,385	—	—	—	
Sold for mechanical						
splitting .. .. .	16,000	65,612	54,717	23,250	27,900	
Ground .. .. .	1,493,410	911,138	1,380,530	591,356	791,994	
Scrap .. .. .	269,220	243,193	35,244	174,251	696,886	
Ungraded .. .. .	—	3,346	—	—	38,556	
By varieties—						
Phlogopite and						
biotite .. .. .	1,663,803	1,265,929	1,061,972	813,509	1,580,605	n.a.
Muscovite and schist	180,008	16,487	442,961	325	122,000	n.a.
India(a)—						
Block .. .. .	12,336,000	4,410,500	5,244,500	6,306,400	e 5,036,165	e 4,676,619
Splittings .. .. .	14,663,000	16,644,000	14,273,300	15,998,800	e18,043,635	e18,479,395
Ground and waste ..	27,283,000	27,915,300	23,945,500	29,082,000	e39,484,982	e39,293,188
Australia (b)—						
Crude .. .. .	—	—	35,840	170,000	649,600	185,920
Block .. .. .	28,837	36,713	r 42,479	r 44,665	9,500	—
Scrap .. .. .	—	40,600	r 37,408	r 7,000	—	—
<b>OTHER COUNTRIES</b>						
Austria .. .. .	—	—	130,000	220,000	317,000	194,000
France .. .. .	225,000	377,000	459,000	670,000	686,000	n.a.
Norway (d) .. .. .	2,400,000	4,700,000	4,900,000	12,600,000	6,600,000	9,900,000
Spain .. .. .	27,487	24,921	20,371	10,200	400	—
Sweden (c)—						
Ground .. .. .	392,000	474,000	421,000	r 328,000	440,000	—
Angola—						
Sheet .. .. .	53,564	46,734	47,181	20,258	26,863	3,571
Waste and splittings ..	968,000	844,000	716,943	383,400	720,069	45,966
Malagasy Republic—						
Phlogopite (block and						
splittings) .. .. .	1,187,000	2,123,000	2,390,000	2,193,000	2,227,000	2,224,000
Mozambique .. .. .	26,817	66,513	4,572	12,165	2,080	1,150
South Africa—						
Sheet .. .. .	1,092	1,318	1,088	492	1,724	1,341
Waste .. .. .	5,038,000	4,226,000	4,254,000	3,762,000	6,712,000	5,440,000
South West Africa ..	—	—	—	234,000	—	—
Sudan—						
Block .. .. .	—	} (a)13,311	{ 225,900	} 882,000	—	—
Scrap .. .. .	—				154,000	—

(a) Exports.

(b) The following amounts of damourite were also produced (lb. avdp.): 1956—1,057,000; 1957—1,456,000; 1958—1,080,000; 1959—1,100,000; 1960—1,250,000; 1961—1,140,000.

(c) Sales.

(d) Including waste.

(e) Years ended March 31 following that stated.

PRODUCTION OF MICA (cont.)

Lb. avdp.

Producing Country	1956	1957	1958	1959	1960	1961
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
United States (a)—						
Sheet (uncut) .. ..	887,871	690,052	661,344	706,395	571,108	480,494
Scrap (b) .. ..	172,618,000	184,876,000	186,694,000	203,082,000	195,820,000	198,090,000
Argentina—						
Sheet .. ..	309,000	212,150	127,030	} 110,000	110,000	n.a.
Waste .. ..	110,000	2,000	3,265			
Brazil .. ..	2,926,000	3,265,000	2,829,000	2,553,000	4,440,000	c 4,400,000
Formosa .. ..	29,000	11,000	700	45	—	—
<b>TOTAL*</b> .. ..	<b>243,890,000</b>	<b>252,500,000</b>	<b>249,000,000</b>	<b>281,700,000</b>	<b>284,600,000</b>	<b>287,000,000</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.

(c) United States Bureau of Mines' estimate.

EXPORTS OF MICA

Lb. avdp.

Exporting Country and Description	1956	1957	1958	1959	1960	1961
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom—						
Splittings .. .. .	} 3,839,000	3,382,000	2,948,000	2,964,000	4,435,000	5,651,520
Ground and waste .. .. .						
Rhodesia and Nyasaland—						
Unmanufactured (a) .. .. .	121,421	756,029	1,104,842	986,423	313,417	122,378
Tanganyika—						
Unmanufactured (a) .. .. .	407,600	149,500	132,400	309,000	180,400	197,100
Canada—						
Rough .. .. .	24,500	87,500	—	107,100	30,200	181,100
Trimmed block or sheet .. .. .	41,800	66,000	51,900	24,200	67,000	41,300
Ground .. .. .	92,000	24,000	78,000	46,000	24,000	n.a.
Waste .. .. .	119,500	184,700	170,200	246,500	367,600	(d)
Hong Kong—						
Unmanufactured (a) .. .. .	1,900	13,100	79,900	14,700	1,200	2,600
India—						
Block .. .. .	12,336,000	4,410,500	5,244,500	6,306,400	(c) 5,036,165	c 4,676,619
Splittings .. .. .	14,663,000	16,644,000	14,273,300	15,998,800	(c) 18,043,635	c 18,479,395
Ground and waste .. .. .	27,283,000	27,915,300	23,945,500	29,082,000	(c) 39,484,982	c 39,293,188
Other unmanufactured .. .. .	n.a.	358,300	48,000	160,900	(c) 39,787	c 35,382
Manufactured .. .. .	n.a.	481,398	402,246	479,054	(c) 377,577	c 449,194
Australia (b)—						
Unmanufactured .. .. .	9,570	4,661	29,535	33,818	86,332	98,096
Manufactured .. .. .	(£7,979)	(£7,698)	(£10,638)	(£13,434)	(£13,738)	(£23,599)
<b>OTHER COUNTRIES</b>						
Austria—						
Unmanufactured .. .. .	99,000	178,300	111,100	(a) 54,700	(a) 3,300	(a) 10,600
Manufactured .. .. .	n.a.	n.a.	n.a.	11,700	31,300	28,200
Belgium-Luxemburg						
E.U.—						
Unmanufactured (a) .. .. .	30,900	36,200	266,300	161,000	49,200	55,600
Manufactured .. .. .	30,200	59,500	36,400	58,400	114,200	131,200
Denmark—						
Ground .. .. .	25,600	24,500	31,300	7,500	200	100
Manufactured .. .. .	4,800	15,400	5,300	15,900	3,600	n.a.
France—						
Unmanufactured (a) .. .. .	184,500	231,000	253,500	183,400	312,000	138,200
Ground .. .. .	125,400	206,800	294,500	298,900	303,100	224,000
Manufactured .. .. .	224,700	274,500	303,100	316,800	480,800	504,400
Germany (Federal)—						
Unmanufactured (a) .. .. .	849,700	499,600	465,500	578,700	675,900	713,000
Manufactured .. .. .	201,100	172,000	160,500	169,500	213,400	241,000
Italy—						
Ground .. .. .	10,427	—	—	101,693	54,384	} 134,300
Waste .. .. .	—	—	11,023	16,535	44,092	
Manufactured .. .. .	6,907	11,114	17,139	32,439	33,283	32,400
Netherlands—						
Unmanufactured .. .. .	123,000	161,000	236,000	194,000	229,000	117,000
Norway—						
Unmanufactured .. .. .	2,156,976	1,364,967	4,379,440	5,176,000	3,553,000	6,437,000
Waste .. .. .	1,416,285	2,350,522	226,812	—	134,500	26,000
Sweden—						
Unmanufactured .. .. .	9,000	18,000	22,000	37,000	2,000	4,000
Switzerland—						
Unmanufactured (a) .. .. .	n.a.	n.a.	n.a.	n.a.	13,913	54,057
Manufactured .. .. .	n.a.	n.a.	n.a.	n.a.	357,603	458,815
U.S.S.R.—						
Unmanufactured .. .. .	313,000	306,000	223,000	373,000	22,000	4,000

(a) Including waste.

(c) Years ended March 31 following that stated.

(b) Years ended June 30 of that stated.

(d) Included with "Rough".

## EXPORTS OF MICA (cont.)

Lb. avdp.

Exporting Country and Description	1956	1957	1958	1959	1960	1961
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
Yugoslavia—						
Waste .. .. .	521,779	95,570	69,710	252,932	35,693	70,394
Angola—						
Unmanufactured .. .. .	66,000	46,618	36,467	20,020	17,472	11,720
Waste .. .. .	985,000	1,226,652	789,290	2,486,371	1,316,779	3,660
Egypt—						
Unmanufactured .. .. .	—	40,874	77,757	136,025	<i>n.a.</i>	<i>n.a.</i>
Malagasy Republic—						
Unmanufactured .. .. .	1,414,058	1,793,765	1,850,705	2,006,716	2,192,431	2,715,173
Morocco—						
Unmanufactured .. .. .	3,042	—	—	—	—	—
Mozambique—						
Unmanufactured .. .. .	536	3,772	661	9,623	3,014	<i>n.a.</i>
South Africa—						
Unmanufactured (a) .. .. .	3,508,000	3,966,000	2,268,000	2,256,000	3,166,000	6,756,000
Mexico—						
Unmanufactured .. .. .	59,900	33,540	—	31,667	26,636	33,669
Manufactured .. .. .	9,949	19,581	—	—	—	—
Waste .. .. .	254,788	66,983	44,485	—	—	—
United States—						
Unmanufactured .. .. .	546,673	911,006	1,030,540	1,072,894	701,926	334,211
Ground .. .. .	8,901,497	9,256,170	8,198,367	8,915,109	7,077,245	7,074,850
Manufactured .. .. .	343,159	541,432	254,198	216,040	243,354	190,320
Argentina—						
Unmanufactured .. .. .	586,650	258,382	191,176	404,061	396,722	727,459
Brazil—						
Unmanufactured .. .. .	2,163,094	1,815,826	1,783,352	1,742,201	1,595,944	1,969,243
Manufactured .. .. .	36,938	27,079	35,025	51,471	59,869	51,099
Japan—						
Unmanufactured (a) .. .. .	40,000	9,000	29,000	13,000	57,000	692,000
Manufactured .. .. .	21,632	20,394	14,465	37,232	54,132	56,780

(a) Including waste.

IMPORTS OF MICA

Lb. advp.

Importing Country and Description	1956	1957	1958	1959	1960	1961
<b>COMMONWEALTH COUNTRIES</b>						
<b>United Kingdom—</b>						
Block .. .. .	1,053,000	1,178,000	954,000	1,033,000	858,000	856,000
Splittings .. .. .	1,667,000	1,655,000	2,482,000	1,541,000	2,910,000	2,999,000
Ground and waste .. .. .	8,048,000	13,704,000	7,150,000	6,933,000	14,531,000	11,872,000
<b>Tanganyika—</b>						
Unmanufactured (a) .. .. .	—	8,800	33,600	81,800	75,400	13,200
<b>Canada—</b>						
Unmanufactured .. .. .	324,900	501,900	1,047,700	1,340,400	1,838,800	1,475,800
Manufactured .. .. .	(£193,901)	(£162,307)	(£139,476)	(£156,720)	(£116,582)	(£126,259)
<b>Jamaica—</b>						
Unmanufactured .. .. .	545	7,415	40,922	125,579	78,801	118,046
Manufactured .. .. .	165	1,567	409	548	192	473
<b>Trinidad and Tobago—</b>						
Unmanufactured (a) .. .. .	11,648	41,700	25,300	55,000	66,000	n.a.
Manufactured .. .. .	114	4,714	1,102	488	—	n.a.
<b>Hong Kong—</b>						
Unmanufactured (a) .. .. .	300	23,400	51,100	130,400	11,000	19,000
<b>India—</b>						
Block .. .. .	2,000	5,800	—	—	—	—
Splittings .. .. .	13,000	79,200	—	—	—	—
<b>Malaya—</b>						
Manufactured .. .. .	7,034	7,224	2,800	2,341	3,144	2,366
<b>Sarawak—</b>						
Unmanufactured (a) .. .. .	13,000	22,000	9,000	(c) 2,240	—	4,480
<b>Australia (b)—</b>						
Block and sheet .. .. .	45,791	25,022	21,653	21,215	26,772	43,859
Splittings .. .. .	185,807	138,838	222,469	130,356	228,914	237,818
Ground .. .. .	58,496	103,129	184,091	204,008	335,482	394,876
Waste .. .. .	473,030	170,240	572,320	543,656	1,818,880	531,280
Manufactured .. .. .	(£16,315)	(£12,750)	(£11,002)	(£8,471)	(£4,267)	(£15,054)
<b>New Zealand—</b>						
Unmanufactured .. .. .	(£NZ10,236)	(£NZ10,535)	(£NZ20,283)	(£NZ18,186)	(£NZ26,766)	(£NZ23,910)
Waste .. .. .	(£NZ 930)	(£NZ 1,146)	(£NZ 1,186)	(£NZ 2,457)	(£NZ 1,077)	(£NZ 4,094)
<b>OTHER COUNTRIES</b>						
<b>Austria—</b>						
Unmanufactured .. .. .	965,800	1,187,000	788,200	(a) 564,600	(a) 424,200	(a) 436,500
Manufactured .. .. .	n.a.	n.a.	n.a.	43,400	49,600	74,500
<b>Belgium-Luxemburg E.U.—</b>						
Unmanufactured (a) .. .. .	2,776,500	3,293,000	1,682,300	2,231,300	1,694,700	1,568,400
Manufactured .. .. .	78,300	60,600	54,900	46,300	83,800	70,800
<b>Denmark—</b>						
Unmanufactured .. .. .	29,100	78,300	19,000	22,300	48,700	12,300
Ground .. .. .	5,020,800	4,001,600	1,480,000	1,509,100	234,400	338,000
Manufactured .. .. .	180,800	153,400	55,600	92,600	150,600	128,000
<b>Finland—</b>						
Manufactured .. .. .	30,523	30,541	41,535	41,337	78,600	57,000
<b>France—</b>						
Unmanufactured (a) .. .. .	3,305,700	3,828,300	5,004,100	2,491,200	4,437,900	5,193,200
Ground .. .. .	2,174,200	2,615,300	2,763,300	1,962,300	2,166,500	2,587,600
Manufactured .. .. .	132,500	114,200	65,000	32,800	28,200	58,000
<b>Germany (Federal)—</b>						
Unmanufactured (a) .. .. .	7,173,200	7,974,800	7,684,200	8,921,000	11,559,100	10,260,300
Manufactured .. .. .	127,000	146,200	215,800	195,300	286,800	229,700
<b>Greece—</b>						
Unmanufactured .. .. .	10,121	15,450	19,352	8,459	36,471	n.a.

(a) Including waste.

(c) Excess of re-exports.

(b) Years ended June 30 of that stated.



## IMPORTS OF MICA (cont.)

Lb. advp.

Importing Country and Description	1956	1957	1958	1959	1960	1961
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
Italy—						
Unmanufactured .. ..	197,274	380,549	1,286,816	1,004,263	3,284,411	2,656,800
Ground .. ..	1,132,001	951,872	887,731	1,225,045	1,556,761	} 3,355,900
Waste .. ..	34,815,098	53,352,974	34,270,431	4,068,461	6,245,234	
Manufactured .. ..	492,526	416,588	444,860	404,112	630,725	
Netherlands—						
Unmanufactured (a) ..	1,003,000	796,000	1,660,000	1,329,000	1,052,000	1,257,000
Manufactured .. ..	115,000	130,000	104,000	119,000	128,000	137,000
Norway—						
Unmanufactured (a) ..	2,562,060	5,508,077	5,294,511	4,870,000	7,657,000	6,559,000
Manufactured .. ..	31,396	35,278	83,394	66,000	64,000	71,000
Portugal—						
Unmanufactured .. ..	106,128	115,811	175,327	172,448	203,000	226,600
Manufactured .. ..	16,327	8,763	9,817	10,615	4,000	11,900
Spain .. ..	146,025	146,577	4,500,337	271,052	287,816	409,284
Sweden—						
Unmanufactured .. ..	1,867,000	2,443,000	2,123,000	1,720,000	2,540,000	2,648,000
Manufactured .. ..	60,000	46,000	53,000	53,000	51,000	71,000
Switzerland—						
Unmanufactured (a) ..	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	1,578,267	1,773,683
Manufactured .. ..	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	143,140	190,687
U.S.S.R.—						
Unmanufactured .. ..	—	254,000	922,000	2,621,000	2,441,000	1,404,000
Yugoslavia—						
Unmanufactured .. ..	1,235	—	—	11,830	15,677	—
Manufactured .. ..	22,170	8,080	3,732	3,849	2,423	20,682
Algeria—						
Unmanufactured (a) ..	55,800	158,300	155,000	70,100	1,100	<i>n.a.</i>
Ground .. ..	71,600	125,500	257,700	261,000	154,100	<i>n.a.</i>
Manufactured .. ..	7,700	7,300	4,900	5,700	7,500	<i>n.a.</i>
Congo Republic—						
Unmanufactured .. ..	2,978	10,055	265	2,154	<i>n.a.</i>	<i>n.a.</i>
Manufactured .. ..	4,116	22,663	2,359	2,088	<i>n.a.</i>	<i>n.a.</i>
Egypt—						
Unmanufactured .. ..	476,386	86,972	222,931	371,576	2,204	<i>n.a.</i>
Manufactured .. ..	7,855	3,349	4,301	5,959	13,946	<i>n.a.</i>
Malagasy Republic—						
Unmanufactured .. ..	200	12,037	6,724	15,276	5,481	25,353
Morocco—						
Unmanufactured (a) ..	1,131	4,608	11,431	2,204	2,205	—
Ground .. ..	27,558	—	452	—	500	3,000
Manufactured .. ..	2,974	8,378	2,315	2,718	2,427	2,659
South Africa—						
Mica and mica sheets	120,961	48,575	33,500	31,364	46,623	<i>n.a.</i>
Tunisia—						
Unmanufactured .. ..	—	4,000	22,700	} 4	110	15
Ground .. ..	6,200	—	9			
Manufactured .. ..	<i>n.a.</i>	<i>n.a.</i>	900			
Mexico—						
Unmanufactured .. ..	158,843	201,053	57,347	98,703	21,231	91,558
Waste .. ..	7,566	37,942	272,231	484,724	248,318	309,077
United States—						
Unmanufactured .. ..	1,958,907	1,841,840	2,181,056	3,220,412	1,088,021	852,648
Ground .. ..	69,000	46,000	48,238	46,049	46,000	23,000
Waste .. ..	14,435,938	10,373,171	8,128,613	9,287,998	12,480,715	6,047,586
Films and splittings ..	10,529,034	11,310,980	9,937,286	9,866,427	8,256,530	7,457,035
Other manufactures ..	225,184	173,694	120,728	171,039	231,993	164,179
Brazil—						
Unmanufactured .. ..	5,033	5,033	5,044	—	119	60
Manufactured .. ..	1,257	3,902	2,119	8,649	11,711	7,247

(a) Including waste.

## IMPORTS OF MICA (cont.)

Lb. advp.

Importing Country and Description	1956	1957	1958	1959	1960	1961
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
Chile—						
Unmanufactured ..	7,882	26,672	9,180	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Manufactured ..	28,689	13,233	9,764	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Colombia—						
Unmanufactured ..	123,862	165,225	27,760	198,696	300,910	391,331
Manufactured ..	6,277	642	3,338	9,703	14,059	16,435
Peru—						
Ground and waste ..	75,288	119,418	127,790	167,296	140,000	210,283
Venezuela—						
Unmanufactured ..	2,866,331	3,225,673	2,420,012	855,457	578,879	905,366
Manufactured ..	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	15,346	4,301	<i>n.a.</i>
Formosa—						
Unmanufactured ..	7,319	2,798	13,673	2,751	<i>n.a.</i>	<i>n.a.</i>
Indonesia—						
Manufactured ..	6,281	34,374	2,866	51,456	8,490	<i>n.a.</i>
Japan—						
Unmanufactured ..	1,349,000	1,171,000	983,000	1,881,000	1,812,000	4,057,000
Ground ..	716,000	1,543,000	816,000	1,978,000	128,000	207,000
Waste ..	3,197,000	3,845,000	2,030,000	4,074,000	5,130,000	5,456,000
Manufactured ..	626	1,867	183	137	79	1,208
Lebanon—						
Unmanufactured ..	104	1,122	1,336	10,803	13,228	<i>n.a.</i>
Philippine Republic—						
Unmanufactured ..	152,300	38,874	77,473	81,721	42,099	149,264
Thailand—						
Unmanufactured ..	9	22	4	7	73	5,364
Manufactured ..	937	86,796	847	1,614	2,544	1,325
Turkey—						
Unmanufactured ..	21,001	—	7,707	19,590	75	7
Manufactured ..	2,463	2,116	10,055	6,003	4,343	2,297

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

Long tons

Producing Country	1956	1957	1958	1959	1960	1961
<b>COMMONWEALTH COUNTRIES</b>						
Canada (a) .. ..	627	584	662	r 557	572	570
Australia .. ..	—	2	4	—	—	—
<b>OTHER COUNTRIES</b>						
Norway .. ..	272	295	360	379	403	396
Portugal .. ..	8	13	—	—	—	—
Yugoslavia .. ..	3	3	3	(b) 3	—	—
South Africa .. ..	—	11	7	—	—	—
Mexico .. ..	24	22	42	r 44	99	3
United States .. ..	42,787	45,237	30,579	37,941	50,809	49,563
Chile .. ..	2,312	2,197	2,109	3,771	3,041	n.a.
Peru .. ..	—	—	2	—	—	—
Japan .. ..	392	446	190	627	625	600
Korea (South) .. ..	21	23	60	36	73	52
Philippine Republic .. ..	—	—	—	72	46	185
<b>TOTAL*</b> .. ..	<b>46,446</b>	<b>48,833</b>	<b>34,018</b>	<b>r 43,430</b>	<b>55,668</b>	<b>54,000</b>

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

(a) Shipments.

(b) United States Bureau of Mines' estimate.

## EXPORTS OF MOLYBDENUM ORE, ETC.

Long tons

Exporting Country and Description	1956	1957	1958	1959	1960	1961
COMMONWEALTH COUNTRIES						
United Kingdom—						
Ferro-molybdenum ..	439	161	296	333	245	246
Canada—						
Oxide .. .. .	589	499	763	1,673	343	<i>n.a.</i>
OTHER COUNTRIES						
France—						
Ferro-molybdenum ..	24	89	165	261	555	375
Oxide and molybdates..	2	2	7	4	7	2
Germany (Federal)—						
Metal .. .. .	58	40	9	35	34	27
Norway—						
Ore .. .. .	289	288	390	414	467	394
Sweden—						
Ferro-molybdenum ..	302	291	353	266	292	261
Mexico—						
Ore and concentrates						
( <i>MoS<sub>2</sub> content</i> ) ..	8	—	26	44	97	3
United States—						
Ore and concentrates						
( <i>MoS<sub>2</sub> content</i> ) ..	13,389	18,962	8,910	14,037	22,520	26,553
Metal, alloys and scrap ..	16	44	6	7	132	197
Ferro-molybdenum ..	422	171	101	111	190	160
Wire, powder and semi-						
fabricated .. .. .	16	21	16	15	11	14
Chile—						
Ore .. .. .	2,476	2,806	1,788	3,894	4,002	3,118
Peru—						
Ore ( <i>MoS<sub>2</sub> content</i> ) ..	—	—	4	—	—	—
Japan—						
Ore .. .. .	<i>n.a.</i>	27	339	—	—	—

## IMPORTS OF MOLYBDENUM ORE, ETC.

Long tons

Importing Country and Description	1956	1957	1958	1959	1960	1961
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom—						
Ore .. .. .	5,685	5,565	3,713	4,658	7,783	7,961
Metal .. .. .	27	11	10	19	23	22
Canada—						
Oxide .. .. .	427	213	136	137	293	—
Australia (a)—						
Oxide .. .. .	28	77	46	3	4	26
Ferro-molybdenum ..	114	158	129	140	106	525
<b>OTHER COUNTRIES</b>						
Austria—						
Oxide .. .. .	59	72	86	172	184	208
Ferro-molybdenum ..	27	132	65	50	119	51
Belgium-Luxemburg						
E.U.—						
Oxide .. .. .	13	32	11	46	21	—
Molybdates .. .. .	25	13	42	17	<i>n.a.</i>	<i>n.a.</i>
Ferro-molybdenum ..	179	243	109	265	482	532
Finland—						
Ferro-molybdenum ..	36	72	40	102	173	185
France—						
Ore .. .. .	2,772	3,349	3,295	2,984	5,066	5,641
Metal and alloys ..	10	9	11	7	24	33
Oxide and molybdates..	20	8	16	10	15	32
Germany (Federal)—						
Ore .. .. .	4,913	5,057	5,149	6,041	8,626	9,047
Metal .. .. .	20	13	25	35	87	120
Hungary—						
Ferro-molybdenum ..	30	39	49	70	45	193
Italy—						
Ore .. .. .	405	529	444	680	1,479	1,500
Metal .. .. .	7	7	6	5	48	15
Ferro-molybdenum ..	276	303	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Netherlands—						
Ferro-molybdenum ..	40	35	35	21	46	51
Sweden—						
Ore .. .. .	1,788	2,249	1,444	1,643	2,590	2,751
Ferro-molybdenum ..	59	76	133	394	967	1,141
United States—						
Ore ( <i>MoS<sub>2</sub></i> content) ..	—	20	1	—	—	—
Metal .. .. .	7	7	—	30	69	1
Semi-fabricated ..	16	11	10	20	9	8
Japan—						
Ore and concentrates ..	1,352	3,636	27	1,624	3,824	5,149

(a) Years ended June 30 of that stated.

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

Long tons

Producing Country	1956	1957	1958	1959	1960	1961
<b>COMMONWEALTH COUNTRIES</b>						
Southern Rhodesia .. ..	40	72	3	—	22	58
Canada (b) .. ..	159,388	167,820	124,606	166,567	191,524	212,453
<b>TOTAL .. ..</b>	<b>r 159,428</b>	<b>r 167,892</b>	<b>r 124,609</b>	<b>166,567</b>	<b>191,546</b>	<b>212,511</b>
<b>OTHER COUNTRIES</b>						
Finland (c) .. ..	146	79	112	371	2,228	n.a.
Greece (i) .. ..	800	1,100	500	—	—	—
Poland (l) .. ..	1,179	1,250	1,329	1,254	1,234	1,250
U.S.S.R. (d) .. ..	46,000	49,000	52,000	52,000	57,000	59,000
Morocco (l) .. ..	127	84	182	237	250	254
South Africa (a) .. ..	3,236	3,152	1,137	n.a.	n.a.	n.a.
Cuba (e) .. ..	(i) 19,500	(i) 25,000	n.a.	n.a.	n.a.	n.a.
United States (f) .. ..	6,002	8,991	10,482	10,362	11,187	9,979
Bolivia (j) .. ..	3	2	—	2	—	—
Brazil .. ..	60	80	70	75	130	(l) 130
Venezuela .. ..	11	31	37	26	(l) 28	—
Burma (g) .. ..	59	66	328	136	69	135
Iran (k) .. ..	16	15	(l) 15	—	—	n.a.
Japan .. ..	45	—	—	—	—	—
Korea (South) .. ..	150	66	20	6	—	276
Philippine Republic .. ..	—	—	—	—	—	9
New Caledonia (h) .. ..	29,051	42,600	13,966	32,274	52,000	53,000
<b>TOTAL* .. ..</b>	<b>r 107,000</b>	<b>r 131,000</b>	<b>100,000</b>	<b>120,000</b>	<b>140,000</b>	<b>140,000</b>
<b>WORLD'S TOTAL*</b> .. ..	<b>266,000</b>	<b>299,000</b>	<b>230,000</b>	<b>290,000</b>	<b>330,000</b>	<b>350,000</b>

\*Nickel ores are also produced in Albania, East Germany and Indonesia. Totals are approximate.

(a) Nickel content of platinum matte plus refined nickel.

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

(c) Nickel content of nickel sulphate. Figures for 1959 and 1960 also include nickel in concentrates.

(d) Source: Metallgesellschaft.

(e) Content of ore mined. The estimated content of oxide produced was:

	Long tons				Long tons				
1956 .. ..	..	..	..	..	14,341	1959 .. ..	..	..	17,552
1957 .. ..	..	..	..	..	19,862	1960 .. ..	..	..	11,203
1958 .. ..	..	..	..	..	17,662	1961 .. ..	..	..	(l) 7,000

(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				
1956 .. ..	..	..	..	..	13,268	1959 .. ..	..	..	8,427
1957 .. ..	..	..	..	..	10,747	1960 .. ..	..	..	8,421
1958 .. ..	..	..	..	..	6,617	1961 .. ..	..	..	9,543

(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				
1956 .. ..	..	..	..	..	9,502	1959 .. ..	..	..	11,642
1957 .. ..	..	..	..	..	10,153	1960 .. ..	..	..	21,524
1958 .. ..	..	..	..	..	8,685	1961 .. ..	..	..	24,935

(i) Estimated.

(j) Exports.

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

(l) United States Bureau of Mines' estimate.

EXPORTS OF NICKEL\*

Long tons

Exporting Country and Description	1956	1957	1958	1959	1960	1961
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom—						
Unwrought (a) ..	10,703	10,557	12,044	20,215	21,714	21,918
Semi-manufactures ..	1,341	1,626	2,111	1,647	2,113	2,396
do. alloys ..	2,320	2,495	2,508	2,162	2,917	3,390
Scrap (a) .. ..	1,247	1,219	1,574	1,415	1,309	2,088
Nickel oxide .. ..	359	398	373	452	595	519
Rhodesia and Nyasaland—						
Ore .. .. .	96	286	8	32	158	224
Canada—						
Matte or speiss (Ni content) .. ..	63,138	65,798	60,410	58,623	65,991	82,980
Unwrought .. ..	93,175	92,194	76,043	91,171	96,741	119,200
Nickel oxide (Ni content)	1,578	1,524	1,244	3,712	11,837	16,090
Hong Kong—						
Semi-manufactures (a)	1	2	162	114	16	12
<b>OTHER COUNTRIES</b>						
Belgium-Luxemburg						
E.U.—						
Unwrought .. ..	6	1	—	479	545	—
do. alloys .. ..	16	—	4	5	115	29
Scrap .. .. .	107	74	272	276	73	920
Semi-manufactures (a) (b) .. ..	29	23	130	467	468	94
Denmark—						
Unwrought .. ..	—	1	11	2	2	—
Scrap (a) .. ..	210	86	70	47	65	42
France—						
Matte and speiss ..	—	15	—	59	—	50
Unwrought .. ..	1,354	1,324	612	3,548	3,667	3,255
do. alloys .. ..	8	1	—	11	15	26
Scrap (a) .. ..	311	99	12	406	969	1,639
Semi-manufactures (a)	252	77	134	417	949	730
Germany (Federal)—						
Unwrought and scrap (a)	614	1,248	1,372	1,332	1,883	644
Semi-manufactures (a)	1,923	1,565	1,544	2,846	4,056	4,586
Italy—						
Ore .. .. .	—	5	—	—	—	—
Semi-manufactures (a)	263	210	386	317	562	722
Netherlands—						
Scrap (a) .. ..	534	693	709	613	711	797
Semi-manufactures (a)	74	46	55	45	110	124
Norway—						
Ore .. .. .	—	861	—	—	—	—
Unwrought .. ..	(a) 18,279	(a) 19,862	(a) 21,079	25,518	27,759	29,207
Semi-manufactures (a)	841	738	682	515	643	646
Sweden—						
Unwrought .. ..	47	261	73	2	—	6
Switzerland—						
Unwrought and scrap (a)	468	393	836	466	406	467
Semi-manufactures (a)	527	601	641	971	992	868
South Africa—						
Matte (Ni content) ..	1,846	2,072	1,791	n.a.	n.a.	n.a.
Cuba—						
Nickel oxide .. ..	16,251	21,876	22,274	22,913	n.a.	n.a.

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

(a) Including alloys.

(b) Excluding anodes.

EXPORTS OF NICKEL (cont.)

Long tons

Exporting Country and Description	1956	1957	1958	1959	1960	1961
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
United States—						
Unwrought and semi-manufactures (a) ..	15,353	11,978	12,159	6,216	10,246	8,258
Scrap (a) .. ..						
Bolivia—						
Ore ( <i>Ni content</i> ) ..	3	2	—	2	—	—
Burma—						
Unwrought .. ..	216	288	396	324	253	434
Indonesia—						
Ore .. ..	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	6,107	13,541	14,763
Japan—						
Ferro-nickel .. ..	5,413	11,135	408	—	1	289
Unwrought .. ..	2,557	2,898	272	2	—	1
do. alloys .. ..	517	181	—	1	—	—
Semi-manufactures (a) ..	286	256	181	14	3	60
Korea (South)—						
Ore .. ..	<i>n.a.</i>	<i>n.a.</i>	310	—	—	738
New Caledonia—						
Ore .. ..	761,009	1,079,765	177,122	760,310	941,047	997,330
Matte .. ..	6,811	10,138	8,494	7,998	14,298	15,276
Ferro-nickel .. ..	12,673	14,093	9,395	17,905	42,960	45,791

(a) Including alloys.



## IMPORTS OF NICKEL

Long tons

Importing Country and Description	1956	1957	1958	1959	1960	1961
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom—						
Ore, concentrates and matte .. .. .	34,573	35,951	36,748	33,308	55,087	63,075
Unwrought .. .. .	7,989	8,837	10,195	11,644	23,319	19,769
do. alloys .. .. .	(d)	(d)	(d)	1,068	36	11
Semi-manufactures (a)	2,700	2,665	3,984	1,448	6,111	4,799
Scrap (a) .. .. .	1,390	1,300	1,896	1,219	2,533	2,888
Nickel oxide .. .. .	729	1,093	918	552	1,667	1,273
Canada—						
Unwrought (a) .. .. .	216	288	183	220	23	12
Semi-manufactures (a)	2,065	1,580	1,741	1,439	1,550	3,831
Hong Kong—						
Semi-manufactures (a)	43	98	265	220	72	97
India—						
Unwrought .. .. .	n.a.	298	393	695	(c) 1,040	(c) 1,316
do. alloys .. .. .	n.a.	91	56	26	(c) 61	(c) 47
Scrap .. .. .	n.a.	334	324	176	(c) 181	(c) 120
Semi-manufactures (a)	n.a.	271	167	106	(c) 268	(c) 385
Australia (b)—						
Unwrought .. .. .	716	808	772	641	1,212	825
Semi-manufactures (a)	(e) 481	(e) 453	(e) 356	(e) 350	(e) 364	963
New Zealand—						
Unwrought (a) .. .. .	20	11	21	41	26	26
Semi-manufactures (a)	34	41	60	60	42	71
Irish Republic—						
Unwrought and semi-manufactures (a) .. .. .	48	38	70	83	95	147
<b>OTHER COUNTRIES</b>						
Austria—						
Matte and speiss .. .. .	n.a.	n.a.	n.a.	15	263	244
Unwrought .. .. .	1,973	1,792	1,329	2,572	2,767	2,615
Scrap .. .. .	37	23	—	—	—	—
Semi-manufactures (a)	253	201	208	164	323	358
Belgium-Luxemburg						
E. U.—						
Unwrought .. .. .	593	567	714	1,390	1,839	1,082
do. alloys .. .. .	196	229	152	277	234	201
Scrap .. .. .	45	69	146	93	91	179
Semi-manufactures (a)	431	425	273	207	306	467
Denmark—						
Unwrought .. .. .	134	175	130	68	105	135
do. alloys .. .. .	12	13	18	28	14	30
Semi-manufactures (a)	201	220	238	324	372	522
Finland—						
Unwrought (a) .. .. .	296	312	335	276	468	473
France—						
Matte and speiss .. .. .	7,104	7,762	7,781	7,881	13,312	14,511
Ferro-nickel .. .. .	13,566	16,492	11,195	10,005	23,248	20,957
Unwrought .. .. .	1,521	2,341	2,821	3,974	5,650	4,159
do. alloys .. .. .	54	91	27	47	3	5
Scrap (a) .. .. .	99	485	392	1,284	1,102	1,745
Semi-manufactures (a)	799	791	913	709	1,628	1,598

\*See footnote on p.217 concerning the descriptions "unwrought" nickel and "semi-manufacture" used in these tables.

(a) Including alloys.

(d) Included with "Semi-manufactures".

(b) Year ended June 30 of that stated.

(e) Excluding anodes.

(c) Years ended March 31 following that stated.

## IMPORTS OF NICKEL (cont.)

Long tons

Importing Country and Description	1956	1957	1958	1959	1960	1961
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
Germany (Federal)—						
Ore .. .. .	20,008	406	—	35	—	16
Matte and speiss .. .. .	3	967	863	349	530	1,205
Unwrought (a) .. .. .	17,642	14,871	14,718	20,355	31,580	19,278
Scrap (a) .. .. .						
Semi-manufactures (a) .. .. .	252	300	653	708	1,079	1,440
Italy—						
Matte and speiss .. .. .	9	108	815	270	542	1,006
Unwrought (a) .. .. .	2,218	2,497	2,517	2,203	5,307	5,008
Scrap .. .. .	481	623	806	473	1,127	988
Semi-manufactures (a) .. .. .	466	597	541	587	1,024	1,213
Netherlands—						
Unwrought .. .. .	331	353	292	328	599	464
do. alloys .. .. .	64	75	65	188	72	76
Scrap (a) .. .. .	49	101	378	293	231	304
Semi-manufactures (a) .. .. .	1,169	1,144	1,208	1,079	1,313	1,545
Norway—						
Ore .. .. .	—	—	—	49	49	90
Matte (copper-nickel) .. .. .	43,795	45,823	48,398	54,159	60,695	63,328
Scrap (a) .. .. .	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	390	2,631	3,933
Semi-manufactures (a) .. .. .	225	201	174	212	212	323
Portugal—						
Unwrought and semi-manufactures .. .. .	28	58	124	77	47	112
Spain—						
Matte and speiss .. .. .	132	143	807	602	873	819
Unwrought (a) .. .. .						
Semi-manufactures (a) .. .. .	177	222	688	1,221	461	334
Sweden—						
Matte and speiss .. .. .	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	1,264	1,823	898
Wrought .. .. .	4,256	5,558	4,858	6,512	8,729	8,592
do. alloys .. .. .	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	230	498	428
Scrap (a) .. .. .				173	439	225
Semi-manufactures (a) .. .. .				538	718	930
Switzerland—						
Unwrought and scrap (a) .. .. .	759	716	1,085	1,177	1,381	1,636
Semi-manufactures (a) .. .. .	669	826	907	537	503	751
Yugoslavia—						
Unwrought .. .. .	118	110	132	168	300	216
Semi-manufactures (a) .. .. .	32	87	58	11	22	19
Algeria—						
Semi-manufactures (a) .. .. .	5	1	22	13	89	<i>n.a.</i>
Egypt—						
Semi-manufactures .. .. .	48	65	54	40	225	<i>n.a.</i>
Cuba—						
Semi-manufactures .. .. .	152	112	128	141	<i>n.a.</i>	<i>n.a.</i>
Mexico—						
Unwrought .. .. .	50	55	129	43	103	296
Semi-manufactures .. .. .	132	206	177	150	220	182
United States—						
Ore and matte .. .. .	11,446	11,765	4,084	3,635	164	—
Unwrought and scrap .. .. .	96,082	89,462	56,307	74,560	71,247	103,806
Semi-manufactures .. .. .	16	25	70	101	119	287
Nickel oxide .. .. .	29,424	33,107	26,449	26,841	21,950	13,048
Argentina—						
Unwrought .. .. .	110	156	160	18	105	69
Brazil—						
Unwrought (a) .. .. .	242	297	288	201	346	741
Semi-manufactures (a) .. .. .	48	226	142	99	198	192
Chile—						
Unwrought .. .. .	112	39	11	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>

(a) Including alloys.

## IMPORTS OF NICKEL (cont.)

Long tons

Importing Country and Description	1956	1957	1958	1959	1960	1961
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
Colombia—						
Unwrought (a) ..	20	24	36	16	21	30
Semi-manufactures (a)	238	123	276	349	213	193
Japan—						
Ore .. .. .	654,637	1,025,660	200,316	712,242	930,731	1,030,024
Matte .. .. .	—	109	—	—	253	707
Unwrought (a) ..	27	265	56	36	176	251
Semi-manufactures (a)	391	494	381	131	199	544
Turkey—						
Semi-manufactures (a)	1	3	5	18	47	44

(a) Including alloys.

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

Long tons

Producing Country and Description	1956	1957	1958	1959	1960	1961
COMMONWEALTH COUNTRIES						
United Kingdom (a)—						
Nitrogenous fertilizers expressed as 25% NH <sub>3</sub> .. ..	1,554,000	1,641,600	1,632,700	1,779,200	2,067,200	2,214,900
Actual ammonium sulphate .. ..	1,061,100	1,109,500	1,098,000	1,015,000	1,086,000	1,063,000
Canada—						
Ammonium sulphate .. ..	319,896	279,774	288,686	291,345	268,501	269,070
India—						
Ammonium sulphate .. ..	388,992	379,656	384,228	378,504	382,813	389,000
Pakistan—						
Ammonium sulphate .. ..	—	—	19,861	42,078	44,711	50,506
Australia—						
Ammonium sulphate .. ..	94,100	115,978	131,630	105,380	100,750	103,840
OTHER COUNTRIES						
Austria—						
Nitrogen fertilizers .. ..	651,808	773,610	838,402	904,770	922,400	976,770
Belgium—						
(N content)—						
Synthetic ammonia, etc. .. ..	231,875	230,056	270,578	298,840	314,280	271,310
Ammonium sulphate .. ..	16,298	16,735	17,964	15,970	15,710	14,300
Mixed fertilizers .. ..	10,440	11,728	21,259	21,150	26,430	31,260
Technical products .. ..	9,767	7,913	6,330	9,610	11,700	12,800
Bulgaria—						
Nitrogen fertilizers .. ..	101,804	120,625	n.a.	n.a.	n.a.	n.a.
Czechoslovakia—						
Nitrogen fertilizers (N content) .. ..	63,476	73,228	106,370	131,159	137,672	141,848
Finland (b)—						
(N content)						
Cyanamide .. ..	337	437	350	477	657	n.a.
Ammonium nitrate .. ..	15,211	20,035	21,390	27,402	30,000	n.a.
Ammonium sulphate .. ..	1,612	150	—	—	—	n.a.
France (b)—						
(N content)						
Ammonium sulphate .. ..	74,000	73,300	69,400	74,300	70,800	74,200
Cyanamide .. ..	6,000	2,400	2,400	1,776	2,331	2,881
Nitrate of soda .. ..	3,800	4,200	2,700	1,400	500	—
Nitrate of lime .. ..	35,700	39,800	38,700	38,800	37,600	37,700
Nitrate of ammonia .. ..	207,300	234,800	277,300	292,800	329,200	394,600
Ammonium phosphate .. ..	(c)	1,100	2,000	993	1,400	(c)
Other nitrogen fertilizers .. ..	10,100	24,900	19,500	17,400	20,300	30,800
Mixed fertilizers .. ..	65,300	63,100	90,000	102,600	103,800	118,700
Germany (Federal)—						
Chemical nitrogen (N content)—						
Fertilizer .. ..	792,844	958,075	1,060,254	1,001,229	1,108,141	1,124,500
Technical use .. ..	153,243	150,716	159,823	193,228	235,311	231,800

\*Includes by-product ammonium sulphate which is separately recorded as far as available on pages 83-86.

(a) Source: Annual Report of the British Sulphate of Ammonia Federation.

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

(c) Included with mixed fertilizers.

## PRODUCTION OF NITROGEN COMPOUNDS (cont.)

Long tons

Producing Country and Description	1956	1957	1958	1959	1960	1961
<b>OTHER COUNTRIES (cont.)</b>						
<b>Germany (East)—</b>						
<i>N content—</i>						
Ammonium sulphate	166,453	165,240	168,249	173,165	175,614	172,681
Cyanamide .. .. .	13,906	13,811	15,774	17,869	16,196	15,752
Lime ammonium nitrate .. .. .	98,082	104,120	113,445	116,312	120,081	117,687
Potassium ammonium nitrate .. .. .	11,874	11,814	12,025	11,910	12,416	12,614
Hungary—						
Nitrogen fertilizers .. .. .	92,910	78,604	156,842	r 241,079	273,695	324,916
<b>Iceland (a)—</b>						
Ammonium nitrate ( <i>N content</i> ) .. .. .	6,800	6,800	6,400	5,300	6,300	7,000
<b>Italy—</b>						
Ammonium sulphate .. .. .	774,597	763,990	901,636	1,147,817	1,240,055	1,342,846
Cyanamide .. .. .	197,988	121,437	185,635	166,570	125,007	77,449
Nitrate of soda .. .. .	6,099	5,871	6,488	6,551	6,899	9,418
Nitrate of potash .. .. .	—	—	—	107	1,993	6,762
Nitrate of lime .. .. .	301,986	296,481	323,348	287,788	361,441	334,189
Nitrate of ammonia .. .. .	344,180	371,632	589,313	681,490	799,939	793,523
Di-ammonium phosphate .. .. .						
Ammonium phosphate } .. .. .	225,025	152,847	163,056	198,398	200,039	243,097
<b>Netherlands—</b>						
Nitrogen fertilizers ( <i>N content</i> ) (a) .. .. .	296,400	324,300	374,300	387,500	399,700	410,800
<b>Norway—</b>						
Cyanamide .. .. .	2,465	1,461	13,660	7,665	4,990	4,058
Nitrate of ammonia .. .. .	5,234	7,530	8,793	11,237	10,784	12,350
Nitrate of lime .. .. .	860,463	1,066,295	1,038,646	1,068,734	1,125,418	1,145,270
Nitrate of soda .. .. .	3,082	3,608	820	1,389	1,724	2,740
Lime ammonium nitrate	95,603	59,132	63,555	39,736	46,478	94,535
<b>Poland—</b>						
Ammonium sulphate .. .. .	104,300	107,300	110,600	116,000	127,000	n.a.
Cyanamide .. .. .	140,800	144,000	160,000	170,000	173,000	n.a.
"Salcetrzak" .. .. .	501,500	380,000	527,000	401,000	423,000	n.a.
<b>Portugal—</b>						
Cyanamide .. .. .	9,277	5,067	10,778	9,774	7,529	14,875
Ammonium sulphate .. .. .	103,052	60,460	131,593	186,525	177,557	177,721
<b>Roumania—</b>						
Nitrogen fertilizers ( <i>N content</i> ) .. .. .	3,872	6,181	9,447	8,335	18,641	29,461
<b>Spain—</b>						
Cyanamide .. .. .	21,359	5,537	2,428	1,415	4,615	2,340
Ammonium nitrate .. .. .	73,731	78,165	45,291	49,216	86,071	86,648
Ammonium sulphate .. .. .	134,523	143,962	180,933	213,482	324,737	358,790
<b>Sweden—</b>						
Compressed ammonia (100%) .. .. .	15,704	14,942	13,490	n.a.	n.a.	n.a.
Ammonia (25%) .. .. .	4,087	4,324	4,036	n.a.	n.a.	n.a.
Synthetic nitrogen fertilizer ( <i>N content</i> ) .. .. .	26,734	32,119	32,145	n.a.	n.a.	n.a.
<b>Switzerland (a)—</b>						
<i>N content—</i>						
Cyanamide .. .. .	1,700	1,500	1,200	1,800	2,000	2,100
Ammonium sulphate	1,000	1,400	2,000	2,500	4,100	4,100
Ammonium nitrate .. .. .	4,400	4,400	4,900	5,100	5,400	5,300
Calcium nitrate	3,000	2,800	2,600	3,000	3,000	3,000
Mixed fertilizers .. .. .	1,000	800	800	1,000	1,500	1,800
<b>U.S.S.R. (a)—</b>						
Nitrogen fertilizers ( <i>N content</i> ) .. .. .	616,000	699,000	738,000	n.a.	n.a.	n.a.

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

## PRODUCTION OF NITROGEN COMPOUNDS (cont.)

Long tons

Producing Country and Description	1956	1957	1958	1959	1960	1961
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
Yugoslavia—						
Ammonium nitrate ..	16,521	19,970	22,820	23,620	24,971	24,255
Ammonium sulphate ..	5,797	7,066	8,654	10,627	12,098	12,279
Cyanamide .. ..	15,450	17,442	21,367	12,078	7,266	10,572
Egypt—						
<i>(N content)</i>						
Nitrate of lime .. ..	26,239	31,731	33,760	37,476	n.a.	n.a.
South Africa (a)—						
Nitrogen fertilizers						
<i>(N content)</i> .. ..	7,837	13,127	15,974	20,692	20,280	n.a.
Mexico (a)—						
Nitrogen fertilizers						
<i>(N content)</i> .. ..	12,900	12,900	(b) 13,000	n.a.	n.a.	n.a.
United States—						
Sulphate equivalent of ammonia produced (coke-ovens) .. ..	870,359	905,112	660,036	639,913	656,644	618,807
Actual ammonium sulphate (coke-ovens)	788,125	811,520	571,802	r 547,087	563,967	529,980
Actual ammonium sulphate (synthetic plants)	978,377	930,798	974,068	981,640	768,000	837,000
Anhydrous ammonia (synthetic plants) ..	3,016,395	3,332,645	3,463,195	4,035,451	4,301,521	4,637,730
Ammonium nitrate, original .. ..	1,948,712	2,308,935	r 2,304,743	2,557,947	2,780,000	2,890,000
Brazil (Volta Redonda)—						
Ammonium sulphate ..	6,662	5,731	4,547	4,971	n.a.	n.a.
Chile—						
Nitrates of soda and potash (natural) ..	1,140,868	1,288,871	1,259,848	1,243,901	910,032	1,092,868
Peru (a)—						
Nitrogen fertilizers						
<i>(N content)</i> .. ..	41,500	42,900	16,600	36,059	45,100	n.a.
Formosa—						
Cyanamide .. ..	73,341	73,609	68,843	64,323	61,443	62,858
Ammonium sulphate ..	6,494	15,117	17,124	21,754	21,086	28,751
Nitro-phosphate ..	—	2,789	17,096	19,733	20,688	19,802
Nitro-chalk .. ..	—	1,910	31,979	42,674	42,430	52,177
Israel—						
Ammonium sulphate ..	25,111	54,487	61,705	63,690	60,381	n.a.
Japan—						
Ammonium sulphate ..	2,285,920	2,441,686	2,569,074	2,591,993	2,385,070	2,464,079
Cyanamide .. ..	499,902	398,226	436,574	404,524	351,720	329,104
Ammonium nitrate ..	45,538	46,675	46,273	49,884	51,262	51,584
Ammonium chloride ..	75,235	135,159	137,840	141,290	237,510	363,039
Philippine Republic (a)—						
Ammonium sulphate						
<i>(N content)</i> .. ..	6,500	8,000	8,271	13,803	—	n.a.
Turkey—						
Ammonium sulphate ..	4,086	4,323	4,314	2,948	4,549	4,200

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.

## EXPORTS OF NITROGEN COMPOUNDS

Long tons

Exporting Country and Description	1956	1957	1958	1959	1960	1961
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom—						
Ammonium sulphate ..	24,651	205,804	304,287	213,968	187,419	166,711
Ammonium chloride ..	11,182	9,864	10,626	11,042	15,310	16,227
Ammonium nitrate ..	3,786	2,148	1,181	1,043	496	487
Liquid ammonia ..	4,566	3,939	4,507	4,727	4,396	3,852
Anhydrous ammonia ..						
Other nitrogen fertilizers	1,436	1,317	2,023	3,174	1,894	1,097
Canada—						
Ammonium sulphate ..	(£4,390,147)	(£3,470,267)	(£3,012,328)	(£3,162,368)	(£3,151,628)	(£2,612,495)
Nitrogen fertilizers ..	(£6,133,443)	(£6,759,139)	(£6,266,116)	(£5,375,164)	(£7,035,149)	(£7,880,620)
Trinidad and Tobago—						
Ammonium sulphate ..	—	—	—	8,128	69,663	<i>n.a.</i>
Hong Kong—						
Nitrate of potash ..	213	320	368	356	190	286
Nitrate of soda ..	—	—	—	34	31	23
Ammonium sulphate ..	95,820	25,073	62,838	26,421	976	59,120
Synthetic nitrate ..	85	67	55,105	—	—	36,867
Ammonium chloride ..	118	261	128	47	38	27,124
India—						
Nitrate of potash ..	148	6	16	44	(a) 39	(a) 8
Nitrate of soda ..	<i>n.a.</i>	57	45	11	(a) 40	(a) 31
Malaya—						
Nitrates of potash and soda ..	5	4	—	2	2	2
Other nitrogen fertilizers	2,667	1,749	823	767	1,200	1,315
Anhydrous ammonia ..	4	8	4	33	176	415
<b>OTHER COUNTRIES</b>						
Austria—						
Anhydrous ammonia ..	1,250	1,602	561	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Belgium-Luxemburg						
E. U.—						
Nitrate of potash ..	21	33	32	25	36	—
Nitrate of soda ..	—	40	68	—	20	56
Nitrate of lime ..	—	—	—	—	5	344
Ammonium sulphate ..	579,869	537,145	650,857	747,867	553,855	552,353
Ammonium chloride ..	54	39	19	128	159	34
Ammonium nitrate ..	109,583	134,042	289,443	164,709	174,220	139,345
Ammonium phosphate ..	18,975	28,130	33,917	53,302	<i>n.a.</i>	<i>n.a.</i>
Cyanamide ..	11,719	8,833	3,160	7,844	5,114	3,900
Anhydrous ammonia ..	64	46	46	4,197	6,389	<i>n.a.</i>
France—						
Nitrate of potash ..	3,418	3,072	2,876	2,149	1,653	2,079
Nitrate of soda ..	1,089	2,075	2,022	1,725	7,580	1,298
Nitrate of lime ..	4,413	5,907	12,485	10,598	19,439	17,100
Ammonium sulphate ..	79,097	118,518	133,514	86,478	100,252	169,582
Ammonium chloride ..	585	466	315	23	44	58
Ammonium nitrate ..	21,382	49,702	124,638	76,343	253,731	124,102
Cyanamide ..	855	226	838	158	188	471
Anhydrous ammonia ..	265	291	264	305	307	18,294
Germany (Federal)—						
Nitrate of potash ..	6,801	8,476	11,790	9,633	13,082	11,582
Nitrate of soda ..	3,588	4,515	19,214	24,745	11,452	24,883
Nitrate of lime ..	100,712	82,642	84,399	173,985	113,140	125,679
Ammonium nitrates ..	503,630	708,198	682,456	892,138	864,779	780,638
Ammonium chloride ..	8,021	8,967	9,719	11,405	10,810	<i>n.a.</i>
Other nitrogen fertilizers	584,248	633,863	929,217	862,376	796,054	831,309
Germany (East)—						
Nitrogen fertilizers (b)	88,206	81,260	94,123	100,657	112,167	104,222

(a) Years ended March 31 following that stated.

(b) N content.

## EXPORTS OF NITROGEN COMPOUNDS (cont.)

Long tons

Exporting Country and Description	1956	1957	1958	1959	1960	1961
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
Hungary—						
Nitrogen fertilizers ..	22,228	6,106	50,079	<i>n.a.</i>	<i>n.a.</i>	40,835
Italy—						
Nitrate of potash ..	111	12	264	235	606	971
Nitrate of soda ..	9	33	—	—	89	38
Nitrate of lime ..	609	—	1,163	4,876	15,455	9,635
Ammonium nitrate ..	125,981	164,193	256,261	434,903	385,538	432,115
Ammonium sulphate ..	263,941	236,833	312,959	609,206	570,986	808,354
Cyanamide ..	6,410	703	4	751	15,359	1,282
Netherlands—						
Nitrate of potash ..	51	31	65	53	68	84
Nitrate of soda ..	7	137	530	776	254	188
Nitrate of lime ..	55,339	48,853	54,582	67,268	64,003	63,887
Ammonium sulphate ..	305,019	359,905	317,290	307,377	261,387	183,802
Ammonium chloride ..	17	56	89	100	220	110
Ammonium nitrate ..	—	1	3	24	} 354,375	} 342,237
Lime ammonium nitrate	202,834	324,250	331,986	413,483		
Anhydrous ammonia ..	1,654	1,952	1,846	2,023	9,975	10
Norway—						
Nitrate of soda ..	5,328	1,300	1,453	1,903	2,120	2,405
Nitrate of lime ..	904,658	988,927	906,955	1,043,797	1,099,000	1,117,534
Ammonium nitrate ..	1,091	559	3,197	2,537	2,979	1,626
Cyanamide ..	2	3,405	8,678	5,391	1,808	1,372
Anhydrous ammonia ..	665	660	1,255	820	462	385
Portugal—						
Ammonium sulphate ..	6,536	8,697	11,305	13,256	19,277	36,928
Sweden—						
Ammonium nitrate ..	20	61	1,650	124	147	187
Switzerland—						
Nitrate of potash (crude)	18	3,946	2,927	15	—	—
Nitrates of potash and soda (purified) ..	97	39	1	2	—	3
Ammonium sulphate, etc. ..	5,183	2,026	9,058	11,114	10,807	10,041
U.S.S.R.—						
Ammonium nitrate ..	55,800	69,900	87,900	80,000	86,500	126,900
Ammonium sulphate ..	55,300	46,800	66,300	67,900	167,500	265,900
United States—						
Nitrate of soda ..	3,641	3,197	2,827	1,402	928	1,087
Ammonium nitrate ..	118,790	130,929	80,733	79,211	35,170	26,676
Ammonium sulphate ..	681,028	708,020	345,391	356,853	211,883	128,973
Other nitrogen fertilizers ..	75,990	113,111	35,514	35,178	56,445	16,201
Nitrogen phosphatic fertilizers ..	39,346	71,687	44,234	61,671	95,867	69,202
Anhydrous ammonia ..	47,611	60,666	(a) 59,490	(a) 75,015	(a) 97,018	(a) 91,444
Chile—						
Nitrate of soda ..	1,140,680	1,180,756	1,109,327	1,027,701	713,182	992,367
Nitrate of potash ..	55,305	51,313	54,635	86,018	53,545	70,115
Israel—						
Ammonium sulphate ..	—	7,234	1,575	—	<i>n.a.</i>	<i>n.a.</i>
Japan—						
Cyanamide ..	9,948	115	4,282	45,616	295	313
Ammonium nitrate ..	984	4,486	6,172	9,723	1,463	2,359
Ammonium chloride ..	4,549	16,544	24,542	132	2,646	52,670
Ammonium sulphate ..	469,104	705,616	805,481	1,019,287	870,435	792,563
Anhydrous ammonia ..	311	350	428	318	191	134

(a) Ammonia content.



## IMPORTS OF NITROGEN COMPOUNDS

Long tons

Importing Country and Description	1956	1957	1958	1959	1960	1961
COMMONWEALTH COUNTRIES						
United Kingdom—						
Nitrate of potash ..	2,354	1,205	2,639	2,740	2,683	3,368
Nitrate of soda ..	17,924	20,401	12,891	9,320	13,073	19,775
Cyanamide ..	509	1,369	1,071	} 309,095	191,825	204,663
Ammonium sulphate ..	37,474	550	103			
Ammonium phosphate ..	609	4,680	8,123			
Anhydrous ammonia ..	21	11	14	10,834	11,730	17,912
				<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Malta—						
Ammonium sulphate ..	2,411	1,423	1,734	2,351	2,111	2,468
Gambia—						
Ammonium sulphate ..	18	2	130	1	1	2
Ghana—						
Ammonium sulphate ..	1,560	208	619	551	271	207
Kenya—						
Nitrate of soda ..	—	45	—	—	1	—
Other nitrogen fertilizers	8,321	9,122	5,386	7,979	14,731	15,457
Mauritius—						
Nitrogen fertilizers ..	37,485	29,787	26,487	38,352	37,162	34,860
Nigeria—						
Ammonium sulphate ..	3,717	502	2,145	567	878	996
Other nitrogen fertilizers	223	510	200	33	867	129
Rhodesia and Nyasaland—						
Nitrates ..	113	139	189	202	<i>n.a.</i>	<i>n.a.</i>
Ammonium sulphate ..	34,281	55,014	27,161	19,270	25,923	33,528
Other nitrogen fertilizers	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	24,609	32,671	42,038
Tanganyika—						
Nitrogen fertilizers ..	2,564	<i>r</i> 3,970	<i>r</i> 2,309	2,340	3,305	3,683
Uganda—						
Nitrogen fertilizers ..	3,931	2,294	2,803	3,851	4,059	6,809
Canada—						
Nitrate of potash ..	487	467	607	662	662	818
Nitrate of soda ..	24,580	22,855	20,293	19,361	16,324	14,624
Ammonium sulphate ..	2,807	2,936	5,261	5,304	7,755	8,875
Ammonium chloride ..	618	853	520	541	414	276
Ammonium nitrate ..	620	93	26	23	27	578
Anhydrous ammonia ..	15,867	24,165	15,308	4,994	3,035	6,027
Other nitrogen fertilizers	203	28	36	336	537	592
Barbados—						
Nitrate of soda ..	35	—	5	—	—	—
Nitrogen fertilizers ..	11,933	16,721	8,657	10,424	11,516	11,024
Jamaica—						
Ammonium sulphate ..	20,480	14,130	16,314	14,566	13,834	23,137
Other nitrogen fertilizers ..	1,717	4,304	7,385	2,210	1,391	2,008
St. Vincent—						
Ammonium sulphate ..	391	793	785	653	325	1,135
Trinidad and Tobago—						
Ammonium sulphate ..	19,270	13,097	13,431	14,043	660	<i>n.a.</i>
British Guiana—						
Ammonium sulphate ..	17,758	17,648	17,755	18,531	17,927	19,855
Ceylon—						
Ammonium sulphate ..	97,526	121,398	97,638	142,029	128,863	138,588
Cyanamide ..	171	244	58	49	121	78
Cyprus—						
Ammonium sulphate ..	13,013	16,049	17,529	13,798	15,586	21,256
Ammonium chloride ..	4	5	—	—	—	—
Other nitrogen fertilizers	6,924	12,391	8,076	14,627	6,217	10,819
Hong Kong—						
Nitrate of potash ..	664	595	1,079	621	378	585
Nitrate of soda ..	—	—	—	363	401	539
Ammonium sulphate ..	95,127	25,663	60,602	27,889	2,179	64,472
Synthetic nitrates ..	754	449	65,281	16	21	37,103
Ammonium chloride ..	584	892	909	709	763	26,971

## IMPORTS OF NITROGEN COMPOUNDS (cont.)

Long tons

Importing Country and Description	1956	1957	1958	1959	1960	1961
<b>COMMONWEALTH COUNTRIES (cont.)</b>						
<b>India—</b>						
Nitrate of soda ..	663	17,193	7,528	36,876	(a) 13,261	(a) 19,844
Ammonium sulphate ..	73,334	84,110	182,535	248,158	(a) 248,589	(a) 238,243
Ammonium phosphate ..	—	10	47	228	(a) 5	(a) 8
Ammonium chloride ..	1,280	330	257	190	(a) 17	(a) 11
Anhydrous ammonia ..	83	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Other nitrogen fertilizers	4,013	634	15,301	28,332	(a) 45,462	(a) 44,619
<b>Malaya—</b>						
Nitrogen fertilizers ..	55,805	79,306	72,425	91,785	106,863	118,936
Anhydrous ammonia ..	2,186	1,984	1,895	2,956	4,242	3,878
<b>North Borneo—</b>						
Ammonium sulphate ..	446	366	320	363	531	327
Other nitrogen fertilizers	8	27	1	—	31	115
<b>Pakistan—</b>						
Nitrate of soda ..	5	—	—	—	55,224	160
Ammonium sulphate ..	300	(b) 145,426	<i>n.a.</i>	—	29,683	103,860
Ammonium chloride ..	—	28	8	—	128	523
Anhydrous ammonia ..	30	96	34	14	100	83
<b>Sarawak—</b>						
Ammonium sulphate ..	1,829	1,735	1,239	1,570	539	290
Other nitrogen fertilizers	106	29	158	63	55	158
<b>Australia (c)—</b>						
Nitrate of potash ..	368	347	470	354	451	519
Nitrate of soda ..	14,102	11,219	14,430	7,505	6,837	5,670
Ammonium chloride ..	3	2	104	150	50	90
Ammonium sulphate ..	9,466	28,251	20,945	19,979	11	110
Ammonium nitrate ..	2,475	1,566	461	478	162	469
Other nitrogen fertilizers	386	17	2,121	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
<b>New Zealand—</b>						
Nitrate of potash ..	85	80	138	144	128	196
Nitrate of soda ..	5,113	2,911	2,995	1,829	2,971	3,781
Ammonium sulphate ..	4,491	5,188	5,341	5,822	7,736	8,226
Ammonium chloride ..	266	297	276	512	407	784
Ammonium nitrate ..	7,830	3,856	2,952	3,194	5,696	5,624
Anhydrous ammonia ..	86	66	54	66	62	38
Cyanamide ..	1	—	49	—	—	—
<b>Irish Republic—</b>						
Nitrate of soda ..	3,439	3,989	4,001	6,150	4,276	4,316
Ammonium sulphate ..	55,840	62,082	70,195	72,414	83,090	94,378
Anhydrous ammonia ..	63	68	95	100	107	110
Ammonium nitrate ..	11,046	14,909	17,353	20,471	20,253	26,449
Other nitrogen fertilizers			—	377	422	650
<b>OTHER COUNTRIES</b>						
<b>Austria—</b>						
Nitrate of lime ..	1,040	2,356	1,871	1,050	1,303	927
Nitrate of potash ..	274	252	264	279	367	428
Cyanamide ..	1,040	1,618	1,844	1,875	1,640	2,251
Ammonium chloride ..	20	21	14	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
<b>Belgium-Luxemburg</b>						
<b>E.U.—</b>						
Nitrate of potash ..	1,651	1,731	1,962	2,053	2,007	2,279
Nitrate of soda ..	35,655	43,163	22,808	27,252	21,356	22,876
Nitrate of lime ..	1,455	1,713	1,309	9,010	15,804	5,816
Cyanamide ..	207	219	292	359	486	479
Ammonium sulphate ..	16,728	6,103	3,938	8,668	9,754	7,808
Ammonium chloride ..	1,797	2,021	1,359	2,213	2,462	1,892
Ammonium nitrate ..	9,515	5,004	15,876	32,216	14,856	24,162
Anhydrous ammonia ..	17,604	666	252	4	57	<i>n.a.</i>

(a) Years ended March 31 following that stated. (c) Years ended June 30 of that stated.  
 (b) Including purchases on Government account.

## IMPORTS OF NITROGEN COMPOUNDS (cont.)

Long tons

Importing Country and Description	1956	1957	1958	1959	1960	1961
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
Czechoslovakia—						
Nitrogen fertilizers (a)	31,000	17,000	13,000	16,000	33,630	37,000
Denmark—						
Nitrate of potash ..	949	913	956	843	1,188	879
Nitrate of soda ..	26,179	26,168	8,918	16,379	20,134	160,916
Nitrate of lime ..	539,145	609,616	577,035	582,172	685,176	728,911
Ammonium sulphate ..	15,178	8,453	11,043	13,568	14,298	10,501
Ammonium chloride ..	914	730	575	864	832	966
Ammonium nitrates ..	24,497	10,759	12,326	6,970	16,788	27,462
Cyanamide ..	30	142	110	221	117	160
Finland—						
Nitrate of potash ..	43	114	115	249	140	263
Nitrate of soda ..	199	80	352	325	307	386
Nitrate of lime ..	48,198	19,144	29,393	39,621	95,534	69,352
Ammonium nitrate ..	3,780	3,161	4,534	3,855	4,232	33,327
Ammonium sulphate ..	55,681	56,945	50,254	32,098	42,478	34,221
Ammonium chloride ..	580	512	300	791	671	1,002
France—						
Nitrate of soda ..	88,644	92,847	99,229	69,216	72,163	66,823
Nitrate of lime, etc. ..	4,905	51	65	20	—	—
Ammonium sulphate ..	1,021	520	1,982	22,045	25,090	22,977
Ammonium nitrate ..	10,679	151	161	43	5	3,768
Ammonium chloride ..	2,552	1,768	2,093	1,859	1,554	1,572
Anhydrous ammonia ..	8,991	4,558	316	1,651	4,809	7,030
Cyanamide ..	16,600	13,881	14,781	7,346	27	192
Germany (Federal)—						
Nitrate of potash ..	304	79	186	331	337	756
Nitrate of soda ..	32,833	11,411	20,543	16,661	15,025	13,021
Ammonium nitrates ..	—	—	20	2,756	10,088	21,074
Greece—						
Nitrate of potash ..	126	52	132	109	123	n.a.
Nitrate of soda ..	2,184	776	17,675	6,593	1,941	n.a.
Ammonium nitrate ..	33,591	15,984	86,688	96,387	77,670	49,145
Ammonium sulphate ..	60,103	142,929	202,264	141,028	130,834	129,696
Ammonium chloride ..	213	218	193	162	186	n.a.
Lime ammonium nitrate ..	6,530	4,927	11,546	1,847	n.a.	n.a.
Other nitrogen fertilizers ..	38,762	26,553	25,860	35,918	33,261	n.a.
Hungary—						
Nitrogen fertilizers ..	31,932	166,940	163,635	180,798	150,249	145,984
Iceland—						
Nitrate of lime ..	20	25	44	—	30	177
Lime ammonium nitrate ..	—	—	—	8,857	1,968	—
Nitrophoska ..	492	1,033	1,230	1,526	1,673	2,116
Italy—						
Nitrate of potash ..	874	886	638	964	1,240	758
Nitrate of soda ..	42,276	44,507	45,933	40,428	8,500	15,571
Nitrate of lime ..	—	3,789	6,552	—	—	—
Ammonium chloride ..	854	347	766	489	373	444
Ammonium nitrate ..	156	3,437	3,448	3,284	2,341	3,284
Ammonium sulphate ..	984	615	3,248	1,586	114	853
Cyanamide ..	—	—	15	21	81	—
Netherlands—						
Nitrate of potash ..	2,400	1,827	1,470	1,755	1,293	1,841
Nitrate of soda ..	17,240	11,457	36,267	32,768	10,660	24,643
Nitrate of lime ..	—	—	—	1	3,730	1
Ammonium sulphate ..	12,119	265	1,045	83	1,330	2,009
Ammonium chloride ..	1,009	1,077	1,254	1,463	1,787	1,401
Ammonium nitrate ..	1,674	7,390	9,707	20,212	—	—
Lime ammonium nitrate ..	20,310	48,834	6,478	16,619	56,249	67,371
Cyanamide ..	1,169	6,447	3,062	4,404	872	3,221
Anhydrous ammonia ..	—	7,855	1,139	9,968	1,585	8,163
Ammonium phosphates ..	5,886	5,644	10,563	6,515	n.a.	n.a.
Other nitrogen fertilizers ..	8,176	5,279	22,950	17,051	17,330	17,797

(a) N content.

## IMPORTS OF NITROGEN COMPOUNDS (cont.)

Long tons

Importing Country and Description	1956	1957	1958	1959	1960	1961
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
<b>Norway—</b>						
Nitrate of potash ..	194	258	155	146	164	156
Ammonium sulphate ..	—	246	246	319	343	354
Anhydrous ammonia ..	8,798	48,883	19,380	1,481	—	—
<b>Portugal—</b>						
Nitrate of potash ..	391	309	415	377	321	402
Nitrate of soda ..	22,169	3,118	17,145	14,529	9,056	8,050
Nitrate of lime ..	1,304	12,018	14,886	11,318	7,984	6,681
Ammonium sulphate ..	44,667	122,420	84,999	39,551	46,828	28,145
Ammonium chloride ..	105	120	133	101	145	167
Ammonium nitrate ..	3,527	3,182	4,003	13,009	11,283	5,981
Cyanamide ..	1,264	1,947	486	974	974	—
Lime ammonium nitrate	45,129	49,086	68,794	67,756	<i>n.a.</i>	<i>n.a.</i>
Nitrophoska ..	3,881	7,130	6,625	10,443	9,727	11,853
Anhydrous ammonia ..	124	106	85	84	3	15,849
<b>Roumania—</b>						
Nitrogen fertilizers (a)	<i>n.a.</i>	<i>n.a.</i>	9,300	7,800	8,500	4,400
<b>Spain—</b>						
Nitrate of soda ..	155,415	103,714	158,308	144,268	72,429	83,605
Ammonium sulphate ..	348,636	347,836	455,143	710,688	297,570	513,250
Nitrate of lime ..	65,288	32,307	77,987	176,581	123,149	83,422
Other nitrogen fertilizers	84,224	100,742	95,505	89,868	60,378	59,974
<b>Sweden—</b>						
Nitrate of potash ..	924	839	801	838	976	873
Nitrate of soda ..	25,146	42,076	29,050	31,446	31,033	39,410
Nitrate of lime ..	324,503	334,302	309,142	332,304	340,122	328,147
Ammonium nitrate ..	1,478	571	1,143	168	75	79
Ammonium sulphate ..	9,503	11,064	12,213	12,235	21,647	16,685
Ammonium chloride ..	892	878	1,002	1,093	1,238	1,182
Cyanamide ..	—	—	5	—	—	—
<b>Switzerland—</b>						
Nitrates of potash and soda ..	827	641	938	2,035	808	604
Ammonium sulphate, etc. ..	35	96	328	452	505	544
Ammonium chloride ..	702	640	630	689	1,197	732
<b>Yugoslavia—</b>						
Nitrate of potash ..	39	—	10	—	—	—
Nitrate of soda ..	21,076	—	—	9,842	14,763	40
Ammonium sulphate ..	—	—	34,095	—	13,811	19,988
Ammonium nitrate ..	<i>n.a.</i>	<i>n.a.</i>	10,067	1,120	—	129
Lime ammonium nitrate	159,250	275,121	356,017	348,888	333,011	314,847
<b>Algeria—</b>						
Nitrate of potash ..	377	181	241	244	151	<i>n.a.</i>
Nitrate of soda ..	842	1,358	1,619	1,307	794	<i>n.a.</i>
Nitrate of lime ..	3,035	4,181	5,812	3,410	3,986	<i>n.a.</i>
Ammonium chloride ..	539	438	212	7	18	<i>n.a.</i>
Ammonium sulphate ..	12,644	18,635	21,956	21,495	19,264	<i>n.a.</i>
Ammonium nitrate ..	11,852	17,142	26,074	24,980	29,362	<i>n.a.</i>
Cyanamide ..	203	39	113	88	129	<i>n.a.</i>
<b>Angola—</b>						
Ammonium sulphate ..	2,225	2,953	9,922	4,549	4,097	5,215
<b>Cameroun—</b>						
Nitrogen fertilizers ..	2,358	3,048	4,220	6,678	5,706	6,319
<b>Canary Islands—</b>						
Ammonium sulphate ..	46,229	49,602	58,506	67,356	60,085	51,095
Nitrate of lime ..	1,968	489	3,445	3,876	—	549
Other nitrogen fertilizers	—	1,974	3,490	7,421	1,946	5,722
<b>Congo Republic—</b>						
Ammonium chloride ..	61	72	85	17	<i>n.a.</i>	<i>n.a.</i>
Nitrogen fertilizers ..	3,224	4,509	4,186	3,695	<i>n.a.</i>	<i>n.a.</i>

(a) N content.

## IMPORTS OF NITROGEN COMPOUNDS (cont.)

Long tons

Importing Country and Description	1956	1957	1958	1959	1960	1961
<b>OTHER COUNTRIES (cont.)</b>						
Egypt—						
Nitrate of soda ..	89,530	43,354	57,492	49,368	18,715	n.a.
Nitrate of lime ..	7,012	11,478	10,051	11,124	18,211	n.a.
Ammonium sulphate ..	91,081	151,582	159,867	r 147,036	94,438	n.a.
Ammonium chloride ..	505	661	1,364	308	179	n.a.
Ammonium nitrate ..	182,771	360,833	440,892	127,880	432,692	n.a.
Ammonium sulpho-nitrate ..	9,596	40,071	30,514	1,968	20,531	n.a.
Malagasy Republic—						
Nitrogen fertilizers ..	2,740	3,151	3,386	1,808	2,476	2,150
Morocco—						
Nitrate of potash ..	17	9	111	21	26	62
Nitrate of soda ..	245	583	640	483	300	293
Nitrate of lime ..	855	1,010	1,154	1,125	725	524
Ammonium nitrate ..	6,328	6,352	12,450	11,579	11,361	12,467
Ammonium sulphate ..	7,883	7,358	12,130	13,725	14,126	18,984
Other nitrogen fertilizers	2,097	2,593	2,716	1,797	2,641	1,674
Reunion—						
Nitrogen fertilizers ..	8,019	8,261	7,712	5,496	11,051	10,794
South Africa—						
Nitrate of potash ..	182	243	195	199	329	n.a.
Nitrate of soda ..	1,260	1,004	803	955	1,010	n.a.
Ammonium sulphate ..	40,259	53,328	45,119	42,945	39,161	n.a.
Ammonium chloride ..	760	1,039	2,192	1,380	1,557	n.a.
Ammonium nitrate ..	3,449	6,674	11,914	16,020	39,028	n.a.
Sudan—						
Synthetic nitrate of soda, calcium and ammonia ..	4,164	8,525	10,226	11,797	15,238	26,233
Other nitrogen fertilizers	18,695	28,559	24,742	21,824	34,162	41,521
Tunisia—						
Nitrate of potash ..	22	79	98	n.a.	n.a.	n.a.
Nitrate of soda ..	744	541	258	} 10,366	} 11,827	} 12,596
Nitrate of lime, etc. ..	—	39	186			
Ammonium nitrate ..	1,051	3,876	8,053			
Ammonium sulphate, etc.	1,109	1,644	2,708			
Costa Rica—						
Nitrogen fertilizers ..	10,076	12,504	13,634	19,796	14,105	13,416
Cuba—						
Nitrate of potash ..	16,205	10,304	7,972	953	n.a.	n.a.
Nitrate of soda ..	5,459	5,862	2,319	725	n.a.	n.a.
Ammonium nitrate ..	164	211	190	2,033	n.a.	n.a.
Ammonium sulphate ..	38,265	57,503	52,349	72,597	n.a.	n.a.
Anhydrous ammonia ..	3,608	12,127	6,420	4,813	n.a.	n.a.
Dominican Republic—						
Ammonium sulphate ..	7,901	21,385	13,387	38,332	7,506	n.a.
Guatemala—						
Nitrate of soda ..	n.a.	n.a.	n.a.	124	505	1,019
Other nitrogen fertilizers	n.a.	n.a.	n.a.	9,005	13,039	10,872
Honduras—						
Nitrogen fertilizers ..	15,318	14,055	12,315	14,561	11,849	11,731
Mexico—						
Nitrate of soda ..	10,462	14,433	9,698	15,261	11,276	8,571
Ammonium chloride ..	795	535	596	515	646	837
Ammonium sulphate ..	34,306	8,094	9,194	24,510	621	1
Ammonium nitrate ..	34,120	33,118	41,372	25,932	9,286	11,411
Anhydrous ammonia ..	15,741	16,028	26,038	39,043	61,452	62,983
Nicaragua—						
Nitrate of soda ..	144	—	494	397	—	101
Other nitrogen fertilizers	544	781	1,566	1,421	2,466	6,266
Panama Republic—						
Nitrogen fertilizers ..	3,440	n.a.	9,373	9,860	11,172	n.a.
Salvador—						
Nitrate of soda ..	n.a.	n.a.	n.a.	981	296	1,069
Other nitrogen fertilizers	n.a.	n.a.	n.a.	37,363	47,774	52,886

## IMPORTS OF NITROGEN COMPOUNDS (cont.)

Long tons

Importing Country and Description	1956	1957	1958	1959	1960	1961
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
<b>United States—</b>						
Nitrates of potash and soda, crude .. ..	17,367	22,672	20,989	r 32,561	16,698	12,322
Nitrate of potash .. ..	2,114	2,011	2,314	2,080	2,677	3,961
Nitrate of soda .. ..	446,439	522,272	398,304	412,290	317,064	441,379
Nitrate of lime .. ..	58,296	53,621	78,970	61,472	55,378	65,837
Ammonium sulphate .. ..	176,473	147,079	166,858	194,172	188,706	216,845
Ammonium chloride .. ..	2,330	2,234	2,781	4,088	5,789	5,268
Ammonium nitrate .. ..	390,696	315,004	299,358	304,497	219,276	226,615
Ammonium phosphates .. ..	170,155	151,313	141,716	192,596	107,087	100,901
Cyanamide .. ..	59,987	51,695	51,191	52,143	39,375	37,488
<b>Argentina—</b>						
Nitrate of potash .. ..	—	—	—	15	156	68
Nitrate of soda .. ..	20,859	23,765	41,194	30,367	1,493	16,352
Ammonium sulphate .. ..	13,405	21,807	19,397	18,650	7,820	12,580
<b>Brazil—</b>						
Nitrate of potash .. ..	1,345	909	494	602	1,337	749
Nitrate of soda .. ..	41,956	49,746	50,092	48,237	36,151	53,131
Nitrate of potash and soda .. ..	15,815	11,379	—	7,690	15,841	2,989
Ammonium chloride .. ..	691	502	1,088	763	1,292	1,617
Ammonium nitrate .. ..	8,341	14,499	18,211	13,916	18,179	8,884
Ammonium sulphate .. ..	47,156	55,153	88,357	84,724	154,889	124,441
Cyanamide .. ..	58	139	253	31	323	133
Other nitrogen fertilizers .. ..	7,082	4,591	14,961	9,462	12,926	9,685
<b>Chile—</b>						
Ammonium chloride .. ..	395	315	316	n.a.	n.a.	n.a.
Ammonium sulphate .. ..	111	115	95	n.a.	n.a.	n.a.
Ammonium nitrate .. ..	4,406	3,342	2,497	7,113	3,197	n.a.
Anhydrous ammonia .. ..	36	192	99	n.a.	n.a.	n.a.
<b>Colombia—</b>						
Nitrate of potash .. ..	304	267	283	222	205	247
Nitrate of soda .. ..	611	394	143	—	79	30
Ammonium chloride .. ..	218	246	145	354	292	540
Ammonium sulphate .. ..	5,996	2,987	4,871	1,166	7,163	9,728
Other nitrogen fertilizers .. ..	12,638	28,410	15,216	10,186	17,145	19,766
Anhydrous ammonia .. ..	104	140	133	95	161	133
<b>Ecuador—</b>						
Nitrogen fertilizers .. ..	2,115	5,203	3,343	5,814	n.a.	n.a.
<b>Peru—</b>						
Nitrate of potash .. ..	58	66	71	78	129	76
Nitrate of soda .. ..	9,382	15,334	14,760	9,507	10,479	6,254
Anhydrous ammonia .. ..	167	194	181	195	68	37
Other nitrogen fertilizers .. ..	18,462	43,766	65,706	84,738	114,414	107,720
<b>Uruguay—</b>						
Nitrate of potash .. ..	n.a.	595	914	2	111	n.a.
Nitrate of soda .. ..	n.a.	907	2,084	504	619	n.a.
Ammonium sulphate .. ..	n.a.	10,133	8,974	4,194	4,921	n.a.
<b>Venezuela—</b>						
Nitrate of potash .. ..	330	126	51	158	137	172
Nitrate of soda .. ..	771	362	545	912	651	377
Nitrate of lime .. ..	n.a.	—	1	32	1,769	4,090
Ammonium sulphate .. ..	6,765	17,645	14,880	21,040	17,333	18,891
Cyanamide .. ..	855	—	—	103	—	1
<b>Burma—</b>						
Nitrogen fertilizers .. ..	3,602	8,545	2,972	19	10,361	207
<b>Formosa—</b>						
Nitrate of soda .. ..	1,263	913	545	483	237	287
Ammonium sulphate .. ..	247,046	180,625	418,679	477,107	291,426	187,826
Other nitrogen fertilizers .. ..	984	1,230	6,070	5,138	40,966	46,672

## IMPORTS OF NITROGEN COMPOUNDS (cont.)

Long tons

Importing Country and Description	1956	1957	1958	1959	1960	1961
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
Indonesia—						
Nitrate of potash ..	244	199	142	219	181	<i>n.a.</i>
Nitrate of soda ..	220	163	202	—	219	<i>n.a.</i>
Ammonium chloride ..	223	509	389	301	311	<i>n.a.</i>
Ammonium sulphate ..	122,484	148,173	106,871	208,573	139,950	<i>n.a.</i>
Anhydrous ammonia ..	1,386	1,333	809	1,124	920	<i>n.a.</i>
Other nitrogen fertilizers	3,272	1,465	1,736	662	6,167	<i>n.a.</i>
Iraq—						
Nitrogen fertilizers ..	323	937	1,216	716	2,859	<i>n.a.</i>
Israel—						
Ammonium sulphate ..	30,255	295	—	—	—	<i>n.a.</i>
Nitrogen fertilizers ..	11,003	3,848	7,944	6,858	2,954	<i>n.a.</i>
Japan—						
Nitrate of soda ..	9,246	11,909	13,578	15,831	16,354	20,285
Ammonium sulphate ..	101	536	—	—	3,839	886
Jordan—						
Nitrogen fertilizers ..	2,036	488	1,275	1,811	805	1,958
Korea (South)—						
Ammonium sulphate ..	26,481	8,431	471,998	391,960	508,218	573,008
Ammonium nitrate ..	<i>n.a.</i>	<i>n.a.</i>	32,434	22,613	24,180	2,416
Ammonium chloride ..	<i>n.a.</i>	<i>n.a.</i>	417	743	453	461
Cyanamide ..	<i>n.a.</i>	<i>n.a.</i>	511	518	1,380	1,806
Lebanon—						
Nitrogen fertilizers ..	27,574	25,191	22,337	26,158	36,787	<i>n.a.</i>
Philippine Republic—						
Nitrate of potash ..	59	1,482	105	989	3,512	<i>n.a.</i>
Nitrate of soda ..	33	—	—	—	142	309
Ammonium phosphate ..	11,247	39,840	2,781	24,365	21,301	24,858
Ammonium sulphate ..	32,302	50,241	19,643	95,269	47,955	60,050
Other nitrogen fertilizers	4,332	<i>n.a.</i>	46,089	30,504	34,959	33,283
Syria—						
Nitrogen fertilizers ..	16,116	13,877	24,198	19,824	30,908	46,198
Thailand—						
Nitrate of potash ..	547	1,052	823	829	787	705
Ammonium chloride ..	280	361	513	595	741	1,358
Ammonium sulphate ..	15,185	21,108	17,351	22,321	28,757	29,621
Other nitrogen fertilizers	195	1,007	2,158	433	2,289	2,383
Turkey—						
Nitrate of soda ..	2,988	1,588	440	5	1,476	1,434
Ammonium chloride ..	160	122	372	549	198	775
Ammonium sulphate ..	39,593	38,599	32,183	88,368	39,583	121,679
Ammonium nitrate ..	2,308	915	4,516	1,126	1,366	2,038
Vietnam (South)—						
Nitrogen fertilizers ..	27,824	23,224	40,415	80,859	54,552	48,582

**PETROLEUM AND ALLIED PRODUCTS**  
**PRODUCTION OF CRUDE PETROLEUM\***

Long tons

Producing Country	1956	1957	1958	1959	1960	1961
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom—						
Crude petroleum .. .. .	66,100	82,000	79,900	82,700	85,400	105,800
Shale oil .. .. .	77,600	71,100	63,400	60,500	59,900	43,100
Nigeria (b) .. .. .	—	1,200	270,000	557,000	867,000	2,302,000
Canada (b) .. .. .	22,930,855	24,246,401	22,066,159	24,637,133	25,271,229	29,448,165
Barbados .. .. .	—	—	—	20	419	241
Trinidad (b) .. .. .	4,132,681	4,866,278	5,336,437	5,845,542	6,051,047	6,538,253
Bahrain Islands (c) .. .. .	1,478,400	1,593,000	2,004,000	2,199,000	2,213,000	2,213,000
British Borneo—						
Brunei .. .. .	5,547,433	5,458,923	5,089,492	5,262,702	4,473,867	4,015,618
Sarawak .. .. .	70,616	65,906	56,902	54,708	59,442	59,498
India (b) .. .. .	378,010	421,769	419,000	434,250	442,740	432,000
Pakistan (b) .. .. .	302,550	314,240	324,600	333,400	376,600	404,200
Qatar (c) .. .. .	5,783,812	6,504,814	8,091,813	7,866,650	8,083,032	8,249,305
New Zealand .. .. .	1,000	838	784	771	783	627
<b>TOTAL .. .. .</b>	<b>r40,769,100</b>	<b>r43,626,000</b>	<b>r43,803,000</b>	<b>r47,334,000</b>	<b>47,985,000</b>	<b>53,812,000</b>
<b>OTHER COUNTRIES</b>						
Albania .. .. .	261,551	482,030	397,000	471,000	(d) 590,000	(d) 620,000
Austria .. .. .	3,373,351	3,135,286	2,791,599	2,419,951	2,409,722	2,318,657
Bulgaria .. .. .	242,892	280,000	218,000	189,000	197,000	203,000
Czechoslovakia .. .. .	106,000	106,000	104,000	121,000	135,000	152,000
France .. .. .	1,242,880	1,395,108	1,368,637	r 1,590,169	1,941,896	2,129,000
Germany (Federal)—						
Crude petroleum .. .. .	3,450,843	3,897,104	4,361,605	5,022,167	5,442,555	6,106,467
Shale oil .. .. .	21,692	21,530	22,009	21,551	19,805	15,946
Hungary .. .. .	1,183,000	663,000	816,000	1,019,000	1,196,000	1,432,000
Italy .. .. .	559,773	1,241,627	1,521,288	r 1,668,663	1,966,561	1,940,229
Netherlands .. .. .	1,077,008	1,497,269	1,595,573	1,745,207	1,887,382	2,014,169
Poland .. .. .	180,800	177,700	172,200	172,100	191,000	200,000
Roumania .. .. .	10,747,993	11,003,713	11,157,266	11,257,190	11,318,724	11,399,107
U. S. S. R. .. .. .	82,482,000	96,793,000	111,417,000	127,600,000	145,000,000	163,000,000
Yugoslavia .. .. .	289,041	389,313	454,855	583,128	928,662	1,319,574
Algeria (e) .. .. .	33,010	18,704	432,041	r 1,215,000	8,395,700	15,125,000
Angola .. .. .	8,246	9,882	49,833	49,721	65,794	102,780
Congo (Republic of) .. .. .	—	—	—	—	51,028	101,313
Egypt .. .. .	1,728,000	2,359,000	3,135,000	r 3,105,000	3,267,000	3,710,000
Gabon .. .. .	—	173,796	497,000	741,433	787,470	762,268
Morocco .. .. .	95,913	73,910	73,153	93,079	90,877	78,740
South Africa—						
Shale oil (a) .. .. .	36,798	24,850	23,948	26,125	25,062	6,045
Cuba (b) .. .. .	69,000	56,000	45,000	26,000	(d) 15,000	(d) 10,000
Mexico (b) .. .. .	12,802,000	12,496,000	13,338,000	13,576,000	13,951,000	15,040,000
United States (b) .. .. .	348,971,100	348,920,100	326,535,500	343,278,700	343,324,400	349,567,700
Argentina .. .. .	4,364,500	4,781,345	r 5,002,481	6,278,900	9,001,100	11,879,800
Bolivia (b) .. .. .	420,200	470,100	451,700	416,800	408,900	355,800
Brazil .. .. .	545,991	1,357,134	2,545,552	3,034,000	3,809,000	4,480,000
Chile .. .. .	455,000	556,000	715,000	825,000	928,000	1,188,000
Colombia (b) .. .. .	6,215,631	6,442,880	6,605,735	7,545,600	7,855,000	7,500,000
Ecuador (b) .. .. .	455,676	425,093	409,718	367,545	367,206	390,100

\*Excluding Natural Gasoline. See page 235.

(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, Trinidad 7·0, Burma 7·4, India 7·4, Pakistan 7·0, Cuba 7·5, Mexico 7·1, United States 7·5, Argentina 7·1, Bolivia 7·6, Colombia 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	1956	1957	1958	1959	1960	1961
<b>OTHER COUNTRIES (cont.)</b>						
Peru .. .. .	2,502,812	2,523,040	2,458,907	r 2,324,000	2,497,000	2,550,000
Venezuela .. .. .	129,279,000	146,753,000	136,697,000	145,417,118	149,767,000	153,231,000
Burma .. .. .	245,776	399,779	469,321	536,047	551,086	551,362
China (a) .. .. .	1,140,000	1,440,000	2,220,000	3,400,000	5,000,000	6,100,000
Formosa .. .. .	2,790	2,310	1,980	1,720	1,870	2,190
Indonesia .. .. .	12,592,104	15,230,000	15,850,000	17,930,538	20,270,726	20,948,230
Iran (b) .. .. .	25,934,000	34,765,000	39,780,000	46,709,000	50,991,000	57,094,000
Iraq .. .. .	30,820,078	21,558,279	35,128,861	41,080,000	46,709,000	48,050,000
Israel .. .. .	27,000	57,000	100,439	120,000	129,000	128,000
Japan .. .. .	303,000	314,000	359,000	397,000	514,000	642,000
Kuwait .. .. .	54,117,349	56,375,946	69,117,138	68,437,498	80,570,000	81,370,000
Netherlands New Guinea (c) .. .. .	357,632	326,486	262,782	241,106	244,579	164,791
Saudi Arabia .. .. .	47,935,041	48,229,690	49,399,006	53,307,390	61,087,931	68,138,424
Turkey .. .. .	300,789	293,430	322,700	367,000	356,760	418,071
Neutral Zone (d) .. .. .	1,682,000	3,348,000	4,282,000	6,110,000	7,175,000	8,260,000
<b>TOTAL .. .. .</b>	<b>r788,600,000</b>	<b>r830,800,000</b>	<b>r852,700,000</b>	<b>r918,800,000</b>	<b>991,000,000</b>	<b>1,051,000,000</b>
<b>WORLD'S TOTAL .. .. .</b>	<b>829,400,000</b>	<b>874,400,000</b>	<b>896,500,000</b>	<b>r966,100,000</b>	<b>1,039,000,000</b>	<b>1,105,000,000</b>

(a) Including oil from shale and coal.

(b) 1954 Oil Agreement Area only.

(c) Exports.

(d) Neutral Zone of Kuwait and Saudi Arabia.

## PRODUCTION OF NATURAL GASOLINE

Long tons

Producing Country	1956	1957	1958	1959	1960	1961
<b>COMMONWEALTH COUNTRIES</b>						
Canada .. .. .	102,696	110,018	111,146	158,748	158,495	213,068
Trinidad (a) .. .. .	29,295	30,100	26,196	24,694	23,686	21,539
Brunei .. .. .	61,395	69,668	71,508	70,793	64,465	63,289
<b>OTHER COUNTRIES</b>						
Italy .. .. .	61,722	64,893	63,904	r 58,954	58,007	56,239
Poland .. .. .	19,200	18,300	18,100	18,100	18,800	n.a.
Roumania .. .. .	212,000	219,000	231,000	254,000	283,000	n.a.
Egypt .. .. .	5,500	6,100	r 12,000	r 14,000	10,000	n.a.
Mexico .. .. .	398,000	455,000	823,000	1,085,000	n.a.	n.a.
United States .. .. .	b12,118,520	b12,283,980	b11,889,560	b11,527,120	11,297,570	11,635,440
Argentina .. .. .	8,857	9,018	10,000	11,000	n.a.	n.a.
Colombia .. .. .	147,034	142,788	144,322	90,967	80,572	75,633
Ecuador .. .. .	19,410	18,849	18,033	r 15,210	14,560	n.a.
Peru .. .. .	109,364	106,074	87,419	n.a.	n.a.	n.a.
Venezuela .. .. .	430,000	436,515	503,629	525,202	403,096	399,397
Formosa .. .. .	393	367	259	236	n.a.	n.a.
Japan .. .. .	3,600	3,100	1,700	2,000	6,000	6,000
<b>WORLD'S TOTAL (c) .. .. .</b>	<b>13,730,000</b>	<b>13,970,000</b>	<b>14,010,000</b>	<b>14,000,000</b>	<b>14,000,000</b>	<b>14,000,000</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	1956	1957	1958	1959	1960	1961
<b>COMMONWEALTH COUNTRIES</b>						
Barbados .. .. .	125	108	98	94	343	249
Canada .. .. .	169,153	220,007	337,804	417,335	522,972	646,018
Trinidad .. .. .	51,742	65,418	79,191	94,417	97,652	102,335
Brunei .. .. .	2,890	2,671	2,609	2,694	2,879	2,844
Pakistan .. .. .	10,441	15,349	19,308	22,365	29,842	34,665
New Zealand .. .. .	8	7	5	5	5	5
<b>OTHER COUNTRIES</b>						
Austria .. .. .	26,307	26,787	28,968	39,835	51,844	54,952
Czechoslovakia .. .. .	9,687	27,260	44,000	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
France .. .. .	11,681	20,711	37,344	r 92,318	158,106	216,100
Germany (Federal) .. .. .	16,281	16,378	16,588	19,377	22,699	26,015
Hungary .. .. .	17,022	14,437	13,258	11,701	12,012	11,431
Italy .. .. .	157,690	176,118	182,762	216,040	227,682	242,367
Netherlands .. .. .	5,970	5,860	7,350	8,830	8,100	<i>n.a.</i>
Poland .. .. .	15,411	14,800	13,564	14,980	19,400	25,900
Roumania .. .. .	154,464	163,605	179,233	204,202	230,205	254,200
U.S.S.R. (a) .. .. .	426,144	656,250	991,820	r 1,249,800	1,599,900	<i>n.a.</i>
Yugoslavia .. .. .	2,424	1,466	1,627	1,765	1,869	2,428
Algeria .. .. .	—	—	—	—	—	21,600
Gabon .. .. .	—	—	—	244	263	237
Morocco .. .. .	258	119	65	146	<i>n.a.</i>	<i>n.a.</i>
Tunisia .. .. .	205	213	206	223	253	256
Mexico .. .. .	125,152	163,952	262,662	329,408	341,311	360,564
United States .. .. .	10,081,923	10,680,258	11,030,298	12,046,115	12,771,038	13,254,025
Argentina .. .. .	40,533	49,945	58,400	25,700	37,400	<i>n.a.</i>
Bolivia .. .. .	250	280	200	250	210	<i>n.a.</i>
Brazil .. .. .	2,962	5,551	10,611	15,135	18,889	18,600
Colombia .. .. .	21,900	22,400	28,000	32,100	28,700	27,900
Peru .. .. .	<i>n.a.</i>	44,272	45,171	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Venezuela .. .. .	976,368	1,134,456	1,113,031	1,124,264	1,114,578	1,171,200
Burma .. .. .	231	225	325	178	730	333
Formosa .. .. .	1,056	1,105	981	930	898	1,309
Indonesia .. .. .	72,825	76,560	73,600	79,415	86,576	91,455
Iran .. .. .	15,500	25,600	26,300	32,055	36,299	<i>n.a.</i>
Japan .. .. .	6,244	8,604	12,992	17,896	25,831	33,559

\*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: 1956—244; 1957—291; 1958—334; 1959—477; 1960—642; 1961—727.

Shipments: 1956—267; 1957—310; 1958—352; 1959—375; 1960—475; 1961—552.

(a) Probably includes artificial gas obtained as a by-product of processing coal and shale.

PRODUCTION OF ASPHALT ROCK

Long tons

Producing Country	1956	1957	1958	1959	1960	1961
France .. .. .	78,465	69,972	86,048	89,366	95,451	94,561
Germany (Federal) ..	112,356	96,141	84,226	86,302	88,485	81,025
Italy .. .. .	383,586	327,740	277,548	405,706	402,176	331,513
Angola .. .. .	18,587	21,181	34,175	27,500	25,376	22,423
United States (a) ..	1,302,262	1,043,310	1,184,369	1,356,040	1,109,709	1,014,000
Philippine Republic ..	671	1,081	2,445	11,601	18,081	6,546
Syria .. .. .	42,351	20,529	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>

(a) Sales.

PRODUCTION OF NATURAL ASPHALT, ETC.

Long tons

Producing Country	1956	1957	1958	1959	1960	1961
COMMONWEALTH COUNTRIES						
Trinidad .. .. .	141,127	135,930	133,042	145,418	154,296	176,755
OTHER COUNTRIES						
Spain .. .. .	10,300	11,158	10,115	8,107	8,667	<i>n.a.</i>
United States (a)—						
Gilsonite .. .. .	79,467	185,450	283,286	338,716	341,997	377,100
Argentina—						
Grahamite ("Rafaelite")						
(b) .. .. .	1,214	1,393	1,832	1,553	2,125	1,152
Impsonite .. .. .	9,544	25,365	19,226	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Iraq .. .. .	<i>n.a.</i>	91,731	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>

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) Sales.

(b) Exports.

PRODUCTION OF OIL-SHALE

Long tons

Producing Country	1956	1957	1958	1959	1960	1961
COMMONWEALTH COUNTRIES						
United Kingdom ..	1,053,835	902,062	740,974	708,476	668,816	467,813
OTHER COUNTRIES						
Austria .. .. .	707	694	320	224	751	542
France .. .. .	143,869	40,538	2,552	2,904	2,632	4,000
Germany (Federal) (c) ..	390,625	403,877	394,420	410,662	373,231	306,230
Italy .. .. .	153	89	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Spain .. .. .	588,337	728,231	760,908	831,482	819,361	845,053
Sweden (b) .. .. .	2,101,852	2,113,159	2,030,390	2,878,763	3,649,767	<i>n.a.</i>
South Africa (a) .. ..	256,942	<i>n.a.</i>	145,486	134,706	144,971	<i>n.a.</i>

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): 1956—1,823,214; 1957—1,844,214; 1958—1,774,245; 1959—2,614,052; 1960—*n.a.*; 1961—*n.a.*

(c) The amounts used as retort shale were as follows (long tons): 1956—*n.a.*; 1957—*n.a.*; 1958—*n.a.*; 1959—129,237; 1960—111,039; 1961—103,648.

## PRODUCTION OF PETROLEUM REFINERY PRODUCTS IN CERTAIN COUNTRIES\*

Long tons

Producing Country and Description	1956	1957	1958	1959	1960	1961
<b>COMMONWEALTH COUNTRIES</b>						
<b>United Kingdom (a)—</b>						
Aviation and motor spirit	7,215,000	5,693,000	6,751,000	7,531,000	7,917,000	8,353,000
Other spirit .. .. .	253,000	236,000	144,000	141,000	167,000	157,000
Kerosine .. .. .	859,000	839,000	1,292,000	1,772,000	2,284,000	2,683,000
Gas oil and diesel oil ..	5,062,000	4,850,000	6,285,000	7,241,000	7,648,000	8,618,000
Fuel oil .. .. .	10,931,000	10,611,000	12,572,000	15,599,000	18,533,000	21,150,000
Fuel used in refineries..	2,122,000	2,073,000	2,503,000	3,032,000	3,290,000	3,470,000
Lubricating oil .. .. .	773,000	732,000	751,000	863,000	912,000	958,000
Bitumen .. .. .	933,000	841,000	860,000	961,000	1,037,000	1,133,000
Paraffin wax .. .. .	24,000	31,000	30,000	31,000	36,000	39,000
<b>Barbados—</b>						
Motor spirit .. .. .	—	—	—	—	1,505	2,057
Kerosine .. .. .	—	—	—	—	1,852	2,127
Gas oil .. .. .	—	—	—	—	—	375
Diesel oil .. .. .	—	—	—	—	1,476	3,752
Fuel oil .. .. .	—	—	—	—	6,702	12,181
Asphalt .. .. .	—	—	—	—	—	790
<b>Canada (b)—</b>						
Aviation spirit .. .. .	84,313	65,916	56,688	55,158	123,373	109,716
Motor spirit .. .. .	9,851,289	9,902,237	9,883,168	10,947,289	11,412,518	11,654,678
Naphtha .. .. .	83,752	111,114	139,646	157,600	198,900	201,561
Kerosine .. .. .	1,421,749	1,331,965	1,606,601	1,771,633	1,912,900	2,007,569
do. Power .. .. .	50,311					
Aviation turbine fuel ..	510,748	609,645	544,769	535,093	611,166	813,779
Gas oil, etc. .. .. .	5,185,863	5,192,768	5,210,764	6,284,988	6,385,447	6,754,731
Diesel oil .. .. .	2,886,560	3,547,553	3,101,204	3,787,358	3,837,402	3,674,460
Fuel oil .. .. .	6,144,804	5,847,852	6,103,945	6,743,127	6,496,024	6,866,810
do. (used in refineries)	998,908	1,043,656				
Lubricating oil .. .. .	296,492	296,855	262,846	269,851	287,893	210,244
Grease .. .. .						
Coke .. .. .	241,879	244,014	403,200	468,958	575,951	333,365
Asphalt .. .. .	1,344,347	1,305,098	1,429,999	1,494,174	1,531,016	1,444,049
<b>Trinidad—</b>						
Aviation spirit .. .. .	256,784	335,771	382,456	441,238	469,935	432,917
Motor spirit .. .. .	954,535	1,027,572	1,235,396	1,297,949	1,214,450	1,481,959
White spirit .. .. .	4,586	3,949	7,180	7,657	8,577	9,250
Kerosine .. .. .	98,140	126,089	136,168	142,954	174,859	339,411
do. Power .. .. .	272,257	290,479	257,785	212,911	130,969	146,706
Gas and diesel oil ..	1,234,118	1,454,500	1,709,132	1,809,615	1,824,563	2,256,397
Fuel oil .. .. .	3,035,120	3,377,904	3,919,323	5,374,073	6,845,265	8,668,667
Lubricating oil and greases .. .. .	402	569	338	340	331	153
Bitumen .. .. .	48,116	56,990	39,105	40,600	29,362	34,370
Other finished products	148,960	125,350	541,480	180,003	783,362	1,047,194
<b>Aden—</b>						
Motor spirit .. .. .	682,725	668,989	606,416	597,590	621,319	<i>n.a.</i>
Kerosine .. .. .	295,376	284,564	309,748	395,489	321,813	520,000
Fuel oils .. .. .	3,386,366	3,111,110	2,688,366	2,951,510	3,092,829	3,683,000
<b>Bahrain Islands (c)—</b>						
Motor spirit .. .. .	1,973,600	1,636,000	2,032,000	1,983,000	2,097,000	2,148,000
Kerosine .. .. .	715,400	560,000	657,000	716,000	715,000	617,000
Gas oil and diesel oil ..	1,841,600	1,928,000	2,029,000	2,097,000	2,240,000	2,443,000
Fuel oil .. .. .	4,390,400	4,368,000	4,084,000	3,835,000	4,356,000	4,630,000
Lubricating oil .. .. .	—	—	—	—	39,000	28,000
Bitumen .. .. .	109,100	94,000	67,000	75,000	104,000	109,000

\*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 amounts used in the refineries. In the case of fuel oil these amounts are shown separately for the years 1956 and 1957.

(c) British Protected State.

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

Long tons

Producing Country and Description	1956	1957	1958	1959	1960	1961
<b>COMMONWEALTH COUNTRIES (cont.)</b>						
India—						
Motor and other spirits	949,010	1,025,000	971,000	935,960	1,030,600	1,051,900
Kerosine	537,000	608,000	633,010	724,340	916,550	1,001,300
Gas and diesel oils	700,010	912,010	1,173,000	1,396,750	1,574,340	1,642,250
Fuel oil, etc.	1,394,000	1,574,010	1,623,010	1,656,040	1,666,060	1,782,670
Lubricating oils	17,000	17,000	18,000	21,190	21,250	24,880
Bitumen	161,990	174,000	223,010	285,830	393,470	431,440
Other refined products	70,000	67,990	55,990	50,820	64,580	69,620
Pakistan—						
Motor spirit	65,000	69,700	72,000	82,000	89,000	89,000
Kerosine	17,000	16,200	13,800	14,000	19,000	24,000
Diesel oil	58,000	61,000	67,000	69,000	75,000	93,000
Fuel oil	106,000	104,000	103,000	109,000	105,000	114,000
Lubricating oil	4,000	6,000	6,000	6,000	6,000	10,000
Bitumen	18,000	13,000	16,000	12,000	20,000	20,000
Sarawak—						
Motor spirit (a)	598,800	566,400	594,400	550,600	568,900	532,400
Gas and diesel oils	1,850,600	1,738,900	1,726,100	1,773,900	1,303,100	1,169,400
Fuel oil					464,300	501,000
Australia—						
Aviation spirit	32,556	47,648	51,438	37,363	47,651	n.a.
Motor spirit	2,407,125	2,833,009	3,223,322	3,247,875	3,593,532	4,223,407
Kerosine	20,760	52,980	108,832	128,887	175,547	n.a.
Aviation turbine fuel	73,705	118,705	121,797	197,660	239,052	n.a.
Gas oil	1,648,000	1,709,146	2,120,394	2,059,246	2,552,555	2,639,120
Diesel oil					2,535,137	2,750,508
Fuel oil	510,194	557,688	668,236	775,913	841,865	910,905
do. (used in refineries)	35,070	34,136	31,718	31,102	30,235	n.a.
Lubricating oil	200,893	209,844	237,366	274,399	286,620	287,170
Bitumen						
Irish Republic—						
Motor spirit	—	—	—	108,000	278,000	301,800
Kerosine	—	—	—	12,000	26,000	n.a.
Jet fuel	—	—	—	300	7,000	6,000
Gas and diesel oil	—	—	—	170,000	406,000	445,200
Fuel oil	—	—	—	310,000	598,000	586,500
<b>OTHER COUNTRIES</b>						
Albania—						
Motor spirit	6,428	20,991	31,000	n.a.	n.a.	n.a.
Kerosine	6,069	2,580	3,000	n.a.	n.a.	n.a.
Diesel oil	8,721	37,606	49,000	n.a.	n.a.	n.a.
Austria—						
Motor spirit	237,473	252,118	228,604	282,090	277,100	254,390
Kerosine	45,352	30,613	21,696	33,010	38,960	45,230
Gas oil	615,432	640,482	589,508	618,980	596,440	627,670
Fuel oil	949,751	897,053	776,007	724,020	804,320	941,450
Lubricating oil	56,608	63,989	54,612	63,950	77,430	87,430
Bitumen	33,530	54,330	62,350	64,910	66,620	85,920
Belgium—						
Motor spirit	1,160,000	1,125,000	1,329,000	1,324,000	1,362,000	1,470,000
Kerosine	204,500	200,600	232,100	306,200	264,300	233,300
Gas oil	1,382,000	1,228,000	1,551,000	1,602,000	1,705,000	1,913,000
Fuel oil	1,937,700	2,043,000	2,556,000	2,547,000	2,591,000	3,023,000
Lubricating oil	23,600	28,300	26,200	31,500	28,200	27,200
Asphalt, etc.	224,000	288,200	276,100	431,300	97,900	243,300

(a) Including gasoline intended for enrichment of crude oil for export.

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

Producing Country and Description	1956	1957	1958	1959	1960	1961
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
<b>Bulgaria—</b>						
Diesel oil .. ..	11,453	13,823	18,000	29,000	34,000	<i>n.a.</i>
Fuel oil .. ..	31,091	39,985	41,000	54,000	64,000	<i>n.a.</i>
Lubricating oil .. ..	15,386	18,034	21,000	19,000	24,000	<i>n.a.</i>
<b>Czechoslovakia—</b>						
Motor spirit .. ..	355,000	369,000	330,000	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Kerosine .. ..	95,000	108,000	68,000	56,000	82,000	85,000
Diesel oil .. ..	483,000	644,000	798,000	966,000	1,152,000	1,342,000
<b>Denmark—</b>						
Gas and diesel oil .. ..	6,473	6,647	9,284	11,184	10,872	<i>n.a.</i>
Lubricating oil .. ..	2,879	2,483	2,363	(a) 2,116	(a) 2,254	<i>n.a.</i>
Grease .. ..	1,908	1,506	2,019	(a) 3,272	4,827	<i>n.a.</i>
Asphalt .. ..	17,881	22,947	24,136	26,225	27,823	<i>n.a.</i>
<b>France—</b>						
Motor spirit .. ..	5,376,000	5,285,000	5,745,000	r 6,126,000	6,325,000	6,957,000
Kerosine .. ..	407,000	341,000	811,000	r 1,136,000	1,344,000	1,544,000
Jet fuel .. ..	<i>n.a.</i>	<i>n.a.</i>				
Gas and diesel oil .. ..	3,388,000	2,867,000	3,334,000	3,276,000	3,322,000	4,146,000
Fuel oil .. ..	12,170,000	11,339,000	14,517,000	14,533,000	15,375,000	16,205,000
Lubricating oil .. ..	584,000	560,000	555,000	588,000	642,000	<i>n.a.</i>
Other products (b) .. ..	2,258,000	2,218,000	2,474,000	r 2,068,000	2,323,000	<i>n.a.</i>
<b>Germany (Federal)—</b>						
Aviation spirit .. ..	309,979	360,269	428,068	594,408	757,987	832,700
Motor spirit .. ..	3,083,268	3,262,447	3,820,004	4,571,755	5,486,163	6,639,800
Kerosine .. ..	208,568	100,432	192,445	261,308	255,625	408,900
Diesel oil .. ..	r 3,152,559	r 3,126,703	r 3,732,383	r 4,360,504	4,765,109	5,485,100
Fuel oil .. ..	2,325,228	2,677,668	4,281,043	8,444,428	13,143,837	17,138,300
Lubricating oil .. ..	r 406,548	r 363,360	r 390,452	r 421,899	473,257	509,500
Grease .. ..	9,091	10,008	12,104	12,408	16,537	16,951
Paraffin wax .. ..	45,530	48,196	47,204	48,120	57,166	69,208
Coke .. ..	227,716	247,554	254,782	296,810	302,168	342,000
Bitumen .. ..	699,159	733,955	877,183	1,060,776	1,142,057	1,365,200
<b>Greece—</b>						
Motor spirit .. ..	—	—	—	167,000	205,000	212,326
Kerosine .. ..	—	—	—	104,000	123,000	121,014
Aviation turbine fuel .. ..	—	—	—	88,000	70,000	66,500
Diesel oil .. ..	—	—	—	427,000	439,000	498,160
Fuel oil .. ..	—	—	—	657,000	703,000	727,606
Asphalt .. ..	—	—	—	39,000	41,000	36,956
<b>Hungary—</b>						
Motor spirit .. ..	148,753	248,000	268,000	295,940	324,208	333,137
Kerosine .. ..	62,430	50,131	46,000	44,000	49,000	<i>n.a.</i>
Gas oil .. ..	328,260	453,557	520,000	630,813	719,522	780,164
Fuel oil .. ..	502,000	589,000	671,000	821,482	971,605	1,121,822
Lubricating oil .. ..	34,000	43,000	31,000	27,000	30,000	<i>n.a.</i>
<b>Italy—</b>						
Motor spirit .. ..	3,049,293	3,032,293	3,398,000	r 3,907,182	4,947,463	5,430,611
White spirit .. ..	41,741	26,515	36,075	31,192	32,460	36,977
Kerosine .. ..	1,117,165	1,018,934	1,174,936	r 1,011,149	1,043,725	1,356,829
Gas oil .. ..	3,882,080	4,285,819	4,596,404	r 5,107,497	5,850,372	6,276,158
Fuel oil and diesel oil .. ..	8,373,727	9,469,454	11,711,608	r12,926,305	15,104,052	17,507,015
Lubricating oil .. ..	164,901	147,182	151,624	150,956	163,174	152,960
Coke .. ..	169	(c)	(c)	(c)	(c)	(c)
Bitumen .. ..	432,499	446,003	553,304	623,842	686,100	829,117
Other products .. ..	366,277	416,343	529,394	618,084	700,571	809,004
<b>Netherlands—</b>						
Motor spirit .. ..	2,327,000	2,691,000	2,818,000	2,567,000	3,164,000	2,898,000
White spirit and other solvents .. ..	106,000	115,000	89,000	<i>n.a.</i>	<i>n.a.</i>	130,000
Kerosine .. ..	729,000	492,000	1,200,000	1,278,000	1,405,000	1,611,000
Gas and diesel oil .. ..	2,648,000	3,132,000	3,311,000	3,381,000	4,380,000	4,668,000

(a) Production in major establishments only.  
(b) Other than butane and propane.

(c) Included with "other products".

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

Producing Country and Description	1956	1957	1958	1959	1960	1961
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
Netherlands ( <i>cont.</i> )—						
Residual fuel oil	6,558,000	6,169,000	5,946,000	6,451,000	7,918,000	8,350,000
Lubricating oil	140,000	172,000	156,000	189,000	203,000	255,000
Bitumen	264,000	230,000	218,000	261,000	379,000	462,000
Poland—						
Motor spirit	52,200	69,700	77,000	93,000	107,000	<i>n.a.</i>
Kerosine	102,000	114,000	109,000	113,000	99,000	<i>n.a.</i>
Gas and diesel oil	142,500	168,600	194,000	200,600	236,000	277,000
Fuel oil	116,300	57,000	49,000	56,000	64,000	<i>n.a.</i>
Lubricating oil	133,000	158,000	143,000	157,000	140,000	<i>n.a.</i>
Portugal—						
Motor spirit	219,000	220,521	277,967	300,673	294,669	322,302
Kerosine	151,000	118,008	136,845	202,904	202,940	165,055
Jet fuel	<i>n.a.</i>	21,159	15,819	19,197	16,968	8,998
Gas and diesel oil	208,000	209,180	236,728	187,677	254,516	258,329
Fuel oil	328,000	362,425	399,792	412,071	446,664	450,737
Roumania—						
Motor spirit	2,706,198	2,756,076	2,775,993	2,654,958	2,747,883	2,625,182
Kerosine	1,364,086	1,412,583	1,505,298	1,258,523	1,269,037	1,214,526
Gas oil	1,611,231	1,734,778	1,778,820	2,240,735	2,338,444	2,611,434
Fuel oil	4,055,503	3,972,823	3,867,862	3,884,991	3,763,158	3,623,280
Bitumen	136,000	169,000	181,000	207,000	245,000	272,000
Spain—						
Motor spirit	420,072	376,741	787,000	603,000	575,000	(a) 703,000
Kerosine	48,536	118,808	231,000	263,000	257,000	(a) 294,000
Gas oil	444,730	567,883	806,000	855,000	855,000	a 1,213,000
Diesel oil	<i>n.a.</i>	56,802				
Fuel oil	1,069,795	1,582,070	1,981,000	1,943,000	2,000,000	a 2,087,000
Lubricating oil	<i>n.a.</i>	36,000	37,000	36,000	36,000	(a) 56,000
Sweden—						
Motor spirit	185,300	243,371	224,439	331,500	372,400	<i>n.a.</i>
White spirit etc.	11,389	9,467	7,635	6,600	13,800	<i>n.a.</i>
Kerosine	178,114	173,988	120,609	125,159	105,200	<i>n.a.</i>
Fuel oil, etc.	1,424,497	1,531,729	1,577,208	1,795,800	1,962,800	<i>n.a.</i>
Lubricating oil	23,156	19,769	22,754	27,319	<i>n.a.</i>	<i>n.a.</i>
Asphalt	142,451	185,920	190,617	240,604	<i>n.a.</i>	<i>n.a.</i>
Yugoslavia—						
Motor spirit	169,024	217,243	248,081	245,347	272,869	288,916
White spirit	6,325	8,481	6,827	7,924	8,706	8,297
Kerosine	81,138	72,096	60,665	62,301	72,847	57,936
Gas oil	199,074	247,570	293,337	326,224	348,077	398,152
Fuel oil	306,000	350,000	327,000	352,000	390,000	403,000
Lubricating oil	31,059	40,814	42,118	50,455	60,211	71,095
Bitumen	38,170	44,127	66,781	81,060	70,740	78,766
Other products	4,188	6,274	6,216	6,958	7,749	6,151
Angola—						
Motor spirit	—	—	9,000	9,000	28,000	32,912
Kerosine	—	—	1,000	1,000	3,100	2,513
Gas and diesel oil	—	—	9,000	15,000	48,100	53,138
Fuel oil	—	—	37,000	39,000	94,900	110,398
Canary Islands—						
Motor spirit	351,775	324,364	311,000	338,000	352,000	(a) 344,000
Kerosine	41,778	66,953	108,000	105,000	138,000	(a) 132,000
Gas oil	354,177	282,392	581,000	674,000	603,000	(a) 600,000
Diesel oil	142,860	176,393				
Fuel oil	850,467	940,270	1,366,000	1,329,000	1,373,000	a 1,379,000
Lubricating oil	<i>n.a.</i>	10,000	13,000	16,000	9,000	(a) 11,000
Egypt—						
Motor spirit	258,000	284,000	326,000	336,000	270,100	(a) 213,000
Kerosine	232,000	273,000	290,000	286,000	365,700	(a) 357,000
Gas oil	266,000	347,000	376,000	379,000	559,700	(a) 614,000
Diesel oil						
Fuel oil	1,691,000	2,042,000	1,977,000	2,025,000	2,707,200	a 3,046,000

(a) United States Bureau of Mines' estimate.

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

Long tons

Producing Country and Description	1956	1957	1958	1959	1960	1961
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
Morocco—						
Motor spirit .. ..	31,839	28,612	42,969	62,412	73,700	67,900
Kerosine .. ..	11,597	8,545	12,271	9,085	10,000	15,500
Gas and fuel oils ..	31,918	35,797	61,529	62,357	78,600	109,600
Cuba—						
Motor spirit .. ..	139,000	321,000	658,000	639,000	575,406	<i>n.a.</i>
Kerosine .. ..	117,000	144,000	131,000	133,000	142,056	133,000
Gas oil and diesel oil ..	137,000	455,000	657,000	745,000	488,139	<i>n.a.</i>
Fuel oil .. ..	84,000	861,000	1,857,000	1,760,000	1,456,692	<i>n.a.</i>
Lubricating oil .. ..	11,000	10,000	—	—	13,145	<i>n.a.</i>
Mozambique—						
Motor spirit .. ..	—	—	—	—	—	82,933
Gas oil .. ..	—	—	—	—	—	98,372
Fuel oil .. ..	—	—	—	—	—	211,866
South Africa—						
Motor spirit .. ..	379,000	417,000	483,000	488,000	487,000	<i>n.a.</i>
Kerosine .. ..	46,000	55,000	53,000	152,000	165,000	155,800
Gas and diesel oil ..	144,000	288,000	349,000	350,000	323,000	349,400
Fuel oil .. ..	92,000	337,000	320,000	293,000	275,000	287,600
Lubricating oil .. ..	12,000	27,000	22,000	25,000	29,000	<i>n.a.</i>
Mexico—						
Aviation spirit .. ..	42,459	45,272	45,747	41,723	45,850	76,346
Motor spirit .. ..	2,016,668	2,461,392	2,562,559	2,908,540	2,927,226	3,249,296
Kerosine .. ..	998,266	1,038,589	1,267,747	1,380,740	1,258,022	1,396,036
Gas and diesel oil ..	824,744	1,163,984	1,473,299	1,665,635	1,995,777	2,335,114
Fuel oil .. ..	6,461,456	6,268,209	6,490,532	6,410,317	6,130,273	6,911,873
Lubricating oil .. ..	109,959	125,180	124,313	142,785	147,707	156,333
Grease .. ..	3,769	3,484	2,891	3,373	3,760	4,807
Paraffin wax .. ..	31,530	36,342	39,947	45,067	39,970	40,926
Asphalt .. ..	199,000	266,000	241,000	232,000	302,000	283,000
Netherlands Antilles (a)—						
Aviation spirit .. ..	1,339,431	1,301,733	1,448,616	1,195,762	1,413,993	1,455,000
Motor spirit .. ..	2,623,820	2,438,893	3,471,890	2,492,642	2,568,964	2,524,000
White spirit .. ..	54,215	46,386	54,092	100,112	67,398	57,000
Kerosine .. ..	1,342,086	1,229,122	1,229,209	1,535,172	1,326,787	1,060,000
Aviation turbine fuel ..	1,620,798	1,859,385	2,340,282	2,006,922	1,660,951	2,155,000
Gas oil .. ..	2,556,587	2,744,541	3,991,875	3,216,223	3,186,203	3,665,000
Diesel oil .. ..	2,612,650	1,916,776	1,926,428	1,848,607	1,470,405	1,296,000
Fuel oil .. ..	24,999,904	22,928,528	18,805,434	19,766,415	20,162,668	20,792,000
Lubricating oil .. ..	688,656	602,087	617,446	648,592	723,507	655,000
Asphalt .. ..	617,596	683,698	746,627	861,786	840,671	894,000
United States—						
Aviation spirit .. ..	12,313,000	12,481,000	13,131,000	13,739,000	12,692,000	12,877,000
Motor spirit .. ..	151,245,000	152,143,000	151,131,000	156,664,000	161,605,000	162,466,000
Kerosine .. ..	15,716,000	13,864,000	14,001,000	14,084,000	17,280,000	17,998,000
Jet fuels .. ..	8,456,000	8,059,000	9,377,000	11,828,000	11,232,000	12,118,000
Distillate fuel oil ..	90,324,000	90,715,000	85,672,000	92,122,000	90,509,000	94,439,000
Residual fuel oil ..	62,227,000	60,616,000	52,990,000	50,735,000	48,438,000	46,022,000
Lubricating oil .. ..	8,290,000	7,801,000	7,182,000	7,856,000	8,314,000	8,296,000
Paraffin wax .. ..	670,900	682,600	656,500	703,800	737,000	723,000
Coke .. ..	5,552,700	5,976,100	6,751,400	7,342,300	10,716,000	13,452,000
Asphalt .. ..	14,714,000	13,910,000	14,510,000	15,851,000	16,018,000	16,529,000
Road oil .. ..	1,277,000	1,147,000	943,000	1,033,000	950,000	926,000
Argentina—						
Aviation spirit .. ..	31,800	41,400	1,900,000	54,700	51,400	45,800
Motor spirit .. ..	1,541,000	1,745,800		1,609,400	1,906,000	2,185,600
Kerosine .. ..	909,455	1,099,300	1,098,000	1,166,000	1,024,000	984,700
Gas oil .. ..	406,591	444,000	1,779,000	445,000	644,500	1,683,200
Diesel oil .. ..	934,600	1,078,000		1,157,600	948,000	
Fuel oil .. ..	3,432,000	4,906,800	5,244,000	5,408,600	5,994,000	6,523,300
Lubricating oil .. ..	130,600	135,300	165,000	131,800	144,800	153,400

(a) Exports.



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

Long tons

Producing Country and Description	1956	1957	1958	1959	1960	1961
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
<b>Bolivia—</b>						
Motor spirit .. ..	133,207	118,844	270,733	98,608	102,360	105,494
Kerosine .. ..	33,651	36,088	43,974	44,245	50,886	50,774
Diesel oil .. ..	49,636	55,200	36,578	39,602	47,033	48,655
Fuel oil .. ..	134,271	107,245	106,290	91,222	61,189	73,331
<b>Brazil—</b>						
Motor spirit .. ..	2,058,100	2,065,090	2,151,000	r 2,171,000	2,453,000	2,718,000
Kerosine .. ..	28,700	169,270	247,000	314,000	513,000	502,000
Diesel oil .. ..	393,800	649,350	834,000	903,000	1,355,000	2,061,000
Fuel oil .. ..	2,270,000	2,512,400	2,719,000	3,093,000	3,438,000	4,224,000
Lubricating oil .. ..	—	550	—	—	3,000	1,000
Asphalt .. ..	n.a.	n.a.	n.a.	177,000	200,000	202,000
<b>Chile—</b>						
Motor spirit .. ..	339,800	364,500	405,000	452,000	520,000	(b) 569,000
Kerosine .. ..	19,200	27,900	53,100	92,000	141,000	(b) 162,000
Gas and diesel oil .. ..	167,200	193,800	211,500	239,000	258,000	(b) 279,000
Fuel oil .. ..	312,300	298,600	347,900	244,000	312,000	(b) 383,000
<b>Colombia—</b>						
Aviation spirit .. ..	34,721	34,533	46,329	50,804	57,812	59,668
Motor spirit .. ..	552,373	645,212	(a) 845,469	(a) 923,511	1,029,681	1,166,584
Other spirit .. ..	10,900	12,300	12,400	14,900	14,900	56,200
Kerosine .. ..	r 142,507	r 158,769	r 187,528	r 200,565	202,894	201,225
do. Power .. ..	11,184	20,914	9,926	6,532	3,480	1,938
Jet fuel .. ..	2,318	1,867	2,514	3,033	5,553	15,448
Gas oil .. ..	—	—	—	18,772	12,990	1,229
Diesel oil .. ..	272,788	344,862	380,729	425,655	467,674	513,758
Fuel oil .. ..	791,447	1,050,945	1,389,819	1,367,658	1,394,089	1,296,779
Lubricating oil and grease .. ..	8,219	9,759	11,497	14,224	13,603	17,048
Coke .. ..	44,611	54,523	88,638	99,485	96,885	96,345
Asphalt .. ..	65,599	50,638	50,692	46,333	53,388	49,895
<b>Ecuador—</b>						
Motor spirit .. ..	78,289	73,771	84,000	r 100,940	172,310	161,000
Kerosine .. ..	27,338	28,000	29,415	32,305	38,218	41,000
Gas and diesel oils .. ..	48,809	48,710	57,284	87,535	94,417	101,000
Residual fuel oil .. ..	109,500	117,346	124,375	r 99,910	180,520	217,000
<b>Peru—</b>						
Aviation spirit .. ..	11,441	10,549	9,964	26,000	11,000	6,000
Motor spirit .. ..	551,817	561,371	578,465	538,000	557,000	572,900
Kerosine .. ..	350,818	377,499	392,237	408,000	464,000	389,500
Aviation turbine fuel .. ..	—	9,027	7,520	8,000	32,000	41,900
Diesel oil .. ..	718,233	674,236	680,103	670,000	692,000	748,900
Fuel oil .. ..	340,889	372,301	376,219	337,000	358,000	351,500
Lubricating oil and grease .. ..	10,823	7,911	12,002	9,000	7,000	12,000
Coke .. ..	132	11	396	n.a.	n.a.	n.a.
Asphalt .. ..	38,102	20,939	14,484	n.a.	n.a.	n.a.
<b>Uruguay—</b>						
Motor spirit .. ..	232,379	247,028	237,242	226,254	238,439	234,467
Kerosine .. ..	144,016	160,582	156,620	167,797	183,422	172,269
Aviation turbine fuel .. ..	—	—	2,437	4,887	6,617	9,581
Gas oil .. ..	81,793	86,362	86,043	69,990	158,667	175,670
Diesel oil .. ..	37,396	26,989	45,353	48,508	41,261	37,891
Fuel oil .. ..	515,011	519,119	537,627	567,980	607,495	635,635
Lubricating oil .. ..	—	504	622	808	1,643	875
Asphalt .. ..	—	15,000	10,600	10,200	10,700	12,800
<b>Venezuela—</b>						
Motor spirit .. ..	3,223,827	3,891,035	4,435,377	r 4,885,035	4,453,686	4,882,540
Kerosine .. ..	825,836	1,111,262	1,435,177	r 1,630,746	1,193,124	1,379,521
Gas oil .. ..	2,156,828	} 6,500,068	6,628,167	r 7,463,514	7,739,831	8,632,145
Diesel oil .. ..	4,031,926		20,751,026	r 24,058,382	27,318,514	27,433,708
Fuel oil .. ..	18,198,576					

(a) Including naptha.

(b) United States Bureau of Mines' estimate.

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

Long tons

Producing Country and Description	1956	1957	1958	1959	1960	1961
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
Venezuela ( <i>cont.</i> )—						
Lubricating oil .. .. .	166,813	157,989	179,345	164,384	206,100	515,916
Asphalt .. .. .	295,000	590,000	1,082,000	890,000	1,007,000	1,041,000
Burma—						
Motor spirit .. .. .	37,428	93,453	123,100	132,310	143,188	143,000
Kerosine .. .. .	34,693	59,359	81,649	61,375	64,462	70,491
Jet fuel .. .. .	—	154	3,327	6,770	14,224	<i>n.a.</i>
Diesel oil .. .. .	37,642	59,924	85,777	96,410	106,860	110,990
Fuel oil .. .. .	42,783	73,144	59,631	77,279	65,326	72,563
Paraffin wax .. .. .	8,486	9,903	10,660	11,988	13,021	13,353
Coke .. .. .	—	5,593	10,085	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Formosa—						
Aviation spirit .. .. .	—	—	—	5,207	215,000	226,000
Motor spirit .. .. .	116,961	134,179	145,063	166,239		
Kerosine .. .. .	25,708	26,440	28,530	32,482	29,000	28,400
Jet fuel .. .. .	107,550	86,753	110,834	128,274	134,700	144,500
Diesel oil .. .. .	93,219	114,041	130,411	151,470	176,400	188,500
Fuel oil .. .. .	306,594	257,331	269,001	332,018	378,000	408,500
Asphalt .. .. .	25,227	35,542	35,615	42,257	46,831	60,722
Indonesia—						
Aviation spirit .. .. .	267,589	255,980	211,845	167,569	145,062	117,460
Motor spirit .. .. .	2,134,280	2,108,884	2,082,513	2,194,597	2,106,696	1,982,879
White spirit .. .. .	76,693	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Kerosine .. .. .	1,628,842	1,661,775	1,551,079	1,614,317	1,656,183	1,704,781
Fuel, gas, diesel and lubricating oils .. .. .	5,976,321	6,620,839	6,048,902	6,726,997	6,828,896	7,002,858
Paraffin wax .. .. .	103,901	91,430	88,663	100,197	102,462	89,985
Asphalt .. .. .	34,845	40,811	29,368	28,894	31,002	43,895
Other products .. .. .	526,267	593,868	626,318	787,955	659,843	758,775
Iran (a)—						
Aviation spirit .. .. .	300,000	484,000	498,000	503,000	545,000	473,000
Motor spirit .. .. .	1,740,000	2,015,000	2,090,000	2,048,000	2,357,000	1,717,000
Kerosine .. .. .	1,702,000	2,219,000	2,277,000	2,085,000	2,142,000	1,913,000
Aviation turbine fuel .. .. .	—	—	—	441,000	514,000	522,000
Gas and diesel oils .. .. .	1,808,000	2,514,000	2,641,000	2,964,000	2,736,000	2,538,000
Fuel oil .. .. .	4,511,000	6,592,000	6,015,000	6,136,000	7,290,000	6,640,000
Lubricating oil .. .. .	11,000	14,000	13,000	15,000	18,000	19,000
Bitumen .. .. .	213,000	194,000	185,000	254,000	253,000	284,000
Iraq—						
Motor spirit .. .. .	189,000	(c) 211,000	243,000	(c) 250,000	244,990	(c) 309,000
Kerosine .. .. .	234,000	(c) 220,000	268,000	(c) 241,000	313,529	(c) 363,000
Gas oil .. .. .	980,000	1,081,000	1,106,000	(c) 1,052,000	196,926	c 361,000
Diesel oil .. .. .					191,492	
Fuel oil .. .. .					847,363	
Israel—						
Motor spirit .. .. .	r 201,184	161,985	r 187,484	180,945	203,946	(c) 185,000
Kerosine .. .. .	r 135,738	135,537	r 173,114	173,744	175,084	(c) 203,000
Gas and diesel oils .. .. .	r 194,049	r 225,163	r 262,910	299,692	374,011	(c) 410,000
Fuel oil .. .. .	r 388,019	r 436,644	r 469,512	514,328	531,535	(c) 601,000
Bitumen .. .. .	20,000	29,000	30,000	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Japan—						
Motor spirit .. .. .	2,189,277	2,721,725	3,004,150	3,680,401	4,413,487	5,233,789
Kerosine (b) .. .. .	728,797	975,123	1,042,487	1,464,116	1,981,700	2,240,932
Gas oil .. .. .	750,077	847,389	1,037,739	1,419,862	1,980,296	2,451,956
Diesel oil .. .. .	654,715	541,799	874,629	1,069,930	1,064,677	1,394,390
Fuel oil .. .. .	4,784,954	6,133,664	6,343,181	8,959,412	14,191,849	17,208,923
Lubricating oil .. .. .	394,058	443,571	404,262	465,999	564,978	647,932
Paraffin wax .. .. .	34,488	34,747	36,290	39,703	45,074	45,155
Asphalt .. .. .	205,361	269,075	293,722	414,088	461,803	596,016
Jordan—						
Motor spirit .. .. .	—	—	—	—	40,923	34,000
Kerosine .. .. .	—	—	—	—	43,197	38,000

(a) Abadan Refinery only.

(b) Including jet fuel.

(c) Estimated.

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

Long tons

Producing Country and Description	1956	1957	1958	1959	1960	1961
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
<b>Jordan (cont.)—</b>						
Gas oil .. .. .	—	—	—	—	41,898	40,000
Fuel oil .. .. .	—	—	—	—	65,607	51,000
Asphalt .. .. .	—	—	—	—	8,607	12,000
<b>Kuwait—</b>						
Motor spirit .. ..	47,000	43,000	43,000	85,000	139,000	95,000
Kerosine .. .. .	19,000	21,000	29,000	40,000	39,000	51,000
Gas and diesel oils	280,000	258,000	1,355,000	1,642,000	1,968,000	1,725,000
Fuel oil .. .. .	860,000	816,000	3,432,000	4,025,000	5,127,000	5,102,000
Bitumen.. .. .	14,000	14,000	21,000	22,000	33,000	35,000
<b>Lebanon—</b>						
Motor spirit .. ..	176,178	176,000	115,795	112,993	108,280	99,514
Kerosine .. .. .	93,356	105,000	76,050	64,396	71,798	63,451
Gas oil .. .. .	205,207	238,000	166,969	161,836	155,903	175,438
Diesel oil .. .. .	4,580	—	—	—	—	—
Fuel oil .. .. .	448,205	479,000	370,989	379,085	337,426	331,674
<b>Philippine Republic—</b>						
Motor spirit .. ..	313,000	325,000	386,000	384,000	411,000	718,800
Kerosine .. .. .	59,000	64,000	73,000	80,000	85,000	247,300
Gas and diesel oil	189,000	200,000	232,000	236,000	257,000	554,000
Fuel oil .. .. .	182,000	249,000	420,000	411,000	422,000	710,600
<b>Saudi Arabia—</b>						
Aviation spirit ..	—	—	—	935,000	31,815	47,277
Motor spirit .. ..	1,247,673	1,021,997	859,673			
Kerosine .. .. .	770,152	898,503	1,078,694	621,613	757,097	742,985
Jet fuel .. .. .				396,996	324,720	427,802
Diesel oil .. .. .	2,058,911	1,499,077	2,004,878	1,441,801	1,454,250	1,786,261
Fuel oil .. .. .	5,163,093	5,543,806	3,728,127	4,614,498	6,655,609	7,277,150
Asphalt, etc. .. .	38,957	50,745	50,930	51,841	35,935	57,839
<b>Syria—</b>						
Motor spirit .. ..	—	—	—	38,000	105,000	(a) 118,000
Kerosine .. .. .	—	—	—	28,000	95,000	(a) 108,000
Gas and diesel oil	—	—	—	60,000	177,000	(a) 199,000
Fuel oil .. .. .	—	—	—	117,000	306,000	(a) 314,000
<b>Turkey—</b>						
Motor spirit .. ..	51,400	61,676	65,370	74,110	70,830	79,000
Diesel oil .. .. .	17,600	15,383	23,181	34,370	24,190	41,000
Fuel oil .. .. .	163,300	154,930	165,531	176,770	179,600	184,000
Asphalt .. .. .	38,632	35,653	42,746	45,840	37,128	56,265

(a) United States Bureau of Mines estimate.

## EXPORTS OF PETROLEUM AND ALLIED PRODUCTS\*

Long tons

Exporting Country and Description	1956	1957	1958	1959	1960	1961
<b>COMMONWEALTH COUNTRIES</b>						
<b>United Kingdom—</b>						
Crude petroleum ..	61,954	14,353	4,189	121,266	48,629	110,166
Aviation spirit (bunkers) (a) ..	128,866	162,536	160,700	129,102	99,415	79,915
Aviation spirit ..	282,915	357,101	398,143	346,339	280,361	213,568
Aviation turbine fuel (d) ..	205,505	181,059	460,779	577,167	487,239	296,281
Motor spirit ..	959,549	926,620	1,072,000	855,078	977,179	968,353
Other spirit ..	16,591	16,476	38,398	35,874	37,165	44,150
Kerosine—Power ..	42,449	74,672	65,348	54,900	32,092	44,680
do. other (e) ..	163,467	140,839	210,323	292,018	603,319	753,162
Gas oil ..	1,509,468	787,376	1,646,462	1,637,752	2,276,444	2,050,963
Diesel oil ..	461,140	388,310	488,675	445,398	409,384	295,129
Fuel oil ..	3,229,733	2,775,298	3,159,670	2,956,371	3,184,389	2,361,820
do. (bunkers) (a) ..	4,492,791	3,520,974	3,887,573	4,146,422	4,242,121	4,279,257
Lubricating oil ..	410,022	375,923	392,779	448,286	483,081	484,233
Greases (c) ..	28,276	29,274	29,970	26,638	31,418	32,398
Other heavy oils ..	9,306	8,439	8,457	8,996	8,598	10,674
Paraffin wax ..	3,570	6,495	7,040	8,245	6,411	6,094
<b>Malta (bunkers) (b)—</b>						
Aviation spirit ..	35,061	24,752	21,943	14,669	13,213	11,872
Aviation turbine fuel ..	38,503	38,497	40,639	31,339	35,109	33,202
Gas oil ..	2,605	1,299	243	8,578	2,185	2,488
Fuel oil ..	1,838	792	—	475	407	224
<b>Ghana (bunkers) (b)—</b>						
Aviation spirit ..	4,649	3,837	3,617	—	—	—
Gas oil ..	379	2,156	3,577	4,119	6,119	6,731
Diesel oil ..	—	4,727	172	2	2	2,056
Fuel oil ..	16,082	5,928	10,801	8,705	8,839	5,793
Lubricating oil ..	30	1,074	64	19	59	47
<b>Kenya (bunkers) (b)—</b>						
Aviation spirit ..	12,316	10,052	9,475	9,527	13,955	19,264
Motor spirit ..	3	2	1	1	1	35
Gas, diesel and fuel oils ..	139,542	187,373	105,639	113,835	103,557	143,820
Lubricating oil ..	427	364	514	433	458	577
<b>Mauritius (bunkers) (b)—</b>						
Aviation spirit ..	986	1,084	1,896	1,866	1,793	2,165
Fuel oils ..	9,988	9,797	6,823	6,312	9,425	12,556
<b>Nigeria—</b>						
Crude petroleum ..	—	6	223,866	491,883	827,702	2,224,140
Diesel oil (bunkers) (b) ..	10	380	2,078	1,991	2,478	1,026
Gas oil do. (b) ..	977	1,044	136	1,304	1,930	2,589
Fuel oil do. (b) ..	7,537	6,666	6,225	4,361	4,666	2,504
<b>Sierra Leone (bunkers) (b)—</b>						
Aviation spirit ..	359	517	201	131	201	166
Fuel and diesel oils ..	57,865	245,178	214,722	219,985	275,709	304,681
<b>Tanganyika (bunkers) (b)—</b>						
Aviation spirit ..	1,240	610	414	831	818	272
Gas, diesel and fuel oils ..	84	13	6	832	224	1,245
<b>Uganda (bunkers) (b)—</b>						
Aviation spirit ..	2,788	3,631	3,213	2,002	2,891	3,585

\*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 234).

(a) Including foreign produce.

(d) Wide cut gasoline.

(b) Foreign produce. See imports.

(e) Including kerosine jet type fuel.

(c) Including cable impregnating compounds.

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

Long tons

Exporting Country and Description	1956	1957	1958	1959	1960	1961
<b>COMMONWEALTH COUNTRIES (cont.)</b>						
Canada—						
Crude petroleum ..	5,721,078	7,423,230	4,223,924	4,448,298	5,631,325	8,696,335
Motor spirit ..	88,635	138,185	19,260	62,043	156,109	65,426
Kerosine, etc. ..	116,053	137,454	23,952	21	2,209	n.a.
Fuel oil ..	127,214	164,923	64,351	132,221	105,704	152,390
do. (bunkers) ..	1,191,096	1,334,707	1,076,598	1,339,979	n.a.	n.a.
Diesel oil (bunkers) ..	236,621	342,471	369,656	456,365	n.a.	n.a.
Lubricating oil ..	485	1,759	2,021	948	852	n.a.
Other oils ..	41	10	27	197	391	n.a.
Mineral wax ..	105	146	136	159	248	n.a.
Petroleum coke ..	31,369	38,462	27,481	44,152	32,528	46,793
Natural gas (million cu.ft.)	10,828	15,731	86,972	84,764	91,045	168,180
Bermuda (bunkers) (a)(b)—						
Aviation spirit ..	65,273	76,385	79,184	78,630	78,009	79,655
Motor spirit ..	559	968	720	2,479	3,478	3,629
Aviation turbine fuel ..	1,198	16,591	32,314	37,448	40,225	63,567
Kerosine ..	532	533	352	361	809	462
Fuel oil ..	31,111	25,907	7,774	7,429	26,784	19,818
Diesel oil ..	2,954	3,057	1,872	3,413		
Lubricating oil ..	796	974	1,036	518	269	92
Jamaica (bunkers) (a)—						
Aviation spirit ..	5,083	371	1,586	25,889	19,058	9,444
Gas oil ..	463	576	29	2,106	10,684	7,871
Diesel oil ..	14,568	25,656	1,598	48,941	64,054	53,006
Fuel oil ..	56,163	80,407	8,910	106,347	145,991	155,072
Trinidad and Tobago—						
Crude petroleum ..	540,803	461,171	406,919	458,246	686,192	728,029
Aviation spirit ..	271,304	358,321	371,445	443,841	(d) 912,822	d 1,360,395
do. (bunkers) ..	8,678	12,365	42,505	17,434	12,404	8,229
Motor spirit ..	943,021	870,379	1,311,969	1,257,237	1,130,783	1,233,518
do. (bunkers) ..	268	1,802	16,946	8,279	25	8,505
Kerosine—Power ..	352,654	345,665	358,071	222,631	140,524	152,176
do. (bunkers) ..	13	39	—	4,743	13,349	20,491
Kerosine—other ..	74,147	100,523	97,366	104,296	122,661	167,942
do. (bunkers) ..	398	218	171	132	65	78
Gas oil ..	585,988	737,067	926,188	1,233,693	1,258,868	1,379,996
do. (bunkers) ..	50,692	75,200	62,888	48,850	37,717	49,260
Diesel oil ..	408,827	322,438	389,121	179,945	176,124	356,034
do. (bunkers) ..	600,121	488,659	424,341	370,833	310,011	364,342
Fuel oil ..	3,085,198	1,915,735	2,876,254	3,895,728	4,750,917	6,613,960
do. (bunkers) ..	1,584,984	2,012,484	1,235,053	1,471,232	1,537,568	1,803,873
Lubricating oil ..	164	251	317	306	151	—
Road oil ..	21,443	84,252	23,024	29,220	13,167	12,809
Asphalt—						
Crude ..	43,500	—	1	—	—	—
Dried ..		41,258	44,435	48,414	52,748	57,980
Asphalt cement ..		10,759	12,705	11,129	12,317	5,873
Bituminous asphalt ..	80,649	75,778	45,639	28,765	32,547	30,182
British Guiana (a)—						
Aviation spirit (bunkers)	347	345	365	489	700	n.a.
Falkland Islands—						
(bunkers) (a)—						
Fuel oil ..	8,737	4,497	6,921	27,135	38,453	17,758
Aden (c)—						
Aviation and motor spirits ..	684,352	653,421	620,810	587,845	568,702	739,634
Kerosine ..	317,181	273,231	310,411	412,961	320,716	497,969
Gas, diesel, fuel oils ..	1,774,357	1,409,925	739,128	1,081,749	1,278,113	1,779,578
Fuel oil (bunkers) ..	2,514,938	2,101,173	3,408,253	3,280,542	3,557,991	3,509,121

(a) Foreign produce. See imports.

(b) Including bunkers for military forces.

(c) Domestic and foreign produce.

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

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

Long tons

Exporting Country and Description	1956	1957	1958	1959	1960	1961
<b>COMMONWEALTH COUNTRIES</b>						
<i>(cont.)</i>						
<b>Bahrain Islands (e)—</b>						
Aviation spirit .. ..	20,400	21,000	8,000	10,000	} 1,608,000	1,549,000
Motor spirit .. ..	1,500,700	1,220,000	1,350,000	1,537,000		
Aviation turbine fuel ..	386,400	306,000	485,000	304,000	289,000	451,000
Kerosine .. ..	685,500	536,000	619,000	728,000	811,000	687,000
Process oil .. ..	208,100	15,000	—	—	—	—
Diesel oil .. ..	1,612,600	1,740,000	1,480,000	1,919,000	2,058,000	2,383,000
do. (bunkers) .. ..	159,400	156,000	125,000	111,000	95,000	85,000
Fuel oil .. ..	3,692,300	3,602,000	3,122,000	3,247,000	3,739,000	3,877,000
do. (bunkers) .. ..	599,100	730,000	641,000	615,000	656,000	733,000
Asphalt .. ..	103,300	97,000	46,000	75,000	106,000	101,000
<b>British Borneo—</b>						
<b>Brunei—</b>						
Crude petroleum (b) ..	5,526,505	5,371,788	5,053,900	5,295,552	4,505,041	4,379,000
Natural gas ( <i>million cubic feet</i> ) .. ..	3,245	2,545	2,480	2,540	2,693	2,656
<b>North Borneo</b>						
(bunkers) (a)—						
Aviation spirit .. ..	3,351	2,387	1,702	1,430	663	591
Fuel oil .. ..	3,392	3,612	9,087	6,622	6,631	9,479
<b>Sarawak—</b>						
Crude petroleum (c) ..	3,439,401	3,545,722	3,157,045	3,238,040	2,475,388	1,879,638
Motor spirit (d) .. ..	288,985	202,679	225,000	334,002	337,023	262,459
Kerosine .. ..	37	6	15	15	—	—
Gas oil .. ..	—	48,991	60,541	43,981	39,328	33,754
Diesel oil .. ..	1,057,708	975,690	950,027	1,112,390	1,121,445	951,764
Fuel oil .. ..	636,487	560,134	510,326	469,381	449,787	459,825
do. (bunkers) (f) ..	148,732	140,792	174,156	157,075	147,183	106,589
<b>Ceylon (bunkers) (a)—</b>						
Aviation spirit .. ..	3,614	4,478	6,014	8,267	9,503	7,638
Gas oil .. ..	20,219	4,030	6,476	6,637	4,127	3,878
Diesel oil .. ..	79,572	76,915	48,644	39,974	49,341	52,854
Fuel oil .. ..	472,629	540,096	379,319	374,075	397,339	330,513
<b>Cyprus (bunkers) (a)—</b>						
Aviation spirit .. ..	5,696	2,855	2,273	2,583	2,296	1,196
<b>Hong Kong—</b>						
Motor spirit .. ..	1,691	868	959	3,827	1,215	6,263
Kerosine .. ..	3,139	2,212	1,446	1,855	2,111	2,660
Diesel oil and gas oil ..	6,192	5,538	6,558	8,669	8,683	10,445
Fuel oil .. ..	134	233	620	1,201	635	867
Lubricating oil .. ..	6,534	893	508	563	553	833
Greases .. ..	2	5	18	39	21	17
Petroleum jelly .. ..	114	194	164	86	66	51
Paraffin wax .. ..	138	316	344	107	170	220
Asphalt and bitumen ..	616	30	2,791	278	563	85
<b>India—</b>						
Motor spirit .. ..	21,230	} 146,469	108,402	{ 61,581	} (g) 193,472	(g) 162,452
Other spirit .. ..	61,540					
Diesel oil .. ..	<i>n.a.</i>	<i>n.a.</i>	14,858	122	(g) 6	(g) 24
Fuel oil .. ..	<i>n.a.</i>	179,880	83,710	52,016	(g) —	(g) —
Paraffin wax .. ..	27,450	25,594	22,061	22,540	(g) 18,343	(g) 12,043

(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) 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.

(e) British Protected State.

(f) Including diesel oil bunkers.

(g) Years ended March 31 following that stated.

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

Long tons

Exporting Country and Description	1956	1957	1958	1959	1960	1961
<b>COMMONWEALTH COUNTRIES (cont.)</b>						
<i>Malaya—</i>						
Crude petroleum ..	707,202	772,776	856,817	253,713	227,060	769,470
Aviation spirit ..	221,301	196,720	164,455	179,413	126,759	117,030
do. do. (bunkers) ..	12,170	15,169	18,067	24,269	32,202	41,793
Motor spirit ..	899,912	847,002	697,450	775,350	817,502	674,192
White spirit ..	79,652	75,495	53,311	71,796	77,852	90,204
Aviation turbine fuel ..	67	18,396	22,769	69,117	122,424	225,372
Kerosine Power ..	70,314	63,884	76,607	34,801	24,346	10,128
do. Other ..	311,862	241,564	244,551	290,639	326,072	293,141
Gas oil ..	365,030	424,069	354,574	358,444	369,745	436,156
Diesel oil ..	348,272	250,013	219,683	169,871	249,268	285,397
Fuel oil ..	580,892	445,012	188,322	201,920	189,280	590,576
Fuel and diesel oil (bunkers) ..	2,025,148	2,228,583	1,999,575	1,841,517	1,917,555	2,373,984
Lubricating oil ..	5,851	6,522	6,266	5,420	4,392	4,552
Petroleum jelly ..	69	27	68	53	46	138
Grease ..	370	349	265	236	159	278
Paraffin wax ..	42	5,956	88	27	101	124
Asphalt and bitumen ..	132,392	98,399	37,001	3,718	5,298	3,445
<i>Qatar (d)—</i>						
Crude petroleum ..	5,664,119	6,447,000	8,055,000	7,857,631	7,977,915	8,143,706
<i>Australia (b)—</i>						
Aviation spirit ..	—	2,799	381	1,440	8,748	10,319
do. do. (bunkers) ..	1,116	3,955	4,495	2,392	494	8,079
do. do. do. (c) ..	16,902	15,837	11,490	5,943	19,080	8,892
Motor spirit ..	124,873	75,455	155,963	159,070	50,803	81,971
Kerosine ..	23,485	17,715	20,321	14,234	50,997	73,667
Aviation turbine fuel ..	3,701	3,103	1,872	1,597	23,751	35,533
Lubricating oil ..	431,404	573,441	564	688	1,101	5,872
Diesel and fuel oils ..	473,017	582,896	989,736	922,482	1,016,468	1,465,540
Fuel oil (bunkers)—						
Domestic produce ..	74,207	19,200	8,869	9,602	10,537	6,652
Foreign produce ..						
<i>Fiji (bunkers) (c)—</i>						
Aviation spirit ..	9,008	14,779	11,082	15,288	6,324	5,398
Aviation turbine fuel ..	n.a.	n.a.	n.a.	1,807	21,135	28,738
Diesel oil ..	3,466	4,442	6,458	3,772	8,313	11,660
Fuel oil ..	598	48	160	1,479	758	382
<i>New Zealand (bunkers) (c)—</i>						
Aviation spirit ..	5,953	6,142	6,219	7,192	3,649	5,063
Diesel oil ..	18,063	21,229	18,444	21,457	10,408	46,992
Fuel oil ..	5,981	9,292	9,478	7,511	4,100	55,065
Lubricating oil ..	1,061	1,137	1,247	1,247	1,287	1,547
<i>Irish Republic (a)—</i>						
Aviation spirit (e) (c) ..	3,358	3,293	3,064	1,808	3,721	2,845
Aviation turbine fuel (e) (c) ..	n.a.	5,012	8,753	12,543	11,838	13,440
Fuel oil (e) ..	—	—	—	32,990	89,365	95,554
do. (e) (c) ..	50,308	26,255	44,795	29,061	15,013	11,282

(a) In addition re-exports of aviation spirit, presumably to the "Shannon Free Airport", were as follows (long tons): 1956—87,408; 1957—82,672; 1958—95,230; 1959—75,633; 1960—57,455; 1961—44,379.

(b) Years ended June 30 of that stated.

(c) Foreign produce. See imports.

(d) British Protected State.

(e) Bunkers for foreign ships or aircraft only.

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

Long tons

Exporting Country and Description	1956	1957	1958	1959	1960	1961
<b>OTHER COUNTRIES</b>						
<b>Austria—</b>						
Crude petroleum ..	49,371	221	—	1	1	1
Motor spirit ..	10,613	1	—	23	20	4
Kerosine ..	37,299	10,003	1,025	—	—	—
Gas oil ..	322,500	265,534	203,242	167,883	132,531	82,753
Fuel oil ..	2,507	8	1,139	5,713	4,884	201
Lubricating oil, etc. ..	1,530	791	224	2,474	7,776	4,487
<b>Belgium-Luxemburg</b>						
<b>E.U.—</b>						
Crude petroleum ..	93,142	48,011	76,312	14,199	24	79
Motor spirit ..	392,538	299,524	484,004	455,321	478,521	369,321
Kerosine ..	123,015	120,912	159,963	237,453	218,489	161,043
Gas oil ..	512,960	586,278	628,916	679,892	907,486	862,633
Fuel oil, etc. ..	1,094,607	932,591	1,157,655	1,022,410	831,592	677,278
do. (bunkers) (b) ..	728,087	530,143	566,316	576,635	553,504	707,488
Lubricating oil ..	94,181	85,471	91,499	85,950	96,445	103,818
do. (bunkers) (b) ..	5,961	6,410	4,889	5,875	5,452	4,386
Other heavy oils ..	85	2,588	140	377	56	39
Petroleum jelly ..	519	799	541	917	1,392	1,581
Paraffin wax ..	265	58	77	89	37	76
Ozokerite and ceresin (a) ..	68	67	59	55	44	35
Petroleum coke ..	3	493	28	437	2,365	816
Natural asphalt ..	643	748	214	201	224	335
Pitch ..	66,180	72,404	81,189	122,289	163,704	196,472
<b>Denmark (bunkers)—</b>						
Gas oil ..	32,669	37,571	45,182	39,658	40,696	30,190
Diesel oil ..	84,021	90,845	97,206	99,115	90,096	78,919
Fuel oil ..	112,528	114,154	115,111	122,454	104,965	89,062
<b>France—</b>						
Crude petroleum ..	2	19,365	44,998	986	812	—
Aviation spirit ..	10,222	23,015	46,842	58,924	76,034	61,183
Motor spirit ..	1,181,092	934,589	1,287,914	1,305,656	1,566,194	1,688,088
White spirit ..	4,346	2,719	2,553	3,915	6,540	8,840
Kerosine ..	411,121	353,688	456,452	479,247	603,366	648,016
Gas oil ..	1,582,802	1,049,345	1,916,623	1,533,743	1,701,704	2,118,805
do. (bunkers)—						
Domestic produce ..	312,409	351,634	401,905	315,291	(b) 27,845	
Foreign produce ..	3,570	6,896	6,149	11,834	n.a.	n.a.
Fuel oil ..	1,293,518	1,113,190	1,891,575	2,117,398	1,954,598	2,694,757
do. (bunkers)—						
Domestic produce ..	1,809,496	1,454,753	1,837,243	1,762,514	(b) 298,892	
Foreign produce ..	255,022	340,692	151,516	117,885	n.a.	n.a.
Lubricating oil ..	117,287	106,106	133,649	157,096	186,193	179,386
do. (bunkers)—						
Domestic produce ..	20,033	23,805	24,786	27,324	(b) 3,434	
Foreign produce ..	2,525	5,238	2,241	1,160	n.a.	n.a.
Petroleum jelly ..	31	26	36	32	90	124
Paraffin wax ..	7,671	5,218	8,440	10,522	9,952	8,860
Ozokerite, ceresin, etc. ..	80	118	440	1,078	1,162	798
Petroleum coke ..	—	13	—	19	6	2,301
Natural asphalt and bitumen ..	18,125	19,415	19,881	18,150	22,435	27,054
Mastic asphalt ..	4,448	5,727	4,971	5,603	6,805	5,344
Bitumen ..	113,865	124,971	147,432	164,206	174,562	183,885
<b>Germany (Federal)—</b>						
Aviation and motor spirits ..	407,113	219,106	366,184	323,613	536,604	1,155,165
do. (bunkers) (b) (c) ..	64,238	66,967	75,317	67,734	64,940	63,502

(a) Including montan wax.

(b) Bunkers for foreign ships or aircraft only.

(c) Figures for 1956-59 include foreign produce.



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

Long tons

Exporting Country and Description	1956	1957	1958	1959	1960	1961
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
Germany (Federal) (cont.)						
Kerosine and aviation turbine fuel . . . . .	35,166	2,593	77,068	23,141	21,169	17,699
Aviation turbine fuel bunkers (a) (c) . .	3,845	5,713	12,001	31,401	78,949	139,711
Gas and diesel oil . . . . .	261,710	186,878	321,706	528,283	682,850	736,148
do. (bunkers) (a) (c) . .	376,151	345,430	365,884	357,013	111,963	100,308
Fuel oil . . . . .	275,401	133,515	172,602	358,369	988,812	2,184,887
do. (bunkers) (a) (c) . .	932,319	739,188	690,112	729,892	419,366	501,512
Lubricating oil . . . . .	54,044	60,599	44,091	51,804	68,316	80,027
do. (bunkers) (a) (c) . .	9,152	10,718	9,964	10,900	10,226	9,463
Petroleum jelly . . . . .	5,544	6,166	6,265	4,623	5,173	5,266
Paraffin wax . . . . .	28,795	24,476	25,160	28,720	22,760	22,037
Ozokerite, etc. . . . .	138	101	205	175	140	74
Natural asphalt and bitumen . . . . .	1,888	2,511	975	164	190	568
Bitumen . . . . .	30,478	26,431	57,561	38,541	42,477	67,414
Petroleum coke . . . . .	41,978	45,922	44,881	55,588	60,377	96,722
Germany (East)—						
Motor spirit . . . . .	149,907	126,173	74,833	59,078	256,051	364,455
Diesel oil . . . . .	203,163	294,004	271,446	399,721	370,770	370,316
Hungary—						
Motor spirit . . . . .	12,675	68,285	75,412	91,689	99,785	94,506
Kerosine . . . . .	9,423	14,491	9,413	183	163	10,070
Gas oil . . . . .	14,962	96,680	145,618	140,465	159,828	171,708
Fuel oil . . . . .	59,980	7,804	47,547	119,616	219,695	212,288
Paraffin wax and ceresin	2,380	1,837	2,121	2,464	2,362	1,526
Italy—						
Crude petroleum . . . . .	1	197	203,973	468,747	510,305	469,949
Aviation and motor spirits . . . . .	1,769,572	1,452,182	1,841,049	1,533,843	1,822,409	1,768,272
do. (bunkers) (a) . . . . .	25,924	42,738	40,038	190,999	140,074	190,195
White spirit . . . . .	32,887	22,582	16,682	10,276	16,311	12,826
Kerosine . . . . .	432,584	301,828	307,178	333,551	438,971	558,119
Lubricating oil . . . . .	132,209	26,104	49,107	106,570	40,730	29,850
Gas oil . . . . .	1,695,928	1,857,488	1,779,134	1,958,298	2,412,466	2,507,906
do. (bunkers) (a) . . . . .	100,922	50,810	206,194	88,686	234,389	255,647
Fuel oil . . . . .	679,609	1,223,103	2,742,770	2,557,317	1,869,799	2,528,374
do. (bunkers) (a) . . . . .	735,000	637,161	913,502	1,352,742	1,949,803	2,246,633
Paraffin wax . . . . .	2,259	1,745	783	557	678	868
Natural asphalt and bitumen . . . . .	13,028	11,089	7,500	8,955	9,322	9,038
Pitch . . . . .	72,349	74,278	107,980	102,748	114,094	116,882
Netherlands—						
Aviation spirit (bunkers)	27,044	33,412	(a) 453	(a) 797	(a) 1,499	(a) 1,537
Motor spirit . . . . .	1,866,565	2,186,670	2,326,815	1,956,761	2,407,071	2,548,248
Kerosine . . . . .	224,614	384,544	514,854	566,235	573,198	607,625
Gas oil . . . . .	1,744,122	1,923,376	2,041,032	2,155,325	2,779,299	2,577,081
do. (bunkers) . . . . .	(b) 681,975	(b) 657,846	(a) 324,676	(a) 259,254	(a) 335,332	(a) 455,390
Fuel oil . . . . .	3,858,197	3,580,907	4,941,011	3,876,710	4,947,274	4,896,176
do. (bunkers) . . . . .	(b) 1,830,248	(b) 1,600,581	(a) 824,253	(a) 786,887	(a) 1,038,676	(a) 1,424,979
Lubricating oil . . . . .	178,566	206,130	183,067	213,637	246,767	223,686
Petroleum jelly . . . . .	2,606	2,724	3,121	5,245	4,083	4,944
Paraffin wax . . . . .	1,361	1,714	7,262	4,564	16,018	17,272
Ozokerite and ceresin (d)	1,259	1,711	1,571	1,726	810	218
Pitch . . . . .	110,519	92,263	78,471	90,925	132,274	225,607
Natural asphalt . . . . .	5	10	8	17	176	31
Petroleum coke . . . . .	5,488	5,642	20,183	36,042	43,297	36,495

(a) Bunkers for foreign ships or aircraft only.

(d) Including montan wax.

(b) Including foreign produce.

(c) Figures for 1956-1959 include foreign produce.

EXPORTS OF PETROLEUM AND ALLIED PRODUCTS (cont.)

Long tons

Exporting Country and Description	1956	1957	1958	1959	1960	1961
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
<b>Norway—</b>						
Motor spirit .. ..	917	607	875	881	910	72,225
Kerosine .. ..	565	60	15	267	8	4,962
Fuel oil and solar oil ..	1,792	1,131	238	316	386	546,812
Lubricating oil .. ..	9,508	8,997	10,592	12,159	15,776	15,865
<b>Portugal (b)—</b>						
Motor spirit .. ..	86,326	68,840	102,892	83,690	89,984	75,994
Kerosine .. ..	13,773	26,269	37,904	35,568	13,919	40,979
Fuel oil .. ..	92,194	86,125	159,857	164,004	167,924	98,214
do. (bunkers) (a) ..	11,074	3,568	1,216	18,233	5,718	4,394
Lubricating oil, etc. ..	1,101	1,606	1,622	2,135	2,020	1,660
<b>Roumania—</b>						
Motor spirit .. ..			2,222,200	2,526,000	2,426,900	2,044,100
Kerosine .. ..			656,300	686,600	665,000	607,100
Gas oil .. ..			1,456,100	1,368,900	1,266,000	1,740,000
Fuel oil .. ..			543,000	970,100	1,210,000	1,283,600
Lubricating oil .. ..	<i>n.a.</i>	<i>n.a.</i>	93,000	152,700	208,100	242,400
Paraffin wax .. ..			9,200	12,200	19,300	30,200
Petroleum coke .. ..			13,700	16,000	13,500	26,100
Bitumen .. ..			58,000	61,300	79,900	84,900
<b>Spain—</b>						
Motor spirit .. ..	14	37,205	86,288	15,431	14,410	63,717
Diesel oil .. ..	—	12	38,264	4,322	—	—
Fuel oil .. ..	—	—	—	31,410	165,651	41,423
<b>Sweden—</b>						
Motor spirit, etc. .. ..	33	2	487	8,995	8,252	2,600
White spirit .. ..	115	—	—	591	818	2,806
Kerosine .. ..	5	—	505	3,406	16,407	—
Fuel oil and gas oil ..	7,322	9,508	2,309	75,833	48,713	49,492
Lubricating oil and grease .. ..	6,591	11,347	14,253	23,430	31,191	36,122
Paraffin wax .. ..	20	5	4	18	29	27
Asphalt .. ..	26	62	138	1	3	3
Pitch .. ..	17,385	22,412	27,764	25,830	30,571	30,430
<b>Switzerland—</b>						
Asphalt and bitumen ..	4,029	6,237	4,321	2,217	2,498	2,124
<b>U.S.S.R.—</b>						
Crude petroleum .. ..	3,835,400	5,829,700	8,949,000	12,288,100	17,543,400	23,018,900
Motor spirit .. ..	1,418,600	1,678,400	1,862,800	2,582,600	2,773,500	3,532,700
Kerosine .. ..	712,600	893,800	836,700	905,000	1,076,100	1,058,800
Diesel oil .. ..	1,976,600	2,656,000	3,429,000	4,570,100	5,083,900	5,607,700
Fuel oil .. ..	1,766,300	2,158,200	2,413,100	4,207,500	5,201,300	6,748,500
Lubricating oil and grease .. ..	154,100	198,900	305,500	342,100	374,000	416,000
Paraffin wax .. ..	11,200	11,100	11,900	21,800	23,900	23,000
Bitumen .. ..	14,800	17,000	21,800	31,200	36,500	73,600
<b>Yugoslavia—</b>						
Crude petroleum .. ..	—	—	—	—	—	175,692
Motor spirit .. ..	5,570	41,417	37,197	36,716	30,509	16,084
White spirit .. ..	1,774	1,304	673	50	34	167
Power kerosine .. ..	3,556	6,383	589	—	—	—
Gas oil .. ..	15,582	14,985	9,157	7,794	3,555	3,974
Fuel oil .. ..	45,698	29,666	26,619	9,547	32,903	60,926
Lubricating oil .. ..	—	61	59	5,508	6,614	10,160
Mastic asphalt .. ..	6,749	—	—	—	197	394

(a) Bunkers for foreign ships only.

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

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

Long tons

Exporting Country and Description	1956	1957	1958	1959	1960	1961
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
Algeria—						
Crude petroleum ..	20,854	10,693	376,243	821,801	—	—
Motor spirit (d) ..	20,165	24,385	28,165	32,474	30,972	n.a.
Fuel oil ..	33	2	1	36	2	n.a.
Fuel oil and gas oil (d) ..	631,371	654,000	525,199	476,892	454,788	n.a.
Lubricating oil ..	31	35	11	12	3	n.a.
Angola—						
Crude petroleum ..	3,598	4,488	—	—	1	—
Fuel oil ..	—	—	15,449	10,049	45,188	71,690
Canary Islands—						
Motor spirit ..	218,012	310,795	309,770	308,873	(f) 199,054	(f) 176,533
Kerosine ..	30,310	80,250	79,486	92,561	(f) 59,018	(f) 53,976
Diesel (c) ..	166,737	173,507	172,054	240,559	(f) 99,796	(f) 114,486
do. (bunkers) (c) ..	144,253	177,303	123,267	149,314	128,070	174,217
Fuel oil (c) ..	188,183	480,992	603,430	583,105	(f) 201,927	(f) 201,776
do. (bunkers) (c) ..	290,005	318,616	216,421	246,518	256,055	288,411
Lubricating oil ..	12,548	10,506	7,404	19,472	n.a.	n.a.
Paraffin wax ..	589	523	561	578	(f) 225	(f) 327
Asphalt ..	108,626	117,633	61,433	93,781	(f) 25,413	(f) 33,122
Cape Verde Islands—						
Fuel oil (bunkers) (b) ..	433,702	529,433	455,992	465,019	488,376	n.a.
Ceuta (b)—						
Diesel oil ..	76	7,214	50,487	13,139	12,425	6,096
do. (bunkers) ..	650,777	505,351	403,350	466,720	282,988	105,679
Fuel oil (bunkers) ..	—	92,923	—	—	130,543	412,199
Egypt—						
Crude petroleum ..	—	236,094	1,104,963	1,063,877	854,045	n.a.
Motor spirit ..	1,161	1,193	2,331	27,059	82,466	n.a.
Kerosine ..	2,921	3,184	5,329	5,862	5,908	n.a.
Gas and diesel oils ..	9,293	3,873	8,711	7,335	7,393	n.a.
Fuel oil ..	111	290	3,437	3,250	65,313	n.a.
do. (bunkers) (a) ..	119,571	13,364	18,005	8,828	22,844	n.a.
Lubricating oil ..	—	—	—	—	—	—
Gabon—						
Crude petroleum ..	—	141,038	443,327	768,447	795,990	818,105
South Africa—						
Motor spirit ..	19,823	19,348	41,976	27,943	9,897	47
do. (bunkers) (b) ..	8,855	9,000	8,856	5,826	7,030	5,318
Gas oil (bunkers) (b) ..	4,379	9,019	8,871	10,227	17,085	8,896
Diesel oil ..	40,896	47,395	35,068	70,504	32,764	45
do. (bunkers) ..	38,478	47,498	55,576	37,299	2,642	4,705
do. (bunkers) (b) ..	111,454	162,195	53,541	25,006	22,711	28,777
Fuel oil ..	15,015	66	25,102	55,011	37,967	12,146
do. (bunkers) ..	286,493	213,470	231,728	199,923	188,030	245,664
do. (bunkers) (b) ..	344,804	802,597	181,209	160,384	166,517	210,537
Asphalt and bitumen ..	30,605	32,286	30,812	58,106	50,127	43,414
Sudan—						
Aviation spirit (bunkers) (b) ..	13,742	22,209	18,617	15,909	n.a.	n.a.
Tunisia (bunkers)—						
Aviation spirit ..	3,201	3,907	212	—	—	—
Fuel oil ..	340	64	—	55	—	—
Mexico—						
Crude petroleum ..	816,424	407,932	112,615	15,827	147,349	913,531
Motor spirit ..	3,121	29,636	3,859	3,816	4,789	40,920
Kerosine ..	1,963	1,480	458	21,666	1	—
Fuel oil ..	2,724,602	1,625,788	1,558,602	1,817,941	995,775	1,132,626
do. (bunkers) ..	163,471	165,970	76,030	81,335	78,938	22,168
Gas oil ..	3,542	69,395	8,715	10,295	10,654	7,132
Paraffin wax ..	1	1	865	3,839	1,270	704
Natural gas (million cu. ft.) (e) ..	6	16,970	46,211	51,488	46,989	51,000

(a) Bunkers for foreign ships only. (b) Foreign produce. See imports. (c) Including foreign produce.

(d) Bunkers of foreign produce. (e) Imports into the United States.

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

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

Long ton

Exporting Country and Description	1956	1957	1958	1959	1960	1961
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
<b>Netherlands Antilles—</b>						
Crude petroleum .. ..	2,054,676	587,699	507,975	708,830	180,121	322,000
Aviation spirit .. ..	1,339,431	1,301,733	1,448,616	1,195,762	1,413,993	1,455,000
Motor spirit .. ..	2,623,820	2,438,893	3,471,890	2,492,642	2,568,964	2,524,000
White spirit .. ..	54,215	46,386	54,092	100,112	67,398	57,000
Kerosine .. ..	1,342,086	1,229,122	1,229,209	1,535,172	1,326,787	1,060,000
Aviation turbine fuel ..	1,620,798	1,859,385	2,340,282	2,006,922	1,660,951	2,155,000
Gas oil .. ..	2,556,587	2,744,541	3,991,875	3,216,223	3,186,203	3,665,000
Diesel oil .. ..	2,612,650	1,916,776	1,926,428	1,848,607	1,470,405	1,296,000
Fuel oil .. ..	24,999,904	22,928,528	18,805,434	19,766,415	20,162,668	20,792,000
Lubricating oil .. ..	688,656	602,087	617,446	648,592	723,507	655,000
Asphalt .. ..	617,596	683,698	746,627	861,786	840,671	894,000
<b>United States—</b>						
Crude petroleum .. ..	3,816,500	6,699,100	579,300	336,600	411,639	430,373
Natural gasoline .. ..	22,867	5,193	404	249	144	942
Aviation spirit .. ..	1,618,717	1,647,178	1,326,260	1,151,129	697,894	323,678
Motor spirit .. ..	1,057,336	1,447,482	644,359	397,333	261,408	77,085
Other finished light products .. ..	129,455	147,421	121,601	127,471	125,301	128,492
Kerosine .. ..	366,013	625,450	145,140	118,816	75,106	26,767
Aviation turbine fuel ..	23,224	13,043	22,274	22,221	14,382	15,452
Gas oil and distillate fuel oil .. ..	4,454,748	6,309,909	2,400,356	1,775,327	1,366,620	957,356
Residual fuel oil .. ..	3,230,246	4,794,343	3,298,243	3,109,005	2,742,096	2,080,066
Fuel oil (bunkers) .. ..	11,935,000	13,765,000	12,193,000	12,225,000	11,835,000	10,801,000
Lubricating oil .. ..	2,412,643	1,808,751	1,687,949	1,826,293	2,079,634	2,248,462
Transformer oil .. ..	28,347	27,370	24,743	31,021	34,229	43,181
Greases .. ..	56,717	58,842	45,995	51,998	51,885	47,551
Paraffin wax .. ..	93,515	107,623	91,368	102,163	137,697	123,440
Petroleum jelly .. ..	41,075	36,126	34,252	34,812	34,613	32,911
Natural asphalt and bitumen .. ..	27,539	27,493	24,591	26,499	28,571	29,455
Other asphalt, etc. .. ..	210,144	250,748	175,854	132,007	127,753	82,793
Petroleum coke .. ..	1,138,544	924,288	786,751	835,778	1,224,644	1,298,341
Liquefied petroleum gases .. ..	360,614	382,908	240,809	189,902	252,196	299,434
Natural gas ( <i>million cu. ft.</i> ) .. ..	35,963	41,655	38,719	18,413	11,332	15,426
<b>Argentina—</b>						
Grahamite ("Rafaelite") ..	1,214	1,393	1,832	1,553	2,125	1,152
<b>Bolivia—</b>						
Crude petroleum .. ..	68,054	131,886	149,900	119,854	130,912	83,514
Motor spirit .. ..	22,273	21,995	16,739	355	3,491	7,035
Kerosine .. ..	1,046	1,265	1,141	—	16	—
<b>Brazil—</b>						
Crude petroleum .. ..	—	—	1,125,859	1,444,260	579,081	1,035,867
Fuel oil .. ..	—	141,003	183,018	44,204	59,057	73,643
<b>Chile—</b>						
Crude petroleum .. ..	15,399	46,417	—	66	—	—
<b>Colombia—</b>						
Crude petroleum .. ..	4,027,967	3,966,031	3,359,987	3,917,684	4,284,315	3,800,199
Fuel oil .. ..	167,085	270,015	639,271	627,469	576,704	395,166
<b>Ecuador—</b>						
Crude petroleum .. ..	114,203	163,157	91,326	37,316	—	—
<b>Peru—</b>						
Crude petroleum .. ..	358,227	427,445	315,593	291,416	331,032	330,958
Natural gasoline .. ..	20,331	19,538	6,450	1,613	1,501	919
Aviation spirit .. ..	39,378	52,038	37,677	52,081	54,838	6,580
Motor spirit .. ..	88,210	87,558	31,026	33,089	22,492	4,894
White spirit .. ..	642	9	58	515	—	—
Kerosine .. ..	96,860	129,508	93,312	101,518	83,214	36,513
Gas oil (a) .. ..	315,712	133,192	71,746	41,232	168,805	188,978

(a) Including bunkers.

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

Long tons

Exporting Country and Description	1956	1957	1958	1959	1960	1961
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
<b>Peru (cont.)—</b>						
Fuel oil and diesel oil ..	52,079	142,117	108,253	94,026	80,485	} 105,104
do. (bunkers) ..	24,268	29,775	25,524	22,287	30,862	
Lubricating oil and grease ..	2,306	1,631	843	732	109	331
Asphalt ..	3,144	681	—	—	—	—
<b>Uruguay (a)—</b>						
Motor spirit, etc. ..	3,000	4,000	4,000	5,000	10,000	<i>n.a.</i>
Kerosine ..	—	100	100	100	—	<i>n.a.</i>
Gas oil and diesel oil ..	40,000	43,000	40,000	32,000	48,000	<i>n.a.</i>
Fuel oil ..	225,000	179,000	159,000	98,000	201,000	<i>n.a.</i>
<b>Venezuela—</b>						
Crude petroleum ..	96,222,721	106,634,686	96,039,208	101,561,805	102,975,795	104,045,485
Motor spirit ..	1,117,137	1,402,057	1,853,480	2,326,159	2,099,542	2,265,766
Kerosine ..	550,827	558,318	818,929	790,185	601,461	877,551
Aviation turbine fuel ..	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	16,117	185,740	263,987
Gas oil ..	2,912,410	2,545,487	3,513,975	3,368,399	2,801,104	3,348,942
Diesel oil ..	1,558,871	1,873,097	1,702,140	1,957,551	2,872,191	2,558,107
Fuel oil ..	17,497,286	18,010,505	19,726,698	22,549,506	26,848,862	27,826,224
Lubricating oil ..	157,952	121,596	164,783	150,600	208,144	194,323
Paraffin wax ..	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	12,535	15,503	—
Asphalt ..	189,962	495,199	693,981	435,256	453,222	490,927
<b>Burma—</b>						
Paraffin wax ..	3,224	4,882	5,457	6,554	5,133	7,617
<b>Formosa—</b>						
Asphalt ..	5,118	12,760	4,931	9,395	6,933	31,573
<b>Indonesia—</b>						
Crude petroleum ..	4,341,725	6,839,804	7,226,632	4,373,664	7,298,643	9,577,801
Motor spirit ..	1,485,427	1,816,272	1,401,743	1,388,264	1,477,656	1,149,511
White spirit ..	76,267	56,972	70,250	6,975	—	—
Kerosine ..	419,683	916,146	380,543	487,694	484,569	427,653
Gas and diesel oils ..	1,295,022	1,585,532	1,156,930	1,077,915	1,159,883	913,687
do. do. (bunker oil)	129,185	121,054	78,088	85,878	104,131	123,817
Fuel oil ..	2,084,163	3,536,477	2,483,162	2,484,688	2,753,259	2,423,030
do. (bunker oil)	375,370	408,247	284,492	395,832	337,582	517,113
Lubricating oil ..	92,378	23,480	31,693	52,585	41,568	20,146
Paraffin wax ..	61,817	62,778	42,386	47,874	52,160	61,278
Asphalt ..	15	—	—	—	—	—
<b>Iran (b)—</b>						
Crude petroleum ..	14,190,363	19,117,782	23,974,019	29,725,588	31,932,790	<i>n.a.</i>
Motor spirit ..	4,454,291	3,987,031	2,005,087	1,856,594	2,936,004	<i>n.a.</i>
Kerosine ..	1,417,190	1,716,704	1,653,896	1,673,307	1,268,221	<i>n.a.</i>
Gas oil ..	—	—	1,122,774	1,160,312	1,027,264	<i>n.a.</i>
Diesel oil ..	3,064,438	6,031,177	1,703,659	921,809	863,817	<i>n.a.</i>
Fuel oil ..	—	—	5,381,847	5,288,315	6,888,959	<i>n.a.</i>
<b>Iraq—</b>						
Crude petroleum ..	29,169,832	19,938,000	33,255,000	39,169,282	44,490,282	45,851,135
Motor spirit ..	698	115	—	722	560	<i>n.a.</i>
Kerosine ..	434	71	563	172	—	<i>n.a.</i>
<b>Japan—</b>						
Aviation spirit (foreign produce (bunkers) ..	36,509	45,048	49,701	58,153	94,662	<i>n.a.</i>
Motor spirit ..	1	10,735	207,892	237,502	262,060	460,436
Kerosine ..	3	12	4	14,887	72,276	40,409
Gas oil ..	1	1	—	14,816	82,761	77,450
<b>Fuel oil, etc. (bunkers)</b>						
Domestic produce ..	227,919	136,919	118,383	108,645	192,612	<i>n.a.</i>
Foreign produce ..	1,617,063	2,015,099	1,706,886	2,413,814	3,775,913	<i>n.a.</i>
Lubricating oils ..	4,020	193	570	2,667	5,229	6,680
Paraffin wax ..	8,767	8,395	12,592	11,656	11,310	9,080
Asphalt and pitch ..	6,094	2,499	2,056	30,433	28,885	67,570

(a) Bunkers on foreign ships only.

(b) Years ended March 20 following that stated.

EXPORTS OF PETROLUUM AND ALLIED PRODUCTS (*cont.*)

Long ton

Exporting Country and Description	1956	1957	1958	1959	1960	1961
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
Kuwait—						
Crude petroleum ..	52,890,137	54,910,338	63,090,053	61,279,115	71,488,439	72,997,668
Export distillate ..	101,168	109,376	750,347	785,310	667,884	600,096
Gas oil .. ..	<i>n.a.</i>	<i>n.a.</i>	809,620	960,061	1,478,982	1,460,859
Diesel oil .. ..	3,723	—	113,743	382,536	271,357	48,348
do. (bunkers) ..	253,367	233,945	337,835	224,484	172,655	141,201
do. do. (c) ..	57,907	196,302	18,442	—	—	—
Fuel oil .. ..	—	—	1,137,584	1,697,631	2,176,610	2,094,033
do. (bunkers) ..	853,200	822,090	2,199,515	2,357,238	2,911,169	2,947,494
do. do. (c) ..	490,426	1,251,685	64,057	—	—	—
Netherlands New Guinea—						
Crude petroleum ..	357,632	326,486	262,782	241,106	244,579	164,791
Neutral Zone (a)—						
Crude petroleum ..	1,650,000	3,242,000	(b)4,000,000	(b)4,640,000	(b)5,605,000	7,463,000
Saudi Arabia—						
Crude petroleum ..	38,154,060	38,515,549	41,085,199	44,758,739	49,948,993	5,5955,606
Syria—						
Natural asphalt ..	2,955	4,675	625	217	<i>n.a.</i>	<i>n.a.</i>

(a) Neutral Zone of Kuwait and Saudi Arabia.

 (c) Foreign produce. *See* imports.

(b) Estimated.

## IMPORTS OF PETROLEUM AND ALLIED PRODUCTS\*

(Less Re-exports)

Long tons

Importing Country and Description	1956	1957	1958	1959	1960	1961
<b>COMMONWEALTH COUNTRIES</b>						
<b>United Kingdom—</b>						
Crude petroleum ..	28,823,183	27,960,498	33,744,783	39,238,039	44,611,161	48,900,509
Aviation spirit (a) ..	337,000	334,192	293,946	452,990	259,636	288,944
Aviation turbine fuel ..	56,635	20,000	19,703	100,205	96,447	144,722
Motor spirit ..	1,568,954	1,967,228	1,933,155	2,242,266	2,103,253	2,192,403
Other spirit ..	158,682	275,385	123,755	118,514	305,056	342,675
Kerosine—Power ..	467,177	501,336	265,384	278,911	202,229	154,105
do. Other ..	296,865	490,284	517,706	766,092	447,333	328,779
Aviation jet fuel ..	608,167	478,713	328,223	235,908	75,081	81,527
Fuel oil (a) ..	3,070,979	3,892,485	4,819,310	5,217,358	7,415,901	5,310,629
Diesel oil ..	240,907	180,432	85,332	233,923	76,042	121,856
Gas oil ..	1,765,857	2,080,135	1,874,365	1,980,289	2,116,763	2,042,453
Lubricating oil ..	458,373	390,972	403,480	410,355	489,117	515,185
Mineral jelly ..	9,279	8,261	5,381	5,538	6,294	4,824
Paraffin wax ..	33,602	33,372	30,216	32,383	35,545	31,682
Other petroleum wax ..	8,327	6,985	6,949	54,605	58,677	53,579
Ozokerite ..	3	—	—	—	—	—
Petroleum coke ..	24,654	30,876	49,333	66,114	61,459	44,272
Asphalt and bitumen (d) ..	69,117	74,371	68,614	61,694	75,102	83,866
<b>Channel Islands—</b>						
Aviation spirit ..	3,902	4,448	4,876	3,977	4,503	3,558
Motor spirit ..	19,746	18,033	19,823	21,317	23,649	25,750
Other spirit (b) ..	71	68	69	65	657	46
Kerosine ..	2,460	2,102	4,378	4,906	7,223	9,854
Gas and fuel oil ..	41,776	40,918	55,796	68,485	93,220	100,449
Lubricating oil ..	1,273	1,067	1,446	1,493	1,406	1,504
Greases (b) ..	22	17	17	21	47	26
<b>Gibraltar (e)—</b>						
Motor spirit, fuel oil, etc. ..	5,000	5,000	5,000	5,000	5,000	n.a.
Kerosine ..	299	288	300	250	220	n.a.
<b>Malta—</b>						
Aviation spirit (a) ..	34,621	27,721	22,831	16,407	12,360	6,972
Motor spirit ..	18,174	18,251	16,646	18,258	18,674	20,330
Aviation turbine fuel (a) ..	5,161	4,002	809	43,435	37,005	26,097
Kerosine ..	57,202	62,287	75,073	23,069	27,624	27,339
Fuel oil (a) ..	32,082	38,080	33,575	63,673	39,902	39,322
Gas oil (a) ..	15,736	19,459	17,054	19,517	17,638	17,453
Lubricating oil ..	1,519	1,343	1,068	1,438	1,301	1,367
<b>Gambia—</b>						
Aviation spirit ..	477	669	(c) 87	39	—	284
Motor spirit ..	2,221	2,858	2,598	2,310	1,920	2,938
Kerosine ..	645	576	822	538	475	667
Aviation turbine fuel ..	108	—	16	(c) 76	(c) 32	415
Other fuel oils ..	66	307	512	(c) 3,484	—	—
Gas oil ..	1,757	1,764	1,031	2,060	1,446	2,808
Diesel oil ..	620	1,403	2,806	751	1,591	521
Lubricating oil ..	243	262	293	206	272	229
Asphalt and bitumen ..	4	—	243	295	70	296
<b>Ghana—</b>						
Aviation spirit (a) ..	3,565	6,253	5,617	4,146	5,838	2,518
Motor spirit ..	110,119	132,464	136,740	125,156	138,466	103,127
Kerosine ..	27,098	39,767	40,848	45,690	49,742	41,554
Fuel oil (a) ..	42,979	42,041	69,867	46,976	62,731	25,260
Gas oil (a) ..	66,925	85,258	103,906	112,938	165,427	125,477

\*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.

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

Long tons

Importing Country and Description	1956	1957	1958	1959	1960	1961
COMMONWEALTH COUNTRIES (cont.)						
Ghana (cont.)—						
Diesel oil .. ..	24,890	29,822	3,514	29,376	7,274	99,580
Lubricating oil (b) ..	9,832	11,020	9,686	12,004	12,678	12,423
Greases .. ..	347	314	480	475	561	540
Asphalt and bitumen ..	13,355	17,641	8,859	13,910	16,027	15,415
Kenya—						
Aviation spirit (b) ..	17,581	13,514	16,107	10,774	20,450	14,959
Motor spirit (b) ..	118,340	100,263	113,100	109,227	110,711	106,527
Kerosine—Power ..	12,566	12,221	26,034	21,194	32,299	49,581
do. Other ..	23,699	26,885	37,858	22,197	31,579	24,683
Gas, diesel, fuel oils (b)	608,484	630,404	531,181	594,422	603,302	573,589
Lubricating oil (b) ..	8,279	8,906	13,034	1,952	9,127	14,296
Greases .. ..	621	659	647	355	649	922
Petroleum jelly and paraffin wax ..	425	(a) 75	209	215	312	354
Asphalt .. ..	14,372	13,607	9,832	17,726	12,783	16,178
Mauritius—						
Aviation spirit (b) ..	1,191	1,389	2,279	1,676	2,245	1,293
Motor spirit .. ..	25,802	24,275	24,680	28,426	27,559	12,109
Kerosine .. ..	4,525	3,548	3,590	3,034	4,518	4,109
Lubricating oils ..	1,424	1,444	1,586	1,436	1,779	2,065
Gas, diesel, fuel oils (b)	22,992	27,699	22,274	28,058	22,576	39,861
Grease .. ..	150	109	97	156	109	147
Asphalt and pitch ..	1,613	4,766	3,635	2,848	5,003	4,085
Nigeria—						
Aviation spirit .. ..	15,046	28,194	30,876	17,091	29,921	21,624
Motor spirit .. ..	166,237	161,126	160,041	193,437	194,669	211,180
White spirit .. ..	97	142	160	(a) 5	222	101
Aviation turbine fuel ..	(a) 44	4,303	4,145	7,835	6,825	28,394
Kerosine .. ..	70,049	62,768	69,531	96,825	96,326	102,358
Gas oil (b) .. ..	29,235	27,327	31,414	78,821	96,317	169,050
Diesel oil (b) .. ..	49,889	57,560	103,556	116,158	92,524	45,150
Fuel oil (b) .. ..	29,917	37,067	36,425	58,856	58,630	166,226
Lubricating oil .. ..	9,172	13,082	12,504	13,049	17,707	17,329
Greases .. ..	426	457	627	757	833	771
Petroleum jelly .. ..	131	213	413	230	185	41
Asphalt and bitumen ..	13,356	11,838	25,989	32,509	40,304	11,694
Rhodesia and Nyasaland—						
Aviation spirit .. ..	12,541	12,331	10,944	10,062	11,486	10,267
Motor spirit .. ..	215,328	221,074	240,589	239,523	237,895	244,723
Kerosine—Power ..	20,234	16,461	18,868	14,356	15,927	14,075
do. Other .. ..	21,260	20,085	22,013	22,677	24,680	26,792
Fuel oil .. ..	140,169	150,328	167,493	174,746	169,650	178,784
Lubricating oil .. ..	17,582	21,874	19,034	18,335	20,234	17,528
Other petroleum products ..	6,780	13,235	15,061	17,376	19,834	32,382
Greases (c) .. ..	1,915	2,456	1,705	2,063	2,050	1,803
Paraffin wax .. ..	1,090	1,435	1,060	1,210	1,637	1,462
Asphalt and bitumen ..	22,801	27,426	23,480	25,776	29,384	17,288
St. Helena—						
Motor spirit .. ..	252	123	252	173	260	191
Kerosine .. ..	95	65	125	46	104	97
Diesel oil .. ..	222	85	135	78	168	141
Lubricating oil .. ..	18	7	18	7	6	10
Seychelles—						
Motor spirit .. ..	396	208	263	244	378	388
Kerosine .. ..	210	265	269	271	349	372
Fuel oil .. ..	311	196	302	229	584	667
Sierra Leone—						
Aviation spirit (b) ..	911	(a) 132	718	200	455	1,686

(a) Excess of re-exports.

(c) Including mineral jelly.

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



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

Long tons

Importing Country and Description	1956	1957	1958	1959	1960	1961
<b>COMMONWEALTH COUNTRIES (cont.)</b>						
<b>Sierra Leone (cont.)—</b>						
Motor spirit .. ..	14,073	17,886	16,499	21,109	15,377	19,372
Kerosine .. ..	9,401	12,712	9,627	13,713	10,800	11,102
Gas oil (a) .. ..	4,857	3,987	5,025	15,194	7,069	138,696
Diesel oil (a) .. ..	20,082	81,330	76,077	81,450	122,733	
Fuel oil (a) .. ..	45,439	237,855	151,617	164,863	159,929	219,515
Lubricating oil .. ..	1,469	1,334	1,587	1,331	1,964	2,968
Asphalt and bitumen .. ..	2,094	2,211	4,034	1,788	1,587	2,900
<b>Tanganyika—</b>						
Aviation spirit (a) .. ..	3,513	3,614	2,724	3,174	3,481	3,047
Motor spirit .. ..	65,514	75,019	72,204	66,926	64,085	58,566
Kerosine—Power .. ..	1,279	1,799	838	1,690	476	2,053
do. Other .. ..	19,814	29,129	24,591	28,661	29,265	28,583
Gas, diesel, fuel oils (a) .. ..	125,588	145,554	172,645	138,339	184,033	165,573
Lubricating oil .. ..	5,285	4,716	6,320	4,886	6,441	6,048
Greases .. ..	448	374	503	506	381	650
Petroleum jelly and paraffin wax .. ..	75	43	75	62	25	47
Asphalt .. ..	7,727	4,630	4,237	5,367	3,960	7,699
<b>Uganda—</b>						
Aviation spirit (a) .. ..	4,187	4,269	4,548	3,487	3,341	3,703
Motor spirit .. ..	54,997	55,057	55,535	55,805	57,820	54,719
Kerosine—Power .. ..	1,794	2,340	2,711	2,667	3,695	7,913
do. Other .. ..	21,007	19,422	19,316	19,790	19,620	19,623
Gas, diesel, fuel oils .. ..	30,536	37,815	46,142	38,612	38,586	37,289
Lubricating oil .. ..	3,590	3,245	3,745	3,648	3,671	3,544
Greases .. ..	404	295	339	422	419	302
Petroleum jelly and paraffin wax .. ..	43	51	64	70	85	93
Asphalt .. ..	1,346	3,647	4,046	2,891	977	4,568
<b>Zanzibar—</b>						
Aviation and motor spirit .. ..	4,303	4,235	4,043	3,780	4,155	4,034
Kerosine, etc. .. ..	3,541	3,595	3,031	3,241	3,266	2,372
Fuel oils .. ..	2,461	2,996	3,230	3,599	3,426	3,711
<b>Canada—</b>						
Crude petroleum .. ..	15,210,002	15,986,482	14,862,686	16,469,806	17,937,090	19,035,569
Tops for refiners .. ..	21,807	—	231,621	—	—	—
Aviation spirit .. ..	327,639	372,086	262,621	314,011	193,585	115,909
Motor spirit .. ..	333,687	299,827	332,222	311,588	101,729	84,493
Kerosine, etc. .. ..	73,284	58,685	37,807	74,946	108,926	33,485
Lubricating oils .. ..	176,010	162,499	139,433	163,686	163,903	153,765
Diesel oil .. ..	263,196	249,317	229,228	222,234	368,456	324,282
Fuel oil .. ..	3,337,540	3,007,023	2,763,151	3,909,523	3,511,635	2,962,946
do. (b) .. ..	—	232	2,388	5,891	1,966	2,518
Other petroleum oils .. ..	7,525	7,211	4,374	3,740	3,992	7,208
Liquefied petroleum gas .. ..	91,442	96,983	36,275	7,245	12,052	7,813
Grease .. ..	8,136	7,860	6,960	7,415	7,371	6,911
Paraffin wax, etc. .. ..	19,316	19,405	19,921	21,723	18,614	18,610
Asphaltum oil, etc. .. ..	304	2,038	2,495	4,194	5,980	5,565
Asphalt .. ..	42,774	38,242	23,231	31,639	24,743	28,289
Petroleum coke .. ..	394,286	380,024	268,073	281,011	360,130	326,557
Other products .. ..	71,174	75,035	89,646	95,305	129,396	142,852
Natural gas (million cubic feet) .. ..	15,695	30,551	34,716	11,963	5,571	5,574
<b>Bahamas—</b>						
Motor spirit .. ..	16,990	23,164	23,623	31,266	35,738	43,980
Kerosine .. ..	5,316	6,487	7,058	10,916	11,171	13,018
Fuel oils .. ..	23,329	24,629	26,029	42,521	41,246	59,900
Lubricating oil .. ..	612	808	540	928	964	1,492

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

(b) Ex warehoused, for ships' stores.

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

Long tons

Importing Country and Description	1956	1957	1958	1959	1960	1961
COMMONWEALTH COUNTRIES (cont.)						
Barbados—						
Crude petroleum ..	8,204	6,719	5,581	r 8,816	10,542	23,218
Aviation and motor spirit .. ..	12,274	11,593	12,553	r 11,745	14,861	11,354
Kerosine .. ..	9,359	8,952	10,109	9,994	11,149	10,135
Gas oil and diesel oil ..	7,067	12,319	13,827	r 22,539	18,992	15,851
Fuel oil .. ..	—		709	812	1,165	559
Lubricating oil ..	672					
Bermuda (b)—						
Aviation and motor spirits .. ..	77,397	88,560	80,806	119,539	93,905	92,265
Aviation turbine fuel ..	5,905	5,005	24,515	26,528	27,985	38,113
Kerosine .. ..	2,878	4,654	3,242	21,253	14,872	22,069
Diesel oil .. ..	18,537	19,157	22,305	31,229	n.a.	41,375
Fuel oil .. ..	10,227	25,232	10,808	9,304	18,453	19,974
Lubricating oil ..	1,205	1,662	1,770	1,300	901	957
Asphalt .. ..	640	1,600	865	1,990	1,884	577
British Honduras—						
Aviation spirit .. ..	(a) 484	224	(a) 209	277	326	41
Motor spirit .. ..	4,249	3,976	4,729	5,390	4,974	4,258
Kerosine .. ..	2,160	1,941	2,919	2,959	2,884	2,236
Diesel and fuel oils ..	3,417	2,989	4,463	4,536	4,791	9,755
Lubricating oil ..	525	396	326	465	396	490
Asphalt, etc. .. ..	188	489	966	379	809	1,043
Cayman Islands—						
Aviation and motor spirits .. ..	783	946	1,598	1,657	1,688	1,716
Kerosine .. ..	219	331	474	481	933	1,380
Diesel oil .. ..	188	180	297	396	1,059	972
Dominica—						
Motor spirit .. ..	888	1,071	1,028	1,485	1,255	1,980
Kerosine .. ..	489	470	466	723	648	960
Fuel oil and diesel oil ..	517	477	631	1,041	913	1,184
Lubricating oil ..	68	59	79	127	155	238
Road oil .. ..	67	31	115	968	149	246
Grenada—						
Motor spirit .. ..	2,278	1,975	2,235	2,680	n.a.	n.a.
Kerosine .. ..	1,021	961	1,371	1,236	1,623	n.a.
Fuel oils .. ..	956	1,014	1,284	1,016	2,039	n.a.
Lubricating oil ..	100	90	97	r 149	119	n.a.
Road oil .. ..	467	528	647	1,143	1,571	n.a.
Jamaica—						
Aviation spirit (b) ..	19,185	18,688	15,312	19,568	17,674	12,341
Motor spirit .. ..	49,737	55,959	60,884	69,657	68,493	78,190
Kerosine .. ..	20,155	22,301	25,937	29,366	37,260	20,602
Gas oil (b) .. ..	(a) 5,734	47,520	41,731	43,102	115,741	52,235
Diesel oil (b) .. ..	56,393	75,073	67,671	77,409	89,909	91,862
Fuel oil (b) .. ..	309,897	391,612	366,038	490,641	360,247	596,994
Lubricating oil ..	4,146	3,796	3,640	4,853	4,717	5,179
Grease .. ..	327	430	385	492	442	354
Petroleum jelly ..	147	159	207	195	224	248
Paraffin wax .. ..	22	16	16	20	23	12
Natural asphalt ..	7,684	2,774	3,027	4,886	3,571	1,812
Leeward Islands—						
Motor spirit .. ..	3,000	4,470	3,703	3,694	7,810	n.a.
Kerosine .. ..	1,542	2,481	3,050	3,390	6,773	n.a.
Gas oil .. ..	1,067	1,027	890	5,326	8,119	n.a.
Diesel oil .. ..	2,359	2,998	3,840			
Fuel oil .. ..	246	216	226	50	403	n.a.
Lubricating oil ..	199	395	359	731	537	n.a.

(a) Excess of re-exports.

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

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

Long tons

Importing Country and Description	1956	1957	1958	1959	1960	1961
<b>COMMONWEALTH COUNTRIES (cont.)</b>						
St. Lucia—						
Motor spirit .. ..	1,091	1,048	1,081	1,371	n.a.	n.a.
Kerosine .. ..	866	531	580	729	n.a.	n.a.
Fuel oil .. ..	5,051	1,946	2,057	1,823	n.a.	n.a.
Lubricating oil ..	106	101	109	117	n.a.	n.a.
Road oil .. ..	906	1,020	604	894	n.a.	n.a.
St. Vincent—						
Aviation and motor spirits .. ..	1,205	1,250	1,568	1,977	1,997	2,237
Kerosine .. ..	547	718	883	978	1,355	1,247
Gas, diesel and fuel oils .. ..	457	384	600	634	693	762
Lubricating oil ..	51	55	90	95	89	95
Road oil .. ..	221	602	717	1,443	1,226	860
Asphalt .. ..	1	3	2	10	1	4
Trinidad and Tobago—						
Crude petroleum ..	2,561,513	2,556,239	3,602,473	4,394,648	5,642,917	8,795,309
Aviation and motor spirits .. ..	8	(a) 8	1,440	2,029	1	—
Kerosine .. ..	—	4,401	1,720	(a) 6	—	4
Gas oil .. ..	75,966	57,523	113,051	140,309	144,021	—
Fuel oil .. ..	3	(a) 305	—	22,278	6,681	—
Lubricating oil ..	4,398	8,853	(a) 4,732	6,161	7,000	6,558
Greases .. ..	320	292	(a) 336	330	110	378
Petroleum jelly ..	123	62	105	n.a.	365	100
Paraffin wax .. ..	5	8	104	29	21	18
Turks and Caicos Islands						
Aviation and motor spirit .. ..	88	82	109	174	157	156
Kerosine .. ..	123	101	118	155	187	189
Gas, diesel and fuel oils	39	76	180	752	804	98
Lubricating oil ..	4	—	3	4	9	7
British Guiana—						
Aviation spirit (c) ..	1,225	1,195	1,859	1,809	4,156	} 28,695
Motor spirit .. ..	16,005	16,946	17,554	19,241	19,705	
Kerosine .. ..	10,224	11,771	12,983	14,452	16,203	17,254
Gas, diesel and fuel oils	149,233	140,562	112,798	147,231	172,243	415,732
Lubricating oil ..	1,766	2,449	2,181	2,378	3,809	2,851
Paraffin wax .. ..	12	11	23	24	30	n.a.
Petroleum jelly ..	67	38	53	71	73	n.a.
Road oil .. ..	785	1,108	1,212	697	1,340	n.a.
Asphalt and bitumen ..	250	295	1,060	327	436	2,841
Asphalt natural ..	347	137	558	486	1,065	n.a.
Falkland Islands—						
Motor spirit .. ..	250	210	266	205	244	259
Kerosine .. ..	94	11	128	29	50	30
Gas and diesel oils	772	8,454	8,472	2,573	11,834	3,883
Fuel oil (c) .. ..	107,814	97,311	115,314	57,365	589,463	63,178
Lubricating oil ..	195	114	349	227	184	128
Aden Colony—						
Crude petroleum ..	4,585,746	4,416,767	3,691,645	4,139,454	4,205,582	5,284,281
Motor spirit .. ..	27,163	15,520	20,661	18,108	35,822	26,921
Kerosine .. ..	—	—	28,763	91,504	31,293	—
Gas and fuel oils (c) ..	753,662	557,336	1,381,438	1,445,233	1,745,475	1,591,976
Lubricating oil and greases .. ..	3,348	5,041	4,173	4,287	4,319	4,097
Aden Protectorate (b)—						
Motor spirit .. ..	6,084	11,753	8,455	6,162	4,406	8,603
Kerosine .. ..	4,629	5,123	6,441	9,849	6,963	7,260
Gas and fuel oils ..	66,912	4,332	7,860	4,632	2,193	5,109
Lubricating oil ..	165	176	207	173	170	98

(a) Excess of re-exports.

(b) Exports from Aden Colony to the Protectorate.

(c) Including imports for bunkering purposes.

See exports.

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

Long tons

Importing Country and Description	1956	1957	1958	1959	1960	1961
COMMONWEALTH COUNTRIES (cont.)						
Bahrain Islands (a)—						
Crude petroleum ..	8,057,300	7,295,000	7,341,000	7,011,000	7,943,000	8,444,000
British Borneo—						
Brunei—						
Motor spirit, etc. ..	2,657	4,485	4,176	2,197	672	661
Kerosine .. ..	768	1,139	837	1,270	1,653	1,233
Diesel oil .. ..	1,282	2,695	182	47	—	(d) 24
Fuel oil .. ..	95	—	6	—	7	(d) 11
Lubricating oil ..	271	2,884	1,345	1,294	928	1,188
Grease .. ..	11	52	38	23	24	29
North Borneo—						
Aviation and motor spirits (c) .. ..	5,650	3,070	2,978	19,917	13,752	16,872
Kerosine .. ..	3,997	4,110	3,982	9,145	9,346	6,886
Diesel oil (c) ..	6,580	6,355	5,351	24,651	26,067	27,184
Fuel oil (c) .. ..	3,174	3,172	905	7,160	8,418	8,941
Lubricating oil ..	712	890	516	2,670	3,799	3,441
Sarawak—						
Crude petroleum ..	5,548,598	5,441,292	5,125,219	5,313,995	4,505,041	3,708,753
Aviation spirit ..	591	667	577	928	878	693
Motor spirit .. ..	8,126	9,179	8,911	11,116	11,601	12,220
Kerosine .. ..	7,536	7,697	8,142	8,640	9,493	10,621
Gas oil .. ..	7,658	6,619	8,226	10,466	12,798	16,259
Diesel oil .. ..	3,203	5,545	6,154	3,982	2,814	3,527
Fuel oil .. ..	618	595	718	3,612	4,255	5,971
Lubricating oil ..	1,398	1,608	1,746	2,187	2,264	2,303
Paraffin wax .. ..	11	4	8	3	14	14
Mineral jelly ..	53	35	46	37	31	25
Natural gas (million cubic feet) ..	2,779	2,545	2,480	2,540	2,693	2,421
Ceylon—						
Aviation spirit (c) ..	9,351	8,670	8,531	8,215	3,041	2,877
Motor spirit .. ..	109,289	177,113	141,613	151,838	154,445	164,435
Kerosine .. ..	99,377	110,155	122,594	134,477	144,174	154,795
Gas oil (c) .. ..	44,505	72,372	63,469	90,679	100,411	125,452
Diesel oil (c) .. ..	132,952	190,046	126,587	130,999	99,560	147,795
Fuel oil (c) .. ..	375,750	805,776	429,870	415,232	355,677	421,599
Lubricating oil ..	8,826	10,190	7,279	13,055	9,226	10,022
Other oils and greases	367	759	388	680	555	494
Asphalt (incl. natural) ..	17,533	4,347	8,763	24,560	18,102	1,719
Cyprus—						
Aviation spirit (c) ..	72,479	{ 8,190	13,221	6,962	8,932	5,665
Motor spirit .. ..		50,218	54,334	53,864	59,430	55,396
Aviation turbine fuel ..	n.a.	35,738	59,300	41,664	35,726	22,584
Kerosine, etc. .. ..	62,945	22,432	22,602	24,661	23,367	21,886
Fuel oils .. ..	106,572	159,016	141,702	159,932	175,181	175,922
Lubricating oil .. ..	3,007	3,158	2,642	3,044	2,575	3,788
Paraffin wax .. ..	(b) 126	164	184	193	234	96
Asphalt and bitumen ..	10,520	5,512	5,491	5,293	7,771	10,925
Hong Kong—						
Aviation spirit .. ..	15,400	11,899	19,003	19,772	11,666	12,541
Motor spirit .. ..	63,759	45,473	56,260	69,344	65,097	66,274
White spirit .. ..	4,124	3,468	3,844	5,152	5,438	5,191
Aviation turbine fuel ..	} 86,770	75,754	79,082	{ 17,676	38,547	54,288
Kerosine .. ..				85,396	97,514	109,870
Diesel oil and gas oil ..	160,929	178,254	176,854	180,325	194,218	230,244
Fuel oil .. ..	699,823	725,464	760,466	727,319	777,057	859,121
Lubricating oil .. ..	14,536	9,228	7,577	8,710	11,620	12,306
Greases .. ..	390	594	385	418	963	828
Petroleum jelly .. ..	97	68	157	89	267	310

(a) British Protected State.

(b) Including petroleum jelly.

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

(d) Excess of re-exports.

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

Long tons

Importing Country and Description	1956	1957	1958	1959	1960	1961
<b>COMMONWEALTH COUNTRIES (cont.)</b>						
<b>Hong Kong (cont.)—</b>						
Paraffin wax .. ..	955	1,174	887	1,406	1,168	1,249
Asphalt and bitumen ..	7,354	10,474	6,649	12,532	9,903	10,366
Asphalt (natural) ..	61	258	156	320	468	658
<b>India—</b>						
Crude petroleum ..	4,073,637	3,463,319	1,779,734	1,183,500	(b)2,658,517	(b)6,220,280
Aviation and motor spirits (a) .. ..	116,191	142,914	70,831	82,247	} (b) 85,472	(b) 105,168
Other spirit .. ..	—	1,112	139	113		
Kerosine .. ..	996,441	1,163,311	940,579	1,073,208	(b) 907,283	(b) 711,235
Diesel oil .. ..	285,072	n.a.	n.a.	261,000	(b) 276,310	(b) 343,502
Fuel oil (a) .. ..	27,261	22,080	32,978	32,330	(b) 71,785	(b) 164,983
Lubricating oil ..	194,575	290,160	161,106	198,339	(b) 310,333	(b) 232,834
Turpentine substitute ..	10,513	9,341	6,197	12,407	(b) 13,044	(b) n.a.
Greases .. ..	4,752	3,700	3,255	3,502	(b) (d)	(b) (d)
Petroleum jelly ..	n.a.	1,619	2,208	1,962	(b) 1,857	(b) 1,735
Paraffin wax .. ..	28	5	3	6	(b) 7	(b) 11
Asphalt and bitumen ..	128,403	33,281	14,248	6,126	(b) 11,533	(b) 18,042
<b>Malaya—</b>						
Crude petroleum ..	661,395	843,278	788,976	285,213	279,090	1,276,487
Aviation spirit .. ..	260,859	257,390	173,304	225,709	126,571	172,075
Motor spirit .. ..	1,240,431	1,129,833	993,531	1,021,451	1,048,410	837,632
White spirit .. ..	61,962	60,648	61,451	82,441	91,808	125,911
Aviation turbine fuel ..	33,316	44,291	116,275	170,689	234,370	253,647
Kerosine—Power ..	73,983	73,669	74,645	33,595	42,335	15,929
do. Other .. ..	398,566	349,100	289,789	363,359	432,963	486,525
Gas oil .. ..	783,619	785,756	755,001	757,751	912,781	836,643
Diesel oil .. ..	705,802	660,700	715,539	599,986	669,809	986,382
Fuel oil .. ..	2,791,339	2,932,940	2,477,186	2,174,469	2,193,394	2,878,306
Lubricating oil ..	34,311	35,389	30,113	31,056	36,020	40,237
Paraffin wax .. ..	5,090	2,712	2,538	2,775	2,829	4,155
Petroleum jelly ..	788	727	742	733	1,271	705
Grease .. ..	1,773	1,672	1,099	1,169	1,839	1,712
Asphalt and bitumen ..	176,937	139,689	49,053	45,892	53,422	51,195
Natural asphalt ..	—	20	197	—	20	75
<b>Pakistan—</b>						
Motor spirit .. ..	23,491	19,428	17,536	62,800	n.a.	152,549
Other spirit .. ..	3,087	5,959	546	1,659	n.a.	n.a.
Kerosine .. ..	124,678	97,910	76,894	152,872	n.a.	270,638
Diesel oil .. ..	162,115	180,384	195,242	270,669	n.a.	} 1,374,823
Fuel oil .. ..	164,895	189,112	121,913	470,426	n.a.	
Lubricating oil ..	46,756	30,617	30,406	57,763	n.a.	48,628
Other oils .. ..	6,410	686	12,515	14,646	n.a.	n.a.
Grease .. ..	1,604	1,242	1,062	1,381	n.a.	n.a.
Paraffin wax .. ..	543	760	1,662	1,009	n.a.	1,384
Asphalt .. ..	8,445	11,989	6,615	9,299	n.a.	25,354
<b>Australia (c)—</b>						
Crude petroleum ..	6,903,793	8,649,388	9,881,060	10,329,346	11,405,405	12,684,109
Aviation spirit (a) ..	152,917	103,964	84,839	86,634	62,793	38,643
Motor spirit .. ..	1,321,475	507,595	477,464	622,571	561,470	601,646
White spirit .. ..	58,135	53,030	55,258	56,456	49,108	55,807
Kerosine—Power ..	263,100	247,884	200,140	174,975	184,505	163,550
do. Other .. ..	206,989	166,511	167,829	159,970	136,485	181,557
Aviation turbine fuel ..	51,657	33,163	9,771	15,164	44,063	69,413
Lubricating oil ..	166,976	173,255	158,980	188,885	198,343	207,231
Gas, diesel and fuel oils	622,952	147,878	104,877	52,995	75,102	55,229
Other oils .. ..	169,587	181,625	63,972	6,116	7,001	40,978
Petroleum jelly ..	1,491	1,593	2,089	2,001	1,951	4,320
Paraffin wax .. ..	4,909	6,338	8,069	7,345	7,638	6,728
Natural asphalt ..	1,818	1,578	2,141	1,768	2,610	1,369
Bitumen and pitch ..	5,344	645	1,083	768	978	1,011

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

(b) Years ended March 31 following that stated.

(c) Years ended June 30 of that stated.

(d) Included with lubricating oil.

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

Long tons

Importing Country and Description	1956	1957	1958	1959	1960	1961
<b>COMMONWEALTH COUNTRIES (cont.)</b>						
<b>Fiji—</b>						
Aviation spirit (a) ..	11,885	16,120	19,138	13,647	12,681	8,431
Motor spirit ..	18,738	16,178	25,689	20,086	19,439	20,302
Aviation turbine fuel (a) ..	3,024	5,682	6,721	6,479	21,239	35,297
Kerosine ..				6,047	11,719	7,089
Diesel oil (a) ..	24,470	24,344	24,117	19,198	7,639	23,747
Fuel oil (a) ..	4,298	3,378		13,983	23,665	13,731
Lubricating oil ..	1,468	1,153	1,359	1,602	1,128	1,237
Greases ..	253	215	159	290	136	145
<b>New Guinea (b)—</b>						
Aviation and motor spirits ..	11,288	11,182	15,530	12,002	16,835	17,610
Kerosine ..	2,892	3,742	4,069	2,430	2,621	4,844
Fuel oils ..	10,399	10,306	15,076	15,198	14,718	23,329
Lubricating oil ..	n.a.	908	774	1,020	1,029	1,110
<b>New Hebrides—</b>						
Aviation and motor spirits ..	1,624	2,029	2,411	3,032	2,598	2,626
Kerosine ..	689	1,077	964	996	915	966
Other oils ..	1,309	1,706	3,013	3,596	3,781	5,113
<b>New Zealand—</b>						
Aviation spirit (a) ..	28,769	27,760	33,697	27,314	34,612	33,847
Motor spirit ..	766,498	821,178	762,903	786,046	868,626	959,996
White spirit ..	10,972	9,073	11,897	10,687	12,284	12,205
Aviation turbine fuel ..	7,100	7,466	1,718	12,559	23,238	34,837
Kerosine—Power ..	9,881	6,992	4,317	6,839	6,884	37,704
do. Other ..	15,639	24,578	32,135	29,867	32,876	1,953
Gas oil ..	206,842	231,350	198,792	198,668	272,163	300,946
Diesel oil (a) ..	168,465	152,250	192,173	143,204	160,919	168,860
Fuel oil (a) ..	222,048	311,850	255,381	249,758	230,533	226,312
Lubricating oil (a) ..	39,933	33,410	33,078	34,006	44,286	43,044
Transformer oil ..	1,145	2,139	1,312	526	1,586	930
Petroleum jelly ..	949	349	200	215	244	158
Paraffin wax ..	657	1,979	1,468	1,520	1,283	1,390
Ozokerite ..	7	3	3	3	3	8
Asphalt and bitumen ..	53,903	58,099	33,333	50,768	53,180	65,901
do. natural ..	1,104	791	188	462	709	610
<b>Papua (b)—</b>						
Aviation and motor spirits ..	7,412	10,652	7,126	10,144	12,673	10,034
Kerosine ..	692	377	202	1,572	2,145	2,536
Fuel oil ..	8,867	10,572	7,659	7,293	7,426	5,972
Lubricating oil and grease ..	n.a.	715	578	626	389	653
<b>Solomon Islands (c)—</b>						
Motor spirit ..	636	947	651	1,049	972	1,051
Kerosine ..	232	245	446	594	527	651
Lubricating oil ..	27	66	180	127	278	n.a.
<b>Western Samoa—</b>						
Motor spirit ..	2,145	2,883	2,254	2,556	3,154	n.a.
Kerosine ..	564	606	635	712	1,038	n.a.
Fuel oil ..	980	1,297	1,251	999	956	n.a.
Lubricating oil ..	23	21	50	90	104	n.a.
<b>Irish Republic—</b>						
Crude petroleum ..	—	—	—	824,578	1,524,401	1,551,140
Aviation spirit (a) ..	6,442	8,552	469	(d) 2,710	(d) 466	6,803
Motor spirit ..	285,977	247,844	264,694	165,114	13,194	4,960
White spirit ..	3,143	3,591	2,916	3,368	3,381	3,379

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

(b) Years ended June 30 of that stated.

(d) Excess of re-exports.

(c) Years ended March 31 following that stated.

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

Long tons

Importing Country and Description	1956	1957	1958	1959	1960	1961
<b>Irish Republic (cont.)—</b>						
Kerosine—Power ..	45,146	43,667	40,513	28,052	9,844	26,332
do. Other ..					31,572	5,645
Aviation turbine fuel (b) }	65,998	64,978	81,685	80,408	55,928	74,027
Gas and diesel oils (b) }		193,914	217,859	129,102	4,752	9,506
Fuel oil (b) ..	747,091	410,894	359,493	218,908	137,992	159,347
Lubricating oil ..	21,255	15,220	18,400	20,523	20,117	22,490
Paraffin wax (a) ..	1,841	1,919	1,368	1,753	2,396	2,634
Asphalt and bitumen ..	495	100	376	61	—	136
<b>OTHER COUNTRIES</b>						
<b>Austria—</b>						
Crude petroleum ..	—	—	—	18	4,416	266,994
Motor spirit ..	101,392	145,862	207,803	247,919	291,571	408,912
White spirit ..	n.a.	n.a.	n.a.	6,555	6,182	6,864
Gas oil ..	11,632	1,471	6,649	26,667	71,464	60,303
Fuel oil ..	110,345	195,425	469,285	530,350	687,614	772,982
Lubricating oil, etc. ..	26,504	25,269	28,131	31,556	34,099	37,696
Petroleum jelly ..	183	179	244	239	212	269
Paraffin wax ..	3,444	3,840	4,005	4,662	4,503	5,065
Ozokerite and ceresin ..	729	688	649	(c) 588	(c) 602	(c) 615
Natural asphalt ..	697	2,158	1,277	906	826	1,089
Petroleum coke ..	34,658	21,734	18,316	8,095	16,107	6,786
Bitumen, etc. ..	19,276	17,591	38,633	53,286	53,879	82,926
<b>Belgium-Luxemburg</b>						
<b>E. U.—</b>						
Crude petroleum ..	5,250,512	5,388,051	6,419,055	6,610,844	6,706,495	7,714,263
Motor spirit, etc. ..	335,266	382,413	407,178	315,204	374,096	362,963
Kerosine ..	32,276	28,409	32,780	27,940	23,731	25,563
Gas oil ..	814,319	992,788	866,041	695,353	792,107	826,347
Fuel oil ..	1,341,756	1,350,838	1,348,026	1,465,770	1,640,173	1,760,838
Lubricating oil ..	185,898	181,488	161,791	178,291	155,437	169,413
Other heavy oils ..	4,470	3,782	4,596	10,998	31,298	6,816
Petroleum jelly ..	1,510	1,320	1,040	1,435	1,772	1,481
Paraffin wax ..	5,540	5,308	4,748	4,730	5,851	5,908
Ozokerite and ceresin (c) ..	470	409	482	401	250	335
Petroleum coke ..	107,712	55,969	63,834	34,362	18,940	19,310
Natural asphalt ..	6,820	4,900	3,829	2,758	2,492	2,693
Pitch ..	5,514	3,308	34,106	59,947	23,445	13,527
<b>Denmark—</b>						
Crude petroleum ..	18,885	29,696	30,005	36,885	5,350	232,875
Motor spirit, etc. ..	722,169	769,685	888,316	949,271	981,768	1,081,448
White spirit ..	12,142	12,292	11,765	13,656	14,191	14,582
Kerosine ..	107,987	118,068	112,274	162,696	252,393	298,158
Gas oil ..	524,853	630,789	745,959	808,221	892,195	1,012,408
Diesel oil ..	329,891	382,211	473,358	551,304	679,815	771,493
Fuel oil ..	1,826,031	1,790,068	1,926,311	1,830,169	2,103,286	2,182,827
Lubricating oil ..	46,148	49,292	53,215	71,047	64,177	70,193
Grease ..	837	827	924	1,348	1,134	942
Petroleum jelly ..	425	305	353	485	463	463
Ozokerite, etc. ..	736	730	737	1,028	884	864
Paraffin wax ..	4,212	3,542	4,756	4,831	5,036	5,735
Natural asphalt ..	548	838	734	1,692	1,358	959
Other asphalt ..	67,117	48,733	62,169	67,685	69,249	100,882
<b>Faroe Islands—</b>						
Motor spirit ..	1,530	1,684	1,887	2,002	1,347	2,402
Kerosine ..	1,652	1,148	2,362	2,440	733	2,751
Fuel oils ..	28,071	24,390	31,226	25,338	14,383	28,354
Lubricating oil, etc. ..	427	409	434	415	468	317

(a) Including other mineral jellies and waxes.

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

(c) Including montan wax.

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

Long tons

Importing Country and Description	1956	1957	1958	1959	1960	1961
<b>OTHER COUNTRIES</b>						
<i>(cont.)—</i>						
<b>Finland—</b>						
Crude petroleum .. ..	—	212,575	870,556	1,072,737	1,118,972	1,361,407
Motor spirit .. ..	346,611	340,594	112,513	21,434	44,914	32,301
White spirit .. ..	5,636	3,293	3,660	3,650	3,585	4,733
Kerosine .. ..	22,140	17,949	20,842	17,415	29,954	26,923
do. Power .. ..	49,164	37,357	15,948	5,561	1,852	6
Fuel oil .. ..	893,778	1,208,295	876,412	720,281	1,418,626	1,459,568
Lubricating oil .. ..	26,524	28,281	20,740	26,493	36,069	45,170
Petroleum jelly .. ..	215	184	234	405	381	369
Paraffin wax .. ..	2,584	1,851	1,856	3,071	4,184	4,862
Asphalt, etc. .. ..	39,813	32,951	31,396	26,654	8,219	17,431
<b>France—</b>						
Crude petroleum .. ..	24,591,855	23,703,814	27,974,654	28,709,907	30,531,645	34,463,365
Aviation spirit .. ..	85,300	81,345	123,724	134,745	131,706	134,094
Motor spirit .. ..	348,660	472,170	520,106	475,812	679,668	572,603
Kerosine .. ..	11,049	36,279	13,708	3,659	5,836	8,154
Lubricating oil .. ..	65,757	32,767	13,439	14,833	14,717	10,309
Fuel oil .. ..	354,320	880,551	486,411	921,860	1,229,110	1,108,191
Gas oil .. ..	70,887	748,269	332,551	230,421	247,630	221,720
Petroleum coke .. ..	72,241	70,732	68,961	60,075	92,099	103,885
Paraffin wax .. ..	3,220	5,409	2,077	2,492	2,911	3,834
Ozokerite and ceresin ..	4,643	5,809	4,634	4,329	5,097	7,266
Petroleum jelly .. ..	812	936	691	534	755	686
Natural asphalt and bitumen .. ..	2,981	3,588	3,642	2,267	1,635	1,925
Bitumen .. ..	359	568	314	136	629	727
<b>Germany (Federal)—</b>						
Crude petroleum .. ..	7,872,407	8,029,544	10,638,066	16,543,067	22,692,143	28,830,783
Aviation and motor spirits (b) .. ..	456,116	420,586	424,263	416,891	577,007	520,100
Kerosine (a) (b) .. ..	29,521	33,717	114,937	227,896	233,473	171,658
Gas and diesel oil (b) ..	998,725	1,049,791	801,774	846,537	880,516	717,760
Fuel oil (b) .. ..	3,175,930	3,842,671	4,766,253	3,587,682	4,375,587	4,635,838
Lubricating oil, etc. ..	116,914	128,955	107,138	143,111	149,286	170,688
Petroleum jelly .. ..	1,379	1,664	1,446	1,508	1,839	1,691
Paraffin wax .. ..	4,120	5,084	10,272	13,047	12,827	14,237
Ozokerite, etc. .. ..	482	240	500	982	725	163
Natural asphalt and bitumen .. ..	8,475	7,533	9,179	10,613	10,946	11,625
Bitumen .. ..	53,579	60,829	89,511	148,460	234,816	347,114
Petroleum coke .. ..	n.a.	n.a.	n.a.	n.a.	63,728	98,658
<b>Germany (East)—</b>						
Crude petroleum .. ..	785,000	981,000	1,109,000	1,534,000	1,910,000	2,234,000
<b>Greece—</b>						
Crude petroleum .. ..	—	—	95,452	1,539,442	1,631,356	1,576,603
Aviation spirit .. ..	95,254	73,144	111,601	17,460	382	n.a.
Motor spirit .. ..	165,729	160,663	161,725	19,936	13,381	13,700
Kerosine .. ..	102,837	103,568	116,869	16,411	3,073	963
Fuel oil and diesel oil ..	1,130,219	1,236,089	1,293,250	389,937	605,065	747,423
Lubricating oil, etc. ..	16,320	16,881	18,297	20,626	19,952	n.a.
Petroleum jelly .. ..	81	108	124	99	87	n.a.
Paraffin wax .. ..	326	204	239	175	195	n.a.
Asphalt and bitumen ..	10,251	17,471	21,884	4,688	2,132	n.a.
<b>Hungary—</b>						
Crude petroleum .. ..	320,138	1,016,000	1,125,493	1,236,387	1,432,558	1,389,327
Motor spirit .. ..	35,793	27,901	9,894	4,907	10,903	56,137
Kerosine .. ..	2,779	435	—	—	—	—
Gas oil .. ..	21,777	40,648	—	3,937	19,716	89,243
Fuel oil .. ..	111,940	144,167	56,158	58,295	68,720	81,897

(a) Including aviation turbine fuel.

(b) Figures for 1956-1959 include imports for bunkering foreign ships.



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

Long tons

Importing Country and Description	1956	1957	1958	1959	1960	1961
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
Iceland—						
Aviation spirit .. ..	19,057	14,623	12,299	13,175	12,557	10,848
Motor spirit .. ..	32,450	47,675	40,225	45,882	42,636	38,341
White spirit .. ..	328	186	549	337	464	466
Kerosine .. ..	1,909	1,559	3,602	18,083	8,462	7,705
Gas oil and fuel oil ..	229,185	242,181	276,927	308,936	308,359	278,895
Lubricating oil .. ..	4,076	3,813	4,539	4,044	4,406	4,074
Greases .. ..	150	114	174	140	145	137
Paraffin wax .. ..	67	58	62	143	132	145
Petroleum jelly .. ..	10	17	5	2	9	14
Asphalt .. ..	789	547	352	560	1,215	832
Italy—						
Crude petroleum .. ..	17,798,434	19,595,986	22,207,338	24,402,201	28,336,147	32,803,729
Aviation and motor spirits .. ..	31,159	26,242	37,885	31,701	88,783	114,214
Kerosine .. ..	134	59	1,396	225	206	741
Gas oil .. ..	23,486	37,643	30,244	3,612	1,175	7,379
Fuel oil .. ..	640,679	674,351	235,303	598,060	1,470,520	1,940,600
Lubricating oil .. ..	44,529	46,322	40,498	44,277	78,552	108,141
Petroleum jelly .. ..	1,862	1,152	1,320	1,305	1,573	1,716
Paraffin wax .. ..	15,634	10,586	15,249	14,511	16,689	20,985
Pitch .. ..	103	177	181	282	5,999	180
Petroleum coke .. ..	52,992	65,714	41,712	54,430	100,440	132,035
Ozokerite and ceresin ..	308	307	128	601	485	666
Natural asphalt and bitumen .. ..	1,710	1,942	1,539	1,772	1,919	2,814
Netherlands—						
Crude petroleum .. ..	12,727,238	13,324,031	13,839,859	12,477,736	16,227,967	18,980,919
Motor spirit, etc. .. ..	193,553	191,110	151,924	118,304	128,812	113,062
Kerosine .. ..	167,681	156,973	199,433	193,684	180,412	209,526
Gas oil .. ..	1,048,680	1,033,460	894,431	1,108,850	1,286,182	1,014,940
Fuel oil .. ..	1,693,543	1,359,393	2,892,833	3,453,114	3,329,216	3,578,248
Lubricating oil .. ..	166,273	164,784	158,649	160,690	154,204	151,793
Petroleum jelly .. ..	3,168	3,515	2,787	2,855	2,711	2,291
Paraffin wax .. ..	44,005	18,424	22,601	28,301	29,839	23,588
Ozokerite and ceresin (a) ..	169	168	83	167	178	155
Pitch .. ..	14,231	14,310	11,919	20,184	24,246	36,089
Petroleum coke .. ..	18,918	9,353	14,767	11,662	16,785	10,949
Natural asphalt .. ..	1,169	1,276	1,147	985	1,303	1,413
Norway—						
Crude petroleum .. ..	78,113	113,661	83,120	105,201	216,795	1,711,949
Aviation spirit .. ..	20,605	24,398	23,016	29,283	22,593	24,964
Motor spirit .. ..	310,921	326,496	354,193	377,118	429,113	305,700
White spirit .. ..	11,027	13,697	12,972	13,943	14,622	17,436
Kerosine .. ..	61,915	65,980	83,029	75,726	86,508	80,929
Aviation turbine fuel .. ..	53,812	76,856	80,548	78,718	97,134	104,364
Diesel oil .. ..	408,412	399,102	395,623	428,071	332,888	321,991
Gas oil .. ..	634,677	523,540	675,052	710,308	877,440	563,515
Fuel oil .. ..	1,376,464	1,353,605	1,263,730	1,314,221	1,498,596	1,218,072
Lubricating oil .. ..	33,857	34,029	30,725	34,712	35,913	36,838
Paraffin wax .. ..	2,228	2,042	1,854	2,034	2,306	2,684
Greases .. ..	(c) 1,878	(c) 2,067	(c) 1,828	1,358	1,669	1,788
Pitch .. ..	18,418	17,902	23,292	6,483	10,121	17,325
Petroleum coke .. ..	56,230	61,676	68,024	85,856	92,878	96,349
Asphalt, etc. .. ..	19,380	15,354	34,722	18,219	15,947	13,645
Poland—						
Crude petroleum .. ..	528,500	620,000	591,000	682,000	703,000	727,900
Portugal—						
Crude petroleum .. ..	960,565	1,090,826	1,133,554	1,242,219	1,280,678	1,285,538
Motor spirit .. ..	33,577	30,656	12,839	12,599	18,882	22,212
do. (b) .. ..	2,959	3,370	5,051	4,806	<i>n.a.</i>	<i>n.a.</i>

(a) Including montan wax.

(c) Including petroleum jelly.

(b) Imported for bunkering of national ships.

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

Long tons

Importing Country and Description	1956	1957	1958	1959	1960	1961
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
<b>Portugal (cont.)—</b>						
Kerosine .. ..	54,446	54,658	50,261	38,737	32,520	24,137
Aviation turbine fuel ..	—	30	118	49	—	—
Gas oil and diesel oil ..	118,325	130,370	141,455	145,366	295,511	296,801
Fuel oil .. ..	110,624	144,865	137,653	115,522	210,332	247,877
Gas, diesel, fuel oils (b)	164,950	127,979	164,340	203,717	n.a.	n.a.
Lubricating oil .. ..	24,598	25,591	24,188	27,284	30,467	34,184
do. (b) .. ..	1,951	1,800	2,119	2,547	n.a.	n.a.
Petroleum jelly .. ..	134	156	99	130	113	142
Paraffin wax .. ..	2,233	2,596	2,137	2,245	2,889	3,512
Ozokerite and ceresin ..	130	125	98	99	106	95
Bitumen .. ..	41	292	91	118	(a) 29,712	(a) 37,046
Natural asphalt .. ..	14,293	12,564	13,607	15,429	11,561	7,097
<b>Spain—</b>						
Crude petroleum .. ..	2,201,897	3,226,419	3,831,548	4,020,534	3,941,274	4,653,518
Motor spirit .. ..	205,361	248,237	213,312	204,436	(c) 56,087	(c) 80,149
Kerosine .. ..	77,008	69,913	32,472	53,713	(c) 34,092	(c) 17,315
Diesel oil .. ..	341,790	167,810	97,958	120,720	(c) 143,599	(c) 115,769
Lubricating oil .. ..	62,016	54,974	80,912	84,920	(c) 32,097	(c) 11,082
Fuel oil .. ..	425,428	518,130	410,050	277,360	(c) 807	(c) 9,818
Petroleum jelly .. ..	473	402	893	295	(c) 298	(c) 732
Paraffin wax .. ..	1,098	584	2,247	568	(c) 1,625	(c) 1,535
Asphalt .. ..	118,368	124,688	68,961	90,327	(c) 13,846	(c) 713
<b>Sweden—</b>						
Crude petroleum .. ..	1,783,576	1,962,277	2,129,415	2,335,773	2,604,355	2,550,000
Motor spirit, etc. .. ..	1,079,578	1,190,000	1,258,662	1,251,949	1,505,209	1,526,297
White spirit .. ..	41,439	38,001	46,001	43,832	56,021	49,500
Kerosine .. ..	287,157	259,900	306,791	307,627	317,021	288,000
Fuel oil and gas oil .. ..	6,316,794	5,696,037	6,590,677	6,651,825	8,406,037	8,696,262
Lubricating oil and grease	100,813	96,152	92,233	103,389	117,070	114,944
Petroleum jelly .. ..	817	662	671	650	764	647
Paraffin wax .. ..	6,399	6,232	5,827	6,079	7,118	7,179
Ozokerite, ceresin, etc.	1,597	1,936	1,869	1,233	1,137	1,421
Asphalt .. ..	3,472	3,261	3,957	1,337	882	507
Pitch .. ..	17,551	8,665	7,227	6,435	7,282	7,018
Petroleum coke .. ..	12,596	8,868	6,893	6,188	4,698	12,849
<b>Switzerland—</b>						
Motor spirit .. ..	616,090	645,842	745,885	834,327	974,070	1,132,780
White spirit .. ..	12,475	9,870	10,531	10,090	10,841	10,776
Kerosine .. ..	40,212	60,208	56,448	63,167	15,425	15,424
Gas and diesel oils .. ..	178,289	173,417	195,468	221,536	369,415	448,601
Fuel oil .. ..	1,621,302	1,618,192	1,897,803	1,885,866	2,318,463	2,398,116
Lubricating oil and grease ..	49,856	53,453	46,091	51,739	57,858	66,755
Petroleum jelly .. ..	1,093	1,403	759	1,086	702	805
Paraffin wax and ceresin	4,030	4,391	3,310	4,379	4,998	5,149
Asphalt and bitumen .. ..	1,057	553	962	1,172	96,174	128,279
Petroleum coke .. ..	n.a.	n.a.	n.a.	n.a.	14,124	27,052
<b>U.S.S.R.—</b>						
Crude petroleum .. ..	1,486,000	1,310,400	1,061,500	1,066,000	1,147,400	873,600
Motor spirit .. ..	1,989,800	1,991,000	2,065,300	2,196,700	2,139,900	1,752,000
Kerosine .. ..	464,700	289,000	347,200	352,100	300,400	268,500
Diesel oil .. ..	680,500	293,900	442,100	352,900	336,700	261,800
Fuel oil .. ..	377,800	56,200	44,300	50,300	47,900	47,000
Lubricating oil and grease ..	88,800	86,100	97,300	126,500	120,800	143,700
Paraffin wax .. ..	27,300	29,800	26,600	28,900	32,200	38,900
Bitumen .. ..	103,800	138,300	138,500	175,500	199,400	177,600
<b>Yugoslavia—</b>						
Crude petroleum .. ..	572,216	638,804	619,135	609,314	428,107	282,657
Aviation spirit .. ..	20,022	17,594	23,676	30,508	23,625	10,370
Motor spirit .. ..	—	258	609	829	707	103

(a) Including petroleum coke.

(c) Excluding imports from Canary Islands.

(b) Imported for bunkering of national ships.

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

Long tons

Importing Country and Description	1956	1957	1958	1959	1960	1961
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
Yugoslavia ( <i>cont.</i> )—						
Kerosine .. .. .	—	—	—	—	6,831	9,402
Aviation turbine fuel ..	—	14	—	8	5	—
Fuel oils .. .. .	2,323	—	205	58,576	126,214	123,460
Lubricating oil .. .. .	r 11,511	r 13,481	r 13,976	r 16,073	17,996	23,381
Greases .. .. .	157	203	202	245	321	317
Paraffin wax .. .. .	1,239	499	523	939	1,646	1,786
Petroleum jelly .. .. .	191	300	278	748	524	444
Ozokerite and ceresin ..	202	70	112	134	184	160
Petroleum coke .. .. .	3,504	2,972	7,342	6,698	2,046	15,698
Pitch .. .. .	1	9	4,910	5,320	768	5,022
Algeria—						
Crude petroleum .. .. .	—	—	—	—	11,116	<i>n.a.</i>
Aviation spirit .. .. .	36,564	64,404	16,528	16,272	5,734	<i>n.a.</i>
Motor spirit .. .. .	343,428	409,582	266,761	290,883	311,926	<i>n.a.</i>
White spirit .. .. .	1,505	1,870	1,902	2,315	3,307	<i>n.a.</i>
Kerosine .. .. .	91,255	90,580	82,117	87,588	93,976	<i>n.a.</i>
Gas oil .. .. .	240,762	270,422	306,718	355,940	373,813	<i>n.a.</i>
Fuel oil and diesel oil ..	246,360	261,726	296,897	432,862	553,828	<i>n.a.</i>
Lubricating oil .. .. .	29,673	32,038	27,378	32,719	29,046	<i>n.a.</i>
Bitumen, etc. .. .. .	47,326	59,324	67,501	81,862	88,048	<i>n.a.</i>
Paraffin wax .. .. .	461	422	601	580	607	<i>n.a.</i>
Petroleum jelly .. .. .	28	39	12	52	—	<i>n.a.</i>
Ozokerite and ceresin ..	13	12	17	11	12	<i>n.a.</i>
Natural asphalt, etc. ..	33	19	37	4,598	1,215	<i>n.a.</i>
Mastic asphalt .. .. .	3,425	4,146	3,968	3,495	4,877	<i>n.a.</i>
Angola—						
Crude petroleum .. .. .	—	—	—	11,628	116,192	119,691
Motor spirit .. .. .	44,253	51,707	29,387	28,162	23,252	17,413
Kerosine .. .. .	8,549	8,626	9,732	8,867	10,046	10,000
Gas oil and fuel oil ..	75,511	85,397	76,054	78,702	58,626	49,044
Lubricating oil .. .. .	6,042	6,985	6,744	6,458	7,510	7,270
Paraffin wax .. .. .	15	16	13	23	19	59
Petroleum jelly .. .. .	25	32	25	20	35	29
Cameroun—						
Motor spirit, etc. .. .. .	45,300	49,973	53,300	55,405	53,446	50,601
Kerosine .. .. .	13,542	14,468	16,097	15,191	16,925	26,062
Gas and fuel oil .. .. .	21,132	22,447	25,766	25,036	23,115	27,654
Lubricating oil .. .. .	2,999	2,969	3,694	4,303	2,695	3,596
Canary Islands—						
Crude petroleum .. .. .	995,774	2,184,795	2,763,827	3,080,585	2,447,564	2,658,809
Motor spirit .. .. .	1,989	10,441	9,903	10,018	10,470	14,860
Diesel (b) .. .. .	168,475	227,617	38,339	97,542	27,155	41,762
Fuel oil (b) .. .. .	—	222,854	3,996	—	9,021	—
Cape Verde Islands—						
Motor spirit .. .. .	536	361	515	455	562	551
Kerosine .. .. .	864	711	1,155	1,268	1,472	1,750
Fuel oil (b) .. .. .	411,413	550,484	456,329	476,416	328,451	<i>n.a.</i>
Ceuta—						
Motor spirit .. .. .	6,942	21,296	8,849	7,859	<i>n.a.</i>	<i>n.a.</i>
Kerosine .. .. .	656	1,966	457	3,112	<i>n.a.</i>	<i>n.a.</i>
Diesel (b) .. .. .	230,183	279,256	136,313	136,662	(a) 125,279	(a) 111,055
Fuel oil (b) .. .. .	330,885	447,080	372,735	384,079	(a) 268,213	(a) 267,007
Lubricating oil .. .. .	2,120	2,124	2,188	2,797	(a) 3,487	(a) 3,811
Congo Republic—						
Motor spirit, etc. .. .. .	201,171	218,626	212,832	187,279	<i>n.a.</i>	<i>n.a.</i>
White spirit .. .. .	584	666	569	373	<i>n.a.</i>	<i>n.a.</i>
Kerosine .. .. .	40,684	32,766	38,266	41,772	<i>n.a.</i>	<i>n.a.</i>
Fuel oil, etc. .. .. .	157,904	171,553	189,917	183,800	<i>n.a.</i>	<i>n.a.</i>
Lubricating oil and greases .. .. .	20,944	19,985	13,603	16,803	<i>n.a.</i>	<i>n.a.</i>

(a) Excluding imports from Spain and Canary Islands.

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

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

Long tons

Importing Country and Description	1956	1957	1958	1959	1960	1961
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
<b>Congo Republic (cont.)—</b>						
Petroleum jelly .. .. .	101	94	64	69	<i>n.a.</i>	<i>n.a.</i>
Paraffin wax .. .. .	70	65	104	118	<i>n.a.</i>	<i>n.a.</i>
Asphalt .. .. .	2,663	1,111	995	1,664	<i>n.a.</i>	<i>n.a.</i>
<b>Dahomey—</b>						
Aviation spirit .. .. .	(a)	(a)	120	197	660	373
Motor spirit .. .. .			18,785	15,299	20,728	14,140
Kerosine .. .. .			12,426	10,835	15,250	12,855
Gas oil .. .. .			8,877	7,241	14,335	12,409
Fuel oils .. .. .			99	106	550	837
Lubricating oil .. .. .			1,294	1,307	1,060	807
<b>Egypt—</b>						
Crude petroleum .. .. .	891,377	1,127,947	1,569,742	1,514,893	2,044,509	<i>n.a.</i>
Motor spirit .. .. .	28,291	34,703	16,748	20,769	12,941	<i>n.a.</i>
White spirit .. .. .	585	761	2,116	43	—	<i>n.a.</i>
Kerosine .. .. .	383,142	259,259	459,822	369,084	415,291	<i>n.a.</i>
Fuel oil .. .. .	602,041	361,303	259,765	426,646	378,437	<i>n.a.</i>
Gas oil .. .. .	83,528	73,619	84,333	110,200	183,625	<i>n.a.</i>
Diesel oil .. .. .	50,605	44,963	51,694	42,659	35,798	<i>n.a.</i>
Lubricating oil .. .. .	47,757	37,492	53,628	47,125	39,935	<i>n.a.</i>
Petroleum jelly .. .. .	601	461	889	568	200	<i>n.a.</i>
Paraffin wax .. .. .	1,074	1,844	2,048	1,102	1,992	<i>n.a.</i>
Ozokerite and ceresin .. .. .	59	95	75	212	112	<i>n.a.</i>
Asphalt and bitumen .. .. .	188	76	830	819	602	<i>n.a.</i>
<b>Equatorial African Community—</b>						
Aviation spirit .. .. .	23,504	14,102	24,357	24,346	29,008	26,411
Motor spirit .. .. .	45,195	46,712	43,522	47,234	49,538	50,181
Kerosine .. .. .	11,639	11,727	12,930	15,180	16,283	14,130
Gas oil .. .. .	31,494	36,999	49,757	53,499	72,698	71,450
Fuel oil .. .. .	4,990	9,918	7,812	8,671	4,540	5,789
Lubricating oil, etc. .. .. .	4,906	6,058	6,437	5,998	6,616	7,502
<b>Ethiopia (b)—</b>						
Aviation spirit .. .. .	<i>n.a.</i>	<i>n.a.</i>	3,799	7,372	6,473	<i>n.a.</i>
Motor spirit .. .. .	54,338	62,115	72,604	85,584	75,495	<i>n.a.</i>
Kerosine .. .. .	4,213	4,108	4,064	3,572	3,903	<i>n.a.</i>
Gas and fuel oils .. .. .	6,892	22,573	15,937	14,273	22,481	<i>n.a.</i>
Lubricating oil and grease .. .. .	8,882	5,689	5,194	7,515	5,686	<i>n.a.</i>
<b>French Somaliland—</b>						
Motor spirit .. .. .	5,019	2,397	2,232	2,290	2,176	2,645
Kerosine .. .. .	167	794	676	658	689	777
Fuel oil, etc. .. .. .	3,415	3,418	4,591	3,731	4,682	5,013
Lubricating oil .. .. .	246	268	261	261	295	400
<b>French West Africa—</b>						
Aviation spirit .. .. .	31,891	15,440	(d)	(d)	(d)	(d)
Motor spirit .. .. .	153,931	185,569				
Kerosine .. .. .	61,685	71,248				
Gas oil .. .. .	64,798	74,014				
Fuel oils .. .. .	95,498	90,430				
Lubricating oil .. .. .	20,810	13,051				
<b>Ivory Coast—</b>						
Aviation spirit .. .. .	(c)	(c)	518	8,194	3,745	859
Motor spirit .. .. .			83,950	86,943	59,426	90,757
Kerosine .. .. .			28,824	33,570	26,047	28,396
Gas oil .. .. .			24,825	29,040	29,573	35,251
Fuel oils .. .. .			19,753	23,040	11,998	20,808
Lubricating oil .. .. .			5,080	6,195	5,907	5,731

(a) See under French West Africa.

(b) Years ended September 10.

(c) See under French West Africa.

(d) See under Dahomey, Ivory Coast, Niger, Senegal and Upper Volta.

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

Long tons

Importing Country and Description	1956	1957	1958	1959	1960	1961
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
<b>Liberia—</b>						
Motor spirit .. ..	7,877	18,560	20,873	17,149	19,996	n.a.
Kerosine .. ..	2,203	4,306	2,600	12,734	6,394	n.a.
Diesel oil, etc. ..	6,947	6,590	22,810	17,767	27,130	n.a.
Lubricating oil ..	1,076	1,478	1,344	1,040	1,461	n.a.
<b>Malagasy Republic—</b>						
Aviation spirit .. ..	6,189	8,269	8,044	5,245	5,219	5,611
Motor spirit .. ..	49,777	47,141	50,114	48,226	51,522	51,533
Kerosine .. ..	15,471	12,768	16,730	15,299	17,236	16,972
Gas oil .. ..	29,188	33,575	39,415	43,102	41,495	38,832
Fuel oils .. ..	787	203	79	806	656	1,093
Lubricating oil ..	5,158	5,436	4,764	5,009	5,575	3,985
Road oil, etc. .. ..	8,741	12,485	3,639	3,927	4,104	5,289
Paraffin wax .. ..	79	178	80	25	22	117
Petroleum jelly ..	7	10	14	12	17	17
Asphalt and bitumen ..	218	296	37	69	107	34
<b>Melilla—</b>						
Motor spirit .. ..	4,081	6,833	3,904	3,790	n.a.	n.a.
Kerosine .. ..	2,473	3,111	1,153	1,216	n.a.	n.a.
Diesel oil .. ..	9,472	16,547	9,400	9,472	n.a.	n.a.
Fuel oil .. ..	9,405	26,058	5,119	5,127	n.a.	n.a.
Lubricating oil ..	878	1,700	423	809	n.a.	n.a.
Paraffin wax .. ..	23	41	52	82	n.a.	n.a.
<b>Morocco—</b>						
Crude petroleum .. ..	1,966	26,488	25,542	74,014	88,228	127,134
Aviation spirit .. ..	12,625	(a) 16,301	16,238	12,069	10,488	13,095
Motor spirit .. ..	298,418	(a) 202,974	197,922	181,905	171,535	152,506
White spirit .. ..	1,300	(a) 1,693	1,156	1,648	1,581	1,435
Kerosine .. ..	48,523	(a) 36,742	38,094	41,222	46,618	45,724
Gas oil .. ..	121,082	(a) 107,975	124,433	131,870	165,749	199,121
Fuel oil .. ..	157,684	(a) 157,443	171,789	178,981	209,203	207,343
Lubricating oil, etc. ..	15,550	(a) 12,038	16,024	14,761	18,403	19,052
Paraffin wax .. ..	4,496	(a) 4,321	4,455	5,637	5,267	5,325
Asphalt, bitumen, etc. ..	26,499	(a) 23,404	17,994	19,614	23,428	24,444
<b>Mozambique—</b>						
Motor spirit .. ..	31,332	32,021	32,335	34,929	39,349	36,760
Kerosine .. ..	16,863	17,371	18,429	19,104	19,131	20,357
Fuel oil .. ..	46,371	54,131	66,138	66,720	81,933	75,461
Lubricating oil .. ..	5,210	5,819	6,028	6,656	7,175	7,093
Paraffin wax .. ..	52	47	40	38	69	n.a.
Petroleum jelly .. ..	68	24	31	27	56	n.a.
Asphalt and bitumen (b)	3,893	5,242	8,939	6,025	4,716	n.a.
<b>Niger—</b>						
Aviation spirit .. ..			2,129	673	n.a.	975
Motor spirit .. ..			3,553	3,291	n.a.	8,964
Kerosine .. ..			1,115	974	n.a.	2,361
Gas oil .. ..	(c)	(c)	1,125	1,460	n.a.	4,457
Fuel oils .. ..			30	40	n.a.	335
Lubricating oil .. ..			433	89	n.a.	334
<b>Reunion—</b>						
Motor spirit .. ..	10,855	11,481	13,900	13,561	15,139	16,900
Kerosine .. ..	1,388	2,158	1,748	2,205	2,243	2,538
Fuel oil, etc. .. ..	4,282	5,264	3,751	7,098	6,577	7,895
Lubricating oil .. ..	658	771	735	743	1,092	1,033
<b>S. Tome and Principe—</b>						
Motor spirit .. ..	1,009	735	1,195	1,101	1,007	n.a.
Kerosine .. ..	671	589	365	432	530	n.a.
Fuel oil .. ..	727	599	959	681	831	n.a.

(a) Morocco (Southern) only.

(b) Including coal tar and pitch.

(c) See under French West Africa.

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

Long tons

Importing Country and Description	1956	1957	1958	1959	1960	1961
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
<b>Senegal—</b>						
Aviation spirit .. ..	(c)	(c)	15,307	10,654	8,779	5,878
Motor spirit .. ..			75,143	77,554	72,966	66,797
Kerosine .. ..			15,128	16,172	13,668	11,683
Gas oil .. ..			28,447	35,578	15,845	17,304
Fuel oils .. ..			69,266	95,372	88,420	27,873
Lubricating oil .. ..			9,886	5,764	7,878	3,547
<b>Somali Republic (b)—</b>						
<b>Aviation and motor spirit .. ..</b>						
Aviation and motor spirit .. ..	3,534	3,628	3,908	5,405	4,989	n.a.
Kerosine .. ..	532	598	738	772	849	n.a.
Gas oil .. ..	957	1,765	1,587	2,110	2,263	n.a.
Lubricating oil .. ..	146	170	140	59	204	n.a.
<b>South Africa—</b>						
Crude petroleum .. ..	1,038,216	1,138,813	1,381,367	1,375,984	1,368,412	1,583,654
Motor spirit (a) .. ..	1,116,556	1,029,563	1,128,765	1,110,949	1,124,744	1,180,603
Other spirit .. ..	16,387	16,097	19,102	15,494	14,203	n.a.
White spirit .. ..	26,545	27,369	31,610	21,123	29,578	31,571
Kerosine—Power .. ..	332,542	315,195	295,483	241,076	240,295	222,353
do. Other .. ..	155,621	144,555	184,188	152,429	163,411	176,792
Gas oil (a) .. ..	427,343	462,885	486,268	519,406	532,016	593,375
Diesel oil (a) .. ..	133,337	165,238	64,877	33,570	33,156	4,955
Fuel oil (a) .. ..	415,739	716,511	151,497	197,287	164,933	208,469
Lubricating oil .. ..	105,058	127,350	96,017	104,701	104,232	150,428
Transformer oil .. ..	4,602	4,815	5,374	5,805	3,769	n.a.
Road oil .. ..	1,831	895	382	2,836	2,144	n.a.
Other oils .. ..	4,120	3,328	3,027	3,509	17,832	n.a.
Paraffin wax .. ..	19,264	20,847	15,051	15,296	15,949	9,932
Asphalt and bitumen .. ..	32,960	37,539	37,116	32,997	39,169	n.a.
Petroleum jelly .. ..	3,291	3,122	2,943	2,981	4,537	n.a.
<b>Sudan—</b>						
Aviation spirit (a) .. ..	24,650	29,289	22,634	r 19,314	15,684	12,789
Motor spirit .. ..	51,396	67,549	72,874	r 70,625	71,176	74,105
Kerosine .. ..	19,868	28,592	33,332	r 40,001	52,069	51,684
Gas oil .. ..	31,818	47,617	64,115	r 63,292	75,324	99,074
Diesel oil .. ..	27,283	25,139	20,384	r 21,252	27,862	21,786
Fuel oil .. ..	111,835	156,582	164,270	r 194,956	189,417	176,403
Lubricating oil, etc. .. ..	5,957	8,523	9,950	r 6,585	7,722	11,339
Asphalt and bitumen .. ..	3,551	5,797	6,036	2,755	3,162	6,799
<b>Togo—</b>						
Motor spirit .. ..	5,505	5,251	5,784	6,851	8,231	8,008
Kerosine .. ..	4,182	4,762	4,695	5,559	6,187	6,622
Fuel oil .. ..	4,174	5,640	4,849	5,635	8,314	14,450
Lubricating oil .. ..	473	692	610	448	623	1,020
<b>Tunisia—</b>						
Aviation spirit .. ..	147	571	297	77,001	74,463	68,841
Motor spirit .. ..	78,616	70,131	72,970			
Kerosine .. ..	37,855	34,502	37,074	41,266	43,337	45,517
Fuel oil .. ..	194,133	178,229	174,257	200,334	221,418	233,761
Gas oil .. ..	86,293	77,621	83,938	86,916	99,720	109,910
Lubricating oil .. ..	7,067	6,397	7,284	9,601	8,899	13,500
Petroleum jelly .. ..	—	—	10	25	51	12
Paraffin wax .. ..	58	62	111	60	68	83
<b>Upper Volta—</b>						
Aviation spirit .. ..	(c)	(c)	765	970	1,113	1,539
Motor spirit .. ..			13	671	7,266	13,111
Kerosine .. ..			—	146	3,370	5,664
Gas oil .. ..			—	346	2,716	5,976
Fuel oils .. ..			—	62	578	3,093
Lubricating oil .. ..			—	9	51	861

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

(c) See under French West Africa.

(b) Former British Protectorate only.

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

Long tons

Importing Country and Description	1956	1957	1958	1959	1960	1961
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
<b>Costa Rica—</b>						
Motor spirit .. ..	43,979	51,854	49,111	47,776	72,261	53,816
Kerosine .. ..	6,838	7,888	7,778	7,758	13,471	9,901
Diesel oil, etc. .. ..	50,294	54,805	65,192	56,189	74,094	65,124
Fuel oil .. ..	52,036	31,636	20,891	9,276	20,239	27,049
Lubricating oil .. ..	2,720	3,868	5,540	4,213	4,788	5,372
Grease .. ..	274	343	291	227	296	244
Petroleum jelly .. ..	77	91	80	125	99	129
Paraffin wax .. ..	1,199	1,260	1,302	1,337	1,417	1,328
Asphalt .. ..	3,687	7,454	4,091	3,513	4,735	4,221
<b>Cuba—</b>						
Crude petroleum .. ..	444,583	915,504	2,030,833	1,682,722	<i>n.a.</i>	<i>n.a.</i>
Motor spirit .. ..	416,450	254,153	122,129	54,947	<i>n.a.</i>	<i>n.a.</i>
Kerosine .. ..	5,680	2,250	9,073	620	<i>n.a.</i>	<i>n.a.</i>
Fuel oil .. ..	1,121,888	1,806,195	1,727,157	1,196,866	{	<i>n.a.</i>
Gas oil .. ..	39,813	39,049	21,144			<i>n.a.</i>
Lubricating oil .. ..	54,491	37,909	48,162	91,502	<i>n.a.</i>	<i>n.a.</i>
Other oils .. ..	138,140	80,797	28,723	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Petroleum jelly .. ..	805	540	764	296	<i>n.a.</i>	<i>n.a.</i>
Paraffin wax .. ..	3,599	4,518	3,959	12,838	<i>n.a.</i>	<i>n.a.</i>
Asphalt rock .. ..	54	15	153	—	<i>n.a.</i>	<i>n.a.</i>
Other asphalt and bitumen .. ..	182	152	488	231	<i>n.a.</i>	<i>n.a.</i>
Petroleum coke .. ..	834	4,990	188	6,522	<i>n.a.</i>	<i>n.a.</i>
<b>Dominican Republic—</b>						
Aviation spirit .. ..	6,383	11,044	14,652	9,268	5,500	4,000
Motor spirit .. ..	78,266	79,368	82,464	80,293	78,759	69,000
Kerosine .. ..	11,650	9,035	12,373	11,776	14,562	15,000
Diesel oil .. ..	67,254	63,579	71,179	51,891	60,851	71,000
Fuel oil .. ..	118,304	134,417	127,580	177,633	147,975	110,000
Lubricating oil, etc. .. ..	6,919	10,711	7,841	7,204	7,736	7,000
Asphalt .. ..	18,832	19,600	2,451	15,875	14,878	9,000
<b>French West Indies—</b>						
<b>Guadeloupe—</b>						
Motor spirit .. ..	15,207	19,540	17,869	22,587	22,248	26,064
Kerosine .. ..	7,024	7,829	8,527	10,004	10,547	15,679
Gas and fuel oil .. ..	7,308	7,953	8,945	12,776	14,375	14,305
Lubricating oil .. ..	1,677	2,002	1,501	2,342	1,916	2,620
<b>Martinique—</b>						
Motor spirit .. ..	14,663	20,981	16,407	19,721	22,623	22,400
Kerosine .. ..	7,905	8,314	9,455	10,463	9,051	11,316
Gas and fuel oil .. ..	13,283	21,603	17,874	20,348	20,570	22,221
Lubricating oil .. ..	1,848	2,644	1,495	2,177	2,265	2,329
<b>Greenland—</b>						
Motor spirit .. ..	815	1,345	1,473	2,070	2,107	3,307
Kerosine .. ..	1,001	1,361	1,039	2,887	1,103	3,097
Fuel oil .. ..	21,010	24,309	34,813	40,249	29,722	50,592
Lubricating oil .. ..	353	362	353	508	569	343
<b>Guatemala—</b>						
Crude petroleum, etc. .. ..	150,399	154,166	156,058	180,979	208,476	209,557
Aviation spirit .. ..	10,692	5,844	5,331	117,182	121,529	122,374
Motor spirit .. ..	94,384	108,580	114,713			
Kerosine .. ..	16,072	20,646	22,404	21,879	32,689	42,941
Diesel oil .. ..	45,427	49,836	67,201			
Fuel oil .. ..	3,096	2,509	4,144	85,400	82,191	87,807
Lubricating oil .. ..	4,934	5,622	6,858			
Grease .. ..	537	515	657	5,642	6,000	5,417
Asphalt .. ..	11,181	11,880	17,377	483	508	520
Paraffin wax, etc. .. ..	3,467	3,561	3,850	4,000	6,000	5,428
<b>Haiti (a)—</b>						
Motor spirit .. ..	27,848	26,848	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Kerosine .. ..	3,291	2,242	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Fuel oil, etc. .. ..	12,356	9,312	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>

(a) Years ended September 30.

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

Long tons

Importing Country and Description	1956	1957	1958	1959	1960	1961
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
<b>Honduras—</b>						
Crude petroleum ..	32,013	39,643	65,596	69,712	71,413	102,582
Motor spirit ..	32,341	39,311	41,953	38,782	37,576	40,291
Kerosine ..	4,521	4,908	6,436	7,353	10,666	10,623
Gas, diesel and fuel oils	76,197	101,579	72,897	71,848	71,239	75,227
Lubricating oil ..	2,668	2,729	5,317	5,914	5,492	5,828
Greases ..	362	304	341	374	565	513
<b>Mexico—</b>						
Crude petroleum ..	43	191,369	101,853	10,468	—	26
Aviation spirit ..	33,131	48,789	53,414	52,797	50,800	6,353
Motor spirit ..	465,366	581,306	241,303	103,349	110,753	42,651
Kerosine ..	216,710	288,210	76,056	4,239	743	653
Gas oil ..	332,856	294,169	137,623	21,843	3,543	33,008
Fuel oil ..	464,208	417,951	418,994	258,652	89,525	82,802
Lubricating oil ..	17,311	19,272	11,818	11,149	12,789	21,823
Grease ..	7,129	4,576	4,964	5,940	3,588	2,945
Paraffin wax ..	15,909	19,949	12,689	17,408	21,249	20,353
Petroleum jelly ..	1,048	1,059	896	1,396	1,691	1,611
Asphalt ..	844	1,304	1,552	4,589	2,087	1,039
Asphalt rock ..	256	1,636	1,657	2,729	844	123
Natural gas ( <i>million cu. ft.</i> )	18,710	14,230	9,324	10,327	9,877	8,900
<b>Netherlands Antilles—</b>						
Crude petroleum ..	43,435,159	40,702,334	36,027,260	38,180,175	38,151,901	39,327,000
Aviation spirit ..	323,327	295,154	257,814	82,650	286,885	463,000
Motor spirit ..	1,090,746	1,151,164	1,484,502	754,098	511,137	810,000
Kerosine ..	9,812	125,759	65,183	42,173	28,372	131,000
Fuel oil ..	1,149,016	853,920	2,891,177	1,840,249	1,032,264	1,247,000
Diesel oil ..	202,176	135,464	150,144	239,613	17,647	74,000
Gas oil ..	447,944	634,137	696,733	446,942	234,476	248,000
Lubricating oil, etc. ..	2,062	2,746	2,651	3,368	28,305	92,000
Asphalt ..	—	1,394	—	—	1,182	—
<b>Nicaragua—</b>						
Aviation spirit ..	50,333	52,562	56,479	56,974	60,379	63,110
Motor spirit ..						
Kerosine ..	15,187	15,460	17,686	16,077	16,423	17,393
Fuel oil ..	52,409	63,194	116,277	81,284	93,595	90,799
Lubricating oil ..	3,435	3,291	4,052	3,708	3,702	4,492
Paraffin wax ..	844	723	915	692	888	809
Petroleum jelly ..						
Natural asphalt ..	1,791	1,163	—	—	9	—
<b>Panama Republic—</b>						
Aviation spirit ..	77,943	89,909	24,494	24,322	41,788	<i>n.a.</i>
Motor spirit ..			78,228	78,132	81,018	<i>n.a.</i>
Kerosine ..	20,691	23,740	27,411	28,399	29,703	<i>n.a.</i>
Diesel oil ..	31,858	46,348	50,489	64,476	47,925	<i>n.a.</i>
Fuel oil ..	77,475	91,250	119,980	123,876	133,778	<i>n.a.</i>
Lubricating oil ..	2,812	3,324	3,652	4,064	4,596	<i>n.a.</i>
Grease ..	284	270	336	317	301	<i>n.a.</i>
Paraffin wax etc. ..	105	126	235	227	329	<i>n.a.</i>
Asphalt ..	2,988	2,194	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
<b>St. Pierre and Miquelon—</b>						
Motor spirit ..	5,747	499	429	437	552	521
Gas oil and fuel oil ..		9,341	9,973	8,307	10,666	21,225
<b>Salvador—</b>						
Motor spirit ..	66,353	70,789	75,256	73,530	72,754	63,624
Kerosine ..	16,903	22,326	25,761	29,040	26,774	28,564
Gas oil and diesel oil ..	16,721	19,794	21,482	24,220	31,580	38,536
Fuel oil ..	60,916	61,619	51,742	52,944	55,947	48,232
Lubricating oil ..	3,388	3,331	3,774	3,057	3,403	3,558
Grease ..	572	426	598	348	336	333
Paraffin wax, etc. ..	862	835	854	955	1,009	815
Petroleum jelly ..	66	128	97	208	236	228
Asphalt ..	7,080	4,952	5,531	7,934	5,526	4,858



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

Long tons

Importing Country and Description	1956	1957	1958	1959	1960	1961
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
<b>United States—</b>						
Crude petroleum ..	50,063,398	55,175,624	54,817,219	54,584,541	57,238,878	58,897,926
Aviation spirit ..	9,726	20,912	—	50,023	3,360	1,619
Motor spirit, etc. ..	817,749	1,264,678	2,978,302	2,041,739	289,595	215,765
Naphtha, etc. ..	30,225	31,402	364,831	363,180	255,935	112,394
Kerosine ..	29,446	15,922	4,287	15,879	8,837	54,084
Aviation turbine fuel ..	(a)	(a)	(a)	(a)	1,615,884	1,476,386
Fuel oil ..	24,121,996	25,661,278	28,606,304	32,549,078	33,649,080	33,640,432
Gas oil and diesel oil ..	755,862	1,241,109	1,985,880	2,007,818	1,328,327	1,853,292
Unfinished distillates and topped oils ..	638,650	222,284	2,871,438	3,180,507	2,863,433	3,674,336
Lubricating oil, etc. ..	92	73	1,052	128	3,222	2,381
Road oil, etc. ..	116,001	370,607	366,680	267,504	213,709	228,606
Paraffin wax, etc. ..	15	24	810	2,634	759	356
Ozokerite and ceresin ..	1,008	1,274	1,937	2,660	1,918	2,835
Petroleum jelly ..	1	2	3	513	6,238	4
Asphalt (petroleum) ..	462,313	704,595	821,504	1,028,791	774,746	837,810
Natural asphalt and bitumen ..	3,675	3,546	22,153	3,366	19,496	21,051
Natural gas ( <i>million cu. ft.</i> ) ..	10,380	37,941	135,797	133,990	155,646	204,259
<b>Argentina—</b>						
Crude petroleum ..	4,344,243	6,056,679	5,550,211	5,374,095	3,262,806	1,771,838
Motor spirit ..	47,297	81,379	52,733	40,993	42,672	66,220
Kerosine ..	127,776	112,063	139,206	248,427	478,925	522,444
Gas oil ..	336,781	395,967	330,534	393,376	501,351	642,228
Fuel oil ..	3,283,931	2,230,538	1,399,230	1,555,257	366,176	2,336
Diesel oil ..	191,793	234,246	320,446	442,922	255,319	219,533
Lubricating oil ..	76,750	38,433	63,590	40,906	63,434	34,731
Grease ..	367	68	209	373	86	341
<b>Bolivia—</b>						
Aviation spirit ..	6,476	5,786	9,746	10,895	10,371	13,000
Motor spirit ..	69	43	2	11	—	n.a.
Kerosine ..	96	7	27	11	11	n.a.
Fuel oil ..	2,011	8,339	712	11,980	25,882	n.a.
Lubricating oil and grease ..	5,166	6,694	5,343	3,301	3,448	n.a.
Paraffin wax, etc. ..	777	1,469	1,088	1,013	1,280	n.a.
Tar, pitch, etc. ..	32	93	607	589	588	n.a.
<b>Brazil—</b>						
Crude petroleum ..	4,811,892	4,769,580	5,563,200	5,651,472	5,594,150	7,429,857
Aviation spirit ..	261,368	260,610	292,271	293,209	275,785	248,219
Motor spirit ..	461,453	431,523	657,291	401,011	601,128	548,472
White spirit ..	2,506	1,291	705	1,071	1,392	2,793
Kerosine ..	589,541	385,304	304,611	222,370	96,645	135,576
Diesel oil ..	1,204,269	875,426	1,103,858	1,251,348	1,244,422	589,916
Fuel oil ..	1,753,857	1,558,403	1,654,250	1,227,811	1,689,975	1,269,636
Lubricating oil ..	190,266	183,008	152,825	180,102	208,530	179,182
Transformer oil ..	1,077	3,853	1,656	2,411	359	1,772
Petroleum jelly ..	1,329	1,816	898	1,582	1,652	1,210
Greases ..	39	77	127	108	163	174
Paraffin wax ..	10,242	11,381	10,113	10,359	16,678	13,446
Ozokerite and ceresin ..	74	142	81	136	271	203
Asphalt and bitumen ..	1,750	727	15,647	1,716	1,085	4,175
<b>Chile—</b>						
Aviation spirit ..	25,591	34,417	27,977	35,313	15,552	n.a.
Motor spirit ..	83,314	49,187	48,579	17,554	12,583	n.a.
Kerosine ..	138,736	163,807	85,209	150,772	102,136	n.a.
Diesel oil ..	103,276	118,970	236,772	158,537	107,060	n.a.
Residual fuel oil (b) ..	794,880	682,284	790,038	1,821,914	1,689,373	n.a.
Lubricating oil ..	32,604	29,671	31,270	28,091	17,775	n.a.
Petroleum jelly ..	137	201	191	n.a.	n.a.	n.a.

(a) Included with motor spirit.

(b) Including crude petroleum.

IMPORTS OF PETROLEUM AND ALLIED PRODUCTS (cont.)

Long tons

Importing Country and Description	1956	1957	1958	1959	1960	1961
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
<b>Chile (cont.)—</b>						
Greases .. .. .	1,070	1,718	1,307	1,768	1,626	n.a.
Paraffin wax .. ..	6,230	6,645	7,122	7,893	6,496	n.a.
Natural asphalt.. ..	1,063	3,926	3,031	n.a.	n.a.	n.a.
<b>Colombia—</b>						
Aviation spirit .. ..	31,064	21,883	13,672	24,372	23,470	17,348
Motor spirit .. .. .	256,019	204,829	24,263	9,308	36,202	104,631
Kerosine .. .. .	54,796	38,323	3,703	5,090	2,915	5,948
Gas oil and diesel oil ..	47,663	33,403	4,223	3,154	9,599	12,692
Fuel oils .. .. .	11,633	6,577	798	795	399	780
Lubricating oil .. ..	28,916	30,040	29,575	28,058	29,463	34,267
Petroleum jelly .. ..	343	506	388	393	435	429
Paraffin wax .. .. .	22,050	24,227	14,433	19,519	23,483	28,020
Natural asphalt.. ..	3,723	3,648	94	3	1	9
<b>Ecuador—</b>						
Motor spirit .. .. .	56,344	74,290	74,003	70,936	n.a.	n.a.
Lubricating oil and greases .. .. .	4,118	4,315	4,558	5,024	n.a.	n.a.
Petroleum jelly .. ..	57	48	109	53	n.a.	n.a.
Paraffin wax .. .. .	2,686	3,026	2,839	2,811	n.a.	n.a.
Natural asphalt.. ..	9,227	303	2,625	8,257	n.a.	n.a.
<b>French Guiana—</b>						
Motor spirit .. .. .	2,149	2,140	2,347	2,528	2,500	2,856
Kerosine .. .. .	733	763	989	549	715	1,086
Fuel oil, etc. .. .. .	2,299	1,966	2,671	2,282	2,596	2,754
<b>Paraguay—</b>						
Motor spirit .. .. .	29,000	31,000	35,000	29,000	32,000	n.a.
Kerosine .. .. .	10,000	10,000	10,000	15,000	18,000	n.a.
Fuel oil, etc. .. .. .	24,000	27,000	32,000	43,000	45,000	n.a.
Lubricating oil .. ..	1,700	1,800	2,400	1,500	2,700	n.a.
<b>Peru—</b>						
Aviation spirit .. ..	63,386	82,570	68,774	72,739	93,221	36,591
Motor spirit .. .. .	—	—	2	3,981	6,965	3,212
Lubricating oil .. ..	16,274	17,495	16,233	14,063	15,844	14,882
Petroleum jelly .. ..	75	136	84	141	139	185
Paraffin wax .. .. .	5,252	6,095	6,118	6,152	8,010	6,910
Asphalt and bitumen ..	207	5,903	242	4,198	317	4,293
Greases .. .. .	1,109	1,461	1,173	1,174	1,589	1,410
Ozokerite .. .. .	4	3	5	8	15	18
<b>Surinam—</b>						
Motor spirit .. .. .	10,669	11,557	12,127	12,349	16,634	n.a.
Kerosine .. .. .	4,126	3,875	4,031	4,046	5,025	n.a.
Gas oil .. .. .	7,938	104,618	86,184	5,343	3,739	n.a.
Diesel oil .. .. .	19,834			34,798	45,406	n.a.
Fuel oil .. .. .	66,757			60,155	68,186	n.a.
Lubricating oil .. ..	1,606			1,433	2,331	2,106
Greases .. .. .	307	n.a.	n.a.	n.a.	n.a.	n.a.
Paraffin wax .. .. .	5	n.a.	n.a.	n.a.	n.a.	n.a.
Asphalt .. .. .	2,657	2,050	1,653	3,146	2,808	n.a.
<b>Uruguay—</b>						
Crude petroleum .. ..	1,020,240	1,070,000	1,156,000	1,186,000	1,324,000	1,334,000
Motor spirit, etc. .. ..	8,000	7,000	46,000	19,000	8,000	38,000
Kerosine .. .. .	17,000	n.a.	—	9,000	—	—
Gas oil .. .. .	60,000	76,000	49,000	86,000	26,000	44,000
Diesel oil .. .. .	27,000	47,000	14,000	18,000	33,000	
Fuel oil .. .. .	227,000	224,000	90,000	240,000	167,000	39,000
Lubricating oil and greases .. .. .	7,926	13,945	5,000	9,000	19,000	11,000
Paraffin wax .. .. .	n.a.	201	268	418	420	n.a.
<b>Venezuela—</b>						
Motor spirit .. .. .	38,006	20,878	195	2,370	42,843	87
White spirit .. .. .	17	58	39	2,893	1,423	535
Gas and fuel oils .. ..	58	129	11	25	452	2

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

Long tons

Importing Country and Description	1956	1957	1958	1959	1960	1961
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
<b>Venezuela (cont.)—</b>						
Lubricating oil and grease . . . . .	57,895	67,374	80,012	51,844	39,940	24,298
Paraffin wax . . . . .	3,835	4,444	3,968	2,918	2,519	2,756
Petroleum jelly . . . . .	148	156	379	175	411	506
Asphalt, bitumen, etc. . . . .	786	2,092	1,185	568	502	159
<b>Burma—</b>						
Motor spirit . . . . .	82,258	26,743	13,176	10,869	14,172	10,554
Kerosine . . . . .	23,817	2,658	1,805	17	4,321	8,410
Gas and diesel oils . . . . .	58,024	45,229	28,873	24,224	30,920	23,360
Lubricating oil . . . . .	17,477	6,722	12,201	15,318	12,170	18,880
Grease . . . . .	531	351	520	766	615	1,358
Paraffin wax . . . . .	<i>n.a.</i>	3	—	2	3	1
Asphalt . . . . .	9,881	11,959	12,227	14,263	16,605	11,721
<b>Formosa—</b>						
Crude petroleum . . . . .	(c) 481,599	(c) 955,520	(c) 684,696	(c) 684,756	1,043,567	1,340,871
Motor spirit . . . . .	3,101	970	1,107	27	21	1
Lubricating oil . . . . .	10,699	9,561	9,766	13,675	8,057	15,343
Grease . . . . .	510	437	290	397	798	535
Petroleum jelly . . . . .	141	84	199	5	<i>n.a.</i>	<i>n.a.</i>
Paraffin wax . . . . .	1,371	1,513	1,147	1,052	1,318	1,519
Asphalt . . . . .	158	42	—	16	1,897	2,007
<b>Indonesia—</b>						
Crude petroleum . . . . .	2,523,967	3,225,420	1,237,433	1,144,503	349,122	<i>n.a.</i>
Motor spirit . . . . .	116,351	342,556	322,331	138,970	460,543	<i>n.a.</i>
Kerosine, etc. . . . .	4,876	268	892	1,502	26,335	<i>n.a.</i>
Fuel and gas oils . . . . .	24,960	7,458	40,691	19,824	3,263	<i>n.a.</i>
Lubricating oil . . . . .	43,865	46,777	58,539	50,174	45,089	<i>n.a.</i>
Paraffin wax . . . . .	555	747	1,000	826	447	<i>n.a.</i>
Petroleum jelly . . . . .	1,212	1,065	1,792	1,505	271	<i>n.a.</i>
Asphalt . . . . .	29,413	40,661	11,177	32,182	14,136	<i>n.a.</i>
<b>Iran (a)—</b>						
Lubricating oil . . . . .	17,324	12,813	17,586	17,301	25,603	<i>n.a.</i>
Paraffin wax . . . . .	726	536	950	2,576	1,198	<i>n.a.</i>
Petroleum jelly . . . . .	207	122	211	552	196	<i>n.a.</i>
<b>Iraq—</b>						
Lubricating oil . . . . .	24,690	16,938	3,272	844	2,003	<i>n.a.</i>
<b>Israel (b)—</b>						
Motor spirit . . . . .	216,796	189,155	183,321	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Kerosine . . . . .	161,651	154,664	142,600	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Gas, diesel and fuel oils . . . . .	896,327	914,420	1,059,909	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Lubricating oils . . . . .	10,150	11,817	9,515	13,131	10,486	<i>n.a.</i>
Paraffin wax . . . . .	982	1,382	1,165	1,953	969	<i>n.a.</i>
Petroleum jelly . . . . .	26	78	96	82	77	<i>n.a.</i>
Asphalt . . . . .	381	361	62	235	219	<i>n.a.</i>
Turpentine substitute . . . . .	141	54	19	38	—	<i>n.a.</i>
<b>Japan—</b>						
Crude petroleum . . . . .	9,799,426	12,540,740	13,915,909	18,772,137	26,628,519	33,344,140
Aviation spirit . . . . .	67,584	89,518	62,264	60,197	50,575	65,649
Motor spirit . . . . .	34,888	17,664	13,789	2,338	59,511	27,336
Kerosine . . . . .	2,803	12,972	731	2,447	50	310
Aviation turbine fuel . . . . .	<i>n.a.</i>	3,637	4,687	15,139	47,730	82,647
Gas oil . . . . .	90,328	96,918	40,043	54,712	79,372	66,358
Fuel oil . . . . .	2,994,017	4,743,754	2,761,551	3,008,072	4,867,735	8,213,673
Lubricating oil . . . . .	42,401	82,390	37,438	58,028	146,993	220,527
Grease . . . . .	1,372	1,045	933	1,667	3,721	3,050
Petroleum jelly . . . . .	3,068	3,095	2,092	3,513	3,735	4,205
Paraffin wax . . . . .	1,730	947	1,099	2,207	3,743	3,557
Gilsonite . . . . .	1,666	1,891	1,723	2,862	3,757	3,861
Asphalt and pitch . . . . .	1,277	2,210	982	742	173	134
Petroleum coke . . . . .	217,012	244,425	149,259	231,470	368,585	489,945

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

(c) Including fuel oil.

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

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

Long tons

Importing Country and Description	1956	1957	1958	1959	1960	1961
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
<b>Jordan—</b>						
Crude petroleum ..	12,246	16,635	19,556	16,898	75,550	203,794
Motor spirit ..	35,156	36,107	33,267	45,231	43,795	5,456
Kerosine ..	39,732	33,944	36,144	41,082	5,476	19,813
Fuel oil, etc. ..	45,021	46,085	62,280	89,006	97,300	58,734
Lubricating oil ..	2,471	3,042	2,852	3,537	4,511	3,749
Natural asphalt..	5,094	6,400	4,799	8,612	8,851	2,004
<b>Korea (South)—</b>						
Aviation spirit ..				1,318	1,291	1,495
Motor spirit ..				150,030	120,073	108,261
Kerosine, etc. ..				60,458	31,805	39,380
Gas, diesel and fuel oils				556,665	449,120	533,257
Lubricating oils ..	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	12,705	14,502	8,123
Greases ..				3,903	493	863
Petroleum jelly ..				68	156	129
Paraffin wax ..				8,029	13,400	9,470
Asphalt and pitch ..				52,933	9,968	19,274
<b>Kuwait (a) —</b>						
Diesel oil ..	57,907	196,302	18,442	—	—	—
Fuel oil ..	490,426	1,251,685	64,057	—	—	—
<b>Laos—</b>						
Aviation spirit ..	5,567	<i>n.a.</i>	<i>n.a.</i>	3,363	4,710	10,085
Motor spirit ..	8,428	<i>n.a.</i>	<i>n.a.</i>	13,701	11,672	13,249
Kerosine ..	1,937	<i>n.a.</i>	<i>n.a.</i>	1,649	1,773	2,315
Gas oil ..	1,906	<i>n.a.</i>	<i>n.a.</i>	3,984	5,150	8,427
Fuel oil ..	728	<i>n.a.</i>	<i>n.a.</i>	1,606	1,444	1,995
Lubricating oil ..	718	<i>n.a.</i>	<i>n.a.</i>	1,174	1,496	1,115
<b>Lebanon—</b>						
Crude petroleum ..	985,937	1,034,925	793,790	731,128	721,709	<i>n.a.</i>
Motor spirit ..	114,334	129,763	122,305	146,724	159,252	<i>n.a.</i>
Kerosine ..	41,725	49,157	62,645	77,582	104,658	<i>n.a.</i>
Fuel oil ..	279,765	313,304	283,594	399,403	415,363	<i>n.a.</i>
Lubricating oil ..	4,893	5,699	4,652	7,233	7,318	<i>n.a.</i>
Paraffin wax ..	163	197	267	302	222	<i>n.a.</i>
Natural asphalt..	1,346	69	20,609	317	375	<i>n.a.</i>
<b>Philippine Republic—</b>						
Crude petroleum ..	459,271	283,345	743,276	932,760	789,891	2,248,718
Aviation spirit ..	29,388	34,895	42,003	29,804	32,658	18,902
Motor spirit ..	382,636	320,932	329,921	324,731	394,756	153,981
Kerosine ..	158,155	132,649	138,586	117,654	164,662	40,280
Diesel oil ..	294,281	353,412	356,796	316,293	259,126	125,580
Fuel oils ..	353,689	430,741	361,115	278,314	299,849	66,790
Lubricating oils ..	40,023	39,697	39,968	44,355	61,326	60,626
Grease ..	9,524	2,958	2,272	4,035	3,969	4,155
Petroleum jelly ..	1,120	1,160	1,274	1,693	1,723	1,248
Paraffin wax ..	3,190	5,081	5,327	4,766	6,532	5,389
Asphalt ..	13,319	27,890	38,646	15,842	22,556	19,229
<b>Portuguese India—</b>						
Motor spirit ..	11,942	25,391	19,187	r 11,840	18,337	<i>n.a.</i>
Kerosine ..	6,257	10,556	7,021	r 5,539	5,513	<i>n.a.</i>
Lubricating oils ..	1,174	1,160	855	1,395	1,327	<i>n.a.</i>
Other oils ..	7,438	14,916	9,354	r 12,183	17,854	
<b>Syria—</b>						
Crude petroleum ..	—	—	—	272,169	673,380	744,337
Motor spirit ..	97,303	94,296	51,824	25,745	8,253	6,294
Kerosine ..	64,177	69,868	40,857	31,586	4,397	5,724
Fuel oil and diesel oil ..	429,586	419,982	509,282	408,762	143,895	110,415
Lubricating oil ..	9,715	11,113	13,221	10,467	11,748	12,805
Natural asphalt..	2,886	975	161	869	1,259	405

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

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

Long tons

Importing Country and Description	1956	1957	1958	1959	1960	1961
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
<b>Thailand—</b>						
Aviation spirit .. ..	19,079	11,982	—	9,011	2,803	7,666
Motor spirit .. ..	214,367	277,166	265,474	298,395	361,084	353,943
Kerosine .. ..	93,133	83,584	88,972	96,882	114,421	103,756
Gas, diesel and fuel oils	413,956	461,921	492,640	520,955	568,742	681,050
Lubricating oil .. ..	26,021	32,346	23,604	26,833	34,745	30,471
Grease .. ..	1,352	1,773	1,223	1,843	1,719	1,537
Paraffin wax .. ..	1,016	1,603	1,223	1,160	2,197	1,714
Petroleum jelly .. ..	624	725	521	812	625	552
Asphalt .. ..	22,672	28,655	14,046	34,062	22,601	43,345
<b>Turkey—</b>						
Motor spirit .. ..	222,107	265,652	193,392	418,636	351,877	337,164
Kerosine .. ..	201,605	250,453	210,456	374,231	298,361	290,749
Gas and diesel oils	295,992	435,121	354,702	619,559	483,463	499,049
Fuel oil .. ..	27,036	25,582	18,842	36,550	44,494	70,847
Lubricating oils and grease .. ..	43,288	57,334	69,117	69,599	47,614	48,241
Paraffin wax .. ..	436	145	524	1,459	837	1,057
Petroleum jelly .. ..	122	147	162	161	165	258
Asphalt .. ..	136	46	432	1,970	3,005	1,002
<b>Vietnam—</b>						
Aviation spirit .. ..	4,275	17,007	5,290	1,463	1,758	527
Motor spirit .. ..	123,821	136,148	213,118	157,209	147,160	149,678
Kerosine .. ..	47,762	54,582	76,623	66,500	71,662	59,817
Gas oil .. ..	19,110	29,913	45,662	53,033	57,944	71,368
Fuels oils .. ..	112,625	129,022	118,774	182,458	192,989	256,839
Lubricating oils and grease .. ..	7,094	11,197	11,269	13,548	13,953	13,346
Petroleum jelly .. ..	103	127	86	90	124	153
Paraffin wax .. ..	1,873	2,078	2,713	2,616	3,003	5,381
<b>French Polynesia—</b>						
Motor spirit, etc. .. ..	2,948	3,581	3,106	4,284	4,560	6,022
Kerosine .. ..	1,680	1,676	1,512	1,843	2,206	2,805
Other oils .. ..	5,948	7,645	8,125	8,230	11,363	13,565
<b>New Caledonia—</b>						
Motor spirit, etc. .. ..	11,850	14,317	14,302	14,665	14,403	16,528
Kerosine .. ..	3,095	3,299	3,865	3,640	3,302	3,725
Gas and fuel oils .. ..	21,829	31,992	25,993	19,225	47,183	66,709
Lubricating oil, etc. ..	1,160	1,523	7,237	35,636	30,250	31,345

# PHOSPHATES

## PRODUCTION OF PHOSPHATE-ROCK

(Including Apatite)

Long tons

Producing Country	Estimated Tribasic Phosphate of Lime Content or equivalent											
	1956	1957	1958	1959	1960	1961	1956	1957	1958	1959	1960	1961
<b>COMMONWEALTH COUNTRIES</b>												
Seychelles (a) (b) ..	4,123	6,136	16,540	5,526	6,988	7,455	3,000	4,000	10,000	3,000	4,000	5,000
Southern Rhodesia (d) ..	—	—	—	1,676	3,437	446	—	—	—	1,000	2,000	300
Tanganyika (c) ..	3	3	—	—	—	—	2	2	—	—	—	—
Uganda (d) ..	2,914	3,256	2,474	3,124	4,008	395	1,500	1,600	1,200	1,600	2,000	200
Jamaica (c) ..	385	101	130	27	64	32	100	30	30	10	20	10
Christmas Island (b) ..	340,611	335,569	373,750	494,347	503,440	694,210	290,000	285,000	318,000	420,000	428,000	590,000
India (d) ..	8,785	9,178	14,572	13,808	14,685	19,822	3,000	3,000	5,000	5,000	5,000	7,000
Sarawak (c) ..	385	465	306	619	n.a.	n.a.	200	200	200	300	n.a.	n.a.
Australia—												
Phosphate rock ..	6,788	10,843	7,251	4,775	2,234	4,874	3,100	4,900	3,300	2,100	1,000	2,000
Guano ..	—	587	170	—	87	n.a.	—	400	100	—	60	n.a.
Nauru Island (b) ..	1,332,600	1,105,250	1,234,450	1,192,240	1,351,257	1,436,032	1,146,000	951,000	1,062,000	1,025,000	1,162,000	1,235,000
Ocean Island (b) ..	297,150	292,150	323,800	314,392	319,526	337,533	255,000	251,000	278,000	270,000	275,000	290,000
TOTAL ..	r1,994,000	r1,763,000	r1,973,000	r2,031,000	r2,207,000	2,502,000						
<b>OTHER COUNTRIES</b>												
Belgium (e) ..	13,414	15,854	17,724	12,973	8,113	13,795	3,000	3,000	4,000	3,000	2,000	3,000
France (e) ..	89,243	91,803	101,697	75,642	57,108	40,000	22,000	22,000	r 24,000	r 18,000	13,000	10,000
Spain ..	8,480	186	3,236	870	—	n.a.	5,500	100	2,100	600	—	n.a.
U.S.S.R. (f)—												
Apatite ..	3,690,000	3,940,000	3,940,000	3,940,000	4,230,000	4,530,000	3,220,000	3,440,000	3,440,000	3,440,000	3,700,000	3,960,000
Phosphate rock ..	1,575,000	1,720,000	1,970,000	1,970,000	2,265,000	3,050,000	1,040,000	1,140,000	1,300,000	1,300,000	1,490,000	2,010,000
Algeria ..	600,355	603,404	552,088	r 562,733	554,154	419,000	378,000	380,000	370,000	380,000	370,000	280,000
Egypt ..	605,000	576,000	549,000	668,000	558,000	f 560,000	375,000	357,000	340,000	414,000	346,000	350,000
Malagasy Republic ..	3,207	3,459	5,000	7,000	—	—	2,000	3,000	4,000	5,000	—	—
Morocco ..	5,434,608	5,479,588	6,235,756	7,050,365	7,374,134	7,824,147	3,913,000	3,945,000	4,490,000	5,080,000	5,310,000	5,630,000
Mozambique (a) ..	224	441	118	90	103	—	n.a.	n.a.	n.a.	n.a.	n.a.	—

(a) Phosphatic guano.

(b) Exports.

(d) Apatite.

(e) Including phosphatic chalk.

(f) United States Bureau of Mines' estimate.

(c) Bar guano.

PRODUCTION OF PHOSPHATE ROCK (cont.)

Long tons

Producing Country	Estimated Tribasic Phosphate of Lime Content or equivalent							1961	1960	1959	1958	1957	1956	
	1956	1957	1958	1959	1960	1961								
<b>OTHER COUNTRIES</b> (cont.)														
Senegal—														
Phosphate rock ..	5,200						400,567	105,985				4,100		333,000
Aluminum phosphates ..	67,100						137,179	103,629				43,000		88,000
Somali Republic (b) (f) ..	196						n.a.	339				74		86,000
South Africa—														n.a.
Phosphate rock (h) ..	154,316	166,433	213,087	228,005	263,423	291,904	278,000	263,423	228,005	213,087	166,433	166,433	155,000	173,000
Guano ..	4,092	(i) 3,757	(i) 3,853	5,251	3,636	4,687	4,687	3,636	5,251	(i) 3,853	(i) 3,757	3,757	1,300	1,100
South West Africa (f) ..		2,527		1,187		922	922		1,187		2,527	2,527	300	200
Togoland ..														210,000
Tunisia ..	2,044,021	2,034,674	2,242,546	2,150,455	2,062,894	1,951,000	1,951,000	2,062,894	2,150,455	2,242,546	2,034,674	2,034,674	1,458,000	1,341,000
Netherlands Antilles (b) ..	103,579	105,384	85,269	96,611	113,097	149,596	149,596	113,097	96,611	85,269	105,384	105,384	62,000	83,000
United States (e) ..	15,747,000	13,976,000	14,879,000	15,869,000	17,516,000	18,559,000	18,559,000	17,516,000	15,869,000	14,879,000	13,976,000	13,976,000	10,199,000	11,892,000
Brazil (d) ..	32,547	123,630	111,034	130,846	199,975	n.a.	n.a.	199,975	130,846	111,034	123,630	123,630	64,000	116,000
Chile—														n.a.
Apatite ..	58,125	19,074	(g) 40,000	19,101	17,260	17,100	17,100	17,260	19,101	(g) 40,000	19,074	19,074	24,700	10,000
Guano ..	24,000	34,000	31,000	21,000	16,300	17,000	17,000	16,300	21,000	31,000	34,000	34,000	12,000	7,000
Peru (f) ..	331,000	280,000	164,000	107,000	144,000	156,000	156,000	144,000	107,000	164,000	280,000	280,000	40,000	39,000
Venezuela ..	29,723	146,000										16,000		
China (d) ..	(a) 150,000	(a) 200,000	(a) 300,000	(a) 500,000	(a) 600,000	(a) 600,000	(a) 600,000	(a) 600,000	(a) 500,000	(a) 300,000	(a) 200,000	100,000	200,000	450,000
Indonesia (g) ..	(c) 500	500	500	(c) 2,000	7,000	9,000	9,000	7,000	(c) 2,000	500	500	200	200	4,000
Israel ..	115,295	148,000	206,226	201,590	220,639	222,000	222,000	220,639	201,590	206,226	148,000	72,000	128,000	140,000
Jordan ..	205,263	257,761	289,296	r 332,292	356,135	415,839	415,839	356,135	r 332,292	289,296	257,761	150,000	211,000	304,000
Philippine Republic—														
Phosphate rock ..														
Guano ..	7,762	3,685	7,116	373	9,877	396	396	9,877	373	7,116	3,685	2,000	2,000	n.a.
Vietnam (North) (d) ..	n.a.	55,000	r 133,000	256,000	482,000	568,000	568,000	482,000	256,000	r 133,000	55,000	n.a.	120,000	490,000
French Polynesia (Makatea)	255,000	303,600	320,000	362,967	406,684	c 400,000	c 400,000	406,684	362,967	320,000	303,600	209,000	262,000	330,000
<b>TOTAL</b> .. .. .	31,000,000	30,000,000	32,000,000	r 35,000,000	38,000,000	41,000,000	41,000,000	38,000,000	r 35,000,000	32,000,000	30,000,000			
<b>WORLD'S TOTAL</b> .. .	33,000,000	32,000,000	34,000,000	r 37,000,000	40,000,000	43,000,000	43,000,000	40,000,000	r 37,000,000	34,000,000	33,000,000			

(a) Phosphate rock is also known to have been produced in Poland and North Korea.  
 (b) United States Bureau of Mines' estimate.  
 (c) Exports.  
 (d) Estimated.  
 (e) Apatite.  
 (f) Phosphatic guano.  
 (g) Source: International Superphosphate Manufacturers' Association.  
 (h) Including apatite and aluminium phosphates.  
 (i) Sales to farmers. Years ended June 30 of that stated.

PRODUCTION OF SUPERPHOSPHATES

Long tons

Producing Country	Estimated P <sub>2</sub> O <sub>5</sub> Content					
	1956	1957	1958	1959	1960	1961
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom—						
Single .. .. .	940,872	890,335	760,570	682,372	719,624	654,224
Concentrated* ..	n.a.	(c) 97,000	114,906	148,852	160,679	172,139
Canada*—						
Single .. .. .	179,358	184,401	170,010	199,845	213,698	285,100
India—						
Single .. .. .	81,000	142,000	167,000	248,000	317,000	372,000
Concentrated* ..	188	92	50	—	—	—
Pakistan—						
Single .. .. .	n.a.	1,024	r 1,089	1,529	3,879	8,048
Australia—						
Single (a) .. ..	1,916,237	1,975,015	2,219,592	2,150,413	2,450,249	2,540,544
Single (b) .. ..	898,645	843,139	767,197	906,685	1,045,168	1,049,800
TOTAL .. .. .						
Irish Republic*—						
Single .. .. .	146,058	122,263	191,094	202,746	229,200	211,432
<b>OTHER COUNTRIES</b>						
Austria*—						
Single .. .. .	42,291	43,600	119,230	133,899	150,857	183,998
Belgium*—						
Single .. .. .	194,836	(c) 172,000	191,266	201,821	185,807	191,216
Concentrated ..	29,446	(c) 28,900	53,525	58,289	(c) 61,000	(c) 60,000
Czechoslovakia—						
Single .. .. .	324,000	362,000	(c) 402,000	(c) 470,000	n.a.	n.a.
<b>Estimated P<sub>2</sub>O<sub>5</sub> Content</b>						
	1956	1957	1958	1959	1960	1961
United Kingdom—						
Single .. .. .	178,800	167,200	140,700	136,500	143,900	130,800
Concentrated* ..	n.a.	46,000	51,700	65,000	69,400	72,200
Canada*—						
Single .. .. .	35,900	36,900	34,000	40,000	42,700	57,000
India—						
Single .. .. .	13,000	23,000	27,000	40,000	51,000	60,000
Concentrated* ..	80	40	20	—	—	—
Pakistan—						
Single .. .. .	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Australia—						
Single (a) .. ..	421,600	434,500	488,300	473,100	539,100	558,900
Single (b) .. ..	179,700	168,600	153,400	181,300	209,000	210,000
TOTAL .. .. .	r 880,000	r 880,000	r 900,000	r 940,000	1,060,000	1,090,000
Irish Republic*—						
Single .. .. .	26,300	22,000	34,400	36,200	40,900	39,700
<b>OTHER COUNTRIES</b>						
Austria*—						
Single .. .. .	7,600	7,800	21,500	24,100	27,200	33,100
Belgium*—						
Single .. .. .	32,500	29,000	33,800	34,700	32,500	34,300
Concentrated ..	12,400	12,400	23,500	25,600	27,000	27,000
Czechoslovakia—						
Single .. .. .	58,223	65,247	72,313	84,610	n.a.	n.a.

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

(c) Estimated.  
(b) Superphosphate content of all fertilizers made during the years ended March 31st of the year following that stated.



PRODUCTION OF SUPERPHOSPHATES (cont.)

Long tons

Producing Country	Estimated P <sub>2</sub> O <sub>5</sub> Content					
	1956	1957	1958	1959	1960	1961
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
Denmark (a)---						
Single .. .. .	344,192	301,929	218,811	168,127	105,902	n.a.
Finland---						
Single .. .. .	135,916	113,207	153,300	222,394	225,646	210,600
Kotka-phosphate .. .. .	189,127	237,762	n.a.	143,520	152,977	138,012
France---						
Single .. .. .	1,068,509	1,138,965	1,220,591	1,149,903	1,203,261	1,286,826
Concentrated* .. .. .	30,967	32,461	49,931	54,407	56,549	56,085
Germany (Federal)*---						
Single .. .. .	448,012	431,873	457,201	444,828	391,104	288,549
Germany (East)---						
Single .. .. .	391,000	399,000	409,000	427,000	544,000	596,000
Greece*---						
Single .. .. .	138,237	193,448	209,574	207,396	168,646	165,737
Concentrated .. .. .	13,884	---	---	---	---	---
Hungary---						
Single .. .. .	147,418	162,295	202,119	227,249	261,935	322,007
Italy---						
Single .. .. .	1,867,915	1,822,814	1,721,650	1,732,433	1,473,313	1,507,065
Concentrated .. .. .	---	---	---	---	---	---
Netherlands*---						
Single .. .. .	418,400	407,880	436,150	498,897	525,984	499,039
Concentrated .. .. .	96,154	106,060	113,796	100,443	125,573	117,523
Norway---						
Single .. .. .	108,040	58,305	66,000	58,000	63,000	62,000
Concentrated* .. .. .	---	28,120	18,005	39,332	36,847	25,650
Poland (b)---						
Single .. .. .	470,000	518,000	572,000	621,000	689,000	n.a.
Portugal---						
Single .. .. .	377,413	434,785	385,453	409,472	438,705	448,197
Concentrated .. .. .	---	---	---	---	---	---

\*Source: International Superphosphate Manufacturers' Association.

(a) In addition the following amounts of potash superphosphate were produced (long tons): 1956—168,369; 1957—256,843; 1958—356,920; 1959—417,237; 1960—547,860; 1961—n.a.

(b) In addition the following amounts of superbasic slag were produced (long tons): 1956—114,500; 1957—136,000; 1958—148,000; 1959—166,000; 1960—236,000; 1961—n.a.

PRODUCTION OF SUPERPHOSPHATES (cont.)

Long tons

Producing Country	1956	1957	1958	1959	1960	1961	Estimated P <sub>2</sub> O <sub>5</sub> Content													
							1956	1957	1958	1959	1960	1961								
OTHER COUNTRIES (cont.)																				
Roumania—																				
Single ..	54,000	74,000	119,000	269,000	320,000	350,000	9,000	12,000	19,000	43,000	51,000	56,000								
Spain—																				
Single ..	1,543,150	1,532,778	(a)1,743,000	(a)1,950,000	(a)1,979,000	a 1,779,000	257,700	258,700	294,300	329,200	318,600	288,200								
Sweden*—																				
Single ..	512,729	488,442	461,509	484,825	476,000	469,673	100,100	96,000	89,100	93,900	93,000	91,600								
Concentrated ..	—	—	—	6,960	8,552	19,251	—	—	—	2,400	2,500	5,600								
Switzerland*—																				
Single ..	16,200	18,600	27,500	40,000	(c)40,000	16,000	2,900	3,300	4,900	7,000	7,000	3,000								
Concentrated ..	—	(c) 100	344	—	100	—	—	45	150	—	45	—								
Yugoslavia—																				
Single ..	162,598	212,399	260,742	272,776	243,760	405,997	31,000	40,000	50,000	52,000	46,000	77,000								
Concentrated ..	—	—	—	—	—	—	—	—	—	—	—	—								
Algeria—																				
Single ..	78,280	96,240	93,132	r 83,903	78,876	58,800	12,500	15,400	14,900	13,400	12,600	9,400								
Concentrated ..	—	—	(b)	(b)	(b)	(b)	4,000	4,000	(b)	(b)	(b)	(b)								
Canary Islands—																				
Single ..	24,820	26,023	(b)	(b)	(b)	(b)	4,000	4,000	(b)	(b)	(b)	(b)								
Concentrated ..	—	—	—	—	—	—	—	—	—	—	—	—								
Egypt—																				
Single ..	154,044	174,676	164,169	163,904	184,541	225,916	23,700	26,900	24,900	24,600	27,700	33,900								
Concentrated ..	—	—	—	—	—	—	—	—	—	—	—	—								
Morocco—																				
Single ..	49,000	76,000	99,000	87,000	77,000	88,000	8,000	12,000	16,000	14,000	13,000	15,000								
Concentrated ..	—	—	—	—	—	—	—	—	—	—	—	—								
South Africa*—																				
Single ..	557,067	603,705	663,455	631,610	664,962	633,157	105,800	114,700	126,100	120,000	126,300	120,300								
Concentrated ..	—	—	—	—	—	—	—	—	—	—	—	—								
Tunisia—																				
Single ..	26,000	28,000	32,000	30,000	22,000	23,500	4,000	4,000	5,000	5,000	3,000	4,000								
Concentrated ..	78,000	99,000	107,000	122,000	126,000	133,000	34,000	43,000	46,000	52,000	54,000	57,000								
Cuba*—																				
Single ..	(c)30,000	(c)40,000	(c)40,000	(c)40,000	46,002	(c) 40,000	5,000	7,000	7,000	7,000	8,300	7,000								
Concentrated ..	—	—	—	—	—	—	—	—	—	—	—	—								
Mexico*—																				
Single ..	76,031	83,250	69,644	100,758	134,994	c 140,000	14,800	16,200	13,700	18,600	25,000	25,000								
Concentrated ..	—	—	—	—	—	—	—	—	—	—	—	—								
United States*—																				
Single ..	7,380,836	6,845,281	6,420,361	d6,922,130	6,355,487	6,201,851	1,328,600	1,232,200	1,155,700	1,246,000	1,144,000	1,116,000								
Concentrated ..	1,494,876	1,649,820	1,653,839	1,653,821	1,981,798	2,073,661	672,700	742,400	744,200	744,200	891,800	933,100								

\*Source: International Superphosphate Manufacturers' Association.

(a) Including with Spain.

(b) Including enriched superphosphate.

(c) Estimated.

(d) Including Canary Islands.

PRODUCTION OF SUPERPHOSPHATES (cont.)

Long tons

Producing Country	1956	1957	1958	1959	1960	1961	Estimated P <sub>2</sub> O <sub>5</sub> Content				1961										
							1956	1957	1958	1959		1960	1961								
<b>OTHER COUNTRIES</b>																					
Brazil*—																					
Single ..	(a) 74,000	74,000	129,734	a 150,000	396,980	a 400,000	13,000	13,000	23,400	27,000	71,500	73,000									
Columbia—																					
Single ..	2,000*	n.a.	2,097	n.a.	5,403*	n.a.	400	400	400	n.a.	1,000	n.a.									
Peru*—																					
Single ..	—	—	—	(a) 34,000	23,400	(a) 24,000	—	—	—	7,000	4,700	5,000									
Uruguay*—																					
Single ..	29,500	29,500	30,000	(a) 30,000	26,997	(a) 28,000	6,500	6,500	6,500	6,500	5,400	5,500									
Venezuela*—																					
Single ..	—	—	—	—	8,956	n.a.	—	—	—	—	1,600	n.a.									
Formosa—																					
Single ..	99,123	101,969	102,170	116,875	119,542	127,947	17,800	18,400	18,400	21,000	22,000	23,000									
Israel*—																					
Single ..	93,983	104,115	67,440	71,248	80,196	79,224	15,300	16,800	11,200	11,400	12,700	12,700									
Concentrated	—	—	15,788	6,840	296	1,709	—	—	6,500	2,900	100	700									
Japan*—																					
Single ..	2,019,264	1,827,826	1,715,441	1,784,327	2,097,937	1,817,864	353,400	317,300	298,300	309,800	365,300	317,100									
Concentrated	2,891	1,731	968	3,150	7,151	9,333	1,200	700	400	1,200	2,600	3,400									
Jordan—																					
Single ..	—	—	—	—	440	248	—	—	—	—	80	40									
Lebanon*—																					
Single ..	—	—	10,300	26,216	15,881	(a) 18,000	—	—	2,000	5,000	3,500	3,000									
Philippine Republic*—																					
Single ..	—	—	—	—	2,056	(a) 15,000	—	—	—	—	400	3,000									
Turkey—																					
Single ..	10,028	7,437	5,049	64,023	53,000	37,000	1,800	1,100	800	9,600	9,000	6,000									
TOTAL							5,000,000	5,000,000	5,000,000	5,000,000	6,000,000	6,000,000									
WORLD'S TOTAL							6,000,000	6,000,000	6,000,000	6,000,000	7,000,000	7,000,000									

An allowance has been made in the total for production in the U.S.S.R.

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

\*Source: International Superphosphate Manufacturers' Association.

(a) Estimated.

PRODUCTION OF BASIC SLAG

Long tons

Producing Country	1956	1957	1958	1959	1960	1961
<b>COMMONWEALTH COUNTRIES</b>						
Great Britain (a) ..	615,392	619,712	648,768	646,097	830,380	731,439
<b>OTHER COUNTRIES</b>						
Belgium (a) .. ..	1,160,000	1,135,000	1,051,000	1,108,000	1,208,000	1,128,000
France .. ..	1,729,207	1,816,881	1,889,333	2,007,244	2,299,216	2,376,508
Germany (Federal) ..	2,463,000	2,515,000	2,325,000	2,635,000	3,531,000	3,436,000
Germany (East) ..	75,000	81,000	87,000	100,000	107,000	108,000
Italy .. ..	54,895	74,617	80,700	78,016	97,303	115,506
Luxemburg .. ..	732,690	724,500	674,199	704,648	768,125	782,995
Saar .. ..	532,162	549,374	562,435	<i>n.a.</i>	(b)	(b)
Sweden .. ..	14,988	49,163	52,155	60,076	<i>n.a.</i>	<i>n.a.</i>

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.

(b) Included with Germany (Federal).

EXPORTS OF PHOSPHATES, ETC.

Long tons

Exporting Country and Description	1956	1957	1958	1959	1960	1961
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom— Phosphatic fertilizers ..	1,111	1,313	1,058	166	607	9,871
Seychelles— Phosphatic guano ..	4,123	6,136	16,540	5,526	6,988	7,455
Uganda— Phosphate-rock ..	2,399	2,641	2,630	3,121	4,004	453
Canada— Phosphatic fertilizers ..	(£5,639,337)	(£4,848,807)	(£4,531,308)	(£8,510,822)	(£7,684,873)	(£6,933,905)
Christmas Island— Phosphate-rock ..	340,611	335,569	373,750	494,347	503,440	694,210
Hong Kong— Phosphatic fertilisers ..	—	—	30,340	—	—	—
Malaya— Phosphatic fertilizers ..	12	138	63	62	62	111
Australia (a)— Superphosphates ..	1,727	1,742	2,064	1,919	623	36
New Zealand— Superphosphates ..	48	95	81	93	98	37
Nauru Island— Phosphate-rock ..	1,332,600	1,105,250	1,234,450	1,192,240	1,351,257	1,436,032
Ocean Island— Phosphate-rock ..	297,150	292,150	323,800	314,392	319,526	337,533
<b>OTHER COUNTRIES</b>						
Belgium-Luxemburg E.U.— Phosphate-rock ..	880	836	3,329	3,204	3,124	9,863
Superphosphates— Single ..	96,614	65,948	130,458	95,835	109,567	107,832
Concentrated ..	25,257	29,885	45,047	58,506	61,366	65,694
Di-calcium phosphate ..	135,894	148,287	185,206	200,018	n.a.	n.a.
Basic slag ..	1,331,408	1,501,980	1,393,917	1,499,170	1,403,422	1,218,800
France— Phosphate-rock ..	36	140	839	1,956	1,846	3,508
Superphosphates ..	15,603	23,362	17,971	28,921	83,545	49,318
Basic slag ..	283,239	355,771	334,550	344,662	294,874	283,407
Di-calcium phosphates ..	932	1,086	1,751	940	750	805
Germany (Federal)— Phosphate-rock ..	—	99	12,643	16,142	24,960	29,687
Superphosphates ..	16,308	12,433	9,069	14,413	17,258	17,921
Basic slag ..	92,497	146,215	175,589	370,229	389,771	357,866
Other phosphatic fertilizers ..	10,501	11,993	3,898	4,875	3,922	23,017
Hungary— Superphosphates ..	25,098	22,010	37,086	31,300	33,741	6,289
Italy— Superphosphates ..	92,463	122,655	135,135	130,146	109,646	96,820
Netherlands— Phosphate-rock ..	2,731	602	6,937	9,420	4,978	5,056
Superphosphates ..	319,782	344,519	372,478	413,186	468,076	421,792
Norway— Superphosphates ..	4,529	5,019	9,754	20,002	25,118	30,706
Portugal— Superphosphates ..	21,676	12,205	15,122	34,453	35,451	82,042
Spain— Superphosphates, etc. ..	145	102	9,169	57,856	45,254	76,269
Sweden— Superphosphates ..	4,110	—	4,029	14,258	—	—
Basic slag ..	21,404	24,883	17,224	33,439	14,166	5,345

(a) Years ended June 30 of that stated.

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

Long tons

Exporting Country and Description	1956	1957	1958	1959	1960	1961
OTHER COUNTRIES						
(cont.)						
U.S.S.R.—						
Apatite ore ..	80,600	42,000	98,900	91,600	119,500	164,200
do. concentrates ..	1,106,000	1,241,800	1,480,900	1,634,500	1,777,100	2,020,900
Superphosphates ..	62,600	119,600	93,500	117,200	200,000	334,900
Yugoslavia—						
Superphosphates ..	—	—	—	—	41,002	75,943
Algeria—						
Phosphate-rock ..	569,477	563,766	545,924	490,186	462,695	373,200
Superphosphates ..	6,096	7,925	2,170	1,755	2,175	n.a.
Egypt—						
Phosphate-rock ..	408,536	373,716	416,579	441,641	296,901	n.a.
Malagasy Republic—						
Phosphate-rock ..	2,584	3,396	1,968	8,859	—	—
Morocco—						
Phosphate-rock ..	5,472,398	5,304,574	6,173,749	6,948,240	7,463,502	7,502,119
Hyperphosphates ..	4,439	14,932	8,842	983	5,955	5,636
Superphosphates ..	16	58	—	9,482	—	17,918
Senegal—						
Phosphate-rock ..	5,532	6,899	60,371	—	58,190	303,686
Aluminium phosphates	56,940	64,359			69,367	93,797
Somali Republic (a)—						
Phosphatic guano ..	196	—	—	217	339	n.a.
South Africa—						
Superphosphates ..	24,517	22,145	4,200	540	843	3,296
South West Africa—						
Phosphatic guano ..	—	2,517	—	762	—	—
Tunisia—						
Phosphate-rock ..	1,747,733	1,708,710	1,923,949	1,827,936	1,604,275	1,601,311
Hyperphosphates ..	100,887	103,722	92,229	101,690	56,838	63,432
Superphosphates ..	71,650	90,040	115,831	108,213	110,141	154,211
Mexico—						
Phosphate-rock ..	n.a.	n.a.	13,387	28,795	21,995	23,960
Netherlands Antilles—						
Phosphate-rock ..	103,579	105,384	85,269	96,611	113,097	149,596
United States—						
Phosphate-rock ..	2,880,484	3,126,215	2,818,073	3,239,722	4,246,292	4,122,733
Superphosphates—						
Single ..	324,701	271,357	195,967	140,917	136,786	131,927
Concentrated ..	169,324	290,067	314,423	271,714	280,146	337,271
French Polynesia						
(Makatea)—						
Phosphate-rock ..	260,742	309,101	304,370	305,678	357,381	362,960
Israel—						
Phosphate-rock ..	29,623	20,881	58,483	91,573	94,265	79,630
Japan—						
Phosphate-rock ..	—	—	2,430	12,130	10,686	4,698
Superphosphates ..	320,263	195,436	139,613	102,355	101,599	29,971
Calcined phosphates ..	30,362	1,672	3,902	10,169	25,779	37,620
Basic slag ..	10,251	6,781	—	—	—	—
Other phosphatic fertilizers ..	98	16,754	941	3,207	6,303	18,485
Jordan—						
Phosphate-rock ..	154,529	210,320	228,638	243,829	313,796	376,763
Lebanon—						
Superphosphates ..	—	—	3,252	20,902	11,034	n.a.

(a) Former British Protectorate only.

## IMPORTS OF PHOSPHATES, ETC.

Long tons

Importing Country and Description	1956	1957	1958	1959	1960	1961
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom—						
Phosphate-rock.. ..	1,181,894	1,102,422	1,067,452	1,055,685	1,429,515	1,355,649
Superphosphates .. ..	2,905	2,581	1,625	9,419	33,952	28,390
Basic slag .. ..	91,673	110,318	114,958	105,808	80,459	71,411
Ammonium phosphate .. ..	609	4,680	8,123	10,834	11,730	17,912
Kenya—						
Phosphate-rock.. ..	—	1,060	—	52	937	—
Superphosphates .. ..	9,263	12,374	14,151	10,406	10,768	11,163
Other phosphatic fertilizers .. ..	1,053	3,362	644	3,637	2,204	1,382
Mauritius—						
Phosphatic guano .. ..	5,271	7,175	10,237	8,292	9,620	10,788
Phosphatic fertilizers .. ..	767	1,913	914	1,883	2,879	5,496
Nigeria—						
Phosphate-rock.. ..	487	2	1	54	444	47
Superphosphates .. ..	117	511	411	436	308	159
Other phosphatic fertilizers .. ..	897	987	3,078	751	1,035	1,807
Rhodesia and Nyasaland—						
Superphosphates .. ..	41,178	60,777	39,933	14,140	17,296	21,188
Tanganyika—						
Superphosphates .. ..	1,387	2,126	699	816	1,315	1,135
Other phosphatic fertilizers .. ..	46	120	42	(a) 31	67	8
Uganda—						
Superphosphates .. ..	643	76	1,694	1,440	1,033	1,185
Other phosphatic fertilizers .. ..	5	610	18	27	1,345	1
Canada—						
Phosphate-rock.. ..	560,400	645,732	664,432	711,663	841,070	943,647
Superphosphates, triple .. ..	34,364	40,518	39,507	57,436	74,234	60,210
do. other .. ..	164,278	146,202	154,872	126,913	106,865	111,218
Basic slag .. ..	1,000	500	750	350	500	491
Other phosphatic fertilizers .. ..	1,575	2,527	2,969	3,558	5,575	6,008
Jamaica—						
Phosphatic fertilizers .. ..	687	2,800	2,383	1,409	1,588	812
St. Vincent—						
Superphosphates .. ..	67	62	84	150	48	24
Trinidad and Tobago—						
Superphosphates .. ..	1,734	2,430	1,305	1,377	1,815	1,287
Basic slag .. ..	20	20	30	20	—	—
British Guiana—						
Superphosphates .. ..	1,906	1,155	2,530	113	2,817	n.a.
Other phosphatic fertilizers .. ..	2,776	3,110	2,063	1,903	1,362	n.a.
Ceylon—						
Phosphate-rock.. ..	37,973	28,470	19,397	60,077	72,119	57,704
Superphosphates .. ..	3,443	8,050	1,296	3,258	966	847
Basic slag .. ..	168	224	183	184	135	40
Other phosphatic fertilizers .. ..	15,929	25,595	26,125	4,644	74	349
Cyprus—						
Superphosphates .. ..	38,567	38,633	31,201	31,124	35,140	37,421
Basic slag, etc. .. ..			—	1,059	340	683
Hong Kong—						
Phosphatic fertilizers .. ..	357	169	29,062	130	104	213
India—						
Phosphate-rock.. ..	45,874	115,895	121,260	188,864	(b) 249,833	(b) 249,956
Other phosphates .. ..	9,800	47	4,480	264	(b) 4,799	(b) 1,969
Superphosphates .. ..	260	3,687	266	5,348	(b) 596	(b) 737
Ammonium phosphate .. ..	—	10	47	228	(b) 5	(b) 8

(a) Excess of re-exports.

(b) Years ended March 31 following that stated.

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

Long tons

Importing Country and Description	1956	1957	1958	1959	1960	1961
<b>COMMONWEALTH COUNTRIES (cont.)</b>						
Malaya—						
Phosphate-rock ..	1,000	31,163	29,879	65,637	64,879	78,960
Phosphatic fertilizers ..	6,437	10,843	3,122	3,334	18,050	8,932
North Borneo—						
Superphosphates ..	5	27	41	243	33	81
Other phosphatic fertilizers .. ..	291	558	1,218	475	476	44
Sarawak—						
Natural phosphates ..	5	61	484	4	1	19
Phosphatic fertilizers ..	787	1,059	2,069	3,138	5,026	5,146
Australia (a)—						
Phosphate-rock ..	1,418,524	1,321,607	1,273,766	1,353,739	1,322,173	1,723,518
Superphosphates ..	—	150	1	—	—	100
New Zealand—						
Phosphate-rock ..	606,150	540,579	486,292	r 469,373	608,202	597,568
Phosphatic guano ..	—	—	8,500	—	—	—
Superphosphates ..	3,234	256	392	70	—	54
Basic slag ..	61,301	49,581	41,648	25,344	29,670	31,516
Other phosphates ..	329	509	1,968	r 305	2,527	4,750
Irish Republic—						
Phosphate-rock ..	114,173	73,387	121,544	135,853	163,057	221,938
Superphosphates ..	56,744	66,998	66,270	77,697	87,210	14,031
Basic slag ..	48,348	44,337	38,358	85,252	49,950	65,655
Other phosphatic fertilizers ..	563	12,335	10,062	18,415	11,226	13,637
<b>OTHER COUNTRIES</b>						
Austria—						
Phosphate-rock ..	20,507	39,373	69,154	109,921	121,905	124,248
Superphosphates ..	109,488	135,000	114,363	(c) 72,437	(c) 76,495	(c) 26,902
Basic slag ..	154,274	199,718	224,285	242,540	267,189	264,049
Belgium-Luxemburg						
E.U.—						
Phosphate-rock ..	444,246	475,986	571,697	609,667	642,026	886,094
Superphosphates ..	46	—	4	71	255	1,254
Di-calcium phosphates ..	3	2	6	8	137	n.a.
Basic slag ..	68	508	57	352	100	44
Czechoslovakia—						
Phosphatic fertilizers (b)	91,000	94,000	120,000	124,000	146,000	170,000
Denmark—						
Phosphate-rock ..	279,086	265,813	269,738	279,544	259,558	302,353
Superphosphates ..	109,734	126,839	97,095	99,666	167,709	188,398
Di-calcium phosphates ..	n.a.	n.a.	n.a.	n.a.	26,868	23,544
Basic slag ..	5,563	5,163	7,229	7,818	6,024	6,146
Finland—						
Phosphate-rock ..	180,878	303,001	234,198	238,866	231,786	273,625
Superphosphates ..	19,643	—	—	15,843	68,293	73,302
Basic slag ..	18,702	—	6	25,194	24,292	10,089
Di-calcium phosphates ..	11,723	8,701	11,217	12,858	7,689	165
France—						
Phosphate-rock ..	1,437,221	1,412,789	1,763,638	1,655,983	1,707,582	1,762,437
Aluminium phosphates ..	25,356	65,528	71,092	71,497	103,067	87,427
Superphosphates ..	46,831	55,643	68,353	101,728	221,547	270,980
Calcined phosphates ..	34,564	52,128	36,173	15,796	15,427	13,195
Basic slag ..	274,968	273,900	248,199	284,680	428,223	598,419
Di-calcium phosphates ..	12,249	19,597	19,412	10,476	12,724	22,505

(a) Years ended June 30 of that stated.

(c) Including other phosphatic fertilizers.

 (b)  $P_2O_5$  content.



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

Long tons

Importing Country and Description	1956	1957	1958	1959	1960	1961
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
Germany (Federal)—						
Phosphate-rock, etc. ..	889,700	1,047,246	1,216,183	1,433,115	1,616,786	1,488,526
Superphosphates ..	1,978	2,559	2,448	5,197	6,303	18,636
Basic slag ..	230,250	409,429	373,154	592,224	866,335	521,858
Germany (East) (a)—						
Phosphatic fertilizers ..	59,298	58,001	61,250	62,450	56,164	58,217
Greece—						
Phosphate-rock ..	136,474	151,007	186,891	178,902	180,675	141,249
Other phosphatic fertilizers ..	13,390	6,866	29,481	30,811	8,765	n.a.
Hungary—						
Phosphate-rock ..	112,383	74,471	157,618	135,751	174,807	185,743
Iceland—						
Superphosphates ..	5,906	6,063	7,972	8,485	8,120	6,617
Italy—						
Phosphate-rock ..	1,450,580	1,286,161	1,303,749	1,180,856	1,444,811	1,363,315
Superphosphates ..	2	353	195	7,234	8,120	—
Basic slag ..	94,199	68,324	64,702	56,536	2,240	11,590
Netherlands—						
Phosphate-rock ..	508,319	549,133	616,175	605,289	719,800	700,260
Superphosphates ..	125	122	86	2,519	30,149	36,897
Basic slag ..	292,415	305,736	289,559	302,205	270,668	131,862
Di-calcium phosphates ..	27,697	23,250	20,787	26,114	14,456	3,621
Ammonium phosphates ..	5,886	5,644	10,563	6,515	n.a.	n.a.
Norway—						
Phosphate-rock ..	123,182	148,239	122,274	135,300	132,590	150,507
Basic slag ..	6,182	6,579	6,816	8,111	8,444	9,039
Portugal—						
Phosphate-rock ..	252,625	245,078	218,674	245,200	251,360	271,063
Superphosphates ..	—	2,461	4,183	—	—	—
Basic slag ..	12,379	13,760	22,083	22,811	13,028	11,417
Roumania—						
Phosphate-rock (a) ..	n.a.	n.a.	25,600	54,300	71,700	78,500
Spain—						
Phosphate-rock ..	824,966	833,945	920,418	1,005,055	926,232	926,640
Superphosphates, etc. ..	2,921	1	—	—	—	—
Basic slag ..	55,397	63,632	49,875	86,192	16,975	13,262
Sweden—						
Phosphate-rock ..	344,657	346,338	294,506	331,982	339,063	367,750
Superphosphates ..	706	1,847	1,649	3,026	13,085	937
Di-calcium phosphates ..	n.a.	n.a.	n.a.	10,310	12,466	7,822
Switzerland—						
Phosphate-rock ..	(b) 24,000	(b) 24,000	(b) 22,000	(b) 23,000	37,054	34,530
Superphosphates, etc. ..	12,112	12,941	14,211	13,759	10,414	11,885
Basic slag ..	150,643	158,493	162,502	168,522	168,258	172,023
Yugoslavia—						
Phosphate-rock ..	91,337	159,294	144,736	157,259	197,183	250,616
Superphosphates ..	6,855	90,397	152,042	162,492	54,511	2,953
Basic slag ..	42,620	82,235	104,746	179,035	54,888	2,814
Algeria—						
Superphosphates ..	5,828	7,122	9,961	8,604	12,216	n.a.
Basic slag ..	1,513	2,472	2,711	1,910	3,263	n.a.
Di-calcium phosphates ..	1,628	2,194	3,888	2,618	1,736	n.a.
Cameroun—						
Phosphatic fertilizers ..	270	257	617	340	93	257
Canary Islands—						
Phosphate-rock ..	9,891	18,577	16,723	16,573	11,420	16,598
Malagasy Republic—						
Phosphatic fertilizers ..	1,641	1,101	720	430	742	344
Morocco—						
Superphosphates ..	930	90	6	586	39	—
Di-calcium phosphates ..	409	488	3,124	4,378	6,066	2,923

(a)  $P_2O_5$  content.

(b) Estimated on imports from producing countries.

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

Long tons

Importing Country and Description	1956	1957	1958	1959	1960	1961
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
South Africa						
Phosphate-rock ..	471,712	405,021	389,659	338,797	378,114	<i>n.a.</i>
Phosphatic guano ..	—	91	—	500	—	<i>n.a.</i>
Superphosphates ..	34,947	4,859	1,385	1,204	1,743	<i>n.a.</i>
Basic slag ..	20,862	45,346	51,721	42,752	39,658	<i>n.a.</i>
Tunisia—						
Phosphatic fertilizers ..	374	2,564	r 1,146	738	236	68
Costa Rica—						
Phosphatic fertilizers ..	3,967	16,874	18,908	27,160	34,725	21,495
Cuba—						
Superphosphates ..	59,656	53,748	38,623	35,939	<i>n.a.</i>	<i>n.a.</i>
Calcium phosphates ..	6,088	6,615	14,779	9,887	<i>n.a.</i>	<i>n.a.</i>
Dominican Republic—						
Superphosphates ..	4,594	9,355	5,060	8,154	3,749	<i>n.a.</i>
Guatemala—						
Phosphatic fertilizers ..	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	2,346	2,133	508
Mexico—						
Phosphate-rock ..	50,800	62,553	37,123	48,674	65,269	65,263
Superphosphates ..	10,408	12,553	7,298	11,639	20,059	34,195
Ammonium phosphates	9,903	12,471	15,773	13,371	14,893	11,509
Nicaragua—						
Phosphatic fertilizers ..	641	1,256	751	732	212	341
Panama Republic—						
Phosphatic fertilizers ..	498	<i>n.a.</i>	509	323	519	<i>n.a.</i>
Salvador—						
Phosphatic fertilizers ..	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	4,342	1,707	1,109
United States—						
Phosphate-rock ..	109,891	109,546	108,182	139,891	129,290	134,004
Superphosphates—						
Single ..	272	71	83	128	1,112	1,151
Concentrated ..	39	598	495	856	915	1,946
Ammoniated ..	642	433	1,329	2,733	237	140
Basic slag ..	5,049	111	160	237	—	46
Di-calcium phosphates	3,556	1,685	4,078	3,287	5,164	10,149
Ammonium phosphates	170,155	151,313	141,716	192,596	107,087	222,615
Brazil—						
Phosphate-rock ..	116,894	109,878	88,146	89,191	66,836	56,632
Superphosphates—						
Single ..	104,175	55,500	40,619	12,454	8,655	20,534
Concentrated ..		56,776	105,958	49,327	61,850	51,376
Calcined phosphates ..	830	687	3,314	362	1,062	2,809
Di-calcium phosphate ..	<i>n.a.</i>	1,860	2,104	747	2,566	2,708
Basic slag ..	9,156	12,676	10,228	3,083	2,896	4,310
Chile—						
Superphosphates ..	1,574	1,968	8,356	13,405	24,564	<i>n.a.</i>
Di-calcium phosphates	15,003	11,692	17,250	21,057	<i>n.a.</i>	<i>n.a.</i>
Colombia—						
Phosphate-rock ..	499	3,656	1,494	1,397	2,396	3,347
Superphosphates ..	15,302	27,898	11,572	1,578	8,477	4,351
Di-calcium phosphates	26,321	26,362	24,189	21,101	21,965	31,354
Peru—						
Phosphate-rock ..	—	2,936	1,427	11,530	14,461	11,993
Phosphatic fertilizers ..	8,662	6,219	998	72	1,975	2,568
Venezuela—						
Calcium phosphates and superphosphates ..	8,502	9,876	4,918	9,106	7,597	8,839
Formosa—						
Apatite ..	51,835	73,059	63,817	79,713	79,540	—
Phosphatic fertilizers ..	35,235	8,350	54,377	78,254	44,772	43,370
Indonesia—						
Superphosphates ..	16,250	24,959	26,114	18,328	22,204	<i>n.a.</i>
Phosphatic fertilizers ..	23,713	13,221	13,085	3,678	24,268	<i>n.a.</i>

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

Long tons

Importing Country and Description	1956	1957	1958	1959	1960	1961
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
Iraq—						
Phosphatic fertilizers ..	221	316	2,662	655	1,581	<i>n.a.</i>
Japan—						
Phosphate-rock .. ..	1,659,848	1,532,086	1,483,589	1,695,122	2,013,932	2,070,072
Jordan—						
Phosphatic fertilizers ..	685	2,130	1,140	1,057	2,811	722
Korea (South)—						
Superphosphates ..	<i>n.a.</i>	<i>n.a.</i>	144,421	83,305	121,925	46,530
Lebanon—						
Phosphatic fertilizers ..	19,351	14,267	10,501	17,836	9,566	<i>n.a.</i>
Philippine Republic—						
Phosphate-rock .. ..	39	<i>n.a.</i>	9,693	12,489	6,248	10,185
Superphosphates ..	2,899	3,005	897	498	—	—
Ammonium phosphate	11,247	39,840	2,781	24,364	21,301	24,858
Other phosphatic fertilizers .. ..	562	<i>n.a.</i>	18,702	7,895	7,720	17,086
Syria—						
Phosphatic fertilizers ..	4,641	4,282	4,615	4,274	14,884	27,940
Thailand—						
Superphosphates ..	692	689	569	1,038	858	788
Phosphatic fertilizers ..	661	4,191	3,265	10,941	7,519	11,317
Turkey—						
Phosphate-rock .. ..	29,691	5,920	12,421	31,051	18,433	18,572
Vietnam (South)—						
Phosphatic fertilizers ..	5,504	2,318	5,016	5,752	5,707	6,084

**PLATINUM**  
**PRODUCTION OF PLATINUM METALS**

Troy ounces

Producing Country	1956	1957	1958	1959	1960	1961
<b>COMMONWEALTH COUNTRIES</b>						
Sierra Leone—						
Crude platinum ..	—	(a) 5	(a) 8	—	—	—
Canada—						
Recovered from Ontario nickel-copper ores (c)—						
Platinum .. ..	151,357	199,565	146,092	150,382	} 483,604	404,883
Other platinum metals	163,461	216,582	154,366	177,713		
Australia—						
New South Wales—						
Concentrates (Pt content) .. ..	18	17	22	—	4	—
Tasmania—						
Osmiridium .. ..	25	67	42	3	—	—
New Guinea—						
Platinum .. ..	9	14	28	19	4	5
<b>OTHER COUNTRIES</b>						
U.S.S.R.—						
Crude platinum (d) ..	250,000	250,000	250,000	300,000	330,000	350,000
Congo Republic—						
Platinum .. ..	25	25	32	—	—	—
Palladium .. ..	135	300	129	—	—	—
Ethiopia—						
Crude platinum ..	244	248	180	68	189	180
South Africa—						
Crude (Pt metals content)	124,078	} 603,704	(d) 300,000	(d) 375,000	(d) 400,000	(d) 350,000
Matte (Pt metals content)	360,496		(f) 4,873	(f) 4,843	(f) 6,334	(d) 7,000
Osmiridium (crude) (b)	6,696	5,361				
United States (e)—						
New platinum metals recovered by refineries from crude platinum and gold and copper ores of domestic origin						
Platinum .. ..	15,408	12,488	9,025	9,791	10,232	17,155
Palladium .. ..	4,255	3,882	4,291	4,179	8,274	22,668
Iridium, osmiridium, etc. ..	2,113	2,438	2,346	1,045	1,860	2,669

(a) Exports.

(b) It is estimated by the Department of Mines, South Africa, that the osmiridium sold during these years contained the following amounts of the metals mentioned below (fine ounces):

	1956	1957	1958	1959	1960	1961
Osmium .. ..	2,189	2,068	n.a.	n.a.	n.a.	n.a.
Iridium .. ..	1,979	1,837	n.a.	n.a.	n.a.	n.a.
Ruthenium .. ..	956	877	n.a.	n.a.	n.a.	n.a.
Platinum .. ..	863	718	n.a.	n.a.	n.a.	n.a.
Rhodium .. ..	64	81	n.a.	n.a.	n.a.	n.a.

(c) Metal content of concentrates produced from nickel-copper ores.

(d) United States Bureau of Mines' estimate.

(e) Secondary platinum metals recovered in the United States were as follows (troy ounces):

	1956	1957	1958	1959	1960	1961
Platinum .. ..	60,916	49,022	36,426	58,945	33,861	51,218
Palladium .. ..	37,774	31,294	38,883	68,279	35,465	32,451
Iridium .. ..	1,751	1,406	1,223	1,188	914	193
Other platinum metals	5,828	5,799	4,982	7,584	1,617	2,210

(f) Sales.

## PRODUCTION OF PLATINUM METALS (cont.)

Troy ounces

Producing Country	1956	1957	1958	1959	1960	1961
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
Colombia (a)—						
Crude platinum ..	26,215	19,830	16,036	18,322	16,923	20,232
Japan—						
Platinum .. ..	483	354	442	470	1,396	2,247
Palladium .. ..	218	233	240	324	563	1,550
Iridium .. ..	15	3,000	600	—	<i>n.a.</i>	<i>n.a.</i>
Philippine Republic—						
Platinum .. ..	—	—	—	—	—	177
Palladium .. ..	—	—	—	—	—	215
<b>WORLD'S TOTAL (b)</b>	<b>1,110,000</b>	<b>1,320,000</b>	<b>900,000</b>	<b>1,000,000</b>	<b>1,300,000</b>	<b>1,200,000</b>

(a) Exports. Total production may be very much greater.

(b) Estimated.

EXPORTS OF PLATINUM\*

Troy ounces

Exporting Country and Description	1956	1957	1958	1959	1960	1961
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom—						
Platinum—						
Ingots, grain and powder .. ..	156,317	268,318	249,860	278,534	311,617	307,461
Other kinds (a) .. ..	204,900	144,334	25,617	34,740	37,583	39,616
Other platinum metals and alloys .. ..	285,408	191,544	146,064	145,840	308,309	363,471
Sierra Leone—						
Crude platinum .. ..	—	5	8	—	—	—
Canada—						
Concentrates, etc. (b) ..	(£7,480,590)	(£6,581,378)	(£3,707,218)	357,898	403,240	626,876
Scrap .. ..	3,545	1,250	295	995	701	n.a.
Hong Kong—						
Platinum and platinum group metals .. ..	(£24,095)	(£12,448)	(£923)	—	251	223
Australia (c)—						
Platinum and platinum group metals .. ..	765	569	862	57	369	677
<b>OTHER COUNTRIES</b>						
Austria—						
Unwrought platinum and platinum metals	4,437	4,051	6,141	611	12,700	1,157
Denmark—						
Rods, sheets, wire, scrap, etc. .. ..	193	900	804	—	32	n.a.
France—						
Unwrought platinum and scrap (a) .. ..	23,374	55,717	10,931	12,828	4,861	6,714
Palladium (inc. scrap)(a)	75,136	12,057	44,529	9,227	4,694	7,748
Drawn or rolled platinum .. ..	11,896	85,810	8,263	8,713	7,052	16,886
Germany (Federal)—						
Platinum metals (a) .. ..	32,350	39,376	129,526	69,145	61,491	90,439
Italy—						
Unwrought platinum .. ..	1,447	64	5,948	—	3,086	15,175
Netherlands—						
Unwrought platinum and platinum metals .. ..	327,359	639,800	75,393	63,787	5,787	21,541
Drawn or rolled .. ..	159,403	89,186	54,045	112,881	38,420	46,554
Norway—						
Platinum (incl. scrap) .. ..	15,238	9,034	13,568	21,380	15,465	10,706
Sweden—						
Unwrought platinum .. ..	8,327	8,423	262,800	n.a.	n.a.	n.a.
Switzerland—						
Unwrought platinum .. ..	4,951	7,845	3,215	2,186	3,054	3,151

\*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	1956	1957	1958	1959	1960	1961
<b>OTHER COUNTRIES</b> (cont.)						
U.S.S.R. . . . .	(a)	(a)	(a)	(a)	(a)	(a)
South Africa—						
Crude platinum metals	286,770	364,109	} (£3,700,563)	} (£4,339,441)	} (£8,617,784)	} (£8,700,183)
Osmiridium . . . .	37,835	6,138				
United States—						
Ores, etc. (Pt content) . .	—	—	} 35,075	} 18,560	} 49,497	} 41,385
Ingots, sheets, wire, etc.	23,823	17,199				
Palladium, rhodium, etc. and alloys . . . . .	18,249	23,155	12,293	12,845	15,652	20,460
Colombia—						
Platinum . . . . .	26,215	19,830	16,036	18,322	16,923	20,232

(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):

	1956	1957	1958	1959	1960	1961
United Kingdom . . . . .	14,452	28,074	52,529	47,790	23,357	23,378
France . . . . .	—	—	22,505	7,941	25,688	49,470
Germany (Federal) . . . . .	13,655	35,289	107,433	108,156	127,778	113,653
Netherlands . . . . .	157,796	52,727	24,499	20,834	20,448	30,479
United States . . . . .	42,381	24,810	93,583	130,413	111,105	227,632

## IMPORTS OF PLATINUM\*

Troy ounces

Importing Country and Description	1956	1957	1958	1959	1960	1961
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom— Ores and concentrates Platinum and platinum group metals .. ..	(£15,150,069) 99,741	(£17,754,347) 177,498	(£8,703,882) 99,875	(£9,957,176) 101,755	(£15,796,200) 76,033	(£15,806,068) 89,661
Canada— Platinum and platinum group metals .. ..	(£1,730,456)	(£1,981,134)	(£1,372,800) <sup>b</sup>	(£821,828)	(£1,671,639)	(£500,864)
Hong Kong— Platinum and platinum group metals .. ..	(£101,784)	(£110,444)	(£114,722)	6,714	5,470	5,811
India— Platinum .. ..	n.a.	2,450	2,176	2,135	(a) 1,607	(a) 2,827
Malaya— Unwrought platinum ..	188	289	92	12,857	38	427
Australia (c)— Platinum bars, rods, sheets, etc. .. ..	881	515	63	229	604	784
Bars, rods, sheets, etc. of other platinum metals .. ..	1,532	984	1,872	666	2,017	1,937
Platinum metal powder	987	927	1,926	1,102	5,780	669
New Zealand— Platinum and platinum group metals .. ..	1,660	1,200	1,679	1,415	2,027	2,874
<b>OTHER COUNTRIES</b>						
Austria— Unwrought platinum and platinum metals	4,501	3,601	2,315	1,672	7,877	2,379
Denmark— Rods, sheets, wire and scrap .. ..	1,350	1,254	1,736	1,318	2,058	1,704
Finland— Unwrought platinum etc.	948	871	1,653	5,057	6,398	8,809
France— Unwrought platinum, alloys and scrap ..	70,860	162,522	56,360	68,642	63,057	87,319
Unwrought palladium, alloys and scrap ..	106,901	42,471	60,122	77,676	29,096	31,218
Drawn or rolled platinum	450	1,093	96	64	378	703
Germany (Federal)— Platinum metals and alloys .. ..	103,222	124,021	194,188	187,344	224,910	219,439
Italy— Unwrought platinum ..	6,076	6,462	8,198	11,381	15,593	33,823
Drawn or rolled ..	5,080	3,440	2,990	4,790	4,180	31,894
Other platinum metals	5,080	19,226	23,888	15,175	11,896	20,416
Netherlands— Unwrought platinum and platinum metals ..	359,477	105,454	64,559	150,433	57,646	66,359
Drawn or rolled ..	4,855	23,502	7,073	8,777	6,623	11,639
Norway— Unwrought platinum ..	1,640	2,347	2,476	2,765	6,945	2,218
Drawn or rolled ..	322	129	261	22,698	1,254	1,198
Portugal— Sheets, wire, etc. ..	187	31	236	144	12	41

\*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	1956	1957	1958	1959	1960	1961
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
Spain—						
Bars, sheets, wire, etc. . .	51	19	39	965	1,039	6,945
Sweden—						
Unwrought platinum ..	96	739	3,408	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Switzerland—						
Unwrought platinum ..	27,875	21,702	15,272	23,599	24,402	26,524
Yugoslavia—						
Unwrought platinum ..	4,276	5,080	13,214	9,163	4,115	9,227
Egypt—						
Ingots, bars, sheets, etc.	66	—	10	4	<i>n.a.</i>	<i>n.a.</i>
South Africa—						
Platinum .. .. .	34	352	541	512	1,243	<i>n.a.</i>
Cuba—						
Ingots and bars .. ..	64	—	64	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Palladium .. .. .	257	161	2,765	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Mexico—						
Platinum .. .. .	80	72	249	263	204	240
Palladium .. .. .	129	285	1,256	2,241	2,063	2,088
United States—						
Ore (a) .. .. .	—	1,572	—	503	401	568
Grains and nuggets (a) ..	34,016	26,328	21,635	77,763	30,338	22,997
Sponge and scrap (a) (b)	152,413	128,975	112,739	58,764	134,122	110,057
Ingots, bars, sheets (a) (b)	289,516	179,349	148,191	205,890	107,273	138,352
Iridium .. .. .	2,323	1,431	1,156	7,772	4,253	4,366
Osmium and osmiridium	1,318	2,977	1,595	3,344	277	3,067
Palladium .. .. .	530,686	327,558	360,077	610,740	368,256	571,693
Rhodium and ruthenium	22,543	18,493	25,038	44,021	35,719	26,363
Brazil—						
Unwrought platinum ..	591	1,270	1,350	96	36	514
Palladium .. .. .	53	305	1,093	—	23	900
Colombia—						
Unwrought platinum ..	1,858	—	—	—	129	1,254
Uruguay—						
Platinum metals .. ..	<i>n.a.</i>	193	12	148	597	<i>n.a.</i>
Venezuela—						
Unwrought platinum ..	<i>n.a.</i>	2,090	9,099	1,575	53,049	3,762
Japan—						
Platinum .. .. .	27,776	32,978	60,401	74,355	73,155	95,193
Palladium .. .. .	15,740	22,119	32,526	46,296	56,465	96,541
Rhodium .. .. .	760	767	870	2,530	2,199	1,605
Iridium, etc. .. .. .	762	3,337	1,224	1,610	1,827	1,489
Lebanon—						
Unwrought platinum ..	2,411	3,472	5,754	4,783	3,903	<i>n.a.</i>
Turkey—						
Sheets .. .. .	—	—	643	—	—	900

 (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:

	1956	1957	1958	1959	1960	1961
Sponge and scrap ..	6,234	2,043	13,167	5,666	3,905	11,550
Platinum metal ..	436,757	301,611	247,763	260,524	238,307	236,859

**POTASH MINERALS**  
PRODUCTION OF POTASH

Producing Country and Description	Long tons											
	K <sub>2</sub> O Content or Equivalent											
	1956	1957	1958	1959	1960	1961	1956	1957	1958	1959	1960	1961
<b>COMMONWEALTH COUNTRIES</b>												
Canada—Potash salts .. .. .	—	—	—	n.a.	—	—	—	—	41,500	—	—	—
<b>OTHER COUNTRIES</b>												
France (b)—Sylvinite, 12-22% K <sub>2</sub> O							41,847	26,896	40,590	46,843	37,773	41,391
Fertilizer salts 30-40% K <sub>2</sub> O ..						10,717,000	378,664	296,840	199,514	124,047	153,175	124,887
Chloride 50% K <sub>2</sub> O and over	8,376,150	8,695,655	9,230,061	9,382,550	9,788,231		885,742	1,056,018	1,213,599	1,267,920	1,316,764	1,516,573
Germany—Federal Republic—Kainite, sylvinite, etc. Eastern—	15,299,000	15,944,000	16,401,000	17,147,000	18,347,418	19,200,561	1,934,000	1,956,000	1,987,000	2,110,000	2,279,608	2,361,889
Italy—Potash salts .. .. .	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	1,531,000	1,579,000	1,624,000	1,618,000	1,640,000	1,649,000
Netherlands (a)—Crude potash salts	n.a.	1,088	64,903	75,208	343,000	n.a.	n.a.	150	8,700	10,100	46,000	n.a.
Potassium chloride (over 45% K <sub>2</sub> O) .. .. .	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	—	400	400	600	600	n.a.
Potassium sulphate .. .. .	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	200	100	200	200	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.

PRODUCTION OF POTASH (cont.)

Producing Country and Description	K <sub>2</sub> O Content of Equivalent						1961	Long tons					
	1956	1957	1958	1959	1960	1961		1956	1957	1958	1959	1960	1961
<b>OTHER COUNTRIES</b> (cont.)													
Poland— Potash salts .. .. .	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	24,600	n.a.	
Spain— Carnallite, sylvinite, etc.	1,421,850	1,392,816	1,516,412	1,570,962	1,642,926	2,171,818		220,032	213,963	234,529	237,755	283,903	
U.S.S.R. (a)— Potash salts .. .. .	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	878,200	929,000	1,000,000	1,040,000	1,082,600	
United States— Potash salts (b) .. .. .	3,285,000	3,429,000	3,250,000	3,601,000	3,993,000	4,133,000		1,938,914	2,023,644	1,917,563	2,127,910	2,355,870	
Chile— Chloride .. .. .	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	8,866	7,446	8,760	13,823	(a)14,700	
Israel— Chloride .. .. .	44,981	77,000	r 105,507	r 103,150	c 150,000	c 200,000		27,000	46,700	64,000	63,000	100,000	
Japan— Alumite .. .. .	6,245	6,533	6,494	2,747	2,470	1,784		n.a.	n.a.	n.a.	n.a.	n.a.	
<b>WORLD'S TOTAL (c) .. .</b>								7,800,000	8,100,000	8,300,000	8,700,000	9,300,000	

(a) United States Bureau of Mines' estimate.

(b) Marketable production.

(c) Estimated.

EXPORTS OF POTASH SALTS

Long tons

Exporting Country and Description	1956	1957	1958	1959	1960	1961
<b>COMMONWEALTH COUNTRIES</b>						
<b>United Kingdom—</b>						
Nitrate .. .. .	} 558	734	125	25	48	255
Sulphate .. .. .						
Other compounds .. .. .		2,857	3,079	2,846	3,678	4,312
<b>Hong Kong—</b>						
Nitrate .. .. .	213	320	368	356	190	286
Chlorate .. .. .	292	239	373	265	242	340
<b>India—</b>						
Nitrate .. .. .	148	6	16	44	(a) 39	(a) 8
<b>Malaya—</b>						
Fertilizer salts .. .. .	28	47	42	68	95	139
<b>OTHER COUNTRIES</b>						
<b>Belgium-Luxemburg</b>						
<b>E. U.—</b>						
Fertilizer salts .. .. .	1,960	930	765	212	2,029	3,962
Carbonate .. .. .	2,532	1,980	2,260	2,754	2,775	1,469
Caustic potash .. .. .	3,012	3,472	5,022	5,918	<i>n.a.</i>	<i>n.a.</i>
Chloride .. .. .	662,015	681,632	714,323	701,031	766,860	795,950
Chlorates .. .. .	—	—	1	—	—	—
Nitrate .. .. .	21	33	32	25	36	—
Sulphate .. .. .	189,289	201,743	240,532	236,885	265,584	279,715
<b>Finland—</b>						
Chlorate .. .. .	378	119	27	109	48	77
<b>France—</b>						
Sylvinite, etc. .. .. .	339,076	339,216	368,607	314,330	276,792	240,880
Carbonate .. .. .	7,357	9,140	7,265	9,123	12,165	13,916
Caustic potash .. .. .	8,248	9,325	8,114	13,139	10,126	9,820
Chlorate .. .. .	549	539	948	932	903	1,198
Chloride .. .. .	726,423	769,935	795,688	800,778	1,094,430	1,228,067
Sulphate .. .. .	197,581	185,386	185,927	231,269	38,739	10,830
Nitrate .. .. .	3,418	3,072	2,876	2,149	1,653	2,079
<b>Germany (Federal)—</b>						
Fertilizer salts .. .. .	1,577,232	1,347,538	1,233,852	1,370,091	1,568,379	1,650,061
Carbonate .. .. .	4,289	3,584	4,260	5,432	6,864	7,485
Caustic potash .. .. .	3,227	3,556	3,791	<i>n.a.</i>	9,821	8,355
Chlorate .. .. .	159	760	233	61	351	736
Nitrate .. .. .	6,801	8,476	11,790	9,633	13,082	11,582
<b>Germany (East)—</b>						
<b>Fertilizer salts</b>						
(K <sub>2</sub> O content) .. .. .	951,000	961,000	970,000	1,025,000	1,075,000	1,030,000
Carbonate .. .. .	9,462	9,918	10,543	9,511	8,753	7,946
Caustic potash .. .. .	7,490	7,731	8,374	7,144	6,563	5,904
<b>Italy—</b>						
Nitrate .. .. .	111	12	264	235	606	971
<b>Netherlands—</b>						
Carbonate .. .. .	344	1,224	274	220	101	57
Caustic potash .. .. .	17	6	23	7	17	10
Chloride .. .. .	670	580	779	916	1,267	643
Nitrate .. .. .	51	31	65	53	68	84
Sulphate .. .. .	54	17	98	405	362	233
<b>Portugal—</b>						
Chloride .. .. .	884	843	200	27	850	161
<b>Spain—</b>						
Chloride .. .. .	251,375	323,462	260,495	290,861	354,176	288,349
Chlorate .. .. .	13	124	—	—	<i>n.a.</i>	<i>n.a.</i>
<b>Sweden—</b>						
Carbonate .. .. .	47	18	4	—	4	—
Caustic potash .. .. .	2,238	1,723	1,918	2,441	2,703	2,491

(a) Years ended March 31 following that stated.

EXPORTS OF POTASH SALTS (cont.)

Long tons

Exporting Country and Description	1956	1957	1958	1959	1960	1961
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
Switzerland—						
Nitrate (crude) ..	18	3,946	2,927	15	—	—
U.S.S.R.—						
Fertilizer salts .. ..	105,400	217,700	388,400	431,800	619,000	749,600
United States—						
Chloride .. ..	300,721	358,565	414,969	471,348	698,323	644,614
Other fertilizer salts ..	48,133	51,880	28,607	28,653	29,821	48,981
Caustic potash .. ..	2,853	2,958	3,299	3,362	3,262	2,087
Other compounds .. ..	2,980	3,765	5,301	6,746	11,296	23,927
Chile—						
Nitrate .. ..	55,305	51,313	54,635	86,018	53,545	70,115
Israel—						
Chloride .. ..	15,683	75,267	77,917	102,571	118,549	104,393
Japan—						
Chlorate.. ..	355	427	766	680	539	688
Chloride .. ..	492	2,931	1,005	1,498	1,850	6,604
Sulphate .. ..			874	24	59	2,291

IMPORTS OF POTASH SALTS

Long tons

Importing Country and Description	1956	1957	1958	1959	1960	1961	
COMMONWEALTH COUNTRIES							
United Kingdom—							
Fertilizer salts .. ..	36,962	36,693	38,378	43,564	41,976	52,997	
Carbonate .. ..	4,269	5,367	5,168	4,819	6,943	5,535	
Caustic potash and lyes	1,340	1,550	1,660	1,833	2,042	1,937	
Chlorate .. ..	1,158	1,179	1,106	960	1,099	1,031	
Chloride .. ..	552,653	537,290	581,713	610,400	711,972	693,156	
Nitrate .. ..	2,354	1,205	2,639	2,740	2,683	3,368	
Sulphate .. ..	12,915	15,642	16,143	25,026	22,819	21,710	
Other compounds .. ..	1,120	1,841	1,073	7,046	4,056	3,210	
Ghana—							
Fertilizer salts .. ..	205	120	92	254	510	672	
Kenya—							
Fertilizer salts .. ..	376	796	11	—	80	30	
Mauritius—							
Fertilizer salts .. ..	5,054	7,147	7,751	8,527	9,296	8,450	
Nigeria—							
Fertilizer salts .. ..	1,647	964	1,040	703	1,799	1,394	
Rhodesia and Nyasaland—							
Fertilizer salts .. ..	16,158	19,112	16,247	22,987	28,958	28,973	
Compounds .. ..	201	406	267	353	529	351	
Tanganyika—							
Fertilizer salts .. ..	544	727	610	536	609	537	
Uganda—							
Fertilizer salts .. ..	379	21	305	191	136	521	
Canada—							
Fertilizer salts .. ..	18	—	—	—	—	—	
Caustic potash .. ..	2,627	3,260	3,946	3,788	3,937	1,524	
Chlorate .. ..	56	64	36	39	35	45	
Crude chloride .. ..	117,226	122,005	117,236	85,089	130,969	151,587	
Nitrate .. ..	487	467	607	662	662	818	
Crude sulphate .. ..	14,422	15,823	13,874	22,091	21,378	23,641	
Other compounds .. ..	2,475	3,376	3,599	5,091	6,321	6,393	
Barbados—							
Fertilizer salts .. ..	4,375	6,570	2,881	4,325	3,585	6,535	
Jamaica—							
Fertilizer salts .. ..	3,421	3,641	3,848	5,809	4,539	5,434	
St. Vincent—							
Chloride .. ..	85	68	519	178	27	7	
Trinidad and Tobago—							
Chloride and sulphate	1,790	2,966	1,978	2,758	1,794	3,300	
British Guiana—							
Fertilizer salts .. ..	1,898	1,604	3,261	4,663	2,355	n.a.	
Ceylon—							
Kainite and sylvinite ..	500	500	50	331	245	417	
Chloride .. ..	45,916	38,345	35,080	42,596	39,054	47,483	
Nitrate of potash refuse	19	6	2	3	28	2	
Sulphate .. ..	1,060	695	400	870	2,750	315	
Hong Kong—							
Nitrate .. ..	664	595	1,079	621	378	585	
Chlorate .. ..	223	273	316	371	281	430	
India—							
Fertilizer salts .. ..	7,674	13,973	6,011	—	(a) —	(a) —	
Carbonate .. ..			835	1,015	(a) 630	(a) 1,207	
Caustic potash .. ..			454	703	1,553	(a) 2,222	(a) 2,488
Nitrate .. ..			40	—	5	(a) 11	(a) 6
Sulphate .. ..			2,983	10,107	(a) 10,847	(a) 8,812	
Chlorate .. ..			1,158	450	542	(a) 7	(a) 2
Chloride .. ..			15,927	7,373	25,038	52,544	(a) 22,535
Malaya—							
Fertilizer salts .. ..	5,553	9,484	10,951	13,865	16,342	13,001	
North Borneo—							
Fertilizer salts .. ..	36	108	21	336	118	157	

(a) Years ended March 31 following that stated.

## IMPORTS OF POTASH SALTS (cont.)

Long tons

Importing Country and Description	1956	1957	1958	1959	1960	1961
<b>COMMONWEALTH COUNTRIES (cont.)</b>						
Pakistan—						
Chlorate .. .. .	203	424	538	300	516	694
Other compounds ..	64	497	193	204	766	n.a.
Australia (a)—						
Carbonate .. .. .	1,008	622	771	863	1,117	679
Caustic potash .. ..	1,021	1,349	636	958	981	805
Chloride .. .. .	35,588	34,399	48,786	38,044	31,573	45,109
Nitrate .. .. .	368	347	470	354	451	519
Sulphate .. .. .	3,487	3,845	4,793	5,708	4,574	7,417
Other compounds ..	407	462	543	827	1,019	1,240
New Zealand—						
Chloride .. .. .	39,795	38,908	52,118	73,025	82,383	120,366
Nitrate .. .. .	85	80	138	144	128	196
Sulphate .. .. .	2,229	2,616	2,903	2,661	3,422	3,595
Other fertilizer salts ..	1,212	—	75	13	140	248
Compounds other than fertilizer .. ..	267	314	294	317	300	340
Irish Republic—						
Fertilizer salts .. ..	r 799	670	1,089	1,653	1,753	3,082
Chloride .. .. .	68,736	100,574	93,133	108,747	107,401	117,434
Other compounds ..	474	415	542	538	604	591
<b>OTHER COUNTRIES</b>						
Austria—						
Fertilizer salts .. ..	141,112	176,829	202,669	r 196,932	212,166	232,236
Caustic potash .. ..	305	369	431	358	429	397
Carbonate .. .. .	396	846	786	908	763	968
Chloride .. .. .	263	168	128	8,992	6,098	6,871
Nitrate .. .. .	274	252	264	279	367	428
Sulphate .. .. .	119	3	150	3,718	12,624	9,639
Belgium-Luxemburg						
E.U.—						
Fertilizer salts .. ..	182,799	201,948	193,424	158,864	185,644	223,108
Carbonate .. .. .	825	567	536	663	1,084	866
Caustic potash .. ..	605	359	614	624	428	431
Chlorates .. .. .	641	607	423	542	544	591
Chloride .. .. .	1,082,758	1,094,255	1,100,611	1,153,374	1,165,682	1,269,205
Nitrate .. .. .	1,651	1,731	1,962	2,053	2,007	2,279
Sulphate (b) .. ..	20,315	15,243	21,511	10,932	17,682	24,246
Czechoslovakia—						
Fertilizer salts ( $K_2O$ content) .. ..	165,000	184,000	214,000	229,000	213,900	198,000
Denmark—						
Carbonate .. .. .	397	329	378	317	304	379
Caustic potash .. ..	1,036	895	809	943	1,148	1,001
Chlorate .. .. .	133	143	116	136	125	91
Chloride .. .. .	341,772	312,810	294,454	303,945	326,710	371,940
Nitrate .. .. .	949	913	956	843	1,188	879
Sulphate .. .. .	2,162	1,883	1,702	1,434	1,874	1,833
Finland—						
Fertilizer salts .. ..	109,857	113,788	76,668	102,769	170,500	125,176
Carbonate .. .. .	289	300	258	332	415	407
Caustic potash .. ..	157	123	226	188	168	215
Chloride .. .. .	1,476	1,974	1,481	1,501	n.a.	n.a.
Nitrate .. .. .	43	114	115	249	140	263
Sulphate .. .. .	6,547	986	1,481	1,473	n.a.	6,765

(a) Years ended June 30 of that stated.

(b) Including patent potash.

## IMPORTS OF POTASH SALTS (cont.)

Long tons

Importing Country and Description	1956	1957	1958	1959	1960	1961
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
France—						
Chloride .. ..	2	—	—	1	8,829	—
Sulphate .. ..	791	5,489	19,080	10,005	10,624	19,441
Caustic potash ..	48	42	38	47	113	70
Germany (Federal)—						
Fertilizer salts ..	3	—	—	22	27,412	27,934
Carbonate .. ..	6	—	—	70	409	1,439
Caustic potash ..	195	208	230	<i>n.a.</i>	572	621
Chlorate .. ..	90	103	355	631	650	599
Nitrate .. ..	304	79	186	331	337	756
Greece—						
Carbonate .. ..	748	765	1,369	913	610	677
Caustic potash ..	105	16	22	23	19	<i>n.a.</i>
Nitrate .. ..	126	52	132	109	123	<i>n.a.</i>
Sulphate .. ..	12,793	25,787	13,119	10,664	12,686	<i>n.a.</i>
Hungary—						
Fertilizer salts ..	26,336	35,798	57,278	81,520	73,723	114,261
Iceland—						
Fertilizer salts ..	2,956	3,416	3,988	4,087	3,751	2,999
Carbonate .. ..	11	7	12	5	11	8
Caustic potash ..	28	23	28	42	35	30
Italy—						
Fertilizer salts ..	65,305	68,596	60,542	74,829	60,550	47,483
Carbonate .. ..	3,227	3,188	2,338	2,604	3,941	4,016
Caustic potash ..	3,465	3,449	2,723	2,901	2,518	1,678
Chloride .. ..	31,878	34,843	56,904	74,401	154,492	105,549
Nitrate .. ..	874	886	638	964	1,240	758
Sulphate .. ..	35,130	31,556	43,149	43,369	39,684	20,244
Netherlands—						
Kainite .. ..	52,842	48,568	45,538	46,427	39,228	23,098
Fertilizer salts						
do. (20% K <sub>2</sub> O)	37,752	40,153	42,777	38,112	40,238	25,001
do. (40% K <sub>2</sub> O)	262,475	239,698	230,638	219,990	194,019	152,510
Carbonate .. ..	4,614	4,169	4,975	5,207	6,950	5,156
Caustic potash ..	4,016	5,059	6,136	7,564	6,374	8,163
Chloride .. ..	33,194	39,731	47,385	52,158	67,947	89,881
Nitrate .. ..	2,400	1,827	1,470	1,755	1,293	1,841
Sulphate .. ..	26,966	28,385	28,798	26,113	47,326	46,291
Patent potash ..	52,337	43,718	55,374	48,997	49,363	44,296
Norway—						
Fertilizer salts ..	44,462	51,380	21,241	367	818	409
Carbonate .. ..	389	281	265	346	312	708
Caustic potash ..	1,337	1,079	973	1,182	1,323	1,276
Chlorate .. ..	219	144	130	131	154	132
Chloride .. ..	39,960	53,445	54,822	77,770	75,760	76,164
Nitrate .. ..	194	258	155	146	164	156
Sulphate .. ..	18,905	17,893	17,867	13,663	17,283	12,935
Portugal—						
Carbonate .. ..	120	109	103	89	125	62
Caustic potash ..	65	79	64	30	56	100
Chlorate .. ..	180	196	159	148	227	214
Chloride .. ..	16,264	15,109	11,763	13,888	9,818	14,003
Nitrate .. ..	391	309	415	377	321	402
Sulphate .. ..	1,642	1,425	1,181	2,893	544	1,595
Roumania—						
Fertilizer salts (a) ..	<i>n.a.</i>	<i>n.a.</i>	1,100	1,100	3,900	11,800
Sweden—						
Fertilizer salts						
do. (40% K <sub>2</sub> O)	—	—	530	} 825	2,057	448
do. (other) ..	176,492	157,069	130,027			
Carbonate .. ..	1,519	1,136	1,129	1,083	1,408	920
Caustic potash ..	361	336	332	204	287	212

 (a) K<sub>2</sub>O content.



## IMPORTS OF POTASH SALTS (cont.)

Long tons

Importing Country and Description	1956	1957	1958	1959	1960	1961
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
Sweden <i>(cont.)</i> —						
Chloride .. ..	15,423	13,594	7,736	127,671	152,547	137,821
Nitrate .. ..	924	839	801	838	976	873
Sulphate .. ..	10,319	8,273	7,323	8,495	13,843	13,646
Switzerland—						
Fertilizer salts .. ..	69,104	67,026	79,292	70,836	102,369	96,104
Carbonate .. ..	1,694	1,399	1,236	2,043	1,995	1,760
Caustic potash .. ..	2,164	2,886	1,589	1,793	2,227	2,143
Chloride .. ..	9,785	13,393	15,936	21,230	(a)	(a)
Nitrate .. ..	(b) 827	(b) 641	(b) 938	(b) 2,035	737	560
Sulphate .. ..	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	1,331	1,037
Yugoslavia—						
Fertilizer salts .. ..	55,108	46,411	123,549	173,782	139,234	76,664
Caustic potash .. ..	70	<i>n.a.</i>	95	412	335	636
Chloride .. ..	2,298	87,039	72,050	10,224	27,749	35,226
Nitrate .. ..	39	—	10	—	—	—
Sulphate .. ..	492	3,174	1,191	2,822	2,574	4,234
Algeria—						
Chloride .. ..	7,885	12,340	14,817	13,449	12,233	<i>n.a.</i>
Sulphate .. ..	2,174	7,085	10,859	8,112	9,753	<i>n.a.</i>
Carbonate .. ..	2	12	1	36	32	<i>n.a.</i>
Caustic potash .. ..	20	55	44	44	46	<i>n.a.</i>
Nitrate .. ..	377	181	241	244	151	<i>n.a.</i>
Angola—						
Chloride .. ..	49	32	9	267	229	5
Sulphate .. ..	22	75	180	195	226	<i>n.a.</i>
Cameroun—						
Fertilizer salts .. ..	440	757	323	1,748	1,722	2,212
Canary Islands—						
Fertilizer salts .. ..	—	3,923	10	50	81	—
Egypt—						
Fertilizer salts .. ..	231	2,966	4,457	r 11,791	1,968	<i>n.a.</i>
Carbonate .. ..	81	196	369	208	298	<i>n.a.</i>
Caustic potash .. ..	137	172	136	75	256	<i>n.a.</i>
Chlorate .. ..	234	195	196	223	268	<i>n.a.</i>
Malagasy Republic—						
Fertilizer salts .. ..	699	1,521	2,351	1,482	1,159	946
Morocco—						
Chloride .. ..	1,949	1,623	3,525	4,290	4,396	5,063
Sulphate .. ..	1,569	674	4,534	4,587	3,203	7,513
South Africa—						
Fertilizer salts .. ..	3,655	6,811	3,085	5,723	55,897	<i>n.a.</i>
Nitrate .. ..	182	243	195	199	329	<i>n.a.</i>
Caustic potash .. ..	284	380	349	317	382	<i>n.a.</i>
Chloride .. ..	36,628	31,739	43,358	57,449	2,992	<i>n.a.</i>
Other compounds .. ..	1,270	1,127	1,046	878	1,235	<i>n.a.</i>
Tunisia—						
Fertilizer salts .. ..	1,641	2,469	3,843	2,480	4,224	2,477
Caustic potash .. ..	5	6	11	4	13	2,340
Costa Rica—						
Fertilizer salts .. ..	1,142	3,270	1,345	352	550	968
Cuba—						
Nitrate .. ..	16,205	10,304	7,972	953	<i>n.a.</i>	<i>n.a.</i>
Chlorate .. ..	187	259	163	197	<i>n.a.</i>	<i>n.a.</i>
Chloride .. ..	9,779	21,488	9,627	17,389	<i>n.a.</i>	<i>n.a.</i>
Sulphate .. ..	17,721	23,256	9,560	17,317	<i>n.a.</i>	<i>n.a.</i>
Guatemala—						
Chlorate .. ..	55	81	88	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Nitrate .. ..	56	8	60	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Caustic potash .. ..	14	11	14	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>

(a) Included with fertilizer salts.

(b) Includes sodium nitrate.

## IMPORTS OF POTASH SALTS (cont.)

Long tons

Importing Country and Description	1956	1957	1958	1959	1960	1961
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
<b>Mexico—</b>						
Carbonate .. ..	116	254	267	361	353	440
Chloride .. ..	7,261	8,222	16,384	12,209	9,878	13,981
Caustic potash .. ..	280	234	284	202	375	482
Sulphate .. ..	136	414	1,034	1,559	1,480	100
<b>Nicaragua—</b>						
Fertilizer salts .. ..	251	201	229	104	128	165
<b>Panama Republic—</b>						
Fertilizer salts .. ..	8	<i>n.a.</i>	241	288	281	<i>n.a.</i>
<b>Salvador—</b>						
Fertilizer salts .. ..	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	1,411	2,616	1,083
<b>United States—</b>						
Carbonate .. ..	—	5	197	152	536	159
Caustic potash .. ..	239	239	483	621	594	856
Chlorates .. ..	310	329	417	470	415	392
Chloride .. ..	223,784	226,799	266,379	299,814	292,433	296,343
Cyanide .. ..	826	702	719	653	792	681
Nitrate .. ..	2,114	2,011	2,314	2,080	2,677	3,961
Potassium-sodium nitrate mixtures .. ..	17,367	22,672	20,989	32,561	16,698	12,322
Sulphate .. ..	47,448	43,876	58,770	117,280	58,133	80,512
<b>Argentina—</b>						
Carbonate .. ..	87	354	128	392	580	561
Caustic potash .. ..	243	170	285	503	543	484
Chlorate .. ..	41	562	515	541	596	1,096
Nitrate .. ..	—	—	—	15	156	68
Sulphate .. ..	584	535	621	25	85	355
<b>Brazil—</b>						
Caustic potash .. ..	1,346	170	120	573	592	553
Nitrate .. ..	1,345	909	494	602	1,337	749
Nitrate of potash and soda .. ..	15,815	11,379	—	7,690	15,841	2,989
Chloride .. ..	61,088	92,781	99,320	89,048	166,491	109,374
Sulphate .. ..	3,658	4,968	9,339	4,811	6,197	7,333
Carbonate .. ..	1,001	230	404	464	543	523
Chlorate .. ..	36	308	3	—	—	20
<b>Chile—</b>						
Caustic potash .. ..	91	84	165	181	201	<i>n.a.</i>
Chlorate .. ..	39	132	119	144	<i>n.a.</i>	<i>n.a.</i>
Chloride .. ..	886	3,666	10,103	9,762	<i>n.a.</i>	<i>n.a.</i>
Sulphate .. ..	1,516	4,929	2,652	2,243	<i>n.a.</i>	<i>n.a.</i>
<b>Colombia—</b>						
Chlorate .. ..	326	267	264	206	207	370
Chloride .. ..	10,682	10,639	22,067	11,348	12,746	14,671
Nitrate .. ..	304	267	283	222	205	247
Sulphate .. ..	2,746	2,231	5,789	2,766	3,592	3,710
Other fertilizer salts .. ..	390	44	179	49	99	143
<b>Peru—</b>						
Fertilizer salts .. ..	2,308	1,480	3,054	2,190	3,617	2,364
Nitrate .. ..	58	66	71	78	129	76
Carbonate .. ..	60	62	21	68	43	28
Chloride .. ..	11	16	39	30	28	24
Caustic potash .. ..	96	105	39	16	29	27
<b>Uruguay—</b>						
Nitrate .. ..	<i>n.a.</i>	595	914	2	111	<i>n.a.</i>
Caustic potash .. ..	<i>n.a.</i>	307	338	408	443	<i>n.a.</i>
<b>Venezuela—</b>						
Carbonate .. ..	12	27	19	39	37	69
Chlorate .. ..	98	45	136	153	164	317
Chloride .. ..	1,399	1,696	5,027	1,084	2,540	2,740
Nitrate .. ..	330	126	51	158	137	172
Sulphate .. ..	1,537	3,940	—	2,003	7,363	7,021

## IMPORTS OF POTASH SALTS (cont.)

Long tons

Importing Country and Description	1956	1957	1958	1959	1960	1961
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
Formosa—						
Fertilizer salts .. ..	25,258	23,613	48,867	19,841	76,862	42,792
Indonesia—						
Fertilizer salts .. ..	4,216	5,410	4,094	18,244	18,311	<i>n.a.</i>
Nitrate .. .. .	244	199	142	219	181	<i>n.a.</i>
Iraq—						
Fertilizer salts .. ..	234	89	405	246	344	<i>n.a.</i>
Japan—						
Kainite, etc. .. .. .	3,937	—	—	50	—	492
Chloride .. .. .	837,801	487,622	578,215	671,237	903,292	918,040
Sulphate .. .. .						
Jordan—						
Fertilizer salts .. ..	<i>n.a.</i>	<i>n.a.</i>	936	1,166	2,001	1,648
Korea (South)—						
Chloride .. .. .	<i>n.a.</i>	<i>n.a.</i>	7,240	—	7,468	1
Lebanon—						
Fertilizer salts .. ..	2,655	2,651	2,513	3,699	3,700	<i>n.a.</i>
Philippine Republic—						
Caustic potash .. ..	114	59	75	15	65	<i>n.a.</i>
Chlorate .. .. .	608	629	565	612	711	<i>n.a.</i>
Nitrate .. .. .	59	1,482	105	989	3,512	<i>n.a.</i>
Sulphate .. .. .	592	1,769	1,064	1,359	2,814	<i>n.a.</i>
Other fertilizer salts ..	4,898	<i>n.a.</i>	9,863	18,185	13,700	23,487
Thailand—						
Chlorate .. .. .	188	323	326	201	295	177
Chloride .. .. .	273	325	116	238	415	64
Nitrate .. .. .	547	1,052	823	829	787	705
Sulphate .. .. .	<i>n.a.</i>	148	246	794	463	305
Turkey—						
Carbonate .. .. .	763	1,621	496	1,411	1,125	1,687
Caustic potash .. ..	235	368	275	456	213	379
Chlorates .. .. .	237	114	105	810	158	70
Sulphate .. .. .	12,098	26	5,413	7,992	1	31
Vietnam (South)—						
Fertilizer salts .. ..	2,582	4,693	5,221	8,625	7,666	15,399



PRODUCTION OF PYRITES (cont.)

Long tons

Producing Country	Estimated Sulphur Content						1961
	1956	1957	1958	1959	1960	1961	
<b>OTHER COUNTRIES</b>							
<i>(cont.)</i>							
Spain .. .. .	2,259,365	2,224,584	2,014,052	2,086,086	2,217,233	2,043,643	976,000
Sweden .. .. .	485,670	493,714	329,472	341,397	405,800	435,500	210,000
Yugoslavia (a) ..	251,905	307,663	326,000	285,000	410,000	358,000	161,000
Algeria .. .. .	5,968	18,500	24,261	28,591	37,892	48,085	22,000
Morocco .. .. .	596	6,161	18,159	14,190	13,226	13,855	5,000
South Africa ..	429,964	388,216	493,184	495,388	492,173	439,751	176,362
Cuba .. .. .	61,039	35,638	33,334	70,645	<i>n.a.</i>	—	—
United States (b) ..	1,069,904	1,067,396	974,114	1,056,617	1,016,263	987,309	398,519
Venezuela .. .. .	59,200	59,000	14,067	—	—	—	—
Formosa .. .. .	29,194	32,746	32,499	33,243	42,318	46,717	17,500
Japan .. .. .	3,048,576	3,324,390	3,305,546	3,336,268	3,633,933	3,869,014	1,623,786
Korea (South) ..	—	541	277	506	1,058	723	300
Philippine Republic	—	17,566	18,693	24,791	25,000	50,776	24,000
Turkey .. .. .	22,724	47,767	80,302	87,275	41,617	96,863	46,000
TOTAL*	r 12,900,000	r 13,300,000	r 12,700,000	r 12,900,000	r 13,500,000	r 13,500,000	6,700,000
WORLD'S TOTAL*	15,100,000	15,700,000	15,100,000	15,000,000	16,000,000	15,200,000	6,700,000
							6,900,000
							6,600,000
							6,500,000
							7,000,000
							6,700,000

\*Excluding pyrites known to have been produced in the U.S.S.R., Brazil, China and North Korea.

(a) Concentrates.

(b) Including by-product pyrites.

EXPORTS OF PYRITES

Long tons

Exporting Country and Description	1956	1957	1958	1959	1960	1961
<b>COMMONWEALTH COUNTRIES</b>						
Rhodesia and Nyasaland—						
Iron pyrites .. ..	12,844	19,662	33,824	1,972	—	—
Cyprus—						
Iron pyrites .. ..	821,727	762,501	819,835	659,370	815,412	822,263
Cupreous pyrites .. ..	171,032	226,334	228,821	307,026	248,931	138,477
Australia (a) .. ..	20	—	—	—	—	—
<b>OTHER COUNTRIES</b>						
Austria .. ..	27,824	26,899	15,691	19,451	27,102	18,285
Belgium-Luxemburg						
E.U. .. ..	—	888	4,786	—	—	828
Finland—						
Concentrate .. ..	41,538	24,066	3,394	40,969	124,984	68,047
Germany (Federal) .. ..	6,377	10,925	6,250	6,643	1,225	591
Greece .. ..	203,114	183,884	79,088	35,792	51,882	16,643
Italy—						
Iron pyrites .. ..	100,293	99,923	153,837	} 164,721	232,912	223,990
Cupreous pyrites .. ..	1,654	1,699	1,959			
Norway .. ..	460,362	442,573	388,590	401,708	458,782	397,760
Portugal—						
Iron pyrites .. ..	401,042	292,332	351,749	350,932	336,879	260,980
Cupreous pyrites .. ..	1,716	3,220	1,910	2,077	1,967	2,241
Spain—						
Iron pyrites .. ..	1,484,769	1,384,942	1,061,651	982,010	} 1,206,407	1,017,327
Cupreous pyrites .. ..	30,466	38,128	58,431	41,391		
Sweden .. ..	54,454	99,541	67,683	35,542	28,916	40,169
U.S.S.R. .. ..	n.a.	n.a.	n.a.	n.a.	870,000	652,500
Yugoslavia .. ..	178,876	189,934	274,909	183,826	338,701	271,474
Algeria .. ..	591	—	—	10,383	16,849	n.a.
Turkey .. ..	115,472	33,921	50,546	48,876	51,582	89,988

(a) Years ended June 30 of that stated.

IMPORTS OF PYRITES

Long tons

Importing Country	1956	1957	1958	1959	1960	1961
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom ..	384,652	356,830	245,147	213,448	269,981	267,719
Irish Republic .. ..	44,371	18,314	29,445	36,204	31,605	15,913
<b>OTHER COUNTRIES</b>						
Austria .. .. .	88,548	95,503	64,719	46,513	64,699	53,094
Belgium-Luxemburg						
E.U. .. .. .	430,990	275,944	262,552	265,988	422,917	331,394
Czechoslovakia ..	85,000	102,000	66,000	49,000	50,000	43,000
Denmark .. .. .	131,685	131,523	133,731	127,693	150,184	124,156
France .. .. .	488,797	436,118	493,633	444,501	473,394	464,090
Germany (Federal) ..	1,307,094	1,478,298	1,306,900	1,313,029	1,691,849	1,263,767
Germany (East) (a) ..	77,568	159,501	80,018	98,990	120,635	108,376
Hungary .. .. .	85,359	133,571	101,996	112,309	122,626	100,077
Italy .. .. .	285,435	318,466	217,972	154,422	300,377	523,877
Netherlands .. ..	598,434	360,885	328,119	373,584	372,737	289,661
Sweden .. .. .	115,895	109,118	108,343	76,347	95,617	89,189
Switzerland .. ..	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	41,621	53,872
Algeria .. .. .	19,436	14,299	14,343	2,286	—	<i>n.a.</i>
Egypt .. .. .	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	72,252	74,250	<i>n.a.</i>
Morocco .. .. .	3,328	2,273	1,470	1,457	—	—
Tunisia .. .. .	3,740	7,643	9,063	8,971	4,500	6,520
United States .. ..	365,816	353,032	343,060	280,638	304,789	281,604

(a) S content.

**RARE EARTH AND THORIUM MINERALS**  
**PRODUCTION OF RARE EARTH AND THORIUM MINERALS**

Long tons

Producing Country and Description	1956	1957	1958	1959	1960	1961
<b>COMMONWEALTH COUNTRIES</b>						
Nigeria—						
Monazite .. ..	77	93	57	13	12	7
Thorite (c) .. ..	727	1,054	53	<i>n.a.</i>	1	—
Canada—						
Thorium (e) .. ..	—	—	—	21	58	<i>n.a.</i>
Ceylon—						
Monazite .. ..	52	134	111	84	330	213
Malaya (a)—						
Monazite .. ..	631	490	428	236	42	696
Australia (b)—						
High-grade concentrates	93	132	423	331	344	1,544
Low-grade concentrates	146	<i>r</i> 311	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
<b>OTHER COUNTRIES</b>						
Congo Republic—						
Monazite .. ..	1	—	—	—	—	—
Egypt—						
Monazite .. ..	6	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Malagasy Republic—						
Monazite .. ..	150	295	—	—	420	449
Bastnaesite .. ..	1	1	—	—	—	—
Uranothorianite (f)	<i>n.a.</i>	355	477	572	498	404
Mozambique—						
Monazite .. ..	—	—	—	—	1	—
Ruanda-Urundi—						
Bastnaesite .. ..	350	236	3	—	<i>n.a.</i>	<i>n.a.</i>
South Africa—						
Monazite (g) .. ..	7,159	8,316	7,243	2,145	—	—
United States (d)—						
Monazite, bastnaesite and thorite .. ..	<i>n.a.</i>	<i>n.a.</i>	1,804	1,021	<i>n.a.</i>	<i>n.a.</i>
Korea (South)—						
Monazite .. ..	181	350	317	58	12	1

Monazite is also produced in India and Brazil but for security reasons figures are no longer published.

(a) Exports.

(b) Monazite content

(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 as follows :—

1956—50.33%; 1957—49.53%; 1958—49.68%; 1959—51.15%.



## EXPORTS OF RARE EARTH MINERALS, ETC.

Long tons

Exporting Country and Description	1956	1957	1958	1959	1960	1961
<b>COMMONWEALTH COUNTRIES</b>						
Nigeria—						
Monazite .. ..	77	93	57	13	12	7
Thorite (a) .. ..	727	1,054	53	<i>n.a.</i>	1	—
Malaya—						
Monazite .. ..	631	490	428	236	42	696
Australia—						
Concentrates .. ..	56	145	102	150	158	1,802
<b>OTHER COUNTRIES</b>						
Austria—						
Salts of rare earth minerals .. ..	42	51	92	(b) 79	(b) 192	(b) 266
France—						
Salts of rare earth minerals .. ..	104	116	220	132	147	207
Congo Republic—						
Monazite .. ..	3	—	—	—	—	<i>n.a.</i>
Bastnaesite .. ..	80	185	18	—	1	<i>n.a.</i>
Malagasy Republic—						
Monazite .. ..	146	295	—	—	360	404
Bastnaesite .. ..	2	1	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Uranothorianite .. ..	<i>n.a.</i>	329	138	152	572	772
United States—						
Cerium ores, metals, etc.	11	6	13	12	7	3
Thorium ore, concentrates and compounds	<i>n.a.</i>	<i>n.a.</i>	55	101	32	46
Brazil—						
Cerium chloride ..	1,014	985	196	1,061	2,272	1,369

 (a) Between 5% and 6% ThO<sub>2</sub>.

(b) Including uranium salts.

## IMPORTS OF RARE EARTH MINERALS, ETC.

Long tons

Importing Country and Description	1956	1957	1958	1959	1960	1961
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom—						
Rare earth compounds ..	51	211	105	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Canada—						
Thorium and cerium salts .. ..	(£12,993)	(£27,020)	(£8,022)	(£16,206)	(£6,821)	(£10,892)
<b>OTHER COUNTRIES</b>						
Austria—						
Salts of rare earth minerals .. ..	549	1,148	324	(a) 382	(a) 1,004	(a) 974
France—						
Monazite .. ..	205	437	397	(b) 1,235	(b) 846	(b) 1,425
Salts of rare earth minerals .. ..	550	509	14	327	602	626
Germany (Federal)—						
Rare earth minerals ..	336	73	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Salts of rare earth minerals .. ..	315	580	(a) 384	(a) 697	(a) 1,144	(a) 931

Rare earth minerals are also imported into the United Kingdom, Canada and the United States but statistics of imports are not recorded in the trade returns of these countries.

(a) Including uranium salts.

(b) Rare earth minerals.

**SALT**  
**PRODUCTION OF SALT**

Long tons

Producing Country and Description	1956	1957	1958	1959	1960	1961
<b>COMMONWEALTH COUNTRIES</b>						
<b>United Kingdom—</b>						
Rock-salt .. ..	99,236	88,133	116,482	142,831	149,990	285,000
Brine-salt .. ..	1,049,854	1,043,779	1,085,547	1,132,419	1,232,979	1,191,239
Salt in brine (a) ..	3,835,363	3,852,692	3,732,899	4,185,058	4,385,010	4,194,845
<b>Malta—</b>						
Sea-salt .. ..	1,320	1,146	1,435	1,065	1,399	2,000
<b>Ghana (b) .. ..</b>						
	22,000	22,000	22,000	22,000	22,000	22,000
<b>Mauritius—</b>						
Sea-salt .. ..	3,400	3,700	3,800	3,700	4,200	4,000
<b>Nigeria (b) .. ..</b>						
	300	400	554	400	666	n.a.
<b>Kenya .. ..</b>						
	21,885	22,602	18,721	19,242	21,916	22,651
<b>Tanganyika .. ..</b>						
	27,870	25,792	35,232	36,722	32,811	32,000
<b>Uganda .. ..</b>						
	8,853	9,541	9,919	8,781	4,891	7,000
<b>Canada—</b>						
Rock-salt .. ..	570,224	706,237	696,512	1,111,523	1,179,212	1,204,132
Other salt (c) .. ..	857,052	875,727	1,411,200	1,850,118	1,777,460	1,745,600
<b>West Indies—</b>						
<b>Sea-salt—</b>						
<b>Bahamas (d) .. ..</b>						
	27,893	113,429	105,750	176,571	171,286	168,643
<b>Leeward Islands (d) ..</b>						
	991	1,368	2,496	2,065	169	n.a.
<b>Turks and Caicos Islands</b>						
	13,742	15,872	20,000	31,546	24,408	29,651
<b>Aden .. ..</b>						
	248,000	198,000	155,000	175,000	127,641	114,000
<b>Ceylon .. ..</b>						
	107,843	84,742	17,883	30,253	54,000	34,427
<b>Cyprus .. ..</b>						
	4,487	6,336	5,048	5,351	—	2,055
<b>India—</b>						
Rock-salt .. ..	3,439	4,335	5,115	3,637	4,243	4,232
Other salt .. ..	3,186,452	3,608,870	4,160,553	3,123,824	3,377,000	3,407,000
<b>Pakistan—</b>						
Rock-salt .. ..	160,916	155,669	177,601	163,014	184,755	216,387
Sea-salt .. ..	227,486	296,643	193,837	130,645	248,176	183,580
<b>Australia .. ..</b>						
	408,689	427,600	429,534	467,532	463,296	494,894
<b>New Zealand .. ..</b>						
	11,400	n.a.	7,650	20,300	17,020	5,017
<b>TOTAL .. ..</b>	<b>r10,900,000</b>	<b>r11,600,000</b>	<b>r12,400,000</b>	<b>r12,800,000</b>	<b>13,500,000</b>	<b>13,400,000</b>
<b>OTHER COUNTRIES</b>						
<b>Austria—</b>						
Rock-salt .. ..	608	636	738	1,022	1,697	3,316
Evaporated salt ..	107,131	114,632	116,372	123,601	130,379	136,517
<b>Bulgaria .. ..</b>						
	57,084	73,000	110,000	87,000	87,000	n.a.
<b>Czechoslovakia .. ..</b>						
	151,056	158,167	159,070	158,279	165,086	184,985
<b>France—</b>						
Rock-salt (incl. refined)	479,344	495,636	540,658	r 566,023	598,345	658,000
Salt in brine .. ..	2,323,614	2,419,542	2,190,448	r 2,086,440	2,353,322	2,252,000
Sea-salt .. ..	541,132	554,196	808,904	758,541	713,903	874,000
<b>Germany (Federal)—</b>						
Rock-salt, etc. .. ..	3,207,000	3,211,000	3,183,000	3,268,000	3,573,000	4,270,000
Brine-salt .. ..	318,751	r 320,103	r 332,301	323,994	333,739	335,744
<b>Germany (East) .. ..</b>						
	1,663,307	1,728,000	1,750,000	1,659,000	1,757,000	(e)1,757,000
<b>Greece—</b>						
Sea-salt .. ..	91,531	8,000	94,000	96,000	95,131	114,000

(a) Used for purposes other than salt-making.

(b) Estimated.

(c) Including salt in brine.

(d) Exports.

(e) United States Bureau of Mines' estimate.

## PRODUCTION OF SALT (cont.)

Long tons

Producing Country and Description	1956	1957	1958	1959	1960	1961
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
Italy—						
Rock-salt and brine-salt	993,094	1,062,619	1,013,503	1,225,385	1,534,370	1,556,724
Sea-salt .. .. .	816,499	708,473	917,497	673,578	979,182	<i>n.a.</i>
Spring-salt .. .. .	28,872	20,533	22,126	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Netherlands (brine-salt)	616,048	706,197	782,650	970,497	1,078,360	1,096,578
Poland—						
Rock-salt .. .. .	388,800	372,000	386,000	500,000	513,000	598,000
Brine-salt .. .. .	214,400	214,000	225,000	224,000	219,000	232,000
Other salt .. .. .	646,000	695,000	974,000	1,075,000	1,183,000	1,188,000
Portugal—						
Rock-salt .. .. .	17	27,832	58,482	61,282	68,845	71,689
Sea-salt (c) .. .. .	3,533	2,627	3,131	1,488	478	409
Roumania .. .. .	830,000	836,000	720,000	827,000	1,028,000	<i>n.a.</i>
Spain—						
Rock-salt .. .. .	487,418	504,735	551,239	550,294	528,027	<i>n.a.</i>
Sea-salt .. .. .	751,616	804,596	846,902	748,919	815,450	<i>n.a.</i>
Other salt .. .. .	36,660	7,133	16,414	17,373	14,087	<i>n.a.</i>
Switzerland .. .. .	117,326	128,823	122,575	135,058	146,953	<i>n.a.</i>
Yugoslavia—						
Sea-salt .. .. .	41,000	39,000	60,000	22,000	35,000	44,000
Evaporated salt .. .. .	101,000	106,000	109,000	113,000	114,000	114,000
Algeria—						
Brine-salt and sea-salt .. .. .	101,754	114,897	130,516	125,620	235,990	<i>n.a.</i>
Angola .. .. .	80,173	51,495	68,052	68,137	56,904	65,754
Canary Islands (sea-salt) .. .. .	19,000	14,634	14,945	12,981	11,361	<i>n.a.</i>
Cape Verde Islands .. .. .	21,630	19,393	7,697	19,949	23,383	17,089
Congo Republic (rocksalt) .. .. .	502	271	477	569	<i>n.a.</i>	551
Egypt .. .. .	522,000	508,000	396,000	377,000	513,000	509,000
Ethiopia—						
Rock-salt .. .. .	13,000	174,000	163,000	139,000	155,000	<i>n.a.</i>
Sea-salt .. .. .	130,203					
French Somaliland .. .. .	6,568	2,300	—	—	—	—
Libya (sea-salt) .. .. .	15,000	—	12,000	15,000	12,000	10,000
Morocco (Southern) .. .. .	27,531	51,144	60,026	33,231	29,843	20,866
Morocco (Northern)—						
Sea-salt .. .. . (b)	300					
Mozambique—						
Rock-salt .. .. .	71	57	5	<i>n.a.</i>	40	40
Sea-salt .. .. .	12,144	16,670	21,526	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
South Africa .. .. .	168,972	143,521	215,132	233,362	248,849	204,647
South West Africa—						
Rock-salt .. .. .	4,474	6,214	6,293	4,887	4,025	4,296
Other salt .. .. .	73,441	58,957	80,000	44,600	67,000	50,000
Sudan .. .. .	54,286	53,436	53,000	53,087	52,573	<i>n.a.</i>
Tunisia (sea-salt) .. .. .	133,000	148,000	167,000	91,000	162,900	149,482
Costa Rica .. .. . (b)	5,000	4,400	(a) 29,000	12,000	(b) 10,000	(b) 10,000
Cuba (sea-salt) .. .. .	57,178	66,124	58,129	79,432	57,671	<i>n.a.</i>
Dominican Republic—						
Rock-salt .. .. .	32,618	42,653	43,233	62,818	65,259	74,506
Sea-salt .. .. .	499	15,246	15,520	19,831	19,210	19,782
Guatemala (sea-salt) .. .. .	16,253	16,505	15,395	15,642	14,846	15,425
Haiti (b) .. .. .	5,000	10,000	10,000	10,000	10,000	10,000
Honduras .. .. .	13,409	12,000	(b) 10,000	(b) 10,000	(b) 10,000	(b) 13,000
Mexico .. .. .	217,000	297,000	357,000	512,000	(a) 512,000	(a) 590,000
Netherlands Antilles .. .. .	1,130	500	500	300	112	(b) 150
Nicaragua (sea-salt) .. .. .	10,232	8,961	9,883	10,658	11,318	11,405
Panama (sea-salt) .. .. .	6,862	8,363	5,524	7,722	7,000	16,771
Salvador .. .. .	49,108	49,109	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	30,000

(a) United States Bureau of Mines' estimate.

(b) Estimated.

(c) Exports.

PRODUCTION OF SALT (cont.)

Long tons

Producing Country and Description	1956	1957	1958	1959	1960	1961
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
United States (e)—						
Rock-salt .. .. .	5,020,444	4,769,273	4,828,000	5,500,000	5,773,000	5,749,000
Salt in brine .. .. .	13,004,262	12,963,164	11,378,000	13,413,000	13,313,000	13,287,000
Evaporated salt .. .. .	3,587,000	3,557,000	3,358,000	3,554,000	3,664,000	3,917,000
Argentina .. .. .	371,000	323,082	555,000	571,000	a b 571,000	a b 571,000
Bolivia .. .. .	2,000	n.a.	n.a.	n.a.	n.a.	n.a.
Brazil (sea-salt) .. .. .	r 785,818	785,203	939,923	840,978	908,338	n.a.
Chile .. .. .	27,301	33,000	n.a.	41,998	n.a.	45,000
Colombia—						
Rock-salt .. .. .	191,424	203,769	216,621	210,104	231,624	262,368
Sea-salt .. .. .	36,551	94,229	69,713	50,053	66,775	68,610
Brine-salt .. .. .	114,026	196,874	143,410	n.a.	n.a.	n.a.
Ecuador (sea-salt) .. .. .	25,588	24,037	19,124	21,434	28,000	(b) 28,000
Peru—						
Rock-salt .. .. .	9,317	9,249	8,649	} 104,000	104,000	89,000
Sea-salt .. .. .	76,639	96,969	85,996			
Brine-salt .. .. .	7,634	6,042	9,103			
Venezuela (sea-salt) .. .. .	36,995	84,324	86,817	76,494	77,655	144,618
Afghanistan (f) .. .. .	22,200	21,800	25,200	25,100	25,500	n.a.
Burma—						
Sea-salt .. .. .	85,198	113,668	109,066	110,048	154,006	123,242
Brine-salt .. .. .	898	840	793	803	1,231	1,304
China .. .. .	4,860,000	8,150,000	10,240,000	10,870,000	a 13,000,000	a 14,000,000
Formosa (sea-salt) .. .. .	323,316	380,979	436,908	422,877	446,086	424,823
Cambodia .. .. .	23,300	30,000	r 63,000	49,000	37,000	(a)(b) 39,000
Laos .. .. .	(a) 2,000	(a) 2,000	n.a.	n.a.	n.a.	n.a.
Vietnam (South) .. .. .	79,722	86,590	106,144	153,230	103,355	n.a.
Indonesia .. .. .	107,645	341,706	230,898	310,000	195,000	a b 637,000
Iran (g) .. .. .	(b) 275,578	(b) 295,262	130,000	131,185	128,000	(a) 128,000
Iraq (b) (c) .. .. .	19,000	r 21,000	26,000	r 37,000	(a) 37,000	(a) 37,000
Israel .. .. .	(a) 25,000	(a) 27,000	33,160	33,451	37,000	21,000
Japan—						
Government-licensed plants (d) .. .. .	616,932	818,915	1,041,046	1,146,790	867,696	814,938
Jordan (brine-salt) .. .. .	9,981	9,946	10,725	15,500	12,077	17,486
Korea (South) .. .. .	193,830	363,360	429,516	383,733	392,962	119,823
Lebanon (sea-salt) (a) .. .. .	15,000	12,000	15,000	15,000	15,000	10,000
Philippine Republic—						
Sea-salt .. .. .	62,595	114,285	137,433	171,788	93,249	91,818
Portuguese India .. .. .	5,507	9,361	4,486	3,811	8,000	n.a.
Syria .. .. .	32,256	33,246	(a)(b) 39,000	(b) r 32,000	(b) 32,000	(a)(b) 32,000
Thailand .. .. .	244,000	259,000	421,000	345,000	329,000	246,000
Turkey—						
Rock-salt .. .. .	28,095	8,996	35,131	34,226	31,061	29,000
Lake and spring salt .. .. .	112,995	} 440,787	{ 101,232	} 448,823	407,455	234,000
Sea-salt .. .. .	232,748		{ 344,220			
TOTAL* .. .. .	54,000,000	58,000,000	59,000,000	64,000,000	69,000,000	72,000,000
WORLD'S TOTAL* .. .. .	65,000,000	70,000,000	72,000,000	77,000,000	83,000,000	85,000,000

\*Salt is known to have been produced in many countries for which statistics are not available, e.g., Belgium and the U.S.S.R.; an allowance has been made for these and other countries where information is not available.

(a) Estimated.

(b) United States Bureau of Mines.

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

(d) In addition there is a production of salt in other plants which in 1948 amounted to 47,012 tons.

(e) Sold or used by producers.

(f) Years ended March 21 of year following that stated.

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

## EXPORTS OF SALT

Long tons

Exporting Country and Description	1956	1957	1958	1959	1960	1961
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom—						
Rock-salt .. .. .	} 265,155	271,987	287,577	295,575	310,007	323,755
Other salt .. .. .						
Kenya .. .. .	1,230	586	64	18	5	752
Tanganyika .. .. .	9,280	8,442	8,676	11,869	11,781	12,246
Uganda .. .. .	2,241	2,309	1,966	2,270	1,393	1,127
Canada .. .. .	298,156	408,828	363,131	1,137,569	<i>n.a.</i>	<i>n.a.</i>
Bahamas (d) .. .. .	27,893	113,429	105,750	176,571	171,286	168,643
Leeward Islands .. .. .	991	1,368	2,496	2,065	169	<i>n.a.</i>
Turks and Caicos Islands	15,781	21,028	18,156	19,095	31,717	16,150
Aden .. .. .	217,000	342,350	147,050	168,506	101,279	116,379
Ceylon .. .. .	48	—	—	—	4	—
Hong Kong .. .. .	717	297	194	529	464	534
India .. .. .	257,525	375,382	252,996	340,765	(c) 392,548	(c) 50,457
Malaya .. .. .	5,384	7,675	12,472	2,754	2,369	1,993
Pakistan .. .. .	93,380	5,663	6,799	15,619	34,855	121,591
Australia (a)—						
Refined salt .. .. .	132	909	113	857	642	1,727
Other salt .. .. .	23,581	18,891	19,091	18,470	16,815	31,242
<b>OTHER COUNTRIES</b>						
Austria .. .. .	—	5,441	1,274	15	—	1,372
Belgium-Luxemburg						
E.U.—	654	187	217	332	162	238
Denmark .. .. .	381	234	313	343	300	285
France .. .. .	83,579	72,490	87,035	103,420	108,316	96,538
Germany (Federal)	846,951	726,793	697,342	669,846	714,799	688,812
Italy .. .. .	119,226	99,020	63,197	40,665	18,509	42,400
Netherlands—						
Rock-salt .. .. .	475	3,398	5,294	7,652	8,371	507
Refined salt .. .. .	365,598	437,328	450,019	536,609	627,306	651,618
Norway—						
Common salt .. .. .	9,476	6,176	5,132	4,243	4,607	6,477
Refined salt .. .. .	558	901	412	15	18	2
Poland .. .. .	115,000	93,000	102,000	118,000	150,000	130,600
Portugal .. .. .	3,533	2,627	3,131	1,488	478	409
Roumania .. .. .	<i>n.a.</i>	<i>n.a.</i>	134,000	151,900	185,300	280,700
Spain .. .. .	325,795	318,889	354,925	435,712	(e) 490,912	(e) 427,791
Sweden .. .. .	826	269	40	35	14	53
U.S.S.R. .. .. .	105,600	105,600	92,100	68,200	86,600	112,900
Algeria .. .. .	47,024	32,152	36,898	40,458	59,298	<i>n.a.</i>
Angola .. .. .	23,723	33,134	22,701	23,518	23,176	24,663
Cape Verde Islands	17,858	22,053	20,224	20,019	25,621	35,952
Egypt .. .. .	216,203	177,530	327,886	230,144	385,620	418,000
Ethiopia (b) .. .. .	68,215	94,256	46,325	73,041	52,604	<i>n.a.</i>
French Somaliland	6,752	49,057	—	—	—	—
Malagasy Republic	2,339	1,403	2,163	2,073	2,272	2,335
Mozambique .. .. .	2,337	7,130	4,756	4,323	4,778	<i>n.a.</i>
Morocco .. .. .	944	<i>n.a.</i>	51	104	143	—
South Africa .. .. .	7,738	9,041	11,458	11,344	16,555	19,229
South West Africa—						
Rock-salt .. .. .	1,709	1,965	1,596	1,831	1,794	2,093
Coarse salt .. .. .	38,678	36,524	41,091	37,788	31,843	36,704
Other salt .. .. .	555	583	577	398	1,405	1,487

(a) Years ended June 30 of that stated.

(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	1956	1957	1958	1959	1960	1961
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
Sudan .. .. .	21,272	44,569	22,504	34,745	11,560	923
Tunisia .. .. .	74,319	122,895	128,329	135,142	87,255	146,600
Cuba .. .. .	262	272	204	226	<i>n.a.</i>	<i>n.a.</i>
Dominican Republic .. .. .	32,054	32,749	44,370	54,738	58,011	<i>n.a.</i>
Honduras .. .. .	54	621	2,002	4,393	2,835	939
Mexico .. .. .	1,554	59,800	120,265	208,490	489,473	707,310
Netherlands Antilles .. .. .	199	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Salvador .. .. .	1,010	419	582	739	1,312	1,146
United States .. .. .	300,286	348,846	324,115	378,883	376,575	573,184
Argentina .. .. .	26,648	43,221	26,429	21,747	17,869	23,598
Peru .. .. .	29	287	198	104	395	472
Formosa .. .. .	193,924	197,958	285,996	283,103	287,531	289,089
Iran (a) .. .. .	21,997	1,675	1,082	1,693	3,230	<i>n.a.</i>
Japan .. .. .	—	1	98	99	86	6
Portuguese India .. .. .	1,076	476	<i>r</i> 5,315	<i>r</i> —	152	<i>n.a.</i>
Thailand .. .. .	260,910	219,647	243,272	257,105	220,356	187,071
Turkey .. .. .	54,920	27,922	—	31,396	142,676	78,487
Vietnam (South) .. .. .	34,842	69,006	29,122	82,315	51,080	21,702

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

## IMPORTS OF SALT

Long tons

Importing Country and Description	1956	1957	1958	1959	1960	1961
COMMONWEALTH COUNTRIES						
United Kingdom—						
Salt for use of fisheries..	47,750	26,539	49,698	53,731	52,375	35,046
Other salt .. .. .	3,721	—	—	—	—	—
Channel Islands .. .. .	643	667	667	621	698	631
Malta—						
Refined salt .. .. .	(£3,160)	(£4,434)	(£3,869)	(£5,683)	(£4,526)	(£5,137)
Other salt .. .. .	836	667	412	675	370	508
Gambia .. .. .	385	429	810	406	301	403
Ghana .. .. .	10,099	13,683	17,465	10,620	8,342	7,930
Kenya .. .. .	5,407	332	4,194	2,874	1,944	3,078
Mauritius .. .. .	4	8	10	7	1,021	78
Nigeria .. .. .	102,285	92,243	103,834	99,755	103,969	110,913
Rhodesia and Nyasaland	29,547	32,034	31,211	34,705	38,251	36,208
Seychelles .. .. .	410	200	578	251	234	416
Sierra Leone .. .. .	6,432	5,961	7,225	6,204	7,394	7,230
Tanganyika .. .. .	342	643	957	798	623	1,575
Uganda .. .. .	10,241	11,374	13,442	15,528	18,573	18,826
Zanzibar .. .. .	1,288	1,900	1,156	1,333	1,295	1,287
Canada—						
Salt for use of fisheries..	52,666	67,387	50,872	56,955	58,125	54,031
Refined salt .. .. .	40	86	37	156	671	1,226
Other salt .. .. .	232,227	260,635	253,454	273,217	112,579	122,747
Barbados .. .. .	2,096	2,373	2,085	2,418	109	2,171
Bermuda .. .. .	160	159	150	326	169	172
British Honduras .. .. .	441	460	485	603	515	514
Dominica .. .. .	287	378	390	422	336	258
Grenada .. .. .	747	879	643	586	14,202	n.a.
Jamaica—						
Rock-salt .. .. .	41	29	17	24	3	23
Other salt .. .. .	12,209	11,680	12,736	12,211	10,863	11,392
Leeward Islands .. .. .	322	152	276	267	288	n.a.
St. Lucia—						
Common salt .. .. .	495	756	426	341	n.a.	n.a.
Refined salt .. .. .	49	62	63	85	n.a.	n.a.
St. Vincent—						
Unrefined salt .. .. .	205	181	329	124	139	95
Refined salt .. .. .	324	289	318	230	330	274
Trinidad and Tobago—						
Rock and coarse salt .. .. .	519	626	803	674	838	2,217
Refined salt .. .. .	3,891	12,188	5,056	5,259	5,003	3,949
British Guiana—						
Rock and coarse salt .. .. .	250	390	120	315	16	n.a.
Refined salt, etc. .. .. .	2,027	2,301	2,172	2,242	2,662	2,699
Aden .. .. .	40	42	—	37	101	67
Brunei .. .. .	230	304	292	298	290	386
Ceylon—						
Refined salt .. .. .	3	5	7	10	22	66
Other salt .. .. .	30	12	7	132	—	—
Cyprus .. .. .	206	207	172	233	190	262
Hong Kong .. .. .	26,586	33,287	24,720	30,796	29,867	36,156
India .. .. .	20	87	17	365	(b) 158	(b) 8
Malaya—						
Refined salt .. .. .	195	211	243	278	278	313
Other salt .. .. .	59,368	76,173	90,209	69,807	80,652	73,720
North Borneo .. .. .	2,507	2,480	4,128	3,073	3,856	3,054
Pakistan .. .. .	(a) 1,312	(a) 1,750	(a) 2,860	(a) 2,170	(a) 1,100	5,775
Sarawak .. .. .	3,966	4,260	4,986	4,849	4,516	5,118
Australia (c)—						
Rock-salt .. .. .	2,261	2,504	3,147	1,246	1,428	5
Refined salt .. .. .	2,250	1,400	1,783	1,054	681	923
Other salt .. .. .	2,915	1,746	5,018	5,590	10,406	14,730

(a) Exports from India to Pakistan by land.

(b) Years ended March 31 following that stated.

(c) Years ended June 30 of that stated.

## IMPORTS OF SALT (cont.)

Long tons

Importing Country and Description	1956	1957	1958	1959	1960	1961
<b>COMMONWEALTH COUNTRIES (cont.)</b>						
Fiji .. .. .	2,277	927	1,441	1,563	1,899	1,795
New Guinea (a) .. .. .	649	812	854	966	982	1,219
New Hebrides .. .. .	91	90	142	161	98	162
New Zealand .. .. .	59,144	47,802	48,052	46,521	44,350	53,899
Papua (a) .. .. .	216	368	769	936	484	310
Solomon Islands (b) .. .. .	22	29	30	27	90	53
Western Samoa .. .. .	276	259	231	297	219	n.a.
<b>Irish Republic—</b>						
Refined salt .. .. .	2,034	2,176	3,507	4,568	3,833	4,112
Other salt .. .. .	26,462	30,441	29,917	28,514	31,934	32,817
<b>OTHER COUNTRIES</b>						
<b>Austria—</b>						
Common salt .. .. .	55	34	21	10	153	67
<b>Belgium-Luxemburg E.U.—</b>						
Common salt .. .. .	456,207	460,556	429,686	493,253	528,804	514,646
Refined salt .. .. .	91,246	65,689	78,010	71,751	78,637	85,736
<b>Denmark—</b>						
Rock-salt .. .. .	1,018	322	60	50,655	68,159	62,572
Refined salt .. .. .	124,996	128,542	135,632	86,136	76,922	76,577
Faroe Islands .. .. .	11,626	19,340	20,262	14,763	14,133	16,241
Finland .. .. .	135,828	152,656	161,429	183,740	196,711	219,893
France .. .. .	59,814	46,847	48,356	47,279	45,524	68,269
Germany (Federal) .. .. .	384	569	923	7,329	15,920	15,091
<b>Iceland—</b>						
Common salt .. .. .	69,058	52,585	45,333	r 39,948	51,830	47,785
Refined salt .. .. .	110	95	156	189	212	172
Italy .. .. .	830	40	124,577	41,822	137,168	137,441
<b>Netherlands—</b>						
Rock-salt .. .. .	69,820	45,055	42,911	24,606	} 17,762	12,744
Sea-salt, etc. .. .. .	4,548	1,525	7,474	7,438		
Refined salt .. .. .	29	35	33	38	19,250	17,380
<b>Norway—</b>						
Common salt .. .. .	265,670	234,596	204,616	152,872	169,844	132,811
Refined salt .. .. .	34,896	34,571	32,426	61,058	75,799	92,568
Portugal .. .. .	901	70,756	151	182	170	3,028
Sweden .. .. .	406,307	409,549	444,443	454,869	510,095	544,803
Switzerland .. .. .	443	610	736	1,008	1,164	1,174
Yugoslavia .. .. .	83,379	75,353	48,159	38,154	79,384	131,876
Algeria .. .. .	155	231	219	284	370	n.a.
Cameroun .. .. .	10,813	12,313	11,071	12,751	10,932	13,878
Canary Islands .. .. .	646	943	369	1,290	n.a.	n.a.
Ceuta .. .. .	5,364	2,078	752	862	n.a.	n.a.
Congo Republic .. .. .	49,686	38,146	46,890	49,809	n.a.	n.a.
Dahomey .. .. .	(d) 69	938	958	621	1,601	1,548
Egypt .. .. .	69	3	9	8	5	n.a.
<b>Equatorial African</b>						
Community .. .. .	8,112	8,144	10,721	8,240	10,537	8,881
Ethiopia (c) .. .. .	2,524	824	1,787	1,387	594	n.a.
French West Africa .. .. .	15,747	(e)	(e)	(e)	(e)	(e)
Ivory Coast .. .. .	(d)	8,800	10,974	15,286	15,874	17,502
Liberia .. .. .	1,488	2,113	266	1,396	1,515	n.a.
Malagasy Republic .. .. .	239	2,048	192	194	253	315
Melilla .. .. .	649	589	979	1,024	n.a.	n.a.
Morocco .. .. .	11,528	n.a.	2,296	4,134	2,753	602

(a) Years ended June 30 of that stated.

(b) Years ended March 31 following that stated.

(c) Years ended September 10 of that stated.

(d) See under French West Africa.

(e) See under Dahomey, Ivory Coast, Niger, Senegal and Upper Volta.



## IMPORTS OF SALT (cont.)

Long tons

Importing Country and Description	1956	1957	1958	1959	1960	1961
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
Mozambique .. ..	4,190	9,626	6,956	2,021	2,058	<i>n.a.</i>
Niger .. ..	(c) 472	472	119	107	1,569	4,401
Reunion .. ..	1,670	1,127	1,496	1,421	<i>n.a.</i>	<i>n.a.</i>
S. Tome and Principe .. ..	539	452	472	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Senegal .. ..	(c) 164	164	350	110	137	160
Somali Republic (b) .. ..	34	—	81	12	596	<i>n.a.</i>
South Africa .. ..	2,261	2,832	5,110	3,702	4,092	<i>n.a.</i>
Sudan .. ..	66	93	17	59	25	53
Togo .. ..	6,414	6,329	11,494	5,552	4,911	8,099
Upper Volta .. ..	(c) 36	36	206	1,024	926	5,168
Costa Rica .. ..	176	143	142	156	96	141
Cuba .. ..	8,145	6,918	5,497	14,846	<i>n.a.</i>	<i>n.a.</i>
French West Indies—						
Guadeloupe .. ..	1,686	1,242	596	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Martinique .. ..	3,174	1,538	2,040	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Greenland .. ..	17,738	12,205	15,051	12,090	12,595	8,757
Guatemala .. ..	69	42	82	187	376	245
Honduras .. ..	1,154	790	934	750	1,156	968
Mexico .. ..	1,431	1,222	1,434	7,048	2,556	1,187
Netherlands Antilles .. ..	604	628	550	568	541	523
Nicaragua .. ..	648	466	421	574	595	677
St. Pierre and Miquelon .. ..	850	2,129	604	593	1,375	2,264
Salvador .. ..	64	654	2,004	4,344	2,741	983
United States .. ..	328,760	581,112	545,574	914,847	943,775	937,575
Bolivia .. ..	245	4	5	53	53	<i>n.a.</i>
Brazil .. ..	24	38	19	10	46	—
Colombia .. ..	3	8	31	3	4	3
French Guiana .. ..	266	281	224	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Peru .. ..	54	1	8	86	74	91
Surinam .. ..	1,037	928	878	975	1,065	<i>n.a.</i>
Uruguay .. ..	31,013	54,614	31,139	57,484	47,603	<i>n.a.</i>
Burma .. ..	303	617	325	1,080	1,557	1,423
Indonesia .. ..	122,121	113,042	6,288	84	85	<i>n.a.</i>
Iran (a) .. ..	533	93	100	—	99	<i>n.a.</i>
Iraq .. ..	50	32	43	40	1,606	<i>n.a.</i>
Japan .. ..	2,267,414	2,053,208	1,674,643	1,911,882	2,323,639	2,366,506
Laos .. ..	1,329	<i>n.a.</i>	<i>n.a.</i>	675	2,234	1,341
Lebanon .. ..	6,079	6,429	6,270	4,421	5,493	<i>n.a.</i>
Syria .. ..	9	441	410	47	<i>n.a.</i>	<i>n.a.</i>
Philippine Republic—						
Crude .. ..	5,113	6,348	7,259	2,943	8,931	3,971
Refined .. ..	1,973	1,012	485	170	704	4,235
French Polynesia .. ..	255	291	285	350	332	324
New Caledonia .. ..	306	464	449	444	411	446

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

(c) See under French West Africa.

(b) Former British Protectorate only.

**SELENIUM**  
**PRODUCTION OF SELENIUM**

Lb. avdp.

Producing Country	1956	1957	1958	1959	1960	1961
<b>COMMONWEALTH COUNTRIES</b>						
Northern Rhodesia (a) ..	32,055	24,206	24,388	33,448	50,119	39,362
Canada .. .. .	330,389	321,392	306,990	368,107	521,638	469,892
Australia .. .. .	2,581	<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 (b) .. ..	81,571	24,471	48,900	124,600	72,500	51,800
Finland .. .. .	8,370	9,220	13,051	13,196	11,358	13,296
Sweden .. .. .	168,532	143,054	84,135	133,170	176,880	213,471
Mexico .. .. .	201,886	175,480	107,580	8,891	6,945	5,642
United States (c) (d) ..	928,400	<i>e r</i> 1,060,000	<i>(e)r</i> 683,000	<i>(e)r</i> 728,000	<i>(e)</i> 539,000	<i>(e)</i> 1,022,000
Peru .. .. .	3,944	6,951	8,419	8,155	10,681	16,305
Japan .. .. .	162,917	154,337	182,410	229,488	278,237	300,265
<b>WORLD'S TOTAL ..</b>	<b>1,920,700</b>	<b><i>r</i>1,920,000</b>	<b>1,460,000</b>	<b><i>r</i>1,650,000</b>	<b>1,670,000</b>	<b>2,130,000</b>

(a) Contained in copper slimes exported for treatment.

(b) Exports.

(c) Including selenium content of compounds.

(d) In addition secondary selenium recovered was as follows: 1956—188,700 lb.; 1957—*n.a.*; 1958—*n.a.*; 1959—*n.a.*; 1960—*n.a.*; 1961—*n.a.*

(e) Including secondary.

**EXPORTS OF SELENIUM**

Lb. avdp

Exporting Country	1956	1957	1958	1959	1960	1961
<b>COMMONWEALTH COUNTRIES</b>						
Rhodesia and Nyasaland (a)	32,055	24,206	24,388	33,448	50,119	39,362
Canada (b) .. .. .	409,729	228,051	250,351	325,712	404,410	345,800
<b>OTHER COUNTRIES</b>						
Belgium-Luxemburg						
E.U. .. .. .	81,571	24,471	48,900	124,600	72,500	51,800
Germany (Federal) ..	32,628	49,384	63,300	70,300	50,500	<i>n.a.</i>
Sweden .. .. .	138,891	99,208	117,000	161,000	165,000	157,000
Mexico .. .. .	201,866	175,267	103,562	—	—	—
Peru .. .. .	4,839	5,284	9,339	8,084	7,820	14,800
Japan .. .. .	64,351	66,084	108,410	105,019	88,749	149,434

(a) Contained in copper slimes exported for treatment.

(b) Including salts.

## IMPORTS OF SELENIUM

Lb. avdp.

Importing Country	1956	1957	1958	1959	1960	1961
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom ..	193,150	141,864	122,987	201,167	308,174	258,372
<b>OTHER COUNTRIES</b>						
Belgium-Luxemburg						
E.U. .. .. .	7,496	4,409	2,400	2,000	44,300	1,800
France .. .. .	(b) 68,784	(b) 42,108	(b) 50,700	(b) 50,500	(b) 58,600	57,800
Germany (Federal) ..	120,152	107,806	141,800	162,500	248,200	<i>n.a.</i>
Italy .. .. .	12,846	13,889	16,676	24,700	47,000	46,500
Sweden .. .. .	41,881	<i>n.a.</i>	<i>n.a.</i>	4,000	68,000	73,000
United States (a) ..	234,969	172,678	204,311	273,929	175,761	127,482
Brazil .. .. .	4,273	5,062	4,830	4,793	7,383	9,811
Peru .. .. .	22	183	44	49	148	214

(a) Including salts.

(b) Including tellurium.

## SILLIMANITE, Etc.

### PRODUCTION OF SILLIMANITE, ETC.

Long tons

Producing Country and Description	1956	1957	1958	1959	1960	1961
<b>COMMONWEALTH COUNTRIES</b>						
<b>Bechuanaland Protectorate—</b>						
Kyanite .. ..	876	107	—	—	—	—
<b>Kenya—</b>						
Kyanite .. ..	—	—	—	708	921	—
Mullite .. ..	—	—	536	755	344	—
<b>India—</b>						
Kyanite .. ..	20,135	23,504	r 25,615	16,238	19,838	26,726
Sillimanite .. ..	4,637	7,417	13,845	7,574	8,349	7,985
<b>Australia—</b>						
Kyanite, sillimanite and andalusite (a) ..	2,181	2,302	1,696	3,633	1,524	1,533
<b>OTHER COUNTRIES</b>						
<b>Cameroun—</b>						
Kyanite .. ..	—	—	—	—	—	5
<b>South Africa—</b>						
Andalusite .. ..	—	15,892	13,024	3,343	9,154	6,934
Sillimanite .. ..	27,004	28,313	17,779	40,935	52,575	84,406
<b>South West Africa—</b>						
Kyanite .. ..	1,961	3,473	2,665	2,896	1,284	2,679
<b>United States—</b>						
Kyanite (b) .. ..	29,000	29,000	r 23,000	r 29,000	30,000	33,000
<b>Korea (South)—</b>						
Andalusite .. ..	—	—	1,218	2,177	241	502

(a) In addition the following amounts of kaolinised sillimanite were produced (long tons): 1956—2,169; 1957—2,315; 1958—1,823; 1959—1,969; 1960—2,401; 1961—1,608.

(b) Estimated. In addition the following amounts of synthetic mullite were produced (long tons): 1956—21,000; 1957—17,744; 1958—14,536; 1959—16,266; 1960—19,194; 1961—13,212.

### EXPORTS OF SILLIMANITE, ETC.

Long tons

Exporting Country and Description	1956	1957	1958	1959	1960	1961
<b>COMMONWEALTH COUNTRIES</b>						
<b>Bechuanaland Protectorate—</b>						
Kyanite .. ..	876	107	—	—	—	—
<b>Kenya—</b>						
Kyanite and mullite ..	293	—	536	1,787	1,750	—
<b>India—</b>						
Kyanite .. ..	26,564	24,457	19,158	22,335	(a) 24,609	(a) 29,592
Sillimanite .. ..	5,251	5,624	9,458	4,413	(a) 6,987	(a) 4,749
<b>OTHER COUNTRIES</b>						
<b>France—</b>						
<b>Kyanite, sillimanite, etc.</b>						
Crude .. ..	—	—	—	—	14	22
Calcined .. ..	221	307	251	20	21	258

(a) Years ended March 31 following that stated.

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

Long tons

Exporting Country and Description	1956	1957	1958	1959	1960	1961
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
Germany (Federal)—						
Kyanite, sillimanite, etc.						
Crude .. .. .	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	84	155
Calcined .. ..	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	21	3
Italy—						
Kyanite, sillimanite, etc.						
Crude .. .. .	—	—	—	246	6	} 54
Calcined .. ..	343	149	—	53	23	
Netherlands—						
Kyanite, sillimanite, etc.	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	2,777	8,299
South-West Africa—						
Kyanite .. .. .	808	3,732	2,479	1,929	142	2,714
South Africa—						
Andalusite .. ..	} 17,571	{ 4,248	2,944	2,215	3,636	4,787
Sillimanite .. ..			26,189	18,318	35,484	45,595
United States—						
Kyanite, etc. .. .	1,188	2,311	2,226	2,441	2,906	3,571

## IMPORTS OF SILLIMANITE, ETC.\*

Long tons

Importing Country and Description	1956	1957	1958	1959	1960	1961
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom—						
Kyanite, sillimanite, etc.	(a) 17,700	(a) 19,000	(a) 15,900	(a) 15,100	27,966	35,763
Canada—						
Kyanite, etc. .. .	1,419	1,520	1,065	1,677	1,703	1,376
Australia—						
Kyanite .. .. .	199	487	500	15	546	1,045
Sillimanite .. ..	161	132	131	135	259	191
<b>OTHER COUNTRIES</b>						
France—						
Kyanite, sillimanite, etc.						
Crude .. .. .	2,592	4,346	3,817	1,230	3,887	4,322
Calcined .. ..	345	554	778	544	1,001	1,717
Germany—						
Kyanite, sillimanite, etc.						
Crude .. .. .	8,381	12,535	9,253	10,388	12,939	18,775
Calcined .. ..	208	391	98	74	59	325
Italy—						
Kyanite, sillimanite, etc.						
Crude .. .. .	3,883	2,574	5,716	2,791	3,661	} 6,829
Calcined .. ..	595	560	542	239	270	
Netherlands—						
Kyanite, sillimanite, etc.	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	4,631	14,910
United States—						
Kyanite, sillimanite, etc.	6,206	5,356	1,754	5,030	5,403	4,835
Japan (a)—						
Kyanite, sillimanite, etc.	5,700	10,000	7,900	25,000	23,700	38,700

\*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	1956	1957	1958	1959	1960	1961
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom ..	27,878	27,337	20,553	13,655	7,098	4,744
Bechuanaland Protectorate ..	215	35	44	41	25	39
Ghana (a) ..	32,966	25,390	45,762	16,839	14,160	7,027
Kenya ..	54,689	23,051	44,146	46,420	35,797	40,731
Nigeria ..	111	200	—	—	—	—
Northern Rhodesia (b) ..	610,370	520,543	558,535	935,678	920,601	744,084
Southern Rhodesia ..	76,870	74,179	264,630	328,947	392,026	106,801
Swaziland ..	14	—	—	—	58	103
Tanganyika (d) ..	561,848	521,623	737,578	535,366	595,357	63,965
Uganda (a) ..	52	21	37	54	109	70
Canada ..	28,431,847	28,823,298	31,163,470	31,923,969	34,016,829	31,981,210
India ..	104,604	125,838	109,800	124,800	132,700	191,000
Australia ..	14,616,803	15,811,129	16,339,812	15,160,631	15,200,148	13,027,533
Fiji ..	24,302	24,425	25,375	23,652	31,309	37,712
New Guinea ..	42,549	38,101	25,065	36,830	33,060	30,246
New Zealand ..	950	1,279	2,339	4,873	1,353	805
<b>TOTAL ..</b>	<b>r44,586,000</b>	<b>r46,017,000</b>	<b>r49,338,000</b>	<b>r49,152,000</b>	<b>51,381,000</b>	<b>46,236,000</b>
<b>OTHER COUNTRIES</b>						
Austria ..	1,286	1,286	—	—	—	—
Czechoslovakia (e) ..	1,600,000	1,600,000	1,600,000	1,600,000	1,600,000	1,600,000
Finland ..	318,453	373,592	560,709	522,739	390,374	456,155
France ..	541,869	703,590	770,270	944,750	1,039,900	1,126,700
Germany (Federal) ..	2,197,375	2,133,973	2,112,304	1,897,700	1,842,600	1,900,000
Germany (East) (e) ..	r 4,800,000	r 4,800,000	r 4,800,000	r 4,800,000	4,800,000	4,800,000
Greece ..	79,091	93,462	99,410	150,300	105,500	n.a.
Italy ..	1,008,400	937,210	1,020,700	894,500	845,400	874,900
Norway ..	55,000	63,000	—	—	—	—
Portugal ..	57,550	62,308	45,783	54,140	52,920	48,260
Spain ..	1,402,801	1,345,734	1,774,900	2,206,700	1,739,700	g 1,800,000
Sweden ..	2,562,414	2,512,163	2,944,300	3,098,100	2,659,500	2,825,200
Yugoslavia (h) ..	2,760,000	2,589,700	3,751,700	2,827,300	3,024,800	3,454,080
Algeria (g) ..	230,000	235,000	225,000	400,000	300,000	300,000
Congo Republic ..	3,794,000	3,044,900	3,794,000	4,758,000	3,962,840	3,457,880
Morocco ..	2,250,000	2,411,250	2,411,000	1,234,303	1,097,273	907,905
Mozambique ..	42	—	—	—	44	22
South Africa ..	1,598,279	1,767,472	1,795,384	2,020,780	2,226,204	2,288,279
South West Africa (c) ..	1,880,055	1,725,648	1,395,110	1,740,568	1,061,033	n.a.
Tunisia ..	86,485	113,556	135,194	43,339	34,400	69,767
Costa Rica (f) ..	80	—	—	—	—	—
Cuba ..	284,202	(i) 252,728	(i) 325,278	(i) 215,000	(i) 121,415	(i) —
Guatemala ..	533,179	528,436	320,621	(j) 88,000	663,121	515,905
Honduras ..	2,030,008	2,260,433	2,762,932	3,167,376	2,947,021	3,544,702
Mexico ..	43,078,040	47,149,514	47,592,360	44,075,452	44,526,460	40,350,000
Nicaragua ..	258,521	230,081	304,277	274,993	326,673	417,253

(a) Exports.

(b) Recovered from copper-refinery slimes.

(c) Accounted for by smelters.

(d) Including silver in lead concentrates exported amounting to 527,860; 500,945; 719,250; 512,728; 572,428, and 38,372 fine troy ounces in 1956; 1957; 1958; 1959; 1960 and 1961 respectively.

(e) "Metallgesellschaft" estimate.

(h) Refined.

(f) Imports into the United States from Costa Rica. (i) Imports into the United States from Cuba.

(g) Estimated.

(j) United States Bureau of Mines' estimate.

PRODUCTION OF SILVER (cont.)

Fine troy ounces

Producing Country	1956	1957	1958	1959	1960	1961
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
Salvador .. .. .	167,740	172,306	197,629	199,080	76,809	—
United States .. .. .	38,948,121	38,164,915	34,111,027	31,194,006	30,766,327	34,794,456
Argentina .. .. .	1,671,838	1,350,331	1,543,200	1,549,600	1,671,838	1,430,675
Bolivia (b) .. .. .	7,543,304	5,375,090	6,051,284	r 4,504,126	4,887,138	3,901,010
Brazil .. .. .	171,524	348,160	185,313	r 225,152	252,930	260,415
Chile .. .. .	2,106,200	1,672,100	1,765,642	1,949,700	1,679,100	n.a.
Colombia .. .. .	110,729	106,494	105,162	102,678	134,331	127,943
Ecuador .. .. .	294,000	34,800	46,100	162,600	126,400	39,448
Peru .. .. .	22,972,766	24,845,258	25,918,353	27,225,216	30,755,496	33,581,997
Burma .. .. .	1,365,154	1,526,810	1,487,264	1,969,954	1,984,263	1,743,302
Formosa .. .. .	53,830	82,870	52,320	60,900	52,600	77,300
Japan .. .. .	6,166,963	6,543,673	6,552,032	6,650,930	6,910,000	7,960,200
Korea (South) .. .. .	196,415	277,346	247,788	241,900	329,640	460,430
Korea (North) (a) .. .. .	260,000	300,000	400,000	500,000	500,000	500,000
Philippine Republic .. .. .	541,168	479,216	497,987	504,085	1,133,343	812,793
<b>TOTAL*</b> .. .. .	<b>r156,000,000</b>	<b>r159,000,000</b>	<b>r161,000,000</b>	<b>r154,000,000</b>	<b>157,000,000</b>	<b>161,000,000</b>
<b>WORLD'S TOTAL*</b> .. .. .	<b>201,000,000</b>	<b>205,000,000</b>	<b>210,000,000</b>	<b>r203,000,000</b>	<b>208,000,000</b>	<b>207,000,000</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 25,000,000 troy ounces). An allowance, however, has been made for those other countries for which information is not yet available.

(a) "Metallgesellschaft" estimate.

(b) Exports.

**EXPORTS OF SILVER\***  
(Metal content)

Fine troy ounces

Exporting Country and Description	1956	1957	1958	1959	1960	1961
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom—						
Bullion .. .. .	75,836,726	39,331,255	12,390,683	10,177,065	6,316,238	11,394,246
Ghana—						
Bullion .. .. .	32,966	25,390	45,762	16,839	14,160	7,027
Kenya—						
Refined bullion .. .. .	—	22,960	44,146	46,411	33,865	37,836
Rhodesia and Nyasaland—						
Bullion .. .. .	73,477	74,079	75,200	311,688	76,096	132,547
Tanganyika—						
Concentrates .. .. .	527,860	500,945	719,250	512,728	572,428	38,372
Refined bullion .. .. .	35,020	20,520	18,552	22,818	23,053	25,593
Uganda—						
Bullion .. .. .	52	21	37	54	109	70
Canada—						
Ore, concentrates, etc.	6,924,414	5,979,459	5,098,788	6,814,865	8,897,402	10,352,700
Bullion .. .. .	14,341,753	12,799,990	16,026,550	15,140,830	12,761,063	10,783,414
Hong Kong—						
Bullion .. .. .	1,322,000	943,000	677,000	434,000	489,000	442,000
India—						
Bullion .. .. .	<i>n.a.</i>	33,356,619	—	—	—	—
Malaya—						
Bullion .. .. .	531,500	946,500	777,000	1,023,000	1,087,500	703,000
Australia (a)—						
Ores and concentrates	1,866,866	2,370,890	2,794,100	2,495,782	2,362,204	2,723,394
Silver-lead bullion .. .. .	2,683,035	4,797,845	3,991,803	4,775,248	3,941,164	4,299,192
Bullion, refined .. .. .	6,450,622	16,521,195	3,040,383	3,500,045	3,404,372	1,756,486
do. unrefined .. .. .	3,000	46,690	8,790	—	—	—
Beaten, rolled or drawn	31,734	2,584	29,651	40,254	12,660	88,141
Fiji—						
Bullion .. .. .	4,842	1,360	9,368	6,007	19,652	—
New Guinea (a)—						
Bullion .. .. .	42,950	41,354	34,534	23,864	40,733	28,961
New Zealand—						
Scrap, sweepings, etc. ..	1,600	—	—	—	—	—
Beaten, rolled or drawn	300	—	—	—	—	—
<b>OTHER COUNTRIES</b>						
Belgium-Luxemburg						
E.U.—						
Bullion and scrap .. .. .	3,778,000	3,858,000	4,315,000	11,545,000	11,358,000	6,337,000
Denmark—						
Bullion .. .. .	35,000	49,000	48,000	50,000	55,000	54,000
Beaten, rolled or drawn	300	1,100	2,000	2,000	16,000	2,000
France—						
Bullion and scrap .. .. .	4,261,000	2,432,000	2,334,000	1,454,000	1,359,000	937,000
Beaten, rolled or drawn	258,000	447,000	358,000	456,000	799,000	693,000
Germany (Federal)—						
Bullion .. .. .	13,447,000	18,955,000	13,866,000	15,829,000	14,872,000	18,621,000
Italy—						
Bullion and scrap .. .. .	—	500	57,000	—	3,000	<i>n.a.</i>
Netherlands—						
Bullion and scrap .. .. .	19,798,000	5,268,000	4,949,000	1,680,000	631,000	646,000
Beaten, rolled or drawn	439,000	430,000	508,000	416,000	381,000	304,000
Spain—						
Bullion .. .. .	—	—	780,000	2,588,000	322,000	—
Sweden—						
Bullion .. .. .	589,000	536,000	1,983,000	1,213,000	997,000	1,382,000

\*Excluding silver coin, but including silver shipped for minting.

(a) Years ended June 30 of that stated.



## EXPORTS OF SILVER (cont.)

Fine troy ounces

Exporting Country and Description	1956	1957	1958	1959	1960	1961
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
Switzerland—						
Bullion .. .. .	16,000	157,000	331,000	72,000	38,000	107,000
Yugoslavia—						
Bullion .. .. .	2,181,000	1,922,000	2,032,000	1,901,000	2,293,000	2,572,000
Congo Republic—						
Bullion .. .. .	34,000	29,000	39,000	30,000	<i>n.a.</i>	<i>n.a.</i>
Morocco—						
Bullion .. .. .	587,000	79,000	200	—	—	2,000
South Africa—						
Bullion .. .. .	634,266	1,318,673	1,125,205	1,860,220	1,570,306	1,629,320
South West Africa—						
Concentrates (b) ..	1,264,279	1,789,323	1,719,990	1,966,995	1,004,920	1,833,437
Guatemala (a)—						
Ore and base bullion ..	358,353	251,294	189,000	2,000	—	<i>n.a.</i>
Honduras—						
Ore and base bullion ..	1,921,672	2,230,839	2,762,932	2,792,165	2,584,984	3,327,020
Cuba (a)—						
Bullion, etc. .. .. .	216,489	252,728	325,000	215,000	121,000	—
Mexico—						
Bullion, etc. .. .. .	33,753,000	37,323,000	36,372,000	38,889,000	34,430,000	30,775,000
Nicaragua—						
Bullion .. .. .	221,000	209,000	283,000	237,000	212,000	241,000
Salvador—						
Bullion .. .. .	134,000	164,000	192,000	182,000	78,000	—
United States—						
Ore and base bullion ..	2,058,401	1,372,682	1,640,000	103,000	291,000	653,717
Refined bullion .. ..	3,442,479	8,926,674	1,093,000	9,077,000	26,302,000	39,173,558
Argentina—						
Bullion, etc. .. .. .	—	360,000	590,000	522,000	641,000	70,000
Bolivia—						
Ores, etc. .. .. .	7,543,304	5,375,090	6,051,284	4,504,126	4,887,138	3,901,010
Chile—						
Ores, etc. .. .. .	1,546,310	1,448,610	1,399,052	1,568,503	1,319,804	<i>n.a.</i>
Colombia—						
Bullion and scrap ..	79,000	15,000	391,000	—	126,000	—
Ecuador (a)—						
Ore and base bullion ..	49,689	53,138	63,000	107,000	94,000	<i>n.a.</i>
Peru—						
Ores and concentrates	10,640,940	10,475,843	12,537,472	14,502,819	15,511,489	15,399,592
Bullion .. .. .	10,083,953	10,233,361	11,473,233	11,857,528	13,875,412	17,446,202
Matte, slag, etc. ..	536,024	427,221	376,985	501,518	400,750	437,971
Burma—						
Bullion .. .. .	1,303,691	1,155,593	1,289,738	1,822,709	1,525,295	1,195,970
Japan—						
Bullion and scrap ..	644,000	37,000	174,000	24,000	10,000	12,000
Philippine Republic (a)—						
Ore and base bullion ..	249,437	285,496	263,000	158,000	2,195,000	<i>n.a.</i>

(a) Imports into the United States from the country stated.

(b) Recoverable from lead complex concentrate.

**TOTAL IMPORTS OF SILVER\***

(Metal content)

Fine troy ounces

Importing Country and Description	1956	1957	1958	1959	1960	1961
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom—						
Ores .. .. .	4,326,000	5,138,000	5,586,000	4,249,000	4,001,000	3,529,000
Unrefined bullion .. .. .	4,004,141	2,926,311	1,720,751	1,593,867	1,546,202	957,994
Refined bullion .. .. .	16,286,379	13,032,752	11,560,848	16,831,670	27,279,961	64,845,184
Malta—						
Bullion .. .. .	9,500	6,000	11,200	10,200	7,100	6,200
Ghana—						
Bullion .. .. .	65,907	40,973	23,959	16,475	32,025	20,499
Nigeria—						
Bullion, etc. .. .. .	16,730	6,433	5,329	45,337	32,189	562
Sierra Leone—						
Bullion .. .. .	1,380	2,125	160	—	2,305	4,349
Zanzibar—						
Bullion .. .. .	600	60	3	—	—	—
Canada—						
Bullion .. .. .	1,010,180	1,895,131	2,701	2,807,774	3,849,115	12,278,469
Jamaica—						
Bullion .. .. .	1,100	1,850	1,500	2,200	—	1,800
Trinidad and Tobago—						
Bullion .. .. .	6,000	4,852	8,481	12,564	9,306	9,480
British Guiana—						
Bullion .. .. .	1,300	1,600	2,400	2,000	4,100	<i>n.a.</i>
Ceylon—						
Bullion .. .. .	2,000	523,000	5,000	14,500	7,600	—
Cyprus—						
Bullion .. .. .	4,800	22,500	36,300	57,000	52,000	55,000
Hong Kong—						
Bullion .. .. .	162,000	22,000	18,000	60,000	24,000	26,000
India—						
Bullion .. .. .	10,822	68	2,002	4,079	(b) 37,500	(b) 70,500
Malaya—						
Bullion .. .. .	400	20	1,000	—	5,200	1,100
Sarawak—						
Bullion .. .. .	60	100	650	160	—	—
Australia (a)—						
Matte .. .. .	2,900	—	—	—	—	11,609
Bullion .. .. .	83,385	73,190	87,638	63,279	89,814	65,540
Beaten, rolled or drawn	19	—	—	—	197	340
New Zealand—						
Bullion .. .. .	41,038	64,736	58,895	62,072	70,158	19,079
Beaten, rolled or drawn	3,000	130,000	6,200	9,000	13,000	22,600
Irish Republic—						
Bullion .. .. .	1,100	—	—	1,400	—	—
<b>OTHER COUNTRIES</b>						
Austria—						
Bullion .. .. .	1,564,000	5,559,000	5,255,000	3,069,000	954,000	4,065,000
Belgium-Luxemburg						
E.U.—						
Bullion and scrap .. .. .	1,952,000	3,679,000	1,477,000	1,692,000	2,620,000	4,511,000
Denmark—						
Bullion .. .. .	1,119,000	1,393,000	1,473,000	1,360,000	1,269,000	1,041,000
Beaten, rolled or drawn	1,168,000	1,066,000	1,250,000	1,662,000	1,799,000	2,078,000
Finland—						
Bullion, etc. .. .. .	1,201,000	1,172,000	766,000	660,000	723,000	354,000

\*Excluding silver coin, but including silver shipped for minting.

(a) Years ended June of that stated.

(b) Years ended March 31 following that stated.

## IMPORTS OF SILVER (cont.)

Fine troy ounces

Importing Country and Description	1956	1957	1958	1959	1960	1961
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
France—						
Bullion and scrap ..	12,526,000	10,856,000	11,380,000	19,094,000	26,526,000	12,856,000
Beaten, rolled or drawn	672,000	212,000	143,000	157,000	275,000	502,000
Germany (Federal)—						
Bullion .. .. .	27,367,000	34,355,000	30,093,000	30,455,000	35,109,000	44,001,000
Italy—						
Bullion and scrap ..	5,447,000	5,535,000	5,055,000	7,244,000	8,979,000	<i>n.a.</i>
Netherlands—						
Bullion and scrap ..	1,622,000	1,390,000	1,234,000	2,780,000	1,308,000	1,847,000
Beaten, rolled or drawn	93,000	173,000	134,000	395,000	779,000	847,000
Norway—						
Bullion .. .. .	829,000	821,000	691,000	864,000	988,000	919,000
Beaten, rolled or drawn	1,103,000	960,000	1,210,000	1,207,000	1,290,000	1,271,000
Portugal—						
Bullion and scrap ..	2,853,000	4,065,000	3,272,000	2,559,000	2,808,000	1,706,000
Beaten, rolled and drawn	11,000	14,000	22,000	19,000	16,000	18,000
Sweden—						
Bullion .. .. .	1,287,000	1,245,000	481,000	354,000	643,000	354,000
Switzerland—						
Bullion .. .. .	4,331,000	6,506,000	5,173,000	3,041,000	3,792,000	12,582,000
Algeria—						
Bullion and scrap ..	124,000	135,000	100,000	64,000	38,000	<i>n.a.</i>
Beaten, rolled or drawn	140,000	101,000	122,000	100,000	114,000	<i>n.a.</i>
Congo Republic—						
Bullion .. .. .	35,000	26,000	48,000	67,000	<i>n.a.</i>	<i>n.a.</i>
Egypt—						
Bullion and scrap ..	11,000	1,000	3,000	2,000	<i>n.a.</i>	<i>n.a.</i>
South Africa—						
Bullion .. .. .	4,225	5,571	—	38,000	—	<i>n.a.</i>
Guatemala—						
Bullion .. .. .	204,000	80,000	323,000	330,000	162,000	304,000
United States—						
Ore and base bullion ..	63,125,065	99,925,905	134,650,000	39,759,000	43,404,000	34,558,974
Refined bullion .. .	99,706,716	106,192,994	31,316,000	29,329,000	17,253,000	15,697,216
Brazil—						
Bullion .. .. .	434,000	568,000	345,000	313,000	500,000	1,007,000
Colombia—						
Bullion and scrap ..	812,000	320,000	—	9,000	122,000	36,000
Japan—						
Bullion and scrap ..	31,000	52,000	100	1,426,000	6,834,000	3,826,000
Lebanon—						
Bullion and scrap ..	6,000	9,000	8,500	6,500	74,000	<i>n.a.</i>
Turkey—						
Bullion, etc. .. .	500	—	—	5,000	36,000	10,000

**STRONTIUM MINERALS**  
**PRODUCTION OF STRONTIUM MINERALS**

						Long tons
Producing Country and Description	1956	1957	1958	1959	1960	1961
COMMONWEALTH COUNTRIES						
United Kingdom—						
Celestite .. ..	9,200	6,900	5,600	6,000	6,604	8,679
Pakistan—						
Celestite .. ..	300	854	455	664	1,332	412
OTHER COUNTRIES						
Italy—						
Celestite.. ..	209	1,094	628	315	817	<i>n.a.</i>
Morocco—						
Strontium minerals ..	—	266	1,004	389	—	—
Mexico (a)—						
Celestite.. ..	2,130	1,820	2,135	2,269	2,650	2,488
United States—						
Strontium minerals ..	3,591	<i>n.a.</i>	—	<i>n.a.</i>	—	—
Argentina—						
Celestite.. ..	437	<i>n.a.</i>	214	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>

Strontianite is also produced in Germany.

(a) Exports.

**EXPORTS OF STRONTIUM MINERALS, ETC.**

						Long tons
Exporting Country and Description	1956	1957	1958	1959	1960	1961
COMMONWEALTH COUNTRIES						
United Kingdom—						
Celestite (a) .. ..	6,357	4,128	3,884	5,309	2,941	6,498
OTHER COUNTRIES						
France—						
Oxide .. ..	—	—	—	5	1	2
Germany (Federal)—						
Strontianite and celestite .. ..	27	—	—	—	—	<i>n.a.</i>
Italy—						
Strontianite and celestite	—	—	—	20	242	285
Mexico—						
Celestite.. ..	2,130	1,820	2,135	2,269	2,650	2,488

(a) Imports into the United States from the United Kingdom.

IMPORTS OF STRONTIUM MINERALS, ETC.

Long tons

Importing Country and Description	1956	1957	1958	1959	1960	1961
<b>OTHER COUNTRIES</b>						
Germany (Federal)— Strontianite and celestite	637	445	317	446	280	<i>n.a.</i>
United States— Strontianite and celestite	8,428	5,826	5,970	7,267	5,523	8,867
Strontium compounds . .	2	—	5	1	—	—

# SULPHUR

(see also Pyrites)

## PRODUCTION OF SULPHUR

Long tons

Producing Country and Description	1956	1957	1958	1959	1960	1961	Estimated Sulphur Content					
							1956	1957	1958	1959	1960	1961
<b>COMMONWEALTH COUNTRIES</b>												
United Kingdom—												
Spent oxide ..	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	130,248	126,129	117,247	101,399	101,196	120,634
Anhydrite (a) ..	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	146,909	156,489	156,654	156,573	160,814	146,500
Other (b) ..	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	52,973	39,142	49,561	53,173	62,402	58,406
Canada—												
Smelter gas ..	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	210,793	209,931	215,228	247,348	258,589	277,867
Hydrogen sulphide (d) (g)	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	31,057	83,337	84,265	130,050	244,963	353,827
Trinidad (f) ..	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000
Australia—												
Sulphur recoverable from:												
zinc concentrates ..	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	132,800	142,000	128,700	121,200	140,300	140,239
lead concentrates ..	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	23,000	25,000	23,000	22,000	21,000	19,471
Spent oxide ..	14,692	14,379	12,857	10,495	10,309	n.a.	5,877	5,751	5,154	3,655	3,975	2,375
<b>OTHER COUNTRIES</b>												
France—												
Sulphur (d) ..	—	28,000	126,670	428,024	779,000	1,088,000	—	n.a.	n.a.	n.d.	n.a.	n.a.
Germany (Federal)—												
Refined sulphur ..	77,126	76,568	75,565	78,474	82,807	82,860	77,126	76,568	75,565	78,474	82,807	82,860
Germany (East)—												
Sulphur ..	92,748	100,190	104,679	106,153	110,130	115,782	92,748	100,190	104,679	106,153	110,130	115,782
Greece—												
Sulphur rock ..	9,930	22,848	—	—	—	—	1,200	2,700	—	—	—	—
Italy—												
Sulphur rock ..	1,699,905	1,681,801	1,473,889	1,326,076	1,258,141	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Fused (e) ..	168,060	175,981	154,137	119,272	79,703	68,668	168,060	175,981	154,137	119,272	79,703	68,668
Ground sulphur rock (e) ..	22,213	19,904	18,619	69,437	34,678	17,567	6,700	6,000	5,600	20,800	10,400	5,300
Norway (c) ..	95,381	95,148	89,126	77,111	71,256	61,157	95,353	95,055	89,027	77,034	71,178	61,090

(a) For sulphuric acid manufacture only.

(b) Including sulphur recovered from petroleum refineries but excluding sulphur recovered from zinc concentrates.

(c) Sulphur recovered from pyrites.

(d) Recovered from natural gas.

(e) Derived from sulphur rock above.

(f) Recovered from petroleum refineries. Estimated.

(g) Sales.

PRODUCTION OF SULPHUR (cont.)

Long tons

Producing Country and Description	Estimated Sulphur Content						
	1956	1957	1958	1959	1960	1961	1961
<b>OTHER COUNTRIES (cont.)</b>							
Poland—							
Native sulphur ..	n.a.	n.a.	n.a.	10,500	25,000	n.a.	130,000
Portugal (i) ..	16,922	16,675	17,373	15,888	17,147	8,813	8,698
Spain—							
Sulphur rock ..	46,181	29,585	27,435	25,922	3,356	n.a.	n.a.
Refined sulphur (h) ..	64,803	62,174	25,251	25,719	62,174	n.a.	n.a.
Sweden—							
Sulphur ..	30,338	33,309	33,465	37,576	33,309	n.a.	n.a.
Egypt—							
Native sulphur ..	n.a.	—	n.a.	n.a.	—	n.a.	n.a.
By-product sulphur (a) ..	2,950	3,445	n.a.	2,403	3,445	44,692	44,692
South Africa—							
By-product sulphur (a) ..	—	—	—	—	—	2,163	2,163
Mexico—							
Mined (f) ..	758,412	1,024,066	1,223,055	1,293,186	1,261,574	1,148,494	1,148,494
Refined sulphur (e) ..	14,577	41,642	27,837	47,454	36,660	52,849	52,849
United States—							
Crude sulphur (f) ..	6,423,883	5,491,212	4,643,243	4,553,634	4,942,935	5,385,468	5,385,468
Sulphur ore (g) ..	212,476	276,868	6,292	331,237	379,067	400,015	400,015
Smelter gas (b) ..	1,064,406	1,194,230	1,101,754	969,678	1,056,890	1,016,731	316,600
By-product sulphur (c) ..	467,136	512,388	641,890	688,487	769,319	859,213	855,969
Hydrogen sulphide and liquid sulphur dioxide c	102,300	102,157	106,527	104,887	114,359	126,923	106,335
Argentina—							
Refined sulphur ..	18,587	16,981	25,221	25,207	16,981	22,183	22,183
Bolivia (d)—							
Refined sulphur ..	3,418	783	392	—	783	4,896	4,896
Chile—							
Refined sulphur ..	37,271	17,400	n.a.	14,069	30,901	n.a.	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) Exports.

(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.

PRODUCTION OF SULPHUR (cont.)

Long tons

Producing Country and Description	Estimated Sulphur Content											
	1956	1957	1958	1959	1960	1961	1956	1957	1958	1959	1960	1961
<b>OTHER COUNTRIES (cont.)</b>												
Colombia—												
Refined sulphur ..	5,000	5,157	6,690	9,000	9,000	9,900	5,000	5,157	6,690	9,000	9,000	9,900
Formosa—												
Refined sulphur ..	7,864	9,433	6,178	5,533	5,725	5,472	7,864	9,433	6,178	5,533	5,725	5,472
Iran—												
Native sulphur ..	n.a.	n.a.	10,354	10,300	n.a.	n.a.	n.a.	n.a.	5,000	5,000	n.a.	n.a.
By-product sulphur (a) ..	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	18,000	16,665	12,800	n.a.	n.a.	n.a.
Japan—												
Refined sulphur ..	243,312	253,547	178,052	215,668	243,683	238,562	243,312	253,547	178,052	215,668	243,683	238,562
Philippine Republic (b) ..	—	n.a.	n.a.	—	n.a.	n.a.	—	2,308	n.a.	—	43	158
Turkey—												
Refined sulphur ..	13,680	12,900	12,622	13,174	16,830	15,506	13,666	12,900	12,609	13,161	16,813	15,490

Sulphur is also produced in Bulgaria, the Netherlands, U.S.S.R., the Netherlands Antilles, Iraq and Manchuria.

(a) Recovered from petroleum refineries.

(b) Including sulphur recovered from gold and silver mines.



## EXPORTS OF SULPHUR

Long tons

Exporting Country and Description	1956	1957	1958	1959	1960	1961
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom ..	1,293	1,238	1,511	3,145	4,148	3,978
Canada .. ..	3,867	11,040	6,792	23,684	127,715	194,523
Hong Kong .. ..	—	40	197	148	122	138
Malaya .. ..	21	93	1	25	43	36
Australia—						
Zinc concentrates (S content) (a) ..	68,400	82,900	67,100	49,500	82,500	n.a.
New Zealand .. ..	7	8	—	17	8	10
<b>OTHER COUNTRIES</b>						
<b>Belgium-Luxemburg E.U.—</b>						
Crude .. ..	168	442	3	1,014	875	1,546
Refined .. ..	3,948	2,130	712	2,758	2,457	3,245
France—						
Crude .. ..	8,490	9,042	56,011	220,358	412,821	561,958
Unrefined ground ..	1,946	2,037	2,426	3,077	4,542	2,775
Refined lump .. ..	1,553	877	905	791	770	1,161
Flowers of sulphur ..	1,903	3,943	5,563	5,022	4,920	5,411
Precipitated sulphur ..	542	578	20	—	2	1
Germany (Federal) ..	24,178	25,879	26,251	25,582	19,956	16,354
Germany (East) .. ..	17,073	19,578	15,800	14,306	23,554	33,022
Italy—						
Crude .. ..	122,500	122,498	30,116	28,737	25,824	17,550
Refined .. ..	6,586	25,541	5,378	8,715	22,980	22,920
Flowers of sulphur ..	555	405	746	440	517	365
Precipitated sulphur ..	—	1	3	29	1	12
Netherlands—						
Crude .. ..	3,891	3,687	5,972	8,449	5,236	5,005
Refined .. ..	102	147	26	30	29	14
Norway .. ..	70,452	69,729	54,298	64,424	56,389	34,271
Portugal .. ..	469	1,294	645	405	442	455
Spain—						
Crude .. ..	—	5	—	—	—	—
Refined .. ..	—	3	10	—	—	—
Sweden .. ..	1,065	701	368	411	432	286
U.S.S.R. .. ..	25,100	40,300	41,200	51,000	112,000	214,700
South Africa .. ..	237	281	67	109	65	151
Mexico .. ..	493,990	863,344	1,005,498	1,064,780	1,233,691	1,136,452
United States—						
Crude .. ..	1,651,307	1,578,359	1,577,919	1,612,158	1,775,526	1,585,531
Refined and flowers of sulphur ..	24,024	14,620	24,207	23,449	11,017	10,512
Bolivia .. ..	3,418	783	392	—	1,175	4,897
Chile .. ..	26,131	8	346	946	800	637
Colombia .. ..	—	492	—	—	—	—
Ecuador .. ..	316	n.a.	n.a.	n.a.	n.a.	n.a.
Peru .. ..	49	—	—	—	—	—
Japan .. ..	595	43	9,026	119	217	284
Turkey .. ..	5,413	—	—	—	—	—

(a) Estimated amount recoverable.

## IMPORTS OF SULPHUR

Long tons

Importing Country and Description	1956	1957	1958	1959	1960	1961
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom—						
Sulphur .. .. .	352,480	322,814	326,946	r 377,439	486,899	496,193
Wastes and residues .. .. .	12,129	13,275	8,929	14,765	13,531	20,079
Malta—						
Crude .. .. .	2	50	126	27	30	—
Flowers of sulphur .. .. .	(£4,460)	(£3,800)	(£4,503)	(£8,225)	(£8,522)	(£9,109)
Kenya .. .. .	131	203	236	225	162	150
Mauritius .. .. .	93	94	2	37	80	74
Rhodesia and Nyasaland	32	76	46	78	8	110
Tanganyika .. .. .	236	304	230	235	269	460
Uganda .. .. .	261	854	495	215	1,050	402
Canada .. .. .	421,557	372,015	335,116	296,812	293,540	291,844
Jamaica .. .. .	1	9	5	5	16	4
Trinidad and Tobago .. .. .	22	24	24	6	8,151	27,277
British Guiana .. .. .	—	1	1	—	1	n.a.
Ceylon .. .. .	2,438	5,641	2,189	2,794	2,803	3,467
Cyprus .. .. .	948	1,272	1,286	1,439	1,256	1,583
Hong Kong .. .. .	776	859	544	r 1,609	1,382	1,288
India .. .. .	83,427	115,491	117,928	143,345	(a) 173,579	(a) 210,596
Malaya .. .. .	277	415	218	1,135	1,107	1,517
Pakistan .. .. .	1,036	1,112	3,091	1,334	3,782	5,634
Australia .. .. .	205,880	138,083	208,028	174,053	169,547	233,754
New Zealand .. .. .	85,768	92,270	65,195	88,180	133,246	144,475
Irish Republic .. .. .	1,628	5,737	6,649	7,279	18,439	35,193
<b>OTHER COUNTRIES</b>						
Austria .. .. .	26,763	31,707	44,480	52,853	55,982	60,106
Belgium-Luxemburg						
E.U.—						
Crude .. .. .	66,810	104,471	95,632	133,578	180,462	163,476
Refined .. .. .	381	416	414	568	387	280
Czechoslovakia .. .. .	25,000	28,000	37,000	58,000	74,000	107,000
Denmark .. .. .	1,371	2,419	1,445	3,485	6,751	4,173
Finland .. .. .	59,770	64,268	62,504	69,997	98,722	84,749
France—						
Crude .. .. .	272,193	299,359	302,612	190,829	144,224	140,868
Unrefined ground	80	152	110	—	69	33
Refined lump .. .. .	158	1	2	44	33	44
Precipitated .. .. .	62	29	6	12	16	48
Germany (Federal) .. .. .	62,415	63,844	63,415	100,251	174,622	158,316
Greece .. .. .	9,290	9,210	8,222	13,188	14,272	11,255
Hungary .. .. .	13,060	22,403	17,951	18,829	30,290	27,165
Netherlands—						
Crude .. .. .	6,123	22,318	63,865	57,486	95,330	125,167
Refined .. .. .	1,170	1,408	913	1,365	1,251	1,195
Norway .. .. .	1,868	4,632	3,363	1,382	7,275	9,854
Portugal .. .. .	1,602	2,628	1,825	2,710	8,039	11,953
Spain—						
Crude .. .. .	14,065	—	2,953	14,776	} 6,651	} 5,800
Refined, etc. .. .. .	46	21	38	15		
Sweden .. .. .	78,650	68,707	64,645	67,667	77,163	95,916
Switzerland—						
Crude and ground	45,551	36,298	42,531	34,832	69,482	54,038
Flowers of sulphur .. .. .	267	255	170	304	322	121
U.S.S.R. .. .. .	57,000	92,300	65,200	63,000	49,500	43,800
Yugoslavia .. .. .	69	3,635	6,843	7,957	13,291	18,633

(a) Years ended March 31 following that stated.

## IMPORTS OF SULPHUR (cont.)

Long tons

Importing Country and Description	1956	1957	1958	1959	1960	1961
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
Algeria—						
Crude .. .. .	17,352	20,067	24,522	25,307	33,468	<i>n.a.</i>
Unrefined, ground .. .. .	1,362	1,098	1,611	1,843	1,953	<i>n.a.</i>
Refined .. .. .	444	431	487	202	369	<i>n.a.</i>
Flowers of sulphur .. .. .	20	—	82	306	104	<i>n.a.</i>
Precipitated .. .. .	331	451	23	—	—	<i>n.a.</i>
Angola .. .. .	69	149	220	197	164	534
Canary Islands—						
Crude .. .. .	—	1,370	1,968	—	4,823	6,769
Refined, etc. .. .. .	3,693	3,732	4,921	4,892		
Congo Republic .. .. .	294	163	408	135	<i>n.a.</i>	<i>n.a.</i>
Egypt .. .. .	9,135	14,460	7,830	13,213	14,117	<i>n.a.</i>
Malagasy Republic .. .. .	61	57	36	18	15	7
Morocco—						
Crude .. .. .	3,450	3,992	6,493	9,198	9,194	3,386
Unrefined, ground .. .. .	176	140	239	434	487	1,246
Refined .. .. .	435	215	196	249	558	325
Flowers of sulphur .. .. .	1,695	2,103	3,147	2,913	2,530	2,535
Precipitated .. .. .	113	66	23	13	203	8
Mozambique .. .. .	882	970	671	411	649	<i>n.a.</i>
South Africa .. .. .	111,295	104,064	126,821	114,028	114,595	111,399
Tunisia—						
Crude and unrefined .. .. .	38,125	1,554	7,392	2,137	6,592	8,575
Refined and flowers of sulphur .. .. .	268	769	1,616	1,091	657	823
Costa Rica .. .. .	10	45	12	73	29	27
Cuba .. .. .	17,513	17,637	10,813	81,899	<i>n.a.</i>	<i>n.a.</i>
Guatemala .. .. .	125	193	293	173	74	95
Mexico .. .. .	105	207	441	238	173	146
Netherlands Antilles .. .. .	<i>n.a.</i>	<i>n.a.</i>	5,002	4,987	1,501	4,002
Nicaragua .. .. .	21	15	105	904	4,143	5,583
Salvador .. .. .	95	161	76	15	27	42
United States .. .. .	212,229	499,401	590,687	642,488	738,838	831,519
Argentina—						
Crude .. .. .	21,291	43,235	38,558	25,809	29,720	20,188
Refined and flowers of sulphur .. .. .	25	103	80	34	24	104
Brazil—						
Crude .. .. .	91,787	98,058	93,970	103,782	137,844	128,018
Refined .. .. .	1,281	2,199	242	327	242	161
Flowers of sulphur .. .. .	115	433	—	—	—	—
Precipitated .. .. .	41	71	47	44	47	12
Colombia .. .. .	384	250	288	61	68	95
Ecuador .. .. .	20	19	36	21	<i>n.a.</i>	<i>n.a.</i>
Peru .. .. .	2,502	3,450	4,579	7,954	12,189	9,825
Uruguay .. .. .	1,215	523	7,084	3,275	6,443	<i>n.a.</i>
Venezuela .. .. .	2,130	2,311	2,332	3,866	2,553	8,839
Burma .. .. .	210	1,596	493	535	13,816	33,757
Formosa .. .. .	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	10,683	11,915
Indonesia .. .. .	9,941	7,396	7,880	11,254	8,447	<i>n.a.</i>
Iraq .. .. .	1,911	97	268	378	1,004	<i>n.a.</i>
Israel .. .. .	<i>n.a.</i>	<i>n.a.</i>	44,938	51,231	59,965	<i>n.a.</i>
Japan .. .. .	19,117	2,984	151	121	93	101
Jordan .. .. .	521	475	773	1,189	825	1,455
Korea (South) .. .. .	<i>n.a.</i>	<i>n.a.</i>	2,311	4,263	4,433	7,526
Lebanon .. .. .	1,159	1,812	3,863	5,751	3,504	<i>n.a.</i>
Philippine Republic .. .. .	1,814	2,152	2,480	1,374	1,815	535
Syria .. .. .	619	743	580	853	1,151	904
Thailand .. .. .	143	1,072	643	591	3,216	2,268
Turkey—						
Refined and flowers of sulphur .. .. .	28	223	6	48	227	64

# TALC

## PRODUCTION OF TALC (Including Steatite and Pyrophyllite)

Long tons

Producing Country	1956	1957	1958	1959	1960	1961
<b>COMMONWEALTH COUNTRIES</b>						
Great Britain .. ..	3,813	3,800	4,147	5,683	6,468	6,930
Swaziland— Pyrophyllite .. ..	—	20	139	900	1,530	2,638
Canada (c) .. ..	26,184	31,004	31,612	34,979	37,175	42,942
India .. ..	46,855	43,976	45,452	63,467	91,917	95,264
Pakistan .. ..	1,100	1,174	1,586	2,340	3,370	1,215
Australia— Talc .. ..	13,160	14,441	15,393	16,376	15,670	13,525
Pyrophyllite .. ..	339	358	267	347	501	749
<b>OTHER COUNTRIES</b>						
Austria .. ..	65,012	72,246	69,709	50,424	80,978	83,606
Finland .. ..	7,273	8,267	6,545	7,594	9,829	8,000
France .. ..	113,250	129,895	165,753	172,793	184,819	203,000
Germany (Federal) ..	50,425	42,789	42,784	42,736	44,394	44,900
Greece .. ..	2,000	2,000	1,752	292	1,793	n.a.
Italy .. ..	93,755	98,742	107,772	107,532	122,426	130,034
Norway .. ..	61,186	69,859	66,244	68,774	70,000	64,000
Portugal .. ..	85	—	—	217	669	709
Spain .. ..	27,508	31,331	29,786	27,376	27,547	n.a.
Sweden .. ..	11,974	11,433	12,218	14,200	15,600	15,500
Egypt .. ..	6,880	5,385	6,476	5,989	5,905	5,862
Morocco .. ..	—	—	4,833	3,496	n.a.	n.a.
South Africa (b) ..	1,757	2,066	683	1,341	1,767	2,928
United States— Talc .. ..	510,074	467,781	502,401	571,771	544,502	539,194
Pyrophyllite .. ..	149,782	143,337	138,818	134,978	111,278	140,554
Argentina .. ..	25,000	23,428	26,839	26,730	(a) 27,000	(a) 27,000
Brazil .. ..	27,396	20,556	28,074	20,865	19,603	n.a.
Paraguay (a) .. ..	100	100	100	100	100	100
Peru— Talc .. ..	3,599	120	152	1,512	1,546	2,898
Pyrophyllite .. ..	1,410	2,280	1,700	2,085	2,944	1,658
Uruguay .. ..	803	1,399	1,776	(d) 700	(d) 700	(d) 700
Afghanistan .. ..	—	(d) 700	(d) 700	n.a.	n.a.	1,377
Burma .. ..	—	—	—	6,321	10,390	12,219
Formosa .. ..	6,034	5,302	3,283	300	300	n.a.
Iran (e) .. ..	n.a.	n.a.	200	—	—	—
Japan— Talc .. ..	30,546	31,991	39,250	39,529	49,927	54,971
Pyrophyllite .. ..	278,246	386,857	298,245	438,275	533,068	569,593
Korea (South)— Talc .. ..	6,168	6,496	9,946	16,380	15,727	21,332
Pyrophyllite .. ..	7,837	4,606	5,751	413	6,497	23,606
Philippine Republic ..	—	—	—	—	5	187
<b>TOTAL*</b> .. ..	<b>1,580,000</b>	<b>1,660,000</b>	<b>r 1,670,000</b>	<b>1,890,000</b>	<b>2,000,000</b>	<b>2,200,000</b>

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

(a) United States Bureau of Mines' estimate.

(b) In addition the following amounts of wonderstone were produced (long tons): 1956—237; 1957—531; 1958—1,121; 1959—350; 1960—624; 1961—913.

(c) Shipments.

(d) Estimated.

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

EXPORTS OF TALC

Long tons

Exporting Country and Description	1956	1957	1958	1959	1960	1961
<b>COMMONWEALTH COUNTRIES</b>						
Canada .. .. .	2,333	2,101	1,724	1,833	1,482	<i>n.a.</i>
India .. .. .	7,672	7,021	7,101	7,387	(b) 7,498	(b) 11,128
Malaya .. .. .	280	203	200	574	361	552
Australia (a) .. ..	2,507	2,604	3,116	2,811	2,838	4,478
<b>OTHER COUNTRIES</b>						
Austria .. .. .	49,151	50,349	50,772	34,002	62,452	61,397
Belgium-Luxemburg						
E.U. .. .. .	75	20	37	33	40	8
France .. .. .	29,054	31,801	29,895	31,618	42,497	43,558
Germany (Federal) ..	1,115	1,017	639	1,160	920	1,137
Italy .. .. .	38,807	39,917	44,300	41,117	49,405	49,381
Norway .. .. .	51,756	53,294	52,133	53,782	62,020	60,878
Sweden .. .. .	3,933	1,758	1,764	2,836	1,838	1,352
Egypt .. .. .	1,501	1,082	1,409	701	1,273	<i>n.a.</i>
Mexico .. .. .	1	321	182	366	355	1
United States .. ..	37,797	35,701	52,363	52,456	53,087	42,779
Japan .. .. .	423	670	716	810	1,000	1,178
Korea (South)—						
Talc .. .. .	6,094	5,773	11,783	14,198	6,964	14,279
Pyrophyllite .. ..	<i>n.a.</i>	<i>n.a.</i>	4,888	8,187	8,208	12,360

(a) Years ended June 30 of that stated.

(b) Years ended March 31 following that stated.

## IMPORTS OF TALC

Long tons

Importing Country and Description	1956	1957	1958	1959	1960	1961
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom—						
Unground .. .. .	1,618	760	262	229	848	994
Ground .. .. .	36,574	37,251	38,000	39,239	41,595	38,881
Canada .. .. .	14,517	13,225	14,798	16,507	17,101	18,040
Ceylon .. .. .	961	1,091	1,969	1,812	1,855	1,530
Malaya .. .. .	2,952	3,552	2,792	3,953	5,803	7,154
Australia (a) .. .. .	233	220	263	253	539	958
<b>OTHER COUNTRIES</b>						
Austria .. .. .	644	674	400	205	281	1,373
Belgium-Luxemburg						
E.U. .. .. .	10,119	11,426	11,080	11,576	13,148	13,417
Denmark .. .. .	8,259	9,142	8,278	7,880	10,750	11,376
Finland .. .. .	1,736	1,471	1,821	2,785	4,042	2,774
France .. .. .	2,076	3,851	5,334	4,018	4,831	6,622
Germany (Federal)	37,973	39,234	35,449	39,223	47,681	48,391
Italy .. .. .	2,438	2,248	1,685	1,959	3,916	6,607
Netherlands .. .. .	12,325	10,671	8,506	10,511	11,241	10,946
Norway .. .. .	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	1,258	1,405	1,570
Portugal .. .. .	595	844	707	865	914	990
Sweden .. .. .	8,081	8,296	8,239	10,187	9,088	11,615
Switzerland .. .. .	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	14,390	15,460
U.S.S.R. . . . .	67,100	69,400	70,000	80,200	81,800	49,600
Yugoslavia .. .. .	82	97	195	354	335	400
Algeria .. .. .	1,776	1,744	3,112	2,651	4,317	<i>n.a.</i>
Congo Republic .. .. .	293	289	253	348	<i>n.a.</i>	<i>n.a.</i>
Egypt .. .. .	165	6	—	—	2	<i>n.a.</i>
Malagasy Republic	22	4	8	8	5	16
Morocco .. .. .	846	551	837	809	874	1,412
Tunisia .. .. .	243	439	544	438	654	498
Costa Rica .. .. .	38	48	58	62	80	85
Guatemala .. .. .	14	46	69	70	71	93
Honduras .. .. .	12	16	36	28	36	17
Mexico—						
Talc .. .. .	5,698	15,758	28,068	19,328	22,476	28,810
Pyrophyllite .. .. .	620	431	896	542	1,485	271
Salvador .. .. .	16	28	46	26	41	74
United States .. .. .	20,849	18,210	20,438	22,635	21,407	24,424
Argentina .. .. .	—	—	1	3	52	81
Brazil .. .. .	—	10	—	10	5	1
Chile .. .. .	6	27	41	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Colombia .. .. .	1,393	1,503	903	1,129	1,126	976
Ecuador .. .. .	79	69	309	104	<i>n.a.</i>	<i>n.a.</i>
Peru .. .. .	300	470	433	465	398	654
Venezuela .. .. .	882	1,053	1,367	1,533	1,212	1,446
Iraq .. .. .	175	496	350	366	348	<i>n.a.</i>
Japan .. .. .	19,414	22,845	24,461	33,296	27,809	40,029
Lebanon .. .. .	145	202	196	220	474	<i>n.a.</i>
Philippine Republic	890	1,484	1,544	1,806	2,532	1,800
Syria .. .. .	267	292	320	268	<i>n.a.</i>	<i>n.a.</i>
Thailand .. .. .	432	512	708	931	863	1,276
Turkey .. .. .	100	122	153	168	274	324

(a) Years ended June 30 of that stated.

**TANTALUM AND NIOBIUM MINERALS**  
**PRODUCTION OF TANTALUM AND NIOBIUM MINERALS**

Long tons

Producing Country	1956	1957	1958	1959	1960	1961
<b>COMMONWEALTH COUNTRIES</b>						
Kenya—						
Columbite .. ..	—	—	1	1	(385 lb.)	—
Nigeria—						
Tantalite .. ..	14	18	20	12	11	13
Columbite .. ..	2,604	1,923	806	1,588	2,047	2,345
Southern Rhodesia—						
Tantalum concentrates	13	34	43	52	48	62
Columbite .. ..	2	—	—	—	—	—
Swaziland—						
Ytrotantalite .. ..	—	15	—	—	—	—
Tanganyika—						
Niobium concentrates (d)	—	—	40	100	150	n.a.
Uganda—						
Tantalite and columbite	2	2	3	2	2	7
Canada—						
Niobium concentrates (Cb <sub>2</sub> O <sub>5</sub> content) ..	—	—	—	—	—	27
Malaya—						
Columbite .. ..	276	142	159	120	93	95
Australia—						
Tantalite and columbite	71	22	6	8	11	14
<b>OTHER COUNTRIES</b>						
Norway—						
Niobium concentrates(b)	256	190	281	285	341	316
Portugal—						
Tantalite and columbite	27	31	24	18	25	19
Congo Republic—						
Tantalite and columbite concentrates .. ..	r 326	r 154	r 179	r 177	(e) 250	(e) 124
Tin-tantalite-columbite c	r 2,148	r 1,919	r 1,421	r 1,223	(f) 670	n.a.
Ivory Coast—						
Tantalite and columbite	—	—	1	1	3	4
Malagasy Republic—						
Columbite .. ..	9	8	13	10	10	21
Mozambique—						
Tantalite .. ..	3	} 129	168	143	142	133
Columbite .. ..	26					
Ruanda-Urundi—						
Tantalite and columbite concentrates .. ..	4	81	64	56	n.a.	n.a.
Tin-tantalite-columbiteg	570	28	6	15	n.a.	n.a.
South Africa—						
Tantalite .. ..	1	1	17	5	6	9
South West Africa—						
Tantalum and niobium concentrates .. ..	6	11	5	2	1	3
United States—						
Tantalum and niobium concentrates (a) ..	97	165	191	84	—	—

(a) Shipments from mine. As from 1956, principally niobium-tantalum oxide content of euxenite concentrates.

(b) 51% Nb<sub>2</sub>O<sub>5</sub> in 1956; 50% Nb<sub>2</sub>O<sub>5</sub> in 1957; 50% Nb<sub>2</sub>O<sub>5</sub> in 1958; 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.

(c) Estimated to contain 184, 140, 105, and 79 tons of tantalite-columbite in 1956, 1957, 1958 and 1959 respectively.

(d) Exports. 25% Nb<sub>2</sub>O<sub>5</sub>.

(e) Imports into the United States.

(f) United States Bureau of Mines' estimate.

(g) Estimated to contain 97, 13, 3 and 6 tons of tantalite-columbite in 1956, 1957, 1958 and 1959 respectively.

PRODUCTION OF TANTALUM AND NIOBIUM MINERALS (*cont.*)

Long tons

Producing Country	1956	1957	1958	1959	1960	1961
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
Argentina—						
Tantalite and columbite	5	—	<i>n.a.</i>	<i>n.a.</i>	—	—
Brazil—						
Tantalite and columbite	176	130	335	127	210	<i>n.a.</i>
French Guiana—						
Tantalite and columbite	7	1	—	—	—	—

Small quantities of tantalite and columbite have been produced in Northern Rhodesia, India and the Somali Republic.



## EXPORTS OF TANTALUM AND NIOBIUM MINERALS, ETC.

Long tons

Exporting Country and Description	1956	1957	1958	1959	1960	1961
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom—						
Ferro-niobium and ferro-niobium-tantalum ..	163	82	37	71	97	83
Nigeria—						
Tantalite .. ..	15	13	24	16	12	11
Columbite .. ..	2,406	1,145	737	1,882	3,334	1,839
Rhodesia and Nyasaland—						
Columbite .. ..	2	—	—	—	—	—
Tantalum concentrates	19	31	55	32	46	38
Tanganyika—						
Niobium concentrates ..	—	—	40	100	150	120
Uganda—						
Tantalite and columbite	4	2	4	1	3	3
Malaya—						
Columbite .. ..	184	102	311	47	99	138
Australia (a)—						
Tantalite and columbite	41	30	5	9	15	13
<b>OTHER COUNTRIES</b>						
Germany (Federal)—						
Tantalum metal, etc. ..	(30,000lb.)	(16,800lb.)	(6,200lb.)	(5,700lb.)	(28,400lb.)	(22,000lb.)
Niobium metal, etc. ..	n.a.	n.a.	(2,000lb.)	(1,100lb.)	(3,300lb.)	(2,900lb.)
Portugal—						
Tantalite and columbite	31	49	49	33	47	40
Norway—						
Niobium concentrates ..	n.a.	n.a.	n.a.	331	270	192
Congo Republic—						
Tantalite and columbite	606	348	476	355	(b) 200	(b) 110
Tantaliferous slag ..	733	583	1,126	151	806	n.a.
Malagasy Republic—						
Columbite .. ..	12	6	6	7	24	14
Mozambique—						
Columbite .. ..	18	70	199	135	n.a.	n.a.
South Africa—						
Tantalite .. ..	—	1	7	—	1	1
South West Africa—						
Tantalite .. ..	3	7	10	—	1	2
United States—						
Tantalum concentrates	1	—	3	5	14	97
Niobium concentrates	5	26	24	7	69	25
Tantalum metal, etc. ..	(1,721lb.)	(4,877lb.)	(13,476lb.)	(6,141lb.)	(17,559lb.)	(15,554lb.)
Niobium metal, etc. ..	—	(21lb.)	(87lb.)	(354lb.)	(3,910lb.)	(13,376lb.)
Tantalum powder ..	(6,080lb.)	(5,977lb.)	(5,773lb.)	(1,988lb.)	(1,174lb.)	(11,526lb.)
Brazil—						
Tantalite .. ..	93	91	95	93	115	118
Columbite .. ..	79	30	71	15	12	17
French Guiana—						
Tantalite and columbite	6	1	—	—	—	—

(a) Years ended June 30 of that stated.

(b) Estimated.

## IMPORTS OF TANTALUM AND NIOBIUM MINERALS, ETC.

Long tons

Importing Country and Description	1956	1957	1958	1959	1960	1961
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom—						
Tantalite and columbite	744	438	386	369	618	576
Tantalum metal ..	(4,353lb.)	(5,365lb.)	(3,680lb.)	(1,119lb.)	(3,283lb.)	(5,444lb.)
<b>OTHER COUNTRIES</b>						
France—						
Tantalite and columbite	64	24	43	127	155	145
Germany (Federal)—						
Tantalite .. ..	1	33	} 160	499	1,209	n.a.
Columbite .. ..	261	159				
Tantalum metal, etc. ..	(4,200lb.)	(7,100lb.)	(15,000lb.)	(4,000lb.)	(4,900lb.)	(11,700lb.)
United States—						
Tantalite .. ..	586	370	462	291	317	448
Columbite .. ..	2,544	1,495	1,141	1,516	2,255	1,240
Tantalum metal .. ..	(5,514lb.)	(2,430lb.)	(239lb.)	(405lb.)	(1,960lb.)	(2,887lb.)
Niobium metal (a) ..	(15,144lb.)	(4,061lb.)	(5,458lb.)	(1,160lb.)	(3,133lb.)	(2,139lb.)
Japan—						
Columbite .. ..	3	77	6	3	86	55

(a) As recorded in official trade returns. According to U.S. Bureau of Mines includes ferro-alloy.

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

Long tons

Producing Country	1956	1957	1958	1959	1960	1961
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom ..	1,066	1,080	1,117	1,189	1,180	1,188
Nigeria ..	9,067	9,534	6,154	5,491	7,677	7,778
Northern Rhodesia ..	—	—	—	1	—	1
Southern Rhodesia ..	354	283	532	r 605	642	716
Swaziland ..	29	25	15	5	6	5
Tanganyika ..	15	14	18	65	138	168
Uganda ..	25	41	37	36	32	33
Canada (b) ..	337	317	355	334	278	389
Malaya ..	62,296	59,293	38,458	37,521	51,979	56,028
Australia ..	2,078	1,952	2,237	2,351	2,202	2,593
<b>TOTAL ..</b>	<b>r 75,267</b>	<b>r 72,539</b>	<b>r 48,923</b>	<b>r 47,598</b>	<b>64,134</b>	<b>68,899</b>
<b>OTHER COUNTRIES</b>						
France ..	400	429	—	—	21	138
Germany (Eastern) ..	660	(a) 670	(a) 720	(a) 720	(a) 720	(a) 720
Portugal ..	1,276	1,127	1,249	1,129	772	729
Spain ..	445	498	467	326	196	255
Cameroun ..	85	74	75	62	64	65
Congo Republic ..	r 12,832	r 12,478	r 9,714	r 9,193	8,900	6,750
Congo (Republic of) ..	—	—	23	32	35	(a) 24
Morocco ..	5	8	6	10	10	11
Niger ..	56	50	62	57	53	47
Ruanda-Urundi ..	1,932	1,817	1,500	1,127	1,277	1,474
South Africa ..	1,443	1,463	1,416	1,272	1,276	1,430
South West Africa ..	475	636	155	5	261	302
Mexico ..	501	474	544	377	365	530
United States ..	—	—	—	50	10	—
Argentina ..	85	182	205	225	238	524
Bolivia (c) ..	r 26,825	r 27,759	r 17,705	r 23,774	18,938	20,318
Brazil ..	175	293	409	461	1,556	(a) 1,500
Peru ..	3	12	30	—	(a) 12	(a) 12
Burma ..	785	694	896	800	950	951
China (a) (d) ..	14,000	16,000	18,000	21,000	24,000	24,000
Indonesia ..	30,054	27,721	23,200	21,613	22,594	18,573
Japan ..	926	949	1,108	998	842	853
Laos ..	240	274	301	294	383	(a) 550
Thailand ..	12,481	13,528	7,718	9,684	12,080	13,270
<b>TOTAL*</b> ..	<b>r 106,000</b>	<b>r 107,000</b>	<b>r 85,000</b>	<b>r 93,000</b>	<b>96,000</b>	<b>93,000</b>
<b>WORLD'S TOTAL*</b> ..	<b>181,000</b>	<b>180,000</b>	<b>134,000</b>	<b>141,000</b>	<b>160,000</b>	<b>162,000</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.

## SMELTER PRODUCTION OF TIN

Long tons

Producing Country	1956	1957	1958	1959	1960	1961
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom .. .. .	26,434	34,174	r 31,326	r 26,614	26,286	24,449
Nigeria .. .. .	—	—	—	—	—	622
Southern Rhodesia .. .. .	17	253	503	572	611	673
Malaya .. .. .	73,263	71,289	45,336	45,729	76,130	79,114
Australia .. .. .	1,850	1,806	2,121	2,226	2,254	2,566
<b>TOTAL .. .. .</b>	<b>r 101,564</b>	<b>r 107,522</b>	<b>r 79,286</b>	<b>r 75,141</b>	<b>105,281</b>	<b>107,424</b>
<b>OTHER COUNTRIES</b>						
Belgium .. .. .	10,288	9,011	9,304	6,608	8,515	6,372
Germany—						
Federal Republic .. .. .	683	955	646	1,010	769	947
Eastern .. .. .	600	(b) 600	(b) 600	(b) 600	(b) 600	(b) 600
Netherlands .. .. .	28,197	29,259	17,098	9,592	6,393	2,729
Portugal .. .. .	1,127	1,072	1,260	1,174	601	784
Spain .. .. .	455	446	449	328	304	659
Congo Republic .. .. .	2,772	3,105	2,642	3,291	(b) 3,500	(b) 2,400
Morocco .. .. .	(b) 12	(b) 12	(b) r 10	(b) r 10	(b) 10	(b) 10
South Africa .. .. .	756	825	901	726	622	870
Mexico .. .. .	240	207	460	377	365	559
United States .. .. .	17,631	1,564	(b) 5,250	(b) 10,700	(b) 13,500	(b) 8,500
Argentina .. .. .	61	39	(b) 120	(b) 120	(b) 120	(b) 120
Bolivia (a) .. .. .	404	204	682	917	1,020	1,840
Brazil .. .. .	1,544	1,401	629	1,227	1,312	1,568
China (b) .. .. .	14,000	16,000	18,000	21,000	24,000	24,000
Indonesia .. .. .	300	322	1,569	1,971	1,977	(b) 2,000
Japan .. .. .	1,104	1,213	1,260	1,271	1,215	1,555
<b>TOTAL* .. .. .</b>	<b>79,000</b>	<b>65,000</b>	<b>r 61,000</b>	<b>r 61,000</b>	<b>65,000</b>	<b>56,000</b>
<b>WORLD'S TOTAL* .. .. .</b>	<b>181,000</b>	<b>173,000</b>	<b>140,000</b>	<b>136,000</b>	<b>170,000</b>	<b>163,000</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:

	Long tons		Long tons
1956 .. .. .	29,440	1959 .. .. .	23,700
1957 .. .. .	24,262	1960 .. .. .	22,050
1958 .. .. .	22,810	1961 .. .. .	21,690

(a) Exports.

(b) Estimated by International Tin Council.

## EXPORTS OF TIN, ETC.\*

Long tons

Exporting Country and Description	1956	1957	1958	1959	1960	1961
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom—						
Unwrought .. .. .	7,267	7,332	9,240	29,245	7,777	9,799
do. alloys .. .. .	2,801	2,944	2,910	2,434	1,529	1,839
Semi-manufactures (a)	249	219	190	292	301	301
Nigeria—						
Ore .. .. .	13,364	13,577	7,626	7,536	10,658	10,410
Rhodesia and Nyasaland—						
Ore and concentrates ..	177	112	191	108	15	254
Unwrought .. .. .	120	155	383	324	483	486
Tanganyika—						
Ore and concentrates ..	26	18	28	88	192	226
Uganda—						
Ore .. .. .	45	51	59	55	46	42
Canada—						
Concentrates (Sn content) .. ..	337	317	355	400	n.a.	480
Hong Kong—						
Unwrought (a) .. .. .	50	84	811	189	169	152
India—						
Scrap .. .. .	n.a.	23	29	40	(c) 65	(c) 123
Malaya—						
Unwrought .. .. .	73,279	70,604	45,814	44,671	76,366	78,025
do. alloys .. .. .	45	16	11	24	40	66
Semi-manufactures (a)	1	1	2	—	2	2
Australia (b)—						
Ore and concentrates ..						
(Sn content) .. .. .	123	60	133	50	2	142
Unwrought (a) .. .. .	50	50	63	21	20	18
<b>OTHER COUNTRIES</b>						
Austria—						
Unwrought (a) .. .. .	7	12	29	82	120	92
Belgium-Luxemburg						
E.U.—						
Unwrought .. .. .	9,811	9,459	8,916	6,212	7,981	4,405
do. alloys .. .. .	203	182	130	135	124	124
Scrap .. .. .	146	92	102	140	120	301
Semi-manufactures (a)	105	169	107	117	104	195
Denmark—						
Unwrought .. .. .	28	17	18	151	130	109
do. alloys .. .. .	6,012	6,204	4,721	8,580	2,780	3,871
Scrap .. .. .	70	2	—	—	2	—
Semi-manufactures (a)	4	17	21	25	35	24
France—						
Ore .. .. .	638	707	41	32	44	257
Unwrought .. .. .	14	22	26	24	35	32
do. alloys .. .. .	291	150	112	91	136	143
Semi-manufactures (a)	134	240	293	284	184	182
Germany (Federal)—						
Unwrought (a) .. .. .	2,008	1,643	3,844	10,294	18,299	18,557
Semi-manufactures (a)	55	101	125	63	105	160

\*In these tables the description "unwrought" tin corresponds to item 687.1 in the Standard International Trade Classification and comprises ingots, pigs, unwrought bars, sticks, etc. "Semi-manufactures" corresponds to S.I.T.C. 687.2 and includes foil and powder as well as sheets, strip, wire, pipes, tubes, etc.

(a) Including alloys.

(b) Years ended June 30 of that stated.

(c) Years ended March 31 following that stated.

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

Long tons

Exporting Country and Description	1956	1957	1958	1959	1960	1961
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
Italy—						
Unwrought (a) ..	8	49	16	5	131	27
Semi-manufactures (a) ..	8	2	7	32	18	19
Netherlands—						
Unwrought .. ..	25,650	29,425	24,779	19,721	12,234	8,583
do. alloys .. ..	283	665	549	2,192	5,164	3,989
Scrap (a) .. ..	124	51	61	226	156	311
Semi-manufactures (a) ..	235	317	295	282	184	233
Norway—						
Unwrought (a) .. ..	5	13	25	386	389	363
Semi-manufactures (a) ..	244	281	223	2	—	—
Portugal—						
Ore .. ..	116	156	44	78	145	65
Unwrought .. ..	64	20	86	79	314	806
Spain—						
Unwrought .. ..	197	—	—	251	—	10
Sweden—						
Unwrought .. ..	75	16	168	64	21	16
do. alloys .. ..	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	371	267	128
Switzerland—						
Unwrought .. ..	20	4	37	12	19	14
Scrap .. ..	227	207	213	180	166	254
Semi-manufactures (a) ..	2	4	19	26	17	33
U.S.S.R.—						
Unwrought .. ..	3,200	18,000	21,900	17,800	11,300	5,600
Algeria—						
Scrap .. ..	9	11	6	6	11	<i>n.a.</i>
Cameroun—						
Ore .. ..	221	59	118	118	103	89
Congo Republic—						
Ore .. ..	15,650	16,186	9,829	9,638	(b) 9,000	(b) 8,000
Unwrought .. ..	2,675	2,791	2,539	2,820	2,421	(b) 400
Congo (Republic of)—						
Ore .. ..	—	—	21	35	20	55
Niger—						
Ore .. ..	77	71	84	86	75	50
South Africa—						
Concentrates .. ..	1,990	1,225	1,239	1,273	1,499	1,394
South West Africa—						
Ore and concentrates ..	524	664	271	—	138	176
Mexico—						
Ores and concentrates ..	4	—	—	—	—	—
United States—						
Unwrought (a) .. ..	439	1,112	917	943	608	543
Scrap (a) .. ..	4,092	9,393	2,119	7,619	4,199	6,110
Semi-manufactures (a) ..	217	85	172	94	198	4,396
Argentina—						
Ore .. ..	—	182	—	202	109	183
Tin-silver ore .. ..	—	684	653	1,003	723	1,160
Bolivia—						
Ores, concentrates, etc. (Sn content) .. ..	26,421	27,555	17,023	22,857	17,918	18,478
Unwrought .. ..	404	204	682	917	1,020	1,840
Peru—						
Concentrates (Sn content) .. ..	2	12	12	46	30	16
Unwrought (Sn content) .. ..	—	—	3	11	—	29
Burma—						
Ore and concentrates (Sn content) .. ..	895	987	1,328	1,377	1,395	1,325

(a) Including alloys.

(b) Estimated.

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

Long tons

Exporting Country and Description	1956	1957	1958	1959	1960	1961
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
China—						
Unwrought (b) .. ..	15,500	22,000	22,000	22,000	22,000	17,000
Indonesia—						
Ore .. ..	43,239	37,572	25,207	24,856	34,227	23,127
<i>Sn content</i> .. ..	31,159	27,536	18,184	18,426	24,867	16,788
Unwrought .. ..	717	84	215	285	1,765	1,796
Japan—						
Semi-manufactures (a)	124	53	13	75	13	103
Laos—						
Ore ( <i>Sn content</i> ) ..	180	349	455	386	445	550
Thailand—						
Ore ( <i>Sn content</i> ) ..	12,424	13,345	6,545	10,100	12,618	13,122

(a) Including alloys.

(b) Estimated.

## IMPORTS OF TIN, ETC.\*

Long tons

Importing Country and Description	1956	1957	1958	1959	1960	1961
COMMONWEALTH COUNTRIES						
United Kingdom—						
Ore and concentrates ..	56,911	81,896	64,895	61,494	58,268	51,364
Unwrought (a) ..	1,116	9,567	12,068	(d) 2,775	2,208	(d) 582
Ghana—						
Unwrought (a) ..	} 10	14	30	68	17	{ 10
Semi-manufactures (a) ..						
Kenya—						
Unwrought (a) ..	120	83	94	112	115	99
Mauritius—						
Semi-manufactures (a) ..	8	15	5	8	7	11
Nigeria—						
Unwrought and semi-manufactures (a) ..	436	53	29	35	23	18
Rhodesia and Nyasaland—						
Unwrought .. ..	13	22	8	1	—	8
Tanganyika—						
Unwrought (a) ..	93	65	69	71	79	67
Uganda—						
Unwrought (a) ..	20	22	42	28	39	41
Canada—						
Unwrought .. ..	3,774	4,155	3,461	4,184	3,768	3,525
Semi-manufactures ..	7	7	9	8	9	12
Barbados—						
Unwrought (a) ..	n.a.	6	4	5	6	3
Semi-manufactures (a) ..	n.a.	4	138	51	45	85
Jamaica—						
Unwrought (a) ..	25	24	42	33	28	21
Aden—						
Semi-manufactures (a) ..	265	476	408	1,324	1,573	1,296
Ceylon—						
Unwrought .. ..	4	11	9	11	17	17
do. alloys .. ..	153	38	37	57	38	23
Semi-manufactures (a) ..	889	1,285	1,012	1,906	2,114	1,704
Cyprus—						
Unwrought .. ..	10	14	8	18	9	10
Hong Kong—						
Unwrought (a) ..	184	217	1,242	189	169	222
India—						
Unwrought .. ..	4,181	3,391	4,659	4,295	(c) 3,533	(c) 4,839
Semi-manufactures (a) ..	1	2,795	426	68	(c) 14	(c) 43
Malaya—						
Ore .. ..	14,968	19,394	11,213	11,853	29,704	26,356
Unwrought (a) ..	128	105	90	149	139	192
Semi-manufactures (a) ..	10	9	2	4	100	22
North Borneo—						
Unwrought .. ..	—	1	1	9	4	174
Semi-manufactures ..	3	—	—	91	155	130
Pakistan—						
Unwrought (a) ..	408	802	142	130	457	489
Australia (b)—						
Unwrought (e) .. ..	517	830	1,110	1,120	1,455	1,350
Semi-manufactures ..	16	10	13	15	12	23
New Zealand—						
Unwrought (a) ..	392	355	380	352	362	291
Semi-manufactures (a) ..	32	40	23	26	19	30

\*See footnote on page 351 concerning the descriptions "unwrought" tin and "semi-manufactures" used in these tables.

(a) Including alloys.

(d) Excess of re-exports.

(b) Years ended June 30 of that stated.

(e) Including scrap.

(c) Years ended March 31 following that stated.



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

Long tons

Importing Country and Description	1956	1957	1958	1959	1960	1961
Irish Republic— Unwrought (a) ..	60	62	64	69	67	56
OTHER COUNTRIES						
Austria—						
Unwrought (a) ..	526	543	514	651	848	788
Semi-manufactures (a)	3	4	9	5	17	26
Belgium-Luxemburg						
E.U.—						
Ore .. .. .	13,869	14,087	10,222	8,740	9,955	10,107
Unwrought .. .. .	2,538	2,493	2,451	2,026	3,404	764
do. alloys .. .. .	147	149	109	122	117	164
Scrap .. .. .	2	19	8	3	10	20
Semi-manufactures (a)	94	130	120	131	136	159
Denmark—						
Unwrought .. .. .	4,831	4,042	3,269	7,198	2,663	3,654
do. alloys .. .. .	403	308	1,122	521	365	72
Scrap .. .. .	1,891	1,582	531	1,105	282	451
Semi-manufactures (a)	91	111	155	112	118	108
Finland—						
Unwrought (a) ..	493	438	266	606	609	645
France—						
Unwrought .. .. .	10,364	11,217	12,794	10,927	11,676	10,043
do. alloys .. .. .	120	59	26	93	206	598
Scrap .. .. .	98	97	44	42	47	68
Semi-manufactures (a)	25	33	8	17	18	28
Germany (Federal)—						
Ore .. .. .	3,454	9,219	5,514	4,944	3,993	6,285
Unwrought (a) ..	8,748	10,223	11,213	20,435	29,420	27,913
Scrap (a) .. .. .	38	8	522	111	115	403
Semi-manufactures (a)	1	3	13	16	37	11
Greece—						
Unwrought .. .. .	187	227	230	198	259	273
Hungary—						
Unwrought .. .. .	878	1,136	762	1,152	940	1,052
Iceland—						
Semi-manufactures (a)	92	34	39	55	50	35
Italy—						
Unwrought .. .. .	3,596	3,441	3,400	3,987	4,672	4,874
do. alloys .. .. .	102	120	216	195	440	436
Scrap .. .. .	—	5	5	16	—	12
Semi-manufactures (a)	30	20	20	39	66	61
Netherlands—						
Ore .. .. .	40,236	40,773	20,214	13,291	8,351	4,154
Unwrought .. .. .	1,654	4,588	9,155	9,261	2,171	2,148
do. alloys .. .. .	223	234	421	4,912	10,885	11,966
Scrap (a) .. .. .	70	62	27	62	98	59
Semi-manufactures (a)	148	181	173	236	57	40
Norway—						
Unwrought .. .. .	383	351	333	337	208	196
do. alloys .. .. .	91	71	126	198	283	338
Semi-manufactures (a)	232	185	220	160	173	177
Poland—						
Unwrought .. .. .	1,166	4,442	2,299	3,218	1,270	3,098
Portugal—						
Unwrought (a) ..	2	166	1	220	4	4
Semi-manufactures (a)					14	14
Spain—						
Ore .. .. .	10	—	—	20	559	2,269
Unwrought .. .. .	45	237	41	295	513	206

(a) Including alloys.

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

Long tons

Importing Country and Description	1956	1957	1958	1959	1960	1961
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
Sweden—						
Unwrought .. ..	947	799	1,280	965	817	727
do. alloys .. ..	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	256	280	133
Semi-manufactures (a)	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	131	118	113
Switzerland—						
Unwrought .. ..	884	1,011	919	643	849	1,167
Semi-manufactures (a)	5	5	4	3	185	111
U.S.S.R.—						
Unwrought .. ..	15,500	21,700	19,100	20,500	17,500	11,000
Yugoslavia—						
Unwrought .. ..	942	1,585	777	1,010	1,156	1,375
Semi-manufactures (a)	3	1	—	3	7	10
Algeria—						
Unwrought (a) .. ..	91	127	112	46	74	<i>n.a.</i>
Semi-manufactures (a)	65	93	149	132	78	<i>n.a.</i>
Egypt—						
Unwrought and scrap ..	257	543	1,062	646	332	<i>n.a.</i>
Semi-manufactures ..	420	23	19	32	23	<i>n.a.</i>
Malagasy Republic—						
Semi-manufactures (a)	2	16	20	19	25	11
Morocco—						
Unwrought .. ..	211	216	221	163	245	261
Mozambique—						
Semi-manufactures ..	21	22	15	20	16	<i>n.a.</i>
South Africa—						
Unwrought .. ..	1,126	1,067	1,037	621	1,000	670
Sudan—						
Unwrought and scrap ..	16	20	12	23	19	34
Tunisia—						
Unwrought .. ..	27	13	19	26	28	34
Semi-manufactures (a)	28	63	62	59	13	12
Cuba—						
Unwrought .. ..	51	69	71	56	<i>n.a.</i>	<i>n.a.</i>
Semi-manufactures (a)	49	60	74	120	<i>n.a.</i>	<i>n.a.</i>
Mexico—						
Unwrought .. ..	462	518	753	816	626	178
United States—						
Ore ( <i>Sn content</i> ) .. ..	16,688	94	5,440	10,773	14,026	8,917
Unwrought .. ..	62,590	56,158	41,149	43,578	39,488	39,898
do. alloys (b) .. ..	5,073	5,077	3,208	3,350	809	594
Scrap .. ..	—	249	2	1	1	18
Argentina—						
Unwrought .. ..	74	2,662	1,490	1,465	1,696	1,958
Brazil—						
Ore .. ..	1,674	2,354	327	1,705	2,411	2,143
Unwrought (a) .. ..	419	766	24	283	33	15
Colombia—						
Unwrought (a) .. ..	71	72	55	137	91	141
Semi-manufactures (a)	286	182	57	181	68	61
Chile—						
Ore and concentrates ..	115	63	5	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Unwrought .. ..	429	522	183	238	374	861
Peru—						
Unwrought (a) .. ..	94	61	39	65	57	79
Uruguay—						
Unwrought and semi-manufactures .. ..	<i>n.a.</i>	157	35	114	78	<i>n.a.</i>
Venezuela—						
Unwrought .. ..	135	173	239	385	123	139
Burma—						
Unwrought .. ..	81	124	63	105	20	29

(a) Including alloys.

(b) Including alloyed scrap, dross and residues.

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

Long tons

Importing Country and Description	1956	1957	1958	1959	1960	1961
<b>OTHER COUNTRIES</b> (cont.)						
Formosa—						
Unwrought .. ..	181	130	123	207	145	106
Iran (b)—						
Unwrought .. ..	82	154	286	304	410	n.a.
Iraq—						
Unwrought .. ..	11	24	21	20	16	n.a.
Israel—						
Unwrought .. ..	91	101	104	93	100	n.a.
Japan—						
Ore and concentrates ..	316	325	200	79	83	763
Unwrought .. ..	7,298	7,102	7,370	9,706	11,722	11,969
Lebanon—						
Unwrought .. ..	7	11	2	4	4	n.a.
Philippine Republic—						
Unwrought (a) .. ..	209	142	167	280	282	214
Syria—						
Unwrought and scrap ..	86	54	57	30	50	93
Turkey—						
Unwrought (a) .. ..	496	380	567	796	1,065	366
Semi-manufactures (a)	149	92	1	11	27	22

(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	1956	1957	1958	1959	1960	1961
<b>COMMONWEALTH COUNTRIES</b>						
Gambia (a)—						
Ilmenite.. .. .	—	13,917	28,896	13,202	—	—
Rutile .. .. .	—	—	467	898	—	—
Canada (shipments) (b)—						
Ilmenite.. .. .	r 562,676	736,100	r 375,832	559,205	863,726	1,032,122
Ceylon—						
Ilmenite.. .. .	—	—	—	—	6,000	10,000
India—						
Ilmenite.. .. .	335,590	296,221	309,161	298,236	246,000	171,000
Rutile .. .. .	541	473	449	383	966	802
Malaya (a)—						
Ilmenite .. .. .	122,176	91,733	74,826	72,851	118,085	106,871
Australia—						
Ilmenite concentrates (c)	4,274	71,155	69,948	83,577	106,586	167,374
Rutile concentrates ..	96,816	128,903	83,328	81,905	88,637	101,428
<b>OTHER COUNTRIES</b>						
Finland—						
Ilmenite concentrates ..	101,290	104,079	104,807	84,791	82,338	18,993
Norway—						
Ilmenite.. .. .	187,494	206,869	208,617	223,398	230,842	306,003
Rutile (d) .. .. .	24	20	—	—	—	—
Portugal—						
Ilmenite.. .. .	606	346	452	1,887	895	97
Tin-titanium ore .. .. .	21	—	—	—	—	—
Spain—						
Ilmenite.. .. .	5,324	8,747	16,215	7,244	10,952	(f) 28,200
Cameroun—						
Rutile .. .. .	150	39	—	—	—	—
Egypt—						
Ilmenite.. .. .	4,060	(f) 3,300	(f) 2,700	15,300	11,800	(f) 29,000
Rutile .. .. .	—	—	—	1,033	(f) 1,000	(f) 1,000
Malagasy Republic—						
Ilmenite.. .. .	—	—	1,027	588	2,686	3,250
Rutile .. .. .	2	—	—	—	—	—
Mozambique—						
Ilmenite.. .. .	—	—	—	10,251	700	—
Senegal—						
Ilmenite.. .. .	19,800	35,300	33,000	29,412	21,571	17,220
Rutile .. .. .	580	205	1,033	—	—	—
South Africa—						
Ilmenite.. .. .	1,656	2,786	(e) 26,811	77,887	80,743	88,402
Rutile .. .. .	—	—	493	3,019	3,299	3,110
Mexico—						
Ilmenite.. .. .	—	—	149	—	—	—

(a) Exports.

(b) Production of titanium dioxide slag (TiO<sub>2</sub>) at Sorel was as follows (long tons): 1956—140,512; 1957—166,448; 1958—144,029; 1959—217,562; 1960—345,213; 1961—413,675.

(c) Despatches.

(d) Ore and concentrates.

(e) Including 269 long tons of mixed concentrates.

(f) United States Bureau of Mines' estimate.

PRODUCTION OF TITANIUM MINERALS (cont.)

Long tons

Producing Country and Description	1956	1957	1958	1959	1960	1961
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
United States (a)—						
Ilmenite (d) .. ..	611,568	676,054	502,980	566,862	702,118	698,582
Rutile .. ..	10,712	9,555	6,612	8,452	7,864	8,076
Brazil—						
Ilmenite .. ..	—	—	5,081	(c) 5,000	n.a.	n.a.
Rutile .. ..	302	241	240	207	213	(c) 200
Japan (b)—						
Ilmenite .. ..	16,902	13,402	5,247	5,062	5,138	5,883
Thailand—						
Ilmenite .. ..	344	1,821	823	491	—	—
<b>WORLD'S TOTAL—</b>						
Ilmenite .. ..	1,974,000	2,262,000	1,769,000	2,055,000	2,500,000	2,690,000
Rutile .. ..	109,100	139,400	92,600	95,900	103,000	115,000

- (a) Production of metal (commercial titanium sponge) was as follows (long tons): 1956—13,031; 1957—15,401; 1958—4,094; 1959—3,480; 1960—4,742; 1961—
- (b) Production of metal (commercial titanium sponge) was as follows (long tons): 1956—2,472; 1957—3,029; 1958—1,630; 1959—2,438; 1960—2,271; 1961—2,247.
- (c) United States Bureau of Mines' estimate.
- (d) Contains a mixed product containing ilmenite, leucoxene and rutile.

## EXPORTS OF TITANIUM MINERALS, ETC.

Long tons

Exporting Country and Description	1956	1957	1958	1959	1960	1961
COMMONWEALTH COUNTRIES						
United Kingdom—						
Ferro-titanium .. .. .	662	393	348	502	276	533
Gambia—						
Ilmenite .. .. .	—	13,917	28,896	13,202	—	—
Rutile .. .. .	—	—	467	898	—	—
Canada—						
Ilmenite .. .. .	2,050	9,616	—	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Titanium dioxide slag (70% TiO <sub>2</sub> ) .. .. .	180,246	199,179	100,371	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Hong Kong—						
Titanium oxide .. .. .	108	88	142	155	130	153
India—						
Ilmenite .. .. .	283,201	347,212	283,667	276,631	(b) 158,526	(b) 112,678
Rutile sand .. .. .	<i>n.a.</i>	300	—	—	—	—
Malaya—						
Ilmenite .. .. .	122,176	91,733	74,826	72,851	118,085	106,871
Australia—						
Rutile .. .. .	89,887	119,052	75,615	80,938	93,706	99,652
Ilmenite .. .. .	1,130	37,811	56,243	68,649	75,319	144,009
OTHER COUNTRIES						
Belgium-Luxemburg						
E.U.—						
Titanium white .. .. .	675	458	655	4,337	9,021	5,849
Finland—						
Ilmenite .. .. .	106,468	101,471	95,409	63,539	64,131	34,397
France—						
Ferro-titanium .. .. .	218	380	648	1,404	1,695	1,619
Titanium oxide, etc. .. .. .	210	171	156	2,604	10,150	17,147
Germany (Federal)—						
Titanium oxide .. .. .	<i>n.a.</i>	<i>n.a.</i>	34,493	38,722	45,914	48,285
Italy—						
Titanium oxide .. .. .	4,432	5,374	5,268	6,636	7,047	7,303
Netherlands—						
Titanium white .. .. .	113	83	319	956	2,422	650
Norway—						
Ilmenite .. .. .	(a) 182,607	(a) 202,184	(a) 224,538	} 214,311	257,091	298,549
Rutile .. .. .	19	9	2			
Titanium white .. .. .	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	3,349	2,711	2,504
Portugal—						
Ilmenite .. .. .	615	364	101	100	<i>n.a.</i>	<i>n.a.</i>
Spain—						
Ilmenite .. .. .	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	18,966
Sweden—						
Titanium minerals .. .. .	612	185	15	15	14	48
Titanium white .. .. .	759	283	24	28	6	23
Yugoslavia—						
Titanium oxide .. .. .	134	24	—	—	—	—
Cameroun—						
Rutile .. .. .	208	14	33	5	28	—
Senegal—						
Ilmenite .. .. .	19,573	36,040	28,610	20,849	32,102	21,317
Rutile .. .. .	561	76	905	—	—	—
South Africa—						
Ilmenite .. .. .	879	2,645	15,741	57,490	99,453	80,494
Rutile .. .. .	—	—	155	1,409	3,688	1,874

(a) The figures refer to exports of "Other ores" which are mainly ilmenite.

(b) Years ended March 31 following that stated.

## EXPORTS OF TITANIUM MINERALS, ETC.

Long tons

Exporting Country and Description	1956	1957	1958	1959	1960	1961
OTHER COUNTRIES						
<i>(cont.)</i>						
United States—						
Ores and concentrates..	1,641	1,803	1,112	4,157	1,125	1,282
Titanium metal (a) ..	512	759	387	889	1,164	1,134
Ferro-titanium .. ..	325	327	288	286	219	189
Titanium oxide and pigments .. ..	57,862	47,285	33,050	32,395	30,049	27,771
Brazil—						
Titanium minerals ..	5	—	—	—	—	20
Japan—						
Titanium sponge metal	2,485	2,441	1,947	1,757	1,702	1,620
Titanium oxide.. ..	9,433	14,320	13,647	13,916	18,803	16,199
Thailand—						
Ilmenite.. .. .	—	1,131	492	394	<i>n.a.</i>	<i>n.a.</i>

(a) Including alloys and scrap.

## IMPORTS OF TITANIUM MINERALS, ETC.

Long tons

Importing Country and Description	1956	1957	1958	1959	1960	1961
COMMONWEALTH COUNTRIES						
United Kingdom—						
Ilmenite.. ..	204,237	255,412	256,899	243,886	338,517	273,354
Rutile .. ..	10,502	11,840	12,281	7,276	10,521	13,842
Titanium sponge .. ..	—	—	—	—	44	(c) 7
Other titanium metal .. ..	9	9	7	1	1	9
Titanium oxide.. ..	3,455	6,569	154	1,747	840	1,915
Canada—						
Titanium oxide, etc. .. ..	33,815	30,567	26,285	27,319	24,015	23,769
Hong Kong—						
Titanium oxide.. ..	2,019	1,156	2,013	1,861	2,452	1,941
India—						
Rutile .. ..	<i>n.a.</i>	155	193	100	(b) 146	(b) 387
Titanium oxide.. ..	<i>n.a.</i>	543	797	1,456	(b) 926	(b) 1,477
Australia (a)—						
Ilmenite.. ..	10,346	3,694	—	—	—	—
Titanium white and oxide .. ..	6,628	7,383	7,482	5,847	4,100	7,046
New Zealand—						
Titanium white .. ..	2,470	2,620	4,608	2,441	3,477	3,558
OTHER COUNTRIES						
Austria—						
Ferro-titanium .. ..	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	452	289	192
Titanium white .. ..	1,527	1,909	2,086	2,649	3,437	3,605
Belgium-Luxemburg .. ..						
E.U.—						
Ferro-titanium .. ..	48	53	35	113	175	319
Titanium white .. ..	6,184	5,596	6,367	7,333	9,013	5,698
Denmark—						
Titanium white .. ..	605	387	430	3,411	4,084	3,854
Finland—						
Titanium white .. ..	4,092	2,433	3,515	4,277	4,785	3,949
France—						
Titanium minerals .. ..	23,524	42,241	46,294	63,914	71,512	75,933
Titanium oxide, etc. .. ..	6,046	7,018	4,873	5,003	5,836	6,661
Germany (Federal)—						
Ilmenite.. ..	143,134	158,167	197,000	205,796	280,514	} 361,127
Rutile .. ..	10,173	19,635	8,707	13,930	18,948	
Titanium metal .. ..	<i>n.a.</i>	<i>n.a.</i>	41	116	131	
Titanium oxide.. ..	<i>n.a.</i>	<i>n.a.</i>	1,765	2,311	855	
Greece—						
Titanium white .. ..	178	287	453	530	788	890
Hungary—						
Ferro-titanium .. ..	71	52	48	60	48	87
Iceland—						
Titanium white .. ..	212	161	195	169	261	242
Italy—						
Titanium minerals .. ..	32,807	58,951	41,214	36,288	51,645	81,323
Ferro-titanium .. ..	209	146	272	234	286	507
Titanium oxide.. ..	2,742	2,871	4,363	4,320	7,360	8,193
Netherlands—						
Ferro-titanium .. ..	22	39	32	32	36	43
Titanium white .. ..	9,384	12,573	11,589	16,384	19,627	17,648
Norway—						
Titanium oxide.. ..	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	5,432	5,382	1,878
Portugal—						
Rutile .. ..	74	239	199	75	<i>n.a.</i>	255
Titanium oxide.. ..	405	595	703	857	1,236	1,271

(a) Years ended June 30 of that stated.

(b) Years ended March 31 following that stated.

(c) Excess of re-exports.



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

Long tons

Importing Country and Description	1956	1957	1958	1959	1960	1961
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
Sweden—						
Titanium minerals ..	5,121	4,487	4,475	2,981	2,533	3,418
Titanium white ..	6,822	6,916	7,231	9,383	10,333	9,997
Switzerland—						
Titanium oxide.. ..	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	4,550	4,943
Yugoslavia—						
Rutile .. ..	101	293	256	1,059	1,458	424
Titanium oxide.. ..	373	<i>n.a.</i>	413	851	852	897
Algeria—						
Titanium minerals ..	194	350	458	229	130	<i>n.a.</i>
Titanium oxide.. ..	127	140	282	267	355	<i>n.a.</i>
Congo Republic—						
Titanium oxide.. ..	428	337	442	430	<i>n.a.</i>	<i>n.a.</i>
Morocco—						
Titanium oxide .. ..	61	63	123	149	178	236
Tunisia—						
Titanium oxide.. ..	29	170	63	32	50	83
Mexico—						
Titanium oxide .. ..	4,317	3,296	3,587	4,234	4,600	207
United States—						
Ilmenite (a) .. ..	320,786	411,029	310,843	331,863	237,183	174,853
Rutile .. ..	43,666	75,747	32,646	20,740	26,102	24,551
Titanium metal .. ..	1,828	3,154	1,851	1,396	1,992	2,223
Ferro-titanium .. ..	101	114	90	113	74	163
Titanium compounds ..	619	60	633	2,515	5,521	8,056
Argentina—						
Titanium oxide.. ..	3,329	2,543	3,497	2,495	3,634	4,534
Brazil—						
Titanium oxide.. ..	2,527	2,434	2,504	2,727	3,482	4,287
Chile—						
Titanium white .. ..	626	507	789	927	1,190	<i>n.a.</i>
Colombia—						
Titanium white .. ..	1,296	1,560	848	1,183	1,499	1,745
Peru—						
Titanium oxide.. ..	412	28	276	394	497	635
Venezuela—						
Titanium oxide.. ..	1,383	1,541	1,843	2,048	1,250	2,193
Japan—						
Ilmenite.. ..	64,840	95,549	58,950	81,144	126,586	139,792
Titanium oxide.. ..	878	333	61	108	147	2,122
Korea (South)—						
Titanium oxide .. ..	<i>n.a.</i>	<i>n.a.</i>	457	657	775	999
Turkey—						
Titanium oxide .. ..	55	114	271	456	238	910

(a) Including titanium dioxide slag (70% TiO<sub>2</sub>) imported from Canada.

# TUNGSTEN

## PRODUCTION OF TUNGSTEN ORES AND CONCENTRATES

Long tons

Producing Country and Description	1956	1957	1958	1959	1960	1961	Estimated WO <sub>3</sub> Content					
							1956	1957	1958	1959	1960	1961
<b>COMMONWEALTH COUNTRIES</b>												
United Kingdom—												
Concentrates .. .. .	52	49	2	—	—	—	36	30	1	—	—	—
Nigeria—												
Concentrates .. .. .	5	—	—	—	—	—	3	—	—	—	—	—
Southern Rhodesia—												
Concentrates .. .. .	236	148	85	30	9	46	170	107	61	22	6	33
Tanganyika—												
Wolfraam .. .. .	18	3	—	—	—	9	11	2	—	—	—	5
Uganda—												
Wolfraam .. .. .	170	190	47	51	102	115	109	124	31	34	68	79
Canada (a)—												
Concentrates .. .. .	1,519	1,337	456	—	—	—	1,014	858	308	—	—	—
Hong Kong—												
Wolfraam .. .. .	24	36	38	39	31	17	16	23	25	25	20	11
India—												
Concentrates .. .. .	2	—	—	1	3	9	1	—	—	1	2	6
Malaya—												
Wolfraam .. .. .	47	30	33	14	13	14	32	20	22	10	9	10
Scheelite .. .. .	44	19	12	6	23	17	33	14	9	5	18	13
Australia—												
Wolfraam .. .. .	877	657	517	903	1,131	1,151	592	459	372	653	820	833
Scheelite .. .. .	1,495	1,449	733	1	420	1,017	990	950	478	n.a.	291	709
New Zealand—												
Scheelite .. .. .	28	31	3	9	8	5	18	20	2	6	5	3
TOTAL							r 3,025	r 2,607	r 1,309	r 756	1,239	1,702
<b>OTHER COUNTRIES</b>												
Austria—												
Ore .. .. .	—	6,105	5,728	5,796	6,153	11,082	—	192	115	114	217	247
Finland—												
Concentrates .. .. .	58	—	n.a.	n.a.	—	n.a.	39	—	87	22	—	34

(a) Shipments (chiefly scheelite).

PRODUCTION OF TUNGSTEN ORES AND CONCENTRATES (cont.)

Long tons

Producing Country and Description	Estimated WO <sub>3</sub> Content						1961	1960	1959	1958	1957	1956	1961	1960	1959	1958	1957	1956	
	1956	1957	1958	1959	1960	1961													
OTHER COUNTRIES (cont.)																			
France—																			
Concentrates ..	1,091	895	949	791	645	391													
Italy—																			
Concentrates ..	24	17	9	5	7	2													
Portugal—																			
Scheelite ..	242	252	83	52	62	68													
Wolfram ..	4,245	3,668	1,654	1,990	2,403	2,442													
Tin-tungsten ores ..	135	—	—	—	—	—													
Spain—																			
Concentrates ..	1,117	1,196	1,142	{	334	n.a.													
Tin-tungstenconcentrates	331			721	686	n.a.													
Sweden—																			
Concentrates ..	454	476	522	290	300	400													
Yugoslavia ..	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.													
Chad ..	—	—	8	—	—	—													
Congo Republic—																			
Concentrates ..	r 476	r 508	r 659	r 542	n.a.	n.a.													
Tin-tungsten ore ..	1,017	841	775	657	n.a.	n.a.													
Egypt—																			
Concentrates ..	—	—	—	—	—	—													
Morocco—																			
Ore ..	4	—	—	—	—	—													
South Africa—																			
Concentrates ..	271	244	68	33	31	24													
Tin-scheeliteconcentrates	—	n.a.	n.a.	n.a.	—	—													
South West Africa—																			
Wolfram ..	132	35	13	—	—	—													
Scheelite ..	2	4	—	—	2	6													
Tin-wolfram concentrates	579	722	101	4	483	579													
Ruanda-Urundi—																			
Concentrates ..	784	657	230	141	n.a.	n.a.													
Mexico ..	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.													
United States—																			
Concentrates ..	13,948	7,535	(a) 3,382	(a) 3,258	(a) 6,540	7,362													

(a) Shipments from mine.

(b) United States Bureau of Mines' estimate.

PRODUCTION OF TUNGSTEN ORES AND CONCENTRATES (cont.)

Long tons

Producing Country and Description	Estimated WO <sub>3</sub> Content					
	1956	1957	1958	1959	1960	1961
<b>OTHER COUNTRIES</b> (cont.)						
Argentina— Concentrates ..	1,003	1,119	925	684	689	n.a.
Bolivia (a)— Concentrates ..	n.a.	n.a.	n.a.	2,254	1,971	n.a.
Brazil— Scheelite ..	1,284	1,007	2,093	1,713	1,390	n.a.
Peru— Concentrates ..	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Burma— Tungsten concentrates ..	501	382	201	230	349	309
Tin-wolfram concentrates	1,956	1,986	1,172	743	1,096	1,186
China— Concentrates (b) ..	20,000	15,000	15,000	20,000	20,000	20,000
Japan— Concentrates ..	996	886	672	906	822	812
Korea— South— Concentrates ..	3,683	3,765	2,964	2,878	4,837	6,203
North— Concentrates (b) ..	1,700	2,500	3,000	3,300	5,000	5,000
Thailand— Concentrates ..	1,162	893	598	457	401	467
TOTAL*	36,000	30,000	24,000	25,000	30,000	32,000
WORLD'S TOTAL*	39,000	33,000	25,000	25,000	31,000	34,000

\*Excluding tungsten ores produced in the U.S.S.R.

(a) Exports.

(b) Estimated.

## EXPORTS OF TUNGSTEN, ETC.

Long tons

Exporting Country and Description	1956	1957	1958	1959	1960	1961
COMMONWEALTH COUNTRIES						
United Kingdom—						
Tungsten ore .. ..	38	5	5	81	86	35
Ferro-tungsten .. ..	1,161	561	993	1,282	1,048	1,445
Tungsten metal, etc. ..	86	54	44	50	43	31
Nigeria—						
Tungsten ore .. ..	5	1	—	1	—	—
Rhodesia and Nyasaland—						
Tungsten ores .. ..	196	158	62	62	12	33
Tanganyika—						
Wolfram ore .. ..	15	—	—	—	—	9
Uganda—						
Wolfram ore .. ..	163	190	27	12	68	189
Canada—						
Tungsten ore .. ..	1,480	1,383	459	—	—	—
Hong Kong—						
Tungsten ore .. ..	11	4	15	74	30	—
Malaya—						
Wolfram .. ..	59	39	37	53	11	18
Scheelite .. ..	35	4	5	29	22	14
Australia (a)—						
Wolfram ores and concentrates .. ..	1,226	801	387	596	1,192	1,055
(WO <sub>3</sub> content) .. ..	787	547	277	431	862	767
Scheelite ores and concentrates .. ..	1,151	1,267	1,149	167	185	816
(WO <sub>3</sub> content) .. ..	779	835	757	119	131	567
New Zealand—						
Scheelite .. ..	40	15	11	14	15	6
OTHER COUNTRIES						
Austria—						
Ore .. ..	3	—	—	155	268	196
France—						
Tungsten ore .. ..	504	463	233	416	359	388
Ferro-tungsten .. ..	3	1	15	149	187	301
Tungsten metal, etc. ..	9	12	15	32	56	68
Germany (Federal)—						
Tungsten metal, etc. ..	174	200	198	245	248	240
Netherlands—						
Ore .. ..	123	160	84	24	61	77
Portugal—						
Tungsten ores .. ..	3,867	2,691	1,365	2,449	2,380	2,584
do. residues .. ..	437	52	—	—	371	31
Ferro-tungsten .. ..	365	216	61	124	149	—
Spain—						
Tungsten ore .. ..	1,502	530	744	596	616	703
Sweden—						
Ore .. ..	67	117	240	87	67	47
Tungsten metal, etc. ..	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	37	56	45
Ferro-tungsten .. ..	59	48	64	184	126	20
Algeria—						
Tungsten ore .. ..	1	—	—	—	—	<i>n.a.</i>
Congo Republic—						
Tungsten ores .. ..	1,493	1,042	1,147	1,212	1,123	(b) 600
Egypt—						
Tungsten ore .. ..	17	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
South Africa—						
Tungsten ore .. ..	612	162	—	30	22	—
South West Africa—						
Tungsten ore .. ..	114	48	—	—	—	—
Tin-tungsten ore .. ..	586	670	126	13	—	360

(a) Years ended June 30 of that stated.

(b) Estimated.

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

Long tons

Exporting Country and Description	1956	1957	1958	1959	1960	1961
OTHER COUNTRIES (cont.)						
Mexico—						
Tungsten ore and concentrates .. ..	819	253	6	126	185	445
(WO <sub>3</sub> content) .. ..	336	157	4	73	109	103
United States—						
Ore and concentrates .. ..	104	146	20	1	565	185
Ferro-tungsten .. ..	1	2	1	34	—	—
Tungsten metal, alloys and scrap .. ..	294	113	34	150	345	99
Tungsten powder .. ..	58	64	58	71	74	50
Argentina—						
Tungsten ore .. ..	2,047	1,432	578	—	350	15
Bolivia—						
Tungsten ore (WO <sub>3</sub> content) .. ..	2,815	2,577	1,316	1,431	1,270	1,667
Brazil—						
Tungsten ores .. ..	1,603	1,632	2,001	1,223	1,545	861
Peru—						
Tungsten ore and concentrates (WO <sub>3</sub> content) .. ..	625	477	518	381	232	16
Burma—						
Ore and concentrates .. ..	1,220	1,059	784	1,001	841	686
Tin-tungsten ores .. ..	862	615	625	174	171	264
Japan—						
Tungsten ore .. ..	40	20	20	—	—	—
Tungsten metal .. ..	22	—	1	1	1	18
Ferro-tungsten .. ..	60	5	1	—	—	—
Korea (South)—						
Tungsten ore .. ..	(a) 2,913	2,421	4,024	3,283	3,936	5,833
Thailand—						
Tungsten ore .. ..	970	946	527	367	609	246

(a) Imports into the United States from Korea.

## IMPORTS OF TUNGSTEN, ETC.

Long tons

Importing Country and Description	1956	1957	1958	1959	1960	1961
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom—						
Tungsten ores .. .. .	4,758	4,069	4,288	4,357	5,639	5,132
Tungsten metal, etc. ..	6	7	3	8	13	9
Canada—						
Tungsten ore .. .. .	55	103	395	350	516	224
Ferro-tungsten .. .. .	92	76	89	370	438	231
Malaya—						
Wolfram .. .. .	—	—	—	12	—	—
<b>OTHER COUNTRIES</b>						
Austria—						
Tungsten ore .. .. .	1,232	1,171	1,529	2,525	3,105	2,934
Tungsten metal etc. ..	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	13	33	37
Ferro-tungsten .. .. .	95	78	—	415	254	244
Belgium-Luxemburg						
E.U.—						
Tungsten ore .. .. .	—	—	12	543	29	99
Ferro-tungsten .. ..	69	31	29	71	80	234
France—						
Tungsten ore .. .. .	1,505	1,497	1,515	1,513	1,817	2,298
Tungsten metal, etc. ..	5	5	9	33	23	35
Germany (Federal)—						
Tungsten ore .. .. .	3,731	2,346	3,805	4,634	5,124	5,240
Tungsten metal, etc. ..	212	179	256	103	264	161
Hungary—						
Ferro-tungsten .. .. .	174	143	—	—	—	—
Italy—						
Tungsten ore .. .. .	141	184	72	101	176	92
Tungsten metal, etc. ..	7	14	9	13	27	23
Ferro-tungsten .. .. .	37	79	55	41	116	311
Netherlands—						
Tungsten ore .. .. .	33	17	97	113	341	457
Ferro-tungsten .. .. .	7	1	6	3	3	4
Sweden—						
Tungsten ore .. .. .	666	840	403	705	972	1,070
Tungsten metal, etc. ..	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	60	62	82
Ferro-tungsten .. .. .	158	141	62	185	411	396
U.S.S.R. (a)—						
Tungsten concentrates	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	18,600	18,000
Yugoslavia—						
Tungsten metal, etc. ..	—	1	1	10	7	4
Ferro-tungsten .. .. .	102	47	28	103	59	128
United States—						
Tungsten ore .. .. .	17,337	11,809	5,359	4,325	2,722	1,792
( <i>WO<sub>3</sub> content</i> ) .. ..	11,743	7,891	3,682	3,059	1,983	1,223
Tungsten metal and carbide .. .. .						
( <i>W content</i> ) .. .. .	17	37	45	88	71	25
Ferro-tungsten .. .. .	479	225	87	294	100	191
Tungsten ingots, bars, scrap, etc. .. .. .	292	115	111	201	83	59
Japan—						
Tungsten ore .. .. .	1,105	2,300	356	455	2,835	4,022
Tungsten metal .. .. .	—	1	—	—	—	—

(a) Imports from China.

## URANIUM MINERALS

Statistics of the production of uranium minerals, previously withheld for security reasons, were released for the first time by the major producing countries early in 1957. Complete information for earlier years, however, is still not available.

### PRODUCTION OF URANIUM MINERALS.

(Metal content)

Long tons

Producing Country	1956	1957	1958	1959	1960	1961
<b>COMMONWEALTH COUNTRIES</b>						
Northern Rhodesia .. .. .	—	20	38	29	—	—
Canada (a) .. .. .	1,734	5,024	10,148	12,032	9,652	7,437
Australia .. .. .	£ 16,629,871	50,859,836	102,395,044	122,918,724	99,132,645	71,905,091
	<i>n.a.</i>	(b) 400	(b) 550	(b) 950	(b) 1,150	(b) 1,250
<b>OTHER COUNTRIES</b>						
Finland .. .. .	—	—	—	(b) 25	(b) 40	<i>n.a.</i>
France .. .. .	93	291	487	719	968	1,168
Italy .. .. .	1	1	—	2	(b) 7	<i>n.a.</i>
Congo Republic .. .. .	<i>n.a.</i>	(b) 1,700	1,793	1,761	900	121
Gabon .. .. .	—	—	—	—	—	300
Malagasy Republic (c) .. .. .	<i>n.a.</i>	(b) 40	(b) 55	88	(b) 60	(b) 50
South Africa .. .. .	3,307	4,319	4,731	4,879	4,852	4,140
	£ 34,742,644	47,631,855	650,430,000	654,500,000	654,000,000	645,000,000
United States (d) .. .. .	4,500	6,540	9,510	12,410	13,364	13,136
	£ 48,000,000	61,000,000	84,700,000	107,000,000	118,000,000	103,000,000
Argentina .. .. .	14	16	(b) 15	(b) 10	(b) 11	<i>n.a.</i>
<b>WORLD'S TOTAL (b) ..</b>	<b>16,000</b>	<b>23,000</b>	<b>35,000</b>	<b>40,000</b>	<b>40,000</b>	<b>37,000</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): 1958—8; 1959—23; 1960—86; 1961—39.

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	1956	1957	1958	1959	1960	1961
COMMONWEALTH COUNTRIES						
Canada—						
Ores and concentrates £	16,646,137	47,736,866	101,284,232	115,949,495	96,890,046	67,883,901
OTHER COUNTRIES						
Congo Republic—						
Radium products						
(Ra content) Mgrams ..	56,234	89,313	69,786	101,619	27,600	26,900
Malagasy Republic—						
Uranothorianite long tons	n.a.	329	138	152	572	772
Mozambique—						
Uranium minerals						
Long tons	16	—	—	—	—	n.a.
South Africa—						
Prescribed minerals						
(a) .. .. . £	38,695,080	49,988,632	53,661,840	53,866,953	54,266,382	39,685,813
United States—						
Ores, concentrates and compounds Long tons	n.a.	n.a.	3	9	9	19
Metal and alloys Long tons .. .. .	n.a.	n.a.	40	6	5	10
Radium metal						
(Ra content) Mgrams.	—	750	140	2,207	712	334

(a) Mainly uranium but includes some thorium.

## IMPORTS OF URANIUM MINERALS, ETC.

Importing Country and Description	1956	1957	1958	1959	1960	1961
COMMONWEALTH COUNTRIES						
United Kingdom—						
Radium compounds						
Grains	—	60	441	n.a.	n.a.	n.a.
Canada—						
Radium and compounds .. £	109,672	497,765	193,512	142,745	111,075	98,158
OTHER COUNTRIES						
Belgium-Luxemburg						
E.U.—						
Ore Long tons	n.a.	n.a.	n.a.	627	3,058	2,443
United States—						
Concentrates Long Tons						
(U <sub>3</sub> O <sub>8</sub> content) .. .. .	6,696	10,559	14,732	16,179	14,080	11,531
Radium salts Mgrams.	43,221	76,206	38,419	32,967	23,333	12,947
Brazil—						
Radium and radium products Mgrams.	1,291	497	96	681	—	—

**VANADIUM**  
**PRODUCTION OF VANADIUM ORES**  
*(Metal content)*

Long tons

Producing Country	1956	1957	1958	1959	1960	1961
<b>COMMONWEALTH COUNTRIES</b>						
Northern Rhodesia ..	—	—	—	—	—	232
<b>OTHER COUNTRIES</b>						
Finland .. .. .	38	259	384	<i>r</i> 496	558	<i>n.a.</i>
Angola ( <i>b</i> ) .. .. .	10	1	18	3	—	—
South Africa .. .. .	—	7	283	286	586	1,271
South West Africa ..	275	200	413	642	749	1,826
United States ( <i>a</i> ) ..	5,032	6,513	6,488	6,600	7,185	5,678
Argentina .. .. .	—	—	4	4	<i>n.a.</i>	<i>n.a.</i>
<b>WORLD'S TOTAL (<i>c</i>) ..</b>	<b>5,355</b>	<b>6,980</b>	<b>7,590</b>	<i>r</i> <b>8,031</b>	<b>9,100</b>	<b>9,500</b>

(a) Shipments.

(b) Vanadium content of vanadium-lead ore.

(c) 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.

**EXPORTS OF VANADIUM, ETC.**

Long tons

Exporting Country and Description	1956	1957	1958	1959	1960	1961
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom— Ferro-vanadium ..	9	9	7	14	94	19
<b>OTHER COUNTRIES</b>						
France— Ferro-vanadium ..	47	53	55	73	336	166
Italy— Oxide .. .. .	10	—	—	2	1	45
Sweden— Ferro-vanadium ..	54	43	80	97	183	141
Congo Republic— Ore .. .. .	700	—	—	—	1,834	<i>n.a.</i>
South Africa— Oxide .. .. .	—	5	519	521	1,034	2,258
South West Africa— Concentrates ( <i>V content</i> )	333	252	( <i>a</i> ) 300	( <i>a</i> ) 400	( <i>a</i> ) 650	( <i>a</i> ) 700
Mexico— Concentrates .. ..	8	47	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
United States— Ore, concentrates, etc. ( <i>V content</i> ) .. .. .	829	446	563	1,107	3,294	5,694
Flue dust and other waste ( <i>V content</i> ) ..	13	52	5	37	35	147
Ferro-vanadium ..	124	120	68	135	144	107

(a) Estimated.

## IMPORTS OF VANADIUM, ETC.

Long tons

Importing Country and Description	1956	1957	1958	1959	1960	1961
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom (a)—						
Ore .. .. .	15	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Oxide .. .. .	15	21	282	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Other compounds ..	10	6	64	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
<b>OTHER COUNTRIES</b>						
<b>Belgium-Luxemburg</b>						
<b>E.U.—</b>						
Ferro-vanadium ..	25	12	12	19	36	21
Oxide .. .. .	3	17	29	14	55	264
<b>France—</b>						
Oxide .. .. .	413	396	346	424	1,006	1,025
<b>Germany (Federal)—</b>						
Ore .. .. .	—	—	—	—	5	<i>n.a.</i>
<b>Hungary—</b>						
Ferro-vanadium ..	111	76	106	89	59	89
<b>Italy—</b>						
Ore .. .. .	382	254	51	—	—	1
Oxide .. .. .	4	32	25	40	69	127
Ferro-vanadium ..	38	65	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
<b>Netherlands—</b>						
Ferro-vanadium ..	8	5	9	3	4	11
<b>Sweden—</b>						
Ore .. .. .	—	1	—	—	<i>n.a.</i>	<i>n.a.</i>
Ferro-vanadium ..	31	24	7	39	67	61
<b>United States—</b>						
Ore .. .. .	—	—	—	5	4	—
( <i>V content</i> ) .. ..	—	—	—	3	2	—
<b>Japan—</b>						
Ore .. .. .	330	405	153	814	284	981
Ferro-vanadium ..	—	37	—	—	—	—

(a) Excluding vanadium contained in petroleum soot, slags and residues.

**VERMICULITE**  
**PRODUCTION OF VERMICULITE**

Long tons

Producing Country	1956	1957	1958	1959	1960	1961
<b>COMMONWEALTH COUNTRIES</b>						
Kenya .. .. .	444	30	86	100	253	—
Southern Rhodesia .. .. .	272	411	250	45	—	—
Tanganyika .. .. .	—	—	82	111	18	140
Australia .. .. .	1	—	—	—	—	—
India .. .. .	927	—	—	2	15	622
<b>OTHER COUNTRIES</b>						
Egypt .. .. .	—	29	270	296	118	—
Morocco .. .. .	—	131	—	—	—	—
South Africa .. .. .	52,426	55,910	48,495	46,784	61,627	63,498
Sudan .. .. .	—	—	118	98	—	n.a.
United States (b) .. .. .	171,989	164,274	170,146	184,446	177,711	184,000
Argentina .. .. .	548	256	144	r (a) 785	(a) 785	(a) 785
<b>WORLD'S TOTAL</b> .. .. .	<b>226,600</b>	<b>221,000</b>	<b>220,000</b>	<b>r 233,000</b>	<b>240,000</b>	<b>249,000</b>

(a) United States Bureau of Mines' estimate.

(b) Sold or used by producers.

**EXPORTS OF VERMICULITE**

Long tons

Exporting Country	1956	1957	1958	1959	1960	1961
<b>COMMONWEALTH COUNTRIES</b>						
Rhodesia and Nyasaland	2	1	4	7	4	1
<b>OTHER COUNTRIES</b>						
South Africa .. .. .	47,136	44,197	43,718	52,614	56,666	63,455

**IMPORTS OF VERMICULITE**

Long tons

Importing Country	1956	1957	1958	1959	1960	1961
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom (a) .. .. .	10,606	11,055	9,621	15,263	14,588	15,263
Canada .. .. .	(£135,969)	(£137,314)	(£148,238)	(£167,364)	(£153,603)	(£162,116)
<b>OTHER COUNTRIES</b>						
France (b) .. .. .	4,577	7,453	10,925	8,193	7,711	14,480
Mexico .. .. .	311	429	672	808	795	706
United States (a) .. .. .	7,207	7,751	7,616	10,597	11,068	11,370
Venezuela .. .. .	n.a.	n.a.	n.a.	262	162	150

(a) Exports from the South Africa to the country stated.

(b) May include perlite, etc.

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

Long tons

Producing Country	1956	1957	1958	1959	1960	1961
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom .. .. .	674	835	241	—	250	—
Northern Rhodesia (c) ..	28,925	29,554	30,250	29,895	29,794	29,862
Canada (h) .. .. .	377,350	369,412	379,553	353,579	363,279	368,182
India .. .. .	3,715	4,033	r 4,001	5,401	5,298	5,064
Australia .. .. .	278,082	291,582	263,044	249,133	290,224	288,199
<b>TOTAL</b> .. .. .	r 688,700	r 695,400	r 677,000	r 638,000	689,000	691,000
Irish Republic .. .. .	1,605	1,545	—	1,163	(e) 1,300	(e) 700
<b>OTHER COUNTRIES</b>						
Austria .. .. .	6,043	7,569	7,598	8,030	8,741	8,064
Bulgaria .. .. .	35,100	44,400	49,200	54,700	57,800	54,700
Finland (b) .. .. .	38,160	42,326	46,200	53,200	41,364	45,860
France .. .. .	12,383	12,181	14,630	15,729	16,905	15,354
Germany (Federal) (i) ..	90,980	r 92,789	r 84,046	r 80,800	84,964	85,883
Germany (East) (g) .. .	6,900	6,900	6,900	6,900	6,900	6,900
Greece .. .. .	r 9,723	r 10,249	r 15,495	r 11,508	14,000	15,400
Italy .. .. .	122,796	128,034	123,353	121,049	122,591	118,171
Norway .. .. .	6,257	6,906	8,942	9,739	10,174	9,153
Poland .. .. .	149,100	129,100	120,800	127,300	141,800	137,372
Portugal .. .. .	559	173	15	—	—	—
Spain .. .. .	87,423	79,550	81,040	84,505	84,750	87,177
Sweden .. .. .	64,997	66,543	69,471	r 77,276	69,200	74,000
U.S.S.R. (c) (e) .. .	270,000	300,000	325,000	330,000	340,000	400,000
Yugoslavia .. .. .	56,629	57,171	59,071	59,715	55,491	58,936
Algeria .. .. .	31,877	29,235	32,790	38,191	39,500	41,370
Angola .. .. .	3	—	—	—	—	—
Congo Republic .. .. .	115,670	105,589	112,184	68,867	107,457	97,939
Egypt .. .. .	618	—	—	—	—	—
Morocco .. .. .	41,562	48,093	48,481	54,733	44,000	40,000
South Africa .. .. .	457	1,059	—	—	—	15
South West Africa .. .	36,043	49,171	39,964	19,273	24,000	24,000
Tunisia .. .. .	4,645	3,495	4,070	3,270	3,760	3,340
Cuba .. .. .	1,462	671	(g) 100	(d) 168	(d) 69	—
Greenland .. .. .	2,300	8,161	5,930	8,239	9,960	6,714
Guatemala (b) .. .. .	11,000	9,200	4,712	—	9,884	7,809
Honduras (d) .. .. .	2,043	2,312	1,281	1,274	4,209	6,122
Mexico .. .. .	244,956	237,221	220,566	259,767	258,280	264,725
United States (b) .. .	484,232	474,763	367,862	379,735	388,774	414,634
Argentina .. .. .	23,327	29,080	36,000	39,000	34,000	30,000
Bolivia (a) .. .. .	16,802	19,355	13,997	3,339	3,963	5,248
Chile .. .. .	2,650	2,013	1,197	996	1,035	396
Colombia (g) .. .. .	—	—	—	700	310	700
Peru (b) .. .. .	172,354	152,017	133,120	140,838	175,309	173,488
Burma .. .. .	7,226	9,085	10,769	10,500	9,800	7,200
China (g) .. .. .	35,000	39,000	45,000	64,000	79,000	98,000
Iran (f) .. .. .	4,600	4,500	8,800	6,600	6,900	6,000
Japan .. .. .	121,058	133,858	140,715	140,089	154,041	165,602
Korea (South) .. .. .	400	278	329	4	40	443
Korea (North) (g) .. .	49,000	r 70,000	r 80,000	r 80,000	80,000	80,000
Philippine Republic .. .	935	297	—	5	4,899	3,261
Thailand .. .. .	2,000	1,625	536	750	1,045	893
Turkey .. .. .	(e) 1,700	(e) 2,000	(e) 2,000	(e) 1,000	2,500	3,400
<b>TOTAL</b> .. .. .	r 2,400,000	r 2,400,000	2,300,000	r 2,400,000	2,500,000	2,600,000
<b>WORLD'S TOTAL</b> .. .	3,100,000	3,100,000	3,000,000	3,000,000	3,200,000	3,300,000

(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.

METAL PRODUCTION OF ZINC

Long tons

Producing Country	1956	1957	1958	1959	1960	1961
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom ..	81,470	76,885	74,587	72,966	74,303	92,884
Northern Rhodesia ..	28,925	29,554	30,250	29,895	29,794	29,862
Canada .. ..	228,182	220,818	225,083	227,952	233,007	239,291
Australia .. ..	104,993	110,348	114,773	116,461	120,230	138,694
<b>TOTAL .. ..</b>	<b>443,570</b>	<b>437,605</b>	<b>444,693</b>	<b>447,274</b>	<b>457,334</b>	<b>500,731</b>
<b>OTHER COUNTRIES</b>						
Austria .. ..	6,535	9,189	10,444	11,257	11,339	11,876
Belgium .. ..	227,044	231,922	213,912	220,759	243,653	241,670
Bulgaria .. ..	5,745	7,394	8,104	8,950	16,642	(d) 21,000
France .. ..	110,806	128,256	146,077	143,945	148,023	163,000
Germany (Federal) ..	183,003	180,847	173,906	178,331	179,499	183,000
Germany (East) (a) ..	—	—	—	—	—	1,000
Italy .. ..	71,265	73,310	70,229	72,766	78,141	77,165
Netherlands .. ..	28,554	29,540	26,147	31,647	35,510	38,967
Norway .. ..	48,002	47,588	44,804	48,007	43,268	45,792
Poland .. ..	150,900	156,261	160,047	165,000	173,000	179,000
Spain .. ..	22,661	21,552	24,321	24,142	44,254	41,350
U.S.S.R. (a) .. ..	270,000	300,000	325,000	330,000	340,000	400,000
Yugoslavia .. ..	19,544	28,994	30,754	31,446	35,367	36,286
Congo Republic .. ..	41,419	48,417	52,594	53,944	52,515	56,060
Mexico .. ..	55,400	55,672	56,544	54,787	52,070	50,999
United States (b) (c) ..	878,223	880,175	697,541	713,095	713,854	756,067
Argentina .. ..	13,779	13,814	14,172	12,594	15,756	14,211
Peru .. ..	9,303	29,002	28,602	26,424	31,886	31,756
China (d) .. ..	34,000	37,000	40,000	59,000	69,000	89,000
Japan .. ..	130,800	132,614	135,273	153,079	172,686	203,734
Korea (North) (d) ..	—	4,700	20,000	24,000	45,000	58,000
<b>TOTAL .. ..</b>	<b>2,300,000</b>	<b>2,400,000</b>	<b>2,300,000</b>	<b>2,300,000</b>	<b>2,500,000</b>	<b>2,700,000</b>
<b>WORLD'S TOTAL ..</b>	<b>2,700,000</b>	<b>2,800,000</b>	<b>2,700,000</b>	<b>2,800,000</b>	<b>2,900,000</b>	<b>3,200,000</b>

(a) Estimated.

(b) In addition secondary zinc recovered was as follows (long tons):

1956 .. ..	251,210	1959 .. ..	246,655
1957 .. ..	235,807	1960 .. ..	237,339
1958 .. ..	205,654	1961 .. ..	212,471

(c) The production by grades (including redistilled secondary) was as follows (long tons):

	1956	1957	1958	1959	1960	1961
A—High grade—Special ..	318,532	316,109	266,466	295,814	318,933	315,595
Ordinary .. ..	145,060	135,997	77,553	64,100	63,689	79,907
B—Intermediate grade ..	33,653	28,805	17,311	15,619	14,144	13,721
C and D—Brass special ..	85,974	75,260	73,072	67,237	74,560	62,215
Selected .. ..	2,143	1,027	1,161	1,262	65	—
E—Prime Western .. ..	357,261	387,692	303,590	320,686	303,829	333,947

(d) United States Bureau of Mines' estimate.

PRODUCTION OF ELECTROLYTIC ZINC IN CERTAIN COUNTRIES\*

Long tons

Producing Country	1956	1957	1958	1959	1960	1961
<b>COMMONWEALTH COUNTRIES</b>						
Northern Rhodesia ..	20,000	20,400	20,600	21,200	18,800	22,600
Canada .. .. .	228,182	220,818	225,083	227,952	233,007	239,291
Australia (Tasmania) ..	104,993	110,348	114,773	116,461	120,230	138,694
<b>OTHER COUNTRIES</b>						
Austria .. .. .	6,535	9,189	10,444	11,257	11,339	11,876
France .. .. .	47,390	48,767	59,300	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Italy .. .. .	63,219	62,856	60,878	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Norway .. .. .	48,002	47,588	44,804	48,007	43,268	45,792
Poland .. .. .	55,300	58,300	65,500	69,500	72,600	<i>n.a.</i>
Congo Republic ..	41,419	48,417	52,594	53,944	52,515	56,060
United States ..	366,444	365,610	291,472	250,279	285,515	289,642
Japan .. .. .	81,216	83,419	83,668	98,222	107,096	132,265

\*This production is already included in the Metal table.

PRODUCTION OF ZINC DUST IN CERTAIN COUNTRIES

Long tons

Producing Country	1956	1957	1958	1959	1960	1961
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom ..	10,234	11,246	10,256	12,194	14,265	11,862
Australia .. .. .	2,246	2,199	2,190	2,575	2,697	3,131
<b>OTHER COUNTRIES</b>						
France .. .. .	2,450	2,181	1,872	2,438	3,618	4,654
Germany (Federal) ..	5,301	8,524	7,634	9,035	10,503	8,592
United States .. ..	25,043	23,853	23,671	29,248	27,489	31,046
Japan .. .. .	4,616	5,189	4,587	4,880	5,959	7,591

PRODUCTION OF ROLLED ZINC SHEETS, PLATES AND STRIPS  
IN CERTAIN COUNTRIES

Long tons

Producing Country	1956	1957	1958	1959	1960	1961
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom (a) ..	23,433	22,548	25,222	23,852	25,350	27,401
<b>OTHER COUNTRIES</b>						
France .. .. .	57,637	61,647	69,268	66,223	61,456	68,605
United States (b) ..	42,802	35,475	34,704	36,310	33,031	<i>n.a.</i>
Japan .. .. .	5,350	6,393	5,692	6,722	6,856	6,995

(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	
1956 .. .. .	7,059	1959 .. .. .	13,083
1957 .. .. .	11,327	1960 .. .. .	10,080
1958 .. .. .	11,401	1961 .. .. .	<i>n.a.</i>

## EXPORTS OF ZINC\*

Long tons

Exporting Country and Description	1956	1957	1958	1959	1960	1961
<b>COMMONWEALTH COUNTRIES</b>						
<b>United Kingdom—</b>						
Ore and concentrates ..	3,228	498	200	4	4,976	38
Unwrought ..	365	1,062	1,649	1,441	2,942	2,135
Semi-manufactures (d) ..	3,794	3,085	5,811	5,165	7,303	5,998
Oxide .. .. .	6,183	6,831	9,024	11,094	7,911	9,479
Lithopone, etc... ..	3,217	2,467	3,379	4,450	6,264	6,194
<b>Nigeria—</b>						
Ore and concentrates ..	—	—	—	—	147	—
<b>Rhodesia and Nyasaland—</b>						
Ores and concentrates ..	15,024	2,415	—	—	—	952
Unwrought .. .. .	29,318	29,666	27,933	30,473	29,435	25,258
<b>Canada—</b>						
Ore (Zn content) .. ..	177,958	167,090	194,485	161,682	151,691	177,966
Unwrought .. .. .	164,043	180,363	174,739	160,315	184,903	185,957
Dross, scrap and ashes..	4,881	4,783	4,992	5,343	4,761	(f) 3,165
Oxide .. .. .	477	924	1,322	1,153	645	497
<b>Hong Kong—</b>						
Unwrought (a) .. .. .	148	426	362	443	1,256	1,388
Semi-manufactures (a) ..	226	463	540	346	282	215
Oxide .. .. .	149	49	43	45	91	24
Lithopone .. .. .	151	637	380	407	29	593
<b>India—</b>						
Concentrates, etc. ..	5,068	6,383	4,833	12,417	(c) 9,638	(c) 10,190
Dross, scrap and ashes..	n.a.	745	619	1,593	(c) 260	(c) 500
Semi-manufactures (a) ..	n.a.	37	29	179	(c) 349	(c) 314
<b>Malaya—</b>						
Semi-manufactures (a) ..	106	99	255	194	274	249
<b>Australia (b)—</b>						
Ores and concentrates (Zn content) .. ..	152,485	160,267	158,253	152,414	136,706	175,231
Unwrought .. .. .	33,715	39,676	30,210	44,998	31,904	30,322
Scrap .. .. .	(e) 688	(e) 259	(e) 393	(e) 275	(e) 544	6,024
Semi-manufactures .. ..	2,910	1,991	1,379	1,351	1,272	5,003
Oxide .. .. .	100	265	79	127	105	79
<b>Irish Republic—</b>						
Ores and concentrates	4,536	3,390	1,057	2,599	2,891	1,537
<b>OTHER COUNTRIES</b>						
<b>Austria—</b>						
Ore .. .. .	1,034	15	1,987	20	86	39
Unwrought (a) .. .. .	3,661	3,412	4,008	4,630	5,198	5,015
Scrap .. .. .	1,544	673	1,034	154	107	59
Zinc-white .. .. .	—	—	—	1	—	1
Lithopone .. .. .	1,971	1,431	1,546	2,042	2,347	2,402
<b>Belgium-Luxemburg</b>						
<b>E.U.—</b>						
Ore .. .. .	55,821	55,350	53,437	63,884	44,970	70,357
Unwrought .. .. .	138,921	134,187	128,463	121,181	141,351	143,640
Scrap .. .. .	1,683	2,892	4,854	6,629	8,803	6,056
Semi-manufactures (a) ..	26,644	30,116	29,012	23,766	24,570	28,461
Lithopone, etc... ..	16,528	15,492	10,883	15,050	21,321	22,311

\*In these tables the description "unwrought" zinc corresponds to item 686.1 in the Standard International Trade Classification and comprises blocks, pigs, slabs, etc. "Semi-manufactures" corresponds to S.I.T.C. 284.0 (8) and 686.2, and includes zinc dust as well as rods, wire, sheets, tubes, pipes, etc.

(a) Including alloys.

(b) Years ended June 30 of that stated.

(c) Years ended March 31 following that stated.

(d) Including unwrought alloys.

(e) Including shavings.

(f) Scrap only.



## EXPORTS OF ZINC (cont.)

Long tons

Exporting Country and Description	1956	1957	1958	1959	1960	1961
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
<b>Denmark—</b>						
Unwrought .. ..	243	315	2,516	1,169	2,309	407
do. alloys .. ..	—	44	1,561	3,104	2,186	2,470
Scrap .. ..	1,435	992	1,107	1,191	1,374	912
<b>Finland—</b>						
Concentrates .. ..	80,438	90,083	88,644	118,853	88,451	85,509
Unwrought .. ..	5	1	411	1,054	193	85
<b>France—</b>						
Ore .. ..	2,225	1,279	—	12	23,821	23,719
Unwrought .. ..	150	280	442	4,256	5,648	2,182
do. alloys .. ..	3	2	12	279	262	95
Semi-manufactures (a) .. ..	1,142	1,347	1,507	2,267	2,690	4,061
Oxide .. ..	1,112	1,723	2,260	3,402	5,354	4,824
Lithopone, etc. .. ..	561	524	558	716	1,629	1,543
<b>Germany (Federal)—</b>						
Ore .. ..	5,090	829	9,188	16,938	16,659	18,867
Unwrought (a) .. ..	40,627	23,340	28,397	19,658	27,374	31,200
Scrap (a) .. ..	45	321	462	79	132	871
Semi-manufactures (a) .. ..	7,745	7,732	8,099	8,975	9,104	7,773
Zinc-white, zinc-grey .. ..	11,249	12,911	13,192	17,709	15,767	10,486
Lithopone .. ..	41,619	41,948	41,545	39,572	38,523	41,678
<b>Greece—</b>						
Ore and concentrates .. ..	17,578	19,150	27,582	32,441	30,631	29,692
<b>Italy—</b>						
Ore .. ..	62,032	73,007	87,609	82,724	58,848	75,147
Unwrought .. ..	23,057	13,816	15,436	17,253	10,429	6,265
Semi-manufactures (a) .. ..	77	26	451	359	501	359
Oxide .. ..	544	544	363	449	207	96
Lithopone, etc. .. ..	4,620	3,692	5,225	5,488	4,137	4,028
<b>Netherlands—</b>						
Ore .. ..	272	2,384	1,863	1,632	1,766	4,719
Unwrought .. ..	20,387	14,967	14,517	25,487	23,461	20,355
do. alloys .. ..	20	24	113	456	257	109
Scrap .. ..	6,250	5,007	4,977	2,869	2,446	4,557
Semi-manufactures (a) .. ..	933	1,309	1,334	2,011	1,380	1,281
<b>Norway—</b>						
Ore .. ..	5,675	6,056	10,686	10,296	14,166	9,534
Unwrought .. ..	36,627	39,555	36,720	36,146	31,900	31,232
do. alloys .. ..	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	729	817	810
Ashes and scrap .. ..	1,409	1,323	1,444	(b) 296	(b) 653	(b) 421
Zinc-white .. ..	2,482	1,407	2,714	377	408	773
<b>Poland—</b>						
Unwrought and sheets .. ..	94,500	91,000	89,000	89,000	96,000	90,000
Zinc-white .. ..	9,900	8,132	6,954	8,855	9,908	<i>n.a.</i>
<b>Portugal—</b>						
Ore .. ..	1,037	440	—	—	<i>n.a.</i>	<i>n.a.</i>
Zinc-white .. ..	11	16	15	19	21	9
<b>Spain—</b>						
Ore .. ..	90,419	63,431	53,749	129,526	73,912	29,653
Unwrought (a) .. ..	—	—	—	407	19,972	21,707
<b>Sweden—</b>						
Ore .. ..	125,728	135,827	136,131	141,555	137,120	143,140
Unwrought (a) .. ..	116	154	362	449	327	146
Scrap .. ..	195	439	620	1,006	869	1,196
Zinc-white .. ..	914	559	645	747	870	998
<b>Switzerland—</b>						
Unwrought and scrap .. ..	5,226	5,738	5,124	4,945	919	751
Semi-manufactures (a) .. ..	47	65	91	57	35	51
Zinc-white, etc. .. ..	174	227	279	317	(c) —	(c) 12
<b>U.S.S.R.—</b>						
Concentrates .. ..	32,600	—	36,800	65,700	48,200	38,600
Unwrought .. ..	50,100	71,000	65,400	72,100	89,000	114,400

(a) Including alloys.

(b) Scrap only.

(c) Zinc white only.

## EXPORTS OF ZINC (cont.)

Long tons

Exporting Country and Description	1956	1957	1958	1959	1960	1961
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
Yugoslavia—						
Concentrates .. ..	29,610	23,984	26,783	27,987	18,336	18,552
Unwrought .. ..	2,250	14,569	11,809	9,301	8,762	7,830
Semi-manufactures .. ..	2,637	3,422	4,151	4,210	4,748	5,181
Oxide .. ..	925	1,048	496	1,639	2,062	1,301
Lithopone .. ..	1,513	1,007	347	883	651	96
Algeria—						
Ore .. ..	60,945	50,682	52,559	73,571	64,781	74,900
Unwrought (a) .. ..	95	8	25	40	25	n.a.
Scrap .. ..	425	357	423	428	513	n.a.
Semi-manufactures (a) .. ..	205	112	76	57	31	n.a.
Oxide .. ..	1	2	—	—	119	n.a.
Angola—						
Ore .. ..	—	295	—	—	—	—
Congo Republic—						
Ores and concentrates .. ..	70,467	78,073	82,363	73,748	(c) 96,000	(c) 80,000
Unwrought .. ..	38,901	48,866	50,403	52,836	(c) 50,000	(c) 50,000
Egypt—						
Ore .. ..	394	n.a.	n.a.	n.a.	n.a.	n.a.
Morocco—						
Ore .. ..	62,521	102,266	54,381	97,941	69,511	74,101
South Africa—						
Unwrought .. ..	20	2	1	11	17	7
Fume, dust, shavings, etc. .. ..	78	287	109	81	90	111
South West Africa—						
Ores and concentrates (Zn content) .. ..	30,107	55,844	42,647	19,273	24,046	23,052
Tunisia—						
Ore .. ..	10,946	7,963	6,250	6,020	4,190	9,544
Cuba—						
Crude .. ..	1,681	795	—	—	n.a.	n.a.
Greenland—						
Ore .. ..	4,761	12,692	8,507	9,367	17,567	10,247
Guatemala—						
Ore .. ..	18,545	18,942	11,328	—	15,387	13,437
Honduras—						
Ore and concentrates .. ..	859	1,357	—	—	6,565	12,131
Mexico—						
Ores and concentrates .. ..	382,631	357,848	297,661	345,842	375,624	395,153
Unwrought .. ..	40,381	41,602	35,916	40,397	29,779	27,324
Oxide .. ..	853	1,203	1,337	2,155	2,810	2,456
United States—						
Ore and concentrates (b) .. ..	763	6	—	1	12	1,491
Unwrought .. ..	7,870	9,630	1,851	10,383	67,093	44,691
Scrap (b) .. ..	13,332	4,883	4,771	10,118	10,865	5,268
Semi-manufactures (a) .. ..	4,819	4,585	4,915	4,572	5,955	6,224
Oxide .. ..	2,454	2,807	2,270	2,247	1,908	1,949
Lithopone .. ..	1,239	885	547	480	170	543
Argentina—						
Ore .. ..	—	—	—	—	26,235	50,141
Bolivia—						
Ores (Zn content) .. ..	16,802	19,355	13,997	3,339	3,963	5,248
Chile—						
Concentrates .. ..	8,716	5,481	2,165	n.a.	n.a.	n.a.
Peru—						
Ores, etc. (Zn content) .. ..	134,749	117,333	105,920	128,862	131,171	173,423
Unwrought (Zn content) .. ..	6,914	26,668	28,494	25,237	24,106	29,859
Burma—						
Concentrates .. ..	31,237	36,751	36,744	29,706	20,022	11,573

(a) Years ended March 20 following that stated.

(c) Estimated.

(b) Zn content.

EXPORTS OF ZINC (*cont.*)

Long tons

Exporting Country and Description	1956	1957	1958	1959	1960	1961
OTHER COUNTRIES ( <i>cont.</i> )						
Iran ( <i>a</i> )—						
Ore .. .. .	12,201	11,810	15,473	6,729	15,567	21,219
Japan—						
Unwrought .. .. .	14,626	11,514	7,068	8,589	5,821	1,329
Semi-manufactures ( <i>a</i> )	195	49	56	30	50	66
Oxide .. .. .	108	172	77	44	24	82
Lithopone .. .. .	213	12	22	—	1	20
Korea (South)—						
Ore .. .. .	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	1,083	551
Philippine Republic—						
Concentrates .. .. .	1,083	1,476	—	—	11	3,051
Turkey—						
Ore .. .. .	984	982	1,575	3,486	1,968	11,263

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

IMPORTS OF ZINC\*

Long tons

Importing Country and Description	1956	1957	1958	1959	1960	1961
<b>COMMONWEALTH COUNTRIES</b>						
<b>United Kingdom—</b>						
Ore and concentrates ..	180,760	207,355	121,194	152,325	189,112	206,184
Unwrought .. .. .	125,747	146,713	133,523	173,810	185,878	163,077
Semi-manufactures (d) ..	482	509	795	754	934	1,770
Oxide .. .. .	54	4	5	n.a.	n.a.	n.a.
Lithopone, etc. . . . .	2,838	2,828	4,358	2,685	2,615	2,524
<b>Ghana—</b>						
Unwrought (a) .. . . .	41	26	65	65	73	18
Semi-manufactures (a) ..						
<b>Kenya—</b>						
Unwrought (a) .. . . .	59	37	88	68	77	100
Semi-manufactures (a) ..	10	22	44	40	46	9
<b>Nigeria—</b>						
Unwrought and semi-manufactures (a)	63	42	90	50	67	35
<b>Rhodesia and Nyasaland—</b>						
Semi-manufactures (a)	102	147	148	120	124	49
<b>Tanganyika—</b>						
Semi-manufactures (a)	22	13	16	31	26	36
<b>Canada—</b>						
Unwrought (a) .. . . .	68	38	555	750	44	688
Semi-manufactures (a) ..	1,880	1,935	1,467	1,648	1,550	1,548
Zinc-white .. .. .	544	641	621	646	678	1,999
Lithopone .. .. .	2,049	1,219	1,109	875	798	562
<b>Ceylon—</b>						
Unwrought (a) .. . . .	26	50	65	85	65	85
Semi-manufactures (a) ..	37	25	61	29	57	18
<b>Cyprus—</b>						
Semi-manufactures (a)	26	53	43	61	34	40
<b>Hong Kong—</b>						
Unwrought (a) .. . . .	700	1,158	2,445	2,390	4,006	5,366
Scrap (a) .. . . .	24	22	32	357	456	431
Semi-manufactures (a) ..	1,118	1,213	916	1,050	897	547
Oxide .. .. .	527	545	508	527	538	573
Lithopone .. .. .	1,463	2,439	1,695	2,102	1,716	2,327
<b>India—</b>						
Unwrought .. .. .	35,258	47,910	57,122	46,921	(b) 66,725	(b) 64,345
do. alloys .. . . .	n.a.	3,019	1,159	869	(b) 2,888	(b) 1,522
Semi-manufactures (a) ..	n.a.	2,376	1,251	248	(b) 1,403	(b) 964
Zinc-white .. .. .	4	9	8	7	(b) 17	(b) 5
Lithopone .. .. .	417	279	133	163	(b) 379	(b) 352
<b>Malaya—</b>						
Semi-manufactures (a)	643	1,059	960	878	1,305	1,253
<b>Pakistan—</b>						
Unwrought (a) .. . . .	285	519	674	1,525	1,899	3,574
Zinc-white .. .. .	177	134	263	248	464	413
Lithopone .. .. .	458	809	1,091	507	1,639	1,364
<b>Sarawak—</b>						
Semi-manufactures (a)	149	159	139	204	402	439
<b>Australia (c)—</b>						
Unwrought and semi-manufactures (a) ..	154	132	156	129	911	2,531
Oxides .. .. .	218	7	7	5	37	—
Lithopone .. .. .	1,925	2,415	1,353	1,623	1,582	1,531
<b>New Zealand—</b>						
Unwrought (a) .. . . .	1,400	1,545	2,211	2,088	2,549	2,664
Semi-manufactures (a) ..	380	509	465	326	345	755
Oxide .. .. .	419	353	314	31	108	79
Lithopone .. .. .	213	173	266	184	174	136

\*See footnote on p.378 concerning the descriptions "unwrought" zinc and "semi-manufactures" used in these tables.

(a) Including alloys.

(c) Years ended June 30 of that stated.

(b) Years ended March 31 following that stated.

(d) Including unwrought alloys.

## IMPORTS OF ZINC (cont.)

Long tons

Importing Country and Description	1956	1957	1958	1959	1960	1961
Irish Republic—						
Unwrought (a) .. ..	1,351	1,452	1,582	1,524	2,163	2,464
Semi-manufactures (a)	357	334	364	296	99	80
<b>OTHER COUNTRIES</b>						
Austria—						
Ore .. .. .	6,419	4,037	10,369	11,555	10,127	9,271
Unwrought (a) .. ..	5,959	4,447	3,918	3,070	6,485	7,905
Semi-manufactures (a)	102	127	165	331	476	499
Zinc-white and zinc-grey .. .. .	407	389	374	786	629	658
Lithopone .. .. .	418	540	359	20	19	3
Belgium-Luxemburg						
E.U.—						
Ore .. .. .	536,351	514,382	453,528	526,753	540,052	496,045
Unwrought .. .. .	571	777	3,336	491	2,991	17,436
Scrap .. .. .	240	9	36	861	368	133
Semi-manufactures (a)	143	341	371	279	97	143
Oxide .. .. .	1,140	1,235	1,221	1,234	1,421	1,433
Lithopone, etc. . . .	1,725	1,540	1,713	1,980	1,637	1,608
Denmark—						
Unwrought .. .. .	4,511	5,557	9,665	11,296	11,544	9,732
do. alloys .. .. .	118	124	143	380	430	218
Scrap .. .. .	82	143	270	513	142	32
Semi-manufactures (a)	5,449	4,808	5,946	5,513	5,232	6,257
Zinc-white .. .. .	1,987	1,596	1,627	1,940	1,642	1,623
Lithopone .. .. .	1,866	1,727	1,849	1,883	1,854	1,964
Finland—						
Unwrought (a) .. ..	4,504	6,245	2,995	5,361	4,729	6,286
Scrap .. .. .	126	54	72	54	5	—
Semi-manufactures (a)	309	567	358	466	468	500
Zinc-white .. .. .	529	520	646	802	725	490
Lithopone .. .. .	1,353	1,735	1,309	1,631	1,919	1,833
France—						
Ore .. .. .	285,363	308,039	346,203	236,309	285,755	320,391
Unwrought .. .. .	11,394	10,271	14,596	13,597	21,699	31,108
Scrap .. .. .	7,153	6,578	8,946	4,035	6,050	8,474
Semi-manufactures (a)	2,637	2,348	1,517	1,670	5,603	4,755
Oxide .. .. .	586	399	197	541	714	1,534
Lithopone, etc. . . .	17,110	16,295	9,700	16,165	19,217	21,051
Germany (Federal)—						
Ores .. .. .	114,526	109,123	177,297	142,087	158,346	136,247
Unwrought (a) .. ..	59,031	66,463	75,456	103,970	136,444	139,343
Scrap (a) .. .. .	818	358	402	695	555	409
Semi-manufactures (a)	6,536	6,823	10,249	9,206	10,012	9,454
Zinc-white and zinc-grey	2,265	2,972	2,165	2,151	2,365	3,254
Lithopone .. .. .	2,883	2,743	2,297	2,659	2,965	3,714
Greece—						
Unwrought .. .. .	1,562	2,101	2,183	2,773	3,754	4,923
Semi-manufactures (a)	567	668	749	499	373	n.a.
Zinc-white .. .. .	375	340	324	241	231	241
Lithopone .. .. .	2,625	2,527	2,864	3,009	3,207	3,187
Hungary—						
Crude .. .. .	6,960	5,932	7,107	8,403	10,663	9,225
Iceland—						
Unwrought (a) .. ..	27	20	37	36	18	20
Semi-manufactures (a)	42	29	35	23	43	52
Zinc-white .. .. .	67	34	53	32	77	37

(a) Including alloys.

## IMPORTS OF ZINC (cont.)

Long tons

Importing Country and Description	1956	1957	1958	1959	1960	1961
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
<b>Italy—</b>						
Ore .. .. .	1,072	20	2,528	—	982	2,513
Unwrought .. .. .	4,592	8,615	6,407	6,749	11,299	12,748
do. alloys .. .. .	847	913	941	309	856	2,040
Scrap .. .. .	1,281	2,461	1,061	4,744	4,395	4,550
Semi-manufactures (a)	1,315	1,061	1,222	252	177	436
Oxide .. .. .	303	558	400	489	705	741
Lithopone, etc... .. .	704	739	980	1,078	1,002	1,221
<b>Netherlands—</b>						
Ore .. .. .	45,948	69,629	71,262	72,952	70,653	90,282
Unwrought .. .. .	8,432	10,041	12,285	9,973	11,584	13,437
do. alloys .. .. .	927	1,451	908	1,398	2,011	2,068
Scrap .. .. .	371	226	488	796	756	451
Semi-manufactures (a)	5,728	5,415	5,844	5,449	5,567	5,995
Oxide .. .. .	1,511	1,464	1,272	1,468	1,557	1,037
Lithopone, etc... .. .	2,481	2,010	1,821	1,731	1,976	1,980
<b>Norway—</b>						
Ore .. .. .	75,566	92,703	88,260	61,278	83,668	65,874
Unwrought .. .. .	1,601	750	172	260	1,151	1,040
Ashes and scrap .. .. .	1,326	1,330	1,056	(b) 750	(b) 902	(b) 923
Semi-manufactures (a)	1,305	1,067	1,444	1,464	1,373	2,374
Zinc-white .. .. .	753	736	331	496	470	453
Lithopone, etc... .. .	495	395	422	358	334	329
<b>Poland—</b>						
Concentrates .. .. .	89,600	150,000	105,000	141,000	109,000	145,100
<b>Portugal—</b>						
Unwrought and scrap .. .. .	2,422	2,743	2,854	2,682	3,128	4,866
Semi-manufactures .. .. .	161	176	127	148	251	192
Oxide .. .. .	783	786	720	617	430	460
Lithopone .. .. .	1,647	1,619	1,985	1,926	2,221	2,276
<b>Spain—</b>						
Unwrought and scrap .. .. .	398	4,092	9,466	7,719	1	—
Semi-manufactures (a)	32	13	47	32	17	19
<b>Sweden—</b>						
Unwrought .. .. .	25,796	23,664	22,846	29,107	32,206	23,810
do. alloys .. .. .	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	1,049	1,765	2,204
Scrap .. .. .	3	1	—	61	103	50
Semi-manufactures (a)	1,369	1,513	1,276	1,114	1,283	1,206
Zinc-white .. .. .	4,994	5,071	4,484	4,703	4,502	4,389
Lithopone, etc... .. .	6,172	5,945	6,267	6,173	5,863	5,603
<b>Switzerland—</b>						
Unwrought .. .. .	16,068	17,943	15,009	14,180	23,552	26,594
Semi-manufactures (a)	2,314	2,650	2,440	2,504	3,860	3,505
Zinc-white, lithopone, etc. .. .. .	9,868	9,067	8,535	8,496	(c) 1,998	(c) 1,713
<b>U.S.S.R.—</b>						
Unwrought .. .. .	47,300	32,000	30,900	40,900	59,900	69,300
<b>Yugoslavia—</b>						
Unwrought .. .. .	1,086	318	30	227	770	—
<b>Algeria—</b>						
Unwrought (a) .. .. .	2	4	18	3	263	<i>n.a.</i>
Semi-manufactures (a)	622	872	978	921	789	<i>n.a.</i>
Oxide .. .. .	315	455	547	733	555	<i>n.a.</i>
Lithopone, etc... .. .	922	783	1,253	1,401	1,683	<i>n.a.</i>
<b>Angola—</b>						
Semi-manufactures (a)	104	154	95	107	94	60
Oxide .. .. .	42	39	37	30	29	35
<b>Congo Republic—</b>						
Unwrought and scrap .. .. .	2	4	11	—	<i>n.a.</i>	<i>n.a.</i>
Oxide .. .. .	188	88	67	92	<i>n.a.</i>	<i>n.a.</i>
Lithopone .. .. .	590	478	369	481	<i>n.a.</i>	<i>n.a.</i>

(a) Including alloys.

(b) Scrap only.

(c) Zinc-white only.

## IMPORTS OF ZINC (cont.)

Long tons

Importing Country and Description	1956	1957	1958	1959	1960	1961
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
<b>Egypt—</b>						
Unwrought .. ..	497	495	558	1,149	1,688	<i>n.a.</i>
Semi-manufactures ..	622	401	496	604	637	<i>n.a.</i>
Zinc-white .. ..	444	863	713	r 477	893	<i>n.a.</i>
Lithopone .. ..	2,483	2,341	4,211	1,614	5,247	<i>n.a.</i>
<b>Malagasy Republic—</b>						
Semi-manufactures (a)	146	74	172	102	99	99
Oxide .. ..	4	8	9	4	4	5
<b>Morocco—</b>						
Unwrought .. ..	131	338	597	387	502	463
Semi-manufactures (a)	257	118	186	173	149	152
Oxide .. ..	361	303	344	325	449	405
Lithopone .. ..	955	829	901	926	986	1,112
<b>Mozambique—</b>						
Semi-manufactures ..	19	9	12	30	21	<i>n.a.</i>
Oxide .. ..	33	23	35	34	52	<i>n.a.</i>
<b>South Africa—</b>						
Unwrought .. ..	21,466	17,785	22,895	14,622	28,201	22,547
Semi-manufactures ..	555	212	127	124	150	<i>n.a.</i>
Lithopone .. ..	1,924	2,129	1,928	1,646	1,609	<i>n.a.</i>
Oxide .. ..	351	233	292	273	264	<i>n.a.</i>
<b>Tunisia—</b>						
Unwrought and scrap (a)	75	12	104	63	49	84
Semi-manufactures (a)	65	34	80	69	107	107
Oxide .. ..	53	87	61	75	134	90
Lithopone .. ..	215	318	419	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
<b>Cuba—</b>						
Unwrought .. ..	650	312	204	226	<i>n.a.</i>	<i>n.a.</i>
Semi-manufactures ..	383	111	128	1,470	<i>n.a.</i>	<i>n.a.</i>
<b>Mexico—</b>						
Semi-manufactures ..	227	201	58	78	76	41
Oxide .. ..	47	22	32	38	27	35
<b>United States—</b>						
Ore ( <i>Zn content</i> ) .. ..	412,838	606,621	480,088	378,691	341,702	352,651
Unwrought .. ..	218,505	240,021	165,797	146,841	107,969	111,774
Dross and scrap .. ..	537	527	867	1,016	1,075	1,259
Semi-manufactures ..	409	754	890	888	824	1,133
Oxide .. ..	3,274	4,683	10,472	14,741	11,335	9,127
Lithopone .. ..	128	51	61	65	55	66
<b>Argentina—</b>						
Unwrought .. ..	6,244	1,369	7,867	6,955	412	313
Sheets and plates ..	—	8	—	—	70	219
Zinc-white .. ..	—	1	—	1	1	1
<b>Brazil—</b>						
Unwrought (a) .. ..	19,189	15,301	22,837	21,825	30,275	32,218
Semi-manufactures (a)	238	117	93	27	74	38
Zinc-white .. ..	4,729	2,542	2,647	1,200	455	621
Lithopone .. ..	7,776	7,739	6,138	7,516	7,477	9,540
<b>Chile—</b>						
Unwrought .. ..	1,561	2,258	2,459	1,477	2,776	<i>n.a.</i>
Bars and sheets ..	134	173	130	163	183	<i>n.a.</i>
Zinc-white .. ..	3	—	3	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Lithopone .. ..	214	—	10	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
<b>Colombia—</b>						
Unwrought (a) .. ..	89	126	424	1,433	2,497	721
Semi-manufactures (a)	366	475	387	309	397	533
Zinc-white .. ..	931	1,053	942	616	787	1,013
Lithopone .. ..	640	1,015	292	316	547	506
<b>Peru—</b>						
Semi-manufactures (a)	158	151	137	173	146	237
Zinc-white .. ..	37	55	17	17	14	23
Lithopone .. ..	347	573	419	394	350	406

(a) Including alloys

## IMPORTS OF ZINC (cont.)

Long tons

Importing Country and Description	1956	1957	1958	1959	1960	1961						
<b>OTHER COUNTRIES</b>												
<i>(cont.)</i>												
Uruguay—												
Unwrought and sheets ..	<i>n.a.</i>	1,232	648	1,421	1,351	<i>n.a.</i>						
Lithopone .. ..	<i>n.a.</i>	673	269	1,000	771	<i>n.a.</i>						
Zinc-white .. ..	<i>n.a.</i>	301	343	365	372	<i>n.a.</i>						
Venezuela—												
Unwrought .. ..	4	6	17	56	115	191						
Oxide .. ..	577	517	580	710	606	617						
Lithopone .. ..	824	754	735	543	348	535						
Burma—												
Unwrought .. ..	164	378	140	158	—	223						
Formosa—												
Unwrought (a) ..	818	1,655	1,057	605	1,318	1,915						
Semi-manufactures ..	190	281	260	271	257	279						
Indonesia—												
Unwrought and scrap ..	21	134	29	42	127	<i>n.a.</i>						
Semi-manufactures (a)	638	659	652	961	974	<i>n.a.</i>						
Zinc-white .. ..	1,601	2,236	1,536	1,332	2,141	<i>n.a.</i>						
Iran (b)—												
Unwrought .. ..	<i>n.a.</i>	79	12	30	34	<i>n.a.</i>						
Semi-manufactures (a)	<i>n.a.</i>	58	52	84	110	<i>n.a.</i>						
Iraq—												
Semi-manufactures ..	265	75	232	63	42	<i>n.a.</i>						
Israel—												
Unwrought .. ..	1,540	1,697	2,150	2,385	2,855	<i>n.a.</i>						
Semi-manufactures ..	269	244	510	512	553	<i>n.a.</i>						
Oxide .. ..	92	168	274	349	262	<i>n.a.</i>						
Lithopone .. ..	677	829	1,173	753	1,256	<i>n.a.</i>						
Japan—												
Ore .. ..	37,519	58,430	19,631	58,695	107,790	185,432						
Unwrought .. ..	6,109	7,324	7,982	9,295	25,736	47,118						
Scrap .. ..	7	23	53	170	48	59						
Semi-manufactures (a)	28	91	18	1	8	87						
Korea (South)—												
Lithopone .. ..	<i>n.a.</i>	<i>n.a.</i>	1,054	1,088	1,521	1,680						
Lebanon—												
Unwrought .. ..	19	252	190	467	512	<i>n.a.</i>						
Semi-manufactures ..	110	77	48	135	98	<i>n.a.</i>						
Oxide and lithopone ..	142	107	101	172	65	<i>n.a.</i>						
Philippine Republic—												
Unwrought (a) ..	2,358	4,201	4,257	11,864	11,355	5,520						
Semi-manufactures (a)							883					
Oxide .. ..							491	898	776	1,045	891	1,676
Lithopone .. ..							500	467	232	332	389	677
Syria—												
Oxide and lithopone ..	655	613	720	494	784	953						
Thailand—												
Unwrought (a) ..	—	17	19	431	2,160	5,589						
Semi-manufactures (a)	1,324	1,251	1,637	1,040	1,821	1,587						
Oxide .. ..	293	136	215	142	215	236						
Lithopone .. ..	<i>n.a.</i>	148	169	323	506	301						
Turkey—												
Unwrought .. ..	747	445	487	1,570	3,248	3,851						
Semi-manufactures (a)	792	764	846	2,471	2,864	1,526						
Oxide .. ..	1,159	824	133	1,880	1,204	1,449						
Lithopone .. ..	1,173	205	635	1,764	1,466	131						

(a) Including alloys.

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



## ZIRCONIUM MINERALS

### PRODUCTION OF ZIRCONIUM MINERALS

Long tons

Producing Country and Description	1956	1957	1958	1959	1960	1961
<b>COMMONWEALTH COUNTRIES</b>						
Gambia (a) .. ..	—	—	10	—	—	—
Nigeria .. .. .	—	—	90	1,116	1,757	743
India .. .. .	3	10	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Malaya (a) .. ..	45	41	25	81	57	56
Australia— Zircon concentrates ..	72,458	88,561	59,269	113,356	102,362	136,481
<b>OTHER COUNTRIES</b>						
Egypt .. .. .	359	40	(c) 40	(c) 60	364	<i>n.a.</i>
Malagasy Republic ..	—	—	23	44	130	315
Senegal .. .. .	1,130	2,900	6,800	8,533	10,186	5,303
South Africa .. ..	—	—	1,008	5,289	6,577	6,792
United States (d) ..	39,441	(e) 50,716	(f) 27,181	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Brazil (b) .. .. .	r 2,556	1,606	9,349	9,684	5,677	<i>n.a.</i>

Zirconium minerals are also known to have been produced in Ceylon and Cambodia.

(a) Exports.

(b) Chiefly baddeleyite.

(c) United States Bureau of Mines' estimate.

(d) Production of zirconium sponge metal in the United States was as follows (long tons): 1956—212; 1957—*n.a.*; 1958—1,129; 1959—1,254; 1960—1,271; 1961—1,515.

(e) Florida only.

(f) Excluding Idaho.

### EXPORTS OF ZIRCONIUM MINERALS, ETC.

Long tons

Exporting Country and Description	1956	1957	1958	1959	1960	1961
<b>COMMONWEALTH COUNTRIES</b>						
Gambia— Zircon .. .. .	—	—	10	—	—	—
Malaya— Zircon .. .. .	45	41	25	81	57	56
Australia— Zircon concentrates ..	68,838	85,254	60,895	108,820	104,630	140,333
<b>OTHER COUNTRIES</b>						
Congo Republic— Ore .. .. .	24	—	37	—	—	<i>n.a.</i>
Senegal— Zircon .. .. .	758	3,892	4,970	8,149	10,602	5,242
South Africa— Zircon concentrates ..	—	—	391	4,821	5,400	5,240
United States— Ores and concentrates	936	2,821	1,780	1,349	1,234	1,140
Zirconium metal, etc. ..	9	30	45	40	475	80
Brazil (a) .. .. .	492	98	—	49	—	53

(a) Chiefly baddeleyite.

## IMPORTS OF ZIRCONIUM MINERALS, ETC.

Long tons

Importing Country and Description	1956	1957	1958	1959	1960	1961
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom— Zirconium ores ..	12,138	19,848	17,778	28,063	33,712	30,756
Canada— Zirconium oxide ..	(£6,199)	(£7,704)	(£8,263)	(£14,443)	(£8,735)	(£11,462)
Zirconium silicate ..	(£70,540)	(£135,104)	(£54,219)	(£56,104)	(£59,402)	(£74,780)
<b>OTHER COUNTRIES</b>						
France— Zirconium ore ..	8,966	9,806	7,853	9,285	15,389	16,387
Germany (Federal)— Zirconium ore ..	<i>n.a.</i>	<i>n.a.</i>	6,964	16,869	18,653	23,018
Italy— Zirconium ore ..	6,862	2,862	9,928	4,176	8,007	6,700
United States— Zirconium ore ..	27,803	37,225	17,165	48,998	30,607	30,183
Zirconium metal ..	—	42	105	3	1	1

## OTHER MINERALS AND METALS

These minerals are not separately recorded in the statistical returns of several countries.

Country and Description	1956	1957	1958	1959	1960	1961
<b>Germanium</b> (in terms of metal)						
PRODUCTION*—						
Italy .. .. Lb.	—	—	—	3,000	12,000	<i>n.a.</i>
Congo Republic Lb.	8,240	19,990	35,850	30,080	55,340	29,870
South West Africa Lb.	20,000	12,000	14,000	16,000	42,000	36,000
United States .. Lb.	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	(a) 40,000	(a) 54,000	(a) 40,000
<b>Indium</b>						
PRODUCTION†—						
Canada Troy ounces	363,192	384,360	69,000	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Peru Troy ounces	4,790	—	—	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Japan Troy ounces	—	<i>n.a.</i>	21,900	62,890	<i>n.a.</i>	<i>n.a.</i>
<b>Iodine</b>						
PRODUCTION—						
Italy .. .. Ton	13	14	15	15	12	<i>n.a.</i>
Chile .. .. Ton	691	1,298	1,308	1,127	1,653	2,413
Japan .. .. Ton	587	625	710	762	<i>n.a.</i>	<i>n.a.</i>
EXPORTS—						
Chile .. .. Ton	1,249	1,220	1,338	1,309	1,697	<i>n.a.</i>
Japan .. .. Ton	423	482	563	469	596	701
<b>Perlite</b>						
PRODUCTION—						
United Kingdom Ton	889	440	113	413	1,135	422
Australia .. Ton	339	—	300	708	796	394
New Zealand .. Ton	132	275	360	378	348	387
Greece .. .. Ton	—	—	8,201	1,999	27,400	<i>n.a.</i>
United States .. Ton	312,700	377,095	332,000	396,000	344,000	334,000
IMPORTS—						
United Kingdom £	69,821	97,506	58,941	101,062	154,349	<i>n.a.</i>
<b>Sodium Carbonate</b> (Natural)						
PRODUCTION—						
Kenya .. .. Ton	146,326	118,440	111,038	151,405	124,510	142,430
South Africa .. Ton	1,095	—	—	—	—	—
United States (b) Ton	582,938	582,783	562,000	656,000	722,000	720,000
EXPORTS—						
Kenya .. .. Ton	137,148	116,456	104,016	148,177	115,208	142,673
<b>Tellurium</b>						
PRODUCTION—						
Canada .. .. Lb.	7,867	31,524	38,250	13,023	44,682	95,873
United States (c) Lb.	232,555	r 252,000	r 123,000	r 177,000	271,000	205,000
Peru .. .. Lb.	88	—	14,870	62,600	59,343	<i>n.a.</i>
Japan .. .. Lb.	331	717	100	2,760	13,671	16,487
EXPORTS—						
Peru .. .. Lb.	—	—	9,105	58,934	51,039	74,673
IMPORTS—						
Germany (Federal) Lb.	9,700	11,244	16,800	18,100	16,100	22,900

\*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) Estimated.

(c) Including tellurium content of compounds.

(b) Sold or used by producers.

# 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 1956-1961 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>Aden</b></p> <p>Salt</p>	<p><b>Bahrein</b> (Protected State)</p> <p>Petroleum</p>	<p><b>Canada—(cont.)</b></p> <p>Platinum Potash salts Pyrites Salt Selenium Silver Sulphur Talc Tantalite, Columbite Tellurium Thorium Tin Titanium Tungsten Uranium Zinc</p>
<p><b>Australia</b></p> <p>Antimony Asbestos Barytes Bauxite Bentonite Beryl Bismuth Cadmium China Clay Chrome Coal Cobalt Copper Diamonds Diatomaceous earth Felspar, China stone Fluorspar Fuller's earth Garnet Gold Graphite Gypsum Iron Lead Lithium Magnesite, Dolomite Manganese Mica Molybdenum Monazite Perlite Phosphate Platinum, Osmiridium Pyrites Salt Selenium Sillimanite, Andalusite Silver Sulphur Talc, Pyrophyllite Tantalite, Columbite Tin Titanium Tungsten Uranium Vermiculite Zinc Zircon</p>	<p><b>Barbados</b></p> <p>Natural gas Petroleum</p> <p><b>Basutoland</b></p> <p>Diamonds</p> <p><b>Bechuanaland</b></p> <p>Asbestos Gold Kyanite Manganese Silver</p> <p><b>British Guiana</b></p> <p>Bauxite Diamonds Gold Manganese</p> <p><b>Brunei</b></p> <p>Natural gas Natural gasoline Petroleum</p> <p><b>Canada</b></p> <p>Arsenic Asbestos Barytes Bentonite Bismuth Cadmium Coal Cobalt Copper Diatomaceous earth Felspar Fluorspar Garnet Gold Graphite Gypsum, Anhydrite Indium Iron Lead Lithium Magnesite, Dolomite Mica Molybdenum Natural gas Natural gasoline Nepheline syenite Nickel Niobium Petroleum</p>	<p><b>Ceylon</b></p> <p>Felspar Graphite Gypsum Ilmenite Monazite Salt Zircon</p> <p><b>Christmas Island</b></p> <p>Phosphate</p> <p><b>Cyprus</b></p> <p>Asbestos Bentonite Chrome Cobalt Copper Gypsum Pyrites Salt</p> <p><b>Fiji</b></p> <p>Copper Gold Iron Manganese Silver</p> <p><b>Gambia</b></p> <p>Titanium Zircon</p> <p><b>Ghana</b></p> <p>Bauxite Diamonds Gold Manganese Salt Silver</p>
<p><b>Bahamas</b></p> <p>Salt</p>		

**Minerals produced in countries of the Commonwealth and Sterling Area (cont.)**

<b>Hong Kong</b>	<b>Kenya—(cont.)</b>	<b>Nigeria—(cont.)</b>
China clay	Pumice	Monazite, Thorite
Felspar	Salt	Petroleum
Graphite	Silver	Salt
Iron	Sodium carbonate	Silver
Lead	Vermiculite	Tantalite, Columbite
Tungsten		Tin
	<b>Kuwait</b>	Tungsten
	(Protected State)	Zircon
	Petroleum	
<b>India</b>	<b>Leeward Islands</b>	<b>Northern Rhodesia</b>
Asbestos	Salt	Beryl
Barytes		Cadmium
Bauxite		Cobalt
Bentonite		Copper
Beryl		Gold
China Clay	<b>Malaya</b>	Lead
Chrome	Bauxite	Manganese
Coal	China clay	Mica
Copper	Coal	Selenium
Columbite	Columbite	Silver
Corundum	Gold	Tantalite, Columbite
Diamonds	Iron	Tin
Felspar	Manganese	Uranium
Fuller's earth	Monazite	Vanadium
Garnet	Tin	Zinc
Gold	Titanium	
Gypsum	Tungsten	
Iron	Zircon	
Lead		<b>Ocean Island</b>
Magnesite, Dolomite		Phosphate
Manganese		
Mica	<b>Malta</b>	
Monazite	Salt	
Nitrate of potash		<b>Pakistan</b>
Petroleum	<b>Mauritius</b>	Bauxite
Phosphate	Salt	Chrome
Pyrites		Coal
Salt	<b>Nauru Island</b>	Gypsum
Sillimanite, Kyanite	Phosphate	Iron
Silver		Magnesite
Talc	<b>New Guinea</b>	Manganese
Titanium	Gold	Natural gas
Tungsten	Platinum	Petroleum
Vermiculite	Silver	Salt
Zinc		Strontium
Zircon	<b>New Hebrides</b>	Talc
	Manganese	
		<b>Papua</b>
<b>Jamaica</b>	<b>New Zealand</b>	Gold
Bauxite	Asbestos	Manganese
Gypsum	Bentonite	
Phosphate	Coal	<b>Qatar</b>
	Diatomaceous earth	(Protected State)
<b>Kenya</b>	Gold	Petroleum
Asbestos	Iron	
Beryl	Magnesite, Dolomite	<b>Sarawak</b>
China clay	Manganese	Bauxite
Columbite	Natural gas	Gold
Copper	Perlite	Petroleum
Diatomaceous earth	Petroleum	Phosphate
Felspar	Pumice	
Gold	Salt	<b>Seychelles</b>
Graphite	Silver	Phosphate
Gypsum	Tungsten	
Kyanite		<b>Sierra Leone</b>
Magnesite	<b>Nigeria</b>	Chrome
Mica	China clay	Diamonds
	Coal	Gold
	Felspar	Iron
	Gold	Platinum
	Lead	

**Minerals produced in countries of the Commonwealth and Sterling Area (cont.)**

**Southern Rhodesia**

Antimony  
 Arsenic  
 Asbestos  
 Barytes  
 Beryl  
 China clay  
 Chrome  
 Coal  
 Copper  
 Corundum  
 Diatomaceous earth  
 Felspar  
 Fluorspar  
 Gold  
 Iron  
 Lead  
 Lithium  
 Magnesite, Dolomite  
 Manganese  
 Mica  
 Nickel  
 Phosphate  
 Pyrites  
 Silver  
 Tantalite, Columbite  
 Tin  
 Tripoli  
 Tungsten  
 Vermiculite

**Swaziland**

Asbestos  
 Barytes  
 Beryl  
 China clay  
 Coal  
 Fluorspar  
 Gold  
 Pyrophyllite  
 Silver  
 Tin  
 Yttrotantalite

**Tanganyika**

China clay  
 Coal  
 Copper  
 Corundum  
 Diamonds  
 Garnet  
 Gold  
 Graphite  
 Gypsum  
 Lead  
 Magnesite  
 Mica  
 Niobium  
 Phosphate  
 Salt  
 Silver  
 Tin  
 Tungsten  
 Vermiculite

**Trinidad**

Gypsum  
 Natural asphalt  
 Natural gas  
 Natural gasoline  
 Petroleum  
 Sulphur

**Turks and Caicos Islands**

Salt

**Uganda**

Asbestos  
 Beryl  
 Bismuth  
 Cobalt  
 Copper  
 Gold  
 Iron  
 Lead  
 Lithium  
 Phosphate  
 Salt  
 Silver  
 Tantalite, Columbite  
 Tin  
 Tungsten

**United Kingdom**

Arsenic  
 Barytes, Witherite  
 Bromine  
 China clay  
 China stone  
 Coal  
 Copper  
 Diatomaceous earth  
 Fluorspar  
 Fuller's earth  
 Germanium  
 Gypsum, Anhydrite  
 Iron  
 Lead  
 Magnesite, Dolomite  
 Oil-shale  
 Perlite  
 Petroleum  
 Pyrites  
 Salt  
 Strontium  
 Sulphur  
 Talc  
 Tin  
 Tungsten  
 Zinc

**Burma**

Antimony  
 Barytes  
 Bismuth  
 Coal  
 Copper  
 Gold  
 Gypsum  
 Iron

**Burma—(cont.)**

Lead  
 Nickel  
 Petroleum  
 Salt  
 Silver  
 Talc  
 Tin  
 Tungsten  
 Zinc

**Iceland**

Pumice  
 Diatomaceous earth

**Irish Republic**

Barytes  
 Coal  
 Copper  
 Gypsum  
 Lead  
 Zinc

**Jordan**

Phosphate  
 Salt

**Libya**

Salt

**South Africa**

Antimony  
 Asbestos  
 Barytes  
 Bentonite  
 Beryl  
 Bismuth  
 China clay  
 Chrome  
 Coal  
 Copper  
 Corundum  
 Diamonds  
 Diatomaceous earth  
 Felspar  
 Fluorspar  
 Fuller's earth  
 Garnet  
 Gold  
 Graphite  
 Gypsum  
 Iron  
 Lead  
 Lithium  
 Magnesite  
 Manganese  
 Mica  
 Molybdenum  
 Monazite  
 Nickel  
 Oil-shale  
 Phosphate  
 Platinum, Osmiridium  
 Pyrites  
 Salt  
 Sillimanite, Andalusite  
 Silver

**Minerals produced in countries of the Commonwealth and Sterling Area (cont.)**

**South Africa—(cont.)**

Sodium carbonate  
Sulphur  
Talc  
Tantalite  
Tin  
Titanium  
Tungsten  
Uranium  
Vanadium  
Vermiculite  
Zinc  
Zircon

**South West Africa**

Beryl  
Bismuth  
Cadmium  
Copper  
Diamonds  
Felspar  
Fluorspar  
Germanium  
Iron  
Lead  
Lithium  
Manganese

**South West Africa**

—(cont.)

Mica  
Phosphate  
Salt  
Sillimanite, Kyanite  
Silver  
Tantalite, Columbite  
Tin  
Tungsten  
Vanadium  
Zinc

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