

STATISTICAL SUMMARY

By Stephen D. Smith

This report summarizes data on crude nonfuel mineral production for the United States, its island possessions, and the Commonwealth of Puerto Rico.

Although crude mineral production may be measured at any of several stages of extraction and processing, the stage of measurement used in this annual report is what is termed "mine output." This term refers to minerals or ores in the form in which they are first extracted from the ground, but customarily may include the output from auxiliary processing at or near the mines.

Because of inadequacies in the statistics available, some series deviate from the foregoing definition. For copper, gold, lead, silver, tin, and zinc, the quantities shown are recorded on a mine basis (as the recoverable content of ore sold or treated). However, the values assigned to the quantities are based on the average selling price of refined metal, not the mine value. Mercury is measured as recovered metal and valued at the average New York price for the metal. Values shown are in current dollars, with no adjustments made to compensate for changes in the purchasing power of the dollar.

The total value of all nonfuel mineral production in the United States increased less than 1% to \$38.7 billion in 1996, with metals decreasing almost 8% to \$12.9 billion and industrial minerals rising almost 5% to \$25.8 billion over that of 1995. Ten of the mineral commodities produced in the United States in 1996 had an individual total production value greater than \$1 billion. These commodities, in descending order, were stone (crushed), cement (portland), copper, gold, sand and gravel (construction), iron ore, lime, clays (kaolin), phosphate rock, and salt. They composed almost 81% of the U.S. total production. (*See table 1.*)

In 1996, twelve States produced nonfuel mineral commodities with individual total production values of greater than \$1 billion. These States, in descending order, were Arizona, Nevada, California, Florida, Georgia, Utah, Texas, Minnesota, Michigan, Missouri, Pennsylvania, and Wyoming. They composed almost 60% of the U.S. total production. (*See table 4.*)

TABLE 1
NONFUEL MINERAL PRODUCTION 1/ IN THE UNITED STATES 2/

(Thousand metric tons and thousand dollars unless otherwise specified)

Mineral	1994		1995		1996		
	Quantity	Value	Quantity	Value	Quantity	Value	
Metals:							
Antimony 3/	metric tons	215	W	262	W	242	W
Beryllium concentrates	do.	4,330	5	5,040	6	5,260	6
Copper 4/		1,810	4,430,000	1,850 r/	5,640,000	1,920	4,610,000
Gold 4/	kilograms	327,000	4,050,000	317,000 r/	3,950,000 r/	321,000	4,030,000
Iron ore, usable		57,600	1,410,000 r/	61,100	1,730,000 r/	62,200	1,770,000
Iron oxide pigments, crude	metric tons	46,400	6,010	51,700	6,720	44,700	6,990
Lead 4/	do.	363,000	298,000	386,000	359,000	426,000	459,000
Magnesium metal	do.	128,000	389,000	142,000	476,000	133,000	455,000
Molybdenum 3/	do.	46,000	284,000	W	W	57,900	456,000
Nickel ore 5/	do.	--	--	1,560	W	1,330	W
Palladium	kilograms	6,440	29,400	5,260	22,000	6,100	25,500
Platinum	do.	1,960	25,300	1,590	20,800	1,840	23,500
Rare-earth metal concentrates	metric tons	W	W	22,200	W	20,400	W
Silver 4/	do.	1,490	253,000	1,560 r/	259,000 r/	1,570	263,000
Zinc 4/	do.	570,000	619,000	614,000	756,000	600,000	676,000
Combined value of bauxite, manganiferous ore, mercury, titanium concentrates, tungsten, vanadium, zircon concentrates and values indicated by symbol W		XX	147,000	XX	812,000 r/	XX	190,000
Total metals		XX	11,900,000 r/	XX	14,000,000 r/	XX	13,000,000
Industrial minerals, excluding fuels:							
Asbestos	metric tons	10,100	5,120	10,200	W	9,550	W
Barite		583	19,100	543	10,400 r/	662	14,700
Boron minerals, B ₂ O ₃	metric tons	1,110,000	443,000	1,190,000 r/	560,000 r/	1,150,000	519,000
Bromine	do.	195,000	155,000	218,000	186,000	227,000	150,000
Cement:							
Masonry		3,610	286,000	3,600	307,000	3,470	321,000 e/
Portland		74,300	4,460,000	73,300	4,920,000	75,800	5,310,000 e/
Clays:							
Ball		1,050	45,600	993	45,500	973	43,100
Bentonite		3,290	136,000	3,820	138,000	3,740	134,000
Common		25,900	142,000	25,600	151,000	26,200	144,000
Fire		458	11,700	583	12,800	505	10,700
Fuller's earth		2,640	244,000	2,640	269,000	2,600	278,000
Kaolin		8,770	1,020,000	9,480	1,110,000	9,120	1,100,000
Diatomite		613	152,000	687	171,000	698	176,000
Feldspar	metric tons	765,000	31,200	882,000	37,400	890,000	39,400
Fluorspar	do.	49,000	W	51,400	W	8,180	W
Garnet, industrial	do.	51,000	6,100	53,000	9,690 r/	68,200	10,200
Gemstones		NA	50,500	NA	48,700 r/	NA	43,600
Gypsum, crude		17,200	115,000	16,600	121,000	17,500	124,000
Helium:							
Crude	million cubic meters	39	38,500	36	32,100	37	33,100
Grade-A	do.	100	199,000	99	196,000	97	193,000
Iodine	metric tons	1,630	12,800	1,220	12,500	1,270	14,600
Lime		17,400	1,020,000	18,500	1,100,000	19,100	1,140,000
Mica, crude		110	5,780	108	5,630	97	7,820
Peat		552	15,300	660 6/	17,000 6/	640 6/	18,500 6/
Perlite, crude	metric tons	644,000	19,400	700,000	21,600	684,000	21,300
Phosphate rock		41,100	869,000	43,500	947,000	45,400	1,060,000
Potash, K ₂ O		2,970	284,000	2,880	284,000	2,960	299,000
Pumice and pumicite	metric tons	490,000	11,800	529,000	13,200	612,000	14,800
Salt		39,700	990,000	40,800	1,000,000	42,900	1,060,000
Sand and gravel:							
Construction		891,000	3,740,000	910,000	3,910,000	914,000	4,000,000
Industrial		27,300	488,000	28,200	502,000	27,800	497,000
Silica stone 7/	metric tons	487 r/	W	374	W	410	3,810
Sodium compounds:							
Soda ash		9,320	724,000	10,100	829,000	10,200	926,000
Sodium sulfate, natural		298	24,200	327	27,700	306	27,200
Stone, crushed 8/		1,230,000	6,620,000	1,260,000	6,750,000	1,330,000	7,180,000
Sulfur, Frasch		3,010	162,000	3,070	207,000	W	W
Tripoli	metric tons	82,300	10,900	80,100	10,500	79,600	18,400

See footnotes at end of table.

TABLE 1--Continued
NONFUEL MINERAL PRODUCTION 1/ IN THE UNITED STATES 2/

(Thousand metric tons and thousand dollars unless otherwise specified)

Mineral	1994		1995		1996	
	Quantity	Value	Quantity	Value	Quantity	Value
Industrial minerals, excluding fuels--Continued:						
Vermiculite	metric tons	177,000	14,200	171,000	W	W
Zeolites	do.	57,600 r/	NA	46,800	NA	39,300
Combined value of brucite, emery, greensand marl, kyanite, lithium minerals, magnesite, magnesium compounds, olivine, staurolite, stone (dimension), talc and pyrophyllite, wollastonite and values indicated by symbol W		XX	535,000 r/	XX	626,000 r/	XX
Total industrial minerals		XX	23,100,000	XX	24,600,000 r/	XX
Grand total		XX	35,000,000 r/	XX	38,600,000 r/	XX

e/ Estimated. r/ Revised. NA Not available. W Withheld to avoid disclosing company proprietary data; value included with "Combined value." XX Not applicable.

1/ Production as measured by mine shipments, sales, or marketable production (including consumption by producers).

2/ Data are rounded to three significant digits; may not add to totals shown.

3/ Content of ore and concentrate.

4/ Recoverable content of ores, etc.

5/ Quantity of local ore fed to smelter after rejection of lower grade material. The smelter uses lateritic ore imported from New Caledonia in addition to lateritic ore mined on Nickel Mountain. In 1995, the smelter was idle from January to the beginning of May because of low nickel prices.

6/ Data series changed to production beginning in 1995; prior years shipment data may not be comparable.

7/ Includes grindstones, pulpstones, and sharpening stones; excludes mill liners and grinding pebbles.

8/ Excludes abrasive stone and bituminous limestone and sandstone; all included elsewhere in table.

TABLE 2
NONFUEL MINERALS PRODUCED IN THE UNITED STATES, BY COMMODITY AND STATES IN 1996

(Based on quantity unless otherwise noted)

Mineral	Principal States	Other States
Antimony 1/	ID	
Asbestos	CA	
Barite	NV, GA, MO, TN	
Beryllium concentrate	UT	
Boron, B ₂ O ₃	CA	
Bromine	AR and MI	
Brucite	NV	
Cement:		
Masonry	FL, IN, AL, SC, PA	AZ, AR, CA, CO, GA, HI, ID, IA, KS, KY, ME, MD, MI, MO, MT, NE, NY, OH, OK, SD, TN, TX, UT, VA, WA, WV.
Portland	CA, TX, PA, MI, MO	All other States, except AK, CT, DE, LA, MA, MN, NH, NJ, NC, ND, RI, VT, WI.
Clays:		
Ball	TN, TX, MS, KY, IN	MO.
Bentonite	WY, AL, MT, CA, MS	AZ, CO, NV, OR, UT.
Common	NC, AL, TX, OH, GA	All other States, except AK, DE, HI, ID, NV, RI, VT, WI.
Fire	MO, OH, CA, AL, SC	AR, MT, NM, OK.
Fuller's earth	GA, MS, FL, IL, MO	CA, KS, NV, TN, TX, UT, VA.
Kaolin	GA, SC, AL, AR, CA	CO, FL, NV, NC, PA, TN, TX.
Copper 1/	AZ, UT, NM, MT, NV	AK, ID, IL, MO, TN, WI.
Diatomite	CA, NV, OR, WA	
Emery	OR	
Feldspar	NC, CA, VA, GA, OK	ID and SD.
Fluorspar	IL	
Garnet, abrasive	NY, ID, MT	
Gemstones, natural 2/	TN, OR, KY, AR, AZ	All other States.
Gold 1/	NV, CA, UT, SD, MT	AK, AZ, CO, ID, NM, SC, WA, WI.
Greensand marl	NJ	
Gypsum, crude	OK, TX, IA, MI, NV	AZ, AR, CA, CO, IN, KS, LA, NM, NY, OH, SD, UT, VA, WA, WY.
Helium:		
Crude	KS, TX, OK	
Grade-A	KS, WY, TX, UT, CO	OK.
Iodine	OK	
Iron ore, usable	MN, MI, MO, NM, SD	CA.
Iron oxide pigments, crude	MI, MO, GA, VA, AZ	
Kyanite	VA	

See footnotes at end of table.

TABLE 2--Continued
NONFUEL MINERALS PRODUCED IN THE UNITED STATES, BY COMMODITY AND STATES IN 1996

(Based on quantity unless otherwise noted)

Mineral	Principal States	Other States
Lead 1/	MO, AK, ID, MT, CO	IL, NY, TN.
Lime	MO, OH, KY, AL, PA	All other States, except AK, CT, DE, FL, GA, HI, KS, ME, MD, MS, NH, NJ, NM, NY, NC, RI, SC, VT.
Lithium minerals	NC and NV	
Magnesite	NV	
Magnesium compounds	MI, CA, UT, FL, DE	TX.
Magnesium metal	TX, UT, WA	
Mercury	NV, CA, UT	
Mica, crude	NC, NM, SD, SC, GA	
Molybdenum	AZ, CO, UT, ID, MT	NM.
Nickel ore	OR	
Olivine	NC and WA	
Palladium metal	MT	
Peat	FL, MI, IL, IN, MN	CO, IA, ME, MA, MT, NJ, NY, NC, ND, OH, PA, WA, WV, WI.
Perlite	NM, AZ, CA, NV	
Phosphate rock	FL, ID, NC, UT	
Platinum metal	MT	
Potash, K ₂ O	NM, UT, CA, MI	
Pumice and pumicite	OR, ID, NM, CA, AZ	KS.
Rare-earth metal concentrates	CA	
Salt	LA, TX, OH, NY, KS	AL, AZ, CA, MI, NV, NM, OK, UT, WV.
Sand and gravel:		
Construction	CA, TX, MI, OH, AZ	All other States, except HI.
Industrial	IL, MI, CA, NJ, WI	All other States, except AK, CT, DE, HI, KY, ME, NH, NM, OR, SD, UT, VT, WY.
Silica stone 3/	AR, WI, OH	
Silver 1/	NV, ID, AK, AZ, UT	CA, CO, IL, MO, MT, NM, NY, SC, SD, TN, WI.
Sodium compounds:		
Soda ash	WY and CA	
Sodium sulfate, natural	CA and TX	
Staurolite	FL	
Stone:		
Crushed	PA, TX, FL, MO, IL	All other States, except DE and ND.
Dimension	IN, WI, VT, GA, TX	All other States except AK, DE, FL, HI, IL, IA, KY, LA, MS, NE, NV, NJ, ND, OR, RI, WY.
Sulfur, Frasch	LA and TX	
Talc and pyrophyllite	MT, TX, VT, NY, NC	CA, OR, VA.
Titanium concentrates:		
Ilmenite	FL and CA	
Rutile	FL	
Tripoli	IL, OK, AR, PA	
Vanadium 1/	ID	
Vermiculite, crude	SC and VA	
Wollastonite	NY	
Zeolites	NM, TX, OR, AZ, NV	WY.
Zinc 1/	AK, TN, NY, MO, MT	CO, ID, IL.
Zircon concentrates	FL	

1/ Content of ores, etc.

2/ Principal producing States based on value.

3/ Includes grindstones, pulpstones, and sharpening stones; excludes mill liners and grinding pebbles.

TABLE 3
 VALUE OF NONFUEL MINERAL PRODUCTION IN THE UNITED STATES AND PRINCIPAL NONFUEL MINERALS PRODUCED IN 1996 1/

State	Value (thousands)	Rank	Percent of U.S. total	Principal minerals, in order of value
Alabama	\$778,000	17	2.01	Cement (portland), stone (crushed), lime, sand and gravel (construction), and cement (masonry).
Alaska	613,000	21	1.58	Zinc, lead, gold, silver, and sand and gravel (construction).
Arizona	3,580,000	1	9.26	Copper, sand and gravel (construction), cement (portland), molybdenum, and lime.
Arkansas	435,000	31	1.12	Stone (crushed), bromine, cement (portland), sand and gravel (construction), and sand and gravel (industrial).
California	2,830,000	3	7.31	Cement (portland), sand and gravel (construction), boron minerals, gold, and stone (crushed).
Colorado	513,000	25	1.33	Sand and gravel (construction), cement (portland), gold, molybdenum, and stone (crushed).
Connecticut 2/	81,900	44	0.21	Stone (crushed), sand and gravel (construction), stone (dimension), clays (common), and gemstones (natural).
Delaware 2/	6,820	50	0.02	Magnesium compounds, sand and gravel (construction), and gemstone (natural).
Florida	1,760,000	4	4.56	Phosphate rock, stone (crushed), cement (portland), sand and gravel (construction), and clays (fuller's earth).
Georgia	1,740,000	5	4.50	Clays (kaolin), stone (crushed), cement (portland), clays (fuller's earth), and sand and gravel (construction).
Hawaii 2/	110,000	43	0.28	Stone (crushed), cement (portland), cement (masonry), and gemstones (natural).
Idaho	492,000	27	1.27	Phosphate rock, gold, molybdenum, sand and gravel (construction), and silver.
Illinois	846,000	16	2.19	Stone (crushed), cement (portland), sand and gravel (construction), sand and gravel (industrial), and lime.
Indiana	628,000	20	1.62	Stone (crushed), cement (portland), sand and gravel (construction), lime, and cement (masonry).
Iowa	470,000	29	1.21	Stone (crushed), cement (portland), sand and gravel (construction), gypsum (crude), and lime.
Kansas	530,000	24	1.37	Cement (portland), salt, stone (crushed), helium (Grade-A), sand and gravel (construction).
Kentucky	442,000	30	1.14	Stone (crushed), lime, cement (portland), sand and gravel (construction), and gemstone (natural).
Louisiana	393,000	33	1.01	Salt, sulfur (Frasch), sand and gravel (construction), stone (crushed), and sand and gravel (industrial).
Maine	68,600	45	0.18	Sand and gravel (construction), cement (portland), stone (crushed), peat, and cement (masonry).
Maryland	332,000	36	0.86	Stone (crushed), cement (portland), sand and gravel (construction), and stone (dimension), and cement (masonry).
Massachusetts	200,000	39	0.52	Stone (crushed), sand and gravel (construction), stone (dimension), lime, and clays (common).
Michigan	1,540,000	9	3.97	Iron ore (usable), cement (portland), sand and gravel (construction), magnesium compounds, and stone (crushed).
Minnesota	1,540,000	8	3.99	Iron ore (usable), sand and gravel (construction), stone (crushed), sand and gravel (industrial), and stone (dimension).
Mississippi	144,000	42	0.37	Sand and gravel (construction), cement (portland), clays (fuller's earth), stone (crushed), and clays (ball).
Missouri	1,250,000	10	3.23	Lead, stone (crushed), cement (portland), lime, and zinc.
Montana	491,000	28	1.27	Gold, copper, cement (portland), molybdenum, and sand and gravel (construction).
Nebraska	148,000	41	0.38	Cement (portland), sand and gravel (construction), stone (crushed), clays (common), and cement (masonry).
Nevada	3,230,000	2	8.34	Gold, sand and gravel (construction), copper, silver, and diatomite.
New Hampshire 2/	51,700	47	0.13	Sand and gravel (construction), stone (crushed), stone (dimension), clays (common), and gemstones (natural).
New Jersey 2/	246,000	38	0.64	Stone (crushed), sand and gravel (construction), sand and gravel (industrial), greensand marl, and peat.
New Mexico	992,000	13	2.56	Copper, potash, sand and gravel (construction), cement (portland), and stone (crushed).
New York	891,000	15	2.30	Stone (crushed), salt, cement (portland), sand and gravel (construction), and zinc.
North Carolina	690,000	18	1.78	Stone (crushed), phosphate rock, lithium minerals, sand and gravel (construction), and sand and gravel (industrial).
North Dakota	30,800	48	0.08	Sand and gravel (construction), lime, clays (common), sand and gravel (industrial), and gemstones (natural).
Ohio	969,000	14	2.50	Stone (crushed), salt, sand and gravel (construction), lime, and cement (portland).
Oklahoma	369,000	34	0.95	Cement (portland), stone (crushed), sand and gravel (construction), sand and gravel (industrial), and gypsum (crude).
Oregon	265,000	37	0.68	Stone (crushed), sand and gravel (construction), cement (portland), diatomite, and lime.
Pennsylvania 2/	1,170,000	11	3.02	Stone (crushed), cement (portland), lime, sand and gravel (construction), and cement (masonry).
Rhode Island 2/	23,000	49	0.06	Sand and gravel (construction), stone (crushed), sand and gravel (industrial), and gemstone (natural).
South Carolina	493,000	26	1.27	Cement (portland), stone (crushed), gold, sand and gravel (construction), and cement (masonry).
South Dakota	357,000	35	0.92	Gold, cement (portland), stone (crushed), sand and gravel (construction), and lime.
Tennessee	662,000	19	1.71	Stone (crushed), zinc, cement (portland), sand and gravel (construction), and clays (ball).
Texas	1,730,000	7	4.47	Cement (portland), stone (crushed), sand and gravel (construction), magnesium metal, and salt.
Utah	1,730,000	6	4.48	Copper, gold, molybdenum, magnesium metal, and sand and gravel (construction).
Vermont 2/	66,000	46	0.17	Stone (dimension), stone (crushed), sand and gravel (construction), talc and pyrophyllite, and gemstones (natural).
Virginia	549,000	22	1.42	Stone (crushed), cement (portland), sand and gravel (construction), lime, and kyanite.
Washington	535,000	23	1.38	Sand and gravel (construction), magnesium metal, stone (crushed), cement (portland), and gold.
West Virginia	185,000	40	0.48	Stone (crushed), cement (portland), sand and gravel (industrial), lime, and salt.
Wisconsin	396,000	32	1.02	Stone (crushed), sand and gravel (construction), copper, sand and gravel (industrial), and lime.
Wyoming	1,080,000	12	2.79	Soda ash, clays (bentonite), helium (Grade-A), cement (portland), and stone (crushed).
Undistributed	30,200	XX	0.08	
Total	38,700,000	XX	100.00	

XX Not applicable.

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ Partial total; excludes values that must be concealed to avoid disclosing company proprietary data. Concealed values included with "Undistributed."

TABLE 4
VALUE OF NONFUEL MINERAL PRODUCTION PER CAPITA AND PER SQUARE KILOMETER IN 1996, BY STATE 1/

State	Area (square kilometers)	Population (thousands)	Total value (thousands)	Per capita		Per square kilometer	
				Dollars	Rank	Dollars	Rank
Alabama	134,000	4,250	\$778,000	183	14	5,810	22
Alaska	1,530,000	604	613,000	1,020	3	400	49
Arizona	295,000	4,220	3,580,000	850	5	12,100	3
Arkansas	138,000	2,480	435,000	175	15	3,160	30
California	411,000	31,600	2,830,000	90	34	6,880	16
Colorado	270,000	3,750	513,000	137	18	1,900	41
Connecticut	13,000	3,270	81,900 2/	25	48	6,300	19
Delaware	5,290	717	6,820 2/	10	50	1,290	44
Florida	152,000	14,200	1,760,000	125	21	11,600	4
Georgia	153,000	7,200	1,740,000	242	11	11,400	5
Hawaii	16,800	1,190	110,000 2/	93	30	6,570	18
Idaho	216,000	1,160	492,000	423	9	2,270	38
Illinois	146,000	11,800	846,000	72	39	5,800	23
Indiana	93,700	5,800	628,000	108	25	6,710	17
Iowa	146,000	2,840	470,000	165	16	3,220	28
Kansas	213,000	2,570	530,000	207	13	2,490	37
Kentucky	105,000	3,860	442,000	114	22	4,220	27
Louisiana	124,000	4,340	393,000	90	32	3,170	29
Maine	86,200	1,240	68,600	55	41	796	47
Maryland	27,100	5,040	332,000	66	40	12,300	1
Massachusetts	21,500	6,070	200,000	33	46	9,330	9
Michigan	152,000	9,550	1,540,000	161	17	10,100	7
Minnesota	219,000	4,610	1,540,000	335	10	7,060	13
Mississippi	124,000	2,700	144,000	53	42	1,170	45
Missouri	181,000	5,320	1,250,000	235	12	6,920	15
Montana	381,000	870	491,000	564	7	1,290	43
Nebraska	200,000	1,640	148,000	90	33	738	48
Nevada	286,000	1,530	3,230,000	2,110	2	11,300	6
New Hampshire	24,000	1,150	51,700 2/	45	45	2,150	39
New Jersey	20,200	7,950	246,000 2/	31	47	12,200	2
New Mexico	315,000	1,690	992,000	589	6	3,150	31
New York	127,000	18,100	891,000	49	43	7,010	14
North Carolina	136,000	7,200	690,000	96	29	5,050	25
North Dakota	183,000	641	30,800	48	44	168	50
Ohio	107,000	11,200	969,000	87	35	9,050	10
Oklahoma	181,000	3,280	369,000	113	24	2,040	40
Oregon	251,000	3,140	265,000	84	36	1,050	46
Pennsylvania	117,000	12,100	1,170,000 2/	97	28	9,960	8
Rhode Island	3,140	990	23,000 2/	23	49	7,310	12
South Carolina	80,600	3,670	493,000	134	19	6,120	20
South Dakota	200,000	729	357,000	490	8	1,790	42
Tennessee	109,000	5,260	662,000	126	20	6,070	21
Texas	691,000	18,700	1,730,000	92	31	2,500	36
Utah	220,000	1,950	1,730,000	889	4	7,890	11
Vermont	24,900	585	66,000 2/	113	23	2,650	35
Virginia	106,000	6,620	549,000	83	37	5,200	24
Washington	176,000	5,430	535,000	99	27	3,030	32
West Virginia	62,800	1,830	185,000	101	26	2,950	33
Wisconsin	145,000	5,120	396,000	77	38	2,720	34
Wyoming	253,000	480	1,080,000	2,250	1	4,260	26
Undistributed	XX	XX	30,200	XX	XX	XX	XX
Total or average	9,370,000 3/	262,000 3/	38,700,000	148	XX	4,130	XX

XX Not applicable.

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ Partial total; excludes values that must be concealed to avoid disclosing company proprietary data. Concealed values included with "Undistributed."

3/ Excludes Washington, DC (which has no mineral production), with an area of 179 square kilometers and a population of 554,000.

Sources: U.S. Geological Survey and Bureau of the Census.

TABLE 5
NONFUEL RAW MINERAL PRODUCTION 1/ IN THE UNITED STATES, BY STATE 2/

(Thousand metric tons and thousand dollars unless otherwise specified)

Mineral	1994		1995		1996	
	Quantity	Value	Quantity	Value	Quantity	Value
Alabama:						
Cement:						
Masonry	312	28,900	306	30,700	309	32,000 e/
Portland	3,980	248,000	4,090	285,000	4,330	326,000 e/
Clays:						
Bentonite	W	W	154	4,700	166	5,060
Common	2,010	18,900	2,080	18,600	2,290	17,100
Fire	72	3,190	80	3,120	52	2,800
Kaolin	199	3,270	373	7,220	254	W
Gemstones	NA	W	NA	3,000 r/	NA	2,000
Lime	1,660	88,300	1,730	105,000	1,860	116,000
Sand and gravel:						
Construction	12,500	47,600	11,900	49,400	13,800	60,600
Industrial	610	7,160	479	5,940	799	8,380
Stone: Crushed	32,500	164,000	33,600	174,000	38,900	198,000
Combined value of bauxite (1994-95), salt, stone [dimension limestone, marble, and sandstone (1994), dimension limestone and sandstone (1995-96)], and values indicated by symbol W						
Total	XX	16,500	XX	6,810	XX	9,930
	XX	626,000	XX	693,000 r/	XX	778,000
Alaska:						
Gemstones	NA	10	NA	10	NA	11
Gold 3/ 4/ kilograms	5,660	70,300	4,410	56,000	5,020	61,000
Sand and gravel: Construction	15,700	56,200	13,700	48,500	9,380	35,900
Silver 3/ metric tons	W	W	109	18,100	W	W
Stone: Crushed	3,870	24,100	3,320 5/	20,400 5/	2,600 5/	16,500 5/
Zinc 3/ metric tons	W	W	321,000	395,000	W	W
Combined values of copper (1996), lead, stone [crushed dolomite and limestone (1995-96)], and values indicated by symbol W						
Total	XX	367,000	XX	(6/)	XX	499,000
	XX	518,000	XX	538,000 7/	XX	613,000
Arizona:						
Clays:						
Bentonite	W	W	21	W	W	W
Common	98	452	98	449	104	W
Copper 3/	1,120	2,750,000	1,170	3,560,000	1,240	2,980,000
Gemstones	NA	3,550	NA	3,230	NA	2,360
Gold 3/ kilograms	2,050	25,300	1,920	23,900	1,740	21,800
Iron oxide pigments, crude metric tons	77	62	68	90	W	W
Sand and gravel:						
Construction	34,800	166,000	40,100	201,000	41,900	199,000
Industrial	W	W	334	2,910	323	2,890
Silver 3/ metric tons	198	33,700	220	36,400	188	31,300
Stone: Crushed	4,970	25,000	5,520	32,600	6,800	40,600
Combined value of cement, gypsum (crude), lime, molybdenum, perlite (crude), pumice and pumicite, salt, stone (dimension sandstone), and values indicated by symbol W						
Total	XX	274,000	XX	331,000	XX	308,000
	XX	3,280,000	XX	4,190,000	XX	3,580,000
Arkansas:						
Clays:						
Common	883	2,440	973	2,920	939	2,390
Kaolin	W	W	182	4,890	161	W
Gemstones	NA	3,950	NA	4,890	NA	3,050
Sand and gravel:						
Construction	10,600	42,500	11,600	48,300	11,000	43,500
Industrial	684	8,230	W	W	W	W
Silica stone 8/ metric tons	442 r/	W	W	W	398	3,800
Stone:						
Crushed	20,800 5/	122,000 5/	25,500	169,000	26,400	158,000
Dimension metric tons	W	W	22,000	2,010	W	W

See footnotes at end of table.

TABLE 5--Continued
NONFUEL RAW MINERAL PRODUCTION 1/ IN THE UNITED STATES, BY STATE 2/

(Thousand metric tons and thousand dollars unless otherwise specified)

Mineral	1994		1995		1996	
	Quantity	Value	Quantity	Value	Quantity	Value
Arkansas--Continued:						
Combined value of bromine, cement, clays (fire), gypsum (crude), limestone [crushed limestone and traprock (1994), dimension limestone, marble, and sandstone (1994, 1996)], tripoli, and values indicated by symbol W	XX	258,000 r/	XX	260,000	XX	225,000
Total	XX	463,000 r/	XX	492,000	XX	435,000
California:						
Asbestos metric tons	8,990	4,200	10,200	W	9,550	W
Boron minerals (B ₂ O ₃)	550	443,000	1,190 r/	560,000 r/	1,150	519,000
Cement:						
Masonry	99	6,830	154	11,200	198	14,500 e/
Portland	9,640	539,000	9,360	565,000	9,910	616,000 e/
Clays:						
Bentonite	144	13,700	149	14,000	148	13,900
Common	1,420	6,910	1,420	14,500	1,340	12,600
Fire	--	--	11	311	60	W
Fuller's earth	W	W	224	W	224	W
Diatomite	W	W	318	W	W	W
Gemstones	NA	1,710	NA	490	NA	507
Gold 3/ kilograms	30,100	373,000	25,600 r/	319,000 r/	23,800	299,000
Lime	203	16,900	228	15,600	208	17,800
Rare-earth metal concentrates metric tons	20,700	W	22,200	W	20,400	W
Sand and gravel:						
Construction	96,300	523,000	98,400	542,000	103,000	583,000
Industrial	1,740	39,400	1,710	38,300	1,760	40,500
Silver 3/ metric tons	11	1,910	14 r/	2,240 r/	22	3,610
Stone:						
Crushed	41,100	258,000	43,700 5/	268,000 5/	46,700	295,000
Dimension metric tons	11,100 5/	4,030 5/	27,300	6,660	28,600	7,020
Combined value of feldspar, gypsum (crude), iron ore (usable), magnesium compounds, mercury, perlite (crude), potash, pumice and pumicite, salt, soda ash, sodium sulfate (natural), stone [crushed dolomite and shell (1995), dimension limestone, sandstone, slate and miscellaneous (1994)], talc and pyrophyllite, titanium concentrates [ilmenite (1994, 1996)], tungsten, and values indicated by symbol W	XX	364,000	XX	399,000	XX	408,000
Total	XX	2,590,000	XX	2,760,000 r/	XX	2,830,000
Colorado:						
Clays:						
Bentonite	1	12	(9/)	9	1	19
Common	288	2,180	288	2,040	317	2,320
Fire	(9/)	7	--	--	--	--
Kaolin	2	120	6	W	6	W
Gemstones	NA	267	NA	245	NA	754
Gold 3/ kilograms	4,420	54,700	W	W	W	W
Sand and gravel: Construction	29,000	109,000	34,100	141,000	31,600	133,000
Silver 3/ metric tons	W	W	W	W	7	1,240
Stone:						
Crushed	8,260 5/	52,300 5/	9,000	58,500	9,940	64,900
Dimension metric tons	3,630 5/	51 5/	17,800	2,640	23,900	3,330
Combined value of cement, gypsum (crude), helium (Grade-A), lead, lime, molybdenum, peat, sand and gravel (industrial), stone [crushed traprock and volcanic cinder (1994), dimension marble (1994)], zinc, and values indicated by symbol W	XX	192,000	XX	366,000	XX	308,000
Total	XX	410,000	XX	570,000	XX	513,000
Connecticut:						
Gemstones	NA	5	NA	5	NA	5
Sand and gravel: Construction	5,420	28,000	6,410	37,500	6,380	26,900

See footnotes at end of table.

TABLE 5--Continued
NONFUEL RAW MINERAL PRODUCTION 1/ IN THE UNITED STATES, BY STATE 2/

(Thousand metric tons and thousand dollars unless otherwise specified)

Mineral	1994		1995		1996	
	Quantity	Value	Quantity	Value	Quantity	Value
Connecticut--Continued:						
Stone: Crushed	5,710	43,900 5/	6,070 5/	45,500 5/	6,720	55,000
Combined value of other industrial minerals	XX	9,810	XX	9,470	XX	(6/)
Total	XX	81,800	XX	92,500	XX	81,900 7/
Delaware:						
Gemstones	NA	1	NA	1	NA	1
Sand and gravel: Construction	2,580	8,680	2,680	8,740	2,370	6,820
Total 7/	XX	8,680	XX	8,750	XX	6,820
Florida:						
Cement:						
Masonry	400	34,600	383	35,200	422	35,200 e/
Portland	3,370	228,000	3,170	233,000	3,450	245,000 e/
Clays:						
Fuller's earth	395	51,500	388	50,800	377	58,900
Kaolin	35	3,450	33	3,510	35	3,760
Gemstones	NA	W	NA	W	NA	1
Peat	206	3,230	294 10/	5,390 10/	298 10/	5,550 10/
Sand and gravel:						
Construction	16,600	60,700	19,300	69,300	18,500	68,800
Industrial	540	6,120	547	6,340	515	6,340
Stone: Crushed	66,300 5/	343,000	68,000	350,000	73,600 5/	394,000 5/
Combined value of clays (common), magnesium compounds, phosphate rock, rare-earth metal concentrates (1994), staurolite, stone [crushed marl (1994, 1996)], titanium concentrates (ilmenite and rutile), zirconium concentrates, and values indicated by symbol W	XX	669,000	XX	783,000	XX	947,000
Total	XX	1,400,000	XX	1,540,000	XX	1,760,000
Georgia:						
Clays:						
Common	1,710	11,200	1,660	11,200	1,660	11,200
Fuller's earth	680	83,700	744	90,100	739	89,200
Kaolin	7,570	962,000	8,240	1,060,000	8,040	1,050,000
Gemstones	NA	51	NA	51	NA	32
Sand and gravel:						
Construction	5,520	19,800	5,780	23,100	6,520	24,500
Industrial	440	7,040	574	7,060	313	5,650
Stone:						
Crushed	54,600	331,000	60,600	373,000	63,400 5/	401,000 5/
Dimension metric tons	200,000 5/	19,100 5/	132,000	27,700	89,600 5/	10,300 5/
Combined value of barite, bauxite (1994-95), cement, clays [fire (1994)], feldspar, iron oxide pigments (crude), mica (crude), and stone [crushed marble (1996), dimension marble (1996), dimension marble and miscellaneous (1994)]	XX	115,000	XX	102,000 r/	XX	148,000
Total	XX	1,550,000	XX	1,690,000 r/	XX	1,740,000
Hawaii:						
Cement:						
Masonry	6	395	5	501	5	500 e/
Portland	404	28,300	357	35,500	312	32,000 e/
Gemstones	NA	(6/)	NA	(6/)	NA	153
Sand and gravel: Construction	521	4,740	405	4,030	W	(6/)
Stone: Crushed	8,170	82,300	7,450 5/	73,500 5/	6,560	77,500
Total 7/	XX	116,000	XX	114,000	XX	110,000
Idaho:						
Antimony metric tons	215	W	262	W	242	W
Clays: Common	--	--	1	10	--	--
Gemstones	NA	287	NA	346	NA	347
Gold 3/ kilograms	W	W	8,850	110,000	10,800 r/	135,000 r/
Pumice and pumicite metric tons	W	W	W	W	159,000	1,340
Sand and gravel:						
Construction	14,500	46,300	13,200	43,500	14,700	46,100

See footnotes at end of table.

TABLE 5--Continued
NONFUEL RAW MINERAL PRODUCTION 1/ IN THE UNITED STATES, BY STATE 2/

(Thousand metric tons and thousand dollars unless otherwise specified)

Mineral	1994		1995		1996	
	Quantity	Value	Quantity	Value	Quantity	Value
Idaho--Continued:						
Sand and gravel--Continued:						
Industrial	W	W	501	8,720	646	8,510
Silver 3/	W	W	182	30,200	229	38,300
Stone: Crushed	4,160	20,300	3,210 5/	14,000 5/	3,960 5/	20,200 5/
Combined value of cement, copper, feldspar, garnet (industrial), lead, lime, molybdenum, phosphate rock, stone [crushed miscellaneous (1995-96), dimension marble and miscellaneous (1994), dimension quartzite (1995), dimension quartzite and miscellaneous (1996)], vanadium ore, zinc, and values indicated by symbol W	XX	273,000	XX	303,000	XX	242,000
Total	XX	340,000	XX	510,000	XX	492,000 r/
Illinois:						
Cement: Portland	2,590	151,000	2,560	169,000	2,620	181,000 e/
Clays:						
Common	494	1,170	503	1,220	115	736
Fuller's earth	W	W	332	W	330	W
Fluorspar	49,000	W	51,400	W	8,180	W
Gemstones	NA	376	NA	269	NA	890
Sand and gravel:						
Construction	37,900	150,000	36,100	147,000	34,600	144,000
Industrial	4,420	65,700	4,410	67,500	4,460	66,400
Stone: Crushed	62,600 5/	353,000 5/	61,400	335,000	66,500	364,000
Combined value of barite (1994-95), cement [masonry (1994)], copper, lead, lime, peat, silver, stone [crushed miscellaneous (1994), dimension dolomite (1994)], tripoli, zinc, and values indicated by symbol W	XX	102,000	XX	107,000	XX	89,100
Total	XX	823,000	XX	828,000	XX	846,000
Indiana:						
Cement: Portland	2,290	132,000	2,330	143,000	2,350	153,000 e/
Clays:						
Ball	W	W	38	W	38	W
Common	774	2,540	877	3,350	1,510	3,500
Gemstones	NA	29	NA	36	NA	3
Peat	23	W	17 10/	281 10/	W	W
Sand and gravel: Construction	28,100	108,000	24,900	93,900	24,800	100,000
Stone:						
Crushed	45,900	211,000	49,200	234,000 5/	53,700 5/	254,000 5/
Dimension	173,000	25,800	172,000	31,400	156,000 5/	24,500 5/
Combined value of cement (masonry), gypsum (crude), lime, sand and gravel (industrial), stone [crushed slate (1995-96), dimension dolomite (1996)], and values indicated by symbol W	XX	75,400	XX	82,700	XX	92,800
Total	XX	555,000	XX	589,000	XX	628,000
Iowa:						
Cement: Portland	2,390	153,000	2,340	161,000	2,390	187,000 e/
Clays: Common	384	1,520	322	1,590	478	1,180
Gemstones	NA	50	NA	57	NA	481
Gypsum, crude	2,210	12,700	2,240	13,800	2,090	12,800
Peat	5 r/	W	5 10/	77 10/	W	W
Sand and gravel: Construction	15,300	58,200	14,300	57,000	13,300	54,600
Stone: Crushed	36,600 5/	211,000	35,300	210,000	34,400	202,000
Combined value of cement (masonry), lime, sand and gravel (industrial), stone [dimension (1994), dimension dolomite and sandstone (1995)], and values indicated by symbol W	XX	14,800	XX	12,500	XX	11,100
Total	XX	451,000	XX	456,000	XX	470,000
Kansas:						
Cement:						
Masonry	24	2,090	31	2,650	24	2,240 e/

See footnotes at end of table.

TABLE 5--Continued
NONFUEL RAW MINERAL PRODUCTION 1/ IN THE UNITED STATES, BY STATE 2/

(Thousand metric tons and thousand dollars unless otherwise specified)

Mineral	1994		1995		1996	
	Quantity	Value	Quantity	Value	Quantity	Value
Kansas--Continued:						
Cement--Continued:						
Portland	1,640	101,000	1,730	109,000	1,730	120,000 e/
Clays						
Common	556	2,150	573	2,390	548	2,250
Fuller's earth	W	W	48	W	64	W
Gemstones	NA	W	NA	W	NA	621
Helium:						
Crude	million cubic meters	32	31,400	30	26,600	W
Grade-A	do.	53	105,000	53	105,000	53
Salt		2,660	108,000	2,770	113,000	2,950
Sand and gravel: Construction		11,200	29,600	11,100	29,400	11,500
Stone:						
Crushed		21,500	103,000	20,400	95,800	22,100
Dimension 5/	metric tons	23,700	1,730	19,800	1,810	21,400
Combined value of gypsum (crude), pumice and pumicite, sand and gravel (industrial), stone (dimension sandstone), and values indicated by symbol W						
		XX	11,900	XX	12,200	XX
Total		XX	497,000	XX	498,000	XX
Kentucky:						
Clays:						
Ball	W	W	117	W	70	W
Common	820	3,460	786	3,430	823	3,680
Gemstones	NA	W	NA	W	NA	5,910
Sand and gravel: Construction	9,140	32,200	8,710	31,700	7,310	25,600
Stone: Crushed	56,300	259,000	54,700 5/	230,000 5/	58,500 5/	243,000 5/
Combined value of cement, lime, stone [crushed (1995), crushed sandstone (1996)], and values indicated by symbol W						
		XX	134,000	XX	167,000 r/	XX
Total		XX	428,000	XX	432,000 r/	XX
Louisiana:						
Clays: Common						
		371	531 r/	384	548	382
Gemstones	NA	155	NA	175	NA	136
Salt	13,500	140,000	14,700	177,000	15,500	175,000
Sand and gravel:						
Construction	12,300	49,600	11,300	50,200	11,500	53,200
Industrial	454	9,320	572	10,500	706	12,100
Stone (crushed) 5/	707	7,710	2,540	26,700	2,290	23,900
Combined value of gypsum (crude), lime, stone [crushed miscellaneous (1996), crushed shell and miscellaneous (1994-95)], and sulfur (Frasch)						
		XX	144,000	XX	169,000	XX
Total		XX	351,000 r/	XX	434,000	XX
Maine:						
Gemstones	NA	235	NA	305	NA	223
Peat	W	W	15 10/	845 10/	18 10/	960 10/
Sand and gravel: Construction	5,890	24,400	6,420	26,900	6,440	27,500
Stone: Crushed	2,740	15,500	3,110	16,100	2,760	14,800
Combined value of cement, clays (common), stone [dimension (1994), dimension granite (1995-96)], and value indicated by symbol W						
		XX	20,900	XX	23,500	XX
Total		XX	61,000	XX	67,600	XX
Maryland:						
Cement: Portland	1,710	90,700	1,670	101,000	1,610	99,400 e/
Clays: Common	293	946	278	943	304	874
Gemstones	NA	1	NA	1	NA	1
Sand and gravel: Construction	8,920	61,200	9,700	61,700	9,700	61,400
Stone:						
Crushed	23,200 5/	157,000 5/	24,200	158,000	22,400 5/	142,000 5/
Dimension	metric tons	18,800 5/	1,550 5/	20,700	2,260	19,800
Combined value of other industrial minerals						
		XX	29,000	XX	(6/)	XX
Total		XX	340,000	XX	324,000 7/	XX

See footnotes at end of table.

TABLE 5--Continued
NONFUEL RAW MINERAL PRODUCTION 1/ IN THE UNITED STATES, BY STATE 2/

(Thousand metric tons and thousand dollars unless otherwise specified)

Mineral	1994		1995		1996	
	Quantity	Value	Quantity	Value	Quantity	Value
Massachusetts:						
Clays: Common	W	W	31	W	W	W
Gemstones	NA	W	NA	W	NA	1
Sand and gravel: Construction	12,300	60,000	11,700	67,500	14,200	82,500
Stone:						
Crushed	10,400 5/	96,800 5/	11,100	97,400	11,800 5/	91,600 5/
Dimension metric tons	57,300	9,600	77,600	14,600	79,600	15,000
Combined value of lime, peat, sand and gravel (industrial), stone [crushed dolomite and sandstone (1994), crushed miscellaneous (1996)], and values indicated by symbol W	XX	11,100	XX	10,700	XX	11,100
Total	XX	178,000	XX	190,000	XX	200,000
Michigan:						
Cement:						
Masonry	235	17,700	229	16,700	232	20,400 e/
Portland	5,160	331,000	5,400	361,000	5,390	397,000 e/
Clays: Common	1,150	3,370	623	3,430	652	3,410
Gemstones	NA	2	NA	2	NA	1
Gypsum, crude	1,790	15,300	1,510	14,900	1,590	14,400
Iron ore, usable	13,800	W	13,500	W	W	W
Lime	637	33,000	653	34,600	584	30,300
Peat	156 r/	5,090	173 10/	5,510 10/	168 10/	4,650 10/
Sand and gravel:						
Construction	48,800	160,000	53,500	178,000	53,800	197,000
Industrial	2,870 r/	31,300	2,940	30,600	2,680	29,400
Stone:						
Crushed	35,000	113,000	37,500	127,000	38,600 5/	144,000 5/
Dimension metric tons	147 5/	35 5/	W	W	W	W
Combined values of bromine, copper (1994-95), iron oxide pigments (crude), magnesium compounds, potash, salt, silver (1994-95), stone [crushed granite and miscellaneous (1996), dimension dolomite and sandstone (1995-96), dimension sandstone (1994)], and values indicated by symbol W	XX	690,000 r/	XX	750,000 r/	XX	695,000
Total	XX	1,400,000 r/	XX	1,520,000 r/	XX	1,540,000
Minnesota:						
Clays:						
Common	W	W	27	W	11	W
Kaolin	W	W	21	W	--	--
Gemstones	NA	26	NA	26	NA	148
Iron ore, usable	43,300	1,060,000 r/	47,000	1,330,000 r/	46,700	1,330,000
Peat	37	3,010	24 10/	2,070 10/	20 10/	1,540 10/
Sand and gravel: Construction	29,500	90,000	31,900	99,400	31,800	107,000
Stone:						
Crushed	10,900	47,100	11,300 5/	47,400 5/	12,100	59,000
Dimension metric tons	16,900 4/	W	26,900	11,100	25,400	10,700
Combined value of lime, sand and gravel (industrial), stone [crushed quartzite and traprock (1995), dimension dolomite and granite (1994)], and values indicated by symbol W	XX	44,900	XX	40,400	XX	35,100
Total	XX	1,240,000 r/	XX	1,530,000 r/	XX	1,540,000
Mississippi:						
Clays:						
Ball	W	W	73	4,540	73	4,540
Bentonite	139	4,980	164	6,510	145	4,480
Common	644	6,190	616	6,080	534	3,610
Fuller's earth	410	29,400	378	26,900	379	27,800
Gemstones	NA	1	NA	1	NA	1
Sand and gravel: Construction	12,400	53,200	11,800	53,000	13,400	60,600
Stone: Crushed	1,900	7,500	1,990 5/	8,010 5/	2,180 5/	9,300 5/
Combined value of other industrial minerals	XX	33,900	XX	25,500	XX	33,500
Total	XX	135,000	XX	131,000	XX	144,000

See footnotes at end of table.

TABLE 5--Continued
NONFUEL RAW MINERAL PRODUCTION 1/ IN THE UNITED STATES, BY STATE 2/

(Thousand metric tons and thousand dollars unless otherwise specified)

Mineral	1994		1995		1996	
	Quantity	Value	Quantity	Value	Quantity	Value
Missouri:						
Cement: Portland	4,730	265,000	4,360	270,000	4,530	293,000 e/
Clays:						
Ball	--	--	--	--	13	W
Common	1,040	4,630	972	4,810	849	3,250
Fire	213	3,280	359	5,480	223	3,220
Fuller's earth	W	W	283	W	283	W
Copper 3/	8	18,900	7	22,800	W	W
Gemstones	NA	67	NA	58	NA	108
Lead 3/ metric tons	290,000	238,000	W	W	W	W
Sand and gravel:						
Construction	9,760	36,500	8,840	32,400	9,820	35,600
Industrial	559	9,970	W	W	W	W
Silver 3/ metric tons	40	6,860	W	W	W	W
Stone: Crushed	68,900	330,000	65,700 5/	305,000 5/	67,000	325,000
Zinc 3/ metric tons	42,000	45,600	W	W	W	W
Combined value of barite, cement (masonry), iron ore (usable), iron oxide pigments (crude), lime, stone [crushed granite (1995), dimension granite], and values indicated by symbol W	XX	128,000	XX	495,000	XX	589,000
Total	XX	1,090,000	XX	1,140,000 r/	XX	1,250,000
Montana:						
Clays: Common	28	W	33	90	34	W
Gemstones	NA	3,400	NA	938	NA	1,840
Gold 3/ kilograms	12,600	156,000	12,400	155,000	9,110	114,000
Iron ore, usable	--	--	5	60	--	--
Lead 3/ metric tons	9,940	8,140	8,350	7,790	7,970	8,580
Palladium kilograms	6,440	29,400	5,260	22,000	6,100	25,500
Platinum do.	1,960	25,300	1,590	20,800	1,840	23,500
Sand and gravel: Construction	7,360	28,800	8,870	34,900	9,260	35,800
Silver 3/ metric tons	71	12,000	77 r/	12,700 r/	W	W
Stone: Crushed	2,320	8,830	2,370 5/	9,920 5/	2,000	8,580
Zinc 3/ metric tons	21,000	22,800	22,700	27,900	19,400	21,900
Combined value of barite (1994), cement, clays (bentonite, fire), copper, garnet (industrial), lime, molybdenum, peat, sand and gravel (industrial), stone [crushed quartzite (1995), dimension miscellaneous], talc and pyrophyllite, and values indicated by symbol W	XX	249,000	XX	283,000 r/	XX	251,000
Total	XX	543,000	XX	574,000 r/	XX	491,000
Nebraska:						
Clays: Common	206	867	232	1,130	277	1,140
Gemstones	NA	W	NA	W	NA	3
Lime	24	904	20	803	13	553
Sand and gravel: Construction	15,000	49,200	13,700	47,100	12,900	44,300
Stone: Crushed	6,890	41,600	6,590	41,800	6,370	39,800
Combined value of other industrial minerals	XX	53,600	XX	55,500	XX	62,100
Total	XX	146,000	XX	146,000	XX	148,000
Nevada:						
Barite	284 11/	5,020 11/	W	W	W	W
Clays:						
Bentonite	7	2,860	6	477	6	580
Kaolin	W	W	W	W	25	W
Copper 3/	6	15,800	6	19,800	W	W
Gemstones	NA	160	NA	306	NA	234
Gold 3/ kilograms	214,000	2,700,000	210,000 r/	2,620,000 r/	213,000	2,680,000
Sand and gravel:						
Construction	22,700	106,000	22,500	110,000	22,400	113,000
Industrial	572	W	W	W	W	W
Silver 3/ metric tons	673	115,000	693 r/	115,000 r/	605	101,000
Stone: Crushed	2,310	20,600	2,410	21,400	3,080	25,200
Zeolites metric tons	W	NA	W	NA	1,220	NA

See footnotes at end of table.

TABLE 5--Continued
NONFUEL RAW MINERAL PRODUCTION 1/ IN THE UNITED STATES, BY STATE 2/

(Thousand metric tons and thousand dollars unless otherwise specified)

Mineral	1994		1995		1996	
	Quantity	Value	Quantity	Value	Quantity	Value
Nevada--Continued:						
Combined value of brucite, cement (portland), clays (fuller's earth), diatomite, gypsum (crude), lime, lithium minerals, magnesite, mercury, perlite (crude), salt, and values indicated by symbol W	XX	149,000	XX	180,000	XX	315,000
Total	XX	3,110,000	XX	3,060,000 r/	XX	3,230,000
New Hampshire:						
Clays: Common	3	16	3	16	3	16
Gemstones	NA	21	NA	9	NA	6
Sand and gravel: Construction	7,120	32,600	7,190	34,300	7,620	36,500
Stone:						
Crushed 5/	1,390	7,470	2,150	9,150	1,430	8,650
Dimension metric tons	35,300	6,300	23,000	6,290	29,000	6,500
Total 7/	XX	46,400	XX	49,800	XX	51,700
New Jersey:						
Clays: Common	W	W	82	135	74	125
Gemstones	NA	1	NA	1	NA	1
Sand and gravel:						
Construction	16,100	100,000	14,000	80,300	13,200	70,400
Industrial	1,690	30,600	1,760	31,000	1,680	30,300
Stone: Crushed	19,800	154,000	21,000	132,000	21,400	145,000
Combined value of other industrial minerals	XX	4,460	XX	(6/)	XX	(6/)
Total	XX	289,000	XX	243,000 7/	XX	246,000 7/
New Mexico:						
Clays: Common	127	269	127	274	32	165
Copper 3/	234	574,000	250	764,000 r/	W	W
Gemstones	NA	14	NA	22	NA	54
Potash (K ₂ O)	2,450	219,000	2,330	209,000	2,430	225,000
Pumice and pumicite metric tons	129,000	1,050	W	W	102,000	527
Sand and gravel: Construction	10,400	47,400	10,400	50,700	9,880	48,500
Silver 3/ metric tons	22	3,750	20	3,300	W	W
Stone: Crushed	3,550 5/	20,000 5/	3,660	18,800	3,480 5/	18,800 5/
Combined value of cement [masonry (1994), portland], clays (fire), gold, gypsum (crude), iron ore (usable), mica (crude), molybdenum, perlite (crude), salt, stone [crushed quartzite and traprock (1994, 1996), dimension granite and marble (1995-96), dimension granite, marble, and miscellaneous (1994)], and values indicated by symbol W	XX	65,100	XX	83,900	XX	699,000
Total	XX	930,000	XX	1,130,000	XX	992,000
New York:						
Cement:						
Masonry	82	6,020	90	7,210	W	W
Portland	2,650	139,000	2,530	205,000	2,570	157,000 e/
Clays: Common	507	9,270	563	12,500	652	14,000
Gemstones	NA	W	NA	W	NA	291
Peat	W	12	W	W	W	W
Salt	6,060	233,000	4,480	185,000	4,420	203,000
Sand and gravel: Construction	28,000	138,000	27,300	134,000	28,100	145,000
Stone:						
Crushed	39,400	239,000	39,500	204,000	43,600	233,000
Dimension metric tons	24,600 5/	7,370 5/	32,800	8,440	34,400	8,120
Combined value of garnet (industrial), gypsum (crude), lead, sand and gravel (industrial), silver, stone [dimension granite and quartzite (1994)], talc and pyrophyllite, wollastonite, zinc, and values indicated by symbol W	XX	117,000	XX	130,000	XX	130,000
Total	XX	889,000	XX	886,000	XX	891,000

See footnotes at end of table.

TABLE 5--Continued
NONFUEL RAW MINERAL PRODUCTION 1/ IN THE UNITED STATES, BY STATE 2/

(Thousand metric tons and thousand dollars unless otherwise specified)

Mineral	1994		1995		1996	
	Quantity	Value	Quantity	Value	Quantity	Value
North Carolina:						
Clays: Common	2,530	12,500	2,430	12,500	2,400	12,400
Feldspar metric tons	488,000	17,600	497,000	18,400	481,000	18,400
Gemstones	NA	565	NA	4,440	NA	693
Mica, crude	68	3,270	74	3,690	62	4,900
Peat	21	W	19 10/	340 10/	15 10/	311 10/
Sand and gravel:						
Construction	11,100	50,700	10,100	50,100	10,000	50,500
Industrial	1,460	24,200	1,330	21,900	1,500	21,700
Stone:						
Crushed	53,900 5/	351,000 5/	57,300	384,000	57,200	394,000
Dimension metric tons	33,700 5/	12,500 5/	41,100 5/	15,400 5/	37,300	14,300
Combined value of clays (kaolin), lithium minerals, olivine, phosphate rock, stone [dimension quartzite, sandstone, slate and miscellaneous (1994-95)], talc and pyrophyllite, and value indicated by symbol W	XX	231,000	XX	225,000	XX	172,000
Total	XX	703,000	XX	735,000	XX	690,000
North Dakota:						
Clays: Common	59	W	59	W	59	W
Gemstones	NA	W	NA	W	NA	3
Lime	W	6,590	W	W	W	W
Sand and gravel: Construction	6,810	18,500	8,420	23,900	8,320	23,800
Combine value of peat, sand and gravel (industrial), and values indicated by symbol W	XX	199	XX	7,300	XX	7,060
Total	XX	25,300	XX	31,200	XX	30,800
Ohio:						
Cement: Portland	1,050	69,700	1,050	72,700	W	W
Clays:						
Common	1,940	7,950	1,840	7,560	1,960	7,450
Fire	142	4,550	89	3,140	103	3,230
Gemstones	NA	43	NA	3	NA	153
Lime	1,850	113,000	1,920	117,000	2,020	107,000
Sand and gravel:						
Construction	47,700	205,000	45,300	196,000	46,600	215,000
Industrial	1,260	27,700	1,270	28,800	1,270	29,800
Stone:						
Crushed	56,400	251,000	60,900	265,000	63,600	291,000
Dimension metric tons	W	W	17,900	1,670	19,800	2,060
Combined value of cement (masonry), clays [ball (1994)], gypsum (crude), peat, salt, silica stone (1994, 1996), stone [dimension limestone and sandstone (1994)], and values indicated by symbol W	XX	201,000	XX	200,000	XX	314,000
Total	XX	880,000	XX	891,000	XX	969,000
Oklahoma:						
Cement:						
Masonry	91	7,410	95	7,250	101	8,850 e/
Portland	1,680	102,000	1,740	110,000	1,750	118,000 e/
Clays:						
Common	771	3,910	674	3,580	799	4,090
Fire	--	--	--	--	23	W
Gemstones	NA	W	NA	W	NA	603
Gypsum, crude	2,890	17,000	2,830	17,000	2,690	16,500
Iodine, crude metric tons	1,630	12,800	1,210	12,500	1,270	14,600
Sand and gravel:						
Construction	8,480	27,200	7,800	25,100	7,910	27,700
Industrial	1,230	24,000	1,250	25,400	1,350	27,200
Stone:						
Crushed	29,900	125,000	31,100	125,000	28,300 5/	117,000 5/
Dimension metric tons	3,980 5/	1,250 5/	9,170 5/	2,350 5/	9,710	2,220

See footnotes at end of table.

TABLE 5--Continued
NONFUEL RAW MINERAL PRODUCTION 1/ IN THE UNITED STATES, BY STATE 2/

(Thousand metric tons and thousand dollars unless otherwise specified)

Mineral	1994		1995		1996	
	Quantity	Value	Quantity	Value	Quantity	Value
Oklahoma--Continued:						
Combined value of feldspar, helium [crude (1995-96), Grade-A (1996)], lime, salt, stone [crushed shell and traprock (1995-96), dimension quartzite and sandstone (1995), dimension sandstone (1994)], tripoli, and values indicated by symbol W	XX	19,400	XX	28,700	XX	32,300
Total	XX	340,000	XX	357,000	XX	369,000
Oregon:						
Clays:						
Bentonite	25	1,150	17	917	33	1,530
Common	215	414	222	354	213	154
Copper 3/	(9/)	260	--	--	--	--
Gemstones	NA	2,160	NA	4,570	NA	6,730
Nickel ore metric tons	--	--	1,560	W	1,330 12/	W
Pumice and pumicite do.	220,000	2,760	W	W	W	W
Sand and gravel: Construction	18,400	83,600	18,200	85,000	18,300	86,800
Silver 3/ metric tons	(9/)	10	--	--	--	--
Stone: Crushed	18,900	90,100	20,700	95,700	22,000	102,000
Talc and pyrophyllite metric tons	W	W	W	W	64	84
Zinc 3/ do.	118	128	--	--	--	--
Combine value of cement (portland), diatomite, emery, gold (1994), lime, and values indicated by symbol W	XX	62,100	XX	52,500	XX	67,100
Total	XX	243,000	XX	239,000	XX	265,000
Pennsylvania:						
Cement:						
Masonry	245	19,300	267	21,200	274	28,000 e/
Portland	5,630	315,000	5,610	355,000	5,670	418,000 e/
Clays:						
Common	797	3,230	736	2,430	753	2,420
Kaolin	14	815	14	815	14	815
Gemstones	NA	1	NA	1	NA	1
Lime	1,590	95,500	1,640	107,000	1,530	105,000
Peat	10	296	11 10/	294 10/	4 10/	166 10/
Sand and gravel: Construction	15,900	89,700	17,100	93,100	15,100	85,600
Stone:						
Crushed	76,700	462,000	80,900	492,000	87,400	518,000
Dimension metric tons	43,700 5/	7,280 5/	57,600	12,300	54,300	11,800
Combined value of other industrial minerals	XX	13,300	XX	(6/)	XX	(6/)
Total	XX	1,010,000	XX	1,080,000 7/	XX	1,170,000 7/
Rhode Island:						
Gemstones	NA	1	NA	1	NA	1
Sand and gravel: Construction	2,310	14,200	2,790	21,500	1,990	13,300
Stone: Crushed	1,610	12,200	1,250	9,140	1,440	9,680
Total 7/	XX	26,300	XX	30,700	XX	23,000
South Carolina:						
Cement:						
Masonry	W	W	W	W	286	27,100 e/
Portland	2,210	143,000	2,210	156,000	2,370	186,000 e/
Clays:						
Common	1,130	4,670	1,220	4,910	1,260	4,860
Fire	--	--	24	W	24	W
Kaolin	388 13/	25,700 13/	373	16,800	387	18,100
Gemstones	NA	W	NA	W	NA	16
Sand and gravel:						
Construction	8,600	26,100	8,880	29,000	8,780	29,000
Industrial	699	18,100	839	20,500	761	19,500
Stone: Crushed	20,500 5/	131,000 5/	22,000	132,000	23,800	146,000

See footnotes at end of table.

TABLE 5--Continued
NONFUEL RAW MINERAL PRODUCTION 1/ IN THE UNITED STATES, BY STATE 2/

(Thousand metric tons and thousand dollars unless otherwise specified)

Mineral	1994		1995		1996	
	Quantity	Value	Quantity	Value	Quantity	Value
South Carolina--Continued:						
Combined value of gold, manganiferous ore (1994-95), mica (crude), peat (1994-95), silver, stone [crushed marble (1994), dimension granite], vermiculite and values indicated by symbol W	XX	93,900	XX	88,700	XX	62,700
Total	XX	442,000	XX	447,000	XX	493,000
South Dakota:						
Clay: Common	W	W	136	W	147	W
Gemstones	NA	110	NA	173	NA	98
Gold 3/ kilograms	W	W	17,100	214,000	W	W
Sand and gravel: Construction	7,700	23,700	8,730	26,200	8,750	27,700
Silver 3/ metric tons	4	696	4	668	5	816
Stone: Crushed	5,490 5/	24,500 5/	5,420 5/	25,700 5/	5,640	28,700
Combined value of cement, feldspar, iron ore (usable), lime, mica (crude), stone [crushed granite and miscellaneous (1995), crushed miscellaneous (1994), dimension granite], and values indicated by symbol W	XX	274,000	XX	65,300	XX	300,000
Total	XX	323,000	XX	332,000	XX	357,000
Tennessee:						
Clays:						
Ball	665	28,600	663	29,000	679	29,000
Kaolin	--	--	1	W	32	W
Gemstones	NA	23,100	NA	16,900 r/	NA	12,900
Sand and gravel:						
Construction	8,710	38,000	8,020	36,700	8,380	35,300
Industrial	660	11,600	918	14,700	747	13,900
Stone: Crushed	49,200	265,000	52,600	286,000	55,100	305,000
Combined value of barite, cement, clays [bentonite (1994), common, fuller's earth], copper, lead, lime, silver, stone (dimension marble), zinc, and values indicated by symbol W	XX	235,000	XX	282,000	XX	266,000
Total	XX	602,000	XX	665,000 r/	XX	662,000
Texas:						
Cement:						
Masonry	258	18,200	202	17,600	216	20,300 e/
Portland	8,620	456,000	8,090	499,000	8,240	532,000 e/
Clays:						
Ball	W	W	101	2,800	101	W
Common	2,190	13,700	2,320	15,500	2,290	15,000
Kaolin	W	W	36	7,700	28	W
Gemstones	NA	448	NA	353	NA	511
Gypsum, crude	1,870	10,100	1,880	16,200	2,240	12,100
Helium, crude million cubic meters	7	7,050	5	4,730	W	W
Lime	1,210	76,200	1,370	85,800	1,360	86,300
Salt	8,760	76,500	9,110	85,000	9,700	88,900
Sand and gravel:						
Construction	56,700	242,000	61,100	271,000	61,300	278,000
Industrial	1,570	37,900	1,600	40,300	1,420	38,200
Stone:						
Crushed	76,100	300,000	81,100	310,000	86,500	341,000
Dimension metric tons	W	W	54,000	13,300	86,600	21,100
Talc and pyrophyllite do.	225,000	5,860	294,000	5,840	225,000	5,100
Combined value of clays [bentonite (1994-95), fuller's earth], helium (Grade-A), iron ore [usable (1994)], magnesium compounds, magnesium metal, sodium sulfate (natural), stone [dimension granite and limestone (1994)], sulfur (Frasch), and values indicated by symbol W	XX	295,000	XX	301,000	XX	293,000
Total	XX	1,540,000	XX	1,680,000	XX	1,730,000

See footnotes at end of table.

TABLE 5--Continued
NONFUEL RAW MINERAL PRODUCTION 1/ IN THE UNITED STATES, BY STATE 2/

(Thousand metric tons and thousand dollars unless otherwise specified)

Mineral	1994		1995		1996	
	Quantity	Value	Quantity	Value	Quantity	Value
Utah:						
Beryllium concentrates metric tons	4,330	5	5,040	6	5,260	6
Clays:						
Bentonite	W	W	38	W	W	1,400
Common	243	3,410	386	4,280	298	4,510
Fuller's earth	--	--	--	--	W	32
Gemstones	NA	620	NA	939	NA	1,150
Iron ore, usable	W	W	144	1,700	--	--
Salt	1,680	56,700	2,160	54,800	1,720	70,400
Sand and gravel: Construction	21,100	69,600	23,800	80,200	24,700	80,500
Stone: Crushed	4,540	19,800	4,140	14,800	4,380	19,100
Combined value of cement, copper, gold, gypsum (crude), helium (Grade-A), lime, magnesium compounds, magnesium metal, mercury, molybdenum, phosphate rock, potash, silver, stone (dimension quartzite and sand stone), and values indicated by symbol W	XX	1,370,000	XX	1,700,000	XX	1,560,000
Total	XX	1,520,000	XX	1,850,000	XX	1,730,000
Vermont:						
Asbestos metric tons	1,130	920	--	--	--	--
Gemstones	NA	1	NA	1	NA	1
Sand and gravel: Construction	3,890	14,500	3,220	11,000	3,870	15,200
Stone:						
Crushed	4,170	23,700	4,420	20,700	4,560	22,800
Dimension metric tons	78,900	23,200	100,000	28,700	99,600	27,900
Total 7/	XX	62,300	XX	60,400	XX	66,000
Virginia:						
Cement: Portland	930	54,700	W	W	W	W
Clays:						
Common	870	3,250	844	3,200	883	3,220
Fuller's earth	W	W	46	W	46	W
Gemstones	NA	W	NA	W	NA	11
Lime	742	40,200	731	41,900	766	45,700
Sand and gravel: Construction	8,060	33,400	9,710	42,300	9,780	45,800
Stone:						
Crushed	56,700	327,000	55,400	326,000	59,700	351,000
Dimension metric tons	108 5/	13 5/	W	W	W	W
Combine value of cement (masonry), feldspar, gypsum (crude), iron oxide pigments (crude), kyanite, sand and gravel (industrial), stone [dimension dolomite, slate, and traprock (1995), dimension dolomite, granite, slate, and traprock (1996), dimension granite and slate (1994)], talc and pyrophyllite, vermiculite, and values indicated by symbol W	XX	43,600	XX	101,000	XX	103,000
Total	XX	502,000	XX	515,000	XX	549,000
Washington:						
Cement: Portland	W	W	W	W	1,160	78,900 e/
Clays: Common	246	1,140	220	1,040	218	1,070
Gemstones	NA	1,050	NA	53	NA	36
Gold 3/ kilograms	7,410	91,800	W	W	W	W
Lime	239	W	W	W	W	W
Peat metric tons	3	111	2 10/	87 10/	W	W
Sand and gravel: Construction	39,600	165,000	37,700	155,000	37,900	162,000
Stone: Crushed	14,700	91,900	15,800 5/	76,800 5/	15,400	81,400
Combined value of cement (masonry), clays [fire (1994)], diatomite, magnesium metal, olivine, sand and gravel (industrial), silver (1994), stone [crushed dolomite, limestone, and marble (1995), dimension miscellaneous], and values indicated by symbol W	XX	225,000	XX	350,000	XX	212,000
Total	XX	576,000	XX	582,000	XX	535,000

See footnotes at end of table.

TABLE 5--Continued
NONFUEL RAW MINERAL PRODUCTION 1/ IN THE UNITED STATES, BY STATE 2/

(Thousand metric tons and thousand dollars unless otherwise specified)

Mineral	1994		1995		1996	
	Quantity	Value	Quantity	Value	Quantity	Value
West Virginia:						
Clays: Common	138	291	184	365	199	369
Gemstones	NA	1	NA	1	NA	1
Sand and gravel: Construction	1,380	5,970	1,800	7,650	1,730	7,710
Stone: Crushed	12,300 5/	99,300	11,800 5/	75,000 5/	12,700 5/	78,400 5/
Combined value of cement, lime, peat, salt, sand and gravel (industrial), and stone [crushed dolomite, dimension sandstone]	XX	75,500	XX	97,700	XX	98,600
Total	XX	181,000	XX	181,000	XX	185,000
Wisconsin:						
Gemstones	NA	53	NA	65	NA	505
Lime	507	30,300	568	33,900	551	32,000
Peat	2	61	W	W	W	W
Sand and gravel:						
Construction	29,200	91,500	32,200	102,000	32,600	105,000
Industrial	1,630	32,400	1,670	33,300	1,660	32,300
Silica stone 8/ metric tons	45	80	W	W	W	W
Stone:						
Crushed	28,600	115,000 5/	26,000	108,000	26,000	113,000
Dimension metric tons	125,000	14,100	128,000	14,500	143,000	16,600
Combined value of copper, gold, silver, stone [crushed quartzite (1994)], and values indicated by symbol W	XX	126,000	XX	124,000	XX	96,800
Total	XX	409,000	XX	416,000	XX	396,000
Wyoming:						
Clays:						
Bentonite	2,530	91,300	2,940	89,900	3,030	98,400
Common	W	W	30	W	30	W
Gemstones	NA	13	NA	11	NA	11
Sand and gravel: Construction	3,210	13,100	3,860	17,500	3,420	14,700
Stone: Crushed	5,040	29,700	4,670	27,500	5,180	30,000
Combined value of cement (portland), gypsum (crude), helium (Grade-A), lime, soda ash, and values indicated by symbol W	XX	746,000	XX	838,000	XX	935,000
Total	XX	880,000	XX	973,000	XX	1,080,000
Undistributed:						
Alaska (1995), Connecticut, Delaware, Hawaii, Maryland (1995), New Hampshire, New Jersey (1995-96), Pennsylvania (1995-96), Rhode Island, and Vermont	XX	14,700	XX	123,000 r/	XX	30,200

e/ Estimated. r/ Revised. NA Not available. W Withheld to avoid disclosing company proprietary data, value included with "Combined value." XX Not applicable.

1/ Production as measured by mine shipments, sales, or marketable production (including consumption by producers).

2/ Data are rounded to three significant digits; may not add to totals shown.

3/ Recoverable content of ores, etc.

4/ Data collected by State.

5/ Excludes certain stones; kind and value included with "Combined value."

6/ Value excluded to avoid disclosing company proprietary data.

7/ Partial total, excludes values which must be concealed to avoid disclosing company proprietary data. Withheld values included with "Undistributed."

8/ Grindstones, pulpstones, and sharpening stones; excludes mill liners and grinding pebbles.

9/ Less than 1/2 unit.

10/ Data series changed to production beginning in 1995, prior years data may not be comparable.

11/ Excludes certain barites; kind and value included with "Combined value."

12/ Quantity of local ore fed to smelter after rejection of lower grade material. The smelter uses lateritic ore imported from New Caledonia in addition to lateritic ore mined on Nickel Mountain. In 1995, the smelter was idle from January to the beginning of May because of low nickel prices.

13/ Excludes certain clays; kind and value included with "Combined value."

TABLE 6
NONFUEL RAW MINERAL PRODUCTION IN THE COMMONWEALTH OF PUERTO RICO
AND ISLANDS ADMINISTERED BY THE UNITED STATES 1/ 2/

(Thousand metric tons and thousand dollars unless otherwise specified)

Mineral	1994		1995		1996	
	Quantity	Value	Quantity	Value	Quantity	Value
Puerto Rico:						
Cement: Portland metric tons	W	W	1,410	W	1,550	W
Clays: Common	119	338	W	W	W	W
Lime	23	2,970	23	2,970	38	5,050
Salt	--	--	--	--	45	1,500
Stone: Crushed	10,500	78,400	15,300	107,000	13,200	52,500
Combined value of sand and gravel (industrial), stone (dimension), and values indicated by symbol W	XX	138,000	XX	146,000	XX	153,000
Total	XX	220,000	XX	256,000	XX	212,000
Administered Islands:						
American Samoa: Stone, crushed	84	(3/)	(3/)	(3/)	--	--
Guam: Stone, crushed	2,150	12,700	2,060	17,400	1,660	13,800
Total 4/	XX	12,700	XX	17,400	XX	13,800

W Withheld to avoid disclosing company proprietary data; value included with "Combined value" data. XX Not applicable.

1/ Production as measured by mine shipments, sales, or marketable production (including consumption by producers).

2/ Data are rounded to three significant digits; may not add to totals shown.

3/ Withheld to avoid disclosing company proprietary data.

4/ Total does not include values of items withheld.

TABLE 7
U.S. EXPORTS OF PRINCIPAL MINERALS AND PRODUCTS, EXCLUDING MINERAL FUELS 1/

(Thousand metric tons and thousand dollars unless otherwise specified)

Mineral	1995		1996	
	Quantity	Value	Quantity	Value
Metals:				
Aluminum:				
Crude and semicrude metric tons	1,610,000	3,900,000	1,500,000	3,420,000
Manufactures do.	132,000	386,000	134,000	410,000
Antimony:				
Metal, alloys, waste and scrap do.	1,610	5,010	462	1,760
Oxide, antimony content do.	6,590	19,900	3,990	18,600
Arsenic metal do.	430	2,130	36	954
Bauxite and alumina:				
Alumina, calcined equivalent	1,040	353,000	918	374,000
Bauxite:				
Calcined	22	3,860	40	7,830
Crude and dried	86	8,010	92	9,090
Beryllium, alloys, wrought or unwrought, and waste and scrap kilograms	61,300	5,800	56,700	4,510
Bismuth, metal, alloys, and waste and scrap, metal content do.	261,000	3,430	151,000	1,930
Cadmium:				
Metal do.	1,050,000	7,160	201,000	1,030
Sulfide do.	506,000	283	797,000	399
Chromium:				
Chemicals metric tons	37,500	53,400	47,000	66,100
Chromite ore and concentrate do.	17,800	3,430	69,400	11,100
Metals, alloys, and ferroalloys do.	10,100	20,300	17,200	26,800
Pigments and preparations do.	1,260	6,020	2,100	6,920
Cobalt:				
Metal:				
Unwrought, powders, waste and scrap, and mattes and other intermediate products of metallurgy do.	898	49,000	1,310	65,500
Wrought and cobalt articles do.	485	17,800	529	23,500
Oxides and hydroxides do.	271	8,850	346	10,200
Other forms, acetates and chlorides do.	859	7,080	446	4,040
Columbium (niobium) and tantalum:				
Columbium:				
Ferrocolumbium do.	529	4,450	254	1,490
Ores and concentrates do.	96	869	11	185

See footnotes at end of table.

TABLE 7--Continued
U.S. EXPORTS OF PRINCIPAL MINERALS AND PRODUCTS, EXCLUDING MINERAL FUELS 1/

(Thousand metric tons and thousand dollars unless otherwise specified)

Mineral	1995		1996		
	Quantity	Value	Quantity	Value	
Metals--Continued:					
Tantalum:					
Ores and concentrates, includes synthetic	metric tons	2	55	91	764
Unwrought, alloys, metal, powders, and waste and scrap	do.	211 r/	25,800	269	40,200
Wrought	do.	111	33,000	99	32,100
Copper:					
Scrap, alloyed and unalloyed	do.	456,000	722,000	392,000	616,000
Semimanufactures	do.	104,000	407,000	123,000	447,000
Unmanufactured, does not include unalloyed scrap, copper content	do.	520,000	1,180,000	424,000	750,000
Ferroalloys not listed elsewhere:					
Ferrophosphorous	do.	6,470	2,730	4,420	1,760
Ferrotitanium and ferrosilicon-titanium	do.	XX	XX	777	2,330
Ferrozirconium	do.	130	260	101	228
Ferroalloys, other	do.	3,590	6,510	2,970	6,080
Gold:					
Bullion, refined	kilograms	277,000 r/	3,360,000	406,000	5,010,000
Doré and precipitates	do.	69,700	841,000	65,100	696,000
Ores and concentrates	do.	352	3,480	375	3,730
Waste and scrap	do.	82,400	762,000	89,900	853,000
Iron ore		5,270	184,000	6,260	232,000
Iron and steel:					
Cast iron and steel products		250	461,000	240	488,000
Fabricated steel products		914	2,510,000	1,030	2,980,000
Steel mill products		6,420	4,650,000	4,560	4,060,000
Iron and steel scrap:					
Ferrous, includes tinplate and ternplate, excludes used rails for rerolling and other uses, and ships boats, and other vessels for scrapping		10,400	1,700,000	8,440	1,340,000
Pig iron, all grades		54	6,450	48	7,040
Direct-reduced iron, steelmaking grade		5	490	3	304
Ships, boats, and other vessels for scrapping		6	875	24	2,710
Used rails for rerolling and other uses, includes mixed (new plus used), rails		23	5,960	21	6,900
Lead, lead content:					
Ash and residues	metric tons	8,040	4,760	19,400	9,930
Ore and concentrate	do.	65,500	19,600	59,700	17,400
Scrap, gross weight	do.	105,000	31,000	85,300 3/	18,400
Unwrought lead and lead alloys	do.	48,200	35,000	85,200	104,000
Wrought lead and lead alloys	do.	9,020	24,500	16,700	40,600
Magnesium:					
Alloys, gross weight	do.	6,080	18,400	6,970	25,900
Metal	do.	21,500	59,300	17,000	57,300
Powder, sheets, tubing, ribbons, wire, and other forms, gross weight	do.	7,200	20,500	7,970	20,700
Waste and scrap	do.	3,540	8,350	8,500	20,900
Manganese:					
Ferromanganese, all grades	do.	11,000	10,100	9,800	8,850
Metal, including alloys, waste and scrap	do.	5,640	12,600	5,840	14,500
Ore and concentrates with 20% or more manganese	do.	15,400	1,750	31,600	4,000
Silicomanganese	do.	7,840	5,650	5,270	4,390
Mercury and mercury-bearing waste and scrap	do.	179	770	45	344
Molybdenum, molybdenum content:					
Ferromolybdenum	do.	695 r/	14,600	985	9,930
Ore and concentrates, including roasted and other	do.	44,600	564,000 r/	45,000	232,000
Oxides and hydroxides, gross weight	do.	2,840	42,200	1,790	14,000
Molybdates, all	do.	2,180 r/	36,000	1,340	7,620
Powder, gross weight	do.	306 r/	11,100	210	8,260
Unwrought, gross weight	do.	629 r/	9,770 r/	601	7,110
Wire, gross weight	do.	303 r/	17,700	174	12,300
Wrought, gross weight	do.	182 r/	12,700	185	11,000
Nickel, nickel content:					
Alloyed, gross weight	do.	18,900	289,000	23,500	326,000

See footnotes at end of table.

TABLE 7--Continued
U.S. EXPORTS OF PRINCIPAL MINERALS AND PRODUCTS, EXCLUDING MINERAL FUELS 1/

(Thousand metric tons and thousand dollars unless otherwise specified)

Mineral	1995		1996		
	Quantity	Value	Quantity	Value	
Metals--Continued:					
Nickel, nickel content--Continued:					
Unwrought:					
Primary	metric tons	9,750	134,000	13,100	162,000
Secondary	do.	41,800	384,000	33,600	290,000
Wrought	do.	476	5,750	440	6,370
Platinum-group metals	kilograms	50,600	404,000 r/	48,800	334,000
Rare-earths, rare-earth oxide content:					
Cerium compounds	do.	5,120,000	35,500	6,100,000	37,900
Rare-earth compounds	do.	1,550,000	13,400	2,210,000	15,500
Rare-earth metals, including scandium and yttrium	do.	370,000	3,690	208,000	4,540
Ferrocium and other pyrophoric alloys	do.	3,910,000	14,200	4,970,000	21,100
Selenium, metal, waste and scrap, selenium content	do.	270,000 r/	2,290 r/	322,000	2,670
Silicon:					
Ferrosilicon	metric tons	41,600	40,600	51,700	46,100
Metal	do.	25,100	196,000	17,000	209,000
Silver, contained silver:					
Ores and concentrates	kilograms	741	233	1,520	316
Doré and precipitates	do.	72,100	23,500	43,300	8,030
Bullion, refined	do.	2,810,000	497,000	2,900,000	536,000
Waste and scrap, gross weight	do.	1,580,000	304,000	1,280,000	236,000
Thorium and thorium-bearing materials:					
Compounds	do.	75	25	58	14
Ore, monazite concentrate	do.	--	--	2,000	3
Tin:					
Ingots and pigs	metric tons	2,790	17,300	3,670	21,000
Tin scrap and other tin bearing material, except tinplate scrap, includes rods, profiles, wire, powders, flakes, tubes, and pipes	do.	57,600	56,600	56,800	61,300
Tinplate and terneplate	do.	307,000	185,000	338,000	210,000
Titanium:					
Metal, sponge and scrap	do.	3,680	10,200	3,940	11,900
Other unwrought, billet, blooms, sheet bars, ingot, other	do.	2,560	46,500	4,290	84,300
Wrought, bars, rods, other	do.	4,590 r/	163,000 r/	4,530	203,000
Ores and concentrates	do.	32,300	12,000	15,500	5,890
Pigments, dioxide pigments and oxides	do.	342,000	589,000	332,000	572,000
Tungsten, tungsten content:					
Ore and concentrate	do.	20 r/	159 r/	72	539
Ammonium paratungstate	do.	238	2,760	150	1,310
Carbide powder	do.	1,660	37,000	1,290	32,000
Metal and alloy powder	do.	485 r/	11,800	240	7,280
Miscellaneous tungsten-bearing materials, metal and alloy wire, unwrought metal and alloy in crude form, waste and scrap, other metal, ferrotungsten and ferrosilicon tungsten, wrought metal, other tungsten compounds (includes only other tungstates)	do.	1,080 r/	30,200 r/	866	29,000
Vanadium:					
Aluminum-vanadium master alloy, includes vanadium metal	kilograms	660,000	8,190	310,000	4,410
Ferrovandium, vanadium content	do.	340,000	6,550	479,000	8,830
Vanadium pentoxide, anhydride, vanadium content	do.	229,000	1,830	241,000	2,060
Other oxides and hydroxides of vanadium, vanadium content	do.	1,010,000	7,200	2,670,000	12,400
Zinc:					
Compounds, lithopone, chlorides, compounds n.s.p.f., oxide, sulfate, and sulfide	metric tons	15,400	18,000	14,200	21,800
Ores and concentrates, zinc content	do.	424,000	201,000	425,000	190,000
Refined slab	do.	3,080	4,340	1,970	2,350
Rolled	do.	5,180	6,000	5,020	5,350
Zirconium and hafnium:					
Zirconium, ore and concentrates	do.	40,300	20,000	35,000	22,800
Zirconium, oxide includes germanium oxides and zirconium oxides.	do.	1,680	9,390	1,480	10,900
Zirconium, unwrought and waste and scrap	do.	164	4,520	136	3,550
Total		XX	26,500,000 r/	XX	26,800,000

See footnotes at end of table.

TABLE 7--Continued
U.S. EXPORTS OF PRINCIPAL MINERALS AND PRODUCTS, EXCLUDING MINERAL FUELS 1/

(Thousand metric tons and thousand dollars unless otherwise specified)

Mineral	1995		1996		
	Quantity	Value	Quantity	Value	
Industrial minerals:					
Abrasives, manufactured:					
Fused aluminum oxide	metric tons	11,000	28,000	11,900	18,000
Silicon carbide	do.	19,900	16,900	14,200	15,600
Metallic abrasives	do.	31,100	16,200	24,900	15,200
Boron carbide	do.	--	--	7	600
Asbestos, includes reexports:					
Manufactured		XX	180,000	XX	163,000
Unmanufactured	metric tons	14,600	6,010	15,400	5,310
Barite, natural barium sulfate	do.	15,600	2,020	30,500	3,190
Boron:					
Boric acid		75 r/	68,100	42	35,300
Sodium borates		588	227,000	381	133,000
Bromine:					
Compounds, contained bromine	metric tons	11,200	19,900	1,110	22,100
Elemental	do.	3,220	3,790	2,920	3,970
Cement: Hydraulic and clinker		759	53,000	803	58,200
Clays:					
Ball		28	1,780	80	5,270
Bentonite		733	75,000	746	80,600
Fire		281	28,800	295	28,500
Fuller's earth		63	8,980	112	13,200
Kaolin		3,240	560,000	3,240	555,000
Other, includes chamotte or dinas earth, activated clays and earths, and artificially activated clays		338	138,000	364	142,000
Diamond, industrial:					
Industrial diamond stones	thousand carats	5,180 r/	29,900 r/	3,260	26,600
Powder and grit	do.	101,000	98,200 r/	108,000	94,300
Diatomite		144	43,300	143	42,000
Feldspar	metric tons	14,700	1,970	10,200	1,390
Fluorspar	do.	41,800	5,550	61,600	8,110
Garnet, industrial	do.	9,000 e/	XX	13,000 e/	XX
Gemstones, includes reexports		XX	2,530,000	XX	2,700,000
Graphite, natural and artificial 4/	metric tons	90,600	66,400	92,500	68,000
Gypsum:					
Boards		64	17,300	80	22,800
Crude		79	4,240	136	6,120
Plasters		159	23,900	142	25,800
Other		XX	29,600	XX	26,700
Helium: Grade-A	million cubic meters	28	54,900	23	45,200
Iodine, crude/sublimed and potassium iodine	metric tons	1,220	13,000	2,400	19,100
Iron oxide pigments and hydroxides:					
Pigment grade	do.	17,500	24,900	16,000	23,200
Other grade	do.	159,000	108,000	27,200	41,700
Lime		72	8,490	50	5,600
Lithium chemicals:					
Carbonate	metric tons	6,550	22,500	7,890	28,400
Hydroxide	do.	4,060	17,400	4,390	18,900
Magnesium compounds:					
Compounds, chlorides, hydroxide and peroxide, and sulfates	do.	27,000	9,830	27,600	12,000
Magnesite, crude and processed:					
Caustic-calcined magnesia	do.	2,280	1,200	19,600	6,770
Dead-burned and fused magnesia	do.	74,800	28,600	72,600	27,500
Magnesite, crude	do.	31,900	4,120	33,000	4,240
Other magnesia	do.	12,400	8,300 r/	16,600	12,500
Mica:					
Scrap and flake:					
Powder	do.	6,280	3,160	5,830	3,070
Waste	do.	952	294	1,710	495
Sheet:					
Unworked	do.	198	389	225	542
Worked	do.	737	11,700	606	10,700
Nitrogen, major compounds		13,800	NA	12,700 p/	NA

See footnotes at end of table.

TABLE 7--Continued
 U.S. EXPORTS OF PRINCIPAL MINERALS AND PRODUCTS, EXCLUDING MINERAL FUELS 1/

(Thousand metric tons and thousand dollars unless otherwise specified)

Mineral	1995		1996	
	Quantity	Value	Quantity	Value
Industrial minerals--Continued:				
Peat	20 r/	2,410 r/	19	1,990
Perlite metric tons	40,000 e/	1,120	38,000 e/	1,070
Phosphate rock:				
Elemental phosphorous do.	13,700	24,100	12,600	25,500
Phosphate rock, ground and unground	2,990	NA	1,570	NA
Phosphates, diammonium and monoammonium	11,300	NA	9,430	NA
Phosphoric acid	575	NA	570	NA
Superphosphates, concentrated	714	NA	681	NA
Potash:				
Potassium chloride, all grades metric tons	297,000	NA	393,000	NA
Potassium sulfate do.	290,000	NA	283,000	NA
Potassium magnesium sulfate do.	339,000	NA	411,000	NA
Potassium nitrate do.	11,600	NA	14,300	NA
Pumice and pumicite	16	6,700	13	6,300
Salt	670	34,400	869	39,300
Sand and gravel:				
Construction:				
Gravel	453	5,540	368	5,160
Sand	850	19,200	1,160	18,100
Industrial	1,870	106,000	1,430	113,000
Silica:				
Quartz crystal, cultured electronic- and optical-grade metric tons	35	10,900	89	22,200
Tripoli and special silica, special silica stone products do.	XX	6,500	XX	6,700
Soda ash	3,570	445,000	3,840	508,000
Sodium sulfate	66	7,250	86	9,140
Stone:				
Crushed	6,040,000	39,300	3,270,000	36,300
Dimension	NA	51,800	NA	49,500
Strontium compounds, precipitated carbonate, oxide, hydroxide, and peroxide kilograms	1,730	929 r/	1,550	1,080
Sulfur:				
Elemental	906	66,200	855	51,700
Sulfuric acid, 100% H ₂ SO ₄ metric tons	170,000	12,800	117,000	12,400
Talc, excludes talcum in (package), face, and compact	183	37,100	192	37,900
Vermiculite	6	696 e/	8	1,170 e/
Wollastonite	NA	NA	4,080	1,020 e/
Total	XX	5,480,000	XX	5,530,000
Grand total	XX	32,000,000 r/	XX	32,300,000

e/ Estimated. p/ Preliminary. r/ Revised. NA Not available. XX Not applicable.

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ Data not available at time of table compilation.

3/ Includes nonbattery scrap data only.

4/ Artificial graphite includes large amounts of materials made from petroleum coke.

TABLE 8
U.S. IMPORTS FOR CONSUMPTION OF PRINCIPAL MINERALS AND PRODUCTS, EXCLUDING MINERAL FUELS 1/

(Thousand metric tons and thousand dollars unless otherwise specified)

Mineral	1995		1996		
	Quantity	Value	Quantity	Value	
Metals:					
Aluminum:					
Crude and semicrude	metric tons	2,970,000	5,890,000	2,810,000	4,790,000
Manufactures	do.	88,000	273,000	136,000	361,000
Antimony:					
Metal	do.	16,900	60,900	18,300	50,900
Ore and concentrate, antimony content	do.	4,260	18,300	1,000	2,880
Oxides, antimony content	do.	15,400	51,800	18,300	54,200
Arsenic:					
Acid	do.	(2/)	3	1	14
Metal	do.	557	4,100	252	3,790
Trioxide	do.	29,000	15,200 r/	28,000	13,400
Bauxite and alumina:					
Alumina, calcined equivalent		4,000	908,000	4,330	1,020,000
Bauxite:					
Calcined		482	31,900	352	28,100
Crude and dried		10,100	235,000	10,200	267,000
Beryllium, metal and compounds	kilograms	135,000	3,820	78,900	2,540
Bismuth, metallic	do.	1,450,000	10,400	1,490,000	11,500
Cadmium:					
Metal	do.	848,000	2,710	843,000	2,400
Sulfide	do.	57,600	226	13,600	156
Chromium:					
Chemicals	metric tons	18,200	32,200 r/	14,700	28,900
Chromite ore	do.	253,000	20,100	250,000	23,200
Ferrochromium, metals, and alloys	do.	552,000	477,000	478,000	384,000
Pigments and preparations based on chromium	do.	6,310	16,000 r/	9,920	27,100
Cobalt:					
Metal:					
Alloys, articles, matte, wrought, and waste and scrap	do.	1,130	27,500	804	27,000
Unwrought	do.	5,530	325,000	5,760	327,000
Oxide and hydroxides	do.	808	34,300	824	36,200
Other forms	do.	1,170	15,800	1,270	14,700
Columbium (niobium) and tantalum:					
Columbium:					
Ferrocolumbium	do.	5,510	45,000	4,570	42,100
Ores and concentrates	do.	1,040	6,580	224	1,700
Oxide	do.	1,320	20,200	901	16,300
Unwrought, alloys, metals, and powder	do.	257	5,380	322	8,310
Tantalum:					
Ores and concentrates, includes synthetic	do.	1,120	24,300	1,160	27,500
Unwrought, alloys, metal, powders, and waste and scrap	do.	540	59,700	471	63,500
Wrought	do.	5	1,500	11	2,820
Copper:					
Scrap, alloyed and unalloyed	do.	157,000 r/	400,000 r/	178,000	341,000
Semimanufactures	do.	115,000	428,000	138,000	439,000
Unmanufactured, does not include unalloyed scrap, copper content	do.	653,000	1,680,000	782,000	1,800,000
Ferrous alloys not listed elsewhere:					
Ferrophosphorus		7,590	3,860	10,600	5,920
Ferrotitanium and ferrosilicon-titanium		5,570	14,100	7,720	17,100
Ferrozirconium		46	110	212	413
Ferrous alloys, other		30,800	40,300	33,900	5,300
Gallium, unwrought, waste and scrap	kilograms	18,100	4,350	30,000	9,440
Germanium materials, gross weight	do.	16,200	10,300	27,500	30,800
Gold:					
Bullion, refined	do.	111,000	1,360,000	143,000	1,780,000
Doré and precipitates	do.	9,820	92,600	11,900	117,000
Ore and concentrates	do.	5,020	53,900	3,460	42,200
Waste and scrap	do.	14,400	123,000	13,000	102,000
Indium, unwrought and waste and scrap	do.	85,200	32,900	33,200	12,100
Iron ore		17,600 r/	491,000 r/	18,400	556,000

See footnotes at end of table.

TABLE 8--Continued
 U.S. IMPORTS FOR CONSUMPTION OF PRINCIPAL MINERALS AND PRODUCTS, EXCLUDING MINERAL FUELS 1/

(Thousand metric tons and thousand dollars unless otherwise specified)

Mineral	1995		1996	
	Quantity	Value	Quantity	Value
Metals--Continued:				
Iron and steel:				
Cast iron and steel products	319 r/	323,000	344	361,000
Direct-reduced iron	1,190	145,000	1,050	136,000
Fabricated steel products	2,600	4,400,000	2,680	4,500,000
Stainless steel metric tons	741,000	(3/)	791,000	2,090,000
Steel mill products	22,100	11,700,000	26,500	12,700,000
Iron and steel scrap:				
Ferrous, includes tinplate and ternplate, excludes used rails for rerolling, other uses, ships, boats, and other vessels for scrapping	2,090	284,000	2,600	342,000
Pig iron, all grades	2,360	391,000	2,520	390,000
Direct-reduced iron, steelmaking grade	1,190	145,000	1,050	136,000
Ships, boats, and other vessels for scrapping	(2/)	2,010	(2/)	90
Used rails for rerolling and other uses, includes mixed (new plus used), rails	186	31,400	248	43,400
Lead, lead content:				
Base bullion	31	27	5	2
Ore and concentrates	2,600	1,960	6,570	2,500
Pigments and compounds, gross weight	37,000	42,000	43,800	56,600
Pigs and bars	264,000	176,000	268,000	214,000
Scrap, reclaimed, includes ash and residues	75	36	192	104
Wrought lead, all forms, including wire and powders, gross weight	6,600	13,700	10,000	16,500
Magnesium:				
Alloys, magnesium content metric tons	15,900	55,100	24,600	89,700
Metal do.	6,480	23,000	17,300	58,500
Powder, sheets, tubing, ribbons, wire, and other forms, gross weight do.	867	4,410	1,280	6,470
Waste and scrap do.	11,500	26,000	3,340	7,660
Manganese, manganese content:				
Chemicals, manganese dioxide and potassium permanganate, gross weight do.	28,700	41,200	30,400	44,200
Metal, unwrought, waste and scrap, and other, gross weight do.	10,800	18,000	11,300	19,700
Ore and concentrates with 20% or manganese, all grades do.	187,000	33,300	231,000	42,400
Ferromanganese, all grades do.	242,000	150,000	293,000	206,000
Silicomanganese do.	201,000	161,000	213,000	188,000
Mercury and mercury-bearing waste and scrap do.	377	1,190	340	1,800
Molybdenum, molybdenum content:				
Ferromolybdenum do.	4,190	73,700	4,960	54,300
Molybdates, all, gross weight do.	399 r/	3,090 r/	748	5,720
Ore and concentrates, roasted and other do.	5,570	81,000	5,480	41,100
Oxides and hydroxides, gross weight do.	918	11,200	1,160	8,670
Powders do.	146	5,470	110	3,360
Unwrought do.	102	3,430	84	2,360
Wire, gross weight do.	1 r/	272 r/	2	309
Other, orange, mixtures of inorganic compounds, waste and scrap, and other, gross weight do.	1,130 r/	9,580 r/	2,540	16,400
Nickel, nickel content:				
Alloyed, gross weight	9,140 r/	123,000 r/	10,200	134,000
Unwrought:				
Primary	149,000	1,240,000	142,000	1,190,000
Secondary	7,930	80,900	8,060	63,800
Wrought	2,310 r/	28,400 r/	636	14,100
Platinum-group metals kilograms	221,000	1,770,000 r/	256,000	1,770,000
Rare-earths, rare-earth oxide content:				
Cerium compounds, including oxides, hydroxides, nitrates, sulfate chlorides, and oxalates do.	4,090,000	25,400	4,760,000	30,000
Yttrium compounds content by weight greater than 19% but less than 85% oxide equivalent do.	30,800	988	42,200	1,030
Rare-earth compounds, including oxides, hydroxides, nitrates, and other compounds except chlorides do.	8,670,000	56,900	15,300,000	67,600
Mixtures of rare-earth oxide except cerium oxide do.	678,000	16,700	879,000	21,900
Rare-earth metals, whether intermixed or alloyed do.	754,000	7,670	357,000	3,710
Mixtures of rare-earth chlorides, except cerium chloride do.	2,720,000	12,400	2,330,000	12,400

See footnotes at end of table.

TABLE 8--Continued
U.S. IMPORTS FOR CONSUMPTION OF PRINCIPAL MINERALS AND PRODUCTS, EXCLUDING MINERAL FUELS 1/

(Thousand metric tons and thousand dollars unless otherwise specified)

Mineral	1995		1996		
	Quantity	Value	Quantity	Value	
Metals--Continued:					
Rare-earths, rare-earth oxide content--Continued:					
Ferrocerium and other pyrophoric alloys	kilograms	88,300	1,440	120,000	1,980
Rhenium:					
Ammonium perrhenate	do.	3,280	1,230	10,000	3,440
Metal	do.	9,550	7,050	10,800	9,500
Selenium and tellurium:					
Selenium, selenium content:					
Unwrought, and waste and scrap	do.	311,000	6,050	412,000	5,500
Selenium dioxide	do.	12,800	181	21,800	330
Tellurium, unwrought, and waste and scrap, gross weight	do.	45,800	2,430	73,700	3,190
Silicon:					
Ferrosilicon	metric tons	219,000	164,000	209,000	185,000
Metal	do.	95,900	178,000	81,800	214,000
Silver, contained silver:					
Ore and concentrates	kilograms	225,000	37,400	153,000	25,500
Doré and precipitates	do.	395,000	124,000	281,000	96,300
Bullion, refined	do.	2,630,000	428,000	2,580,000	441,000
Waste and scrap	do.	2,140,000	55,000	1,810,000	52,500
Thallium, unwrought, waste and scrap, powders	do.	1,180	90	166	23
Thorium:					
Compounds	do.	20,500	942	26,400	1,440
Ore, monazite concentrate	do.	40,000 r/	11	101,000	41
Tin:					
Compounds	metric tons	986	7,270	354	3,120
Dross, skimmings, scrap, residues, tin alloys, n.s.p.f.	do.	24,800	58,900	16,000	58,800
Metal, unwrought	do.	33,200	204,000	30,200	187,000
Miscellaneous, includes tinfoil, tin powder, flitters, metallics, manufactures, n.s.p.f.	do.	XX	5,050	XX	5,070
Tinplate and terneplate	do.	272,000	180,000	251,000	161,000
Tinplate scrap	do.	16,000	2,390	64,600	5,690
Titanium:					
Concentrates:					
Ilmenite	do.	473,000	34,000	518,000	34,600
Titanium slag	do.	388,000	132,000	421,000	149,000
Rutile, natural and synthetic	do.	319,000 r/	131,000 r/	324,000	119,000
Titaniferous iron ore	do.	88,400	5,200	90,200	7,920
Pigments, dioxides and oxides	do.	183,000	323,000	167,000	290,000
Metal:					
Unwrought:					
Sponge	do.	7,560	35,200	10,100	70,800
Waste and scrap	do.	11,100	43,500	16,400	82,100
Ingots and billets	do.	1,880	19,100	2,590	34,800
Powder	do.	238	1,720	240	3,180
Other, includes blooms, sheet, bars, slabs, and other unwrought	do.	941	4,070	355	3,790
Wrought products and castings, bars, castings, foil, pipes, plates, profiles, rods, sheet, strip, tubes, wire, and other	do.	2,310 r/	44,700 r/	6,140	95,300
Tungsten, tungsten content:					
Ore and concentrate	do.	4,660 r/	25,200 r/	4,190	21,500
Ammonium paratungstate	do.	1,290	11,200	1,580	10,600
Ferrotungsten	do.	652	3,470	535	3,410
Miscellaneous tungsten-bearing materials, waste and scrap, unwrought metal (except alloys) in lumps, grains and powders, unwrought metal ingots, shot, alloy and other, wrought tungsten wire, plates, sheet, strip, foil and other, calcium tungstate, tungsten oxides, other metal-bearing materials in chief value of tungsten, chlorides of tungsten, sodium tungstate, and tungsten carbide	do.	6,150 r/	73,800	5,460	69,100
Vanadium:					
Aluminum-vanadium master alloy	kilograms	36,300 r/	342 r/	1,610	16,500
Ferrovandium, vanadium content	do.	1,950,000	30,000	1,880,000	28,300
Pentoxide, anhydride, vanadium content	do.	547,000	7,040	485,000	6,150
Other oxides and hydroxides of vanadium, vanadium content	do.	35,600	608	10,800	205

See footnotes at end of table.

TABLE 8--Continued
U.S. IMPORTS FOR CONSUMPTION OF PRINCIPAL MINERALS AND PRODUCTS, EXCLUDING MINERAL FUELS 1/

(Thousand metric tons and thousand dollars unless otherwise specified)

Mineral	1995		1996	
	Quantity	Value	Quantity	Value
Metals--Continued:				
Vanadium--Continued:				
Metal, including waste and scrap kilograms	796,000	14,200	96,100	811
Vanadium-bearing materials, ash and residues, and slag from the manufacture of iron and steel, vanadium pentoxide content do.	4,520,000 r/	11,800 r/	4,060,000	9,480
Miscellaneous chemicals, sulfates, vanadates, hydrides, and nitrides, vanadium content do.	47,000	444	332,000	5,280
Zinc:				
Compounds, lithopone, chlorides, compounds n.s.p.f., oxide, sulfate, and sulfide metric tons	58,500	62,300	65,600	69,000
Ore and concentrates, zinc content do.	10,300	4,380	15,100	6,380
Refined slab do.	856,000	903,000	827,000	882,000
Rolled do.	332	384	16,900	18,200
Zirconium and hafnium:				
Hafnium, unwrought, and waste and scrap do.	5	1,130	8	1,580
Zirconium, ore and concentrates do.	93,600	25,400	92,500	36,200
Zirconium, oxide includes germanium oxides and zirconium oxides. do.	4,370	25,700	5,240	48,300
Zirconium, unwrought and waste and scrap do.	735 r/	44,600 r/	619	37,800
Total	XX	38,600,000 r/	XX	41,800,000
Industrial minerals:				
Abrasives, manufactured:				
Fused aluminum oxide metric tons	213,000	83,900	130,000	72,700
Silicon carbide do.	172,000	75,300	181,000	94,000
Metallic abrasives do.	25,600	14,500	20,200	12,200
Asbestos, unmanufactured do.	21,900	4,810	21,600	4,880
Barite:				
Barium chemicals do.	43,400	35,200	41,200	34,800
Crude and ground do.	1,040,000	52,500	1,540,000	81,900
Boron, contained boric oxide:				
Borax	9	936	NA	NA
Boric acid	16	10,100	18	10,800
Colemanite	45	8,600	NA	NA
Ulexite	153	39,300	NA	NA
Bromine:				
Compounds, contained bromine metric tons	7,520 r/	7,360 r/	15,300	29,300
Elemental do.	2,220	1,460	415	305
Cement: Hydraulic and clinker	13,800	541,000	14,200	592,000
Clays:				
Artificially activated clay and activated earth metric tons	15,200	8,360	18,600	11,000
Bentonite do.	3,110	962	7,510	1,760
Chamotte or dina's earth do.	1	4	39	37
China clay or kaolin do.	12,000	3,900	13,700	5,840
Common blue clay and other ball clay do.	1,370	338	1,400	337
Decolorizing earths and fuller's earth do.	100	45	368	159
Fire clay do.	1,350	831	355	230
Other clay do.	1,870	1,580	2,520	1,600
Diamond, industrial:				
Industrial diamond stones thousand carats	4,100	27,200	2,860	21,500
Powder, dust and grit do.	188,000	81,500	218,000	98,900
Diatomite metric tons	259	281	1,550	1,680
Feldspar and nepheline syenite:				
Feldspar do.	8,980	813	7,150	594
Nepheline syenite do.	316,000	19,700	247,000	20,900
Fluorspar:				
Aluminum fluoride do.	22,200	17,200	18,300	16,800
Cryolite do.	7,270	5,330	6,400	6,510
Fluorspar do.	558,000	67,400	513,000	70,900
Hydrofluoric acid do.	70,300	65,900	82,300	78,800
Garnet, industrial do.	5,000 e/	XX	8,000 e/	XX
Gems and gemstones	XX	6,660,000	XX	7,240,000

See footnotes at end of table.

TABLE 8--Continued
U.S. IMPORTS FOR CONSUMPTION OF PRINCIPAL MINERALS AND PRODUCTS, EXCLUDING MINERAL FUELS 1/

(Thousand metric tons and thousand dollars unless otherwise specified)

Mineral	1995		1996		
	Quantity	Value	Quantity	Value	
Industrial minerals--Continued:					
Graphite:					
Natural	metric tons	60,700	30,100	53,400	28,600
Electric furnace electrodes	do.	47,500	102,000	59,300	135,000
Gypsum:					
Boards		560	64,400	748	89,300
Crude		8,160	60,000	8,050	62,500
Plasters		8	1,520	11	2,220
Other		XX	40,300	XX	42,400
Iodine, crude and potassium iodide	metric tons	3,950	39,100	4,860	62,300
Iron oxide pigments, selected:					
Natural	do.	6,800 r/	2,650	9,390	3,370
Synthetic	do.	52,500	75,000	53,200	70,600
Kyanite and related materials, andalucite	do.	3,210	623	11,300	2,310
Lime		289	20,200	262	19,400
Lithium chemicals:					
Carbonate	metric tons	5,970	16,900	4,590	12,500
Hydroxide	do.	104	593	126	1,440
Magnesium compounds:					
Compounds, chlorides, hydroxide, peroxide, and sulfates	do.	64,900	19,200	64,700	18,600
Magnesite, crude and processed:					
Caustic-calcined magnesia	do.	139,000	21,200	114,000	19,200
Dead-burned and fused magnesia	do.	393,000	73,200	271,000	57,600
Magnesite, crude	do.	13,600	4,320	9,190	1,900
Other magnesia	do.	12,600	9,930	11,900	9,040
Mica:					
Scrap and flake:					
Powder	do.	14,200	9,280	13,600	8,250
Waste	do.	7,730	1,880	4,840	1,230
Sheet:					
Unworked	do.	3,080	1,950	5,240	2,310
Worked	do.	1,150	10,700	1,090	10,800
Nitrogen, major compounds		8,010	1,610,000	8,170 p/	1,680,000 p/
Peat moss, poultry and fertilizer grade		669,000	121,000	667,000	116,000
Perlite	metric tons	84,000	2,350	125,000	3,530
Phosphate rock and phosphatic materials		777 r/	62,300 r/	841	87,300
Potash:					
Potassium chloride	metric tons	7,830,000	577,000	8,030,000	539,000
Potassium sulfate	do.	51,800	9,530	60,400	11,300
Potassium nitrate	do.	36,600	9,170	30,400	8,690
Potassium sodium nitrate mixtures	do.	38,600	6,180	21,900	3,430
Pumice:					
Crude or unmanufactured		237	16,400	215	16,000
Wholly or partially manufactured		1	329	(2/)	708
Salt		7,090	114,000	10,600	167,000
Sand and gravel:					
Construction		1,120	12,000	1,260	15,800
Industrial		59 r/	2,730	7	1,500
Silica:					
Quartz crystal, cultured electronic- and optical-grade	metric tons	47	10,800	42	9,480
Tripoli and special silica, special silica stone products	do.	XX	2,900	XX	2,960
Soda ash		83	12,000	107	14,700
Sodium sulfate		143 r/	11,800 r/	90	8,660
Stone:					
Crushed stone and calcium carbonate fines		10,900	91,900	11,300	91,800
Dimension		NA	478,000	NA	462,000
Strontium:					
Compounds, carbonate and nitrate	metric tons	35,100	21,400	34,400	21,200
Sulfate, celestite	do.	28,900	2,060	26,400	1,770
Sulfur:					
Elemental		2,510	143,000	1,620	60,500
Sulfuric acid, 100% H ₂ SO ₄	metric tons	1,920,000	92,900 r/	2,070,000	78,000

See footnotes at end of table.

TABLE 8--Continued
U.S. IMPORTS FOR CONSUMPTION OF PRINCIPAL MINERALS AND PRODUCTS, EXCLUDING MINERAL FUELS 1/

(Thousand metric tons and thousand dollars unless otherwise specified)

Mineral	1995		1996		
	Quantity	Value	Quantity	Value	
Industrial minerals--Continued:					
Talc, unmanufactured	metric tons	146,000	14,800	187,000	20,500
Vermiculite		30	3,900 e/	48	6,240 e/
Wollastonite		NA	NA	1,380	276 e/
Total		XX	11,900,000	XX	12,600,000
Grand total		XX	50,400,000 r/	XX	54,400,000

e/ Estimated. p/ Preliminary. r/ Revised. NA Not available. XX Not applicable.

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ Less than 1/2 unit.

3/ Data not available at time of table compilation.

TABLE 9
COMPARISON OF WORLD AND U.S. PRODUCTION OF SELECTED NONFUEL MINERAL COMMODITIES 1/

(Metric tons unless otherwise specified)

Mineral	1995			1996		
	World r/	U.S.	U.S. percent of World	World e/	U.S.	U.S. percent of World
Metals, mine basis:						
Antimony 2/		154,000	W	NA	126,000	W NA
Arsenic trioxide		48,200	--	--	42,100	--
Bauxite 3/	thousand tons	107,000	W	NA	114,000	W NA
Beryl 4/		6,860	5,040	73 r/	7,020	5,260 5/ 75
Chromite	thousand tons	14,300	--	--	12,200	--
Cobalt 2/ 4/		23,800	--	--	27,000	--
Columbium-tantalum concentrate, gross weight 4/		43,400	--	--	38,600	--
Copper 2/	thousand tons	10,100	1,310	13	11,000	1,340 5/ 12
Gold 2/	kilograms	2,220,000	317,000 r/	14	2,250,000	318,000 14
Iron ore, gross weight	thousand tons	1,030,000	62,500	6	1,020,000	62,100 5/ 6
Lead 2/	do.	2,780	394	14 r/	2,920	436 15
Manganese ore, gross weight	do.	23,000	--	--	22,300	--
Mercury		3,160	W	NA	2,890	W NA
Molybdenum 2/		141,000	60,900	43 r/	128,000	54,900 5/ 43
Nickel 2/		1,030,000	1,560 e/	(6/) e/	1,080,000	1,330 5/ (6/)
Platinum-group metals	kilograms	287,000	6,840	2	284,000	7,940 3
Silver 2/		15,200	1,640	11	15,200	1,520 5/ 10
Tin 2/		195,000	--	--	196,000	--
Titanium concentrates, gross weight:						
Ilmenite, including leucoxene	thousand tons	3,970	W	NA	3,990	W NA
Rutile	do.	416	W	NA	415	W NA
Tungsten 2/		38,500	W	NA	31,900	W NA
Vanadium 2/		37,700	1,990	5 r/	39,100	3,730 5/ 10
Zinc 2/	thousand tons	7,240	644	9	7,440	628 5/ 8
Metals, refinery basis:						
Aluminum	do.	19,900	3,380	17	20,700	3,580 5/ 17
Bismuth		4,260	W	NA	4,230	W NA
Cadmium		18,900	1,270	7	18,900	1,530 p/ 5/ 8
Cobalt		22,100	--	--	25,400	--
Copper, primary and secondary	thousand tons	11,900	2,280 r/	19	12,500	2,340 19
Lead, primary and secondary 7/	do.	5,590	1,390 r/	25	5,480	1,430 26
Magnesium, primary		389,000	142,000	37 r/	341,000	133,000 39
Nickel 8/		908,000	8,290	1	917,000	15,100 5/ 2
Selenium 9/	kilograms	2,070,000	373,000	18	2,150,000	379,000 5/ 18
Tellurium	do.	173,000	W	NA	129,000	W NA
Tin, smelter 10/		220,000	11,600	5	207,000	11,000 5/ 5
Zinc, smelter, primary and secondary		7,550,000	363,000	5	7,530,000	366,000 5/ 5
Iron and steel:						
Direct-reduced iron	thousand tons	30,500	460	2	31,700	450 5/ 1
Iron, pig	do.	532,000	50,900	10	528,000	49,400 5/ 9
Steel, raw	do.	754,000	95,200	13	758,000	94,700 5/ 13

See footnotes at end of table.

TABLE 9--Continued
COMPARISON OF WORLD AND U.S. PRODUCTION OF SELECTED NONFUEL MINERAL COMMODITIES 1/

(Metric tons unless otherwise specified)

Mineral		1995			1996		
		World r/	U.S.	U.S. percent of World	World e/	U.S.	U.S. percent of World
Industrial minerals:							
Asbestos	thousand tons	2,420	9	(6/)	2,290	10	(6/)
Barite	do.	4,300	543 11/	13 r/	4,460	662 5/ 11/	15
Boron minerals	do.	2,890	1,190 r/ 11/	41 r/	2,980	1,150 5/ 11/	39
Bromine		429,000 e/	218,000 11/	51 r/ e/	451,000	227,000 5/ 11/	50
Celestite 4/		291,000	--	--	297,000	--	--
Cement, hydraulic	thousand tons	1,440,000	78,300 12/	5 r/	1,480,000	80,800 5/ 12/	5
Clays:							
Bentonite 4/	do.	9,530	3,820	40 r/	9,190	3,740 5/	41
Fuller's earth	do.	3,690	2,640 11/	72 r/	3,660	2,600 5/	71
Kaolin 4/	do.	38,500	9,480 r/ 11/	25 r/	38,600	9,120 5/	24
Diamond, natural	thousand carats	113,000 e/	--	-- e/	117,000	--	--
Diatomite	thousand tons	1,410	687 e/ 11/	49 r/ e/	1,410	698 11/	49
Feldspar	do.	6,780	880	13 r/	6,750	890 5/	13
Fluorspar	do.	4,050	51 13/	1	4,140	8 13/	(6/)
Graphite, natural		741,000	--	--	644,000	--	--
Gypsum	thousand tons	96,500	16,600	17	99,700	17,500 5/	18
Iodine, crude		12,900	1,220 r/	9	13,100	1,270 5/	10
Lime 12/	thousand tons	121,000	18,500 11/	15 r/	121,000	19,100 5/ 11/	16
Magnesite, crude	thousand tons	9,940	W	NA	9,170	W	NA
Mica, including scrap and flake 14/		253,000	108,000	43 r/	225,000	96,600 5/	43
Nitrogen: N content of ammonia	thousand tons	96,100	13,000 r/ 15/	14 r/	97,500	14,600 5/ 15/	15
Peat 16/	do.	24,300	588	2 r/	25,800	549 5/	2
Perlite 4/		1,710,000	700,000 11/	41 r/	1,680,000	684,000 11/	41
Phosphate rock, gross weight	thousand tons	130,000	43,500	33	141,000	45,400	32
Potash, K ₂ O equivalent	do.	24,700	1,480	6	23,900	1,390	6
Pumice 17/	do.	11,000	529 11/	5	11,100	612 5/ 11/	6
Salt 12/	do.	192,000	42,200 e/	22 e/	192,000	42,300	22
Sand and gravel, industrial, silica 4/	do.	119,000	28,200 r/ 11/	24	117,000	27,800 5/ 11/	24
Sodium compounds, n.e.s., natural and manufactured:							
Soda ash 18/	do.	30,300	10,100	33	30,400	10,200 5/	34
Sulfate	do.	4,870	645 r/	13 r/	4,870	551 5/	11
Sulfur, all forms	do.	53,200	11,800 r/	22	52,400	12,000	23
Talc and pyrophyllite 19/	do.	8,400	1,060 r/	13 r/	8,190	994 5/	12
Vermiculite		482,000	171,000 11/	36 r/	266,000	W	NA

e/ Estimated. p/ Preliminary. r/ Revised. NA Not available. W Withheld to avoid disclosing company proprietary data.

1/ Data are rounded to three significant digits.

2/ Content of ore and concentrate.

3/ U.S. figures represent dried bauxite equivalent of crude ore; to the extent possible, individual country figures that are included in the world total are also on the dried bauxite basis, but for some countries available data are insufficient to permit this adjustment.

4/ World total does not include an estimate for output in China.

5/ Reported figure.

6/ Less than 1/2 unit.

7/ Includes bullion.

8/ Refined nickel plus nickel content of ferronickel, nickel oxide, and other nickel salts.

9/ U.S. production includes semirefined selenium exported for further refining.

10/ Includes tin content of alloys made directly from ore.

11/ Quantity sold or used by producers.

12/ Includes Puerto Rico data. Portland and masonry cement only.

13/ Shipments.

14/ Excludes U.S. production of low-quality sericite and sheet mica, if any.

15/ Synthetic anhydrous ammonia; excludes coke oven byproduct ammonia.

16/ Data for the United States exclude proprietary amounts of fuel peat.

17/ World total does not include estimates for output in Japan, Mexico, the former U.S.S.R., and Zaire.

18/ U.S. production is natural only.

19/ Data for the United States exclude proprietary pyrophyllite production.