

MINING AND QUARRYING TRENDS

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Domestic survey data were prepared by the author and each of the statistical assistants who has responsibility for the commodities indicated.

The mining and quarrying trends shown in this report were calculated from nonfuel mineral data reported to the U.S. Geological Survey (USGS) by mining and quarrying companies operating in the United States. The data for 2000 were reported on the Mine, Development, and Mineral Exploration Supplement, a statistical survey conducted by the USGS, and on the production surveys for some more widely produced nonfuel mineral commodities, such as sand and gravel, for which the available data are extracted from computer files. Additional data for 2000 were derived from annual USGS production and consumption surveys of nonfuel mineral producers; these surveys covered 58 nonfuel mineral commodities produced in the United States.

Nonfuel minerals exclude coal, petroleum, coke, and related products.

As shown in this report, mining and quarrying data for 2000 include the annual data for construction sand and gravel and crushed and dimension stone. From 1981 to 1993, these mineral commodities were surveyed biennially and appeared alternately in this report. The inclusion of both sets of data in this report results in essentially a complete coverage of nonfuel mineral production in the United States. Comparisons of the 1994 to 2000 data with previously reported annual data, however, are not possible.

The data in the following tables are reported according to the primary product of a mine or operation. The primary product is usually determined by the product with the highest total value for the year. In some instances, the values of two products at the same operation are so close that the products are coproducts.

To account for the data without double counting, however, a product of lesser value is considered to be a byproduct.

Total domestic mining of nonfuel mineral materials amounted to 5.4 billion metric tons (Gt) in 2000, about the same level as 1999. These materials included 4.0 Gt of crude ore mined or quarried and 1.4 Gt of mine waste and ore from development. Of the nonfuel mineral materials mined, 60% was for the production of industrial minerals and 40% was for the production of metals. Overall, 97% of nonfuel minerals was mined and quarried at surface level, and 3% was mined underground.

Total surface mining and quarrying for industrial minerals amounted to 3.2 Gt, remaining essentially the same as that of 1999. Crude ore mined at these surface operations was 2.8 Gt, and 355 million metric tons (Mt) was waste and ore from development. Underground mining for industrial minerals amounted to only 108 Mt, of which nearly all was crude ore.

Total surface mining for metal ores came to 2.1 Gt, slightly more than that of 1999. Of the 2.1 Gt, about 1.1 Gt was crude ore mined and the other 1.0 Gt was waste and ore from development. Underground mining of metal ores amounted to only 33 Mt, of which 97% was crude ore.

The major States in which mining for nonfuel minerals took place were, in order of total material handled, Nevada, Arizona, New Mexico, Minnesota, California, Florida, Texas, Michigan, Ohio, and Pennsylvania. These 10 States accounted for about 63% of the nonfuel minerals mined in the United States. Virtually all nonfuel mining in these States was conducted from the surface.

TABLE 2--Continued
MATERIAL HANDLED AT SURFACE AND UNDERGROUND MINES IN THE UNITED STATES IN 2000, BY COMMODITY AND STATE 1/

(Thousand metric tons)

Type of ore or State	Number of mines 4/	Surface 2/			Underground 3/			All mines		
		Crude ore	Waste 5/	Total	Crude ore	Waste 5/	Total	Crude ore	Waste 5/	Total
State:										
Alabama	182	64,100	6,120	70,200	W	W	W	64,100 6/	6,120 6/	70,200
Alaska	205	31,100	18,400	49,600	W	W	W	31,100 6/	18,400 6/	49,600
Arizona	249	W	W	W	W	--	W	W	W	W
Arkansas	174	40,400	5,390	45,800	W	--	W	40,400 6/	5,390	45,800
California	615	234,000	41,200	275,000	W	--	W	234,000 6/	41,200	275,000
Colorado	388	67,400	17,400	84,800	W	W	W	67,400 6/	17,400 6/	84,800
Connecticut	90	15,700	666	16,300	--	--	--	15,700	666	16,300
Delaware	14	2,330	--	2,330	--	--	--	2,330	--	2,330
Florida	189	242,000	W	242,000 7/	16	(13/)	16	242,000	W	242,000 7/
Georgia	243	94,300	16,000	110,000	1,380	9	1,390	95,600	16,000	112,000
Hawaii	29	6,380	461	6,840	--	--	--	6,380	461	6,840
Idaho	244	30,000	27,600	57,500	642	--	642	30,600	27,600	58,200
Illinois	296	105,000	6,140	111,000	3,270	23	3,300	109,000	6,170	115,000
Indiana	248	78,500	4,670	83,100	W	W	W	78,500 6/	4,670 6/	83,100
Iowa	398	46,500	3,250	49,800	6,470	W	6,470 7/	53,000	6,470 6/	56,200
Kansas	351	32,400	2,280	34,700	3,470	6	3,480	35,900	2,290	38,200
Kentucky	147	50,400	4,150	54,600	15,500	108	15,600	65,900	4,260	70,200
Louisiana	141	18,800	W	18,800 7/	14,500	--	14,500	33,300	W	33,300 7/
Maine	187	13,100	337	13,500	--	--	--	13,100	337	13,500
Maryland	90	44,200	2,800	46,900	W	W	W	44,200 6/	2,800 6/	46,900
Massachusetts	141	26,200	1,100	27,300	--	--	--	26,200	1,100	27,300
Michigan	610	166,000	W	166,000 7/	2,450	--	2,450	169,000	W	169,000 7/
Minnesota	555	197,000	96,600	293,000	--	--	--	197,000	96,600	293,000
Mississippi	112	14,400	1,070	15,500	--	--	--	14,400	1,070	15,500
Missouri	340	82,000	7,110	89,200	12,600	28	12,700	94,700	7,140	102,000
Montana	240	27,000	W	27,000 7/	1,010	W	1,010 7/	28,000	W	28,000 7/
Nebraska	165	16,300	476	16,800	W	W	W	16,300 6/	476 6/	16,800
Nevada	188	194,000	551,000	744,000	2,430	310	2,740	196,000	551,000	747,000
New Hampshire	96	12,600	326	12,900	--	--	--	12,600	326	12,900
New Jersey	101	38,500	1,710	40,200	--	--	--	38,500	1,710	40,200
New Mexico	180	W	W	W	W	W	W	W	W	W
New York	567	76,000	4,650	80,600	3,670	25	3,690	79,600	4,680	84,300
North Carolina	280	94,600	11,000	106,000	--	--	--	94,600	11,000	106,000
North Dakota	151	10,500	W	10,500 7/	--	--	--	10,500	W	10,500 7/
Ohio	373	123,000	7,310	131,000	W	W	W	123,000 6/	7,310 6/	131,000
Oklahoma	155	53,900	3,780	57,700	W	W	W	53,900 6/	3,780 6/	57,700
Oregon	344	37,000	2,750	39,700	--	--	--	37,000	2,750	39,700
Pennsylvania	366	109,000	7,990	117,000	5,520	31	5,550	114,000	8,020	122,000
Rhode Island	23	3,020	148	3,170	--	--	--	3,020	148	3,170
South Carolina	128	39,900	3,490	43,400	--	--	--	39,900	3,490	43,400
South Dakota	284	21,700	W	21,700 7/	W	--	W	21,700 6/	W	21,700 7/
Tennessee	203	64,700	5,340	70,100	9,800	W	9,800 7/	74,500	5,340 6/	79,900
Texas	532	198,000	11,500	209,000	W	W	W	198,000 6/	11,500 6/	209,000
Utah	274	109,000	W	109,000 7/	623	--	623	109,000	W	109,000 7/
Vermont	116	9,590	754	10,300	W	--	W	9,590 6/	754	10,300
Virginia	205	77,600	8,360	85,900	W	--	W	77,600 6/	8,360	85,900
Washington	412	60,700	1,640	62,300	W	W	W	60,700 6/	1,640 6/	62,300
West Virginia	60	13,000	1,060	14,000	2,910	W	2,910 7/	15,900	1,060 6/	16,900
Wisconsin	610	73,800	2,730	76,500	--	--	--	73,800	2,730	76,500
Wyoming	160	16,800	3,190	20,000	14,500	--	14,500	31,300	3,190	34,500
Undistributed 14/	--	722,000	487,000	1,210,000	38,800	1,010	39,800	761,000	485,000	1,250,000
Total	12,451	3,900,000	1,380,000	5,280,000	140,000	1,550	141,000	4,040,000	1,380,000	5,420,000

See footnotes at end of table.

TABLE 2--Continued
MATERIAL HANDLED AT SURFACE AND UNDERGROUND MINES IN THE UNITED STATES IN 2000, BY COMMODITY AND STATE 1/

W Withheld to avoid disclosing company proprietary data; included with "Undistributed." -- Zero.
1/ Data are rounded to no more than three significant digits, except number of mines; may not add to totals shown.
2/ Includes materials from wells, ponds, and pumping operations.
3/ Includes solution mining.
4/ Includes quarries and other mineral operations.
5/ Includes ore and waste from development operations.
6/ Excludes materials from underground operations.
7/ Excludes waste from mining operations and ore and waste from development operations.
8/ Excludes materials from surface operations.
9/ Includes beryllium, copper, gold-silver, lead, magnesium metal, molybdenum, platinum and palladium, rare-earth metal concentrates, silver, titanium, uranium, and metals indicated by symbol W.
10/ Includes aplite.
11/ Excludes volcanic cinder and scoria; included with crushed and broken stone.
12/ Includes abrasives, boron minerals, bromine, diatomite, emery, greensand marl, iodine, iron oxide pigments, kyanite, lithium minerals, magnesite, olivine, perlite, potash, sericite, sulfur (Frasch), vermiculite, wollastonite, zeolites, and industrial minerals indicated by symbol W.
13/ Less than 1/2 unit.
14/ Includes States indicated by symbol W.

TABLE 3
VALUE OF PRINCIPAL MINERAL PRODUCTS AND BYPRODUCTS OF SURFACE AND UNDERGROUND MINES IN THE UNITED STATES IN 2000 1/

(Dollars per metric ton)

Type of ore and commodity	Surface			Underground			All mines		
	Principal mineral product	By-product	Total	Principal mineral product	By-product	Total	Principal mineral product	By-product	Total
Metal:	6.61	0.50	7.11	48.74	5.84	54.58	7.17	0.60	7.77
Gold	9.91	0.24	10.15	70.30	0.44	70.74	10.37	0.10	10.47
Iron	7.60	--	7.60	W	--	W	7.60 2/	--	7.60
Zinc	W	W	W	53.25	W	53.25 4/	53.25 3/	W	53.25 4/
Industrial mineral:	6.42	0.02	6.45	15.29	--	15.29	6.76	0.02	6.98
Clays	37.44	--	37.44	W	--	W	37.44 2/	--	37.44
Diatomite	130.37	--	130.37	--	--	--	130.37	--	130.37
Feldspar 5/	31.63	W	31.63 4/	--	--	--	31.63	W	31.63 4/
Garnet	127.28	--	127.28	--	--	--	127.28	--	127.28
Gypsum	8.46	--	8.46	8.01	--	8.01	8.40	--	8.40
Iodine	16,257.49	--	16,257.49	--	--	--	16,257.49	--	16,257.49
Magnesium compounds	77.65	W	77.65 4/	--	--	--	77.65	W	77.65 4/
Mica (scrap)	15.94	W	15.94 4/	--	--	--	15.94	W	15.94 4/
Pumice 6/	24.22	--	24.22	--	--	--	24.22	--	24.22
Salt	63.91	--	63.91	14.65	--	14.65 4/	22.55	W	22.55 4/
Sand and gravel:									
Construction	4.81	W	4.81 4/	--	--	--	4.81	W	4.81 4/
Industrial	19.58	W	19.58 4/	W	--	W	19.58 2/	W	19.58 4/
Soda ash	--	--	--	65.89	--	65.89	65.89	--	65.89
Stone:									
Crushed	5.38	W	5.38 4/	5.38	--	5.38	5.38	W	5.38 4/
Dimension	185.38	--	185.38	W	--	W	185.38	--	185.38
Talc and pyrophyllite	27.12	--	27.12 4/	W	--	W	27.12 2/	W	27.12 4/
Average, industrial minerals, excluding sand and gravel and stone 7/	19.16	0.29	19.45	23.03	--	23.03	20.01	0.23	20.24
Average, metals and industrial minerals 7/ 8/	6.34	0.10	6.44	24.21	1.51	25.72	6.60	0.11	6.71
Average, metals and industrial minerals, excluding sand and gravel and stone 7/ 8/	8.85	0.22	9.07	33.78	2.31	36.08	9.80	0.30	10.10

W Withheld to avoid disclosing company proprietary data; included with appropriate "Average." -- Zero.
1/ Values calculated from unrounded data; may not add to totals shown because of independent rounding.
2/ Value of products at surface operations only.
3/ Value of products at underground operations only.
4/ Value of principal mineral product only.
5/ Includes aplite.
6/ Excludes volcanic cinder and scoria; included with crushed and broken stone.
7/ Includes values of beryllium concentrate, copper, gold-silver ore, lead, magnesium metal, molybdenum, platinum and palladium, rare-earth metal concentrate, silver, titanium, and metals indicated by symbol W.
8/ Includes values of abrasives, asbestos, barite, boron minerals, bromine, clays, emery, greensand marl, iron oxide pigments, kyanite, lithium minerals, magnesite, olivine, perlite, phosphate rock, potash, sericite, soda ash, sulfur (Frasch), tripoli, vermiculite, wollastonite, zeolites, and industrial minerals indicated by symbol W.

TABLE 4
 TWENTY-FIVE LEADING METAL AND INDUSTRIAL MINERAL MINES AND QUARRIES IN THE UNITED STATES IN 2000,
 IN ORDER OF OUTPUT OF CRUDE ORE

Type of ore and name of mine, quarry, or operation 1/	State	Operator	Commodity	Mining method
Metal ore:				
Morenci	Arizona	Phelps Dodge Corp.	Copper-molybdenum ore	Open pit.
Tyrone	New Mexico	do.	Copper ore	Do.
Sierrita	Arizona	do.	Copper-molybdenum ore	Do.
Bagdad	do.	do.	Copper ore	Do.
Bingham Canyon	Utah	Kennecott Utah Copper Corp.	do.	Do.
Chino	New Mexico	Phelps Dodge Corp.	Copper-molybdenum ore	Do.
Minntac	Minnesota	USX Corp.	Iron ore	Do.
Miami (Inspiration)	Arizona	Phelps Dodge Corp.	Copper ore	Do.
Round Mountain	Nevada	Round Mountain Gold Corp.	Gold ore	Do.
Carlin Mines Complex (7)	do.	Newmont Gold Co.	do.	Open pit and stoping.
Hibbing Taconite Co.	Minnesota	Cleveland-Cliffs, Inc.	Iron ore	Open pit.
Empire Iron Mining Partnership	Michigan	Cleveland-Cliffs, Inc.	Iron ore	Open pit.
LTV Steel Mining Co.	Minnesota	do.	do.	Do.
Mission Complex	Arizona	ASARCO Inc.	Copper ore	Open pit and stoping.
Ray	do.	do.	do.	Open pit.
National Steel Pellet Co.	Minnesota	National Steel Pellet Co.	Iron ore	Do.
Tilden Mining Co.	Michigan	Cleveland-Cliffs, Inc.	do.	Do.
Fort Knox	Alaska	Fairbanks Gold Mining Inc.	Gold ore	Do.
Cortez	Nevada	Placer Dome Inc.	do.	Do.
Mesquite	California	Newmont Gold Co.	do.	Do.
Northshore Mining Co.	Minnesota	Cleveland-Cliffs, Inc.	Iron ore	Do.
Thunderbird	do.	EVTAC Mining Co.	do.	Do.
Betze-Post/Goldstrike	Nevada	Barrick Gold Corp.	Gold ore	Do.
Rochester	do.	Coeur d'Alene Mines Corp.	Gold ore-silver	Do.
Cresson	Colorado	Cripple Creek & Victor Gold Mining Co.	Gold ore	Do.
Industrial mineral:				
Florida mines (6)	Florida	IMC-Agrico Co.	Phosphate rock	Do.
Florida mines (2)	do.	Cargill Fertilizer Inc.	do.	Do.
South Pasture	do.	C F Industries, Inc.	do.	Do.
Florida mines	do.	PCS Phosphate Co., Inc.	do.	Do.
F.E.C. Quarry	do.	CSR America, Inc.	Stone	Open quarry.
Aurora	North Carolina	PCS Phosphate Co., Inc.	Phosphate rock	Open pit.
Georgetown	Texas	Texas Crushed Stone Co., Inc.	Stone	Open quarry.
Beckmann	do.	Martin Marietta Aggregates, Inc.	do.	Do.
White Rock Quarries	Florida	Vecellio & Grogan, Inc.	do.	Dredging.
McCook 378	Illinois	Vulcan Materials Co.	do.	Open quarry.
Pennsuco	Florida	Tarmac America, Inc.	do.	Do.
IMC-Carlsbad	New Mexico	IMC Kalium Ltd.	Potash	Stoping.
Thornton	Illinois	General Dynamics Corp.	Stone	Open quarry.
Calcite Operation	Michigan	Michigan Limestone Operations	do.	Do.
Stoneport Quarry	do.	Lafarge Corp.	do.	Do.
Bridgeport Stone Plant	Texas	TXI Operations, L.P.	do.	Do.
IMC-Ogden	Utah	IMC Kalium Ltd.	Potash	Stoping.
Crushed Limestone Operation	Missouri	Tower Rock Stone Co.	Stone	Open quarry.
Hunter Quarry	Texas	Hunter Industries, Inc., Colorado Materials Co.	do.	Do.
Three Rivers	Kentucky	Martin Marietta Aggregates, Inc.	do.	Do.
Reed Quarry	do.	Vulcan Materials Co.	do.	Do.
GKK Mines	Florida	GKK Corp.	do.	Do.
Norcross	Georgia	Vulcan Materials Co.	do.	Do.
Servtex	Texas	Hanson Building Materials America	do.	Do.
Delaware	Ohio	The National Lime & Stone Co.	do.	Do.

1/ Owing to commodity reporting differences, the rank of individual mining operations may not be available.

TABLE 5
 TWENTY-FIVE LEADING METAL AND INDUSTRIAL MINERAL MINES AND QUARRIES IN THE UNITED STATES IN 2000,
 IN ORDER OF OUTPUT OF TOTAL MATERIAL HANDLED

Type of ore and name of mine, quarry, or operation 1/	State	Operator	Commodity	Mining method
Metal ore:				
Morenci	Arizona	Phelps Dodge Corp.	Copper-molybdenum ore	Open pit.
Bingham Canyon	Utah	Kennecott Utah Copper Corp.	do.	Do.
Barrick Goldstrike	Nevada	Barrick Gold Corp.	Gold ore	Open pit and stoping.
Tyrone	New Mexico	Phelps Dodge Corp.	Copper ore	Open pit.
Twin Creeks	Nevada	Newmont Gold Co.	Gold ore	Do.
Mission Complex	Arizona	ASARCO Inc.	Copper ore	Do.
Carlin Mines Complex (7)	Nevada	Newmont Gold Co.	Gold ore	Open pit and stoping.
Round Mountain	do.	Round Mountain Gold Corp.	do.	Open pit.
Sierrita	Arizona	Phelps Dodge Corp.	Copper ore	Open pit.
Cortez	Nevada	Placer Dome Inc.	Gold ore	Do.
Ray	Arizona	ASARCO Inc.	Copper ore	Do.
Bagdad	Arizona	Phelps Dodge Corp.	Copper ore	Open pit.
Minntac	Minnesota	USX Corp.	Iron ore	Do.
Empire Iron Mining Partnership	Michigan	Cleveland-Cliffs, Inc.	do.	Do.
Chino	New Mexico	Phelps Dodge Corp.	Copper-molybdenum ore	Do.
LTV Steel Mining Co.	Minnesota	Cleveland-Cliffs, Inc.	Iron ore	Do.
Lone Tree	Nevada	Newmont Gold Co.	Gold ore	Do.
Hibbing Taconite Co.	Minnesota	Cleveland-Cliffs, Inc.	Iron ore	Do.
Robinson	Nevada	BHP Copper Co.	Gold and copper ore	Do.
Miami (Inspiration)	Arizona	Phelps Dodge Corp.	Copper ore	Do.
Jerritt Canyon	Nevada	Independence Mining Co., Inc.	Gold ore	Do.
Fort Knox	Alaska	Fairbanks Gold Mining Inc.	do.	Do.
Tilden Mining Co.	Michigan	Cleveland-Cliffs, Inc.	Iron ore	Do.
Thompson	Idaho	Thompson Creek Metals Co.	Molybdenum ore	Do.
Golden Sunlight	Montana	Placer Dome Inc.	Gold ore	Do.
Industrial mineral:				
Florida mines (6)	Florida	IMC-Agrico Co.	Phosphate rock	Do.
Florida mines (2)	do.	Cargill Fertilizer Inc.	do.	Do.
South Pasture	do.	C F Industries, Inc.	do.	Do.
Aurora	North Carolina	PCS Phosphate Co., Inc.	do.	Do.
F.E.C. Quarry	Florida	CSR America, Inc.	Stone	Open quarry.
Florida mines	do.	PCS Phosphate Co., Inc.	Phosphate rock	Open pit.
Georgetown	Texas	Texas Crushed Stone Co., Inc.	Stone	Open quarry.
Beckmann	do.	Martin Marietta Aggregates, Inc.	do.	Do.
White Rock Quarries	Florida	Vecellio & Grogan, Inc.	do.	Dredging.
McCook 378	Illinois	Vulcan Materials Co.	do.	Open quarry.
Pennsuco	Florida	Tarmac America, Inc.	do.	Do.
Thornton	Illinois	General Dynamics Corp.	do.	Do.
Calcite Operation	Michigan	Michigan Limestone Operations	do.	Do.
Stoneport Quarry	do.	Lafarge Corp.	do.	Do.
IMC-Carlsbad	New Mexico	IMC Kalium Ltd.	Potash	Stoping.
Bridgeport Stone Plant	Texas	TXI Operations, L.P.	Stone	Open quarry.
Crushed Limestone Operation	Missouri	Tower Rock Stone Co.	do.	Do.
IMC-Ogden	Utah	IMC Kalium Ltd.	Potash	Stoping.
Hunter Quarry	Texas	Hunter Industries, Inc., Colorado Materials Co.	Stone	Open quarry.
Three Rivers	Kentucky	Martin Marietta Aggregates	do.	Do.
Reed Quarry	do.	Vulcan Materials Co.	do.	Do.
Teichert Aggregates	California	A. Teichert & Son, Inc.	Sand and gravel	Open pit.
GKK Mines	Florida	GKK Corp	Stone	Open quarry.
Norcross	Georgia	Vulcan Materials Co.	do.	Do.
Thornton	Illinois	General Dynamics Corp.	do.	Do.

1/ Owing to commodity reporting differences, the rank of individual mining operations may not be available.

TABLE 6
 MARKETABLE PRODUCT AND ORE TREATED OR SOLD AT SURFACE AND UNDERGROUND MINES
 IN THE UNITED STATES IN 2000, BY SELECTED COMMODITY AND STATE 1/

(Thousand metric tons)

Type of ore or State	Marketable product			Ore treated or sold		
	Surface	Underground	Total	Surface	Underground	Total
Metal ore:						
Copper	1,440 2/	W	1,440	W	W	W
Gold	W	W	W	253,000	4,220	257,000
Iron ore (usable)	57,500 2/	W	57,500	189,000 3/	W	189,000
Zinc	691 2/	W	691	12,300 3/	W	12,300
Industrial mineral:						
Barite	W	--	W	860	--	860
Clays	40,800 2/	W	40,800	40,800 3/	W	40,800
Diatomite	676	--	676	1,330	--	1,330
Feldspar 4/	990	--	990	1,250	--	1,250
Gypsum	15,400	2,500	17,900	15,700	2,500	18,200
Iodine	1	--	1	1	--	1
Magnesium compounds	314	--	314	--	--	--
Mica (scrap)	154 2/	W	154	1,780	--	1,780
Perlite	672	--	672	730	--	730
Phosphate rock	35,000	--	35,000	140,000	--	140,000
Pumice 5/	697	--	697	698	--	698
Salt	W	37,800 6/	37,800	W	44,100 7/	44,100
Sand and gravel:						
Construction	1,120,000	--	1,120,000	1,120,000	--	1,120,000
Industrial	28,600 2/	W	28,600	28,600 3/	W	28,600
Soda ash	--	8,540	8,540	--	10,200	10,200
Stone:						
Crushed	1,510,000	49,100	1,560,000	1,510,000	50,000	1,560,000
Dimension	1,260 2/	W	1,260	1,260 3/	W	1,260
Talc and pyrophyllite	933 2/	W	933	930 3/	W	930
Tripoli	72	--	72	83	--	83
State:						
Alabama	68,100 2/	W	68,100	68,100 3/	W	68,100
Alaska	--	--	--	29,200 3/	W	29,200
Arizona	46,000 2/	W	46,000	340,000 3/	W	340,000
Arkansas	41,100 2/	W	41,100	41,100 3/	W	41,100
California	215,000 2/	W	215,000	229,000 3/	W	229,000
Colorado	57,800 2/	W	57,800	66,800	5	66,800
Connecticut	15,800	--	15,800	15,800	--	15,800
Delaware	2,330	--	2,330	2,330	--	2,330
Florida	145,000	16	145,000	245,000	16	245,000
Georgia	94,300	1,380	95,700	96,000	1,380	97,400
Hawaii	6,380	--	6,380	6,380	--	6,380
Idaho	33,200 2/	W	33,200	87,000 3/	W	87,000
Illinois	108,000	3,270	111,000	108,000	3,270	111,000
Indiana	84,700 2/	W	84,700	84,700 3/	W	84,700
Iowa	48,500	6,470	55,000	48,500	6,470	55,000
Kansas	34,500	3,460	37,900	34,500	3,460	37,900
Kentucky	52,200	15,500	67,700	52,200	15,500	67,700
Louisiana	20,200	12,500	32,700	21,000	13,200	34,200
Maine	13,400	--	13,400	13,400	--	13,400
Maryland	45,500 2/	W	45,500	45,500 3/	W	45,500
Massachusetts	26,700	--	26,700	26,700	--	26,700
Michigan	135,000	2,170	138,000	167,000	2,440	170,000
Minnesota	94,300	--	94,300	199,000	--	199,000
Mississippi	15,800	--	15,800	15,800	--	15,800
Missouri	84,500	4,080	88,600	84,500	5,310	89,800
Montana	13,600 2/	W	13,600	24,300	1,000	25,300
Nebraska	18,500 2/	W	18,500	22,700 3/	W	22,700
Nevada	47,800	--	47,800	126,000 3/	W	126,000
New Hampshire	12,600	--	12,600	12,600	--	12,600
New Jersey	43,000	--	43,000	43,000	--	43,000
New Mexico	17,600 2/	W	17,600	W	W	W
New York	80,600 2/	W	80,600	80,700	5,500	86,200
North Carolina	90,300	--	90,300	96,600	--	96,600

See footnotes at end of table.

TABLE 6--Continued
 MARKETABLE PRODUCT AND ORE TREATED OR SOLD AT SURFACE AND UNDERGROUND MINES
 IN THE UNITED STATES IN 2000, BY SELECTED COMMODITY AND STATE 1/

(Thousand metric tons)

Type of ore or State	Marketable product			Ore treated or sold		
	Surface	Underground	Total	Surface	Underground	Total
State--Continued:						
North Dakota	10,700	--	10,700	10,700	--	10,700
Ohio	132,000 2/	W	132,000	132,000 3/	W	132,000
Oklahoma	54,900 2/	W	54,900	54,900 3/	W	54,900
Oregon	38,000	--	38,000	38,200	--	38,200
Pennsylvania	118,000 2/	W	118,000	114,000	5,520	119,000
Rhode Island	3,200	--	3,200	3,200	--	3,200
South Carolina	42,000	--	42,000	42,300	--	42,300
South Dakota	18,500	--	18,500	23,000 3/	W	23,000
Tennessee	67,800 2/	W	67,800	67,800	9,830	77,600
Texas	208,000	11,000	219,000	208,000	11,200	219,000
Utah	43,800	369	44,200	50,400	596	51,000
Vermont	10,100 2/	W	10,100	10,100 3/	W	10,100
Virginia	83,000 2/	W	83,000	85,800 3/	W	85,800
Washington	61,700	--	61,700	62,200 3/	W	62,200
West Virginia	14,800	2,910	17,700	14,800	2,910	17,700
Wisconsin	75,100	--	75,100	75,100	--	75,100
Wyoming	16,000	7,240	23,200	17,000	14,500	31,500

W Withheld to avoid disclosing company proprietary data. -- Zero.

1/ Data are rounded to no more than three significant digits; may not add to totals shown.

2/ Includes marketable product from underground operations.

3/ Includes ore treated at underground operations.

4/ Includes aplite.

5/ Excludes volcanic cinder and scoria; included with crushed and broken stone.

6/ Includes ore treated at surface operations.

7/ Includes marketable product from surface operations.

TABLE 7
 MINING METHODS USED AT SURFACE OPERATIONS IN THE UNITED STATES, BY COMMODITY, IN 2000

(Percentage of total material handled)

Type of ore and commodity	Preceded by drilling and blasting	Not preceded by drilling and blasting 1/
Metal ore:	97	3
Beryllium	100	--
Copper	100	--
Gold	99	1
Gold-silver	100	--
Iron	94	6
Magnesium metal	96	4
Molybdenum	100	--
Rare-earth metals	100	--
Silver	100	--
Titanium	--	100
Uranium	--	100
Zinc	100	--
Industrial mineral:	50	50
Abrasives	100	--
Barite	2	98
Boron minerals	100	--
Bromine	--	100
Clays	--	100
Diatomite	4	96
Emery	100	--
Feldspar 2/	63	37
Garnet	41	59
Greensand marl	--	100
Gypsum	98	2
Iodine	--	100

See footnotes at end of table.

TABLE 7--Continued
MINING METHODS USED AT SURFACE OPERATIONS IN THE UNITED STATES, BY COMMODITY, IN 2000

(Percentage of total material handled)

Type of ore and commodity	Preceded by drilling and blasting	Not preceded by drilling and blasting 1/
Industrial mineral--Continued:		
Iron oxide pigments	77	23
Kyanite	100	--
Lithium minerals	--	100
Magnesite	100	--
Magnesium compounds	30	70
Mica (scrap)	1	99
Olivine	57	43
Perlite	16	84
Phosphate rock	2	98
Potash	--	100
Pumice 3/	6	94
Salt	1	99
Sand and gravel:		
Construction	--	100
Industrial	--	100
Sericite	100	--
Stone:		
Crushed	99	1
Dimension	--	100
Sulfur (Frasch)	--	100
Talc and pyrophyllite	86	14
Tripoli	95	5
Vermiculite	91	9
Wollastonite	100	--
Zeolites	100	--
Metal ores and industrial minerals	69	31

-- Zero.

1/ Includes drilling and cutting without blasting, dredging, mechanical excavation and nonfloat washing, and other surface mining methods.

2/ Includes aplite.

3/ Excludes volcanic cinder and scoria; included with crushed and broken stone.

TABLE 8
EXPLORATION ACTIVITY IN THE UNITED STATES IN 2000, BY METHOD, COMMODITY, AND STATE 1/

(Meters)

Commodity or State	Method of exploration						Total
	Churn drilling	Diamond drilling	Percussion drilling	Rotary and reverse circulation drilling	Other drilling	Trenching	
Commodity:							
Gold	--	96,900	--	339,000	W	4,210	440,000
Zinc	--	18,600	W	--	W	--	18,600
Other 2/	(3/)	12,400	(3/)	39,800	68,900	26	121,000
Total	(3/)	128,000	(3/)	378,000	68,900	4,240	579,000
Percentage of total	(3/)	22	(3/)	65	12	1	100
State:							
Alaska	--	22,600	--	36,500	--	979	60,000
Colorado	--	3,030	--	71,800	--	--	74,800
Nevada	--	72,900	--	229,000	W	1,610	304,000
Tennessee	--	10,600	W	--	W	--	10,600
Utah	--	366	--	W	--	--	366
Undistributed 4/	(3/)	18,500	(3/)	41,000	68,900	1,650	130,000
Total	(3/)	128,000	(3/)	378,000	68,900	4,240	579,000

W Withheld to avoid disclosing company proprietary data; included with "Other" or "Undistributed." -- Zero.

1/ Data are rounded to no more than three significant digits; may not add to totals shown.

2/ Includes beryllium concentrate, boron minerals, copper, diatomite, iron, manganese, silver, uranium, and commodities indicated by symbol W.

3/ Withheld to avoid disclosing company proprietary data; included with "Other drilling."

4/ Includes California, Idaho, Minnesota, New Mexico, Oregon, South Dakota, Wyoming, and States indicated by symbol W.