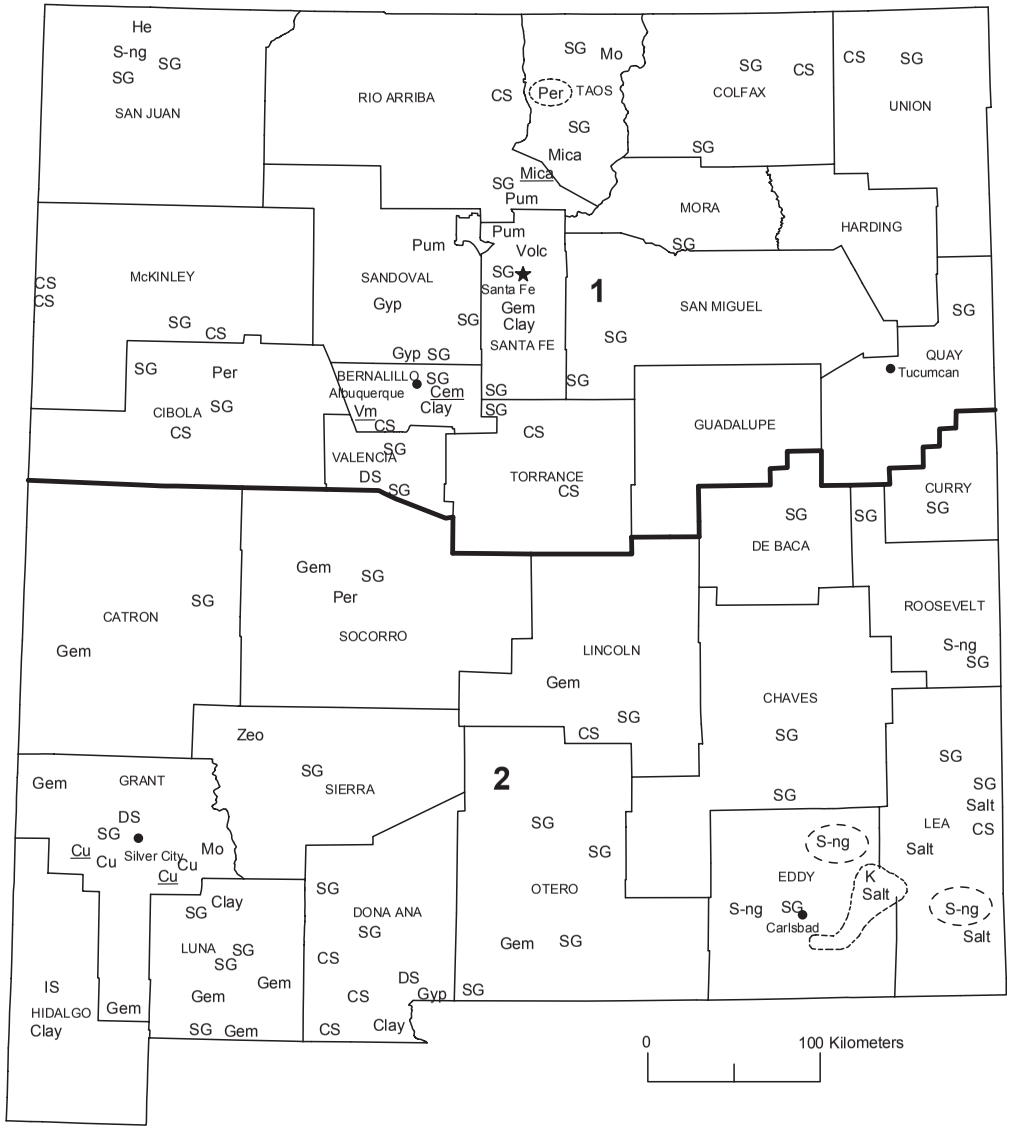
NEW MEXICO



LEGEND

- County boundary
- Capital
- City
- 1 — Crushed stone/sand and gravel districts

MINERAL SYMBOLS
(Major producing areas)

Cem	Cement plant
Clay	Common clay
CS	Crushed stone
Cu	Copper
Cu	Copper plant
DS	Dimension stone
Gem	Gemstones
Gyp	Gypsum
He	Helium
K	Potash
Mica	Mica
Mica	Mica plant
Mo	Molybdenum
Per	Perlite
Pum	Pumice
S-ng	Sulfur (natural gas)
Salt	Salt
SG	Construction sand and gravel
Vm	Vermiculite plant
Volc	Volcanic cinder
Zeo	Zeolites
	Concentration of mineral operations

Source: New Mexico Bureau of Geology and Mineral Resources/U.S. Geological Survey (2004)

THE MINERAL INDUSTRY OF NEW MEXICO

This chapter has been prepared under a Memorandum of Understanding between the U.S. Geological Survey and the New Mexico Bureau of Geology and Mineral Resources for collecting information on all nonfuel minerals.

In 2004, New Mexico's nonfuel raw mineral production was valued[1] at $866 million, based upon annual U.S. Geological Survey (USGS) data. This was an increase of more than 52% compared with 2003[2] and followed a 2.1% increase from 2002 to 2003. The State rose to 20th from 25th in rank among the 50 States in total nonfuel mineral production value and accounted for nearly 2% of the U.S. total.

The top nonfuel minerals in New Mexico in 2004 were, by value, copper and potash, followed by construction sand and gravel, molybdenum concentrates, and cement (portland and masonry). These five accounted for more than 91% of the State's total nonfuel raw mineral production value. After being second in value to potash in 2002 and 2003, copper again was the State's leading nonfuel mineral in 2004; copper has led for 34 of the past 37 years (from 1968 through 2004). Potash (reported as potassium salts prior to 1990) had been the State's leading nonfuel mineral in the early 1950s through 1967 and in 1982.

In 2004, the largest increases in value were those of copper and of molybdenum concentrates, values up nearly $200 million and $45 million, respectively, as a result of substantial production increases and significantly higher average copper prices and molybdenum concentrate prices. Potash and construction sand and gravel production and values also substantially increased in 2004, the value of potash being up by about $32 million and that of construction sand and gravel up by about $24 million. Smaller yet significant increases took place (in descending order of change) in the production and values of gold, perlite (up more than $1 million) and silver, as well as in the production of zeolites, up by more than 20%. With rising and overall higher average metal prices, byproduct gold and byproduct silver were produced from the processing of copper at Phelps Dodge operations in Grant County. The largest decreases in value for the year were those of cement, down somewhat more than $5 million and crushed stone, down $1.6 million (table 1).

Nearly all the State's molybdenum concentrate was mined and processed at Molycorp Inc.'s Questa Mine and mill in Taos County; the remainder was produced as byproduct from copper processing from Phelps Dodge Corp.'s Grant County copper operations. The trend toward the recent heights in molybdenum concentrate prices began in December 2002 and continued on throughout 2003 and 2004. For example, the average price of molybdic oxide rose from $8.27 per kilogram in 2002 to $11.75 per kilogram in 2003 to $36.73 per kilogram in 2004 and reached $68.86 in December 2004. Molybdenum concentrate prices remained high and continued to increase more gradually during the early months of 2005. (Prices were reported in Platts Metals Week in dollars per pound of contained molybdenum.)

In 2003, with a significant increase in production the largest increase in value took place in portland cement, up about $12 million. Other smaller yet significant increases in value took place (in descending order of change) in that of mica; in the values of potash and pumice and pumicite of about $4 million each; in molybdenum concentrates, construction sand and gravel, and crushed stone, up about $3 million each; in salt, up about $2 million; and in Grade-A helium and dimension stone, up more than $1 million each. These increases more than offset the only substantial decrease for the year, that of copper, down about $22 million (table 1). Copper production dropped off in 2003, in part as a residual effect of the 2001-02 scaling back of some operations and the closing of others owing to lower metal prices, but its value decreased at a lesser rate in 2003 because of rising and higher average copper prices.

In 2004, New Mexico continued to lead the Nation in the quantities of potash, perlite, and zeolites produced (descending order of value) and remained second in mica, and third in copper. The State increased to eighth from ninth in dimension stone; resumed the production of silver and gold, ranking eighth and ninth in each commodity, respectively; and decreased to fourth from third in pumice and pumicite and to sixth from fifth in molybdenum concentrates. Additionally, New Mexico was a significant producer of construction sand and gravel and gypsum.

The following narrative information was provided by the New Mexico Bureau of Geology and Mineral Resources[3] (BGMR). Production data in the text that follows are those reported by the BGMR and are based on the agency's own surveys and estimates. They may differ from some production figures published by the USGS.

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[1]The terms "nonfuel mineral production" and related "values" encompass variations in meaning, depending upon the mineral products. Production may be measured by mine shipments, mineral commodity sales, or marketable production (including consumption by producers) as is applicable to the individual mineral commodity.

All 2004 USGS mineral production data published in this chapter are those available as of December 2005. All USGS Mineral Industry Surveys and USGS Minerals Yearbook chapters—mineral commodity, State, and country—also can be retrieved over the Internet at URL http://minerals.usgs.gov/minerals.

[2]Values, percentage calculations, and rankings for 2003 may differ from the Minerals Yearbook, Area Reports: Domestic 2003, Volume II, owing to the revision of preliminary 2003 to final 2003 data. Data and rankings for 2004 are considered to be final and are not likely to change significantly.

[3]Virginia T. McLemore, Senior Economic Geologist, authored the State mineral industry information provided by the New Mexico Bureau of Geology and Mineral Resources.

Commodity Review

Industrial Minerals

Cement.—New Mexico produces seven different types of portland and masonary cement from the Tijeras cement plant operated by Grupos Cementos de Chihuahua (GCC) near Albuquerque. Overall estimated capacity of the plant was 600,000 metric tons per year (t/yr). Because of the nationwide cement shortage, the Tijeras cement plant implemented an allocation system to maintain a consistent flow of cement to the customer. The Tijeras cement plant was commissioned in 1959, and GCC took over operations in 1994. The main ingredient in cement is limestone mined at Tijearas with additional varying quantities of alumina, gypsum (locally obtained from throughout New Mexico), iron, and sandstone/shale.

Clays.—Two types of clay are mined in New Mexico—common and fire clay. Common clay was used for making bricks, roofing granules, and quarry tile. Commercial adobe yards mostly in northern New Mexico produced adobe bricks from local alluvial materials. Bricks were manufactured at the Kinney Brick mill in Albuquerque and Eagle plant in Dona Ana County.

Gemstones.—Gemstones produced in New Mexico include agate, azurite, fluorite, geodes, moonstone, onyx, peridot, smithsonite, and turquoise. Production statistics for 1998 to 2004 are withheld for gemstones in New Mexico; many noncommercial collectors do not report their income. Depletion of the known deposits and difficulty in and expense of adhering to Federal, State, and local environmental regulations have closed most of the commercial mines.

Gypsum.—Gypsum is used primarily in the manufacture of wallboard for homes, offices, and commercial buildings; other uses include the manufacture of portland and masonary cement, plaster of paris, and as a soil conditioner. Centex American Gypsum operated the White Mesa Mine near Cuba and two wallboard plants (Albuquerque and Bernalillo). Other smaller gypsum mines are operated in Sandoval and Dona Ana County.

Mica.—Mica is used as functional filler in building materials because of its unique physical characteristics, including color, durability, flexibility, thermal properties, and weight. It is used in the manufacture of numerous industrial and consumer products such as automotive sound deadening materials, coatings, joint compound, paints, thermoplastics, and many cosmetic products.

Only one mine produced mica in New Mexico in 2004, the U.S. Hill Mine (formerly MICA Mine) in Taos County, which has operated since 1960s. The mine closed in 2004. Oglebay-Norton Inc. acquired the mine in December 1999 from Franklin Industries. On September 22, 2003, Olgebay-Norton announced that the mica operation was for sale. Mica is produced from a muscovite quartz schist of Proterozoic age. Reserves are expected to last at least 49 years. The current mine covers approximately 6 hectares (ha).

Perlite.—Perlite is weathered (hydrated) natural glass that is formed by the rapid cooling of viscous, high-silica rhyolite lava. In New Mexico, perlite is found in high-silica rhyolite lava flows and lava domes that are typically 3.3 to 7.8 million years old. The distinguishing feature of perlite from other volcanic glasses is that when heated to more than 1,600º C, it expands or pops to 4 to 20 times its original volume to form lightweight glass foam. This expansion is because of the presence of 2% to 6% combined water in the mined perlite. This expansion also results in a white color. While the mined perlite may range from waxy to pearly or light gray to black or even brown, blue, or red, the color of expanded perlite ranges from snowy white to grayish white. Perlite is used in aggregate, building construction products, fillers, horticultural filter aids, and other uses. Perlite is produced from three mines in New Mexico: Socorro, El Grande, and No Agua.

Potash and Salt.—The Carlsbad potash district is the largest potash-producing area in the United States. Intrepid Mining LLC and Mosaic Co. operated mines in the district. Potash is used as fertilizer and as a chemical in specialty and industrial markets. Langbeinite ($K_2SO_4 \cdot 2MgSO_4$) and sylvite (KCl) are the primary potash minerals found in Permian evaporites of the Permian Basin in New Mexico. Mining is by underground methods. The estimated potash reserves in the district amount to more than 500 million metric tons (Mt). Sodium chloride salt also is produced locally as a byproduct. Salt is used in animal feed, oilfield drilling, and to deice roads.

When the combination of Cargill Crop Nutrition and IMC Global was completed on October 22, 2004, Mosaic Co. was born and is now the world's leading potash and phosphate producer. The capacity of the Mosaic potash mines was 450,000 metric tons (t) of red potash and 1.1 Mt of K-Mag (a naturally occurring mineral that consists of potassium, magnesium and sulfur). In 2004, Mosaic produced 3.2 Mt of ore containing 12.6% K_2O of red potash and 3.1 Mt of ore containing 7.4% K_2O of K-Mag. The total reserves at Mosaic included an estimated total of 137 Mt of potash ore in three mining beds at thickness ranging from 1.4 meters (m) to more than 3.4 m. These ore reserves were estimated to yield 8.1 Mt of sylvinite concentrate with an average grade of 60% K_2O and 27.6 Mt of langbeinite concentrate with an average grade of approximately 22% K_2O. These reserves are expected to last from 15 to 23 years.

Intrepid Mining NM LLC (owned by Intrepid Mining, LLC) announced on March 1, 2004, that it had completed the acquisition of all the assets of Mississippi Potash, Inc. and Eddy Potash, Inc., which includes four potash properties in Carlsbad, NM, for approximately $27.4 million and thereby became the leading potash producer in the United States. Intrepid employed approximately 650 people at 3 facilities in New Mexico. The West Facility, which consists of a potash mine and refinery, was originally built in 1929 by U.S. Potash and has a production capacity of approximately 488,000 t/yr of red potash. The East Facility, which has a production capacity of approximately 510,000 t/yr of white potash, comprises a potash mine, refinery, and compaction plant. The North Facility consists of a granular compaction plant and storage facilities. Two types of ore are processed; flotation is used to produce red potash, and hot leach crystallization is used to produce the higher purity white potash. Intrepid announced its intention to produce langbeinite by modifying the Carlsbad East potash plant to become the second langbeinite producer in the United States.

United Salt Corp. operated a solar evaporation salt plant near Carlsbad where salt is produced for animal feed.

Pumice.—The main use for pumice is as an aggregate in lightweight building blocks and assorted building products. Other major applications for pumice and pumicite included abrasive, absorbent, concrete aggregate and admixture, filter aid, horticultural (including landscaping), and the stonewashing of denim.

Pumice is found in the Jemez Mountains and the Mogollon-Datil volcanic field; however, only seven operations are currently active in New Mexico. El Cajete pumice mine expansion in the Jemez Mountains (Copar Pumice Co.) was delayed for preparation of an environmental impact statement (draft released early 1997). The mine opened in 1997 and is expected to operate for 10 years. Reserves are estimated to be 90,000 t of pumice that will be used in making stonewashed jeans. Other pumice mines are active in the region.

Zeolites.—Zeolites are minerals found disseminated in altered volcanic ash, and clinoptilolite is the predominant mineral with unique physical, chemical, and cation-exchange properties for uses in agriculture, industrial, and environmental applications. Markets include animal feed supplements, cation-exchanged products, environmental products, filtration media, floor-drying agents, hygiene products (cat litter), industrial fillers and absorbents, mineral fillers, odor control and soil conditioners, and water and wastewater treatment.

St. Cloud Mining Co. (a subsidiary of Imagin Minerals, Inc.) operated the largest (in terms of production) zeolite mine in the United States at the Stone House Mine in Sierra County. Imagin Minerals, Inc. bought the St. Cloud Mining Company from The Goldfield Corporation in December 2002. St. Cloud Mining Co. has operated the open pit mine since 1993. The mining properties consisted of approximately 600 ha and contained 16.6 Mt of reserves with a capacity of 90,000 t/yr. Clinoptilolite is found in the altered Tertiary tuff of Little Mineral Creek. Clinoptilolite is mined, crushed, dried, and sized without beneficiation and shipped packaged to meet customer's specifications. St. Cloud Mining Co. also has made several modifications to its zeolite operation, including the addition of cation-exchange capacity for added-value products and additional classification capabilities to expand markets for its products. The modern facility has the crushing and sizing capacity of 450 metric tons per day.

Other Industrial Minerals.—Helium is produced from the Shiprock and Ute Dome fields in the San Juan Basin. Helium is used in cryogenic applications, welding cover gas, pressurizing and purging, controlled atmospheres, leak detection, gas mixtures, and other uses.

Humates are weathered coal or highly organic mudstone that is found in the coal-bearing sequences. New Mexico has significant deposits of humates, predominantly in the Fruitland and Menefee formations in the eastern San Juan Basin. Humate is produced from five mines in New Mexico. The Horizon Ag Products Mine and mill are south of Cuba. Menefee Mining operated one pit and a mill near Cuba. The mining operations, processing site, and transportation facility of U-Mate International, Inc. is in the Gallup area. The Eagle Mesa Mine is near Cuba, and the Morningstar Mine is in San Juan County. Humate is used as a soil conditioner and as an additive to drilling muds. Approximately 11 billion metric tons of humate resources is within the San Juan Basin.

Small flagstone operations are throughout New Mexico producing sandstone, travertine, and other ornamental rock. The largest is the New Mexico Travertine plant near Belen.

Although garnet has not been produced in New Mexico from 1998 to 2004, at least one company was examining areas in the State for potential resources for uses as an abrasive. Garnet typically is found in skarn deposits in southern and central New Mexico, and in some areas, garnet is a major constituent of waste rock piles, remaining after recovery of metals. For example, approximately 135,000 t of material grading 20% to 36% garnet is estimated to occur in four tailings piles at Hanover. During 2004, domestic values for crude concentrates for different applications ranged from about $53 to $120 per metric ton, with an average for the year of $107 per metric ton (Olson, 2006§[4]). The domestic values for refined garnet for different applications sold during the year ranged from $61 to $298 per metric ton, with an average for the year of $255 per metric ton.

Metals

Copper.—The U.S. producer cathode price of copper averaged $1.34 per pound in 2004 (Edelstein, 2006, p. 2). In 2004, Phelps Dodge Corporation continued to leach copper at Santa Rita (Chino) and Tyrone Mines in New Mexico.

The Chino Mine at Santa Rita is the largest porphyry copper deposit in New Mexico. Copper sulfides are found in the upper fractured granodiorite and adjacent sedimentary rocks. Adjacent copper skarns are becoming increasingly more important economically. In January 2002, the Chino Mine and Hurley smelter were closed; the heap leach and solvent extraction-electrowinning process (SX-EW) plant remained in operation. In April 2003, mining for leach was resumed at Chino. In 2004, Chino produced 56,200 t of copper by SX-EW and 27,000 t of copper in concentrate (Phelps Dodge Corporation, 2005§). Estimated milling reserves at Chino in 2004 were 101 Mt of ore grading 0.71% copper and 0.02% molybdenum, and estimated leaching reserves were 256.4 Mt of ore grading 0.39% copper (Phelps Dodge Corporation, 2005§). In December 2003, Phelps Dodge Corporation acquired Heise's interest (33.3%) in Chino; Phelps Dodge Corporation now owns 100% of the reserves at Chino. As part of the purchase agreement, Heise paid approximately $64 million to a trust to fund its portion of closure, closeout, and reclamation costs. In February 2003, New Mexico Mining and Minerals Division issued Chino a closure permit with financial assurance established at approximately $191 million, and in December, the closure plan was approved.

The Tyrone porphyry copper deposit in the Burro Mountains occurs within a quartz monzonite laccolith and adjacent Proterozoic rocks. Several ore bodies, sometimes considered separate porphyry copper deposits, have been found. Though production of SX-EW copper continued from existing stockpiles, the mine was placed on care and maintenance in September 2003 and resumed open pit mining in 2004. In 2004, 39,100 t of copper was produced by SX-EW. In 2004, leaching reserves (recoverable copper) were estimated as 249.2 Mt of ore grading 0.31% copper (Phelps Dodge Corporation, 2005§). In addition, the Niagara deposit contained 450 Mt of mineralized material grading 0.29% copper as of December 2000. This mineralized material could be brought into

[4]References that include a section mark (§) are included in the Internet References Cited section.

production should market conditions warrant. In April 2004, New Mexico Mining and Minerals Division approved Tyrone's closure plan with financial assurance established at approximately $271 million.

On February 3, 1998, Phelps Dodge Corporation acquired Cobre Mining Co., Inc. The acquisition included the open pit mine, two underground mines, two mills, and surrounding 4,500 ha of land. On October 21, 1998, Phelps Dodge Corporation suspended underground mining at Cobre because of low copper prices. On March 17, 1999, the remaining operations were suspended. The entire operation remains on care-and-maintenance status. Estimated milling reserves in 2004 are 52.2 Mt of 0.55% copper, and estimated leaching reserves are 70.6 Mt of 0.26% copper (Phelps Dodge Corporation, 2005§). Most of the copper reserves at the Cobre Mine are in the Syrena and upper part of the Lake Valley limestones north of the Barringer fault.

Molybdenum.—In New Mexico, molybdenum was produced from the Questa Mine in Taos County and as a byproduct of copper smelting in Grant County. Molybdenum is a refractory metallic element used principally as an alloying agent in steel, cast iron, and superalloys to enhance hardness, strength, toughness, and wear- and corrosion-resistance. Molybdenum also is used in fire retardants and in catalysts. The mineral molybdenite is used as a lubricant. On June 3, 2002, the New Mexico Mining and Minerals Division approved a closeout plan permit for Molycorp's molybdenum mine in Questa, New Mexico.

Molycorp Inc.'s (a subsidiary of Unocal) Questa molybdenum mining development and exploration operations continuously operated from 1923 through 1986 when soft market conditions caused the temporary shutdown of the mine until 1989. Mining operations again were placed on standby in 1992 and resumed in 1995. The price of molybdenum has increased during the last decade.

The company mined some 73 Mt of ore from its open pit at a grade of 0.191% molybdenum between 1965 and 1983. Underground block caving of ore commenced in 1983 and continues to this day. Current ore grade ranges between 0.3% and 0.5% molybdenum. Reserves and resources (as of November 1999) at Questa were as follows: proven reserves were 14.8 Mt of 0.343% MoS_2 at a cutoff grade 0.25% MoS_2; probable, 42.8 Mt of 0.315% MoS_2; possible, 2.9 Mt of 0.369% MoS_2.

When proven and probable reserves are considered, the mine life was 25 to 35 years, and when resources are included, the mine life was 50 to 80 years. Approximately 150 people worked at the mine in 2004. For comparison, Phelps Dodge Corporation reports molybdenum reserves at Climax to be 142 Mt of 0.19% molybdenum and at Henderson to be 150 Mt of 0.21% molybdenum in 2003 (Phelps Dodge Corporation, 2005§). Molycorp Inc. also continued with a reclamation and revegetation program to cover overburden rock piles at the inactive open pit site. In 2004, Molycorp continued remediation at the Goathill North rock pile to prevent continued downhill movement of the material.

Reference Cited

Edelstein, D.L., 2006, Copper in December 2005: U.S. Geological Survey Mineral Industry Surveys, March, 13 p.

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Phelps Dodge Corporation, 2005, Annual report, accessed on September 13, 2005, at URL http://library.corporate-ir.net/library/95/953/95336/items/112099/2004AR_3.pdf.

TABLE 1
NONFUEL RAW MINERAL PRODUCTION IN NEW MEXICO[1, 2]

(Thousand metric tons and thousand dollars unless otherwise specified)

Mineral	2002		2003		2004	
	Quantity	Value	Quantity	Value	Quantity	Value
Clays, common	33	175	36	209	34	177
Copper[3]	112	187,000	88	165,000	122	362,000
Gemstones	NA	19	NA	20	NA	20
Sand and gravel, construction	12,800	62,600	13,300	65,300	13,600	89,500
Silver kilograms	--	--	--	--	3,570	767
Stone:						
Crushed	3,680	23,300	3,730	26,000	3,430	24,400
Dimension	20	1,370	57	2,590	57	2,430
Combined values of cement, gold (2004), gypsum (crude), helium (Grade-A), iron ore [usable (2002)], lime, mica [crude (2003-04)], molybdenum concentrates, perlite (crude), potash, pumice and pumicite, salt, zeolites (2004)	XX	282,000 r	XX	310,000	XX	387,000
Total	XX	557,000 r	XX	569,000	XX	866,000

rRevised. NA Not available. XX Not applicable. -- Zero.
[1]Production as measured by mine shipments, sales, or marketable production (including consumption by producers).
[2]Data are rounded to no more than three significant digits; may not add to totals shown.
[3]Recoverable content of ores, etc.

TABLE 2

NEW MEXICO: CRUSHED STONE SOLD OR USED, BY KIND[1]

Kind	2002				2003				2004			
	Number of quarries	Quantity (thousand metric tons)	Value (thousands)	Unit value	Number of quarries	Quantity (thousand metric tons)	Value (thousands)	Unit value	Number of quarries	Quantity (thousand metric tons)	Value (thousands)	Unit value
Limestone	19	2,340	$10,500	$4.49	18	2,310	$12,400	$5.39	14	2,120	$11,500	$5.40
Granite	2	W	W	9.85	2	W	W	10.34	1	W	W	11.20
Volcanic cinder and scoria	7	W	W	11.00	5	W	W	7.98	5	W	W	7.74
Miscellaneous stone	9	202	1,340	6.63	4	223	1,510	6.77	4	226	1,520	6.71
Total or average	XX	3,680	23,300	6.35	XX	3,730	26,000	6.97	XX	3,430	24,400	7.11

W Withheld to avoid disclosing company proprietary data; included in "Total or average." XX Not applicable.

[1]Data are rounded to no more than three significant digits, except unit value; may not add to totals shown.

TABLE 3a
NEW MEXICO: CRUSHED STONE SOLD OR USED BY PRODUCERS
IN 2003, BY USE[1]

Use	Quantity (thousand metric tons)	Value (thousands)	Unit value
Construction:			
Coarse aggregate (+1½ inch), riprap and jetty stone	W	W	$8.56
Coarse aggregate graded:			
Concrete aggregate, coarse	(2)	(2)	11.22
Bituminous aggregate, coarse	(2)	(2)	12.14
Bituminous surface-treatment aggregate	(2)	(2)	9.81
Railroad ballast	(2)	(2)	11.24
Other graded coarse aggregates	36	$217	6.03
Total or average	889	9,860	11.09
Fine aggregate (-⅜ inch):			
Stone sand, concrete	(2)	(2)	10.03
Stone sand, bituminous mix or seal	(2)	(2)	10.99
Screening, undesignated	(2)	(2)	7.60
Total or average	115	977	8.50
Coarse and fine aggregates:			
Graded road base or subbase	(2)	(2)	6.94
Unpaved road surfacing	(2)	(2)	9.37
Total or average	22	157	7.14
Agricultural:			
Poultry grit and mineral food	W	W	9.37
Other agricultural uses	W	W	9.37
Chemical and metallurgical, cement manufacture	W	W	6.94
Unspecified:[3]			
Reported	685	3,370	4.92
Estimated	1,300	6,700	5.12
Total or average	2,000	10,100	5.05
Grand total or average	3,730	26,000	6.97

W Withheld to avoid disclosing company proprietary data; included in "Grand total or average."

[1]Data are rounded to no more than three significant digits, except unit value; may not add to totals shown.

[2]Withheld to avoid disclosing company proprietary data; included in "Total or average."

[3]Reported and estimated production without a breakdown by end use.

TABLE 3b
NEW MEXICO: CRUSHED STONE SOLD OR USED BY PRODUCERS
IN 2004, BY USE[1]

Use	Quantity (thousand metric tons)	Value (thousands)	Unit value
Construction:			
Coarse aggregate (+1½ inch):			
Riprap and jetty stone	W	W	$5.97
Filter stone	W	W	3.86
Total or average	10	$54	5.40
Coarse aggregate graded:			
Concrete aggregate, coarse	147	1,490	10.10
Bituminous aggregate, coarse	W	W	11.81
Bituminous surface-treatment aggregate	W	W	9.75
Railroad ballast	W	W	11.56
Other graded coarse aggregates	498	1,590	3.20
Total or average	1,360	11,300	8.33
Fine aggregate (-⅜ inch):			
Stone sand, concrete	145	1,130	7.81
Stone sand, bituminous mix or seal	W	W	10.71
Screening, undesignated	W	W	7.51
Other fine aggregate	14	120	8.57
Total or average	307	2,630	8.56
Coarse and fine aggregates:			
Graded road base or subbase	112	606	5.41
Unpaved road surfacing	W	W	9.92
Crusher run or fill or waste	W	W	4.26
Other coarse and fine aggregates	4	34	8.50
Total or average	119	658	5.53
Other construction materials	21	140	6.67
Agricultural, other agricultural uses	(2)	(2)	10.00
Unspecified:[3]			
Reported	729	3,640	4.99
Estimated	880	5,900	6.73
Total or average	1,610	9,580	5.94
Grand total or average	3,430	24,400	7.11

W Withheld to avoid disclosing company proprietary data; included in "Total or average."
[1]Data are rounded to no more than three significant digits, except unit value; may not add to totals shown.
[2]Withheld to avoid disclosing company proprietary data; included in "Unspecified: Reported."
[3]Reported and estimated production without a breakdown by end use.

TABLE 4a
NEW MEXICO: CRUSHED STONE SOLD OR USED BY PRODUCERS IN 2003,
BY USE AND DISTRICT[1]

(Thousand metric tons and thousand dollars)

Use	District 1		District 2		Unspecified districts	
	Quantity	Value	Quantity	Value	Quantity	Value
Construction:						
Coarse aggregate (+1½ inch)[2]	W	W	--	--	--	--
Coarse aggregate, graded[3]	W	W	--	--	--	--
Fine aggregate (-⅜ inch)[4]	W	W	--	--	--	--
Coarse and fine aggregate[5]	W	W	W	W	--	--
Agricultural[6]	W	W	--	--	--	--
Chemical and metallurgical[7]	W	W	--	--	--	--
Unspecified[8]						
Reported	138	852	486	2,150	61	367
Estimated	650	3,200	660	3,500	--	--
Total	2,500	19,800	1,170	5,830	61	367

W Withheld to avoid disclosing company proprietary data; included in "Total." -- Zero.

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

[2]Includes riprap and jetty stone.

[3]Includes bituminous aggregate (coarse), bituminous surface-treatment aggregate, concrete aggregate (coarse), railroad ballast, and other graded coarse aggregates.

[4]Includes screening (undesignated), stone sand bituminous mix or seal, and stone sand (concrete).

[5]Includes graded road base or subbase and unpaved road surfacing.

[6]Includes poultry grit and mineral food and other agricultural uses.

[7]Includes cement manufacture.

[8]Reported and estimated production without a breakdown by end use.

TABLE 4b
NEW MEXICO: CRUSHED STONE SOLD OR USED BY PRODUCERS IN 2004,
BY USE AND DISTRICT[1]

(Thousand metric tons and thousand dollars)

Use	District 1		District 2		Unspecified districts	
	Quantity	Value	Quantity	Value	Quantity	Value
Construction:						
Coarse aggregate (+1½ inch)[2]	W	W	--	--	--	--
Coarse aggregate, graded[3]	W	W	W	W	--	--
Fine aggregate (-⅜ inch)[4]	W	W	W	W	--	--
Coarse and fine aggregate[5]	W	W	W	W	--	--
Other construction materials	--	--	21	140	--	--
Agricultural[6]	(7)	(7)	--	--	--	--
Unspecified[8]						
Reported	175	1,060	485	2,150	69	420
Estimated	740	5,300	150	650	--	--
Total	2,420	18,500	931	5,410	69	420

W Withheld to avoid disclosing company proprietary data; included in "Total." -- Zero.

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

[2]Includes filter stone and riprap and jetty stone.

[3]Includes bituminous aggregate (coarse), bituminous surface-treatment aggregate, concrete aggregate (coarse), railroad ballast, and other graded coarse aggregates.

[4]Includes screening (undesignated), stone sand bituminous mix or seal, stone sand (concrete), and other fine aggregate.

[5]Includes crusher run or fill or waste, graded road base or subbase, unpaved road surfacing, and other coarse and fine aggregates.

[6]Includes other agricultural uses.

[7]Withheld to avoid disclosing company proprietary data; included in "Unspecified: Reported."

[8]Reported and estimated production without a breakdown by end use.

TABLE 5a
NEW MEXICO: CONSTRUCTION SAND AND GRAVEL SOLD OR USED IN 2003,
BY MAJOR USE CATEGORY[1]

Use	Quantity (thousand metric tons)	Value (thousands)	Unit value
Concrete aggregate (including concrete sand)	2,500	$13,700	$5.50
Plaster and gunite sands	324	1,530	4.73
Concrete products (blocks, bricks, pipe, decorative, etc.)	98	1,170	11.91
Asphaltic concrete aggregates and other bituminous mixtures	1,210	9,400	7.77
Road base and coverings	1,990	11,500	5.76
Fill	836	3,370	4.03
Other miscellaneous uses[2]	92	396	4.30
Unspecified:[3]			
Reported	4,260	12,400	2.91
Estimated	2,000	12,000	5.90
Total or average	13,300	65,300	4.89

[1]Data are rounded to no more than three significant digits, except unit value; may not add to totals shown.
[2]Includes railroad ballast and snow and ice control.
[3]Reported and estimated production without a breakdown by end use.

TABLE 5b
NEW MEXICO: CONSTRUCTION SAND AND GRAVEL SOLD OR USED IN 2004,
BY MAJOR USE CATEGORY[1]

Use	Quantity (thousand metric tons)	Value (thousands)	Unit value
Concrete aggregate (including concrete sand)	2,340	$17,700	$7.59
Concrete products (blocks, bricks, pipe, decorative, etc.)[2]	327	2,810	8.57
Asphaltic concrete aggregates and other bituminous mixtures	2,410	21,400	8.88
Road base and coverings	2,240	14,100	6.28
Fill	829	3,000	3.62
Other miscellaneous uses[3]	665	9,660	14.54
Unspecified:[4]			
Reported	2,920	10,900	3.74
Estimated	2,000	9,900	5.17
Total or average	13,600	89,500	6.56

[1]Data are rounded to no more than three significant digits, except unit value; may not add to totals shown.
[2]Includes plaster and gunite sands.
[3]Includes railroad ballast and snow and ice control.
[4]Reported and estimated production without a breakdown by end use.

TABLE 6a

NEW MEXICO: CONSTRUCTION SAND AND GRAVEL SOLD OR USED IN 2003, BY USE AND DISTRICT[1]

(Thousand metric tons and thousand dollars)

Use	District 1		District 2		Unspecified districts	
	Quantity	Value	Quantity	Value	Quantity	Value
Concrete aggregate (including concrete sand)	1,850	10,300	638	3,400	5	83
Concrete products (blocks, bricks, pipe, decorative, etc.)	311	2,210	111	492	--	--
Asphaltic concrete aggregates and other bituminous mixtures	832	7,120	378	2,270	--	--
Road base and coverings	989	5,590	924	4,590	74	1,270
Fill	624	2,510	194	558	18	297
Other miscellaneous uses[2]	77	313	15	84	--	--
Unspecified:[3]						
Reported	2,070	8,270	444	1,200	1,750	2,940
Estimated	1,200	7,500	870	4,300	--	--
Total	7,930	43,800	3,570	16,900	1,850	4,590

-- Zero.

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

[2]Includes railroad ballast and snow and ice control.

[3]Reported and estimated production without a breakdown by end use.

TABLE 6b

NEW MEXICO: CONSTRUCTION SAND AND GRAVEL SOLD OR USED IN 2004, BY USE AND DISTRICT[1]

(Thousand metric tons and thousand dollars)

Use	District 1		District 2		Unspecified districts	
	Quantity	Value	Quantity	Value	Quantity	Value
Concrete aggregate (including concrete sand)	1,670	13,100	644	4,420	24	196
Concrete products (blocks, bricks, pipe, decorative, etc.)[2]	294	2,480	34	327	--	--
Asphaltic concrete aggregates and other bituminous mixtures	2,040	17,600	373	3,740	(3)	2
Road base and coverings	1,290	7,900	795	4,430	149	1,720
Fill	561	2,260	257	606	11	130
Other miscellaneous uses[4]	582	9,190	78	420	5	54
Unspecified:[5]						
Reported	1,640	7,480	557	2,260	721	1,190
Estimated	950	5,700	970	4,200	--	--
Total	9,030	65,800	3,710	20,400	910	3,300

-- Zero.

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

[2]Includes plaster and gunite sands.

[3]Less than ½ unit.

[4]Includes railroad ballast and snow and ice control.

[5]Reported and estimated production without a breakdown by end use.