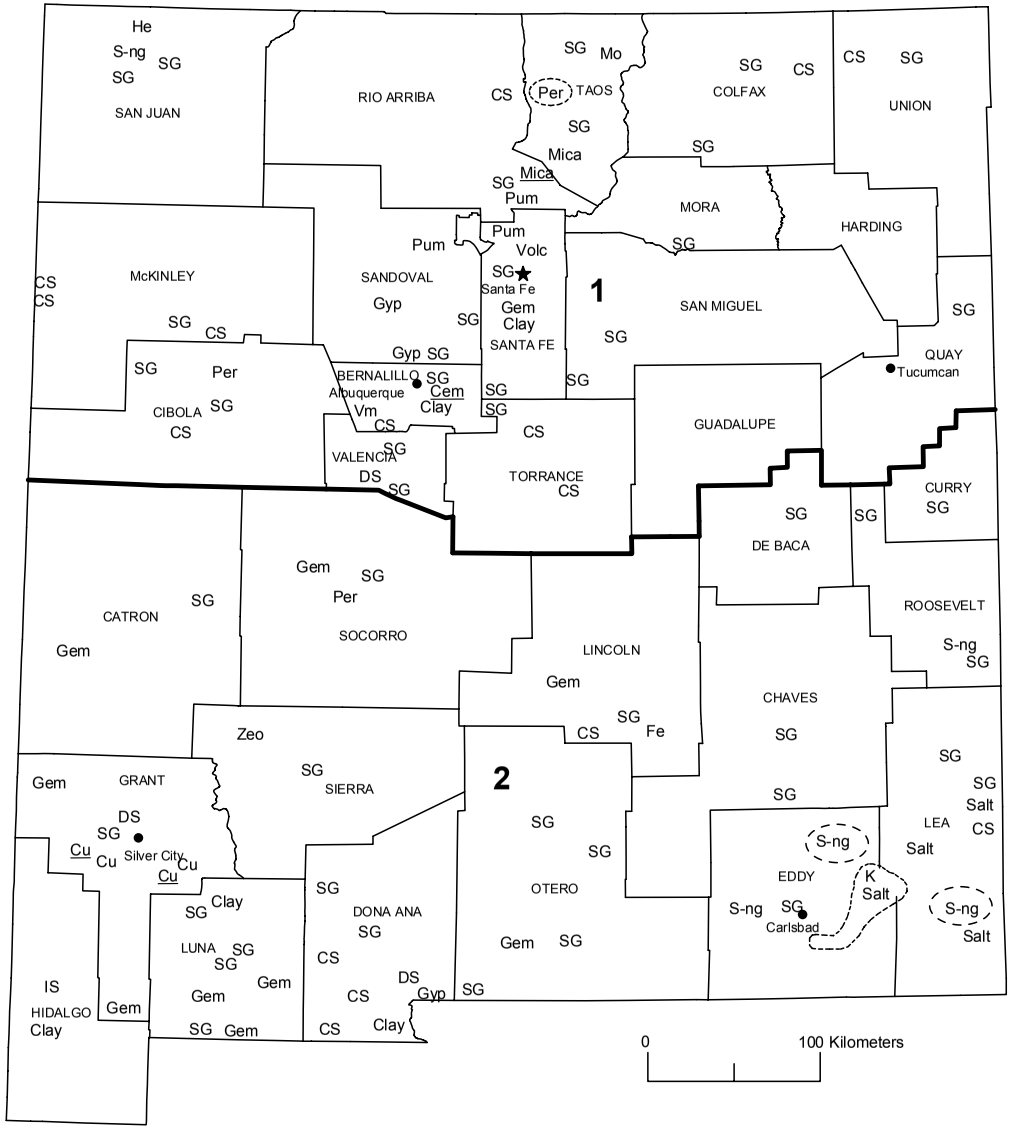
NEW MEXICO



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
Fe	Iron
Gem	Gemstones
Gyp	Gypsum
He	Helium
IS	Industrial sand
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
Volc	Volcanic cinder
Zeo	Zeolites
◯	Concentration of mineral operations

Source: New Mexico Bureau of Geology and Mineral Resources/U.S. Geological Survey (2003)

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 2003, the estimated value[1] of nonfuel mineral production for New Mexico was $533 million, based upon preliminary U.S. Geological Survey (USGS) data. This was a decrease of about 5% compared with 2002[2] and followed a 6% decrease from 2001 to 2002. The State ranked 25th (24th in 2002) among the 50 States in total nonfuel mineral production value and accounted for nearly 1.5% of the U.S. total.

The top nonfuel minerals in New Mexico were, by value, potash and copper, followed by construction sand and gravel, cement (portland and masonry), and crushed stone. These five accounted for about 90% of the State's total nonfuel raw mineral production value. Potash remained the State's leading nonfuel mineral; for 33 of the past 36 years (from 1968 through 2003) copper led; potash (reported as potassium salts prior to 1990) was the leading nonfuel mineral in the early 1950s through 1967 and in 1982. In 2003, copper production decreased, but its value decreased at a lesser rate because of higher average copper prices. Nonetheless, the drop in the value of copper accounted for most of the State's decrease in value in 2003 (table 1).

In 2002, copper production and value decreased as it had in 2001 owing to lower average copper prices and a continued scaling back of some operations and the closing of others. In 2002, the largest increases took place in the production and values of molybdenum concentrates, the value of which was up by about $10 million, and construction sand and gravel, which was up by about $6 million. These increases were more than offset by a drop in the production and value of copper, the value of which was down by $52 million, and by decreases in the production and values of the following: perlite and crushed stone, the value of each of which was down by about $3 million; lime, which was down by about $2 million; and gypsum, which was down by slightly more than $1 million (table 1).

Based upon USGS estimates of the quantities of minerals produced in the 50 States during 2003, New Mexico ranked first in the Nation in the production of perlite, potash, and zeolites; third in copper, mica, and pumice; and fifth in molybdenum. In addition, the State was a significant producer of construction sand and gravel and dimension stone.

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.

Exploration and Development Activities

Abrasives.—Although garnet has not been produced since 2000, at least one company conducted exploration for the abrasive. Garnet has been found in skarn deposits in southern and central New Mexico and, in some areas, garnet is a major constituent of waste rock piles that remain after recovery of metals (Lueth, 1996). For example, approximately 135,000 metric tons of 20% to 36% garnet is estimated to occur in four tailings piles at Hanover (Cetin and others, 1996).

Commodity Review

Minerals production in New Mexico has continued to decline since maximum annual minerals production was reached in the late 1980s. This decline has been a result of numerous complex and interrelated factors that have contributed to rising mining costs, such as declining commodity prices, declining ore grades, water rights issues, public perceptions of mining, the State land moratorium, the complexity of regulations, and the length of time required for the entire regulatory process to occur at the local, State, and Federal levels.

Industrial Minerals

Clays.—Two types of clay are mined in New Mexico—common and fire clay. Common clay is used in making bricks, quarry tile, and roofing granules. Commercial adobe yards in northern New Mexico produce adobe bricks from local alluvial materials. Fire clay is quarried from Luna and Grant Counties for use in copper smelters.

Gemstones.—Gemstones and semiprecious stones produced in New Mexico include agate, azurite, fluorite, geodes, moonstone, onyx, peridot, smithsonite, and turquoise. Production statistics for gemstones and semiprecious stones in New Mexico for 1998-2003 are not published. Most of the commercial mines have closed because of the depletion of the known deposits and the difficulty and expense of adhering to

[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 2003 USGS mineral production data published in this chapter are preliminary estimates as of July 2004 and are expected to change. For some mineral commodities, such as construction sand and gravel, crushed stone, and portland cement, estimates are updated periodically. To obtain the most current information, please contact the appropriate USGS mineral commodity specialist. Specialist contact information may be retrieved over the Internet at URL http://minerals.usgs.gov/ minerals/contacts/comdir.html; alternatively, specialists' names and telephone numbers may be obtained by calling USGS information at (703) 648-4000 or by calling the USGS Earth Science Information Center at 1-888-ASK-USGS (275-8747). All USGS Mineral Industry Surveys and USGS Minerals Yearbook chapters—mineral commodity, State, and country—also may be retrieved over the Internet at URL http://minerals.usgs.gov/minerals.

[2]Values, percentage calculations, and rankings for 2002 may differ from the Minerals Yearbook, Area Reports: Domestic 2002, Volume II, owing to the revision of preliminary 2002 to final 2002 data. Data for 2003 are preliminary and are expected to change; related rankings also may change.

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

Federal, State, and local environmental regulations.

Helium.—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.

Mica.—Only one mine, the U.S. Hill Mine (owned by Oglebay Norton Co.) in Taos County, produced mica in New Mexico in 2003. Olgebay Norton was a leading producer of muscovite mica from its mines in New Mexico and North Carolina. On September 22, 2003, Olgebay Norton announced that the New Mexico mica operation was for sale (Olgebay Norton Co., 2003§[4]). Mica is produced from a muscovite quartz schist. Reserves at the U.S. Hill Mine were estimated to exceed 3.6 million metric tons, which is enough to last 49 years. The mine was the fourth largest scrap-mica mine in the United States in aerial extent and covered approximately 6 hectares (ha).

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

Perlite.—Perlite is weathered (hydrated) natural glass that is formed by the rapid cooling of viscous, high-silica rhyolite lava. Production from three mines in New Mexico decreased in 2003 because of a decline in building construction in the United States and also because of increased imports from Greece. Perlite is used in building construction products, as filler, as a filter aid, as horticultural aggregate, and for other uses.

Potash and Salt.—The Carlsbad potash district is the largest potash-producing area in the United States. Intrepid Mining LLC (a privately held Denver-based natural resources company) and IMC Kalium Potash Mines (a subsidiary of IMC Global Inc.) operated mines in the district. Potash is used as fertilizer and as a chemical in specialty and industrial markets, including drilling mud. Mining is by underground methods. The estimated potash reserves in the district amounted to more than 502 million metric tons (Mt). Sodium chloride or salt also is produced locally as a potash byproduct in this district. It is used in oilfield drilling, in animal feed, and in deicing roads.

Mississippi Potash, Inc. (a wholly owned subsidiary of Mississippi Chemical Corp.) filed for Chapter 11 bankruptcy in May 2003. High inventories of potash forced the closure the company's mines in June 2003. The West Mine resumed operations in July 2003, and the East Mine resumed operations in October 2003. The estimated total reserves in 2002 were estimated to be 519 Mt with an average grade of 15.2% K_2O. The recoverable reserves are estimated to be 510 Mt at a grade of 14.7% K_2O (Mississippi Chemical Corp., 2003a§). In fiscal 2002, Mississippi Chemical Corp. produced approximately 814,000 metric tons (t) of potash and sold approximately 814,000 t primarily in granular form. Net sales of potash products by Mississippi Chemical in fiscal 2002 were approximately $77.5 million, which represented approximately 17% of consolidated net sales (Mississippi Chemical Corp., 2003a§). The West Facility, which consists of a potash mine and refinery, has an annual production capacity of approximately 488,000 t of red potash. The East Facility, which has an annual production capacity of approximately 508,000 t of white potash, consists of a potash mine, refinery, and compaction plant. Flotation was used to produce red potash and hot leach crystallization was used to produce the higher purity white potash.

In December 2003, Mississippi Chemical Corp. announced that its wholly owned subsidiaries Mississippi Potash, Inc. and Eddy Potash, Inc. signed a definitive agreement to sell substantially all of its potash assets to two wholly owned subsidiaries of Intrepid Mining (Mississippi Chemical Corp., 2003b§). The estimated purchase price was expected to be approximately $27.0 million as of January 31, 2004. In addition, certain liabilities were to be assumed by the purchasers. This agreement must be approved by the U.S. Bankruptcy Court in Jackson, MS.

Pumice.—Pumice is found in the Jemez Mountains and the Mogollon-Datil volcanic field. Six operations were active in New Mexico in 2003. The main use for pumice is as an aggregate in lightweight building blocks and assorted building products. Pumice and pumicite are also used in abrasives, absorbents, as a concrete aggregate and admixture, as a filter aid, for horticultural purposes (including landscaping), and in the stonewashing of denim.

Zeolites.—St. Cloud Mining Co. (a subsidiary of Imagin Minerals, Inc.) operated the largest zeolite mine in the United States at the Stone House Mine in Sierra County. Imagin Minerals bought St. Cloud Mining from The Goldfield Corp. in December 2002. Goldfield Corp. had operated the open pit mine Stone House Mine since 1993. The mining property consisted of approximately 600 ha; it contained 16.6 Mt of reserves and had a capacity of 450 metric tons per day (t/d) (The Goldfield Corp., 2002§). Clinoptilolite was mined, crushed, dried, and sized without beneficiation and was shipped packaged to meet customer's specifications. St. Cloud Mining made several modifications to its zeolite operation, including the addition of cation-exchange capacity for value-added products and additional classification capabilities to expand markets for its products. The modern facility had the crushing and sizing capacity of 450 t/d.

Zeolites are minerals found disseminated in altered volcanic ash. Clinoptilolite is the predominant zeolite; it has unique physical, chemical, and cation-exchange properties and is used in agriculture, industrial, and environmental applications. Clinoptilolite is used in air filtration media, animal feed supplements, cation-exchanged products, environmental products, filtration media, floor-drying agents, industrial fillers and absorbents, mineral fillers, odor control and hygiene products (cat litter), soil conditioners, and by water and wastewater treatment facilities.

Other Industrial Minerals.—Humates are weathered coal or highly organic mudstone that are found in coal-bearing sequences. New Mexico has significant concentrations of humates predominantly in the Fruitland and Menefee formations in the eastern San Juan Basin. Humate was produced from five

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

mines in New Mexico.

Iron ore as magnetite was shipped from the magnetite tailings at Phelps Dodge Corp.'s Cobre Mine in Grant County and was used by cement plants to manufacture clinkers.

Metals

Copper.—Copper prices continued to rise in 2003 and 2004. The Platts Metal Week U.S. producer copper price averaged 75.8 cents per pound in 2002 and 85.25 cents per pound in 2003.

In 2003, Phelps Dodge Corp. continued to leach copper at its Chino Mine in Santa Rita and its Tyrone Mine near Silver City. In April 2003, Phelps Dodge resumed mining for leach at the Chino Mine and announced plans to reopen the mill in 2004. In 2003, the company produced 36,000 t of copper from the Chino Mine by solvent extraction-electrowinning (SX/EW) (Phelps Dodge Corp., 2004§). In December 2003, Phelps Dodge purchased Heisei Minerals Corp.'s interest (33.3%) in the Chino Mine to become the sole owner of the reserves and facilities at the mine (Phelps Dodge Corp., 2003§). As part of the purchase agreement, Heisei paid approximately $64 million into a trust fund to cover its portion of closure, closeout, and reclamation costs. In February 2003, New Mexico Mining and Minerals Division issued Phelps Dodge a closure permit for the Chino Mine based on a financial assurance of approximately $191 million. In December, the closure plan was approved.

Phelps Dodge's Cobre Mine and mill remained on a care-and-maintenance status in 2003. The company's Tyrone Mine and plant were placed on care-and-maintenance status in September 2003, although SX-EW production continued. Open pit mining was expected to resume in 2004. In 2003, leaching reserves (recoverable copper) were estimated to be 229 Mt tons of ore grading 0.31% copper (Phelps Dodge Corp., 2004§). In addition, the Niagara deposit was estimated to contain 400 Mt of mineralized material grading 0.29% copper. This mineralized material could be brought into production should market conditions warrant. At the Tyrone Mine, copper production by SX/EW in 2003 amounted to 51,600 t of copper (Phelps Dodge Corp., 2004§). In April 2003, the New Mexico Mining and Minerals Division issued a closure permit for the Tyrone Mine based on financial assurance established at approximately $267 million. In September, the closure plan was modified with an accelerated reclamation plan. The final closure plan was expected to be approved in 2004.

Molybdenum.—Molybdenum was produced from Molycorp Inc.'s Questa Mine in Taos County. Molybdenum is a refractory metallic element used principally as an alloying agent in cast iron, steel, and superalloys to enhance hardness, strength, toughness, 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 Questa Mine.

Underground block caving of ore commenced in 1983 and continued in 2003. The current ore grade ranges from 0.3% to 0.5% Mo. In 2003, 850,000 t of crude ore at a grade of 0.356% MoS_2 was processed and resulted in 1,600 t of MoS_2 concentrate recovered. Approximately 150 people worked at the mine in 2003.

Molycorp Inc. also continued with a reclamation and revegetation program to cover overburden rock piles at the Questa Mine's inactive open pit site. In 2003, Molycorp began remediation at the Goathill North rock pile to prevent continued downhill movement of the material.

References Cited

Cetin, U., Walder, I.F., Lueth, V.W., and Gundiler, I.H., 1996, Recovery of garnet from the Hanover mill tailings, Grant County, New Mexico, USA, *in* Austin, G.S., and others, eds., Proceedings of the 31st Forum on the Geology of Industrial Minerals—Borderland forum: New Mexico Bureau of Mines and Mineral Resources Bulletin 154, p. 147-158.

Lueth, V.W., 1996, Garnet resource potential in southern New Mexico, *in* Austin, G.S., and others, eds., Proceedings of the 31st forum on the geology of industrial minerals-borderland forum: New Mexico Bureau of Mines and Mineral Resources Bulletin 154, p. 137-146.

Internet References Cited

Goldfield Corp., The, 2002, Form 10K to Securities and Exchange Commission, accessed April 24, 2002, at URL http://www.sec.gov/Archives/edgar/data/42316/ 000100329702000037/goldfield10k.htm.Mississippi Chemical Corp., 2003a, Form 10K to Securities and Exchange Commission, accessed March 31, 2003, at URL http://www.misschem.com/scrReports/ 2002_10k.pdf.

Mississippi Chemical Corp., 2003b (December 1), Mississippi Chemical announces agreement for sale of potash assets, press release, accessed October 21, 2004, at URL http://www.misschem.com/newpressreleases/potashrelease.htm.

Oglebay Norton Co., 2003 (September 22), Oglebay Norton Co. news, accessed April 13, 2004, at URL http://ir.thomsonfn.com/InvestorRelations/PubNewsStory.aspx?partner=9942&storyId=94579.

Phelps Dodge Corp., 2003 (July 31), Phelps Dodge agrees to acquire Heisei's interest in Chino Mines Co., press release, accessed October 22, 2004, at URL http://www.phelpsdodge.com/News/NewsArchive/CorpNews073103.htm.

Phelps Dodge Corp., 2004, Annual report, accessed June 1, 2004, at URL http://www.phelpsdodge.com/index.financial.html.

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

(Thousand metric tons and thousand dollars unless otherwise specified)

Mineral		2001		2002		2003[p]	
		Quantity	Value	Quantity	Value	Quantity	Value
Clays, common		35	205	33	175	33	175
Copper[3]		141	239,000	112	187,000	85	153,000
Gemstones		NA	33	NA	19	NA	20
Sand and gravel, construction		10,600	54,500	12,800	62,600	14,000	68,600
Stone:							
Crushed		4,230	26,100	3,680	23,300	3,900	25,200
Dimension		36	1,320	20	1,370	26	414
Zeolites	metric tons	(4)	NA	(4)	NA	(4)	NA
Combined values of cement, gold (2001), gypsum (crude), helium [Grade-A (2002-03)], iron ore (usable), lime, mica [crude (2001, 2003)], molybdenum concentrates, perlite (crude), potash, pumice and pumicite, salt, sand and gravel [industrial (2001)], silver (2001)		XX	276,000	XX	286,000	XX	285,000
Total		XX	597,000	XX	561,000	XX	533,000

[p]Preliminary. NA Not available. XX Not applicable.
[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.
[4]Withheld to avoid disclosing company proprietary data.

TABLE 2
NEW MEXICO: CRUSHED STONE SOLD OR USED, BY KIND[1]

Kind	2001				2002			
	Number of quarries	Quantity (thousand metric tons)	Value (thousands)	Unit value	Number of quarries	Quantity (thousand metric tons)	Value (thousands)	Unit value
Limestone	17 [r]	2,260 [r]	$9,770 [r]	$4.32	19	2,340	$10,500	$4.49
Granite	2	W	W	9.66	2	W	W	9.85
Volcanic cinder and scoria	7	W	W	11.60	7	W	W	11.00
Miscellaneous stone	8 [r]	945 [r]	5,840 [r]	6.10 [r]	9	202	1,340	6.63
Total or average	XX	4,230	26,100	6.17	XX	3,680	23,300	6.35

[r]Revised. W Withheld to avoid disclosing company proprietary data; included in "Total." XX Not applicable.
[1]Data are rounded to no more than three significant digits, except unit value; may not add to totals shown.

TABLE 3
NEW MEXICO: CRUSHED STONE SOLD OR USED BY PRODUCERS
IN 2002, BY USE[1]

Use	Quantity (thousand metric tons)	Value (thousands)	Unit value
Construction:			
Coarse aggregate (+1 1/2 inch):			
Riprap and jetty stone	25	$182	$7.28
Other coarse aggregates	1	10	10.00
Total or average	26	192	7.38
Coarse aggregate graded:			
Concrete aggregate, coarse	131	1,170	8.92
Bituminous aggregate, coarse	W	W	11.13
Bituminous surface-treatment aggregate	W	W	8.90
Railroad ballast	W	W	11.02
Other graded coarse aggregates	380	1,680	4.41
Total or average	1,160	9,840	8.47
Fine aggregate (-3/8 inch):			
Stone sand, concrete	W	W	6.67
Stone sand, bituminous mix or seal	W	W	7.87
Screening, undesignated	W	W	7.72
Total or average	106	747	7.05
Coarse and fine aggregates:			
Graded road base or subbase	107	637	5.95
Crusher run or fill or waste	1	6	6.00
Total or average	108	643	5.95
Other construction materials	129	812	6.29
Chemical and metallurgical, cement manufacture	(2)	(2)	4.09
Other miscellance uses and specified not listed	90	789	8.77
Unspecified:[3]			
Reported	761	4,990	6.56
Estimated	660	2,700	4.12
Total or average	1,420	7,720	5.42
Grand total or average	3,680	23,300	6.35

W Withheld to avoid disclosing company proprietary data; included in "Total."
[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 "Grand total."
[3]Reported and estimated production without a breakdown by end use.

TABLE 4
NEW MEXICO: CRUSHED STONE SOLD OR USED BY PRODUCERS IN 2002,
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 (+1 1/2 inch)[2]	W	W	W	W	--	--
Coarse aggregate, graded[3]	W	W	W	W	--	--
Fine aggregate (-3/8 inch)[4]	W	W	W	W	--	--
Coarse and fine aggregate[5]	W	W	95	523	--	--
Other construction materials	--	--	129	812	--	--
Chemical and metallurgical[6]	W	W	--	--	--	--
Other miscellaneous uses	90	789	--	--	--	--
Unspecified:[7]						
Reported	212	2,500	512	2,270	37	223
Estimated	110	380	560	2,400	--	--
Total	2,200	16,200	1,440	6,960	37	223

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 and other coarse aggregate.
[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 crusher run (select material or fill) and graded road base or subbase.
[6]Includes cement manufacture.
[7]Reported and estimated production without a breakdown by end use.

TABLE 5
NEW MEXICO: CONSTRUCTION SAND AND GRAVEL SOLD OR USED IN 2002,
BY MAJOR USE CATEGORY[1]

Use	Quantity (thousand metric tons)	Value (thousands)	Unit value
Concrete aggregate (including concrete sand)	2,510	$12,700	$5.06
Plaster and gunite sands	244	1,390	5.71
Concrete products (blocks, bricks, pipe, decorative, etc.)	697	4,930	7.07
Asphaltic concrete aggregates and other bituminous mixtures	1,960	11,500	5.88
Road base and coverings[2]	2,420	12,400	5.12
Fill	657	2,370	3.60
Other miscellaneous uses[3]	18	96	5.33
Unspecified:[4]			
Reported	1,970	4,640	2.36
Estimated	2,400	13,000	5.21
Total or average	12,800	62,600	4.87

[1]Data are rounded to no more than three significant digits; may not add to totals shown.
[2]Includes road and other stabilization (cement and lime).
[3]Includes railroad ballast and snow and ice control.
[4]Reported and estimated production without a breakdown by end use.

TABLE 6

NEW MEXICO: CONSTRUCTION SAND AND GRAVEL SOLD OR USED IN 2002, BY USE AND DISTRICT[1]

(Thousand metric tons and thousand dollars)

Use	District 1		District 2		Unspecified	
	Quantity	Value	Quantity	Value	Quantity	Value
Concrete aggregate (including concrete sand)	1,950	9,810	556	2,890	--	--
Plaster and gunite sands	142	878	102	515	--	--
Concrete products (blocks, bricks, pipe, decorative, etc.)	697	4,930	--	--	--	--
Asphaltic concrete aggregates and other bituminous mixtures	1,460	9,070	506	2,480	--	--
Road base and coverings[2]	858	5,070	1,560	7,330	--	--
Other miscellaneous uses[3]	516	1,820	158	645	--	--
Unspecified:[4]						
Reported	154	583	386	1,690	1,430	2,370
Estimated	1,400	7,500	960	5,000	--	--
Total	7,180	39,600	4,240	20,600	1,430	2,370

-- Zero.

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

[2]Includes road and other stabilization (cement and lime).

[3]Includes fill, railroad ballast, and snow and ice control.

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