2008 Minerals Yearbook

NEW MEXICO

U.S. Department of the Interior
U.S. Geological Survey

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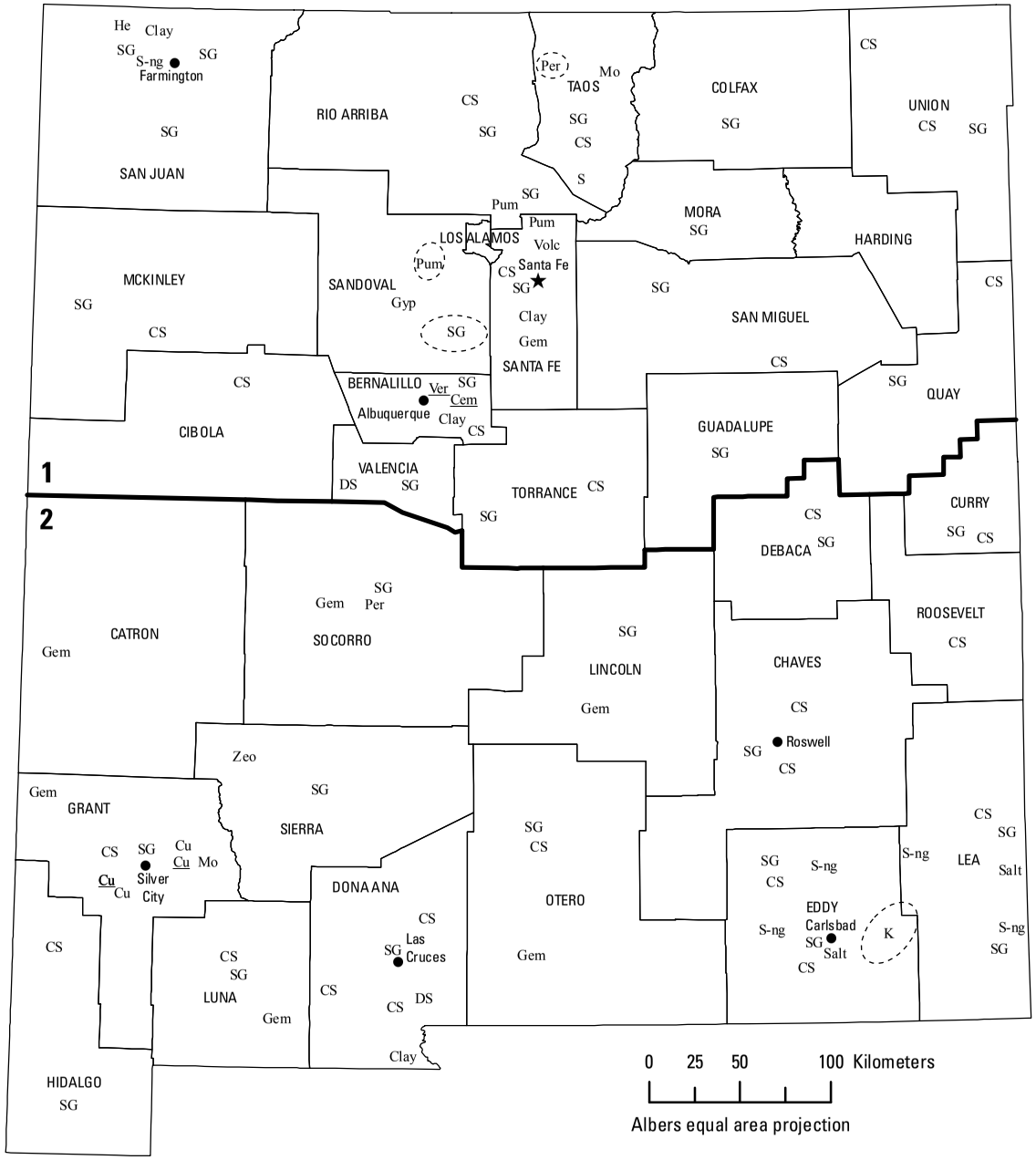
NEW MEXICO



LEGEND

County boundary

★ Capital

● City

1 Crushed stone/sand and gravel district boundary

MINERAL SYMBOLS
(Principal 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
Mo	Molybdenum
Per	Perlite
Pum	Pumice and pumicite
S-ng	Sulfur (natural gas)
Salt	Salt
SG	Construction sand and gravel
Ver	Vermiculite plant
Volc	Volcanic cinder
Zeo	Zeolites

Concentration of mineral operations

Source: New Mexico Bureau of Geology and Mineral Resources/U.S. Geological Survey (2008).

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 2008, New Mexico's nonfuel raw mineral production[1] was valued at $1.62 billion, based upon annual U.S. Geological Survey (USGS) data. This was a $40 million, or more than 2%, increase from the State's total nonfuel mineral value for 2007, which had increased by nearly $96 million, or up 6%, from 2006 to 2007. The State continued to rank 15th among the 50 States in total nonfuel mineral production value and accounted for more than 2% of the U.S. total. New Mexico ranked 7th in the Nation in per capita nonfuel mineral production; with a population of about 1.99 million, the value of production was about $815 per capita.

The top nonfuel minerals in 2008 were, by value of production, copper and potash, followed by molybdenum concentrates, construction sand and gravel, and portland cement. These accounted for nearly 94% of the State's total nonfuel raw mineral production value. Copper continued to be the State's leading nonfuel mineral produced in 2008, accounting for 45% of the State's total nonfuel mineral production value.

In 2008, significant increases in the production values of potash, silver, gold, and crude gypsum (descending order of value) led the State's increase in value for the year. Increases also took place in the production values of crude perlite and salt, followed by smaller significant increases in the values of industrial sand and gravel, masonry cement, and molybdenum concentrates. The largest decreases in production value took place in helium, lime, common clays, pumice and pumicite, dimension stone, and crushed stone (descending order of value). Decreases in production value took place in natural gemstones and construction sand and gravel. Smaller, yet significant, decreases also took place in copper, mansory cement, and zeolites.

In 2008, New Mexico continued to lead the Nation in the quantities of potash, crude perlite, and zeolites (descending order of value) produced and remained third in copper, sixth in molybdenum concentrates, and ninth of 11 gold-producing States. The State rose in rank to 7th from 9th in crude gypsum and 7th from 8th in silver production, while it decreased in rank to 4th from 3d in pumice and pumicite production. Additionally, New Mexico was a significant producer of construction sand and gravel.

The following narrative information was provided by the New Mexico Bureau of Geology and Mineral Resources[2] (NMBGMR). Production data and information in the text that follows are those reported by the NMBGMR and are based on the agency's own surveys and estimates, data obtained from the New Mexico Energy, Minerals and Natural Resources Department, Mining and Minerals Division (MMD), personal mine visits by NMBGMR staff, company Web sites, and cited references. These may differ from some production figures published by the USGS.

Exploration and Development

In 2008, exploration permits increased and more than 400 exploration and mining permits were filed with the State. Mining and exploration continued to increase from past levels as some mineral commodity prices increased in 2008, while other commodity prices decreased as demand for minerals fluctuated worldwide owing to the uncertain economy. Active mining operations in 2008 included 152 stone and aggregate operations, 20 industrial mineral mines and 13 industrial mineral mills, 5 coal mines, 3 potash mines and 5 potash refineries, 2 copper mines, 2 solvent extraction/electrowinning (SX/EX) plants, and 1 molybdenum mine and 1 molybdenum mill (New Mexico Energy, Minerals and Natural Resources Department, 2009, p. 37).

Industrial Minerals

Clay and Shale.—Common clay and fire clay were mined in New Mexico. Common clay was used in the manufacture of bricks, quarry tile, and roofing granules. Commercial adobe yards are mostly in northern New Mexico. Bricks were also manufactured at Kinney Brick Mill Co.'s mill in Albuquerque, Bernalillo County, and American Eagle Brick Co.'s plant in Sunland Park, Dona Ana County.

Daleco Resources Corp. drilled 16 holes in 2005 and continued to evaluate its Sierra Kaolin deposit (also known as the Kline Mountain deposit) in the Black Range, northwestern Sierra County (Daleco Resources Corp., 2005). The hydrothermal kaolin deposit was in an advanced argillic alteration zone within the tuff of Kline Mountains and has been estimated to contain more than 180 million metric tons (Mt) of kaolin (Iskender and others, 1994).

Potash.—Intrepid Potash, Inc. and Mosaic Co. operated mines in Carlsbad potash district, the largest potash producing area in the United States. Potash reserves were estimated to be more than 500 Mt in the district. Potash is used as fertilizer and as a chemical in specialty and industrial markets. Langbeinite and sylvite are the primary potash minerals found in Permian evaporates of the Permian Basin in New Mexico (Barker and others, 1996). Mining is by underground methods at depths of 244 meters (m) to 457 m.

The annual production capacity of the Mosaic Co. potash mines is about 450,000 metric tons (t) of red potash and about

[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 2008 USGS mineral production data published in this chapter are those available as of June 2010. All USGS Mineral Industry Surveys and USGS Minerals Yearbook chapters—mineral commodity, State, and country—can be retrieved over the Internet at URL http://minerals.usgs.gov/minerals.

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

1.1 Mt of potassium magnesium sulfate. The total ore reserves at Mosaic reportedly include an estimated 92 Mt of potash ore in three mining beds ranging in thickness from 1.4 to 3.4 m. These ore reserves are estimated to yield 4.5 Mt of concentrate sylvinite with an average grade of 60% potash (K_2O) and 16.3 Mt of langbeinite concentrate with an average grade of 22% K_2O. The estimated life of these reserves is 15 to 23 years.

Metals

Copper.—In 2008, in response to the decline in copper prices and a weak copper market world-wide, Freeport-McMoran Copper & Gold Inc. suspended mining and milling operations at the Chino open pit mine in December (Freeport-McMoran Copper & Gold Inc., 2009a, p. 8). The operation remained on care-and-maintenance status, but leaching activities continued. The Chino Mine is the largest porphyry copper deposit in New Mexico and has operated since 1910. Copper sulfides (chalcocite, chalcopyrite) along with azurite and chrysocolla are found in the upper fractured granodiorite and adjacent sedimentary rocks. Freeport-McMoRan produced 70,300 t of copper in concentrates and electrowon copper at Chino (Freeport-McMoRan Copper & Gold Inc., 2009b, p. 25). Estimated proven and probable reserves at Chino Mine are 143 Mt of 0.52% copper, 0.01grams per metric ton (g/t) gold and 0.005% molybdenum (Freeport-McMoRan Copper & Gold Inc., 2009a, p.108).

In December, Freeport-McMoRan reduced its mining rate by 50% at its Tyrone Mine. The Tyrone porphyry copper deposit in the Burro Mountains ocurrs within a quartz monzonite laccolith and adjacent Proterozoic rocks. Several ore bodies, sometimes considered separate porphyry copper deposits, have been found and mined by open pit methods. The Tyrone Mine consists of a SX/EW plant with a capacity to produce 76,200 million metric tons per year (Mt/yr) of copper cathode. In 2008, 34,500 t of electrowon copper by SX/EW was produced (Freeport-McMoRan Copper & Gold Inc., 2009b, p. 25) and proven leaching reserves (recoverable copper) were estimated to 334 Mt of ore grading 0.29% copper (Freeport-McMoRan Copper & Gold Inc., 2009a, p.108). These reserves are expected to be mined through 2018. The Tyrone Mine is among the lowest grade ore bodies operated by Freeport-McMoRan.

Freeport-McMoRan estimated its inactive Cobre Mine reserves to be about 73 Mt grading 0.39% copper (Freeport-McMoRan Copper & Gold Inc., 2009a, p. 108). Most of the copper reserves at the Cobre Mine are located in the Syrena and upper part of the Lake Valley limestones north of the Barringer fault, and the deposit consists of a porphyry copper deposit and adjacent skarn deposits.

Copper One Inc. in Grant County consists of at least three distinct zones of copper mineralization as defined by drilling in 1975–89 and in 2006–08 (Moran and Moore, 2006, p. 6; Ray and Pawlowski, 2009, p. 37). A near-surface zone of copper oxide and sulfide minerals has assays of more than 15 m of core up to 0.9% copper. Weak pyrite-chalcopyrite porphyry-style disseminated stockwork and fissure veins are hosted by the Lone Mountain Stock and its associated dikes and sills and has low grades between 0.05% and 0.1% copper. High-grade, polymetallic exoskarn mineralization is hosted by various calcareous sedimentary rocks close to their contact with the Lone Mountain intrusive complex and has grades in some 3 m intervals greater than 7% copper with 0.7 parts per million (ppm) gold and 116 ppm silver (Ray and Pawlowski, 2009, p. 2). The age of the intrusions have been dated at 51.5 to 50.6 million years (Moran and Moore, 2006, p. 51). Copper One plans to continue drilling and recalculate the resources based upon current economic conditions. The Copper One Mimbres property is a copper porphyry deposit. Assays range up to 1% copper. Copper One plans exploration drilling to delineate specific ore bodies (Copper One Inc., 2009).

High Desert Gold Corp. (formerly General Minerals Corp.) analyzed rock chip samples collected from Gold Lake porphyry deposit in the White Signal District. Geochemically copper appears with values ranging up to 20.2%, molybdenum values ranged up to 0.611%, silver up to 385 ppm, and bismuth up to 3,210 ppm (Katsura, 2009, p. 24). The deposit is hosted by quartz monzonite and rhyolite that intruded Proterozoic rocks and is associated with porphyry-style alteration and veins (High Desert Gold Corp., 2007). Numerous small historic mine workings are found within this area, mostly exploiting and prospecting for copper, gold, and uranium. In 2008, six drill holes confirmed the presence of copper porphyry mineralization. Additional drilling was planned to confirm and delineate the economic potential of the property.

Gold and Silver.—All gold and silver production in 2008 was as byproduct recovered from copper milling by Freeport-McMoRan. In 2008, development began at New Mexico's gold-silver mine, the Summit Mine in the Steeple Rock District, Grant County was operated by Santa Fe Gold Corp. The Summit Mine is a volcanic-epithermal deposit similar to the Carlisle and Center Mines also in the Steeple Rock District (McLemore, 2008). Reserves were estimated to be 480,000 t grading 4.42 g/t gold and 296 g/t silver (Santa Fe Gold Corp., 2010). The company also purchased a ball mill and flotation plant in Lordsburg, Hidalgo County, to process the Summit ore; the Banner Mill was expected to begin operations in early 2010. Several companies are exploring for gold and silver throughout New Mexico, especially in Catron, Dona Ana, Grant Socorro, Lincoln, and Rio Arriba Counties.

Santa Fe Gold Corp. combined resources from Carache and Lucas deposits in the Ortiz Mine Grant in Santa Fe County contained an estimated 32,000 kilograms of gold, within the boundaries of two conceptual pits previously designed by the LAC-Pegasus Joint Venture using a gold price of $385 per ounce (Santa Fe Gold Corp., 2010).

Micrex Development Corp. continued exploration at the Deadwood-Sunburts Claims in the Mogollon District and the Banks and Mt. Royal Mines in the Steeple Rock District. Columbus Silver Corp. was exploring in the Mogollon District along several volcanic epithermal veins (Columbus Silver Corp., 2010).

El Capitan Precious Metals, Inc. continued to explore for iron and gold from iron skarns adjacent to the Capitan pluton in Lincoln County. The San Lorenzo claims permit in Socorro County was still under development to mine for gold. Two new gold mines had Mining Act permit applications under review

in 2008: the Orogrande placer gold mine in Otero County and the Northstar Mine in Rio Arriba County (New Mexico Energy, Minerals and Natural Resources Department, 2009).

Molybdenum.—Molybdenum was produced from the Questa Mine in Taos County and has a byproduct of copper concentrate at the Chino Mine in Grant County. Molycorp Inc. (formerly Chevron Inc.) produced 1,860 t of molybdenum at its Questa Mine. Reserves and resources at Questa Mine reportedly are: proven reserves of 15 Mt of 0.343% molybdenum disulfide (MoS_2) at a cutoff grade 0.25% MoS_2, probable reserves of 43 Mt of 0.315% MoS_2, and possible reserves of 3 Mt of 0.369% MoS_2.

Galway Resources Ltd. announced that the Victorio Mountains deposit in Luna County contained indicated resources of 21.5 Mt of 0.15% molybdenum and 0.13% tungsten trioxide with a $40 per metric ton cutoff. The inferred resources are 11.7 Mt of 0.13% molybdenum and 0.14% tungsten trioxide (SRK Consulting (USA) Inc., 2008, p. 134). Exploration continued in 2008 towards refining these results. The Victorio Mountains Deposits consists of molybdenum, tungsten and beryllium skarns, and carbonate hosted deposits associated with Tertiary intrusion (McLemore and others, 2000, p. 267).

Commodity Review

Industrial Minerals

Cement.—There were seven different types of cement produced at Tijeras cement plant near Albuquerque City, which was operated by Grupos Cementos de Chihuahua (GCC); the estimated capacity was 800,000 metric tons per year (t/yr) of cement. The main ingredient in cement was limestone mined at Tijeras, with additional varying quantities of alumina, gypsum, iron ore, and sandstone/shale (locally obtained from throughout New Mexico).

The Mesa del Oro deposit located in the west of Las Lunas, Cibola County, and owned by Daleco Resources Corp., reportedly was estimated to contain mineral resources of 433 Mt of high-quality calcium carbonate as travertine that is suitable for cement (Daleco Resources Corp., 2006).

Garnet, Industrial.—Although garnet was not produced in New Mexico during the period 1998 through 2008, at least one company was examining areas in the State for resources that could be used 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 (Lueth, 1996). In one example, approximately 135,000 t of 20% to 36% garnet was estimated to occur in four tailings piles at Hanover (Cetin and others, 1996). Also, B.O.W. Corp. was exploring in the Orogrande District for garnet resources.

Gemstones.—Gemstones and semiprecious stones produced included agate, azurite, fluorite, geodes, moonstone, onyx, peridot, smithsonite, and turquoise. However, 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. In New Mexico peridot (a gem variety of olivine) can be found at three different locations—Buell Park, McKinley County, and in Kilbourne Hole and Potrillo Mar depression, Dona Ana County. Other examples of gemstone resources were turquoise, found in the Little Hatchet Mountains in Hidalgo County and Orogrande, Otero County, and fluorite and other minerals at Bingham (Hansonburg District) in Socorro County.

Gypsum.—Eagle Materials Inc. (formerly Centex) operated the White Mesa Mine near Cuba, Sandoval County and two wallboard plants in Albuquerque and Bernalillo Counties. Other smaller gypsum mines were operated in Dona Ana and Sandoval Counties. The Alley Gypsum Mine located in Dona Ana County, began mining gypsum for agricultural amendment in November (New Mexico Energy, Minerals and Natural Resources, 2009).

Perlite.—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 ago (Barker and others, 1996; Chamberlin and Barker, 1996). Perlite is produced from three mines in New Mexico: El Grande, No Agua, and Socorro (Chamberlin and Barker, 1996). The Atlas Minerals Inc. (formerly Toro Mining and Minerals, Inc.) continued to evaluate its Toro perlite deposit northwest of Deming. The site has been estimated to contain 14 Mt of perlite (Atlas Minerals Inc., 2003). St. Cloud Mining continued to examine the production potential of McCauley Ranch (Thompson Canyon) perlite deposit in Grant County.

Potash.—Intrepid Potash Inc. operated four potash properties in Carlsbad. The West facility, which consisted of a potash mine and refinery, had a production capacity of approximately 490,000 t/yr of red potash. The East facility, which consisted of potash mine, refinery and compaction plant, had a production capacity of approximately 510,000 t/yr of white potash. Intrepid North facility consisted of granular compaction plant and a structure for storage of products. Two types of ore are processed; flotation was used to produce red potash and hot-leach crystallization to produce the higher purity white potash. Plans are under way to produce potash by solution mining at the HB Solar Solution Mine. Intrepid employed about 650 people at these facilities in 2008.

Pumice.—Pumice was found in the Jemez Mountains and Mogollon-Datil volcanic field of New Mexico (Hoffer, 1994, p. 12–15), where four producing operations were active in 2008—Copar Pumice Company Inc.'s El Cajete Mine and the San Ysidro plant, CR Minerals Co.'s Rocky Mountain Mine and Santa Fe plant, and Utility Block Company Inc.'s U.S. Forest Service Mine and Utility Block mill. CR Minerals Co. closed its Santa Fe mill in spring 2007 and moved its milling facilities to a new plant on the Ohkay Owingeh Pueblo (formerly known as San Juan Pueblo) in Rio Arriba County. The Santa Fe site has been reclaimed and is now the site of a Rail Runner train station.

Copar Pumice Company Inc. owns the Guaje Canyon Mine and El Cajete Mine in the Jemez Mountains. Reserves at El Cajete were estimated to be about 91,000 t and were to be used in stonewashing for denim jeans. Other pumice mines are active in the region. In Sandoval County, Urban Trucking and Excavating began mining pumice in April (New Mexico Energy, Minerals and Natural Resources, 2009).

Salt.—United Salt Corp. operated a solar evaporation salt plant near Carlsbad District in 2008. United harvested the salt from a 1,050–hectare (ha) salt lake after the sun and

wind had evaporated the water from the brine. Following thorough washing, the salt was packaged as solar salt for use in agricultural feed products, for chemical feed stocks, for swimming pool chlorine generation, for water conditioning, and for numerous other industrial applications. New Mexico Salt and Minerals Corp. also produced solar salt from a facility in the Carlsbad area. Originally, the salt at Carlsbad was sold mostly as deicing salt for road.

Zeolites.—Zeolite was produced in two mines in the State; St. Cloud Zeolite mine and Coyote Cliff Nos. 1 and 2 mines (New Mexico Energy, Minerals and Natural Resources Department, 2009). 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. The company's mining properties at Stone House consisted of 600 ha reportedly containing about 17 Mt of reserves with a capacity of 90,000 t/yr (St. Cloud Mining Co., 2007). St. Cloud 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 their products. The modern facility has the crushing and sizing capacity of 450 metric tons per day.

Other Industrial Minerals

New Mexico has significant deposits of humate, predominantly in the Fruitland and Menefee formations in the eastern San Juan Basin. Humates are weathered coal or highly organic mudstone that is found in the coal-bearing sequences. Humate was produced from nine mines and mills in the State: Rammsco's Eagle Mesa Mine near Cuba, Morningstar's Minerals Corp.'s San Juan mill in San Juan County, Horizon Ag-Products' San Luis Mine and mill south of Cuba, Mesa Verde Resources' Star Lake Mine and San Ysidro Mill, Menefee Mining Corp.'s open pit Star Lake Mine and Menefee mill, and U-Mate International's U-Mate mine. The mining operations, processing site, and transportation facility of U-Mate International Inc. was located in the Gallup area. Humate is used as a soil conditioner and as an additive to drilling muds (Hoffman and others, 1996). Approximately 11 billion metric tons of humate resources are within the San Juan Basin (Hoffman and others, 1996). Phelps Dodge Corp. shipped magnetite (for use in cement manufacture and other minor uses) from the stockpiles at the Cobre Mining Co.'s Continental Mine.

Small flagstone dimension stone operations were located throughout the State that produced sandstone, travertine, and other ornamental rock. The largest was the New Mexico Travertine, Inc., a fully integrated stone processing plant located near Belen. New Mexico Travertine produced travertine for dimension stone from the Lucero quarry in Valencia County.

Mine Reclamation

Every company mining in New Mexico had comprehensive reclamation plans and reclamation activities, which increased during 2008. Freeport-McMoRan continued reclamation of the inactive areas of the Chino Mine. LAC Minerals Inc. continued performed reclamation and groundwater remediation work at the closed Cunningham Hill gold open pit mine in the Ortiz Mountains in Santa Fe County. Chevron Corp. continued with a reclamation and revegetation program to cover overburden rock piles at the inactive open pit site. In December, Chevron ended funding a research project at New Mexico Tech to evaluate the effects of weathering on the long-term slope stability of the waste rock piles; specific reports can be obtained from http://geoinfo.nmt.edu/staff/mclemore/home.html. Copar Pumice Co. reclamation will continue as mining is completed in specific areas.

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

(Thousand metric tons and thousand dollars)

Mineral	2006 Quantity	2006 Value	2007 Quantity	2007 Value	2008 Quantity	2008 Value
Clays, common	35	228	28	269 r	14	120
Copper[3]	113	784,000	108	783,000	104	734,000
Gemstones, natural	NA	23	NA	24	NA	21
Sand and gravel:						
Construction	18,400	157,000	18,300	157,000	14,500	126,000
Industrial	184	W	W	W	W	W
Stone:						
Crushed	4,970 r	33,800 r	7,590 r	56,700 r	6,750	38,800
Dimension	W	W	20	1,380	27	939
Combined values of cement, gold, gypsum (crude), Helium (Grade–A), lime, molybdenum concentrates, perlite (crude), potash, pumice and pumicite, salt, silver, zeolites, and values indicated by symbol W	XX	509,000	XX	583,000	XX	720,000
Total	XX	1,480,000	XX	1,580,000 r	XX	1,620,000

[r]Revised. NA Not available. W Withheld to avoid disclosing company proprietary data. Withheld values included in "Combined values" data. 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.

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

Type	2007 Number of quarries	2007 Quantity (thousand metric tons)	2007 Value (thousands)	2008 Number of quarries	2008 Quantity (thousand metric tons)	2008 Value (thousands)
Limestone	21 r	3,540 r	$25,700 r	20	3,750	$19,400
Volcanic cinder and scoria	4 r	264 r	2,680 r	6	334	3,280
Sandstone & quartzite	2	232	1,970	2	287	2,450
Miscellaneous stone	23 r	3,560 r	26,300 r	21	2,380	13,700
Total	XX	7,590 r	56,700 r	XX	6,750	38,800

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

TABLE 3
NEW MEXICO: CRUSHED STONE SOLD OR USED BY PRODUCERS
IN 2008, BY USE[1]

(Thousand metric tons and thousand dollars)

Use	Quantity	Value
Construction:		
Coarse aggregate (+1½ inch), riprap and jetty stone	42	392
Coarse aggregate graded:		
Concrete aggregate, coarse	W	W
Bituminous aggregate, coarse	W	W
Bituminous surface-treatment aggregate	W	W
Other graded coarse aggregate	726	2,350
Fine aggregate (-⅜ inch):		
Stone sand, concrete	W	W
Screening, undesignated	19	195
Coarse and fine aggregates:		
Graded road base or subbase	188	1,710
Crusher run or fill or waste	149	1,160
Other coarse and fine aggregates	200	2,530
Other construction materials	2	8
Chemical and metallurgical, cement manufacture	W	W
Other miscellaneous uses and specified uses not listed	161	1,790
Unspecified:[2]		
Reported	154	833
Estimated	4,400	24,000
Total	6,750	38,800

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

TABLE 4
NEW MEXICO: CRUSHED STONE SOLD OR USED BY PRODUCERS IN 2008,
BY USE AND DISTRICT[1]

(Thousand metric tons and thousand dollars)

	District 1		District 2		Unspecified districts	
Use	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	--	--
Coarse and fine aggregate[5]	W	W	W	W	--	--
Other construction materials	--	--	2	8	--	--
Chemical and metallurgical[6]	W	W	--	--	--	--
Other miscellaneous uses	--	--	161	1,790	--	--
Unspecified:[7]						
Reported	118	661	21	159	14	13
Estimated	1,400	7,800	3,000	16,000	--	--
Total	3,060	15,800	3,670	23,100	14	13

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), and other graded coarse aggregate.
[4]Includes screening (undesignated) and stone sand (concrete).
[5]Includes crusher run or fill or waste, graded road base or subbase, and other coarse and fine aggregates.
[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 2008,
BY MAJOR USE CATEGORY[1]

Use	Quantity (thousand metric tons)	Value (thousands)	Unit value
Concrete aggregate (including concrete sand)	2,240	$25,400	$11.32
Concrete products (blocks, bricks, pipe, decorative, etc.)[2]	255	2,410	9.44
Asphaltic concrete aggregates and other bituminous mixtures	1,560	17,500	11.26
Road base and coverings[3]	1,410	10,200	7.21
Fill	776	4,730	6.10
Railroad ballast	6	86	14.33
Other miscellaneous uses	243	6,810	28.02
Unspecified:[4]			
Reported	1,730	7,440	4.30
Estimated	6,200	51,000	8.19
Total or average	14,500	126,000	8.69

[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 road and other stabilization (cement and lime).
[4]Reported and estimated production without a breakdown by end use.

TABLE 6
NEW MEXICO: CONSTRUCTION SAND AND GRAVEL SOLD OR USED IN 2008, 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)	1,770	19,100	475	6,320	--	--
Asphaltic concrete aggregates and other bituminous mixtures	1,400	15,100	158	2,460	--	--
Road base and coverings[2]	952	7,020	455	3,130	--	--
Fill	385	3,740	391	992	--	--
Other miscellaneous uses[3]	483	9,070	21	233	--	--
Unspecified:[4]						
Reported	752	5,240	32	267	945	1,930
Estimated	3,300	26,000	2,900	25,000	--	--
Total	9,050	85,700	4,470	38,100	945	1,930

-- 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 concrete products, plaster and gunite sands, railroad ballast, and road and other stabilization (cement and lime).
[4]Reported and estimated production without a breakdown by end use.