

THE MINERAL INDUSTRY OF MISSISSIPPI

This chapter has been prepared under a Memorandum of Understanding between the U.S. Geological Survey and the Mississippi Office of Geology, Department of Environmental Quality, for collecting information on all nonfuel minerals.

In 1997, for the fourth consecutive year, Mississippi ranked 42d among the 50 States in total nonfuel mineral production value,¹ according to the U.S. Geological Survey (USGS). The estimated value for 1997 was \$137 million, a 5% decrease from that of 1996. This followed a nearly 10% increase from 1995 to 1996 (based on final 1996 data). The State accounted for a little less than 0.5% of the U.S. total nonfuel mineral production value in 1997.

Construction sand and gravel was Mississippi's leading nonfuel mineral, accounting for 41% of the State's value in 1997. Portland cement and fuller's earth followed respectively as the State's second- and third-leading commodities. Most of the State's drop in value in 1997 resulted from the decreases in construction sand and gravel and fuller's earth (*table 1*). In 1996, most of the year's rise in value resulted from the increases in portland cement and construction sand and gravel.

Based on USGS estimates of the quantities of raw minerals produced in the 50 States during 1997, Mississippi remained one of the top five producers of bentonite, and dropped from second to third in fuller's earth and third to fourth in ball clay. Additionally, significant quantities of common clays were produced in the State. Metals produced in Mississippi, especially raw steel, were processed from materials received from other domestic and foreign sources.

The following narrative information was provided by the Mississippi Department of Environmental Quality's Office of Geology² (OG); the agency reported mining activity during 1997 for sand, gravel, industrial and brick-grade clays (including some of the highest-grade calcium bentonite in the world), as well as some quarrying for limestone and dolomite.

¹The terms "nonfuel mineral production" and related "values" encompass variations in meaning, depending on the minerals or 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 1997 USGS mineral production data published in this chapter are estimates as of January 1998. For some commodities (for example, 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. Call MINES FaxBack at (703) 648-4999 from a fax machine with a touch-tone handset, and request Document # 1000 for a telephone listing of all mineral commodity specialists, or call USGS information at (703) 648-4000 for the specialist's name and number. This telephone listing may also be retrieved over the Internet at <http://minerals.er.usgs.gov/minerals/contacts/comdir.html>. All Mineral Industry Surveys—mineral commodity, State, and country—also may be retrieved by way of MINES FaxBack or over the Internet at <http://minerals.er.usgs.gov/minerals/>.

²James Starnes, a Geologist with the Mississippi Department of Environmental Quality's Office of Geology, provided the Mississippi mineral industry information.

The OG's Mining and Reclamation Division (MRD), charged with enforcement of the Mississippi Surface Mining and Reclamation Act of 1977 (SMRA), regulates Mississippi's mining activities. The mining industry is one of the State's most important industries, contributing thousands of jobs and tens of millions of dollars to the Mississippi economy. The MRD currently has jurisdiction over nearly 6,900 hectares being mined in the State; this land area includes, in addition to the nonfuel minerals listed in table 1, the extraction of such materials as topsoil and other soils, borrow, and fill materials.

The OG and its divisions compile data based on its fiscal year (July 1 to June 30). In fiscal year 1997, MRD approved 63 new mining permits and performed more than 1,450 inspections of existing mines. Mining operations using 1.6 hectares of land or less do not need a mining permit but have to submit a notice of exemption to MRD. One hundred and twenty-four notices of exempt operations were received in 1997. Active mining permits on file at the end of fiscal year 1997 totaled 777, while the total exemptions were 755.

The MRD reviewed a permit application for Mississippi's first low-grade coal (lignite) mine. The mine, located in Choctaw County, will be strip mined while continuous reclamation is performed. The final permit may apply to as much as 6,500 hectares. As projected by the permittee and the associated power company, an estimated output of 400 megawatts of electricity will be generated by lignite supplied from the mine for use in providing power to a number of counties in the eastern part of the State.

The MRD continued to place emphasis on getting mined land reclaimed and put back into useful and productive purposes. In accordance with the SMRA, mine operators must post a performance bond that is released only upon satisfactory reclamation of the land affected by mining activities. In fiscal year 1997, more than 445 bond release hectares were reclaimed. More bond hectares were reclaimed and more final bond releases were granted in fiscal year 1997 than in any previous year.

The OG continued the Mine Safety and Health Administration (MSHA) training for miners. This training is for operations that process mined material, such as rock crushing and gravel washing facilities, and is vitally important to the mining industry in Mississippi. The OG expects fatalities in the State to remain at low levels in large part because of this training. The OG hosted the Southeastern Regional Conference of MSHA trainers in March on the Gulf Coast in Biloxi.

TABLE 1
NONFUEL RAW MINERAL PRODUCTION IN MISSISSIPPI 1/ 2/

(Thousand metric tons and thousand dollars unless otherwise specified)

Mineral	1995		1996		1997 p/	
	Quantity	Value	Quantity	Value	Quantity	Value
Clays:						
Ball	73	4,540	73	4,540	73	4,540
Bentonite	164	6,510	145	4,480	156	4,630
Common	616	6,080	534	3,610	566	3,730
Fuller's earth	378	26,900	379	27,800	332	25,200
Gemstones	NA	1	NA	1	NA	1
Sand and gravel, construction	11,800	53,000	13,400	60,600	12,100	56,300
Stone, crushed 3/	1,990	8,010	2,180	9,300	1,900	8,300
Combined value of cement (portland), sand and gravel (industrial), and stone (crushed marl)	XX	25,500	XX	33,500	XX	34,800
Total	XX	131,000	XX	144,000	XX	137,000

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 three significant digits; may not add to totals shown.

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

TABLE 2
MISSISSIPPI: CRUSHED STONE SOLD OR USED, BY KIND 1/ 2/

Kind	1995 3/				1996 3/			
	Number of quarries	Quantity (thousand metric tons)	Value (thousands)	Unit value	Number of quarries	Quantity (thousand metric tons)	Value (thousands)	Unit value
Limestone	4	1,990	\$8,010	\$4.03	4	2,180	\$9,300	\$4.26

1/ To avoid disclosing company proprietary data; district and use tables were not produced for 1996.

2/ Data are rounded to three significant digits.

3/ Excludes calcareous marl from State total to avoid disclosing company proprietary data.

TABLE 3
MISSISSIPPI: CONSTRUCTION SAND AND GRAVEL SOLD OR USED IN 1996,
BY MAJOR USE CATEGORY 1/

Use	Quantity (thousand metric tons)	Value (thousands)	Value per ton
Concrete aggregate (including concrete sand)	3,770	\$18,300	\$4.84
Plaster and gunite sands	50	248	4.96
Concrete products (blocks, bricks, pipe, decorative, etc.)	108	451	4.18
Asphaltic concrete aggregates and other bituminous mixtures	1,830	9,150	5.00
Road base and coverings 2/	1,430	5,610	3.93
Unspecified: 3/			
Actual	3,480	15,600	4.49
Estimated	2,690	11,300	4.20
Total or average	13,400	60,600	4.54

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

2/ Includes fill, road and other stabilization (cement and lime), and snow and ice control.

3/ Includes production reported with a breakdown by end use and with estimates for nonrespondents.

TABLE 4
MISSISSIPPI: CONSTRUCTION SAND AND GRAVEL SOLD OR USED IN 1996, BY USE AND DISTRICT 1/

(Thousand metric tons and thousand dollars)

Use	District 1		District 2		District 3	
	Quantity	Value	Quantity	Value	Quantity	Value
Concrete aggregate and concrete products 2/	2,250	10,800	1,080	5,330	602 3/	2,790 3/
Asphaltic concrete aggregates and road base materials 4/	1,600	7,630	1,170	5,360	491 3/	1,770 3/
Unspecified: 5/						
Actual	1,720	7,190	1,540	7,750	218	672
Estimated	179	707	2,110	9,010	406	1,610
Total	5,740	26,400	5,900	27,400	1,720 3/	6,840 3/

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

2/ Includes plaster and guniting sands.

3/ Includes production within the State with no district reported.

4/ Includes fill and road and other stabilization (cement and lime), and snow and ice control.

5/ Includes production reported without a breakdown by end use and with estimates for nonrespondents.