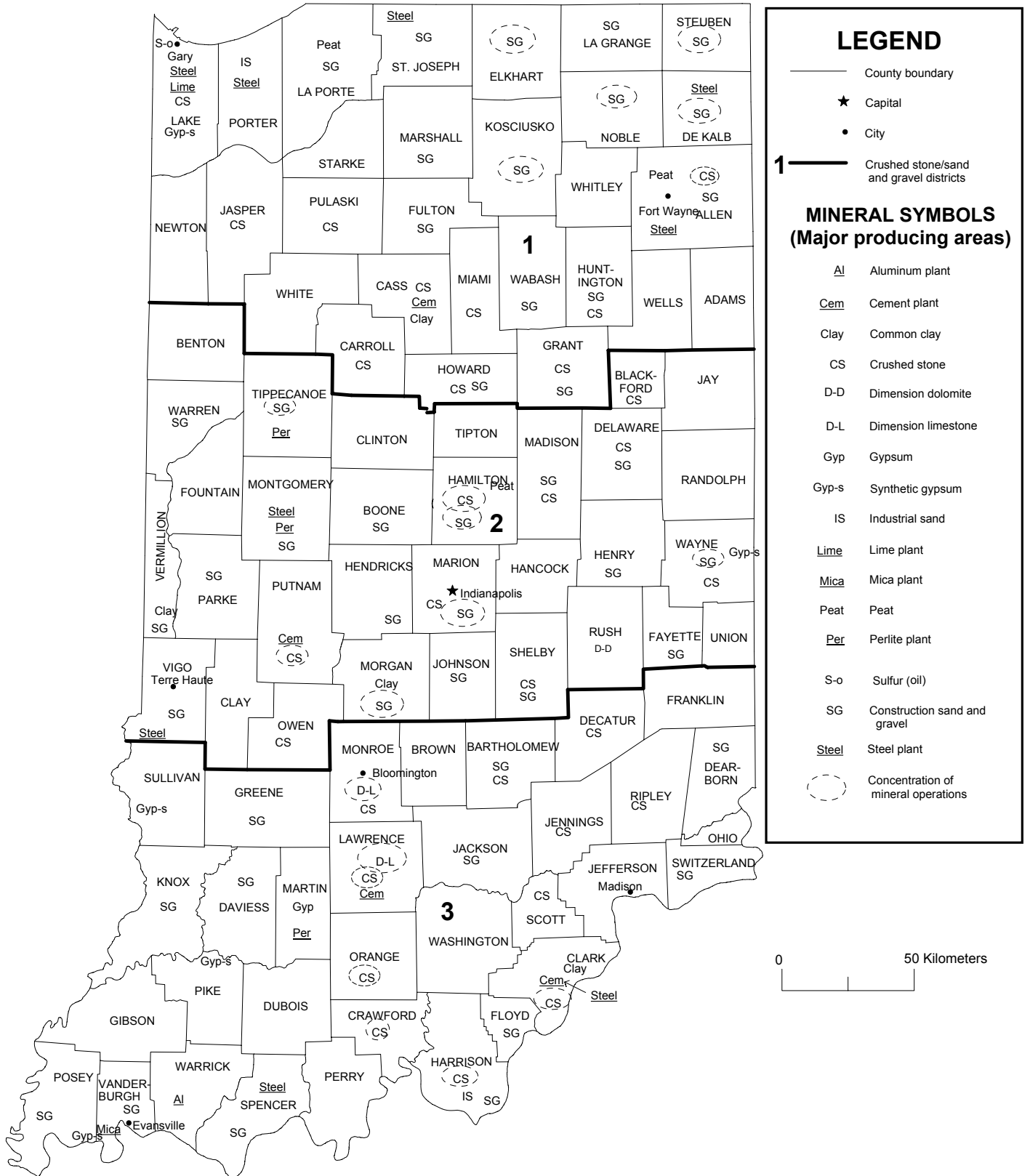


INDIANA



THE MINERAL INDUSTRY OF INDIANA

This chapter has been prepared under a Memorandum of Understanding between the U.S. Geological Survey and the Indiana Geological Survey for collecting information on all nonfuel minerals.

In 2001, the estimated value¹ of nonfuel mineral production for Indiana was \$718 million, based upon preliminary U.S. Geological Survey (USGS) data. This was more than a 3% increase from that of 2000² and followed a 2.9% decrease from 1999 to 2000. The State rose in rank to 20th from 22d among the 50 States in nonfuel mineral production value, of which Indiana accounted for close to 2% of the U.S. total. Indiana's increase in nonfuel mineral value in 2000 resulted mostly from the rising values of crushed stone and portland and masonry cements, further supported by smaller increases in construction sand and gravel and dimension stone. Both gypsum and lime production and values were down slightly. In 2000, a \$17 million drop in the value of crushed stone, a \$5 million decrease in construction sand and gravel, and about a \$4 million drop in lime led to the State's decrease for the year. These decreases were countered somewhat by increases in cement (portland and masonry) and gypsum; common clay and peat were also up slightly (descending order of change) (table 1). Compared with USGS estimates of the quantities of minerals produced in the other 49 States during 2001, Indiana remained first in dimension stone and fourth in peat; it was one of the top five masonry cement-producing States and it continued to be eighth in lime. The State rose to 8th from 10th in the production of gypsum and was a significant producer of portland cement, crushed stone, construction sand and gravel, and common clays, ranking 11th, 13th, 13th, and 14th, respectively. The State's mines exclusively produced industrial minerals and coal; all raw steel and primary aluminum produced in the State were processed from materials received from other domestic and foreign sources. Indiana continued to lead the Nation in the production of raw steel, with an estimated output of about 21 million metric tons of raw steel, as reported by the American Iron and Steel Institute. Based upon USGS annual data, the State remained third in the production of primary aluminum.

The following narrative information was provided by the Indiana Geological Survey³ (IGS). The U.S. Mine Safety and

¹The terms "nonfuel mineral production" and related "values" encompass variations in meaning, depending upon 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 2001 USGS mineral production data published in this chapter are preliminary estimates as of August 2002 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 Mineral Industry Surveys—mineral commodity, State, and country—also may be retrieved over the Internet at URL <http://minerals.usgs.gov/minerals>.

²Values, percentage calculations, and rankings for 2000 may differ from the Minerals Yearbook, Area Reports: Domestic 2000, Volume II, owing to the revision of preliminary 2000 to final 2000 data. Data for 2001 are preliminary and are expected to change; related rankings may also change.

Health Administration (MSHA) reported that 3,704 individuals were employed in the Indiana nonfuel mining sector during 2001; this was a 2.7% decrease from 2000. Mulzer Crushed Stone, Inc.'s Rockport Plant at Tell City received a 2000 Sentinels of Safety Exceptional Safety Record award in the dredging category for 109,762 hours without a lost-time injury. The award was sponsored by MSHA and the National Mining Association. The National Stone, Sand & Gravel Association presented a Safety Award for the year 2000 to Rogers Group, Inc.'s Greene County Plant for 36 years (10,000 days) without a lost-time accident or fatality.

The Indiana Department of Transportation (INDOT) completed highway construction projects valued at \$737 million during 2001, achieving a new State record. Northeast Indiana benefited from \$8 million awarded by the Federal Government in December for airport and other transportation projects. In addition, INDOT awarded \$18.3 million for 34 Transportation Enhancement Activity awards in July. The Federally funded projects are related to transportation but are not highway projects, and include bicycle/pedestrian paths and trails, revitalization or construction of new commerce areas, and restoration of historic bridges and historic commerce areas. A purpose and need statement was released on Interstate 69 (I-69), supporting the need for an interstate linking Indianapolis to Evansville. About \$5 million for an I-69 environmental study was approved as part of the Senate version of the Federal transportation appropriations bill that went to a conference committee. The number of routes under consideration for the extension was narrowed from 14 to 5. A final route will be selected by late 2002, but it may take 2 more years to decide on a site for an I-69 bridge to cross the Ohio River at Evansville. The Web site <http://www.i69in-ky.com> was set up to provide information to the public. Evansville requested \$30 million in Federal funds to cover planning for the bridge and for an I-69 route around the city. A draft Environmental Impact Statement (EIS) evaluating nine sites for the Ohio River Bridges Project was released in November. This project would build two new bridges across the Ohio River in the Jeffersonville, IN/Clarksville, IN, and Louisville, KY, regions. Increased landing fees and rental rates along with a tentative agreement with airlines on a long-term lease should fund much of the cost for a new \$890 million airport terminal at the Indianapolis International Airport. Completion of the project has been delayed until 2007 to allow airline companies more time to procure funds. A \$390 million Gary-Chicago Airport expansion project received Federal approval. The Princeton, IN, Toyota plant continued planning for an \$800 million expansion. Eli Lilly and Co. planned to expand three buildings in its Indianapolis complex at a total cost of \$55.5 million. The company also planned to start construction, totaling \$35

³Kathryn R. Shaffer, Minerals Statistician, authored the text of State minerals information submitted by the Indiana Geological Survey.

million, on two new buildings in Indianapolis in the spring. A \$100 million addition is being planned for the Central Library in Indianapolis.

There were developments in Indiana's crushed stone industry during 2001. Martin Marietta Aggregates planned to reopen an undeveloped portion of the long-abandoned Standard Materials Corp. quarry site at Waldron in Shelby County. The company also planned to process and to sell the sand and gravel overburden before developing the quarry. A joint venture between J.W. Jones Co. and Martin Marietta Aggregates acquired two existing crushed stone quarries owned by J.W. Jones Co. Martin Marietta Aggregates planned to manage both. The joint venture renamed the two quarries the Gosport Quarry and Putnam Quarry; the former is in Owen County and the latter is in Putnam County. Rogers Group, Inc. acquired Blackwell Moore, Inc., which produced crushed stone from overburden at the Indiana Limestone Co., Inc.'s Crown Quarry and planned to continue to produce crushed stone at the Bloomington Crown Quarry. The Indiana Limestone Co., Inc. planned to continue to produce dimension limestone from the quarry. Mulzer Crushed Stone, Inc. applied to rezone 81 hectares at its New Amsterdam Quarry in Harrison County. No new crushed stone quarries opened during the year, and only one crushed stone quarry, Hanson Aggregates Midwest Region's Woodburn Quarry in Allen County, closed during 2001.

The dimension limestone industry had a stable year. Development continued at the new StarStone Co., Inc. Patton Hill Quarry near the town of Oolitic in Lawrence County. The quarry opened in 2000 in response to the forced idling of the company's Hunter Valley Quarry in Monroe County because of prolonged highway improvements. Independent Limestone Co. in Monroe County was selected to produce about 425 cubic meters of stone for the Pentagon reconstruction project. Bybee Stone Co. of Ellettsville cut, detailed, and shipped the stone. Most of the original stone came from the Indiana Limestone Co. in Lawrence County during the 1940s.

The Indiana sand and gravel industry continued to experience strong product demand that resulted in the opening of several new pits: Jerry R. Riddle Gravel Co., Inc., Riddle Sand and Gravel, Madison County; Kokomo Gravel, Inc., Peru Plant, Miami County; W.R. Beach, Inc., W.R. Beach Sand & Gravel, Marion County; Jack Owen Construction, Noble County; and Mishawaka Recycle, St. Joseph County. Noblesville Landfill, Inc. also sold sand and gravel from the Noblesville landfill site in Hamilton County. Dredging at the former Martin Marietta Aggregates Utica site on the Ohio River in Clark County continued as part of the construction of a planned barge facility for Nugent Sand Co. Nugent Sand Co. operated pits at Bethlehem in Clark County and at Columbus in Bartholomew County, and shipped material to company-owned facilities in Kentucky. The aforementioned joint venture between J.W. Jones Co. and Martin Marietta Aggregates planned to acquire a sand and gravel operation at Waverly, Morgan County, owned by J.W. Jones Co. and to rename it Five Points Sand. Martin Marietta Aggregates encountered delays in attempting to expand its River Road sand and gravel operation in Hamilton County, which is in the urbanized Carmel area north of Indianapolis. Other companies acquired two Martin Marietta Aggregates sand and gravel operations. The Roskovensky Concrete & Gravel,

(also called Roskovensky Sand & Gravel) acquired the Clinton Plant in Vermillion County. The Terre Haute pit in Vigo County acquired the neighboring S&G Excavating, Inc., and combined the pit with its existing South Pit. Cox Materials, Inc.'s Plants 1 and 2 in Morgan and Hancock Counties, respectively, acquired Indiana State Materials LLC. Purdy Materials Inc. in Tippecanoe County planned to move to an approved nearby area when the present reserves will be exhausted in about 3 years. The company received zoning approval to continue producing sand and gravel near the city of Lafayette for the next 20 years. Krafft Gravel, Inc., Spencerville Pit, DeKalb County; M. R. Gravel, Hancock County; and Vulcan Materials Co., Battle Ground Sand and Gravel, Tippecanoe County, all closed during the year.

Activities in other industrial minerals industries included the following. Unimin Corp. acquired the Huntingburg Plant in Clay County from United Clays, Inc. The company produced fine-ground clay and limestone, talc and talc blend, and purchased all raw materials. The KPT, Inc. tile company at Bloomfield closed because of increased competition and decreased profitability of the plant. Two peat producers, Filbrun Peat Moss, Madison County, and Hyponex Corp., Hamilton County, stopped production. Hyponex, however, continued to sell peat produced at other Indiana locations.

The Indiana Water Pollution Control Board approved new ground water rules. In May 2001, a State law was passed that stipulates that the Indiana Solid Waste Management Board may not regulate the legitimate production, transportation, storage, processing or use of slag created as a byproduct of iron and steel production. In December, the State considered new standards for using slag in road construction following the leaching of an unpleasant smelling fluid from I-65 in Lake County. This resulted from repairs and improvements in October that had used slag as fill material. INDOT conducted public meetings around the State in September to discuss present and future transportation plans for the State. Morgan County experienced a boom in recent years in the development of sand and gravel operations. This has resulted in problems with truck traffic and damage to much traveled county roads. As a result, an agreement was reached whereby Morgan County gravel producers will negotiate with county commissioners on ways that the producers can help make county road improvements on Madison Township roads traveled by gravel trucks.

In 2001, approximately 150 aggregate operations were enrolled in an environmental stewardship program for pits and quarries in the State, a program established by the Indiana Mineral Aggregates Association (IMAA) with assistance from the Indiana Geological Survey (IGS). The IGS, in association with the IMAA, mapped locations of active industrial mineral-producing mine sites in Indiana. The IGS, in collaboration with Bernardin, Lochmueller & Associates, Inc. completed elements of a geographic information system portrayal of southwestern Indiana as part of the EIS for the proposed I-69 extension. The IGS continued its ongoing research on Salem Limestone to understand its formation, distribution, and potential as a petroleum reservoir; this study should benefit both the dimension stone and petroleum industry. Mapping studies of abandoned underground limestone mines were conducted in Clark County. The IGS completed an initial

study of the origins and remediation of pad marks that form on the surface of milled dimension stone stacked at job sites. A USGS-funded STATEMAP project to map bedrock geology of the north-central Heartlands area and the bedrock geology in the Indianapolis quadrangle at a scale of 1:100,000 continued. During 2001, IGS published three maps related to the STATEMAP project (Hasenmueller and James, 2001a, b, c), a computer database of physical testing data for Indiana building stones (Hill, Hasenmueller, and Frushour, 2001), and a directory of industrial mineral producers (Shaffer, 2001); a compact disk of the directory was in production. Databases on active and abandoned pits and quarries and stone testing were also being compiled.

Legislation that would redefine passenger vehicles to include pickup trucks, a change that would alter the amount that several counties could receive in State highway funds, was introduced and referred to committee. State legislation that could have provided extra funds for Indiana highway maintenance and construction by raising gasoline taxes did not pass. The U.S. Army Corps of Engineers continued to conduct a study to develop a 60-year navigation plan for the Ohio River. Most of the 19 locks on the river are 40 to 50 years old, and some are even older.

Hanson Aggregates Midwest Region, Harding Street, was 1 of 31 aggregate mines selected nationwide by MSHA to monitor air quality for diesel particulate matter. A Purdue doctoral student developed a lightweight portland cement mixture that cures at subfreezing temperatures, a development that could be useful to the construction industry.

Cheap imported steel continued to exacerbate financial problems for the steel industry. LTV Steel Corp., operating under Chapter 11, received approval from a bankruptcy court in December to cease operations so that it is better prepared to sell the company. The company planned to continue its efforts to acquire \$250 million in Federally-guaranteed emergency loans or to find a buyer. The State awarded \$7.4 million in loans to the East Chicago area to compensate for lost property tax income. Ispat Inland Inc. and other East Chicago taxpayers may find its taxes increased to offset the loss of taxes caused by the LTV Corp. closure. Indiana Workforce Development Services reported that this was the largest closure occurring at one time in the State's history. Bethlehem Steel and U.S. Steel absorbed most of LTV Corp.'s customers. The two companies were planning to raise steel prices from 7% to 9% because of the closing and because of declining foreign imports. Three companies toured LTV Corp.'s plants in Indiana and Illinois in July, fueling speculation that they might be interested in purchasing them.

Bethlehem Steel Corp., which operated a mill at Burns Harbor, IN, filed for Chapter 11 bankruptcy protection in October. Primary reasons given for the insolvency were negative effects on the market of high-volume steel imports, expensive employee retirement programs, and rising labor costs. It also blamed a fall in the market following the September 11 tragedy. This is the fifth steel producer with mills in the State to file for bankruptcy; the others are Heartland Steel at Terre Haute, Qualitech Steel SBQ at Pittsboro, LTV Corp. at

East Chicago, and Republic Technologies International LLC at Gary. Burns Harbor (Porter County) faced a possible significant shortfall in tax income because of the bankruptcy. Porter County will receive \$3 million in State loans and \$6.3 million in advanced school system tuition payments; however, the total additional shortfall will be about \$21 million.

United States Steel Corp. also suffered losses during the year. To improve operating efficiency, it considered a merger with Bethlehem Steel, Wheeling-Pittsburgh Steel, a fourth unnamed company, and additional unnamed partners. The merger would create a company capable of producing 27 million metric tons per year, almost double U.S. Steel's current production of 15 million metric tons. Antitrust issues are not likely to be a factor since the new company would probably produce less than 25% of the Nation's steel. The Gary Works planned to build a dewatering facility for environmental reasons.

Heartland Steel in Terre Haute, Vigo County, filed for Chapter 11 protection in January. The company was purchased by Companhia Siderurgica Nacional (CSN), a Brazilian steel company, for \$55 million. CSN had some concern for its future ability to bring steel into the country for processing at the plant because of restrictions that could be placed on foreign imports by the International Trade Commission. Qualitech Steel in Pittsboro, also operating under Chapter 11 bankruptcy protection, announced that the plant planned to close until a buyer could be found; Qualitech Steel hired an investment bank to find a buyer. The plant has flow-control problems, but the company stated that it had a plan for fixing them. Ispat Inland Inc. in East Chicago needed to make repairs to its plant but was unable to do so for financial reasons. An expansion project at Eagle Steel Products Inc. that included a new building and equipment will receive funding through the sale of \$7.75 million in tax-free bonds, which the Jeffersonville City Council approved in October.

Alcoa, Inc. and Praxair, Inc., Newburgh, received a Governor's Award for Excellence in Pollution Prevention presented by the Indiana Department of Environmental Management for developing a production method that reduces natural gas consumption by 45%, nitrogen oxides emissions by 50%, and waste metal generation by 85%.

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

(Thousand metric tons and thousand dollars unless otherwise specified)

Mineral	1999		2000		2001 p/	
	Quantity	Value	Quantity	Value	Quantity	Value
Cement, portland	2,510	178,000 e/	2,630	179,000 e/	2,860 e/	195,000 e/
Clays, common	752	1,480	639	1,560	639	1,560
Gemstones	NA	3	NA	3	NA	3
Sand and gravel:						
Construction	29,500	126,000	27,900	121,000	28,200	124,000
Industrial	175	1,860	W	W	W	W
Stone:						
Crushed 3/	58,800 r/	270,000 r/	55,400	253,000	56,000	264,000
Dimension metric tons	255,000	33,500	235,000	32,400	254,000	33,800
Combined values of cement (masonry), gypsum (crude), lime, peat	XX	106,000	XX	108,000	XX	99,100
Total	XX	716,000	XX	695,000	XX	718,000

e/ Estimated. p/ Preliminary. NA Not available. r/ Revised. W Withheld to avoid disclosing company proprietary data; value included with "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/ Excludes certain stones; kind and value included with "Combined values" data.

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

Kind	1999				2000			
	Number of quarries	Quantity (thousand metric tons)	Value (thousands)	Unit value	Number of quarries	Quantity (thousand metric tons)	Value (thousands)	Unit value
Limestone 2/	74 r/	45,400 r/	\$208,000 r/	\$4.57 r/	64	44,200	\$205,000	\$4.63
Dolomite	20	12,900	59,600	4.62	19	W	W	W
Slate	1	477	2640	5.53	1	W	W	W
Total or average	XX	58,800 r/	270,000 r/	4.59	XX	55,400	253,000	4.57

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; may not add to totals shown.

2/ Includes limestone-dolomite reported with no distinction between the two.

TABLE 3
INDIANA: CRUSHED STONE SOLD OR USED BY PRODUCERS IN 2000, BY USE 1/ 2/

Use	Quantity (thousand metric tons)	Value (thousands)	Unit value
Construction:			
Coarse aggregate (+1 1/2 inch):			
Macadam	138	\$834	\$6.04
Riprap and jetty stone	720	4,020	5.58
Filter stone	369	1,820	4.92
Other coarse aggregate	496	2,540	5.12
Total or average	1,720	9,210	5.34
Coarse aggregate, graded:			
Concrete aggregate, coarse	4,000	19,200	4.81
Bituminous aggregate, coarse	2,840	14,100	4.97
Bituminous surface-treatment aggregate	1,810	7,670	4.24
Railroad ballast	115	653	5.68
Other graded coarse aggregate	1,500	8,260	5.52
Total or average	10,300	50,000	4.87
Fine aggregate (-3/8 inch):			
Stone sand, concrete	W	W	7.15
Stone sand, bituminous mix or seal	330	1,920	5.83
Screening, undesignated	198	817	4.13
Other fine aggregate	332	2,260	6.80
Total or average	860	5,000	5.81
Coarse and fine aggregates:			
Graded road base or subbase	3,490	16,800	4.83
Unpaved road surfacing	1,480	7,040	4.76
Terrazzo and exposed aggregate	W	W	7.13
Crusher run or fill or waste	545	2,350	4.30
Lightweight aggregate (slate)	W	W	5.83
Other coarse and fine aggregates	4,700	20,400	4.34
Total or average	10,200	46,600	4.56
Other construction materials	29	190	6.55
Agricultural:			
Agricultural limestone	1,050	5,460	5.19
Poultry grit and mineral food	(3/)	(3/)	3.66
Chemical and metallurgical:			
Cement manufacture	3,580	14,600	4.09
Dead-burned dolomite manufacture	(3/)	(3/)	5.48
Flux stone	(3/)	(3/)	4.14
Sulfur oxide removal	1,290	4,640	3.60
Special:			
Whiting or whiting substitute	(3/)	(3/)	11.18
Other fillers or extenders	(3/)	(3/)	11.67
Unspecified: 4/			
Reported	20,900	92,500	4.42
Estimated	5,000	23,000	4.52
Total or average	25,900	115,000	4.44
Grand total or average	55,400	253,000	4.57

W Withheld to avoid disclosing company proprietary data; included with "Other."

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

2/ Includes dolomite, limestone, limestone-dolomite, and slate.

3/ Withheld to avoid disclosing company proprietary data; included in "Grand total."

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

TABLE 4
INDIANA: CRUSHED STONE SOLD OR USED BY PRODUCERS IN 2000, BY USE AND DISTRICT 1/

(Thousand metric tons and thousand dollars)

Use	District 1		District 2		District 3	
	Quantity	Value	Quantity	Value	Quantity	Value
Construction:						
Coarse aggregate (+1 1/2 inch) 2/	531	2,750	179	1,040	1,010	5,420
Coarse aggregate, graded 3/	2,010	10,400	783	4,720	7,470	34,800
Fine aggregate (-3/8 inch) 4/	338	1,840	W	W	W	W
Coarse and fine aggregate 5/	5,070	20,600	1,570	7,580	3,580	18,400
Other construction materials	--	--	29	190	--	--
Agricultural 6/	W	W	W	W	458	1,960
Chemical and metallurgical 7/	W	W	W	W	3,520	13,600
Special 8/	W	W	--	--	W	W
Unspecified: 9/						
Reported	5,490	24,500	10,500	46,100	4,950	21,800
Estimated	1,300	5,700	1,000	4,500	2,700	12,000
Total	16,200	73,200	15,000	69,200	24,100	111,000

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, macadam, 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 stone sand (bituminous mix or seal), stone sand (concrete), screening (undesignated), and other fine aggregate.

5/ Includes crusher run (select material or fill), graded road base or subbase, lightweight aggregate (slate), terrazzo and exposed aggregate, unpaved road surfacing, and other coarse and fine aggregates.

6/ Includes agricultural limestone and poultry grit and mineral food.

7/ Includes cement manufacture, dead-burned dolomite manufacture, flux stone, and sulfur oxide removal.

8/ Includes whiting or whiting substitute and other fillers or extenders.

9/ Reported and estimated production without a breakdown by end use.

TABLE 5
INDIANA: CONSTRUCTION SAND AND GRAVEL SOLD OR USED IN 2000,
BY MAJOR USE CATEGORY 1/

Use	Quantity (thousand metric tons)	Value (thousands)	Unit value
Concrete aggregate (including concrete sand)	5,720	\$21,000	\$3.68
Concrete products (blocks, bricks, pipe, decorative, etc.) 2/	319	1,870	5.87
Asphaltic concrete aggregates and other bituminous mixtures	1,130	4,610	4.09
Road base and coverings	910	4,250	4.67
Road stabilization (cement)	266	642	2.41
Fill	1,570	4,940	3.14
Snow and ice control	206	631	3.06
Other miscellaneous uses 3/	102	536	5.25
Unspecified: 4/			
Reported	12,100	59,700	4.94
Estimated	5,500	22,000	4.03
Total or average	27,900	121,000	4.33

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

2/ Includes plaster and gunite sands.

3/ Includes filtration.

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

TABLE 6
 INDIANA: CONSTRUCTION SAND AND GRAVEL SOLD OR USED IN 2000, 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 (including concrete sand)	1,910	6,560	1,900	9,340	1,900	5,150
Concrete products (blocks, bricks, pipe, decorative, etc.) 2/	149	536	57	583	113	753
Asphaltic concrete aggregates and other bituminous mixtures	575	2,610	271	966	281	1,030
Road base and coverings 3/	409	1,930	W	W	W	W
Fill	432	1,230	1,040	3,440	104	268
Snow and ice control	111	332	84	274	11	25
Other miscellaneous uses 4/	83	428	722	2,630	62	441
Unspecified: 5/						
Reported	45	288	9,960	51,600	2,100	7,870
Estimated	3,100	12,000	1,400	6,100	1,100	4,500
Total	6,760	25,700	15,400	74,800	5,650	20,000

W Withheld to avoid disclosing company proprietary data; included with "Other miscellaneous uses."

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

2/ Includes plaster and gunite sands.

3/ Includes road and other stabilization (cement).

4/ Includes filtration.

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