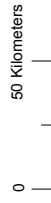
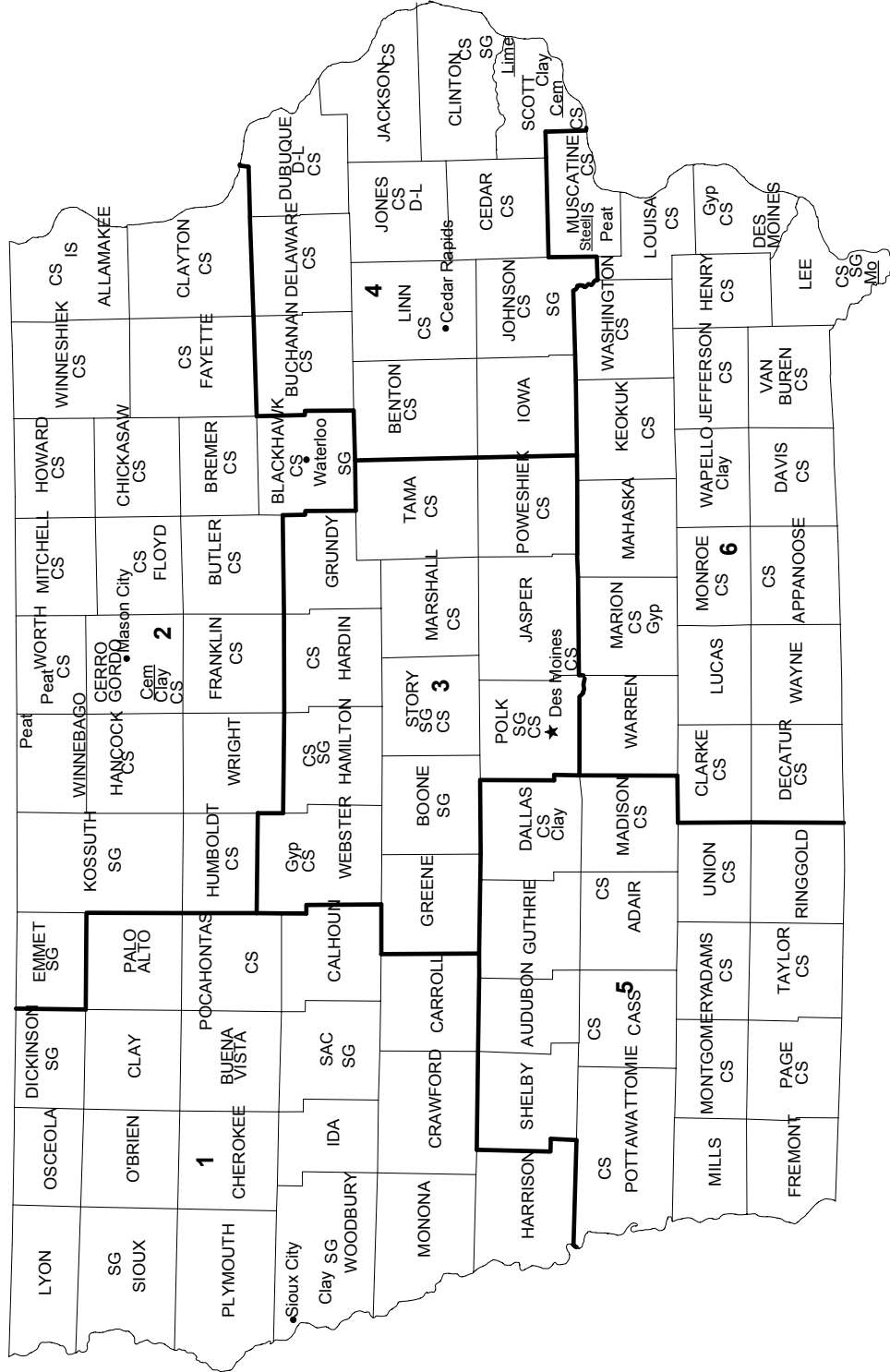


IOWA



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
- D-L Dimension limestone
- Gyp Gypsum
- IS Industrial sand
- Lime Lime plant
- Mo Molybdenum plant
- Peat Peat
- SG Construction sand and gravel
- Steel Steel plant

THE MINERAL INDUSTRY OF IOWA

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

In 2001, the estimated value¹ of nonfuel mineral production for Iowa was \$487 million, based upon preliminary U.S. Geological Survey (USGS) data. This was about a 3% decrease from that of 2000² and followed a 4.6% increase in 2000 from that of 1999. The State was 31st (28th in 2000) in rank among

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.

the 50 States in total nonfuel mineral production value, of which Iowa accounted for more than 1% of the U.S. total.

Crushed stone, cement (portland and masonry), construction sand and gravel, and gypsum, in descending order of value, were Iowa's leading nonfuel mineral commodities in 2001, accounting for about 95% of the State's total nonfuel mineral value. In 2000, a more than \$9 million increase in portland cement, a \$6 million rise in crushed stone, plus smaller yet significant increases in lime and gypsum offset a \$6.5 million decrease in construction sand and gravel, leading to the State's \$22 million rise in value for the year. Increases also occurred in masonry cement, peat, and common clay, while gemstones was unchanged, and industrial sand and gravel was down slightly (table 1).

Compared with USGS preliminary estimates of quantities produced in the other 49 States in 2001, Iowa remained second in crude gypsum and was a significant producer of crushed stone, portland cement, and construction sand and gravel (descending order of value). No metals were mined in Iowa; all of the State's metal production, such as raw steel, resulted from the processing of materials acquired from other domestic and foreign sources.

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

(Thousand metric tons and thousand dollars)

Mineral	1999		2000		2001 p/	
	Quantity	Value	Quantity	Value	Quantity	Value
Clays, common	302	1,040	306	1,060	306	1,060
Gemstones	NA	2	NA	2	NA	2
Sand and gravel:						
Construction	13,500	60,600	12,300	54,100	13,300	59,400
Industrial	W	W	29	W	32	W
Stone, crushed	40,200 r/	203,000 r/	40,200	209,000	38,000	204,000
Combined values of cement, gypsum (crude), lime, peat, and values indicated by symbol W	XX	216,000	XX	239,000	XX	223,000
Total	XX	481,000	XX	503,000	XX	487,000

p/ Preliminary. r/ Revised. NA Not available. 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.

TABLE 2
IOWA: 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/	206 r/	W	W	W	205	W	W	W
Dolomite	1 r/	W	W	W	1	W	W	W
Total or average	XX	40,200 r/	\$203,000 r/	\$5.05 r/	XX	40,200	\$209,000	\$5.20

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
IOWA: 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	169	\$835	\$4.94
Riprap and jetty stone	90	711	7.90
Filter stone	171	1,313	7.68
Other coarse aggregate	78	546	7.00
Total or average	508	3,410	6.70
Coarse aggregate, graded:			
Concrete aggregate, coarse	1,060	8,320	7.88
Bituminous aggregate, coarse	332	2,540	7.64
Bituminous surface-treatment aggregate	150	1,050	7.01
Railroad ballast	W	W	6.82
Other graded coarse aggregate	41	245	5.98
Total or average	1,580	12,200	7.70
Fine aggregate (-3/8 inch):			
Stone sand, concrete	W	W	3.86
Stone sand, bituminous mix or seal	73	505	6.92
Screening, undesignated	113	441	3.90
Other fine aggregate	16	67	4.19
Total or average	202	1,010	5.01
Coarse and fine aggregates:			
Graded road base or subbase	1,530	11,400	7.47
Unpaved road surfacing	3,270	19,100	5.85
Crusher run or fill or waste	182	676	3.71
Other coarse and fine aggregates	236	1,770	7.51
Total or average	5,220	33,000	6.33
Other construction materials	220	2,140	9.71
Agricultural:			
Agricultural limestone	716	2,920	4.08
Poultry grit and mineral food	W	W	3.52
Other agricultural uses	282	1,030	3.65
Total or average	998	3,950	3.96
Chemical and metallurgical:			
Cement manufacture	(3/)	(3/)	3.55
Lime manufacture	(3/)	(3/)	4.69
Flux stone	(3/)	(3/)	6.35
Special, asphalt fillers or extenders	(3/)	(3/)	16.00
Unspecified: 4/			
Reported	16,500	82,000	4.97
Estimated	12,000	60,000	4.96
Total or average	28,600	142,000	4.97
Grand total or average	40,200	209,000	5.20

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, and limestone-dolomite.

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
IOWA: 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		District 4	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
Construction:								
Coarse aggregate (+1 1/2 inch) 2/	--	--	157	782	W	W	W	W
Coarse aggregate, graded 3/	--	--	515	3,510	W	W	W	W
Fine aggregate (-3/8 inch) 4/	--	--	103	435	--	--	59	302
Coarse and fine aggregate 5/	--	--	W	W	W	W	1,720	11,600
Other construction materials	--	--	124	928	--	--	97	1,120
Agricultural 6/	--	--	W	W	W	W	169	623
Chemical and metallurgical 7/	--	--	W	W	W	W	W	W
Special: 8/	--	--	--	--	--	--	W	W
Unspecified: 9/								
Reported	1,090	5,400	2,160	11,000	4,910	24,300	3,640	18,000
Estimated	--	--	2,500	12,000	--	--	3,200	19,000
Total	1,090	5,400	8,990	44,600	5,420	27,000	11,700	63,300
Use	District 5		District 6		Unspecified districts			
	Quantity	Value	Quantity	Value	Quantity	Value		
Construction:								
Coarse aggregate (+1 1/2 inch) 2/	--	--	119	889	--	--		
Coarse aggregate, graded 3/	--	--	203	1,770	--	--		
Fine aggregate (-3/8 inch) 4/	--	--	40	276	--	--		
Coarse and fine aggregate 5/	--	--	1,380	10,000	--	--		
Other construction materials	--	--	--	--	--	--		
Agricultural 6/	--	--	137	624	--	--		
Chemical and metallurgical 7/	--	--	--	--	--	--		
Special: 8/	--	--	--	--	--	--		
Unspecified: 9/								
Reported	850	4,220	2,210	11,000	1,630	8,080		
Estimated	5,700	28,000	640	3,200	--	--		
Total	6,590	32,700	4,730	27,800	1,630	8,080		

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 aggregate.

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

5/ Includes crusher run (select material or fill), graded road base or subbase, roofing granules, unpaved road surfacing, and other coarse and fine aggregates.

6/ Includes agricultural limestone, poultry grit and mineral food, and other agricultural uses.

7/ Includes cement manufacture, flux stone, and lime manufacture.

8/ Includes asphalt fillers or extenders.

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

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

Use	Quantity	Value	Unit
	(thousand metric tons)	(thousands)	value
Concrete aggregate (including concrete sand)	2,860	\$13,400	\$4.67
Plaster and gunite sands	58	316	5.45
Concrete products (blocks, bricks, pipe, decorative, etc.)	36	225	6.25
Asphaltic concrete aggregates and other bituminous mixtures	904	2,920	3.23
Road base and coverings	1,870	5,420	2.90
Fill	627	2,060	3.29
Snow and ice control	75	323	4.31
Roofing granules	2	22	11.00
Other miscellaneous uses	46	399	8.67
Unspecified: 2/			
Reported	2,480	14,400	5.80
Estimated	3,300	15,000	4.38
Total or average	12,300	54,100	4.40

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

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

TABLE 6
IOWA: 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)	480	2,080	509	2,530	332	1,620
Concrete products (blocks, bricks, pipe, decorative, etc.) 2/	23	102	W	W	W	W
Asphaltic concrete aggregates and other bituminous mixtures	340	907	W	W	W	W
Road base and coverings 3/	674	2,090	477	1,290	635	1,820
Fill	150	577	104	382	79	204
Snow and ice control	29	100	27	128	W	W
Other miscellaneous uses 4/	5	28	321	1,600	325	1,030
Unspecified: 5/						
Reported	858	6,350	291	1,450	878	4,500
Estimated	370	1,400	260	1,000	2,300	10,000
Total	2,930	13,600	1,990	8,390	4,510	19,500
	District 4		Districts 5 and 6			
	Quantity	Value	Quantity	Value		
Concrete aggregate (including concrete sand)	906	3,790	634	3,340		
Concrete products (blocks, bricks, pipe, decorative, etc.) 2/	W	W	W	W		
Asphaltic concrete aggregates and other bituminous mixtures	--	--	23	152		
Road base and coverings 3/	W	W	W	W		
Fill	87	302	206	597		
Snow and ice control	W	W	--	--		
Other miscellaneous uses 4/	31	170	94	306		
Unspecified: 5/						
Reported	156	642	291	1,410		
Estimated	170	680	270	1,200		
Total	1,350	5,590	1,520	7,030		

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

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

2/ Includes plaster and gunite sands.

3/ Includes road and other stabilization (cement and lime).

4/ Includes roofing granules.

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