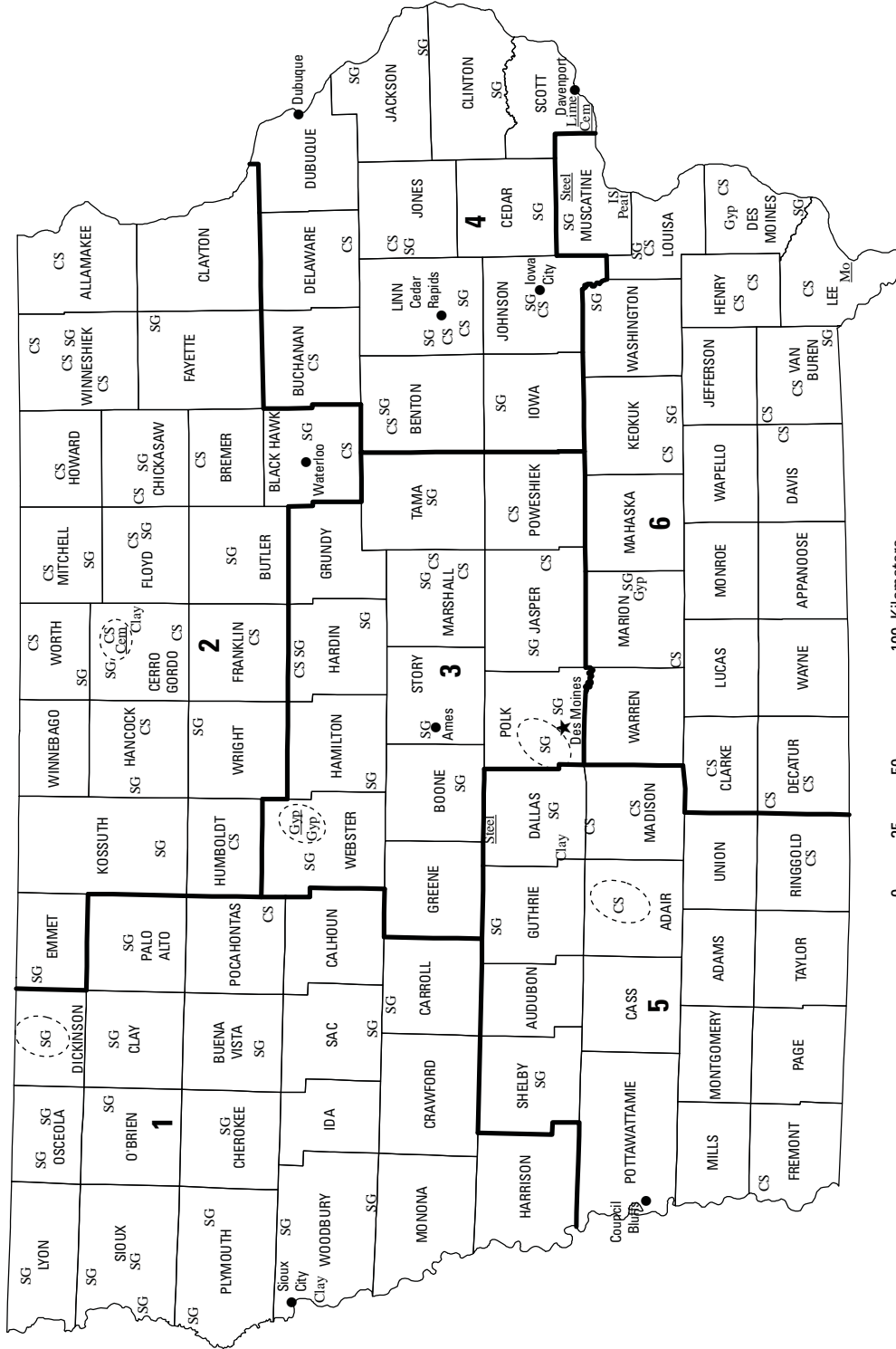




2006 Minerals Yearbook

IOWA

IOWA

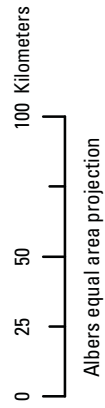


LEGEND

- County boundary
- ★ Capital
- City
- Crushed stone/sand and gravel district boundary

MINERAL SYMBOLS (Major producing areas)

- Cem Cement plant
- Clay Common clay
- CS Crushed stone
- D-L Dimension limestone
- Gyp Gypsum
- Gyp Gypsum plant
- IS Industrial sand
- Lime Lime plant
- Mo Molybdenum plant
- Peat Peat
- SG Construction sand and gravel
- Steel Steel plant
- Concentration of mineral operations



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 2006, Iowa's nonfuel raw mineral production¹ was valued at \$696 million, a 5%, or a \$35 million, increase from that of 2005, based upon annual U.S. Geological Survey data. This followed a 24%, or \$127 million, increase in the State's total nonfuel mineral production value for 2005 from that of 2004. The State was 31st in rank (29th in 2005) among the 50 States in total nonfuel mineral production value and accounted for more than 1% of the U.S. total. Yet, per capita, the State ranked 16th in the Nation in its minerals industry's value of nonfuel mineral production; with a population of nearly 3 million, the value of production was nearly \$234 per capita.

Crushed stone, cement (portland and masonry), construction sand and gravel, and gypsum (in descending order of value)

¹The 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 2006 USGS mineral production data published in this chapter are those available as of March 2008. 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>.

were Iowa's leading nonfuel mineral commodities in 2006, accounting for more than 97% of the State's total nonfuel mineral value. Crushed stone, cement, and crude gypsum led the State's increase in value with increases of \$17 million, about \$16 million, and more than \$10 million, respectively. These were offset somewhat by decreases in the values of construction sand and gravel, down by more than \$6 million, common clays, down by almost \$2 million, and industrial sand and gravel, down by somewhat less. The production of all of these mineral commodities decreased by marginal to small amounts, except in the case of crude gypsum, which had a significant increase in production (table 1).

In 2006, Iowa continued to be 2d in the quantities of crude gypsum produced and to be a significant producer of crushed stone, portland cement (13th), construction sand and gravel, and common clays (descending order of value). No metals were mined in Iowa; the State's metal production, including molybdenum and raw steel, came 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	2004		2005		2006	
	Quantity	Value	Quantity	Value	Quantity	Value
Clays, common	325	1,150	630	4,740	356	2,750
Gemstones, natural	NA	2	NA	2	NA	3
Sand and gravel, construction	17,100	74,300	19,900	93,100	17,500	86,700
Stone, crushed	35,800	219,000	36,400 ^r	271,000 ^r	36,300	288,000
Combined values of cement, gypsum (crude), lime, peat, sand and gravel (industrial)	XX	239,000	XX	292,000	XX	319,000
Total	XX	534,000	XX	661,000 ^r	XX	696,000

^rRevised. NA Not available. XX Not applicable.

¹Production as measured by mine shipments, sales, or marketable production (including consumption by producers).

²Data are rounded to no more than three significant digits; may not add to totals shown.

TABLE 2
IOWA: CRUSHED STONE SOLD OR USED, BY KIND¹

Kind	2005			2006		
	Number of quarries	Quantity (thousand metric tons)	Value (thousands)	Number of quarries	Quantity (thousand metric tons)	Value (thousands)
Limestone ²	174 ^r	34,500 ^r	\$257,000 ^r	181	32,200	\$257,000
Dolomite	34	1,940	14,200	4	4,070	31,200
Total	XX	36,400 ^r	271,000 ^r	XX	36,300	288,000

^rRevised. XX Not applicable.

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

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

TABLE 3
IOWA: CRUSHED STONE SOLD OR USED BY PRODUCERS IN 2006, BY USE¹

(Thousand metric tons and thousand dollars)

Use	Quantity	Value
Construction:		
Coarse aggregate (+1½ inch):		
Macadam	248	1,890
Riprap and jetty stone	178	2,000
Filter stone	304	2,920
Other coarse aggregate	124	1,090
Total	854	7,910
Coarse aggregate, graded:		
Concrete aggregate, coarse	1,610	15,300
Bituminous aggregate, coarse	636	6,450
Bituminous surface-treatment aggregate	255	1,860
Railroad ballast	W	W
Other graded coarse aggregate	29	336
Total	2,530	23,900
Fine aggregate (¾ inch):		
Stone sand, concrete	114	1,100
Stone sand, bituminous mix or seal	313	2,720
Screening, undesignated	283	1,320
Other fine aggregate	46	378
Total	756	5,520
Coarse and fine aggregates:		
Graded road base or subbase	3,730	29,500
Unpaved road surfacing	2,980	21,800
Crusher run or fill or waste	230	938
Roofing granules	(2)	(2)
Other coarse and fine aggregates	807	7,390
Total	7,750	59,600
Other construction materials	138	1,370
Agricultural:		
Limestone	994	5,270
Poultry grit and mineral food	(3)	(3)
Other agricultural uses	384	4,940
Total	1,380	10,200
Chemical and metallurgical:		
Lime manufacture	(4)	(4)
Flux stone	(4)	(4)
Glass manufacture	(4)	(4)
Special, asphalt fillers or extenders	(4)	(4)
Other miscellaneous uses and specified uses not listed	64	571
Unspecified:⁵		
Reported	10,300	82,600
Estimated	11,000	88,000
Total	21,600	170,000
Grand total	36,300	288,000

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

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

²Withheld to avoid disclosing company proprietary data; included with "Other coarse and fine aggregates."

³Withheld to avoid disclosing company proprietary data; included with "Other agricultural uses."

⁴Withheld to avoid disclosing company proprietary data; included in "Grand total."

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

TABLE 4
IOWA: CRUSHED STONE SOLD OR USED BY PRODUCERS IN 2006, BY USE AND DISTRICT¹

(Thousand metric tons and thousand dollars)

Use	Districts 1 and 2 ²		Districts 3 and 4 ²		Districts 5 and 6 ²		Unspecified districts	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
Construction:								
Coarse aggregate (+1½ inch) ³	203	1,420	363	3,550	286	2,920	3	33
Coarse aggregate, graded ⁴	678	5,370	1,010	9,500	833	9,030	3	37
Fine aggregate (¾ inch) ⁵	211	949	115	713	350	3,290	80	565
Coarse and fine aggregate ⁶	2,310	13,600	1,790	14,200	3,120	27,400	519	4,290
Other construction materials	--	--	138	1,370	--	--	--	--
Agricultural ⁷	396	1,630	569	5,830	392	2,620	22	125
Chemical and metallurgical ⁸	--	--	W	W	--	--	--	--
Special ⁹	--	--	W	W	--	--	--	--
Other miscellaneous uses	64	571	--	--	--	--	--	--
Unspecified: ¹⁰								
Reported	4,790	38,300	2,950	23,600	2,500	20,000	98	761
Estimated	2,800	21,000	7,000	55,000	1,500	12,000	--	--
Total	11,400	83,300	15,200	121,000	8,990	77,200	725	5,810

W Withheld to avoid disclosing company proprietary data; included in "Total." -- Zero.

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

²Districts 1 and 2, 3 and 4, and 5 and 6 are combined to avoid disclosing company proprietary data.

³Includes filter stone, macadam, riprap and jetty stone, and other coarse aggregate.

⁴Includes concrete aggregate (coarse), bituminous aggregate (coarse), bituminous surface-treatment aggregate, railroad ballast, and other graded coarse aggregate.

⁵Includes screening (undesignated), stone sand (bituminous mix or seal), stone sand (concrete), and other fine aggregate.

⁶Includes crusher run or fill or waste, graded road base or subbase, roofing granules, unpaved road surfacing, and other coarse and fine aggregates.

⁷Includes agricultural limestone, poultry grit and mineral food, and other agricultural uses.

⁸Includes lime and glass manufacture and flux stone.

⁹Includes asphalt fillers or extenders.

¹⁰Reported and estimated production without a breakdown by end use.

TABLE 5
IOWA: CONSTRUCTION SAND AND GRAVEL SOLD OR USED IN 2006,
BY MAJOR USE CATEGORY¹

Use	Quantity (thousand metric tons)	Value (thousands)	Unit value
Concrete aggregate and concrete products	1,810	\$10,200	\$5.64
Plaster and gunite sands	112	413	3.67
Asphaltic concrete aggregates and other bituminous mixtures	84	228	2.72
Road base and coverings	2,010	5,850	2.92
Road and other stabilization (lime)	3	16	6.23
Fill	685	2,390	3.49
Snow and ice control	77	390	5.04
Other miscellaneous uses ²	14	194	14.12
Unspecified: ³			
Reported	9,030	49,100	5.44
Estimated	3,650	18,000	4.93
Total or average	17,500	86,700	4.97

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

²Includes roofing granules.

³Reported and estimated production without a breakdown by end use.

TABLE 6
IOWA: CONSTRUCTION SAND AND GRAVEL SOLD OR USED IN 2006, BY USE AND DISTRICT^{1,2}

(Thousand metric tons and thousand dollars)

Use	District 1		District 2 and 4		Districts 3 and 5	
	Quantity	Value	Quantity	Value	Quantity	Value
Concrete aggregate and concrete products ³	390	2,320	936	5,290	184	1,120
Asphaltic concrete aggregates and road base materials ⁴	1,230	3,330	601	1,600	183	737
Fill	275	653	155	642	133	701
Other miscellaneous uses ⁵	22	98	32	311	36	167
Unspecified: ⁶						
Reported	1,510	8,210	217	1,390	332	1,700
Estimated	1,010	4,880	1,340	6,860	6,930	37,300
Total	4,440	19,500	3,280	16,100	7,800	41,700
Use	District 6		Unspecified districts			
	Quantity	Value	Quantity	Value		
Concrete aggregate and concrete products ³	409	1,870	--	--		
Asphaltic concrete aggregates and road base materials ⁴	--	--	77	426		
Fill	122	396	--	--		
Other miscellaneous uses ⁵	1	8	--	--		
Unspecified: ⁶						
Reported	169	1,120	--	--		
Estimated	1,180	5,650	--	--		
Total	1,880	9,040	77	426		

-- Zero.

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

²Districts 2 and 4 and 3 and 5 are combined to avoid disclosing company proprietary data.

³Includes plaster and gunite sands.

⁴Includes road and other stabilization (lime).

⁵Includes snow and ice control and roofing granules.

⁶Reported and estimated production without a breakdown by end use.