2012–2013 Minerals Yearbook

ILLINOIS [ADVANCE RELEASE]

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U.S. Geological Survey

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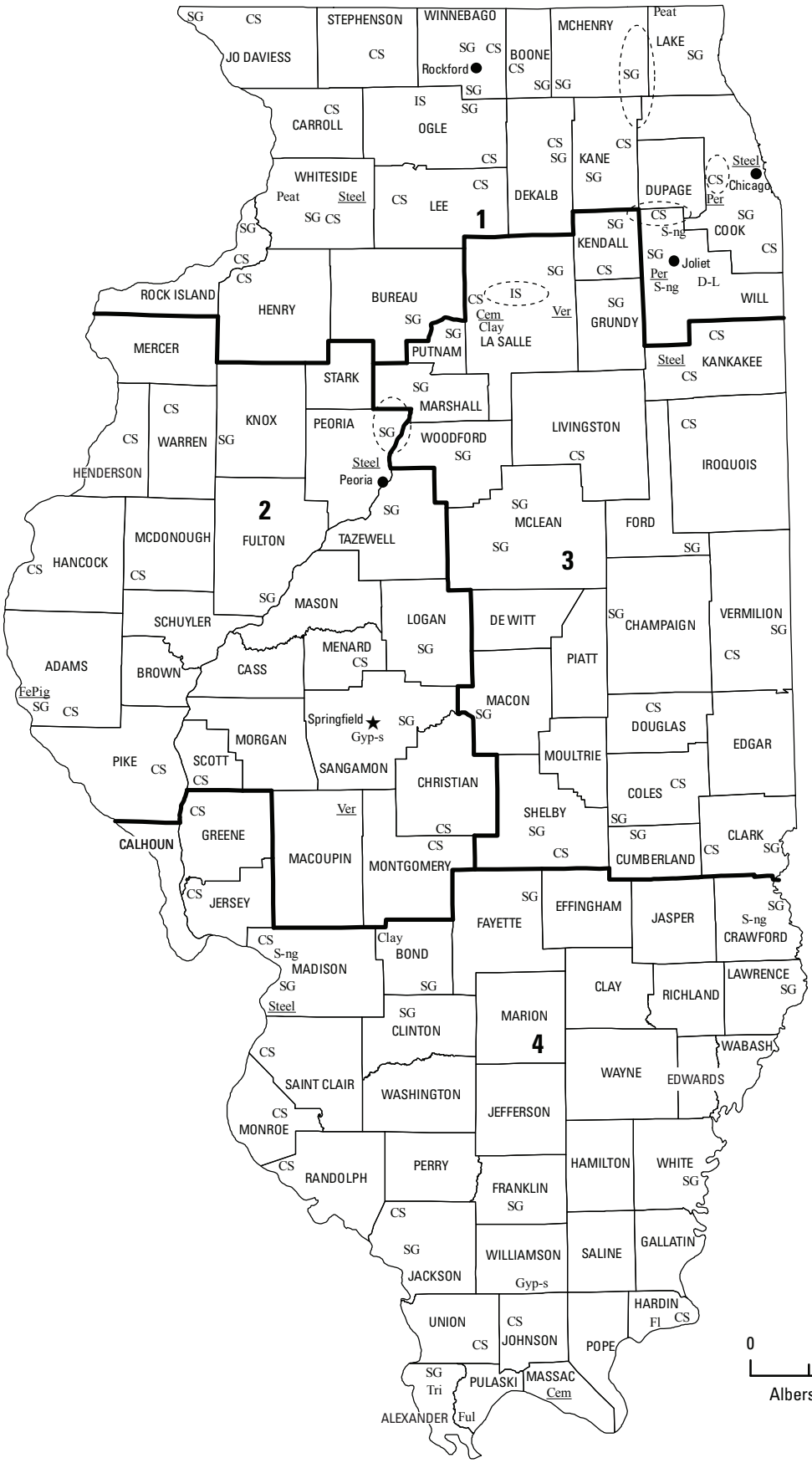
ILLINOIS



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
D-L	Dimension limestone
FePig	Iron oxide pigments plant
Fl	Fluorspar
Ful	Fuller's earth
Gyp-s	Gypsum - synthetic
IS	Industrial sand
Peat	Peat
Per	Perlite plant
SG	Construction sand and gravel
S-ng	Sulfur (natural gas)
Steel	Steel plant
Tri	Tripoli
Ver	Vermiculite plant
⬭	Concentration of mineral operations

Source: Illinois State Geological Survey/U.S. Geological Survey (2012–13).

THE MINERAL INDUSTRY OF ILLINOIS

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

In 2013, the value of the nonfuel mineral production[1] in the State of Illinois decreased to $1.19 billion,[2] 1.6% of the total U.S. nonfuel mineral production, ranking it 20th in the Nation. In 2012, the corresponding value was $1.22 billion, 1.6% of the U.S. total nonfuel mineral production, ranking it 18th among the 50 States. In 2013, on a per capita basis, nonfuel mineral production in Illinois had a value of $94 compared with the national average of $238. In 2012, the per capita value was again $94 compared with the national average of $241.

The value of nonfuel mineral production in Illinois for the years 2006 through 2013 was as follows (in billions of dollars): $1.25 (2006), $1.25 (2007), $1.21 (2008), $0.965 (2009), $0.970 (2010), $1.08 (2011), $1.22 (2012) and $1.19[2] (2013).

In 2013, there were 1,257 employees in nonfuel mineral mines in Illinois and 1,045 in mills and preparation plants. In 2012, the corresponding numbers were 1,306 in nonfuel mineral mines and 1,086 in mills and preparation plants (U.S. Mine Safety and Health Administration, 2013, p. 9; 2014, p. 9). In 2013, the average annual wage in Illinois for all mining was $77,913 compared with $52,625 for all industries. In 2012, the corresponding figures were $74,992 and $52,336, respectively (National Mining Association, unpub. data, February 4, 2016).

In 2012 and 2013, on the basis of production quantity, Illinois was second in the production of industrial sand and gravel and tripoli out of 33 and 3 producing States, respectively. The State was third in the production of peat out of 12 producing States.

In 2012 and 2013, the State also produced common clay, construction sand and gravel, crushed stone, dimension stone, montmorillonite, natural gemstones, and portland cement (table 1).

In 2013, there were 155 crushed stone operations, 129 quarries, 1 dredging operation, and 128 processing plants in Illinois. In 2012, the corresponding figures were 152 operations, 129 quarries, and 129 processing plants. In 2013, there were 108 construction sand and gravel operations and in 2012 there were 109 sand and gravel operations. In 2013, the State used 847,000 metric tons of industrial sand and gravel, although it produced 9.85 million metric tons (Mt). In 2012, Illinois used 1.62 Mt of industrial sand and gravel, but it produced 7.44 Mt. Most of the hydraulic fracturing sand produced in Illinois was used out of State.

[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 USGS mineral production data published in this chapter are those available as of February 2016. Data in this report are rounded to three significant digits and percentages are calculated from unrounded data. All USGS Mineral Industry Surveys and USGS Minerals Yearbook chapters—mineral commodity, State, and country—can be retrieved over the Internet at http://minerals.usgs.gov/minerals.

[2]Partial total; excludes values that must be withheld to avoid disclosing company proprietary data.

References Cited

U.S. Mine Safety and Health Administration, [2013], Mine injury and worktime, quarterly, January–December 2012, Final, closeout edition, 33 p. (Accessed February 4, 2016, at http://arlweb.msha.gov/Stats/Part50/WQ/MasterFiles/MIWQ%20Master_20125.pdf.)

U.S. Mine Safety and Health Administration, [2014], Mine injury and worktime, quarterly, January–December 2013, Final, closeout edition, 34 p. (Accessed February 4, 2016, at http://arlweb.msha.gov/Stats/Part50/WQ/MasterFiles/MIWQ%20Master_20135.pdf.)

TABLE 1
NONFUEL RAW MINERAL PRODUCTION IN ILLINOIS[1, 2]

(Thousand metric tons and thousand dollars)

Mineral	2011		2012		2013	
	Quantity	Value	Quantity	Value	Quantity	Value
Cement, portland	1,400	126,000 [e]	1,150	95,700 [e]	1,100	106,000 [e]
Gemstones, natural	NA	10	NA	10	NA	10
Sand and gravel:						
Construction	18,800	121,000	16,700	113,000	16,400	117,000
Industrial	6,160	311,000	7,440	504,000	9,850	501,000
Stone, crushed	52,200 [r]	499,000 [r]	49,000	479,000	45,600	468,000
Combined values of clays (common, fuller's earth), peat, stone (dimension), tripoli	XX	23,300	XX	22,700	XX	W
Total	XX	1,080,000 [r]	XX	1,220,000	XX	1,190,000

[e]Estimated. [r]Revised. NA Not available. W Withheld to avoid disclosing company proprietary data; excluded from "Total." 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.

TABLE 2
ILLINOIS: CRUSHED STONE SOLD OR USED IN THE UNITED STATES, BY TYPE[1]

Type	2012				2013			
	Number of quarries	Quantity (thousand metric tons)	Value (thousands)	Unit value	Number of quarries	Quantity (thousand metric tons)	Value (thousands)	Unit value
Limestone[2]	110	38,000	$360,000	$9.47	110	35,300	$351,000	$9.94
Dolomite	15	10,800	118,000	10.91	15	9,950	115,000	11.51
Sandstone and quartzite[3]	1	26	370	14.34	1	12	100	8.22
Miscellaneous stone	3	126	949	7.52	3	293	2,390	8.15
Total or average	XX	49,000	479,000	9.78	XX	45,600	468,000	10.27

XX Not applicable.
[1]Data are rounded to no more than three significant digits, except unit value; may not add to totals shown.
[2]Includes limestone-dolomite reported with no distinction between the two kinds of stone.
[3]Includes sandstone-quartzite reported with no distinction between the two kinds of stone.

TABLE 3
ILLINOIS: CRUSHED STONE SOLD OR USED BY PRODUCERS BY USE[1]

Use	2012 Quantity (thousand metric tons)	2012 Value (thousands)	2012 Unit value	2013 Quantity (thousand metric tons)	2013 Value (thousands)	2013 Unit value
Construction:						
Coarse aggregate (+1½ inch):						
Macadam	W	W	W	53	$431	$8.07
Riprap and jetty stone	898	$8,410	$9.36	361	4,230	11.72
Filter stone	126	1,010	7.99	207	1,590	7.67
Unspecified coarse aggregate	859	7,530	8.77	342	7,870	23.04
Coarse aggregate, graded:						
Concrete aggregate, coarse	1,570	16,700	10.63	2,210	17,500	7.89
Bituminous aggregate, coarse	535	4,650	8.70	513	5,750	11.21
Bituminous surface-treatment aggregate	531	5,980	11.26	430	4,900	11.41
Railroad ballast	53	550	10.38	111	1,320	11.93
Unspecified graded coarse aggregate	6,160	74,500	12.10	5,040	62,800	12.47
Fine aggregate (-⅜ inch):						
Stone sand, concrete	W	W	W	81	1,100	13.54
Stone sand, bituminous mix or seal	77	653	8.48	685	5,000	7.30
Screening, undesignated	196	512	2.61	191	911	4.77
Unspecified fine aggregate	1,310	9,990	7.63	998	7,790	7.80
Coarse and fine aggregates:						
Graded road base or subbase	2,320	15,300	6.61	2,600	18,800	7.22
Unpaved road surface	448	3,740	8.34	610	4,300	7.05
Terrazzo and exposed aggregate	--	--	--	W	W	W
Crusher run or fill or waste	293	1,670	5.69	286	1,900	6.65
Unspecified coarse and fine aggregates	2,970	21,500	7.23	3,470	27,900	8.05
Unspecified and other construction materials	187	1,120	5.98	119	1,000	8.40
Agricultural:						
Agricultural Limestone	2,140	16,600	7.75	1,650	14,500	8.83
Poultry grit and mineral food	31	932	30.05	33	864	26.31
Unspecified and other agricultural uses	--	--	--	W	W	W
Chemical and metallurgical:						
Cement manufacture	W	W	W	W	W	W
Chemical Stone	W	W	W	W	W	W
Sulfur oxide removal	--	--	--	W	W	W
Special:						
Mining dusting or acid water treatment	27	1,210	44.71	235	9,890	42.12
Asphalt fillers or extenders	8	216	27.05	2	65	30.70
Other fillers or extenders	W	W	W	W	W	W
Other miscellaneous uses and specified uses not listed	47	239	5.07	76	676	8.90
Unspecified:[2]						
Reported	12,000	135,000	11.22	10,200	120,000	11.81
Estimated	14,600	140,000	9.57	13,300	133,000	9.99
Total or average	49,000	479,000	9.78	45,600	468,000	10.27

W Withheld to avoid disclosing company proprietary data; included in "Total." -- Zero.
[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 4

ILLINOIS: CRUSHED STONE SOLD OR USED BY PRODUCERS IN 2012, 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 (+1½ inch)[2]	169	2,440	62	750	163	1,700
Coarse aggregate, graded[3]	W	W	501	6,190	1,930	20,100
Fine aggregate (-⅜ inch)[4]	W	W	213	1,640	W	W
Coarse and fine aggregates[5]	W	W	391	2,870	1,610	10,900
Other construction materials	W	W	--	--	W	W
Agricultural[6]	138	722	417	3,230	894	8,870
Chemical and metallurgical[7]	--	--	--	--	W	W
Special[8]	--	--	W	W	11	346
Other miscellaneous uses and specified uses not listed[9]	26	88	--	--	20	151
Unspecified:[10]						
Reported	6,400	75,500	W	W	680	8,000
Estimated	7,730	74,300	1,040	8,640	3,700	35,900
Total	23,400	244,000	4,740	43,500	10,300	97,800

Use	District 4	
	Quantity	Value
Construction:		
Coarse aggregate (+1½ inch)[2]	1,510	12,200
Coarse aggregate, graded[3]	1,140	10,900
Fine aggregate (-⅜ inch)[4]	W	W
Coarse and fine aggregates[5]	1,340	9,690
Other construction materials	--	--
Agricultural[6]	720	4,690
Chemical and metallurgical[7]	W	W
Special[8]	W	W
Other miscellaneous uses and specified uses not listed[9]	--	--
Unspecified:[10]		
Reported	3,370	33,200
Estimated	2,130	20,900
Total	10,500	94,300

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 macadam, riprap and jetty stone, filter stone, and unspecified coarse aggregate.

[3]Includes concrete aggregate (coarse), bituminous aggregate (coarse), bituminous surface-treatment aggregate, railroad ballast, and unspecified graded coarse aggre

[4]Includes stone sand (concrete), stone sand (bituminous mix or seal), screening (undesignated), and unspecified fine aggregate.

[5]Includes graded road base or subbase, unpaved road surface, terrazzo and exposed aggregate, crusher run, and unspecified coarse and fine aggregates.

[6]Includes agricultural limestone, and poultry grit and mineral food.

[7]Includes cement manufacture and chemical stone.

[8]Includes mine dusting or acid water treatment, asphalt filler or extenders, and other fillers or extenders.

[9]Includes drain fields, waste material, lightweight aggregate (slate), pipe bedding, refractory stone (including ganister), and other miscellaneous uses.

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

TABLE 5
ILLINOIS: CRUSHED STONE SOLD OR USED BY PRODUCERS IN 2013, 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 (+1½ inch)[2]	414	8,190	129	1,700	97	1,240
Coarse aggregate, graded[3]	W	W	W	W	1,760	19,700
Fine aggregate (-⅜ inch)[4]	W	W	W	W	454	3,170
Coarse and fine aggregates[5]	3,260	24,000	671	4,950	2,030	16,400
Other construction materials	W	W	W	W	W	W
Agricultural[6]	187	1,360	268	2,160	838	8,920
Chemical and metallurgical[7]	--	--	--	--	W	W
Special[8]	--	--	W	W	W	W
Other miscellaneous uses and specified uses not listed[9]	--	--	--	--	W	W
Unspecified:[10]						
Reported	W	W	W	W	W	W
Estimated	6,860	69,000	1,320	13,200	2,450	23,200
Total	22,400	240,000	4,800	45,800	9,430	91,700

Use	District 4	
	Quantity	Value
Construction:		
Coarse aggregate (+1½ inch)[2]	322	2,990
Coarse aggregate, graded[3]	1,290	10,900
Fine aggregate (-⅜ inch)[4]	763	5,500
Coarse and fine aggregates[5]	1,010	7,620
Other construction materials	W	W
Agricultural[6]	409	3,170
Chemical and metallurgical[7]	W	W
Special[8]	W	W
Other miscellaneous uses and specified uses not listed[9]	W	W
Unspecified:[10]		
Reported	2,000	20,900
Estimated	2,640	27,000
Total	8,920	89,900

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 macadam, riprap and jetty stone, filter stone, and unspecified coarse aggregate.
[3]Includes concrete aggregate (coarse), bituminous aggregate (coarse), bituminous surface-treatment aggregate, railroad ballast, and unspecified graded coarse aggre
[4]Includes stone sand (concrete), stone sand (bituminous mix or seal), screening (undesignated), and unspecified fine aggregate.
[5]Includes graded road base or subbase, unpaved road surface, terrazzo and exposed aggregate, crusher run, and unspecified coarse and fine aggregates.
[6]Includes agricultural limestone, and poultry grit and mineral food.
[7]Includes cement manufacture and chemical stone.
[8]Includes mine dusting or acid water treatment, asphalt filler or extenders, and other fillers or extenders.
[9]Includes drain fields, waste material, lightweight aggregate (slate), pipe bedding, refractory stone (including ganister), and other miscellaneous uses.
[10]Reported and estimated production without a breakdown by end use.

TABLE 6
ILLINOIS: CONSTRUCTION SAND AND GRAVEL SOLD OR USED IN 2012,
BY MAJOR USE CATEGORY[1]

Use	Quantity (thousand metric tons)	Value (thousands)	Unit value
Concrete aggregate (including concrete sand)	4,760	$27,100	$5.69
Concrete products (blocks, bricks, pipe, decorative, and so forth)	220	1,290	5.86
Asphaltic concrete aggregates and other bituminous mixtures	784	7,730	9.86
Road base and coverings[2]	934	7,670	8.21
Fill	930	5,450	5.86
Snow and ice control	176	1,080	6.14
Other miscellaneous uses[3]	469	4,500	9.59
Unspecified:[4]			
Reported	191	1,870	9.79
Estimated	8,230	56,600	6.88
Total or average	16,700	113,000	6.77

[1]Data are rounded to no more than three significant digits; may not add to totals shown.
[2]Includes road and other stabilization (lime).
[3]Includes filtration, golf course, and roofing granules.
[4]Reported and estimated production without a breakdown by end use.

TABLE 7
ILLINOIS: CONSTRUCTION SAND AND GRAVEL SOLD OR USED IN 2013,
BY MAJOR USE CATEGORY[1]

Use	Quantity (thousand metric tons)	Value (thousands)	Unit value
Concrete aggregate (including concrete sand)[2]	4,540	$27,000	$5.95
Concrete products (blocks, bricks, pipe, decorative, and so forth)	205	1,390	6.79
Asphaltic concrete aggregates and other bituminous mixtures	905	9,590	10.60
Road base and coverings[3]	757	7,070	9.34
Fill	1,070	6,790	6.34
Snow and ice control	158	1,010	6.42
Other miscellaneous uses[4]	295	2,970	10.07
Unspecified:[5]			
Reported	140	1,030	7.39
Estimated	8,360	59,600	7.13
Total or average	16,400	117,000	7.09

[1]Data are rounded to no more than three significant digits; may not add to totals shown.
[2]Includes plaster gunite sands.
[3]Includes road and other stabilization (lime).
[4]Includes filtration, golf course, and railroad ballast.
[5]Reported and estimated production without a breakdown by end use.

TABLE 8

ILLINOIS: CONSTRUCTION SAND AND GRAVEL SOLD OR USED IN 2012, 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	W	W	W	W	W	W
Asphaltic concrete aggregates and other bituminous mixtures	W	W	W	W	W	W
Road base and coverings[2]	W	W	W	W	W	W
Fill	400	2,700	139	710	132	798
Other miscellaneous uses[3]	526	4,290	36	383	68	782
Unspecified:[4]						
Reported	73	631	--	--	89	910
Estimated	4,140	28,400	1,210	8,350	2,670	18,400
Total	7,780	54,100	2,550	15,700	4,690	33,200

Use	District 4	
	Quantity	Value
Concrete aggregate and concrete products	W	W
Asphaltic concrete aggregates and other bituminous mixtures	W	W
Road base and coverings[2]	W	W
Fill	259	1,240
Other miscellaneous uses[3]	16	121
Unspecified:[4]		
Reported	30	330
Estimated	216	1,490
Total	1,680	10,400

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 road and other stabilization (lime).

[3]Includes filtration, golf course, roofing granules, and snow and ice control.

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

TABLE 9

ILLINOIS: CONSTRUCTION SAND AND GRAVEL SOLD OR USED IN 2013, 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]	W	W	W	W	W	W
Asphaltic concrete aggregates and other bituminous mixtures	W	W	W	W	W	W
Road base and coverings[3]	W	W	W	W	W	W
Fill	353	2,640	193	1,170	323	2,040
Other miscellaneous uses[4]	188	1,200	58	949	76	808
Unspecified:[5]						
Reported	7	151	2	15	97	719
Estimated	4,880	34,700	1,190	7,910	2,280	16,800
Total	7,700	56,500	2,260	14,400	4,950	36,200

Use	District 4	
	Quantity	Value
Concrete aggregate and concrete products[2]	W	W
Asphaltic concrete aggregates and other bituminous mixtures	W	W
Road base and coverings[3]	W	W
Fill	200	930
Other miscellaneous uses[4]	131	1,030
Unspecified:[5]		
Reported	34	148
Estimated	16	229
Total	1,520	9,410

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]Includes plaster and gunite sands.

[3]Includes road and other stabilization (lime).

[4]Includes filtration, golf course, railroad ballast, and snow and ice control.

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