# 2012–2013 Minerals Yearbook

## PENNSYLVANIA [ADVANCE RELEASE]

U.S. Department of the Interior
U.S. Geological Survey

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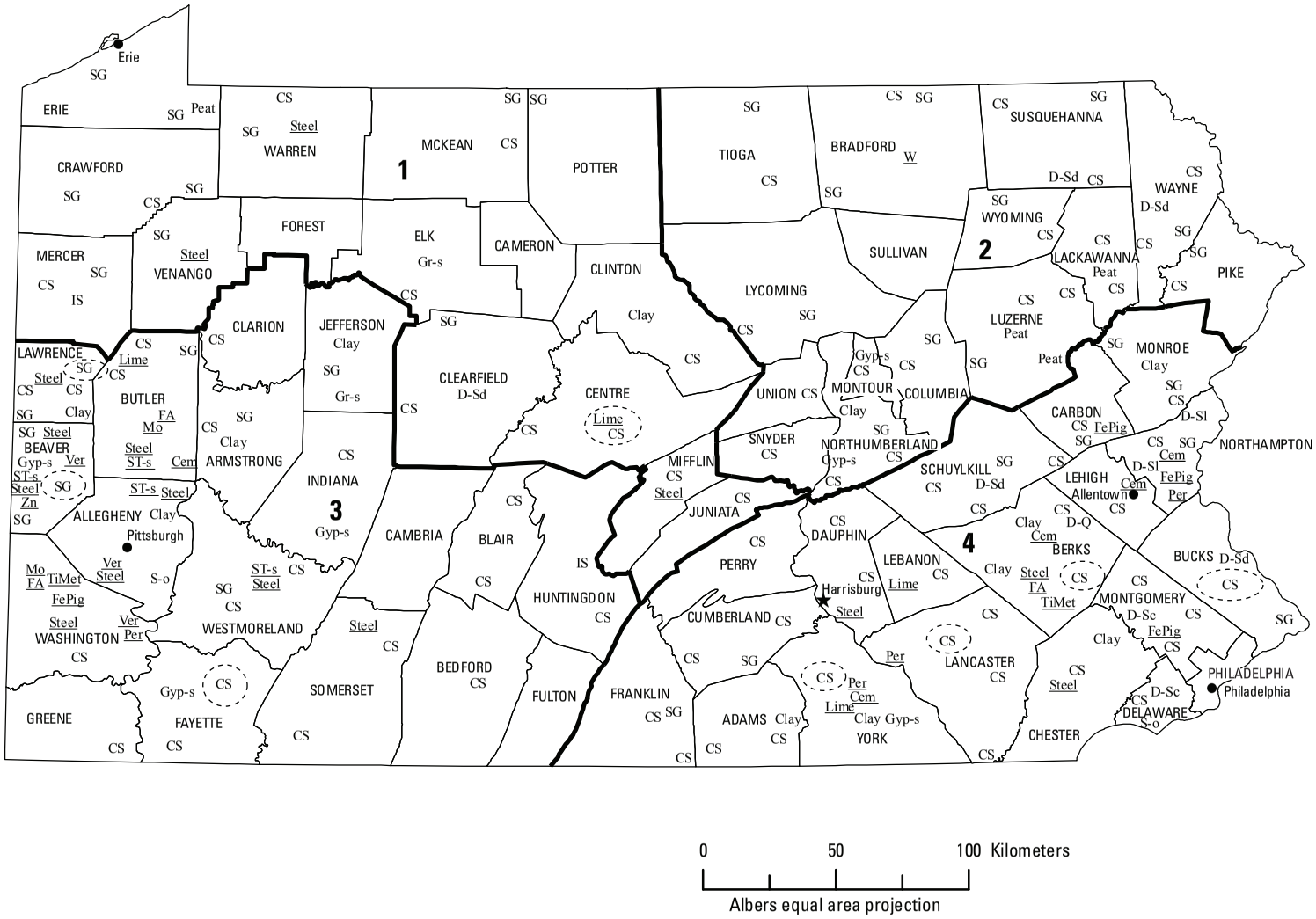
# PENNSYLVANIA




## 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-Q | Dimension quartzite |
| D-Sc | Dimension schist |
| D-Sd | Dimension sandstone |
| D-Sl | Dimension slate |
| FePig | Iron oxide pigments plant |
| FA | Ferroalloys plant |
| Gr-s | Synthetic graphite |
| Gyp-s | Synthetic gypsum |
| IS | Industrial sand |
| Lime | Lime plant |
| Mo | Molybdenum plant |
| Peat | Peat |
| Per | Perlite plant |
| S-o | Sulfur (oil) |
| SG | Construction sand and gravel |
| ST-s | Stainless steel plant |
| Steel | Steel plant |
| TiMet | Titanium metal plant |
| W | Tungsten plant |
| Ver | Vermiculite plant |
| Zn | Zinc plant |

Concentration of mineral operations

**Source: Pennsylvania Bureau of Topographic and Geological Survey/U.S. Geological Survey (2012–13).**

# The Mineral Industry of Pennsylvania

**This chapter has been prepared under a memorandum of understanding between the U.S. Geological Survey and the Pennsylvania Bureau of Topographic and Geologic Survey for collecting information on all nonfuel minerals.**

In 2013, the value of the nonfuel mineral production[1] in the State of Pennsylvania increased to $1.51 billion,[2] 2.0% of the total U.S. nonfuel mineral production, ranking it 15th in the Nation. In 2012, the corresponding value was $1.47 billion,[2] 1.95% of the U.S. total nonfuel mineral production, again ranking it 15th among the 50 States. In 2013, on a per capita basis, nonfuel mineral production in Pennsylvania had a value of $118 compared with the national average of $238. In 2012, the per capita value was $115 compared with the national average of $241.

The value of nonfuel mineral production in Pennsylvania for the years 2006 through 2013 was as follows (in billions of dollars):[2] $1.74 (2006), $1.86 (2007), $1.97 (2008), $1.63 (2009), $1.66 (2010), $1.54 (2011), $1.47 (2012), and $1.51 (2013).

In 2013, there were 3,097 employees in nonfuel mineral mines in Pennsylvania and 2,079 in mills and preparation plants. In 2012, the corresponding numbers were 3,248 in nonfuel mineral mines and 2,100 in mills and preparation plants (U.S. Mine Safety and Health Administration, 2013, p. 14; 2014, p. 14). In 2013, the average annual wage in Pennsylvania for all mining was $67,158 compared with $48,785 for all industries. In 2012, the corresponding figures were $66,703 and $48,140, respectively (National Mining Association, unpub. data, February 4, 2016).

In 2013, the leading mineral commodities in Pennsylvania, in descending order of value, were crushed stone, portland cement, and lime (table 1). On the basis of quantity in 2013, the State ranked second in crushed stone production out of 50 producing States and seventh in both portland cement and lime out of 34 and 33 producing States, respectively. Data for peat and industrial sand were withheld at the State level to protect company proprietary data, but the State was not a major producer of either one. In 2013, industrial sand sold or used by producers in the Middle Atlantic States that produced industrial sand (New Jersey, New York, and Pennsylvania) increased 6% in quantity and 11% in value compared with 2012; nationally, the increases were 23% and 30%, respectively. Peat production, from two active operations in 2013 and three in 2012, was combined with that from peat operations in other northeastern States that produced peat (Maine, New Jersey, and New York). In 2013, production quantity at all six peat operations combined was 50% less than 2012 when there were eight peat operations. Nationally, production decreased almost 5% to 465,000 t from 488,000 t in 2012.

Though considered downstream and, therefore, not included in the State's total mineral production value, metals were produced in Pennsylvania using materials obtained from other domestic and foreign sources. Metals produced included ferroniobium, ferromolybdenum, ferrovanadium, molybdenum, stainless steel, steel, titanium, tungsten, and zinc. Pennsylvania's steel plants in 2013 consumed 4.32 million metric tons (Mt) of scrap and 2.24 Mt of pig iron compared with 5.52 Mt of scrap and 2.97 Mt of pig iron in 2012 (Fenton, 2014, 2015). Nationally, scrap consumption had decreased by almost 7% and pig iron consumption by slightly more than 10%.

Pennsylvania also produced downstream industrial mineral commodities, such as finished iron oxide pigments and regenerator iron oxides—byproducts manufactured from steel industry wastes. Synthetic gypsum was produced from flue gas desulfurization units at power plants, and synthetic graphite was produced, which was important in the steel industry to raise the carbon content. Other industrial minerals processed, but not mined, in the State included perlite at expanding plants and vermiculite at exfoliating plants.

There were 646 producing industrial mineral operations in 2013, a decrease from 661 in 2012. Total tonnage of industrial minerals mined in the State decreased about 3% to 83,781,430 metric tons in 2013 (Pennsylvania Department of Environmental Protection, 2013, 2014).

## References Cited


Fenton, M.D., 2014, Iron and steel scrap [advance release], in Metals and minerals: U.S. Geological Survey Minerals Yearbook 2012, v. I, p. 38.1–38.22. (Accessed March 18, 2016, at http://minerals.usgs.gov/minerals/pubs/commodity/iron_&_steel_scrap/myb1-2012-fescr.pdf.)

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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.)


[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.

TABLE 1
NONFUEL MINERAL PRODUCTION IN PENNSYLVANIA[1, 2]

(Thousand metric tons and thousand dollars)

| Mineral | 2011 | | 2012 | | 2013 | |
|---|---|---|---|---|---|---|
| | Quantity | Value | Quantity | Value | Quantity | Value |
| Cement: | | | | | | |
| Masonry | 141 | 19,700 e | 147 | 7,010 e | 143 | 7,500 e |
| Portland | 3,270 | 297,000 e | 3,360 | 308,000 e | 3,620 | 353,000 e |
| Clays, common | (3) | (3) | 317 | 2,480 | 236 | 1,240 |
| Gemstones, natural | NA | 1 | NA | 1 | NA | 1 |
| Lime | 1,150 | 156,000 | 1,090 | 151,000 | 1,090 | 151,000 |
| Sand and gravel, construction | 12,800 r | 115,000 r | 11,600 | 103,000 | 11,200 | 101,000 |
| Stone: | | | | | | |
| Crushed | 87,900 r | 951,000 r | 82,600 | 897,000 | 79,200 | 891,000 |
| Dimension | 25 | 5,040 | 25 | 6,540 | 25 | 5,890 |
| Combined values of peat, sand and gravel (industrial), tripoli (2011), and value indicated by footnote 3 | XX | W | XX | W | XX | W |
| Total | XX | 1,540,000 r | XX | 1,470,000 | XX | 1,510,000 |

[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 no more than three significant digits; may not add to totals shown.
[3]Withheld to avoid disclosing company proprietary data.

TABLE 2
PENNSYLVANIA: 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 | 49,100 | $565,000 | $11.52 | 106 | 47,000 | $574,000 | $12.21 |
| Dolomite | 16 | 8,580 | 83,800 | 9.77 | 17 | 7,680 | 69,000 | 8.98 |
| Marble | 1 | 124 | 949 | 7.66 | 1 | 84 | 642 | 7.66 |
| Granite | 5 | 2,610 | 27,400 | 10.51 | 5 | 2,440 | 26,300 | 10.76 |
| Traprock | 8 | 3,990 | 38,400 | 9.62 | 8 | 5,070 | 49,600 | 9.78 |
| Sandstone and quartzite[3] | 65 | 10,300 | 103,000 | 9.97 | 63 | 8,900 | 91,300 | 10.26 |
| Slate | 12 | 623 | 6,980 | 11.21 | 10 | 892 | 9,780 | 10.96 |
| Miscellaneous stone | 41 | 7,360 | 71,100 | 9.65 | 38 | 7,100 | 70,500 | 9.93 |
| Total or average | XX | 82,600 | 897,000 | 10.85 | XX | 79,200 | 891,000 | 11.25 |

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
PENNSYLVANIA: 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 | 14 | $189 | $13.47 | -- | -- | -- |
| Riprap and jetty stone | 273 | 3,290 | 12.04 | 704 | $9,970 | $14.16 |
| Filter stone | 276 | 3,300 | 11.95 | 191 | 2,310 | 12.09 |
| Unspecified coarse aggregate | 2,070 | 17,100 | 8.24 | 1,890 | 17,400 | 9.21 |
| Coarse aggregate, graded: | | | | | | |
| Concrete aggregate, coarse | 1,070 | 9,720 | 9.13 | 668 | 6,230 | 9.33 |
| Bituminous aggregate, coarse | 988 | 9,770 | 9.88 | 531 | 5,290 | 9.97 |
| Bituminous surface-treatment aggregate | 221 | 2,690 | 12.19 | 91 | 837 | 9.17 |
| Railroad ballast | 791 | 8,290 | 10.48 | 12 | 128 | 10.40 |
| Unspecified graded coarse aggregate | 5,410 | 44,000 | 8.15 | 5,630 | 58,000 | 10.32 |
| Fine aggregate (-⅜ inch): | | | | | | |
| Stone sand, concrete | 16 | 257 | 16.09 | W | W | W |
| Stone sand, bituminous mix or seal | 518 | 3,880 | 7.50 | 521 | 4,570 | 8.76 |
| Screening, undesignated | 265 | 2,170 | 8.20 | 218 | 1,790 | 8.21 |
| Unspecified fine aggregate | 2,550 | 25,200 | 9.87 | 2,030 | 22,000 | 10.87 |
| Coarse and fine aggregates: | | | | | | |
| Graded road base or subbase | 2,460 | 21,000 | 8.57 | 3,140 | 34,000 | 10.81 |
| Unpaved road surface | 383 | 4,530 | 11.83 | 1,090 | 10,800 | 9.92 |
| Terrazzo and exposed aggregate | W | W | W | 13 | 40 | 3.06 |
| Crusher run or fill or waste | 4,050 | 20,600 | 5.08 | 1,440 | 9,150 | 6.36 |
| Unspecified coarse and fine aggregates | 5,280 | 38,000 | 7.20 | 5,920 | 47,400 | 8.01 |
| Unspecified and other construction materials | 693 | 7,760 | 11.19 | 167 | 1,390 | 8.34 |
| Agricultural: | | | | | | |
| Agricultural Limestone | 489 | 7,650 | 15.64 | 298 | 3,230 | 10.81 |
| Poultry grit and mineral food | W | W | W | W | W | W |
| Chemical and metallurgical: | | | | | | |
| Cement manufacture | 2,030 | 10,700 | 5.29 | 2,440 | 12,100 | 4.97 |
| Lime manufacture | W | W | W | W | W | W |
| Flux stone | W | W | W | W | W | W |
| Sulfur oxide removal | W | W | W | W | W | W |
| Special: | | | | | | |
| Mining dusting or acid water treatment | 291 | 15,700 | 54.07 | W | W | W |
| Asphalt fillers or extenders | -- | -- | -- | 1 | 3 | 6.86 |
| Whiting or whiting substitute | -- | -- | -- | W | W | W |
| Other miscellaneous uses and specified uses not listed | 330 | 3,640 | 11.03 | 605 | 7,340 | 12.13 |
| Unspecified:[2] | | | | | | |
| Reported | 18,500 | 214,000 | 11.57 | 19,200 | 220,000 | 11.50 |
| Estimated | 32,100 | 334,000 | 10.42 | 30,800 | 338,000 | 10.96 |
| Total or average | 82,600 | 897,000 | 10.85 | 79,200 | 891,000 | 11.25 |

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

PENNSYLVANIA: 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] | W | W | 529 | 4,850 | 839 | 7,940 |
| Coarse aggregate, graded[3] | W | W | 1,050 | 9,590 | 1,190 | 10,200 |
| Fine aggregate (-⅜ inch)[4] | W | W | 480 | 4,520 | 381 | 3,480 |
| Coarse and fine aggregates[5] | W | W | 2,420 | 19,700 | 2,820 | 28,700 |
| Other construction materials | 38 | 410 | 138 | 1,700 | 518 | 5,640 |
| Agricultural[6] | W | W | W | W | 35 | 368 |
| Chemical and metallurgical[7] | W | W | W | W | 293 | 1,750 |
| Special[8] | W | W | -- | -- | 282 | 15,300 |
| Other miscellaneous uses and specified uses not listed[9] | -- | -- | -- | -- | 330 | 3,640 |
| Unspecified:[10] | | | | | | |
| Reported | 1,410 | 15,300 | 2,760 | 31,400 | 5,160 | 56,100 |
| Estimated | 2,660 | 28,300 | 5,910 | 64,900 | 7,610 | 82,500 |
| Total | 7,910 | 124,000 | 13,600 | 150,000 | 19,400 | 216,000 |

| Use | District 4 | |
|---|---|---|
| | Quantity | Value |
| Construction: | | |
| Coarse aggregate (+1½ inch)[2] | 1,220 | 10,700 |
| Coarse aggregate, graded[3] | 6,100 | 53,600 |
| Fine aggregate (-⅜ inch)[4] | 2,460 | 23,200 |
| Coarse and fine aggregates[5] | 4,720 | 34,400 |
| Other construction materials | -- | -- |
| Agricultural[6] | W | W |
| Chemical and metallurgical[7] | W | W |
| Special[8] | -- | -- |
| Other miscellaneous uses and specified uses not listed[9] | -- | -- |
| Unspecified:[10] | | |
| Reported | 9,190 | 111,000 |
| Estimated | 15,900 | 158,000 |
| Total | 41,700 | 407,000 |

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 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 aggregate.

[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, lime manufacture, flux stone, and sulfur oxide removal.

[8]Includes mine dusting or acid water treatment.

[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

PENNSYLVANIA: 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] | 80 | 779 | 479 | 4,560 | 1,010 | 12,900 |
| Coarse aggregate, graded[3] | 219 | 1,730 | 850 | 8,470 | 1,230 | 13,200 |
| Fine aggregate (-⅜ inch)[4] | 45 | 251 | 322 | 3,070 | 717 | 8,510 |
| Coarse and fine aggregates[5] | 1,280 | 7,020 | 1,610 | 13,100 | 3,690 | 42,600 |
| Other construction materials | 30 | 247 | -- | -- | 135 | 1,140 |
| Agricultural[6] | W | W | W | W | 222 | 2,380 |
| Chemical and metallurgical[7] | W | W | W | W | -- | -- |
| Special[8] | W | W | -- | -- | (9) | 3 |
| Other miscellaneous uses and specified uses not listed[10] | 153 | 1,860 | 27 | 240 | 413 | 5,150 |
| Unspecified:[11] | | | | | | |
| Reported | 1,360 | 15,900 | 2,330 | 27,300 | 4,300 | 50,400 |
| Estimated | 2,070 | 23,300 | 5,880 | 75,600 | 5,430 | 62,600 |
| Total | 6,440 | 123,000 | 11,600 | 133,000 | 17,200 | 199,000 |

| Use | District 4 | |
|---|---|---|
| | Quantity | Value |
| Construction: | | |
| Coarse aggregate (+1½ inch)[2] | 1,220 | 11,500 |
| Coarse aggregate, graded[3] | 4,630 | 47,100 |
| Fine aggregate (-⅜ inch)[4] | 1,850 | 19,100 |
| Coarse and fine aggregates[5] | 5,030 | 38,700 |
| Other construction materials | -- | -- |
| Agricultural[6] | W | W |
| Chemical and metallurgical[7] | 2,380 | 11,800 |
| Special[8] | W | W |
| Other miscellaneous uses and specified uses not listed[10] | 12 | 96 |
| Unspecified:[11] | | |
| Reported | 11,200 | 127,000 |
| Estimated | 17,400 | 176,000 |
| Total | 44,000 | 436,000 |

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 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 aggregate.

[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, lime manufacture, flux stone, and sulfur oxide removal.

[8]Includes mine dusting or acid water treatment.

[9]Less than ½ unit.

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

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

TABLE 6
PENNSYLVANIA: 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 and concrete products[2] | 2,000 | $15,500 | $7.75 |
| Asphaltic concrete aggregates and other bituminous mixtures | 164 | 979 | 5.97 |
| Road base and coverings[3] | 738 | 6,690 | 9.07 |
| Fill | 568 | 3,360 | 5.92 |
| Snow and ice control | 165 | 1,230 | 7.45 |
| Other miscellaneous uses[4] | 257 | 2,820 | 10.97 |
| Unspecified:[5] | | | |
| Reported | 1,670 | 19,600 | 11.74 |
| Estimated | 6,000 | 52,300 | 8.72 |
| Total or average | 11,600 | 103,000 | 8.88 |

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

TABLE 7
PENNSYLVANIA: 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) | 1,170 | $11,300 | $9.64 |
| Plaster and gunite sands | 10 | 110 | 11.00 |
| Concrete products (blocks, bricks, pipe, decorative, and so forth) | 58 | 553 | 9.53 |
| Asphaltic concrete aggregates and other bituminous mixtures | 198 | 1,280 | 6.45 |
| Road base and coverings | 550 | 4,810 | 8.74 |
| Fill | 898 | 6,680 | 7.44 |
| Snow and ice control | 119 | 960 | 8.07 |
| Other miscellaneous uses[2] | 272 | 2,370 | 8.72 |
| Unspecified:[3] | | | |
| Reported | 1,470 | 15,300 | 10.41 |
| Estimated | 6,400 | 57,500 | 8.97 |
| Total or average | 11,200 | 101,000 | 9.04 |

[1]Data are rounded to no more than three significant digits, except unit value; may not add to totals shown.
[2]Includes filtration and railroad ballast.
[3]Reported and estimated production without a breakdown by end use.

TABLE 8
PENNSYLVANIA: 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 aggregates and concrete products[2] | W | W | 576 | 5160 | W | W |
| Asphaltic concrete aggregates and road base materials[3] | 564 | 4,890 | 192 | 1,630 | W | W |
| Fill | 44 | 277 | 142 | 866 | 127 | 736 |
| Snow and ice control | W | W | 24 | 171 | 25 | 234 |
| Other miscellaneous uses[4] | 66 | 606 | -- | -- | -- | -- |
| Unspecified:[5] | | | | | | |
| Reported | 106 | 1,810 | 465 | 4,340 | 1,030 | 12,800 |
| Estimated | 1,790 | 15,600 | 1,470 | 12,800 | 1,710 | 14,900 |
| Total | 3,200 | 27,500 | 2,870 | 25,000 | 3,790 | 34,700 |

| Use | District 4 | |
|---|---|---|
| | Quantity | Value |
| Concrete aggregates and concrete products[2] | 141 | 1,790 |
| Asphaltic concrete aggregates and road base materials[3] | 15 | 144 |
| Fill | 255 | 1,490 |
| Snow and ice control | (6) | 4 |
| Other miscellaneous uses[4] | 192 | 2,220 |
| Unspecified:[5] | | |
| Reported | 68 | 641 |
| Estimated | 1,030 | 9,010 |
| Total | 1,700 | 15,300 |

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 plaster and gunite sands.
[3]Includes road and other stabilization (cement).
[4]Includes filtration and railroad ballast.
[5]Reported and estimated production without a breakdown by end use.
[6]Less than ½ unit.

TABLE 9
PENNSYLVANIA: 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 aggregates and concrete products[2] | W | W | 432 | 4870 | W | W |
| Asphaltic concrete aggregates and road base materials | 375 | 3,060 | 283 | 2,210 | W | W |
| Fill | 69 | 310 | 2 | 8 | 116 | 989 |
| Snow and ice control | W | W | 8 | 65 | 40 | 385 |
| Other miscellaneous uses[3] | 76 | 685 | 12 | 122 | 43 | 202 |
| Unspecified:[4] | | | | | | |
| Reported | 78 | 820 | 493 | 4,720 | 844 | 9,250 |
| Estimated | 1,780 | 15,400 | 1,880 | 16,500 | 1,480 | 13,300 |
| Total | 2,640 | 22,300 | 3,110 | 28,500 | 3,190 | 30,000 |

| Use | District 4 | |
|---|---|---|
| | Quantity | Value |
| Concrete aggregates and concrete products[2] | 8 | 109 |
| Asphaltic concrete aggregates and road base materials | 33 | 299 |
| Fill | 711 | 5,370 |
| Snow and ice control | 1 | 15 |
| Other miscellaneous uses[3] | 142 | 1,360 |
| Unspecified:[4] | | |
| Reported | 55 | 517 |
| Estimated | 1,260 | 12,400 |
| Total | 2,210 | 20,100 |

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