

# THE MINERAL INDUSTRY OF DELAWARE

This chapter has been prepared under a Memorandum of Understanding between the U.S. Bureau of Mines, U.S. Department of the Interior, and the Delaware Geological Survey for collecting information on all nonfuel minerals.

Delaware remained 50th in the Nation in total nonfuel mineral production value<sup>1</sup> in 1995, according to the U.S. Geological Survey (USGS). Construction sand and gravel and gemstones were mined in the State. Additionally, Delaware ranked fifth of the 6 States that produce magnesium compounds in the United States. Magnesium compounds were extracted from seawater close to the mouth of the Delaware Bay, near Lewes, Sussex County, for use in the manufacture of chemical and pharmaceutical products. Additionally, raw steel was produced in the State but was processed from materials acquired from other domestic and foreign sources.

The Delaware Geological Survey<sup>2</sup> (DGS) remained, by State law, the official State contact with all agencies of the U.S. Department of the Interior (DOI). DGS reported that Delaware was the first State to have completely revised, modern topographic maps. Newly completed 1:24,000 quadrangle topographic maps (paper copies) became available in 1993. The DGS and the USGS completed the digital version of the maps, including overlays of the differing types of contained information, in 1994 and is electronically available on CD-ROM from DGS. The Minerals Management Service (DOI) continued to provide funding for studies characterizing offshore sand resources to be used in beach replenishment.

Based on DGS estimates, the agency thinks that the amount of sand and gravel produced from Delaware's natural resources is higher than previously reported by the U.S. Bureau of Mines and currently by the USGS.

During the past 10 years, the publicly reported production has ranged from 1.4 to 2.7 million metric tons (1.5 to 3.0 million short tons). The USGS estimate for 1995, based on the companies participating in the USGS canvass surveys, is about 2.6 million metric tons. The DGS thinks Delaware's actual mined production of construction sand and gravel to be significantly higher, though not officially reported as such. One reason for this difference is that agencies, such as the Delaware Department of Transportation, or companies that produce from pits for their own use do not necessarily report production the same as companies that sell products. In addition to mined minerals and materials, the DGS includes byproduct gypsum and sulfur from the State's oil and gas refinery production as part of its annual total nonfuel mineral-related activity. The DGS estimates Delaware's total nonfuel mineral-related activity annually to be approximately \$30 million.

<sup>1</sup>The terms "nonfuel mineral production" and related "values" encompass variations in meaning, depending on 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 1995 USGS mineral production data are estimates, as of Dec. 1995. Construction sand and gravel estimates are updated periodically. To obtain the most current information, please contact the USGS construction sand and gravel commodity specialist. Call MINES FaxBack at (703) 648-4999 from a fax machine with a touch-tone handset and request Document No. 1000 for a telephone listing of all mineral commodity specialists or call USGS information at (703) 648-4000 for the specialist's name and number.

<sup>2</sup>The remaining narrative portion of this report was based on information provided by the Delaware Geological Survey.

TABLE 1  
NONFUEL RAW MINERAL PRODUCTION IN DELAWARE<sup>1 2</sup>

Mineral	1993		1994		1995 <sup>P</sup>	
	Quantity	Value (thousands)	Quantity	Value (thousands)	Quantity	Value (thousands)
Gemstones	NA	\$1	NA	\$1	NA	\$1
Sand and gravel (construction) thousand metric tons	<sup>e</sup> 2,500	<sup>e</sup> 10,300	2,580	8,680	2,600	8,900
Total <sup>3</sup>	XX	10,300	XX	8,680	XX	8,900

<sup>e</sup>Estimated. <sup>P</sup>Preliminary. NA Not available. XX Not applicable.

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

<sup>2</sup>Data are rounded to three significant digits; may not add to totals shown.

<sup>3</sup>Partial total, excludes values which must be concealed to avoid disclosing company proprietary data.

TABLE 2

**DELAWARE: CONSTRUCTION SAND AND GRAVEL SOLD OR USED IN 1994, BY MAJOR USE CATEGORY<sup>1</sup>**

Use	Quantity (thousand metric tons)	Value (thousands)	Value per ton
Concrete aggregate and concrete products <sup>2</sup>	1,240	\$5,210	\$4.21
Road base and coverings <sup>3</sup>	1,180	2,540	2.15
Unspecified: <sup>4</sup> Actual	158	940	5.95
Total or average	2,580	8,680	3.37

<sup>1</sup>Data rounded to three significant digits; may not add to totals shown.

<sup>2</sup>Includes plaster and gunite sands.

<sup>3</sup>Includes fill and snow and ice control.

<sup>4</sup>Includes production reported without a breakdown by end use and estimates for nonrespondents.



# U. S. Geological Survey Minerals Information

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The U.S. Bureau of Mines updated and revised edition (1996) of the classic 1968 U.S. Bureau of Mines Dictionary of Mining, Mineral, and Related Terms is now available from the Superintendent of Documents, stock number 024-004-02436-4, for \$15.00 domestic and \$18.75 foreign. The Dictionary is available on CD-ROM only with no current plans to publish paper copies.

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