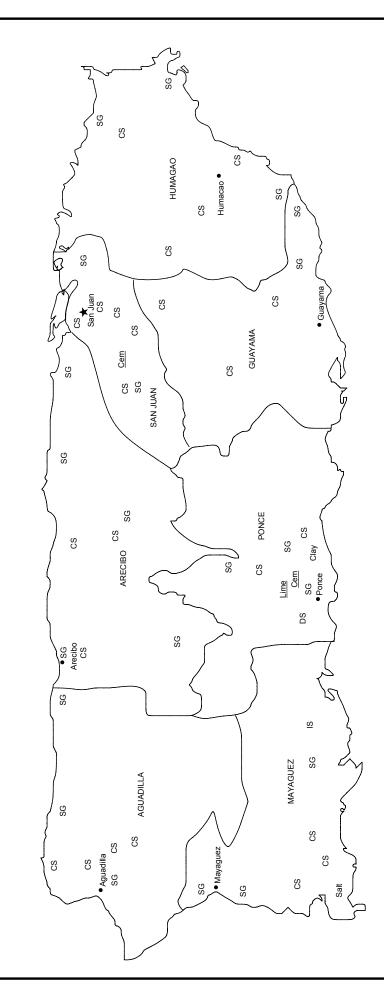
PUERTO RICO



| LEGEND | Q | MINERAL SYMBOLS | S | | (Major | (Major producing areas) |
|--------|-----------|-------------------|----------|--------------------|--------|--------------------------|
| | . Distric | District boundary | Cem | Cement plant | Lime | <u>Lime</u> Lime plant |
| * | Capital | - | Clay | Clay Common clay | Salt | Salt Salt |
| • | City | | CS | CS Crushed stone | SG | SG Construction sand and |
| | | | DS | Dimension stone | | gravei |
| | | | <u> </u> | IS Industrial sand | | |
| | | | | | | |

0 100 Kilometers

Source: Department of Natural Resources, Commonwealth of Puerto Rico/U.S. Geological Survey (2003)

THE MINERAL INDUSTRIES OF PUERTO RICO AND THE ADMINISTERED ISLANDS

This chapter has been prepared under a Memorandum of Understanding between the U.S. Geological Survey and the Puerto Rico Department of Natural Resources, Bureau of Geology, for collecting information on all nonfuel minerals.

In 2003, the estimated value¹ of nonfuel raw mineral production for Puerto Rico² was \$190 million, based upon preliminary U.S. Geological Survey (USGS) data. If ranked in comparison with the 50 States, Puerto Rico would rank 39th in total nonfuel mineral production value.³ Portland cement, by value, continued to be the Commonwealth's leading nonfuel mineral commodity, followed by crushed stone. Construction sand and gravel was produced in Puerto Rico, but production

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 2003 USGS mineral production data published in this chapter are preliminary estimates as of July 2004 and are expected to change. For some mineral commodities, such as 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 USGS Mineral Industry Surveys and USGS Minerals Yearbook chapters—mineral commodity, State, and country—also may be retrieved over the Internet at URL http://minerals.usgs.gov/minerals.

²While a Memorandum of Understanding (MOU) was officially made between the U.S. Geological Survey (USGS) and the Commonwealth of Puerto Rico, MOUs were not established with the Commonwealth of the Northern Mariana Islands, U.S. Caribbean and Pacific Island Possessions, or the U.S. Trust Territory of the Pacific Islands. Nevertheless, data on nonfuel mineral production were reported to the USGS for the island of Guam of the Pacific Island Possessions. These data appear in table 1.

³Values, percentage calculations, and rankings for 2002 may differ from the Minerals Yearbook, Area Reports: Domestic 2002, Volume II, owing to the revision of preliminary 2002 to final 2002 data. Data for 2003 are preliminary and are expected to change; related rankings also may change.

data are not available. The collection and compilation of production data for construction sand and gravel were discontinued in 1973 by the U.S. Bureau of Mines (the Federal Government Agency then responsible for collecting domestic raw nonfuel mineral production data) because of a low rate of response to surveys by the industry (Sikich and Alonso, 1993). For 2001, the value data for portland cement and the production and value data for marble dimension stone were withheld (company proprietary data), resulting in a significantly lower than actual total nonfuel raw mineral production value for that year (table 1).

Metals have not been mined in Puerto Rico since the Juncos iron mine closed in 1953; prospects for resuming metal mining in the near future do not appear to be likely. However, metal occurrences are common on the island, and the possibility of developing a metal deposit should not be completely discounted (Sikich and Alonso, 1993).

Of the U.S. Administered Islands, only American Samoa, the Virgin Islands, and Guam recently have reported nonfuel mineral production data, and these have been limited to crushed stone. Crushed stone production and value data for Guam are shown in table 1. Data for the production of crushed stone for American Samoa (traprock) and the Virgin Islands (limestone and traprock) have been withheld (company proprietary data).

Reference Cited

Sikich, S.W., and Alonso, R.M., 1993, The mineral industries of Puerto Rico, Northern Marianas, Island Possessions, and Trust Territory: U.S. Bureau of Mines Minerals Yearbook 1992, v. II, p. 467-470.

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TABLE 1 NONFUEL RAW MINERAL PRODUCTION IN THE COMMONWEALTH OF PUERTO RICO AND ISLANDS ADMINISTERED BY THE UNITED STATES $^{\!1,2}$

(Thousand metric tons and thousand dollars unless otherwise specified)

| | 2001 | | 2002 | | 2003 ^p | |
|---|----------|---------|----------|---------|--------------------|----------|
| Mineral | Quantity | Value | Quantity | Value | Quantity | Value |
| Puerto Rico: | | | | | | |
| Cement, portland | 1,550 | W | 1,530 | W | 1,500 | W |
| Clays, common | 132 | 351 | 114 | 585 | 114 | 585 |
| Lime | 11 | 2,250 | W | W | W | W |
| Salt | 45 | 1,500 | 45 | 1,500 | 45 | 1,500 |
| Sand and gravel, industrial | 32 | 1,200 | W | W | W | W |
| Stone, crushed | 8,000 | 38,000 | 7,940 | 40,600 | 7,940 ^e | 40,600 e |
| Combined values of stone (dimension marble), | • | | | | | |
| and values indicated by symbol W | XX | (3) | XX | 144,000 | XX | 147,000 |
| Total | XX | 43,300 | XX | 187,000 | XX | 190,000 |
| Administered Islands: | | | | | | |
| American Samoa, stone, crushed, traprock | | | W | (3) | W | (3) |
| Guam, stone, crushed | 477 | 1,900 e | 846 | 8,370 | 846 | 8,370 |
| Virgin Islands, stone, crushed limestone and traprock | W | (3) | W | (3) | W | (3) |
| Total | XX | 1,900 | XX | 8,370 | XX | 8,370 |

^eEstimated. ^pPreliminary. W Withheld to avoid disclosing company proprietary data; value included with "Combined values" data. XX Not applicable.

⁻⁻ Zero

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.

³Withheld to avoid disclosing company proprietary data.