

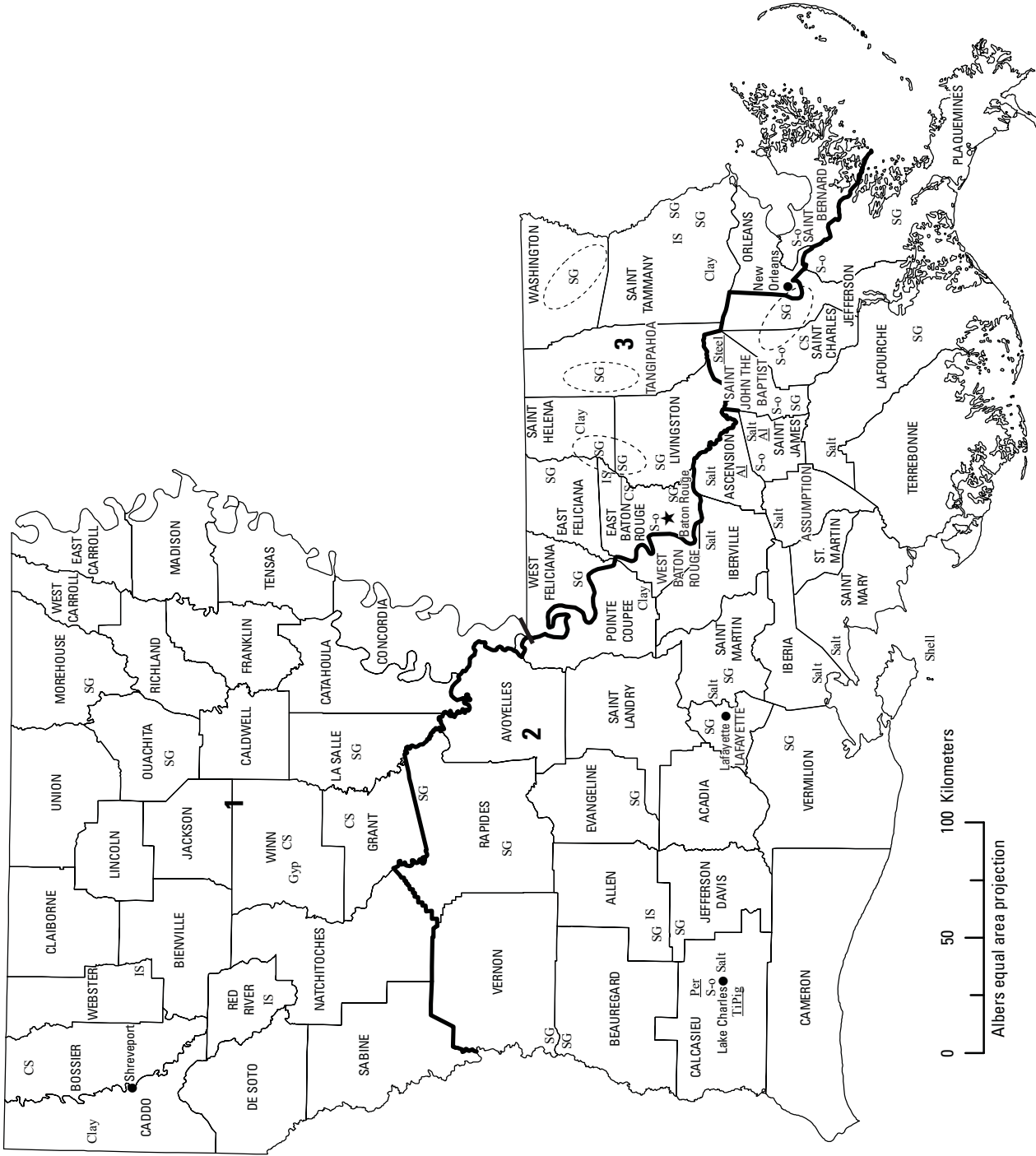


2012–2013 Minerals Yearbook

LOUISIANA

LOUISIANA

| LEGEND | |
|--|---|
| — | Parish boundary |
| ★ | Capital |
| • | City |
| — | Crushed stone/sand and gravel district boundary |
| MINERAL SYMBOLS (Principal producing areas) | |
| Al | Aluminum plant |
| Clay | Common clay |
| CS | Crushed stone |
| Gyp | Gypsum |
| IS | Industrial sand |
| Per | Perlite plant |
| S-o | Sulfur (oil) |
| Salt | Salt |
| SG | Construction sand and gravel |
| Shell | Shell |
| Steel | Steel plant |
| TiPig | Titanium pigment plant |
| ○ | Concentration of mineral operations |



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

THE MINERAL INDUSTRY OF LOUISIANA

In 2013, the value of the nonfuel mineral production¹ in the State of Louisiana increased to \$539 million,² 0.7% of the total U.S. nonfuel mineral production value, ranking it 33d in the Nation. In 2012, the corresponding value was \$403 million,² 0.5% of the U.S. total nonfuel mineral production, ranking it 35th among the 50 States. In 2013, on a per capita basis, nonfuel mineral production in Louisiana had a value of \$116 compared with the national average of \$238. In 2012, the per capita value was \$88 compared with the national average of \$241.

The value of nonfuel mineral production in Louisiana² for the years 2006 through 2013 was as follows (in millions of dollars): \$468 (2006), \$561 (2007), \$620 (2008), \$473 (2009), \$458 (2010), \$471 (2011), \$403 (2012), and \$539 (2013).

In 2013, there were 946 employees in nonfuel mineral mines in Louisiana and 832 in mills and preparation plants. In 2012, the corresponding numbers were 956 in nonfuel mineral mines and 828 in mills and preparation plants (U.S. Mine Safety and Health Administration, 2013, p. 10; 2014, p. 10). In 2013, the average annual wage in Louisiana for all mining was \$68,960 compared with \$44,332 for all industries. In 2012, the corresponding figures were \$69,119 and \$43,497, respectively (National Mining Association, unpub. data, February 4, 2016).

In 2012–2013, on the basis of production quantity, Louisiana was the leading producer of salt out of 16 producing States. It also produced common clays, construction and industrial sand and gravel, crushed stone, gypsum, lime, and natural gemstones (table 1).

Commodity Review

The following information has been extracted from U.S. Geological Survey (USGS) and State sources (Louisiana Geological Survey, 2008). Non-USGS data may differ from USGS data, which are based on company responses to USGS surveys and estimation for nonrespondents. The USGS withheld some data to avoid disclosing company proprietary data.

Industrial Minerals

Mineral industry activity with respect to industrial minerals was as follows:

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 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>.

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

Salt is mined in southern Louisiana at some of the numerous salt domes formed by salt stocks ascending into the shallow subsurface from depth. In 2012–13, the State produced 33% of the U.S. salt production.

Construction sand and gravel was mined from the Pliocene and Pleistocene river and coast-parallel terrace deposits and from the Holocene alluvium deposited by the rivers and streams draining them. In 2013, there were 111 sand-and-gravel-mining operations in Louisiana, of which 27 were dredging operations. In 2012, the corresponding numbers were 121 and 36, respectively.

Crushed stone production primarily consisted of hard sandstone mined from the Catahoula Formation and the Fleming Group in scattered locations in west-central Louisiana. In 2013, there were 16 crushed stone operations with 3 quarries and 3 processing plants. In 2012, the corresponding numbers were 17, 4, and 4, respectively.

Northern Louisiana has extensive exposures of clay in the Claiborne Group, but production also came from older and younger strata. Bentonite, formed by alteration of volcanic ash, occurs locally in the Cook Mountain Formation of the Claiborne Group. In southern Louisiana, clay was mined from Pliocene strata in the Florida parishes of East Baton Rouge, East Feliciana, Livingston, St. Helena, St. Tammany, Tangipahoa, Washington, and West Feliciana; from Pleistocene strata in Lafayette Parish; and from Holocene deposits in Pointe Coupee Parish.

Anhydrite (calcium sulfate) and gypsum (hydrated calcium sulfate) were produced from a single quarry in a salt-dome caprock exposure in Winn Parish in north-central Louisiana. (An iron-rich silicate mineral aggregate containing anhydrite and glauconite, mined from Claiborne Group strata, is used for surfacing roadbeds in many rural areas.)

Some diamonds have been found in deposits associated with a Pleistocene course of the Red River in northwestern Louisiana, less than 160 km (100 miles) south of the diamond-bearing area of southwestern Arkansas. These were not economically significant and were not included in table 1.

References Cited

- Louisiana Geological Survey, 2008, Generalized geology of Louisiana: Louisiana Geological Survey Web site, 1 p. (Accessed May 23, 2016, at <http://www.lgs.lsu.edu/deploy/uploads/gengeotext.pdf>)
- U.S. Mine Safety and Health Administration, [2013], Mine injury and worktime, quarterly, January–December 2012: U.S. Mine Safety and Health Administration, 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: U.S. Mine Safety and Health Administration, 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 MINERAL PRODUCTION IN LOUISIANA^{1,2}

(Thousand metric tons and thousand dollars)

| Mineral | 2011 | | 2012 | | 2013 | |
|--|---------------------|----------------------|----------|---------|----------|---------|
| | Quantity | Value | Quantity | Value | Quantity | Value |
| Clays, common | 144 | 1,280 | 145 | 1,330 | W | W |
| Gemstones, natural | NA | 7 | NA | 7 | NA | 7 |
| Salt | 14,300 | 234,000 | 11,600 | 172,000 | 14,300 | 318,000 |
| Sand and gravel: | | | | | | |
| Construction | 21,400 ^r | 212,000 ^r | 18,800 | 208,000 | 17,900 | 185,000 |
| Industrial | 550 | 23,700 | 512 | 21,800 | 709 | 36,200 |
| Combined values of gypsum (crude), lime, stone (crushed) | | W | | W | | W |
| Total | XX | 471,000 ^r | XX | 403,000 | XX | 539,000 |

^rRevised. NA Not available. W Withheld to avoid disclosing company proprietary data; excluded from "Total." XX Not applicable.

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

²Data are rounded to three significant digits; may not add to totals shown.

TABLE 2
LOUISIANA: CONSTRUCTION SAND AND GRAVEL SOLD OR USED IN 2012, BY USE¹

| Use | Quantity (thousand metric tons) | Value (thousands) | Unit value |
|---|---------------------------------------|----------------------|---------------|
| Concrete aggregate and concrete products ² | 3,250 | \$34,200 | \$10.52 |
| Road base and coverings | 589 | 11,700 | 19.86 |
| Fill | 1,090 | 5,570 | 5.11 |
| Other miscellaneous uses ³ | 81 | 2,030 | 25.06 |
| Unspecified: ⁴ | | | |
| Reported | 2,440 | 28,300 | 11.60 |
| Estimated | 11,300 | 126,000 | 11.15 |
| Total or average | 18,800 | 208,000 | 11.06 |

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

²Includes asphaltic concrete aggregates, plaster and gunite sands.

³Includes golf course and railroad ballast.

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

TABLE 3
LOUISIANA: CONSTRUCTION SAND AND GRAVEL SOLD OR USED IN 2013, BY USE¹

| Use | Quantity (thousand metric tons) | Value (thousands) | Unit value |
|---|---------------------------------------|----------------------|---------------|
| Concrete aggregate (including concrete sand) ² | 3,080 | \$29,900 | \$9.72 |
| Asphaltic concrete aggregates and other bituminous mixtures | 183 | 2,290 | 12.49 |
| Road base and coverings | 578 | 9,990 | 17.28 |
| Fill | 1,550 | 5,180 | 3.35 |
| Other miscellaneous uses ³ | 60 | 1,700 | 28.37 |
| Unspecified: ⁴ | | | |
| Reported | 892 | 9,830 | 11.02 |
| Estimated | 11,500 | 126,000 | 10.88 |
| Total or average | 17,900 | 185,000 | 10.32 |

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

²Includes plaster and gunite sands.

³Includes railroad ballast and roofing granules.

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

TABLE 4
LOUISIANA: CONSTRUCTION SAND AND GRAVEL SOLD OR USED IN 2012, BY USE AND DISTRICT¹

(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 | 1,980 | 18,400 |
| Asphaltic concrete aggregates and road base materials | W | W | W | W | 491 | 4,900 |
| Fill | 71 | 294 | 715 | 4,480 | 298 | 804 |
| Other miscellaneous uses ³ | -- | -- | 58 | 1,660 | 23 | 370 |
| Unspecified: ⁴ | | | | | | |
| Reported | 3 | 11 | -- | -- | 1,790 | 21,300 |
| Estimated | 177 | 1,980 | 3,710 | 41,600 | 7,450 | 82,300 |
| Total | 632 | 6,830 | 5,480 | 65,700 | 12,000 | 128,000 |
| | Unspecified districts | | | | | |
| | Quantity | Value | | | | |
| Concrete aggregate and concrete products ² | -- | -- | | | | |
| Asphaltic concrete aggregates and road base materials | -- | -- | | | | |
| Fill | -- | -- | | | | |
| Other miscellaneous uses ³ | -- | -- | | | | |
| Unspecified: ⁴ | | | | | | |
| Reported | 642 | 7,070 | | | | |
| Estimated | -- | -- | | | | |
| Total | 642 | 7,070 | | | | |

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.

²Includes plaster and gunite sands.

³Includes golf course and railroad ballast.

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

TABLE 5
LOUISIANA: CONSTRUCTION SAND AND GRAVEL SOLD OR USED IN 2013, BY USE AND DISTRICT¹

(Thousand metric tons and thousand dollars)

| Use | District 1 | | District 2 | | District 3 | |
|---|-----------------------|-------|------------|--------|------------|---------|
| | Quantity | Value | Quantity | Value | Quantity | Value |
| Concrete aggregate (including concrete sand) ² | W | W | W | W | 2,150 | 19,700 |
| Asphaltic concrete aggregates and road base materials | W | W | W | W | 292 | 1,490 |
| Fill | 70 | 293 | 902 | 3,680 | 578 | 1,220 |
| Other miscellaneous uses ³ | -- | -- | 58 | 1,650 | 2 | 49 |
| Unspecified: ⁴ | | | | | | |
| Reported | 8 | 18 | 8 | 84 | 380 | 4,250 |
| Estimated | 168 | 1,850 | 3,110 | 32,400 | 8,270 | 91,400 |
| Total | 620 | 6,750 | 5,110 | 54,200 | 11,700 | 118,000 |
| | Unspecified districts | | | | | |
| | Quantity | Value | | | | |
| Concrete aggregate (including concrete sand) ² | -- | -- | | | | |
| Asphaltic concrete aggregates and road base materials | -- | -- | | | | |
| Fill | -- | -- | | | | |
| Other miscellaneous uses ³ | -- | -- | | | | |
| Unspecified: ⁴ | | | | | | |
| Reported | 497 | 5,480 | | | | |
| Estimated | -- | -- | | | | |
| Total | 497 | 5,480 | | | | |

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.

²Includes plaster and gunite sands.

³Includes railroad ballast and roofing granules.

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