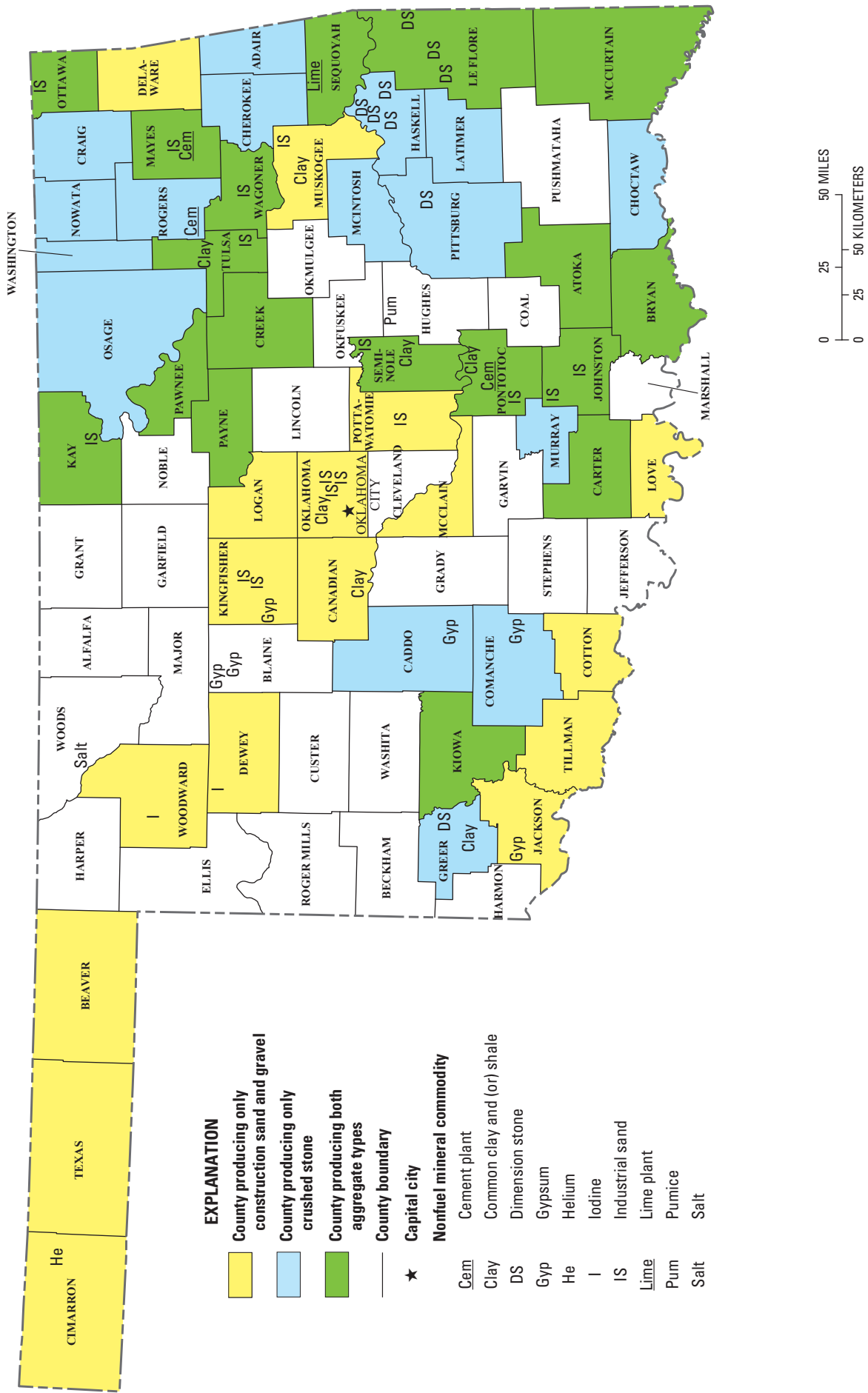




2014 Minerals Yearbook

OKLAHOMA [ADVANCE RELEASE]



Base from U.S. Geological Survey digital data
Allbers Equal-Area Conic projection

Figure 1. Map showing major nonfuel-mineral-producing areas in Oklahoma in 2014. Sources: Oklahoma Geological Survey and U.S. Geological Survey.

THE MINERAL INDUSTRY OF OKLAHOMA

By Robert M. Callaghan

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

In 2014, the value of nonfuel mineral production¹ in the State of Oklahoma (fig. 1) increased to \$794 million, a 14% increase from the State's revised nonfuel mineral production value of \$694 million in 2013 (table 1). The leading nonfuel mineral commodity in 2014 was crushed stone, of which approximately 82% was limestone, 11% was granite, and the remainder was classified as miscellaneous stone, sandstone, and limestone. Other leading mineral commodities in the State included cement, construction sand and gravel, and industrial sand and gravel. Oklahoma ranked first in production quantity of gypsum of 16 producing States, first in iodine of 2 producing States, and third in common clay of 37 producing States. Although ninth in overall dimension stone production of 34 producing States, Oklahoma ranked first in marble production and fifth in sandstone production. A small number of companies produced several other mineral commodities (table 3), including feldspar, helium, lime, pumice, and salt.

In 2014, the employment number at Oklahoma's mines decreased while it increased at mills and plants, and average mining wages increased by 5% compared to 3% in all industries in the State. The State ranked 30th in the Nation in total nonfuel mineral production value, although on a per capita basis it ranked 21st with a value of \$205 compared to a national average of \$252 in 2014 (table 2).

Events, Trends, and Issues

The nonfuel mineral production value in 2014 was the second highest of the previous 10 years, approaching the record high set in 2008 (fig. 2). Increased demand for industrial sand in recent years for use as a proppant in hydraulic fracturing as well as increased demand in the construction industry, which first began to show signs of recovery in 2012, contributed to the increasing production value. Increases in production quantity were more gradual, and production quantity for most commodities, especially aggregates, remained well below levels seen in 2008.

The Oklahoma Department of Mines, Mining Commission (2015) published a report on the mineral industry in Oklahoma. In 2014, 41 new mineral mining permits were issued. About 60% of the total tonnage of minerals mined in Oklahoma was limestone, used primarily as aggregates but also for cement, lime, and agricultural uses.

All active nonfuel mines were industrial minerals operations. Oklahoma was once a major source of lead and zinc in the United States, with about 1.2 million metric tons (Mt) of lead and 4.7 Mt of zinc produced from 1900 through the 1960s and was especially important during World War I and World War II. Remediation continued in 2014 to address significant soil and water contamination in the Tar Creek Superfund Site, with voluntary relocation of remaining residents in affected areas taking place. About 327,000 metric tons of chat, waste rock from the mining operations, was sold as aggregate in 2014, according to the Oklahoma Mining Commission, Department of Mines.

Aggregates by State and End Use

A companion dataset, "Aggregates by State and End Use," replaces the discrete aggregate tables that were included in the individual State chapters prior to 2014 and is available on the State Minerals Statistics and Information web page at <https://minerals.usgs.gov/minerals/pubs/state/>. This dataset is updated annually.

Reference Cited

Oklahoma Department of Mines, Mining Commission, [2015], Annual report 2014: Oklahoma Mining Commission, Department of Mines, 48 p. (Accessed April 11, 2016, at <http://mines.ok.gov/Websites/mines1/images/Annual%20Reports/AnnualReport2014.pdf>.)

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 June 2017. All USGS Mineral Industry Surveys and USGS Minerals Yearbook chapters—mineral commodity, State, and country—can be retrieved over the internet at <http://minerals.ustrgs.gov/minerals>.

TABLE 1
NONFUEL MINERAL PRODUCTION IN OKLAHOMA^{1,2,3}

(Thousand metric tons and thousand dollars unless otherwise specified)

Mineral	2012		2013		2014	
	Quantity	Value	Quantity	Value	Quantity	Value
Clays, common clay	638	3,010	925 ^r	3,160 ^r	906	3,020
Gemstones, natural ^e	NA	4	NA	4	NA	4
Sand and gravel:						
Construction	11,300 ^r	70,100 ^r	11,100 ^r	76,600 ^r	11,900	89,300
Industrial	2,850	112,000	2,120	89,100	3,340	122,000
Stone:						
Crushed	39,900	303,000	39,800	304,000 ^r	39,700	317,000
Dimension	53	7,420	43	7,880	62	5,240
Combined values of cement, feldspar, gypsum (crude), helium (Grade-A), iodine (crude), lime, pumice and pumicite (2013–14), salt	XX	213,000 ^r	XX	214,000 ^r	XX	258,000
Total	XX	708,000 ^r	XX	694,000 ^r	XX	794,000

^eEstimated. ^rRevised. NA Not available. XX Not applicable.

¹Includes data available through June 2017.

²Production as measured by mine shipments, sales, or marketable production (including consumption by producers).

³Data are rounded to no more than three significant digits; may not add to totals shown.

TABLE 2
MINING ACTIVITY IN OKLAHOMA

Mining activity	2012	2013	2014
State rank ¹	31	32	30
Employment, number: ²			
Nonfuel mineral mines	1,750	1,799	1,753
Mills and plants	693	693	712
Number of nonfuel mineral mines ²	241	237	236
Number of mills and plants ²	40	38	39
Average annual wage, all mining ³	dollars per year	50,928	52,281
Average annual wage, all industries ³	do.	41,768	42,733
Per capita value ¹	dollars per person	186	180
National per capita value ¹	do.	241	236

do. Ditto.

¹Based on unadjusted State total value.

²Source: U.S. Mine Safety and Health Administration.

³Source: National Mining Association.

TABLE 3
STRUCTURE OF THE NONFUEL MINERAL INDUSTRY IN OKLAHOMA

(Nonfuel-mineral-producing companies, not including aggregate producers)

Commodity	Company	County
Cement	Buzzi-Unicem USA, Inc.	Mayes
Do.	Holcim (US) Inc.	Pontotoc
Do.	Eagle Materials Inc.	Rogers
Clays, common clay and (or) shale	Boral Bricks, Inc.	Canadian, Muskogee
Do.	Mangum Brick Co.	Greer
Do.	Acme Brick Co.	Oklahoma, Tulsa
Do.	Holcim (US) Inc.	Pontotoc
Do.	Commercial Brick Corp.	Seminole
Gemstones ¹	Various	Various
Gypsum	Hoskins Gypsum Co.	Blaine
Do.	USG Corp.	Do.
Do.	ACG Materials Co.	Caddo, Comanche
Do.	American Gypsum Co.	Jackson
Do.	Diamond Gypsum Co.	Kingfisher
Helium	IACX Energy	Okfuskee
Do.	Midstream Energy Services, LLC	Cimarron
Iodine	IOCHEM Corp.	Dewey
Do.	Woodward Iodine Corp.	Woodward
Lime	U.S. Lime & Minerals, Inc.	Sequoyah
Pumice	Hope Minerals Inc.	Hughes
Salt	Cargill, Inc.	Woods
Sand and gravel, industrial	FG Minerals LLC	Johnston
Do.	U.S. Silica Holdings, Inc.	Do.
Do.	Sober Brothers Inc.	Kay
Do.	Dover Sand Plant LLC	Kingfisher
Do.	Ozark Materials, LLC	Mayes
Do.	Oldcastle Materials Inc.	Muskogee
Do.	Dolse Bros. Co.	Oklahoma
Do.	General Materials Inc.	Do.
Do.	North Canadian Holding Co.	Do.
Do.	Panther Sand Co. LLC	Do.
Do.	Flint Rock Products LLC	Ottawa
Do.	Unimin Corp.	Pontotoc
Do.	Enrem Materials LLC	Pottawatomie
Do.	B & B Sand And Gravel Co.	Seminole
Do.	Anchor Stone Co.	Tulsa
Do.	Mountain Creek Products LLC	Wagoner
Stone, dimension	Chapel Rose Quarry Inc.	Greer
Do.	Bedrock Stone Co.	Haskell
Do.	Oldham Enterprises LLC	Do.
Do.	Rock-It Natural Stone, Inc.	Do.
Do.	TBK Materials LLC	Do.
Do.	Kully Chaha Native Stone LLC	Le Flore
Do.	Luman Rock Co.	Do.
Do.	Rock-It Natural Stone, Inc.	Do.
Do.	Rock Island Stone Co.	Pittsburg

Do. Ditto.

¹Most natural gemstone producers in the United States are small businesses that are widely dispersed and operate independently.

EXPLANATION

- Other
- Clays (common clay)
- Gypsum (crude)
- Sand and gravel (industrial)
- Stone (dimension)
- Sand and gravel (construction)
- Stone (crushed)

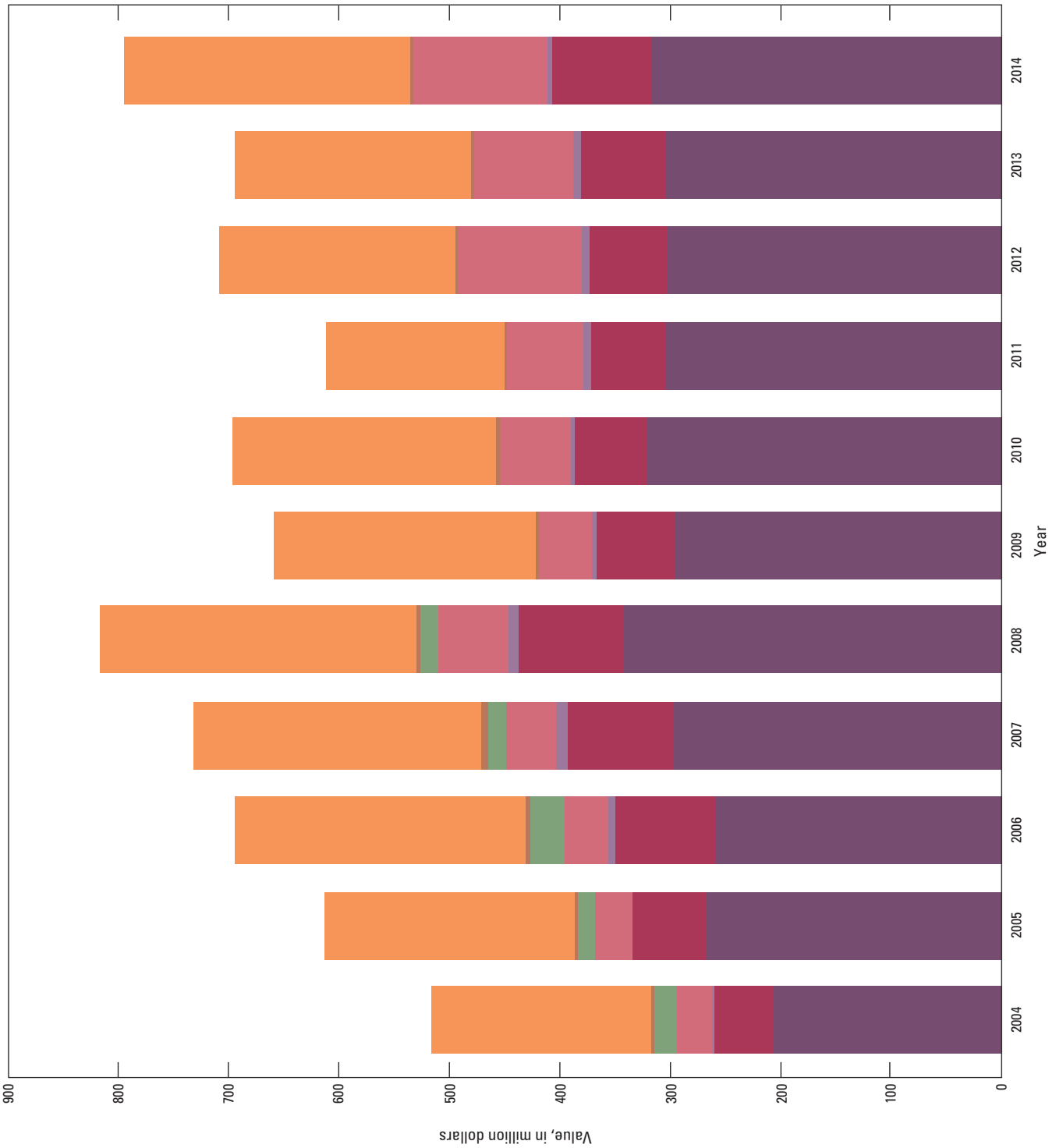


Figure 2. The production value of nonfuel mineral commodities from 2004 through 2014 in Oklahoma. Values less than \$5 million are not shown. "Other" includes the "Combined values" data listed in table 1 in this and (or) previous years. For a complete list of nonfuel mineral commodities and production values for all States, please refer to the Statistical Summary chapter (tables 5, 6).