

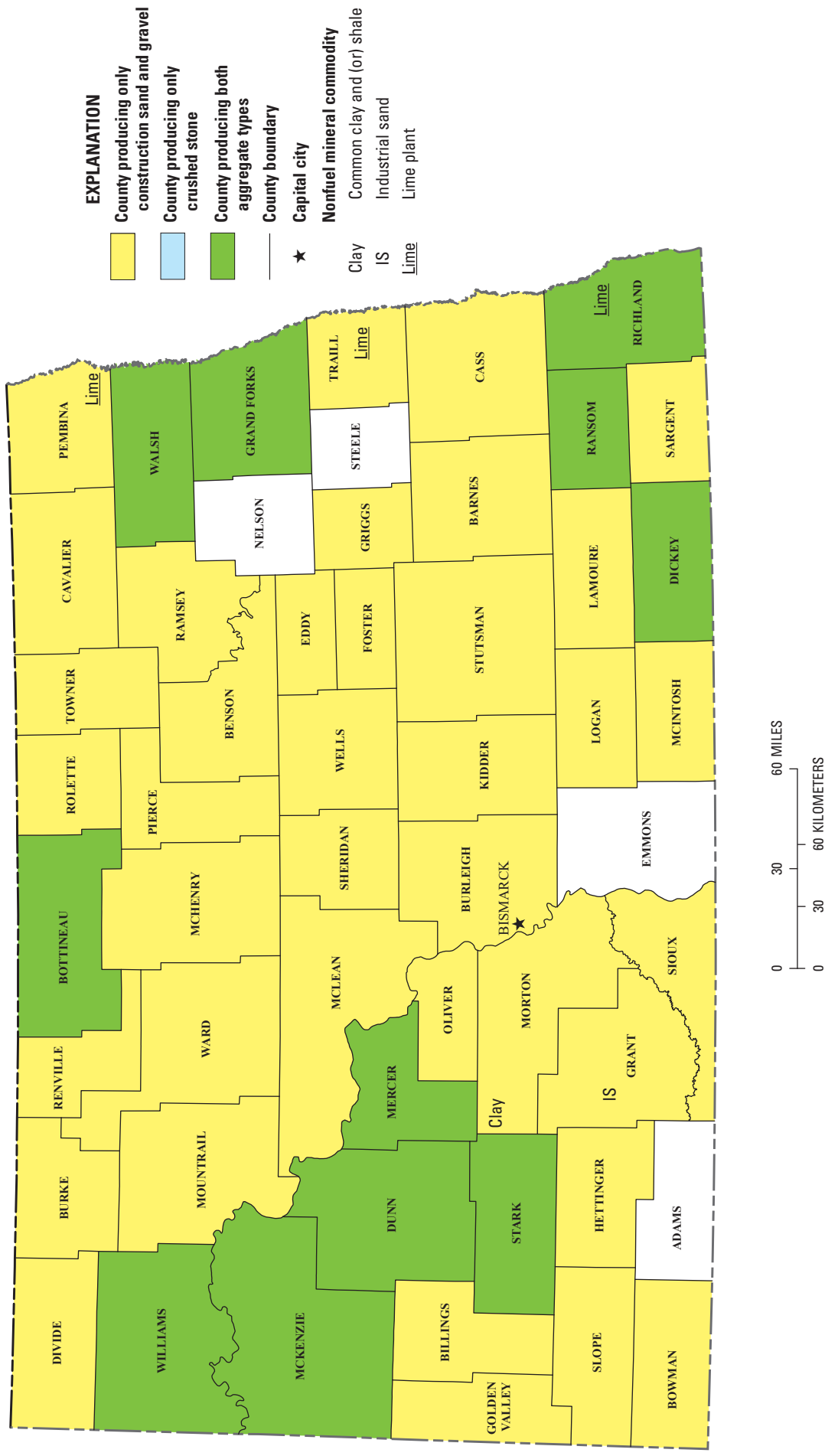


# 2014 Minerals Yearbook

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**NORTH DAKOTA [ADVANCE RELEASE]**

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

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

# THE MINERAL INDUSTRY OF NORTH DAKOTA

By Madan M. Singh

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

In 2014, the partial value of nonfuel mineral production<sup>1</sup> in the State of North Dakota was \$157 million.<sup>2</sup> This was a 19.7% decrease from the State's revised nonfuel mineral production partial value of \$195 million<sup>2</sup> in 2013 (table 1). Nonfuel mineral production in the State surpassed \$200 million in partial value for the only time in 2012 (fig. 1). North Dakota ranked 44th among the 50 States, based on total value. On a per capita basis, the value of nonfuel mineral production was \$212 compared with the average national value of \$252. The number of mines and mine employment decreased from the prior year (table 2).

In 2014, the top five minerals by production value in the State, in alphabetical order, were common clay, construction sand and gravel, crushed stone, industrial sand and gravel, and lime. Common clay, industrial sand and gravel, and lime quantities and values are withheld to avoid disclosing company proprietary data (table 1).

## Events, Trends, and Issues

According to the North Dakota State Soil Conservation Committee, there were 22 surface mining operations that affected 318 hectares (ha) and disturbed approximately 873,000 cubic meters of overburden. At a total of 100 pits, ranging in size from 0.2 to 14 ha, clay, gravel, rock, sand, and scoria were mined (North Dakota State Soil Conservation Committee, 2015).

North Dakota State law requires that any person or company removing 7,650 cubic meters or more of earth materials or products (including overburden and excluding coal) affecting

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<sup>1</sup>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 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.usgs.gov/minerals>.

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

0.2 ha or more in combined mining operations per calendar year file a surface mining report with the State Soil Conservation Committee for the year. Minerals reported include cement rock, clay, gravel, limestone, manganese, molybdenum, peat, potash, pumicite, salt, sand, scoria, sodium sulfate, stone, zeolites, and other minerals (except coal) (North Dakota State Soil Conservation Committee, 2015).

In 2014, the gross domestic product (GDP) in current dollars for North Dakota for all industries was \$59.5 billion; for construction, it was \$4.33 billion; and for mining, excluding oil and gas, it was \$713 million. The total personal income for the State was \$43.0 billion and the per capita income was \$58,300 (Bureau of Economic Analysis, undated).

In 2014, the production quantity of construction sand and gravel in North Dakota decreased by 21% and crushed stone increased by 12% from the previous year (table 1).

## Aggregates by State and End Use

A companion data set, "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.

## References Cited

- Bureau of Economic Analysis, [undated], Regional data—GDP & personal income—Annual gross domestic product (GDP) by State: U.S. Department of Commerce, Bureau of Economic Analysis website. (Accessed May 18, 2018, via [https://www.bea.gov/iTable/index\\_regional.cfm](https://www.bea.gov/iTable/index_regional.cfm).)
- North Dakota State Soil Conservation Committee, [2015], 2014 surface mining report: Bismarck, ND, North Dakota State Soil Conservation Commission, 10 p.

TABLE 1  
NONFUEL MINERAL PRODUCTION IN NORTH DAKOTA<sup>1,2,3</sup>

(Thousand metric tons and thousand dollars)

Mineral	2012		2013		2014	
	Quantity	Value	Quantity	Value	Quantity	Value
Clays, common clay	W	W	W	W	W	W
Gemstones, natural <sup>c</sup>	NA	4	NA	4	NA	4
Lime	W	W	W	W	W	W
Sand and gravel:						
Construction	26,900 <sup>r</sup>	191,000 <sup>r</sup>	25,300 <sup>r</sup>	182,000 <sup>r</sup>	20,000	143,000
Industrial	W	W	W	W	W	W
Stone, crushed	1,700 <sup>r</sup>	10,500 <sup>r</sup>	1,260 <sup>r</sup>	13,000 <sup>r</sup>	1,410	14,000
Total	XX	202,000 <sup>r</sup>	XX	195,000 <sup>r</sup>	XX	157,000

<sup>c</sup>Estimated. <sup>r</sup>Revised. NA Not available. W Withheld to avoid disclosing company proprietary data; excluded from "Total." XX Not applicable.

<sup>1</sup>Includes data available through June 2017.

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

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

TABLE 2  
MINING ACTIVITY IN NORTH DAKOTA

Mining activity	2012	2013	2014	
State rank <sup>1</sup>	42	42	44	
Employment, number: <sup>2</sup>				
Nonfuel mineral mines	948	856	772	
Mills and plants	27	37	36	
Number of nonfuel mineral mines <sup>2</sup>	236	227	203	
Number of mills and plants <sup>2</sup>	2	2	2	
Average annual wage, all mining <sup>3</sup>	dollars per year	77,380	80,193	84,481
Average annual wage, all industries <sup>3</sup>	do.	46,823	48,740	52,079
Per capita value <sup>4</sup>	dollars per person	288	270	212
National per capita value <sup>1</sup>	do.	241	236	252

do. Ditto.

<sup>1</sup>Based on unadjusted State total value.

<sup>2</sup>Source: U.S. Mine Safety and Health Administration.

<sup>3</sup>Source: National Mining Association.

<sup>4</sup>Based on partial State total value to avoid disclosing company proprietary data.

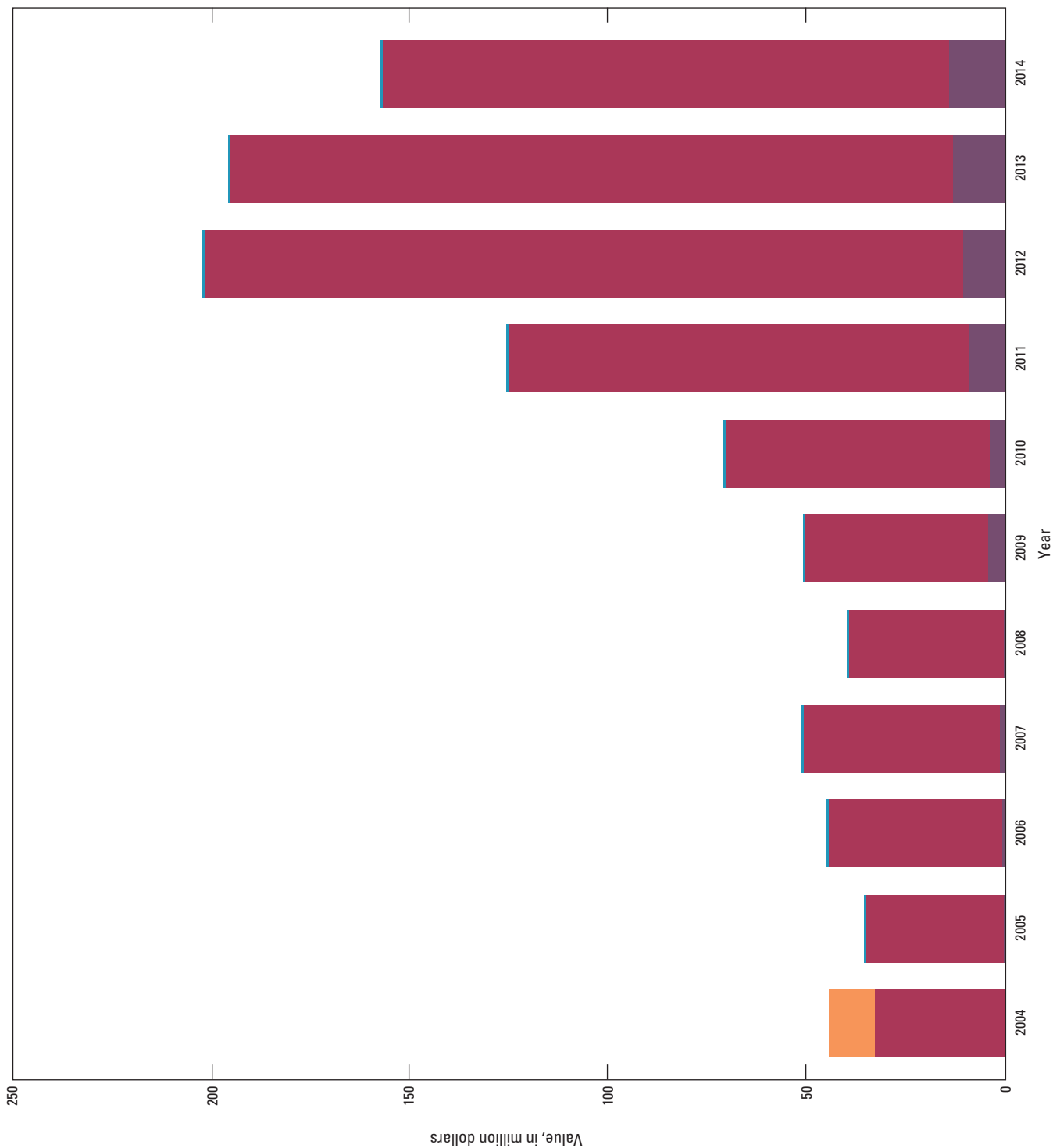
TABLE 3  
STRUCTURE OF THE NONFUEL MINERAL INDUSTRY IN NORTH DAKOTA

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

Commodity	Company	County
Clays, common clay	Hebron Brick and Block Supply Co.	Morton
Lime	American Crystal Sugar Co. (Drayton)	Pembina
Do.	American Crystal Sugar Co. (Hillsboro)	Traill
Do.	Minnesota-Dakota Farmers Cooperataive (Wahpeton)	Richland
Sand and gravel, industrial	Abrasives Inc.	Grant
Do. Ditto.		

**EXPLANATION**

- Other
- Gemstones (natural)
- Sand and gravel (construction)
- Stone (crushed)



**Figure 2.** The production value of nonfuel mineral commodities from 2004 through 2014 in North Dakota. "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).