



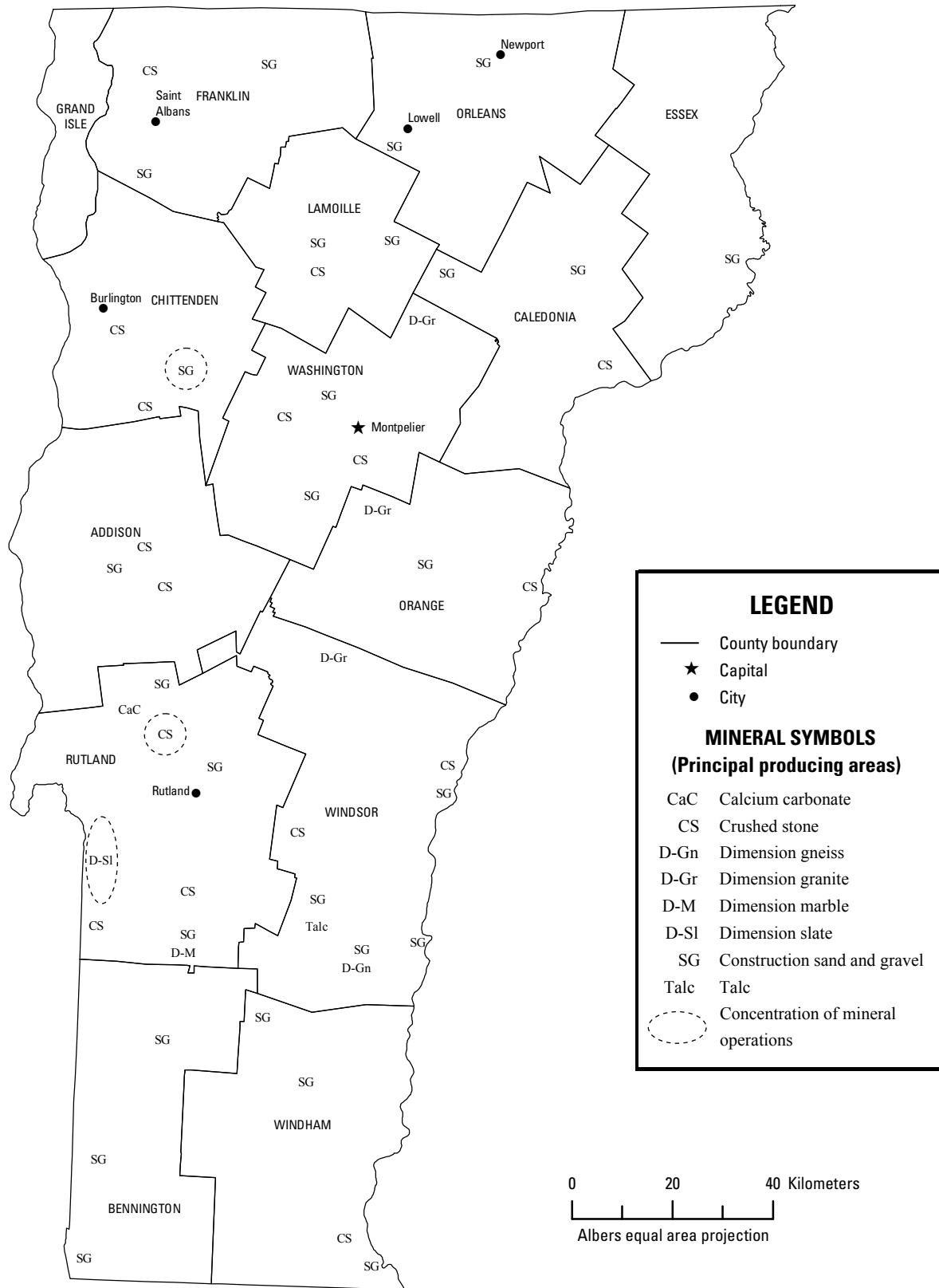
# 2012–2013 Minerals Yearbook

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## VERMONT

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

# THE MINERAL INDUSTRY OF VERMONT

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

In 2013, the value of the nonfuel mineral production<sup>1</sup> in the State of Vermont was \$126 million,<sup>2</sup> 0.17% of the total U. S. nonfuel mineral production, ranking it 46th in the Nation, the same as in 2012. In 2013, on a per capita basis, nonfuel mineral production in Vermont had a value of \$201 compared with the national average of \$238. In 2012, the per capita value was \$200 compared with the national average of \$241.

The value of nonfuel mineral production in Vermont for the years 2006 through 2013 was as follows (in millions of dollars):<sup>2</sup> \$123 (2006), \$117 (2007), \$117 (2008), \$123 (2009), \$122 (2010), \$123 (2011), \$126 (2012), and \$126 (2013).

In 2013, there were 640 employees in nonfuel mineral mines in Vermont and 329 in mills and preparation plants. In 2012, the corresponding numbers were 633 in nonfuel mineral mines and 326 in mills and preparation plants (U.S. Mine Safety and Health Administration, 2013, p. 16; 2014, p. 16).

In 2012–13, crushed stone, followed by construction sand and gravel and dimension stone, remained the leading publishable nonfuel mineral commodities in Vermont; talc production was withheld to avoid disclosing company proprietary data (table 1). Talc, Vermont’s State mineral, was produced at the Argonaut Quarry in Windsor County, one of only six U.S. talc mines in

four States. Vermont ranked seventh in dimension stone quantity and fifth in value of the 33 producing States. By quantity and type of dimension stone, Vermont was the leading State for slate out of three producing States, and ranked third in dimension marble out of four producing States. A significant end use for Vermont’s slate has historically been and continues to be for use as a roofing material. Vermont slate, which was produced in varieties of various colors from several quarries, is catalogued in the National Building Stone Database, with the oldest documented operating quarry dating from 1859 (National Park Service, undated). The historic Danby Quarry remained one of the largest underground marble mines in the world, and with the addition in recent years of an underground production facility, could produce up to 370 square meters of slab per day (Vermont Quarries Corp., undated). While not a leading producer of granite, Vermont also produced granite from historic quarries such as the Rock of Ages Quarry and the Swenson Woodbury Quarry.

## References Cited

- National Park Service, [undated], National building stone database [beta]: National Park Service, U.S. Department of the Interior. (Accessed June 22, 2016, at <https://ncppt.nps.gov/buildingstone/table>.)
- 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](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](http://arlweb.msha.gov/Stats/Part50/WQ/MasterFiles/MIWQ%20Master_20135.pdf).)
- Vermont Quarries Corp., [undated], Vermont Quarries Corp.: Vermont Quarries Corp. Web site. (Accessed June 23, 2016, at <http://www.vermontquarries.com/>.)

<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 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>.

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

TABLE 1  
NONFUEL MINERAL PRODUCTION IN VERMONT<sup>1,2</sup>

(Thousand metric tons and thousand dollars unless otherwise specified)

Mineral	2011		2012		2013	
	Quantity	Value	Quantity	Value	Quantity	Value
Gemstones, natural	NA	1	NA	1	NA	1
Sand and gravel, construction	5,070 <sup>r</sup>	33,800 <sup>r</sup>	4,700	38,400	4,820	37,700
Stone:						
Crushed	6,510 <sup>r</sup>	67,100 <sup>r</sup>	6,190	62,200	6,400	63,200
Dimension	79	21,800	75	24,900	80	25,200
Talc, crude	W	W	W	W	W	W
Total	XX	123,000 <sup>r</sup>	XX	126,000	XX	126,000

<sup>1</sup>Revised. NA Not available. W Withheld to avoid disclosing company proprietary data; excluded from “Total.” XX Not applicable.

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

<sup>2</sup>Data are rounded to no more than three significant digits; may not add to totals shown.

TABLE 2  
VERMONT: CRUSHED STONE SOLD OR USED IN THE UNITED STATES, BY TYPE<sup>1</sup>

Type	2012				2013			
	Number of quarries	Quantity (thousand metric tons)	Value (thousands)	Unit value	Number of quarries	Quantity (thousand metric tons)	Value (thousands)	Unit value
Limestone <sup>2</sup>	11	1,930	\$18,800	\$9.74	11	2,270	\$21,500	\$9.48
Dolomite	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)
Marble	1	1,300	13,500	10.42	1	1,370	13,600	9.92
Granite	3	445	4,710	10.58	3	408	4,150	10.17
Traprock	1	13	134	10.42	1	86	943	10.94
Sandstone and quartzite <sup>4</sup>	6	1,140	11,300	9.88	6	1,290	13,000	10.12
Slate	5	187	1,890	10.13	4	209	2,090	10.00
Miscellaneous stone	19	1,180	11,900	10.14	17	767	7,850	10.25
Total or average	XX	6,190	62,200	10.06	XX	6,400	63,200	9.87

XX Not applicable.

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

<sup>2</sup>Includes limestone-dolomite reported with no distinction between the two kinds of stone.

<sup>3</sup>Withheld to avoid disclosing company proprietary data; included with "Limestone."

<sup>4</sup>Includes sandstone-quartzite reported with no distinction between the two kinds of stone.

TABLE 3  
VERMONT: CRUSHED STONE SOLD OR USED BY PRODUCERS, BY USE<sup>1</sup>

Use	2012			2013		
	Quantity (thousand metric tons)	Value (thousands)	Unit value	Quantity (thousand metric tons)	Value (thousands)	Unit value
<b>Construction:</b>						
<b>Coarse aggregate (+1½ inch):</b>						
Macadam	1	\$13	\$12.87	--	--	--
Riprap and jetty stone	110	1,740	15.83	36	\$401	\$11.04
Filter stone	18	191	10.60	28	271	9.69
Unspecified coarse aggregate	133	1,410	10.61	113	1,300	11.44
<b>Coarse aggregate, graded:</b>						
Concrete aggregate, coarse	130	1,030	7.93	173	1,710	9.90
Bituminous aggregate, coarse	94	1,580	16.81	--	--	--
Railroad ballast	129	1,640	12.72	1	15	14.26
Unspecified graded coarse aggregate	W	W	W	64	498	7.77
<b>Fine aggregate (-¾ inch):</b>						
Stone sand, concrete	37	295	7.97	9	93	10.03
Stone sand, bituminous mix or seal	52	809	15.56	--	--	--
Screening, undesignated	64	423	6.62	3	20	6.67
Unspecified fine aggregate	W	W	W	W	W	W
<b>Coarse and fine aggregates:</b>						
Graded road base or subbase	399	3,580	8.97	310	3,070	9.91
Unpaved road surface	99	937	9.46	106	1,130	10.57
Terrazzo and exposed aggregate	W	W	W	--	--	--
Crusher run or fill or waste	139	1,530	11.03	W	W	W
Unspecified coarse and fine aggregates	248	1,850	7.48	304	2,340	7.72
Unspecified and other construction materials	20	220	10.98	--	--	--
<b>Agricultural:</b>						
Agricultural limestone	W	W	W	W	W	W
Other miscellaneous uses and specified uses not listed				6	90	15.65
<b>Unspecified:<sup>2</sup></b>						
Reported	958	9,980	10.42	875	8,720	9.96
Estimated	3,480	34,300	9.85	4,310	43,000	9.98
Total or average	6,190	62,200	10.06	6,400	63,200	9.87

W Withheld to avoid disclosing company proprietary data; included in "Total." -- Zero.

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

<sup>2</sup>Reported and estimated production without a breakdown by end use.

TABLE 4  
VERMONT: CONSTRUCTION SAND AND GRAVEL SOLD OR USED IN 2012,  
BY MAJOR USE CATEGORY<sup>1</sup>

Use	Quantity (thousand metric tons)	Value (thousands)	Unit value
Concrete aggregate and concrete products <sup>2</sup>	245	\$2,240	\$9.14
Asphaltic concrete aggregates and road base materials <sup>3</sup>	1,020	8,440	8.29
Fill	77	270	3.51
Snow and ice control	282	1,410	4.99
Filtration	1	2	2.00
Other miscellaneous uses	21	202	9.62
Unspecified: <sup>4</sup>			
Reported	395	3,480	8.82
Estimated	2,660	22,300	8.39
Total or average	4,700	38,400	8.17

<sup>1</sup>Data are rounded to no more than three significant digits; may not add to totals shown.

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

<sup>3</sup>Includes road and other stabilization (lime).

<sup>4</sup>Reported and estimated production without a breakdown by end use.

TABLE 5  
VERMONT: CONSTRUCTION SAND AND GRAVEL SOLD OR USED IN 2013,  
BY MAJOR USE CATEGORY<sup>1</sup>

Use	Quantity (thousand metric tons)	Value (thousands)	Unit value
Concrete aggregate and concrete products	171	\$1,470	\$8.62
Asphaltic concrete aggregates and road base materials <sup>2</sup>	460	2,810	6.12
Fill	85	407	4.79
Snow and ice control	82	402	4.90
Filtration	62	410	6.61
Other miscellaneous uses	44	251	5.70
Unspecified: <sup>3</sup>			
Reported	447	3,770	8.43
Estimated	3,470	28,200	8.12
Total or average	4,820	37,700	7.82

<sup>1</sup>Data are rounded to no more than three significant digits; may not add to totals shown.

<sup>2</sup>Includes road and other stabilization (lime).

<sup>3</sup>Reported and estimated production without a breakdown by end use.