

2013 Fact Sheets Products of New York State Mines

**New York State
Department of Environmental Conservation
Division of Mineral Resources
625 Broadway
Albany, New York 12233-6500**

www.dec.ny.gov

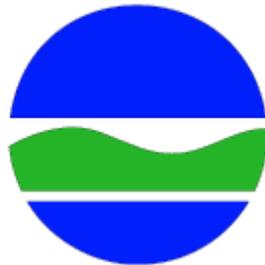


Table of Contents

Important Products from New York Mines.....3

Sand and Gravel4

Limestone and Dolostone.....6

Wollastonite.....8

Garnet.....9

Salt.....10

Peat.....11

Bluestone.....12

Sandstone14

Talc.....15

Zinc.....16

Granite.....16

**Remember if it Can't be
Grown It has to be Mined !**

Important Products from New York Mines

What's in the Fact Sheets

Information in the fact sheets comes from two sources:

- The New York State DEC Division of Mineral Resources regulates mining in the State. While the State has a permitting system with strong environmental controls, NYS law does not require mine operators to report production. The tables with DEC statistics showing the largest mines are useful, but note that mine acreage is not the sole predictor of mine output. Production levels are influenced by a number of factors, including market demand.
- The U.S. Geological Survey (USGS) which collects production information on a voluntary basis from a sampling of mines nationwide and publishes data on each state's output and national rank. NOTE -The federal statistics are published on a staggered schedule, so the latest available USGS data given for a specific mineral may be from 2009, 2012, and 2013.

New York Production Rank for Important Minerals

USGS data for 2013 showed that New York State:

- remains the **only wollastonite producer in the U.S.**
- little is imported, so we **supply almost the entire country's wollastonite**
- NY ranks **third in the world in wollastonite production**, behind only China and India

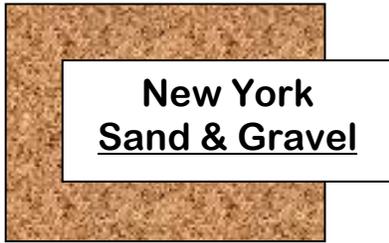
In addition, USGS reported in 2009 that by production volume New York ranked:

- **second in industrial garnet**
- **third in salt**
- **sixth in sand & gravel**

In 2009 New York was also sixth in dimension stone and common clays. Other important New York minerals include bluestone, sandstone, granite, limestone, dolomite, shale and slate.

Economic Value of NY Minerals

For 2009 USGS reported that, in dollar terms, salt became New York's leading non-fuel mineral within the State, followed by crushed stone, and construction sand and gravel. These three commodities accounted for more than 80% of New York State's non-fuel mineral value. According to USGS, the value of New York's nonfuel raw mineral production was estimated at **\$1.37 billion** for 2009. The following commodities showed an increase in production value, crushed stone, construction sand and gravel, common clays, and industrial sand and gravel, and natural gem- stone. The state rose in rank to 15th from 16th among the 50 States in total nonfuel mineral production value, of which the State accounted for 2.3% of the U.S. total value. Data from a study on the economic impacts of mining in New York State conducted by the Center for Governmental Research and the New York State Geological Survey in 2011 indicated the total economic impact, direct or indirect, to be **\$4.9 billion**.



Sand and gravel mines are New York’s most common type of mine with 1,588 active mines spread across the State. Suffolk, Dutchess and Rensselaer counties are among the leading producers of sand and gravel due to high quality glacial deposits in those counties and their proximity to large populations that require these materials for roads, buildings, and other infrastructure.

For 2012 USGS reported that New York produced 28.8 million metric tons worth \$254 million. Sand and gravel is New York’s fourth most economically important non-fuel mineral. Almost all sand and gravel produced in New York are used in construction products.

Table 1 - Sand and Gravel Mines Over 125 Permitted Acres, 2013			
<u>Company</u>	<u>County</u>	<u>Town</u>	<u>Acres</u>
Callanan Industries, Inc.	Rensselaer	North Greenbush	412
Country Side Sand & Gravel	Cattaraugus	Dayton	244
West Hills Silica Sand Mining	Suffolk	Huntington	242
Hanson Aggregates NY, LLC	Oswego	Sandy Creek	216
Frey Concrete, Inc.	Genesee	Alexander	191
F S Lopke Contracting, Inc.	Tioga	Tioga	177
Warren W. Fane, Inc.	Rensselaer	Schaghticoke	162
Lafarge North America, Inc.	Cattaraugus	Freedom	161
Coram Materials Corp.	Suffolk	Brookhaven	160
Hanson Aggregates New York LLC	Herkimer	Russia	154
Hanson Aggregates New York LLC	Ontario	Phelps	149
New Enterprise Stone & Lime Co Inc	Cattaraugus	Machias	148
Dolomite Products Company Inc	Steuben	Howard	146
Valley Sand & Gravel Inc	Livingston	Caledonia	143
Material Sand & Gravel **	Herkimer	Russia	134
Hanson Aggregates New York LLC	Steuben	Bath	134
Dolomite Products Company Inc	Wayne	Arcadia	127

** Site also mines Limestone /or Sandstone

Table 2 - Largest Sand and Gravel Mine Operators, Total Permitted Acres, 2013		
<u>Company</u>	<u>Counties</u>	<u>Acres</u>
Hanson Aggregates NY, LLC	Cattaraugus, Chemung, Genesee, Herkimer, Livingston, Montgomery, Oneida, Ontario, Oswego, Schuylar, Steuben, Wayne	1,454
Dolomite Products Co., Inc.	Albany, Allegany, Columbia, Livingston, Monroe, Ontario, Rensselaer, Steuben, Wayne	700
Graymont Materials NY, Inc	Clinton, Essex, Franklin, St. Lawrence	523
Syracuse Sand & Gravel LLC	Cayuga, Chenango, Monroe, Ontario, Oswego, Steuben, Tioga, Wayne, Yates	438
Callanan Industries, Inc	Albany, Rensselaer	422
FS Lopke Contracting, Inc.	Broome, Tioga	416
Dalrymple Gravel & Constructing	Chemung, Steuben	416
Lafarge North America, Inc.	Cattaraugus, Erie, Wyoming	399
New Enterprise Stone & Lime, Co	Allegany, Cattaraugus, Genesee	399
Cranesville Aggregate Co., Inc.	Columbia, Fulton, Jefferson, Saratoga, Schenectady	375
Gernatt Asphalt Products, Inc.	Cattaraugus, Chautauqua, Erie	328
Warren W Fane Inc.	Rensselaer	307
Country Side Sand & Gravel, Inc.	Cattaraugus, Chautauqua	283

**New York
Limestone &
Dolostone**

Limestone and dolostone comprise the second largest number of New York mines with 110 quarries located across the State. These mines produce roughly 90% of the stone sold in New York State. They collectively encompass 13,637 permitted acres, with nearly half of that acreage in DEC Region 4 (Mid-Hudson) and DEC Region 8 (west-central New York).

New York’s most important products from these mines are crushed stone and cement, which are used predominantly in building and road construction and maintenance. Based on value, crushed stone had always been New York’s leading non-fuel mineral, until 2008 where it was surpassed by salt. USGS figures for 2012 show New York production of crushed stone was 36 million metric tons and the stone’s value was \$383 million. While limestone and dolostone represent the vast majority of the State’s crushed stone production, New York also produces crushed granite, marble, traprock, sand- stone and quartzite.

USGS last published cement figures for New York in 2001 when the State produced almost 3 million metric tons of cement worth over \$230 million. In more recent USGS reports, New York figures are grouped with Maine, so a yearly update is no longer possible. Nonetheless, New York remains an active cement manufacturing state. The highest concentration of activity is in the upper Hudson Valley area where a relatively pure limestone is quarried from the Coeymans formation. Across the State limestone and dolostone mines may also sell some of their production in the form of blocks or slabs, which are categorized as dimension stone.

Table 3 - Limestone and Dolostone Mines Over 250 Permitted Acres, 2013

<u>Company</u>	<u>County</u>	<u>Town</u>	<u>Acres</u>
Hanson Aggregates NY, LLC	Onondaga	Dewitt	856
Lafarge Building Materials Inc.	Albany	Coeymans	745
Tilcon, NY, Inc.	Dutchess	Poughkeepsie	458
Callanan Industries, Inc.	Albany	Bethlehem	411
Holcim US, Inc.	Columbia	Greenport	406
Peckham Industries, Inc.	Greene	Catskill	369
Seneca Stone Corp.	Seneca	Fayette	336
County Line Stone Company, Inc.	Erie	Newstead	335
Hanson Aggregates NY, LLC	Livingston	Lima	302
Callanan Industries, Inc.	Monroe	Sweden	288
Redland Quarries NY, Inc.	Niagara	Lockport	284

Table 3 - Limestone and Dolostone Mines Over 250 Permitted Acres, 2013

<u>Company</u>	<u>County</u>	<u>Town</u>	<u>Acres</u>
Hanson Aggregates NY, LLC	Onondaga	Skaneateles	278
New Enterprise Stone & Lime, Co.	Genesee	Alabama	271
Lehigh Northeast Cement Co.	Greene	Catskill	267
Hanson Aggregates NY, LLC	Oneida	Marshall	258
Lehigh Northeast Cement Co.	Saratoga	Moreau	256
Hanson Aggregates NY, LLC	Jefferson	Pamelia	256

Table 4 - Largest Limestone & Dolostone Operators, Total Permitted Acres, 2013

<u>Company</u>	<u>Counties</u>	<u>Acres</u>
Hanson Aggregates NY, LLC	Cayuga, Genesee, Herkimer, Jefferson, Livingston, Montgomery, Oneida, Onondaga, Ontario, Orleans, St. Lawrence, Wayne	3,443
Callanan Industries, Inc.	Albany, Madison, Monroe, Montgomery, Ulster	1438
Dolomite Products Co., Inc.	Genesee, Monroe, Ontario, Wayne	756
Lafarge Building Materials, Inc.	Albany	745
Tilcon NY, Inc.	Dutchess, Orange, Rockland, Ulster	670
New Enterprise Stone & Lime, Co.	Erie, Genesee	658
Redland Quarries NY, Inc.	Niagara	564
Barrett Paving Materials, Inc.	Herkimer, Jefferson, Lewis, St. Lawrence	541
Lehigh Northeast Cement Co.	Greene, Saratoga	523
Peckham Industries, Inc.	Greene, Washington	521
Holcim US Inc.	Columbia	406
Seneca Stone Corp.	Seneca	336

Table 4 - Largest Limestone & Dolostone Operators, Total Permitted Acres, 2013		
<u>Company</u>	<u>Counties</u>	<u>Acres</u>
County Line Stone Company, Inc.	Erie	335
Cobleskill Stone Products, Inc.	Schoharie	295

New York Wollastonite

New York is the only commercial producer of wollastonite in the nation and thus the State’s four mines, located in the Adirondacks, account for all U.S. production. Since only a relatively small quantity of wollastonite is imported into the U.S, this means New York supplies almost all of the wollastonite used in the country. On a global scale, New York is the third largest producer (behind China and India), accounting for around 20 percent of world output. A significant portion of New York’s wollastonite is specially milled and/or surface treated to achieve specific industrial properties.

To protect proprietary data, USGS does not publish detailed statistics on wollastonite. However, the USGS reports that the country’s production and apparent consumption were estimated to have increased slightly over 2012. The U.S. production, as reported in the trade literature, was about 65,000 tons in 2009. According to the latest available USGS data, wollastonite was New York’s seventh most valuable non-fuel mineral in 2009.

One of wollastonite’s most unusual characteristics is its ability to cleave into needle-like (acicular) crystals. These fibrous particles make it useful both as an asbestos replacement and as reinforcement material in products ranging from plastics, ceramics and brake pads, to paint, coatings and sealants. As shown below, plastics are the major end-uses of wollastonite in the U.S. The automotive industry is a main consumer of wollastonite. Plastics for interior, exterior, and underhood components utilize wollastonite as a strengthening agent and for its heat-resistant properties.

U.S. End-Uses of Wollastonite 2013

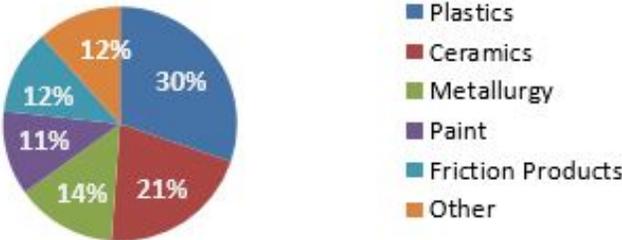


Table 5 - New York Wollastonite Mines, Permitted Acres, 2013

<u>Company & Mine</u>	<u>County</u>	<u>Town</u>	<u>Acres</u>
NYCO/ Oak Hill Mine	Essex	Lewis	127
NYCO/ Lewis Mine	Essex	Lewis	90
R T Vanderbilt Company Inc, Gouverneur Min. Div./ No 4 Mine	Lewis	Diana	38
NYCO/ Willsboro Mine	Essex	Willboro	9

New York Garnet

The 2012 USGS report for garnet shows that New York State is one of three states that mines garnet. New York State was ranked second in 2009 nationally in industrial garnet production. Since there are just a four companies in the U.S. that produce industrial garnet, USGS does not publish details for individual mines. However, Barton Mines in Warren County is the largest U.S. garnet producer. NYCO Minerals in Essex and Lewis counties also produces small quantities of garnet at its wollastonite mines (see page 8 and 9).

Table 6 - New York Garnet Mine, Permitted Acres, 2013

<u>Company</u>	<u>County</u>	<u>Town</u>	<u>Acres</u>
Barton Mines Co., LLC	Warren	Johnsburg	137

Barton currently extracts garnet from its Ruby Mountain mine in Warren County. The company’s nearby Gore Mountain mine, which opened in 1878 and actively mined until 1983, was the largest garnet mine in the world during its operation. Garnet is a well-known gemstone, but most New York garnets have too many imperfections to be used in jewelry.

Garnets from the company’s current Ruby Mountain site make are high-quality abrasives that are used as waterjet abrasives or blast abrasives. USGS reported that 2013 end uses for garnet in the U.S. included waterjet cutting (35%), abrasive blasting media (30%), water filtration (20%), abrasive powders (10%), and other (5%).



Typical piece of garnet source rock from the Ruby Mountain Quarry.

New York Salt

More than 10,000 square miles of central and western New York are underlain by the Salina Formation which contains roughly 3.9 trillion metric tons of rock salt. In New York these salt deposits range in depth from 500 feet near Syracuse to 4,000 feet near the Pennsylvania/ New York border. This large salt resource has been economically important to the State for over 200 years. USGS statistics show that salt remains a valuable asset. Within the State it consistently had ranked as the third most economically valuable non-fuel mineral we produce. But in 2008, salt became the leading non-fuel mineral commodity by value. Nationally, New York ranks third in salt production. USGS statistics show that in 2011 New York produced 14% of the country's salt supply.

There are currently two active rock salt mines in New York: Cargill's Cayuga Mine, centered around Cayuga Lake in Tompkins and Seneca counties, and American Rock Salt's Hampton Corners Mine in Livingston County. The Cargill mine is the larger of the two mines and also, at 2,300 feet, the deepest salt mine in the western hemisphere. Cargill leases the mineral rights beneath a portion of Cayuga Lake from the NY State Office of General Services and pays a royalty on its production. Virtually all the salt from this particular mine is sold as road deicing salt. However, salt also has a broad array of uses in food and chemical products. Salt is also produced from five solution mining facilities in Schuyler and Wyoming counties.

For 2012 the USGS estimated New York's combined salt output from both underground mines and solution salt mining wells at roughly 4.8 million metric tons worth \$383 million. Subtracting New York's reported solution mined salt production for 2012 leaves estimated rock salt production at 2.6 million metric tons. Production levels of rock salt output typically reflects a weather-related demand for salt across New England and the northern Midwest. The value of



Road salt is crucial to winter

New York's rock salt in 2012 was roughly \$207 million.

Table 7 - New York Underground Salt Mines, Permitted Acres, 2013		
<u>Company</u>	<u>Counties</u>	<u>Acres*</u>
Cargill, Inc.	Seneca, Tompkins	9,260
American Rock Salt, Inc.	Livingston	920

* Note these acreage numbers include underground acres

New York Peat

According to the USGS, in 2012 New York (as a group with Maine, New Jersey, and Pennsylvania) was ranked third in the U.S. in the amount of peat sales. Peat is a light brown to black accumulation of partially decayed plants that forms in marshy areas when acid and anaerobic conditions prevent normal decay. Removal of peat from the ground raises issues similar to other mining activities and requires a mining permit under New York State Law.



Peat has been burned as a low-quality fuel throughout the centuries, but since the 1930's its use as a soil conditioner and horticultural material has grown steadily. Peat has historically been mined in every region of the state, but peat resources in southeastern New York attracted particular notice. In 1970 the USGS studied 66 undeveloped peat deposits in the area and estimated they contained 11.5 million tons of air-dried peat. Upland peat deposits in this area averaged 5 to 15 feet in thickness and the lowland deposits were as much as 25 feet thick. Many peat mines in southeastern New York State have been reclaimed under the Mined Land Reclamation Law. At the moment there are 3 active permitted peat mines. These mines are located in Cattaraugus, Columbia, and Schenectady Counties.

Peat is added to fertilizers and soils and is used as mulch. It is also used as packing material for flowers and shrubs, beds for growing mushrooms, and even as a medium for growing earthworms. While the predominant uses are horticultural, peat is also used in industry as a filtration medium to remove toxic material from waste water, pathogens from sewage effluent, and suspended material from storm drain water. In its dehydrated form it is a highly effective absorbent for fuel and oil spills.

Table 8 - Peat Mines, 2013

<u>Company</u>	<u>County</u>	<u>Town</u>	<u>Acres</u>
Mariaville Materials LLC	Schenectady	Duanesburg	13
Gromax, LLC	Columbia	Gallatin	7
Smith, Mark & Laurel	Cattaraugus	Dayton	5

**New York
Bluestone**



New York and Pennsylvania are the only sources of bluestone, a specific type of sandstone that can be split into thin slabs. Bluestone has been mined periodically in New York State since the mid-19th century when it was used for sidewalks, building veneer, stair treads and other construction applications. Today, bluestone is also considered a high-end material for indoor floors, countertops, outdoor patios and other landscaping uses. Despite the name, bluestone can also be dusty gray, or tinged with red or green.

In 2013 there were 79 permitted bluestone mines in an area extending from Tompkins County on the west to Albany County on the east. The majority of the bluestone activity is in Delaware and Broome counties. In Broome County roughly 85% of the bluestone mines are in the towns of Windsor and Sanford, which border Pennsylvania. In Delaware County the majority of mines are in the western end of the county with the highest number in Hancock, a long-time core region of the bluestone industry. Bluestone mining is by nature a relatively small-scale operation. Around 23% of permitted bluestone mines are only one acre and nearly 50% fall in the one- to ten- acre range. Activity also tends to be seasonal, with most mines closed in the winter. According to the NY State Bluestone Association, the estimated market value of bluestone is roughly \$100 million per year.

Bluestone’s rising popularity and expanding markets over the last decade led to reopening of old mines and the search for new deposits. Exploring for bluestone is more difficult than for many types of rock where a few well-placed core holes will yield useful information. High quality bluestone deposits tend to be limited in extent and discontinuous in nature, so it is not cost-effective to use core holes to locate new deposits. In addition, bluestone mining typically involves removing eight times more overburden (overlying material) than the quantity of useable bluestone.

In 2002 the New York State Legislature passed a Bluestone Exploration Authorization (EA) program that recognized the unique nature of the bluestone industry. Instead of going through the full mining permit application process, bluestone miners have the option of applying for a simplified one-year authorization to explore a potential bluestone site. This reduces the paperwork and financial burden for a mine that may be a failure, while at the same time allowing DEC to maintain adequate environmental control over the activity. The operator may also request a one-time, one-year renewal if additional exploration is required to assess the resource. When an EA expires, the operator must either apply for a regular mining permit, if the site is commercially viable, or reclaim the land. In 2013 there were 10 EAs in effect with 6 sites in Broome County and 4 in Delaware County. In 2013, a total of 5 new EAs were issued with 5 in Broome County and 1 in Delaware County.

The operators with the largest mines under permit are shown in Table 9. In 2013 the companies with the highest number of mines were Johnston & Rhodes Bluestone (8), Tompkins Bluestone (3), Damtown Stone and Drilling, Inc. (2), Devonian Stone of New York Inc. (2), Fannie E. Kamp (2), Northeast Bluestone (2), Sonny & Sons Stone Co. (2) and Star Stone Quarries (2). In recent years many operators have made the switch from manually based mining methods to modern techniques using large motorized saws.



A worker at a bluestone mine demonstrates how bluestone can be broken into the slabs that make it such a popular landscaping and building material.

Table 9 - Bluestone Mines Over 15 Permitted Acres, 2013			
<u>Company</u>	<u>County</u>	<u>Town</u>	<u>Acres</u>
Larry Tompkins***	Greene	Ashland	40

Table 9 - Bluestone Mines Over 15 Permitted Acres, 2013			
<u>Company</u>	<u>County</u>	<u>Town</u>	<u>Acres</u>
Heldeberg Bluestone & Marble, Inc.	Albany	Berne	30
Herbert Kilmer	Broome	Sanford	24
Damascus 535 Quarry & Stone	Broome	Windsor	24
David Barnes	Delaware	Masonville	19
RCS, LLC	Delaware	Multiple Towns	19
Ronald Opeil Flagstone Company, LLC	Delaware	Masonville	17
Syracuse Sand & Gravel, LLC	Chenango	Afton	16
Johnston & Rhodes Bluestone Co	Delaware	Masonville	16
Logs Unlimited LLC	Delaware	Walton	16
Fannie E. Kamp	Broome	Sanford	15
Joseph Roberts	Broome	Windsor	15

*** Site also mines Sand & Gravel

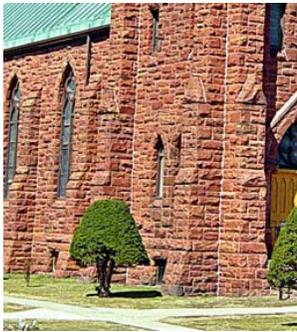
<u>New York Sandstone</u>

In 2013 there were 30 sandstone mines in New York. Sandstone is found across a wide area the State. According to the latest USGS statistics (2012), New York dropped two places to eighth in the nation in the production of sandstone dimension stone (blocks and slabs) for building use, flagstone and curbing. Larger blocks are also sold for rip-rap to stabilize waterways and embankments. In 2012 New York State produced 12,600 metric tons of sandstone dimension stone valued at \$2,290,000. The value of sandstone in 2012 has increased even though the quantity of sandstone produced decreased slightly when compared to 2011. However, most of New York’s sandstone production is used as crushed stone for aggregate.

Callanan Industries is the company with the most sandstone mines (5 in eastern New York). The highest concentration of permitted acreage for sandstone mining is located along a roughly 40-mile long trend in Sullivan and Delaware Counties (total 921 permitted acres).

Table 10 - Sandstone Mines Over 60 Permitted Acres, 2013			
<u>Company</u>	<u>County</u>	<u>Town</u>	<u>Acres</u>
Callanan Industries, Inc.	Sullivan	Thompson	375

Table 10 - Sandstone Mines Over 60 Permitted Acres, 2013			
<u>Company</u>	<u>County</u>	<u>Town</u>	<u>Acres</u>
JML Quarries Inc	Sullivan	Mamakating	230
E. Tetz & Sons, Inc.	Sullivan	Thompson	132
Cobleskill Stone Products, Inc	Delaware	Hancock	131
Shelby Crushed Stone Inc.	Orleans	Shelby	94
Dolomite Products Co., Inc.	Steuben	Bath	91
Callanan Industries, Inc. Hanson	Rensselaer	Brunswick	76
Aggregates NY, LLC	Orleans	Murray	68



Potsdam Sandstone is a well-known type of sandstone found in many public buildings in New York State. In the 1800s the Potsdam Sandstone it was lauded for its ability to withstand fire better than granite (less cracking and spalling). In fact its fire resistant properties were so well known, it was used to line furnaces.

<u>New York Talc</u>

The latest available USGS figures (2013) provide that U.S production of talc increased by 5% over 2012. RT Vanderbilt Co. Inc./Gouverneur Talc Division was previously one of the top four producers of talc, but completely exited the talc market in mid-2009 and the site is undergoing final reclamation.

Table 11 - New York Talc Mines, Permitted Acres,2013			
<u>Company</u>	<u>County</u>	<u>Town</u>	<u>Acres</u>
RT Vanderbilt Co. Inc./Gouverneur Talc Division No. 1 & 2 Mine	St. Lawrence	Fowler	43

New York Zinc

New York has historically been a major zinc producer with one of the top ten zinc mines in the country and typically ranked third or fourth in quantity of zinc produced. However, in 2001 the Pierrepont mine was permanently closed and reclaimed and the Balmat mine temporarily shut down. The Balmat mine reopened near the end of 2005. USGS data for 2006 showed that New York ranked fourth in zinc production in the country. In recent years the Balmat mine has been owned by St. Lawrence Zinc. The mine closed again in 2008 and remained closed throughout 2013, but the company hopes to reopen it when the price of zinc rises again. The last time the mine was reported in the USGS Minerals Yearbook was in 2008, where it ranked sixth in the country’s zinc production. Zinc is used to galvanize steel and protect it from rusting. It is also essential to making brass and bronze.

Table 12 - New York Zinc Mines, Permitted Acres, 2013

<u>Company</u>	<u>County</u>	<u>Town</u>	<u>Acres</u>
St. Lawrence Zinc	St. Lawrence	Fowler	341

New York Granite

In 2013 there were 24 granite mines operating in New York, mostly in the Adirondack and Taconic regions. Washington County, with 8 mines, has the highest concentration of granite mines in New York State. Granite has long been used for statues, gravestones and building exteriors. It has also become very popular for kitchen countertops and other decorative interior uses. Some of the granite mines in New York State also produce crushed stone for construction use.

The number of permitted granite mines in the State has more than doubled since 2003. Some of this growth occurred as sand and gravel mine operators decided to excavate deeper and switched to mining the granite bedrock underneath. Since 2003 former sand and gravel mines in four Adirondack counties and two mines in Dutchess County have started producing granite.

Most New York granite mines are above ground, but Wingdale Material’s underground mine in Dutchess County supplies crushed granite for roads and other construction needs. In 2007 the company finished moving its rock crushers underground. Moving the crushing operations underground decreased the mine’s noise and visual impacts and increased aboveground storage space for materials.

Table 13 - Granite Mines Over 20 Permitted Acres, 2013

<u>Company</u>	<u>County</u>	<u>Town</u>	<u>Acres</u>
Peckham Materials Corp.	Warren	Chester	159
Pompa Brothers, Inc.	Saratoga	Greenfield	115
Hanson Aggregates NY, LLC	Oneida	Forestport	100
Graymont Materials NY, Inc.	Franklin	Brandon	77
Delaney Crushed Stone	Fulton	Northampton	77
Peckham Materials Corp.	Saratoga	Greenfield	76
Graymont Materials NY, Inc.	Essex	Lewis	62
Wingdale Materials, LLC	Dutchess	Dover	60
Champlain Stone LTD	Washington	Fort Ann	50
Thalle Industries, Inc.	Dutchess	Fishkill	49
Graymont Materials NY, Inc.	Essex	St. Armand	48
Cold Spring Granite Company	Essex	Jay	44
Carver Sand & Stone LLC	Fulton	Ephratah	30
Cold Spring Granite Company	Essex	Jay	24