



INTRODUCTION

This map is part of a regional study of the resources of New England and has been compiled from published sources and from information in the files of the U. S. Geological Survey. The suggestions of many geologists familiar with the State are incorporated in the map.

Mines, quarries, prospects, and mineral occurrences shown on the map are listed by counties together with the source or sources of information. Map symbols are keyed to the locality lists by a numbering system that is independent for each county. Where a group symbol includes localities in two adjacent counties, the number given is listed under both counties. Where practical, some of the individual localities that are included in a single group symbol are listed in the text; such lists, however, are not necessarily all inclusive but merely representative of the individual mines and quarries in the area covered by and adjacent to the symbol. Some localities described only in older literature may not be accurately located on the map because descriptions are indefinite or town boundaries have been shifted. Names of those known to be approximately located are followed by asterisks in the locality lists.

Mineral raw materials, or commodities, worked or occurring at each locality are indicated by abbreviations on the map; where a single locality includes multiple commodities, no more than two principal ones are indicated. Byproducts are not shown.

The mineral occurrences and prospects located on the map have not proved commercial. Only the best known of all the occurrences reported in the literature are shown. The terms "mine" and "quarry" are used largely as they are used in the source material. Inasmuch as interpretation of these terms varies considerably, some of the localities so designated may be little more than prospects and may not have been commercial operations. No field checking was done during this compilation.

Periods of activity and present condition of workings are not indicated on the map. No metal mines have been in production since 1918 except the Elizabeth copper mine, active in 1955.

In this report, "marble" indicates recrystallized carbonate rocks used for their lime content as well as for building and crushed stone; "dolomite marble" is specified where enough information is available. Other dimension- and crushed-stone quarries are classified according to rock type, such as granite, serpentine, limestone, and slate.

LOCALITIES AND SOURCES OF INFORMATION

Addison County

1. East Granville talc mine (Chidester et al., 1951, pl. 1)
2. Monkton dolomite marble quarries (Dale, 1912, p. 141-142)
3. marble quarries near New Haven and Bristol (Burchard, 1912)
4. Middlebury Marble Co.'s quarry (Dale, 1912, p. 139-140)
5. Leicester Junction marble quarries (Dale, 1912, p. 147-148)
6. Leicester ochre deposit (Burt, 1931(?), p. 122)
7. East Monkton deposits (Jacobs, 1927, p. 209-210)
8. Monkton Ridge kaolin prospects (Jacobs, 1940(?), p. 12-13)

Bennington County

1. Dorset Mountain marble quarries—Bennington and Rutland Counties (Dale, 1912, pl. 1)
2. South Dorset marble quarries (Dale, 1912, pl. 1 and p. 98-103)
3. East Dorset marble quarries (Dale, 1912, pl. 1 and p. 103-107)
4. Dyer quarry (Dale, 1912, pl. 1 and p. 97-98)
5. North Pownal marble quarries (Burchard, 1912)
6. Burden iron (turgite) mine (Burt, 1931(?), p. 127; Jacobs, 1944(?), p. 41)*
7. kaolin deposits (Jacobs, 1927, p. 202 and map)
8. East Shaftsbury kaolin deposit
9. Stratton property kaolin deposit
10. property north of Bennington (Jacobs, 1927, p. 204 and map)
11. Green Mountain kaolin deposit (Jacobs, 1927, p. 208-209 and map)

Caledonia County

1. Packer granite quarry (Dale, 1923, fig. 21)
2. Hardwick granite quarries (Dale, 1923, p. 108-110)
3. Kirby Mountain granite quarries (Dale, 1923, fig. 21)
4. Ryegate granite quarries (Dale, 1923, fig. 22)
5. Benzie quarry (Dale, 1923, fig. 22)
6. Waterford Slate Co.'s quarry (Hager, 1961, p. 792)

Chittenden County

1. Burlington quarries (Burchard, 1912)
- Franklin County
1. Montgomery Center talc prospect (Chidester et al., 1951, pl. 1)
 2. marble quarry and copper prospect (Dale, 1915, p. 10-11)
 3. Berkshire (Vt. and Boston Mining Co.) copper mine (U. S. Geol. Survey files)
 4. Highgate Springs marble quarry (Burchard, 1912)
 5. Swanton marble quarries (Dale, 1912, p. 142-145)
 6. marble quarry (W. M. Cady, 1955, written communication)

Grand Isle County

1. Fisk quarry, Isle La Motte (Dale, 1912, p. 145-146)

Lamoille County

1. Belvidere Mountain asbestos quarries—Lamoille and Orleans Counties (Chidester et al., 1951, pl. 1)
2. Waterville talc quarry (Chidester et al., 1951, pl. 1)
3. Tilton prospect (Dale, 1915, p. 11-12)
4. marble quarry (Dale, 1915, p. 12-14)
5. Rousseau talc prospect (Chidester et al., 1951, pl. 1)
6. Johnson talc mine (Chidester et al., 1951, pl. 1)
7. Sterling Pond talc deposits (Chidester et al., 1951, pl. 1)
8. lead prospect (Hager, 1961, p. 839)
9. Udall mine (U. S. Geol. Survey files)
10. copper mine (Cady, 1956)

Orleans County

1. Washington marble quarry (Dale, 1915, p. 17-18)
2. Waits River prospects (Dale, 1915, p. 15-17, map)
3. Ely slate quarry (Hadley, 1950, p. 35 and pl. 1)
4. Elizabeth copper mine (White and Eric, 1944)
5. Reynolds mine (Orange and Gove prospects) (White and Eric, 1944)
6. Ely mine (White and Eric, 1944)
7. Cookville copper mine (White and Eric, 1944)
8. Eureka and Union (Pike Hill) mines (White and Eric, 1944)
9. Theford silt-lead occurrence (Hadley, 1950, p. 34 and pl. 1)
10. East Brantree arsenopyrite occurrence (Richardson and Cabeen, 1921)

Orleans County

1. Belvidere Mtn. asbestos quarries—Orleans and Lamoille Counties (Chidester et al., 1951, pl. 1)
2. Lowell asbestos deposits (W. M. Cady, 1955, written communication)
3. Westfield asbestos deposits (W. M. Cady, 1955, written communication)
4. Troy talc deposits (Chidester et al., 1951, pl. 1)
5. Troy asbestos deposit (W. M. Cady, 1955, written communication)
6. Farwell property, in Jay (Hager, 1961, p. 833 and map)
7. Troy iron mine (Hager, 1961, p. 828 and map)
8. Farmer granite quarry (Dale, 1923, p. 120-121)
9. Willey granite quarry (Doll, 1951, p. 77 and map)
10. Lacasse granite quarry (Dale, 1923, p. 119-120)
11. Barnard granite quarry (Dale, 1923, p. 121)
12. Evansville phyllite quarry (Doll, 1951, p. 77 and map)

EXPLANATION

Prospect or mineral occurrence

Group of prospects or mineral occurrences

Mine or quarry

Group of mines or quarries

abr Abrasives (schist and phyllite quarried for whetstones)
As Arsenic
asb Asbestos
Cr Chromite
Cu Copper
dol Dolomite
dol mbl Dolomite marble
gar Garnet
Au Gold
gr Granite
Fe Iron
kao Kaolin
Pb Lead
ls Limestone
Mn Manganese
mbl Marble
mrl Marl
mc Mica
Mo Molybdenum
och Ochre
peg Pegmatite minerals
S Pyrites (pyrite and pyrrhotite)
sp Serpentine (includes verde antique marble)
sl Slate
sos Soapstone
talc Talc
Zn Zinc

Rutland County

1. Dorset Mtn. marble quarries—Rutland and Bennington Counties (Dale, 1912, pl. 1)
2. Mount Holly Township marble quarry (Dale, 1915, p. 21-22)
3. Clarendon Valley quarry (Dale, 1912, pl. 1 and p. 110-111)
4. Clarendon quarry (Dale, 1912, pl. 1 and p. 111-112)
5. Day marble quarry (Dale, 1912, p. 146-147)
6. West Rutland marble quarries (Dale, 1912, p. 113-123, pls. 1 and 4)
7. marble quarries north of West Rutland (Dale, 1912, p. 123-126, pls. 1 and 4)
8. Proctor marble quarries (Dale, 1912, p. 127-128, pl. 1)
9. Florence marble quarries (Dale, 1912, p. 129-134, pl. 1)
10. marble quarries between Brandon and Florence (Dale, 1912, p. 134-135, pl. 1)
11. Brandon marble quarries (Dale, 1912, p. 135-139, pl. 1)
12. Staso slate quarry (D. M. Larrabee, 1955, oral communication)
13. West Pawlet slate quarries (Dale et al., 1914)
14. South Poultney slate quarries (Dale et al., 1914)
15. North Poultney slate quarries (Dale et al., 1914)
16. Hydeville slate quarries (Dale et al., 1914)
17. West Castleton slate quarries (Dale et al., 1914)
18. Benson black slate (Dale et al., 1914)
19. Forestdale deposit (Jacobs, 1927, p. 212-213)
20. Allen mica prospect (Cameron et al., 1954, p. 295)
21. mine in the Mitchell ore bed, Chittenden (Burt, 1931(?), p. 124)
22. dolomite quarry (Dale, 1915, p. 20)
23. ochre deposit (Burt, 1931(?), p. 124)
24. Cuttingsville coppers ore (Hager, 1961, p. 829 and map)
25. Cuttingsville (Granite Hill) molybdenite occurrence (Jacobs, 1927(?), p. 24)
26. Kinney-Cobble (South Wallingford) manganese mine (Jacobs, 1927, p. 211-212; Burt, 1931(?), p. 125)
27. lead-zinc prospects (W. M. Cady, 1955, written communication)

Washington County

1. Barnes Hill talc prospect (Chidester et al., 1951, pl. 1) copper prospect (Cady, 1956)
2. Waterbury talc mine (Chidester et al., 1951, pl. 1)
3. Mad River talc mine (Chidester et al., 1951, pl. 1)
4. talc mine north of East Granville (Chidester et al., 1951, pl. 1)
5. Roxbury verde antique quarries (Chidester et al., 1951, pl. 1)
6. Northfield slate district (Dale et al., 1914)
7. Montpelier slate quarry (Dale et al., 1914)
8. Barre granite quarries (Dale, 1923, p. 121-143)
9. Woodbury granite quarries (Dale, 1923, p. 145-153)
10. marl deposit (Richardson, 1916, p. 149)
11. whetstone schist quarry (Richardson, 1916, p. 147)
12. North Montpelier whetstone schist (Richardson, 1916, p. 147)
13. granite quarries (Cady, 1956)

Windham County

1. Vermont Talc Co. quarry (Chidester et al., 1951, pl. 1)
2. talc deposit near North Windham (Chidester et al., 1951, pl. 1)
3. Bear Mountain talc quarries (Chidester et al., 1951, pl. 1)
4. Perham farm soapstone (Richardson and Maynard, 1938(?))
5. quarry south of Stratton (Dale, 1915, p. 43-45)
6. Whitingham quarries (Dale, 1915, p. 49-50)
7. Dummerston granite quarries (Dale, 1923, p. 153-155, pl. 1)
8. Guilford slate quarries (Hager, 1961, p. 793-794)

Windsor County

1. Rochester talc deposits (Chidester et al., 1951, pl. 1)
 - Williams talc mine
 - Cushman Hill deposit
2. Hammondsville talc quarry (Chidester et al., 1951, pl. 1)
3. talc prospect north of Ludlow (Chidester et al., 1951, pl. 1)
4. Valentine mines No. 1 and 2, Ludlow (Chidester et al., 1951, pl. 1)
5. Carleton talc quarry (Chidester et al., 1951, pl. 1)
6. Barton talc quarry (Chidester et al., 1951, pl. 1)
7. Davis (Holden) talc quarry (Chidester et al., 1951, pl. 1)
8. Perkinsville soapstone quarry (Perkins, 1912, p. 262)
9. Rochester verde antique quarry (Chidester et al., 1951, pl. 1)
10. Rochester marble quarry (Dale, 1915, p. 23)
11. Plymouth quarries (Dale, 1915, p. 24)
12. Amsden quarries (Dale, 1915, p. 32-34)
13. Liberty Hill granite quarry (Dale, 1923, fig. 35 and p. 159-160)
14. Bethel granite quarries (Dale, 1923, p. 156, 158-159)
15. Green Mountain Mica Corp. (Gassetts) mine (Currier, 1934)
16. Plymouth placer gold workings (Perry, 1929(?))
17. Blood Mtn. copper prospect (Hadley, 1950, p. 34-35 and map)
18. Windsor granite quarries (Dale, 1923, p. 162-164)

LITERATURE CITED

- Burchard, E. F., 1912, Stone resources east of Mississippi River: Min. Res. U. S., 1911, p. 788-789 and map.
- Burt, F. A., 1931(?), The geology of the Vermont ochre deposits: Vt. State Geologist 17th Rept., 1929-1930, p. 107-136.
- Cady, W. M., 1956, Bedrock geology of the Montpelier quadrangle, Vermont: U. S. Geol. Survey Geol. Quadrangle Map GQ 79.
- Cameron, E. N., and others, 1954, Pegmatite investigations 1942-45, New England: U. S. Geol. Survey Prof. Paper 255, maps.
- Chidester, A. H., Billings, M. P., and Cady, W. M., 1951, Talc investigations in Vermont, preliminary report: U. S. Geol. Survey Circ. 95.
- Currier, L. W., 1934, Notes on staurolite and associated minerals from schist at Gassetts, Vt.: Ann. Mineralogist, v. 19, no. 7, p. 335-338.
- Dale, T. N., 1912, The commercial marbles of western Vermont: U. S. Geol. Survey Bull. 521, 170 p.
- Dale, T. N., 1915, The calcite marble and dolomite of eastern Vermont: U. S. Geol. Survey Bull. 589, 67 p.
- Dale, T. N., 1923, The commercial granites of New England: U. S. Geol. Survey Bull. 738, 488 p.
- Dale, T. N., and others, 1914, Slate in the United States: U. S. Geol. Survey Bull. 586, 220 p.
- Doll, C. G., 1951, Geology of the Memphremagog quadrangle and the southeastern portion of the Irasburg quadrangle, Vermont: Vt. Geol. Survey Bull. 3, 113 p. and map.
- Hadley, J. B., 1950, Geology of the Bradford-Thetford area, Orange County, Vt.: Vt. Geol. Survey Bull. 1, 36 p. and map.
- Hager, A. D., 1961, Economic geology of Vermont, in Hitchcock, Edward, and others, Report on the Geology of Vermont, v. 2, pt. 9, map.
- Jacobs, E. C., 1927, The clay deposits and clay industries of Vermont: Vt. State Geologist 15th Rept., 1925-1926, p. 191-221.
- Jacobs, E. C., 1937(?), Vermont mineral industries: Vt. State Geologist 20th Rept., 1935-36, p. 1-24.
- Jacobs, E. C., 1940(?), Clay: Vt. State Geologist 22d Rept., 1939-1940, p. 12-15.
- Jacobs, E. C., 1944(?), Vermont mineral industries: Vt. State Geologist 24th Rept., 1943-1944.
- Perkins, G. H., 1912, Mineral resources of Vermont: Vt. State Geologist 8th Rept., 1911-1912, p. 247-269.
- Perry, E. L., 1929(?), The geology of Bridgewater and Plymouth townships, Vermont: Vt. State Geologist 16th Rept., 1927-1928, p. 62-63.
- Richardson, C. H., 1916, The geology of Calais, East Montpelier, Montpelier and Berlin, Vt.: Vt. State Geologist 10th Rept., 1915-1916, p. 111-149.
- Richardson, C. H., and Cabeen, C. K., 1921, The geology and mineralogy of Brantree, Vt.: Vt. State Geologist 12th Rept., 1919-1920, p. 73, 75.
- Richardson, C. H., and Maynard, J. E., 1933(?), The geology and petrography of Athens, Brookline, and Westminster, Vt.: Vt. State Geologist 18th Rept., 1931-32, p. 346.
- White, W. S., and Eric, J. H., 1944, Preliminary report on the geology of the Orange County copper district, Vermont: U. S. Geol. Survey open-file report, maps.

MINERAL DEPOSITS AND OCCURRENCES IN VERMONT
EXCLUSIVE OF CLAY, SAND AND GRAVEL, AND PEAT

Compiled by
Nancy C. Pearre and James A. Calkins

Scale 1:500,000

10 0 10 20 30 40 Miles

