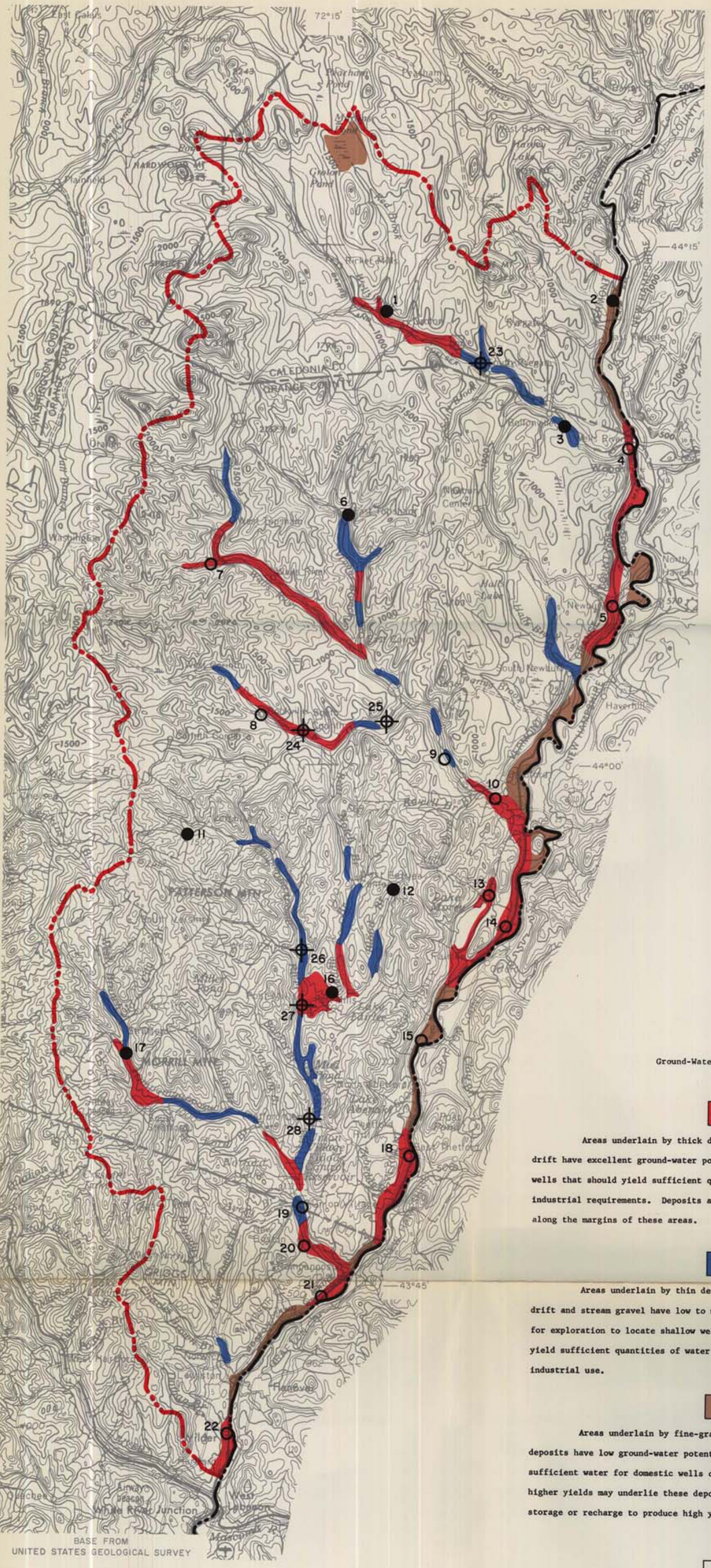

Ground-Water Favorability Areas

Areas underlain by thick deposits of coarse-grained stratified glacial drift have excellent ground-water potential. Suitable for exploration to locate wells that should yield sufficient quantities of water to meet municipal and industrial requirements. Deposits are thinner and wells would be less productive along the margins of these areas.

Areas underlain by thin deposits of coarse-grained stratified glacial drift and stream gravel have low to moderate ground-water potential. Suitable for exploration to locate shallow wells and infiltration galleries that should yield sufficient quantities of water for domestic, commercial, and light industrial use.

Areas underlain by fine-grained stratified glacial drift and swamp deposits have low ground-water potential. These deposits generally will yield sufficient water for domestic wells only. In places, thin lenses of gravel with higher yields may underlie these deposits, but these lenses may not have adequate storage or recharge to produce high yields on a sustained basis.

Areas underlain by deposits of unstratified glacial drift (called till or "hardpan") and bedrock ("ledge") have low ground-water potential. In general, wells in either till or bedrock will yield only enough water for domestic or light commercial use. Till and bedrock underlie the stratified glacial drift of the map units listed above.

○ Water wells in stratified glacial drift

● Water wells in glacial till and bedrock

⊕ Test borings

Basin boundary

BASE FROM
UNITED STATES GEOLOGICAL SURVEY

Introduction

The area of this report includes that part of eastern Vermont drained by the Wells and Ompompanoosuc Rivers, and several smaller tributaries to the Connecticut River. This study is part of a cooperative program between the United States Geological Survey and the State of Vermont Department of Water Resources to provide a statewide reconnaissance of ground-water availability. Information presented in this report is based on a limited amount of data and is intended as a guide for local exploration, and not as a statement that conditions are uniform everywhere within a ground-water favorability area. Further studies are recommended for a more detailed appraisal of ground-water availability.

The most favorable areas for ground-water development are along parts of the Connecticut, Wells, Waits and Ompompanoosuc Rivers. Silt and clay deposits limit the ground-water potential of portions of the Connecticut River.

WATER WELLS AND TEST BORINGS

WATER WELLS

Number	Owner	Location	Total Depth (in feet) [1]	Depth to Bedrock (in feet) [1]	Aquifer [1]	Yield (in gallons per minute) [1] [2]
1	Groton Development Corp.	Groton	110	60	Rock	6
2	Kilfassett Farms	Ryegate	750	205	Rock	12
3	Delbert Leete	Newbury	280	17	Rock	20
4	Village of Wells River	Newbury	80	NR	Sand & gravel	350
5	Newbury Village	Newbury	55	NR	Sand & gravel	NA
6	Fredrick Miller	Topsham	225	28	Rock	5
7	Ernest L. Seeley	Topsham	65	NR	Sand & gravel	4
8	Cookville School	Corinth	54	NR	Sand	20
9	Clarks Store	Bradford	17	NR	Sand	15
10	Village of Bradford	Bradford	68	75	Sand & gravel	700
11	Charles W. Orr	Vershire	58	10	Rock	35
12	John Randall	West Fairlee	110	7	Rock	20
13	Aloha Manor	Fairlee	128	NR	Sand & gravel	3
14	Herbert Gray	Fairlee	95	NR	Sand & gravel	10
15	Russell Eaton	Thetford	25	NR	Sand	3
16	Penelope MacLeod	Thetford	260	44	Rock	10
17	J. K. McCormick	Strafford	108	15	Rock	75
18	Carl W. Hebb	Thetford	103	NR	Sand & gravel	100
19	Maurice Wood	Thetford	16	NR	Sand & gravel	35
20	Donald Campbell	Norwich	120	NR	Sand & gravel	10
21	Farrell Farms	Norwich	63	NR	Sand & gravel	125
22	Town of Hartford	Hartford	52	NR	Sand & gravel	1,100

NR - Not Reached
NA - Not Available

[1] Reported by owner or driller

[2] May be limited by capacity of pump

TEST BORINGS (Vermont Department of Highways)

23 Ryegate - U.S. Route 302 over Wells River — Elevation: 740 ft
- Fine sand & silt . . . . . 0 - 10 ft
- Bedrock 10

24 Corinth - State Aid Highway No. 6 over Cookville Brook in the Hamlet of Goose Green — Elevation: 823 ft
- Sand & gravel . . . . . 0 - 24 ft
- Blue clay . . . . . 24 - 28
- Gravel . . . . . 28 - 30
- Not to refusal

25 Bradford - State Aid Highway No. 2 over South Branch of Waits River — Elevation: 714 ft
- Sand & gravel . . . . . 0 - 4 ft
- Till . . . . . 4 - 12
- Refusal on bedrock or boulder 12

26 West Fairlee - Vt. Route 113 over Mine Brook — Elevation: 720 ft
- Coarse gravel . . . . . 0 - 2 ft
- Boulder . . . . . 2 - 3
- Sand, gravel & boulders . . . . . 3 - 11
- Sand & silt . . . . . 11 - 13½
- Refusal on bedrock or boulder 13½

27 Thetford - Vt. Route 113 over Ompompanoosuc River at Post Mills
- East end of bridge — Elevation: 683 ft
  - Sand, dry . . . . . 0 - 28 ft
  - Sand, saturated . . . . . 28 - 35
  - Bedrock 35
- West end of bridge — Elevation: 675 ft
  - Bedrock at approximately 15 ft

28 Thetford - Town Highway over Ompompanoosuc River at Thetford Center — Elevation: 540 ft
- Coarse sand . . . . . 0 - 7 ft
- Bedrock 7

GROUND WATER FAVORABILITY MAP
OF THE
WELLS-OMPOMPANOOSUC RIVER BASIN, VERMONT

SCALE OF MILES
1 0 1 2 3 4 5 6 7 8

CONTOUR INTERVAL 100 FEET
DATUM MEAN SEA LEVEL

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