




# Maine Geological Survey


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## Sample explanation from Significant Sand and Gravel Aquifers Map


### SIGNIFICANT SAND AND GRAVEL AQUIFERS (yields greater than 10 gallons per minute)

----- Approximate boundary of surficial deposits with significant saturated thickness where potential ground-water yield is moderate to excellent.

 Surficial deposits with good to excellent potential ground-water yield; yields generally greater than 50 gallons per minute to a properly constructed well. Deposits consist primarily of glacial sand and gravel, but can include areas of sandy till and alluvium; yield zones are based on subsurface data where available, and may vary from mapped extent in areas where data are unavailable.

 Surficial deposits with moderate to good potential ground-water yield; yields generally greater than 10 gallons per minute to a properly constructed well. Deposits consist primarily of glacial sand and gravel, but can include areas of sandy till and alluvium; yields may exceed 50 gallons per minute in deposits hydraulically connected with surface-water bodies, or in extensive deposits where subsurface data are available.

### SURFICIAL DEPOSITS WITH LESS FAVORABLE AQUIFER CHARACTERISTICS (yields less than 10 gallons per minute)

 Areas with moderate to low or no potential ground-water yield (includes areas underlain by till, marine deposits, eolian deposits, alluvium, swamps, thin glacial sand and gravel deposits, or bedrock); yields in surficial deposits generally less than 10 gallons per minute to a properly constructed well.


### SEISMIC-LINE INFORMATION



Profiles for 12-channel seismic lines are shown in Appendix 2 of Open-File Report 98-57 (Neil and others, 1998). Length of 12-channel seismic lines as shown on the map is to scale. All single-channel lines ranged from 80 to 300 feet long and are not shown to scale.

**53** Depth to bedrock, in feet below land surface.

**≥ 53** Depth to bedrock exceeds depth shown (based on calculations).

**12** Depth to water level, in feet below land surface.

 **MAP-7 131, 23** Twelve-channel seismic line, with depth to bedrock and depth to water shown at the midpoint of the line, in feet below land surface.

 **69, 12** Single-channel seismic line, with depth to bedrock and depth to water shown at each end of the line, in feet below land surface.  
 **MAP-E 72, 12** Unless otherwise indicated, data shown above the line-identifier box refers to the northern end of the seismic line.


The 3-letter identifier for a line is an abbreviation for the topographic quadrangle. If the 3-letter identifier for the line is followed by a number (ex: MAP - 7, MAP - 4), the line is a 12-channel line. If the identifier is followed by a letter (ex: MAP - E, MAP - P), the line is a single-channel line. Single-channel seismic interpretations by L. E. Foster. Twelve-channel seismic interpretations by C. D. Neil.

### GEOLOGIC AND WELL INFORMATION

**50** Depth to bedrock, in feet below land surface

**≥ 13** Penetration depth of boring; ≥ symbol refers to minimum depth to bedrock based on boring depth or refusal


**6** Depth to water level in feet below land surface (observed in well, spring, test boring, pit, or seismic line)

 Gravel pit (overburden thickness noted in feet, e.g. 5-12')


 Quarry

**4 GPM** Yield (flow) of well or spring in gallons per minute (GPM)

 Spring, with general direction of flow

 Drilled overburden well

 Dug well


 Observation well (project well if labeled; nonproject well if unlabeled)

 Test boring (project boring if labeled; nonproject boring if unlabeled)


 Driven point

 Test pit

 Drilled bedrock well

 Potential point source of ground-water contamination

 Bedrock outcrop

 Surface-water drainage-basin boundary; surface-water divides generally correspond to ground-water divides. Horizontal direction of ground-water flow generally is away from divides and toward surface-water bodies.

### OTHER SOURCES OF INFORMATION

- Neil, C. D., Locke, D. B., and Nichols, W. J., Jr., 1998, Hydrogeology and water quality of significant sand and gravel aquifers in parts of Hancock, Penobscot, and Piscataquis Counties, Maine: Maine Geological Survey, Open-File Report 98-57, 90 p.
- Locke, D. B., 2000, Surficial materials of the Alligator Lake quadrangle, Maine: Maine Geological Survey, Open-File Map 00-XX.
- Holland, W. R., 1986, Reconnaissance surficial geology of the Lead Mountain 15' quadrangle, Maine: Maine Geological Survey, Open-File Map 86-63.

- Caswell, W. B., 1987, Ground water handbook for the state of Maine, Second Edition: Maine Geological Survey, Bulletin 39, 135 p.
- Thompson, W. B., 1979, Surficial geology handbook for coastal Maine: Maine Geological Survey, 68p. (out of print)
- Thompson, W. B., and Borns, H. W., Jr., 1985, Surficial geologic map of Maine: Maine Geological Survey, scale 1:500,000.