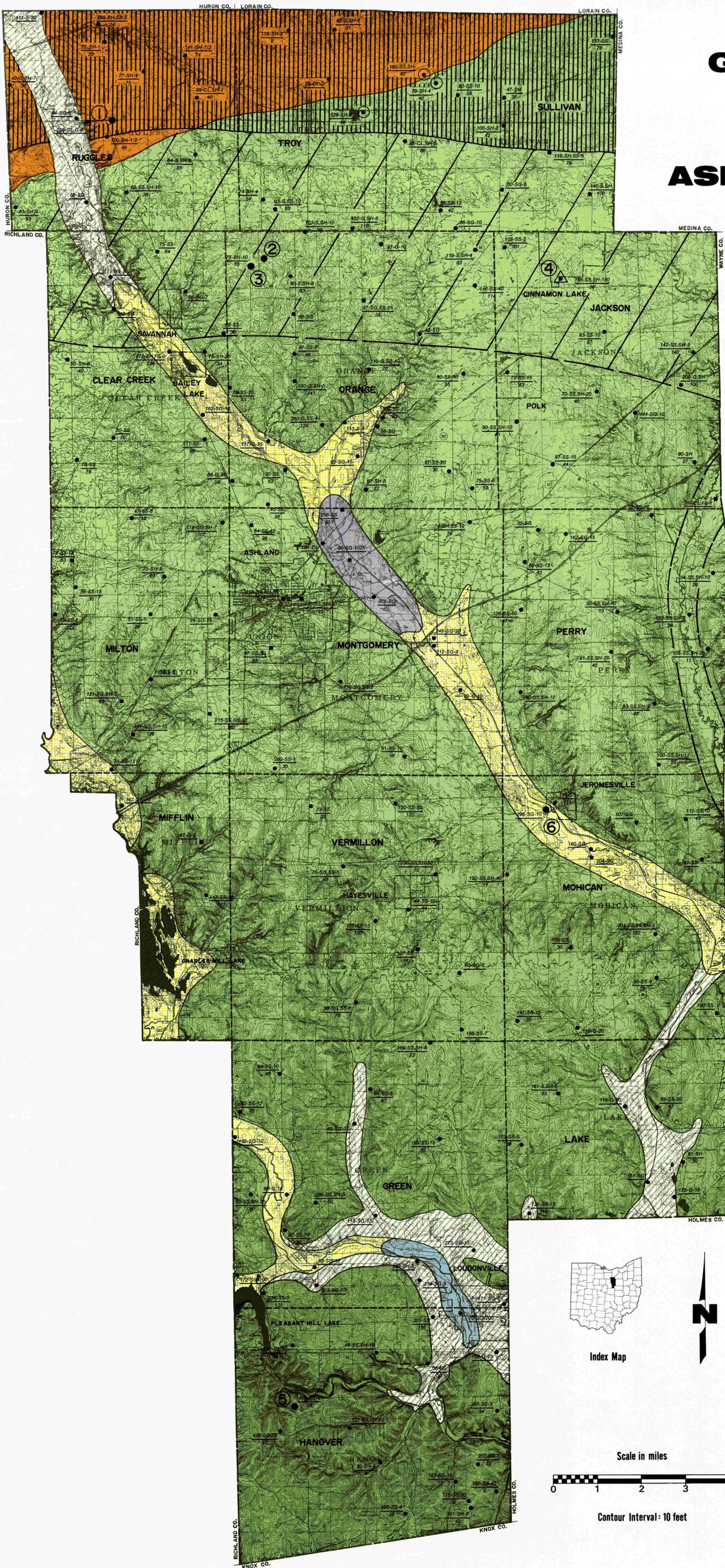


Ground-Water Resources of ASHLAND COUNTY

by James J. Schmidt



AREAS IN WHICH YIELDS OF MORE THAN 100 GALLONS PER MINUTE MAY BE DEVELOPED.



Areas having greatest potential for the development of municipal and industrial ground-water supplies. Thick permeable deposits of sand and gravel yield 400 to 1000, or more, gallons per minute at depths of 85 to 130 feet. Supplies have been proven as available at depths of 270 to 300 feet. However, extensive test drilling is required to locate the more permeable deposits interbedded with the clay and silt that partially fill this ancestral valley.



Permeable deposits of sand and gravel encountered at depths of less than 100 feet yield in excess of 200 gallons per minute to properly constructed drilled wells. Test wells are necessary to locate the more permeable deposits and deeper drilling is not recommended owing to the presence of fine silt clay.

AREAS IN WHICH YIELDS OF 25 TO 100 GALLONS PER MINUTE MAY BE DEVELOPED.



Water bearing deposits of sand and gravel are often encountered at depths of 110 to 150 feet and yields satisfactory for farm and home are readily available. Extensive test drilling may encounter small public supplies in excess of 100 gpm. Coarse deposits are known to exist beneath as much as 300 feet of thick sandy clay.

AREAS IN WHICH YIELDS OF LESS THAN 25 GALLONS PER MINUTE MAY BE DEVELOPED.



Ground water developed from the sandstone and shale formations of the Cuyahoga Group. Yields of 5 to more than 20 gallons per minute, adequate for farm and domestic use, are available. Drilling contractors may encounter thick deposits of clay till interbedded with thin lenses of sand and gravel in the moraine areas. Small supplies of 3 to 8 gallons per minute may be developed, although most wells are drilled in the sandstone-shale bedrock at depths ranging from 45 to 165 feet deep.



Ground water obtained from thin, not extensive, sand and gravel deposits interbedded with thick clay till. Yields of as much as 15 gallons per minute are noted from wells developed at depths of less than 175 feet. If water-bearing deposits are not encountered wells may be drilled into the underlying bedrock in search of a potable supply.

AREAS IN WHICH YIELDS OF LESS THAN 10 GALLONS PER MINUTE MAY BE DEVELOPED.



Ground-water supplies developed from sandstone-shale bedrock. Yields sufficient for domestic supplies usually available at depths of less than 140 feet.

AREAS IN WHICH YIELDS SELDOM EXCEED 3 GALLONS PER MINUTE.



Relatively shallow wells developed in the glacial deposits yield less than 3 gallons per minute, and dry wells are not uncommon. Deeper drilling into the underlying sandstone and shale bedrock may produce brackish water. If potable supplies are developed, storage is necessary to supply peak daily demands.



AREAS IN WHICH WELLS MAY ENCOUNTER BRACKISH AND SALT WATER.



AREAS IN WHICH WELLS DEVELOPED IN THE SANDSTONE-SHALE BEDROCK OFTEN YIELD HIGH CALCIUM SULFATE WATER. SEE CHEMICAL ANALYSES.



Location of Ancestral Buried Bedrock Channel

Depth (ft.)-Water bearing Formation-Yield(gpm)
Depth to Bedrock (ft.)

- Water Well S-Sand FS- Fine Sand
- ⊙ Salty Well SH-Shale SS-Sandstone
- △ Test Well CL-Clay G-Gravel

② Well Site-Chemical Analyses

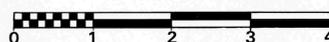
| WELL # | 1. | 2. | 3. | 4. | 5. | 6. |
|--------------------------------|---------|---------|---------|---------|--------|--------|
| DEPTH (feet) | 102 | | 40 | 195 | 420 | 296 |
| IRON | 2.70 | .75 | | .39 | .22 | 3.10 |
| CALCIUM | 397.00 | 320.00 | 500.00 | 304.00 | 38.00 | 50.00 |
| SODIUM | 133.00 | 89.00 | 210.00 | 180.00 | 41.00 | 18.00 |
| SULFATES | 1390.00 | 1100.00 | 1700.00 | | 45.00 | 19.00 |
| CHLORIDES | 7.00 | 10.00 | | 10.00 | 1.10 | 5.00 |
| HARDNESS | 1380.00 | 1200.00 | 1700.00 | 1700.00 | 173.00 | 199.00 |
| DISSOLVED SOLIDS | 2200.00 | 1760.00 | | | 287.00 | 259.00 |
| Chemical constituents as mg/l. | | | | | | |



Index Map



Scale in miles



Contour Interval: 10 feet