

Ground-Water Resources of MIAMI COUNTY

by
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1984

Scale in miles
1:62,500



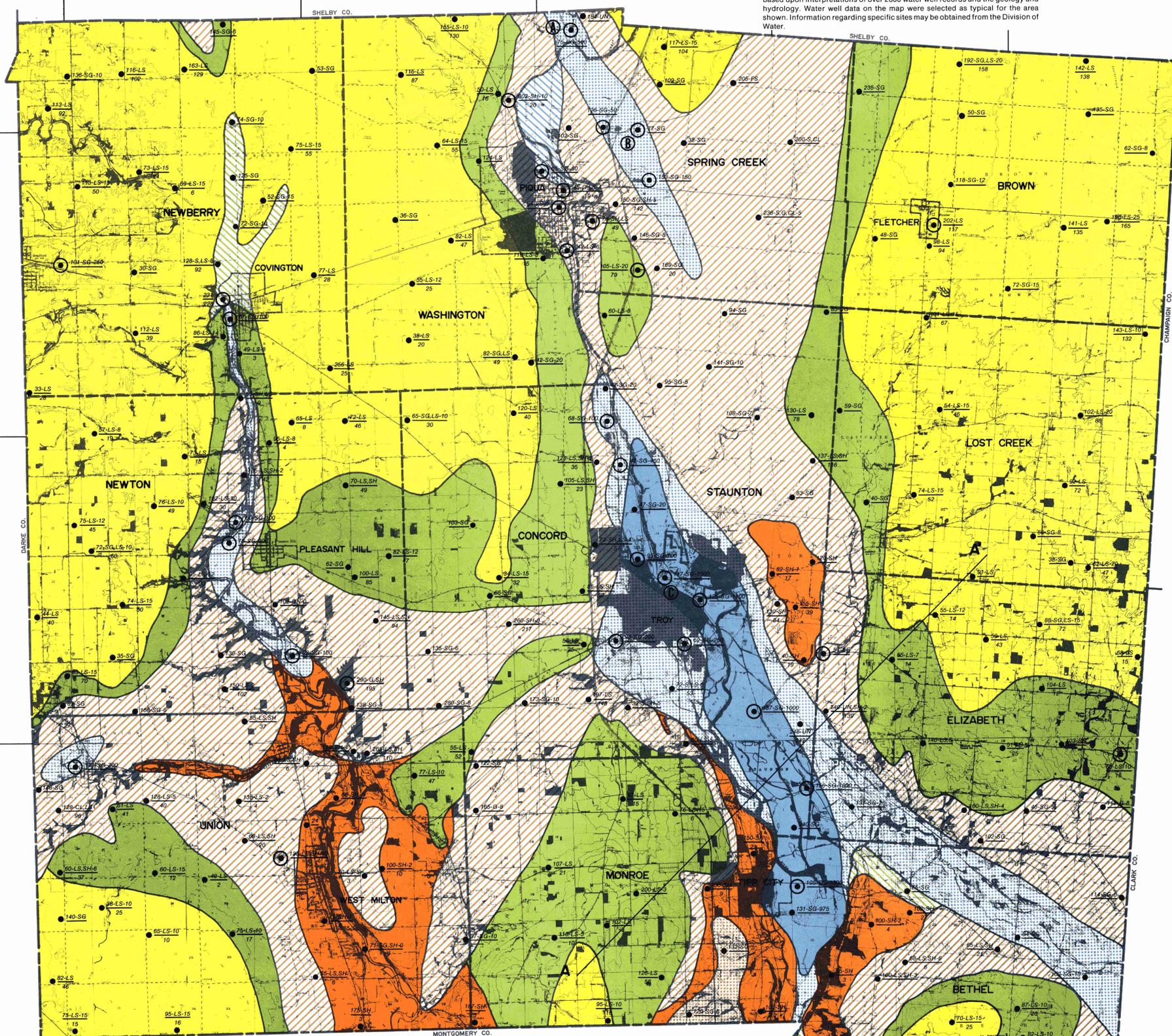
Contour Interval: 10 feet



Index Map

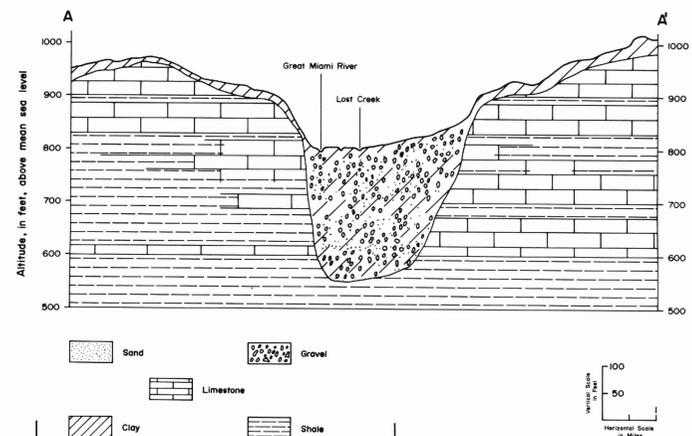


The ground-water characteristics of Miami County have been mapped regionally based upon interpretations of over 2600 water well records and the geology and hydrology. Water well data on the map were selected as typical for the area shown. Information regarding specific sites may be obtained from the Division of Water.



- AREAS IN WHICH YIELDS OF 500 TO 1000, OR MORE, GALLONS PER MINUTE MAY BE DEVELOPED.**
- Permeable sand and gravel deposits beneath floodplain of Miami River. Properly constructed large diameter drilled wells may yield in excess of 1000 gallons per minute at depths of 95 to 150 feet.
- AREAS IN WHICH YIELDS OF 100 TO 500 GALLONS PER MINUTE MAY BE DEVELOPED.**
- Regionally extensive, thick permeable deposits of sand and gravel. Extensive test drilling is recommended to locate coarse deposits at depths ranging from 40 to 155 feet.
 - Relatively shallow, permeable deposits of sand and gravel adjacent to Miami River. Potential yields of as much as 300 gallons per minute may be projected for properly constructed wells developed at depths of less than 75 feet.
- AREAS IN WHICH YIELDS OF AS MUCH AS 75 GALLONS PER MINUTE MAY BE DEVELOPED.**
- Niagara limestone aquifer beneath glacial drift of variable thickness. Wells range from 40 to 235 feet deep, although average well is less than 90 feet deep.
- AREAS IN WHICH YIELDS OF 5 TO 20 GALLONS PER MINUTE MAY BE DEVELOPED.**
- Relatively shallow, basal Silurian limestone aquifer yields as much as 20 gallons per minute at depths of less than 100 feet. Deeper drilling to the non-water-bearing Ordovician shaly limestone is not recommended.
 - Ground water obtained from thin, not extensive, sand and gravel deposits interbedded with relatively thick layers of clayey till. Wells are developed at depths of less than 80 feet and deeper drilling into underlying bedrock may be non-productive.
- AREAS IN WHICH YIELDS OF 3 TO 10 GALLONS PER MINUTE MAY BE DEVELOPED.**
- Thin to exceptionally thick unconsolidated deposits above thin limestone and shaly limestone bedrock. Thin layers of permeable sand and gravel may be encountered at average depths of less than 115 feet. However, deeper drilling to as much as 285 feet may encounter silty sand with meager to no usable ground-water supplies.
 - Relatively thin layers of sand and gravel interbedded with clayey till. Domestic supplies should be available. Deeper drilling into underlying impervious bedrock is not recommended.
- AREAS IN WHICH YIELDS OF LESS THAN 2 GALLONS PER MINUTE MAY BE DEVELOPED.**
- Clayey till usually less than 10 feet thick overlying non-water-bearing Ordovician shaly limestone bedrock. Meager supplies are developed, with cisterns and/or additional storage necessary to maintain daily water requirements.

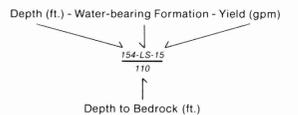
- Domestic Well
 - ⊙ Public or Industrial Well
 - ⓑ Well Site-Chemical Analysis
- FORMATIONS**
- LS - Limestone
 - S - Sand
 - G - Gravel
 - FS - Fine Sand
 - SH - Shale



| LOCATION | SITE | DEPTH | Fe IRON | HARDNESS AS CaCO ₃ | DIS-SOLVED SOLIDS | Cl CHLORIDE | Na SODIUM | SO ₄ SULFATES | AQUIFER |
|--------------|------|-------|---------|-------------------------------|-------------------|-------------|-----------|--------------------------|---------|
| Piqua a | A | 75 | 2.0 | 154 | 270 | 12 | 43 | 1.2 | SG |
| Piqua (ODOT) | B | 77 | 18 | 172 | 288 | 6.0 | 47 | 2 | SG |
| Troy b | C | 177 | 1.5 | 350 | 410 | 18 | NA | 55 | SG |

Chemical Constituents in mg/l

a. Test Well
b. Well #6



ODNR
OHIO DEPARTMENT OF
NATURAL RESOURCES

Cartography: Douglas E. Keen

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