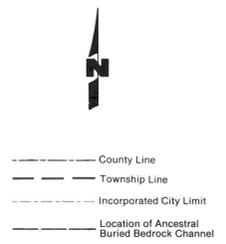
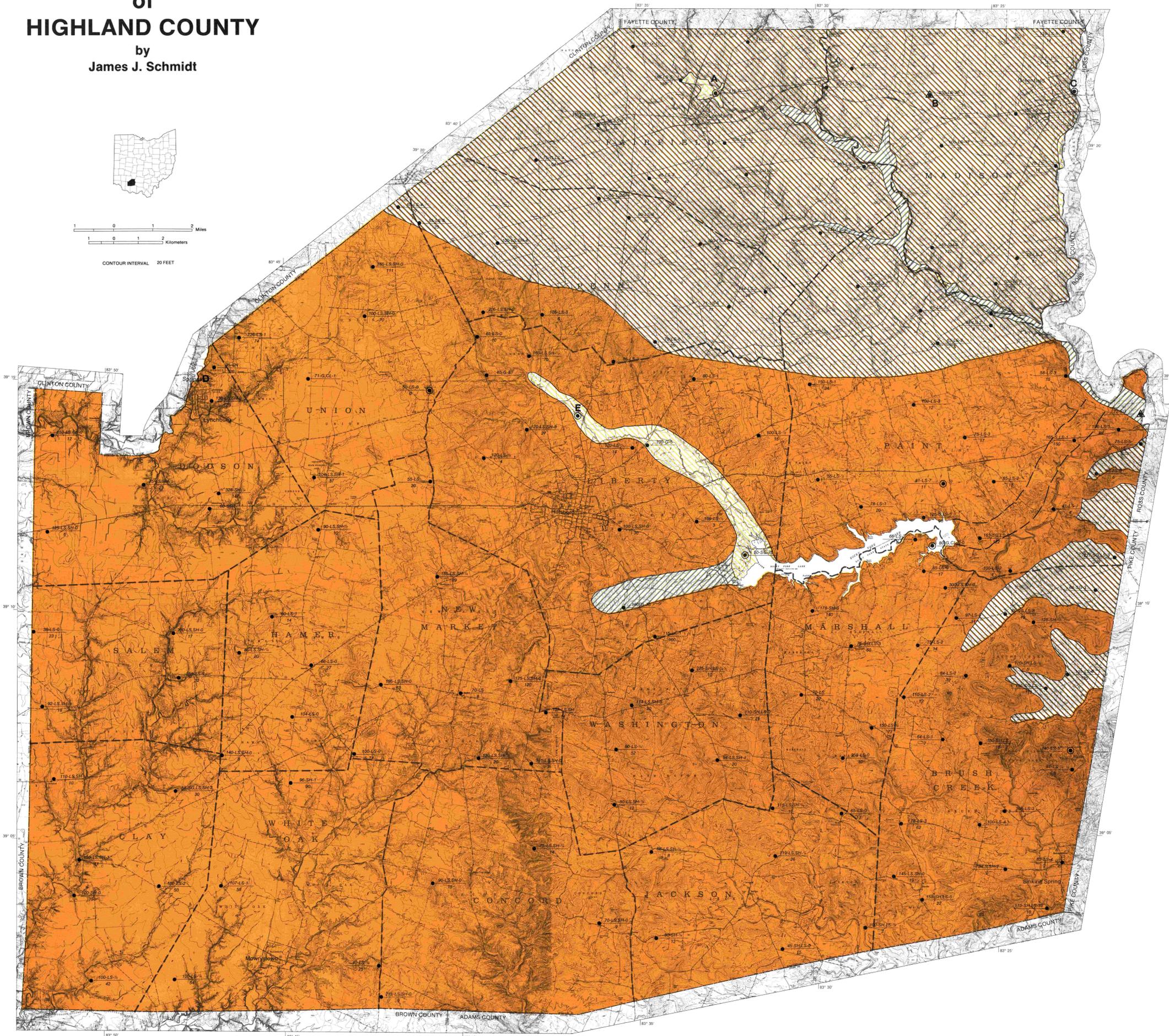
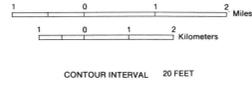


# Ground-Water Resources of HIGHLAND COUNTY

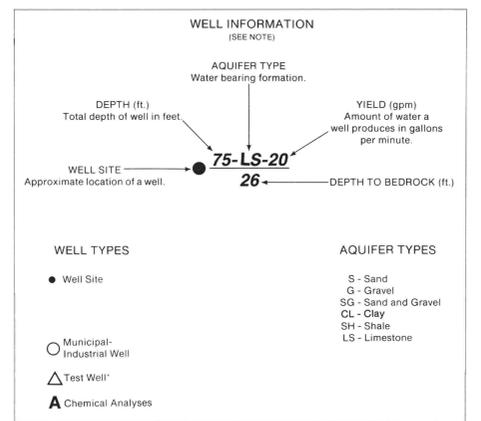
by James J. Schmidt



### Well Yields

- AREAS IN WHICH YIELDS OF AS MUCH AS 75 GALLONS PER MINUTE MAY BE DEVELOPED**  
Relatively shallow to deep lenses of sand and gravel interbedded in glacial clay and deposited beneath the floodplain of Paint, Clear and Lees creeks. Properly constructed, screened wells may yield in excess of 50 gallons per minute at depths of 40 to 120 feet. Isolated aquifers are noted, and test wells are necessary to locate coarse deposits. The underlying limestone bedrock may yield 2 to 10 gallons per minute.
- AREAS IN WHICH YIELDS OF 5 TO 15 GALLONS PER MINUTE MAY BE DEVELOPED**  
Thick clayey till interbedded with thin lenses of sand and gravel deposited beneath the floodplain and in ancestral drainage channels of Paint, Rocky Fork and Lees creeks. Wells range in depth from 40 to more than 160 feet.
- AREAS IN WHICH YIELDS OF 3 TO 10 GALLONS PER MINUTE MAY BE DEVELOPED**  
Shale-limestone bedrock yields small domestic supplies at depths of 55 to 135 feet. Thin lenses of coarse sand and gravel near the surface of the bedrock yield fairly satisfactory domestic supplies.
- AREAS IN WHICH YIELDS OF LESS THAN 3 GALLONS PER MINUTE MAY BE DEVELOPED.**  
Interbedded shale and limestone bedrock yields only minimal domestic supplies at average depths of less than 100 feet. Deeper drilling ill-advised. Homeowners should rely upon cisterns, dug wells and springs as source supply.

### Well Site Symbols



### Chemical Analysis Table

Well Site	A	B	C	D	E
Depth (Feet)	115	250	39	Springs	41
Iron (Fe)	1.75	1.1	1.43	.420	.800
Manganese (Mn)	.030	.280	.480	0.70	.160
Alkalinity	384	--	331	249	290
Hardness as CaCO <sub>3</sub>	300	490	--	--	322
Dissolved Solids	494	492	562	--	382
Sulfates (SO <sub>4</sub> )	0.0	23	74	42	38
Chloride (Cl)	43	1.0	34	.05	16
Fluoride (F)	.89	.4	.16	.12	.16
Aquifer	Gravel	Limestone	Sand & Gravel	Sand & Gravel	Sand
Location	Leesburg	Madison Township	Greenfield	Lynchburg	Hillsboro

Chemical constituents as milligram per liter (mg/l)

### Note

The ground-water characteristics have been mapped regionally, based upon interpretations of water well records and the area's geology and hydrology. Mapped well sites were selected as typical for the areas shown. Information regarding specific sites may be obtained from the Division of Water.

\* Test well sites indicate the location of a test well that was part of a regional ground water study. Detailed lithologic logs, water quality analysis and pumping test information for these wells may be available from ODNR-Division of Water.