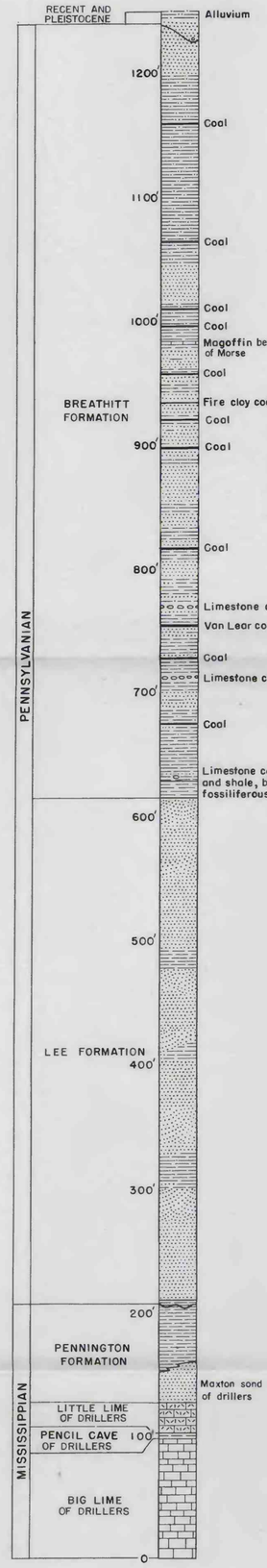
GEOLOGICAL SURVEY

PREPARED IN COOPERATION WITH THE KENTUCKY AGRICULTURE AND INDUSTRIAL DEVELOPMENT BOARD

WATER-SUPPLY PAPER 1257 PLATE 2



GENERALIZED SECTION FOR THE PAINTSVILLE AREA, KENTUCKY

Base from maps by U.S. Geological Survey and Kentucky Department of Highways

Hydrology by J. A. Baker, U. S. Geological Survey, and R. E. Hauser, Kentucky Geological Survey

EXPLANATION

Fleistocene and Recent — QUATERNARY

Alluvium along Levisa Fork
Silt, sand, traces of gravel. Sand at base furnished fair supplies of soft water

Alluvium along tributary valleys
Clay and silt, some sand. Furnishes some small supplies of soft water

PENNSYLVANIAN

Breathitt formation
Shales, siltstones, and thin sandstones and occasional coal beds. Shales furnish small supplies of hard water; sandstones and coals slightly larger

Lee formation
Sandstones, generally massive, and occasional shale lentils. Furnish small to moderate supplies of fairly hard water

Water well

Gas, oil, or test hole

Mine

189
Well number

1
Location and number of measured section

ELEVATION SHOWN IN FEET, ABOVE MEAN SEA LEVEL

425
Top of Lee formation (well log)

x 515
Top of Lee formation (surface data)

535
Bedrock in valley of Levisa Fork

Contours on top of Lee formation
Contour interval 50 feet

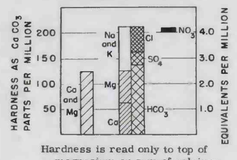
WATER-BEARING FORMATIONS

A
Well in alluvium

B
Well in Breathitt formation

L
Well in Lee formation

CHEMICAL ANALYSES



Hardness is read only to top of magnesium or sum of calcium and magnesium. Nitrate is shown when more than 10 parts per million is present

SAMPLES WELLS WITH WATER CONTAINING 200 OR MORE PARTS PER MILLION OF CHLORIDE

200 to 1200 parts per million

15,000 to 16,000 parts per million

23,000 to 24,000 parts per million

MAP OF PAINTSVILLE SE. QUADRANGLE, KENTUCKY, SHOWING GEOLOGY, STRUCTURE, AND QUALITY OF WATER

0 2 Miles

298547 O - 55 In pocket No.2