

Water-Data Report 2007

355522079043001 Local number OR-069, NC-126

Piedmont and Blue Ridge crystalline-rock aquifers
Saprolite(Unknown Age)
Orange County, NC

LOCATION.--Lat 35°54'31", long 79°03'29" referenced to North American Datum of 1983, Orange County, NC, Hydrologic Unit 03030002, in Chapel Hill, west of University of North Carolina campus, southeast of intersection of Cameron Avenue and Ransom Street. Owner: Chi Psi Fraternity.

GROUND-WATER RECORDS

WELL CHARACTERISTICS.--Dug observation well, depth 48 ft, diameter 36 in., lined with rock; measured depth 46.2 ft, August 1986.

DATUM.--Land-surface datum is 511.5 ft above National Geodetic Vertical Datum of 1929. Measuring point: top of shelf, 3.27 ft above land-surface datum, July 1981 to present.

PERIOD OF RECORD.--January 1943 to current year. Continuous record January 1943 to March 1948, December 1999 to current year.

GAGE.--Water-level recorder collecting data at 60-minute intervals.

REMARKS.--Well is part of terrane-effects network. Well found dry from October 13, 1988 to January 24, 1989. No periodic measurements made from January 24 to July 19, 1989.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 35.22 ft below land-surface datum, May 14, 1984; lowest water level occurred during periods when well was dry, Oct. 11 to Dec. 31, 1940, and Oct. 13, 1988 to Jan. 24, 1989.

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**DEPTH TO WATER LEVEL, FEET BELOW LAND SURFACE
WATER YEAR OCTOBER 2006 TO SEPTEMBER 2007
DAILY MEAN VALUES**

| Day | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
|-------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| 1 | 45.02 | 45.23 | 44.14 | 43.54 | 42.75 | 42.38 | 41.73 | 41.17 | 40.92 | 41.18 | 41.87 | 42.80 |
| 2 | 45.04 | 45.24 | 44.17 | 43.58 | 42.70 | 42.26 | 41.71 | 41.15 | 40.90 | 41.23 | 41.91 | 42.85 |
| 3 | 45.05 | 45.27 | 44.15 | 43.56 | 42.76 | 42.23 | 41.71 | 41.18 | 40.82 | 41.25 | 41.93 | 42.87 |
| 4 | 45.06 | 45.29 | 44.12 | 43.50 | 42.74 | 42.25 | 41.65 | 41.18 | 40.86 | 41.25 | 41.95 | 42.88 |
| 5 | 45.07 | 45.30 | 44.11 | 43.46 | 42.74 | 42.24 | 41.69 | 41.14 | 40.89 | 41.25 | 41.97 | 42.92 |
| 6 | 45.09 | 45.30 | 44.08 | 43.41 | 42.72 | 42.25 | 41.67 | 41.15 | 40.95 | 41.26 | 41.99 | 42.97 |
| 7 | 45.10 | 45.23 | 44.05 | 43.38 | 42.66 | 42.19 | 41.66 | 41.16 | 40.97 | 41.27 | 42.03 | 43.00 |
| 8 | 45.10 | 45.09 | 44.09 | 43.30 | 42.67 | 42.19 | 41.69 | 41.11 | 40.96 | 41.29 | 42.05 | 43.02 |
| 9 | 45.09 | 45.08 | 44.07 | 43.26 | 42.66 | 42.19 | 41.68 | 41.09 | 40.93 | 41.32 | 42.08 | 43.04 |
| 10 | 45.10 | 45.11 | 44.05 | 43.28 | 42.65 | 42.14 | 41.66 | 41.06 | 40.95 | 41.35 | 42.10 | 43.08 |
| 11 | 45.10 | 45.10 | 44.04 | 43.27 | 42.66 | 42.13 | 41.62 | 41.05 | 40.98 | 41.35 | 42.15 | 43.10 |
| 12 | 45.11 | 45.03 | 44.02 | 43.21 | 42.63 | 42.13 | 41.56 | 41.05 | 40.97 | 41.38 | 42.20 | 43.16 |
| 13 | 45.14 | 44.97 | 43.99 | 43.17 | 42.59 | 42.10 | 41.61 | 41.03 | 40.97 | 41.41 | 42.20 | 43.20 |
| 14 | 45.16 | 44.93 | 43.97 | 43.14 | 42.53 | 42.07 | 41.58 | 41.06 | 40.98 | 41.42 | 42.24 | 43.22 |
| 15 | 45.19 | 44.92 | 43.95 | 43.10 | 42.58 | 42.05 | 41.42 | 41.01 | 41.00 | 41.44 | 42.27 | 43.25 |
| 16 | 45.21 | 44.87 | 43.97 | 43.09 | 42.56 | 42.01 | 41.39 | 40.96 | 41.00 | 41.47 | 42.30 | 43.31 |
| 17 | 45.20 | 44.81 | 43.97 | 43.16 | 42.51 | 41.97 | 41.37 | 40.97 | 41.00 | 41.50 | 42.33 | 43.34 |
| 18 | 45.14 | 44.78 | 43.96 | 43.08 | 42.50 | 42.00 | 41.35 | 40.97 | 41.01 | 41.51 | 42.39 | 43.37 |
| 19 | 45.13 | 44.76 | 43.95 | 43.02 | 42.55 | 41.99 | 41.35 | 40.98 | 41.01 | 41.52 | 42.42 | 43.39 |
| 20 | 45.13 | 44.75 | 43.97 | 43.04 | 42.48 | 41.96 | 41.36 | 40.94 | 41.02 | 41.54 | 42.43 | 43.42 |
| 21 | 45.19 | 44.74 | 43.95 | 43.02 | 42.46 | 41.97 | 41.34 | 40.94 | 41.05 | 41.60 | 42.47 | 43.45 |
| 22 | 45.19 | 44.47 | 43.91 | 42.93 | 42.45 | 41.91 | 41.32 | 40.97 | 41.03 | 41.63 | 42.50 | 43.48 |
| 23 | 45.20 | 44.41 | 43.87 | 42.91 | 42.50 | 41.87 | 41.30 | 40.99 | 41.05 | 41.65 | 42.53 | 43.52 |
| 24 | 45.22 | 44.33 | 43.89 | 42.90 | 42.50 | 41.86 | 41.26 | 40.99 | 41.09 | 41.68 | 42.55 | 43.55 |
| 25 | 45.24 | 44.30 | 43.77 | 42.86 | 42.42 | 41.86 | 41.24 | 40.95 | 41.13 | 41.70 | 42.57 | 43.58 |
| 26 | 45.25 | 44.27 | 43.65 | 42.87 | 42.39 | 41.85 | 41.23 | 40.92 | 41.15 | 41.72 | 42.61 | 43.60 |
| 27 | 45.24 | 44.24 | 43.68 | 42.81 | 42.41 | 41.80 | 41.20 | 40.93 | 41.14 | 41.72 | 42.66 | 43.61 |
| 28 | 45.16 | 44.22 | 43.69 | 42.78 | 42.43 | 41.78 | 41.20 | 40.93 | 41.13 | 41.74 | 42.69 | 43.66 |
| 29 | 45.19 | 44.21 | 43.67 | 42.84 | --- | 41.83 | 41.20 | 40.93 | 41.14 | 41.77 | 42.71 | 43.72 |
| 30 | 45.21 | 44.18 | 43.63 | 42.79 | --- | 41.79 | 41.19 | 40.93 | 41.15 | 41.80 | 42.73 | 43.76 |
| 31 | 45.22 | --- | 43.60 | 42.80 | --- | 41.74 | --- | 40.92 | --- | 41.83 | 42.75 | --- |
| Mean | 45.15 | 44.81 | 43.94 | 43.13 | 42.58 | 42.03 | 41.46 | 41.03 | 41.01 | 41.48 | 42.31 | 43.27 |
| Max | 45.25 | 45.30 | 44.17 | 43.58 | 42.76 | 42.38 | 41.73 | 41.18 | 41.15 | 41.83 | 42.75 | 43.76 |
| Min | 45.02 | 44.18 | 43.60 | 42.78 | 42.39 | 41.74 | 41.19 | 40.92 | 40.82 | 41.18 | 41.87 | 42.80 |

| Water Year 2007 | |
|------------------------|-------|
| Mean | 42.68 |
| High | 40.82 |
| Low | 45.30 |

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