354356078403501. County number, WK-277; DENR Lake Wheeler Research Station MW-1S (Regolith well).

LOCATION.--Lat $35^{\circ} 43^{\prime} 55.6^{\prime \prime}$, long $78^{\circ} 40^{\prime} 34.6^{\prime \prime}$, North American Datum of 1983, Hydrologic Unit 03020201, 6 mi south of Tryon Road, .2 mi east of Lake Wheeler Road on NCSU Research Farm. Owner: DENR (North Carolina Department of Environment and Natural Resources), Division of Water Quality.

## WATER-LEVEL RECORDS

AQUIFER.--Regolith (saprolitic Raleigh Gneiss)
WELL CHARACTERISTICS.--Drilled observation well, depth 20 ft, diameter 4 in., cased to 5 ft, screened interval from 5 to 20 ft, sand filter packed from 5 to 20 ft.

INSTRUMENTATION.--Water-level recorder collecting data at 60 -minute intervals. Satellite telemetry at station
DATUM.--Land-surface datum is 334.41 ft above NGVD of 1929. Measuring point: Top of instrument shelter floor, 2.10 ft above land-surface datum.

REMARKS.--Well is part of Piedmont/Mountains groundwater project.
PERIOD OF RECORD.--July 2001 to current year. Continuous record began December 2001 . Periodic water level measurements made by DENR, July 2001 to December 2001.

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 0.55 ft below land-surface datum, Apr. 1 , 2002 ; lowest water level recorded 2.71 ft below land-surface datum, Aug. 13, 2002.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), FOR PERIOD DECEMBER 2001 TO SEPTEMBER 2002 DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | -- | -- | - | --- | 1.99 | 1.75 | 1.16 | 2.03 | 2.30 | 2.41 | 2.35 | 1.41 |
| 2 | --- | --- | --- | --- | 2.06 | 1.65 | 1.50 | 2.04 | 2.30 | 2.42 | 2.38 | 1.65 |
| 3 | --- | --- | --- | 2.32 | 2.04 | 1.60 | 1.65 | 2.07 | 2.36 | 2.43 | 2.41 | 1.76 |
| 4 | --- | --- | --- | 2.35 | 2.06 | 1.69 | 1.73 | 2.00 | 2.36 | 2.46 | 2.43 | 1.82 |
| 5 | --- | --- | --- | 2.31 | 2.09 | 1.73 | 1.67 | 2.00 | 2.37 | 2.48 | 2.44 | 1.89 |
| 6 | --- | --- | --- | 1.99 | 2.04 | 1.73 | 1.70 | 2.02 | 2.38 | 2.49 | 2.45 | 1.93 |
| 7 | --- | --- | --- | 1.75 | 1.62 | 1.74 | 1.72 | 2.04 | 2.37 | 2.51 | 2.50 | 1.97 |
| 8 | --- | --- | --- | 1.84 | 1.70 | 1.75 | 1.72 | 2.08 | 2.39 | --- | 2.51 | 1.98 |
| 9 | --- | --- | --- | 1.86 | 1.80 | 1.75 | 1.74 | 2.14 | 2.40 | 2.54 | 2.53 | 1.99 |
| 10 | --- | --- | --- | 1.85 | 1.81 | 1.78 | 1.73 | 2.15 | 2.42 | 2.56 | 2.54 | 2.00 |
| 11 | --- | --- | --- | 1.90 | 1.66 | 1.81 | 1.76 | 2.16 | 2.44 | 2.43 | 2.55 | 2.05 |
| 12 | --- | --- | --- | 1.94 | 1.26 | 1.78 | 1.76 | 2.14 | 2.46 | 2.43 | 2.58 | 2.11 |
| 13 | --- | --- | --- | 1.90 | 1.19 | 1.77 | 1.77 | 2.14 | 2.48 | 2.43 | 2.60 | 2.11 |
| 14 | --- | --- | --- | 1.95 | 1.46 | 1.82 | 1.78 | 2.14 | 2.48 | 2.39 | 2.55 | 2.07 |
| 15 | --- | --- | --- | 2.00 | 1.51 | 1.82 | 1.81 | 2.18 | 2.50 | 2.40 | 2.50 | 1.99 |
| 16 | --- | --- | --- | 2.04 | 1.61 | 1.83 | 1.84 | 2.18 | 2.51 | --- | 2.44 | 1.79 |
| 17 | --- | --- | --- | 2.05 | 1.65 | 1.84 | 1.86 | 2.19 | 2.52 | --- | 2.42 | 1.88 |
| 18 | --- | --- | --- | 2.08 | 1.69 | 1.83 | 1.87 | 2.14 | 2.51 | --- | 2.38 | 1.94 |
| 19 | --- | --- | --- | 1.72 | 1.68 | 1.84 | 1.86 | 2.16 | 2.52 | --- | 2.33 | 1.97 |
| 20 | - | --- | 2.41 | 1.42 | 1.65 | 1.81 | 1.87 | 2.18 | 2.53 | --- | --- | 1.99 |
| 21 | --- | --- | 2.43 | 1.60 | 1.67 | 1.76 | 1.90 | 2.17 | 2.55 | --- | 2.40 | 2.02 |
| 22 | --- | --- | 2.43 | 1.71 | 1.69 | 1.82 | 1.92 | 2.19 | 2.53 | --- | 2.40 | 2.04 |
| 23 | --- | --- | 2.40 | 1.28 | 1.70 | 1.82 | 1.97 | 2.18 | 2.53 | 2.46 | 2.43 | 2.05 |
| 24 | --- | --- | 2.38 | 1.47 | 1.72 | 1.82 | 1.96 | 2.20 | 2.55 | 2.38 | 2.44 | 2.06 |
| 25 | -- | -- | 2.40 | 1.53 | 1.71 | 1.82 | 1.95 | 2.23 | 2.57 | 2.21 | 2.45 | 2.06 |
| 26 | --- | --- | 2.39 | 1.72 | 1.68 | 1.72 | 2.00 | 2.25 | 2.53 | 2.08 | 2.39 | 2.00 |
| 27 | --- | --- | 2.40 | 1.81 | 1.72 | 1.68 | 1.98 | 2.26 | 2.45 | 2.16 | 2.30 | 1.99 |
| 28 | --- | --- | 2.38 | 1.87 | 1.74 | 1.75 | 1.94 | 2.27 | 2.39 | 2.21 | 2.21 | 2.01 |
| 29 | - | - | 2.39 | 1.93 | --- | 1.76 | 2.01 | 2.26 | 2.28 | 2.25 | 2.24 | 2.02 |
| 30 | --- | --- | 2.40 | 1.97 | --- | 1.77 | 2.04 | 2.26 | 2.38 | 2.30 | 1.99 | 2.00 |
| 31 | --- | --- | 2.38 | 1.99 | --- | 1.54 | --- | 2.28 | --- | 2.33 | 1.60 |  |

WTR YR 2002 MEAN 2.06 HIGH 1.16 LOW 2.60


PERIOD OF RECORD.--December 2001 to September 2002.
PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: December 2001 to September 2002.
pH: December 2001 to September 2002.
WATER TEMPERATURE: December 2001 to September 2002.
DISSOLVED OXYGEN: December 2001 to September 2002.
DISSOLVED OXYGEN, PERCENT SATURATION: December 2001 to September 2002.
INSTRUMENTATION.-- Water-quality monitor with satellite telemetry from December 2001 to September 2002 .
REMARKS.--Station operated in cooperation with North Carolina Department of Environment and Natural Resources, Water Resources Division as part of the Piedmont/Mountains ground-water project. Dissolved oxygen, percent saturation, is computed using a barometric pressure of 760 mm Hg .

EXTREMES FOR CURRENT YEAR.--

| CONSTITUENT | MAXIMUM RECORDED | MINIMUM RECORDED |
| :--- | :--- | :--- |
| SPECIFIC CONDUCTANCE, microsiemens | 288, September 1 | 109, August 25, 26 |
| pH, standard units | 6.1, September 1 | 4.8, June 7-9 |
| WATER TEMPERATURE, ${ }^{\circ} \mathrm{C}$ | 17.2, August 31 | 14.0, January 19, 20, 23 |
| DISSOLVED OXYGEN, mg/L | 4.1, February 4-11, 13, 15-17 | 1.4, September 1 |
| DISSOLVED OXYGEN, PERCENT <br> SATURATION, $\%$ | 40, on many days during the period | 14, September 1 |

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), FOR PERIOD DECEMBER 2001 TO SEPTEMBER 2002 DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | -- | --- | --- | --- | 114 | 120 | 124 | 124 | 120 | 116 | 115 | 258 |
| 2 | --- | --- | --- | --- | 114 | 120 | 124 | 124 | 120 | 116 | 115 | 174 |
| 3 | --- | --- | --- | 114 | 114 | 121 | 124 | 124 | 120 | 116 | 115 | 138 |
| 4 | --- | --- | --- | 114 | 115 | 121 | 125 | 124 | 120 | 116 | 115 | 123 |
| 5 | --- | --- | --- | 114 | 115 | 121 | 125 | 124 | 120 | -- | 114 | 118 |
| 6 | --- | --- | --- | 114 | 115 | 121 | 125 | 124 | 119 | --- | 113 | 117 |
| 7 | --- | --- | --- | 119 | 116 | 121 | 125 | 124 | 119 | --- | 113 | 117 |
| 8 | --- | --- | --- | 118 | 116 | 121 | 125 | 124 | 119 | --- | 113 | 117 |
| 9 | --- | --- | --- | 116 | 115 | 122 | 125 | 125 | 119 | --- | 112 | 116 |
| 10 | --- | --- | --- | 114 | 115 | 123 | 125 | 124 | 119 | --- | 112 | 116 |
| 11 | --- | --- | --- | 114 | 116 | 123 | 125 | 123 | 119 | --- | 111 | 116 |
| 12 | --- | --- | --- | 114 | 116 | 123 | 125 | 122 | 119 | -- | 111 | 117 |
| 13 | --- | --- | --- | 113 | 117 | 123 | 125 | 122 | 118 | 115 | 110 | 117 |
| 14 | --- | --- | --- | 112 | 117 | 123 | 125 | 122 | 118 | 116 | 111 | 117 |
| 15 | --- | --- | -- | 112 | 116 | 123 | 125 | 122 | 118 | 116 | 111 | 118 |
| 16 | --- | --- | --- | 112 | 116 | 123 | 125 | 122 | 118 | -- | 111 | 119 |
| 17 | --- | --- | --- | 112 | 116 | 124 | 124 | 122 | 117 | --- | 111 | 119 |
| 18 | --- | --- | --- | 112 | 116 | --- | 124 | 122 | 117 | 114 | 111 | 118 |
| 19 | --- | --- | --- | 113 | 116 | --- | 124 | 122 | 117 | 114 | --- | 118 |
| 20 | --- | --- | 120 | 143 | 117 | 124 | 124 | 122 | 117 | 114 | --- | 118 |
| 21 | --- | --- | 120 | 133 | 118 | 123 | 124 | 122 | 117 | 114 | 110 | 118 |
| 22 | --- | --- | 120 | 123 | 118 | 123 | 124 | 122 | 117 | 113 | 110 | 118 |
| 23 | --- | --- | 120 | 124 | 118 | 123 | 124 | 122 | 117 | 114 | 110 | 118 |
| 24 | --- | --- | 120 | 138 | 119 | 123 | 124 | 122 | 116 | 113 | 110 | 117 |
| 25 | - | - | 120 | 125 | 119 | 123 | 124 | 121 | 116 | 116 | 110 | 117 |
| 26 | --- | --- | 112 | 119 | 119 | 124 | 124 | 122 | 116 | 118 | 111 | 117 |
| 27 | --- | --- | 110 | 115 | 119 | 124 | 124 | 121 | 116 | 118 | 111 | 117 |
| 28 | --- | --- | 110 | 114 | 119 | 124 | 124 | 121 | 116 | 117 | 112 | 117 |
| 29 | -- | --- | 110 | 114 | --- | 124 | 124 | 121 | 117 | 117 | 111 | 117 |
| 30 | --- | --- | 110 | 114 | --- | 124 | 124 | 121 | 117 | 117 | 114 | 116 |
| 31 | --- | --- | 110 | 114 | --- | 124 | --- | 121 | --- | 116 | 155 | --- |
| MEAN | --- | --- | --- | --- | 116 | --- | 124 | 123 | 118 | - | --- | 125 |
| MAX | - | --- | --- | --- | 119 | --- | 125 | 125 | 120 | --- | --- | 258 |
| MIN | --- | --- | -- | --- | 114 | --- | 124 | 121 | 116 | --- | --- | 116 |


| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | --- | - | -- | -- | 5.1 | 5.2 | 5.1 | 5.0 | 4.9 | 5.1 | 5.5 | 6.1 |
| 2 | --- | --- | --- | --- | 5.1 | 5.2 | 5.1 | 5.0 | 4.9 | 5.1 | 5.5 | 5.9 |
| 3 | --- | --- | --- | 5.3 | 5.2 | 5.2 | 5.1 | 5.0 | 4.9 | 5.1 | 5.5 | 5.7 |
| 4 | --- | --- | --- | 5.4 | 5.2 | 5.2 | 5.2 | 5.0 | 4.9 | 5.1 | 5.5 | 5.6 |
| 5 | --- | --- | --- | 5.3 | 5.2 | 5.2 | 5.2 | 5.0 | 4.9 | --- | 5.5 | 5.5 |
| 6 | --- | --- | --- | 5.3 | 5.2 | 5.3 | 5.2 | 5.0 | 4.9 | --- | 5.5 | 5.5 |
| 7 | --- | --- | --- | 5.3 | 5.2 | 5.3 | 5.2 | 5.0 | 4.9 | --- | 5.5 | 5.5 |
| 8 | --- | --- | --- | 5.3 | 5.2 | 5.3 | 5.2 | 5.0 | 4.8 | --- | 5.5 | 5.5 |
| 9 | --- | --- | --- | 5.3 | 5.1 | 5.3 | 5.2 | 5.0 | 4.9 | --- | 5.5 | 5.5 |
| 10 | --- | --- | --- | 5.3 | 5.1 | 5.3 | 5.1 | 4.9 | 4.9 | --- | 5.5 | 5.5 |
| 11 | --- | --- | --- | 5.2 | 5.1 | 5.3 | 5.1 | 4.9 | 4.9 | --- | 5.5 | 5.5 |
| 12 | --- | --- | --- | 5.2 | 5.1 | 5.3 | 5.1 | 4.9 | 4.9 | --- | 5.5 | 5.5 |
| 13 | --- | --- | --- | 5.2 | 5.1 | 5.3 | 5.1 | 4.9 | 4.9 | 5.6 | 5.5 | 5.5 |
| 14 | --- | --- | --- | 5.2 | 5.1 | 5.3 | 5.1 | 5.0 | 4.9 | 5.7 | 5.4 | 5.5 |
| 15 | --- | --- | --- | 5.2 | 5.2 | 5.3 | 5.1 | 5.0 | 4.9 | 5.7 | 5.4 | 5.5 |
| 16 | --- | --- | --- | 5.2 | 5.2 | 5.3 | 5.1 | 5.0 | 5.0 | --- | 5.4 | 5.6 |
| 17 | --- | --- | --- | 5.3 | 5.2 | 5.3 | 5.1 | 5.0 | 5.0 | --- | 5.4 | 5.6 |
| 18 | --- | --- | --- | 5.3 | 5.2 | --- | 5.1 | 5.0 | 5.0 | 5.7 | 5.4 | 5.6 |
| 19 | --- | --- | --- | 5.3 | 5.2 | --- | 5.1 | 4.9 | 5.0 | 5.7 | -- | 5.5 |
| 20 | --- | --- | 5.4 | 5.4 | 5.2 | 5.2 | 5.1 | 4.9 | 5.0 | 5.7 | --- | 5.5 |
| 21 | --- | --- | 5.4 | 5.3 | 5.2 | 5.2 | 5.1 | 4.9 | 5.0 | 5.7 | 5.4 | 5.5 |
| 22 | --- | --- | --- | 5.3 | 5.2 | 5.2 | 5.0 | 4.9 | 5.0 | 5.7 | 5.4 | 5.6 |
| 23 | --- | --- | 5.4 | 5.3 | 5.2 | 5.2 | 5.0 | 4.9 | 5.0 | 5.8 | 5.4 | 5.5 |
| 24 | --- | --- | 5.4 | 5.4 | 5.2 | 5.2 | 5.0 | 4.9 | 5.0 | 5.8 | 5.4 | 5.5 |
| 25 | - | --- | 5.4 | 5.3 | 5.2 | 5.2 | 5.0 | 5.0 | 5.0 | 5.8 | 5.4 | 5.5 |
| 26 | --- | --- | 5.4 | 5.3 | 5.2 | 5.1 | 5.0 | 5.0 | 5.0 | 5.7 | 5.4 | 5.5 |
| 27 | --- | --- | 5.4 | 5.2 | 5.2 | 5.1 | 5.1 | 5.0 | 5.0 | 5.5 | 5.5 | 5.5 |
| 28 | --- | --- | 5.4 | 5.2 | 5.2 | 5.1 | 5.1 | 5.0 | 5.0 | 5.5 | 5.5 | 5.5 |
| 29 | --- | --- | 5.3 | 5.2 | --- | 5.1 | 5.1 | 4.9 | 5.1 | 5.5 | 5.5 | 5.5 |
| 30 | --- | --- | 5.3 | 5.1 | - | 5.1 | 5.1 | 4.9 | 5.1 | 5.5 | 5.5 | 5.5 |
| 31 | --- | --- | 5.3 | 5.1 | --- | 5.1 | --- | 4.9 | --- | 5.5 | 5.7 | -- |
| MEAN | --- | --- | --- | --- | 5.2 | --- | 5.1 | 5.0 | 5.0 | -- | --- | 5.6 |
| MAX | --- | --- | --- | --- | 5.2 | --- | 5.2 | 5.0 | 5.1 | --- | --- | 6.1 |
| MIN | --- | --- | --- | --- | 5.1 | --- | 5.0 | 4.9 | 4.8 | --- | --- | 5.5 |

WATER TEMPERATURE, DEGREES CELSIUS, FOR PERIOD DECEMBER 2001 TO SEPTEMBER 2002

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | - | - | --- | --- | 14.6 | 14.5 | 14.6 | 15.0 | 15.4 | 15.6 | 16.1 | 16.8 |
| 2 | --- | --- | --- | --- | 14.7 | 14.4 | 14.7 | 15.1 | 15.4 | 15.7 | 16.1 | 16.7 |
| 3 | --- | --- | --- | 15.3 | 14.7 | 14.4 | 14.7 | 15.1 | 15.4 | 15.7 | 16.2 | 16.6 |
| 4 | --- | --- | --- | 15.2 | 14.7 | 14.4 | 14.7 | 15.1 | 15.4 | 15.7 | 16.2 | 16.6 |
| 5 | --- | --- | --- | 15.1 | 14.6 | 14.4 | 14.7 | 15.1 | 15.4 | --- | 16.2 | 16.6 |
| 6 | --- | --- | --- | 14.9 | 14.6 | 14.4 | 14.7 | 15.1 | 15.4 | --- | 16.2 | 16.6 |
| 7 | --- | --- | --- | 14.7 | 14.4 | 14.4 | 14.8 | 15.1 | 15.5 | --- | 16.2 | 16.6 |
| 8 | --- | --- | --- | 14.8 | 14.5 | 14.4 | 14.7 | 15.1 | 15.5 | --- | 16.2 | 16.6 |
| 9 | --- | --- | --- | 14.8 | 14.5 | 14.4 | 14.8 | 15.1 | 15.5 | --- | 16.2 | 16.6 |
| 10 | --- | --- | --- | 14.8 | 14.5 | 14.4 | 14.8 | 15.1 | 15.5 | --- | 16.3 | 16.7 |
| 11 | --- | --- | --- | 14.8 | 14.6 | 14.4 | 14.8 | 15.1 | 15.5 | --- | 16.3 | 16.7 |
| 12 | --- | --- | --- | 14.8 | 14.6 | 14.4 | 14.8 | 15.2 | 15.5 | 15.8 | 16.3 | 16.7 |
| 13 | --- | --- | --- | 14.7 | 14.6 | 14.4 | 14.8 | 15.2 | 15.5 | 15.8 | 16.3 | 16.7 |
| 14 | --- | --- | --- | 14.8 | 14.6 | 14.4 | 14.8 | 15.2 | 15.5 | 15.8 | 16.4 | 16.7 |
| 15 | --- | --- | --- | 14.8 | 14.6 | 14.4 | 14.8 | 15.2 | 15.5 | 15.8 | 16.4 | 16.8 |
| 16 | --- | --- | --- | 14.7 | 14.5 | 14.5 | 14.8 | 15.2 | 15.5 | --- | 16.4 | 16.9 |
| 17 | --- | --- | --- | 14.7 | 14.5 | 14.5 | 14.9 | 15.2 | 15.5 | --- | 16.4 | 16.8 |
| 18 | --- | --- | --- | 14.7 | 14.5 | 14.5 | 14.9 | 15.2 | 15.6 | 15.8 | 16.4 | 16.8 |
| 19 | --- | --- | --- | 14.5 | 14.5 | 14.5 | 14.9 | 15.2 | 15.6 | 15.8 | --- | 16.8 |
| 20 | --- | --- | 15.9 | 14.2 | 14.5 | 14.5 | 14.9 | 15.2 | 15.6 | 15.9 | --- | 16.8 |
| 21 | --- | --- | 15.8 | 14.5 | 14.5 | 14.5 | 14.9 | 15.3 | 15.6 | 15.9 | 16.5 | 16.8 |
| 22 | --- | --- | 15.8 | 14.5 | 14.5 | 14.5 | 14.9 | 15.3 | 15.6 | 15.9 | 16.5 | 16.8 |
| 23 | --- | --- | 15.8 | 14.3 | 14.5 | 14.6 | 15.0 | 15.3 | 15.6 | 15.9 | 16.5 | 16.8 |
| 24 | --- |  | 15.7 | 14.3 | 14.5 | 14.6 | 15.0 | 15.3 | 15.6 | 15.9 | 16.5 | 16.8 |
| 25 | -- | - | 15.7 | 14.4 | 14.5 | 14.6 | 15.0 | 15.3 | 15.6 | 16.0 | 16.5 | 16.8 |
| 26 | --- | --- | 15.7 | 14.5 | 14.5 | 14.6 | 15.0 | 15.4 | 15.6 | 16.1 | 16.5 | 16.8 |
| 27 | --- | --- | 15.6 | 14.5 | 14.5 | 14.6 | 15.0 | 15.4 | 15.6 | 16.1 | 16.6 | 16.8 |
| 28 | --- | --- | 15.6 | 14.6 | 14.5 | 14.6 | 15.0 | 15.4 | 15.6 | 16.1 | 16.6 | 16.9 |
| 29 | --- | --- | 15.5 | 14.6 | --- | 14.6 | 15.0 | 15.4 | 15.6 | 16.1 | 16.6 | 16.9 |
| 30 | --- | --- | 15.4 | 14.6 | --- | 14.6 | 15.0 | 15.4 | 15.6 | 16.1 | 16.8 | 16.9 |
| 31 | --- | --- | 15.4 | 14.6 | --- | 14.6 | --- | 15.4 | --- | 16.1 | 16.9 | --- |
| MEAN | --- | --- | --- | --- | 14.5 | 14.5 | 14.8 | 15.2 | 15.5 | --- | -- | 16.7 |
| MAX | --- | --- | - | --- | 14.7 | 14.6 | 15.0 | 15.4 | 15.6 | -- | --- | 16.9 |
| MIN | --- | --- | --- | --- | 14.4 | 14.4 | 14.6 | 15.0 | 15.4 | --- | --- | 16.6 |

OXYGEN DISSOLVED (MG/L), FOR PERIOD DECEMBER 2001 TO SEPTEMBER 2002

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | --- | --- | --- | --- | 4.0 | 3.9 | 3.3 | 3.3 | 3.5 | 3.7 | 3.7 | 1.8 |
| 2 | - | - | - | --- | 4.0 | 3.9 | 3.4 | 3.3 | 3.5 | 3.7 | 3.7 | 2.8 |
| 3 | - | - | --- | 3.8 | 4.0 | 3.9 | 3.4 | 3.3 | 3.5 | 3.7 | 3.7 | 3.3 |
| 4 | -- | - | - | 3.8 | 4.0 | 3.8 | 3.3 | 3.3 | 3.6 | 3.7 | 3.7 | 3.5 |
| 5 | - | - | --- | 3.8 | 4.0 | 3.8 | 3.4 | 3.3 | 3.6 | -- | 3.7 | 3.6 |
| 6 | -- | -- | - | 3.8 | 4.1 | 3.8 | 3.4 | 3.3 | 3.6 | -- | 3.7 | 3.7 |
| 7 | - | --- | --- | 3.5 | 4.0 | 3.8 | 3.4 | 3.3 | 3.6 | --- | 3.8 | 3.7 |
| 8 | - | - | --- | 3.6 | 4.0 | 3.8 | 3.4 | 3.3 | 3.6 | - | 3.8 | 3.7 |
| 9 | --- | --- | --- | 3.7 | 4.0 | 3.7 | 3.4 | 3.2 | 3.6 | - | 3.7 | 3.7 |
| 10 | -- | - | --- | 3.8 | 4.1 | 3.7 | 3.4 | 3.3 | 3.6 | -- | 3.8 | 3.7 |
| 11 | --- | -- | --- | 3.8 | 4.0 | 3.7 | 3.4 | 3.3 | 3.6 | --- | 3.8 | 3.6 |
| 12 | --- | --- | --- | 3.9 | 4.0 | 3.6 | 3.4 | 3.3 | 3.6 | --- | 3.8 | 3.6 |
| 13 | -- | - | --- | 3.9 | 4.0 | 3.6 | 3.3 | 3.3 | 3.6 | -- | 3.8 | 3.6 |
| 14 | -- | --- | --- | 3.9 | 4.0 | 3.6 | 3.3 | 3.3 | 3.6 | --- | 3.8 | 3.6 |
| 15 | --- | --- | --- | 3.9 | 4.0 | 3.5 | 3.3 | 3.3 | 3.6 | --- | 3.8 | 3.5 |
| 16 | --- | --- | --- | 4.0 | 4.1 | 3.5 | 3.3 | 3.3 | 3.6 | --- | 3.7 | 3.2 |
| 17 | - | --- | --- | 4.0 | 4.0 | 3.5 | 3.3 | 3.3 | 3.6 | -- | 3.7 | 3.2 |
| 18 | -- | - | --- | 3.9 | 4.0 | 3.5 | 3.3 | 3.3 | 3.6 | -- | 3.7 | 3.4 |
| 19 | --- | --- | --- | 3.9 | 4.0 | 3.5 | 3.3 | 3.3 | 3.7 | --- | --- | 3.4 |
| 20 | -- | -- | 3.7 | 3.3 | 4.0 | 3.4 | 3.3 | 3.3 | 3.7 | -- | --- | 3.4 |
| 21 | - | --- | 3.6 | 3.5 | 4.0 | 3.4 | 3.3 | 3.3 | 3.7 | -- | 3.7 | 3.4 |
| 22 | -- | - | - | 3.7 | 4.0 | 3.4 | 3.3 | 3.3 | 3.7 | --- | 3.7 | 3.4 |
| 23 | -- | - | 3.6 | 3.7 | 4.0 | 3.4 | 3.3 | 3.3 | 3.7 | - | 3.7 | 3.4 |
| 24 | - | - | 3.6 | 3.5 | 4.0 | 3.4 | 3.3 | 3.4 | 3.7 | -- | 3.7 | 3.3 |
| 25 | -- | --- | 3.7 | 3.7 | 3.9 | 3.4 | 3.3 | 3.5 | 3.7 | -- | 3.8 | 3.4 |
| 26 | - | --- | 3.7 | 3.8 | 3.9 | 3.4 | 3.3 | 3.5 | 3.7 | --- | 3.8 | 3.4 |
| 27 | -- | --- | 3.7 | 4.0 | 3.9 | 3.4 | 3.3 | 3.5 | 3.7 | 3.6 | 3.8 | 3.4 |
| 28 | --- | --- | 3.7 | 4.0 | 3.9 | 3.4 | 3.3 | 3.5 | 3.7 | 3.6 | 3.7 | 3.4 |
| 29 | -- | - | 3.7 | 4.0 | - | 3.4 | 3.3 | 3.5 | 3.7 | 3.7 | 3.7 | 3.4 |
| 30 | -- | - | 3.7 | 4.0 | --- | 3.4 | 3.3 | 3.5 | 3.7 | 3.6 | 3.5 | 3.4 |
| 31 | --- | --- | 3.7 | 4.0 | --- | 3.4 | 3.3 | 3.5 | , | 3.7 | 2.9 | --- |
| MEAN | --- | --- | --- | --- | 4.0 | 3.6 | 3.3 | 3.3 | 3.6 | --- | --- | 3.4 |
| MAX | - | --- | - | --- | 4.1 | 3.9 | 3.4 | 3.5 | 3.7 | --- | --- | 3.7 |
| MIN | --- | --- | --- | --- | 3.9 | 3.4 | 3.3 | 3.2 | 3.5 | --- | --- | 1.8 |

OXYGEN DISSOLVED (\% OF SATURATION), FOR PERIOD DECEMBER 2001 TO SEPTEMBER 2002 DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | - | - | -- | -- | 39 | 38 | 32 | 33 | 35 | 37 | 38 | 19 |
| 2 | --- | --- | --- | --- | 39 | 38 | 34 | 33 | 35 | 37 | 38 | 29 |
| 3 | -- | - | -- | 38 | 40 | 38 | 34 | 33 | 35 | 37 | 38 | 34 |
| 4 | --- | - | --- | 38 | 40 | 37 | 33 | 33 | 36 | 37 | 38 | 36 |
| 5 | --- | --- | --- | 38 | 40 | 37 | 34 | 33 | 36 | -- | 38 | 37 |
| 6 | --- | --- | --- | 38 | 40 | 37 | 34 | 33 | 36 | --- | 38 | 38 |
| 7 | --- | --- | --- | 35 | 39 | 37 | 34 | 33 | 36 | --- | 39 | 38 |
| 8 | --- | --- | --- | 36 | 39 | 37 | 34 | 33 | 36 | --- | 39 | 38 |
| 9 | --- | --- | --- | 37 | 39 | 36 | 34 | 32 | 36 | --- | 38 | 38 |
| 10 | - | --- | - | 38 | 40 | 36 | 34 | 33 | 36 | --- | 39 | 38 |
| 11 | --- | --- | --- | 38 | 39 | 36 | 34 | 33 | 36 | --- | 39 | 38 |
| 12 | --- | --- | - | 39 | 39 | 35 | 34 | 33 | 36 | --- | 39 | 37 |
| 13 | --- | --- | --- | 39 | 39 | 35 | 33 | 33 | 36 | --- | 39 | 37 |
| 14 | --- | --- | --- | 39 | 39 | 35 | 33 | 33 | 36 | --- | 39 | 37 |
| 15 | --- | --- | --- | 39 | 39 | 34 | 33 | 33 | 36 | --- | 38 | 36 |
| 16 | --- | --- | --- | 40 | 40 | 34 | 33 | 33 | 36 | --- | 38 | 33 |
| 17 | - | --- | --- | 39 | 39 | 34 | 33 | 33 | 36 | --- | 38 | 33 |
| 18 | --- | --- | --- | 39 | 39 | 34 | 33 | 33 | 36 | --- | 38 | 35 |
| 19 | - | --- | --- | 39 | 39 | 34 | 33 | 33 | 37 | --- | -- | 35 |
| 20 | --- | --- | 37 | 32 | 39 | 33 | 33 | 33 | 37 | --- | --- | 35 |
| 21 | --- | --- | 36 | 34 | 39 | 33 | 33 | 33 | 37 | --- | 38 | 35 |
| 22 | --- | --- | --- | 36 | 39 | 33 | 33 | 33 | 37 | --- | 38 | 35 |
| 23 | - | --- | 36 | 36 | 39 | 34 | 33 | 33 | 37 | -- | 38 | 35 |
| 24 | --- | --- | 36 | 34 | 39 | 34 | 33 | 34 | 37 | --- | 38 | 34 |
| 25 | - | --- | 37 | 36 | 38 | 34 | 33 | 35 | 37 | --- | 39 | 35 |
| 26 | --- | --- | 37 | 37 | 38 | 34 | 33 | 35 | 37 | --- | 39 | 35 |
| 27 | --- | --- | 37 | 39 | 38 | 34 | 33 | 35 | 37 | 37 | 39 | 35 |
| 28 | --- | - | 37 | 39 | 38 | 34 | 33 | 35 | 37 | 37 | 38 | 35 |
| 29 | --- | --- | 37 | 39 | --- | 34 | 33 | 35 | 37 | 38 | 38 | 35 |
| 30 | - | --- | 37 | 39 | --- | 34 | 33 | 35 | 37 | 37 | 36 | 35 |
| 31 | --- | --- | 37 | 39 | --- | 34 | --- | 35 | --- | 38 | 30 | --- |
| MEAN | --- | --- | - | --- | 39 | 35 | 33 | 33 | 36 | --- | - | 35 |
| MAX | --- | --- | --- | --- | 40 | 38 | 34 | 35 | 37 | --- | --- | 38 |
| MIN | --- | --- | --- | --- | 38 | 33 | 32 | 32 | 35 | --- | --- | 19 |

WAKE COUNTY--Continued
354356078403501 WK-277 DENR LAKE WHEELER RESEARCH STATION MW-1S (REGOLITH WELL) --Continued
WATER-QUALITY RECORDS
PERIOD OF RECORD.--October 2001 to September 2002.
REMARKS.--Station operated in cooperation with North Carolina Department of Environment and Natural Resources, Water Resources Division as part of the Piedmont/Mountains ground-water project.

| WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002 |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Date | Time | $\begin{gathered} \text { OXYGEN, } \\ \text { DIS- } \\ \text { SOLVED } \\ \text { (MG/L) } \\ (00300) \end{gathered}$ | $\begin{aligned} & \text { PH } \\ & \text { WATER } \\ & \text { WHOLE } \\ & \text { FIELD } \\ & \text { (STAND- } \\ & \text { ARD } \\ & \text { UNITS) } \\ & (00400) \end{aligned}$ | SPE- <br> CIFIC <br> CON- <br> DUCT- <br> ANCE <br> (US/CM) <br> (00095) | TEMPERATURE WATER (DEG C) (00010) | $\begin{aligned} & \text { HARD- } \\ & \text { NESS } \\ & \text { TOTAL } \\ & \text { (MG/L } \\ & \text { AS } \\ & \text { CACO3) } \\ & (00900) \end{aligned}$ | CALCIUM DISSOLVED (MG/L AS CA) (00915) | MAGNESIUM, DISSOLVED (MG/L AS MG) (00925) | POTASSIUM, DISSOLVED (MG/L AS K) (00935) | $\begin{aligned} & \text { SODIUM, } \\ & \text { DIS- } \\ & \text { SOLVED } \\ & \text { (MG/L } \\ & \text { AS NA) }) \\ & (00930) \end{aligned}$ | $\begin{gathered} \text { ANC } \\ \text { WATER } \\ \text { UNFLTRD } \\ \text { IT } \\ \text { FIELD } \\ \text { MG/L AS AS } \\ \text { CACO3 } \\ (00419) \end{gathered}$ | BICARBONATE WATER DIS IT FIELD MG/L AS HCO3 (00453) | BROMIDE DIS- SOLVED (MG/L AS BR) $(71870)$ |
| $\begin{aligned} & \text { NOV } \\ & \quad 14 \ldots \end{aligned}$ | 0940 | -- | 5.7 | 100 | 15.0 | 24 | 6.27 | 2.11 | 2.94 | 12.2 | -- | 18 | . 06 |
| $\begin{aligned} & \text { MAY } \\ & 09 \ldots \end{aligned}$ | 1030 | 3.0 | 5.2 | 124 | 15.2 | 25 | 6.25 | 2.36 | 3.00 | 11.5 | 9 | 11 | . 05 |
| Date | CHLO- <br> RIDE, DISSOLVED (MG/L AS CL) (00940) | FLUORIDE, DISSOLVED (MG/L AS F) (00950) | $\begin{aligned} & \text { SILICA, } \\ & \text { DIS- } \\ & \text { SOLVED } \\ & \text { (MG/L } \\ & \text { AS } \\ & \text { SIO2) } \\ & (00955) \end{aligned}$ | SULFATE <br> DIS- <br> SOLVED (MG/L <br> AS SO4) <br> (00945) | $\begin{aligned} & \text { SOLIDS, } \\ & \text { RESIDUE } \\ & \text { AT 180. } \\ & \text { DEG. C } \\ & \text { DIS- } \\ & \text { SOLVED } \\ & \text { (MG/L) } \\ & (70300) \end{aligned}$ | $\begin{gathered} \text { NITRO- } \\ \text { GEN, } \\ \text { AMMONIA } \\ \text { DIS- } \\ \text { SOLVED } \\ \text { (MG/LL } \\ \text { AS N) } \\ (00608) \end{gathered}$ | NITROGEN, AMMONIA + ORGANIC DIS. (MG/L A.S N) (00623) | $\begin{gathered} \text { NITRO- } \\ \text { GEN, } \\ \text { NO2NNO3 } \\ \text { DIS- } \\ \text { SOLVED } \\ \text { (MG/LL } \\ \text { AS N) } \\ (00631) \end{gathered}$ | $\begin{gathered} \text { NITRO- } \\ \text { GEN, } \\ \text { NITRITE } \\ \text { DIS- } \\ \text { SOLVED } \\ \text { (MG/L } \\ \text { AS N) } \\ (00613) \end{gathered}$ | $\begin{aligned} & \text { ORTHO- } \\ & \text { PHOS- } \\ & \text { PHATE, } \\ & \text { DIS- } \\ & \text { SOLVED } \\ & \text { (MG/L } \\ & \text { AS P) } \\ & (00671) \end{aligned}$ | ALUM- <br> INUM, DISSOLVED (UG/L AS AL) (01106) | ANTIMONY, DISSOLVED (UG/L AS SB) (01095) | $\begin{gathered} \text { ARSENIC } \\ \text { DIS- } \\ \text { SOLVED } \\ \text { (UG/L } \\ \text { AS AS) } \\ (01000) \end{gathered}$ |
| $\begin{aligned} & \text { NOV } \\ & \text { } 14 \ldots \end{aligned}$ | 8.86 | <. 1 | 27.9 | . 4 | 98 | E. 03 | <. 10 | 5.91 | <. 008 | <. 02 | -- | -- | E1 |
| 09.. | 8.87 | <. 1 | 26.7 | . 6 | 100 | E. 03 | <. 10 | 6.43 | <. 008 | E. 02 | 5 | <. 05 | <2 |
| Date | BARIUM, DISSOLVED (UG/L AS BA) (01005) | BERYLLIUM, DISSOLVED (UG/L AS BE) (01010) | $\begin{aligned} & \text { BORON, } \\ & \text { DIS- } \\ & \text { SOLVED } \\ & \text { (UG/L } \\ & \text { AS B) } \\ & (01020) \end{aligned}$ |  | CHROMIUM, DISSOLVED (UG/L AS CR) (01030) | $\begin{gathered} \text { COBALT, } \\ \text { DIS- } \\ \text { SOLVED } \\ \text { (UG/L } \\ \text { AS CO) } \\ (01035) \end{gathered}$ | COPPER, DISSOLVED (UG/L AS CU) (01040) | $\begin{aligned} & \text { IRON, } \\ & \text { DIS- } \\ & \text { SOLVED } \\ & \text { (UG/L } \\ & \text { AS FE) } \\ & (01046 \text { ) } \end{aligned}$ | $\begin{aligned} & \text { LEAD, } \\ & \text { DIS- } \\ & \text { SOLVED } \\ & \text { (UG/L } \\ & \text { AS PB) } \\ & (01049) \end{aligned}$ | MANGANESE, DISSOLVED (UG/L AS MN) (01056) | $\begin{gathered} \text { MERCURY } \\ \text { DIS- } \\ \text { SOLVED } \\ \text { (UG/L } \\ \text { AS HG) } \\ (71890) \end{gathered}$ | MOLYBDENUM, DISSOLVED (UG/L AS MO) (01060) | NICKEL, DISSOLVED (UG/L AS NI) (01065) |
| NOV |  | -- | <10 | -- | -- | -- | -- | 11 | -- | 76.1 | -- | -- | -- |
| $\begin{aligned} & \text { MAY } \\ & 09 \ldots . \end{aligned}$ | 63 | . 14 | M | . 05 | E. 5 | . 17 | . 6 | <10 | <. 08 | 30.9 | <. 01 | . 3 | 3.77 |
|  |  |  |  | SELENIUM, DISSOLVED (UG/L AS SE) (01145) | $\begin{gathered} \text { SILVER, } \\ \text { DIS- } \\ \text { SOLVED } \\ \text { (UG/L } \\ \text { ( AG) } \\ (01075) \end{gathered}$ | ZINC, DISSOLVED (UG/L AS ZN) (01090) | ALPHA RADIO. WATER DISS AS TH-230 (PCI/L) $(04126)$ | $\begin{gathered} \text { GROSS } \\ \text { BETA, } \\ \text { DIS- } \\ \text { SOLVED } \\ \text { (PCI/L } \\ \text { AS } \\ \text { CS-137) } \\ (03515) \end{gathered}$ | $\begin{gathered} \text { RADON } \\ 222 \\ \text { TOTAL } \\ \text { (PCI/L) } \\ (82303) \end{gathered}$ | $\begin{gathered} \text { URANIUM } \\ \text { NATURAL } \\ \text { DIS- } \\ \text { SOLVED } \\ \text { (UG//L } \\ \text { AS U) } \\ (22703) \end{gathered}$ |  |  |  |
|  |  | NOV |  | <2 | <1 | 3 | . 6 | 5.3 | 6440 | -- .08 |  |  |  |

Remark codes used in this table:
< -- Less than
E -- Estimated value
M -- Presence verified, not quantified

