



Water-Data Report 2009

**355428080493001 Local number IR-165, NCDENR ALLISON WOODS RESEARCH STATION MW-2S NEAR
TURNERSBURG, NC (REGOLITH)**

Piedmont and Blue Ridge crystalline-rock aquifers
Regolith

Iredell County, NC

LOCATION.--Lat 35°54'28.09", long 80°49'30.19" referenced to North American Datum of 1983, Iredell County, NC, Hydrologic Unit 03040102, 1.7 mi east of U.S. Interstate 77, 0.4 mi north of U.S. Highway 21 on Allison Woods Foundation property. Owner: NCDENR (North Carolina Department of Environment and Natural Resources), Division of Water Quality.

GROUNDWATER RECORDS

WELL CHARACTERISTICS.--Drilled observation well, depth 38 ft, diameter 4 in., cased to 23 ft, screened interval from 23 ft to 38 ft, sand filter packed from 20 ft to 38 ft.

DATUM.--Land-surface datum is 870 ft above sea level. Measuring point: Top of instrument shelter floor, 2.78 ft above land-surface datum, June 14, 2007 to present.

PERIOD OF RECORD.--May 2006 to March 2009 (discontinued). Continuous record January 2008 to March 2009.

GAGE.--Measured periodically with electric tape (by USGS and NCDENR, Division of Water Quality). Water-level recorder collecting data at 60-minute intervals. Satellite telemetry at station.

REMARKS.--Well is part of Piedmont/Mountains groundwater project.

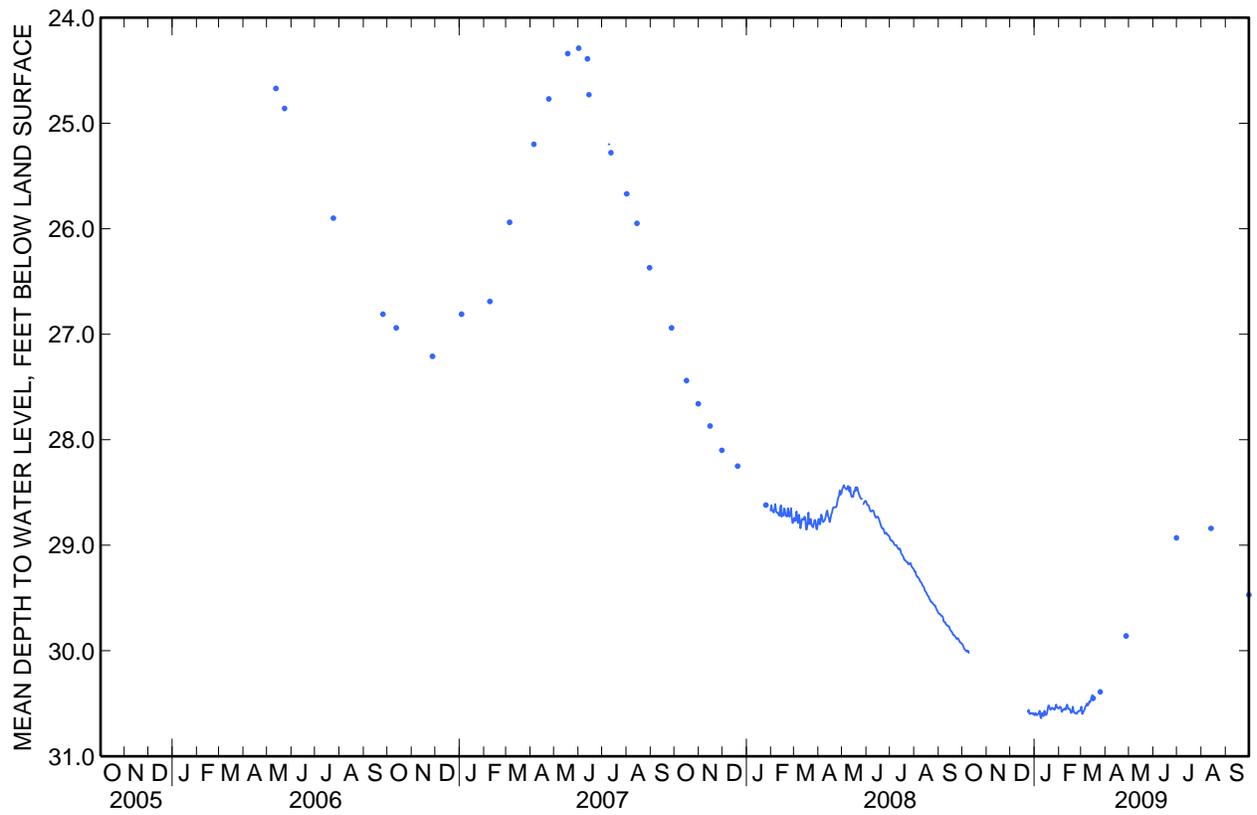
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 24.29 ft below land-surface datum, June 1, 2007; lowest water level recorded, 30.69 ft below land-surface datum, January 7, 2009.

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Continued

DEPTH TO WATER LEVEL, FEET BELOW LAND SURFACE
WATER YEAR OCTOBER 2008 TO SEPTEMBER 2009
DAILY MEAN VALUES

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	29.94	---	---	30.61	30.54	30.53	---	---	---	---	---	---
2	29.96	---	---	30.59	30.53	30.60	---	---	---	---	---	---
3	29.98	---	---	30.61	30.54	30.59	---	---	---	---	---	---
4	29.99	---	---	30.61	30.58	30.57	---	---	---	---	---	---
5	30.00	---	---	30.60	30.57	30.56	---	---	---	---	---	---
6	30.00	---	---	30.59	30.56	30.53	---	---	---	---	---	---
7	30.01	---	---	30.57	30.55	30.52	---	---	---	---	---	---
8	30.00	---	---	30.63	30.55	30.50	---	---	---	---	---	---
9	30.02	---	---	30.64	30.56	30.52	---	---	---	---	---	---
10	---	---	---	30.59	30.53	30.51	---	---	---	---	---	---
11	---	---	---	30.60	30.51	30.48	---	---	---	---	---	---
12	---	---	---	30.62	30.55	30.49	---	---	---	---	---	---
13	---	---	---	30.57	30.55	30.47	---	---	---	---	---	---
14	---	---	---	30.60	30.55	30.45	---	---	---	---	---	---
15	---	---	---	30.61	30.57	30.42	---	---	---	---	---	---
16	---	---	---	30.60	30.59	30.47	---	---	---	---	---	---
17	---	---	---	30.56	30.58	30.52	---	---	---	---	---	---
18	---	---	---	30.52	30.53	30.43	---	---	---	---	---	---
19	---	---	---	30.52	30.57	30.41	---	---	---	---	---	---
20	---	---	---	30.55	30.59	30.40	---	---	---	---	---	---
21	---	---	---	30.56	30.59	30.43	---	---	---	---	---	---
22	---	---	---	30.55	30.59	30.41	---	---	---	---	---	---
23	---	---	30.58	30.54	30.60	30.40	---	---	---	---	---	---
24	---	---	30.56	30.55	30.58	30.40	---	---	---	---	---	---
25	---	---	30.60	30.55	30.58	---	---	---	---	---	---	---
26	---	---	30.60	30.56	30.57	---	---	---	---	---	---	---
27	---	---	30.59	30.54	30.57	---	---	---	---	---	---	---
28	---	---	30.59	30.51	30.56	---	---	---	---	---	---	---
29	---	---	30.60	30.54	---	---	---	---	---	---	---	---
30	---	---	30.59	30.54	---	---	---	---	---	---	---	---
31	---	---	30.61	30.55	---	---	---	---	---	---	---	---
Mean	---	---	---	30.57	30.56	---	---	---	---	---	---	---
Max	---	---	---	30.64	30.60	---	---	---	---	---	---	---
Min	---	---	---	30.51	30.51	---	---	---	---	---	---	---

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Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--January 2008 to March 2009 (discontinued).

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: January 2008 to September 2008.

pH: January 2008 to September 2008.

WATER TEMPERATURE: January 2008 to March 2009.

DISSOLVED OXYGEN: January 2008 to September 2008.

DISSOLVED OXYGEN, PERCENT SATURATION: January 2008 to September 2008.

INSTRUMENTATION.--Water-quality monitor with satellite telemetry.

REMARKS.--Well is part of Piedmont/Mountains groundwater project.

COOPERATION.--Station operated in cooperation with North Carolina Department of Environment and Natural Resources (NCDENR), Division of Water Resources.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum recorded, 14 microsiemens, May 31, July 20, 2008; minimum recorded, 10 microsiemens, on many days during the period.

pH: Maximum recorded, 5.0 standard units, April 10, 11, 12, 13, 14, 2008; minimum recorded, 4.6 standard units, on several days during the period.

WATER TEMPERATURE: Maximum recorded, 14.2°C, on many days during the period; minimum recorded, 14.0°C, on many days during the period.

DISSOLVED OXYGEN: Maximum recorded, 9.3 mg/L, February 29, April, 8, 10, 12, 2008; minimum recorded, 7.5 mg/L, May 25, 26, 2008.

DISSOLVED OXYGEN, PERCENT SATURATION: Maximum recorded, 92%, February 29, April 8, 10, 12, 2008; minimum recorded, 74%, May 25, 26, 2008.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURE: Maximum recorded, 14.1°C on many days; minimum recorded, 14.0°C on many days.

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Continued

**TEMPERATURE, WATER, DEGREES CELSIUS
WATER YEAR OCTOBER 2008 TO SEPTEMBER 2009**

Day	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean
	October			November			December			January		
1	14.0	14.0	14.0	---	---	---	---	---	---	14.0	14.0	14.0
2	14.0	14.0	14.0	---	---	---	---	---	---	14.0	14.0	14.0
3	14.0	14.0	14.0	---	---	---	---	---	---	14.0	14.0	14.0
4	14.0	14.0	14.0	---	---	---	---	---	---	14.0	14.0	14.0
5	14.0	14.0	14.0	---	---	---	---	---	---	14.1	14.0	14.0
6	14.0	14.0	14.0	---	---	---	---	---	---	14.0	14.0	14.0
7	14.0	14.0	14.0	---	---	---	---	---	---	14.1	14.0	14.0
8	14.0	14.0	14.0	---	---	---	---	---	---	14.1	14.0	14.0
9	14.0	14.0	14.0	---	---	---	---	---	---	14.1	14.0	14.0
10	---	---	---	---	---	---	---	---	---	14.1	14.0	14.0
11	---	---	---	---	---	---	---	---	---	14.1	14.0	14.0
12	---	---	---	---	---	---	---	---	---	14.1	14.0	14.1
13	---	---	---	---	---	---	---	---	---	14.1	14.0	14.1
14	---	---	---	---	---	---	---	---	---	14.1	14.0	14.1
15	---	---	---	---	---	---	---	---	---	14.1	14.1	14.1
16	---	---	---	---	---	---	---	---	---	14.1	14.1	14.1
17	---	---	---	---	---	---	---	---	---	14.1	14.1	14.1
18	---	---	---	---	---	---	---	---	---	14.1	14.0	14.1
19	---	---	---	---	---	---	---	---	---	14.1	14.1	14.1
20	---	---	---	---	---	---	---	---	---	14.1	14.1	14.1
21	---	---	---	---	---	---	---	---	---	14.1	14.1	14.1
22	---	---	---	---	---	---	---	---	---	14.1	14.1	14.1
23	---	---	---	---	---	---	14.0	14.0	14.0	14.1	14.1	14.1
24	---	---	---	---	---	---	14.0	14.0	14.0	14.1	14.1	14.1
25	---	---	---	---	---	---	14.0	14.0	14.0	14.1	14.1	14.1
26	---	---	---	---	---	---	14.0	14.0	14.0	14.1	14.1	14.1
27	---	---	---	---	---	---	14.0	14.0	14.0	14.1	14.1	14.1
28	---	---	---	---	---	---	14.0	14.0	14.0	14.1	14.1	14.1
29	---	---	---	---	---	---	14.0	14.0	14.0	14.1	14.1	14.1
30	---	---	---	---	---	---	14.0	14.0	14.0	14.1	14.1	14.1
31	---	---	---	---	---	---	14.0	14.0	14.0	14.1	14.1	14.1
Month	---	---	---	---	---	---	---	---	---	14.1	14.0	14.1

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Continued

TEMPERATURE, WATER, DEGREES CELSIUS
WATER YEAR OCTOBER 2008 TO SEPTEMBER 2009

Day	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean
	February			March			April			May		
1	14.1	14.1	14.1	14.1	14.1	14.1	---	---	---	---	---	---
2	14.1	14.1	14.1	14.1	14.1	14.1	---	---	---	---	---	---
3	14.1	14.1	14.1	14.1	14.1	14.1	---	---	---	---	---	---
4	14.1	14.1	14.1	14.1	14.1	14.1	---	---	---	---	---	---
5	14.1	14.1	14.1	14.1	14.1	14.1	---	---	---	---	---	---
6	14.1	14.1	14.1	14.1	14.1	14.1	---	---	---	---	---	---
7	14.1	14.1	14.1	14.1	14.1	14.1	---	---	---	---	---	---
8	14.1	14.1	14.1	14.1	14.1	14.1	---	---	---	---	---	---
9	14.1	14.1	14.1	14.1	14.1	14.1	---	---	---	---	---	---
10	14.1	14.1	14.1	14.1	14.1	14.1	---	---	---	---	---	---
11	14.1	14.1	14.1	14.1	14.1	14.1	---	---	---	---	---	---
12	14.1	14.1	14.1	14.1	14.1	14.1	---	---	---	---	---	---
13	14.1	14.1	14.1	14.1	14.1	14.1	---	---	---	---	---	---
14	14.1	14.1	14.1	14.1	14.1	14.1	---	---	---	---	---	---
15	14.1	14.1	14.1	14.1	14.1	14.1	---	---	---	---	---	---
16	14.1	14.1	14.1	14.1	14.1	14.1	---	---	---	---	---	---
17	14.1	14.1	14.1	---	---	---	---	---	---	---	---	---
18	14.1	14.1	14.1	14.1	14.1	14.1	---	---	---	---	---	---
19	14.1	14.1	14.1	14.1	14.1	14.1	---	---	---	---	---	---
20	14.1	14.1	14.1	14.1	14.1	14.1	---	---	---	---	---	---
21	14.1	14.1	14.1	14.1	14.1	14.1	---	---	---	---	---	---
22	14.1	14.1	14.1	14.1	14.1	14.1	---	---	---	---	---	---
23	14.1	14.1	14.1	14.1	14.1	14.1	---	---	---	---	---	---
24	14.1	14.1	14.1	14.1	14.1	14.1	---	---	---	---	---	---
25	14.1	14.1	14.1	---	---	---	---	---	---	---	---	---
26	14.1	14.1	14.1	---	---	---	---	---	---	---	---	---
27	14.1	14.1	14.1	---	---	---	---	---	---	---	---	---
28	14.1	14.1	14.1	---	---	---	---	---	---	---	---	---
29	---	---	---	---	---	---	---	---	---	---	---	---
30	---	---	---	---	---	---	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
Month	14.1	14.1	14.1	---	---	---	---	---	---	---	---	---

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Continued

TEMPERATURE, WATER, DEGREES CELSIUS
WATER YEAR OCTOBER 2008 TO SEPTEMBER 2009

Day	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean
	June			July			August			September		
1	---	---	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---
3	---	---	---	---	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	---	---	---	---	---	---
5	---	---	---	---	---	---	---	---	---	---	---	---
6	---	---	---	---	---	---	---	---	---	---	---	---
7	---	---	---	---	---	---	---	---	---	---	---	---
8	---	---	---	---	---	---	---	---	---	---	---	---
9	---	---	---	---	---	---	---	---	---	---	---	---
10	---	---	---	---	---	---	---	---	---	---	---	---
11	---	---	---	---	---	---	---	---	---	---	---	---
12	---	---	---	---	---	---	---	---	---	---	---	---
13	---	---	---	---	---	---	---	---	---	---	---	---
14	---	---	---	---	---	---	---	---	---	---	---	---
15	---	---	---	---	---	---	---	---	---	---	---	---
16	---	---	---	---	---	---	---	---	---	---	---	---
17	---	---	---	---	---	---	---	---	---	---	---	---
18	---	---	---	---	---	---	---	---	---	---	---	---
19	---	---	---	---	---	---	---	---	---	---	---	---
20	---	---	---	---	---	---	---	---	---	---	---	---
21	---	---	---	---	---	---	---	---	---	---	---	---
22	---	---	---	---	---	---	---	---	---	---	---	---
23	---	---	---	---	---	---	---	---	---	---	---	---
24	---	---	---	---	---	---	---	---	---	---	---	---
25	---	---	---	---	---	---	---	---	---	---	---	---
26	---	---	---	---	---	---	---	---	---	---	---	---
27	---	---	---	---	---	---	---	---	---	---	---	---
28	---	---	---	---	---	---	---	---	---	---	---	---
29	---	---	---	---	---	---	---	---	---	---	---	---
30	---	---	---	---	---	---	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
Month	---	---	---	---	---	---	---	---	---	---	---	---