



Water-Data Report 2007

**355427080493703 Local number IR-175, DENR Allison Woods Research Station MW-4D (Bedrock well)**

Piedmont and Blue Ridge crystalline-rock aquifers  
Mafic Gneiss  
Iredell County, NC

LOCATION.--Lat 35°54'27.84", long 80°49'37.20" 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.

**GROUND-WATER RECORDS**

WELL CHARACTERISTICS.--Drilled observation well, depth 300 ft, diameter 6.25 in., cased to 45 ft, open hole from 45 ft to 300 ft.

DATUM.--Land-surface datum is 830 ft above North American Vertical Datum of 1988. Measuring point: Top of PVC casing, 3.34 ft above land-surface datum, May 12, 2006, to present.

PERIOD OF RECORD.--May 2006 to current year.

GAGE.--Measured periodically with electric tape (by USGS and NCDENR, Division of Water Quality).

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 7.71 ft below land-surface datum, May 12, 2006; lowest water level measured, 8.84 ft below land-surface datum, September 27, 2007.

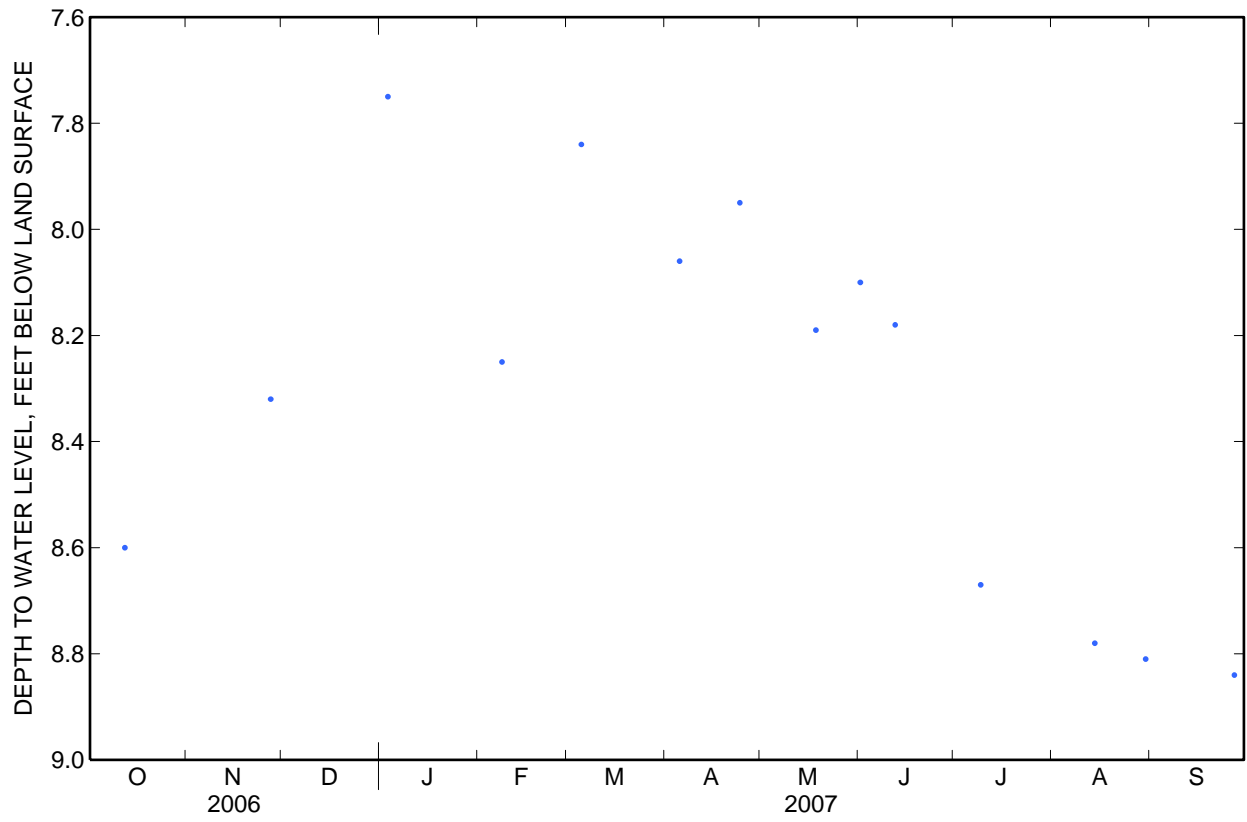
**WATER LEVELS IN FEET BELOW LAND SURFACE DATUM**

Date	Water level	Date	Water level
Oct 12, 2006	8.60	May 18, 2007	8.19
Nov 27	8.32	Jun 1	8.10
Jan 3, 2007	7.75	12	8.18
Feb 8	8.25	Jul 9	8.67
Mar 5	7.84	Aug 14	8.78
Apr 5	8.06	30	8.81
24	7.95	Sep 27	8.84

Highest: 7.75 Jan 03, 2007

Lowest: 8.84 Sep 27, 2007

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## 355427080493703 Local number IR-175, DENR Allison Woods Research Station MW-4D (Bedrock well)—Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water year 2007.

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

**WATER-QUALITY DATA**  
**WATER YEAR OCTOBER 2006 TO SEPTEMBER 2007**

Part 1 of 4

[Remark codes: &lt;, less than; E, estimated.]

Date	Time	Sample type	Depth	Depth	Dis- solved oxygen, mg/L (00300)	Temper- ature, deg C (00010)	Calcium water, fltrd, mg/L (00915)	Magnes- ium, water, fltrd, mg/L (00925)	Potas- sium, water, fltrd, mg/L (00935)	Sodium, water, fltrd, mg/L (00930)	Bromide water, fltrd, mg/L (71870)
			of well, feet below LSD (72008)	to top sample intrval feet below LSD (72015)							
<b>Nov</b>											
29...	1030	Environmental	300.00	121.00	8.11	.1	16.3	--	--	--	--
<b>Jul</b>											
10...	1215	Environmental	300.00	121.00	8.40	.3	15.9	--	--	--	--
10...	1345	Blank	300.00	--	--	--	--	<.02	<.014	<.04	<.20

**WATER-QUALITY DATA**  
**WATER YEAR OCTOBER 2006 TO SEPTEMBER 2007**

Part 2 of 4

[Remark codes: &lt;, less than; E, estimated.]

Date	Chlor- ide, water, fltrd, mg/L (00940)	Fluor- ide, water, fltrd, mg/L (00950)	Silica, water, fltrd, mg/L (00955)	Sulfate water, fltrd, mg/L (00945)	Residue	Nitrite	Total nitro- gen, wat flt by anal ysis, mg/L (62854)	Ortho- phos- phate, water, fltrd, mg/L as P (00671)	Alum- inum, water, fltrd, µg/L (01106)	Anti- mony, water, fltrd, µg/L (01095)	Arsenic water, fltrd, µg/L (01000)
					on evap. at 180degC wat flt mg/L (70300)	Ammonia water, fltrd, mg/L as N (00608)					
<b>Nov</b>											
29...	--	--	--	--	--	<.020	<.06	E.001	<.06	E.006	--
<b>Jul</b>											
10...	--	--	--	--	--	<.020	<.06	.006	<.06	.007	--
10...	<.12	<.10	<.02	<.18	<.10	<.020	<.06	<.002	<.06	<.006	<1.6

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**WATER-QUALITY DATA**  
**WATER YEAR OCTOBER 2006 TO SEPTEMBER 2007**

Part 3 of 4

[Remark codes: &lt;, less than; E, estimated.]

Date	Barium, water, fltrd, µg/L (01005)	Beryll- ium, water, fltrd, µg/L (01010)	Boron, water, fltrd, µg/L (01020)	Cadmium water, fltrd, µg/L (01025)	Chrom- ium, water, fltrd, µg/L (01030)	Cobalt water, fltrd, µg/L (01035)	Copper, water, fltrd, µg/L (01040)	Iron, water, fltrd, µg/L (01046)	Lead, water, fltrd, µg/L (01049)	Mangan- ese, water, fltrd, µg/L (01056)	Molyb- denum, water, fltrd, µg/L (01060)	Nickel, water, fltrd, µg/L (01065)	Selen- ium, water, fltrd, µg/L (01145)
Nov 29...	--	--	--	--	--	--	--	--	--	--	--	--	--
Jul 10...	--	--	--	--	--	--	--	--	--	--	--	--	--
10...	<.08	<.06	<1.8	<.04	<.12	<.04	.56	<6	<.12	<.2	<.1	<.06	<.08

**WATER-QUALITY DATA**  
**WATER YEAR OCTOBER 2006 TO SEPTEMBER 2007**

Part 4 of 4

[Remark codes: &lt;, less than; E, estimated.]

Date	Silver, water, fltrd, µg/L (01075)	Zinc, water, fltrd, µg/L (01090)	Rn-222 2-sigma water, unfltrd pCi/L (76002)	Rn-222, water, unfltrd pCi/L (82303)	Uranium natural water, fltrd, µg/L (22703)	Data base number
Nov 29...	--	--	--	--	.32	01
Jul 10...	--	--	32	1,090	.25	01
10...	<.1	<.60	--	--	<.04	04