



Water-Data Report 2007

355429080492304 Local number IR-164, DENR Allison Woods Research Station CH-1

Piedmont and Blue Ridge crystalline-rock aquifers

Mafic Gneiss

Iredell County, NC

LOCATION.--Lat 35°54'30.30", long 80°49'23.62" 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 100 ft, diameter 4 in., cased to 60 ft, open hole from 60 ft to 100 ft.

DATUM.--Land-surface datum is 900 ft above North American Vertical Datum of 1988. Measuring point: divot on outer steel protective casing, 2.90 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, 42.25 ft below land-surface datum, May 12, 2006; lowest water level measured, 44.72 ft below land-surface datum, March 5, 2007.

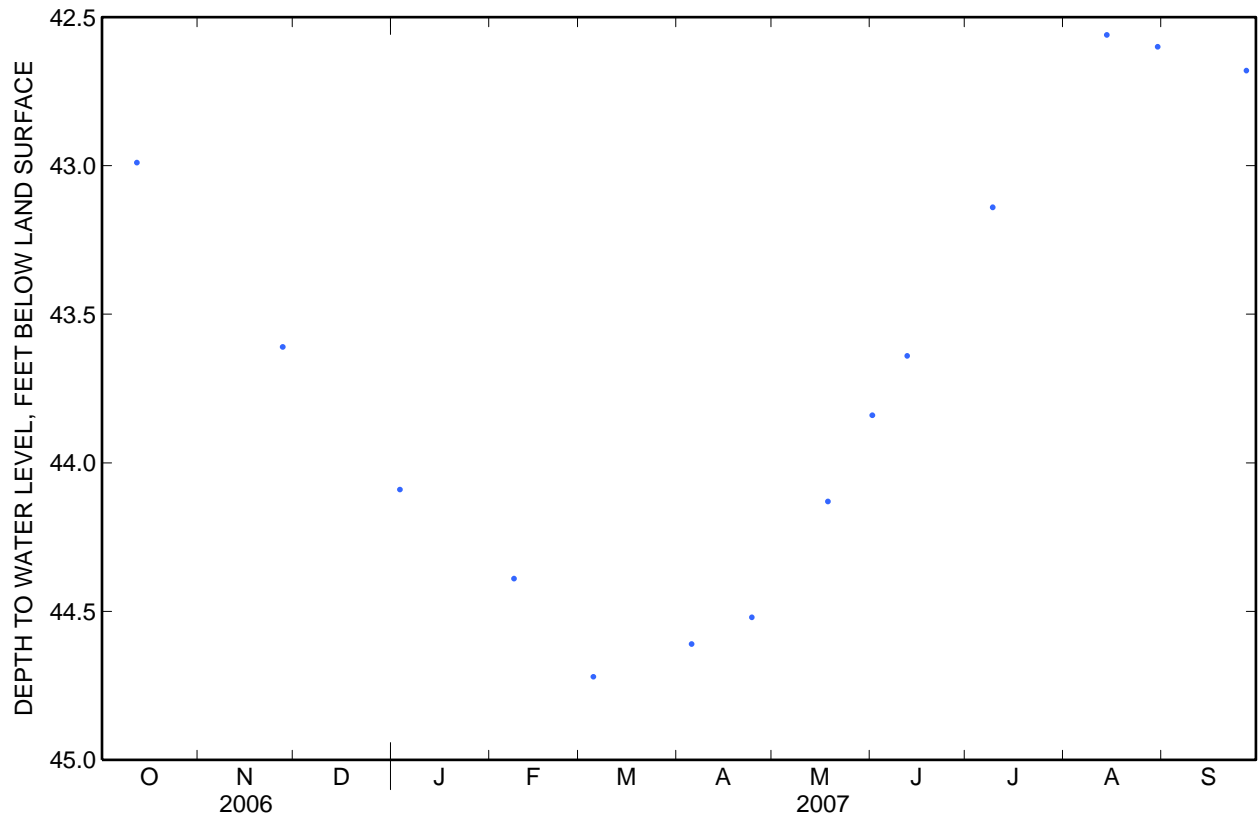
WATER LEVELS IN FEET BELOW LAND SURFACE DATUM

Date	Water level	Date	Water level
Oct 12, 2006	42.99	May 18, 2007	44.13
Nov 27	43.61	Jun 1	43.84
Jan 3, 2007	44.09	12	43.64
Feb 8	44.39	Jul 9	43.14
Mar 5	44.72	Aug 14	42.56
Apr 5	44.61	30	42.6
24	44.52	Sep 27	42.68

Highest: 42.56 Aug 14, 2007

Lowest: 44.72 Mar 05, 2007

355429080492304 Local number IR-164, DENR Allison Woods Research Station CH-1—Continued



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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: <, less than; E, estimated.]

Date	Time	Depth of well, feet below LSD (72008)	Depth to top sample interval, feet below LSD (72015)	Depth to water level, feet below LSD (72019)	Dissolved oxygen, mg/L (00300)	pH, water, unfltrd field, std units (00400)	Specific conductance, wat unfltrd μ S/cm 25 degC (00095)	Temperature, water, deg C (00010)	Calcium water, fltrd, mg/L (00915)	Magnesium, water, fltrd, mg/L (00925)	Potassium, water, fltrd, mg/L (00935)	Sodium, water, fltrd, mg/L (00930)	ANC, wat unfltrd, titr., field, mg/L as CaCO ₃ (00419)
Nov 28...	1145	100	87.00	62.85	3.9	6.8	144	15.1	15.5	4.36	3.53	5.68	59

WATER-QUALITY DATA
WATER YEAR OCTOBER 2006 TO SEPTEMBER 2007

Part 2 of 4

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

Date	Bicarbonate, wat unfltrd, titr., field, mg/L (00450)	Bromide water, fltrd, mg/L (71870)	Chloride, water, fltrd, mg/L (00940)	Fluoride, water, fltrd, mg/L (00950)	Silica, water, fltrd, mg/L (00955)	Sulfate water, fltrd, mg/L (00945)	Residue on evap. at 180degC, wat fltrd, mg/L (70300)	Ammonia water, fltrd, mg/L as N (00608)	Nitrite + nitrate water, fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)	Total nitrogen, wat fltrd by analysis, mg/L (62854)	Orthophosphate, water, fltrd, mg/L as P (00671)	Aluminum, water, fltrd, μ g/L (01106)
Nov 28...	73	<.02	2.33	E.05	27.5	9.62	100	<.020	<.06	<.002	<.06	.018	3.8

WATER-QUALITY DATA
WATER YEAR OCTOBER 2006 TO SEPTEMBER 2007

Part 3 of 4

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

Date	Antimony, water, fltrd, μ g/L (01095)	Arsenic water, fltrd, μ g/L (01000)	Barium, water, fltrd, μ g/L (01005)	Beryllium, water, fltrd, μ g/L (01010)	Boron, water, fltrd, μ g/L (01020)	Cadmium water, fltrd, μ g/L (01025)	Chromium, water, fltrd, μ g/L (01030)	Cobalt water, fltrd, μ g/L (01035)	Copper, water, fltrd, μ g/L (01040)	Iron, water, fltrd, μ g/L (01046)	Lead, water, fltrd, μ g/L (01049)	Manganese, water, fltrd, μ g/L (01056)	Molybdenum, water, fltrd, μ g/L (01060)
Nov 28...	.06	<.12	67	<.06	2.9	<.04	.69	.16	<.40	7	<.12	27.3	1.0

355429080492304 Local number IR-164, DENR Allison Woods Research Station CH-1—Continued

WATER-QUALITY DATA
WATER YEAR OCTOBER 2006 TO SEPTEMBER 2007

Part 4 of 4

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

Date	Nickel, water, fltrd, µg/L (01065)	Selen- ium, water, fltrd, µg/L (01145)	Silver, water, fltrd, µg/L (01075)	Zinc, water, fltrd, µg/L (01090)	Uranium natural water, fltrd, µg/L (22703)
Nov 28...	1.2	.17	<.1	1.4	.26