



Water-Data Report 2007

355427080493701 Local number IR-173, DENR Allison Woods Research Station MW-4S (Regolith well)

Piedmont and Blue Ridge crystalline-rock aquifers

Regolith

Iredell County, NC

LOCATION.--Lat 35°54'27.84", long 80°49'37.00" 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 23 ft, diameter 4 in., cased to 8 ft, screened interval from 8 ft to 23 ft, sand filter packed from 6 ft to 23 ft.

DATUM.--Land-surface datum is 830 ft above North American Vertical Datum of 1988. Measuring point: top of PVC casing, 2.48 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, 10.00 ft below land-surface datum, January 3, 2007; lowest water level measured, 11.47 ft below land-surface datum, August 30, 2007.

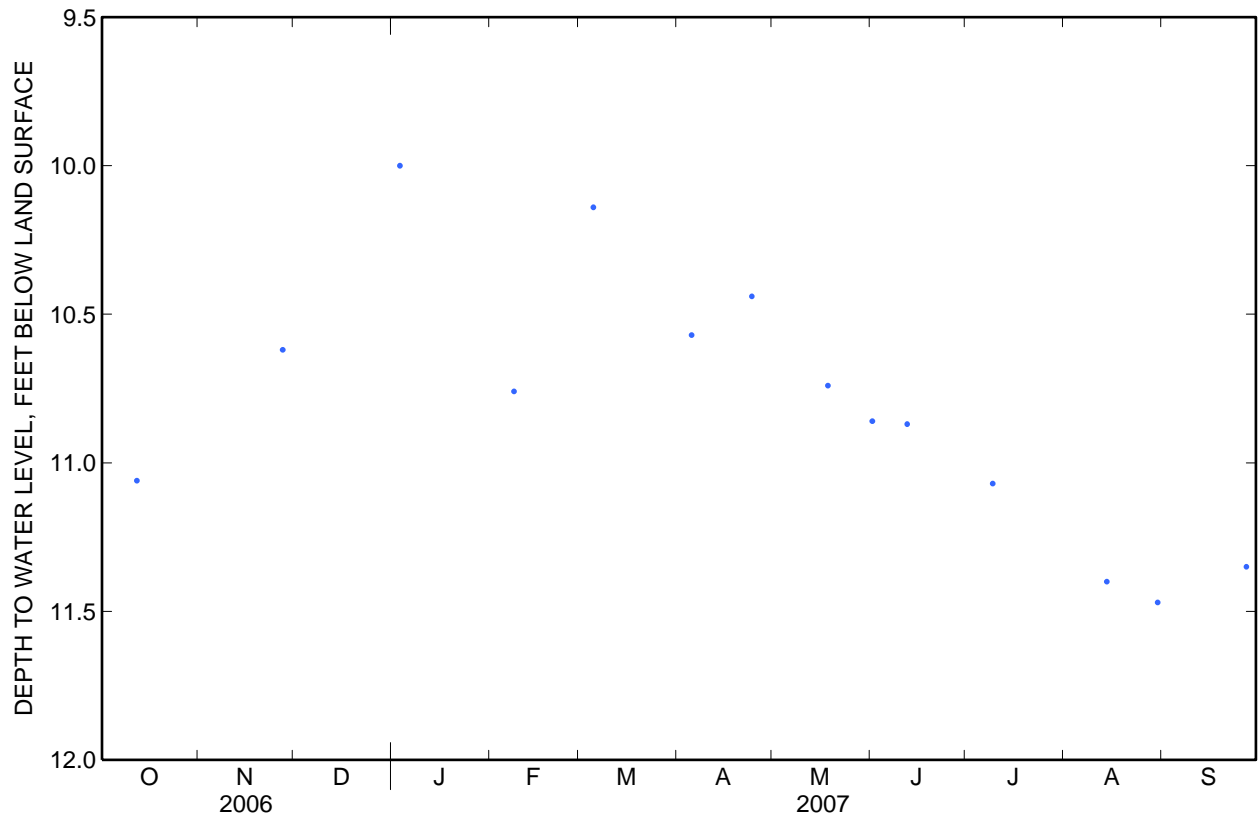
WATER LEVELS IN FEET BELOW LAND SURFACE DATUM

Date	Water level	Date	Water level
Oct 12, 2006	11.06	May 18, 2007	10.74
Nov 27	10.62	Jun 1	10.86
Jan 3, 2007	10.00	12	10.87
Feb 8	10.76	Jul 9	11.07
Mar 5	10.14	Aug 14	11.4
Apr 5	10.57	30	11.47
24	10.44	Sep 27	11.35

Highest: 10.00 Jan 03, 2007

Lowest: 11.47 Aug 30, 2007

355427080493701 Local number IR-173, DENR Allison Woods Research Station MW-4S (Regolith well)—Continued



355427080493701 Local number IR-173, DENR Allison Woods Research Station MW-4S (Regolith 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: <, 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 unfiltered, μ S/cm 25 degC (00095)	Temperature, 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 unfiltered, titr., mg/L as CaCO ₃ (00419)
Nov 29...	1205	23.00	22.00	10.67	2.6	4.8	19	15.5	.73	.855	.77	1.07	8
Jul 10...	1330	23.00	22.00	15.99	8.4	5.2	19	14.6	.73	.881	.76	1.07	6

WATER-QUALITY DATA
WATER YEAR OCTOBER 2006 TO SEPTEMBER 2007

Part 2 of 4

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

Date	Bicarbonate, wat unfiltered, 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 29...	--	E.01	1.37	<.10	9.63	E.13	20	<.020	<.06	<.002	<.06	<.006	1.6
Jul 10...	8	<.02	1.38	<.10	9.30	<.18	17	<.020	<.06	<.002	<.06	E.004	2.0

355427080493701 Local number IR-173, DENR Allison Woods Research Station MW-4S (Regolith well)—Continued

WATER-QUALITY DATA
WATER YEAR OCTOBER 2006 TO SEPTEMBER 2007

Part 3 of 4

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

Date	Anti- mony, water, fltrd, µg/L (01095)	Arsenic water, fltrd, µg/L (01000)	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)
Nov 29...	<.06	<.12	16	.08	2.6	<.04	.87	.11	<.40	<6	<.12	4.4	<.1
Jul 10...	<.06	<.12	16	.08	E1.2	<.04	.91	.09	.60	<6	.20	3.7	<.1

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)	Rn-222 2-sigma water, unfltrd pCi/L (76002)	Rn-222, water, unfltrd pCi/L (82303)	Uranium natural water, fltrd, µg/L (22703)
Nov 29...	.51	<.08	<.1	2.8	--	--	<.04
Jul 10...	.51	<.08	<.1	2.9	31	990	<.04