



Water-Data Report 2006

**352808082382601 Local number BU-077, DENR Bent Creek Research Station MW-4S (Regolith well)**

Piedmont and Blue Ridge crystalline-rock aquifers  
 Quaternary Saprolite  
 Buncombe County, NC

LOCATION.--Lat 35°28'08", long 82°38'27" referenced to North American Datum of 1983, Buncombe County, NC, Hydrologic Unit 06010105, 1.2 mi north of Blue Ridge Parkway, 3.1 mi west of Brevard Road in Bent Creek Research Forest. Owner: DENR (North Carolina Department of Environment and Natural Resources), Division of Water Quality.

**GROUND-WATER RECORDS**

WELL CHARACTERISTICS.--Drilled observation well, depth 22 ft, diameter 4 in., cased to 7 ft, screened interval from 7 to 22 ft, sand filter packed from 5 to 22 ft.

DATUM.--Land-surface datum is 2,259.66 ft above NGVD of 1929. Measuring point: Top of protective steel casing, 3.12 ft above land-surface datum.

PERIOD OF RECORD.--February 2003 to current year. Continuous record June 2006 to September 2006.

GAGE.--Measured periodically with electric and steel tape. Water-level recorder collecting data at 60-minute intervals.

REMARKS.--Well is part of Piedmont/Mountains ground-water study.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 6.83 ft below land-surface datum, July 3, 2003; lowest water level measured, 9.53 ft below land-surface datum, Feb. 4, 2003.

**WATER LEVELS IN FEET BELOW LAND SURFACE DATUM  
 WATER YEAR OCTOBER 2005 TO SEPTEMBER 2006**

[Measurement method: S, steel tape; T, electric tape; . Water-level status: --, static.]

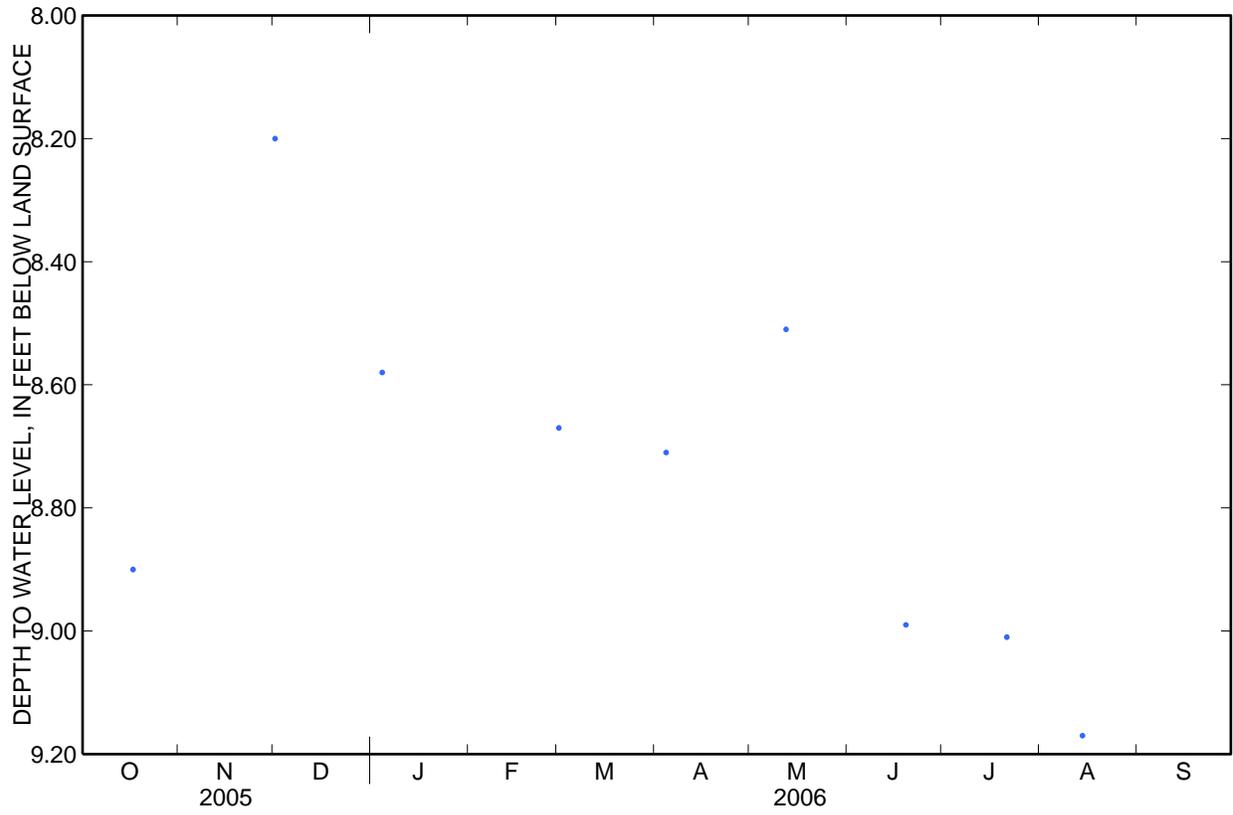
Date	Water level	Measure-ment method	Water level status	Date	Water level	Measure-ment method	Water level status
Oct 17	8.90	S	--	May 12	8.51	S	--
Dec 1	8.20	S	--	Jun 19	8.99	T	--
Jan 4	8.58	S	--	Jul 21	9.01	S	--
Mar 1	8.67	S	--	Aug 14	9.17	S	--
Apr 4	8.71	S	--				

Water year 2006 highest: 8.20 Dec 01, 2005; lowest: 9.17 Aug 14, 2006

Period of record highest: 6.83 Jul 03, 2003; lowest: 9.53 Feb 04, 2003

Record available from Feb 04, 2003, to Aug 14, 2006; 34 entries

352808082382601 Local number BU-077, DENR Bent Creek Research Station MW-4S (Regolith well)—Continued



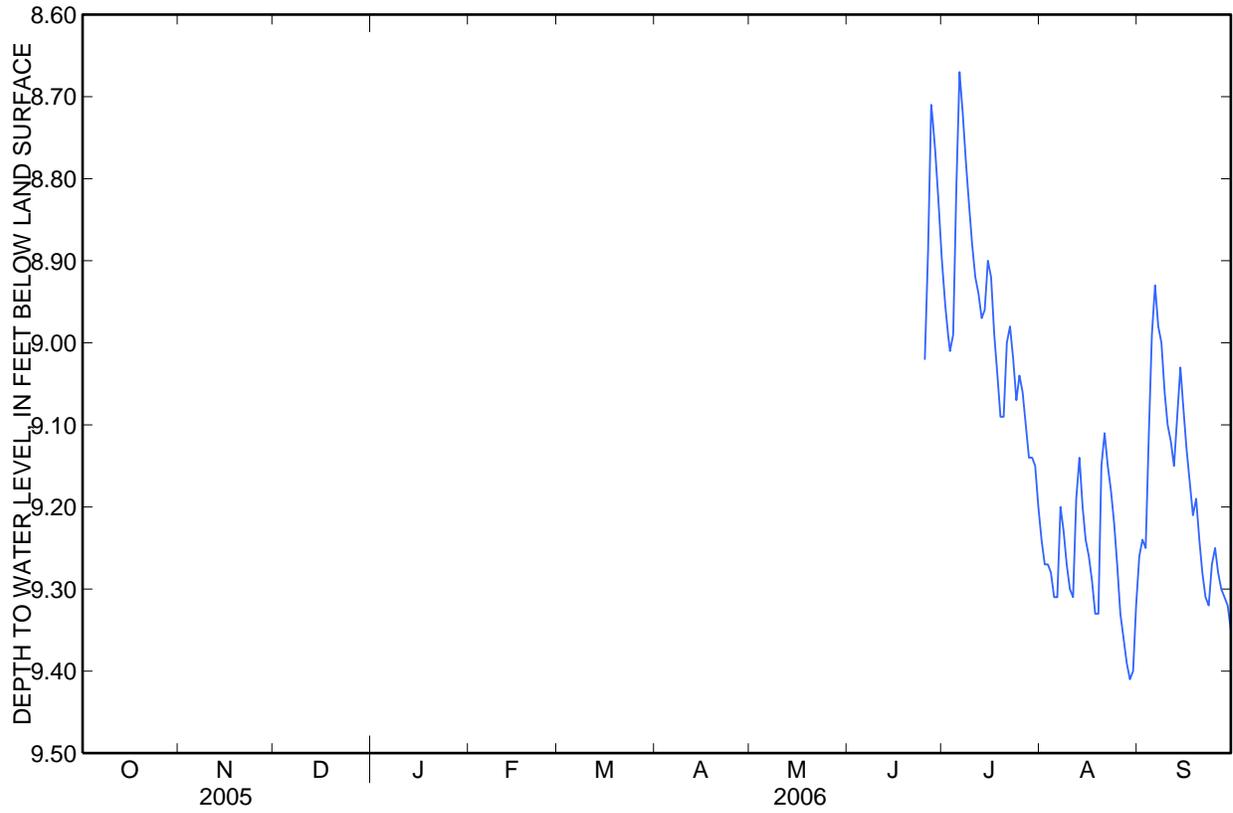
352808082382601 Local number BU-077, DENR Bent Creek Research Station MW-4S (Regolith well)—Continued

**DEPTH TO WATER LEVEL, FEET BELOW LAND SURFACE  
WATER YEAR OCTOBER 2005 TO SEPTEMBER 2006  
DAILY MEAN VALUES**

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	---	---	---	---	---	---	---	---	---	8.93	9.24	9.26
2	---	---	---	---	---	---	---	---	---	8.98	9.27	9.24
3	---	---	---	---	---	---	---	---	---	9.01	9.27	9.25
4	---	---	---	---	---	---	---	---	---	8.99	9.28	9.11
5	---	---	---	---	---	---	---	---	---	8.81	9.31	8.99
6	---	---	---	---	---	---	---	---	---	8.67	9.31	8.93
7	---	---	---	---	---	---	---	---	---	8.72	9.20	8.98
8	---	---	---	---	---	---	---	---	---	8.78	9.23	9.00
9	---	---	---	---	---	---	---	---	---	8.83	9.27	9.06
10	---	---	---	---	---	---	---	---	---	8.88	9.30	9.10
11	---	---	---	---	---	---	---	---	---	8.92	9.31	9.12
12	---	---	---	---	---	---	---	---	---	8.94	9.19	9.15
13	---	---	---	---	---	---	---	---	---	8.97	9.14	9.09
14	---	---	---	---	---	---	---	---	---	8.96	9.20	9.03
15	---	---	---	---	---	---	---	---	---	8.90	9.24	9.08
16	---	---	---	---	---	---	---	---	---	8.92	9.26	9.13
17	---	---	---	---	---	---	---	---	---	8.99	9.29	9.17
18	---	---	---	---	---	---	---	---	---	9.04	9.33	9.21
19	---	---	---	---	---	---	---	---	---	9.09	9.33	9.19
20	---	---	---	---	---	---	---	---	---	9.09	9.15	9.24
21	---	---	---	---	---	---	---	---	---	9.00	9.11	9.28
22	---	---	---	---	---	---	---	---	---	8.98	9.15	9.31
23	---	---	---	---	---	---	---	---	---	9.02	9.18	9.32
24	---	---	---	---	---	---	---	---	---	9.07	9.22	9.27
25	---	---	---	---	---	---	---	---	9.02	9.04	9.27	9.25
26	---	---	---	---	---	---	---	---	8.89	9.06	9.33	9.28
27	---	---	---	---	---	---	---	---	8.71	9.10	9.36	9.30
28	---	---	---	---	---	---	---	---	8.75	9.14	9.39	9.31
29	---	---	---	---	---	---	---	---	8.81	9.14	9.41	9.32
30	---	---	---	---	---	---	---	---	8.87	9.15	9.40	9.35
31	---	---	---	---	---	---	---	---	---	9.20	9.32	---
<b>Mean</b>	---	---	---	---	---	---	---	---	8.84	8.98	9.27	9.18
<b>Max</b>	---	---	---	---	---	---	---	---	9.02	9.20	9.41	9.35
<b>Min</b>	---	---	---	---	---	---	---	---	8.71	8.67	9.11	8.93

<b>Water Year 2006</b>	
<b>Mean</b>	9.12
<b>High</b>	8.67
<b>Low</b>	9.41

352808082382601 Local number BU-077, DENR Bent Creek Research Station MW-4S (Regolith well)—Continued



352808082382601 Local number BU-077, DENR Bent Creek Research Station MW-4S (Regolith well)—Continued

**WATER-QUALITY RECORDS**

PERIOD OF RECORD.--November 2005.

REMARKS.--Well is part of the Piedmont/Mountains ground-water study.

**WATER-QUALITY DATA  
WATER YEAR OCTOBER 2005 TO SEPTEMBER 2006**

Part 1 of 3

[Remark codes: <, less than.]

Date	Time	Depth of well, feet below LSD (72008)	Altitude of land surface feet (72000)	Dissolved oxygen, percent of saturation (00300)	Dissolved oxygen, mg/L (00301)	pH, water, unfltrd field, std units (00400)	Specif. conduc-tance, wat unfiltered, uS/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., field, mg/L as CaCO3 (00419)
Nov 07...	1115	22	2,259.66	8.1	84	5.1	12	14.7	.53	.411	.65	.76	6

**WATER-QUALITY DATA  
WATER YEAR OCTOBER 2005 TO SEPTEMBER 2006**

Part 2 of 3

[Remark codes: <, less than.]

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 flt 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 flt by analysis, mg/L (62854)	Orthophosphate, water, fltrd, mg/L as P (00671)	Arsenic water, fltrd, ug/L (01000)
Nov 07...	6	<.02	.53	<.10	6.96	.19	<10	<.04	<.06	<.008	<.06	<.006	<.12

**WATER-QUALITY DATA  
WATER YEAR OCTOBER 2005 TO SEPTEMBER 2006**

Part 3 of 3

[Remark codes: <, less than.]

Date	Boron, water, fltrd, ug/L (01020)	Iron, water, fltrd, ug/L (01046)	Manganese, water, fltrd, ug/L (01056)	Tritium 2-sigma water unfiltered, pCi/L (75985)	Tritium water unfiltered, pCi/L (07000)
Nov 07...	<7.0	12	3.3	2.6	24