



Water-Data Report 2007

353708079452104 Local number RA-172, DENR North Carolina Zoo Research Station CH-2 (Corehole)

Piedmont and Blue Ridge crystalline-rock aquifers
Mafic Metavolcanic Rock
Randolph County, NC

LOCATION.--Lat 35°37'08", long 79°45'21" referenced to North American Datum of 1983, Randolph County, NC, Hydrologic Unit 03030003, 6 mi southeast of Asheboro at the North Carolina Zoo.

GROUND-WATER RECORDS

WELL CHARACTERISTICS.--Drilled observation well, depth 98 ft, diameter 4 in., cased to 40 ft, open hole from 40 to 98 ft.

DATUM.--Land-surface datum is 636.09 ft above National Geodetic Vertical Datum of 1929 (levels by NCDENR). Measuring point: top of protective steel casing, 3.38 ft above land-surface datum.

PERIOD OF RECORD.--April 2007 to September 2007.

GAGE.--Measured periodically with electric tape by NCDENR and USGS.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 23.78 ft below land-surface datum, April 15, 2007; lowest water level recorded, 31.80 ft below land-surface datum, September 20, 2007.

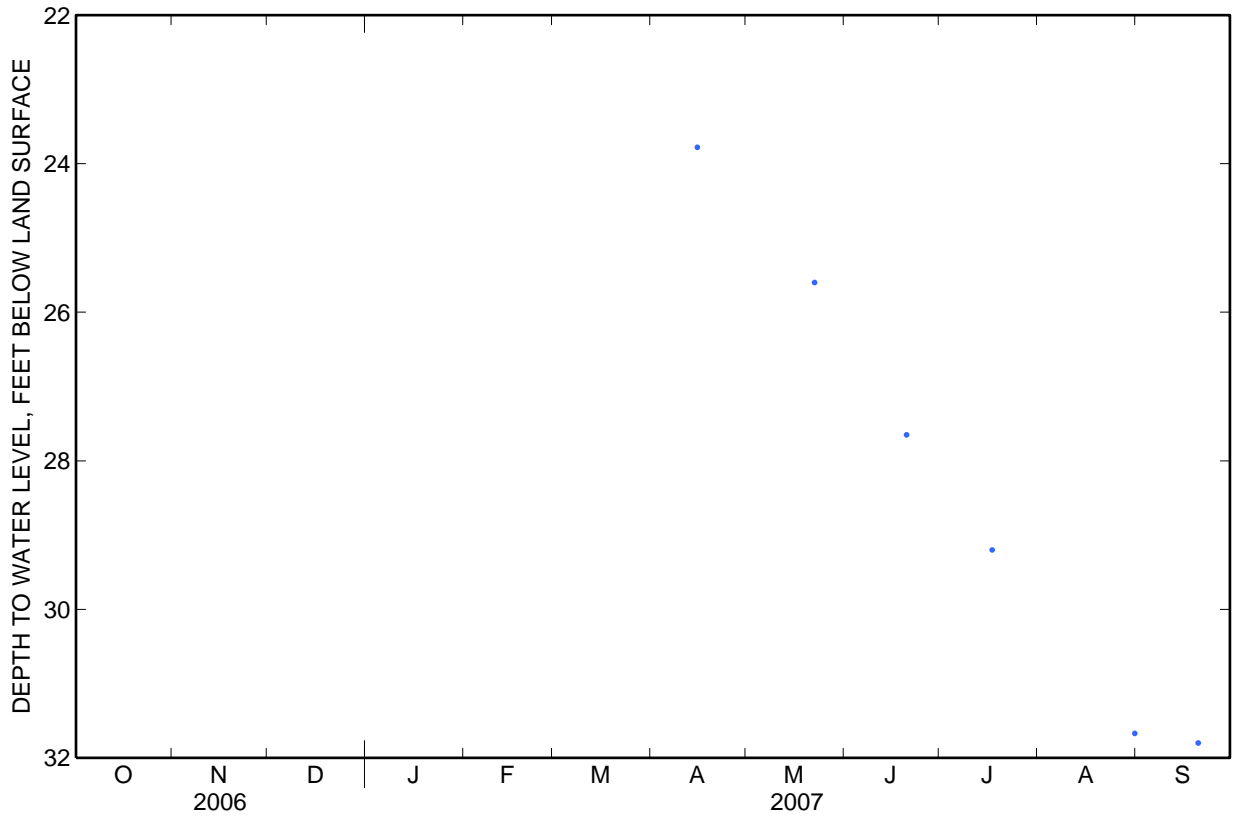
WATER LEVELS IN FEET BELOW LAND SURFACE DATUM

Date	Water level	Date	Water level
Apr 15, 2007	23.78	Jul 17, 2007	29.20
May 22	25.60	Aug 31	31.67
Jun 20	27.65	Sep 20	31.80

Highest: 23.78 Apr 15, 2007

Lowest: 31.80 Sep 20, 2007

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WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water year 2007.

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

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 intrval, feet below LSD (72015)	Water level, depth below MP, feet (61055)	Baro-metric pres-sure, mm Hg (00025)	pH, water, unfltrd field, std units (00400)	Specif-ic conduc-tance, wat unfltrd μ S/cm 25 degC (00095)	Temper-ature, water, 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)	ANC, wat unfltrd, mg/L as CaCO ₃ (00419)
May 01...	1500	98	147.00	29.86	742	5.7	64	18.0	4.17	.848	1.04	7.57	27

WATER-QUALITY DATA
WATER YEAR OCTOBER 2006 TO SEPTEMBER 2007

Part 2 of 4

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

Date	Bicar-bonate, wat unfltrd, titr., field, mg/L (00450)	Bromide water, fltrd, mg/L (71870)	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 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 nitro-gen, wat fltrd by anal ysis, mg/L (62854)	Ortho-phos-phate, water, fltrd, mg/L as P (00671)	Alum-inum, water, fltrd, μ g/L (01106)
May 01...	34	E.02	2.60	<.10	32.5	.62	59	<.020	<.06	<.002	.41	.011	7.6

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, μ g/L (01095)	Arsenic water, fltrd, μ g/L (01000)	Barium, water, fltrd, μ g/L (01005)	Beryll-ium, water, fltrd, μ g/L (01010)	Boron, water, fltrd, μ g/L (01020)	Cadmium water, fltrd, μ g/L (01025)	Chrom-ium, 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)	Mangan-ese, water, fltrd, μ g/L (01056)	Molyb-denum, water, fltrd, μ g/L (01060)
May 01...	<.06	<.12	17	E.04	2.2	.10	.19	.20	3.2	36	<.12	57.8	1.1

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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)
May					
01...	1.0	E.05	.2	6.0	<.04