353704079451201 Local number RA-161, NCDENR North Carolina Zoo Research Station MW-1S near Asheboro, NC (Regolith)

Piedmont and Blue Ridge crystalline-rock aquifers
Regolith

Randolph County, NC

LOCATION.--Lat 35°37'04.00", long 79°45'11.79" referenced to North American Datum of 1983, Randolph County, NC, Hydrologic Unit 03030003, 6 mi southeast of Asheboro on Panther Creek Road, at the North Carolina Zoo. Owner: NCDENR (North Carolina Department of Environment and Natural Resources).

GROUND-WATER RECORDS

WELL CHARACTERISTICS.--Drilled observation well, depth 23 ft, diameter 4 in., cased to 8 ft, screened from 8 ft to 23 ft.

DATUM.--Land-surface datum is 556.93 ft above National Geodetic Vertical Datum of 1929. Measuring point: top of steel casing, 2.93 ft above land-surface datum.

PERIOD OF RECORD.--April 2007 to current year.

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, 1.92 ft below land-surface datum, April 15, 2007; lowest water level recorded, 7.26 ft below land-surface datum, August 31, 2007 and September 20, 2007.

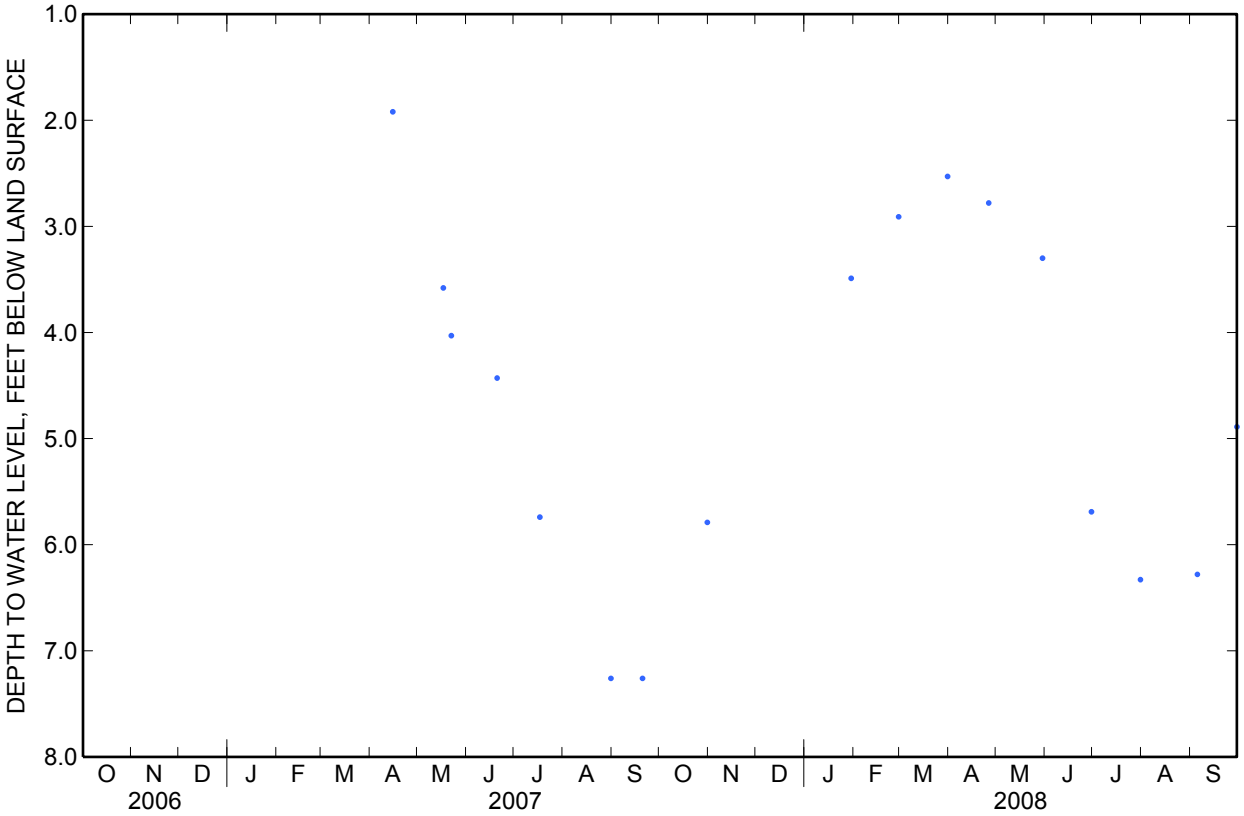
WATER LEVELS IN FEET BELOW LAND-SURFACE DATUM

Date	Water level	Date	Water level
Oct 31, 2007	5.79	May 30, 2008	3.30
Jan 30, 2008	3.49	Jun 30	5.69
Feb 29	2.91	Jul 31	6.33
Mar 31	2.53	Sep 5	6.28
Apr 26	2.78	30	4.89

Highest: 2.53 Mar 31, 2008

Lowest: 6.33 Jul 31, 2008

353704079451201 Local number RA-161, NCDENR North Carolina Zoo Research Station MW-1S near Asheboro, NC (Regolith)—Continued



353704079451201 Local number RA-161, NCDENR North Carolina Zoo Research Station MW-1S near Asheboro, NC (Regolith)—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--March 2008.

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

WATER-QUALITY DATA
WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008
Part 1 of 4
[Remark codes: <, less than; E, estimated.]

Date	Depth of well, feet below LSD (72008)	Depth to water level, feet below LSD (72019)	Water level, depth below MP, feet (61055)	Flow rate, instantaneous gal/min (00059)	Sampling depth, feet (00003)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	pH, water, unfltrd field, std units (00400)	Specific conductance, wat unf µS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Hardness, water, mg/L as CaCO3 (00900)	Calcium water, fltrd, mg/L (00915)	Magnesium, water, fltrd, mg/L (00925)
Mar													
04...	23.00	2.72	5.65	2.0	20.0	748	<1.6	6.7	138	15.4	110	35.4	4.59

WATER-QUALITY DATA
WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008
Part 2 of 4
[Remark codes: <, less than; E, estimated.]

Date	Potassium, water, fltrd, mg/L (00935)	Sodium, water, fltrd, mg/L (00930)	ANC, wat unf infl pt titr., field, mg/L as CaCO3 (00419)	Bicarbonate, wat unf infl pt 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 as SiO2 (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)	Nitrate + nitrite water fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)
Mar													
04...	2.98	13.5	138	169	.09	3.23	<.12	32.8	3.08	185	<.020	E.03	<.002

WATER-QUALITY DATA
WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008
Part 3 of 4
[Remark codes: <, less than; E, estimated.]

Date	Total nitrogen, wat flt by analysis, mg/L (62854)	Orthophosphate, water, fltrd, mg/L as P (00671)	Aluminum, water, fltrd, µg/L (01106)	Antimony, water, fltrd, µg/L (01095)	Arsenic water, fltrd, µg/L (01000)	Barium, water, fltrd, µg/L (01005)	Beryllium, water, fltrd, µg/L (01010)	Boron, water, fltrd, µg/L (01020)	Cadmium water, fltrd, µg/L (01025)	Chromium, water, fltrd, µg/L (01030)	Cobalt water, fltrd, µg/L (01035)	Copper, water, fltrd, µg/L (01040)	Iron, water, fltrd, µg/L (01046)
Mar													
04...	E.04	.036	<1.6	<.14	.18	26	<.01	2.5	<.04	E.09	.11	<1.0	<8

353704079451201 Local number RA-161, NCDENR North Carolina Zoo Research Station MW-1S near Asheboro, NC (Regolith)—Continued

WATER-QUALITY DATA
WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008
Part 4 of 4
[Remark codes: <, less than; E, estimated.]

Date	Lead, water, fltrd, µg/L (01049)	Manganese, water, fltrd, µg/L (01056)	Molybdenum, water, fltrd, µg/L (01060)	Nickel, water, fltrd, µg/L (01065)	Selenium, water, fltrd, µg/L (01145)	Silver, water, fltrd, µg/L (01075)	Zinc, water, fltrd, µg/L (01090)	Uranium natural water, fltrd, µg/L (22703)
Mar								
04...	<.08	26.1	1.2	.48	.04	<.1	<1.8	.22