



Water-Data Report 2012

364227076074702 Local number 61B 5 SOW 091B

Northern Atlantic Coastal Plain aquifer system
Upper Cretaceous Series

Chesapeake City, VA

LOCATION.--Lat 36°42'27", long 76°07'47" referenced to North American Datum of 1927, Chesapeake City, VA, Hydrologic Unit 03010205, 300 ft south of Lockheed Avenue, 0.7 mi east of intersection of State Highway 165 and Lockheed Avenue, 3.8 mi east of Fentress. Owner: Virginia Department of Environmental Quality.

GROUNDWATER RECORDS

WELL CHARACTERISTICS.--Depth 1,060 ft. Upper casing diameter 4.00 in; top of first opening 1,040 ft, bottom of last opening 1,060 ft. Drilled observation water well, diameter 3 in. from 1, 040 ft to 1,060 ft, screened 1,040 to 1,060 ft.

DATUM.--Land-surface datum is 15 ft above National Geodetic Vertical Datum of 1929. Measuring point: TOP OF CASING, 1.50 ft above land-surface datum, June 21, 1979, to present.

PERIOD OF RECORD.--June 1979 to current year. Unpublished records available prior to October 1987 in files of the Virginia Department of Environmental Quality - Water Division.

GAGE.--Occasional measurement with chalked tape by Virginia Department of Environmental Quality - Water Division personnel. Oct. 9, 1985, to July 6, 1995, bimonthly measurement with chalked tape. Prior to Oct. 9, 1985, occasional measurement with chalked tape.

REMARKS.--Well is located in Brightseat-Upper Potomac aquifer of Cretaceous-Paleocene age. Records provided by the Virginia Department of Environmental Quality - Water Division. Water level affected by regional drawdown.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 27.83 ft below land-surface datum, Aug. 28, 1980; lowest measured, 79.47 ft below land-surface datum, Jan. 25, 2011.

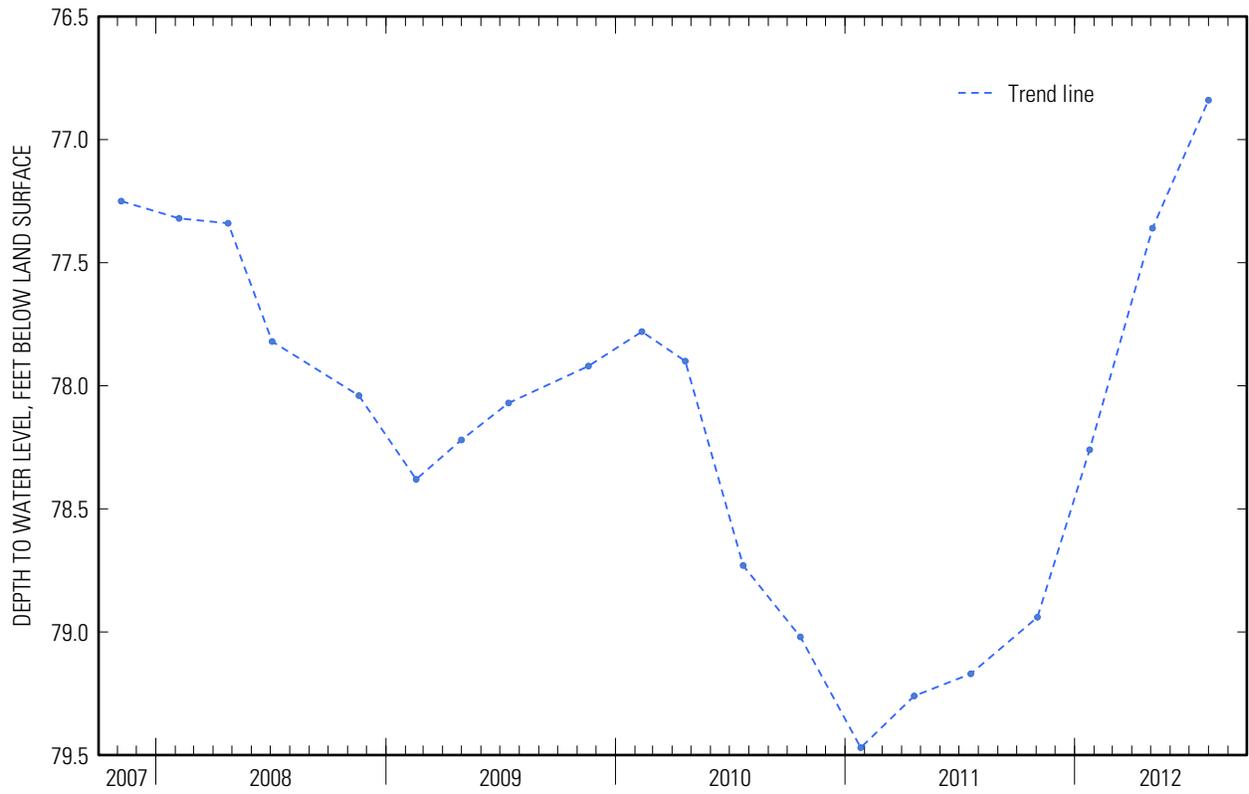
**WATER LEVELS IN FEET BELOW LAND-SURFACE DATUM
WATER YEAR OCTOBER 2011 TO SEPTEMBER 2012**

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

Date	Water level	Measure-ment method	Water-level status	Date	Water level	Measure-ment method	Water-level status
Nov 2	78.94	S	--	May 3	77.36	S	--
Jan 24	78.26	S	--	Jul 31	76.84	S	--

Water year 2012 highest: 76.84, Jul 31, 2012; lowest: 78.94, Nov 2, 2011

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WATER-QUALITY RECORDS

WATER-QUALITY DATA
WATER YEAR OCTOBER 2011 TO SEPTEMBER 2012

Part 1 of 4

[%, percent; CaCO₃, calcium carbonate; SiO₂, silicon dioxide; ft, feet; mg/L, milligrams per liter; mm Hg, millimeters of mercury; °C, degrees Celsius; μS/cm, microsiemens per centimeter; μg/L, micrograms per liter; 211CRCSU, Upper Cretaceous Series; <, less than]

Date	Sample start time	Medium name	Sample type	Geologic unit code	Barometric pressure, mm Hg (00025)	Temperature, air, °C (00020)	Depth to water level, ft below land surface (72019)	Dissolved oxygen, water, unfiltered, mg/L (00300)	Dissolved oxygen, water, unfiltered, % saturation (00301)	Flow rate, instantaneous, gallons per minute (00059)
05-16-2012	1300	Groundwater	Regular	211CRCS U	766	22.0	77.11	< 1.0	<1.0	12.8

WATER-QUALITY DATA
WATER YEAR OCTOBER 2011 TO SEPTEMBER 2012

Part 2 of 4

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Date	Sample start time	pH, water, unfiltered, field, standard units (00400)	Specific conductance, water, unfiltered, μS/cm at 25°C (00095)	Temperature, water, °C (00010)	Depth to bottom of sample interval, feet below land surface datum (72016)	Depth to top of sample interval, feet below land surface datum (72015)	Sampling depth, ft (00003)	Dissolved solids dried at 180°C, water, filtered, mg/L (70300)	Hardness, water, mg/L as CaCO ₃ (00900)	Calcium, water, filtered, mg/L (00915)
05-16-2012	1300	7.8	5,840	22.0	1,060	1,040	190	3,270	84.7	16.2

WATER-QUALITY DATA
WATER YEAR OCTOBER 2011 TO SEPTEMBER 2012

Part 3 of 4

[%, percent; CaCO₃, calcium carbonate; SiO₂, silicon dioxide; ft, feet; mg/L, milligrams per liter; mm Hg, millimeters of mercury; °C, degrees Celsius; μS/cm, microsiemens per centimeter; μg/L, micrograms per liter; 211CRCSU, Upper Cretaceous Series; <, less than]

Date	Sample start time	Magnesium, water, filtered, mg/L (00925)	Potassium, water, filtered, mg/L (00935)	Sodium, water, filtered, mg/L (00930)	Alkalinity, water, filtered, inflection-point, incremental titration method, field, mg/L as CaCO ₃ (39086)	Bicarbonate, water, filtered, inflection-point, incremental titration method, field, mg/L (00453)	Bromide, water, filtered, mg/L (71870)	Carbonate, water, filtered, inflection-point, incremental titration method, field, mg/L (00452)	Chloride, water, filtered, mg/L (00940)
05-16-2012	1300	10.7	26.9	1,110	443	534	5.74	3	1,580

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WATER-QUALITY DATA
WATER YEAR OCTOBER 2011 TO SEPTEMBER 2012

Part 4 of 4

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Date	Sample start time	Fluoride, water, filtered, mg/L (00950)	Silica, water, filtered, mg/L as SiO₂ (00955)	Sulfate, water, filtered, mg/L (00945)	Iron, water, filtered, μg/L (01046)	Manga- nese, water, filtered, μg/L (01056)
05-16-2012	1300	1.41	11.5	115	315	8.24