Water-Data Report 2012

364227076074703 Local number 61B 6 SOW 091C

Northern Atlantic Coastal Plain aquifer system
Upper Cretaceous Aquifer System

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, and 3.8 mi east of Fentress. Owner: Virginia Department of Environmental Quality.

GROUNDWATER RECORDS

WELL CHARACTERISTICS.--Depth 780 ft. Upper casing diameter 4.00 in; top of first opening 760 ft, bottom of last opening 780 ft. Drilled observation water well, diameter 3 in. from 760 to 780 ft, screened 760 to 780 ft.

DATUM.--Land-surface datum is 15 ft above National Geodetic Vertical Datum of 1929. Measuring point: TOP OF CASING, 1.20 ft above land-surface datum, Jan. 11, 1989, to present.

PERIOD OF RECORD.--July 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 Unpublished records available prior to October 1987 in files of the Virginia Department of Environmental Quality - Water Division.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 manometer or 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 manometer.

REMARKS.--Well is located in Virginia Beach aquifer of Cretaceous age. Records provided by the Virginia Department of Environmental Quality - Water Division. Water level affected by regional drawdown. Water from this well is known to contain concentrations of dissolved solids greater than 1,000 mg/L.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 6.37 ft above land-surface datum, July 26, 1979; lowest measured, 5.81 ft. below land-surface datum, May 3, 2012.

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	Measurement method	Water-level status	Date	Water level	Measurement method	Water-level status
Nov 2	5.69	S	--	May 3	5.81	S	--
Jan 24	5.65	S	--	Jul 31	5.54	S	--

Water year 2012 highest: 5.54, Jul 31, 2012; lowest: 5.81, May 3, 2012

Suggested citation: U.S. Geological Survey, 2013, Water-resources data for the United States, Water Year 2012: U.S. Geological Survey Water-Data Report WDR-US-2012, site 364227076074703, accessed at http://wdr.water.usgs.gov/wy2012/pdfs/364227076074703.2012.pdf

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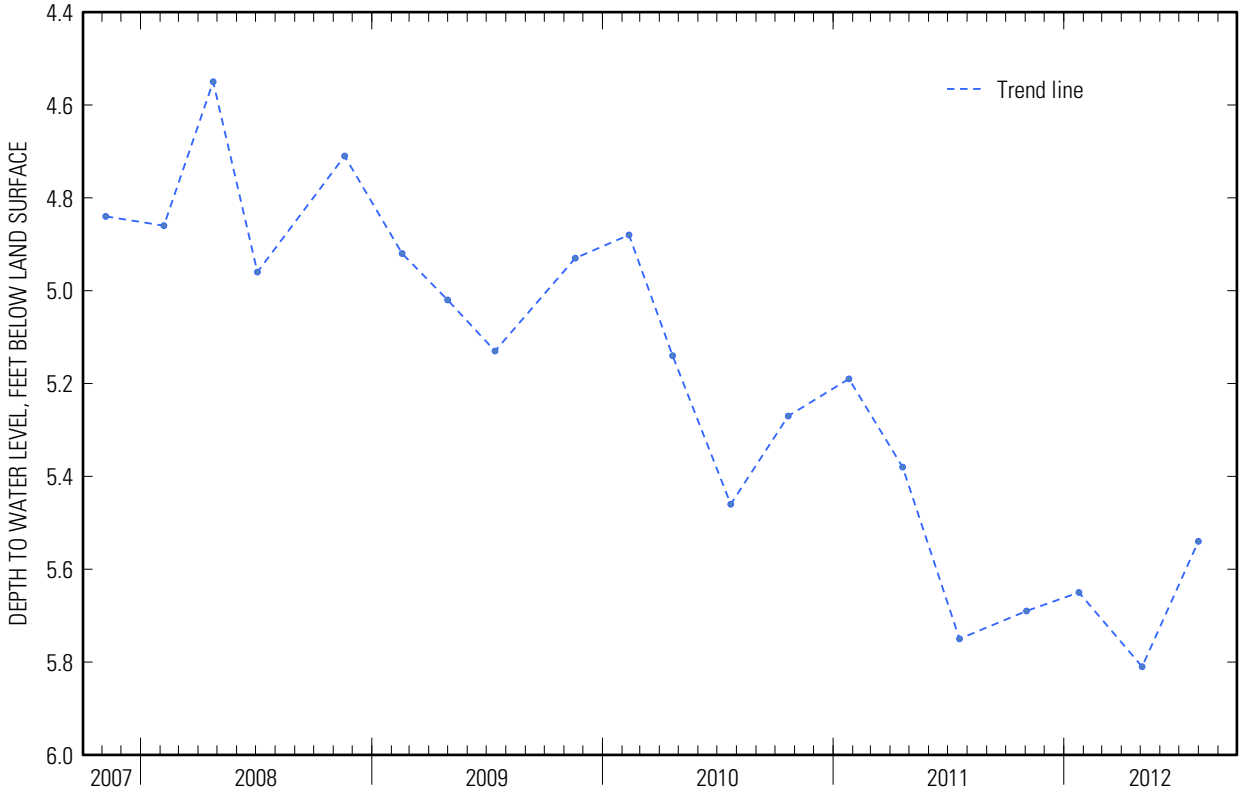

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WATER-QUALITY RECORDS

WATER-QUALITY DATA
WATER YEAR OCTOBER 2011 TO SEPTEMBER 2012

Part 1 of 4

[$CaCO_3$, calcium carbonate; SiO_2, silicon dioxide; ft, feet; mg/L, milligrams per liter; °C, degrees Celsius; µS/cm, microsiemens per centimeter; µg/L, micrograms per liter; 211CRAQU, Upper Cretaceous Aquifer System; <, less than]

Date	Sample start time	Medium name	Sample type	Geologic unit code	Depth to water level, ft below land surface (72019)	Dissolved oxygen, water, unfiltered, mg/L (00300)	Flow rate, instantaneous, gallons per minute (00059)	pH, water, unfiltered, field, standard units (00400)	Specific conductance, water, unfiltered, µS/cm at 25°C (00095)
05-15-2012	**1530**	Groundwater	Regular	211CRAQU	5.74	< 1.0	10.0	7.5	9,260

WATER-QUALITY DATA
WATER YEAR OCTOBER 2011 TO SEPTEMBER 2012

Part 2 of 4

[$CaCO_3$, calcium carbonate; SiO_2, silicon dioxide; ft, feet; mg/L, milligrams per liter; °C, degrees Celsius; µS/cm, microsiemens per centimeter; µg/L, micrograms per liter; 211CRAQU, Upper Cretaceous Aquifer System; <, less than]

Date	Sample start time	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)	Magnesium, water, filtered, mg/L (00925)	Potassium, water, filtered, mg/L (00935)
05-15-2012	**1530**	20.0	780	760	50.0	5,340	189	24.8	31.0	52.1

WATER-QUALITY DATA
WATER YEAR OCTOBER 2011 TO SEPTEMBER 2012

Part 3 of 4

[$CaCO_3$, calcium carbonate; SiO_2, silicon dioxide; ft, feet; mg/L, milligrams per liter; °C, degrees Celsius; µS/cm, microsiemens per centimeter; µg/L, micrograms per liter; 211CRAQU, Upper Cretaceous Aquifer System; <, less than]

Date	Sample start time	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)	Fluoride, water, filtered, mg/L (00950)	Silica, water, filtered, mg/L as SiO_2 (00955)
05-15-2012	**1530**	1,830	703	852	9.36	3	2,670	1.30	15.7

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WATER-QUALITY DATA
WATER YEAR OCTOBER 2011 TO SEPTEMBER 2012

Part 4 of 4

[$CaCO_3$, calcium carbonate; SiO_2, silicon dioxide; ft, feet; mg/L, milligrams per liter; °C, degrees Celsius; µS/cm, microsiemens per centimeter; µg/L, micrograms per liter; 211CRAQU, Upper Cretaceous Aquifer System; <, less than]

Date	Sample start time	Sulfate, water, filtered, mg/L (00945)	Iron, water, filtered, µg/L (01046)	Manga-nese, water, filtered, µg/L (01056)
05-15-2012	**1530**	163	158	5.46