



Water-Data Report 2009

**390923078023801 Local number 46X134**

Valley and Ridge aquifers  
Beekmantown Group  
Clarke County, VA

LOCATION.--Lat 39°09'22.91", long 78°02'38.45" referenced to North American Datum of 1983, Clarke County, VA, Hydrologic Unit 02070004, 1.72 mi southwest of intersection of U.S. Highway 7 and State Highway 632.

**GROUNDWATER RECORDS**

WELL CHARACTERISTICS.--Depth undefined. Upper casing diameter 6.00 in; top of first opening undefined, bottom of last opening undefined.

DATUM.--Land-surface datum is 650.16 ft above North American Vertical Datum of 1988. Measuring point: TOP OF STEEL CASING, 1.50 ft above land-surface datum, Oct. 22, 2002, to present.

PERIOD OF RECORD.--October 2002 to current year.

GAGE.--Occasional measurement with chalked tape by USGS personnel.

REMARKS.--Well is located in the Beekmantown Group (Undivided) of Lower and Middle Ordovician age.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 32.13 ft below land-surface datum, Apr. 16, 2003; lowest measured, 74.70 ft below land-surface datum, Oct. 18, 2007.

**WATER LEVELS IN FEET BELOW LAND-SURFACE DATUM**

**WATER YEAR OCTOBER 2008 TO SEPTEMBER 2009**

[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
Oct 21	70.49	S	--	Apr 22	61.92	S	--

Water year 2009 highest: 61.92 Apr 22, 2009; lowest: 70.49 Oct 21, 2008

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## WATER-QUALITY RECORDS

WATER-QUALITY DATA  
WATER YEAR OCTOBER 2008 TO SEPTEMBER 2009

Part 1 of 4

[Remark codes: &lt;, less than; E, estimated. Value qualifier codes: @, holding time exceeded; c, see result laboratory comment; k, counts outside acceptable range; n, below the LRL and above the LT-MDL.]

Date	Time	Medium name	Sample type	Geologic unit	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	pH, water, unfltrd field, std units (00400)	Specific conductance, wat unfltrd μS/cm @ 25 degC (00095)
May								
21...	1035	Groundwater	Regular	367BKMN	752	7.8	7.0	614
21...	1050	<i>QC sample - Groundwater</i>	<i>Replicate</i>	<i>367BKMN</i>	<i>752</i>	<i>7.8</i>	<i>7.0</i>	<i>615</i>

WATER-QUALITY DATA  
WATER YEAR OCTOBER 2008 TO SEPTEMBER 2009

Part 2 of 4

[Remark codes: &lt;, less than; E, estimated. Value qualifier codes: @, holding time exceeded; c, see result laboratory comment; k, counts outside acceptable range; n, below the LRL and above the LT-MDL.]

Date	Temperature, water, deg C (00010)	Pump or flow period prior to sampling, minutes (72004)	Calcium water, fltrd, mg/L (00915)	Magnesium, water, fltrd, mg/L (00925)	Potassium, water, fltrd, mg/L (00935)	Sodium, water, fltrd, mg/L (00930)	Alkalinity, wat flt fxd end lab, mg/L as CaCO3 (29801)	Alkalinity, wat flt inf tit field, mg/L as CaCO3 (39086)	Bicarbonate, wat flt infl pt titr., mg/L (00453)	Bromide, water, fltrd, mg/L (71870)	Carbonate, wat flt infl pt titr., field, mg/L (00452)	Chloride, water, fltrd, mg/L (00940)	Fluoride, water, fltrd, mg/L (00950)
May													
21...	13.4	51	92.1	21.1	1.26	2.11	291@c	289	E349	.02	E2	5.20c	E.06n
21...	13.4	66	94.6	21.1	1.26	2.10	290@c	289	E349	.02	E2	5.21c	E.06n

WATER-QUALITY DATA  
WATER YEAR OCTOBER 2008 TO SEPTEMBER 2009

Part 3 of 4

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Date	Silica, water, fltrd, mg/L as SiO2 (00955)	Sulfate water, fltrd, mg/L (00945)	Sulfide water, unfltrd field, mg/L (99119)	Ammonia + org-N, water, fltrd, mg/L as N (00623)	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)	Orthophosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, fltrd, mg/L as P (00666)	E coli, MI MF, water, col/ 100 mL (90901)	Total coliform, water, col/ 100 mL (90900)	Aluminum, water, fltrd, μg/L (01106)	Barium, water, fltrd, μg/L (01005)
May													
21...	9.89	10.3c	<.005	<.10	<.020	4.33	<.002	.009	E.004n	E3k	97	<4.0	23
21...	9.89	10.3c	<.005	<.10	<.020	4.30	<.002	.009	E.004n	E2k	76	<4.0	22

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**WATER-QUALITY DATA**  
**WATER YEAR OCTOBER 2008 TO SEPTEMBER 2009**

Part 4 of 4

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Date	Chrom- ium, water, fltrd, µg/L (01030)	Iron, water, fltrd, µg/L (01046)	Lead, water, fltrd, µg/L (01049)	Lithium water, fltrd, µg/L (01130)	Mangan- ese, water, fltrd, µg/L (01056)	Stront- ium, water, fltrd, µg/L (01080)	Zinc, water, fltrd, µg/L (01090)	Boron, water, fltrd, µg/L (01020)	N-15 / N-14 in nitrate water, fltrd, per mil (82690)	O-18 / O-16 ratio in nitrate wat flt per mil (63041)
	<b>May</b>									
<b>21...</b>	.27	<4	.10	E.8n	<.2	83.0	3.5	2.6	3.63	2.20
<b>21...</b>	.29	<4	.11	E.7n	<.2	81.0	4.4	2.5	3.64	2.16