Water-Data Report 2010

373213081003301 Local number Sum-0098

Mississippian aquifers
Hinton Formation

Summers County, WV

LOCATION.--Lat 37°32′13″, long 81°00′33″ referenced to North American Datum of 1927, Summers County, WV, Hydrologic Unit 05050002.

WATER-QUALITY RECORDS

REMARKS.--During the period of May 4 to June 21, 2010, nineteen groundwater wells and six springs were sampled as part of a cooperative program with the West Virginia Department of Environmental Protection-Division of Water and Waste Management in an effort to characterize groundwater quality in the state of West Virginia. These sample sites represent aquifers in a variety of environmental, topographic, and geologic settings across the state and will constitute a sentinel well network that will be sampled on a five year cycle for trend analysis of groundwater quality in West Virginia. Sample analyses may include field determinations, major ions, metals, nutrients, microbiological indicators, radon, volatile organic compounds, semi-volatile compounds, and pesticides.

Sample data for all sites in the sentinel well network are available at http://wv.usgs.gov/projects/AmbientGW in a Microsoft Excel spreadsheet and as individual Site Data Sheets.

WATER-QUALITY DATA
WATER YEAR OCTOBER 2009 TO SEPTEMBER 2010

Part 1 of 6

[%, percent; ANC, acid neutralizing capacity; CaCO3, calcium carbonate; L, milligrams per liter; MPN/100 mL, most probable number per 100 milliliters; N, nitrogen; NTRU, nephelometric turbidity ratio unit; P, phosphorus; mg/L, milligram per liter; mg/L, milligrams per liter; mm Hg, millimeters of mercury; nm, nanometers; °C, degrees Celsius; µS/cm, microsiemens per centimeter; µg/L, micrograms per liter; <, less than; >, greater than; E, estimated]

Sample date-time	Barometric pressure, mm Hg (00025)	Dissolved oxygen, water, unfiltered, mg/L (00300)	Dissolved oxygen, water, unfiltered, % saturation (00301)	pH, water, unfiltered, field, standard units (00400)	Specific conduc-tance, water, unfiltered, µS/cm at 25 °C (00095)	Tempera-ture, water, °C (00010)	Turbidity, water, unfiltered, broad band light source (400-680 nm), detectors at multiple angles including 90 +/- 30 degrees, ratiometric correction, NTRU (63676)	Pump or flow period prior to sampling, minutes (72004)	Dissolved solids dried at 180 °C, water, filtered, mg/L (70300)
05-20-2010 1000	727	< 1.0	< 10	7.9	447	13.6	.3	> 38	254

373213081003301 Local number Sum-0098—Continued

WATER-QUALITY DATA
WATER YEAR OCTOBER 2009 TO SEPTEMBER 2010

Part 2 of 6

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Sample date-time	Total solids dried at 105 °C, water, unfiltered, mg/L (00500)	Calcium, water, unfiltered, recover-able, mg/L (00916)	Magne-sium, water, unfiltered, recover-able, mg/L (00927)	Potassium, water, unfiltered, recover-able, mg/L (00937)	Sodium, water, unfiltered, recover-able, mg/L (00929)	ANC, water, unfiltered, fixed endpoint (pH 4.5) titration, laboratory, mg/L as CaCO3 (90410)	Alkalinity, water, filtered, inflection-point, incremental titration method, field, mg/L as CaCO3 (39086)	Bicarbonate, water, filtered, inflection-point, incremental titration method, field, mg/L (00453)	Bromide, water, filtered, mg/L (71870)
05-20-2010 1000	239	27.0	4.91	.41	60.6	167	161	196	.28

WATER-QUALITY DATA
WATER YEAR OCTOBER 2009 TO SEPTEMBER 2010

Part 3 of 6

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Sample date-time	Carbon dioxide, water, unfiltered, mg/L (00405)	Carbonate, water, filtered, inflection-point incremental titration method, field, mg/L (00452)	Chloride, water, filtered, mg/L (00940)	Fluoride, water, filtered, mg/L (00950)	Hydrogen ion, water, unfiltered, calculated, mg/L (00191)	Sulfate, water, filtered, mg/L (00945)	Ammonia, water, filtered, mg/L as NH4 (71846)	Ammonia, water, filtered, mg/L as N (00608)	Nitrate plus nitrite, water, filtered, mg/L as N (00631)
05-20-2010 1000	4.0	< 1	35.6	.19	.00001	14.2	E .024	E .019	< .04

373213081003301 Local number Sum-0098—Continued

WATER-QUALITY DATA
WATER YEAR OCTOBER 2009 TO SEPTEMBER 2010

Part 4 of 6

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Sample date-time	Nitrite, water, filtered, mg/L as N (00613)	Organic nitrogen, water, unfiltered, mg/L (00605)	Orthophosphate, water, filtered, mg/L (00660)	Orthophosphate, water, filtered, mg/L as P (00671)	Phosphorus, water, unfiltered, mg/L as P (00665)	Total nitrogen, water, unfiltered, analytically determined, mg/L (62855)	Escherichia coli, Defined Substrate Technology, water, MPN/100 mL (50468)	Total coliform, Defined Substrate Technology, water, MPN/100 mL (50569)	Aluminum, water, unfiltered, recoverable, µg/L (01105)
05-20-2010 1000	< .002	< .08	E .019	E .006	E .006	< .10	< 1	< 1	< 6

WATER-QUALITY DATA
WATER YEAR OCTOBER 2009 TO SEPTEMBER 2010

Part 5 of 6

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Sample date-time	Barium, water, unfiltered, recoverable, µg/L (01007)	Beryllium, water, unfiltered, recoverable, µg/L (01012)	Cadmium, water, unfiltered, µg/L (01027)	Chromium, water, unfiltered, recoverable, µg/L (01034)	Iron, water, unfiltered, recoverable, µg/L (01045)	Lead, water, unfiltered, recoverable, µg/L (01051)	Manganese, water, unfiltered, recoverable, µg/L (01055)	Mercury, water, unfiltered, recoverable, µg/L (71900)	Nickel, water, unfiltered, recoverable, µg/L (01067)
05-20-2010 1000	467	< .04	< .04	< .42	40	E .03	39.7	< .010	< .36

WATER-QUALITY DATA
WATER YEAR OCTOBER 2009 TO SEPTEMBER 2010

Part 6 of 6

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Sample date-time	Thallium, water, unfiltered, µg/L (01059)	Zinc, water, unfiltered, recoverable, µg/L (01092)	Antimony, water, unfiltered, µg/L (01097)	Arsenic, water, unfiltered, µg/L (01002)	Selenium, water, unfiltered, µg/L (01147)	Organic carbon, water, unfiltered, mg/L (00680)
05-20-2010 1000	< .12	3.6	< .4	3.8	E .06	< .6