Water-Data Report 2011

383856075102502 Local number WCV-309-GP02

Northern Atlantic Coastal Plain aquifer system
Columbia Group

Sussex County, DE

LOCATION.--Lat 38°38′56″, long 75°10′25″ referenced to North American Datum of 1983, Sussex County, DE, Hydrologic Unit 02060010.

WATER-QUALITY RECORDS

WELL CHARACTERISTICS.--Depth 18 ft. Upper casing diameter .75 in; top of first opening 14 ft, bottom of last opening 18 ft.

PERIOD OF RECORD.--April 2011.

REMARKS.--The purpose of this project was to study the effects of suburban land use on the quality of shallow groundwater in the coastal plain of Delaware. This temporary well was installed using direct push technology. This well was developed, sampled, and then removed.

WATER-QUALITY DATA
WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011

Part 1 of 5

[%, percent; $CaCO_3$, calcium carbonate; N, nitrogen; P, phosphorus; SiO_2, 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; <, less than; U, analyzed for but not detected]

Date	Sample start time	Medium name	Sample type	Barometric pressure, mm Hg (00025)	Tempera-ture, 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, instanta-neous, gallons per minute (00059)	pH, water, unfiltered, field, standard units (00400)
04-14-2011	**1600**	Groundwater	Regular	755	19.0	13.35	4.8	49	.10	5.1

WATER-QUALITY DATA
WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011

Part 2 of 5

[%, percent; $CaCO_3$, calcium carbonate; N, nitrogen; P, phosphorus; SiO_2, 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; <, less than; U, analyzed for but not detected]

Date	Sample start time	pH, water, unfiltered, laboratory, standard units (00403)	Specific conduc-tance, water, unfiltered, laboratory, µS/cm at 25 °C (90095)	Specific conduc-tance, water, unfiltered, µS/cm at 25 °C (00095)	Tempera-ture, water, °C (00010)	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)	Magne-sium, water, filtered, mg/L (00925)	Potassium, water, filtered, mg/L (00935)
04-14-2011	**1600**	5.4	123	129	15.9	83	35.3	7.36	4.12	3.49

Suggested citation: U.S. Geological Survey, 2012, Water-resources data for the United States, Water Year 2011: U.S. Geological Survey Water-Data Report WDR-US-2011, site 383856075102502, accessed at http://wdr.water.usgs.gov/wy2011/pdfs/383856075102502.2011.pdf

383856075102502 Local number WCV-309-GP02—Continued

WATER-QUALITY DATA
WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011
Part 3 of 5
[%, percent; $CaCO_3$, calcium carbonate; N, nitrogen; P, phosphorus; SiO_2, 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; <, less than; U, analyzed for but not detected]

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)	Chloride, water, filtered, mg/L (00940)	Fluoride, water, filtered, mg/L (00950)	Hydrogen sulfide, water, unfiltered, mg/L (71875)	Silica, water, filtered, mg/L as SiO_2 (00955)
04-14-2011	**1600**	4.75	5	6	.0588	10.5	< .04	U	10.3

WATER-QUALITY DATA
WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011
Part 4 of 5
[%, percent; $CaCO_3$, calcium carbonate; N, nitrogen; P, phosphorus; SiO_2, 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; <, less than; U, analyzed for but not detected]

Date	Sample start time	Sulfate, water, filtered, mg/L (00945)	Ammonia plus organic nitrogen, water, filtered, mg/L as N (00623)	Ammonia, water, filtered, mg/L as N (00608)	Nitrate plus nitrite, water, filtered, mg/L as N (00631)	Nitrate, water, filtered, mg/L as N (00618)	Nitrite, water, filtered, mg/L as N (00613)	Organic nitrogen, water, filtered, mg/L (00607)	Orthophos-phate, water, filtered, mg/L (00660)	Orthophos-phate, water, filtered, mg/L as P (00671)
04-14-2011	**1600**	25.5	.097	.0107	2.27	2.26	.00104	.09	.024	.00767

WATER-QUALITY DATA
WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011
Part 5 of 5
[%, percent; $CaCO_3$, calcium carbonate; N, nitrogen; P, phosphorus; SiO_2, 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; <, less than; U, analyzed for but not detected]

Date	Sample start time	Phos-phorus, water, filtered, mg/L as P (00666)	Total nitrogen, water, filtered, mg/L (00602)	Iron, water, filtered, µg/L (01046)	Manga-nese, water, filtered, µg/L (01056)
04-14-2011	**1600**	< .020	2.4	1,460	26.8