Water-Data Report 2011

383902075123802 Local number SC-21.06-GP02

Northern Atlantic Coastal Plain aquifer system
Columbia Group

Sussex County, DE

LOCATION.--Lat 38°39'01.8", long 75°12'37.7" referenced to North American Datum of 1983, Sussex County, DE, Hydrologic Unit 02060010.

WATER-QUALITY RECORDS

WELL CHARACTERISTICS.--Depth 50 ft. Upper casing diameter .75 in; top of first opening 46 ft, bottom of last opening 50 ft.

PERIOD OF RECORD.--May 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; 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)	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)	pH, water, unfiltered, laboratory, standard units (00403)
05-11-2011	**1045**	Groundwater	Regular	762	17.0	4.5	46	.10	5.5	5.9

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; 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	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)	Sodium, water, filtered, mg/L (00930)
05-11-2011	**1045**	188	189	16.8	122	55.6	13.9	5.07	9.29	5.24

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 383902075123802, accessed at http://wdr.water.usgs.gov/wy2011/pdfs/383902075123802.2011.pdf

383902075123802 Local number SC-21.06-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; 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	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)	Sulfate, water, filtered, mg/L (00945)
05-11-2011	**1045**	8	9	.0173	12.2	< .04	U	15.0	30.7

WATER-QUALITY DATA
WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011
Part 4 of 5
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Date	Sample start time	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)	Phos-phorus, water, filtered, mg/L as P (00666)
05-11-2011	**1045**	.095	.0392	6.47	6.47	.0068	.06	.037	.0121	< .020

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; 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	Total nitrogen, water, filtered, mg/L (00602)	Iron, water, filtered, µg/L (01046)	Manga-nese, water, filtered, µg/L (01056)
05-11-2011	**1045**	6.6	1,210	77.0