USGS
science for a changing world

Water-Data Report 2011

254542080145901 Local number G -3888A

Biscayne aquifer
Biscayne Limestone Aquifer

Miami-Dade County, FL

LOCATION.--Lat 25°45'42.7", long 80°14'59.8" referenced to North American Datum of 1983, in SW ¼ NE ¼ NW ¼ sec.9, T.54 S., R.41 E., Miami-Dade County, FL, Hydrologic Unit 03090202, near the east end of the SW 11th Street median, at the intersection of SW 11th Street and SW 33rd Avenue, 1.8 mi north of U.S. Highway 1 (South Dixie Highway).

WATER-QUALITY RECORDS

WELL CHARACTERISTICS.-- Drilled, observation, water-table well, depth 143.5 ft, diameter 2 in., cased to 103.5 ft, screened 103.5 to 113.5 ft, cased 113.5 to 143.5 ft. See REMARKS.

DATUM.--Land-surface datum is 14.14 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of 2-in. diameter casing, 13.67 ft above National Geodetic Vertical Datum of 1929, Dec. 10, 2009, to present.

PERIOD OF RECORD.--January 2010 to October 2010 (quarterly), January 2011 to current year. See REMARKS.

INSTRUMENTATION.--Monthly measurement with chalked steel tape or electric tape. Annual profile with electromagnetic induction logger.

REMARKS.--Well is also used for salinity monitoring, including an annual induction log, starting in April 2010. Induction logs are used to assess the movement of the fresh-water/salt-water interface in ground water. See RECORDS OF BULK CONDUCTIVITY. The well appears to be obstructed at a depth of 136.2 ft. Because the obstruction is below the screened interval of the well, the well is considered to remain in communication with the aquifer.

In order to display changes in bulk conductivity between induction logs collected over the period of record, each log has been adjusted to a median conductivity value at a depth that corresponds to a stable lithologic feature which produces a consistent conductivity profile, based on data collected in 2010. These adjustments compensate for small variations in equipment response resulting from variations in environmental conditions and/or probe calibrations. For this station, induction logs are adjusted to a mean response of 11.5 mS/m at a depth of 9.5 ft below land surface. The resulting plot of logs collected from 2010 to the current year is provided in this report. The original and corrected records of bulk conductivity, in millisiemens per meter, are available in files of the U.S. Geological Survey.

EXTREMES FOR PERIOD OF RECORD.--
WATER-LEVEL ELEVATION: Highest water level measured, 2.67 ft NGVD, Apr. 20, 2010; lowest, 0.96 ft NGVD, June 8, 2011.
CHLORIDE CONCENTRATION: Highest measured chloride concentration, 5,300 mg/L, June 8, 2011; lowest, 4,800 mg/L, Apr. 20, 2010.

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 254542080145901, accessed at http://wdr.water.usgs.gov/wy2011/pdfs/254542080145901.2011.pdf

254542080145901 Local number G -3888A—Continued

WATER-QUALITY DATA
WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011

[NGVD, National Geodetic Vertical Datum; ft, feet; mg/L, milligrams per liter; °C, degrees Celsius; µS/cm, microsiemens per centimeter; --, no data]

Date	Sample start time	Specific conduc-tance, water, unfiltered, µS/cm at 25 °C (00095)	Elevation above NGVD 1929, ft (72020)	Chloride, water, unfiltered, mg/L (99220)
October 21, 2010	**1056**	--	2.36	--
January 26, 2011	**1355**	14,700	1.99	5,000
February 18, 2011	**1221**	--	1.36	--
February 25, 2011	**1613**	15,400	1.28	4,900
March 23, 2011	**1312**	15,600	1.24	5,000
April 22, 2011	**1307**	15,600	1.50	5,200
May 23, 2011	**1127**	15,800	1.38	5,100
June 8, 2011	**1409**	15,600	.96	5,300
July 14, 2011	**0958**	15,700	1.97	5,200
August 17, 2011	**1335**	15,400	2.44	5,000
September 13, 2011	**1346**	15,500	2.46	4,900

254542080145901 Local number G -3888A—Continued

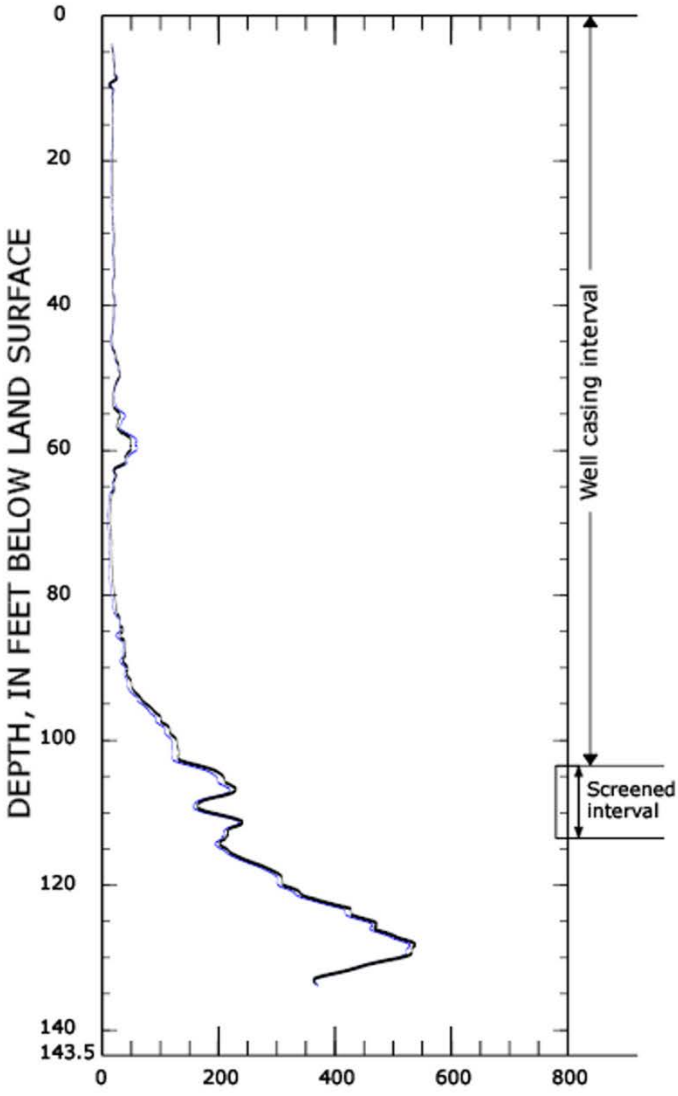
USGS
science for a changing world

WY 2011 Induction log results

Station: USGS 254542080145901

Local name: G -3888A

BULK CONDUCTIVITY



BULK CONDUCTIVITY, IN MILLISIEMENS PER METER

INDUCTION LOG DATES, ASSOCIATED CHLORIDE SAMPLE DATES

Induction log date	Chloride sample date	Dissolved chloride concentration, in mg/L
Apr. 22, 2011	Apr. 22, 2011	5,200
Apr. 20, 2010	Apr. 20, 2010	4,800