

Water-Data Report 2012

261740080054101 Local number G 2893. USGS Observation Well near Deerfield Beach, FL.

Biscayne aquifer
Biscayne Limestone Aquifer

Broward County, FL

LOCATION.--Lat 26°17'41.22", long 80°05'36.83" referenced to North American Datum of 1983, in SW ¼ NW ¼ SE ¼ sec.7, T.48 S., R.43 E., Broward County, FL, Hydrologic Unit 03090202, on NE 52nd Street, about 100 yds east of U.S. Highway 1.

WATER-QUALITY RECORDS

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 2 in., depth 176.5 ft, cased to 166.5 ft.

DATUM.--Land-surface datum is 7.80 ft above National Geodetic Vertical Datum of 1929. Measuring point: From November 2000 to present, measuring point has been top of casing, 7.77 ft above National Geodetic Vertical Datum of 1929.

PERIOD OF RECORD.--November 2000 to January 2009 (quarterly), May 2009 to current year. See REMARKS.

INSTRUMENTATION.--Annual measurement with chalked tape or electric tape. See REMARKS.

REMARKS.--Well G -2893 is also used for annual salinity monitoring. Water-level measurements and salinity monitoring began in November 2000. Annual induction logs were collected from May 2009 to May 2011. Induction logs are used to assess the movement of the fresh-water/salt-water interface in ground water. See http://www.sflorida.er.usgs.gov/edl_data/text/induction.html#induction >RECORDS OF BULK CONDUCTIVITY.

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 from 2009 to 2011 years. 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 currently adjusted to a mean response of 23 mS/m at a depth of 48.2 ft below land surface. The resulting plots of logs collected from 2009 to the 2011 years were provided in the annual reports. The original and adjusted 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, 6.65 ft NGVD, Sept. 27, 2007; lowest, 3.04 ft NGVD, Apr. 18, 2001.

CHLORIDE CONCENTRATION: Highest measured chloride concentration, 440 mg/L, Apr. 20, 2012; lowest, 20 mg/L, Jan. 9, 2002.

WATER-QUALITY DATA

WATER YEAR OCTOBER 2011 TO SEPTEMBER 2012

[NGVD, National Geodetic Vertical Datum; ft, feet; mg/L, milligrams per liter; °C, degrees Celsius; µS/cm, microsiemens per centimeter]

Date	Sample start time	Specific conductance, water, unfiltered, µS/cm at 25°C (00095)	Elevation above NGVD 1929, ft (72020)	Chloride, water, unfiltered, mg/L (99220)
April 20, 2012	0920	1,648	3.87	440