

Water-Data Report 2011

254341080174001 Local number G -3606

Biscayne aquifer
Biscayne Limestone Aquifer

Miami-Dade County, FL

LOCATION.--Lat 25°43'41.7", long 80°17'34.5" referenced to North American Datum of 1983, in NW ¼ SW ¼ NE ¼ sec.24, T.54 S., R.40 E., Miami-Dade County, FL, Hydrologic Unit 03090202, inside the traffic circle island at the intersection of SW 46th Street and SW 60th Place.

WATER-QUALITY RECORDS

WELL CHARACTERISTICS.--Depth 120 ft. Upper casing diameter 2 in.; top of first opening 115 ft, bottom of last opening 120 ft.

DATUM.--Land-surface datum is 13.4 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 13.39 ft above National Geodetic Vertical Datum of 1929, July 11, 1995, to present. Prior to July 2000, top of casing was considered to be 13 ft NGVD, based on a topographic map elevation. See REMARKS.

PERIOD OF RECORD.--October 1996 to current year. See REMARKS.

INSTRUMENTATION.--Quarterly measurement by chalked steel tape or electric tape. Annual profile with electromagnetic induction logger. See REMARKS.

REMARKS.--This station is also used for quarterly salinity monitoring, including an annual induction log. Salinity monitoring began in July 1995. Water-level measurements began in October 1996. Annual induction logging began April 2011; logs from 1995 and 1996 were collected as part of a prior saltwater intrusion monitoring project. Induction logs are used to assess movement of the fresh-water/salt-water interface in ground water. See [RECORDS OF BULK CONDUCTIVITY](#). The top of casing measuring point elevation was surveyed in 2000. Water-level depths collected prior to 2000 have been recomputed as water-level elevations and are in files of the U. S. Geological Survey. See DATUM.

In WY2008, the instrument used to calibrate the induction logging probe was re-examined, and found to have been constructed to a different specification than originally communicated by the manufacturer. A 1.0 multiplier has been applied to the data, to the current year. The depths of any hydrologic or lithologic features seen in the published logs are not affected by this correction.

In order to display changes in bulk conductivity between induction logs collected over the period of record, each log has been adjusted to a mean conductivity value at a depth that corresponds to a stable lithologic feature which produces a consistent conductivity profile, based on data collected from 1995 to 2011. 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 11.0 mS/m at a depth of 72.1 ft below land surface. The resulting plot of logs collected from 1995 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, 5.98 ft NGVD, Oct. 20, 1999; lowest, 1.75 ft NGVD, May 6, 2009.

CHLORIDE CONCENTRATION: Highest measured chloride concentration, 52 mg/L, July 31, 1998; lowest, 28 mg/L, July 11, 1995.

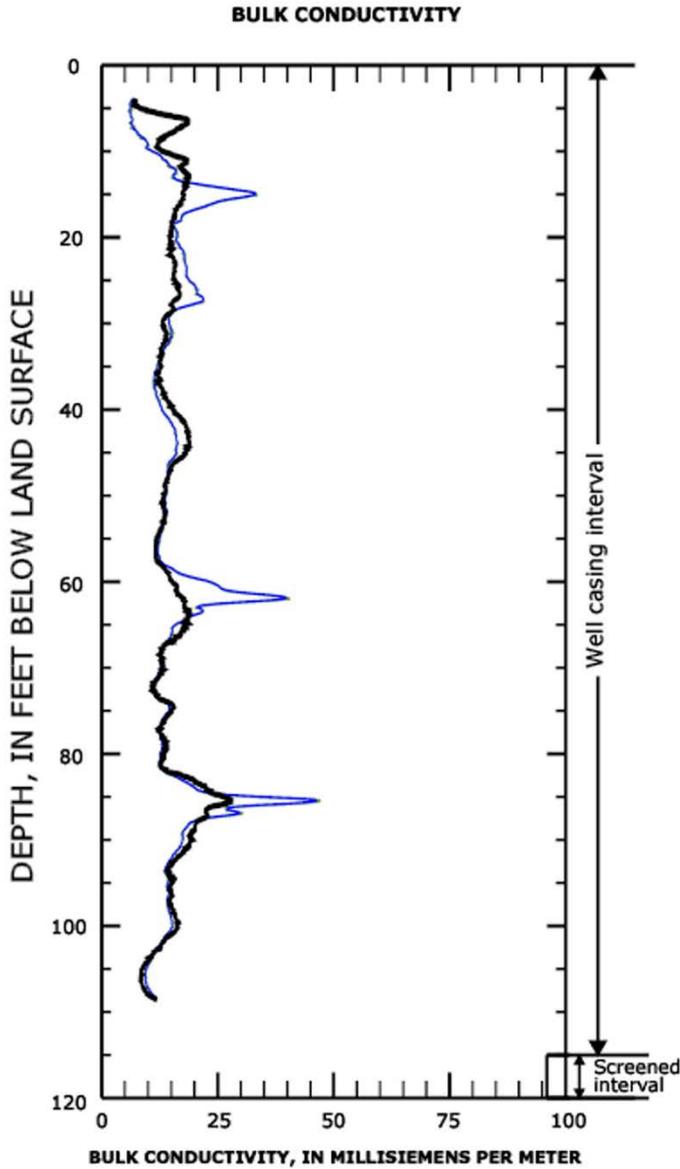
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WATER-QUALITY DATA**WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011**[NGVD, National Geodetic Vertical Datum; ft, feet; mg/L, milligrams per liter; °C, degrees Celsius; μ S/cm, microsiemens per centimeter]

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 8, 2010	1449	613	3.76	44
January 26, 2011	1320	591	2.57	40
April 22, 2011	1120	618	2.26	42
July 14, 2011	0923	611	2.72	42



WY 2011 Induction log results
Station: USGS 254341080174001
Local name: G -3606



**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	42
Jan. 16, 1996	Jan. 12, 1996	32
July 11, 1995	July 11, 1995	28