

Water-Data Report 2006

**260325080113901 Local number G 2900. USGS Observation Well near Fort Lauderdale, FL.**

Biscayne aquifer  
Biscayne Limestone Aquifer  
Broward County, FL

LOCATION.--Lat 26°03'28", long 80°11'38" referenced to North American Datum of 1983, in SE ¼ NW ¼ sec.31, T.50 S., R.42 E., Broward County, FL, Hydrologic Unit 03090202, 29 ft south of a storm drain on the east side of SW 35th Terrace, 0.45 mi south of Griffin Road.

**GROUND-WATER RECORDS**

WELL CHARACTERISTICS.--Depth 114.5 ft. Upper casing diameter 2 in., top of first opening 104.5 ft, bottom of last opening 114.5 ft.

DATUM.--Land-surface datum is 5.98 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of base, 9.44 ft above National Geodetic Vertical Datum of 1929, Feb. 15, 2001, to present. Prior to February 15, 2001, measuring point was top of casing 5.98 ft above NGVD. See REMARKS.

PERIOD OF RECORD.--Water Level Measurements: October 2000 to March 2001 (monthly), March 2001 to current year. Induction Logging: April 2000 to current year (annually). Specific Conductance: March 2001 to current year. Chloride concentration: October 2000 to current year (monthly).

GAGE.--Satellite data collection platform with pressure transducer and conductivity probe.

REMARKS.--Well is also used for salinity monitoring, including an annual induction log. Induction logs are used to assess the movement of fresh-water/salt-water interface in ground water. See [RECORDS OF BULK CONDUCTIVITY](#). A calibration error was found to have affected some of the historical bulk conductivity logs collected by an induction logger. Bulk conductivity logs prior to the 2002 water year had been calibrated to a standard of 1,301 mS/m. For these calibrations, an internal setting limited the probe response to 1,000 mS/m. Data for the affected years was corrected by applying a 0.7686 multiplier. Station was reconstructed in February 2001, for the collection of continuous water-level, temperature and specific conductance data. Because of the failure of a conductance probe element, specific conductance data, originally collected October 2004 to February 2005, has been removed from the station data record. Temperature records are available in the files of the U.S. Geological Survey.

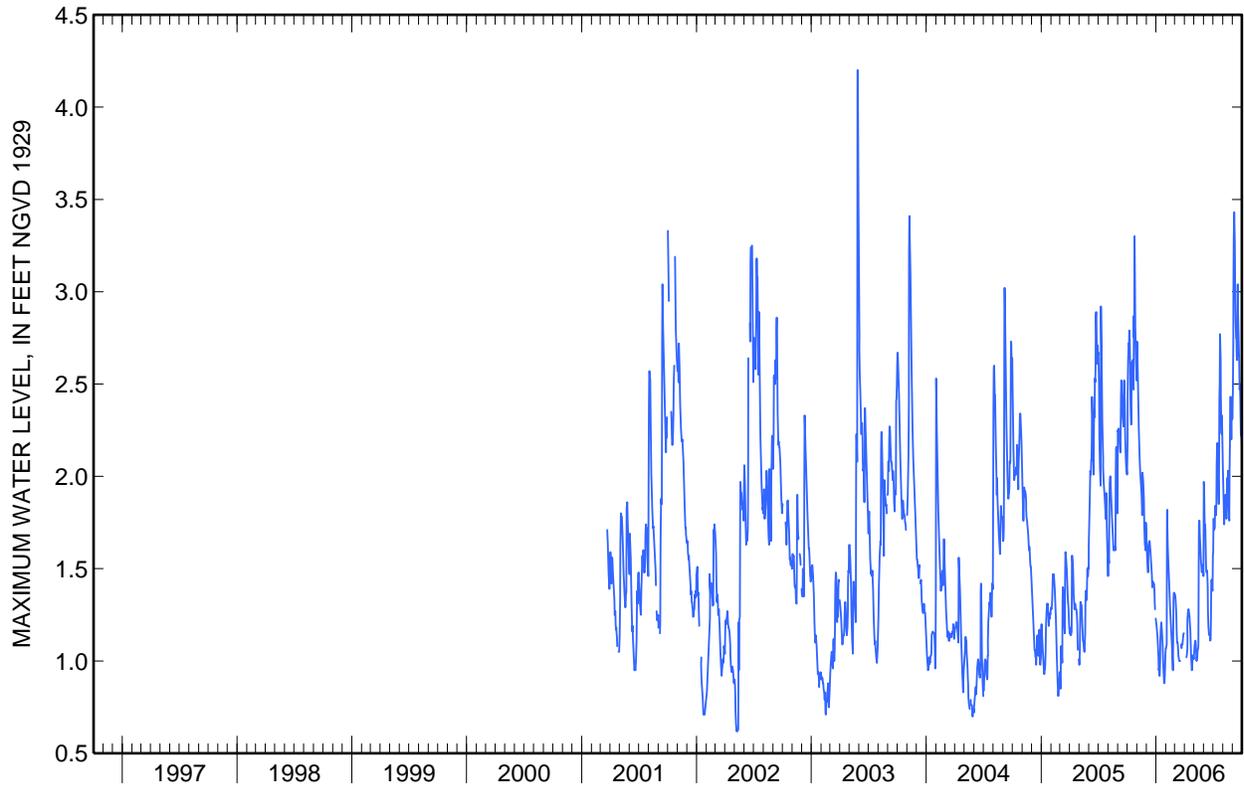
EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 4.20 ft NGVD, May 27, 28, 2003; lowest, 0.62 ft NGVD, May 8, 10, 11, 2002. Highest daily mean specific conductance, 11,370 microsiemens, July 12, 2006; lowest, 7,718 microsiemens, Oct. 27, 2001.

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**ELEVATION ABOVE NGVD 1929, FEET**  
**WATER YEAR OCTOBER 2005 TO SEPTEMBER 2006**  
**DAILY MAXIMUM VALUES**

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	2.10	2.73	1.67	1.20	1.07	1.36	---	1.04	1.97	1.59	2.05	2.33
2	2.44	2.70	1.60	1.18	1.08	1.36	---	1.07	1.94	1.77	1.96	2.49
3	2.58	2.56	1.56	1.17	1.09	1.34	---	1.09	1.82	1.77	1.88	2.87
4	2.68	2.45	1.54	1.13	1.81	1.32	---	1.10	1.72	1.71	1.78	3.05
5	2.72	2.41	1.51	1.12	1.82	1.28	---	1.11	1.74	1.72	1.74	3.37
6	2.71	2.31	1.48	1.11	1.70	1.22	---	1.10	1.71	1.72	1.84	3.43
7	2.79	2.22	1.56	1.05	1.58	1.16	1.02	1.07	1.61	1.84	1.79	3.39
8	2.77	2.14	1.63	0.98	1.52	1.10	1.03	1.03	1.52	1.82	1.88	3.14
9	2.68	2.10	1.64	0.95	1.46	1.10	1.04	1.00	1.48	1.82	1.90	3.05
10	2.54	2.04	1.65	0.96	1.44	1.10	1.13	1.02	---	1.79	1.90	2.89
11	2.40	2.02	1.65	0.92	1.43	1.07	1.25	1.02	1.49	1.85	1.83	2.76
12	2.33	2.00	1.64	0.92	1.40	1.04	1.26	1.06	1.49	2.07	1.77	2.75
13	2.28	1.96	1.59	0.97	1.33	1.02	1.28	1.06	1.44	2.14	1.83	2.75
14	2.29	1.93	1.57	1.13	1.27	1.01	1.28	1.07	1.36	2.18	1.99	2.65
15	2.60	1.92	1.56	1.15	1.23	1.00	1.27	1.09	1.24	2.12	1.98	2.63
16	2.62	1.86	1.54	1.19	1.20	1.00	1.25	1.68	1.19	2.03	1.97	2.74
17	2.58	1.79	1.50	1.21	1.17	1.00	1.24	1.76	1.15	1.96	2.03	3.04
18	2.54	2.02	1.44	1.20	1.14	1.00	1.19	1.76	1.14	1.92	1.94	2.88
19	2.63	2.01	1.40	1.14	1.10	---	1.17	1.73	1.14	1.85	1.83	2.79
20	2.59	1.99	1.40	1.12	1.06	---	1.13	1.66	1.15	2.07	1.79	2.76
21	2.47	1.96	1.43	1.11	1.01	1.09	1.07	1.60	1.14	2.43	1.76	2.66
22	2.87	1.89	1.42	1.06	0.97	1.07	1.01	1.57	1.11	2.50	2.05	2.56
23	2.75	1.82	1.41	1.01	0.95	1.09	0.98	1.56	1.12	2.77	2.16	2.47
24	3.30	1.75	1.42	0.93	1.16	1.09	0.95	1.53	1.23	2.76	2.43	2.50
25	3.10	1.71	1.41	0.90	1.34	1.09	0.97	1.50	1.43	2.56	2.43	2.43
26	2.89	1.63	1.38	0.88	1.37	1.10	1.01	1.48	1.44	2.38	2.43	2.31
27	2.76	1.63	1.31	0.88	1.37	1.13	1.03	1.52	1.43	2.28	2.31	2.22
28	2.67	1.60	1.28	0.92	1.36	1.14	1.03	1.52	1.39	2.23	2.20	2.29
29	2.60	1.75	---	0.97	---	1.15	1.02	1.51	1.38	2.33	2.33	2.22
30	2.56	1.73	1.23	1.04	---	1.15	1.01	1.49	1.57	2.24	2.41	2.16
31	2.52	---	1.22	1.07	---	---	---	1.46	---	2.13	2.31	---
<b>Total</b>	81.36	60.63	---	32.57	36.43	---	---	41.26	---	64.35	62.50	81.58
<b>Mean</b>	2.62	2.02	---	1.05	1.30	---	---	1.33	---	2.08	2.02	2.72
<b>Max</b>	3.30	2.73	---	1.21	1.82	---	---	1.76	---	2.77	2.43	3.43
<b>Min</b>	2.10	1.60	---	0.88	0.95	---	---	1.00	---	1.59	1.74	2.16

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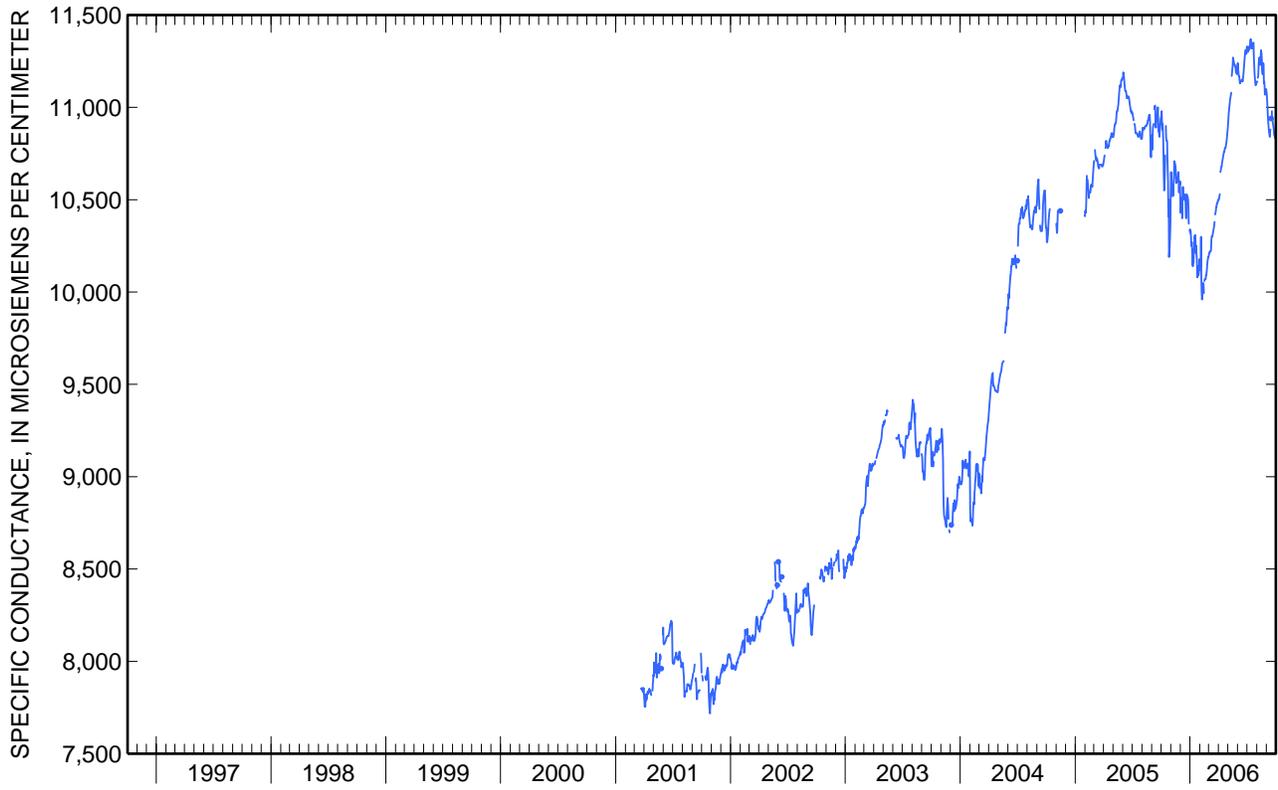
260325080113901 Local number G 2900. USGS Observation Well near Fort Lauderdale, FL.—Continued

## WATER-QUALITY RECORDS

**SPECIFIC CONDUCTANCE, WATER, UNFILTERED, MICROSIEMENS PER CENTIMETER AT 25 DEGREES CELSIUS**  
**WATER YEAR OCTOBER 2005 TO SEPTEMBER 2006**  
**DAILY MEAN VALUES**

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	10,960	10,650	10,430	10,320	10,120	10,200	10,500	10,910	11,240	11,330	11,140	11,060
2	10,980	10,600	10,450	10,330	10,130	10,210	10,500	10,950	11,210	11,320	11,140	11,050
3	10,920	10,520	10,480	10,300	10,160	10,210	10,510	10,970	11,190	11,300	---	11,040
4	10,880	10,580	10,510	10,250	10,300	10,220	10,520	10,990	11,170	11,310	11,160	10,980
5	10,910	10,580	10,480	10,270	10,080	10,220	10,530	11,010	11,170	11,320	11,170	10,960
6	10,860	10,560	10,400	10,270	10,000	10,220	---	11,020	11,160	11,310	11,210	10,920
7	10,820	10,520	10,540	10,200	9,960	10,220	10,650	11,030	11,140	11,330	11,250	10,890
8	10,700	10,550	10,570	10,150	9,972	10,230	10,660	11,050	11,130	11,330	11,270	10,880
9	10,610	10,600	10,550	10,140	9,999	10,280	10,670	11,060	11,140	11,320	11,270	10,860
10	10,550	10,620	10,520	10,190	10,040	10,300	10,680	11,070	---	11,340	11,270	10,850
11	10,590	10,710	10,510	10,160	10,050	10,300	10,680	11,080	---	11,360	11,230	10,840
12	10,650	10,700	10,520	10,230	10,040	10,300	10,700	---	11,140	11,370	11,250	10,870
13	10,740	10,700	10,500	10,240	9,995	10,310	10,710	11,170	11,150	11,340	11,280	10,880
14	---	10,690	10,520	10,300	---	10,320	10,720	11,190	11,150	11,320	11,310	---
15	10,900	10,680	10,530	10,290	10,060	10,330	10,730	11,210	11,150	11,330	11,300	10,940
16	10,840	10,650	10,520	10,310	10,070	10,340	10,740	11,230	11,140	11,330	11,270	---
17	10,820	10,590	10,480	10,300	10,070	10,350	10,750	11,270	11,150	11,320	11,240	10,980
18	10,820	10,620	10,410	10,270	10,070	10,360	10,760	11,260	11,160	11,340	11,190	10,950
19	10,820	10,600	10,400	10,210	10,070	10,380	10,760	11,250	11,190	11,350	11,180	10,930
20	10,730	10,620	10,490	10,250	10,090	---	10,770	11,240	11,220	11,350	11,230	10,920
21	10,660	10,610	10,530	10,200	10,090	10,420	10,780	11,230	11,240	11,350	11,240	10,910
22	10,600	10,600	---	10,180	10,110	10,430	10,780	11,230	11,250	11,280	11,230	10,900
23	10,410	10,640	10,520	10,080	10,130	10,440	10,780	11,230	11,270	11,210	11,130	10,890
24	10,500	10,650	10,510	10,140	10,140	10,460	10,790	11,220	11,290	11,180	11,140	10,870
25	10,190	10,610	10,500	10,120	10,170	10,460	10,800	11,220	11,310	11,170	11,120	10,850
26	10,230	10,540	10,460	10,100	10,180	10,470	10,810	11,190	11,310	11,150	11,070	10,850
27	10,240	10,600	10,370	10,090	10,190	10,480	10,830	11,190	11,290	11,120	11,070	10,840
28	10,260	10,580	---	10,100	10,190	10,480	10,850	11,190	11,290	11,120	11,080	10,840
29	10,300	10,600	---	10,140	---	10,490	10,870	11,180	11,320	11,130	11,090	10,830
30	10,420	10,490	10,330	10,160	---	10,490	10,880	11,200	11,330	11,130	11,100	10,850
31	10,540	---	10,340	10,180	---	10,500	---	11,230	---	11,140	11,070	---
<b>Total</b>	---	318,260	---	316,470	---	---	---	---	---	349,600	---	---
<b>Mean</b>	---	10,610	---	10,210	---	---	---	---	---	11,280	---	---
<b>Max</b>	---	10,710	---	10,330	---	---	---	---	---	11,370	---	---
<b>Min</b>	---	10,490	---	10,080	---	---	---	---	---	11,120	---	---

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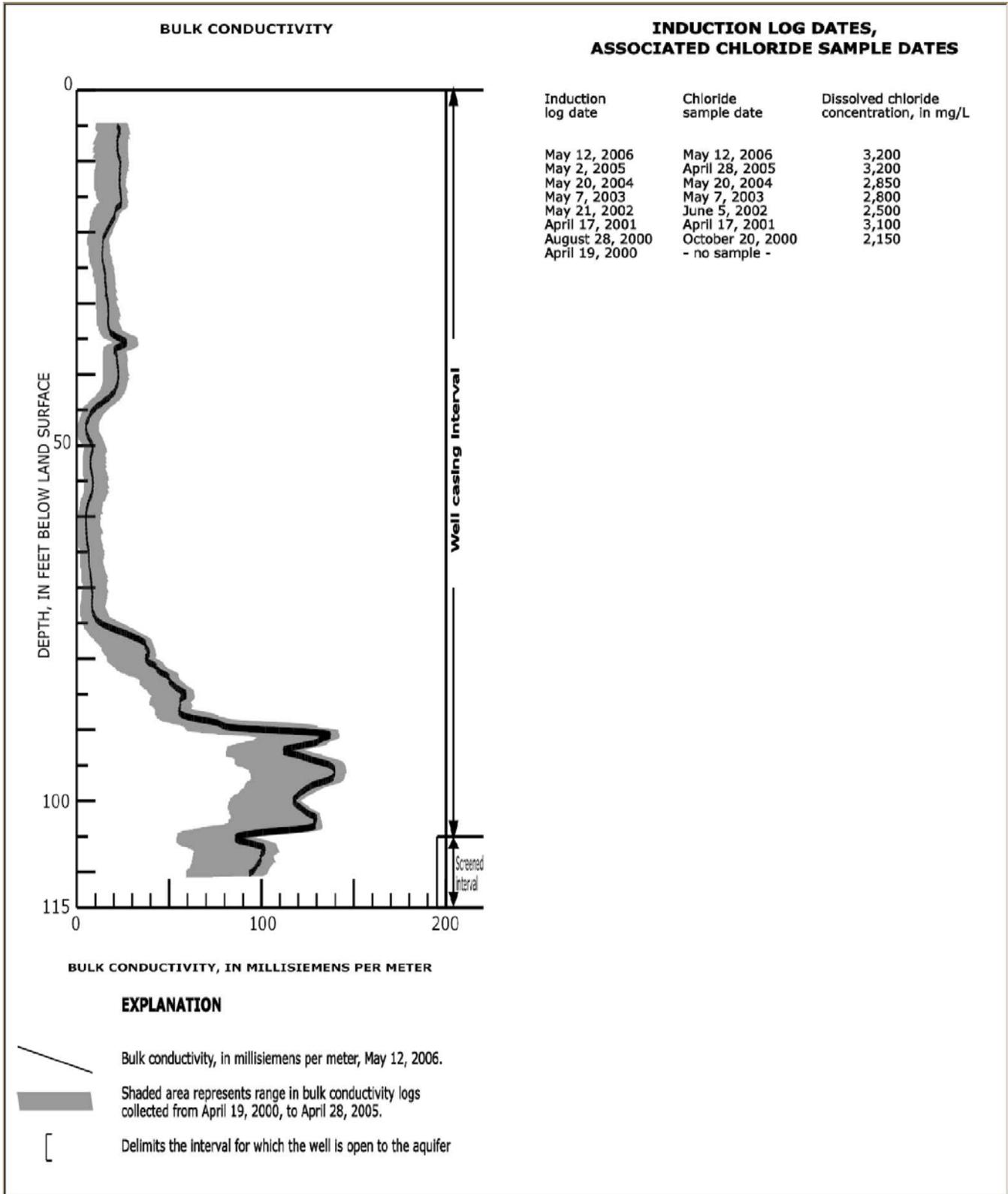
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**WATER-QUALITY DATA  
WATER YEAR OCTOBER 2005 TO  
SEPTEMBER 2006**

<b>Date</b>	<b>Time</b>	<b>Specif. conduc- tance, wat unf <math>\mu</math>S/cm 25 degC (00095)</b>	<b>Chlor- ide, water, fltrd, mg/L (00940)</b>
<b>Oct</b>			
<b>14...</b>	0840	9,160	2,750
<b>Nov</b>			
<b>10...</b>	0834	8,870	2,650
<b>Dec</b>			
<b>22...</b>	0843	9,020	2,750
<b>Jan</b>			
<b>10...</b>	0737	9,130	2,750
<b>Feb</b>			
<b>14...</b>	0852	9,180	2,900
<b>Mar</b>			
<b>08...</b>	0946	9,710	2,950
<b>Apr</b>			
<b>06...</b>	0933	10,090	3,100
<b>May</b>			
<b>12...</b>	0817	10,620	3,200
<b>Jun</b>			
<b>07...</b>	0939	10,590	3,100
<b>Jul</b>			
<b>07...</b>	0910	10,430	3,200
<b>Aug</b>			
<b>03...</b>	0926	9,430	2,850
<b>Sep</b>			
<b>14...</b>	1123	8,770	2,600

260325080113901 Local number G 2900. USGS Observation Well near Fort Lauderdale, FL.—Continued

**INDUCTION LOG**



**260325080113901 Local number G 2900. USGS Observation Well near Fort Lauderdale, FL.—Continued****Lithologic log for Well 260325080113901. Local Number G -2900**

Depth interval (ft below land surface)	Lithologic description
0 - 10	Quartz sand, tan to black, fine to very fine grained, grains are frosted, sub-angular to sub-rounded, and coated with organic matter; organic matter
10 - 15	Quartz sand, tan to brown, well sorted, fine to very fine grained, grains are frosted and sub-angular to sub-rounded
15 - 20	Quartz sand, tan to brown, fine to very fine grained, grains are frosted and sub-rounded, with concretions and shell fragments
20-25	Quartz sand, tan, fine to very fine grained, frosted grains, with concretions and shell fragments
25-35	Quartz sand, tan to yellow, fine to very fine grained, grains are frosted and sub-rounded
35-40	Quartz sand, tan to brown, fine to very fine grained, grains are clear to frosted and sub-angular to sub-rounded
40-45	Quartz sand, tan, fine to very fine grained, grains are clear and sub-angular to sub-rounded, with traces of heavy minerals
45-50	Quartz sand, tan, fine to very fine grained, grains are clear and sub-angular to sub-rounded, with traces of heavy minerals; limestone concretions
50-55	Quartz sand, tan, well sorted, fine to very fine grained, grains are clear and sub-angular to sub-rounded with concretions, shell fragments and some heavy minerals
55-70	Quartz sand, tan, well sorted, fine to very fine grained, grains are clear and sub-angular to sub-rounded, with heavy minerals; sandy limestone concretions with shell fragments and heavy minerals
70-75	Sand, white, fine to very fine grained, grains are sub-angular; limestone concretions with shell fragments
75-85	Quartz sand, tan, very fine to fine grained, grains are clear and sub-angular to sub-rounded, with heavy minerals and shell fragments; sand with concretions with calcite cement.
85-95	Quartz sand, white to gray, very fine grained, grains are sub-angular to sub-rounded, with concretions, shell fragments, and heavy minerals
95-100	Sand, gray, very fine grained, grains are clear and sub-angular to sub-rounded, with shell fragments, heavy minerals, and concretions
100-115	Quartz sand, tan to gray, fine to very fine grained, grains are clear and sub-angular to sub-rounded, with shell fragments, concretions, and heavy minerals

Compiled from the original lithologic description by Hydrologic Associates USA Inc.