

**DOWN  
Construction  
Preliminary Data  
St. Johns Water Control District**

**Aquifer System Monitor Wells:  
Surficial IR-0902  
Intermediate IR-0947  
Floridan IR-0954**

**SJRWMD Program No. 31-58200**



**Division of Ground Water Programs,  
Department of Resource Management  
St. Johns River Water Management District  
Palatka, Florida**

**May 11, 2001**

*All data, figures, tables and information are provisional and generated for the Division of Ground Water Program's use.*

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**DRAFT**

## **General Information**

**Site:** St. Johns Water Control District

**Service Request:** Bill Osburn Division of Ground Water Programs

**Purpose:** District Observation Well Network

**Data Collection:** Rob Brooks, Alan Story, Ronald Wilkinson

**Work:**

**Monitor Well Construction**

Huss Drilling Inc.  
SJRWMD

**Geophysical Logging:**

SJRWMD

**Report:** Robert Brooks

**Notes:**

**IR-0902** (Surficial)

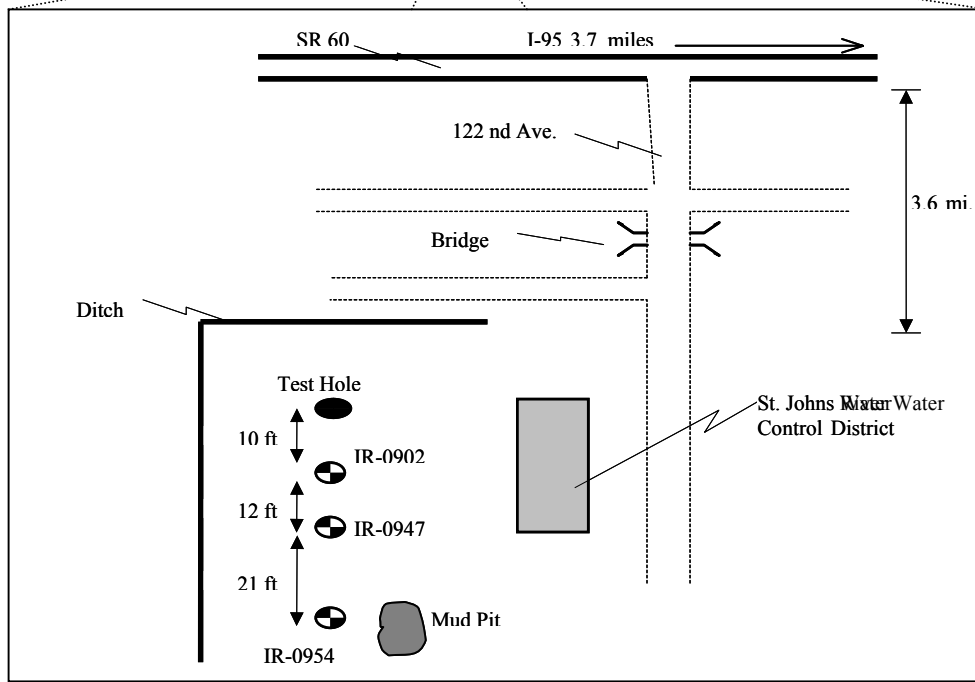
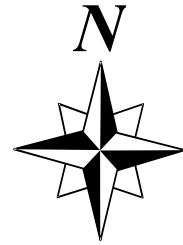
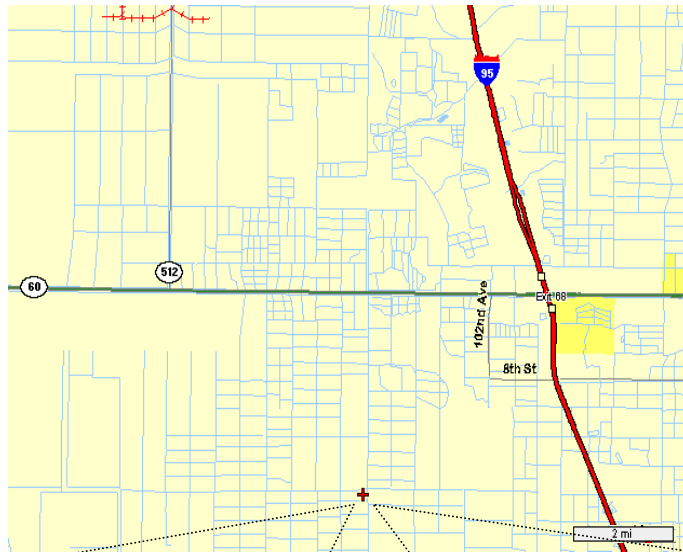
6/04/96, Well completed; constructed using mud rotary drilling method.

**IR-0947** (Intermediate)

2/27/97, Well completed; constructed using mud rotary drilling method.

**IR-0954** (Floridan)

7/16/97, Well completed; constructed using both mud rotary and reverse air drilling methods.



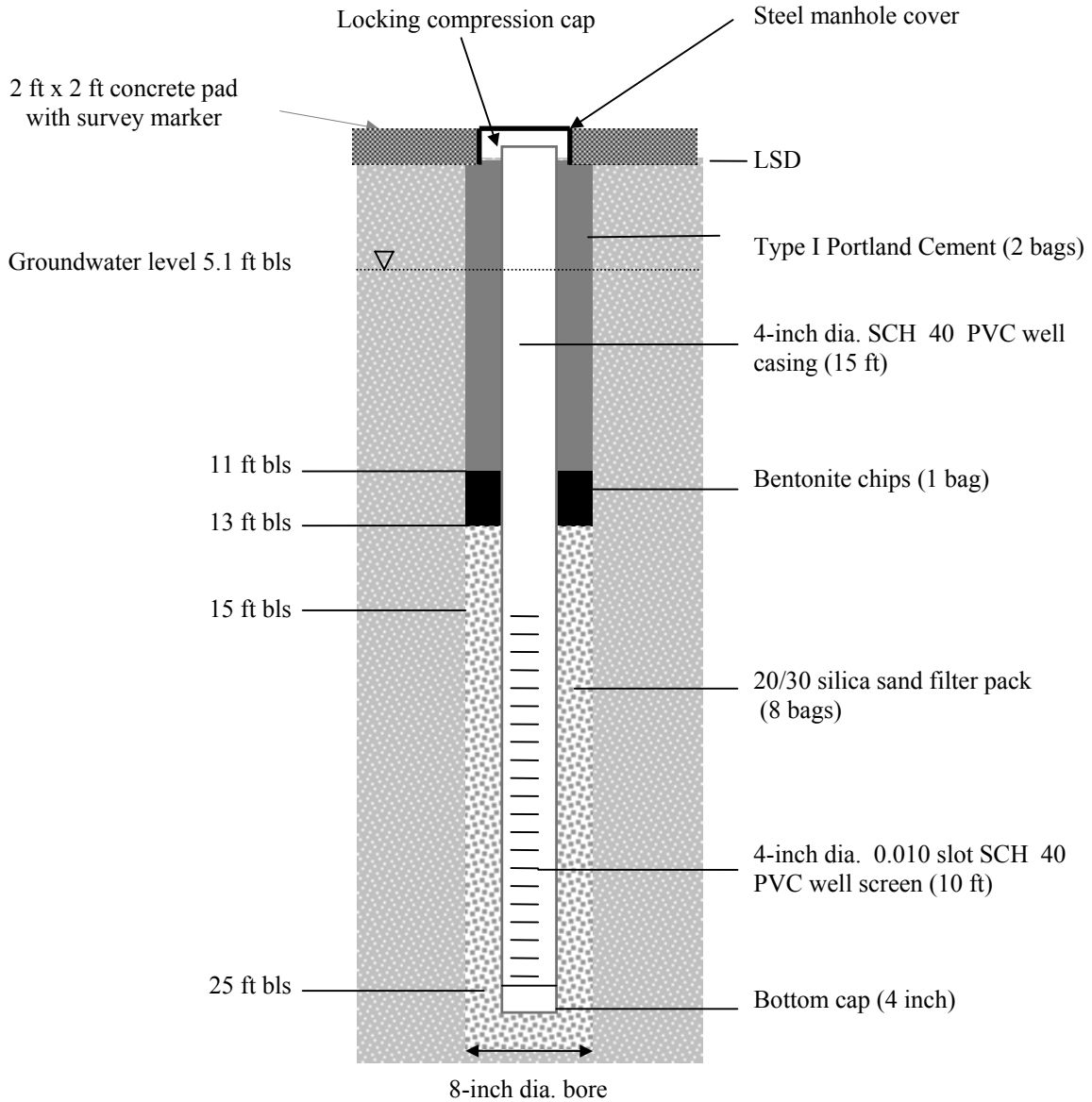
Not To Scale

**Project:** St. Johns Water Control District  
**Lat/Long:** 272514/803444  
**TRS:** 33s 37e 25  
**Topo:** Fellsmere 4 SE  
**Site Elevation:** ~25 NGVD

**Project No:** 31-58200

**SJRWMD**

**Figure 1. Site Map**

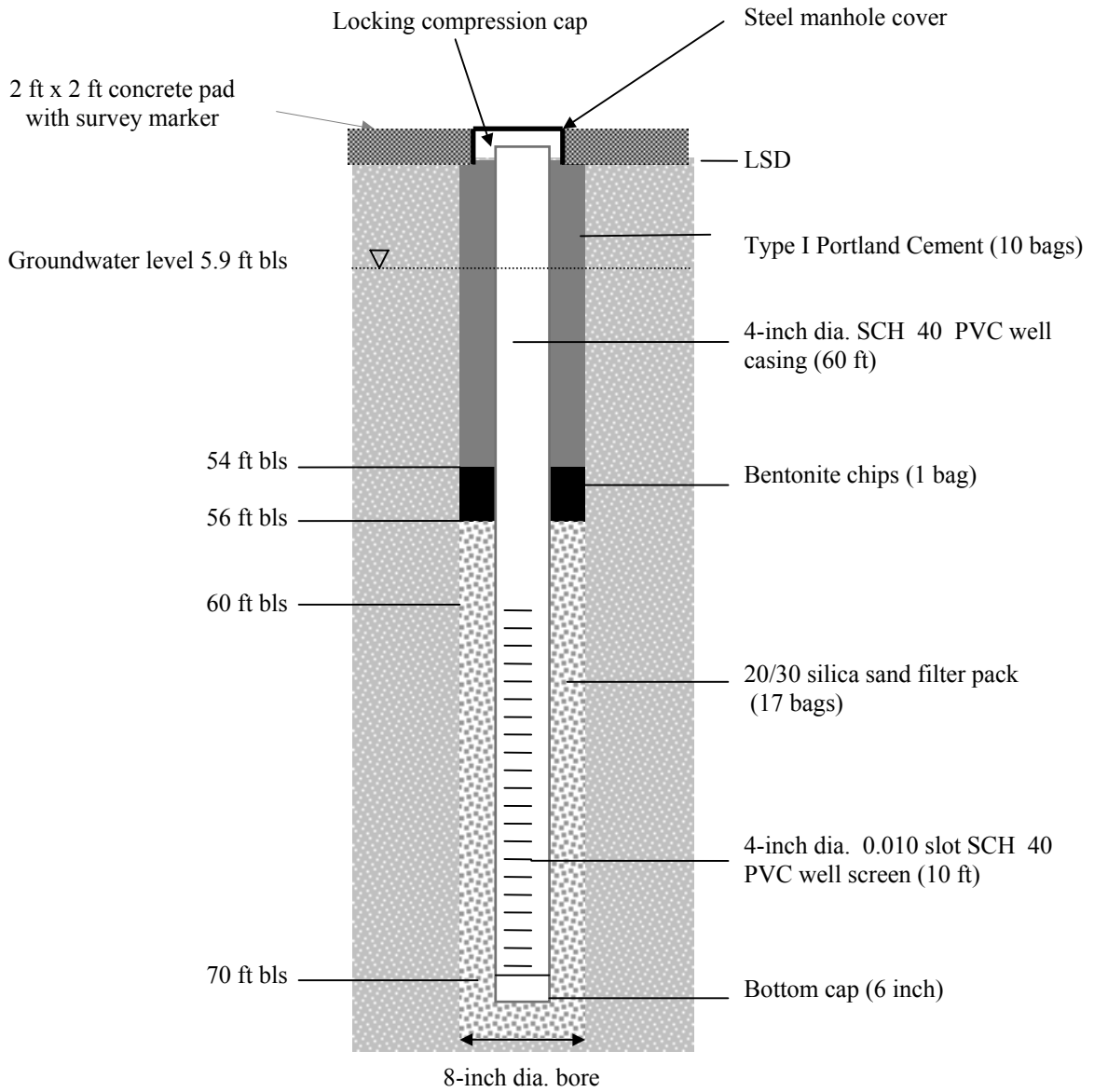


Not To Scale

<b>Site:</b>	St. Johns Water Control District
<b>Driller:</b>	Huss Drilling Inc.
<b>Well Completed:</b>	June 4, 1996

**SJRWMD**

**Figure 2. Surficial Monitor Well IR-0902**



Not To Scale

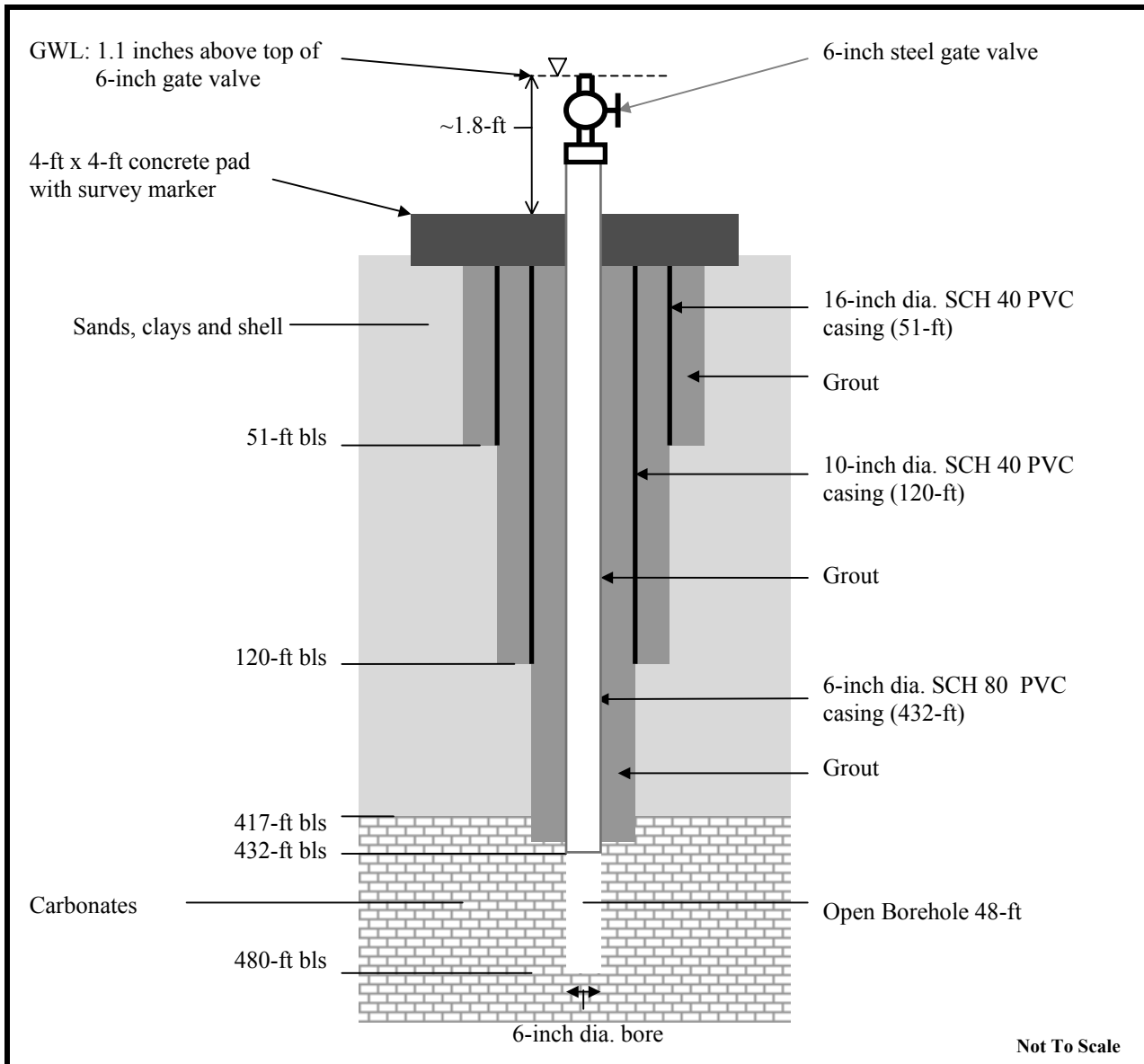
**Site:** St. Johns Water Control District

**Driller:** Huss Drilling Inc.

**Well Completed:** February 27, 1997

**SJRWMD**

**Figure 3. Intermediate Monitor Well IR-0947**



**Site:** St. Johns Water Control District  
**Driller:** SJRWMD  
**Well Completed:** July 16, 1997

**SJRWMD**

**Figure 4. Floridan Monitor Well IR-0954**

**Table 1. Groundwater Levels and Drilling Data**

Site: St. Johns Water Control District

Well ID: IR-0954

Water Levels				Borehole		Drilling Data					
Static ✓	Date/Time (yymmdd/hhmm)	Casing (ft, als)	Rod (ft, als)	Total Depth (ft, bls)	Open Hole (ft)	Method Mud/RA	Bit Size (inch)	From (ft, bls)	To (ft, bls)	Time (min)	Rate (ft/hr)
	970715/1005	0.8	5.3	440	8	RA	5.5	432	440	40	12
	970715/1035	0.8	5.3	460	28	RA	5.5	440	460	10	120
	970715/1130	0.8	5.3	480	48	RA	5.5	460	480	15	80

Casing 10-inch dia. 0.7-ft above land surface (als)  
Rod 5.3-ft als

**Table 2. Field Groundwater Quality**

Site: St. Johns Water Control District

Hydrologist: R. Brooks

L A B ✓	Well ID	Date (yymmdd/hhmm)	Rate (gpm)	Pumping GWL (ft bls)	Σ Vol (gal)	Temp (Deg C)	pH	Chloride (mg/L)	Specific Conductivity (us/cm)
✓	IR-0902	960604/0950	30	12.4	1500	24.0	7.1	NR	1070
✓	IR-0947	970300/1200	20	10.0	1600	24.5	6.9	NR	1332

Comments: 1. Mud rotary drilling method used for construction.  
2. Barifos added prior to development.  
3. Well pumped with rig mono-pump.

**Table 3. Field Groundwater Quality**

Site: St. Johns Water Control District

Well Number: IR-0954

Sampled: R. Wilkinson

Casing Depth: 432-ft

LAB ✓	Date/Time (yymmdd/hhmm)	Sample Depth (ft bls)	Open Hole (ft)	Temp (Deg C)	Chlorides (mg/L)	Specific Conductivity (us/cm)
✓	970715/1300	480	48	25.0	98	909

Comments: 1. Well developed with reverse air prior to collecting lab sample gpm not measured.  
2. Field data suspect no support notes.



**Table 4.****Grout Data**Site: St. Johns Water Control DistrictWell ID: IR-0954

DATE	TAG DEPTH (ft)	ANNULUS/BORE (inch)	QUANTITY (yds/bags)	MATERIAL	COMMENTS
6/11/97	51	A-22	20 bags	Grout P-94	Set 51-ft of 16-inch dia. PVC casing, grout through tremie pipe, grout wt. 15.1 lbs/gal
6/12/97	16	A-22	19 bags	Grout P-94	Grout through tremie pipe, grout wt. 15.3 lbs/gal
6/16/97	0.5	A-22	-	-	Casing grouted to surface
6/23/97	120	A-15	21 bags	Grout P-94	Set 120-ft of 16-inch dia. PVC casing, grout through tremie pipe, grout wt. 15.3 lbs/gal
6/24/97	63	A-15	26 bags	Grout P-94	Grout through tremie pipe, grout wt. 15.3 lbs/gal
6/25/97	2	A-15	-	-	Tag only
7/8/97	432	A-10	10 bags	Grout P-94	Set 432-ft of 16-inch dia. PVC casing with grout boots attached, grout through tremie pipe, grout wt. 15.1 lbs/gal
7/9/97	396	A-10	3 yards	Type I Grout	Grout through tremie pipe, grout wt. 15.0 lbs/gal
7/10/97	155	A-10	2 yards	Type I Grout	Grout through tremie pipe, grout wt. 15.0 lbs/gal
7/14/97	16	A-10	3 bags	Grout P-94	Casing grouted to surface

### Lithologic Description

Site: St. Johns Water Control District

Well ID: IR-0902

Samples Described By: R. Brooks

From (ft)	To (ft)	Hammer Blow Counts	
4	6	NR	Sand, gray, fine, clayey
9	11	NR	Sand, green, fine with shells
14	16	NR	Sand, light brown, fine with shells
19	21	NR	Sand, gray, fine with shells
24	26	NR	Sand, gray, fine with shells
29	31	NR	Sand, gray, very fine with shells
34	36	NR	Sand, gray, very fine with shells
39	41	NR	Shell, sand and silt, gray, very fine grained, with minor clay
44	46	NR	Clay, gray, minor shell
49	51	NR	Shell, sand and silt, gray, very fine grained
54	56	8/10/7/11	Shell, sand and silt, gray, very fine grained, abundant heavy minerals specs
59	61	6/10/20/20	Sand and shell, gray, very fine, abundant heavy minerals specs
64	66	16/25/50 (5-in)	Sand, gray, coarse with shell fragments
69	71	37/40/50 (3-in)	Sand, gray, fine to medium, phosphate heavy minerals specs, minor shell fragments
74	76	2/2/4/3	Clay, light greenish gray, weathered shell
79	81	NR	Sand, gray, very fine, silty, partially cemented
84	86	NR	Sand, gray, very fine, silty, partially cemented
89	91	NR	Sand, gray, very fine, silty, with shells, partially cemented
94	96	6/7/13/10	Sand, gray, very fine, silty, heavy minerals specs, partially cemented
99	101	4/6/7/8	Sand, gray, very fine, silty, heavy minerals specs, partially cemented
104	106	4/7/11/20	Clay, light gray, silty, minor shell, partially cemented, coarse phosphate grains
109	110	11/4/8/11	Clay, light gray, silty, minor shell, partially cemented, coarse phosphate grains
110	111	4/5/8/10	Clay, sandy, phosphate pebbles, dark green
114	116	5/4/8/10	Clay, stiff, phosphate pebbles, dark green

## Lithologic Description

Site: St. Johns Water Control District

Well ID: IR-0954

Samples Described By: A. Story

From (ft)	To (ft)	Lithology
0	7	Sand, gray, fine to medium, and clay, gray
7	38	Sand, gray, fine, and shell
38	54	Sand, gray, fine, and shell, minor clay
54	65	Shell and sand, gray, fine
65	85	Sand, gray, fine, minor shell and clay
85	101	Sandstone, gray
101	110	Sand, gray, coarse
110	117	Clay, green, minor shell
117	195	Clay, dark green, stiff
195	215	Clay, dark green, stiff, phosphatic
215	216	Chert, black and gray
216	232	Clay, light green
232	270	Clay, light green, phosphatic
270	272	Chert, black
272	275	No sample
275	295	Sandstone, phosphatic
295	310	Coquina, phosphatic
310	315	Sandstone, phosphatic, poorly indurated
315	331	Limestone, phosphatic, moderately indurated
331	336	Clay, light green, calcareous
336	383	Clay, dark green, stiff
383	385	Chert, medium green
385	390	Clay, medium green, stiff
390	414	Clay, dark green, stiff
414	417	Sandstone, tan, fine
417	425	Limestone, off-white, poorly indurated
425	480	Limestone, off-white, lepidocyclina

# Geophysical Logs

Site: St. Johns Water Control District

Well ID: IR-0954

Logger: SJRWMD

Date: 6/22/98

