



**Field Services
Preliminary Data
Oviedo Water Treatment Plant**

**Aquifer System Monitor Wells:
Surficial S-1211
Floridan S-1193
Floridan S-1189**

**Test Holes:
S-1213
S-1218**

SJRWMD Program No. 31-58200

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

September 13, 2002

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

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General Information

Site: Oviedo Water Treatment Plant

Access: Perpetual easement with city of Oviedo.

Service Request: Brian McGurk Division of Ground Water Programs

Purpose: Ground water model data for Division of Water Supply Management

Data Collection: Robert Brooks and Alan Story

Work:

Surficial Monitor Well Construction & Test Hole Drilling

PSI

Floridan Monitor Well

SJRWMD

Report: Robert Brooks

Notes:

Floridan S-1189

4/05/95. Well completed; constructed using mud rotary and reverse air drilling methods.

Floridan S-1193

4/12/95. Well completed; constructed using mud rotary and reverse air drilling methods.

Surficial S-1211

7/26/95. Well completed; constructed using hollow stem augers.

Test Hole S-1213 (Abandoned)

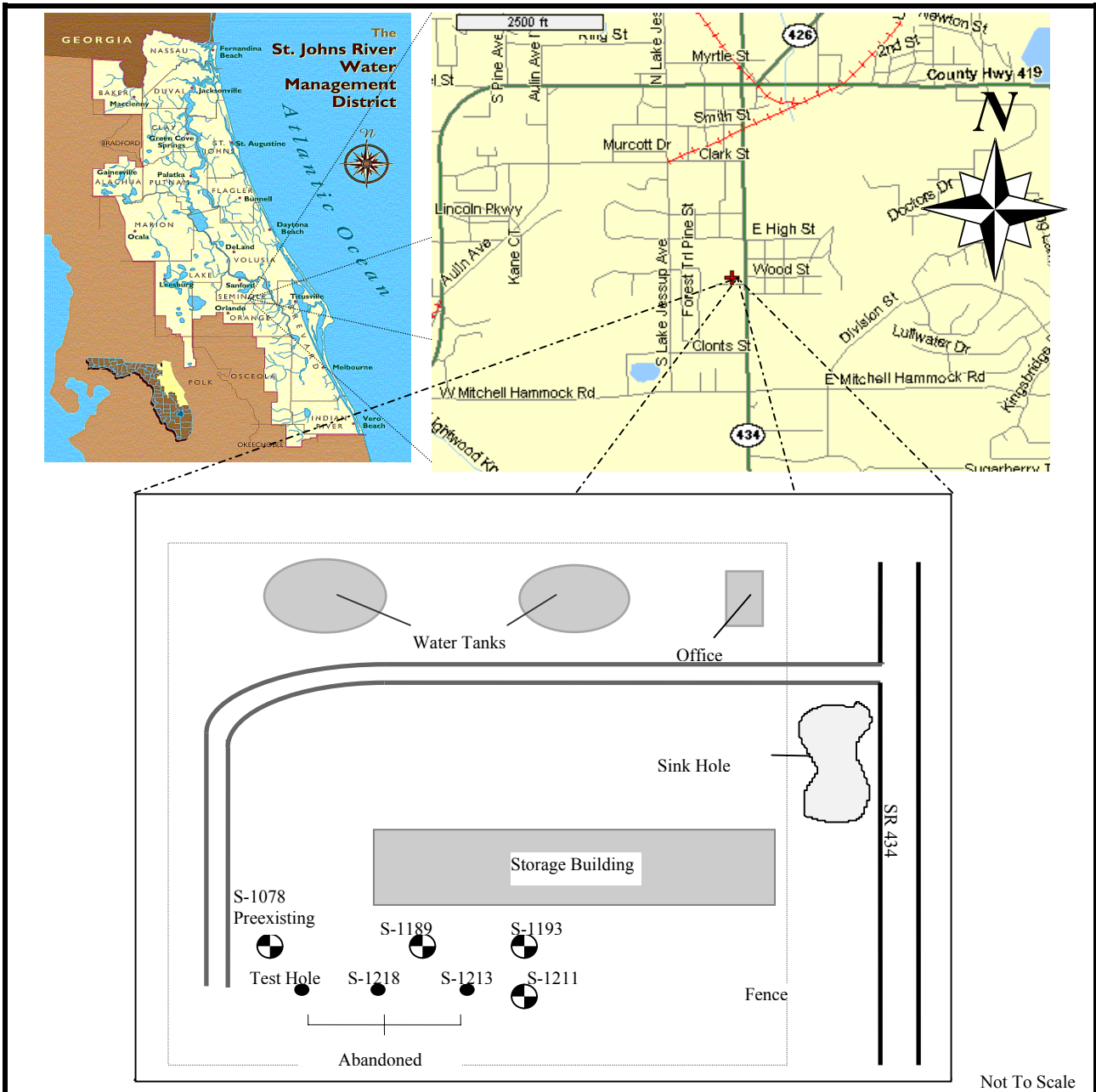
7/26/95. Heaving sands at 70-ft cause problems for PSI; borehole back plugged to surface.

Test Hole S-1218 (Abandoned)

8/09/95. Heaving sands at 70-ft cause problems for PSI; borehole back plugged to surface.

Test Hole (Abandoned)

9/21/95. Heaving sands at 70-ft cause problems for PSI; borehole back plugged to surface.



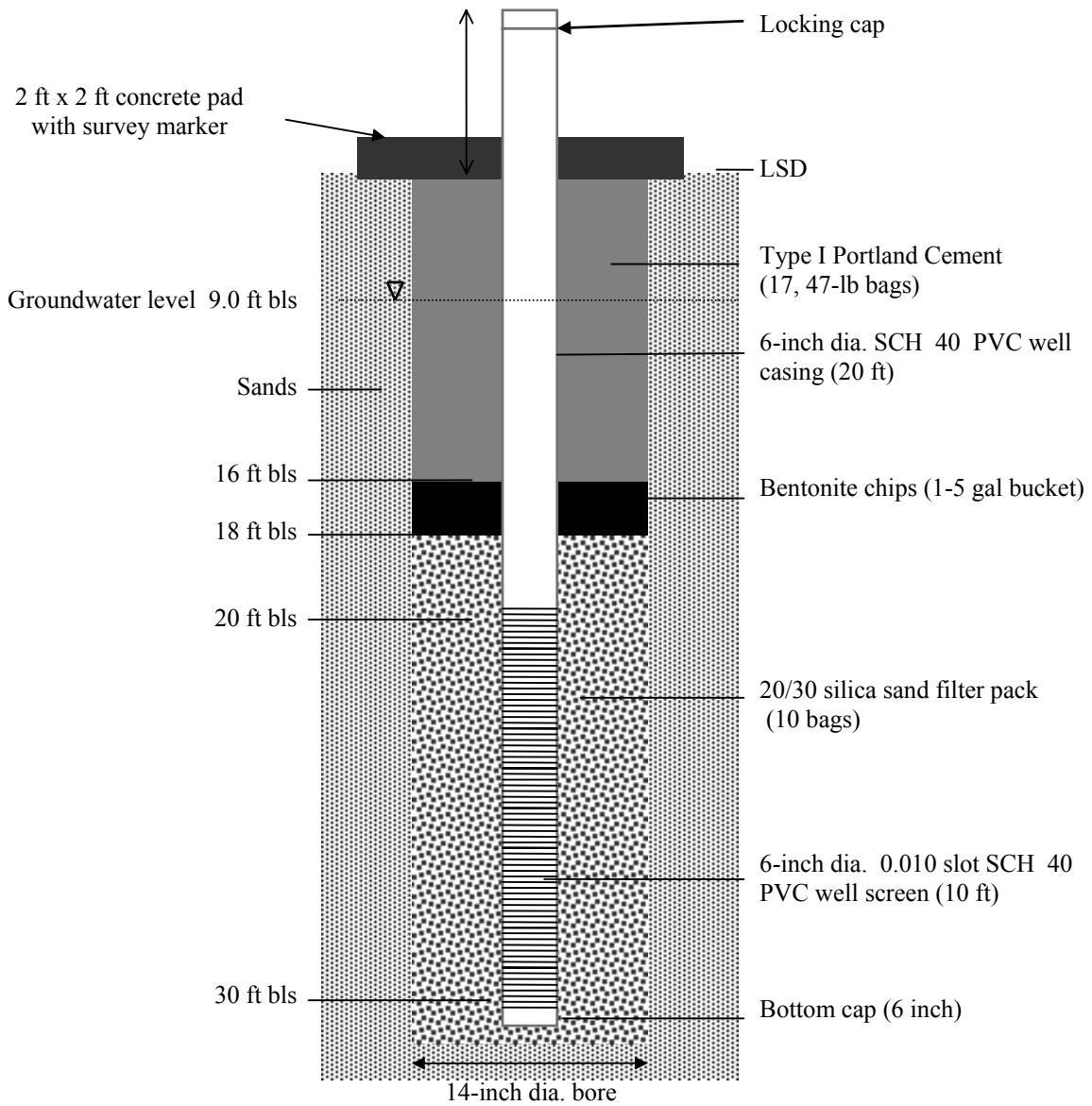
Not To Scale

Project: Oviedo Water Treatment Plant
Lat/Long: 283932/811236
TRS: 21s 13e sec16
Topo: Oviedo
Site Elevation: ~ 62 ft NGVD

Project No: 31-58200

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Figure 1. Site Map



Not To Scale

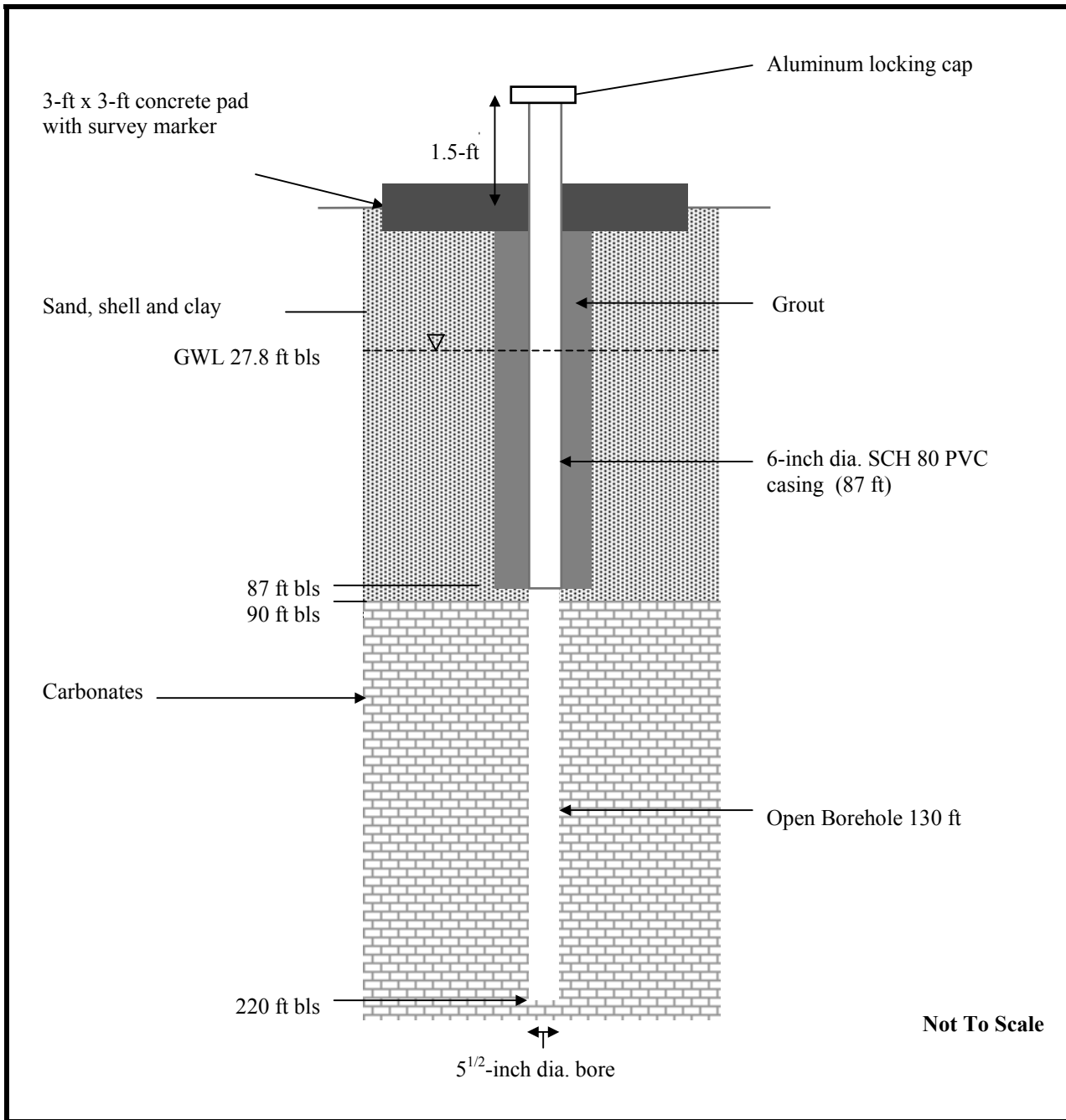
Site: Oviedo Water Treatment Plant

Driller: PSI

Well Completed: July 26, 1995

SJRWMD

Figure 2. Surficial Monitor Well S-1211



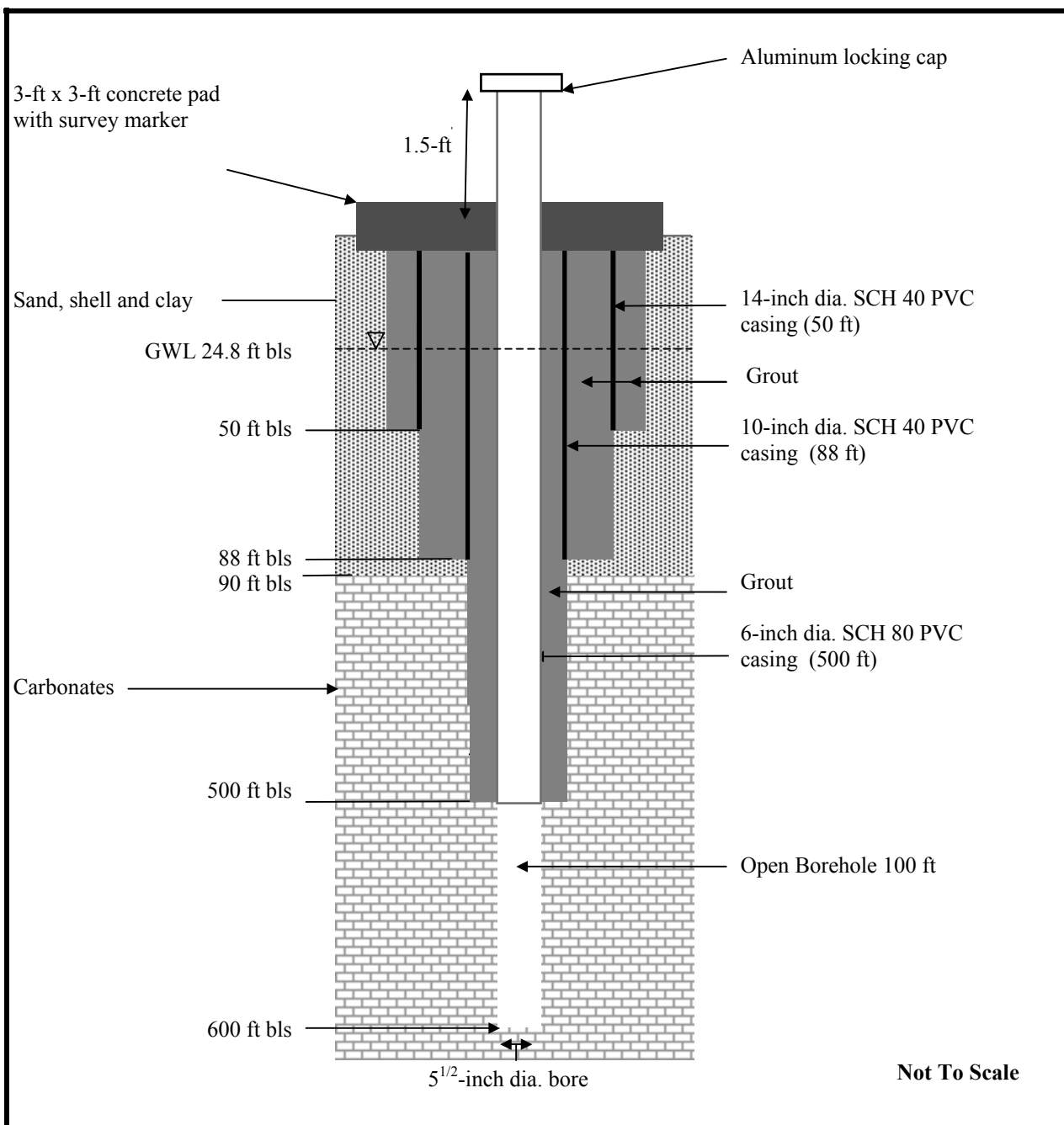
Site: Oviedo Water Treatment Plant

Driller: SJRWMD

Well Completed: April 12, 1995

SJRWMD

Figure 3. Floridan Monitor Well S-1193



Site: Oviedo Water Treatment Plant

Driller: SJRWMD

Well Completed: April 5, 1995

SJRWMD

Figure 4. Floridan Monitor Well S-1189

Table 1. Groundwater Levels

Site: Oviedo Water Treatment Plant Well ID: S-1189

Water Levels				Borehole	
Static ✓	Date/Time (yymmdd/hhmm)	Casing (ft bls)	Rod (No Datum)	Total Depth (ft bls)	Open Hole (ft)
	950309/1315	23.9	-	52	140
	950313/1415	23.0	-	92	180
	950313/1615	23.7	-	132	220
	950314/0930	26.8	-	172	260
	950314/1120	26.8	-	212	300
	950314/1340	23.1	-	252	340
✓	950315/0700	26.3	-	282	370
	950315/0920	26.2	-	292	380
✓	950316/0700	25.3	-	312	400
	950316/1015	25.3	-	332	420
	950320/1100	24.0	-	352	440
	950320/1510	23.7	-	392	480
	950321/0930	23.8	-	412	500
	950404/1610	35.2	-	40	540
✓	950405/0700	31.6	-	40	540
	950405/0935	31.5	-	80	580
	950405/0930	28.1	-	100	600
	950413/0701	24.8	-	100	600

Table 2. Groundwater Quality/Field Samples

Site: Oviedo Water Treatment Plant

Well ID: S-1193

Sampler: A. Story

LAB ✓	Date/Time (yymmdd/hhmm)	Sample Depth (ft, bls)	Open Hole (ft)	Temp (Deg C)	Chlorides (mg/L)	Specific Conductivity (us/cm)
	950412/1045	140	53	24	NR	278
	950412/1325	180	93	24	NR	273
	950412/1435	220	133	24	NR	282
	950412/1450	220	133	24	NR	299
	950412/1520	220	133	24	NR	289

Table 3. Groundwater Quality/Field Samples

Site: Oviedo Water Treatment Plant

Well ID: S-1189

Sampler: A. Story

LAB ✓	Date/Time (yyymmdd/hhmm)	Sample Depth (ft, bls)	Open Hole (ft)	Temp (Deg C)	Chlorides (mg/L)	Specific Conductivity (us/cm)
	950309/1300	140	52	23.5	28	333
	950313/1400	180	92	24.0	22	309
	950313/1545	220	132	23.0	22	294
	950314/0920	260	172	24.5	17	286
	950314/1055	300	212	25.0	8	283
	950314/1325	340	252	24.5	15	296
	950315/0900	380	292	23.0	18	367
	950316/1000	420	332	24.5	25	418
	950320/1500	480	392	25.0	15	424
	950321/0810	500	412	23.0	43	441
	950404/1550	540	40	25.0	83	566
	950405/0925	580	80	24.0	74	546
	950405/1015	600	100	24.0	90	432
	950405/1045	600	100	24.0	92	546
	950405/1105	600	100	24.0	90	546

Table 4. Groundwater Quality/Development

Site: Oviedo Water Treatment Plant

Well ID: S-1211

L A B ✓	Well ID	Date (yyymmdd/hhmm)	Rate (gpm)	Pumping GWL (ft bls)	Static GWL (ft bls)	Σ Vol (gal)	Temp (Deg C)	pH	Specific Conductivity (us/cm)
✓	S-1211	950726/1210	1.0	11.9	9.0	60	26.5	6.4	609

Comments: 1. Well installed with hollow stem augers.
2. Make up water QW not recorded.

Table 5. Grout Data

Site: Oviedo Water Treatment Plant

Well ID: S-1193

DATE	TAG DEPTH (ft)	ANNULUS/BORE (inch)	QUANTITY (yds/bags)	MATERIAL	COMMENTS
4/10/95	87	A-10	18 bags	Type I Grout	Set 87-ft of 6-inch dia. SDR 17 PVC; Grout through tremie pipe
4/10/95	22	A-10	2 bags	Type I Grout	Grout through tremie pipe
4/10/95	0	A-10	NA	NA	6-inch dia. casing grouted to surface
4/11/95	120	B-5 ^{1/2}	20 bags	Type I Grout	Backplug, stabilize bore
4/12/95	103	B-5 ^{1/2}	NA	NA	Drill out

Table 6. Grout Data

Site: Oviedo Water Treatment Plant

Well ID: S-1189

DATE	TAG DEPTH (ft)	ANNULUS/BORE (inch)	QUANTITY (yds/bags)	MATERIAL	COMMENTS
3/7/95	50	A-18	14 bags	Type I Grout	Set 50-ft of 14-inch dia. PVC casing; Grout through tremie pipe
3/7/95	0	A-18	-	-	Casing grouted to surface
3/7/95	88	A-14	19 bags	Type I Grout	Pressure grout 88-ft of 10-inch dia. PVC casing
3/7/95	0	A-14	NA	NA	Casing grouted to surface
3/21/95	500	A-10	54 bags	Type I Grout	Pressure grout 500-ft of 6-inch dia. PVC casing
3/22/95	485	A-10	3 yards	Type I Grout	Grout through tremie pipe
3/23/95	430	A-10	3 yards	Type I Grout	Grout through tremie pipe
3/27/95	NR	A-10	3 yards	Type I Grout	Grout through tremie pipe
3/28/95	295	A-10	3 yards	Type I Grout	Grout through tremie pipe
3/29/95	200	A-10	54 bags	Type I Grout	Grout through tremie pipe
3/30/95	150	A-10	NA	NA	Tag only
4/3/95	150	A-10	3 yds	Type I Grout	Grout through tremie pipe
4/4/95	45	A-10	13 bgs	Type I Grout	Grout through tremie pipe
4/4/95	0	A-10	-	-	Casing grouted to surface
4/4/95	450	B-6	-	-	Grout tag inside 6-inch dia. casing

Lithologic Description

Site: Oviedo Water Treatment Plant

Well ID: S-1211

Samples Described By: R. Brooks

From (ft)	To (ft)	Hammer Blow Counts	Lithology
-	0	-	Sand, dark brown, fine to medium, organic
5	7	-	Sand, grayish white, very fine to fine, well sorted
10	12	5/8/7/5	Sand, white, very fine to fine, well sorted, minor sand, orange, silty
15	17	5/8/13/12	Sand, white, very fine to fine, well sorted, minor sand, orange, silty
20	22	6/7/8/10	Sand, white and orange layers, very fine to fine, well sorted
25	27	3/4/4/5	Sand, grayish white, very fine to fine, well sorted (25-27 ft), Sand, orange, fine, well sorted (26-27 ft)
30	32	8/8/8/9	Sand, grayish white, very fine to fine, well sorted (30-30.5 ft) Sand, clay and shell, yellowish gray, silty to very fine (30.5-32 ft)
35	37	12/16/9/4	Sand, clay and shell, yellowish gray, silty to very fine (35-36 ft), Clay, pale orange with shell, minor sand (36-37 ft)

Lithologic Description

Site: Oviedo Water Treatment Plant

Well ID: S-1213 (Abandoned)

Samples Described By: R. Brooks

From (ft)	To (ft)	Hammer Blow Counts	Lithology
40	42	17/18/16/19	Clay, Sand, and Shell, yellowish orange (40-40.8 ft), Clay, olive green, stiff, with shell (40.8-41.3 ft), Clay, olive green, stiff (41.3-42 ft)
45	47	9/18/26/32	Clay, olive green, stiff
50	52	9/10/20/17	Clay, olive green, stiff
55	57	7/15/27/39	Clay, olive green, stiff, with shell (55-56 ft) Clay, olive gray, sandy, minor shell (56-57 ft)
60	62	27/50/45/47	Clay, olive gray, sandy (60-61 ft) Shell, grayish white, sandy, very fine to medium (61-62 ft)
65	67	30/31/26/54	Shell, grayish white, sandy, very fine to fine
70	72	36/34/26/54	Shell and sand, very fine to fine, grayish white (70-71.5 ft) Clay, olive green (71.5-72 ft)

Lithologic Description

Site: Oviedo Water Treatment Plant

Well ID: S-1193

Samples Described By: R. Brooks

From (ft)	To (ft)	Lithology
0	20	Sand, yellowish gray, very fine to fine
20	25	Clay, yellowish gray
25	30	Sand, shell and clay, pale yellowish brown
30	40	Sand and shells, light olive gray
40	45	Clay, light olive gray, minor shell
40	85	Shells, light olive gray, with minor sand and clay
85	90	Clay, light olive gray
90	220	Limestone, yellowish gray, fossiliferous (<i>Lepidocyclina</i>)

Lithologic Description

Site: Oviedo Water Treatment Plant

Well ID: S-1189

Samples Described By: R. Brooks

From (ft)	To (ft)	Lithology
0	20	Sand, yellowish gray, very fine to fine
20	25	Sand, yellowish gray, very fine to fine, reworked shell
25	35	Sand, yellowish gray, very fine to fine, reworked shell
35	40	Shells, light olive gray, minor sand and clay
40	45	Clay, light olive gray, minor shell
45	55	Clay, light olive gray, minor shell
55	60	Shells, light olive gray, with very fine sand
60	85	Shells, light olive gray, with very fine sand
85	90	Clay, light olive gray
90	190	Limestone, yellowish gray, pelletal packstone, fossiliferous (<i>Lepidocyclina</i>)
190	210	Limestone, yellowish gray, mudstone, fossiliferous (<i>Lepidocyclina</i>)
210	230	Limestone, yellowish gray, pelletal packstone
230	320	Limestone, pale yellowish brown, packstone, fossiliferous (<i>Dictyonus</i>), slightly dolomitic
320	360	Limestone, pale yellowish brown, dolomitic, fossiliferous (<i>Lepidocyclina</i>)
360	380	Dolomite, pale yellowish brown, tabular, hard
380	400	Limestone, pale yellowish brown, dolomitic
400	430	Dolomite, dark yellowish brown, hard, no visible porosity
430	435	Limestone, yellowish gray, pelletal, fossiliferous (<i>Dictyonus</i>)
435	500	Dolomite, dark yellowish brown, tabular to granular, hard, some secondary porosity
500	520	Dolomite, medium dark gray, with limestone, pale yellowish brown, dolomitic
520	600	Limestone, pale yellowish brown, dolomitic, porous

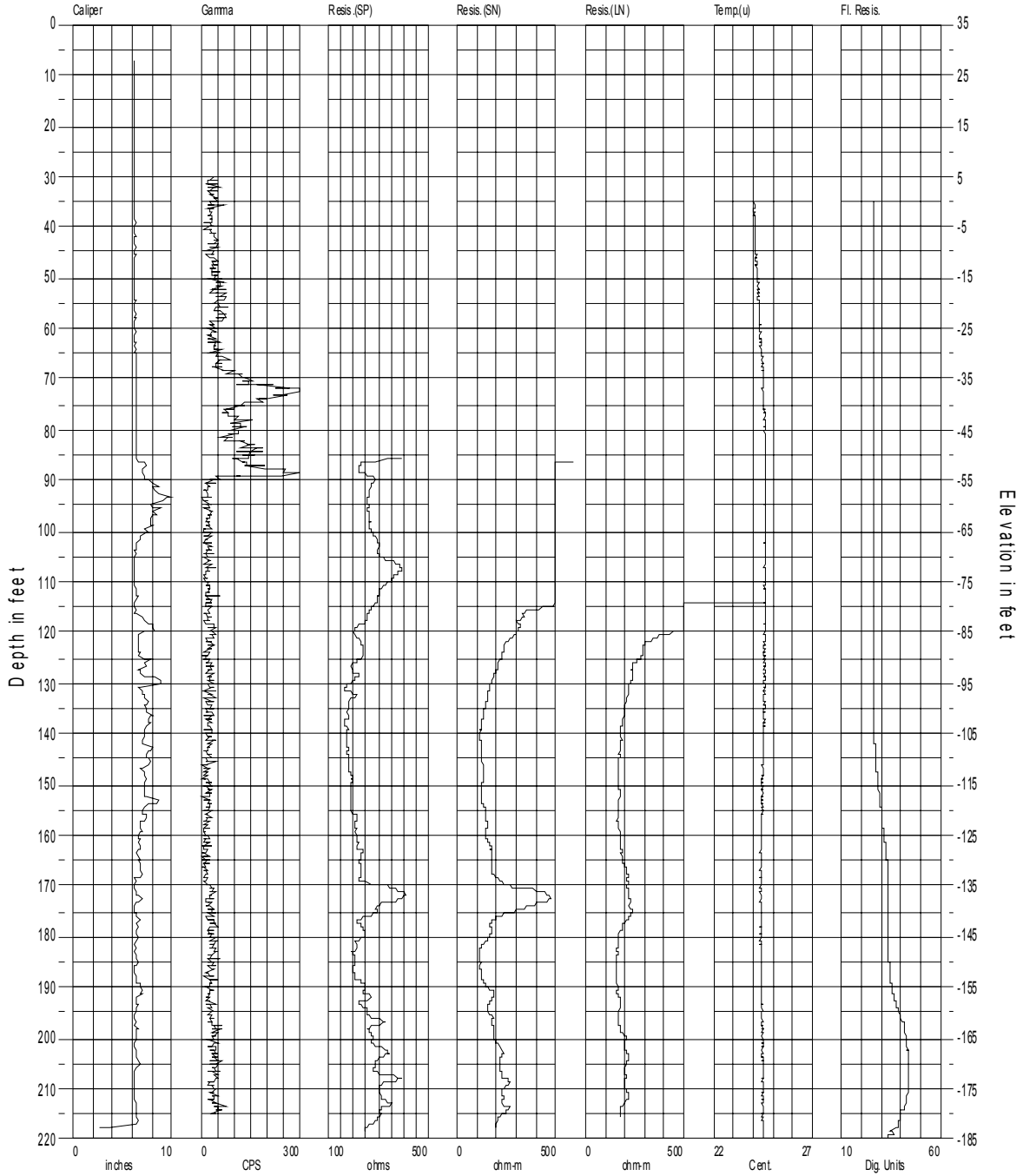
Geophysical Logs

Site: Oviedo Water Treatment Plant

Well ID: S-1193

Logger: SJRWMD

Date: 6/18/02



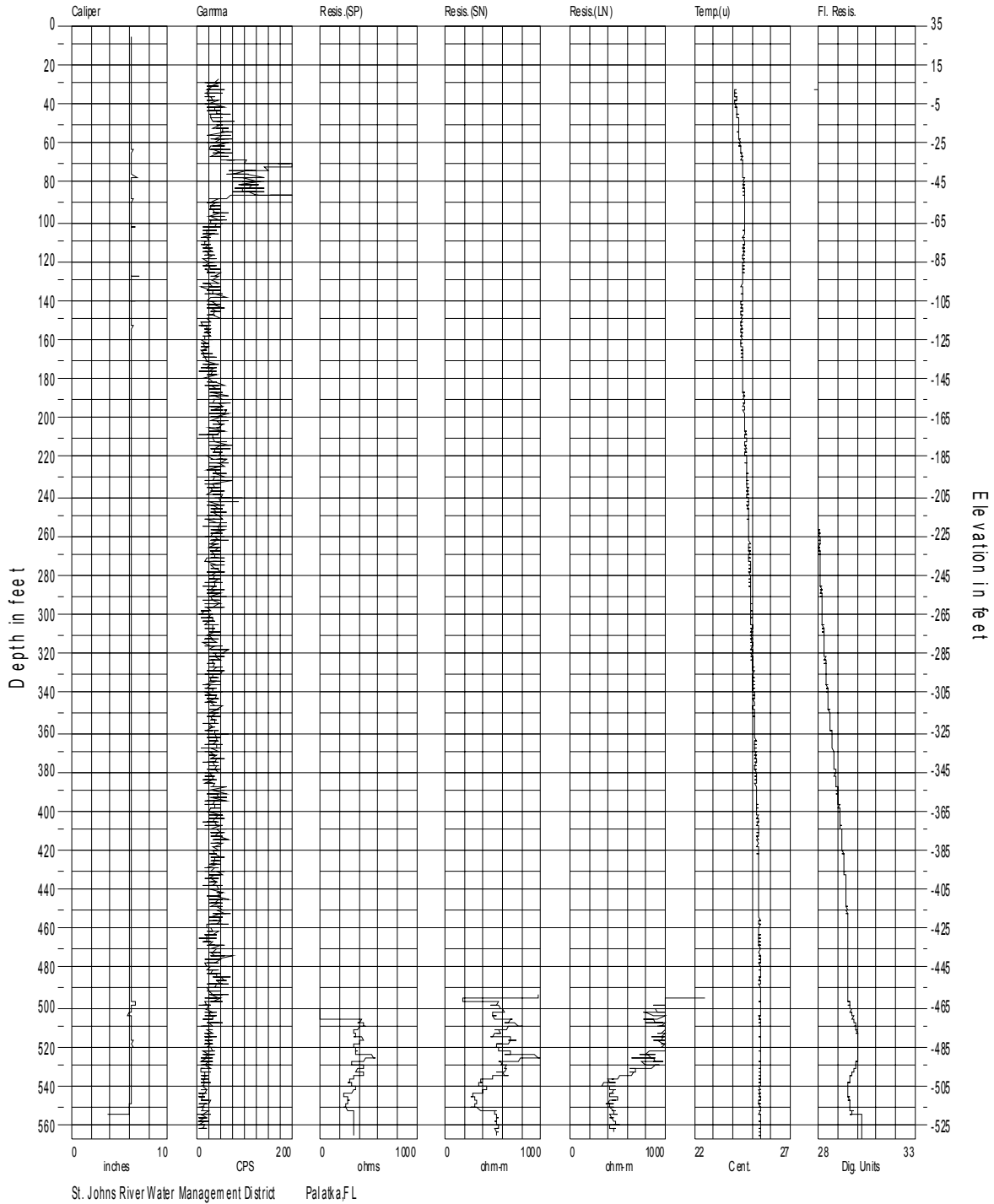
Geophysical Logs

Site: Oviedo Water Treatment Plant

Well ID: S-1189

Logger: SJRWMD

Date: 6/20/02



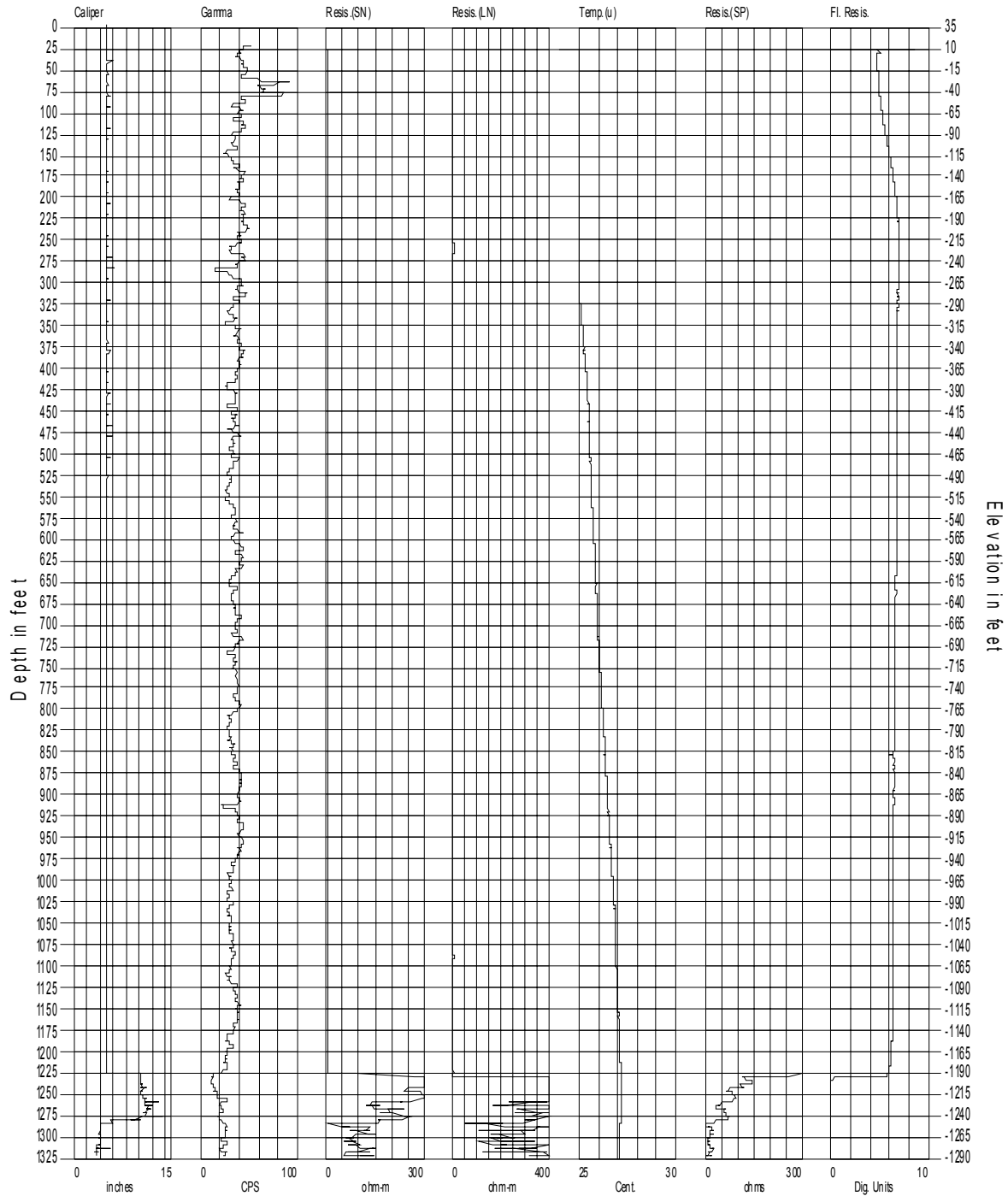
Geophysical Logs

Site: Oviedo Water Treatment Plant

Well ID: S-1078 (preexisting)

Logger: SJRWMD

Date: 6/20/02



St. Johns River Water Management District Palatka, FL