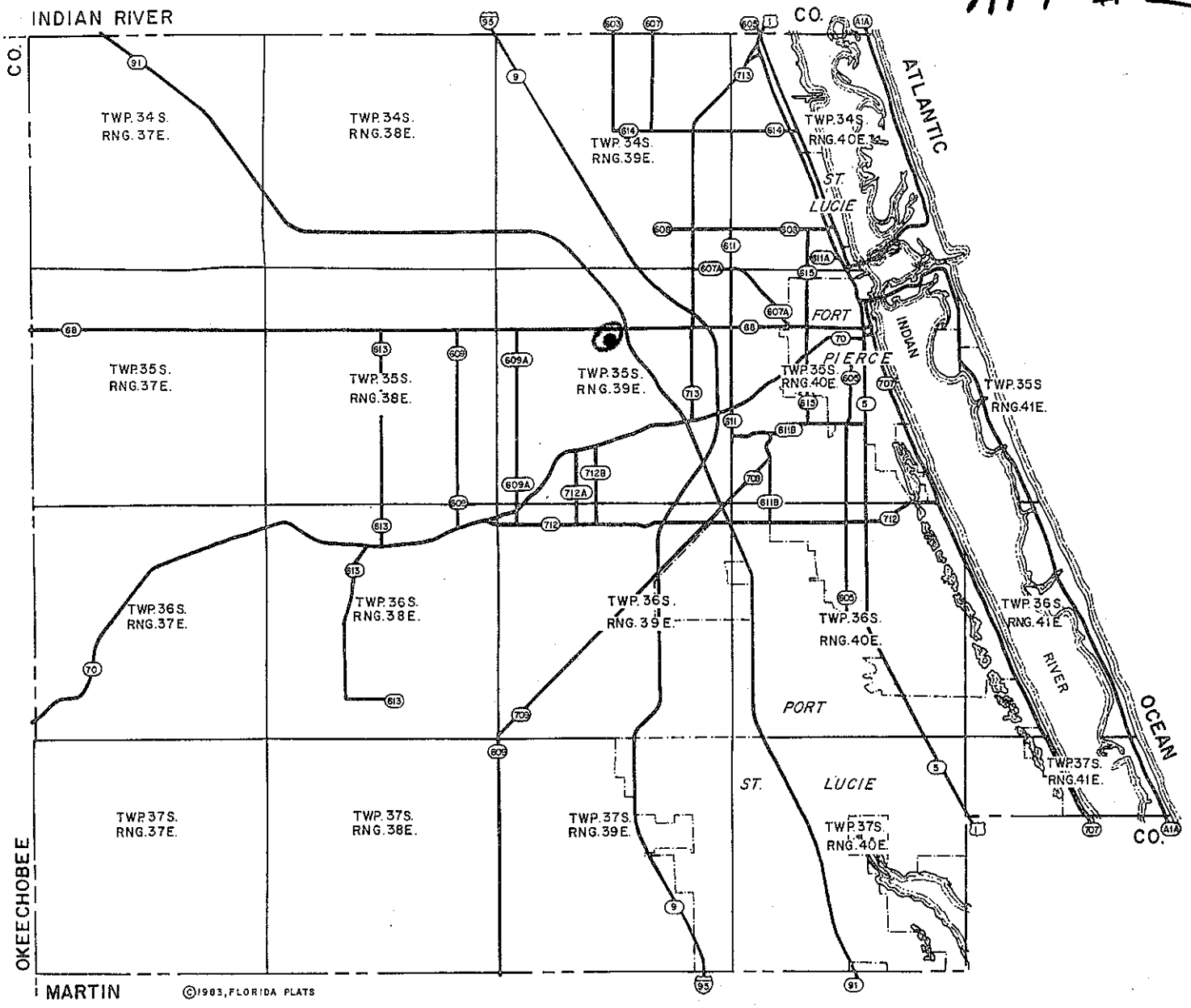
1988
ST. LUCIE CO. FLORIDA

APT #2



This directory has been published as a county ownership reference guide. The data contained herein has been compiled from the official city, state, and county public records. Constant property sales and transfers make it impossible for us to guarantee 100% accuracy; errors and omissions are inevitable. If you should notice an error in the Index of Owners or on a map, we would appreciate it if you would mail the correction to us on the coupon provided.

NAME _____

ADDRESS _____

CITY _____ STATE _____ ZIP _____

COUNTY _____ TWP. & RNG. _____

SECTION _____ AMOUNT OF ACREAGE _____

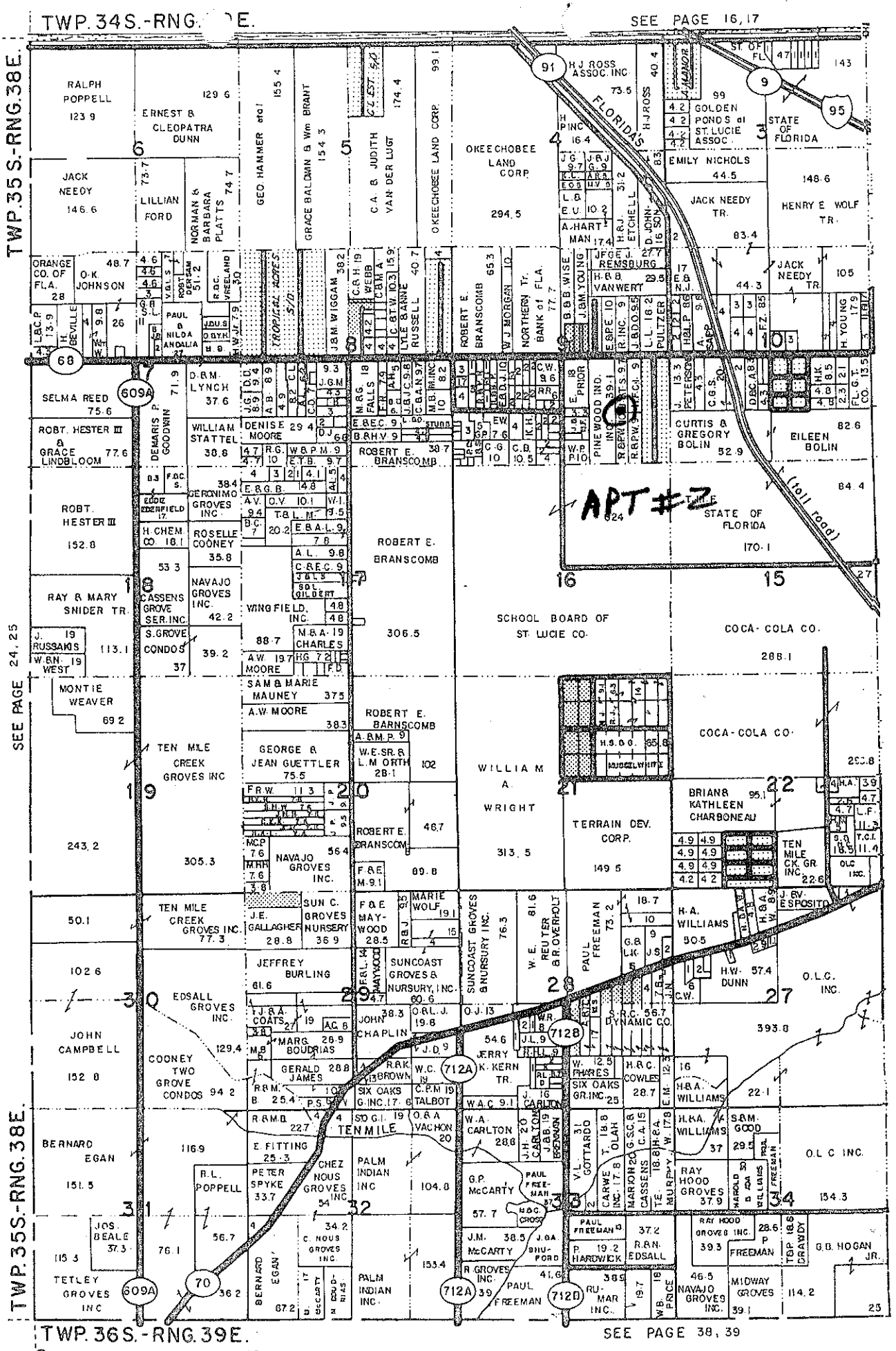
Florida Plats

1213 Bowman Street

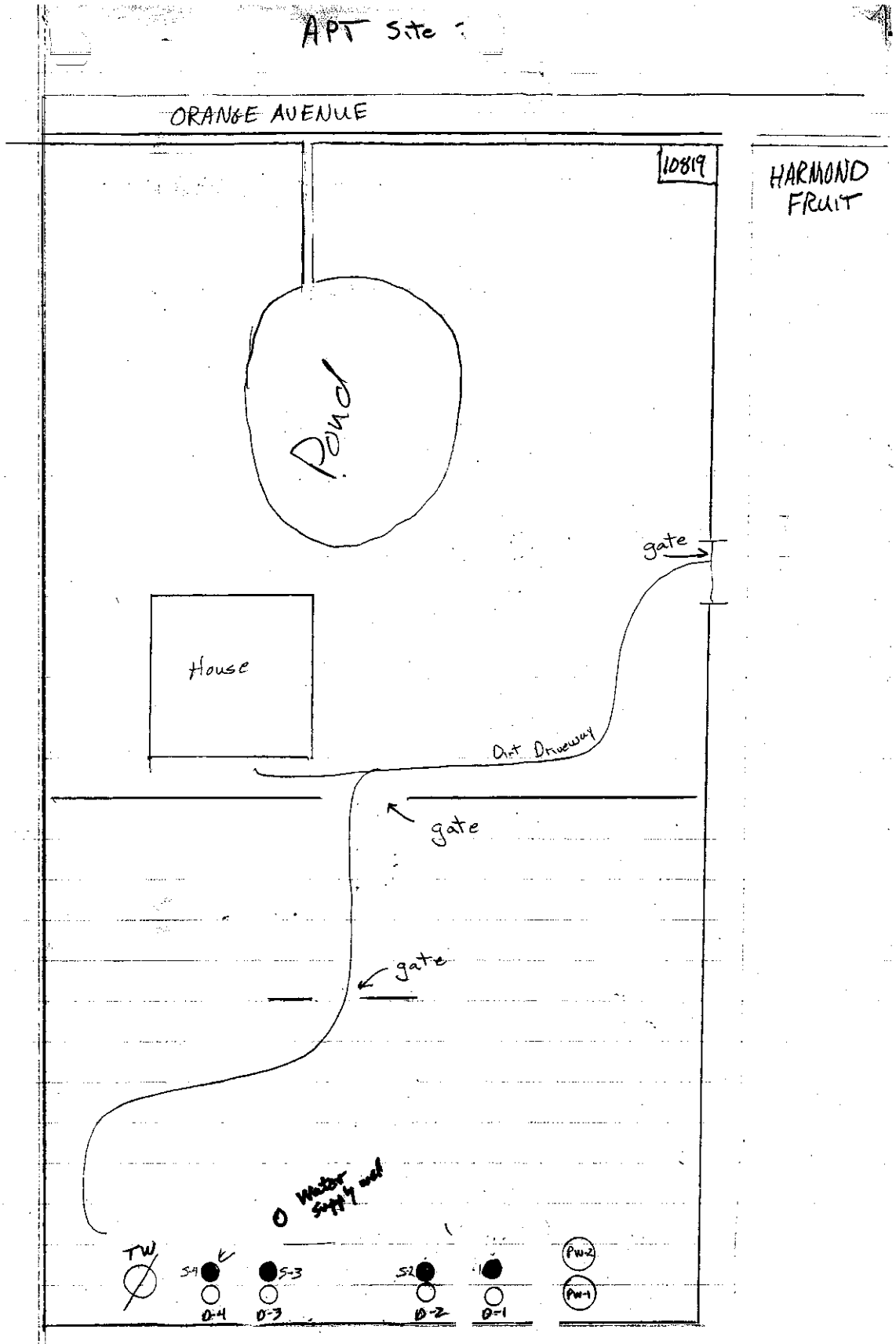
Clermont, Florida 32711

(904) 394-6363

We convey sincere thanks to your county officials for their participation. Your county plat directory has been made possible with their cooperation and support.



APT Site :


ORANGE AVENUE
10819
HARMOND FRUIT
Pond
gate
House
Dirt Driveway
gate
gate
Water Supply well
TW
S-4
S-3
S-2
S-1
D-4
D-3
D-2
D-1
PW-2
PW-1

FORM 0428
6/86

RIGHT OF ENTRY AGREEMENT/WELL CONSTRUCTION

The SOUTH FLORIDA WATER MANAGEMENT DISTRICT and/or XXXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX and the agents, employees or assigns of each, (Permittees) are hereby granted the right to enter upon property owned by John Wuchte (owner), and described herein, for the following purposes:

1. XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
2. XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX XXXXXXXXXX.
3. XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX.
4. To periodically be allowed access to the well(s) for the purpose of monitoring water levels and/or water quality sampling.

Such equipment as may be needed to accomplish the above purposes may be brought upon, over and across the property, which is described as follows:

South half of ten (10) acres located at 10819 Orange Avenue, Ft. Pierce, FL.

SW 1/4 of the NW 1/4 of the SE 1/4 of Section 9, Township 35 south, Range 39 east, St. Lucie County, Florida.

The permittees, and each of them, warrant to the undersigned that upon completion of the above purposes, the property will be left in, or restored to, the same condition as it was when the permittees or their contractor(s) first entered upon the land to begin their work.

The permittees, and each of them, separately and severally, to the extent permitted by law, shall save and hold harmless the undersigned owner from claims for damages or injury caused by the permittees, their agents, servants, employees, or contractors, during the time this permit for access and use is in effect.

x John Wuchte
OWNER

Date: x 8-26-90

Executed by owner in presence of:

x Renee Roberts

x Victor Tapia

COUNTERSIGNED BY PERMITTEE(s)

[signature]
for SFWMD

Date: 8/29/90

____
for

Date: ______________________

WELL COMPLETION REPORT

FORM 0124
Rev. 4/85

WELL PERMIT NO. ______

SFWMD	P.O. BOX 24680	W.P.B.	FLA.	33461
Owner	Address	City	State	Zip

			35'	45'	STL APT-2 5"#2
Contractor's Signature	License No.	Completion Date	Casing Depth	Total Depth	Well #

TONY LUBRANO

Driller's Name: Arthur Tassinari   Registration No.

TYPE OF WORK: Construct (X) Repair ( ) Abandon ( )
WELL USE: Domestic Well ( ) Public ( ) Monitor ( ) Test (X)
Irrigation ( ) Fire Well ( ) Other ______
METHOD: Rotary with MUD (X) or Air ( ), Cable Tool ( ), Jet ( )
Casing Driven ( ), Other ______
STATIC WATER LEVEL ______ Ft. below top of casing
PUMPING WATER LEVEL ______ Ft. after ______ Hrs. at ______ GPM
PUMP SIZE ______ H.P. CAPACITY ______ GPM
PUMP TYPE ______ INTAKE DEPTH ______ From top of ground

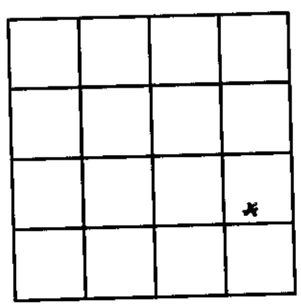
Grout: Thickness & Depth	Casing & Screen: Diameter & Depth		Depth (ft) From	Depth (ft) To	DRILL CUTTINGS LOG Examine cuttings every 20 ft. or at formation changes Give color, grain size, and type of material Note cavities, depth to producing zones.
	2"	0'			
	DIA.	↓			
	PVC	↓			
	CSG	↓			
		35'			
		35'			
	2"	↓			
	DIA.	↓			
	.020	↓			
	SLOT	↓			
Number of bags	PVC	↓			
	SCRN	45'			

LOCATION

Located Near ORANGE AVE. and FLA. TURNPIKE
County ST. LUCIE

SW 1/4	NE	SE	9	35S	39E
	¼	¼	Section	Township	Range

27°26'38" 80°26'07"
Latitude-Longitude



LOCATE IN SECTION

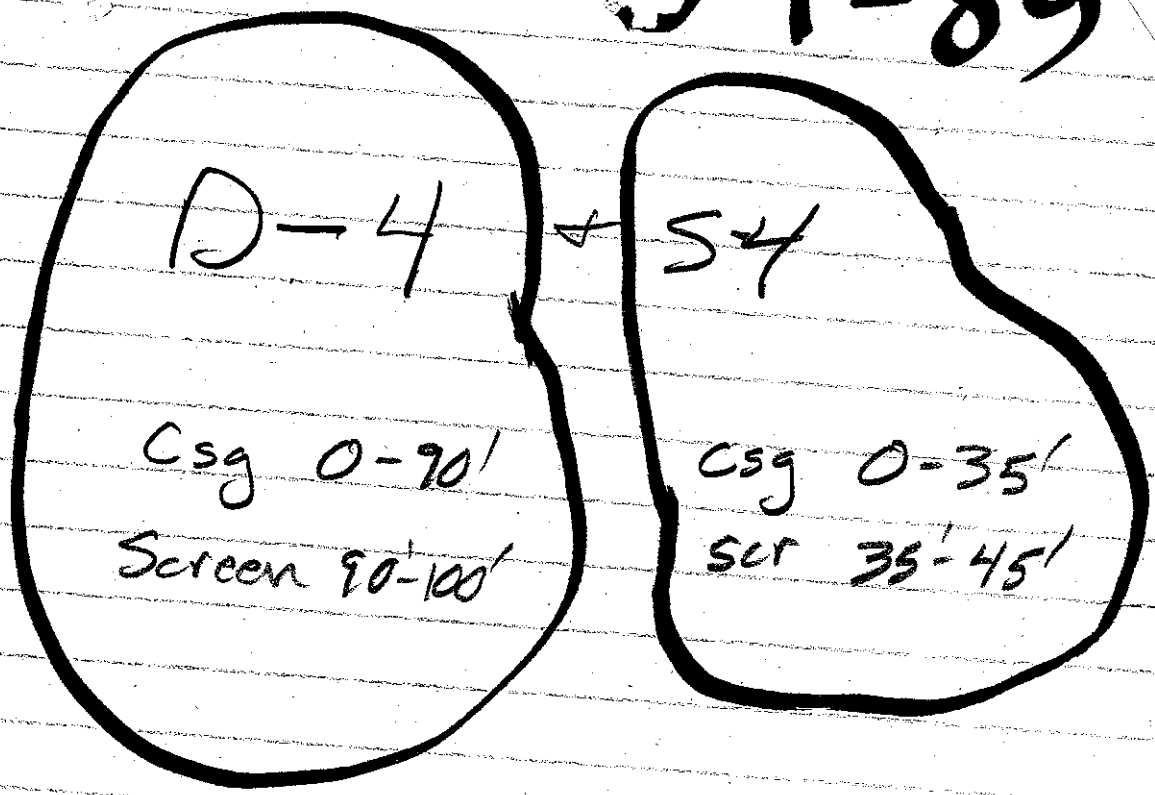
Cuttings sent to District? (X) Yes ( ) No

Note: PWS Wells attach a site map if well location is different from site location on permit application.

Casing: Black Steel ( ) Galv. ( ) PVC (X) Fiberglass ( )
Screen: Type 2" PVC Slot size .020"
Screened from 35' (ft.) to 45' (ft.)
Type of grout with % additives ______
Water: Clear ( ) Colored ( ) Sulphur ( ) Salty ( ) Iron ( )
Conductivity ______ Chlorides ______ mg/l

STL APT 2

3-1-89



Site S1

8 hrs Thurs 3/23 set up rig

8 hrs Fri 3/24 rig pump went out 10 AM approx 40' hole

8½ hrs Mon 3/27 Fix rig pump pull 45' well in plus repair hoppes discharge pump

13 bags sand 2 bags hole plug 2 bags cement

10 hrs Tues 3/28 Site S2 14 bags sand 1 bag cement

Site S4, 10 bags sand 2 bags hole plug 1 bag cement

9 hrs Wed 3/29 STL APT-2 7 bags sand, 1 bag hole plug, 1 bag cement

FORM 0428
6/86

RIGHT OF ENTRY AGREEMENT/WELL CONSTRUCTION

The SOUTH FLORIDA WATER MANAGEMENT DISTRICT and/or XX XXXXXX XXXXXXXXXXXXXXXXXX and the agents, employees or assigns of each, (Permittees) are hereby granted the right to enter upon property owned by JAMES S. SPITERI (owner), and described herein, for the following purposes:

1. To construct water well(s) for the purpose of gathering lithologic data.
2. To conduct aquifer performance and step drawdown test(s) to determine water availability.
3. To collect geophysical logs on selected well(s). * SEE ATTACHMENT "A".
4. To periodically be allowed access to the well(s) for the purpose of monitoring water levels and/or water quality sampling.

Such equipment as may be needed to accomplish the above purposes may be brought upon, over and across the property, which is described as follows:

South half of 10 acres at 10819 Orange Ave., Ft. Pierce, Florida

The permittees, and each of them, warrant to the undersigned that upon completion of the above purposes, the property will be left in, or restored to, the same condition as it was when the permittees or their contractor(s) first entered upon the land to begin their work.

The permittees, and each of them, separately and severally, to the extent permitted by law, shall save and hold harmless the undersigned owner from claims for damages or injury caused by the permittees, their agents, servants, employees, or contractors, during the time this permit for access and use is in effect.

James S. Spiteri
OWNER

Date: Jan. 17, 1989

Executed by owner in presence of:

Don G. J. Padgett

John Sulosienica

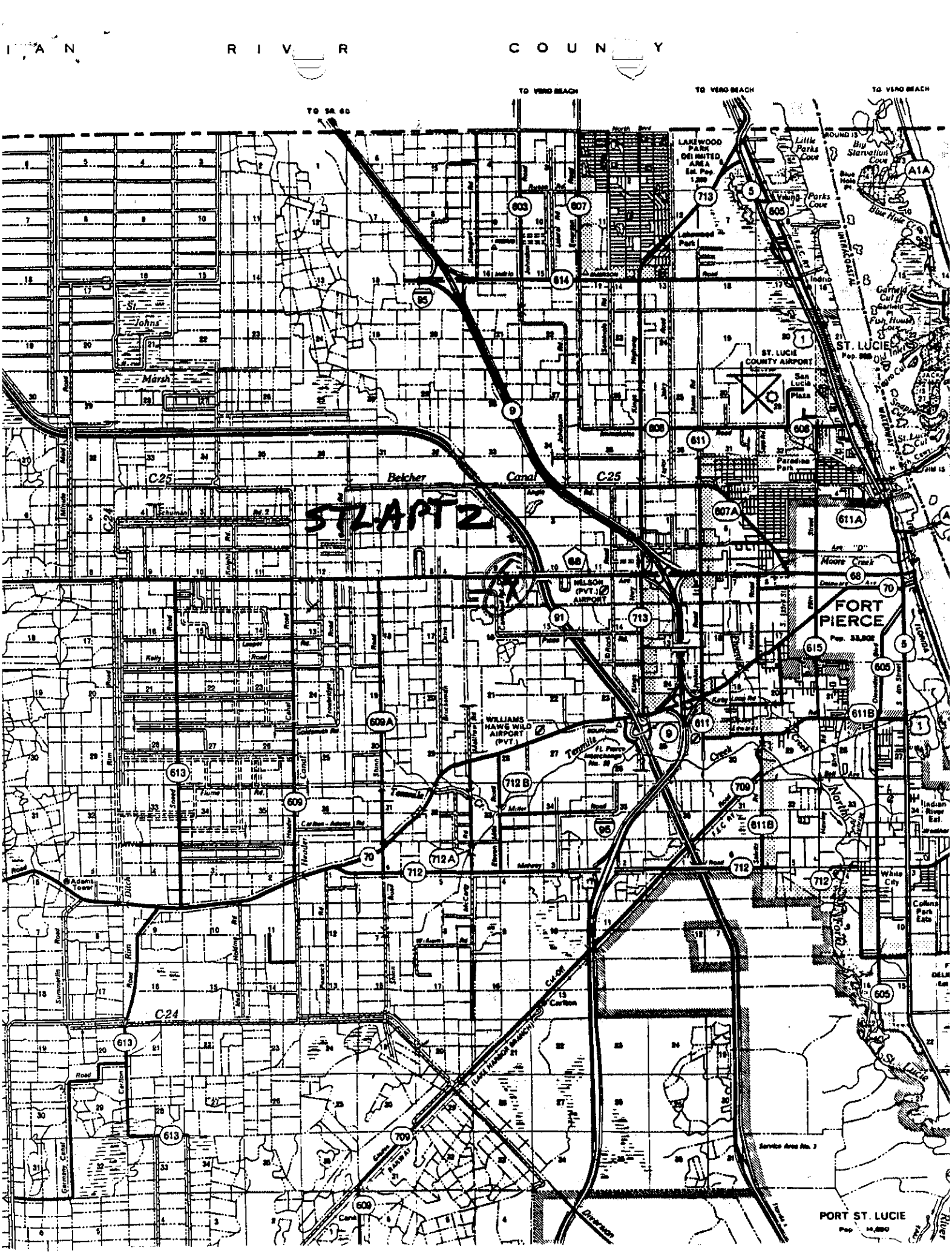
COUNTERSIGNED BY PERMITTEE(s)

M. P. Gontek
for SFWMD

Date: 1/18/89

for

Date:


I A N R I V E R C O U N T Y
TO VERO BEACH
TO VERO BEACH
TO VERO BEACH
TO SR 60
LAKEWOOD PARK DELIMITED AREA
Little Parks Cove
Big Stanahan Cove
Blue Hole
Blue River
Young Parks Cove
Lakewood Park
INTRACOASTAL
Garfield Cut
Garfield Fish Houses
ST. LUCIE
ST. LUCIE COUNTY AIRPORT
San Lucia Plaza
St. Lucie Cut
St. Johns Marsh
C25
Belcher Canal
C24
START2
Paradise Park
Moore Creek
NELSON (PVT.) AIRPORT
FORT PIERCE
WILLIAMS HAWS WILD AIRPORT (PVT.)
Ft. Pierce Intersection No. 3
Taylor Creek
Indian River Est.
White City
Collins Park Estates
Adams Tower
Ditch
Rim Road
Summerlin Road
Cut-off
Ft. Pierce Harbor Branch
Canal
Diversion
PORT ST. LUCIE
River
A1A
1
5
9
68
70
85
91
95
603
605
606
607
607A
608
609
609A
611
611A
611B
612
612A
612B
613
615
709
712
713
814

WELL COMPLETION REPORT FORM 0124 Rev. 4/85 **WELL PERMIT NO.** _____

SFWMD	P.O. Box 24680	W.P.B.	FLA.	33461
Owner	Address	City	State	Zip

			35'	45'	ST LAPT-2 S-XI
Contractor's Signature	License No.	Completion Date	Casing Depth	Total Depth	Well #

~~TONY LUBRANO~~
Driller's Name

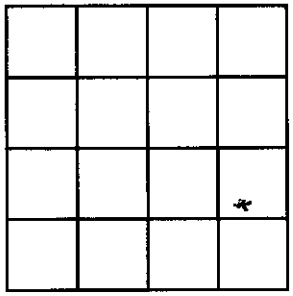
Registration No.
Arthur Tassinari

TYPE OF WORK: Construct (X) Repair ( ) Abandon ( )
WELL USE: Domestic Well ( ) Public ( ) Monitor ( ) Test (X)
Irrigation ( ) Fire Well ( ) Other _____
METHOD: Rotary with MUD (X) or Air ( ), Cable Tool ( ), Jet ( )
Casing Driven ( ), Other _____
STATIC WATER LEVEL _____ Ft. below top of casing
PUMPING WATER LEVEL _____ Ft. after _____ Hrs. at _____ GPM
PUMP SIZE _____ H.P. CAPACITY _____ GPM
PUMP TYPE _____ INTAKE DEPTH _____ From top of ground

LOCATION
Located Near ORANGE AVE and FLA. TURNPIKE
County ST. LUCIE

SW ¼ NE ¼ SE ¼ Section 9 Township 35S Range 39E

27°26'38" 80°26'07"
Latitude-Longitude



LOCATE IN SECTION

Cuttings sent to District? (X) Yes ( ) No

Note: PWS Wells attach a site map if well location is different from site location on permit application.

Grout Thickness & Depth	Casing & Screen Diameter & Depth		Depth (ft) From	Depth (ft) To	DRILL CUTTINGS LOG Examine cuttings every 20 ft. or at formation changes. Give color, grain size, and type of material. Note cavities, depth to producing zones.
		0'			
	2"				
	DIA.				
	PVC.				
	CSG				
		35'			
		35'			
	2" DIA.				
	.020"				
	SLOT				
Number of bags	PVC				
	SCRN.	45'			

Casing: Black Steel ( ) Galv. ( ) PVC (X) Fiberglass ( )
Screen: Type 2" PVC Slot size .020
Screened from 35 (ft.) to 45 (ft.)
Type of grout with % additives _____
Water: Clear ( ) Colored ( ) Sulphur ( ) Salty ( ) Iron ( )
Conductivity _____ Chlorides _____ mg/l

WELL COMPLETION REPORT

FORM 0124
Rev. 4/85

WELL PERMIT NO. _____

SFWMD — Owner
P.O. Box 24680 — Address
W.P.B. — City
FLA — State
33461 — Zip

Contractor's Signature — License No. — Completion Date
35 — Casing Depth
45' — Total Depth
STLAPT-2 5-4 — Well #

Arthur Tassinari — Driller's Name
Registration No.

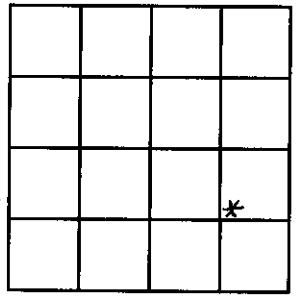
TYPE OF WORK: Construct (X) Repair ( ) Abandon ( )
'ELL USE: Domestic Well ( ) Public ( ) Monitor ( ) Test (X)
Irrigation ( ) Fire Well ( ) Other _____
METHOD: Rotary with MUD (X) or Air ( ), Cable Tool ( ), Jet ( )
Casing Driven ( ), Other _____
STATIC WATER LEVEL _____ Ft. below top of casing
PUMPING WATER LEVEL _____ Ft. after _____ Hrs. at _____ GPM
PUMP SIZE _____ H.P. CAPACITY _____ GPM
PUMP TYPE _____ INTAKE DEPTH _____
From top of ground

LOCATION
Located Near Orange Ave & Florida Turnpike
County St Lucie

SW 1/4

NE SE 9 35S 39E
¼ ¼ Section Township Range

27°26'38" 80°26'09"
Latitude-Longitude



LOCATE IN SECTION

Cuttings sent to District? ( ) Yes ( ) No

Note: PWS Wells attach a site map if well location is different from site location on permit application.

Grout Thickness & Depth	Casing & Screen Diameter & Depth		Depth (ft) From	Depth (ft) To	DRILL CUTTINGS LOG Examine cuttings every 20 ft. or at formation changes Give color, grain size, and type of material Note cavities, depth to producing zones.
	0				
	2" Dia				
	PVC	Csg			
		35'			
	35'				
	2" Dia				
	PVC	Screen			
	.020	Slot			
		45'			
Number of bags					

Casing: Black Steel ( ) Galv. ( ) PVC (X) Fiberglass ( )
Screen: Type PVC Slot size .020"
Screened from 35' (ft.) to 45' (ft.)
Type of grout with % additives Neat
Water: Clear ( ) Colored ( ) Sulphur ( ) Salty ( ) Iron ( )
Conductivity _____ Chlorides _____ mg/l

WELL COMPLETION REPORT

FORM 0124
Rev. 4/85

WELL PERMIT NO. _____

SFWMD	P.O. BOX 24680	W.P.B.	FLA.	33461
Owner	Address	City	State	Zip

		3/2/89	90'	100'	ST L APT-2 D-2
Contractor's Signature	License No.	Completion Date	Casing Depth	Total Depth	Well #

TONY LUBRANO
Driller's Name — Registration No.

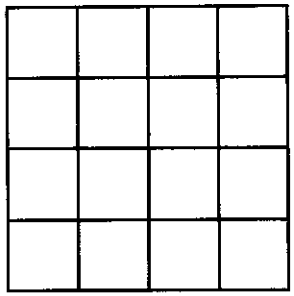
TYPE OF WORK: Construct (X) Repair ( ) Abandon ( )
WELL USE: Domestic Well ( ) Public ( ) Monitor ( ) Test (X)
Irrigation ( ) Fire Well ( ) Other _____
METHOD: Rotary with MUD (X) or Air ( ), Cable Tool ( ), Jet ( )
Casing Driven ( ), Other _____
STATIC WATER LEVEL _____ Ft. below top of casing
PUMPING WATER LEVEL _____ Ft. after _____ Hrs. at _____ GPM
PUMP SIZE _____ H.P. CAPACITY _____ GPM
PUMP TYPE _____ INTAKE DEPTH _____ From top of ground

LOCATION
Located Near ORANGE AVE and FLA. TURNPIKE
County ST. LUCIE

SW 1/4

NE	SE	9	35S	39E
¼	¼	Section	Township	Range

27°26'38" 80°26'07"
Latitude-Longitude



LOCATE IN SECTION

Cuttings sent to District? ( ) Yes ( ) No

Note: PWS Wells attach a site map if well location is different from site location on permit application.

Grout Thickness & Depth	Casing & Screen Diameter & Depth		Depth (ft) From	Depth (ft) To	DRILL CUTTINGS LOG Examine cuttings every 20 ft. or at formation changes. Give color, grain size, and type of material. Note cavities, depth to producing zones.
	0'				
	2"	DIA.			
	PVC	CSG.			
	TO	90'			
	90'				
	2"	DIA			
	PVC				
	SCREEN				
	.020"	SLOT			
	TO	100'			
Number of bags					

Casing: Black Steel ( ) Galv. ( ) PVC (X) Fiberglass ( )
Screen: Type 2" PVC Slot size .020
Screened from 90 (ft.) to 100 (ft.)
Type of grout with % additives _____
Water: Clear ( ) Colored ( ) Sulphur ( ) Salty ( ) Iron ( )
Conductivity _____ Chlorides _____ mg/l

WELL COMPLETION REPORT

FORM 0124
Rev. 4/85

WELL PERMIT NO. _____

SFWMD	P.O. Box 24680	W.P.B.	FLA.	33461
Owner	Address	City	State	Zip

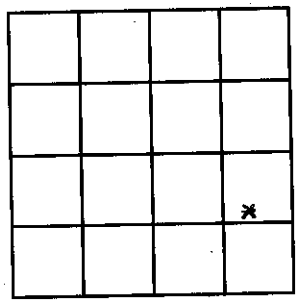
		3/1/89	90'	100'	ST LAPT-2 O-X1
Contractor's Signature	License No.	Completion Date	Casing Depth	Total Depth	Well #

TONY LUBRANO
Driller's Name — Registration No.

TYPE OF WORK: Construct (X) Repair ( ) Abandon ( )
WELL USE: Domestic Well ( ) Public ( ) Monitor ( ) Test (X)
Irrigation ( ) Fire Well ( ) Other _____
METHOD: Rotary with MUD (X) or Air ( ), Cable Tool ( ), Jet ( )
Casing Driven ( ), Other _____
STATIC WATER LEVEL _____ Ft. below top of casing
PUMPING WATER LEVEL _____ Ft. after _____ Hrs. at _____ GPM
PUMP SIZE _____ H.P. CAPACITY _____ GPM
PUMP TYPE _____ INTAKE DEPTH _____ From top of ground

LOCATION
Located Near Orange Ave and Fla Turnpike
County St. Lucie

SW ¼ NE ¼ SE Section 9 Township 35S Range 39E
27°26'38" 80°26'07"
Latitude-Longitude



LOCATE IN SECTION

Cuttings sent to District? (X) Yes ( ) No

Note: PWS Wells attach a site map if well location is different from site location on permit application.

Grout Thickness & Depth	Casing & Screen Diameter & Depth		Depth (ft) From	Depth (ft) To	DRILL CUTTINGS LOG Examine cuttings every 20 ft. or at formation changes. Give color, grain size, and type of material. Note cavities, depth to producing zones.
		0'			
	2"	↓			
	DIA.	↓			
	PVC	↓			
	CSG	90'			
		90'			
	2"	↓			
	DIA	↓			
	.020	↓			
	SLOT	↓			
Number of bags	SCREEN	100'			

Casing: Black Steel ( ) Galv. ( ) PVC (X) Fiberglass ( )
Screen: Type 2" PVC Slot size .020"
Screened from 90 (ft.) to 100 (ft.)
Type of grout with % additives _____
Water: Clear ( ) Colored ( ) Sulphur ( ) Salty ( ) Iron ( )
Conductivity _____ Chlorides _____ mg/l

WELL COMPLETION REPORT

FORM 0124
Rev. 4/85

WELL PERMIT NO. _____

SFWMD — Owner
P.O. Box 24680 — Address
WPB. — City
FL — State
33641 — Zip

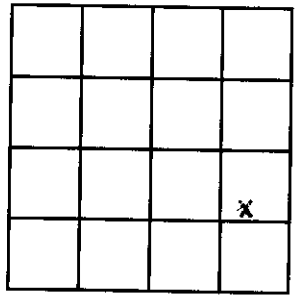
Contractor's Signature — License No. — 2/23/89 Completion Date — 70' Casing Depth — 137' Total Depth — STLAPT2PW-1 Well #

Tony Lubrano — Driller's Name
Registration No.

TYPE OF WORK: Construct (X) Repair ( ) Abandon ( )
WELL USE: Domestic Well ( ) Public ( ) Monitor ( ) Test (X)
Irrigation ( ) Fire Well ( ) Other _____
METHOD: Rotary with MUD (X) or Air ( ), Cable Tool ( ), Jet ( )
Casing Driven ( ), Other _____
STATIC WATER LEVEL _____ Ft. below top of casing
PUMPING WATER LEVEL _____ Ft. after _____ Hrs. at _____ GPM
PUMP SIZE _____ H.P. CAPACITY _____ GPM
PUMP TYPE _____ INTAKE DEPTH _____
From top of ground

LOCATION
Located Near Orange Ave And Turnpike
County St Lucie

SW ¼ NE ¼ SE ¼ 9 Section 35S Township 39E Range
27°26'38" 80°26'07" Latitude-Longitude



LOCATE IN SECTION

Cuttings sent to District? (X) Yes ( ) No

Note: PWS Wells attach a site map if well location is different from site location on permit application.

Grout Thickness & Depth	Casing & Screen Diameter & Depth	Depth (ft) From	Depth (ft) To	DRILL CUTTINGS LOG Examine cuttings every 20 ft. or at formation changes Give color, grain size, and type of material Note cavities, depth to producing zones.
	0			
	6" Dia			
	PVC Csg			
	70'			
	70'			
	6" Dia			
	PVC Scr			
	Slot			
	120			
				Logged 2/22/83
Number of bags				Station ID
		TD=137'		111000058

Casing: Black Steel ( ) ~~Galv.~~ PVC (X) Fiberglass ( )
Screen: Type 6" PVC Slot size _____
Screened from 70' (ft.) to 120' (ft.)
Type of grout with % additives Neat
Water: Clear ( ) Colored ( ) Sulphur ( ) Salty ( ) Iron ( )
Conductivity _____ Chlorides _____ mg/l

WELL COMPLETION REPORT

FORM 0124
Rev. 4/85

WELL PERMIT NO. _____

SFWMD	P.O. BOX 24680	W. P. B.	FLORIDA	33461
Owner	Address	City	State	Zip

		1/31/89		134'	STL APT-2 PW TW
Contractor's Signature	License No.	Completion Date	Casing Depth	Total Depth	Well #

TONY LUBRANO
Driller's Name — Registration No.

TYPE OF WORK: Construct (✓) Repair ( ) Abandon (✓)
WELL USE: Domestic Well ( ) Public ( ) Monitor ( ) ~~Test (P)~~
Irrigation ( ) Fire Well ( ) Other _____
METHOD: Rotary with MUD (✓) or Air ( ), Cable Tool ( ), Jet ( )
Casing Driven ( ), Other _____
STATIC WATER LEVEL _____ Ft. below top of casing
PUMPING WATER LEVEL _____ Ft. after _____ Hrs. at _____ GPM
PUMP SIZE _____ H.P. CAPACITY _____ GPM
PUMP TYPE _____ INTAKE DEPTH _____
From top of ground

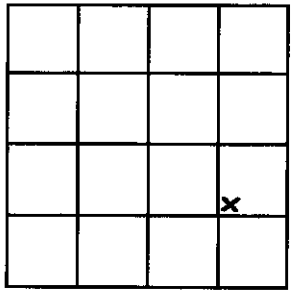
LOCATION

Located Near FLA. TURNPIKE AND ORANGE AVE
County ST. LUCIE

NE	SE	9	34S (35)	39E
¼	¼	Section	Township	Range

27°26'38" (38) 80° 26' 09"
Latitude-Longitude

Cuttings sent to District? (X) Yes ( ) No



LOCATE IN SECTION

Note: PWS Wells attach a site map if well location is different from site location on permit application.

Grout Thickness & Depth	Casing & Screen Diameter & Depth		Depth (ft) From	Depth (ft) To	DRILL CUTTINGS LOG Examine cuttings every 20 ft. or at formation changes Give color, grain size, and type of material Note cavities, depth to producing zones.
	6"	DIA.	0'	65'	
	PVC	CSG.			
	6"	DIA.			
Number of bags					Logs Available STL APT2 TW STATION ID 110000057

Casing: Black Steel ( ) Galv. ( ) PVC ( ) Fiberglass ( )
Screen: Type _____ Slot size _____
Screened from _____ (ft.) to _____ (ft.)
Type of grout with % additives _____
Water: Clear ( ) Colored ( ) Sulphur ( ) Salty ( ) Iron ( )
Conductivity _____ Chlorides _____ mg/l

WELL COMPLETION REPORT

FORM 0124
Rev. 4/85

WELL PERMIT NO. _____

SFWMD — Owner
P.O. Box 24680 — Address
WPB — City
FL — State
33641 — Zip

Contractor's Signature — License No. — 1-23-89 Completion Date — 0-80' 90-100' Casing Depth — 100' Total Depth — STL APT-2 DP/D-2 Well #

Tony Lubrano — Driller's Name — Registration No.

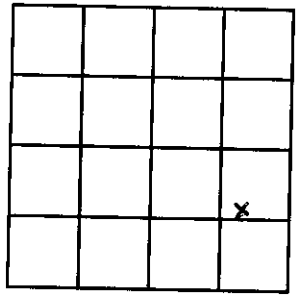
D-3

TYPE OF WORK: Construct (X) Repair ( ) Abandon ( )
WELL USE: Domestic Well ( ) Public ( ) Monitor (X) Test ( )
Irrigation ( ) Fire Well ( ) Other _____
METHOD: Rotary with MUD (X) or Air ( ), Cable Tool ( ), Jet ( )
Casing Driven ( ), Other _____
STATIC WATER LEVEL _____ Ft. below top of casing
PUMPING WATER LEVEL _____ Ft. after _____ Hrs. at _____ GPM
PUMP SIZE _____ H.P. CAPACITY _____ GPM
PUMP TYPE _____ INTAKE DEPTH _____ From top of ground

LOCATION
Located Near Orange Ave & Fla Turnpike
County ST Lucie

SW 1/4 | NE 1/4 | SE | 9 Section | 35 Township | 39E Range

Latitude-Longitude



LOCATE IN SECTION

Cuttings sent to District? (X) Yes ( ) No

Note: PWS Wells attach a site map if well location is different from site location on permit application.

Grout Thickness & Depth	Casing & Screen Diameter & Depth	Depth (ft) From	Depth (ft) To	DRILL CUTTINGS LOG Examine cuttings every 20 ft. or at formation changes. Give color, grain size, and type of material Note cavities, depth to producing zones.
	0			
	2" Dia			
	PVC			
	80'			
	80'			
	2" Dia			
	.020 slot			
	PVC Screen			
	90'			
	90'			
	2" Dia			
Number of bags	PVC Blank			
	100'			
				12 bags 20/30 sand

Casing: Black Steel ( ) Galv. ( ) PVC (X) Fiberglass ( )
Screen: Type 2" PVC Slot size .020
Screened from 80' (ft.) to 90' (ft.)
Type of grout with % additives Neat
Water: Clear ( ) Colored ( ) Sulphur ( ) Salty ( ) Iron ( )
Conductivity _____ Chlorides _____ mg/l

WELL COMPLETION REPORT

FORM 0124
Rev. 4/85

WELL PERMIT NO. _____

SFWMD — P.O. Box 24680 — West Palm Beach — FL — 33416
Owner — Address — City — State — Zip

Contractor's Signature — License No. — 1/19/89 Completion Date — 0-80 90-140 Casing Depth — 143 Total Depth — STLART-2 D-4 Well #

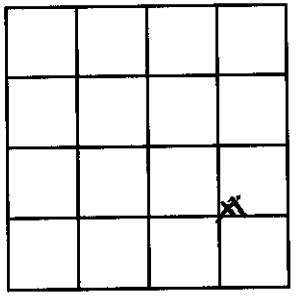
Tony Lubrano
Driller's Name — Registration No.

TYPE OF WORK: Construct (X) Repair ( ) Abandon ( )
WELL USE: Domestic Well ( ) Public ( ) Monitor (X) Test ( )
Irrigation ( ) Fire Well ( ) Other _____
METHOD: Rotary with MUD (X) or Air ( ), Cable Tool ( ), Jet ( )
Casing Driven ( ), Other _____
STATIC WATER LEVEL _____ Ft. below top of casing
PUMPING WATER LEVEL _____ Ft. after _____ Hrs. at _____ GPM
PUMP SIZE _____ H.P. CAPACITY _____ GPM
PUMP TYPE _____ INTAKE DEPTH _____ From top of ground

LOCATION
Located Near Orange Ave & FL Turnpike
County St Lucie

SW¼ NE SE 9 35S 39E
¼ ¼ Section Township Range

27°26'38" 80°26'09"
Latitude-Longitude


LOCATE IN SECTION

Cuttings sent to District? (X) Yes ( ) No

Note: PWS Wells attach a site map if well location is different from site location on permit application.

Grout Thickness & Depth	Casing & Screen Diameter & Depth	Depth (ft) From	Depth (ft) To	DRILL CUTTINGS LOG Examine cuttings every 20 ft. or at formation changes. Give color, grain size, and type of material. Note cavities, depth to producing zones.
	0			
	2" dia			
	PVC			
	80'			
	80'			
	2" dia			
	PVC Screen			
	0.020 slot			
	90'			
	90'			
	2" dia PVC blank			
Number of bags	140'			
			143'	10 bags 20/30 sd

Casing: Black Steel ( ) Galv. ( ) PVC ( ) Fiberglass ( )
Screen: Type 2" PVC Slot size .020
Screened from 80' (ft.) to 90' (ft.)
Type of grout with % additives _____
Water: Clear ( ) Colored ( ) Sulphur ( ) Salty ( ) Iron ( )
Conductivity _____ Chlorides _____ mg/l

ATTACHMENT A
USE OF RADIOACTIVE MATERIALS IN TEST WELL

1. Property owner authorizes use of sealed nuclear source for geophysical logging purposes in test well construction.

2. In the event the sealed source is lodged downhole, every effort at recovery of said source will be utilized.

3. If a decision is made to abandon the sealed source downhole, it will be done so in compliance with Florida Administrative Code Section 10D-91.1200, Control of Radiation Hazard Regulations.

4. In the event the said source is lost downhole, South Florida Water Management District will be responsible for the protection from any contamination of the well and surrounding formation water from said source.

5. The Radiation Safety Officer of this agency is responsible for compliance with the above-mentioned Department of Health and Rehabilitative Services regulations.

James D. Syfert
OWNER

1-17-89
DATE

SFWMD RADIATION SAFETY OFFICER

1/18/89
DATE

FORM RP 50
Rev 1979

WELL DRILLER'S LOG

(Samples taken with wire strainer)

SOUTH FLORIDA WATER MANAGEMENT DISTRICT

PROJECT STL APT-2 WELL NO. D-~~X~~1 DATE 3-1-89

5 5/8" DIA. TRICONE BIT : MUD ROTARY w/Bentonite & EASY MUD POLYMER

DEPTH	DESCRIPTION – ROCK TYPE, COLOR, HARDNESS, OTHER
0850	BEGIN DRILLING w/ 5 5/8" DIA. DRAG BIT ON KELLY
0852	0-2' DARK BROWN SAND 2-5' LT. BROWN SAND w/ CLAY & ORGAN
0855	5-10' LT. BROWN SAND w/ CLAY (GREENISH) & ORGANIC MATERIAL
0857	10'-15' AS ABOVE (DARK BROWN LAYER @ 10') {DESANDER ON}
0859	15'-20' BROWN SAND MIXED w/ CLAY @ 20' LIMESTONE & SHELL LAYER
0900	K.D. @ 22' AND CIRCULATING @ 22' BIOGENIC LS (70%) LT. GREY
	AND SHELLS (30%) (RECRYSTALLIZED). CIRCULATE TILL 0905
0905	ADD ROD #1 (D.P. w/ STABILIZERS) T.S. = 47 {DESANDER OFF}
0910	RESUME DRILLING AT 22'. 22'-25' LS/SHELL AS ABOVE
0912	25'-27' - SHELL ZONE
0914	27'-30' - BIOGENIC GREY LIMESTONE RESUMES.
0915	30'-33' SANDY, SHELLY LIME MUD (clay?)
0916	33-35' AS ABOVE WITH ANGULAR BIOGENIC LIMESTONE
0918	35'-39' SHELL HASH WITH SOME LIME MUD
0919	39-42' PURE SHELL LAYER (Whole & Broken) Chione, Olivella
0920	K.D. @ 42' CIRCULATING & DESANDING
0925	ADD ROD #2 (20') T.S. = 47'
0930	42'-45' ~70% SHELL, 30% MED. GREY BIOGENIC LS.
0933	45'-50' LS. CONTENT INCREASES TO ~50/50 LS/shell →
	(STROMBUS sp., CHIONE sp.) @ 47' - Black shell Hash layer
0940	50'-55' DARK GREY LS. CONTENT INCREASES, SHELL & SOME LIME MUD.
0945	55'-61' AS ABOVE - WITH BIT BEGINNING TO CHATTER...
0950	K.D. @ 62' LOUD BIT CHATTER. HARD MOTTLED LS
	AND RECRYSTALLIZED SHELL. INCREASE RIG RPMS
1000	ADD ROD #3 (20') T.S.= 87' RESUME DRILLING @ 1005 Am.
	CONFINING ZONE BET. 61'-64' (10 min total Drilling to penetrate)
1010	64-66' CHATTER STOPS @ 64' DRK. GRY LS. w/ SOME SHELL
1012	66'-70' SHELL CONTENT INCREASES TO ~60% w/ 40% LIMESTONE
1015	70-75 ~80% LIME MUD WITH 20% BROKEN SHELL (75'-80' SA
1020	80-82' SHELL INCREASE TO ~~40%~~ 60%. LIME MUD, KELLY DOWN
1025-30	CIRCULATE & ADD ROD #4 (20') T.S. = 107'
1034	82'-85' - 70% LIME MUD, 30% SHELL
1038	85-90 MED. GREY LS. (~~30%~~ 20%), LIME MUD (~~20%~~) & SHELL (60%)
1042	90-95 AS ABOVE w/ SAND
1045	95-100 AS ABOVE SHELL, LIME MUD & LS.
1100	K.D. @ 102'

FORM RP 50
[illegible] 1979

(Samples taken with wire strainer)

WELL DRILLER'S LOG

SOUTH FLORIDA WATER MANAGEMENT DISTRICT

PROJECT STL APT-2 WELL NO. D-~~1~~ 2 DATE 3-2-89

5 5/8" DIA. TRICONE BIT : MUD ROTARY w/ BENTONITE & EASY MUD POLYMER

DEPTH	DESCRIPTION – ROCK TYPE, COLOR, HARDNESS, OTHER
0910	BEGIN DRILLING WITH 5 5/8" DIA. DRAG BIT ON KELLY
	0-1' : DARK BROWN SAND & PLANT ROOTS
0911	1-5' LT. BROWN-BROWN QTZ SAND WITH GREENISH CLAY.
0912	5'-10' AS ABOVE. DARK BROWN LAYER @ ~8'
0913	10-15' LT. BROWN QTZ. SAND, CLAY & PLANT ROOTS
0915	15-20' AS ABOVE. DARK LAYER @ ~18' WHITE LIMESTONE RETURNS @
0918	20-22' WHT. LS. & SHELL. K.D. @ 22'
0920	ADD ROD #1 (20' w/STABILIZERS) CHANGE TO 5 5/8" TRICONE BIT (=
0923	22-25' WHT-LT. GREY LIMESTONE (LS.) WITH SMALL WHOLE SHELLS
0927	25-30' MOTTLED LT. GREY BIOGENIC LIMESTONE
0929	30-33' AS ABOVE WITH CHUNKS OF SHELL; TAKING SOME WATE
0933	33-35' MOTTLED LT. GREY BIO. LS ADMIXED WITH FINE SHELL & LIME MUD
0935	35-40' LIMESTONE AND SHELL HASH; SHELL LAYER @ 40'
0940	40-42' SHELL: WHOLE/BROKEN / Chione, Olivella, gastropoda / K.D @ 42' (CIRCUL
0945	ADD ROD #2 (20') T.S. = 47'
0947	42-45' YELLOW SHELL HASH
0950	45-50' DK. BRN-BLACK SHELL LAYER (REDUCING ENVIRONMENT)
0953	50-55' YELLOW SHELL HASH (SOME BLACK SHELLS FROM ABOVE)
0955	55-57' GREEN TO GRAY LIMESTONE AND SHELLS (whole & FINELY BROKEN
1000	57-60' AS ABOVE WITH VERMICULARIA SP. (COILED GAST.)
1001	K.D. @ 62' 60-62' YELLOW SHELL HASH w/ MANY LARGER & UNBROKEN...
1004-07	CIRCULATING & BRINGING UP GREEN GRAY LS. (HARD) & RECRYSTALLIZED
	SHELL CHUNKS (NO BIT CHATTER...) → ADD ROD #3 (20') T.S. = 87
1012-1016	@ 63' BIT CHATTER; 63-65' HARD, CONFINING ZONE AS ABOVE
1020	65-70' SHELL HASH WITH MOTTLED GREY-WHT LIMESTONE
1025	70-75' AS ABOVE WITH SHOWINGS OF LIME MUD.
1027	75-80' ~60% LIME MUD / 40% SHELL HASH
1030	K.D. @ 82' ADD ROD # 4 (20') T.S. = 107', RESUME DRILL. @ 103
1038	80-85' ~60/40 LIME MUD & SHELL FAST DRILLING
1040	85-90' PREDOMINATELY SHELL HASH, SOME LIME MUD.
1043	90-95' ~50/50 LIME MUD & SHELL.
1047	@ ~97' ENCOUNTER LIMESTONE WITH SHELL
1050	97-100' GRN-GREY LIMESTONE WITH SHELL
1053	K.D. @ 102' - CIRCULATING; PREPARE TO SET SCREEN
	2" CASING 0-90'
	SCREEN 90-100'

(*NOTE: DESANDER RAN THROUGHOUT EXCEPT END DRILL ROD)

WELL DRILLER'S

SOUTH FLORIDA WATER MANAGE DISTRICT

(1)

PROJECT STL - APT 2 WELL NO. Core #1 DATE 10/9/89 MON.

TIME	DESCRIPTION – ROCK TYPE, COLOR, HARDNESS, OTHER
1300	B.B. ON SITE - DRILLERS HAVE ALREADY PULLED
	OUT 20' TEMPORARY 4" CSG. AND DRILLED / CIRCULATED
	TO 20' DEPTH.
1315	MIXING AQUAGEL & EASY MUD.
1340	TRIPPING IN 2' SPLIT SPOON BARREL
1400	20 - 22' → 65% RECOVERY NOTED COLOR BREAK. (18'-20'
	WAS MED. GRAINED MED - DK. BRN QTZ SAND.) 1ST ½ FT.
	OF SPLIT SPOON MISSING. (20-20.5) : 20.5 - 20.75' MED. GREY SHELLY
	SANDY LIMESTONE : 20.75 - 21' BRN GREY SANDY LS. : 21 - 22'
	SAME AS 20.5 - 20.75 INTERVAL (WITH A COARSE SHELL LAYER
	@ 21.5'
1420	22 - 24' → 100% : 22 - 23.5 LT. GREY - MED GREY SHELLY
	SANDY (MED - COARSE) LIMESTONE : COLOR BREAK @ 23.5 TO.
	MED - DK. GREY SAND & YELLOW SHELL HASH (WELL MIXED).
1440	24 - 26' → 100% : MED GREY SAND WELL MIXED WITH
	FINE - COARSE YELLOW SHELL HASH. OYSTER (OSTREA SP) @
	~24' AND OCCASIONAL CHUNKS OF GREY LS.
1445	26 - 28' → 100% : 26 - 26.75' MED - COARSE LT. GREY SAND
	& SHELL HASH. : 26.75 - 28' MED. GREY SAND MIXED WITH
	FINE SHELL AS ABOVE (SOME SILTY CLAY)
1450	28 - 30' → 100% : 28 - 29.5' AS ABOVE : 29.5 - 30'
1500	30 - 32' → 100% : 30 - 31' AS ABOVE : 31 - 32' →
	HIT CREAM COLORED CHUNKY LS. & SAND @ 31.5 → 32'
	SHELL LAYER @ 31.4 - 31.5'
1515	TRIP OUT SPLIT SPOON AND RUN BACK IN WITH 4"
	BIT. CIRCULATING / CLEANING HOLE
1600	TRIP OUT BIT AND RESUME SPLIT SPOON SAMPLING
1615	32 - 34 → 75% : 32 - 33' WHT - LT. GREEN GREY LS. & SHELL HASH
	33 - 34' LT. GRN. GREY SHELLY SAND W/ LS. : (COARSE 1" SHELL
	LAYER AT 33' (YELLOW))
1635	34 - 36 → 100% : 34 - 34.75' LT GREY SANDY, SHELLY LS.
	W/ COARSE SHELL FRAGS. : 34.75 - 36' MED GREY ~~SANDY~~
	SHELLY SAND W/ CHUNKS OF SHELLY LS.

SOUTH FLORIDA WATER MANAGEMENT DISTRICT

(2)

PROJECT STL APT 2 WELL NO. CORE 1 DATE 10/9/89 MON

TIME	DESCRIPTION – ROCK TYPE, COLOR, HARDNESS, OTHER
1650	36-38' → 100% : 36-37.5' MED. GREY SHELLY SAND
	37.5-38' SHELLY SANDY w/LS.
1700	BRAINERD KILMAN REP ON SITE. BEGINNING TO
	RAIN HARD.
1740	38-40' → 38.-39.75 MED GREY (COARSE) SANDY SHELL
	HASH 39.75-40 COLOR CHANGE TO DARKER GREY SAND
	& SHELL.
1800	RUNNING 4" BIT INTO HOLE. WILL CLEAN/CONDITION
	TO 40'
1830	CONTINUE CIRCULATING. RAINING HARDER - PREP.
	TO SHUT DOWN

WELL DRILLER'S

SOUTH FLORIDA WATER MANAGE DISTRICT (3)

PROJECT STL-APT 2 WELL NO. CORE #1 DATE 10/10/89 TUES.

TIME	DESCRIPTION – ROCK TYPE, COLOR, HARDNESS, OTHER
0800	CONTINUING TO CIRCULATE AND DESAND @ 40'
0830	PREPARE TO SPLIT SPOON THRU POORLY ↓ CONSOLIDATED
	SHELLY INTERVAL ~(40'-53'). DESANDER STREAM
	LOADED WITH FINE SHELL HASH & SAND.
0845	LOSING FLUID W/ DESANDER – MIXING BATCH OF
	EASY MUD TO FORTIFY EXISTING MUD.
0915	40-42' → 60% RECOVERY (TOP 9" MISSING) WHT.-MED.
	GREY POORLY ↓ TO MOD. WELL CEMENTED LIMESTONE WITH LARGE CHUNKS
GOOD EX. OF STORM LAYERING (FINING UPWARD SEQUENCES)	OF BROKEN YELLOW ORANGE SHELL (→ 40-41.5') : 41.5-41.9
	PALE YELLOW ORANGE SAND, SHELL & FINE LS. PIECES: LAST
	INCH 41.9-42 IS HARD, MED. GREY SOLUTIONED LIMESTONE.
0930	TOOK 50+ BLOWS TO TRAVEL 43-44', HAVE TRIPPED OUT
	AND WILL BEGIN CORING @ 44', AFTER CLEANING OUT
	HOLE WITH 4". BIT. 42-44' → 60% RECOVERY. CLASSIC
	STORM PRODUCED FINING UPWARD SEQUENCE 43.75'-43' → ORANGE-
	YELLOW SHELL LAG DEPOSIT @ BASE (43.75') GRADING INTO MED.
	TO FINE, MED. GREY QTZ SAND & SILT (43.6-43'). COARSE LS
	SHELL, SAND & SILT FROM 43-42'. & 43.75-44' MED. GREY Q SAND W/ SILT.
1000	TRIPPING OUT 4" DRAG BIT & RUNNING CORE BARREL DOWN
	HOLE TO BEGIN CORE @ 44'.
1020	START CORE #1 ~120 RPM'S
1022	STOP CORING. 2' (44-46') IN TWO MINUTES.
#1	(40%) RECOVERY MED-DRK. GREY SAND @ BASE TOPPED BY
	WHOLE & LARGE SHELL CHUNKS & PIECES OF WHT-MED. GREY HARD LS.
1045	START CORING (46-48')
#2 1048	STOP CORE RUN #2 (2' in 3 MIN.) 1' RECOVERED (50%)
	DK. GREY SAND & SILT W/ FINE TO COARSE SHELL THROUGHOUT.
1100	CHANGING CORE CATCHER IN BARREL (WORN SMOOTH @ BOTTOM)
	TO A NEW ONE OF THE SAME TYPE.
1120	START CORE RUN #3 48-50' (W/ MUD PUMP PRESS SCALED
#3	WAY BACK.)
1123	STOP CORING. 20" OF 24" RECOVERED → (83%) MED-DK GREY
	SAND & SILT W/ FINELY BROKEN SHELL.

WELL DRILLER'S

SOUTH FLORIDA WATER MANAGE DISTRICT

④

PROJECT STL APT 2 WELL NO. CORE #1 DATE 10/10/89

	TIME	DESCRIPTION – ROCK TYPE, COLOR, HARDNESS, OTHER
	1140	TRIPPED BACK IN W/ CORE BARREL. HAVE ~ 1 TO 1½ FT.
		OF FILL IN BOTTOM OF HOLE @ 50'.
#4	1150	START CORE RUN # 4 (50-55')
	1200	STOP → 5' in 9 minutes 3' RECOVERED (60%)
		LT GRN – MED GREY SILTY SAND, CLAY & SHELL. SHELL ZONE
		@ 51'. ... MIXING MUD. TOOK ~ 100 gals OF FLUID.
	1250	TRIPPING BACK IN FOR CORE RUN #5
	1310	START CORE RUN #5 (55-60') 1ST FOOT in 10 Seconds.
#5	1320	UNABLE TO CORE PAST 58.5' (CORE RUN STOPPED) DUE
		TO PRESSURE INCREASE ON FLUID GAUGE AND LACK OF
		DOWN HOLE PROGRESS. TRIP OUT TO HAVE A LOOK.
	1340	55-58.5' → (100%+ RECOVERY) + ~1 EXTRA FOOT
		FROM BOTTOM OF RUN #4. CHALKY WHT LS. & SHELL 58.5-
		~55 / TRANSITION TO MED GREY SILTY, SHELLY SAND
#6	1355	START RUN #6 @ 58.5.
	1425	STOP → E.T. = 30 min FOR 2.5' CORE 58.5 – 61'
		2' OF 2.5' RECOVERED (80%) MOTTLED GRAY BIOMICRITE (59-61')
		(WELL CEMENTED) WITH WHOLE/BROKEN SHELL @ TOP.
#7	1450	START RUN #7. (NOTING A LOT OF STRING WOBBLE IN THE
		HOLE. AFTER LAST RUN, CORE BARREL EXTERIOR WELL POLISHED.)
	1500	STOP RUN #7 61–66' (LAST 1½' CORED IN < 1 min.)
		RECOVERED 2' OF 5' (40%) HARD MOTTLED GREY BIOMICRITE
		UNDERLAIN BY GRAY SILTY SAND. ABRUPT CONTACT BETWEEN
		SOLID BIOMICRITE & SAND RESULTED IN A SUDDEN PRESSURE
		DROP 150 psi in ROCK TO 0 in SAND. DRILLER WAS ALERT.
		UNABLE TO BACK OFF ON MUD PUMP PRESSURE AND WE
		LOST LOWER PORTION OF SANDY CORE (BLEW IT OUT)
	1515	DIAMOND BIT SHOWS 1 DIAMOND MISSING & 2 CHIPPED.
#8	1535	START CORE #8 WASHED DOWN 1ST 1½ FEET BEFORE
		PICKING UP DOWN HOLE PRESSURE. WILL GO FOR A 7½ FT.
		RUN → 66-73.5'.
	1542	STOP RUN #8 7.5 FT in 7 MIN (FAST CORING) MINIMAL MUD PUMP PRESSURE.
		3' RECOVERED OF 7.5' (40%) RECOVERY

WELL DRILLERS

SOUTH FLORIDA WATER MANAGE DISTRICT

PROJECT STL-APT 2 WELL NO. Core 1 DATE 10/10/89 Tues.

TIME	DESCRIPTION – ROCK TYPE, COLOR, HARDNESS, OTHER
	(CONT'D) 66-73.5' GREY SILTY SAND WITH INTERMIXED FINELY
	BROKEN SHELL.
1600	START RUN #9 @ 73.5'
1600 ↓	CAN'T GET BACK TO BOTTOM → GOING IN HOLE WITH
	4" BIT TO CLEAN / CONDITION.
1615	GOING TO RUN 4" CASING INSTEAD...
1645	3 - 21' JOINTS IN HOLE (DRIVING THE LAST 6' IN)
	CASING SET @ 61' BELOW SURFACE ON TOP OF
	HARD MOTTLED BIOMICRITE INTERVAL.
1700	WASHING & DRILLING BACK DOWN TO CORING DEPTH w/ 4" BIT.
1800	CONTINUING TO CIRCULATE & CONDITION HOLE
1815	RETURNS FROM 73' ARE PRETTY CLEAN OF CUTTINGS -
	TRIP OUT TO RUN BACK IN WITH 3 7/8" O.D. CORE
	BARREL. BEGINNING TO RAIN HARD.
1830	

WELL DRILLER'S

SOUTH FLORIDA WATER MANAGE DISTRICT

(6)

PROJECT STL-APT 2 WELL NO. CORE # 1 DATE 10/11/89 wed.

TIME	DESCRIPTION – ROCK TYPE, COLOR, HARDNESS, OTHER
0745	ATTEMPTED TO CIRCULATE W/ 4" BIT DOWN HOLE –
	PLUGGED OFF OVERNIGHT – TRIPPING OUT
0830	UNPLUGGED – MIXING POLYMER & CIRCULATING.
0845	RUN IN CORE BARREL FOR CORE RUN #9. DESPITE A
	CLEAN PASS DOWN HOLE TO 73' WITH 4" NOMINAL DIA DRAG
	BIT (3 7/8" O.D.), BARREL WILL NOT RUN PAST 63' – HARD
	BIOMICRITE LAYER WHERE THE CASING SITS.
0900	TRIP OUT BARREL & IN WITH NEWER 4" DRAG BIT TO
	TRY AND OPEN THINGS UP A BIT.
0930	BARREL GOES DOWN HOLE OK!
1010	START CORE RUN #9 73.5-79'
#9 1020	STOP → 5.5' in 10 min 38" recovered of 66" cored
	57.6% = (58%) PREDOMINATELY LIME MUD W/ SAND AND FINE SHELL
1045	WASHING CORE BARREL DOWN & MIXING MUD (AQUAGEL).
#10 1120	START CORE # 10 @ 79'
1128	STOP RUN → 4.5' in 8 mins. (Good returns fine sand, mud & shell)
	Sandy, med grey lime mud with SHELL BED @ 83'-83.5'.
1200	CORE RUN # 11 START GOOD RETURNS – TRYING TO RUN MUD
	PUMP @ VERY LOW FLOW (& INTERMITTENT ON/OFF USE) WITH
	MUD PUMP COMPLETELY OFF FOR LAST FOOT TO MAXIMIZE CHANCES
11	OF CORE CAPTURE.
1212	STOP CORING 83.5-88' : 12 minutes for 4.5' core
1230	4' of 4.5 recovered (89%) MOSTLY Sandy LIME MUD W/ BROKEN SHELL
1245	START CORE RUN # 12 @ 88' – BOTTOM PRESS. @ ~65 PSI @ START.
#12 1255	STOP CORE → 6' CORE in 10 mins. mud pump off for last ½ FT.
1315	(85%) RECOVERY (5' of 6' cored) MED. GREY SANDY LIME MUD WITH
	SHELL AND LIMESTONE.
1320	TRIP IN BARREL TO CORE @ 94'.
1330	START CORE RUN # 13 1ST FOUR FEET IN 20 Seconds!
#13 1333	STOP CORING → 94-100' NO RETURNS – BARREL PLUGGED OFF.
1345	(0%) RECOVERY
1350	GOING BACK IN W/ 4" BIT TO CLEAN OUT THE BOTTOM
	OF THE HOLE TO 100'

WELL DRILLER'S

SOUTH FLORIDA WATER MANAGEMENT DISTRICT

(7)

PROJECT STL-APT 2 WELL NO. CORE #1 DATE 10/11/89 Wed.

TIME	DESCRIPTION – ROCK TYPE, COLOR, HARDNESS, OTHER
1420	CIRCULATING & CONDITIONING @ 100' ... MIXING MORE MUD
1445	TRIPPING OUT BIT (4")
1452	TRIP IN BARREL TO 100' (8 min) CIRCULATING
1522	START CORE RUN #14 100'-106'
#14 1530	STOP → 8 minutes FOR 5' (0%) RECOVERY
	(ADDED A SHOT OF POLYMER WITH BARREL DOWN HOLE -
	THE CORE CUT OK, BUT APPARENTLY FELL OUT COMING
	OUT OF THE HOLE. 1ST 3 JOINTS OF STRING WERE WET,
	AFTER THAT, DRY)
1550	TRIPPING IN FOR RUN #15 :
1600	CIRCULATING @ 105. ADDING POLYMER DIRECTLY TO MUD
	PUMP INTAKE.
1625	START CORE RUN #15 @ 106 ... ENCOUNTERING HARD ROCK FROM LAST RUN WILL TRY TO PICK IT UP...
#15 1636	STOP → CORED 106-114 in 11 minutes.
	Returns were good on this run ... (ls. and fine shell)
1700	PICKED UP 1 FT. OF HARD LT GREY LS. FROM 106.5' 107.5' UNDERLAIN
	BY LT. GREY SAND W/ SOME FINE SHELL AND GREY WHT LS AT
	BOTTOM. 4' OF 8' RECOVERED = (50%)
1730	WASHING BACK DOWN TO BOTTOM WITH CORE BARREL.
1750	@ 116' ADD 5' JOINT AND PREPARE TO CORE...
1800	START CORE RUN #16 114-116'
#16 1805	CORED 2' IN 5 MIN. STOP RUN... OVER 200 PSI ON GAUGE.. (QUIT CORING)
1830	RECOVERED 1.5' OF 2' (75%) HARD, WHT BIOMICRITE, SAND, SILT.
	GOING BACK IN WITH 4" BIT TO CLEAN OUT HOLE...
1900	TRYING TO GET BACK ON BOTTOM TO CIRCULATE / CONDITION the HOLE. BIT PLUGS OFF.
1930	GETTING TO LATE FOR ANOTHER CORE RUN. SECURE SITE
	BIT CLEANED OUT ... LAY DOWN PIPE.

WELL DRILLERS

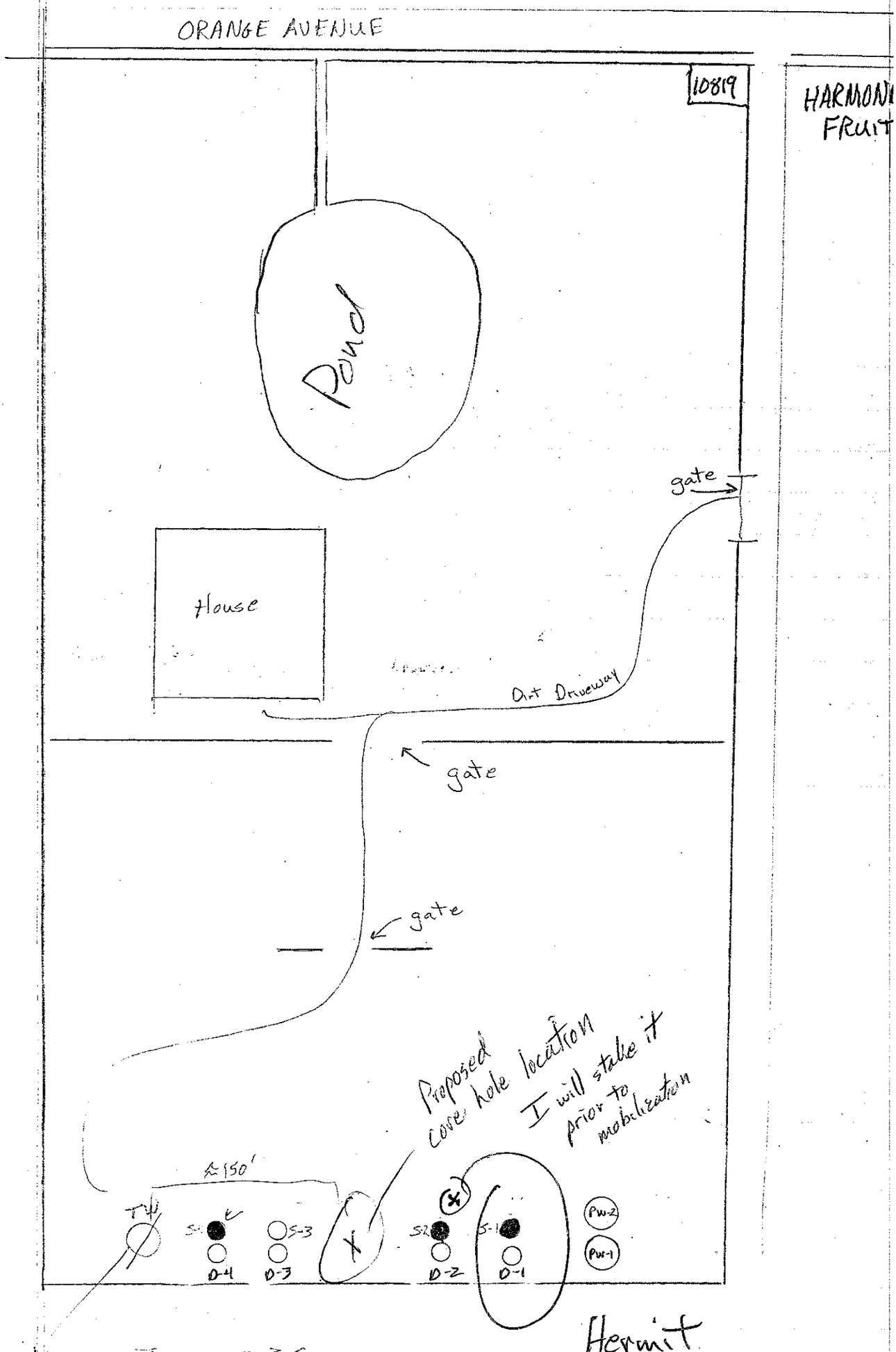
SOUTH FLORIDA WATER MANAGE DISTRICT

(8)

PROJECT STL-APT 2 WELL NO. CORE #1 DATE 10/12/89

	TIME	DESCRIPTION – ROCK TYPE, COLOR, HARDNESS, OTHER
	0735	BACK FROM PHONE CALL... DRILLER TAGGED SAND BRIDGE
		AT 84' AND WASHED THRU W/ 4" BIT. : (BRIDGE - 84-89'
	0810	BIT PLUGS OF @ 100' – HAVE TO TRIP OUT
	0825	TRIP BACK IN – BIT PLUGS OFF AGAIN – TRIP OUT OF
		HOLE IS DIFFICULT... CATLINE CONTINUES TO SMOKE WITH
		HARD PULLING THRU SANDS BELOW CASING DEPTH
	0835	BIT CLEANED. 70' OF PIPE TRIPPED INTO HOLE. DRILLING SLOWLY
		TOWARD SAND BRIDGE @ 84'. DESANDER ON.... LOTS OF
		DARK GREY SILTY SAND COMING UP IN RETURNS.
	0930	FINALLY... BACK ON BOTTOM @ 116 – CIRCULATING.
	1000	RUNNING IN W/ CORE BARREL FOR RUN #17.
#17	1010	START CORING @ 116' 1ST FOOT in 1 min.
	1030	STOP CORING 116-124' 8 FT in 20 min.
		RECOVERED ~70% 5'5" OF 8' WHT-GREY SHELLY
		SANDY LIMESTONE WITH 1ST TINGES OF GREEN CLAY @ 124'.
	1100	TRIPPING IN FOR ANOTHER RUN
	1105	CORE BARREL ON BOTTOM @ 116. WASHING DOWN TO 124'
#18	1125	START RUN #18 124-128'
	1130	STOP → 4' in 5 min. TRIP OUT → FELT GOOD
		"BREAK" OFF BOTTOM, HOWEVER, STRING IS DRY....
	1145	~50% RECOVERY → GOT THE TRANSITION ZONE TO THE
		HAWTHORN GROUP WHT SHELLY SAND → SANDY GREEN CLAY
	1230	OFF SITE

APT Site 2


ORANGE AVENUE
10819
HARMONY FRUIT
Pond
gate
House
Dirt Driveway
gate
gate
Proposed core hole location
I will stake it prior to mobilization
≈150'
TW
S-4
S-3
S-2
S-1
D-4
D-3
D-2
D-1
PW-2
PW-1
Hermit
Sample log from this well
Casing 0-35
Screen 35'-45'

WELL DRILLER

SOUTH FLORIDA WATER MANA ENT DISTRICT

P&A (1)

SAMPLES COLLECTED W/ WIRE BASKET

PROJECT STL WELL NO. ~~APT-2~~ TW DATE 1-30-89 Monday 80°F Sunny

DIG MUD PIT W/ BACKHOLE - USING BENTONITE, EASY MUD POLYMER

TIME	DESCRIPTION – ROCK TYPE, COLOR, HARDNESS, OTHER
1212	BEGIN PILOT HOLE DRILLING WITH 5 5/8" DIAMETER
	DRAG BIT (TO PENETRATE ROOTS/ORGANICS FOR THE 1ST KELLY
1213	0-5' FINE SAND, CLAY
1214	5-10 ORGANICS AND SANDY CLAY FAST DRILLING
1215	10-20 NO SAMPLES (LT. BLUE SANDY CLAY/BRN. SAND/N/ ORGANICS)
1216	20-22 SANDY LIMESTONE & SHELL. KD @ 22'; CIRCULATING
1222	SWITCH BITS TO TRICONE → 5 5/8" DIAMETER. ADD ROD
	#1 WITH STABILIZERS. TS = 47'
1224	22-25' SANDY LIMESTONE WITH SHELL
1225	25-30' LT. GREY CHUNKY LIMESTONE W/ SOME WHOLE SHELLS
1227	30-35' MED. GREY LIMESTONE W/ FINE SHELL & GREY CLAY
1232	35-40' LIMESTONE W/ LOTS OF SHELL
1238	40-42 SHELL ZONE (~38' 1ST APPEARANCE OF SHELL.)
1243	K.D @ 42'. ADD ROD #2 (20') TS = 67'
1246	42-45' - SHELL ZONE
1248	45-48' - SHELL COLOR DARKENS – MOSTLY SHELL W/ SOME LS.
1252	48-50' - FINE SHELL HASH. DESANDING - DESANDER
	TAKING WATER - ADDING WATER TO MUD PIT. PULL
	UP STRING TO ~30'. MIXING MUD; CIRCULATE...
1255	50-53' YELLOW SHELL HASH
1300	53-58' GREY LIMESTONE, SHELL & LIME MUD
1308	58-62' AS ABOVE
1315	@ 62' - LOUD BIT CHATTER; HARD, DARK GREY
	LIMESTONE W/ SOME RECRYSTALLIZED SHELL. K.D @ 6
1325	AFTER CIRCULATING, ADD ROD #3 (20') T.S. 87'
1330	INCREASE RPMS; LOTS OF GRINDING & CHATTER → 13
1340	62-65' - DARK GREY-BLACK LIMESTONE (MOTTLED)
	WITH SOME SHELL.
1345	65-69' - SPECKLED BLK. LS & GREY, SANDY LS, PALE YELLOW SHELL & SOME LIME MUD
1348	@ 70' LOTS OF LIME MUD (CLAY?), GREY LS., YELLOW SHELL & SAN
1355	69-74' AS ABOVE ↑
1400	74-80' PREDOMINATELY LIME MUD; MINOR SHELL & LS.
1403	KD @ 82' 80-82' LIME MUD, CLAY W/ PALE YELLOW SHELL

0

split spoon

20'

split spoon, double core

40'

preferable

53'

Core

70'

preferable

WELL DRILLER'S L (2)

SAMPLES COLLECTED W/ WIRE BASKET

SOUTH FLORIDA WATER MANAGEMENT DISTR

PROJECT STL WELL NO. APT-2 ~~DW~~ JW DATE 1-30-89

5 5/8" DIA. TRICONE BIT BENTONITE MUD & EASY MUD POLYMER

TIME	DESCRIPTION – ROCK TYPE, COLOR, HARDNESS, OTHER
1410	ADD ROD #4 (20') @ 82' ; TS = 107'
1413	82-85 LIME MUD, CLAY, SHELL
85' 1415	@ 85' BIT CHATTER (LIMESTONE & SHELL)
1421	85-90' ~ 85% SHELL, 15% MUD
1430	90-95' LIME MUD CONTENT INCREASES (> 50% MUD...
	WITH LIMESTONE AND SHELL
1445	95-100' - WHITE & GREY LIMESTONE, LIME MUD
	AND WHITE RECRYSTALLIZED SHELL (MUD % <)
1447	KD @ 102', CIRCULATING
1450	ADD ROD #5 (20') TS = 127'
1455	RESUME DRILLING ; 100-105' - GREY/WHT. LIMESTONE,
	SHELL AND LIME MUD.
1457'	BIT CHATTER @ 104' (> RPM^3) : GREY, HARD LS.
1508	105-110' - GREY LIMESTONE AND SHELL
1512	110-115' - AS ABOVE W/ SOME OYSTER SHELL
1516	115-120' - AS ABOVE
1522	KD @ 122' ADD ROD #6 (20') TS = 147'
125 1535	120-125 LIMESTONE LAYER AND ONSET OF
	GREEN CLAY.
1540	125-130' LS AND INCREASING AMT. OF GREEN
	CLAY
1550	130-134' T.D. @ 134' : DRILL STRING IS → WELL INTO HAWTHORN
	GROUP. BEGIN TRIP OUT AND PREPARATION
	FOR LOGGING.

Core probably w/ best

Whatever works

140 140'

(1)

Grab Samples taken w/ wire strainer

WELL DRILLER'S LO

SOUTH FLORIDA WA[illegible]ER MANAGEME[illegible]DISTRICT

PROJECT STLAPT-2 WELL NO. PW-1 DATE 2/22/89

Mud Rotary 5 5/8" tricone rotary bit. bentonite mud w/ small amt of EZ mud polymer

TIME	DESCRIPTION -- ROCK TYPE, COLOR, HARDNESS, OTHER
0902	brown sand, moderately well cemented @ 2'-4'
	dark brown,
	@ 4' light brown sd w/ clay
	@ 5' greenish grey sandy clay
	@ 8' dark brown sand, root + organic particles disseminated
	@ 13' brown sand; 13'-15' no sample, sand washes through strainer
	@ 18' grey sand w/ limestone and shell
	@ 20' sand, shell, clay and limestone, limestone + shell increasing to ~~25~~ 22', shell fragments look eroded + slightly solutioned
0920	KD @ 22', circulating
0925	add (20') DP#1 w/ stabilizers, DS=47'
	22'-25' washing down w/ rapid drops in drill string
0930	@ 25' broken shell (small frag. w/ limestone)
	25'-27' limestone
0933	@ 29' as above
	@ 30' as above
	@ 31' ~~sandy~~ drilling gets soft; slight amount of clay in limestone
	@ 35' sandy limestone w/ some clay; grey to green
	@ 36' as above w/ shell fragments, slower drilling
	@ 38' limestone w/ shell, faster drilling, starting to rain
	@ 39' shell zone, some limestone
0942	KD @ 42' shell w/ trace of limestone
0943	add 20' DP#2; DS=67'
	@ 42' shell + sand, fm taking a little water
	@ 45' black shell fragments + sand, fm taking a little water, adding water to mud pit
	@ 49' as above, whole shell, frag. w/ sand
	@ 50' shell and sand as above, formation gets ~~F~~ softer

WELL DRILLER'S LOG

SOUTH FLORIDA WATER MANAGEMENT DISTRICT

PROJECT STLAPT-2 WELL NO. PW-1 DATE 2/22/89

TIME	DESCRIPTION – ROCK TYPE, COLOR, HARDNESS, OTHER
0958	@ 50 shell fragments getting smaller
0959	@ 53' shells, whole, w/ sand, trace of clay
1001	@ 55' clay in w/ shell and sand
	@ 56' ~~incleas~~ increasing limestone and clay, shell and sand still dominate
	@ 57' Limestone, clay shell and sand
	@ 58' less clay, more limestone, trace of shell
	@ 59' Limestone trace clay and shell
1009	@ 60' as above, slower drilling
1014	@ 61' as above
1015	KD @ 62' as above
1023	add 20' DP #3, DS = 87', adding water to mud pit, mixing more mud.
1029	@ 62' Fm hard (bit chatter)
1037	@ 62.5' Fm hard (bit chatter), Limestone, biogenic, well consolidated, greenish grey, drilling in 2nd gear
1042	@ 63' as above, oyster shell (oyster bar?)
1047	@ 64' as above, limestone has a little more clastics, darker color, barnacles, some cuttings are "flakey"
1054	@ 65 Limestone, granular, grey, flakey cuttings, fm softer
	@ 65.5 formation very soft, washing down, back to slower rpm on rotary table
1057	@ 70' stop drilling to circulate, limestone + clay w/ sand, turn desander on
1100	@ 72' sand clay, limestone, poorly consolidated hard layer @ 72.5', otherwise "washing" down
	@ 75' lime mud, clay, limestone
	@ 78' clay, lime mud, sand, easy drilling
	@ 80' as above
1107	@ 81' small amount of shell in lime mud and sand.
1108	KD @ 82', shell in lime mud. Add 20' DP #4, DS = 107'
	@ 84', lime mud, shell, limestone, sand
	@ 85' more shell in lime mud, sand, limestone

WELL DRILLER'S

SOUTH FLORIDA WATER MANAGEMENT DISTRICT

PROJECT STR APT-2 WELL NO. PW-1 DATE 2/22/89

TIME	DESCRIPTION – ROCK TYPE, COLOR, HARDNESS, OTHER
1121	@ 87' increase in limestone (interbedded limestone,
	Lime mud, shell and clay)
	@ 89' as above
1124	@ 90' limestone shell with lime mud
	@ 95' Limestone and shell fragments, lime mud
	@ 98' Trace of lime mud, sandy limestone dominates
	@ 99' as in 95'-98'
	@ 99.5' soft limestone, shell, lime mud, pebbles.
	@ 100' Limestone, shell, lime mud, pebbles
	@ 101' green lime mud with trace of limestone
	KDB 102', lime mud w/ limestone, green
	add 20' DP # ~~5~~ 5, DS=127'
	@ 105' sandy lime mud, trace limestone
	@ 106' as above
	@ 107' lime mud w/ increasing limestone, hard layers
	@ 108' lime mud and limestone, trace of shell
	@ 110' limestone with lime mud
1150	@ 114' as above
	@ 115' limestone, sandy; trace of lime mud
	110'-115' formation taking fluid
	@ 117 as above
	@ 120 limestone gets soft and granular
1200	KDB 122', circulating, as above
1205	add 20' DP #6, DS=147'
	@ 125' ~~trace~~ limestone, trace of green clay
	@ 130' green clay w/ trace of limestone
	@ 133' Dark green plastic clay
	@ 137' as above w/ phosphate nodules
	TD 137'
	Logged 2/22/89
	Station ID 1110000058
	PW-1 completed 2/23/89 6" dia CSG 0'-70'
	Screen 70'-120'

SAMPLES COLLECTED W/ WIRE BASKET

WELL DRILLER'S LOG

SOUTH FLORIDA WATER MANAGEMENT DISTRICT

(1)

PROJECT STL WELL NO. APT-2 ~~PW~~ TW DATE 1-30-89 Monday 80°F Sunn

DIG MUD PIT W/ BACKHOE - USING BENTONITE, EASY MUD POLYMER

TIME	DESCRIPTION – ROCK TYPE, COLOR, HARDNESS, OTHER
1212	BEGIN PILOT HOLE DRILLING WITH 5 5/8" DIAMETER
	DRAG BIT (TO PENETRATE ROOTS/ORGANICS FOR THE 1ST KELLY)
1213	0-5' FINE SAND, CLAY
1214	5-10 ORGANICS AND SANDY CLAY FAST DRILLING!
1215	10-20 NO SAMPLES (LT. BLUE SANDY CLAY/BRN. SAND/W/ ORGANICS)
1216	20-22 SANDY LIMESTONE & SHELL. KD @ 22'; CIRCULATING
1222	SWITCH BITS TO TRICONE → 5 5/8" DIAMETER. ADD ROD
	#1 WITH STABILIZERS. TS = 47'
1224	22-25' SANDY LIMESTONE WITH SHELL
1225	25-30' LT. GREY CHUNKY LIMESTONE W/ SOME WHOLE SHELLS
1227	30-35' MED. GREY LIMESTONE W/ FINE SHELL & GREY CLAY
1232	35-40' LIMESTONE W/ LOTS OF SHELL
1238	40-42 SHELL ZONE (~38' 1ST APPEARANCE OF SHELL.)
1243	K.D @ 42'. ADD ROD #2 (20') TS = 67'
1246	42-45' - SHELL ZONE
1248	45-48' - SHELL COLOR DARKENS – MOSTLY SHELL W/ SOME LS.
1252	48-50' - FINE SHELL HASH. DESANDING - DESANDER
	TAKING WATER - ADDING WATER TO MUD PIT. PULL
	UP STRING TO ~30'. MIXING MUD; CIRCULATE...
1255	50-53' YELLOW SHELL HASH
1300	53-58' GREY LIMESTONE, SHELL & LIME MUD
1308	58-62' AS ABOVE
1315	@ 62' - LOUD BIT CHATTER; HARD, DARK GREY
	LIMESTONE W/ SOME RECRYSTALLIZED SHELL. K.D @ 62
1325	AFTER CIRCULATING, ADD ROD #3 (20') T.S. 87'
1330	INCREASE RPMS; LOTS OF GRINDING & CHATTER → 134
1340	62-65' - DARK GREY - BLACK LIMESTONE (MOTTLED)
	WITH SOME SHELL.
1345	65-69' - SPECKLED BLK. LS & GREY, SANDY LS, PALE YELLOW SHELL & SOME LIME MUD
1348	@ 70' LOTS OF LIME MUD (CLAY?), GREY LS., YELLOW SHELL & SA
1355	69-74' AS ABOVE ↑
1400	74-80' PREDOMINATELY LIME MUD; MINOR SHELL & LS.
1403	KD @ 82' 80-82' LIME MUD, CLAY W/ PALE YELLOW SHELL

WELL DRILLER'S L

(2)

SOUTH FLORIDA WATER MANAGEMENT DISTRICT

SAMPLES COLLECTED W/ WIRE BASKET

PROJECT STL WELL NO. APT-2 ~~PW~~ TW DATE 1-30-89

5 5/8" DIA. TRICONE BIT BENTONITE MUD & EASY MUD POLYMER

TIME	DESCRIPTION – ROCK TYPE, COLOR, HARDNESS, OTHER
1410	ADD ROD #4 (20') @ 82'; TS = 107'
1413	82-85 LIME MUD, CLAY, SHELL
1415	@ 85' BIT CHATTER (LIMESTONE & SHELL)
1421	85-90'. ~ 85% SHELL, 15% MUD
1430	90-95' LIME MUD CONTENT INCREASES (> 50% MUD...
	WITH LIMESTONE AND SHELL
1445	95-100' - WHITE & GREY LIMESTONE, LIME MUD.
	AND WHITE RECRYSTALLIZED SHELL (MUD % <)
1447	KD @ 102', CIRCULATING
1450	ADD ROD #5 (20') TS = 127'
1455	RESUME DRILLING; 100-105' - GREY/WHT. LIMESTONE,
	SHELL AND LIME MUD.
1457	BIT CHATTER @ 104' (> RPMs) : GREY, HARD LS.
1508	105-110' - GREY LIMESTONE AND SHELL
1512	110-115' - AS ABOVE W/ SOME OYSTER SHELL
1516	115-120' - AS ABOVE
1522	KD @ 122'. ADD ROD #6 (20') TS = 147'
1535	120-125 LIMESTONE LAYER AND ONSET OF
	GREEN CLAY.
1540	125-130 LS AND INCREASING AMT. OF GREEN
	CLAY
1550	130-134' : T.D. @ 134' : DRILL STRING IS → WELL INTO HAWTHORN
	GROUP. BEGIN TRIP OUT AND PREPARATION
	FOR LOGGING.

P&A 1/31/89

Logs Run
STLAPT-2 TW
STATION ID
111000057

WELL DRILLER'S LOG (1)

SAMPLES COLLECTED w/ WIRE SCREEN BASKET

SOUTH FLORIDA WATER MANAGEMENT DISTRICT

PROJECT STL WELL NO. APT-2 (DR) D-3 DATE 1-23-89

5 5/8" Tricone Bit : MUD ROTARY w/EASY MUD POLYMER BENTONITE

TIME	DESCRIPTION – ROCK TYPE, COLOR, HARDNESS, OTHER
1047	Start drilling @ 2' pulverized tree root and bark
	3' coarse sand. w/organics ; 3'-5' dark brown fine sand
1100	5' : fine grey sand w/ organic material (bark etc)
1105	5'-10' : grey sand with clay (tree material mixed in
1110	10'-14' : light blue gray sandy clay
1120	14'-20' light brown quartz sand w/some organics (NO Shel
1124	K.D. @ 22' [20'-21' interval - shell layer]
	@ 22' grey sand w/ tan, coarse shell - semi consolidated (Sli Bi CHA
1135	Add rod #1 (20' length w/ stabilizers) T.S. = 47' ; mix m
1140	22'-25' Sand and shell , some greyish clay (?)
1144	25-30' grey limestone
1148	30-35' grey limestone w/shell ; some lime mud
1150	35'-38' as above - mud content increases
1155	38'-42' pure shell layer - taking some water
1200	K.D. and circulating . Add rod #2 (20' length)
	T.S. = 67' ; mixing mud and adding water
1210	42'-45' predominately shell hash - some limestone & limen
1215	45'-48' Shell zone (tan coloration)
1218	@ 48' abrupt color change to black shell (reducing environm
1220	49'-50' coarse shell zone continues
1225	50-54' as above (taking some water)
1227	54'-56' numerous whole shells with the 1st appearance
	of dark grey limestone ; some lime mud
1230	56'-58' sandy grey limestone w/shell → some vermicularia
1235	58'-60' " grey limestone with white shells
1240	60'-62 white shell hash (minor amount of limestone
1242	K.D. @ 62' ; circulating
1250	Add rod #3 (20' length); TS=87' ; mixing mud
	and 'easy mud' ; adding water to tank (level dropped 1/8
	of tank volume over last rod)
1300	63' hit relatively hard limestone - bit chatter
	(medium grey ls. w/ shell) → 63'-65'
1307	65'-68' continuing hard, darker grey limestone with less shell - bit chatter

OVER →

(2)

WELL DRILLER'S LOG

SAMPLES COLLECTED W/ WIRE SCREEN BASKET

SOUTH FLORIDA WATER MANAGEMENT DISTRICT

D-3

PROJECT STL WELL NO. APT-2 (X) DATE 1-23-89

5 5/8" Tricone Bit : MUD ROTARY : BENTONITE w/ EASY MUD POLYMER

TIME	DESCRIPTION – ROCK TYPE, COLOR, HARDNESS, OTHER
1314	68'-70' limestone and shell with increasing sand
1316	70'-75' → lime mud interval (90% mud, 10% shell
1318	75'-78' → lime mud (still > 80%.) shell ~20%.
1320	78'-80' as above
	@ 80' shell content increases to ~40-50%.
1335	Add rod #4 @ 82' (20' length) T.S. = 107' (mix mud
1345	82'-85' predominately lime mud > 80%. w/ shell
1347	@ 87' formation taking water - slight chatter as
	bit hits "crusty" horizon lime mud/shell: 50-50
1355	85'-90' - overall sample: lime mud/shell hash 60
1358	90'-92' - as above
1359	92'-95 - as above
1402	95'-99' - as above
1405	Drilled to 100' and stopped. Hit shell bed
	at 99' (semi-hard) shell ? lime mud
	Set screen 80'-90' w/ 10' blank on bottom

FORM RP 59
Rev. 12/79

WELL DRILLER'S LOG (1)

SOUTH FLORIDA WATER MANAGEMENT DISTRICT

Samples Collected w/ Wire Screen Basket

PROJECT ST2 WELL NO. APT-2 ~~TW~~ DATE 1/19/89 ~~D-20~~

Mud Rotary - drag bit : 5 1/5/8" dia (04)

DEPTH	DESCRIPTION – ROCK TYPE, COLOR, HARDNESS, OTHER { Bentonite mud ; Easy mud polymer
0902	drilling @ 2' fine brownish sand
←	3'-4' brown sand, some coarse grained - some organic
0905	4' grey sandy clay (more so a clay - sand)
0906	4-10' - clay (gray) - more sand
0907	10' - greenish gray sandy clay
0908	13' - red brown semi consolidated sand
0909	14-20' grey sand (little or no shell)
0910	21' - Shell and sand
0911	22' - K.D. ; Semi consolidated sand ; shell (circulating)
0915	Add rod #1 (20' w/stabilizers) Total length = 47'
0920	22'-26' - above ←
0921	26' - (bit grind) Sandy shelly limestone
0923	26'-30' - grey wt. sandy L.S. (taking small amt some water)
0924	Circulating @ 30' - adding water to mud
0926	30'-32' as above @ 32' less consolidated ; Trace clay
"	32'-35' Shelly sandy limestone
0927	@ 35' more shell (>50%) shell bed
0928	@ 37' - limestone >50%
0929	37'-40' - shell and limestone
0930	40'-42' - predominately shell - hash some sand ; LS.
0931	K.D @ 42' (circulating) (taking small amt of water)
0935	Add rod #2 (20') Total length 67'
0940	42'-48 Sand >80% w/ shell
0942	@ 48' bit grind 45'-49' - Sand "shell hash" ; LS
0944'	49'-50' - shell bed numerous whole shells | 50'-52' soft
0945'	52' - hard L.S. layer (bit grind) (shell hash @ 85% (15% grey LS)
0946	53'-55' - shell hash w/ increase in limestone
0948	55' - (green-gray) ls. ; shell - taking water? (60% LS) 40% shell
0955	K.D. on #3 rod @ 62' (as above LS. ; more shell)
1000	circulating and mixing mud (desander off)
1004	Add Rod #3 (20') Total length = 87' (mixing mud)
1009	62' → hard layer LS. ; coarse shell : mud wt. 8.65
1012	med grey limestone ; coarse shell (chione

62'-64' Sample is suspect
(very hard drilling)

LS. @ 22'

2

WELL DRILLER'S LOG

SOUTH FLORIDA WATER MANAGEMENT DISTRICT

PROJECT STL-APT 2 WELL NO. ~~TW.~~ APT-2 D-4 DATE 1-19-88

DEPTH	DESCRIPTION – ROCK TYPE, COLOR, HARDNESS, OTHER
1017	Bit continues to chatter @ 63' hard-hard drilling
1020	desander on – continuing to chatter – now pulverizing the
1023	64-65' hard chatter; then bit drops slightly
1025	64-(66)→LS & shell (drilling more smoothly)
1027	66-70' Shell & L.S. → not much return
1029	70'-72' Shell hash & sand & dark Limestone
1031	72'-75' lots of Sand & shell trace clay & LS. (desander on
1033	75'-77' lime mud, shell sand & Limestone
1035	77'-80'
1037'	K.D @ 82' (circulating) shell bed, sand w/ lime mud (clay?
	(can feel coarse sand fraction in mud stream)
1040	adding water
~~[illegible]~~	~~[illegible]~~
1045	trying to break off kelly.
	lug torqued off.
	heating box end of DP #3 to break
	joint
1102	Remove DP #3 + replace w/ new
	rod (#4) (Total string = 107')
1110	82'-85' shell and sand (almost all sand) some lime mud
1113	85'-90 sand, shell and lime mud
1115	90'-93' – Broken shell, sand, lime mud w/ trace limestone
1119	93'-95' – As above (grey-white)
1125	95-100' – As above " " (lime mud fraction declining
1127	K.D. @ 102' (" ") – circulating & desanding
1135	Add DP #5 (20') DS = 127' (formation took a little wat
1147	Hard zone @ 105' (Composition same as 95'-100')
1150+	105'-110' – Oyster, shell, sand, lime mud, ls.
1153	110'-115' → as above w/ more ls. & lime mud Hash
1155	115-120' @ 117' green-grey clay appearing Sample 115-117'
	(equal parts shell, ls, lime mud & sand)
1200	Sample 117-120 As above
	120' – very pale orange ls, shell (ls >> 50%)

Oyster Bed

(3)

WELL DRILLER'S LOG

SOUTH FLORIDA WATER MANAGEMENT DISTRICT

PROJECT STL-APT 2 WELL NO. ~~DW~~ APT-2 D-4 DATE 1-19-88

DEPTH	DESCRIPTION – ROCK TYPE, COLOR, HARDNESS, OTHER
1204	K.D. @ 122' circulating and desanding
1219	@ 125 very pale orange & green mud + limestone very soft
1220	@ 128' green sandy clay w/ small shell (Paul says 127')
1224	@ 135 green sandy clay w/ trace shell
	@ 137 darker green clay w/ lots of very fine phosphate
1232	KD @ 142 as above td
	PW1 ~ 65'-105 Screen → OBS well → 80'-90'
	PW2 → to 55' (35-55 Screen)
	Sh. MW - 30'-40'

Steve Howes
797-1853

Mr Jim S. Spiteri
10819 Orange Ave Ft Pierce
(407) 461-9259.
Refered to me by Betty Morse and Don — from Fort Pierce substation. about APT on his 10 acres of land. Tried to contact him on 1/5/89 but no answer.

Try to contact
1/6/89 (AM)

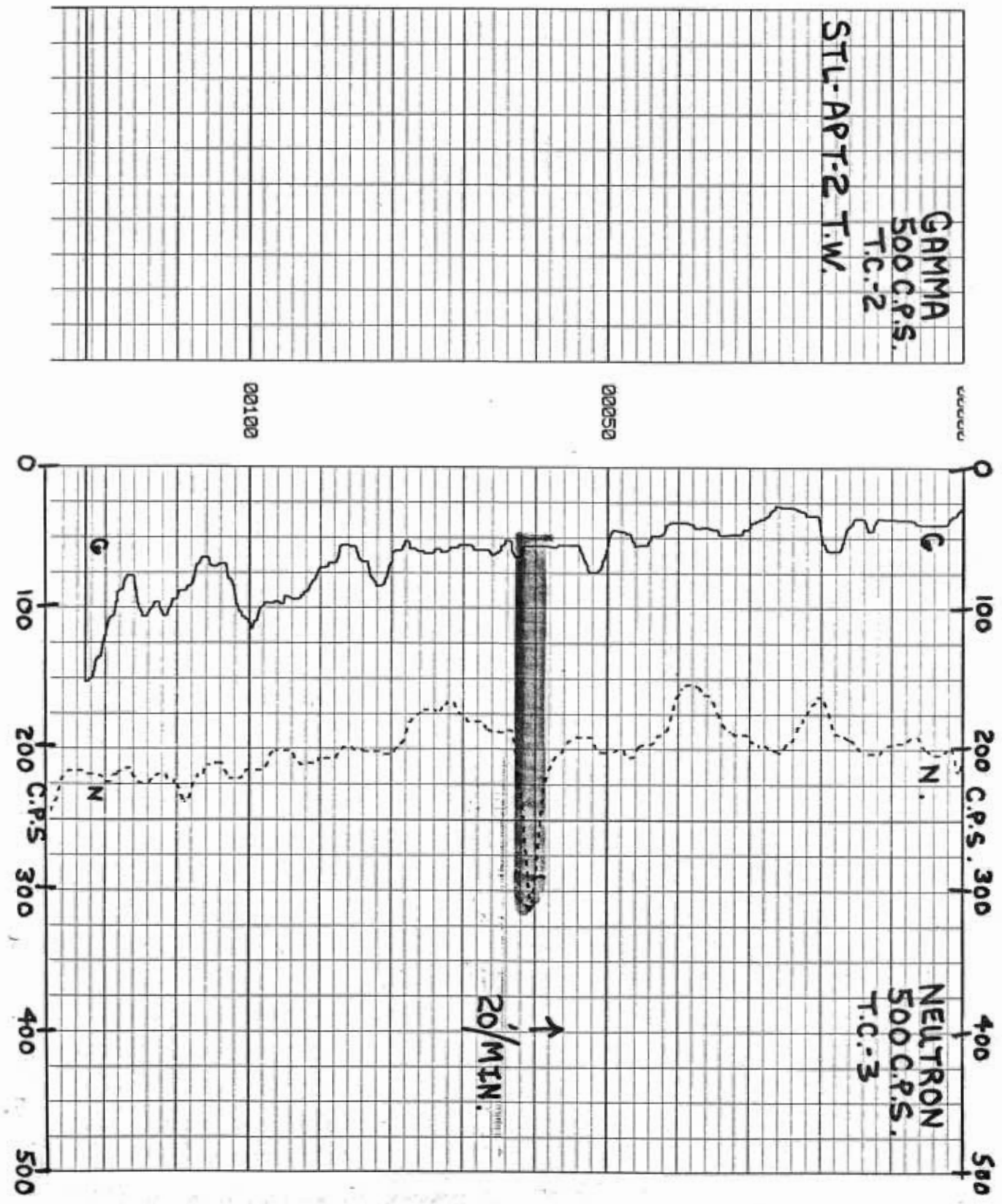
turn pike 1500-2000 West ± 2 mile

over emerald lane
cottontale lane

10819

orange Ave

Harmond Fruit



FORM 0395
Rev. 10/87

SOUTH FLORIDA WATER MANAGEMENT DISTRICT

WELL LOG

WELL LOCATION

County St Lucie

Station I. D. 1110000057

Date 1-31-89 Well No. STL APT-2TW

Latitude 27° 26' 38" Longitude 80° 26' 9"

¼SW ¼NE ¼SE Section 9 Township 36S Range 39E

Owner S.F.W.M.D. Phone

Driller T. Lubrano Date Drilled 1-31-89

WELL CONSTRUCTION

Drilling Method: Rot. X Air CT Auger Other

T. Depth - Driller 134' T. Depth - Logger 134'

Casing Depth Driller Casing Depth Logger OPEN hole

Bit Size Casing Dia. I.D.

Hole Dia. 6" From 0 To 134' Dia. From To

Type of Casing OPEN hole Casing Thickness

Type of Screen Screen Int. From To

Type of Packing Well Use Monitor

Static Water Level Date

Yield Flow Pump

DATUM

K.B. L.S. T.O.C. 0.0

FLUID QUALITY

Date Time Source of Sample

Cl mg/l Type of Fluid

Temp. °C Field Density @ °C

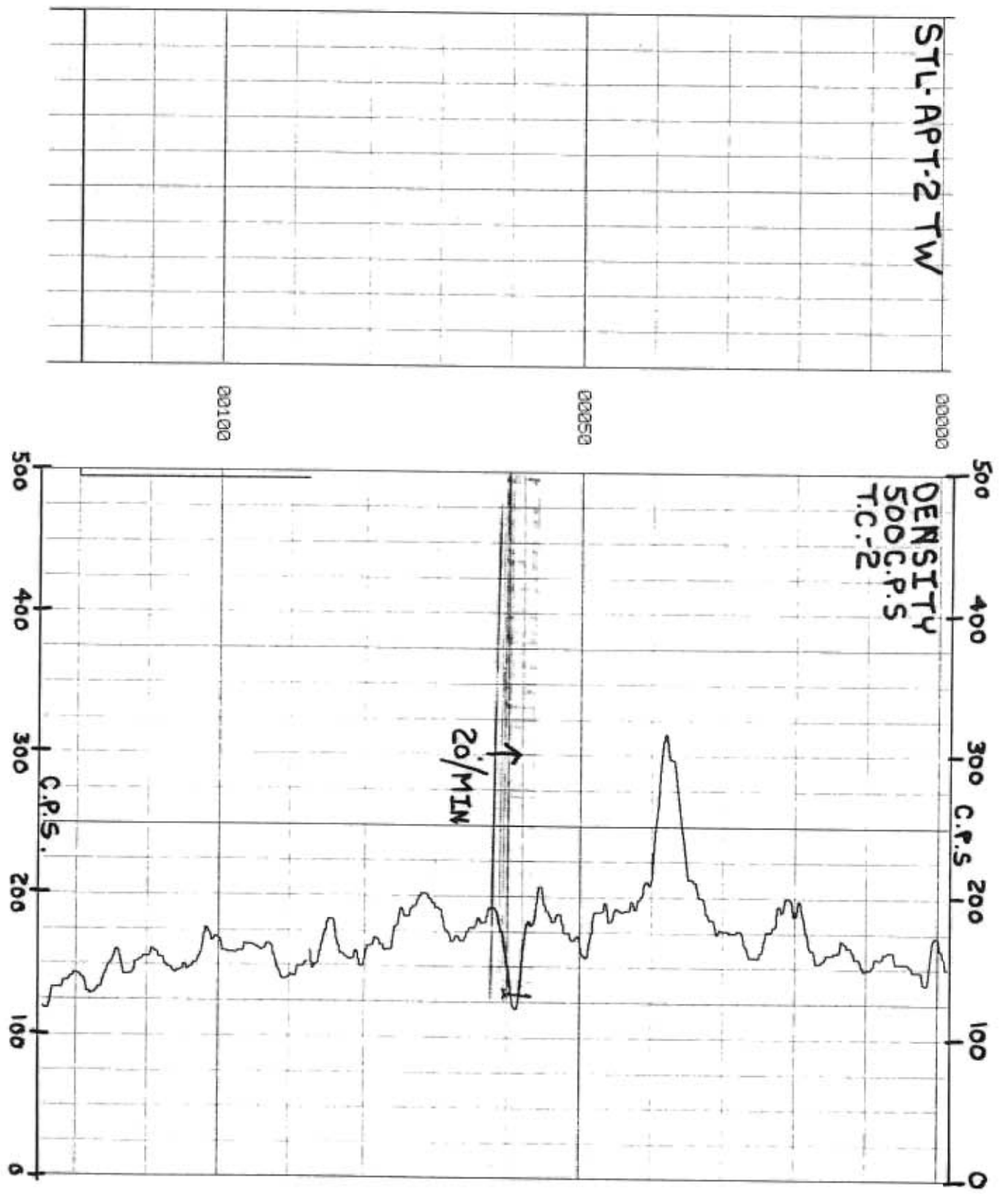
T.D.S. mg/l Spec. Cond. µmhos/cm

Logged By: F.P. Dauenhauer Witnessed By: D.J. Demonstranti

Comments: WELL WAS Plugged After Logging.

TYPE OF SURVEYS RUN

Lateral 6'	X	Density	X
Caliper	X	ccl	( )
Flow meter	( )	Fluid Sampler	( )
16", 64" normals	( )	Temperature	( )
Neutron	X	Delta Temp.	( )
Natural Gamma	X	SP	X
Fluid Resistivity	( )	Single Pt.	X



FORM 0395
Rev 10/87

SOUTH FLORIDA WATER MANAGEMENT DISTRICT

WELL LOG

WELL LOCATION

County St Lucie

Station I. D. 1110000057

Date 1-31-89 Well No. STL APT-2 TW

Latitude 27° 26' 38" Longitude 80° 26' 9"

__ ¼SW ¼NE ¼SE Section 9 Township 36S Range 39E

Owner S.F.W.M.D. Phone _____

Driller T. Lubrano Date Drilled 1-31-89

WELL CONSTRUCTION

Drilling Method: Rot. X Air __ CT __ Auger __ Other _____

T. Depth - Driller 134' T. Depth - Logger 134'

Casing Depth Driller _____ Casing Depth Logger OPEN hole

Bit Size _____ Casing Dia. I.D. _____

Hole Dia. 6" From 0 To 134' Dia. ____ From ____ To ____

Type of Casing OPEN hole Casing Thickness _____

Type of Screen _____ Screen Int. From ____ To ____

Type of Packing _____ Well Use Monitor

Static Water Level _____ Date _____

Yield Flow _____ Pump _____

DATUM

K.B. _____ L.S. _____ T.O.C. 0.0

FLUID QUALITY

Date _____ Time _____ Source of Sample _____

Cl _____ mg/l Type of Fluid _____

Temp. _____ °C Field Density _____ @ _____ °C

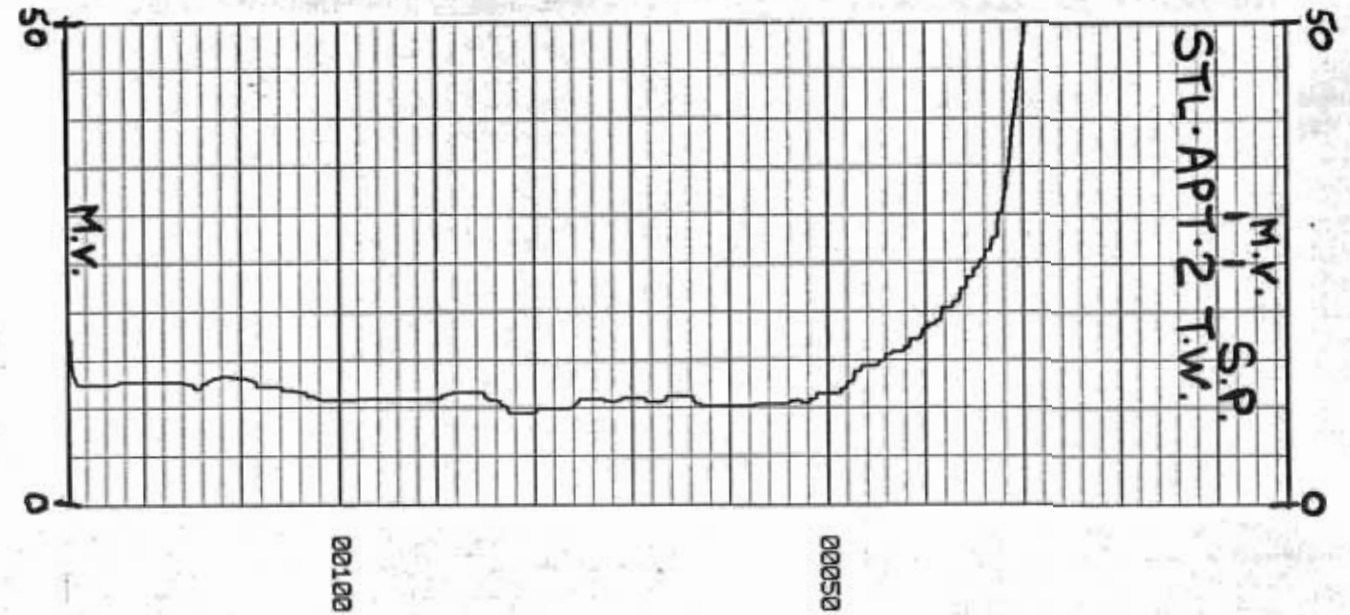
T.D.S. _____ mg/l Spec. Cond. _____ µmhos/cm

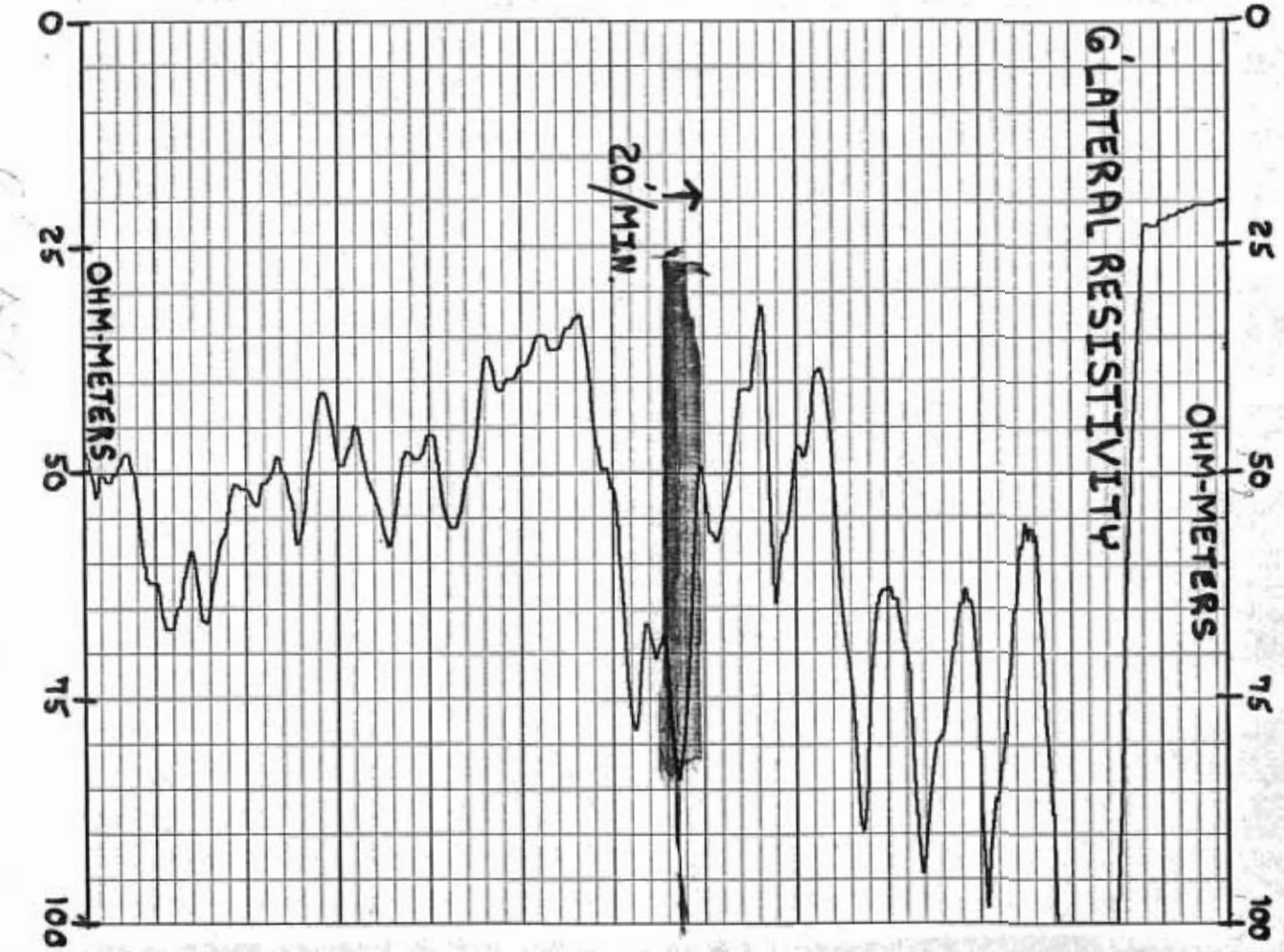
Logged By: E.P. Dauenhauer Witnessed By: D.J. Demonstranti

Comments: WELL WAS PLUGGED AFTER Logging

TYPE OF SURVEYS RUN

Lateral 6'	⊠	Density	⊗
Caliper	⊠	ccl	( )
Flow meter	( )	Fluid Sampler	( )
16", 64" normals	( )	Temperature	( )
Neutron	⊠	Delta Temp.	( )
Natural Gamma	⊠	SP	⊠
Fluid Resistivity	( )	Single Pt.	(⊠)





FORM 0395
Rev. 10/87

SOUTH FLORIDA WATER MANAGEMENT DISTRICT

WELL LOG

WELL LOCATION

County St Lucie

Station I. D. 1 1 1 0 0 0 0 0 5 7

Date 1-31-89 Well No. STL APT-2TW

Latitude 27° 26' 38" Longitude 80° 26' 9"

¼ SW ¼ NE ¼ SE Section 9 Township 36S (35) Range 39E

Owner S.F.W.M.D. Phone

Driller T. Lubrano Date Drilled 1-31-89

WELL CONSTRUCTION

Drilling Method: Rot. X Air CT Auger Other

T. Depth - Driller 134' T. Depth - Logger 134'

Casing Depth Driller Casing Depth Logger OPEN hole

Bit Size Casing Dia. I.D.

Hole Dia. 6" From 0 To 134' Dia. From To

Type of Casing OPEN hole Casing Thickness

Type of Screen Screen Int. From To

Type of Packing Well Use Monitor

Static Water Level Date

Yield Flow Pump

DATUM

K.B. L.S. T.O.C. 0.0

FLUID QUALITY

Date Time Source of Sample

Cl mg/l Type of Fluid

Temp. °C Field Density @ °C

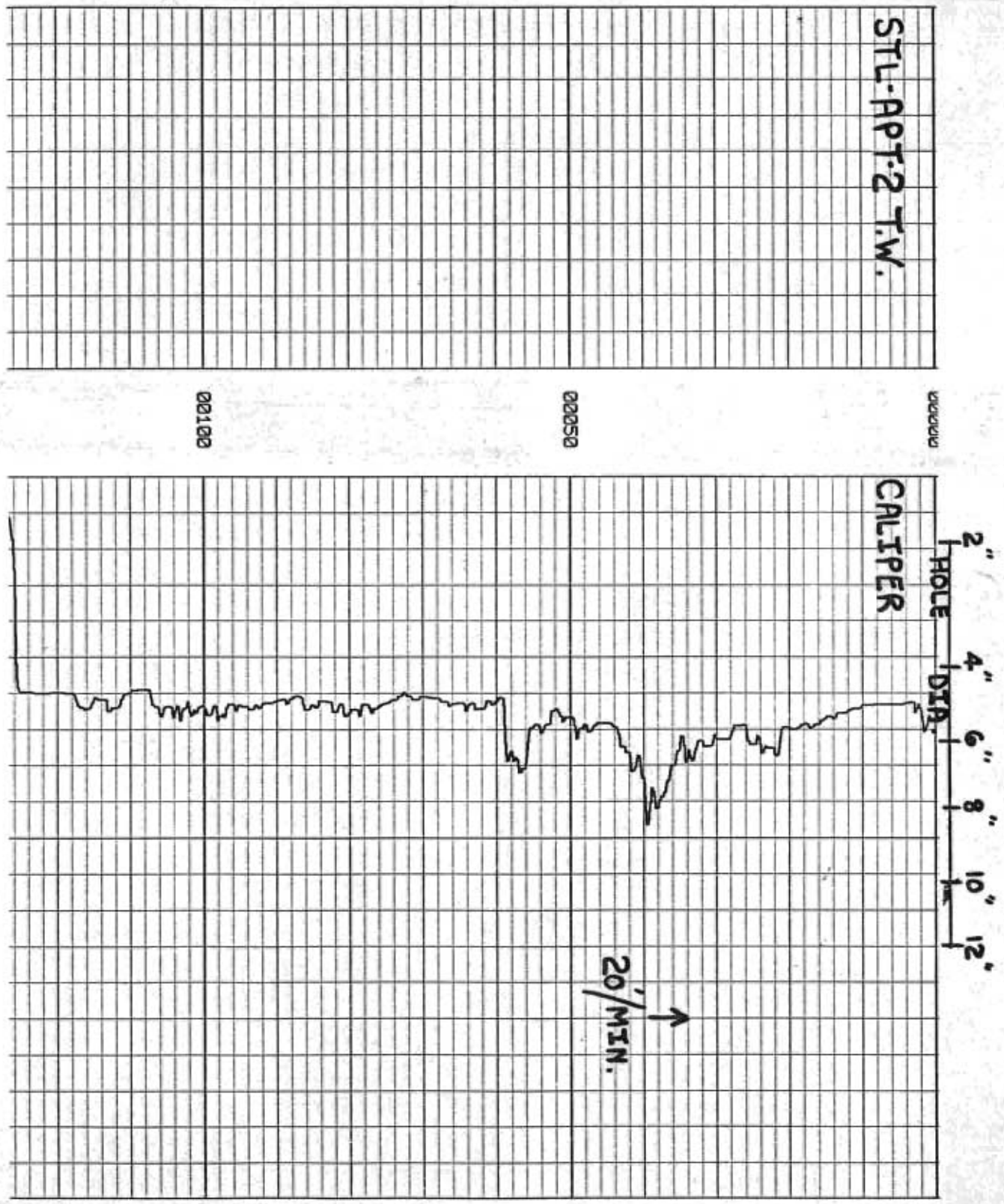
T.D.S. mg/l Spec. Cond. µmhos/cm

Logged By: E.P. Dauenhauer Witnessed By: D.J. Demonstranti

Comments: WELL WAS Plugged AFTER Logging

TYPE OF SURVEYS RUN

Lateral 6'	⊗	Density	⊠
Caliper	⊠	ccl	( )
Flow meter	( )	Fluid Sampler	( )
16", 64" normals	( )	Temperature	( )
Neutron	⊠	Delta Temp.	( )
Natural Gamma	⊠	SP	⊗
Fluid Resistivity	( )	Single Pt.	⊗



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SOUTH FLORIDA WATER MANAGEMENT DISTRICT

WELL LOG

WELL LOCATION

County St Lucie

Station I. D. 1 1 1 0 0 0 0 0 5 7

Date 1-31-89 Well No. STL APT-2TW

Latitude 27° 26' 38" Longitude 80° 26' 9"

__ ¼SW ¼NE ¼SE Section 9 Township 36S (35) Range 39E

Owner S.F.W.M.D. Phone

Driller T. Lubrano Date Drilled 1-31-89

WELL CONSTRUCTION

Drilling Method: Rot. X Air __ CT __ Auger __ Other

T. Depth - Driller 134' T. Depth - Logger 134'

Casing Depth Driller Casing Depth Logger open hole

Bit Size Casing Dia. I.D.

Hole Dia. 6" From 0 To 134' Dia. From To

Type of Casing open hole Casing Thickness

Type of Screen Screen Int. From To

Type of Packing Well Use Monitor

Static Water Level Date

Yield Flow Pump

DATUM

K.B. L.S. T.O.C. 0.0

FLUID QUALITY

Date Time Source of Sample

Cl mg/l Type of Fluid

Temp. °C Field Density @ °C

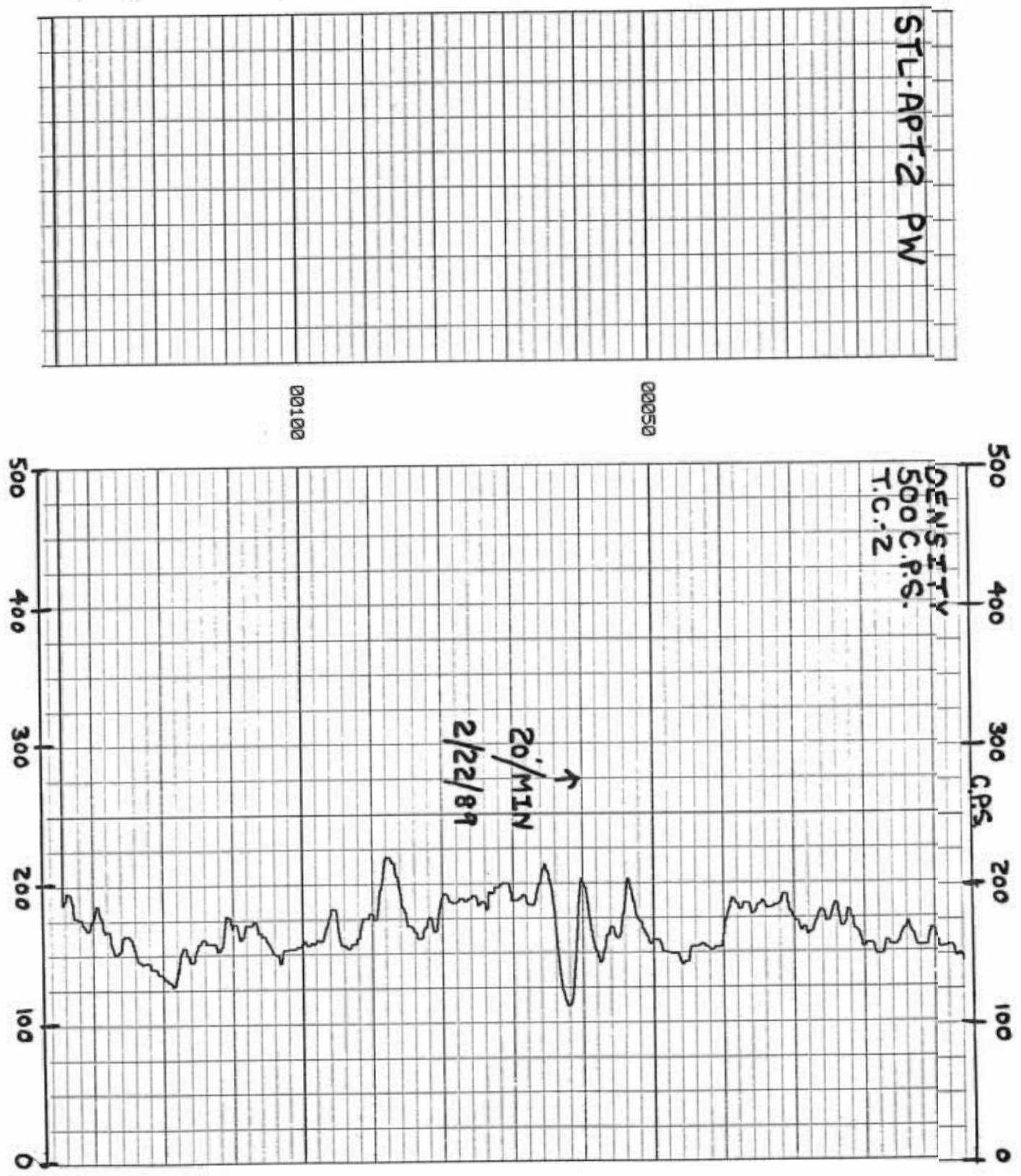
T.D.S. mg/l Spec. Cond. µmhos/cm

Logged By: E.P. Dalenhauer Witnessed By: D.J. Demonstranti

Comments: Well was Plugged After Logging.

TYPE OF SURVEYS RUN

Lateral 6'	X	Density	X
Caliper	X	ccl	( )
Flow meter	( )	Fluid Sampler	( )
16", 64" normals	( )	Temperature	( )
Neutron	X	Delta Temp.	( )
Natural Gamma	X	SP	X
Fluid Resistivity	( )	Single Pt.	(X)



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SOUTH FLORIDA WATER MANAGEMENT DISTRICT

WELL LOG

WELL LOCATION

County St Lucie

Station I. D. L L L 0 0 0 0 0 5 8

Date 2/22/89 Well No. STLAPT-2 PW-1

Latitude 27°26'38" Longitude 80°26'7"

¼ SW ¼ NE ¼ SE Section 9 Township 35 36 S Range 39E

Owner S.F.W.M.D. Phone

Driller T. LUBRANO Date Drilled 2/22/89

WELL CONSTRUCTION

Drilling Method: Rot. X Air CT Auger Other

T. Depth - Driller 137' T. Depth - Logger 137'

Casing Depth Driller Casing Depth Logger OPEN hole

Bit Size 5 7/8" Casing Dia. I.D.

Hole Dia. 6" From 0 To 137' Dia. From To

Type of Casing OPEN hole Casing Thickness

Type of Screen Screen Int. From To

Type of Packing Well Use Pump test

Static Water Level Date

Yield Flow Pump

DATUM

K.B. L.S. T.O.C. 0.0

FLUID QUALITY

Date Time Source of Sample

Cl mg/l Type of Fluid

Temp. °C Field Density @ °C

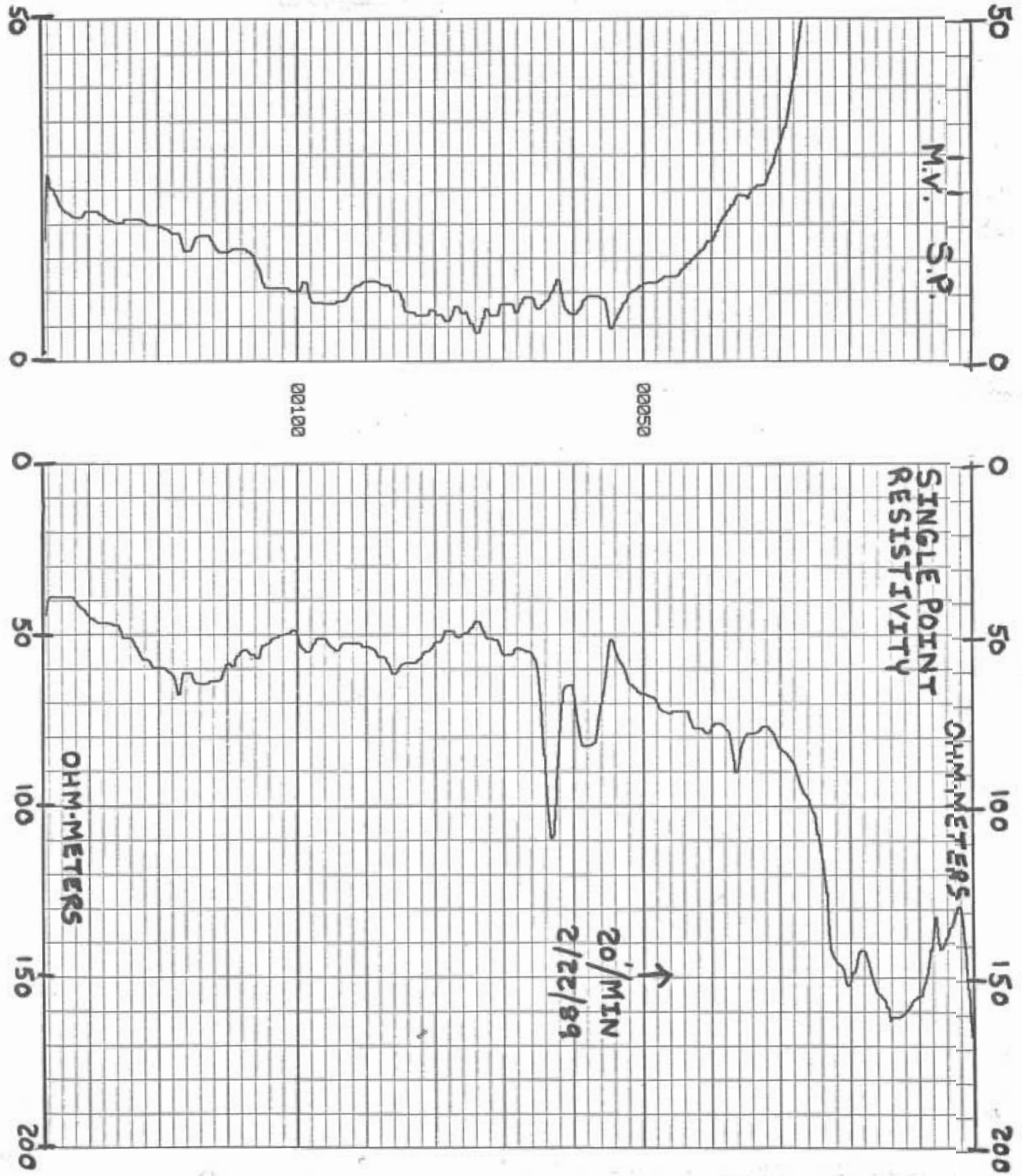
T.D.S. mg/l Spec. Cond. µmhos/cm

Logged By: E.P. DAVENHAUER Witnessed By: D.J. DEMONSTRANTI

Comments:

TYPE OF SURVEYS RUN

Lateral 6'	X	Density	X
Caliper	X	ccl	( )
Flow meter	( )	Fluid Sampler	( )
16", 64" normals	( )	Temperature	( )
Neutron	X	Delta Temp.	( )
Natural Gamma	X	SP	X
Fluid Resistivity	( )	Single Pt.	X



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SOUTH FLORIDA WATER MANAGEMENT DISTRICT

WELL LOG

WELL LOCATION

County St Lucie

Station I. D. 111000000058

Date 2/22/89 Well No. STLAPT-2 PW-1

Latitude 27°26'38" Longitude 80°26'7"

¼ SW ¼ NE ¼ SE Section 9 Township 35 S Range 39 E

Owner S.F.W.M.D. Phone

Driller T. LUBRANO Date Drilled 2/22/89

WELL CONSTRUCTION

Drilling Method: Rot. X Air CT Auger Other

T. Depth - Driller 137' T. Depth - Logger 137'

Casing Depth Driller Casing Depth Logger OPEN hole

Bit Size 5 7/8" Casing Dia. I.D.

Hole Dia. 6" From 0 To 137 Dia. From To

Type of Casing OPEN hole Casing Thickness

Type of Screen Screen Int. From To

Type of Packing Well Use Pump test

Static Water Level Date

Yield Flow Pump

DATUM

K.B. L.S. T.O.C. 0.0

FLUID QUALITY

Date Time Source of Sample

Cl mg/l Type of Fluid

Temp. °C Field Density @ °C

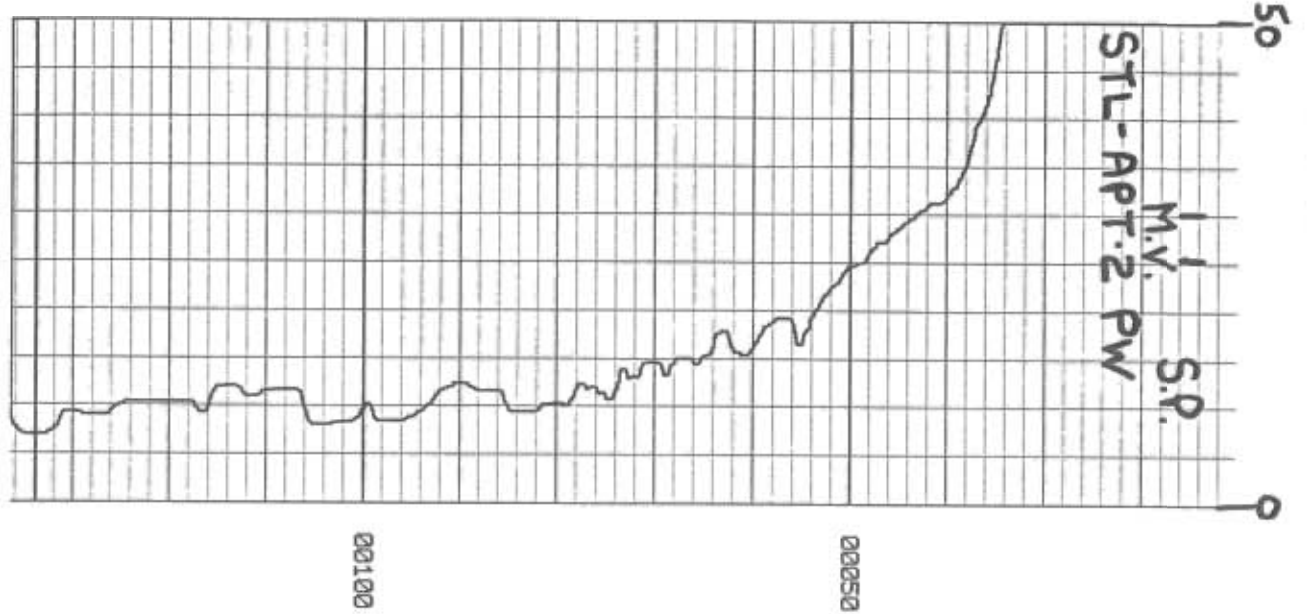
T.D.S. mg/l Spec. Cond. µmhos/cm

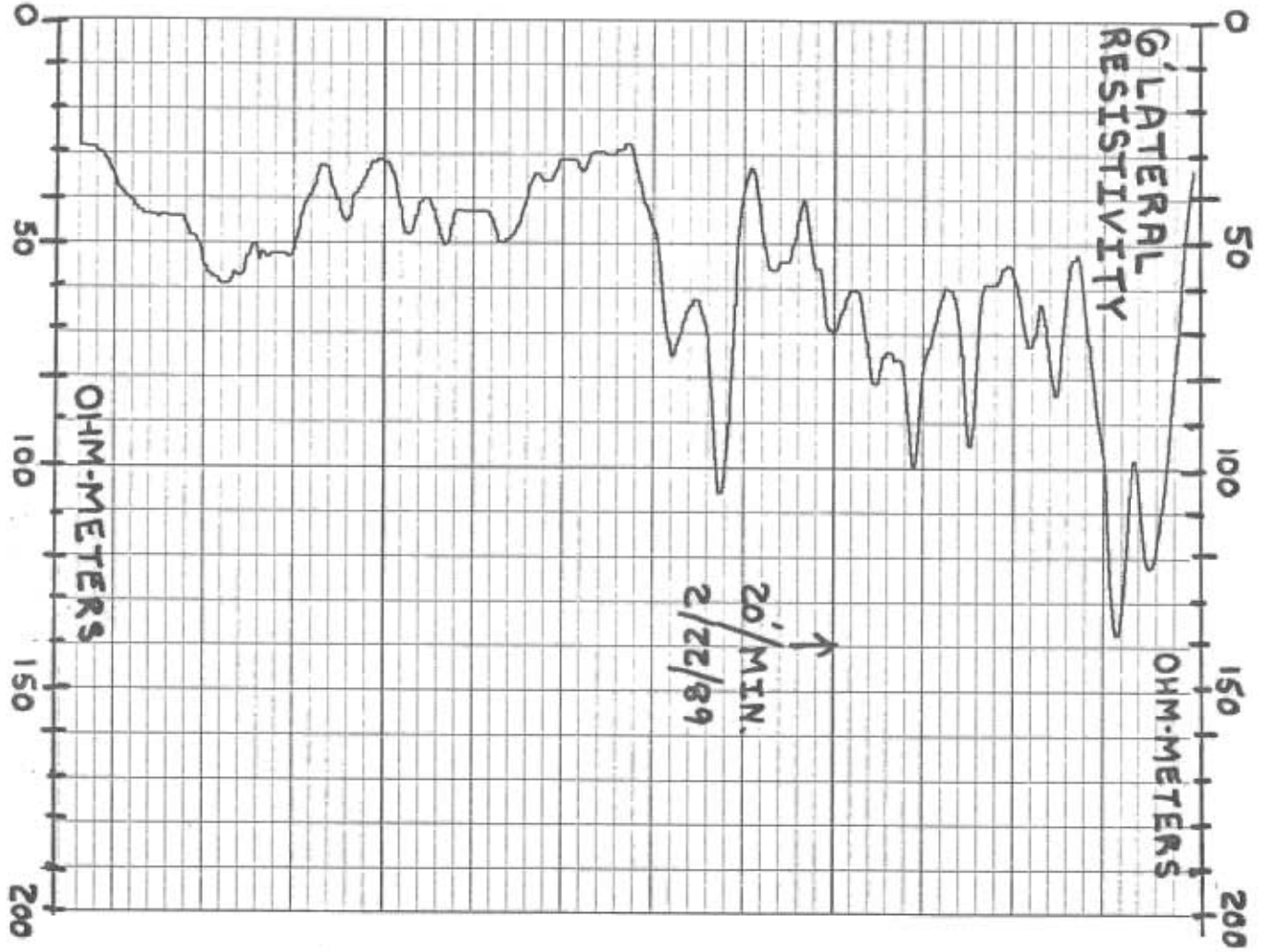
Logged By: E.P. DAUENHAUER Witnessed By: D.J. DEMONSTRANTI

Comments:

TYPE OF SURVEYS RUN

Lateral 6'	⊠	Density	⊠
Caliper	⊠	ccl	( )
Flow meter	( )	Fluid Sampler	( )
16", 64" normals	( )	Temperature	( )
Neutron	⊠	Delta Temp.	( )
Natural Gamma	⊠	SP	⊗
Fluid Resistivity	( )	Single Pt.	⊗





FORM 0395
Rev. 10/87

SOUTH FLORIDA WATER MANAGEMENT DISTRICT

WELL LOG

WELL LOCATION

County St Lucie

Station I. D. 111000000058

Date 2/22/89 Well No. STLAPT-2 PW-1

Latitude 27°26'38" Longitude 80°26'7"

¼ SW ¼ NE ¼ SE Section 9 Township 35S Range 39E

Owner S.F.W.M.D. Phone

Driller T. LUBRANO Date Drilled 2/22/89

WELL CONSTRUCTION

Drilling Method: Rot. X Air CT Auger Other

T. Depth - Driller 137' T. Depth - Logger 137'

Casing Depth Driller Casing Depth Logger OPEN hole

Bit Size 5 7/8" Casing Dia. I.D.

Hole Dia. 6" From 0 To 137' Dia. From To

Type of Casing OPEN hole Casing Thickness

Type of Screen Screen Int. From To

Type of Packing Well Use Pump test

Static Water Level Date

Yield Flow Pump

DATUM

K.B. L.S. T.O.C. 0.0

FLUID QUALITY

Date Time Source of Sample

Cl mg/l Type of Fluid

Temp. °C Field Density @ °C

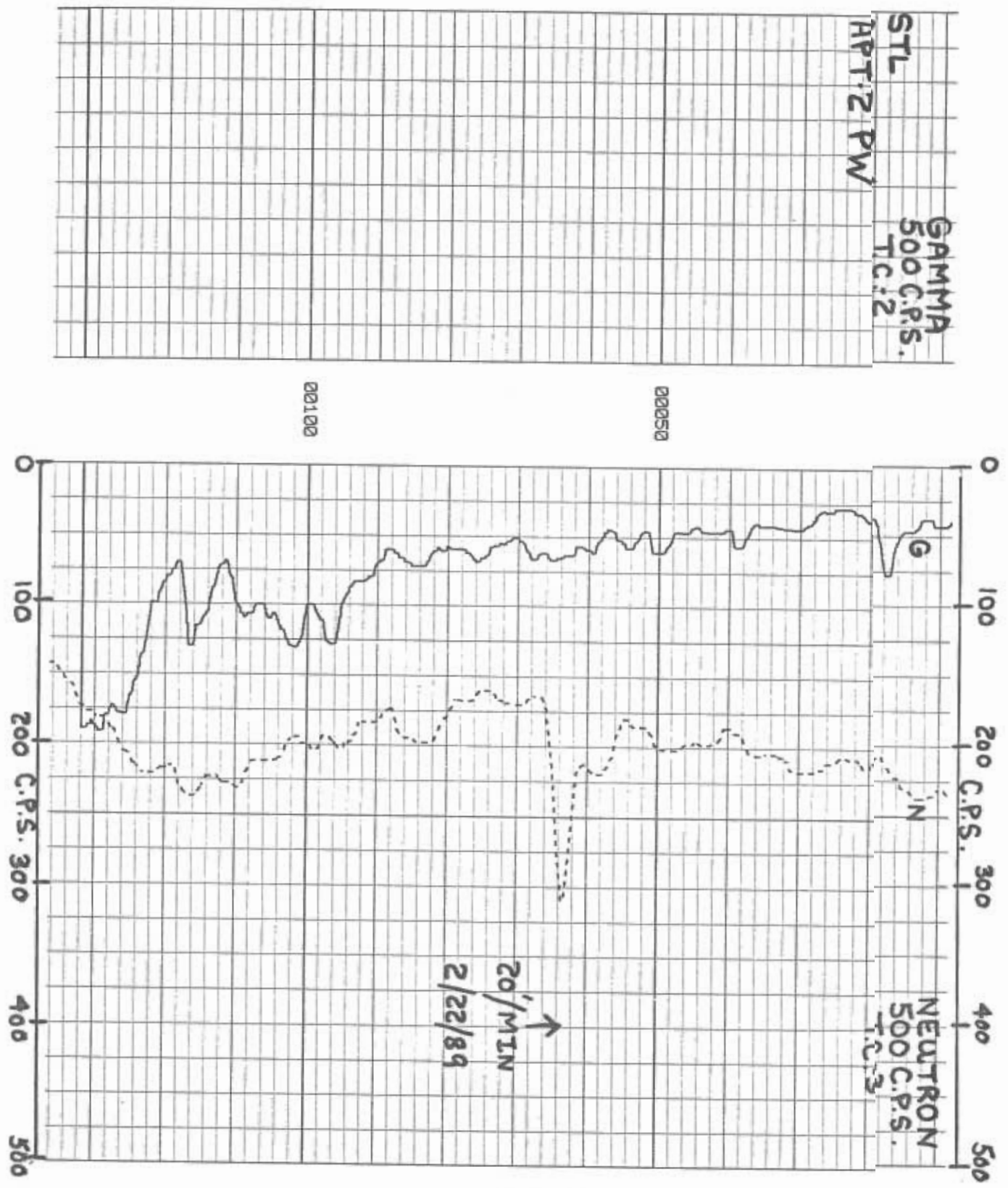
T.D.S. mg/l Spec. Cond. µmhos/cm

Logged By: E.P. DAVENHAUER Witnessed By: D.J. DEMONSTRANTI

Comments:

TYPE OF SURVEYS RUN

Lateral 6'	⊗	Density	⋈
Caliper	⋈	ccl	( )
Flow meter	( )	Fluid Sampler	( )
16", 64" normals	( )	Temperature	( )
Neutron	⋈	Delta Temp.	( )
Natural Gamma	⋈	SP	⊗
Fluid Resistivity	( )	Single Pt.	(X)



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Rev. 10/87

SOUTH FLORIDA WATER MANAGEMENT DISTRICT

WELL LOG

WELL LOCATION

County St. Lucie

Station I. D. L L L 0 0 0 0 0 5 8

Date 2/22/89 Well No. STL APT-2 PW-1

Latitude 27°26'38" Longitude 80°26'7"

¼ SW ¼ NE ¼ SE Section 9 Township 35 S Range 39 E

Owner S.F.W.M.D. Phone

Driller T. LUBRANO Date Drilled 2/22/89

WELL CONSTRUCTION

Drilling Method: Rot. X Air CT Auger Other

T. Depth - Driller 137' T. Depth - Logger 137'

Casing Depth Driller Casing Depth Logger OPEN hole

Bit Size 5 7/8" Casing Dia. I.D.

Hole Dia. 6" From 0 To 137' Dia. From To

Type of Casing OPEN hole Casing Thickness

Type of Screen Screen Int. From To

Type of Packing Well Use Pump test

Static Water Level Date

Yield Flow Pump

DATUM

K.B. L.S. T.O.C. 0.0

FLUID QUALITY

Date Time Source of Sample

Cl mg/l Type of Fluid

Temp. °C Field Density @ °C

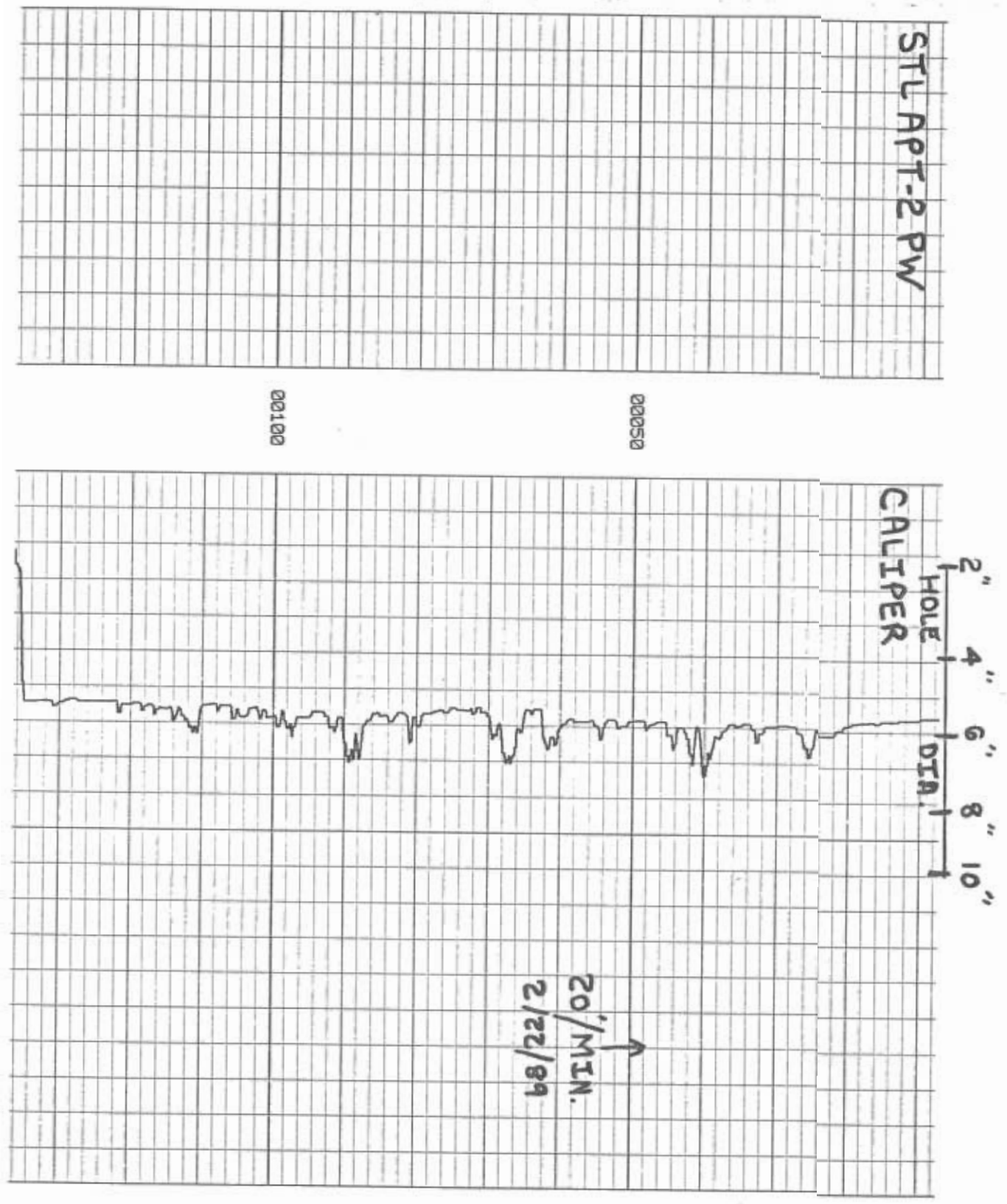
T.D.S. mg/l Spec. Cond. µmhos/cm

Logged By: E.P. DAVENHAUER Witnessed By: D.J. DEMONSTRANTI

Comments:

TYPE OF SURVEYS RUN

Lateral 6'	X	Density	X
Caliper	X	ccl	( )
Flow meter	( )	Fluid Sampler	( )
16", 64" normals	( )	Temperature	( )
Neutron	X	Delta Temp.	( )
Natural Gamma	X	SP	X
Fluid Resistivity	( )	Single Pt.	X



FORM 0395
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SOUTH FLORIDA WATER MANAGEMENT DISTRICT

WELL LOG

WELL LOCATION

County St. Lucie

Station I. D. LLL00000058

Date 2/22/89 Well No. STL APT-2 PW-2

Latitude 27°26'38" Longitude 80°26'7"

¼ SW ¼ NE ¼ SE Section 9 Township ~~35~~ 36 S Range 39E

Owner S.F.W.M.D. Phone

Driller T. LUBRANO Date Drilled 2/22/89

WELL CONSTRUCTION

Drilling Method: Rot. X Air CT Auger Other

T. Depth - Driller 137' T. Depth - Logger 137'

Casing Depth Driller Casing Depth Logger OPEN hole

Bit Size 5 7/8" Casing Dia. I.D.

Hole Dia. 6" From 0 To 137' Dia. From To

Type of Casing OPEN hole Casing Thickness

Type of Screen Screen Int. From To

Type of Packing Well Use Pump test

Static Water Level Date

Yield Flow Pump

DATUM

K.B. L.S. T.O.C. 0.0

FLUID QUALITY

Date Time Source of Sample

Cl mg/l Type of Fluid

Temp. °C Field Density @ °C

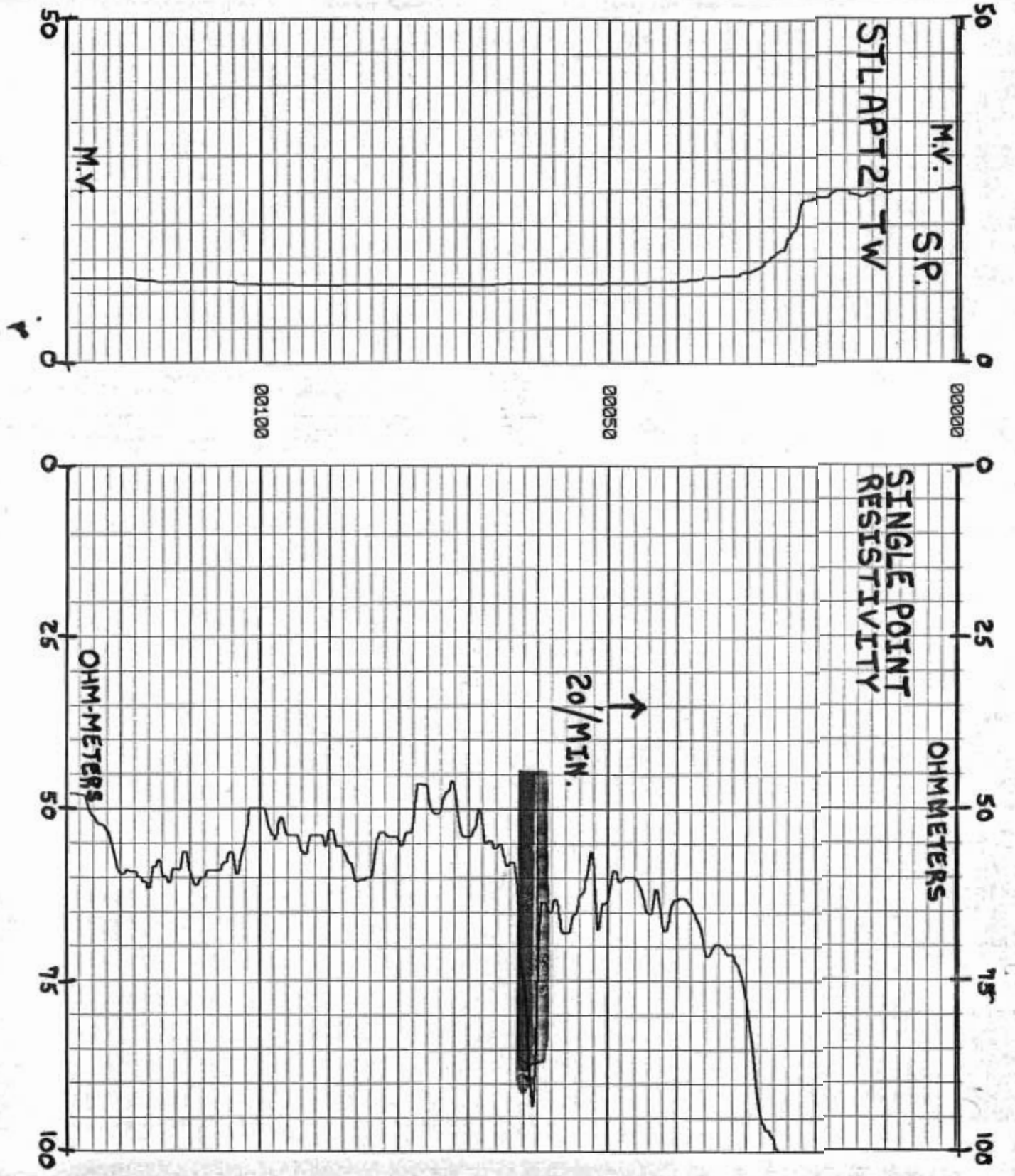
T.D.S. mg/l Spec. Cond. µmhos/cm

Logged By: E.P. DAUENHAUER Witnessed By: D.J. DEMONSTRANTI

Comments:

TYPE OF SURVEYS RUN

Lateral 6'	X	Density	X
Caliper	X	ccl	( )
Flow meter	( )	Fluid Sampler	( )
16", 64" normals	( )	Temperature	( )
Neutron	X	Delta Temp.	( )
Natural Gamma	X	SP	X
Fluid Resistivity	( )	Single Pt.	X



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SOUTH FLORIDA WATER MANAGEMENT DISTRICT

WELL LOG

WELL LOCATION

County St Lucie

Station I. D. 1 1 1 0 0 0 0 0 5 7

Date 1-31-89 Well No. STL APT-2 TW

Latitude 27° 26' 38" Longitude 80° 26' 9"

¼ SW ¼ NE ¼ SE Section 9 Township 38S Range 39E

Owner S.F.W.M.D. Phone

Driller T. Lubrano Date Drilled 1-31-89

WELL CONSTRUCTION

Drilling Method: Rot. X Air CT Auger Other

T. Depth - Driller 134' T. Depth - Logger 134'

Casing Depth Driller Casing Depth Logger OPEN hole

Bit Size Casing Dia. I.D.

Hole Dia. 6" From 0 To 134' Dia. From To

Type of Casing OPEN hole Casing Thickness

Type of Screen Screen Int. From To

Type of Packing Well Use Monitor

Static Water Level Date

Yield Flow Pump

DATUM

K.B. L.S. T.O.C. 0.0

FLUID QUALITY

Date Time Source of Sample

Cl mg/l Type of Fluid

Temp. °C Field Density @ °C

T.D.S. mg/l Spec. Cond. µmhos/cm

Logged By: E.P. Dauenhauer Witnessed By: D.J. Demonstrant

Comments: WELL WAS PLUGGED AFTER Logging.

TYPE OF SURVEYS RUN

Lateral 6'	X	Density	X
Caliper	X	ccl	( )
Flow meter	( )	Fluid Sampler	( )
16", 64" normals	( )	Temperature	( )
Neutron	X	Delta Temp.	( )
Natural Gamma	X	SP	X
Fluid Resistivity	( )	Single Pt.	X