



FLUIDE DENSITY / RESISTIVITY / TEMPERATURE LOG

FILE NO.	COMPANY NORTH DADE W.M.T.P	WELL IM #4-N	FIELD NORTH DADE	COUNTY DADE	STATE FLORIDA		
PERMANENT DATUM PAD	ELEV. _____	LOG MEASURED FROM PAD	FT. ABOVE PERMANENT DATUM	DRILLING MEASURED FROM PAD	ELEV.: K.B. _____ D.F. _____ G.L. _____		
LOG MEASURED FROM PAD	DATE 12-DECEMBER-1996	TYPE LOG SEVEN	DEPTH-DRILLER XYCALGR	DEPTH-LOGGER 2854'	LOGGED INTERVAL 2854' TO 2100		
OPERATING RIG TIME	1.5 HOURS	TYPE FLUID IN HOLE WATER	SALINITY, PPM CL NA	DENSITY-VISCOSITY NA	LEVEL FULL		
EQUIPMENT-LOCATION	101 FTM	RECORDED BY JONES	WITNESSED BY C. CASABURAS'S				
BOREHOLE RECORD			CASING RECORD				
RUN NO.	BIT	FROM	TO	SIZE	WGT.	FROM	TO
42 1/2"	2150'	CASING	34"	.5 M.T.	1520'	2140'	SURFACE
12.25"	2850'	CASING					

ALL INTERPRETATIONS ARE OPINIONS BASED ON INFERENCES FROM ELECTRICAL OR OTHER MEASUREMENTS AND WE CANNOT AND DO NOT GUARANTEE THE ACCURACY OR CORRECTNESS OF ANY INTERPRETATION, AND WE SHALL NOT, EXCEPT IN THE CASE OF GROSS OR WILLFULL NEGLIGENCE ON OUR PART, BE LIABLE OR RESPONSIBLE FOR ANY LOSS, COSTS, DAMAGES, OR EXPENSES INCURRED OR SUSTAINED BY ANYONE RESULTING FROM ANY INTERPRETATION MADE BY ANY OF OUR OFFICERS, AGENTS OR EMPLOYEES. THESE INTERPRETATIONS ARE ALSO SUBJECT TO OUR GENERAL TERMS AND CONDITIONS SET OUT IN OUR CURRENT PRICE SCHEDULE.

REMARKS

FLUID RESISTIVITY/TEMPERATURE TOOL STRING CONFIGURATION



- CENTRALIZER -- 2 FT. LONG
 - 1 11/16" WEIGHT -- 5 FT. LONG
 - CENTRALIZER -- 2 FT. LONG
 - FLUID RESISTIVITY/TEMPERATURE 3.5 FT. LONG
 - MEASURE POINT (BOT)
- TOTAL TOOL STRING LENGTH = 12.5 FT.--

REMARKS

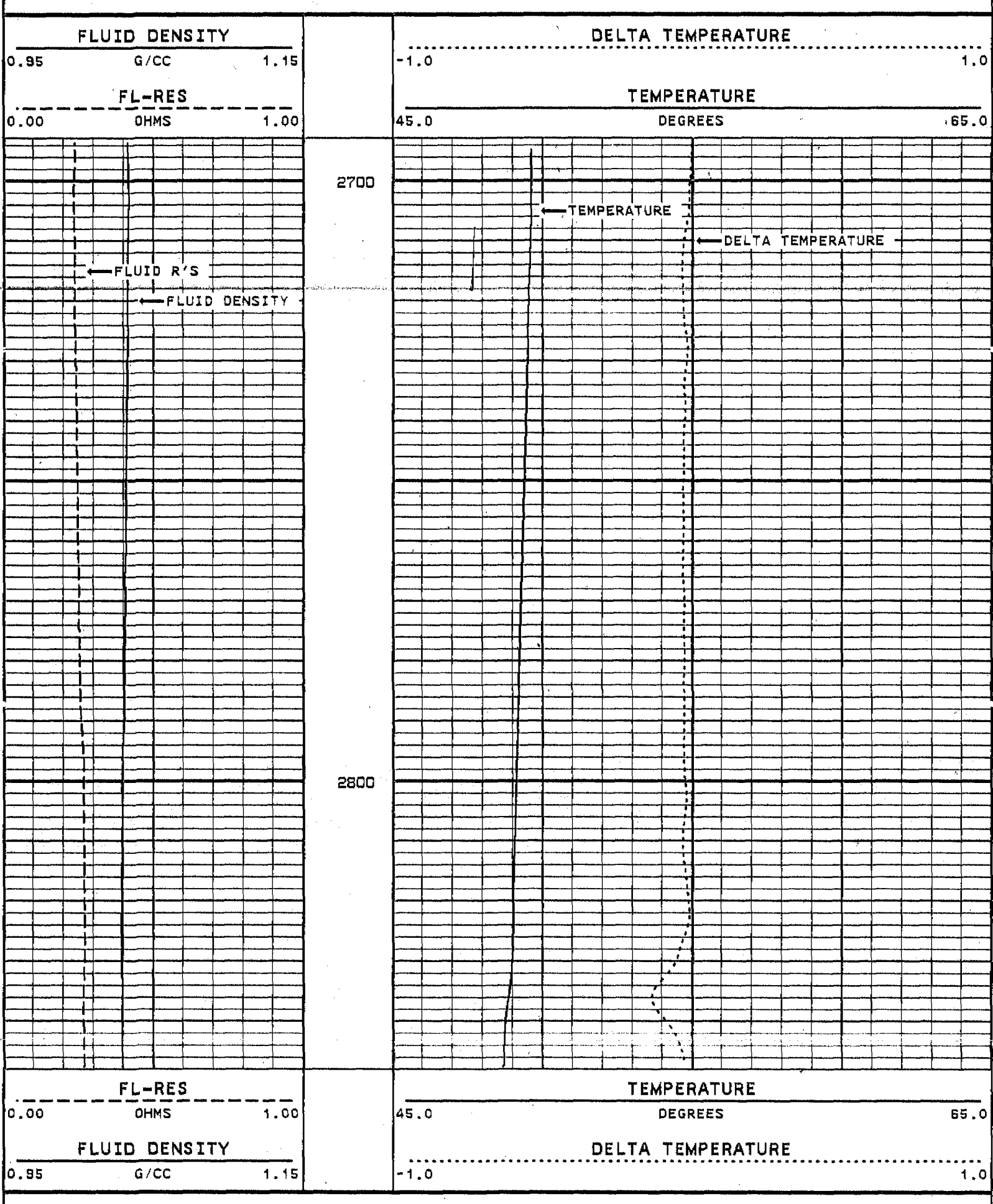
LOGGED GOING DOWNHOLE

VERSION: 2.26

FLUID R/D/TEMP

NDIW4FRTD2

FINISH DEPTH: 2852.5 FEET DIRECTION: DOWN DATE: 12/18/96 TIME: 11:16:30 MODE: TRACE PLAYBACK



START DEPTH: 2688.1 FEET DIRECTION: DOWN DATE: 12/18/96 TIME: 11:16:01 MODE: TRACE PLAYBACK

NDIW4FRTD2

FLUID R/D/TEMP

VERSION: 2.26

REMARKS

LOGGED GOING DOWNHOLE



VERSION: 2.26

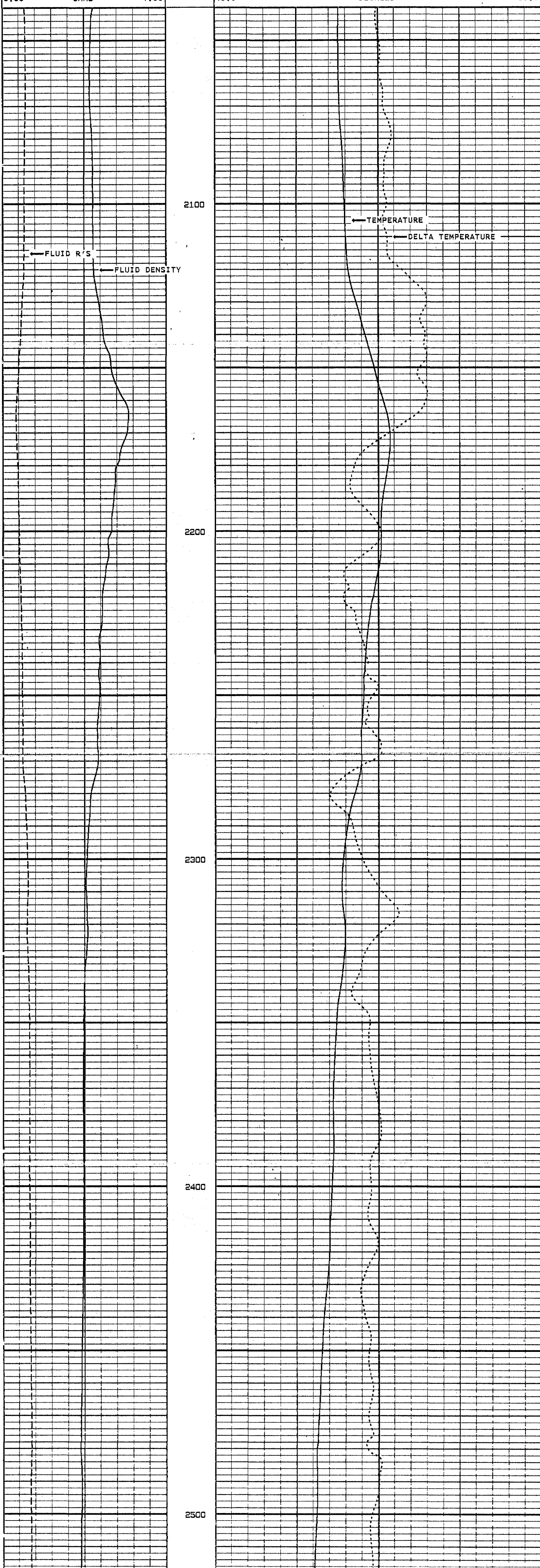
FLUID R/D/TEMP

NDIW4FRTD1

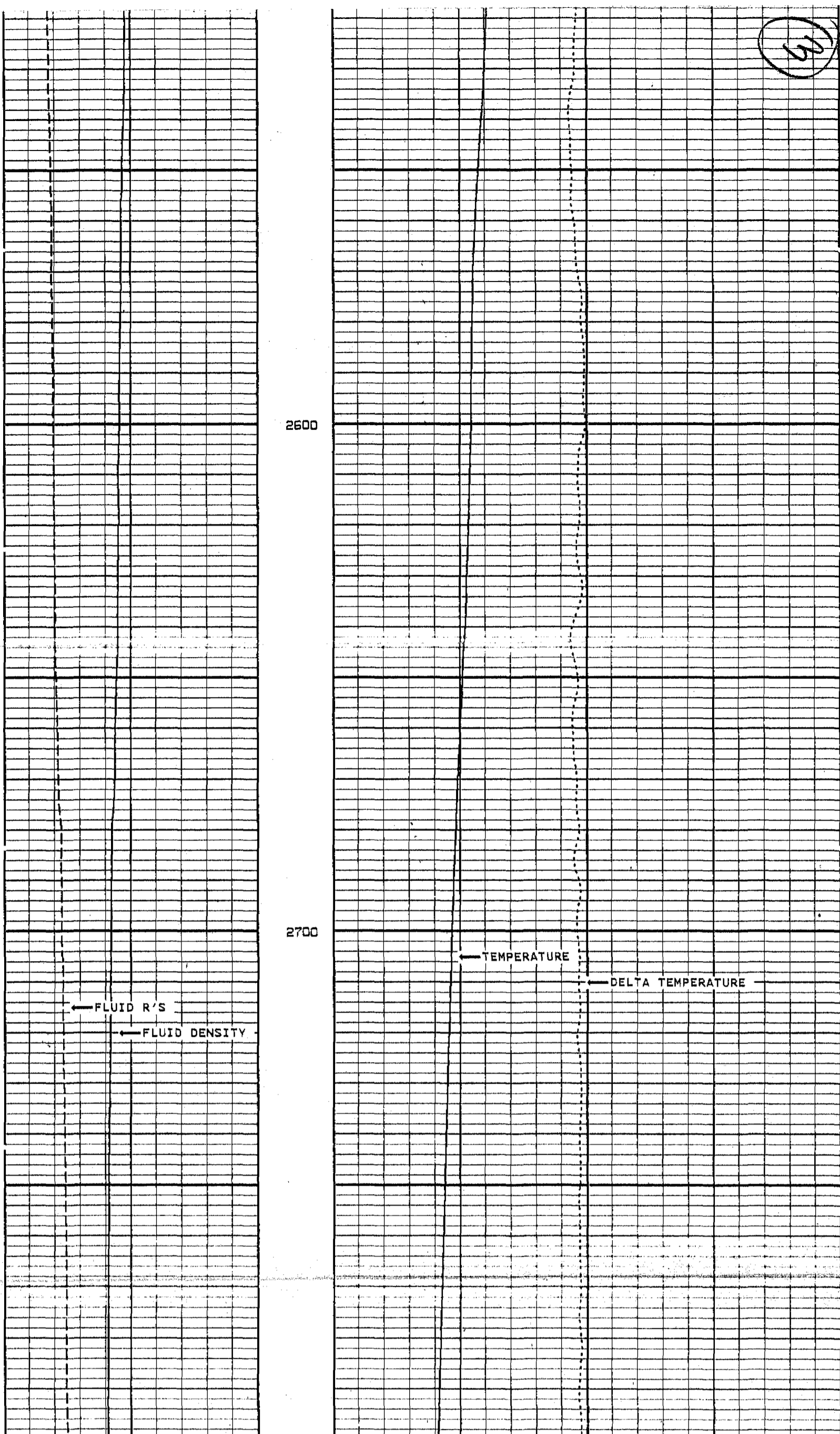
FINISH DEPTH: 2809.9 FEET DIRECTION: DOWN DATE: 12/18/96 TIME: 11:00:17 MODE: TRACE PLAYBACK

FLUID DENSITY
 0.95 G/CC 1.15
 FL-RES
 0.00 OHMS 1.00

DELTA TEMPERATURE
 -1.0 1.0
 TEMPERATURE
 45.0 DEGREES 65.0



51



FL-RES 0.00 OHMS 1.00 FLUID DENSITY 0.95 G/CC 1.15		TEMPERATURE 45.0 DEGREES 65.0 DELTA TEMPERATURE -1.0 1.0	
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START DEPTH: 2040.4 FEET DIRECTION: DOWN DATE: 12/18/96 TIME: 10:58:22 MODE: TRACE PLAYBACK
 NDIW4FRD1

FLUID R/D/TEMP
 VERSION: 2.26

MASTER CALIBRATION SUMMARY

FILE: DATE: 12/18/96 TIME: 10:22 VERSION: 2.26

TEMPERATURE TOOL #30

DATE: 08/04/96 TIME: 15:29

	MEASURED	UNITS	STANDARD	MINIMUM	MAXIMUM	DEVIATION	UNITS
ZERO	288.3	CPS	69.6	69.3	69.8	0.14	DEGF
PLUS	456.9	CPS	103.6	102.9	104.5	0.29	DEGF

FL-RES TOOL #30

DATE: 08/04/96 TIME: 15:50

	MEASURED	UNITS	STANDARD	MINIMUM	MAXIMUM	DEVIATION	UNITS
SONDEX 50000 MMHOS	9560.0	CPS	0.20	0.20	0.20	0.000	OHMS
SONDEX 25000 MMHOS	5050.0	CPS	0.40	0.40	0.40	0.000	OHMS
SONDEX 10000 MMHOS	2060.0	CPS	1.00	1.00	1.00	0.000	OHMS
SONDEX 2000 MMHOS	410.0	CPS	5.00	5.00	5.00	0.000	OHMS
SONDEX 500 MMHOS	99.0	CPS	20.00	20.00	20.00	0.000	OHMS

COMPANY NORTH DADE W.W.T.P

WELL IW #4-N

FIELD NORTH DADE STATE FLORIDA

