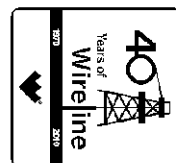




Weatherford

MICRORESISTIVITY LOG

COMPANY KNIGHTON OIL
WELL KACHELMAN # 3
FIELD ALBANO WEST
PROVINCE/COUNTY STAFFORD
COUNTRY/STATE KANSAS
LOCATION 970' FSL & 1030' FEL
30' SW NW SE SE



SEC TWP RGE Other Services
11 25S 14W MAI/MFE MSS
API Number 15-185-23661 MPD/MDN
Permit Number

Permanent Datum G.L., Elevation 1959 feet
Log Measured From K.B. @ 6 FEET above Permanent Datum
Drilling Measured From K.B.

Elevations: KB 1965.00
DF 1963.00
GL 1959.00

Date	18-FEB-2011	
Run Number	ONE	
Depth Driller	4325.00	feet
Depth Logger	4328.00	feet
First Reading	4280.00	feet
Last Reading	3000.00	feet
Casing Driller	260.00	feet
Casing Logger	260.00	feet
Bit Size	7.875	inches
Hole Fluid Type	CHEMICAL	
Density / Viscosity	9.00 lb/USg	50.00 CP
PH / Fluid Loss	8.00	12.80 ml/30Min
Sample Source	FLOWLINE	
Rm @ Measured Temp	0.40 @ 50.0	ohm-m
Rmf @ Measured Temp	0.32 @ 50.0	ohm-m
Rmc @ Measured Temp	0.48 @ 50.0	ohm-m
Source Rmf / Rmc	CALC	CALC
Rm @ BHT	0.19 @ 105.0	ohm-m
Time Since Circulation	6 HOURS	
Max Recorded Temp	105.00	deg F
Equipment Name	COMPACT	
Equipment / Base	13057 LIB	
Recorded By	R. HOFFMAN	
Witnessed By	DAVE MONTAGUE	
S O / JOB #	3529081	LB11-034

BOREHOLE RECORD

Last Edited: 22-FEB-2011 19:38

Bit Size inches	Depth From feet	Depth To feet
7.875	260.00	4328.00

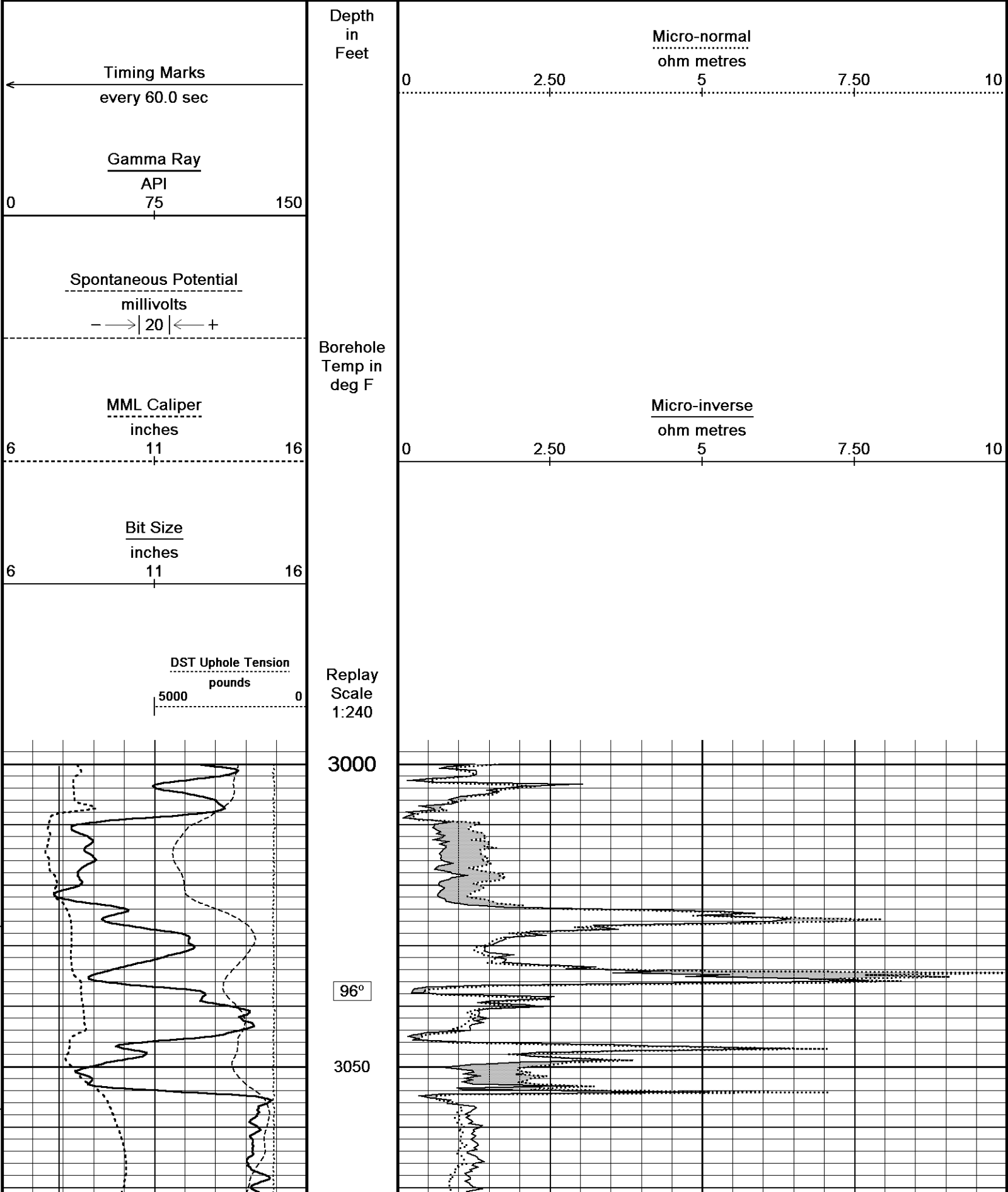
CASING RECORD

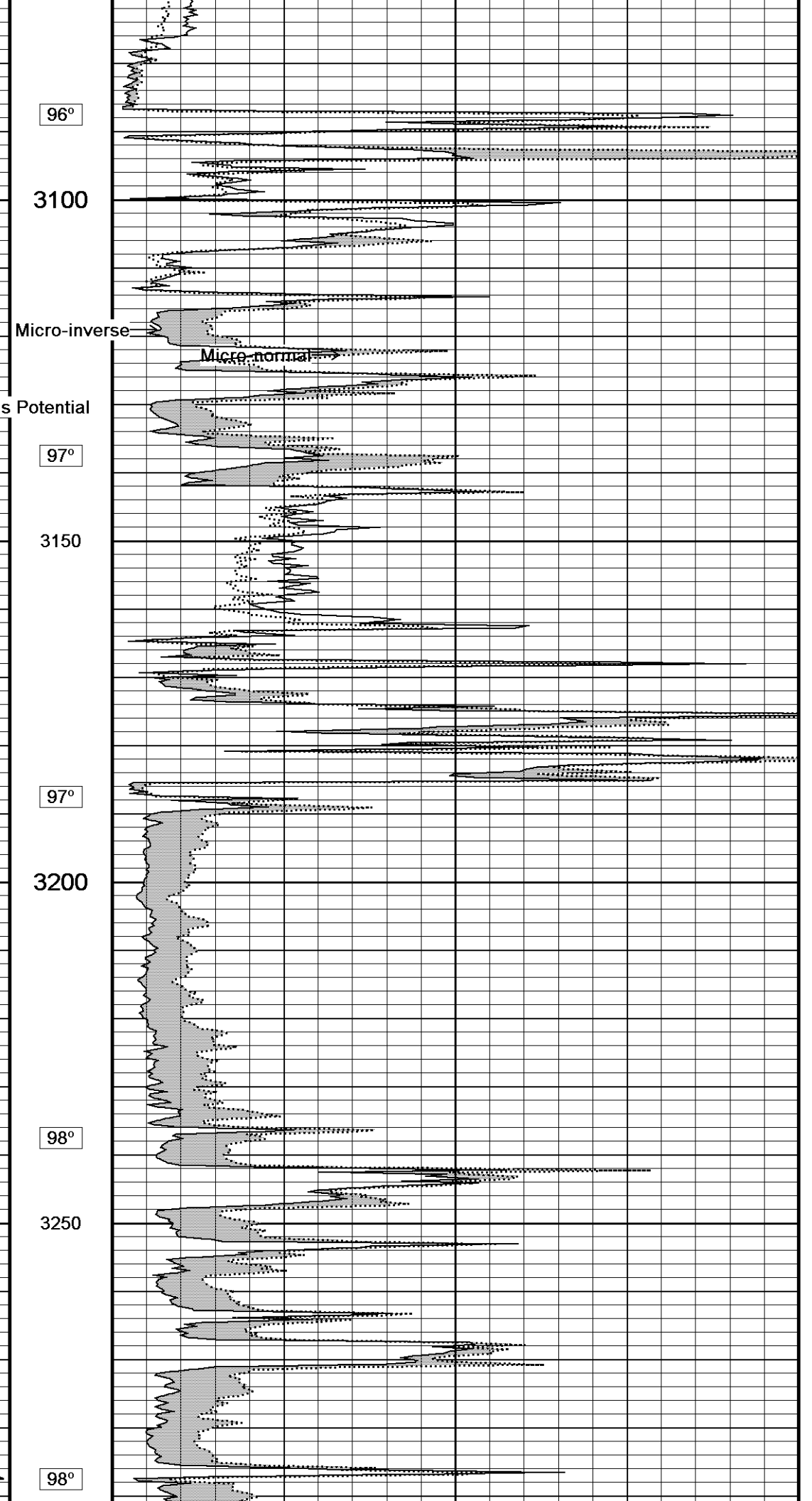
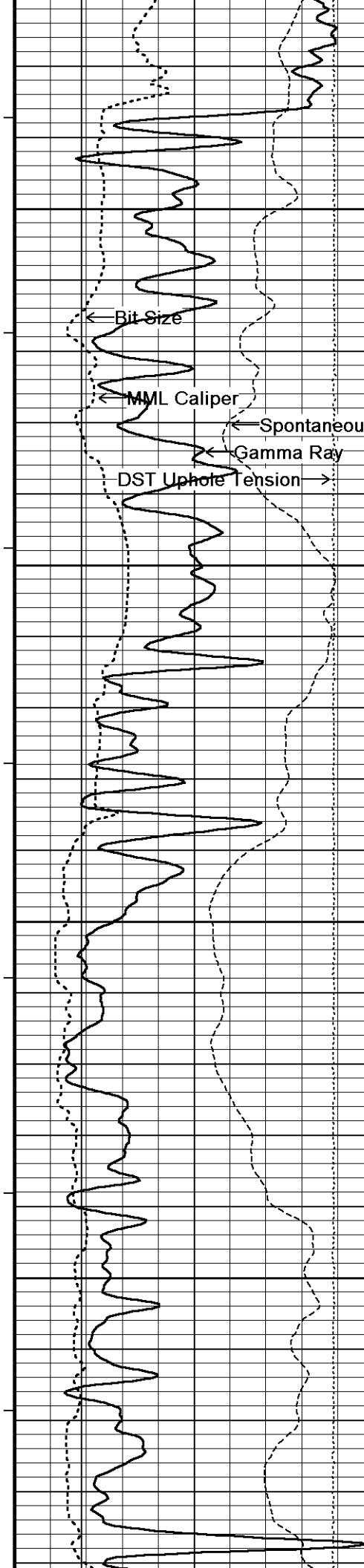
Type	Size inches	Depth From feet	Shoe Depth feet	Weight pounds/ft
SURFACE	8.625	0.00	260.00	24.00

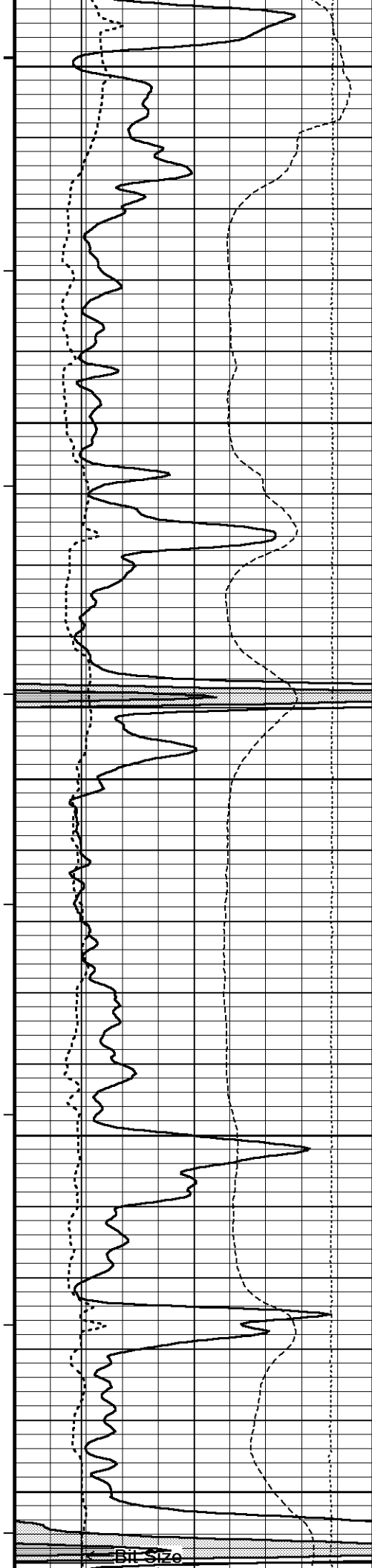
REMARKS

Tools Used: MPD, MCG, MDN, MFE, MAI, MSS, MML
Hardware: MPD: 4 inch profile plate used. MAI, MFE, MSS: 0.5 Inch standoffs used. MDN: Dual Bowspring used.
2.71 G/CC Limestone density matrix used to calculate porosity.
Sonic porosity calculated using 47.5 usec/ft Limestone scale.
Borehole rugosity, tight pulls, and washouts will affect data quality.
Puled tight at 4160 on repeat pass and 3714 on main pass.
All intervals logged and scaled per customer's request.
Annular volume with 5.5 inch production casing = 418 cu. ft.
Service order #3529081
Rig: Southwind Drilling #4
Engineer: R. Hoffman, A. Sill
Operator(s): B. Reeves

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 interpretations, and we shall not, except in the case of gross or wilful 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 in our price schedule.







3300

98°

3350

99°

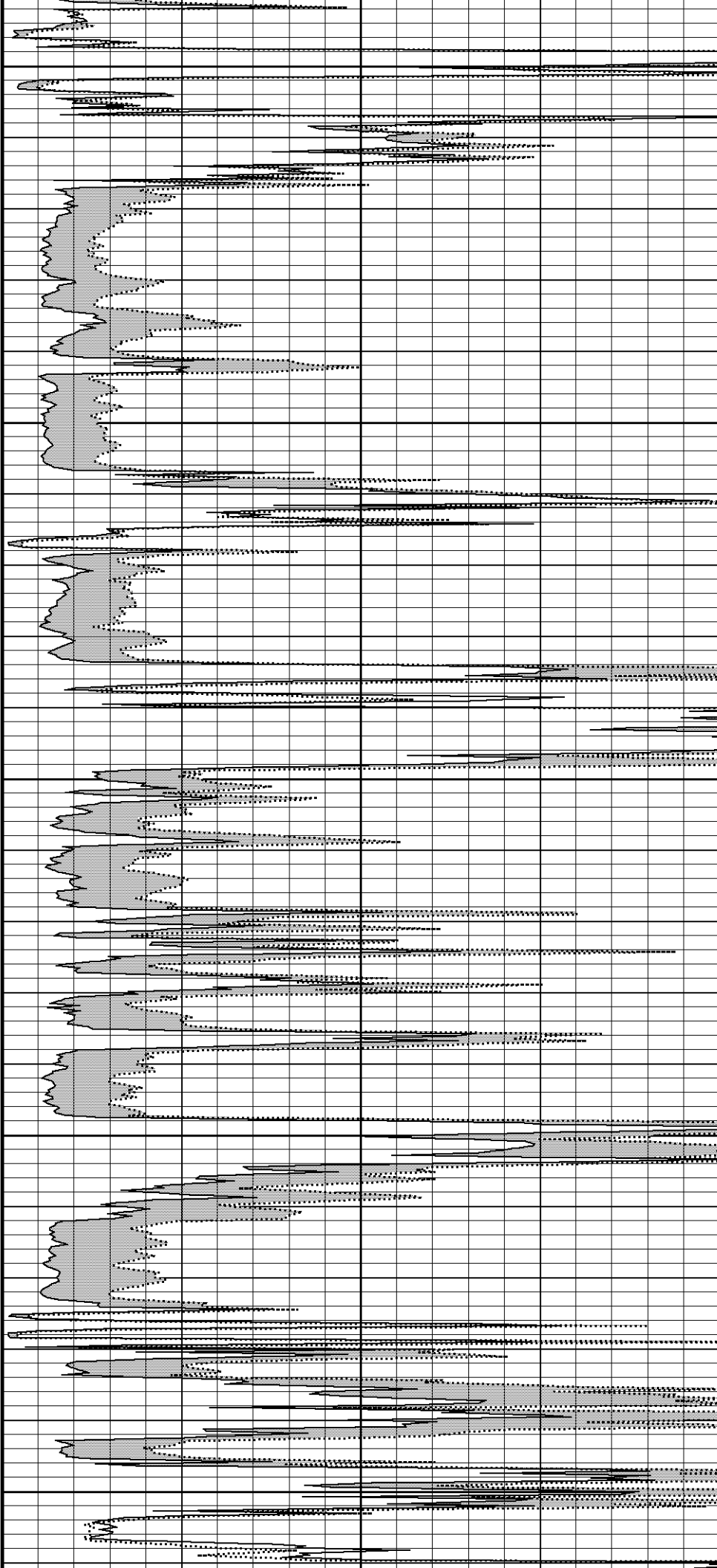
3400

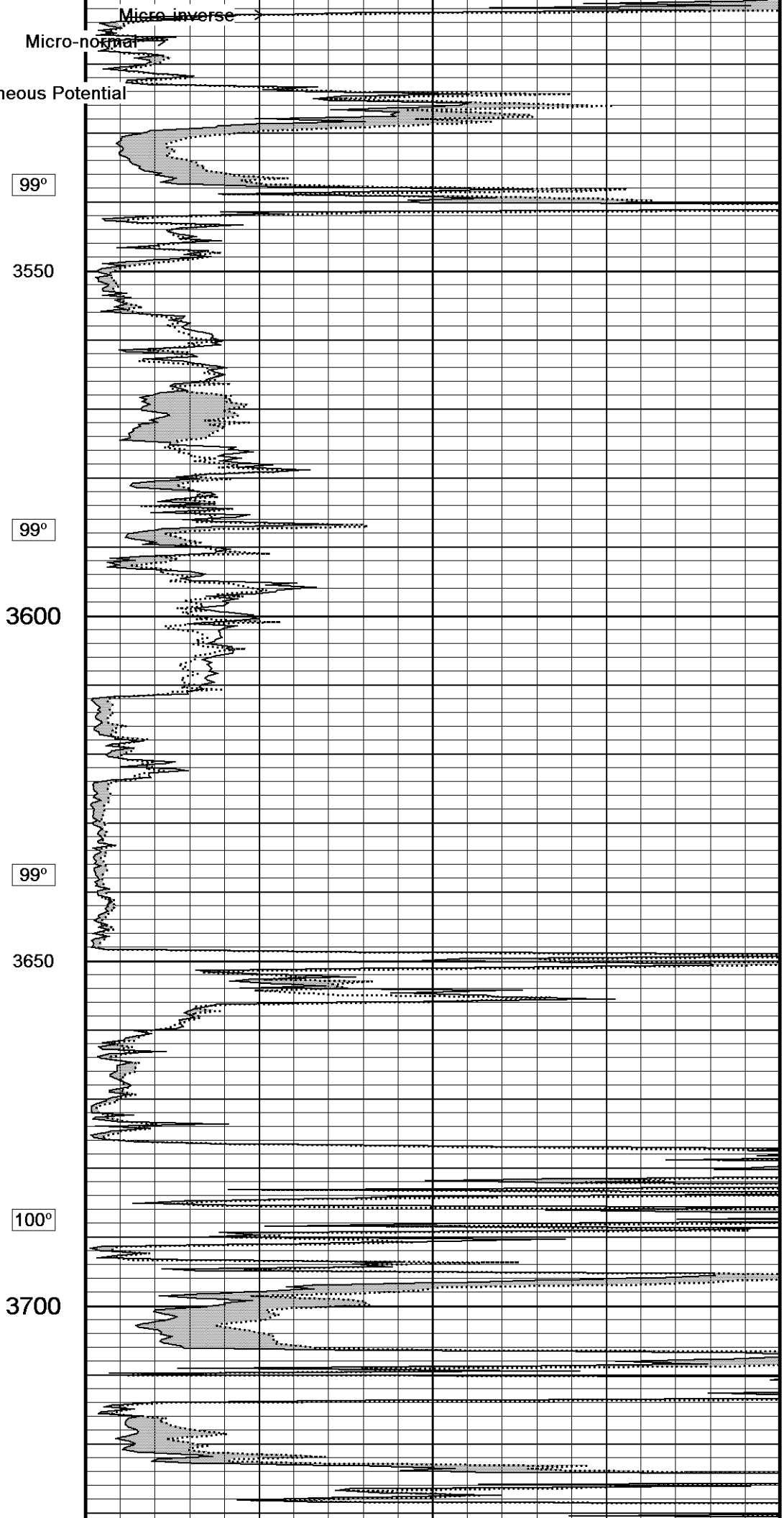
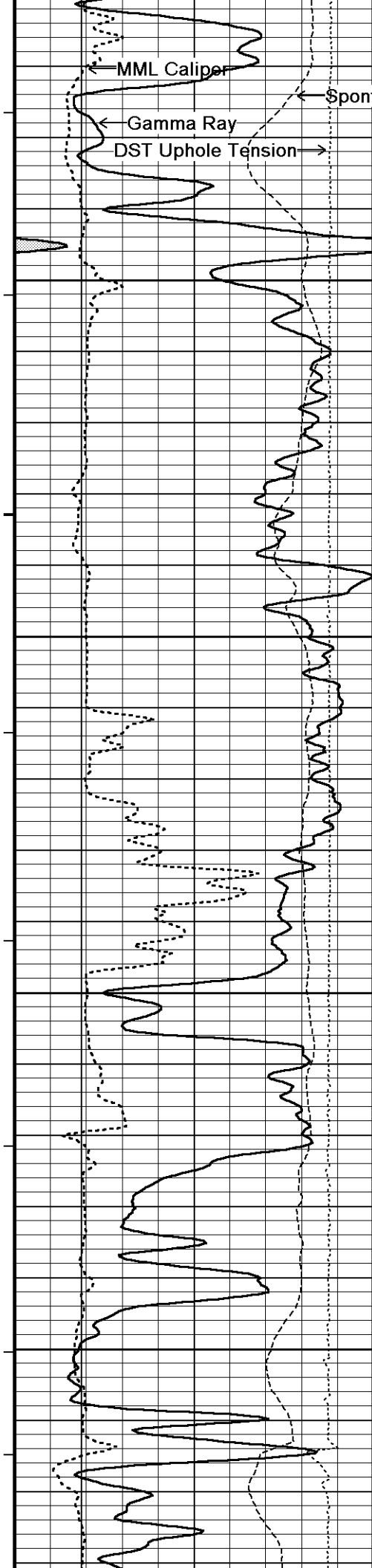
99°

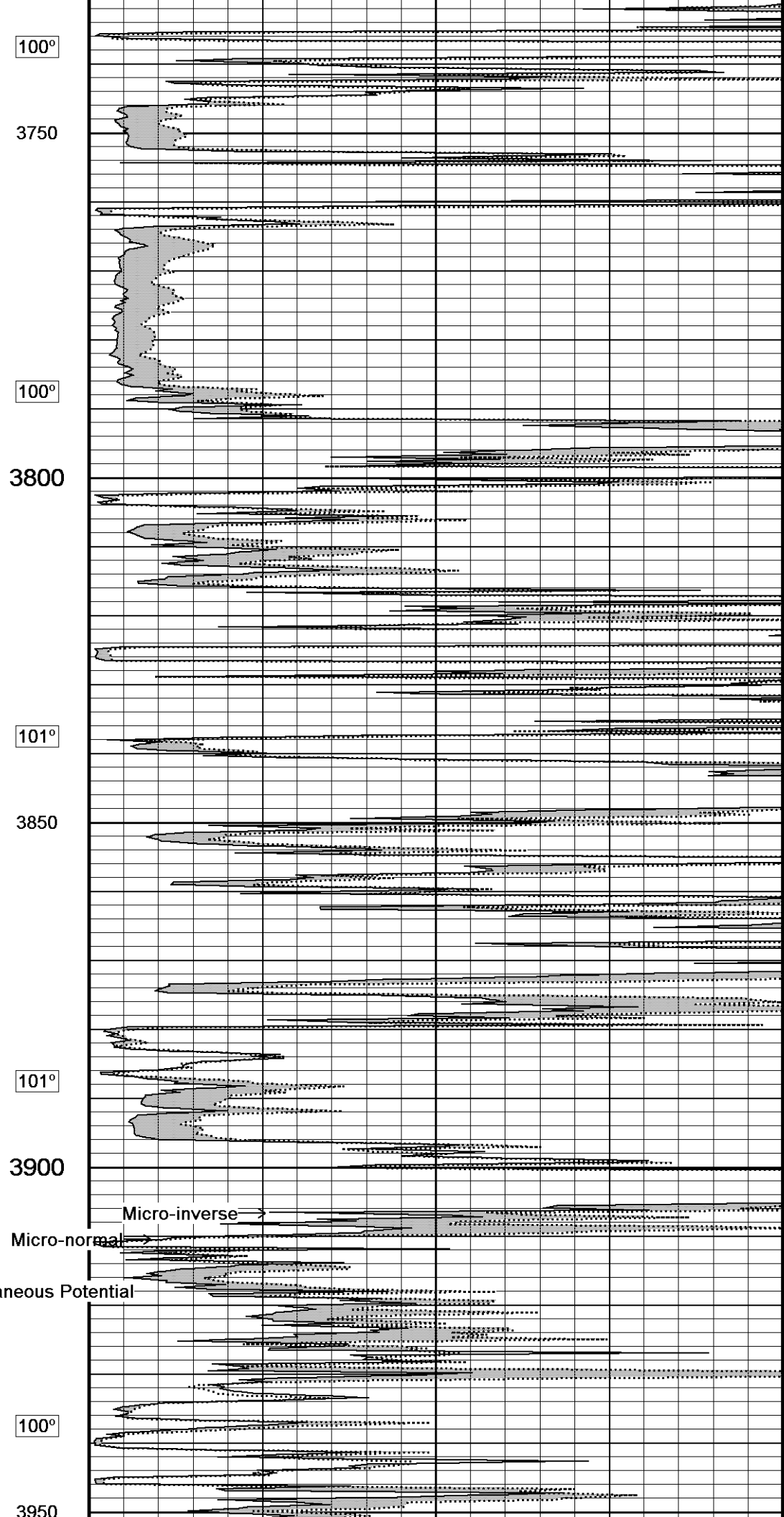
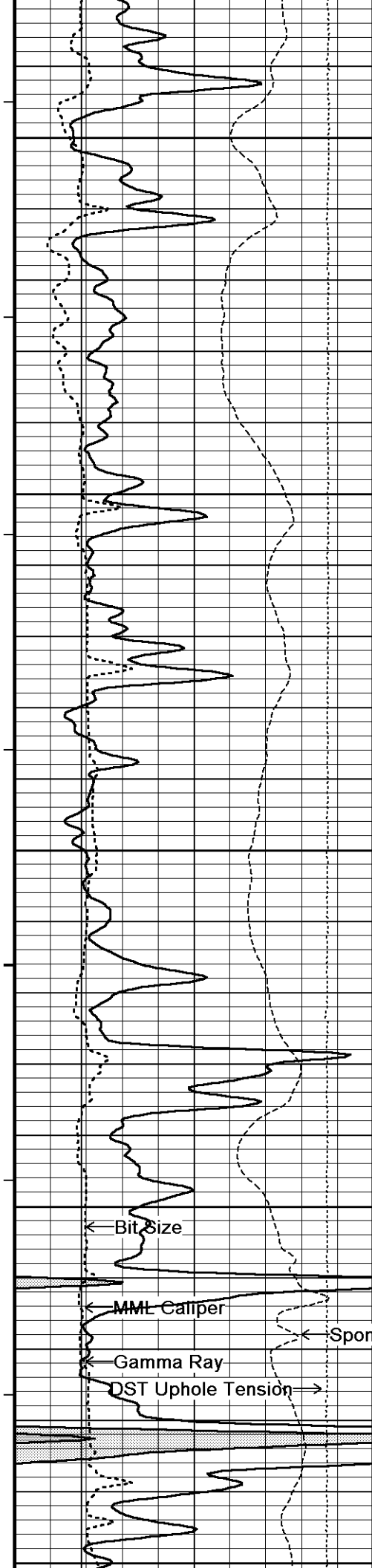
3450

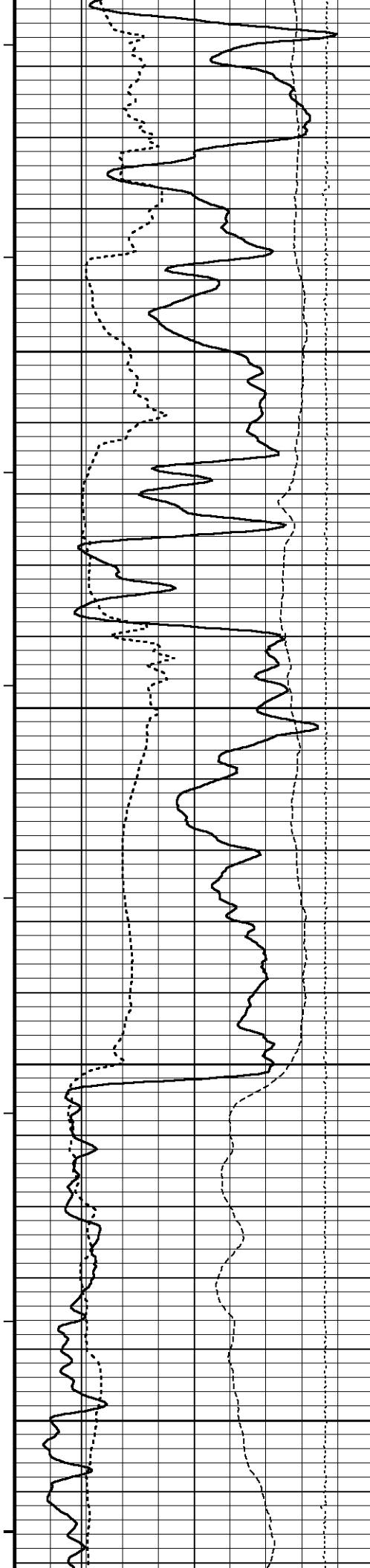
99°

3500









102°

4000

102°

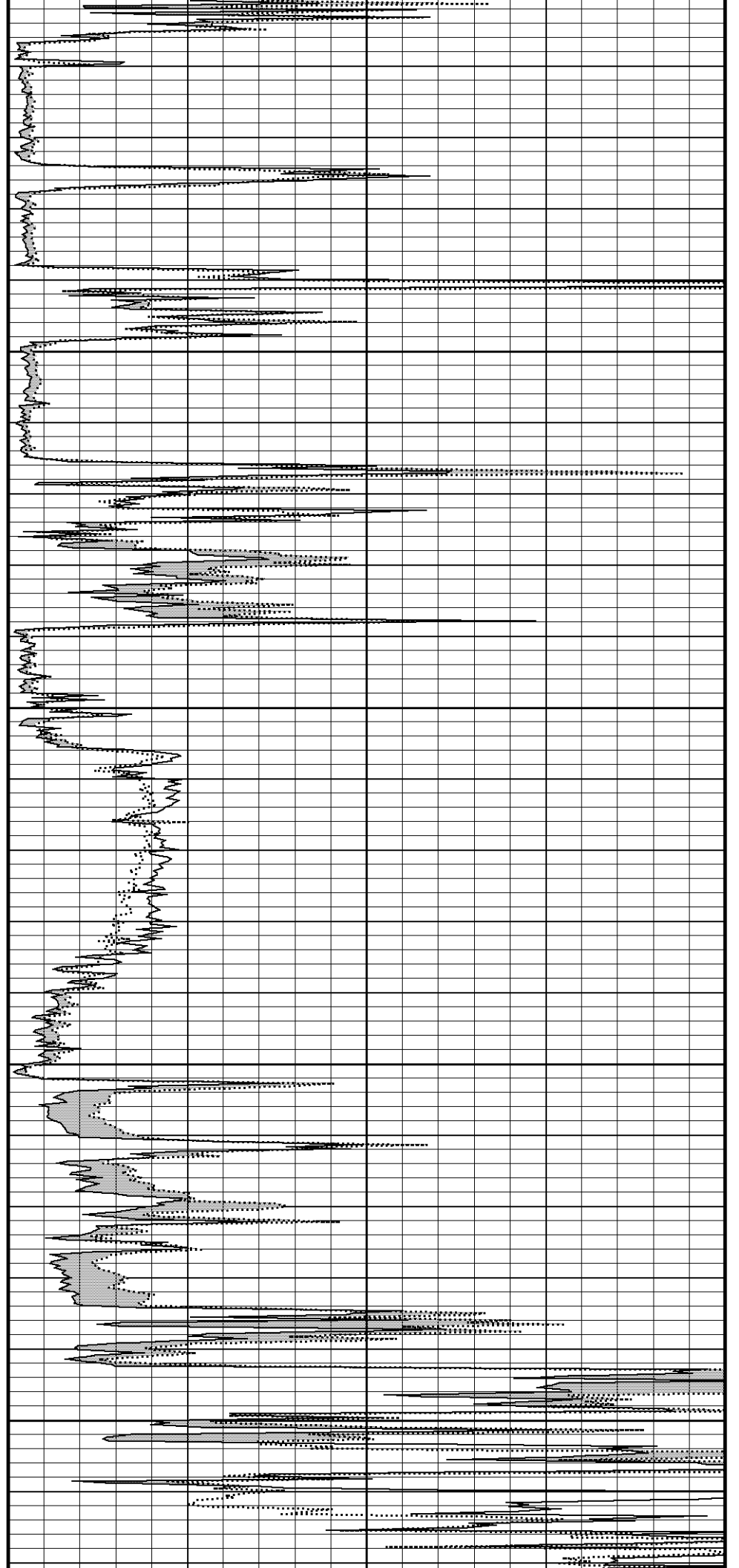
4050

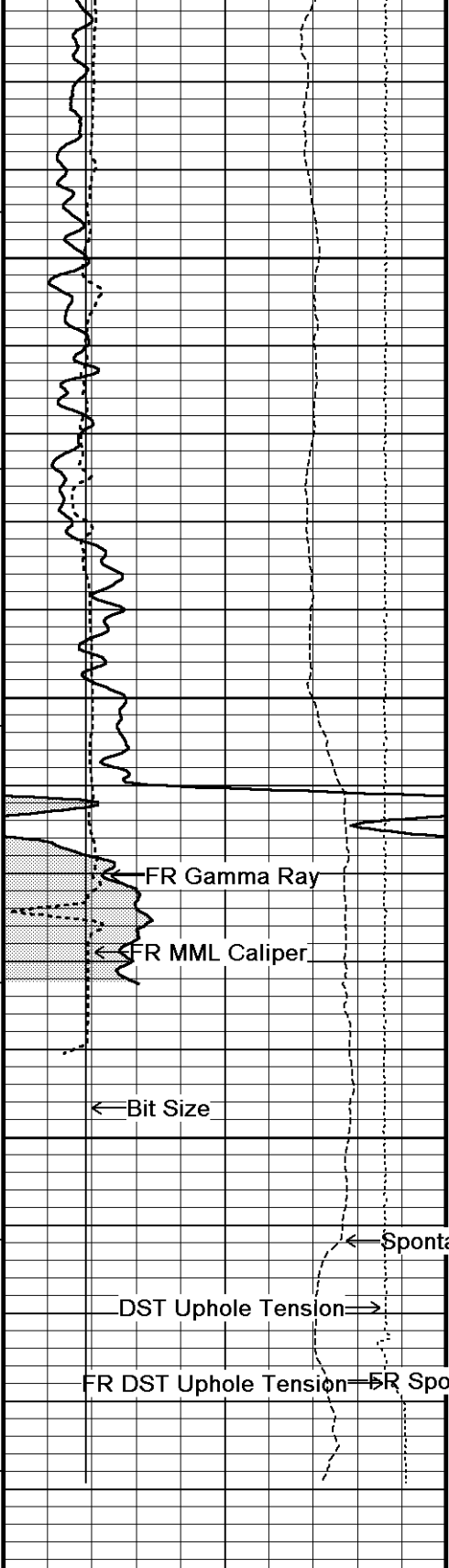
104°

4100

105°

4150





105°

4200

105°

4250

4300

FR Gamma Ray

FR MML Caliper

Bit Size

Spontaneous Potential

DST Uphole Tension

FR DST Uphole Tension

FR Spontaneous Potential

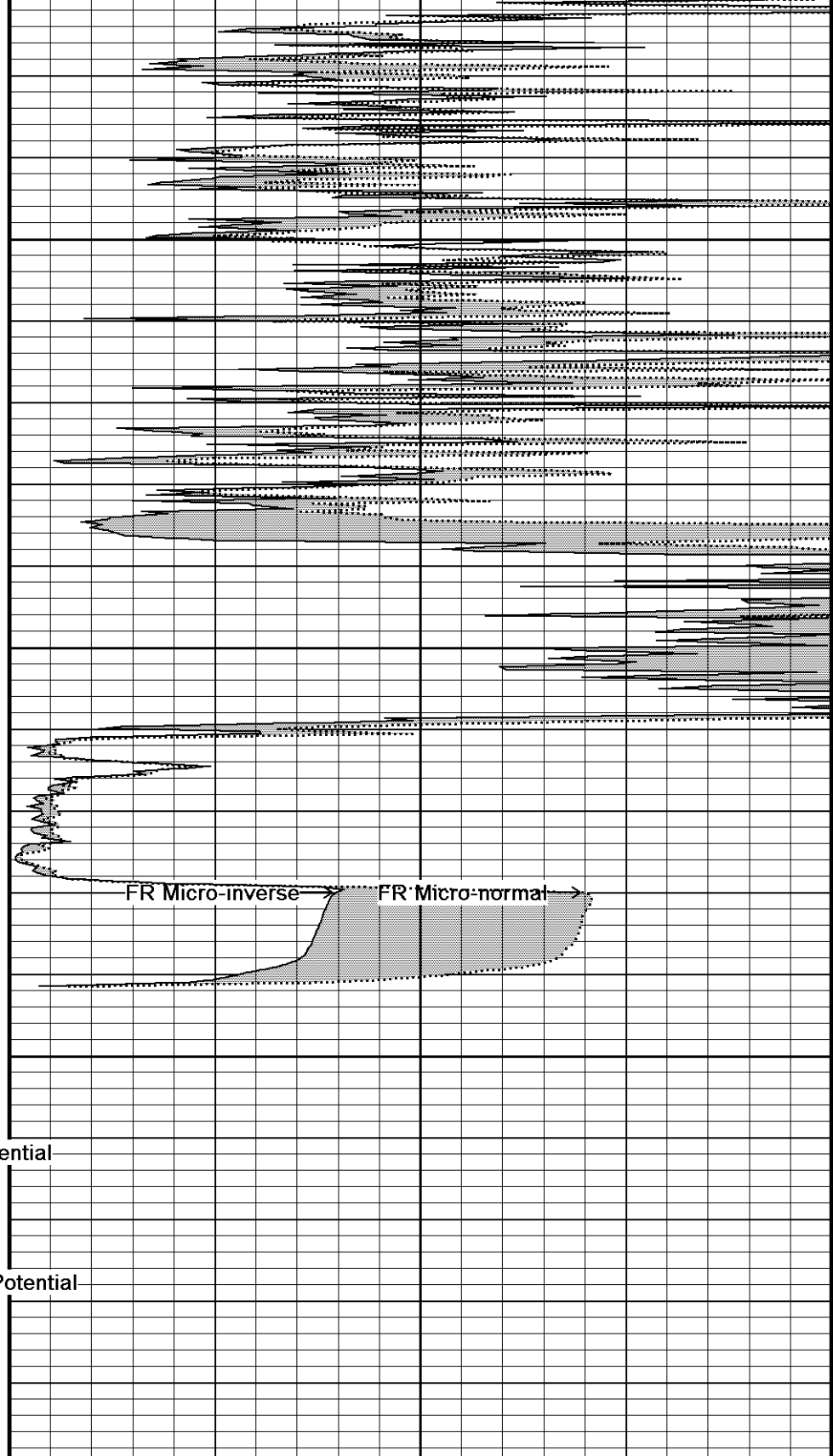
4348
Depth
in
Feet

Timing Marks
every 60.0 sec

Gamma Ray

API
75

0 150

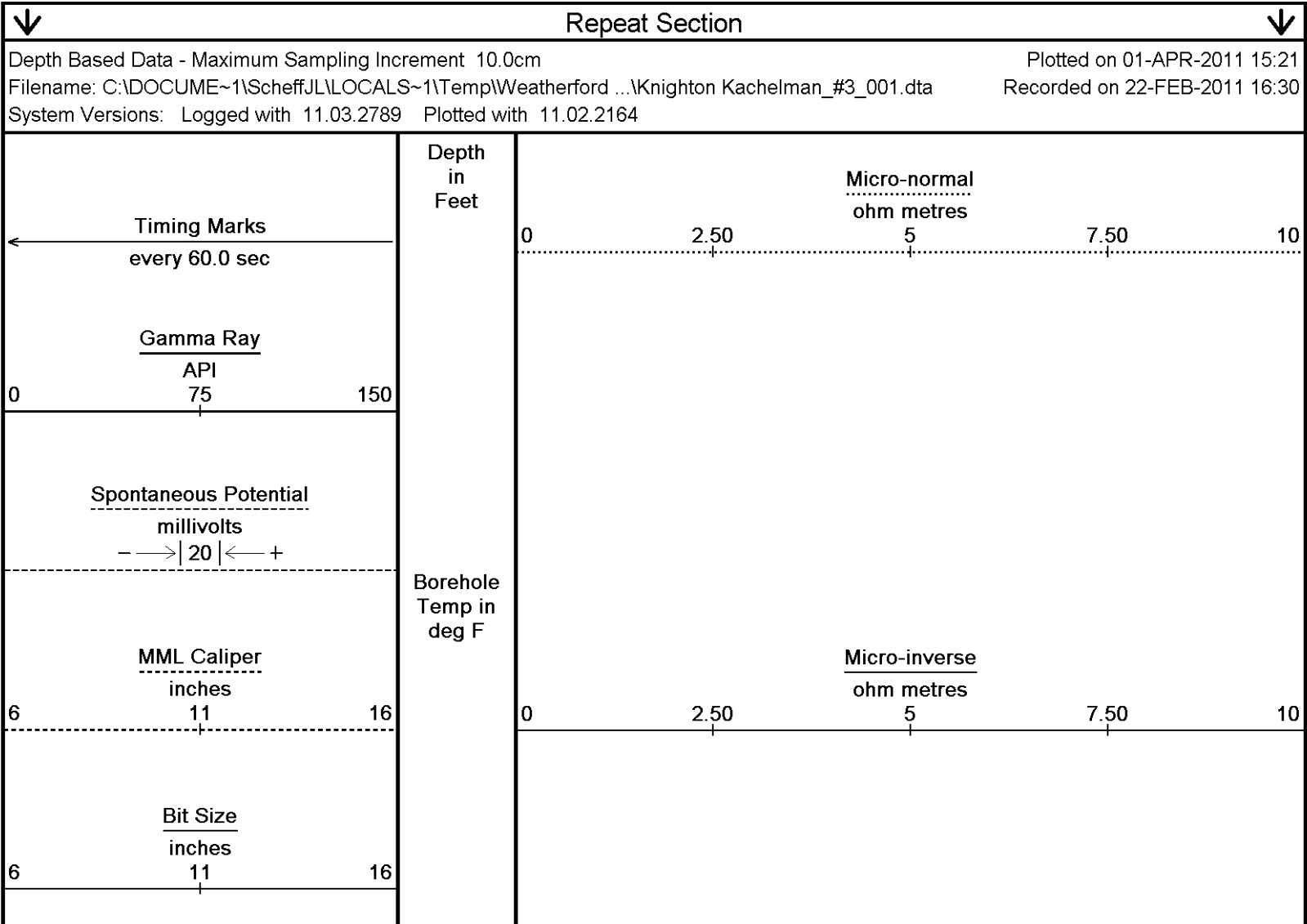
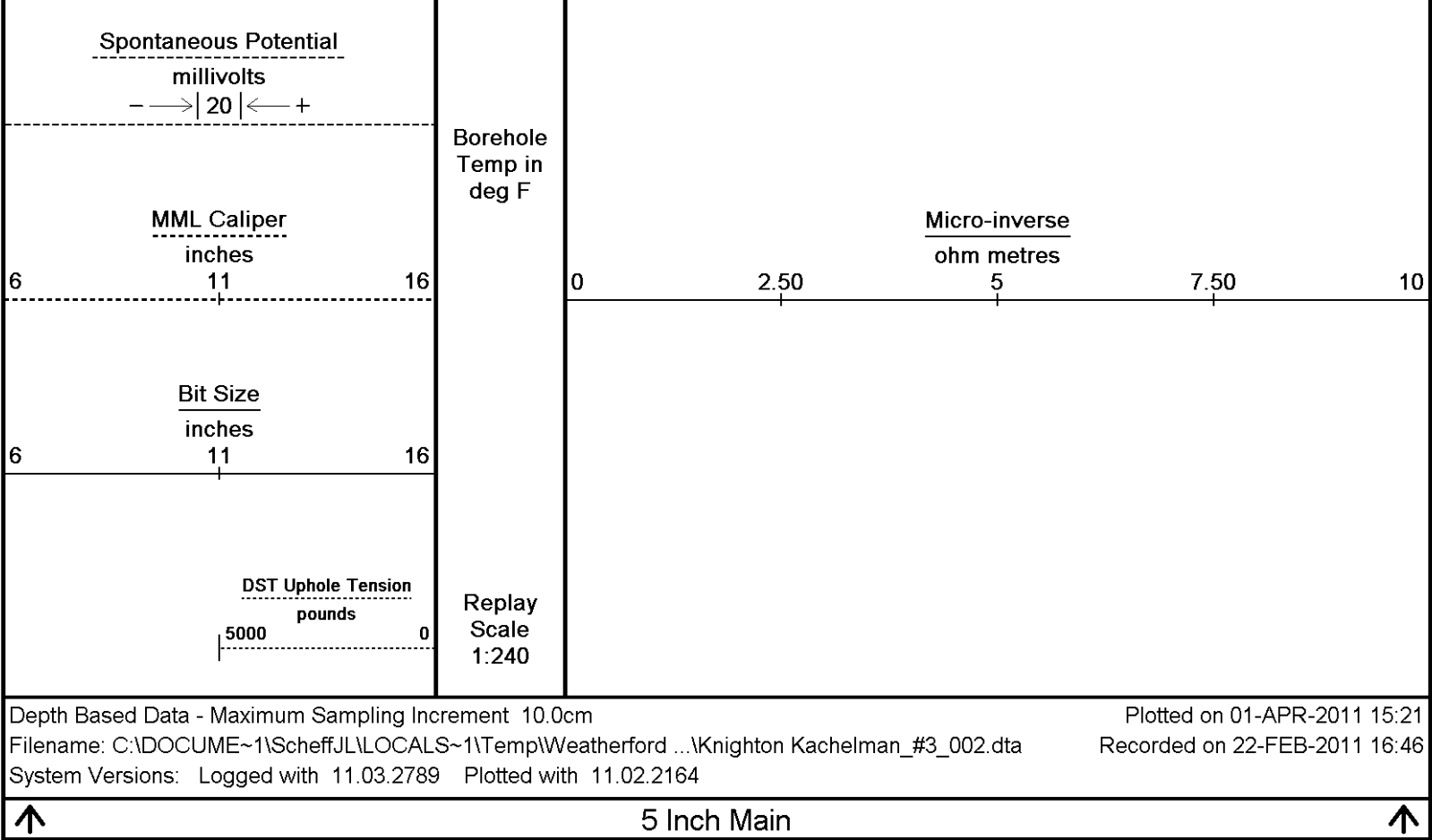


FR Micro-inverse

FR Micro-normal

Micro-normal
ohm metres

0 2.50 5 7.50 10



DST Uphole Tension
pounds
5000 0

Replay
Scale
1:240

4126

4150

104°

4200

103°

4250

4300

FR Gamma Ray

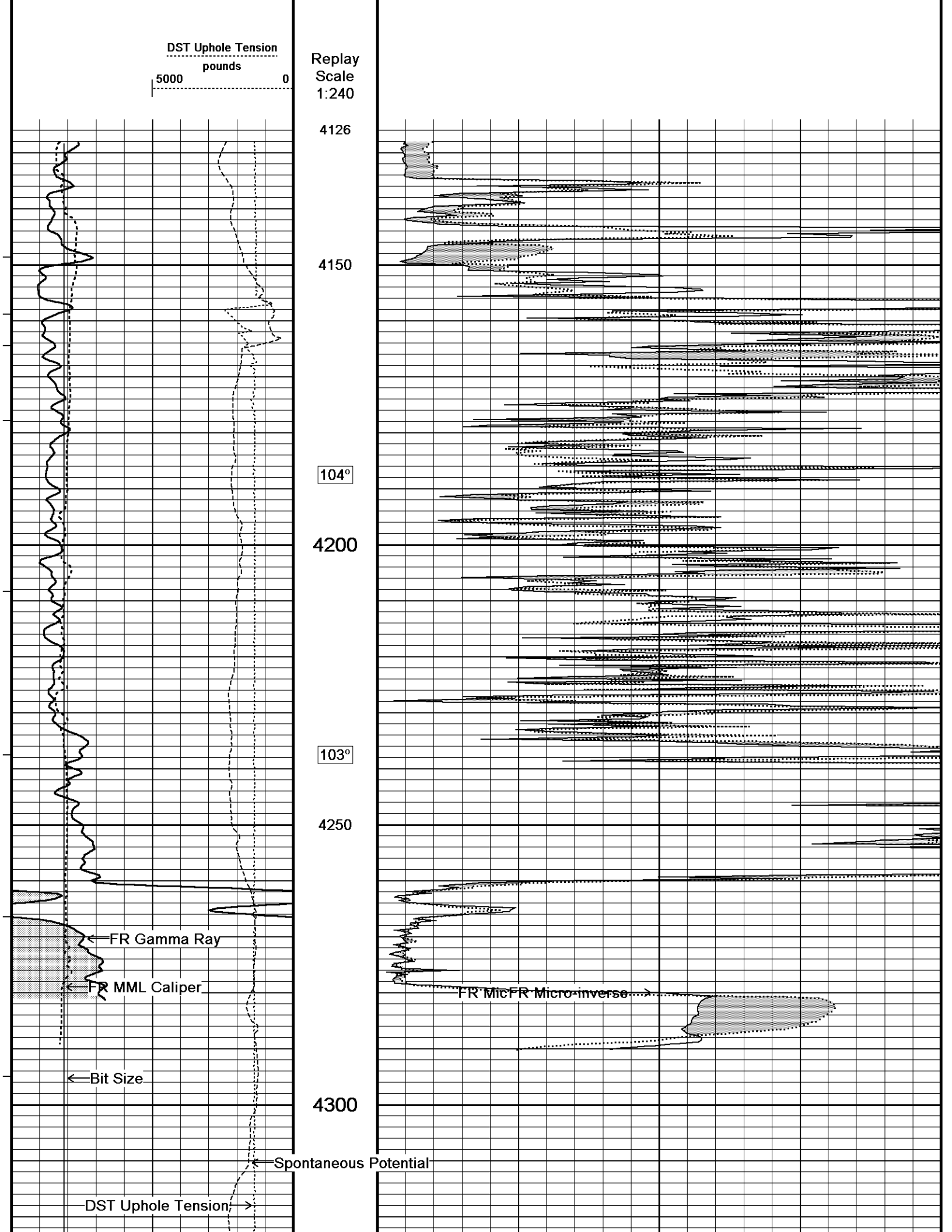
FR MML Caliper

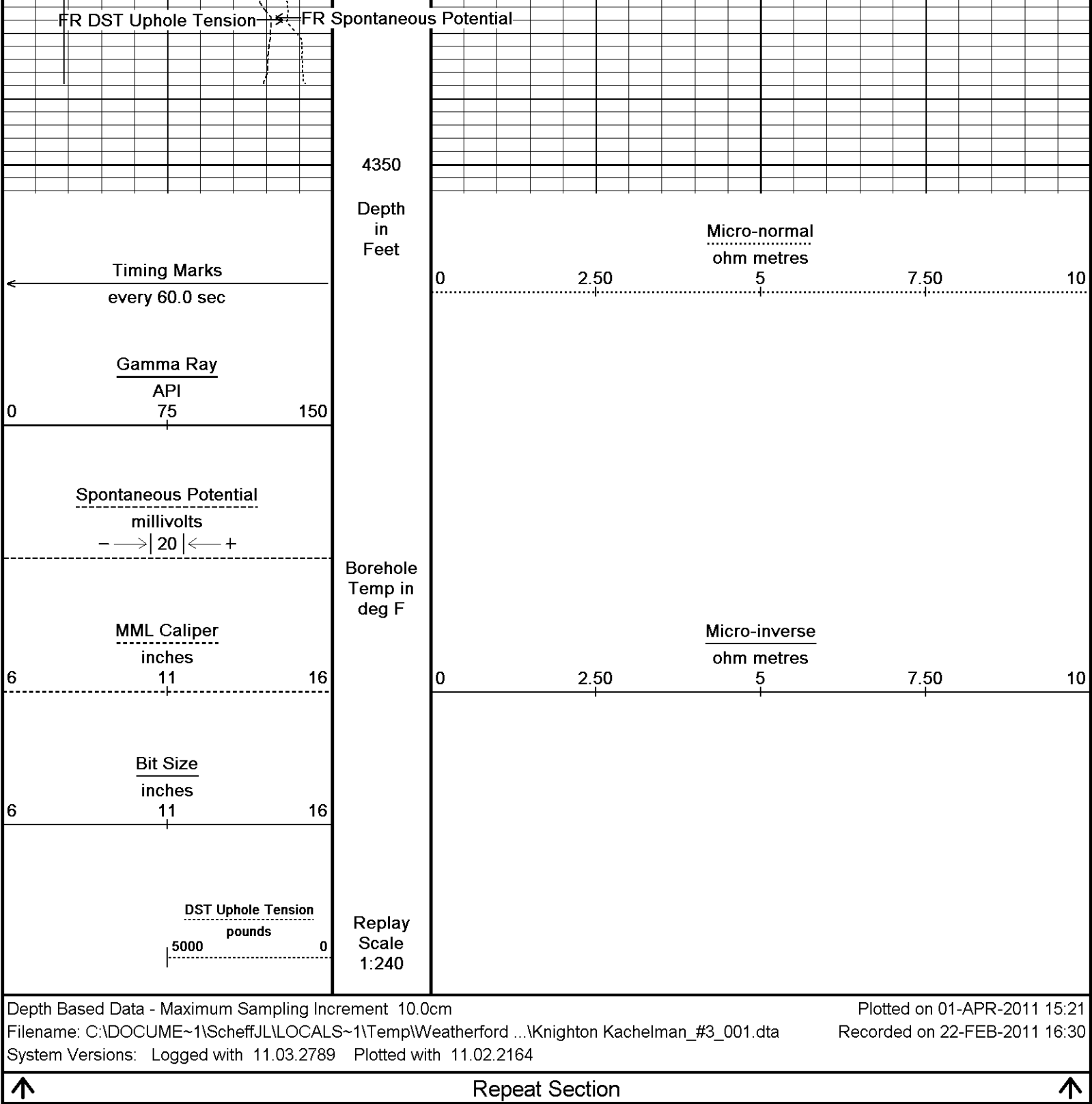
← Bit Size

DST Uphole Tension →

← Spontaneous Potential

FR MicFR Micro-inverse





BEFORE SURVEY CALIBRATION		
C:\DOCUME~1\ScheffJL\LOCALS~1\Temp\Weatherford PreView\0\Knighton Kachelman_#3.dta		
General Constants All 000		Last Edited on 22-FEB-2011,12:46
General Parameters		
Mud Resistivity	0.400	ohm-metres
Mud Resistivity Temperature	50.000	degrees F
Water Level	0.000	feet
Density/Neutron Processing	Wet Hole	
Hole/Annular Volume and Differential Caliper Parameters		
HVOL Method	Single Caliper	
HVOL Caliper 1	Density Caliper	

HVOL Caliper 2	N/A	
Annular Volume Diameter	4.500	inches
Caliper for Differential Caliper	None	

Rwa Parameters	
Porosity used	Base Density Porosity
Resistivity used	Array Ind. One Res Rt
RWA Constant A	1.000
RWA Constant M	2.000

DOWNHOLE EQUIPMENT

C:\DOCUME~1\ScheffJL\LOCALS~1\Temp\Weatherford PreView\0\Knighton Kachelman_#3.dta

Compact Comms Gamma
MCG-B 34 LG: 8.70 ft WT: 63.9 lb OD: 2.24 in

57.56 ft GRGC - Gamma Ray
54.65 ft CGXT - MCG External Temperature

Compact Micro-log
MML-A 9 LG: 7.97 ft WT: 81.6 lb OD: 2.24 in

47.93 ft MINV - Micro-inverse
47.93 ft MNRL - Micro-normal
48.92 ft MLTC - MML Caliper

Compact Neutron
MDN-A.B 65 LG: 5.04 ft WT: 50.7 lb OD: 2.24 in

43.13 ft NPRL - Limestone Neutron Por.

Compact Density/Caliper
MPD-B 64 LG: 9.59 ft WT: 90.4 lb OD: 2.24 in

35.89 ft CLDC - Density Caliper
33.96 ft DPRL - Limestone Density Por.
33.96 ft DEN - Compensated Density
33.96 ft DCOR - Density Correction

SKJ-D.A Compact Knuckle Joint
SKJ-D.A 37 LG: 2.17 ft WT: 24.3 lb OD: 2.24 in

33.90 ft PDPE - PE

Compact Focussed Electric
MFE-A.A 55 LG: 6.05 ft WT: 48.5 lb OD: 2.24 in

26.24 ft FEFE - Shallow FE

Compact Sonic
MSS-A.A 127 LG: 12.52 ft WT: 72.8 lb OD: 2.24 in

12.96 ft DT35 - 3-5' Compensated Sonic
12.96 ft SPRL - Wyllie Lime. Sonic Por.

Compact Induction
MAI-A.A 178 LG: 10.81 ft WT: 48.5 lb OD: 2.24 in

3.34 ft R400 - Array Ind. One Res 40
3.34 ft RTAO - Array Ind. One Res Rt
3.34 ft R600 - Array Ind. One Res 60
0.23 ft SPCG - Spontaneous Potential
Tool Zero (0.13ft from bottom)
-0.13 ft SMTU - DST Uphole Tension
All measurements relative to tool zero.

Total Length: 62.84 ft Weight: 480.6 lb



COMPANY
WELL
FIELD

KNIGHTON OIL
KACHELMAN # 3
ALBANO WEST

WELL: ALBANY WEST
PROVINCE/COUNTY: STAFFORD
COUNTRY/STATE: KANSAS

Elevation Kelly Bushing	1965.00	feet	First Reading	4280.00	feet
Elevation Drill Floor	1963.00	feet	Depth Driller	4325.00	feet
Elevation Ground Level	1959.00	feet	Depth Logger	4328.00	feet



Weatherford®

MICRORESISTIVITY LOG

