



Weatherford

MICRORESISTIVITY LOG

COMPANY		McCoy PETROLEUM CORPORATION	
WELL		FITZGERALD 'A' #5-30	
FIELD		LETTE SE	
PROVINCE/COUNTY		HASKELL	
COUNTRY/STATE		UNITED STATES / KANSAS	
LOCATION		330' FNL & 1320' FEL	
SEC	TWP	RGE	Other Services
30	30S	31W	MPD/MDN
API Number	15-081-22027		MAI/MFE
Permit Number			
Permanent Datum G.L., Elevation feet			Elevations: feet
Log Measured From KB			KB 2857.00
Drilling Measured From K.B. @ 11 FEET			DF 2855.00
			GL 2846.00
Date	31-AUG-2013		
Run Number	ONE		
Service Order	3541077		
Depth Driller	5700.00		feet
Depth Logger	5701.00		feet
First Reading	5667.00		feet
Last Reading	4000.00		feet
Casing Driller	1821.00		feet
Casing Logger	1821.00		feet
Bit Size	7.880		inches
Hole Fluid Type	CHEMICAL		
Density / Viscosity	9.00 lb/USg	72.00 CP	
PH / Fluid Loss	9.00	9.20 ml/30Min	
Sample Source	MUDPIT		
Rm @ Measured Temp	0.73 @ 75.0		ohm-m
Rmf @ Measured Temp	0.58 @ 75.0		ohm-m
Rmc @ Measured Temp	0.88 @ 75.0		ohm-m
Source Rmf / Rmc	CALC	CALC	
Rm @ BHT	0.43 @128.0		ohm-m
Time Since Circulation	4 HOURS		
Max Recorded Temp	128.00		deg F
Equipment / Base	13096	LIB	
Recorded By	W. STAMBAUGH		
Witnessed By	DAVE WILLIAMS		
JOB#	LB13-245		

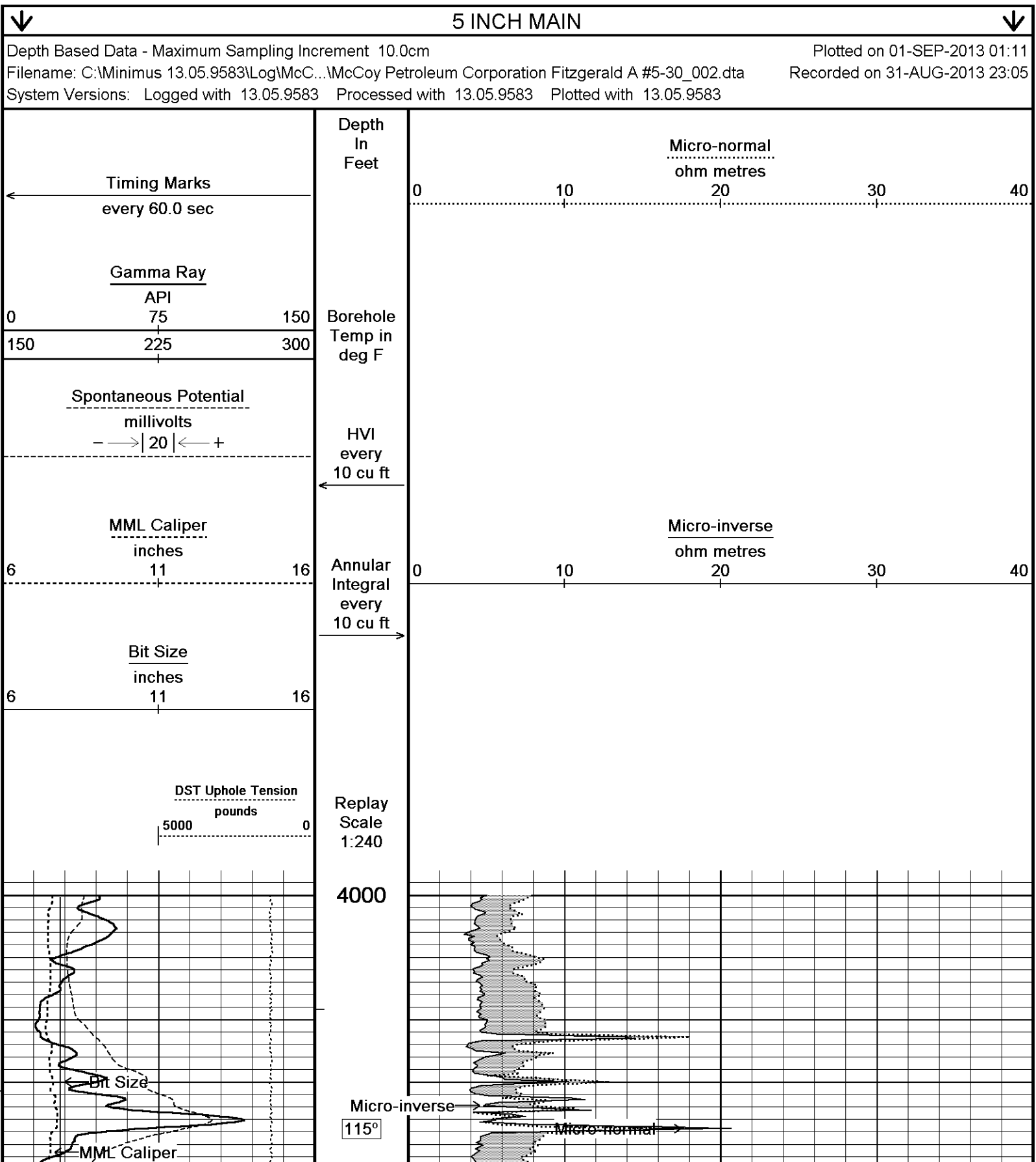
BOREHOLE RECORD				Last Edited: 31-AUG-2013 21:15
Bit Size inches		Depth From feet		Depth To feet
7.880		1821.00		5700.00
CASING RECORD				
Type	Size inches	Depth From feet	Shoe Depth feet	Weight pounds/ft
SURFACE	8.625	0.00	1821.00	24.00

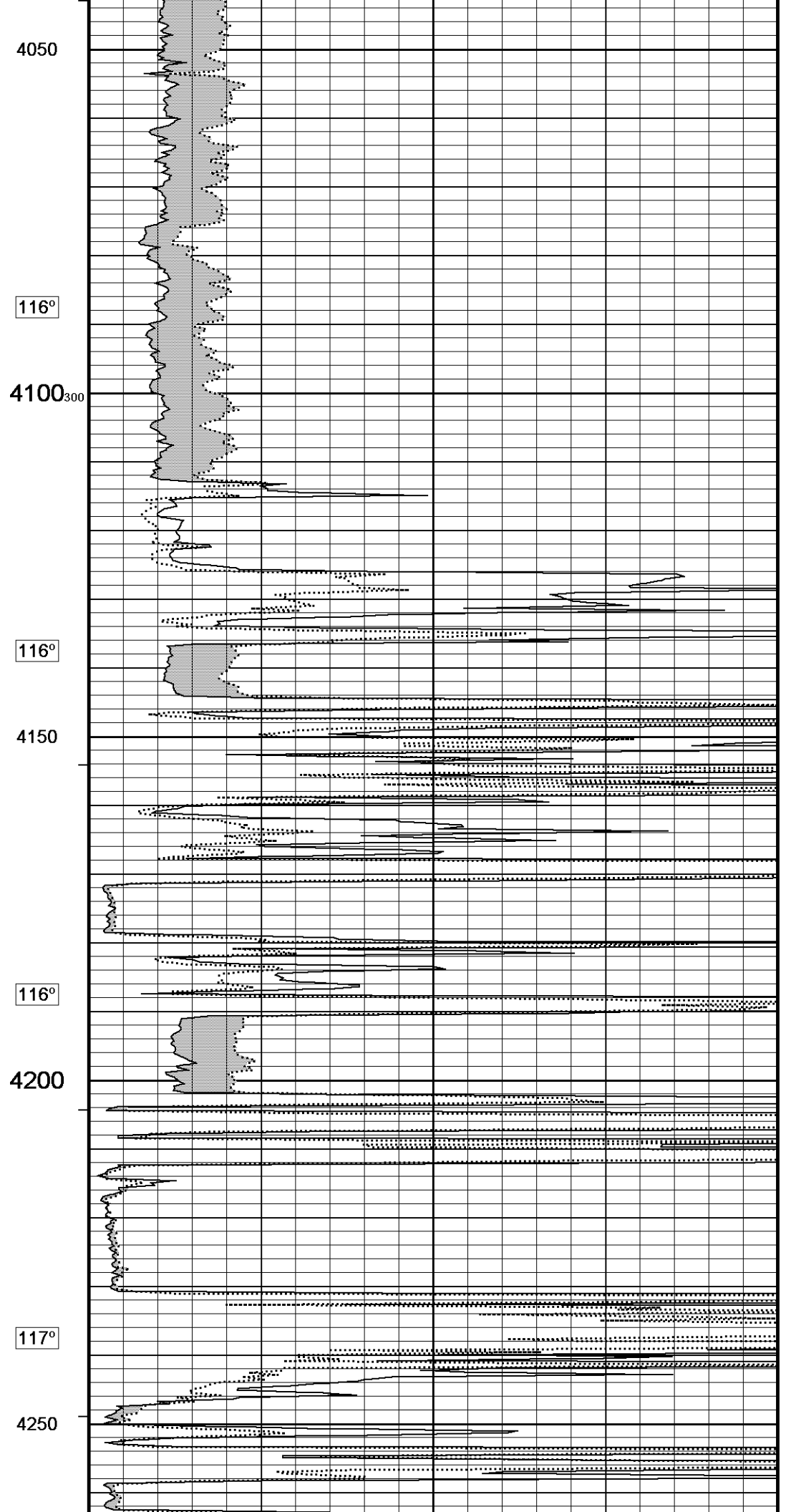
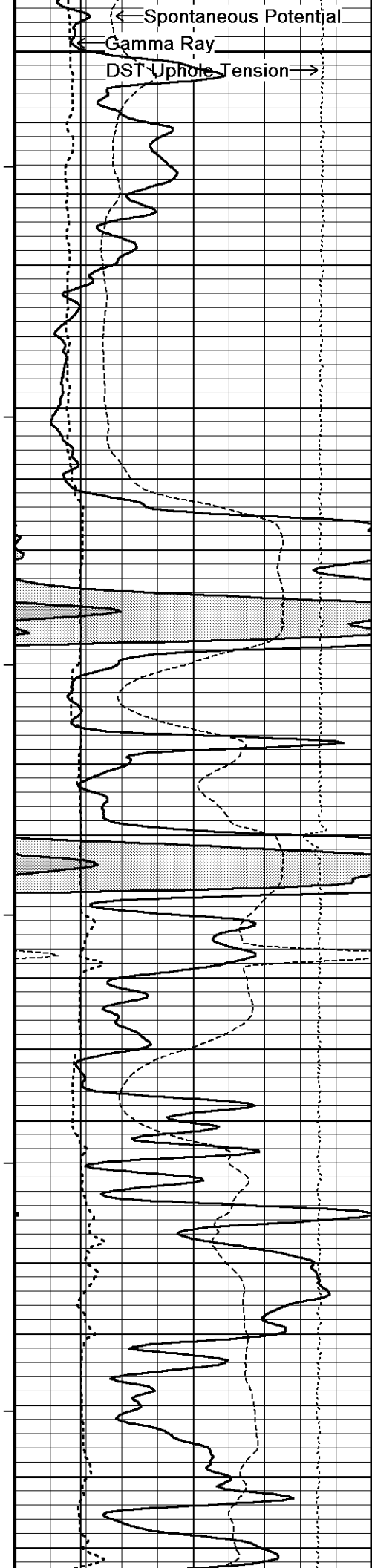
REMARKS
- SOFTWARE ISSUE: WLS 13.05.9583
MCG, MML, MDN, MPD, MFE, MAI RUN IN COMBINATION
- HARDWARE: DUAL BOWSPRING USED ON MDN
0.5 INCH STANDOFFS USED ON MAI and MFE
- 2.71 G/CC LIMESTONE DENSITY MATRIX USED TO CALCULATE POROSITY
- BOREHOLE RUGOSITY, TIGHT PULLS, AND WASHOUTS WILL AFFECT DATA QUALITY
- ALL INTERVALS LOGGED AND SCALED PER CUSTOMER'S REQUEST
- TOTAL HOLE VOLUME FROM TD TO SURFACE CASING: 1590 CU.FT.
- ANNULAR HOLE VOLUME WITH 5.5 INCH PRODUCTION CASING FROM TD TO 4000 FEET: 320 CU.FT.
- RIG: STERLING DRILLING CO. RIG #2

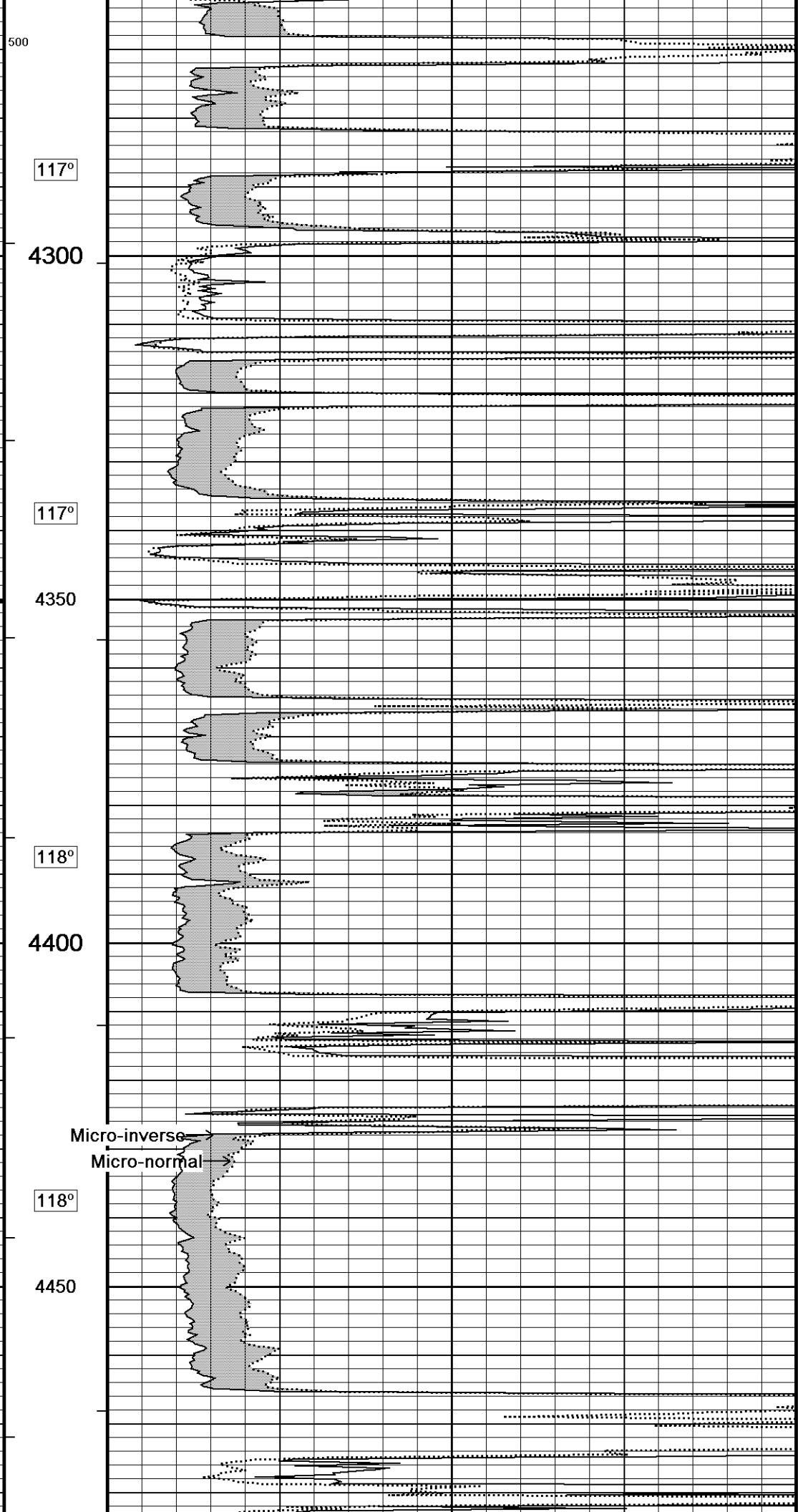
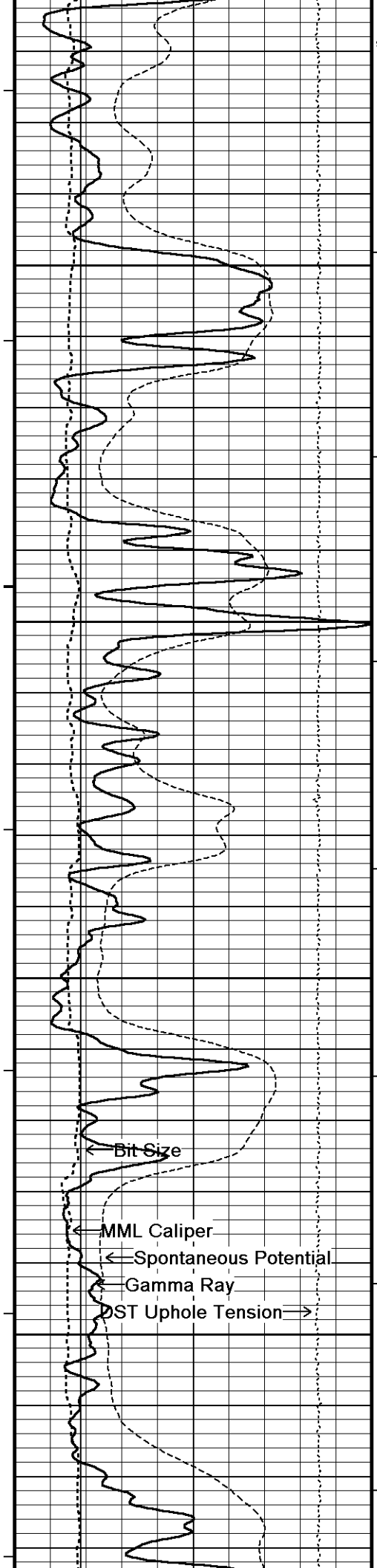
- ENGINEER: W. STAMBAUGH

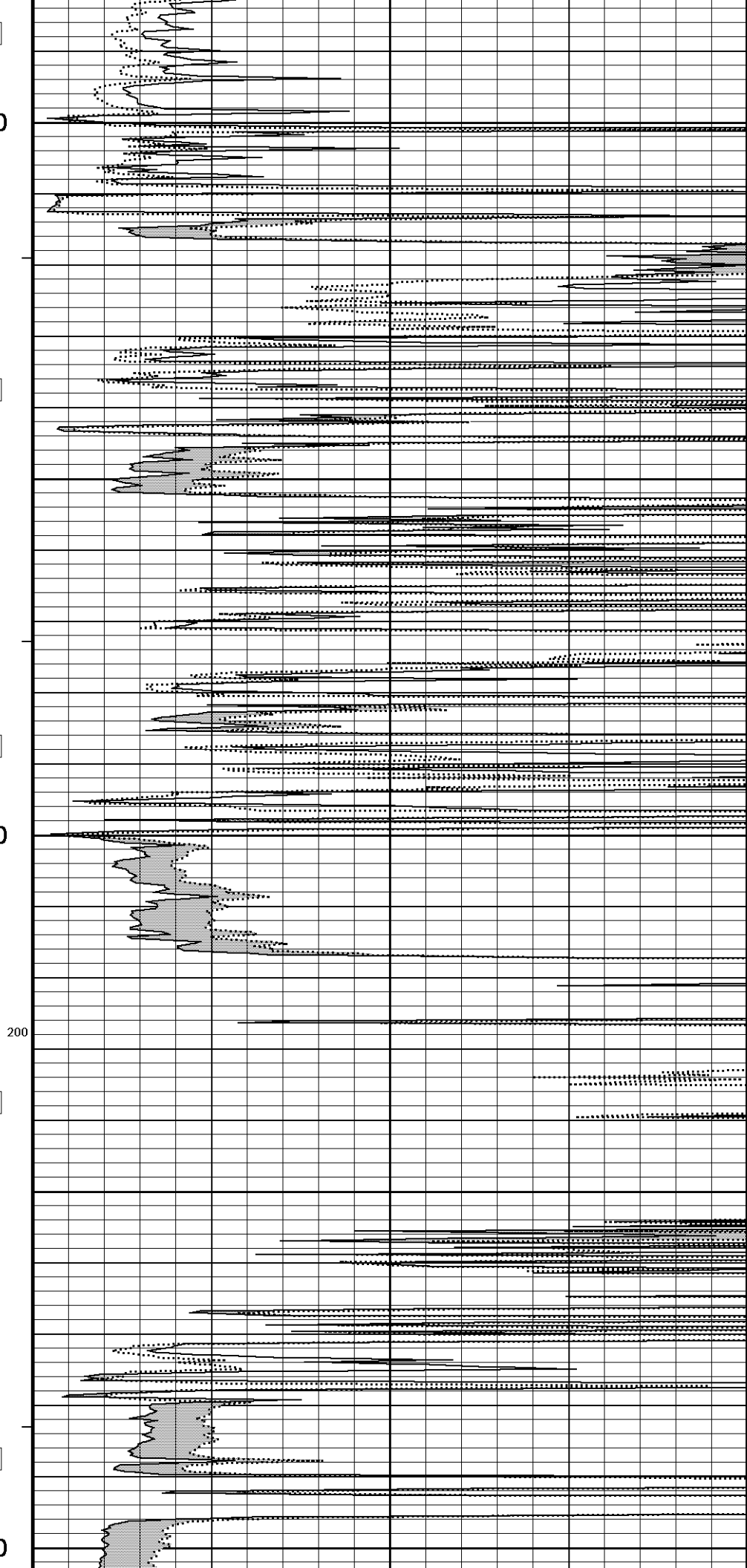
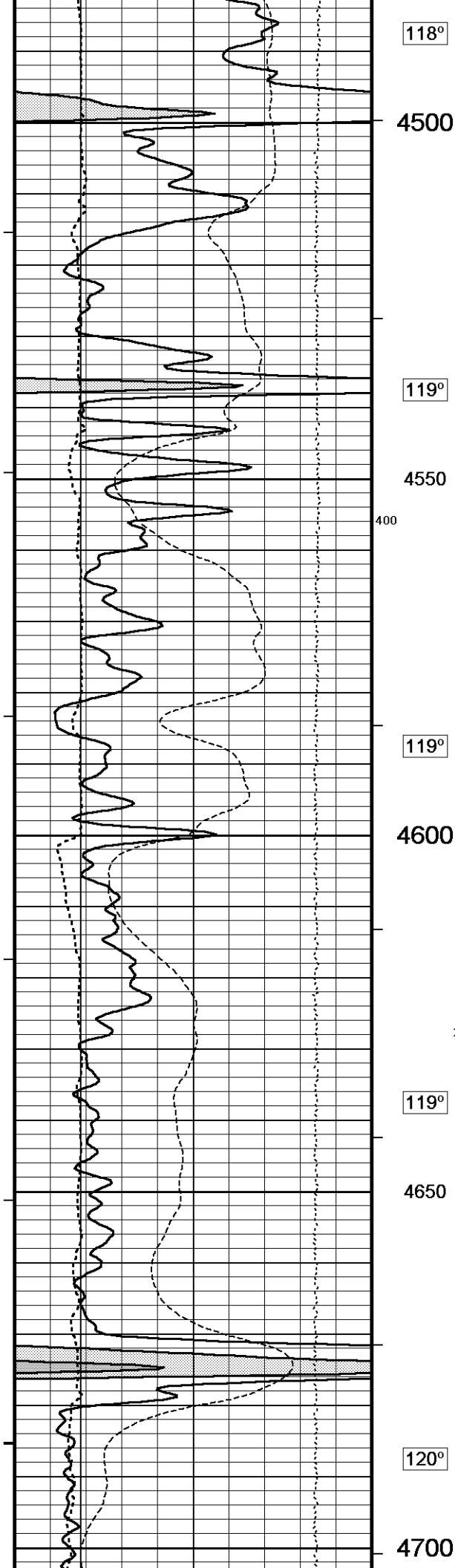
- OPERATOR: K. RINEHART

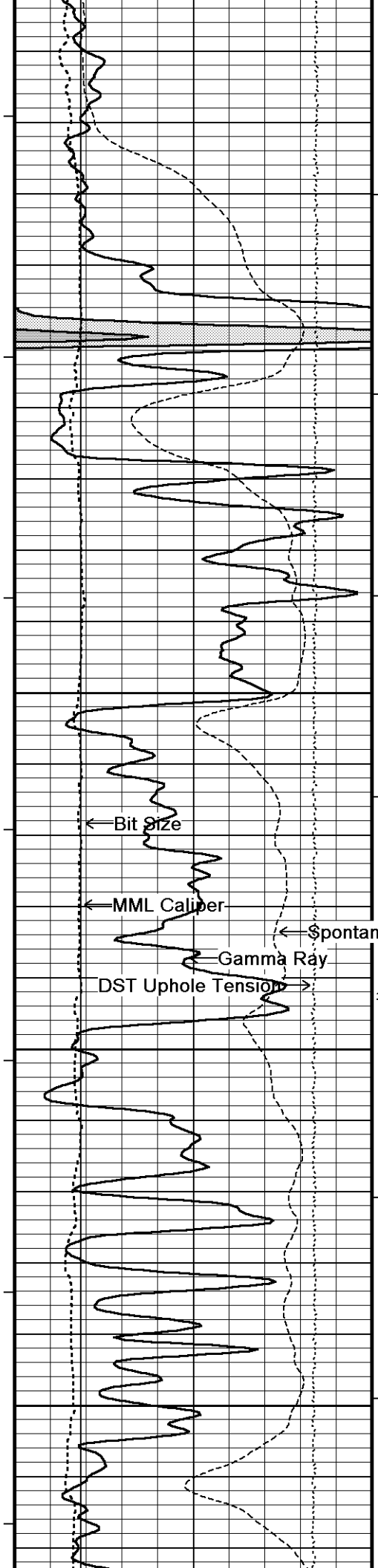
All interpretations are opinions based on inferences from electrical or other measurements and we cannot, and do not, guarantee the accuracy or correctness of any interpretations, and we shall not, except in the case of gross or wilful negligence on our part, be liable or responsible for any loss, costs, 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.











120°

4750

120°

4800

← Bit Size

← MML Caliper

← Spontaneous Potential

← Gamma Ray

DST Uphole Tension →

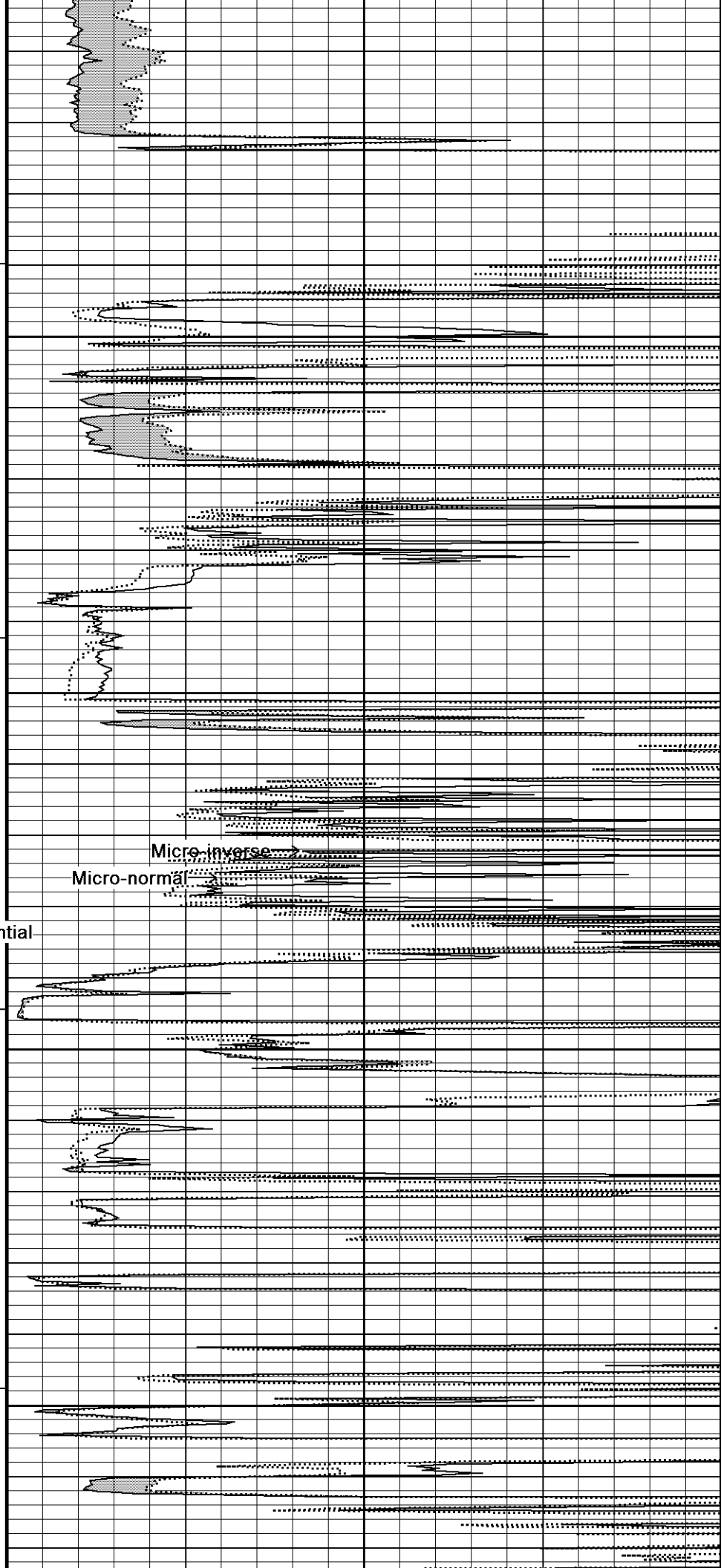
120°

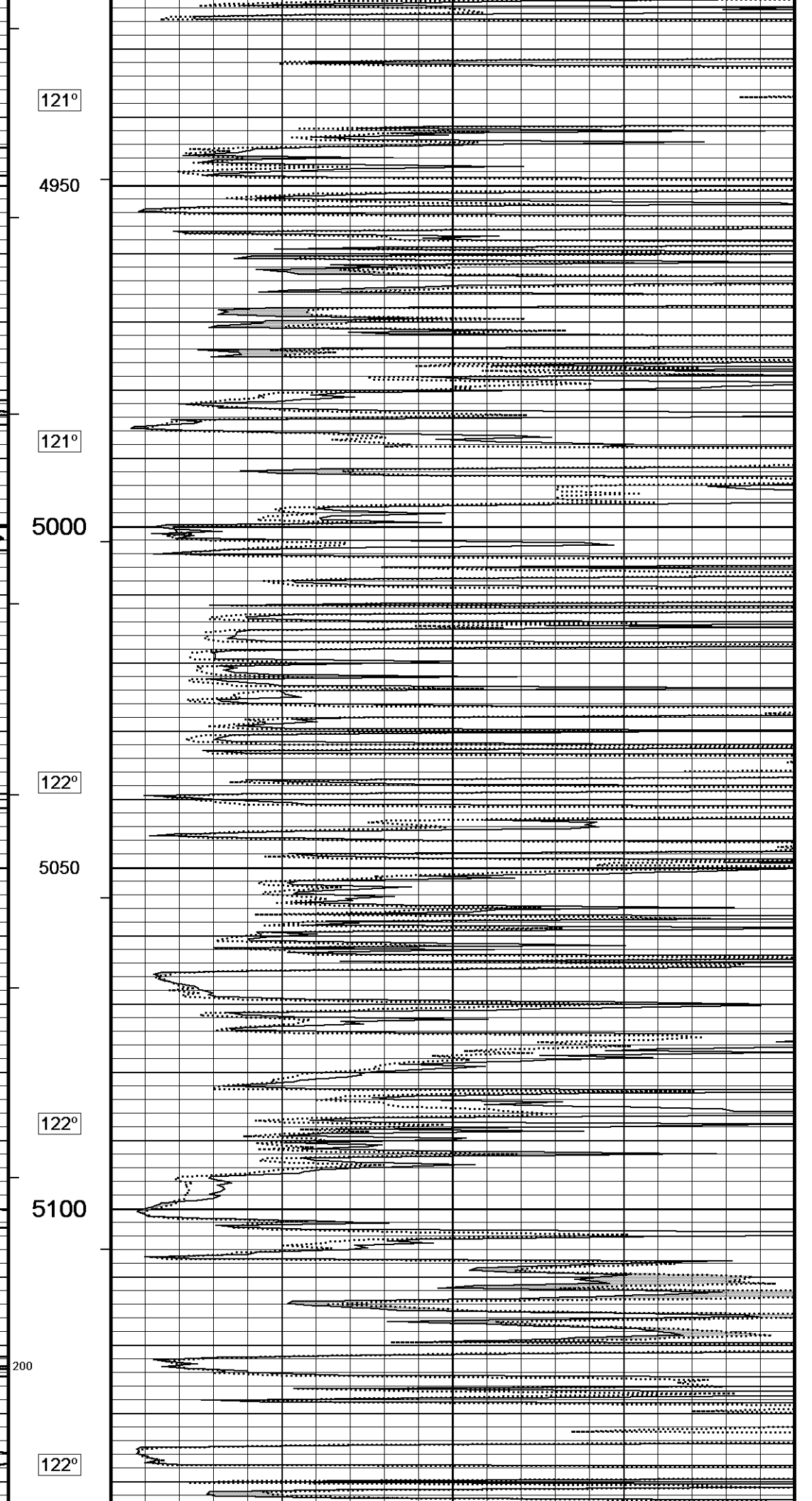
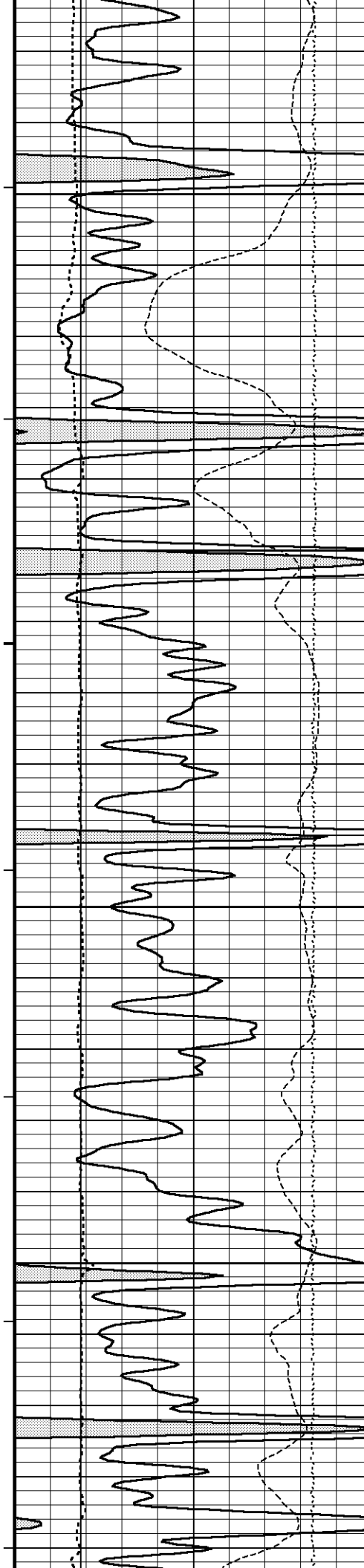
300

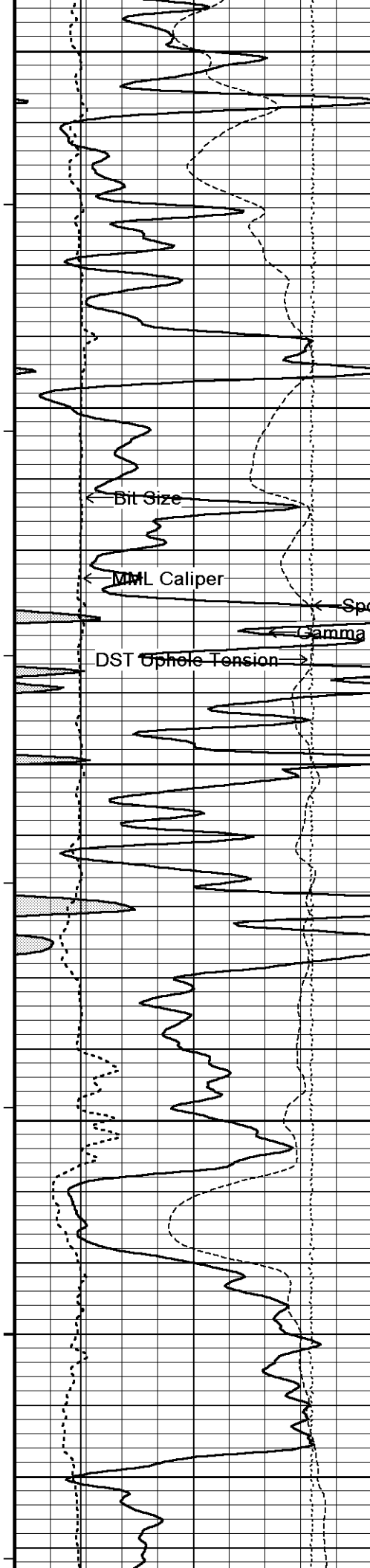
4850

120°

4900







5150

100

123°

5200

Micro-inverse →

← Spontaneous Potential

← Gamma Ray

DST ←

→ Pore Tension

123°

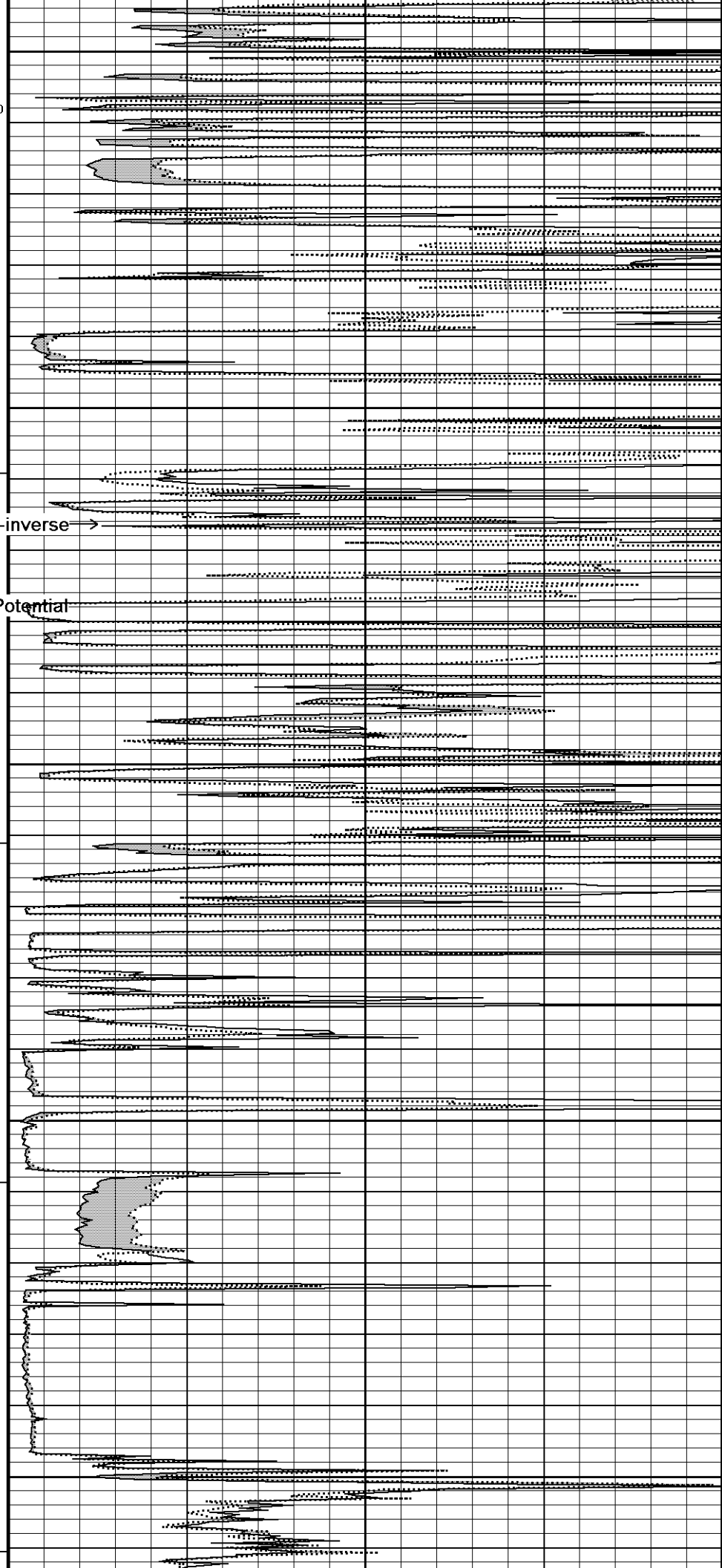
5250

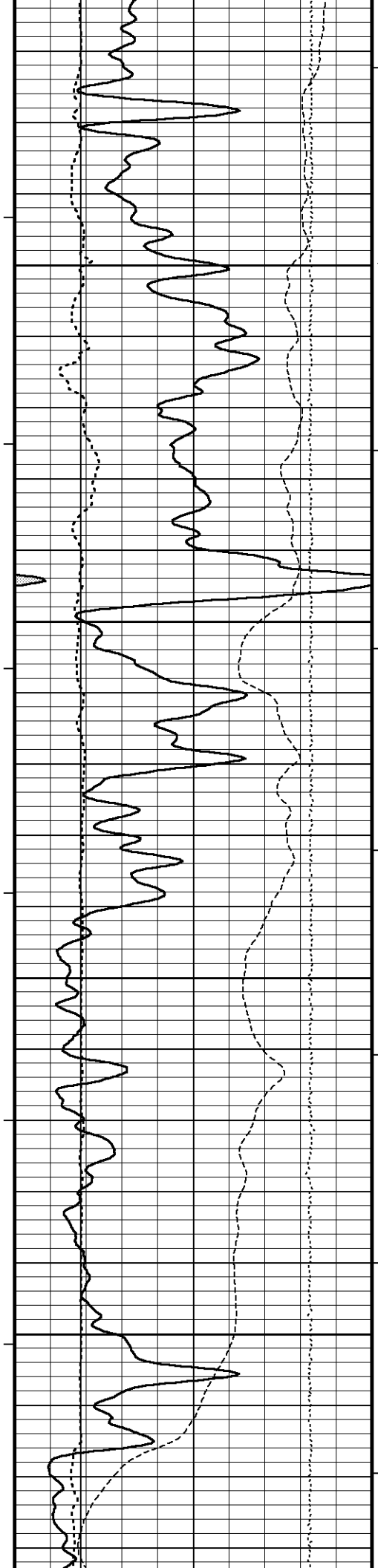
123°

5300

124°

5350





124°

5400

126°

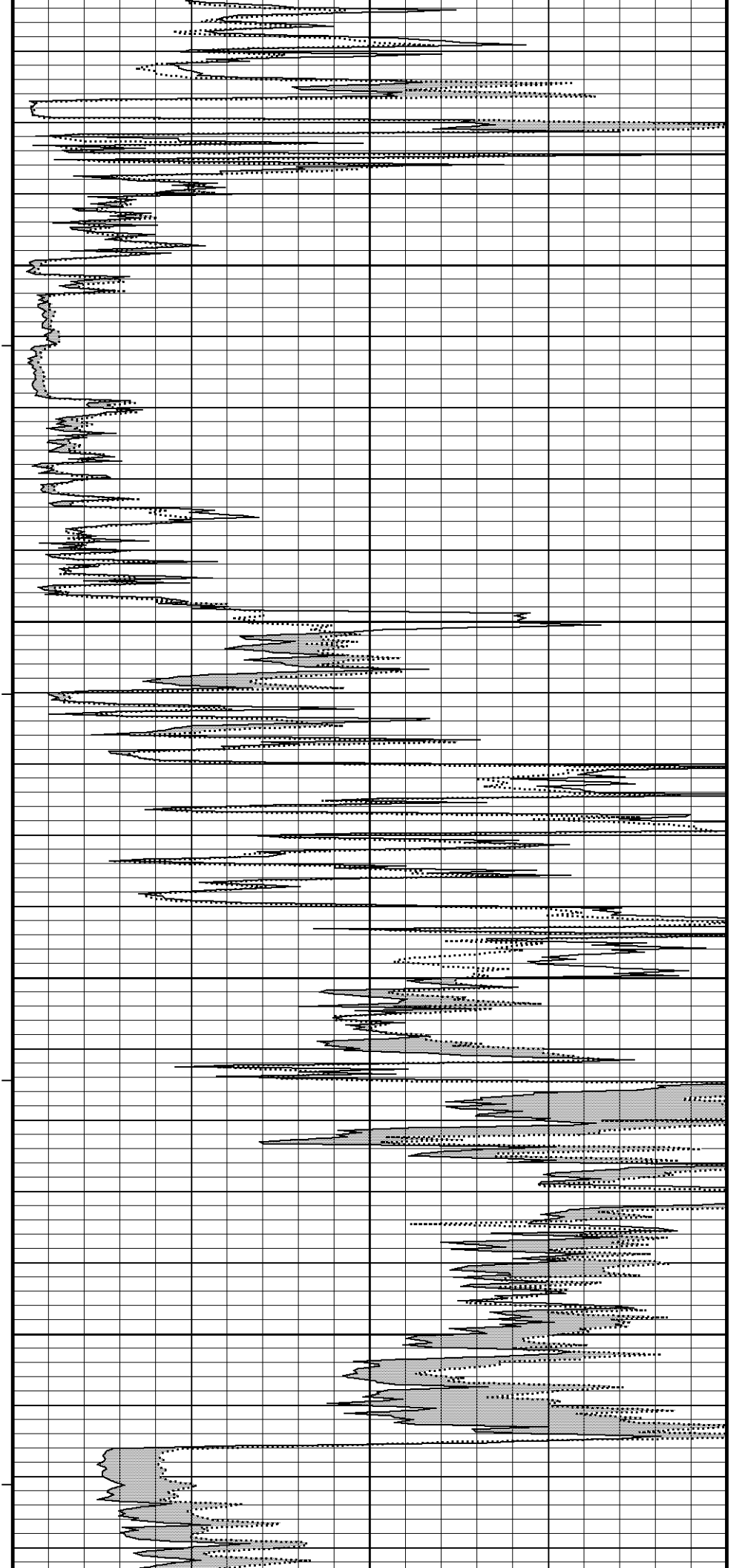
5450

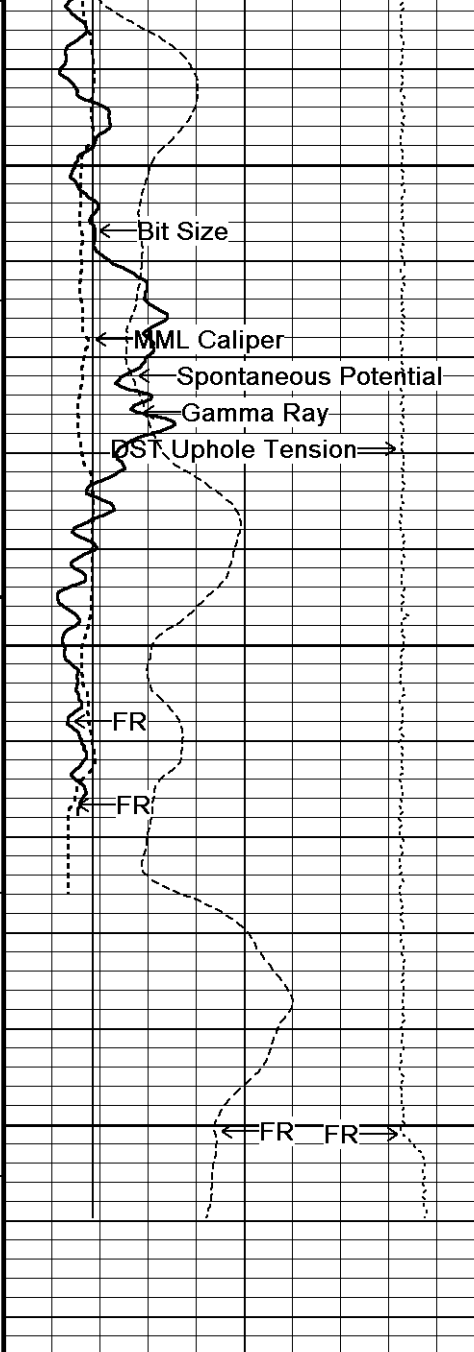
126°

5500

127°

5550





128°

5600

128°

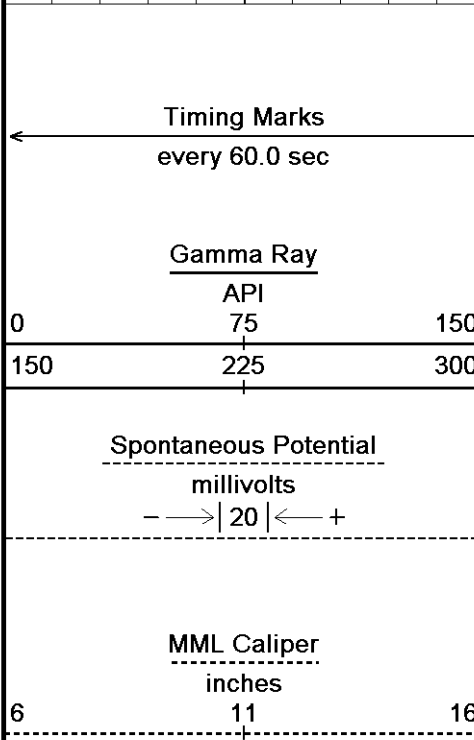
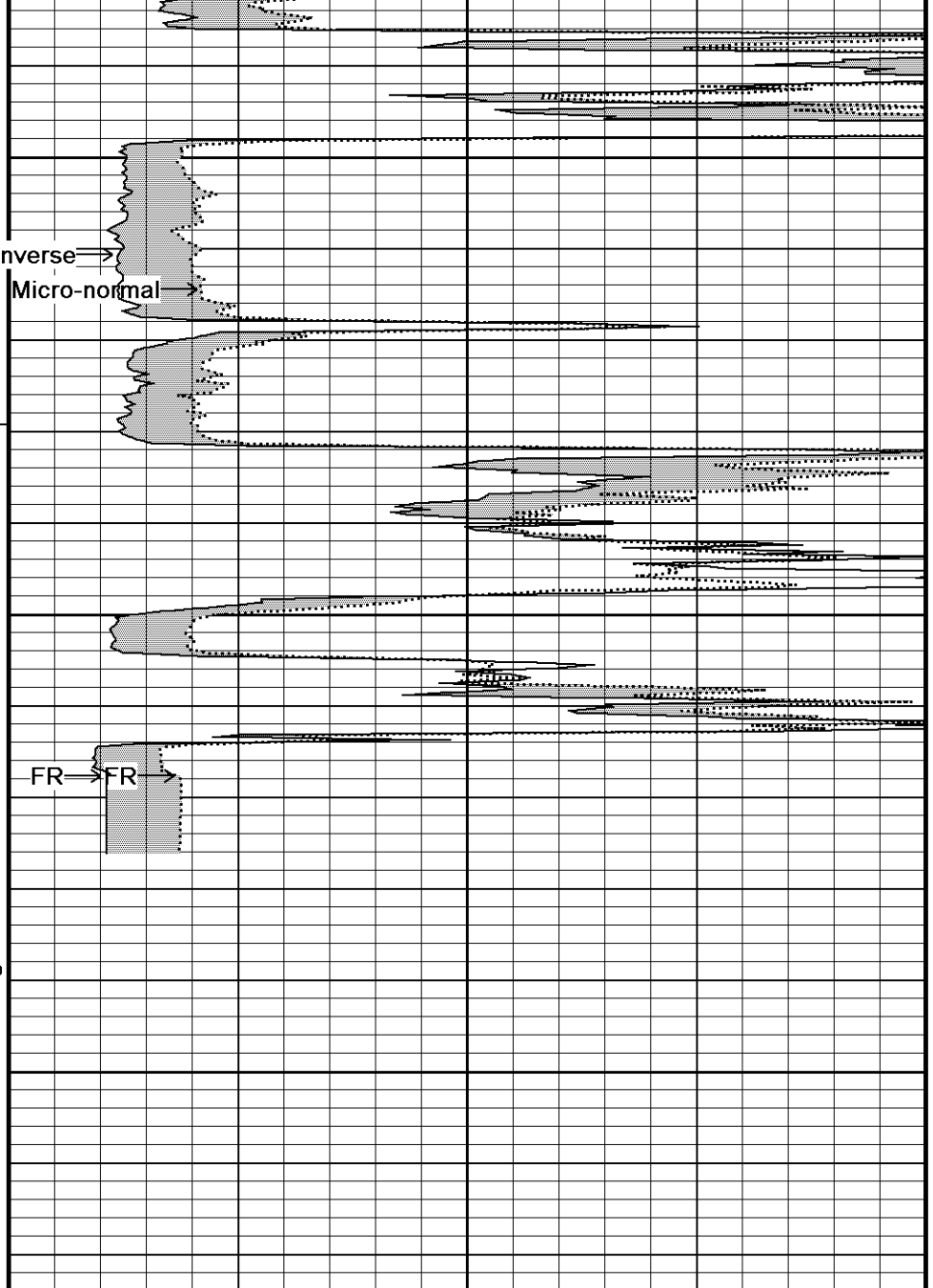
5650

0

5700

5722

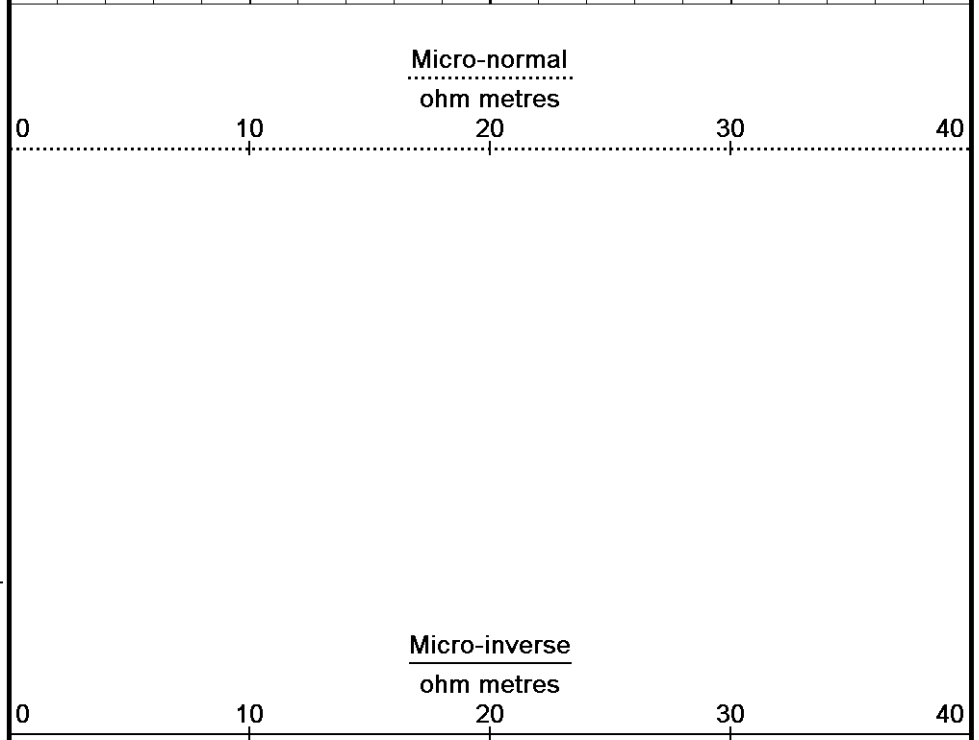
Depth
In
Feet

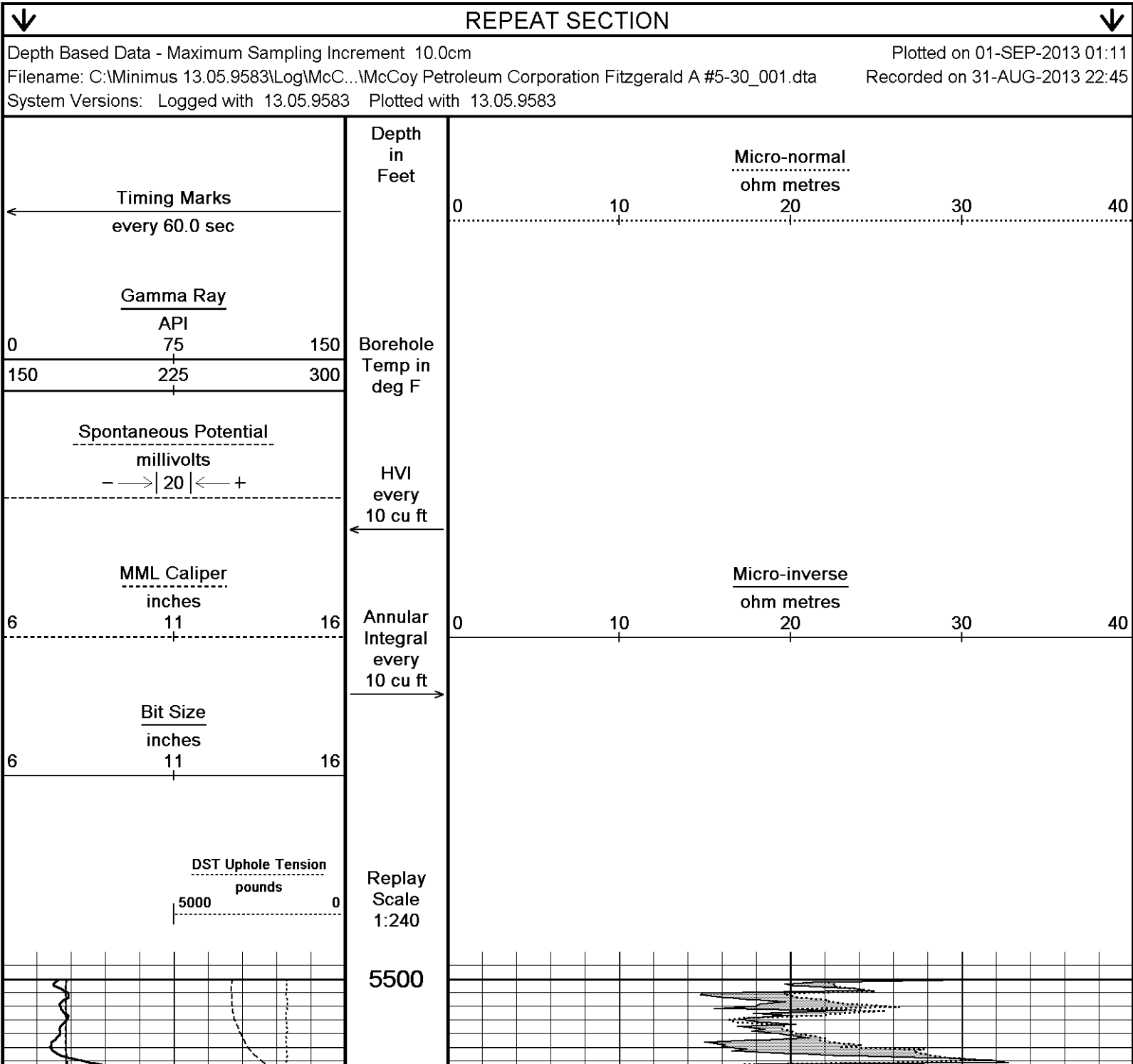
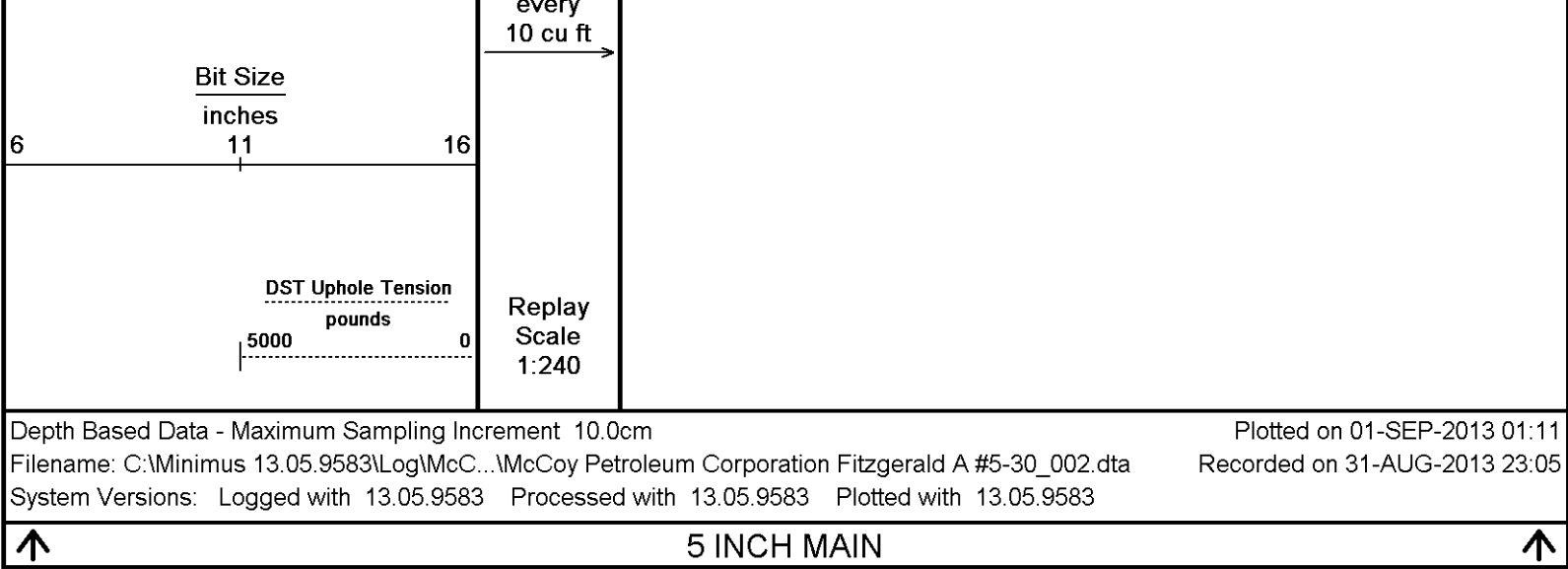


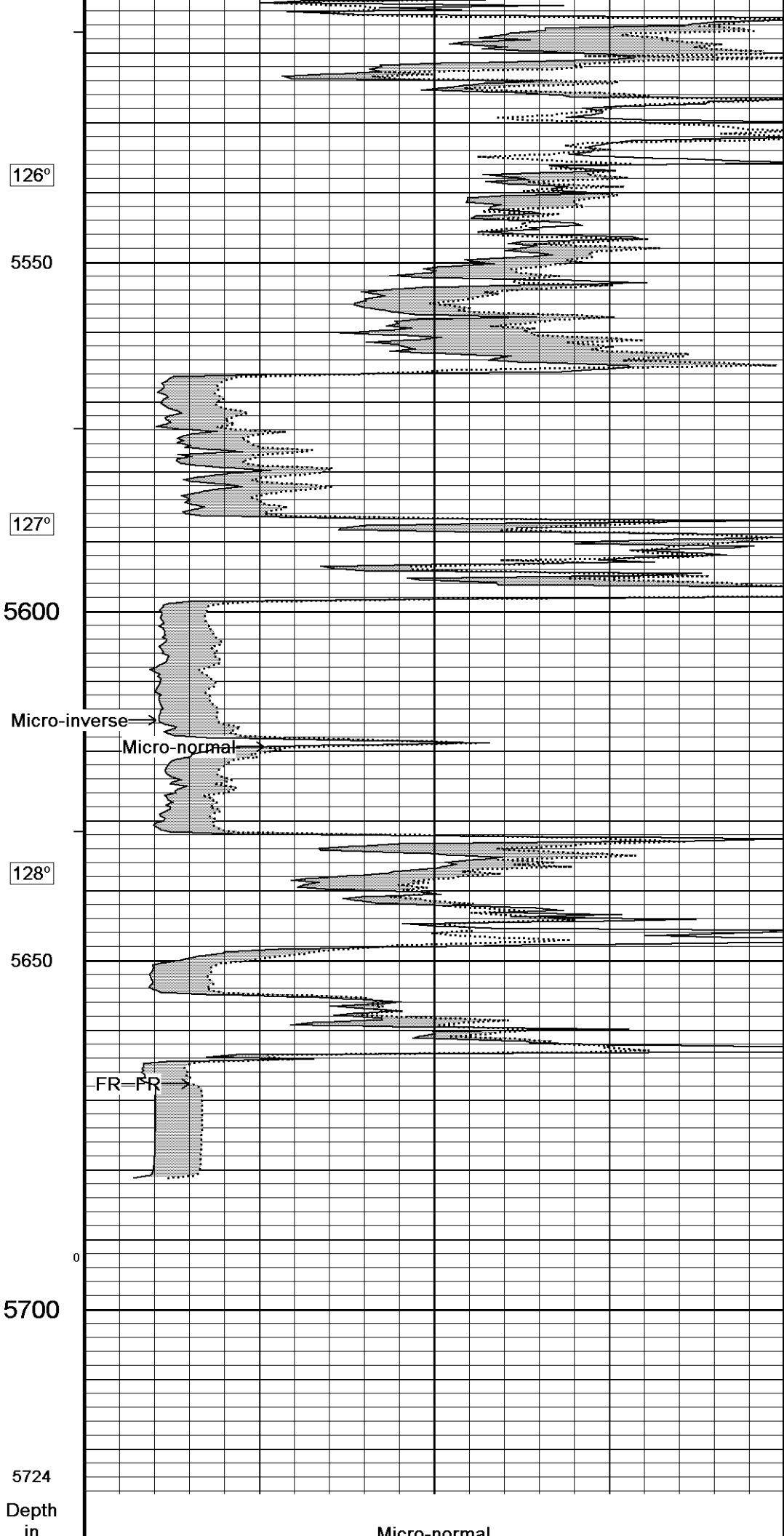
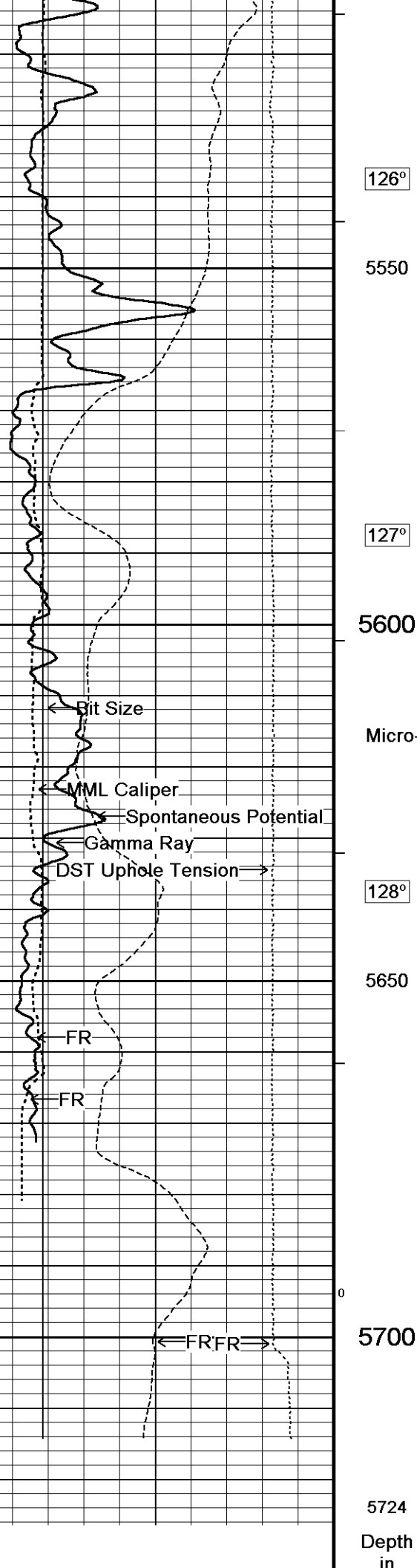
Borehole
Temp in
deg F

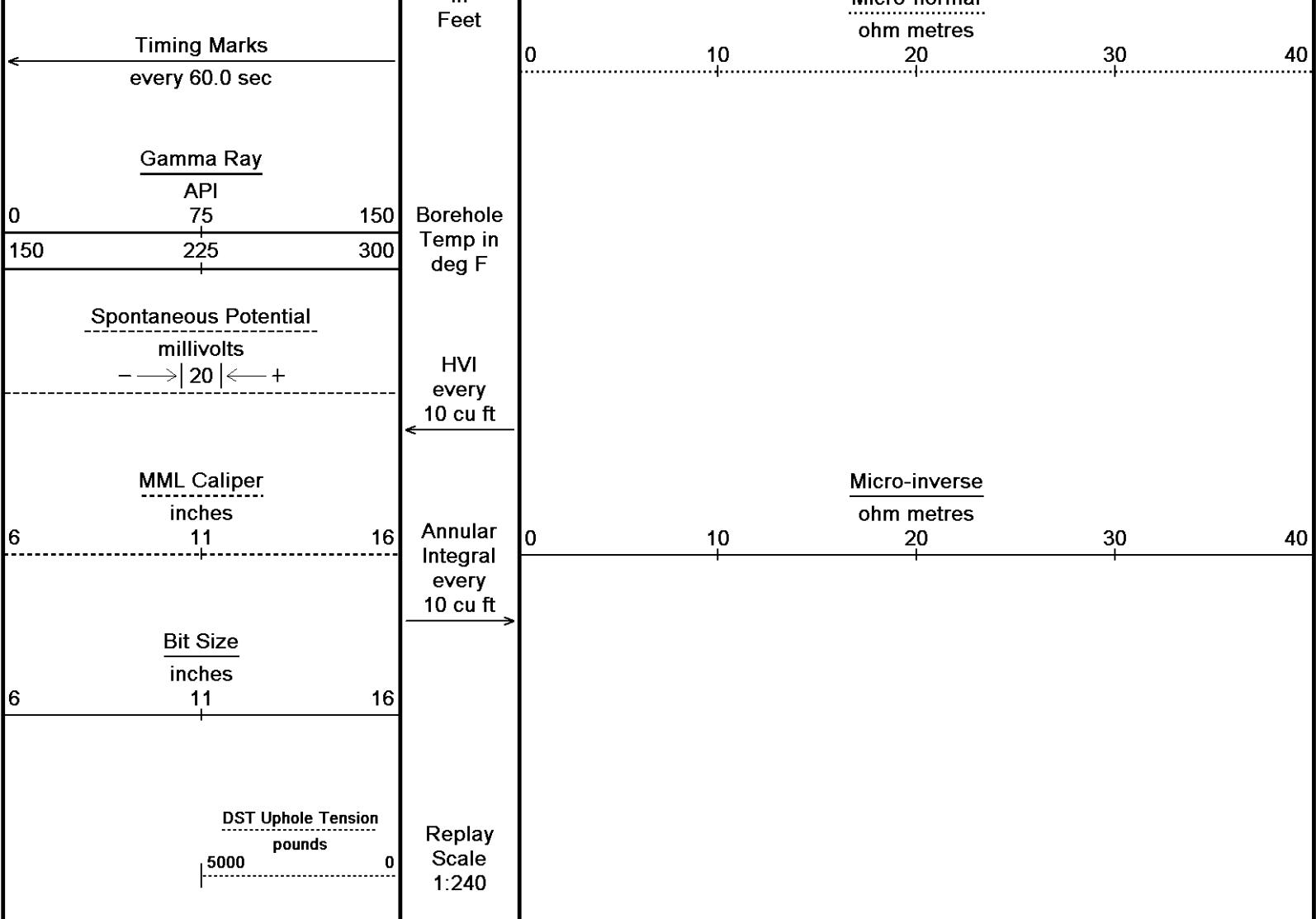
HVI
every
10 cu ft

Annular
Integral









Depth Based Data - Maximum Sampling Increment 10.0cm
 Plotted on 01-SEP-2013 01:11

Filename: C:\Minimus 13.05.9583\Log\McCoy Petroleum Corporation Fitzgerald A #5-30_001.dta
 Recorded on 31-AUG-2013 22:45

System Versions: Logged with 13.05.9583 Plotted with 13.05.9583

↑
 REPEAT SECTION
 ↑

BEFORE SURVEY CALIBRATION		
C:\Minimus 13.05.9583\Log\McCoy Petroleum Corporation Fitzgerald A ...McCoy Petroleum Corporation Fitzgerald A #5-30_002.dta		
General Constants All 000		Last Edited on 01-SEP-2013,01:04
General Parameters		
Mud Resistivity	0.730	ohm-metres
Mud Resistivity Temperature	75.000	degrees F
Water Level	0.000	feet
Borehole Fluid 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	5.500	inches
Caliper for Differential Caliper	Density Caliper	
Rwa Parameters		
Porosity used	Base Density Porosity	
Resistivity used	Array Ind. Six Res Rt	
RWA Constant A	1.000	
RWA Constant M	2.000	
SW/APOR Tool Source	0.000	

	Measured	Calibrated (API)
Background	76	51
Calibrator (Gross)	1161	776
Calibrator (Net)	1085	725

Gamma Constants MCG-D.K 469

Last Edited on 31-AUG-2013,22:42

Gamma Calibrator Number	GRC38	
Mud Density	1.08	gm/cc
Caliper Source for Processing	Density Caliper	
Tool Position	Eccentred	
Concentration of KCl		kppm
K Mud Type	Chloride	
K Mud Concentration	0.00	%

High Resolution Temperature Calibration MCG-D.K 469

Field Calibration on 18-AUG-2013,02:35

	Measured	Calibrated(Deg F)
Lower	50.00	50.00
Upper	100.00	100.00

High Resolution Temperature Constants MCG-D.K 469

Last Edited on 18-AUG-2013,02:35

Pre-filter Length	11
-------------------	----

Caliper Calibration MML-A 3

Base Calibration on 15-AUG-2013 08:50

Field Calibration on 28-AUG-2013 09:52

Base Calibration		
Reading No	Measured	Calibrator Size (in)
1	14887	5.98
2	18120	7.97
3	21042	9.86
4	25322	11.92
5	0	0.00
6	N/A	N/A
Field Calibration		
	Measured Caliper (in)	Actual Caliper (in)
	6.02	5.98

Micro Normal and Micro Inverse Calibration MML-A 3

Base Calibration on 15-AUG-2013 09:16

Field Check on 28-AUG-2013 09:39

Base Calibration				
		Measured	Calibrated (ohm-m)	
Channel	Resistor 1	Resistor 2	Resistor 1	Resistor 2
Micro Normal	12.3	60.3	5.0	25.0
Micro Inverse	15.7	78.4	5.0	25.0
Channel	Base Check (ohm-m)	Field Check (ohm-m)		
Micro Normal	62.9	62.9		
Micro Inverse	48.2	48.2		

Micro Normal and Micro Inverse Constants MML-A 3

Last Edited on 28-AUG-2013,09:38

Pad Type	8-12 in Soft Rubber Inflatable 006-9011-159
Micro Normal K Factor	1.0000
Micro Inverse K Factor	1.0000
Standoff Offset	N/A inches

Caliper Calibration MPD-B 64

Base Calibration on 15-AUG-2013 14:54

Field Calibration on 28-AUG-2013 09:48

Base Calibration		
Reading No	Measured	Calibrator Size (in)
1	16560	3.99
2	24992	5.98
3	32880	7.97
4	41184	9.86
5	50688	11.92
6	N/A	N/A
Field Calibration		
	Measured Caliper (in)	Actual Caliper (in)
	5.99	5.98

DOWNHOLE EQUIPMENT

C:\Minimus 13.05.9583\Log\McCoy Petroleum Corporation Fitzgerald A ... \McCoy Petroleum Corporation Fitzgerald A #5-30_002.dta

3/8" Triple Cone Cable Head (MCB C A)

MCB-C.A 5 LG: 1.58 ft WT: 15.4 lb OD: 2.24 in

Compact Comms Gamma

MCG-D.K 469 LG: 8.70 ft WT: 63.9 lb OD: 2.24 in

Compact Micro-log

MML-A 3 LG: 7.97 ft WT: 81.6 lb OD: 2.24 in

Compact Neutron

MDN-A.B 66 LG: 5.04 ft WT: 50.7 lb OD: 2.24 in

Compact Density/Caliper

MPD-B 64 LG: 9.59 ft WT: 90.4 lb OD: 2.45 in

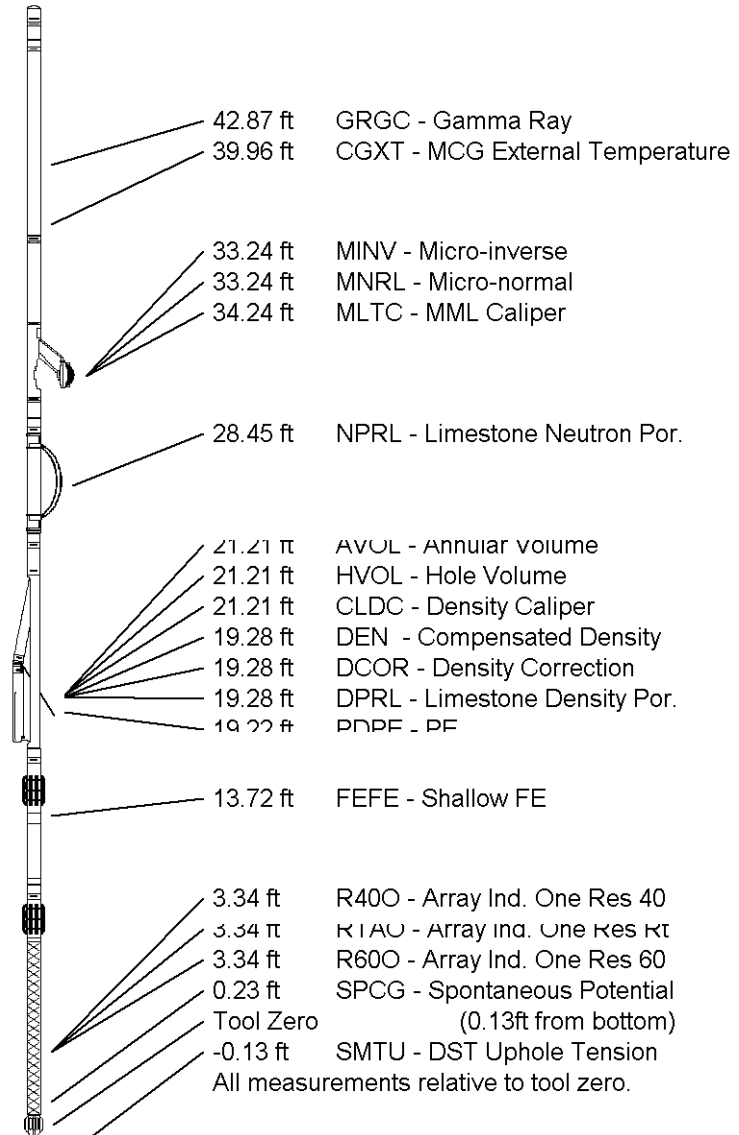
Compact Focussed Electric

MFE-B.J 353 LG: 6.05 ft WT: 48.5 lb OD: 2.24 in

Compact Induction

MAI-A.A 167 LG: 10.81 ft WT: 48.5 lb OD: 2.24 in

Total Length: 49.73 ft Weight: 399.0 lb



COMPANY	McCOY PETROLEUM CORPORATION
WELL	FITZGERALD 'A' #5-30
FIELD	LETTE SE
PROVINCE/COUNTY	HASKELL
COUNTRY/STATE	UNITED STATES / KANSAS

Elevation Kelly Bushing	2857.00	feet	First Reading	5667.00	feet
Elevation Drill Floor	2855.00	feet	Depth Driller	5700.00	feet
Elevation Ground Level	2846.00	feet	Depth Logger	5701.00	feet



MICRORESISTIVITY LOG

Weatherford®

