



Weatherford

MICRORESISTIVITY LOG

COMPANY		MCCOY PETROLEUM CORPORATION	
WELL		MTPRC 'A' #1-27	
FIELD		ALFORD SOUTH	
PROVINCE/COUNTY		KIOWA	
COUNTRY/STATE		U.S.A. / KANSAS	
LOCATION		330' FNL & 330' FEL NE NE NE	
SEC	TWP	RGE	Other Services
27	30S	19W	MPD/MDN MA/MFE
API Number		15-097-21773	
Permit Number			
Permanent Datum GL, Elevation 2213 feet			Elevations:
Log Measured From KB			KB 2224.00
Drilling Measured From KB @ 11 FEET			DF 2222.00
			GL 2213.00
Date	18-NOV-2013		
Run Number	ONE		
Service Order	3547647		
Depth Driller	5200.00		
Depth Logger	5198.00		
First Reading	5164.00		
Last Reading	3900.00		
Casing Driller	601.00		
Casing Logger	604.00		
Bit Size	7.875		
Hole Fluid Type	CHEMICAL		
Density / Viscosity	9.30 lb/USg	61.00 CP	
PH / Fluid Loss	10.50	9.20 ml/30Min	
Sample Source	FLOWLINE		
Rm @ Measured Temp	0.74 @ 73.0	ohm-m	
Rmf @ Measured Temp	0.59 @ 73.0	ohm-m	
Rmc @ Measured Temp	0.89 @ 73.0	ohm-m	
Source Rmf / Rmc	CALC	CALC	
Rm @ BHT	0.50 @108.0	ohm-m	
Time Since Circulation	4 HOURS		
Max Recorded Temp	108.00	deg F	
Equipment / Base	13096	LIB	
Recorded By	J. LAPOINT		
Witnessed By	E. STONE		
IOB#	LB13-327		

BOREHOLE RECORD				Last Edited: 18-NOV-2013 12:05
Bit Size inches		Depth From feet		Depth To feet
7.875		604.00		5198.00
CASING RECORD				
Type	Size inches	Depth From feet	Shoe Depth feet	Weight pounds/ft
SURFACE	8.625	0.00	604.00	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 STANDOFF USED ON MFE. 0.5 INCH STANDOFF USED ON MAI.
- 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 3900 FEET: 442 CU. FT.
- ANNULAR HOLE VOLUME WITH 5.5 INCH CASING FROM TD TO 3900 FEET: 229 CU. FT.
- SERVICE ORDER # 3547647

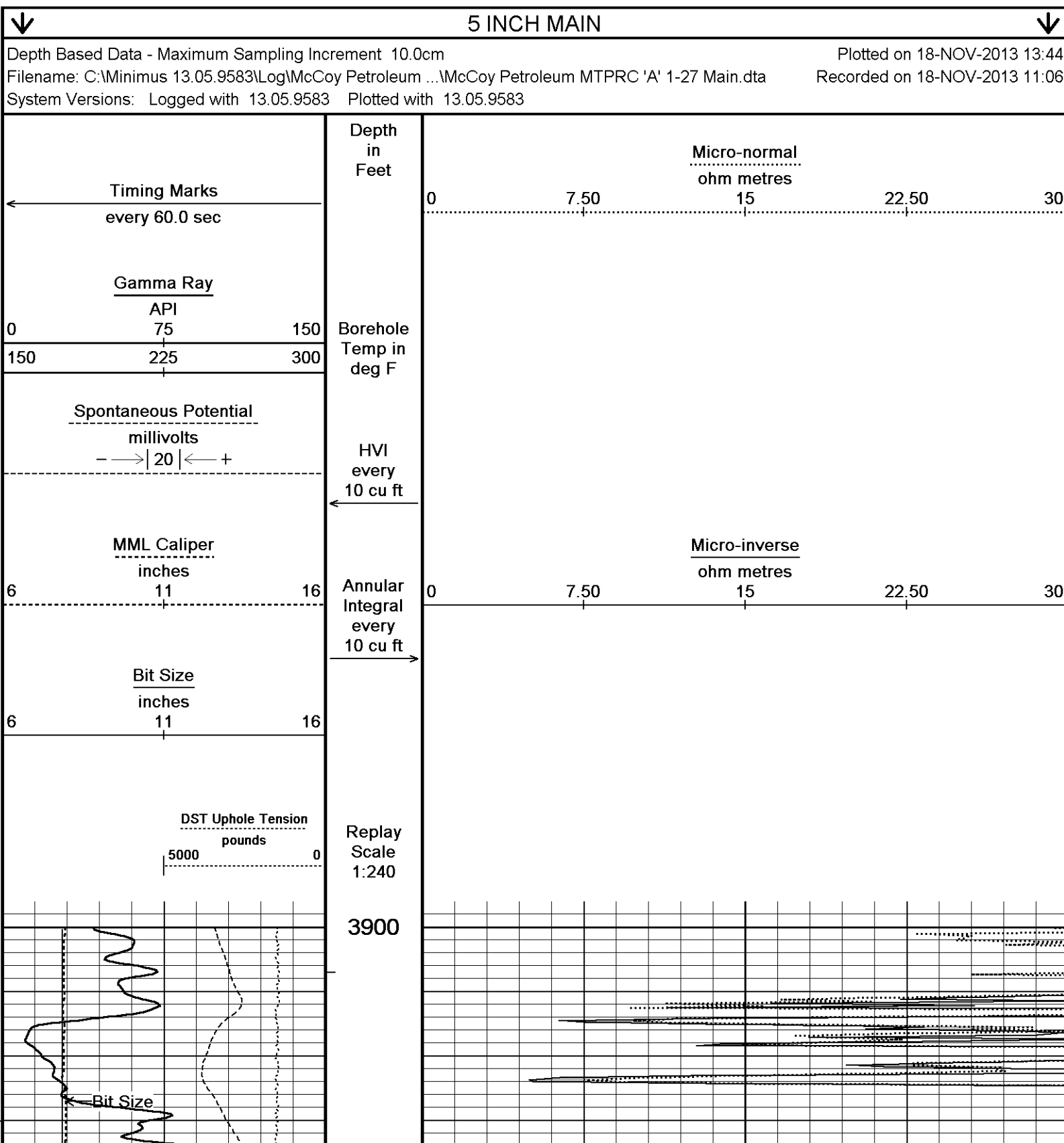
SERVICE ORDER # 0517017

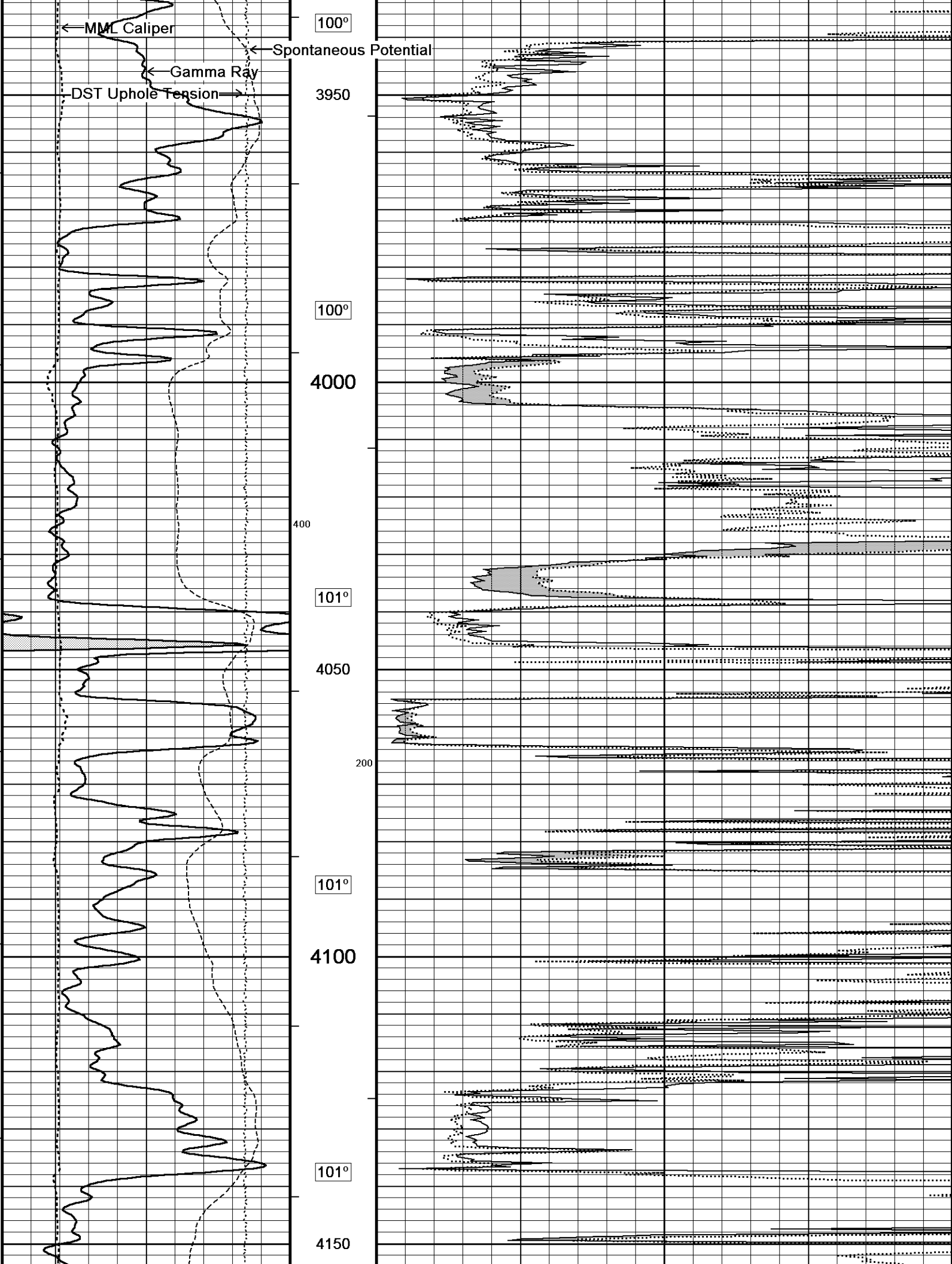
- RIG: STERLING RIG 2.

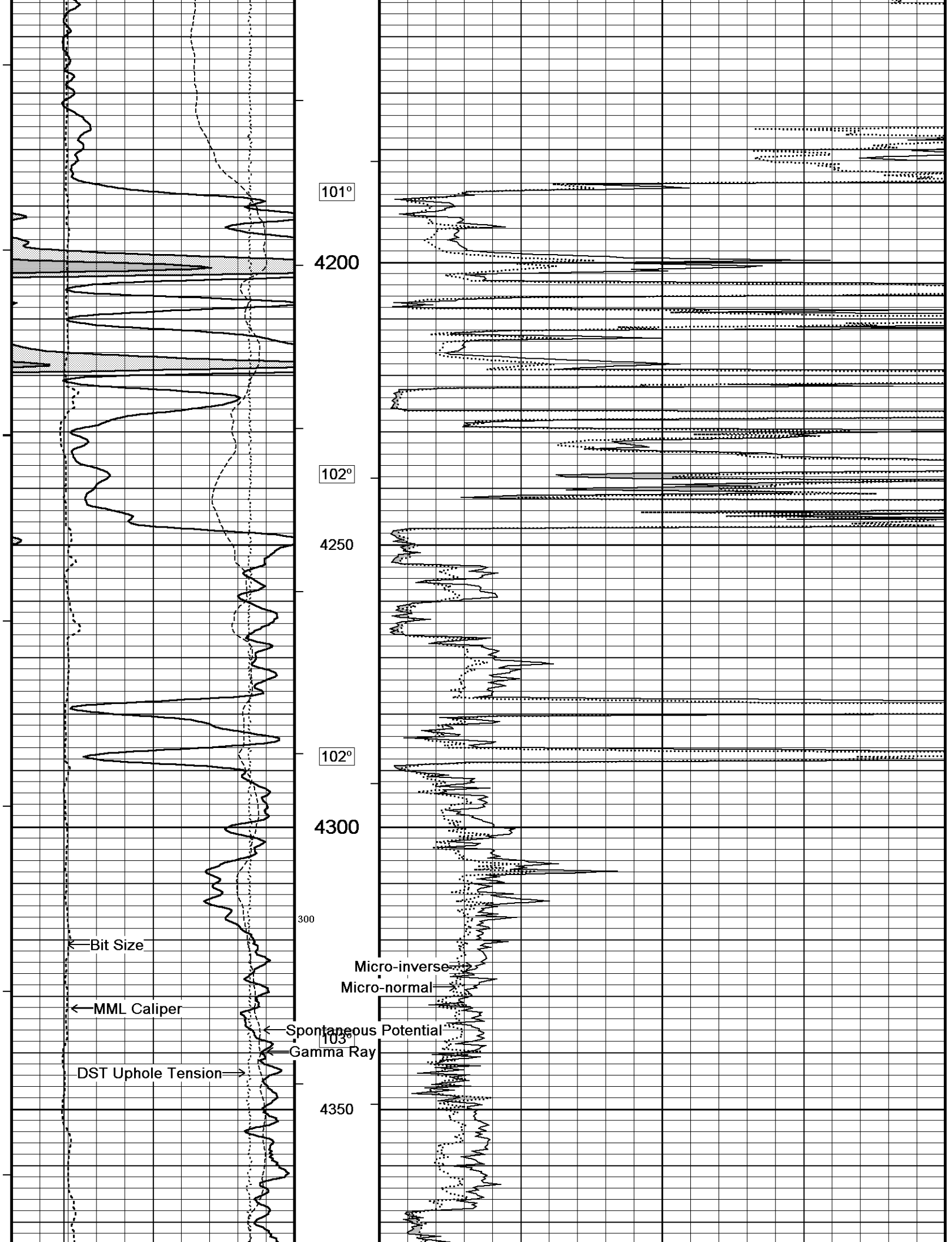
- ENGINEER: J. LAPOINT AND R. HOFFMAN

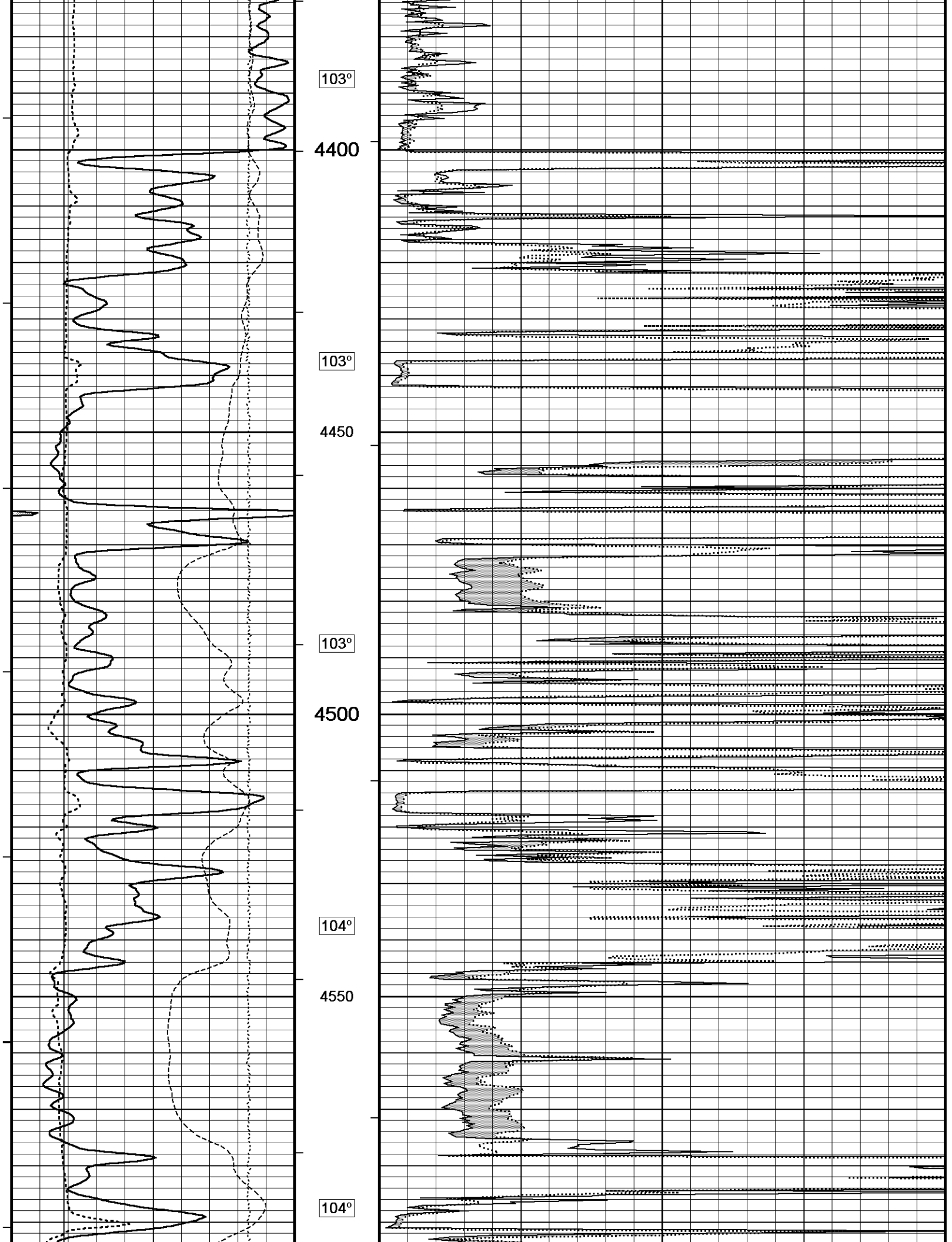
- OPERATOR(S): K. RINEHART AND D. CANADAY.

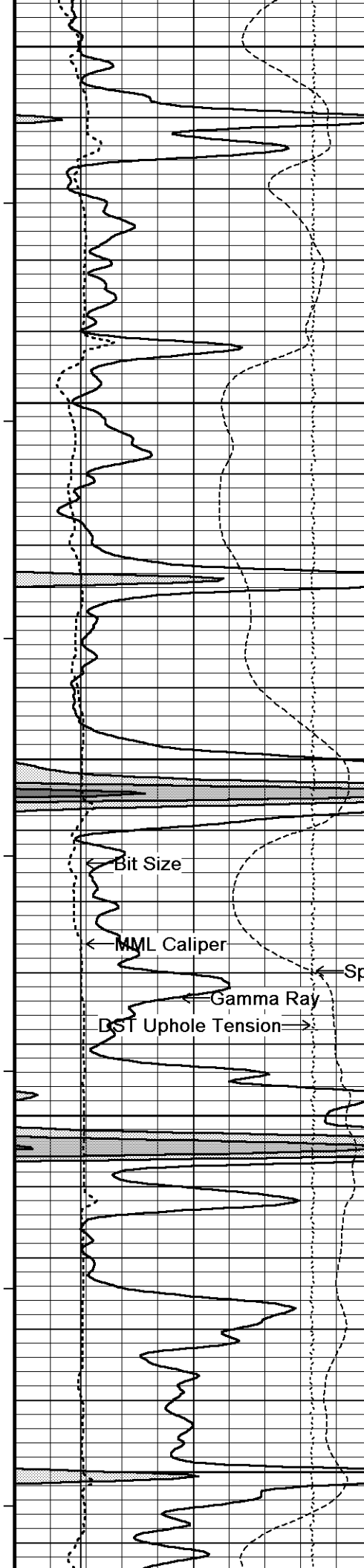
All interpretations are opinions based on inferences from electrical or other measurements and we cannot, and do not, guarantee the accuracy or correctness of any interpretations, and we shall not, except in the case of gross or wilful negligence on our part, be liable or responsible for any loss, costs,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



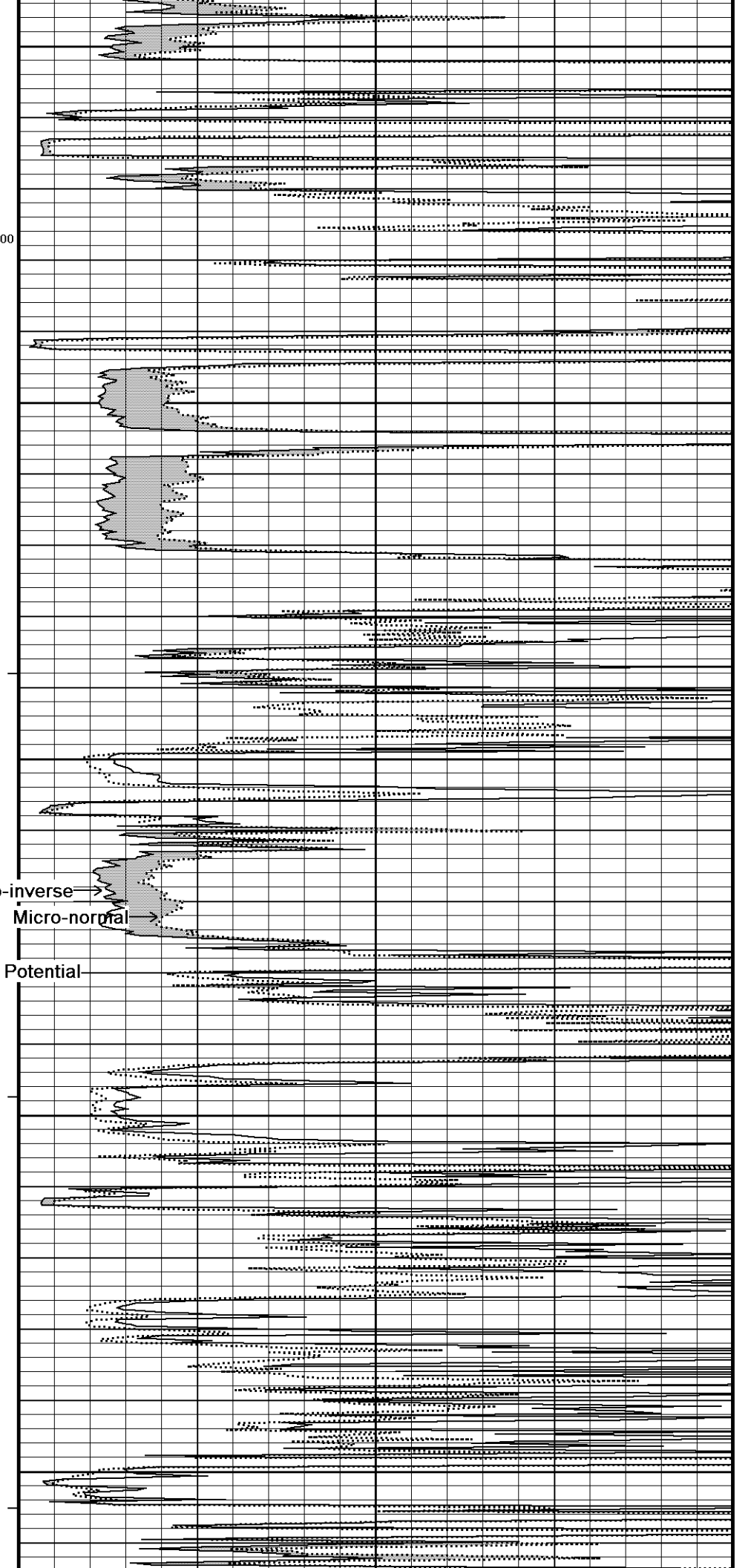




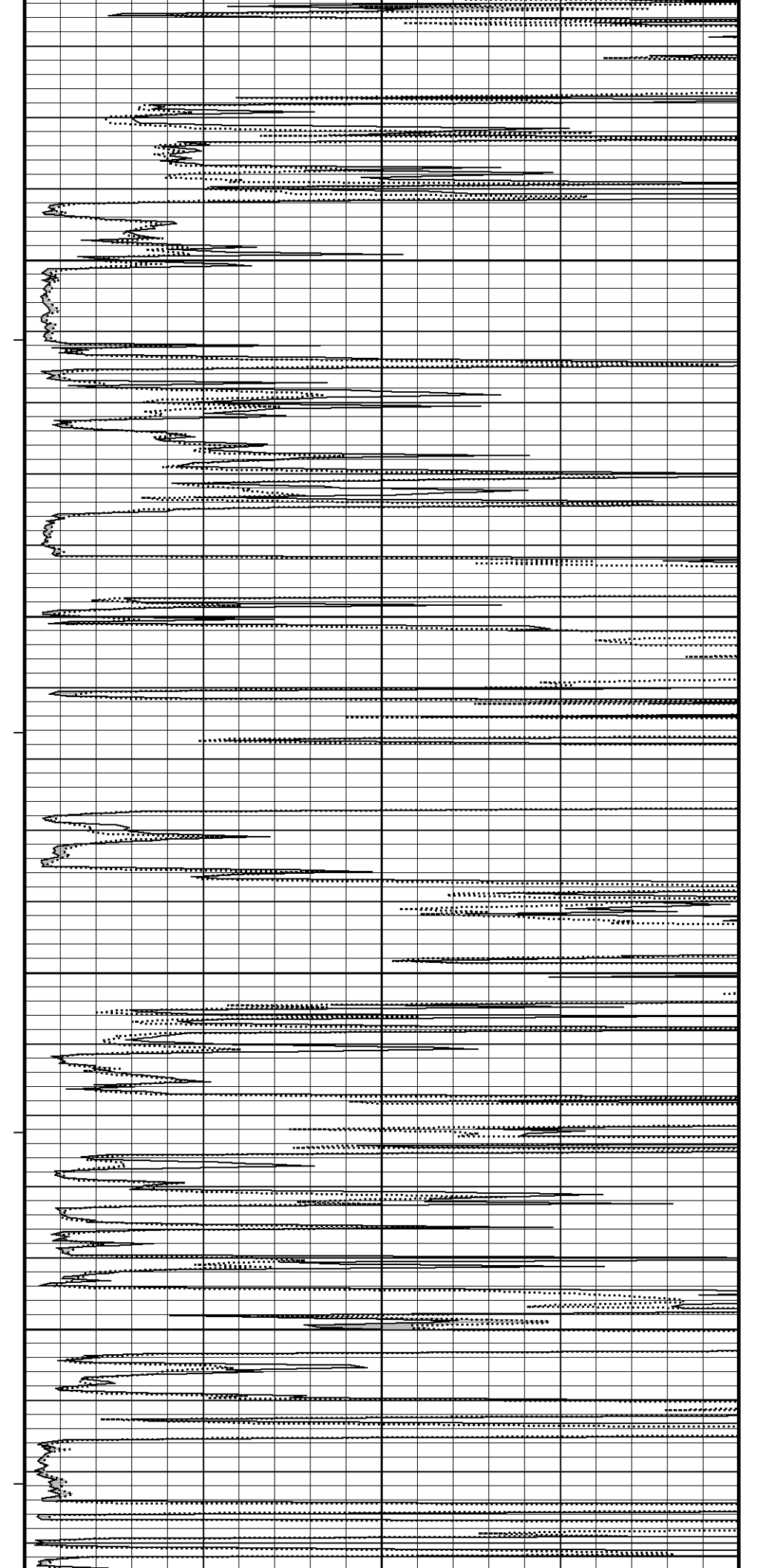
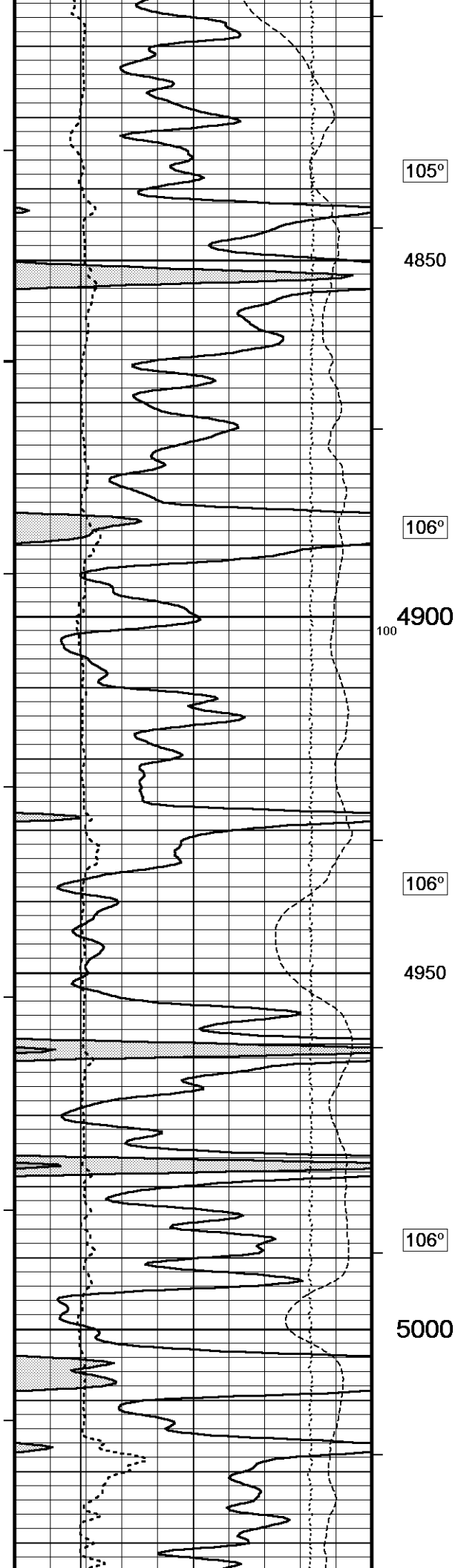


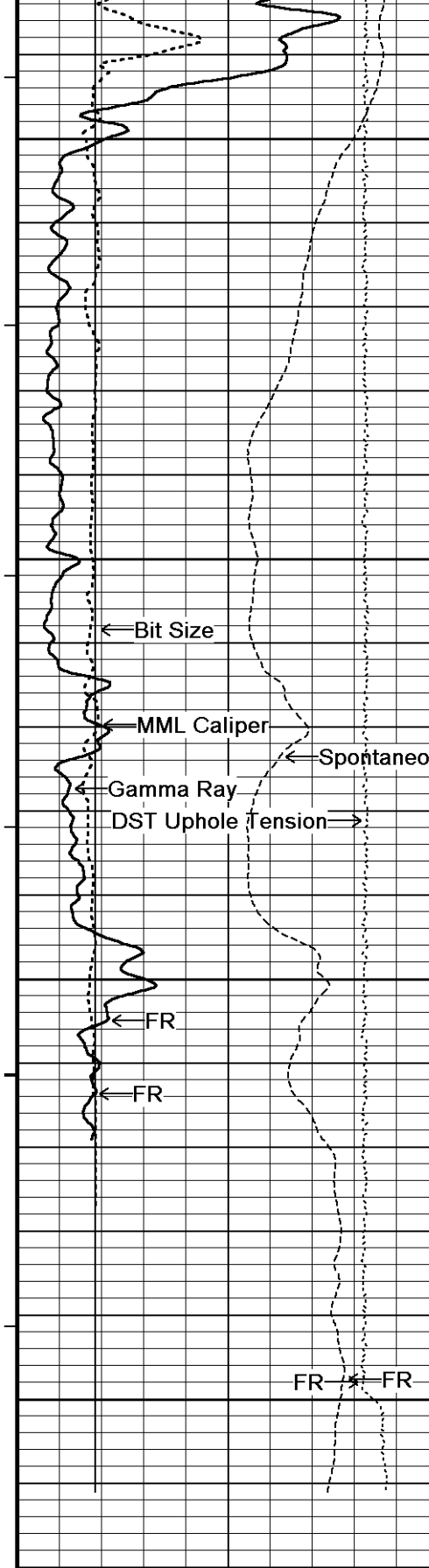


4600
200
104°
4650
104°
4700
105°
4750
105°
4800

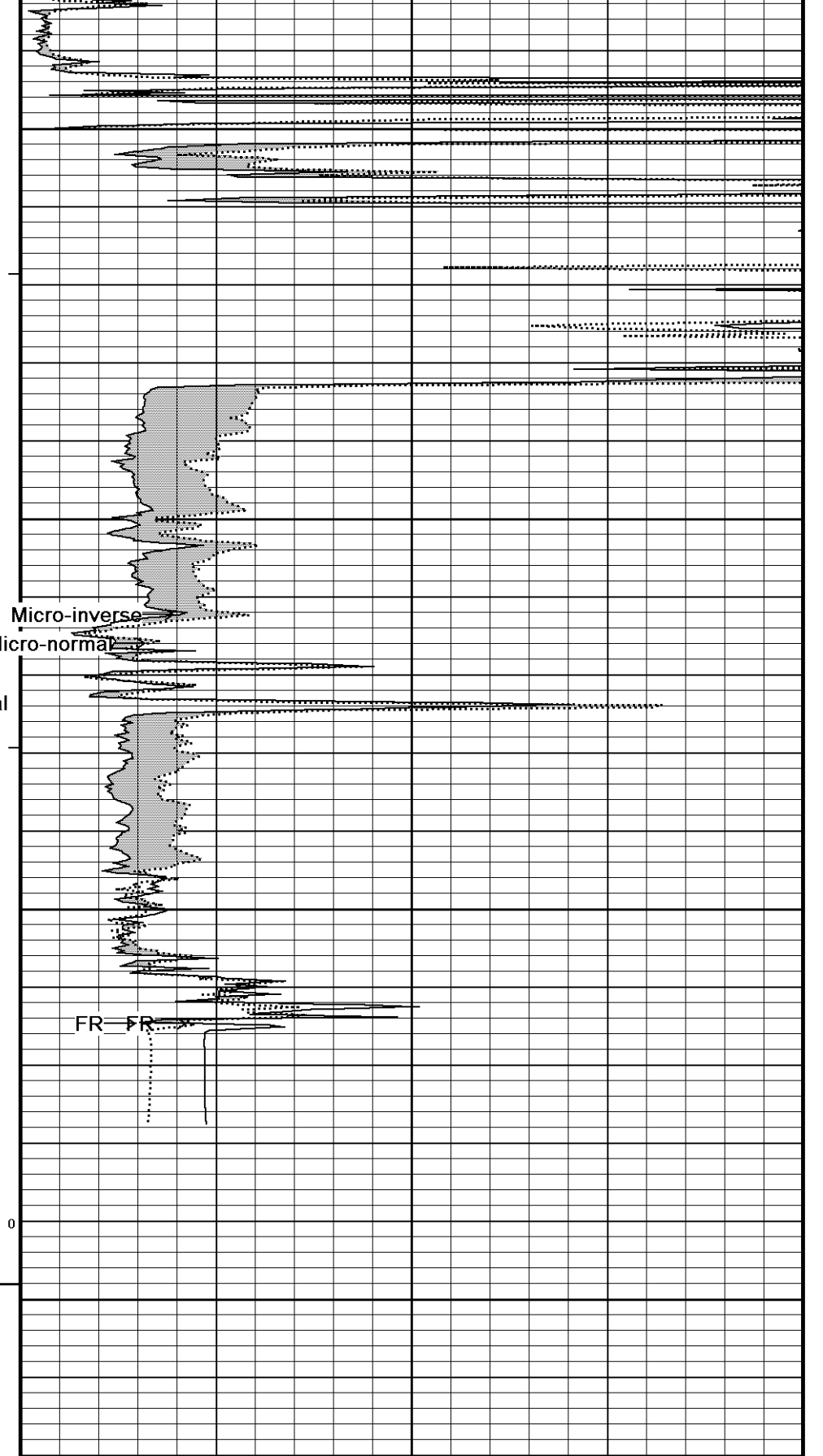


Bit Size
MML Caliper
Gamma Ray
DST Uphole Tension
Spontaneous Potential
Micro-inverse
Micro-normal





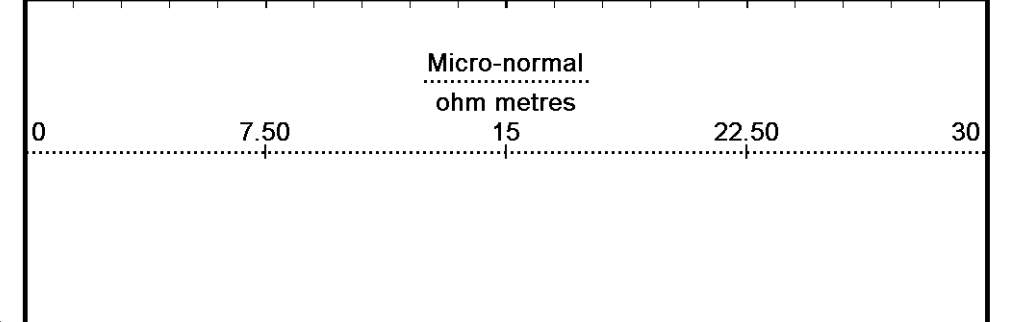
107°
5050
108°
5100
108°
5150
0
TD
5200

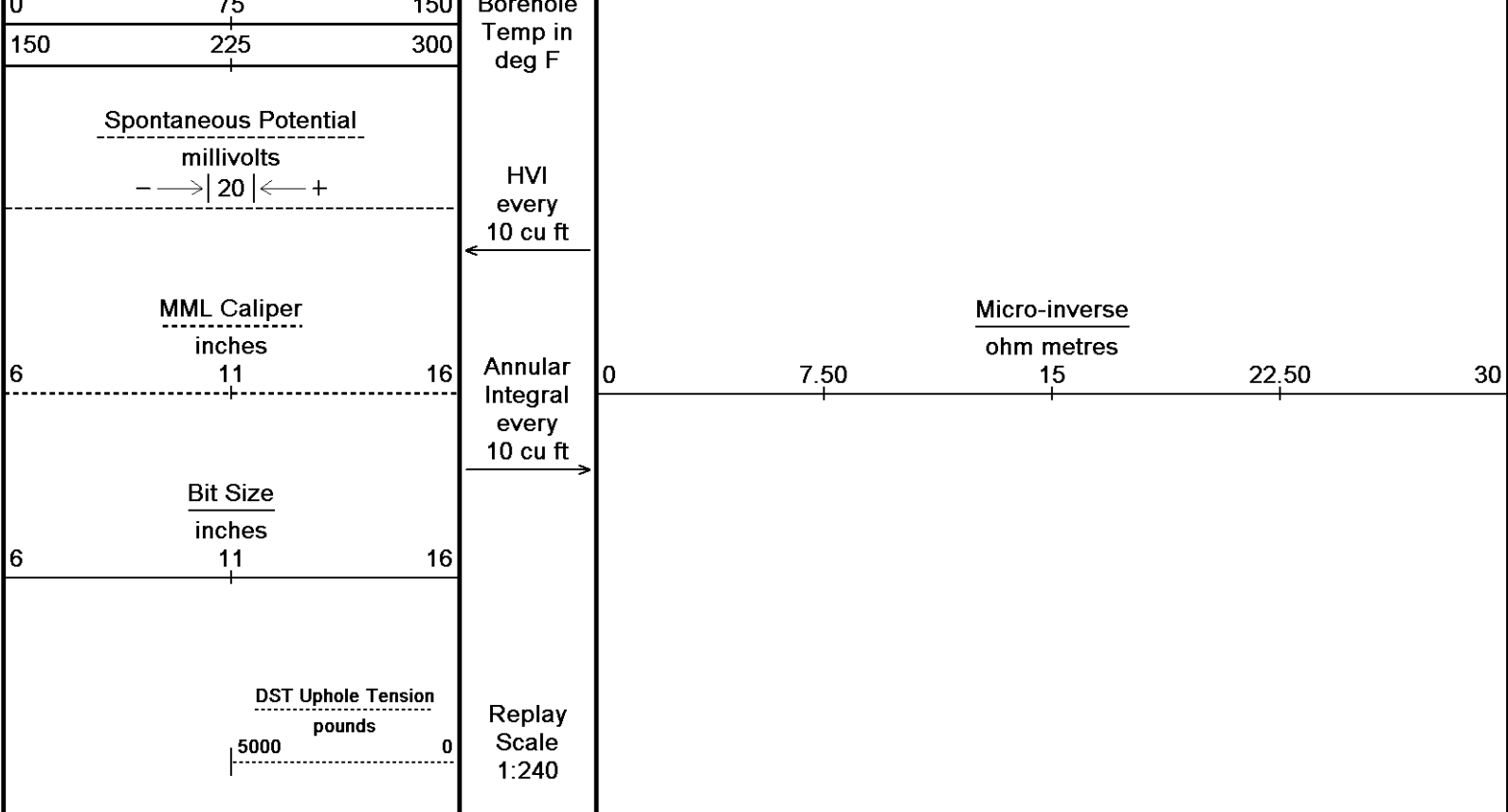


← Timing Marks
every 60.0 sec

Gamma Ray
API
75 150

Depth
in
Feet





Depth Based Data - Maximum Sampling Increment 10.0cm Plotted on 18-NOV-2013 13:44
Filename: C:\Minimus 13.05.9583\Log\McCoy Petroleum ...McCoy Petroleum MTPRC 'A' 1-27 Main.dta Recorded on 18-NOV-2013 11:06
System Versions: Logged with 13.05.9583 Plotted with 13.05.9583

↑

5 INCH MAIN

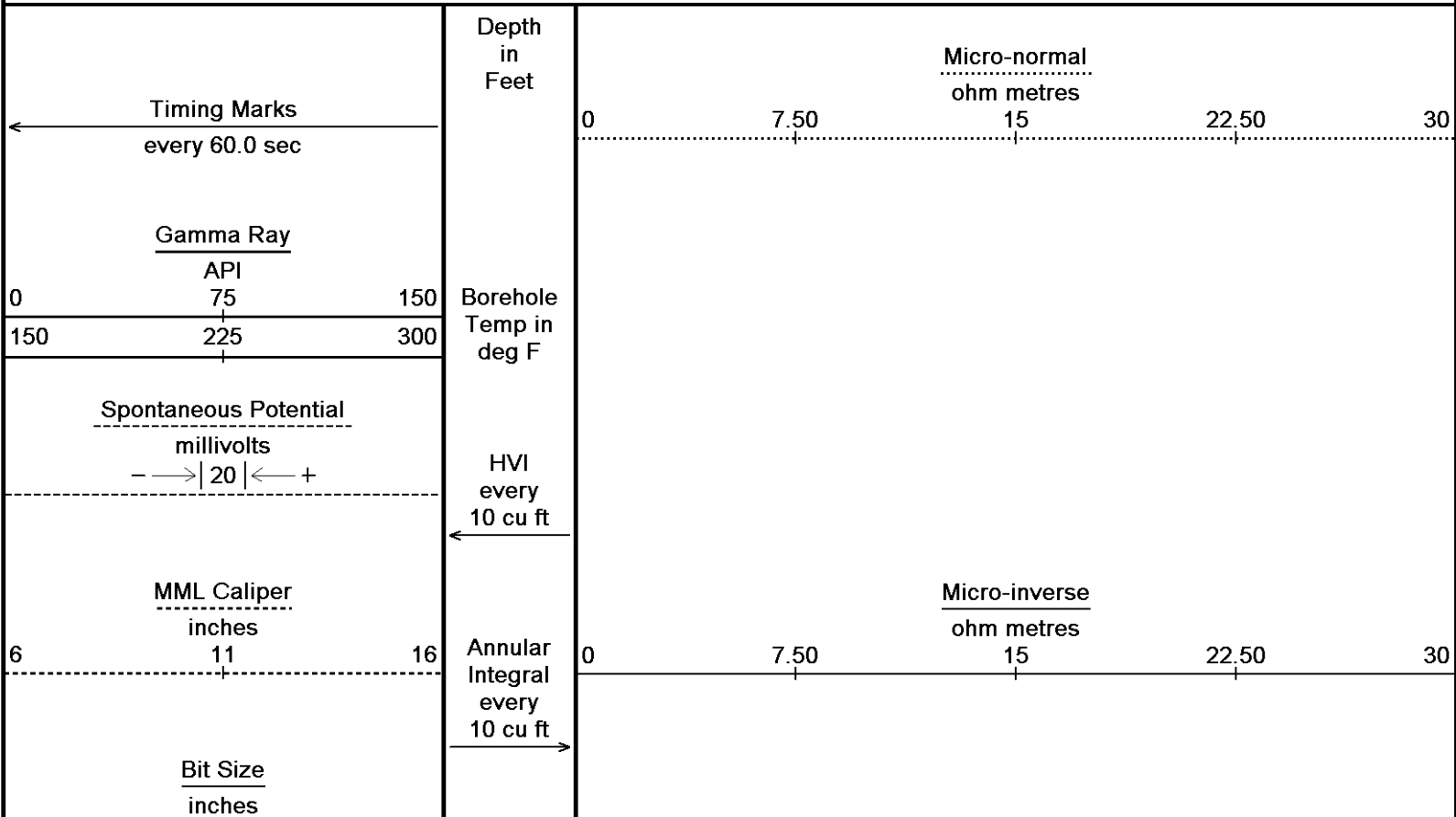
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REPEAT SECTION

↓

Depth Based Data - Maximum Sampling Increment 10.0cm Plotted on 18-NOV-2013 13:44
Filename: C:\Minimus 13.05.9583\Log\McCoy Petroleu...McCoy Petroleum MTPRC 'A' 1-27 Repeat.dta Recorded on 18-NOV-2013 10:42
System Versions: Logged with 13.05.9583 Plotted with 13.05.9583





Replay
Scale
1:240

5000

106°

5050

107°

5100

Micro-inverse

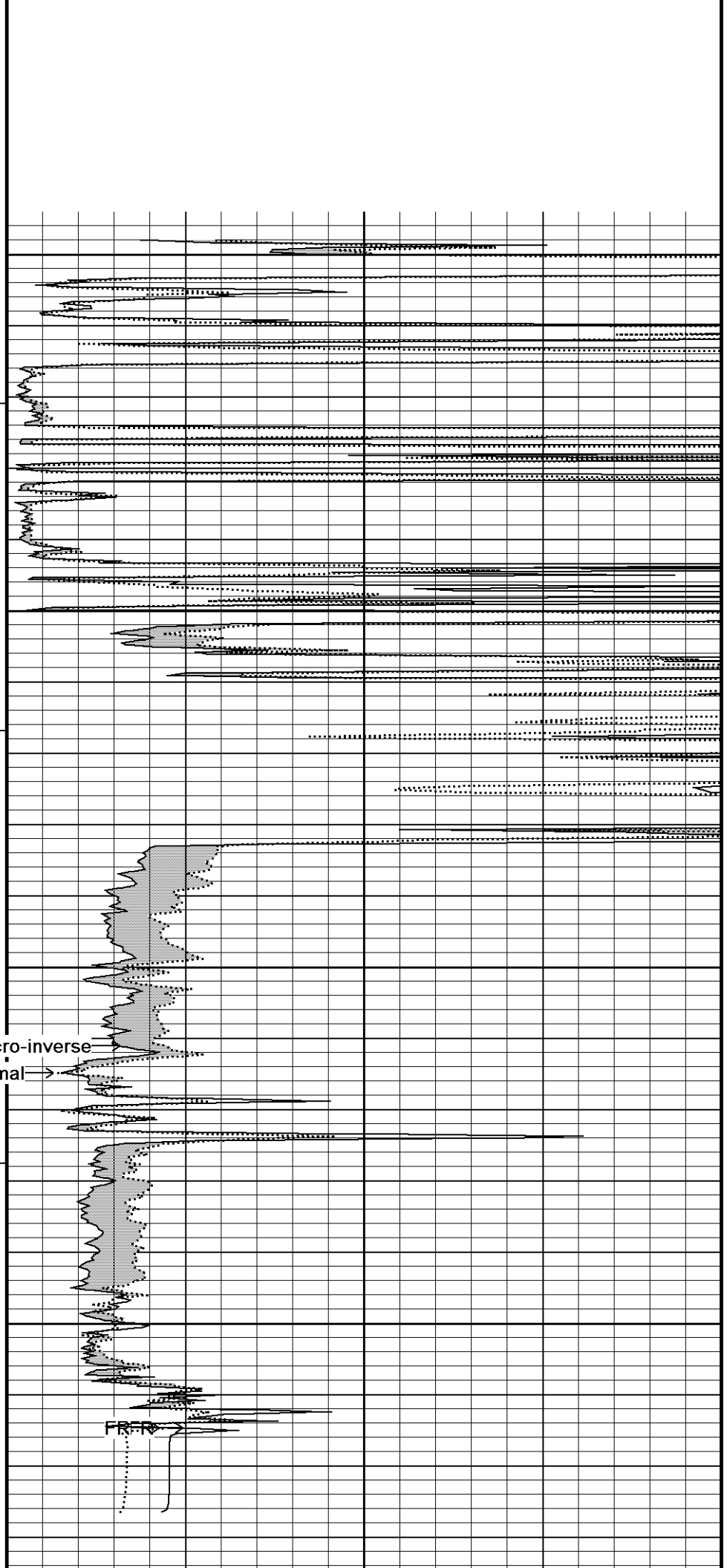
Micro-normal

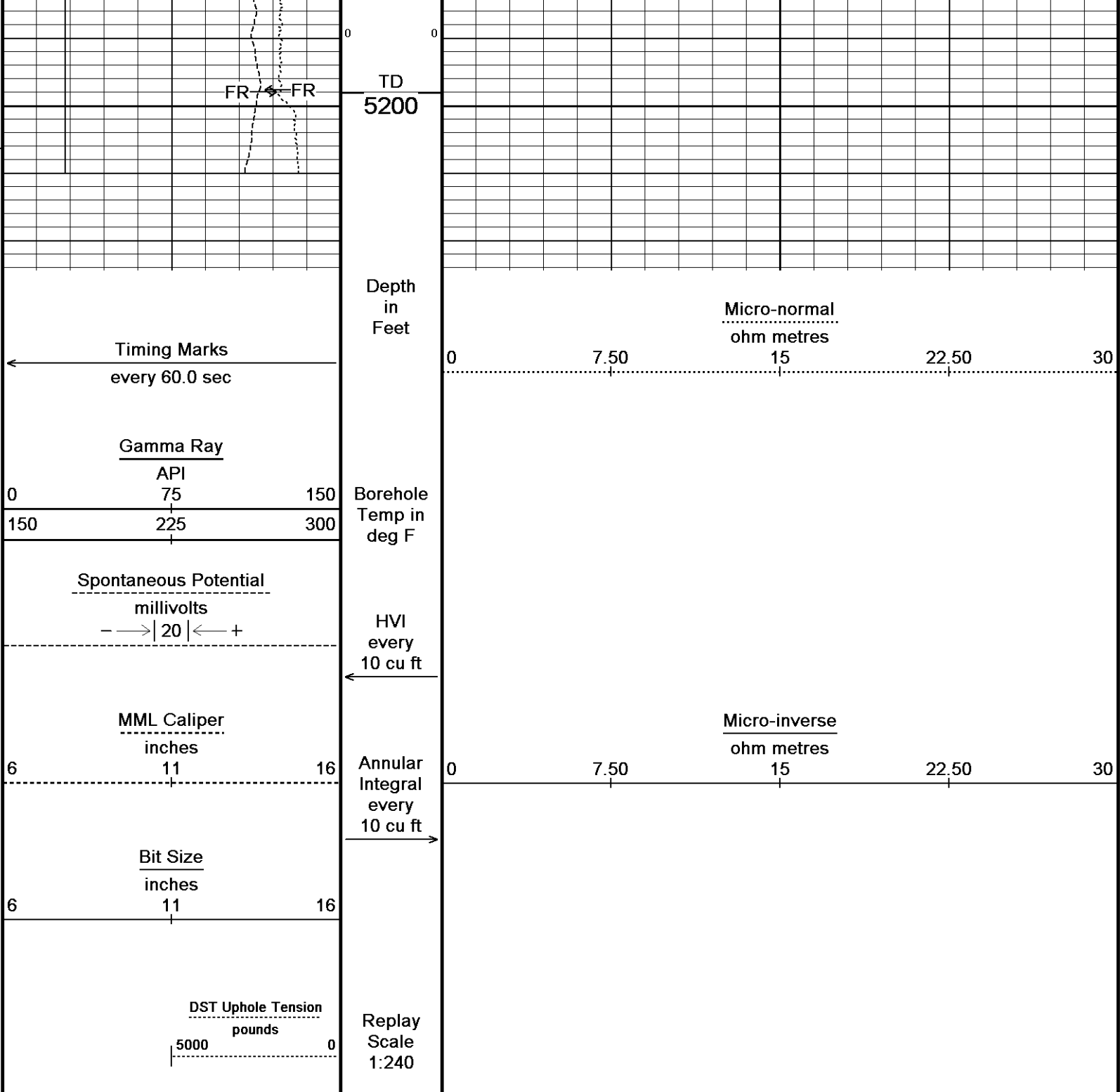
Spontaneous Potential

107°

5150

FR





Depth Based Data - Maximum Sampling Increment 10.0cm
 Plotted on 18-NOV-2013 13:44
 Filename: C:\Minimus 13.05.9583\Log\McCoy Petroleum MTPRC 'A' 1-27 Repeat.dta
 Recorded on 18-NOV-2013 10:42
 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 MTPRC 'A' 1-27\McCoy Petroleum MTPRC 'A' 1-27 Repeat.dta		
General Constants All 000		Last Edited on 18-NOV-2013,08:56
General Parameters		
Mud Resistivity	0.740	ohm-metres
Mud Resistivity Temperature	73.000	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	MML 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			
Gamma Calibration MCG-D.K 469				
			Field Calibration on 17-NOV-2013 01:27	
	Measured	Calibrated (API)		
Background	67	46		
Calibrator (Gross)	1139	771		
Calibrator (Net)	1072	725		
Gamma Constants MCG-D.K 469				
			Last Edited on 17-NOV-2013,05:35	
Gamma Calibrator Number	GRC38			
Mud Density	1.12	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 07-OCT-2013 08:47	
			Field Calibration on 17-NOV-2013 01:22	
Base Calibration				
Reading No	Measured		Calibrator Size (in)	
1	14962		5.98	
2	18212		7.97	
3	21407		9.86	
4	25492		11.92	
5	0		0.00	
6	N/A		N/A	
Field Calibration				
	Measured Caliper (in)		Actual Caliper (in)	
	7.96		7.97	
Micro Normal and Micro Inverse Calibration MML-A 3				
			Base Calibration on 07-OCT-2013 08:36	
			Field Check on 17-NOV-2013 01:20	
Base Calibration				
Channel			Measured	
	Resistor 1	Resistor 2	Calibrated (ohm-m)	
			Resistor 1	Resistor 2
Micro Normal	12.1	60.1	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	63.0		63.0	
Micro Inverse	48.2		48.2	
Micro Normal and Micro Inverse Constants MML-A 3				
			Last Edited on 17-NOV-2013,05:28	
Pad Type	8-12 in Soft Rubber Inflatable 006-9011-159			
Micro Normal K Factor	1.0000			
Micro Inverse K Factor	1.0000			
Single Resistor	N/A			

Standoff Offset

N/A

Inches

Caliper Calibration MPD-C.A 216

Base Calibration on 03-NOV-2013 23:03

Field Calibration on 17-NOV-2013 01:14

Base Calibration

Reading No

Measured

Calibrator Size (in)

1	16494	4.01
2	26560	5.96
3	36690	7.98
4	46752	9.95
5	57360	11.91
6	N/A	N/A

Field Calibration

Measured Caliper (in)

7.95

Actual Caliper (in)

7.97

DOWNHOLE EQUIPMENT

C:\Minimus 13.05.9583\Log\McCoy Petroleum MTPRC 'A' 1-27\McCoy Petroleum MTPRC 'A' 1-27 Repeat.dta

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-C.A 216 LG: 9.59 ft WT: 90.4 lb OD: 2.45 in

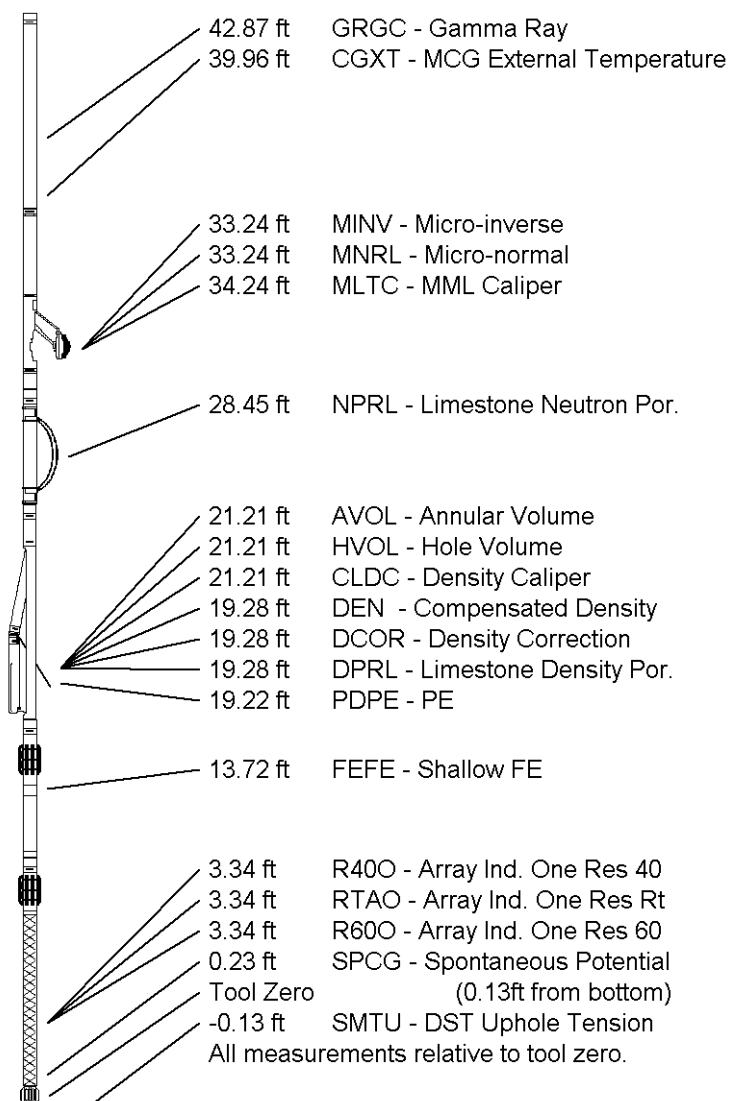
Compact Focussed Electric

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: 48.16 ft Weight: 383.6 lb



COMPANY

MCCOY PETROLEUM CORPORATION

WELL

MTPRC 'A' #1-27

FIELD

ALFORD SOUTH

PROVINCE/COUNTY

KIOWA

COUNTRY/STATE

U.S.A. / KANSAS

Elevation/Kelly Bushing 2224.00 feet

First Reading 5464.00 feet

Elevation Kelly Bushing	2224.00	feet	First Reading	5184.00	feet
Elevation Drill Floor	2222.00	feet	Depth Driller	5200.00	feet
Elevation Ground Level	2213.00	feet	Depth Logger	5198.00	feet



Weatherford®

MICRORESISTIVITY LOG