



Weatherford

MICRORESISTIVITY LOG

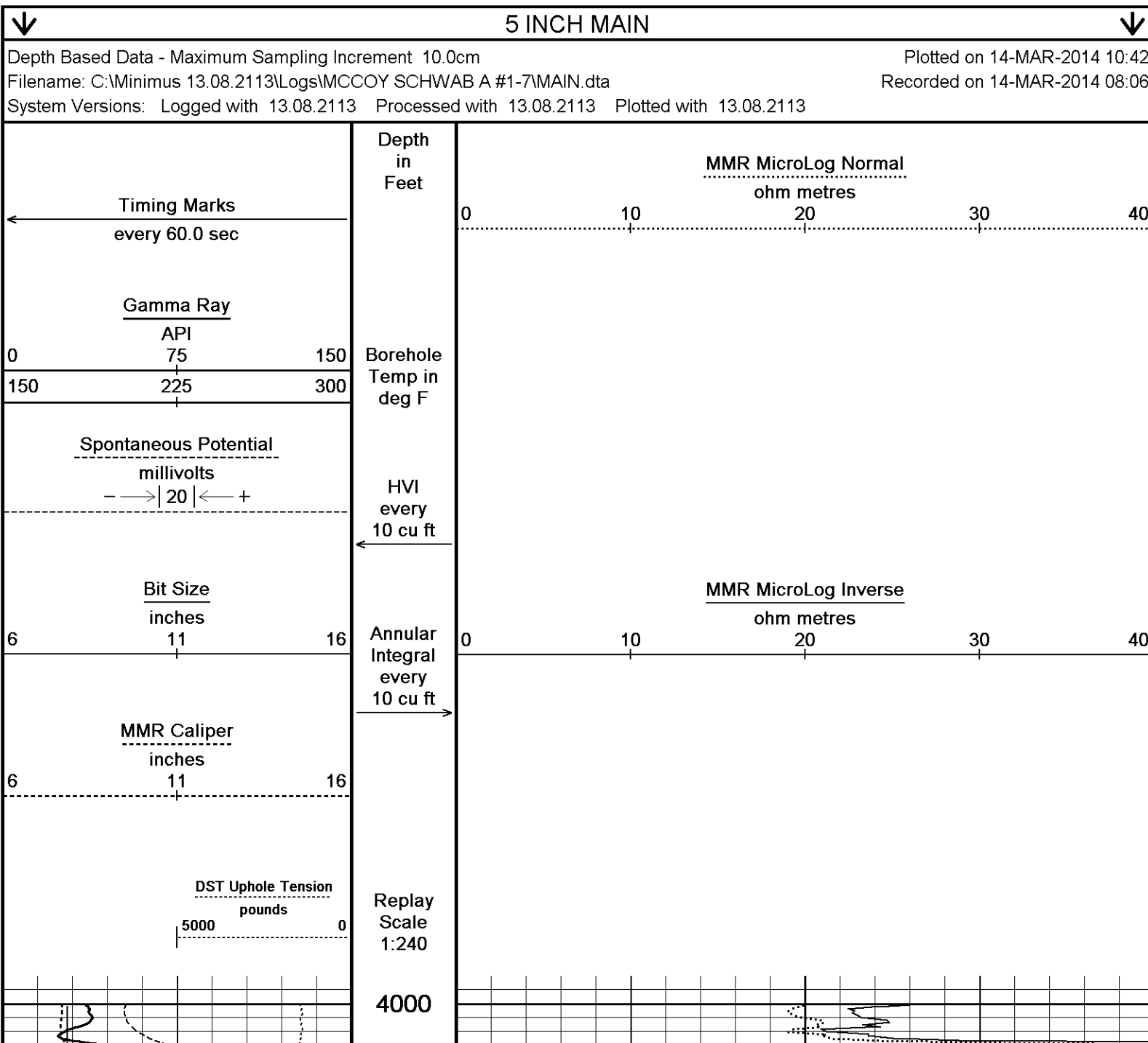
COMPANY		McCOY PETROLEUM CORPORATION			
WELL		SCHWAB "A" 1-7			
FIELD		WILDCAT			
PROVINCE/COUNTY		MEADE			
COUNTRY/STATE		U.S.A. / KANSAS			
LOCATION		1980' FSL & 330' FEL			
SEC 7	TWP 30S	RGE 30W	Other Services		MAI/MFE
Latitude	Longitude		MPD/MDN		
API Number		15-119-21362			
Permanent Datum GL, Elevation 2814 feet					Elevations: KB 2825.00 DF 2823.00 GL 2814.00
Log Measured From KB					
Drilling Measured From KB					
Date	14-MAR-2014				
Run Number	ONE				
Service Order	7557-81970693				
Depth Driller	5550.00				feet
Depth Logger	5549.00				feet
First Reading	5516.00				feet
Last Reading	4000.00				feet
Casing Driller	1829.00				feet
Casing Logger	1828.00				feet
Bit Size	7.875				inches
Hole Fluid Type	CHEMICAL				
Density / Viscosity	9.30 lb/USg		50.00 CP		
PH / Fluid Loss	10.50		8.80 ml/30Min		
Sample Source	FLOWLINE				
Rm @ Measured Temp	1.21 @ 93.0				ohm-m
Rmf @ Measured Temp	0.97 @ 93.0				ohm-m
Rmc @ Measured Temp	1.45 @ 93.0				ohm-m
Source Rmf / Rmc	CALC		CALC		
Rm @ BHT	0.96 @ 117.0				ohm-m
Time Since Circulation	3 HOURS				
Max Recorded Temp	117.00				deg F
Equipment / Base	13244		LIB		
Recorded By	RUSSELL POGUE				JEFFREY RANDLE
Witnessed By	DAVE WILLIAMS				
JOB #	LIB14-076				

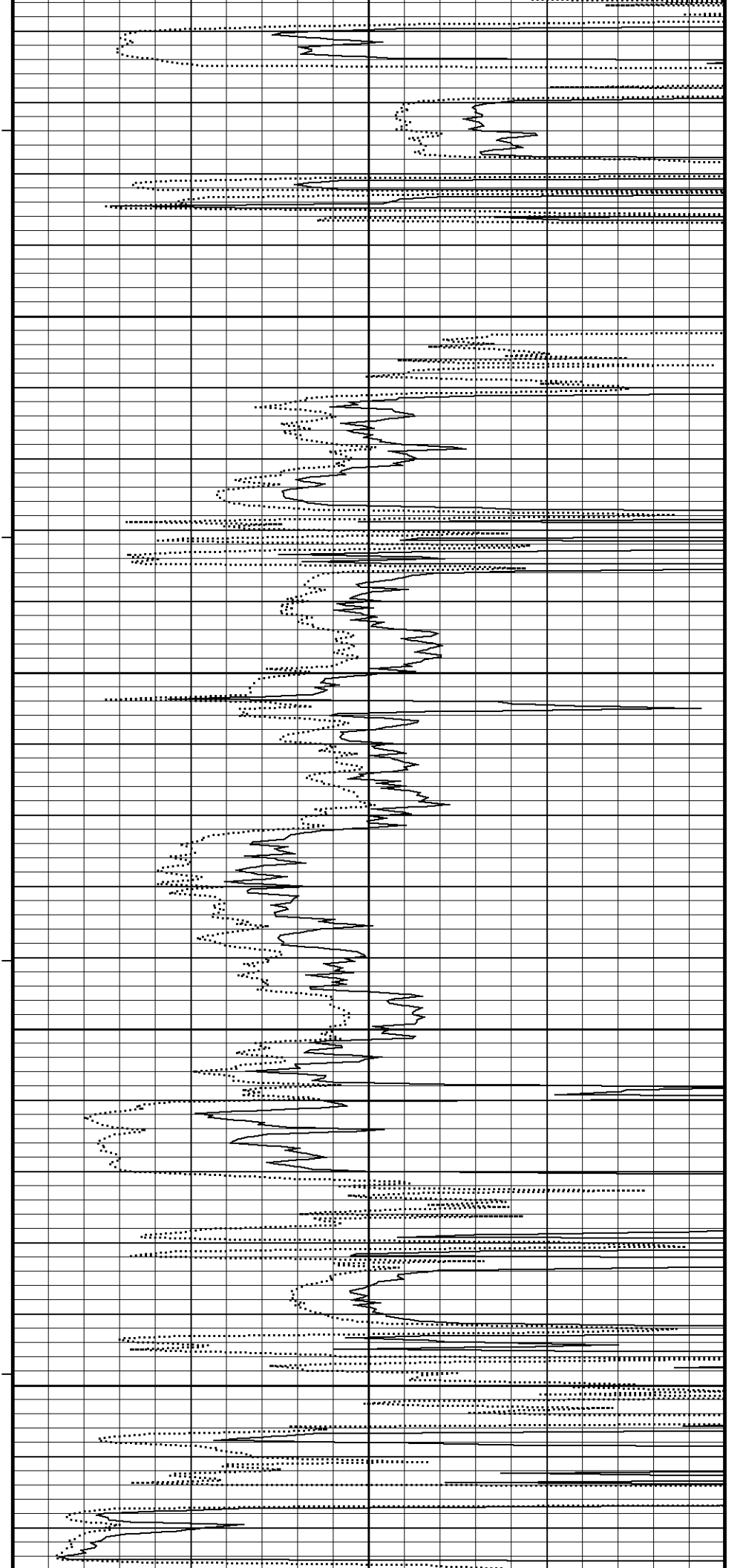
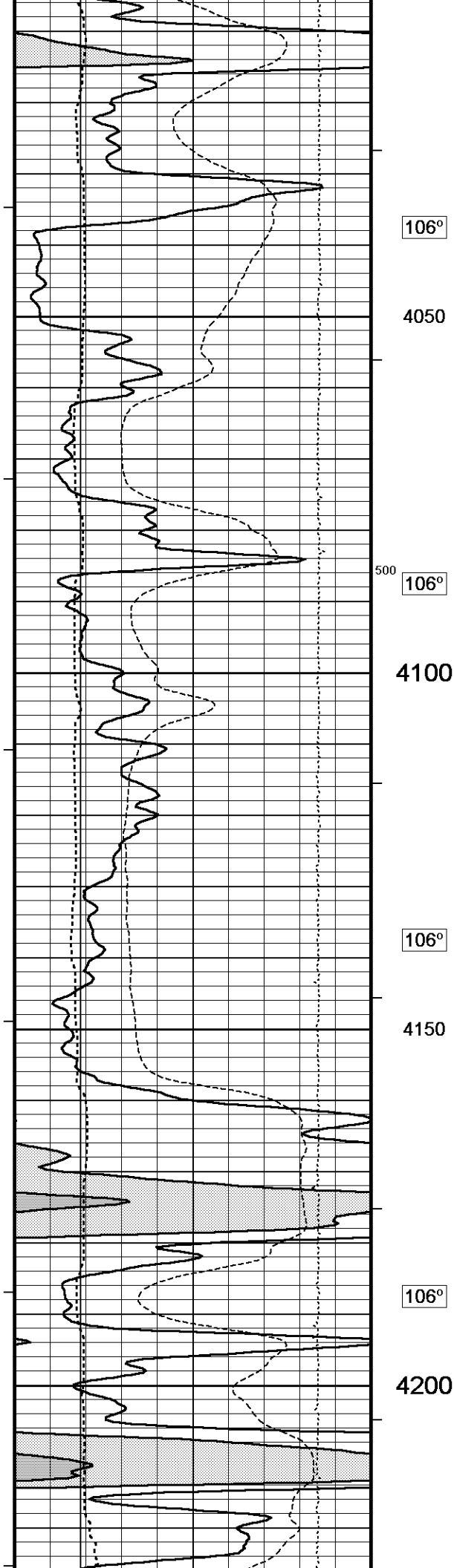
BOREHOLE RECORD					Last Edited: 14-MAR-2014 03:04
Bit Size inches		Depth From feet		Depth To feet	
7.875		1829.00		5550.00	
CASING RECORD					
Type	Size inches	Depth From feet	Shoe Depth feet	Weight pounds/ft	
SURFACE	8.625	0.00	1829.00	24.00	

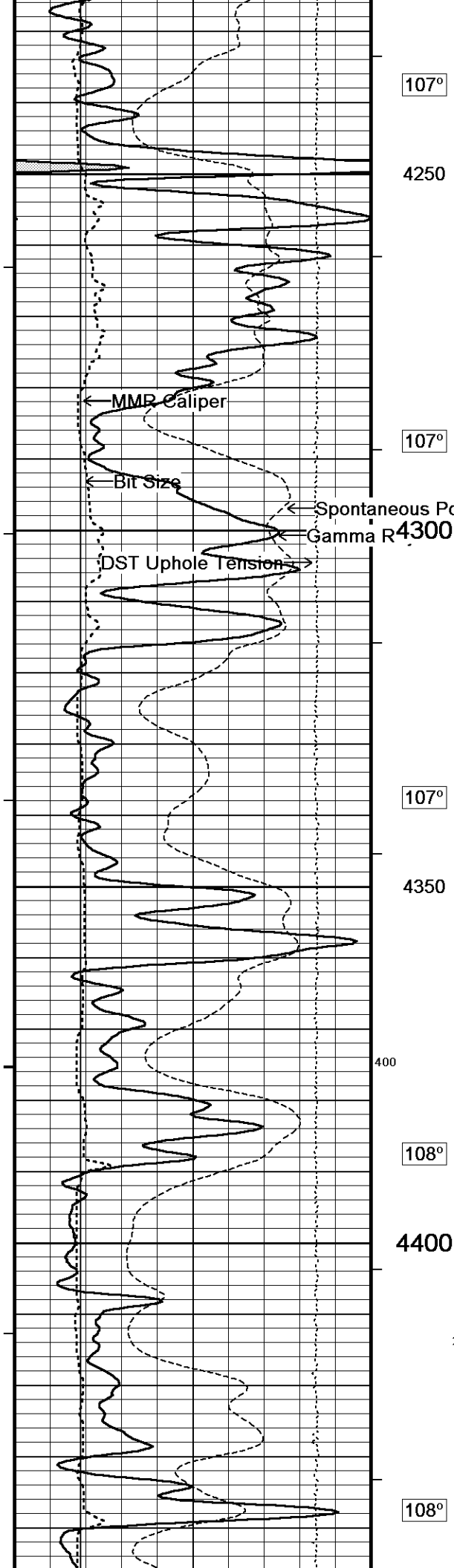
REMARKS
- SOFTWARE ISSUE: WLS 13.08.211.
- RUN ONE: MCG, MML, MDN, MPD, MFE AND MAI RUN IN COMBINATION. - HARDWARE: DUAL BOWSPRING USED ON MDN. 0.5 INCH STANDOFF USED ON MFE. 0.5 INCH STANDOFF USED ON MAI.
- 2.71 G/CC LIMESTONE DENSITY MATRIX USED TO CALCULATE POROSITY.
- BOREHOLE RUGOSITY, TIGHT PULLS, AND WASHOUTS WILL AFFECT DATA QUALITY.
- ALL INTERVALS LOGGED AND SCALED PER CUSTOMER'S REQUEST.
- TOTAL HOLE VOLUME FROM TD TO 4000 FEET: 529 CU.FT.
- ANNULAR HOLE VOLUME WITH 5.5 INCH PRODUCTION CASING FROM TD TO 4000 FEET: 275 CU.FT.
- RIG: STERLING DRILLING #2

- ENGINEER: R. POGUE.
- JUNIOR FIELD ENGINEER: J. RANDLE.
- OPERATOR: J. LaPOINT.

In interpreting, communicating or providing information and/or making recommendations, either written or oral, as to logs or test or other data, type or amount of material, or Work or other service to be furnished, or manner of performance, or in predicting results to be obtained, the Contractor will give the Company the benefit of the Contractor's best judgment based on its experience and will perform all such Work in a good and workmanlike manner. Any interpretation of test or other data, and any recommendation or reservoir description based upon such interpretations, are opinions based upon inferences from measurements and empirical relationships and assumptions, which inferences and assumptions are not infallible, and with respect to which professional engineers and analysts may differ. ACCORDINGLY ANY INTERPRETATION OR RECOMMENDATION RESULTING FROM THE SERVICES WILL BE AT THE SOLE RISK OF THE COMPANY, AND THE CONTRACTOR CANNOT AND DOES NOT WARRANT THE ACCURACY, CORRECTNESS OR COMPLETENESS OF ANY SUCH INTERPRETATION OR RECOMMENDATION, WHICH INTERPRETATIONS AND RECOMMENDATIONS SHOULD NOT, THEREFORE, UNDER ANY CIRCUMSTANCES BE RELIED UPON AS THE SOLE OR MAIN BASIS FOR ANY DRILLING, COMPLETION, WELL TREATMENT, PRODUCTION OR FINANCIAL DECISION, OR ANY PROCEDURE INVOLVING ANY RISK TO THE SAFETY OF ANY DRILLING ACTIVITY, DRILLING RIG OR ITS CREW OR ANY OTHER INDIVIDUAL. THE COMPANY HAS FULL RESPONSIBILITY FOR ALL DECISIONS CONCERNING THE SERVICES.







107°

4250

107°

← Spontaneous Potential

← Gamma R4300

← MMR Caliper

← Bit Size

← DST Uphole Tension

107°

4350

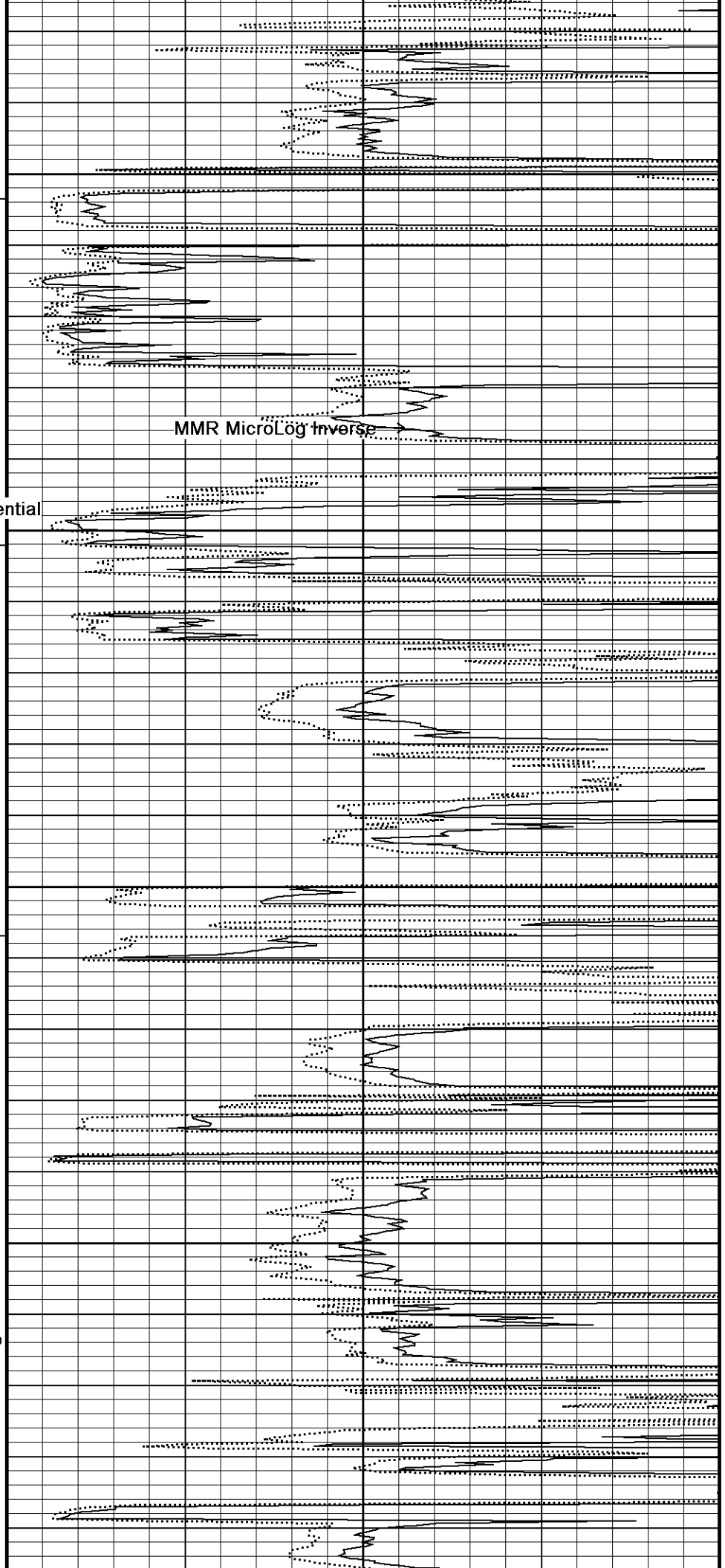
400

108°

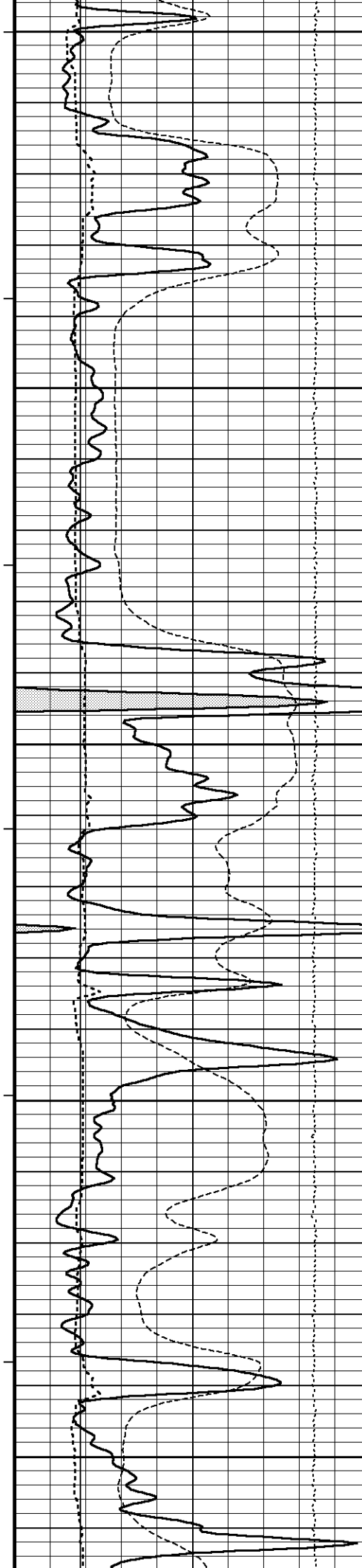
4400

200

108°



MMR MicroLog Inverse



4450

108°

4500

109°

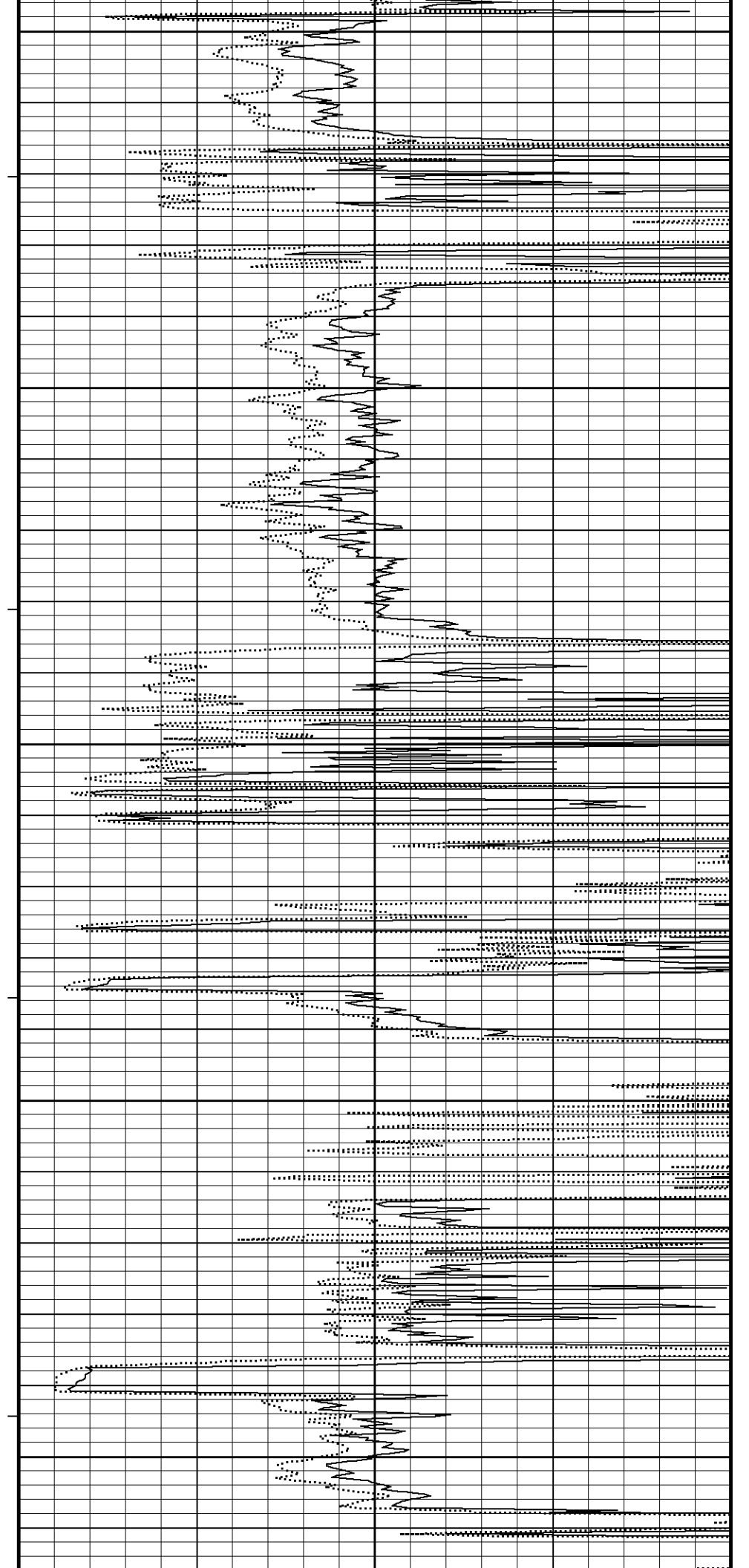
4550

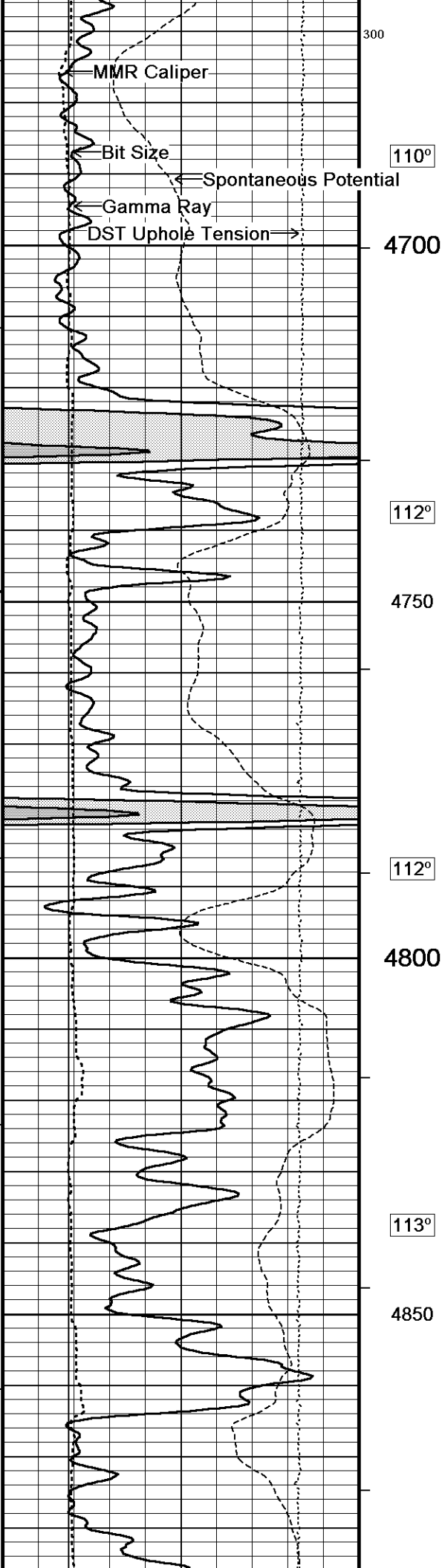
109°

4600

109°

4650





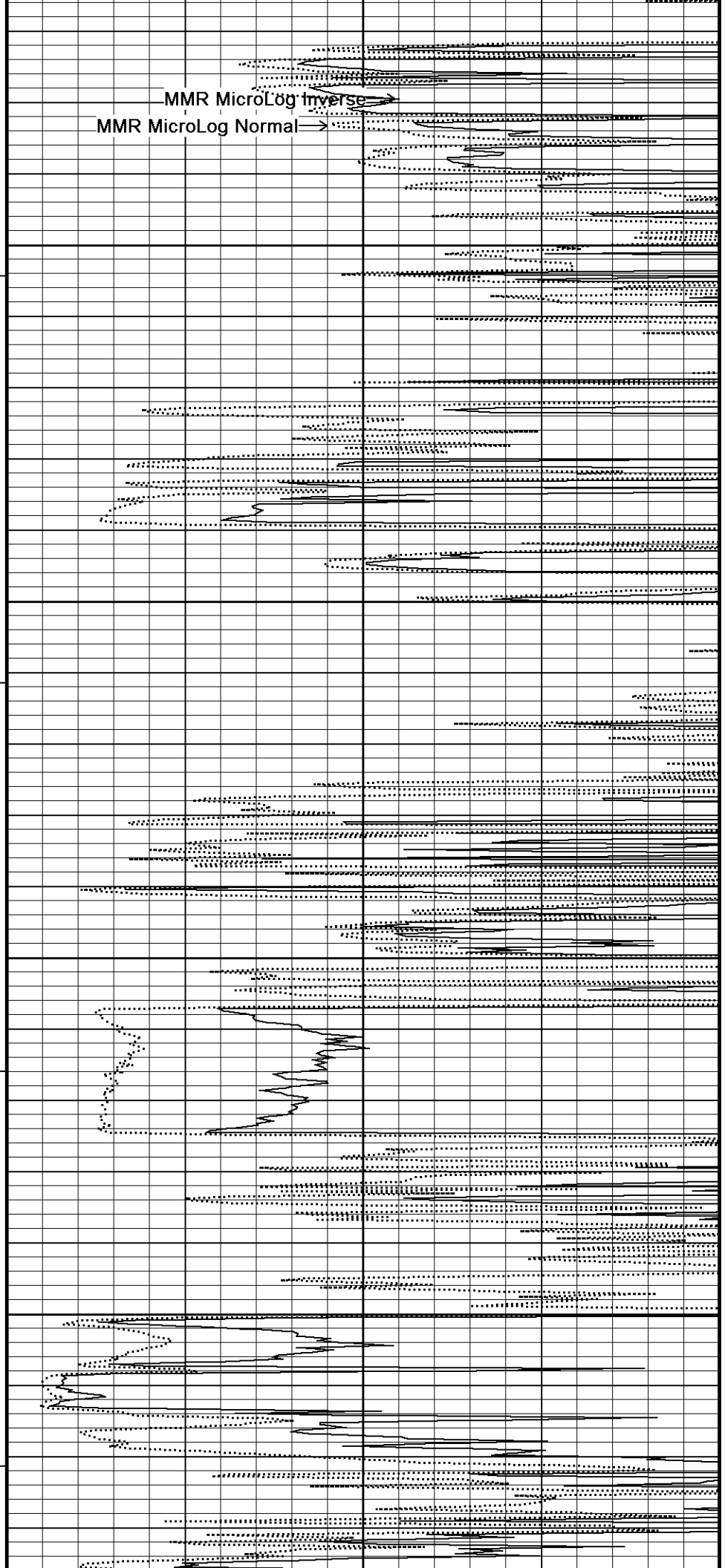
111°

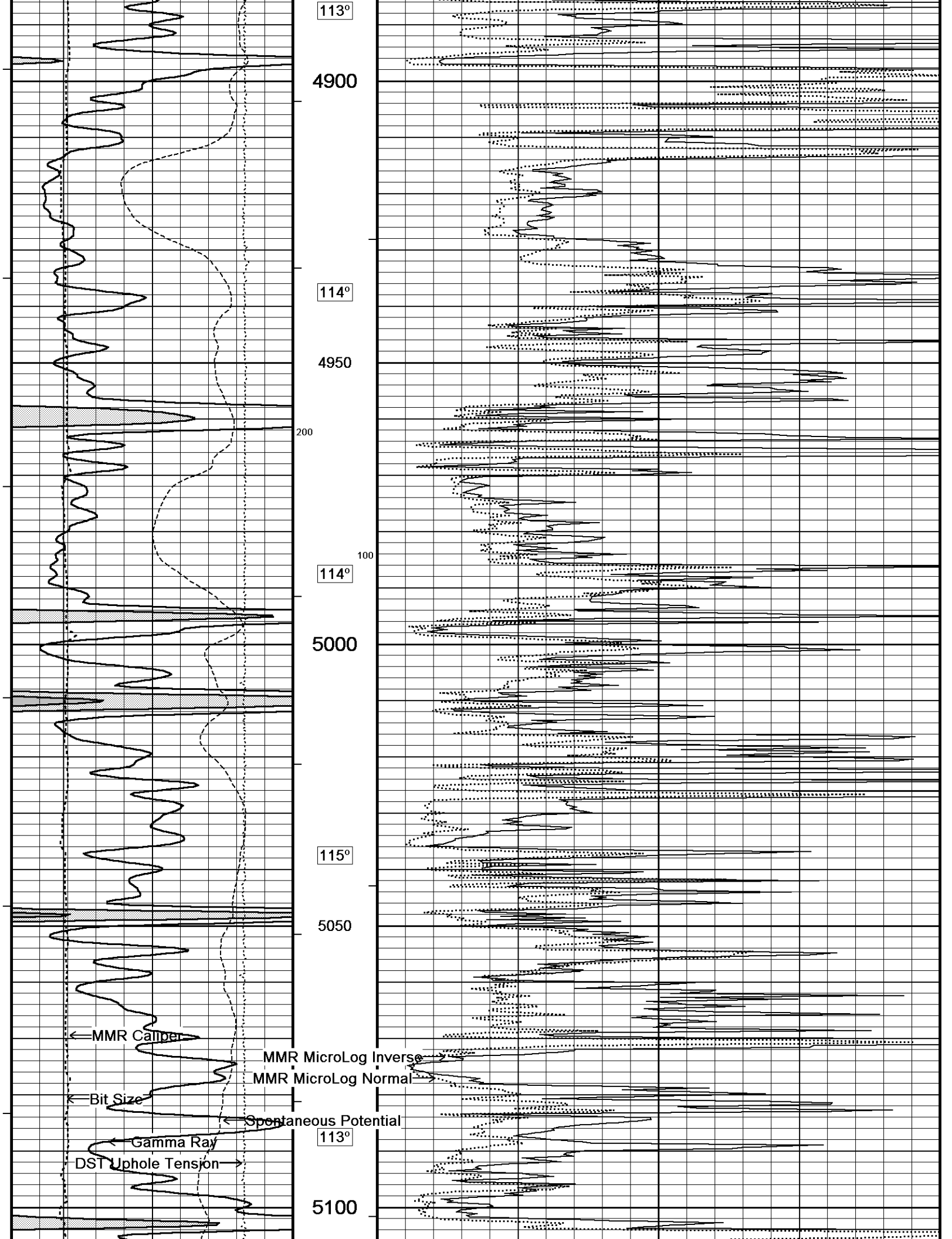
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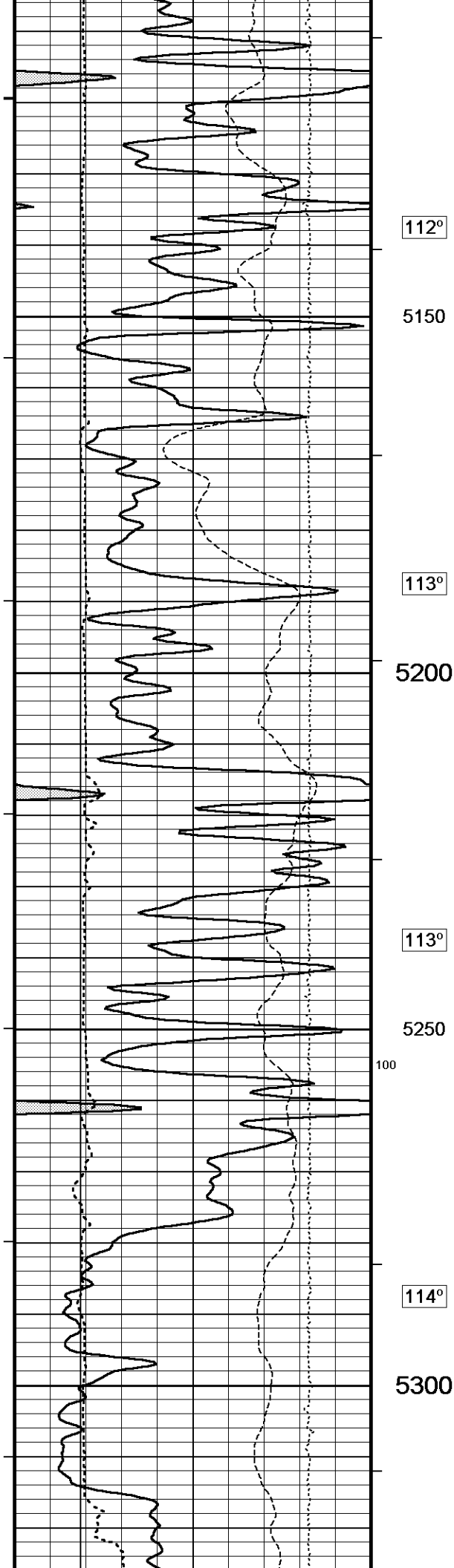
112°

113°

MMR MicroLog Inverse
MMR MicroLog Normal







112°

5150

113°

5200

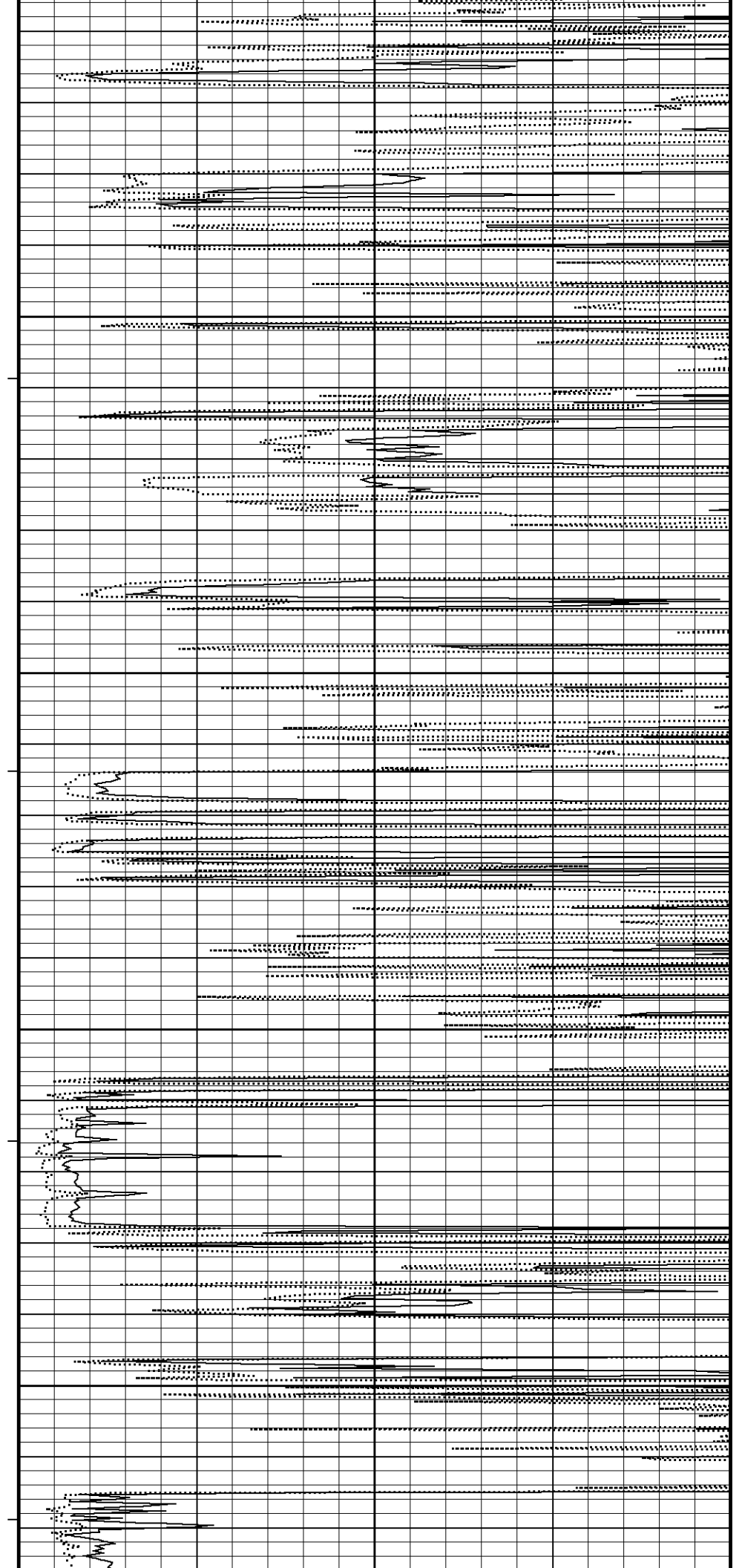
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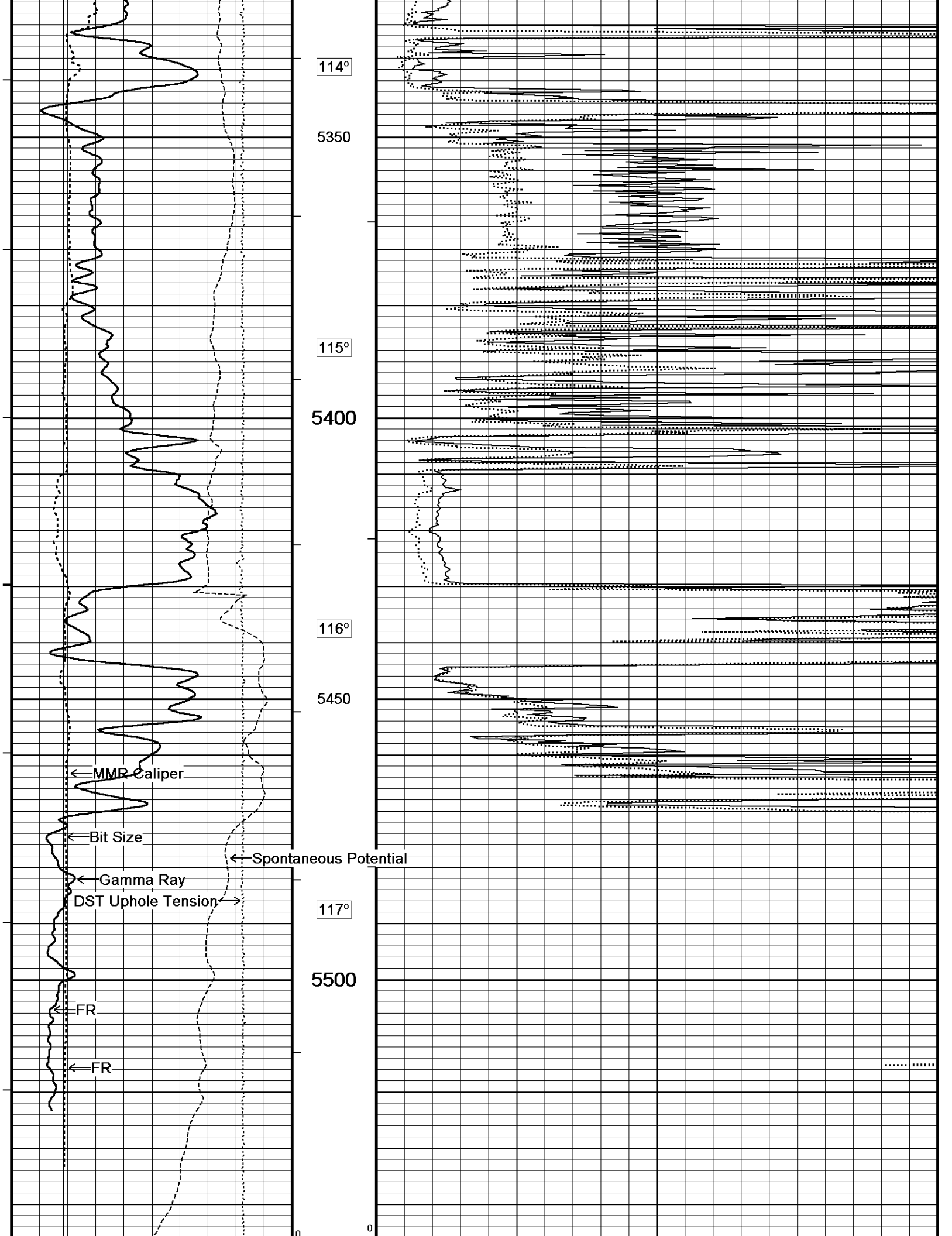
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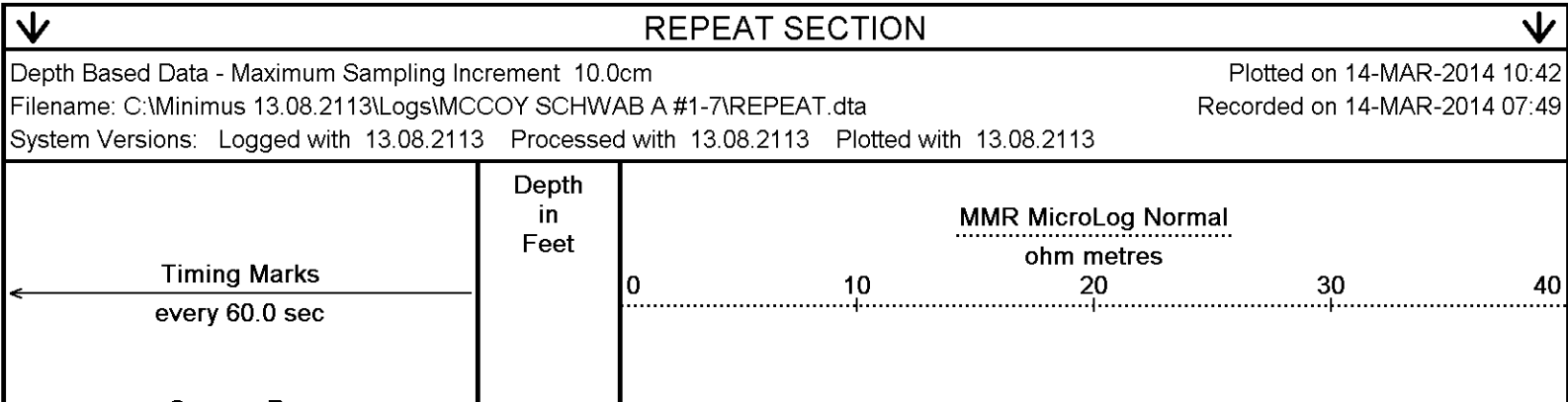
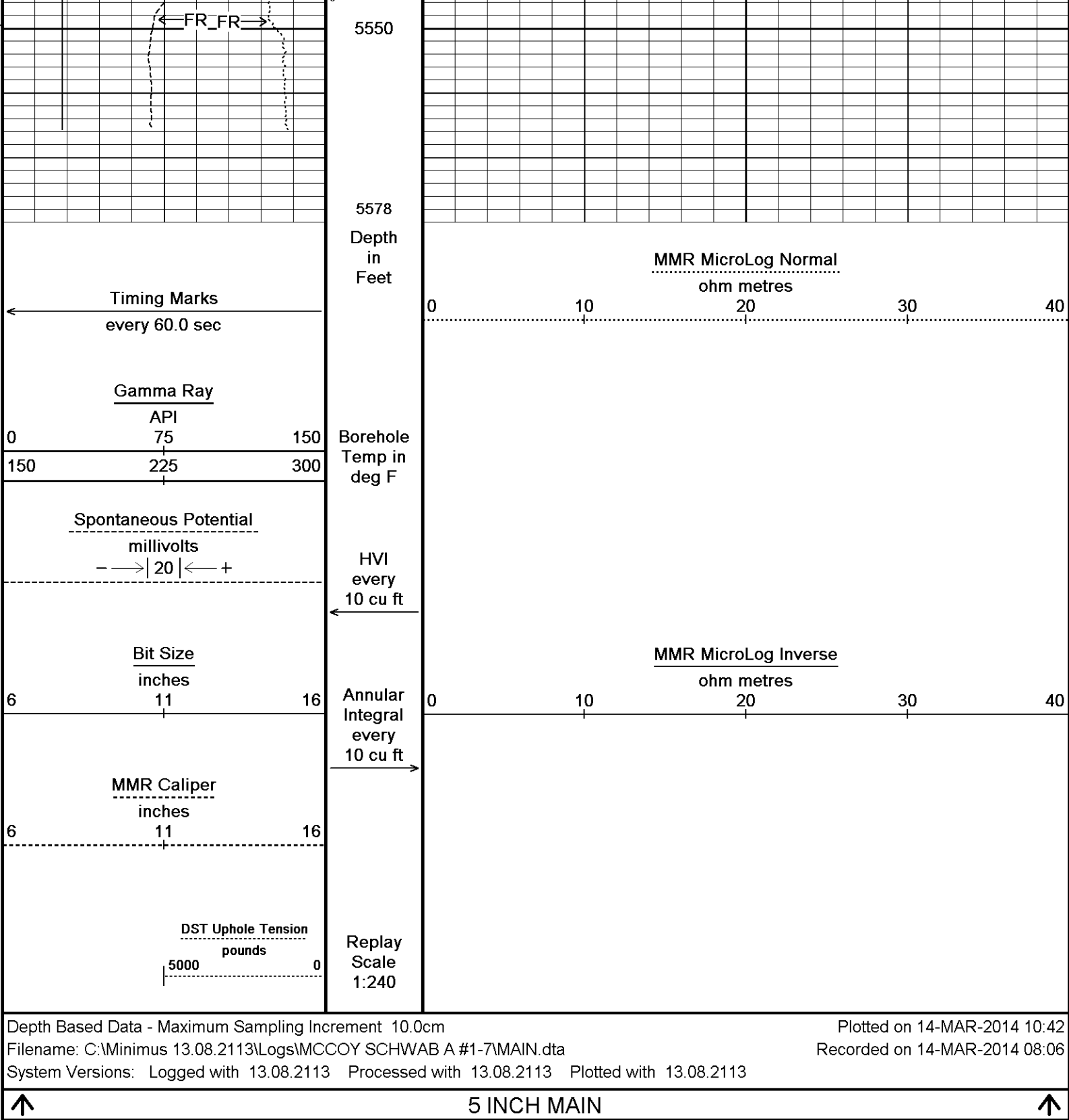
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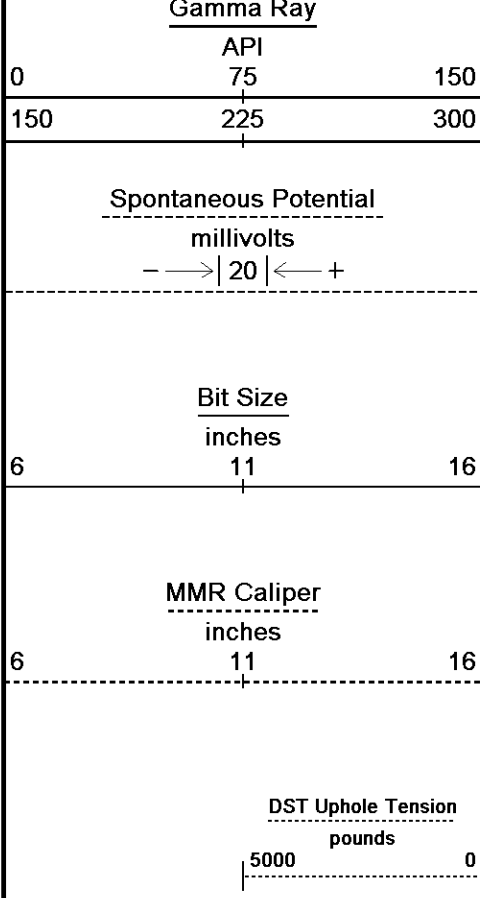
114°

5300







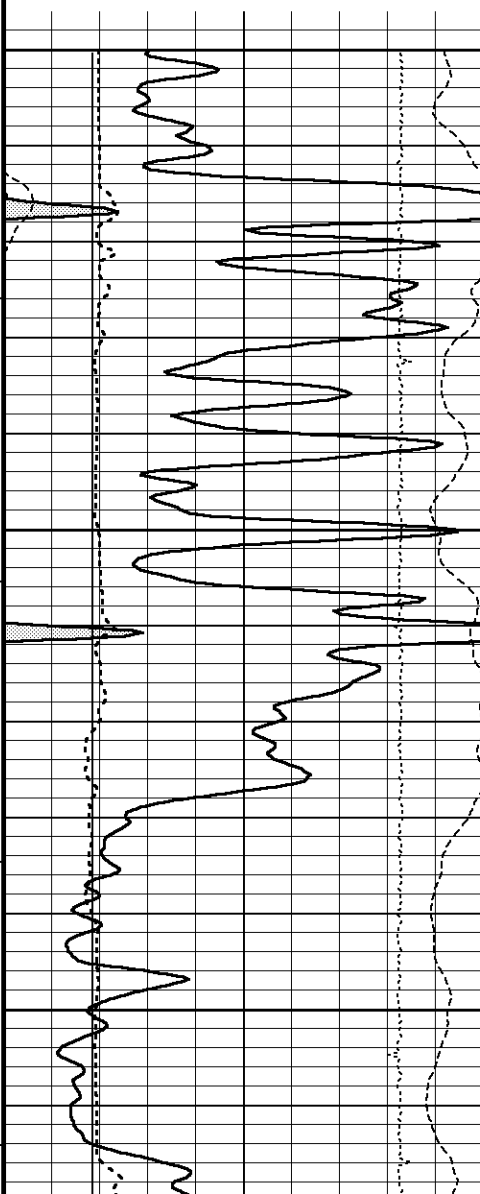


Borehole
Temp in
deg F

HVI
every
10 cu ft
←

Annular
Integral
every
10 cu ft
→

Replay
Scale
1:240



5200

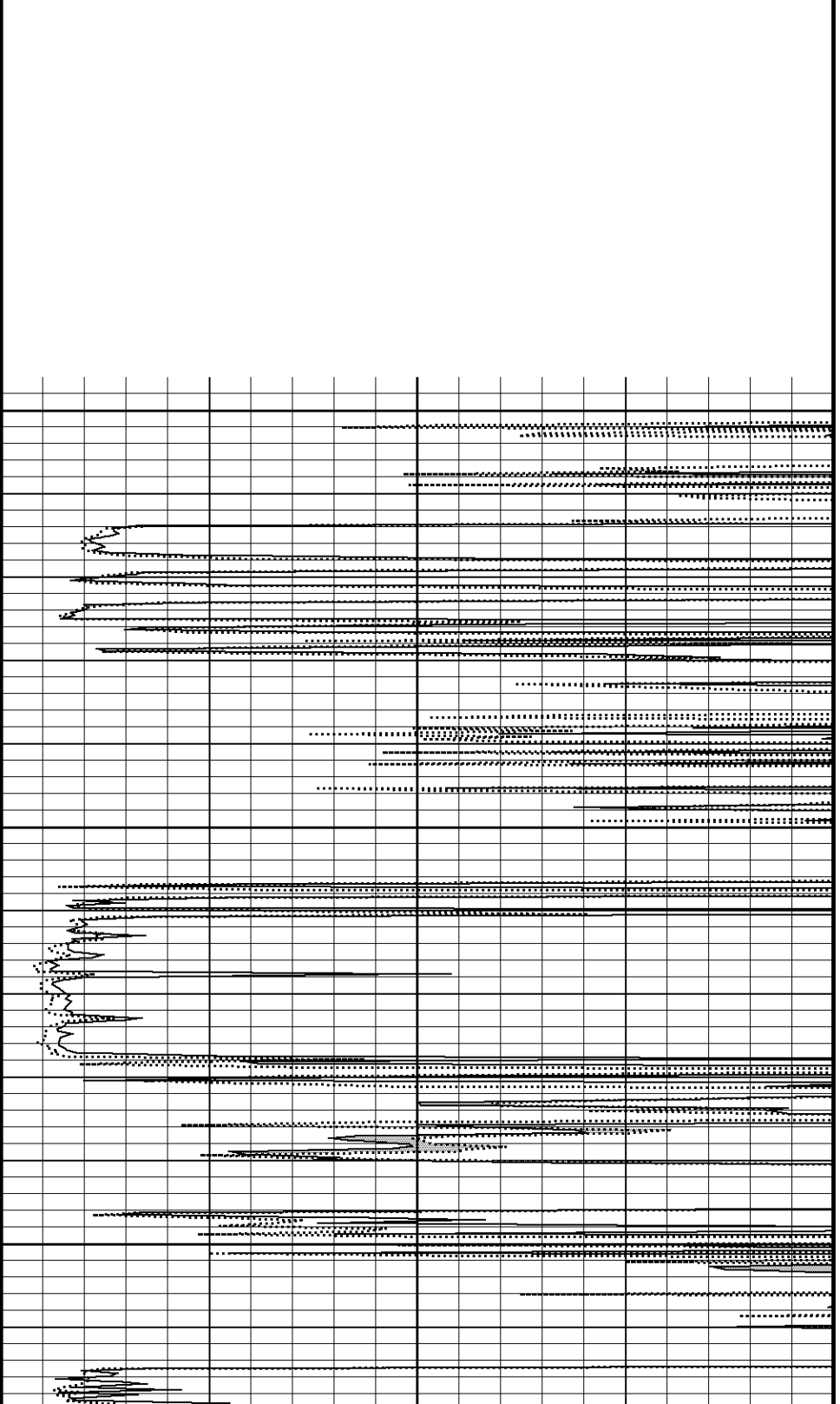
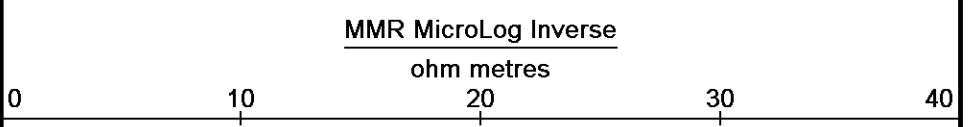
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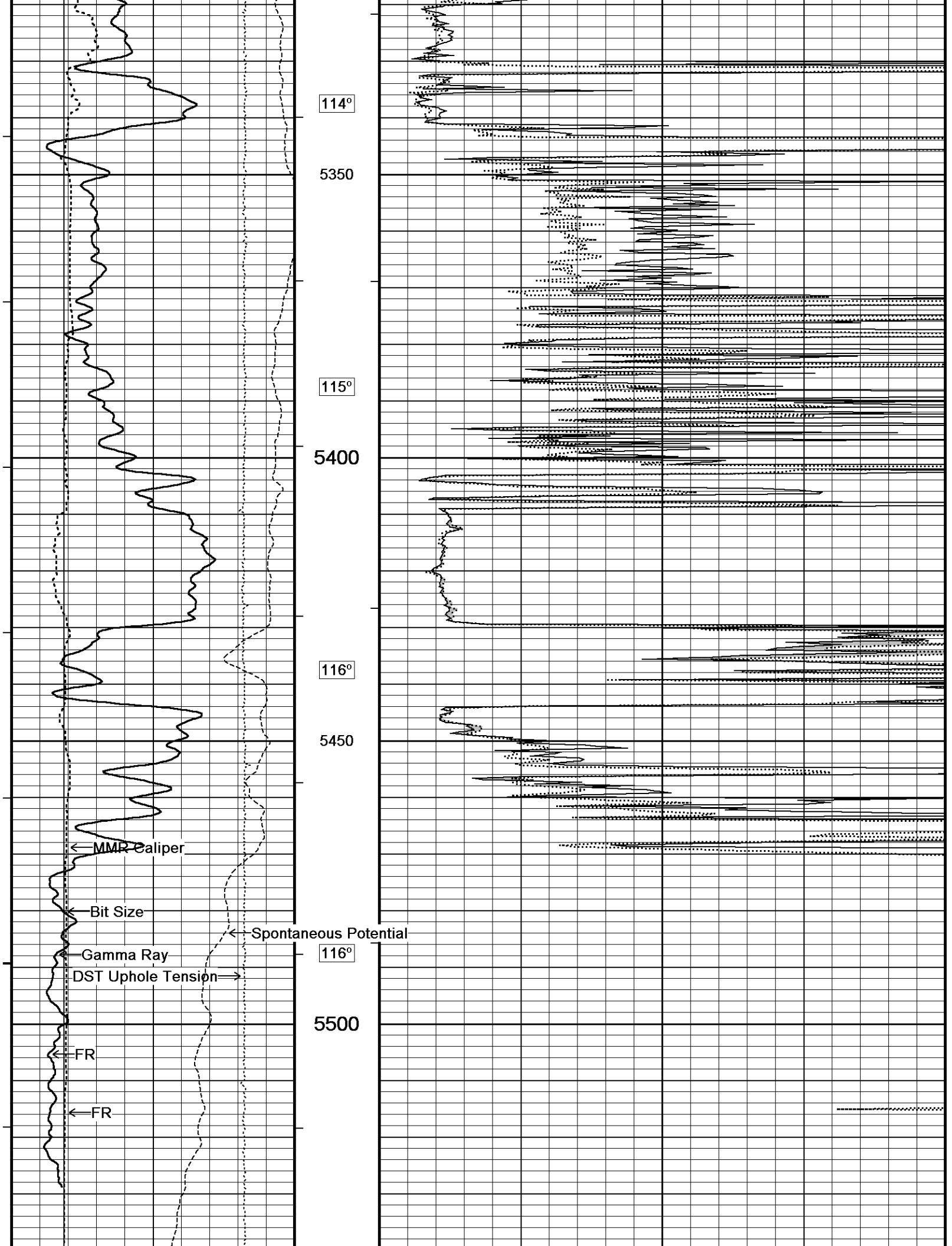
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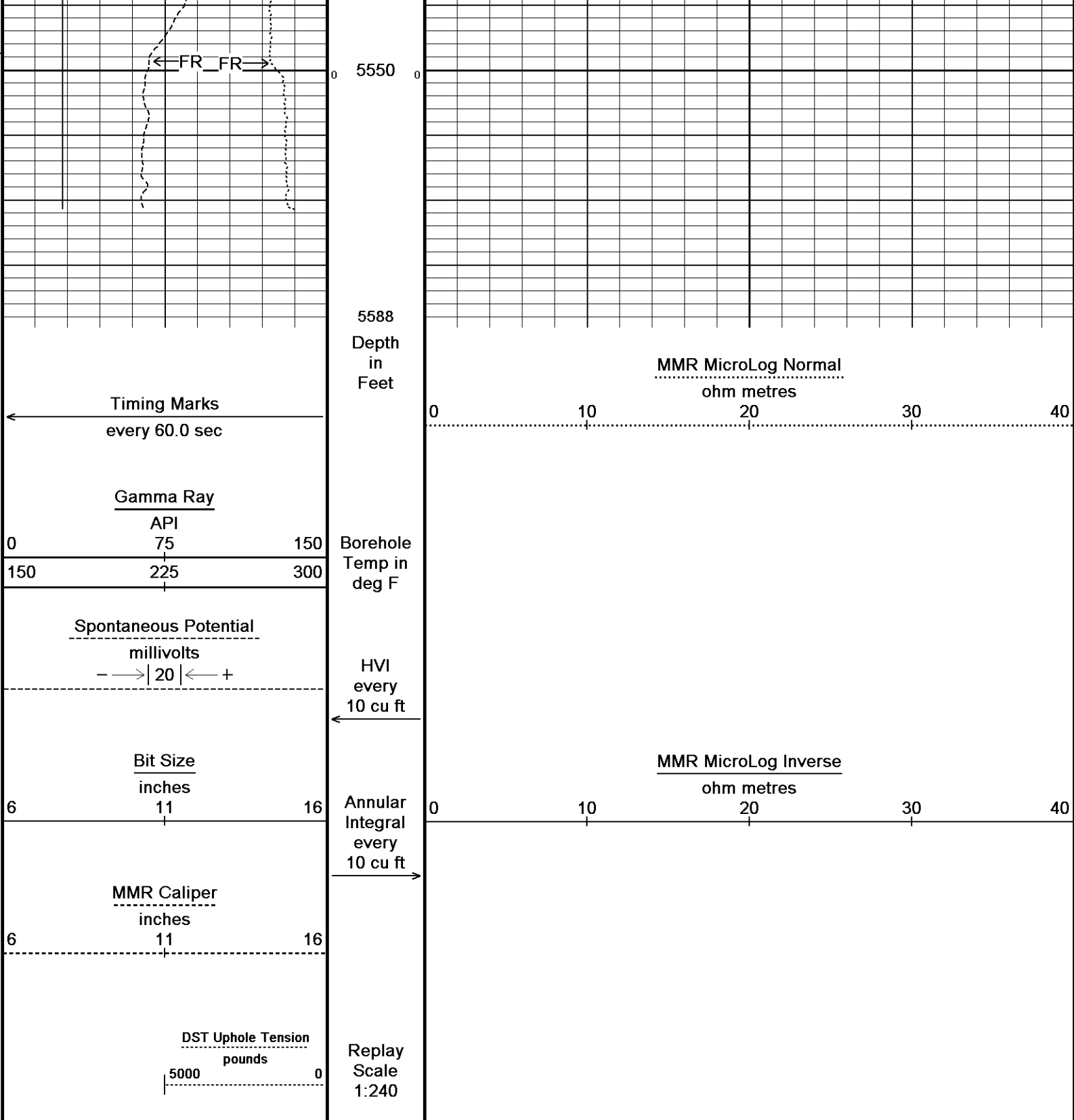
100

113°

5300







Depth Based Data - Maximum Sampling Increment 10.0cm
Filename: C:\Minimus 13.08.2113\Logs\MCCOY SCHWAB A #1-7\REPEAT.dta
System Versions: Logged with 13.08.2113 Processed with 13.08.2113 Plotted with 13.08.2113

Plotted on 14-MAR-2014 10:42
Recorded on 14-MAR-2014 07:49

↑ REPEAT SECTION ↑

BEFORE SURVEY CALIBRATION

C:\Minimus 13.08.2113\Logs\MCCOY SCHWAB A #1-7\MAIN.dta

General Constants All 000 Last Edited on 14-MAR-2014,07:36

General Parameters

Mud Resistivity	1.210	ohm-metres
Mud Resistivity Temperature	93.000	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	None	
Rwa Parameters		
Porosity used	Base Density Porosity	
Resistivity used	Array Ind. One Res Rt	
RWA Constant A	0.610	
RWA Constant M	2.150	
SW/APOR Tool Source	0.000	

Gamma Calibration MCG-C 150			Field Calibration on 12-MAR-2014 16:55
	Measured	Calibrated (API)	
Background	69	47	
Calibrator (Gross)	1144	772	
Calibrator (Net)	1075	725	

Gamma Constants MCG-C 150			Last Edited on 14-MAR-2014,03:09
Gamma Calibrator Number	GRC038		
Mud Density	1.12	gm/cc	
Caliper Source for Processing	Bit Size		
Tool Position	Eccentred		
Concentration of KCl		kppm	
K Mud Type	Chloride		
K Mud Concentration	0.00	%	

High Resolution Temperature Calibration MCG-C 150			Field Calibration on 08-MAR-2014,10:59
	Measured	Calibrated(Deg F)	
Lower	50.00	50.00	
Upper	75.00	75.00	

High Resolution Temperature Constants MCG-C 150			Last Edited on 08-MAR-2014,10:59
Pre-filter Length	11		

Caliper Calibration MMR-A 11			Base Calibration on 05-MAR-2014 09:15 Field Calibration on 13-MAR-2014 09:22
Base Calibration			
Reading No	Measured	Calibrator Size (in)	
1	14159	5.98	
2	17268	7.97	
3	20572	9.86	
4	24442	11.92	
5	0	0.00	
6	N/A	N/A	
Field Calibration			
	Measured Caliper (in)	Actual Caliper (in)	
	8.01	7.97	

Micro Normal and Micro Inverse Calibration MMR-A 11					Base Calibration on 05-MAR-2014 09:06	
					Field Check on 13-MAR-2014 09:21	
Base Calibration						
		Measured		Calibrated (ohm-m)		
Channel	Resistor 1	Resistor 2	Resistor 1	Resistor 2		
Micro Normal	10.3	49.8	10.0	50.0		
Micro Inverse	10.0	49.5	10.0	50.0		
Channel	Base Check (ohm-m)		Field Check (ohm-m)			
Micro Normal	183.7		183.7			
Micro Inverse	184.2		184.2			

Micro Normal and Micro Inverse Constants MMR-A 11			Last Edited on 05-MAR-2014,08:50
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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		0.0000	inches

Caliper Calibration MPD-B 64

Base Calibration on 13-FEB-2014 15:49
Field Calibration on 12-MAR-2014 17:07

Base Calibration

Reading No	Measured	Calibrator Size (in)
1	16976	3.99
2	26016	5.98
3	34528	7.97
4	42943	9.86
5	52224	11.92
6	N/A	N/A

Field Calibration

Measured Caliper (in)	Actual Caliper (in)
8.02	7.98

DOWNHOLE EQUIPMENT

C:\Minimus 13.08.2113\Logs\MCCOY SCHWAB A #1-7\MAIN.dta

CBH-C, Cablehead, 11 pin
CBH-C 0 LG: 2.40 ft WT: 24.3 lb OD: 2.244 in

Compact Comms Gamma
MCG-C 150 LG: 8.70 ft WT: 63.9 lb OD: 2.244 in

Compact Micro-Resistivity
MMR-A 11 LG: 8.59 ft WT: 81.6 lb OD: 4.882 in

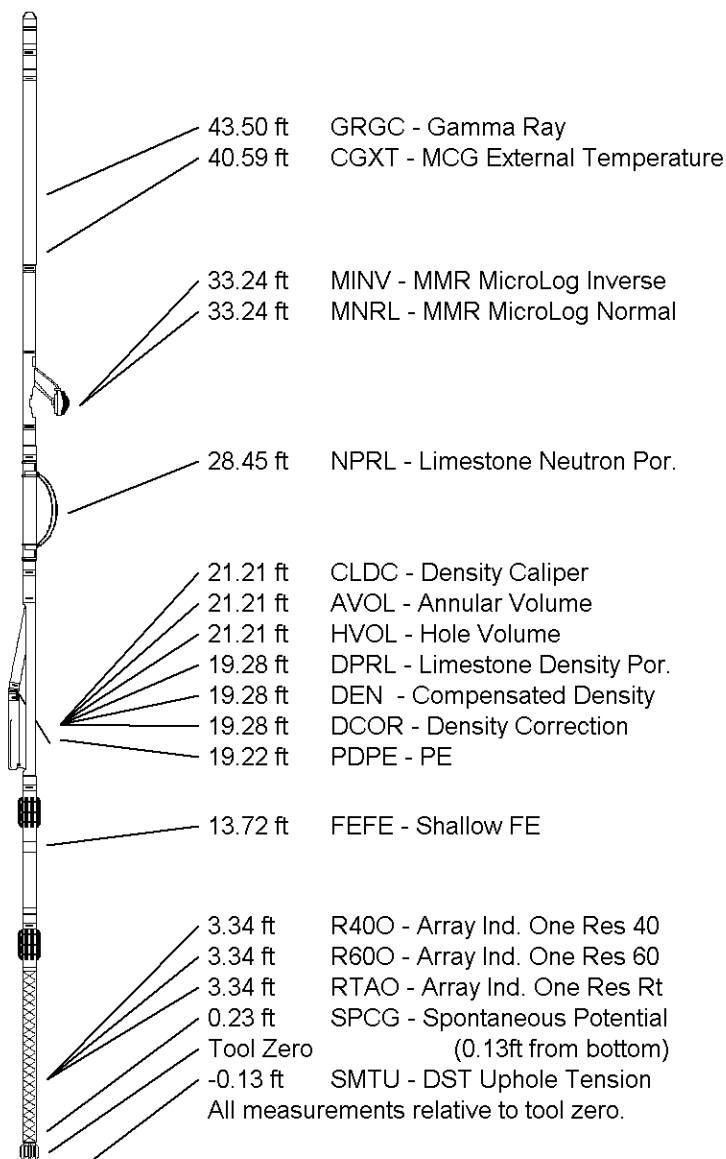
Compact Neutron
MDN-B.J 387 LG: 5.04 ft WT: 50.7 lb OD: 2.244 in

Compact Density/Caliper
MPD-B 64 LG: 9.59 ft WT: 90.4 lb OD: 2.449 in

Compact Focussed Electric
MFE-A.A 55 LG: 6.05 ft WT: 48.5 lb OD: 2.244 in

Compact Induction
MAI-A.A 5 LG: 10.81 ft WT: 48.5 lb OD: 2.244 in

Total Length: 51.18 ft Weight: 407.9 lb



COMPANY

WELL

FIELD

McCOY PETROLEUM CORPORATION

SCHWAB "A" 1-7

WELLBORE

FIELD	WILDCAT
PROVINCE/COUNTY	MEADE
COUNTRY/STATE	U.S.A. / KANSAS

Elevation Kelly Bushing	2825.00	feet	First Reading	5516.00	feet
Elevation Drill Floor	2823.00	feet	Depth Driller	5550.00	feet
Elevation Ground Level	2814.00	feet	Depth Logger	5549.00	feet



Weatherford®

MICRORESISTIVITY LOG