



Weatherford

**COMPACT PHOTO DENSITY
COMPENSATED NEUTRON
MICRORESISTIVITY LOG**

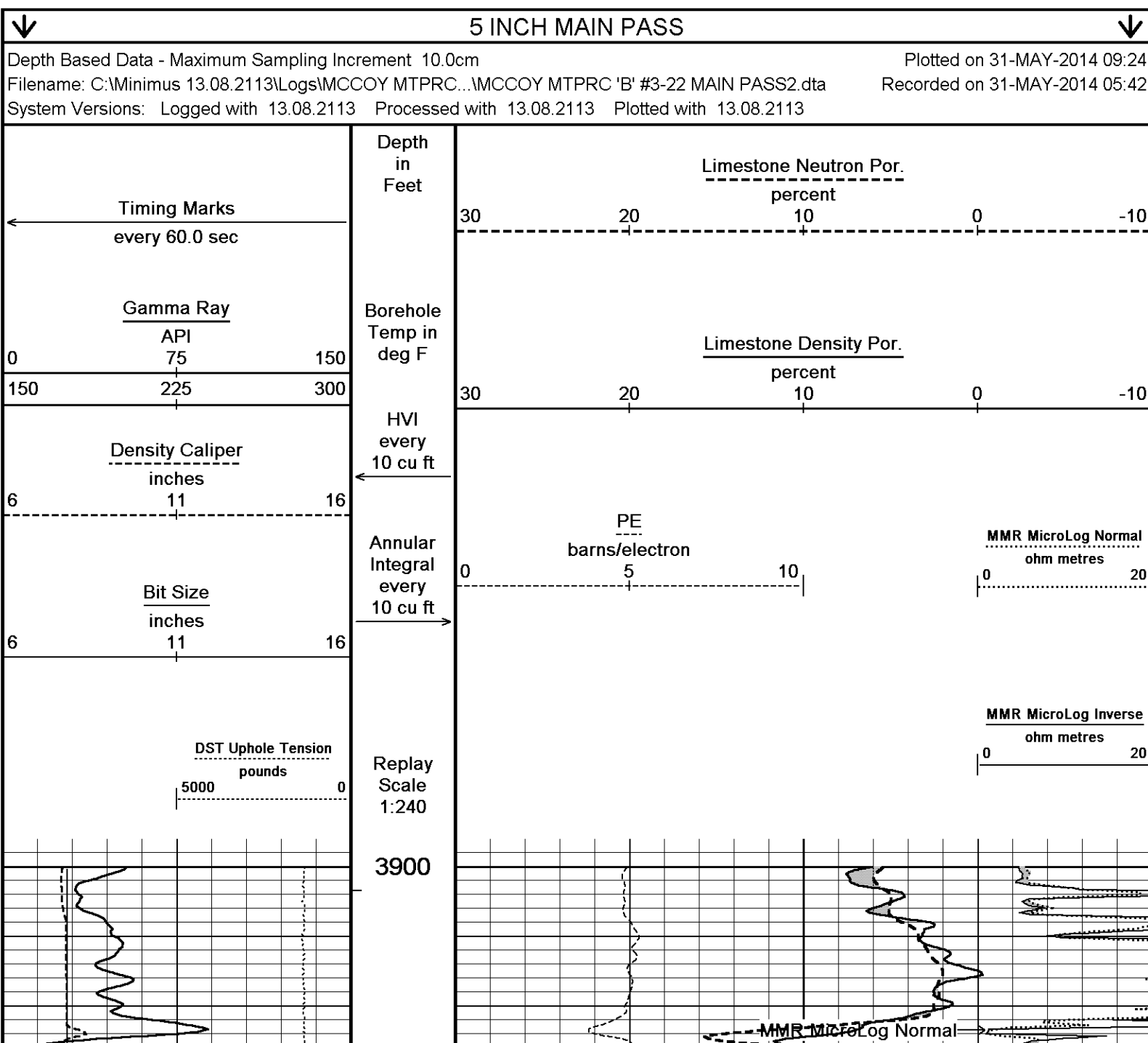
COMPANY				McCOY PETROLEUM CORPORATION			
WELL				MTPRC 'B' #3-22			
FIELD				ALFORD			
PROVINCE/COUNTY				KIOWA			
COUNTRY/STATE				USA / KANSAS			
LOCATION				1980' FSL & 1320' FEL			
SEC 22	TWP 30S	RGE 19W	Other Services				
Latitude				MAI/MFE			
Longitude							
API Number		15-097-21792					
Permanent Datum GL, Elevation 2230 feet							
Log Measured From KB							
Drilling Measured From KB							
Date	31-MAY-2014						
Run Number	ONE						
Service Order	4558-88689664						
Depth Driller	5200.00			feet			
Depth Logger	5200.00			feet			
First Reading	5181.00			feet			
Last Reading	3900.00			feet			
Casing Driller	641.00			feet			
Casing Logger	643.00			feet			
Bit Size	7.875			inches			
Hole Fluid Type	CHEMICAL						
Density / Viscosity	9.40 lb/USg		69.00 CP				
PH / Fluid Loss	9.00		9.60 ml/30Min				
Sample Source	MUDPIT						
Rm @ Measured Temp	0.85 @ 73.0		ohm-m				
Rmf @ Measured Temp	0.68 @ 73.0		ohm-m				
Rmc @ Measured Temp	1.02 @ 73.0		ohm-m				
Source Rmf / Rmc	CALC	CALC					
Rm @ BHT	0.56 @ 113.0		ohm-m				
Time Since Circulation	4 HOURS						
Max Recorded Temp	113.00		deg F				
Equipment / Base	13244	LIB					
Recorded By	ADAM SILL			JEFFREY RANDLE			
Witnessed By	DAVE WILLIAMS			ZACH WIELE			
JOB #	LB14-164						

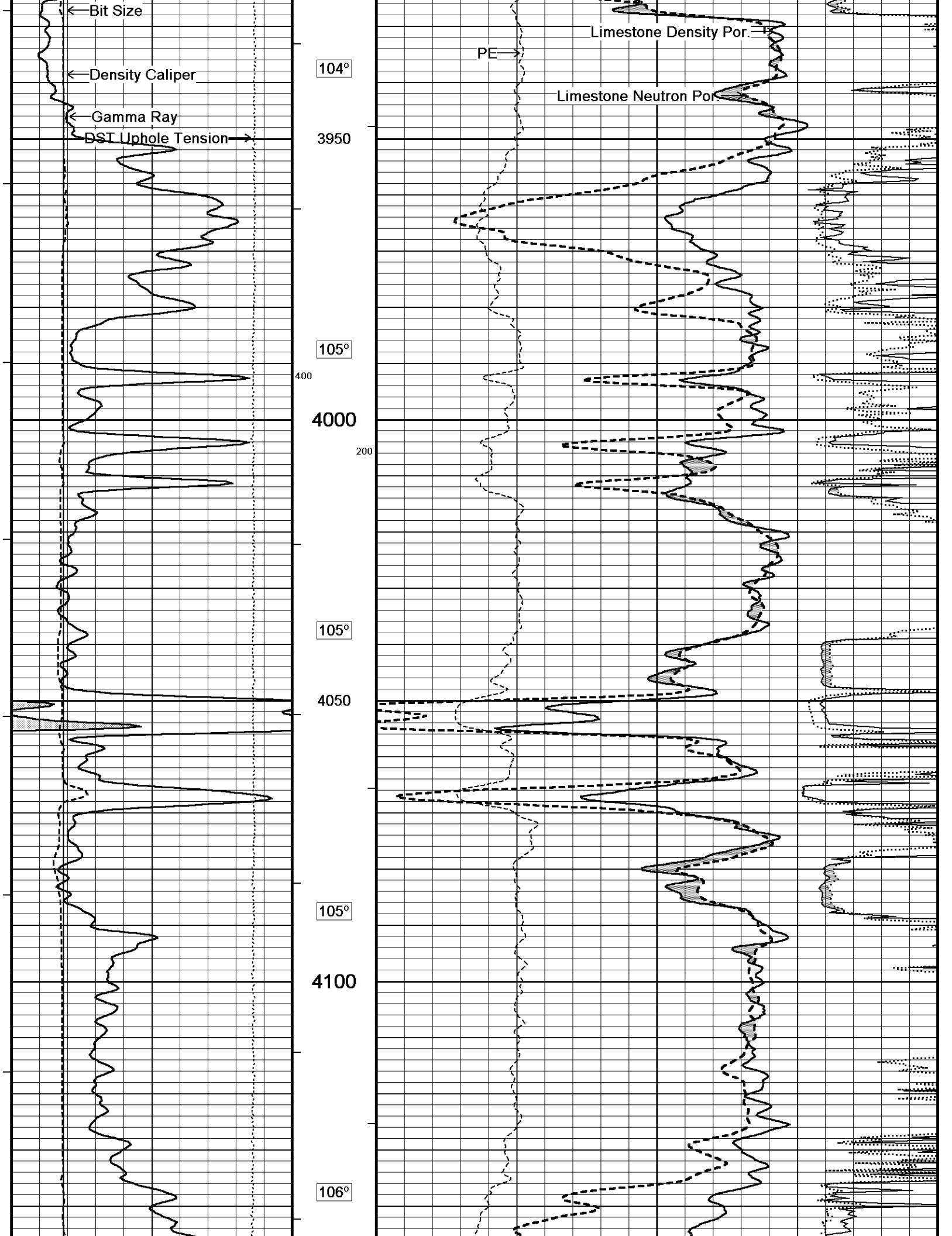
BOREHOLE RECORD					Last Edited: 31-MAY-2014 04:25
Bit Size inches		Depth From feet		Depth To feet	
7.875		641.00		5200.00	
CASING RECORD					
Type	Size inches	Depth From feet	Shoe Depth feet	Weight pounds/ft	
SURFACE	8.625	0.00	641.00	24.00	

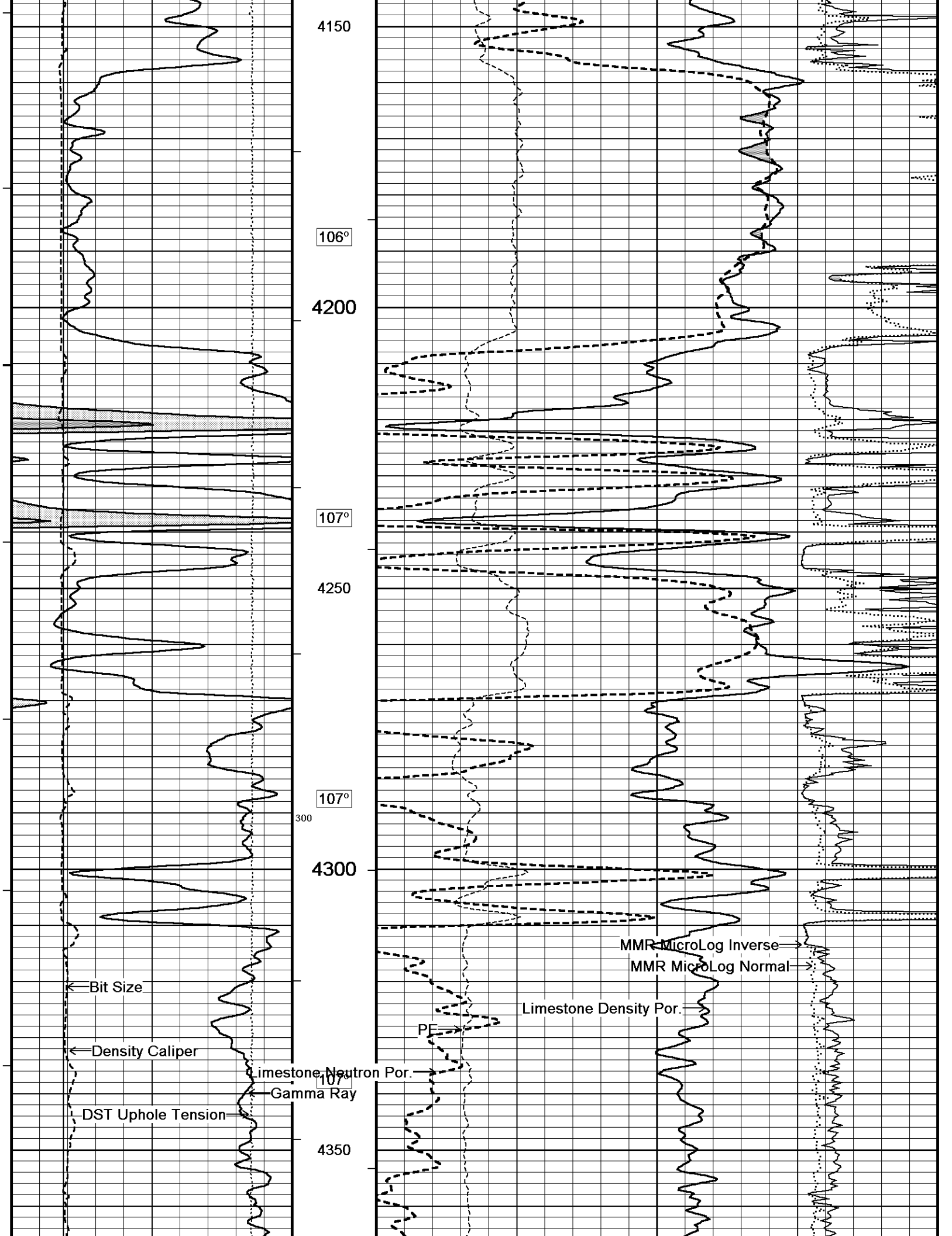
REMARKS
- SOFTWARE ISSUE: WLS 13.08.2113.
- RUN ONE: MCG, MML, MDN, MPD, MFE, MAI RUN IN COMBINATION. - HARDWARE: DUAL BOWSPRING USED ON MDN. 0.5 INCH STANDOFF USED ON MFE. 0.5 INCH STANDOFF USED ON MAI.
- 2.71 G/CC LIMESTONE DENSITY MATRIX USED TO CALCULATE POROSITY.
- BOREHOLE RUGOSITY, TIGHT PULLS, AND WASHOUTS WILL AFFECT DATA QUALITY.
- ALL INTERVALS LOGGED AND SCALED PER CUSTOMER'S REQUEST.
- TOTAL HOLE VOLUME FROM TD TO SURFACE CASING: 1902 CU.FT.
- ANNULAR HOLE VOLUME WITH 5.5 INCH PRODUCTION CASING FROM TD TO 3900 FEET: 218 CU.FT.
- RIG: STERLING DRILLING #5

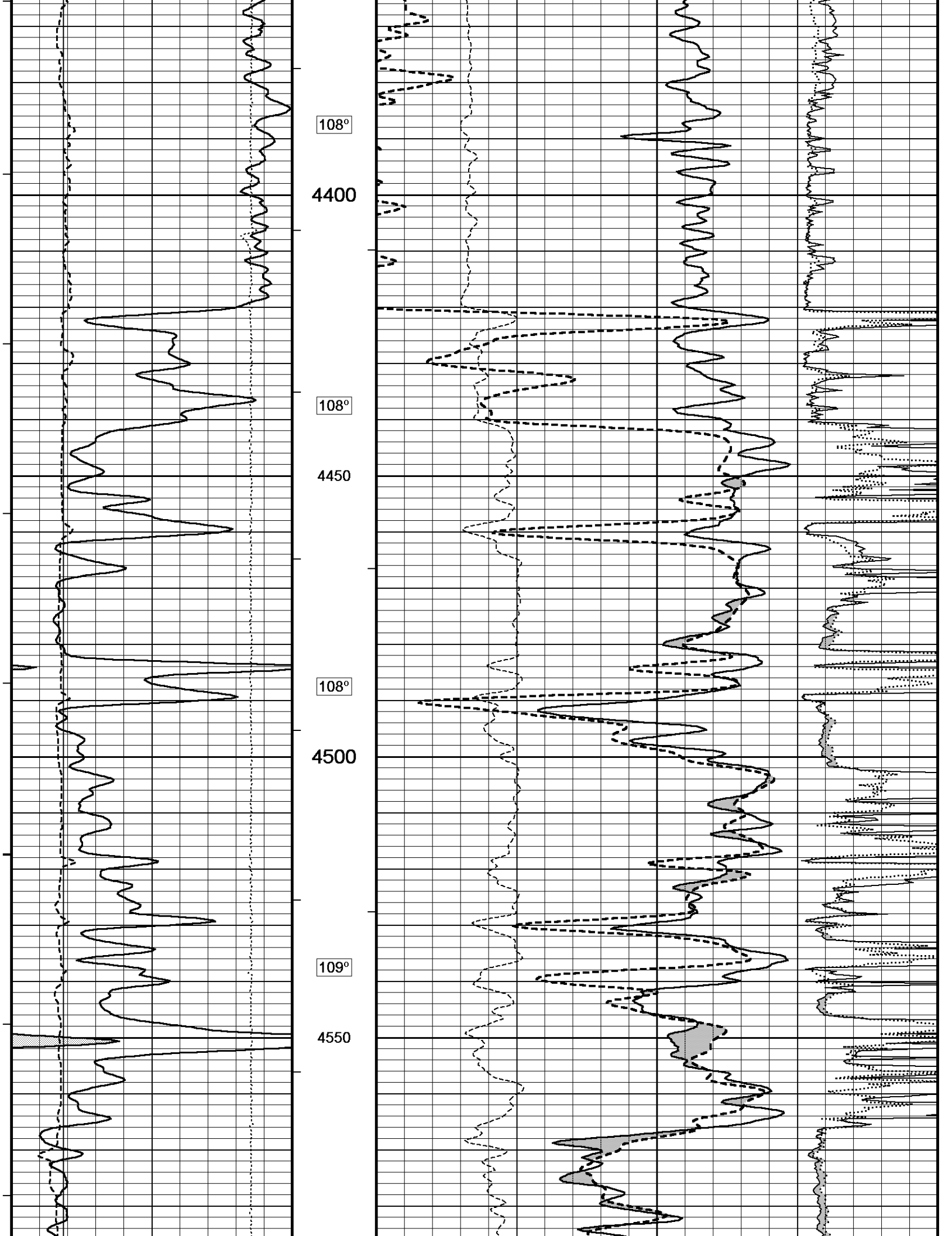
- JUNIOR FIELD ENGINEER: J. RANDLE.

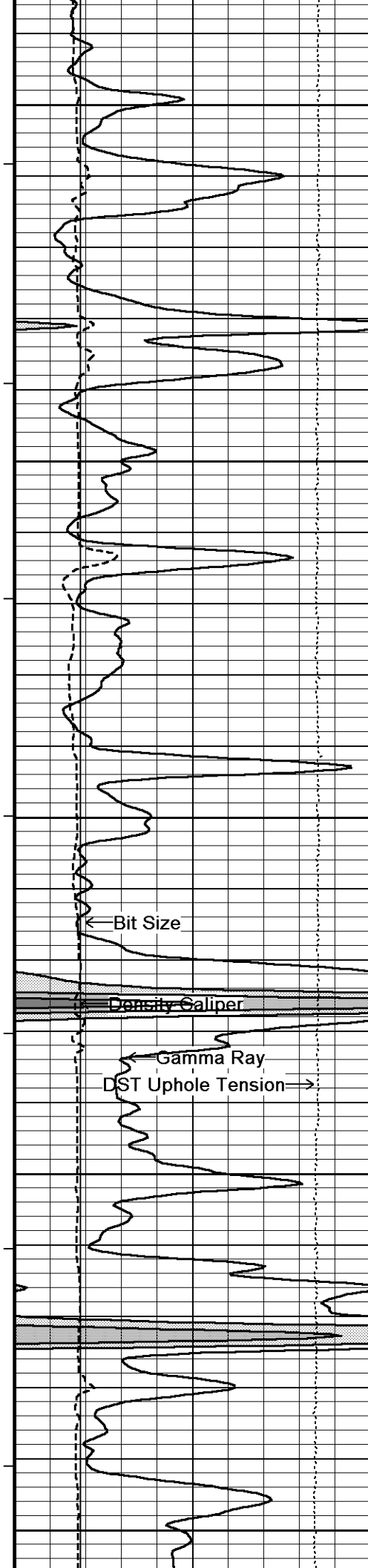
In interpreting, communicating or providing information and/or making recommendations, either written or oral, as to logs or test or other data, type or amount of material, or Work or other service to be furnished, or manner of performance, or in predicting results to be obtained, the Contractor will 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.



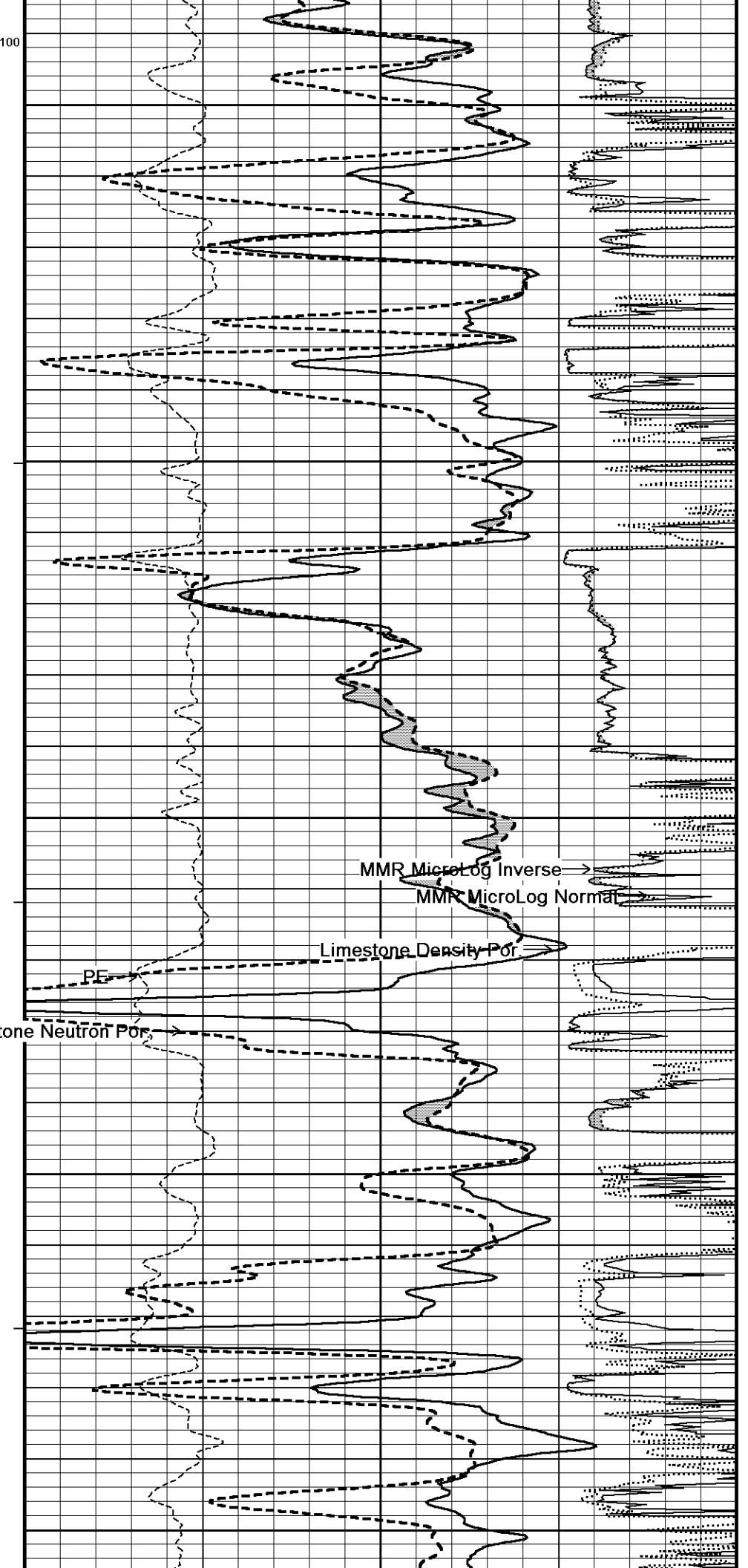


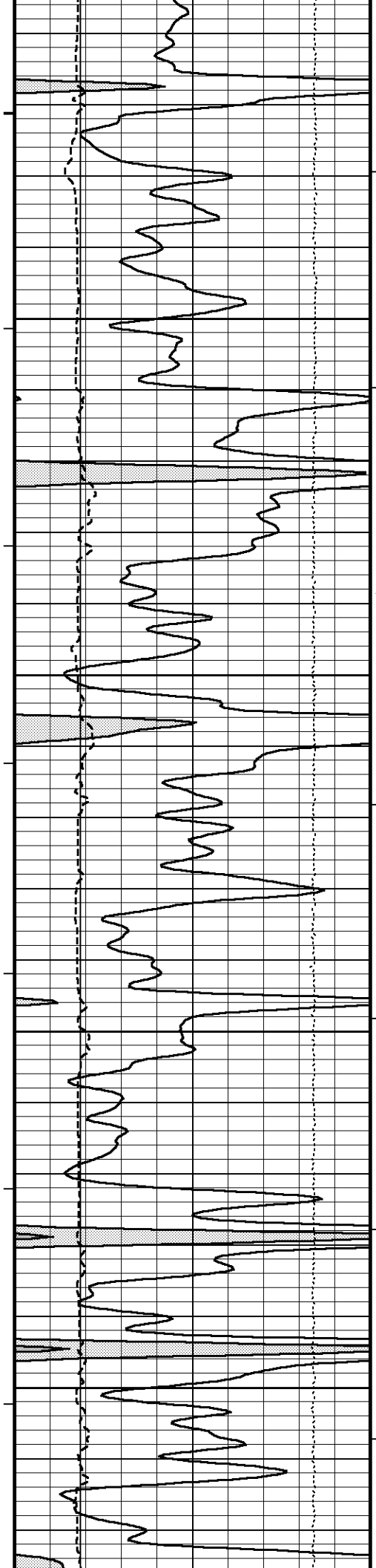






200 109°
100
4600
109°
4650
109°
4700
109°
4750
109°
4800





110°

4850

100 110°

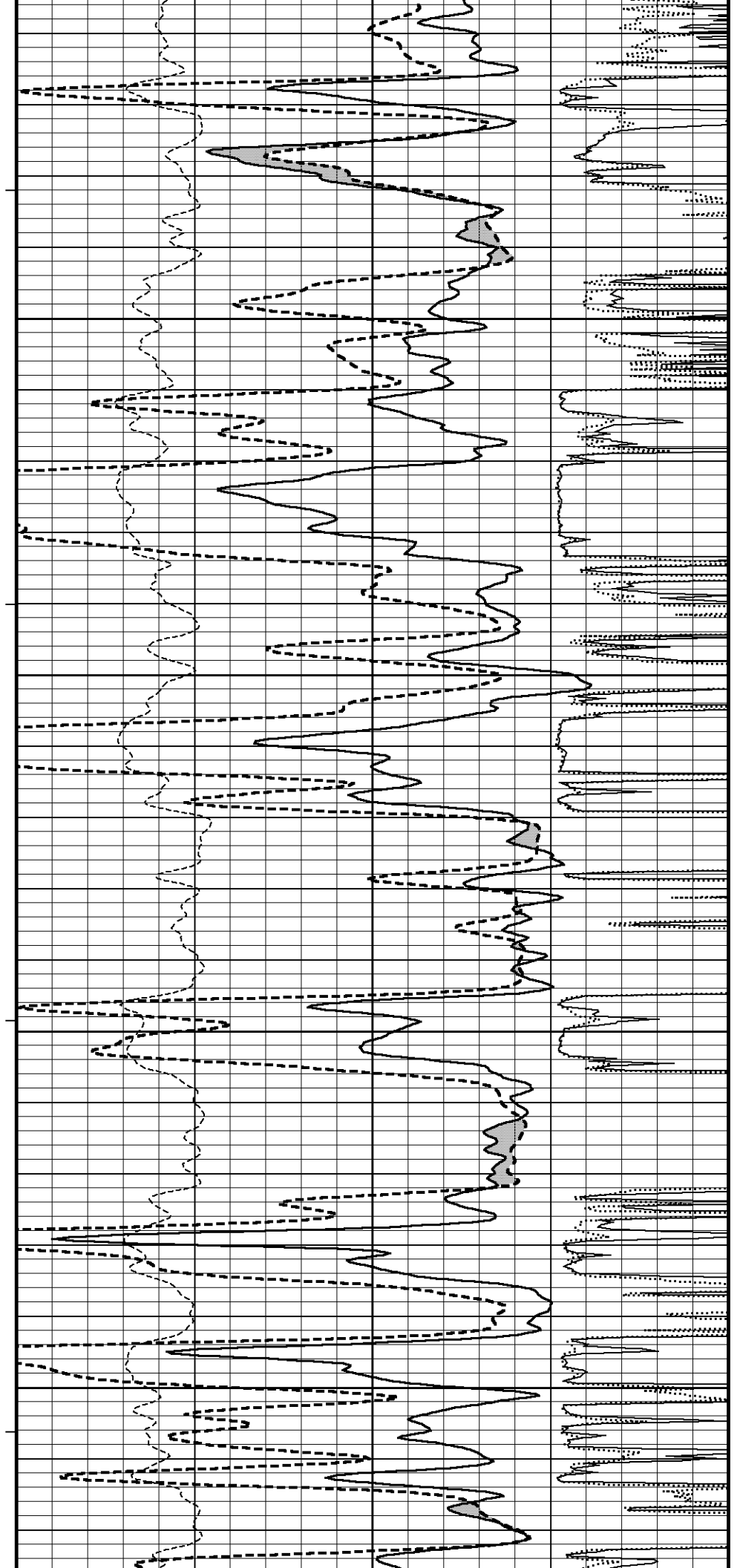
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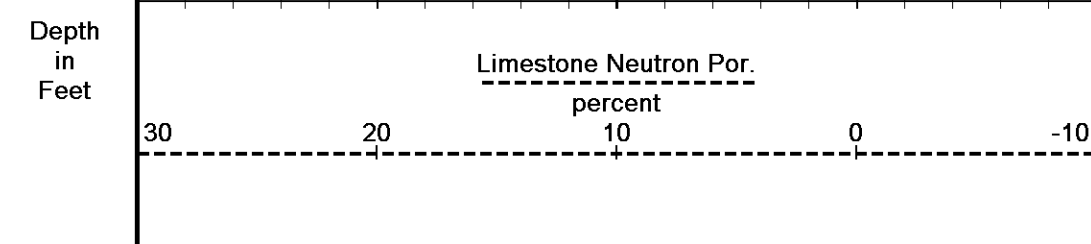
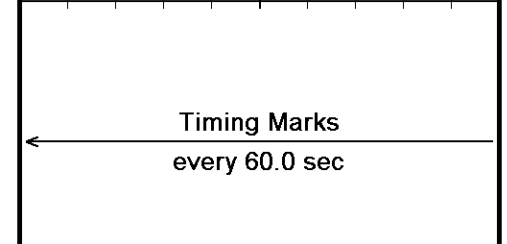
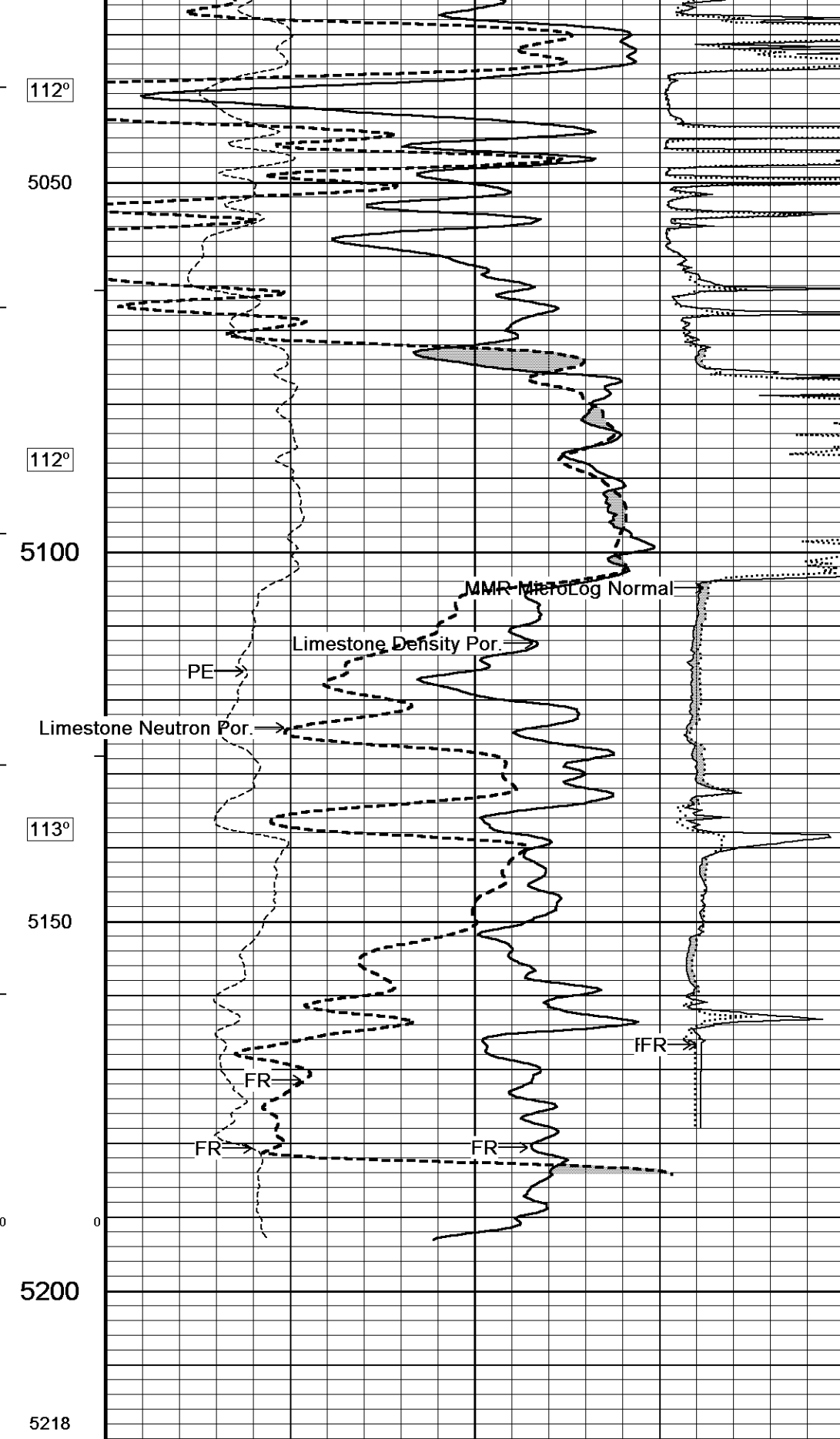
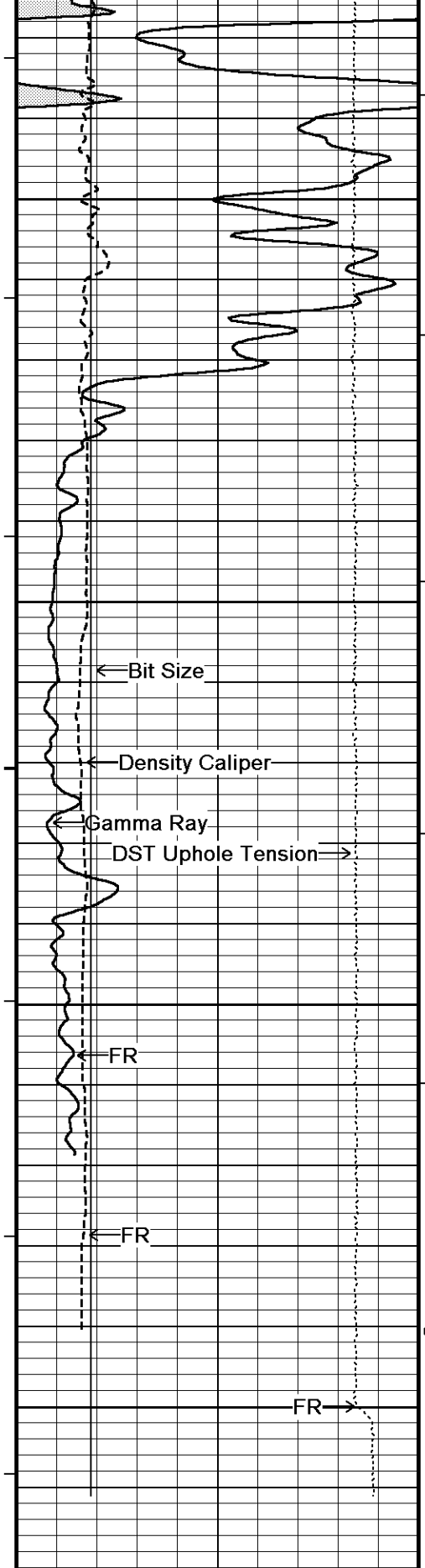
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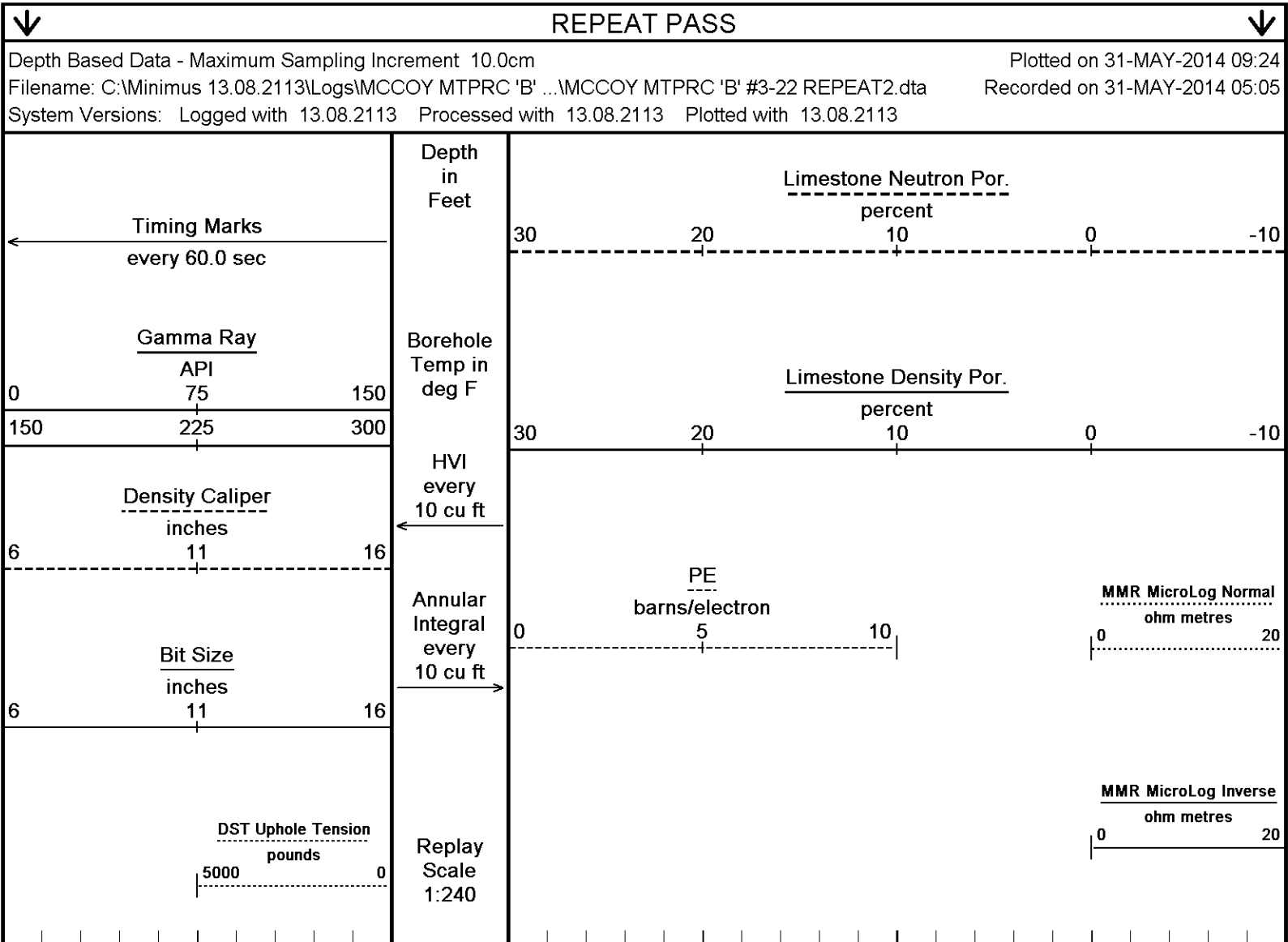
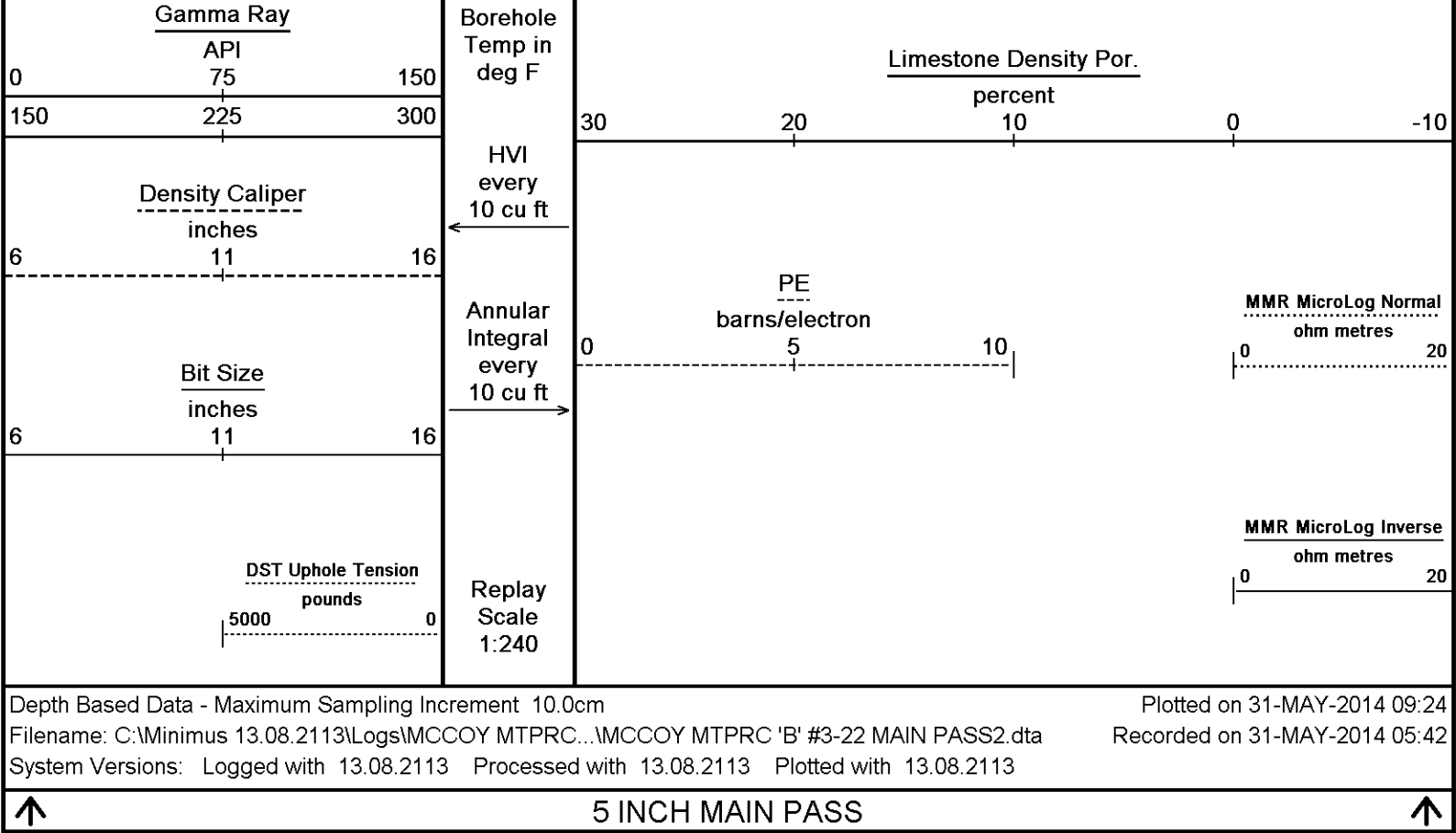
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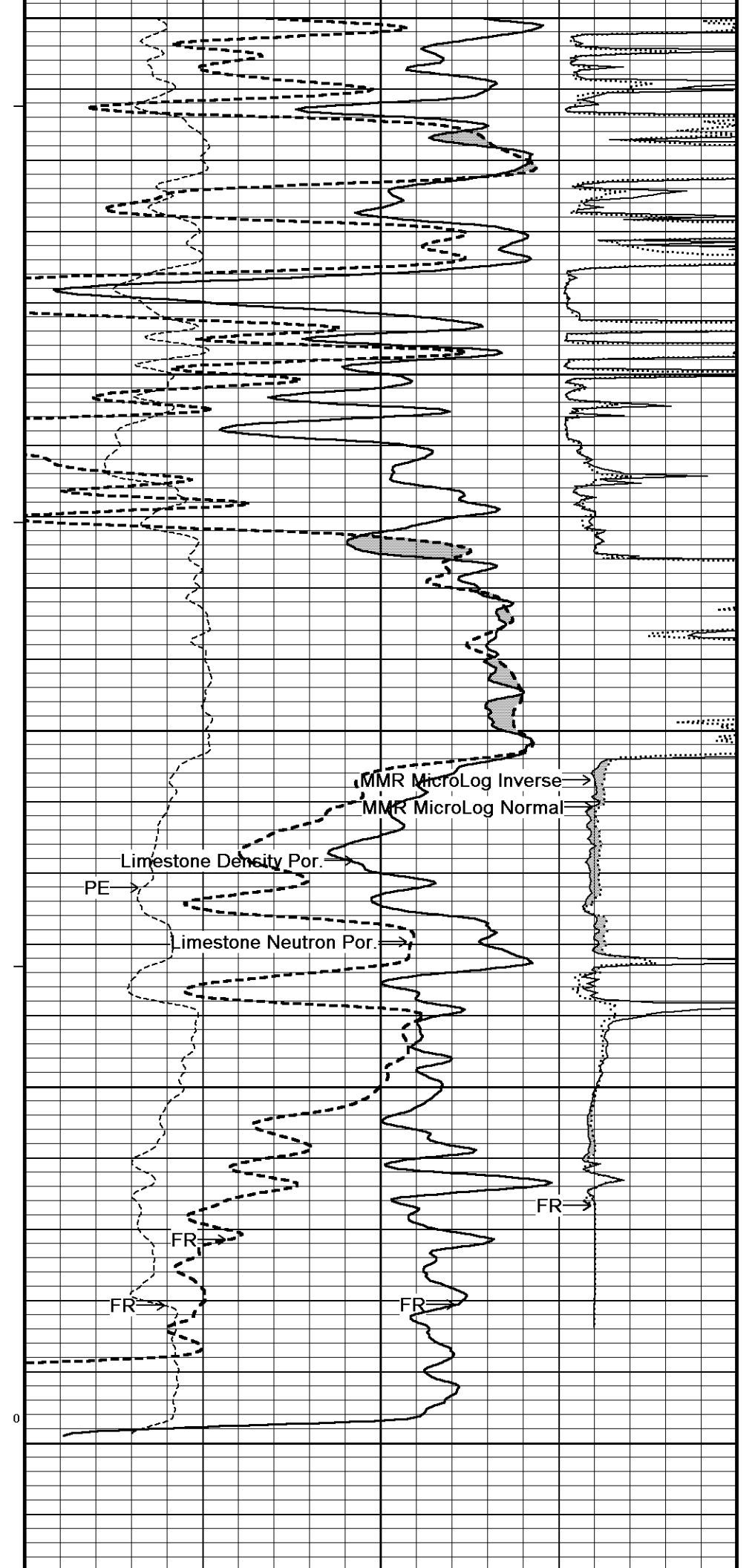
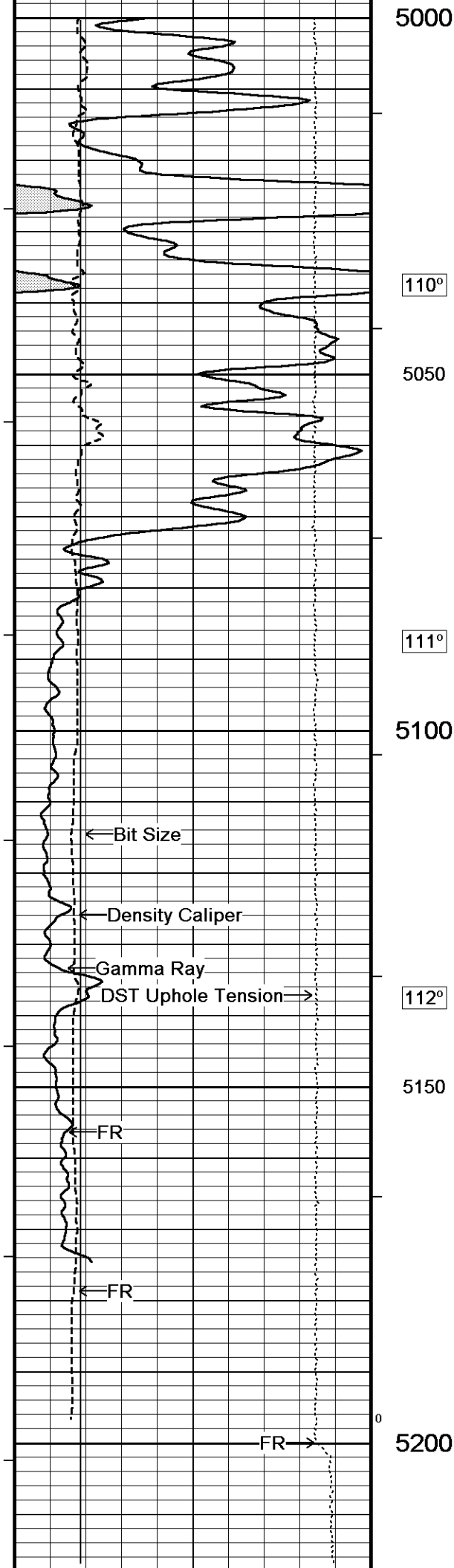
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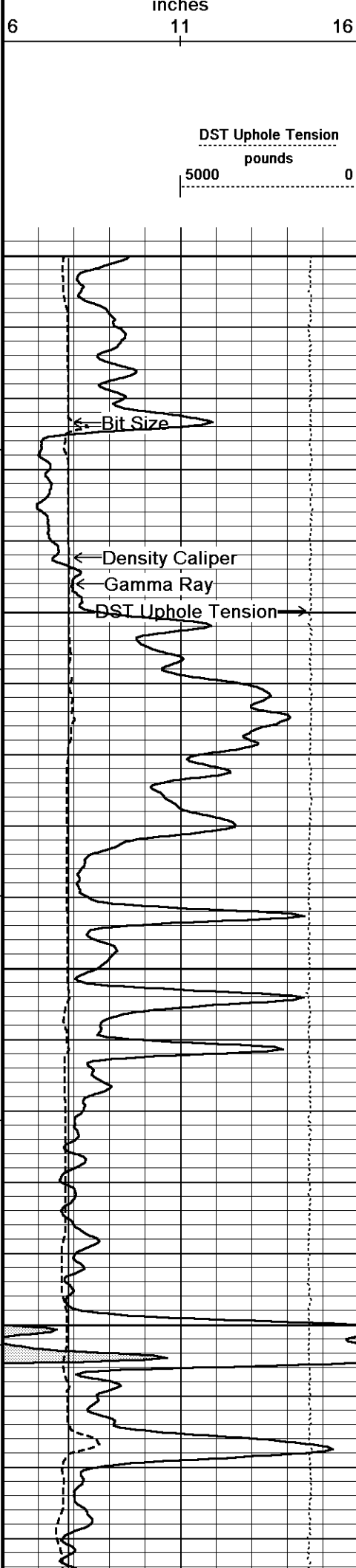
5000











Replay
Scale
1:240

3900

104°

3950

105°

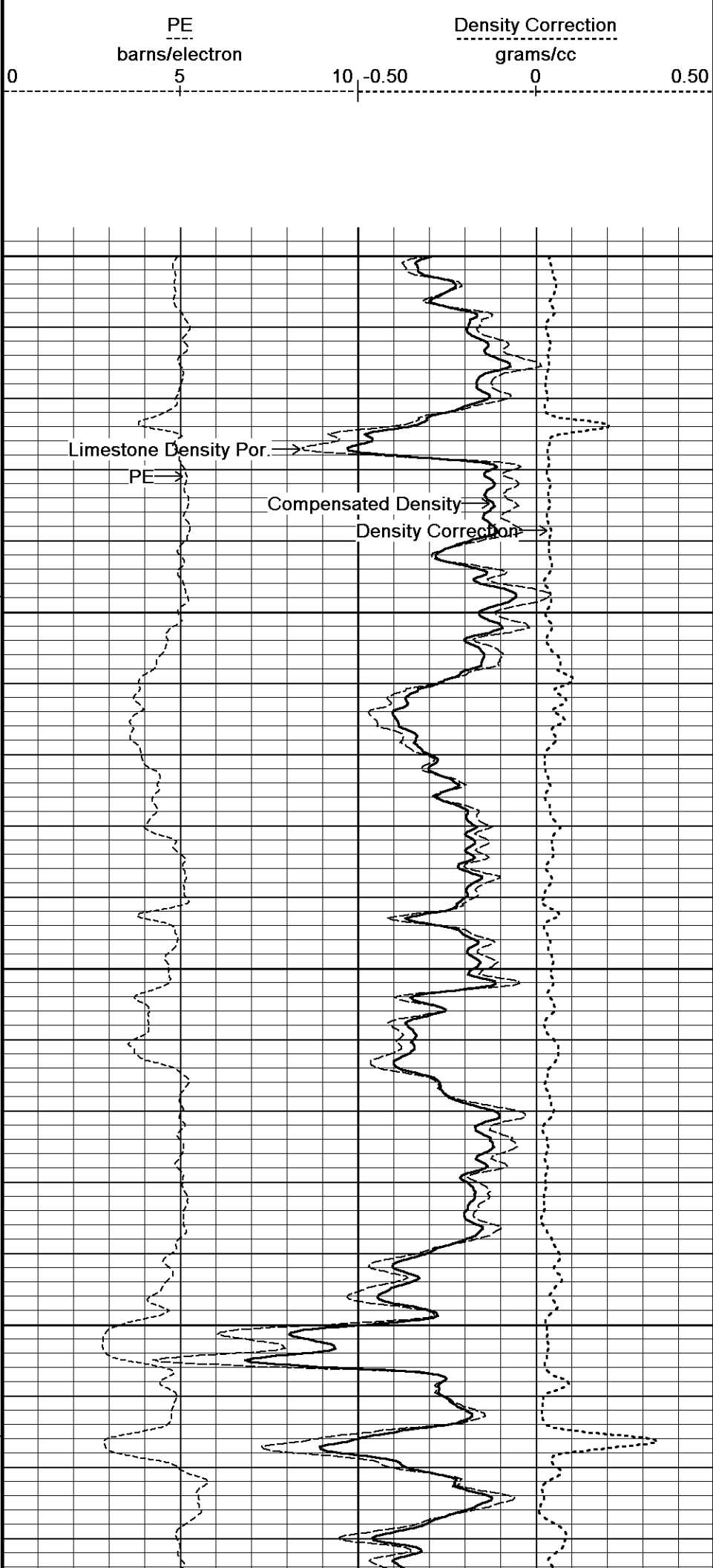
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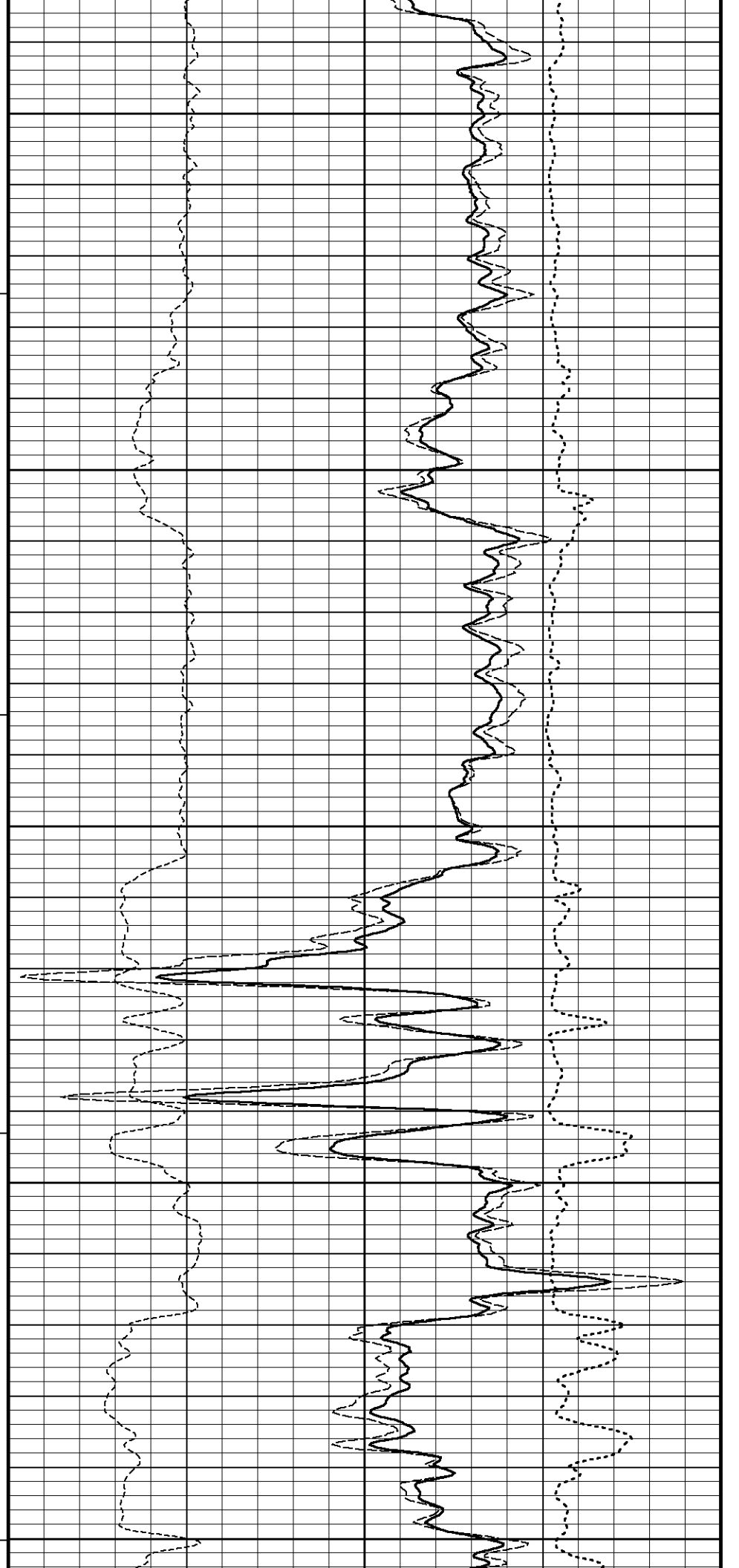
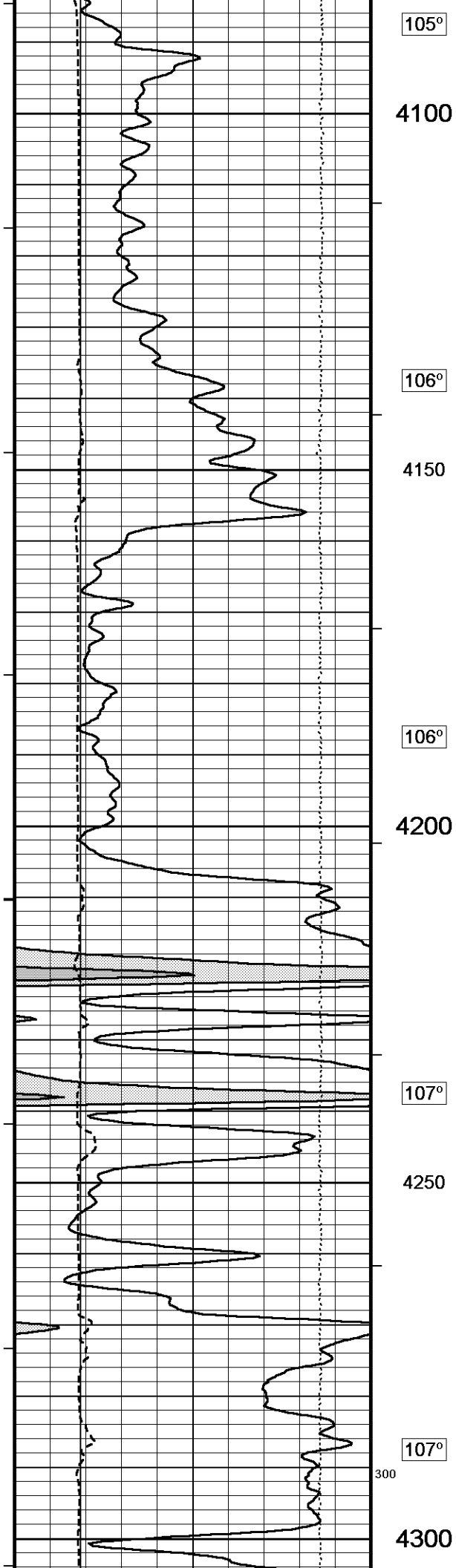
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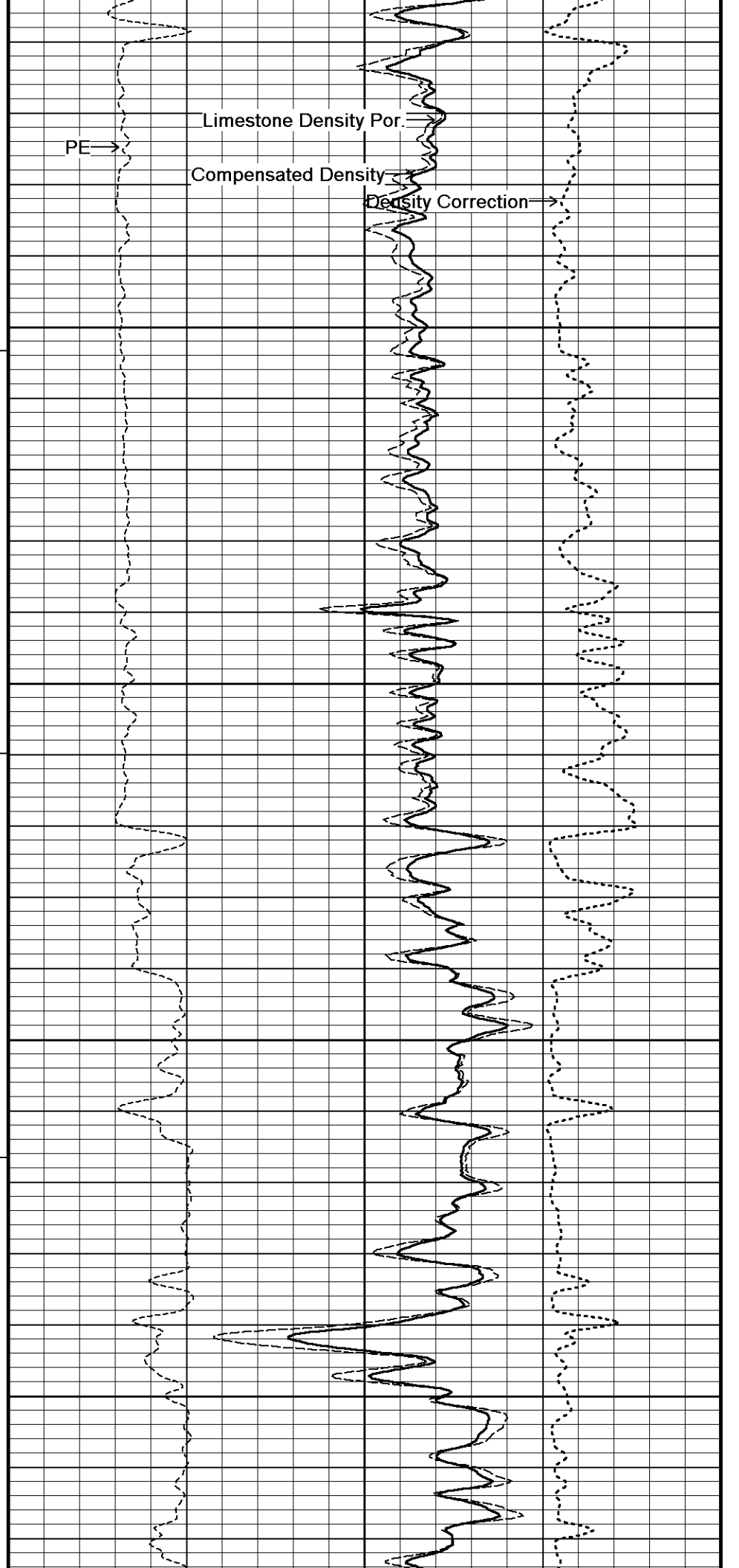
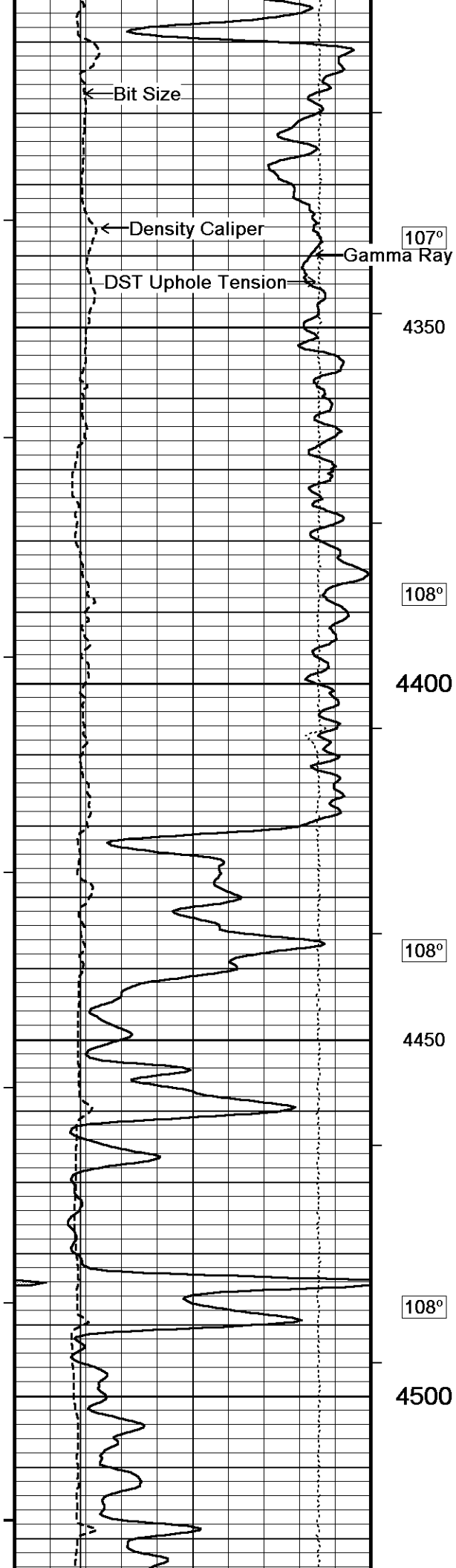
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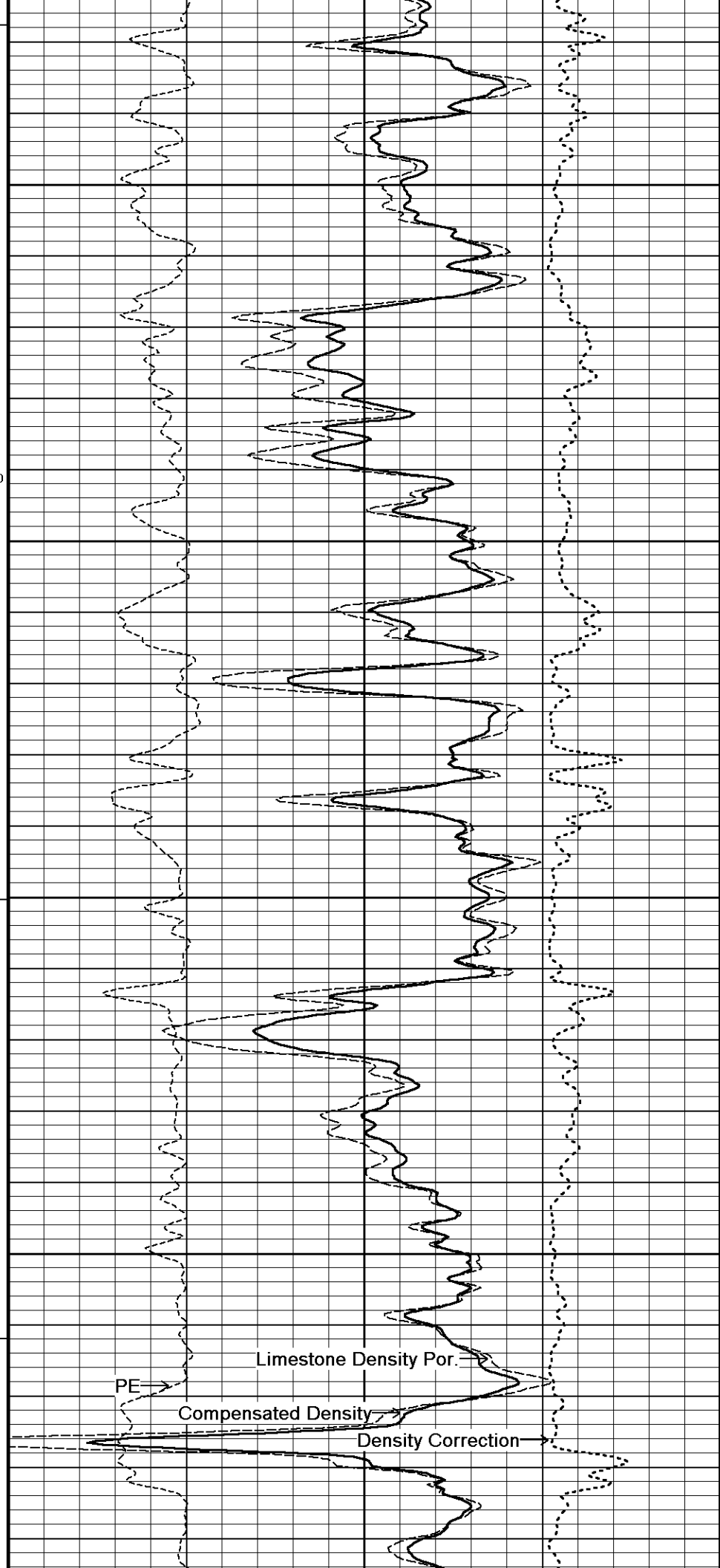
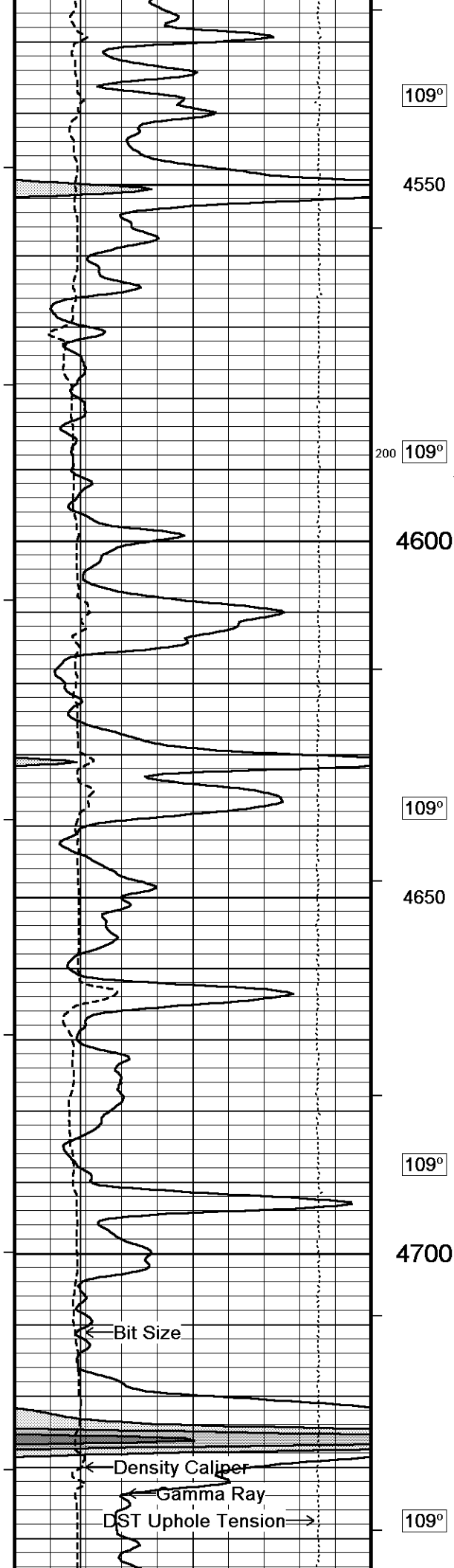
105°

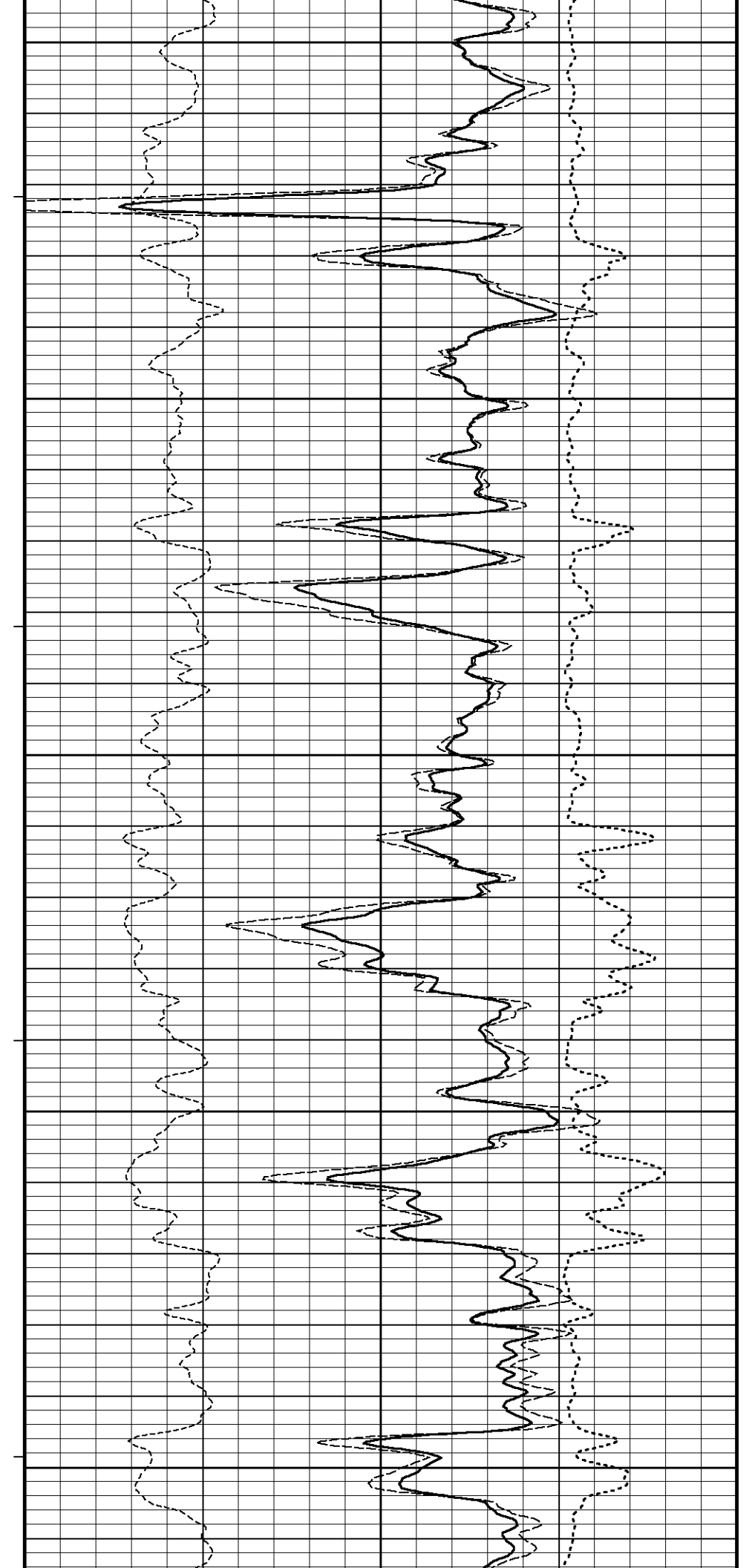
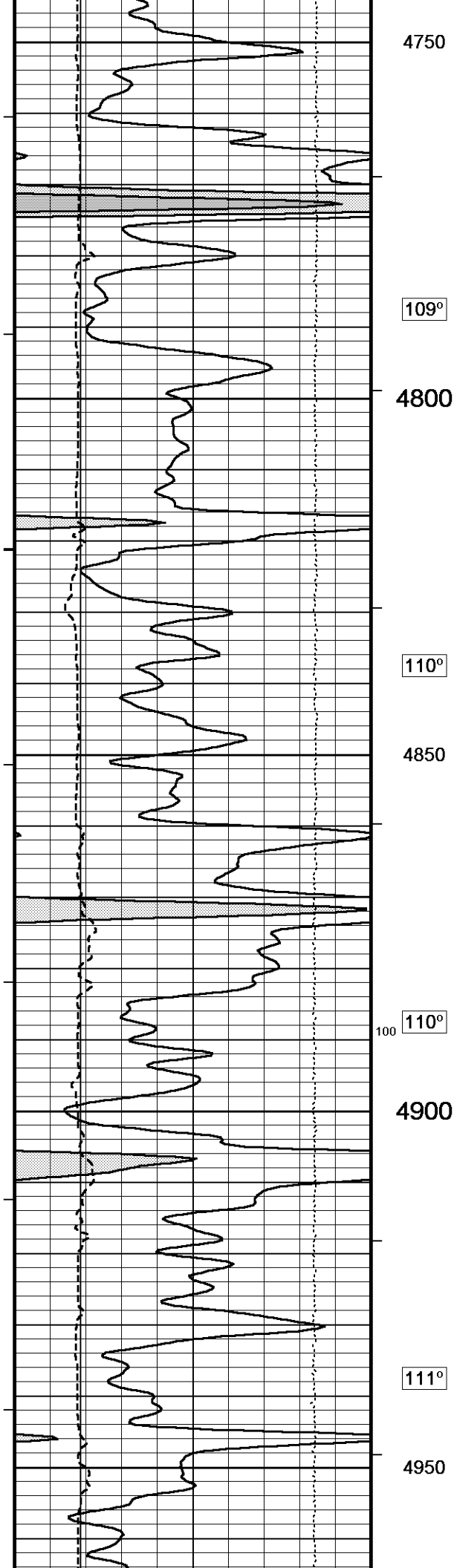
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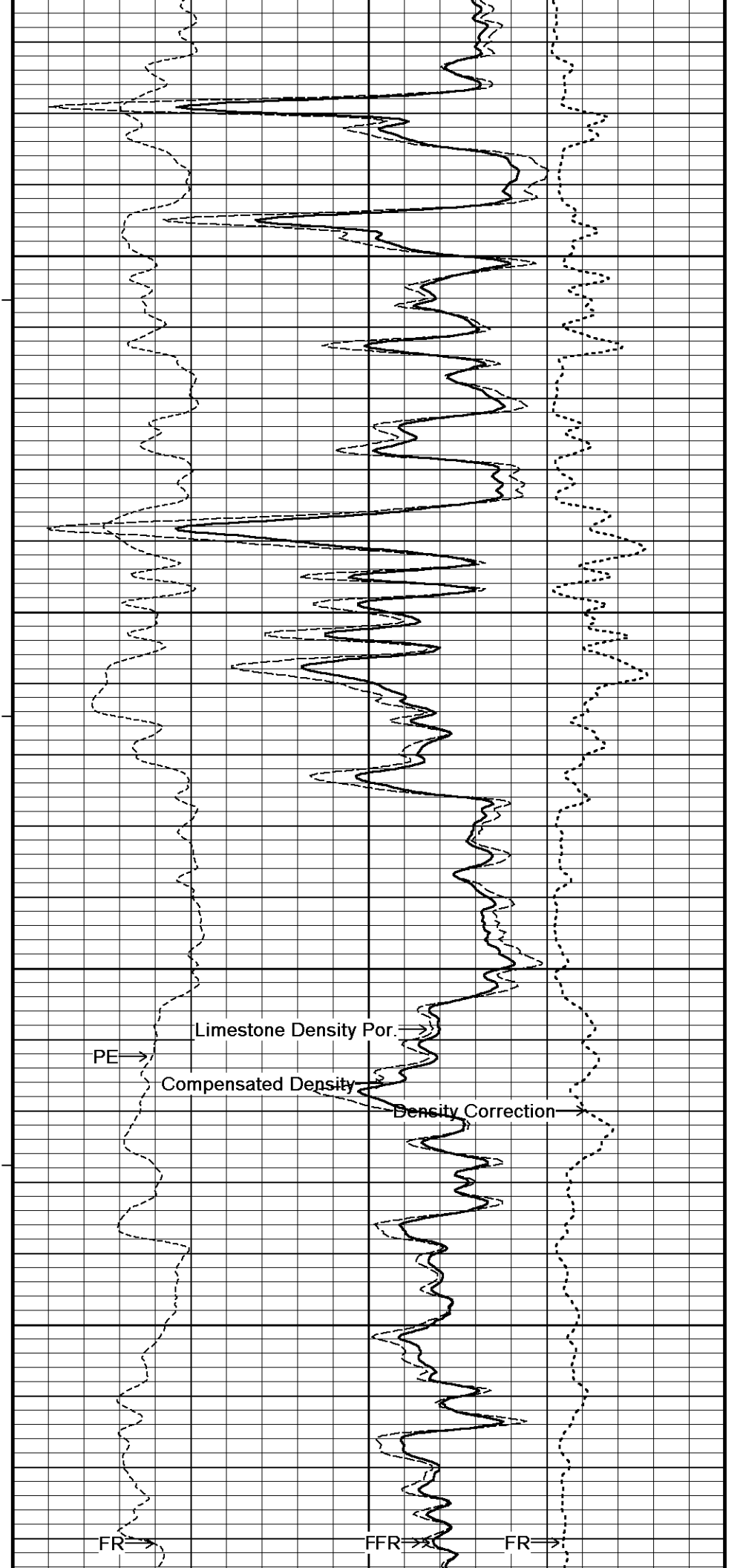
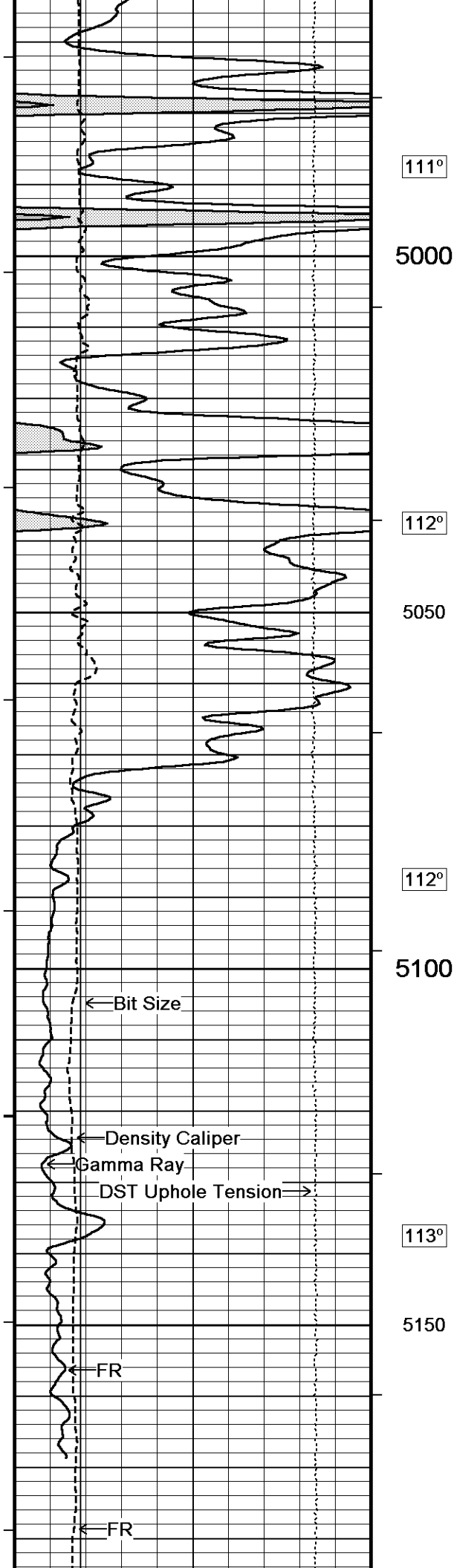


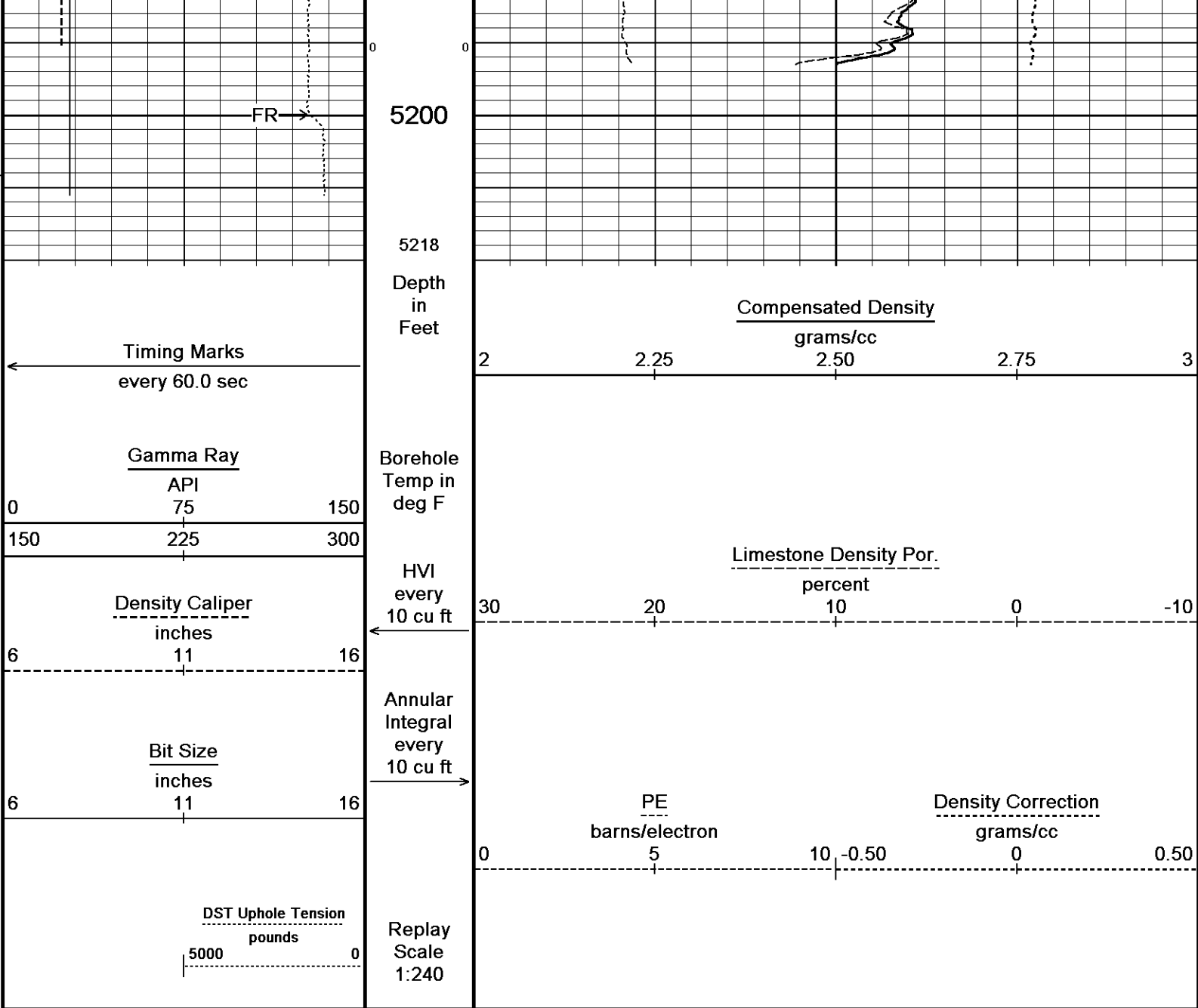












Depth Based Data - Maximum Sampling Increment 10.0cm	Plotted on 31-MAY-2014 09:24
Filename: C:\Minimus 13.08.2113\Logs\MCCOY MTPRC...\MCCOY MTPRC 'B' #3-22 MAIN PASS2.dta	Recorded on 31-MAY-2014 05:42
System Versions: Logged with 13.08.2113 Processed with 13.08.2113 Plotted with 13.08.2113	

↑

5 INCH MAIN PASS

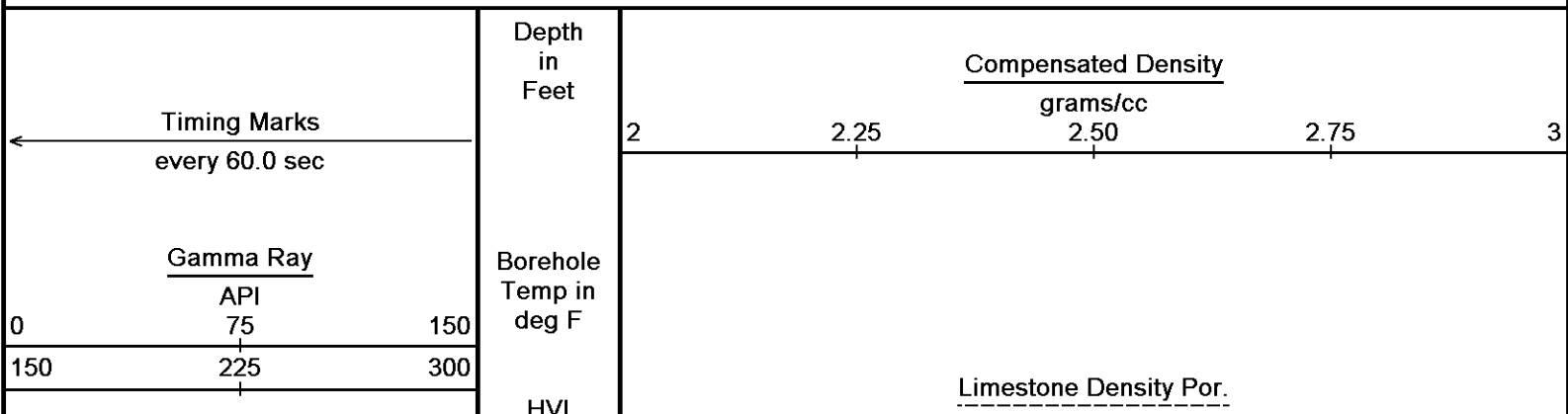
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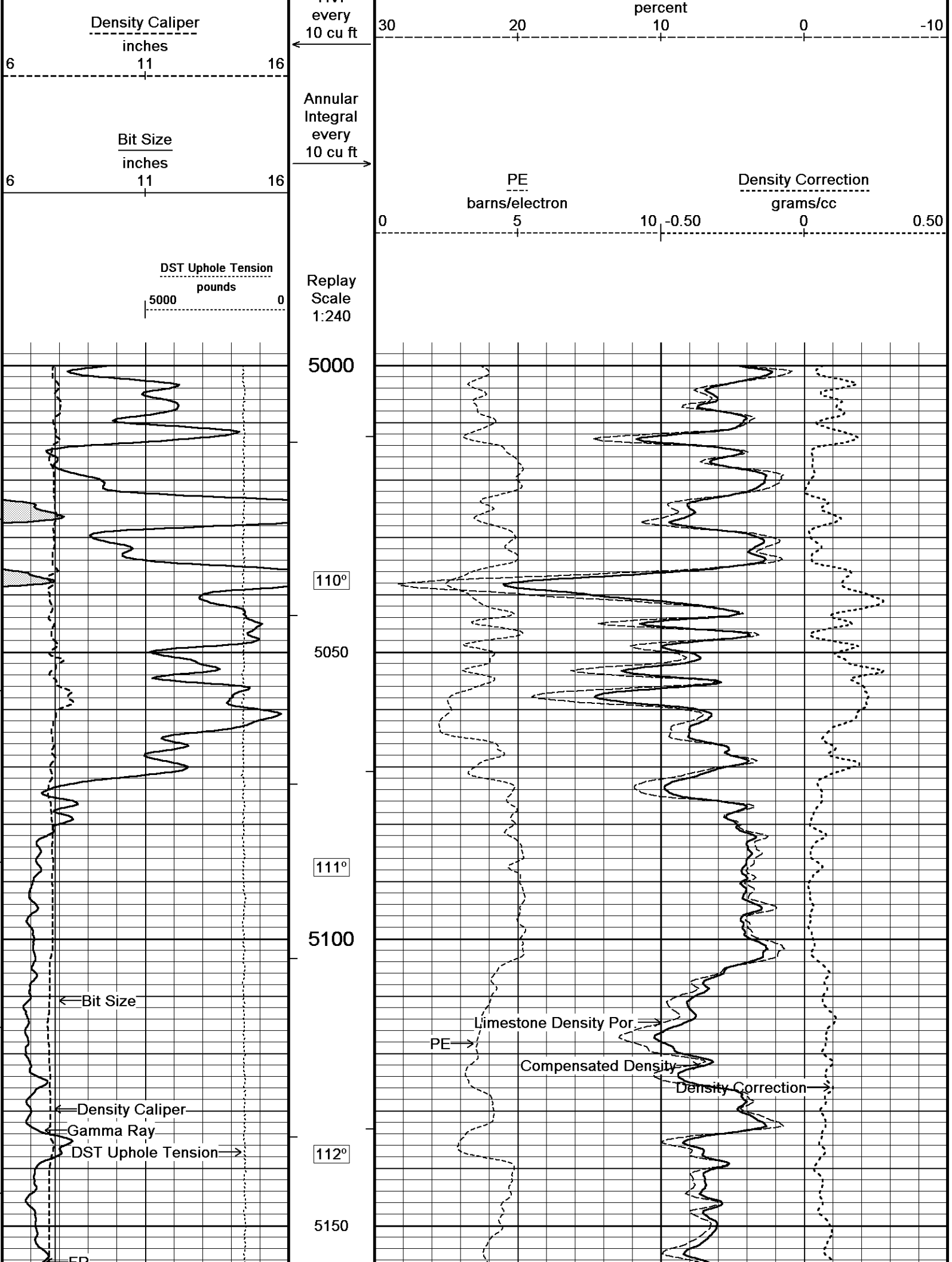
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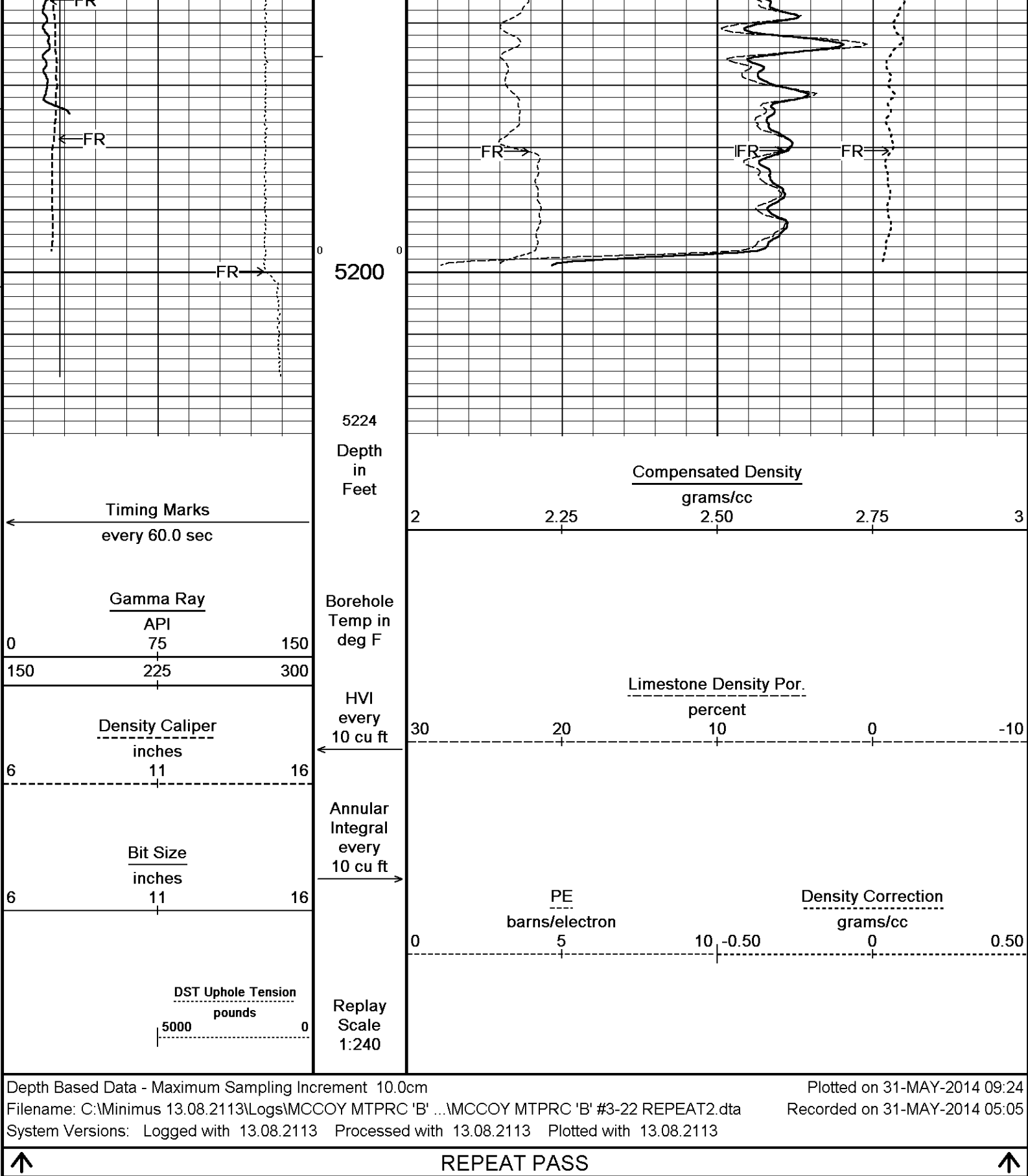
REPEAT PASS

↓

Depth Based Data - Maximum Sampling Increment 10.0cm	Plotted on 31-MAY-2014 09:24
Filename: C:\Minimus 13.08.2113\Logs\MCCOY MTPRC 'B' ...MCCOY MTPRC 'B' #3-22 REPEAT2.dta	Recorded on 31-MAY-2014 05:05
System Versions: Logged with 13.08.2113 Processed with 13.08.2113 Plotted with 13.08.2113	







BEFORE SURVEY CALIBRATION		
C:\Minimus 13.08.2113\Logs\MCCOY MTPRC 'B' #3-22\MCCOY MTPRC 'B' #3-22 REPEAT2.dta		
General Constants All 000		
Last Edited on 31-MAY-2014,03:48		
General Parameters		
Mud Resistivity	0.850	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	MMR Caliper	
Rwa Parameters		
Porosity used	Crossplot Porosity	
Resistivity used	Array Ind. One Res Rt	
RWA Constant A	0.610	
RWA Constant M	2.150	
SW/APOR Tool Source	0.000	
Down-hole Tension Calibration SMS 0		
		Field Calibration on 28-MAY-2014 17:56
Reading No	Measured	Calibrated (lbs)
1	15108.43	0.00
2	15841.14	436.00
SP Calibration MCG-C 208		
		Field Calibration on 10-MAY-2014 11:38
	Measured	Calibrated (mV)
Reference 1	99.7	99.0
Reference 2	-97.7	-98.8
High Resolution Temperature Calibration MCG-C 208		
		Field Calibration on 23-JAN-2014,17:11
	Measured	Calibrated(Deg F)
Lower	50.00	50.00
Upper	75.00	75.00
High Resolution Temperature Constants MCG-C 208		
		Last Edited on 23-JAN-2014,17:11
Pre-filter Length	11	
Gamma Calibration MCG-C 208		
		Field Calibration on 30-MAY-2014 21:32
	Measured	Calibrated (API)
Background	65	44
Calibrator (Gross)	1146	769
Calibrator (Net)	1081	725
Gamma Constants MCG-C 208		
		Last Edited on 31-MAY-2014,08:48
Gamma Calibrator Number	GRC038	
Mud Density	1.13	gm/cc
Caliper Source for Processing	Density Caliper	
Tool Position	Eccentred	
Concentration of KCl		kppm
K Mud Type	Chloride	
K Mud Concentration	0.00	%
Caliper Calibration MMR-C.A 248		
		Base Calibration on 10-MAY-2014 09:28
		Field Calibration on 30-MAY-2014 21:09
Base Calibration		
Reading No	Measured	Calibrator Size (in)
1	13446	5.98
2	16585	7.97
3	19782	9.86
4	23693	11.92
5	0	0.00
6	N/A	N/A
Field Calibration		
	Measured Caliper (in)	Actual Caliper (in)
	7.98	7.97
Micro Normal and Micro Inverse Calibration MMR-C.A 248		
		Base Calibration on 10-MAY-2014 09:40
		Field Check on 30-MAY-2014 21:06
Base Calibration		

Base Calibration		Measured		Calibrated (ohm-m)	
Channel	Resistor 1	Resistor 2	Resistor 1	Resistor 2	
Micro Normal	10.1	49.8	5.1	25.6	
Micro Inverse	9.9	49.5	3.4	16.9	
		Base Check (ohm-m)		Field Check (ohm-m)	
Micro Normal		93.6		93.6	
Micro Inverse		62.2		62.2	

Micro Normal and Micro Inverse Constants MMR-C.A 248				Last Edited on 23-JAN-2014,17:04	
Pad Type	8-12 in Soft Rubber Inflatable 006-9011-159				
Micro Normal K Factor	0.5110				
Micro Inverse K Factor	0.3380				
Standoff Offset	0.0000 inches				

Neutron Calibration MDN-B.J 387				Base Calibration on 08-MAY-2014 14:03	
				Field Check on 30-MAY-2014 21:39	
Base Calibration					
		Measured		Calibrated (cps)	
	Near	Far		Near	Far
	2970	91		3714	110
Ratio	32.668			33.764	
Field Calibrator at Base				Calibrated (cps)	
				1688	2486
Ratio				0.679	
Field Check				Calibrated (cps)	
				1689	2475
Ratio				0.681	

Neutron Constants MDN-B.J 387

Last Edited on 31-MAY-2014,03:01

Neutron Source Id	P58125B	
Neutron Jig Number	5824NE	
Epithermal Neutron		
Caliper Source for Processing	Density Caliper	
Stand-off	0.00	inches
Mud Density	1.00	gm/cc
Limestone Sigma	7.10	cu
Sandstone Sigma	4.26	cu
Dolomite Sigma	4.70	cu
Formation Pressure Source	None	
Formation Pressure	N/A	kpsi
Temperature Source	Constant Value	
Temperature	68.00	degrees F
Mud Salinity	0.00	kppm
Salinity Correction	Not Applied	
Formation Fluid Salinity Source	None	
Formation Fluid Salinity	N/A	kppm
Barite Mud Correction	Not Applied	

FE Calibration MFE-A.A 55			Base Calibration on 10-MAY-2014 09:55	
			Field Check on 30-MAY-2014 21:05	
Base Calibration				
	Measured		Calibrated (ohm-m)	
Reference 1	0.0		0.0	
Reference 2	952.2		126.8	
Base Check			281.3	
Field Check			281.3	

FE Constants MFE-A.A 55			Last Edited on 31-MAY-2014,03:00				
Running Mode	No Sleeve						
MFE K Factor	0.1268						
Caliper Source for FE correction	Density Caliper						
Caliper Value for FE correction	N/A		inches				
Rm Source for FE correction	Temperature Corr						
Temp. for Rm Corr.	MCG External Temperature						

Stand-off	0.5		inches	
Induction Calibration MAI-A.A 5			Base Calibration on 21-JAN-2014,09:50 Field Check on 30-MAY-2014 21:03	
Base Calibration				
Test Loop Calibration		Measured	Calibrated (mmho/m)	
Channel	Low	High	Low	High
1	16.3	470.8	9.3	966.2
2	5.6	376.1	7.6	821.4
3	2.6	266.1	5.2	566.0
4	1.6	130.0	2.6	279.2
Array Temperature		71.1	Deg F	
Channel	Base Check (mmho/m)		Field Check (mmho/m)	
	Low	High	Low	High
1			15.8	3862.6
2			31.9	3590.4
3			29.8	2971.1
4			20.8	2126.0
Deep			18.5	1912.1
Medium			43.0	3860.7
Shallow			47.4	5371.9
Array Temperature			86.3	Deg F

Induction Constants MAI-A.A 5			Last Edited on 31-MAY-2014,03:00	
Induction Model		RtAP-WBM		
Caliper for Borehole Corr.		Density Caliper		
Hole Size for Borehole Correction		N/A	inches	
Tool Centred		No		
Stand-off Type		Fins		
Stand-off		0.50	inches	
Number of Fins on Stand-off		8.0000		
Stand-off Fin Angle		45.00	degrees	
Stand-off Fin Width		0.5000	inches	
Borehole Corr. Rm Source		Temperature Corr		
Temp. for Rm Corr.		MCG External Temperature		
Squasher Start		0.0020	mhos/metre	
Squasher Offset		N/A	mhos/metre	
Borehole Normalisation				
DRM1	0.0000	DRC1	0.0000	
DRM2	0.0000	DRC2	0.0000	
MRM1	0.0000	MRC1	0.0000	
MRM2	0.0000	MRC2	0.0000	
SRM1	0.0000	SRC1	0.0000	
SRM2	0.0000	SRC2	0.0000	
Calibration Site Corrections				
Channel 1		0.00	mmhos/metre	
Channel 2		0.00	mmhos/metre	
Channel 3		0.00	mmhos/metre	
Channel 4		0.00	mmhos/metre	
Apparent Porosity and Water Saturation Constants				
Archie Constant (A)		1.00		
Cementation Exponent (M)		2.00		
Saturation Exponent (N)		2.00		
Saturation of Water for Apor		100.00	percent	
Resistivity of Water for Apor and Sw		0.05	ohm-m	
Resistivity of Mud Filtrate for Sw		0.00	ohm-m	
Source for Rt		0.00		
Source for Rxo		0.00		

High Resolution Temperature Calibration MAI-A.A 5			Field Calibration on 21-JAN-2014,15:43	
		Measured	Calibrated(Deg F)	
Lower		50.00	50.00	
Upper		75.00	75.00	

Photo Density Calibration MPD-D.A 480				Base Calibration on 08-MAY-2014 14:53	
Density Calibration				Field Check on 30-MAY-2014 21:18	
Base Calibration		Measured		Calibrated (sdu)	
		Near	Far	Near	Far
Background		1275	1464		
Reference 1		55908	26147	59556	30836
Reference 2		22982	2651	24941	2541
Field Check at Base					
		1274.5	1464.0		
Field Check					
		1271.2	1468.9		
PE Calibration					
Base Calibration		Measured		Calibrated	
	WS	WH	Ratio		Ratio
Background	241	1140			
Reference 1	23265	55701	0.422		0.371
Reference 2	6806	22836	0.303		0.272
Field Check at Base					
	240.7	1139.6			
Field Check					
	240.2	1135.7			

[illegible]

DOWNHOLE EQUIPMENT

C:\Minimus 13.08.2113\Logs\MCCOY MTPRC 'B' #3-22\MCCOY MTPRC 'B' #3-22 REPEAT2.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 208 LG: 8.70 ft WT: 63.9 lb OD: 2.244 in

Compact Micro-Resistivity
MMR-C.A 248 LG: 8.59 ft WT: 81.6 lb OD: 4.882 in

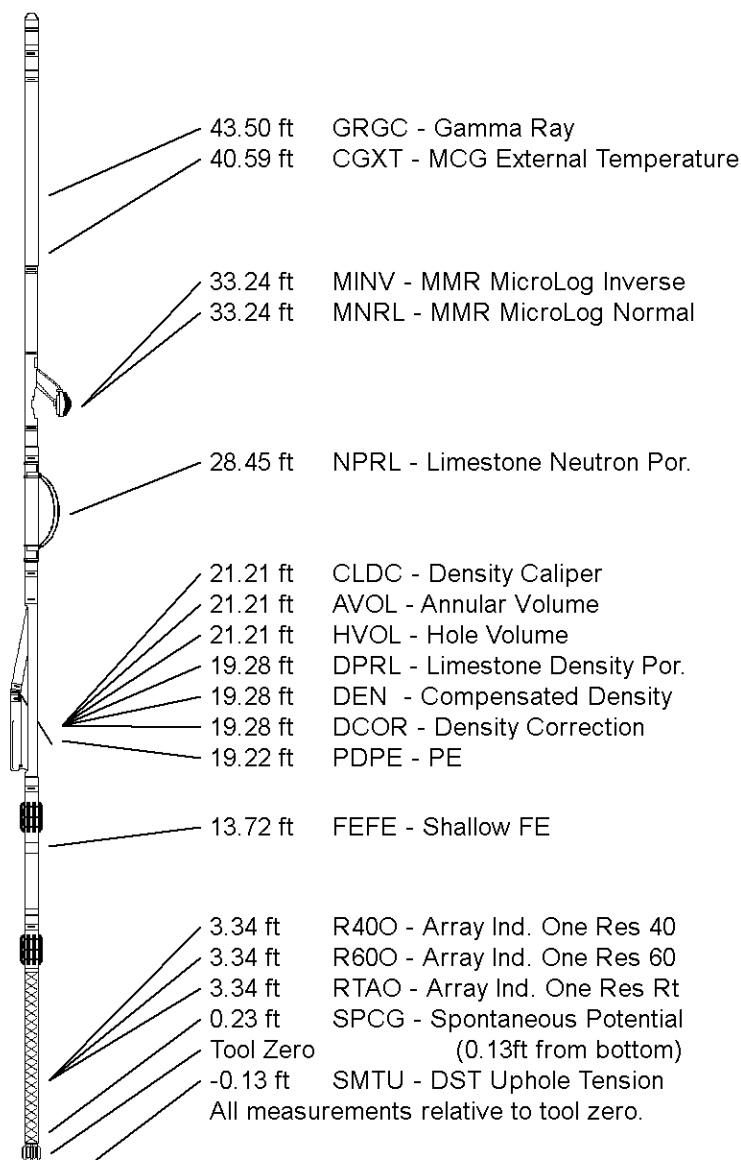
Compact Neutron
MDN-B.J 387 LG: 5.04 ft WT: 50.7 lb OD: 2.244 in

Compact Density/Caliper
MPD-D.A 480 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	McCOY PETROLEUM CORPORATION
WELL	MTPRC 'B' #3-22
FIELD	ALFORD
PROVINCE/COUNTY	KIOWA
COUNTRY/STATE	USA / KANSAS

Elevation Kelly Bushing	2243.00	feet	First Reading	5181.00	feet
Elevation Drill Floor	2241.00	feet	Depth Driller	5200.00	feet
Elevation Ground Level	2230.00	feet	Depth Logger	5200.00	feet



Weatherford®

COMPACT PHOTO DENSITY
COMPENSATED NEUTRON
MICRORESISTIVITY LOG

