



Weatherford®

**COMPACT PHOTO DENSITY
COMPENSATED NEUTRON
MICRORESISTIVITY LOG**

COMPANY		McCoy PETROLEUM CORPORATION			
WELL		MACK 'A' #1-1			
FIELD		WILDCAT			
PROVINCE/COUNTY		GRAY			
COUNTRY/STATE		U.S.A / KANSAS			
LOCATION		1980' FSL & 1980' FWL			
SEC 1	TWP 29S	RGE 29W	Other Services		
Latitude				MAI/MFE	
Longitude					
API Number		15-069-20505			
Permanent Datum GL, Elevation 2754 feet					Elevations: KB 2767.00 DF 2765.00 GL 2754.00
Log Measured From KB, 13.00 feet above Permanent Datum					
Drilling Measured From KB					
Date	27-MAR-2018				
Run Number	ONE				
Service Order	4558-209306005				
Depth Driller	6400.00				feet
Depth Logger	6398.00				feet
First Reading	6377.00				feet
Last Reading	3200.00				feet
Casing Driller	1752.00				feet
Casing Logger	1751.00				feet
Bit Size	7.875				inches
Hole Fluid Type	CHEMICAL				
Density / Viscosity	9.35 lb/USg		58.00 CP		
PH / Fluid Loss	10.00		7.60 ml/30Min		
Sample Source	FLOWLINE				
Rm @ Measured Temp	0.98 @ 75.0		ohm-m		
Rmf @ Measured Temp	0.78 @ 75.0		ohm-m		
Rmc @ Measured Temp	1.18 @ 75.0		ohm-m		
Source Rmf / Rmc	CALC		CALC		
Rm @ BHT	0.60 @122.0		ohm-m		
Time Since Circulation	5 HOURS				
Max Recorded Temp	122.00		deg F		
Equipment / Base	13244		LIB		
Recorded By	ADAM SILL				
Witnessed By	DAVID WILLIAMS				

Elevations:	feet
KB	2767.00
DF	2765.00
GL	2754.00

BOREHOLE RECORD

Last Edited: 27-MAR-2018 04:53

Bit Size inches	Depth From feet	Depth To feet
7.875	1752.00	6400.00

CASING RECORD

Type	Size inches	Depth From feet	Shoe Depth feet	Weight pounds/ft
SURFACE	8.625	0.00	1752.00	24.00

REMARKS

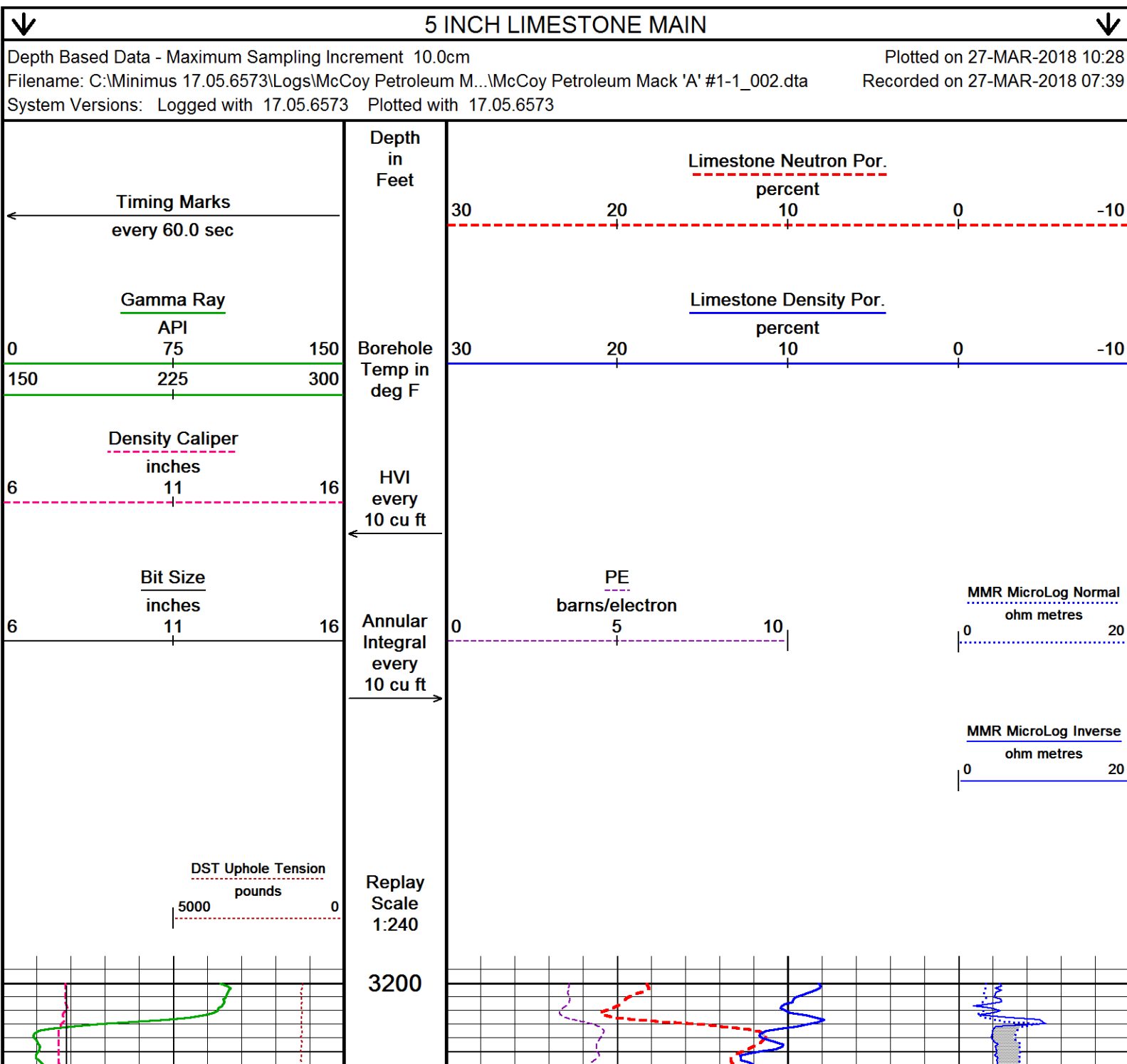
- SOFTWARE ISSUE: WLS 17.05.6573.
- RUN ONE: MCG, MML, MDN, MPD, MFE, MAI RUN IN COMBINATION.
 - HARDWARE: DUAL BOWSPRING USED ON MDN.
 - 0.5 INCH STANDOFF USED ON MFE.
 - 0.5 INCH STANDOFF USED ON MAI.
- 2.71 G/CC LIMESTONE DENSITY MATRIX USED TO CALCULATE POROSITY.
- BOREHOLE RUGOSITY, TIGHT PULLS, AND WASHOUTS WILL AFFECT DATA QUALITY.
- ALL INTERVALS LOGGED AND SCALED PER CUSTOMER'S REQUEST.
- TOTAL HOLE VOLUME FROM TD TO SURFACE CASING: 1655 CU.FT.
- ANNULAR HOLE VOLUME WITH 4.5 INCH PRODUCTION CASING FROM TD TO 3200 FEET: 695 CU.FT.
- RIG: STERLING #5.

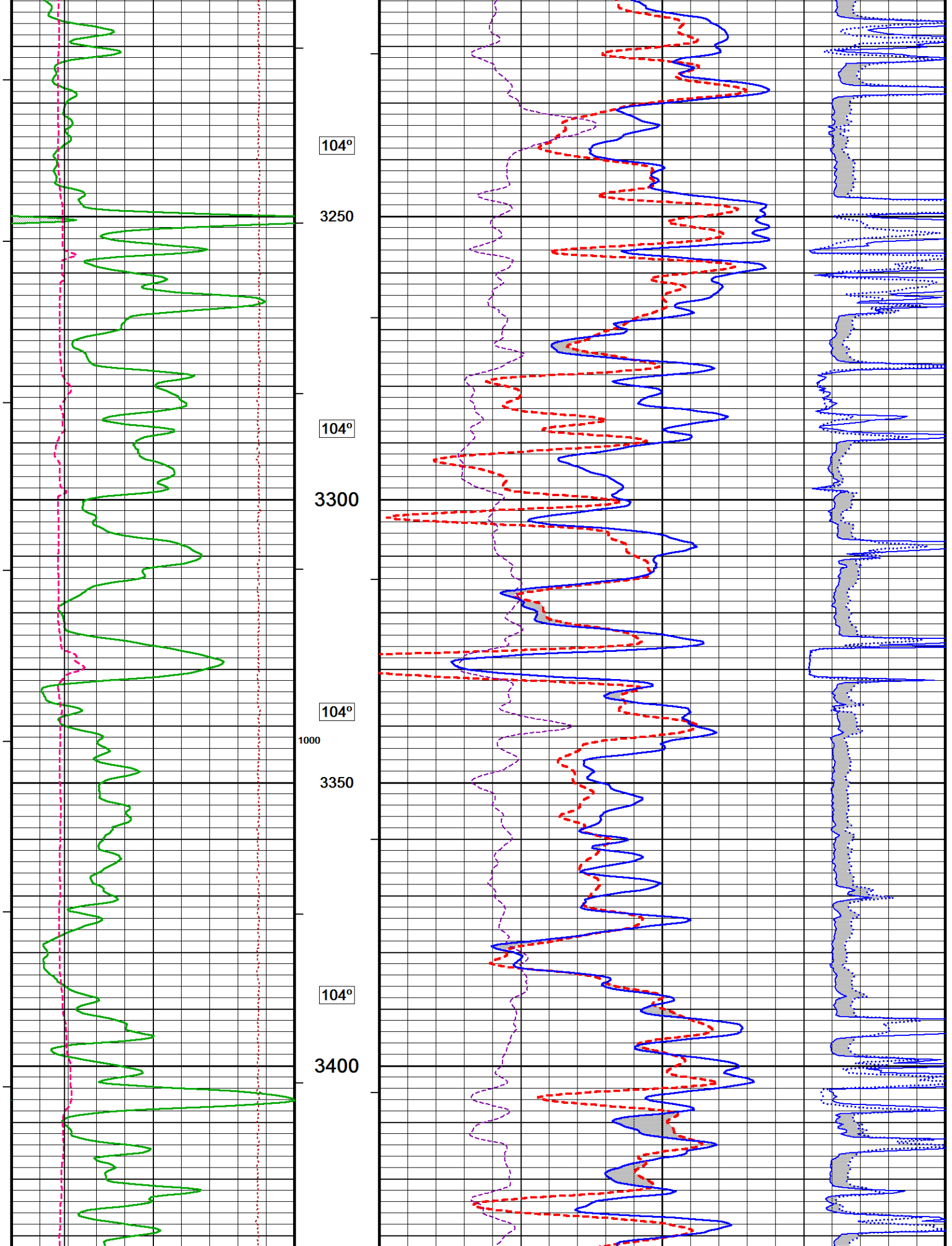
RIC: OPERING #3.

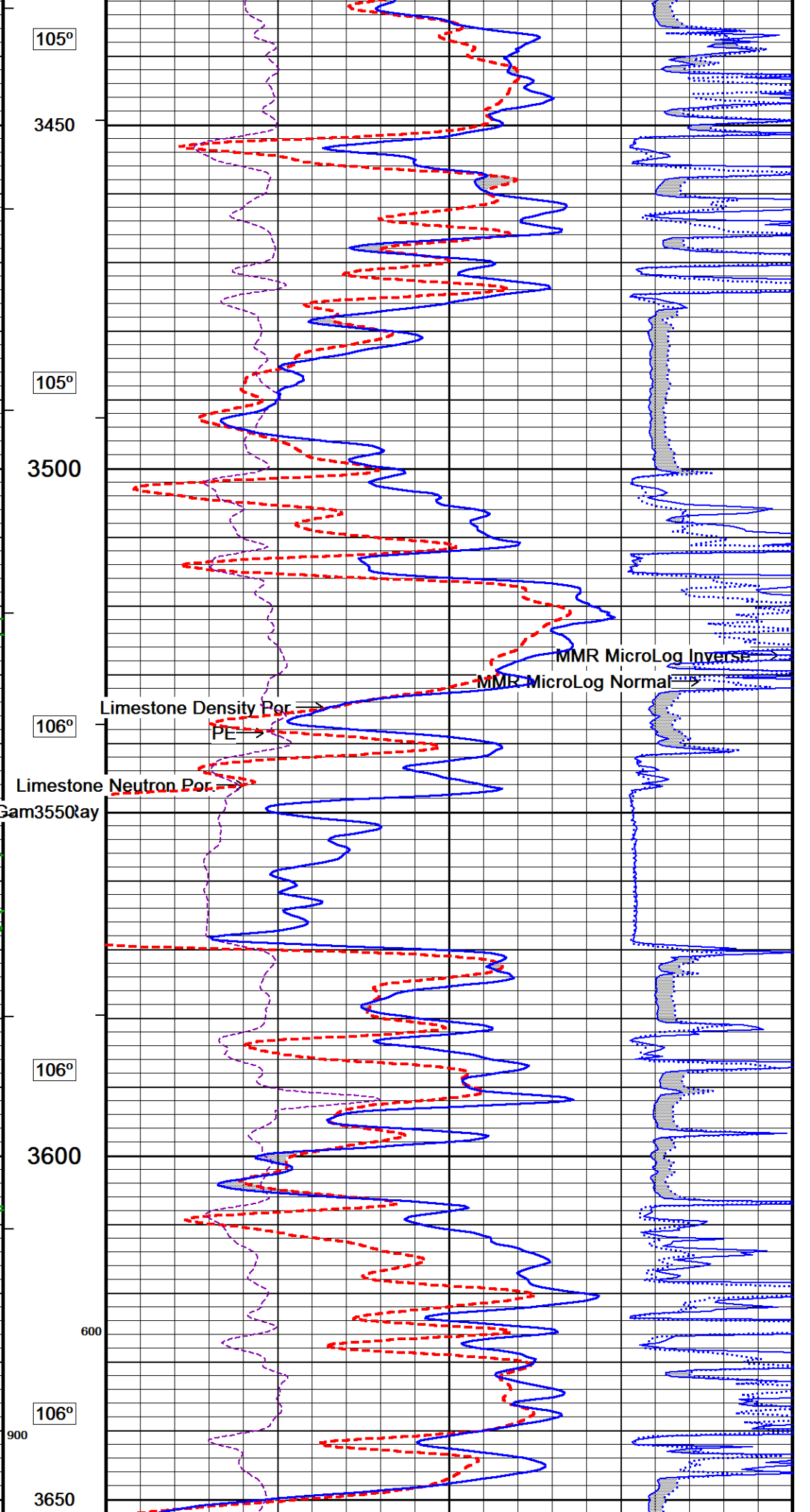
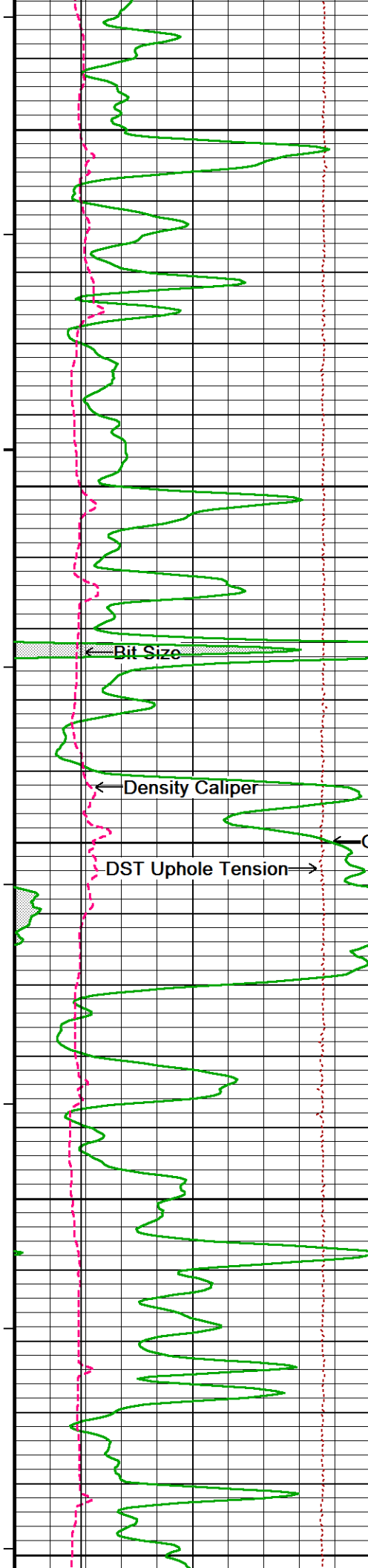
- ENGINEER: A. SILL.

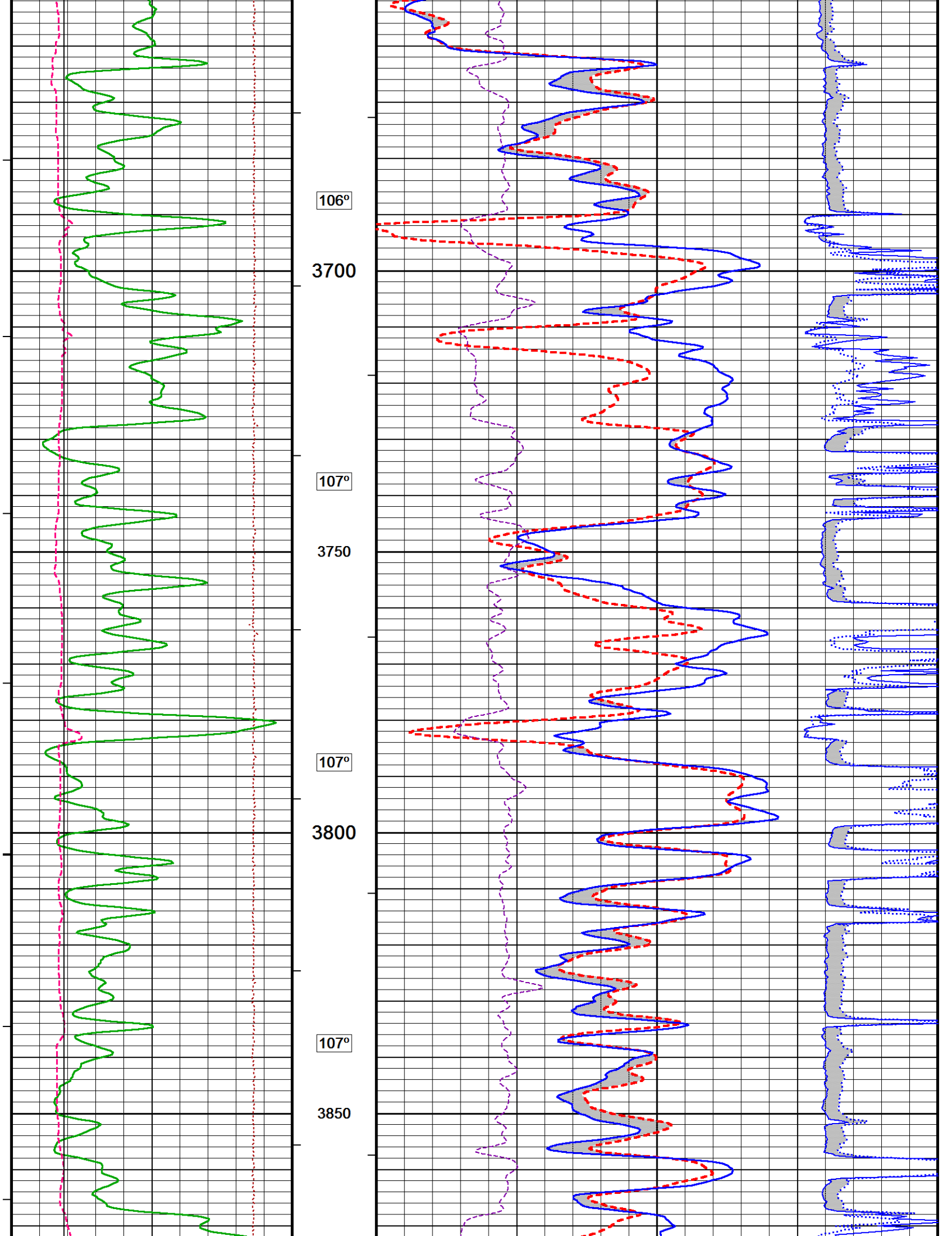
- OPERATOR: B. TOVAR, B. COPELAND.

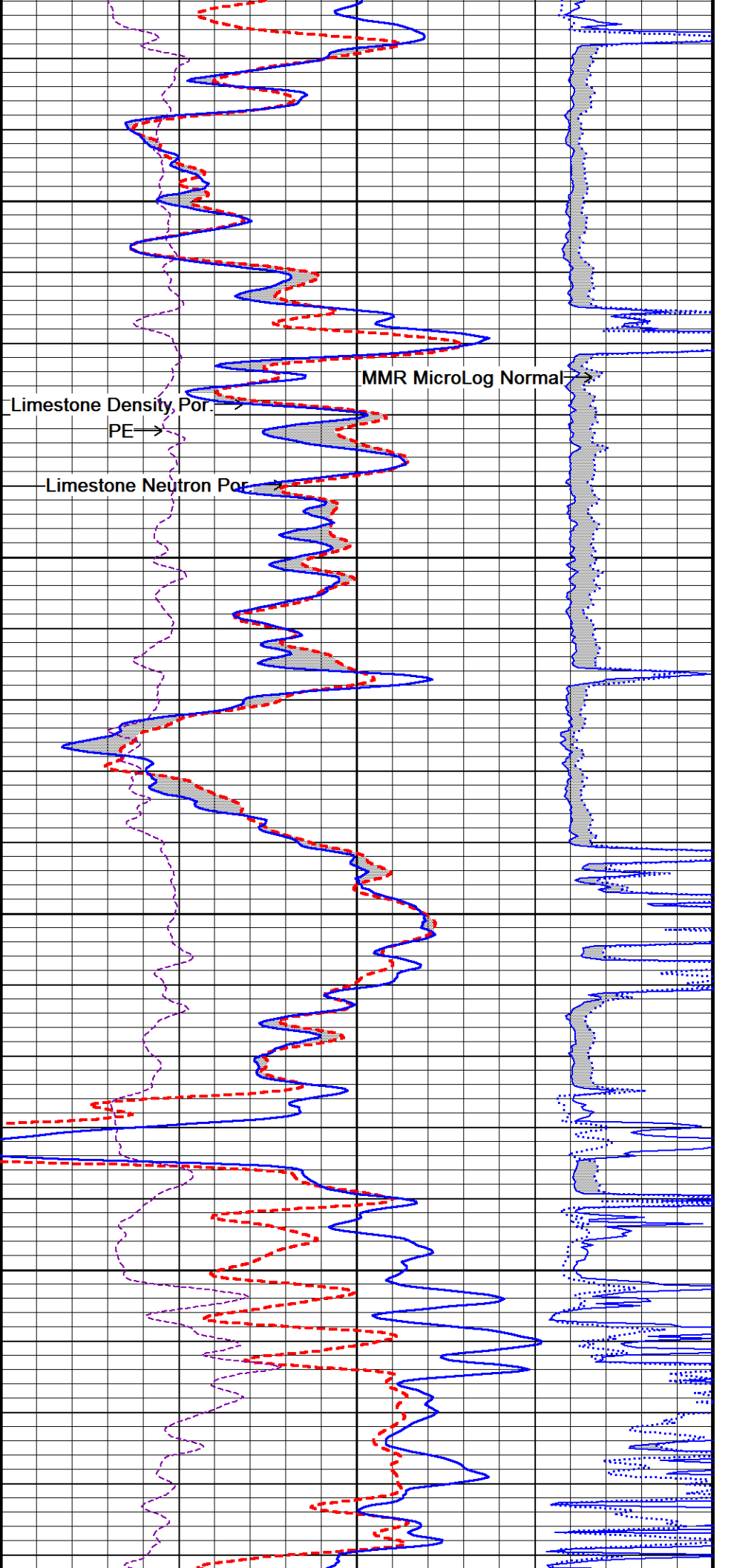
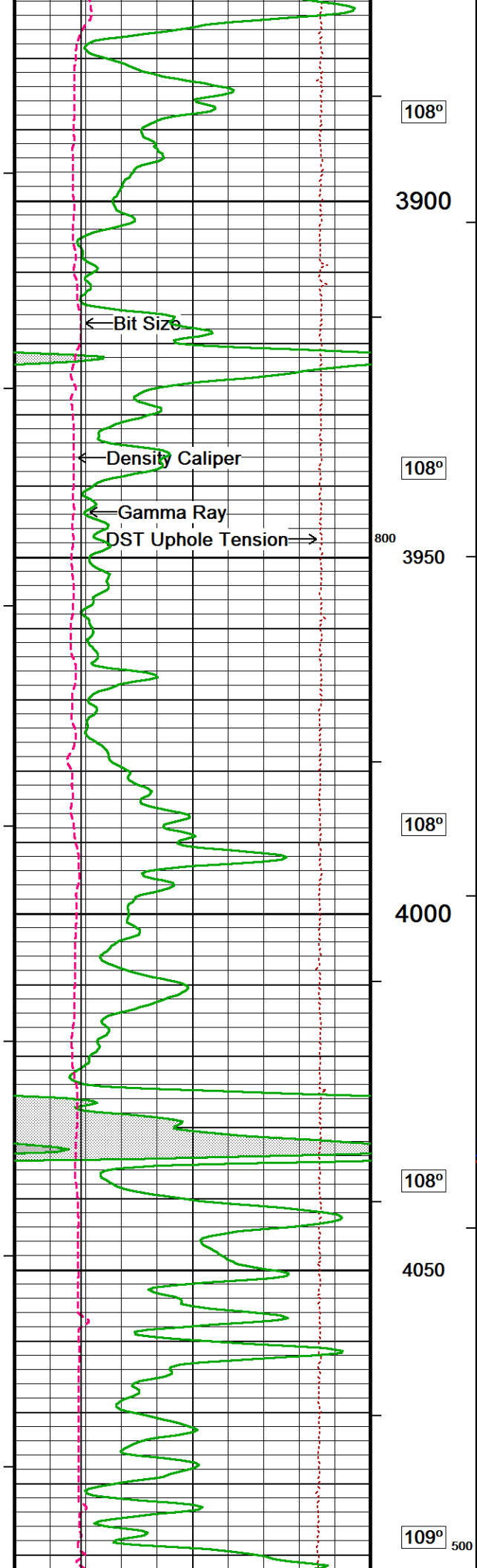
In interpreting, communicating or providing information and/or making recommendations, either written or oral, as to logs or test or other data, type or amount of material, or Work or other service to be furnished, or manner of performance, or in predicting results to be obtained, the Contractor will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

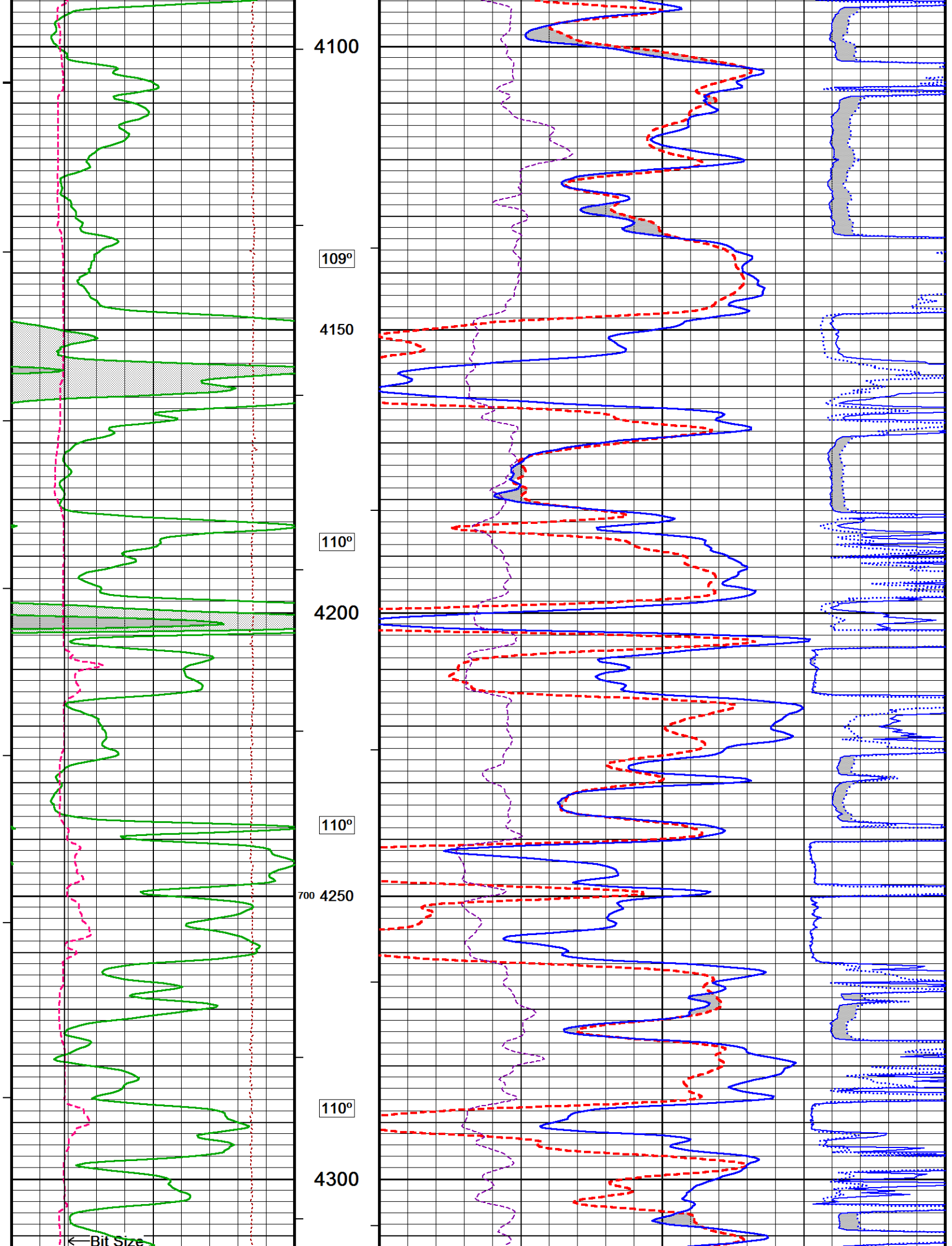


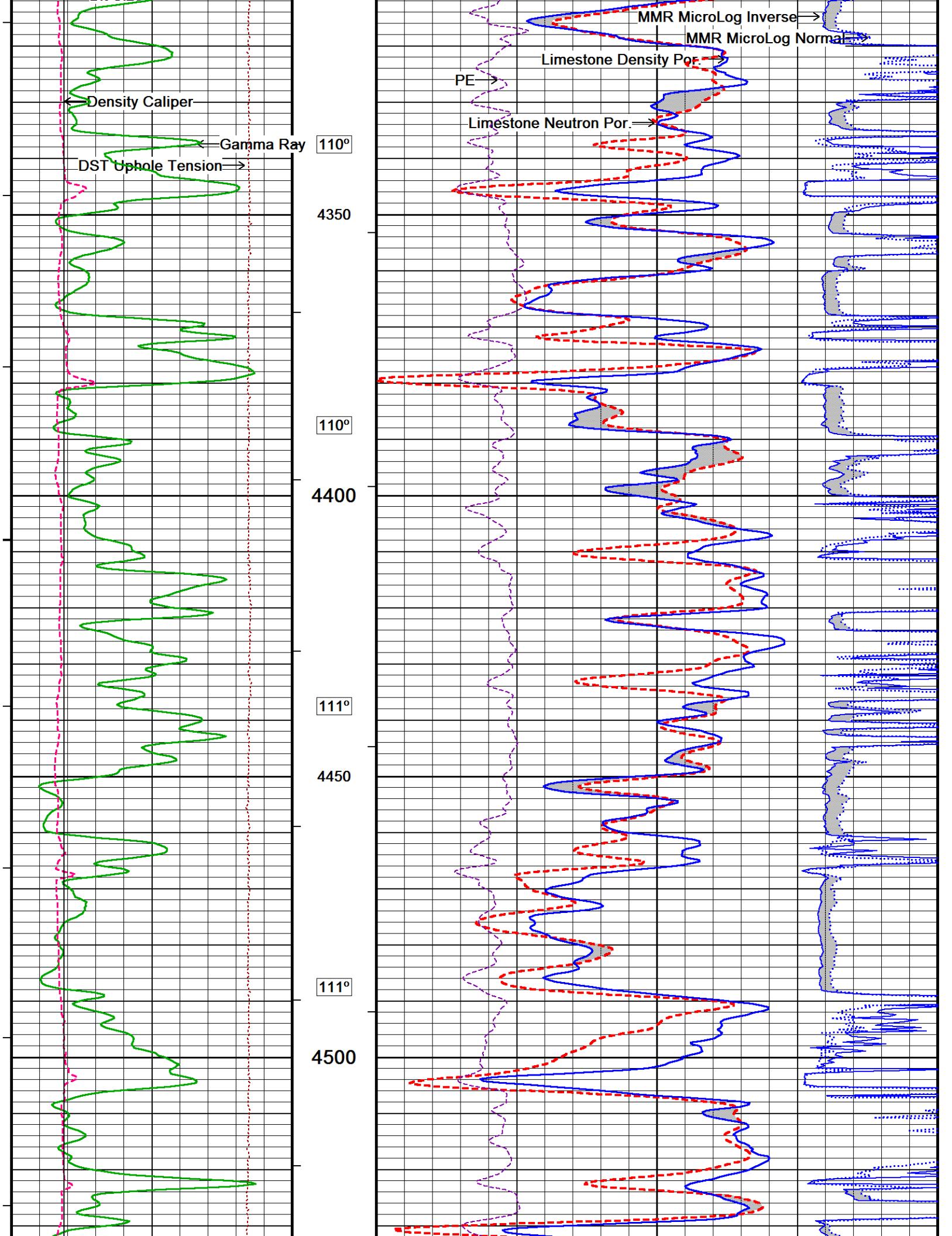


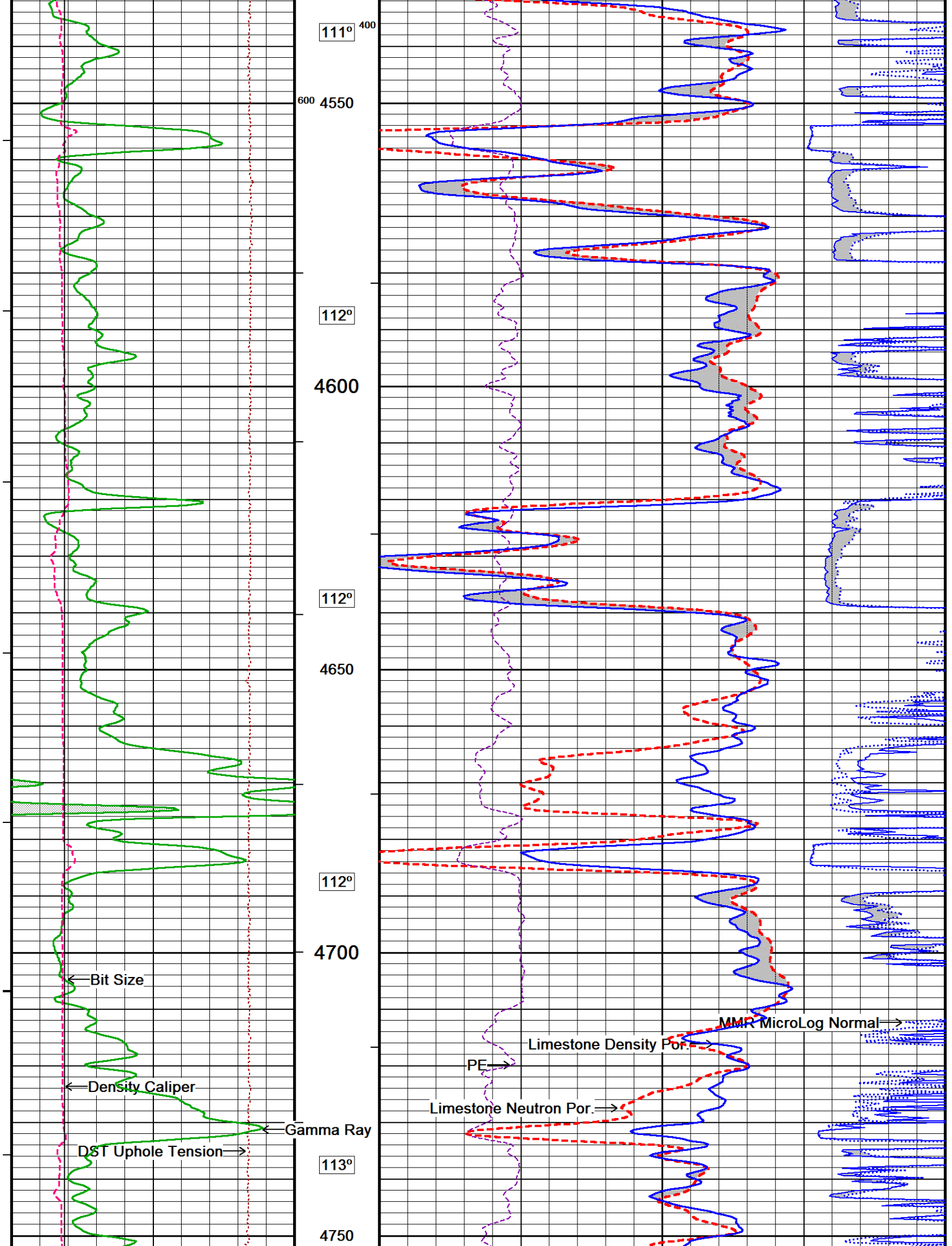


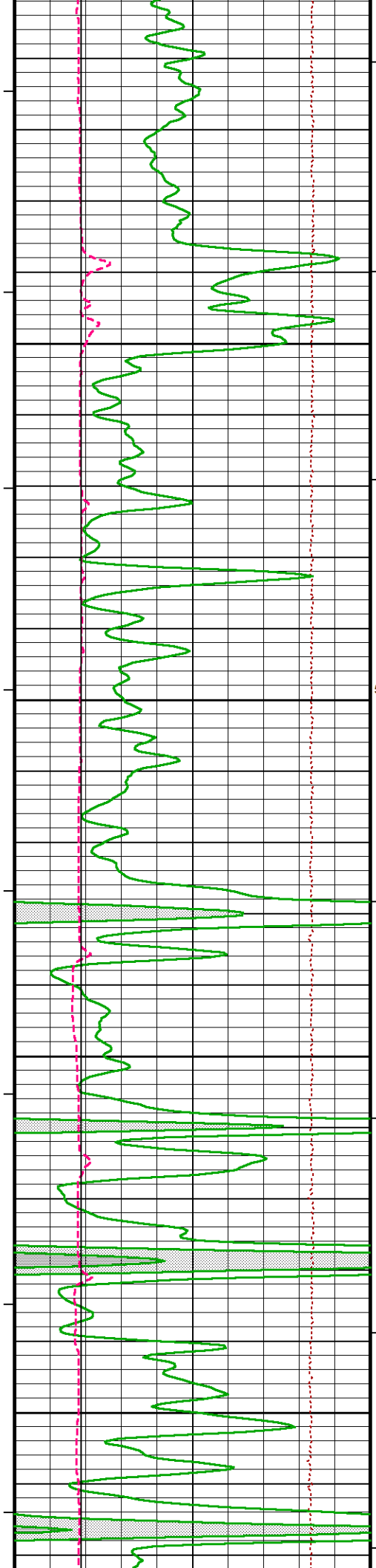












113°

4800

113°

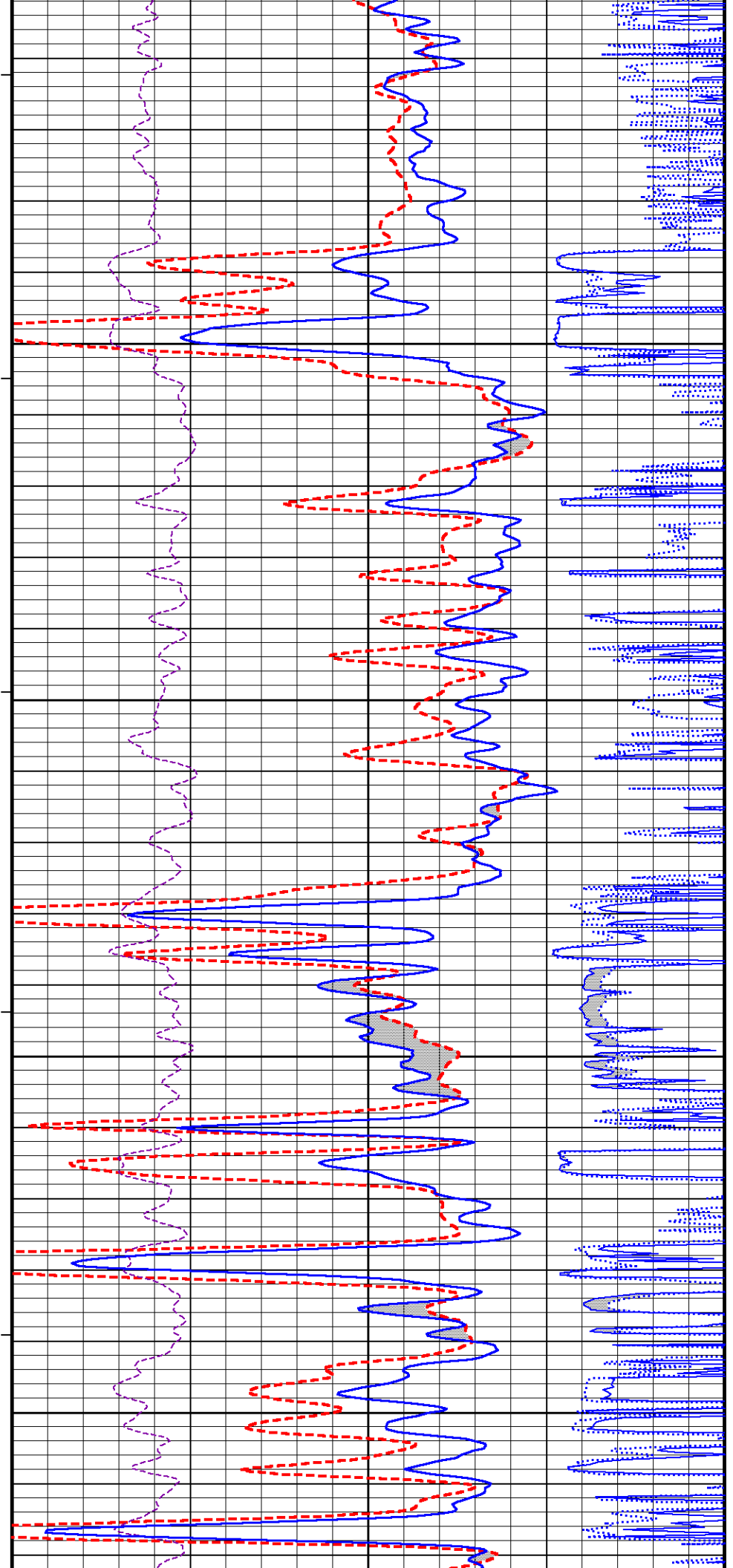
500 4850

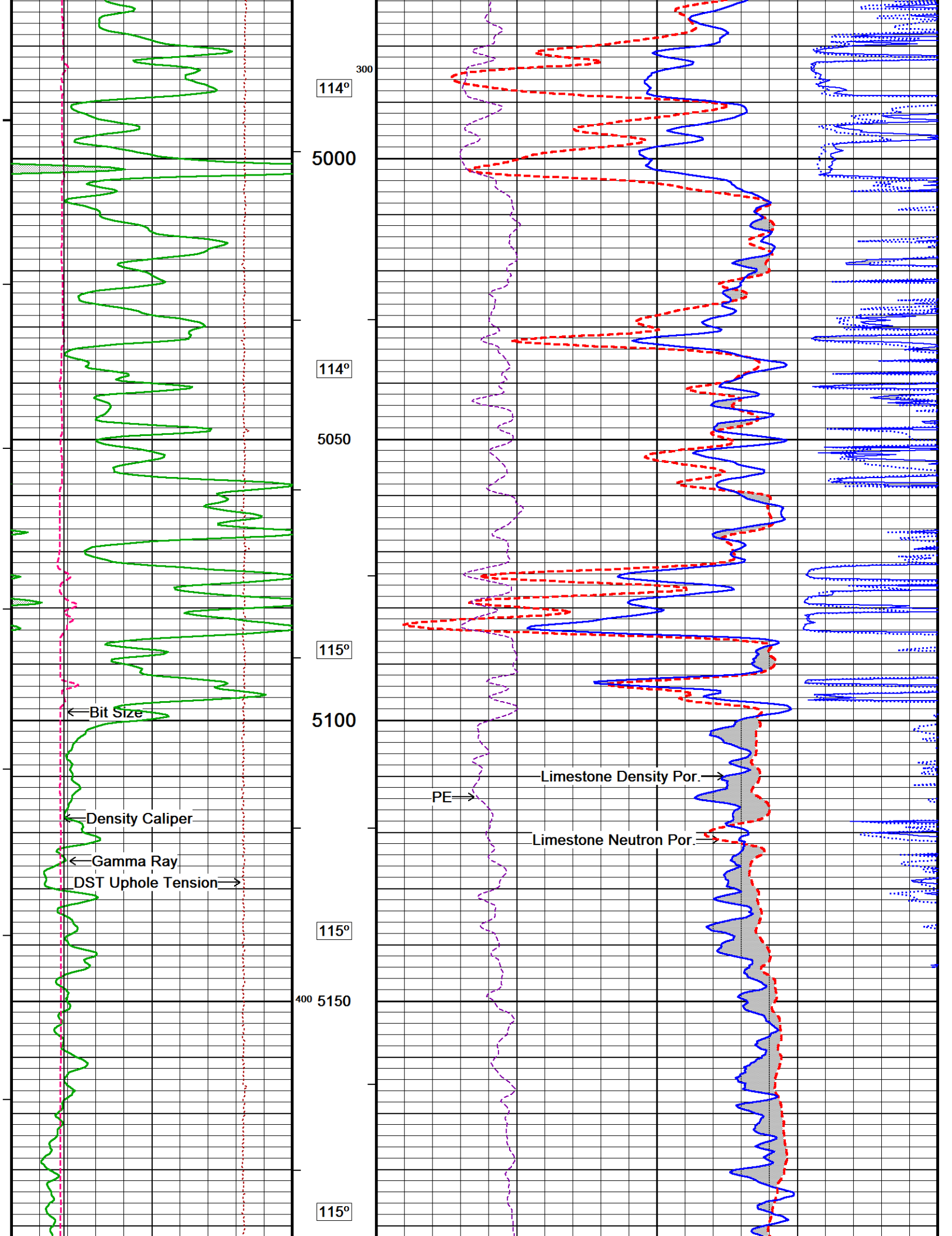
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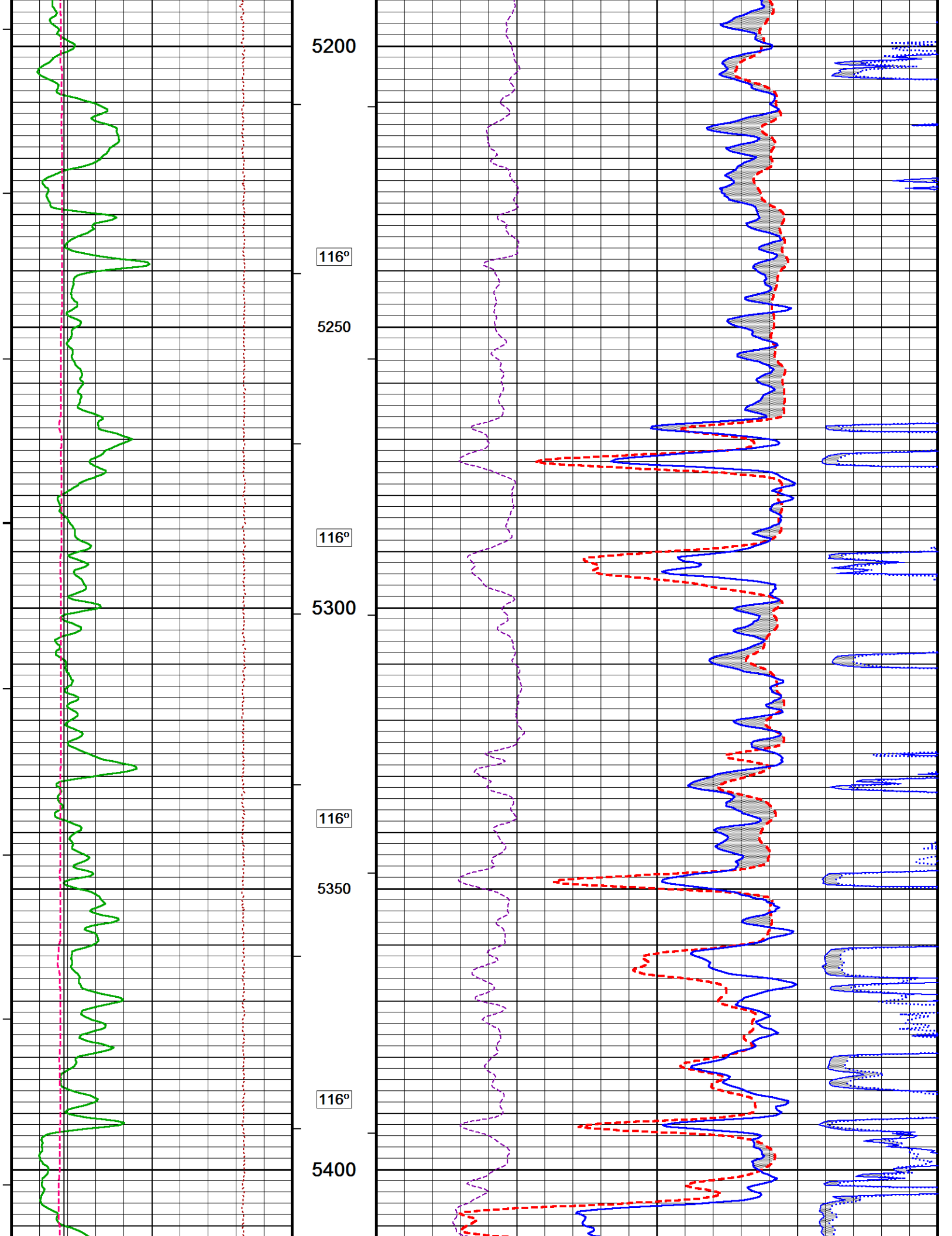
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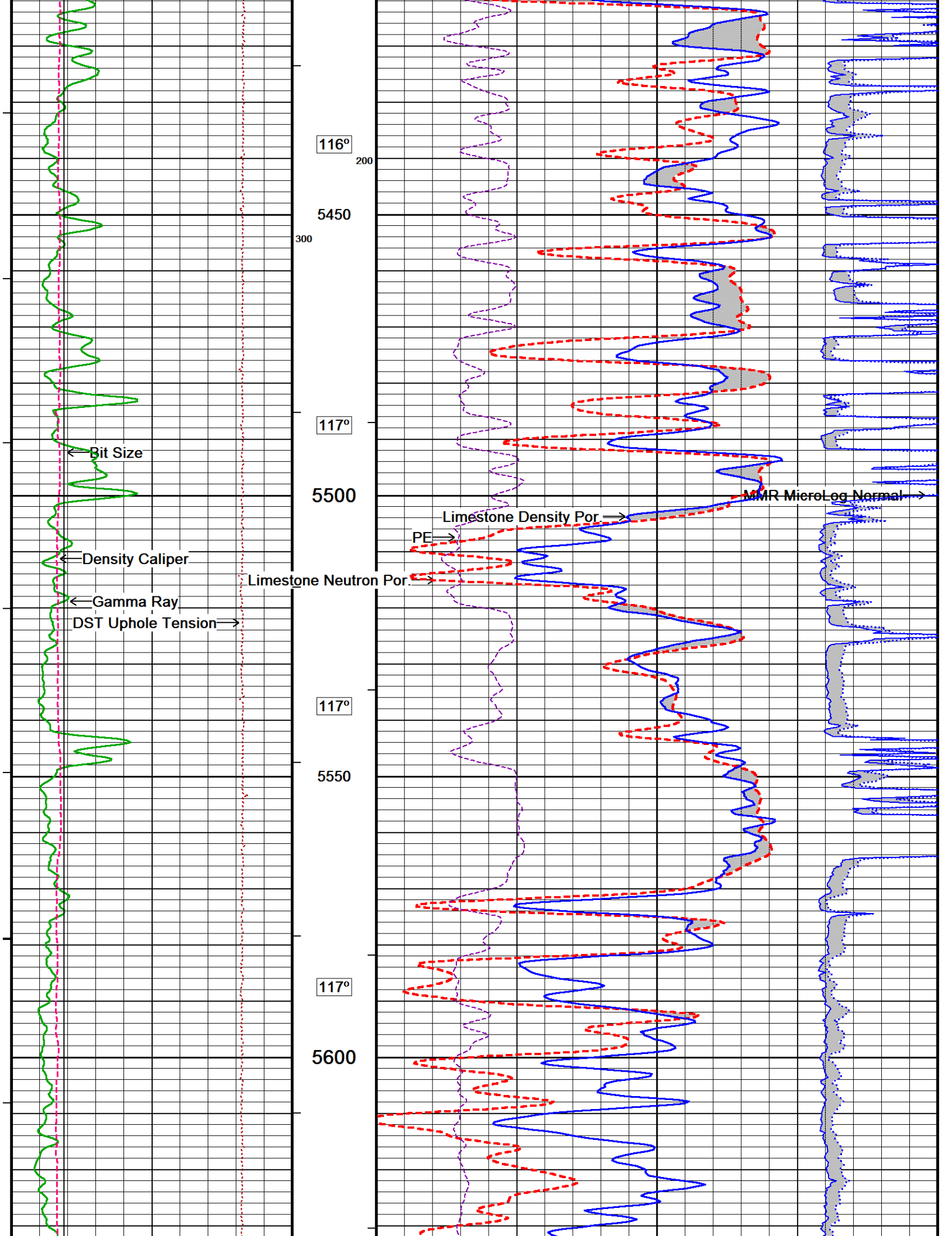
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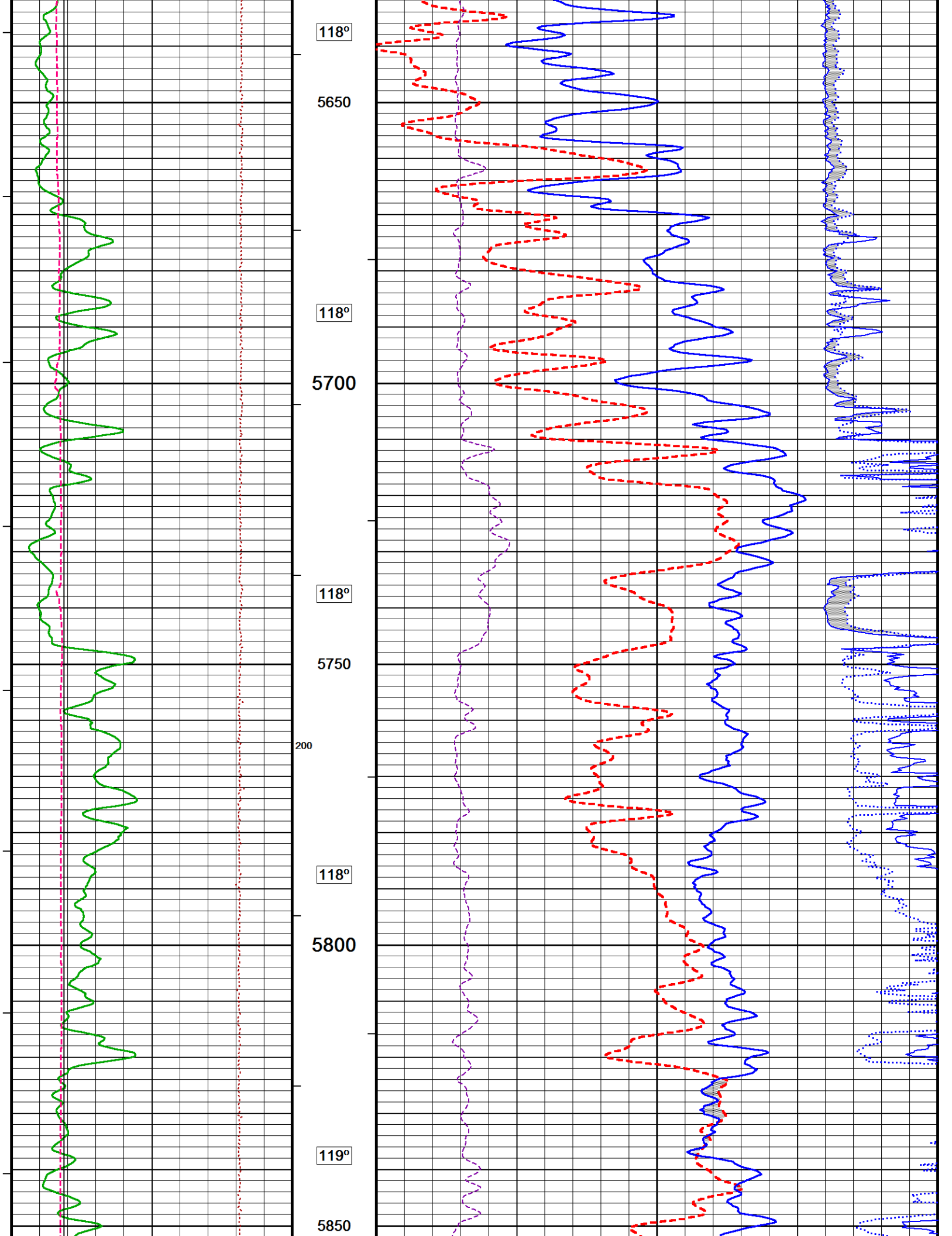
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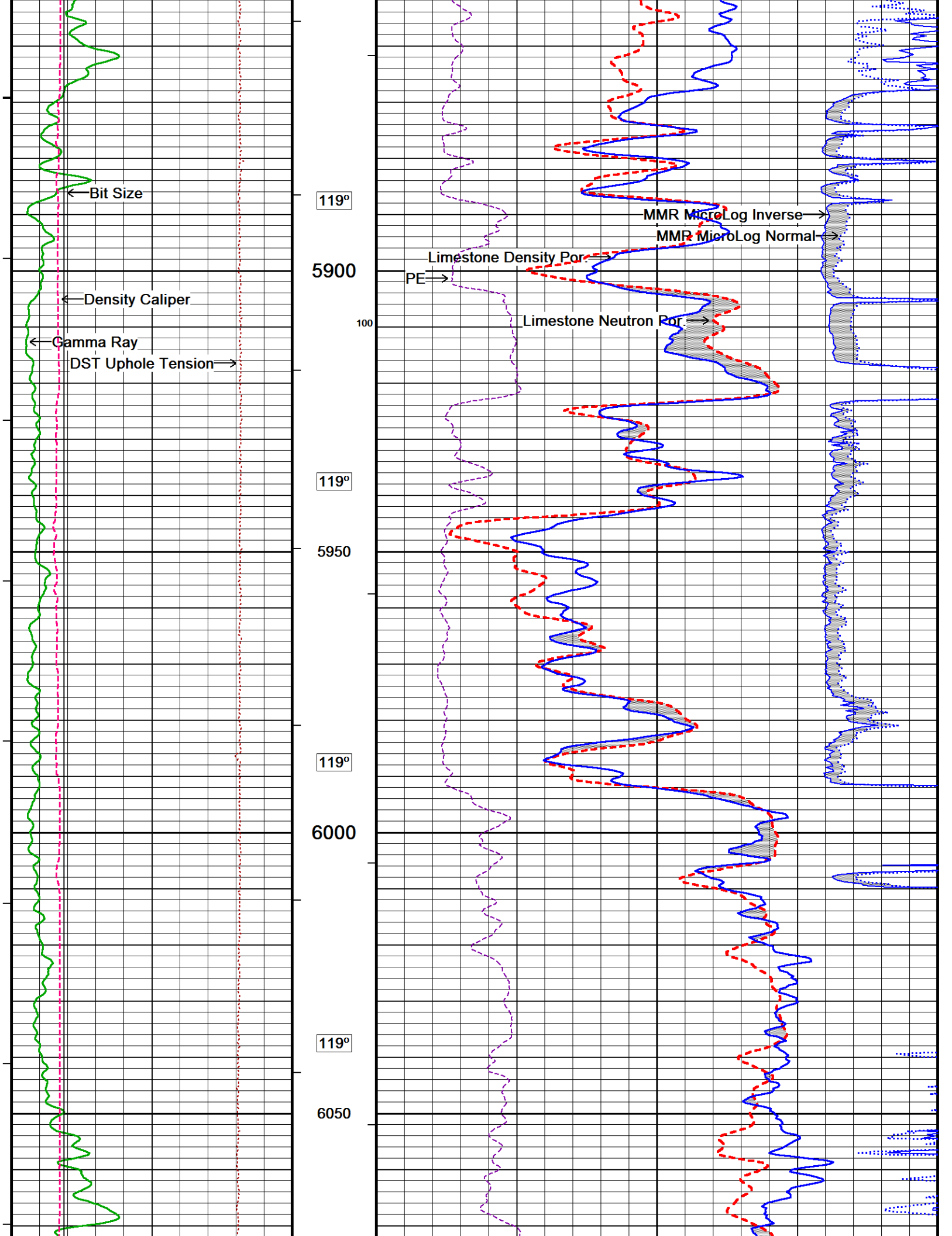


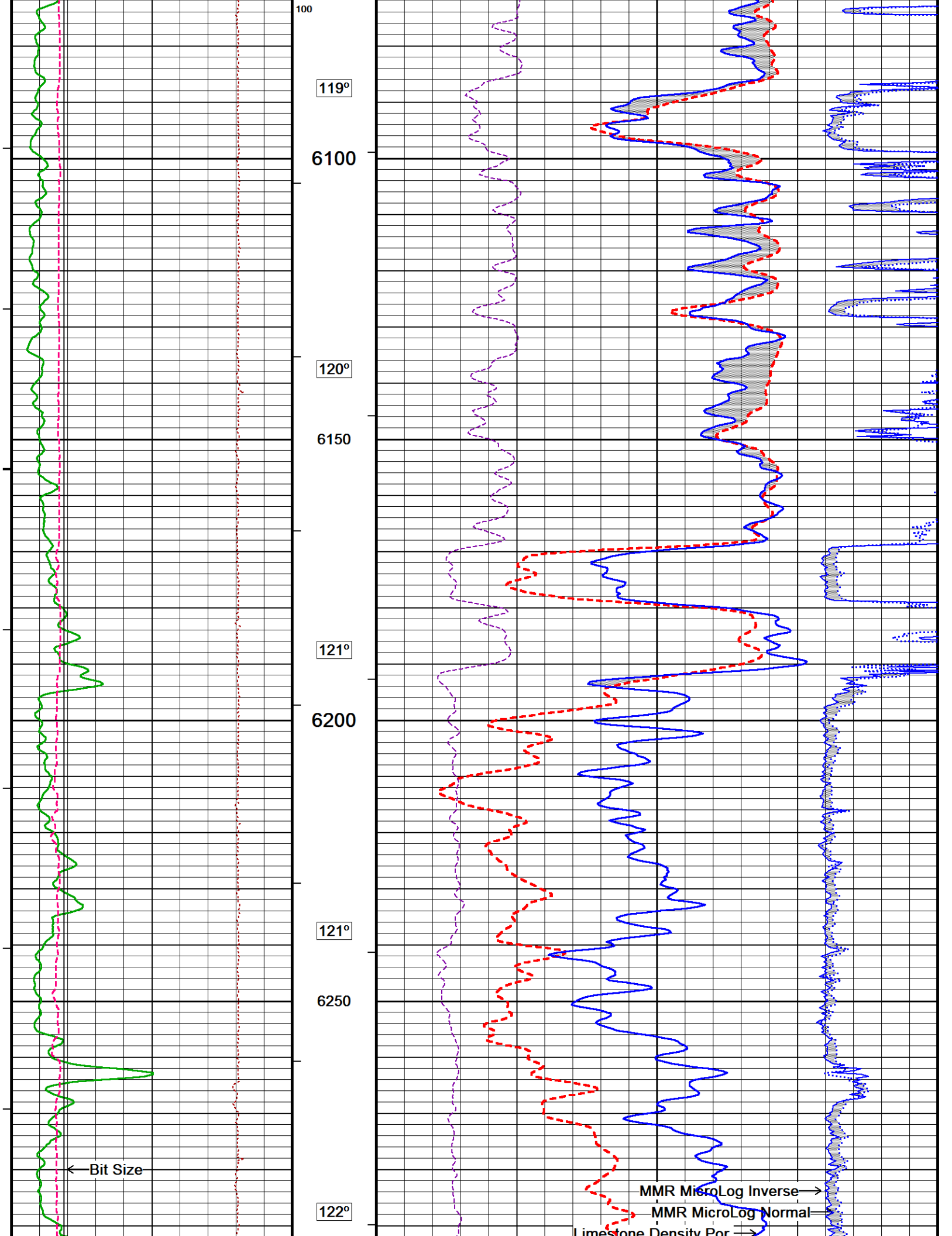


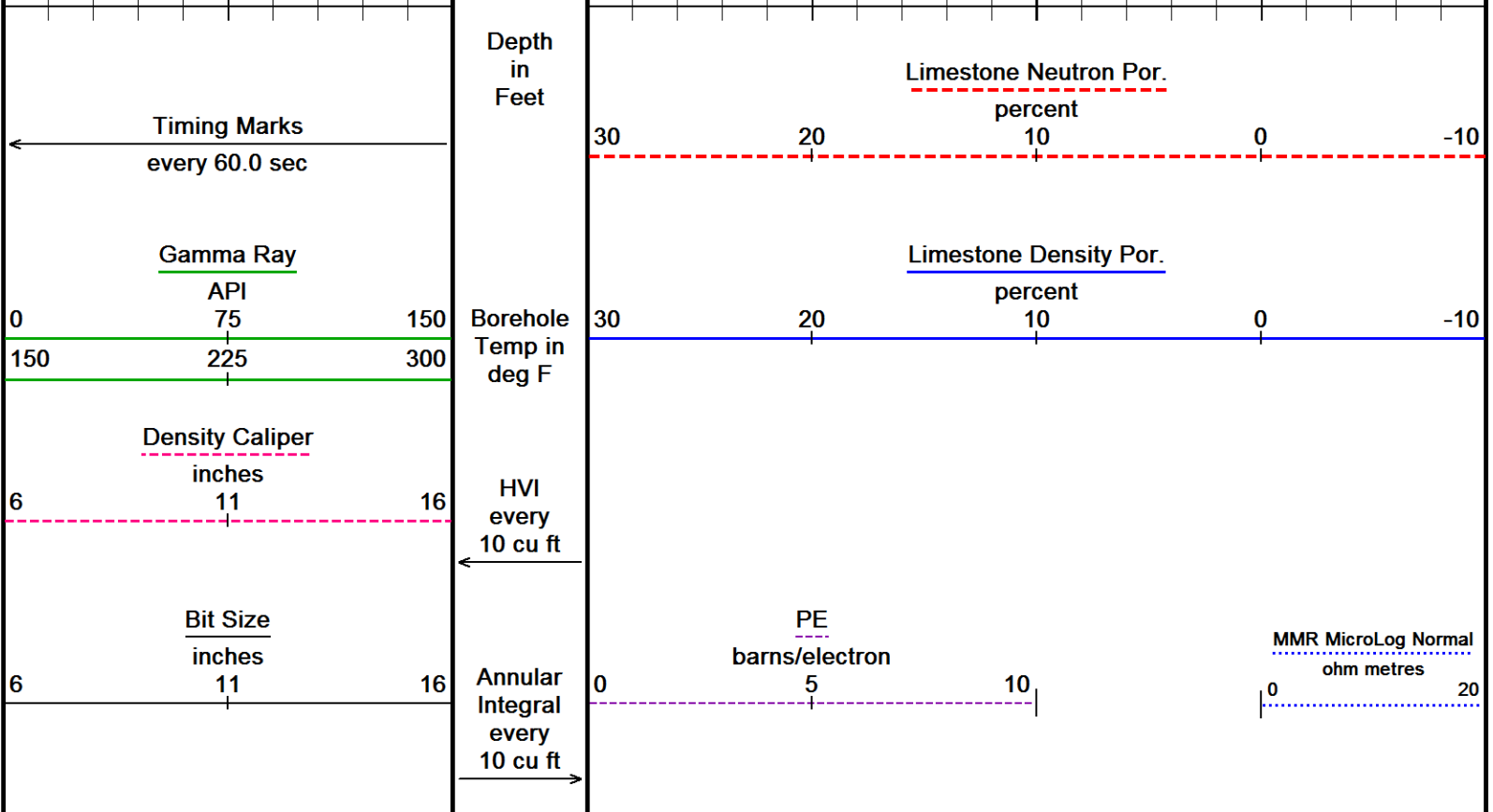
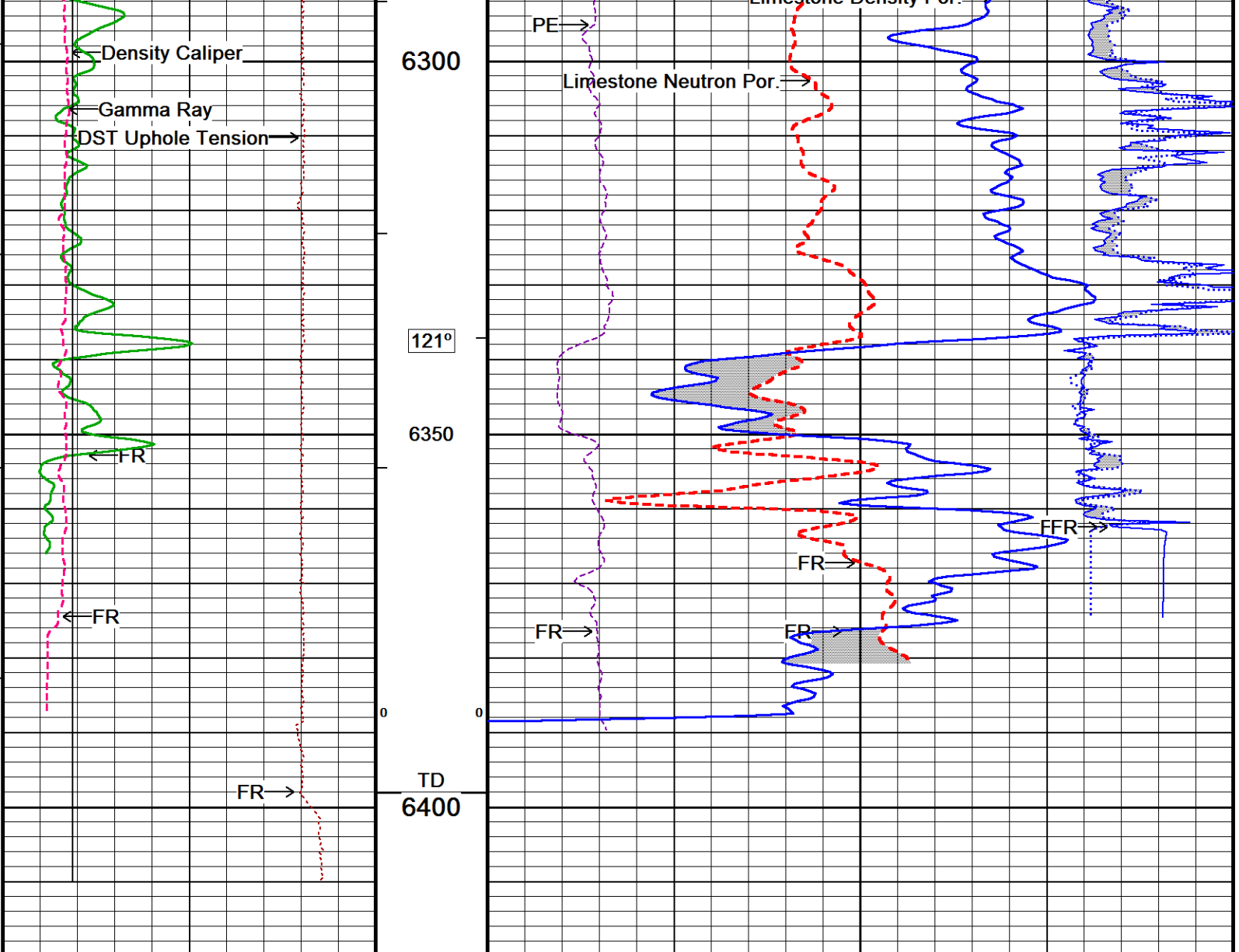












DST Uphole Tension
pounds

50000

Replay
Scale
1:240

ohm metres

020

Depth Based Data - Maximum Sampling Increment 10.0cmPlotted on 27-MAR-2018 10:28

Filename: C:\Minimus 17.05.6573\Logs\McCoy Petroleum M...\McCoy Petroleum Mack 'A' #1-1_002.dtaRecorded on 27-MAR-2018 07:39

System Versions: Logged with 17.05.6573 Plotted with 17.05.6573

↑

5 INCH LIMESTONE MAIN

↑

↓

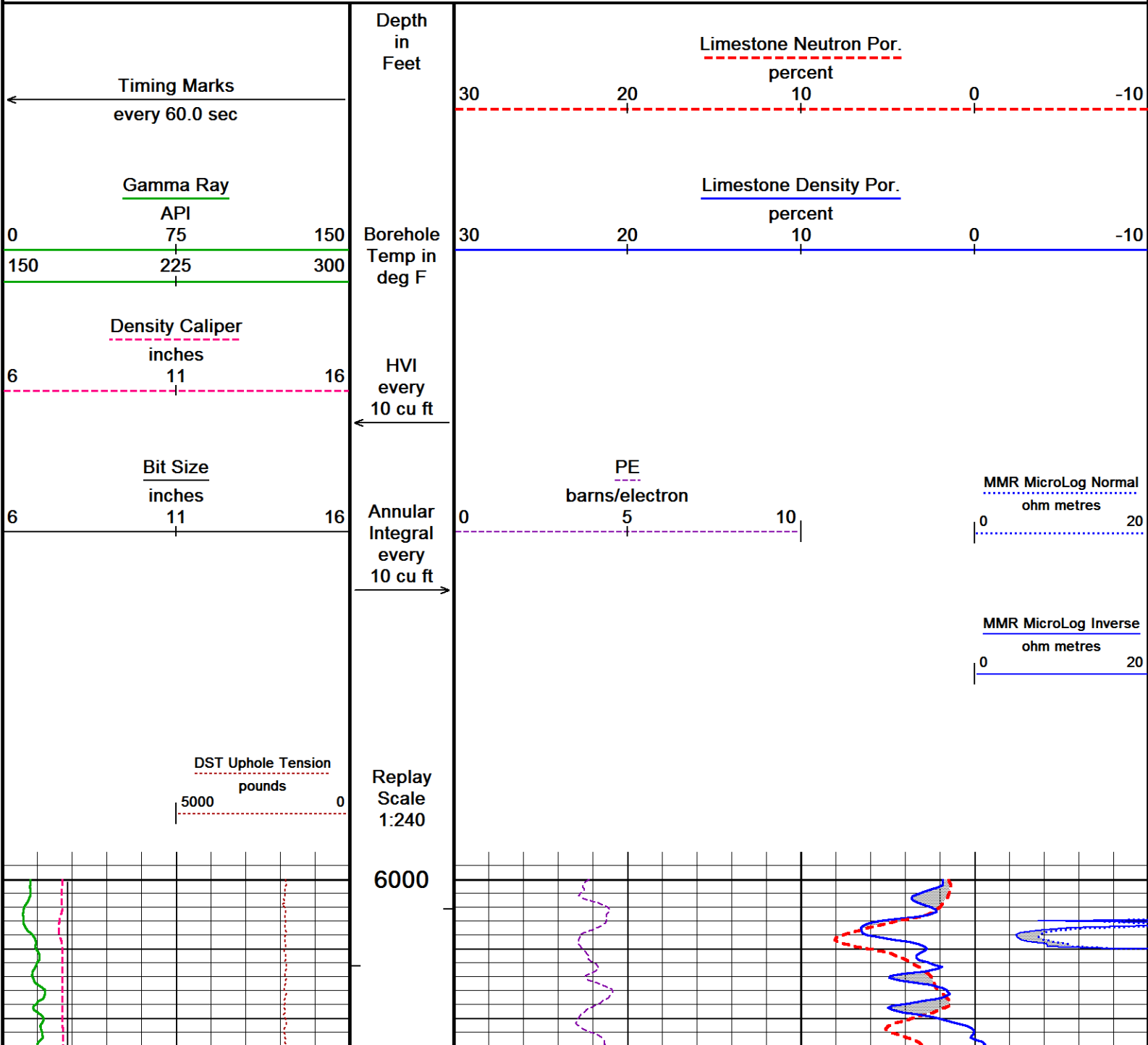
REPEAT SECTION

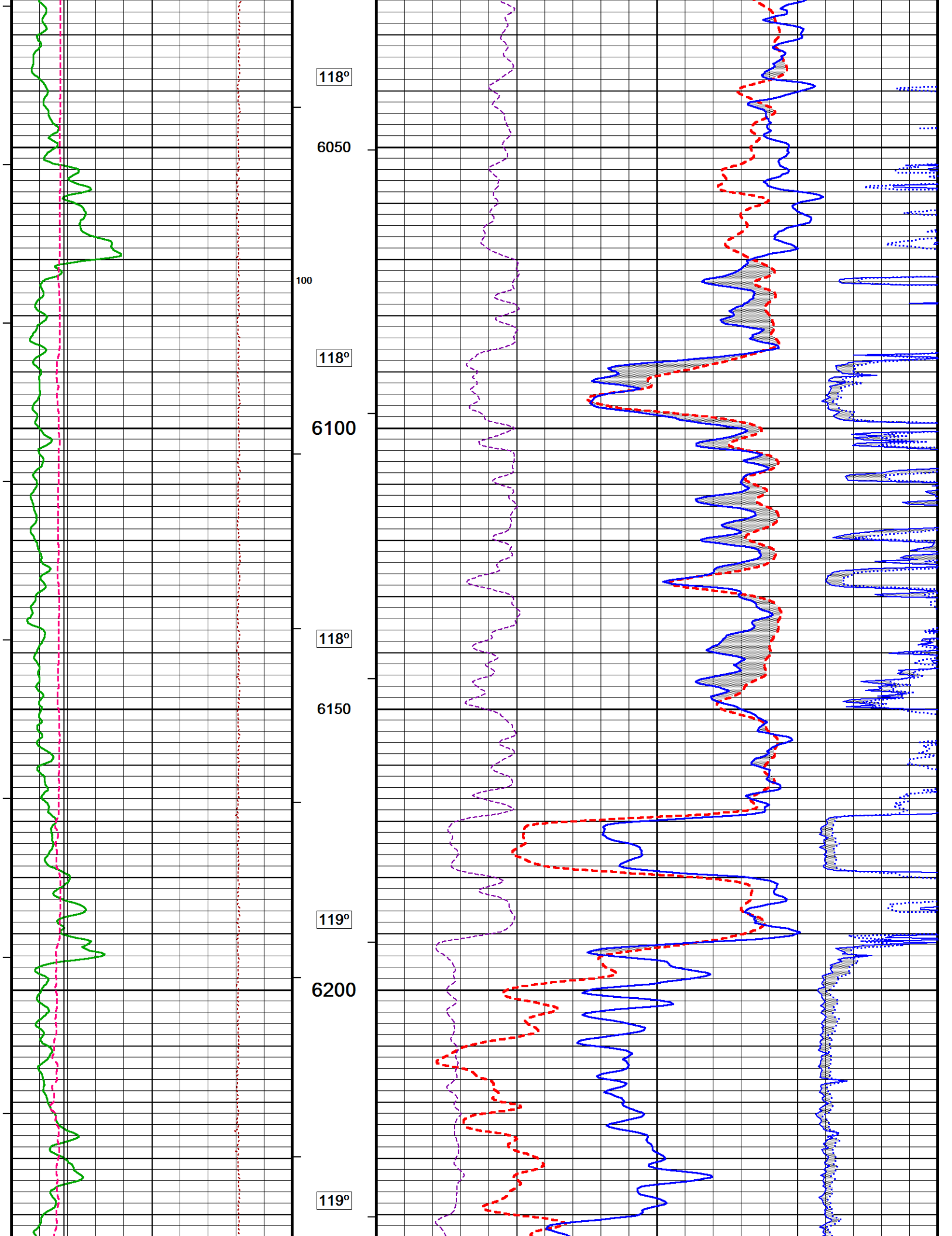
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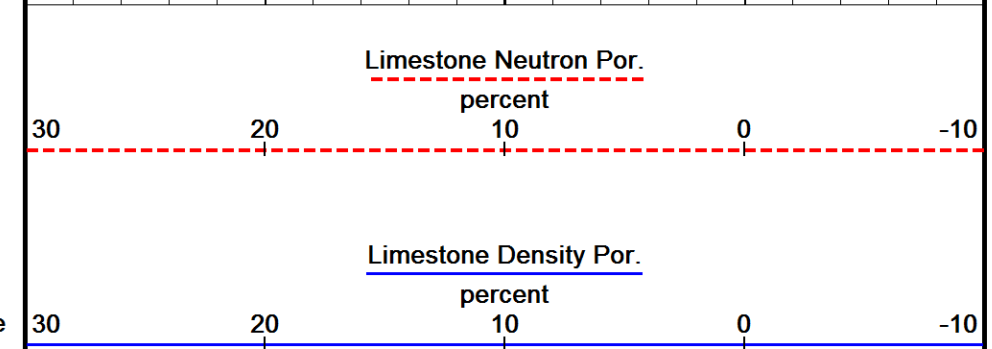
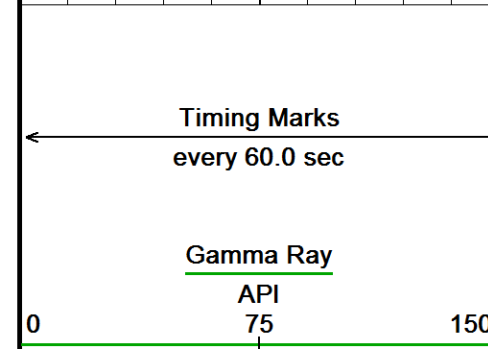
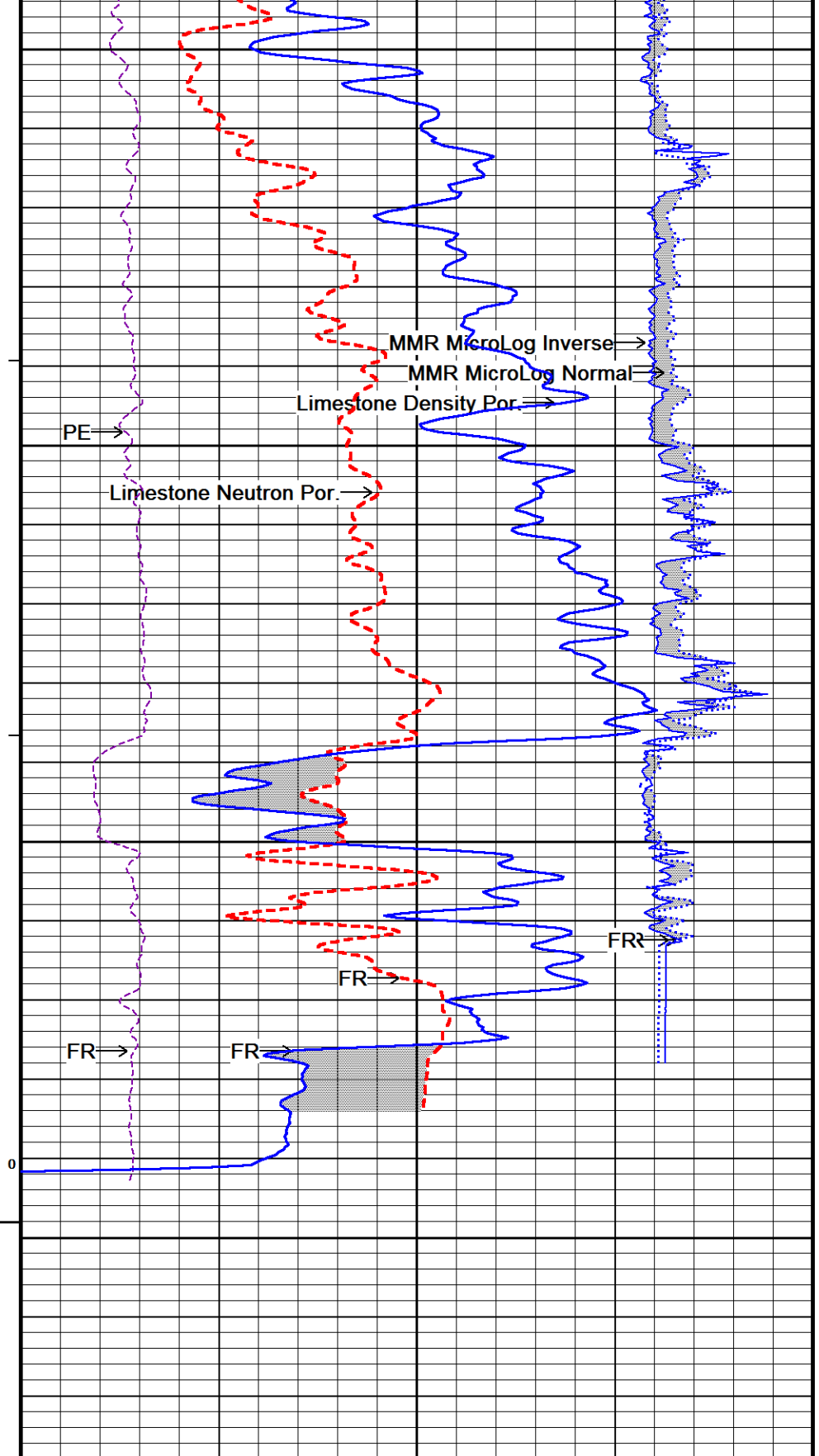
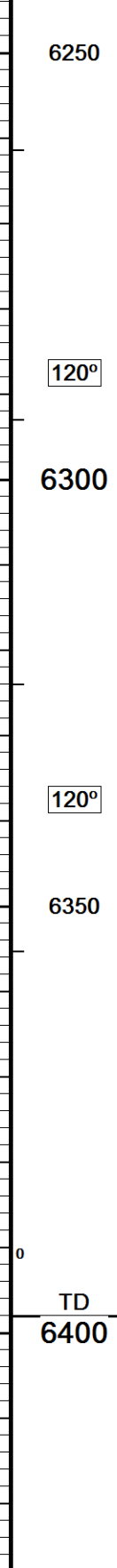
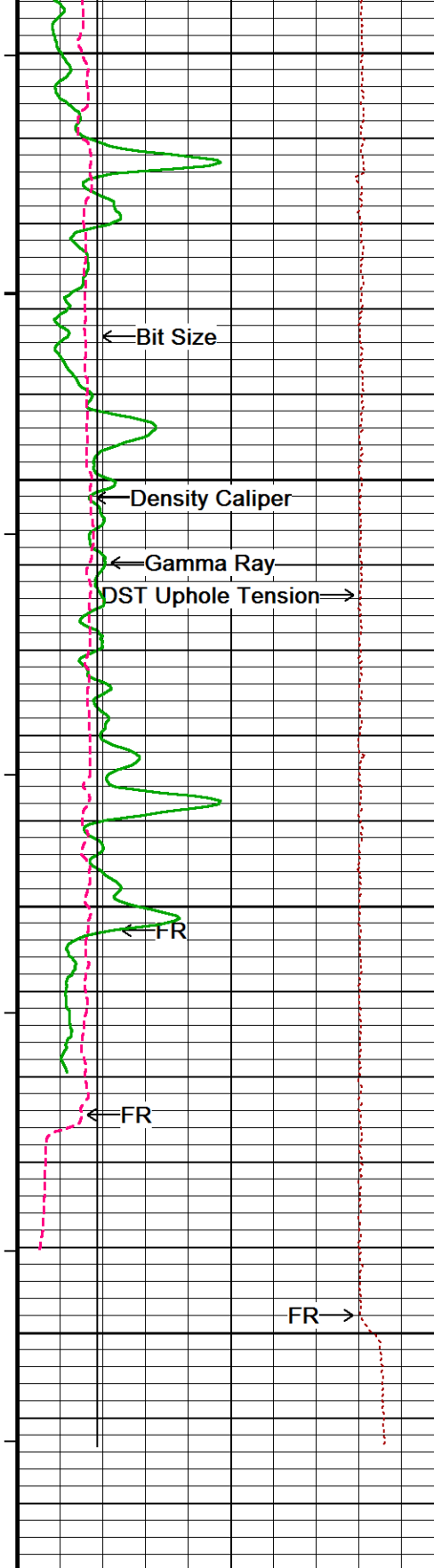
Depth Based Data - Maximum Sampling Increment 10.0cmPlotted on 27-MAR-2018 10:28

Filename: C:\Minimus 17.05.6573\Logs\McCoy Petroleum M...\McCoy Petroleum Mack 'A' #1-1_001.dtaRecorded on 27-MAR-2018 07:12

System Versions: Logged with 17.05.6573 Plotted with 17.05.6573







Timing Marks
every 60.0 sec

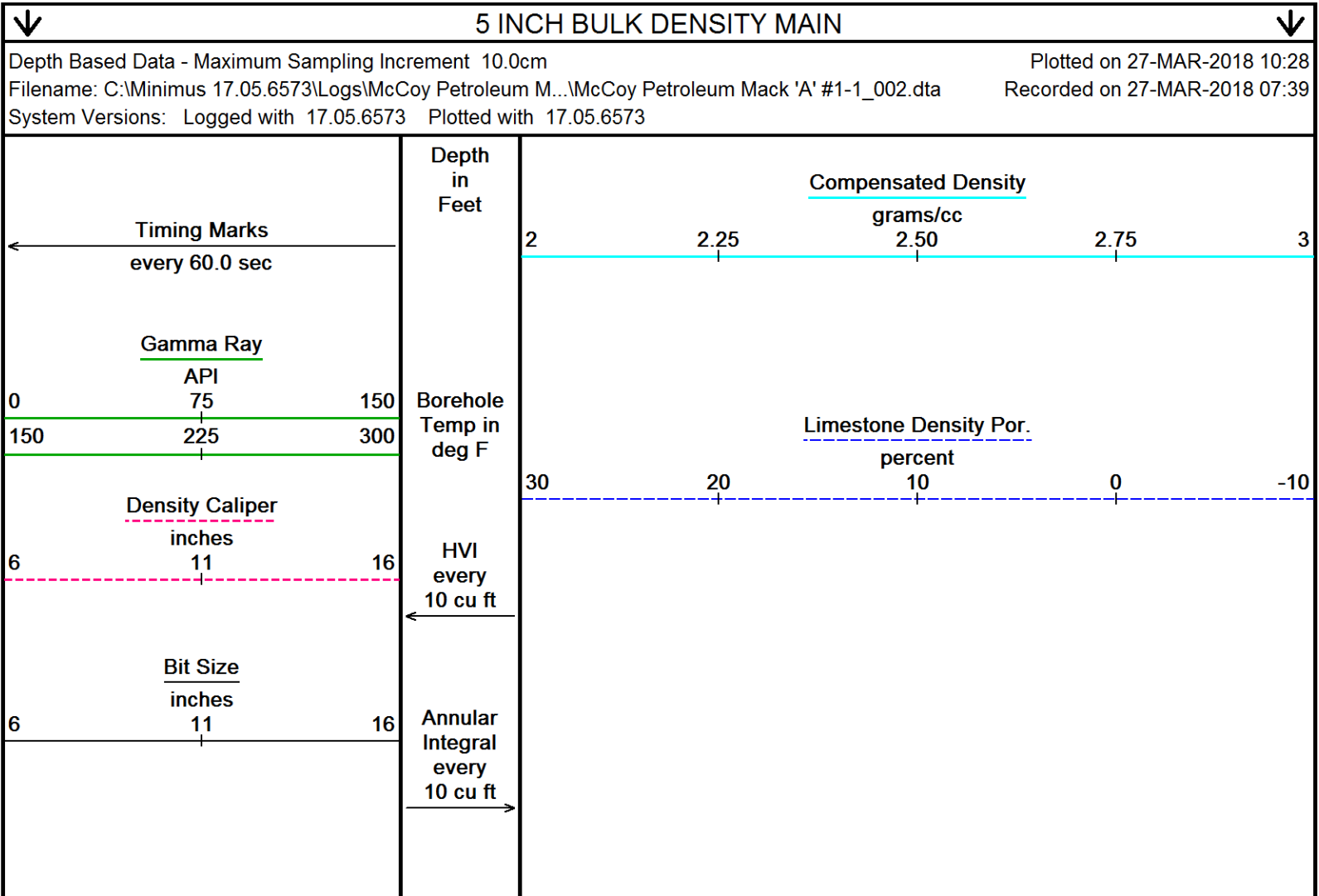
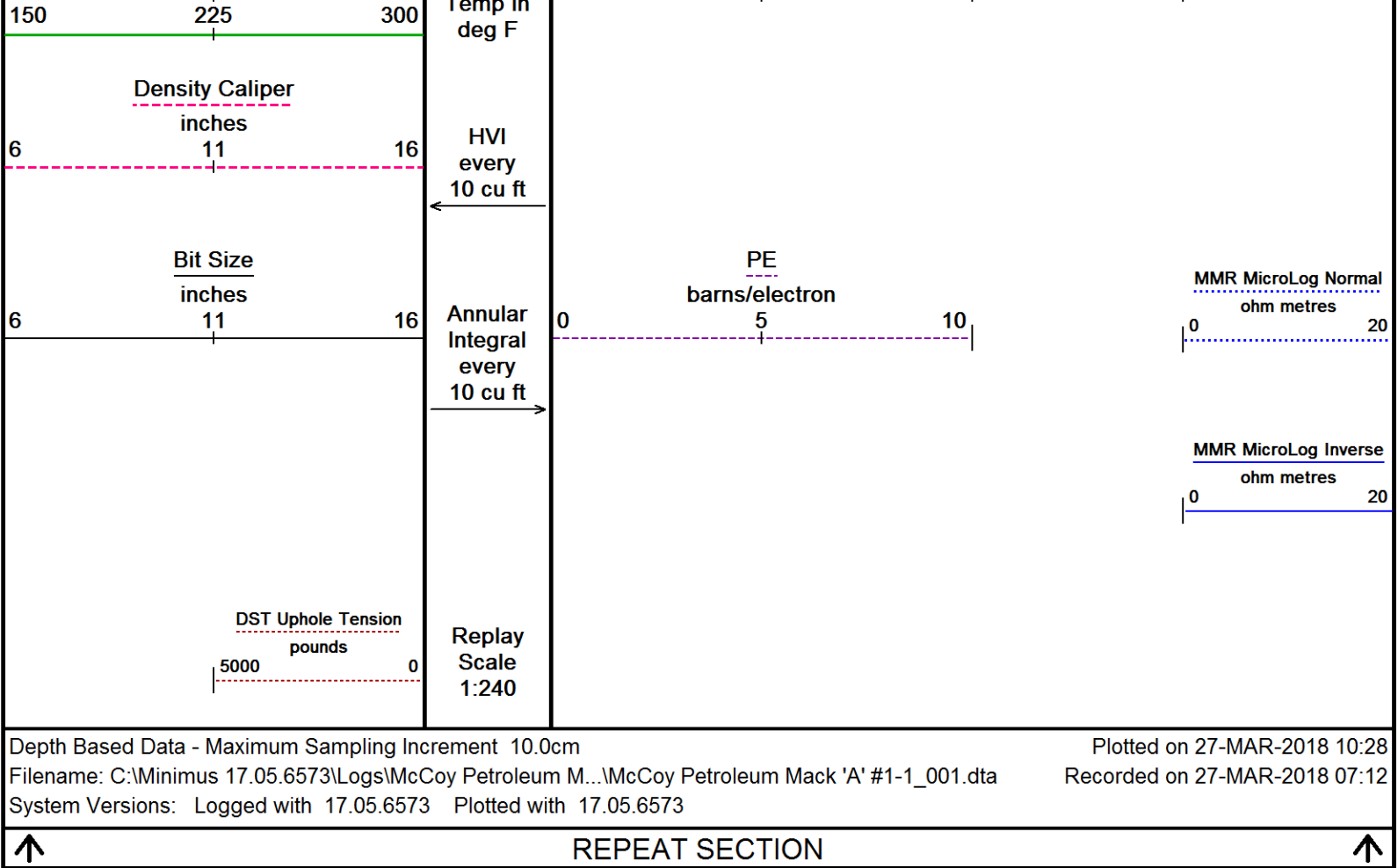
Gamma Ray

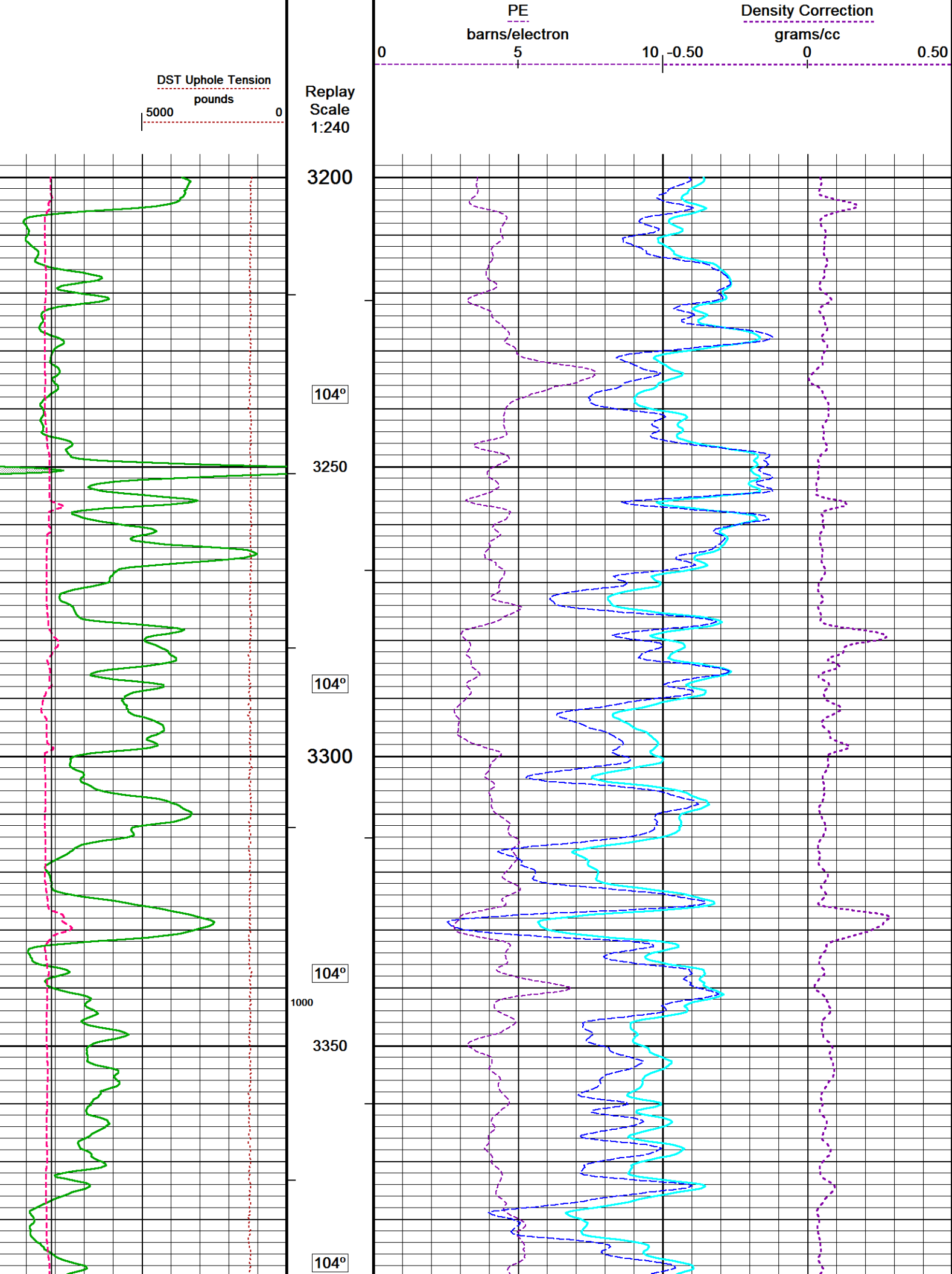
API

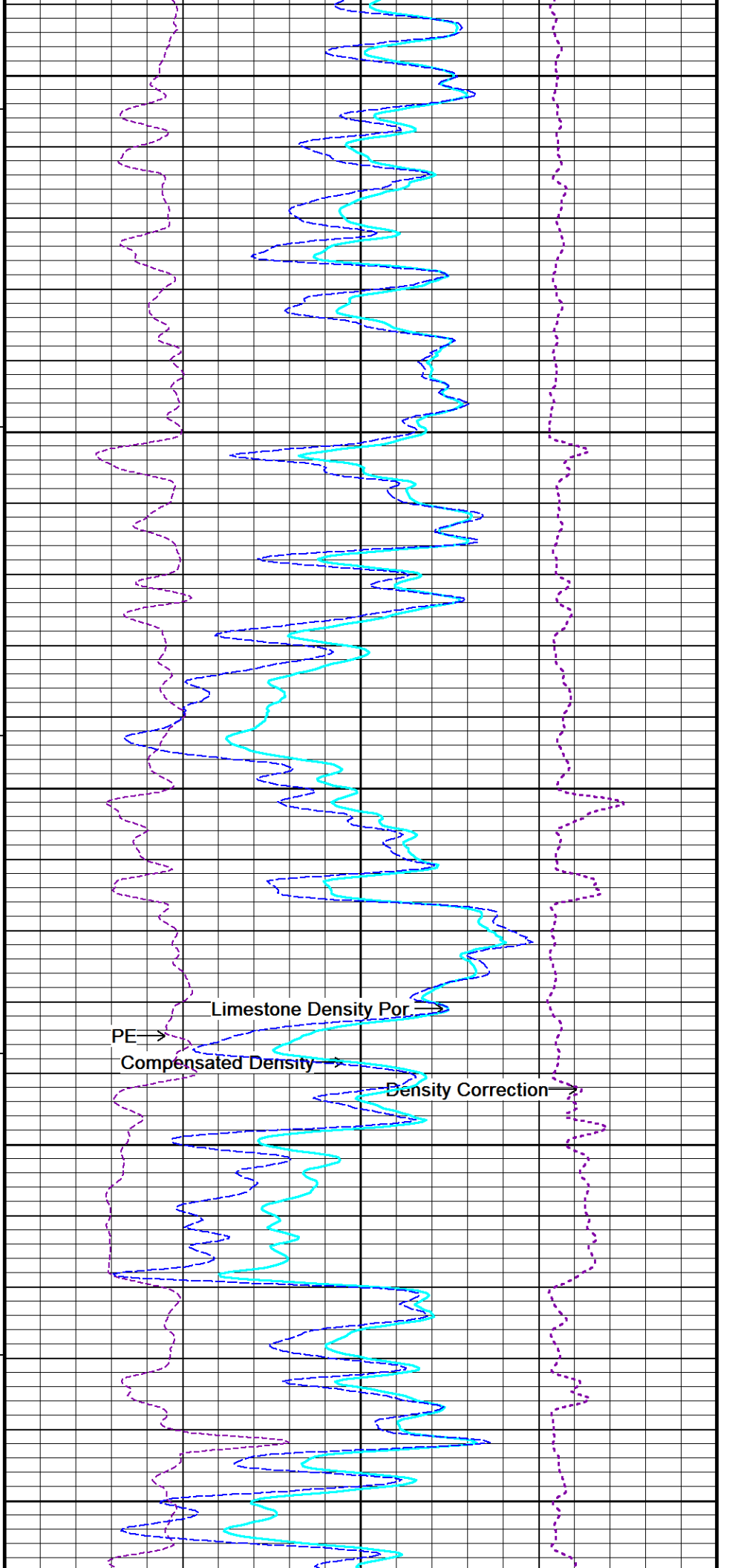
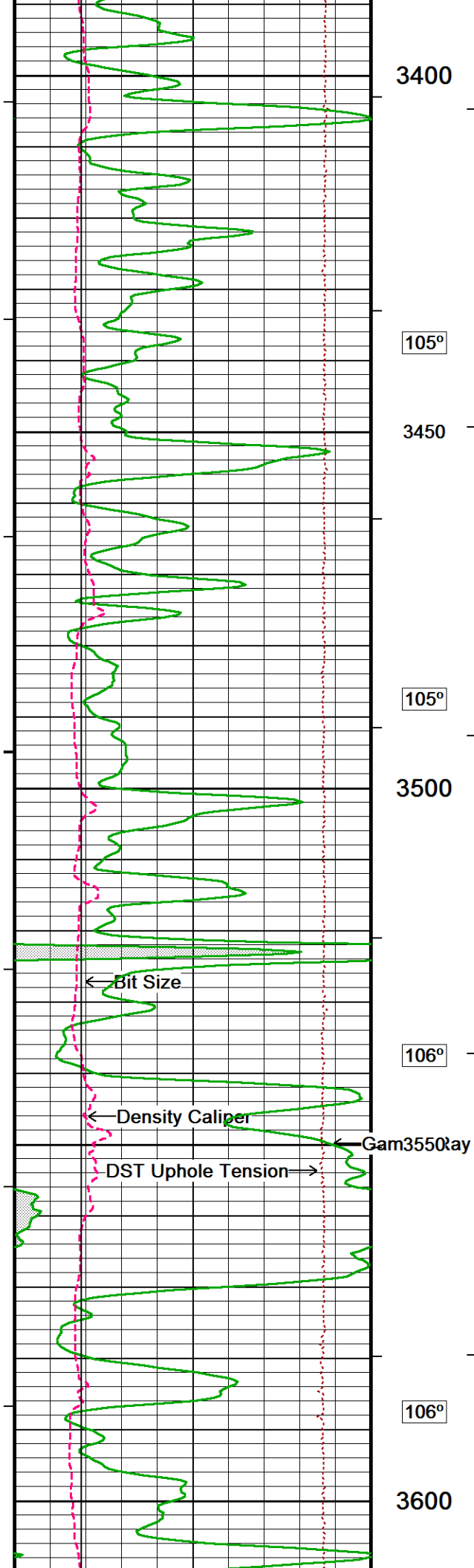
75

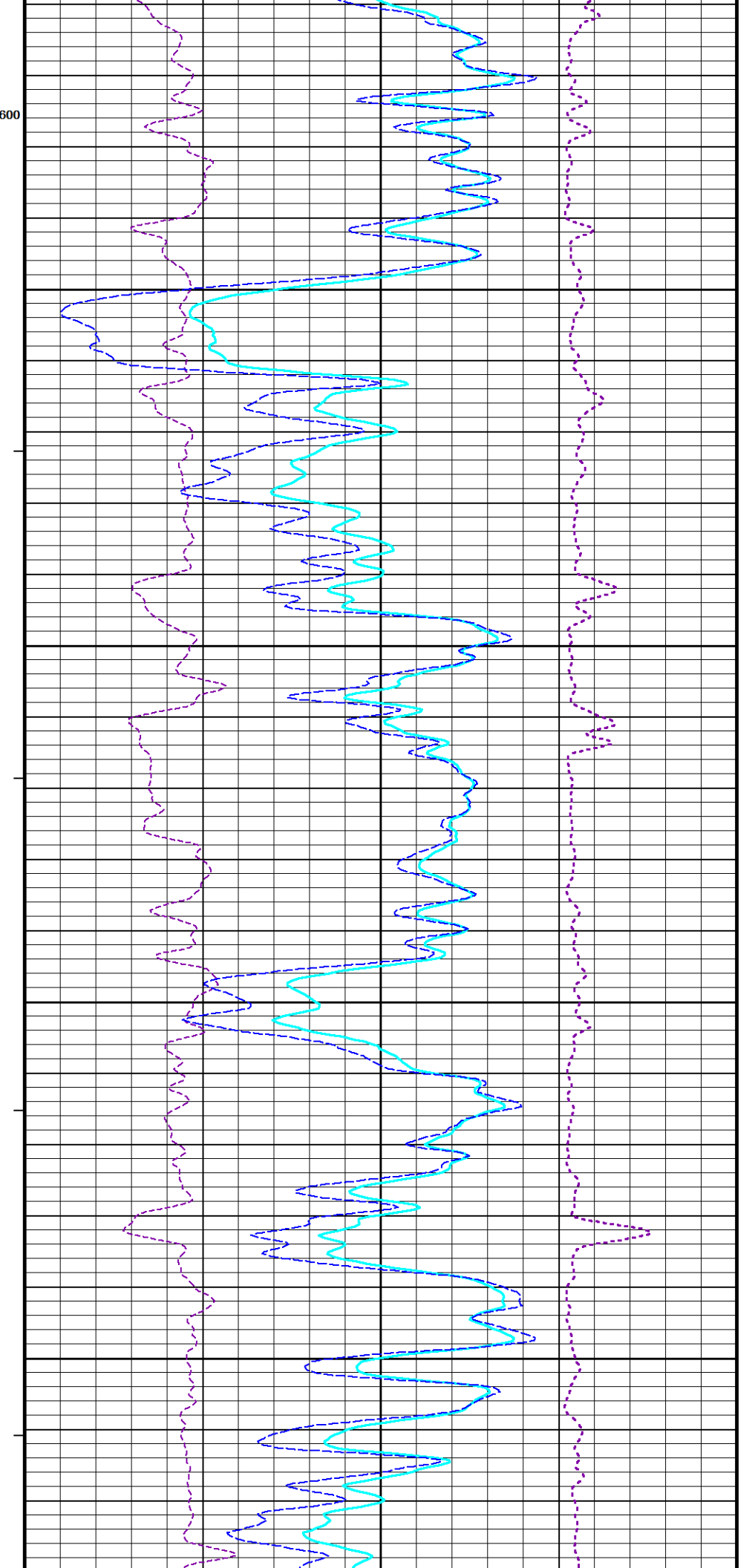
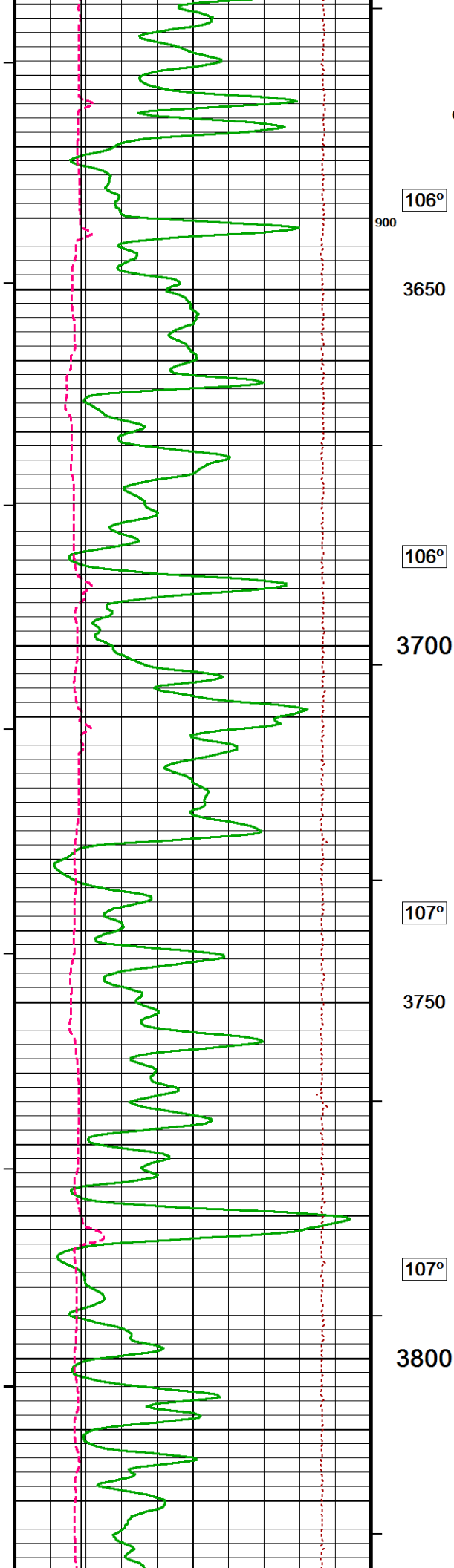
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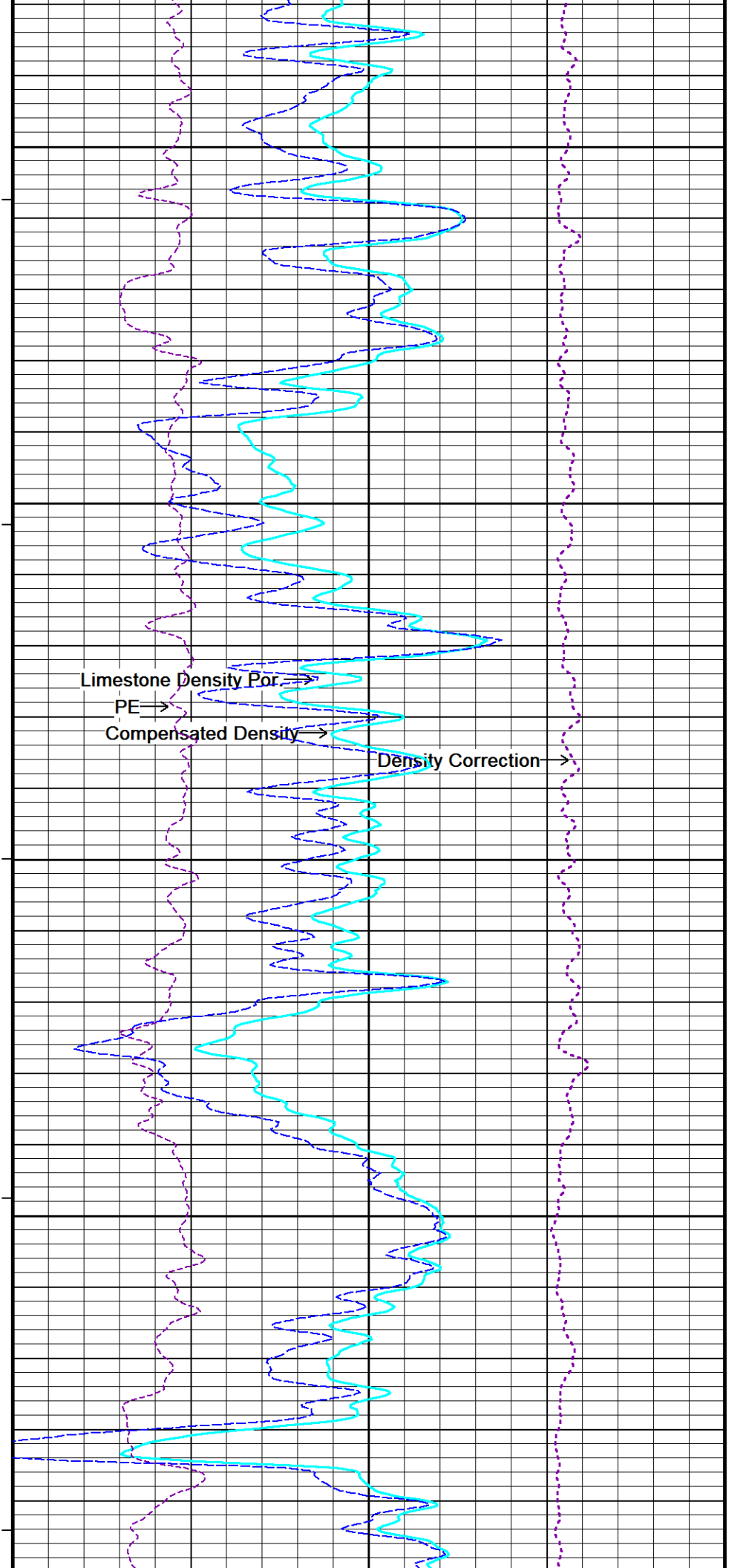
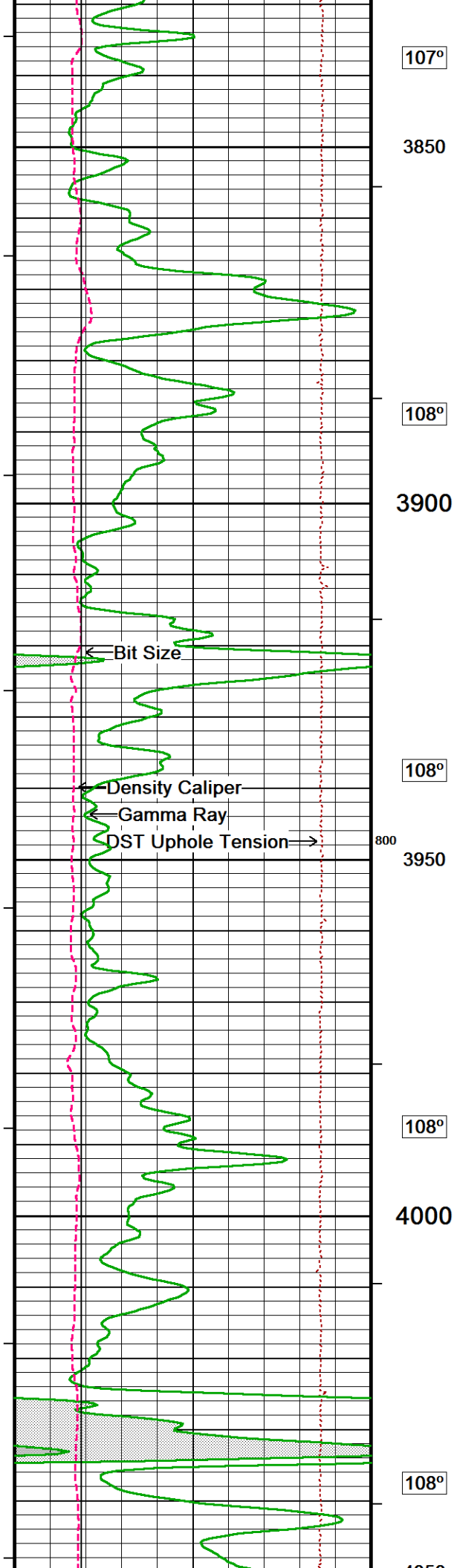
Borehole
Temperature

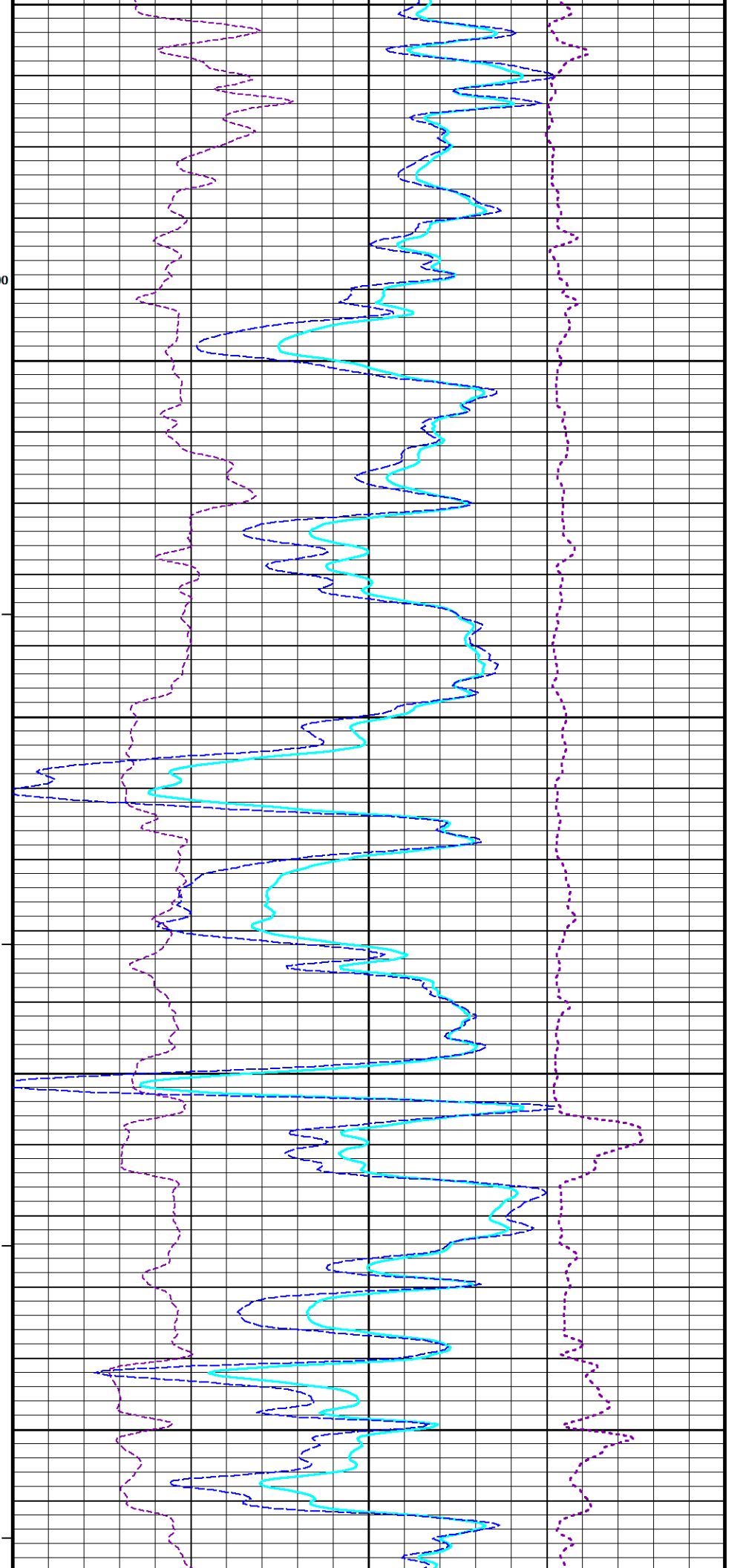
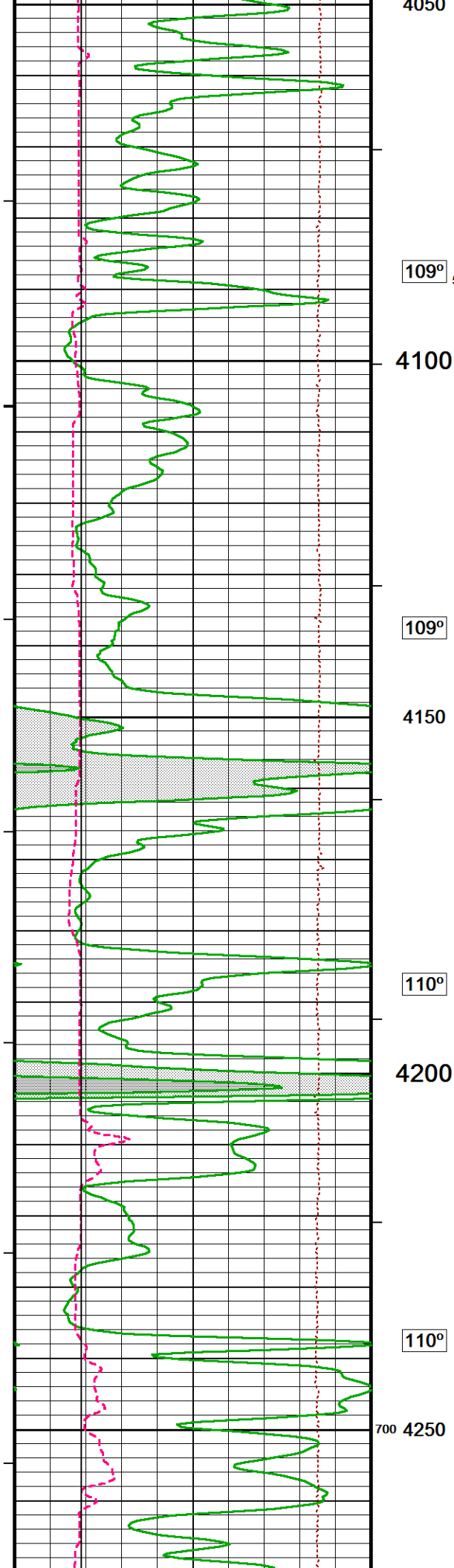


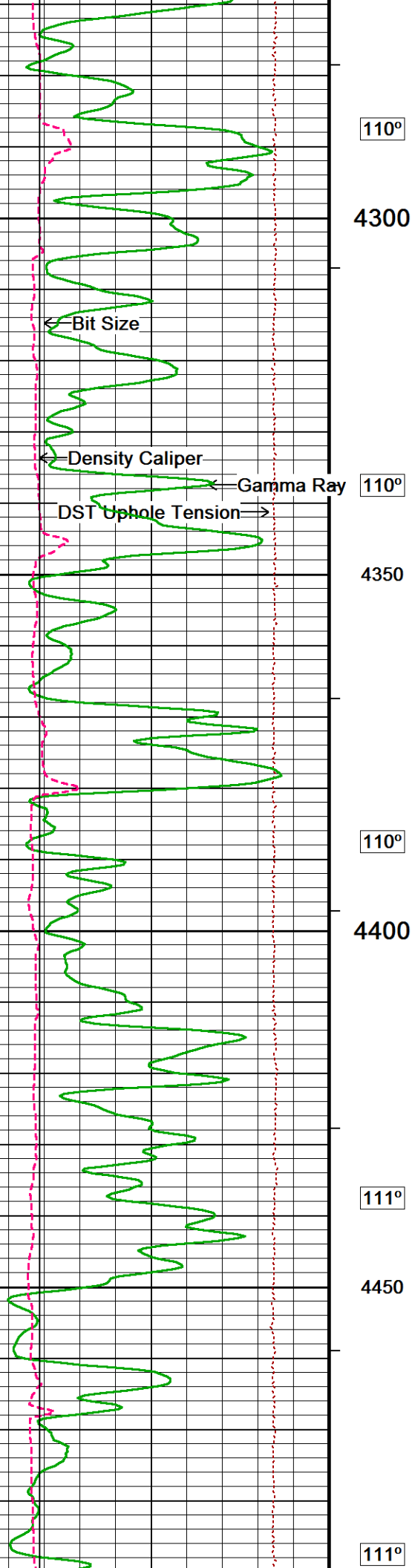












110°

4300

110°

4350

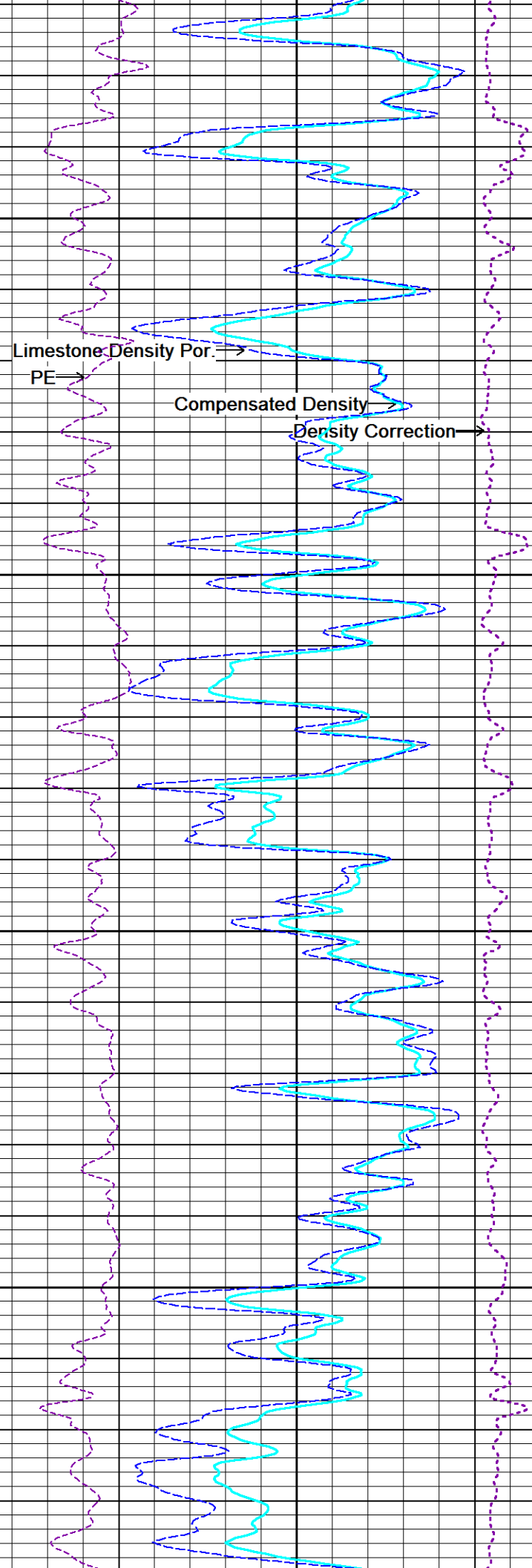
110°

4400

111°

4450

111°

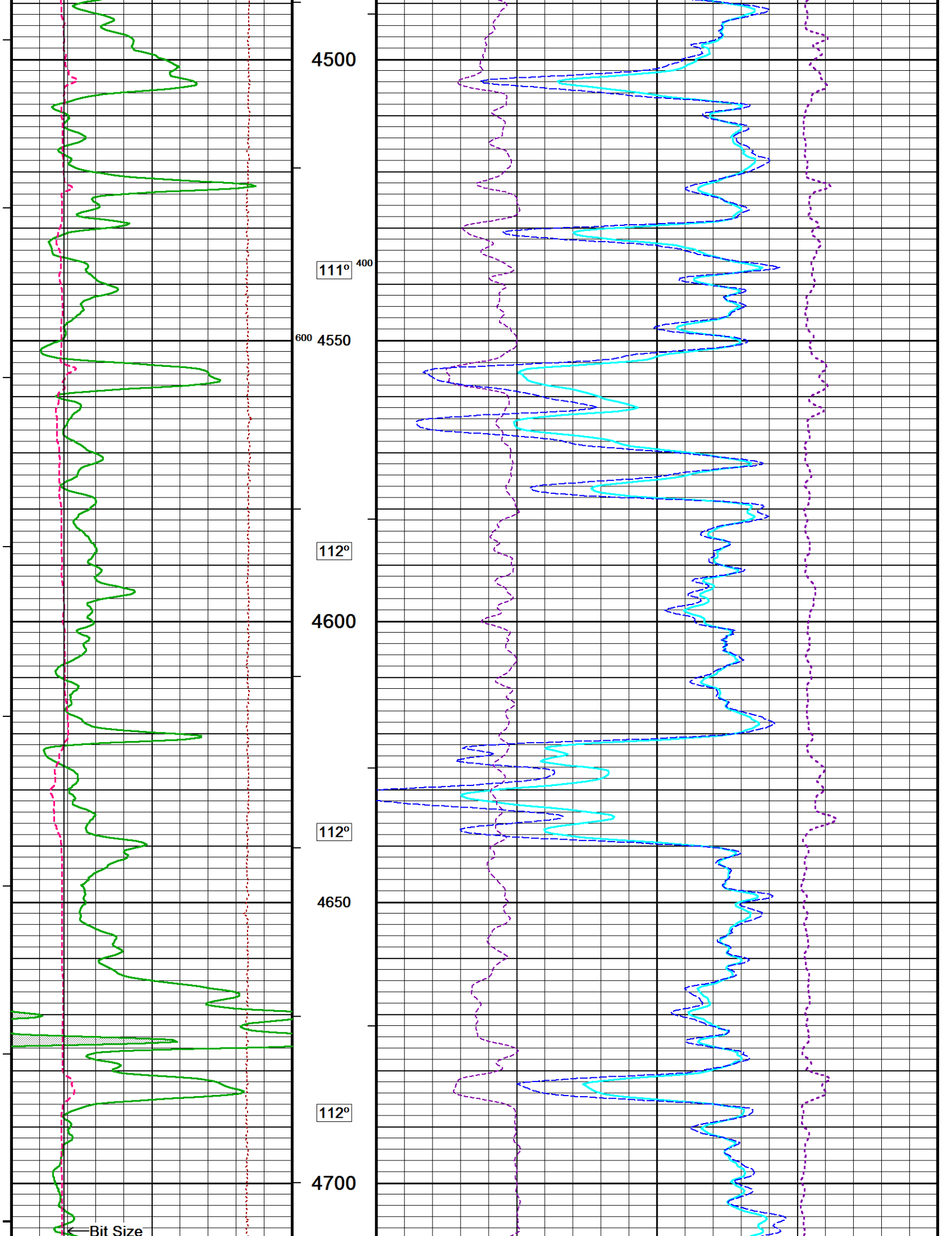


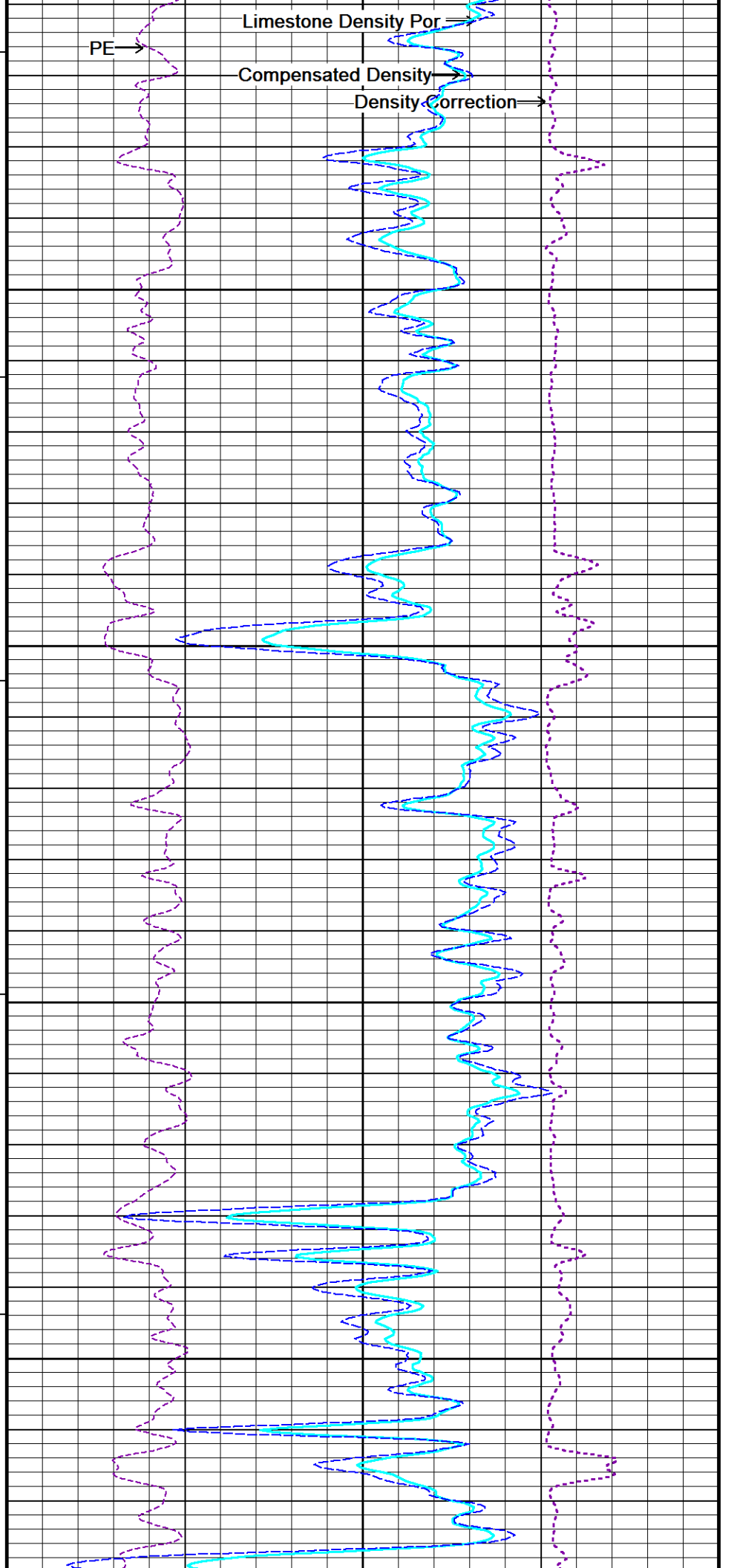
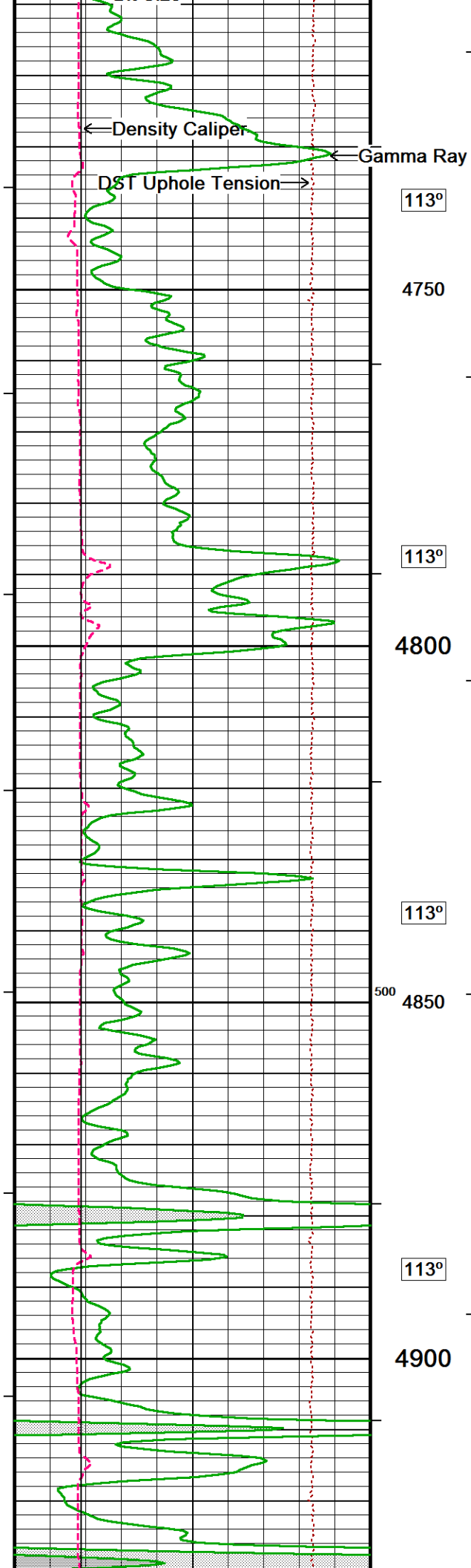
Limestone Density Por.

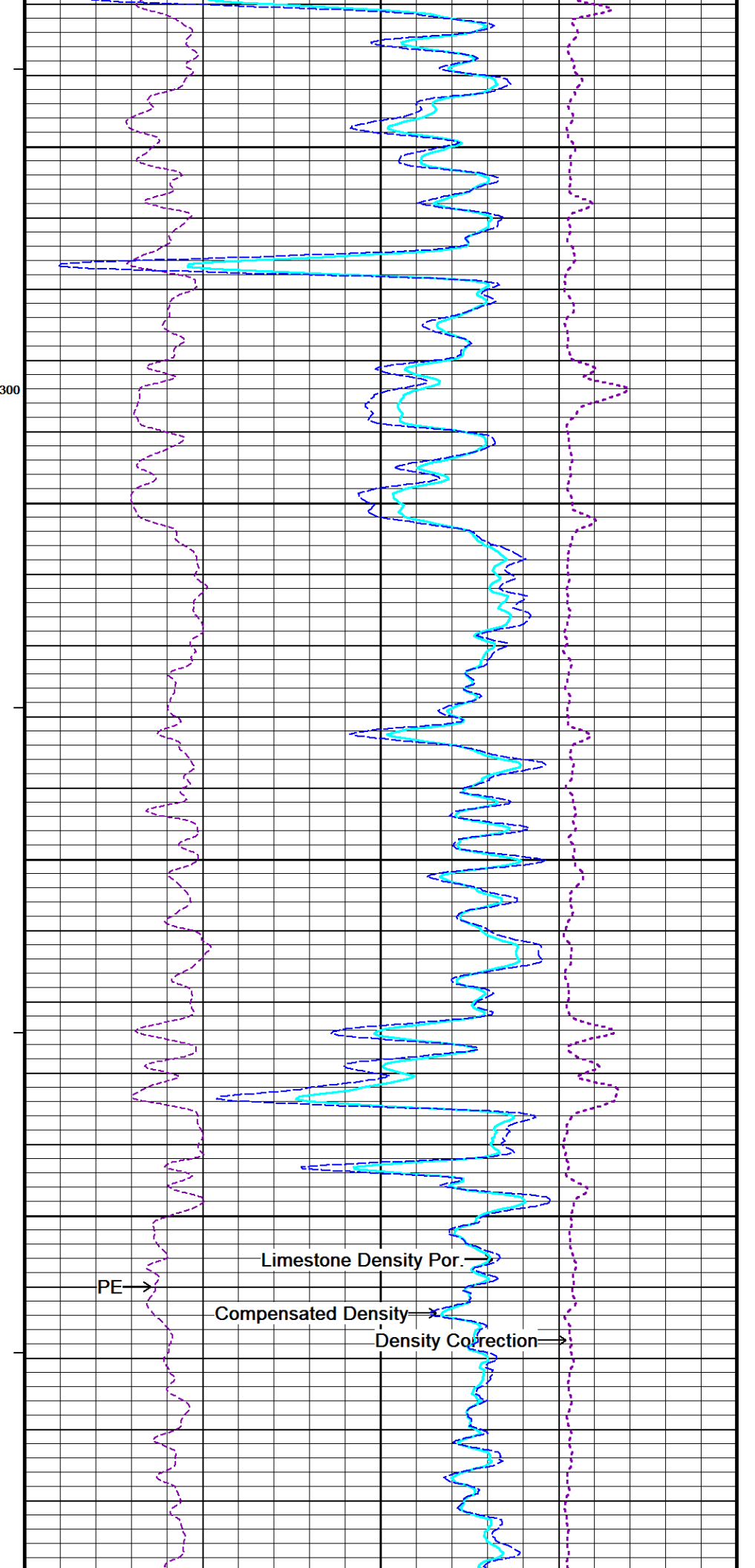
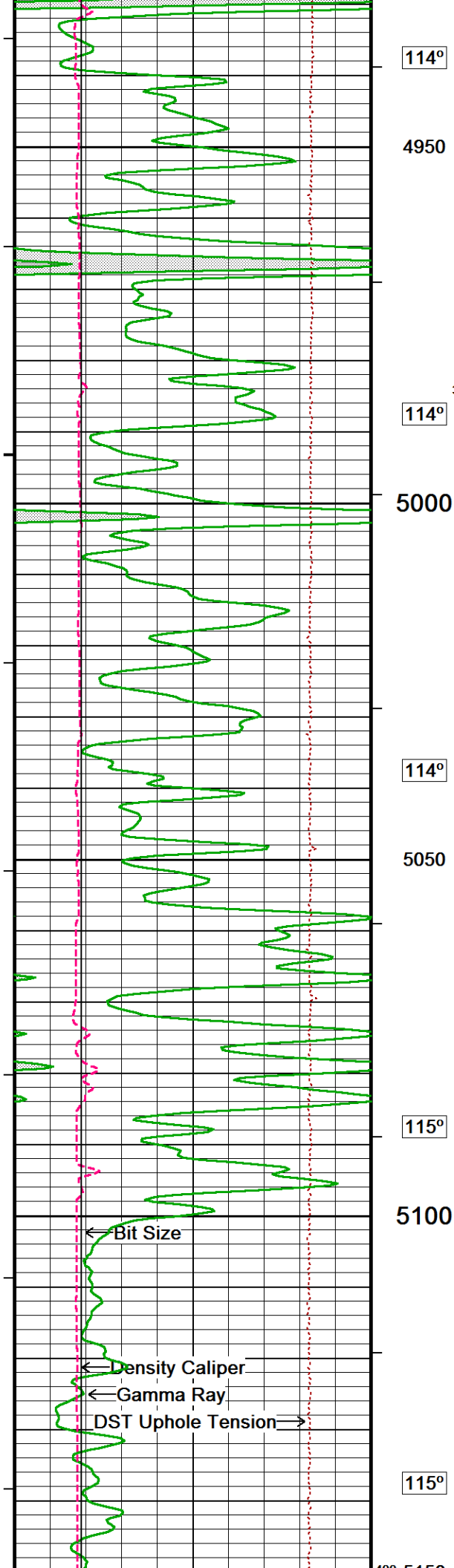
PE

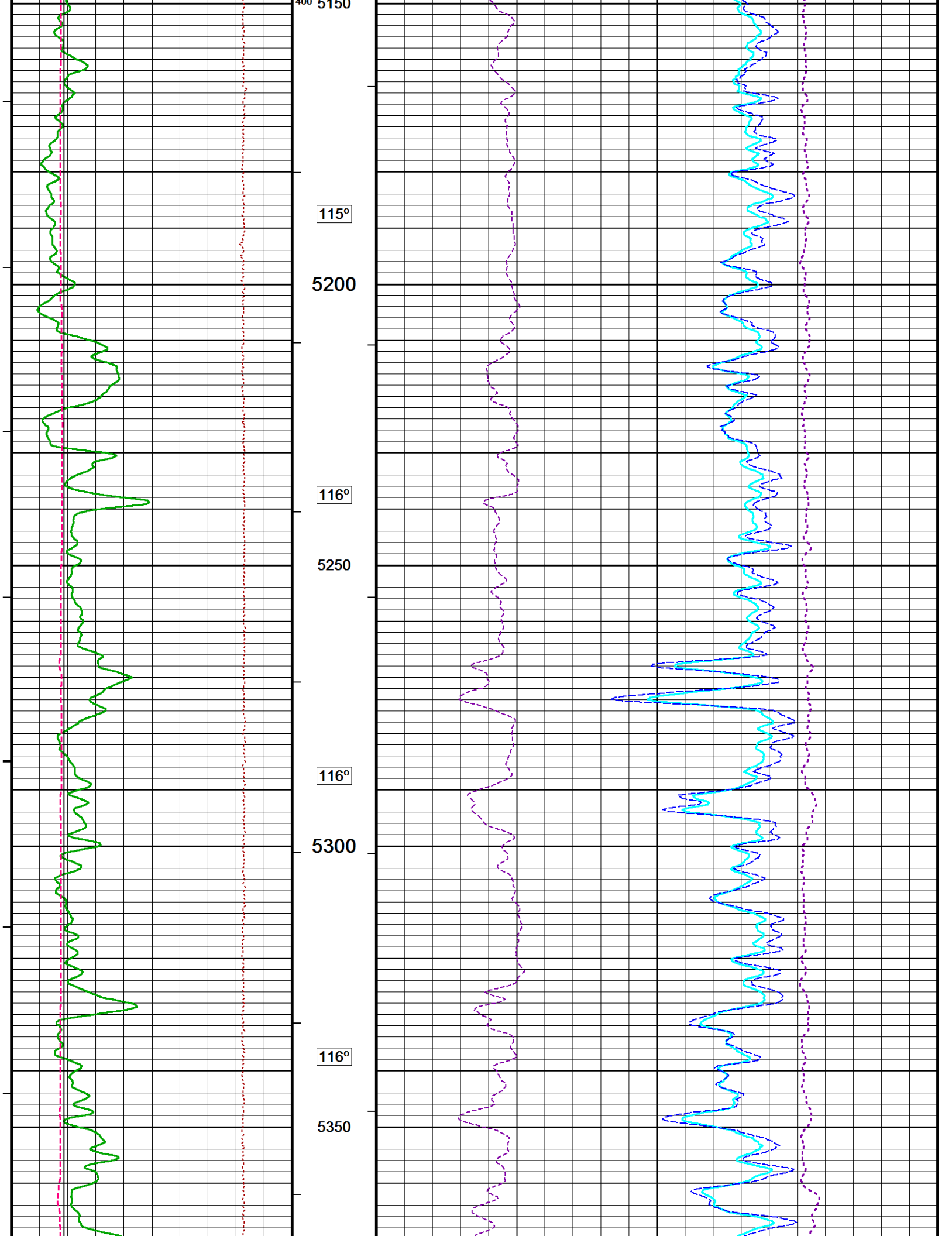
Compensated Density

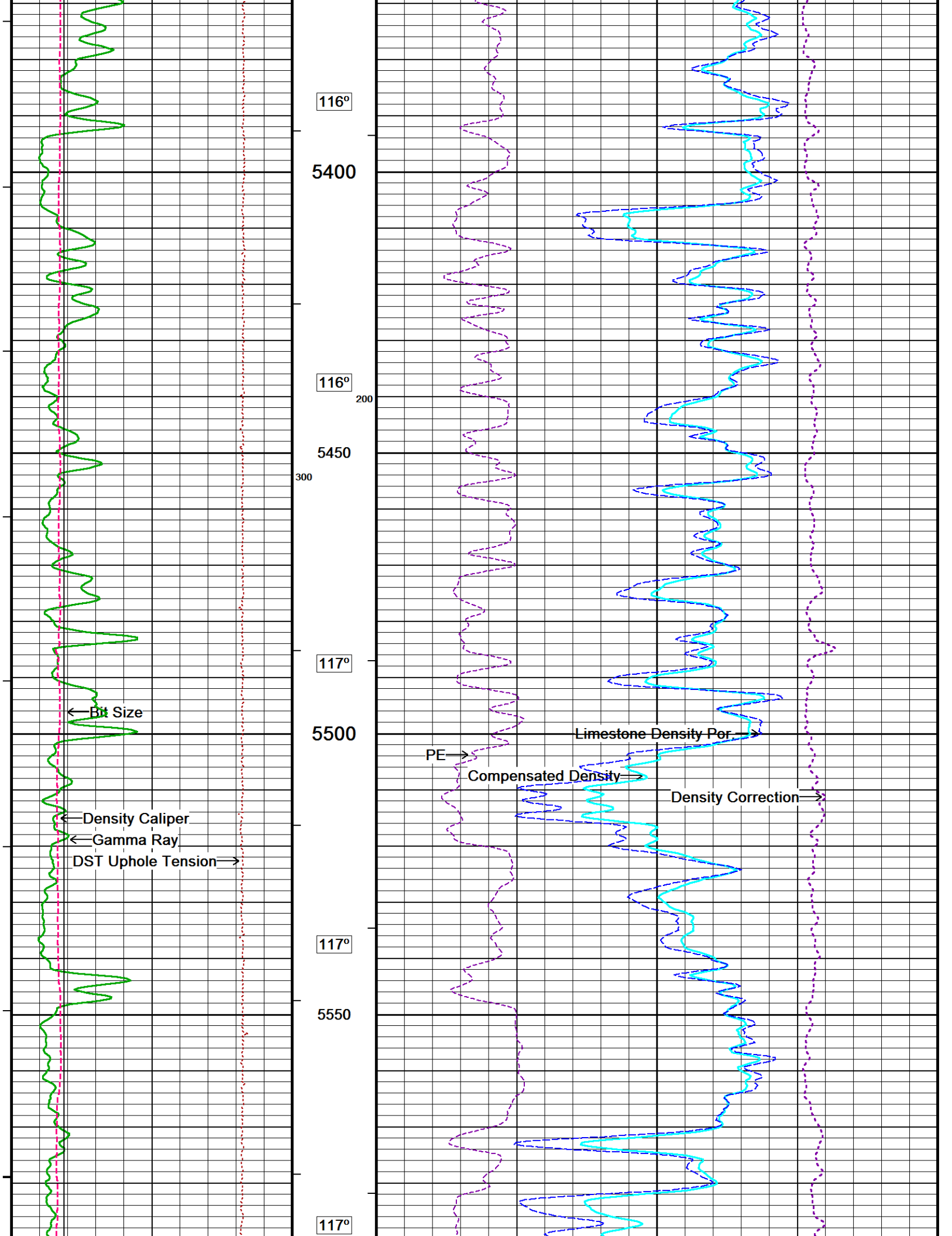
Density Correction

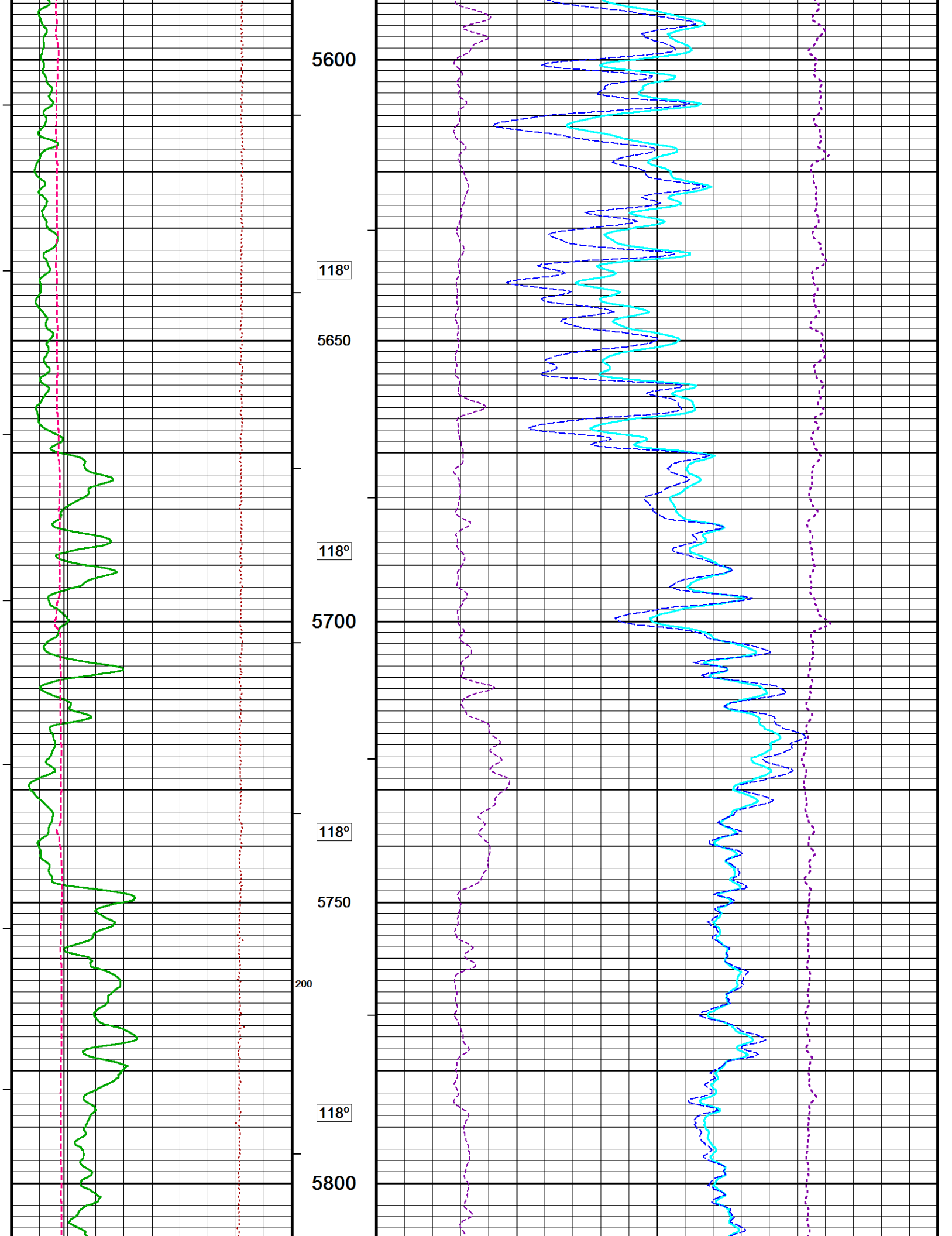


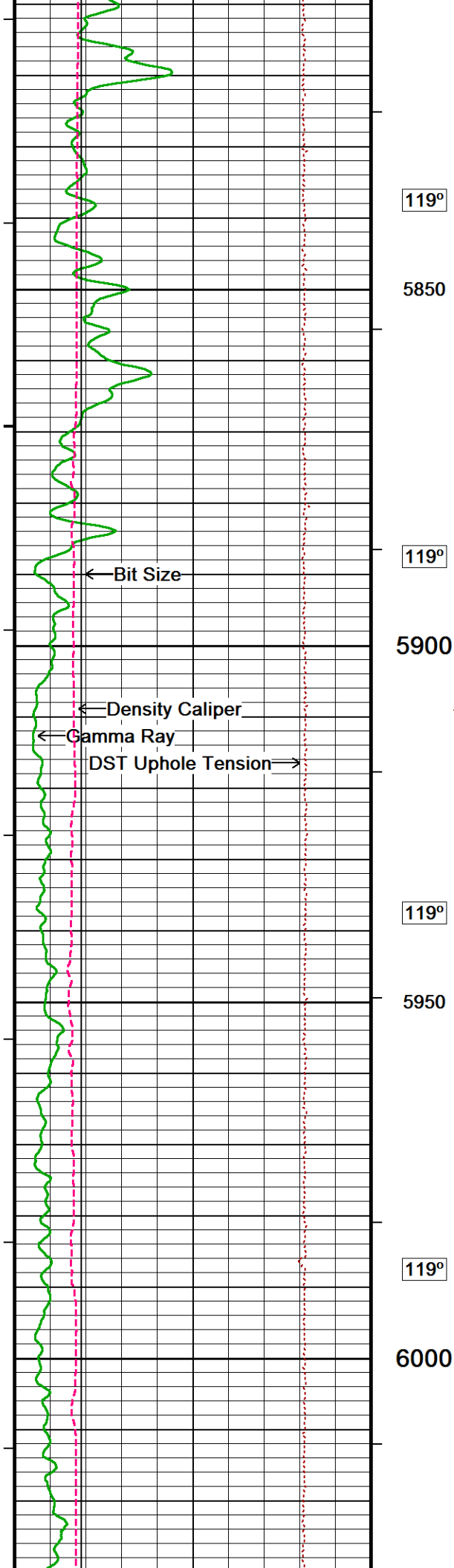












119°

5850

119°

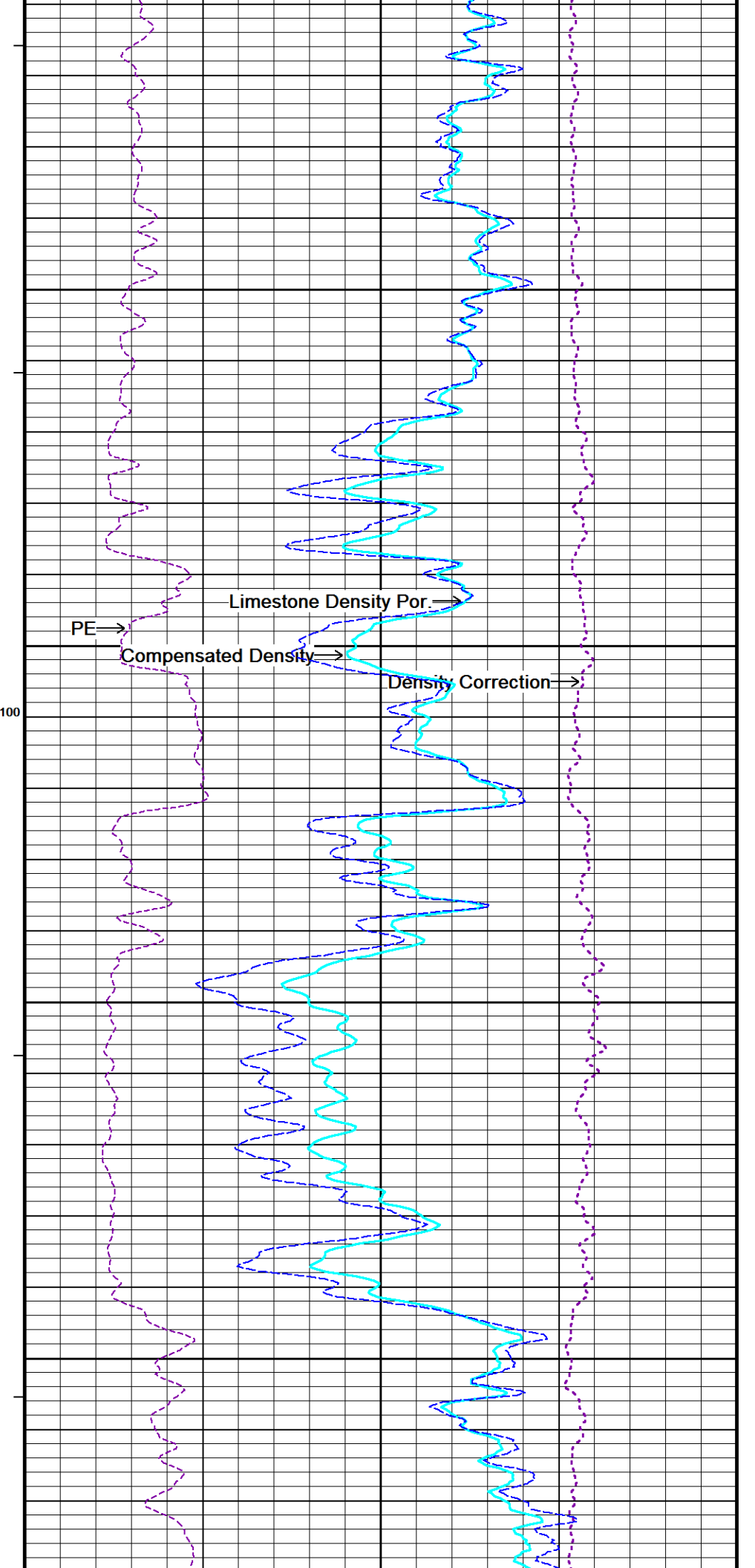
5900

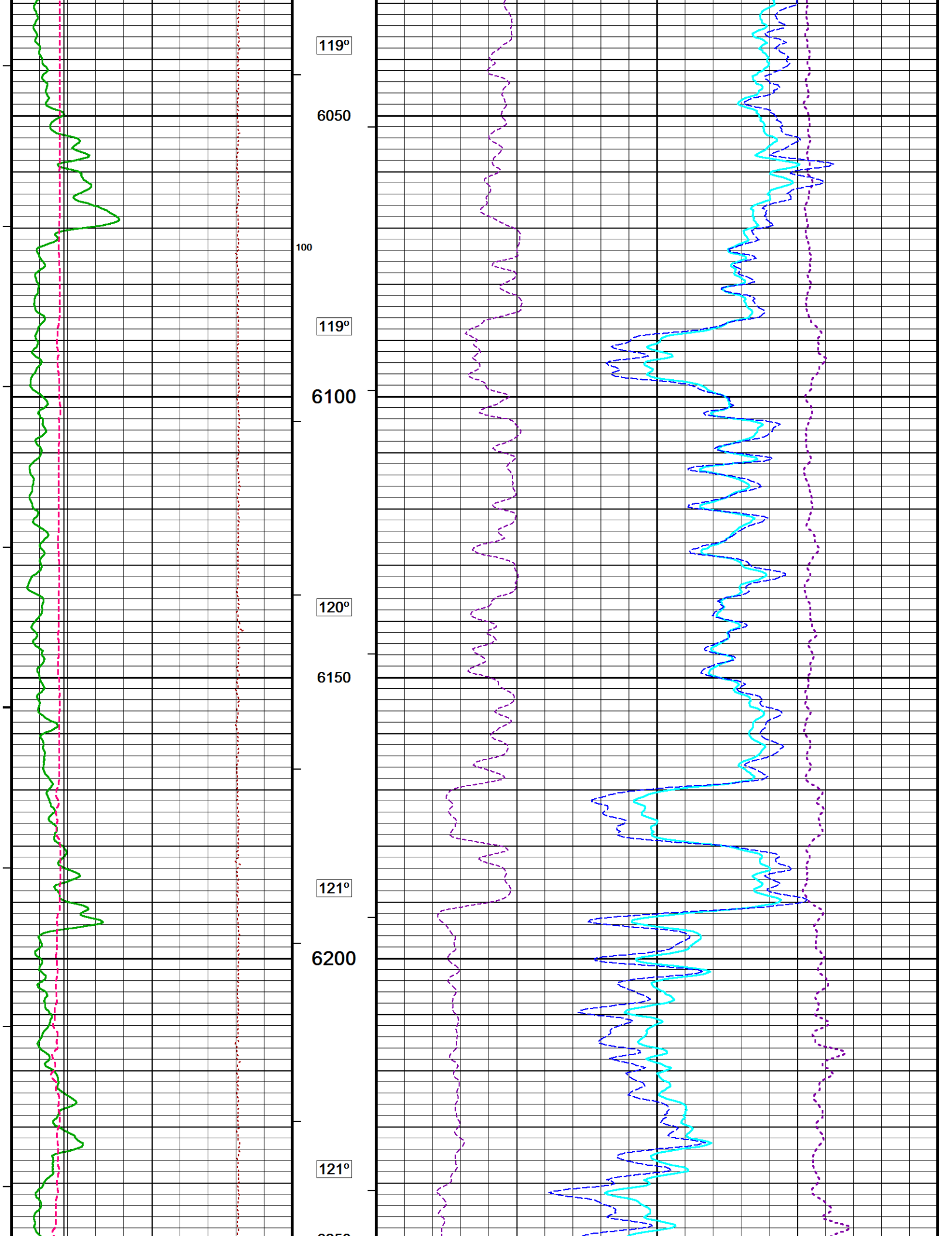
119°

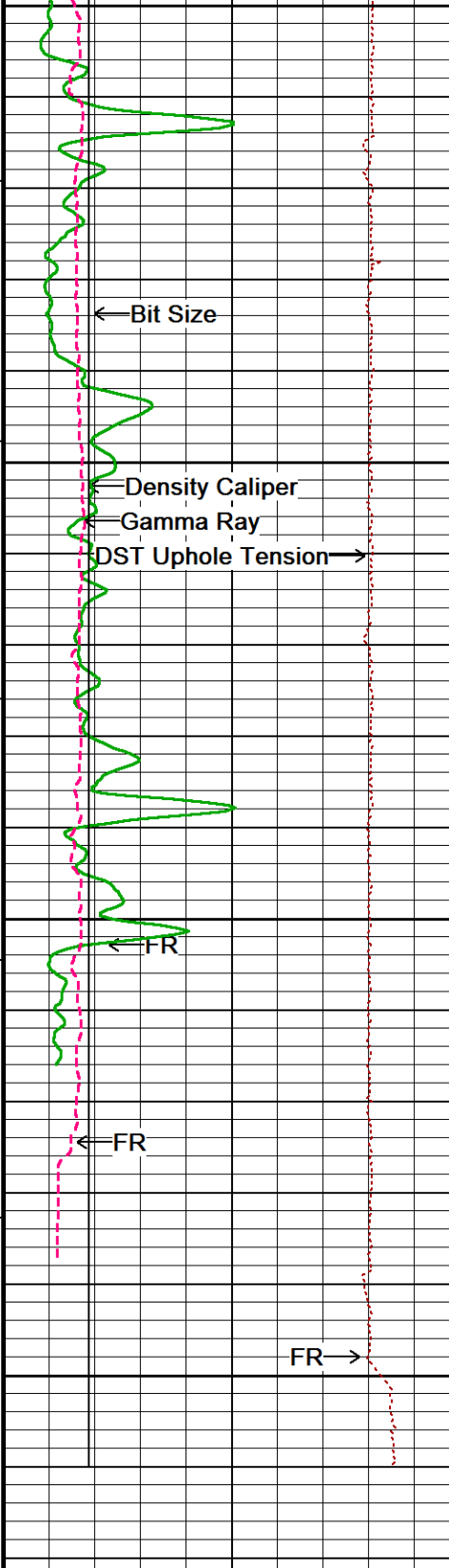
5950

119°

6000







6250

122°

6300

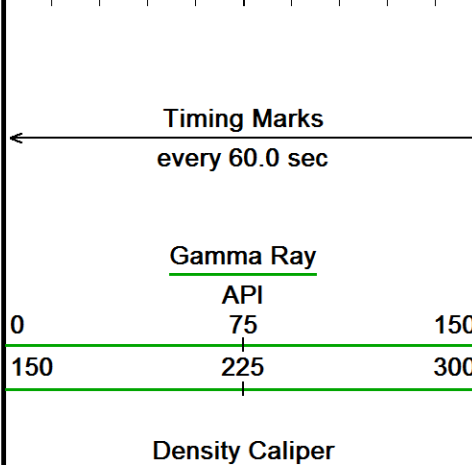
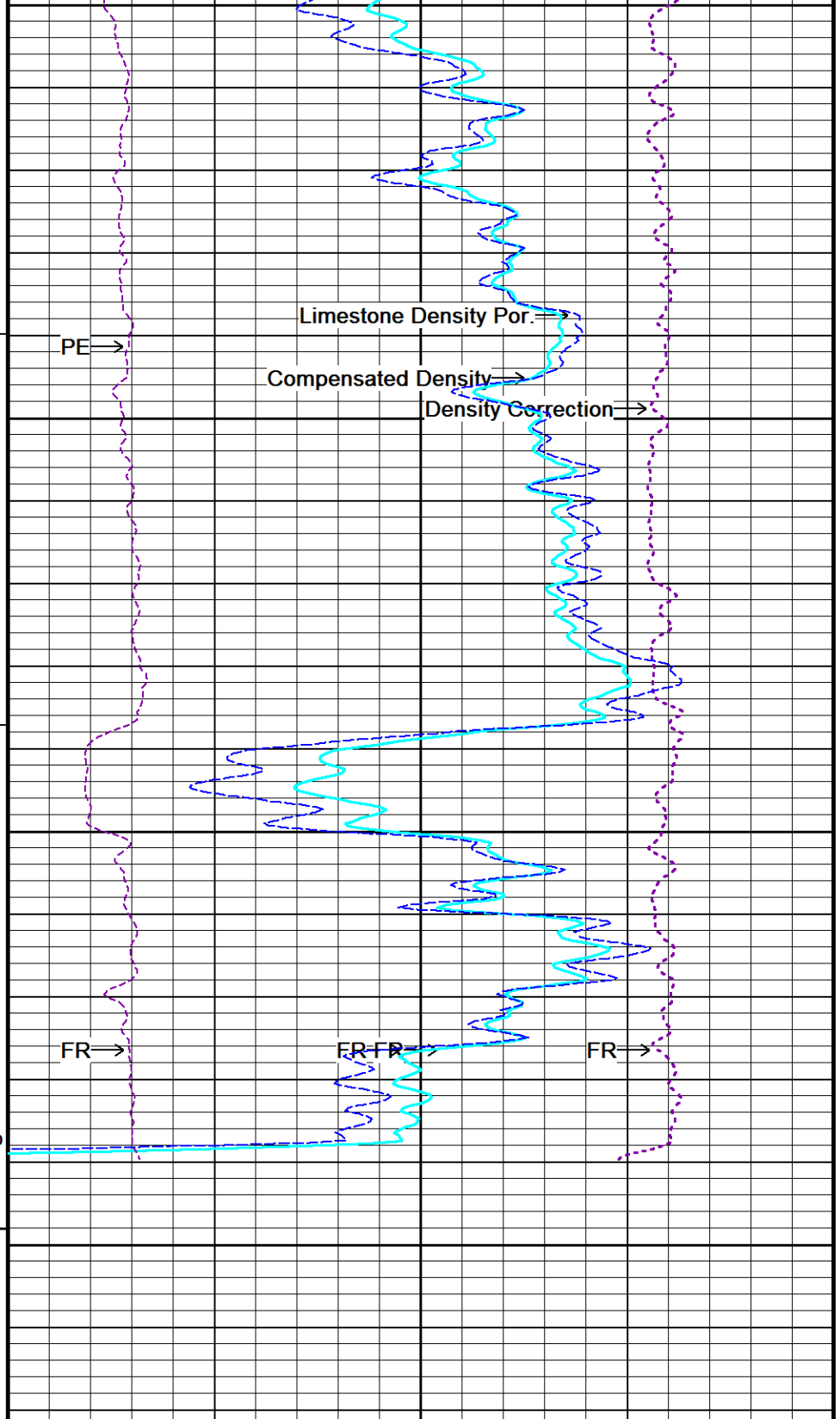
121°

6350

0

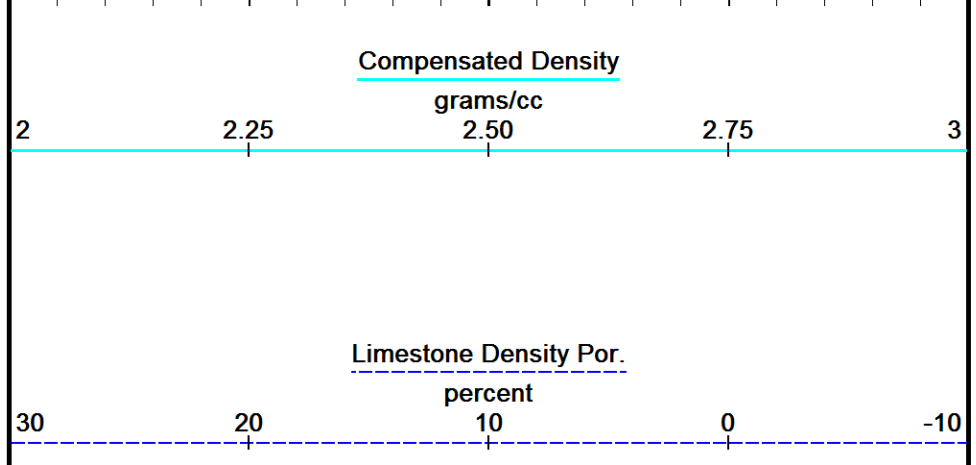
TD

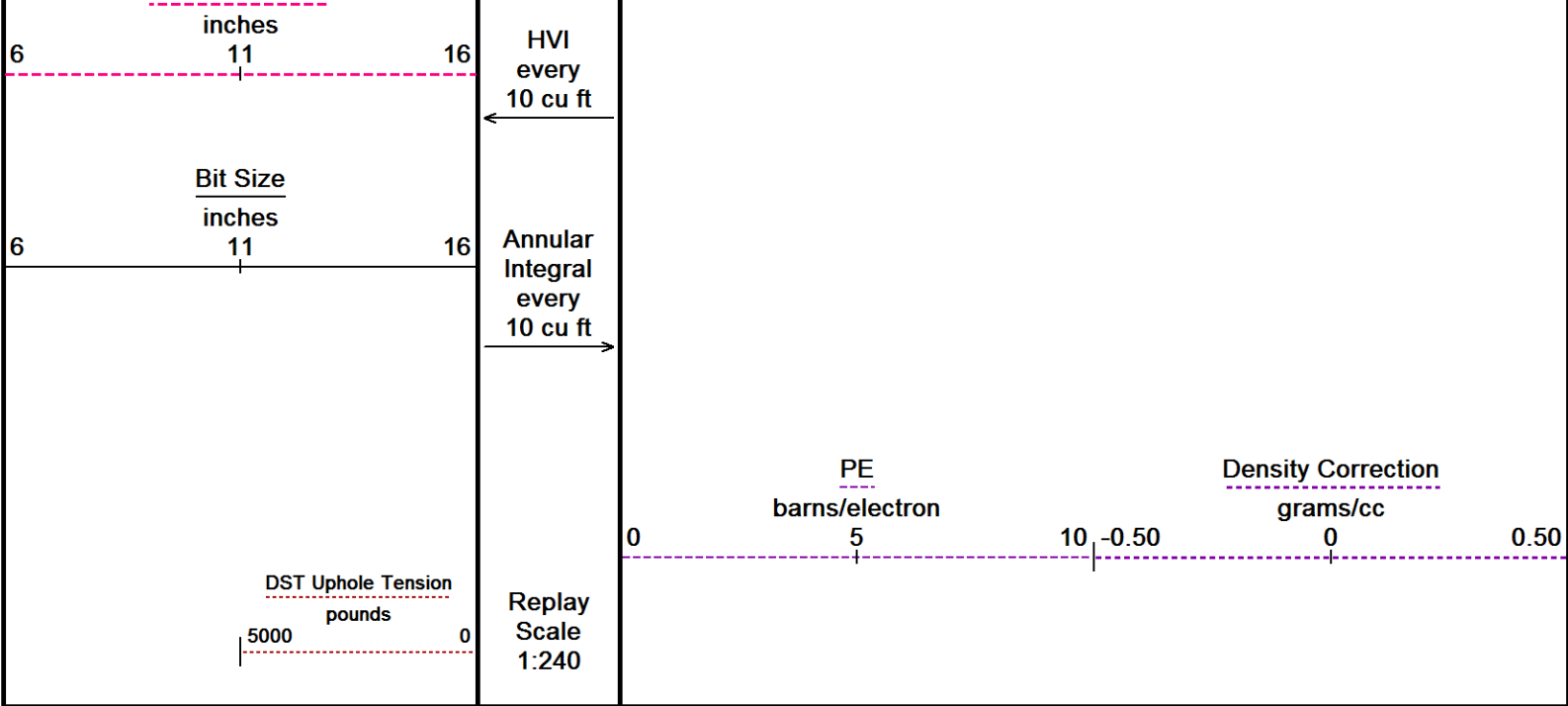
6400



Depth
in
Feet

Borehole
Temp in
deg F





Depth Based Data - Maximum Sampling Increment 10.0cm

Filename: C:\Minimus 17.05.6573\Logs\McCoy Petroleum M...McCoy Petroleum Mack 'A' #1-1_002.dta

System Versions: Logged with 17.05.6573 Plotted with 17.05.6573

Plotted on 27-MAR-2018 10:28

Recorded on 27-MAR-2018 07:39

↑

5 INCH BULK DENSITY MAIN

↑

↓

REPEAT SECTION

↓

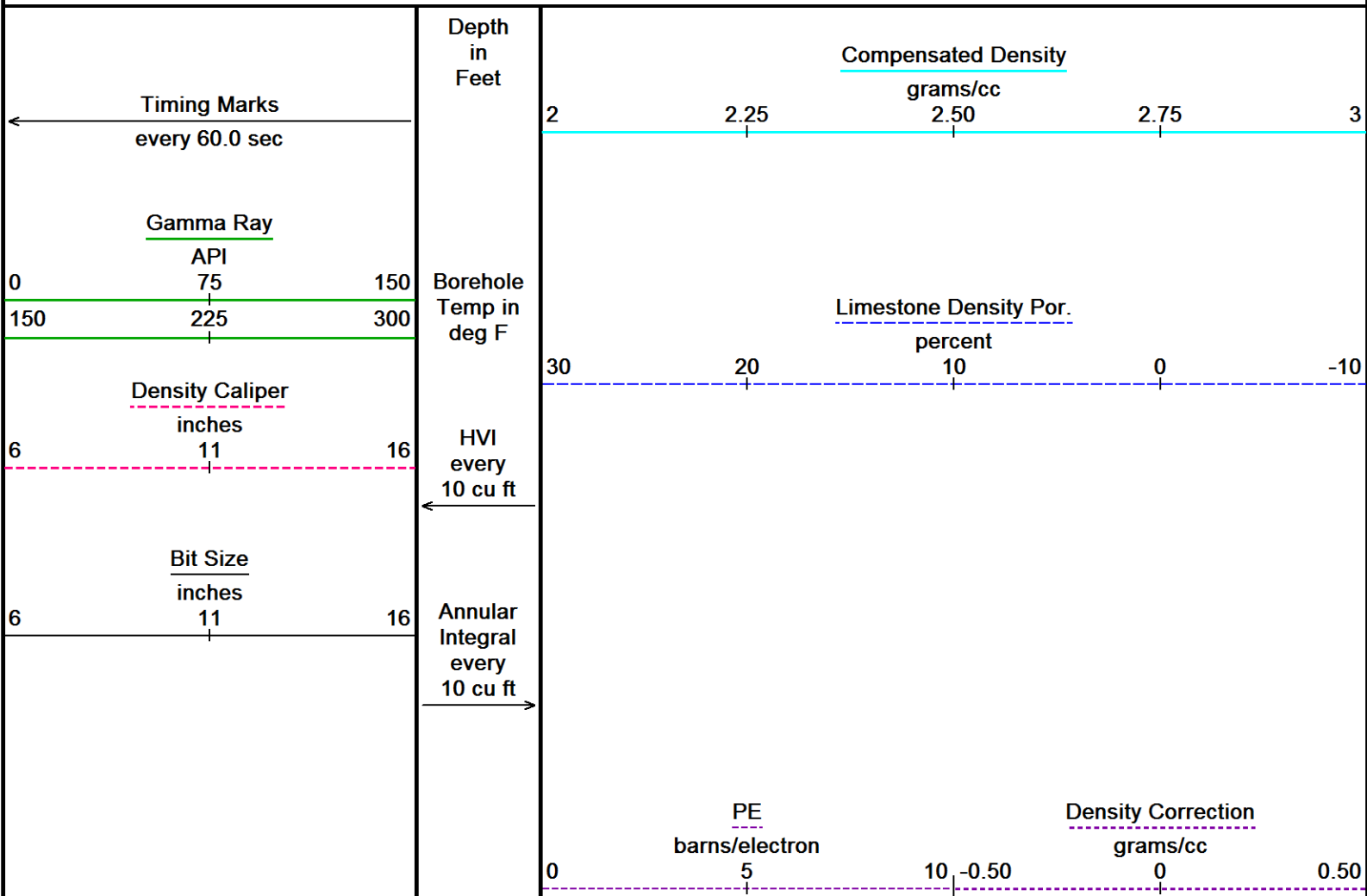
Depth Based Data - Maximum Sampling Increment 10.0cm

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System Versions: Logged with 17.05.6573 Plotted with 17.05.6573

Plotted on 27-MAR-2018 10:28

Recorded on 27-MAR-2018 07:12



DST Uphole Tension
pounds
5000 0

Replay
Scale
1:240

6000

118°

6050

100

118°

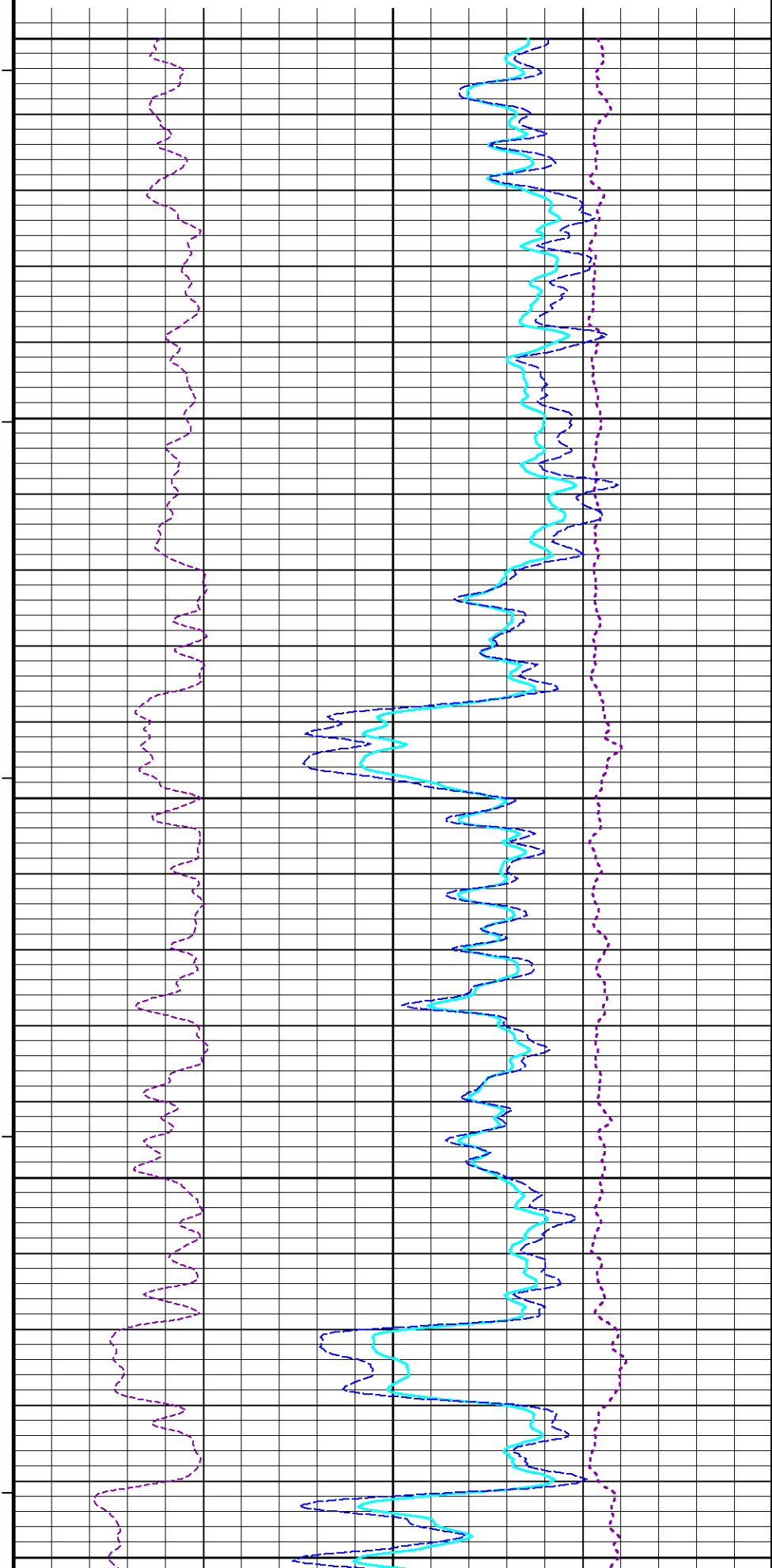
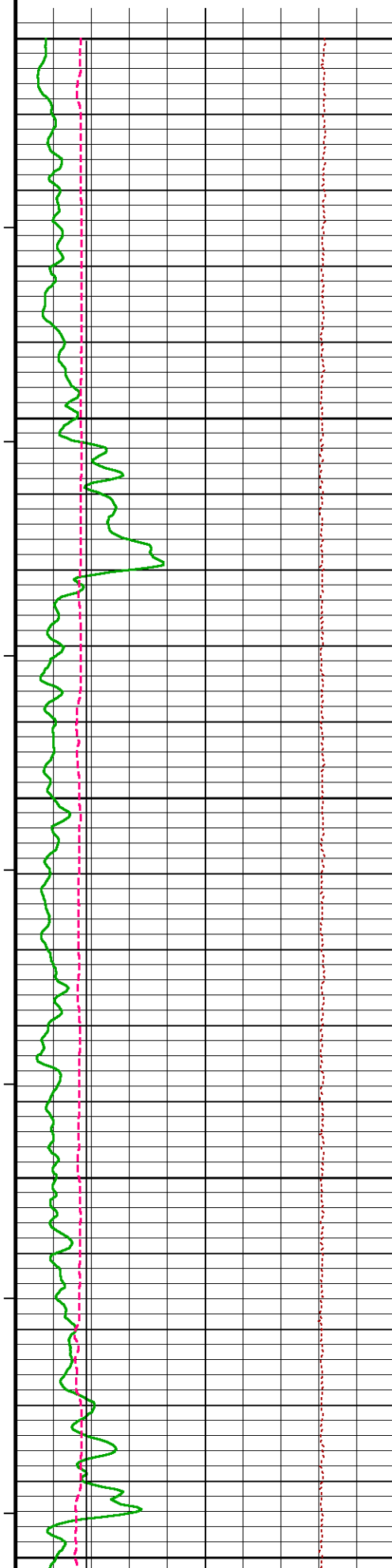
6100

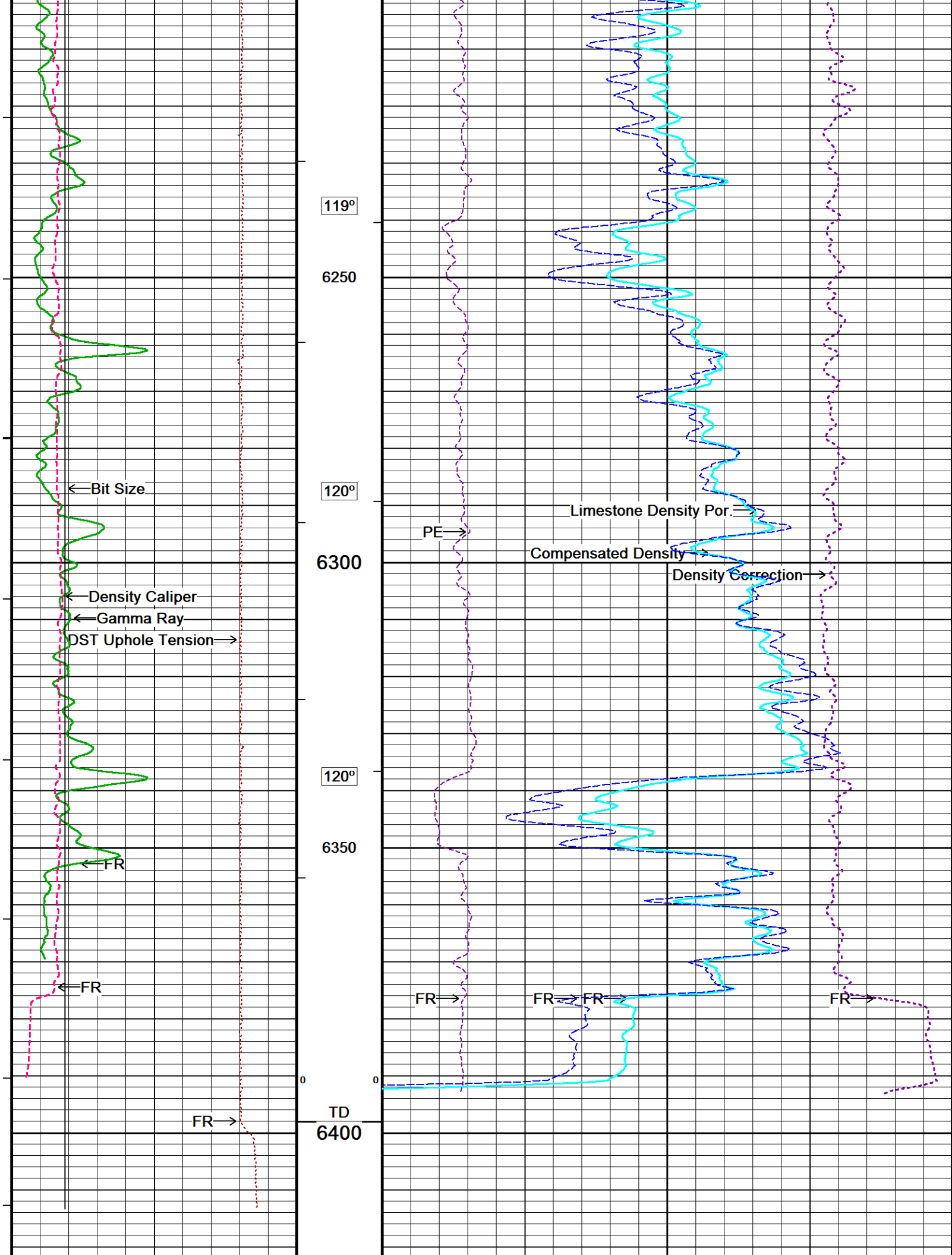
118°

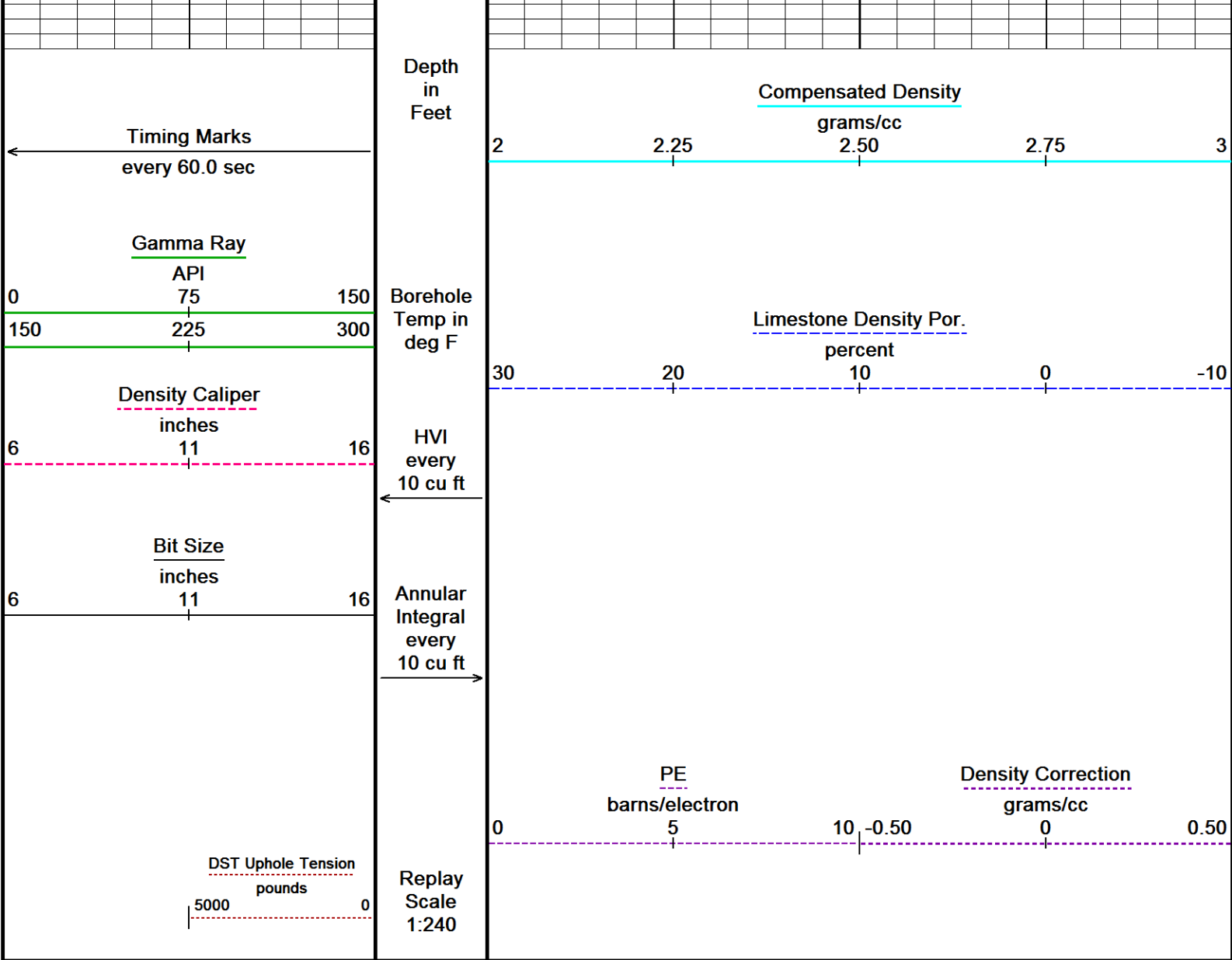
6150

119°

6200







Depth Based Data - Maximum Sampling Increment 10.0cm
Filename: C:\Minimus 17.05.6573\Logs\McCoy Petroleum Mack 'A' #1-1_001.dta
System Versions: Logged with 17.05.6573 Plotted with 17.05.6573
Plotted on 27-MAR-2018 10:28
Recorded on 27-MAR-2018 07:12

↑ REPEAT SECTION ↑

BEFORE SURVEY CALIBRATION		
C:\Minimus 17.05.6573\Logs\McCoy Petroleum Mack 'A' #1-1\McCoy Petroleum Mack 'A' #1-1_001.dta		
General Constants All 000		Last Edited on 27-MAR-2018,06:40
General Parameters		
Mud Resistivity	0.980	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	4.500	inches
Caliper for Differential Caliper	Density Caliper	
Rwa Parameters		
Porosity used	Crossplot Porosity	
Resistivity used	Array Ind. Two Res Rt	
RWA Constant A	0.620	

RWA Constant M		2.150		
SW/APOR Tool Source		0.000		
Gamma Calibration MCG-D.K 431				
		Field Calibration on 26-MAR-2018 21:46		
	Measured	Calibrated (API)		
Background	94	65		
Calibrator (Gross)	756	521		
Calibrator (Net)	662	456		
Gamma Calibration Tolerances MCG-D.K 431				
Ratio	1.451	1.40 1.475 1.55	Counts/API	
Gamma Constants MCG-D.K 431		Last Edited on 27-MAR-2018,04:56		
Gamma Calibrator Number		MCGGRCC141		
GRC-M Calibrator Jig in Use?		NO		
Inactive Background Jig in Use?		NO		
Mud Density		1.12 gm/cc		
Caliper Source for Processing		Density Caliper		
Tool Position		Eccentred		
Potassium Equivalence		Chloride		
K Mud Concentration		0.00 %		
High Resolution Temperature Calibration MCG-D.K 431				
		Field Calibration on 19-MAR-2018,14:27		
	Measured	Calibrated(Deg F)		
Lower	50.00	50.00		
Upper	100.00	100.00		
High Resolution Temperature Constants MCG-D.K 431		Last Edited on 19-MAR-2018,14:27		
Pre-filter Length		11		
Caliper Calibration MPD-C.A 216		Base Calibration on 05-MAR-2018 14:30 Field Calibration on 26-MAR-2018 22:01		
Base Calibration				
Reading No	Measured	Calibrator Size (in)		
1	13952	3.99		
2	22624	5.98		
3	31328	7.97		
4	39616	9.86		
5	48944	11.92		
6	N/A	N/A		
Field Calibration				
	Measured Caliper (in)	Actual Caliper (in)		
	7.99	7.97		
Caliper Calibration Tolerances MPD-C.A 216				
Long Arm Field Cal.	7.99	7.57 7.97 8.37	in	
Photo Density Calibration MPD-C.A 216		Base Calibration on 05-MAR-2018 14:46 Field Check on 26-MAR-2018 22:06		
Density Calibration				
Base Calibration				
	Near	Measured Far	Calibrated (sdu) Near Far	
Background	1013	1201		
Reference 1	49664	24286	59556	30836
Reference 2	19783	2283	24941	2541
Field Check at Base				
	1013.3	1200.6		
Field Check				
	1011.2	1210.9		
PE Calibration				
Base Calibration				
	WS	Measured WH	Calibrated Ratio	
Background	184	914		

Reference 1	21134	49513	0.431	0.371
Reference 2	5761	19676	0.297	0.272

Field Check at Base

183.6	913.7
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Field Check

184.4	908.9
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Photo Density Calibration Tolerances MPD-C.A 216

Near Density Ratio	2.59	-5%	2.52	+5%
PE Calibration	0.125	0.089	0.110	0.131

Far Density Ratio	21.33	-5%	21.00	+5%
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Near Den. Field Check	1011.2	-3%	1013.3	+3%
PE WS Field Check	184.4	-6%	183.6	+6%

Far Den. Field Check	1210.9	-3%	1200.6	+3%
PE WH Field Check	908.9	-6%	913.7	+6%

Density Constants MPD-C.A 216

Last Edited on 27-MAR-2018,04:55

Density Source Id	P50557B	
Nylon Calibrator Number	DNCE695	
Aluminium Calibrator Number	DACD698	
Density Shoe Profile	8 inch	
Caliper Source for Processing	Density Caliper	
PE Correction to Density	Not Applied	
Mud Density	1.12	gm/cc
Mud Density Type		
Mud Filtrate Density	1.00	gm/cc
Dry Hole Mud Filtrate Density	1.00	gm/cc
DNCT	0.00	gm/cc
CRCT	0.00	gm/cc
Density Z/A Correction	Hybrid	
Precision Enhanced Density Processing	Not Applied	
Matrix Density (gm/cc)	Depth (ft)	
2.71	0.00	
0.00	0.00	
0.00	0.00	
0.00	0.00	
0.00	0.00	
0.00	0.00	
0.00	0.00	
0.00	0.00	
0.00	0.00	

DOWNHOLE EQUIPMENT

C:\Minimus 17.05.6573\Logs\McCoy Petroleum Mack 'A' #1-1\McCoy Petroleum Mack 'A' #1-1_001.dta

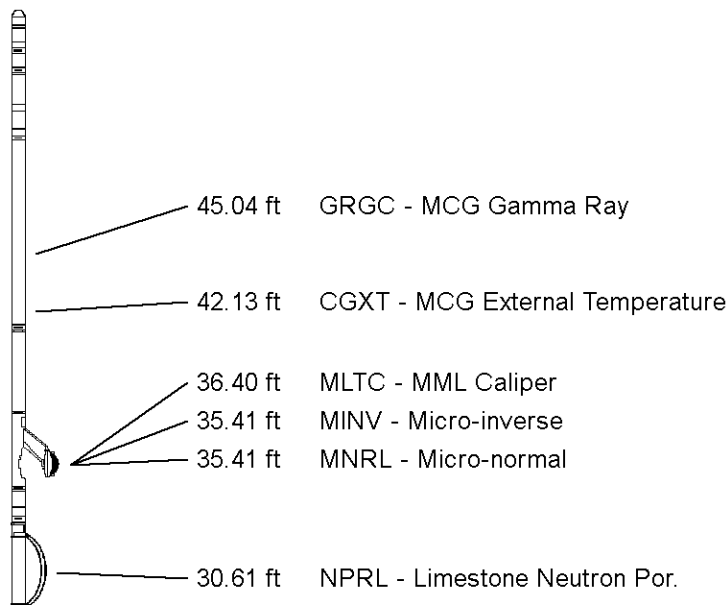
Cablehead, 11 pin
CBH-C 0 LG: 2.40 ft WT: 24.3 lb OD: 2.244 in

Compact Swivel Head Adaptor
SHA-F 48 LG: 2.74 ft WT: 26.5 lb OD: 2.244 in

Compact Comms Gamma
MCG-D.K 431 LG: 8.70 ft WT: 63.9 lb OD: 2.244 in

Compact Micro-log
MML-A 2 LG: 7.97 ft WT: 81.6 lb OD: 2.244 in

Compact Neutron
MDN-B.A 292 LG: 5.04 ft WT: 50.7 lb OD: 2.244 in



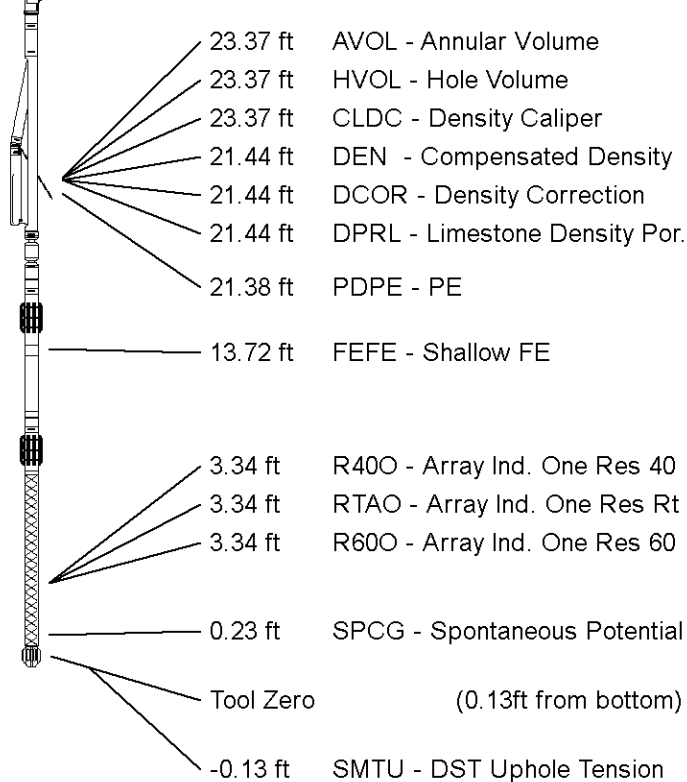
Compact Density/Caliper
MPD-C.A 216 LG: 9.59 ft WT: 90.4 lb OD: 2.913 in

Compact Knuckle Joint
SKJ-E.B 732 LG: 2.17 ft WT: 24.3 lb OD: 2.244 in

Compact Focussed Electric
MFE-A.A 135 LG: 6.05 ft WT: 48.5 lb OD: 2.244 in

Compact Induction
MAI-A.A 111 LG: 10.81 ft WT: 48.5 lb OD: 2.244 in

Total Length: 55.46 ft Weight: 458.6 lb



All measurements relative to tool zero.

COMPANY	McCOY PETROLEUM CORPORATION
WELL	MACK 'A' #1-1
FIELD	WILDCAT
PROVINCE/COUNTY	GRAY
COUNTRY/STATE	U.S.A / KANSAS

Elevation Kelly Bushing	2767	feet	First Reading	6377.00	feet
Elevation Drill Floor	2765	feet	Depth Driller	6400.00	feet
Elevation Ground Level	2754	feet	Depth Logger	6398.00	feet



Weatherford®

COMPACT PHOTO DENSITY
COMPENSATED NEUTRON
MICRORESISTIVITY LOG