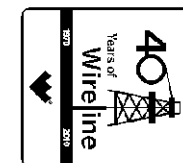




Weatherford

HOLE VOLUME CALIPER LOG



COMPANY	BILL BARRETT CORPORATION		
WELL	KAUFMAN 24D-24-692		
FIELD	MAMM CREEK		
PROVINCE/COUNTY	GARFIELD		
COUNTRY/STATE	U.S.A. / COLORADO		
LOCATION	SHL: 1761' FSL & 2418' FEL BHL: 1142' FSL & 1970' FWL		
SEC	TWP	RGE	Other Services
24	6S	92W	MPD/MDN MAI/MFE
API Number	05-045-19647		
Permit Number			
Permanent Datum G.L., Elevation 5843 feet			Elevations:
Log Measured From KB			KB 5866.00
Drilling Measured From K.B.			DF 5866.00
			GL 5843.00
Date	19-AUG-2011		
Run Number	ONE		
Depth Driller	7610.00	feet	
Depth Logger	7606.00	feet	
First Reading	7583.00		
Last Reading	856.00		
Casing Driller	855.00	feet	
Casing Logger	856.00	feet	
Bit Size	7.875	inches	
Hole Fluid Type	LSND		
Density / Viscosity	10.50 lb/USg	55.00 CP	
PH / Fluid Loss	9.50	7.00 ml/30Min	
Sample Source	FLOW LINE		
Rm @ Measured Temp	1.85 @100.0	ohm-m	
Rmf @ Measured Temp	1.48 @100.0	ohm-m	
Rmc @ Measured Temp	2.22 @100.0	ohm-m	
Source Rmf / Rmc	CALC	CALC	
Rm @ BHT	0.97 @193.0	ohm-m	
Time Since Circulation	5 HOURS		
Max Recorded Temp	193.00	deg F	
Equipment Name	COMPACT		
Equipment / Base	13173	GD JCT	
Recorded By	O. GOYZUETA		S. GOSWAMI
Witnessed By	C. CROW		
Service Order	3524759		

BOREHOLE RECORD			Last Edited: 19-AUG-2011 16:57	
Bit Size inches	Depth From feet		Depth To feet	
8.750	856.00		5680.00	
7.875	5680.00		7606.00	
CASING RECORD				
Type	Size inches	Depth From feet	Shoe Depth feet	Weight pounds/ft
SURFACE	9.625	0.00	856.00	36.00

REMARKS
TOOLS: MCG, MDN, MPD, SKJ, MFE AND MAI RAN IN COMBINATION.
HARDWARE: MPD: 8 INCH PROFILE PLATE USED. TWO 0.5 INCH STANDOFFS USED ON INDUCTION. DUAL BOWSPRING USED ON NEUTRON.
2.68 G/CC DENSITY MATRIX USED TO CALCULATE POROSITY.
ALL INTERVALS LOGGED AND SCALED PER CUSTOMER'S REQUEST.
TIGHT PULLS, BOREHOLE SIZE, AND RUGOSITY WILL AFFECT REPEATABILITY AND DATA QUALITY.
CALIPER CHECK IN CASING PRESENTED, REFERENCE I.D. = 8.94" (9 5/8", 36 LB/FT CASING).
8.75 INCH BIT CHANGE AT 5680 FT.
TOTAL HOLE VOLUME FROM TD TO SURFACE CASING = 2890 CU FT

STRAIGHT HOLE VOLUME FROM TD TO SURFACE CASING = 2040 CU.FT.
ANNULAR VOLUME WITH 4.5 INCH PRODUCTION CASING = 2040 CU.FT.

ENGINEER(S): O. GOYZUETA

OPERATOR(S): C. ROGERS (JFE), D. DALEY, S. GOSWAMI (JFE)

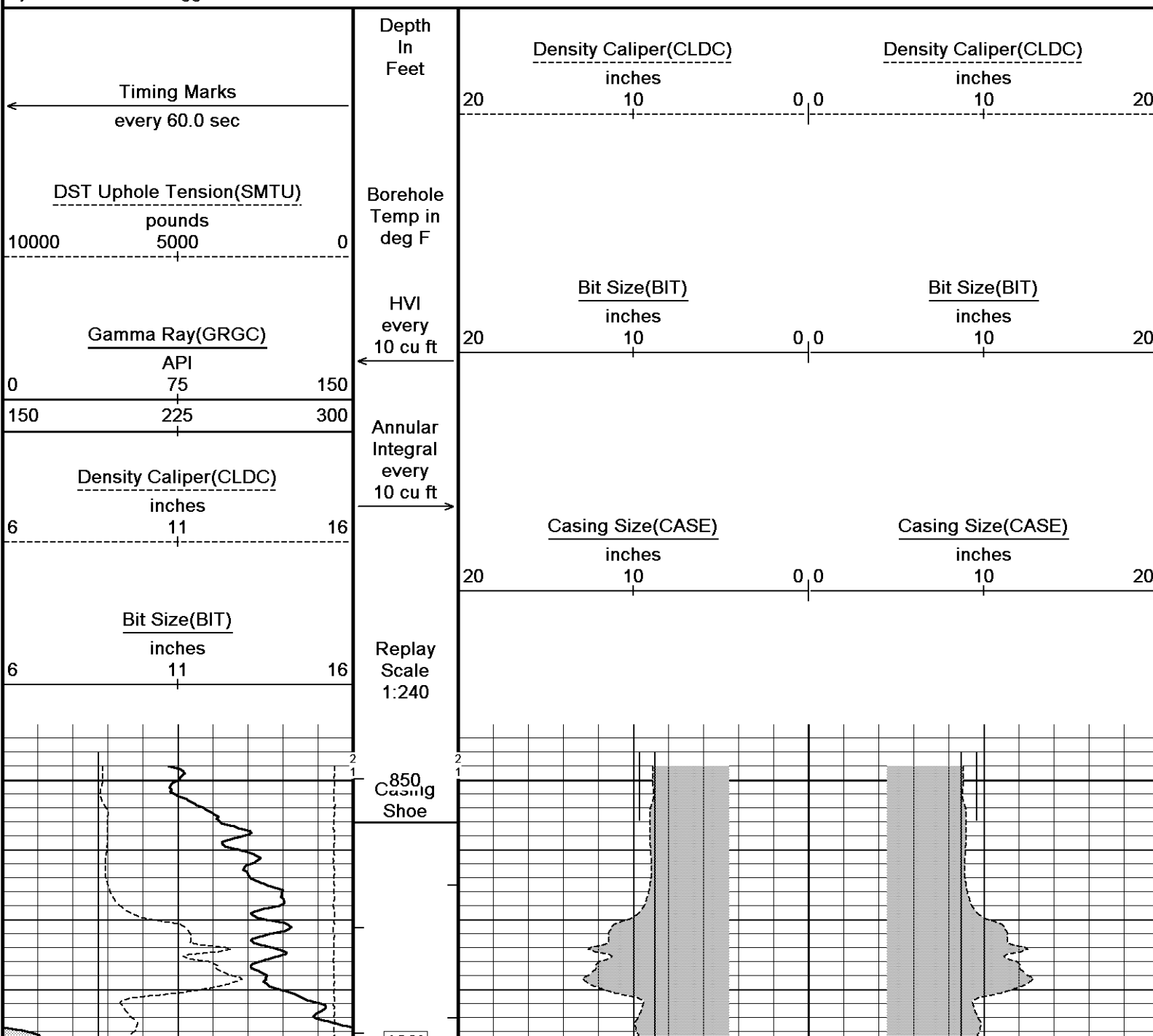
SERVICE ORDER: # 3524759

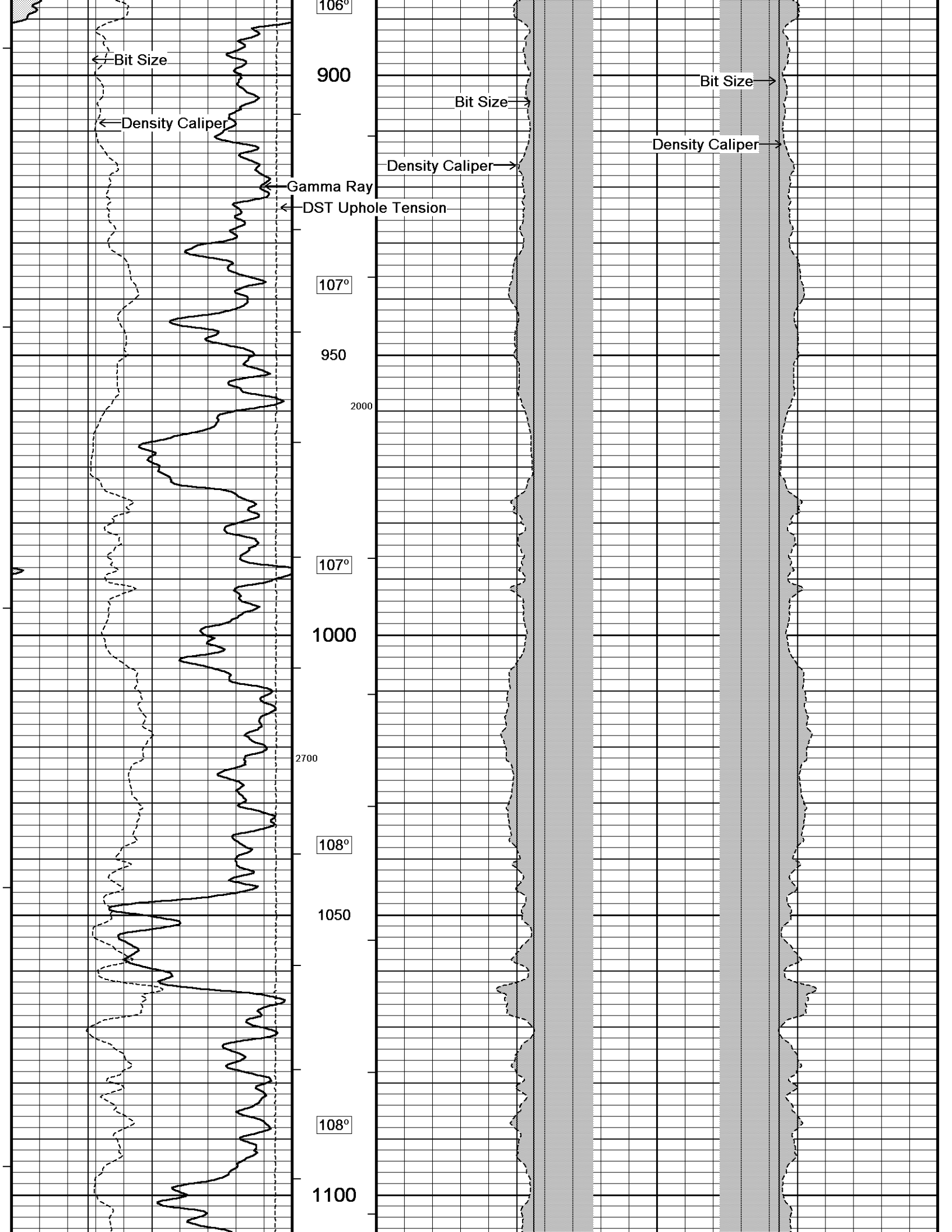
RIG: PATTERSON 307

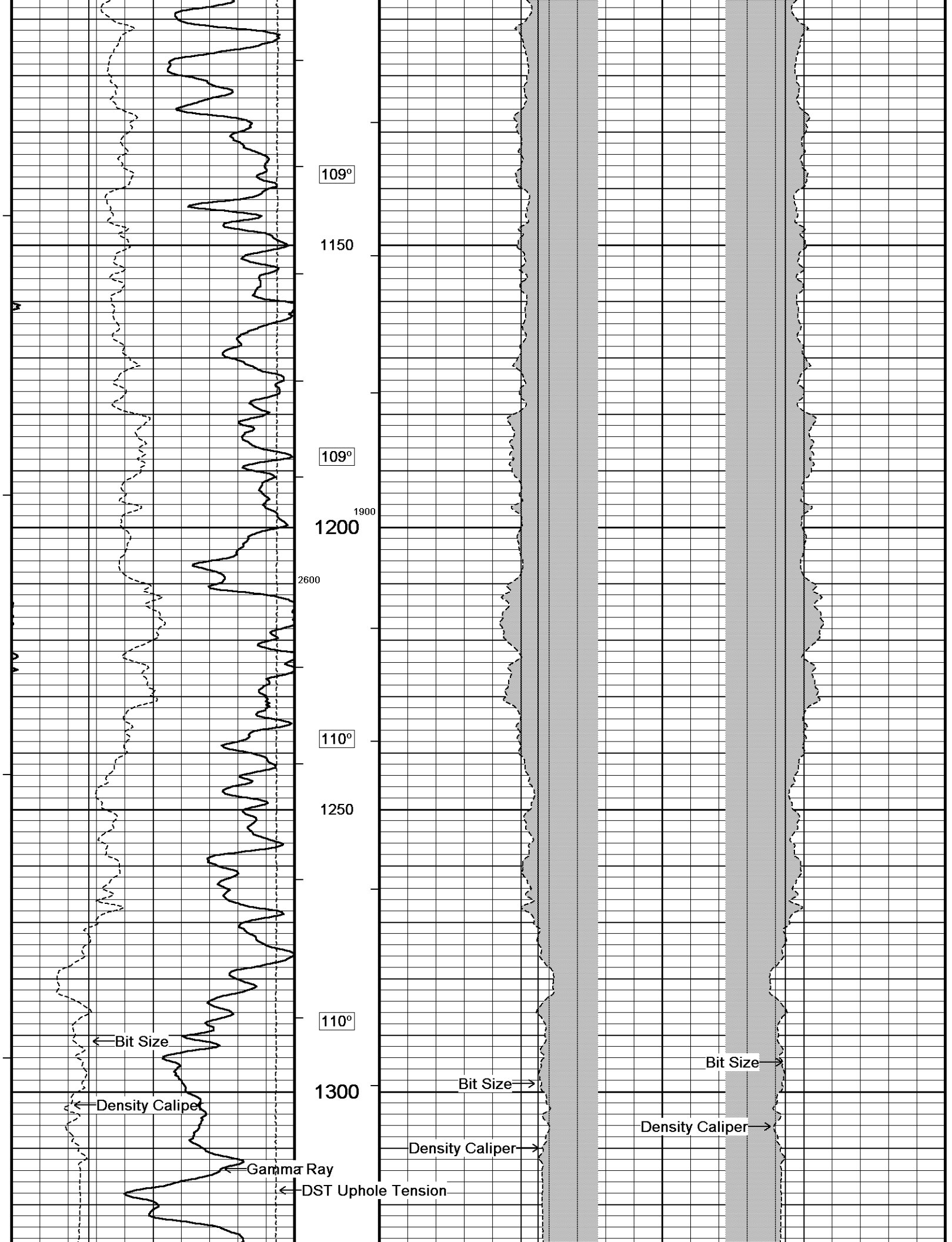
All interpretations are opinions based on inferences from electrical or other measurements and we cannot, and do not, guarantee the accuracy or correctness of any interpretations, and we shall not, except in the case of gross or wilful negligence on our part, be liable or responsible for any loss, costs,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

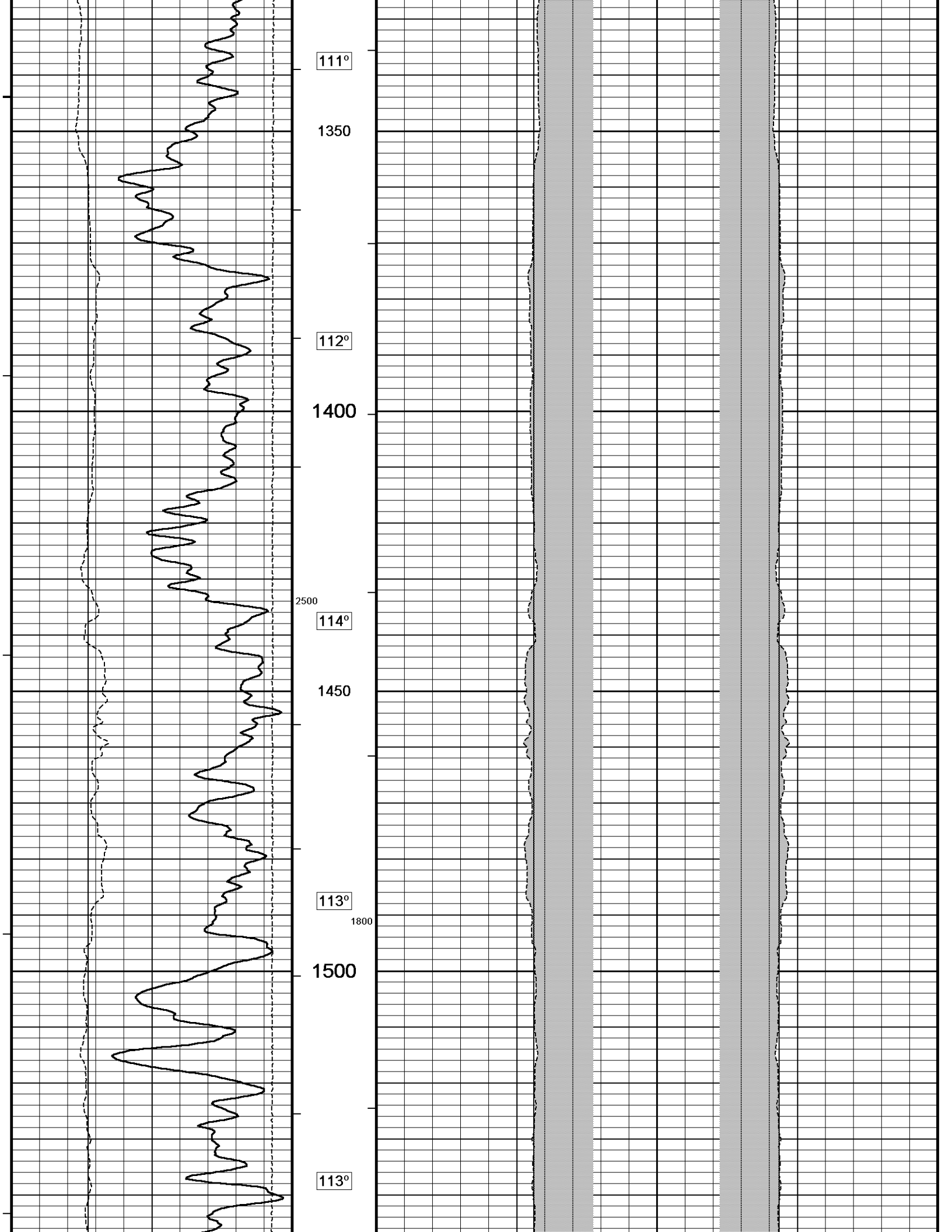
5 INCH MAIN LOG

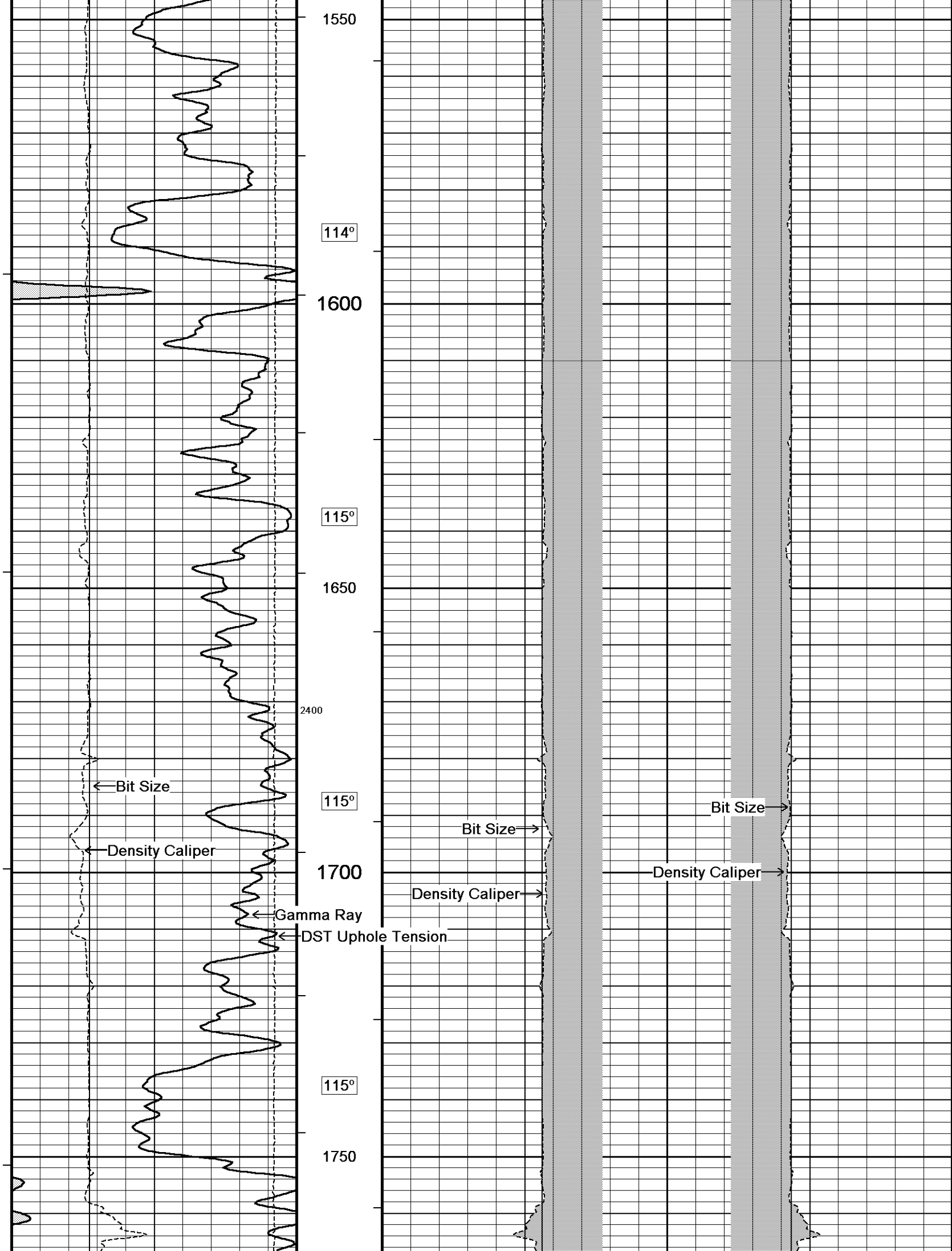
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Plotted on 19-AUG-2011 17:05
Filename: C:\LOGS\Bill Barrett\Kaufman 24D-24-692\MAIN2.dta
Recorded on 19-AUG-2011 12:43
System Versions: Logged with 11.03.4044 Processed with 11.03.4044 Plotted with 11.03.4044

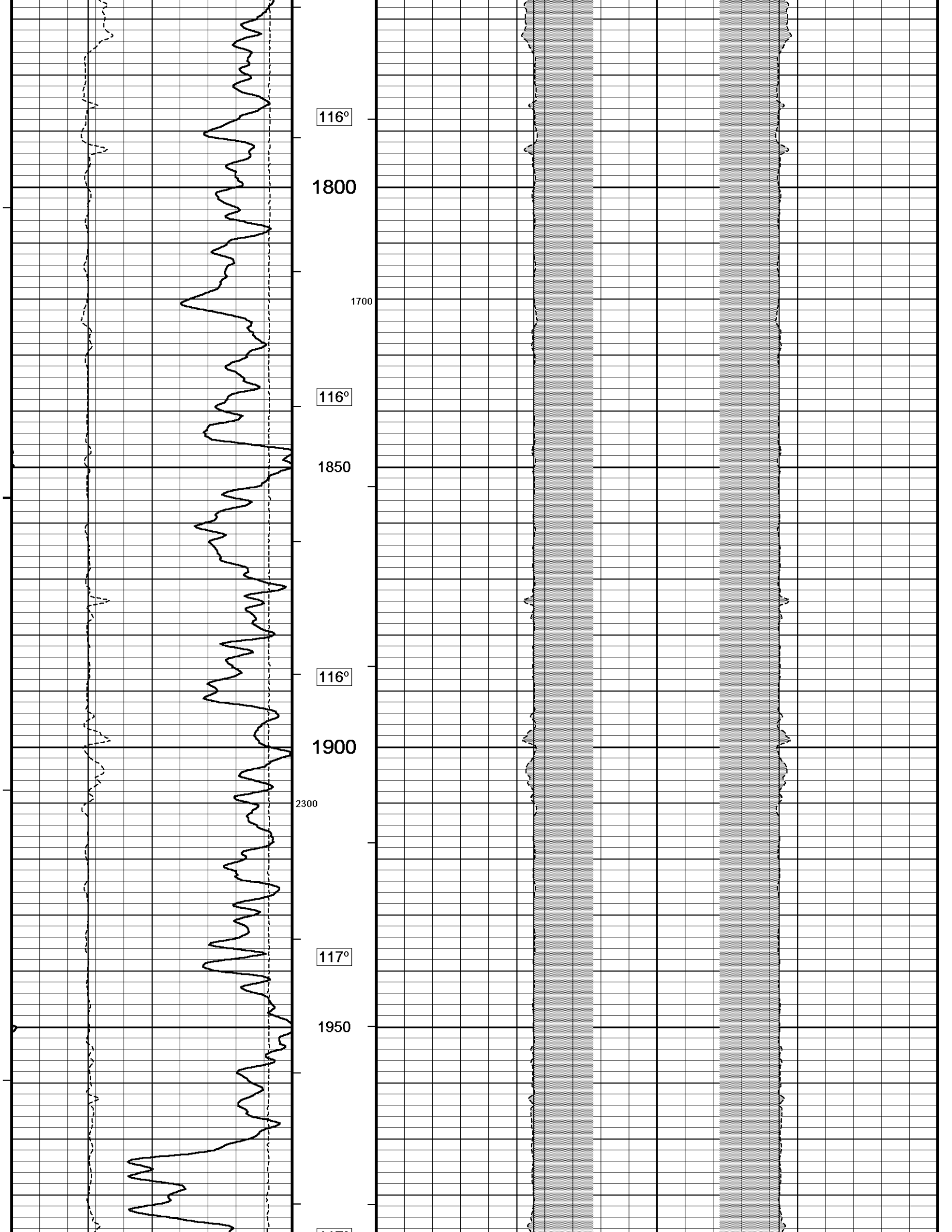


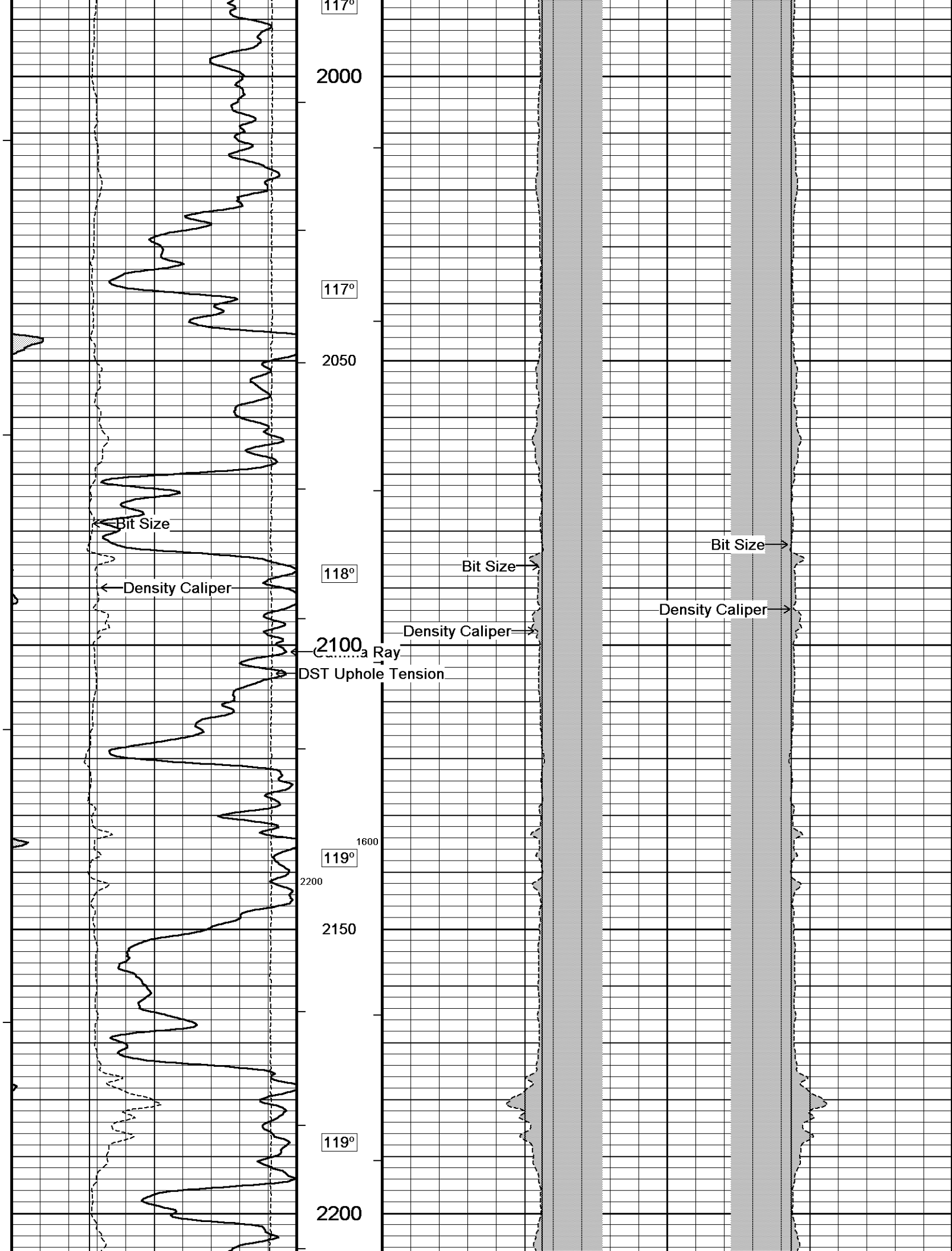


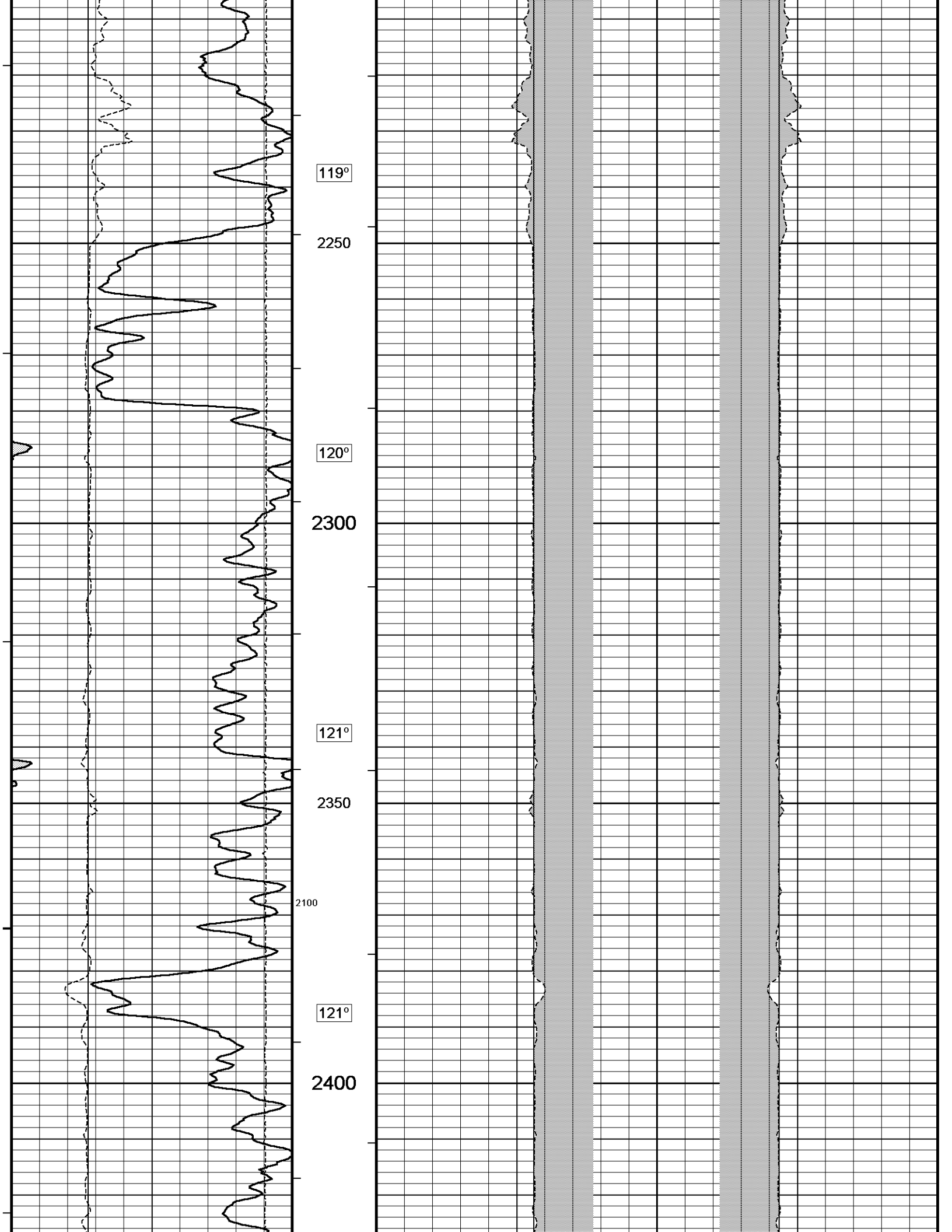


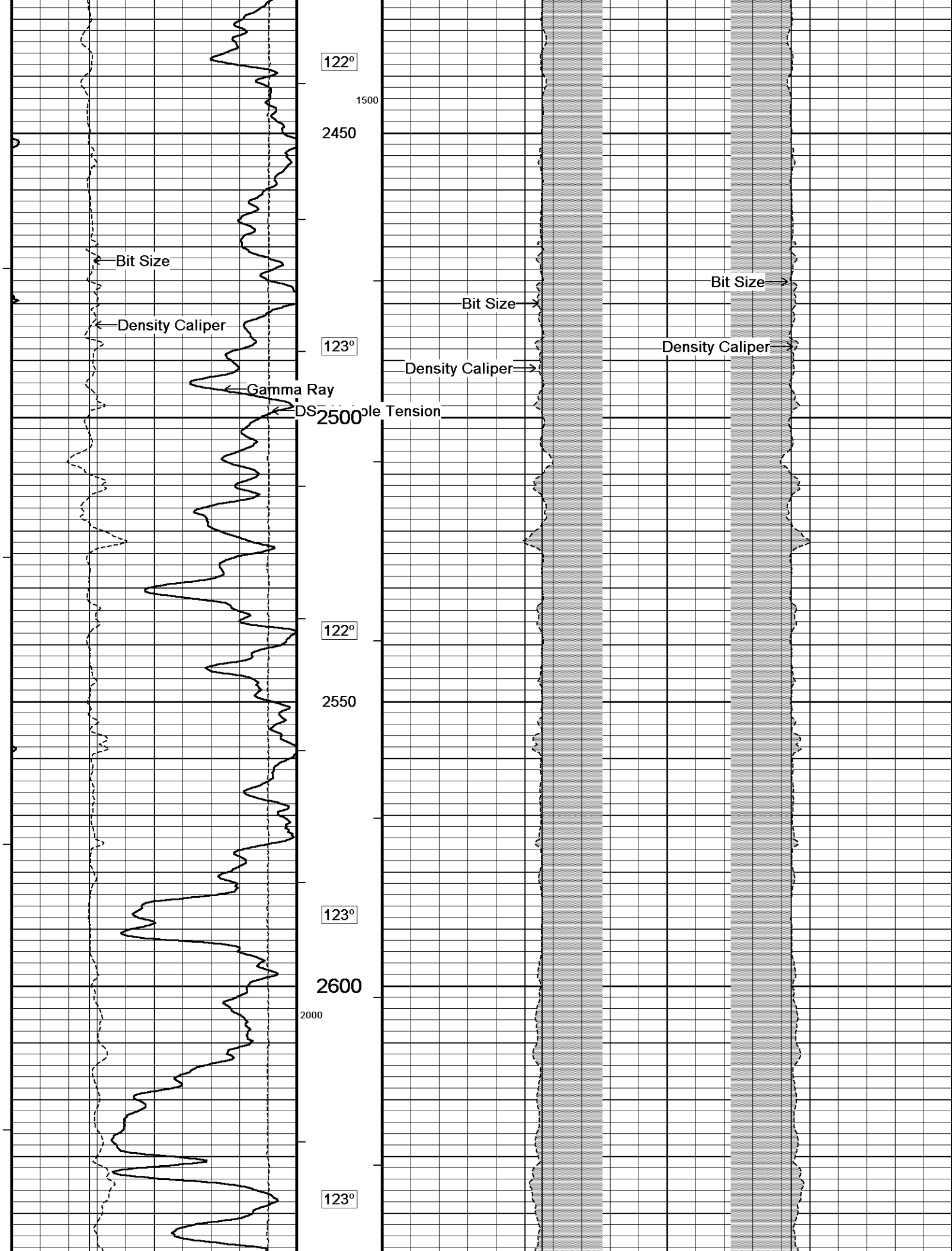


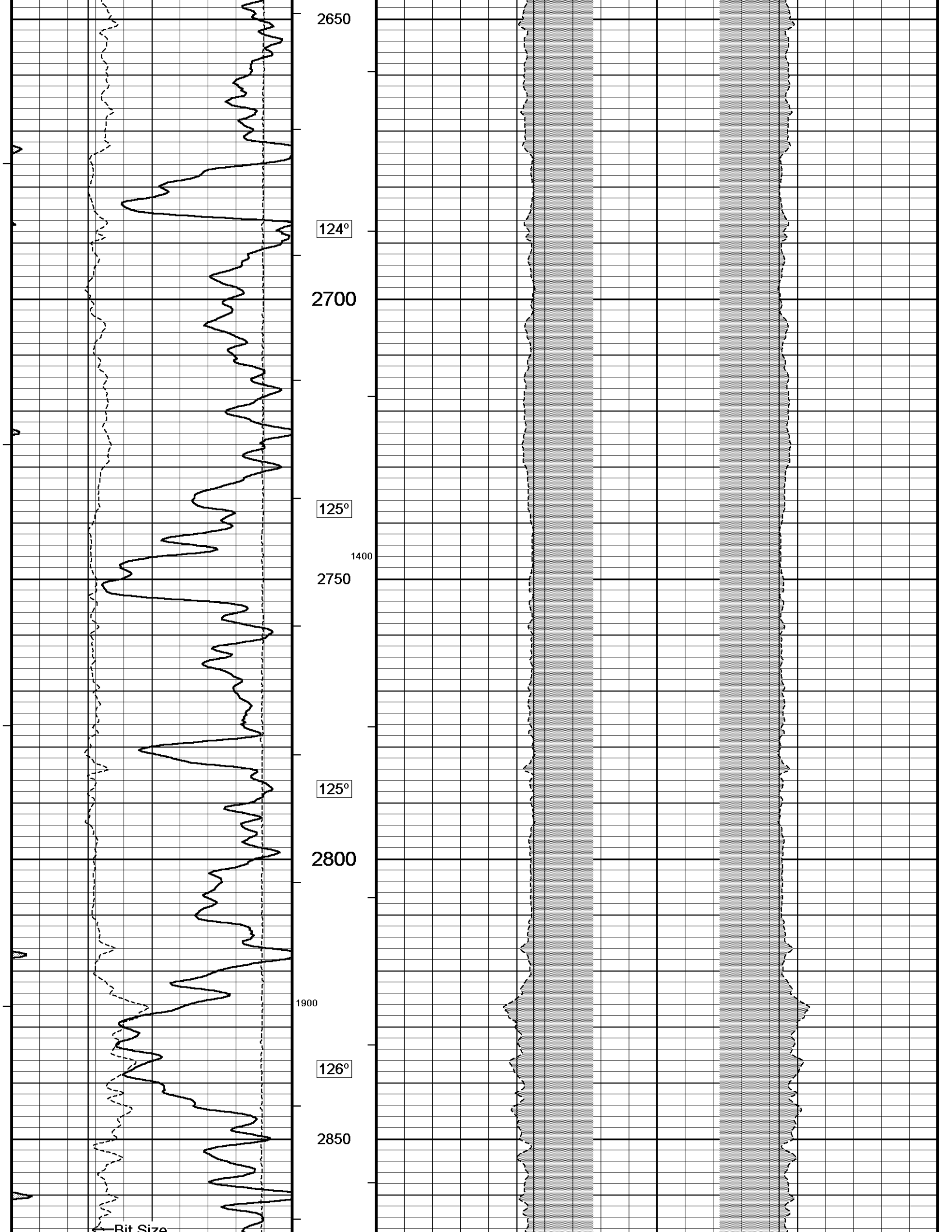


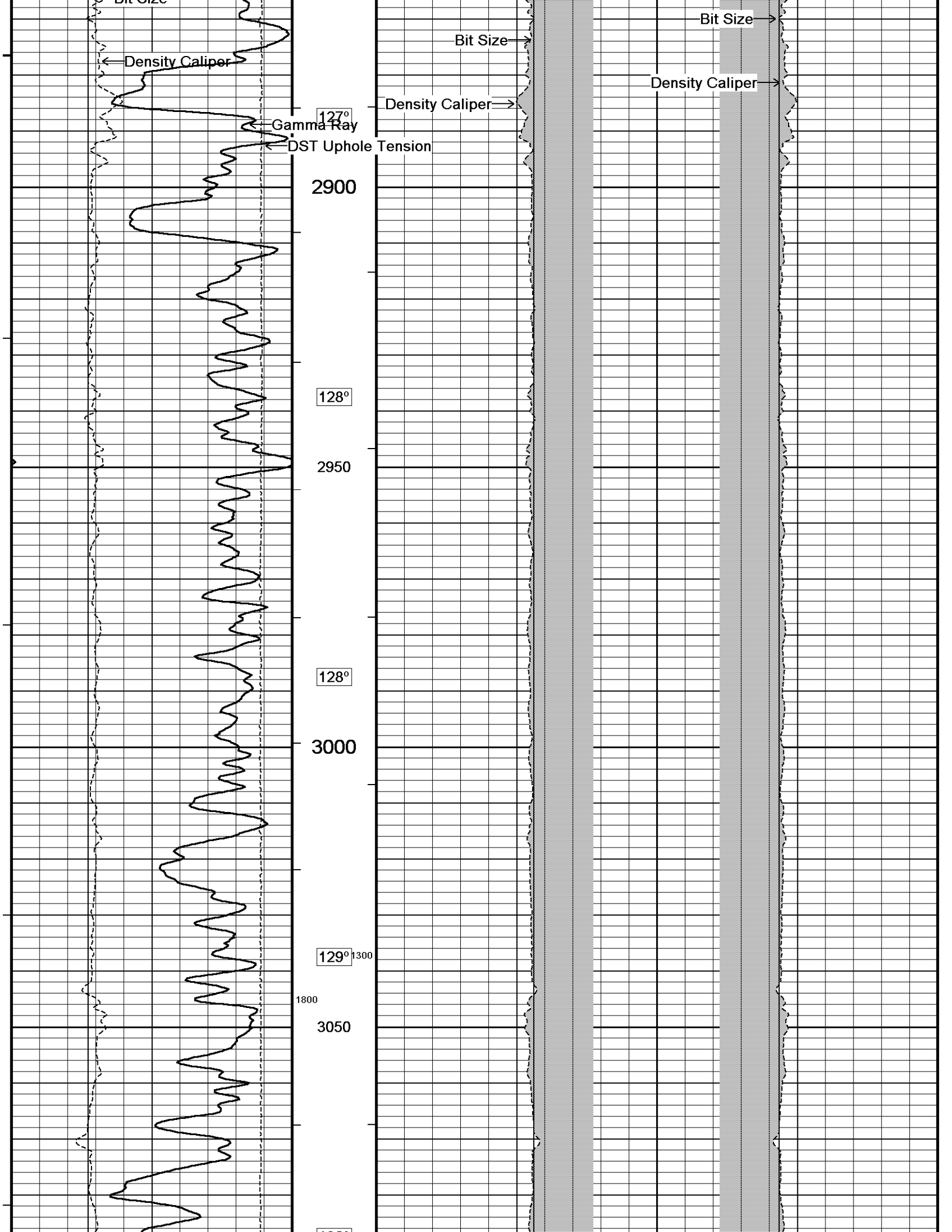


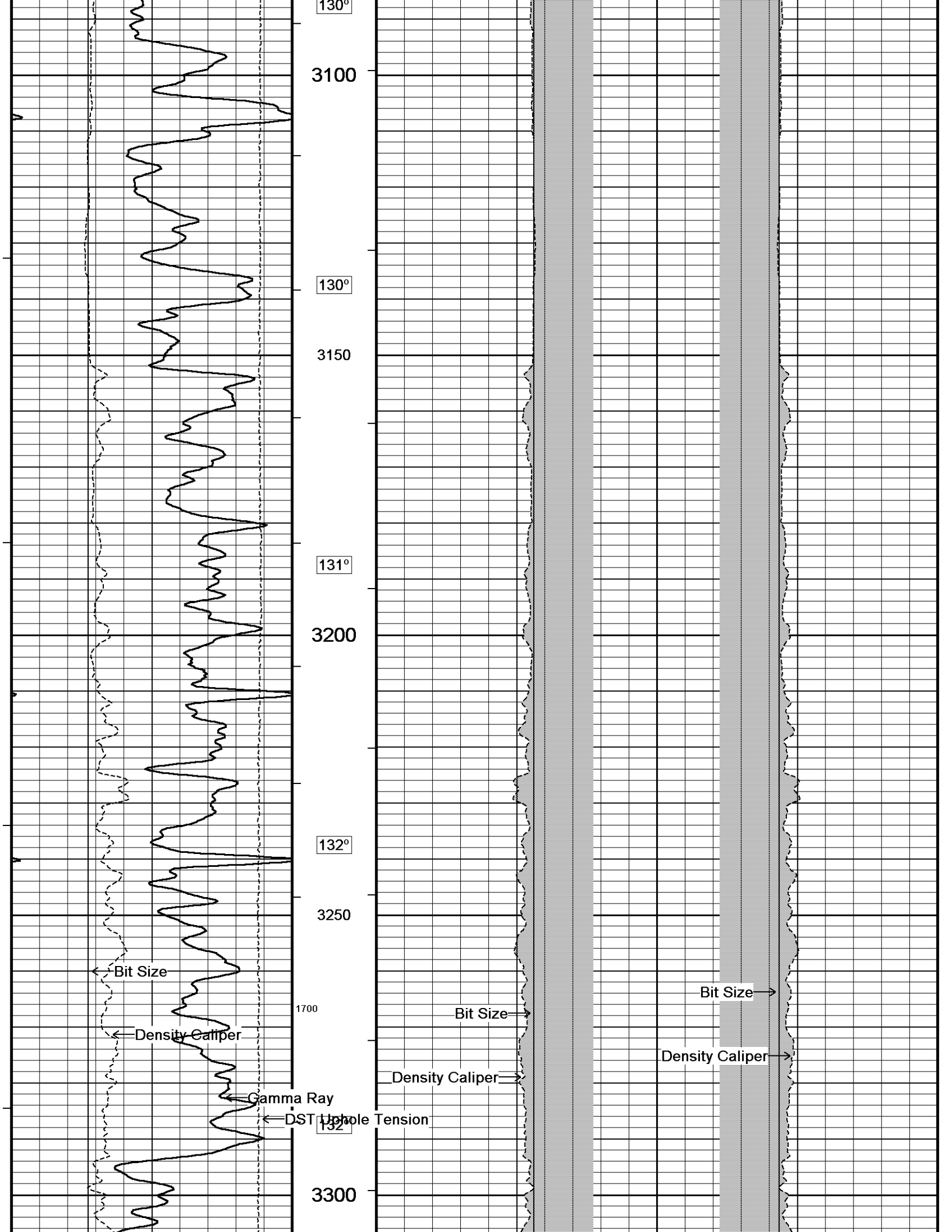


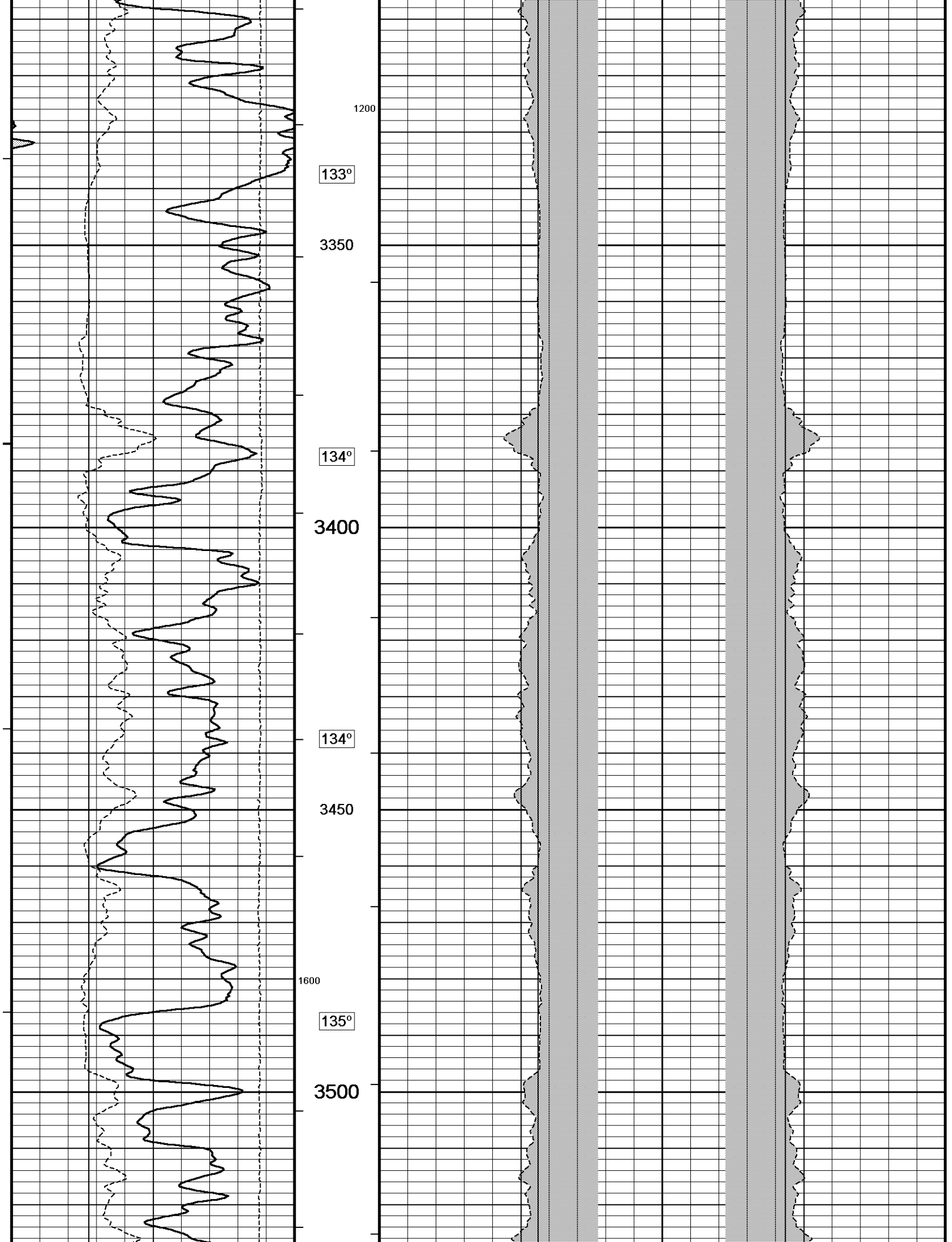


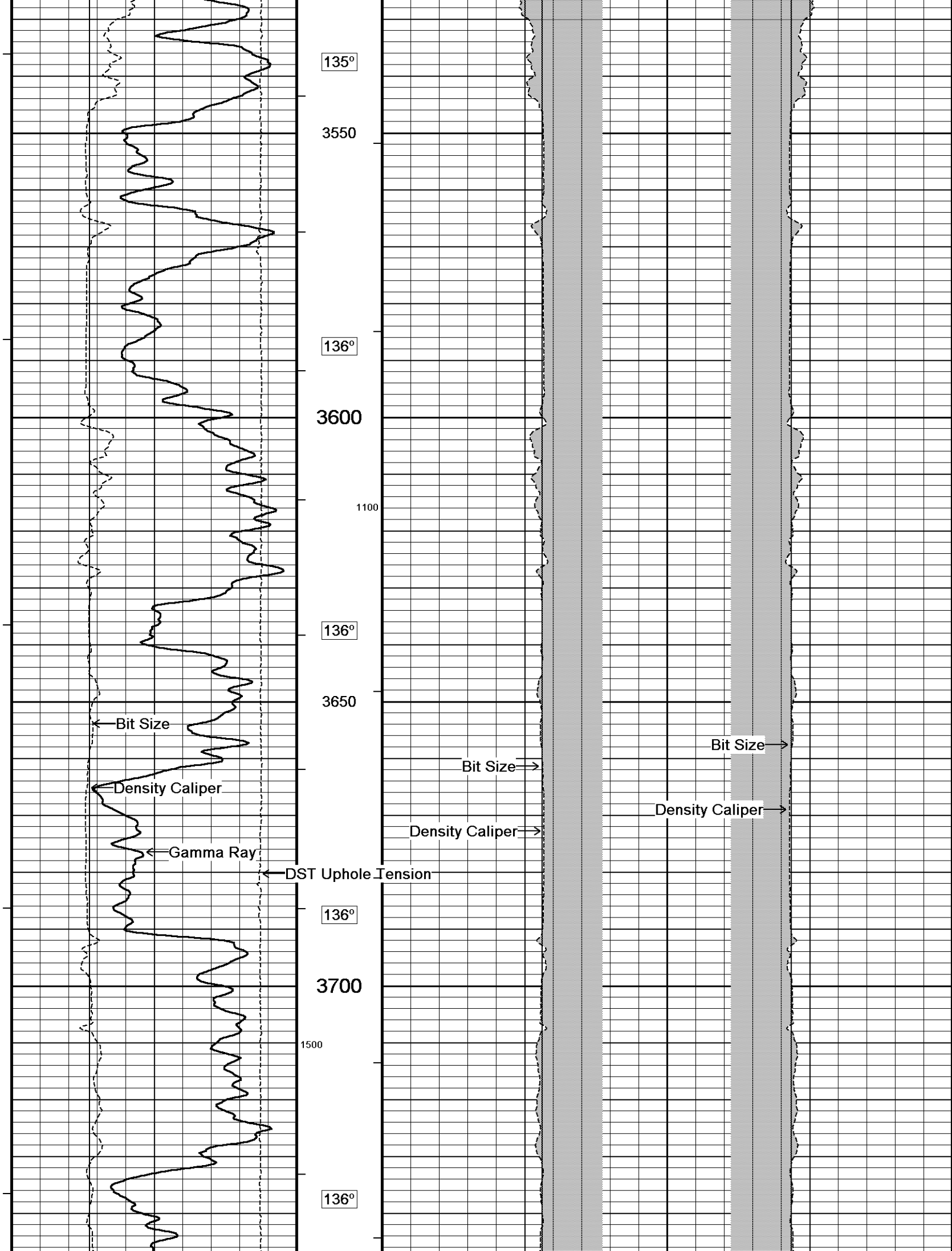


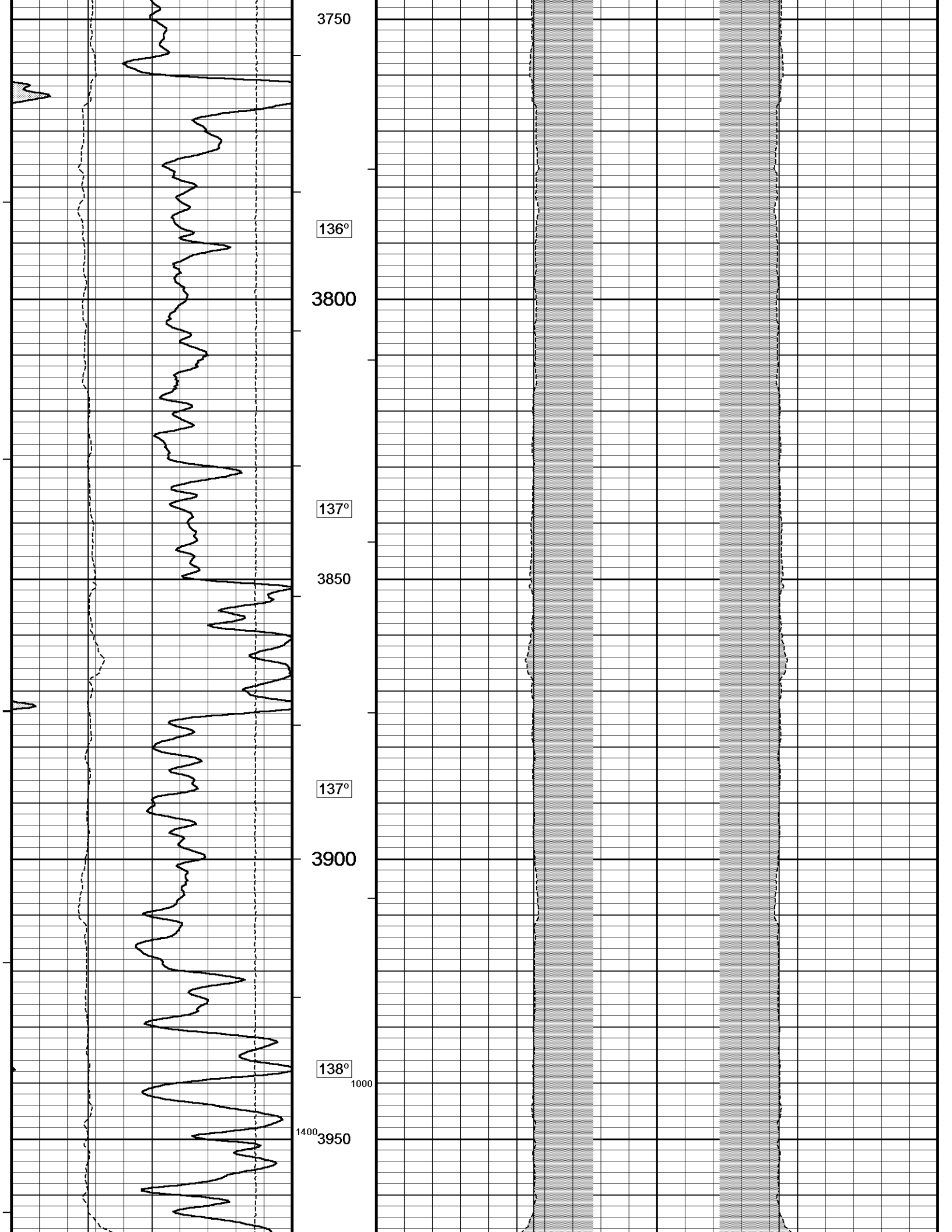


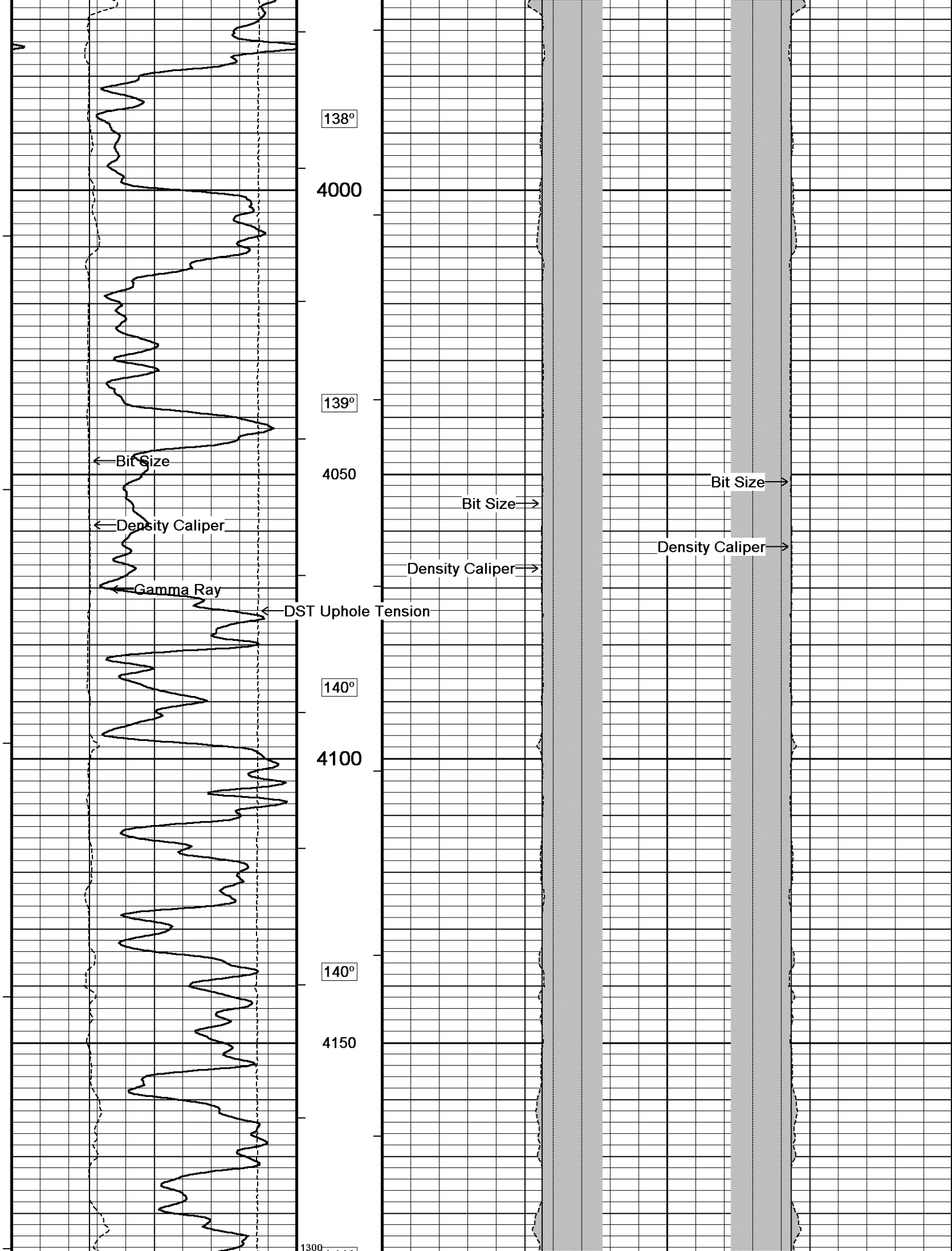


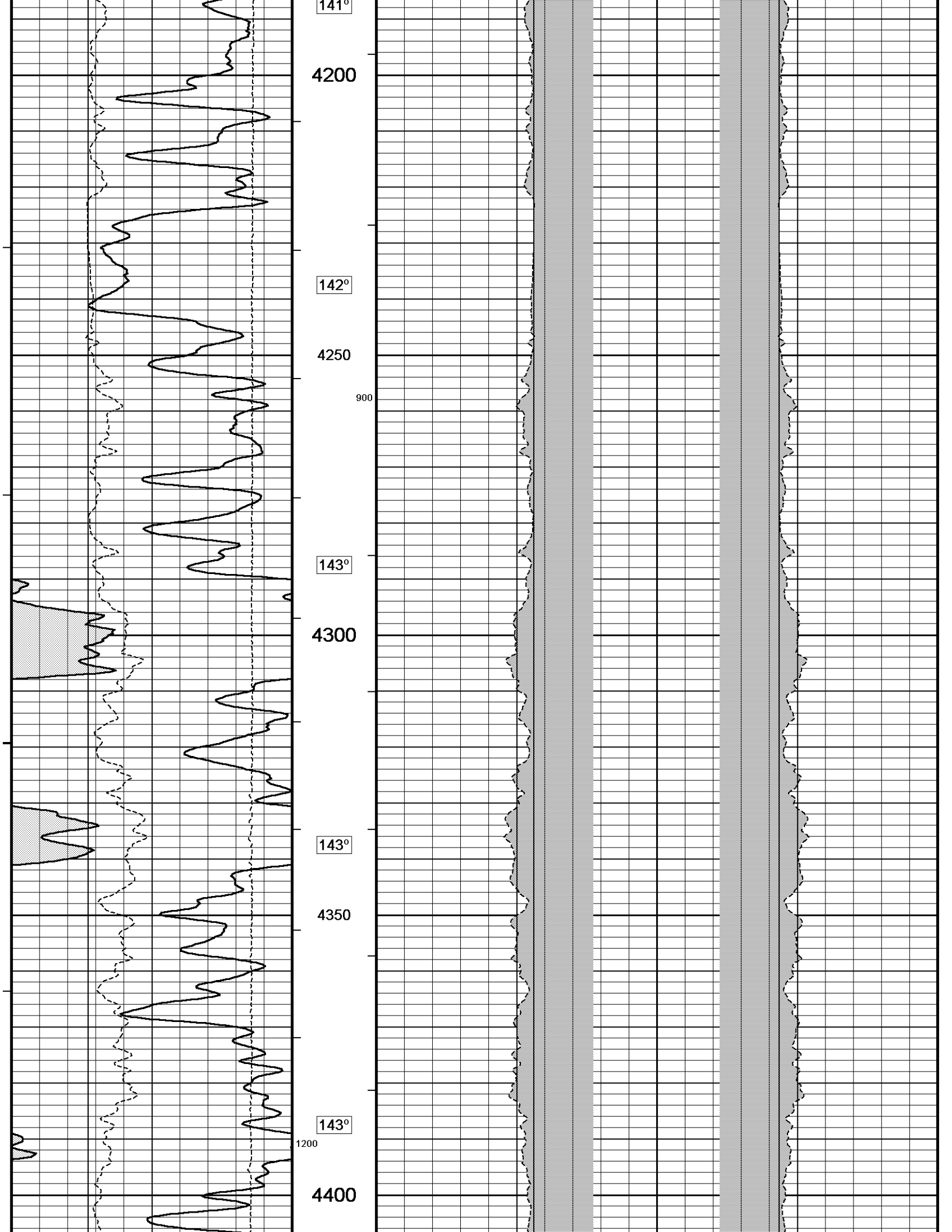


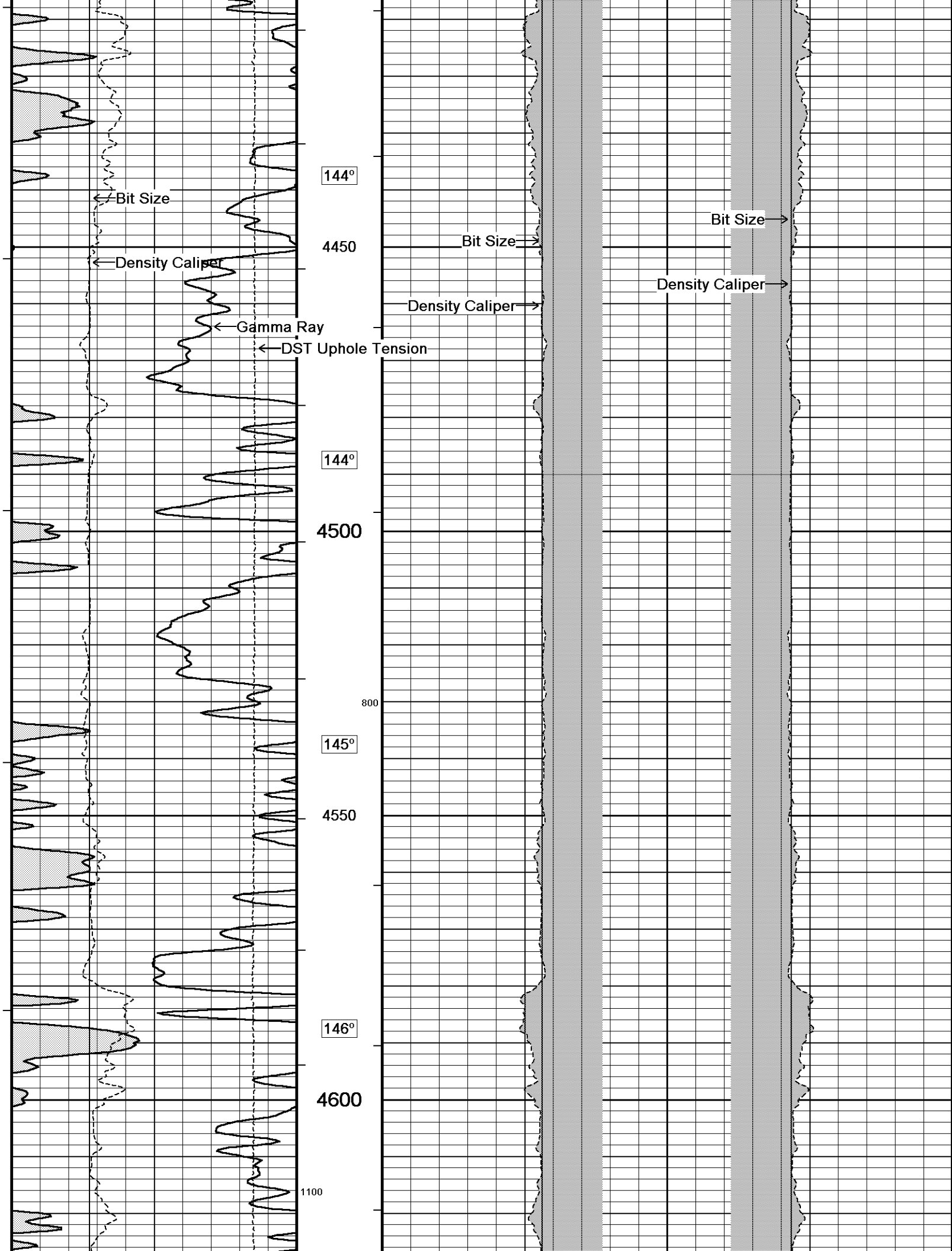


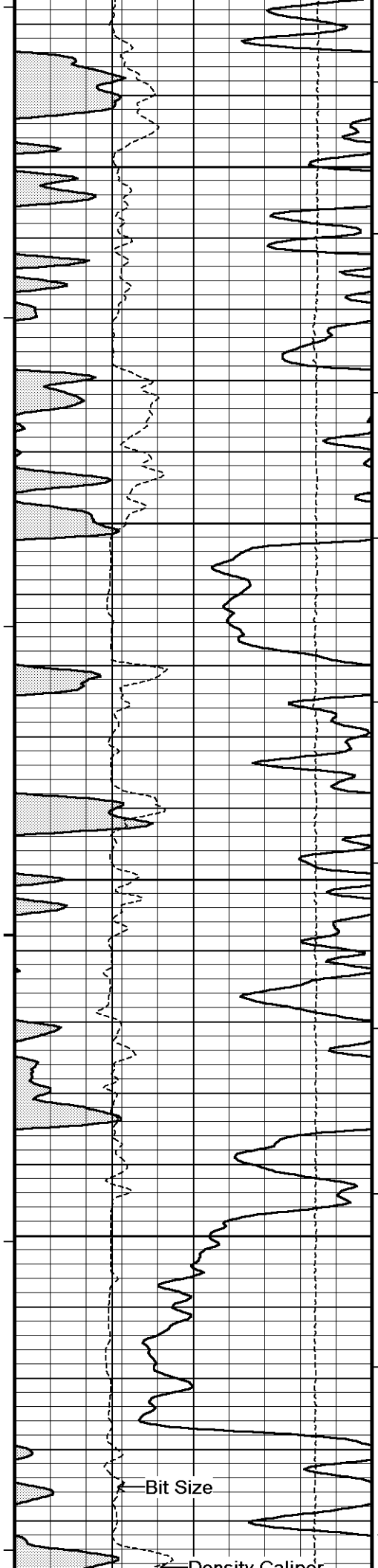












146°

4650

147°

4700

147°

4750

148°

4800

700

149°

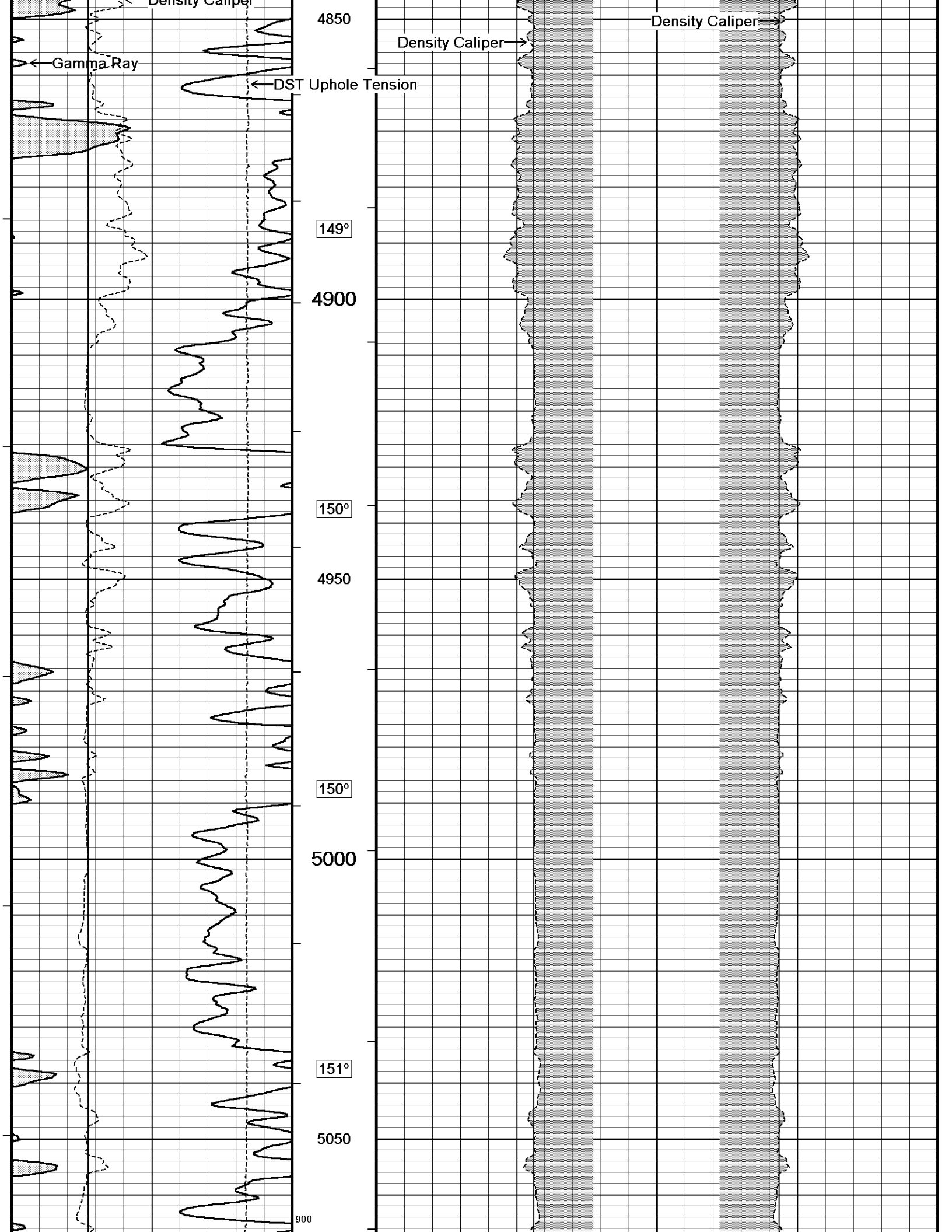
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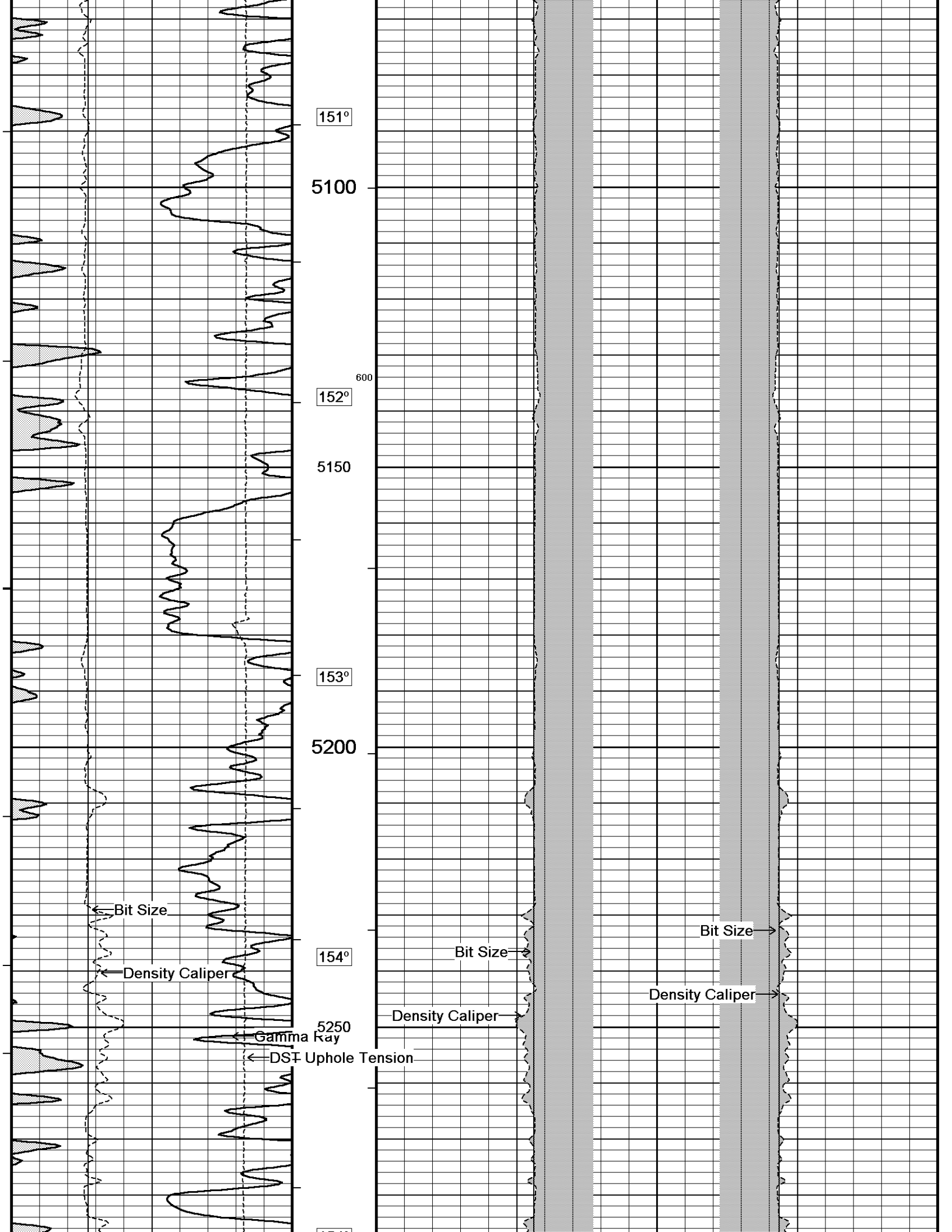
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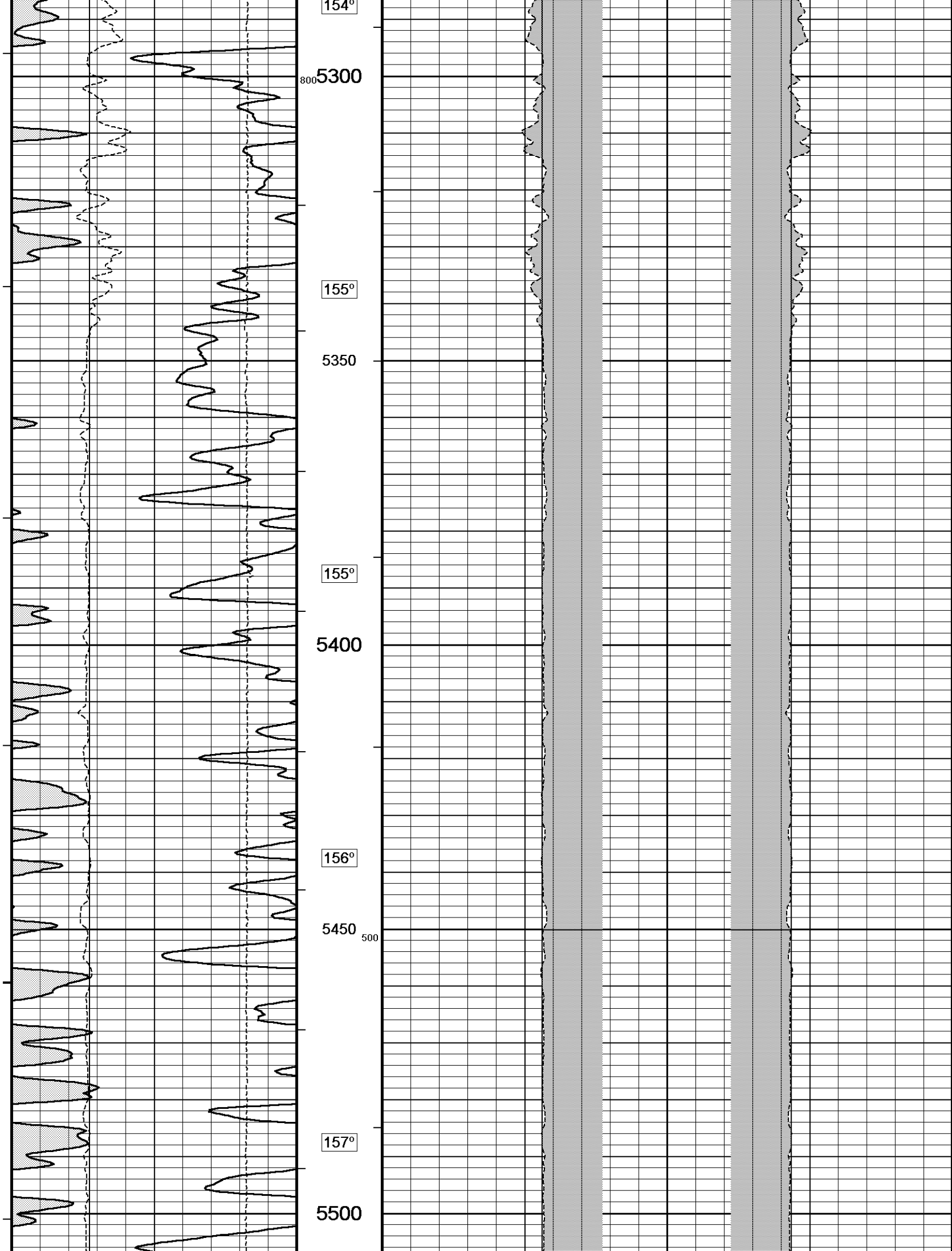
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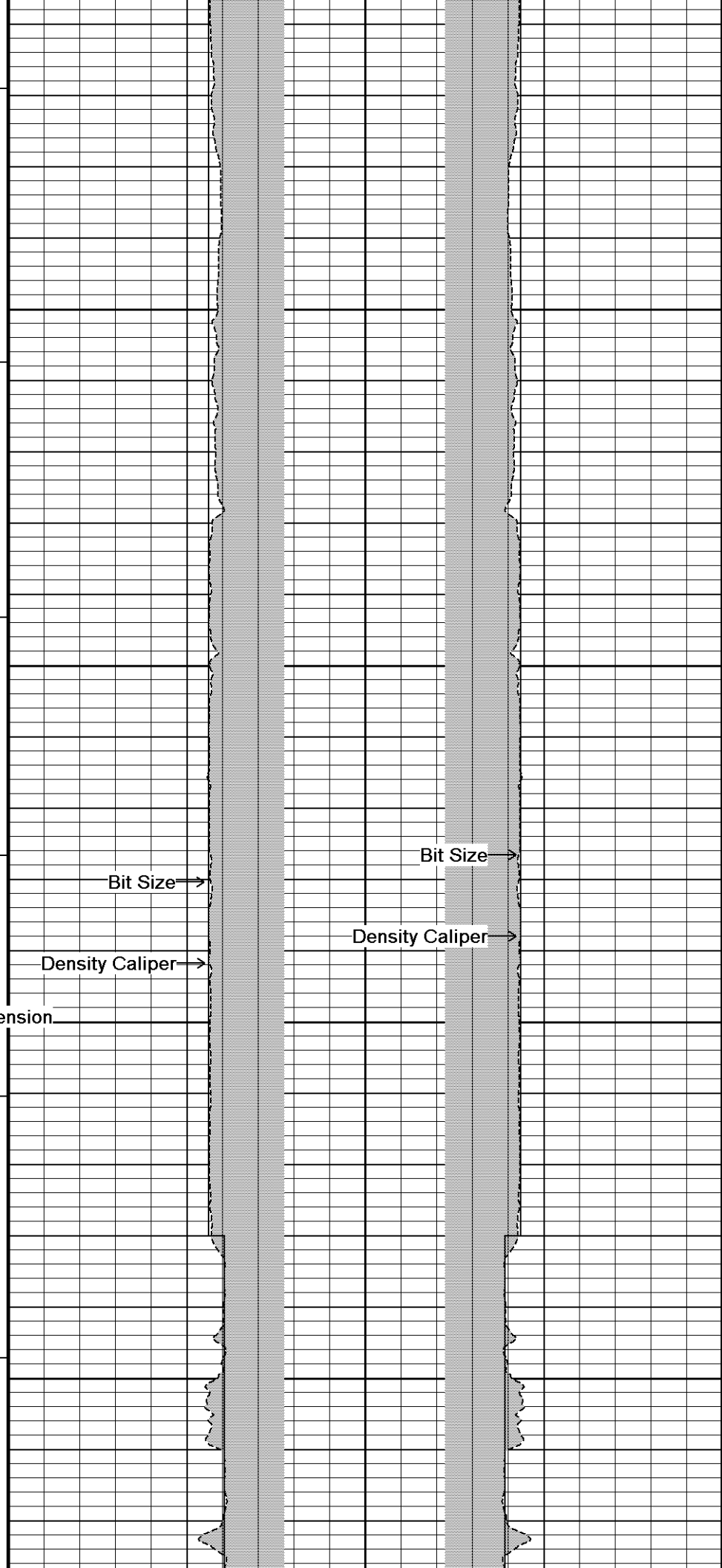
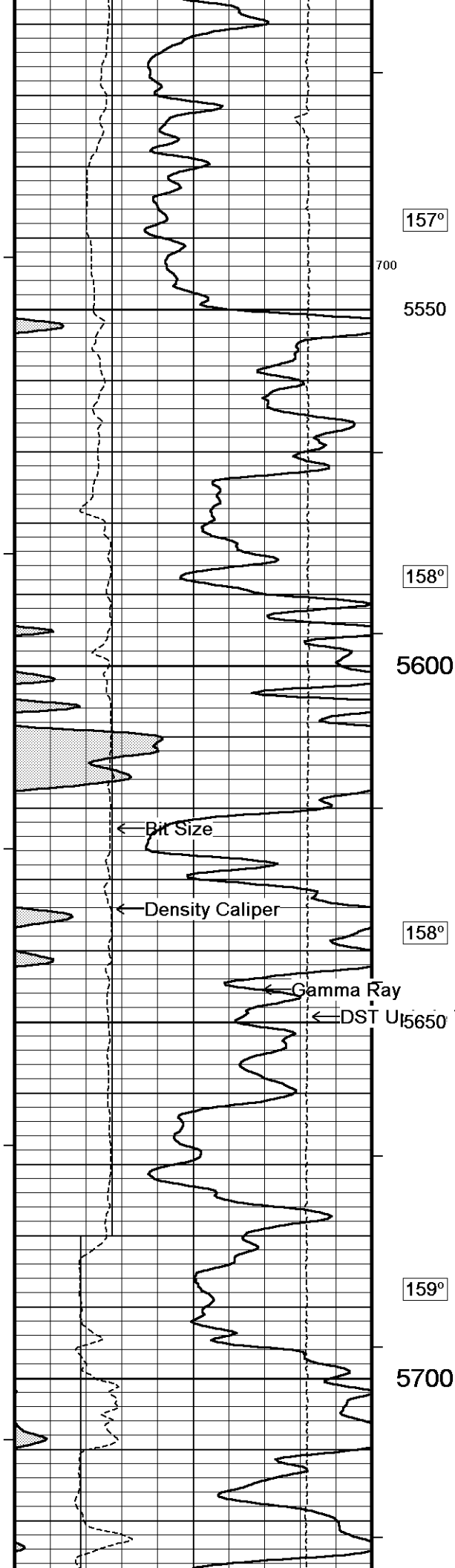
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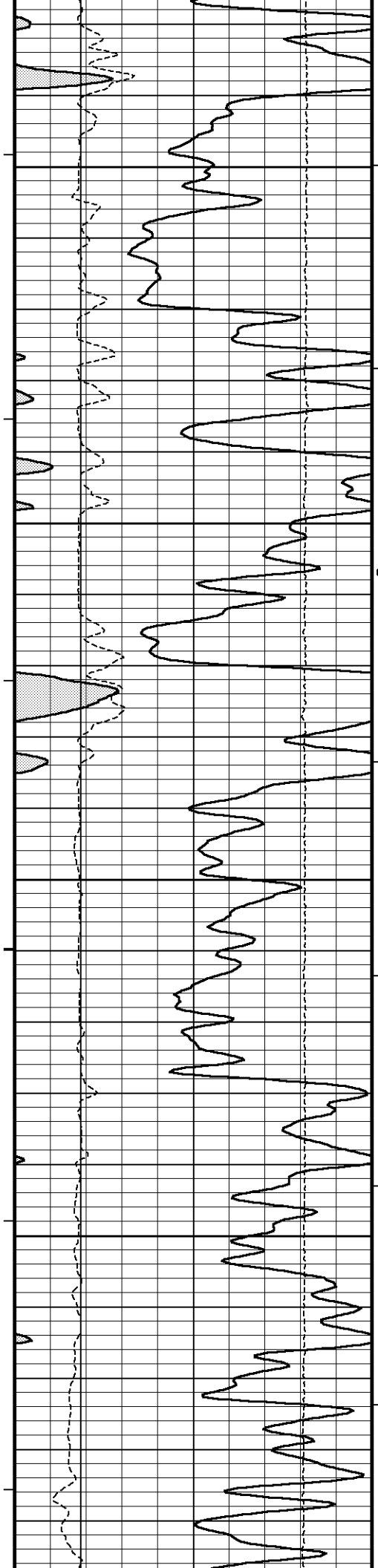
Bit Size











160°

5750

160°

5800

600

400

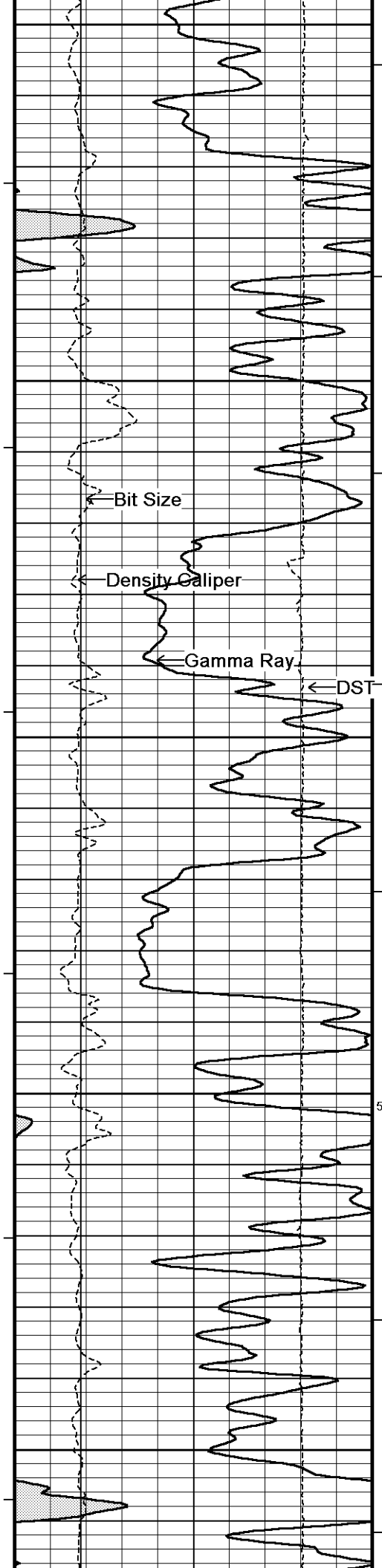
161°

5850

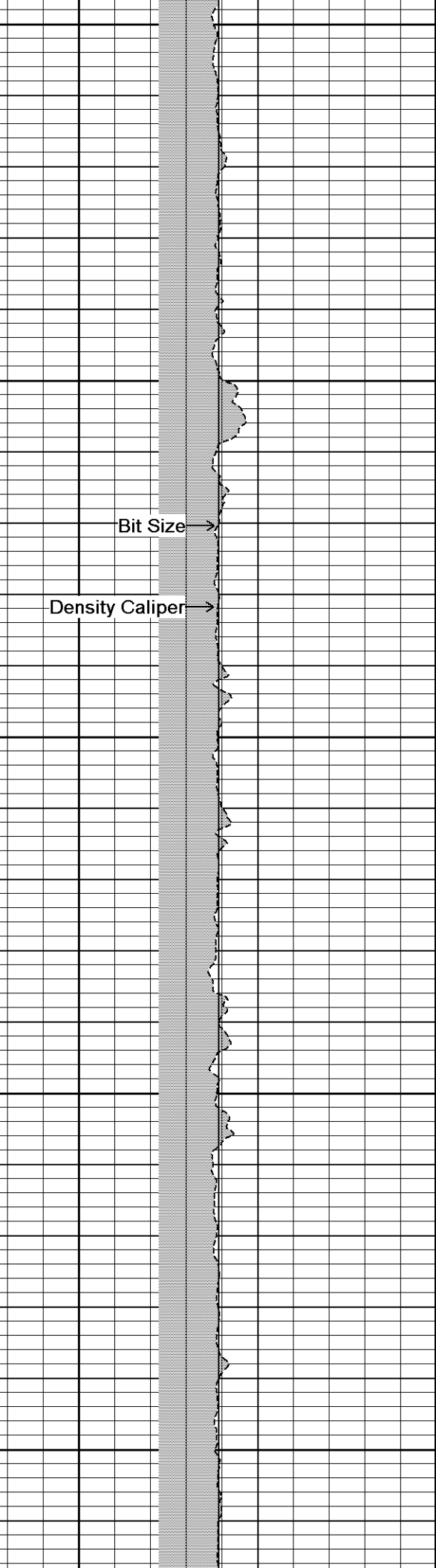
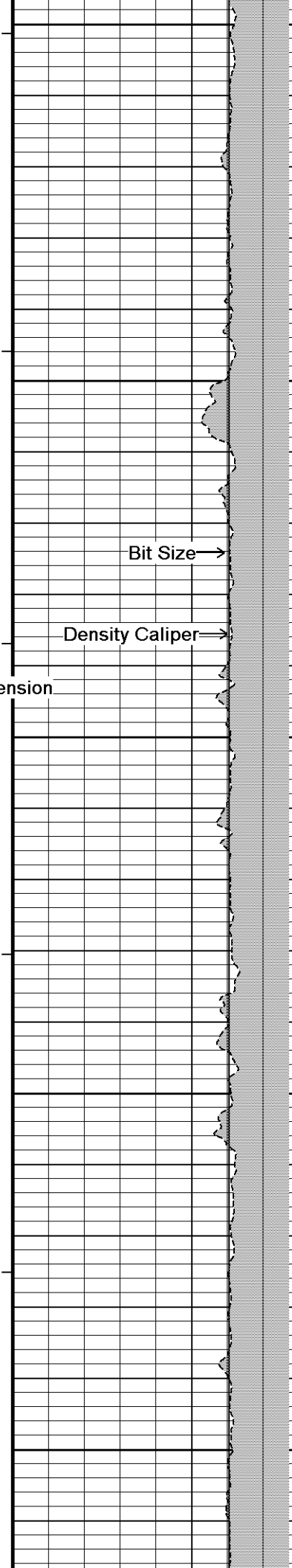
162°

5900

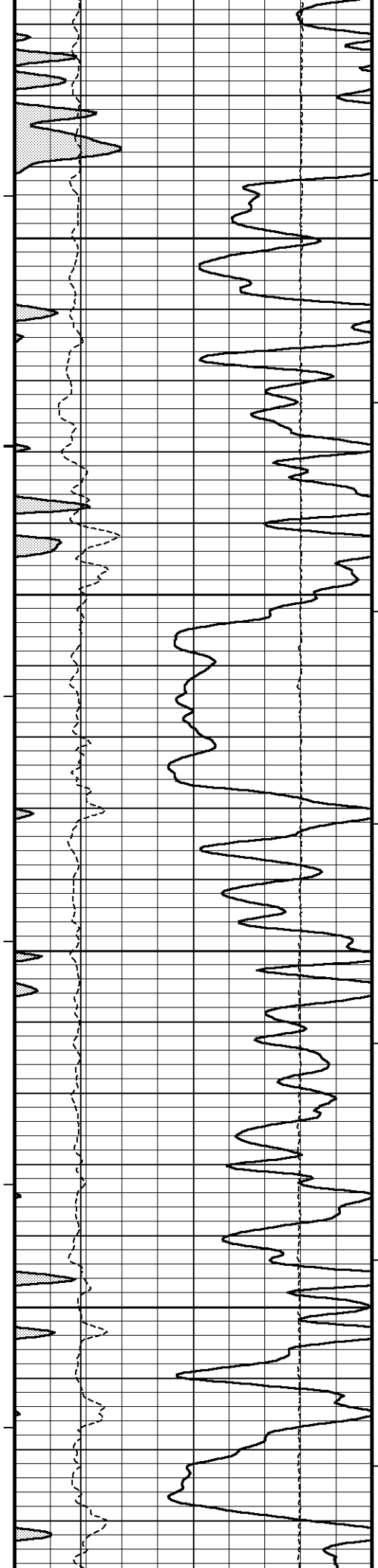
162°



5950
163°
6000
163°
6050
164°
6100
165°
6150



Bit Size
Density Caliper
Bit Size
Density Caliper
Bit Size
Density Caliper



166°

6200

167°

6250

300

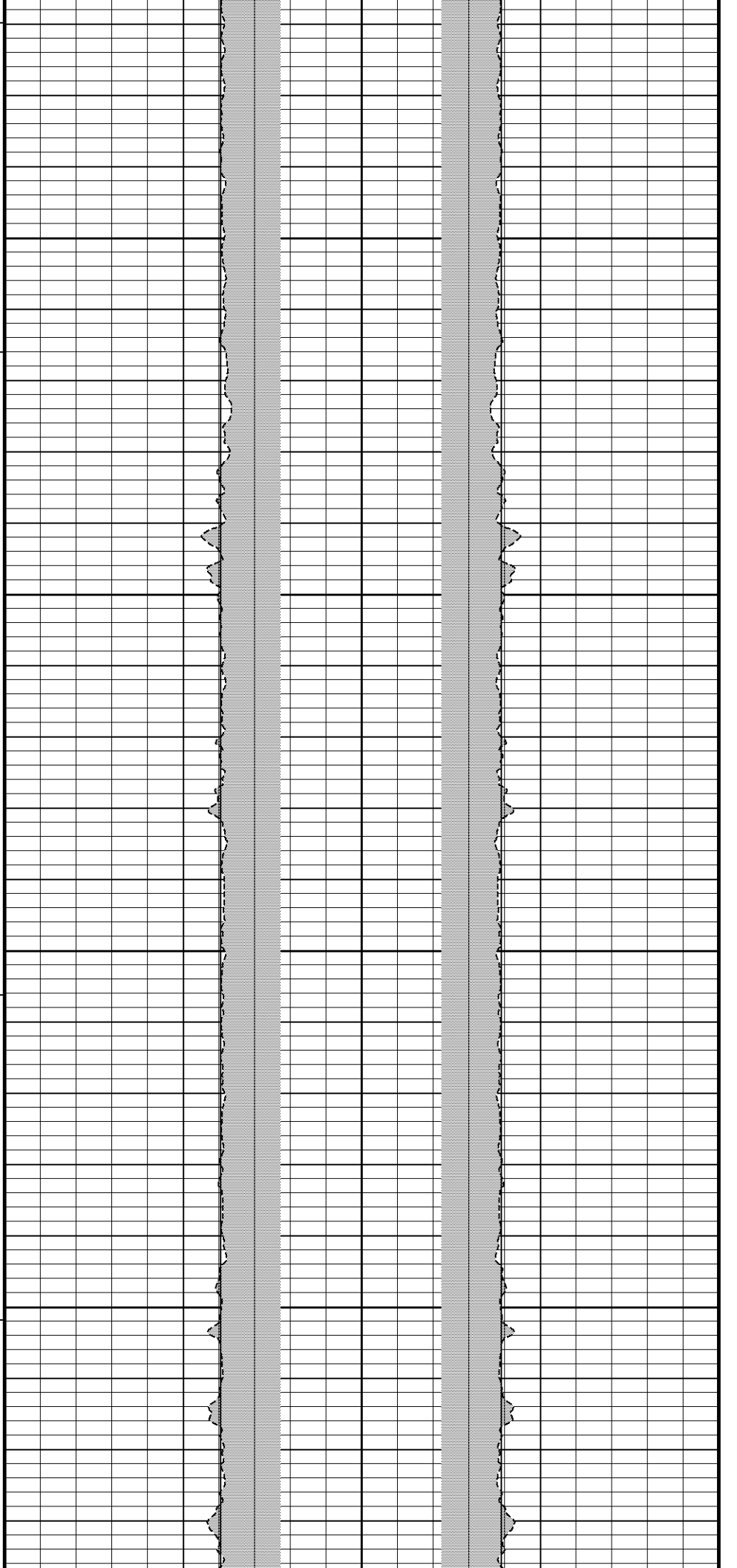
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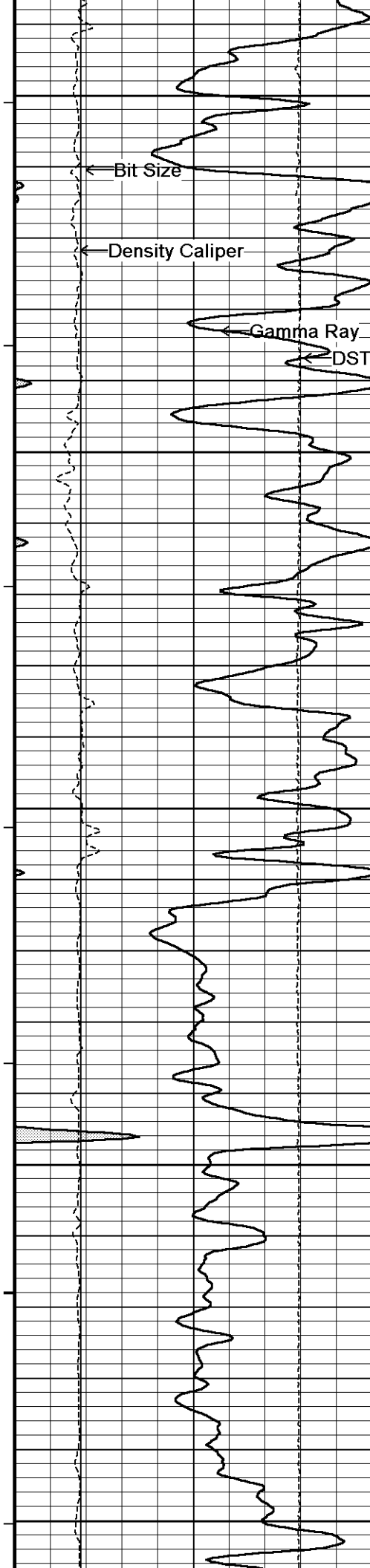
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168°

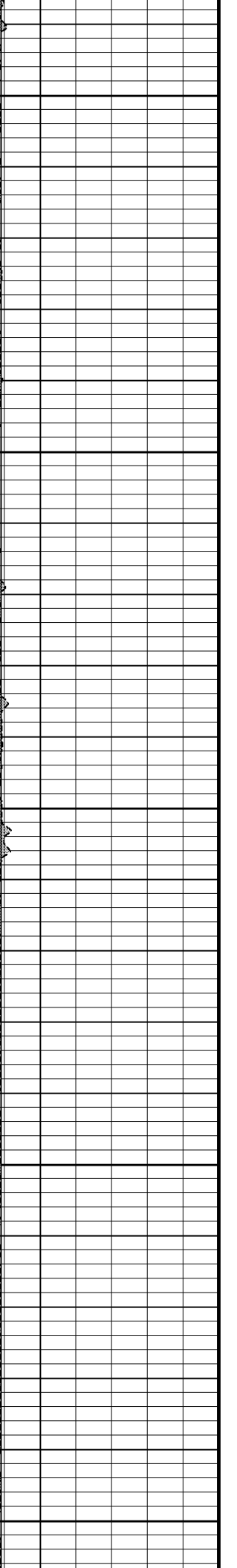
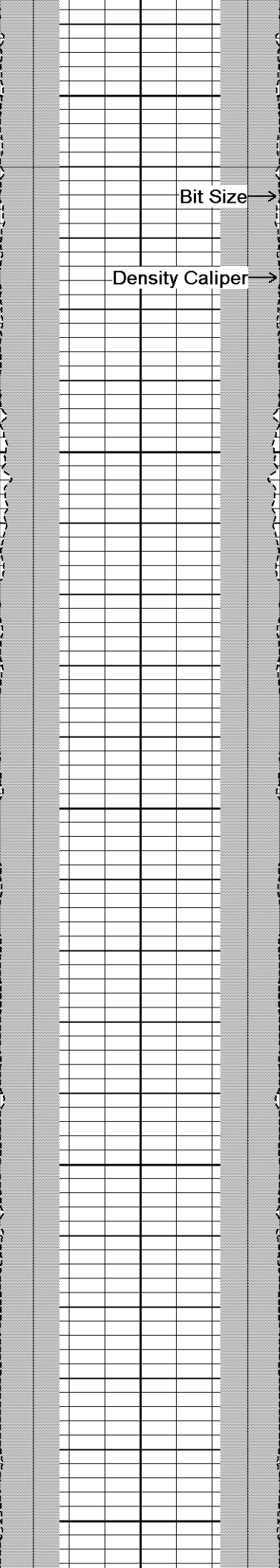
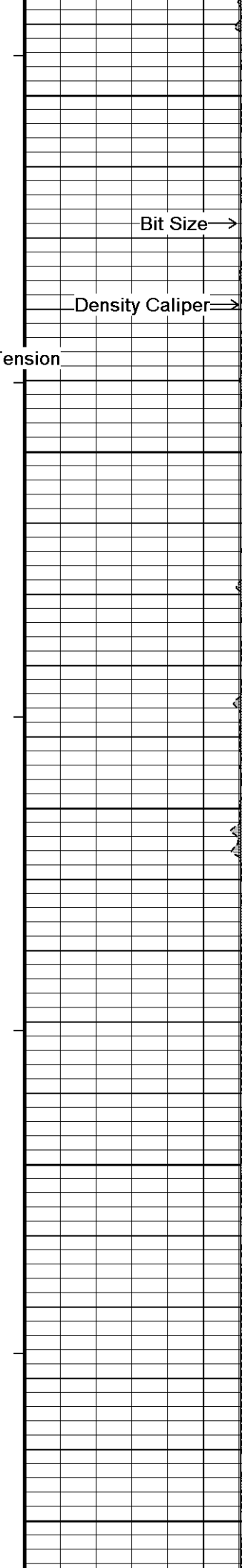
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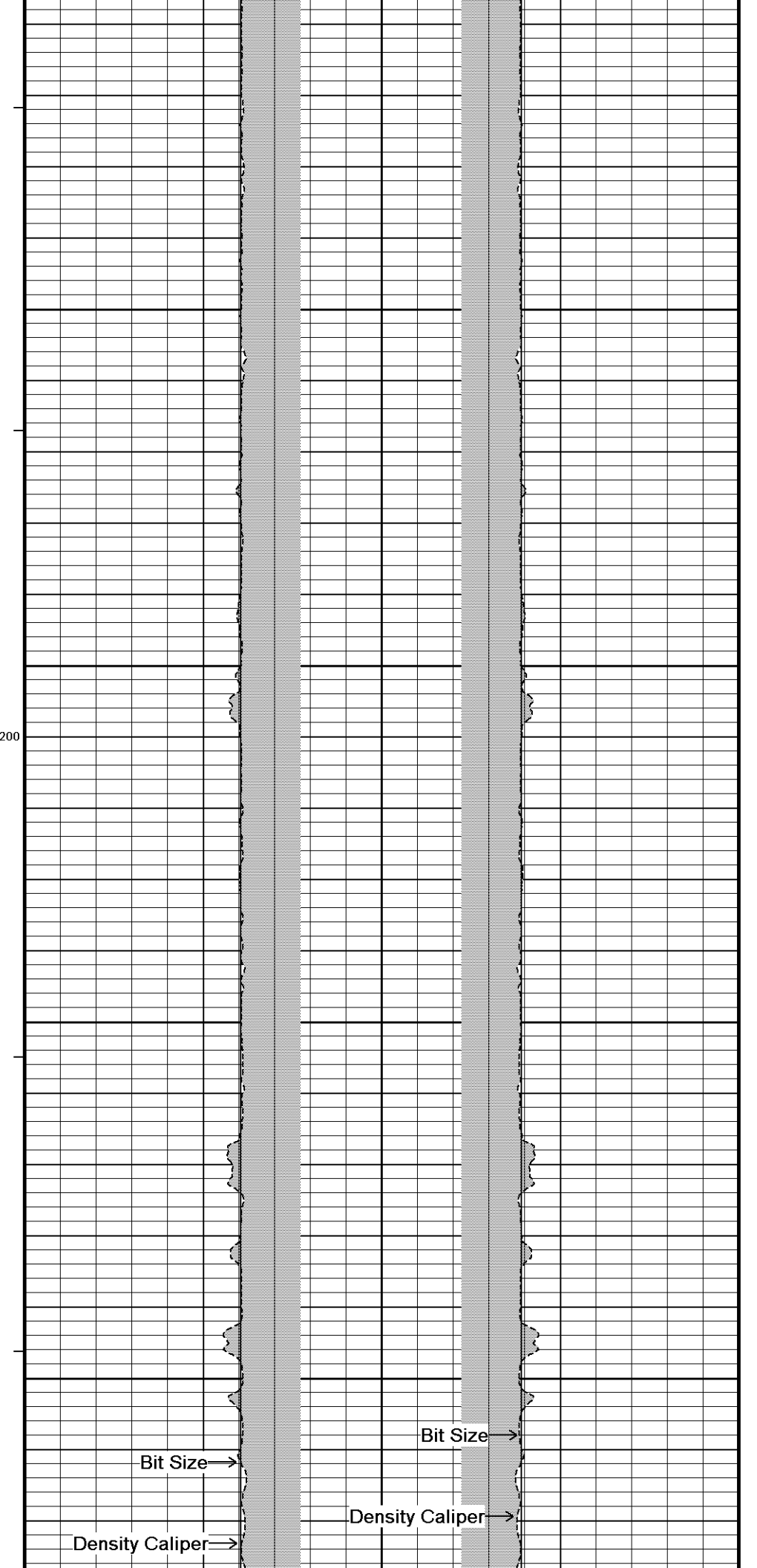
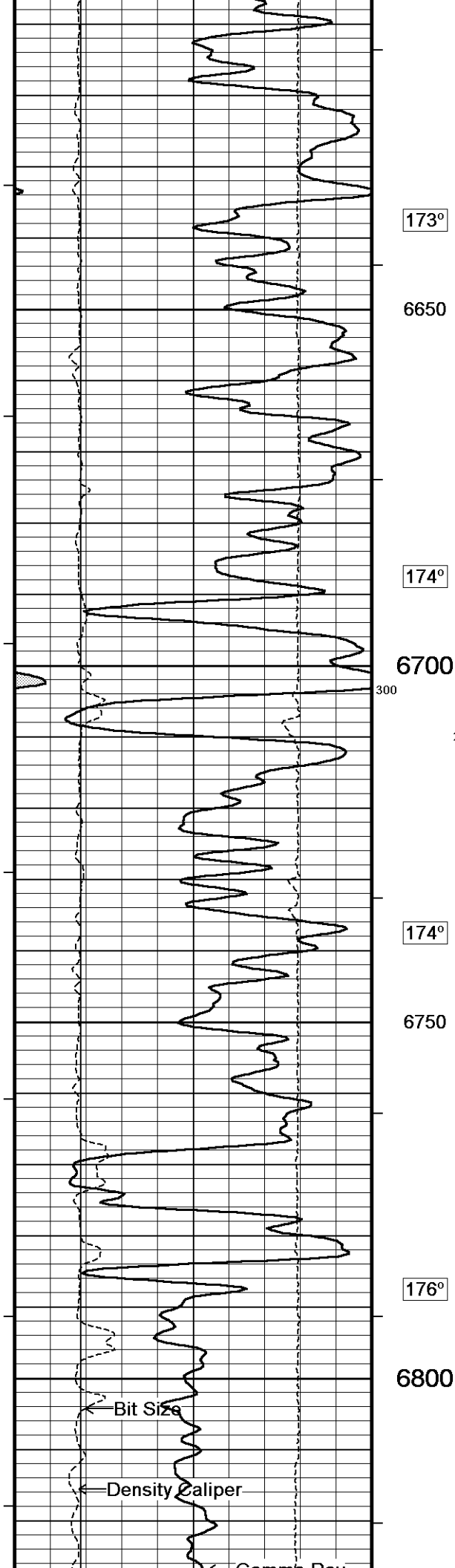
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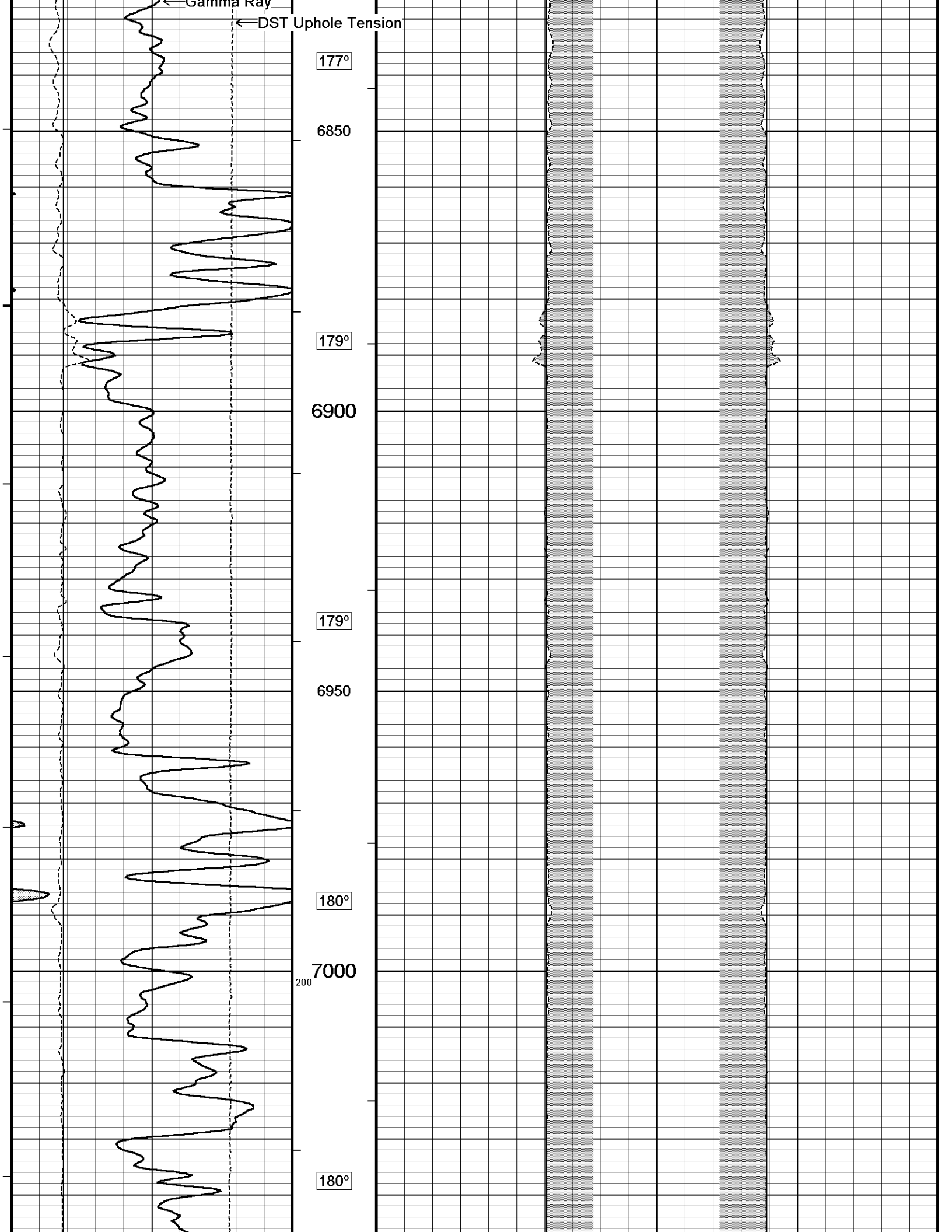


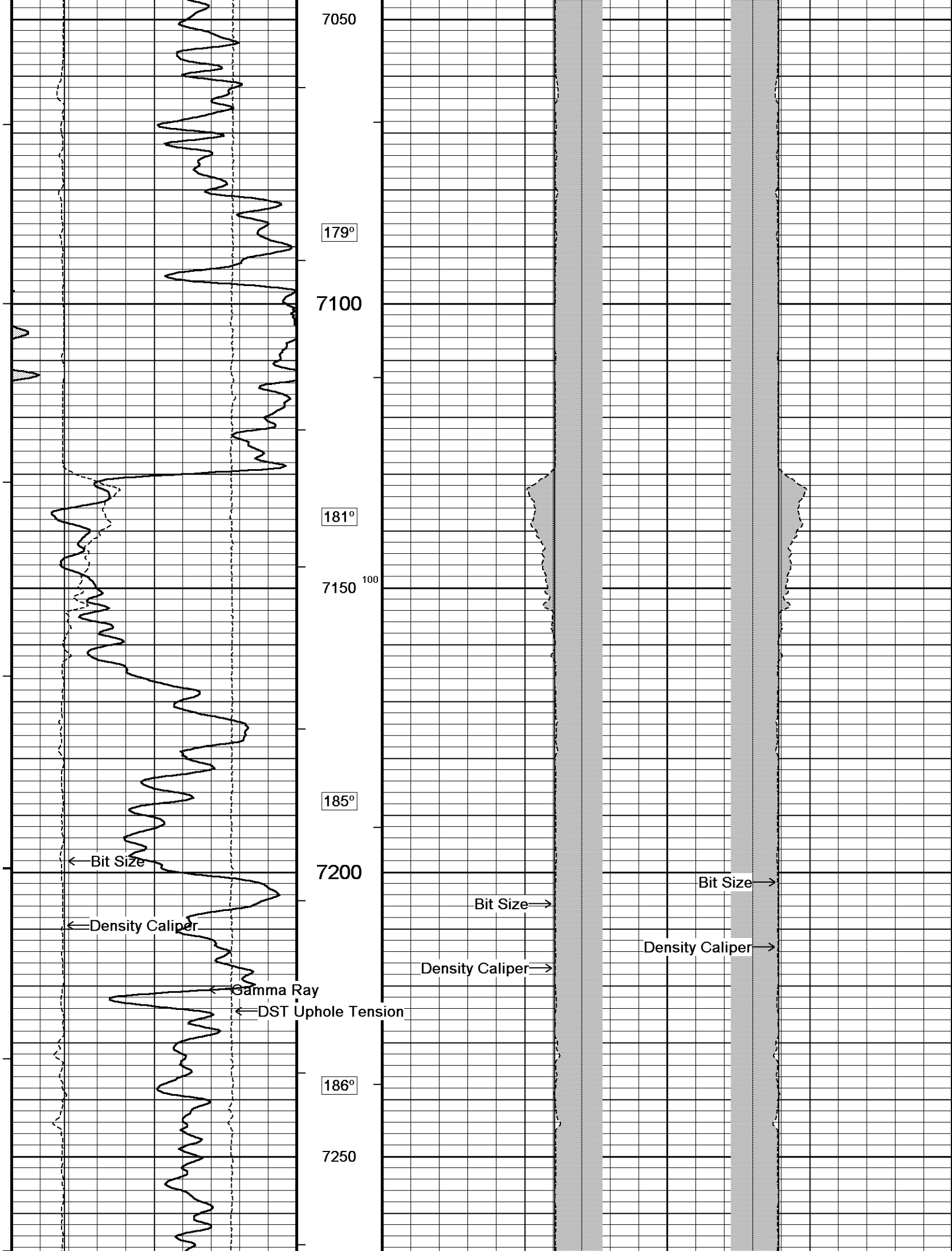


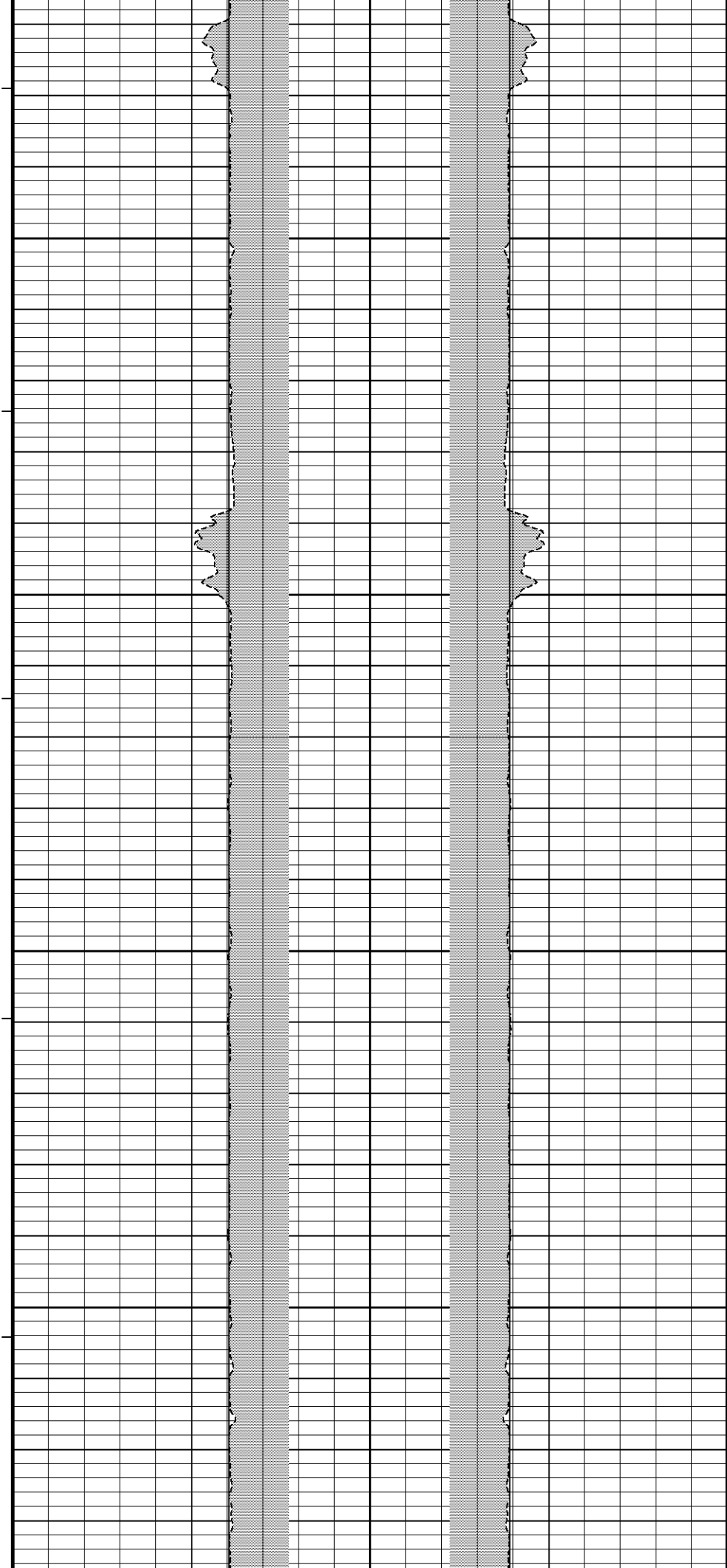
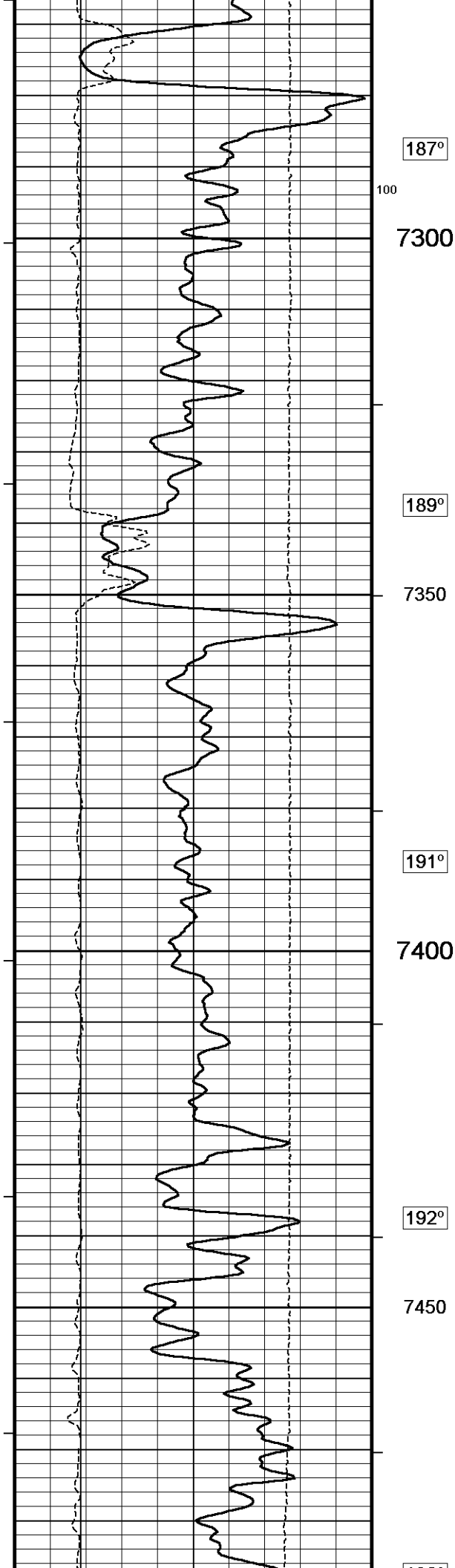
169°
400
6400
170°
6450
171°
6500
172°
6550
172°
6600

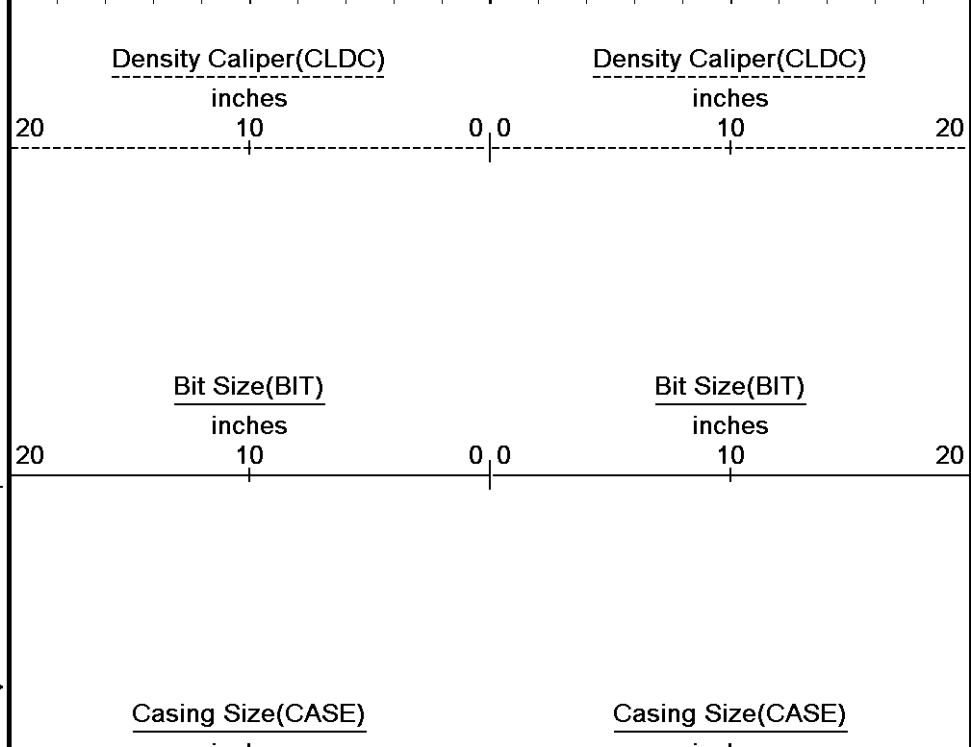
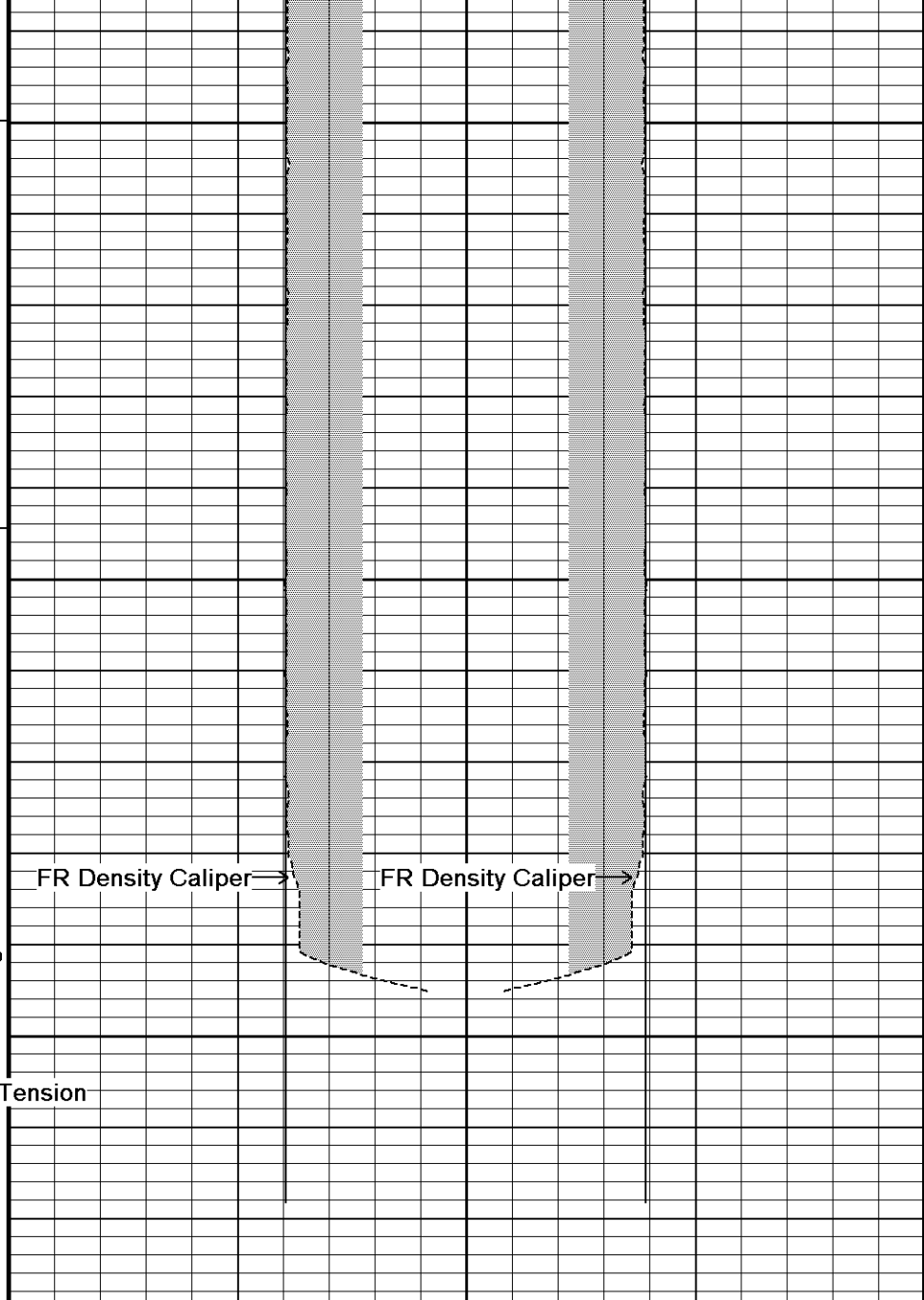
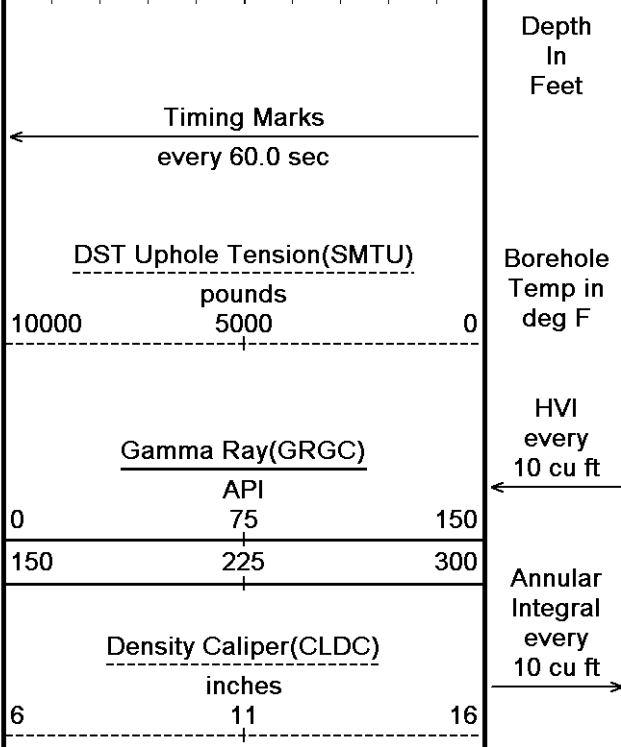
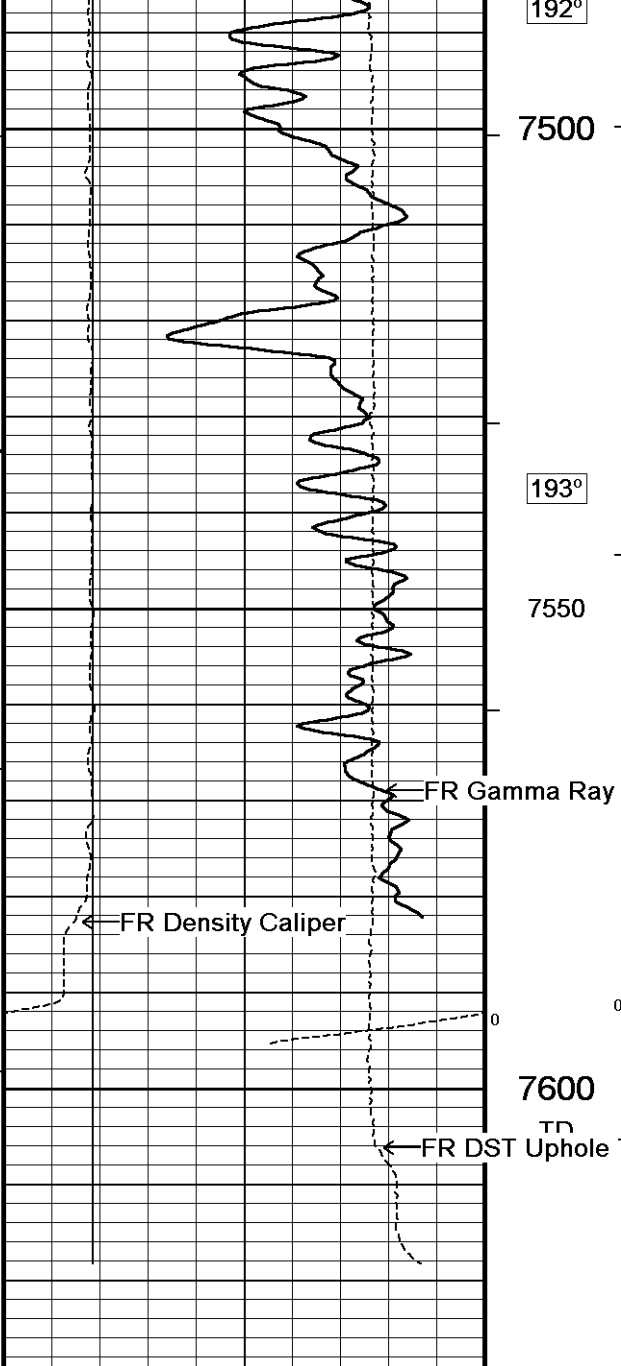












Bit Size(BIT) inches 6 11 16	Replay Scale 1:240	inches 20 10 0 0 10 20
Depth Based Data - Maximum Sampling Increment 10.0cm Plotted on 19-AUG-2011 17:05 Filename: C:\LOGS\Bill Barrett\Kaufman 24D-24-692\MAIN2.dta Recorded on 19-AUG-2011 12:43 System Versions: Logged with 11.03.4044 Processed with 11.03.4044 Plotted with 11.03.4044		
↑ 5 INCH MAIN LOG ↑		

DOWNHOLE EQUIPMENT		
C:\LOGS\Bill Barrett\Kaufman 24D-24-692\MAIN2.dta		
<p>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</p> <p>SHA-F Compact Swivel Head Adaptor SHA-F 82 LG: 2.74 ft WT: 26.5 lb OD: 2.24 in</p> <p>Compact Comms Gamma MCG-D.A 287 LG: 8.70 ft WT: 63.9 lb OD: 2.24 in</p> <p>Compact Neutron MDN-A.B 160 LG: 5.04 ft WT: 50.7 lb OD: 2.24 in</p> <p>Compact Density/Caliper MPD-B 167 LG: 9.59 ft WT: 90.4 lb OD: 2.45 in</p> <p>SKJ-D.A Compact Knuckle Joint SKJ-D.A 114 LG: 2.17 ft WT: 24.3 lb OD: 2.24 in</p> <p>Compact Focussed Electric MFE-A.A 85 LG: 6.05 ft WT: 48.5 lb OD: 2.24 in</p> <p>Compact Induction MAI-B.A 213 LG: 10.81 ft WT: 48.5 lb OD: 2.24 in</p> <p>Total Length: 46.67 ft Weight: 368.2 lb</p>		<p>37.07 ft GRGC - Gamma Ray 34.16 ft CGXT - MCG External Temperature</p> <p>30.61 ft NPRS - Sandstone Neutron Por.</p> <p>23.37 ft AVOL - Annular Volume 23.37 ft HVOL - Hole Volume 23.37 ft CLDC - Density Caliper 21.44 ft DPOR - Base Density Porosity 21.44 ft DCOR - Density Correction 21.38 ft PDPE - PE</p> <p>13.72 ft FEFC - Shallow FE (Phase Corr.)</p> <p>3.34 ft R400 - Array Ind. One Res 40 3.34 ft R300 - Array Ind. One Res 30 3.34 ft RTAO - Array Ind. One Res Rt 3.34 ft R850 - Array Ind. One Res 85 3.34 ft R600 - Array Ind. One Res 60 0.23 ft SPCG - Spontaneous Potential Tool Zero (0.13ft from bottom) -0.13 ft SMTU - DST Uphole Tension All measurements relative to tool zero.</p>

COMPANY	BILL BARRETT CORPORATION			
WELL	KAUFMAN 24D-24-692			
FIELD	MAMM CREEK			
PROVINCE/COUNTY	GARFIELD			
COUNTRY/STATE	U.S.A. / COLORADO			
Elevation Kelly Bushing	5866.00	feet	First Reading	7583.00
Elevation Drill Floor	5866.00	feet	Depth Driller	7610.00 feet
Elevation Ground Level	5843.00	feet	Depth Logger	7606.00 feet

