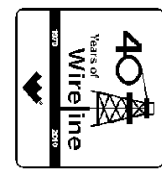




# HOLE VOLUME CALIPER LOG



COMPANY BILL BARRETT CORPORATION  
WELL CB-TG LAND 21D-20-692  
FIELD MAMM CREEK  
PROVINCE/COUNTY GARFIELD  
COUNTRY/STATE U.S.A. / COLORADO  
LOCATION SHL: 612' FNL & 2585' FEL  
BHL: 105' FNL & 1972' FWL

SEC 20 TWP 6S RGE 92W Other Services MPD/MDN MAI/MFE  
API Number 05-045-19759  
Permit Number

Permanent Datum G.L., Elevation 5530 feet  
Log Measured From K.B. @ 23 FT above Permanent Datum  
Drilling Measured From K.B.

Elevations:  
KB 5553.00  
DF 5552.00  
GL 5530.00

Date	03-JULY-2011	
Run Number	ONE	
Depth Driller	7770.00	feet
Depth Logger	7766.00	feet
First Reading	7739.00	
Last Reading	809.00	
Casing Driller	813.00	feet
Casing Logger	809.00	feet
Bit Size	7.875	inches
Hole Fluid Type	LSND	
Density / Viscosity	10.50 lb/USg	55.00 CP
PH / Fluid Loss	9.80	7.60 ml/30Min
Sample Source	FLOW LINE	
Rm @ Measured Temp	1.81 @103.0	ohm-m
Rmf @ Measured Temp	1.28 @103.0	ohm-m
Rmc @ Measured Temp	2.17 @103.0	ohm-m
Source Rmf / Rmc	CALC	CALC
Rm @ BHT	0.865 @195.0	ohm-m
Time Since Circulation	7 HOURS	
Max Recorded Temp	205.00	deg F
Equipment Name	COMPACT	
Equipment / Base	13045	GD JCT
Recorded By	N. TAYLOR	
Witnessed By	J. BOYD	D. NAASZ

## BOREHOLE RECORD

Last Edited: 03-JUL-2011 10:32

Bit Size inches	Depth From feet	Depth To feet
8.750	813.00	4795.00
7.880	4795.00	7770.00

## CASING RECORD

Type	Size inches	Depth From feet	Shoe Depth feet	Weight pounds/ft
SURFACE	9.625	0.00	813.00	36.00

## REMARKS

LOGGED USING WLS SOFTWARE VERSION 11.02.3186

TOOLS: SHA, MCG, MDN, MPD, SKJ, MFE, AND MAI RAN IN COMBINATION

HARDWARE: MPD: (1) 8 INCH PROFILE PLATE  
MAI: (2) 0.5 INCH STANDOFF  
MDN: (1) DUAL BOWSPRING  
MFE: (1) 0.5 INCH STANDOFF

2.68 G/CC DENSITY MATRIX USED TO CALCULATE POROSITY

2.00 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. = 8.93" (9 5/8", 36 LB/FT CASING)

TOTAL HOLE VOLUME FROM TD TO SURFACE CASING =2670CU.FT.

ANNULAR VOLUME WITH 4.5 INCH PRODUCTION CASING = 1190CU.FT.

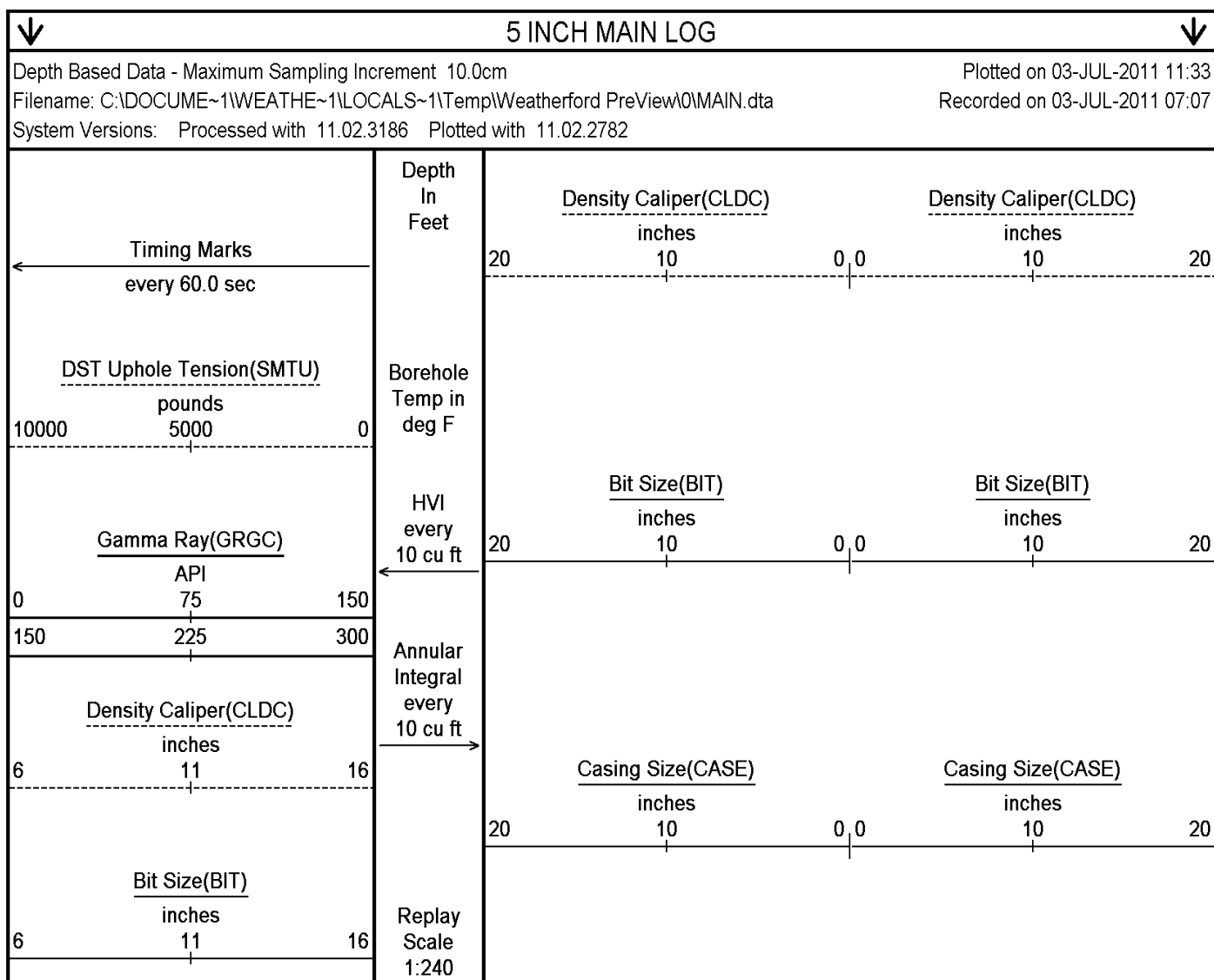
SERVICE ORDER: #3531820

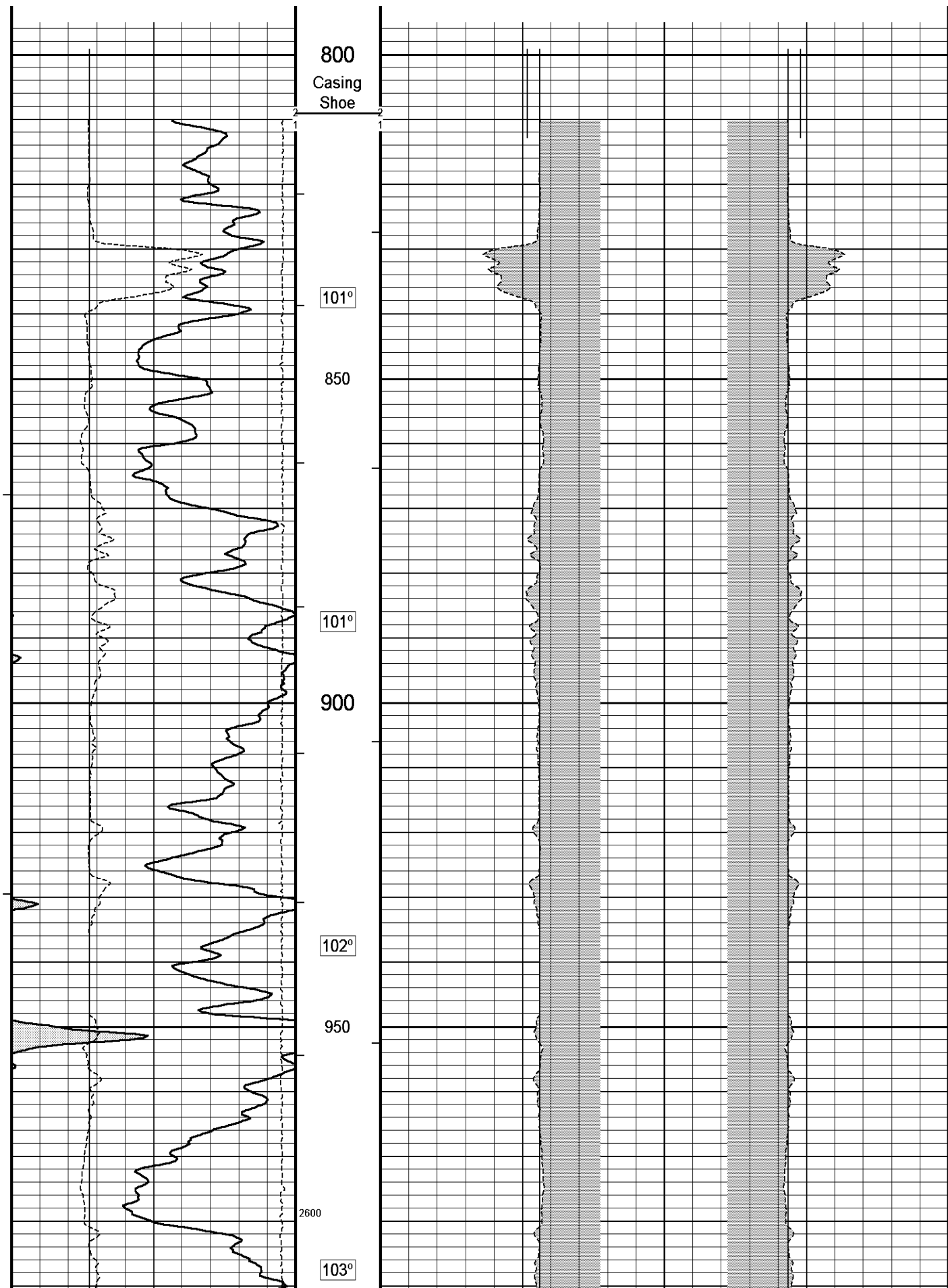
RIG: NABORS #37

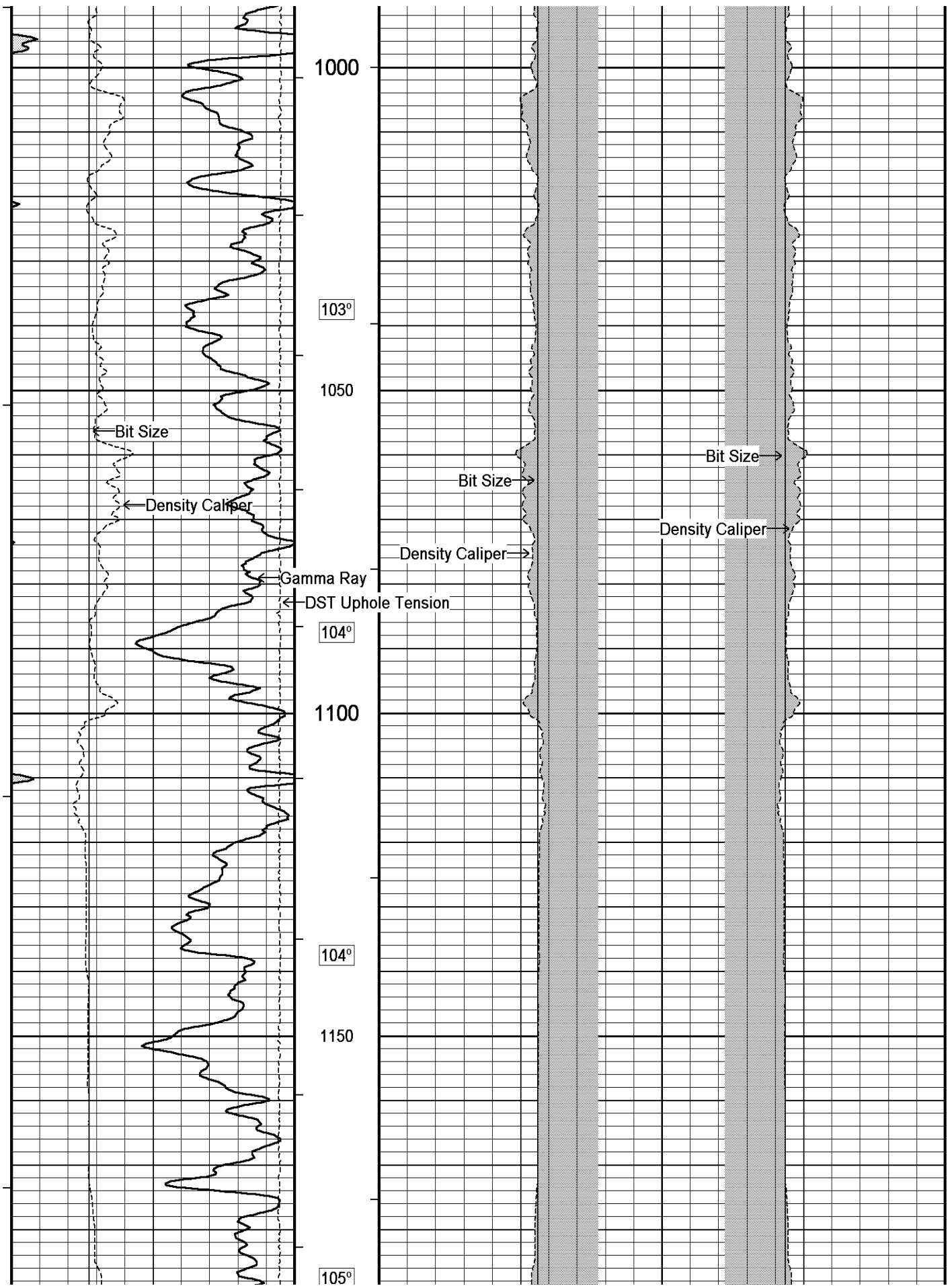
ENGINEER(S): N. TAYLOR, D. NAASZ

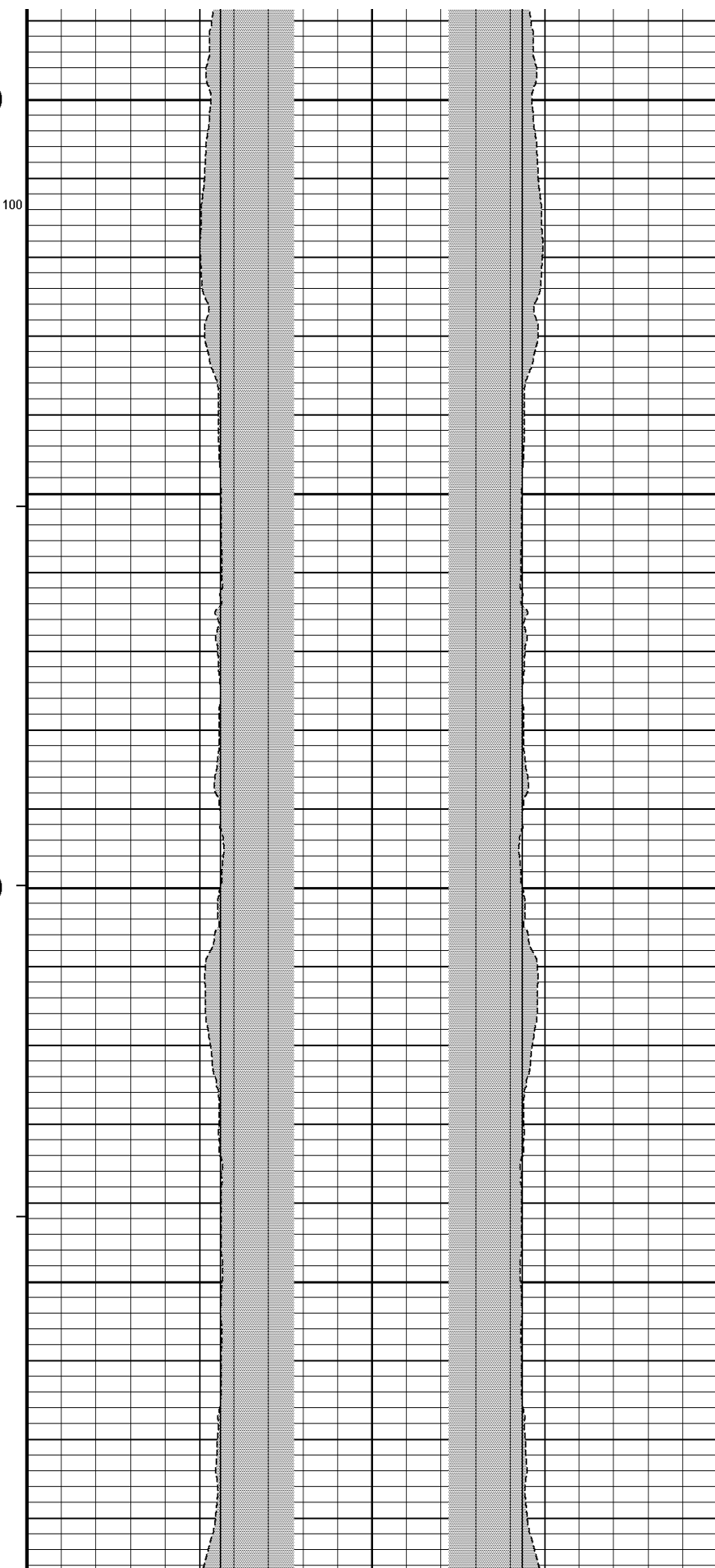
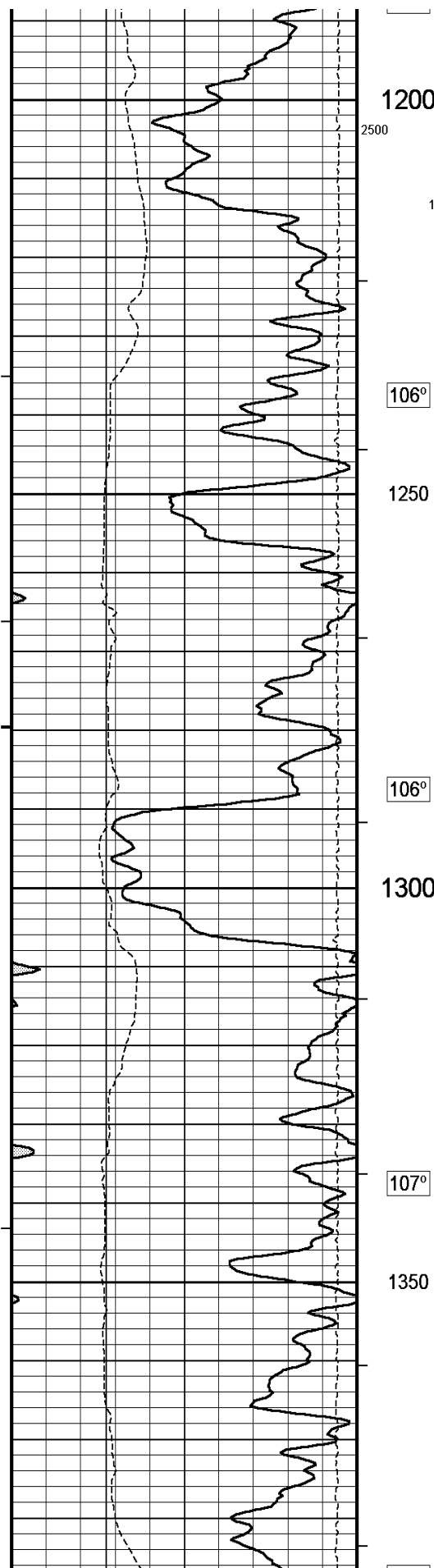
OPERATOR(S): S.KAISER

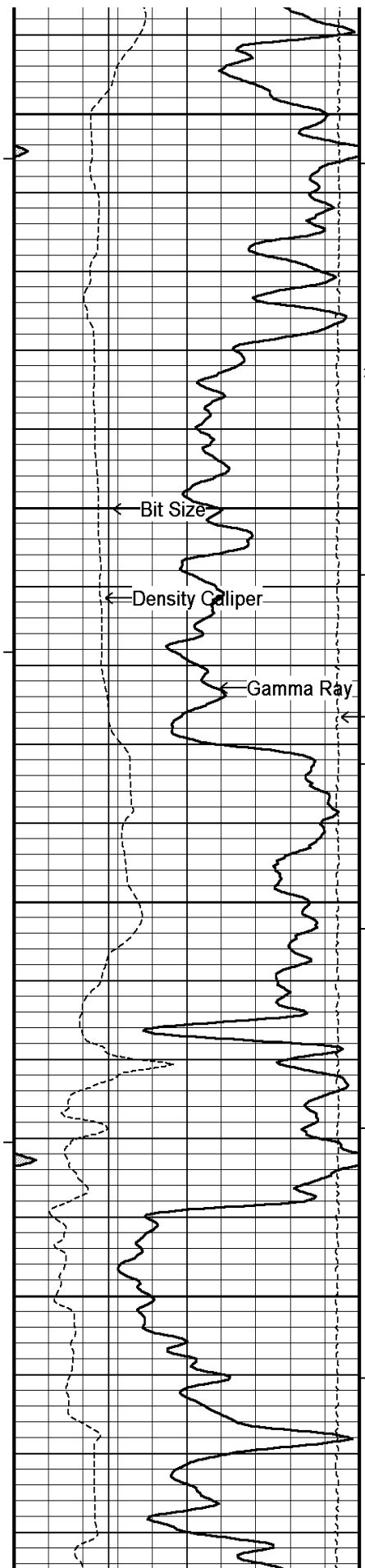
All interpretations are opinions based on inferences from electrical or other measurements and we cannot, and do not, guarantee the accuracy or correctness of any interpretations, and we shall not, except in the case of gross or wilful negligence on our part, be liable or responsible for any loss, costs,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











107°

1400

2400

108°

1450

← Bit Size

← Density Caliper

← Gamma Ray

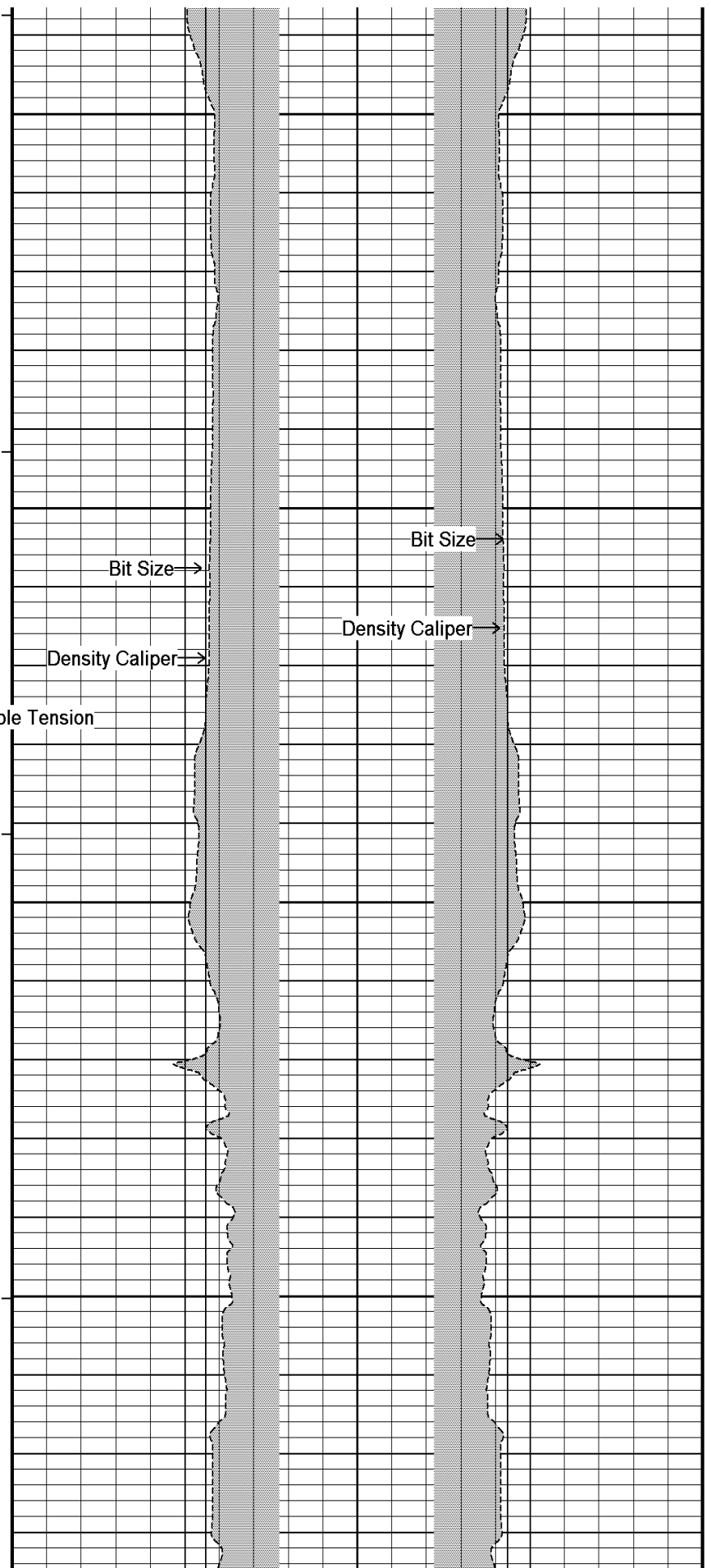
← DST Uphole Tension

109°

1500

109°

1550

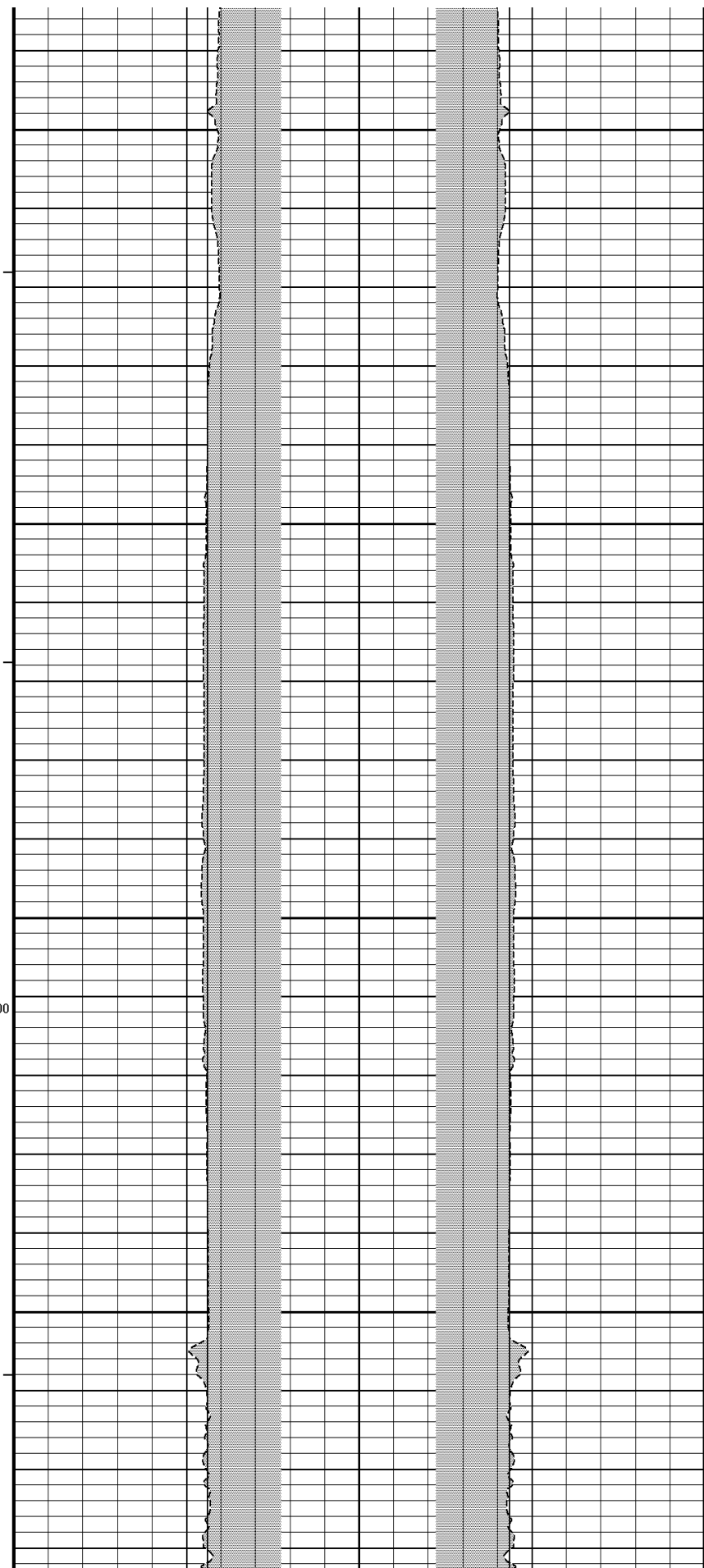
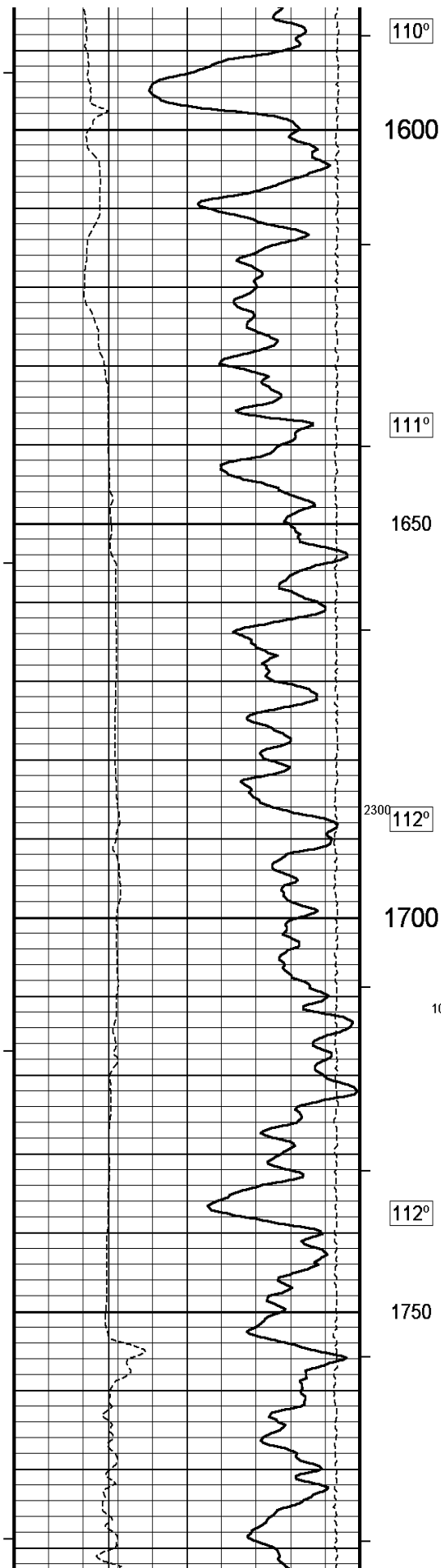


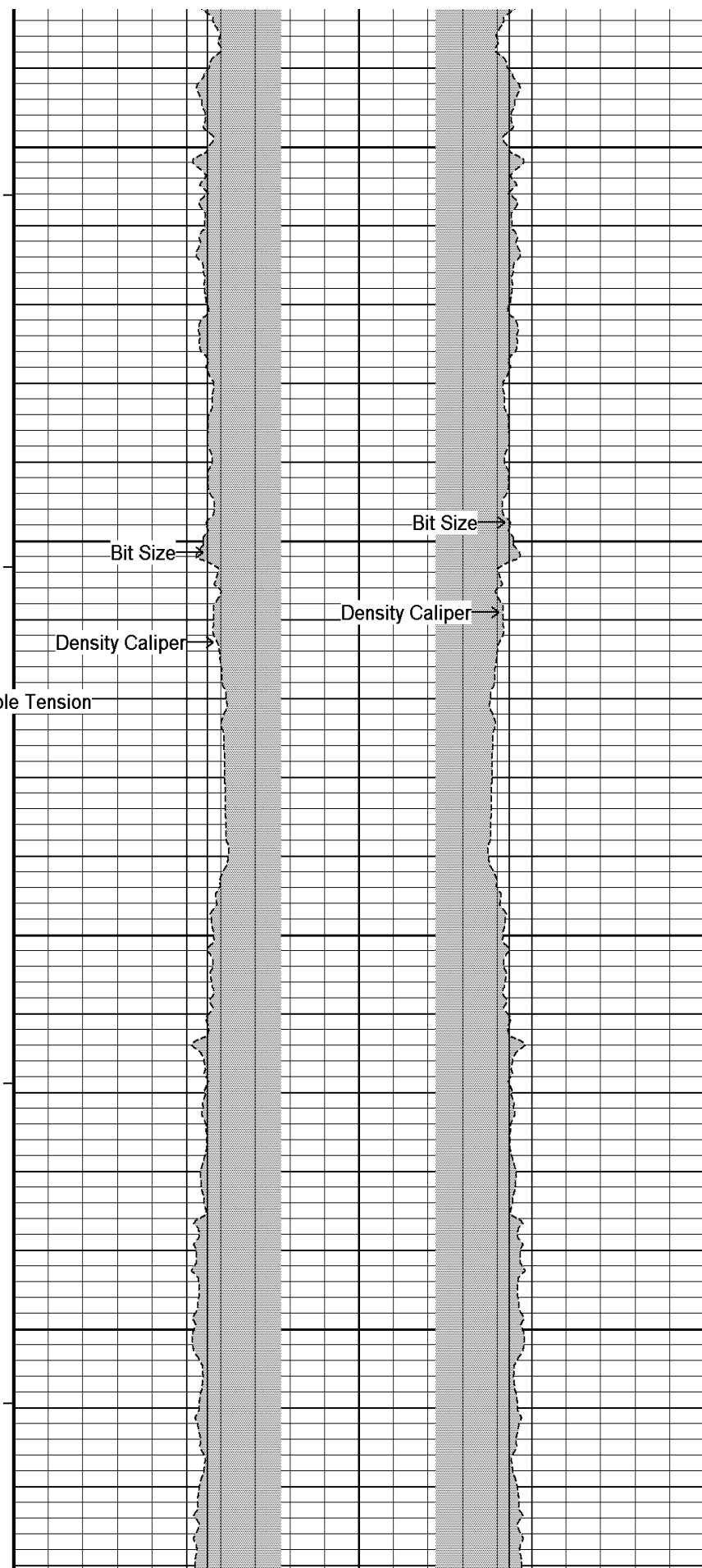
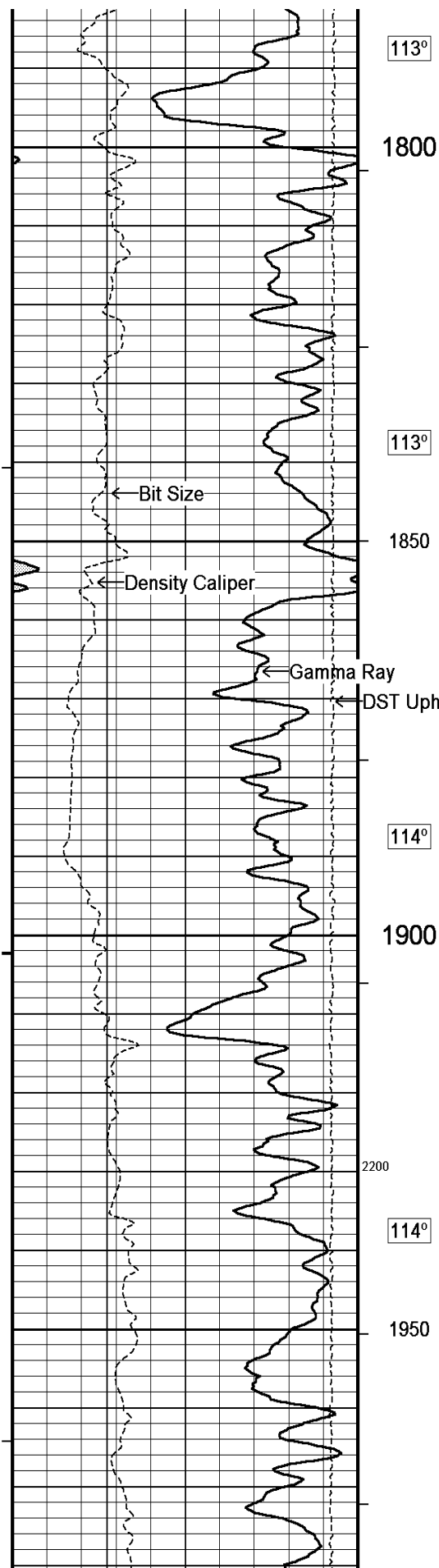
Bit Size →

Bit Size →

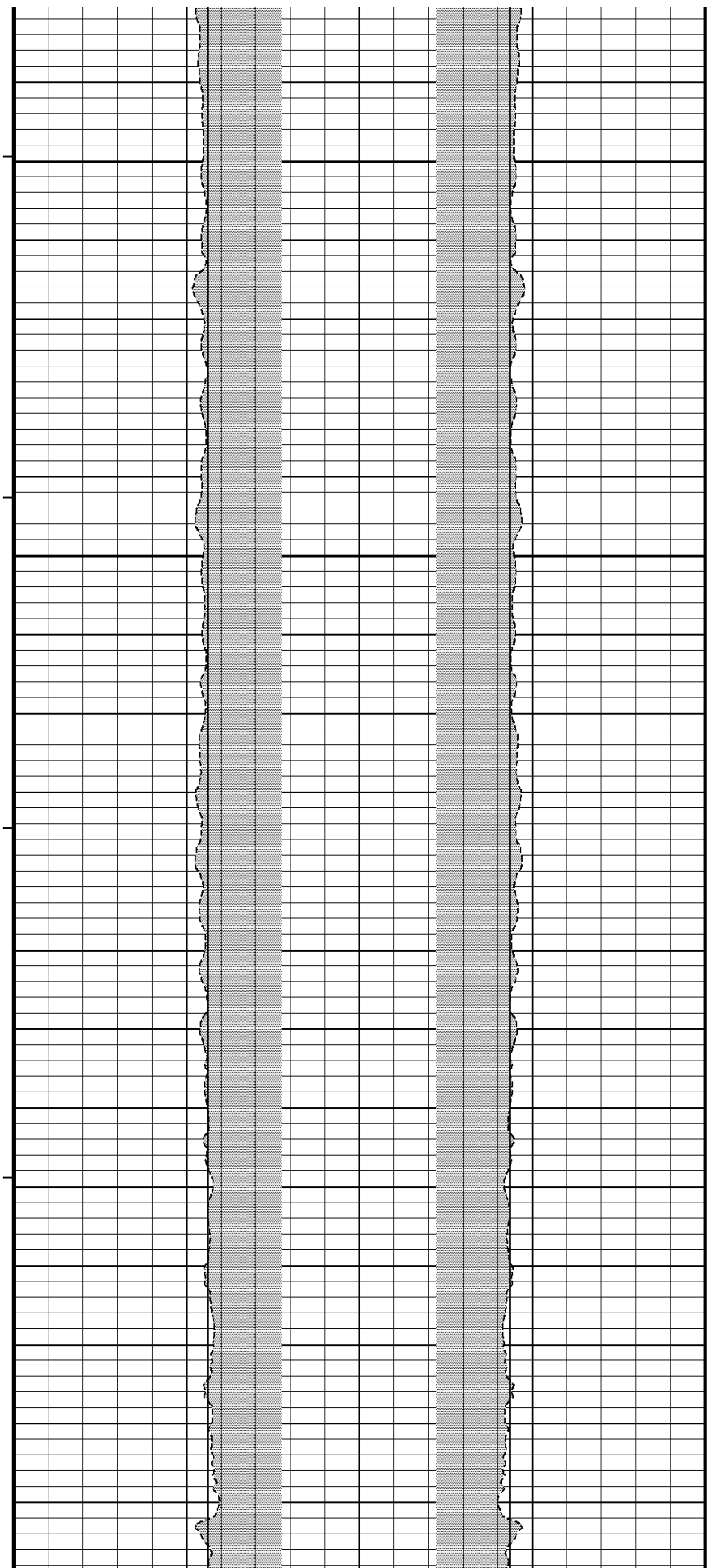
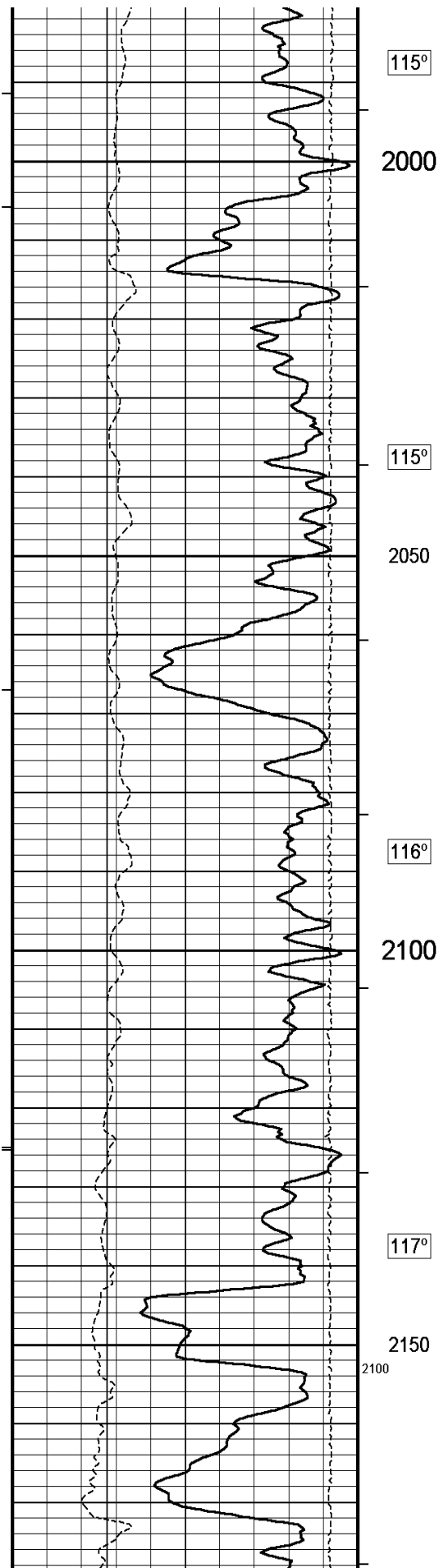
Density Caliper →

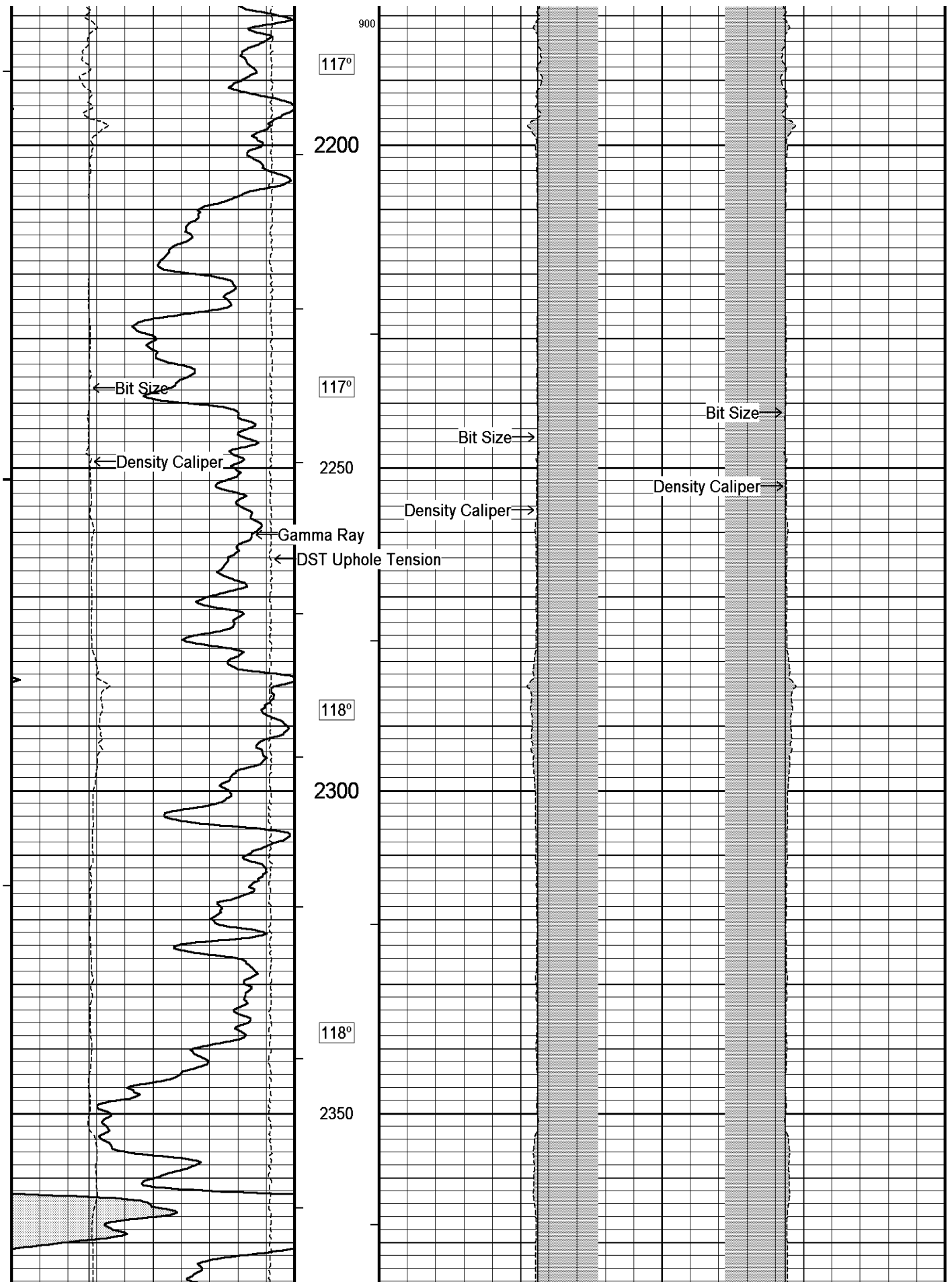
Density Caliper →

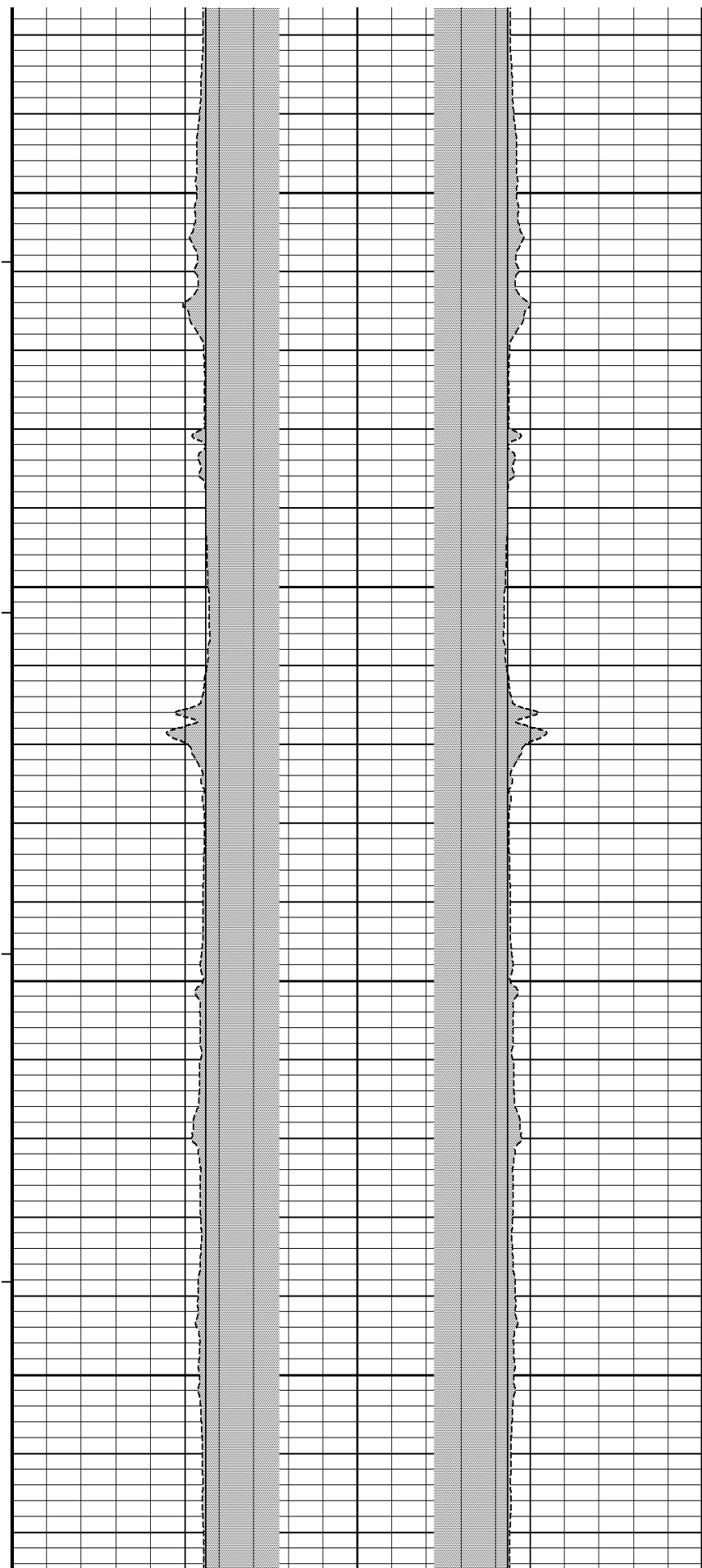
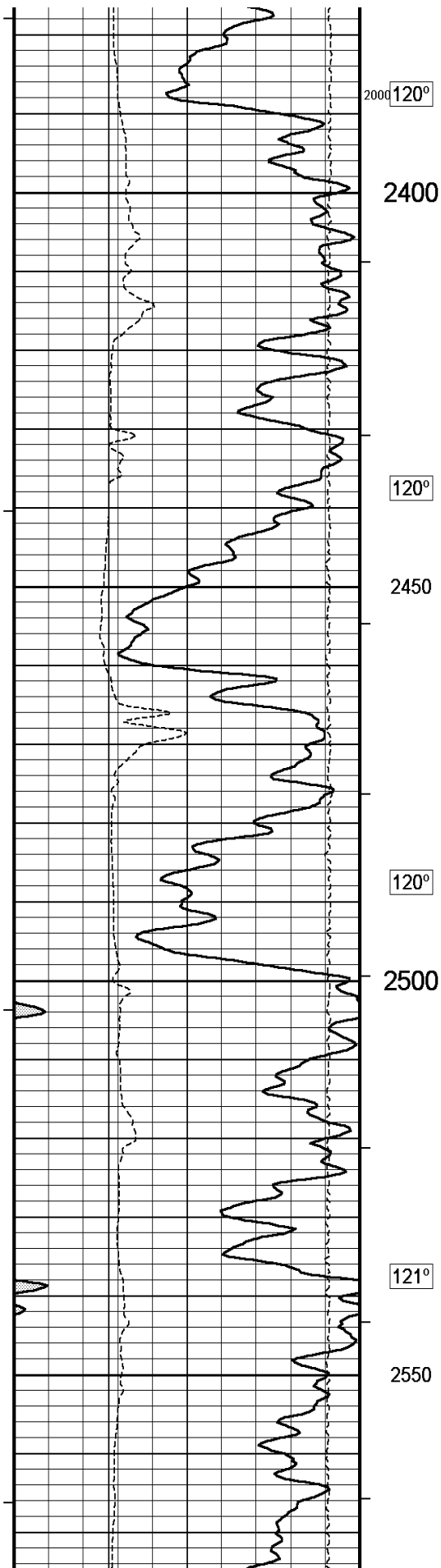


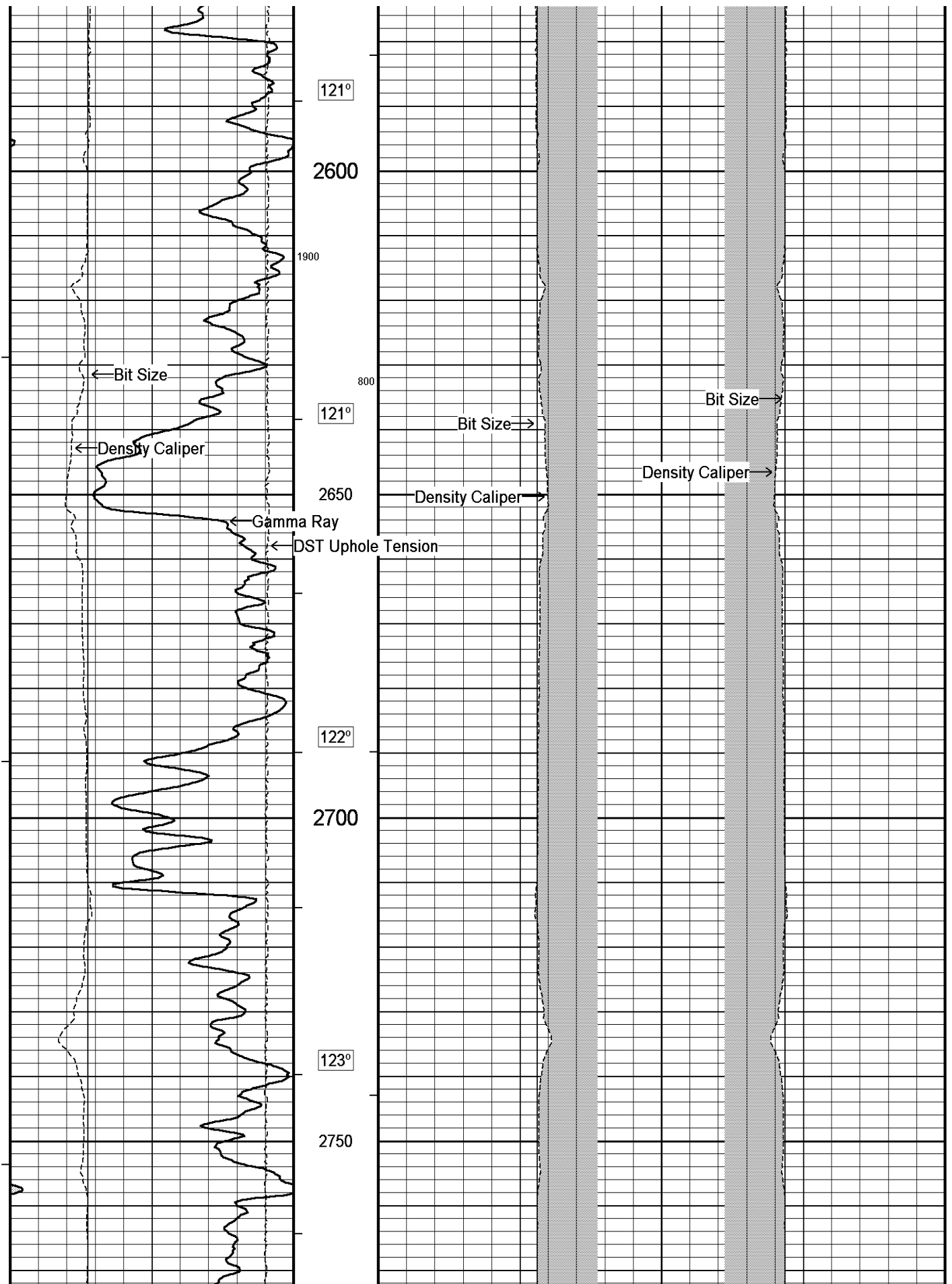


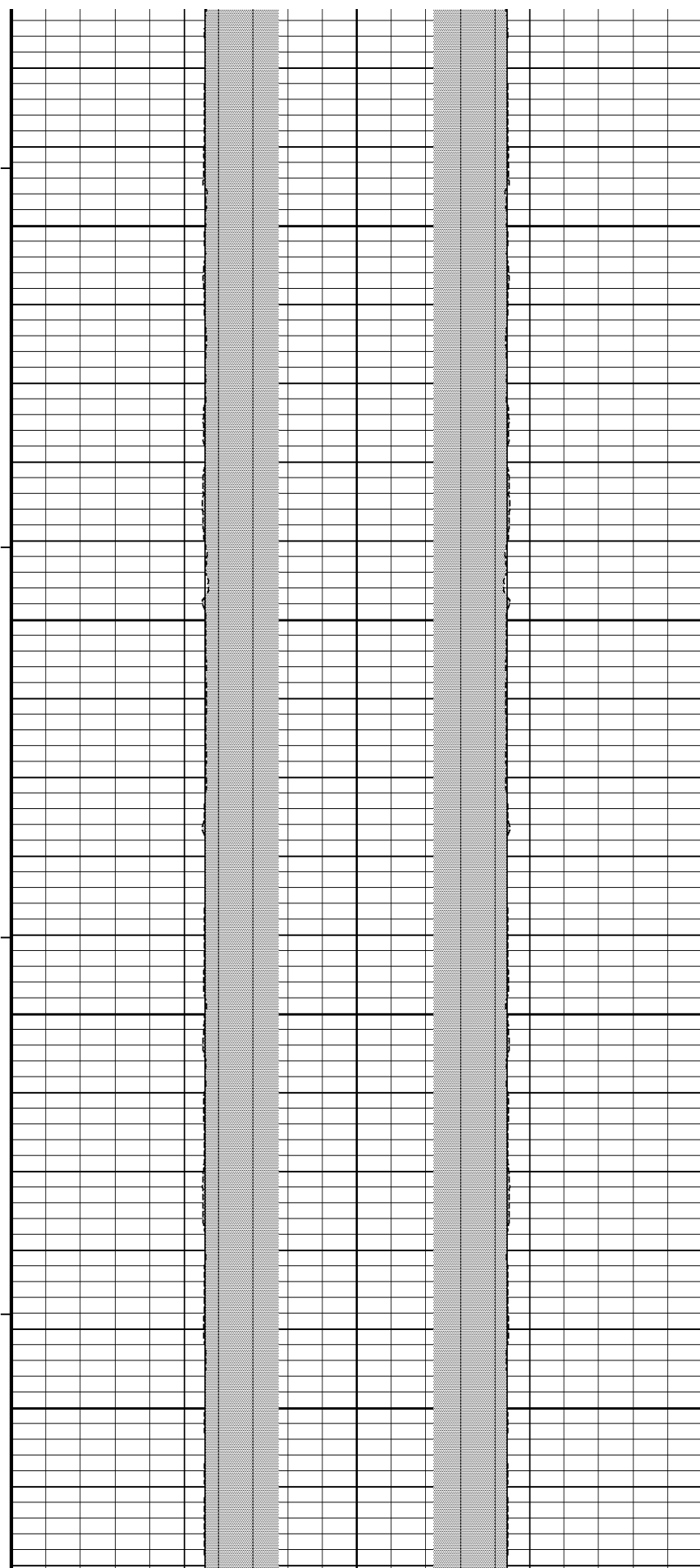
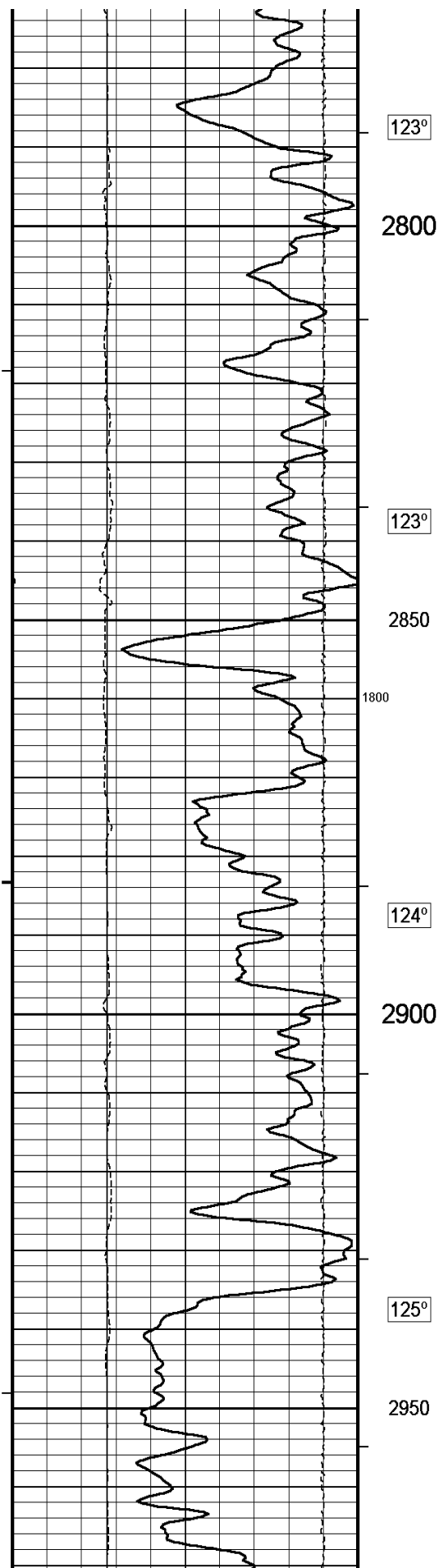


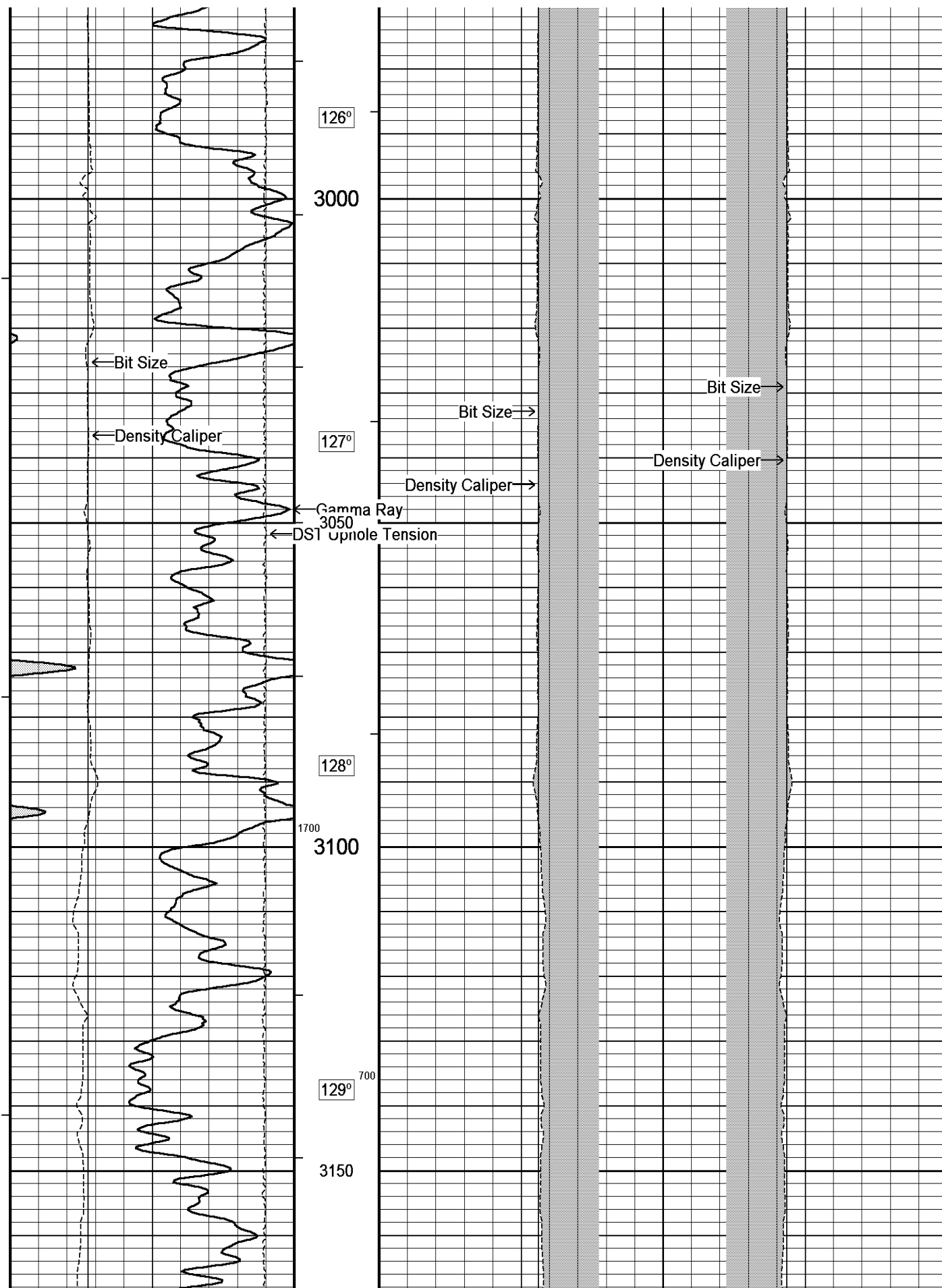


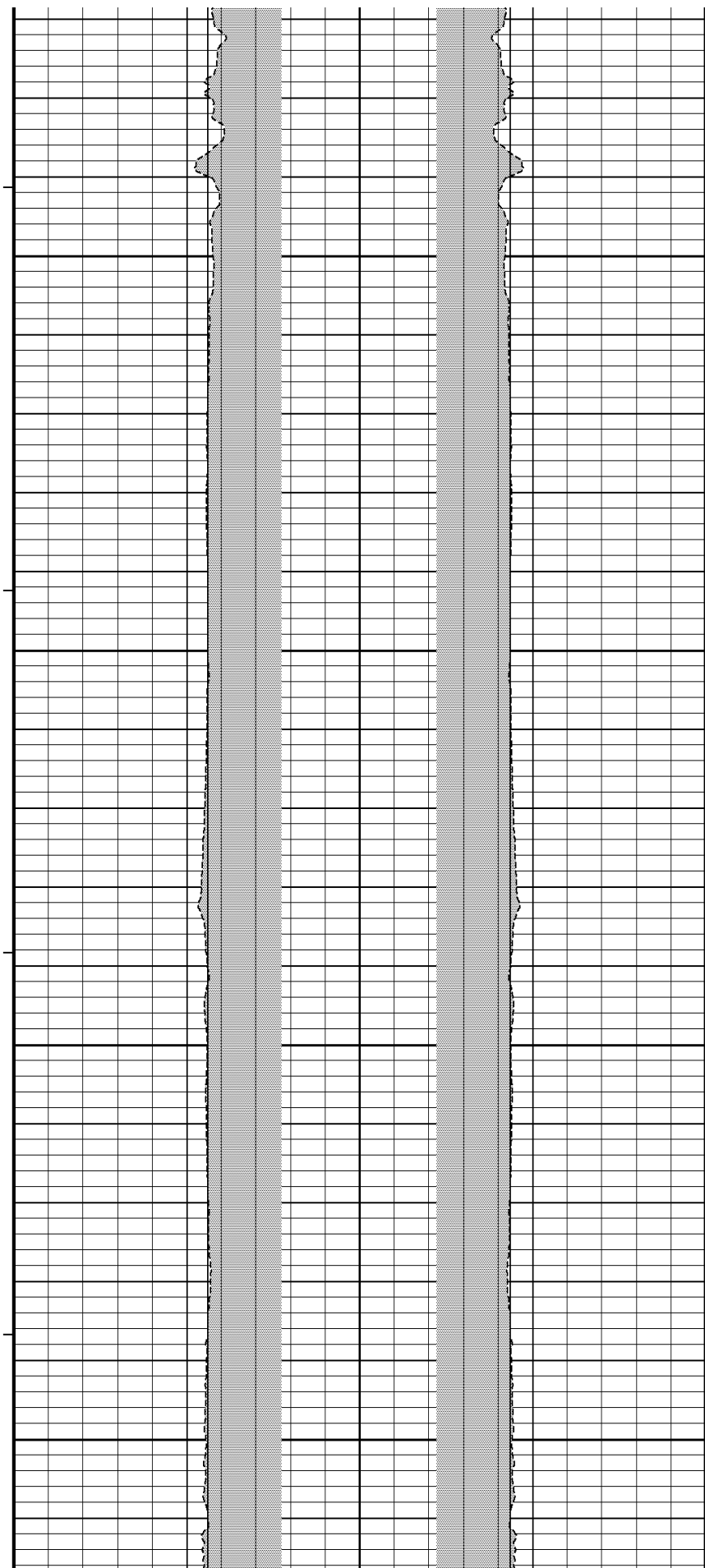
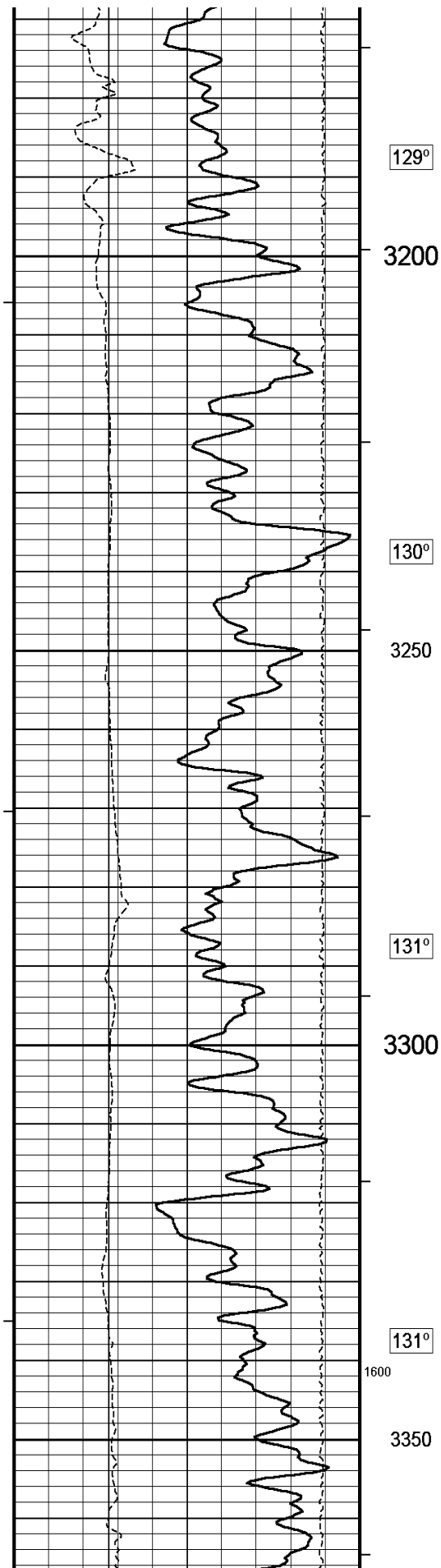


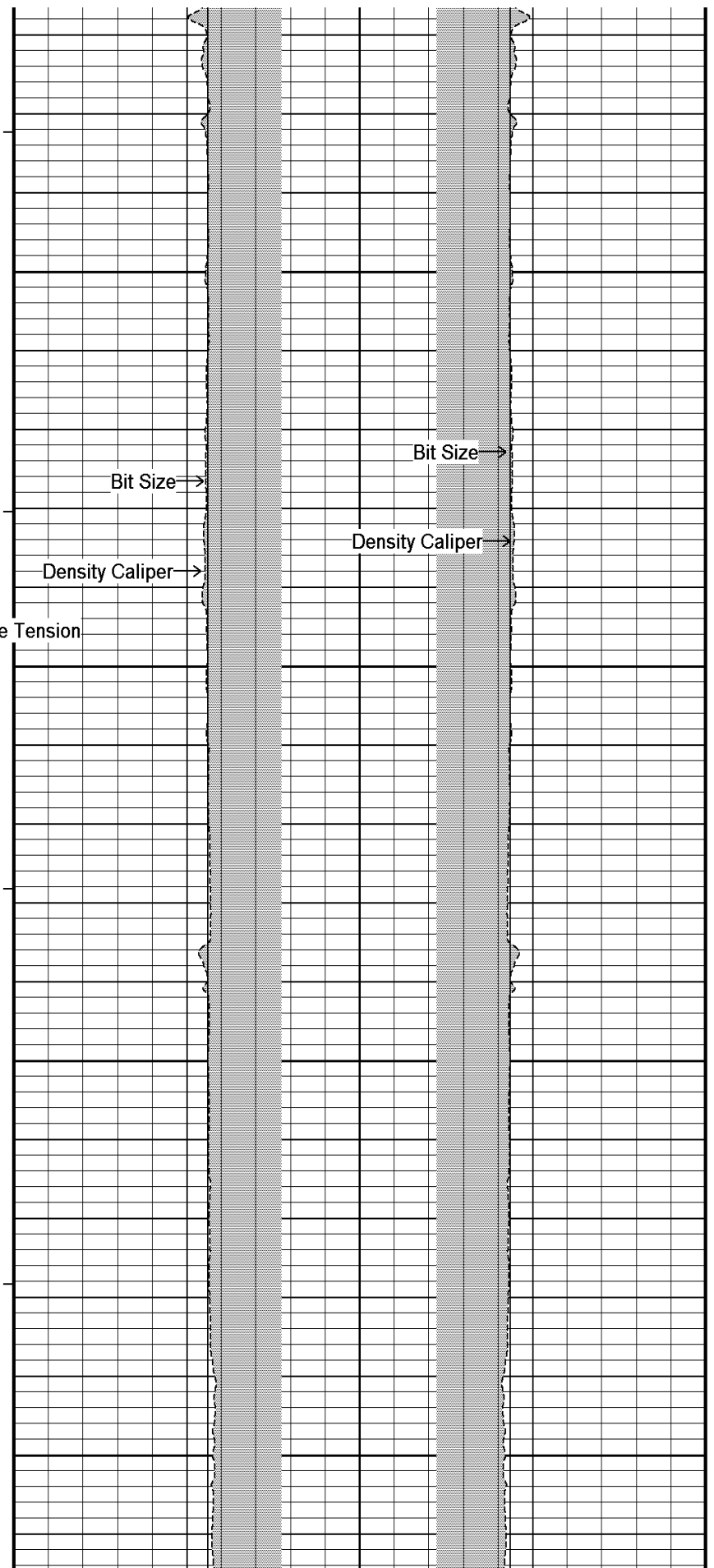
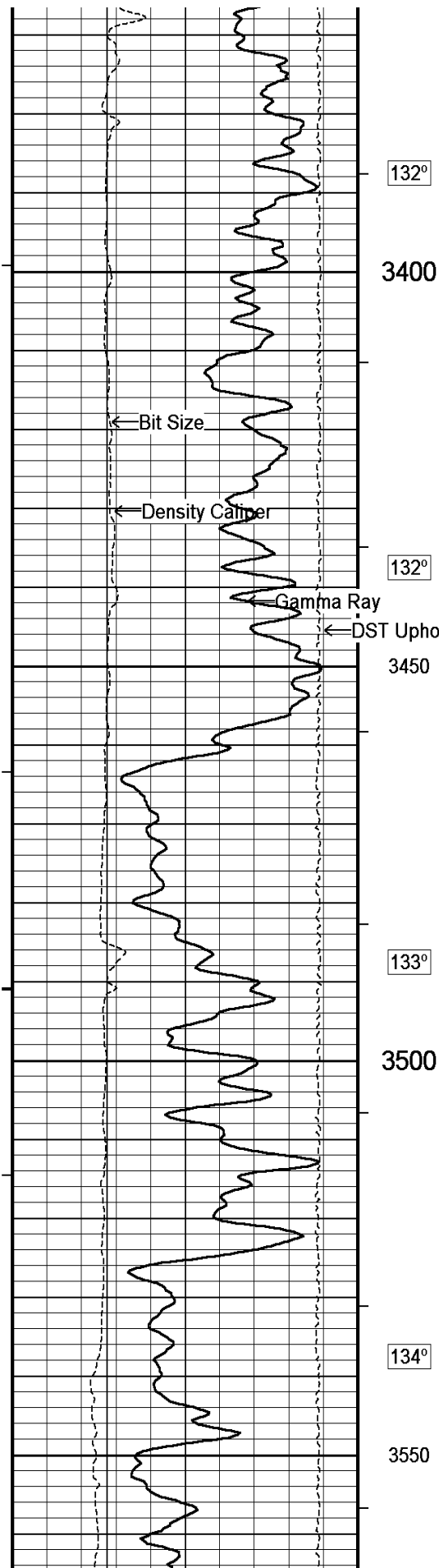




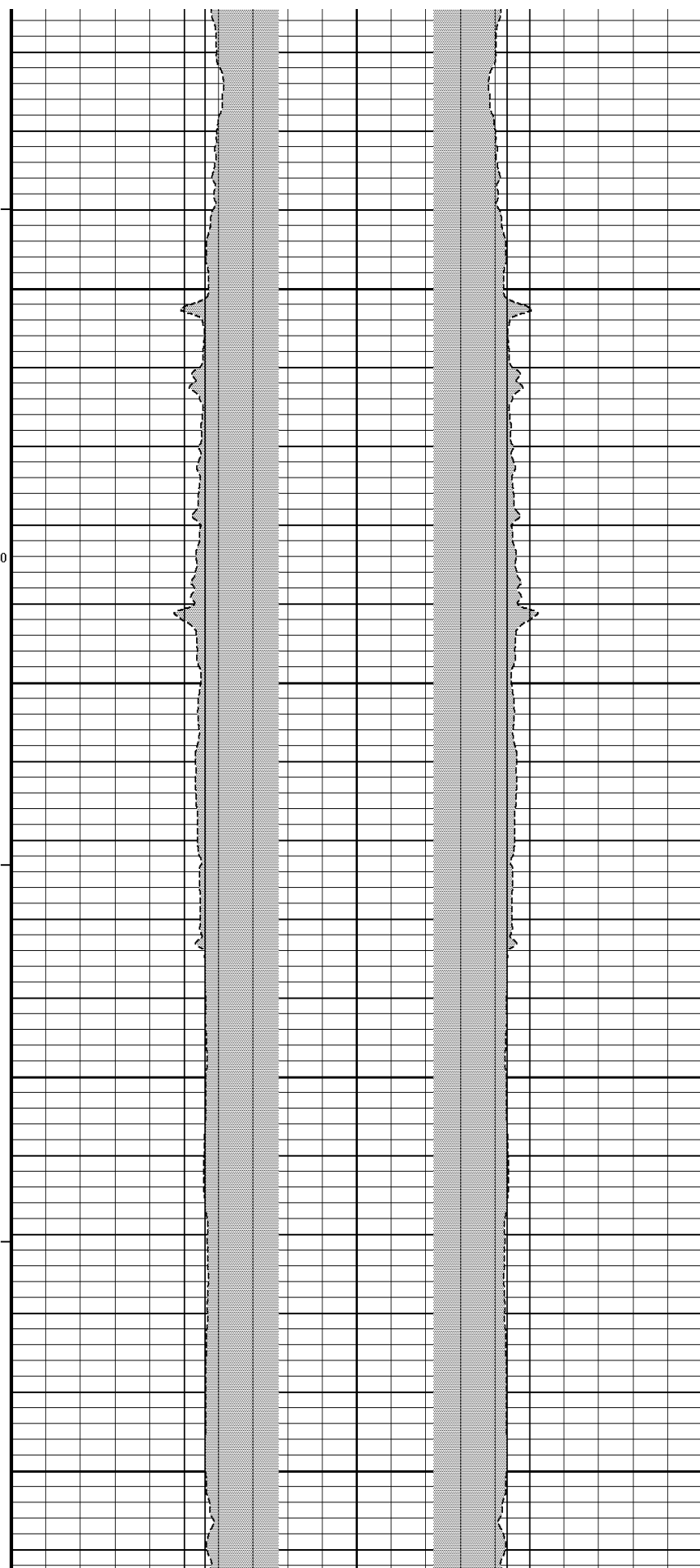
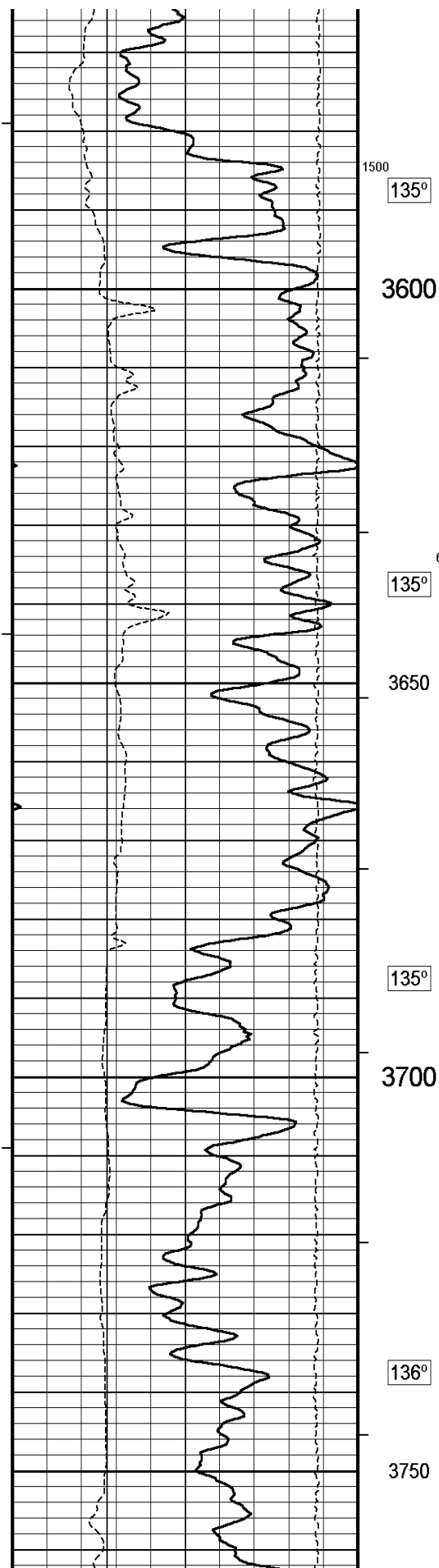


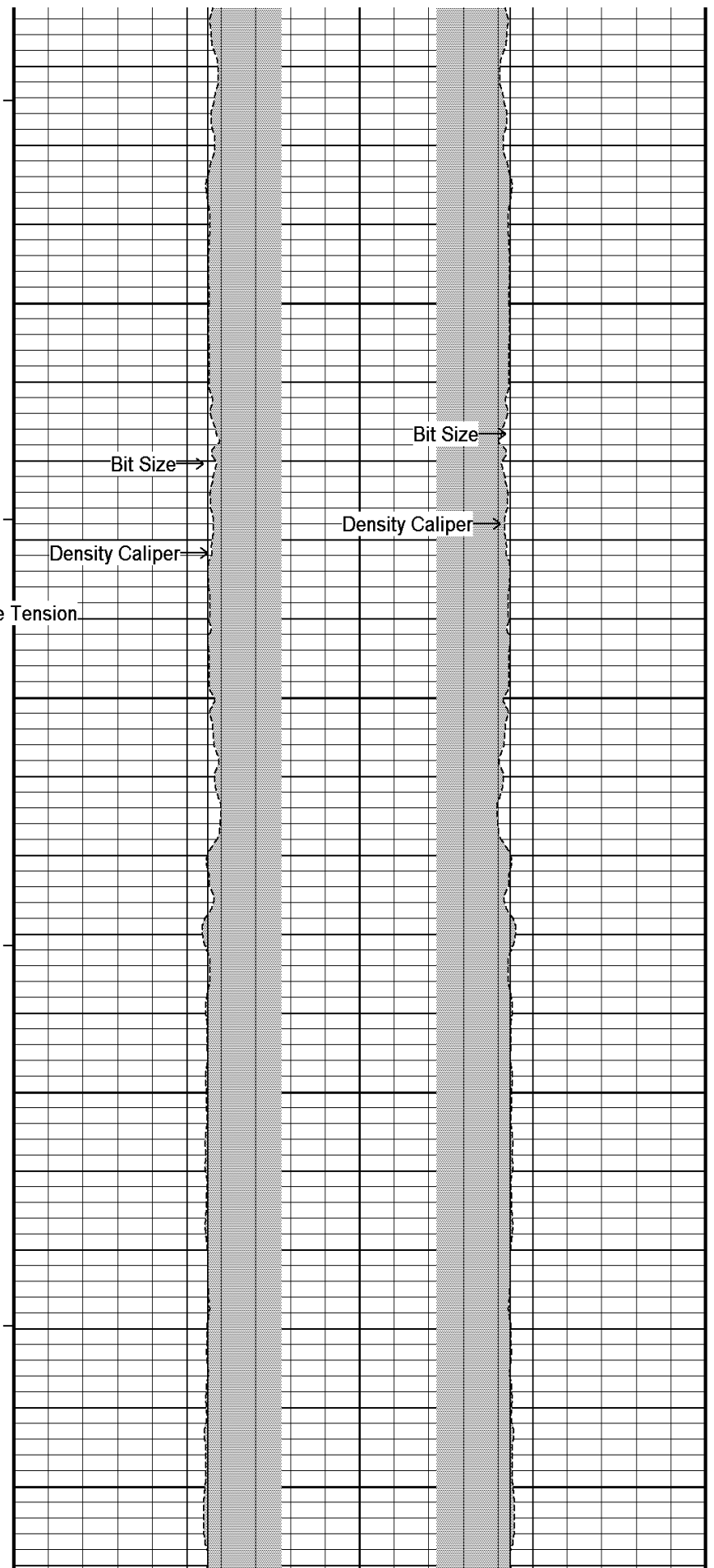
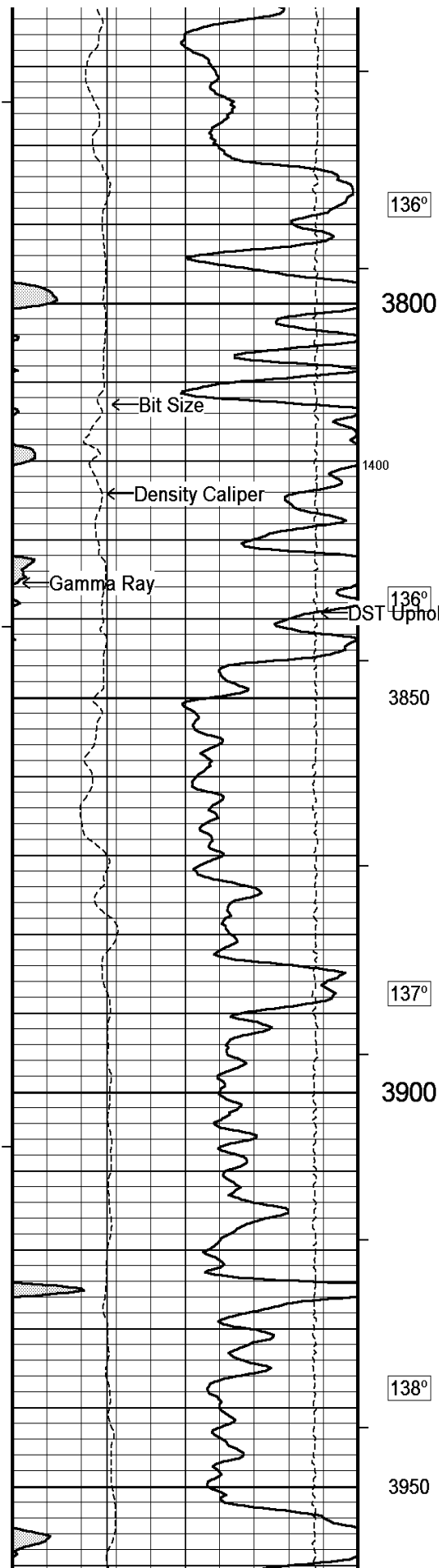


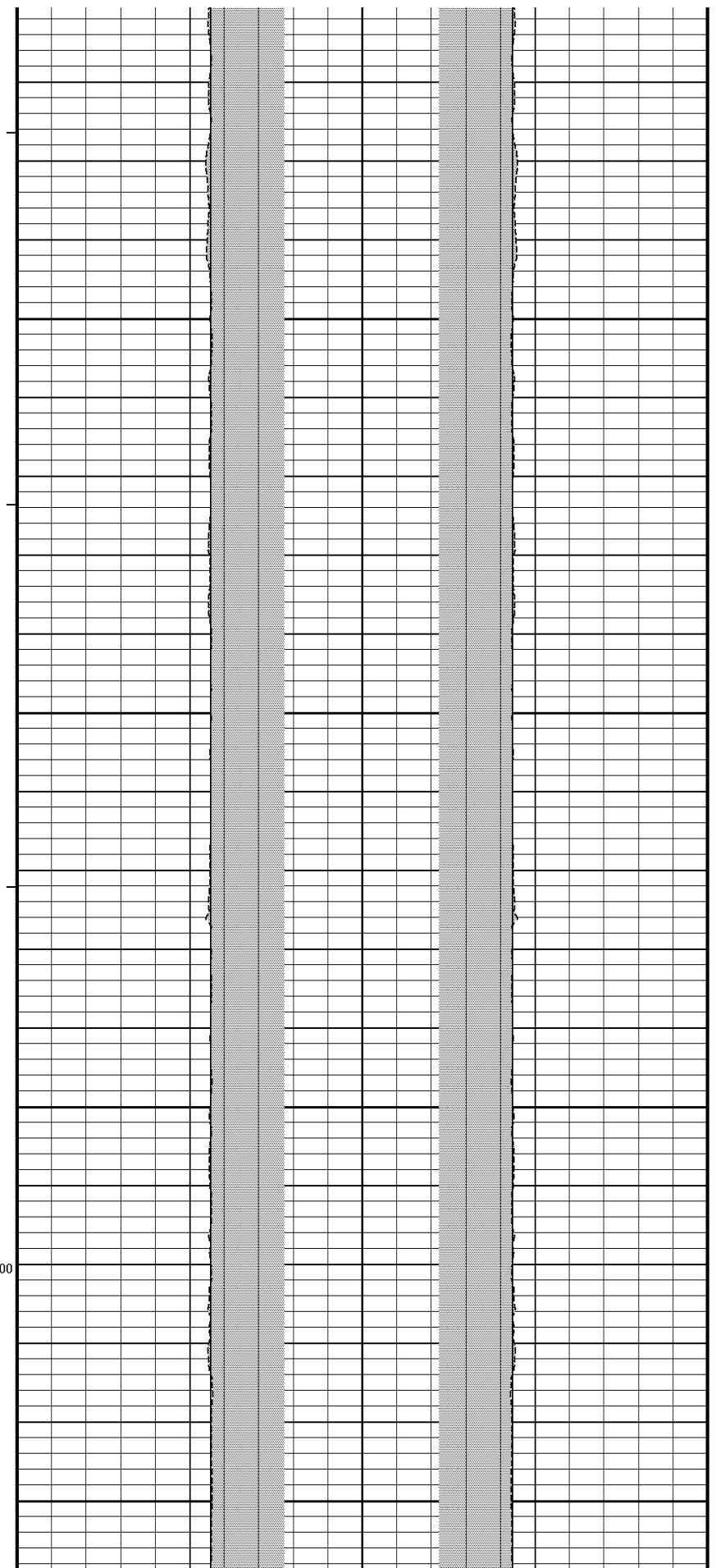
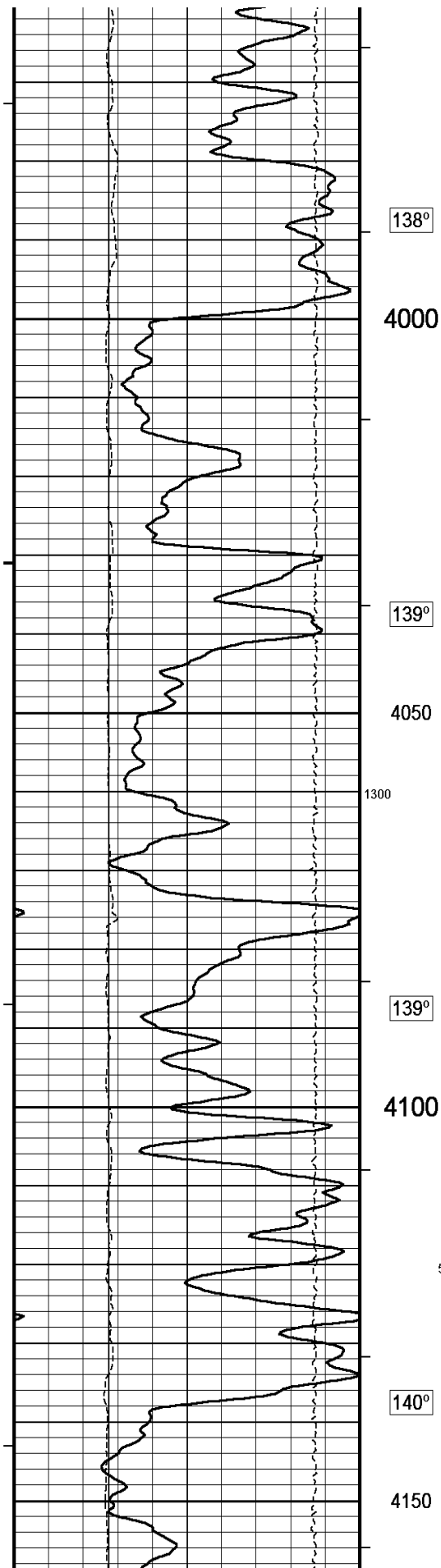


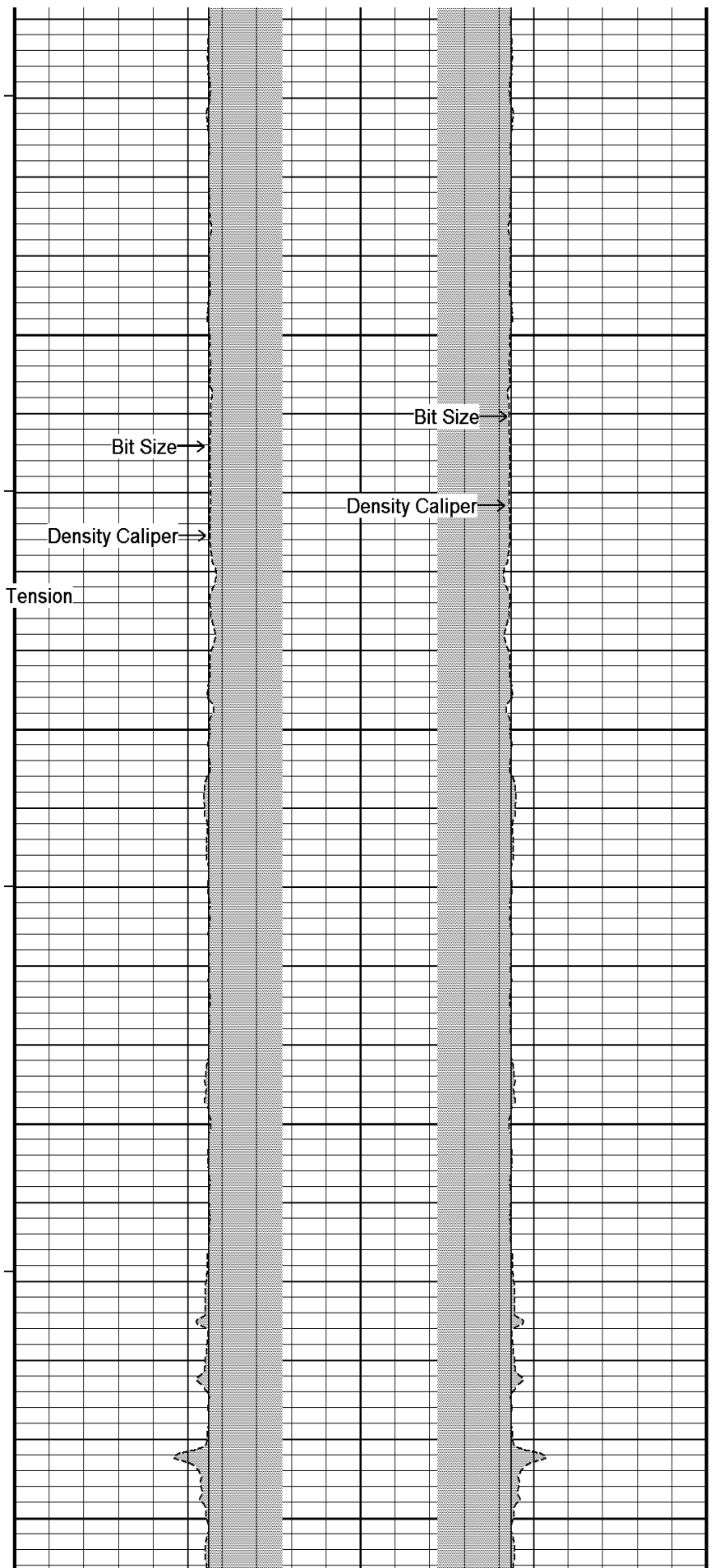
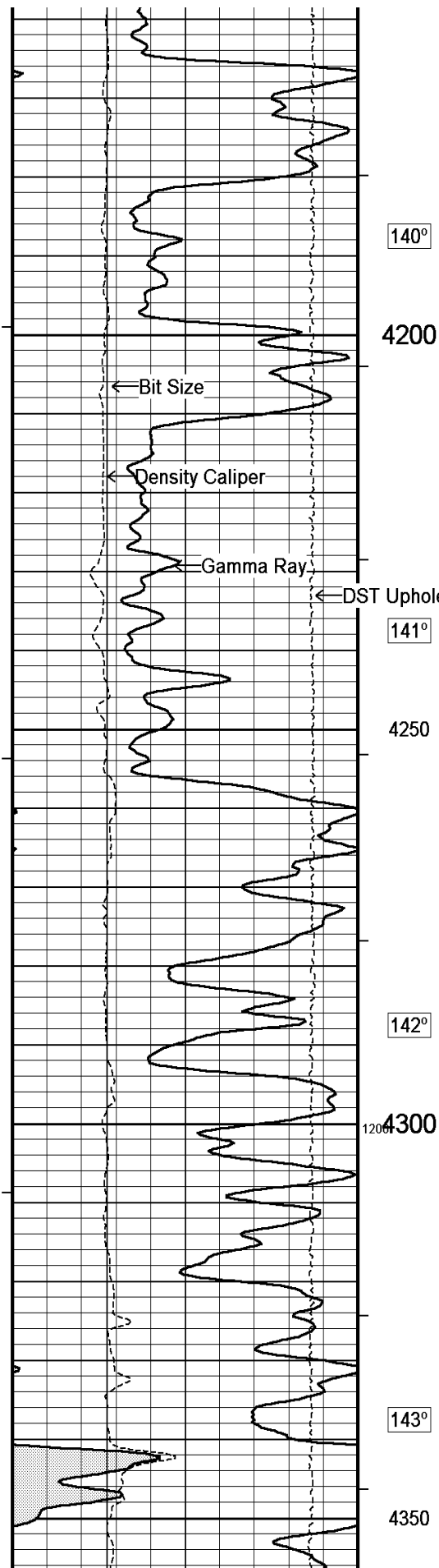


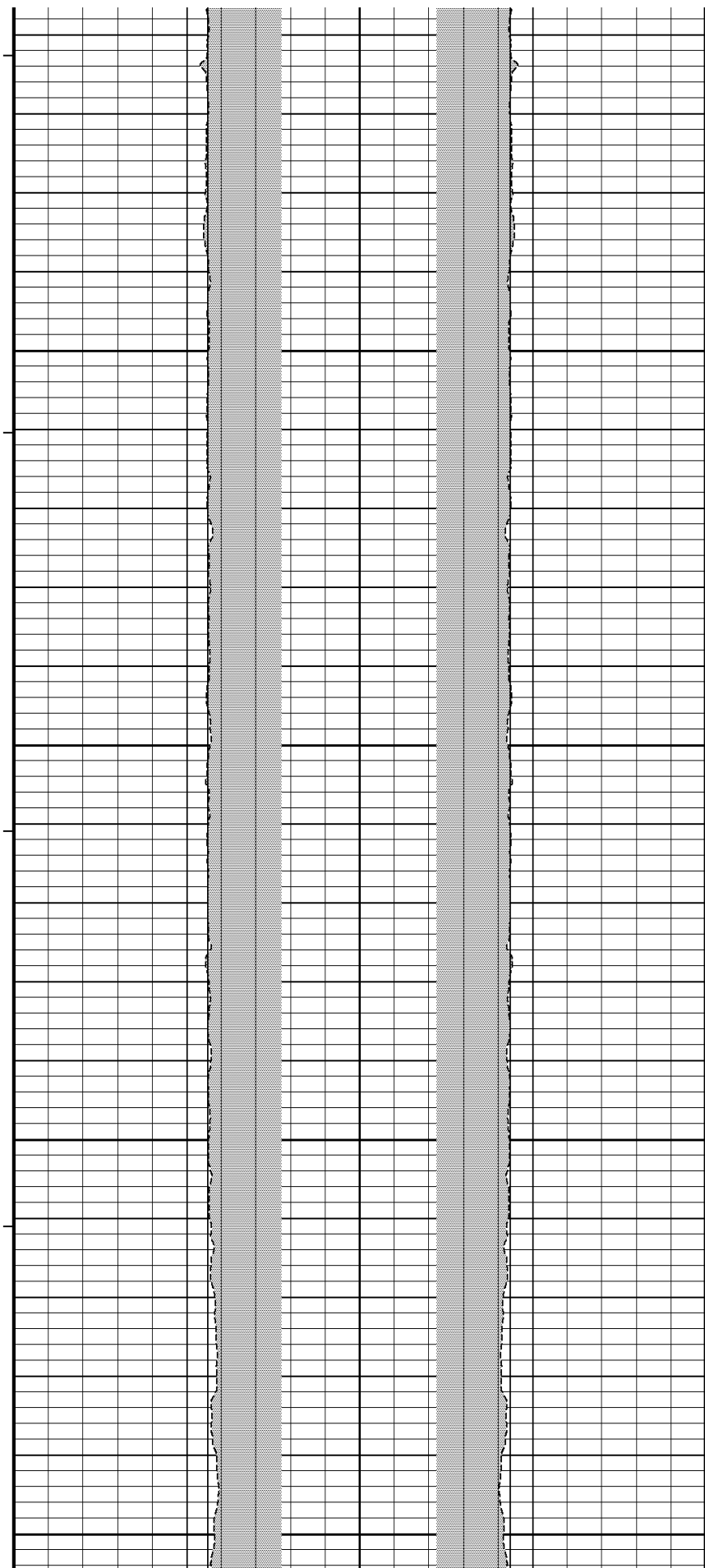
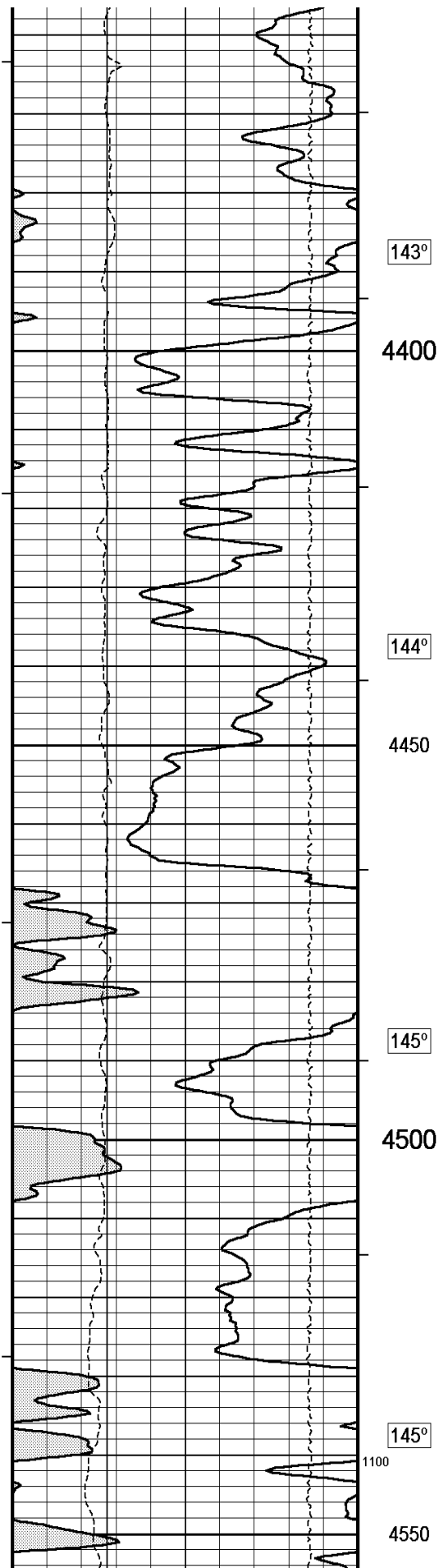


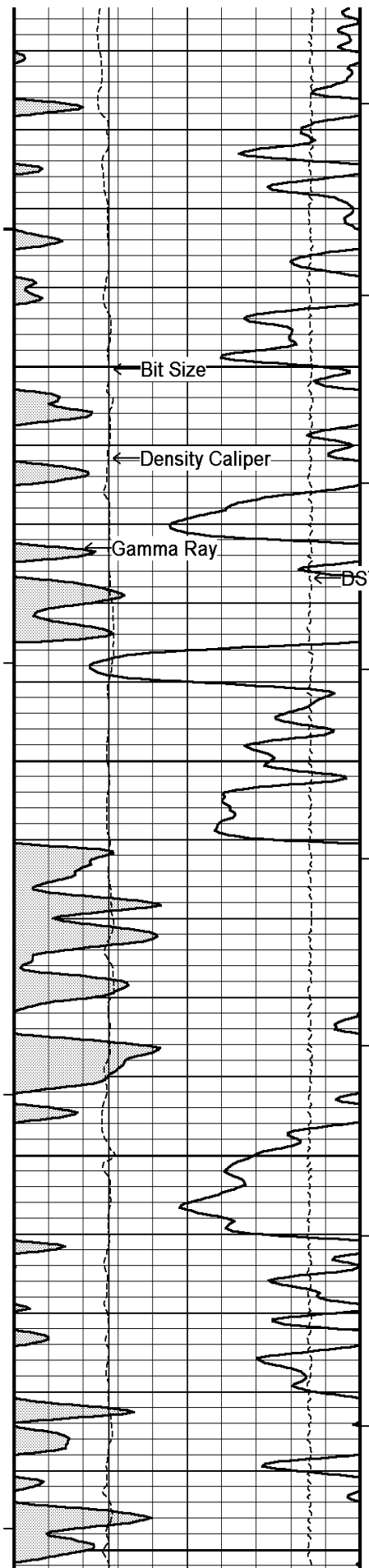












146°

4600

Bit Size

Density Caliper

Gamma Ray

DST Uphole Tension

147°

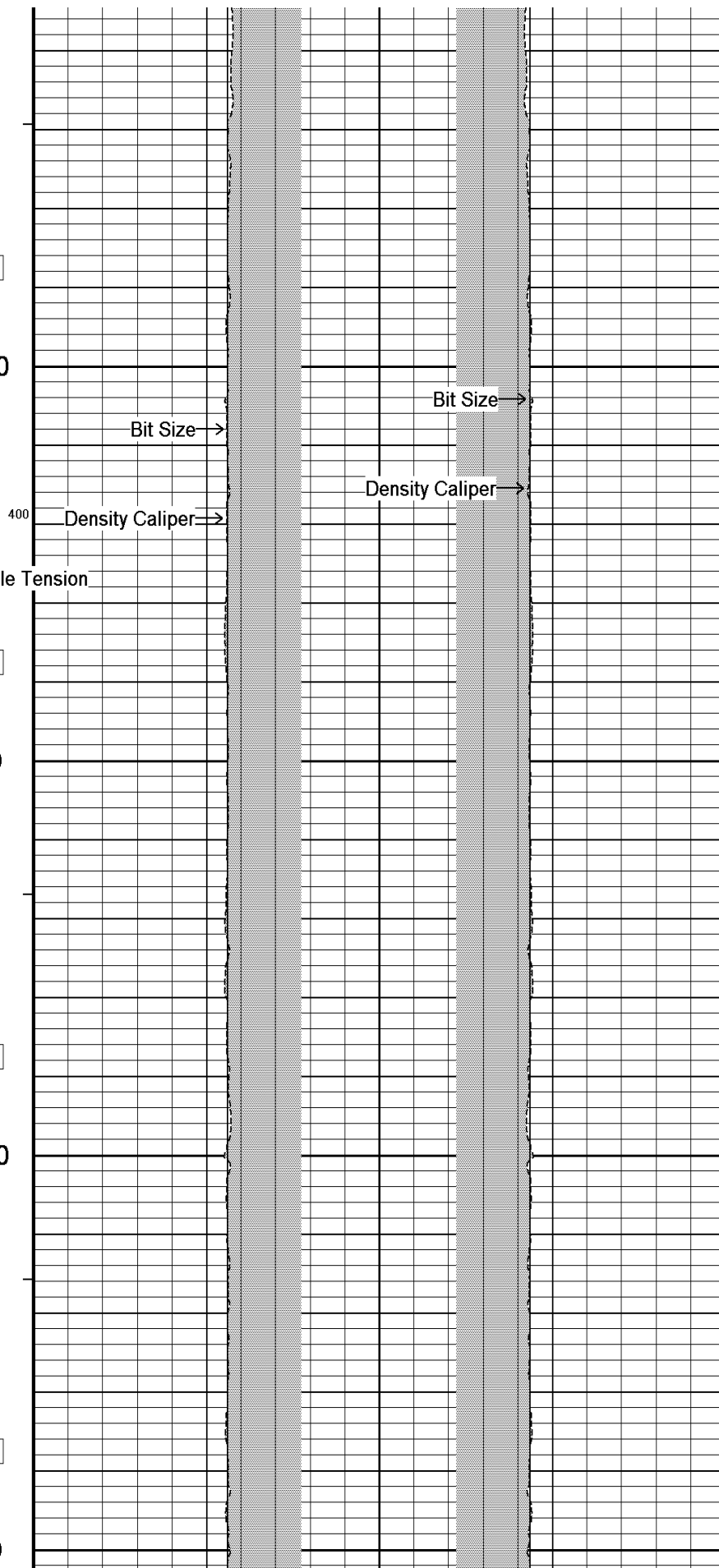
4650

148°

4700

148°

4750

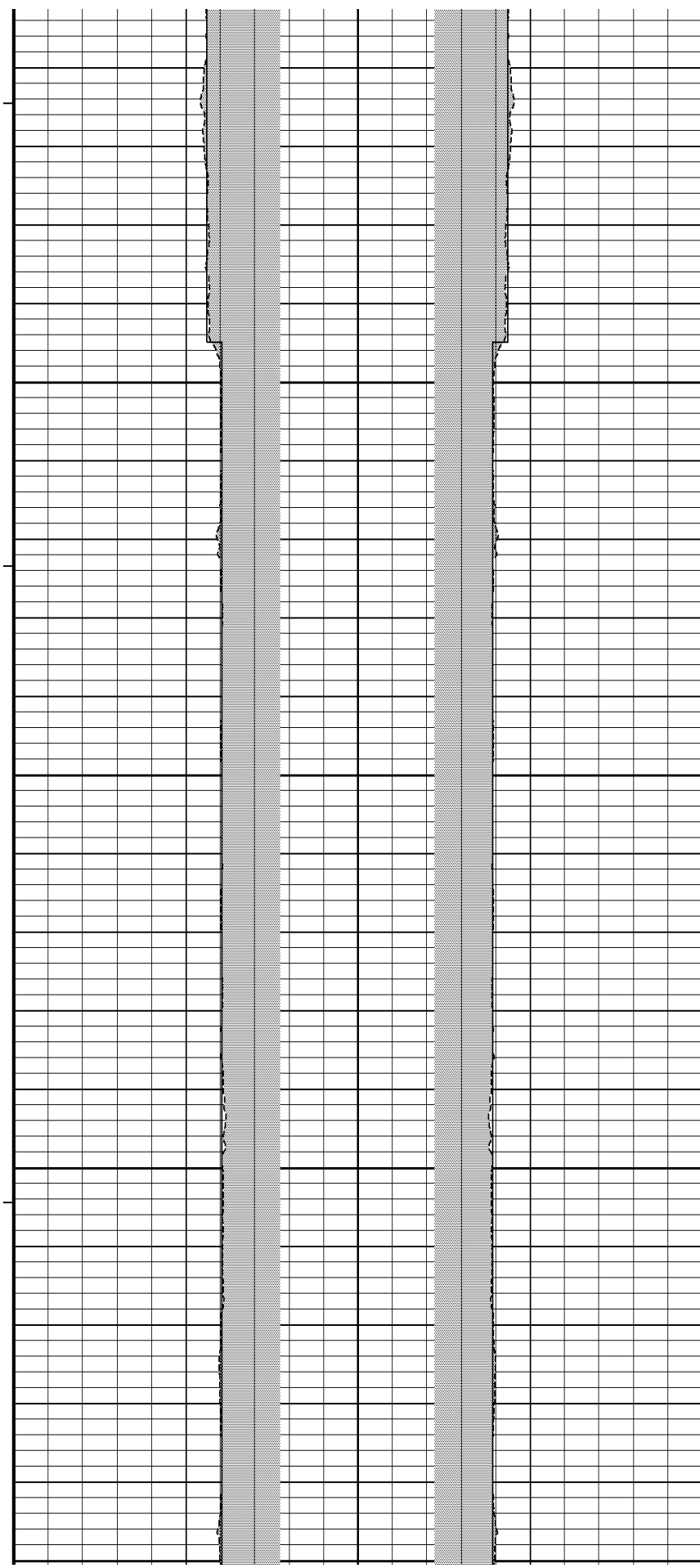
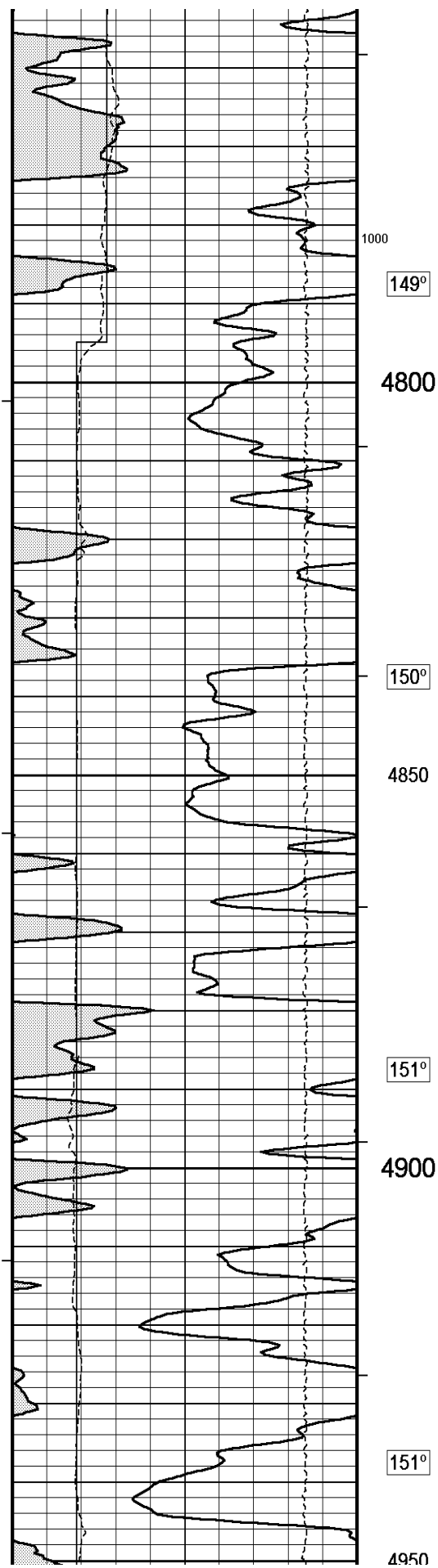


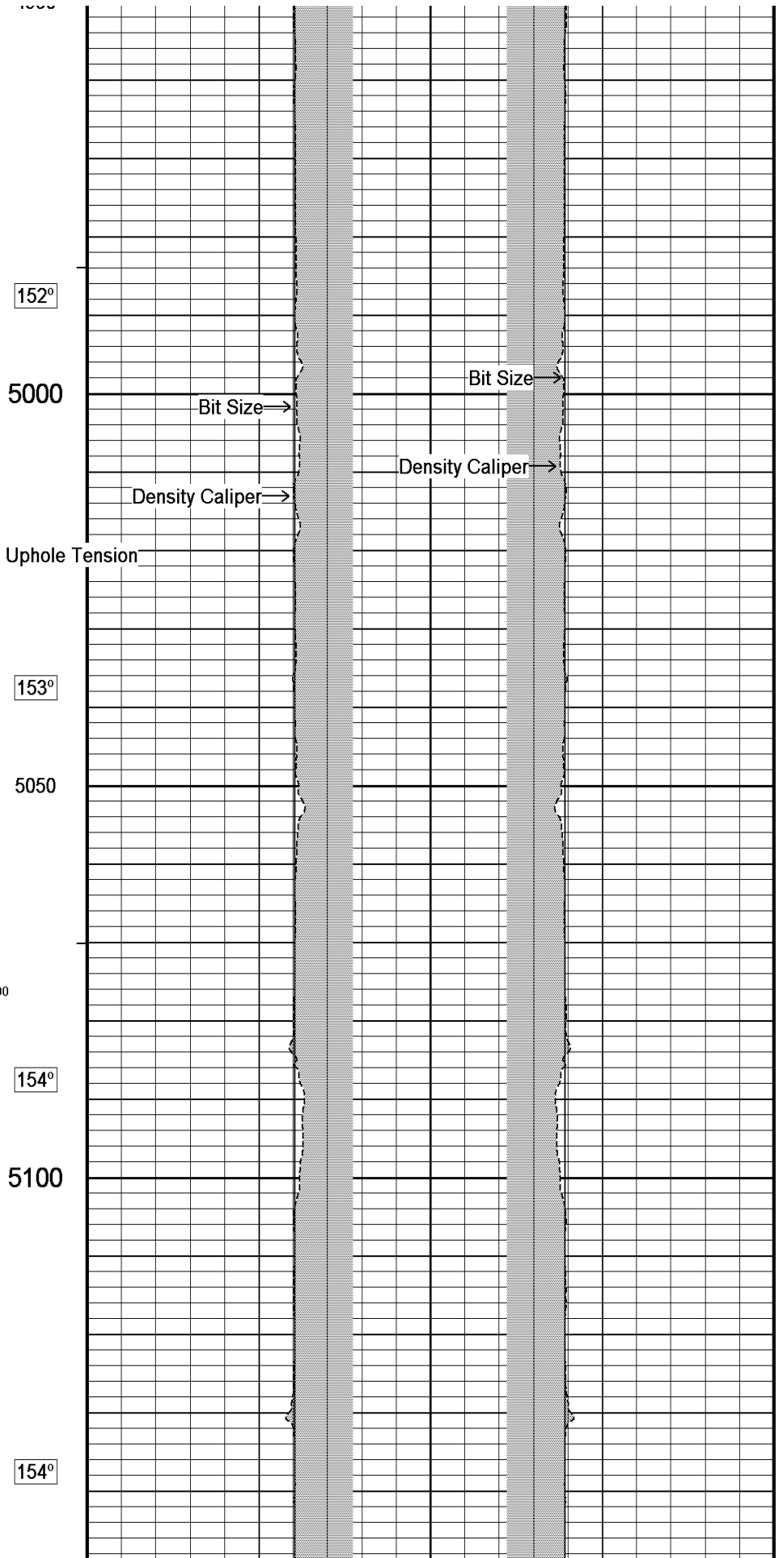
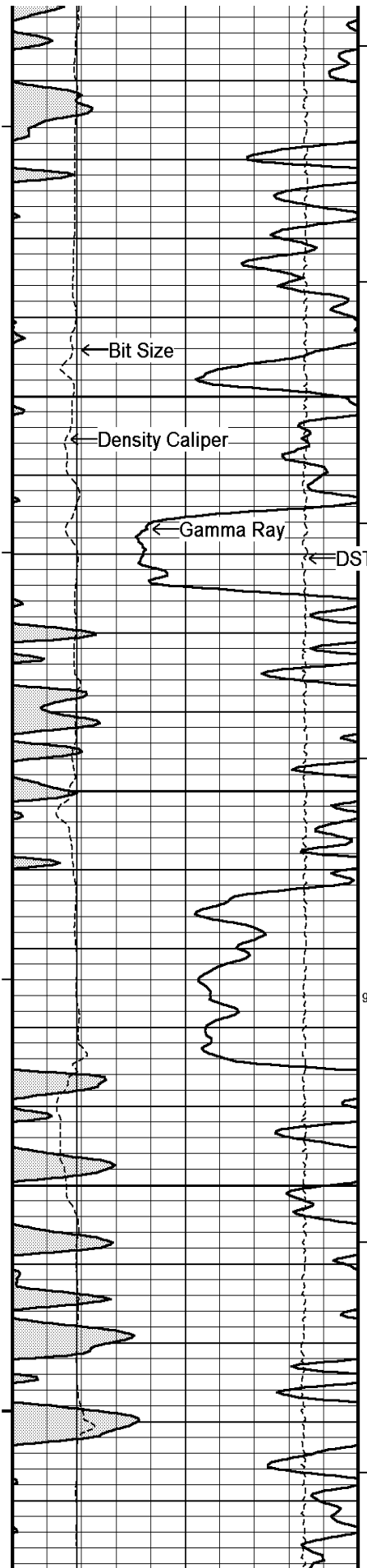
Bit Size

Bit Size

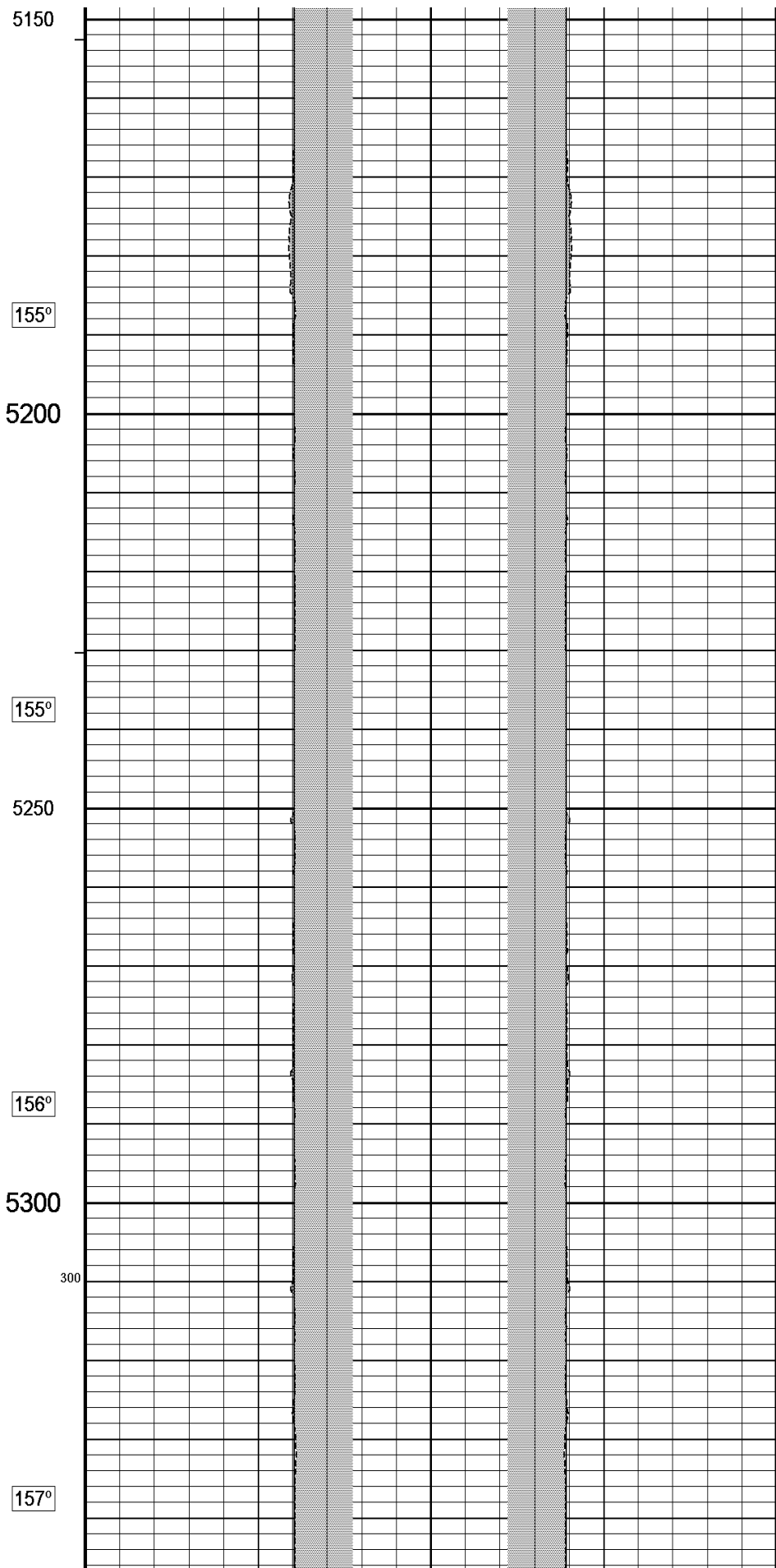
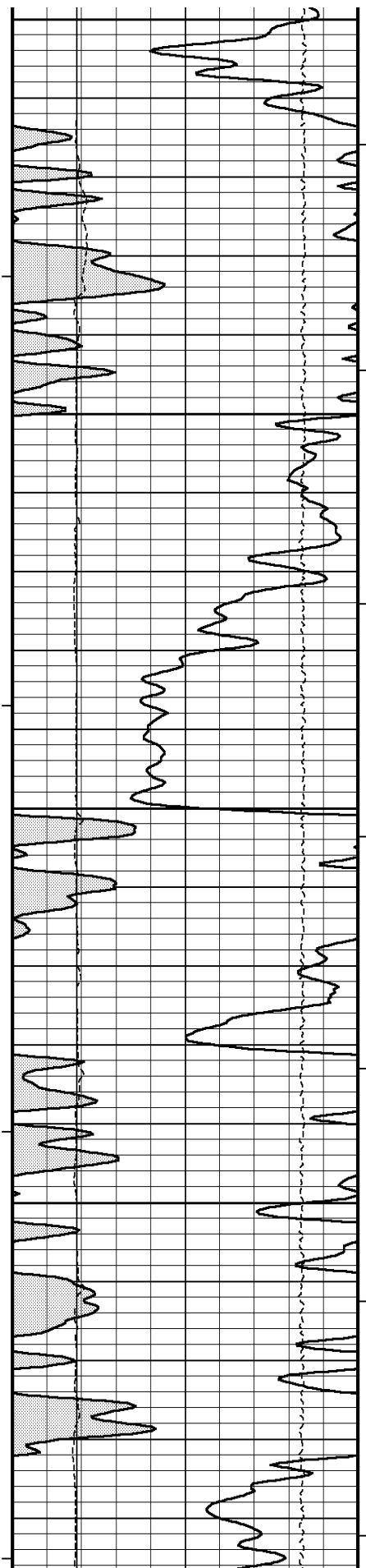
Density Caliper

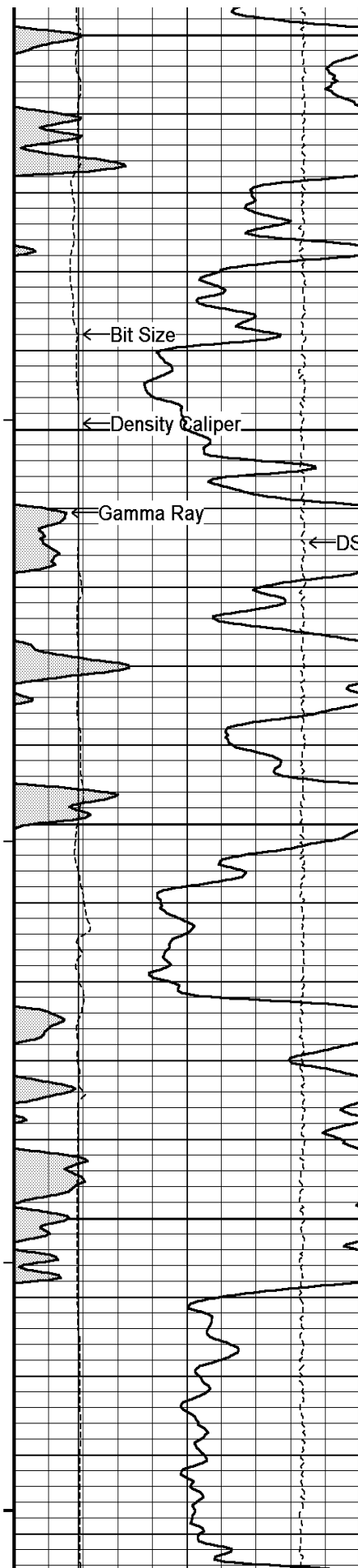
Density Caliper











5350

800

158°

5400

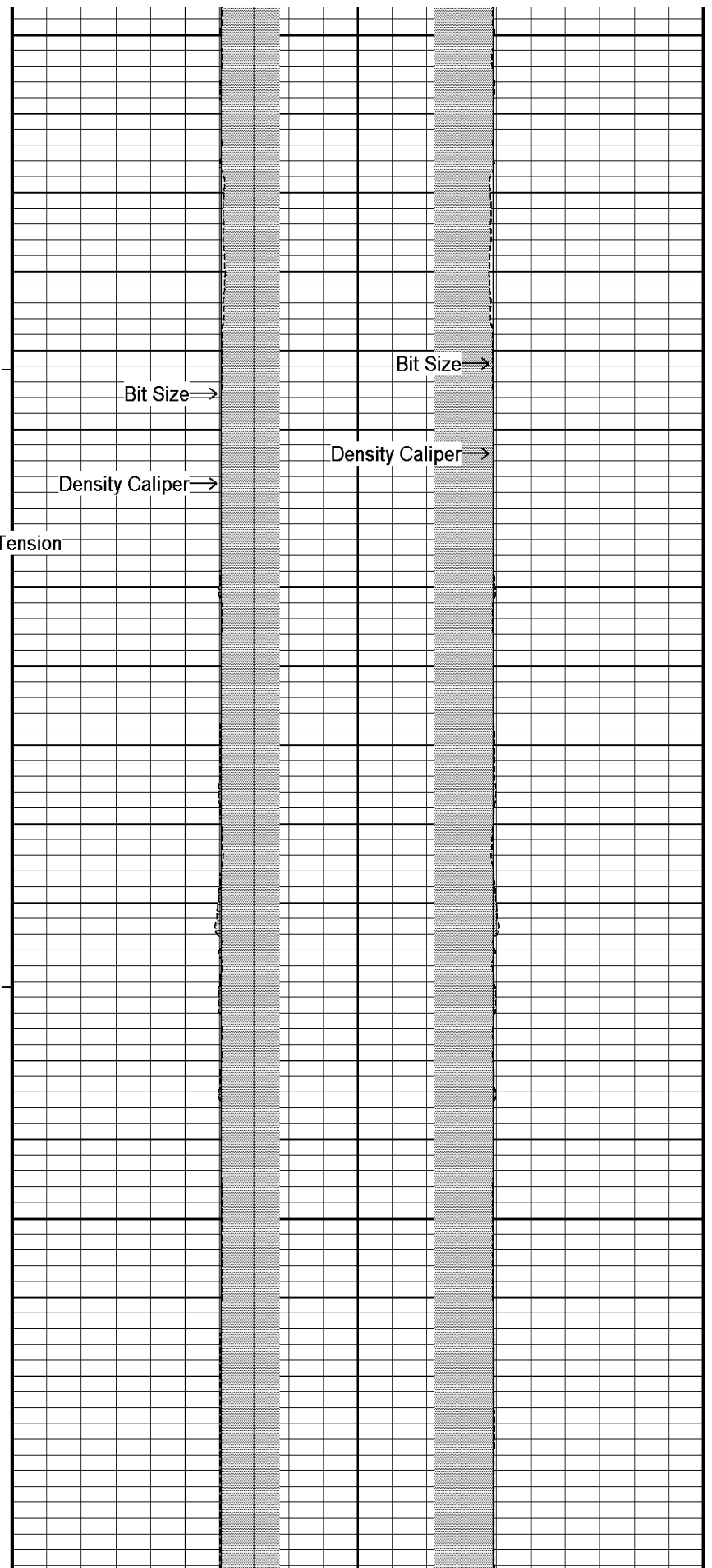
158°

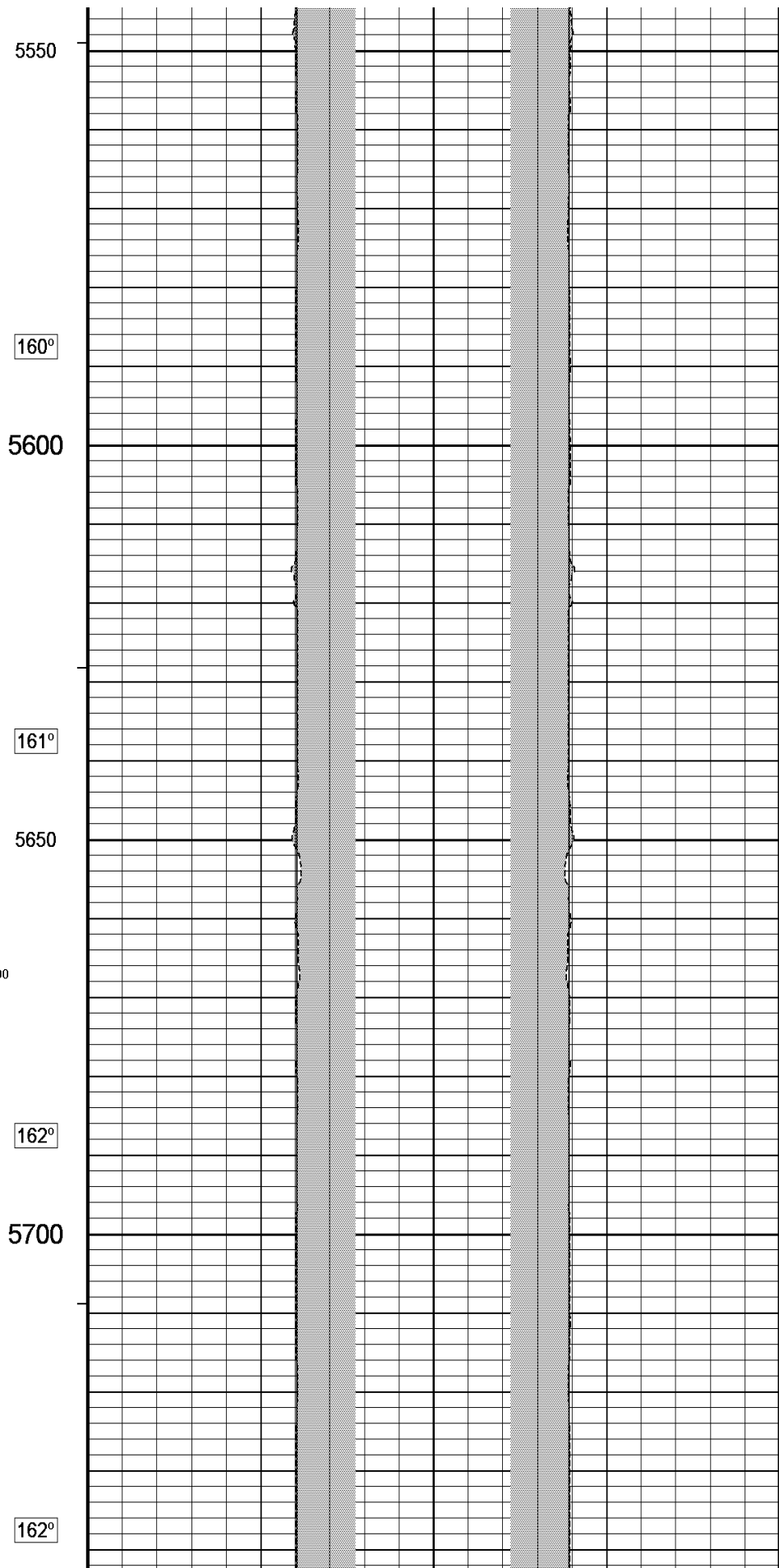
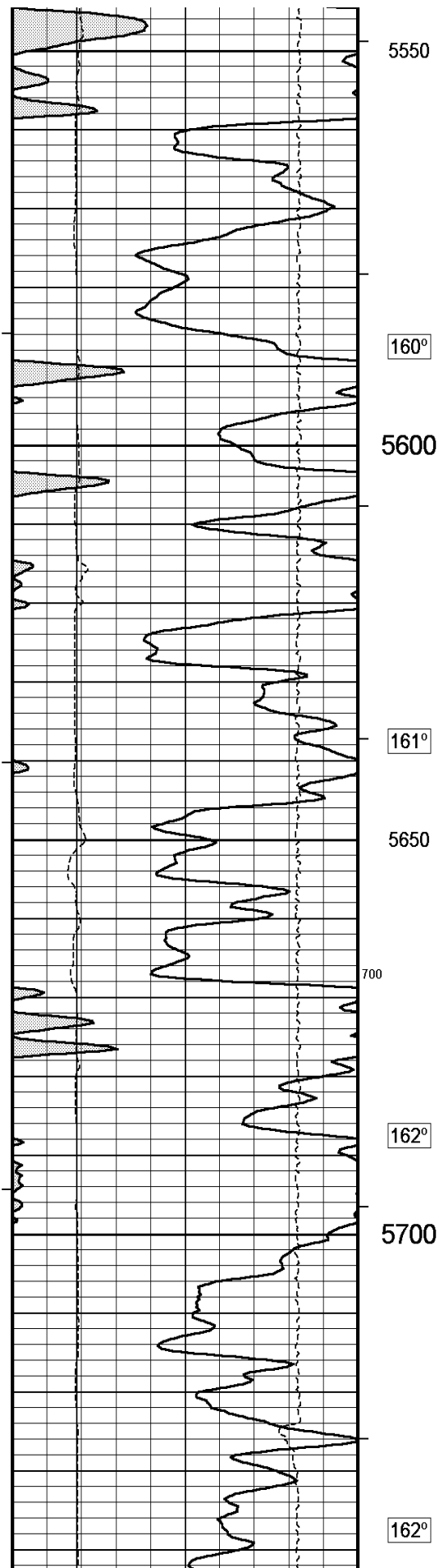
5450

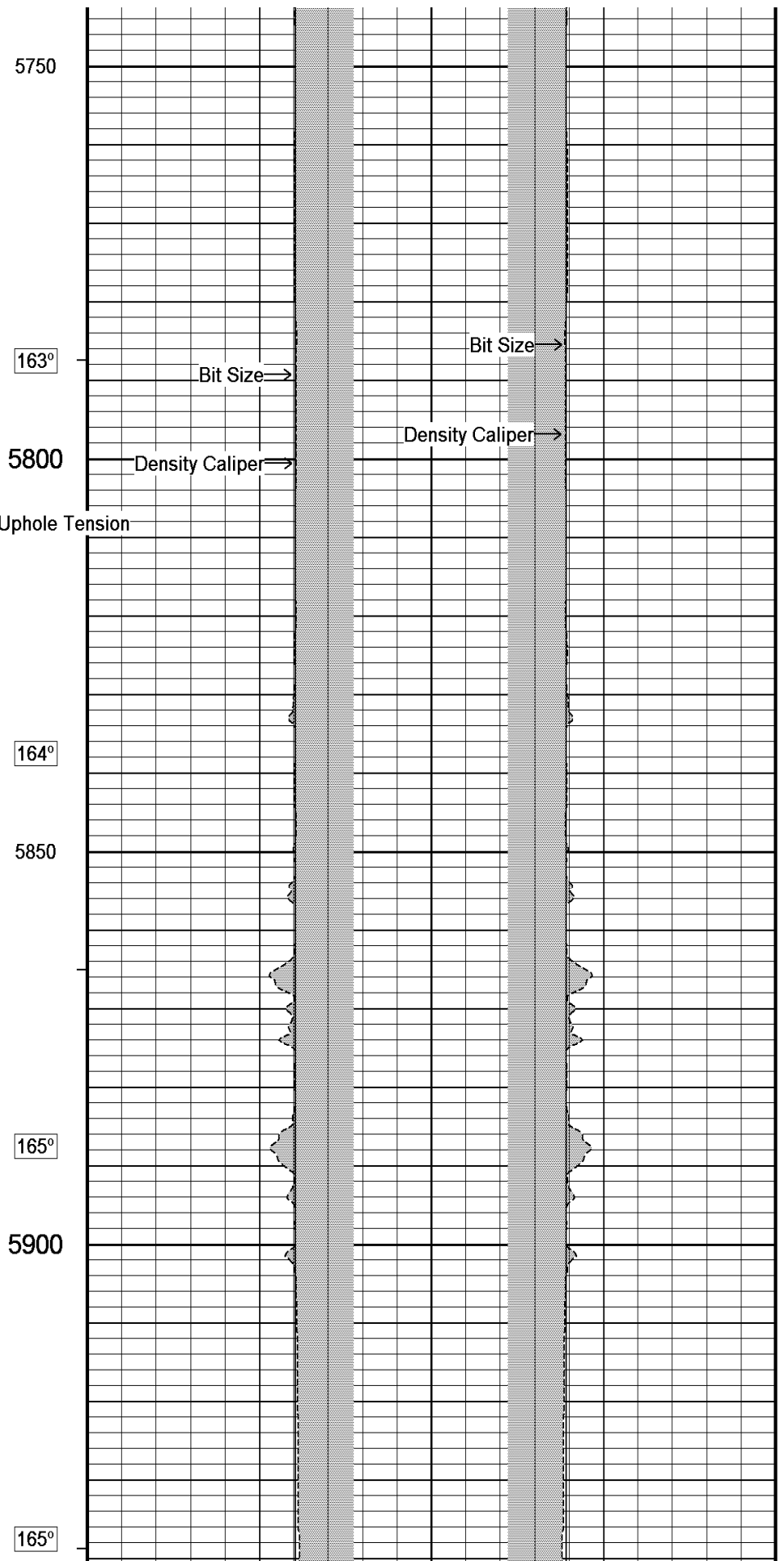
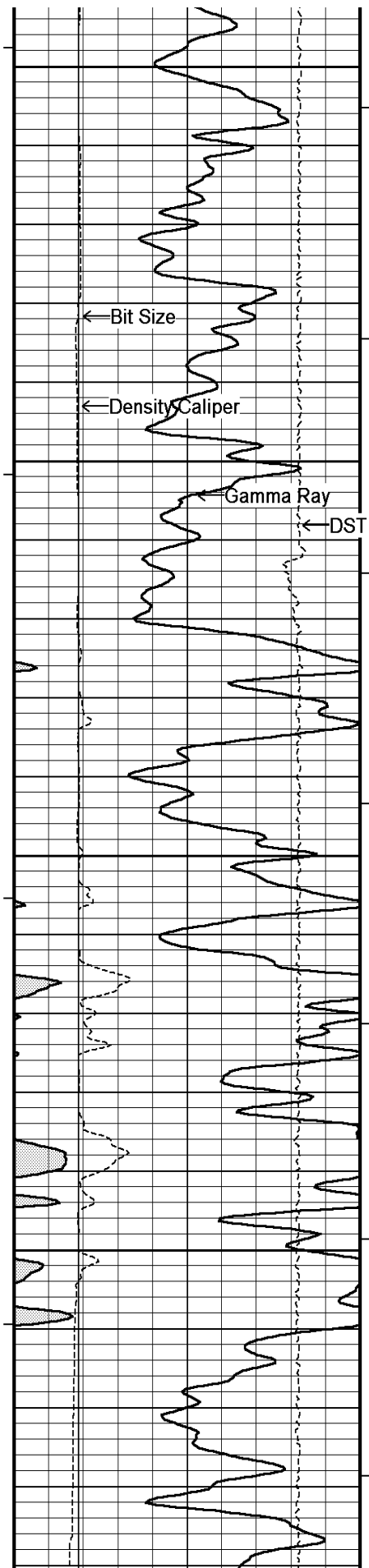
159°

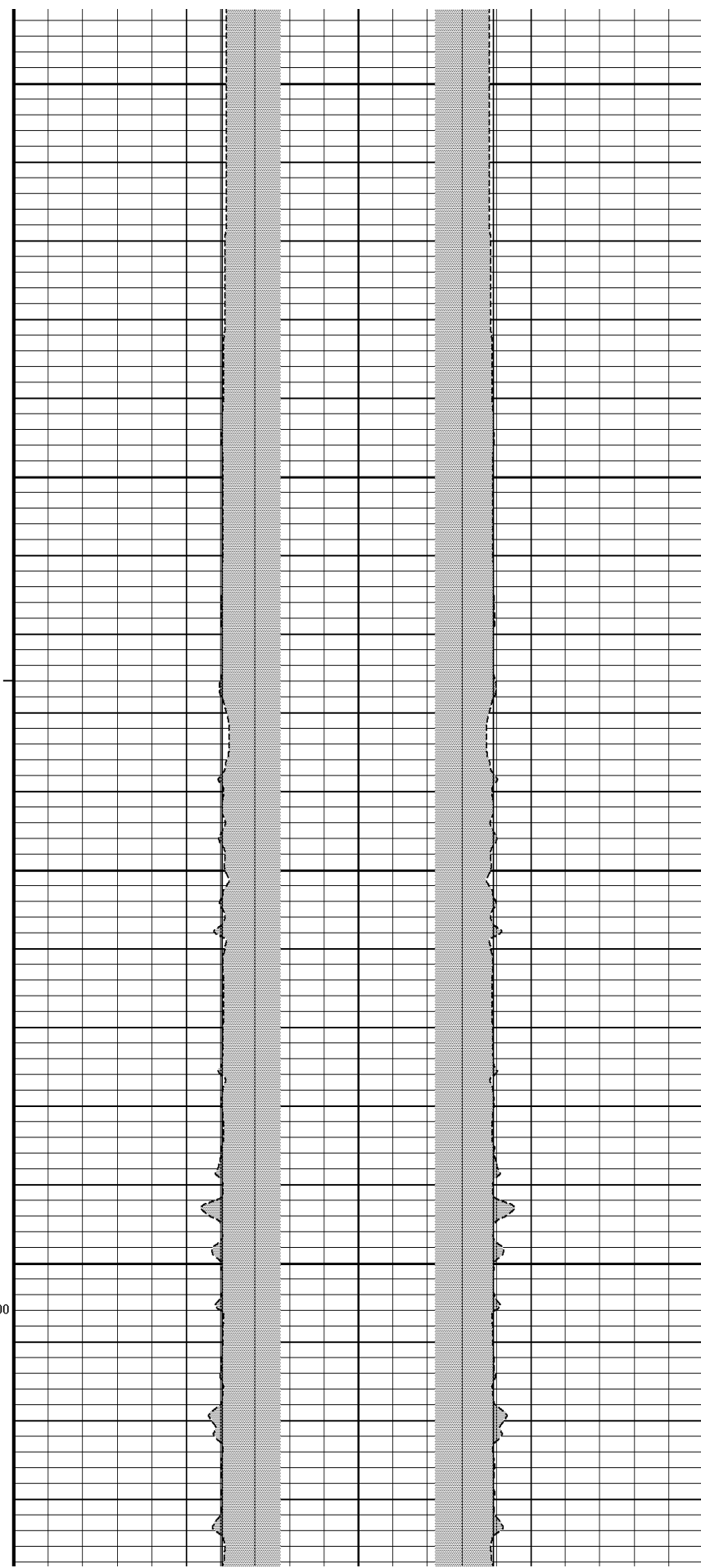
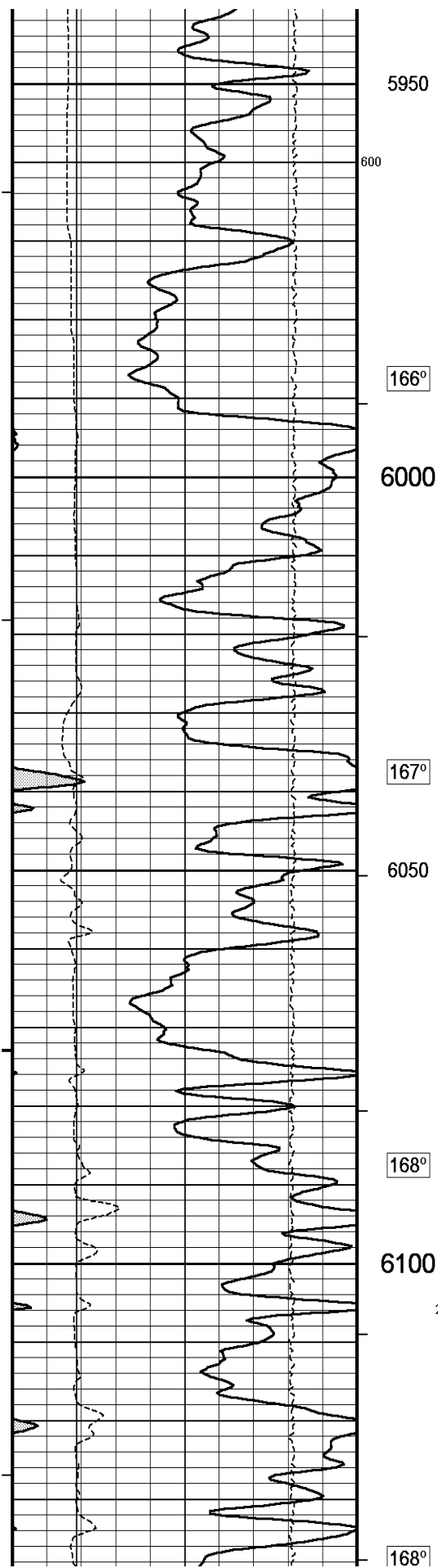
5500

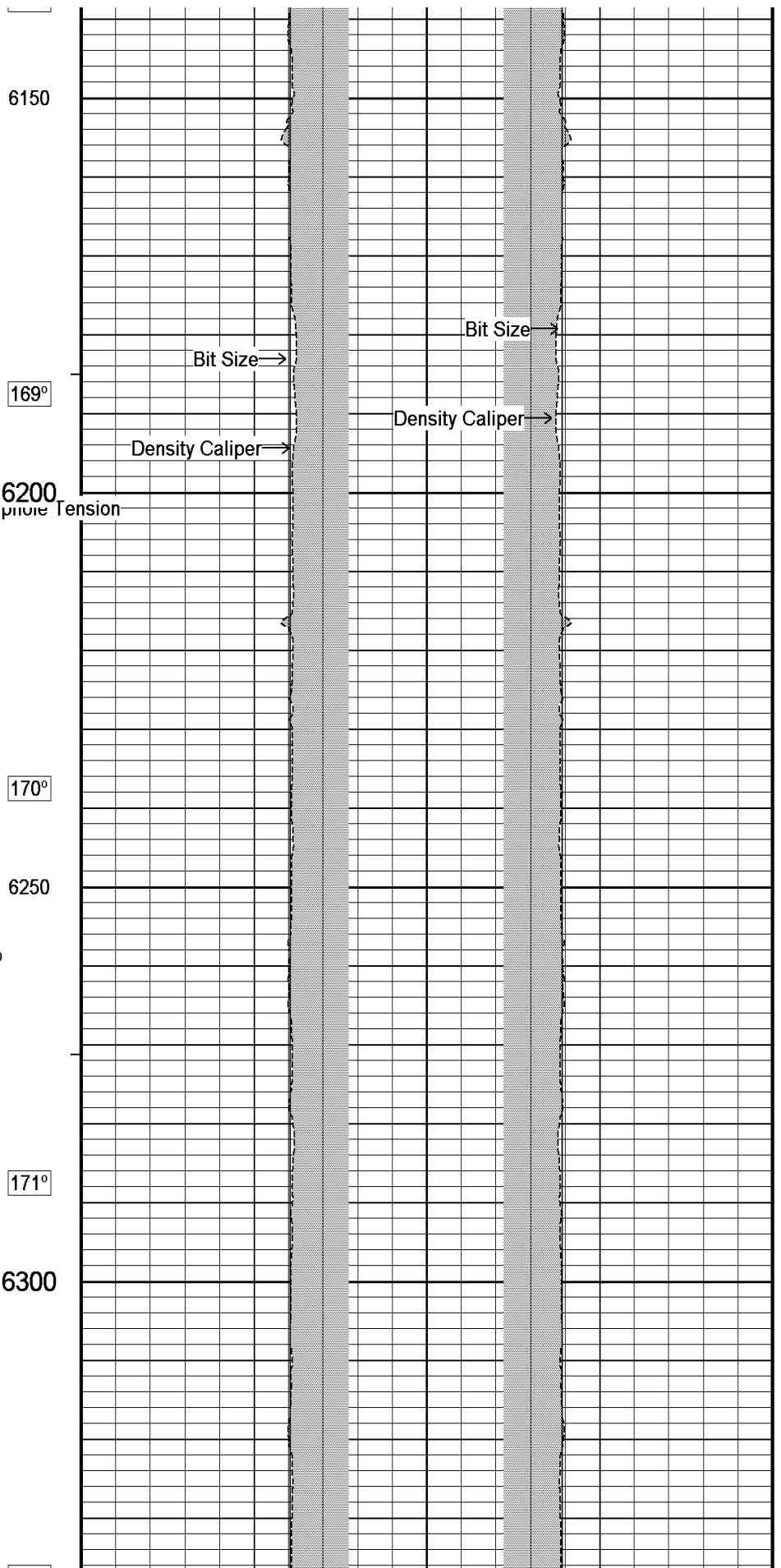
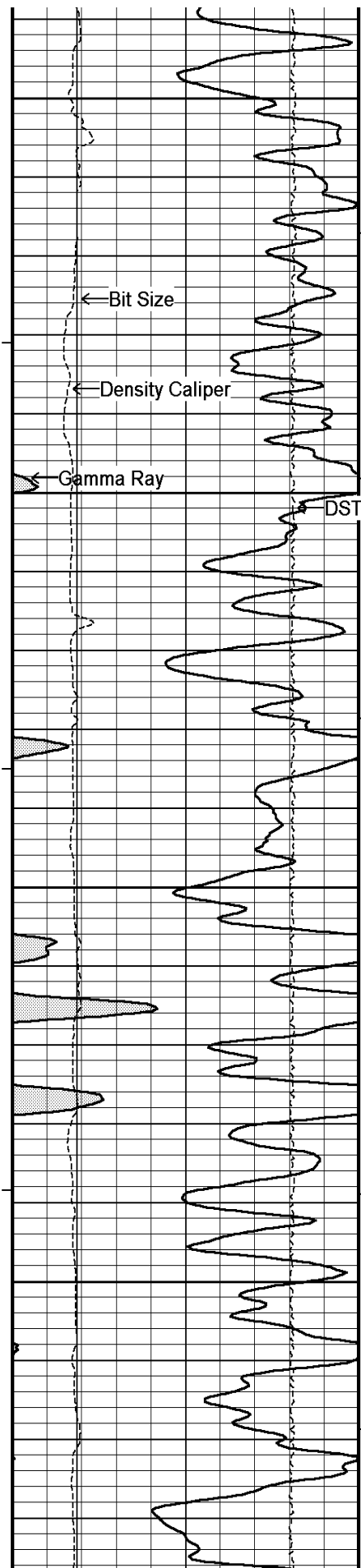
160°













172°

6350

172°

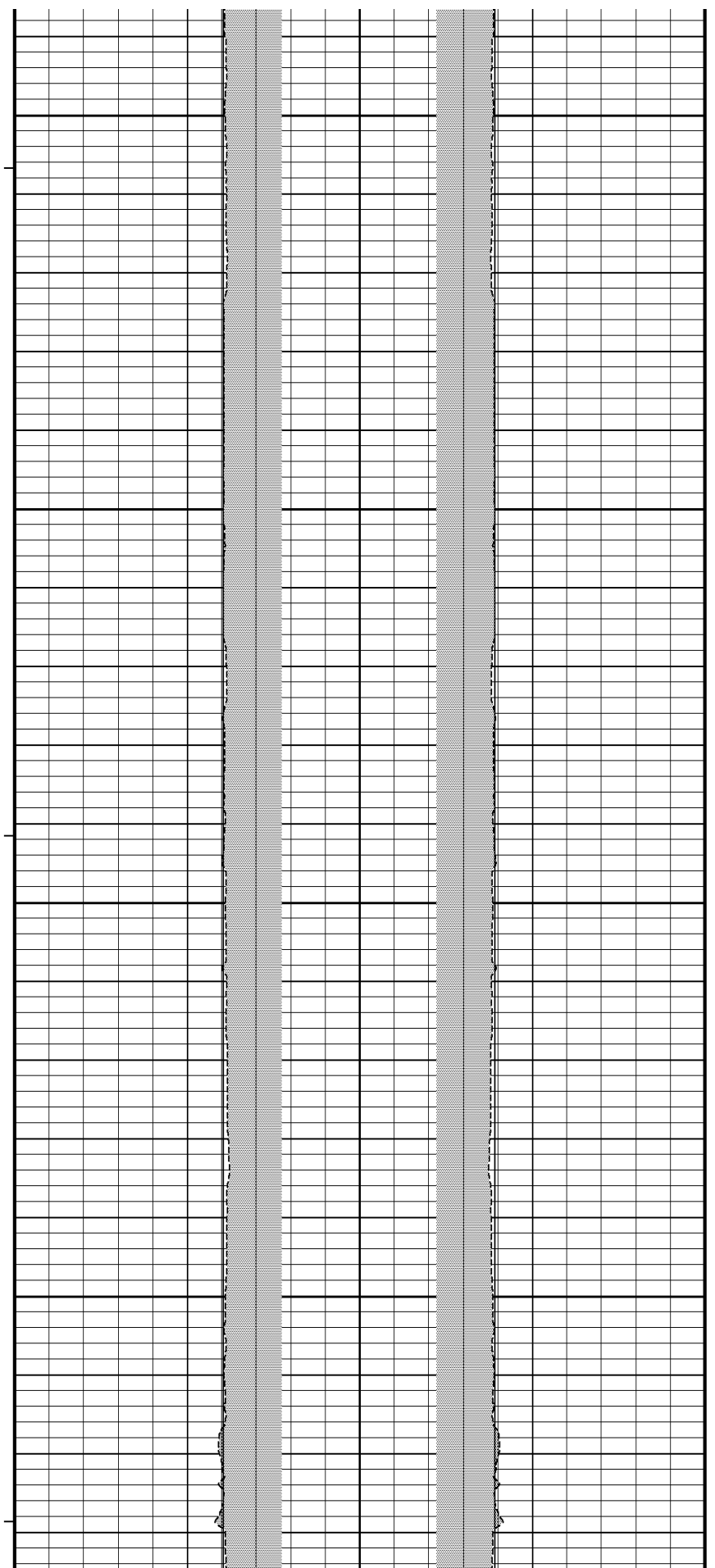
6400

173°

6450

174°

6500





175°

6550

400

← Bit Size

← Density Caliper

← Gamma Ray

← DST Uphole Tension

176°

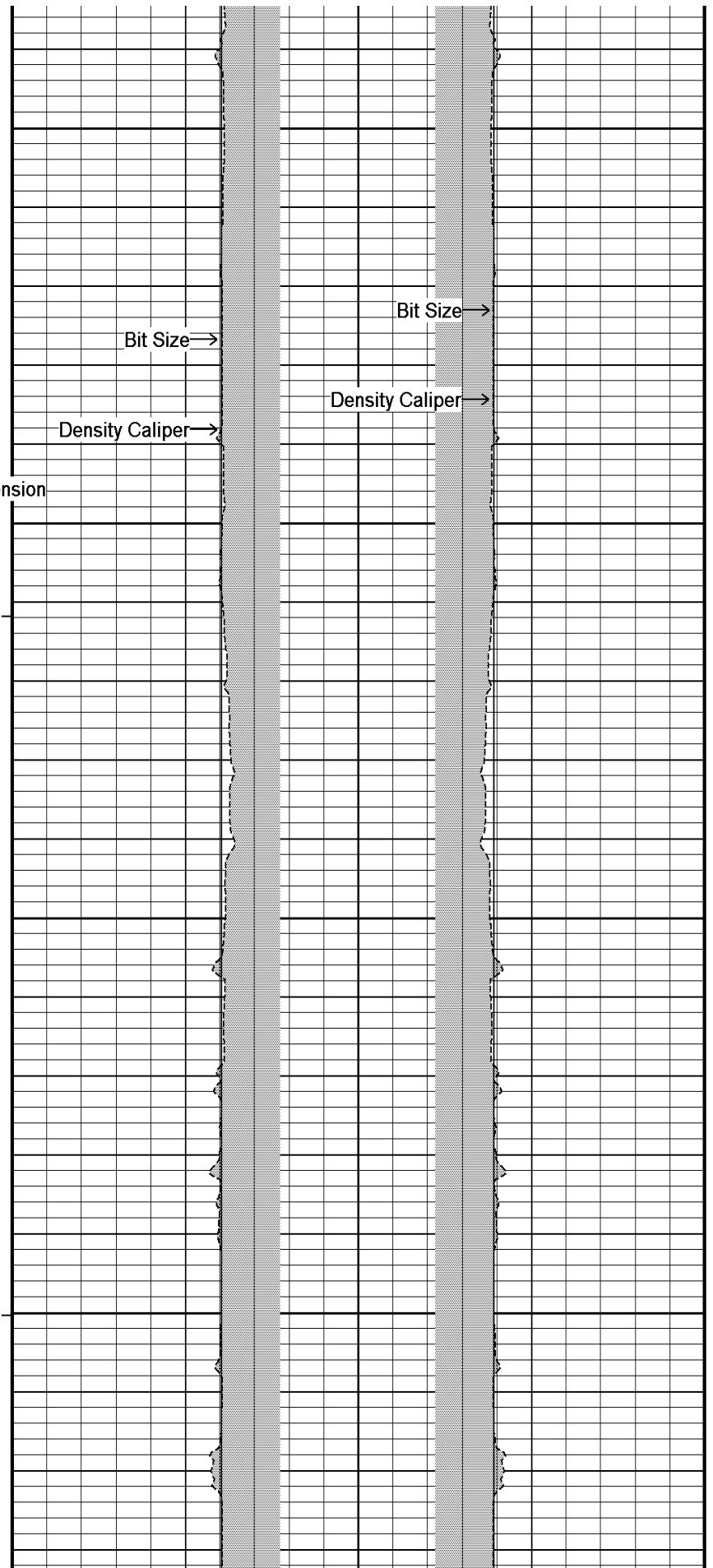
6600

177°

6650

178°

6700



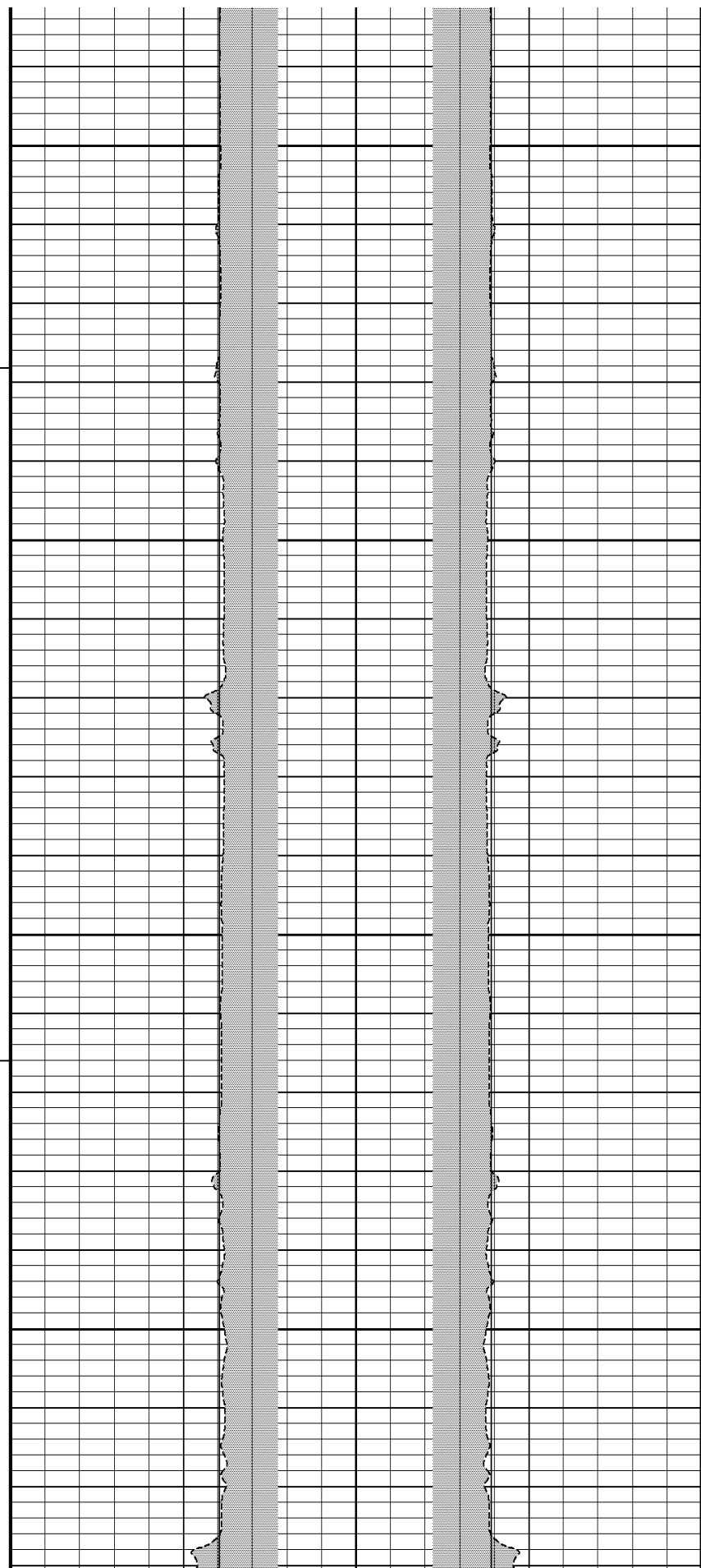
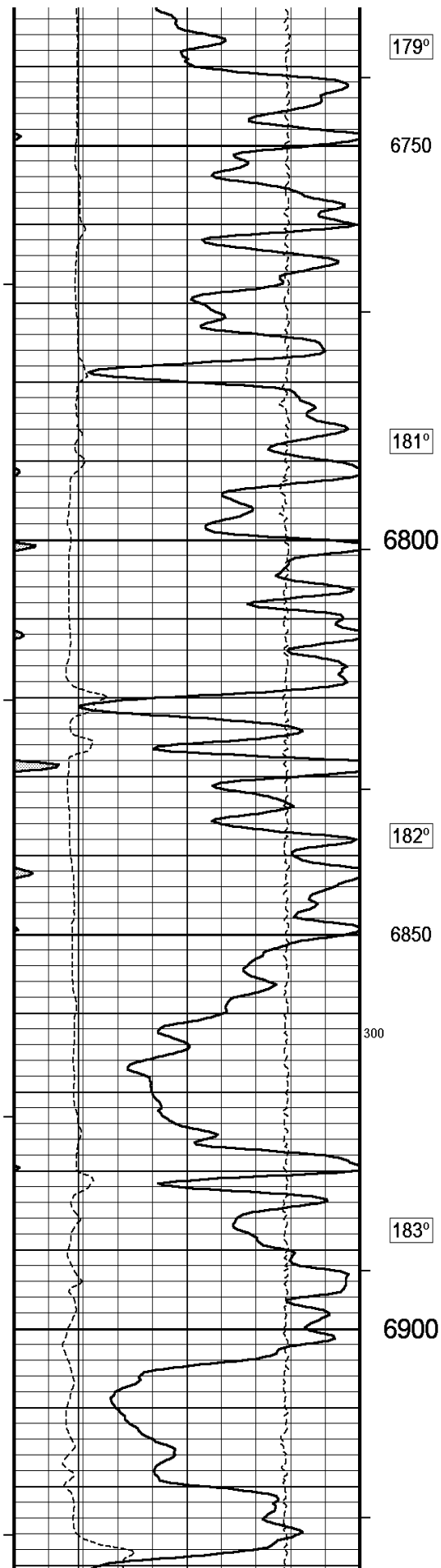
Bit Size →

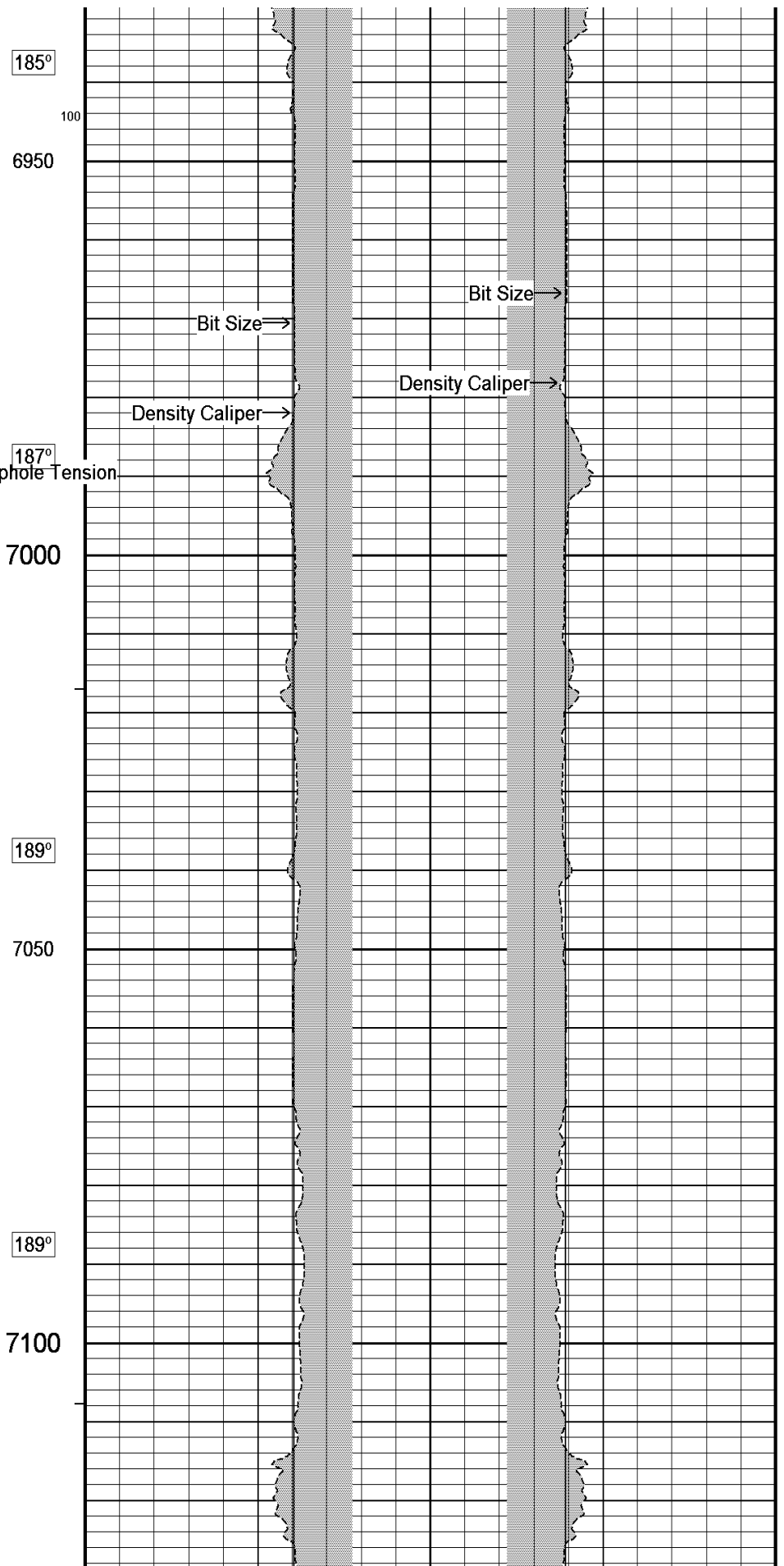
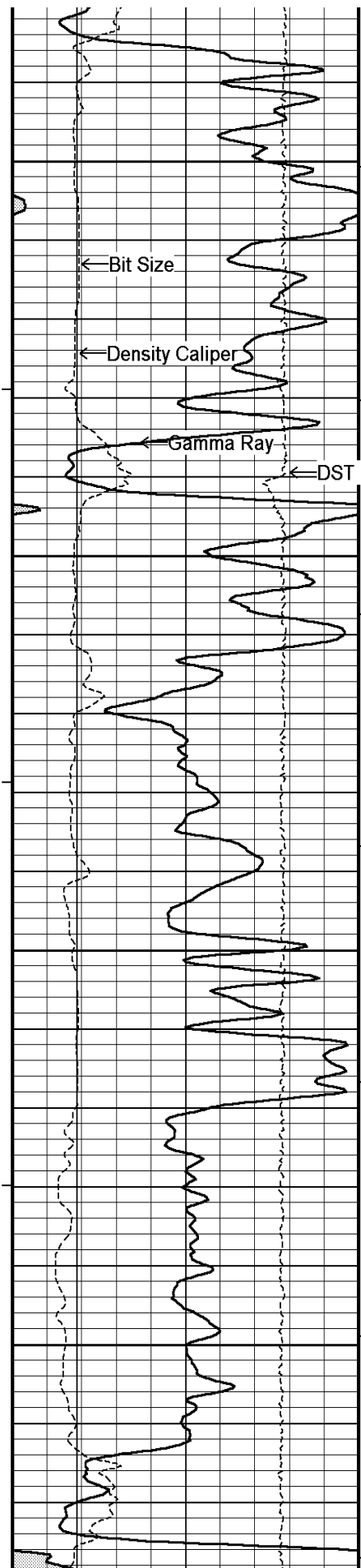
Density Caliper →

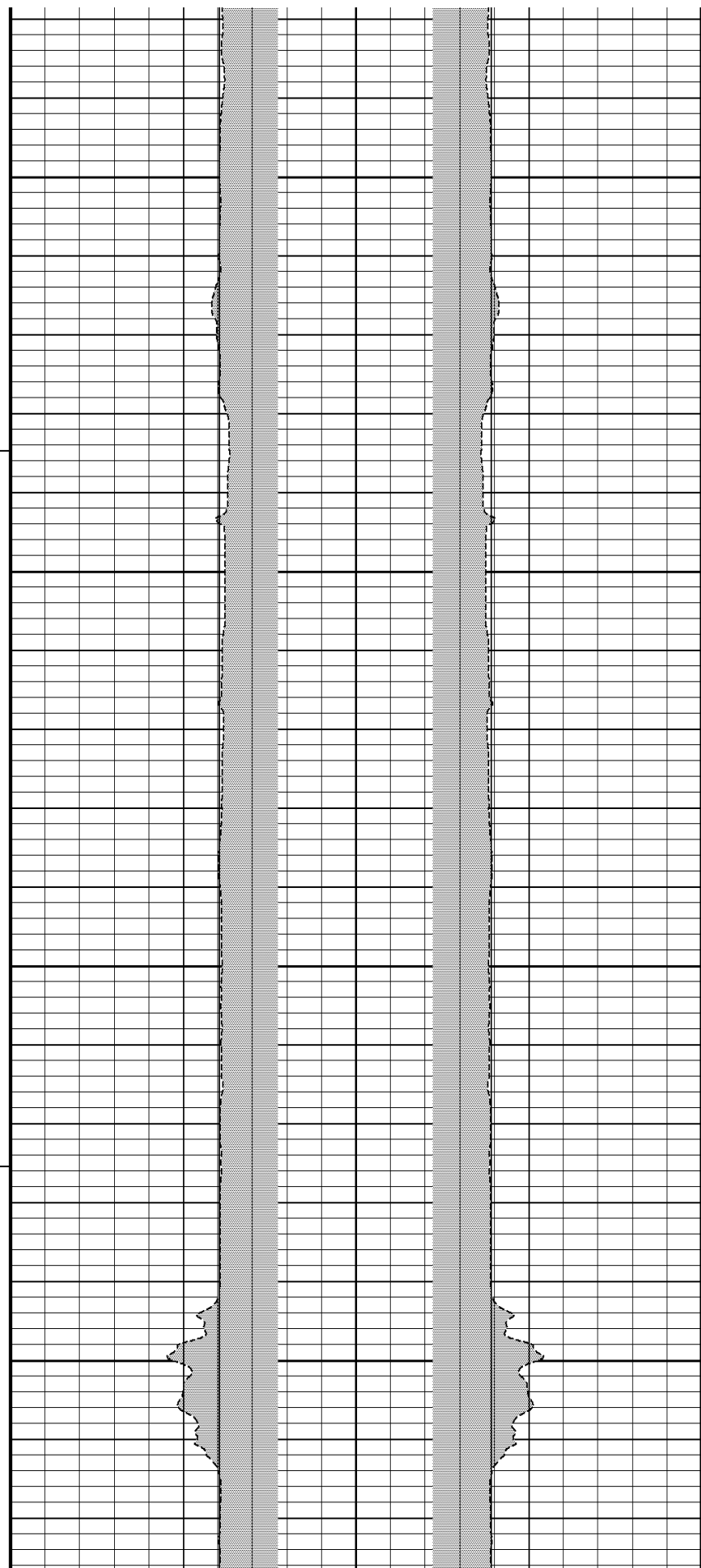
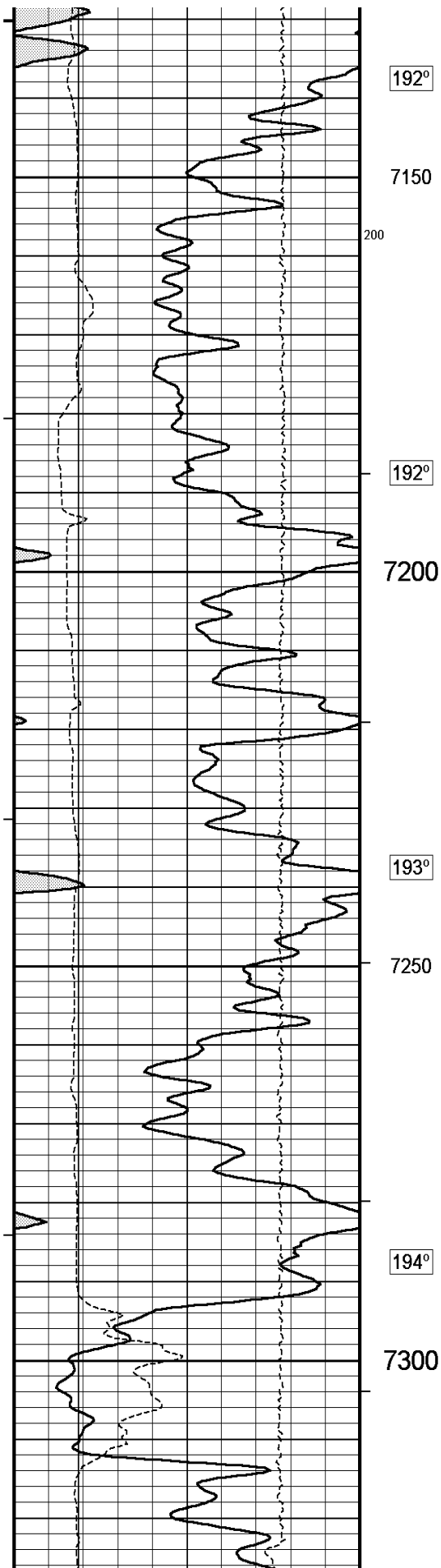
Bit Size →

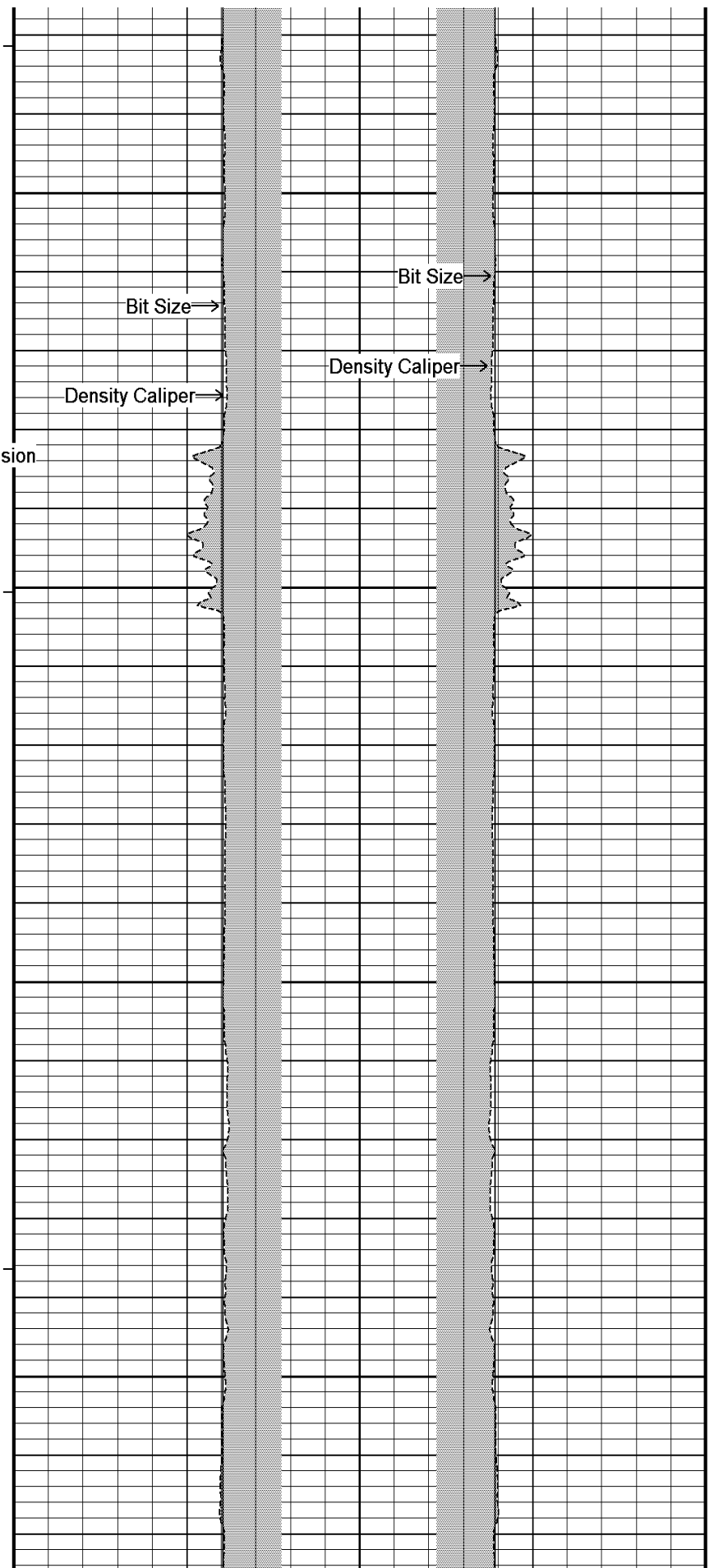
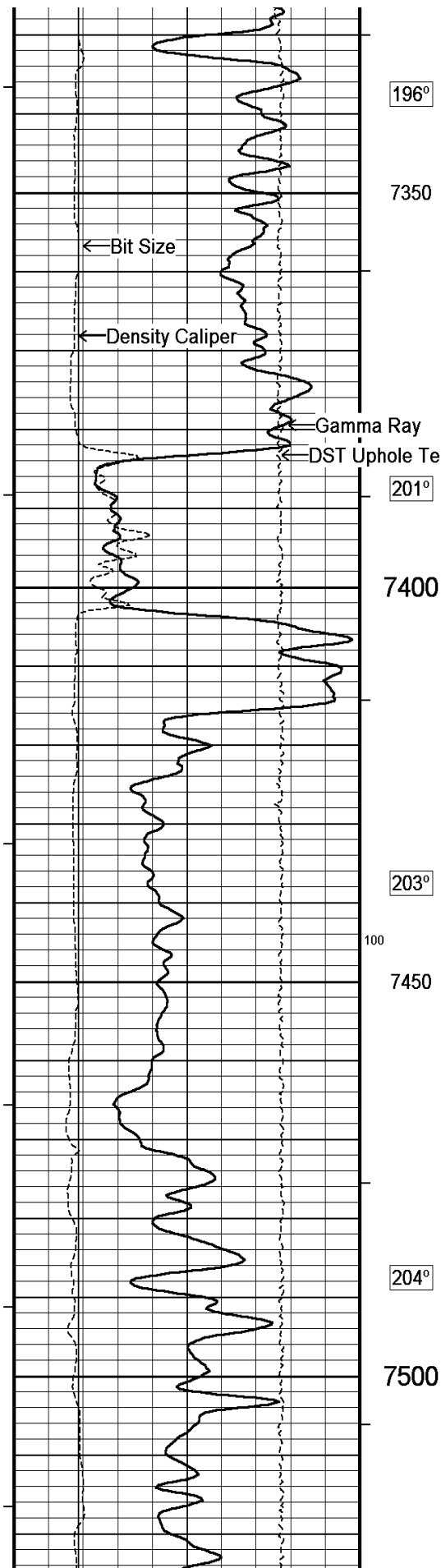
Density Caliper →

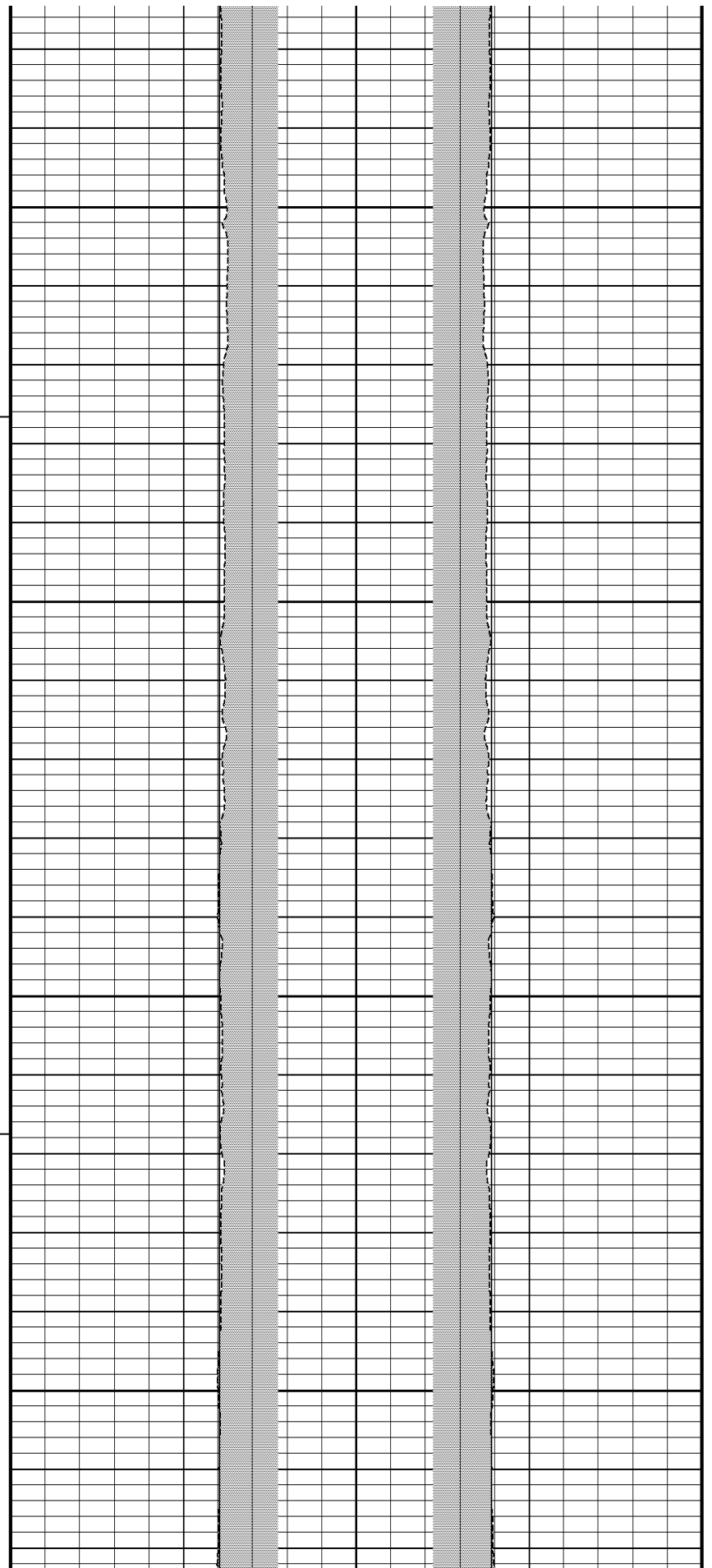
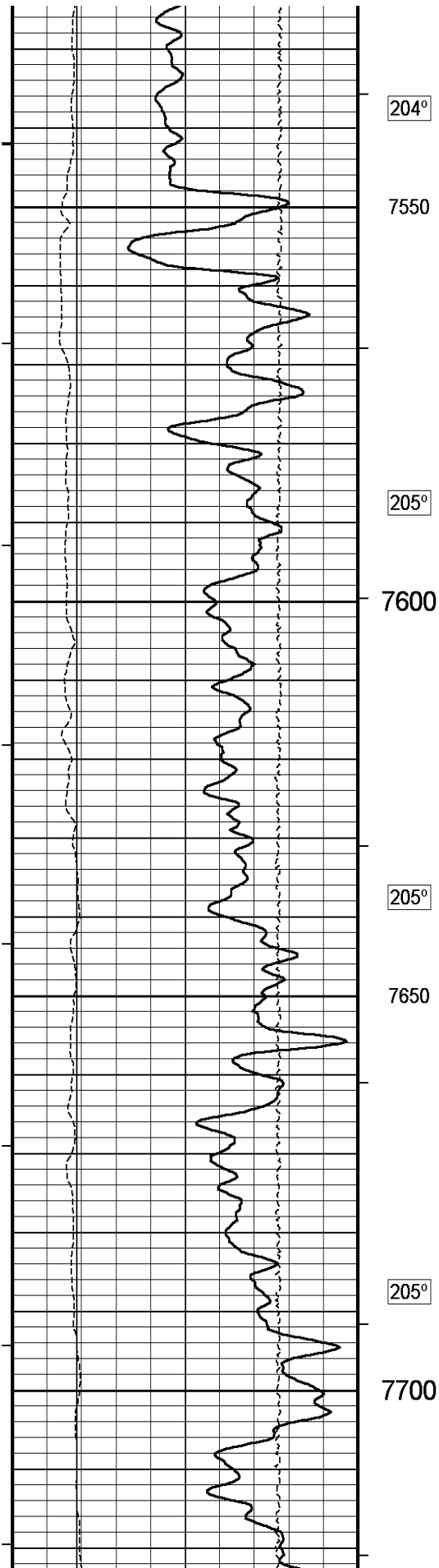


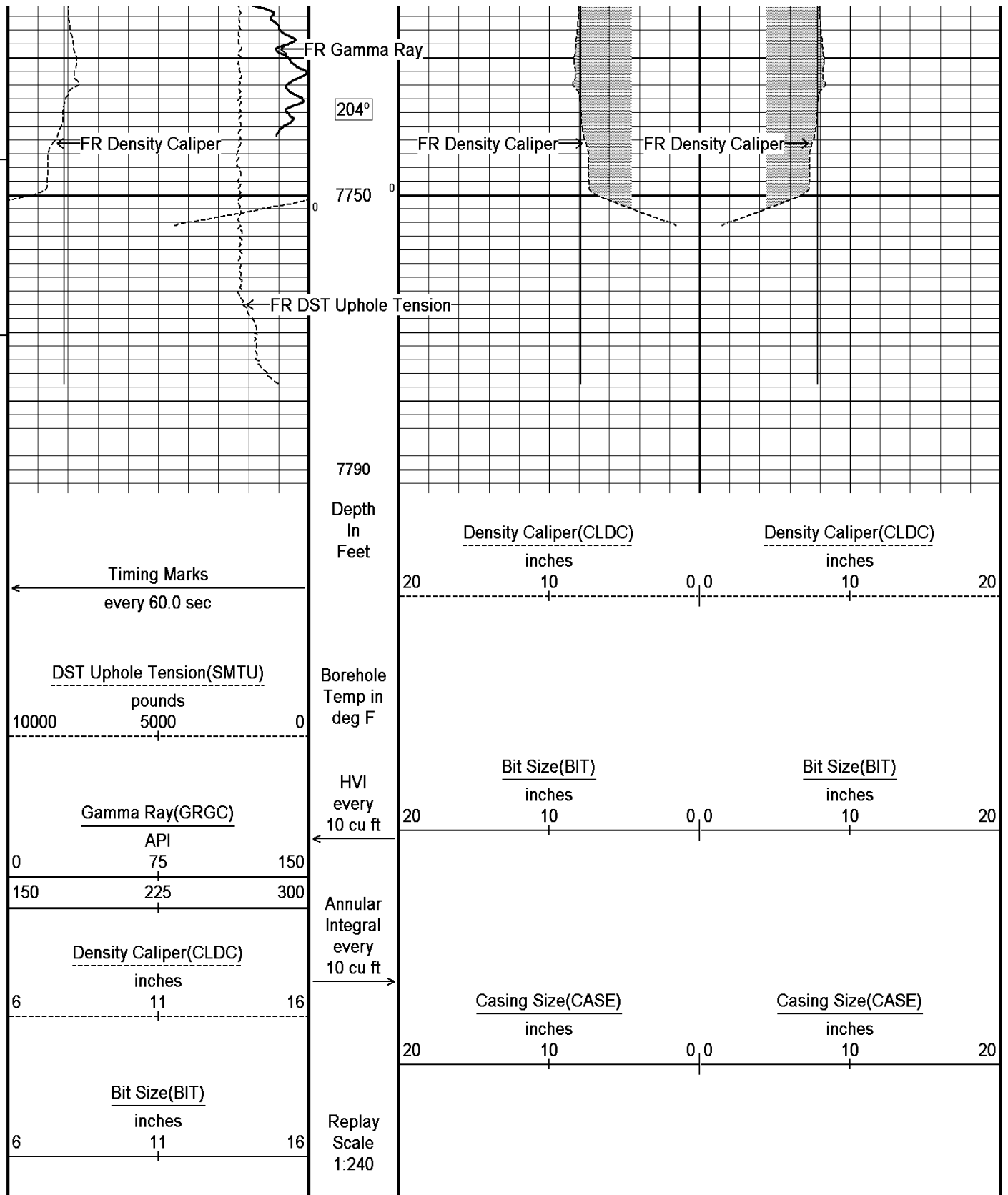












Depth Based Data - Maximum Sampling Increment 10.0cm

Plotted on 03-JUL-2011 11:33

Filename: C:\DOCUME~1\WEATHE~1\LOCALS~1\Temp\Weatherford PreView\0MAIN.dta

Recorded on 03-JUL-2011 07:07

System Versions: Processed with 11.02.3186 Plotted with 11.02.2782

↑ 5 INCH MAIN LOG ↑

DOWNHOLE EQUIPMENT

MCB-A 11B Tension Cablehead  
MCB-A 95 LG: 2.18 ft WT: 19.8 lb OD: 2.24 in

SHA-J.A Compact Swivel Head Adaptor  
SHA-J.A 213 LG: 2.30 ft WT: 22.0 lb OD: 2.24 in

Compact Comms Gamma  
MCG-D.A 342 LG: 8.70 ft WT: 63.9 lb OD: 2.24 in

Compact Neutron  
MDN-B.A 297 LG: 5.04 ft WT: 50.7 lb OD: 2.24 in

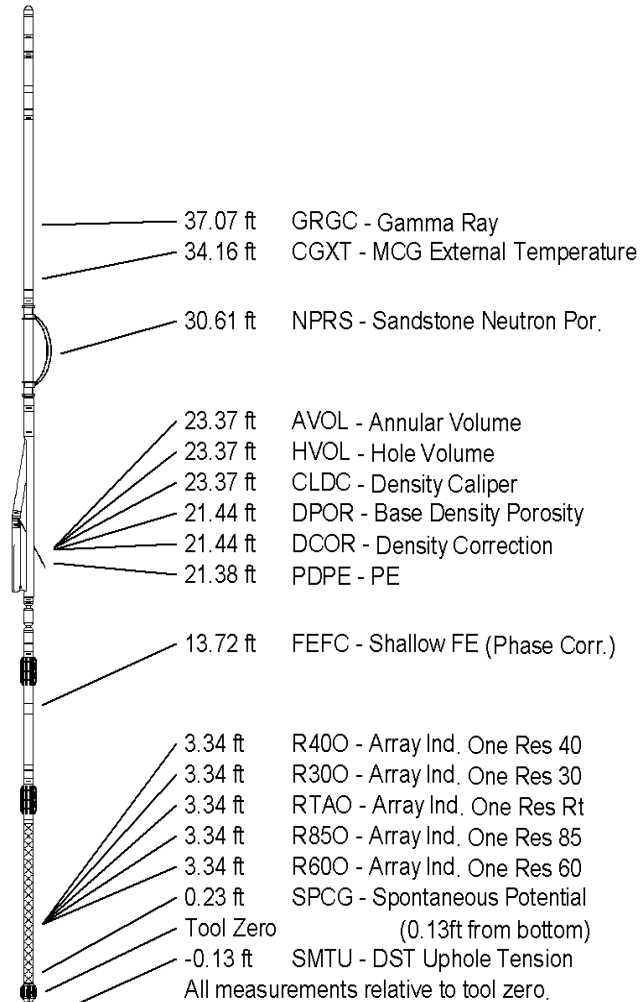
Compact Density/Caliper  
MPD-C.A 298 LG: 9.59 ft WT: 90.4 lb OD: 2.45 in

SKJ-D.A Compact Knuckle Joint  
SKJ-D.A 115 LG: 2.17 ft WT: 24.3 lb OD: 2.24 in

Compact Focussed Electric  
MFE-B.A 179 LG: 6.05 ft WT: 48.5 lb OD: 2.24 in

Compact Induction  
MAI-B.A 301 LG: 10.81 ft WT: 48.5 lb OD: 2.24 in

Total Length: 46.83 ft Weight: 368.2 lb



COMPANY	BILL BARRETT CORPORATION
WELL	CB-TG LAND 21D-20-692
FIELD	MAMM CREEK
PROVINCE/COUNTY	GARFIELD
COUNTRY/STATE	U.S.A. / COLORADO

Elevation Kelly Bushing	5553.00	feet	First Reading	7739.00	
Elevation Drill Floor	5552.00	feet	Depth Driller	7770.00	feet
Elevation Ground Level	5530.00	feet	Depth Logger	7766.00	feet



**Weatherford®**

HOLE VOLUME  
CALIPER  
LOG

