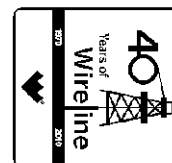




Weatherford

TEMPERATURE LOG

COMPANY **BILL BARRETT CORPORATION**
WELL **KAUFMAN 23D-24-692**
FIELD **MAMM CREEK**
PROVINCE/COUNTY **GARFIELD**
COUNTRY/STATE **U.S.A. / COLORADO**
LOCATION **SHL: 1779' FSL & 2415' FEL**
BHL: 2447' FSL & 1970' FWL



SEC **24** TWP **6S** RGE **92W** Other Services
API Number **05-045-19648**
Permit Number

Permanent Datum G.L., Elevation 5843 feet

Log Measured From **KB**

Drilling Measured From **K.B. @ 23 FT.**

Elevations: **KB 5866.00**
DF 5866.00
GL 5843.00

Date	07-AUG-2011		
Run Number	ONE		
Depth Driller	7654.00	feet	
Depth Logger	7638.00	feet	
First Reading	7638.00	feet	
Last Reading	200.00	feet	
Casing Driller	853.00	feet	
Casing Logger	856.00	feet	
Bit Size	7.875	inches	
Hole Fluid Type	WATER		
Density / Viscosity			
PH / Fluid Loss			
Sample Source			
Rm @ Measured Temp			
Rmf @ Measured Temp			
Rmc @ Measured Temp			
Source Rmf / Rmc			
Rm @ BHT			
Time Since Circulation			
Max Recorded Temp	189.00	deg F	
Equipment Name	COMPACT		
Equipment / Base	13173	GD JCT	
Recorded By	N. TAYLOR		
Witnessed By	C.CROW		

BOREHOLE RECORD

Last Edited: 07-AUG-2011 06:03

Bit Size inches	Depth From feet	Depth To feet
8.750	853.00	5814.00
7.880	5814.00	7695.00

CASING RECORD

Type	Size inches	Depth From feet	Shoe Depth feet	Weight pounds/ft
SURFACE	9.625	0.00	853.00	36.00
PRODUCT	4.500	0.00	7654.00	11.60

REMARKS

LOGGING SOFTWARE USED: 11.03.3657

TOP OF CEMENT IS APPROXIMATELY 5880 FEET.

4.5 INCH PRODUCTION CASING.

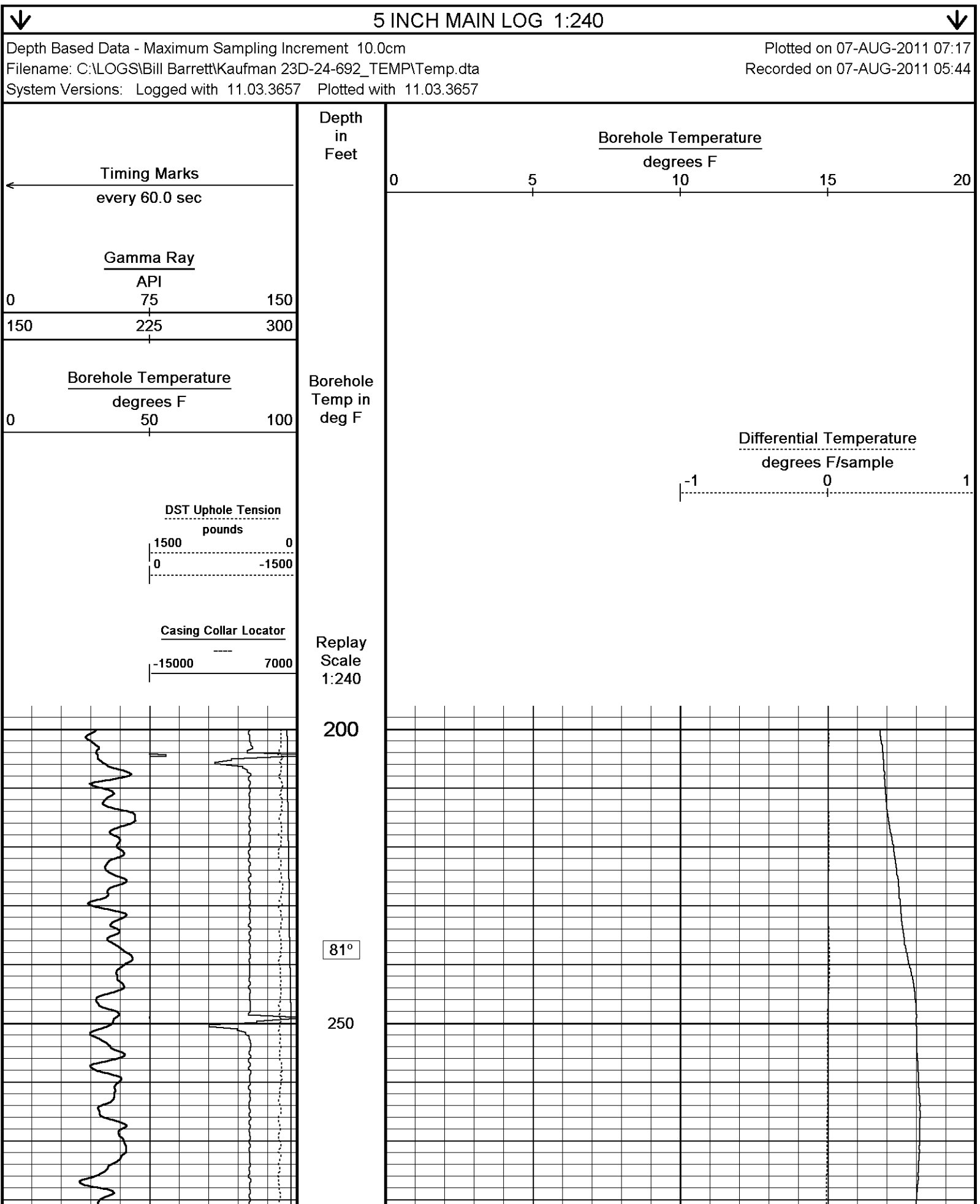
CASED HOLE TEMPERATURE LOG WAS LOGGED WITH SHA, MCG AND MHT.

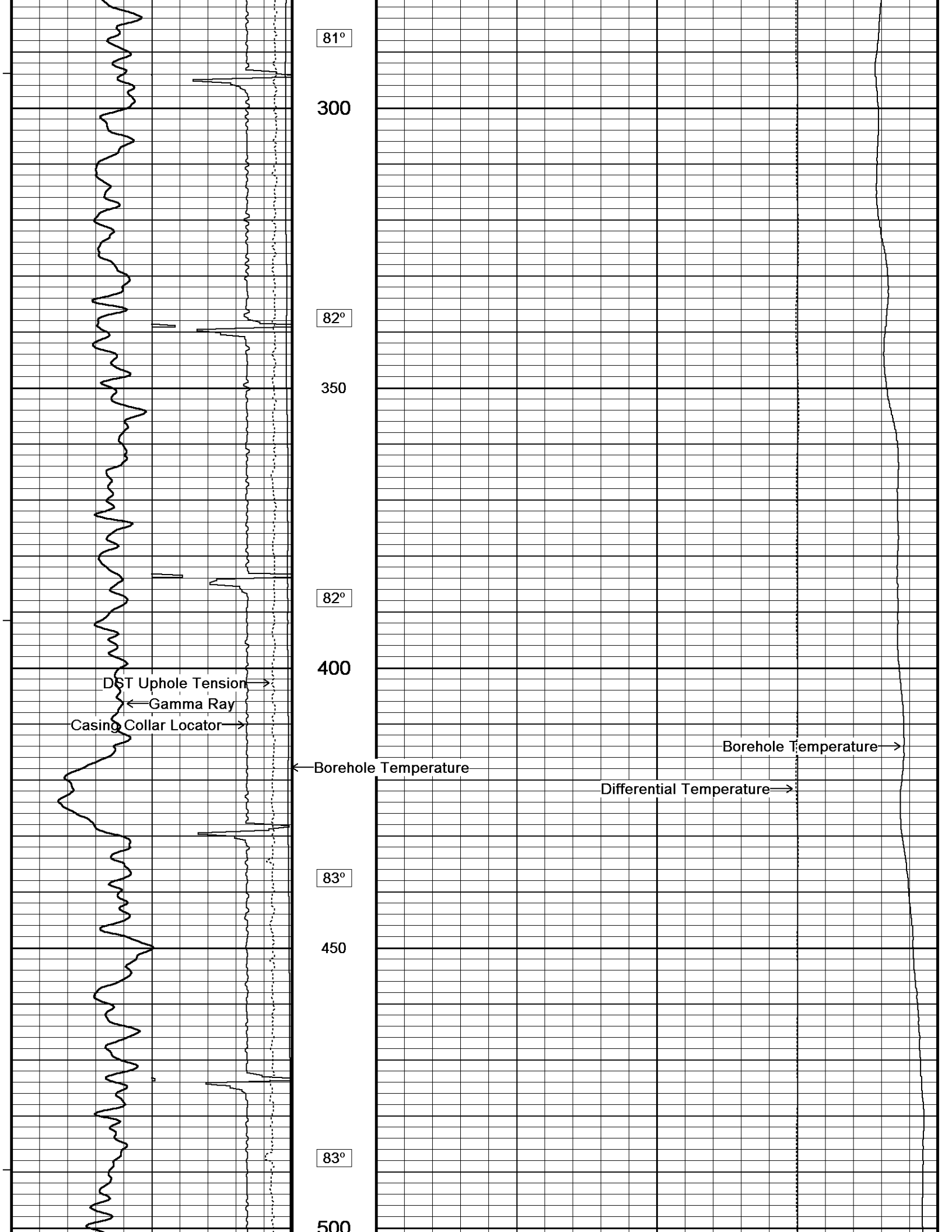
CORRELATED TO WEATHERFORDS OPEN HOLE LOGS.

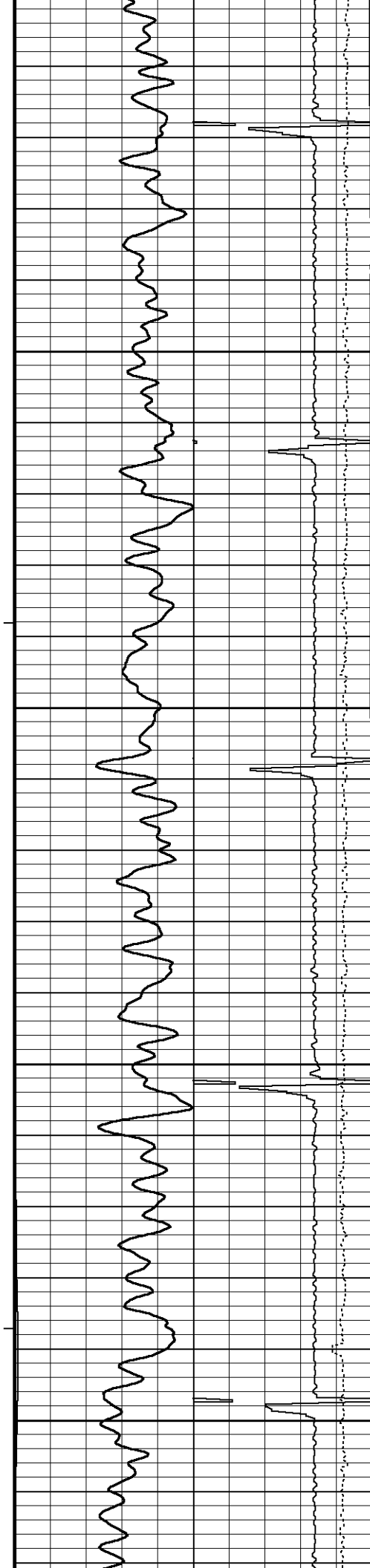
SERVICE ORDER: # 3524884

RIG: PATTERSON #307

...the pressure and the pressure gradient, and the temperature, and the gas content and the density, 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.







84°

550

84°

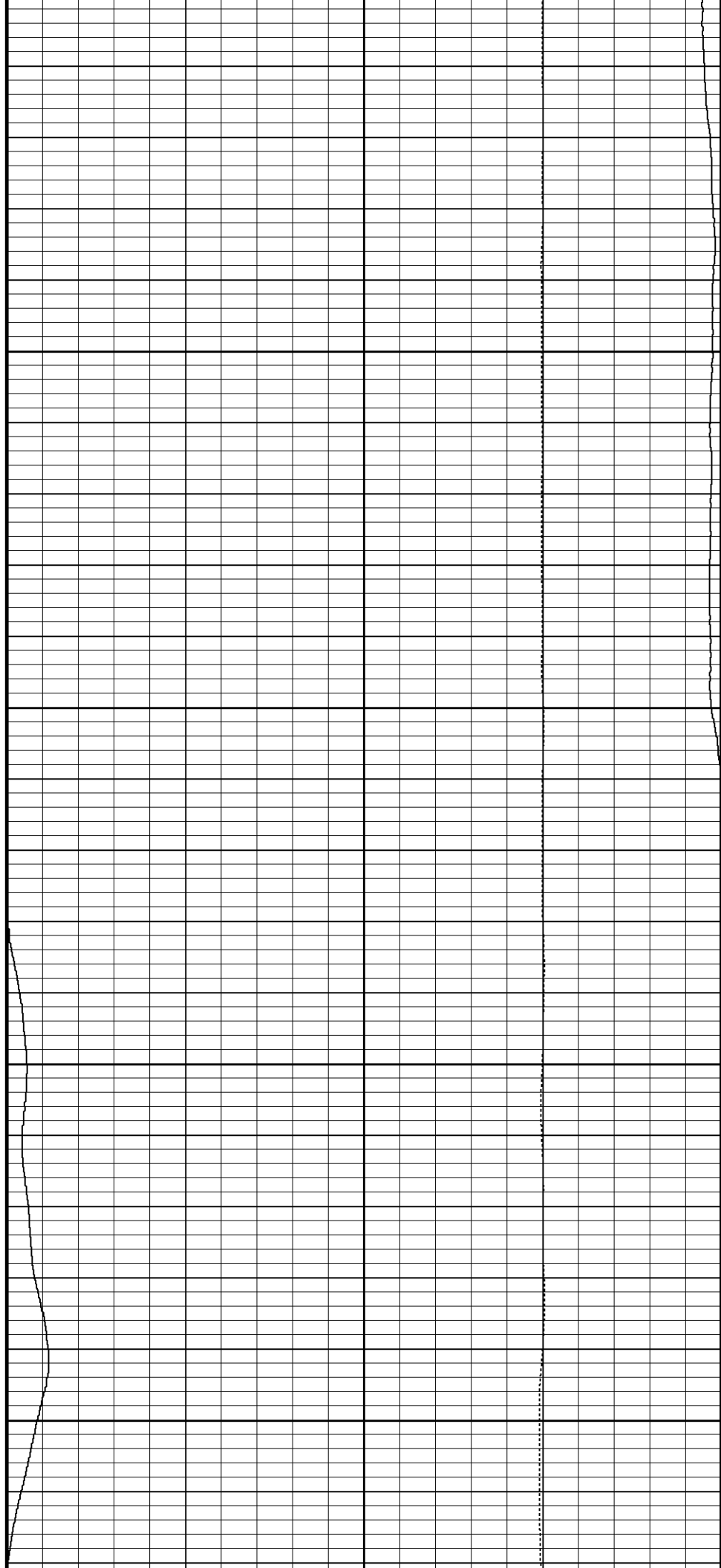
600

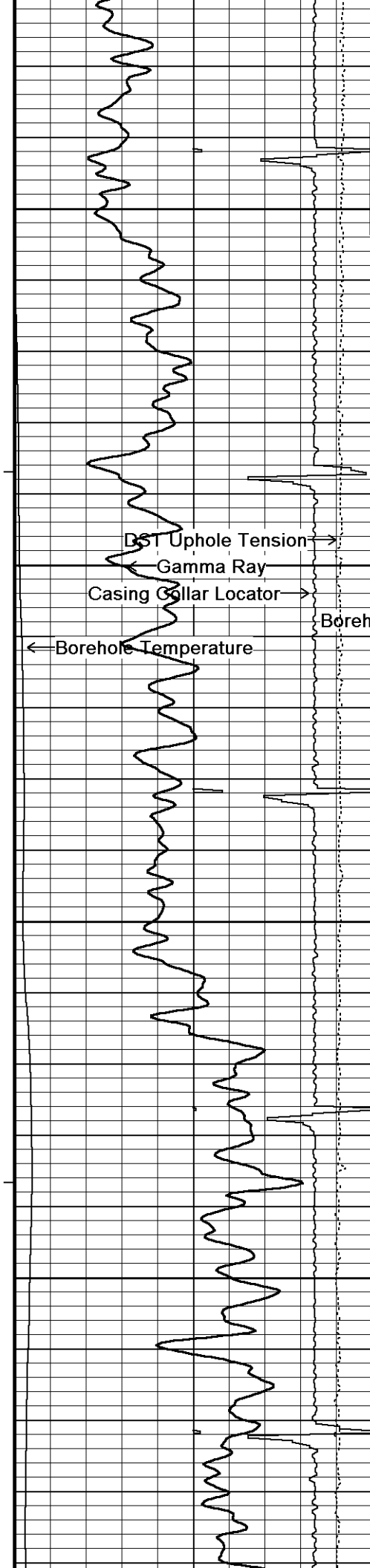
84°

650

85°

700





84°

750

85°

800

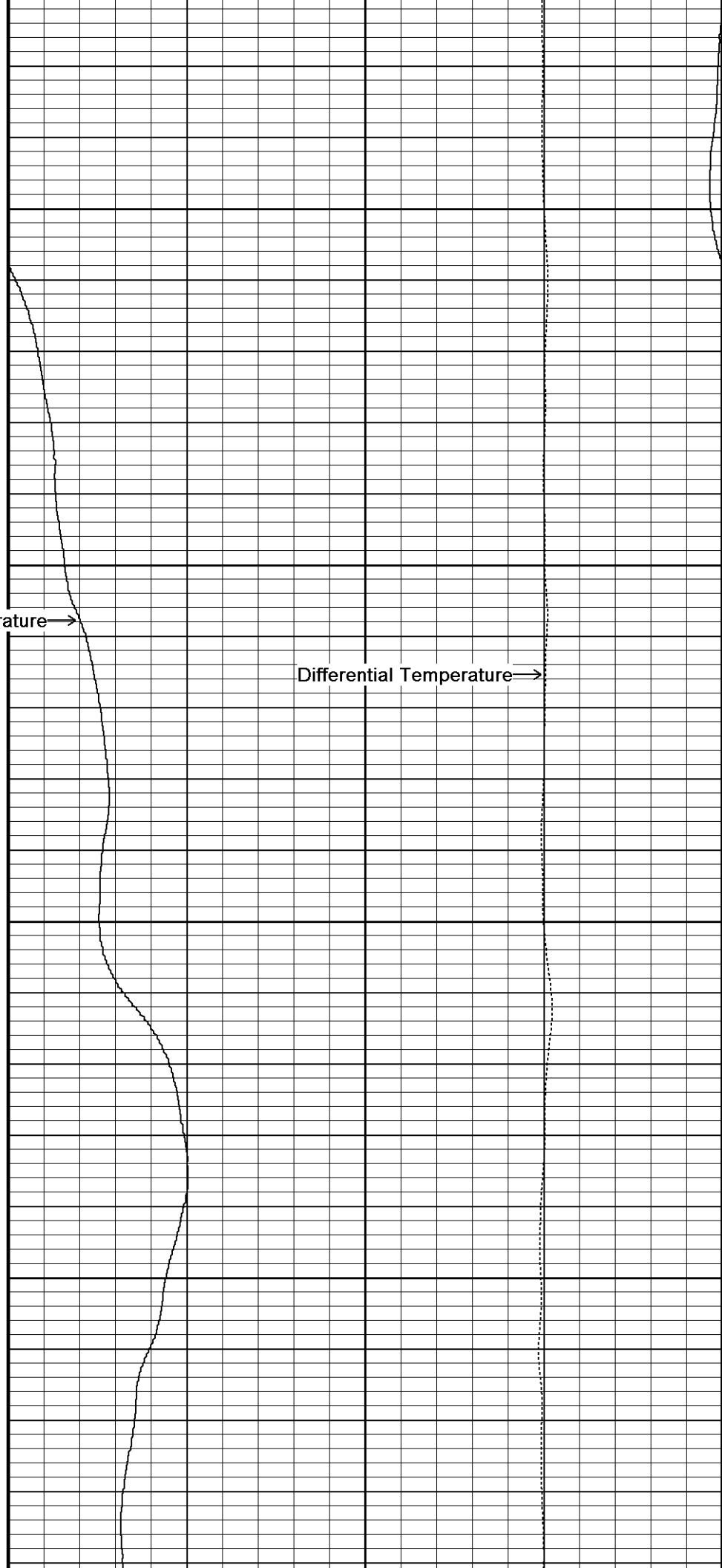
87°

850

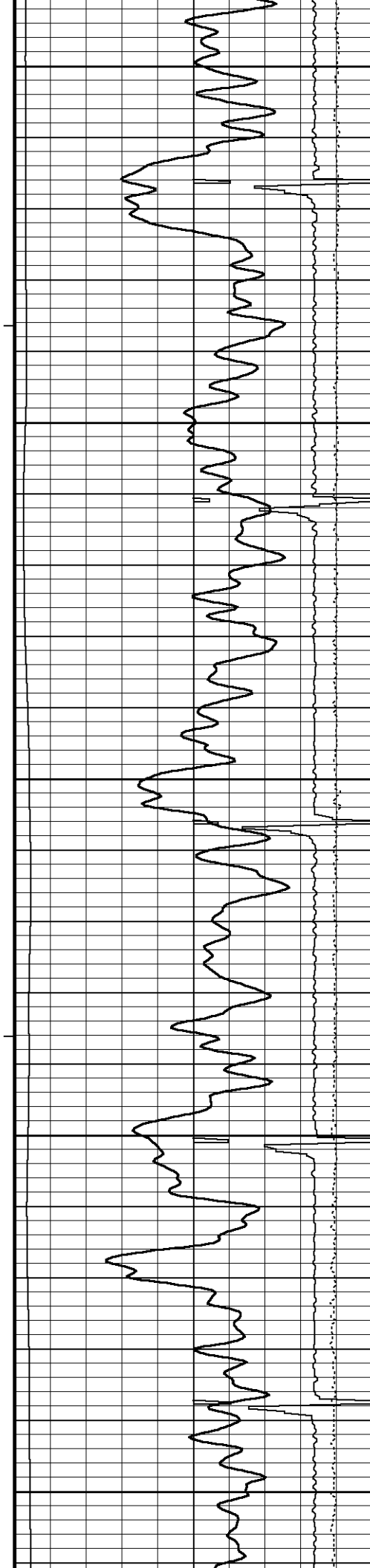
89°

900

88°



Differential Temperature



950

88°

1000

88°

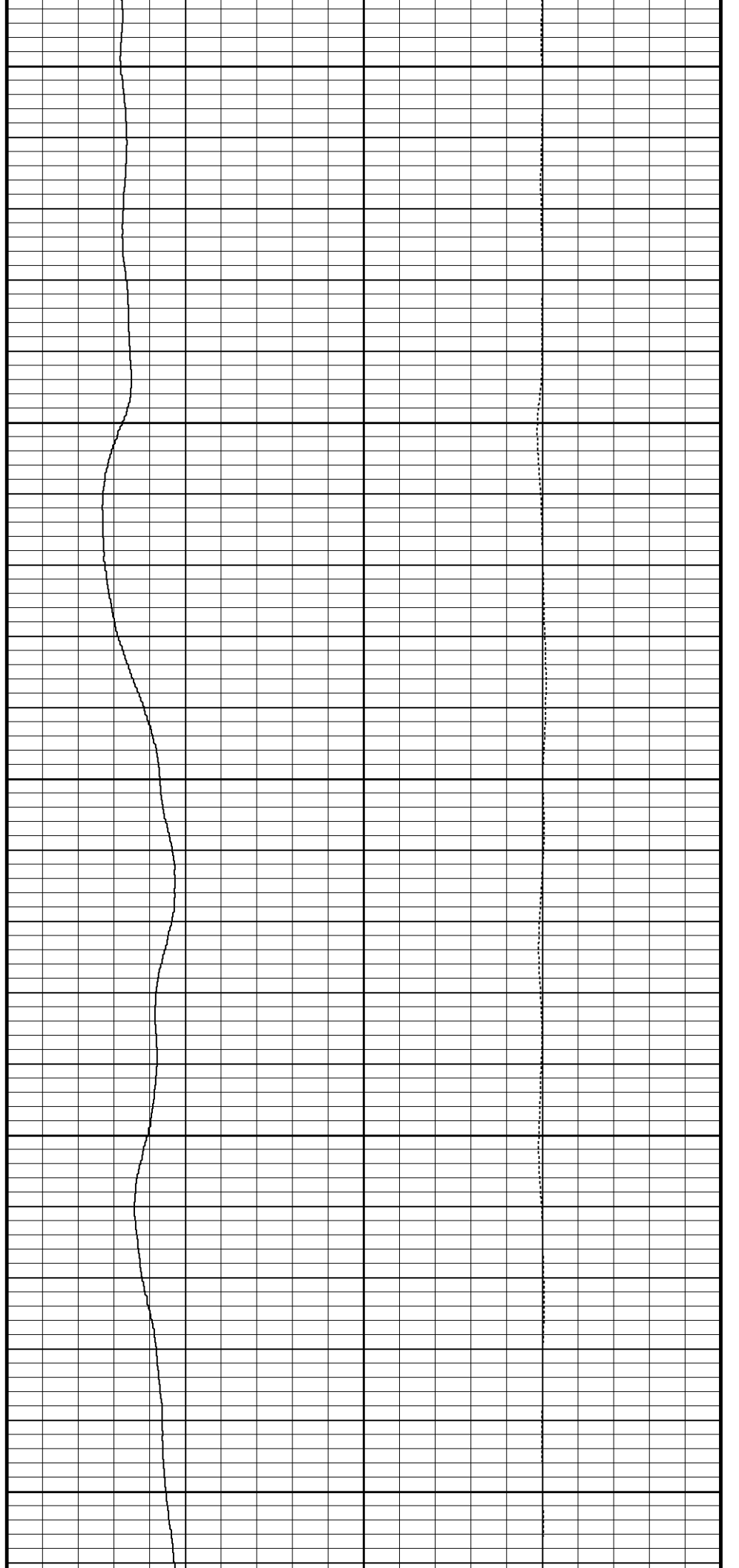
1050

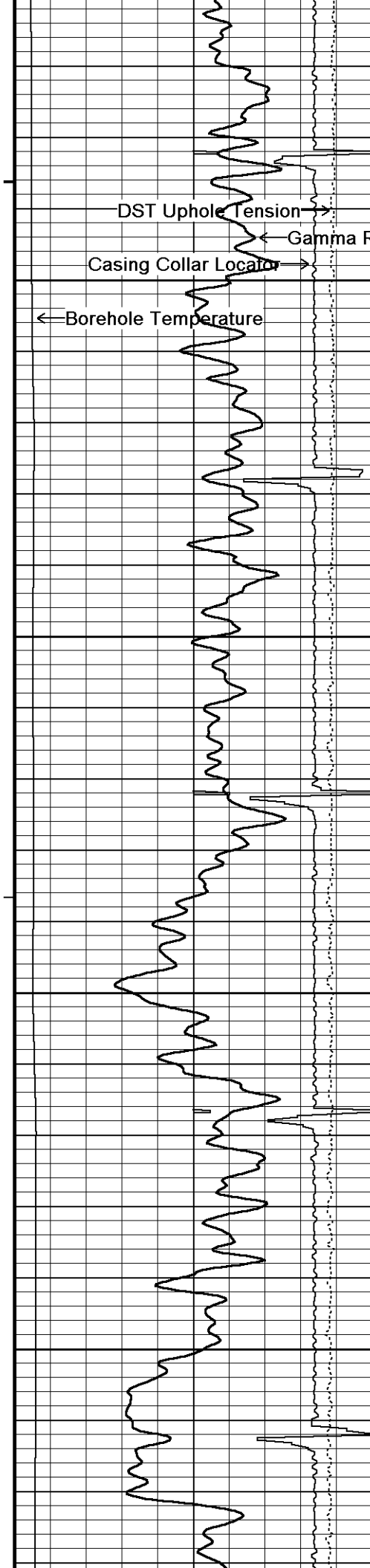
89°

1100

89°

1150





90°

1200

91°

1250

91°

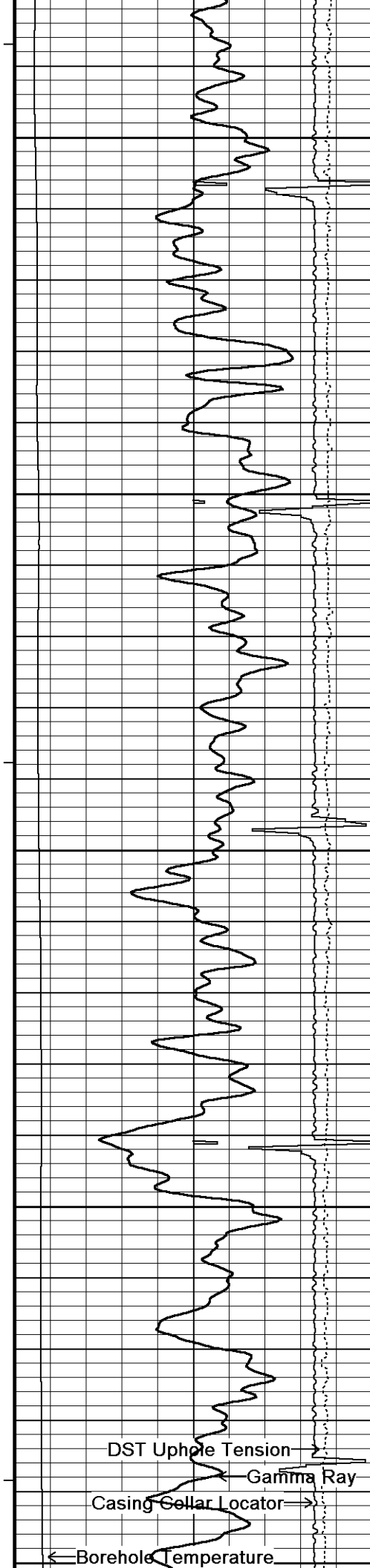
1300

91°

1350

Borehole Temperature

Differential Temperature



91°

1400

92°

1450

92°

1500

93°

1550

93°

1600

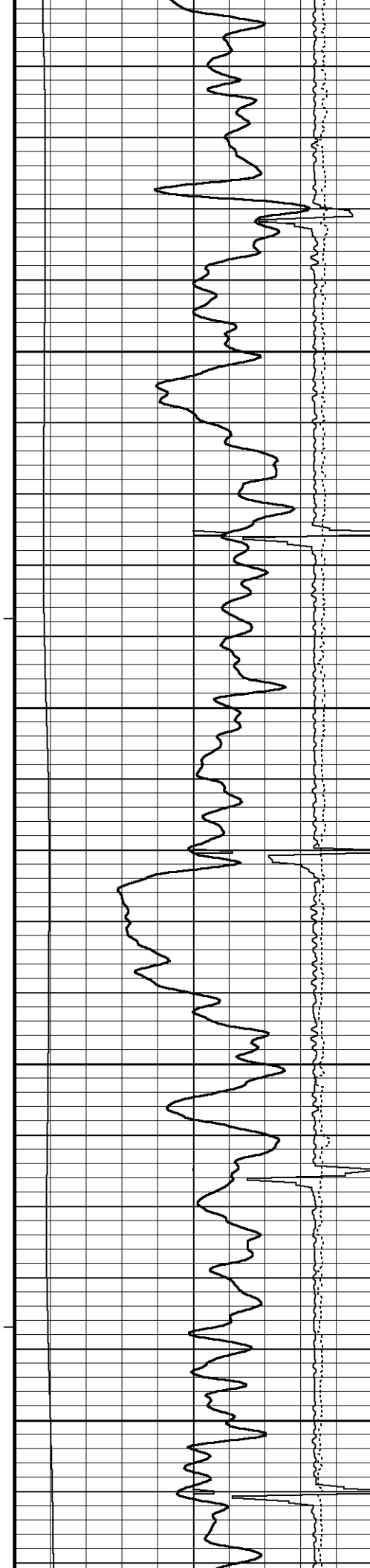
DST Uphole Tension

Gamma Ray

Casing Collar Locator

Borehole Temperature

Borehole Temperature



1800

94°

1650

94°

1700

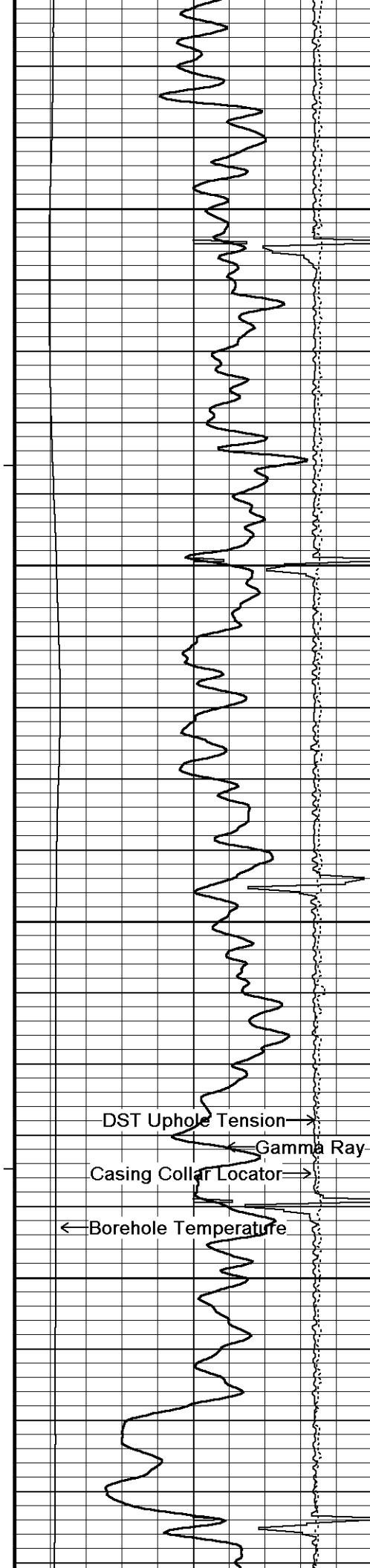
95°

1750

95°

1800

Differential Temperature →



97°

1850

96°

1900

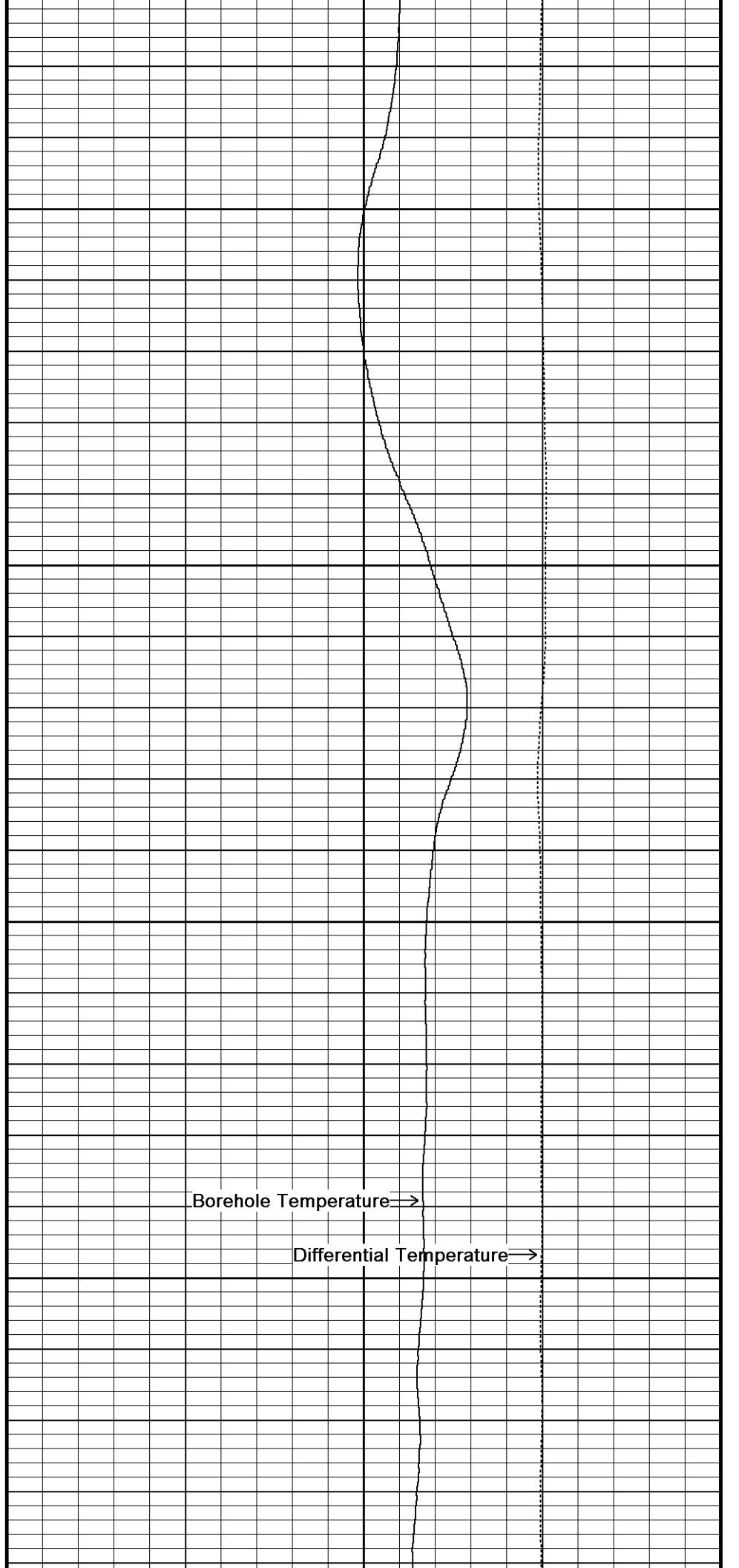
98°

1950

98°

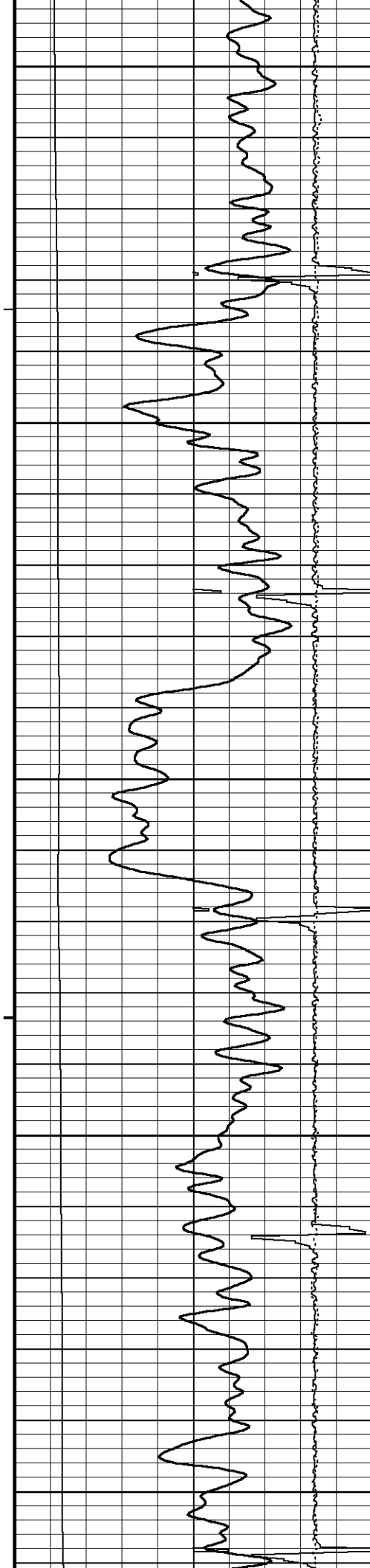
2000

98°



Borehole Temperature

Differential Temperature



2050

98°

2100

99°

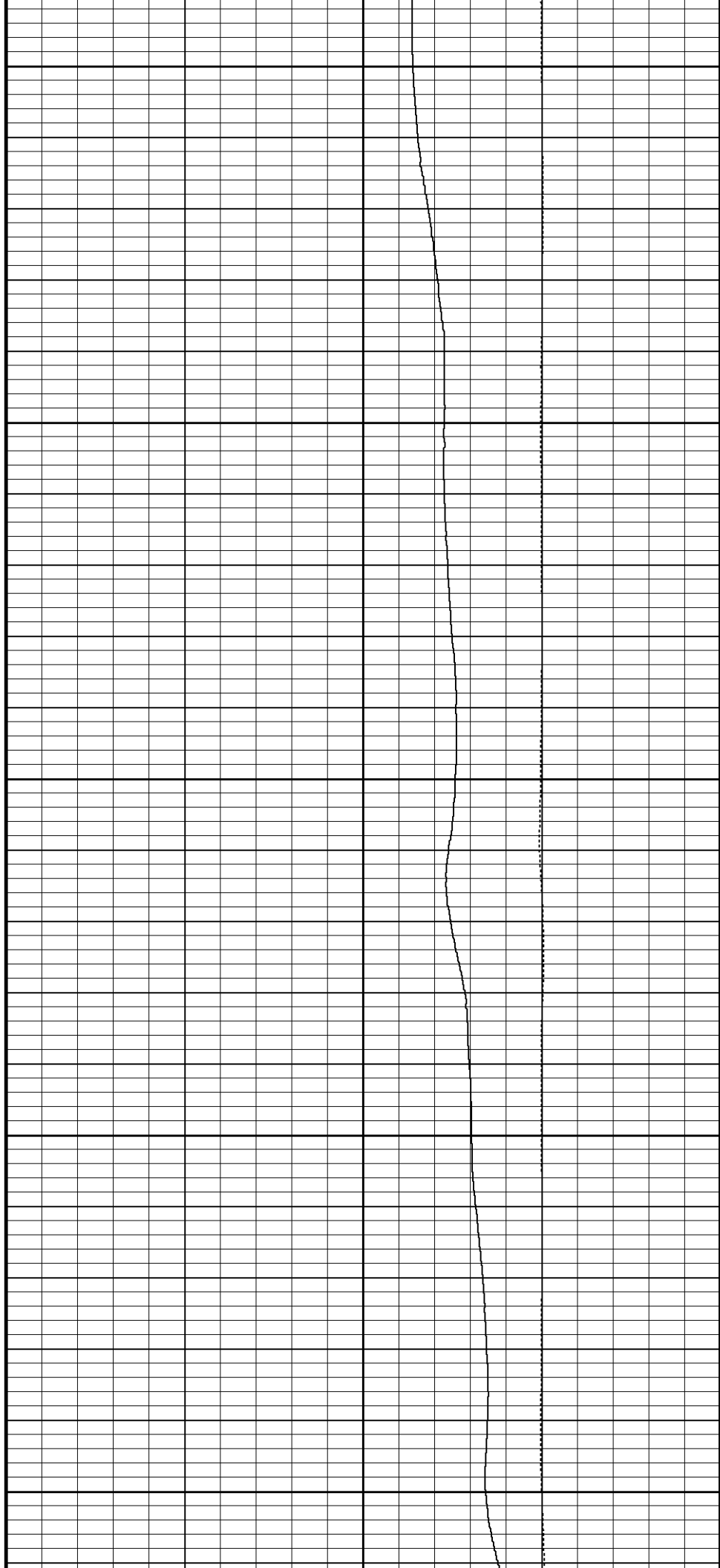
2150

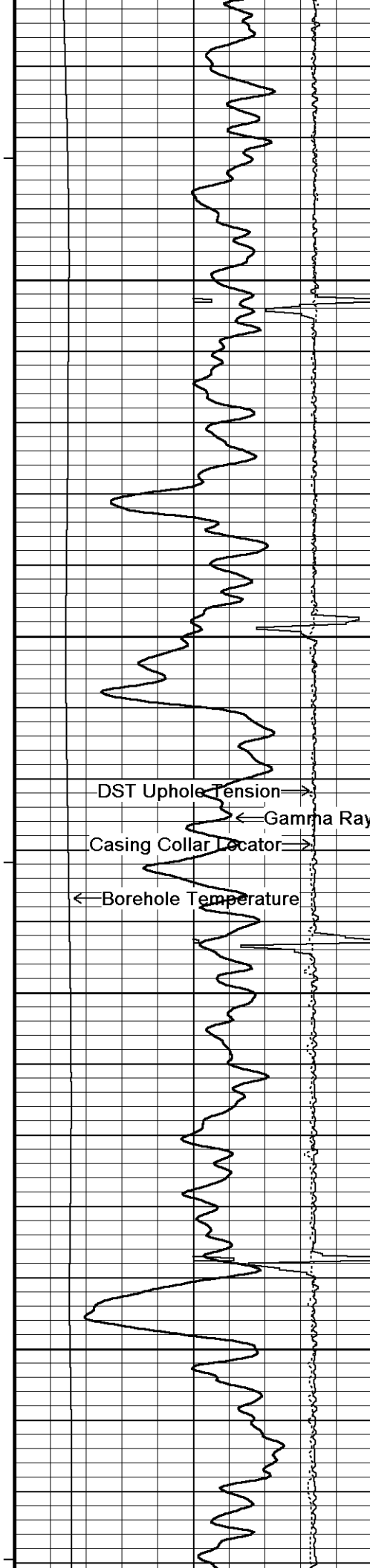
99°

2200

100°

2250





101°

2300

101°

2350

DST Uphole Tension →

← Gamma Ray

Casing Collar Locator →

← Borehole Temperature

101°

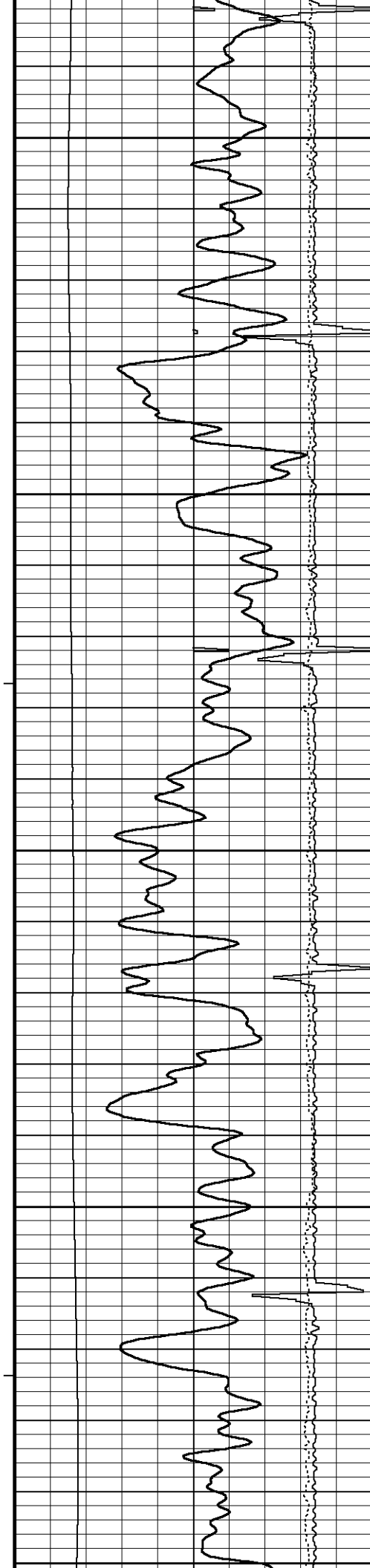
2400

102°

2450

Borehole Temperature →

Differential Temperature →



102°

2500

102°

2550

103°

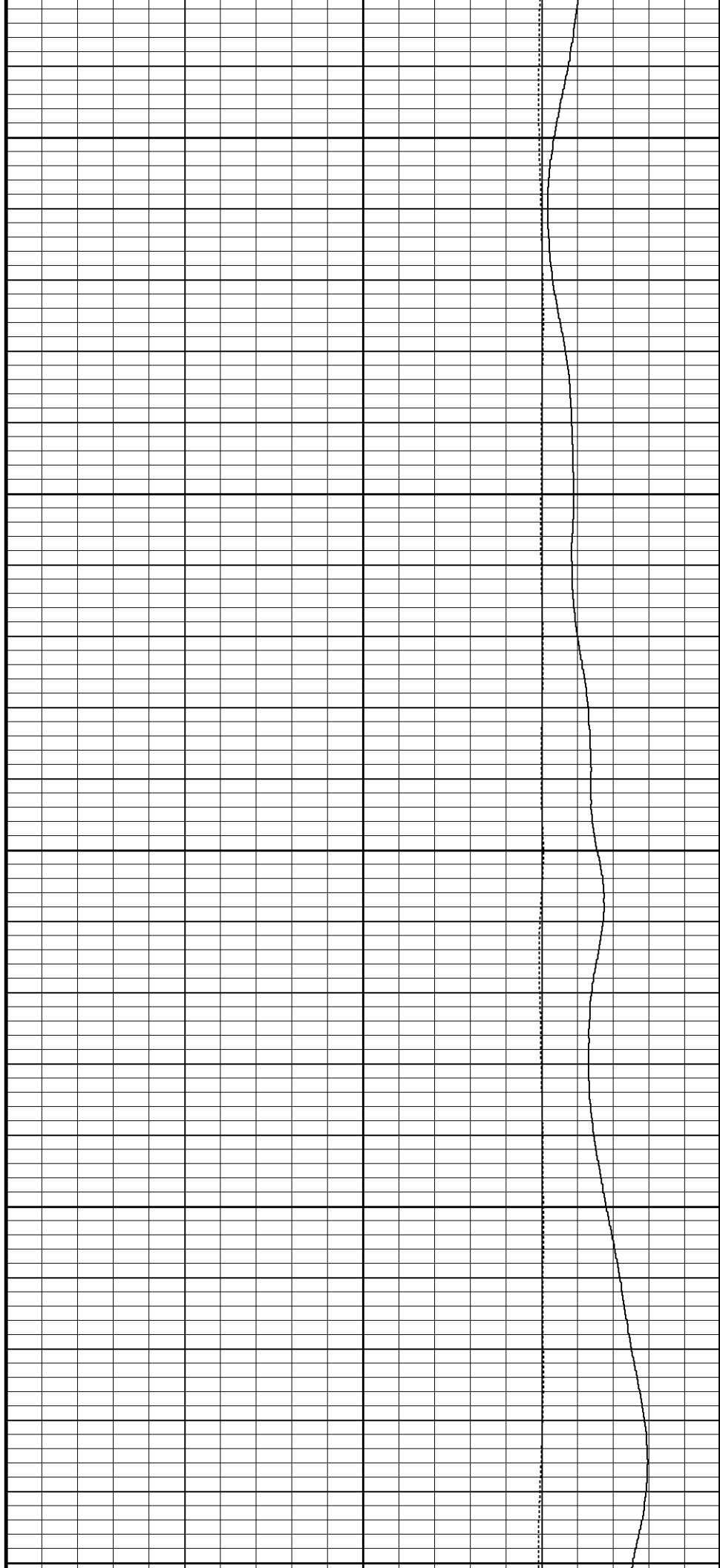
2600

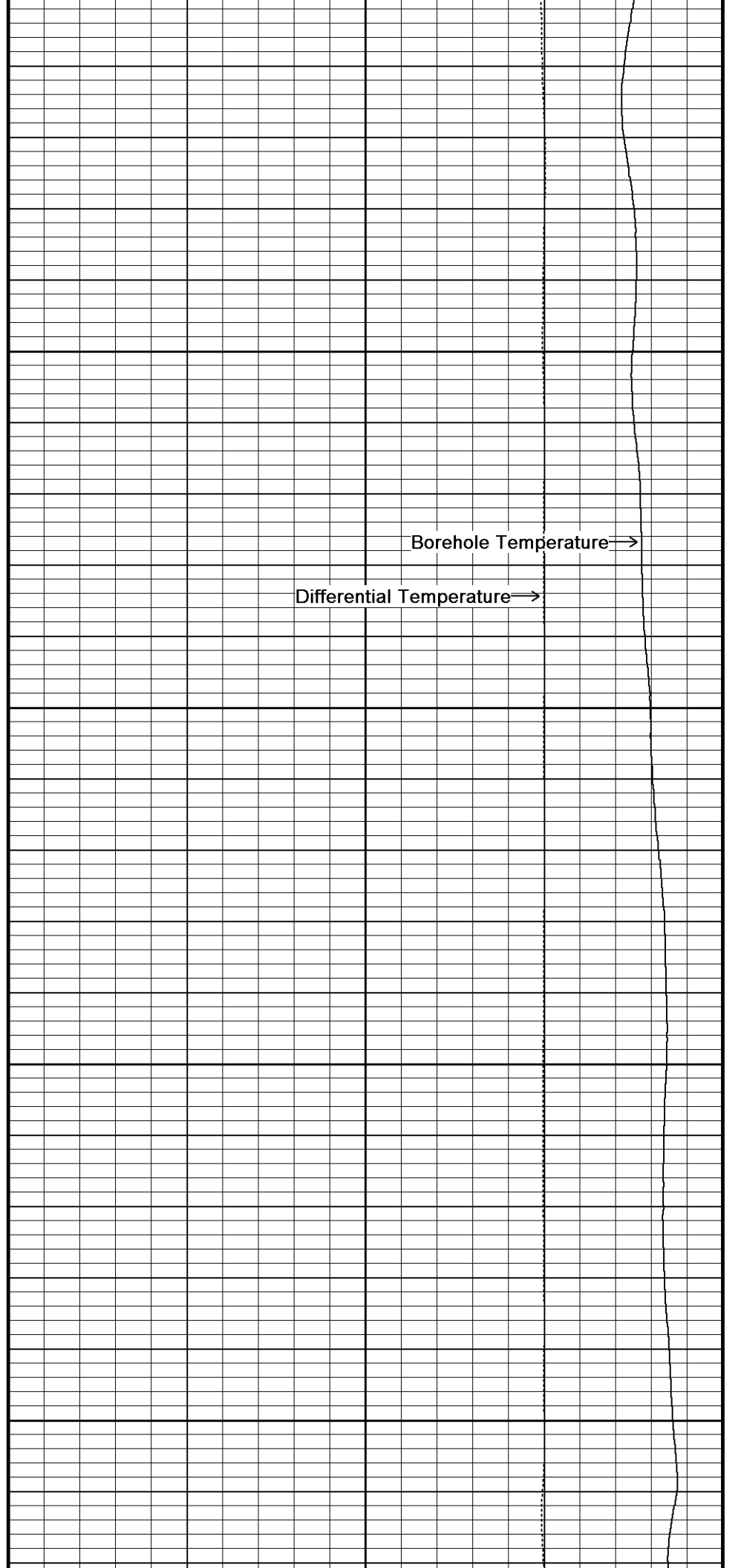
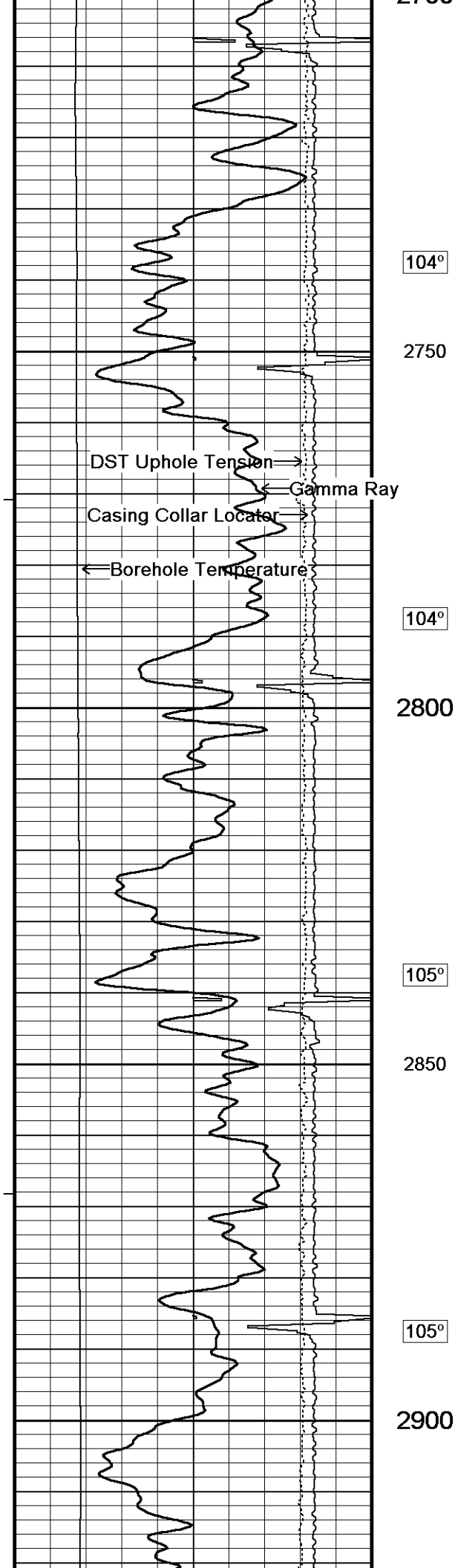
103°

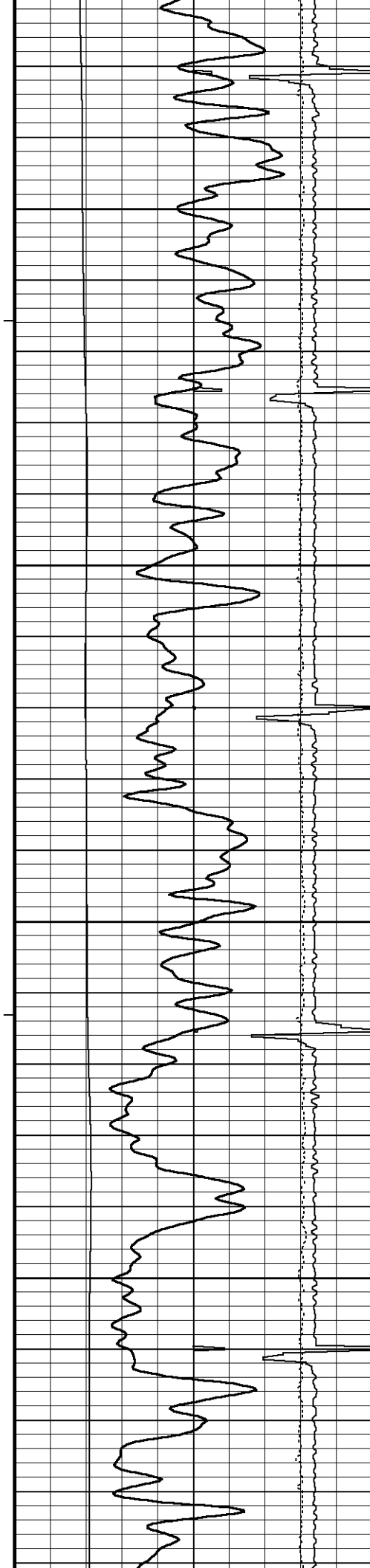
2650

104°

2700







106°

2950

107°

3000

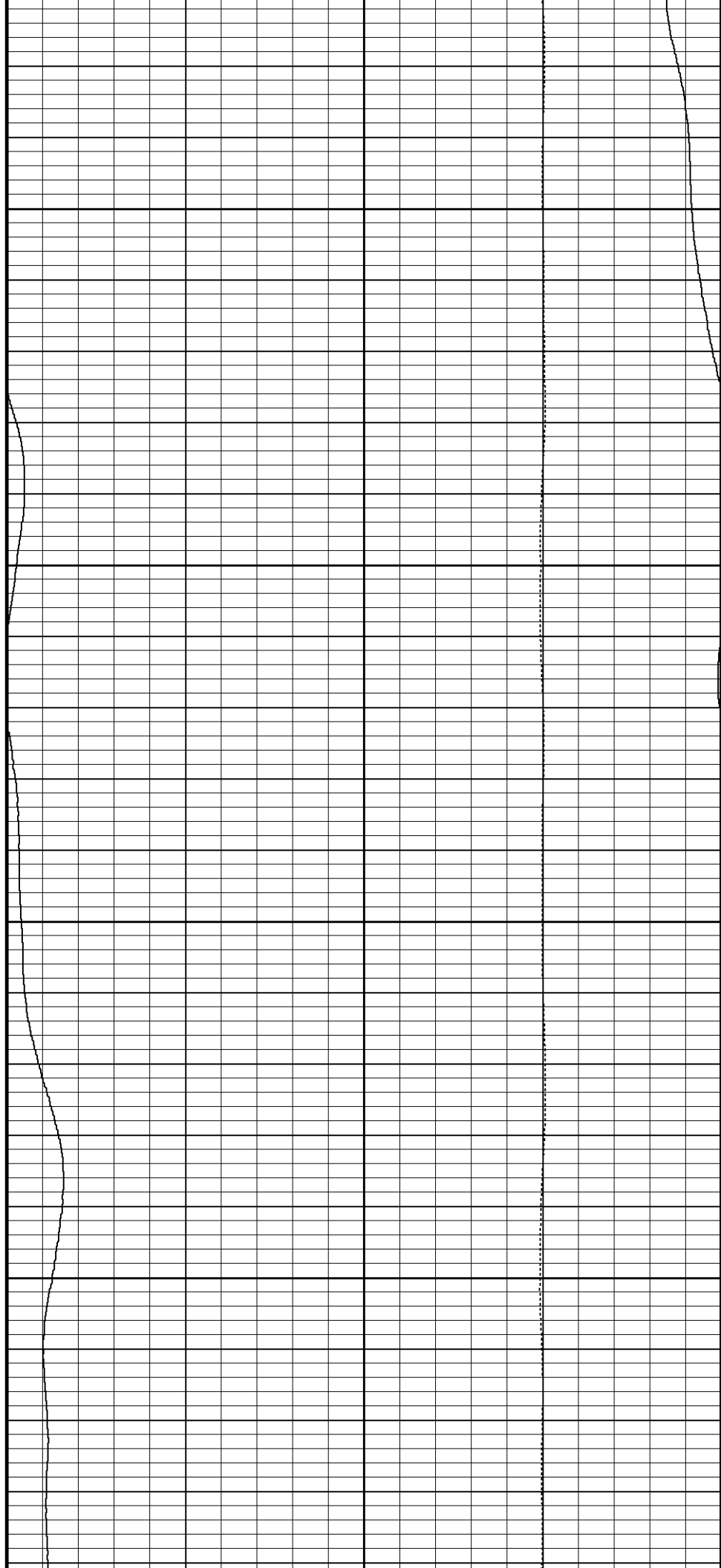
107°

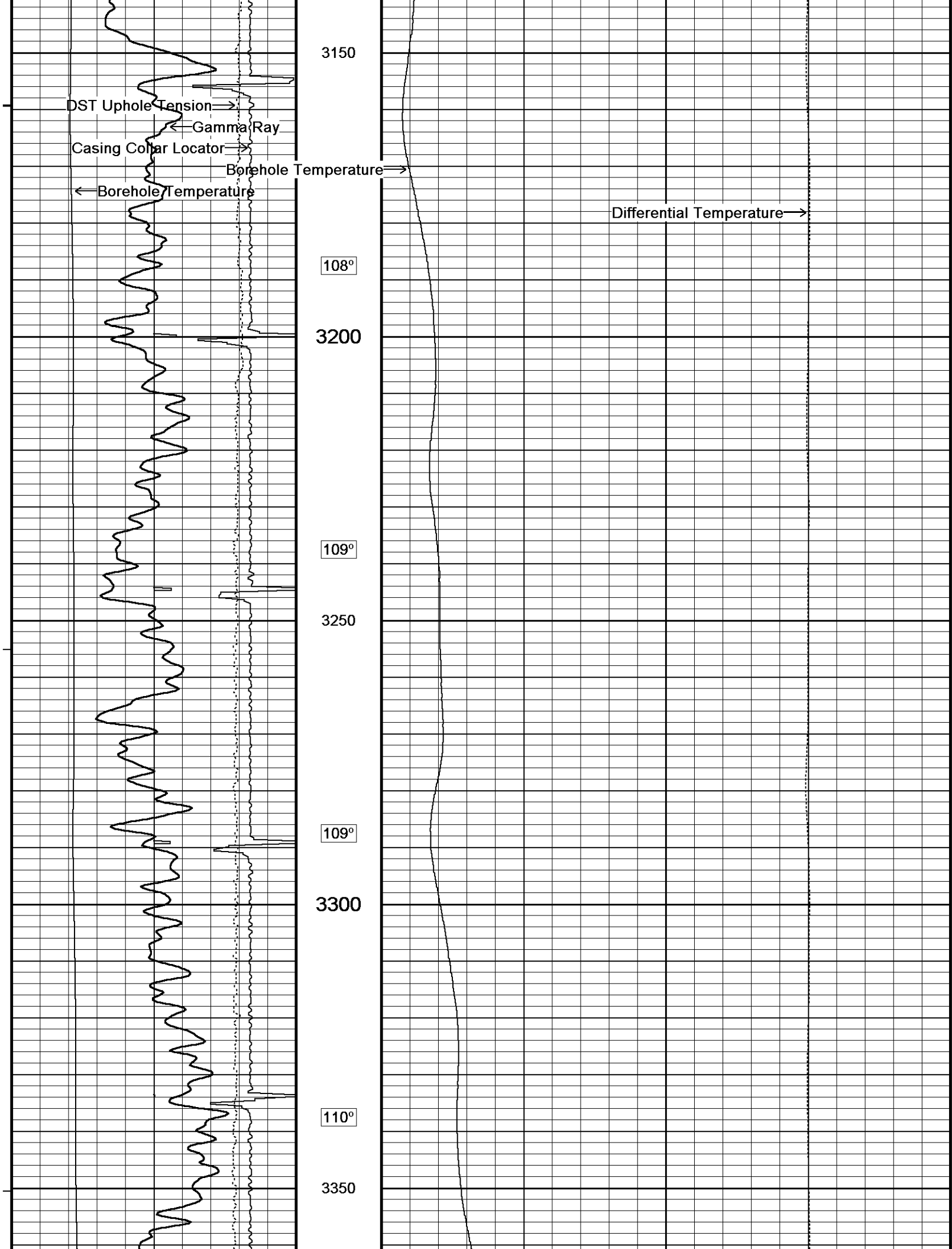
3050

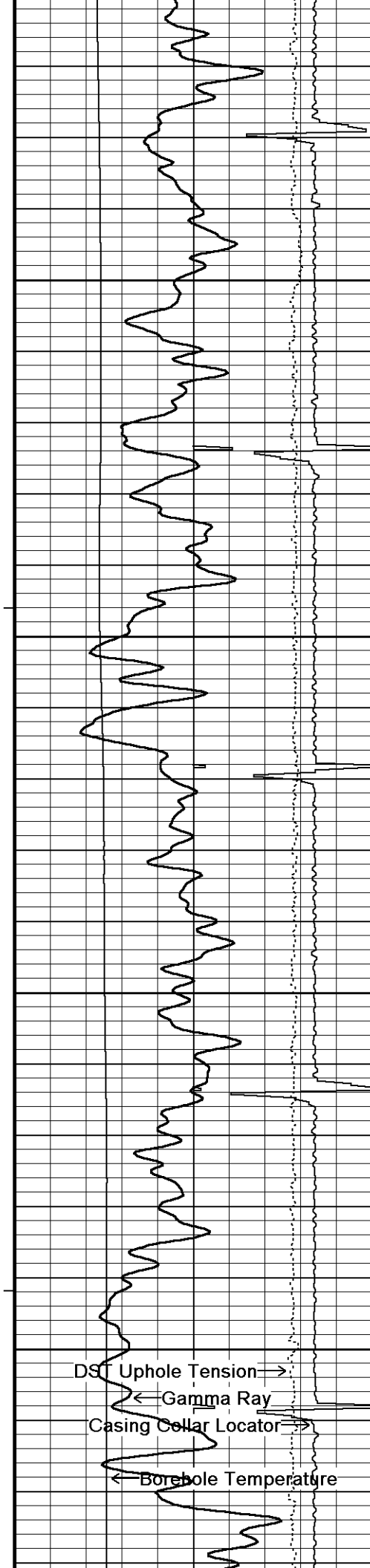
108°

3100

108°







111°

3400

111°

3450

112°

3500

113°

3550

DST Uphole Tension →

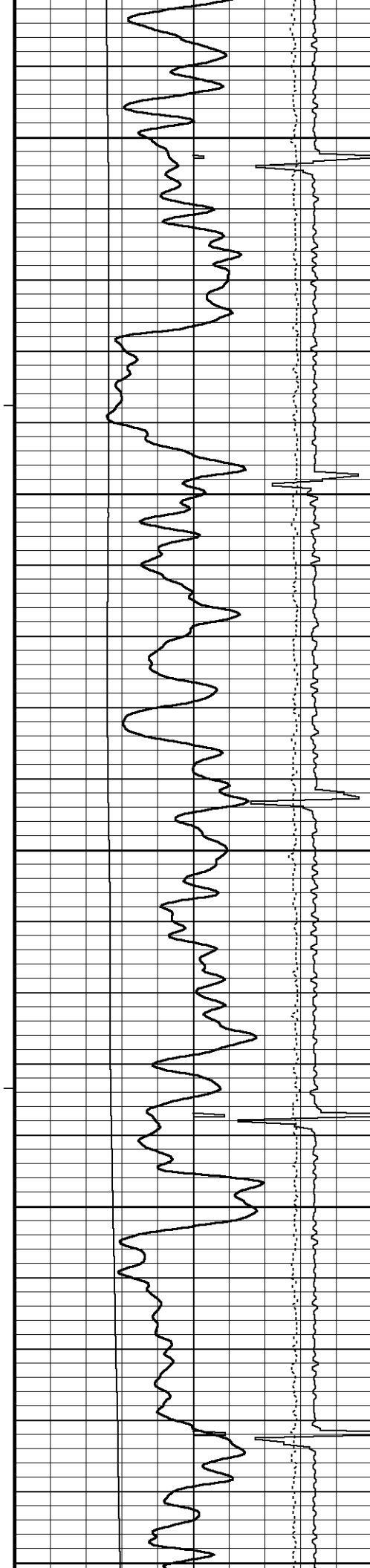
← Gamma Ray

Casing Collar Locator →

← Borehole Temperature

Borehole Temperature →

Differential Temperature →



113°

3600

114°

3650

113°

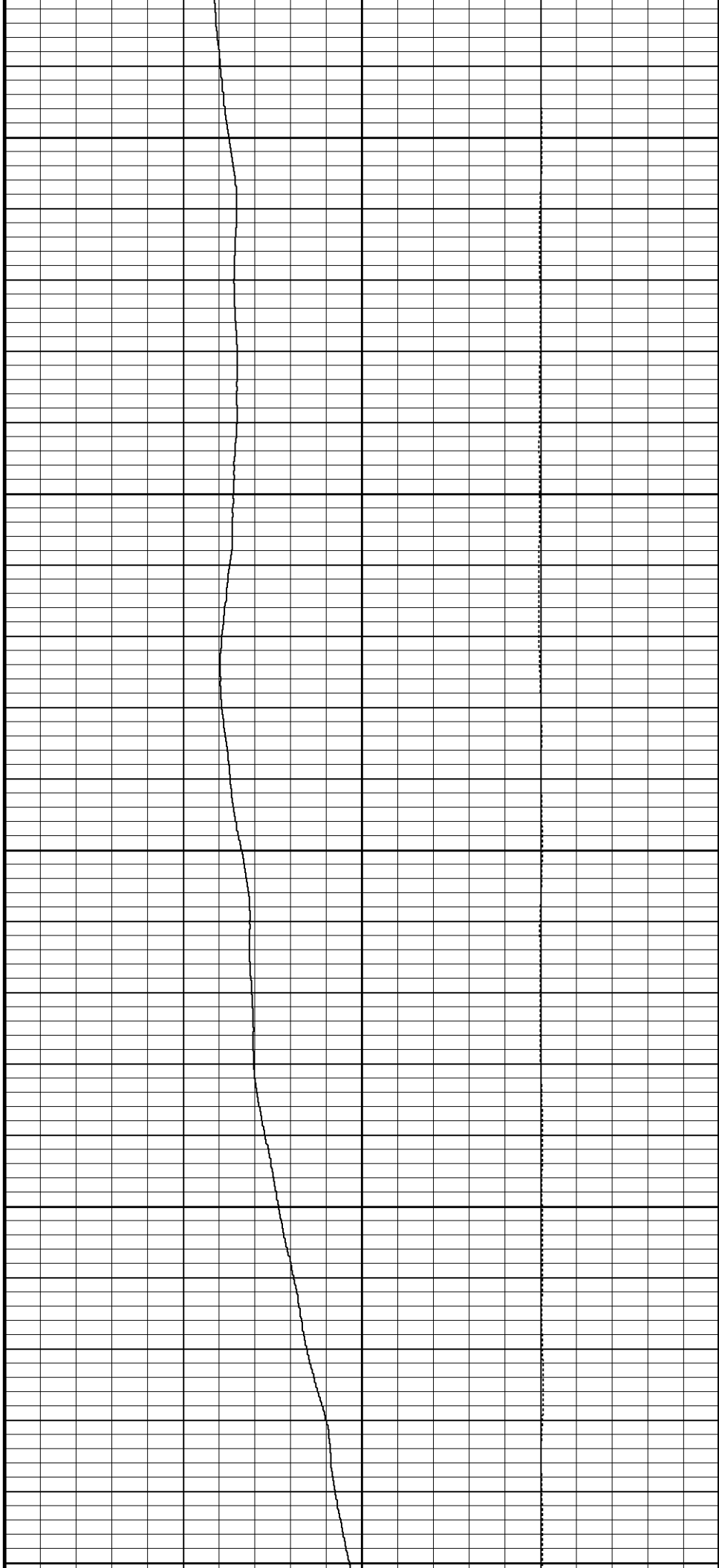
3700

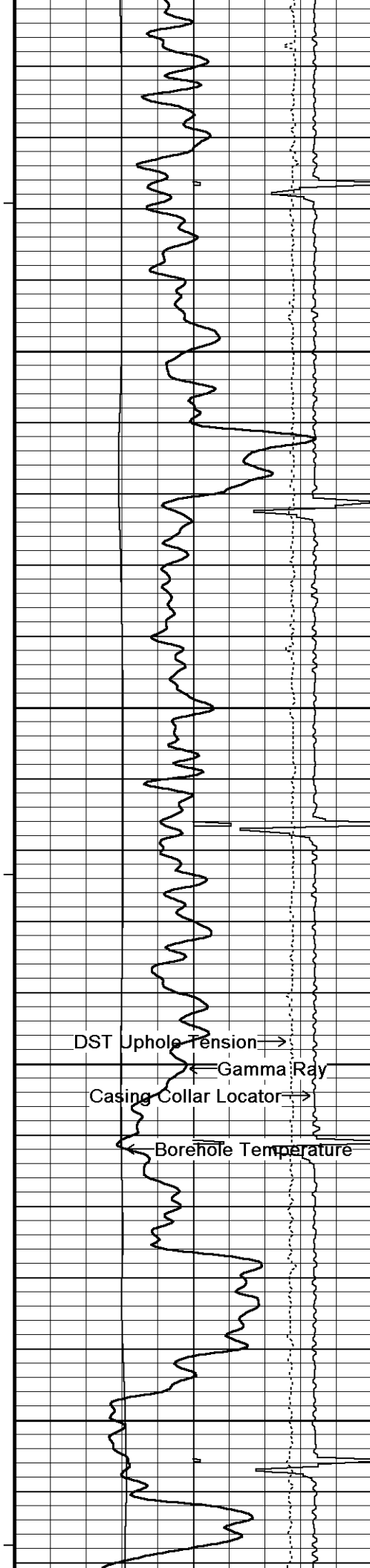
114°

3750

116°

3800





117°

3850

117°

3900

118°

3950

118°

4000

DST Uphole Tension →

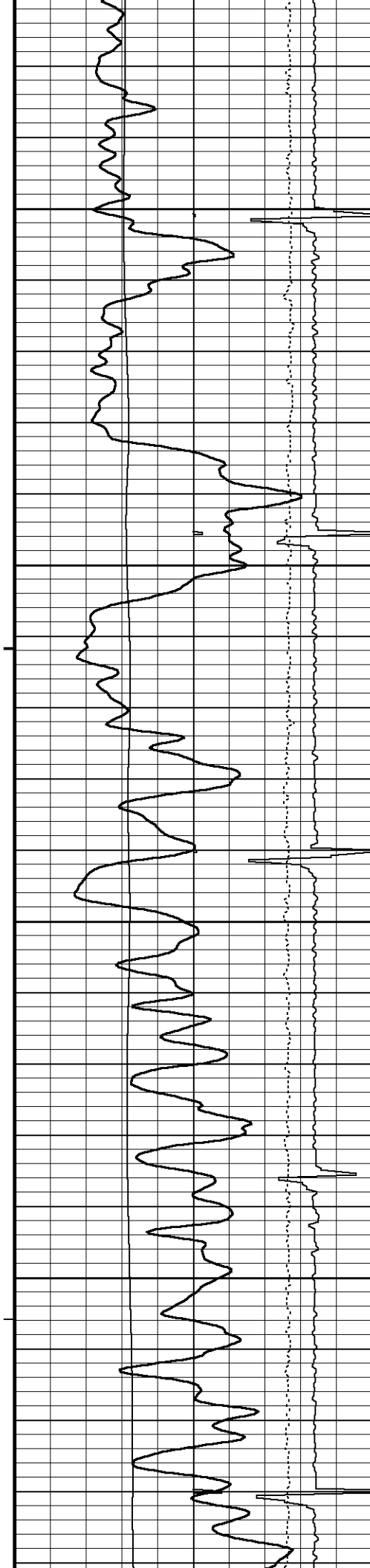
← Gamma Ray

Casing Collar Locator →

← Borehole Temperature

Borehole Temperature →

Differential Temperature →



118°

4050

119°

4100

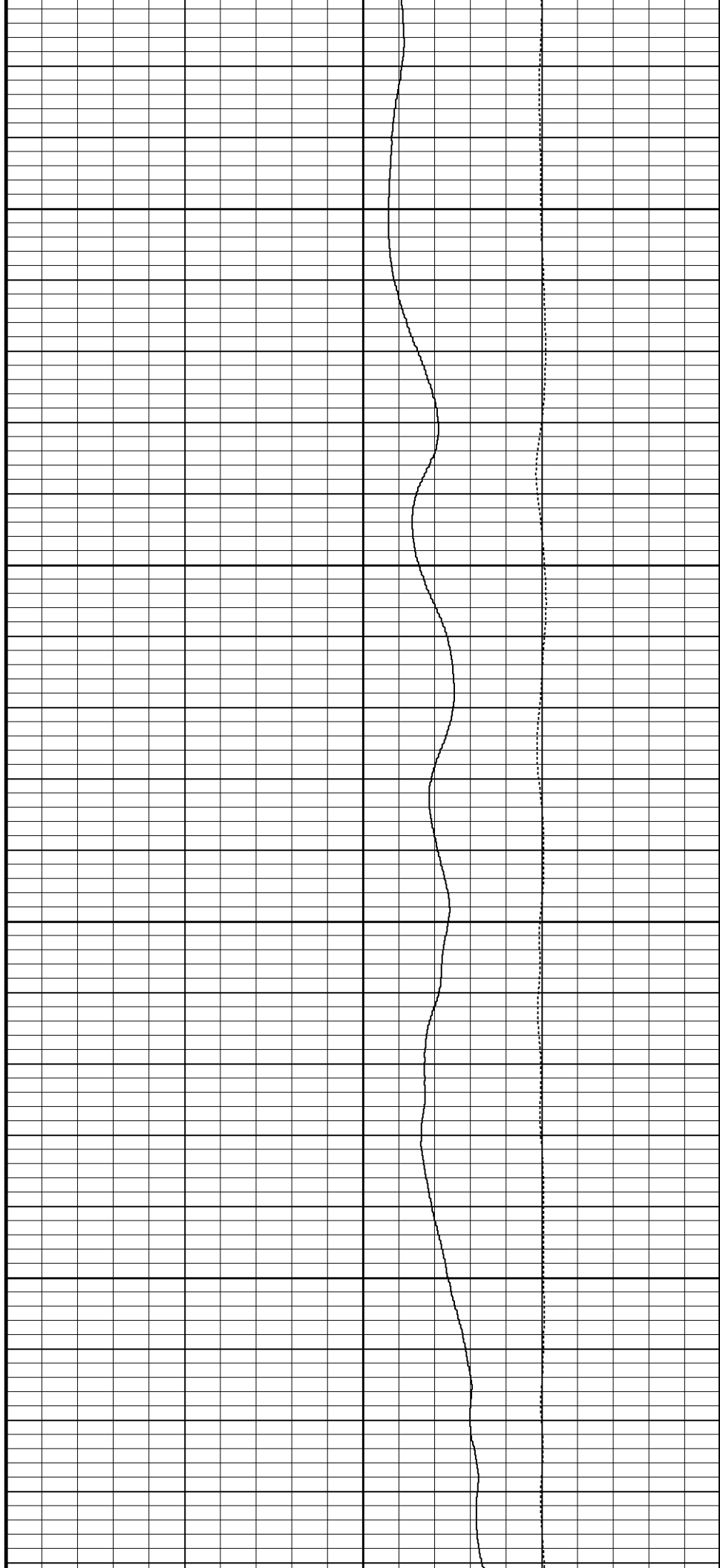
119°

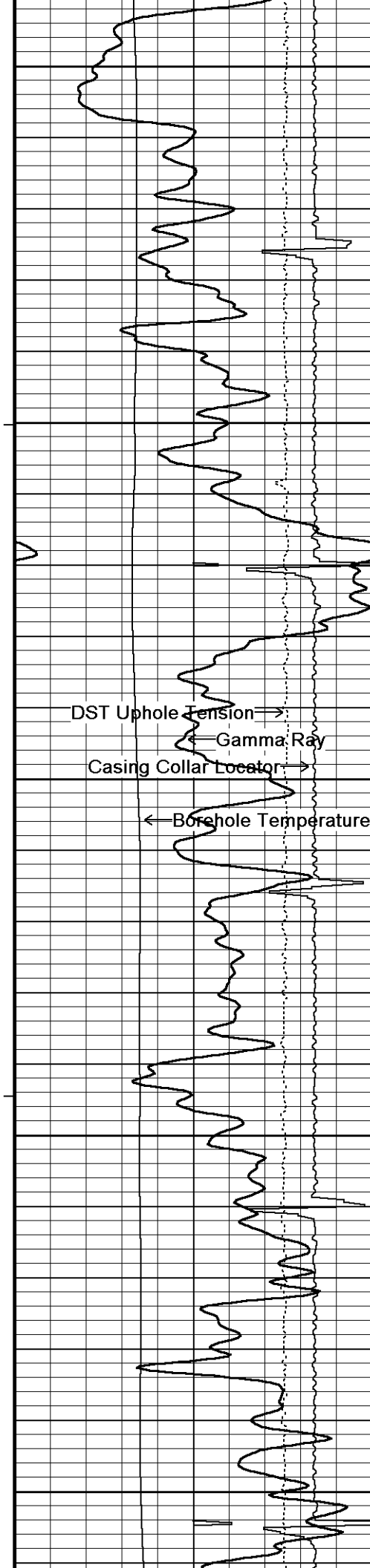
4150

119°

4200

120°





4250

121°

4300

121°

4350

DST Uphole Tension →

← Gamma Ray

Casing Collar Locator →

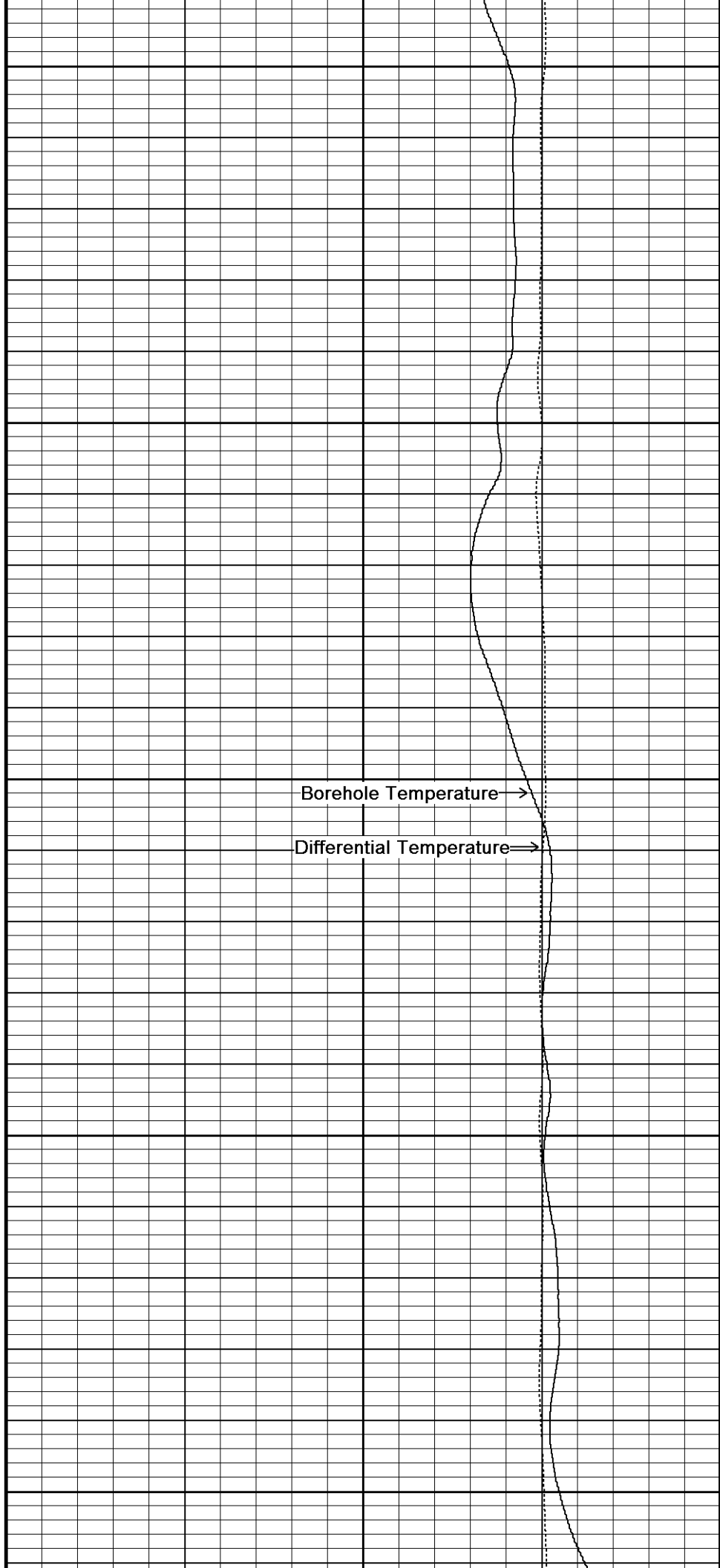
← Borehole Temperature

122°

4400

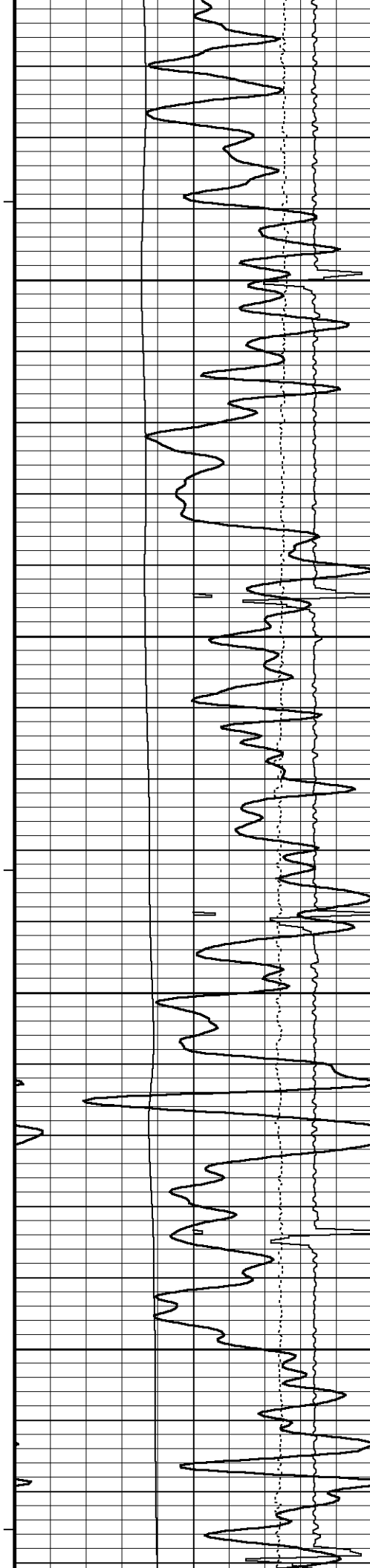
123°

4450



Borehole Temperature →

Differential Temperature →



124°

4500

124°

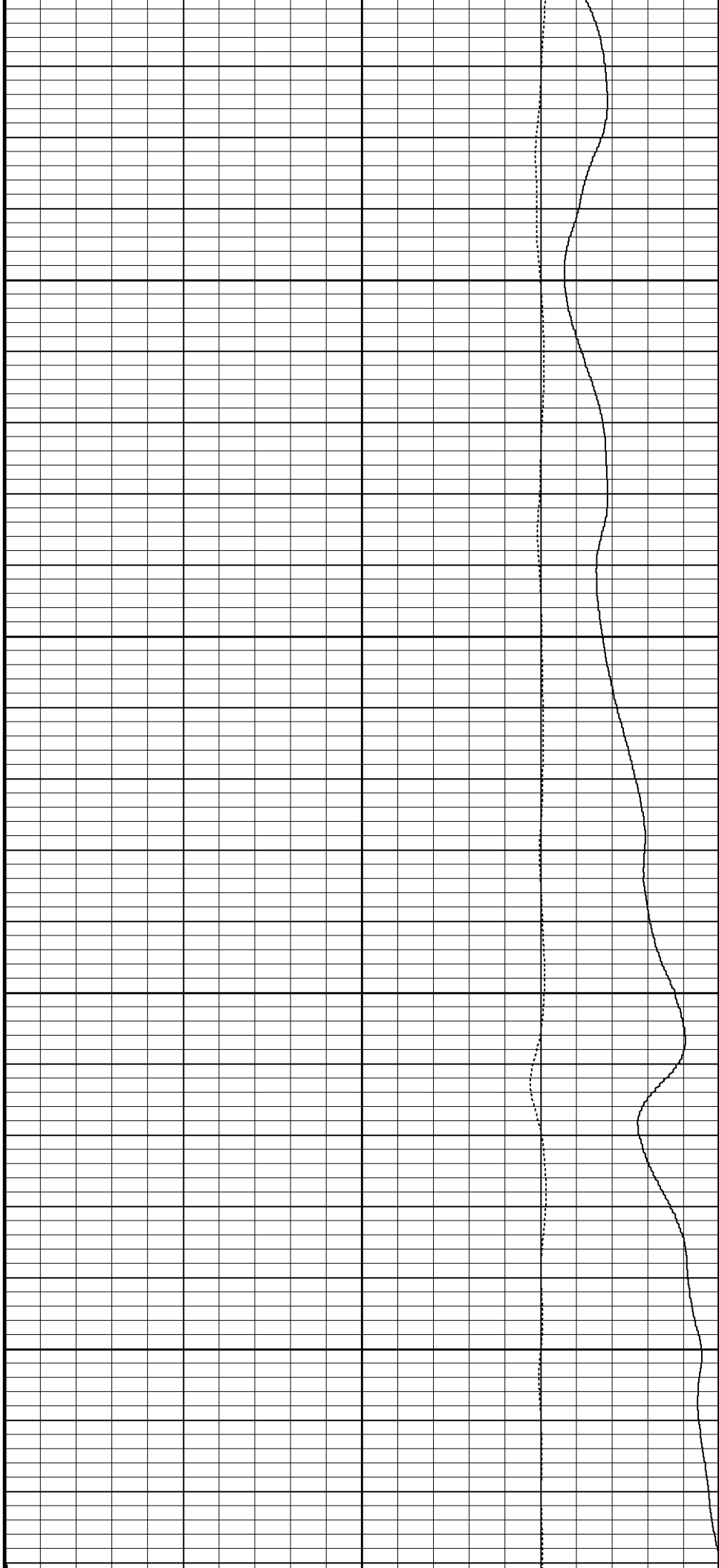
4550

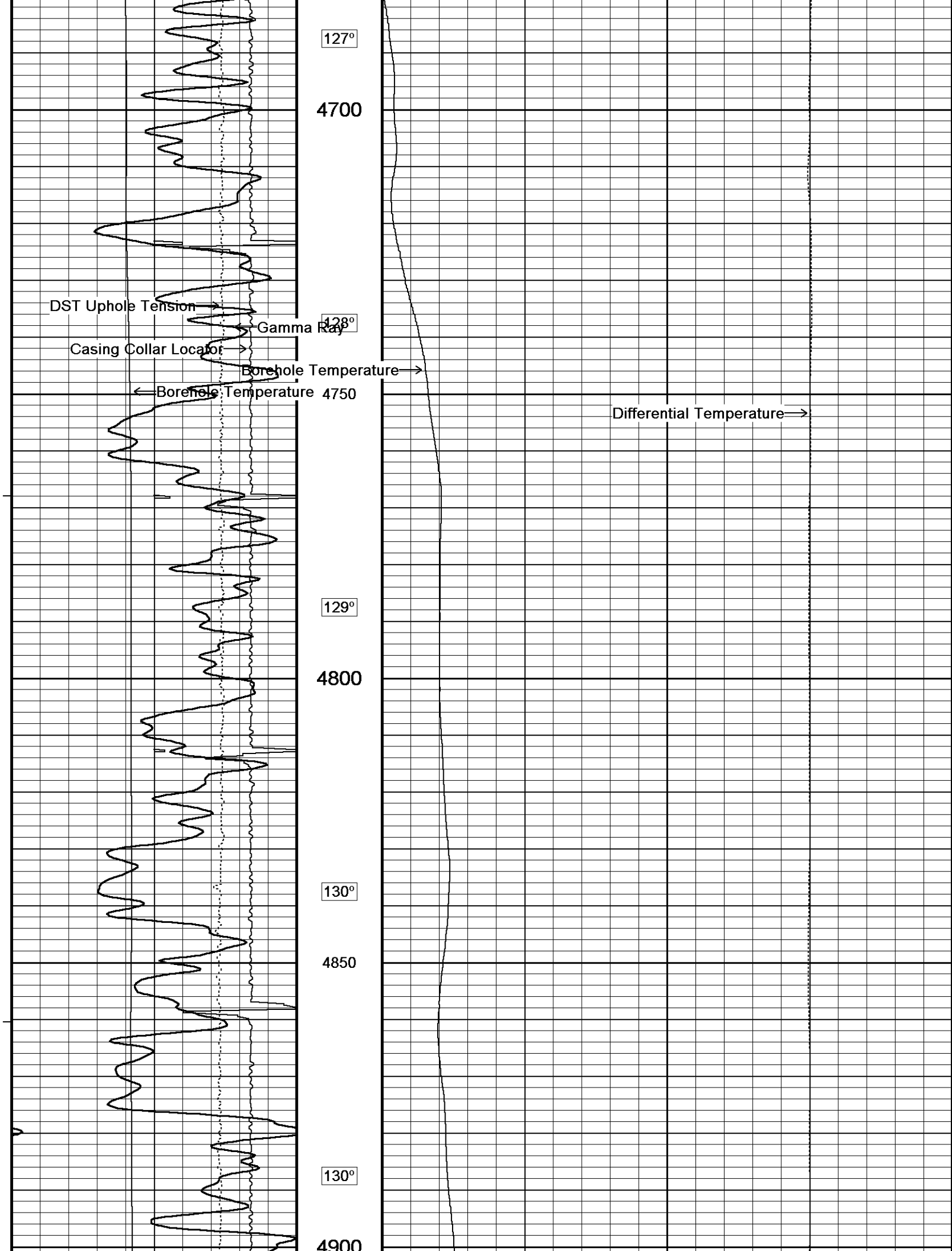
125°

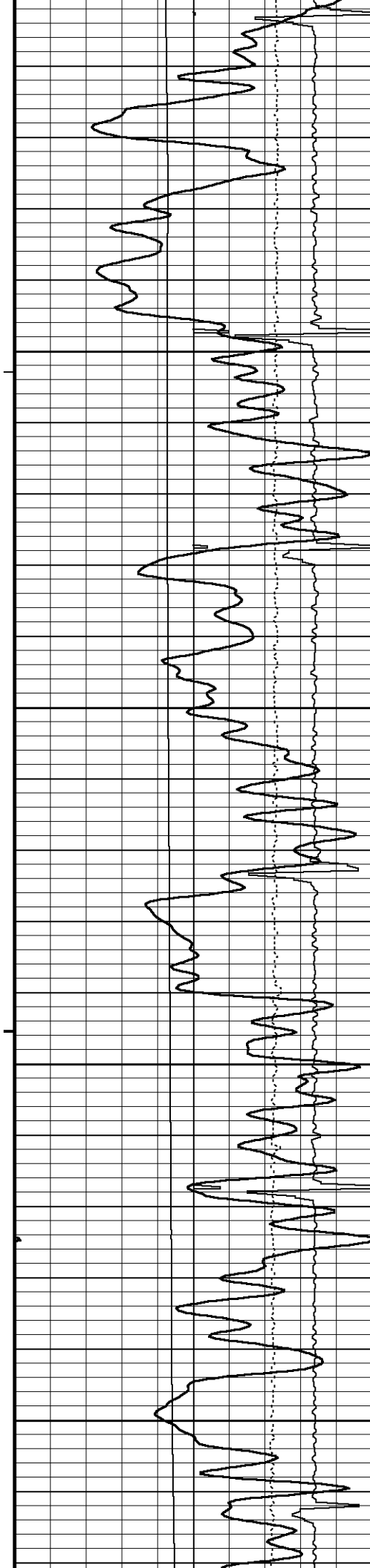
4600

126°

4650







1300

131°

4950

131°

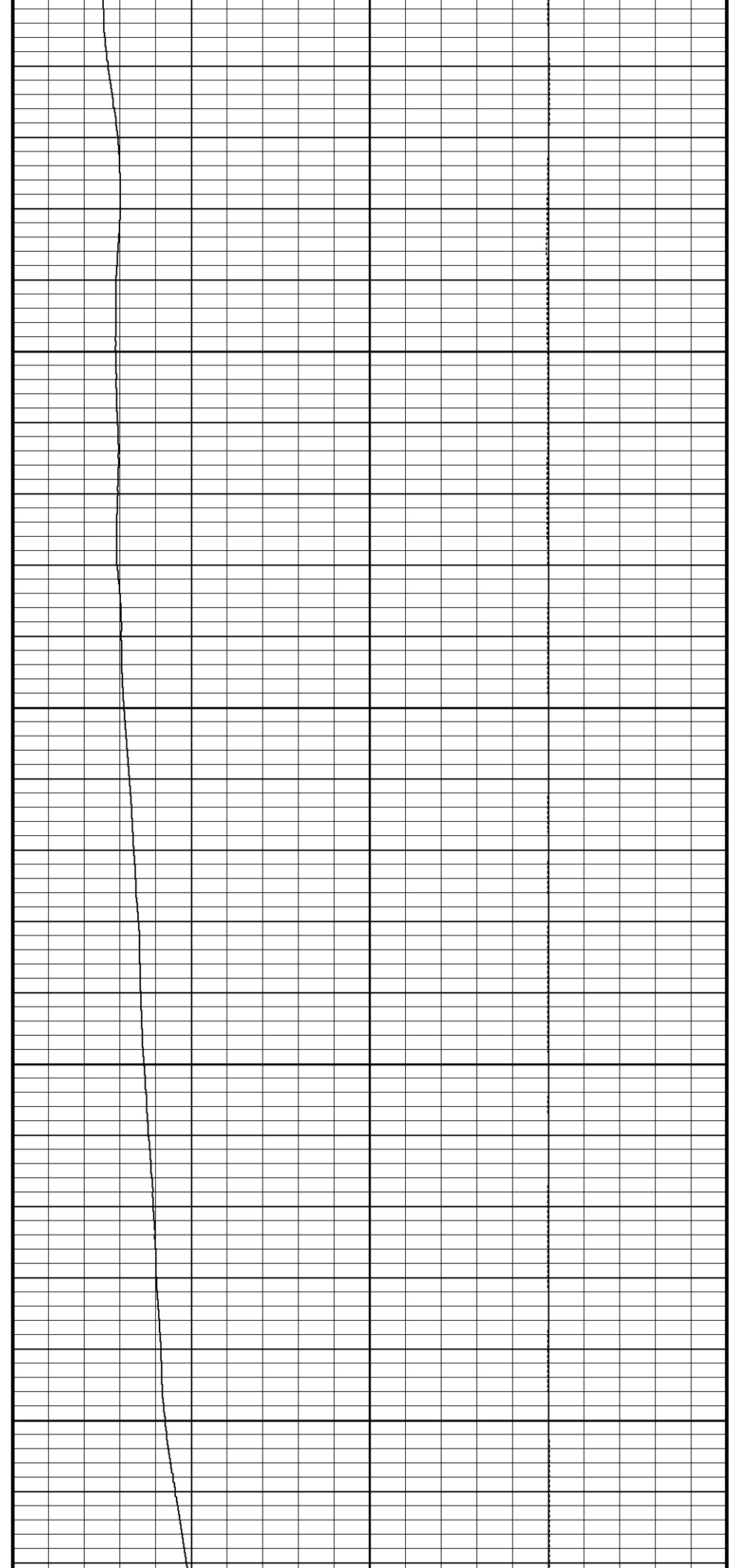
5000

131°

5050

132°

5100



DST Uphole Tension →

Gamma Ray →

Casing Collar Locator →

Borehole Temperature

133°

Borehole Temperature →

5150

Differential Temperature →

133°

5200

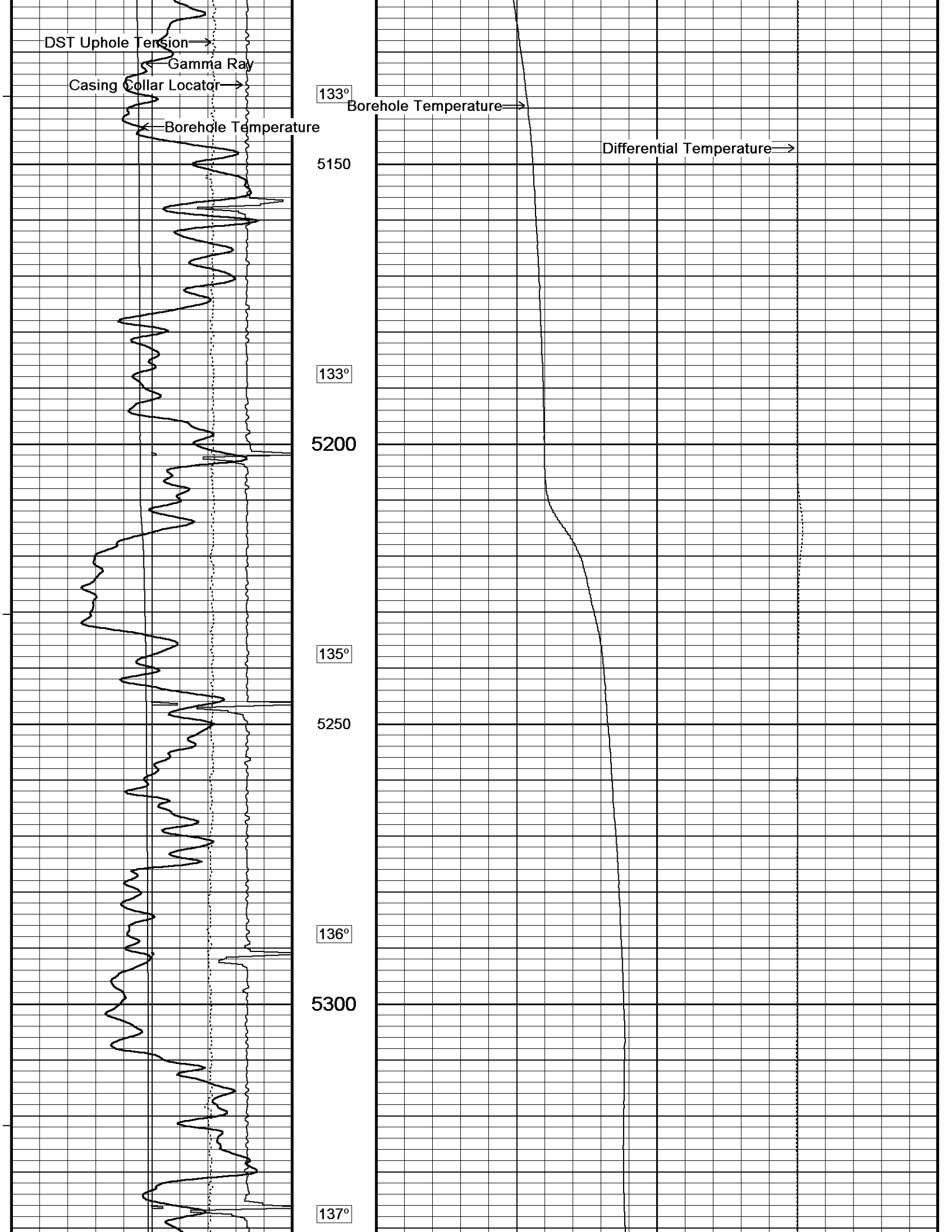
135°

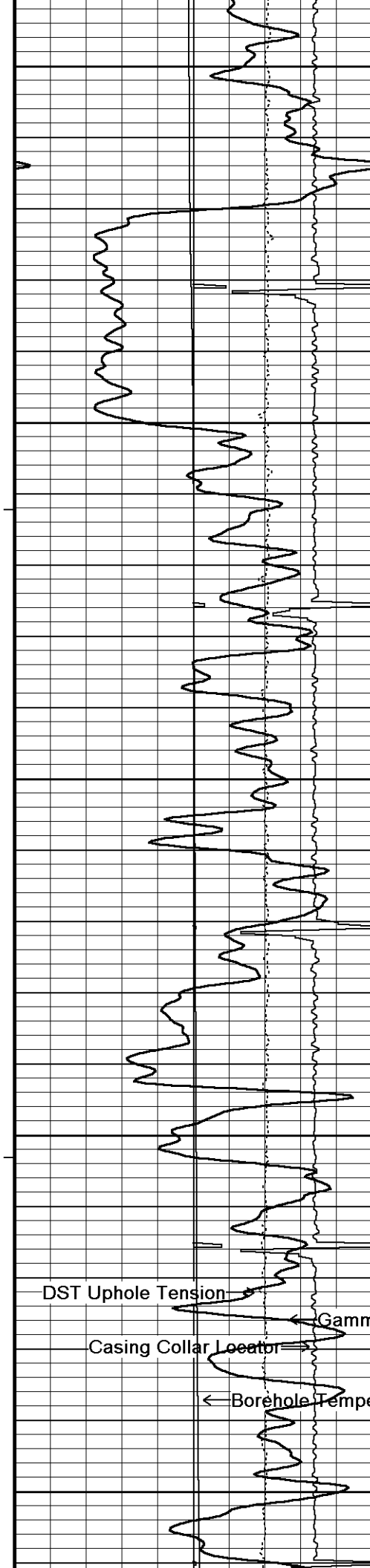
5250

136°

5300

137°





5350

137°

5400

138°

5450

139°

5500

139°

5550

DST Uphole Tension

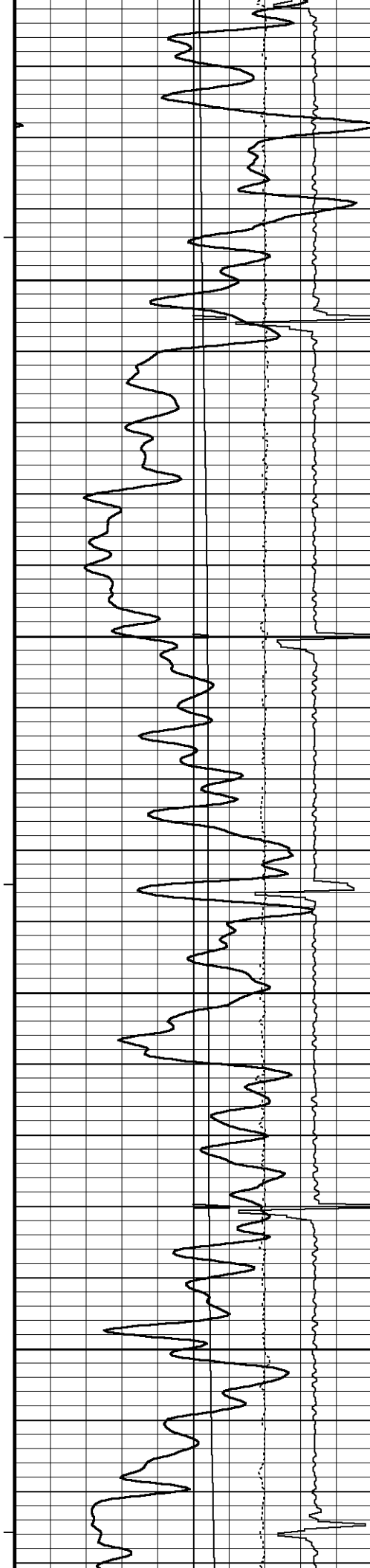
Gamma Ray

Casing Collar Locator

Borehole Temperature

Borehole Temperature

Differential Temperature



140°

5600

141°

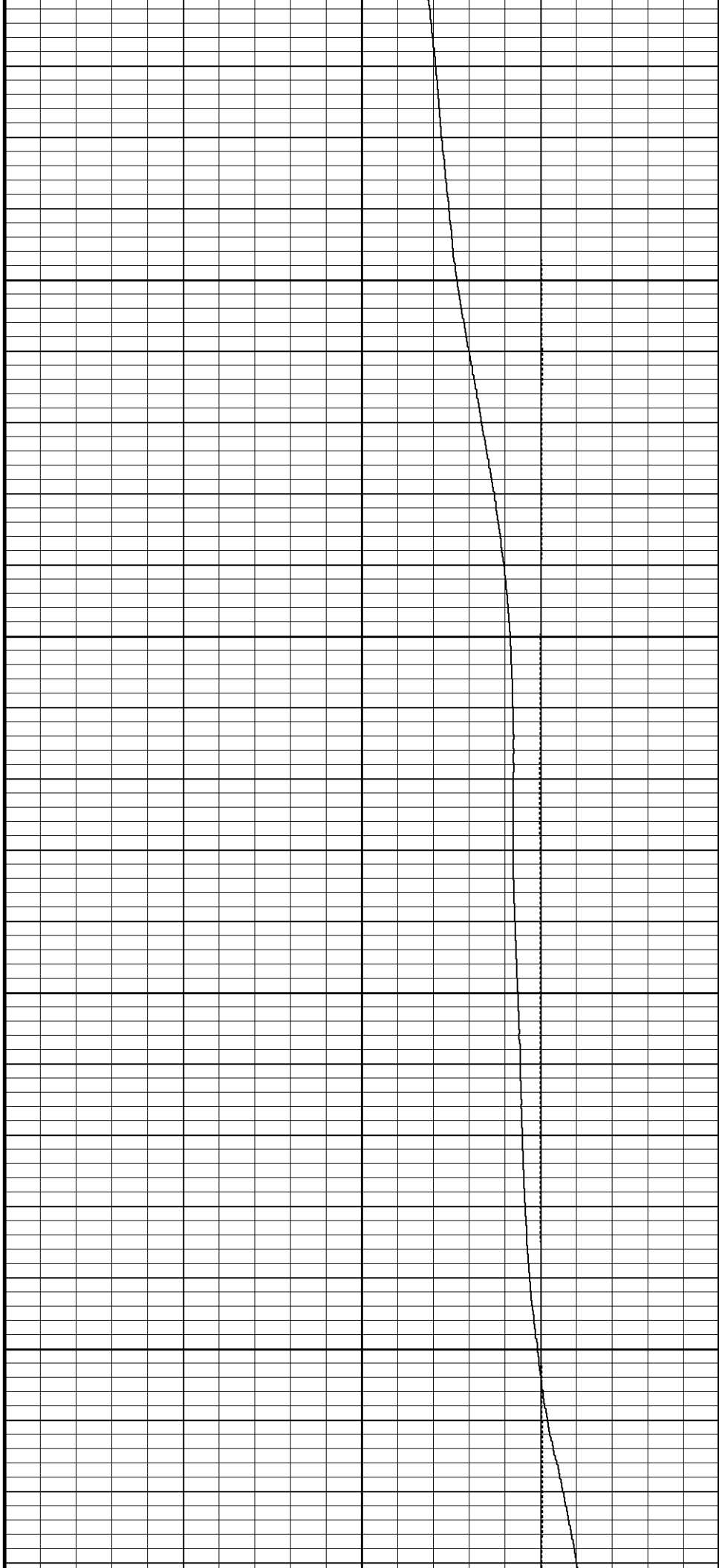
5650

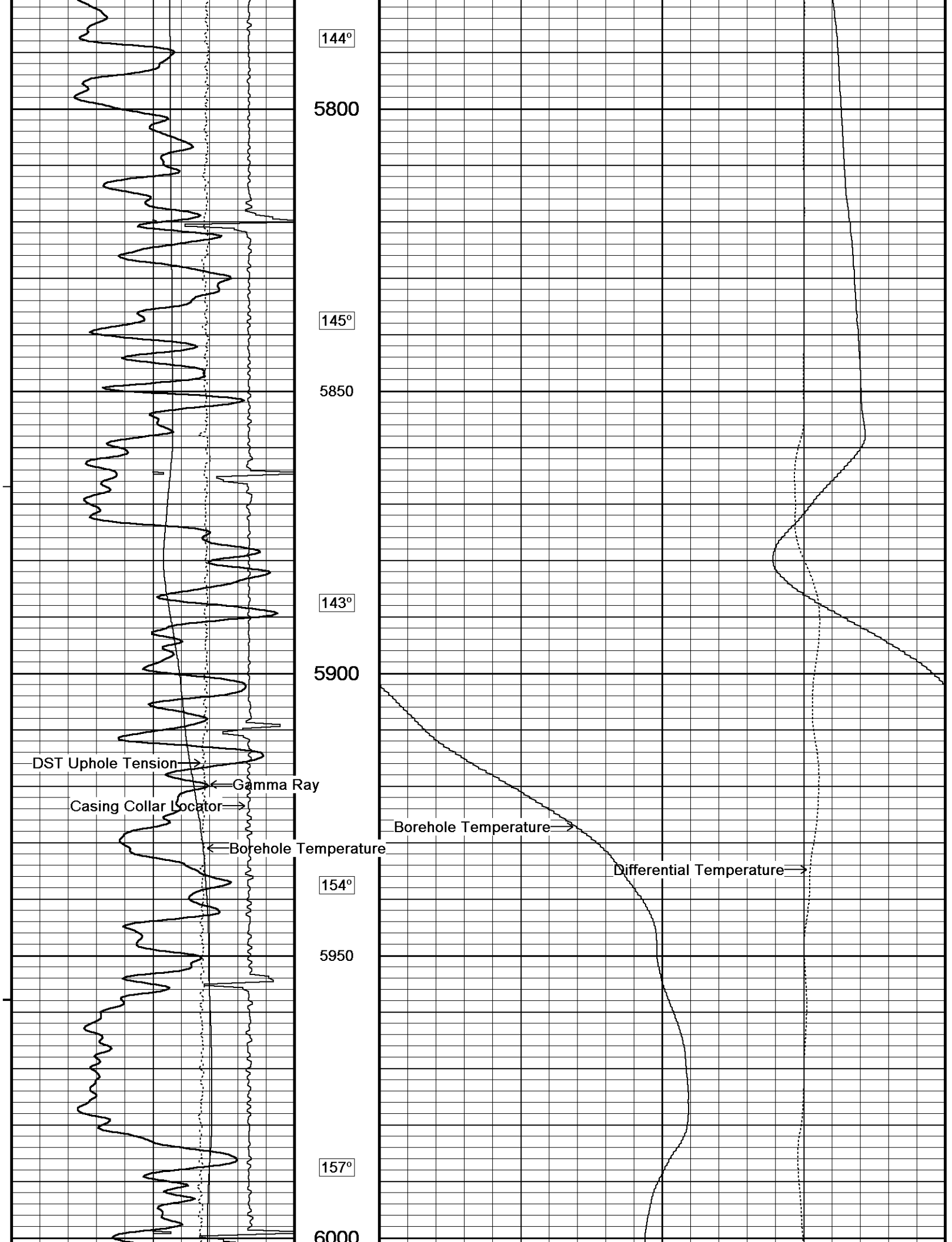
142°

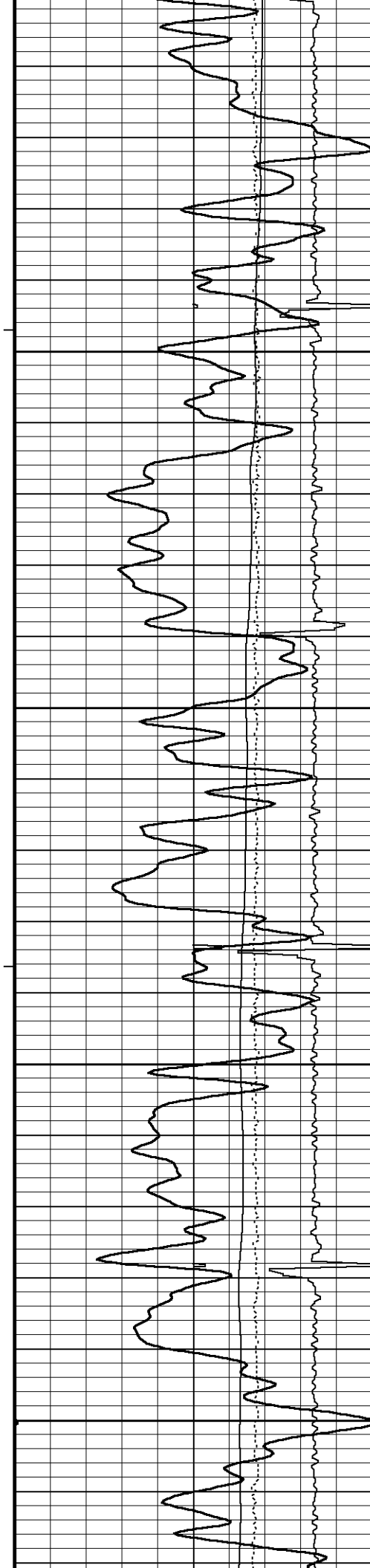
5700

142°

5750







6200

156°

6050

154°

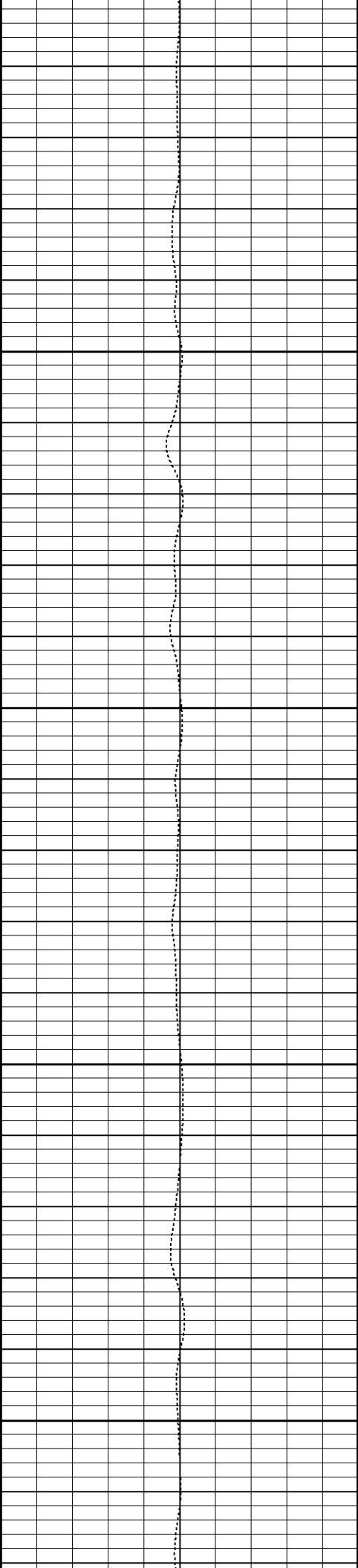
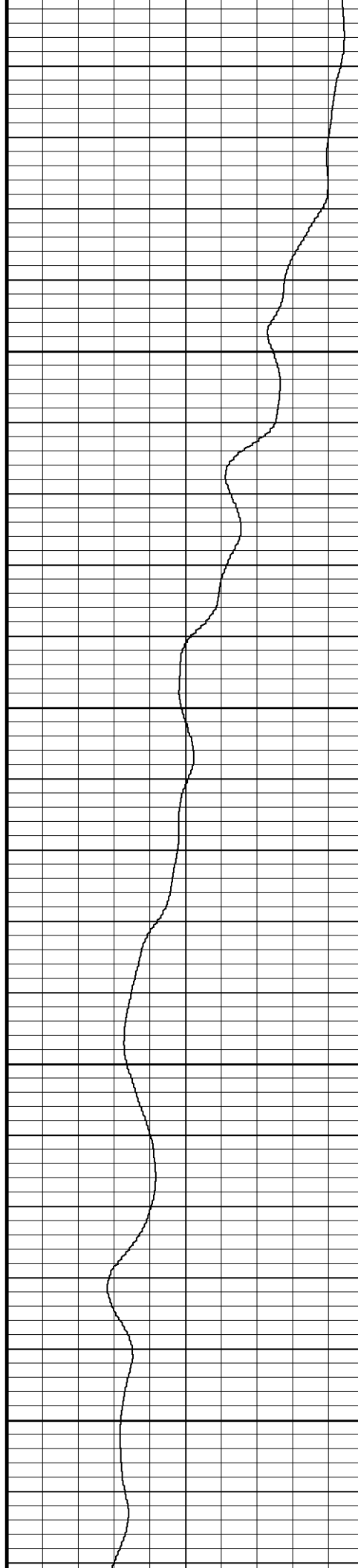
6100

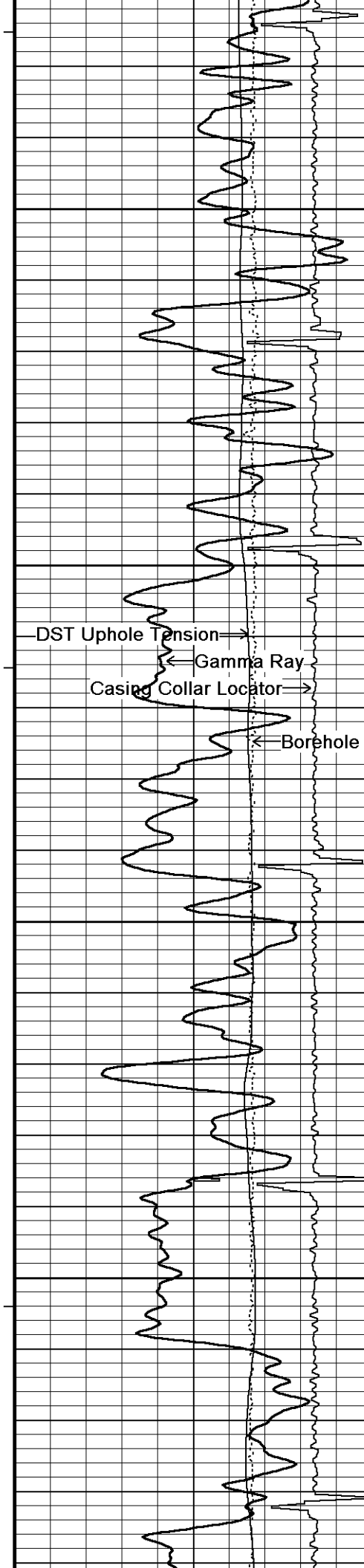
152°

6150

151°

6200





152°

6250

152°

6300

DST Uphole Tension →

← Gamma Ray

← Casing Collar Locator →

← Borehole Temperature →

← Borehole Temperature

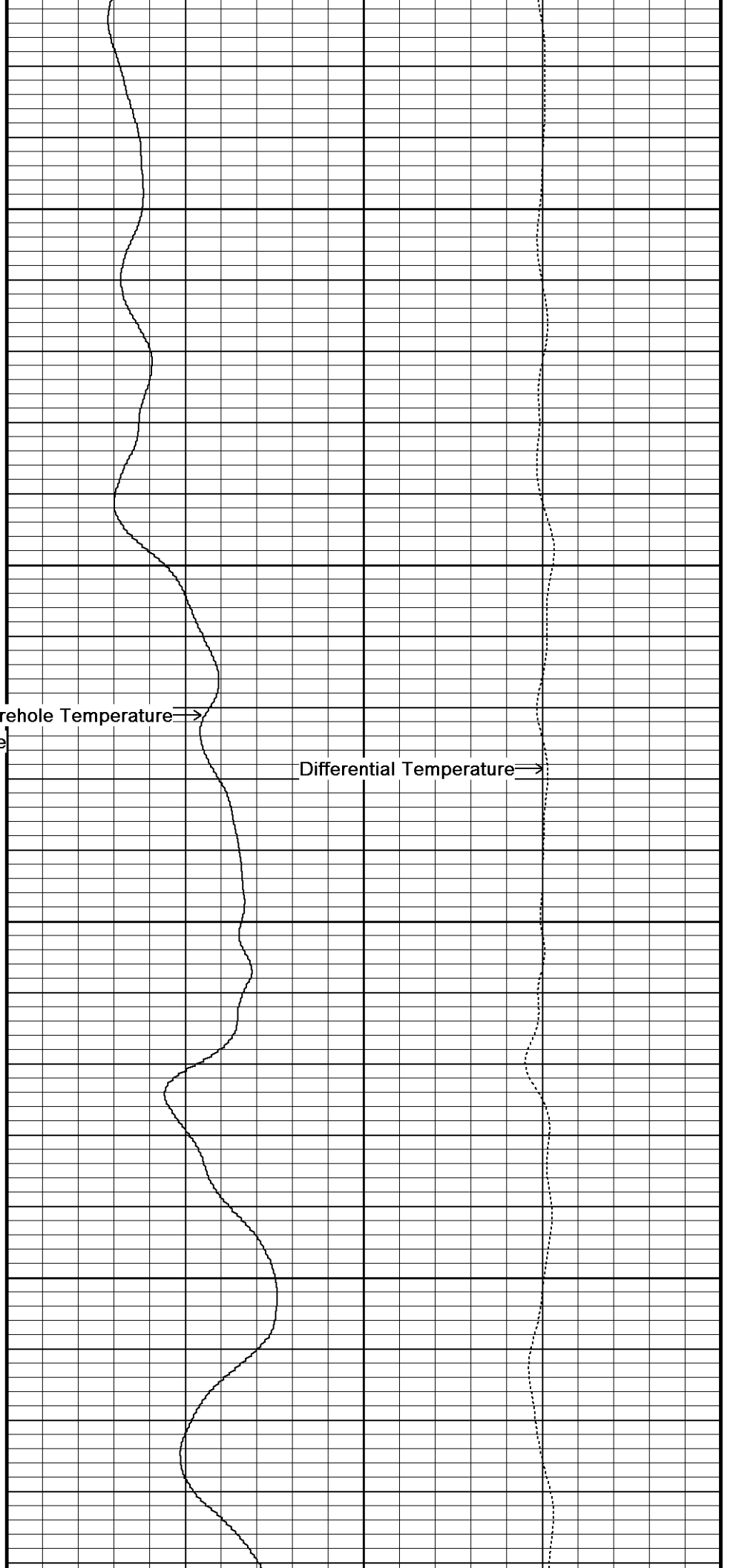
154°

6350

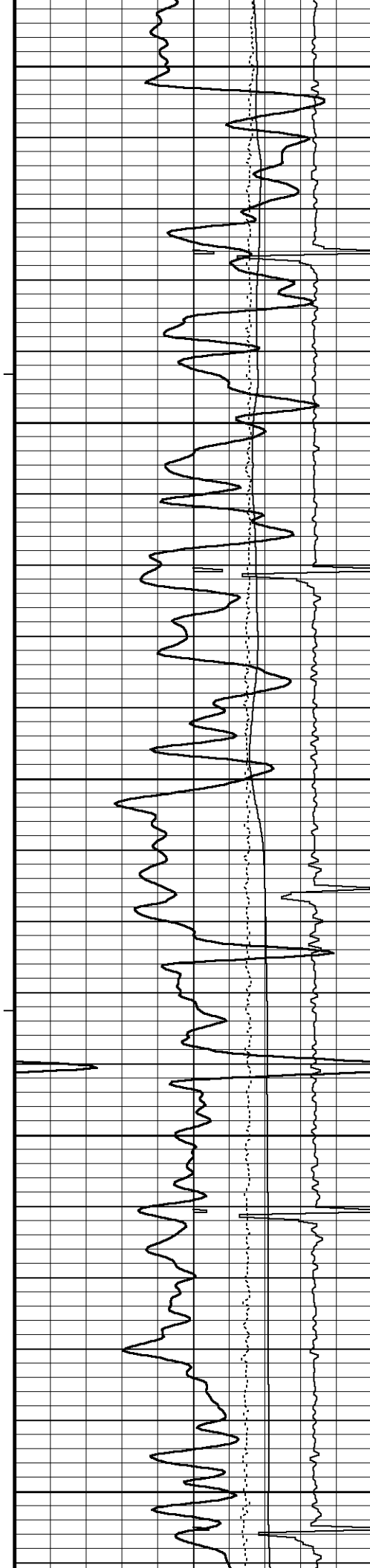
154°

6400

154°



← Differential Temperature →



6450

156°

6500

155°

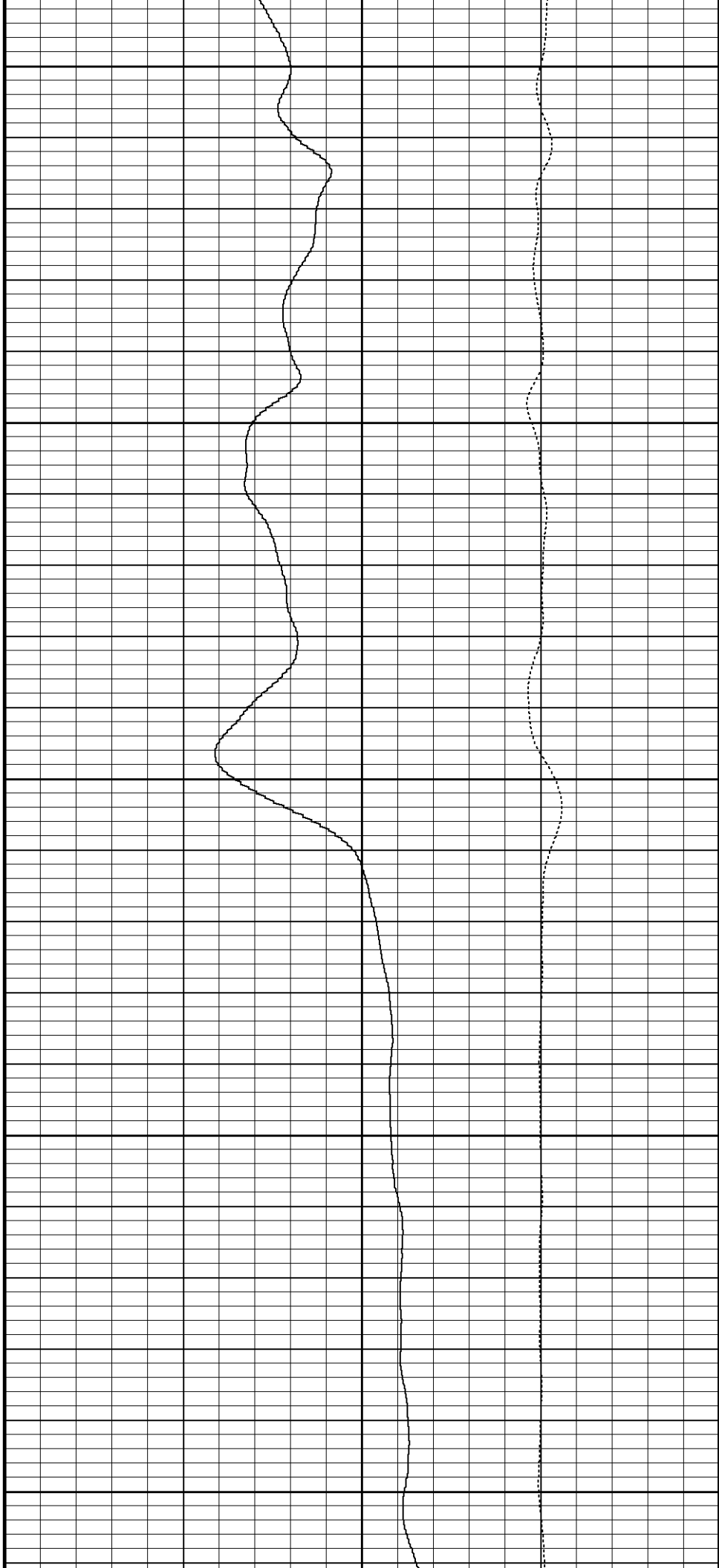
6550

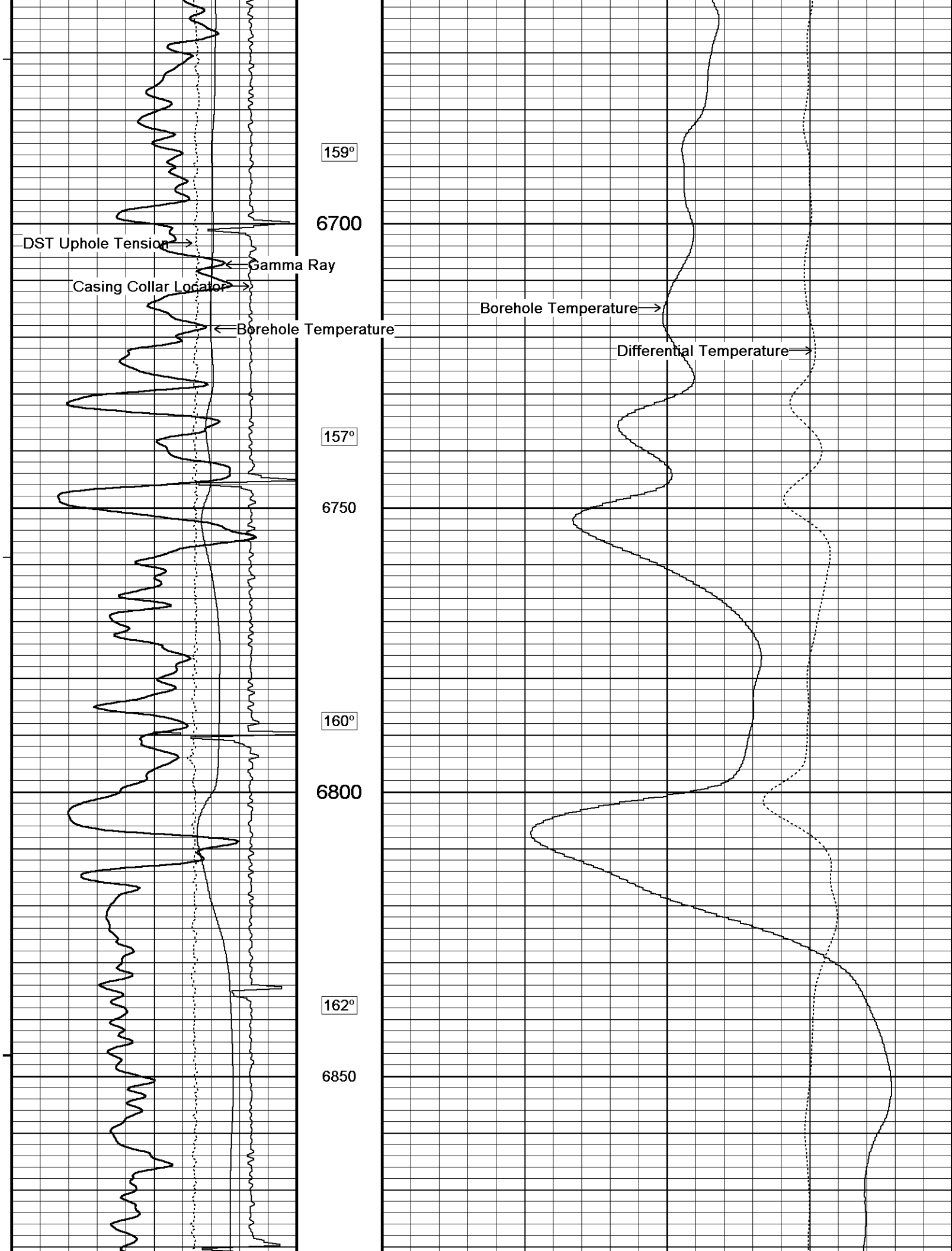
158°

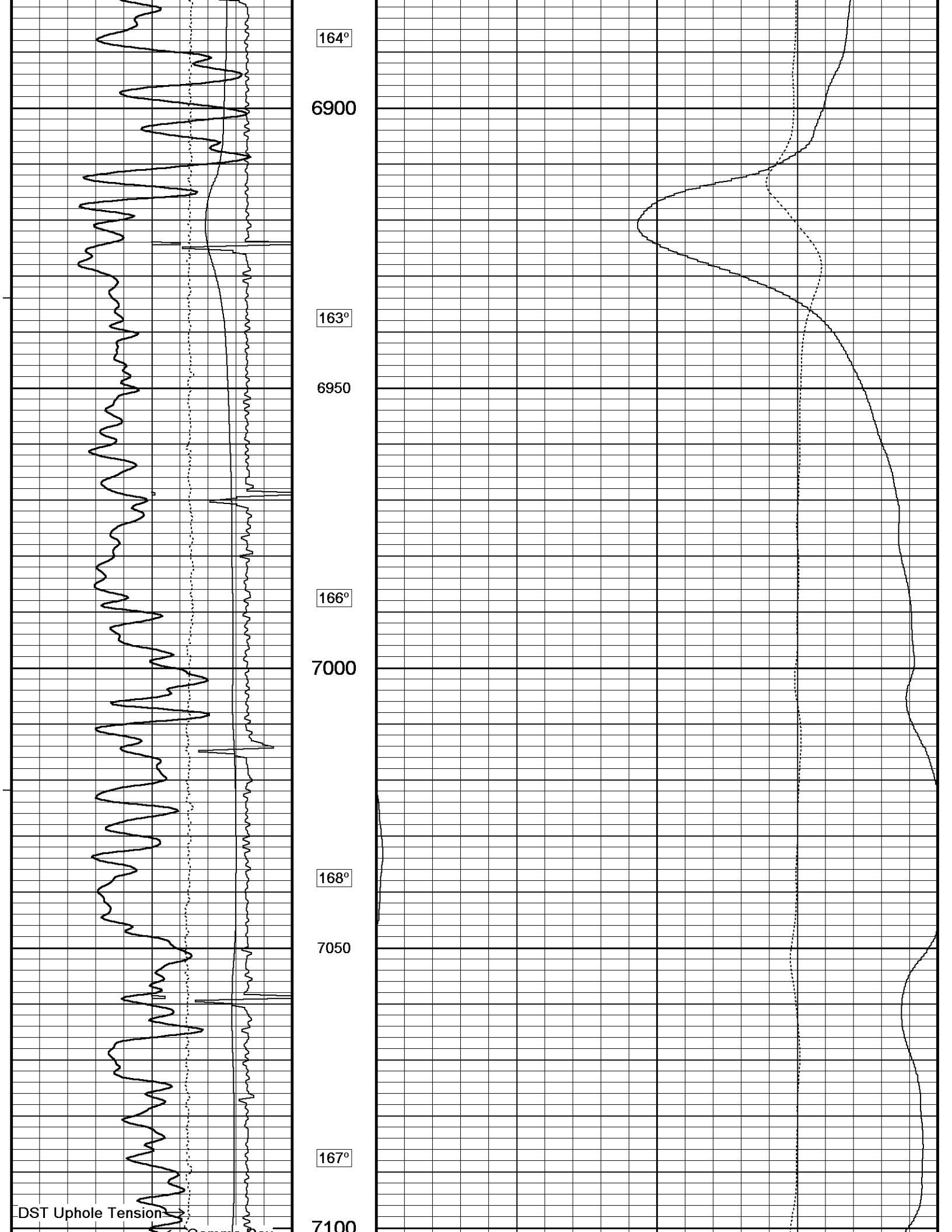
6600

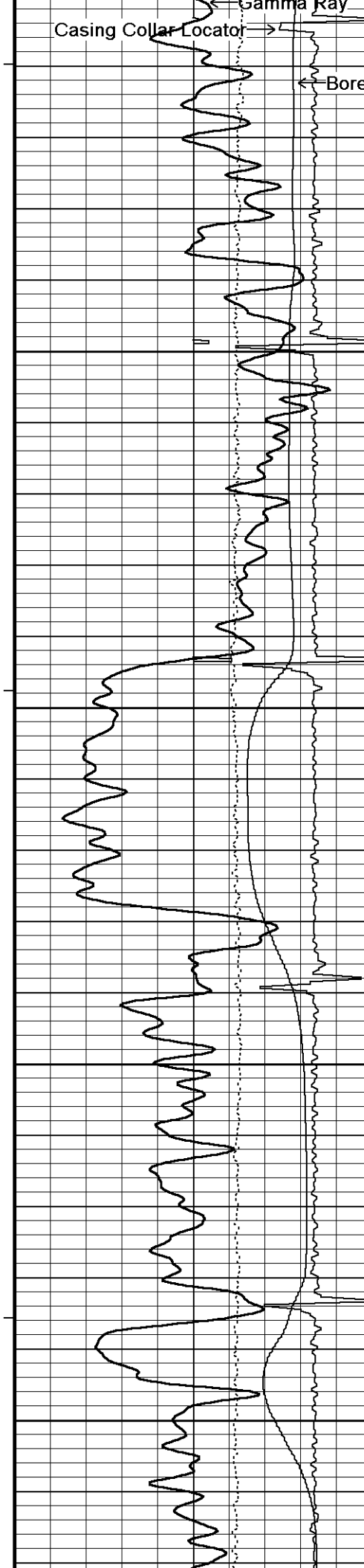
159°

6650









7180

166°

7150

166°

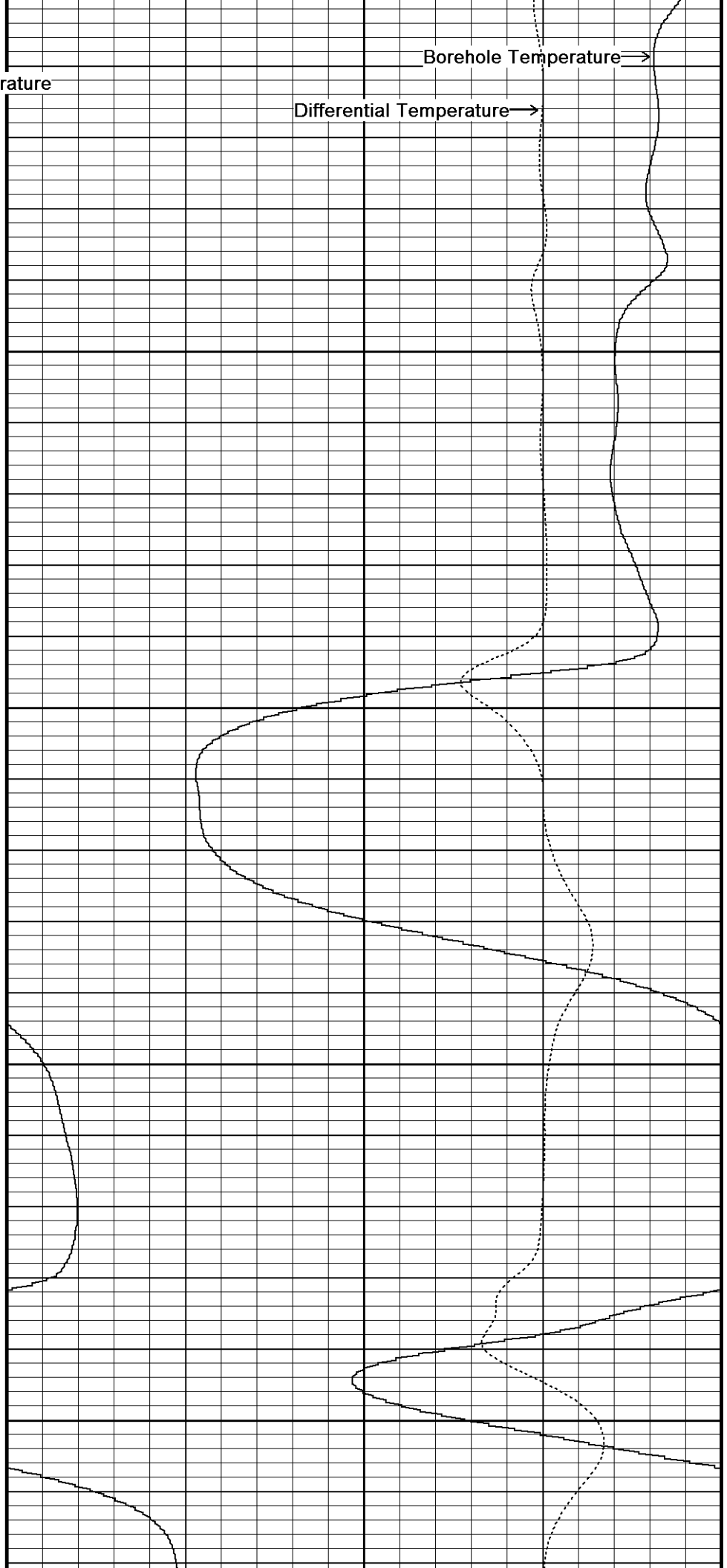
7200

162°

7250

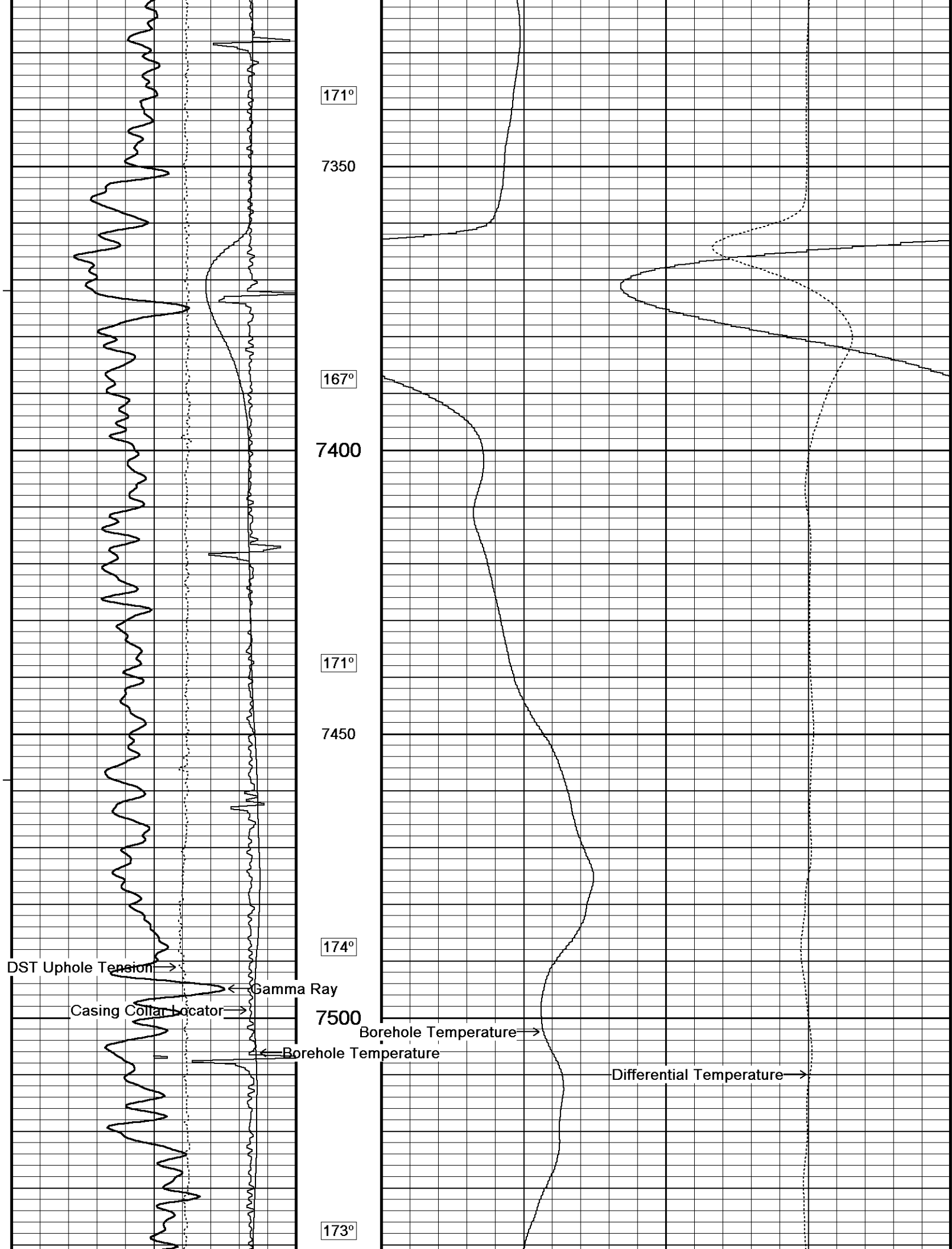
165°

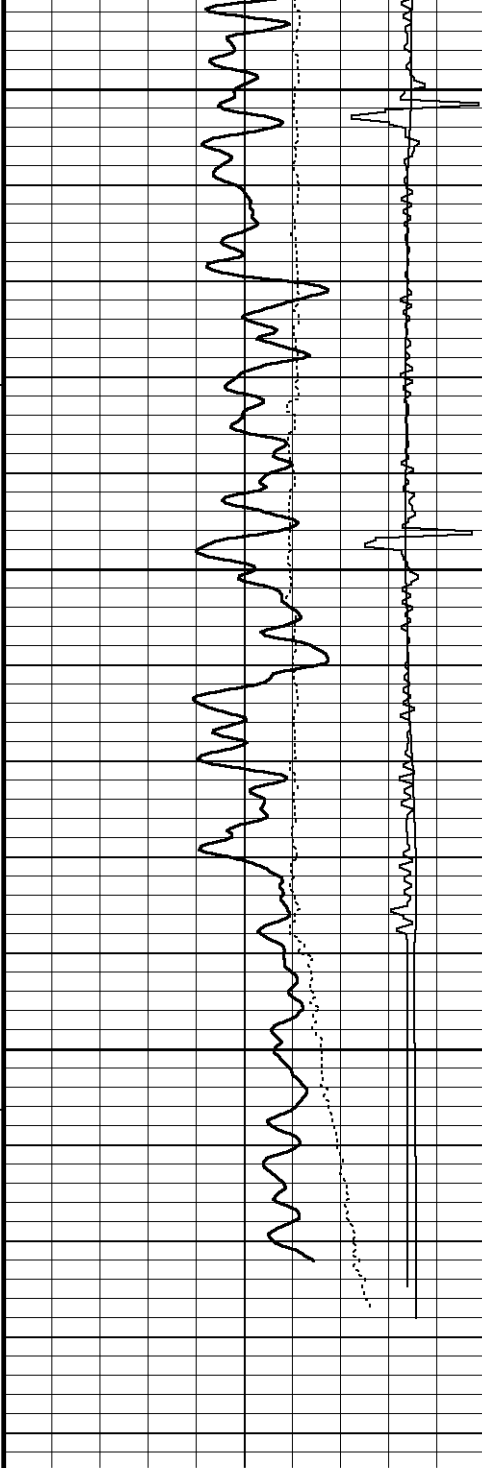
7300



Borehole Temperature →

Differential Temperature →





7550

172°

7600

173°

7650

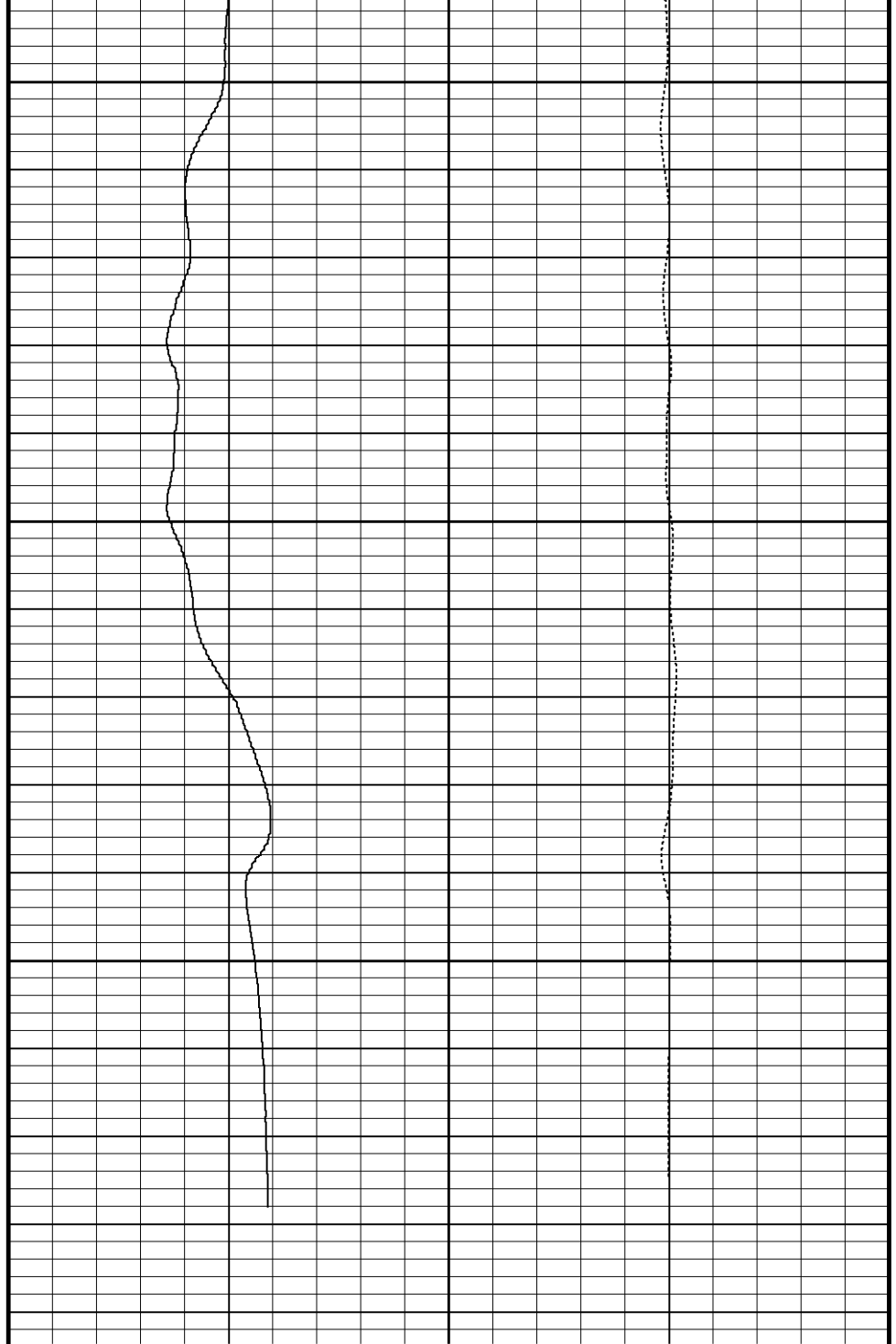
7692
Depth
in
Feet

← Timing Marks
every 60.0 sec

Gamma Ray
API
0 75 150
150 225 300

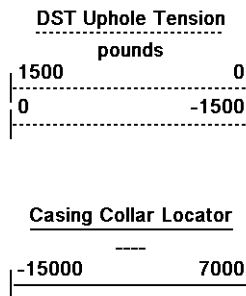
Borehole Temperature
degrees F
0 50 100

Borehole
Temp in
deg F



Borehole Temperature
degrees F
0 5 10 15 20

Differential Temperature
degrees F/sample
-1 0 1



Replay
Scale
1:240

Depth Based Data - Maximum Sampling Increment 10.0cm
 Filename: C:\LOGS\Bill Barrett\Kaufman 23D-24-692_TEMP\Temp.dta
 System Versions: Logged with 11.03.3657 Plotted with 11.03.3657

Plotted on 07-AUG-2011 07:17

Recorded on 07-AUG-2011 05:44

↑ 5 INCH MAIN LOG 1:240 ↑

BEFORE SURVEY CALIBRATION

C:\LOGS\Bill Barrett\Kaufman 23D-24-692_TEMP\Temp.dta

General Constants All 000

Last Edited on 07-AUG-2011,05:23

General Parameters

Mud Resistivity	2.200	ohm-metres
Mud Resistivity Temperature	100.000	degrees F
Water Level	0.000	feet
Density/Neutron Processing	Wet Hole	

Hole/Annular Volume and Differential Caliper Parameters

HVOL Method	Single Caliper	
HVOL Caliper 1	None	
HVOL Caliper 2	N/A	
Annular Volume Diameter	4.500	inches
Caliper for Differential Caliper	None	

Rwa Parameters

Porosity used	N/A
Resistivity used	N/A
RWA Constant A	N/A
RWA Constant M	N/A

Gamma Calibration MCG-D.A 287

Field Calibration on 06-AUG-2011 06:55

	Measured	Calibrated (API)
Background	127	86
Calibrator (Gross)	1473	998
Calibrator (Net)	1346	912

Gamma Constants MCG-D.A 287

Last Edited on 07-AUG-2011,05:21

Gamma Calibrator Number	GRC-072	
Mud Density	1.00	gm/cc
Caliper Source for Processing	Bit Size	
Tool Position	Eccentred	
Concentration of KCl	0.00	kppm

High Resolution Temperature Calibration MCG-D.A 287

Field Calibration on 06-AUG-2011,06:56

	Measured	Calibrated(Deg F)
Lower	10.00	10.00
Upper	50.00	50.00

High Resolution Temperature Constants MCG-D.A 287

Last Edited on 27-JUL-2011,06:00

Pre-filter Length	11
-------------------	----

High Resolution Temperature Calibration MHT-A 11

Field Calibration on 11-JUN-2011,11:19

	Measured	Calibrated(Deg F)
Lower	10.00	10.00
Upper	100.00	100.00

Pre-filter Length

11

DOWNHOLE EQUIPMENT

C:\LOGS\Bill Barrett\Kaufman 23D-24-692_TEMP\Temp.dta

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

SHA-F Compact Swivel Head Adaptor

SHA-F 82 LG: 2.74 ft WT: 26.5 lb OD: 2.24 in

Compact Comms Gamma

MCG-D.A 287 LG: 8.70 ft WT: 63.9 lb OD: 2.24 in

Compact High Resolution Temperature

MHT-A 11 LG: 1.53 ft WT: 13.2 lb OD: 2.24 in

Total Length: 14.54 ft Weight: 119.0 lb



4.94 ft

GRGC - Gamma Ray

2.76 ft

CCLG - Casing Collar Locator

2.03 ft

CGXT - MCG External Temperature

0.00 ft

BHTF - Borehole Temperature

0.00 ft

BHTD - Differential Temperature

Tool Zero

(0.13ft from bottom)

-0.13 ft

SMTU - DST Uphole Tension

All measurements relative to tool zero.

COMPANY	BILL BARRETT CORPORATION
WELL	KAUFMAN 23D-24-692
FIELD	MAMM CREEK
PROVINCE/COUNTY	GARFIELD
COUNTRY/STATE	U.S.A. / COLORADO

Elevation Kelly Bushing	5866.00	feet
Elevation Drill Floor	5866.00	feet
Elevation Ground Level	5843.00	feet

First Reading	7638.00	feet
Depth Driller	7654.00	feet
Depth Logger	7638.00	feet



Weatherford®

TEMPERATURE LOG

