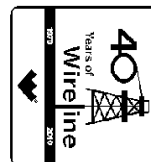




Weatherford

ARRAY INDUCTION DUAL LATERLOG

COMPANY ENCANA OIL & GAS (USA), INC
WELL KIMBALL MTN DH02-6 B07 799
FIELD GASAWAY
PROVINCE/COUNTY GARFIELD
COUNTRY/STATE U.S.A. / COLORADO
LOCATION SHL: 101' FNL & 1893' FEL
BHL: 1' FNL & 1595' FEL



SEC TWP RGE
7 7S 99W
Other Services

API Number 05-045-20007
Permit Number

Permanent Datum G.L., Elevation 6649 feet
Log Measured From K.B. @ 23 FEET above Permanent Datum
Drilling Measured From K.B.

Elevations:
KB 6672.00
DF 6671.00
GL 6649.00

Date	04-JAN-2011		
Run Number	ONE		
Depth Driller	13024.00	feet	
Depth Logger	13024.00	feet	
First Reading	12823.00	feet	
Last Reading	6331.00	feet	
Casing Driller	6331.00	feet	
Casing Logger	6340.00	feet	
Bit Size	6.500	inches	
Hole Fluid Type	GEL/POLY		
Density / Viscosity	13.35 lb/USg	49.00 CP	
PH / Fluid Loss	8.80	4.40 ml/30Min	
Sample Source	FLOWLINE		
Rm @ Measured Temp	1.17 @ 92.3	ohm-m	
Rmf @ Measured Temp	0.94 @ 92.3	ohm-m	
Rmc @ Measured Temp	1.40 @ 92.3	ohm-m	
Source Rmf / Rmc	CALC	CALC	
Rm @ BHT	0.54 @206.0	ohm-m	
Time Since Circulation	1 HOUR		
Max Recorded Temp	206.00	deg F	
Equipment Name	COMPACT		
Equipment / Base	18005	RK SPR	
Recorded By	B. ROSSER		
Witnessed By	C. HUSEBY		

BOREHOLE RECORD

Last Edited: 04-JAN-2011 17:11

Bit Size inches	Depth From feet	Depth To feet
6.500	6331.00	13024.00

CASING RECORD

Type	Size inches	Depth From feet	Shoe Depth feet	Weight pounds/ft
Intermed	7.625	0.00	6331.00	26.00

REMARKS

SOFTWARE VERSION USED: WLS 11.01.2198

TOOLS CONVEYED VIA CML WELL SHUTTLE.

ALL DEPTHS RECORDED WITH WEATHERFORD ADVANTAGE SYSTEM.
ALL DEPTHS CORRECTED TO DRILLER'S STRAP DEPTH.

MCG, MLE, AND MAI RUN IN COMBINATION.

HARDWARE USED: SEE TOOL DIAGRAM.

CUSTOMER'S SCALES USED AND INTERVALS LOGGED.

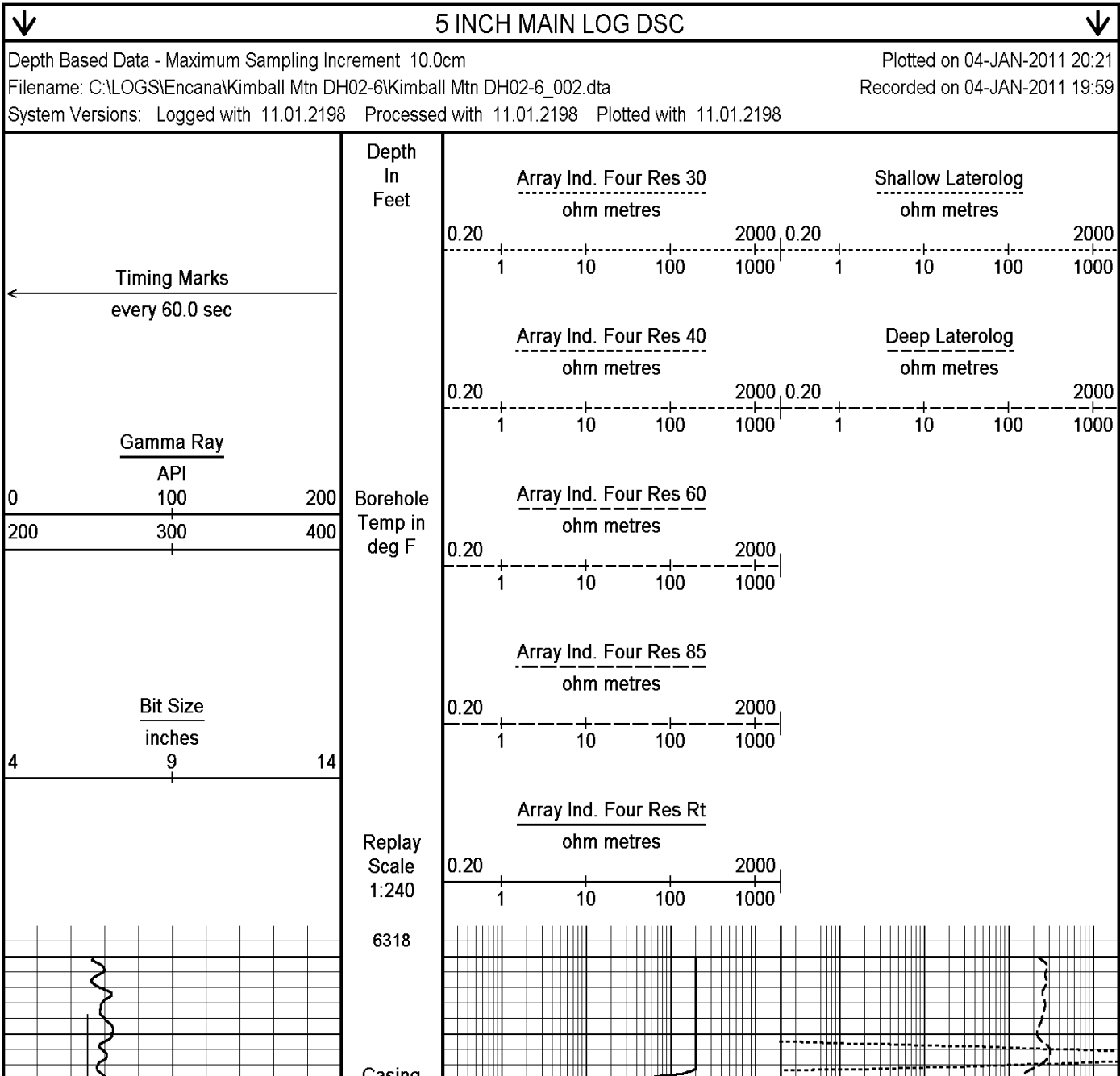
NO CALIPER RUN DUE TO CUSTOMERS REQUEST.
BOREHOLE SIZE AND RUGOSITY WILL AFFECT DATA QUALITY.
INDUCTION AND LATERLOG WILL BE AFFECTED BY RUGOSITY SLIGHTLY DIFFERENT.

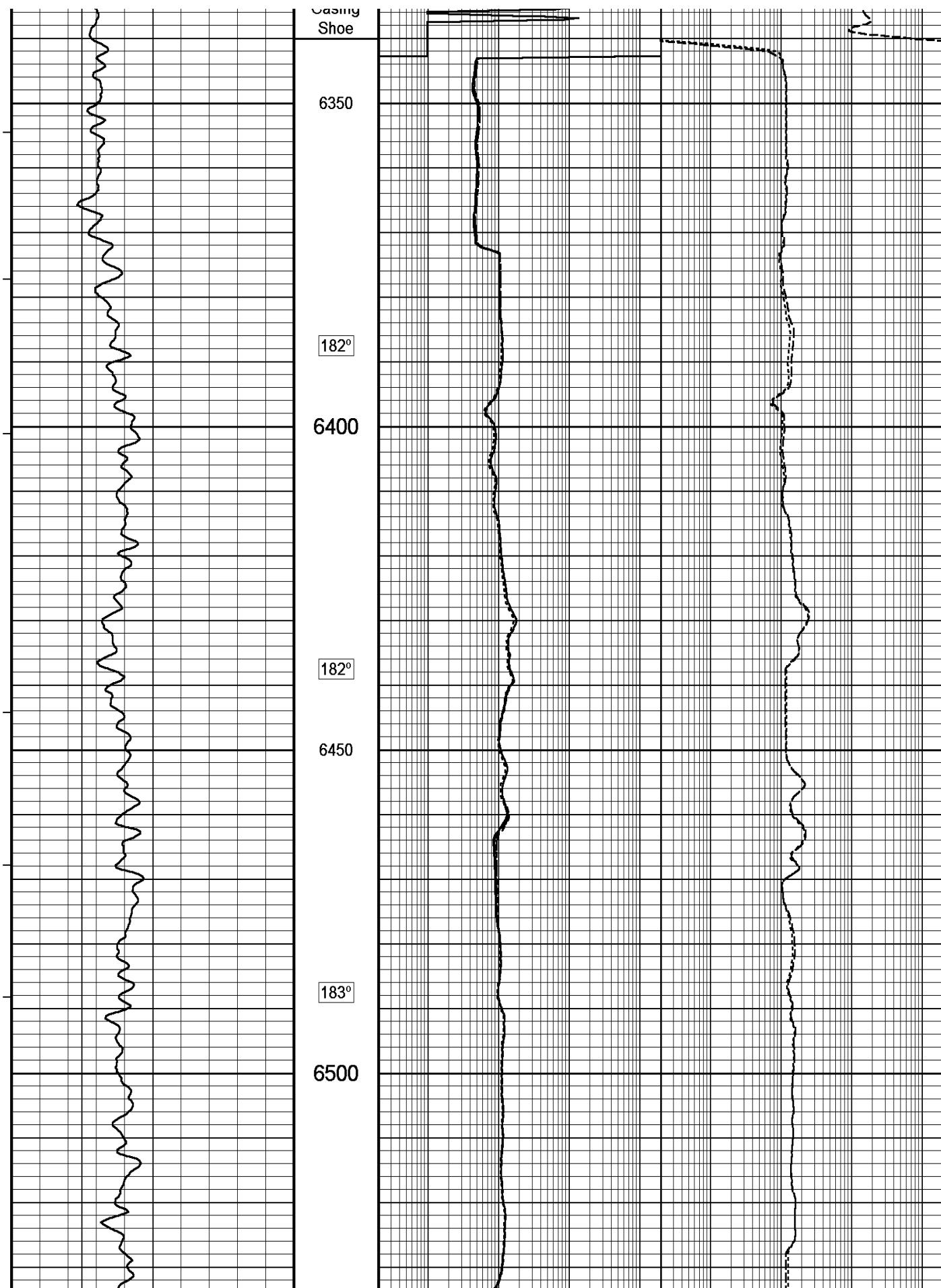
OPERATOR(S): B. SUMMERALL

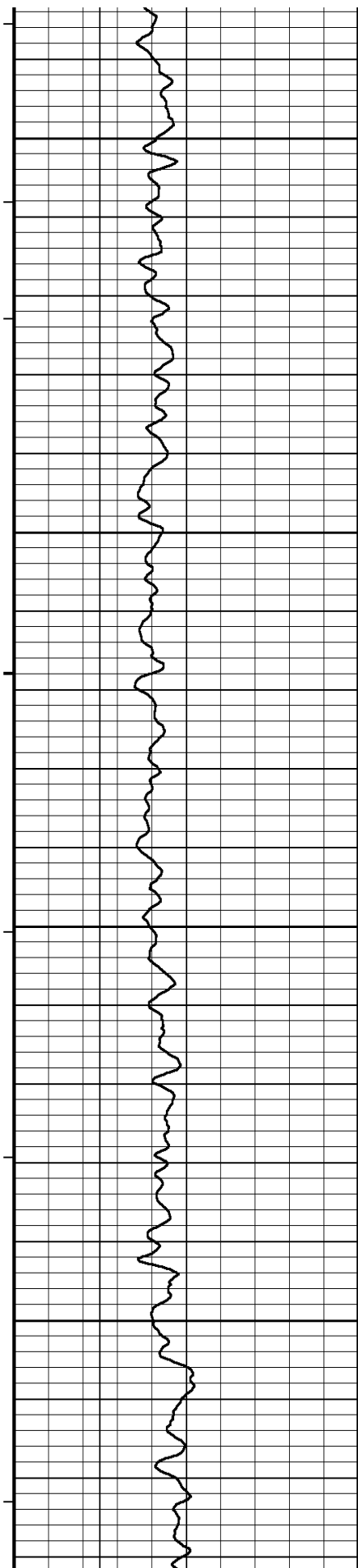
RIG: PATERSON 303

SERVICE ORDER #3524686

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.







183°

6550

184°

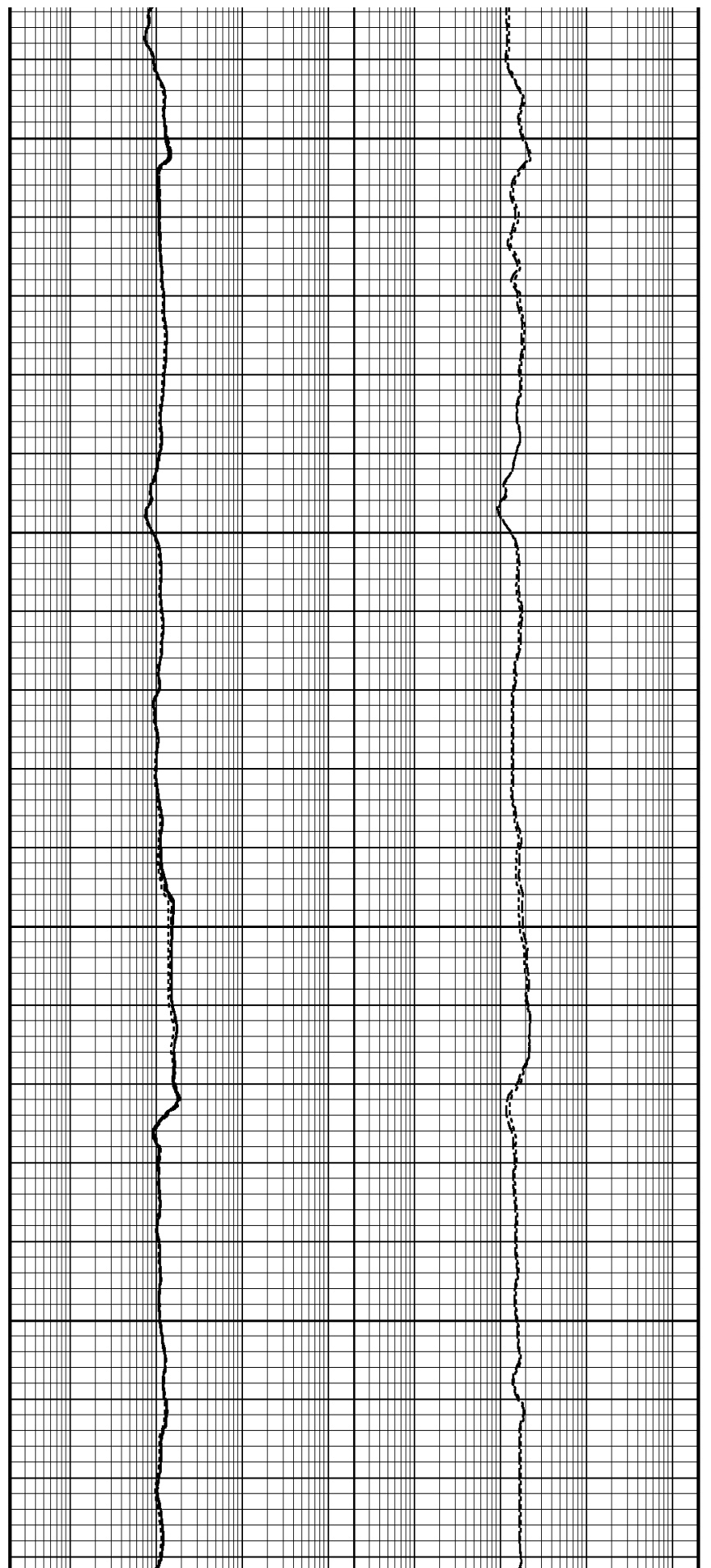
6600

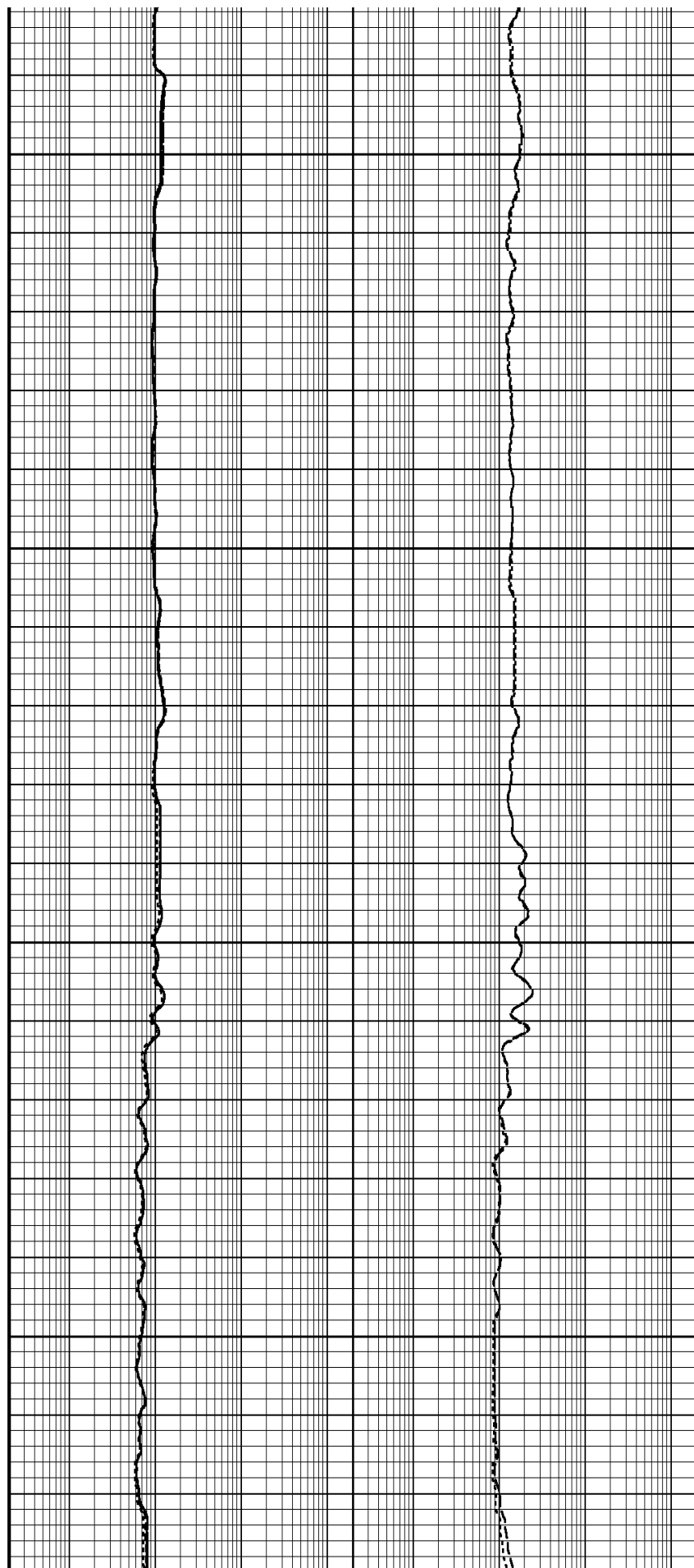
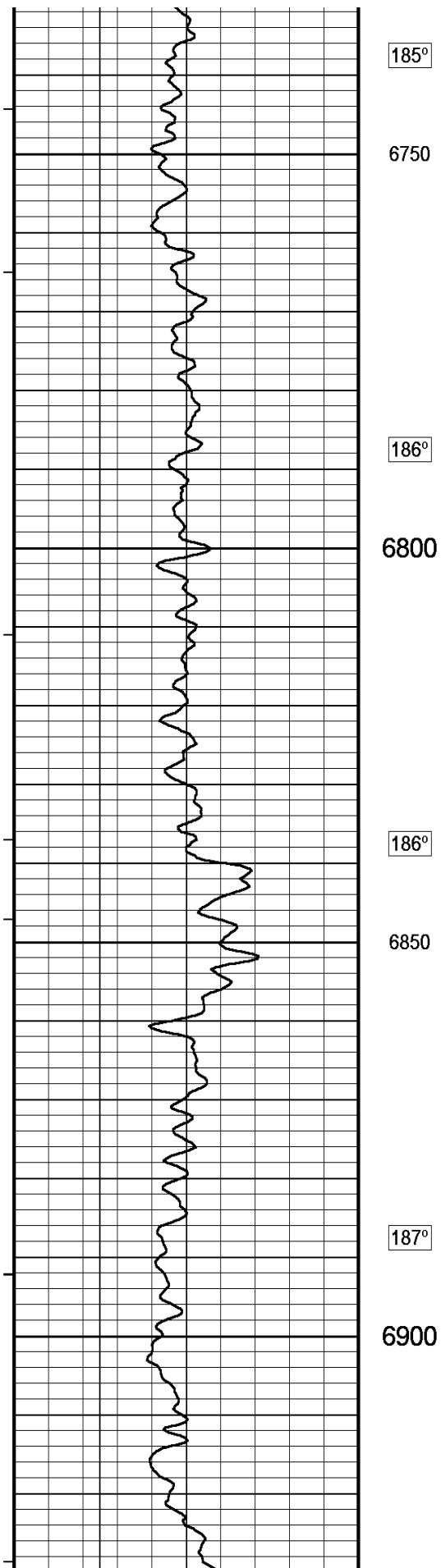
184°

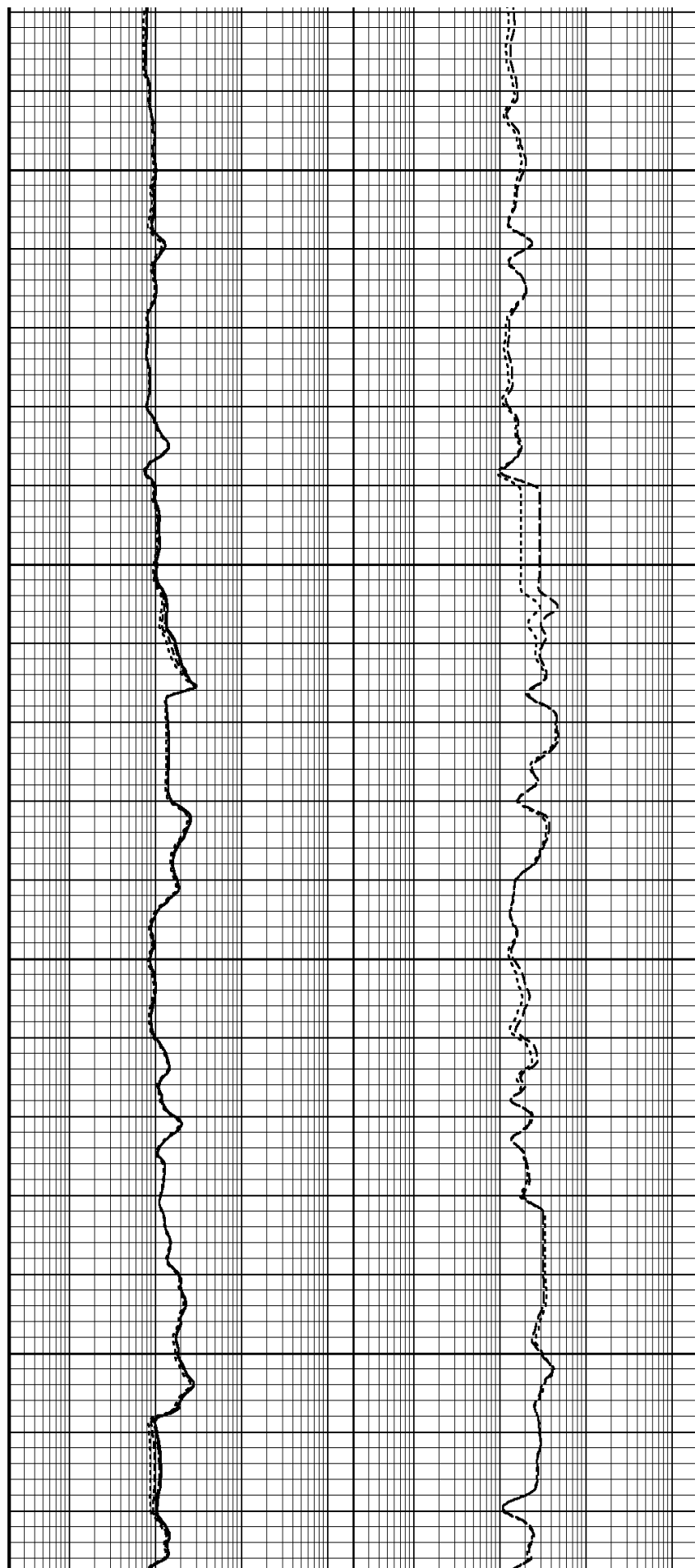
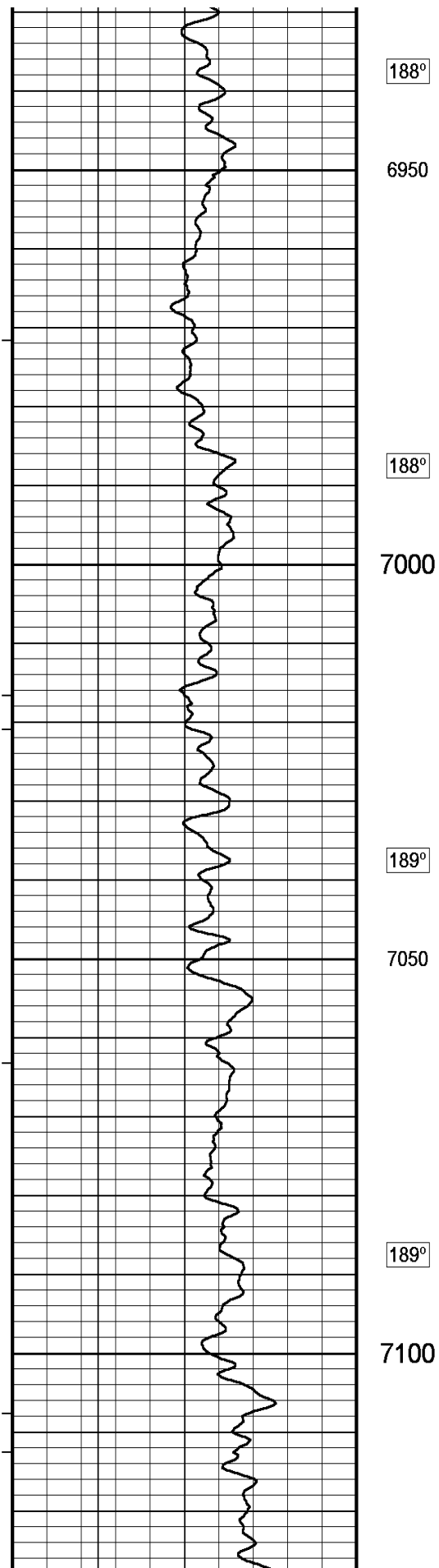
6650

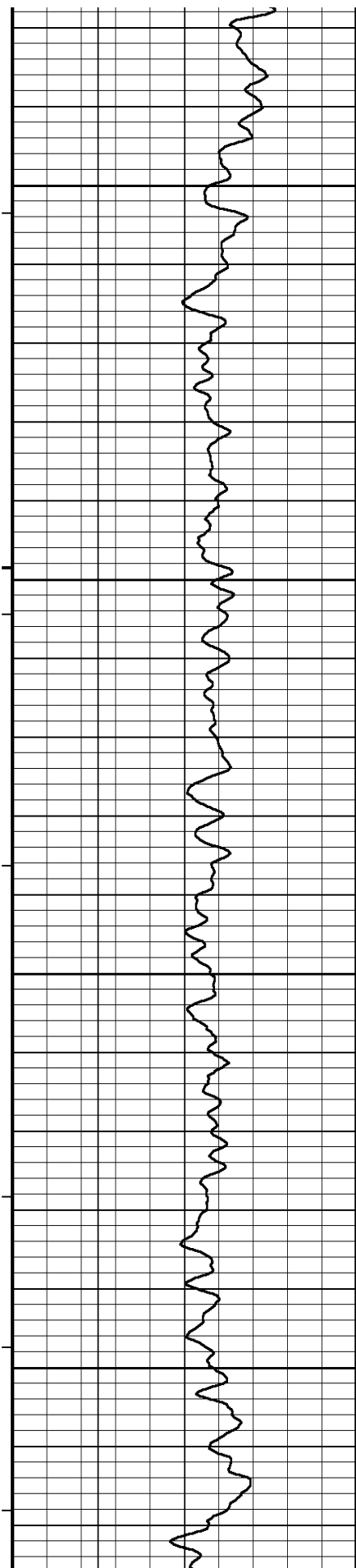
185°

6700









189°

7150

190°

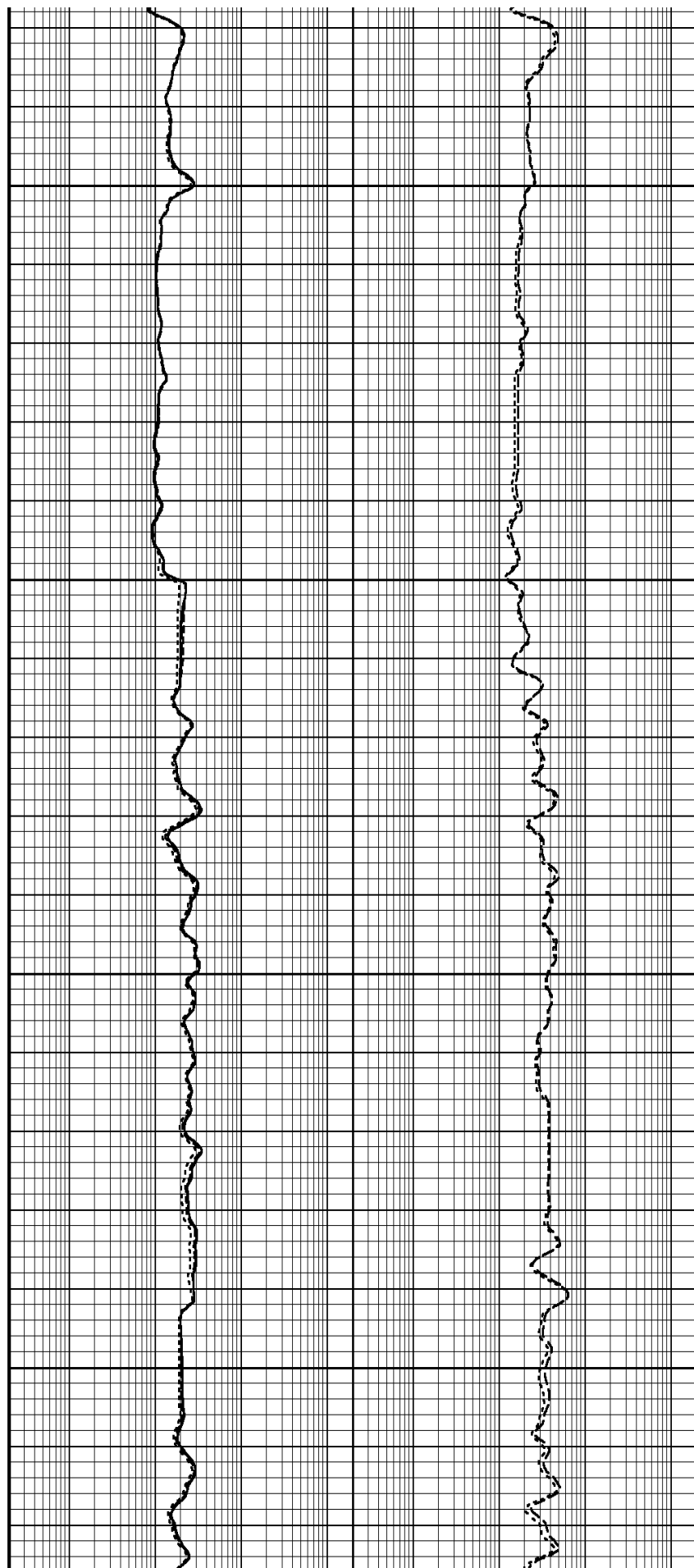
7200

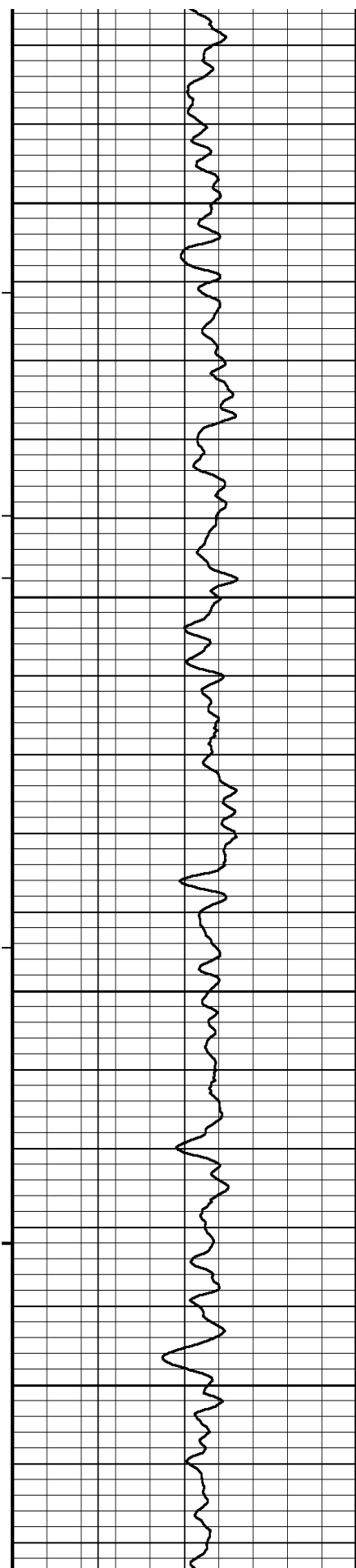
190°

7250

191°

7300





191°

7350

191°

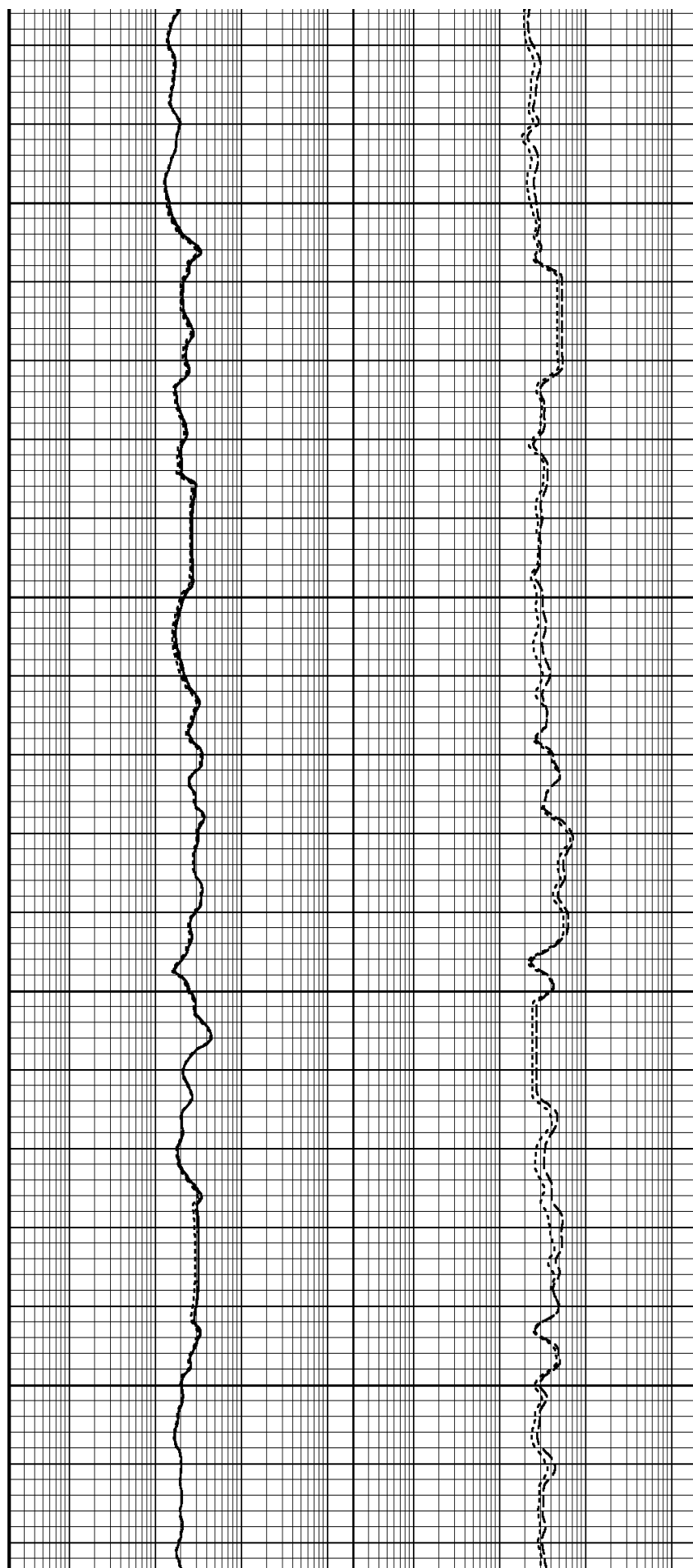
7400

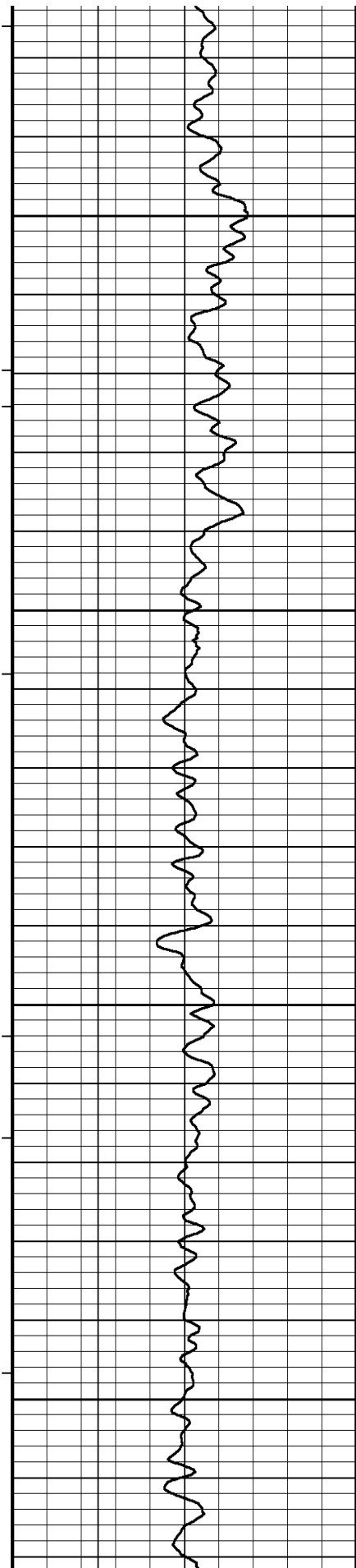
192°

7450

192°

7500





192°

7550

192°

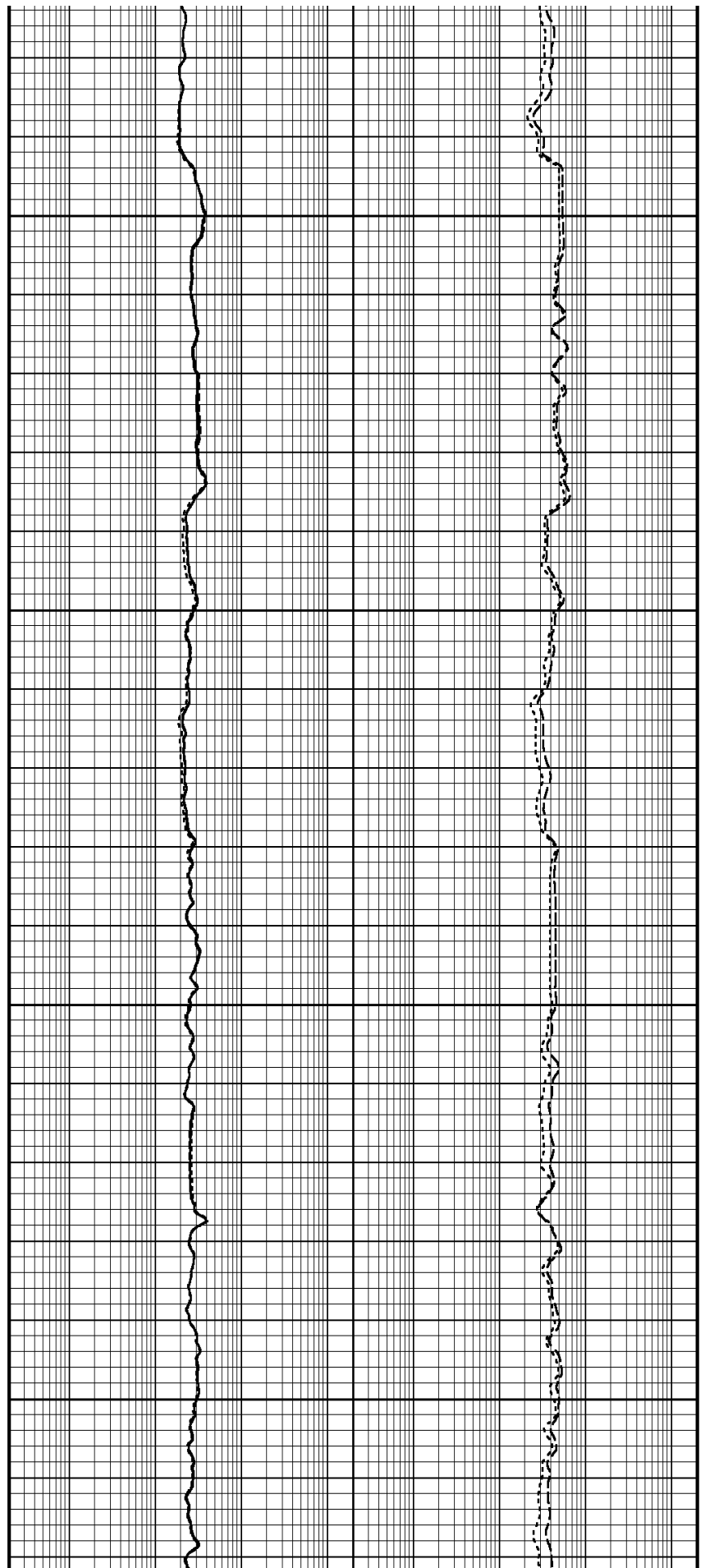
7600

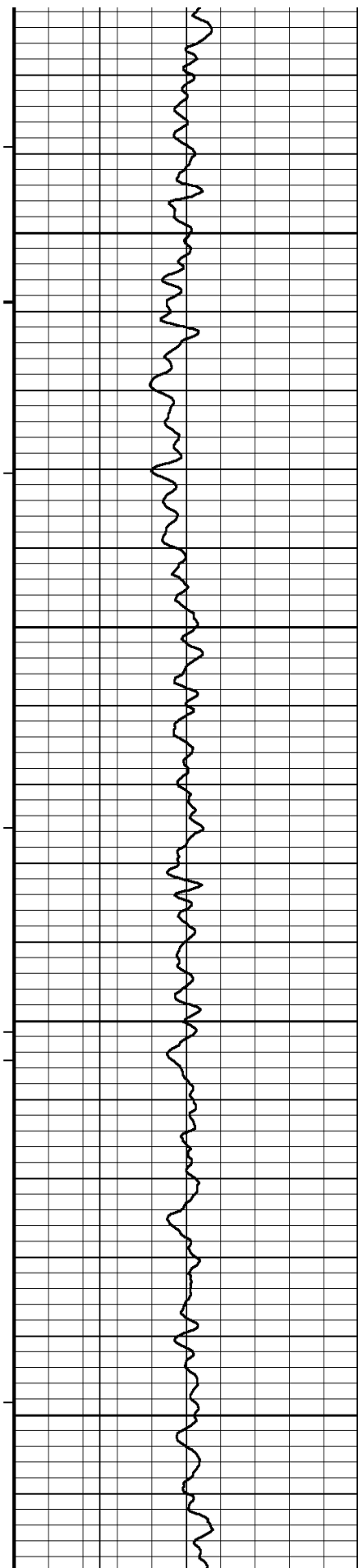
192°

7650

193°

7700





193°

7750

193°

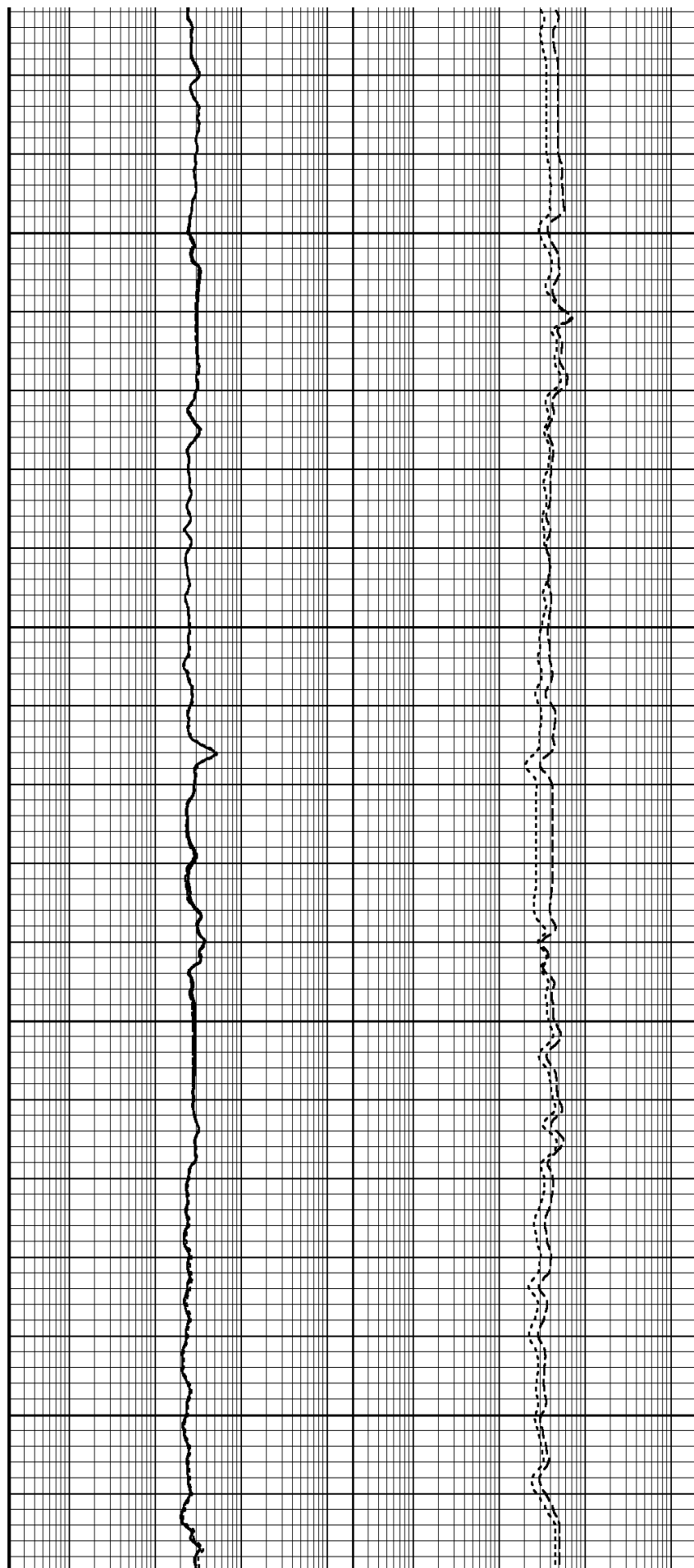
7800

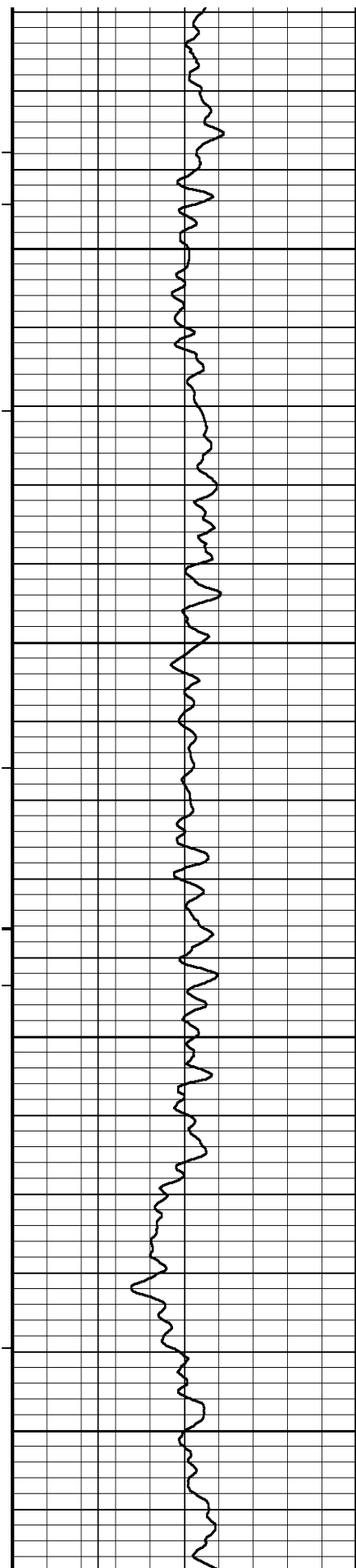
193°

7850

193°

7900





193°

7950

193°

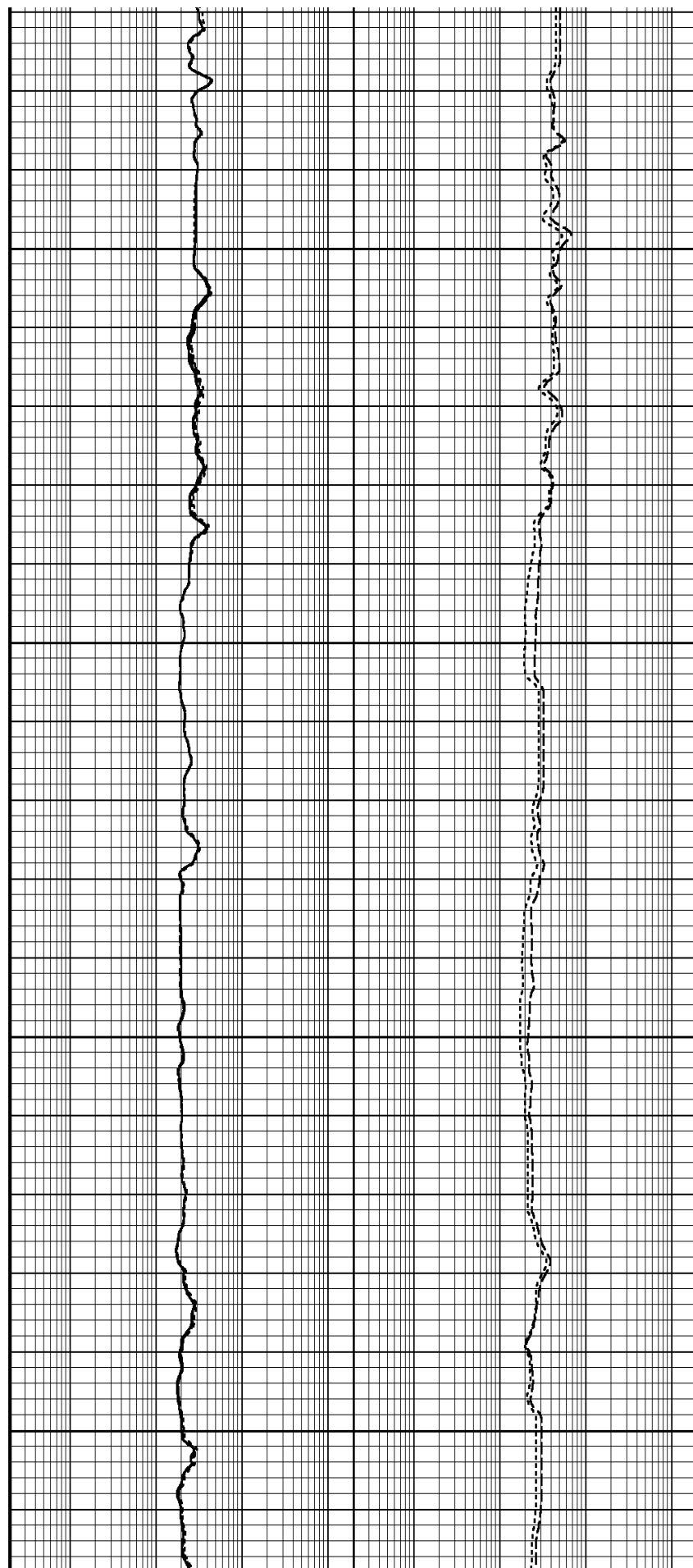
8000

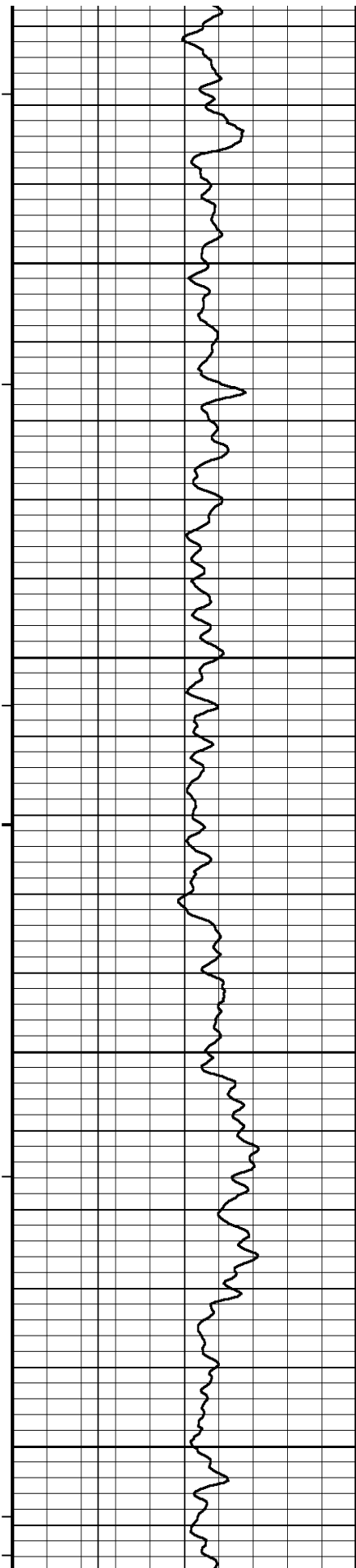
193°

8050

193°

8100





193°

8150

192°

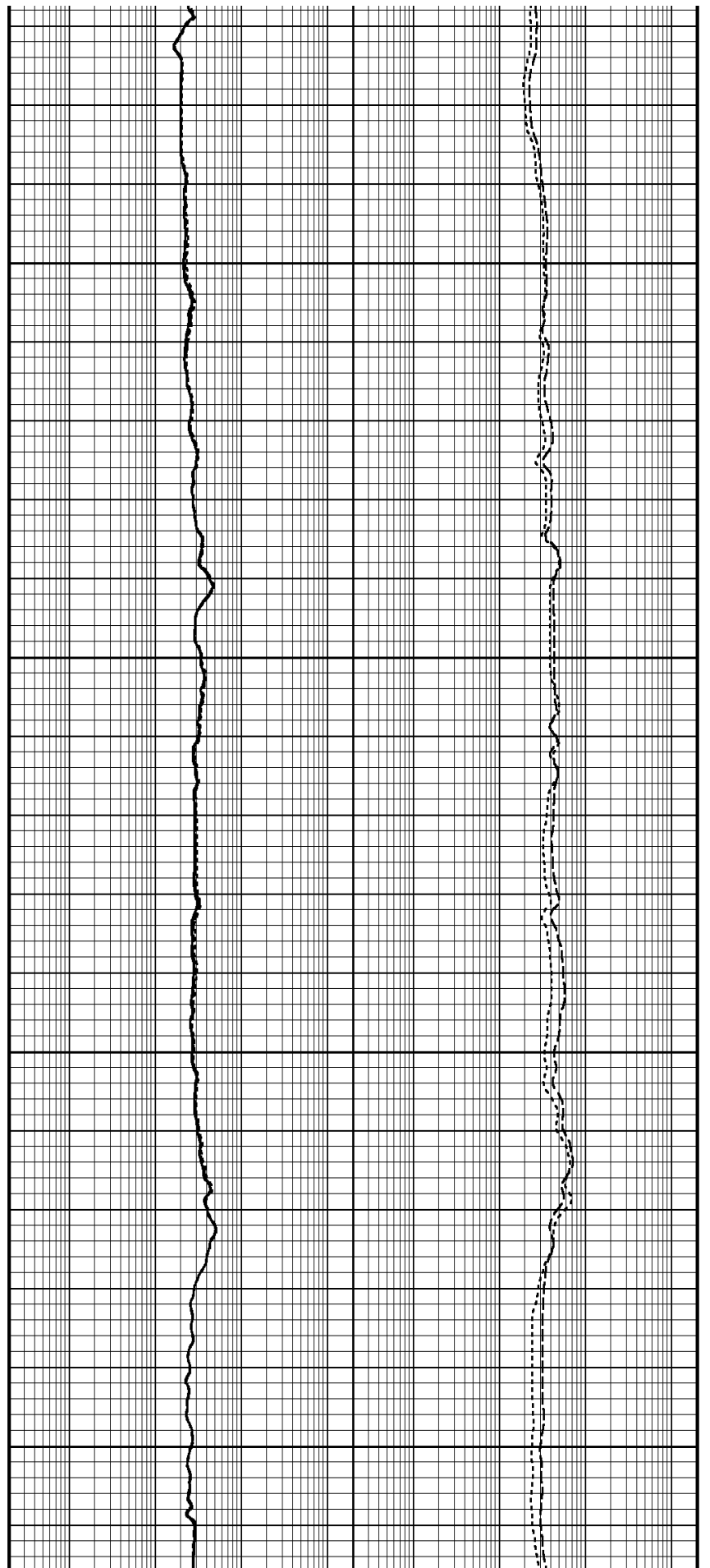
8200

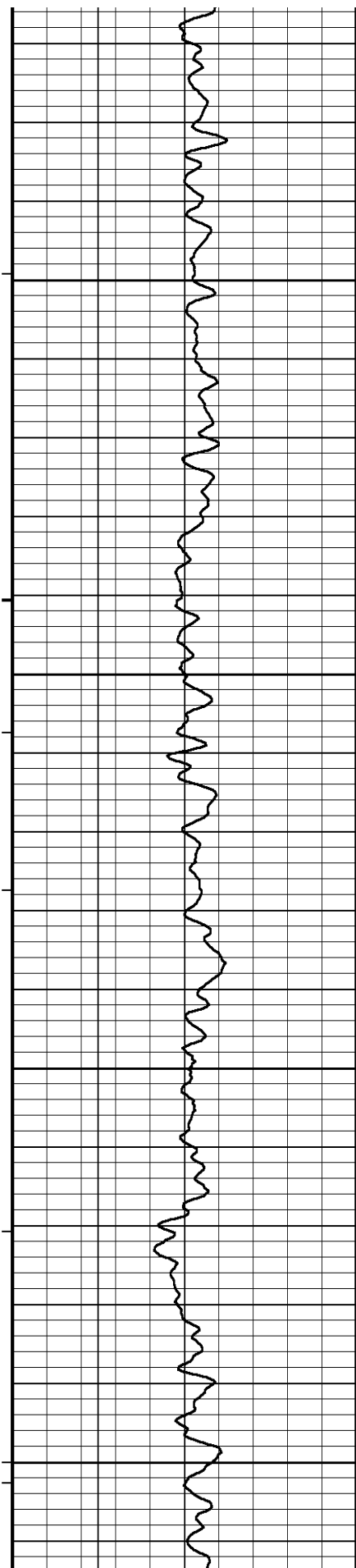
193°

8250

193°

8300





193°

8350

192°

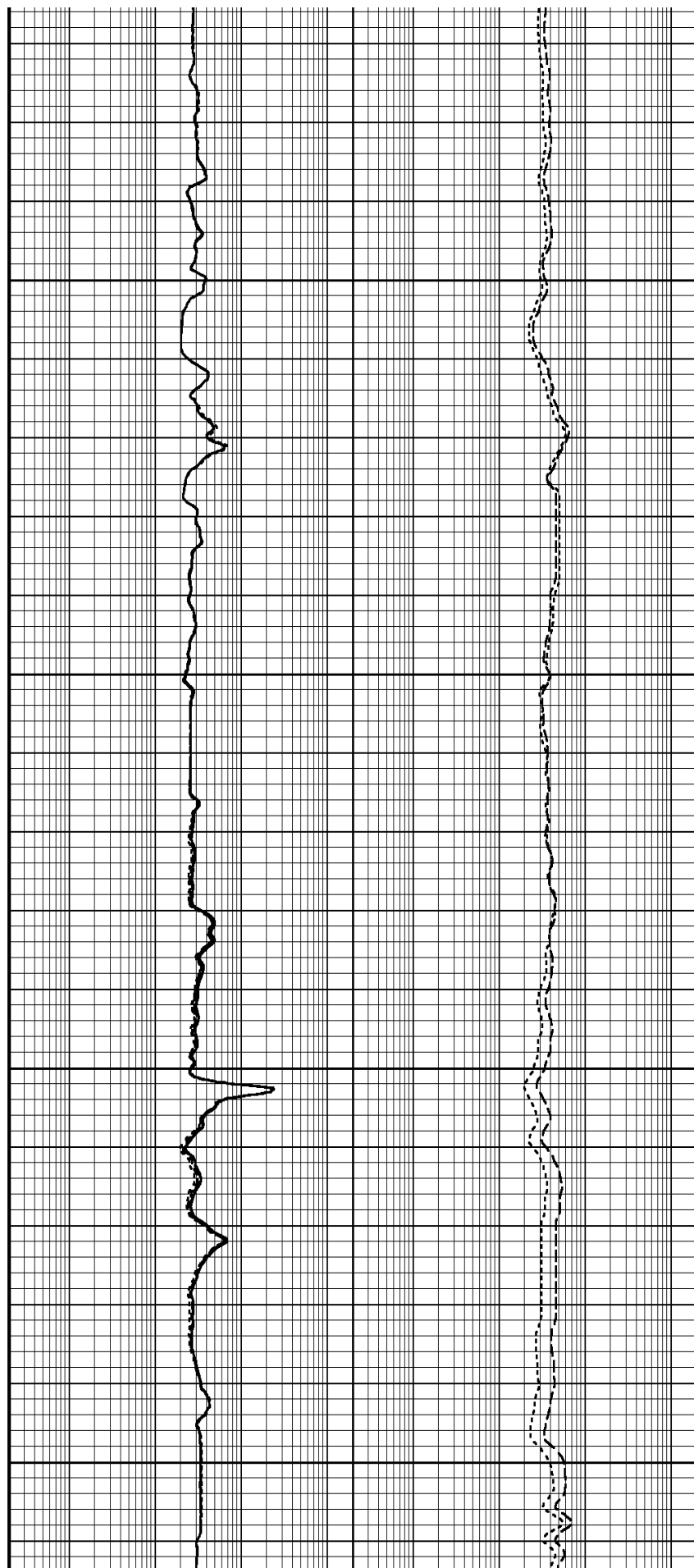
8400

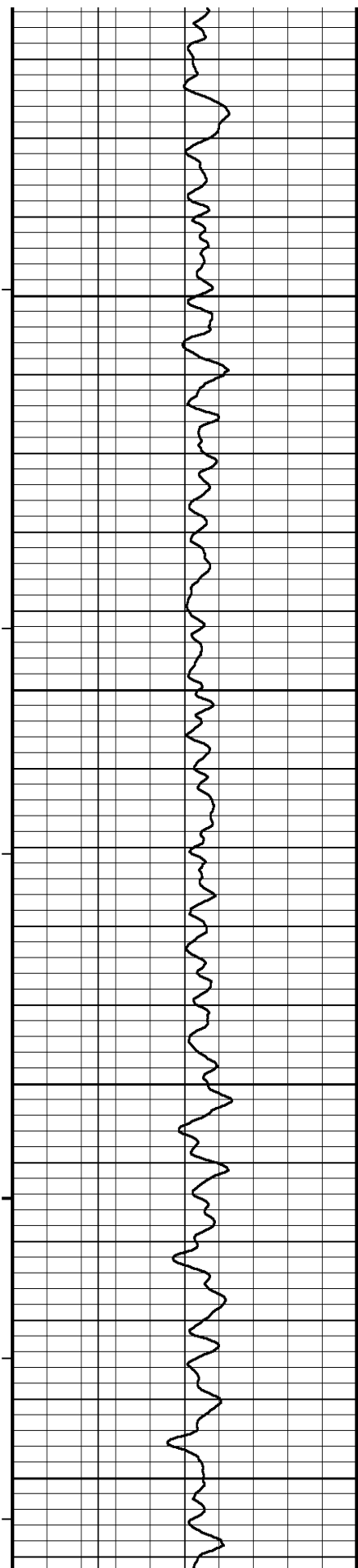
193°

8450

193°

8500





193°

8550

193°

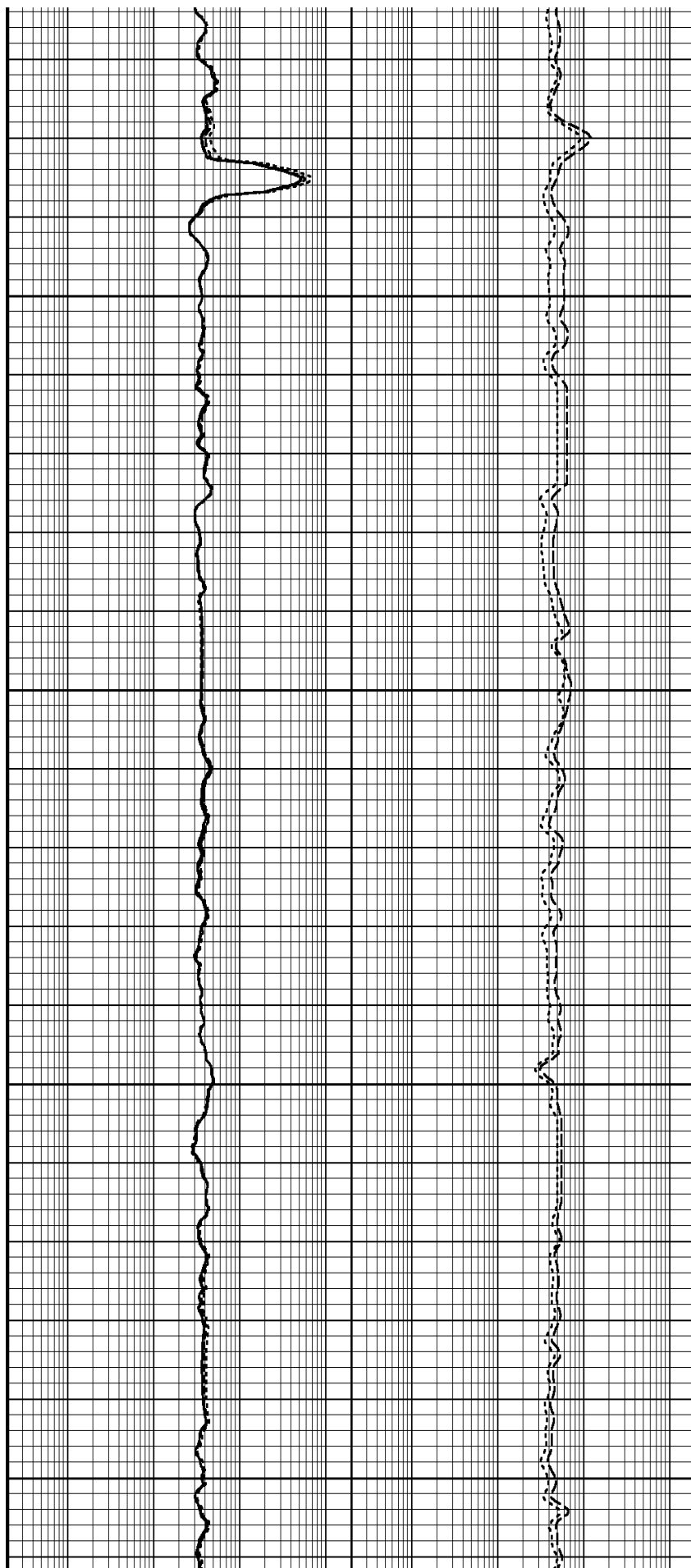
8600

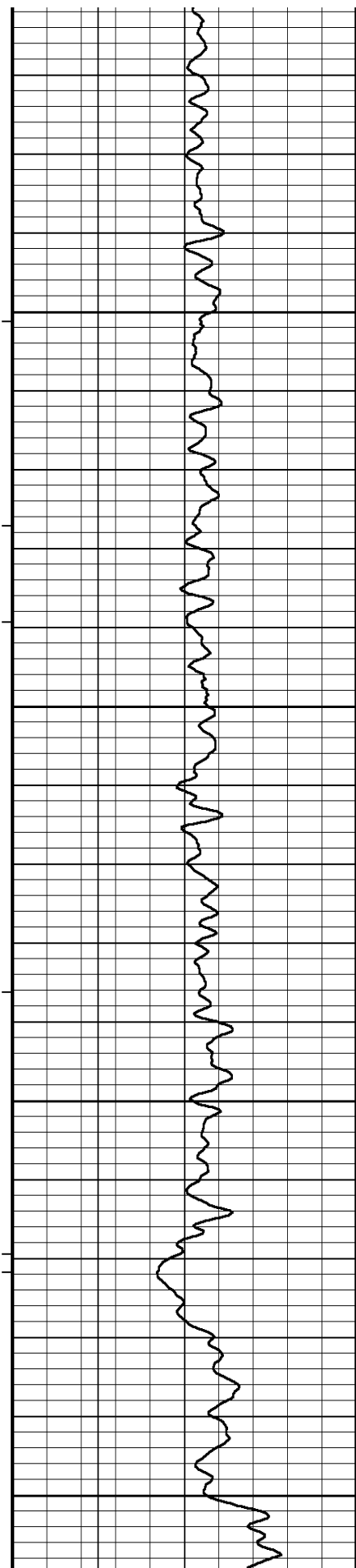
193°

8650

193°

8700





192°

8750

193°

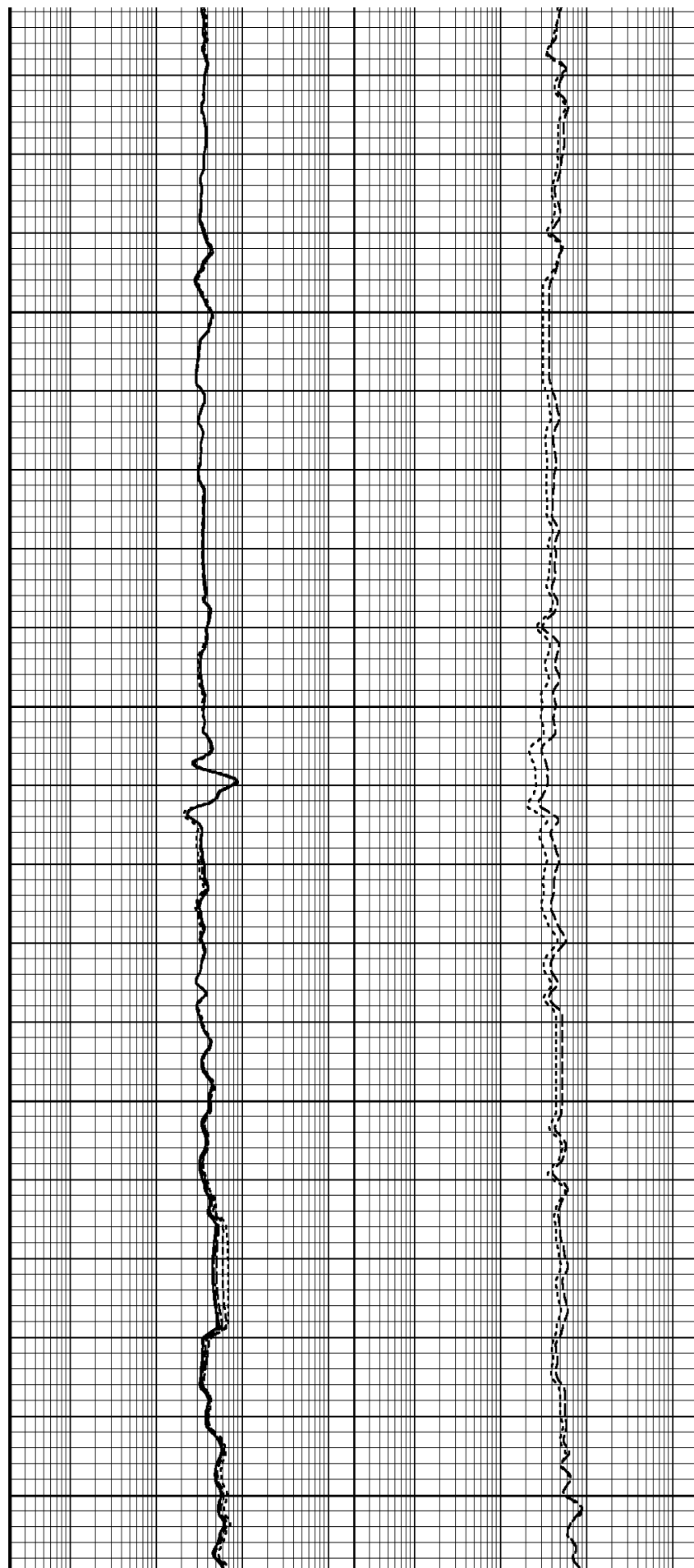
8800

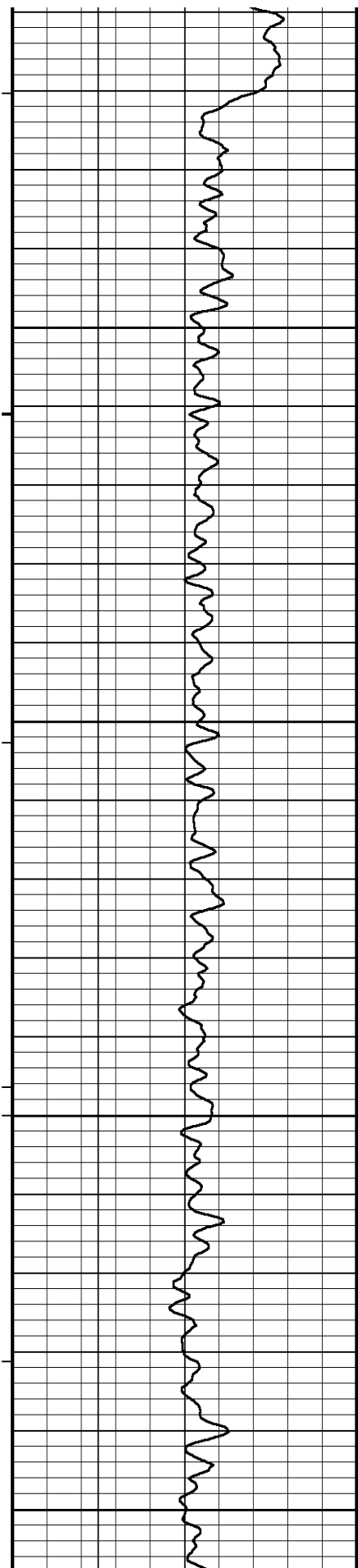
193°

8850

193°

8900





193°

8950

193°

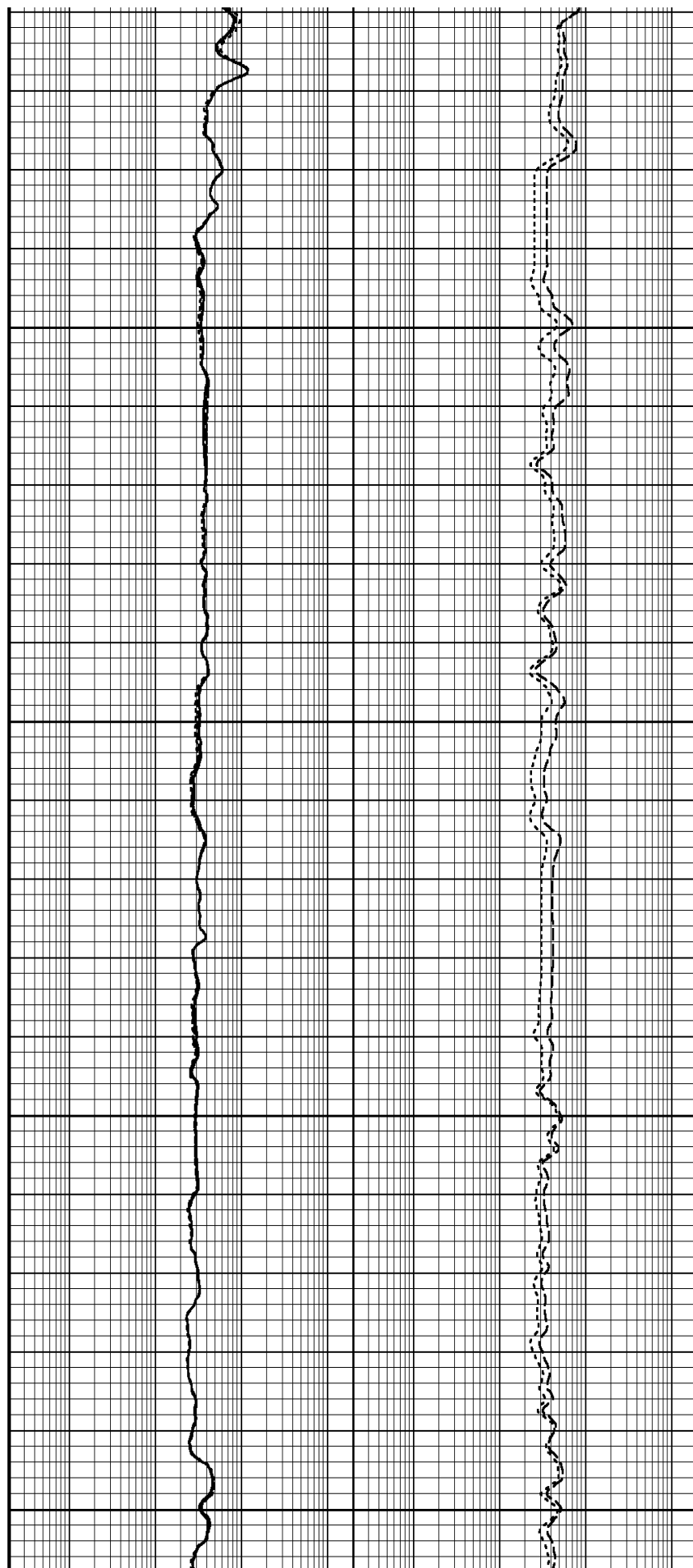
9000

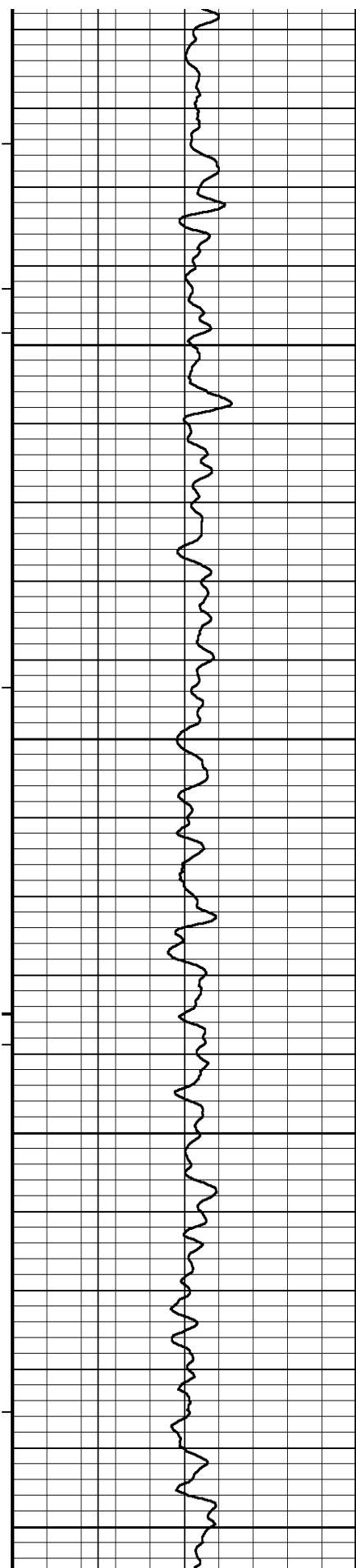
192°

9050

192°

9100





192°

9150

192°

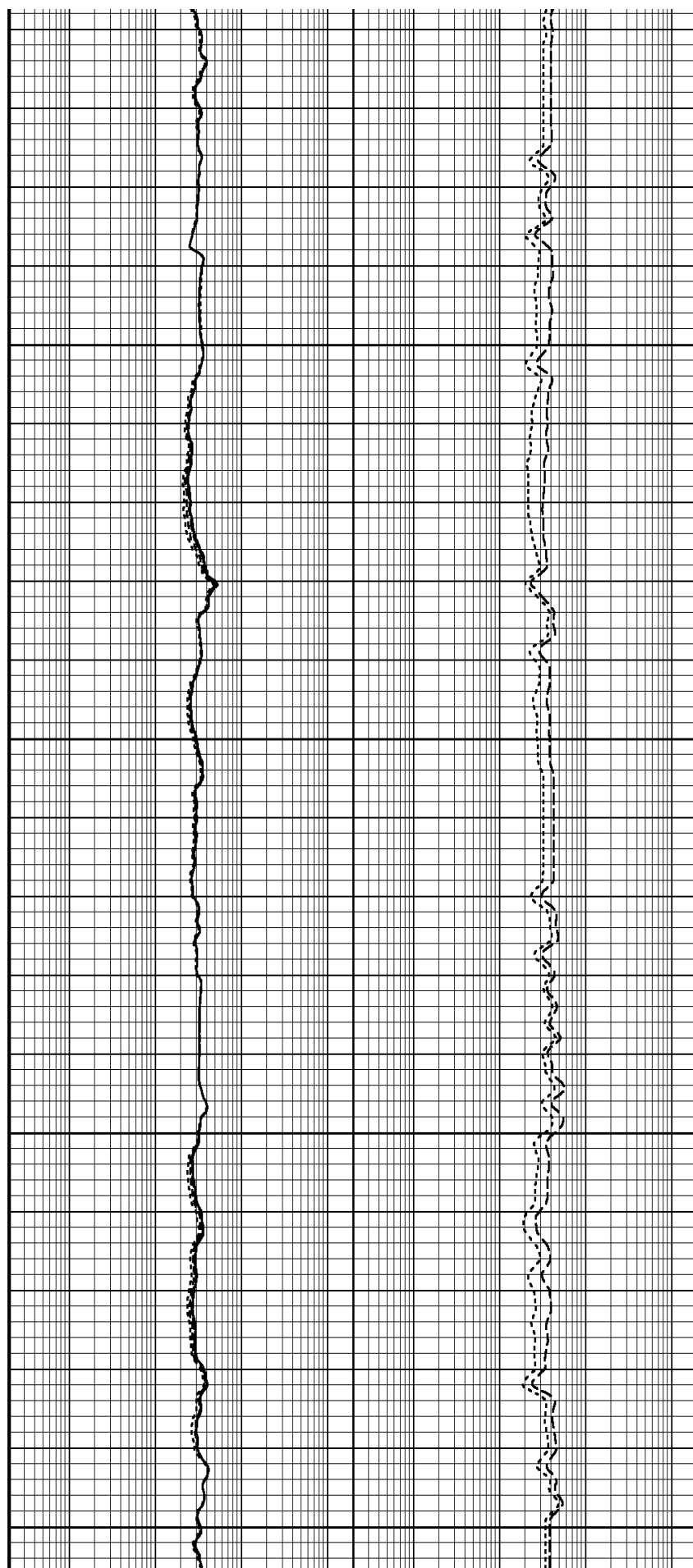
9200

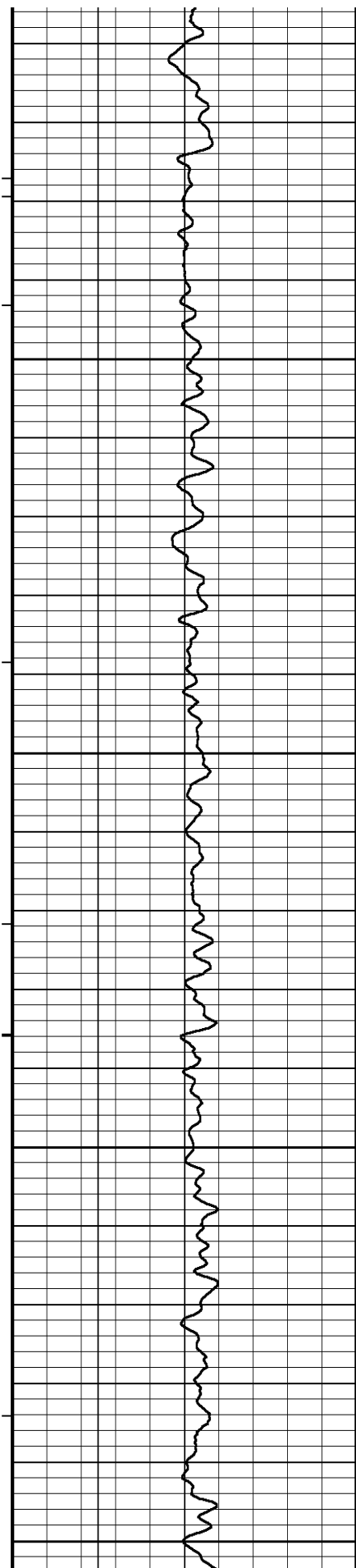
192°

9250

192°

9300





192°

9350

192°

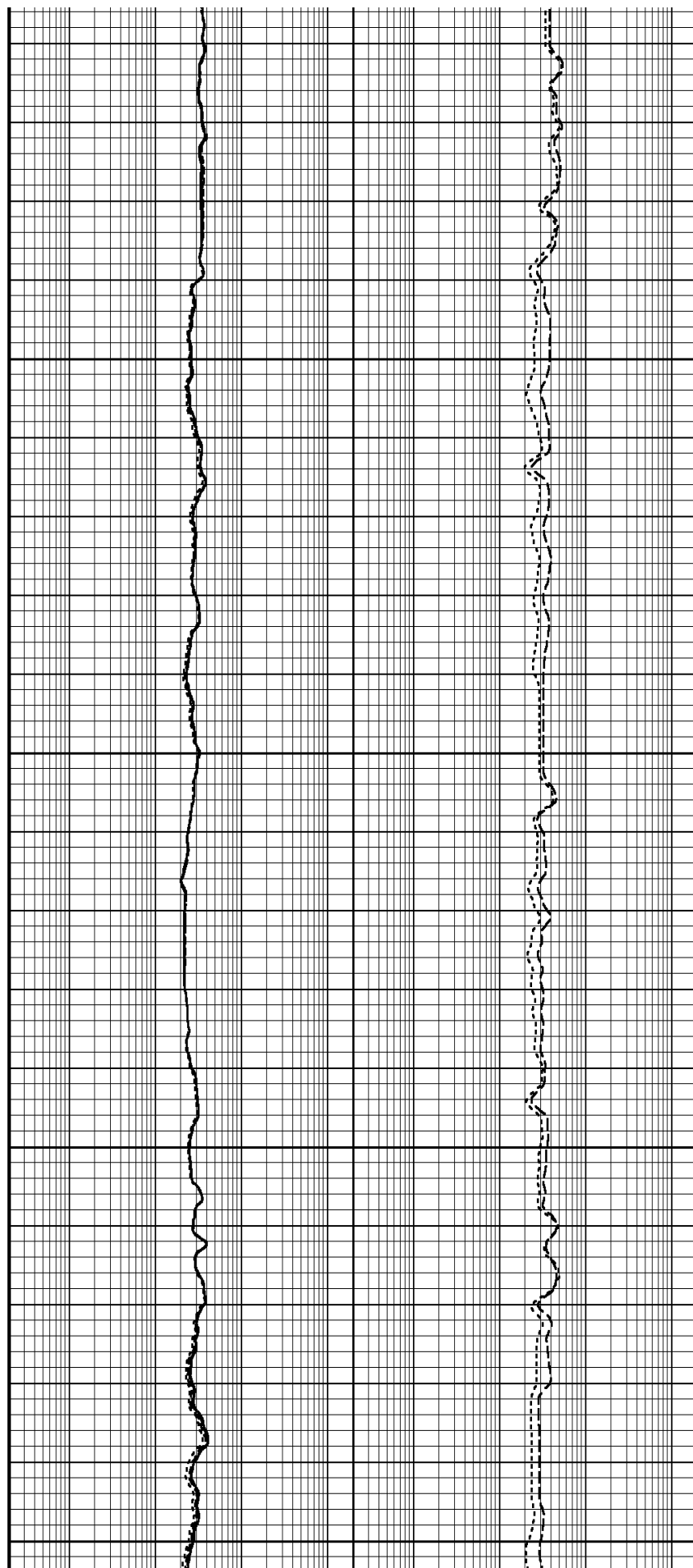
9400

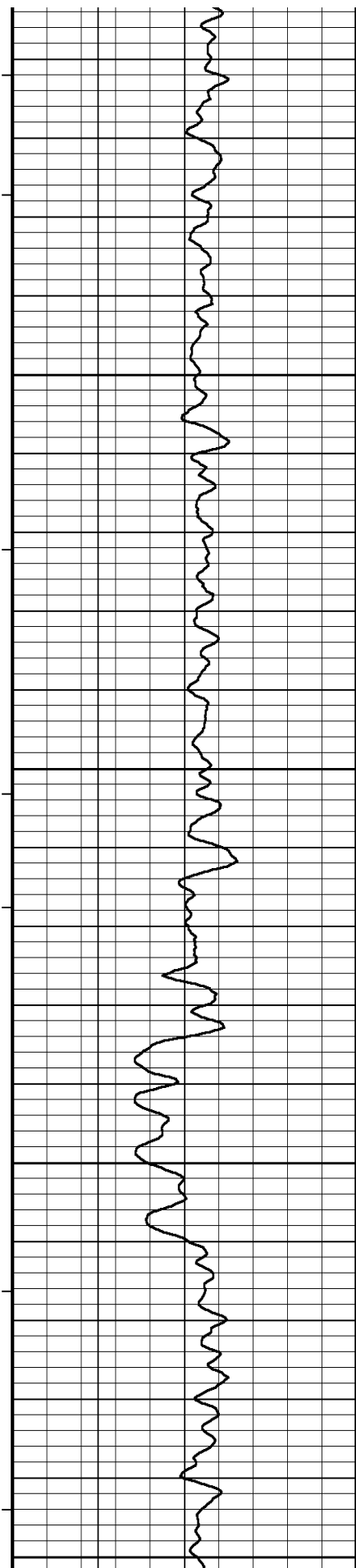
192°

9450

191°

9500





191°

9550

191°

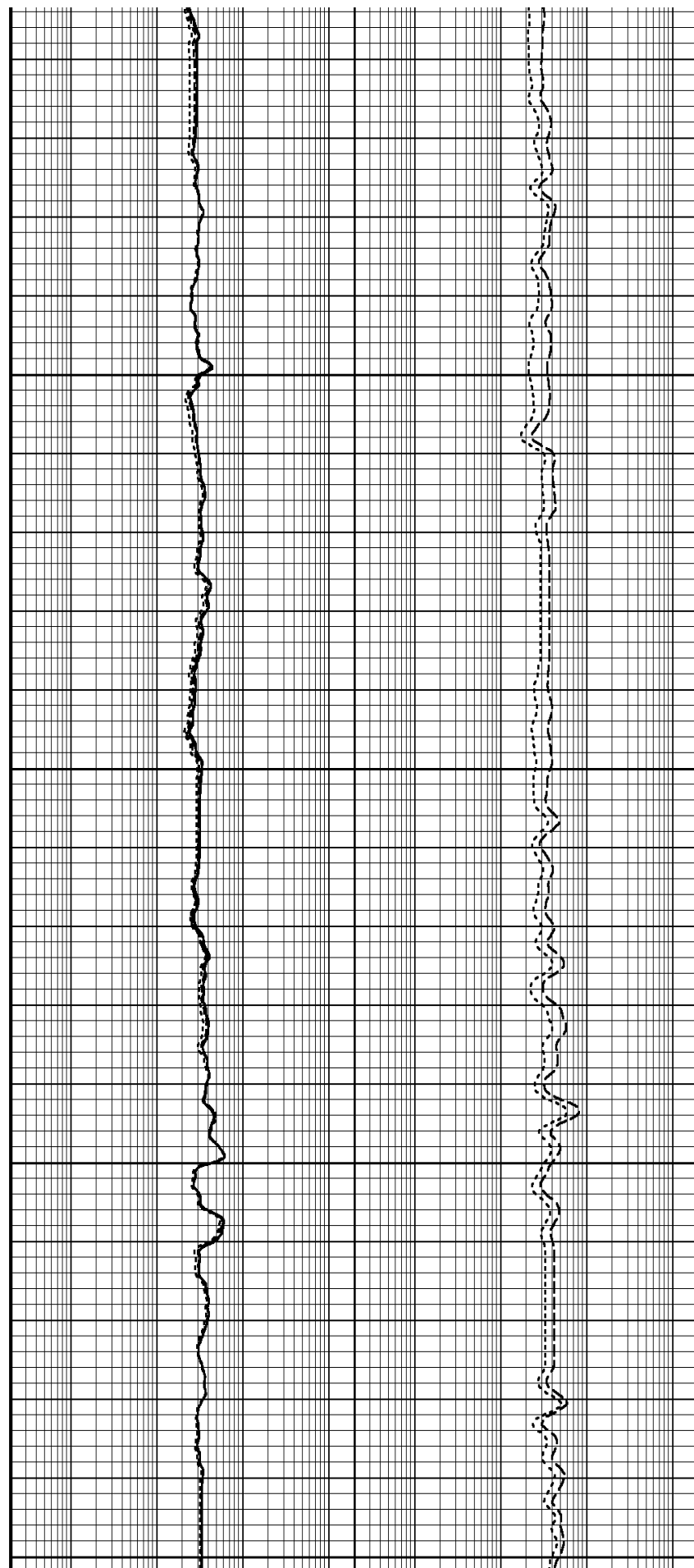
9600

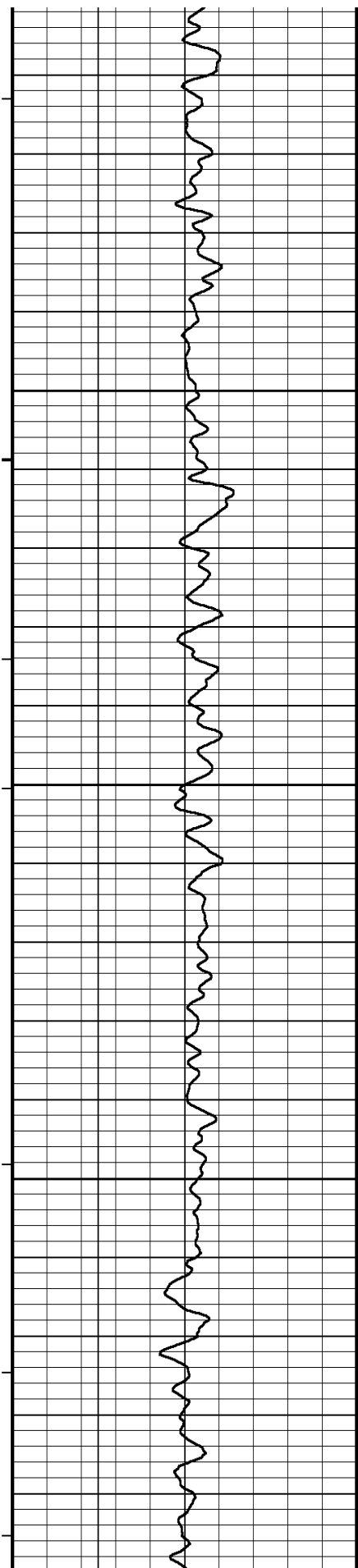
191°

9650

191°

9700





190°

9750

190°

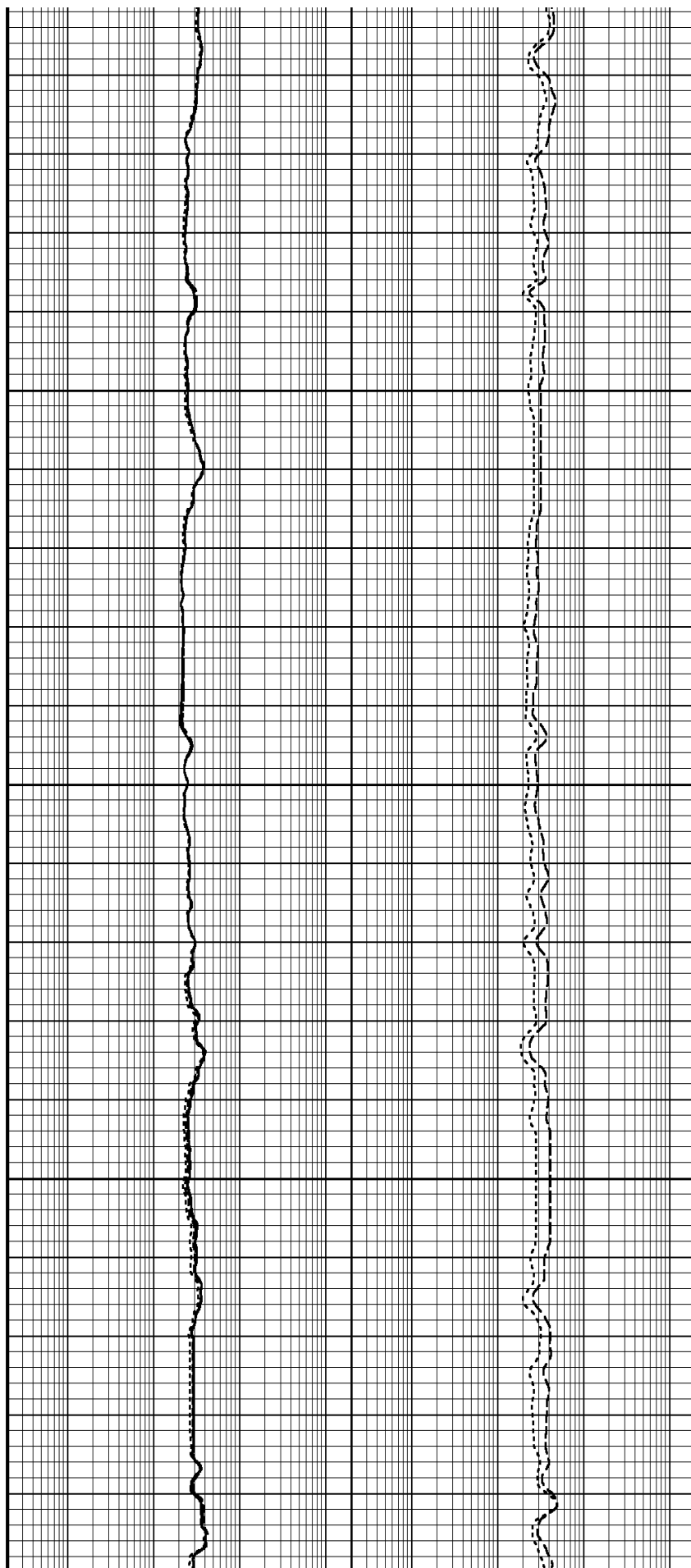
9800

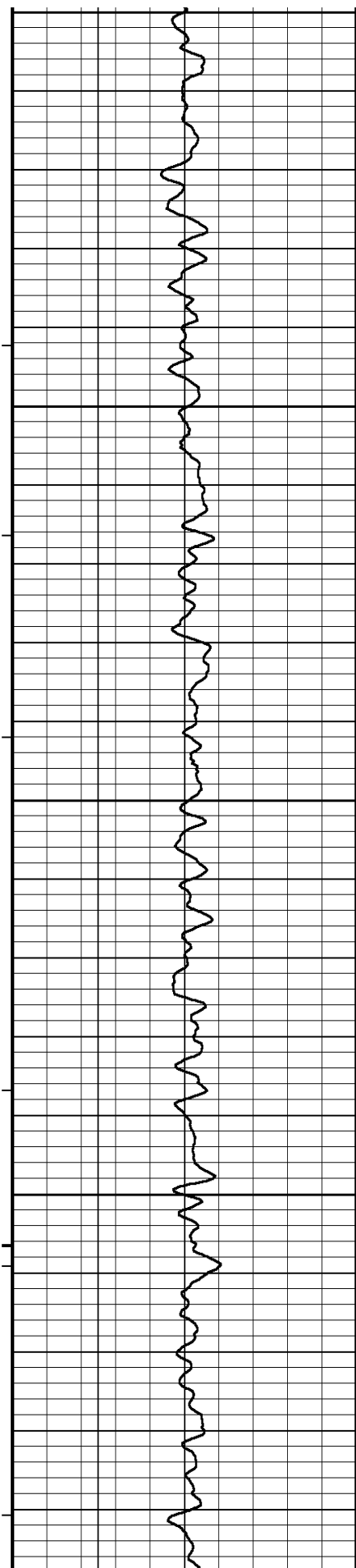
190°

9850

190°

9900





9900

191°

9950

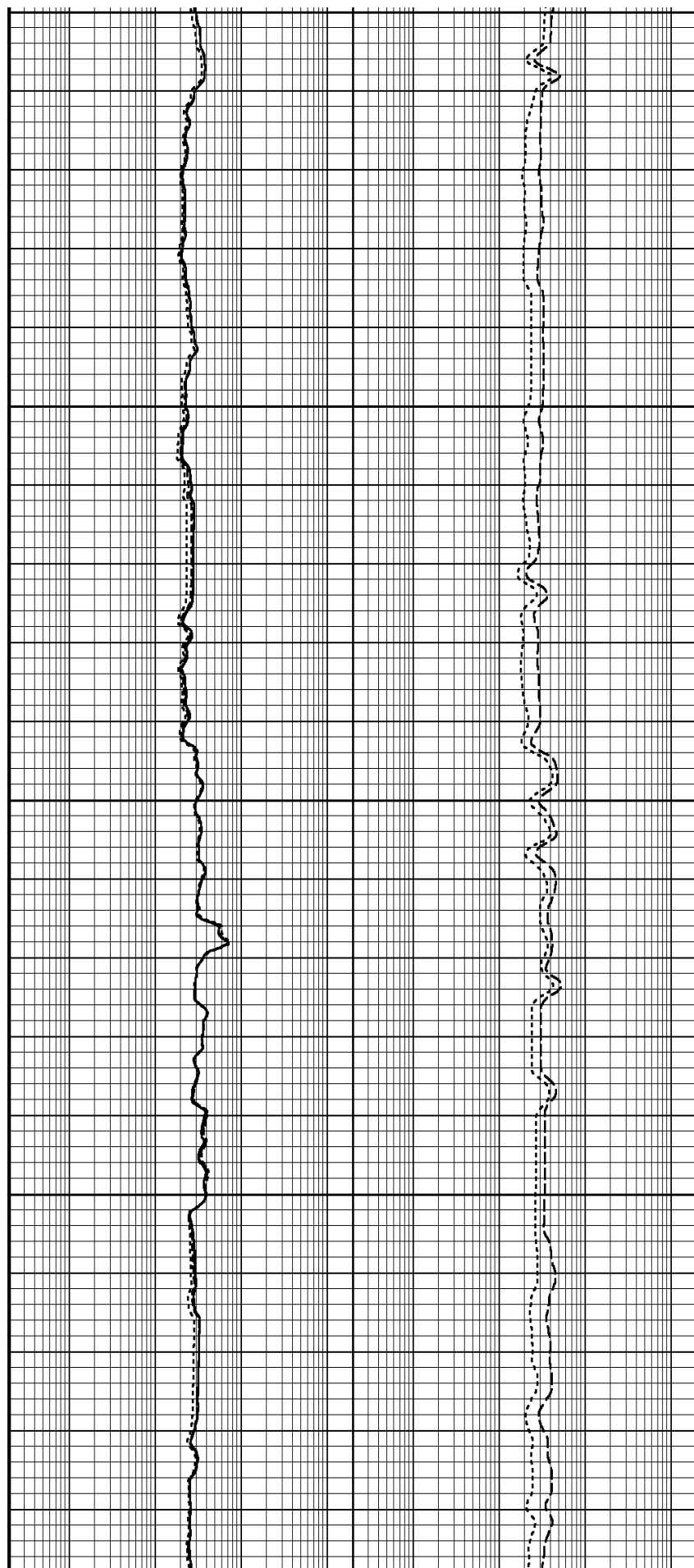
190°

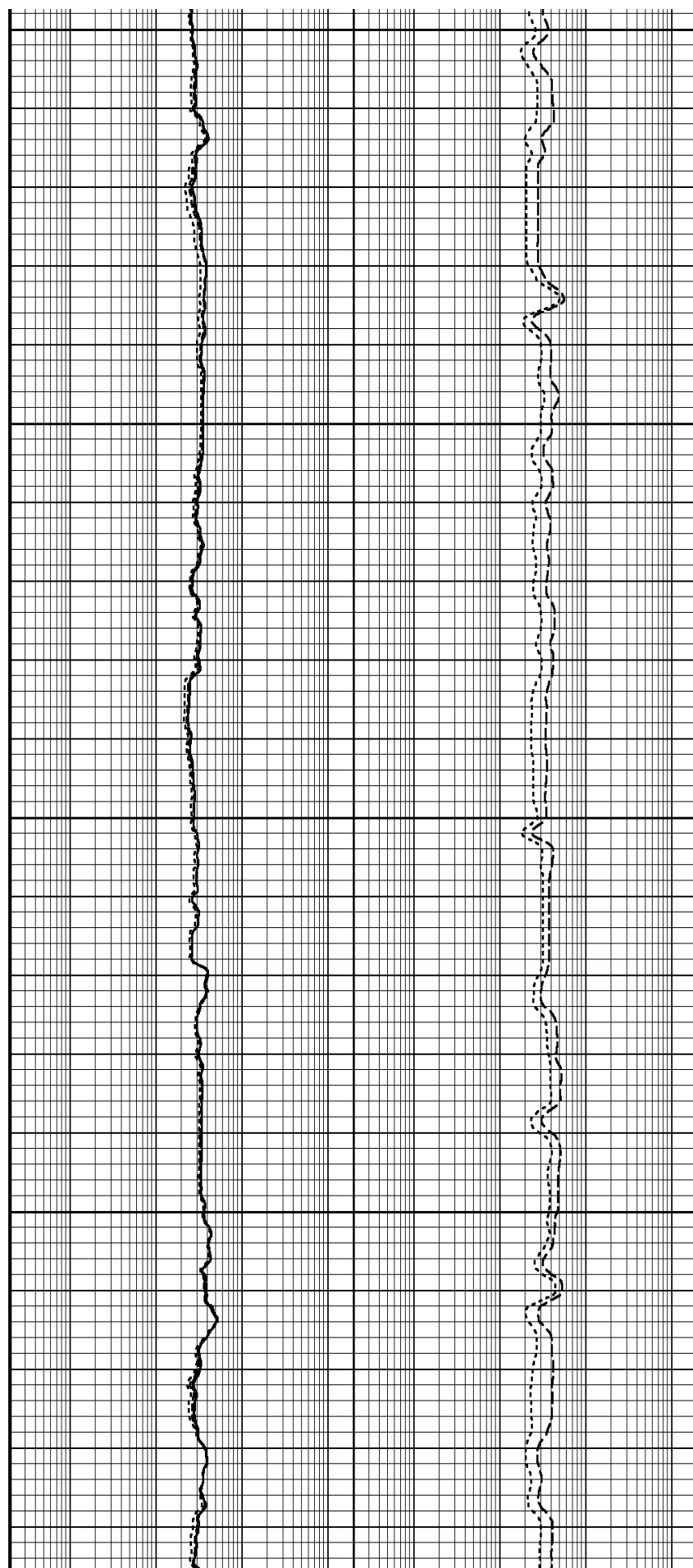
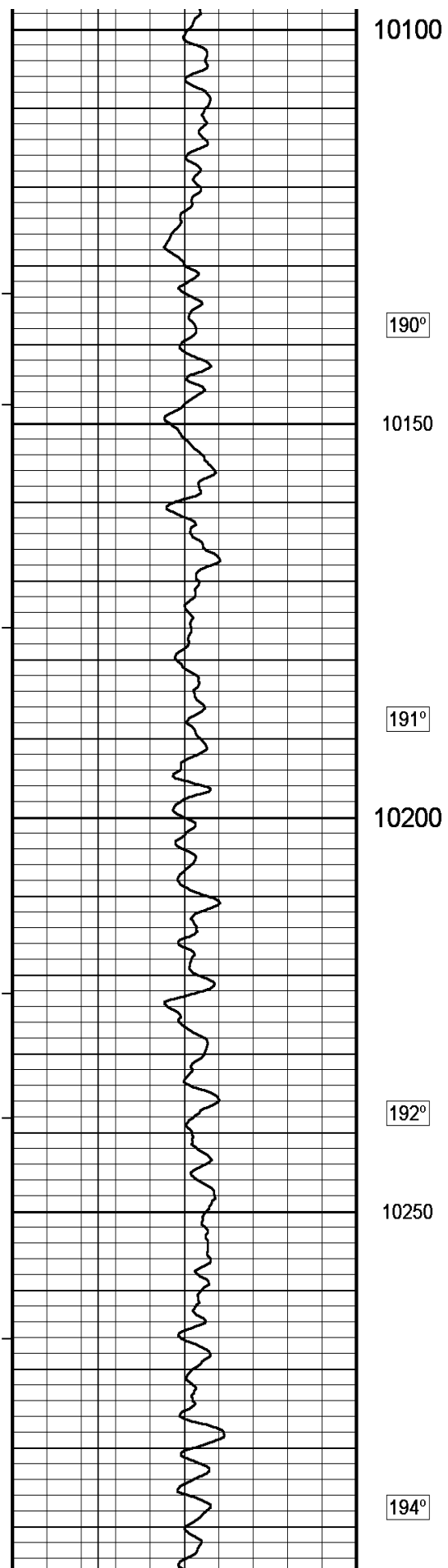
10000

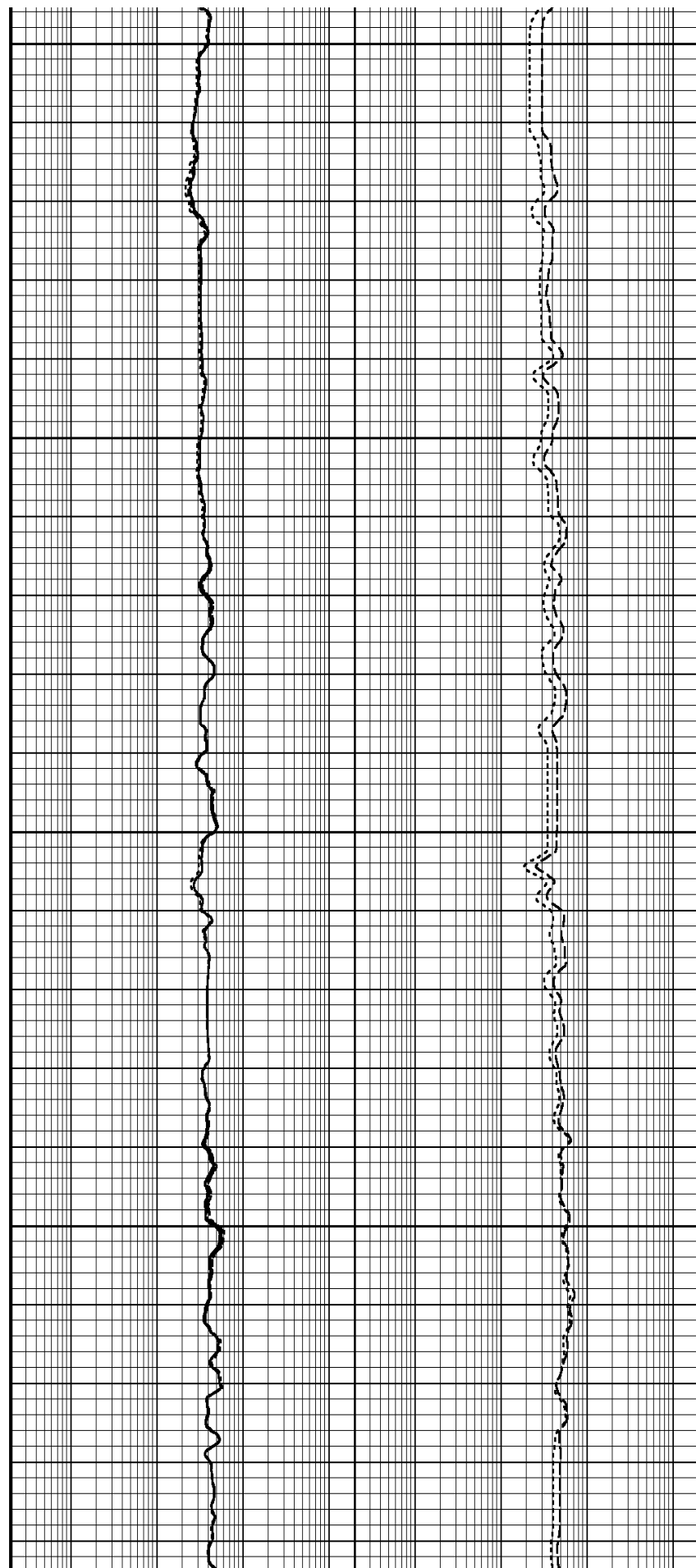
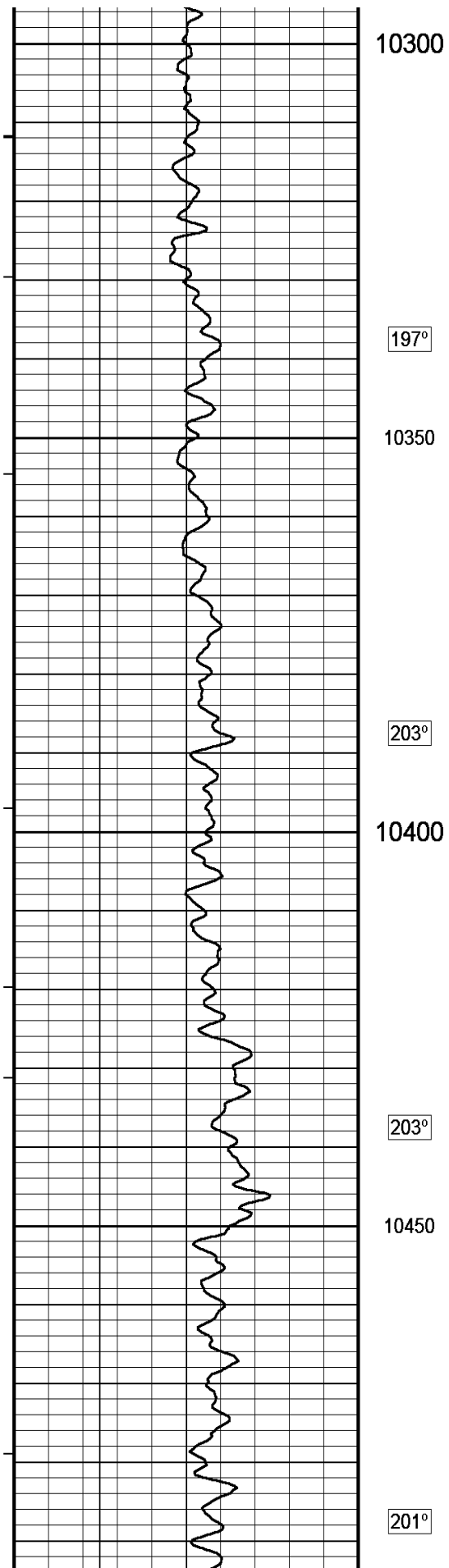
190°

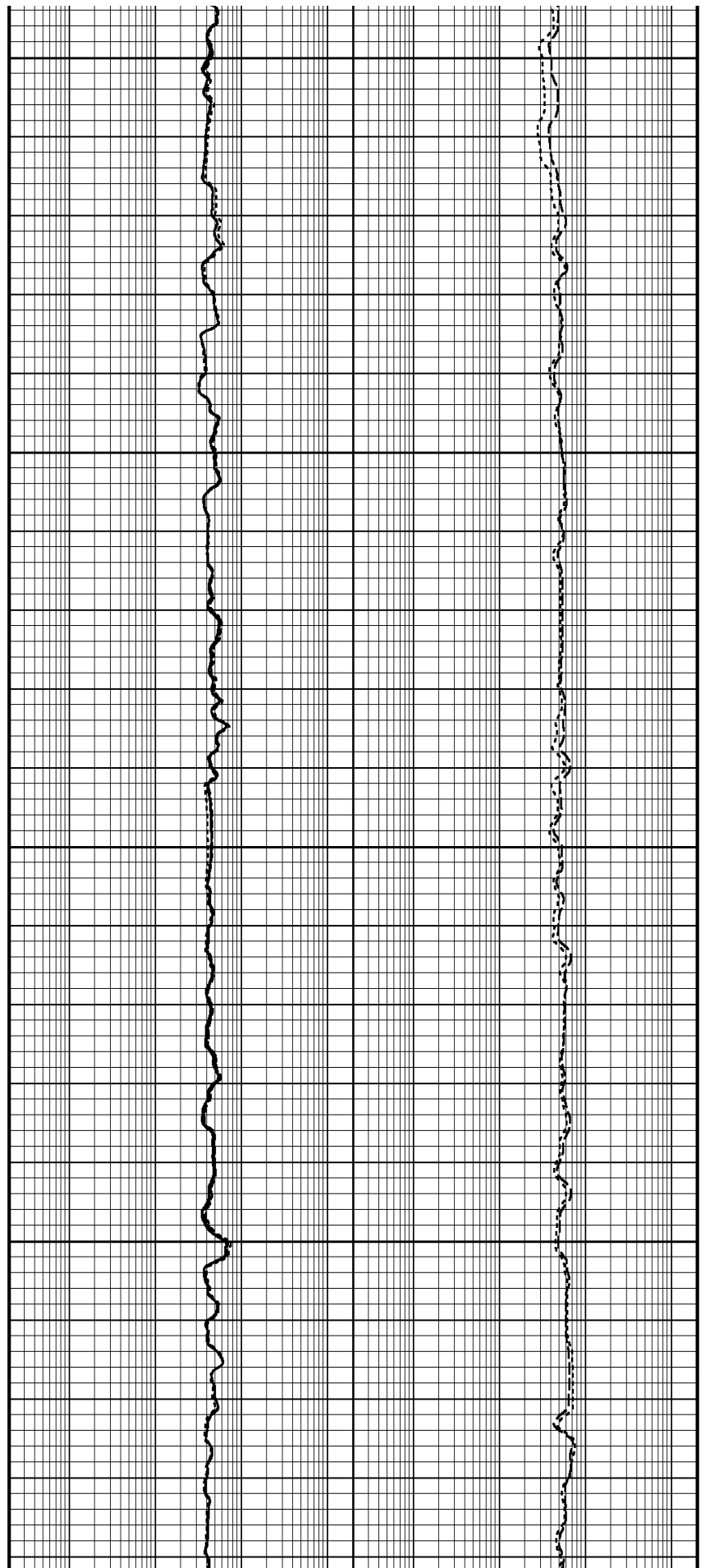
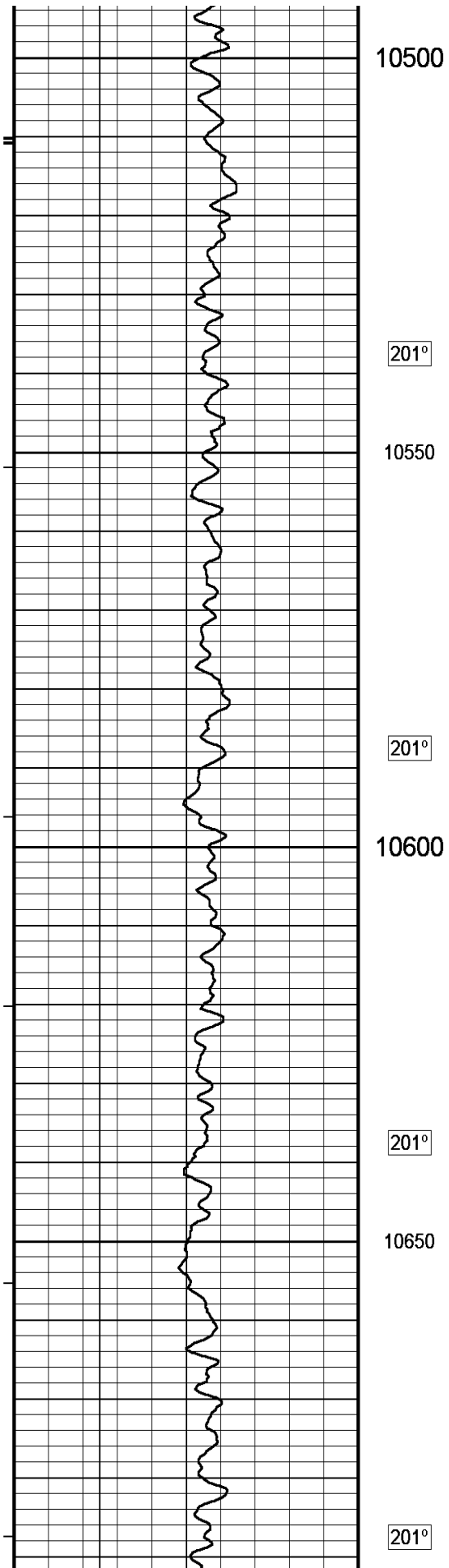
10050

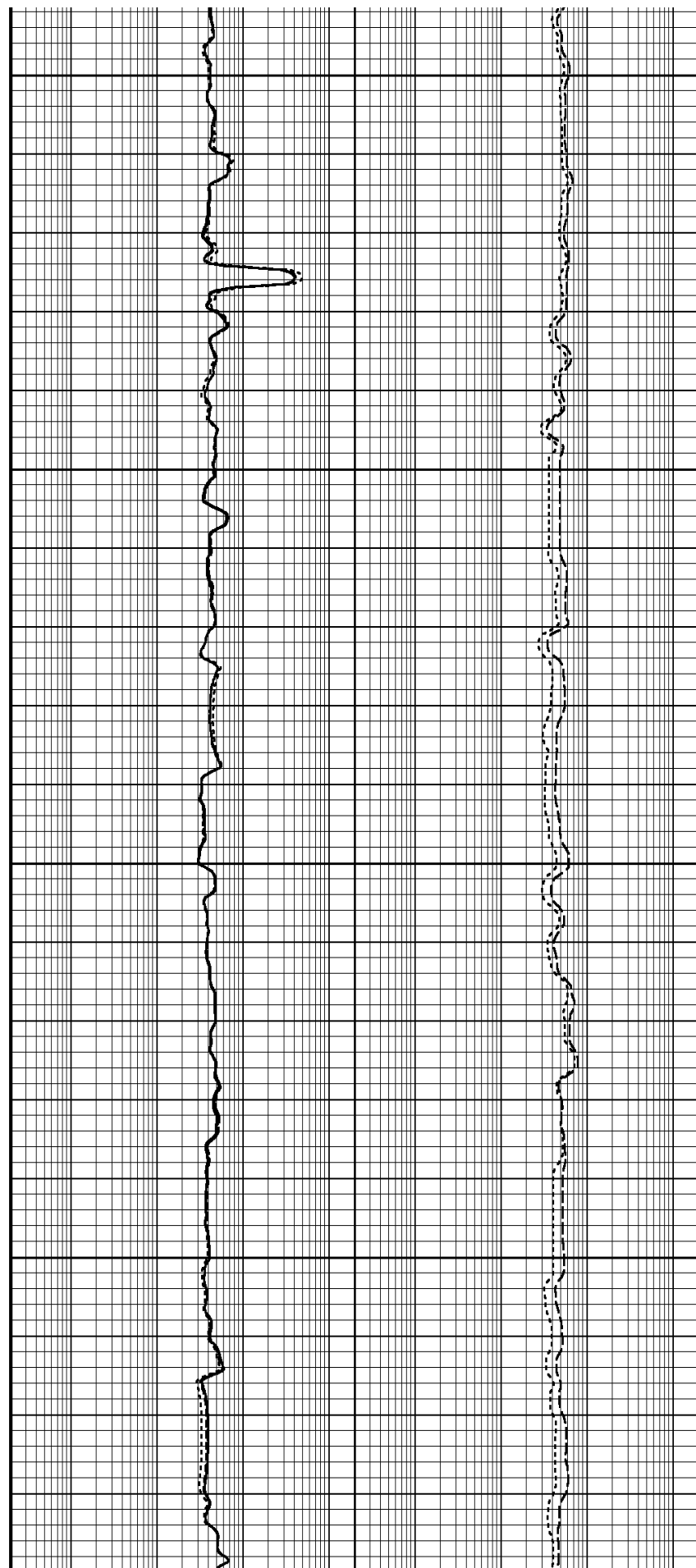
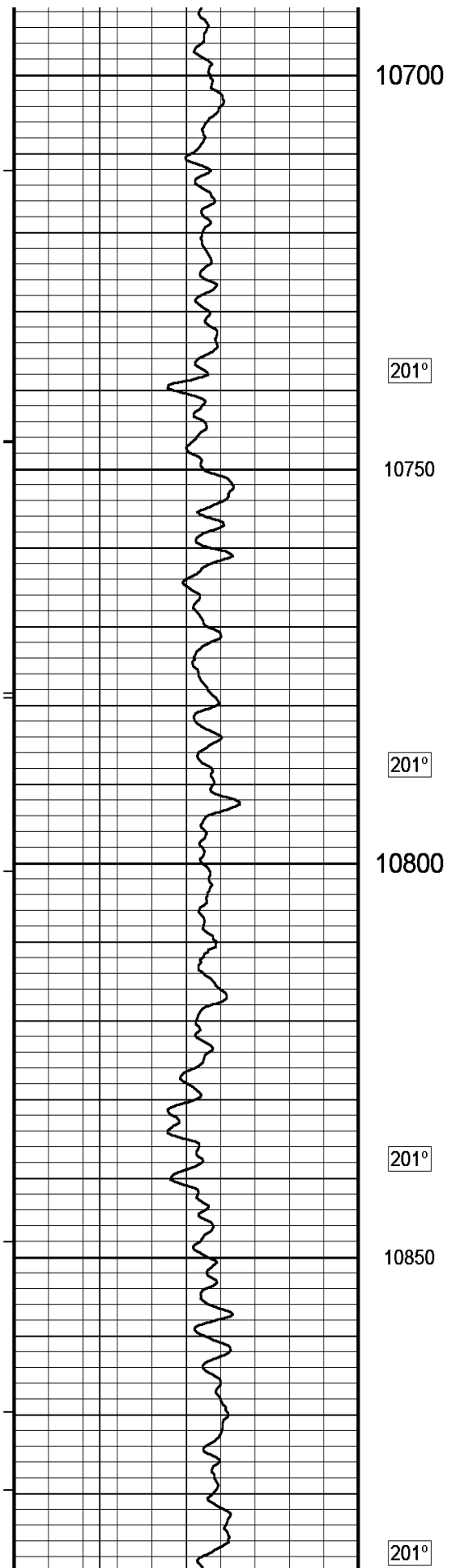
190°

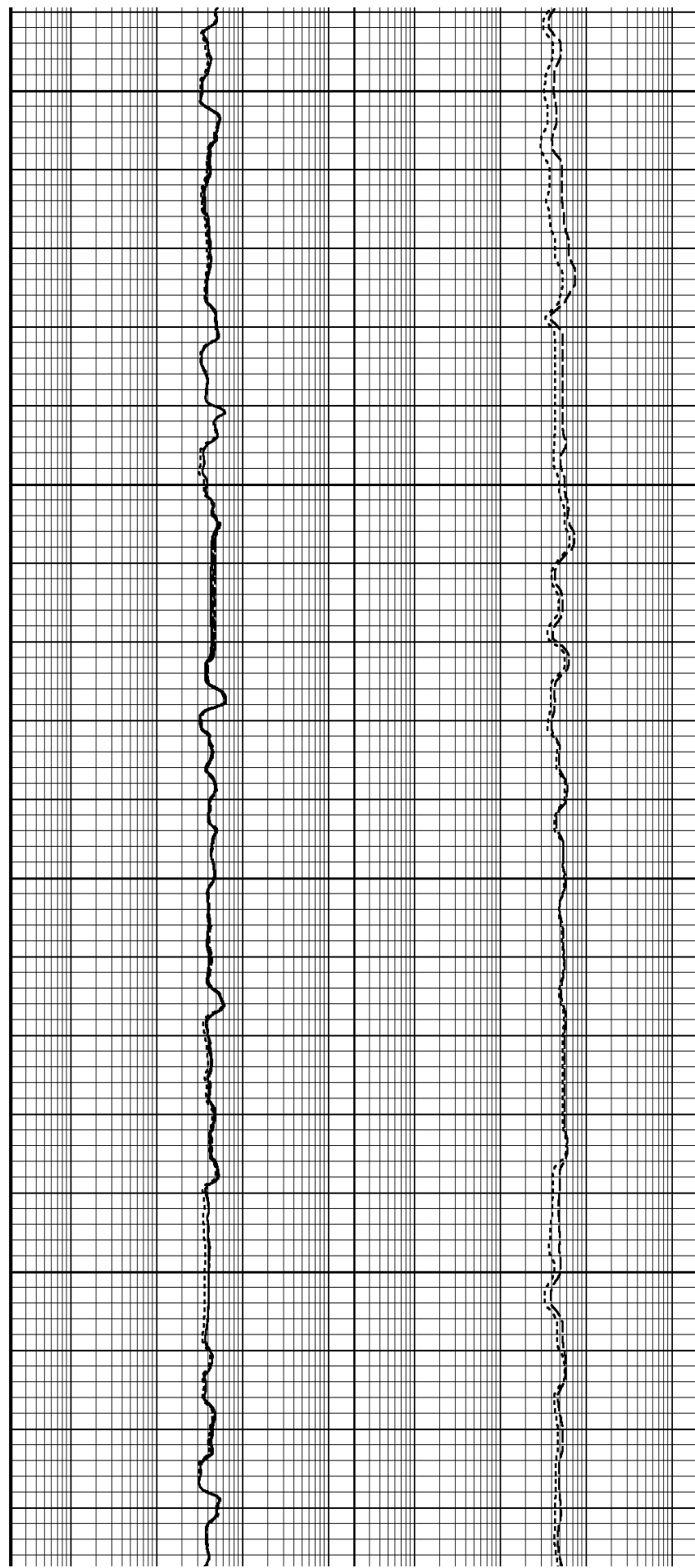
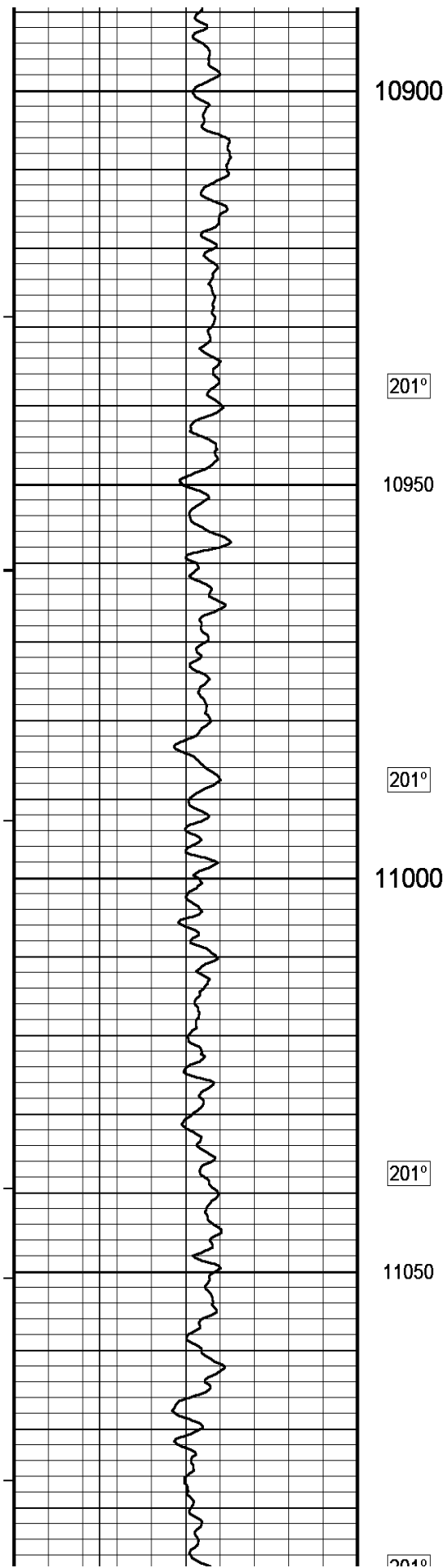


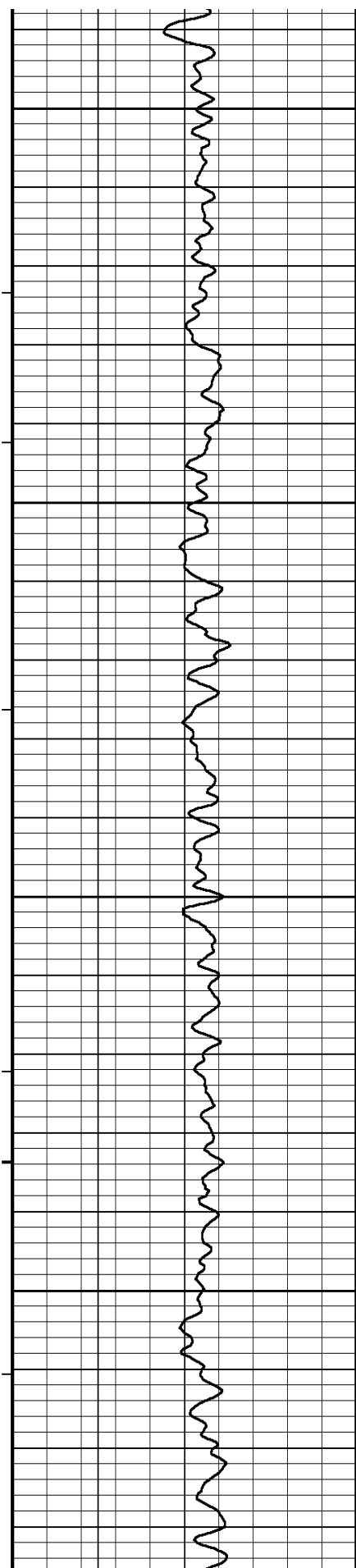












201

11100

201°

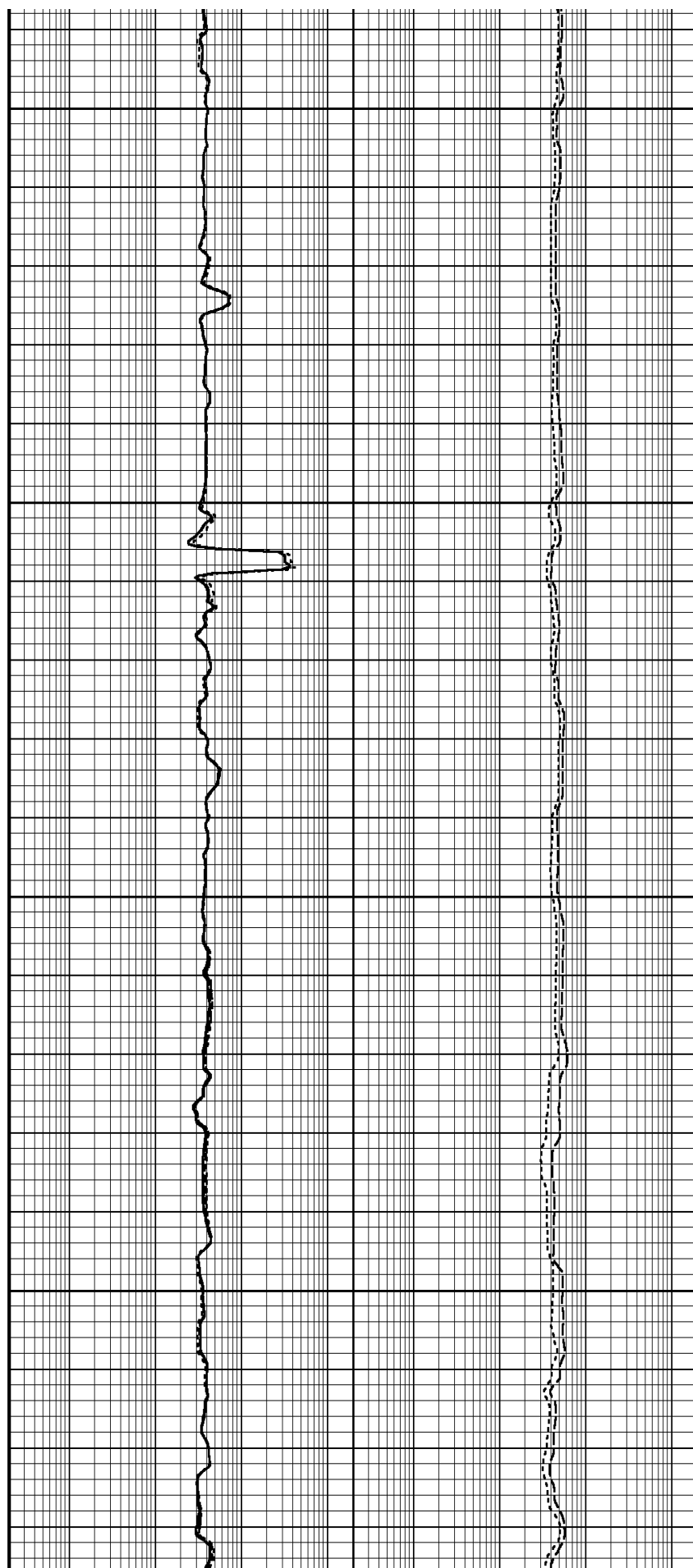
11150

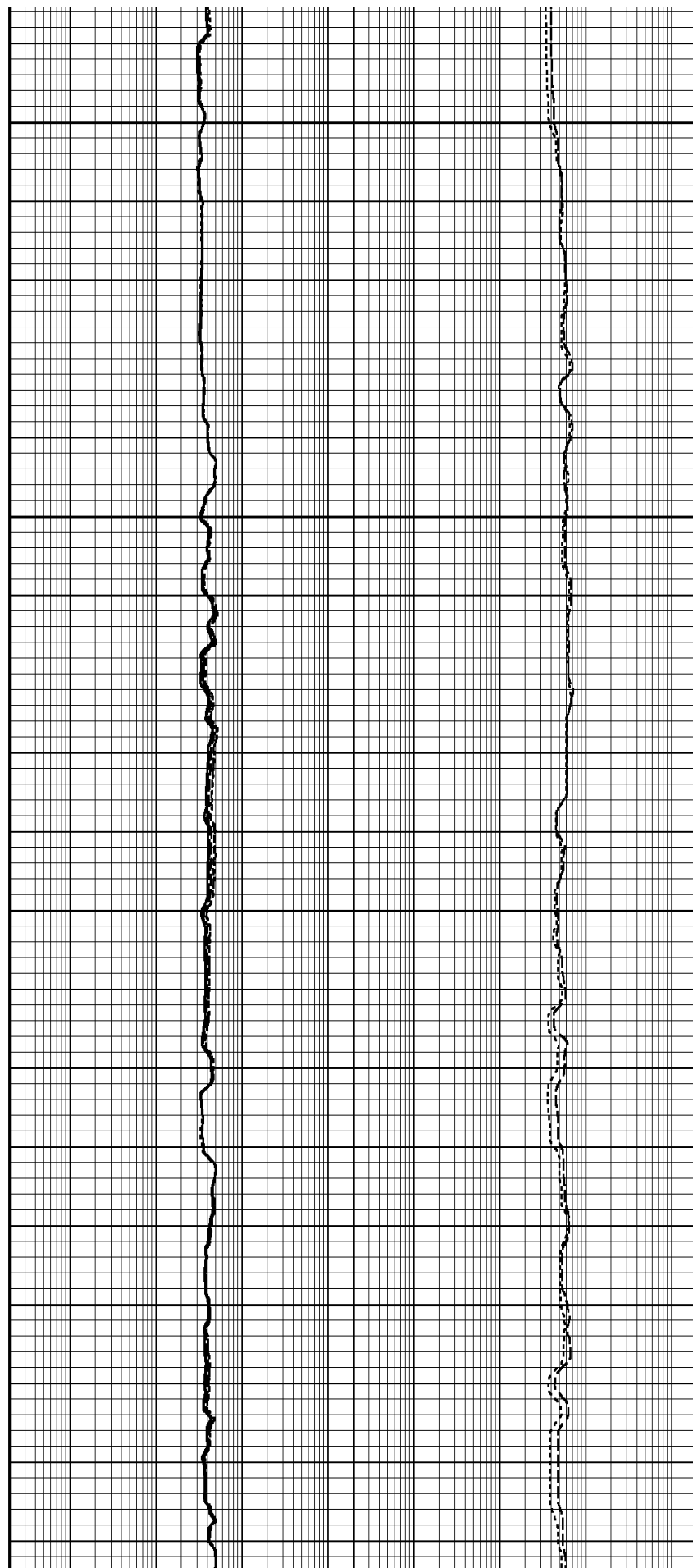
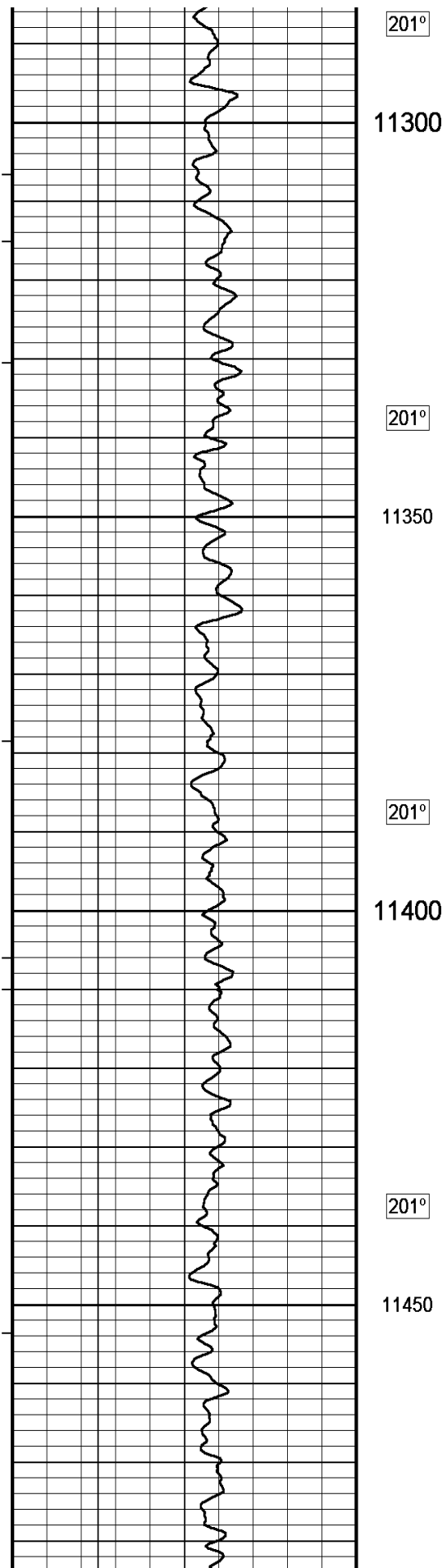
201°

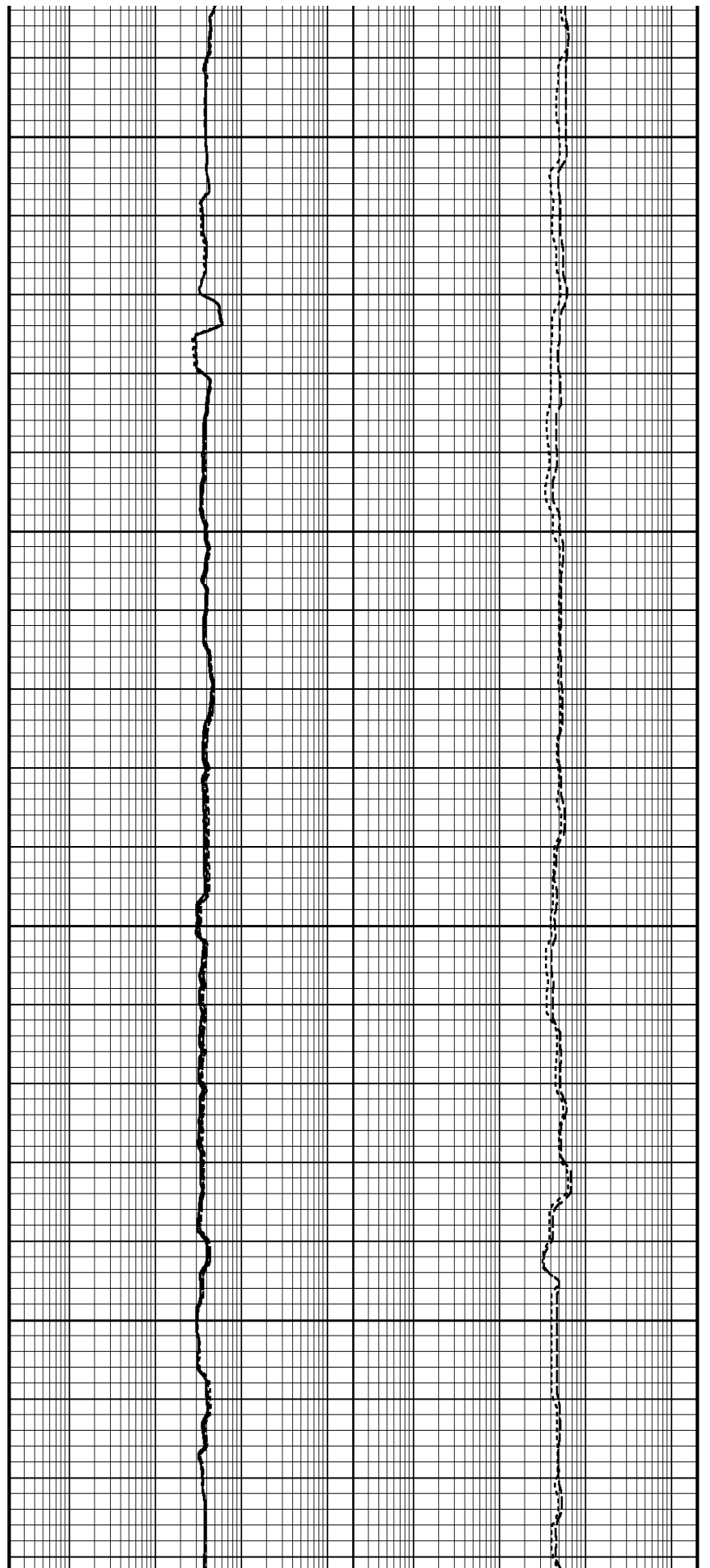
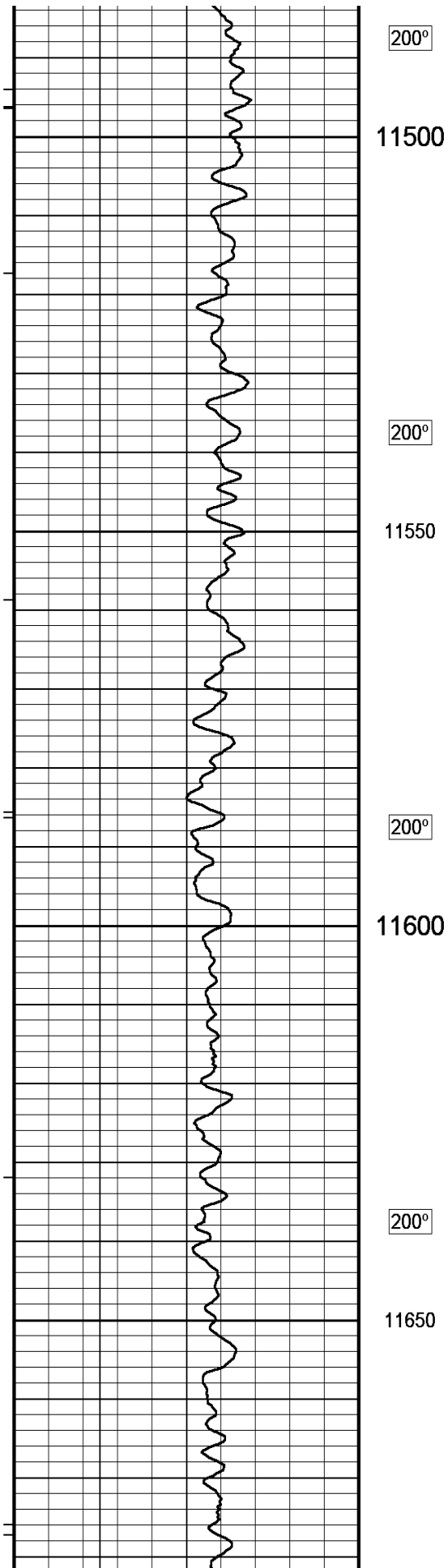
11200

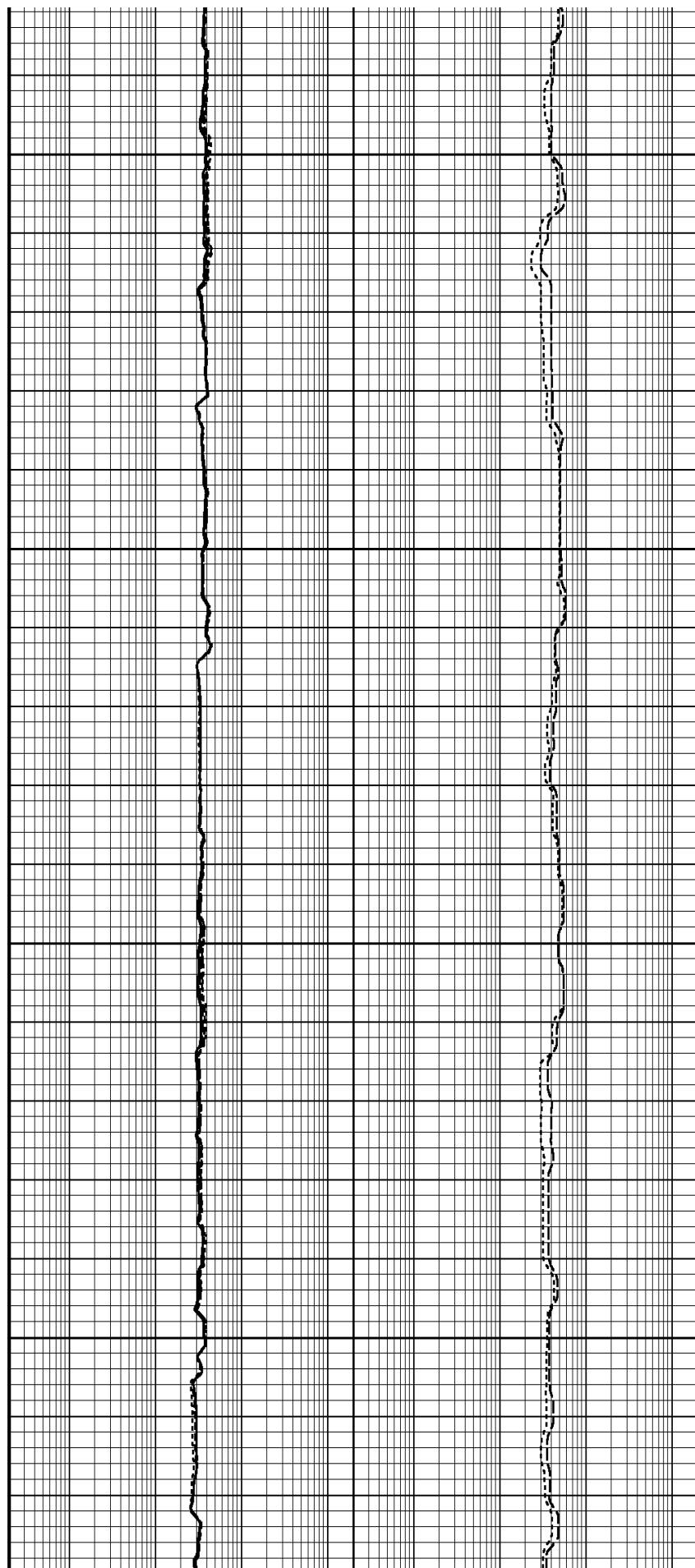
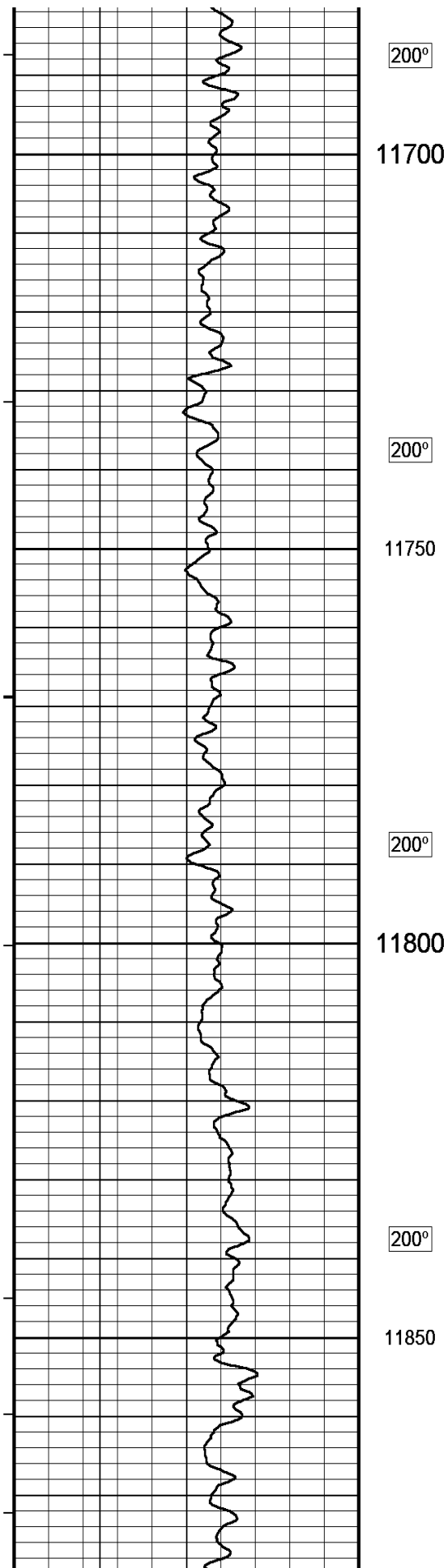
201°

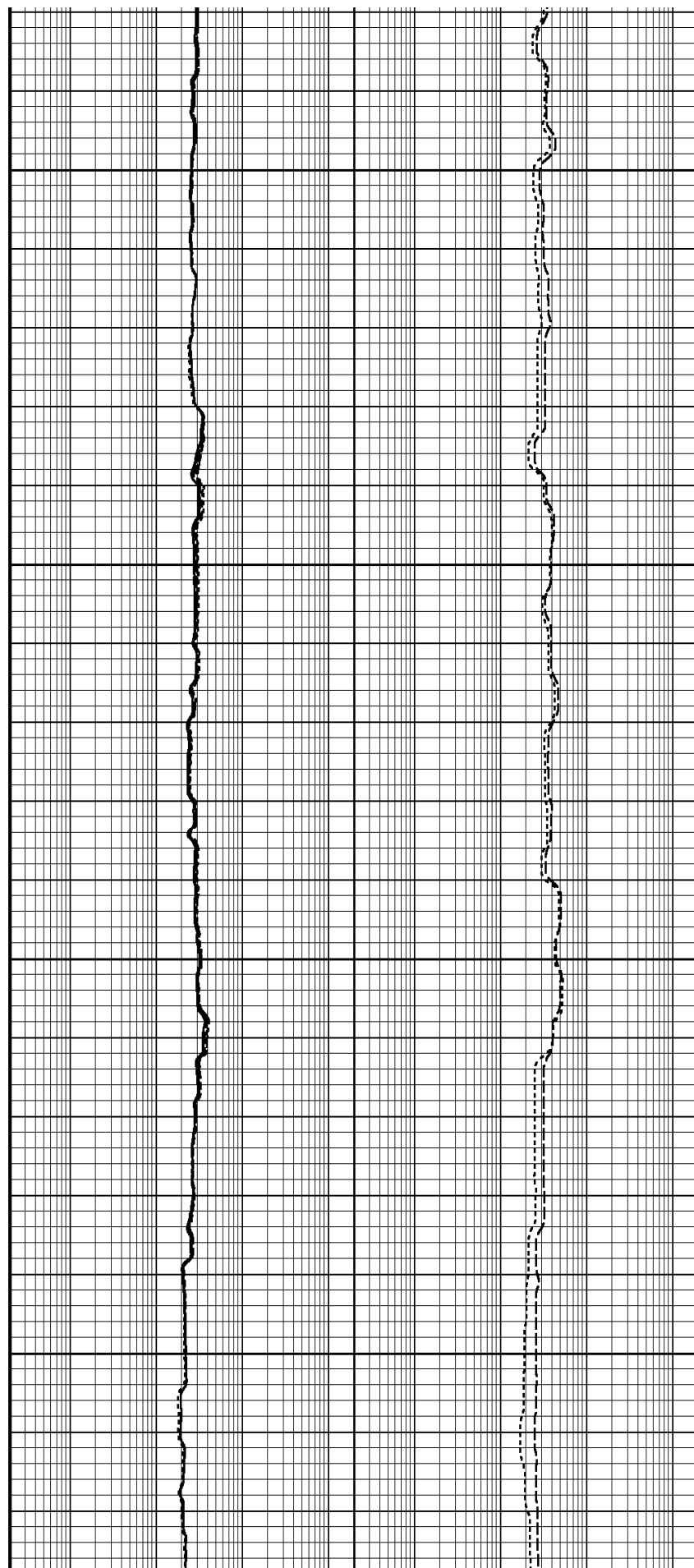
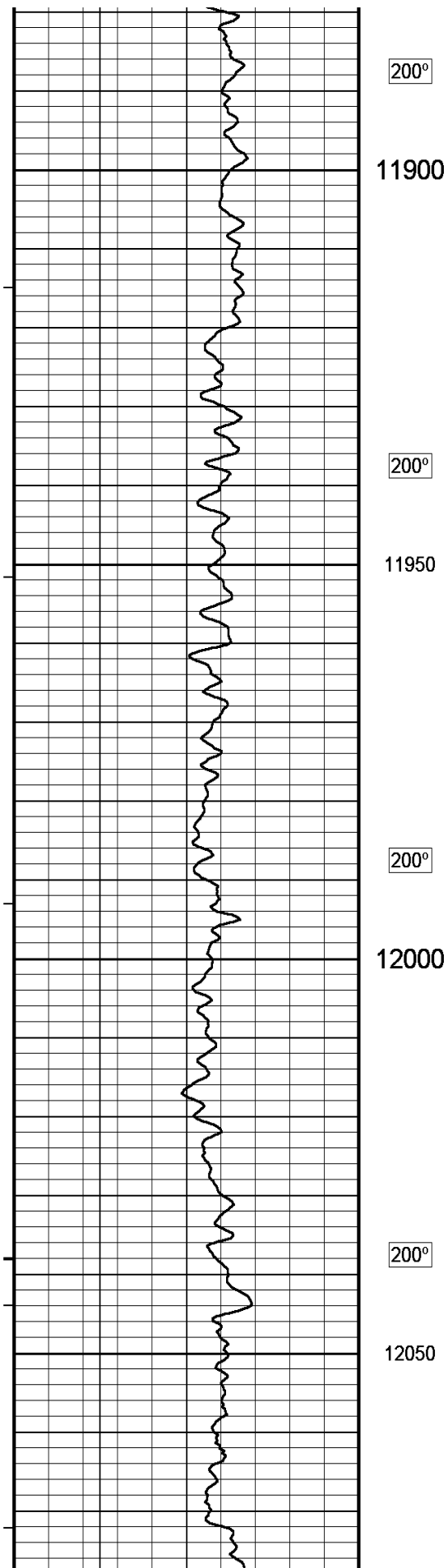
11250

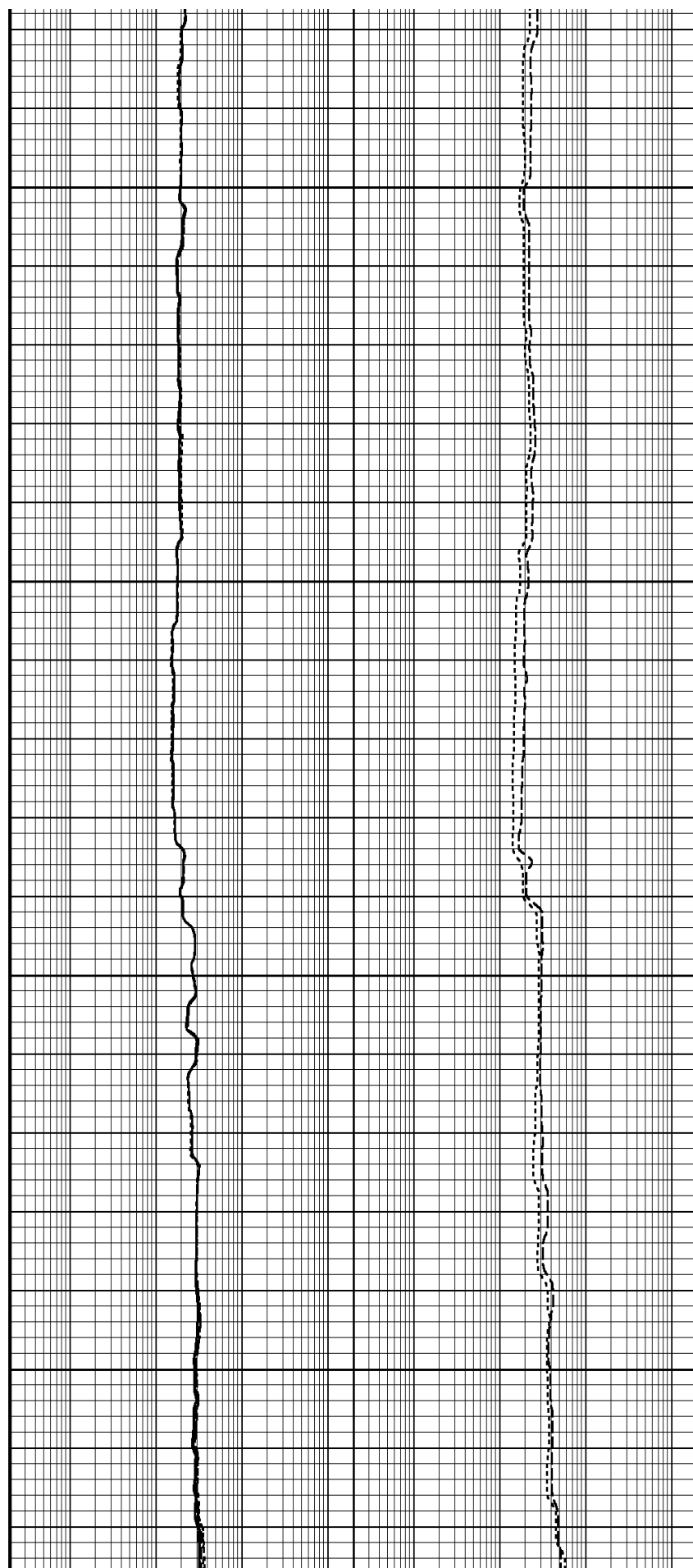
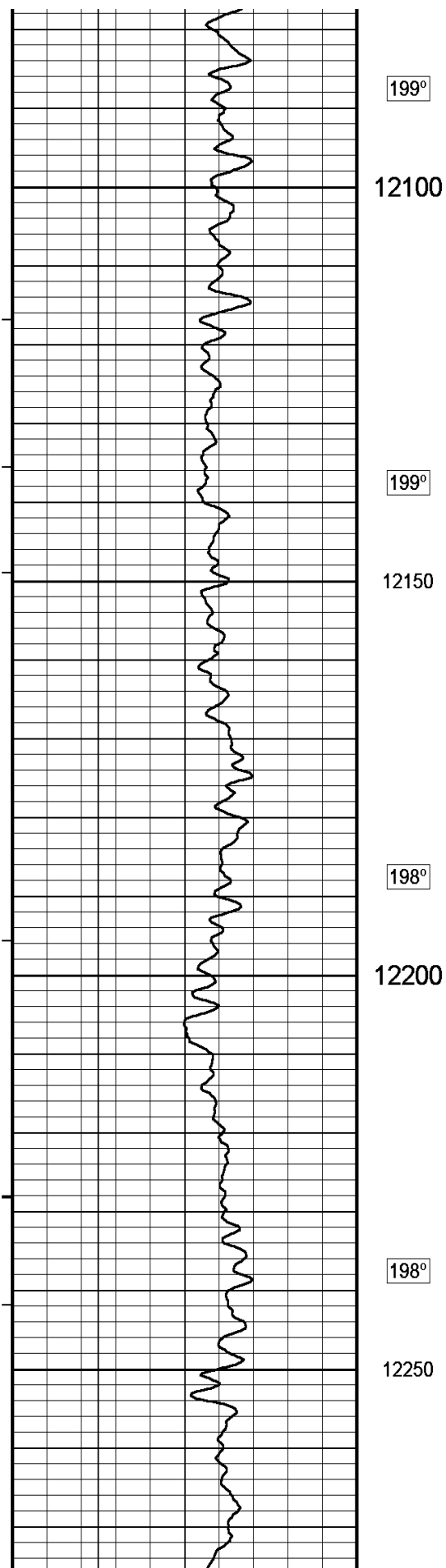


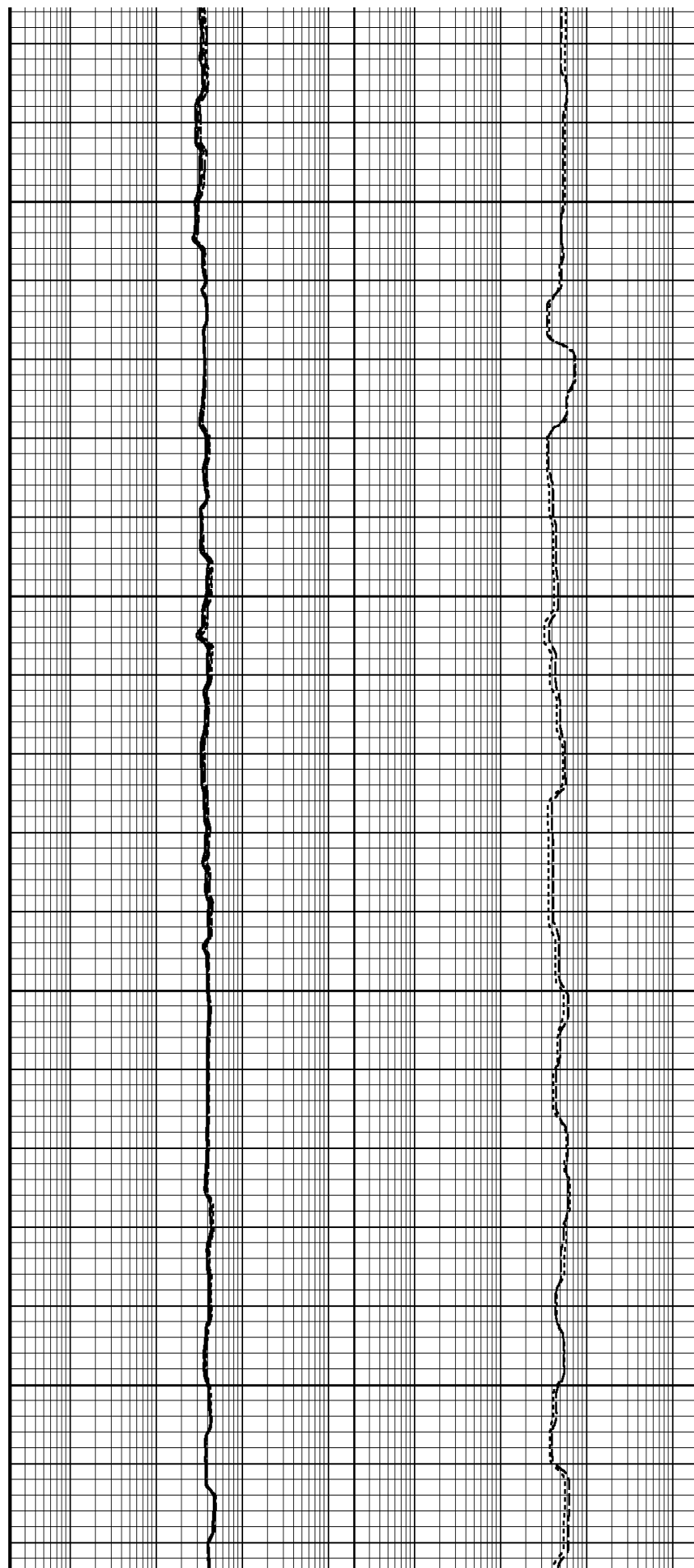
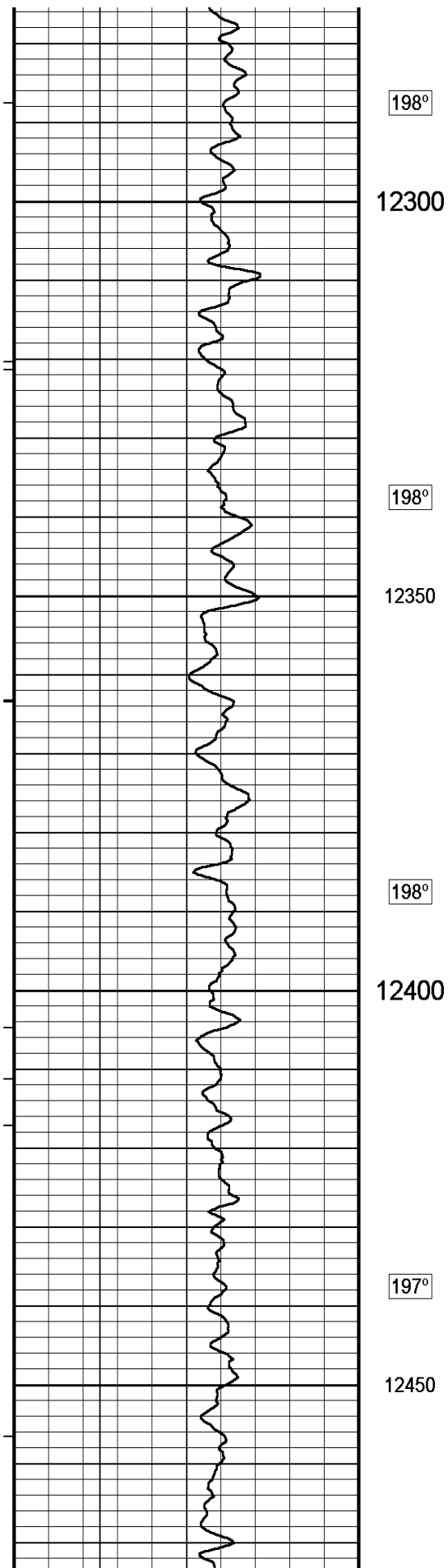


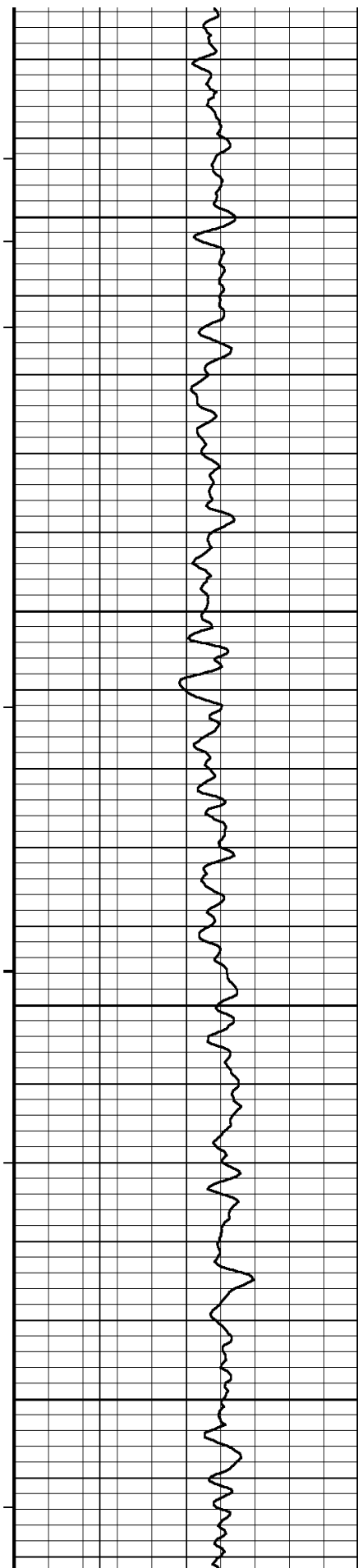












197°

12500

198°

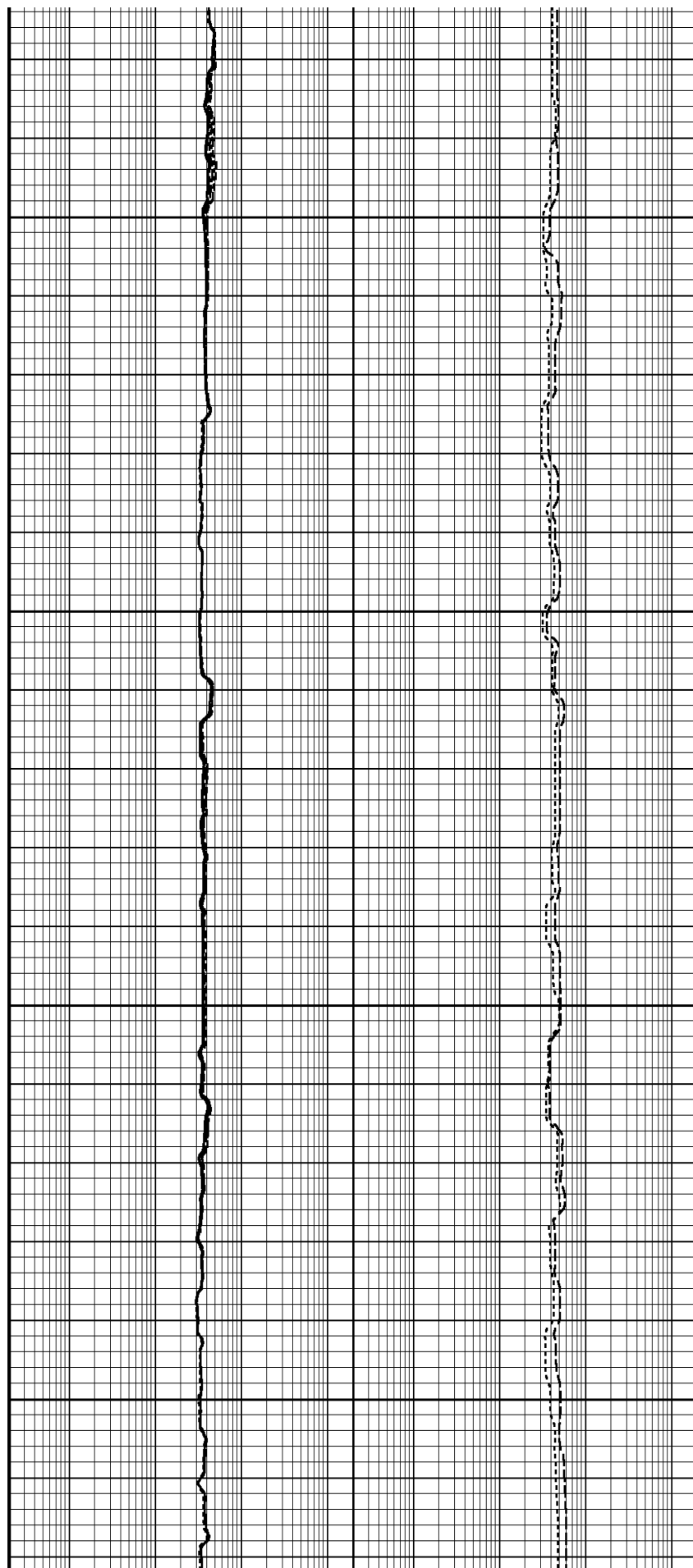
12550

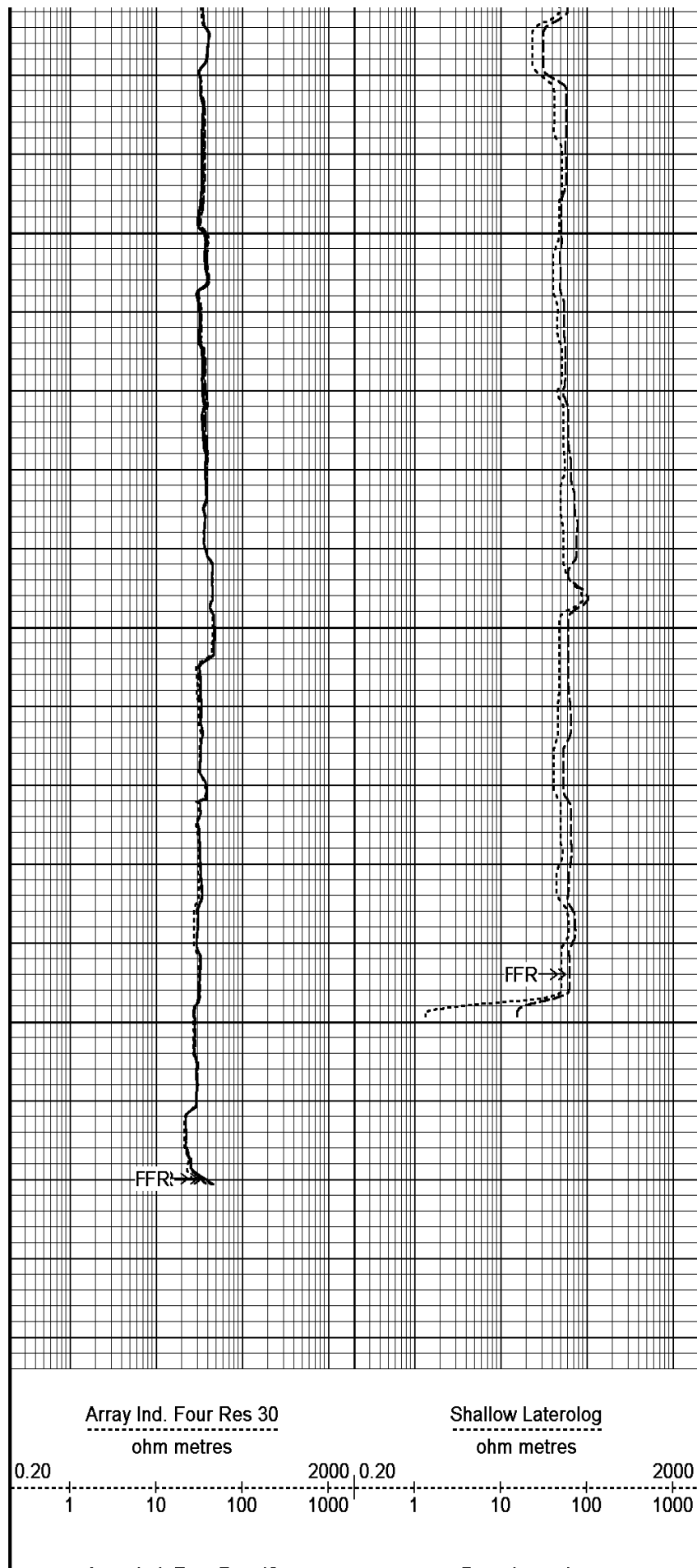
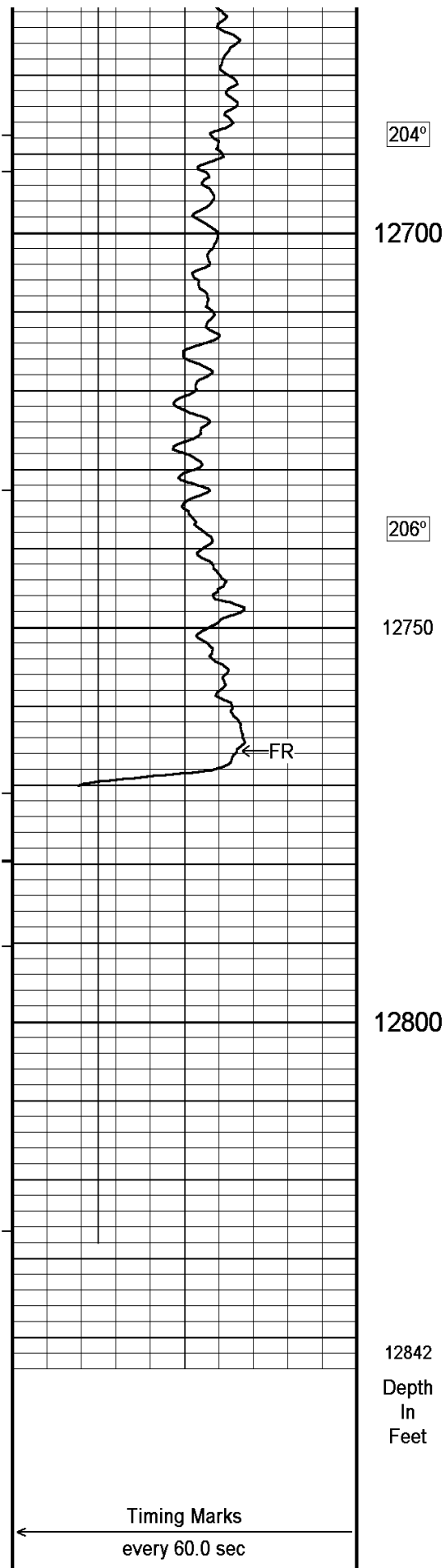
198°

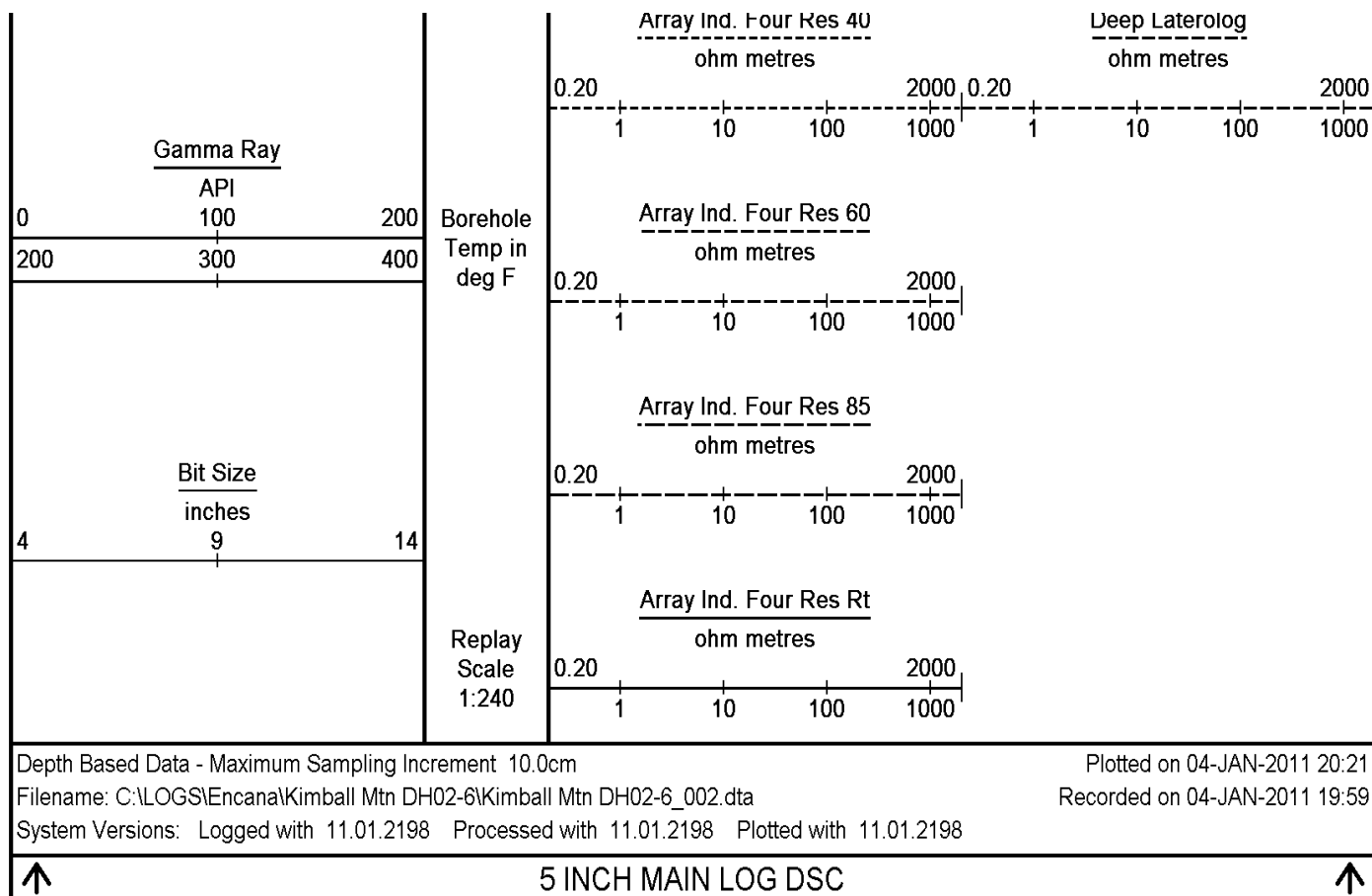
12600

201°

12650







BEFORE SURVEY CALIBRATION			
C:\LOGS\Encana\Kimball Mtn DH02-6\Kimball Mtn DH02-6.dta			
General Constants All 000		Last Edited on 04-JAN-2011,18:23	
General Parameters			
Mud Resistivity	1.170	ohm-metres	
Mud Resistivity Temperature	92.300	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		
High Resolution Temperature Calibration MCG-D.A 310		Field Calibration on 21-NOV-2009,13:43	
	Measured	Calibrated(Deg F)	
Lower	50.00	50.00	
Upper	75.00	75.00	
High Resolution Temperature Constants MCG-D.A 310		Last Edited on	

Pre-filter Length		11	
SP Calibration MCG-D.A 310		Field Calibration on 20-OCT-2010,16:22	
	Measured	Calibrated (mV)	
Reference 1	100.2	100.1	
Reference 2	-99.8	-100.1	
Gamma Calibration MCG-D.A 310		Field Calibration on 04-JAN-2011,18:23	
	Measured	Calibrated (API)	
Background	59	41	
Calibrator (Gross)	925	647	
Calibrator (Net)	866	606	
Gamma Constants MCG-D.A 310		Last Edited on 31-JUL-2010,13:48	
Gamma Calibrator Number	GRCC-153		
Mud Density	1.00	gm/cc	
Caliper Source for Processing	Bit Size		
Tool Position	Eccentred		
Concentration of KCl	0.00	kppm	
Down-hole Tension Calibration MCG-D.A 310		Field Calibration on 20-NOV-2010 00:38	
Reading No	Measured	Calibrated (lbs)	
1	16927.34	0.00	
2	18454.27	700.00	
Laterolog Calibration MLE-C.A 73		Base Calibration on 03-JAN-2011,12:10 Field Check on 03-JAN-2011 12:12	
Base Calibration			
	Measured		Calibrated (ohm-m)
Channel	Resistor 1	Resistor 2	Resistor 1 Resistor 2
Shallow	0.0	976.7	0.0 1327.3
Deep	0.0	977.6	0.0 852.7
Groningen	0.0	976.6	0.0 852.7
Channel	Base Check (ohm-m)		Field Check (ohm-m)
Shallow	48.9		48.9
Deep	31.4		31.4
Groningen	251.2		251.2
Laterolog Constants MLE-C.A 73		Last Edited on 04-JAN-2011,18:24	
Squasher Start	40000	ohm-m	
Shallow Laterolog K Factor	1.3273		
Deep Laterolog K Factor	0.8527		
Groningen Laterolog K Factor	0.8527		
Interference Rejection	50 Hz		
SP Connection	SP Bridle Electrode (Lower)		
Groningen Connection	Groningen Electrode (Upper)		
Borehole Correction Constants			
Bridle Type	Shuttle		
Stand-off	0.50	inches	
Caliper Source	Bit Size		
Hole Size	N/A	inches	
Mud Resistivity Source	Constant Value		
Temp. for Rm Corr.	N/A		
SP Calibration MLE-C.A 73		Field Calibration on 19-NOV-2010,11:57	
	Measured	Calibrated (mV)	
Reference 1	104.2	100.1	
Reference 2	-96.7	-100.1	

High Resolution Temperature Calibration MAI-B.A 210

Field Calibration on 10-MAY-2010,10:28

	Measured	Calibrated(Deg F)
Lower	50.00	50.00
Upper	75.00	75.00

High Resolution Temperature Constants MAI-B.A 210

Last Edited on

Pre-filter Length 11

Induction Calibration MAI-B.A 210

Base Calibration on 24-DEC-2010,07:49

Field Check on 03-JAN-2011 12:04

Base Calibration

Test Loop Calibration

Channel	Measured		Calibrated (mmho/m)	
	Low	High	Low	High
1	16.3	480.6	9.3	966.2
2	5.0	379.9	7.6	821.4
3	2.7	264.1	5.2	566.0
4	1.0	131.9	2.6	279.2

Array Temperature 75.6 Deg F

Channel	Base Check (mmho/m)		Field Check (mmho/m)	
	Low	High	Low	High
1	11.8	3775.0	11.4	3775.3
2	31.9	3545.3	31.5	3545.5
3	29.5	2992.7	29.1	2992.9
4	21.5	2085.7	21.2	2085.9
Deep	18.0	1925.1	17.8	1925.3
Medium	42.7	3935.1	42.2	3935.3
Shallow	47.8	5290.4	47.1	5290.6

Array Temperature 20.9 22.7 Deg F

Induction Constants MAI-B.A 210

Last Edited on 04-JAN-2011,18:24

Induction Model	RtAP-WBM		
Caliper for Borehole Corr.	Bit Size		
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	6.0000		
Stand-off Fin Angle	60.00	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

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	

DOWNHOLE EQUIPMENT

C:\LOGS\Encana\Kimball Mtn DH02-6\Kimball Mtn DH02-6.dta

Shuttle Running Tool 3.5" (SRT A)

SRT-A 16 LG: 5.42 ft WT: 37.5 lb OD: 2.52 in

MBS-A 400v Compact Battery Sub

MBS-A 26 LG: 14.24 ft WT: 105.8 lb OD: 2.24 in

Compact Stiff Bridle Electrode Sub.

MBE-D.A 173 LG: 12.33 ft WT: 77.2 lb OD: 2.24 in

Compact Stiff Bridle Electrode Sub.

MBE-D.A 178 LG: 12.33 ft WT: 77.2 lb OD: 2.24 in

Compact Stiff Bridle Electrode Sub.

MBE-D.A 180 LG: 12.33 ft WT: 77.2 lb OD: 2.24 in

Compact Comms Gamma

MCG-D.A 310 LG: 8.70 ft WT: 63.9 lb OD: 2.24 in

Compact Memory Sub. A.C

MMS-A.C 11 LG: 3.12 ft WT: 22.0 lb OD: 2.24 in

SHA-H Compact Swivel Head Adaptor

SHA-H 142 LG: 2.30 ft WT: 22.0 lb OD: 2.24 in

MIS-B Compact Inline Standoff sub

MIS-B 199 LG: 2.14 ft WT: 15.4 lb OD: 2.24 in

Compact Upper Guard sub

MUG-B.A 129 LG: 8.98 ft WT: 68.3 lb OD: 2.24 in

MIS-E.A Compact Inline Standoff sub

MIS-E.A 363 LG: 2.14 ft WT: 15.4 lb OD: 2.24 in

Compact Laterolog Electrode Sub.

MLL-E.A 75 LG: 10.64 ft WT: 33.0 lb OD: 2.24 in



57.50 ft

GRGC - Gamma Ray

54.60 ft

CGXT - MCG External Temperature

29.13 ft

DDL - Deep Laterolog

MLE-C.A 73 LG: 12.34 ft WT: 92.6 lb OD: 2.24 in

MIS-B Compact Inline Standoff sub

MIS-B 200 LG: 2.14 ft WT: 15.4 lb OD: 2.24 in

Compact Lower Guard Sub.

MLG-B.A 140 LG: 8.00 ft WT: 55.1 lb OD: 2.24 in

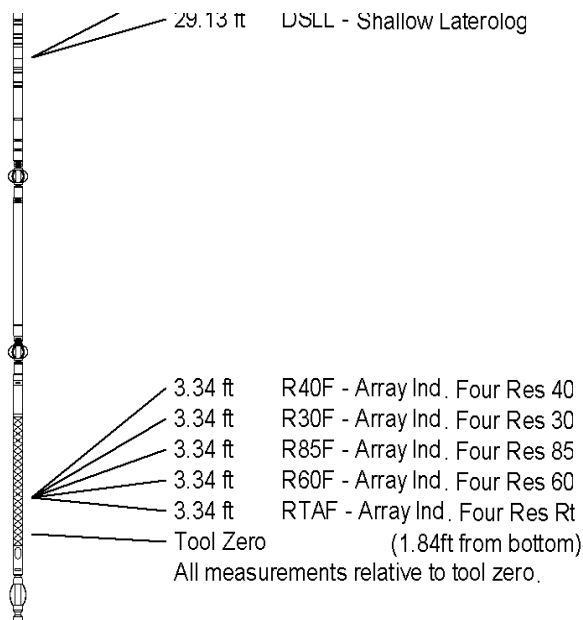
MIS-B Compact Inline Standoff sub

MIS-B 115 LG: 2.14 ft WT: 15.4 lb OD: 2.24 in

Compact Induction

MAI-B.A 210 LG: 12.52 ft WT: 48.5 lb OD: 2.24 in

Total Length: 121.15 ft Weight: 809.1 lb



COMPANY	ENCANA OIL & GAS (USA), INC
WELL	KIMBALL MTN DH02-6 B07 799
FIELD	GASAWAY
PROVINCE/COUNTY	GARFIELD
COUNTRY/STATE	U.S.A. / COLORADO

Elevation Kelly Bushing	6672.00	feet	First Reading	12823.00	feet
Elevation Drill Floor	6671.00	feet	Depth Driller	13024.00	feet
Elevation Ground Level	6649.00	feet	Depth Logger	13024.00	feet



Weatherford®

ARRAY INDUCTION
DUAL LATERLOG

