



TEMPERATURE CCL LOG

Company	TERRA EP			
Well	RU 423-7			
Field	RULISON			
County	GARFIELD		State	COLORADO
Location:	API # : 05-045-23131-00		Other Services	
	QtrQtr: SENW			
	LAT. 39.456899			
	LOG. -107.819713			
	SEC 7	TWP 7S	RGE 93W	
Permanent Datum	G.L.	Elevation	7339'	Elevation
Log Measured From	K.B.	Ft Above PD	24.0'	K.B. 7363'
Drilling Measured From	K.B.			D.F. G.L. 7339'
Date	08-01-2016			
Run Number	ONE			
Depth Driller	9606'			
Present Depth Driller	9574'			
Depth Logger	9580'			
Bottom Logged Interval	9580'			
Top Log Interval	SURFACE			
Fluid Level	FULL			
Type Fluid	WATER			
Max. Recorded Temp.	18.9 ° F			
Estimated Cement Top	4250'			
Equipment Number	216			
Location	GRAND JCT.			
Recorded By	MCBROOM			
Witnessed By	MR. RAGSDALE		MR. OAKS	
Borehole Record				
Run Number	Bit	From	To	Size
				4.50"
				11.6#
				SURFACE
				T.D.

<<< Fold Here >>>

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 interpretation, and we shall not, except in the case of gross or willful 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 set out in our current Price Schedule.

WARRIOR 7.0 SOFTWARE - Comments

NOTE; THERE WAS NO LOG FOR DEPTH CONTROL.
SCALE MAIN PASS 5"= 100'.
NOTE; SHORT JOINT AT 5943' TO 5966'.

Calibration Report

Database File: 08012016_terraep ru 423-7.db
Dataset Pathname: mainpass/pass2
Dataset Creation: Mon Aug 01 20:01:20 2016 by Log SCH 120430

Temperature Calibration Report

Serial Number: 10008207
 Tool Model: 016
 Performed: Tue Feb 16 19:12:57 2016

Point #	Reading	Reference
1	11720.00 cps	67.12 degF
2	17822.00 cps	104.92 degF
3	29420.00 cps	176.56 degF
4	40978.00 cps	247.35 degF
5	52763.00 cps	318.38 degF
6	58614.00 cps	354.31 degF
7	cps	degF
8	cps	degF
9	cps	degF
10	cps	degF

Gamma Ray Calibration Report

Serial Number: 10007620
 Tool Model: 020
 Performed: Wed Apr 20 13:09:36 2016

Calibrator Value: 1.0 GAPI

Background Reading: 0.0 cps
 Calibrator Reading: 1.0 cps

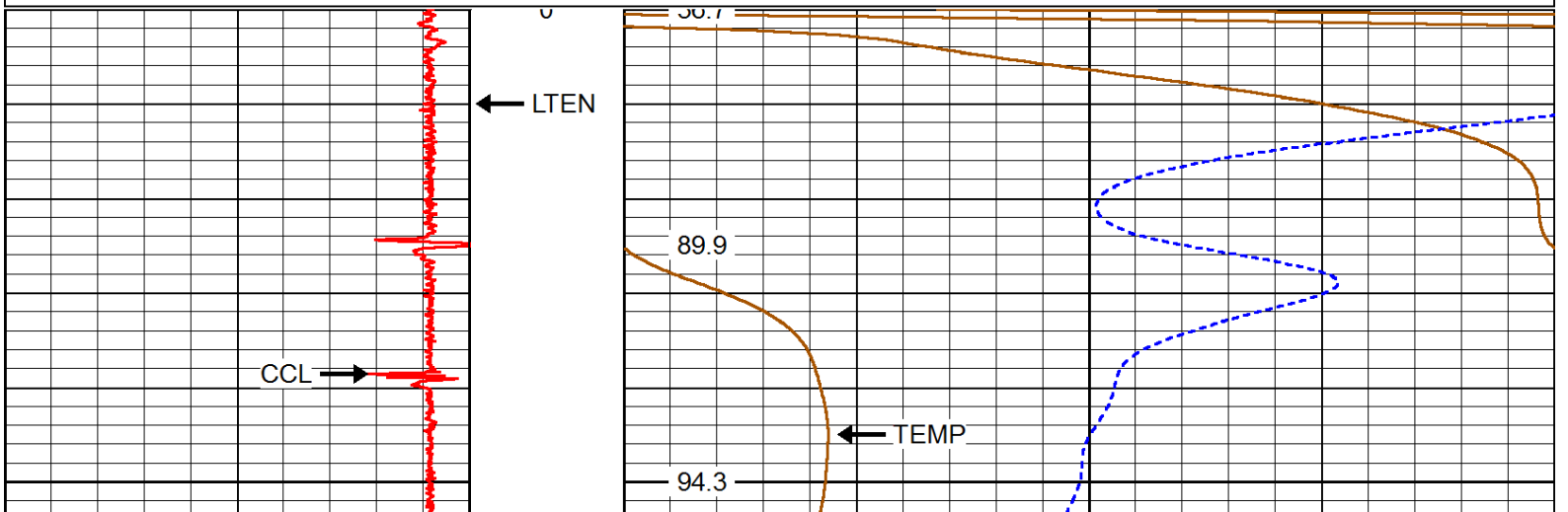
Sensitivity: 0.8300 GAPI/cps

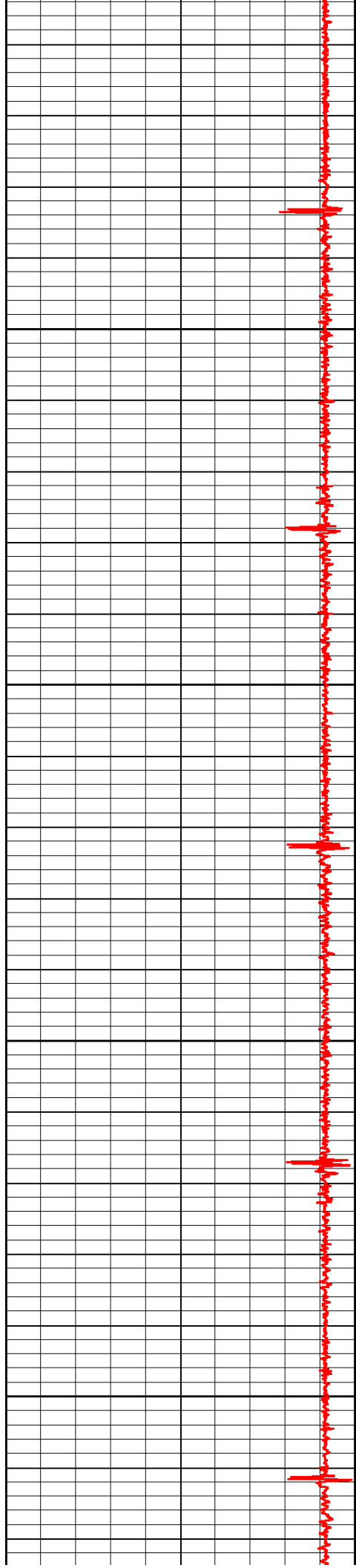


MAIN PASS

Database File: 08012016_terraep ru 423-7.db
 Dataset Pathname: mainpass/pass2
 Presentation Format: rmws_tem
 Dataset Creation: Mon Aug 01 20:01:20 2016 by Log SCH 120430
 Charted by: Depth in Feet scaled 1:240

0	CCL	20000	LTEN	70	TEMP (degF)	90
			0 (lb)1200	-1	DTMP (degF)	1
				TEMP (degF)		





100

200

93.1

92.2

92.9

92.4

93.5

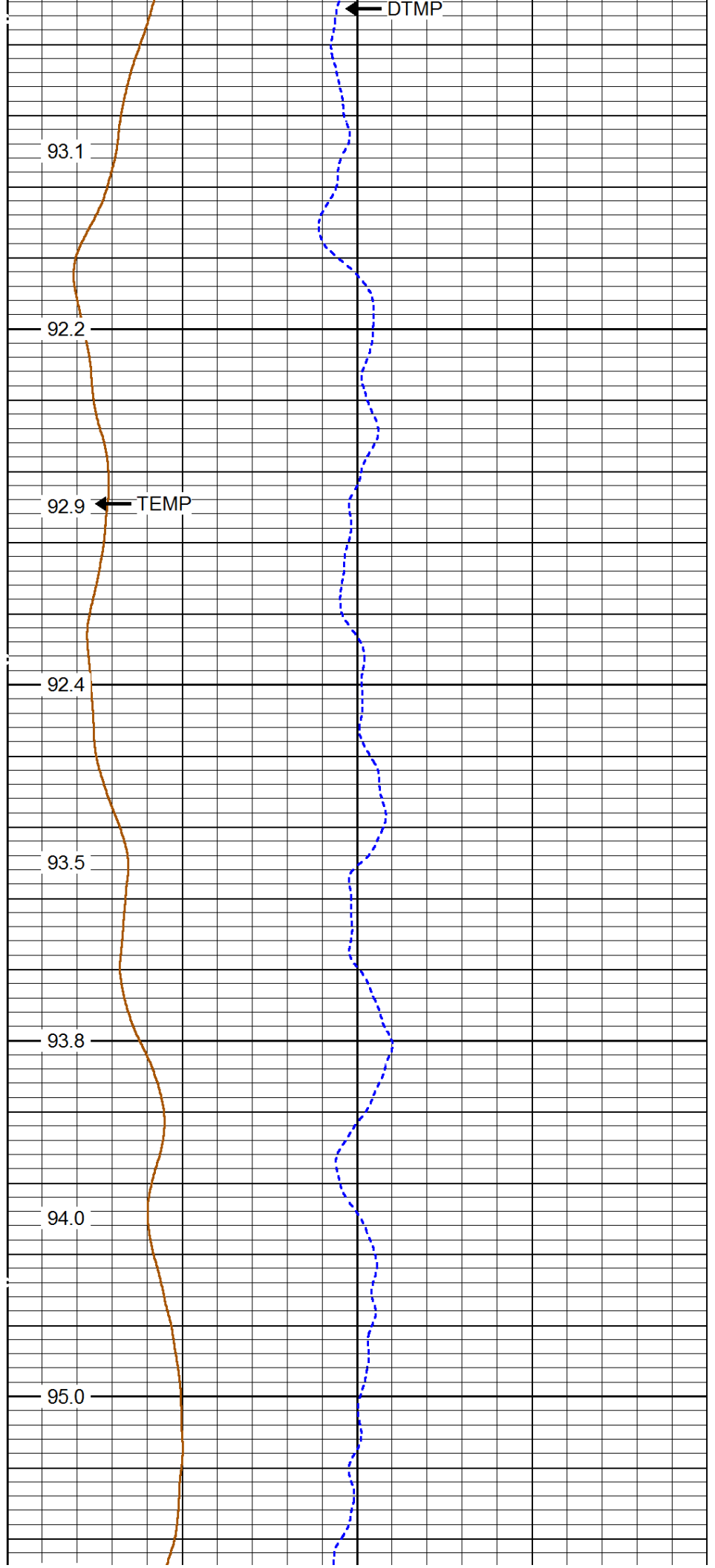
93.8

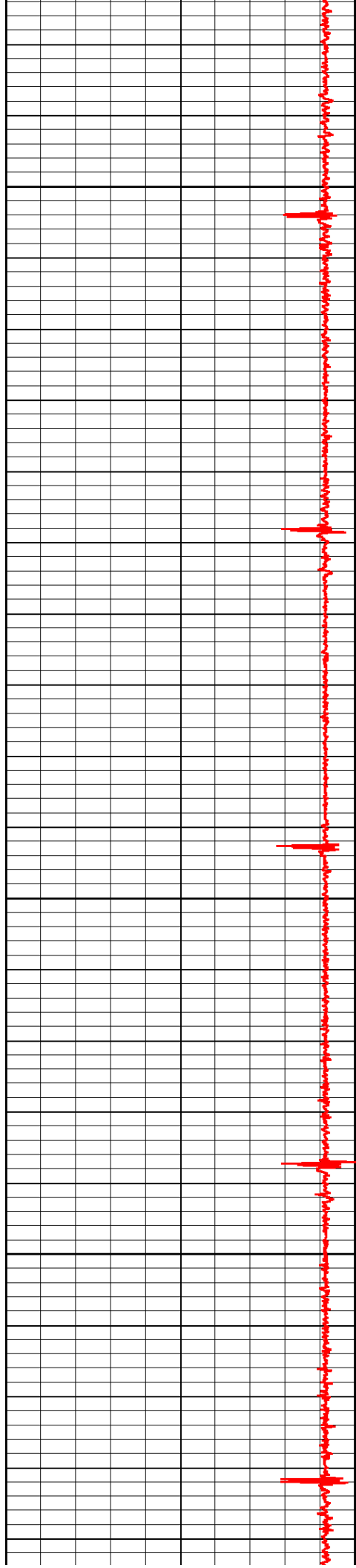
94.0

95.0

← TEMP

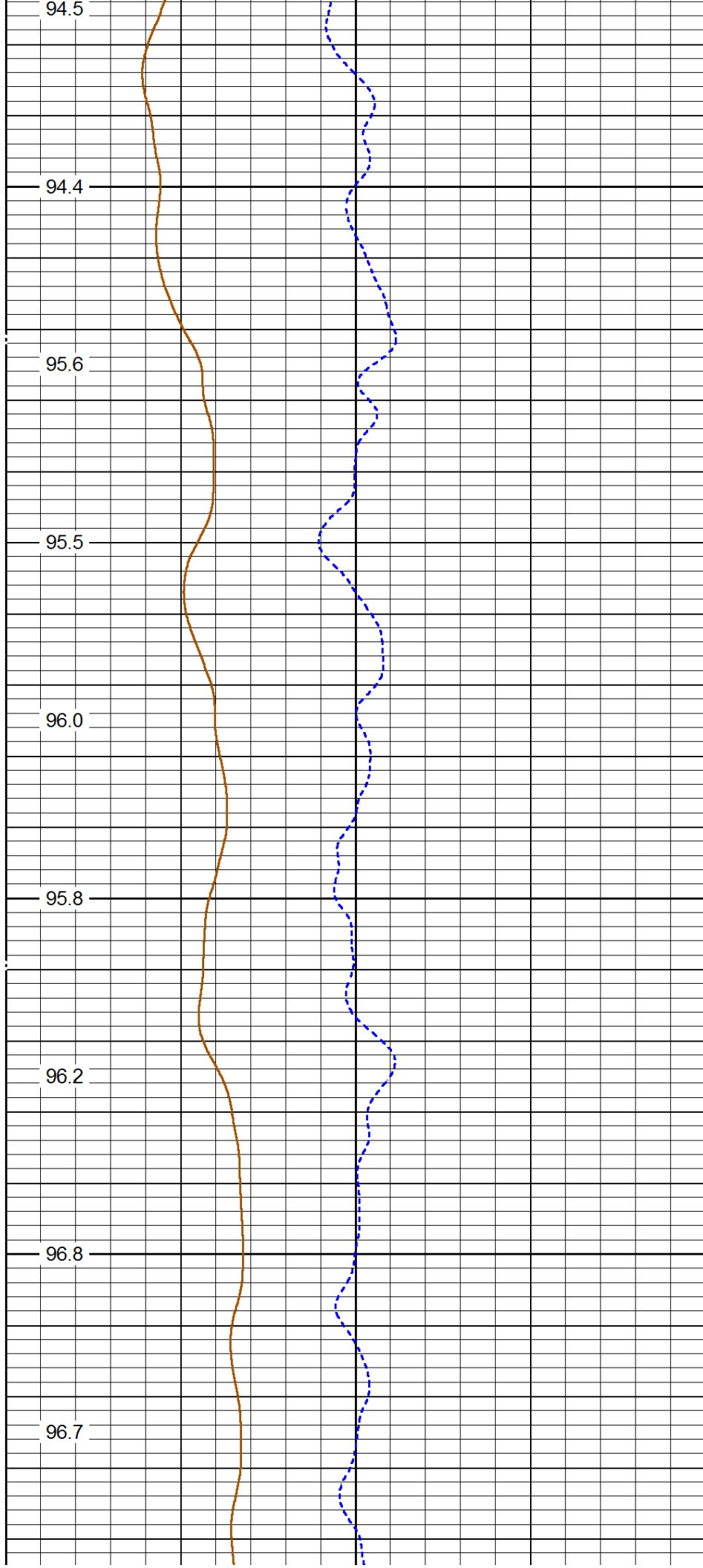
← DTMP

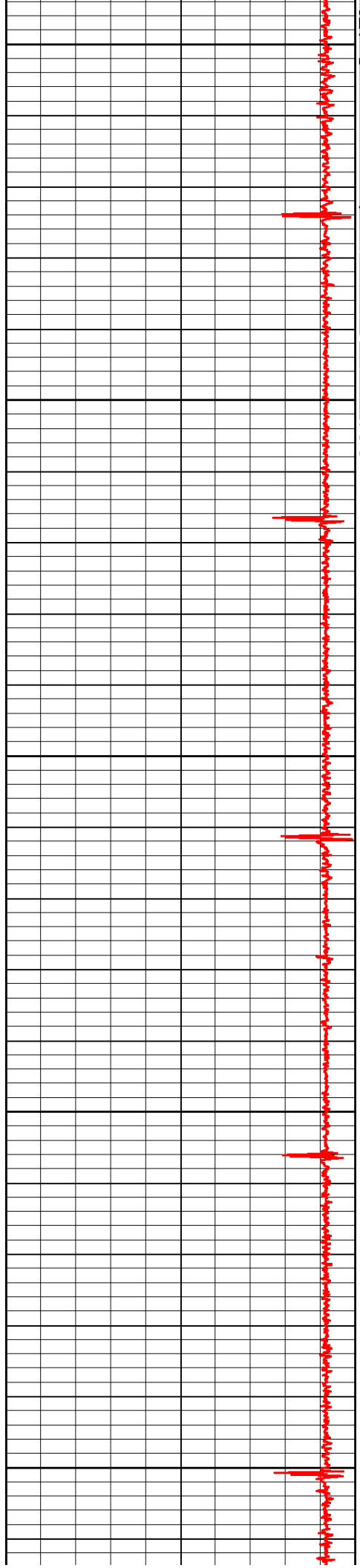




300

400





500

600

700

96.8

97.4

97.3

97.7

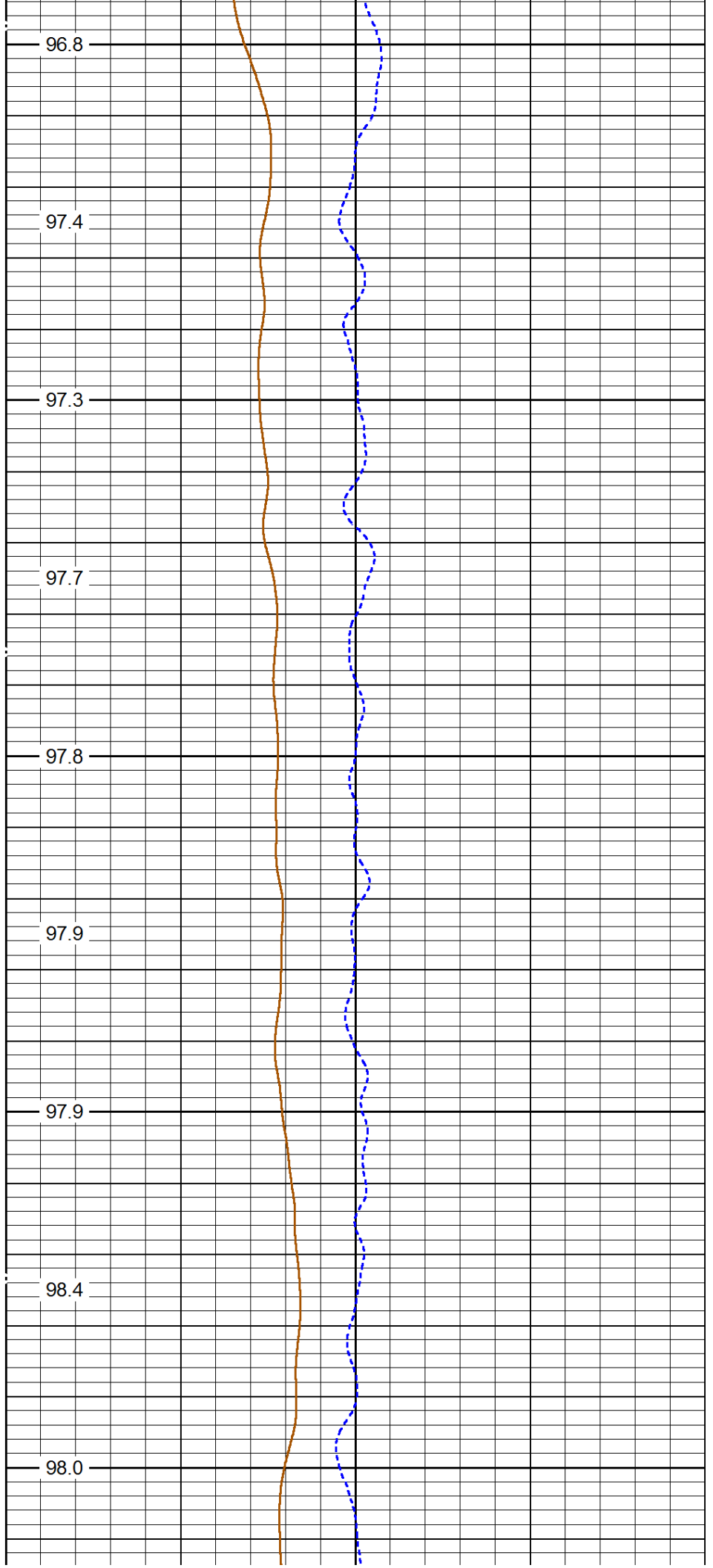
97.8

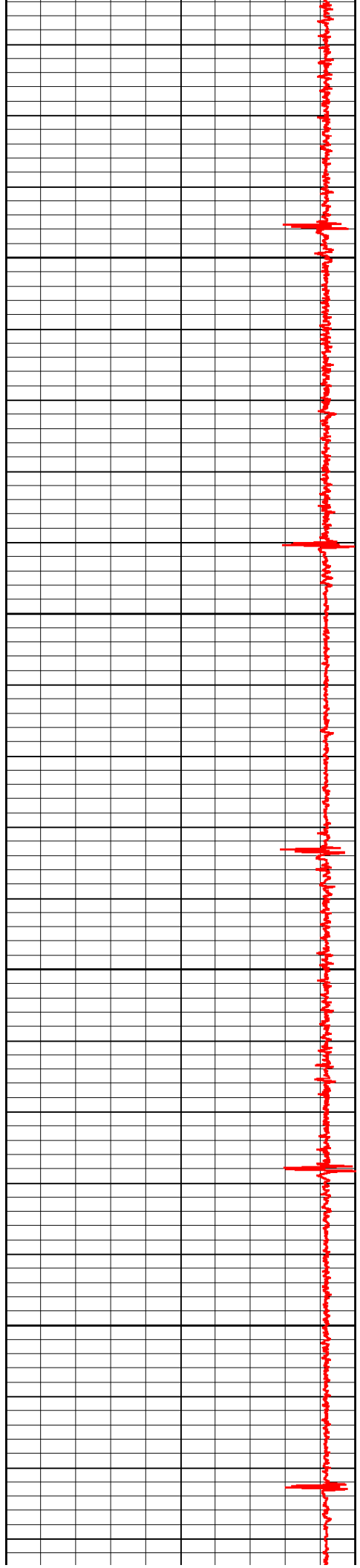
97.9

97.9

98.4

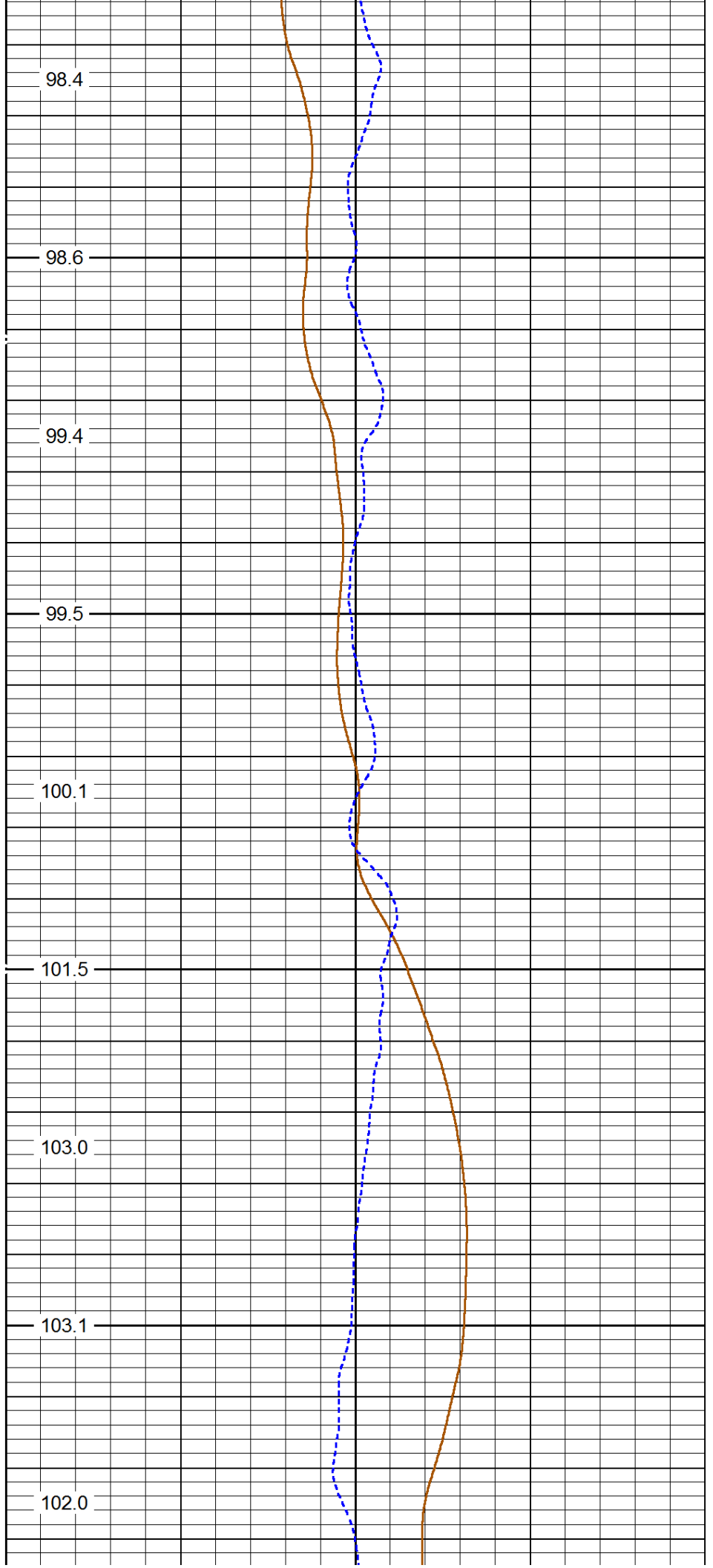
98.0

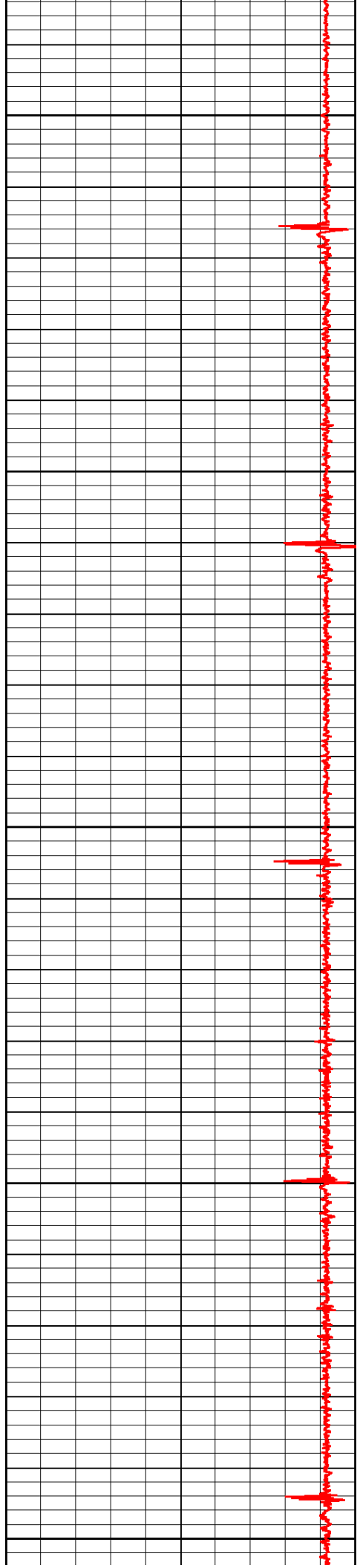




800

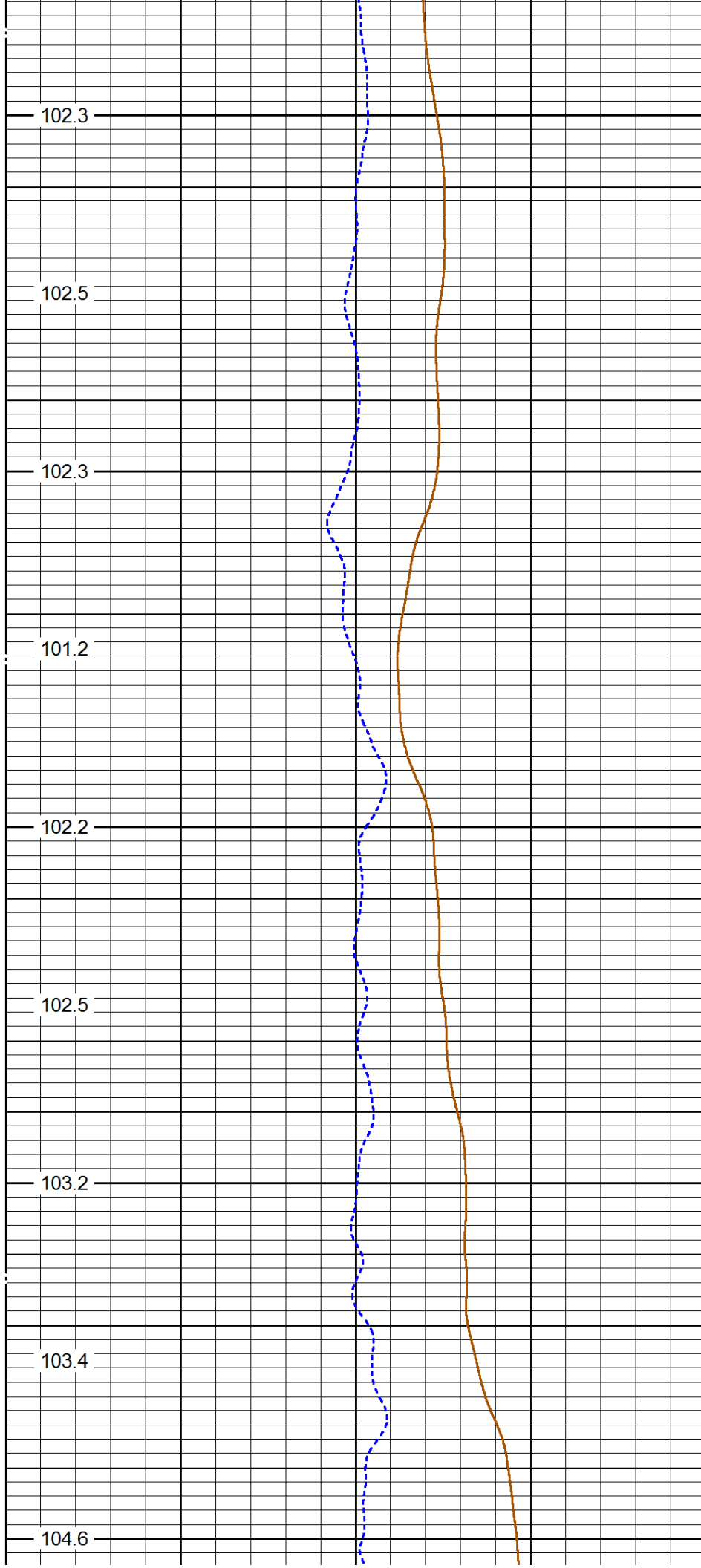
900





1000

1100



102.3

102.5

102.3

101.2

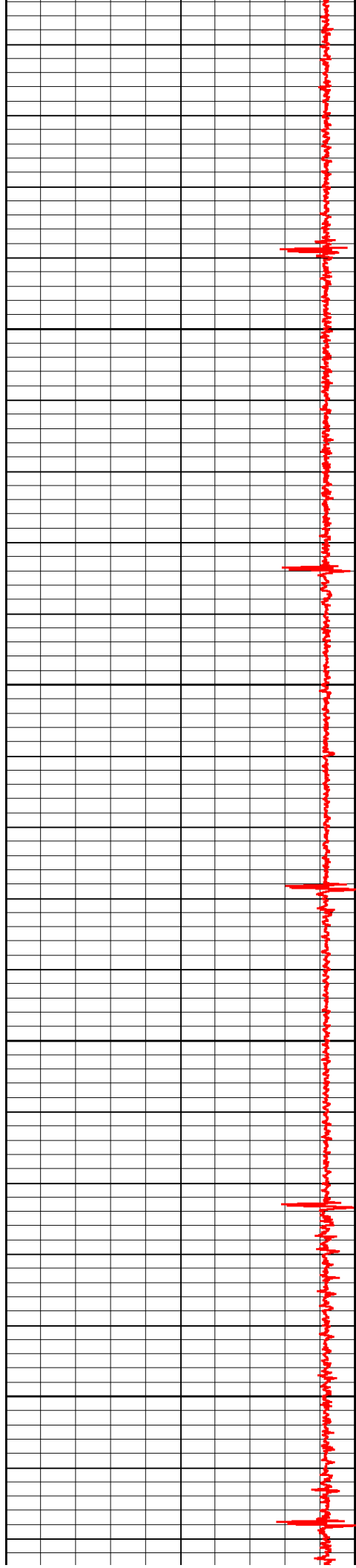
102.2

102.5

103.2

103.4

104.6



1200

1300

105.6

105.3

105.8

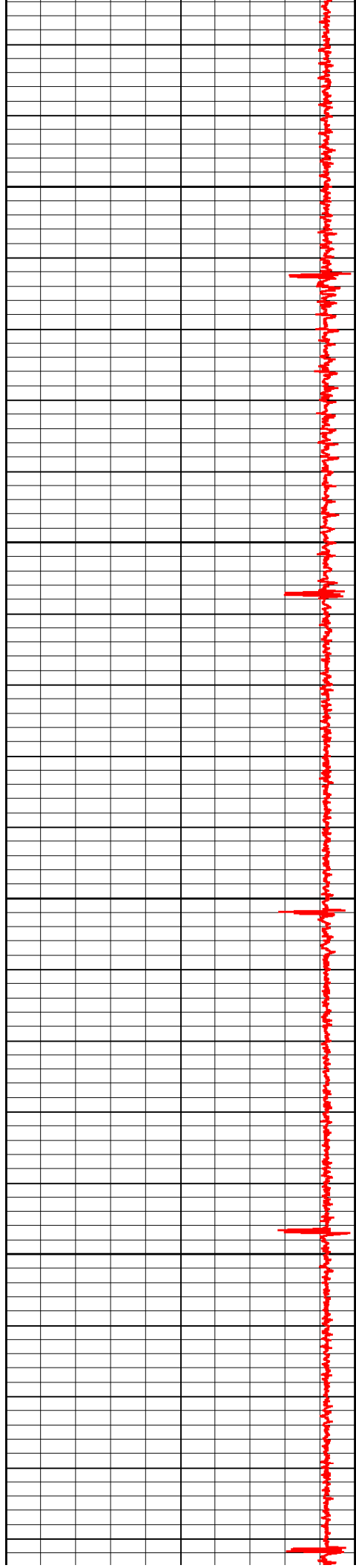
104.8

105.1

105.0

104.6

104.8



1400

1500

105.1

104.8

105.4

104.8

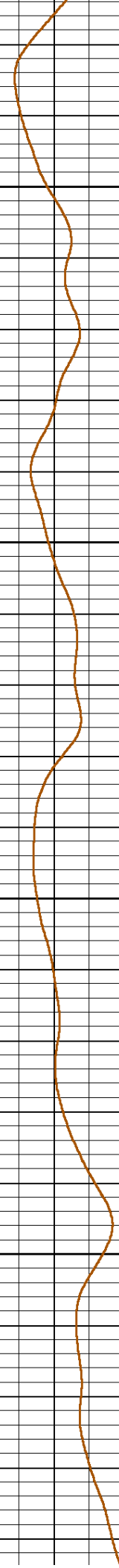
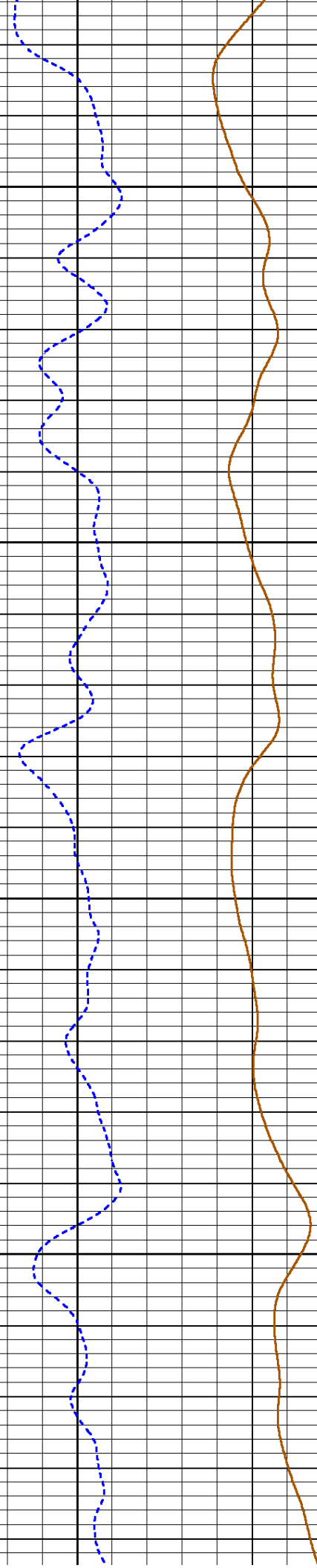
105.8

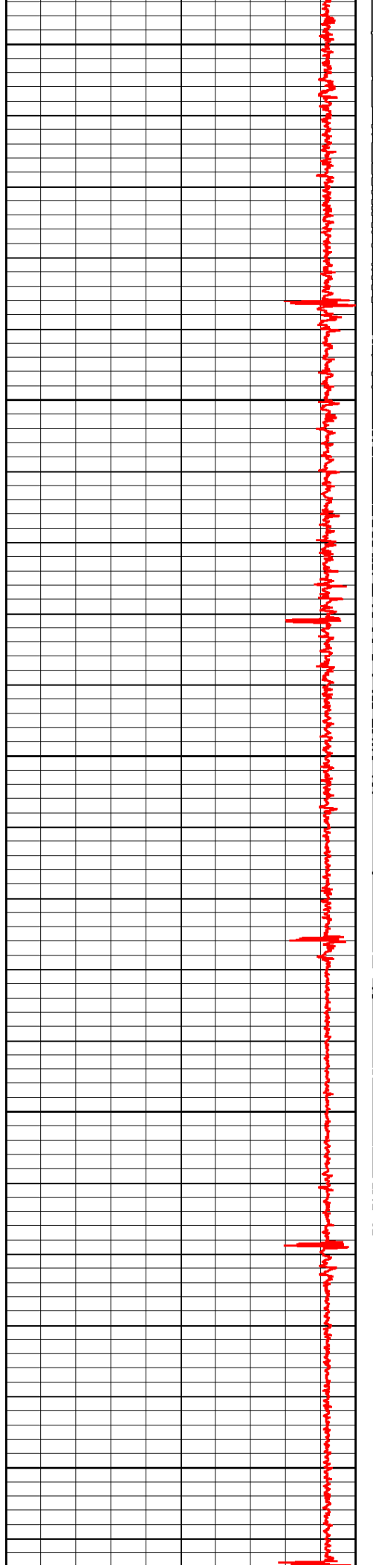
104.5

105.0

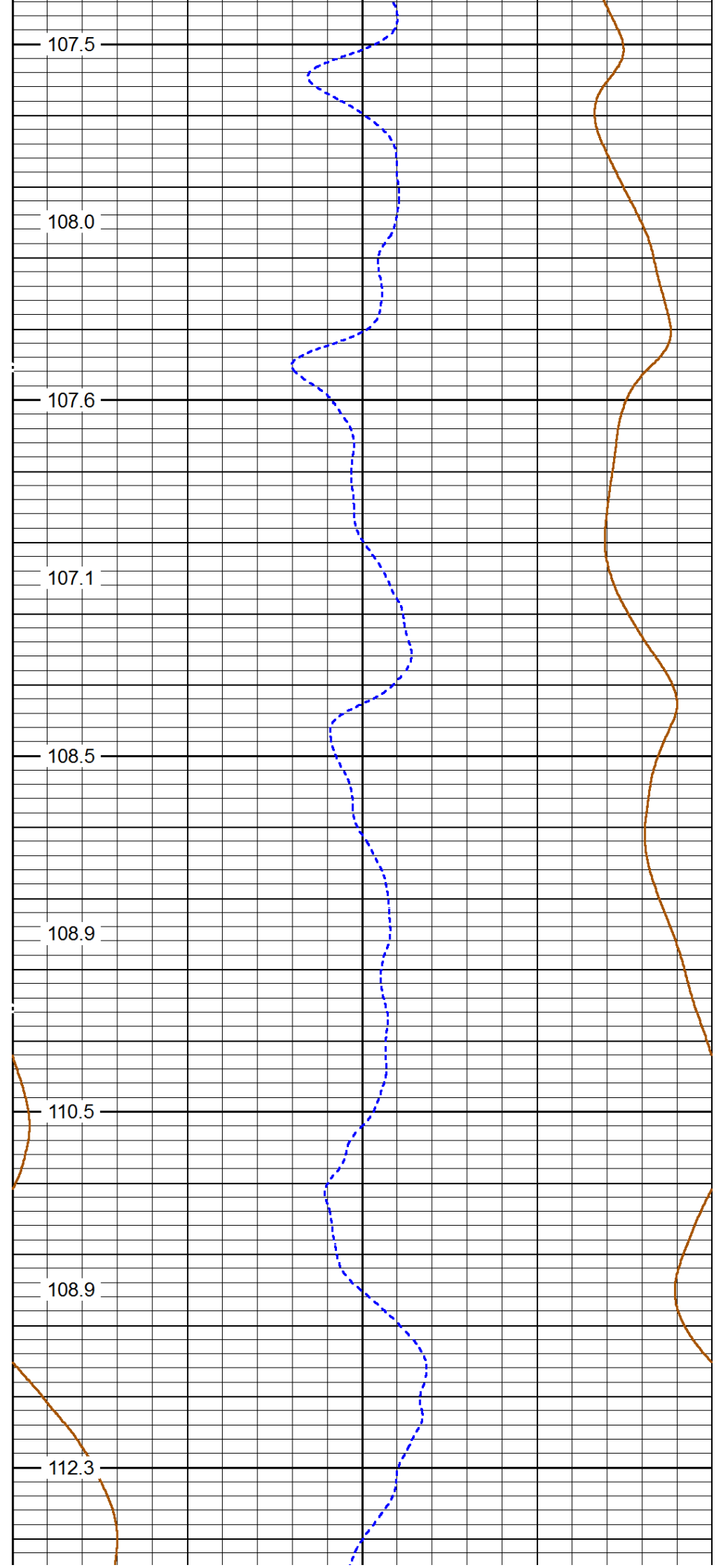
106.4

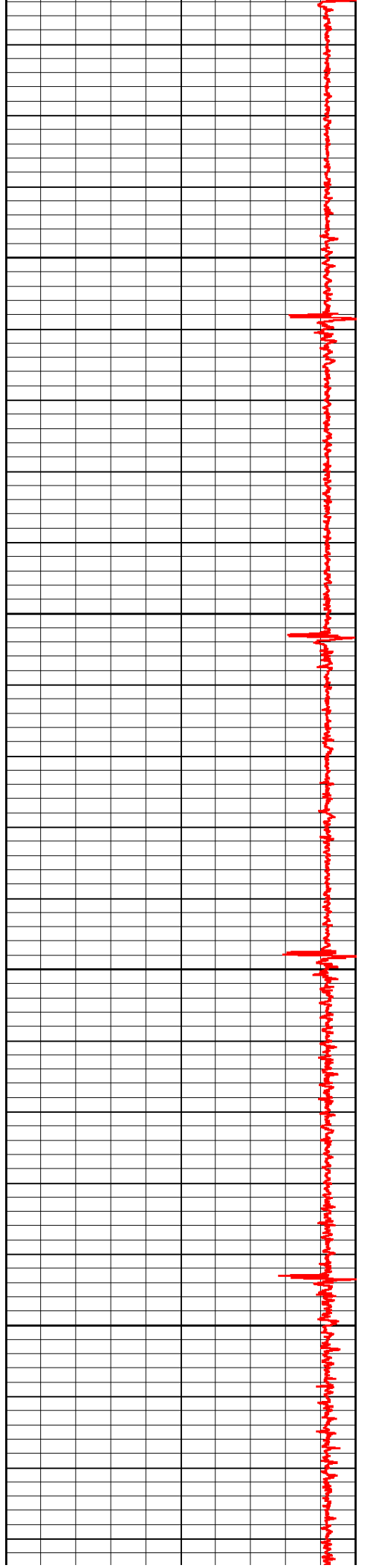
105.8





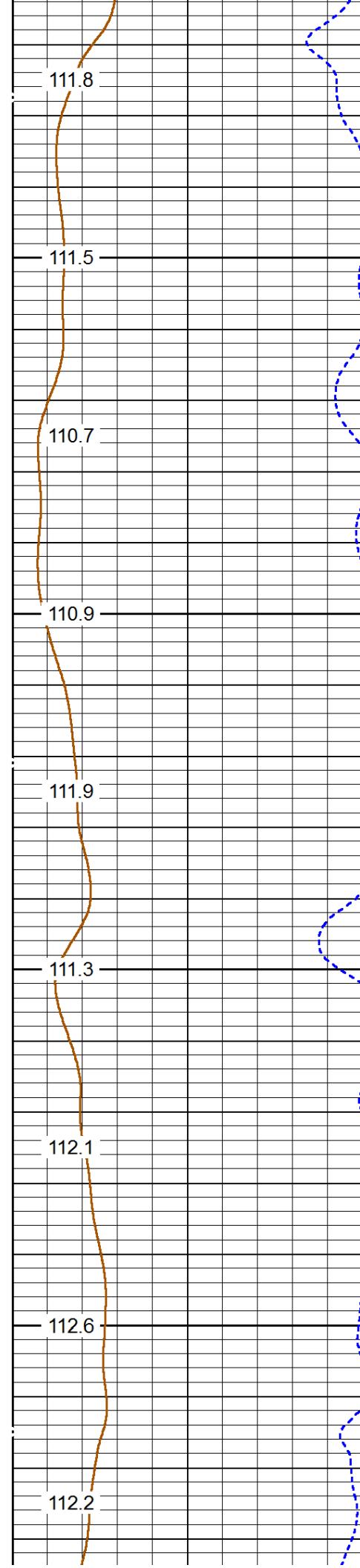
1600
1700
1800





1900

2000



111.8

111.5

110.7

110.9

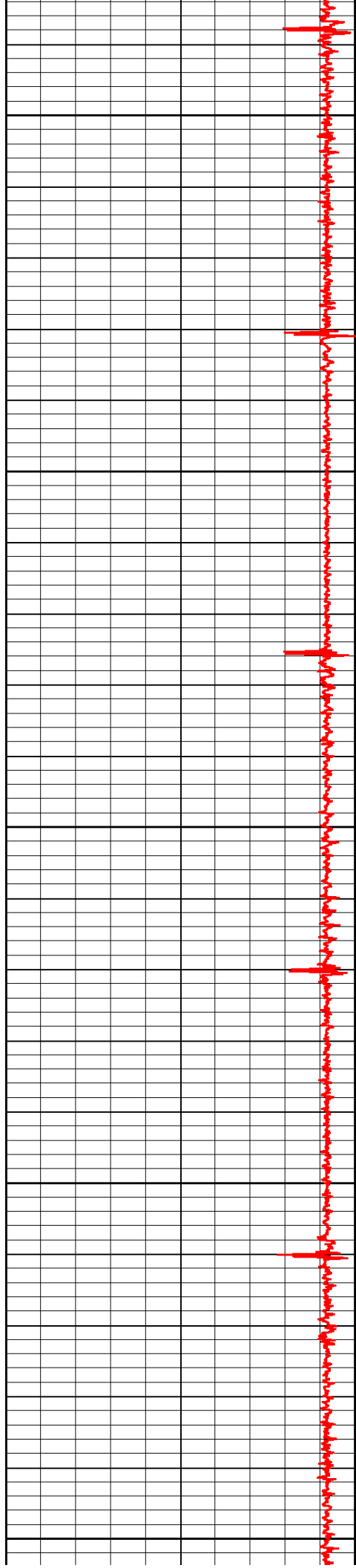
111.9

111.3

112.1

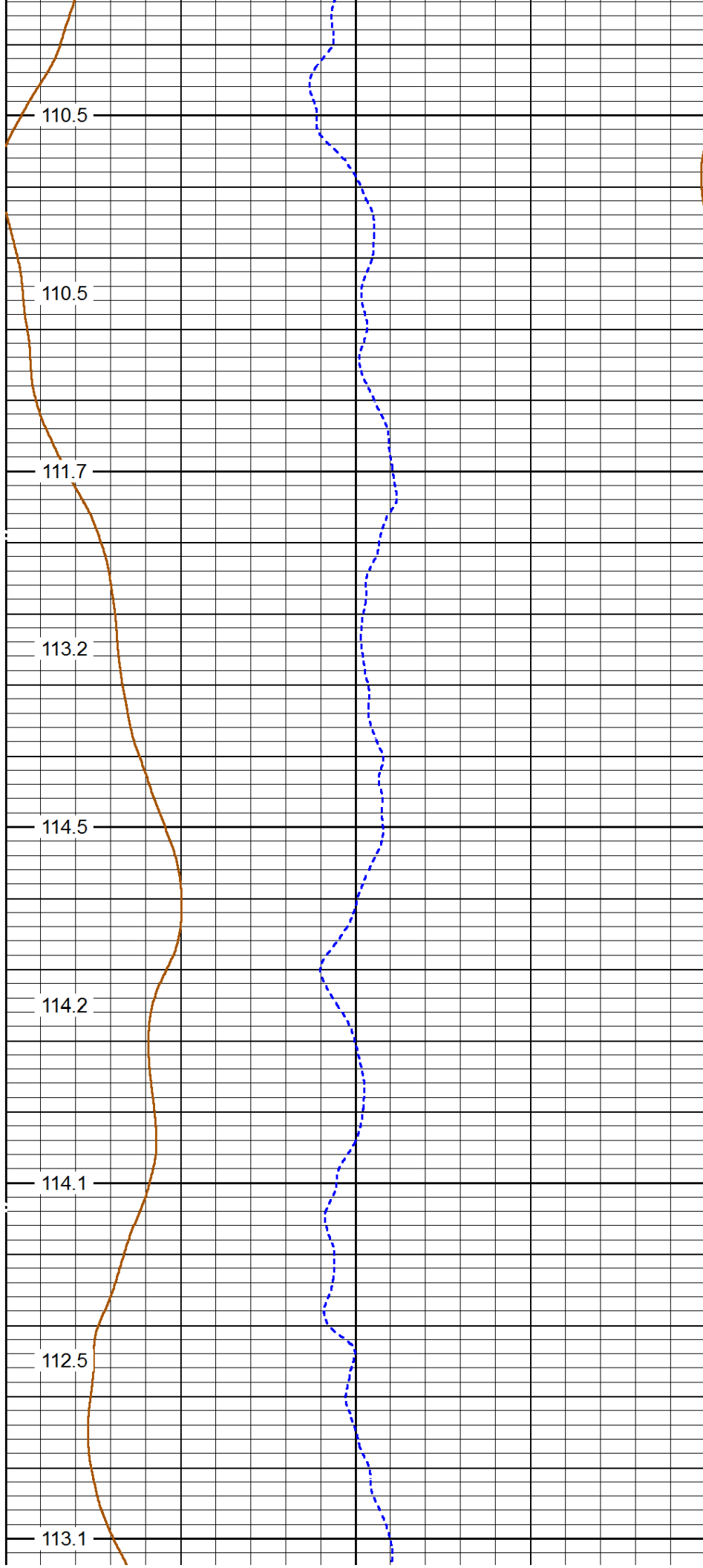
112.6

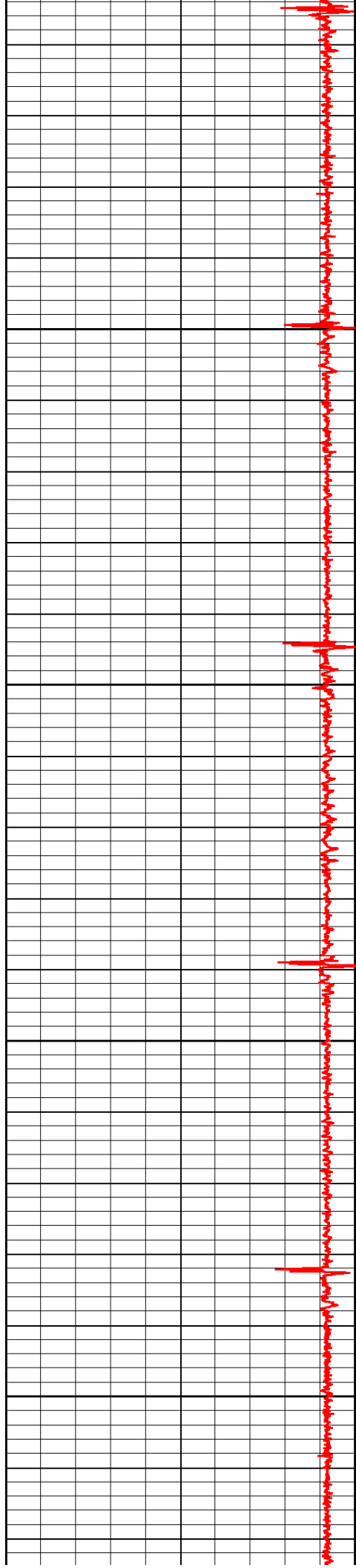
112.2



2100

2200





2300

2400

114.2

114.8

114.3

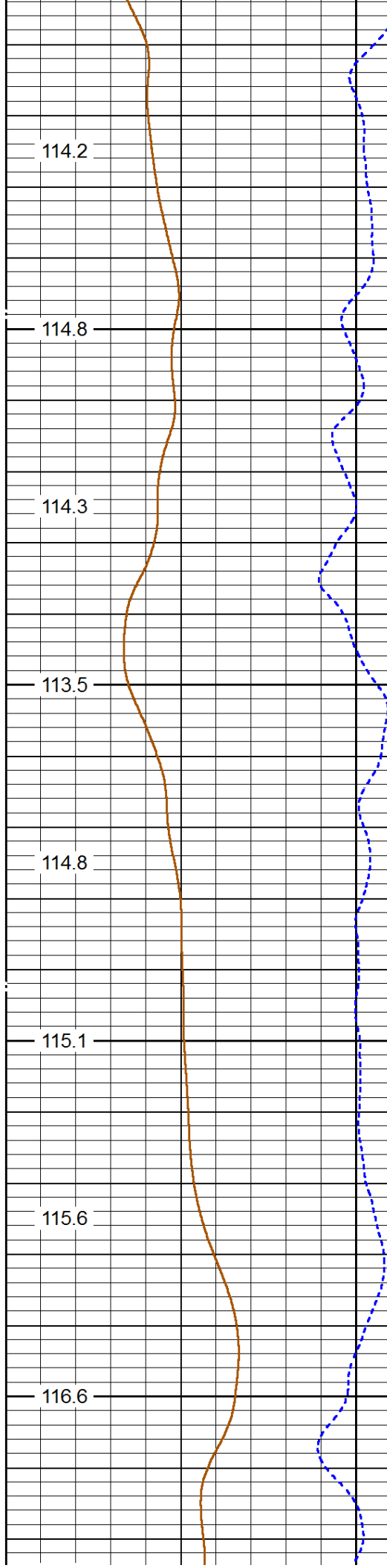
113.5

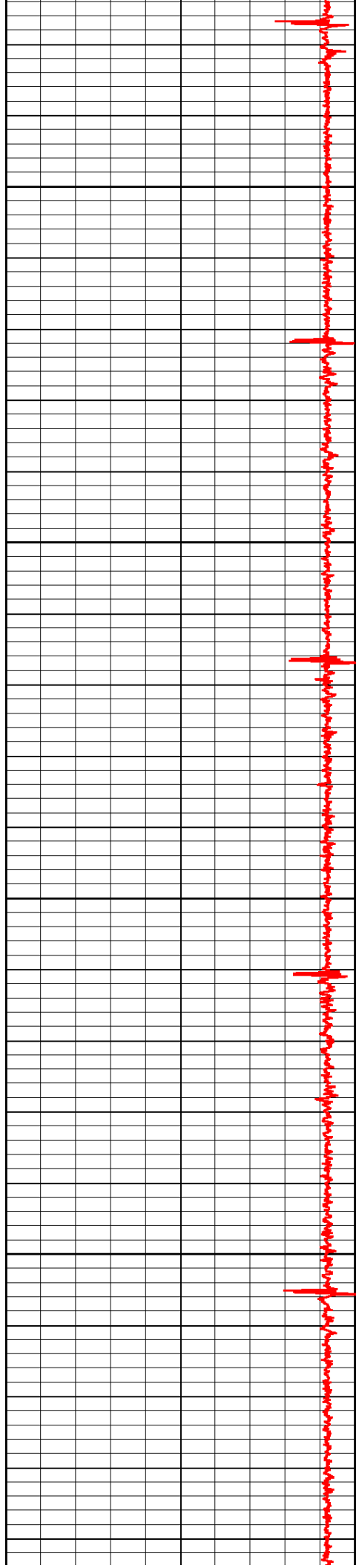
114.8

115.1

115.6

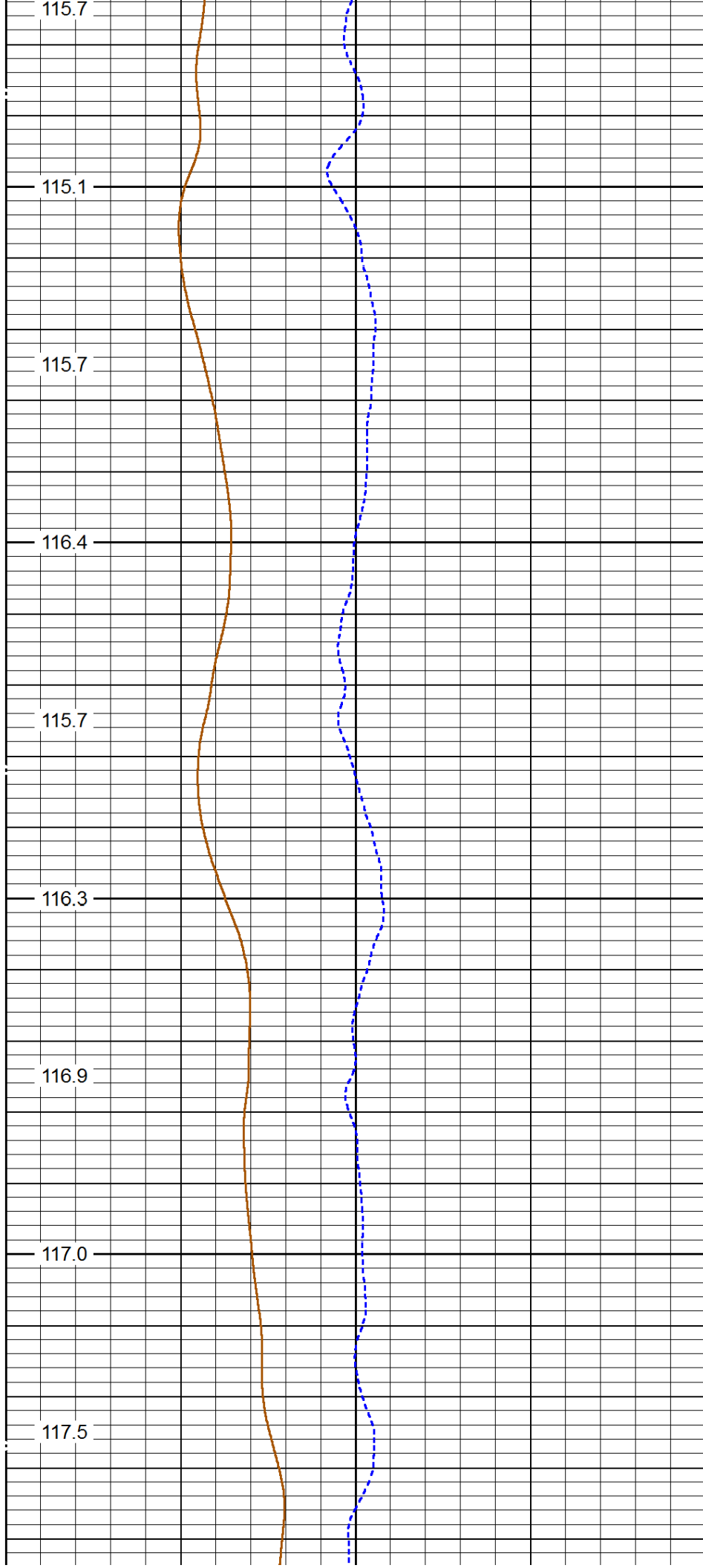
116.6

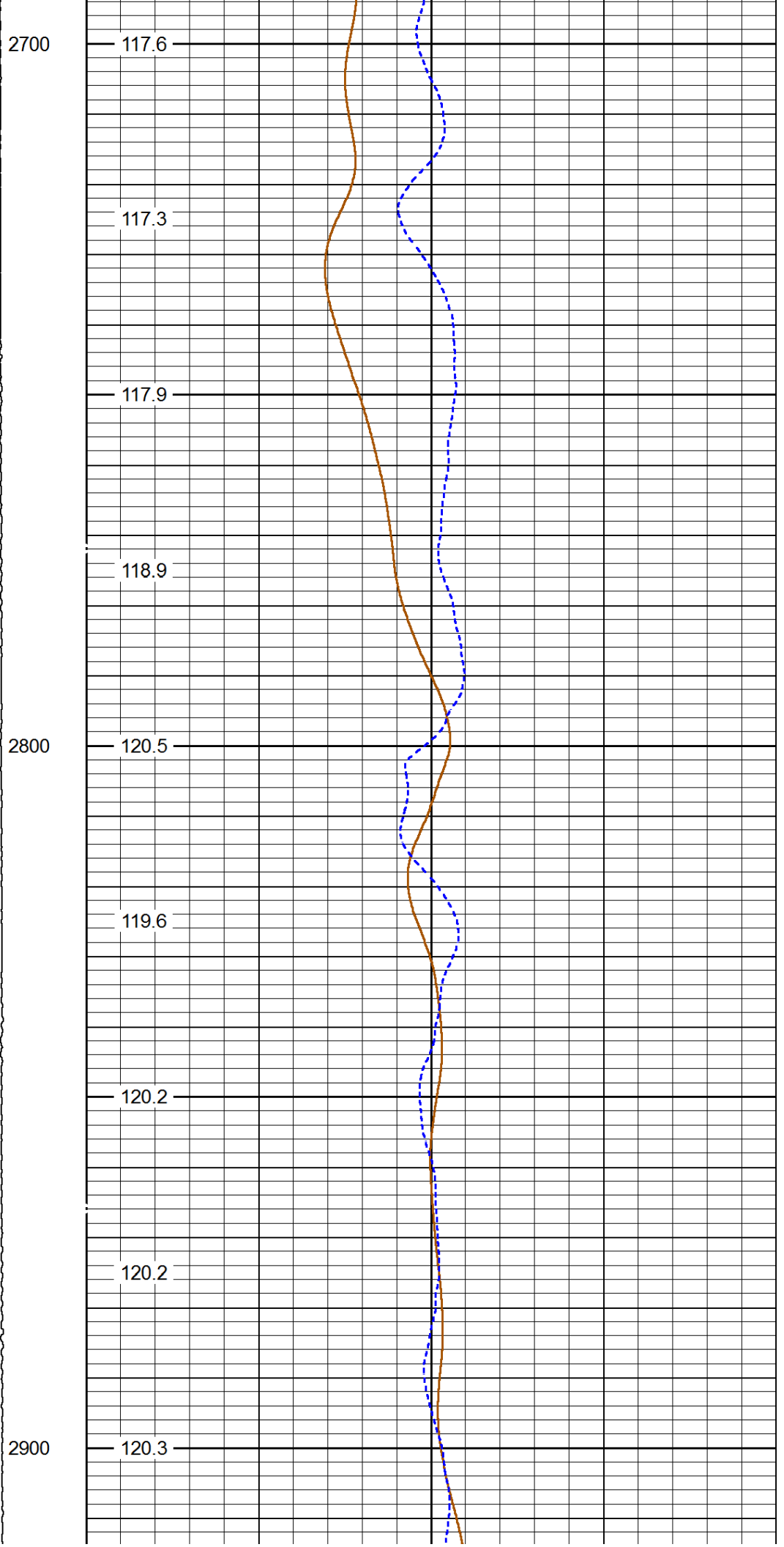
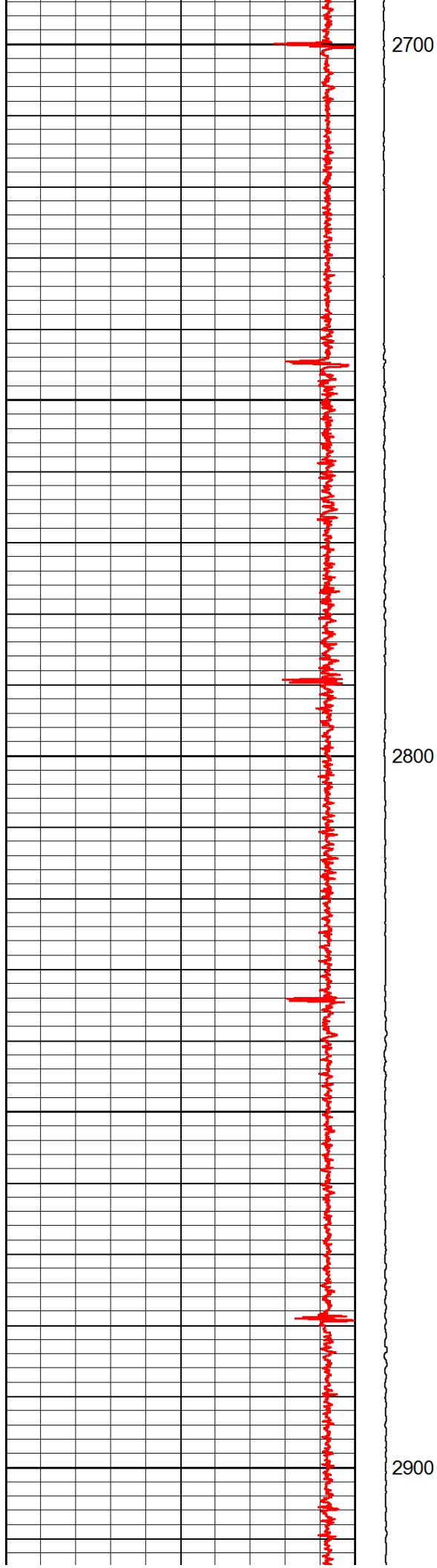


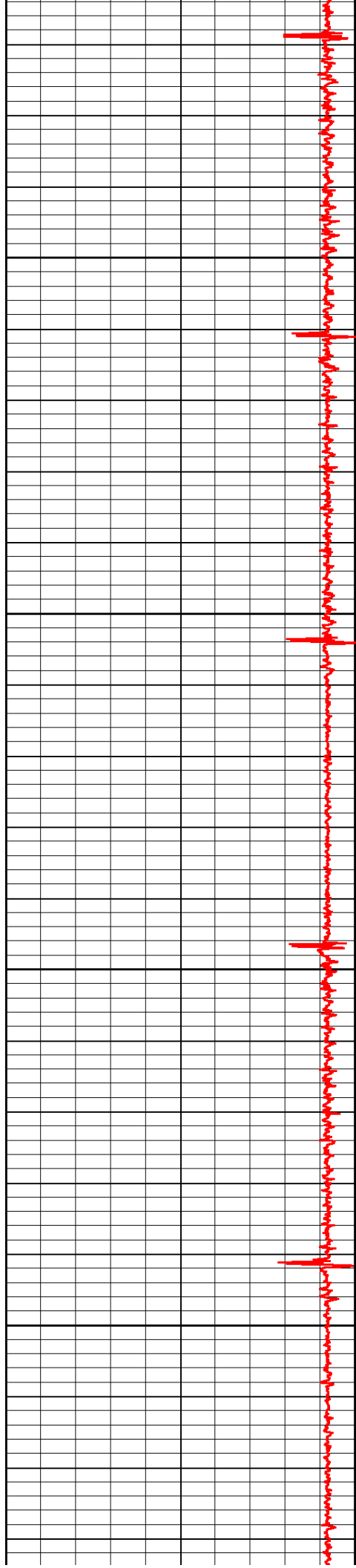


2500

2600

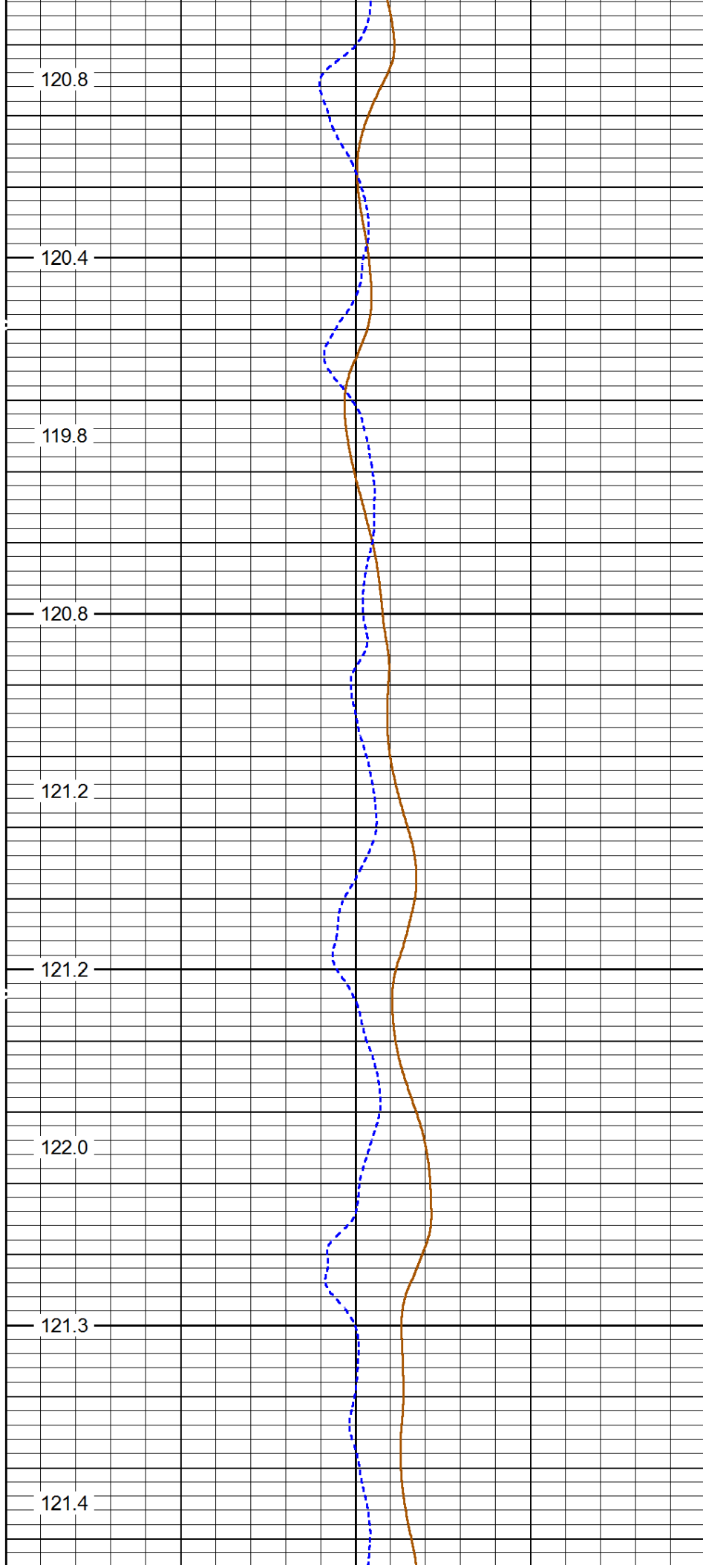


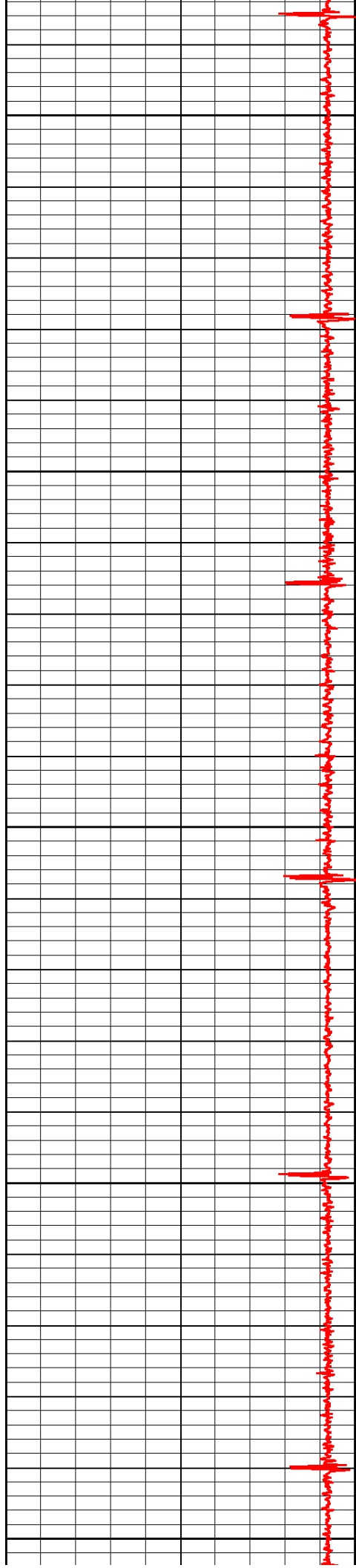




3000

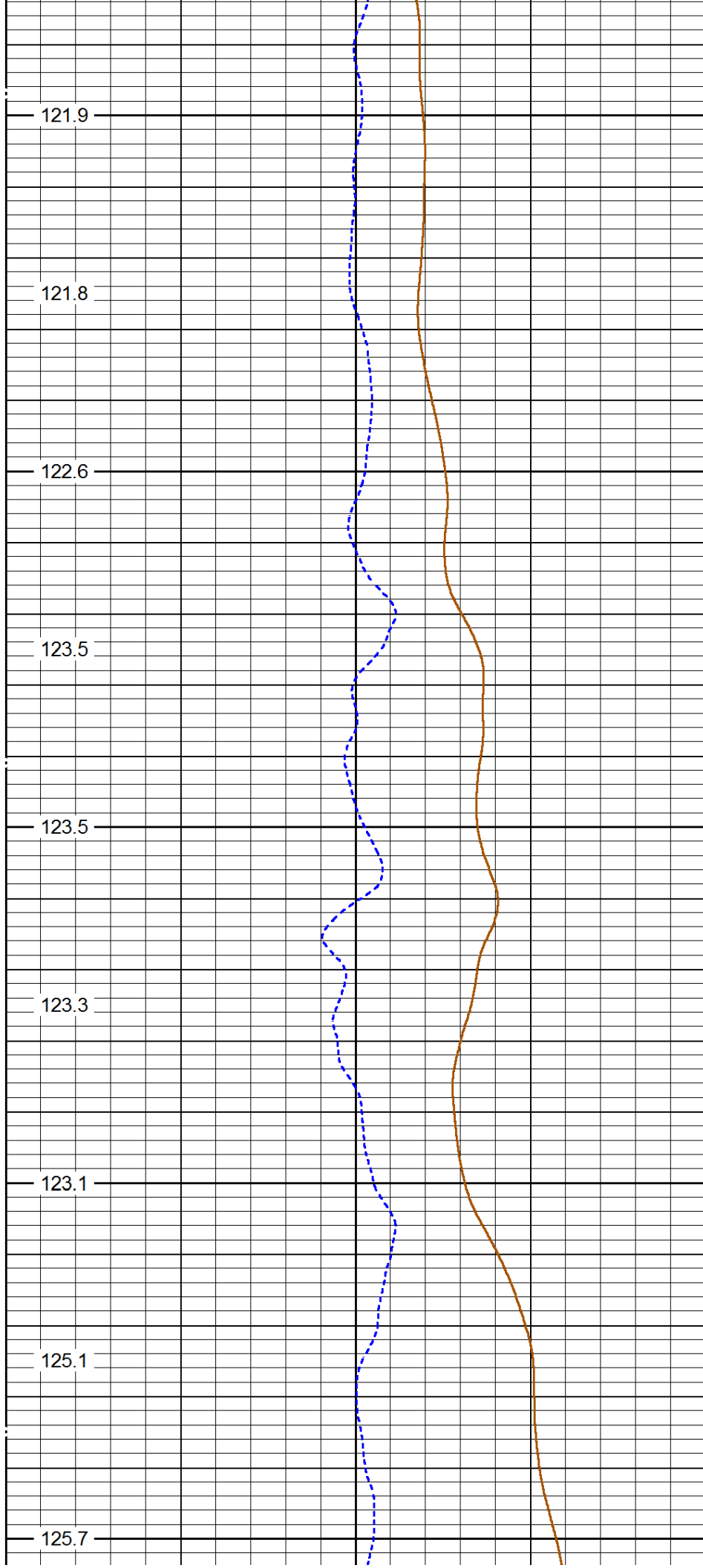
3100

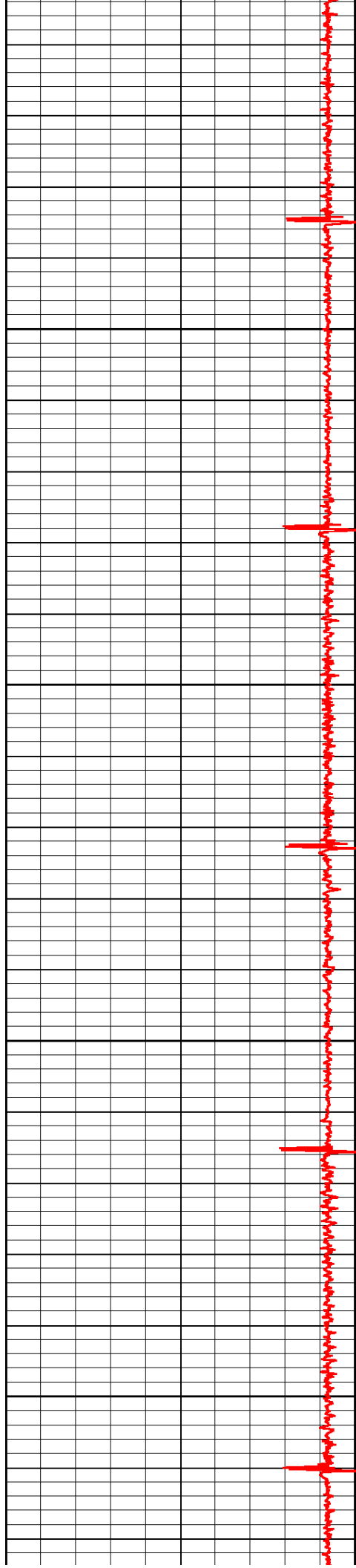




3200

3300





3400

3500

126.2

126.4

126.2

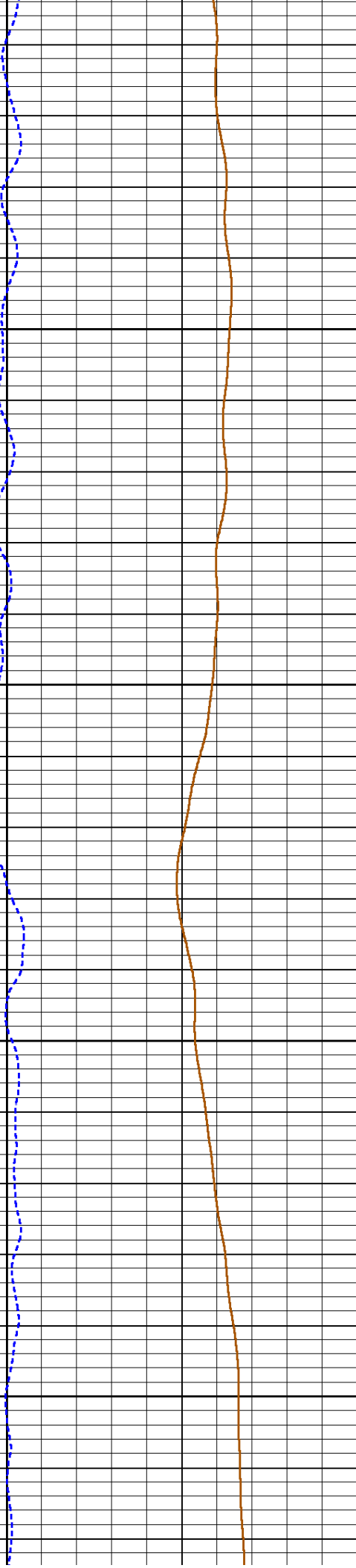
125.9

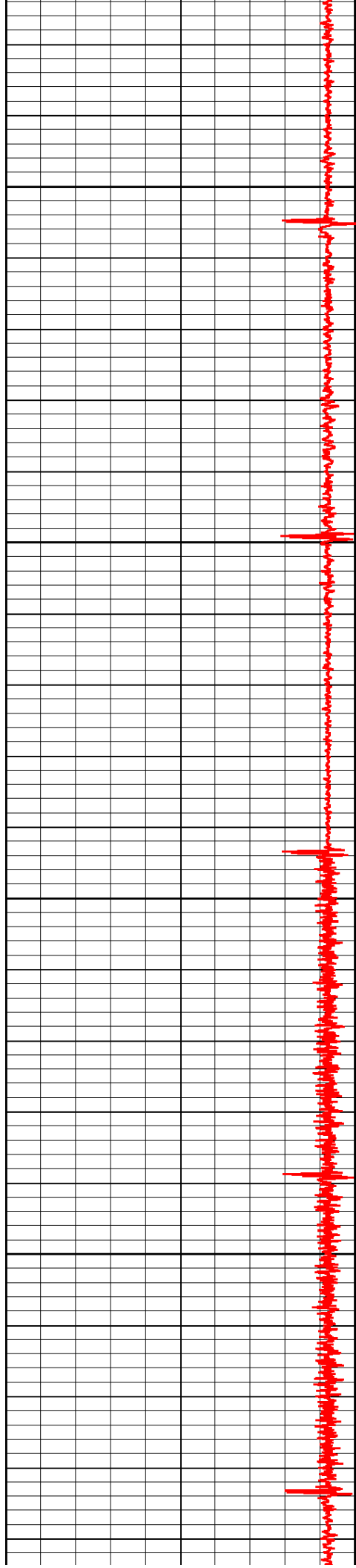
124.9

125.4

126.1

126.6





3600

3700

126.8

126.9

126.8

126.1

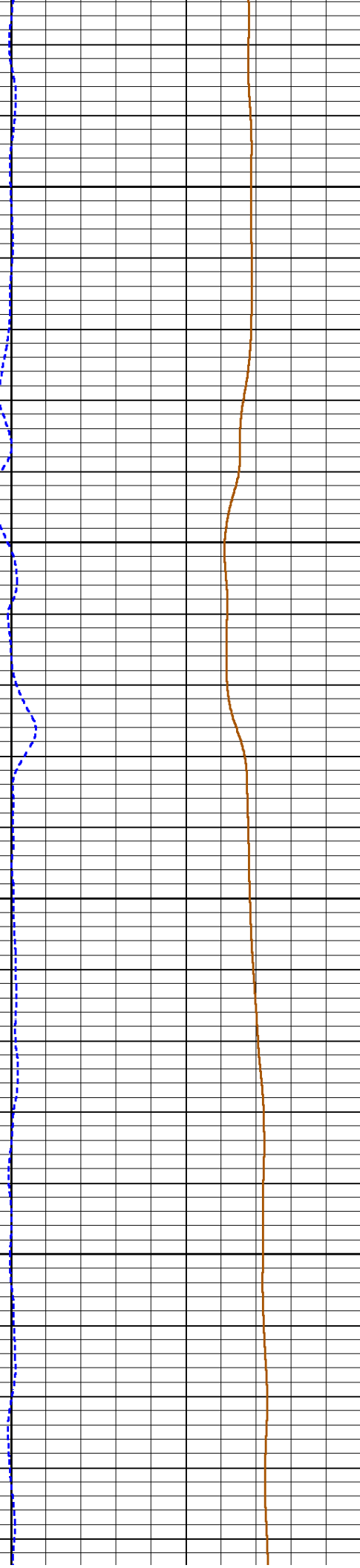
126.4

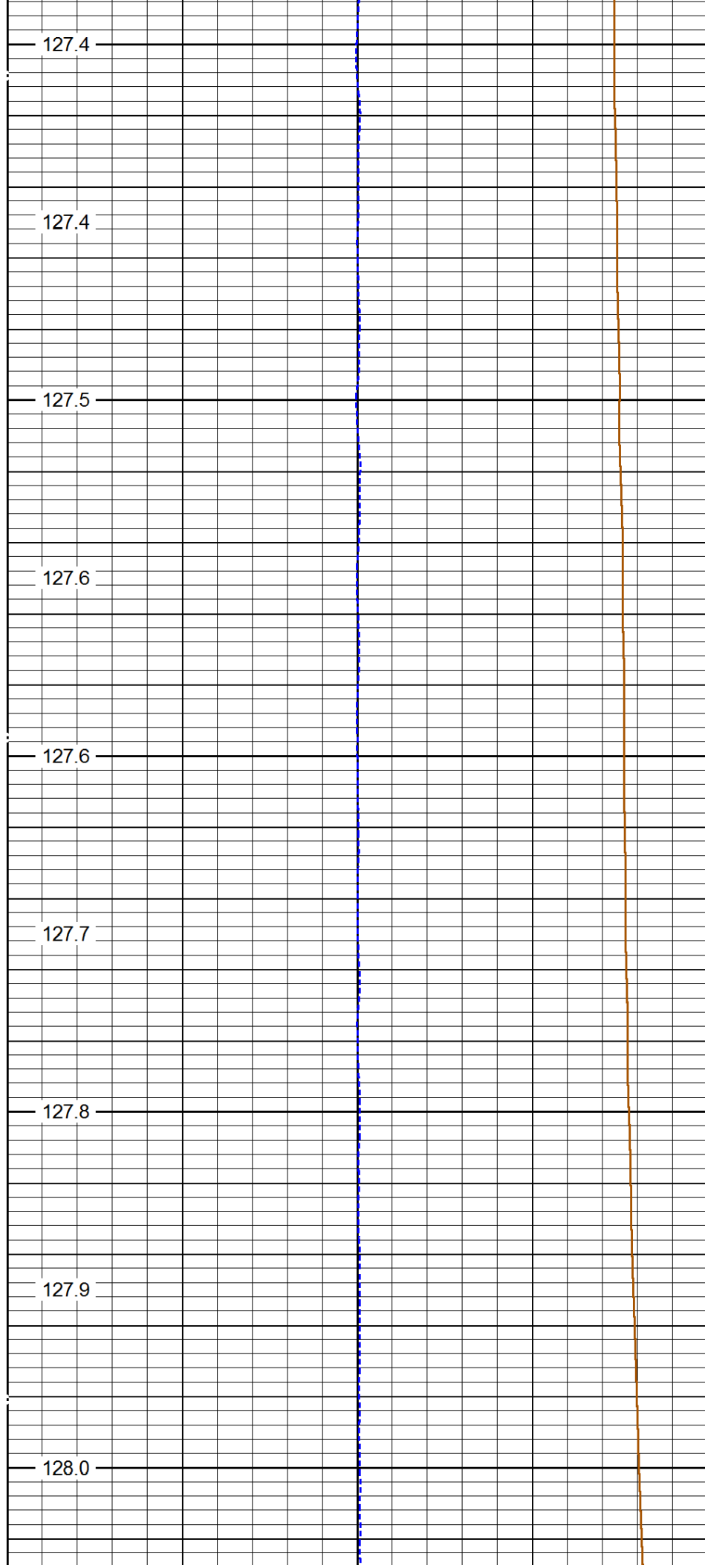
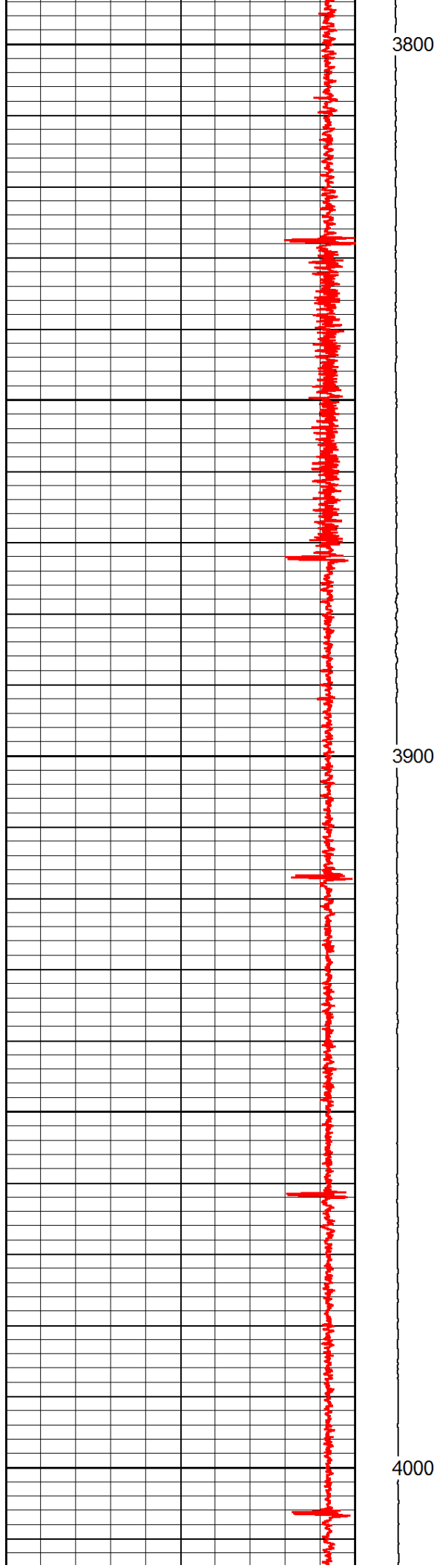
126.8

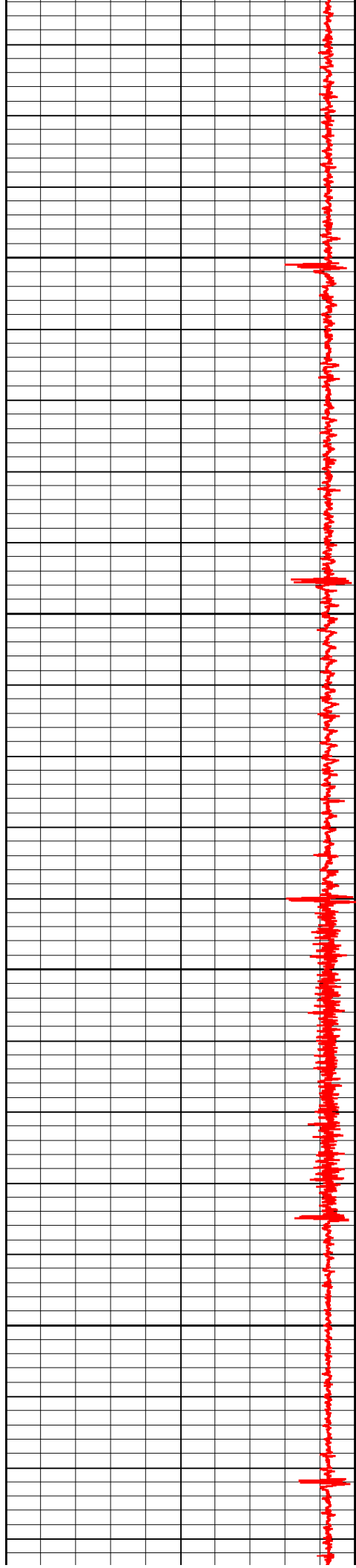
127.1

127.2

127.3







4100

4200

128.2

128.4

128.5

128.7

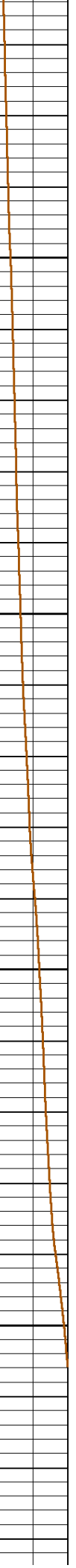
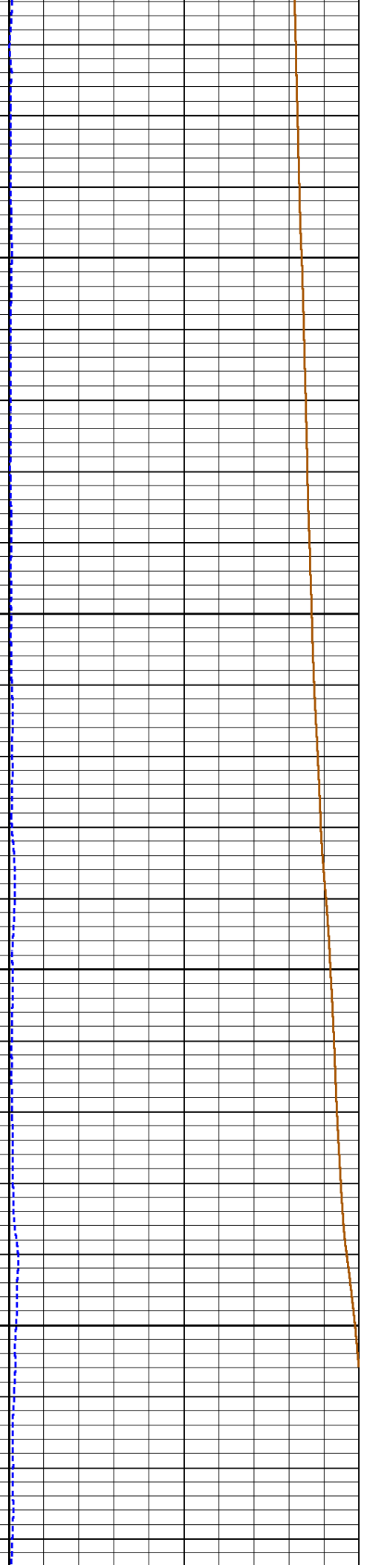
128.9

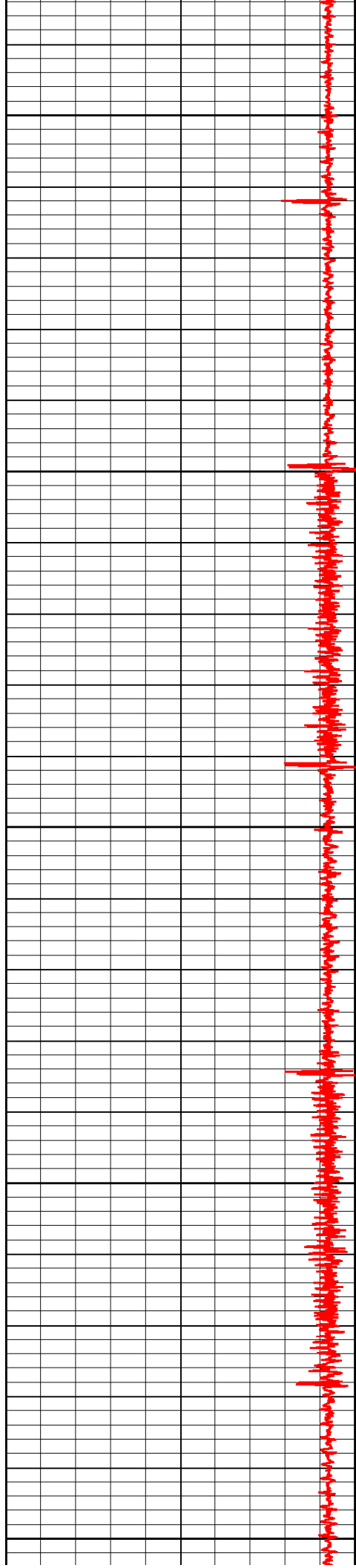
129.2

129.4

129.9

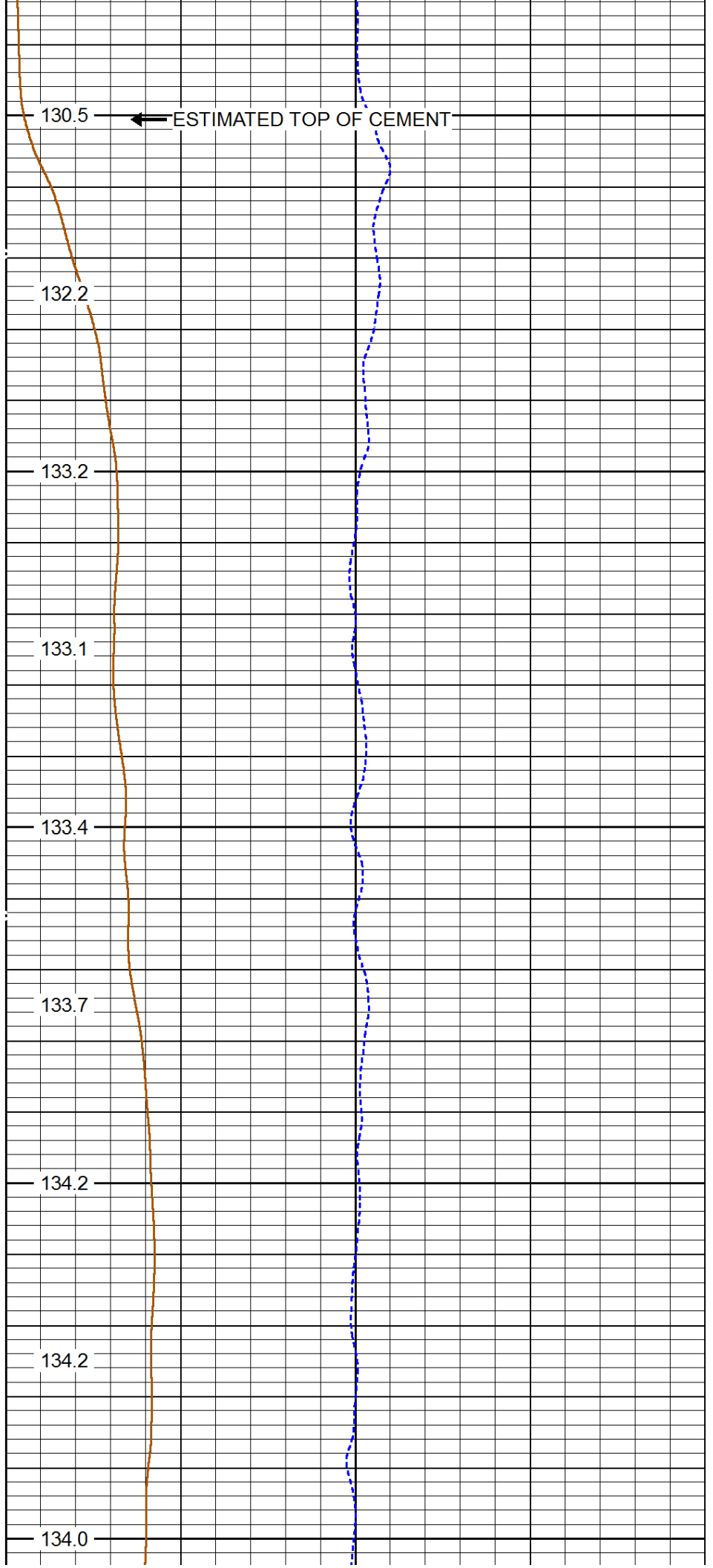
130.2

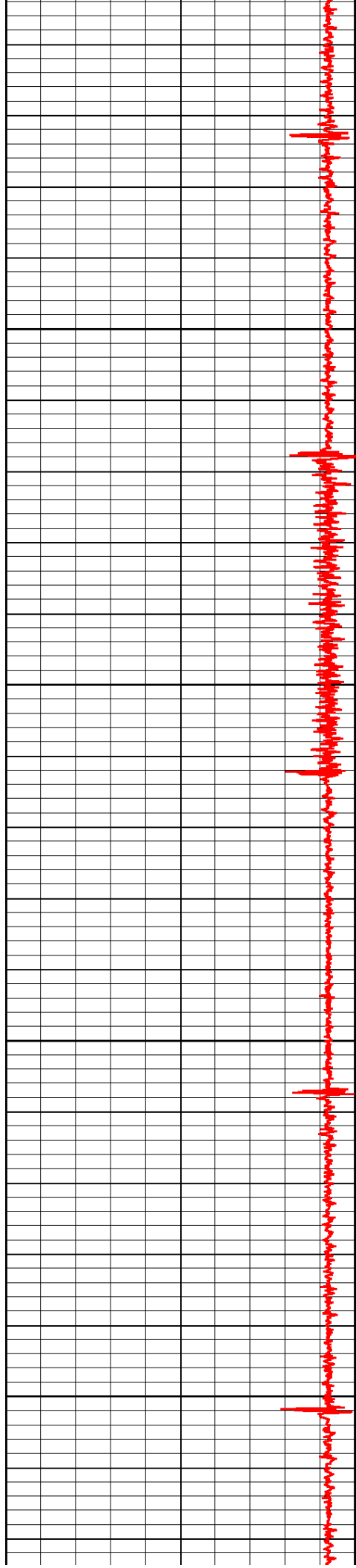




4300

4400





4500

4600

134.2

134.4

134.4

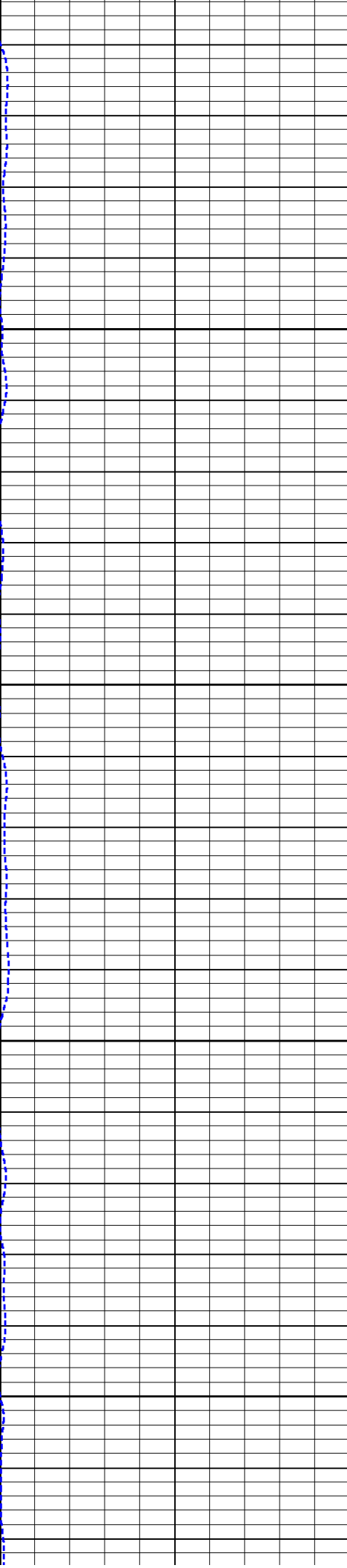
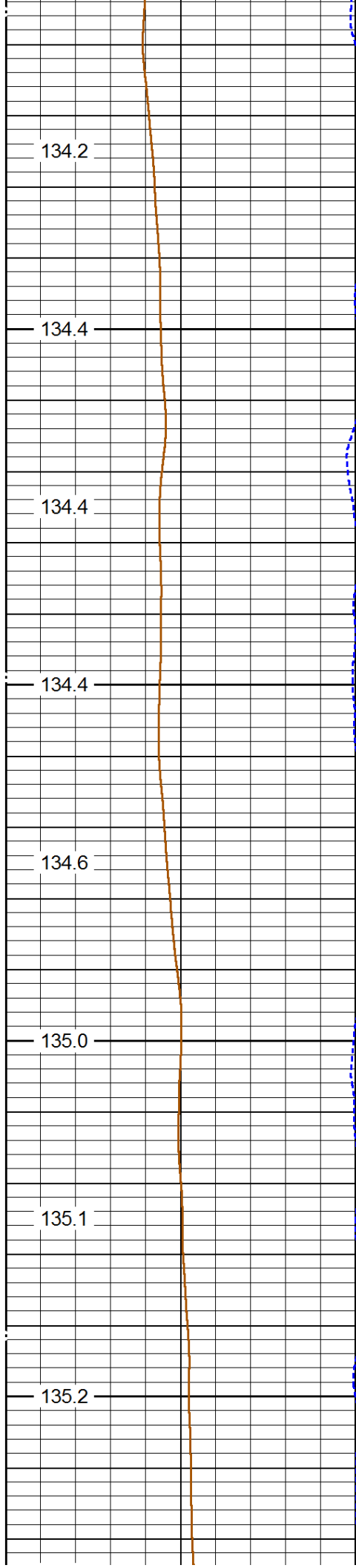
134.4

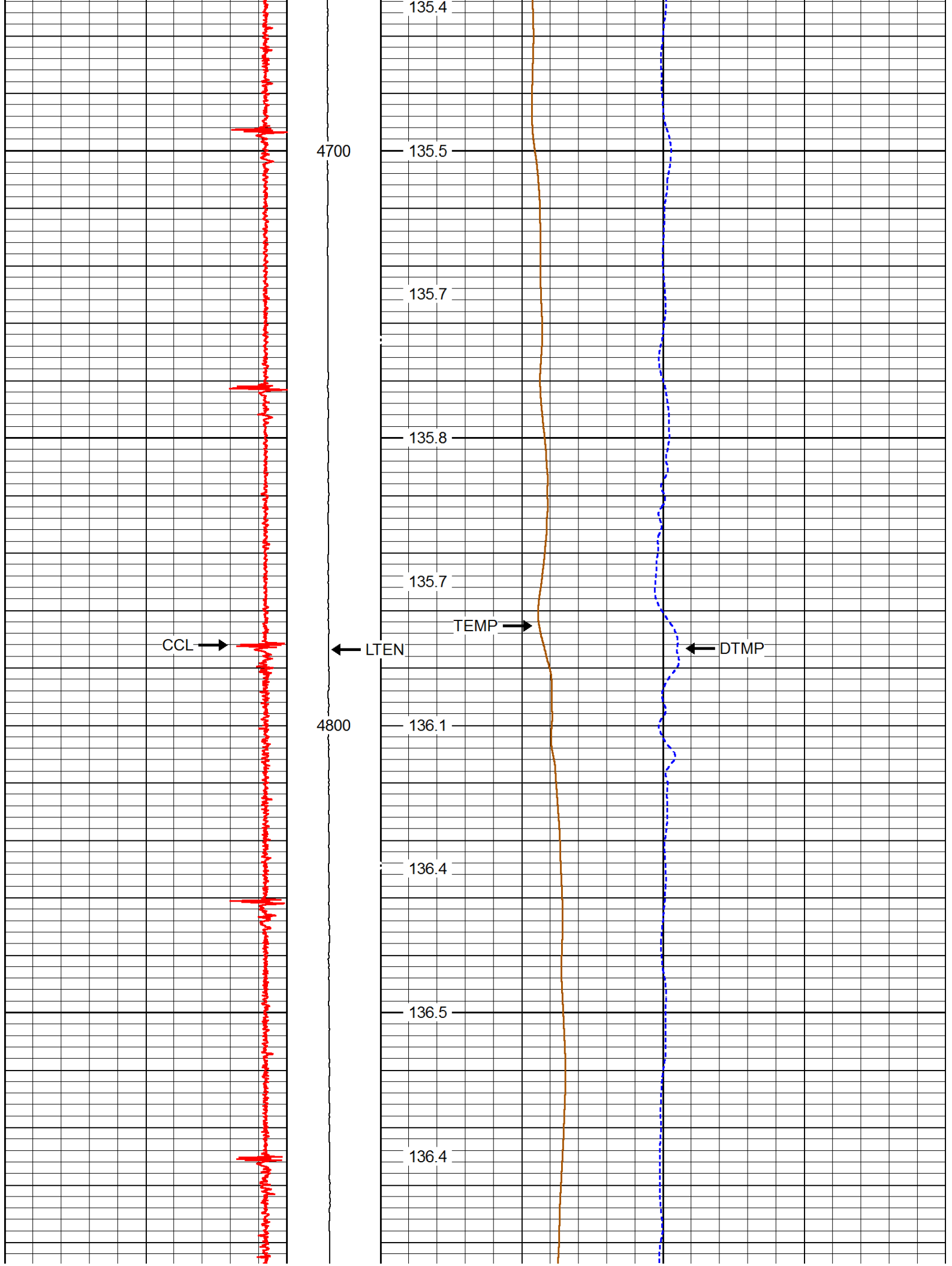
134.6

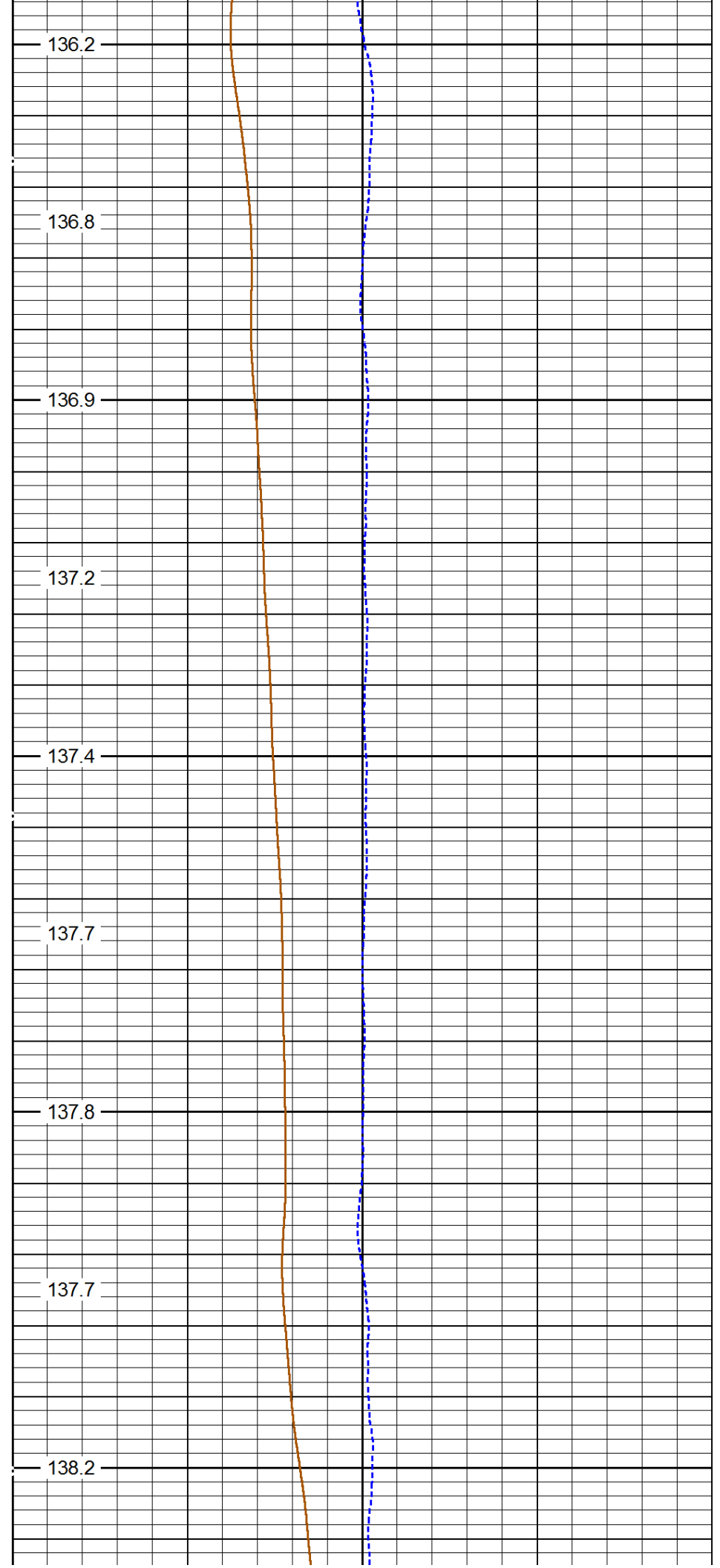
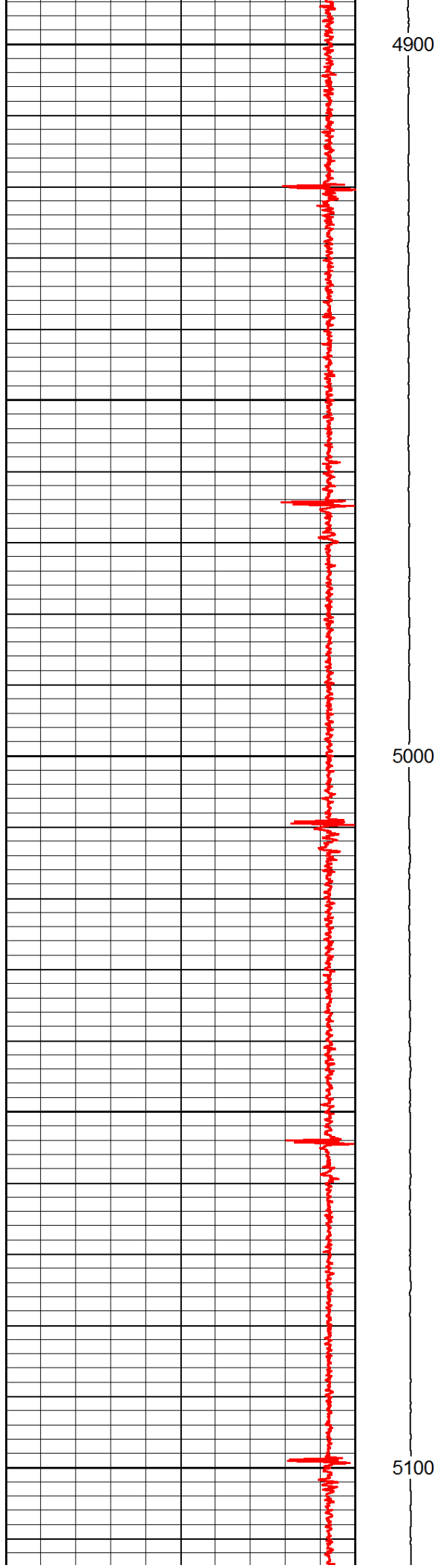
135.0

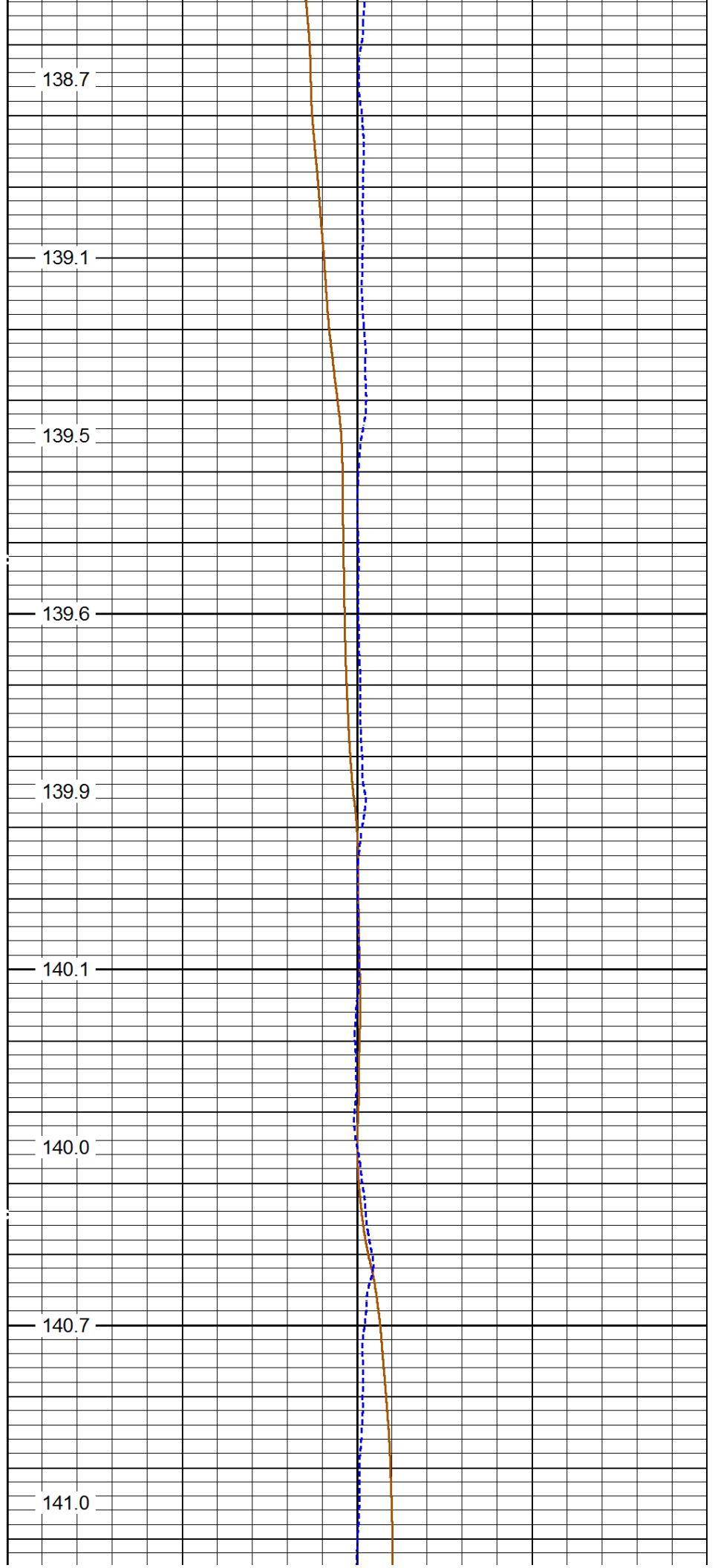
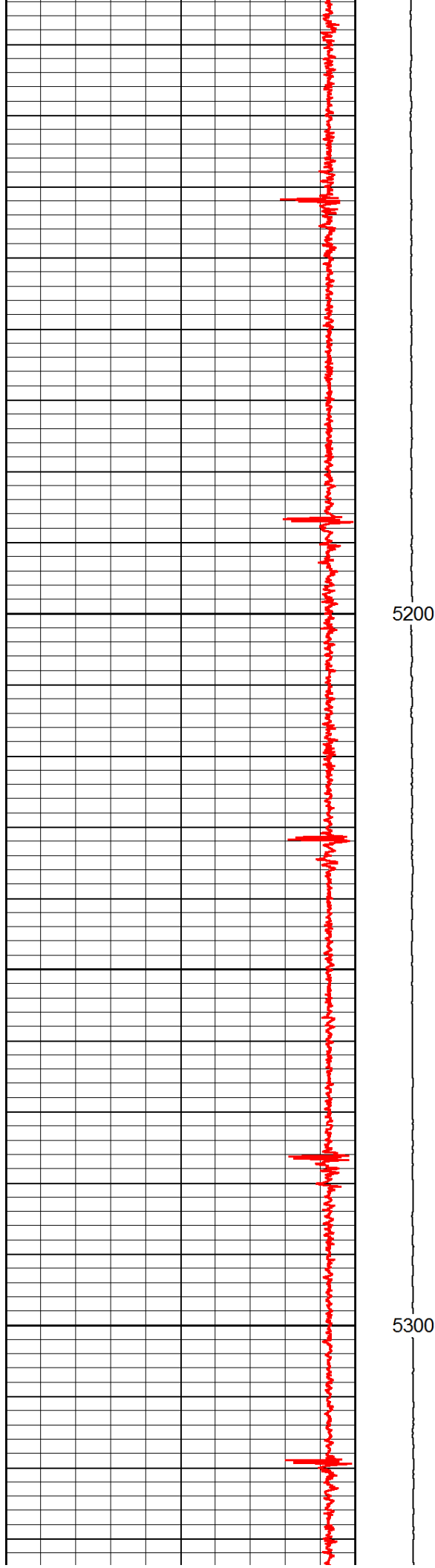
135.1

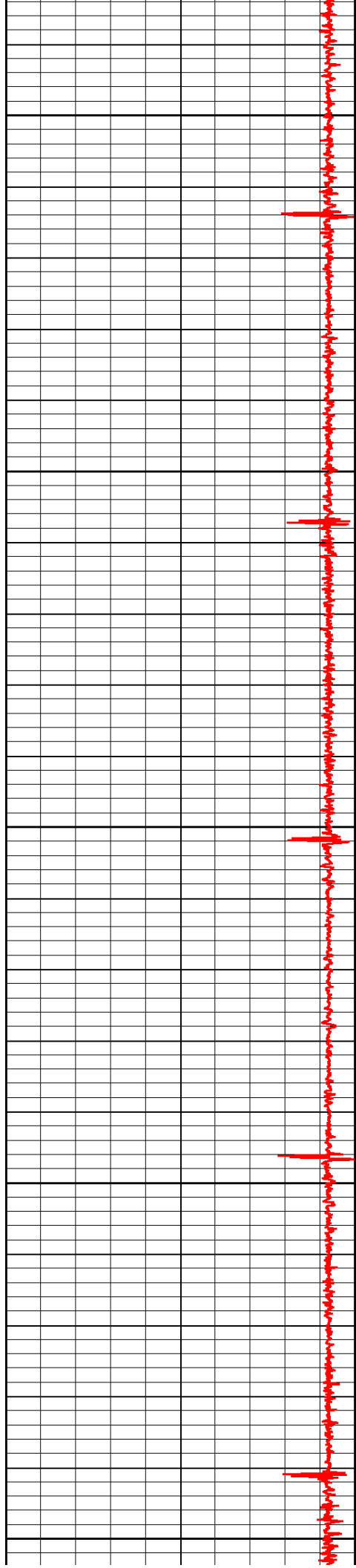
135.2





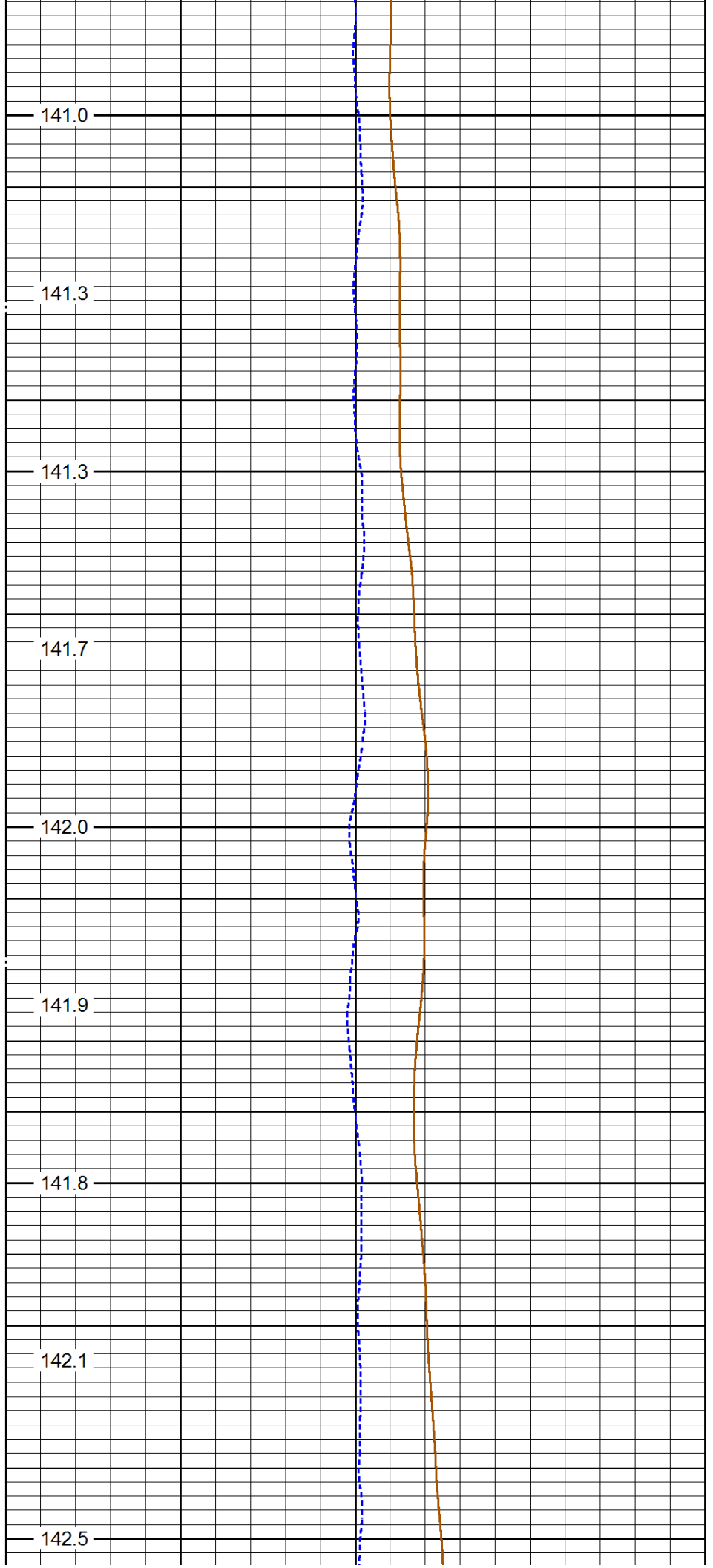


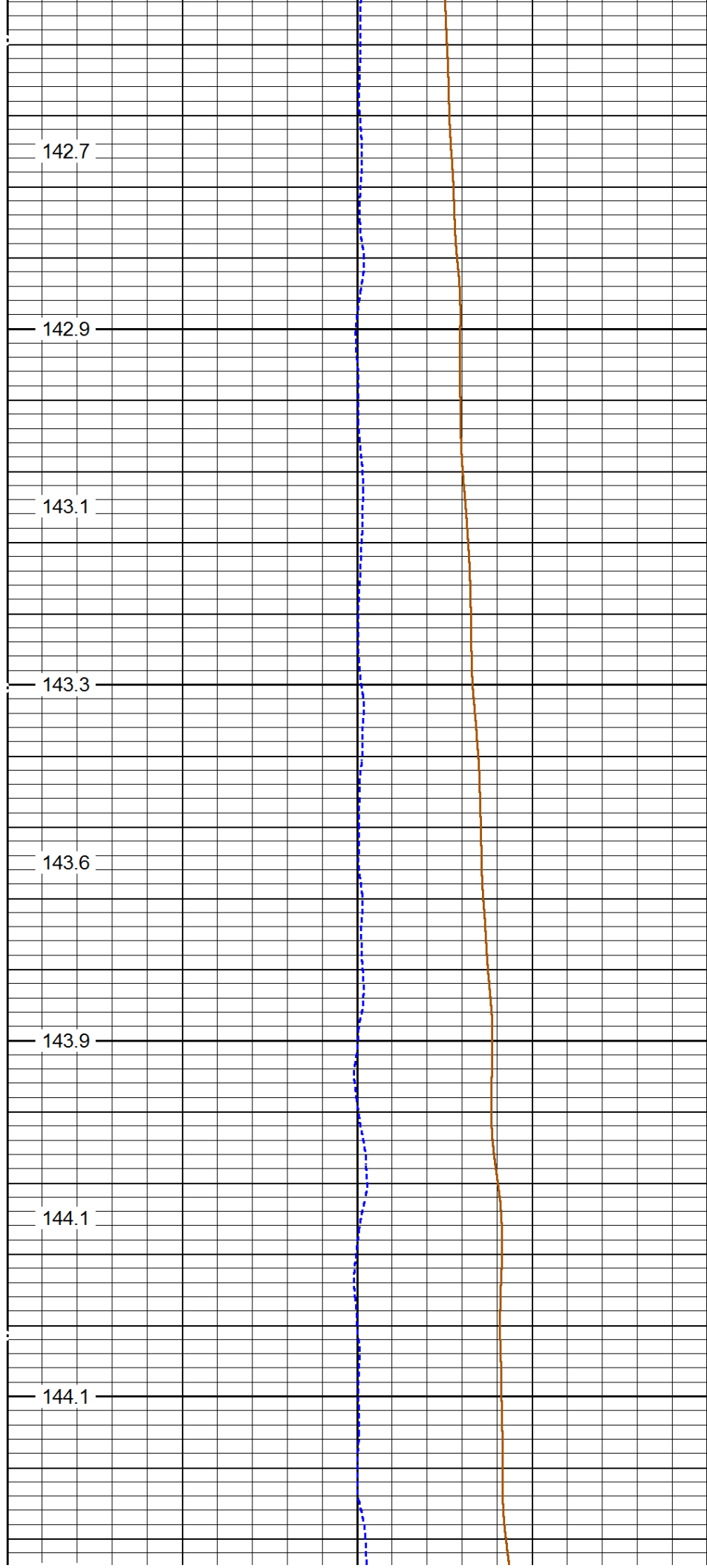
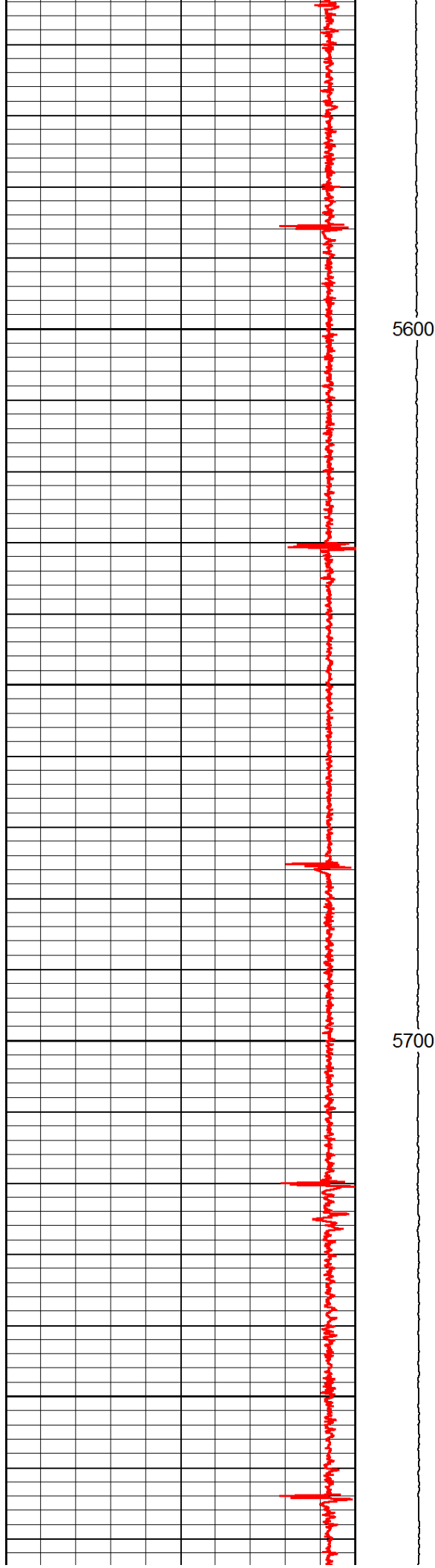


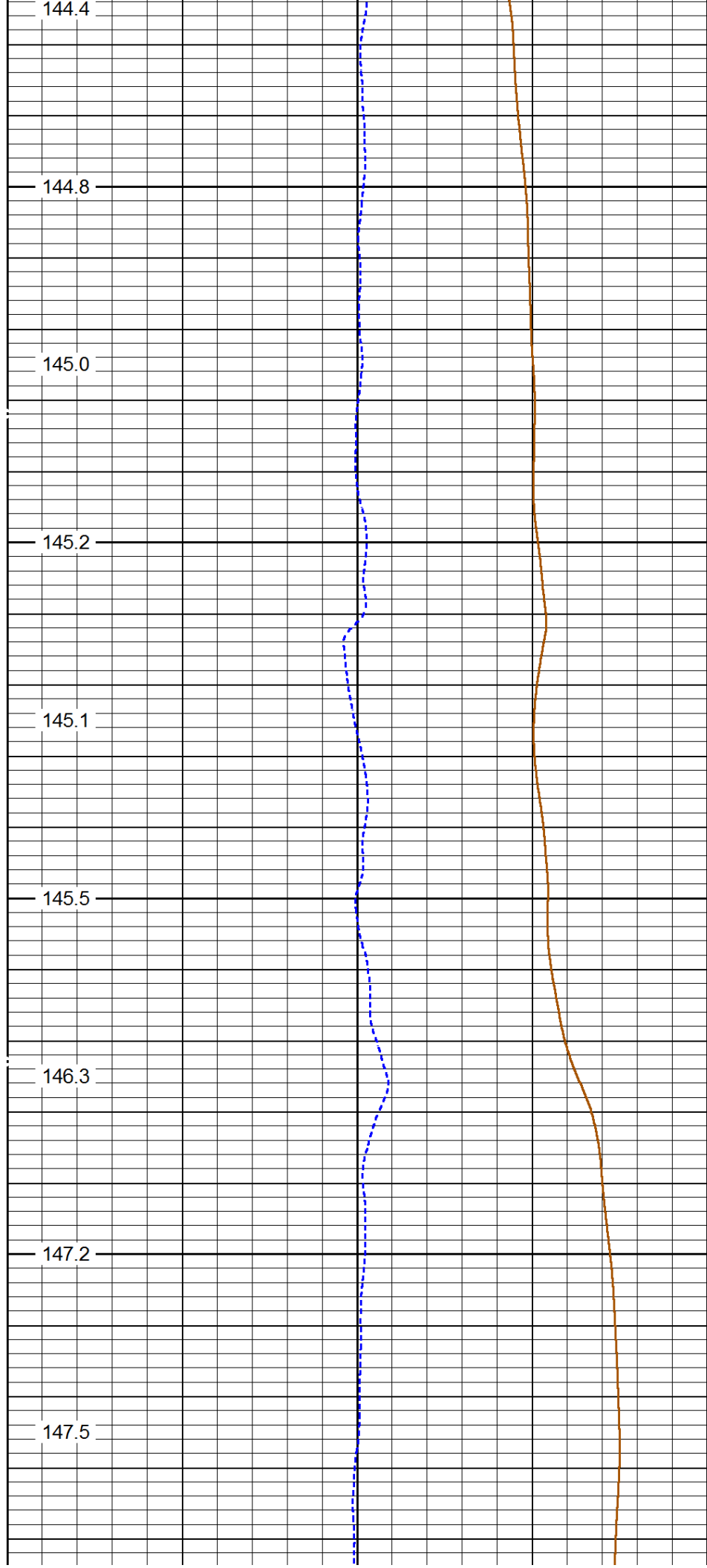
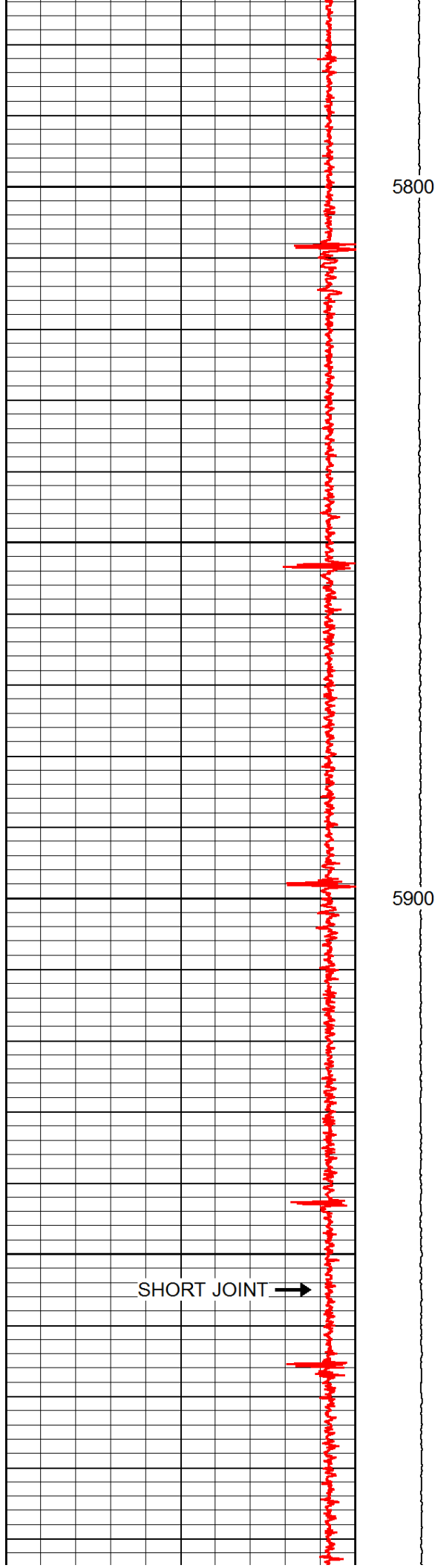


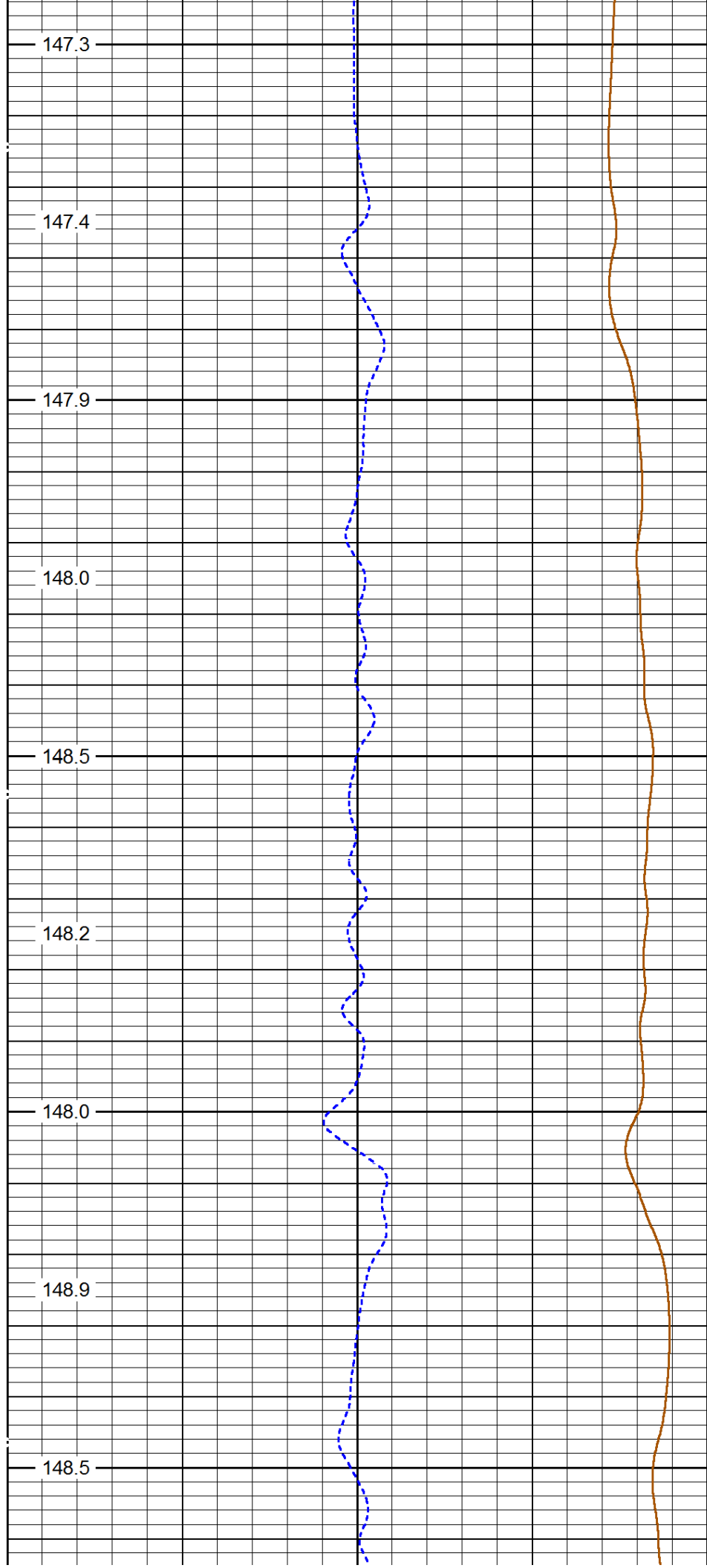
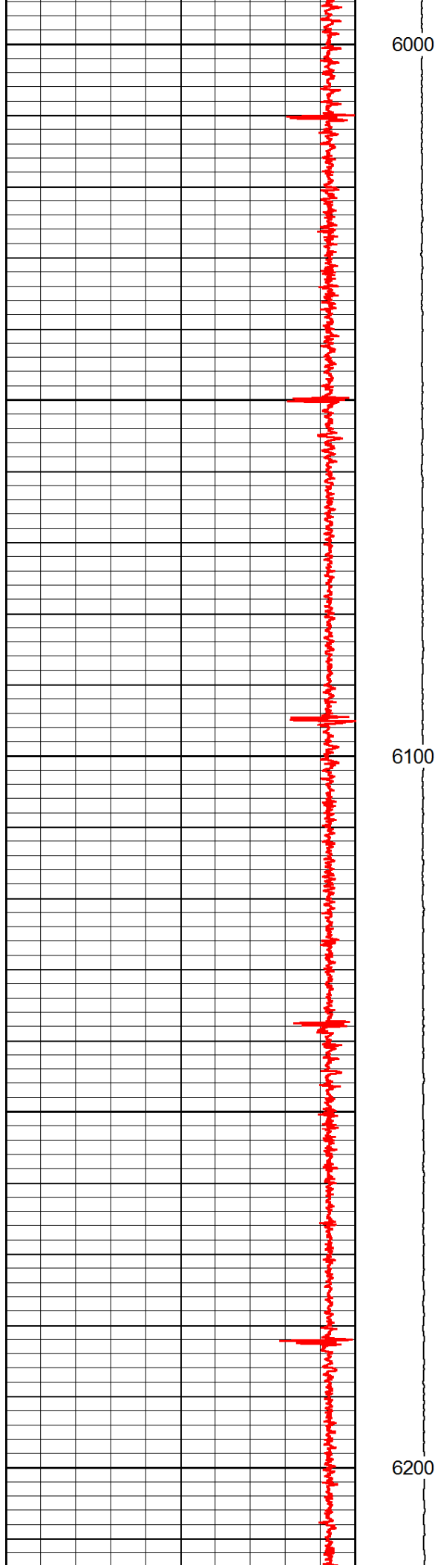
5400

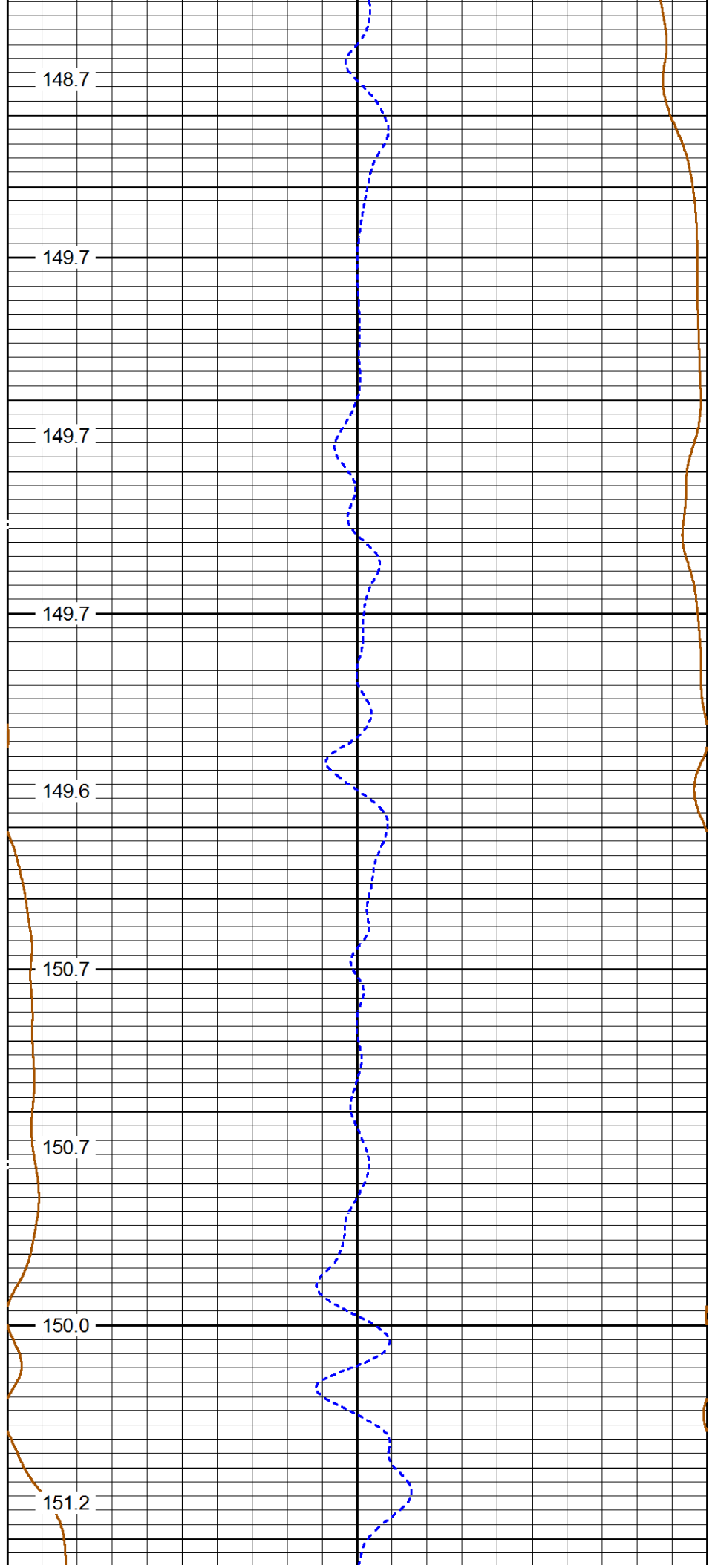
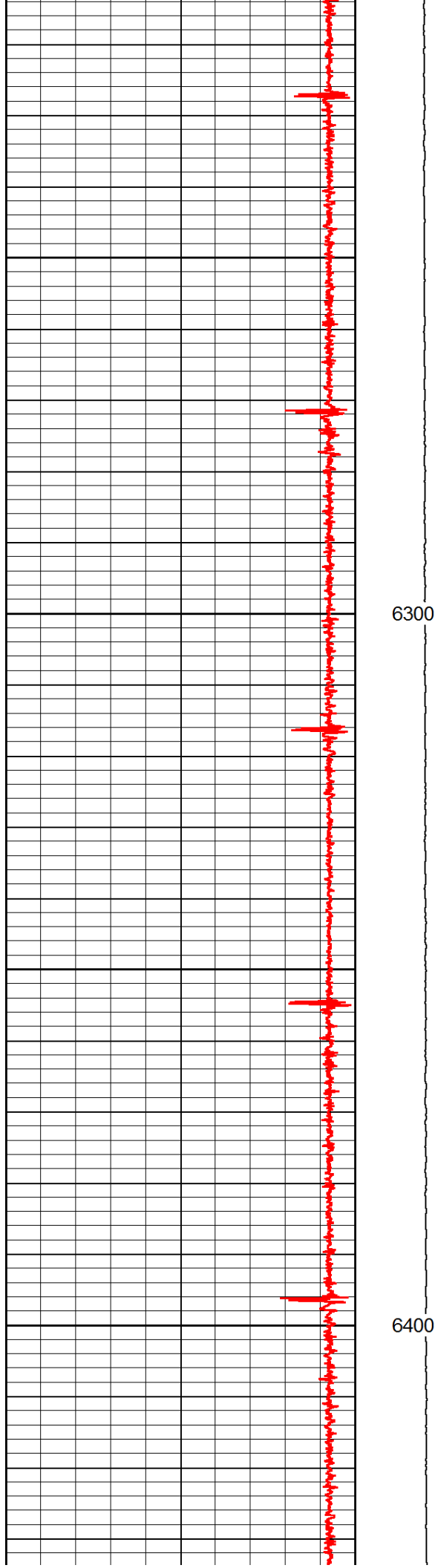
5500

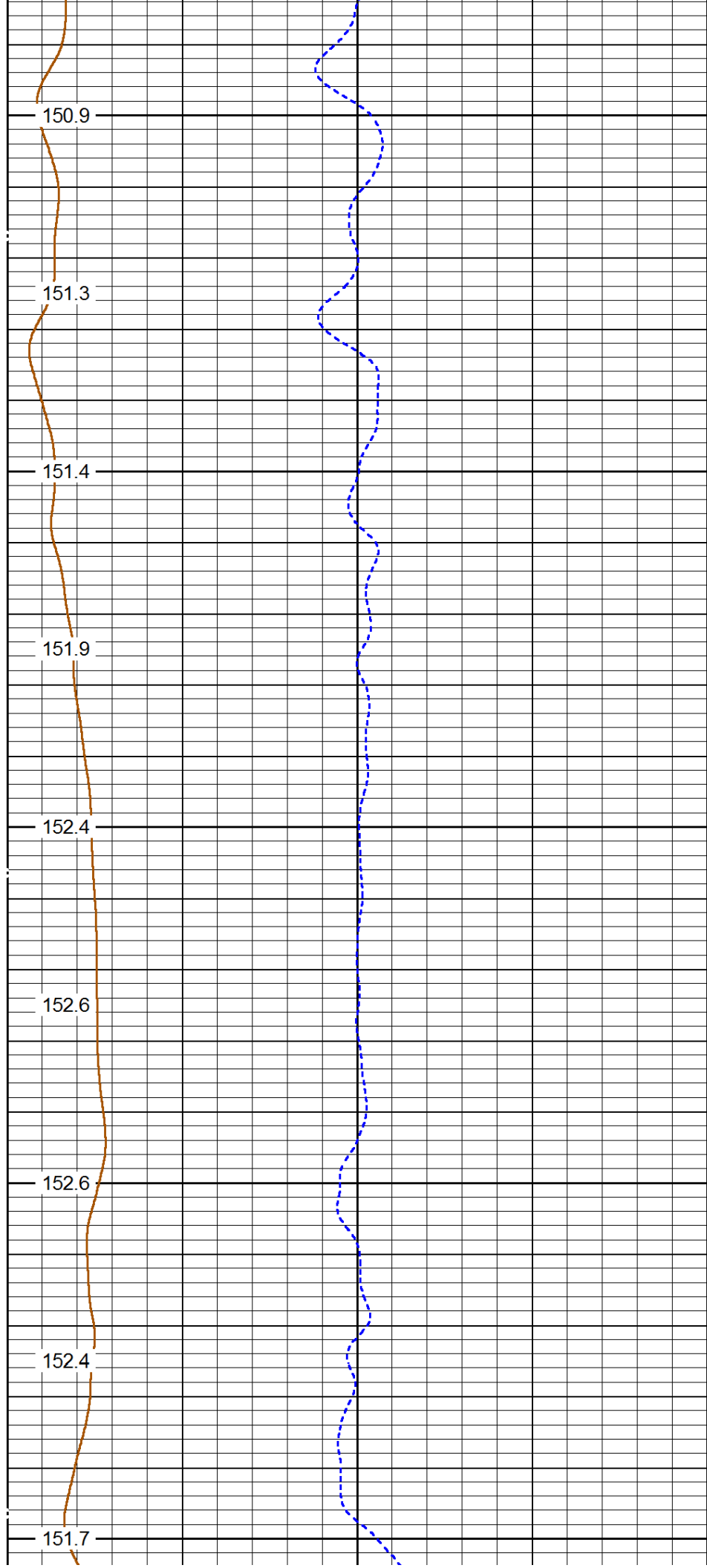
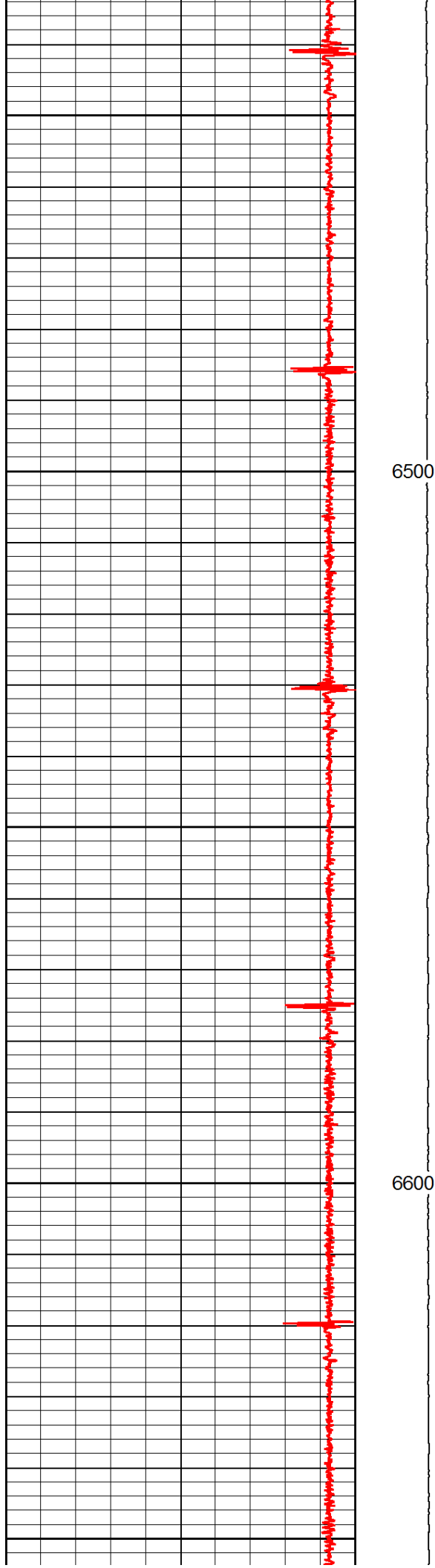


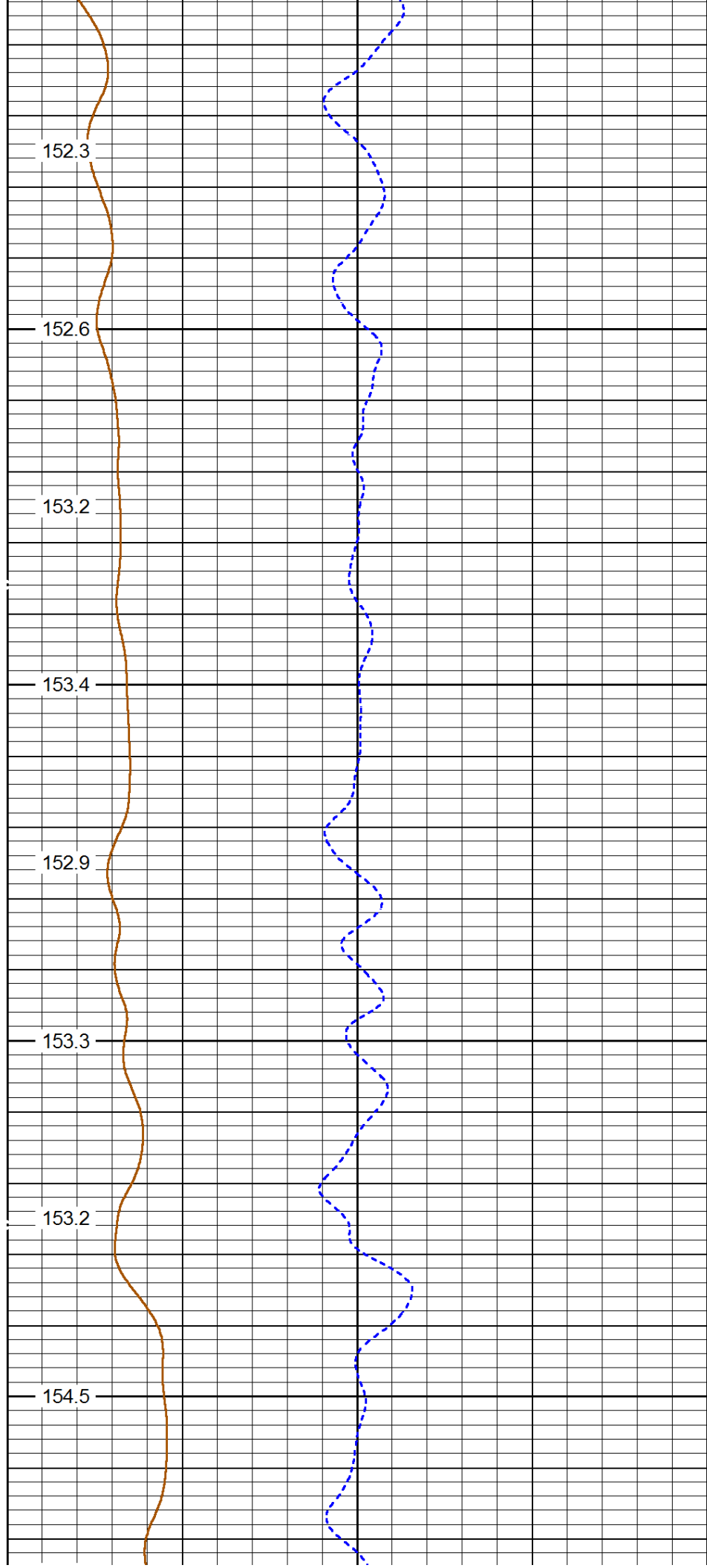
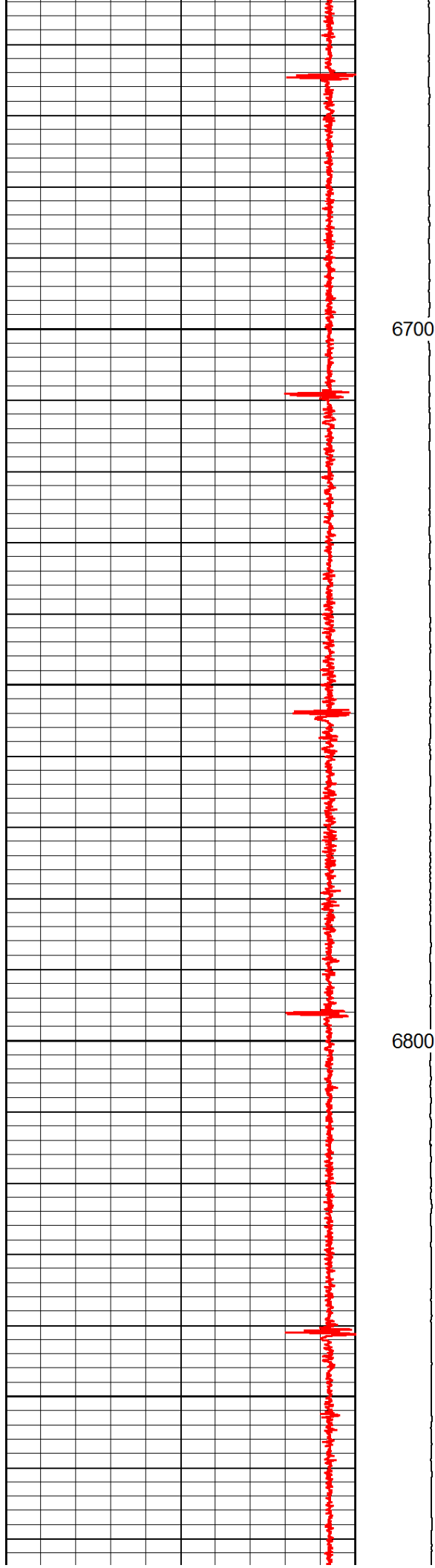


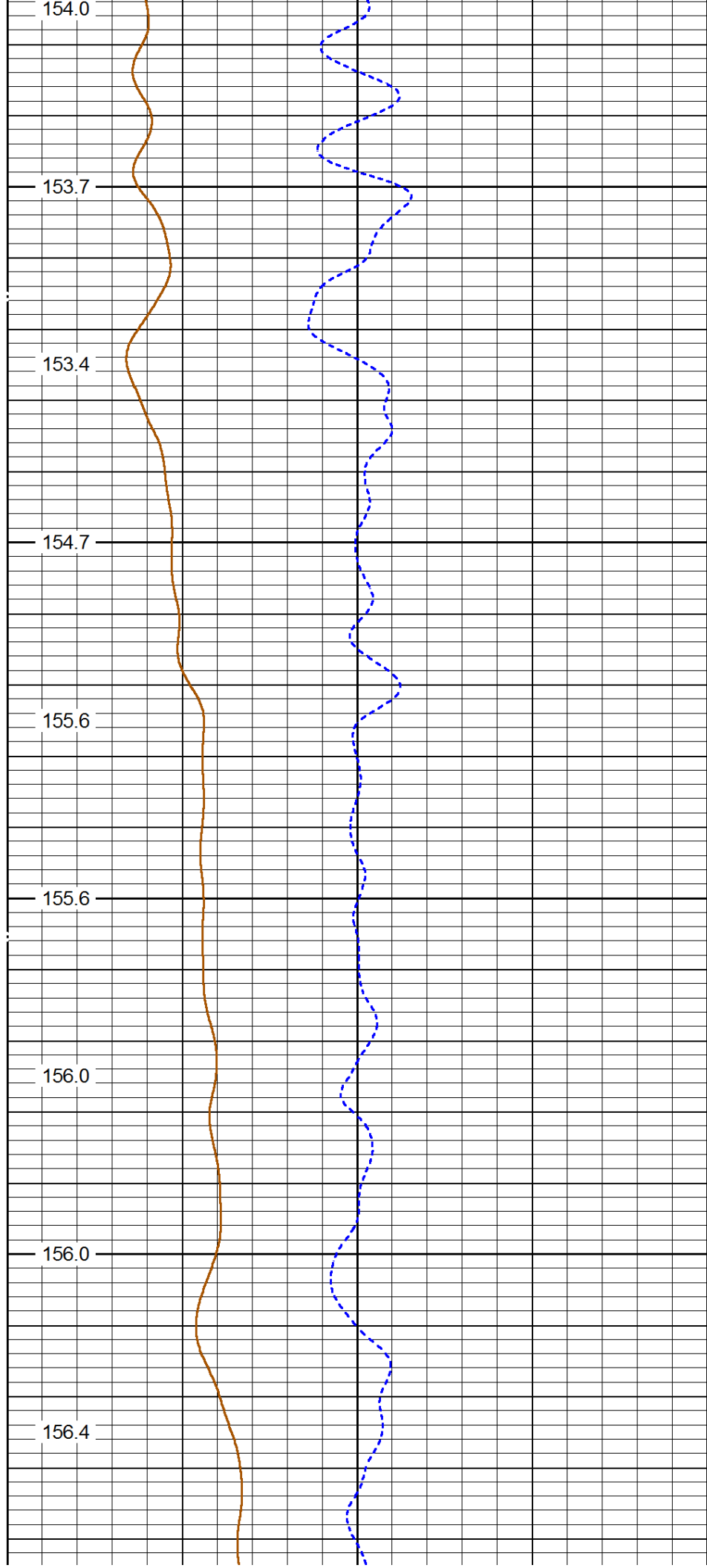
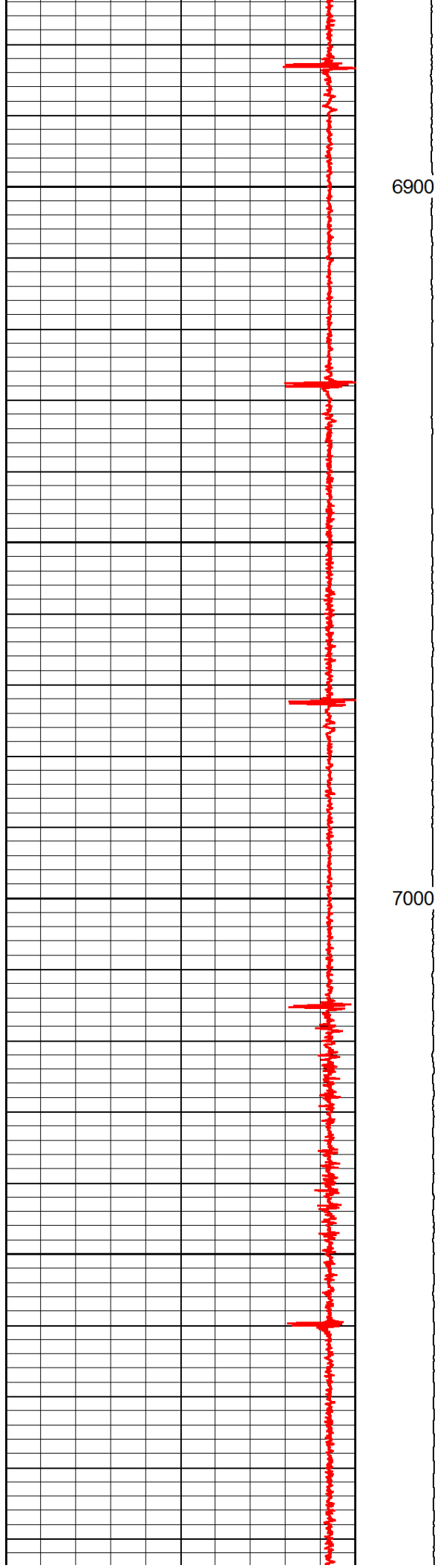


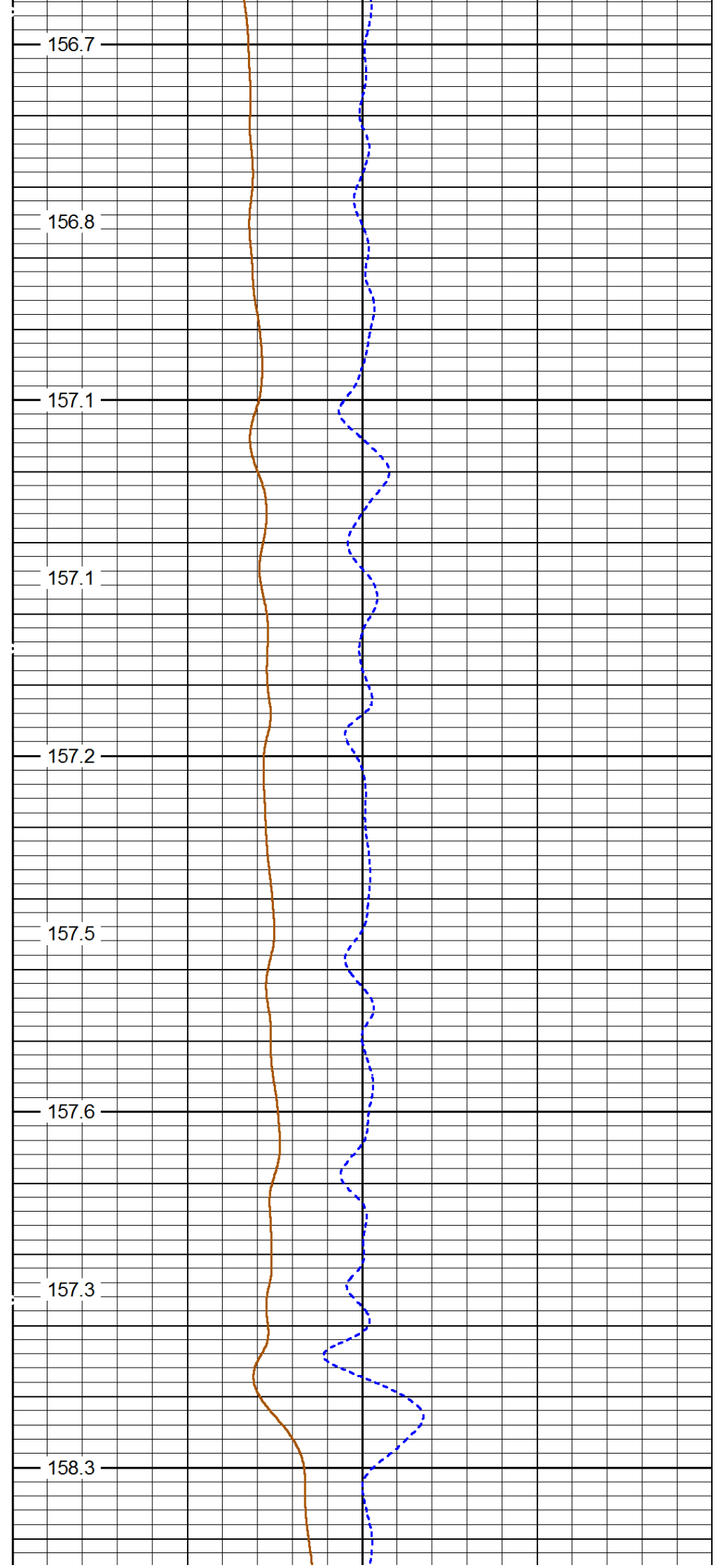
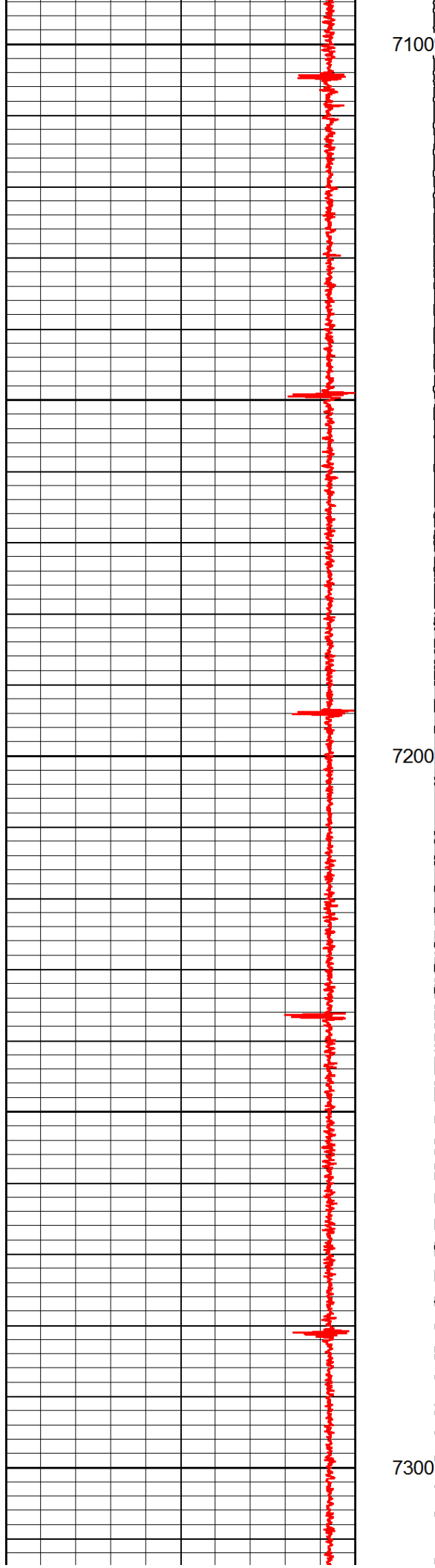


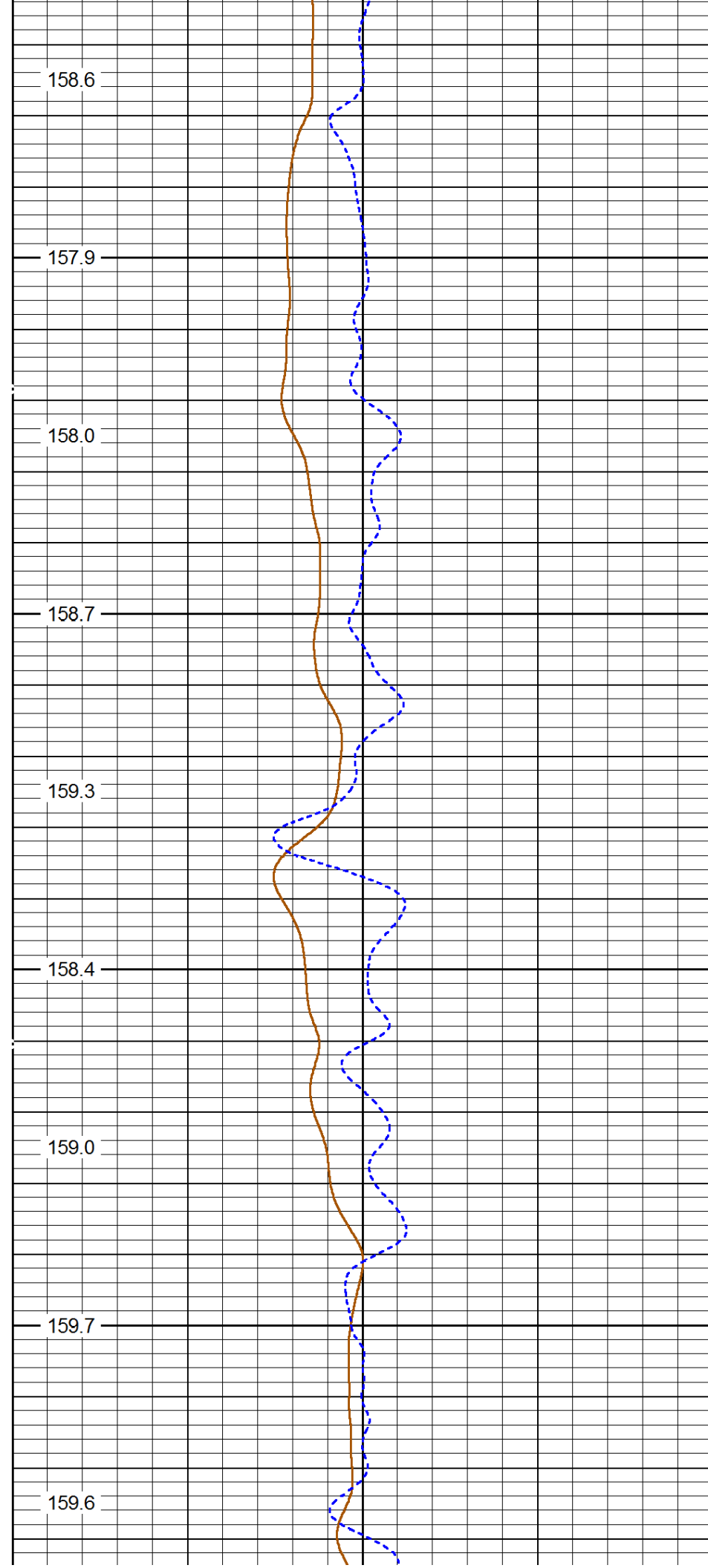
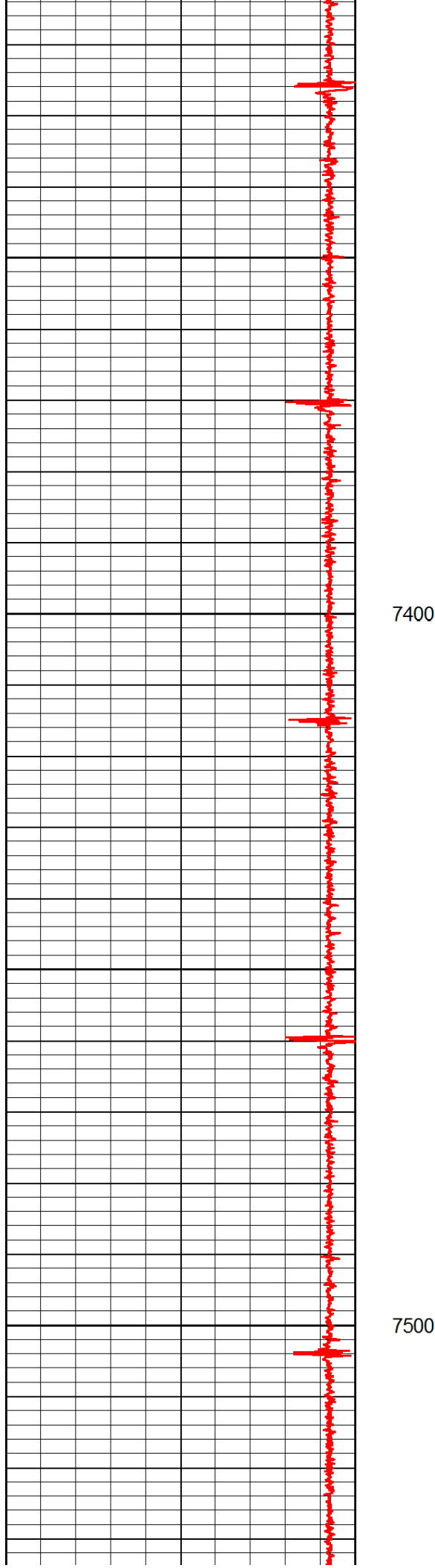


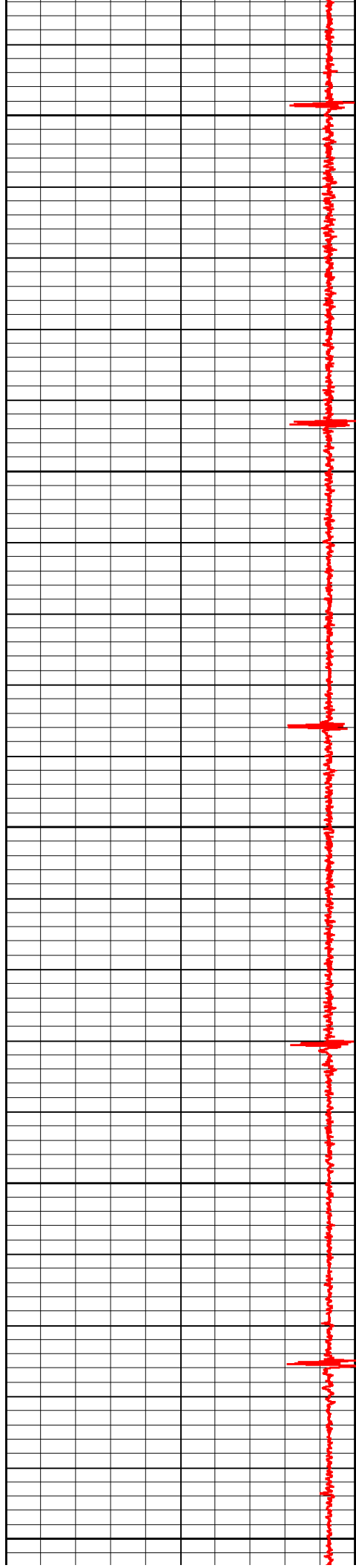






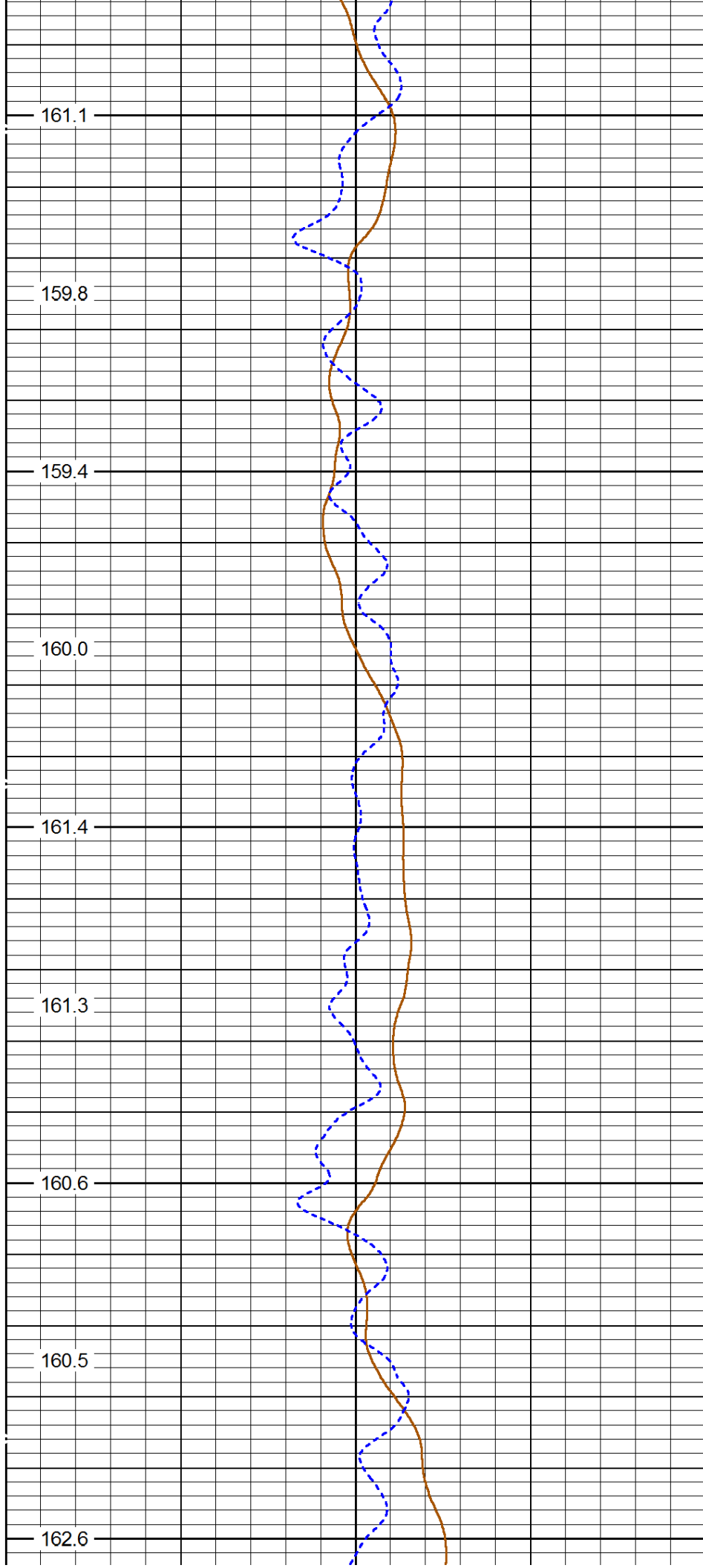


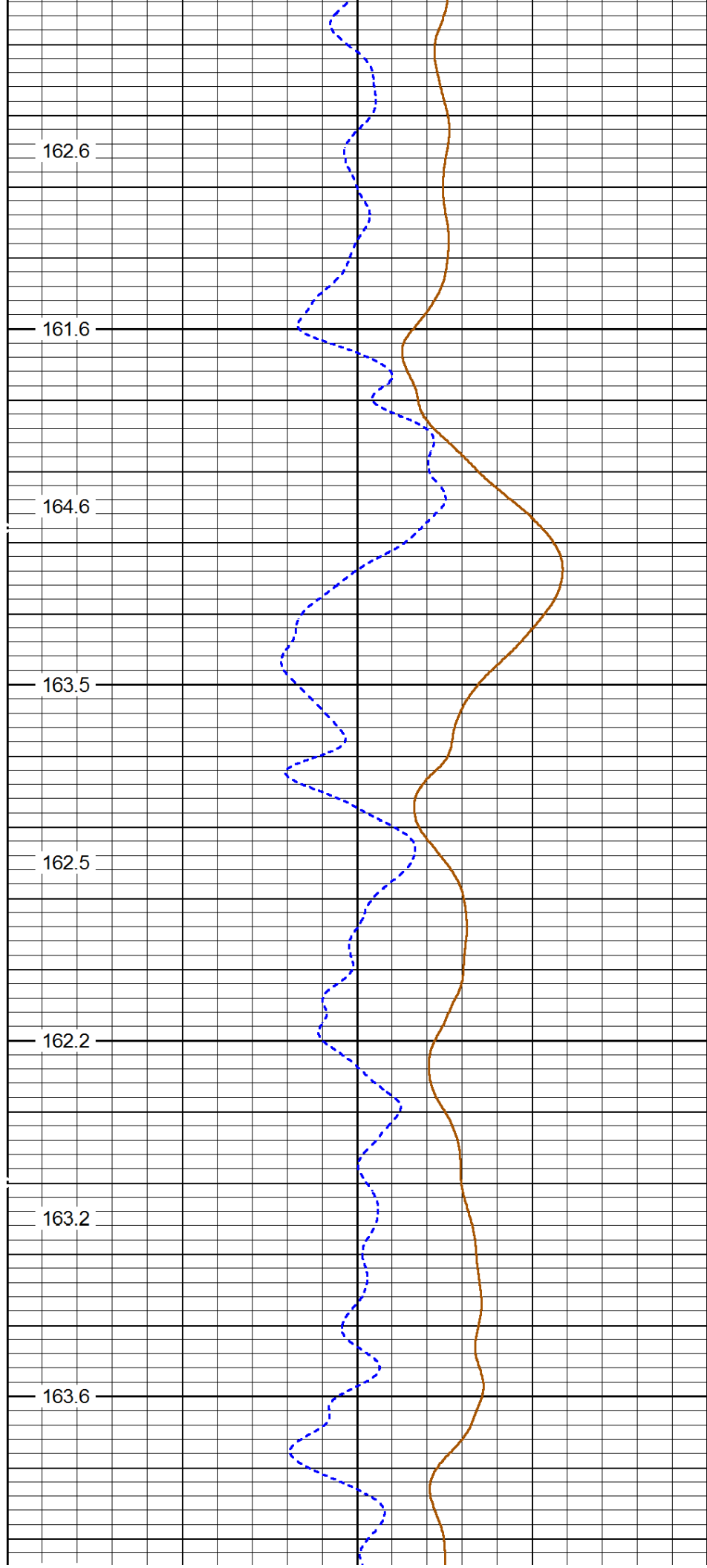
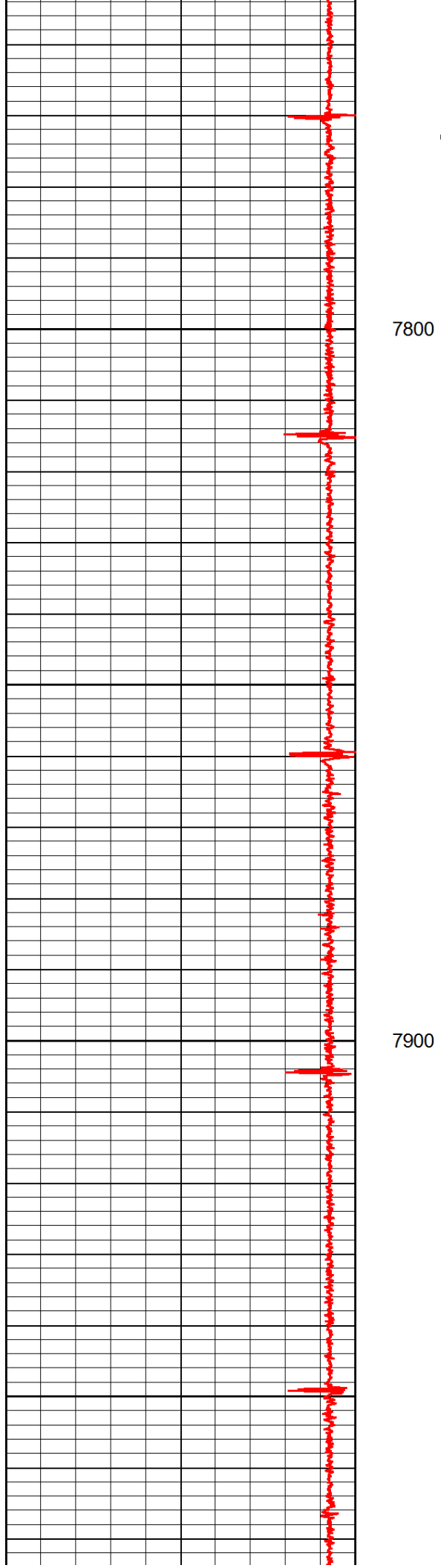


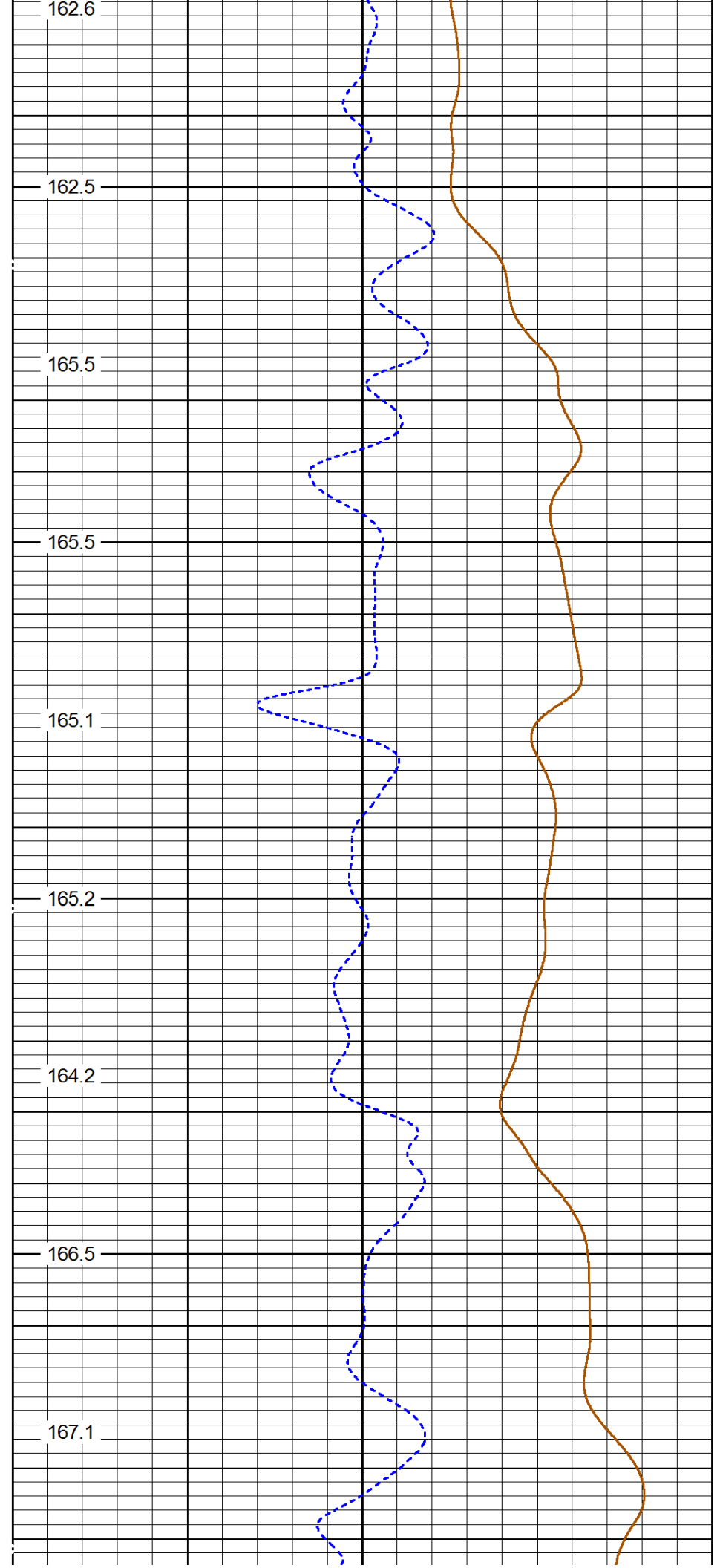
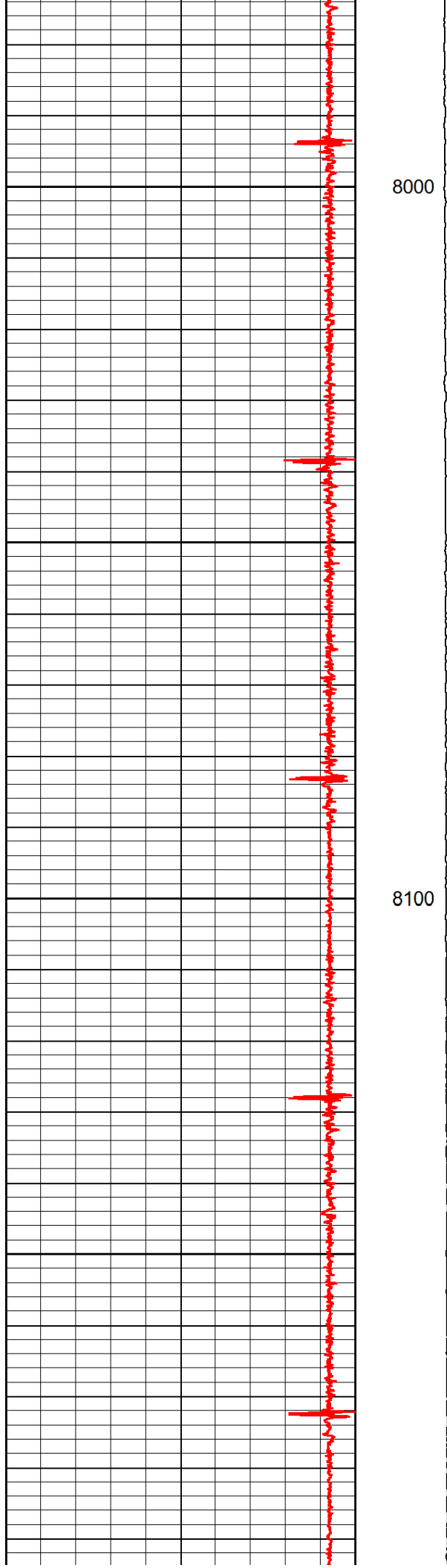


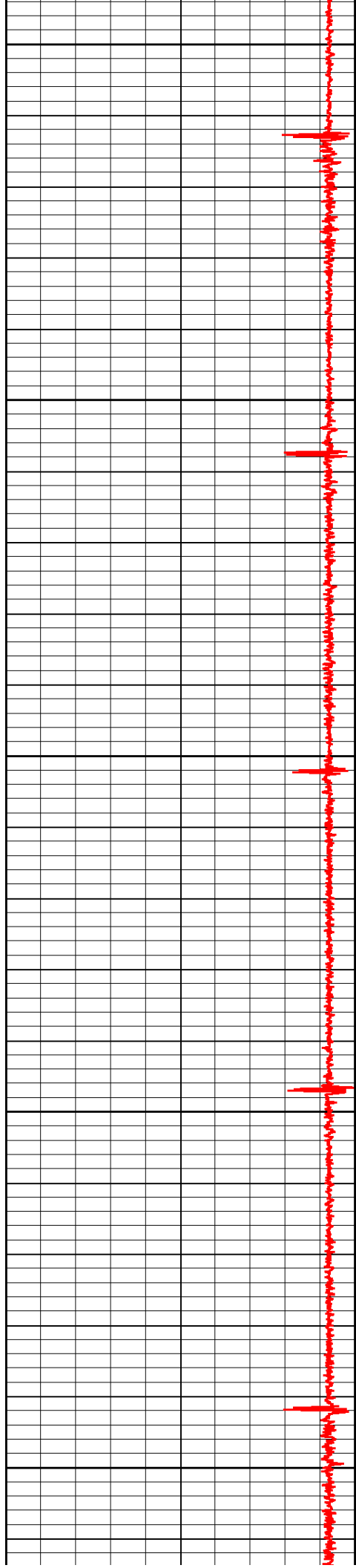
7600

7700





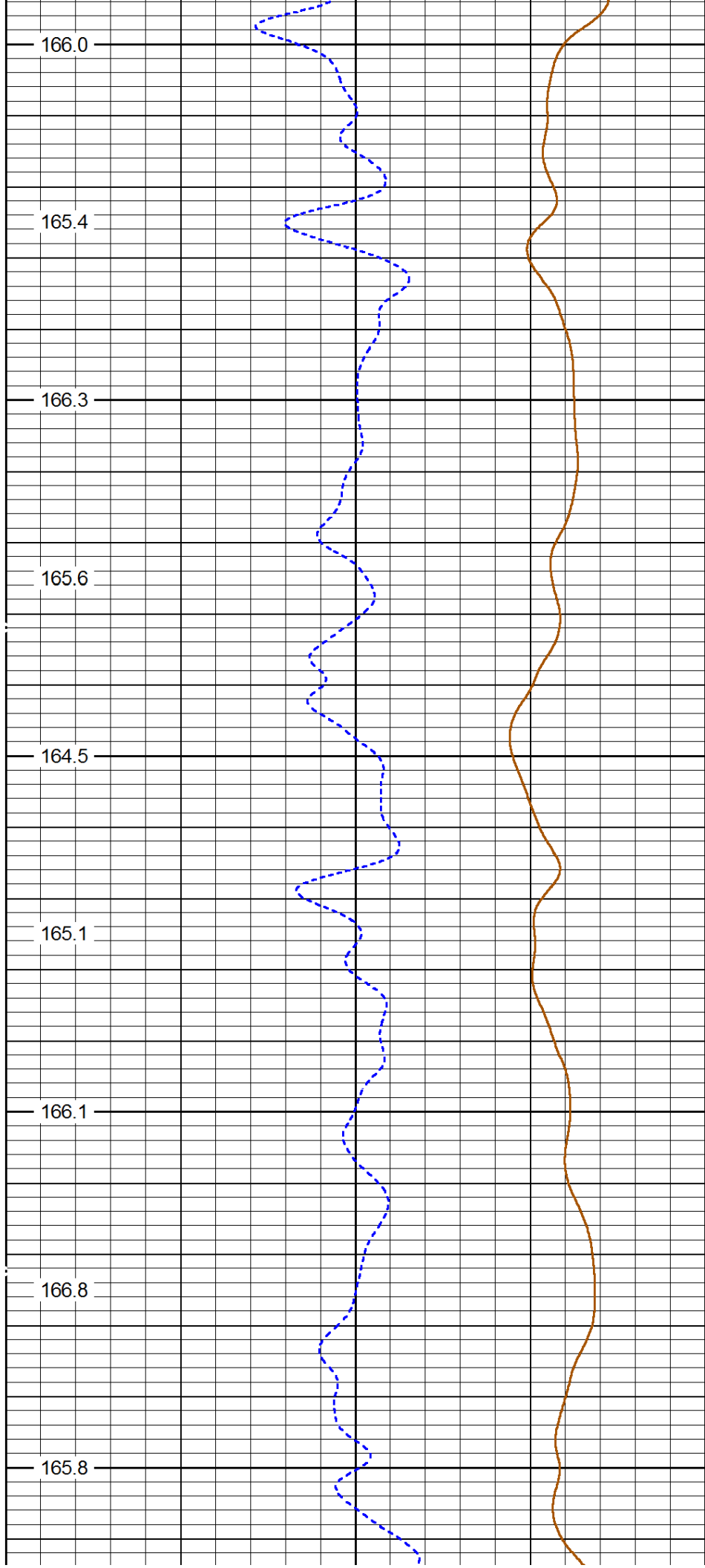




8200

8300

8400



166.0

165.4

166.3

165.6

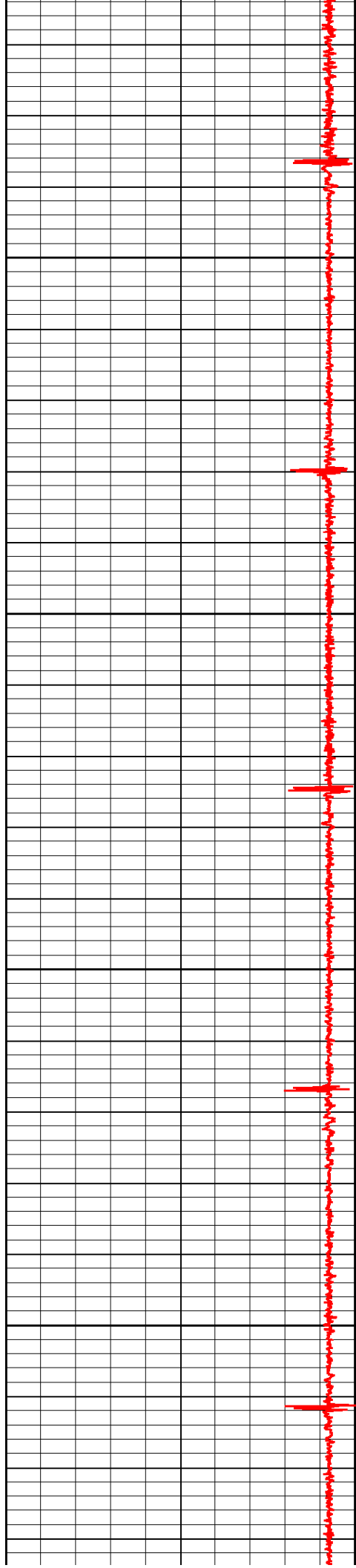
164.5

165.1

166.1

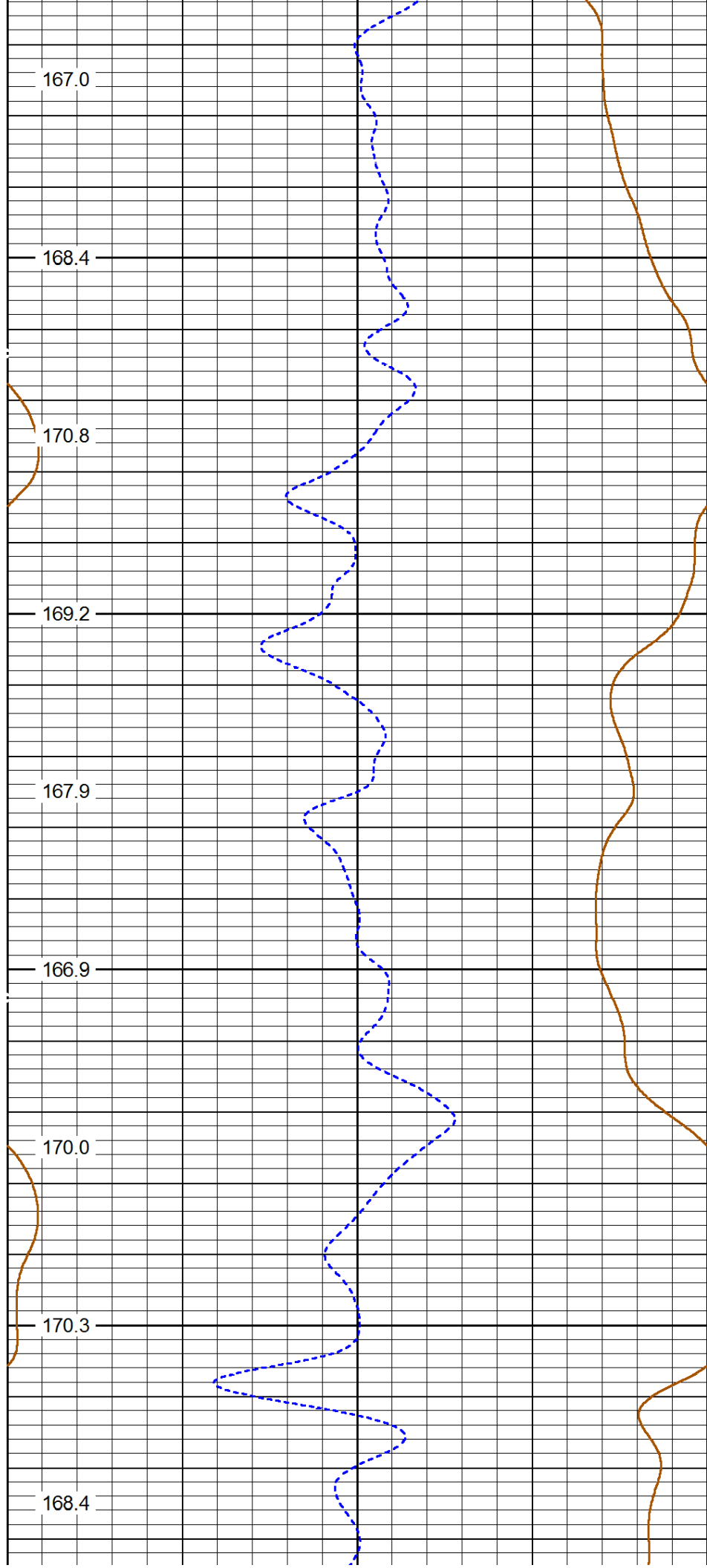
166.8

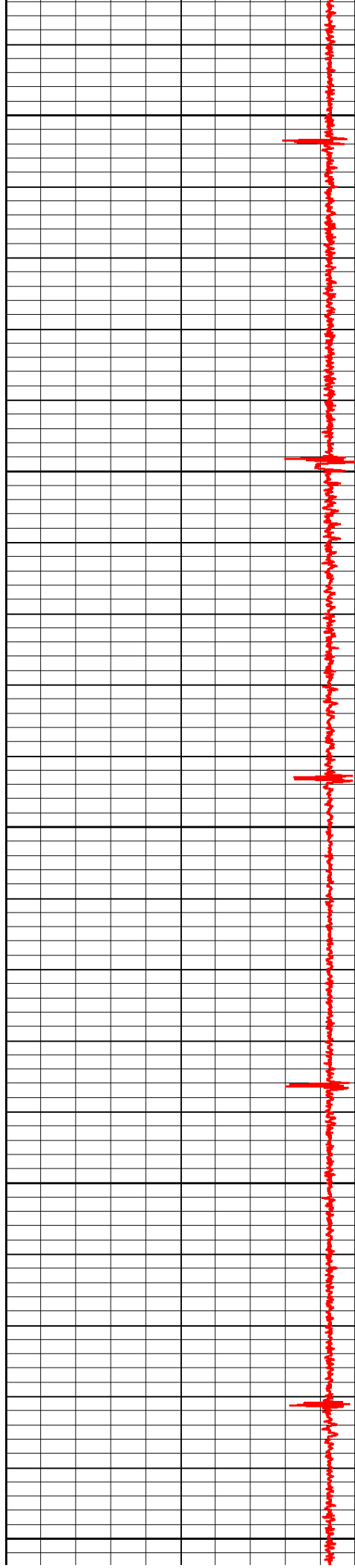
165.8



8500

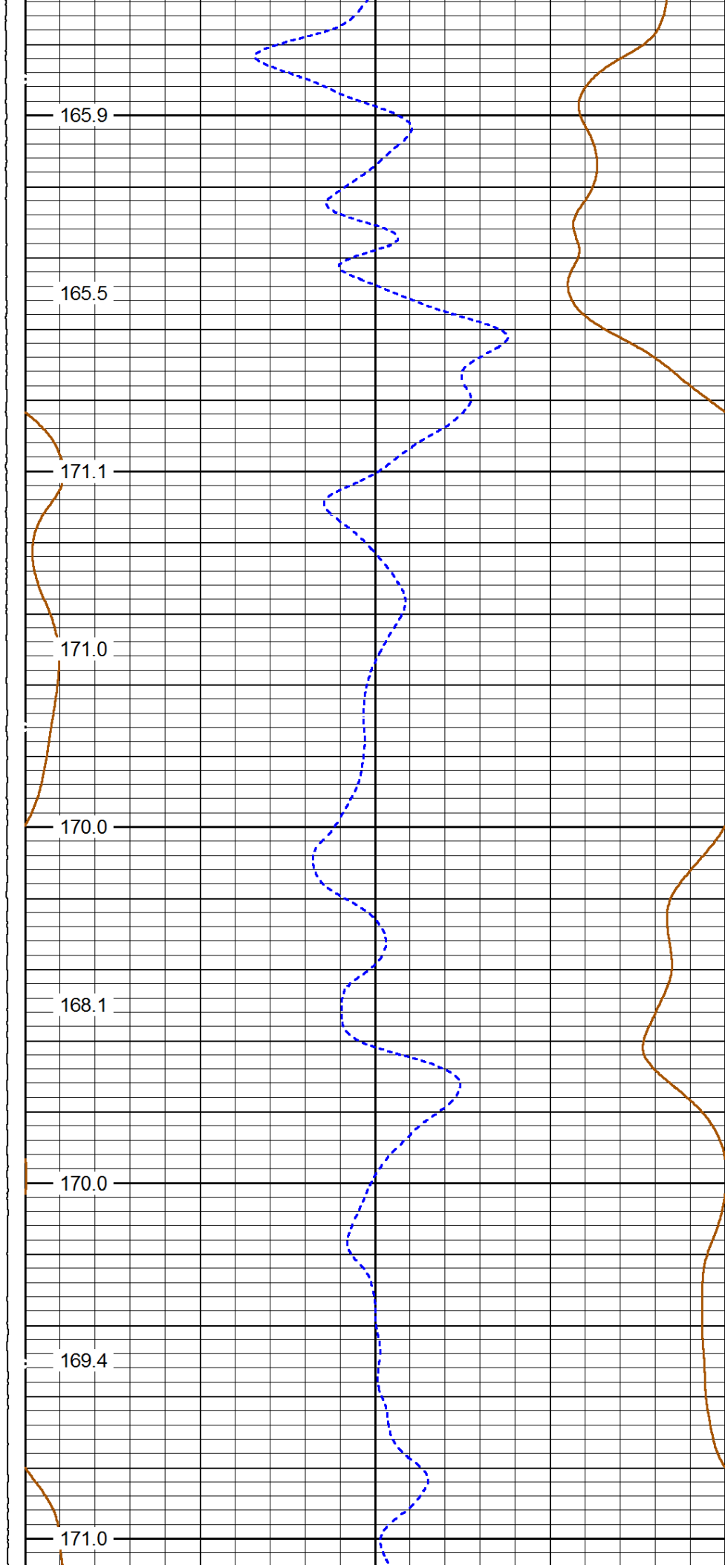
8600

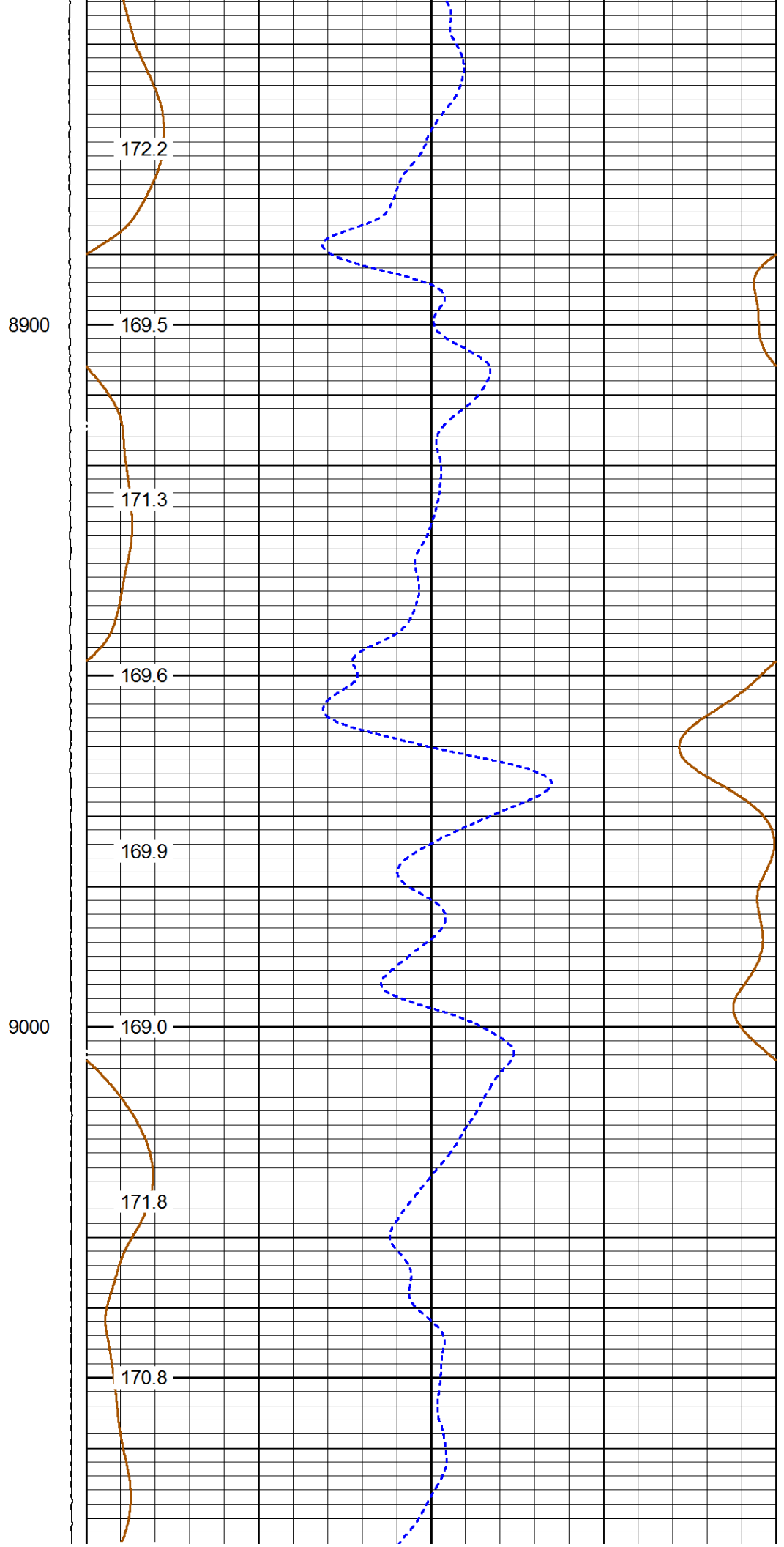
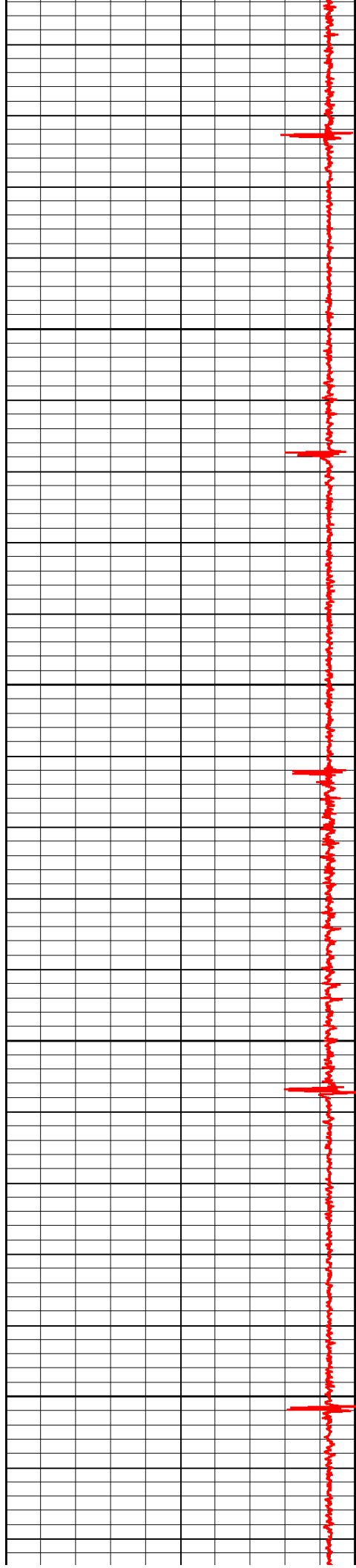


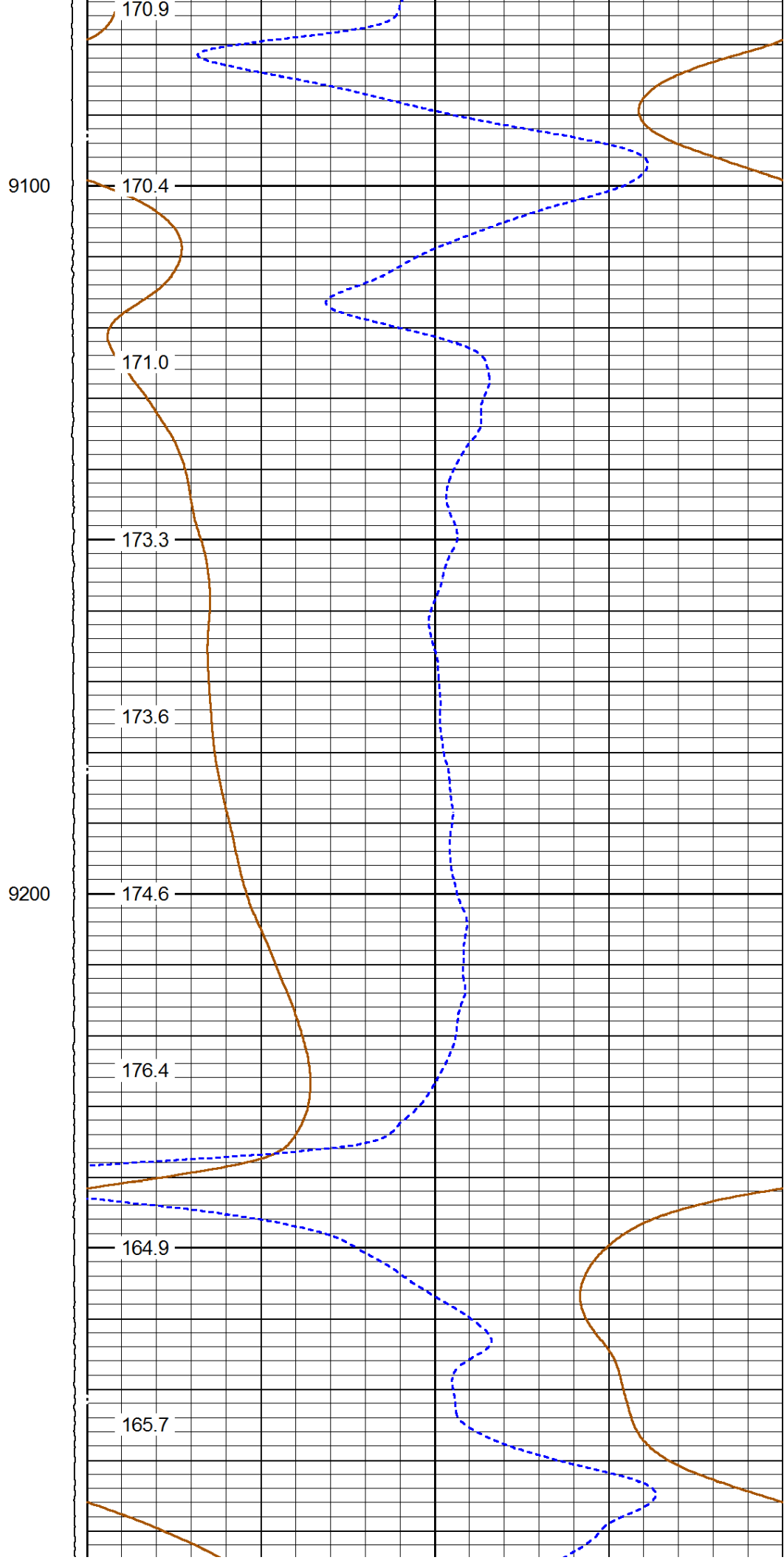
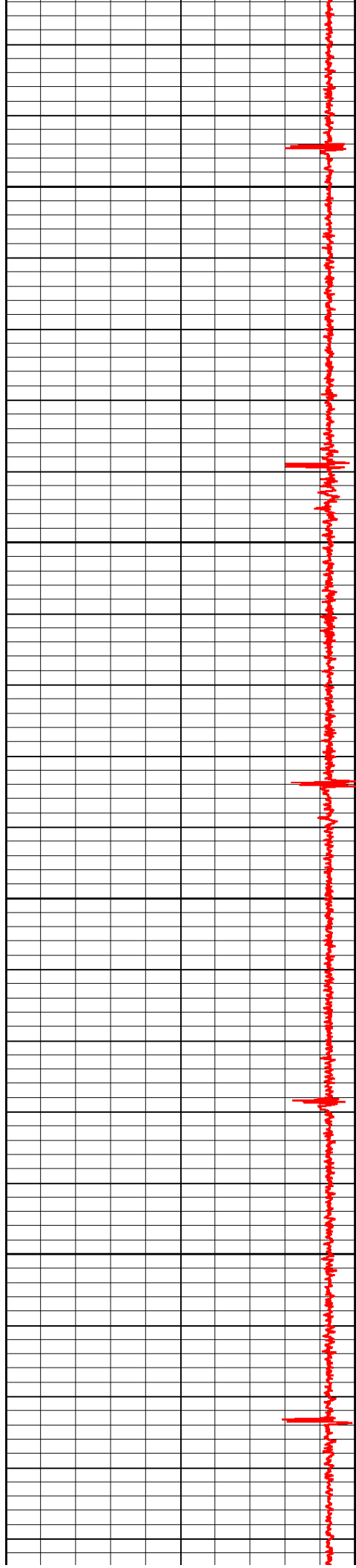


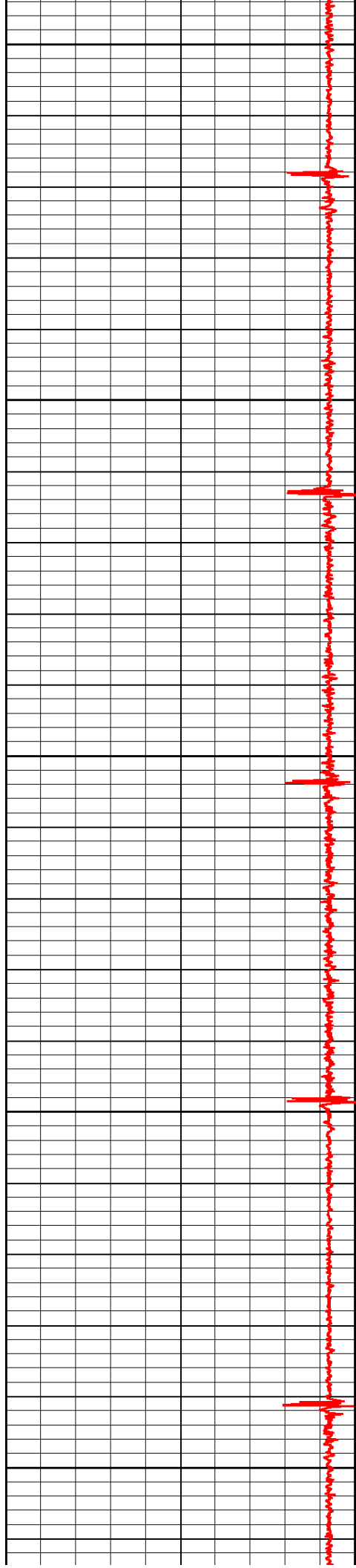
8700

8800





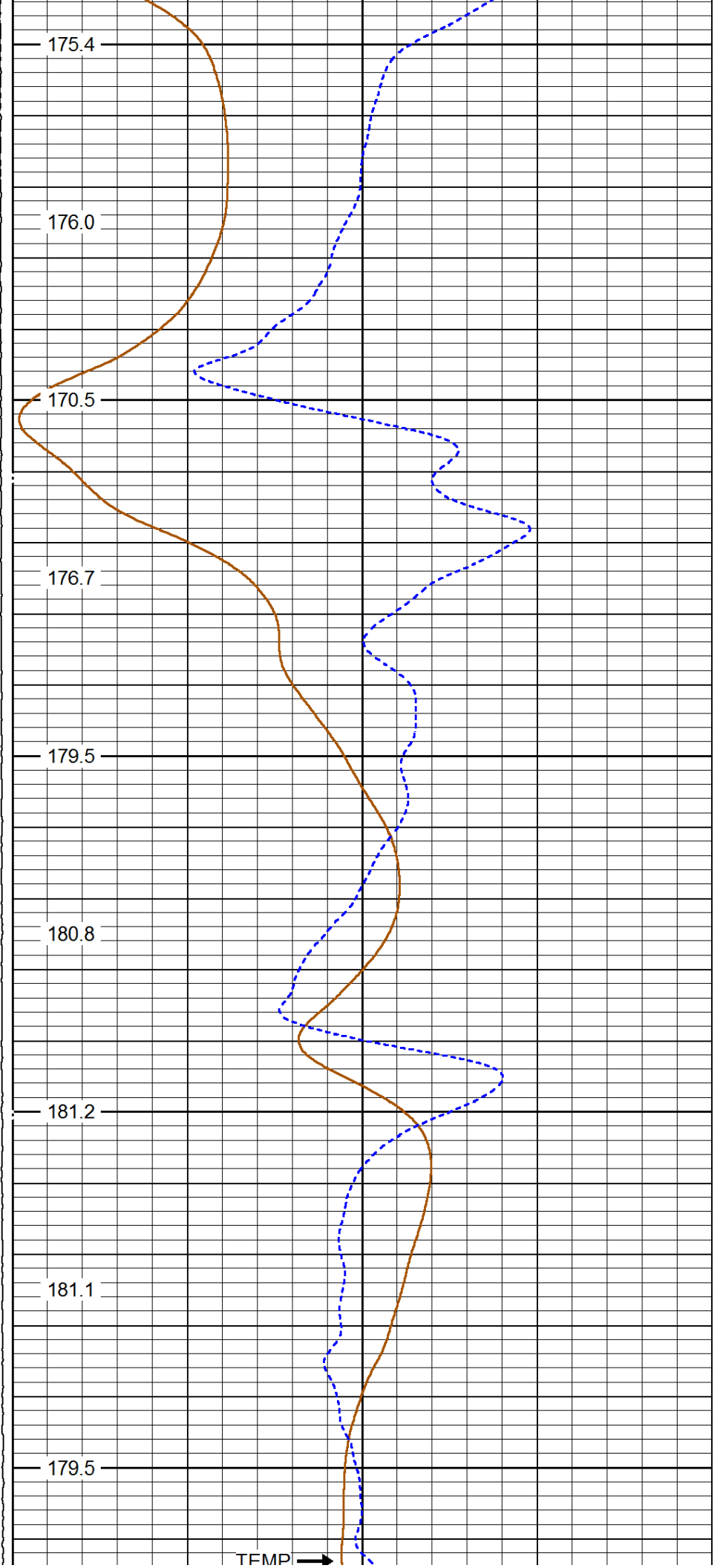


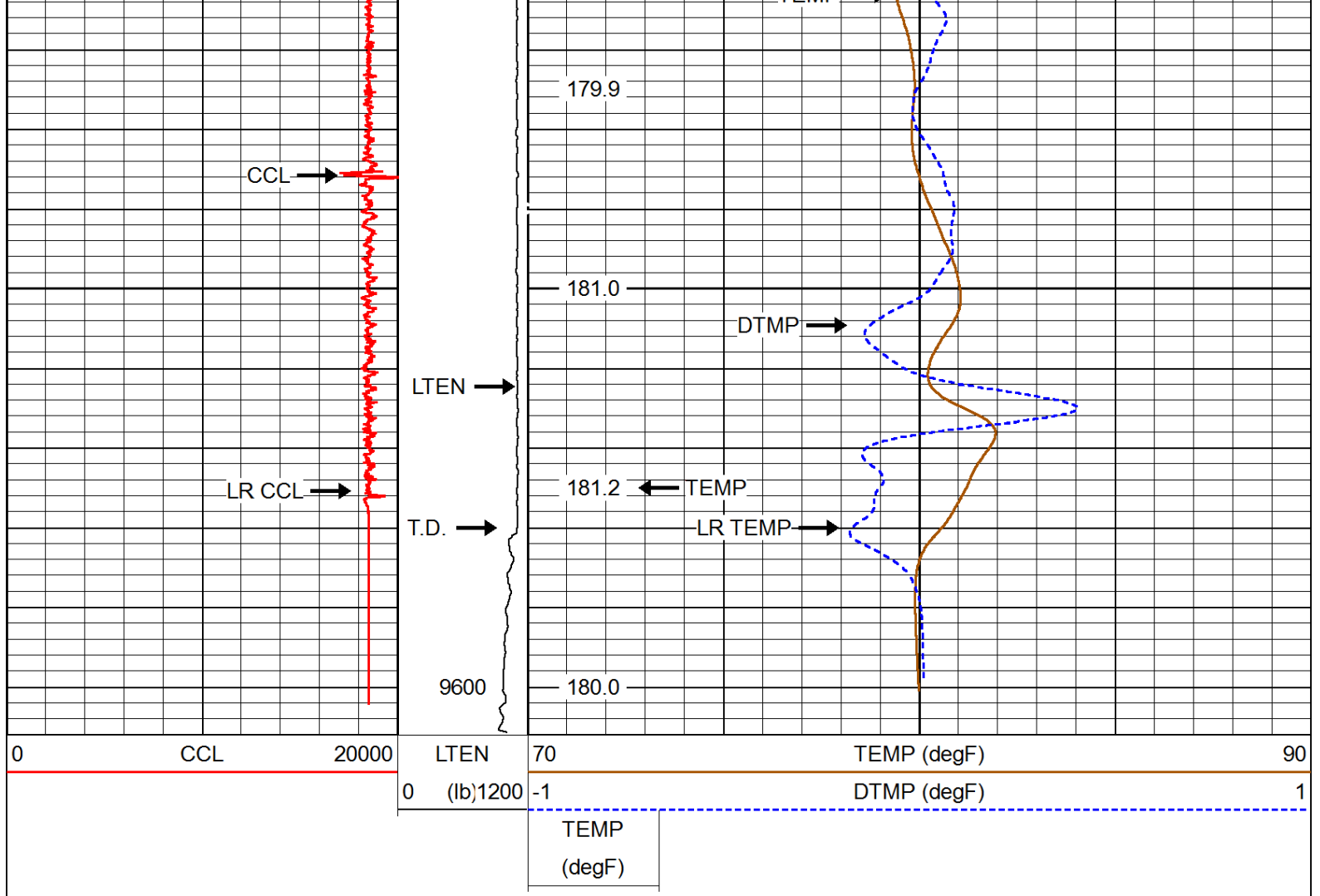


9300

9400

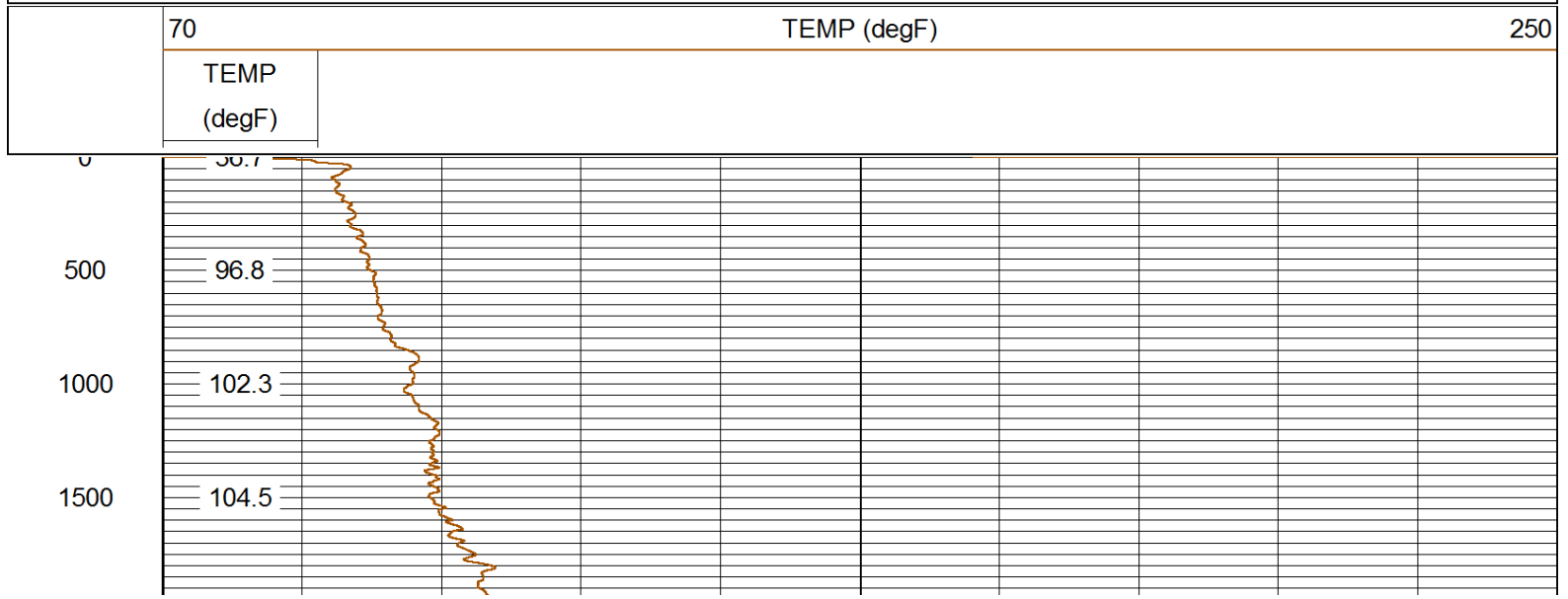
9500

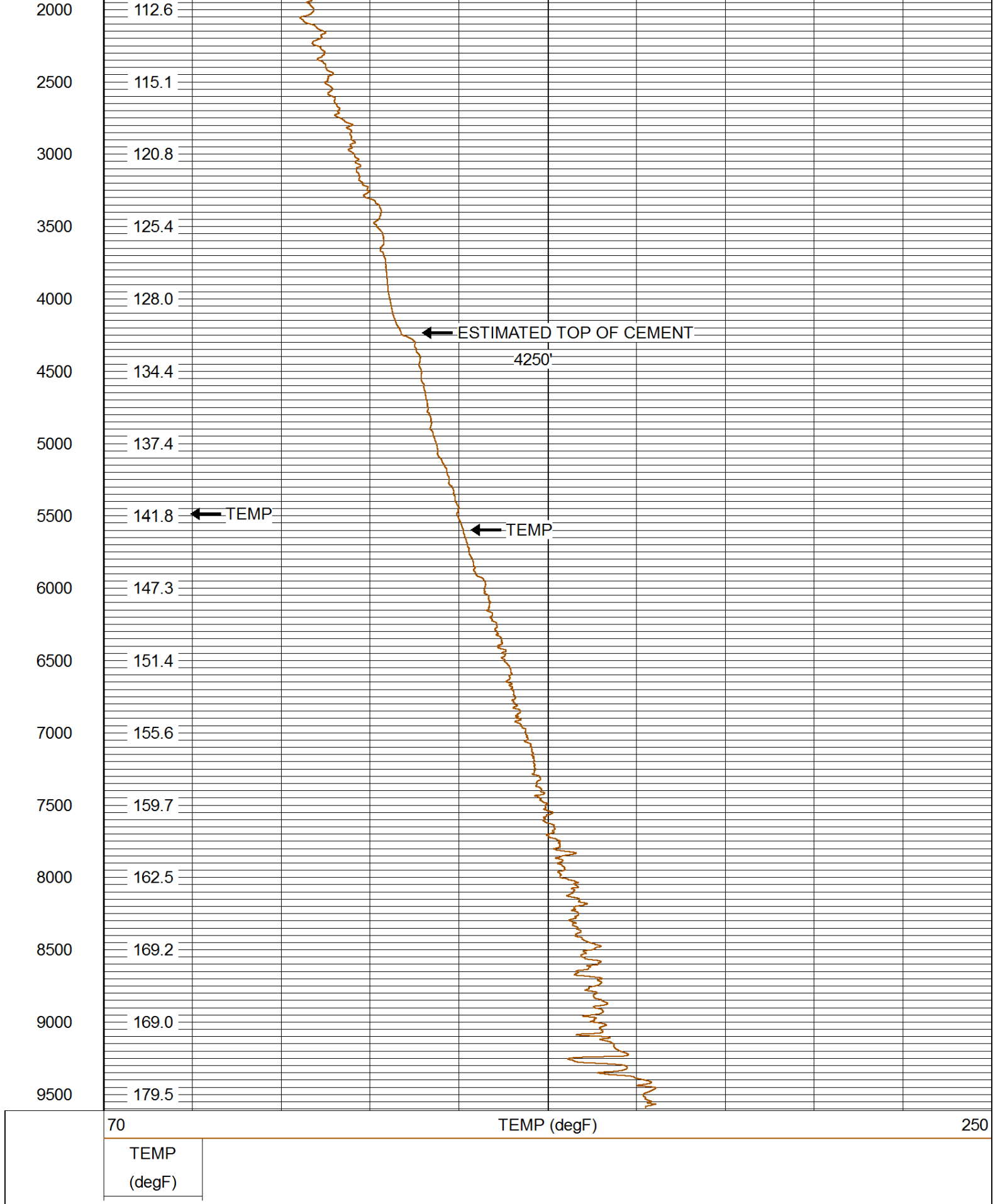




MAIN PASS QUICK LOOK


Database File: 08012016_terraep ru 423-7.db
 Dataset Pathname: mainpass/pass2.1
 Presentation Format: rmtemp_q
 Dataset Creation: Mon Aug 01 22:00:19 2016 by Calc SCH 120430
 Charted by: Depth in Feet scaled 1:10000





Sensor	Offset (ft)	Schematic	Description	Len (ft)	OD (in)	Wt (lb)
						

			CHD-AES (000001) Cable Head	1.04	1.69	2.00
			XTU-002 (10006455) Crossover Ultrawire Toolbus To Ultralink	1.58	1.69	6.50
CCL	3.70		CCL-028 (1037) CCL UW 3 1/8" SONDEX	1.61	3.13	36.00
GR	1.76		PGR-020 (10007620) Production Gamma Ray	1.93	1.69	9.50
TEMP	0.37		PRT-016 (10008207) Platinum Resistance Thermometer	1.04	1.69	6.00
TSTAMP	0.00		BUL-006 (212965) Bullnose Terminator	0.22	1.69	1.20
ITEMPX	0.00					
HVOLTX	0.00					
Dataset: 08012016_terraep ru 423-7.db: field/well/mainpass/pass2.1 Total Length: 7.42 ft Total Weight: 61.20 lb O.D. 3.13 in						

	Company	TERRA EP
	Well	RU 423-7
	Field	RULISON
	County	GARFIELD
	State	COLORADO