



Pioneer Energy Services

COMPENSATED DENSITY COMPENSATED NEUTRON GAMMA RAY

Company	Wiepking-Fullerton Energy LLC	Company	Wiepking-Fullerton Energy LLC
Well	Aloha Mula #16	Well	Aloha Mula #16
Field	Great Plains	Field	Great Plains
County	Lincoln	County	Lincoln
State	Colorado	State	Colorado
Location:		API # : 05-073-06590	
1980' FNL & 660' FWL SWNW		Other Services	
SEC 19 TWP 10S RGE 55W		Hi. Res. Induction	
Permanent Datum	GL	Elevation	5286
Log Measured From	KB	K.B. 5299	
Drilling Measured From	KB	D.F. 5298	
		G.L. 5286	

Date	August 6, 2014
Run Number	1
Depth Driller	8065
Depth Logger	8065
Bottom Logged Interval	8045
Top Log Interval	1990
Casing Driller	336
Casing Logger	Not Logged
Bit Size	7-7/8"
Type Fluid in Hole	Chem Gel
Density / Viscosity	9.3 / 66
pH / Fluid Loss	8.5 / 9.6
Source of Sample	Flowline
Rm @ Meas. Temp	1.56 @ 65 F
Rmf @ Meas. Temp	1.25 @ 65 F
Rmc @ Meas. Temp	1.84 @ 65 F
Source of Rmf / Rmc	Calc / Calc
Rm @ BHT	0.51 @ 198 F
Time Circulation Stopped	2030 8/5/2014
Time Logger on Bottom	0200
Maximum Recorded Temperature	198 F
Equipment Number	49
Location	Ft. Morgan
Recorded By	Clint Christensen
Witnessed By	Gregg Smith

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All interpretations are opinions based on inferences from electrical or other measurements and Pioneer Wireline Services, LLC cannot and does not guarantee the accuracy or correctness of any interpretation, and Pioneer Wireline Services, LLC will not 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.

Comments

Annular volume calculated for 5.5" casing
Murfin Drilling Rig 25
Thank you for using Pioneer Energy Services

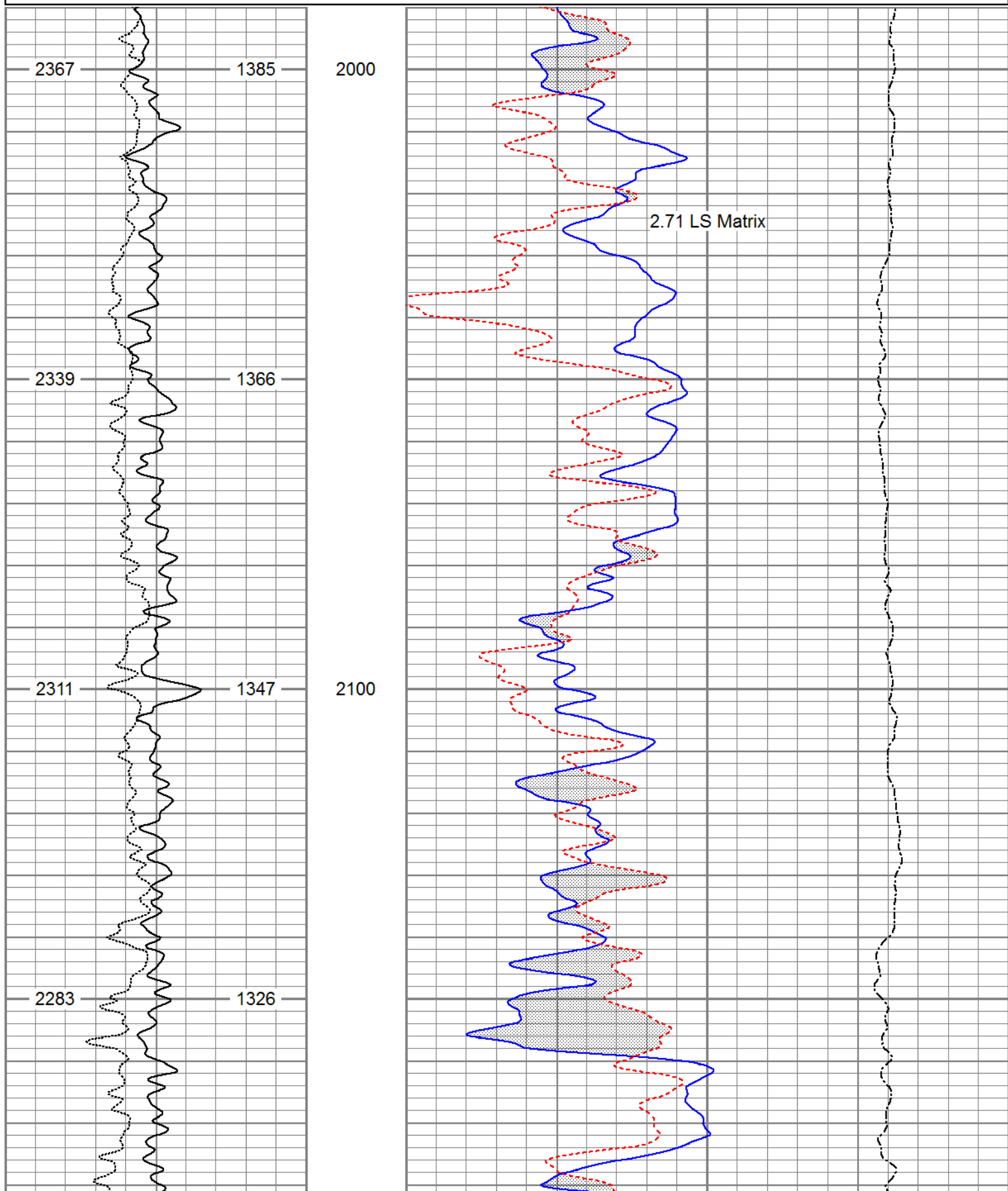
Closed Caliper 5350' to 5560' at Client Request

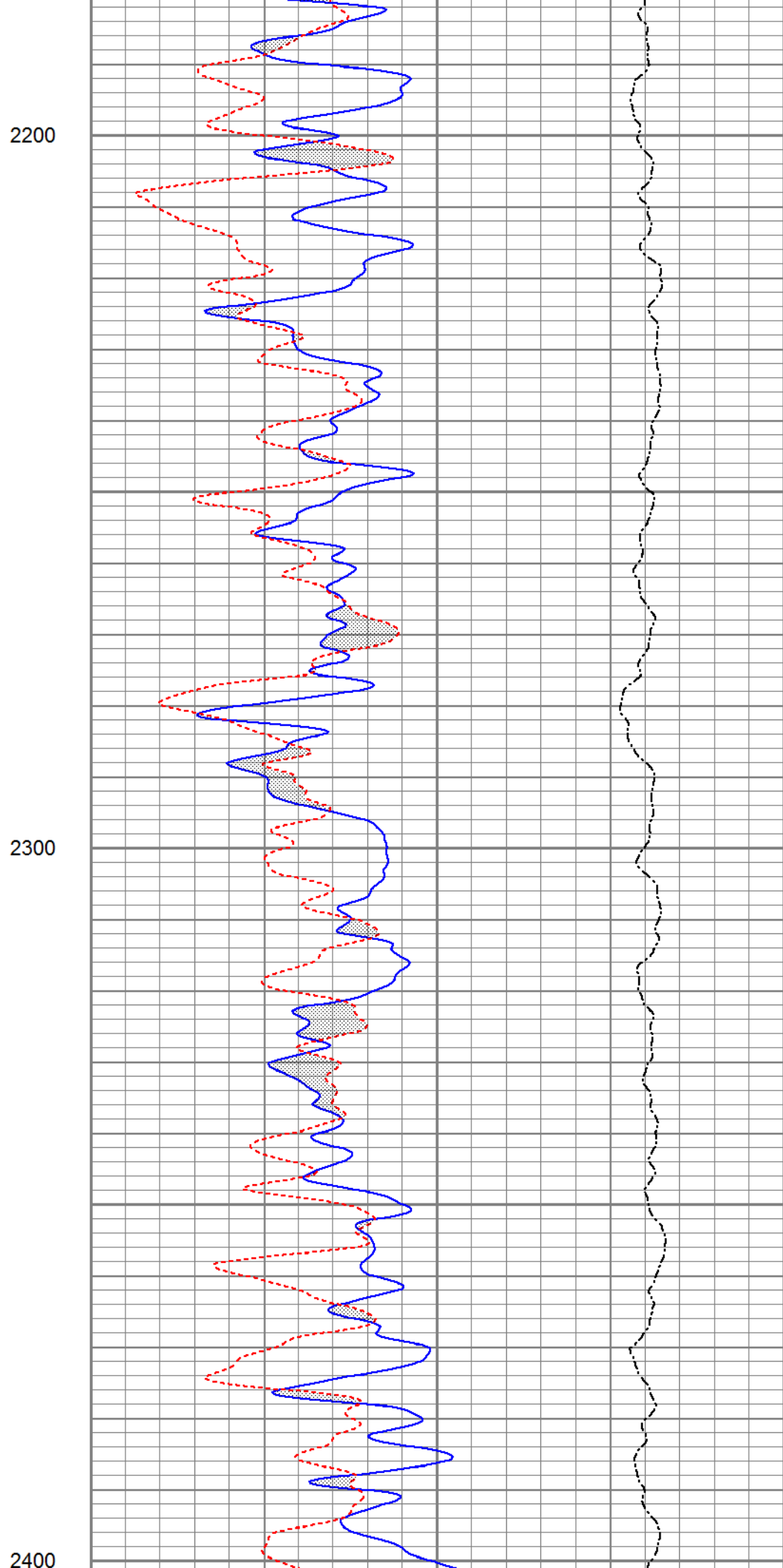
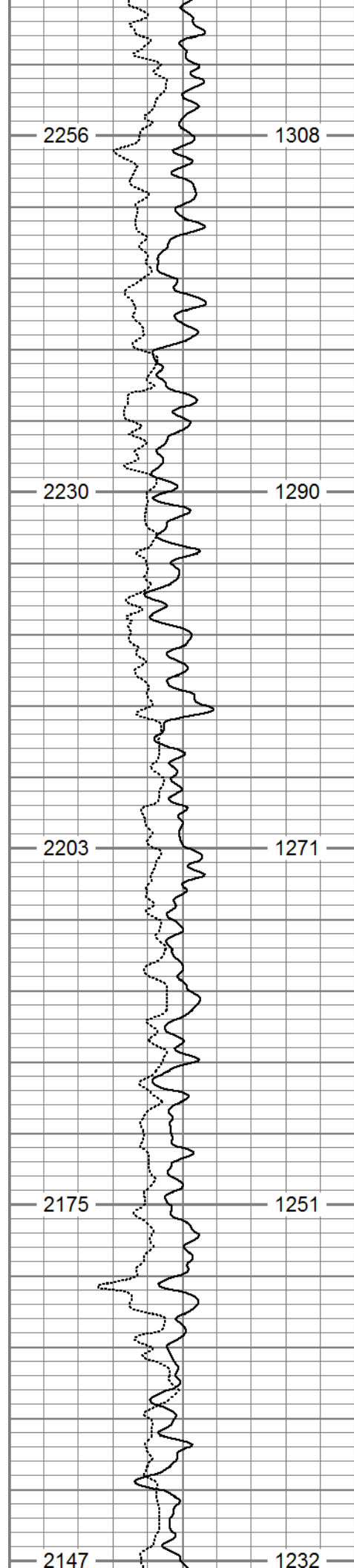
Sensor	Offset (ft)	Schematic	Description	Len (ft)	OD (in)	Wt (lb)
			CHD (~0)	2.00	3.50	30.00

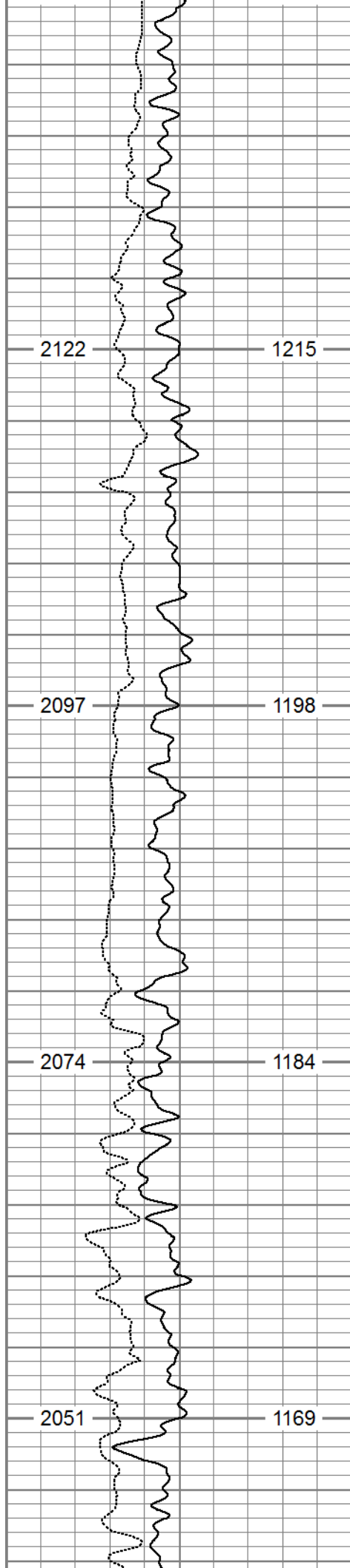
GR	0.00		GR-PSI (939)	2.92	3.50	40.00
CNLSC	-3.67		CNT-PSI (826)	5.00	3.50	70.00
CNSSC	-4.17					
			CDL-PSI (998)	8.50	5.00	285.00
DCAL	-11.84					
LSD	-12.67					
SSD	-13.17					
RLL3	-17.52					
			DIL-PSI (1011)	18.25	3.75	175.00
CILD	-24.97					
CILM	-28.42					
SP	-32.42					
Dataset: 13618.db: field/well/run1/pass2 Total Length: 36.67 ft Total Weight: 600.00 lb O.D. 5.00 in						

Database File: 13618.db
 Dataset Pathname: Final
 Presentation Format: poro60
 Dataset Creation: Wed Aug 06 04:08:35 2014

6	Caliper (in)	16	60	Density Porosity (pu)	0
0	Gamma Ray (GAPI)	200	60	Neutron Porosity (pu)	0
TBHV (ft3)		ABHV (ft3)		-0.5	Corr (g/cc) 0.5

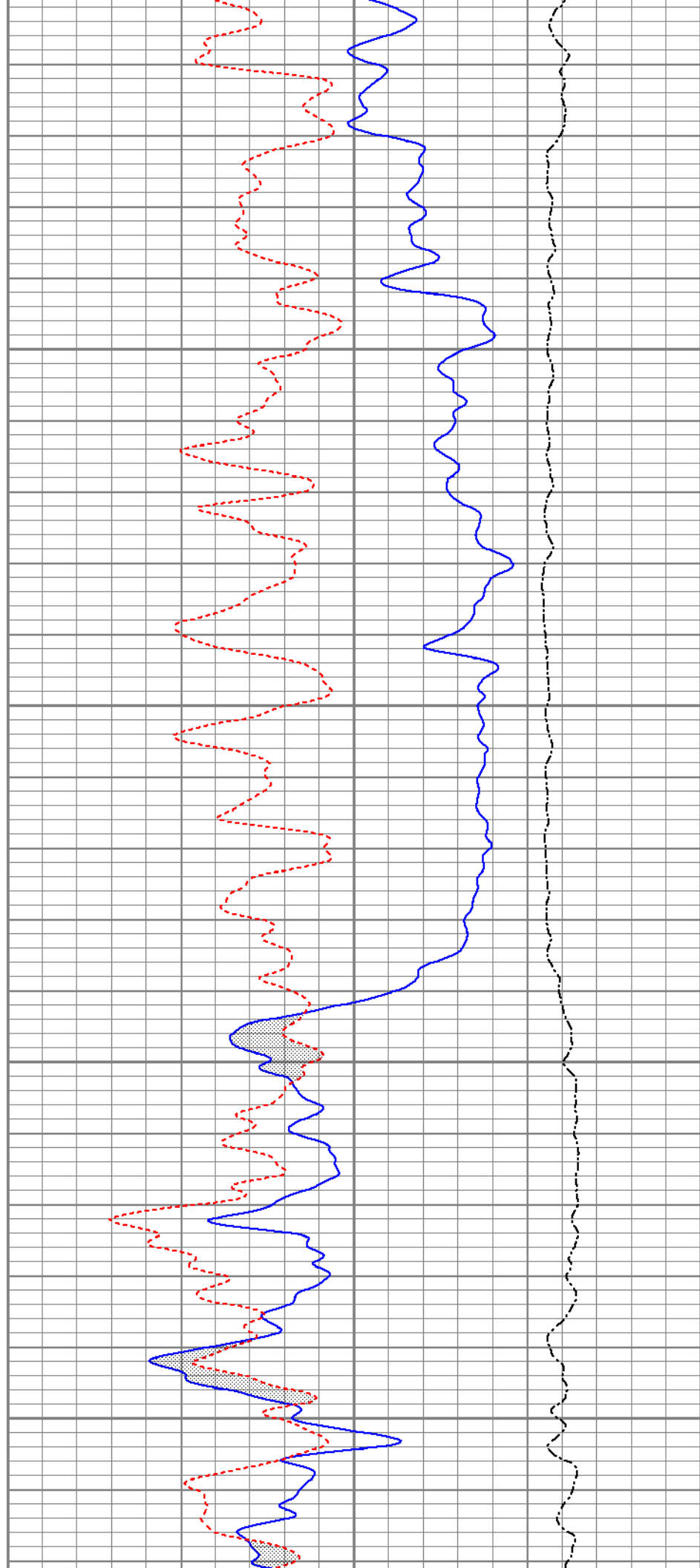


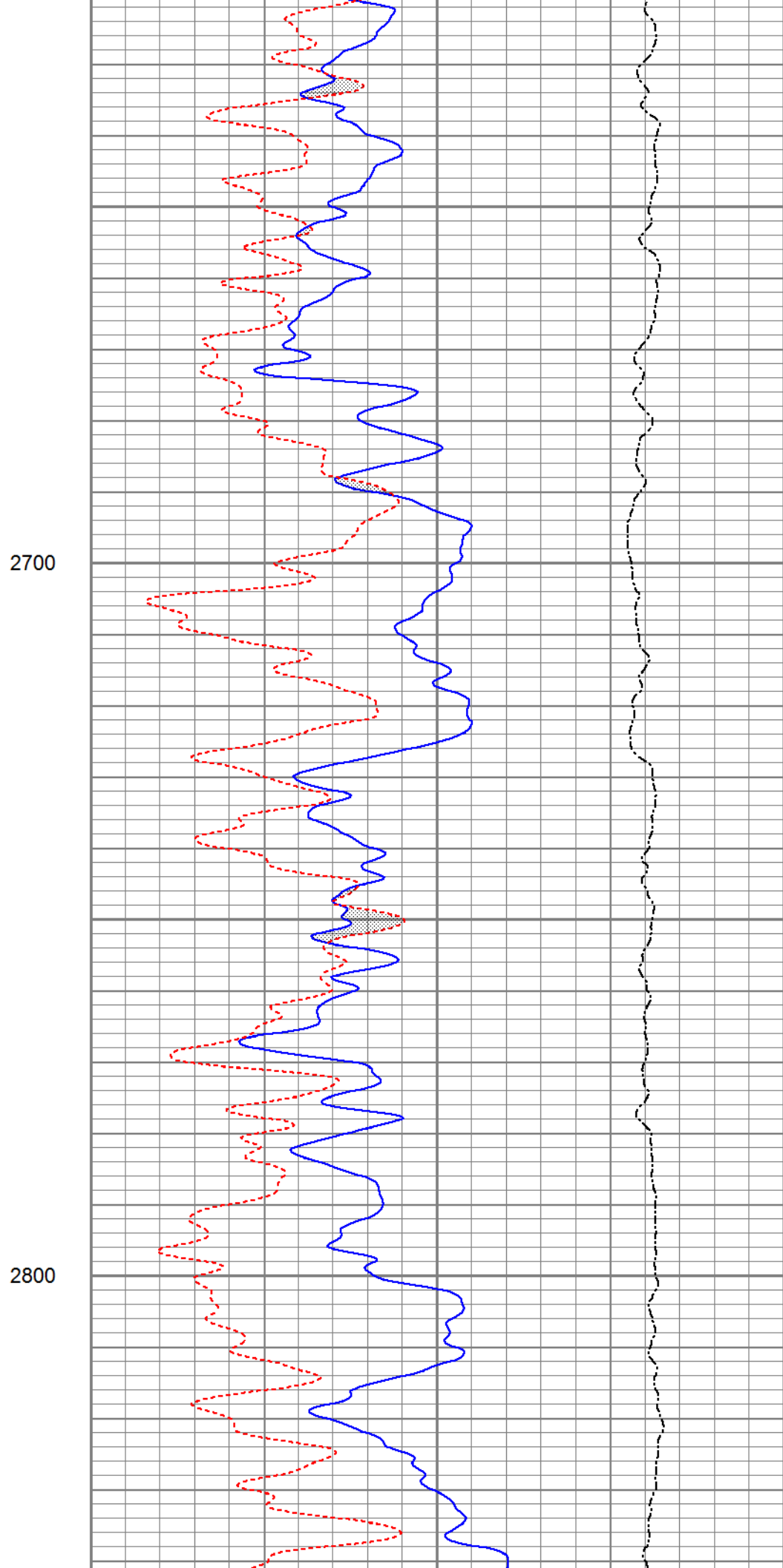
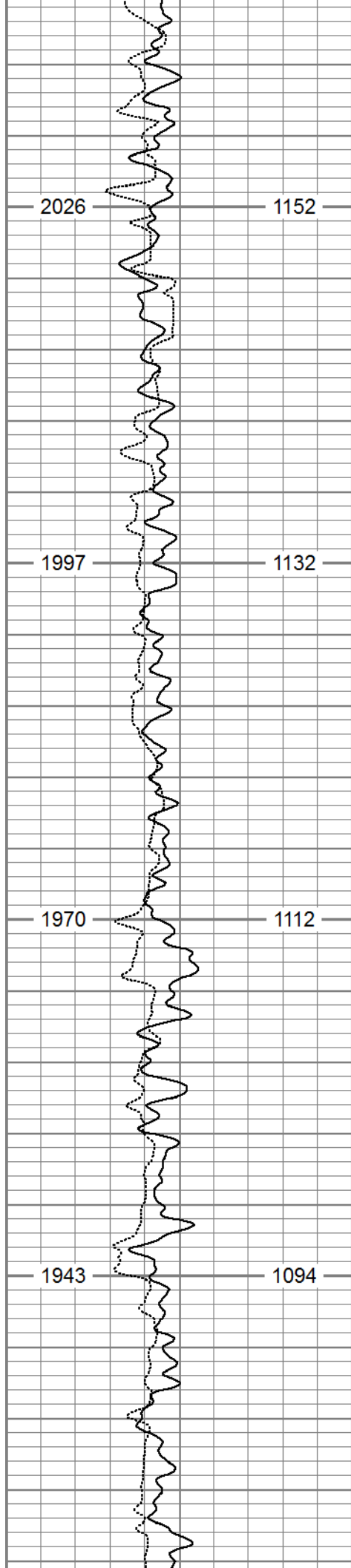


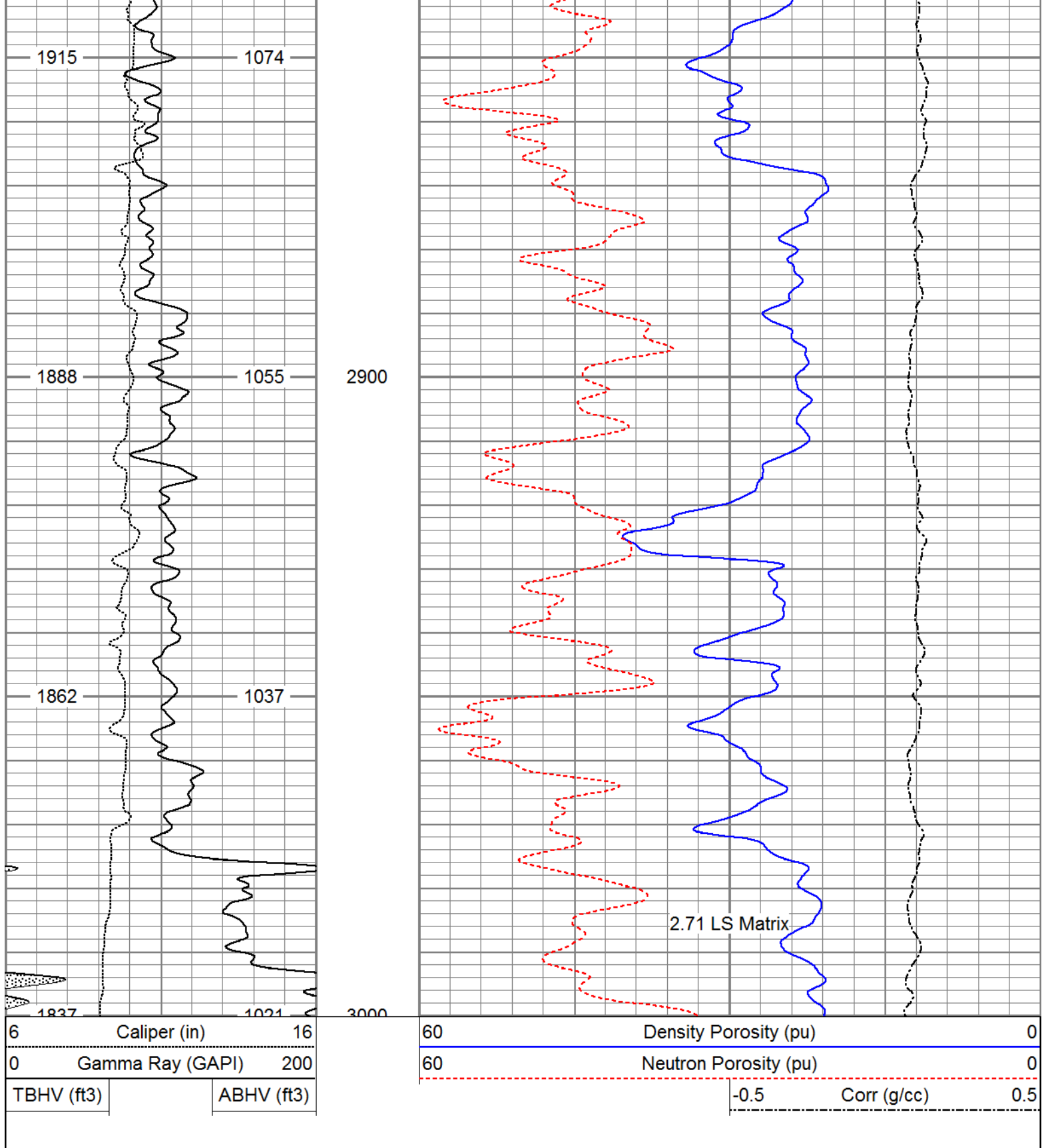


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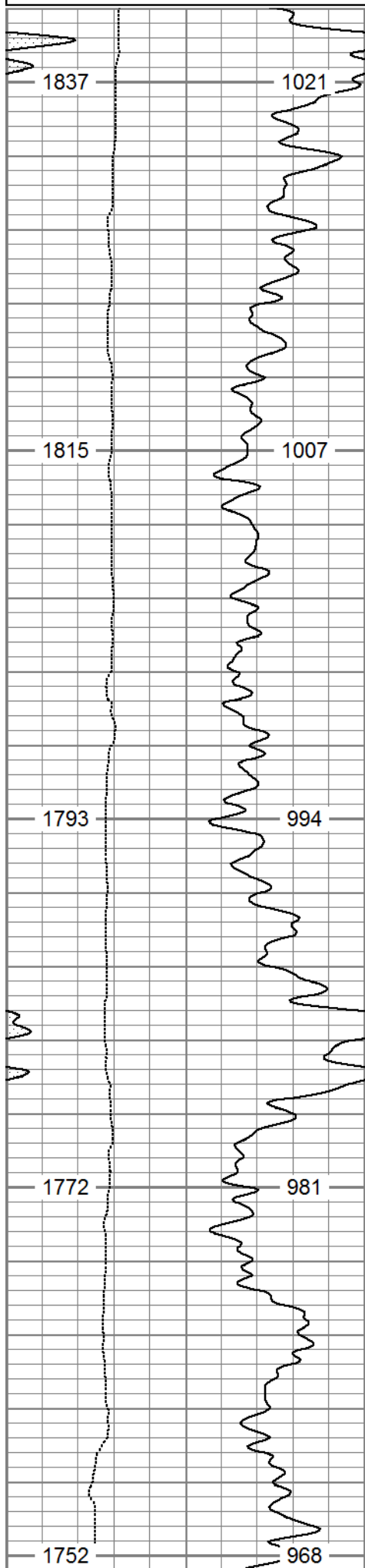






Database File: 13618.db
 Dataset Pathname: Final
 Presentation Format: poro
 Dataset Creation: Wed Aug 06 04:08:35 2014
 Charted by: Depth in Feet scaled 1:240

6	Caliper (in)	16	30	Density Porosity (pu)	-10
0	Gamma Ray (GAPI)	200	30	Neutron Porosity (pu)	-10
TBHV (ft3)	ABHV (ft3)		-0.5	Correction (g/cc)	0.5

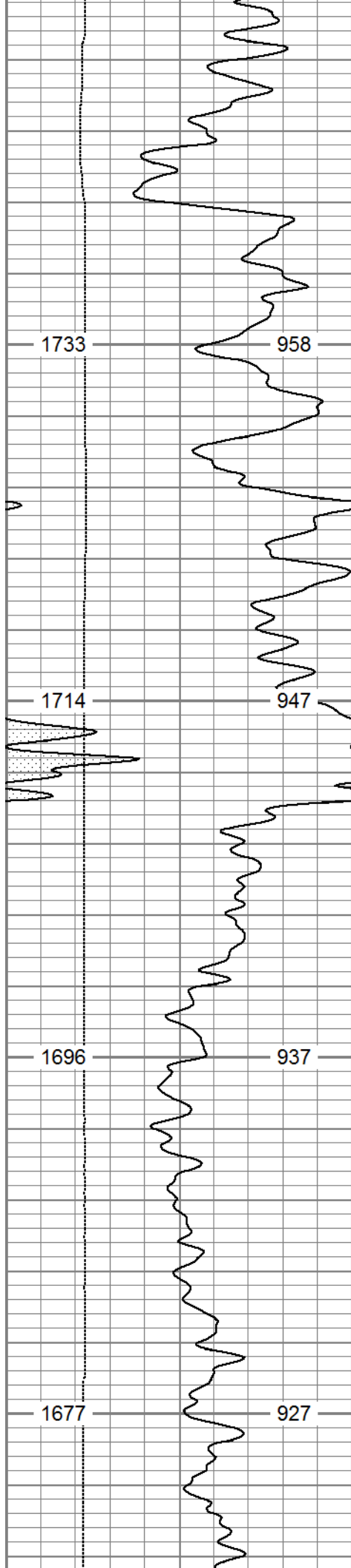


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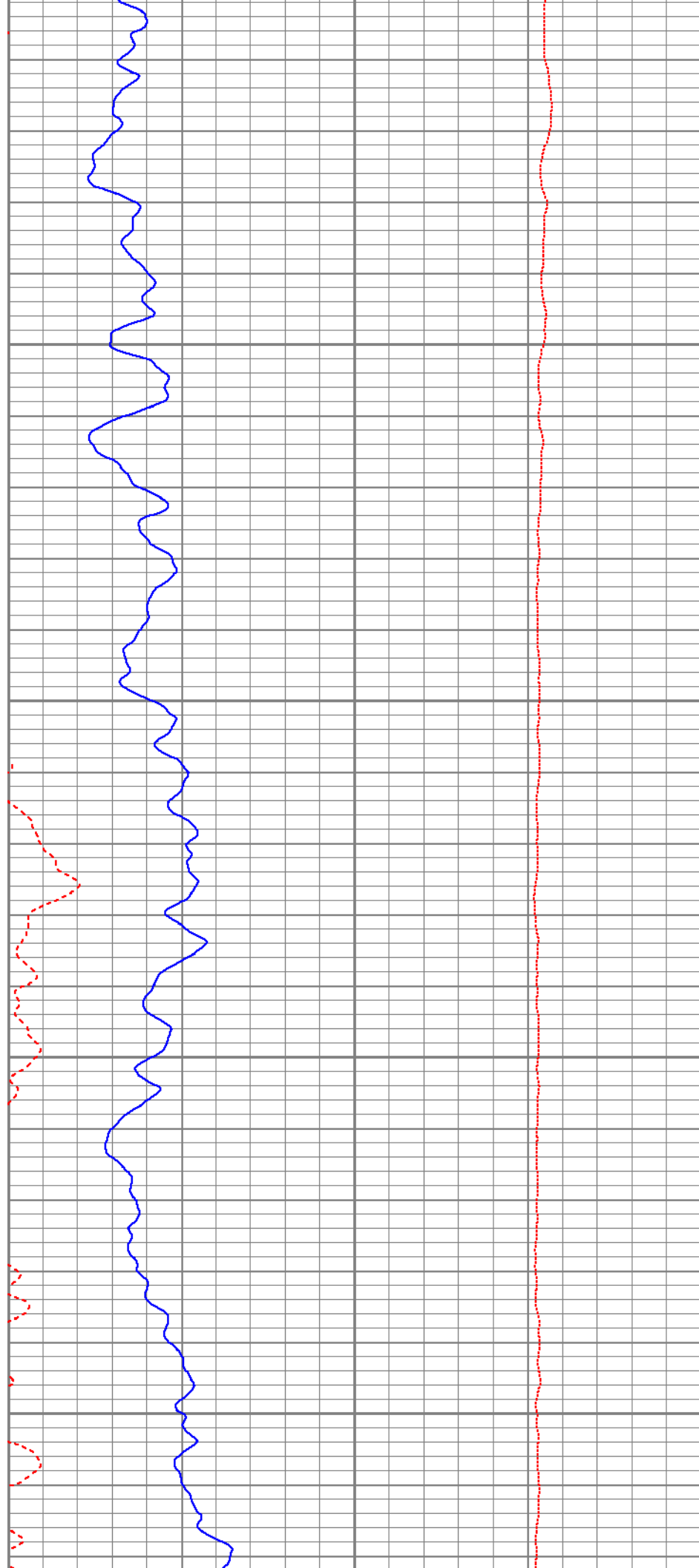
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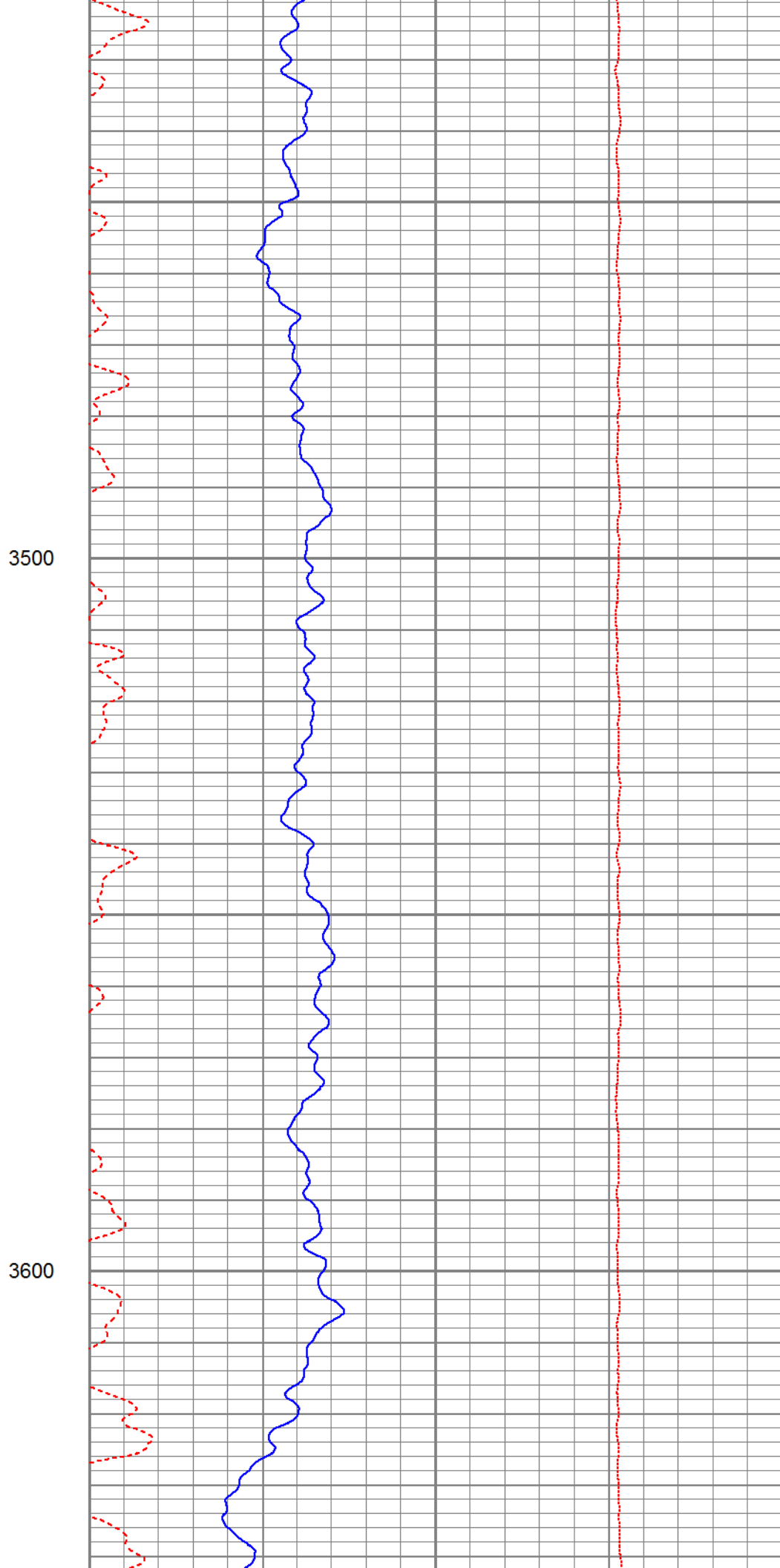
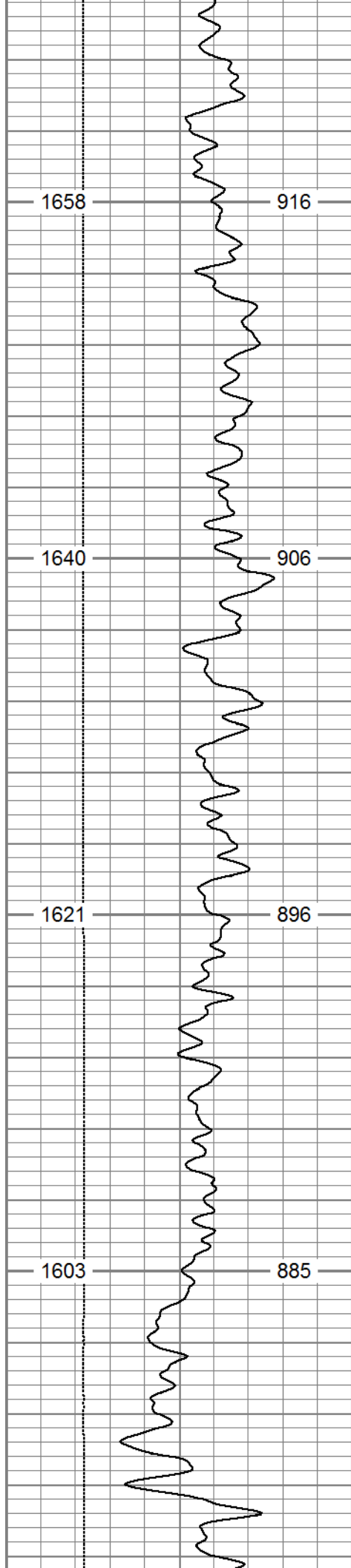
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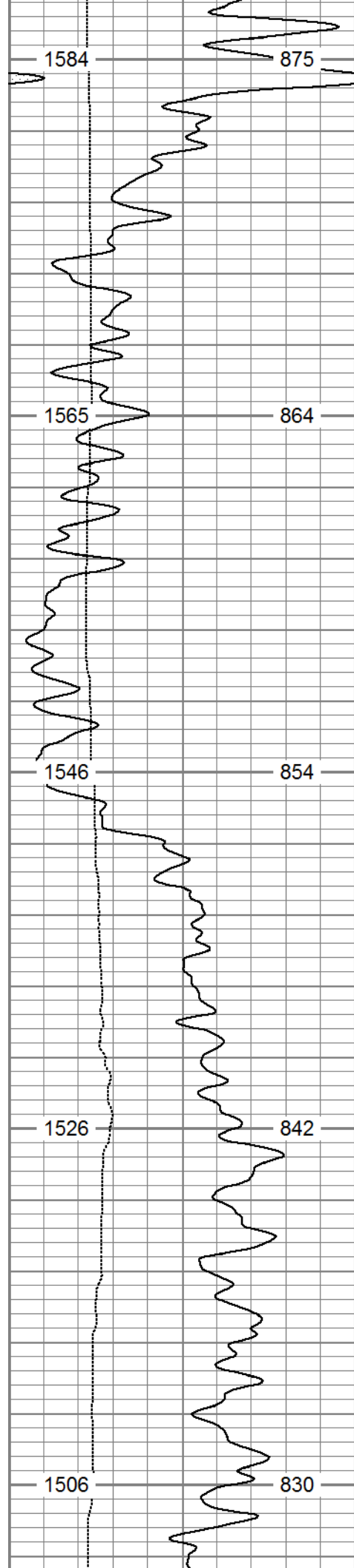


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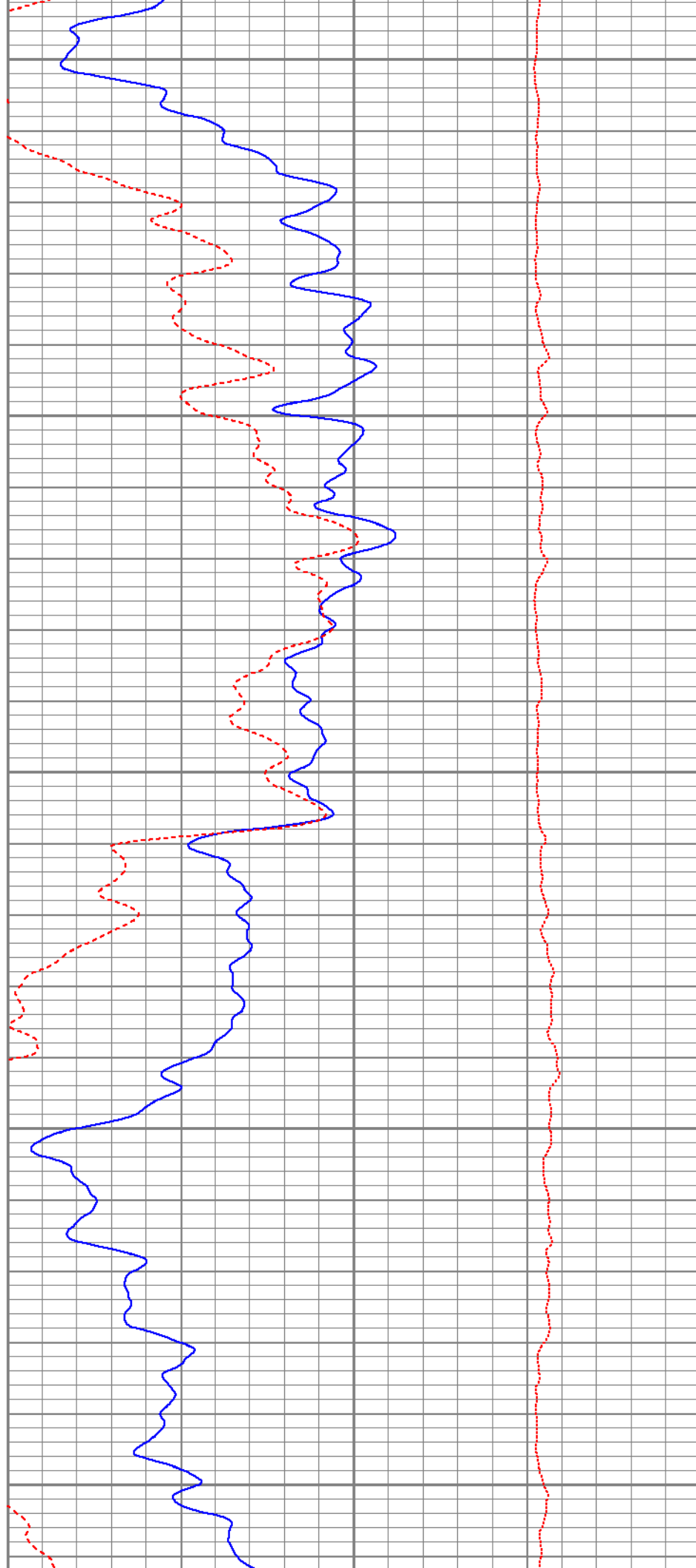


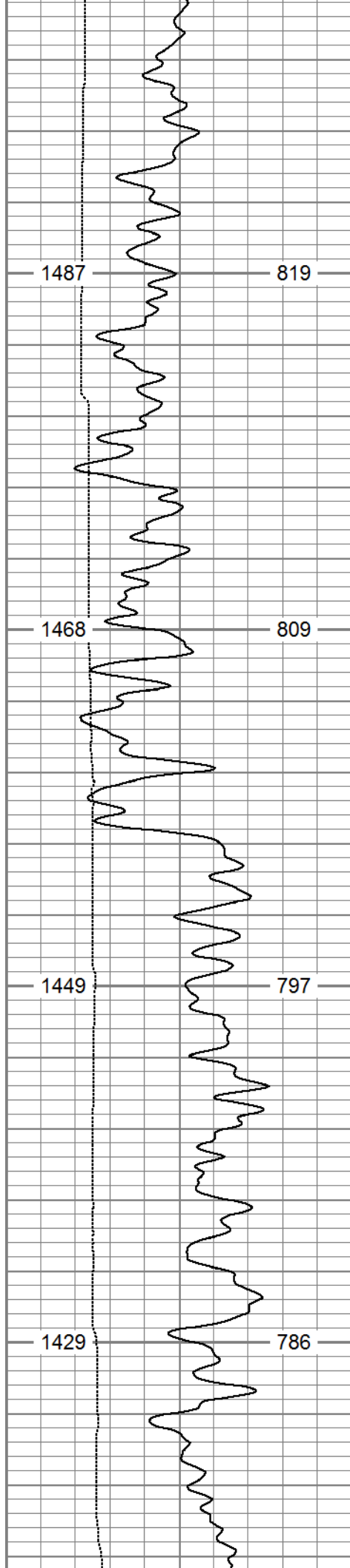




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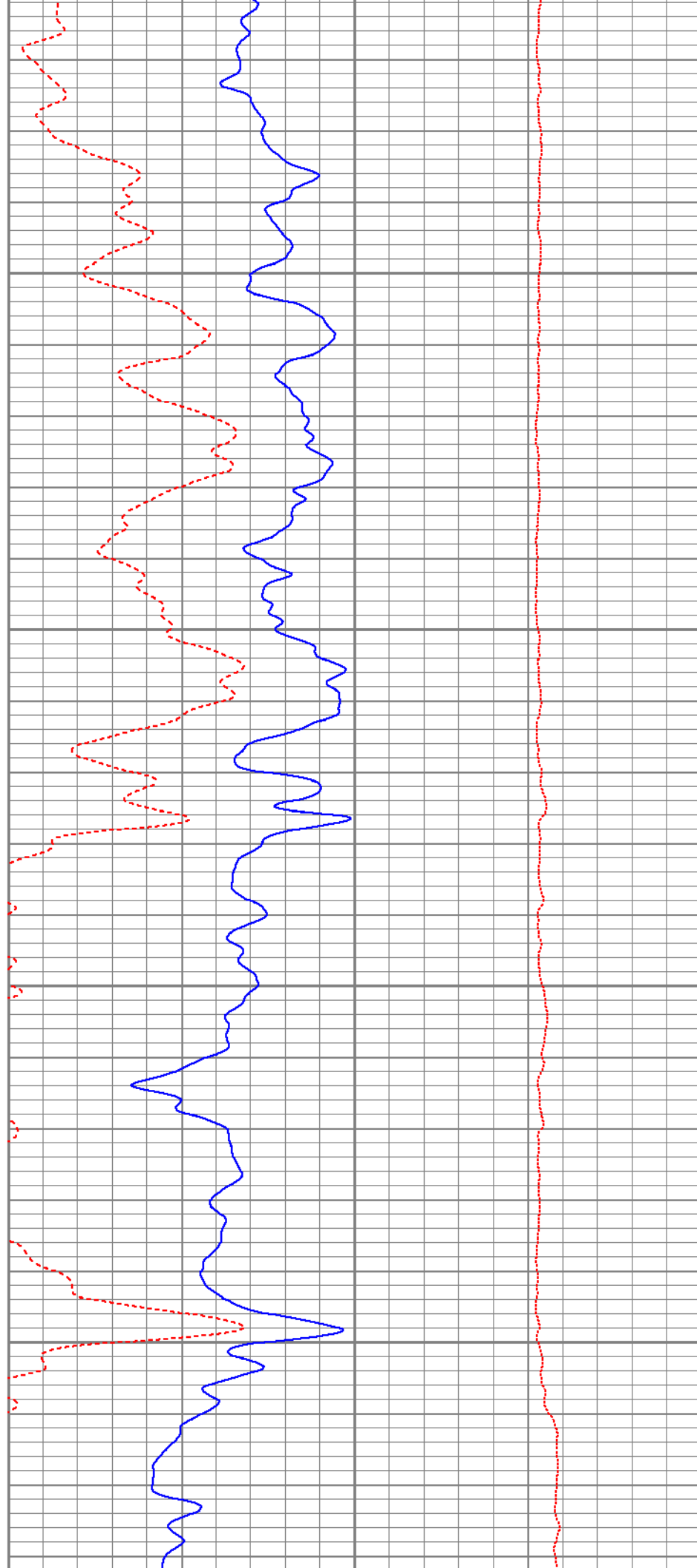
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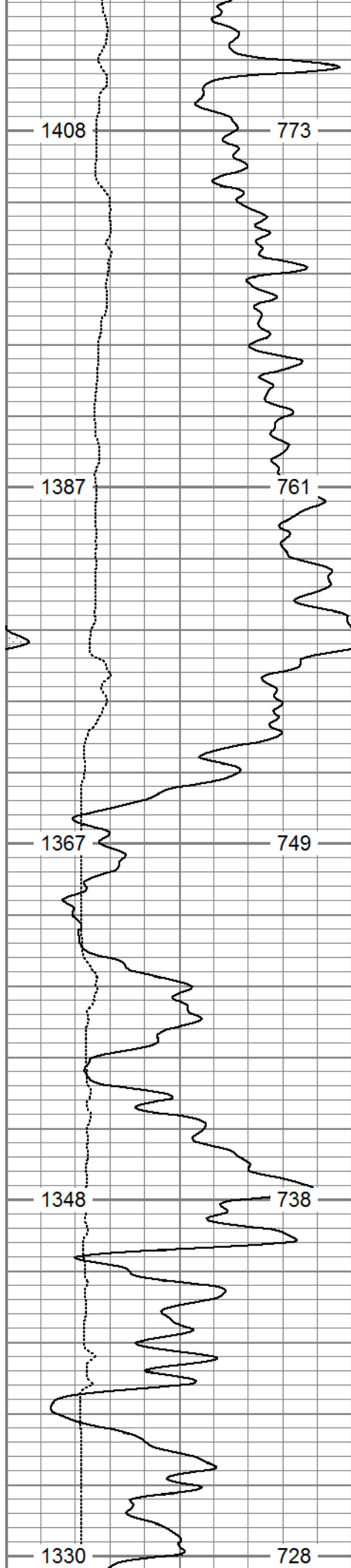




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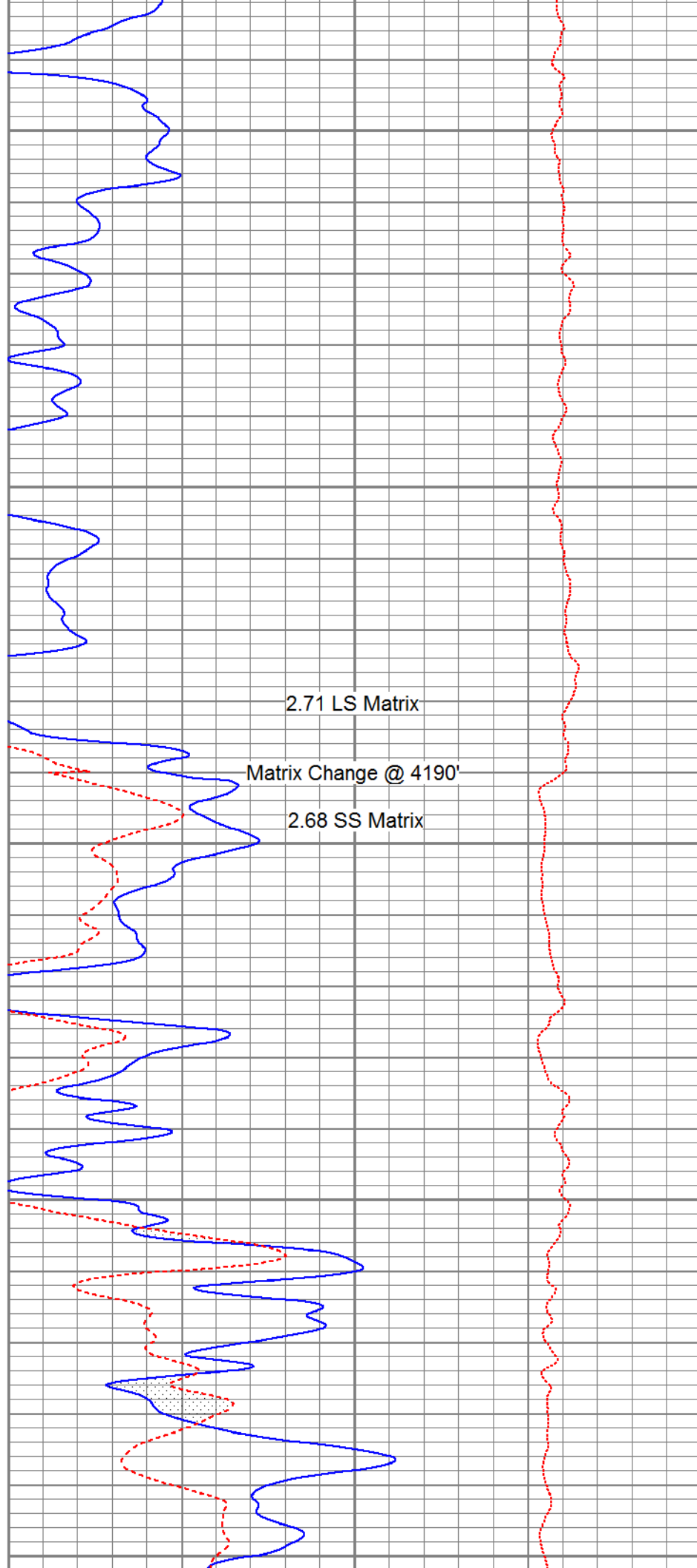


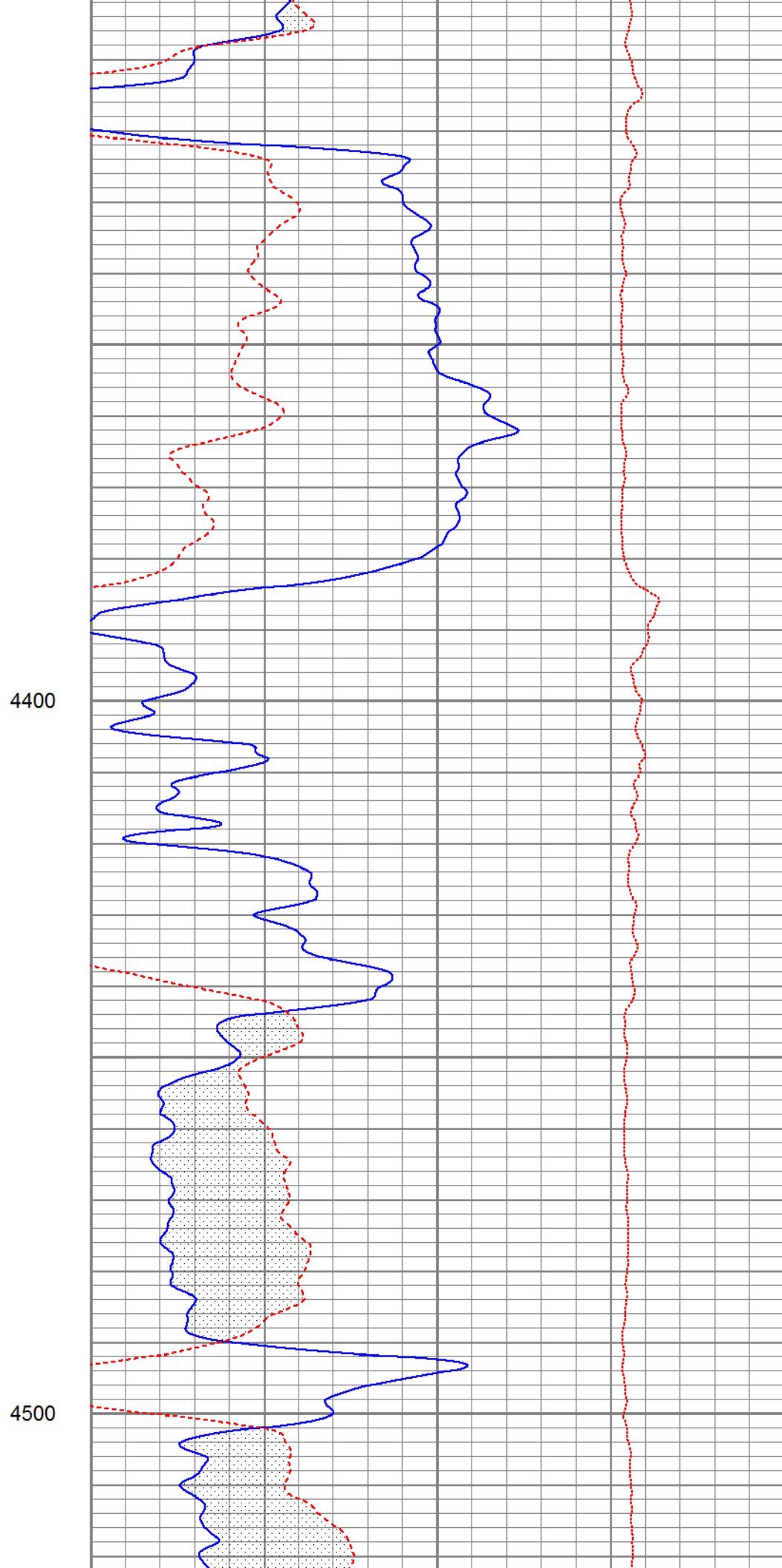
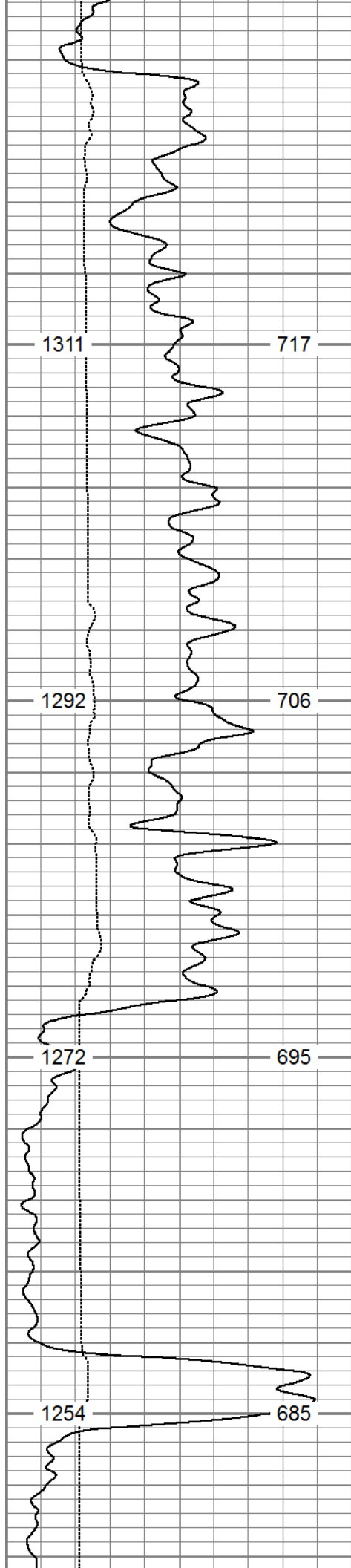


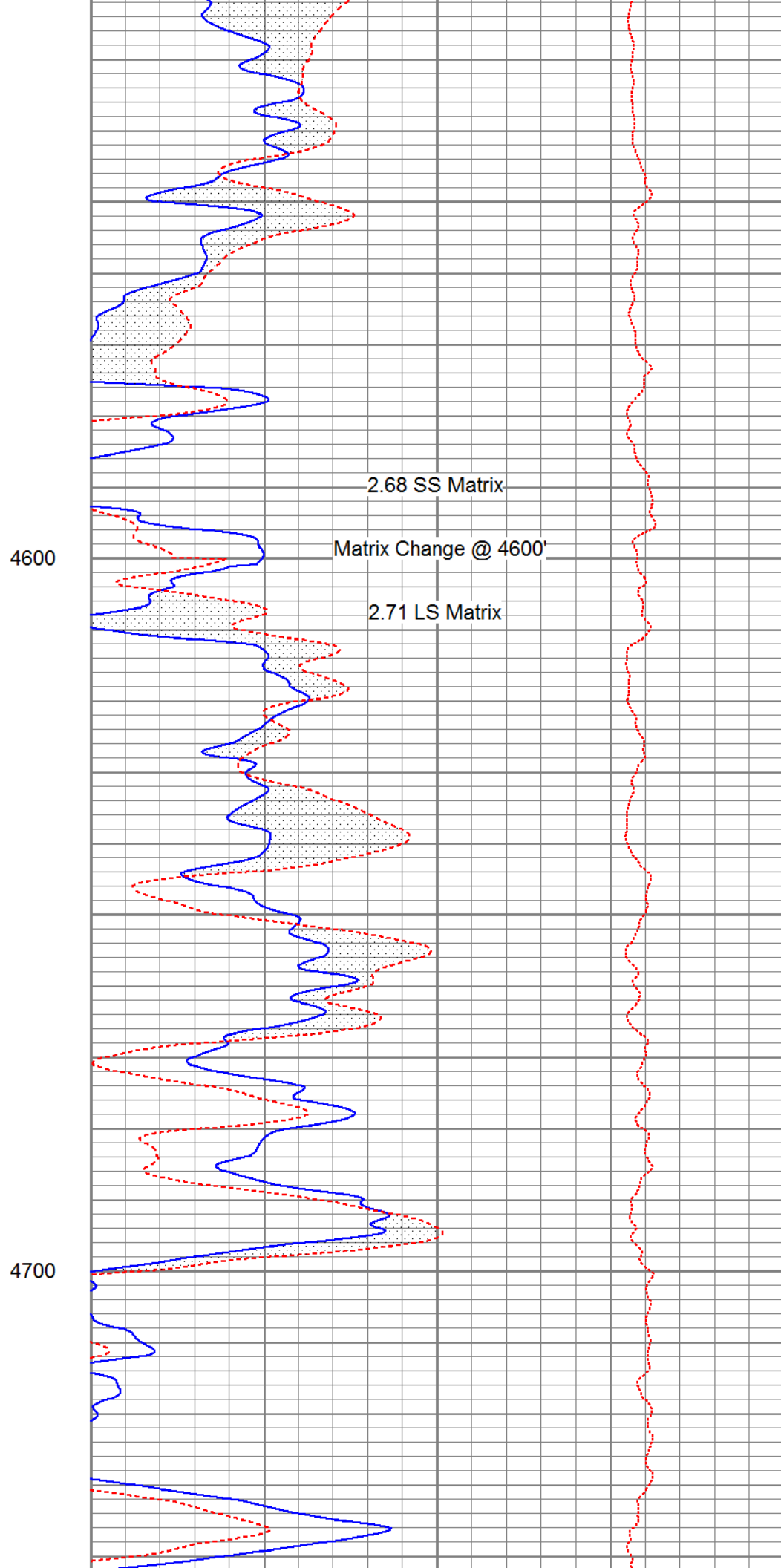
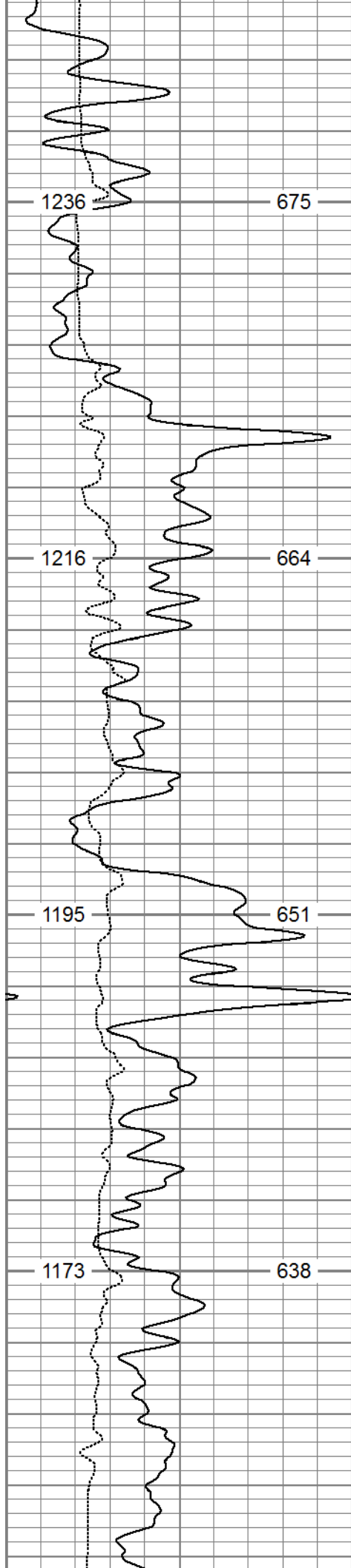
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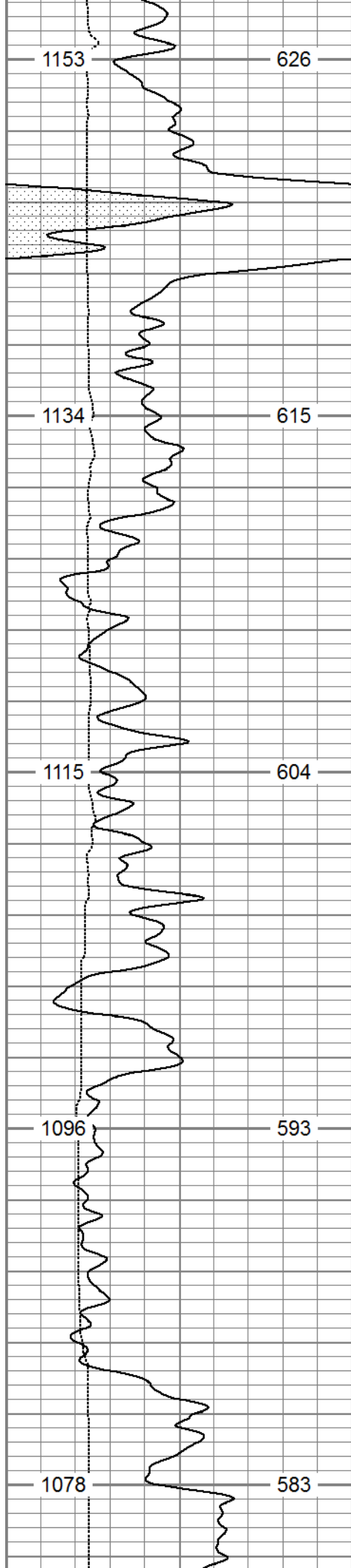
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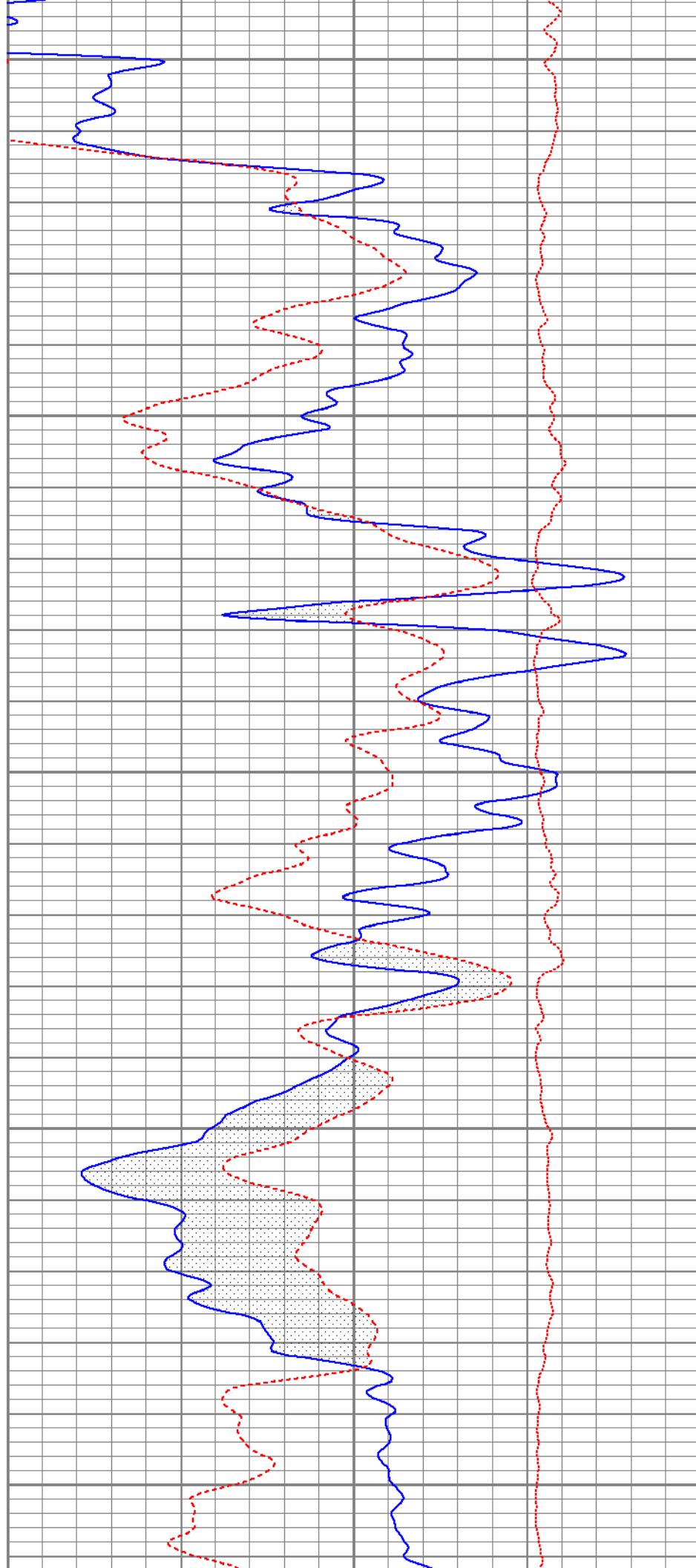


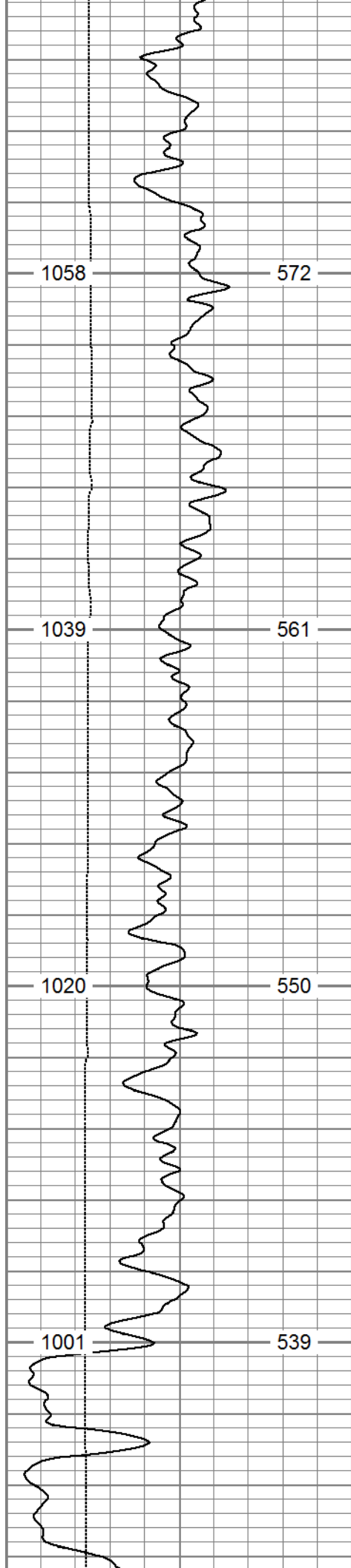




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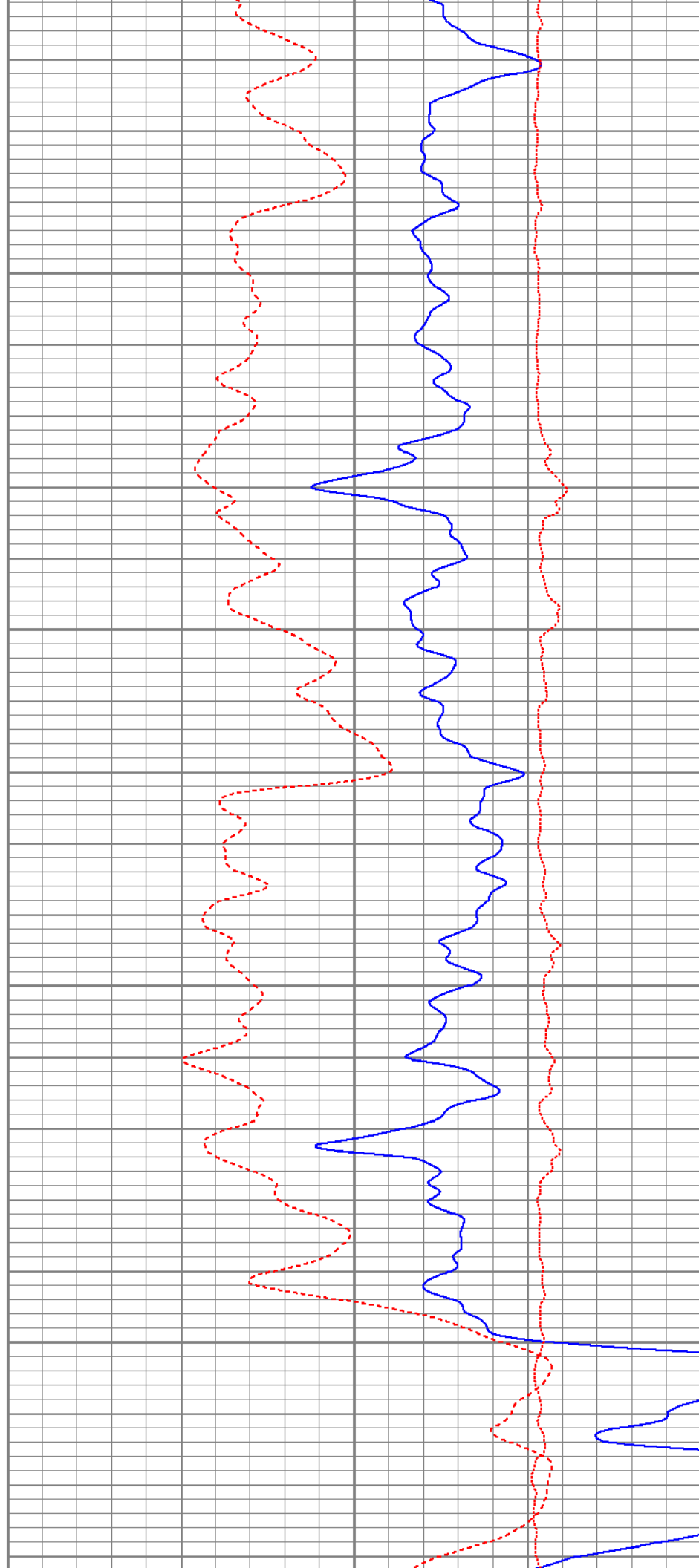
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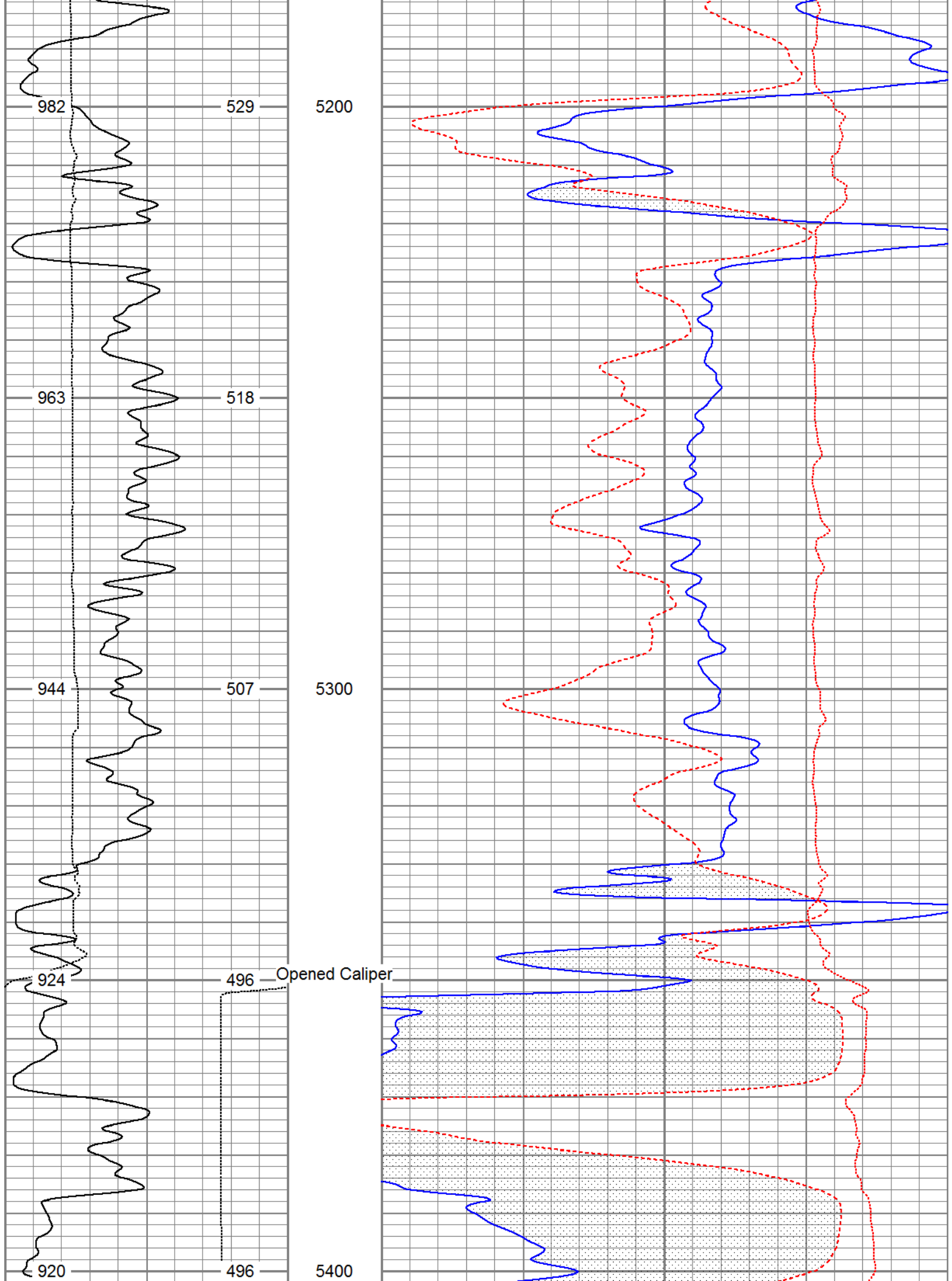


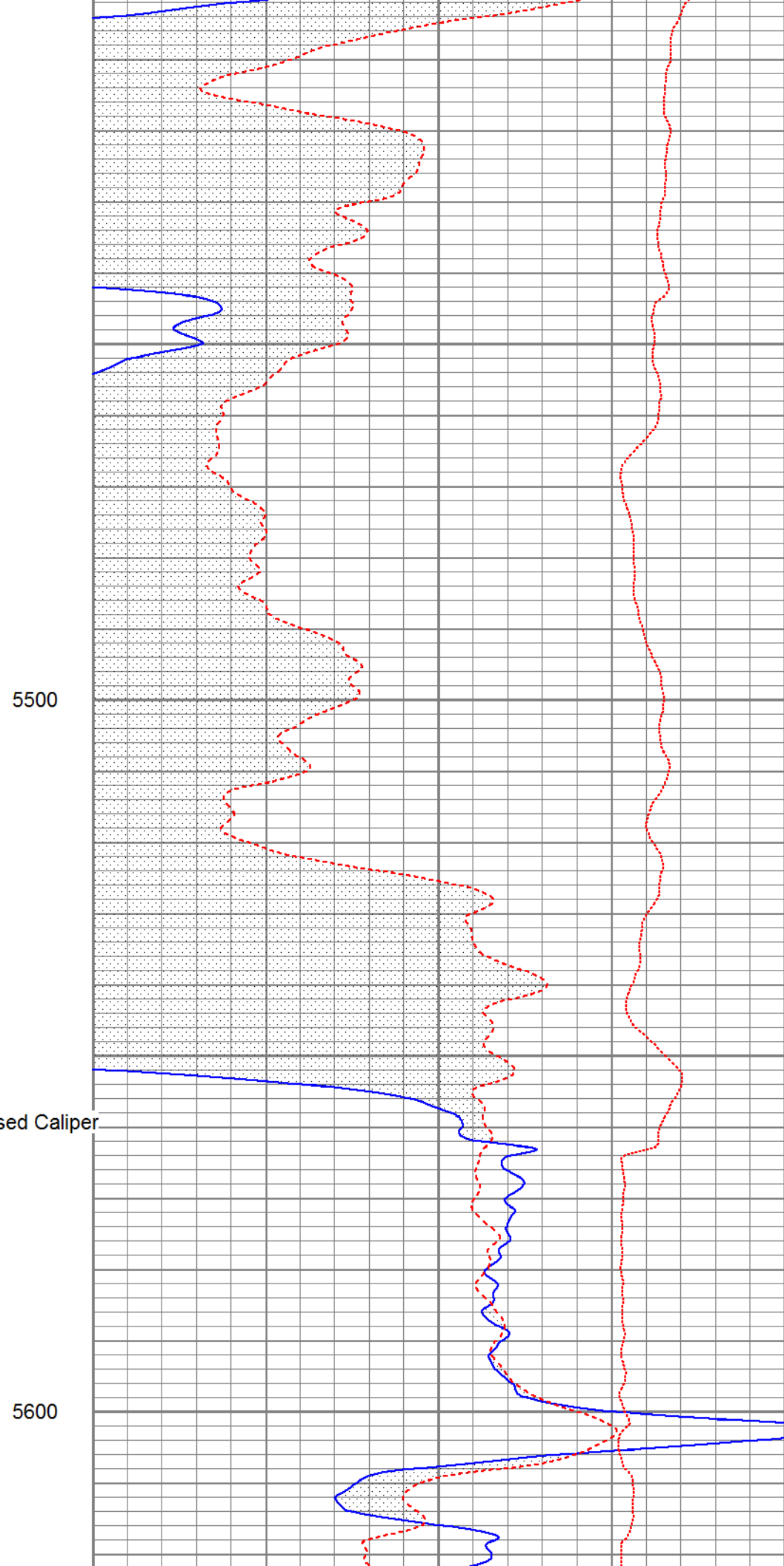
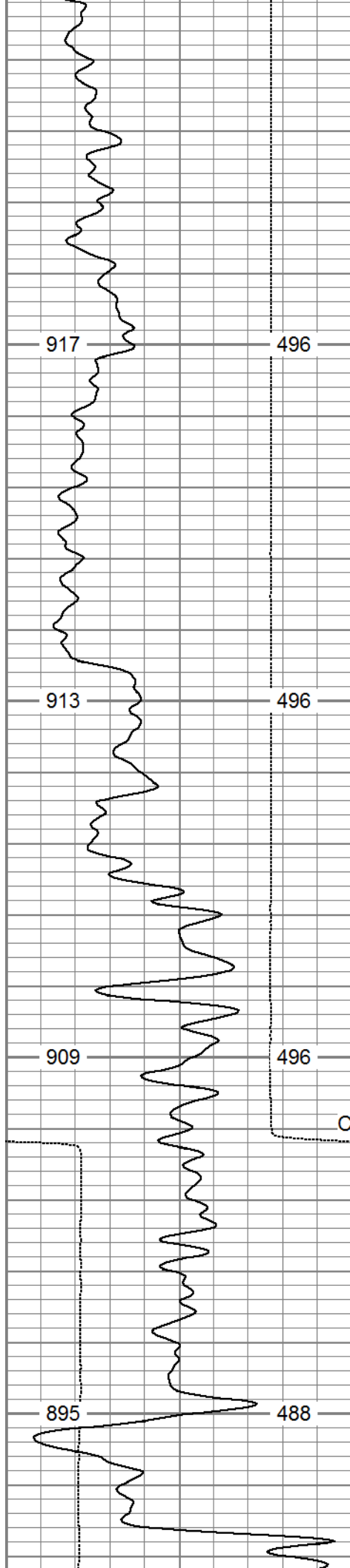


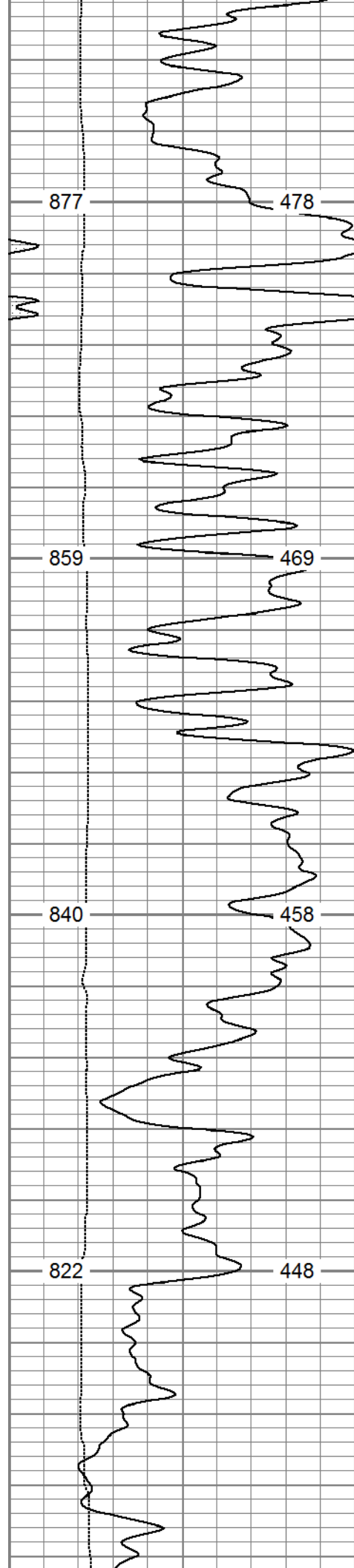
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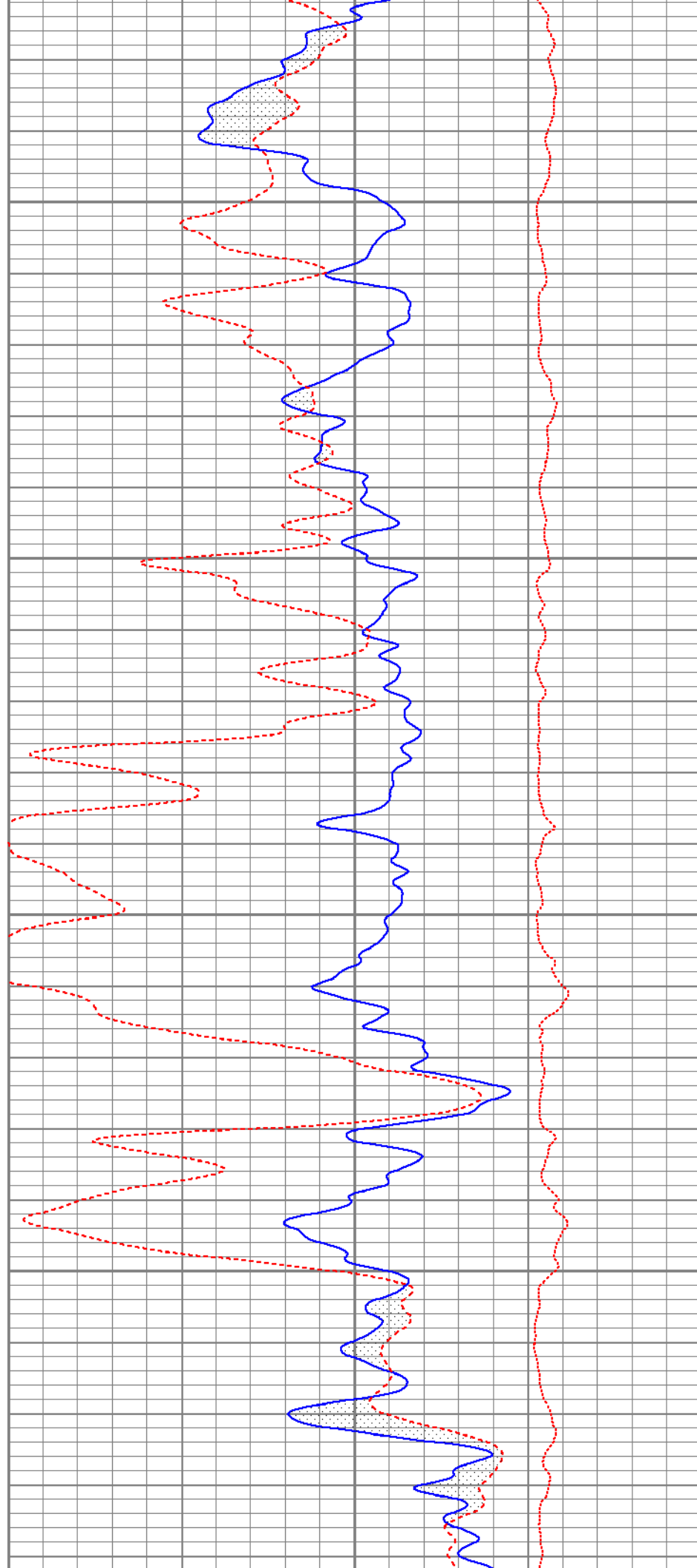


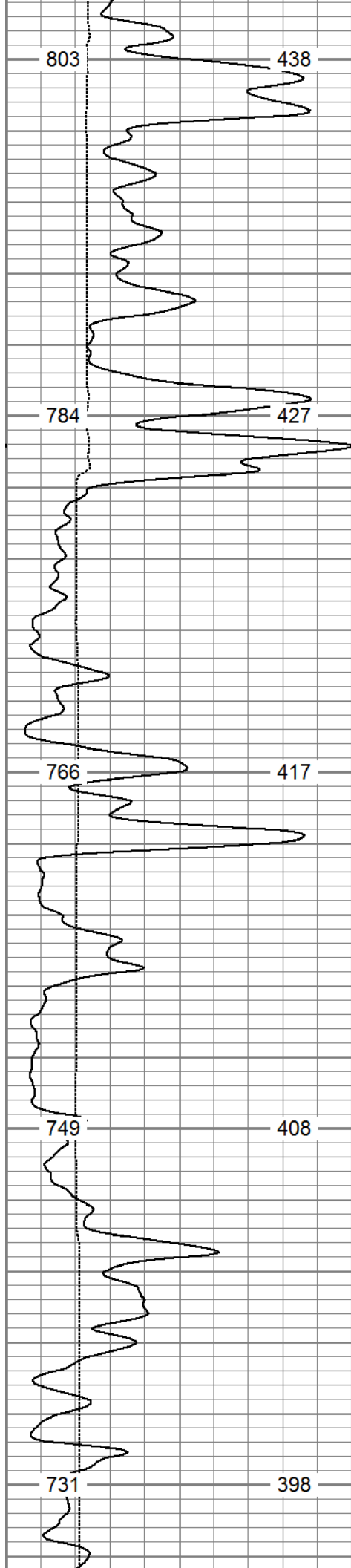




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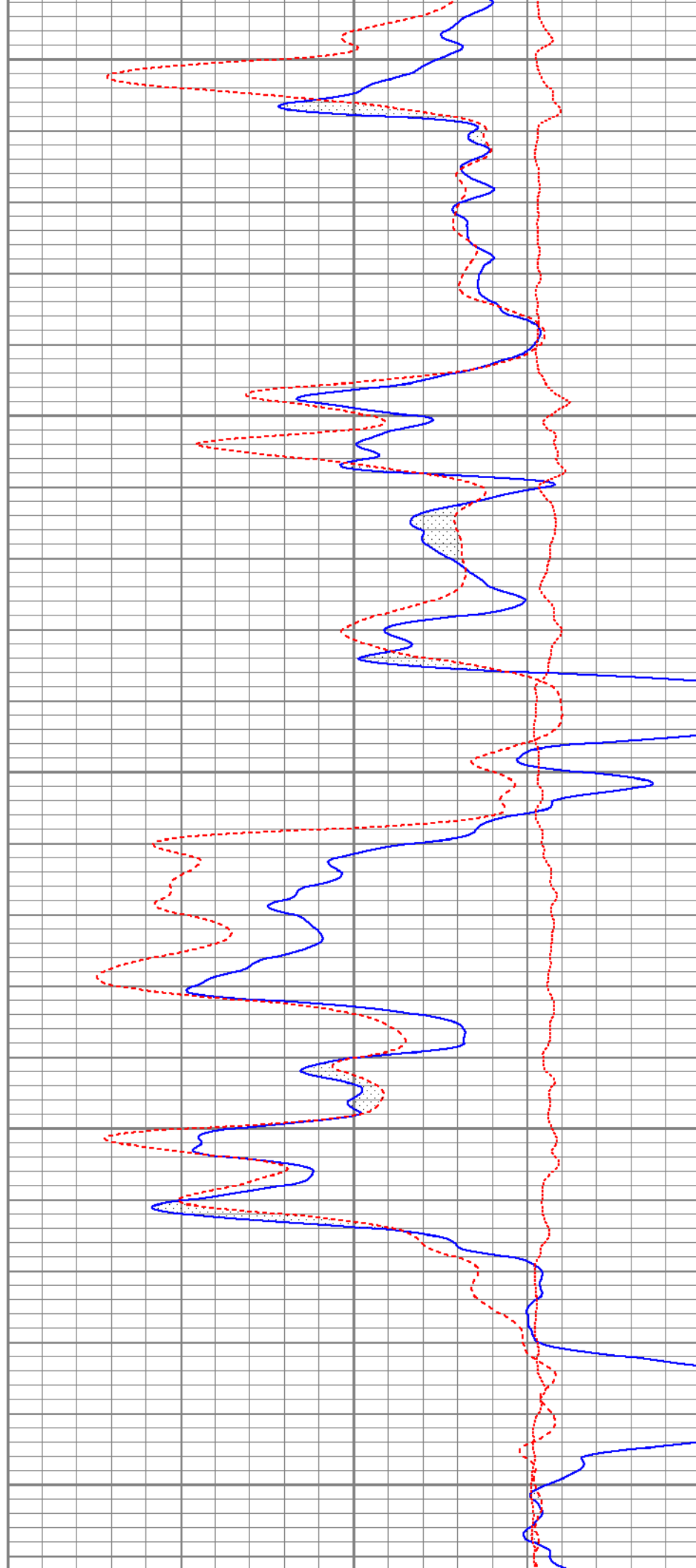
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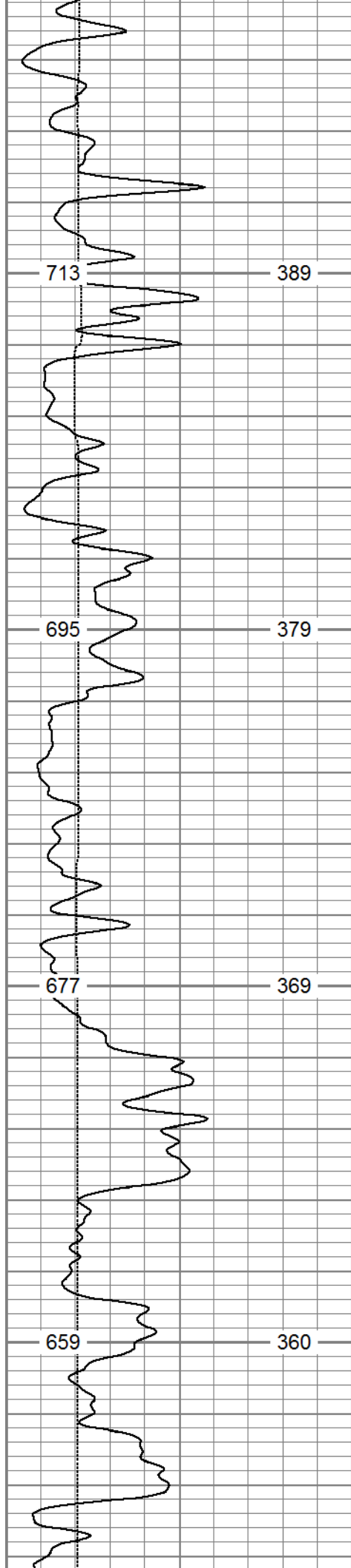




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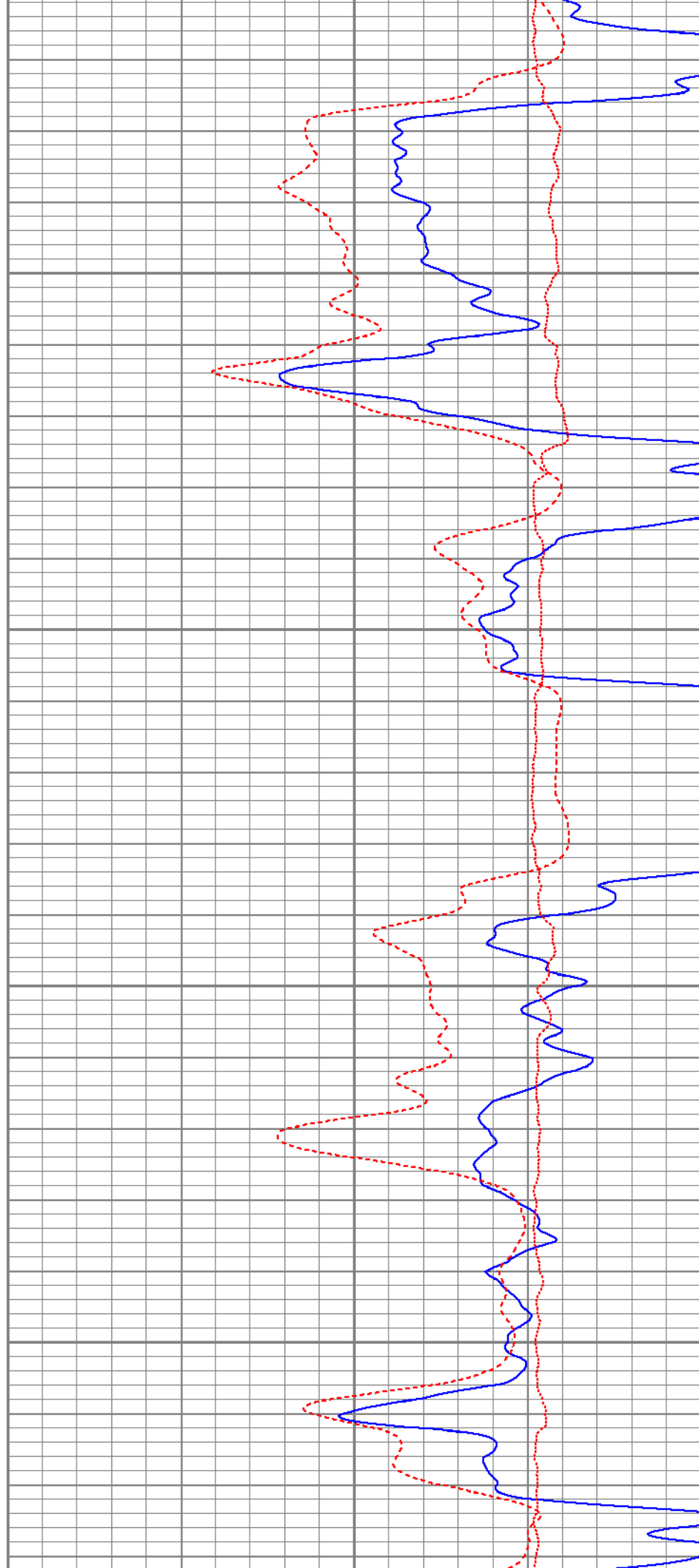
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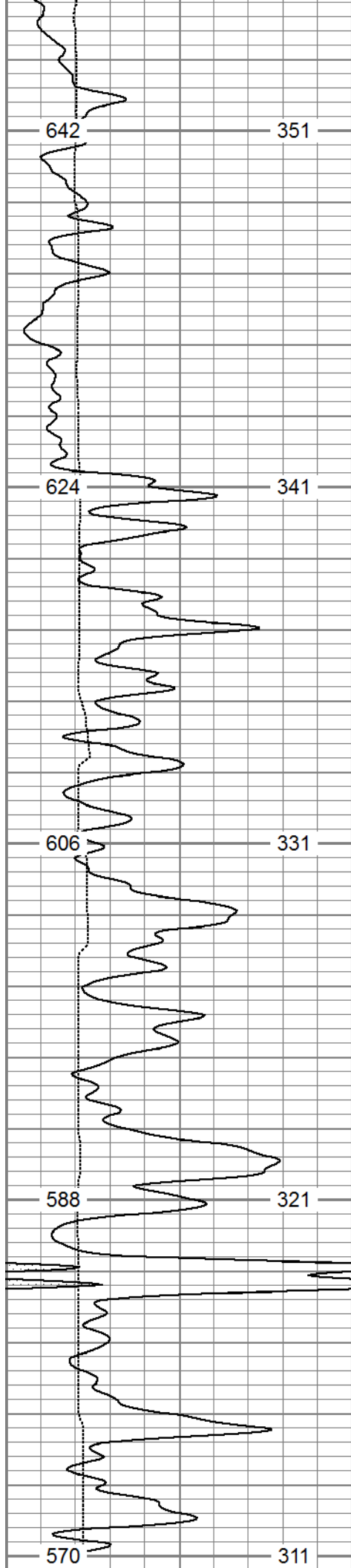




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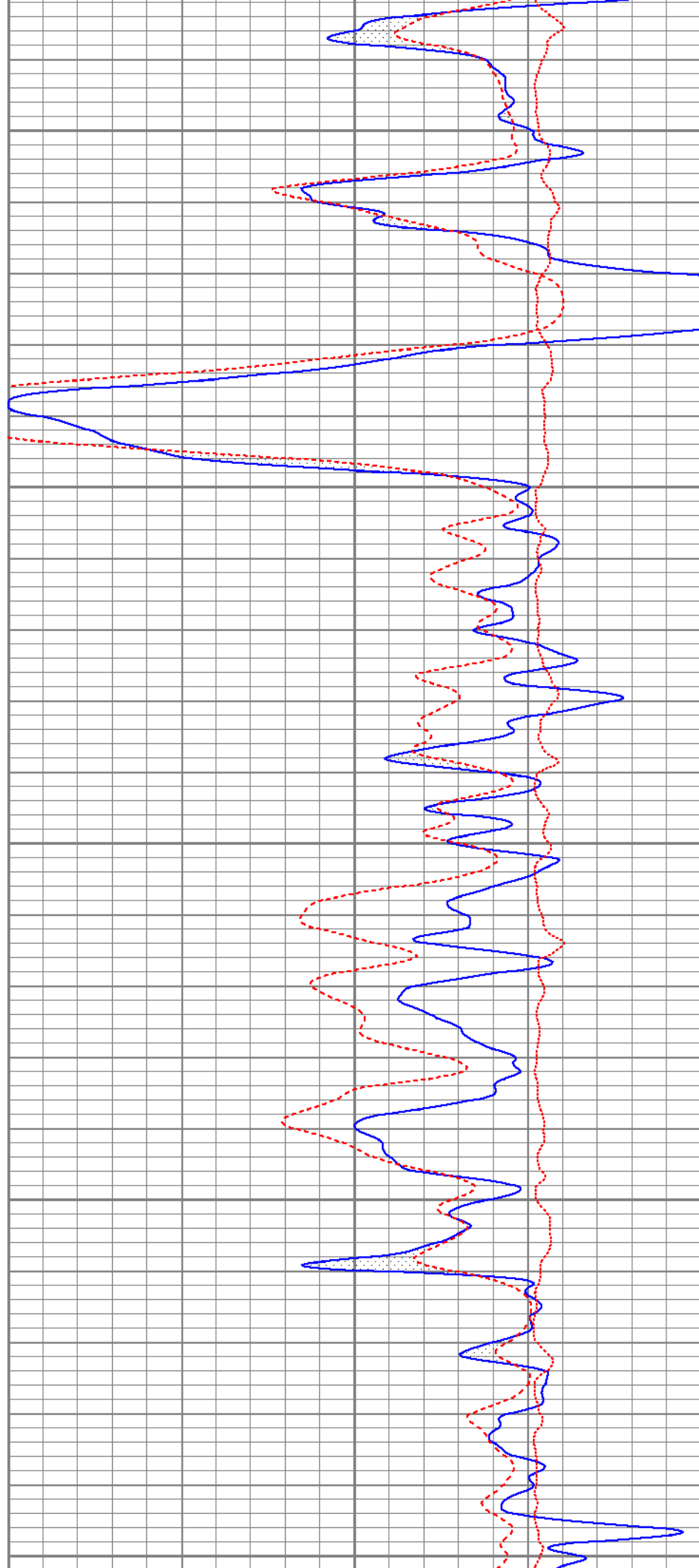


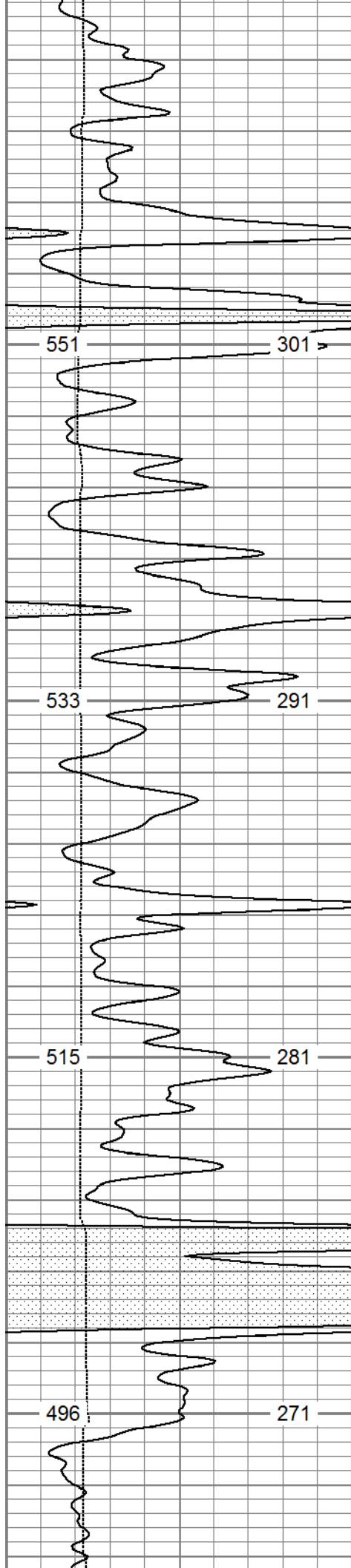


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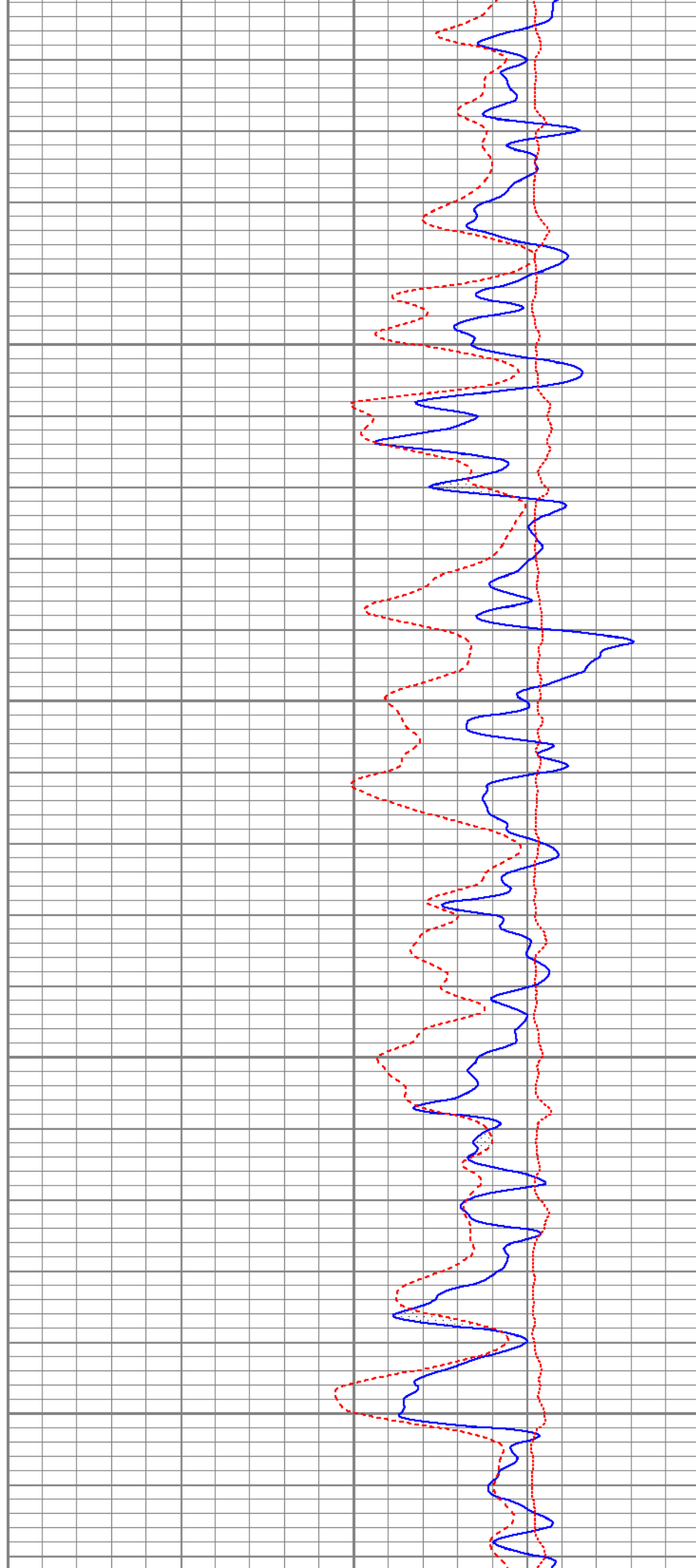
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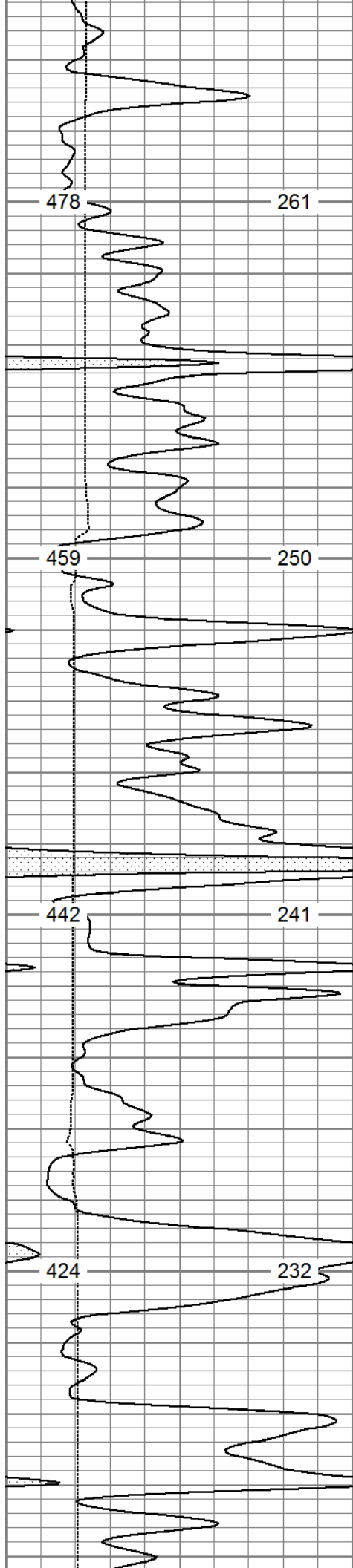




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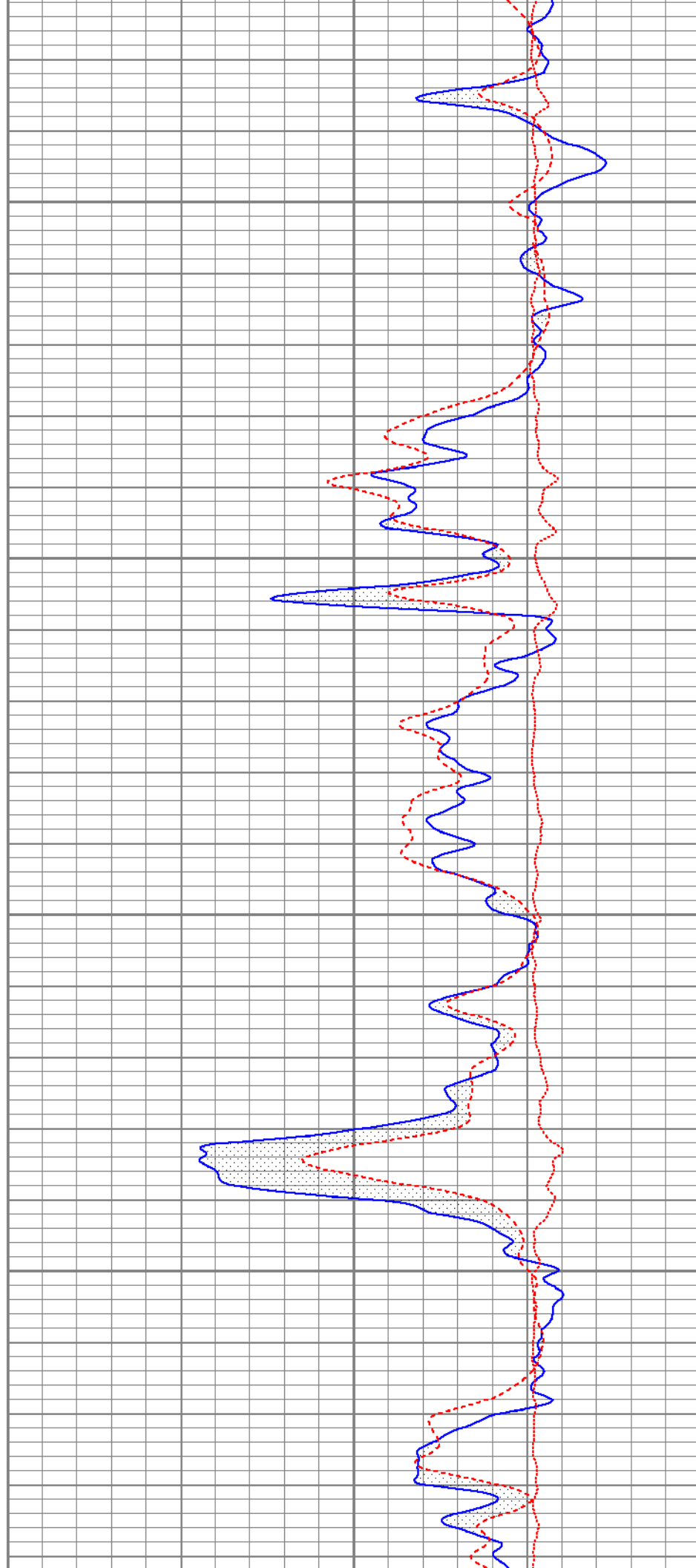
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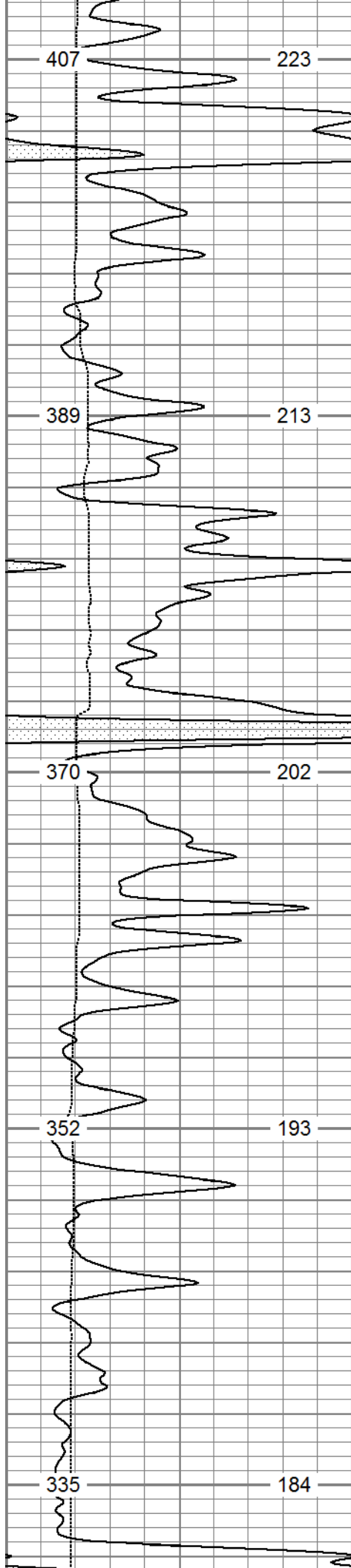




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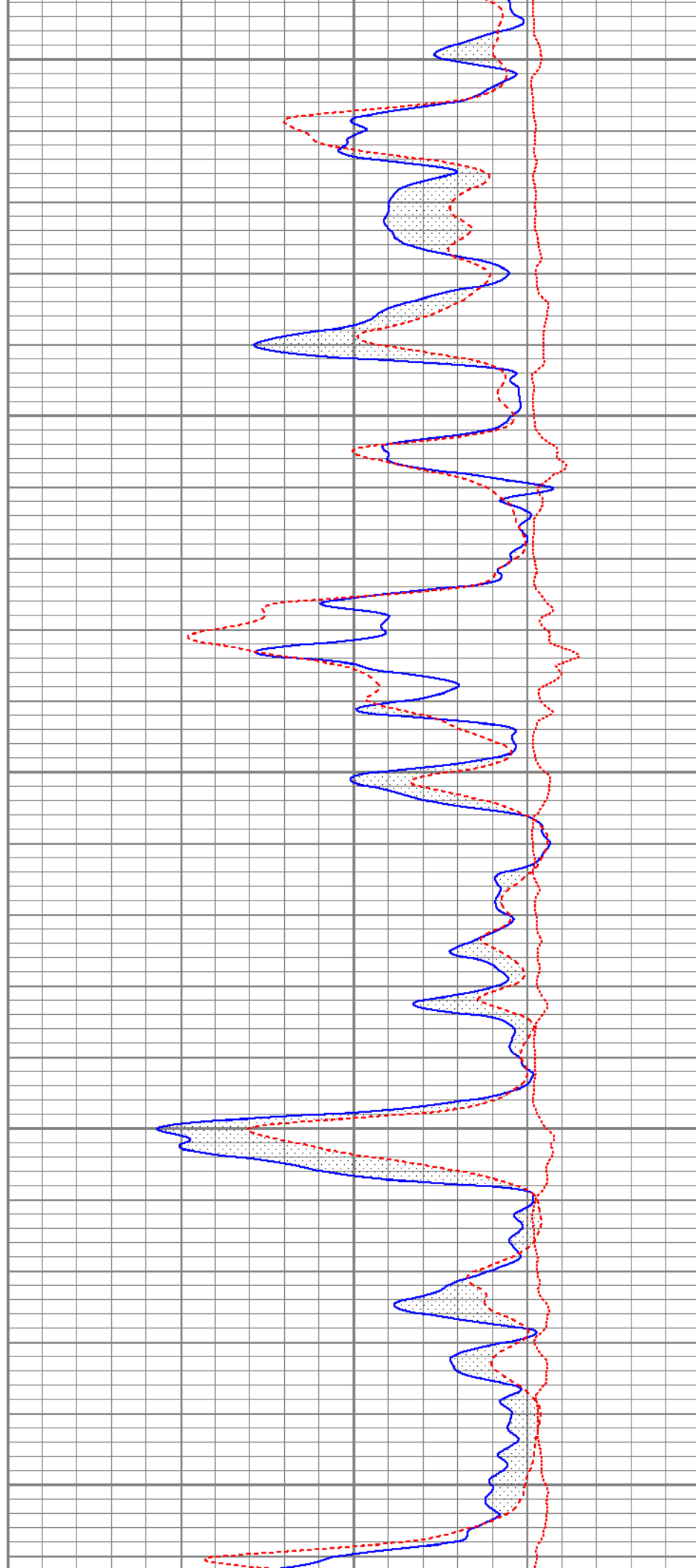
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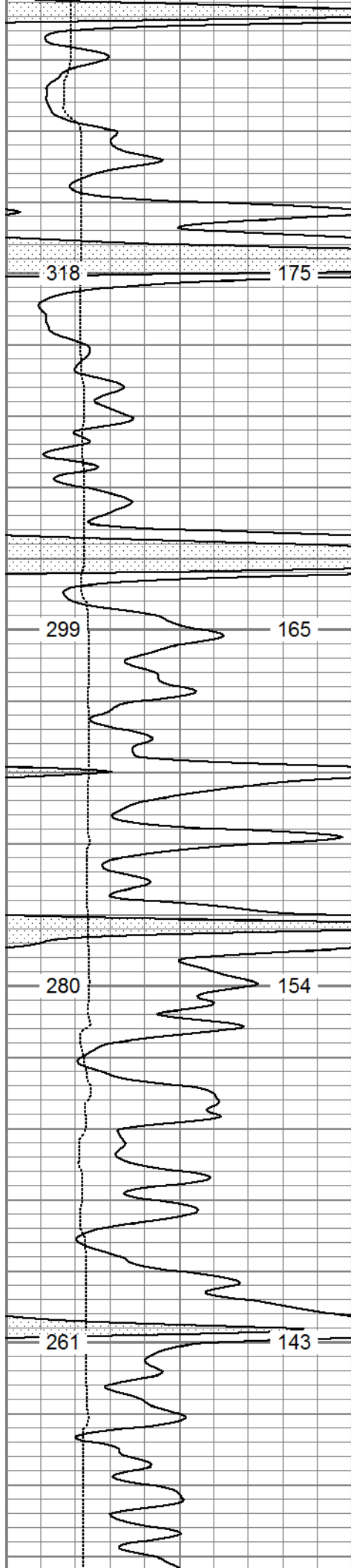




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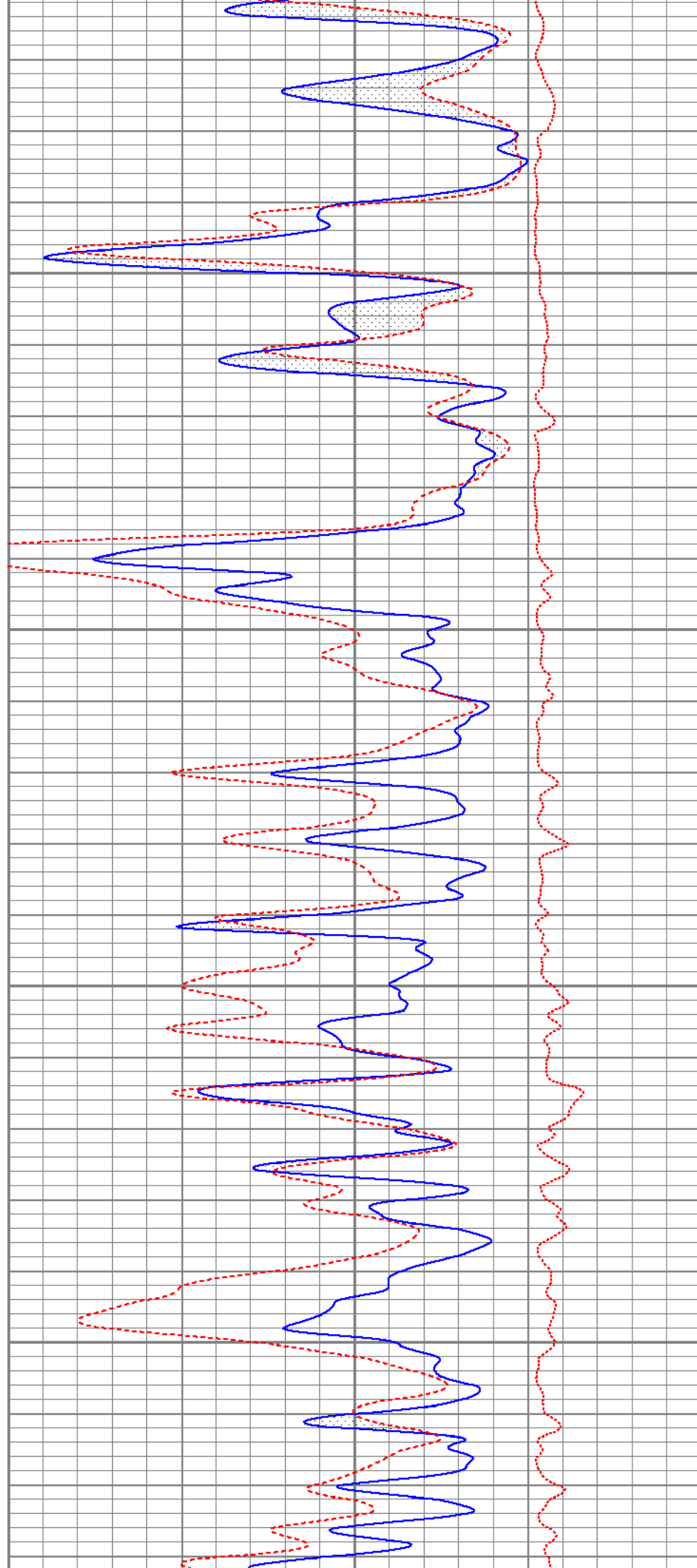
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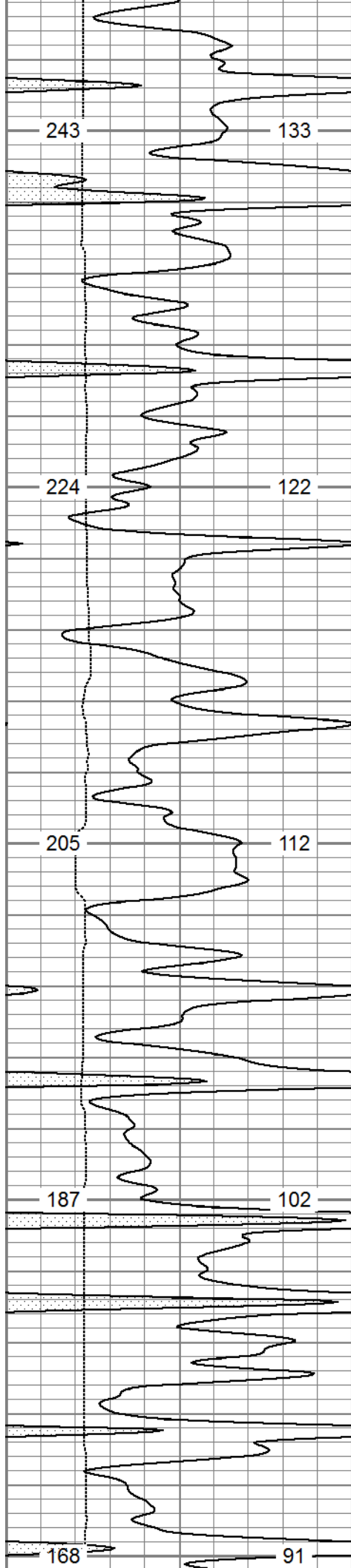




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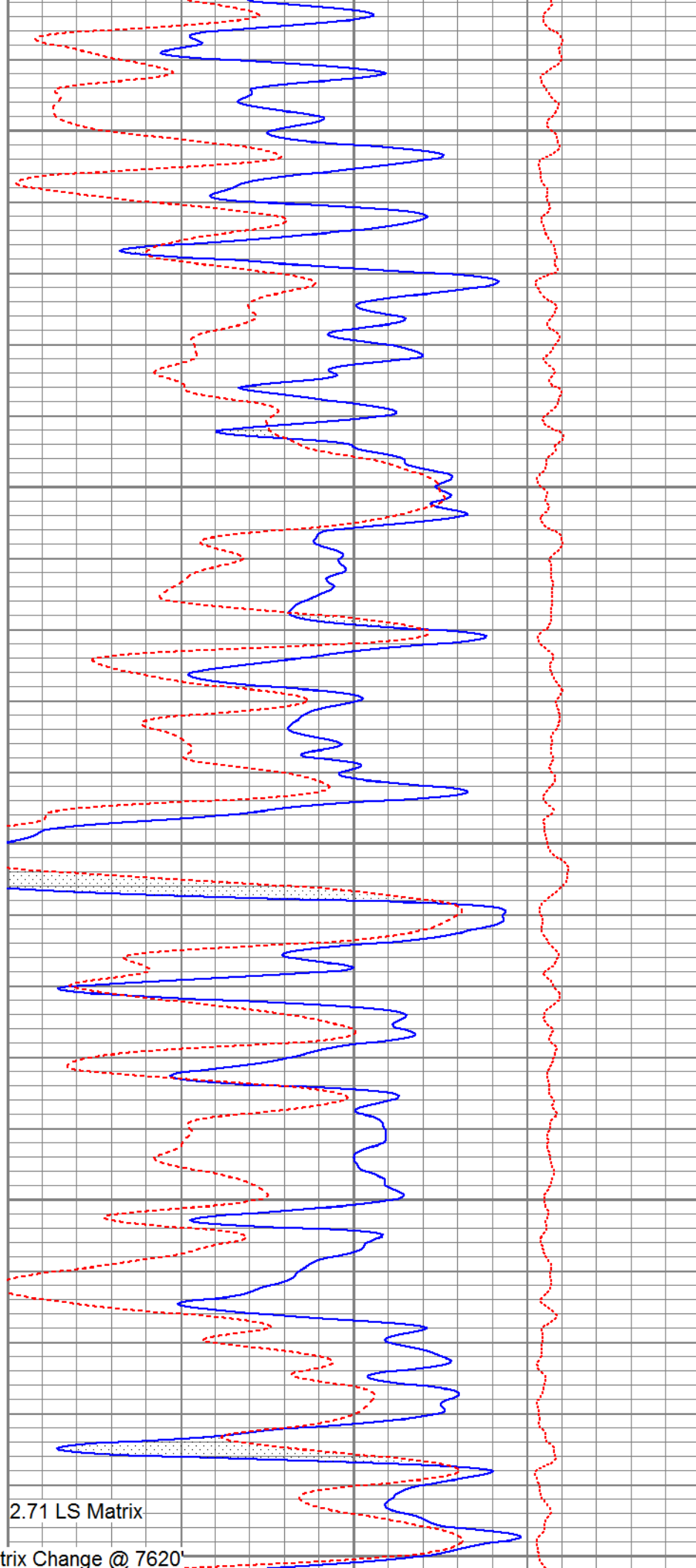


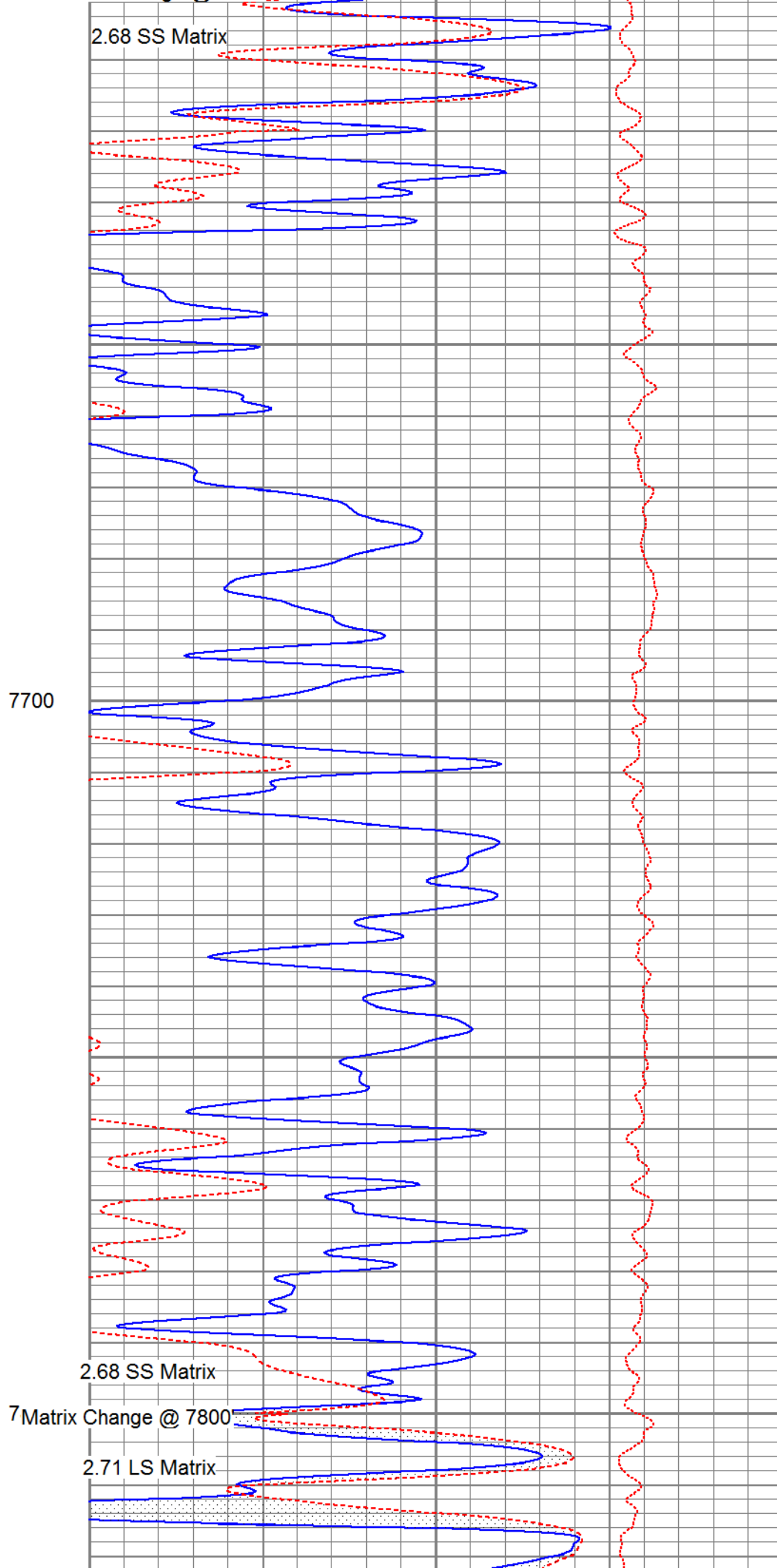
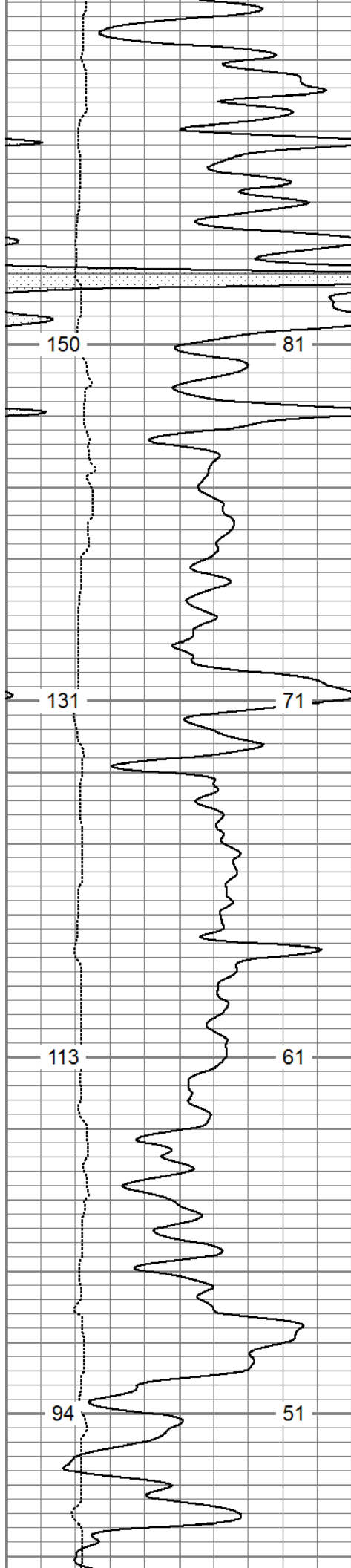


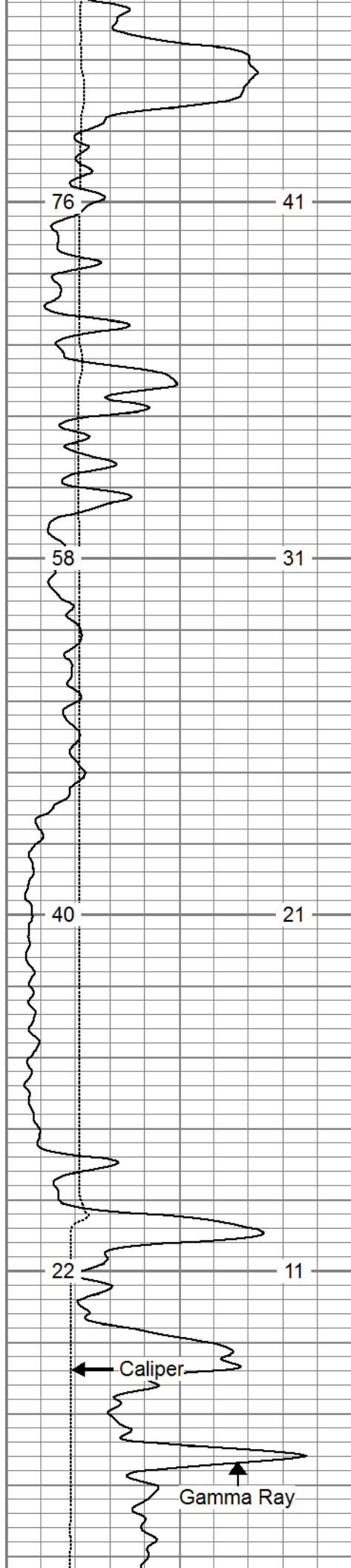
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7600Matrix Change @ 7620'

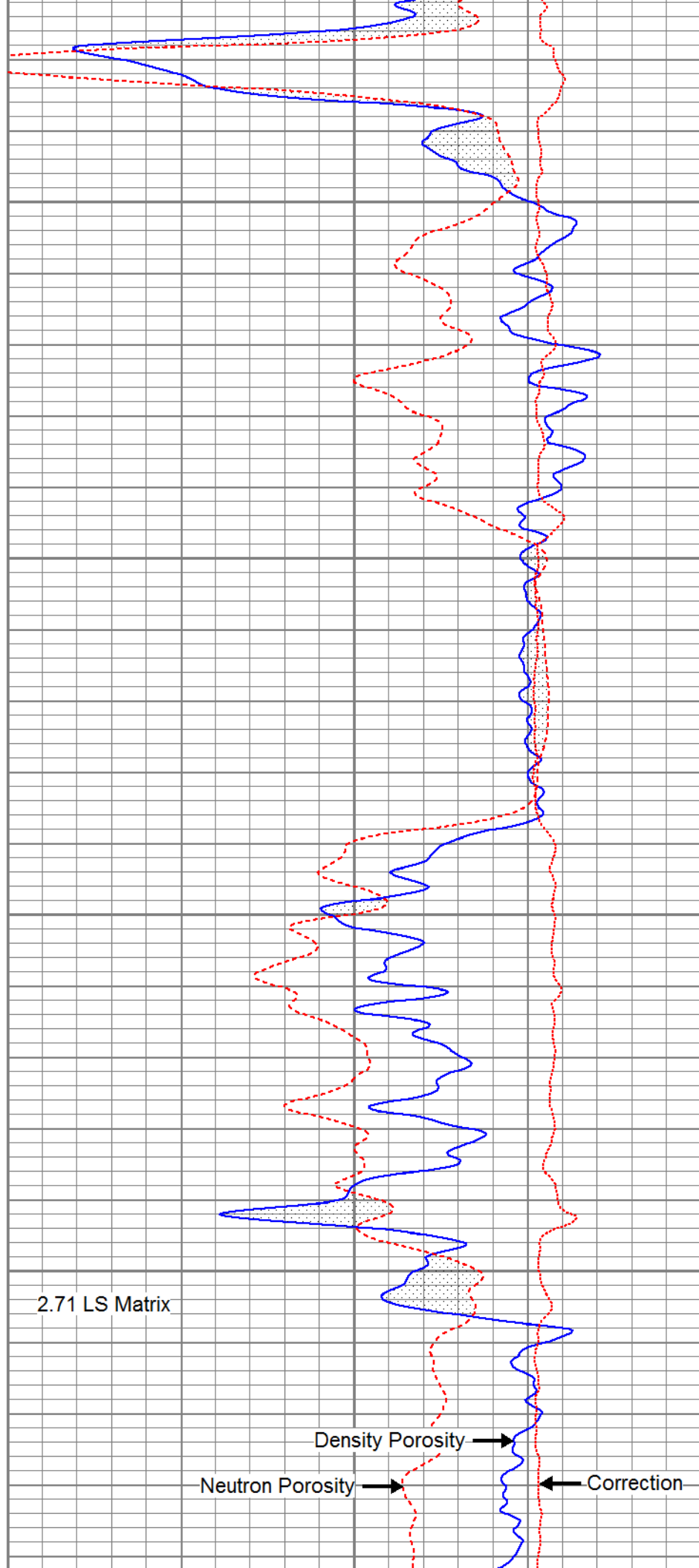


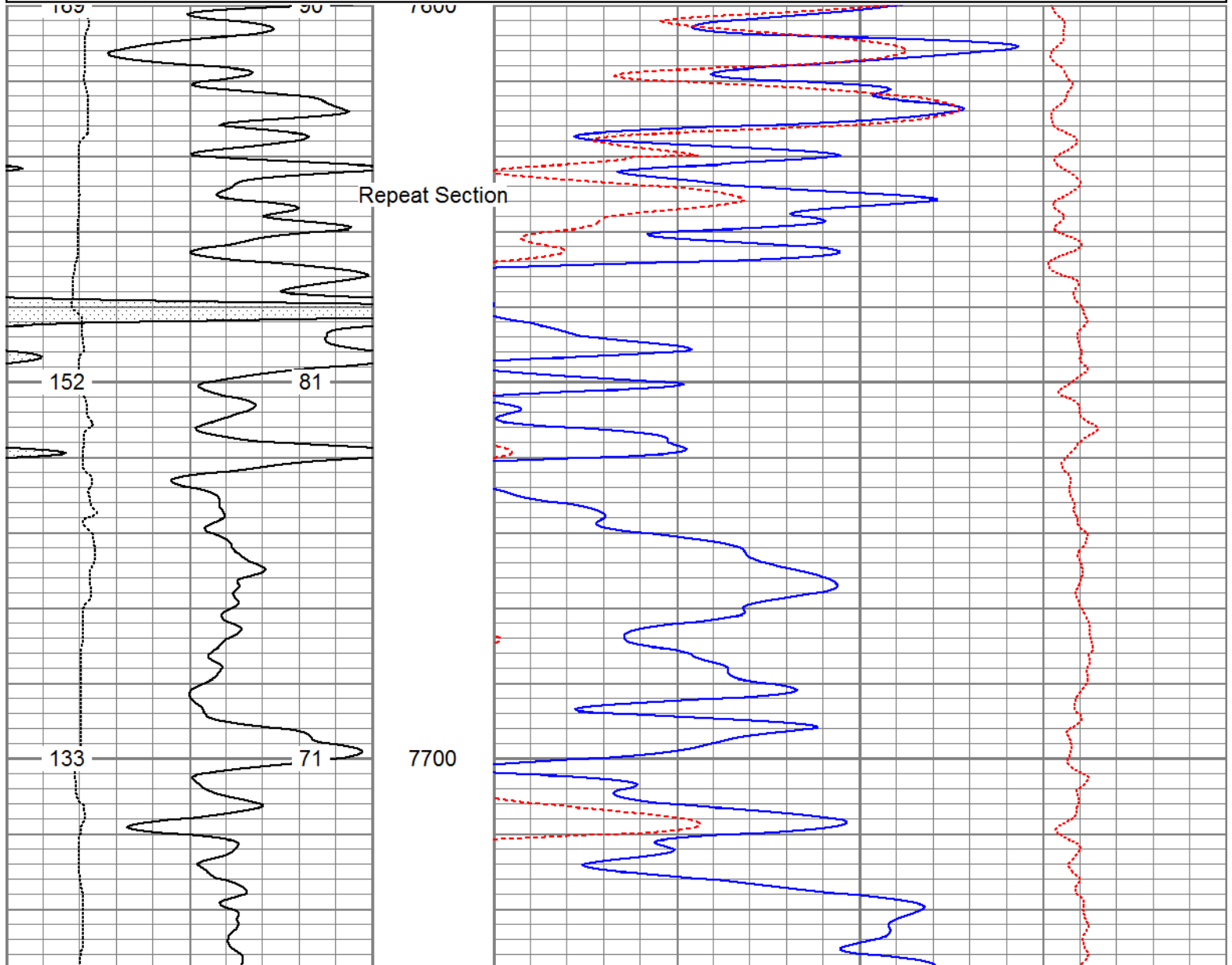
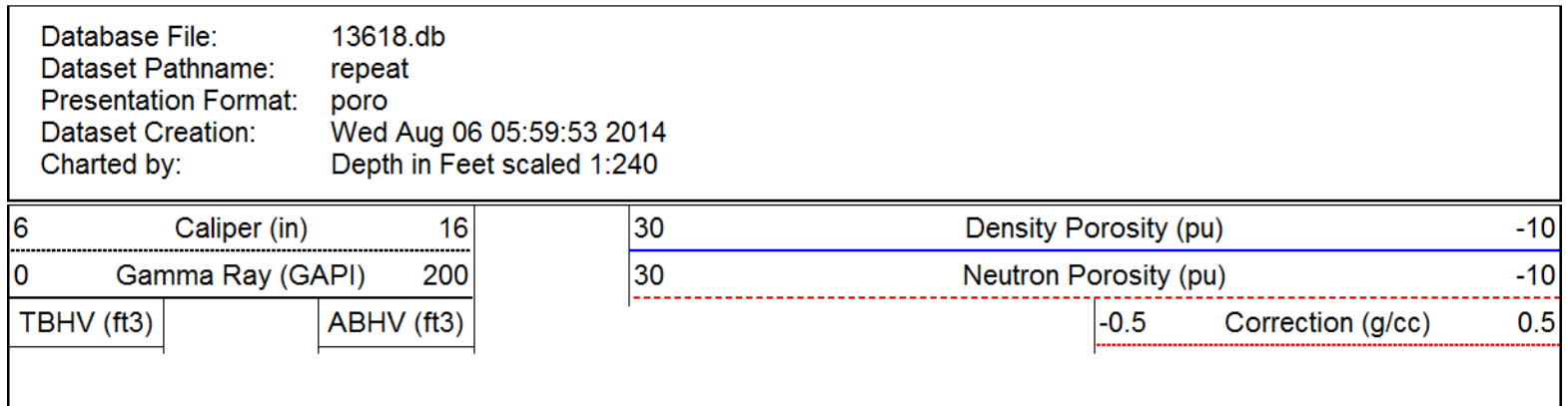
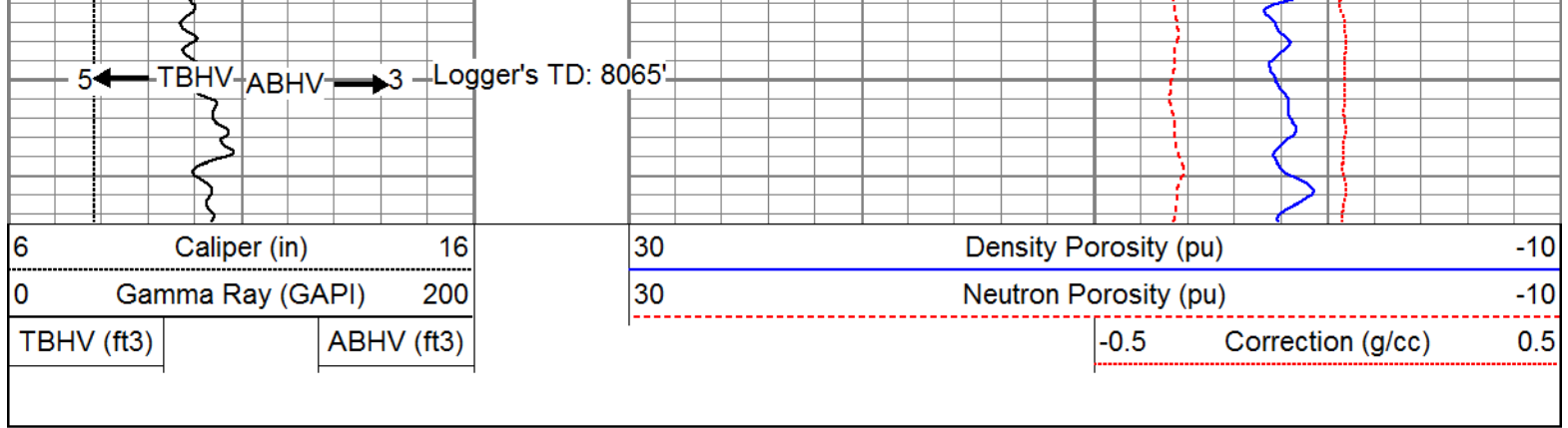


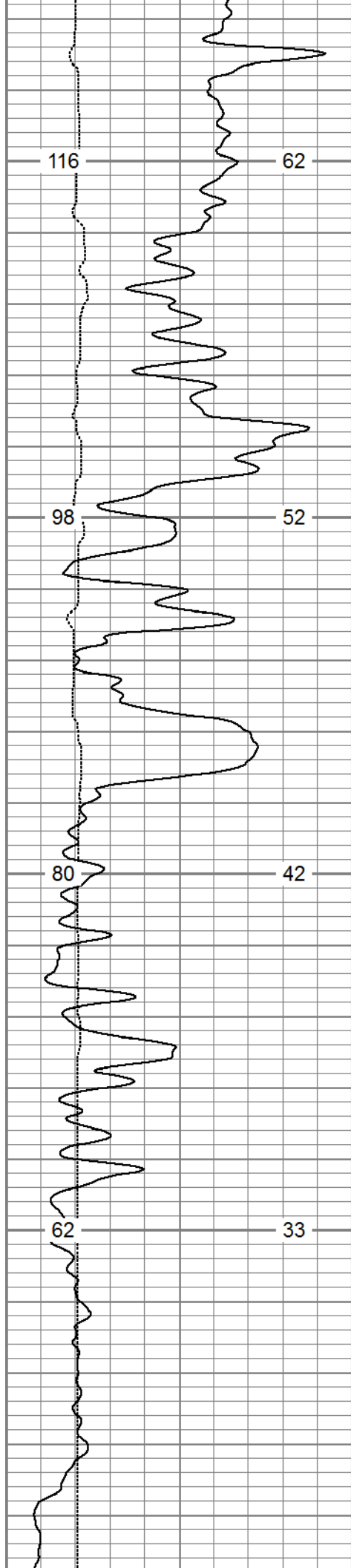


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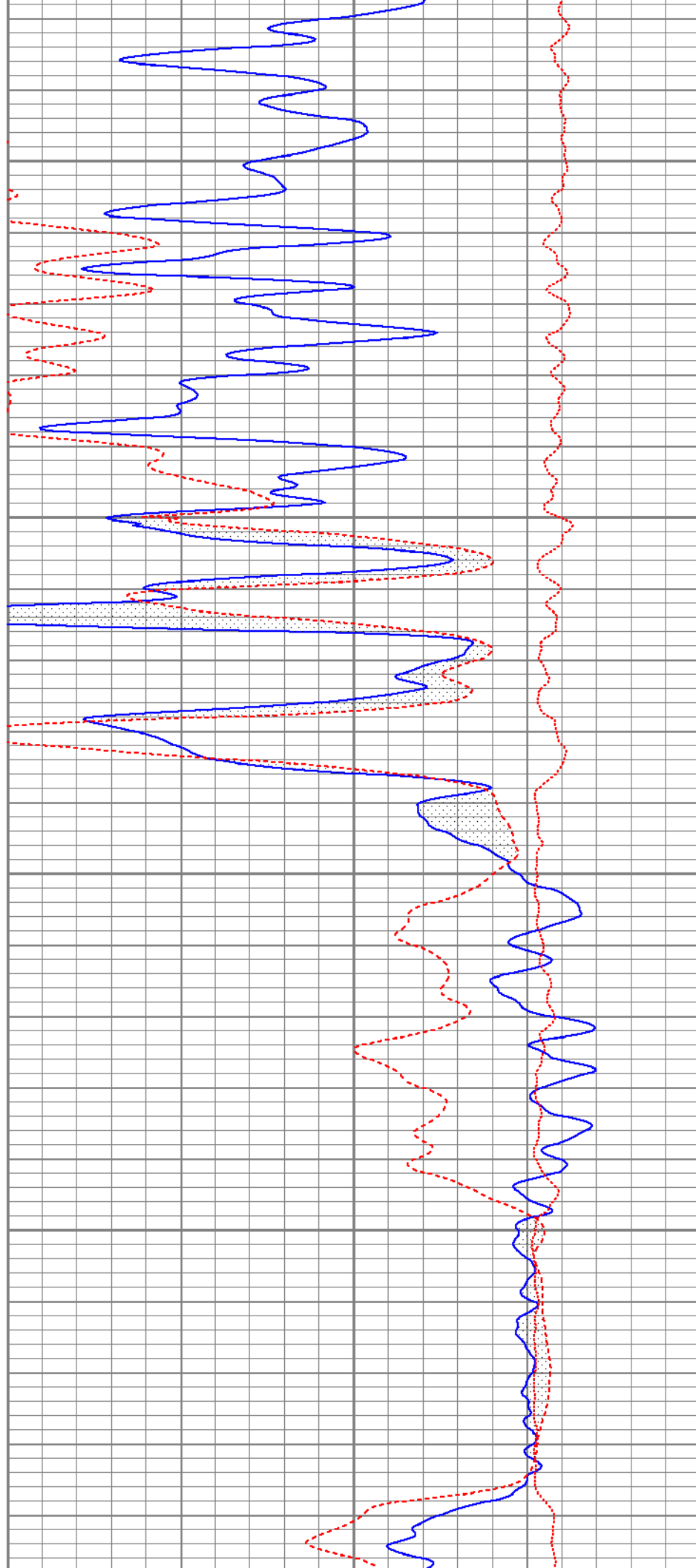


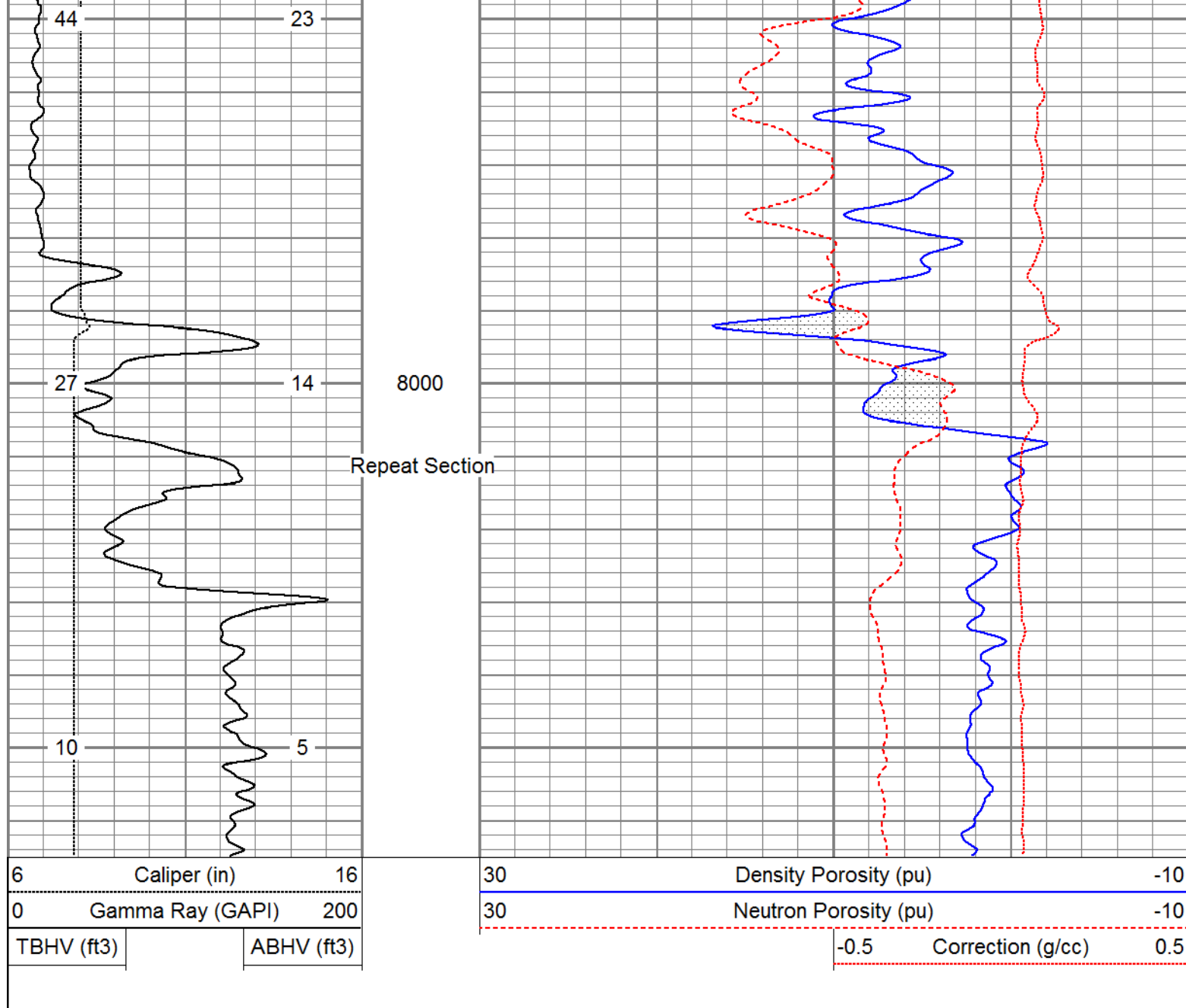




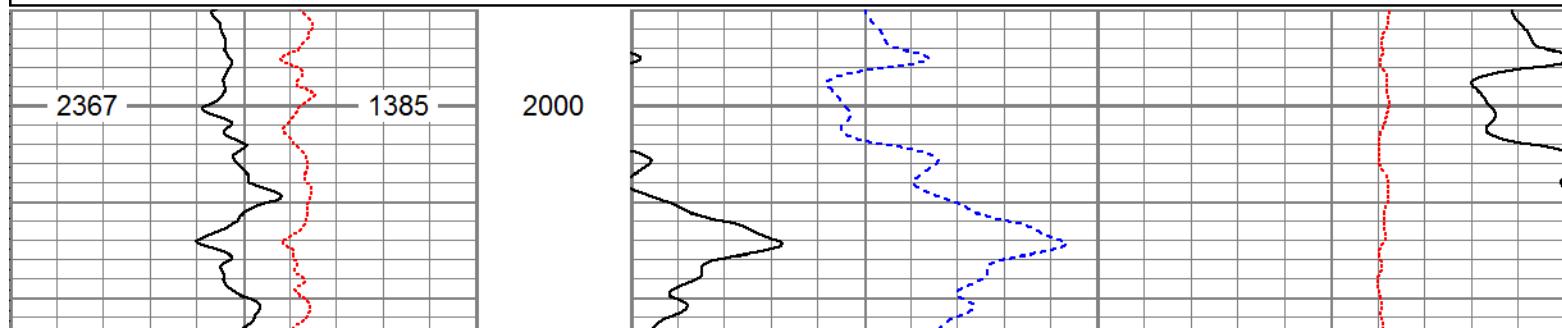
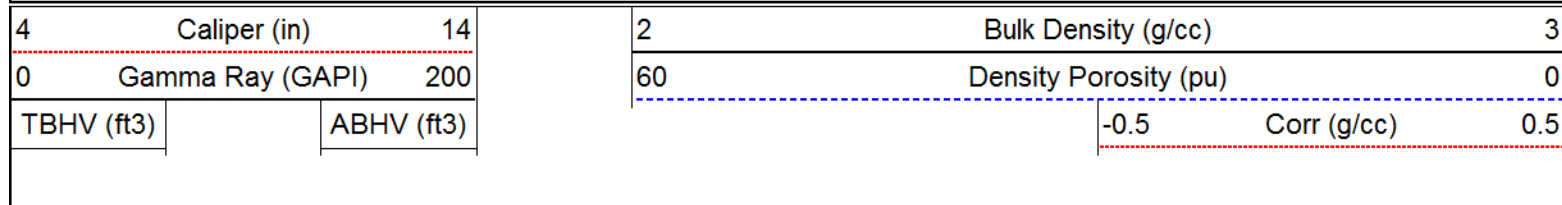
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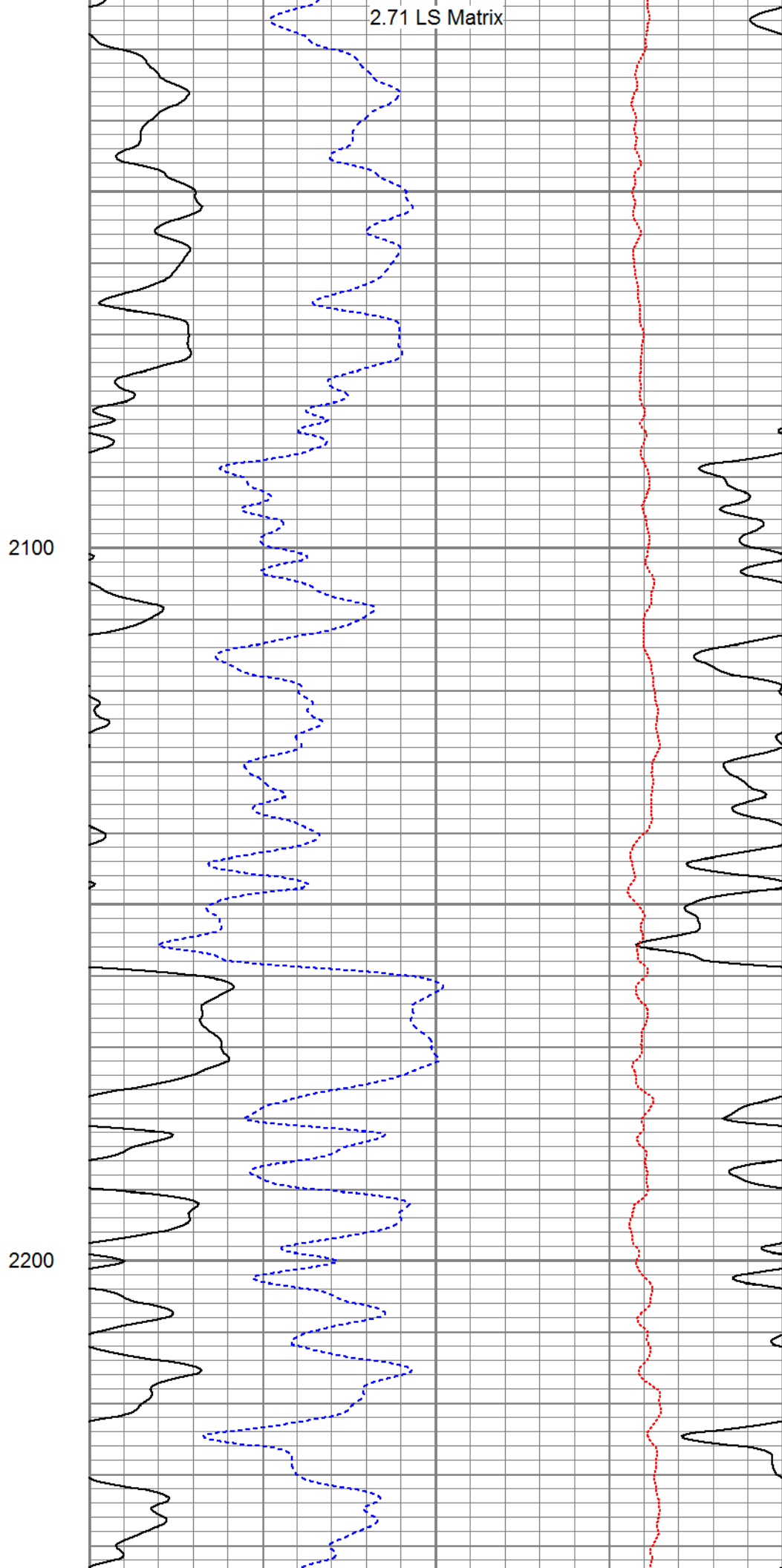
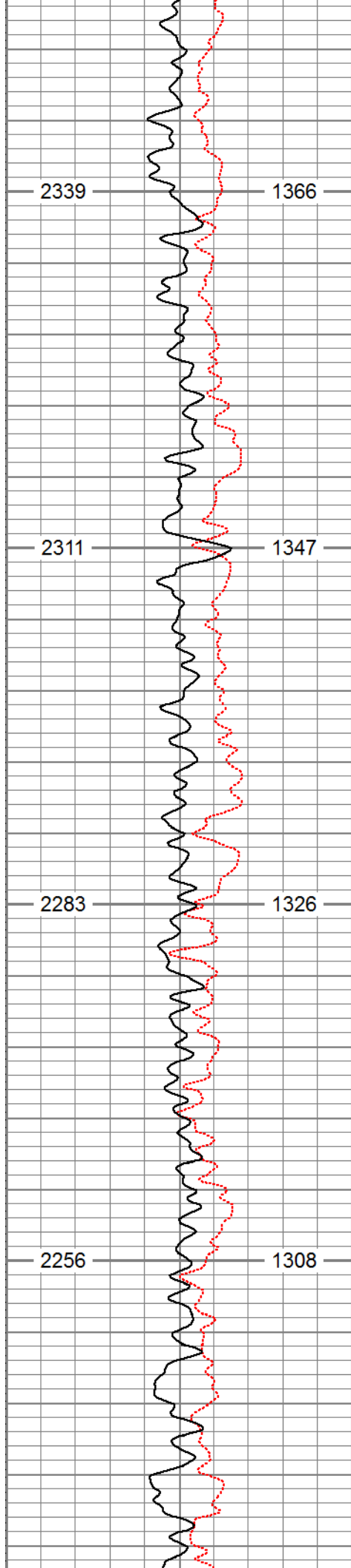
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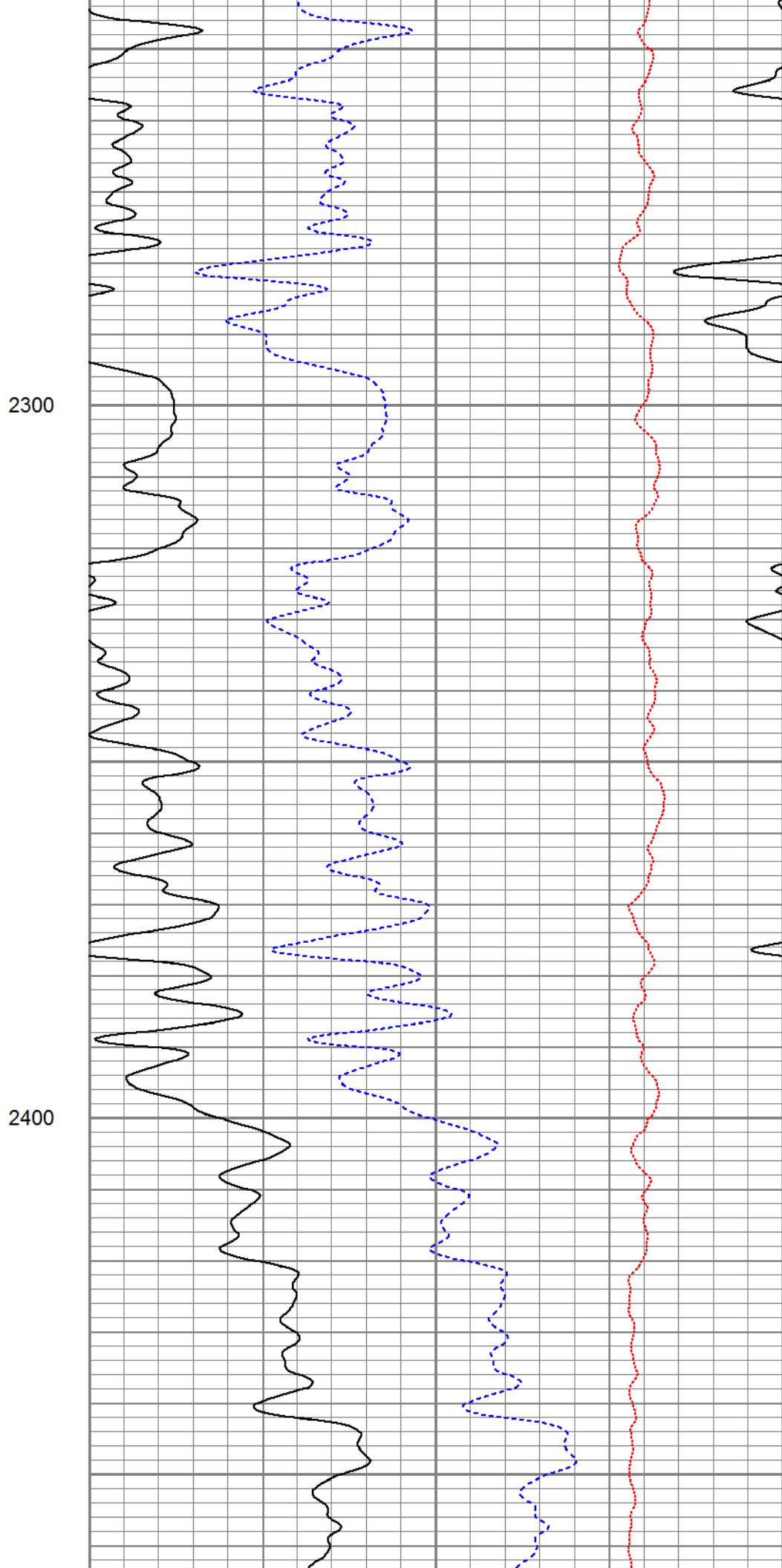
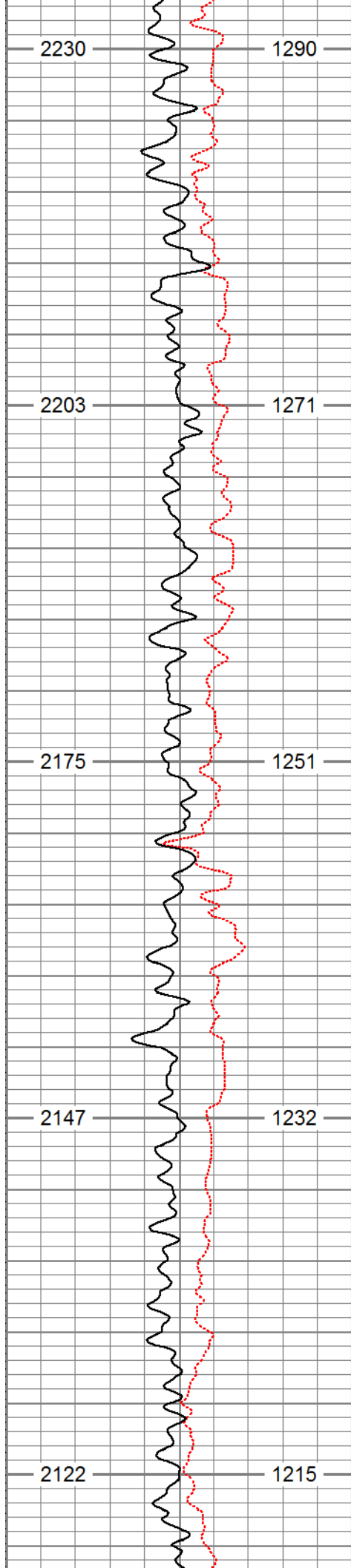


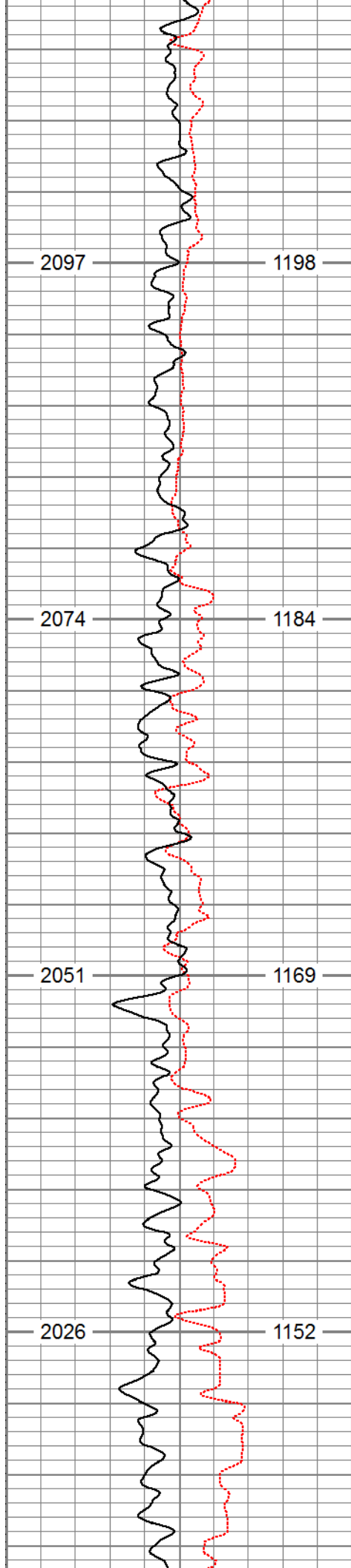


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 Charted by: Depth in Feet scaled 1:240



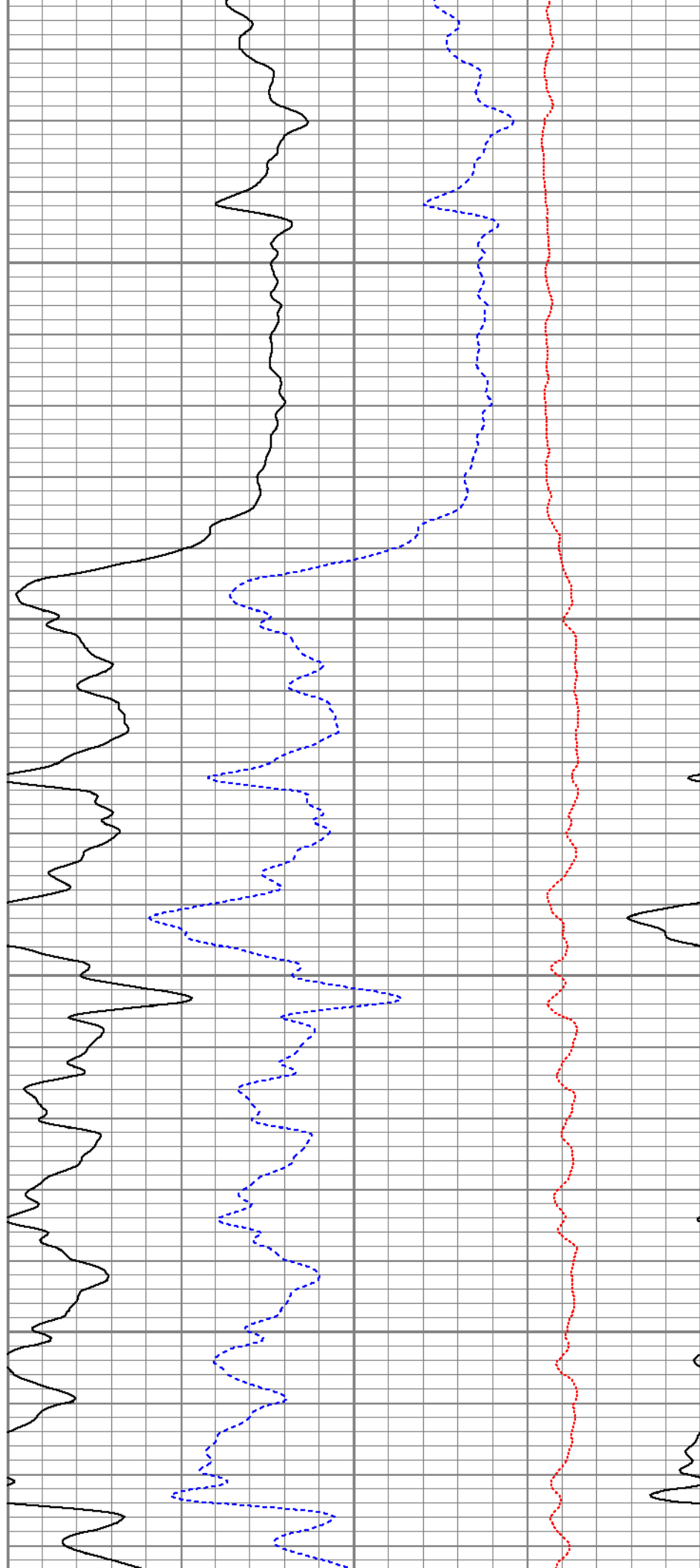


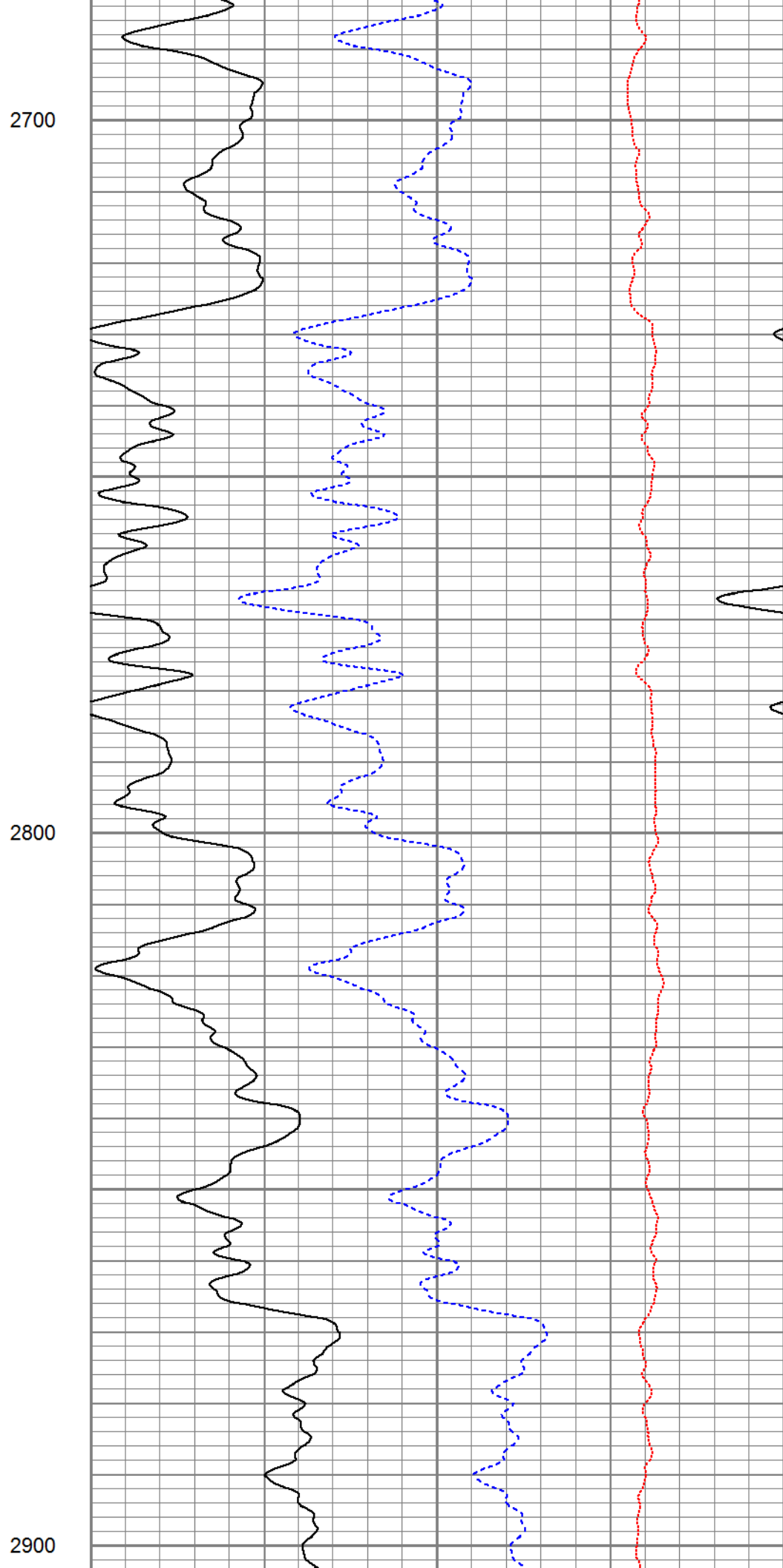
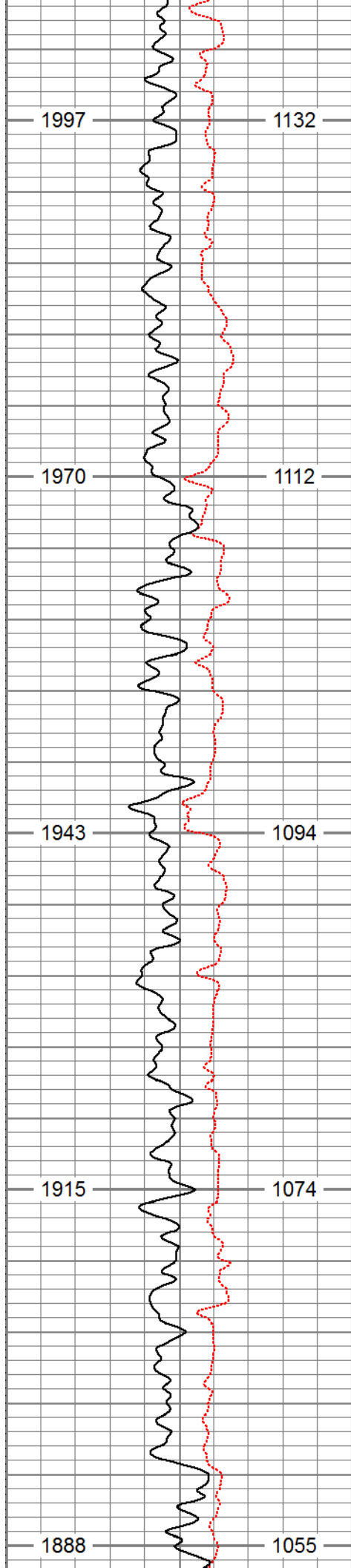


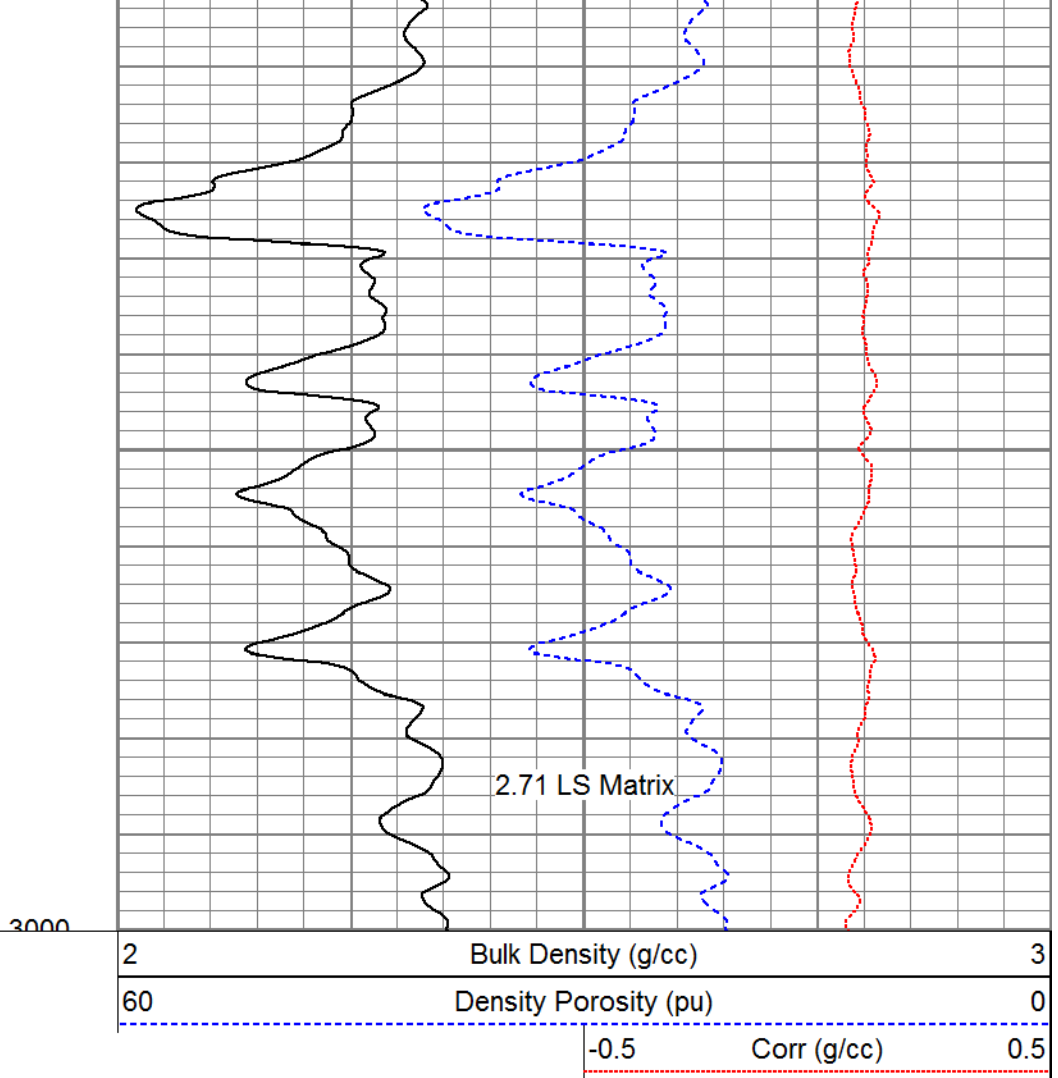
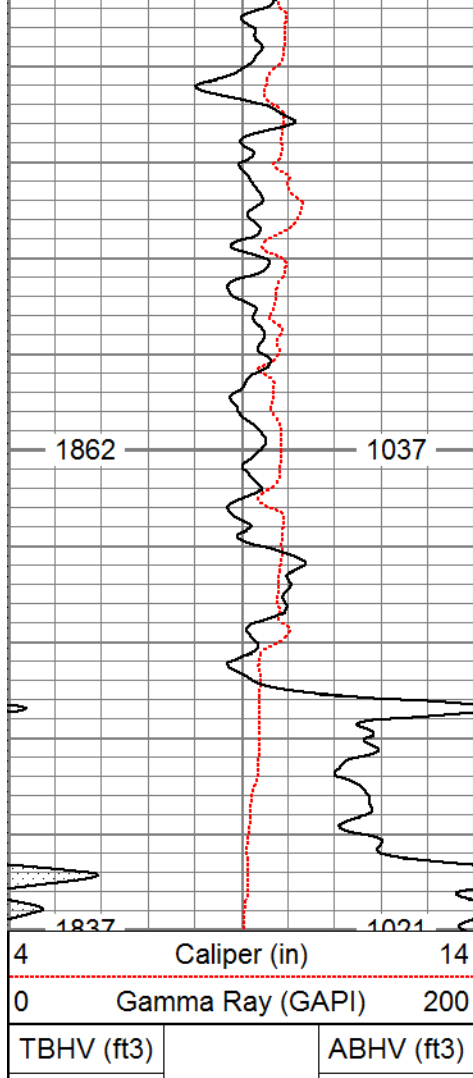


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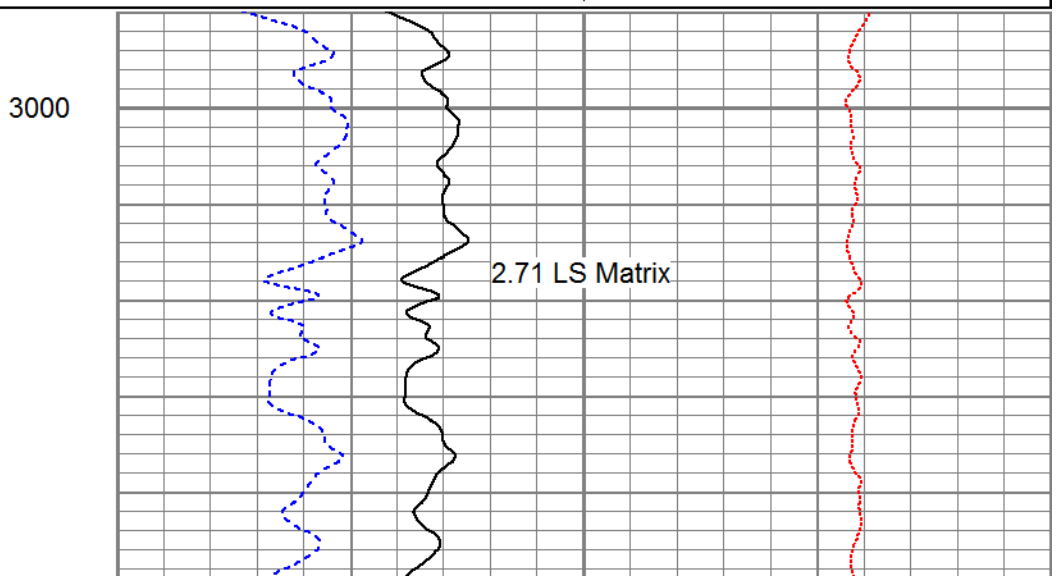
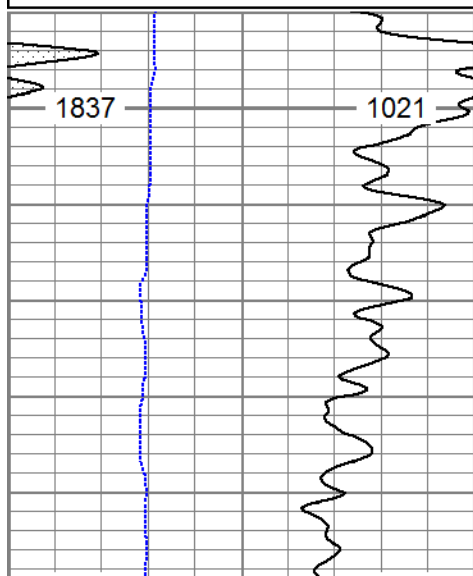
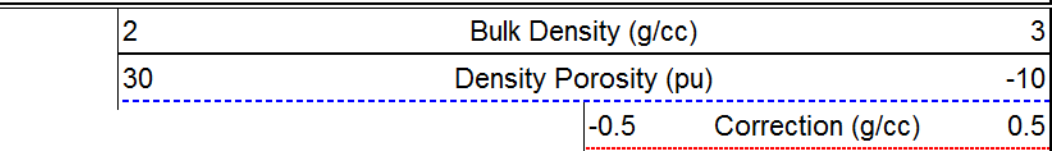
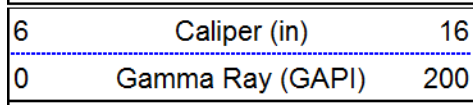
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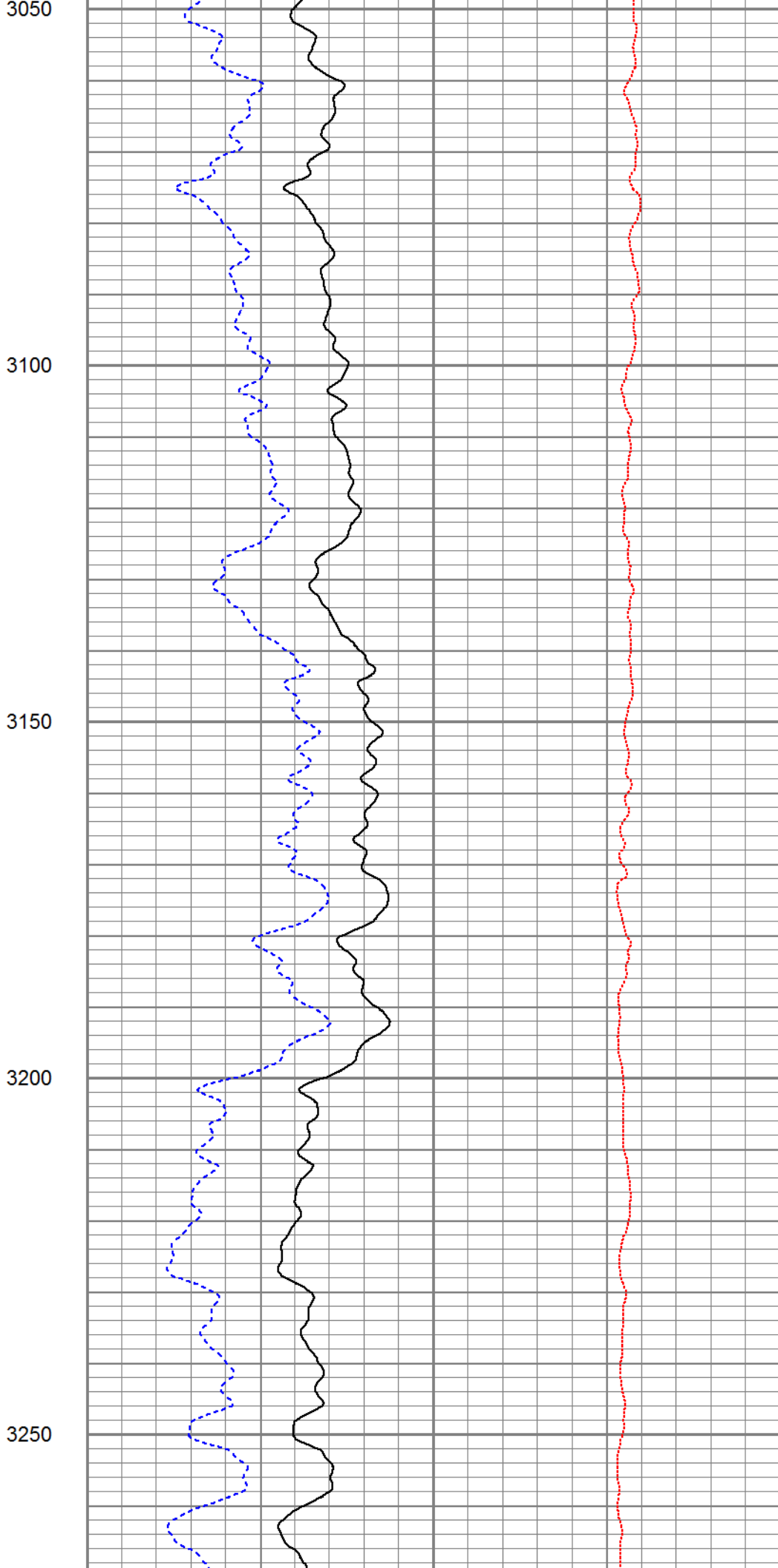
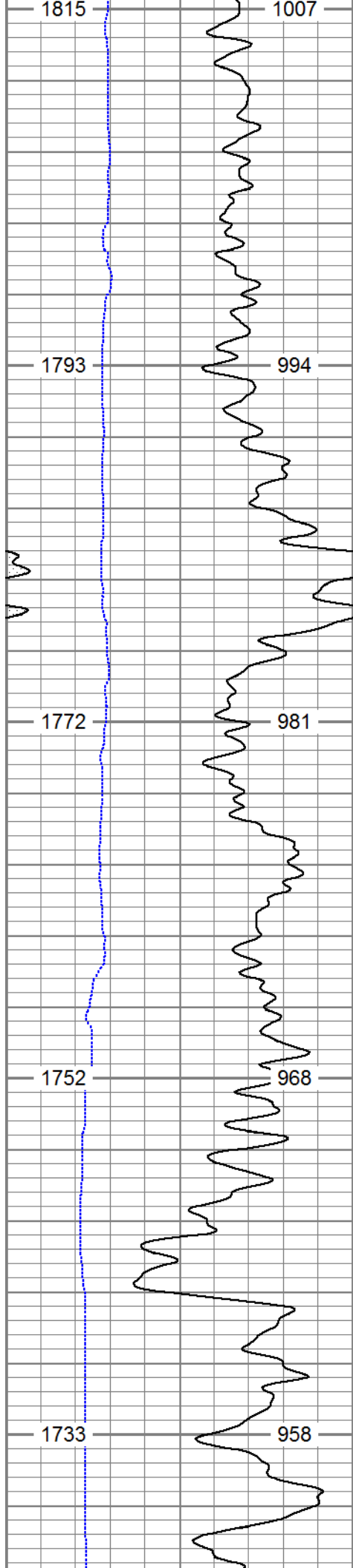


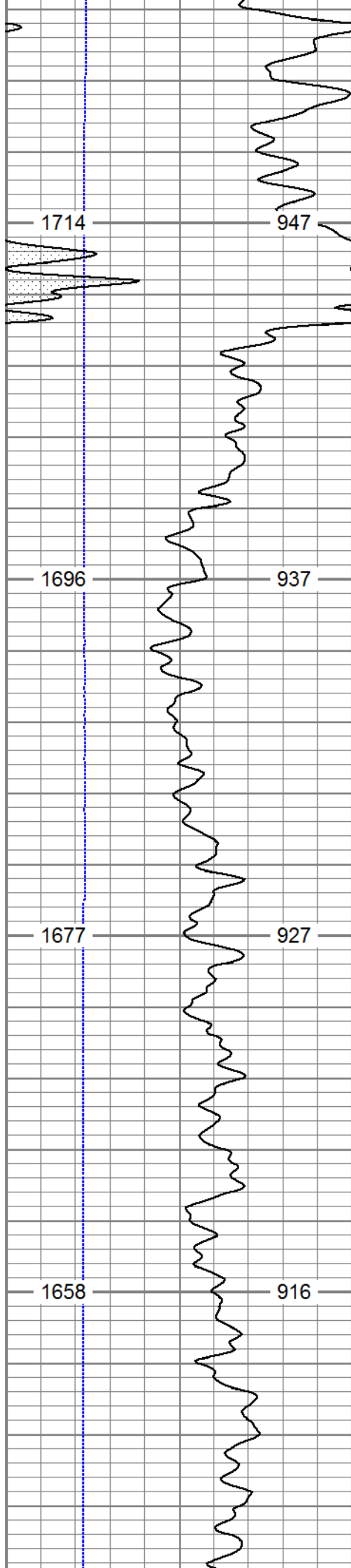




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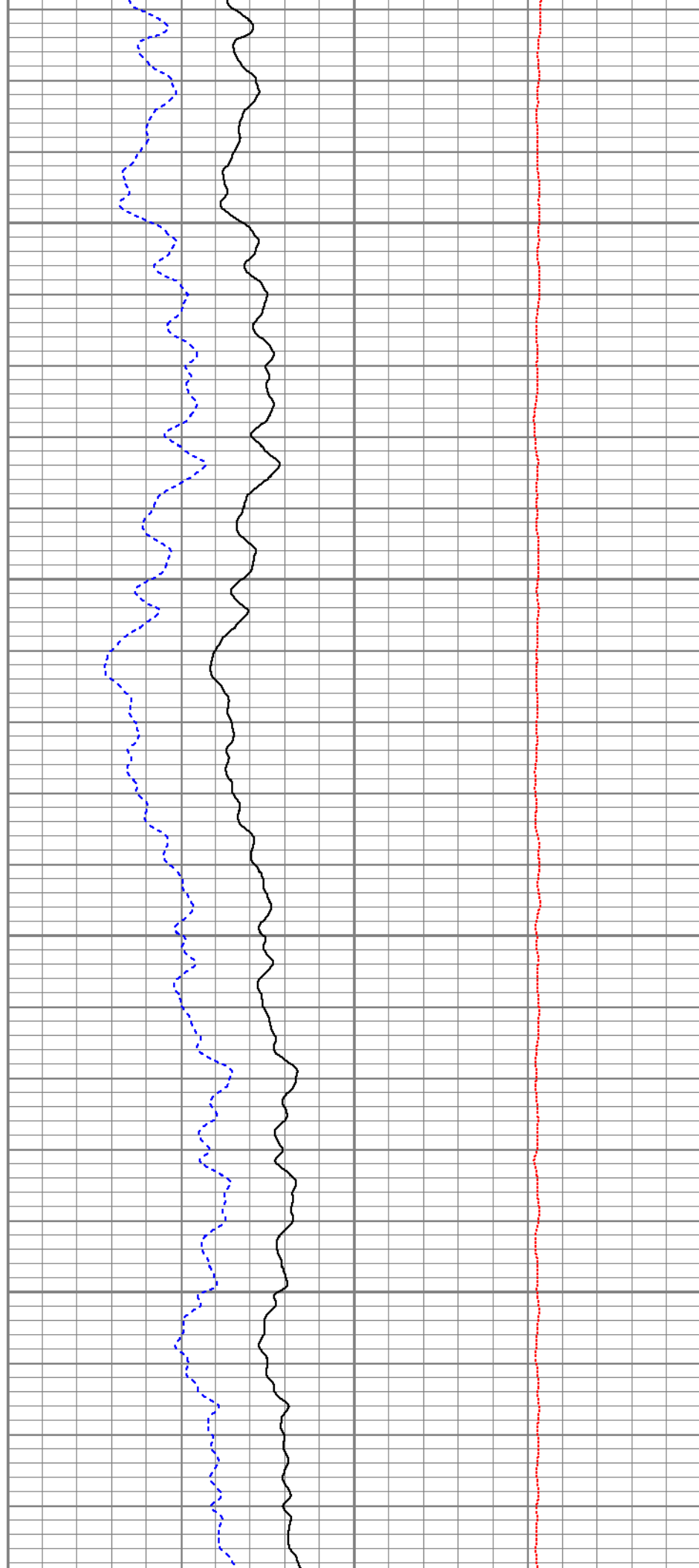


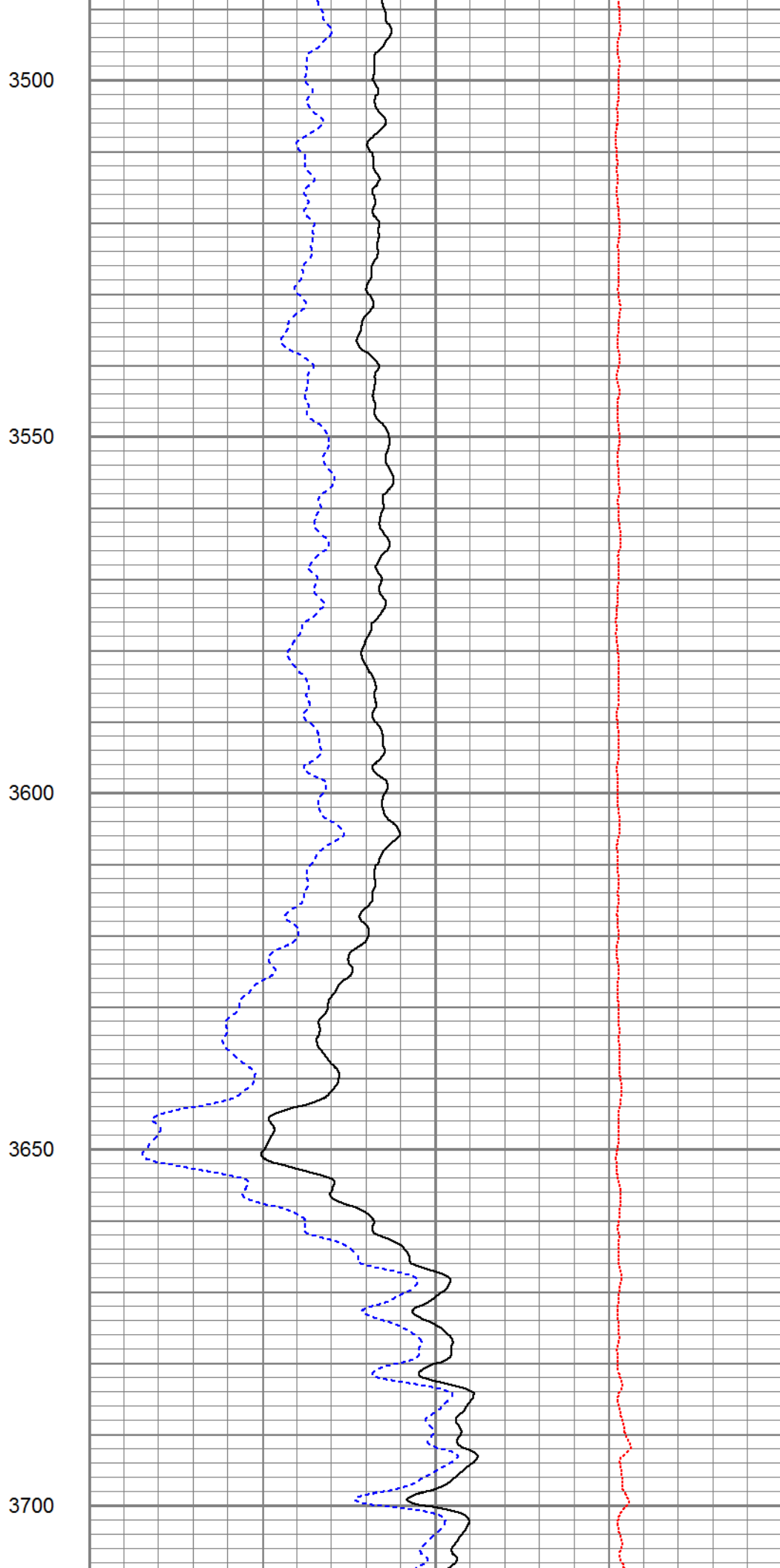
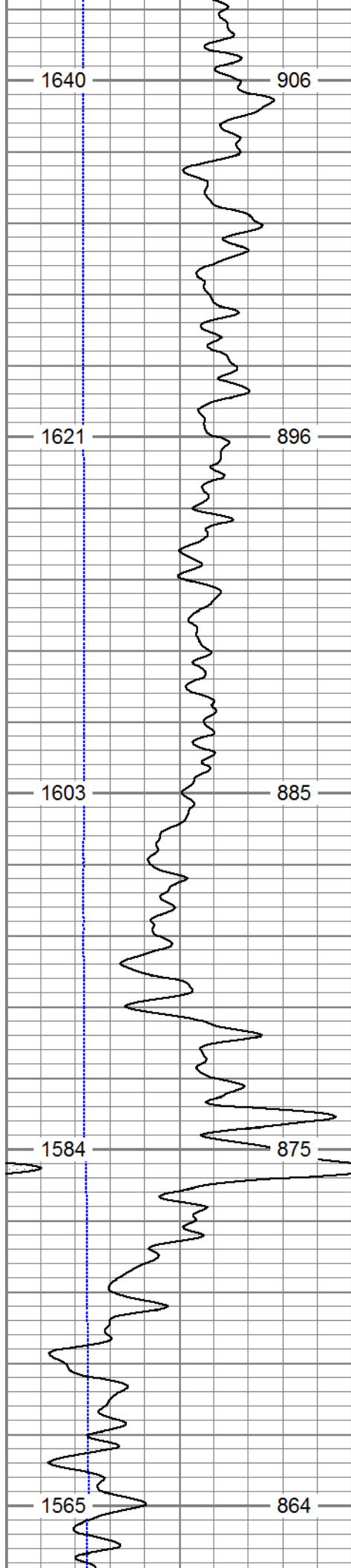
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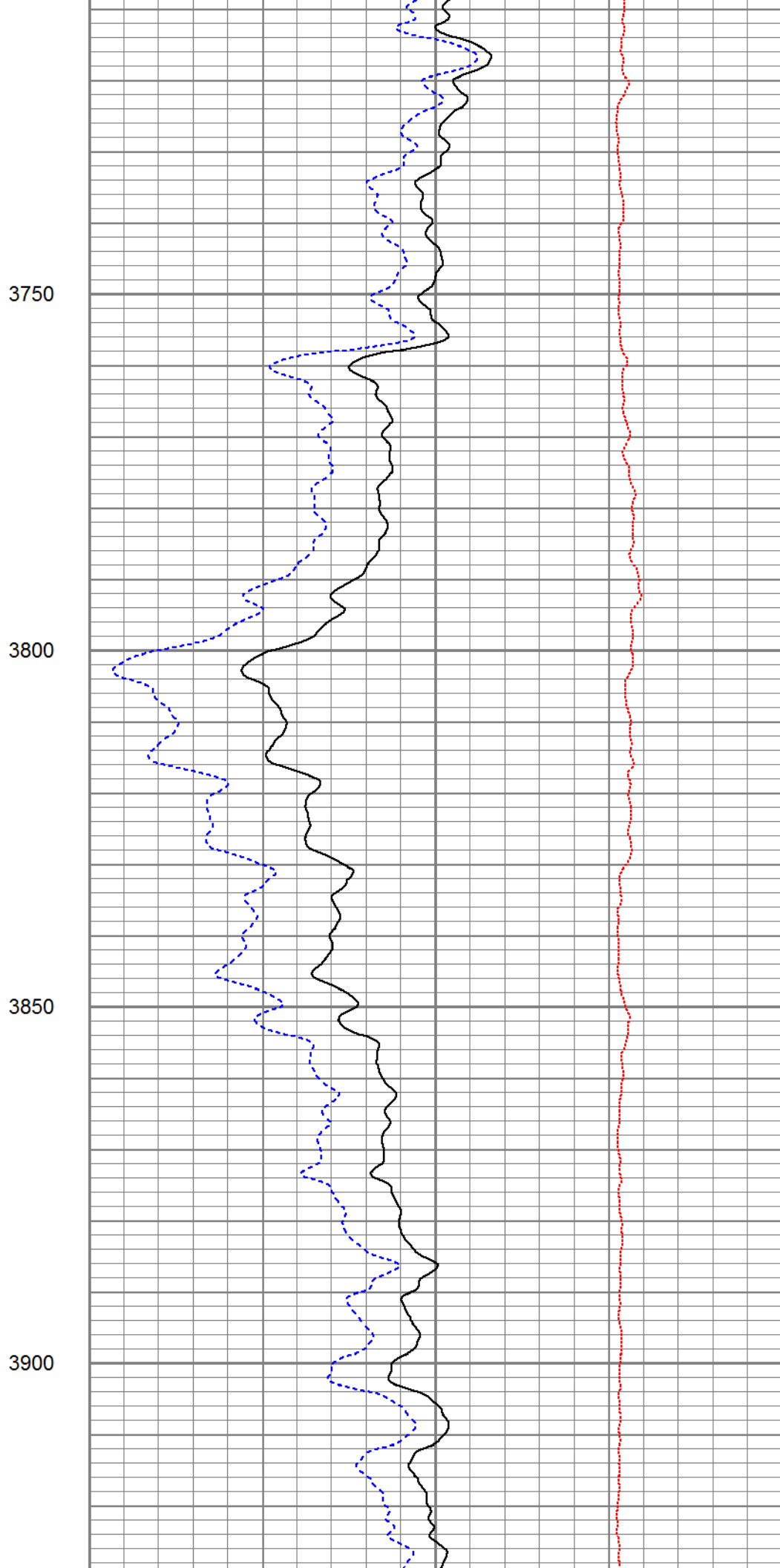
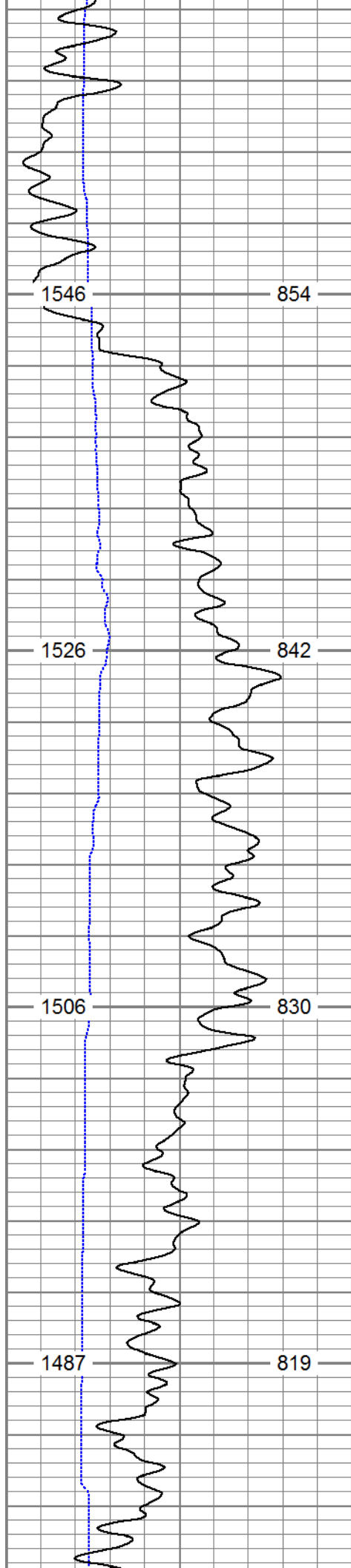
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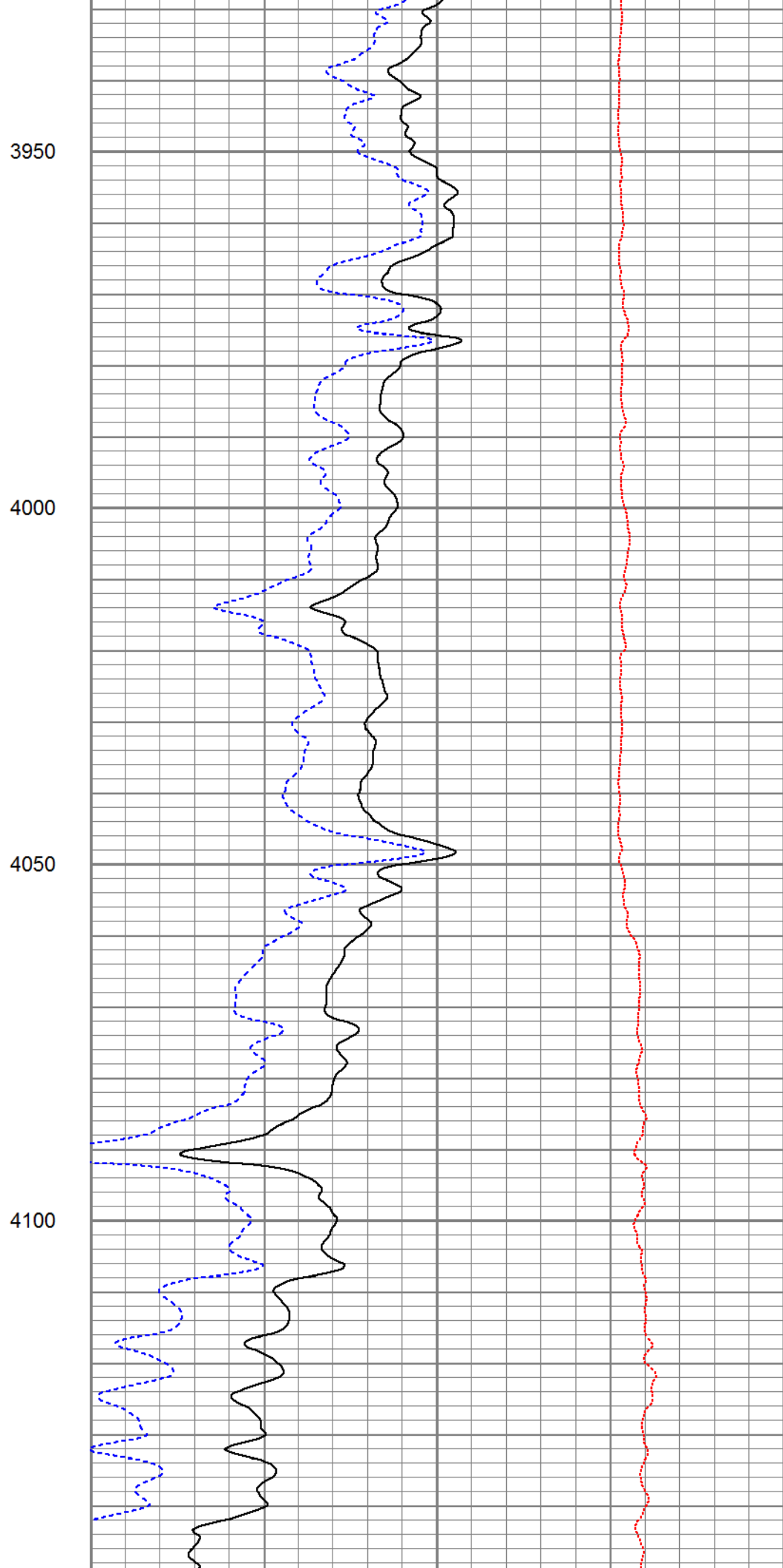
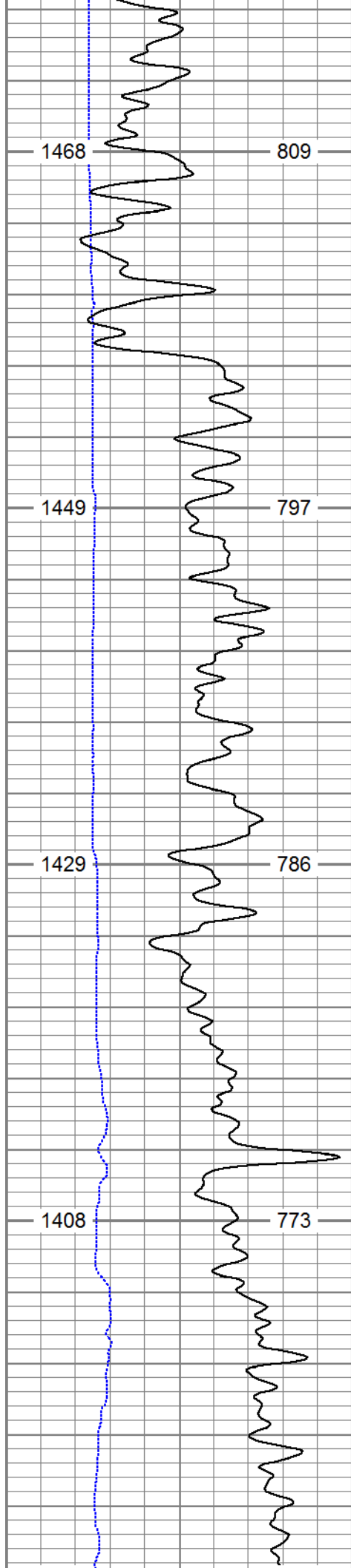
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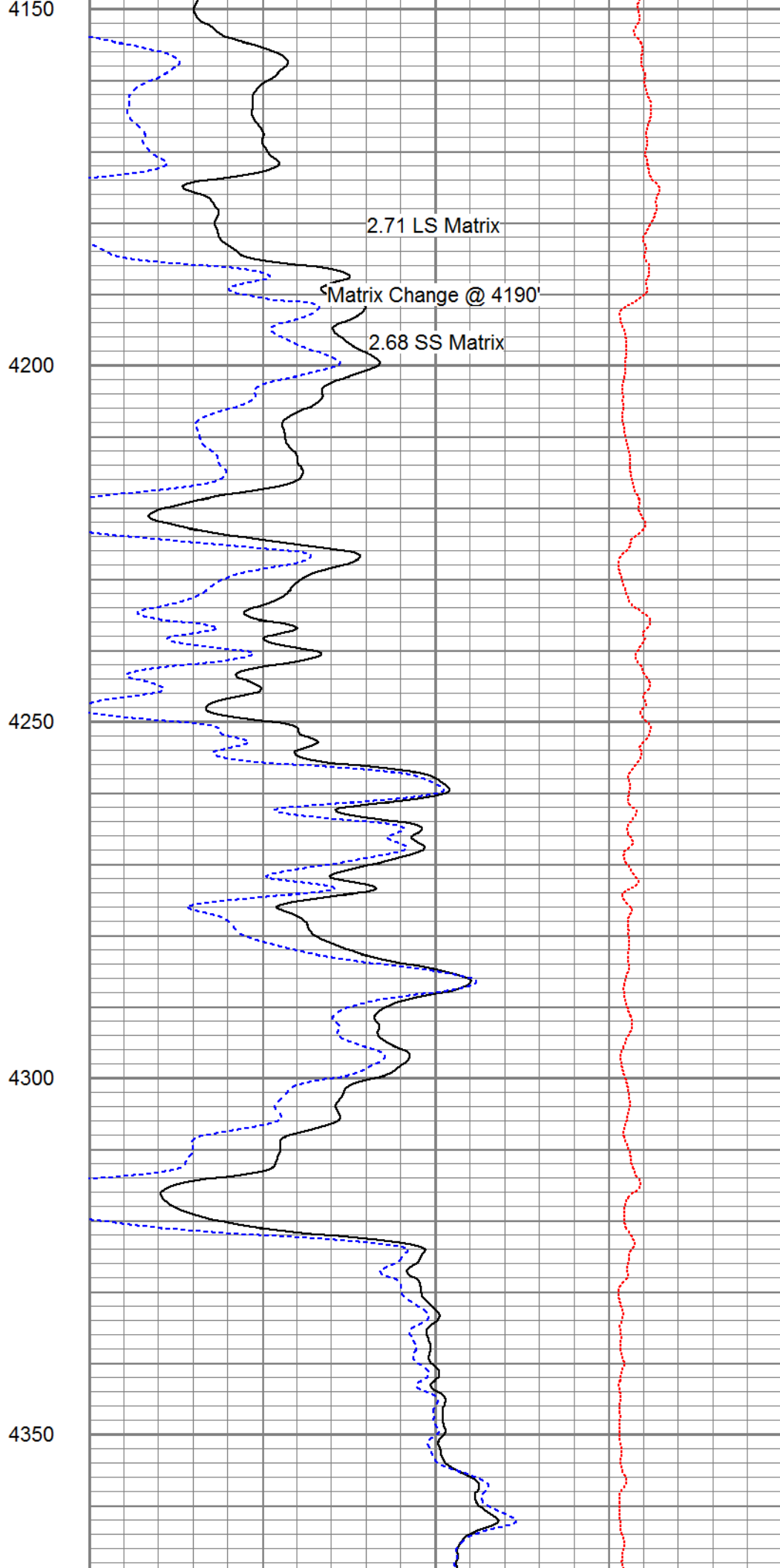
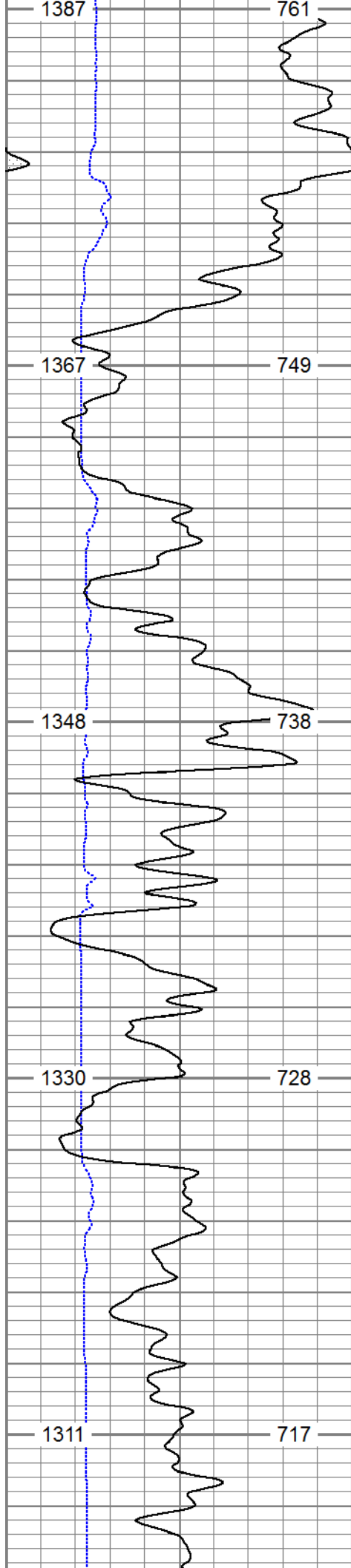
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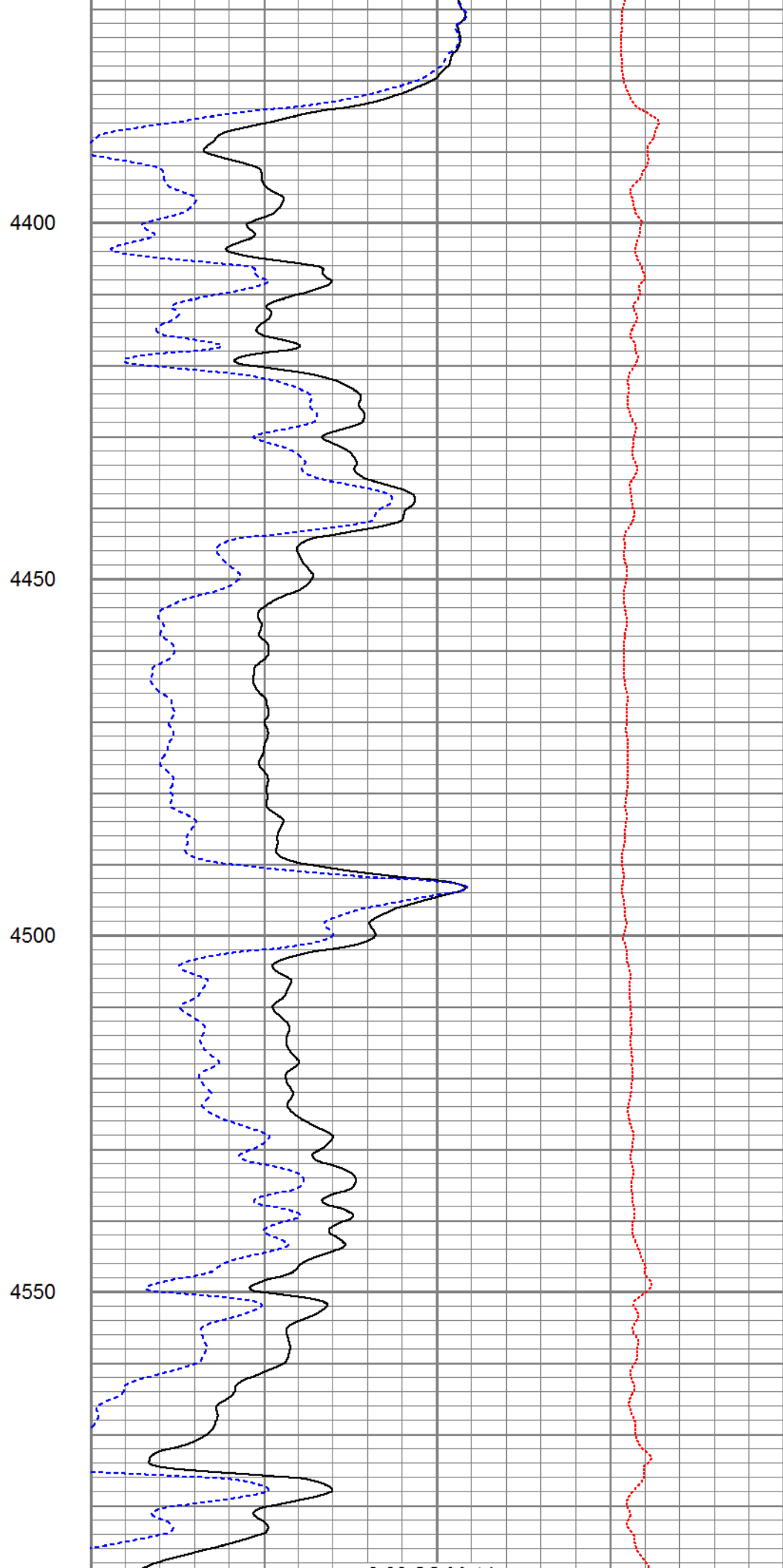
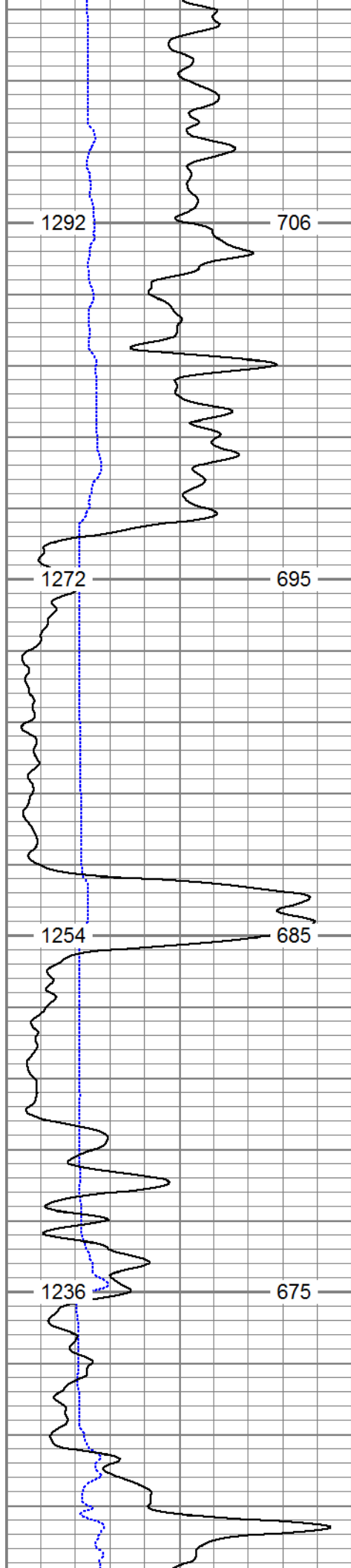


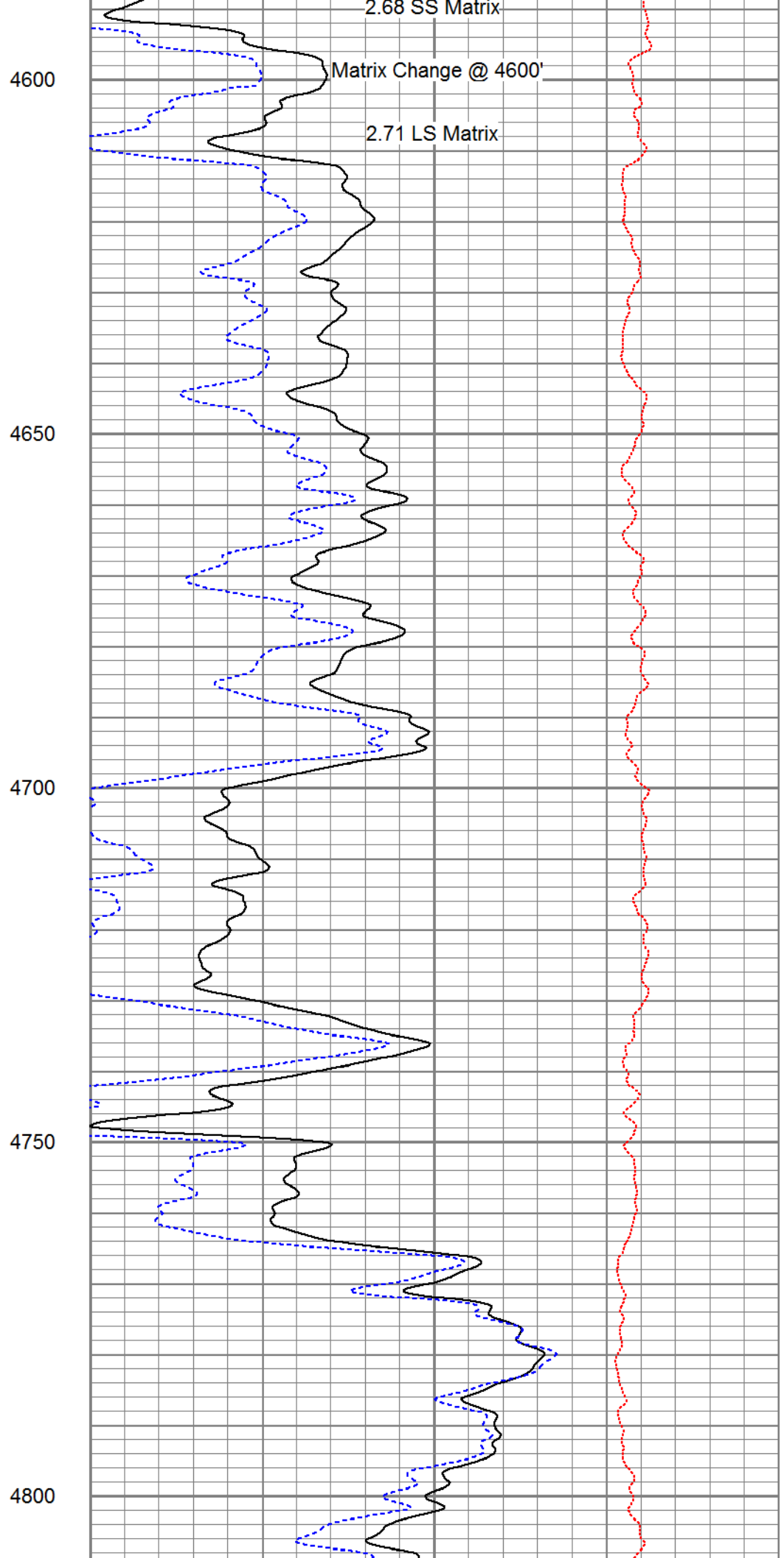
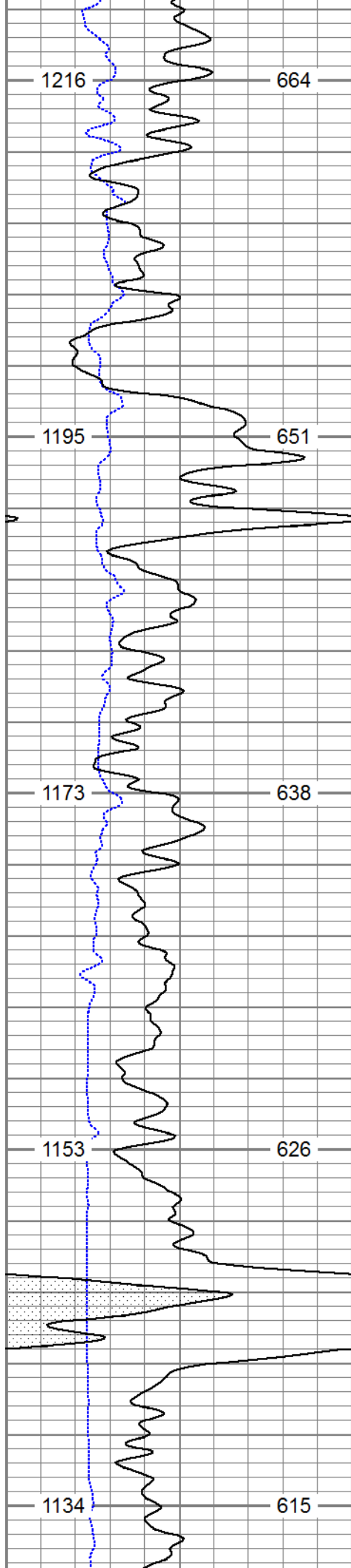


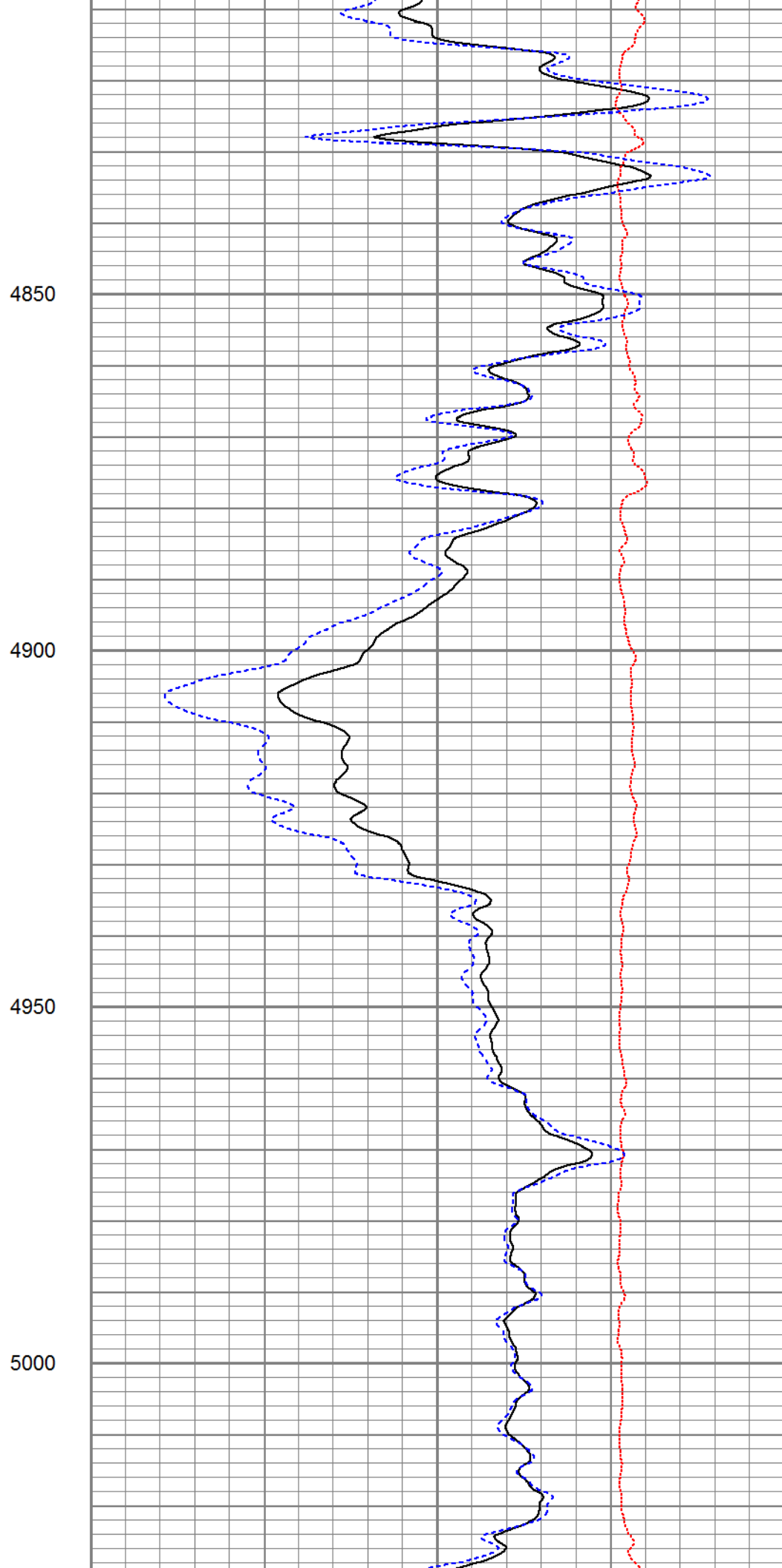
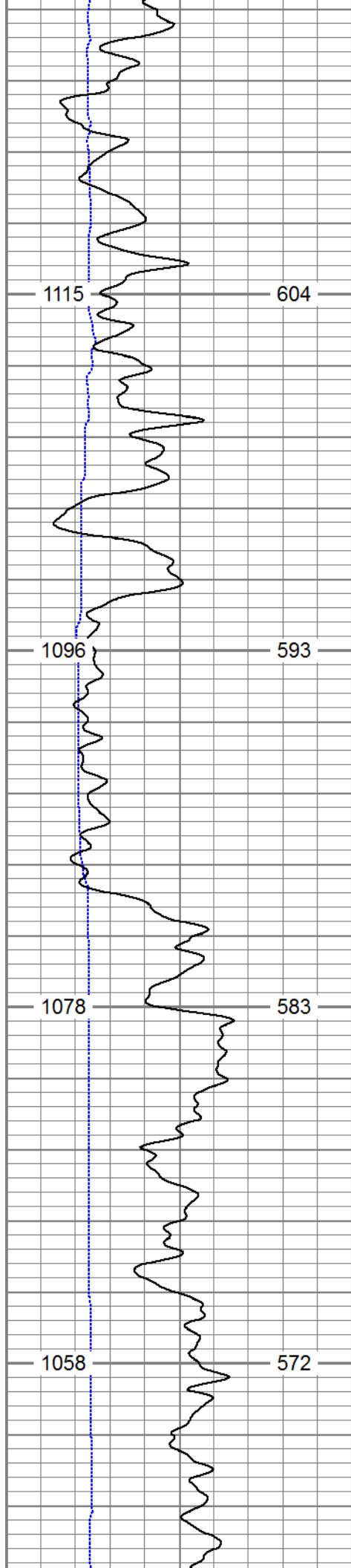


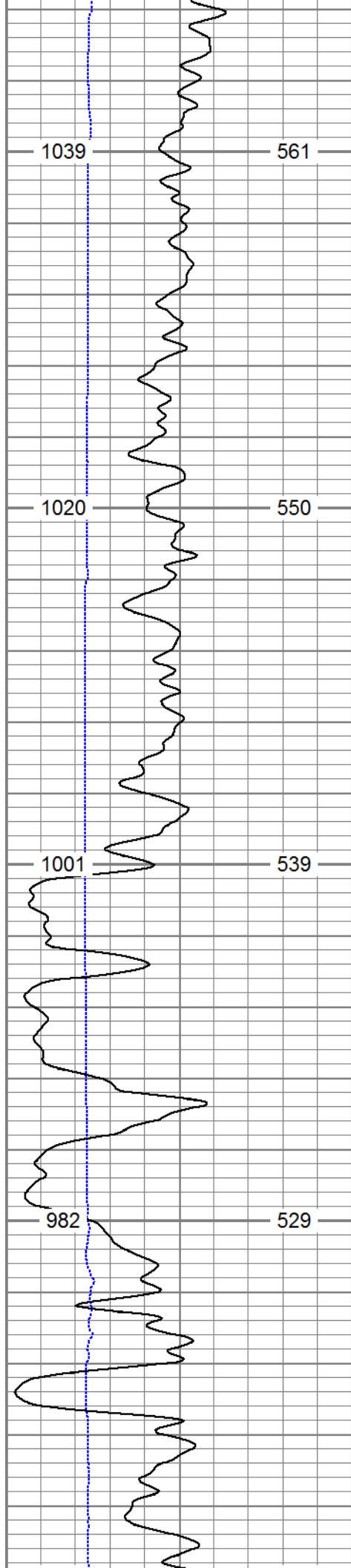










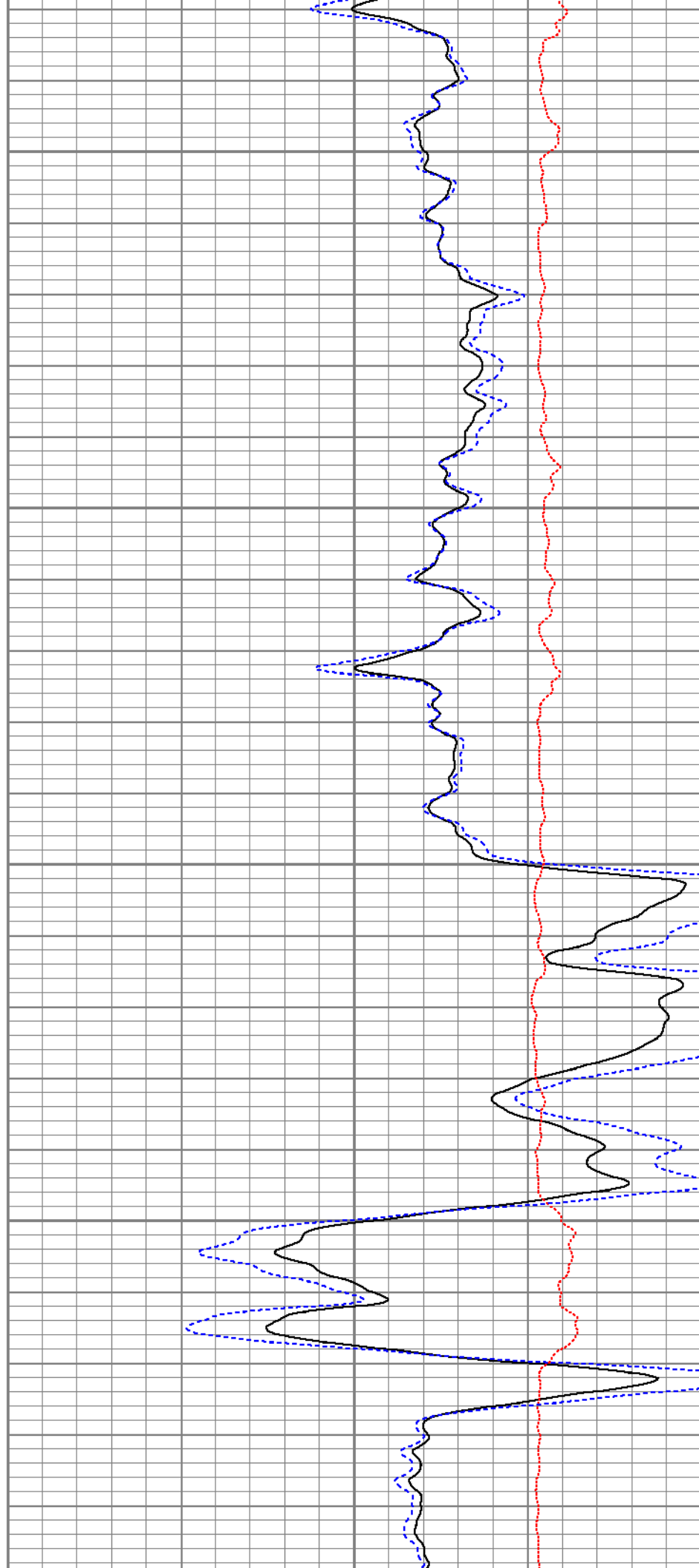


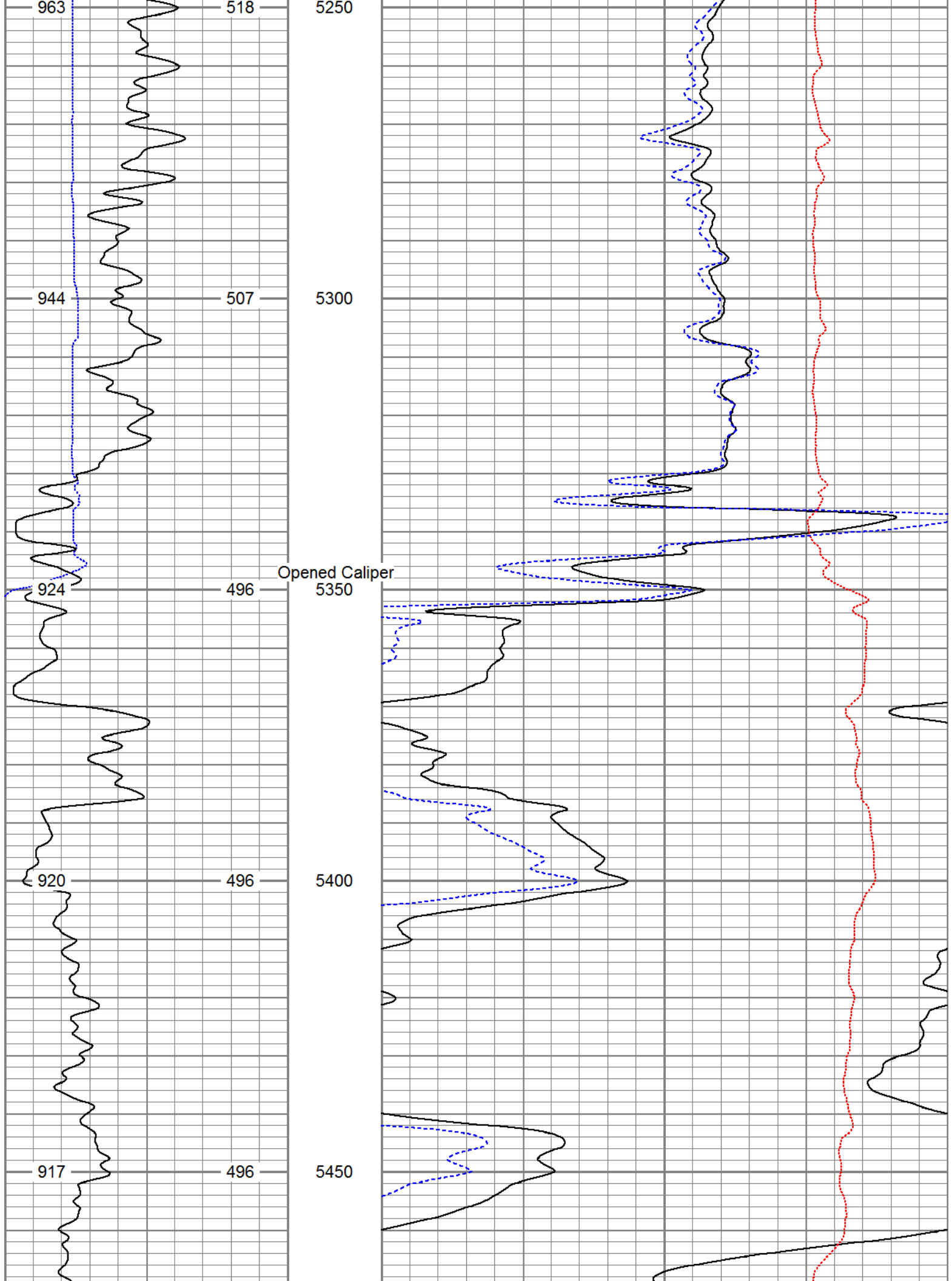
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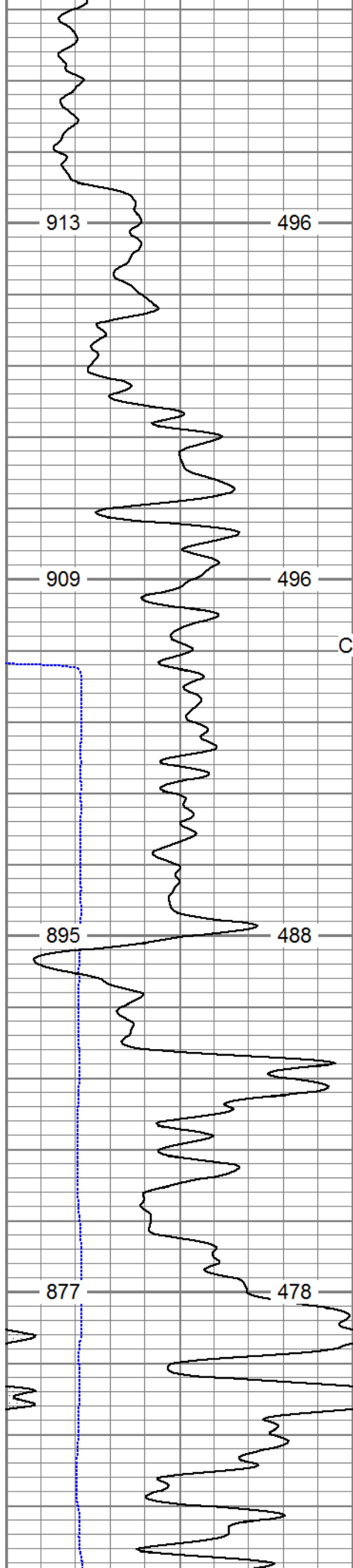
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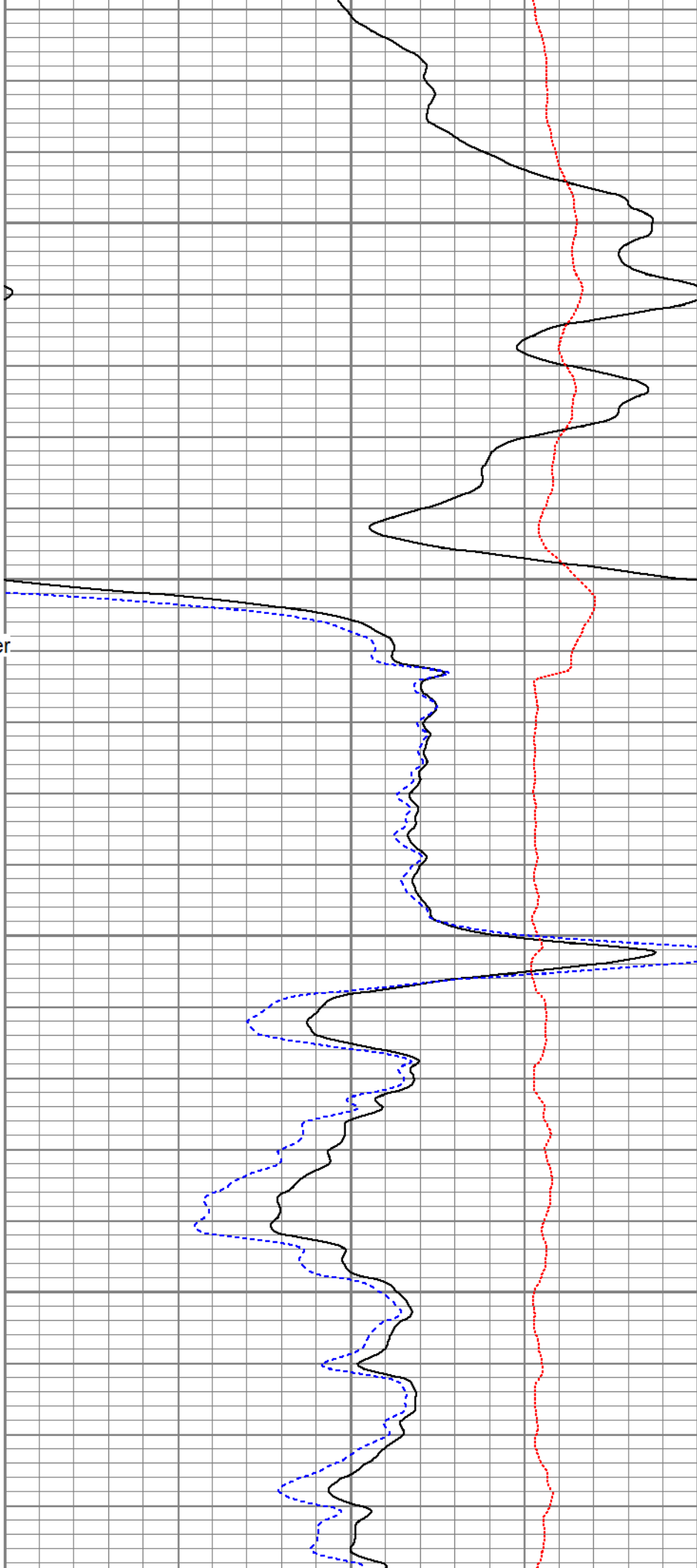
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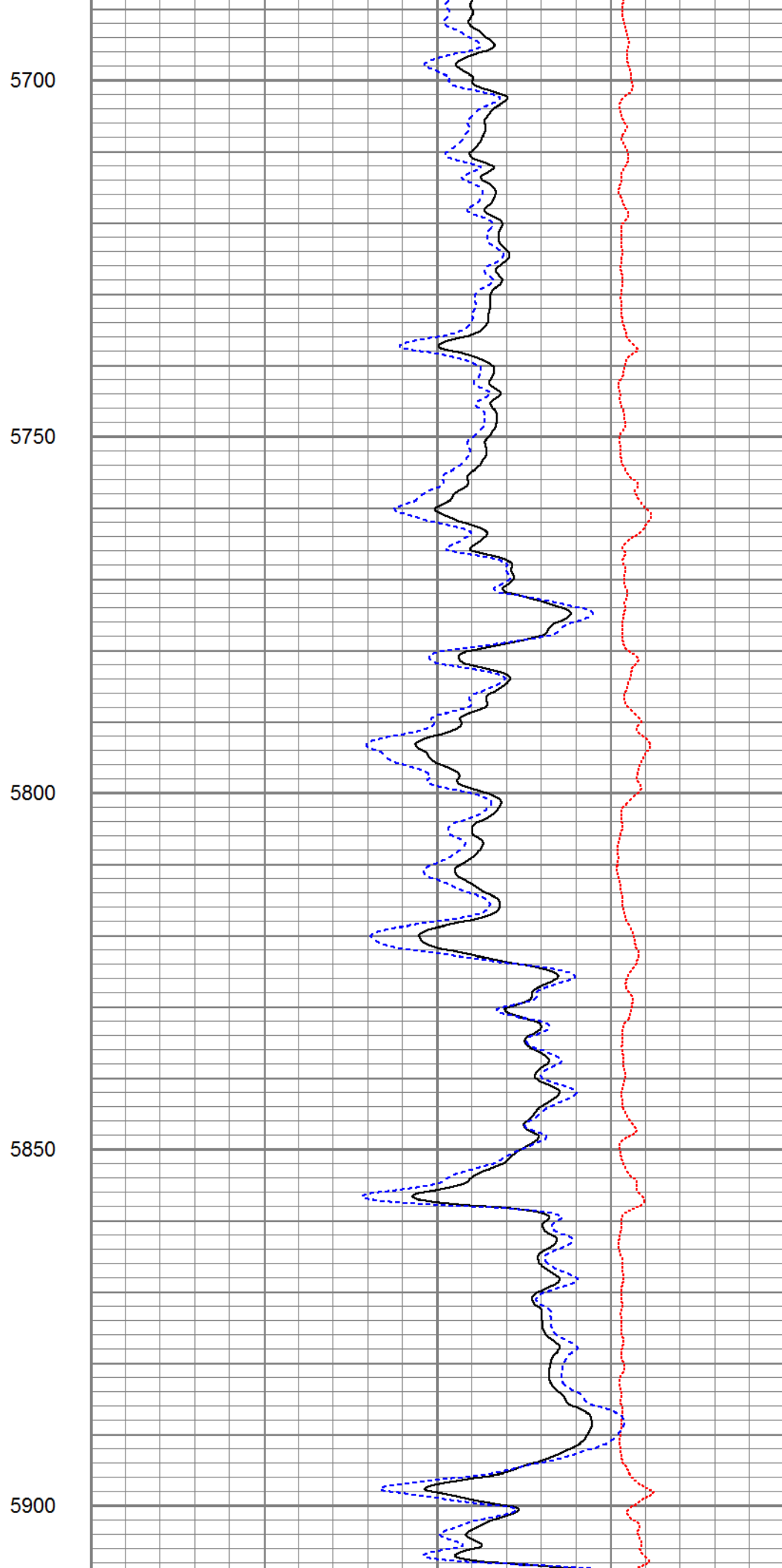
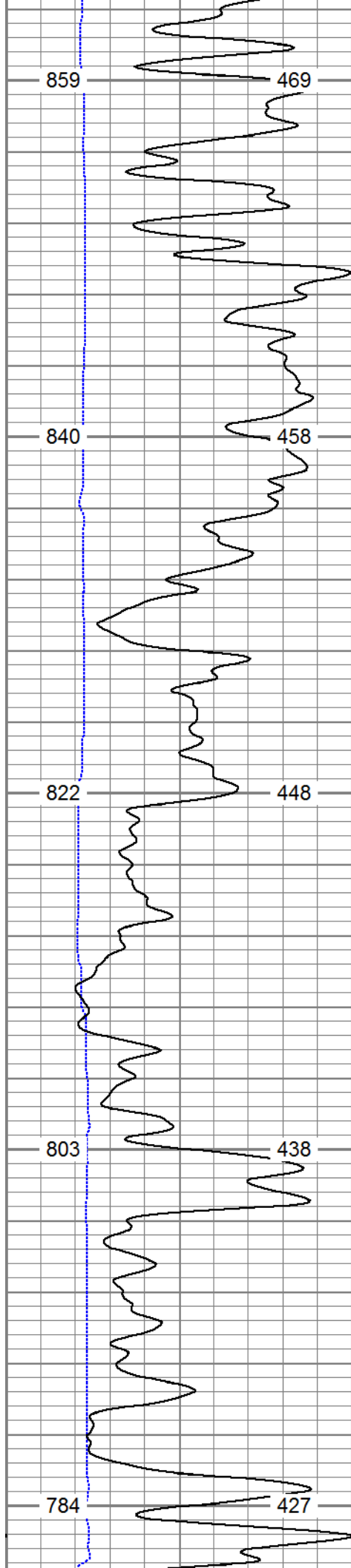


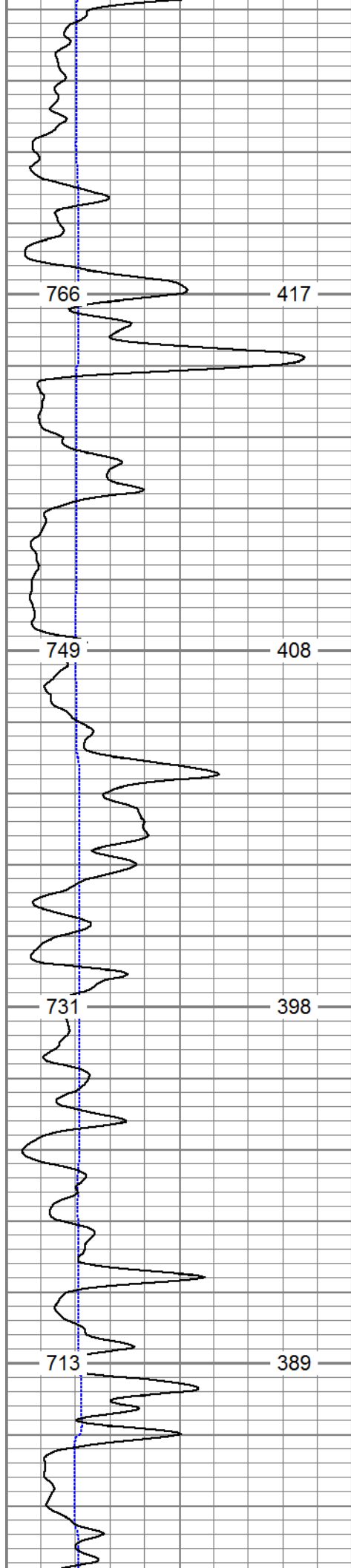




5500
5550
Closed Caliper





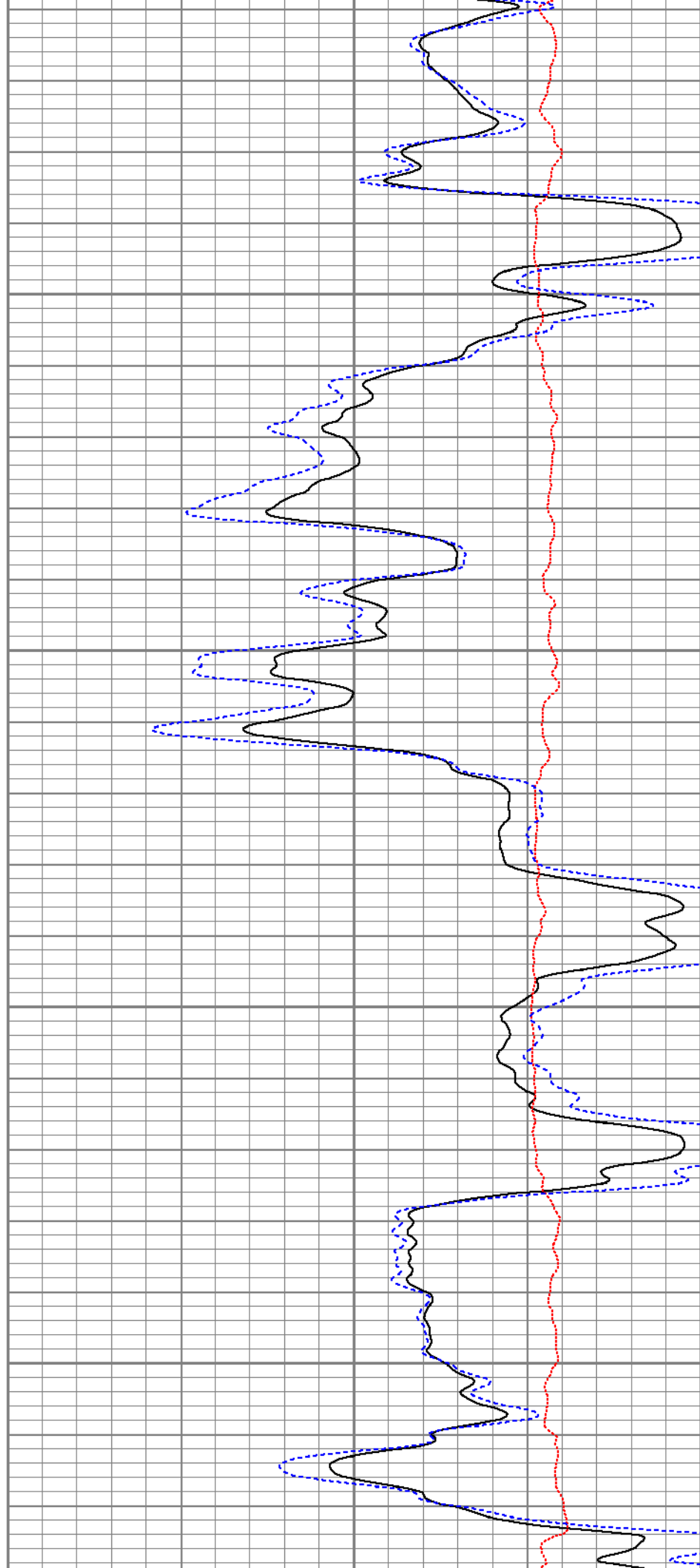


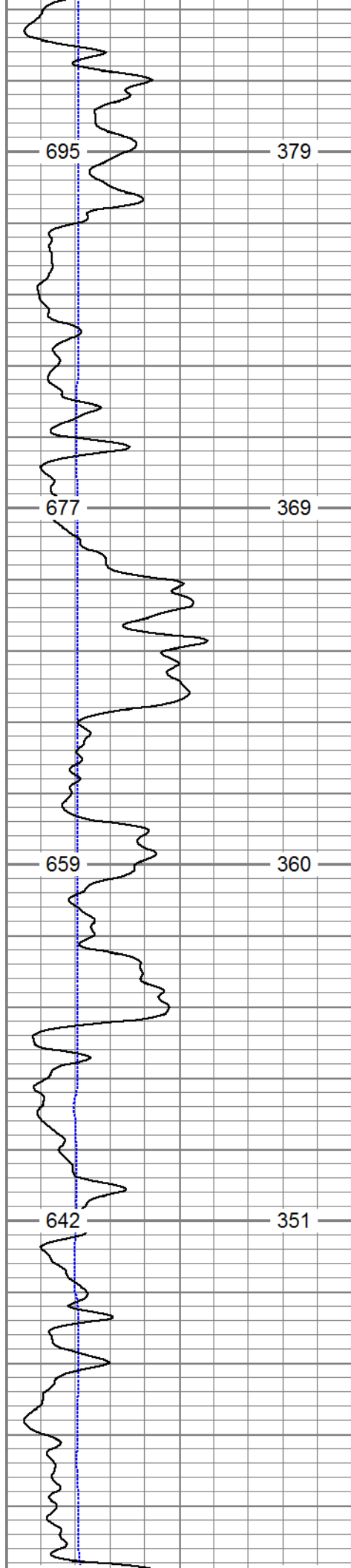
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6000

6050

6100



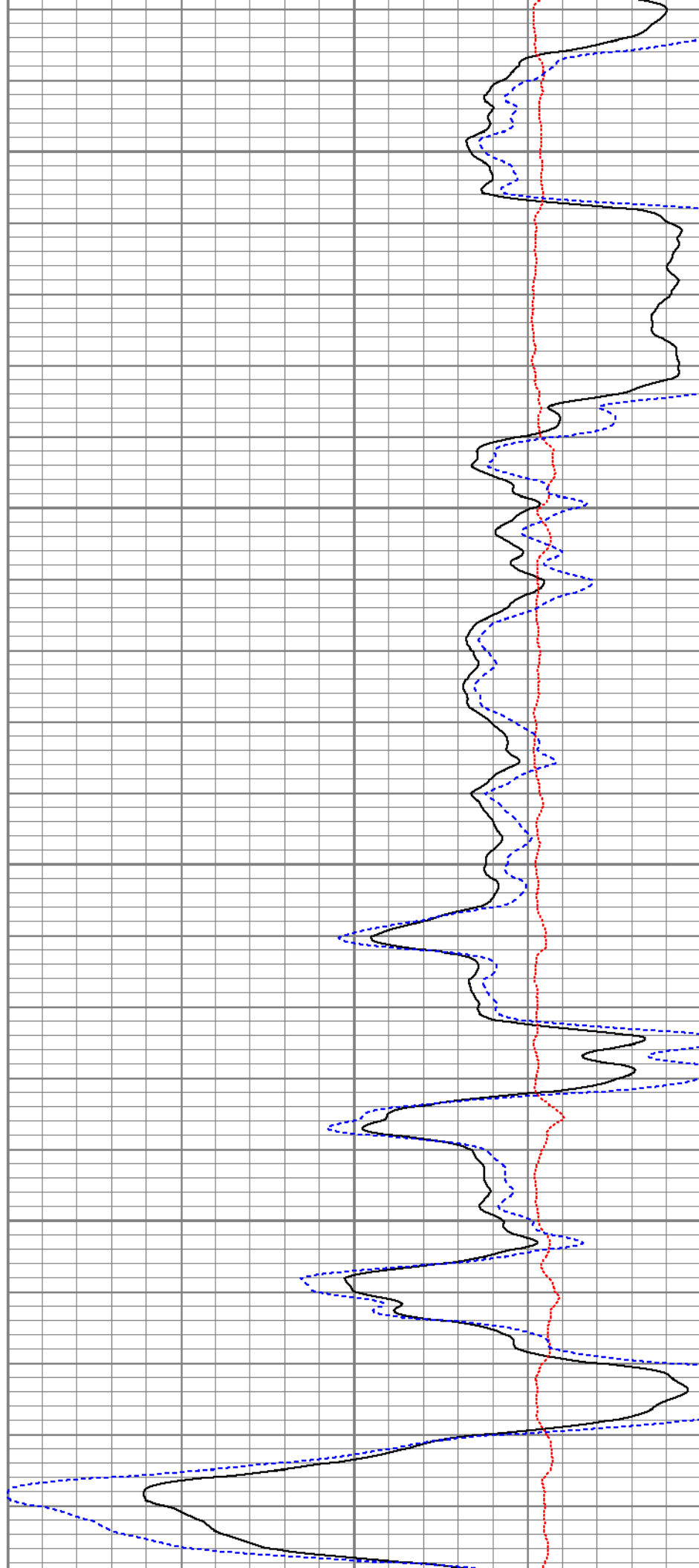


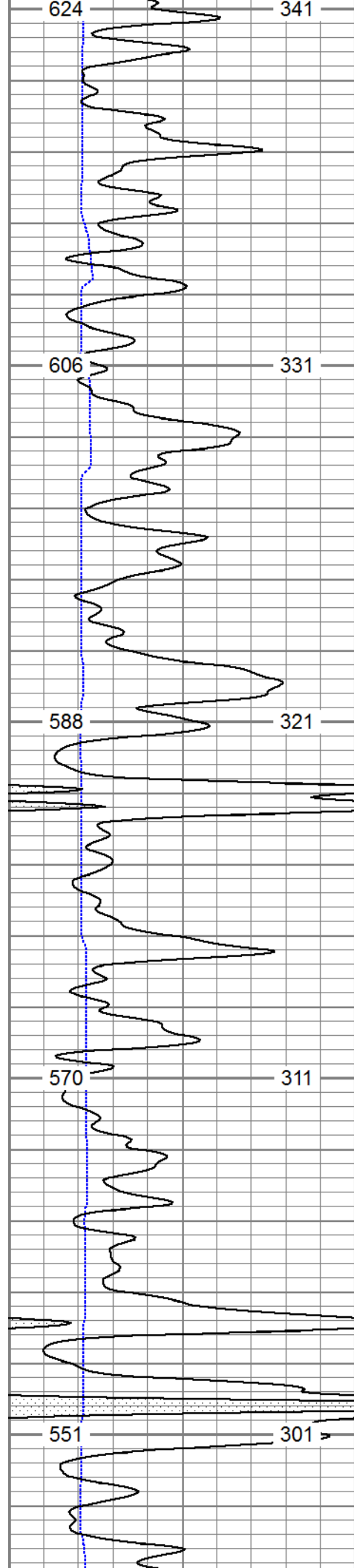
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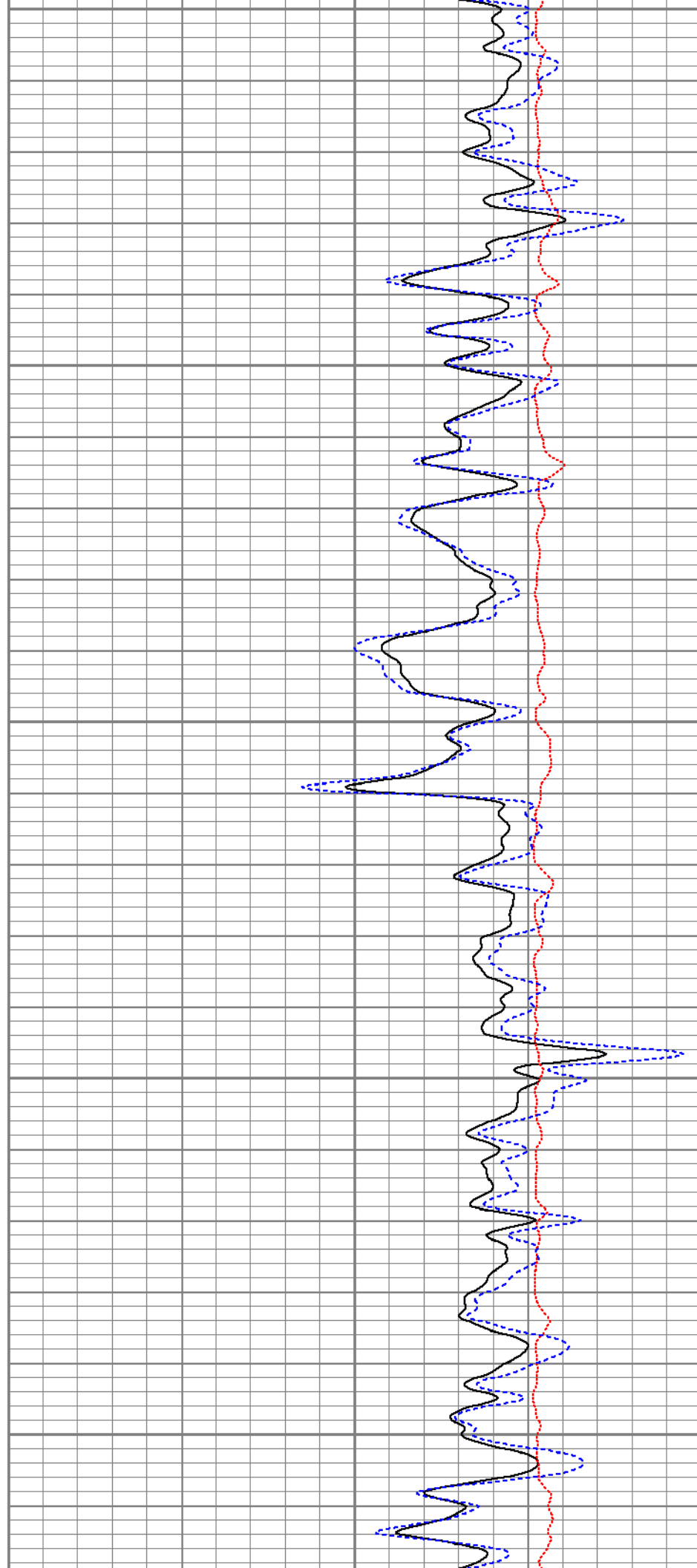
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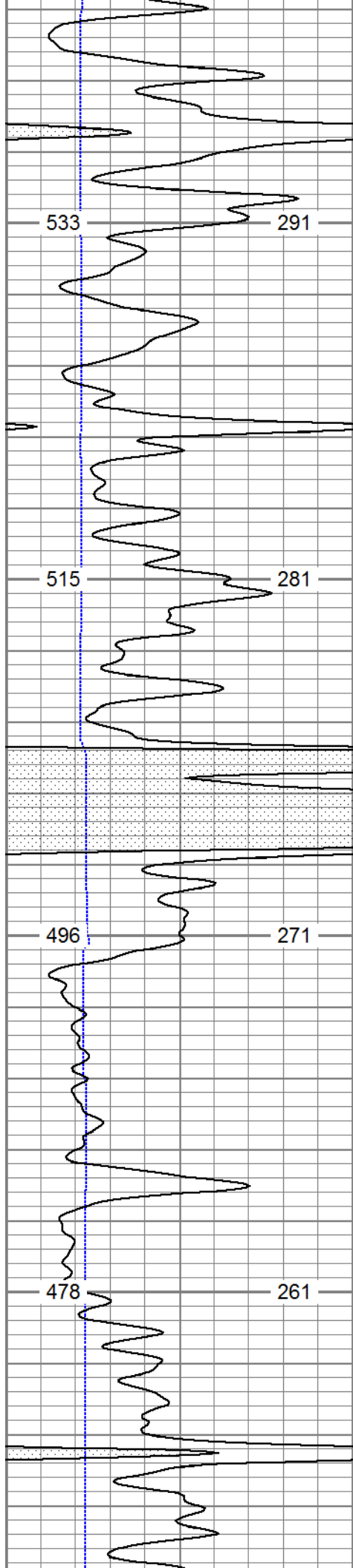
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6350
6400
6450
6500
6550



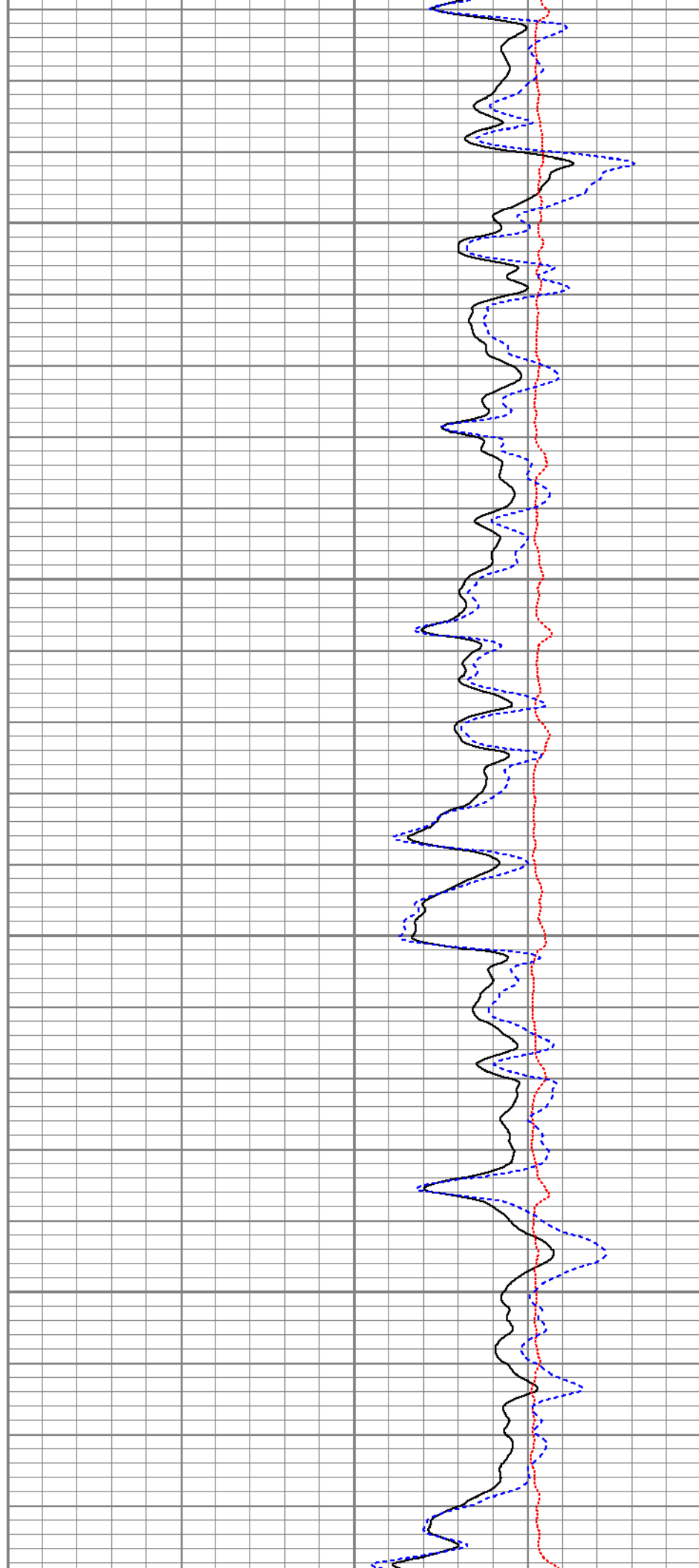


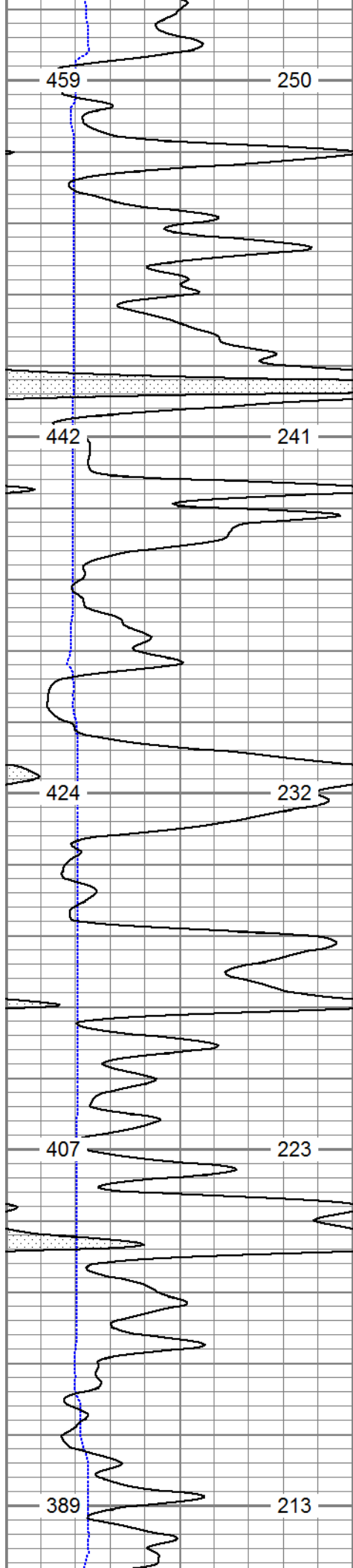
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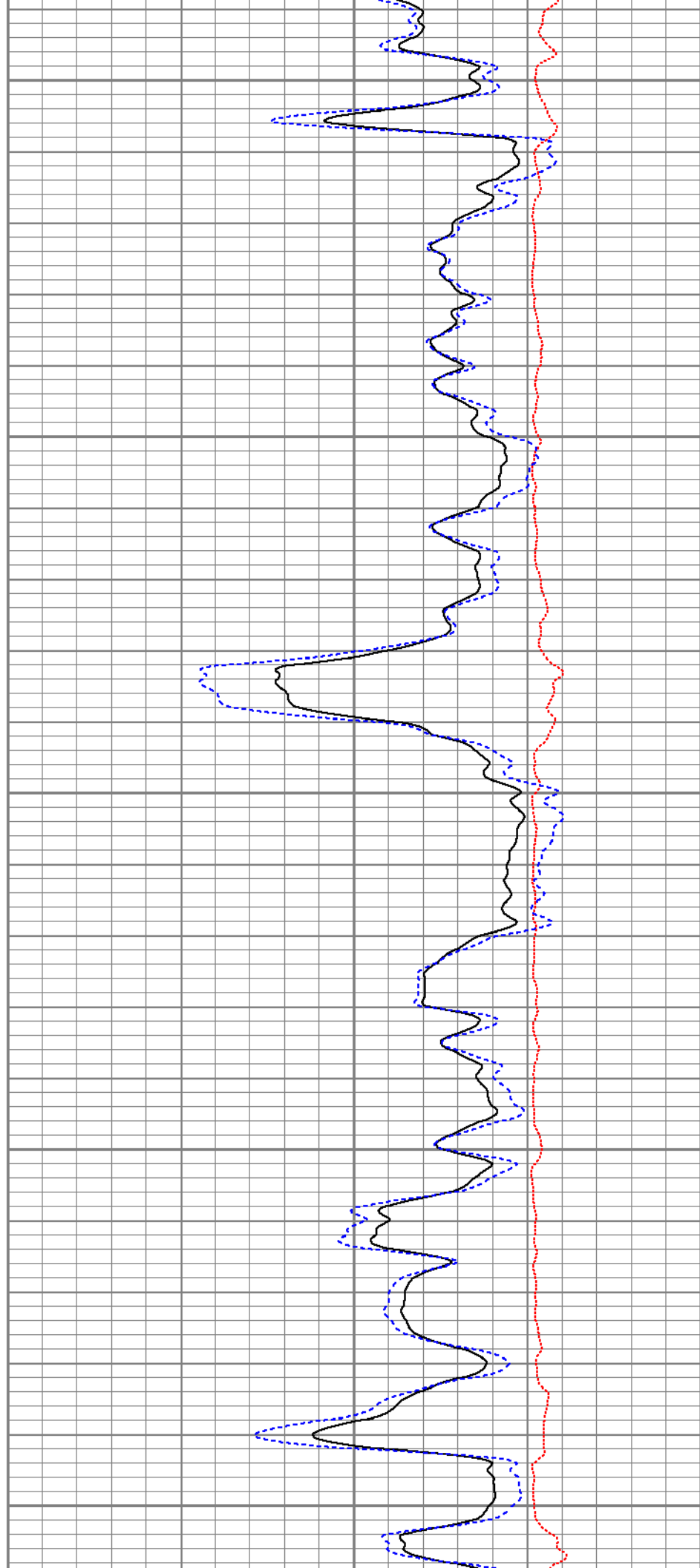
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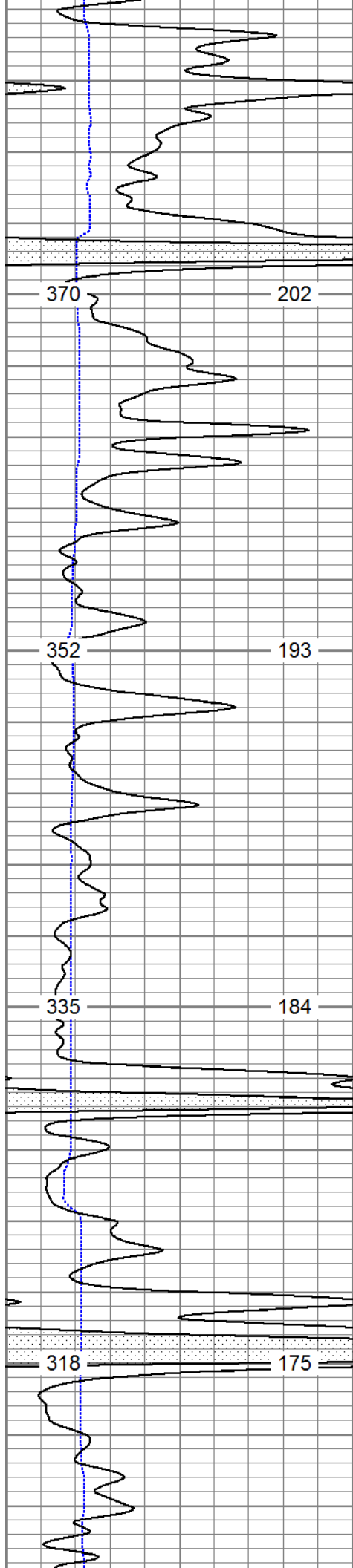
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6800
6850
6900
6950
7000



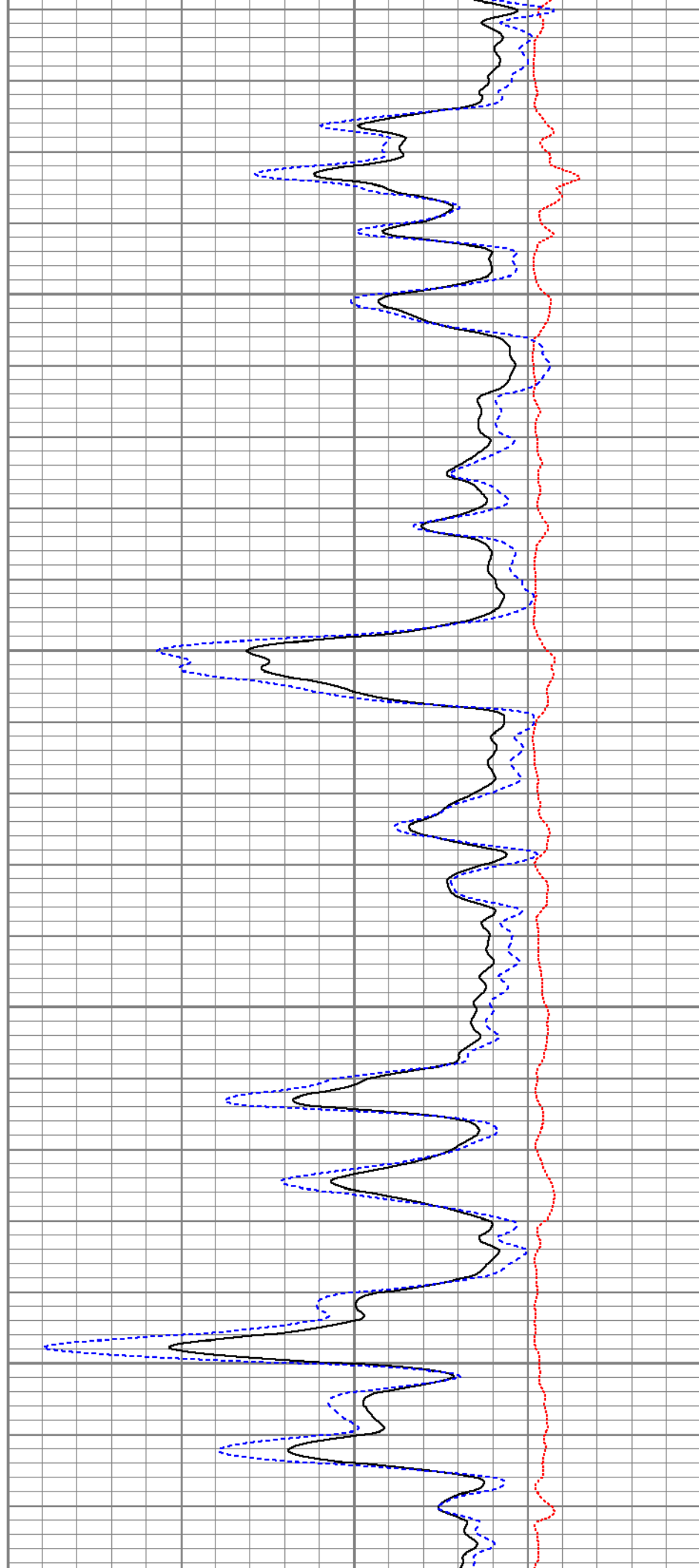


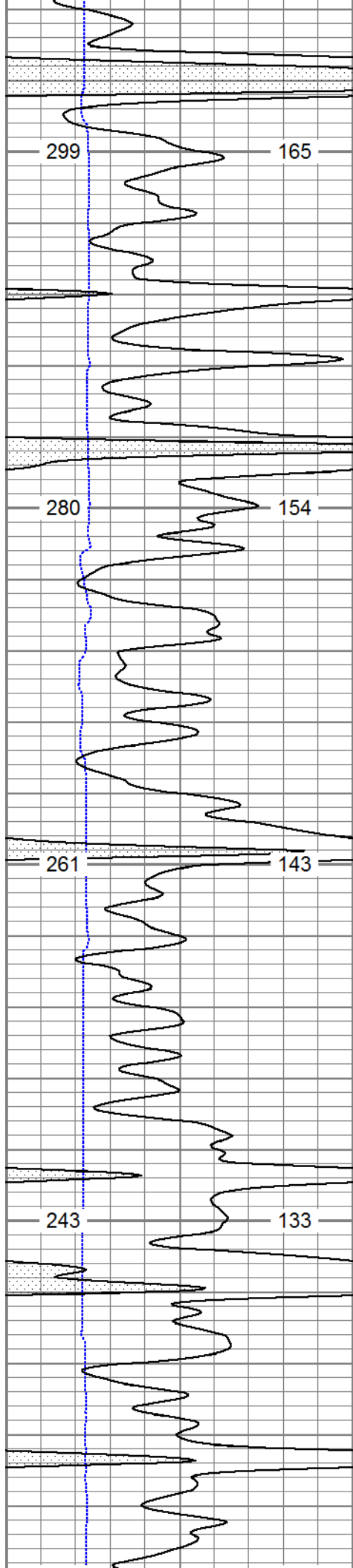
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7150

7200



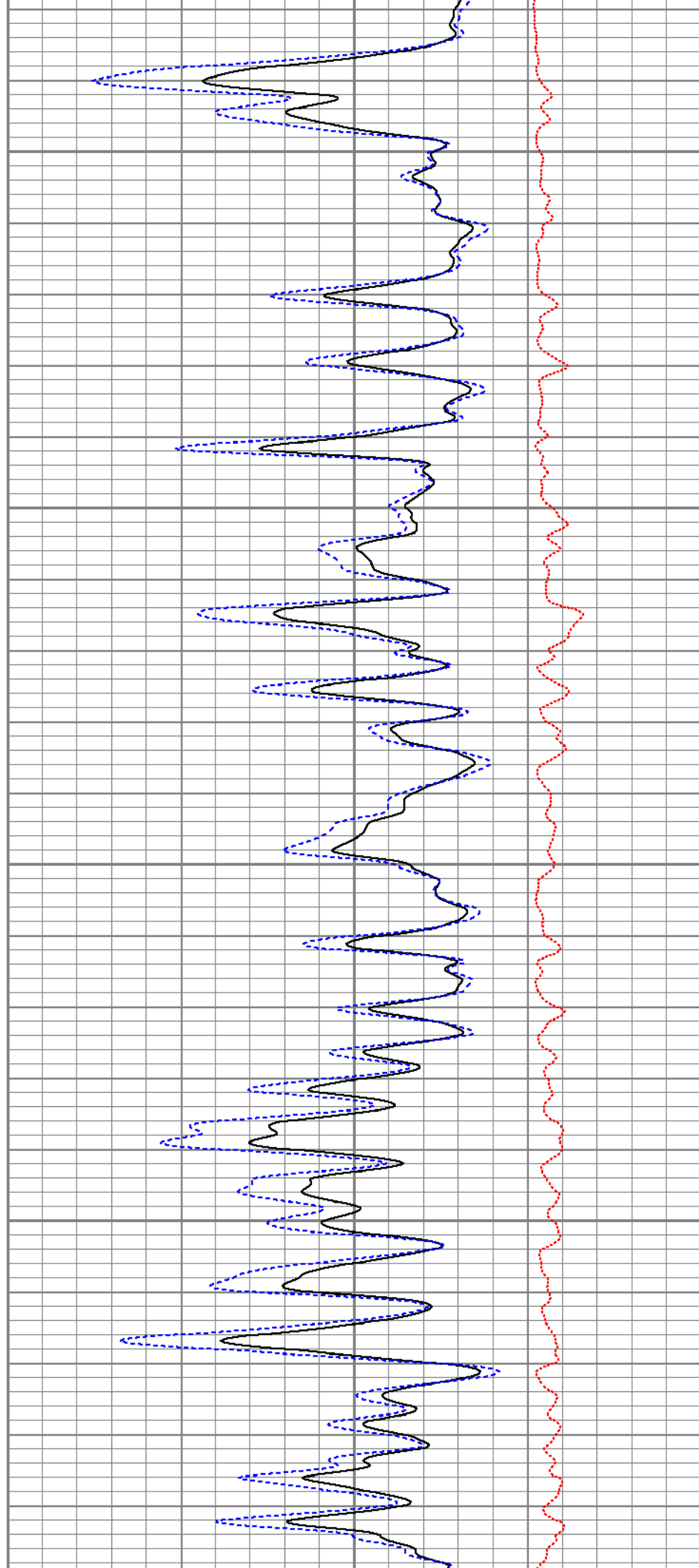


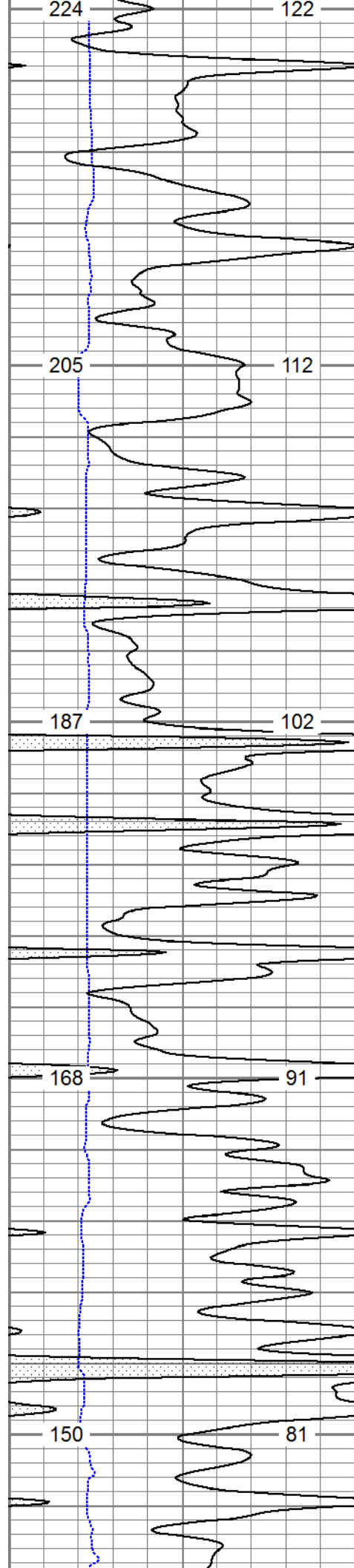
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7400





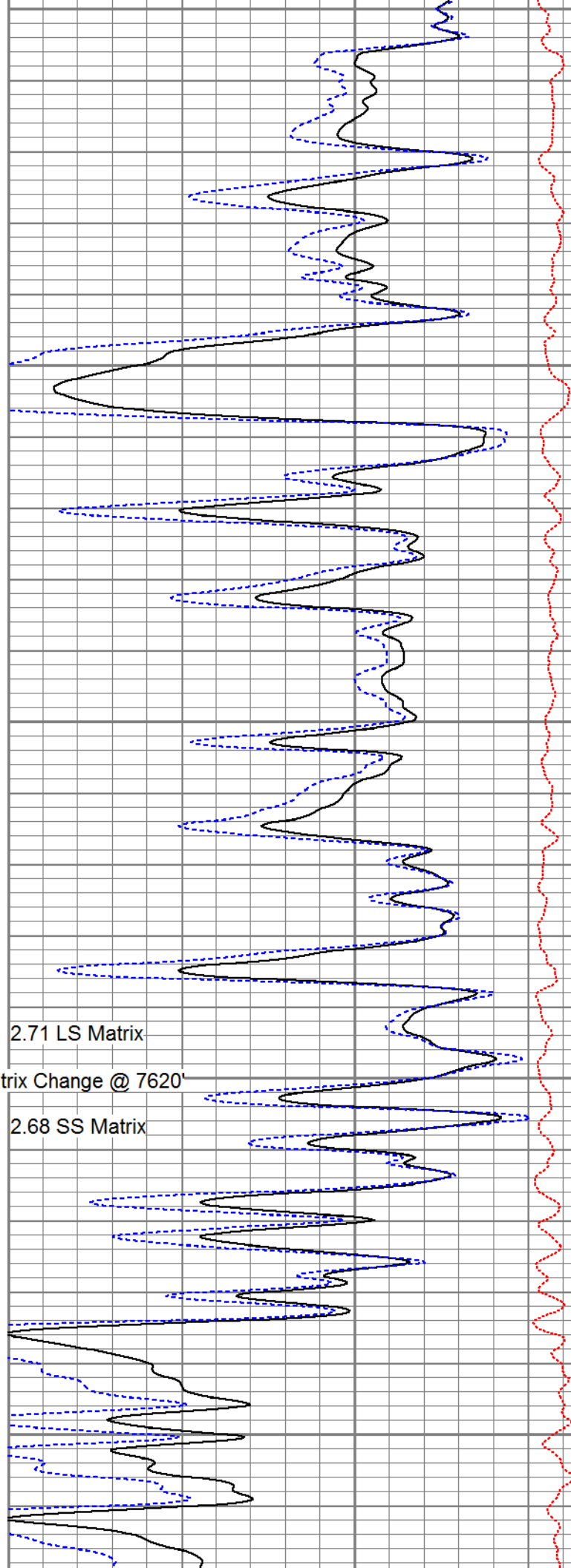
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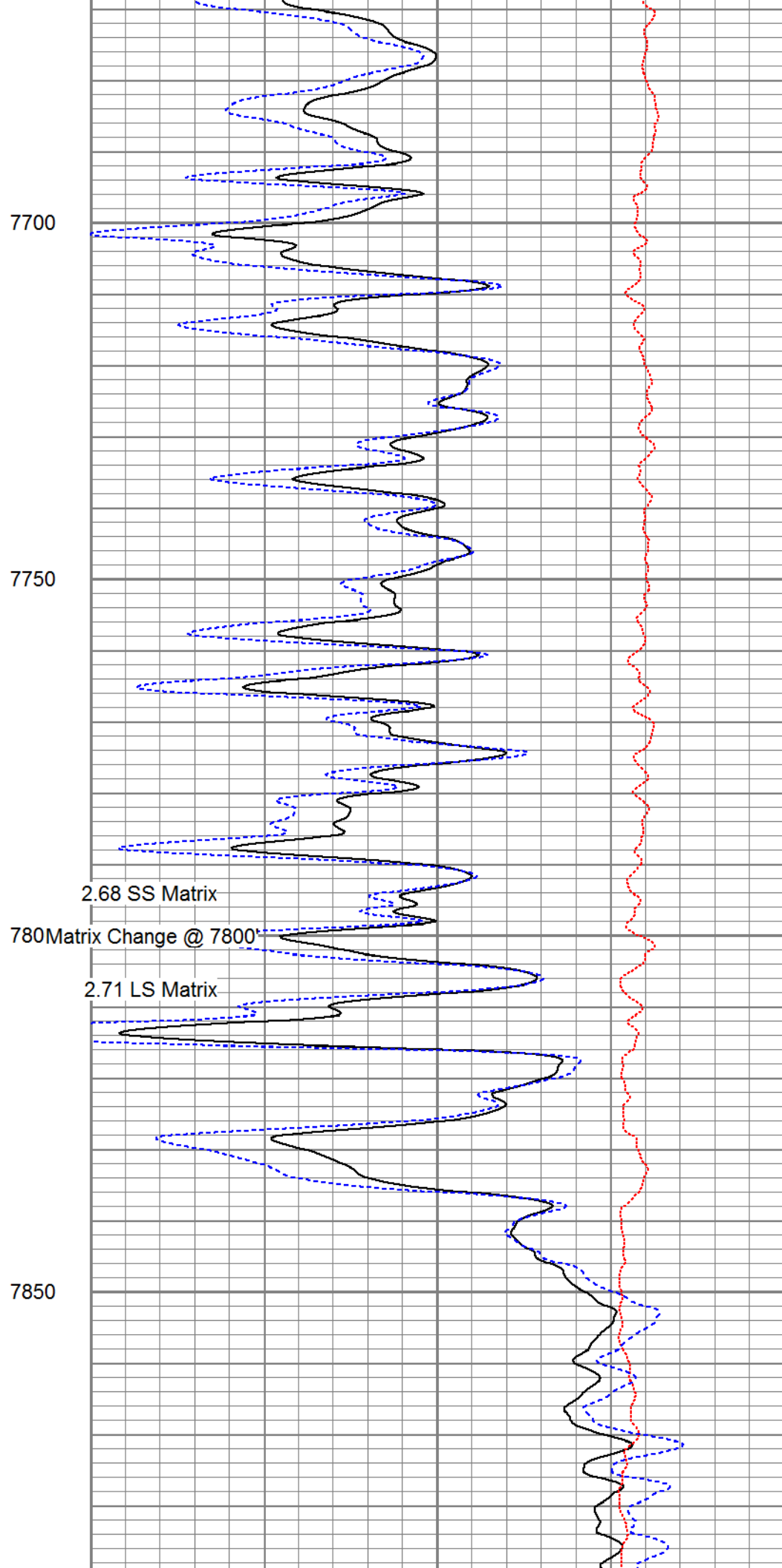
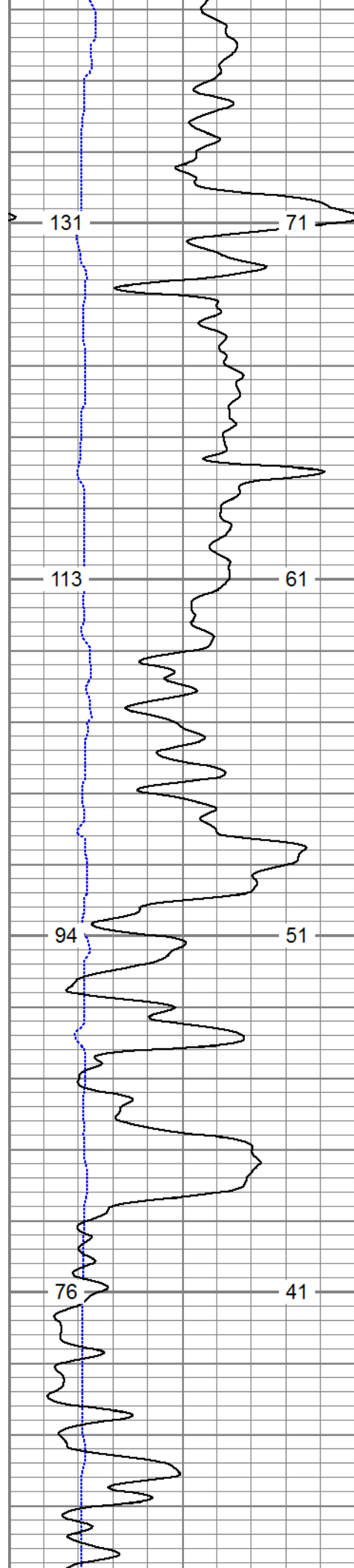
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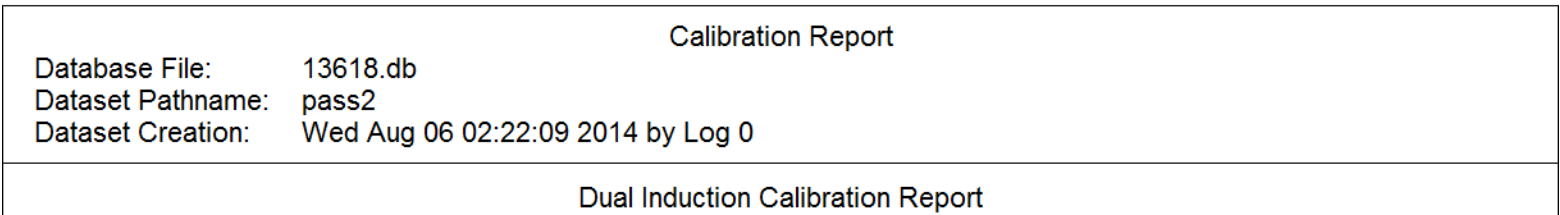
7550

7600

7650







Serial-Model: 1011-PSI
Surface Cal Performed:

		Readings		References		Results	
Loop:	Air	Loop		Air	Loop	m	b
Deep	0.000	1.000		0.000	1.000	mmho/m	0.510
Medium	0.000	1.000		0.000	1.000	mmho/m	-27.000

Compensated Density Calibration Report

Serial-Model: 998-PSI
Master Calibration Performed: Wed Aug 06 01:11:01 2014

Master Calibration

		Density		Far Detector	Near Detector	
Magnesium		1.750	g/cc	7210.00	9816.00	cps
Aluminum		2.690	g/cc	1326.00	6231.00	cps
		Size		Reading		
Small Ring			in			
Medium Ring			in			
Large Ring			in			

Compensated Neutron Calibration Report

Serial Number: 826
Tool Model: PSI

CALIBRATION

Detector	Readings		Target		Normalization
Short Space	1.00	cps	1.00	cps	1.9000
Long Space	1.00	cps	1.00	cps	2.0900

Gamma Ray Calibration Report

Serial Number: 939
Tool Model: PSI
Performed: Wed Aug 06 01:11:14 2014

Calibrator Value: 1.0 GAPI

Background Reading: 0.0 cps
Calibrator Reading: 1.0 cps

Sensitivity: 0.6200 GAPI/cps