



SUPERIOR
WELL SERVICES
Black Lick, Pa.
Mercer, Pa.
Wooster, Oh.
Cleveland, Ok.
Trinidad, Co.

COMPENSATED DENSITY NEUTRON LOG

Company XTO Energy Inc.
Well Hill Ranch East 23-07
Field Purgatoire River
County Las Animas State Colorado

Location: API #: 05 071 09448 00

1364' FNL & 2623' FEL

SEC 23 TWP 34S RGE 67W

DIL

Permanent Datum Ground Level Elevation 7844'
Log Measured From Ground Level
Drilling Measured From Ground Level

Elevation
K.B. -----
D.F. -----
G.L. 7844'

Date 4-15-08

Run Number One

Depth Driller 2550'

Depth Logger 2547'

Bottom Logged Interval 2524'

Top Log Interval Surface Casing

Casing Driller 8 5/8" @ 486'

Casing Logger 488'

Bit Size 7 7/8"

Type Fluid in Hole Water

Density / Viscosity ///

pH / Fluid Loss ///

Source of Sample ///

Rm @ Meas. Temp ///

Rmf @ Meas. Temp ///

Rmc @ Meas. Temp ///

Source of Rmf / Rmc ///

Rm @ BHT ///

Time Circulation Stopped 6:00 P.M.

Time Logger on Bottom 8:35 P.M.

Maximum Recorded Temperature 118 DEG F

Equipment Number T697

Location Trinidad

Recorded By J. Cappellucci

Witnessed By Mr. Don Johnson

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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.

Comments

Neutron Density Porosity Presented On Sandstone Matrix.
ABHV Calculated For 5 1/2" Casing.

Well Directions:

Lorencito, 2.2 miles past Compressor station take right,
at next Y stay right up hill, At top of hill take hard left,
take third left, third drive through location is HRE 23-07.

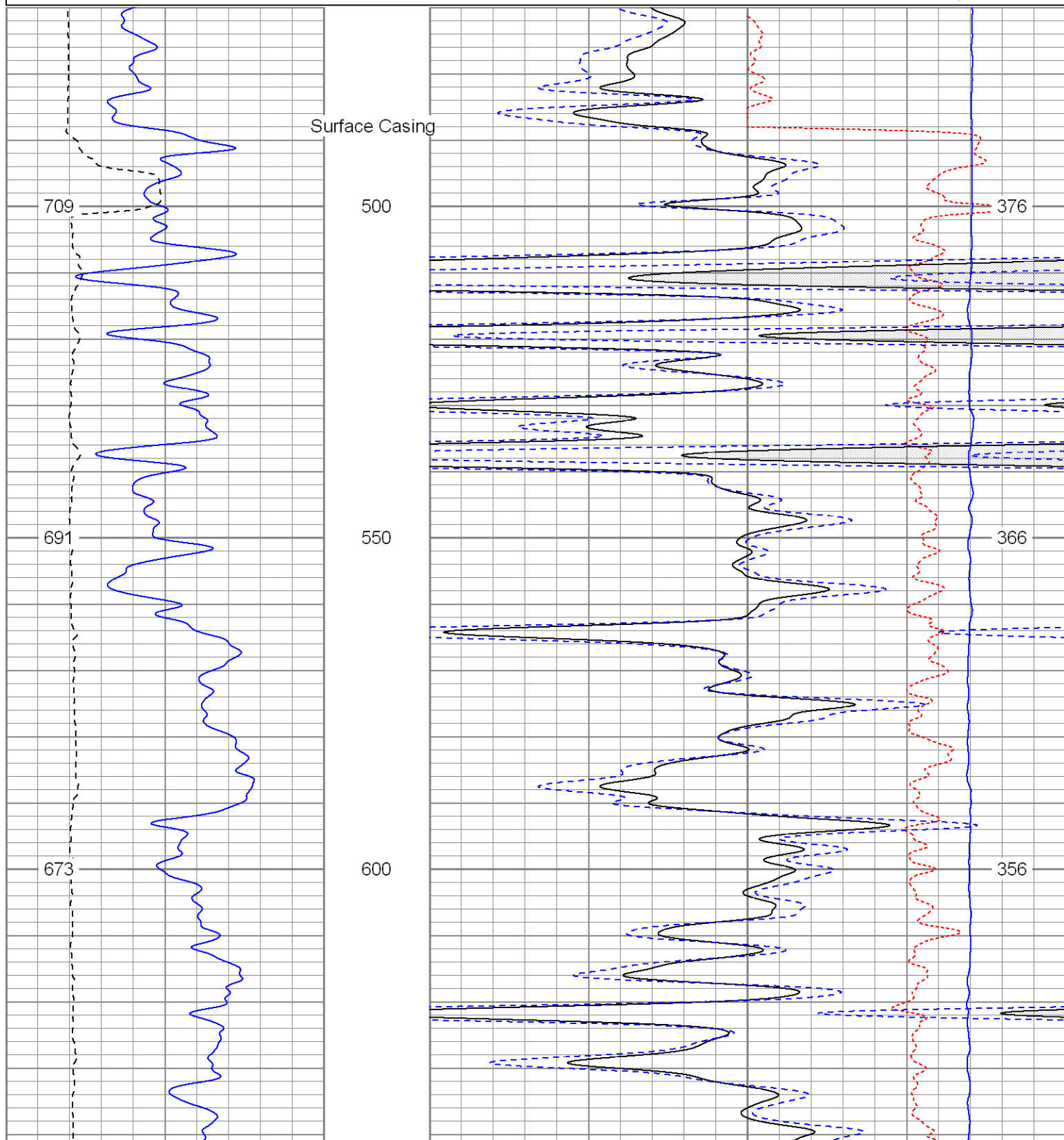


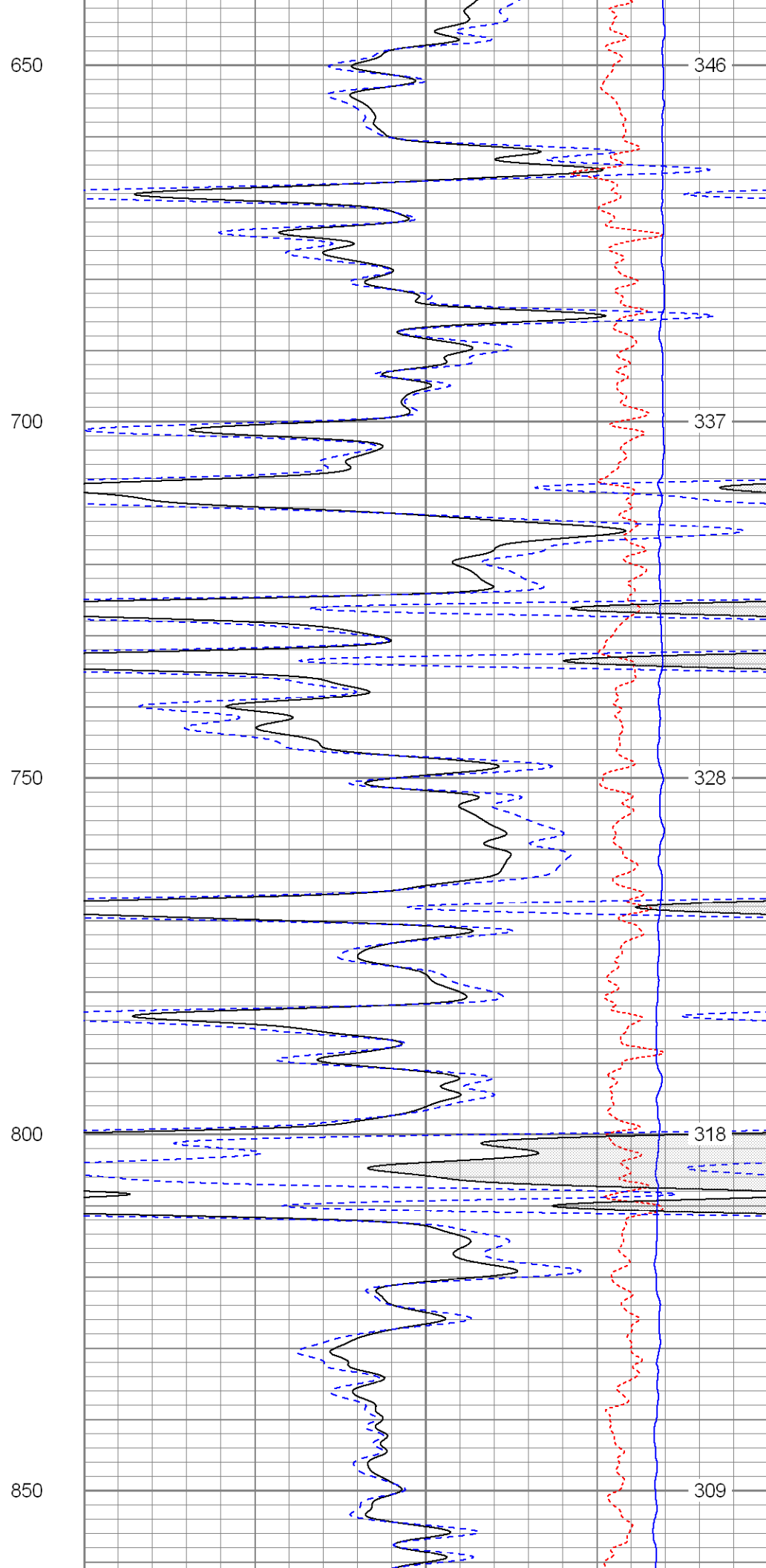
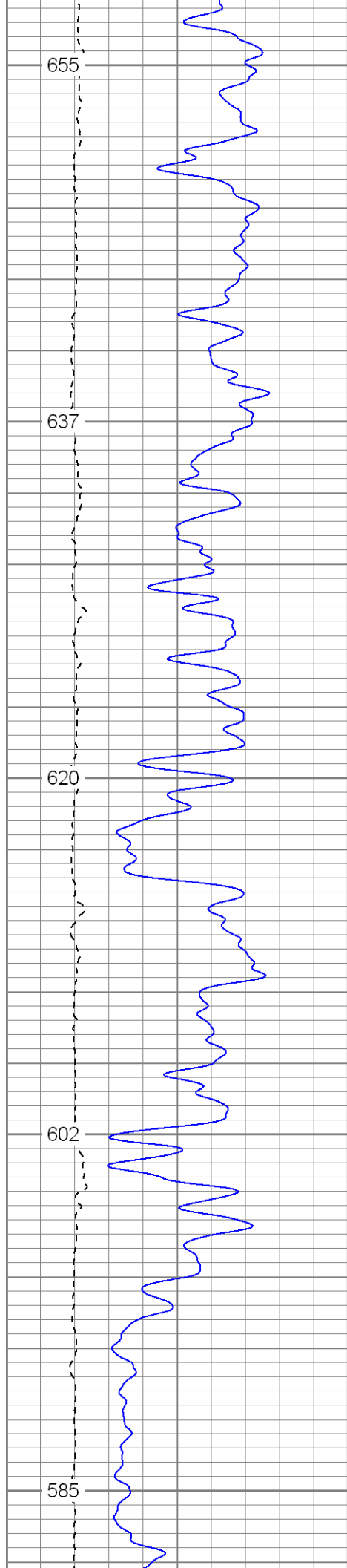
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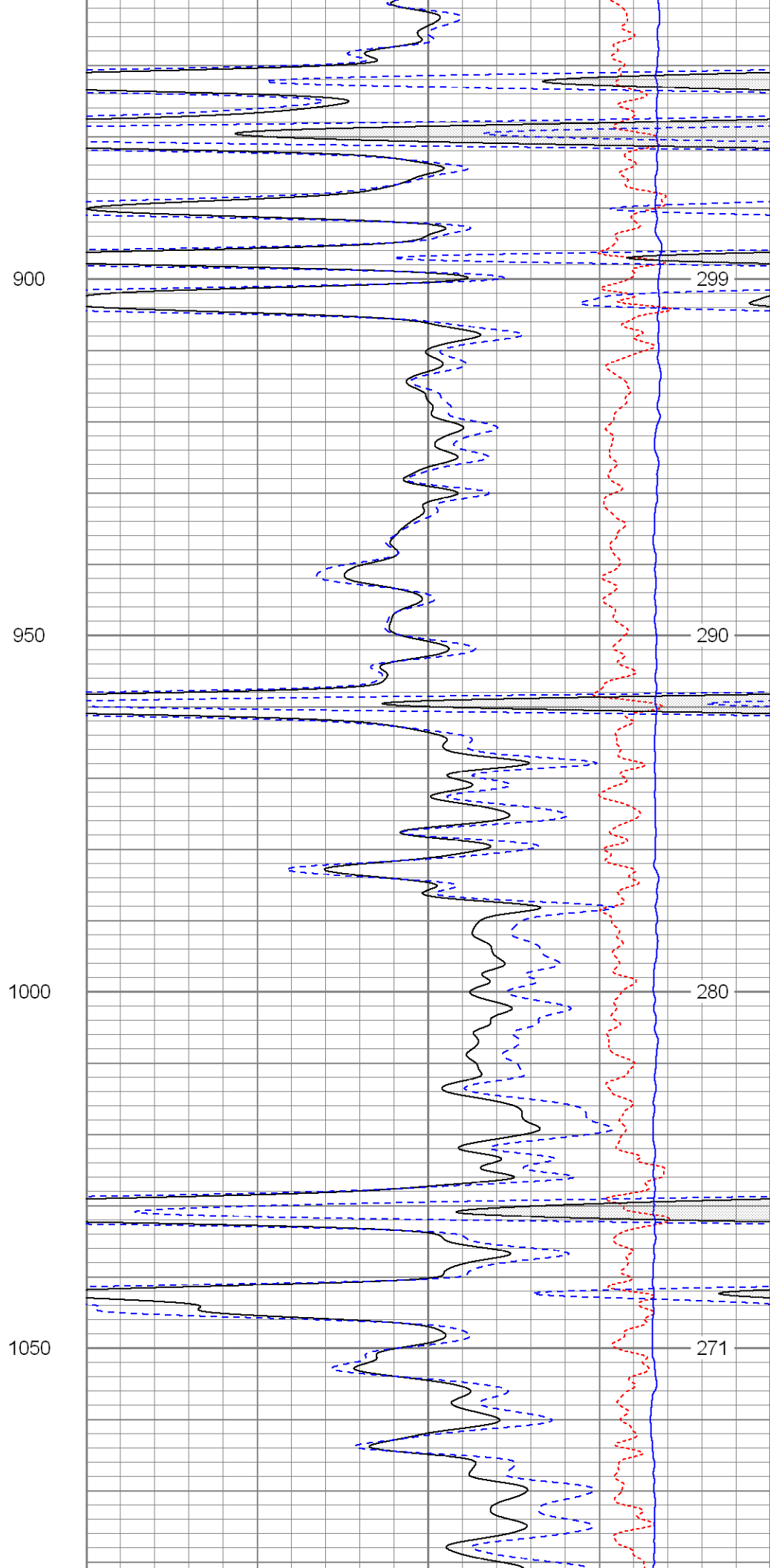
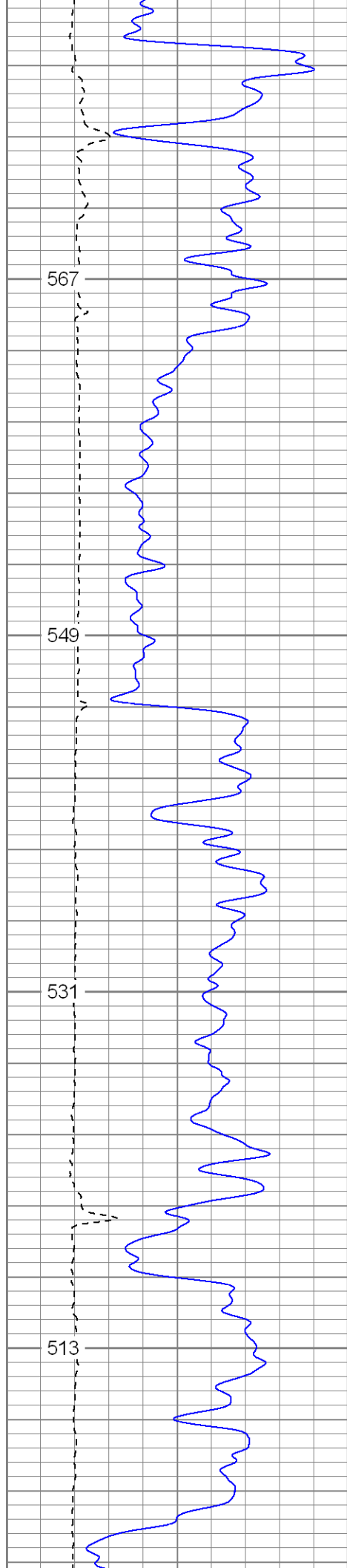
Main Pass

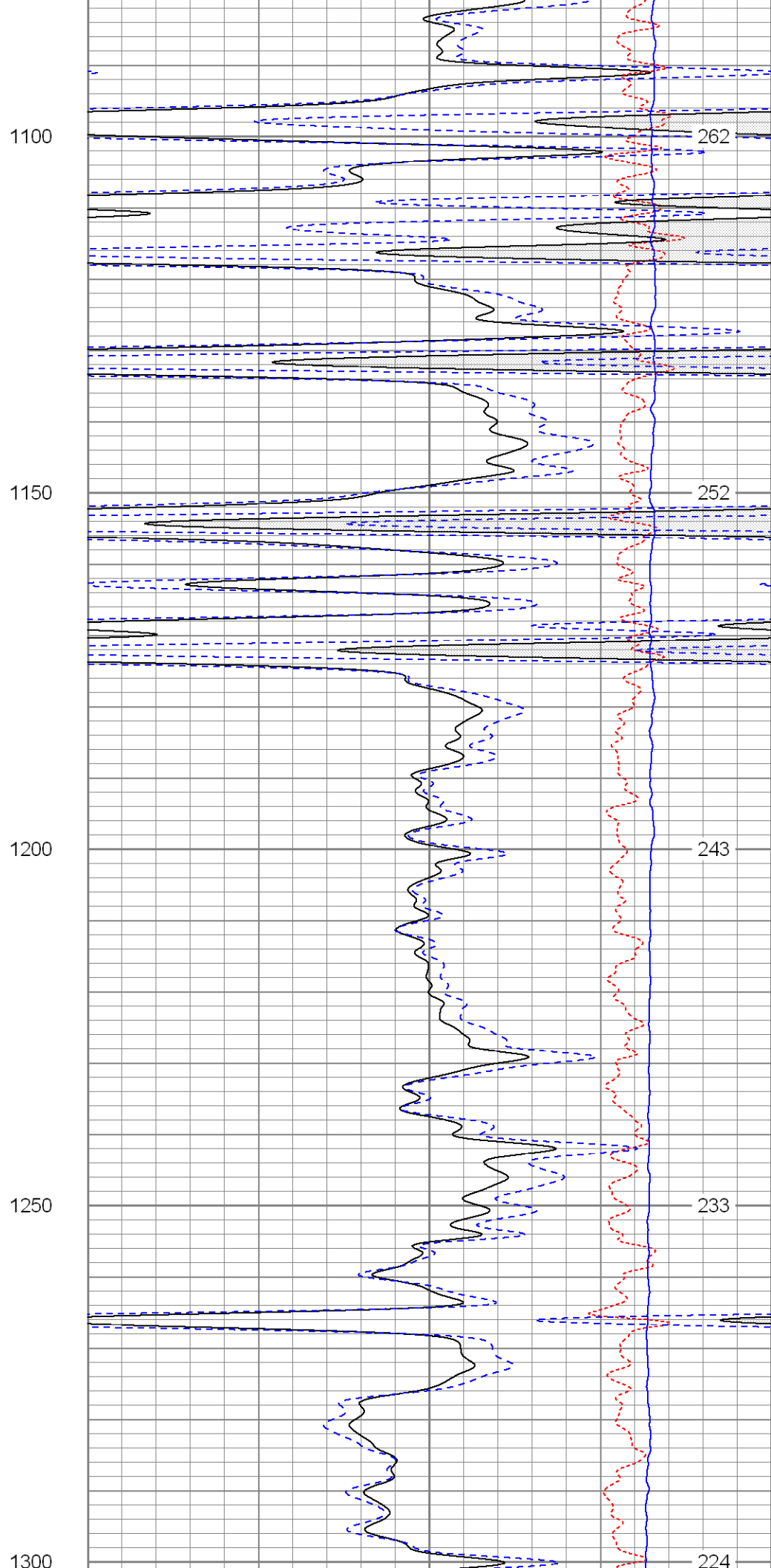
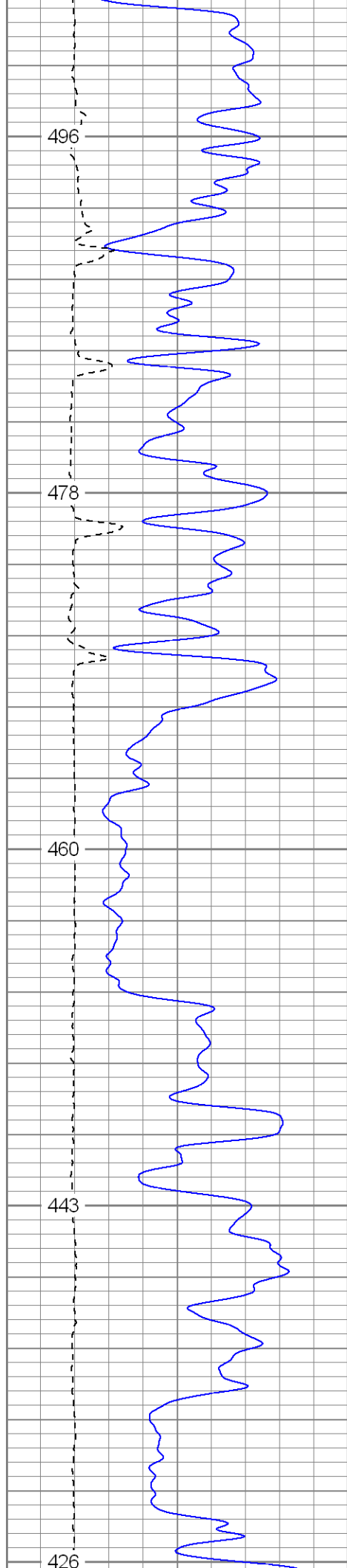
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Charted by: Depth in Feet scaled 1:240

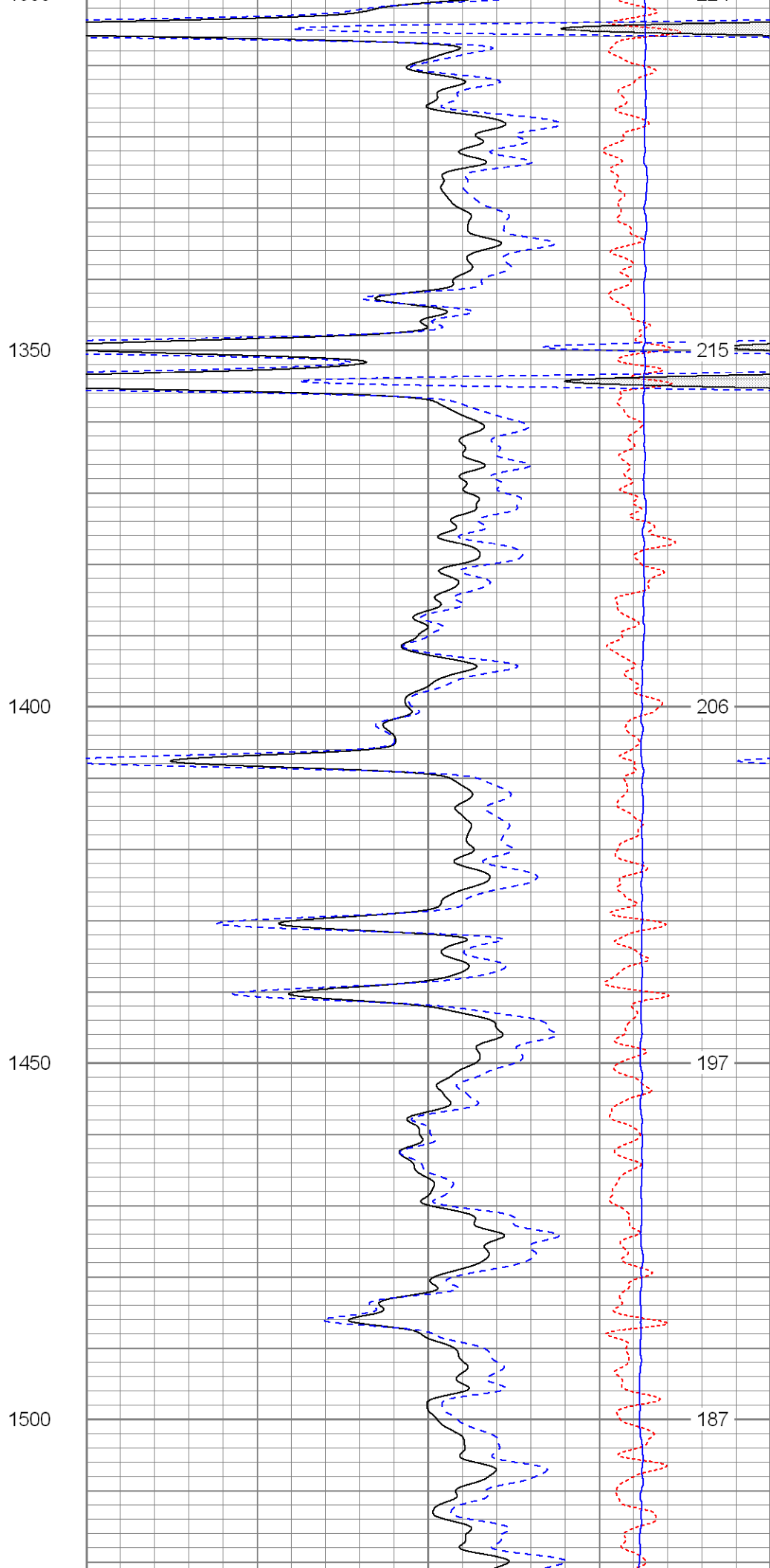
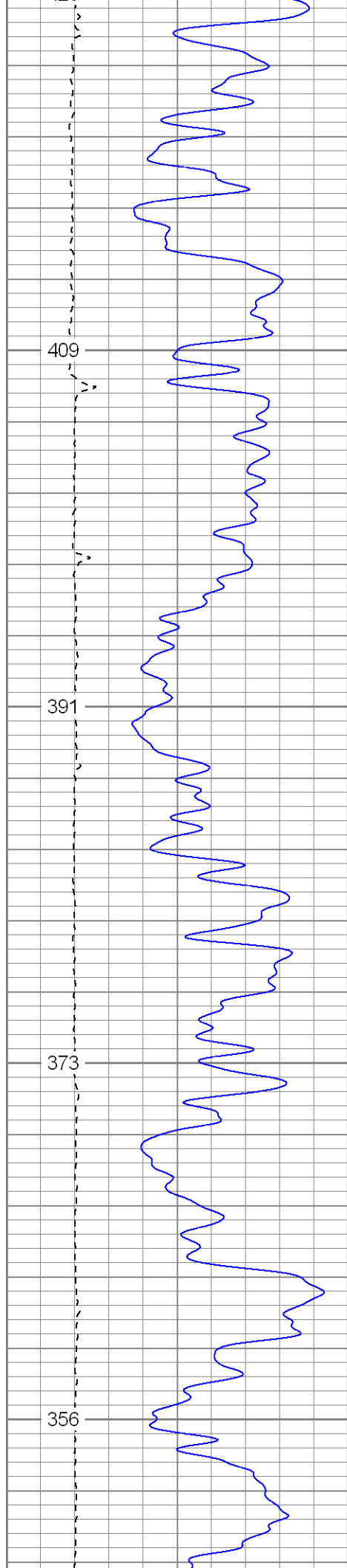
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6	DCAL (in)	16	1	RHOB (g/cc)		2
TBHV (ft3)			30	DPOR (pu)		-10
				-0.5	RHOC (g/cc)	0.5
				4000	LTEN (lb)	0
			ABHV (ft3)			

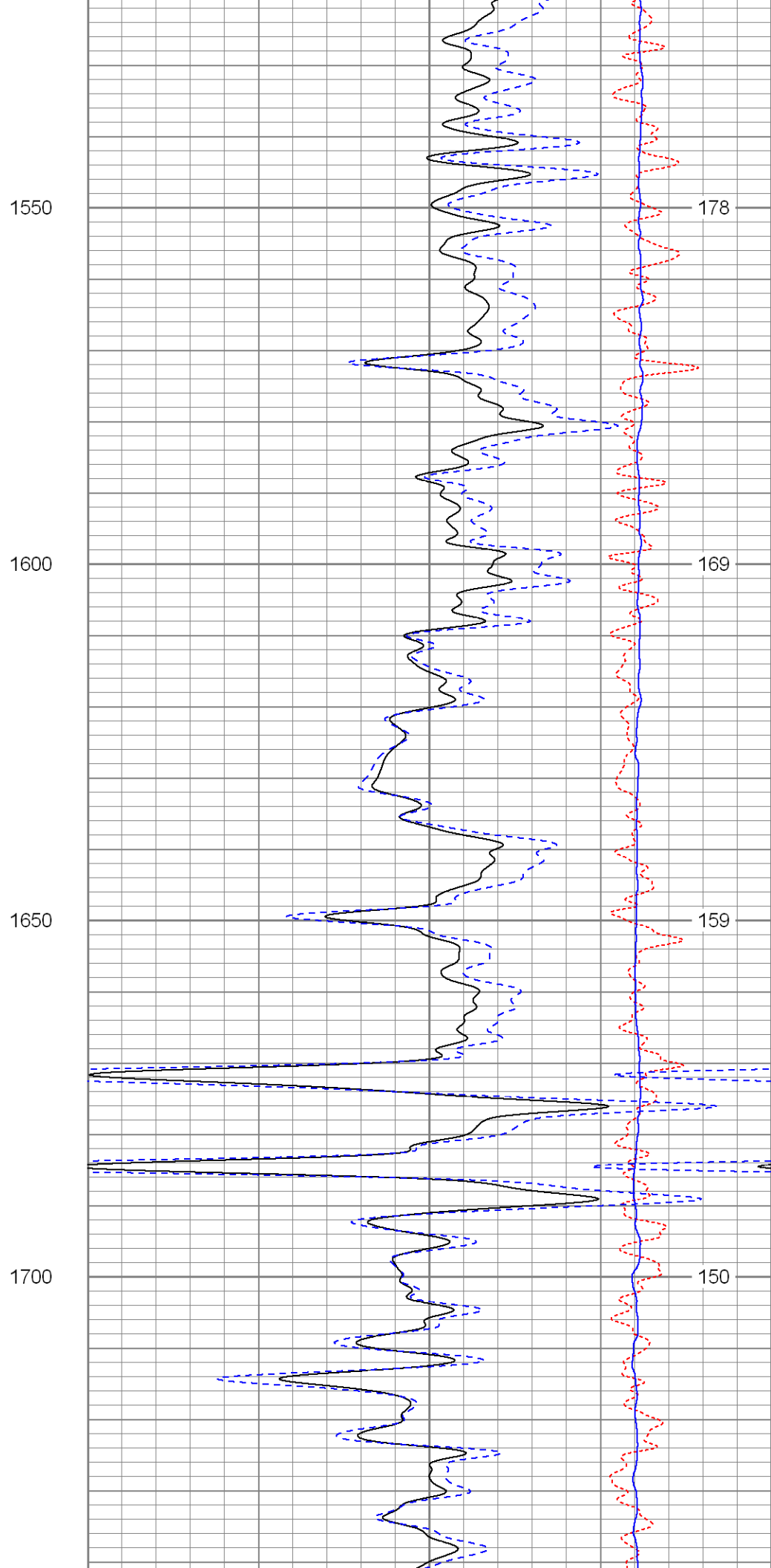
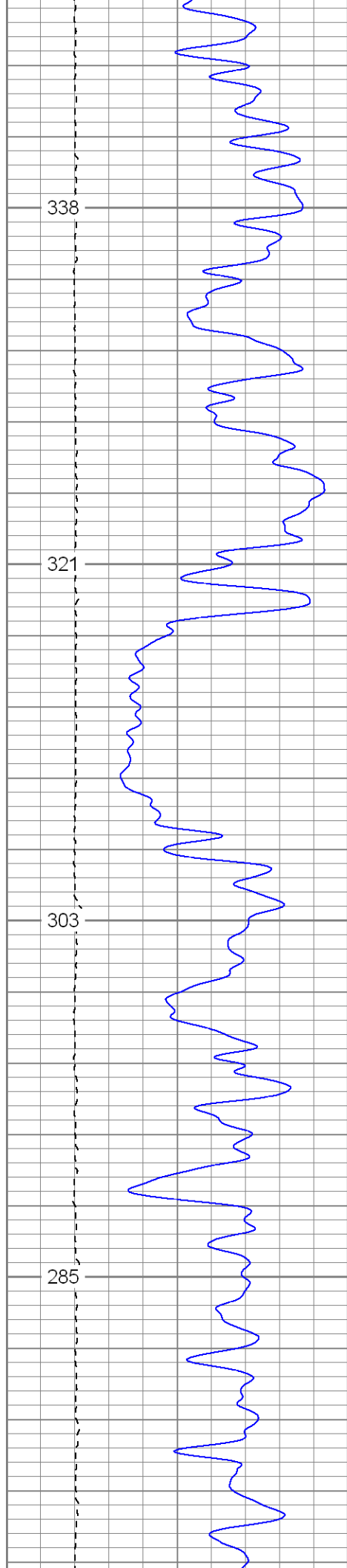


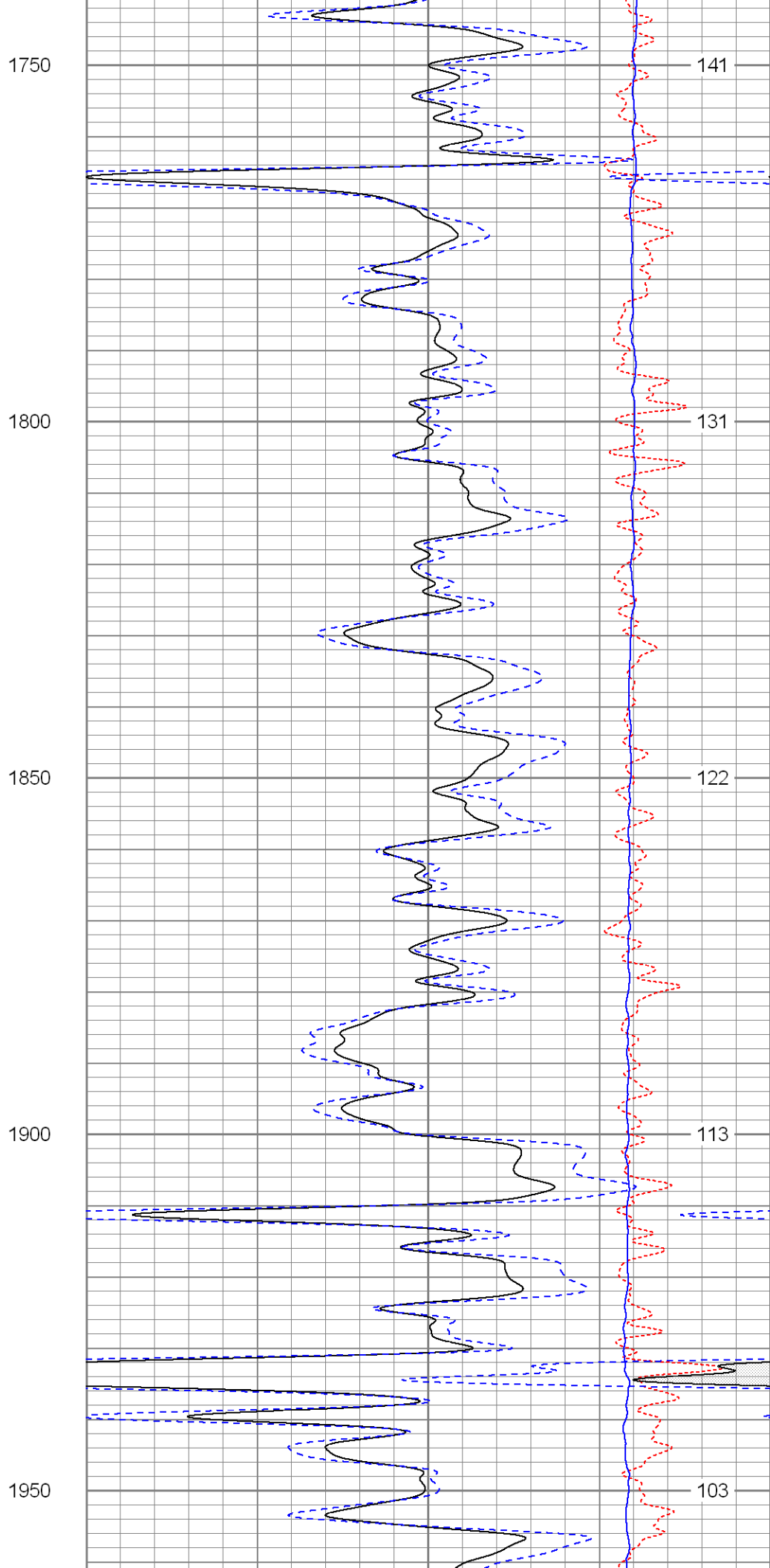
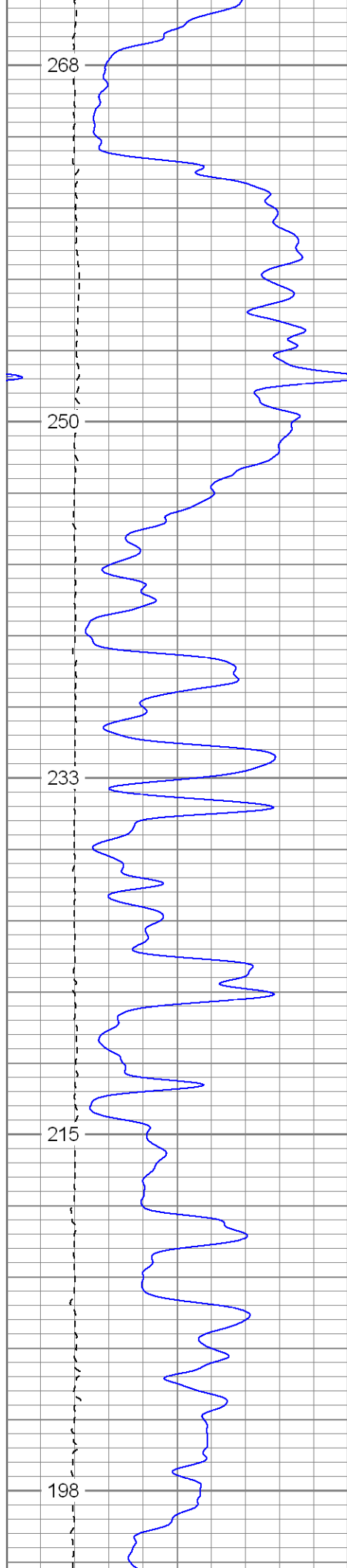


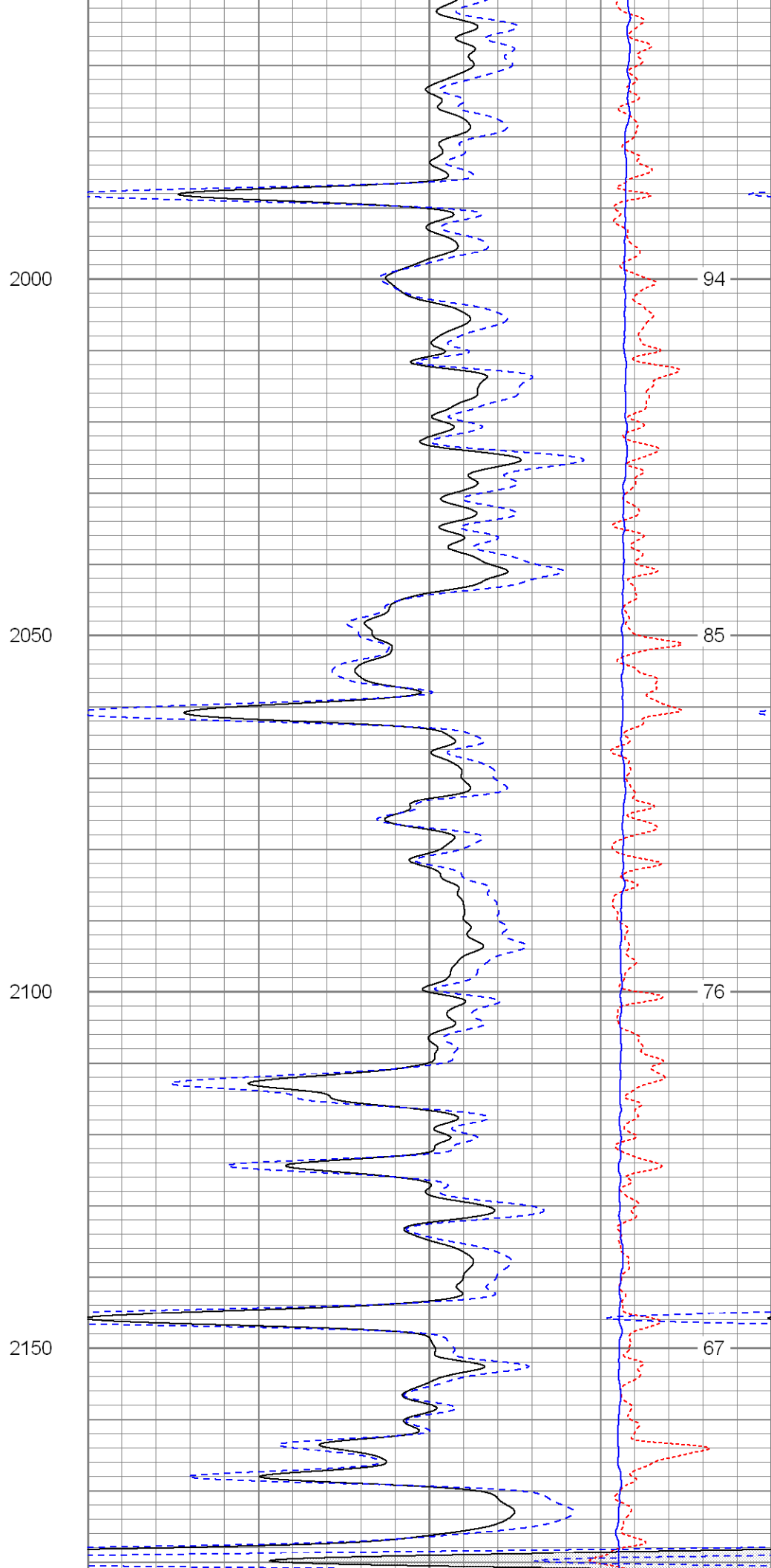
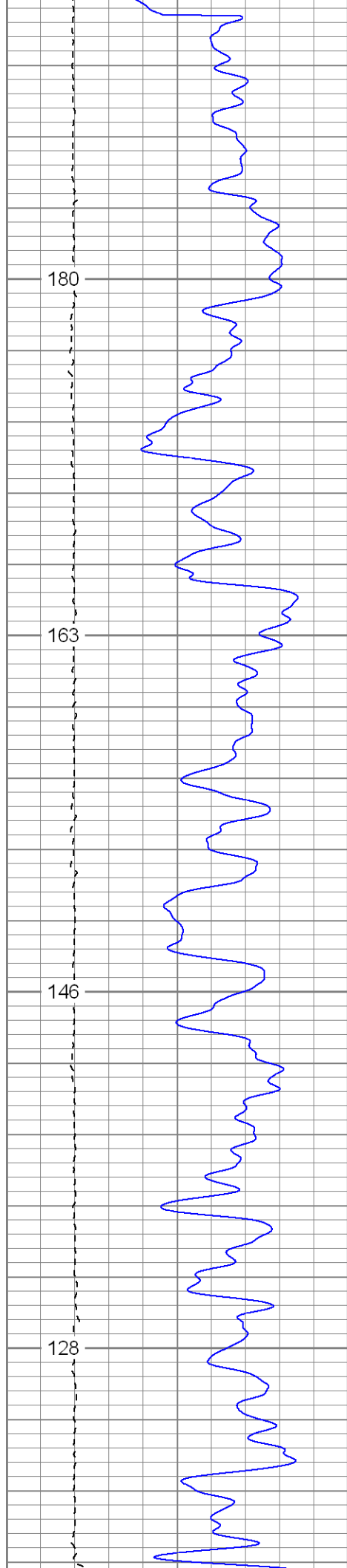


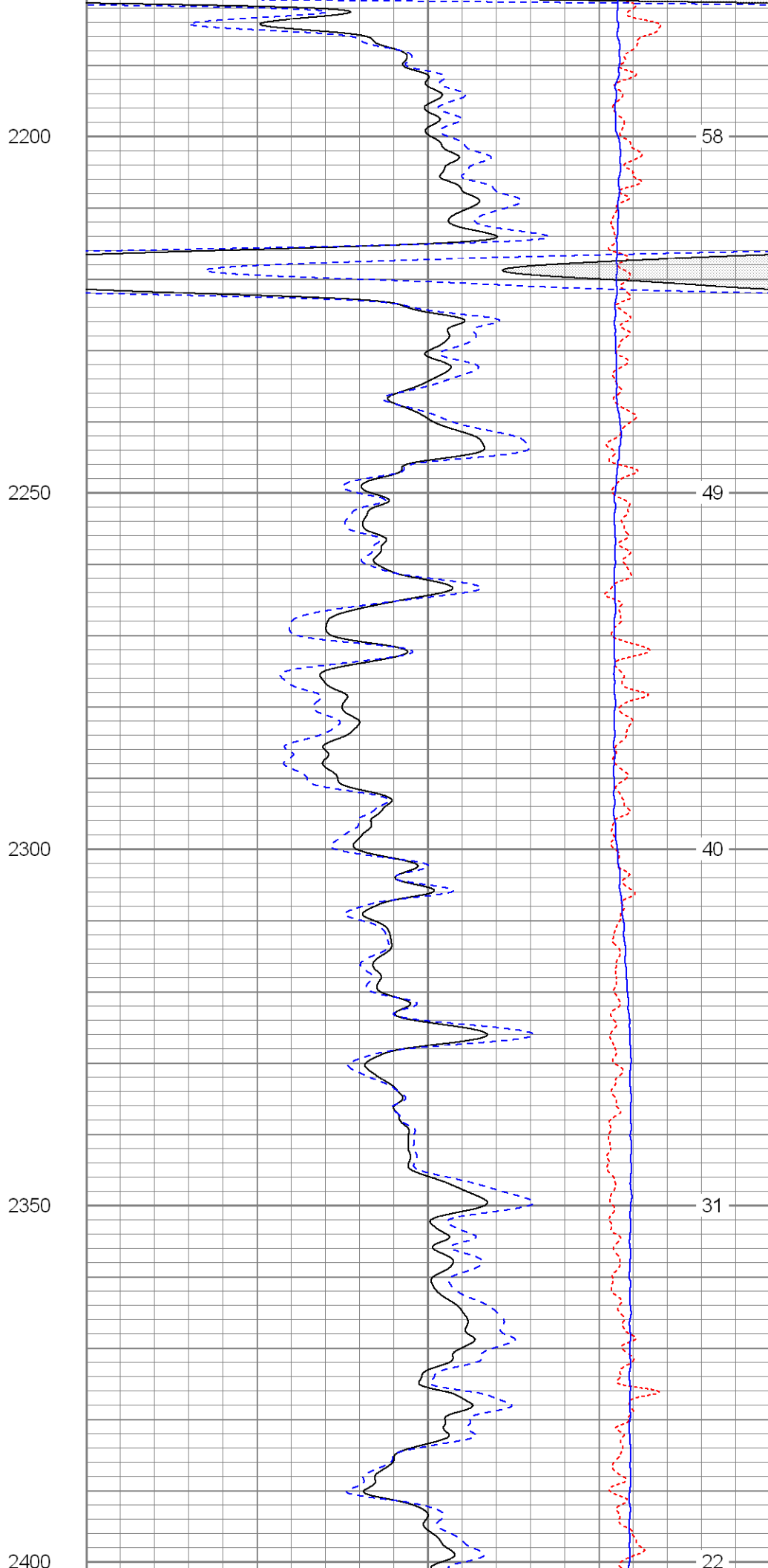
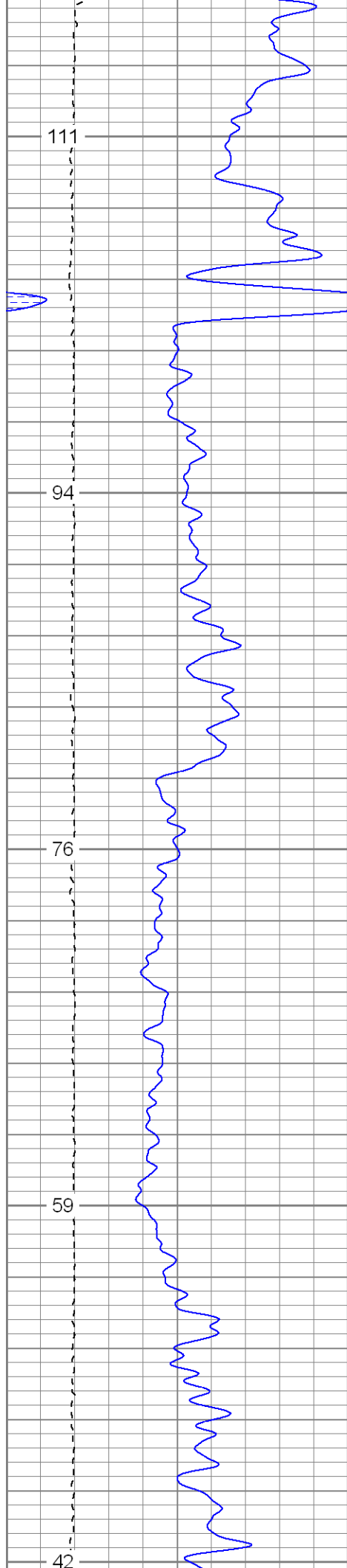


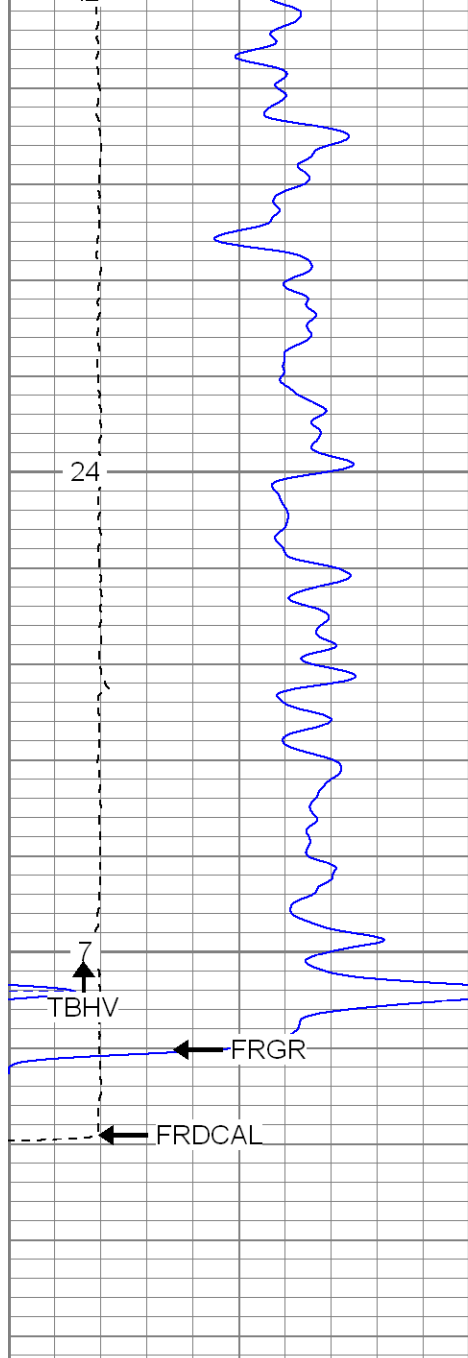




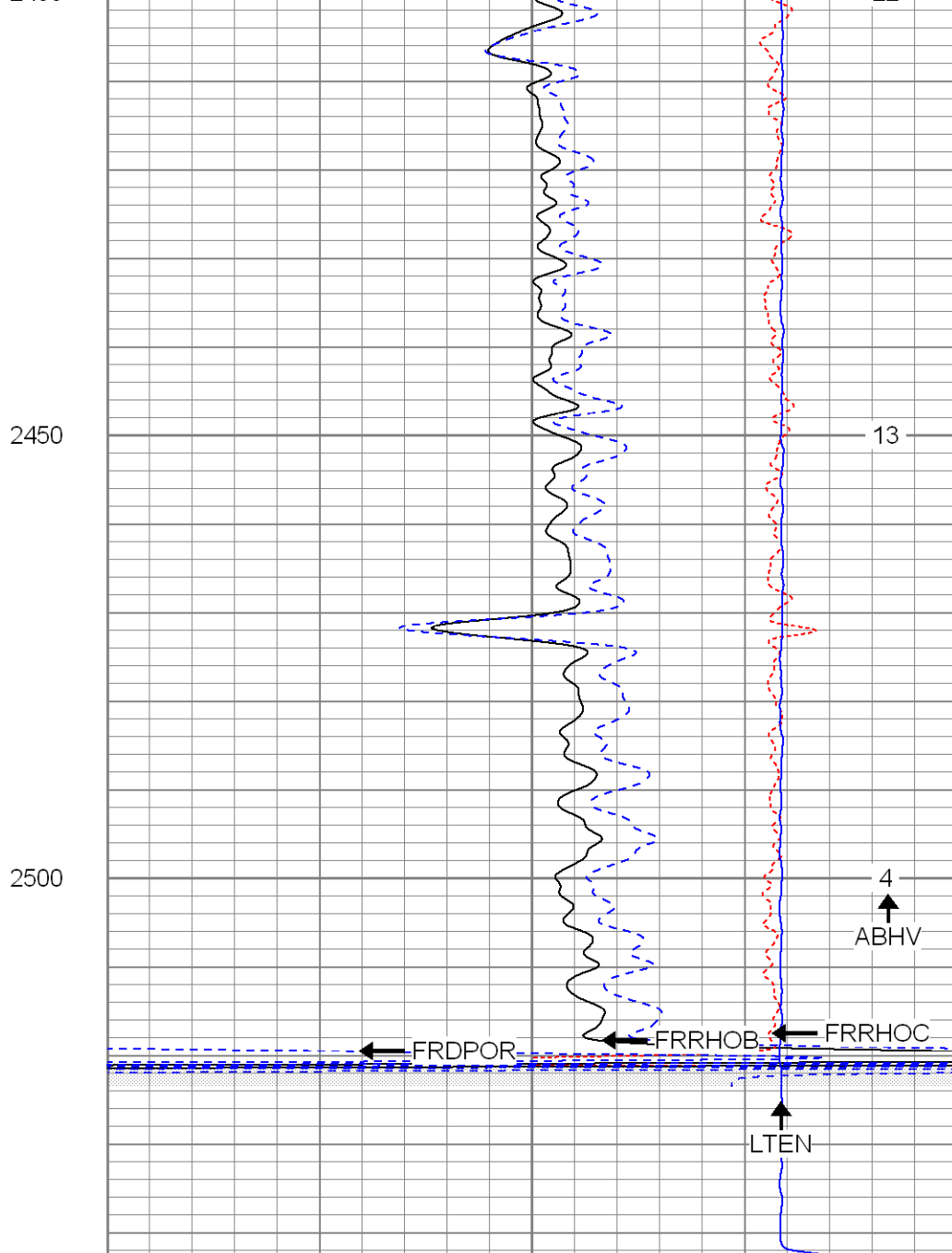








0	GR (GAPI)	200
6	DCAL (in)	16
TBHV (ft3)		



2	RHOB (g/cc)	3
1	RHOA (g/cc)	2
30	DPOR (pu)	-10
-0.5	RHOA (g/cc)	0.5
4000	LTEN (lb)	0
ABHV (ft3)		



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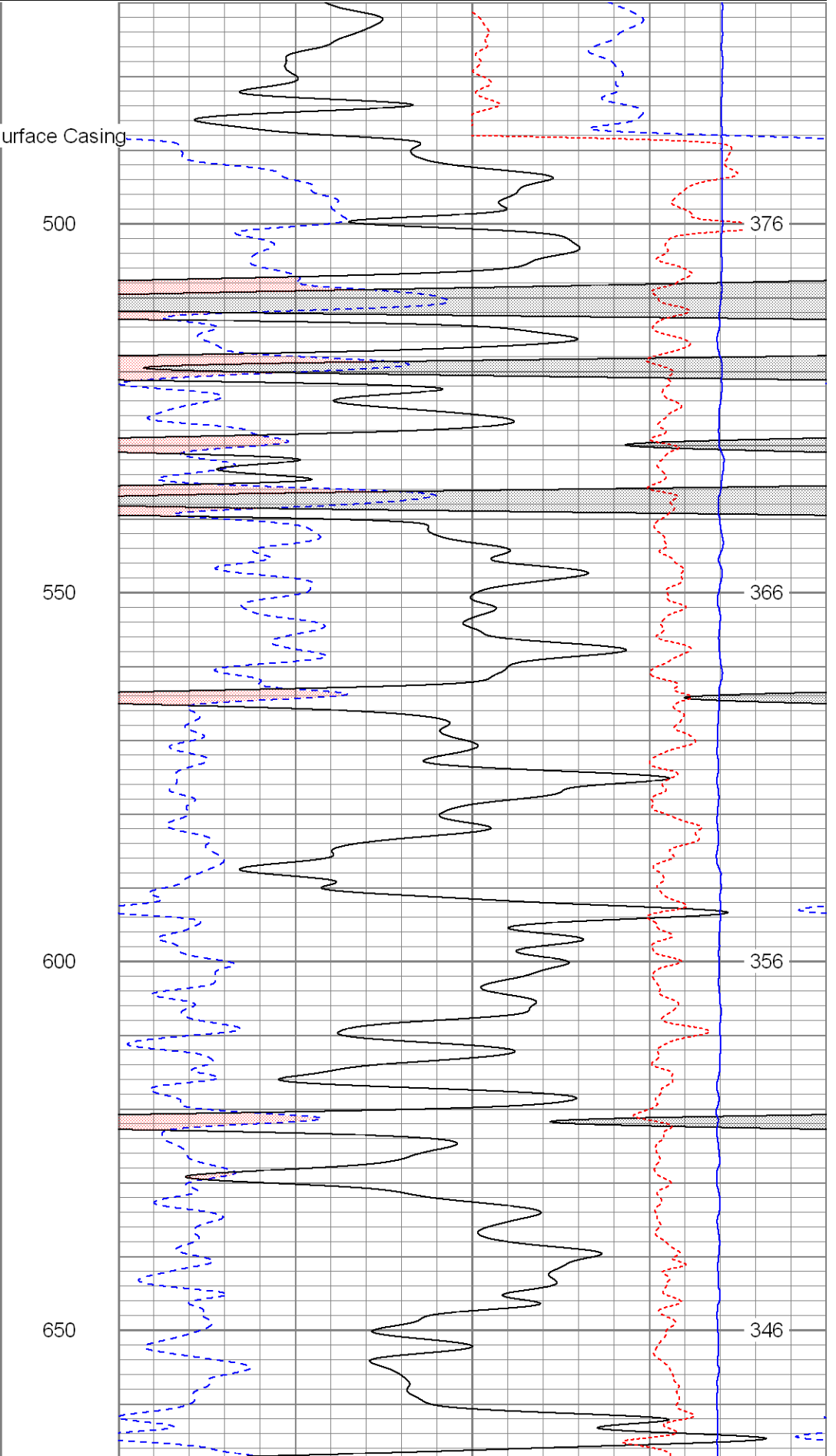
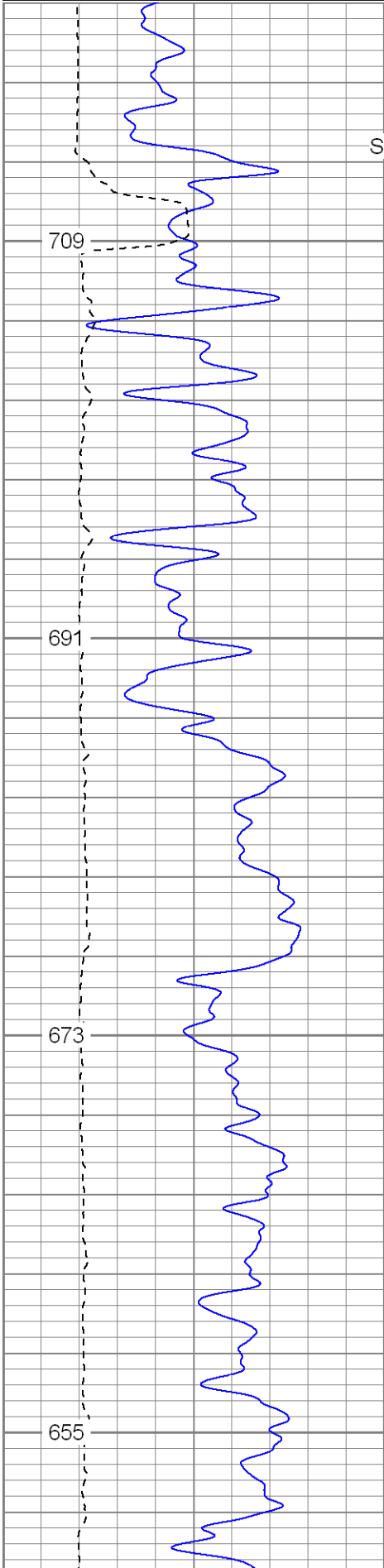
Main Pass

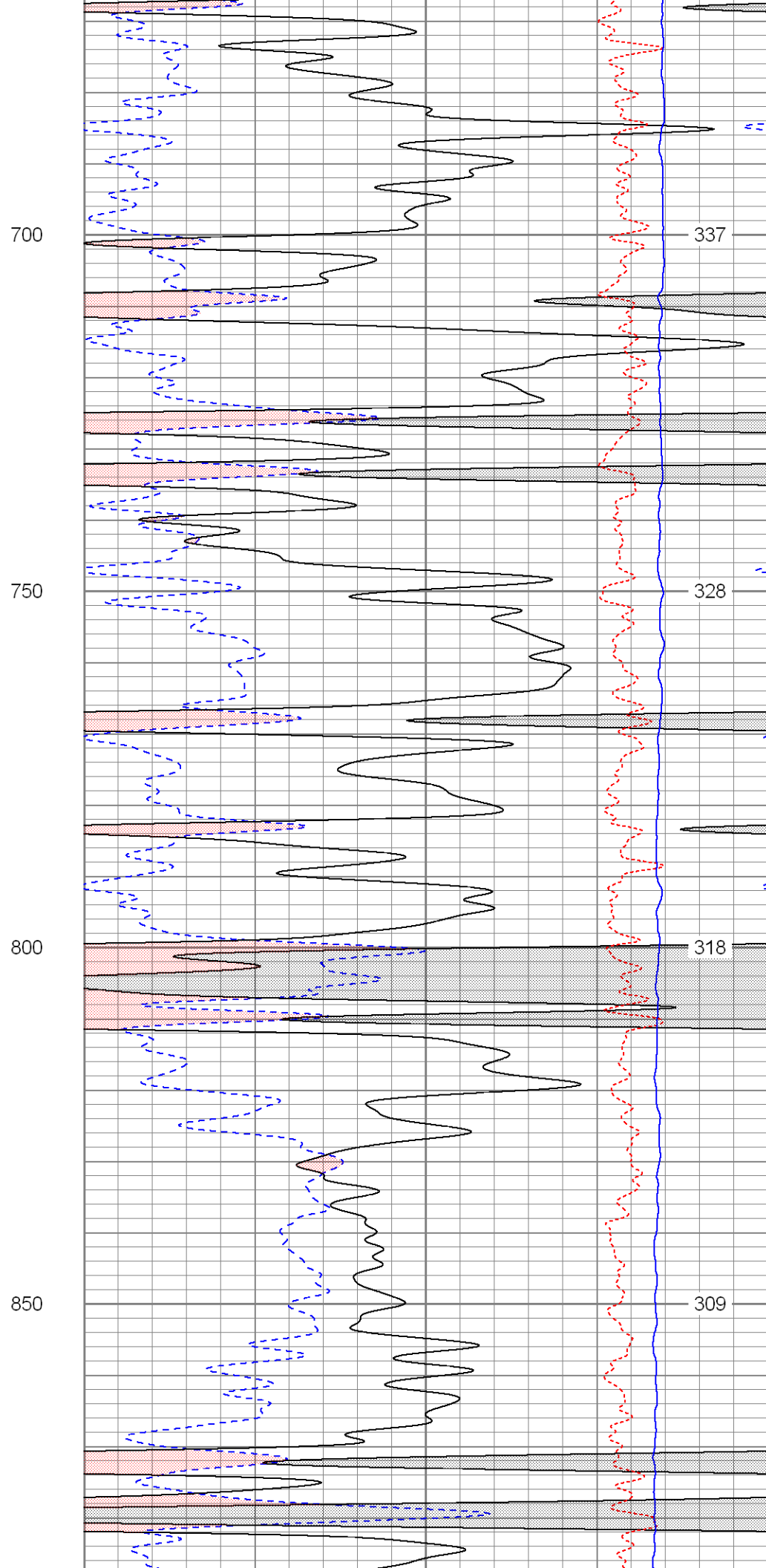
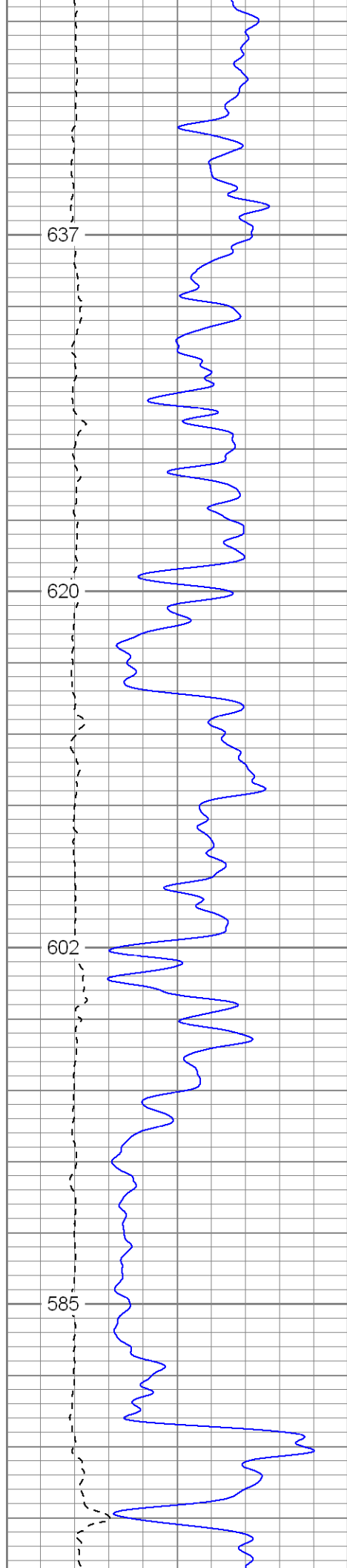
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Dataset Pathname: pass2.1
Presentation Format: cdnl
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Charted by: Depth in Feet scaled 1:240

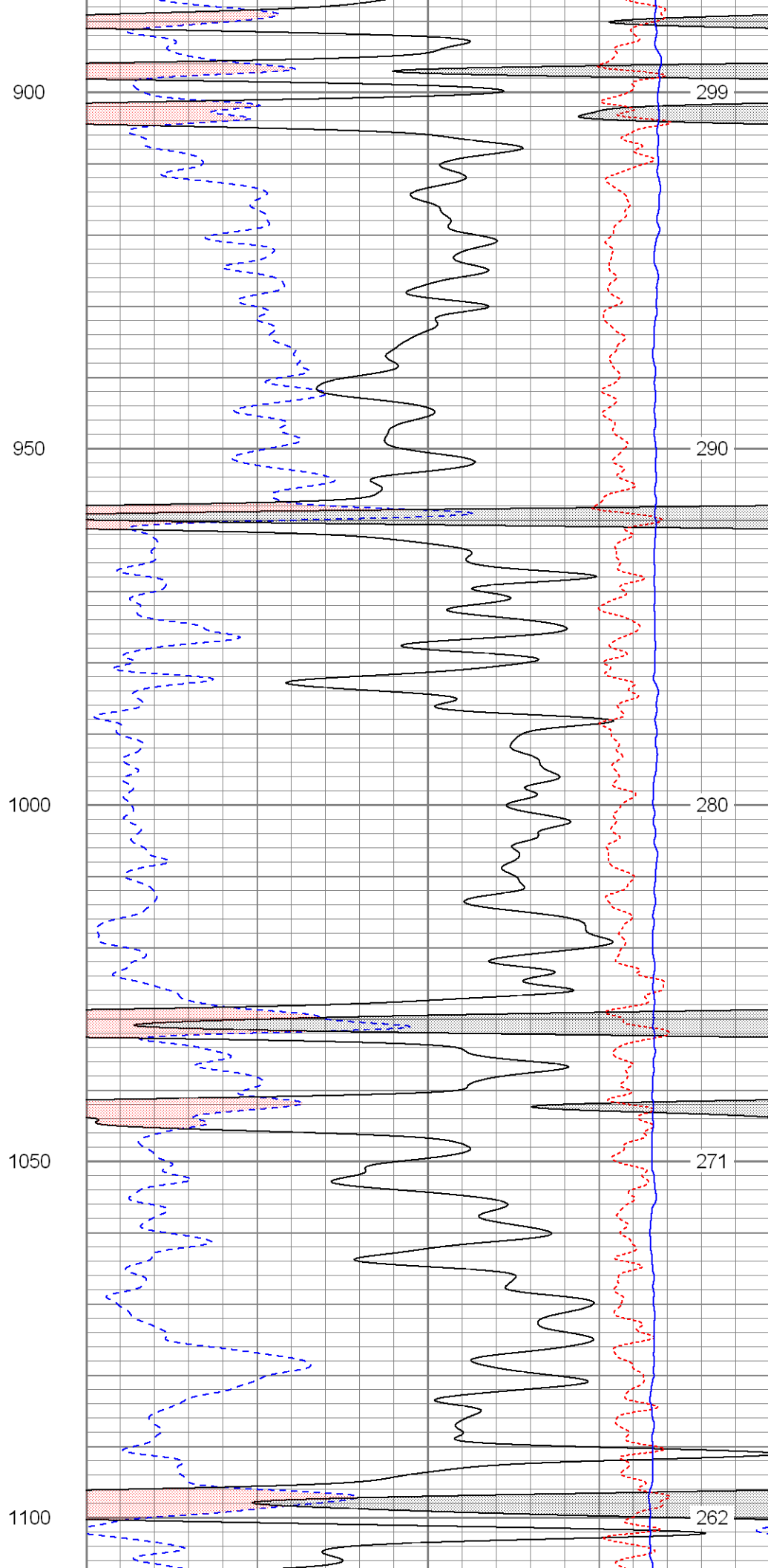
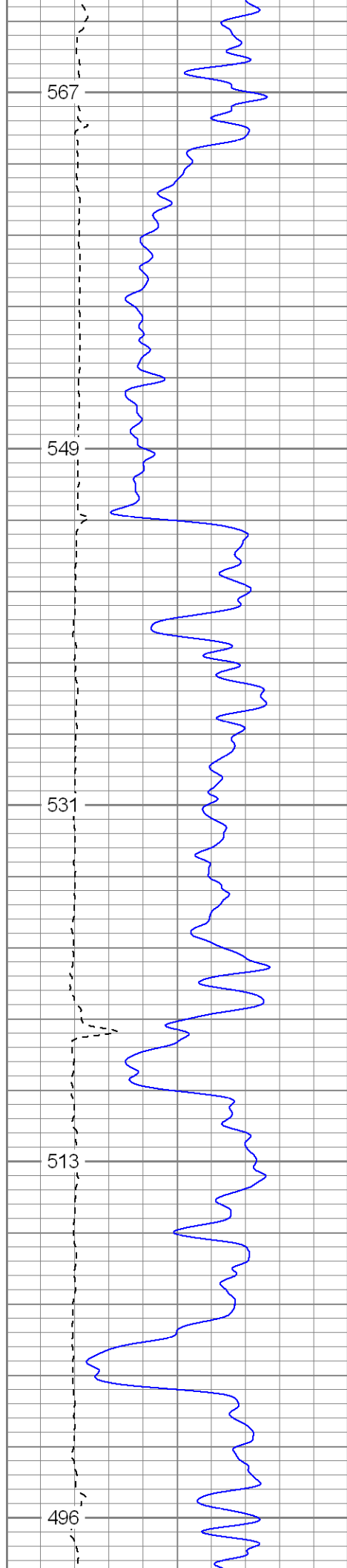
0	GR (GAPI)	200	30	NPOR (pu)	-10
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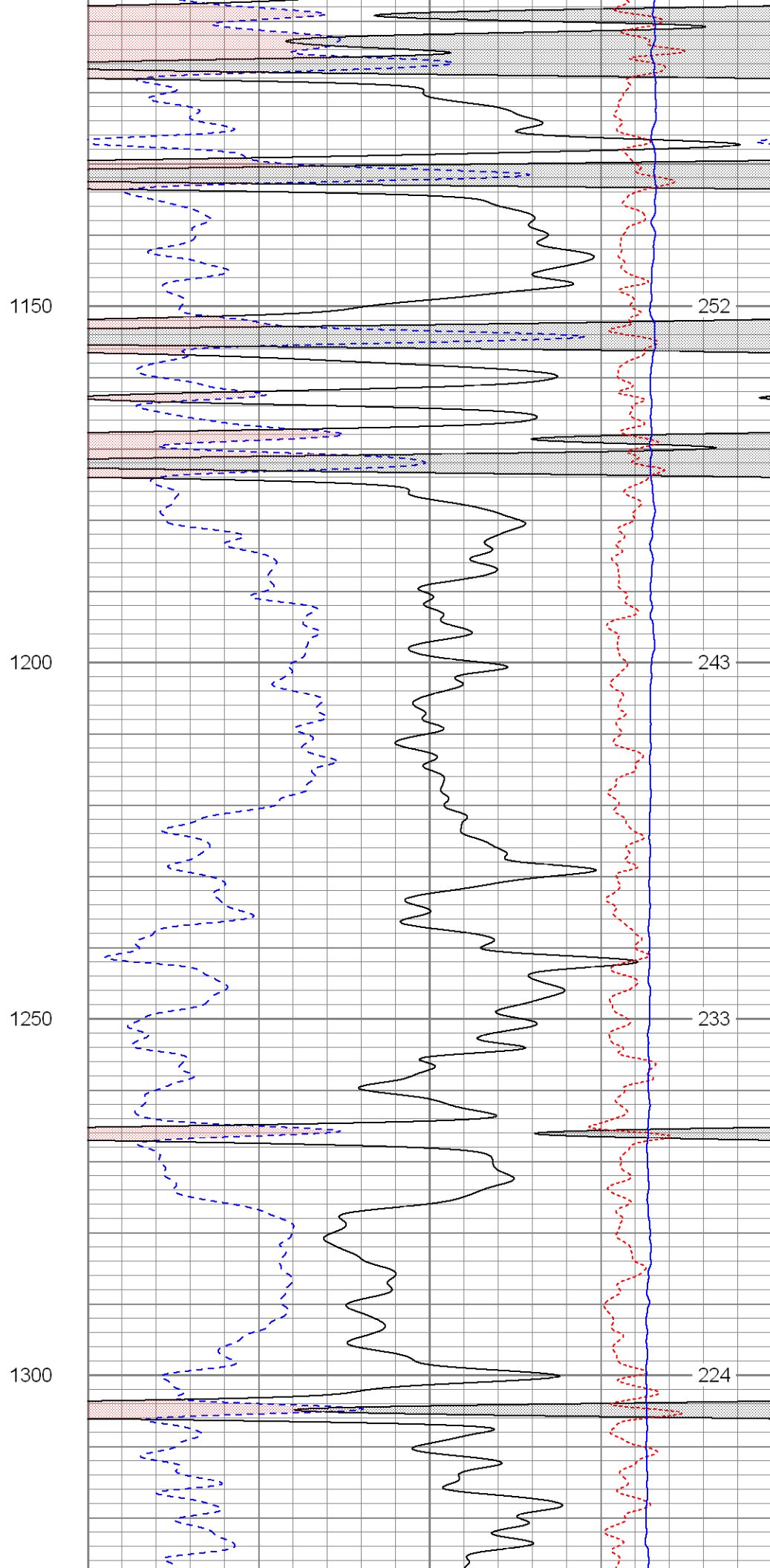
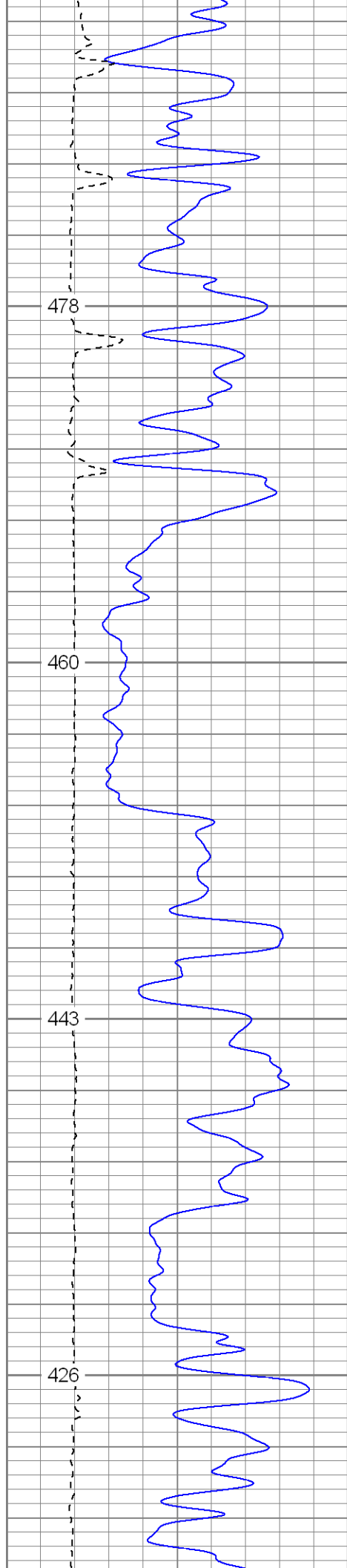
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	DCAL (in)	16
TBHV (ft3)		

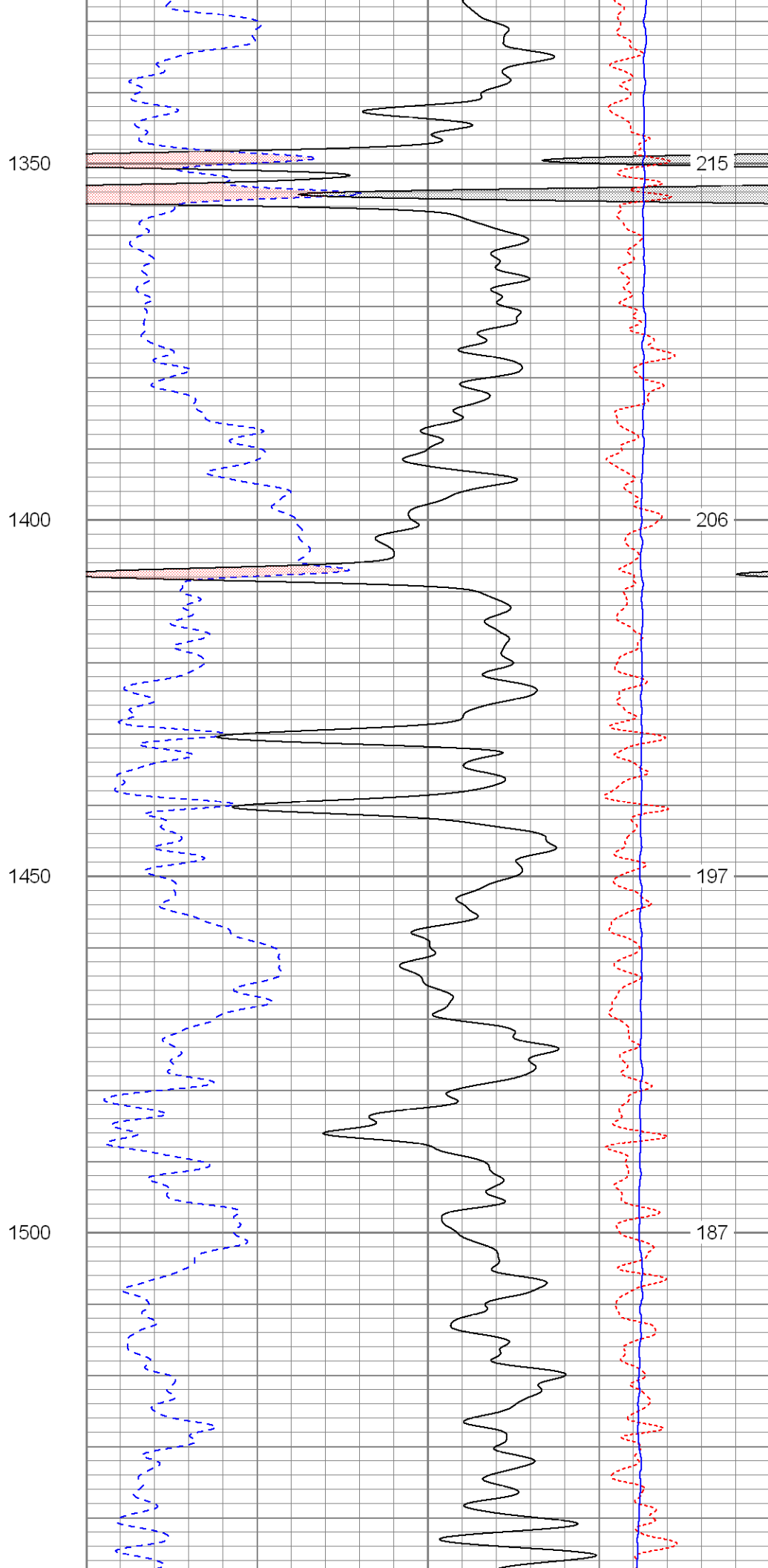
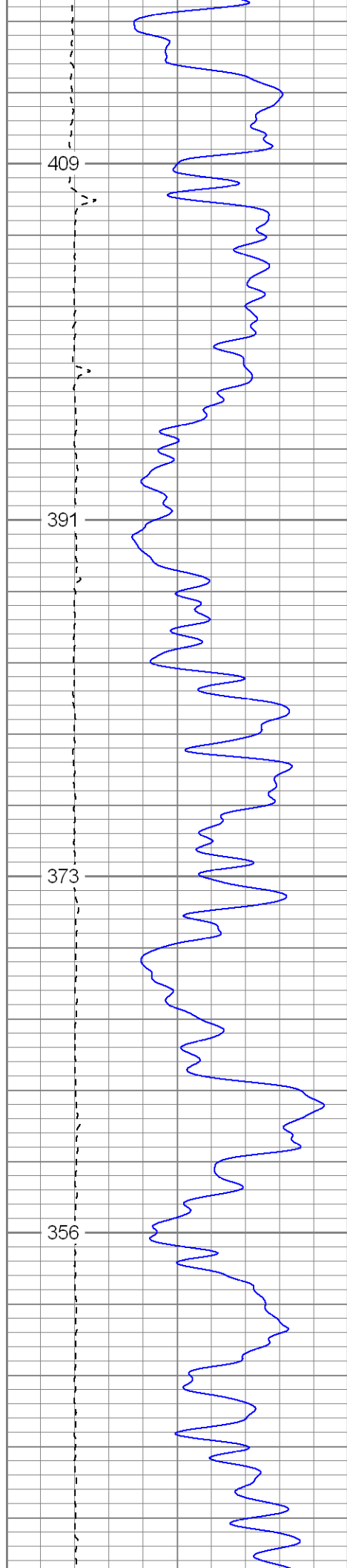
30	DPOR (pu)	-10
-0.5	RHOC (g/cc)	0.5
4000	LTEN (lb)	0
	ABHV (ft3)	

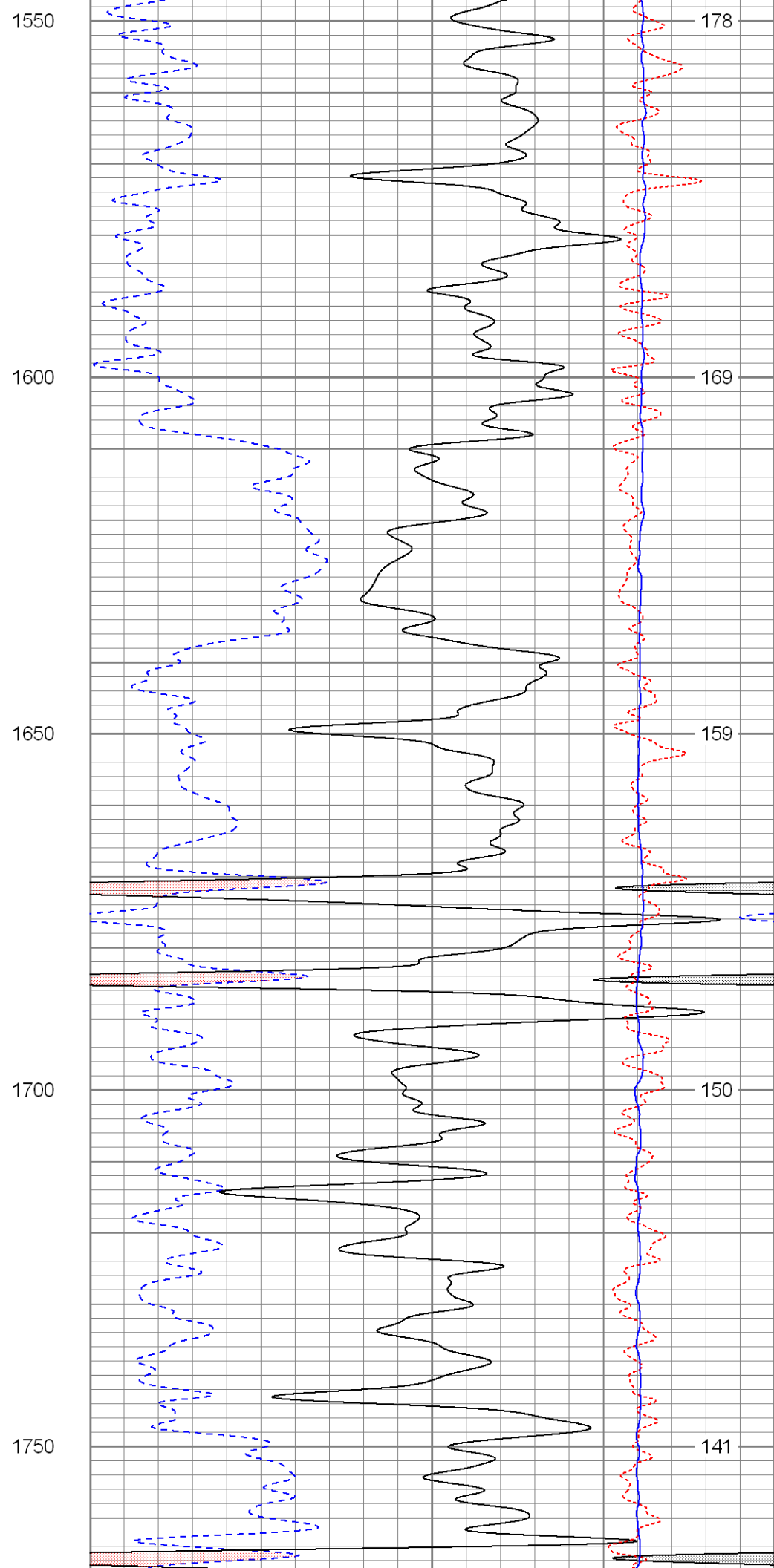
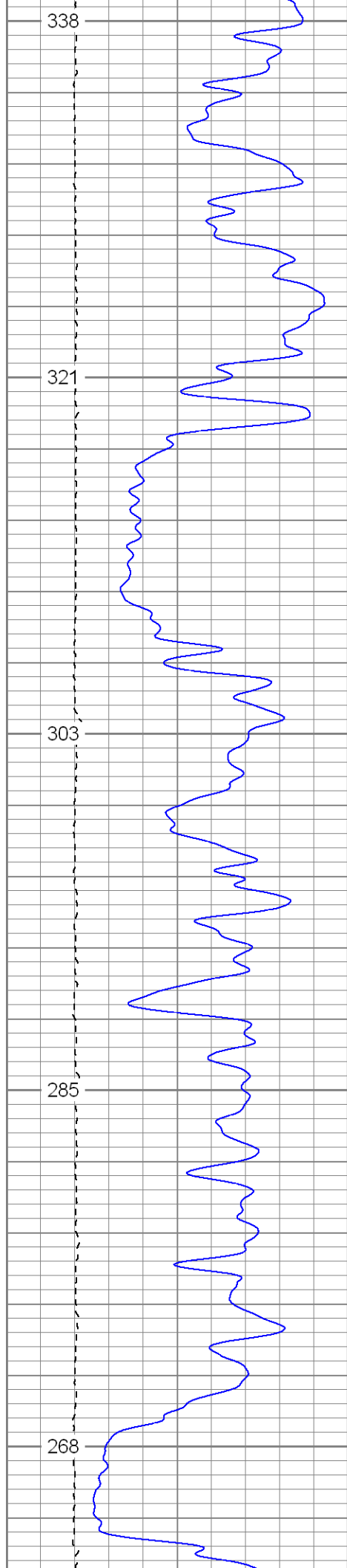


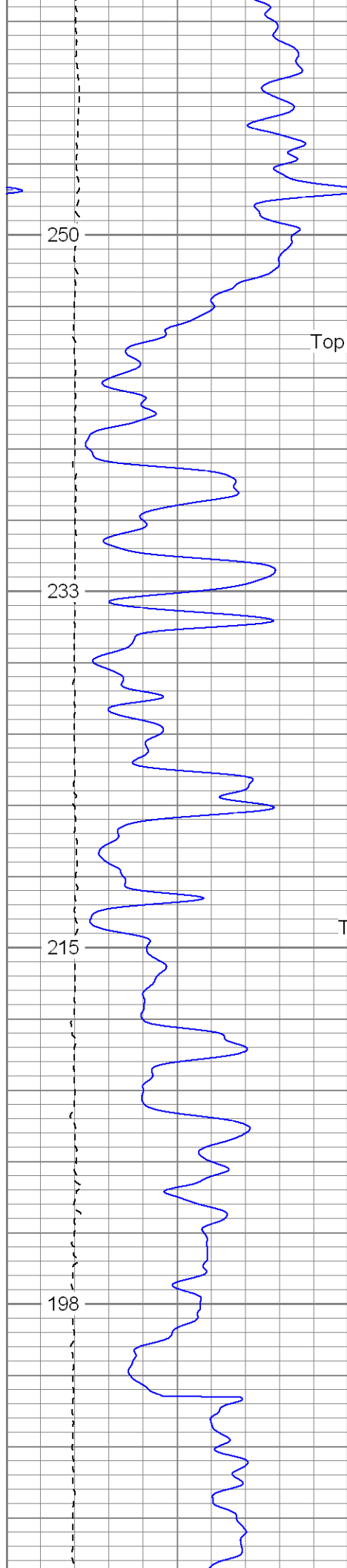












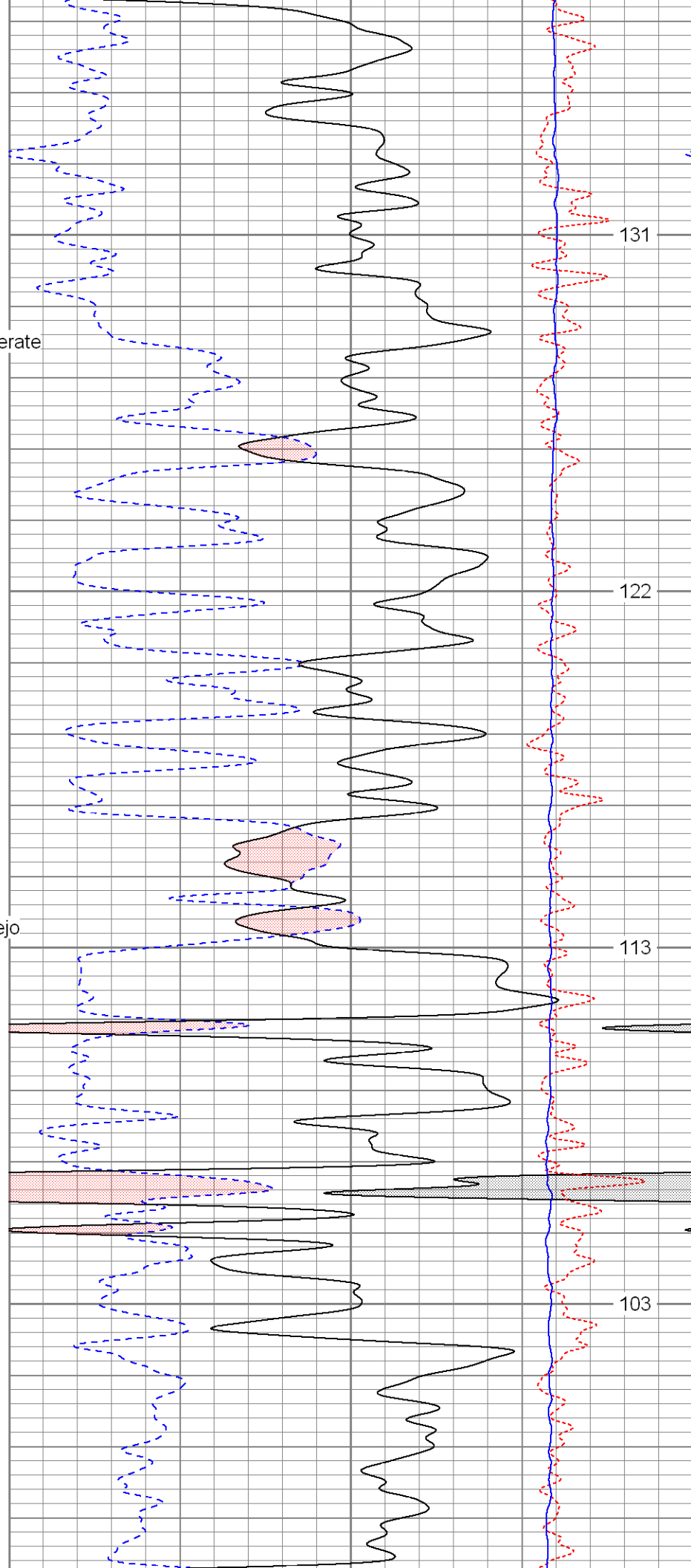
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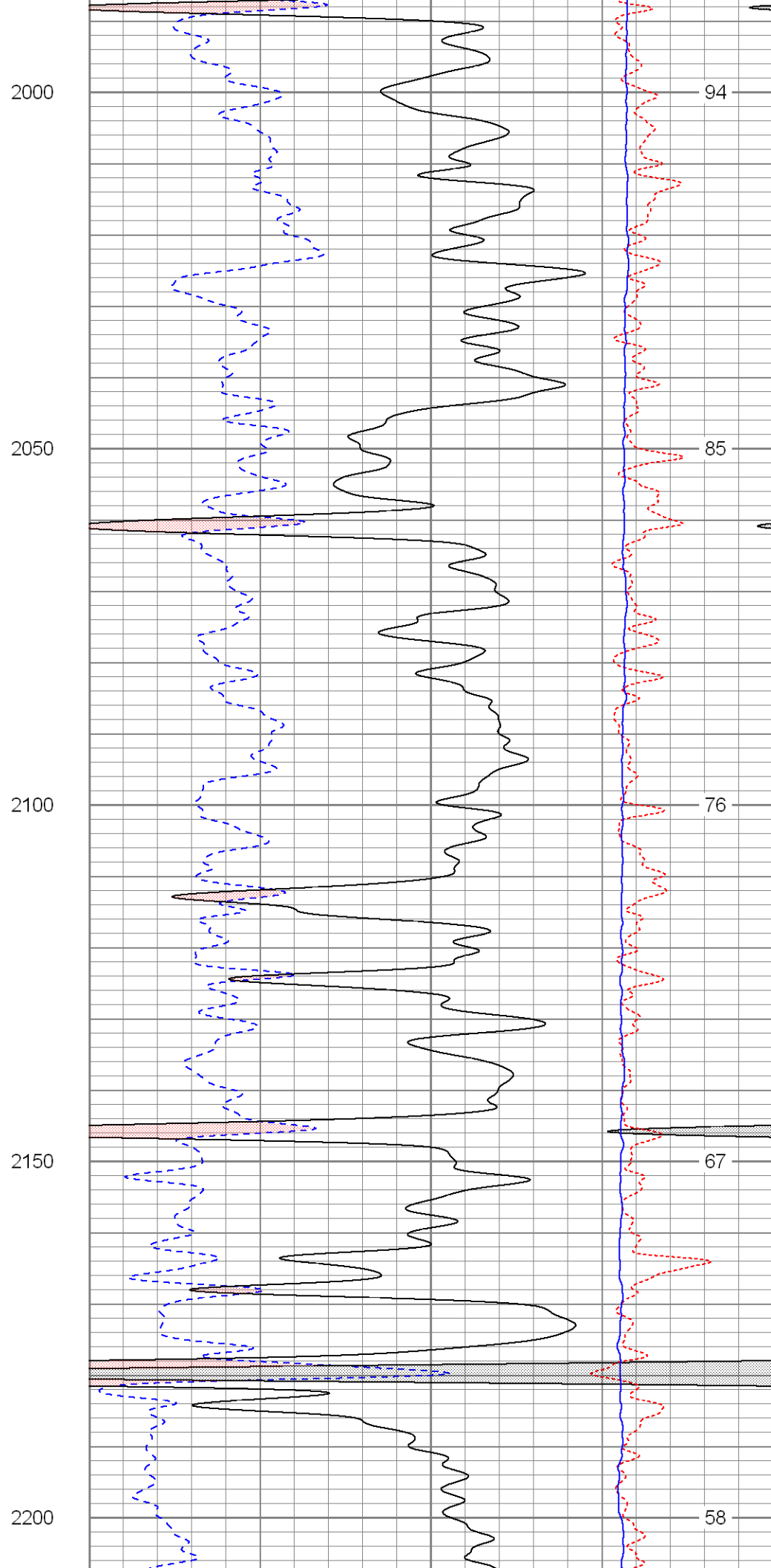
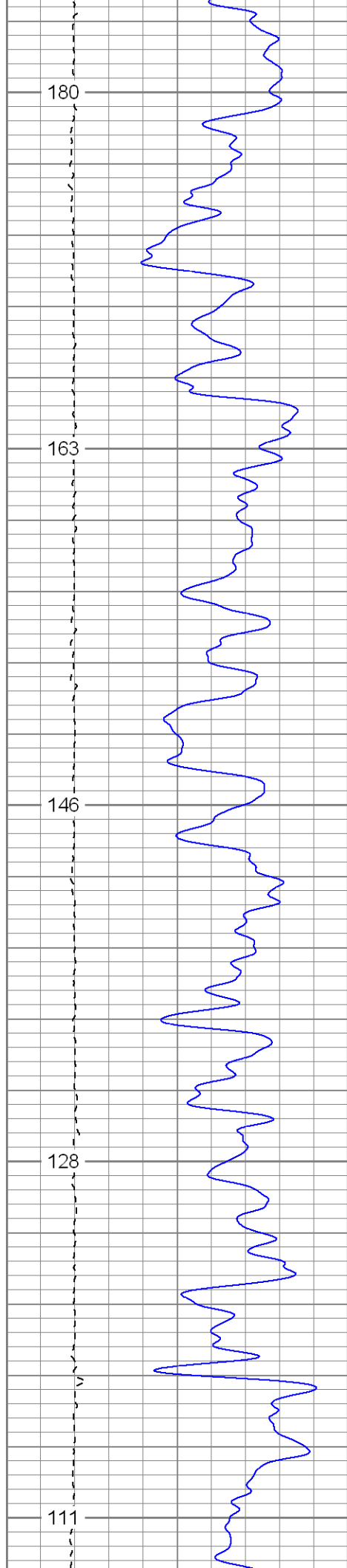
Top of Vermejo
1900

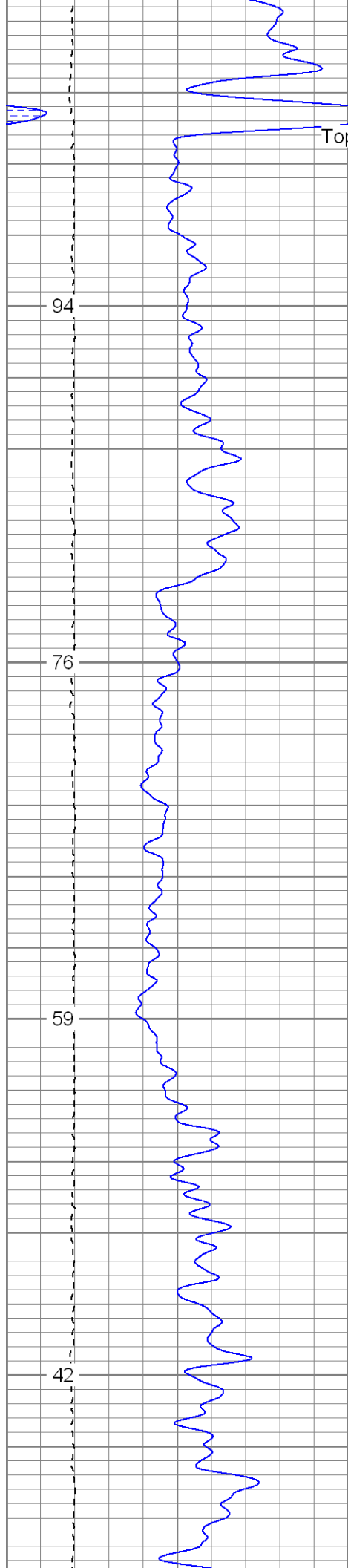
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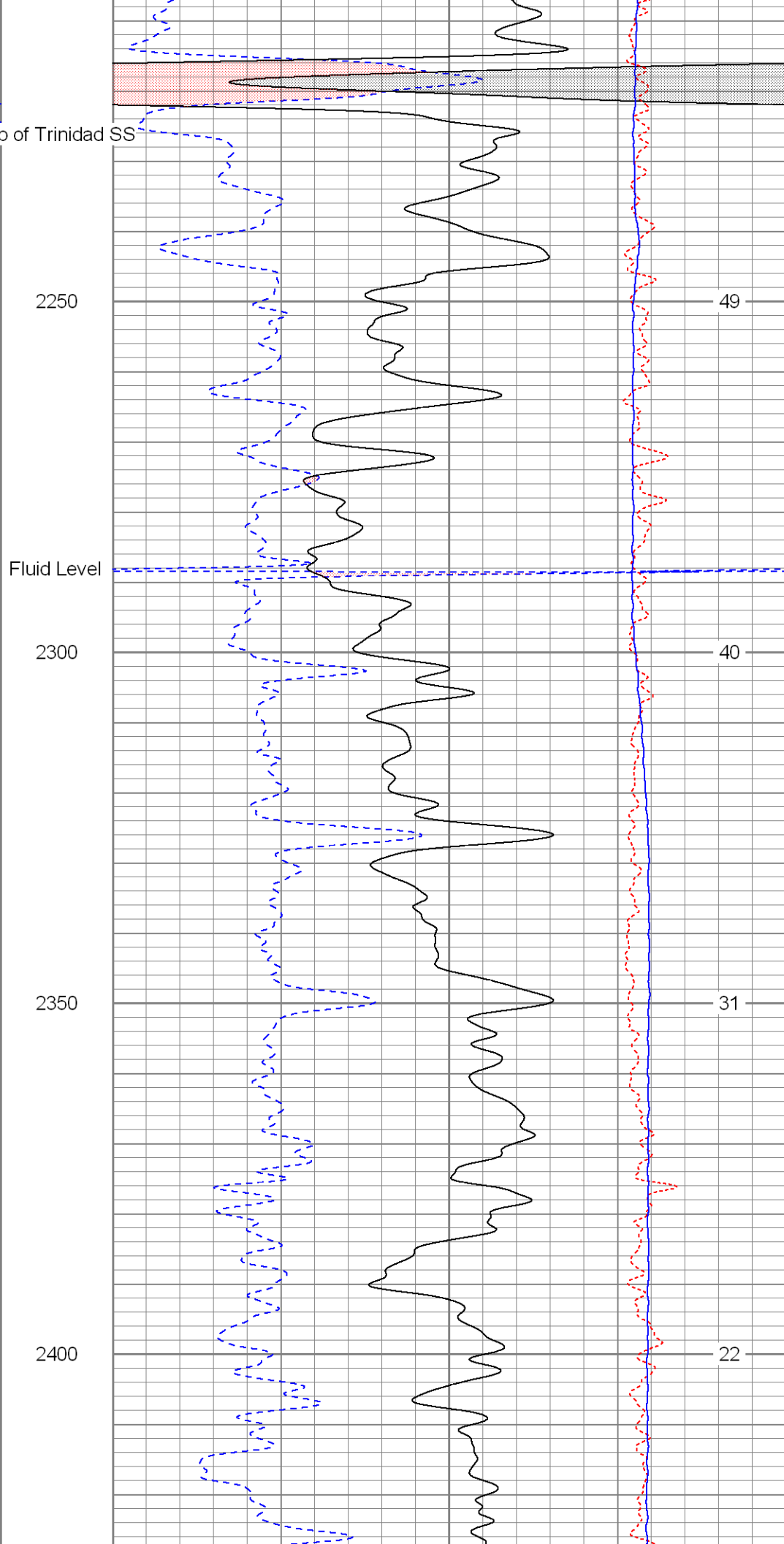
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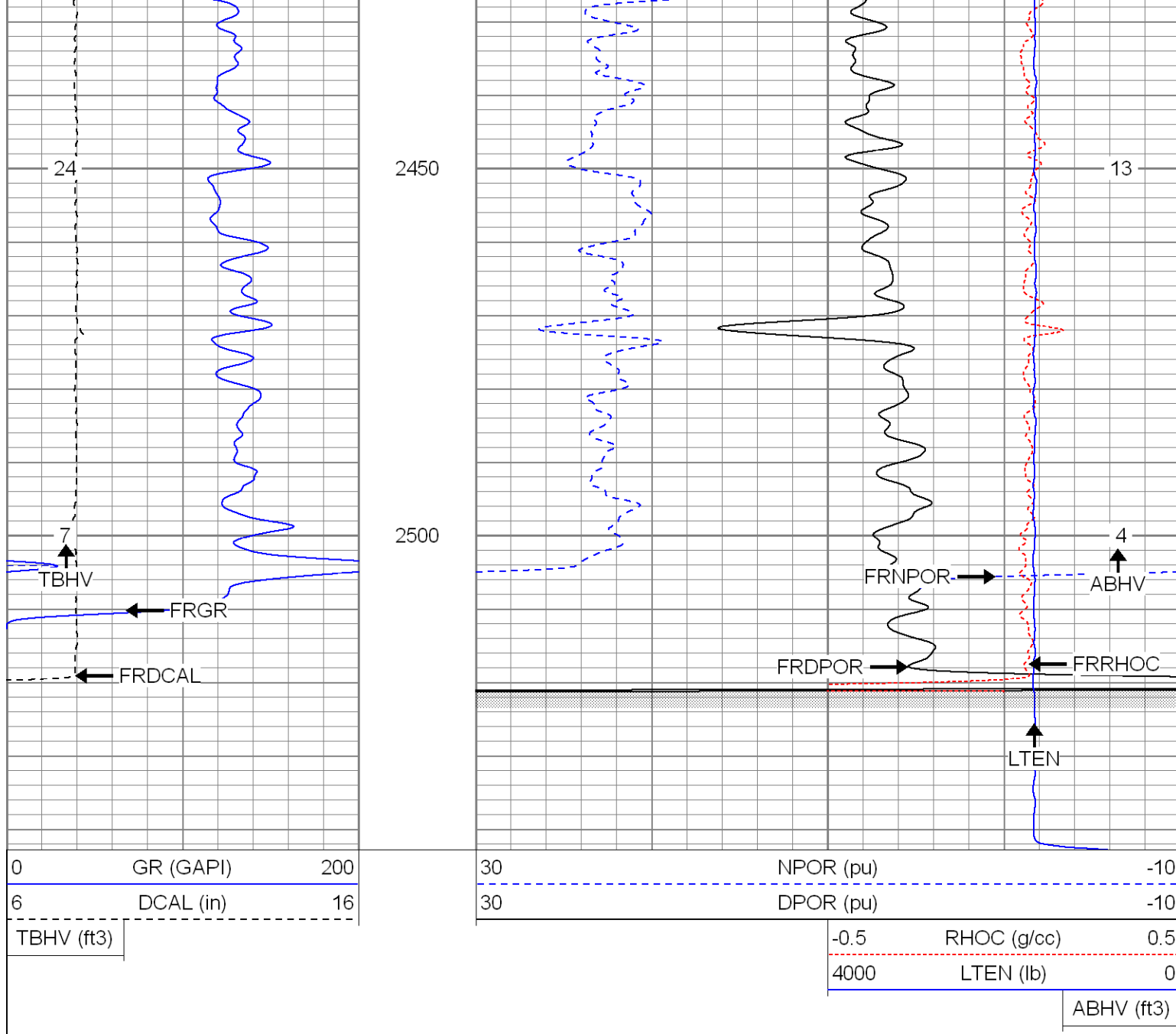






Top of Trinidad SS





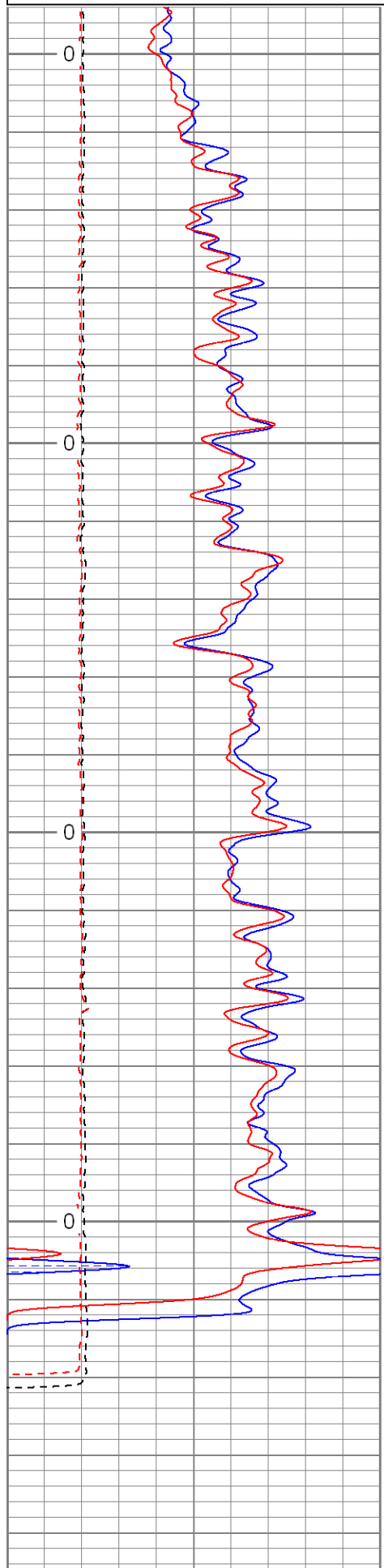
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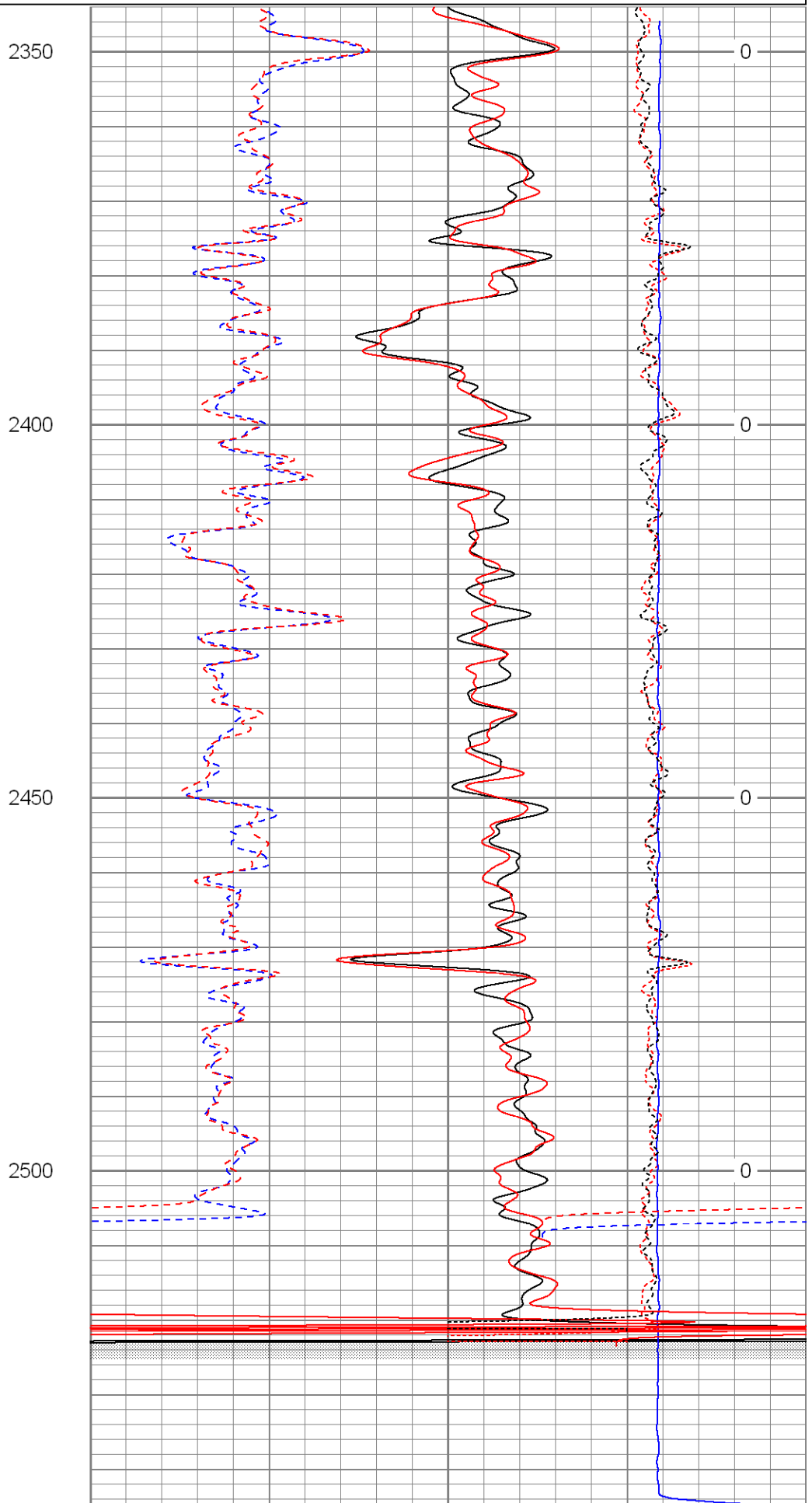
Repeat Pass

Database File: xtahre2307.db
Dataset Pathname: pass1.1
Presentation Format: cdnl
Dataset Creation: Tue Apr 15 21:08:33 2008 by Calc Open-Cased 070814
Charted by: Depth in Feet scaled 1:240

0	GR (GAPI)	200	30	NPOR (pu)	-10
6	DCAL (in)	16	30	DPOR (pu)	-10
0	GR-repeat (GAPI)	200	30	NPOR-repeat (pu)	-10
6	DCAL-repeat (in)	16	30	DPOR-repeat (pu)	-10
TBHV (ft3)			-0.5	RHOC (g/cc)	0.5
			4000	LTEN (lb)	0
			-0.5	RHOC-repeat (g/cc)	0.5



0	GR (GAPI)	200
6	DCAL (in)	16
0	GR-repeat (GAPI)	200



30	NPOR (pu)	-10
30	DPOR (pu)	-10
30	NPOR-repeat (pu)	-10

6	DCAL-repeat (in)	16	30	DPOR-repeat (pu)	-10	
TBHV (ft3)				-0.5	RHOC (g/cc)	0.5
				4000	LTEN (lb)	0
				-0.5	RHOC-repeat (g/cc)	0.5
						ABHV (ft3)



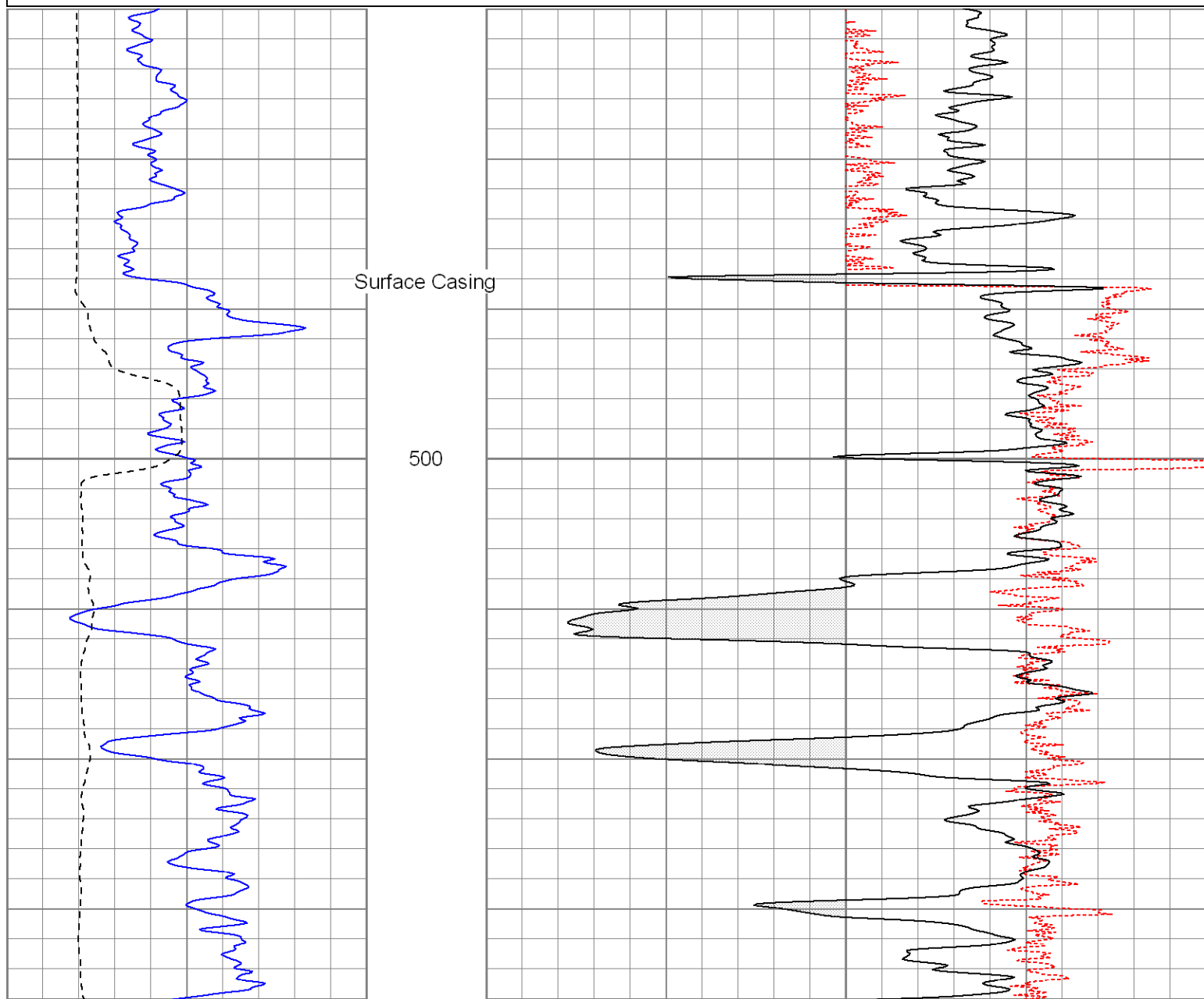
SUPERIOR

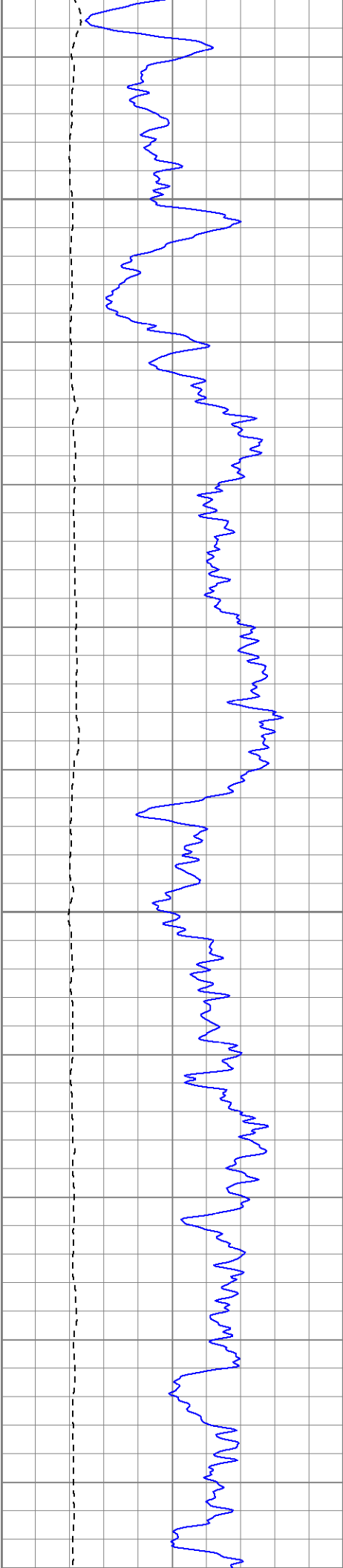
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High Resolution Pass

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Presentation Format: cdlhr
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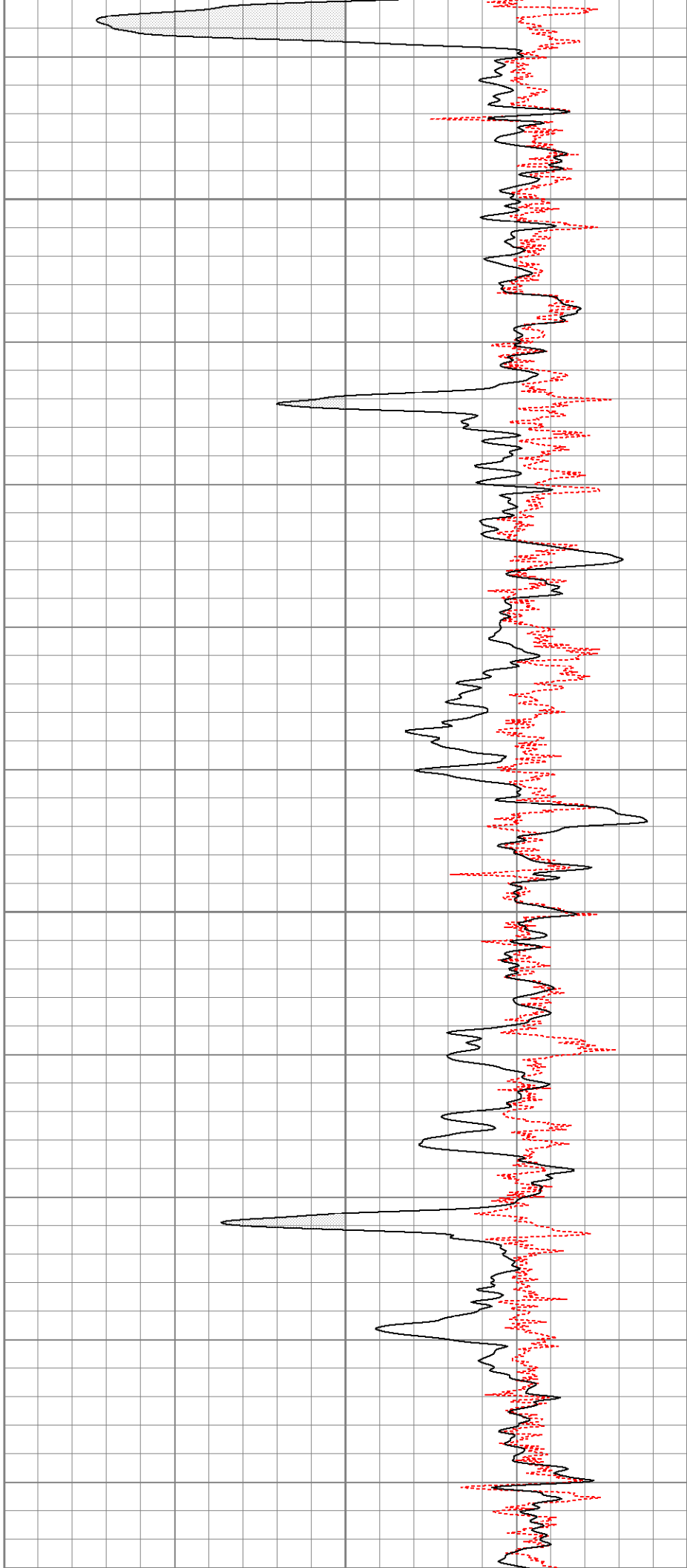
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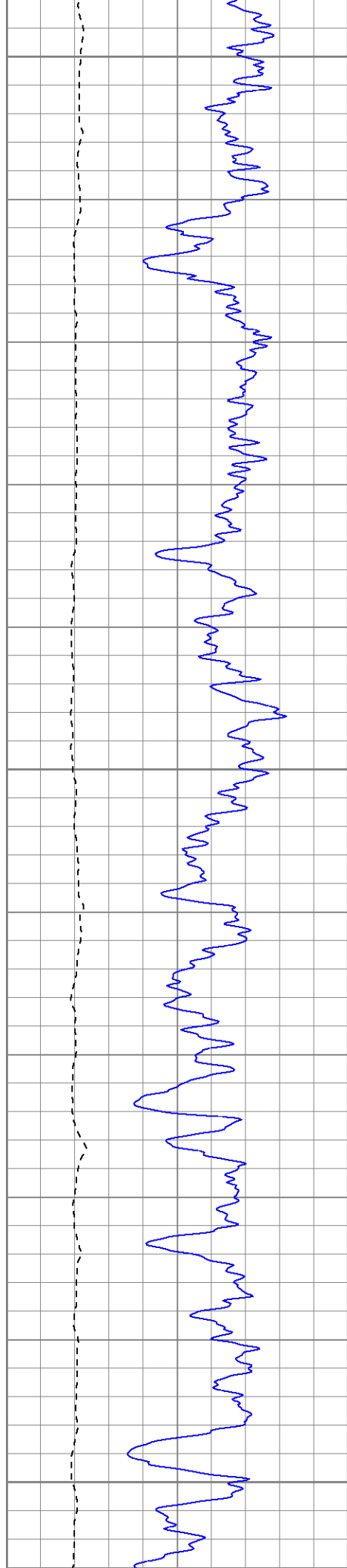




550

600

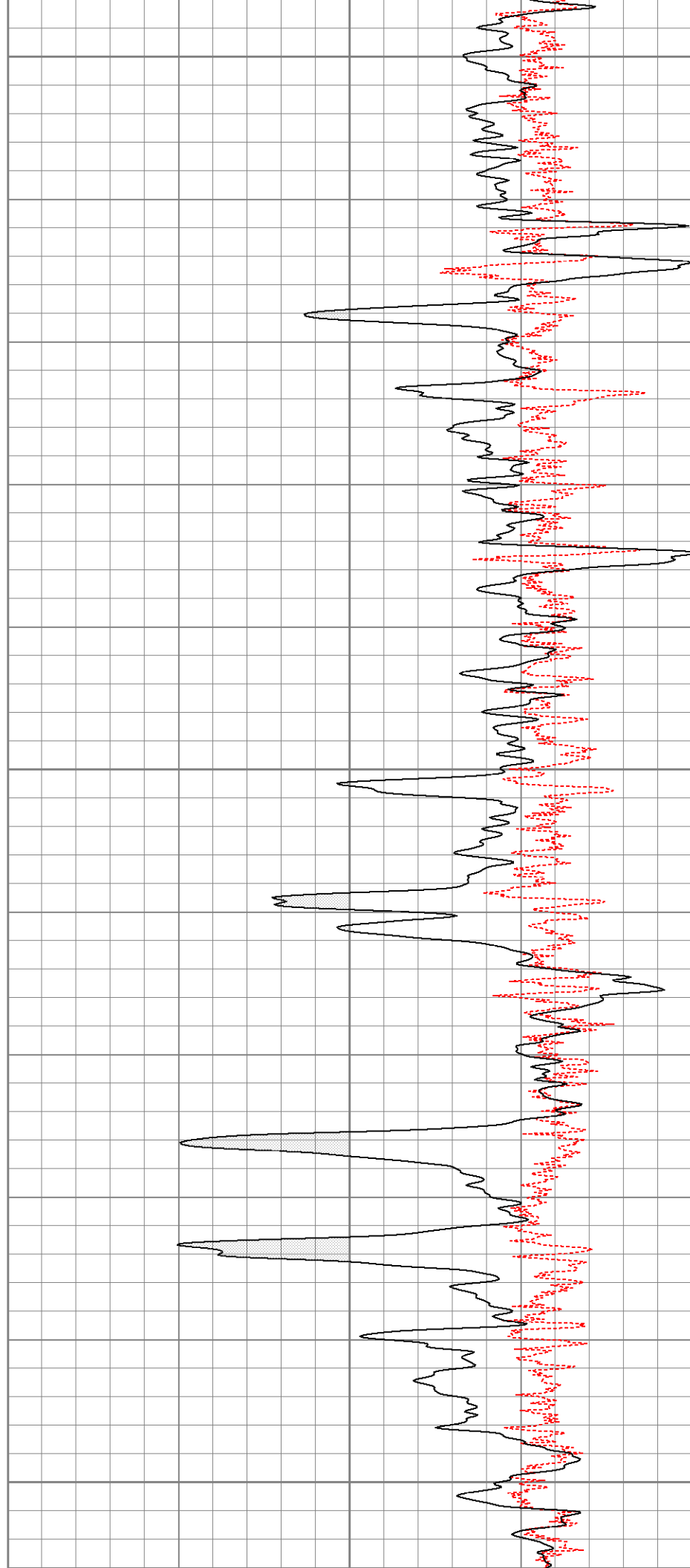


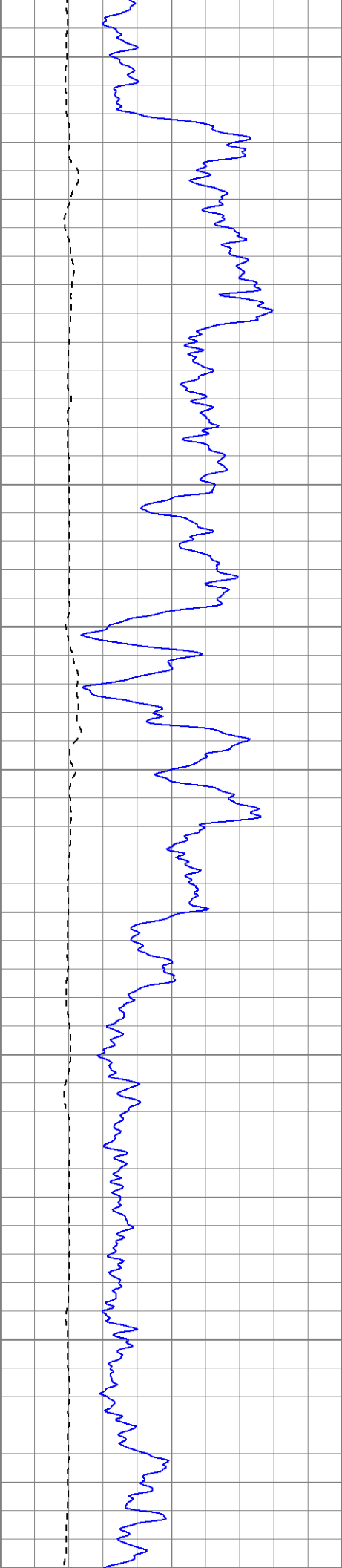


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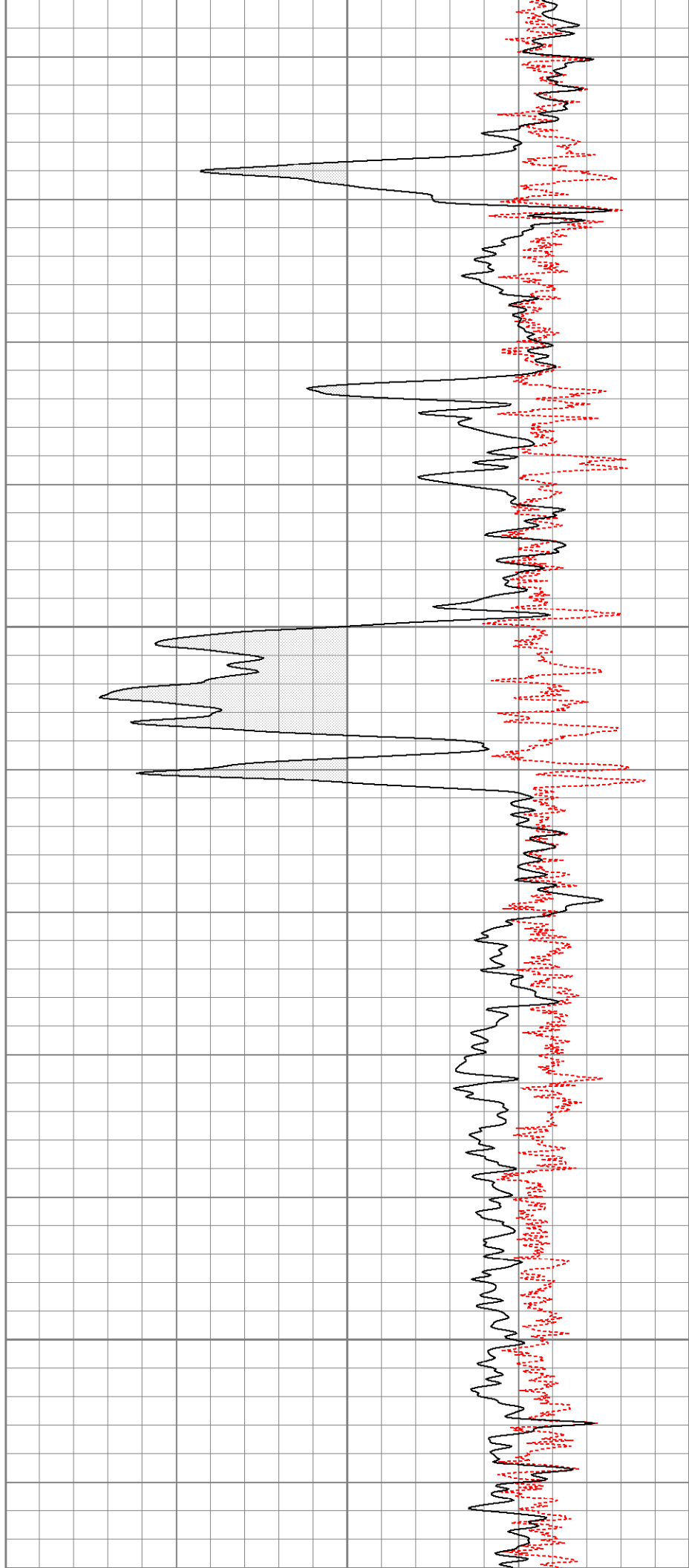
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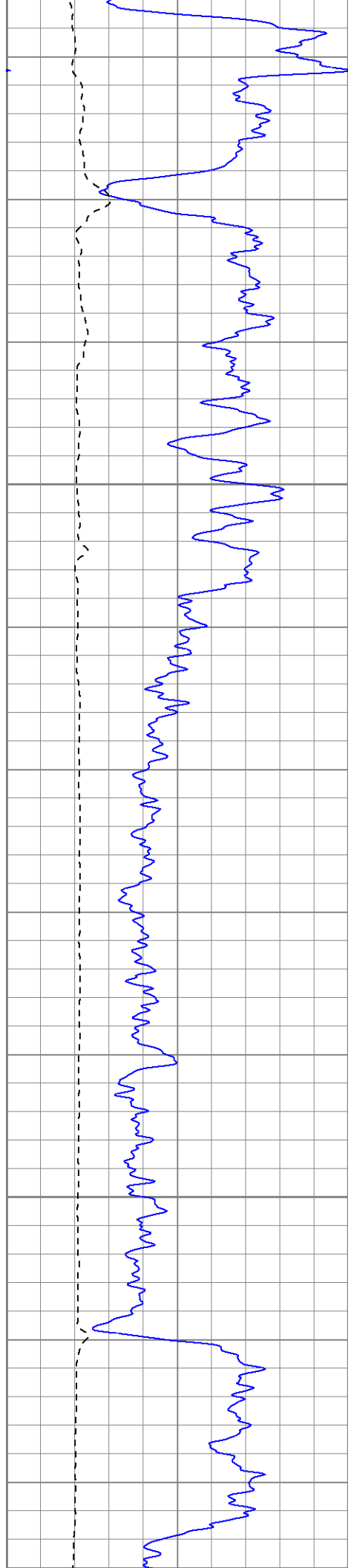




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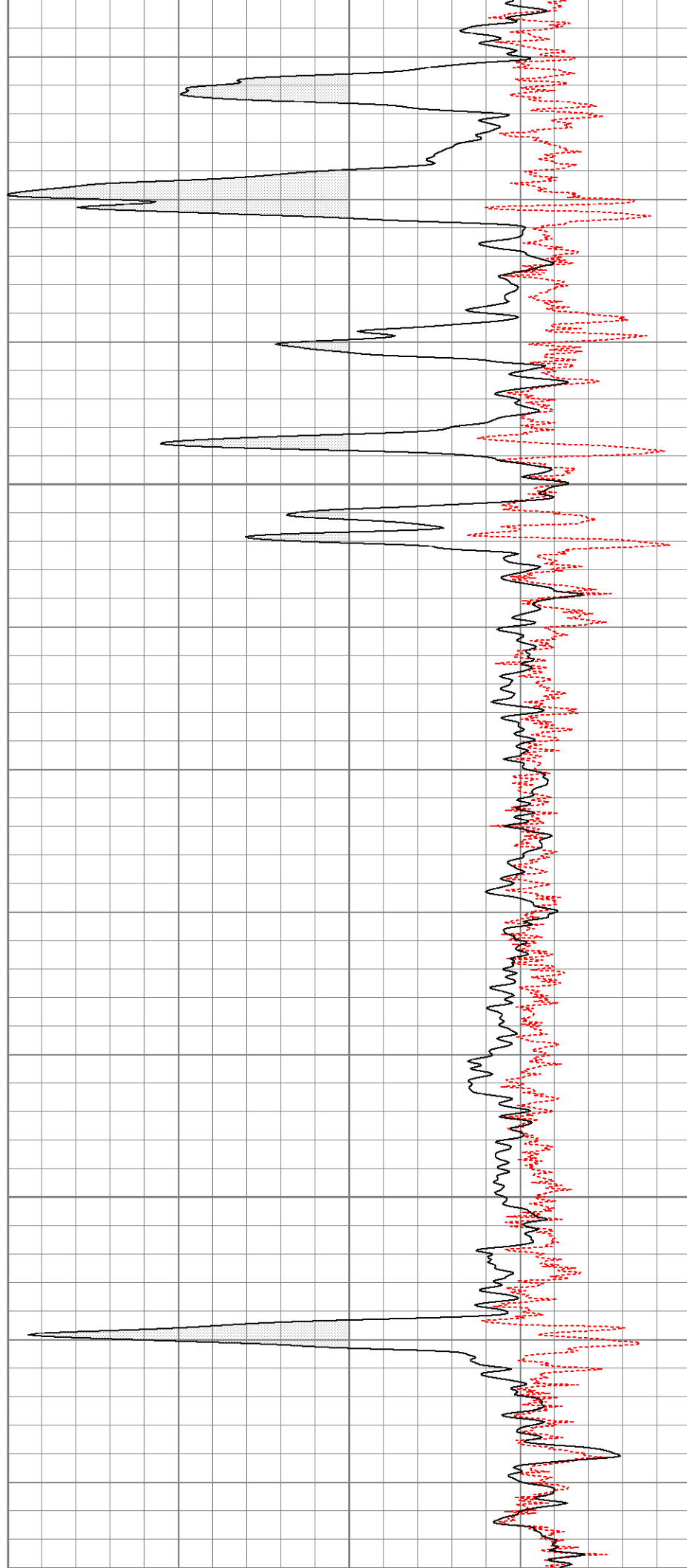
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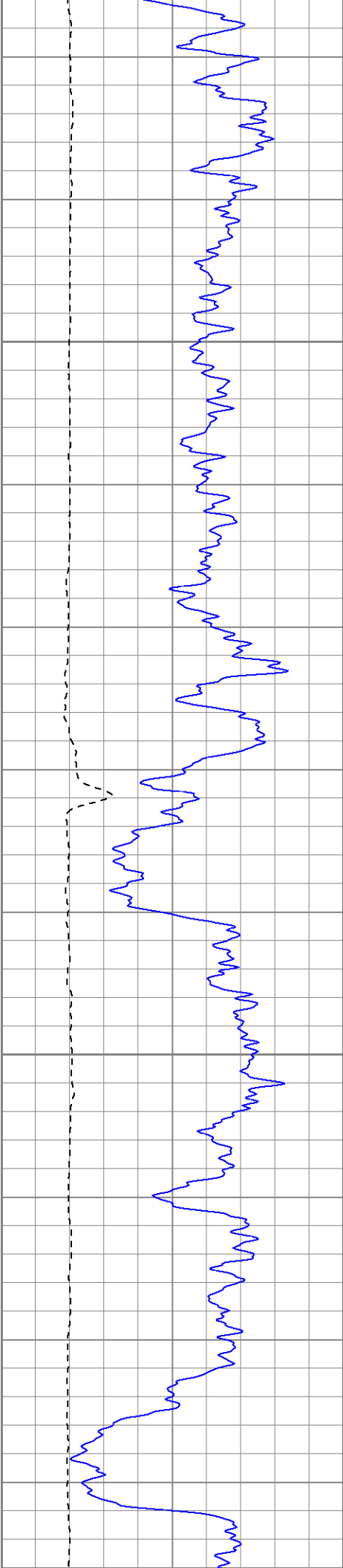




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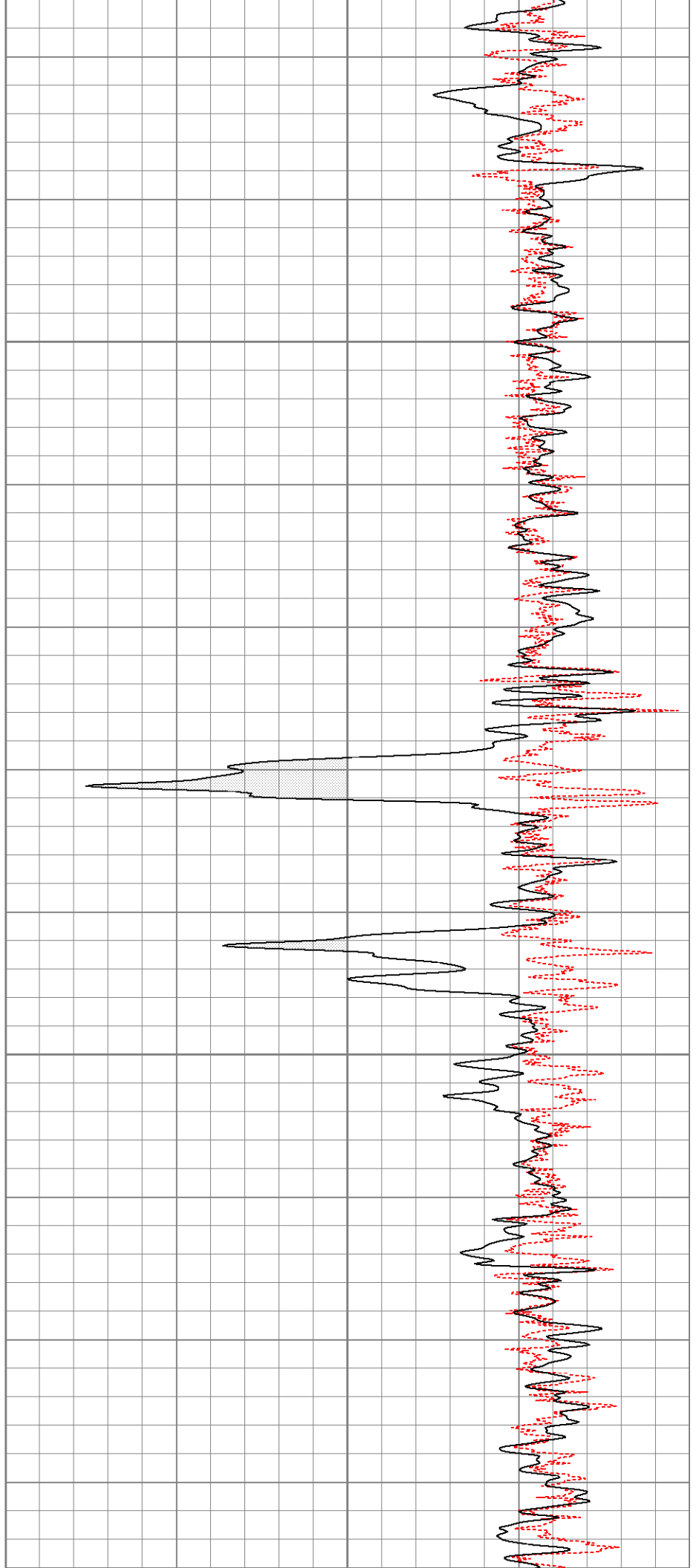
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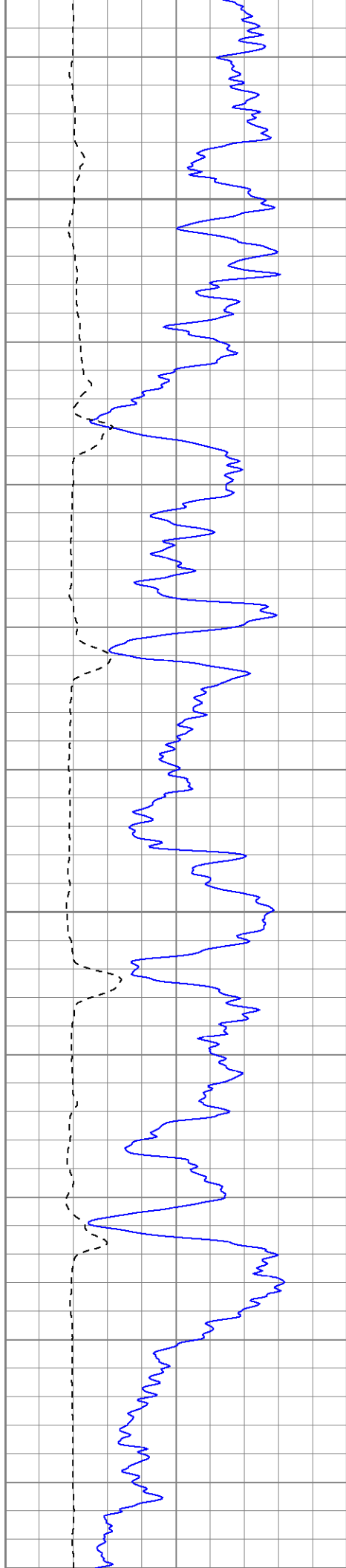




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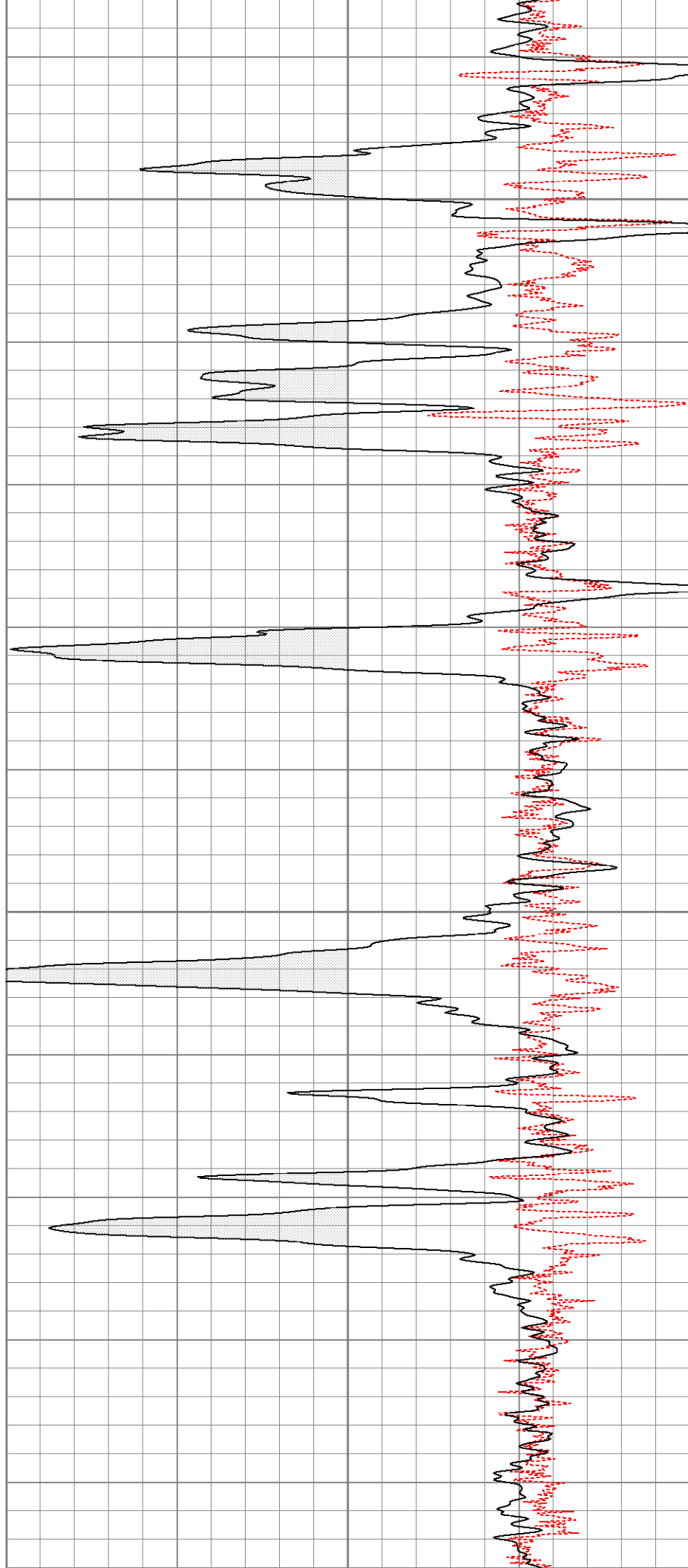
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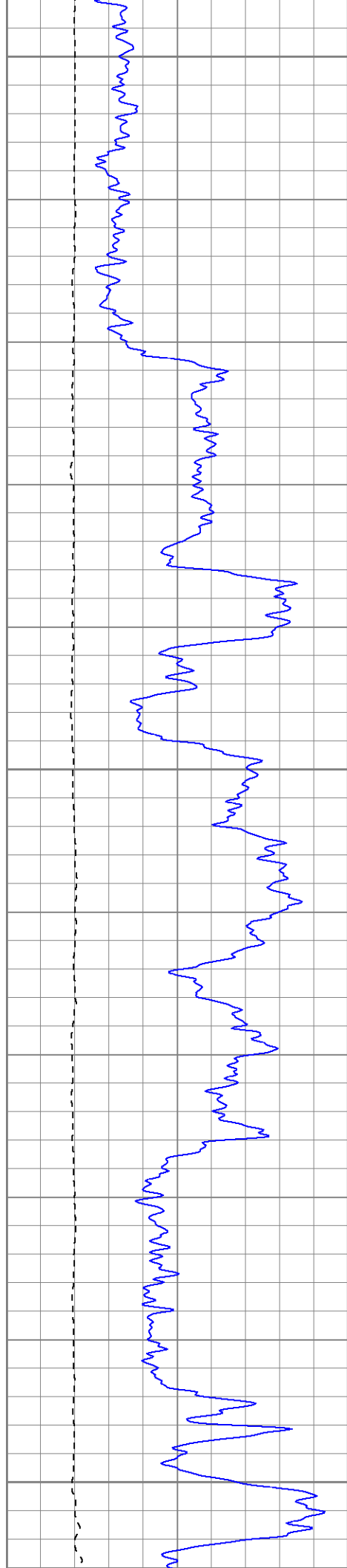




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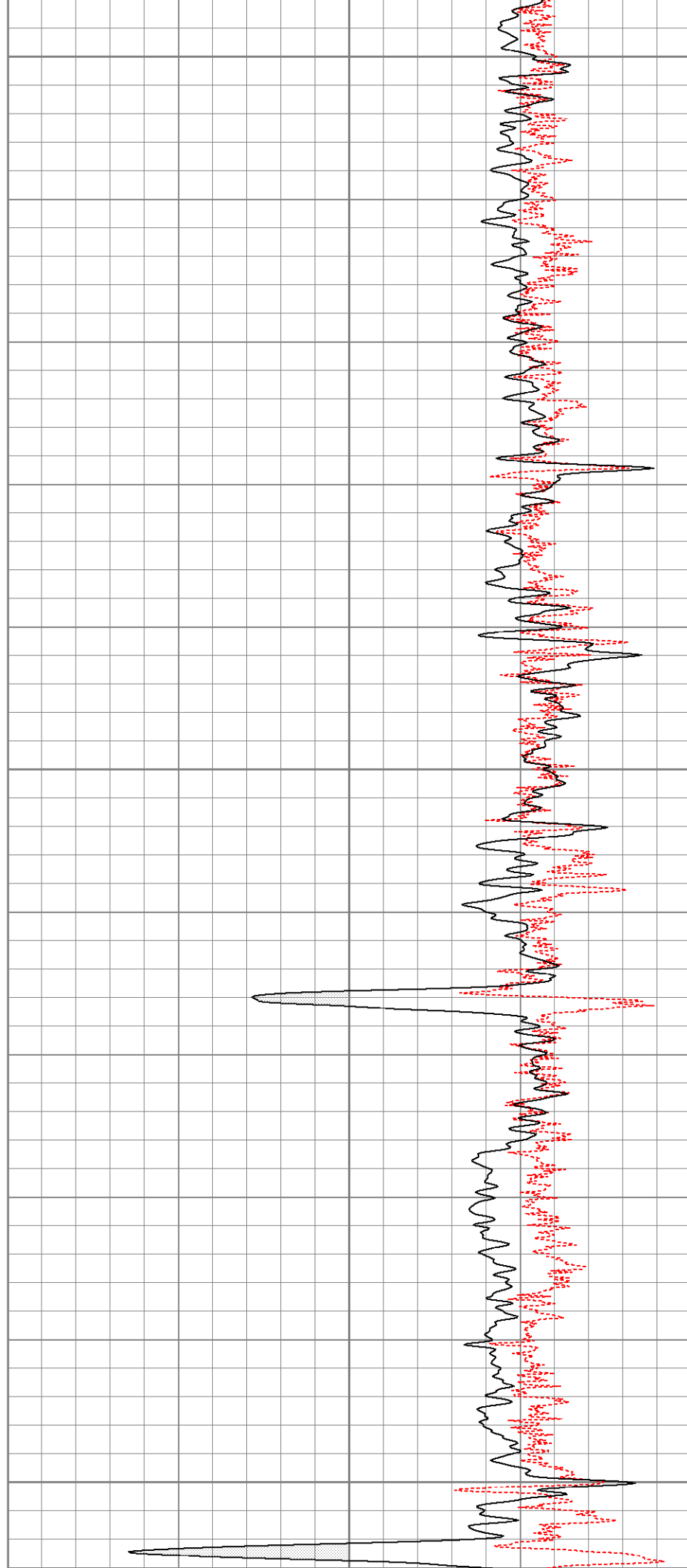


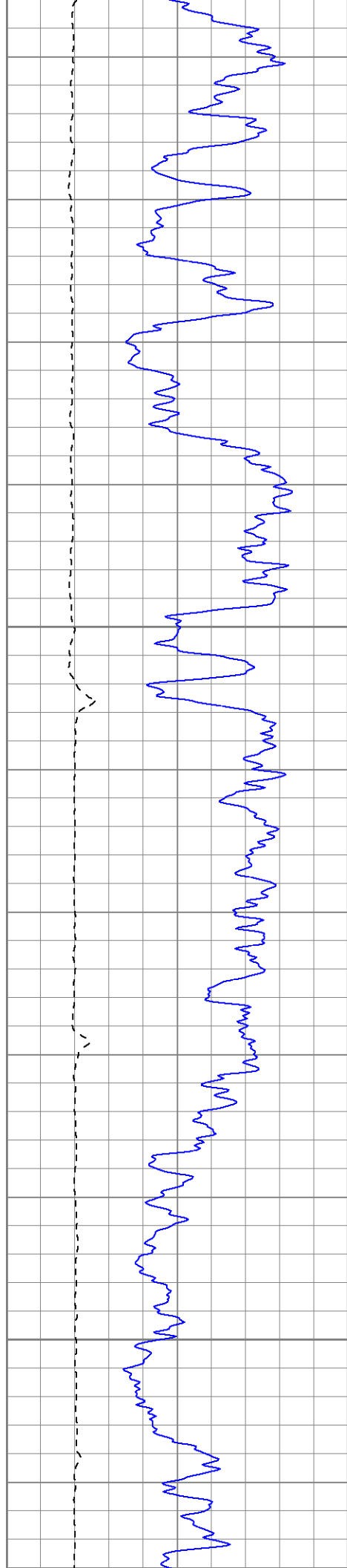


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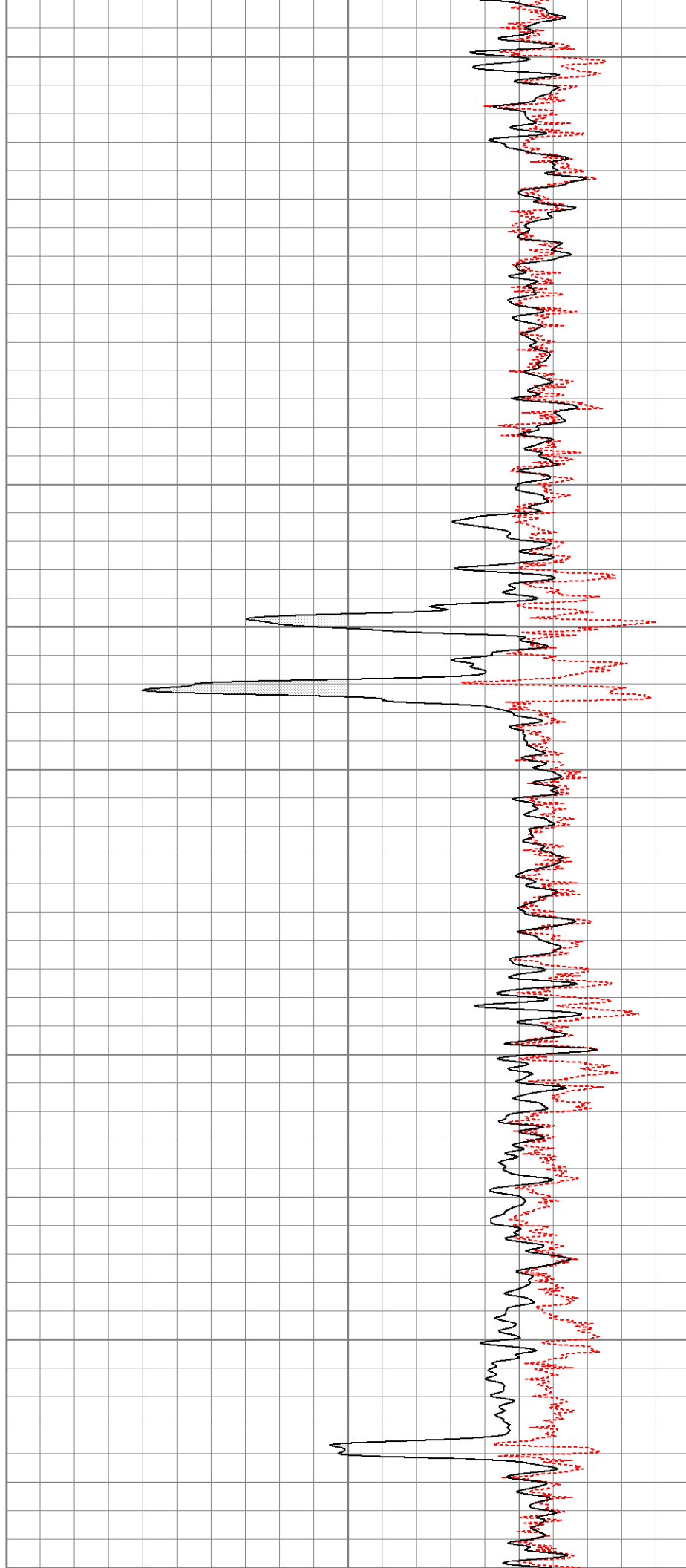
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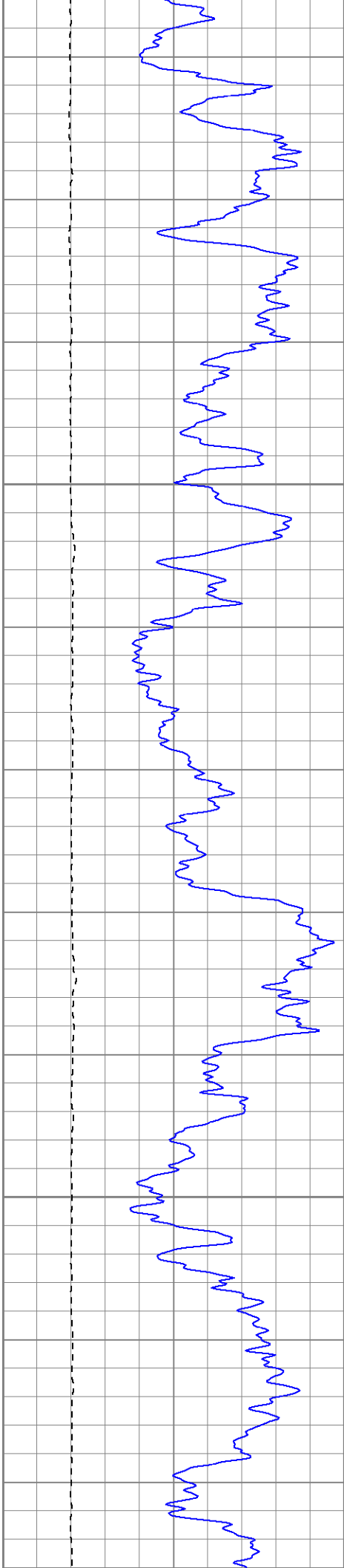




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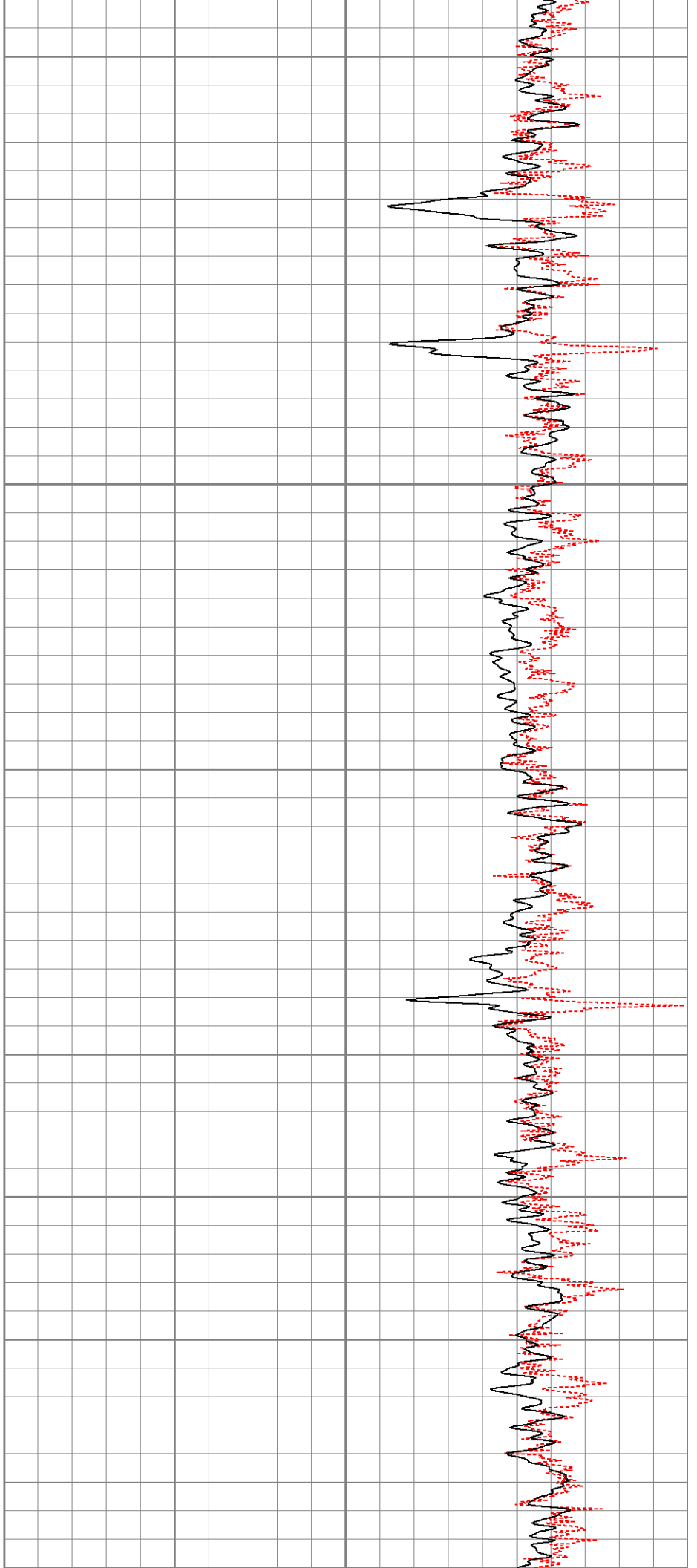
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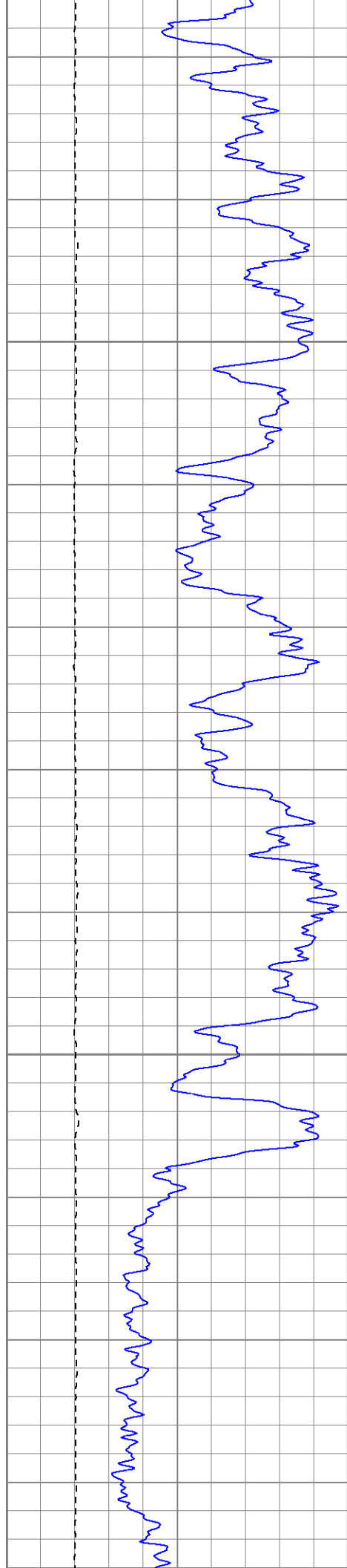




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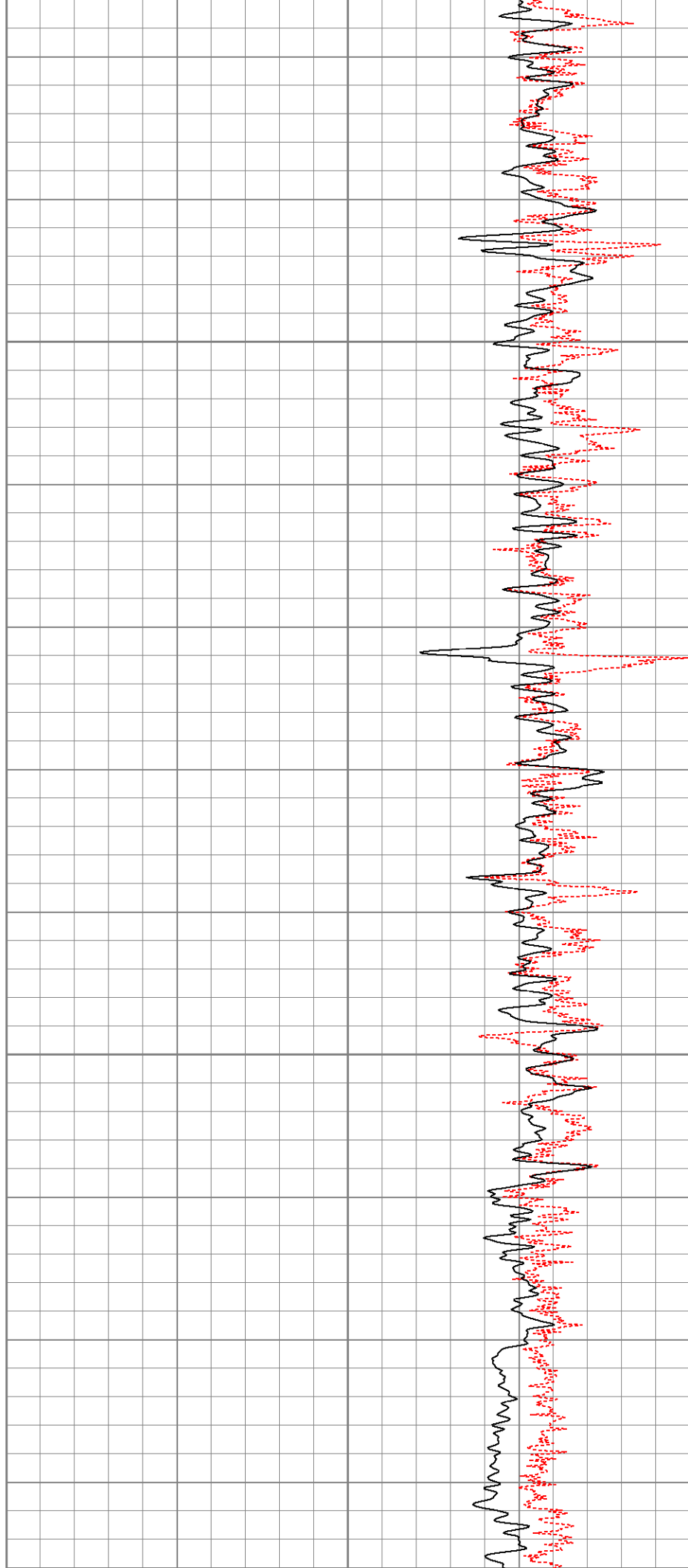
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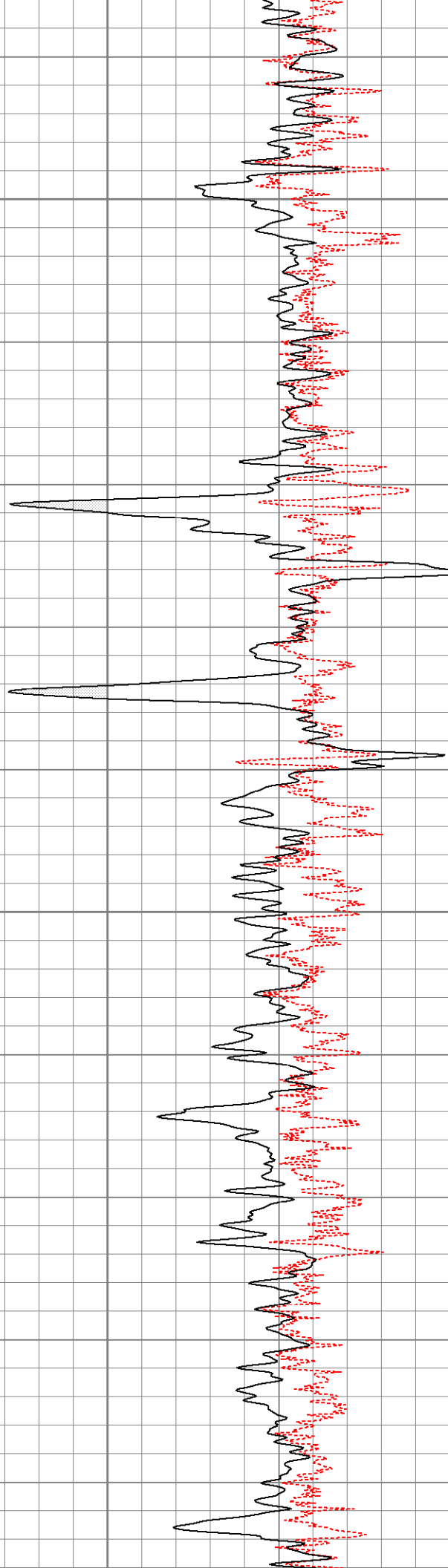
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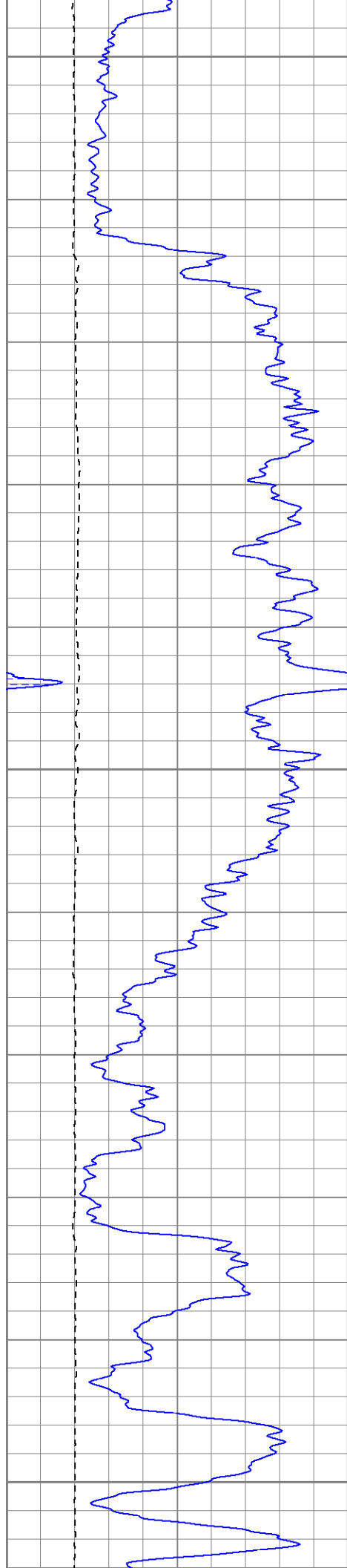
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1650

1700

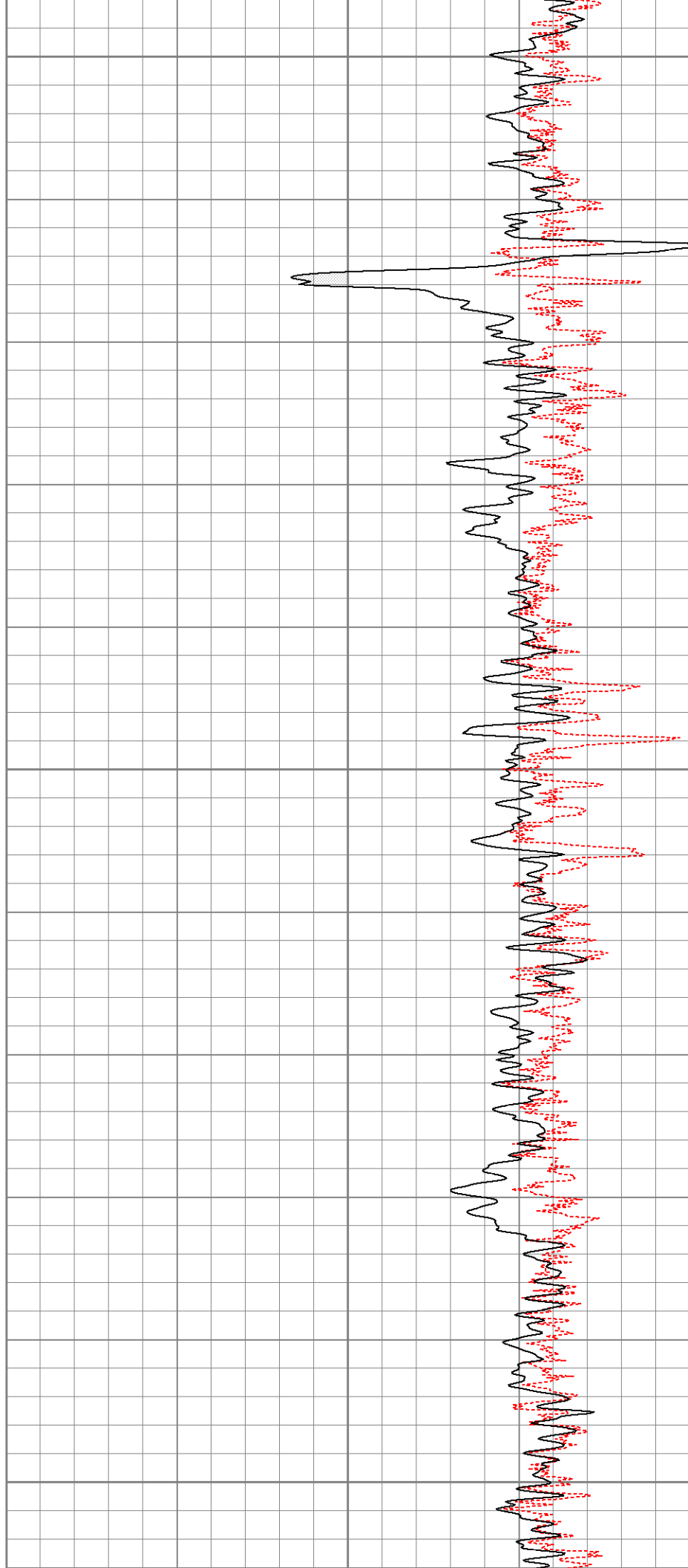


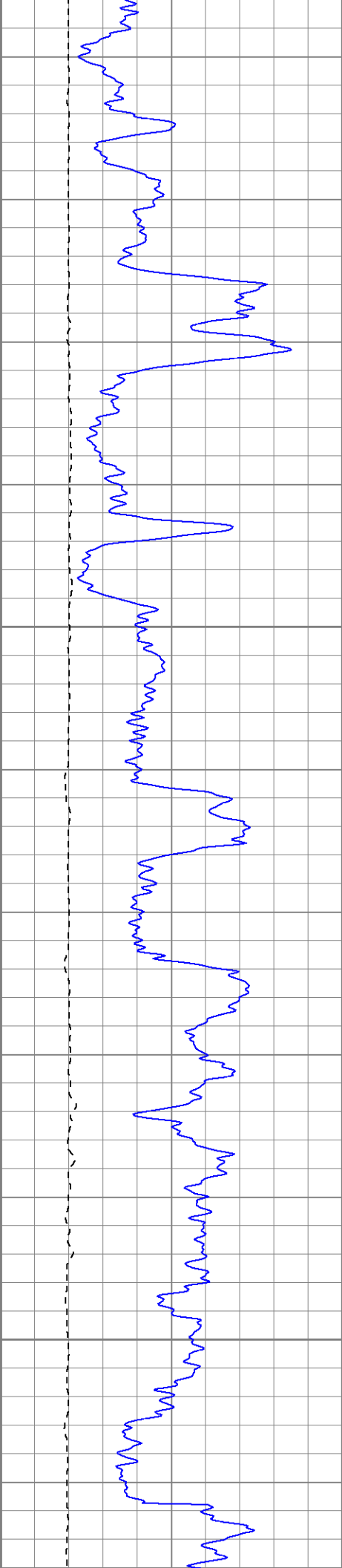


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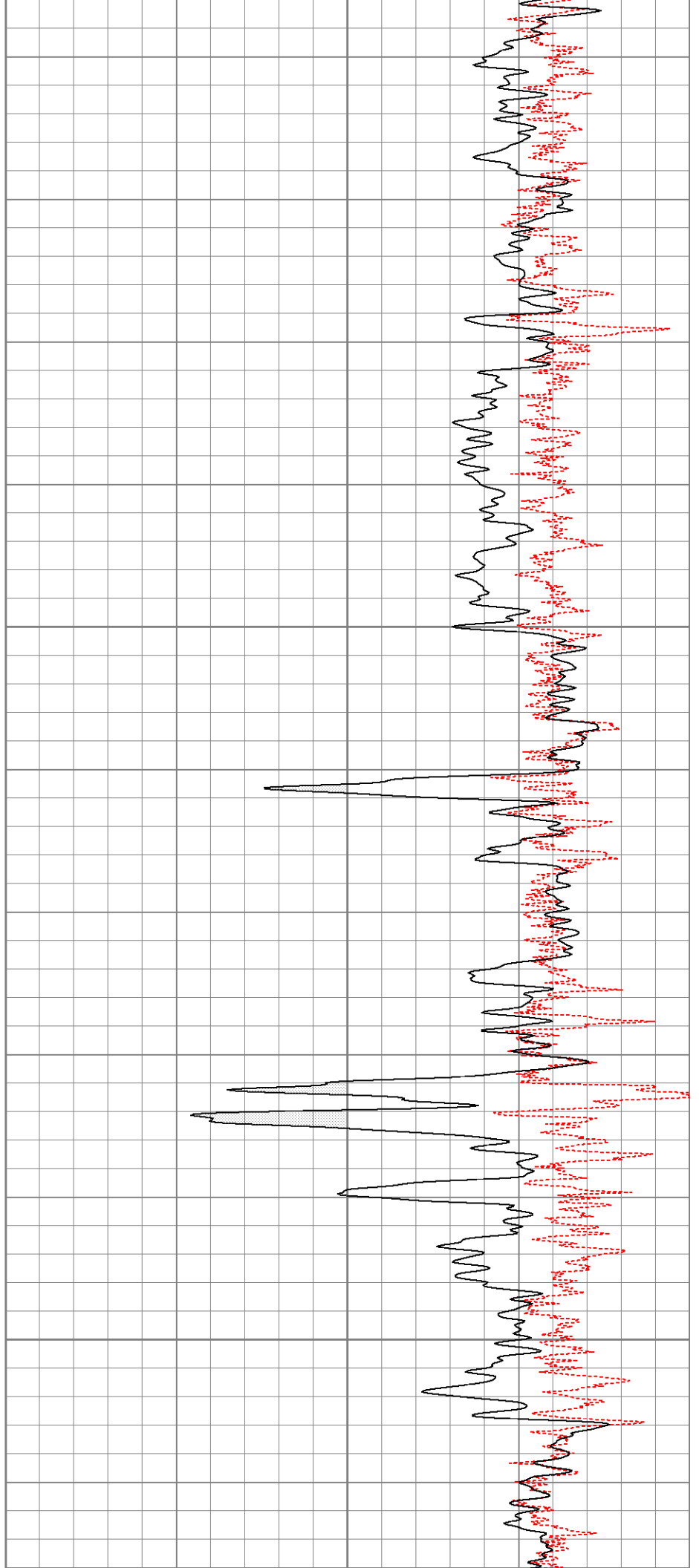
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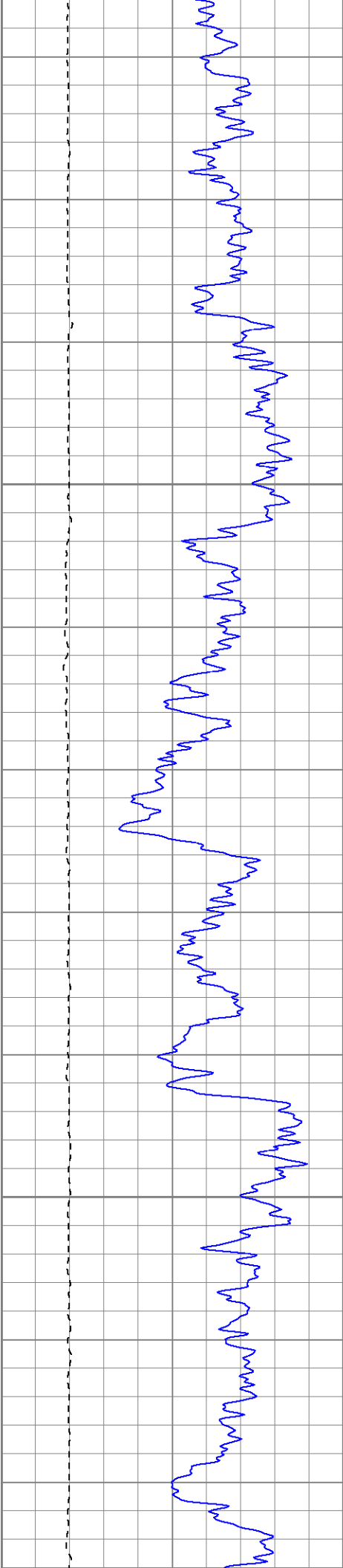




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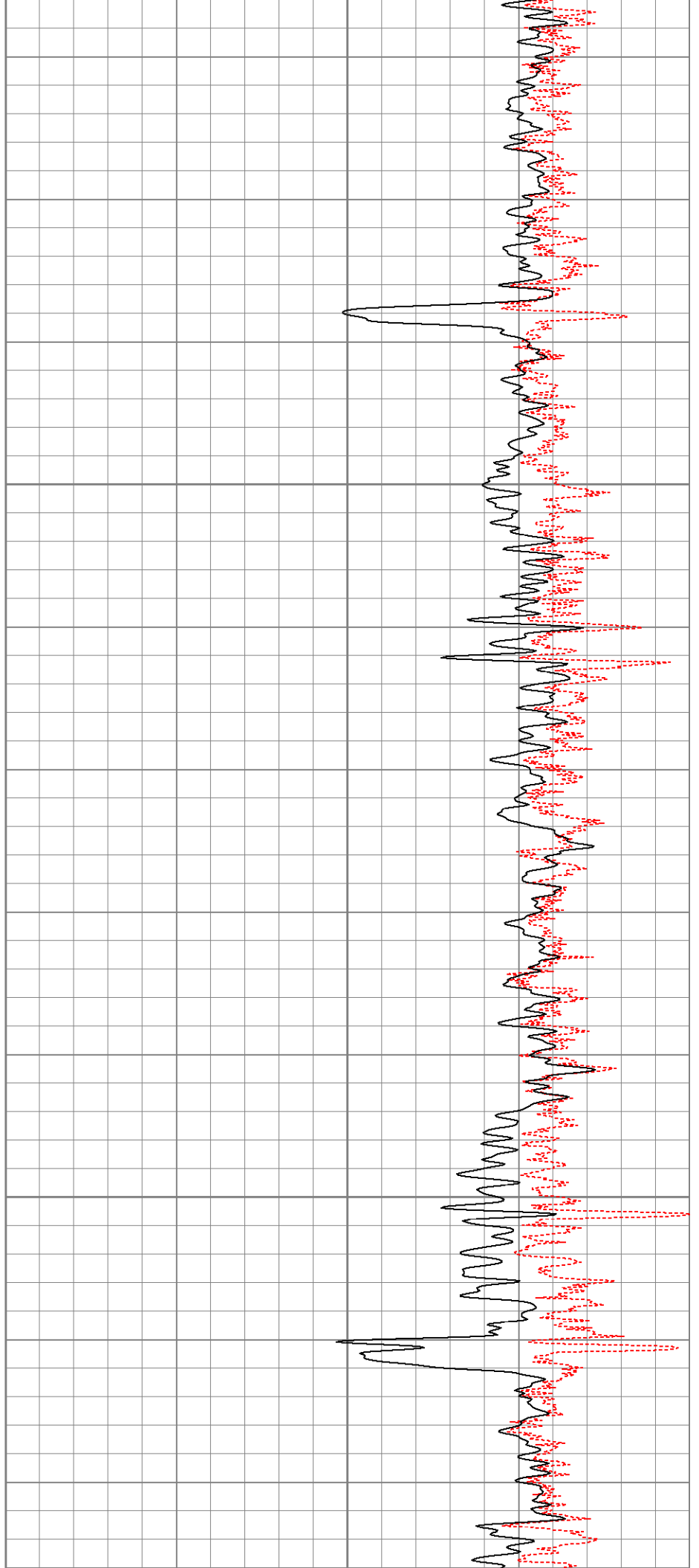
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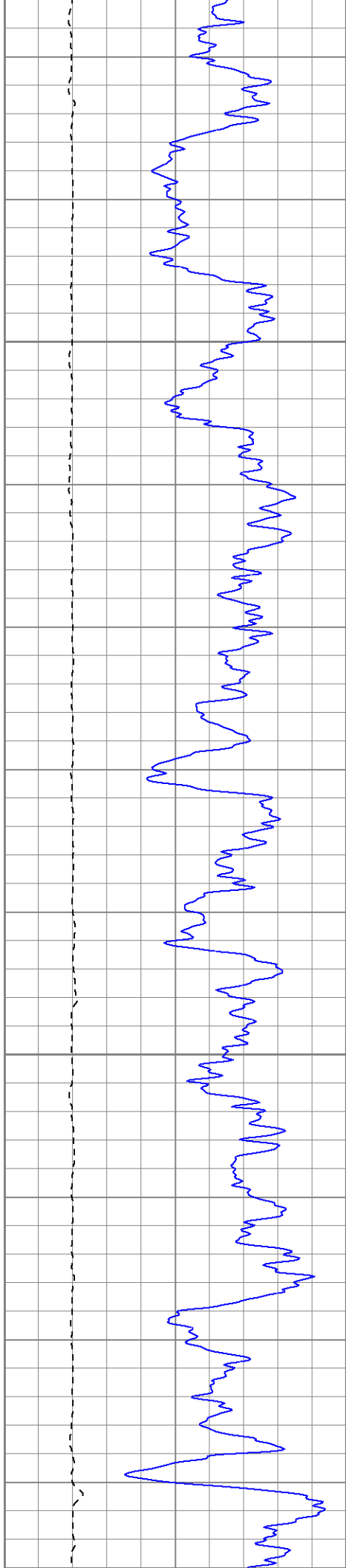




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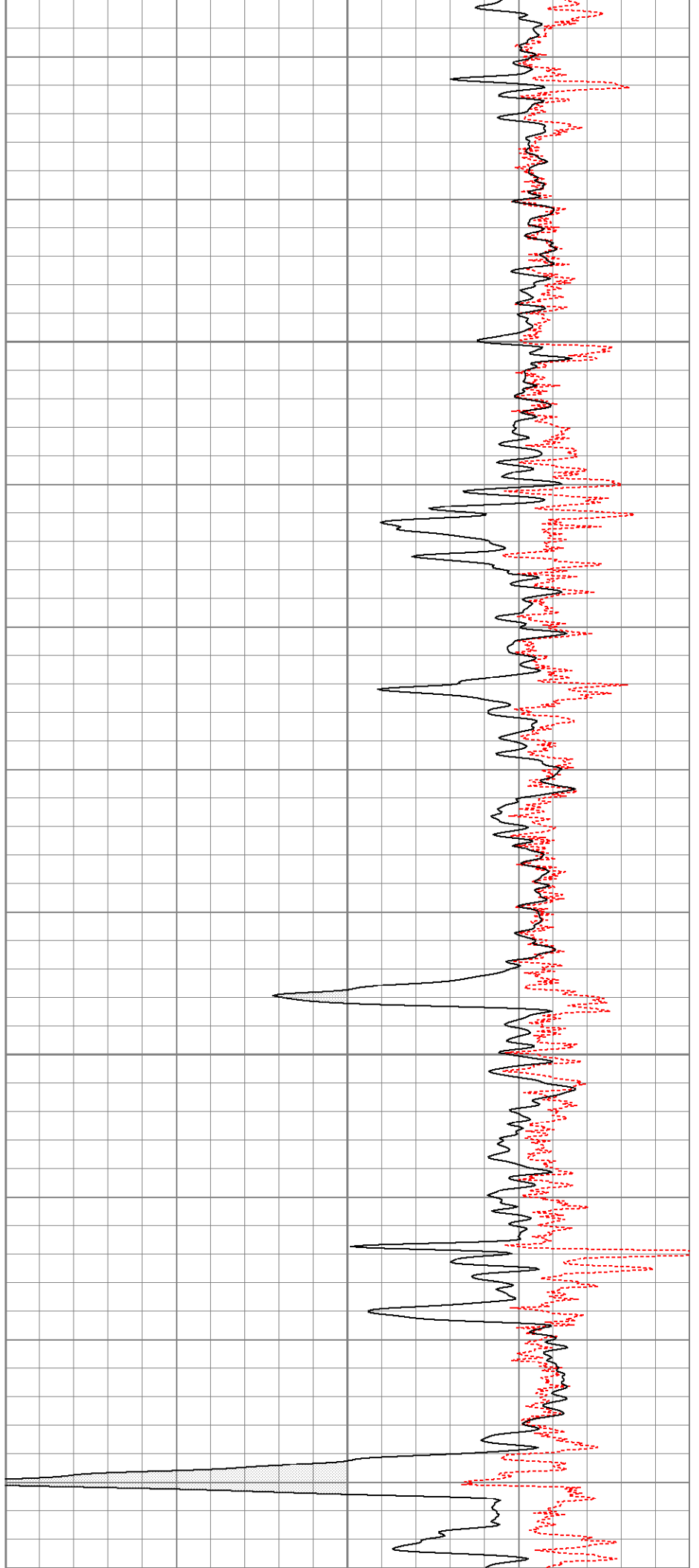
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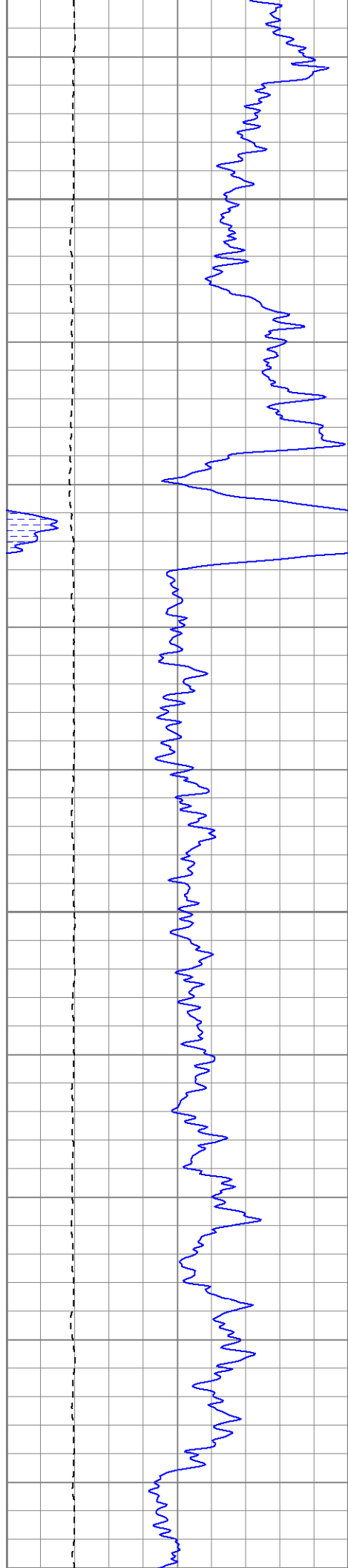




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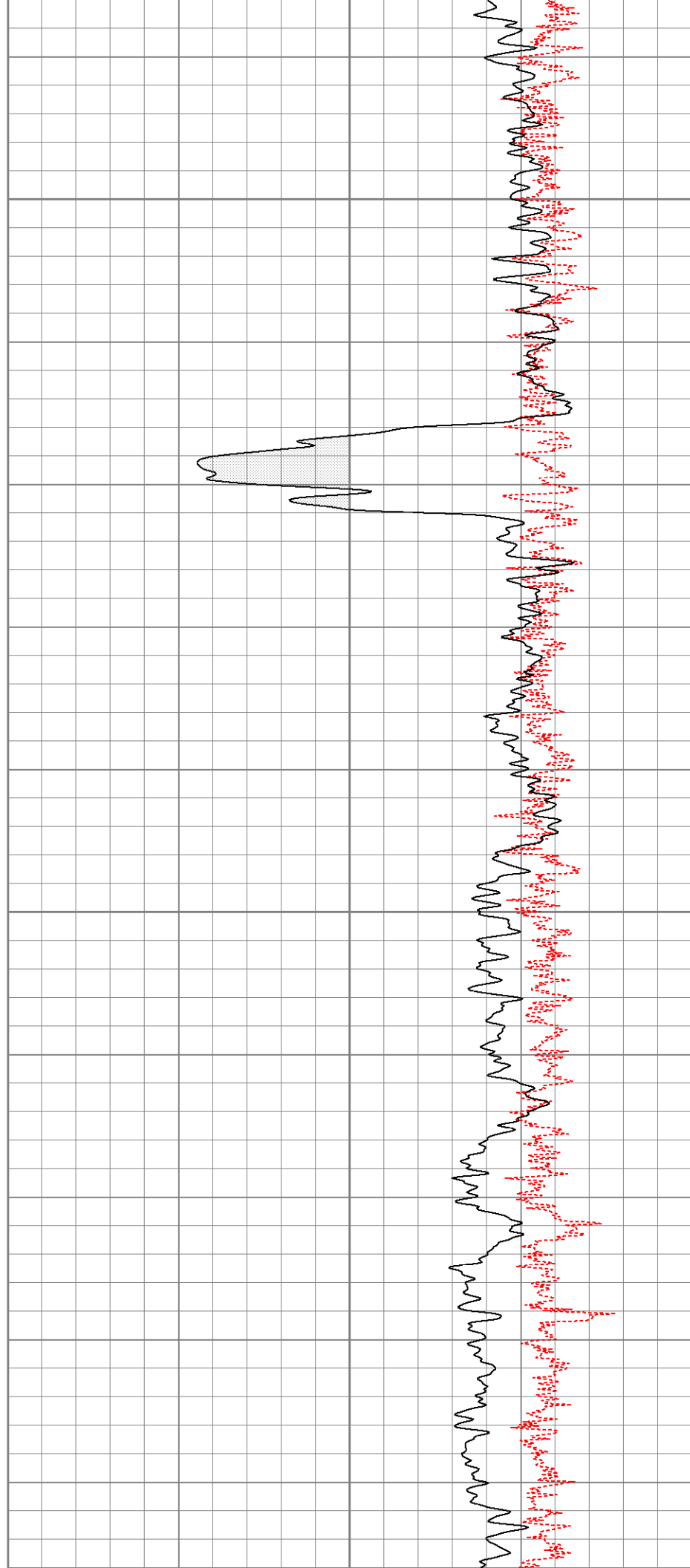
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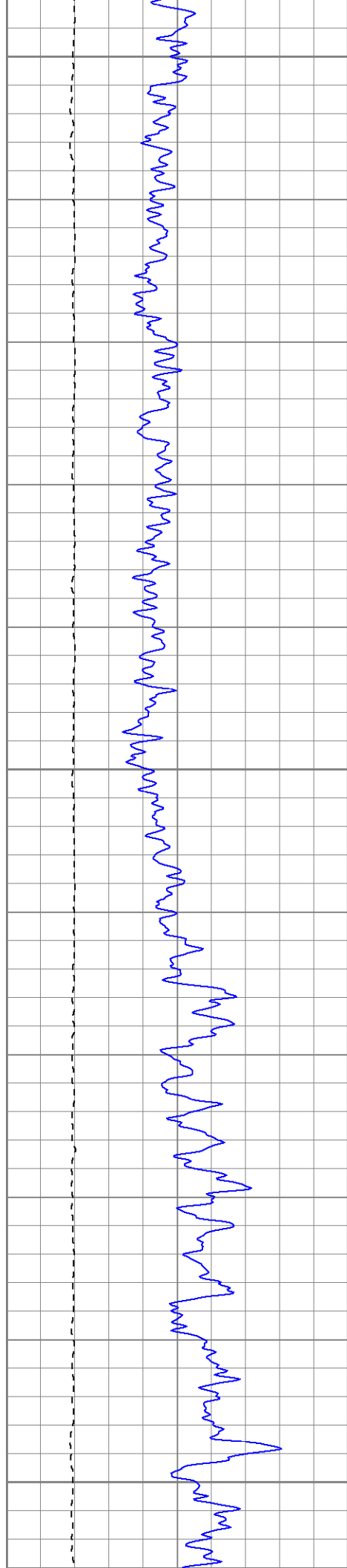




2200

2250

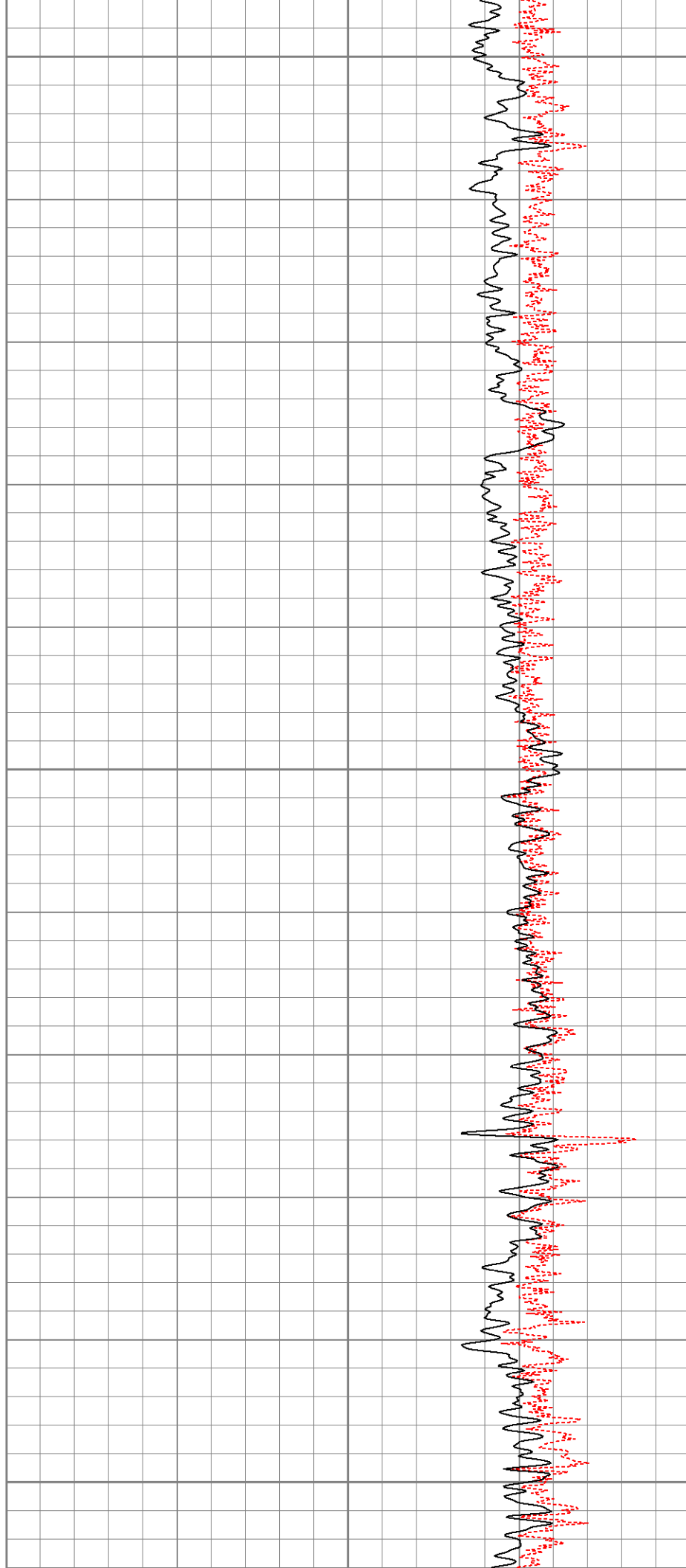


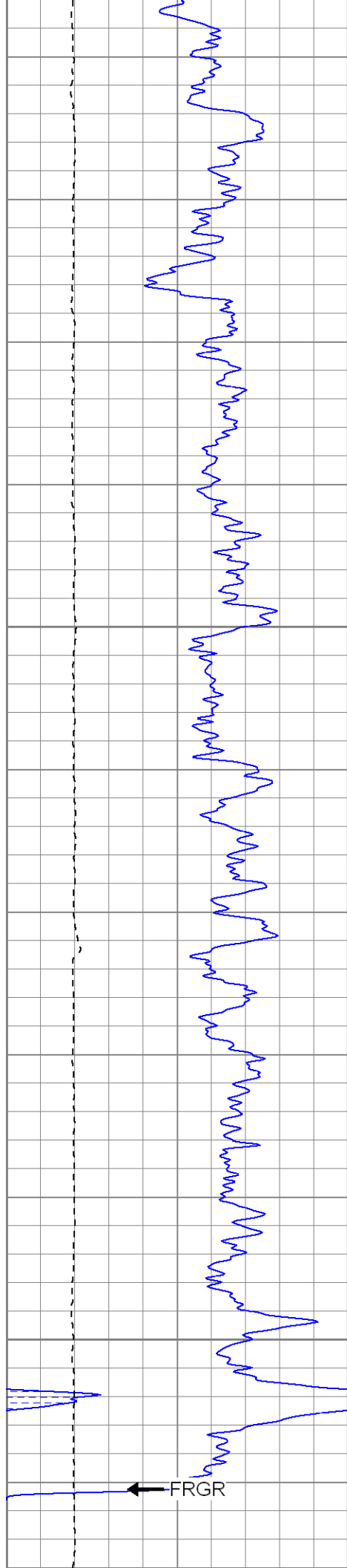


2300

2350

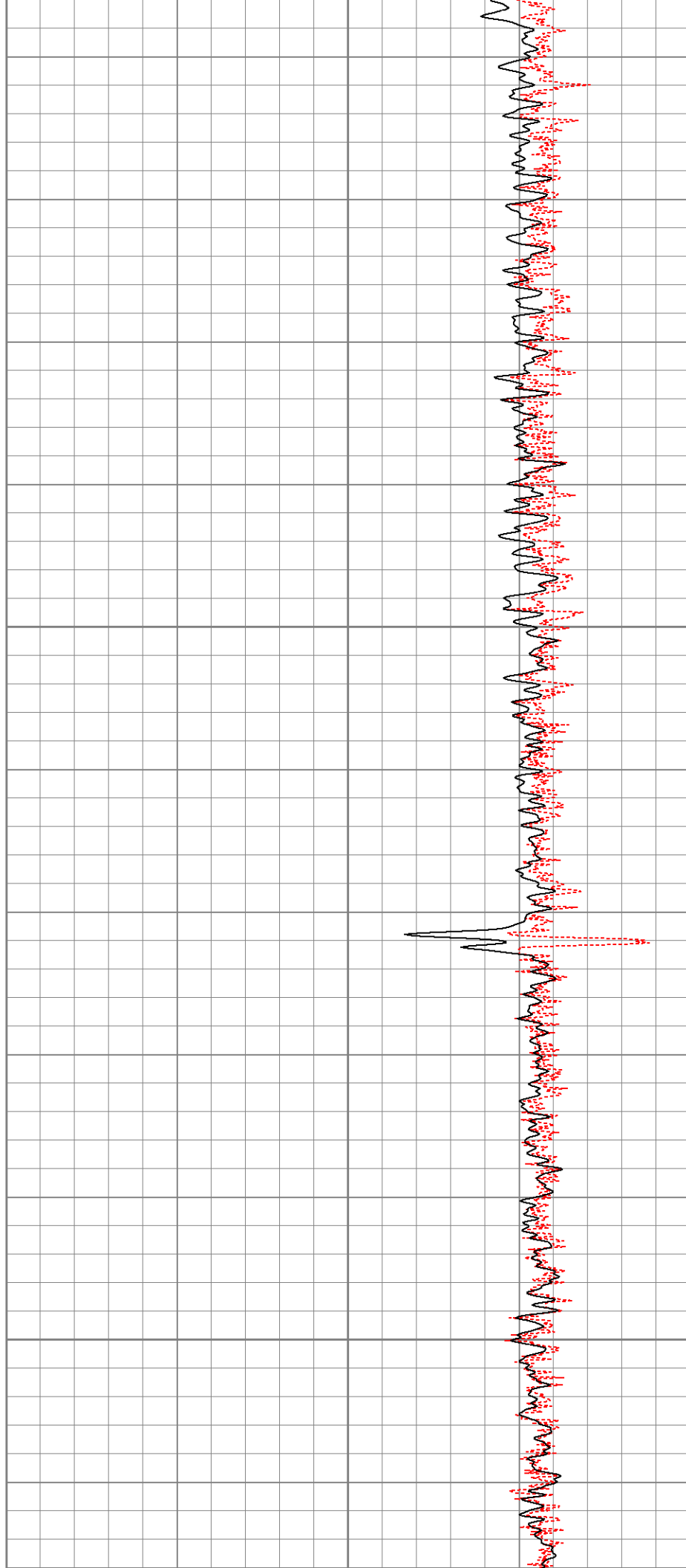
2400

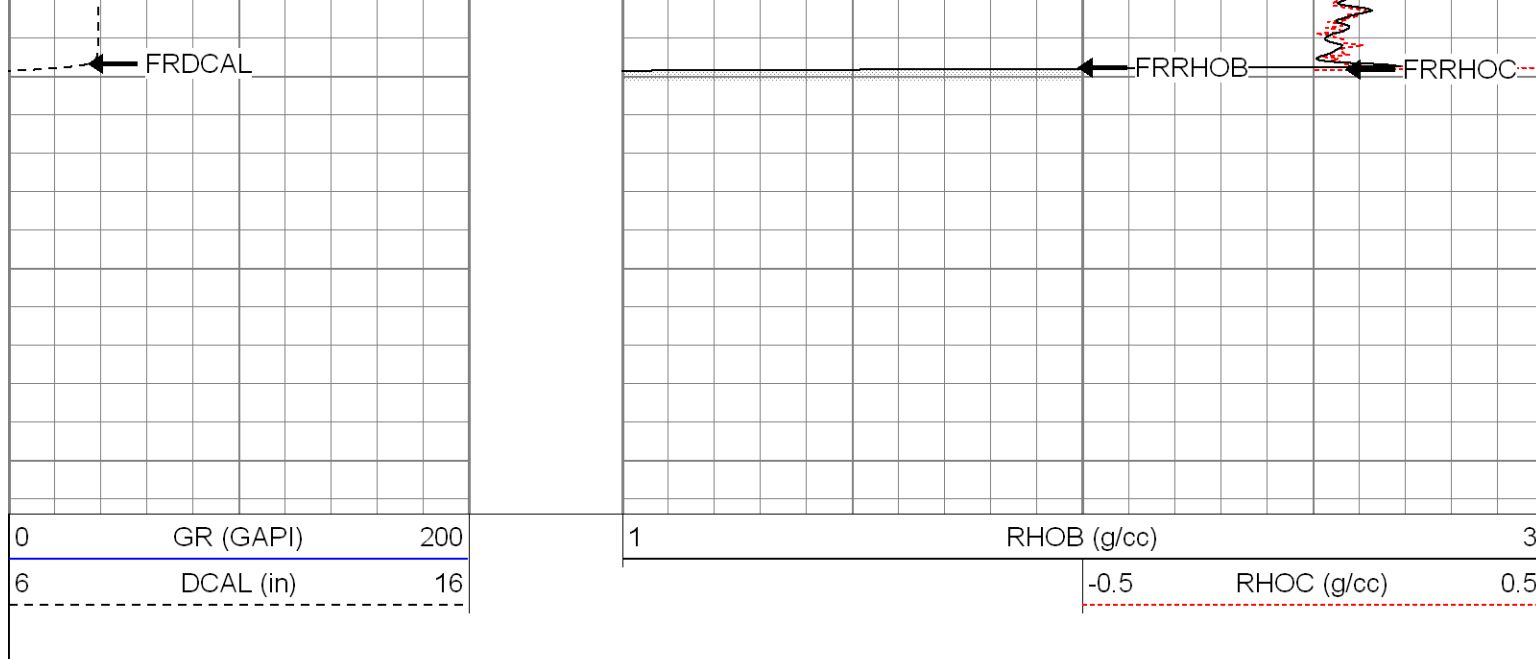




2450

2500





Calibration Report									
Database File:		xtohre2307.db							
Dataset Pathname:		pass1							
Dataset Creation:		Tue Apr 15 20:35:18 2008 by Log Open-Cased 070814							
Dual Induction Calibration Report									
Serial-Model:		5375-G							
Surface Cal Performed:		Tue Apr 01 11:00:37 2008							
Downhole Cal Performed:		Tue Apr 01 11:01:24 2008							
Surface Calibration									
		Readings			References			Results	
Loop:	Air	Loop		Air	Loop		m	b	
Deep	0.001	0.620	V	0.000	500.000	mmho-m	807.237	-0.611	
Medium	0.003	0.742	V	0.000	550.000	mmho-m	743.848	-2.179	
Internal:	Zero	Cal		Zero	Cal		m	b	
Deep	0.001	0.620	V	0.000	500.000	mmho-m	807.141	-0.502	
Medium	0.003	0.742	V	0.000	550.000	mmho-m	743.959	-2.189	
Downhole Calibration									
		Readings			References			Results	
Internal:	Zero	Cal		Zero	Cal		m	b	
Deep	-0.493	500.241	mmho-m	-0.108	499.951	mmho-m	0.999	0.384	
Medium	0.182	550.341	mmho-m	0.009	549.927	mmho-m	1.000	-0.172	
Shallow	2.506	0.008	V	500.000	2.000	Ohm-m	124.000	-3.000	

Temperature Calibration Report									
Serial Number:		2542T							
Tool Model:		CDLP							
Performed:		Wed Apr 09 15:14:20 2008							
		Reference			Reading				
Low Reference:		55.00 degF			3.11 V				

Low Reference: 33.00 degF 5.35 V
High Reference: 160.00 degF

Gain: 46.88
Offset: -90.78
Delta Spacing 1

Compensated Density Calibration Report

Serial-Model: 2542-T2
Source / Verifier: /
Master Calibration Performed: Fri Apr 04 08:43:29 2008

Master Calibration

	Density		Far Detector	Near Detector	
Magnesium	1.710	g/cc	725.64	339.44	cps
Aluminum	2.590	g/cc	162.65	232.88	cps
Spine Angle = 75.86			Density/Spine Ratio = 0.571		
	Size		Reading		
Small Ring	8.00	in	1.33	V	
Large Ring	14.00	in	2.67	V	

Gamma Ray Calibration Report

Serial Number: 2001
Tool Model: OH
Performed: Fri Apr 04 09:53:13 2008

Calibrator Value: 1.0 GAPI

Background Reading: 0.0 cps
Calibrator Reading: 1.0 cps

Sensitivity: 0.2500 GAPI/cps

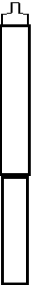

Neutron Calibration Report

Serial Number: 5108
Tool Model: PROBE
Performed: Wed Apr 09 15:10:14 2008

Calibrator Value: 1 NAPI

Calibrator Reading: 1 cps

Sensitivity: 1 NAPI/cps

Sensor	Offset (ft)	Schematic	Description	Len (ft)	OD (in)	Wt (lb)
NEU	37.47		None	0.75	1.50	5.00
			NEU-PROBE (5108) Probe Epithermal	4.92	3.63	85.00
GR	31.94		GR-OH (2001) 2001	3.56	3.25	40.00

