



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

# COMPENSATED DENSITY NEUTRON LOG

Company XTO Energy Inc.  
Well New Elk 24-15  
Field Purgatoire River  
County Las Animas State Colorado

Location: API # : 05 071 09472 00

666' FSL & 2354' FEL

DIL

SEC 24 TWP 33S RGE 68W

Permanent Datum	Ground Level	Elevation	7955'
Log Measured From	Ground Level		
Drilling Measured From	Ground Level		

Elevation  
K.B. -----  
D.F. -----  
G.L. 7955'

Date 3-21-08

Run Number One

Depth Driller 2480'

Depth Logger 2474'

Bottom Logged Interval 2451'

Top Log Interval Surface Casing

Casing Driller 8 5/8" @ 764'

Casing Logger 764'

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 1:30 P.M.

Time Logger on Bottom 4:15 P.M.

Maximum Recorded Temperature 108 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.  
Neutron Porosity Invalid From 1786' to 1732' due to foam.  
Well Directions:  
Second Bosque Entrance, straight across railroad tracks, at Y stay left to  
Apache canyon, take first right past windmill, follow up the hill,  
through one location, at fork stay left, take first hard right up hill,  
first drive through location on top of hill.

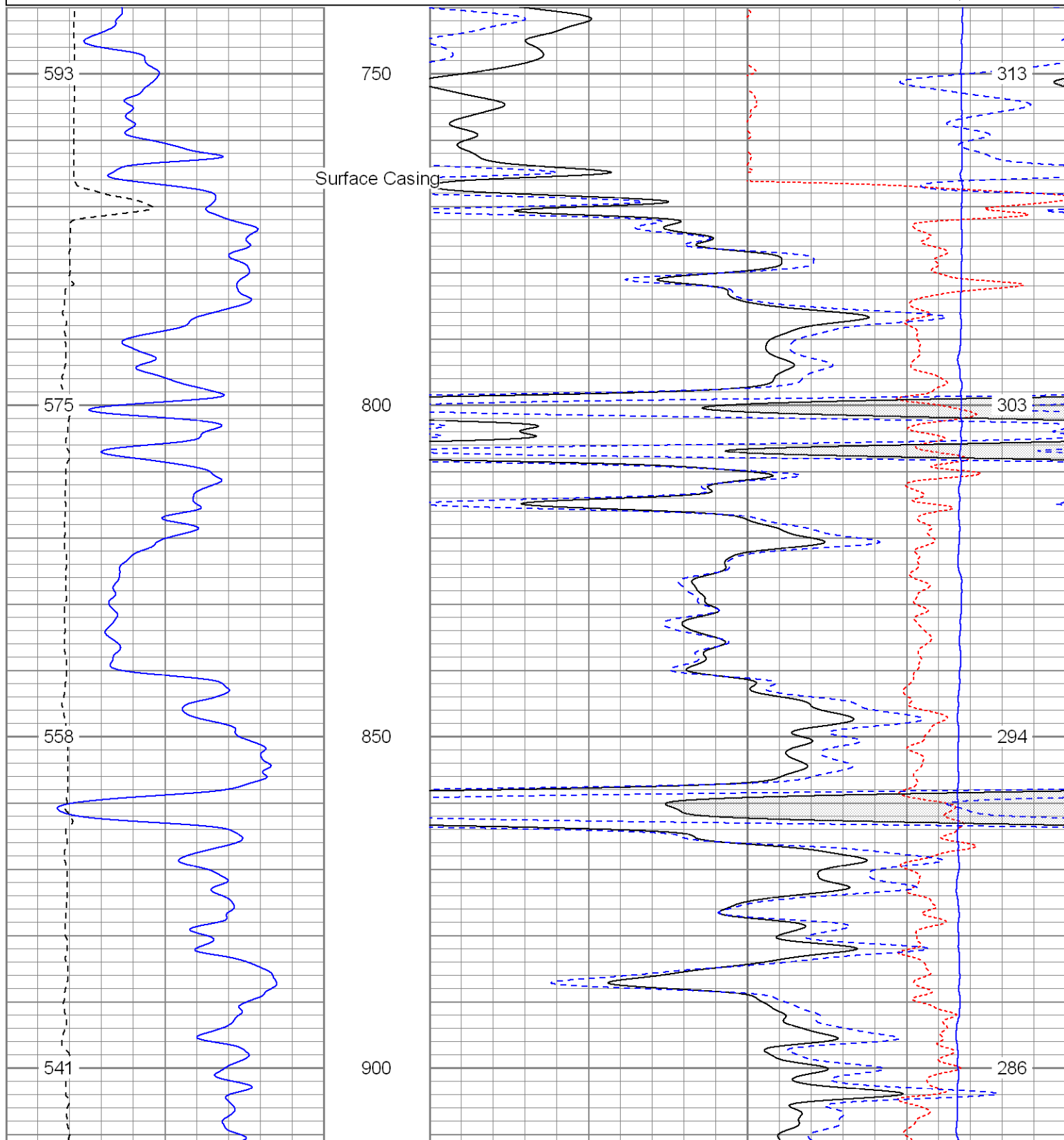


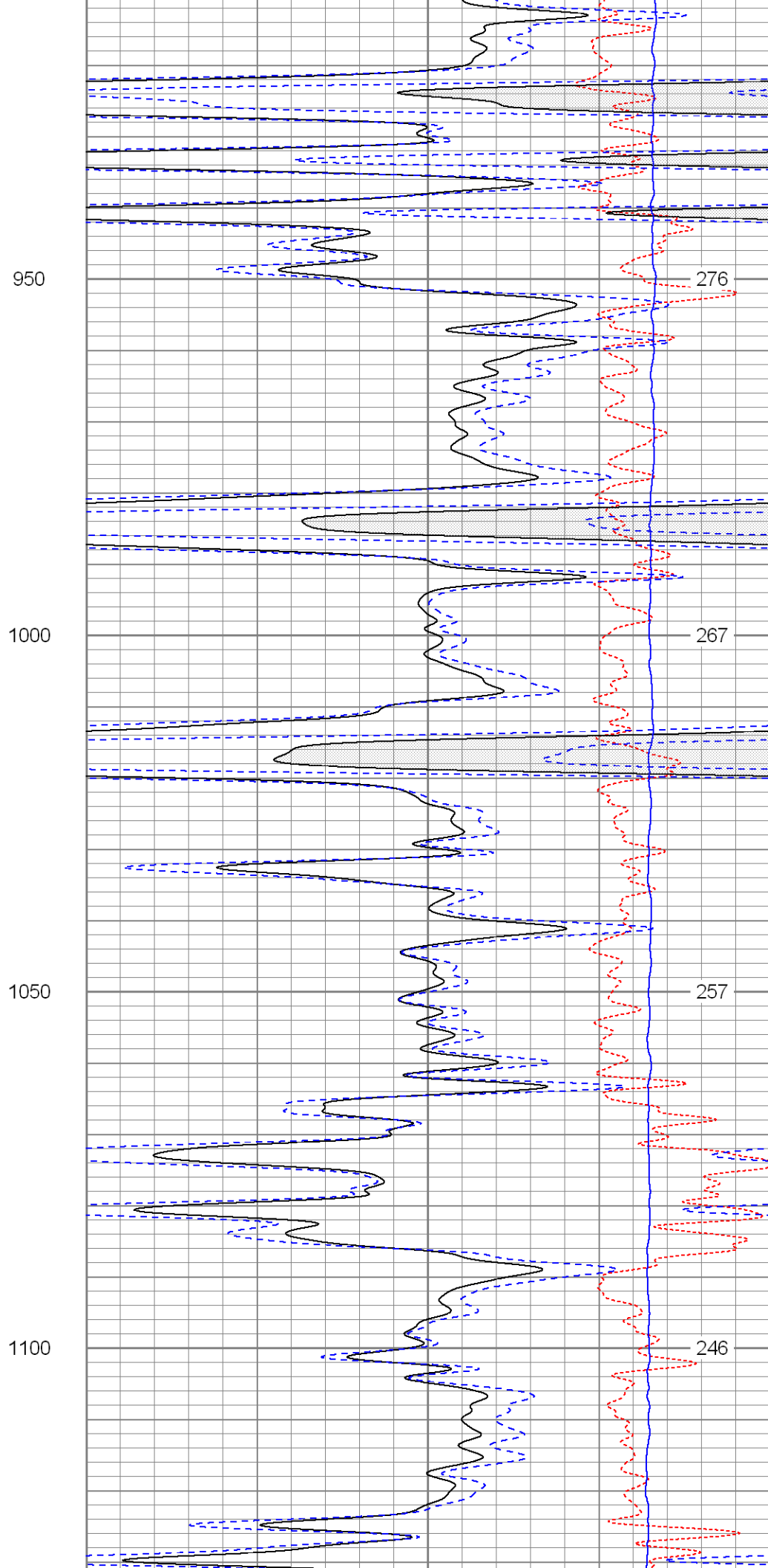
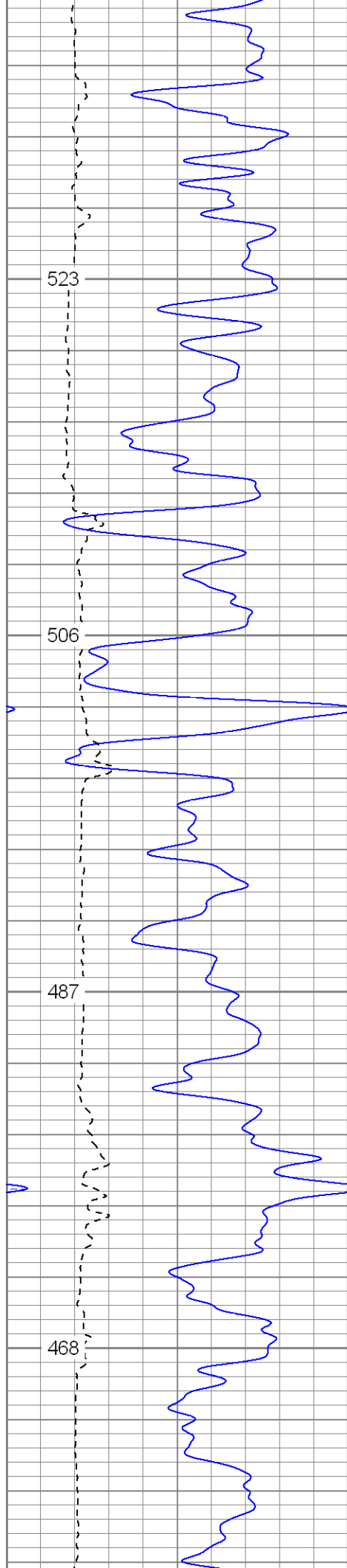
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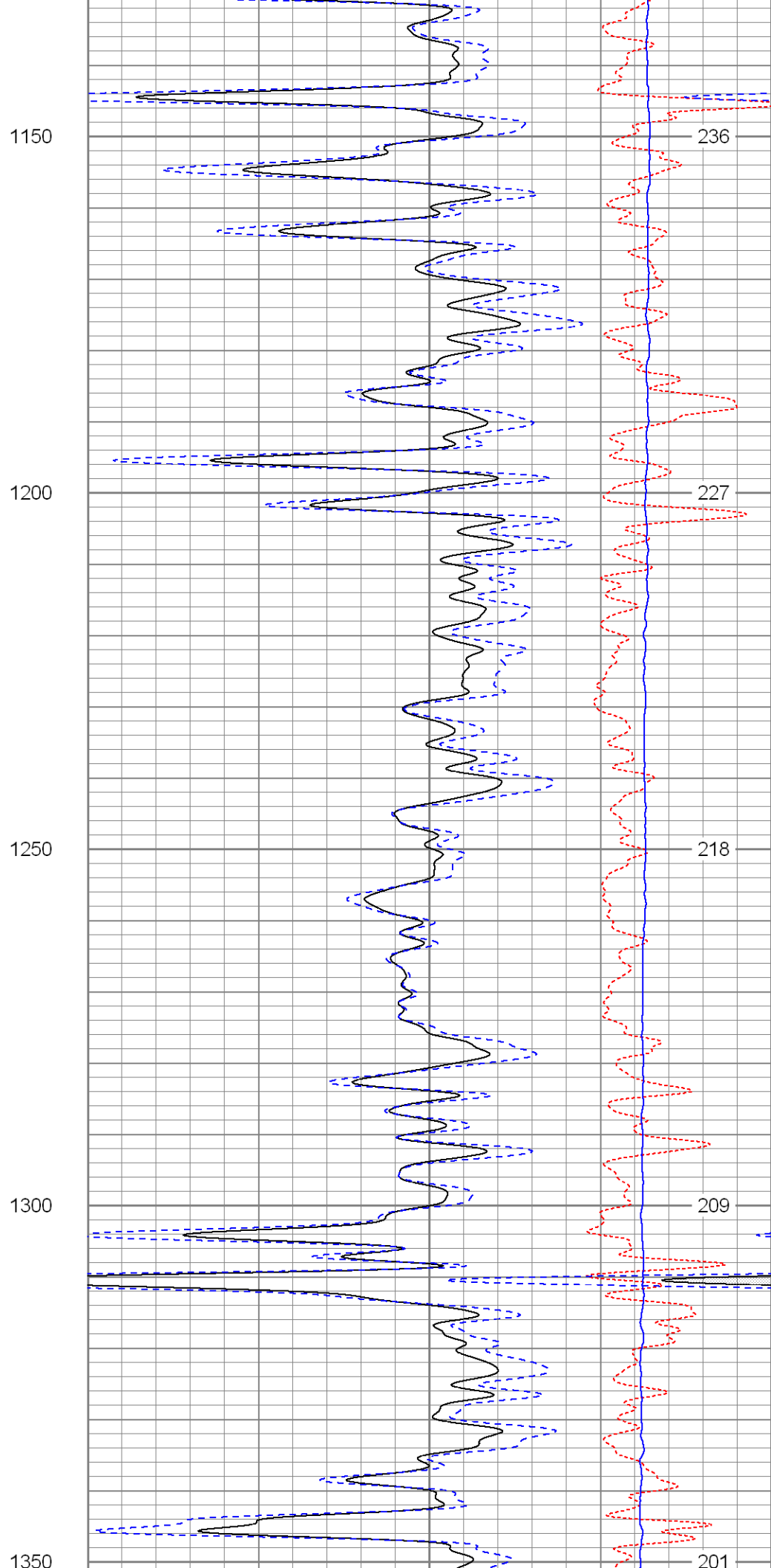
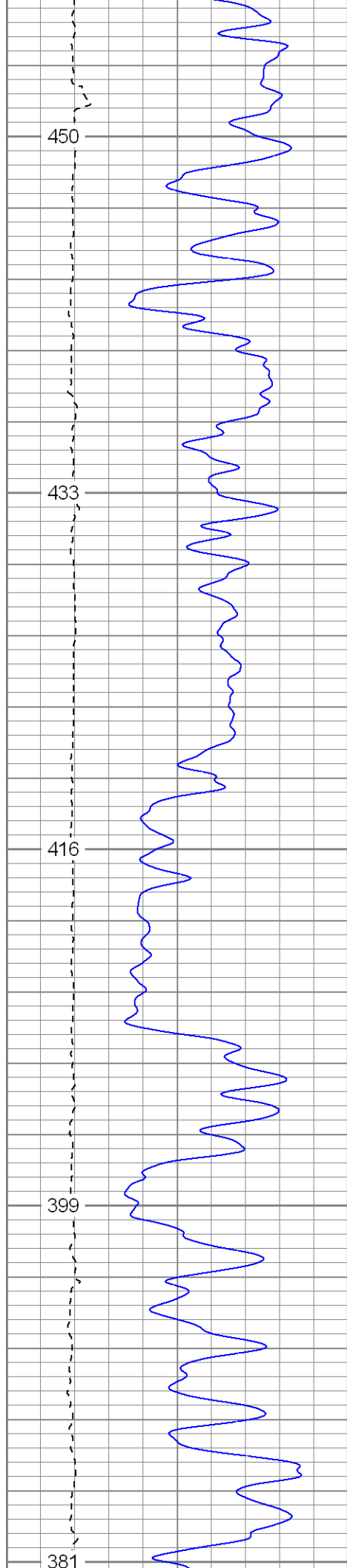
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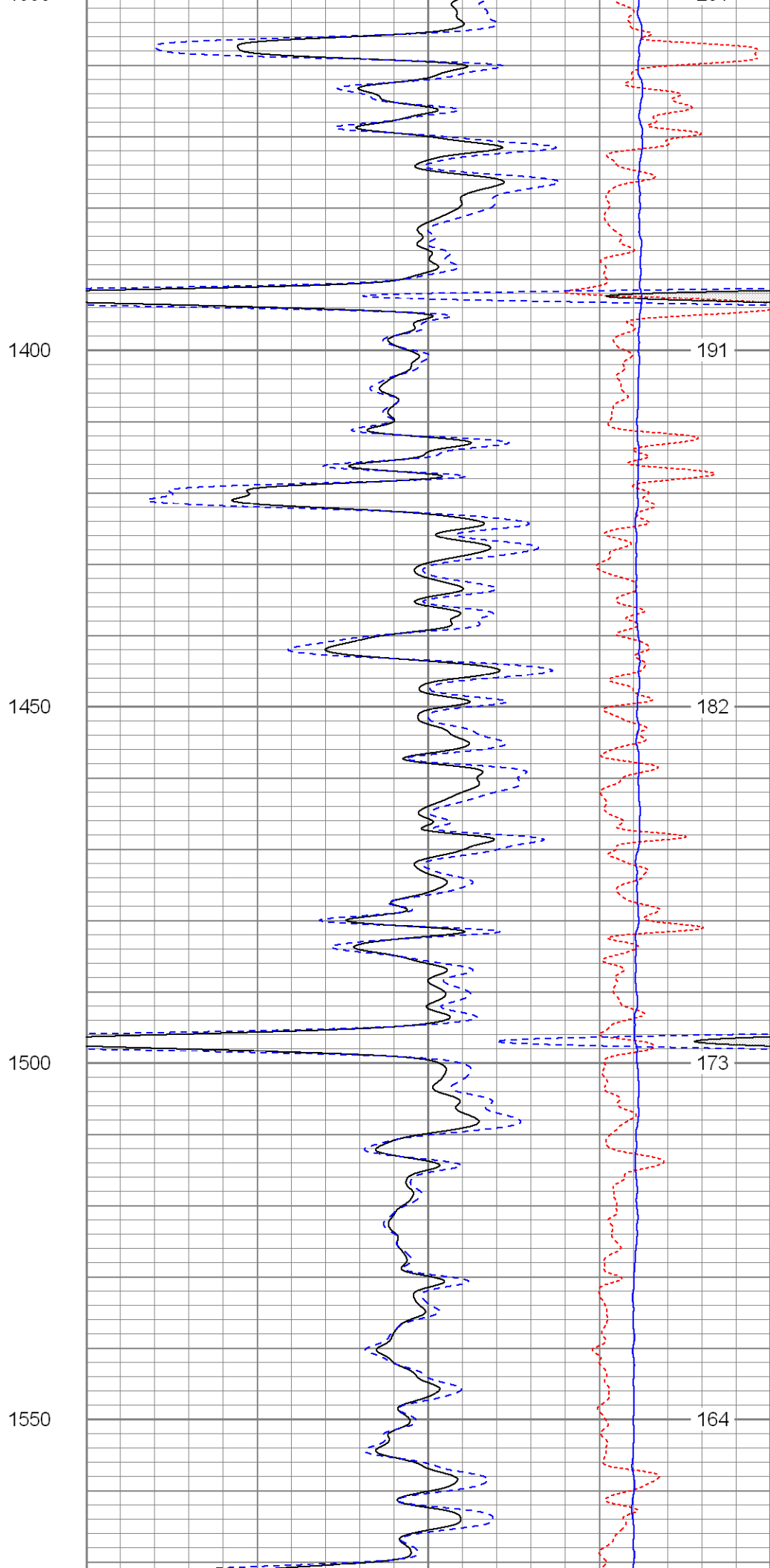
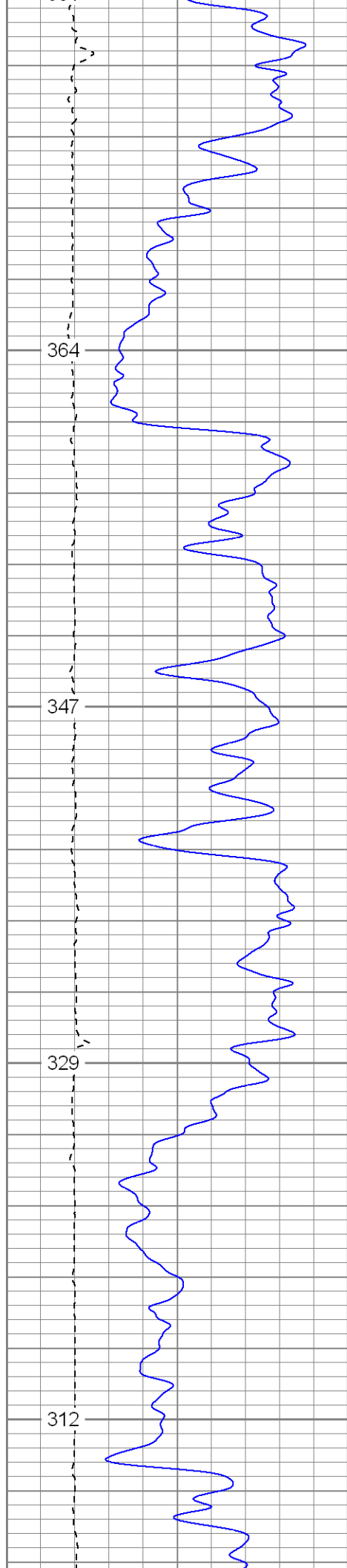
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Dataset Pathname: pass4.1  
Presentation Format: cdl  
Dataset Creation: Fri Mar 21 18:43:40 2008 by Calc Open-Cased 070814  
Charted by: Depth in Feet scaled 1:240

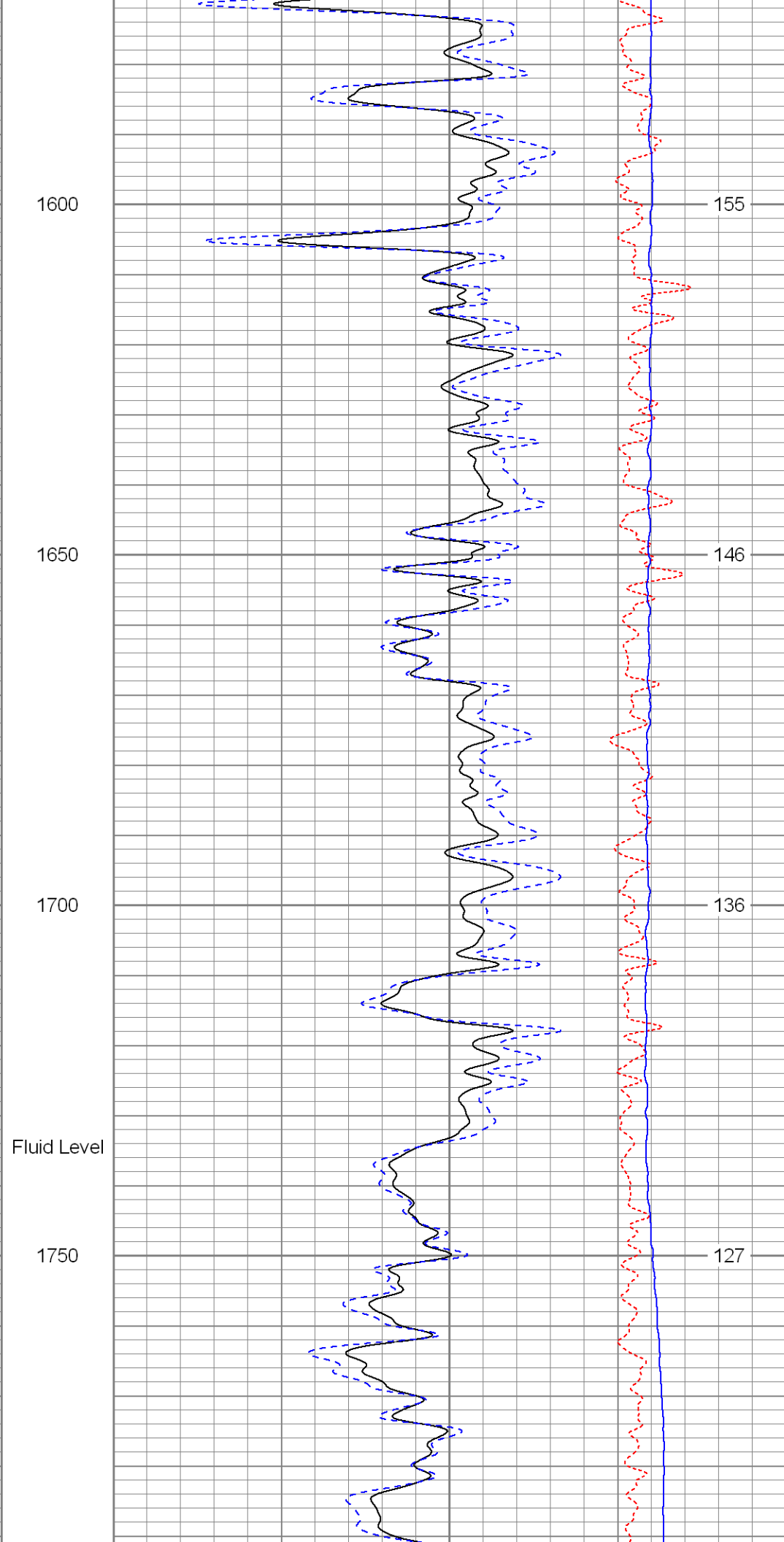
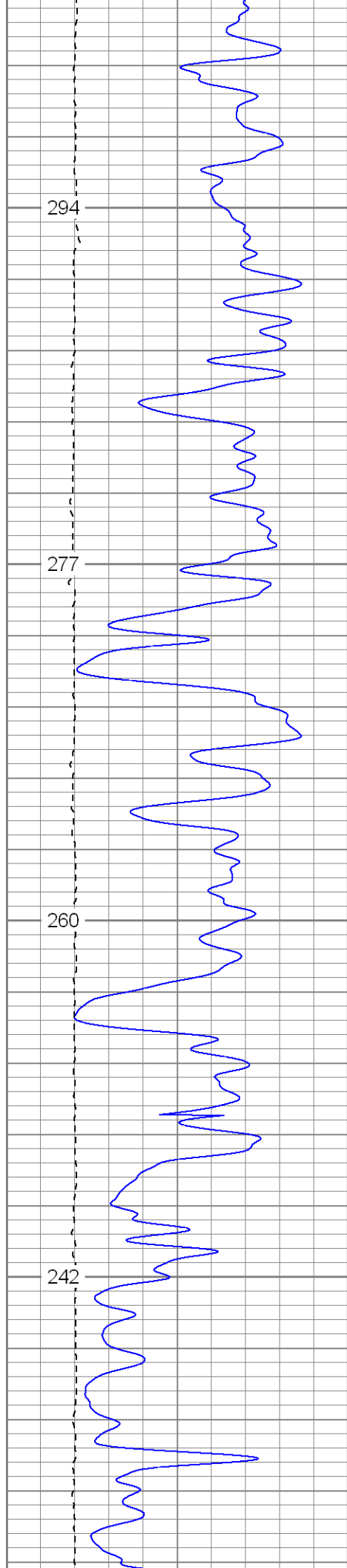
0	GR (GAPI)	200	2	RHOB (g/cc)		3
6	DCAL (in)	16	1	RHOB (g/cc)		2
TBHV (ft3)			30	DPOR (pu)		-10
				-0.5	RHOC (g/cc)	0.5
				4000	LTEN (lb)	0
						ABHV (ft3)

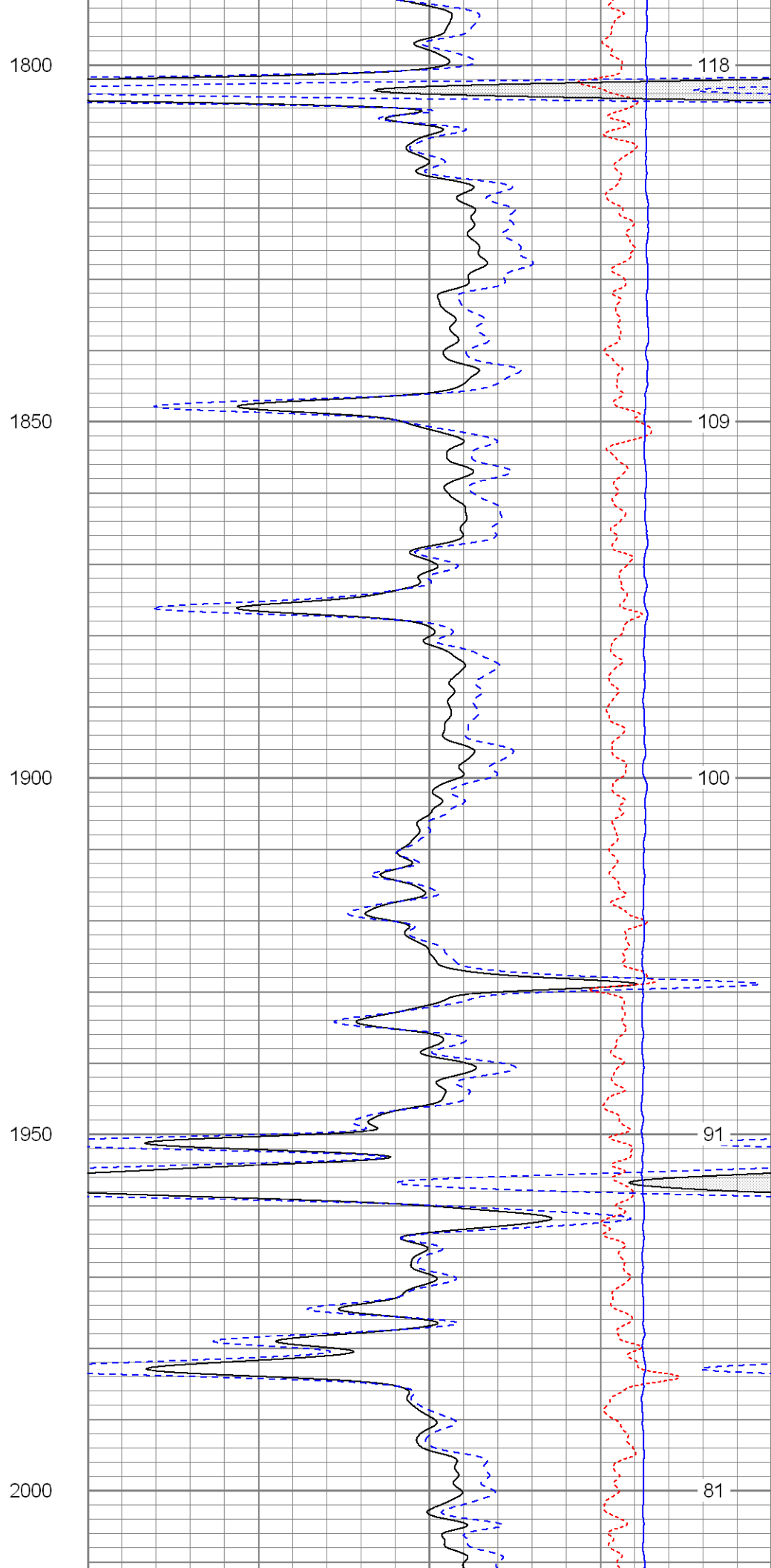
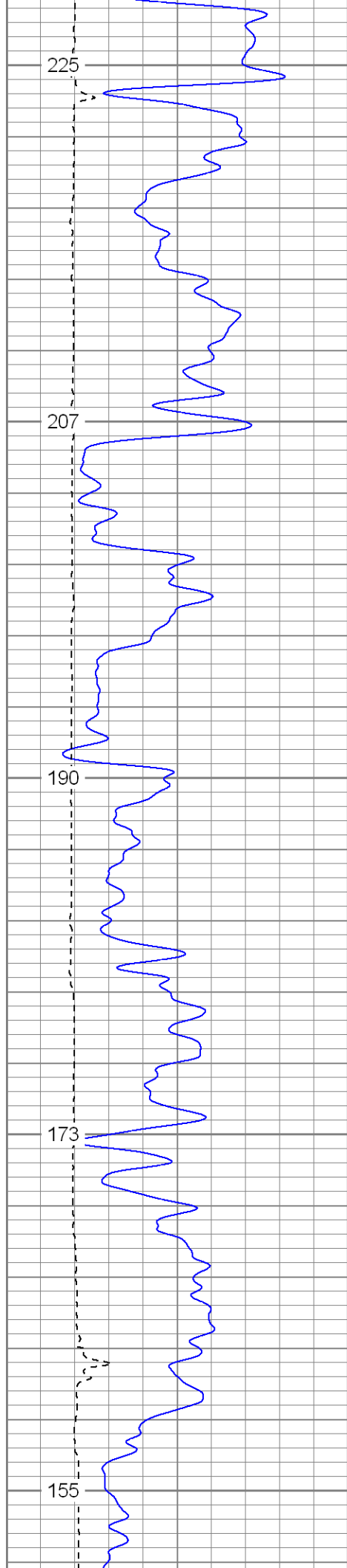


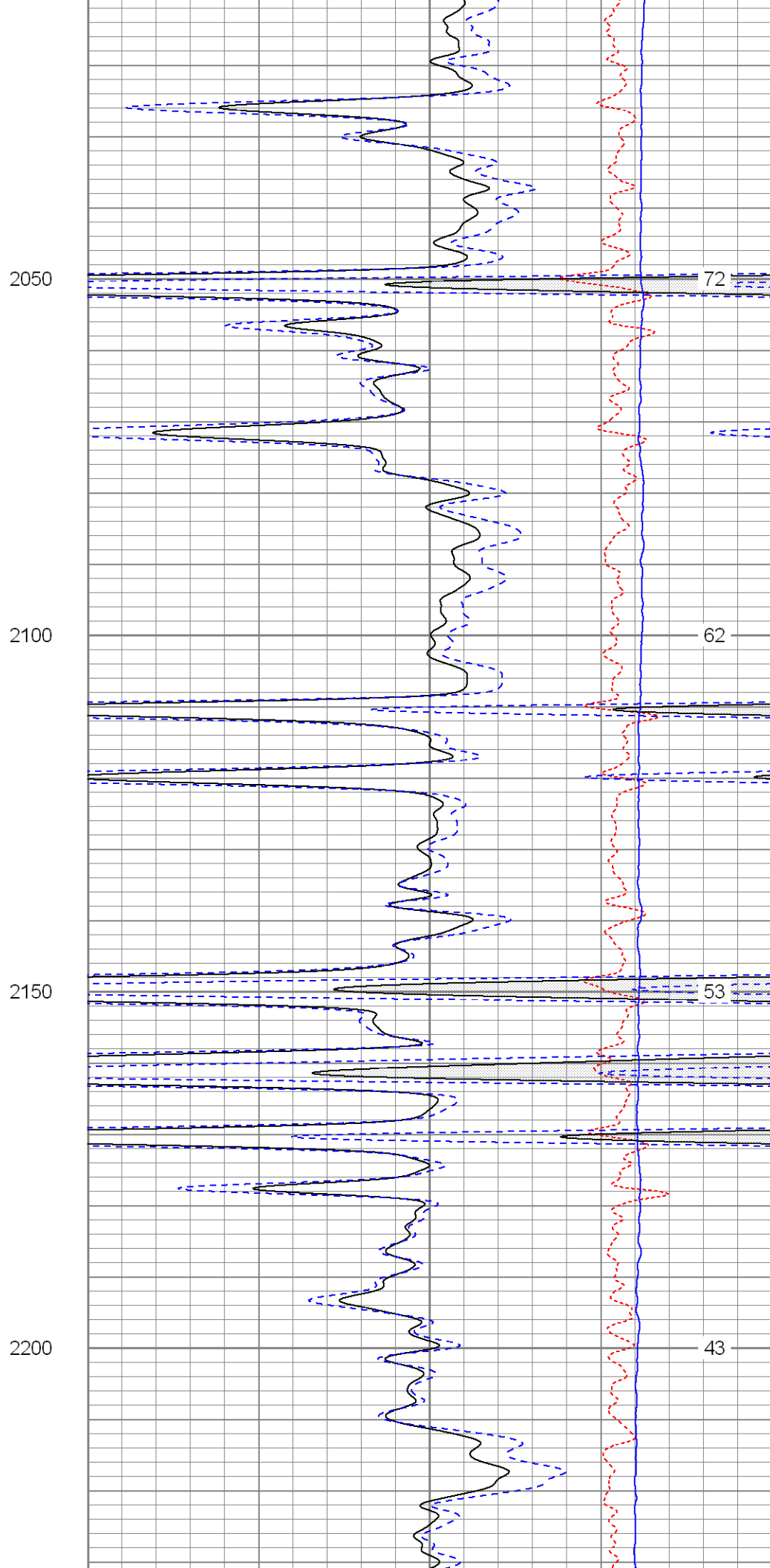
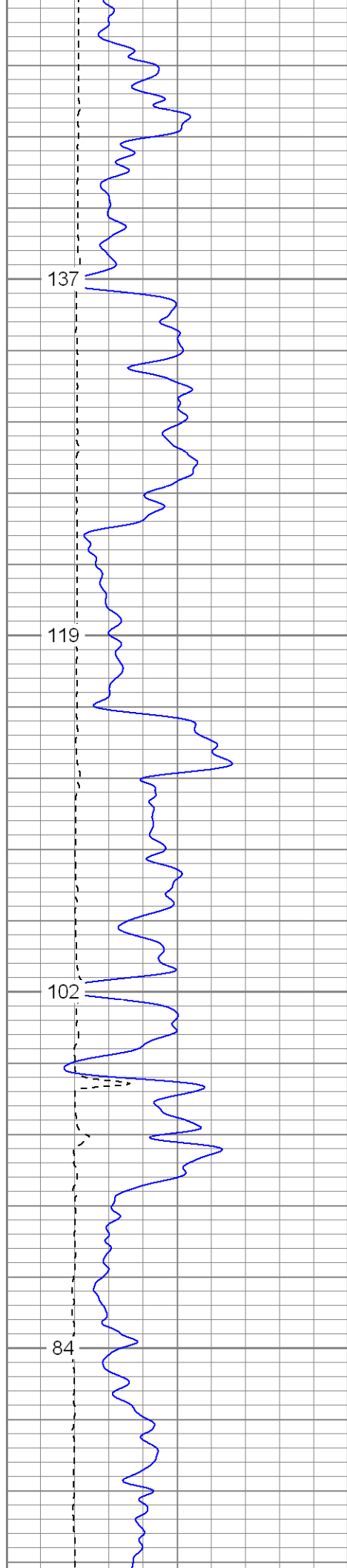




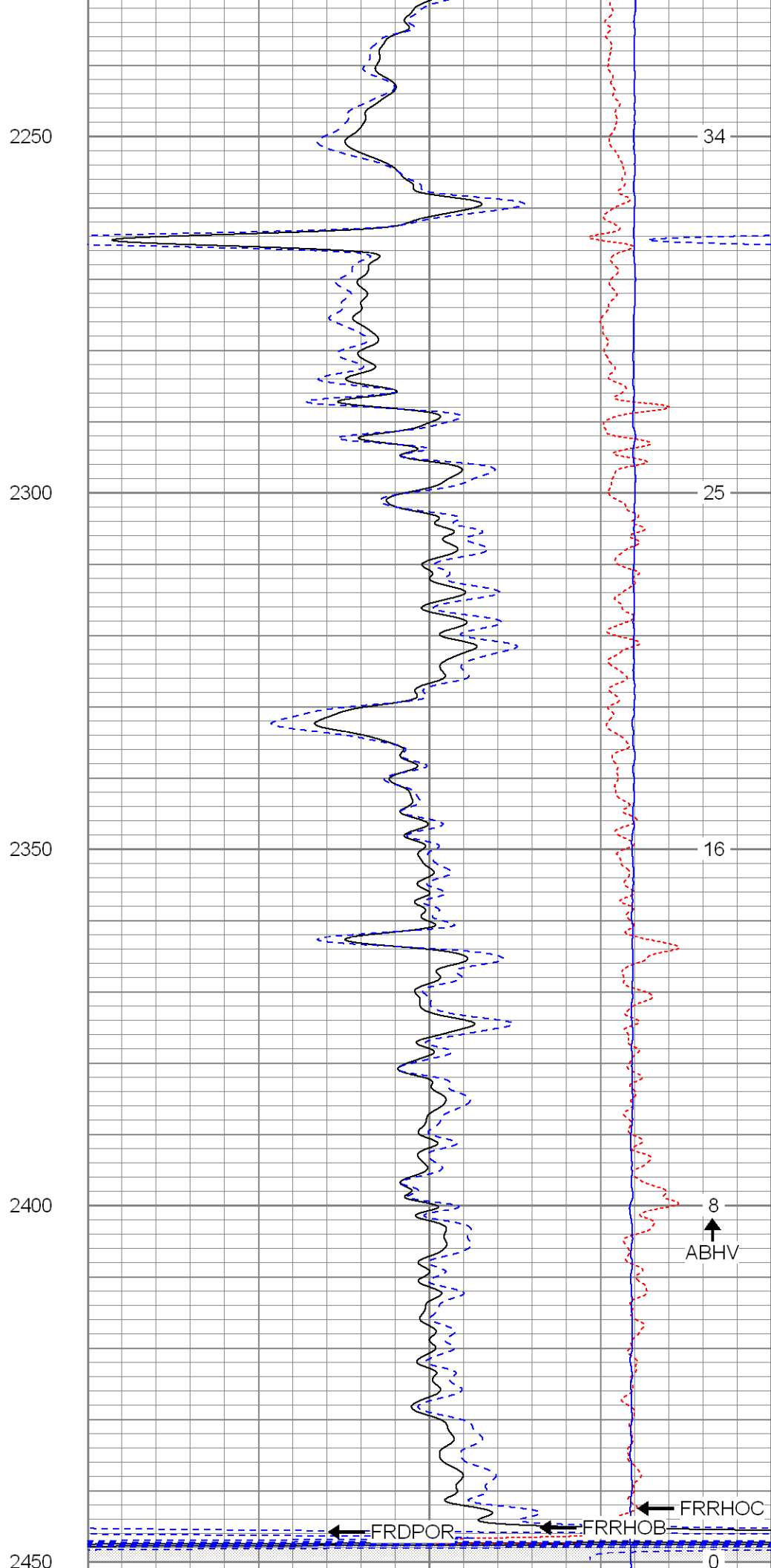
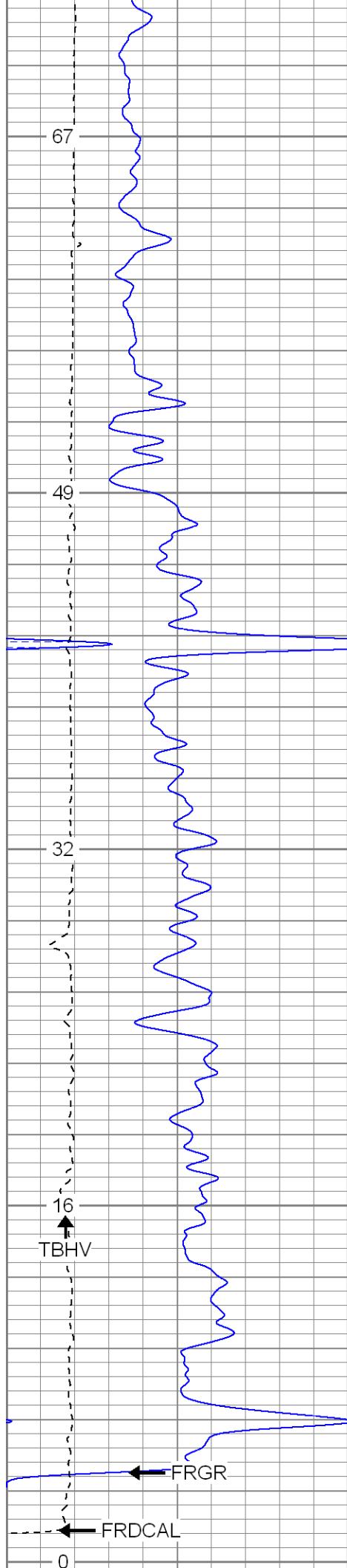


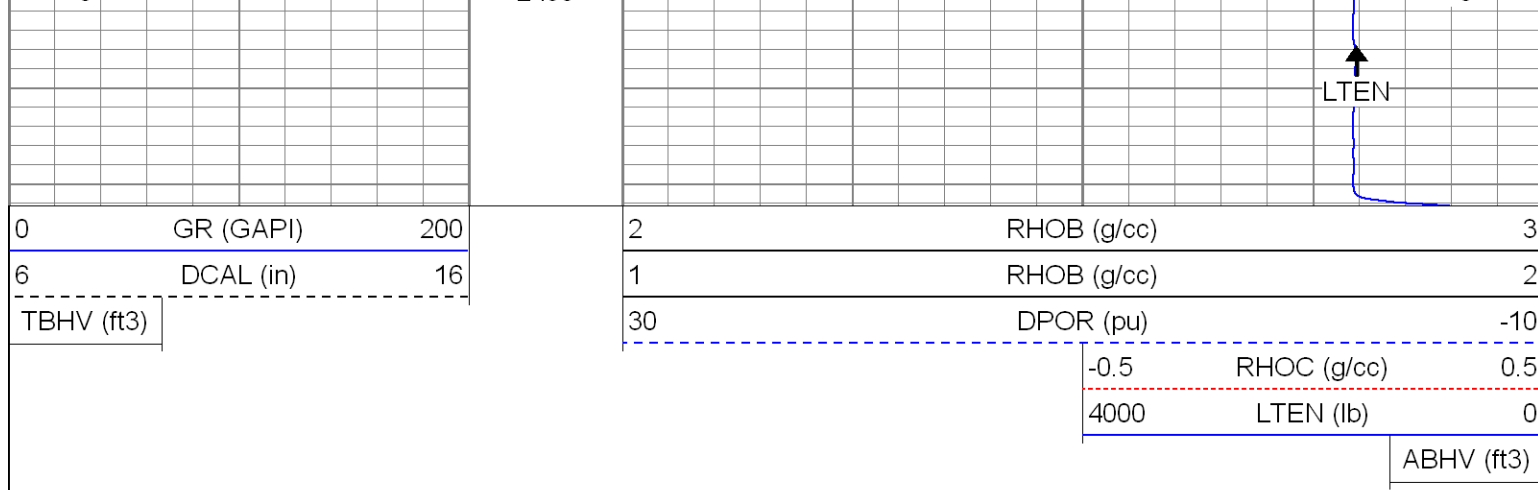













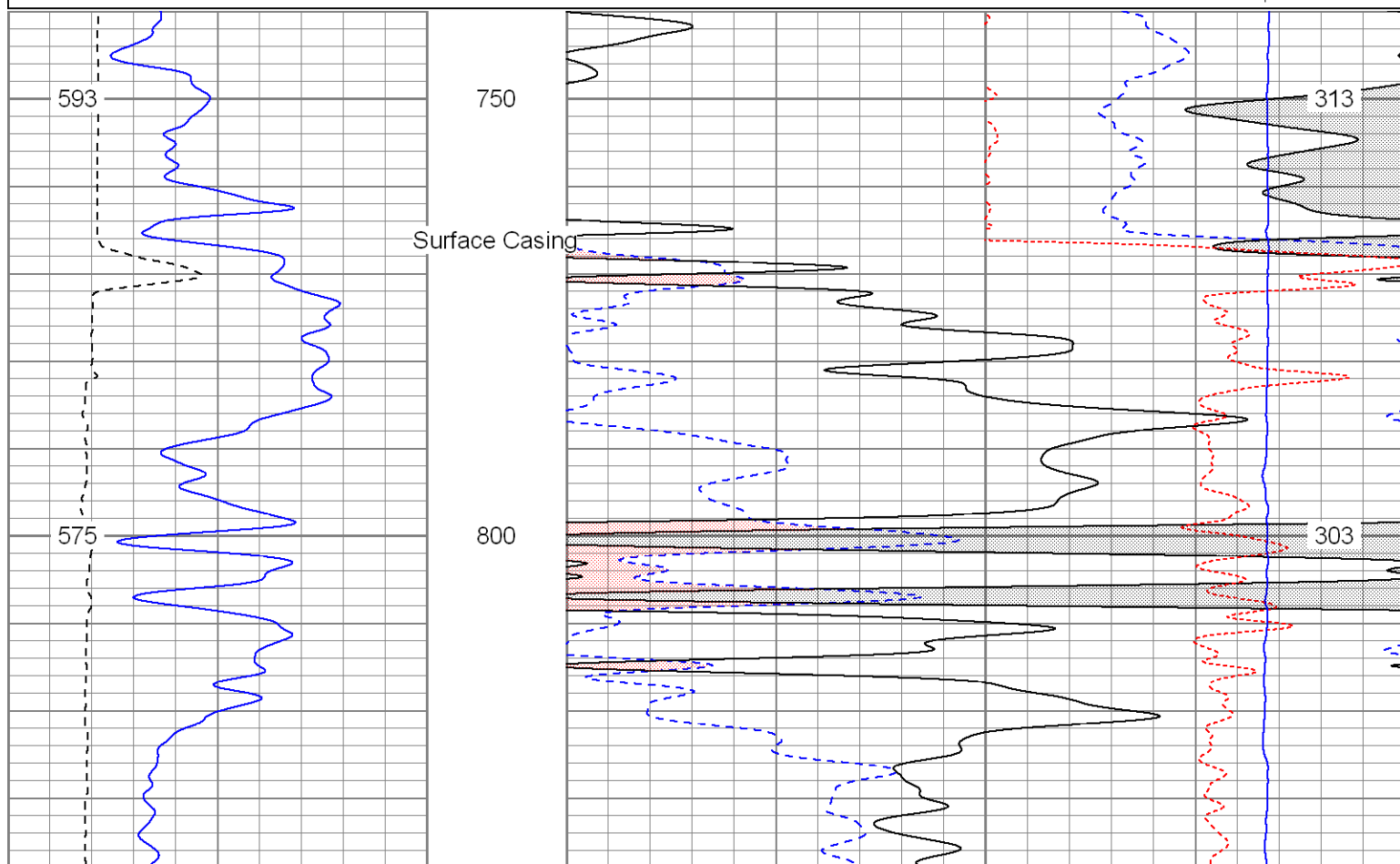
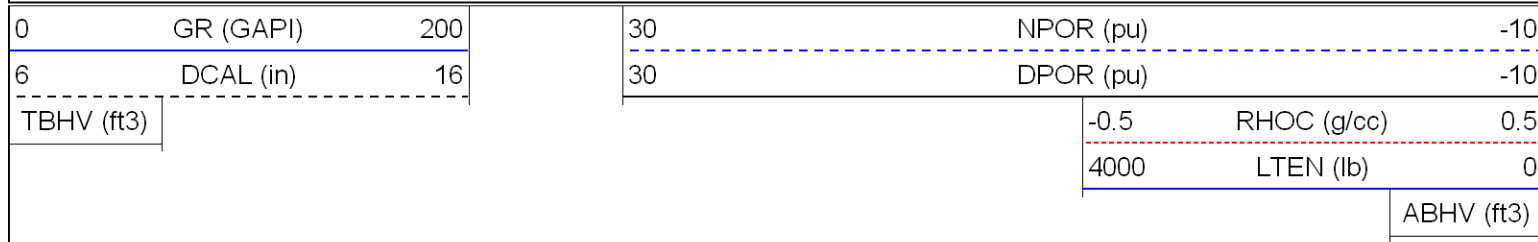


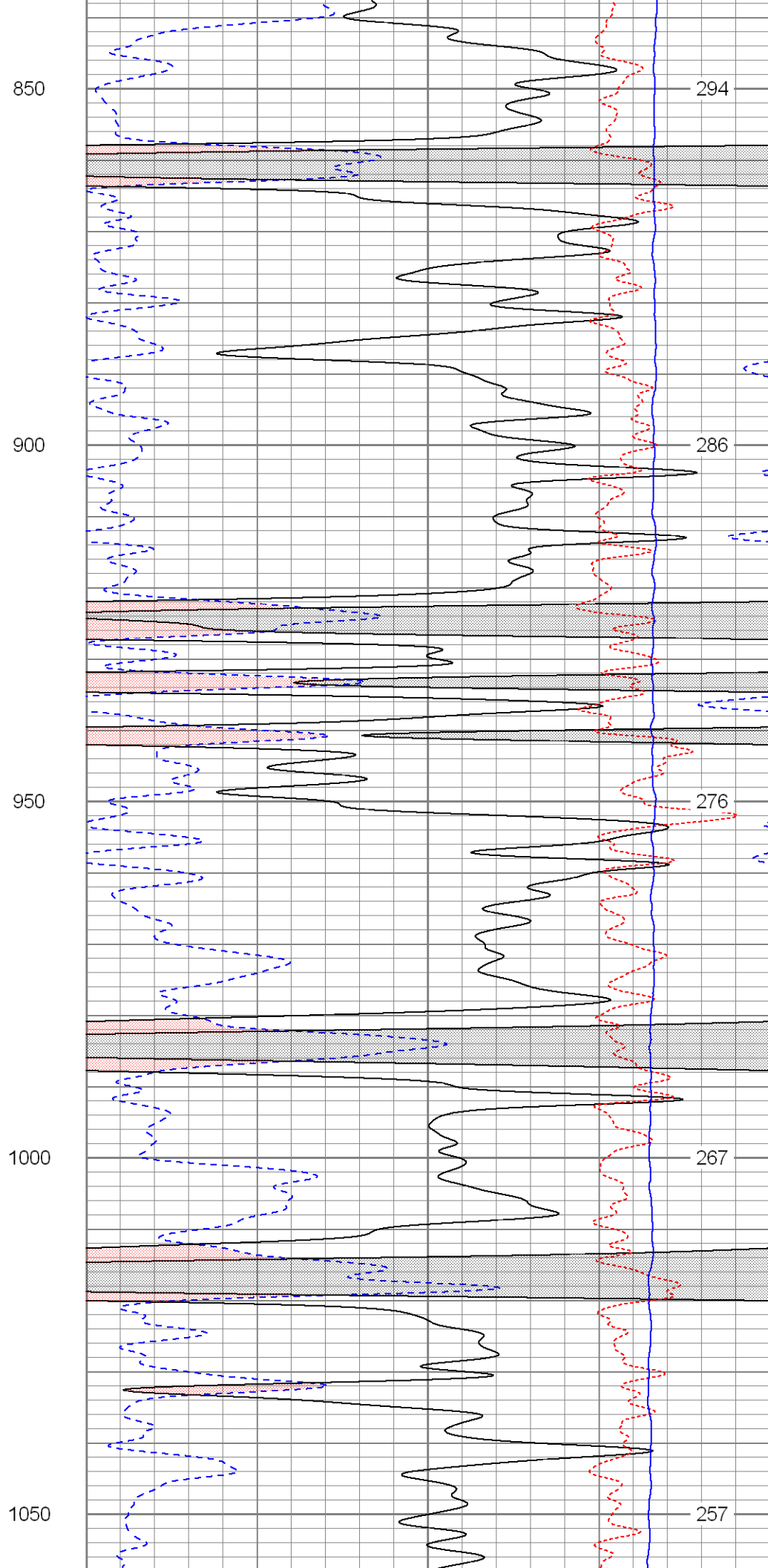
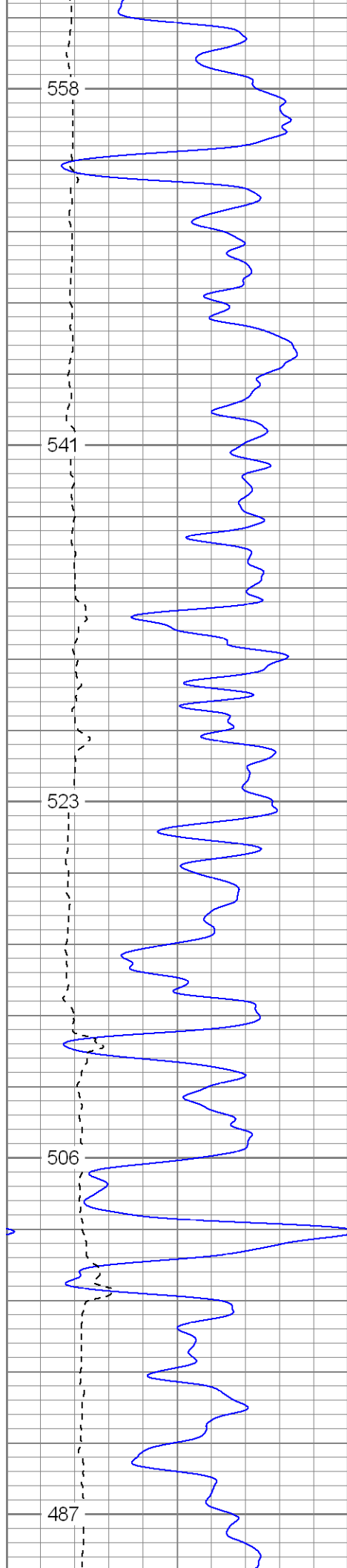
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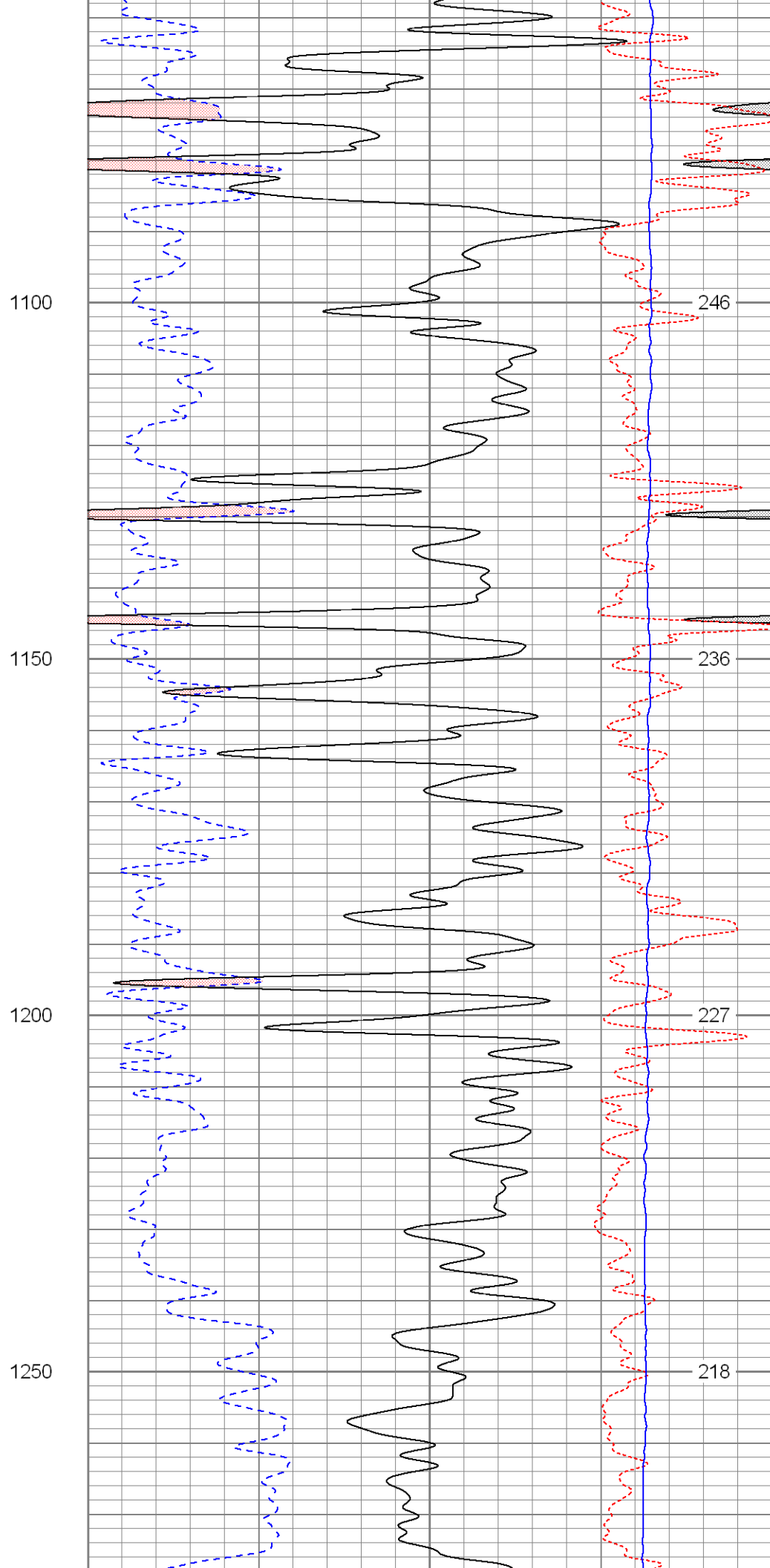
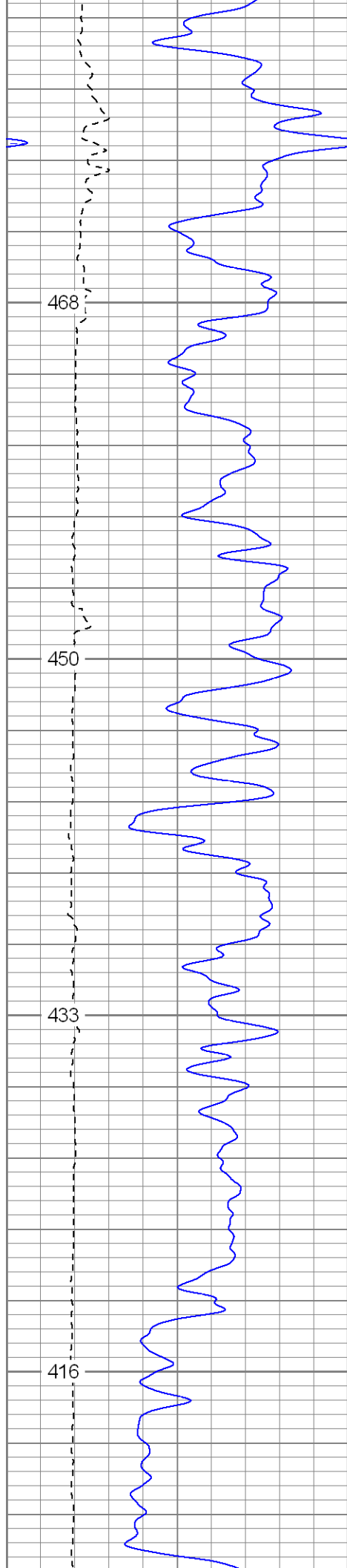
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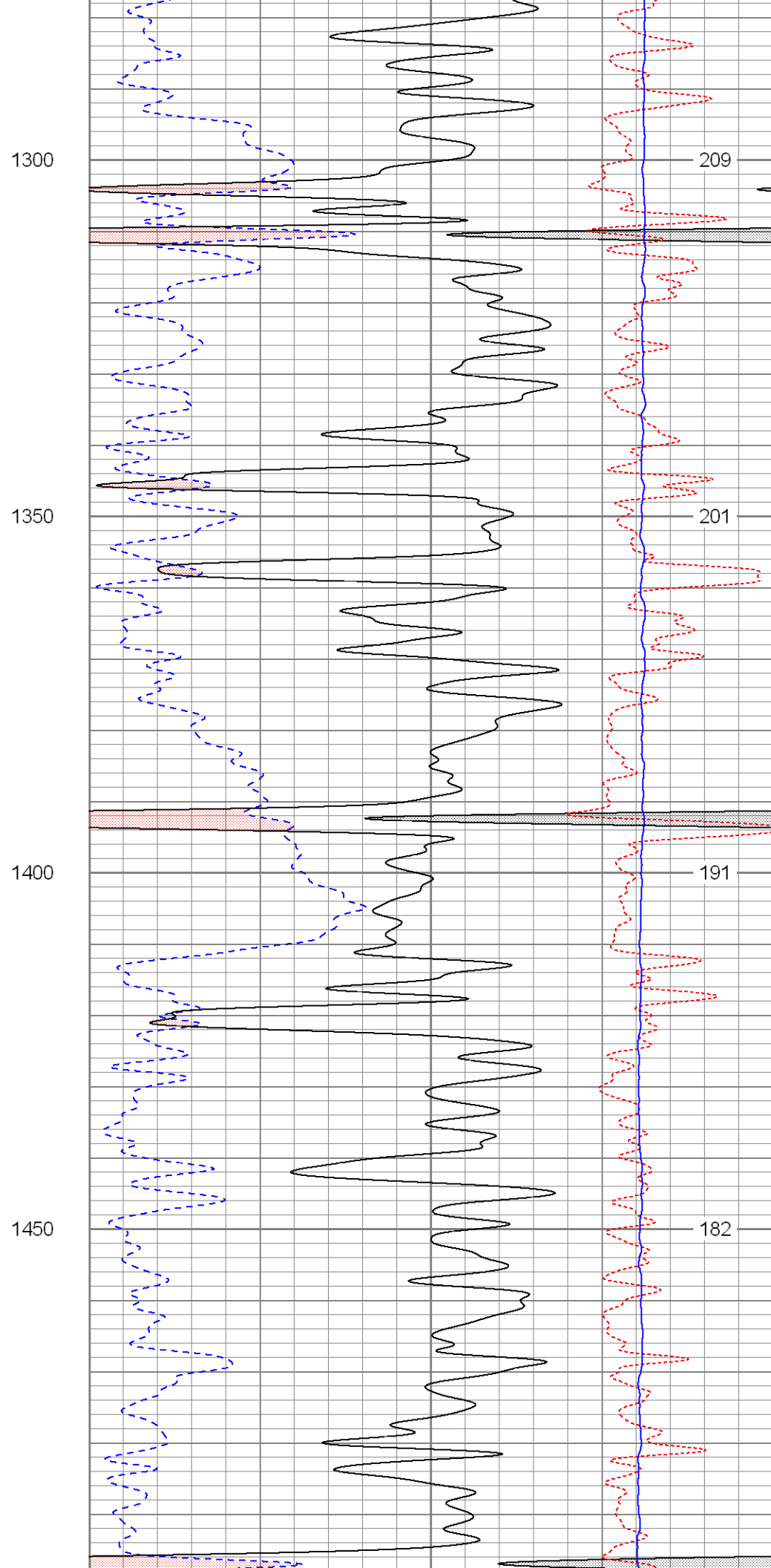
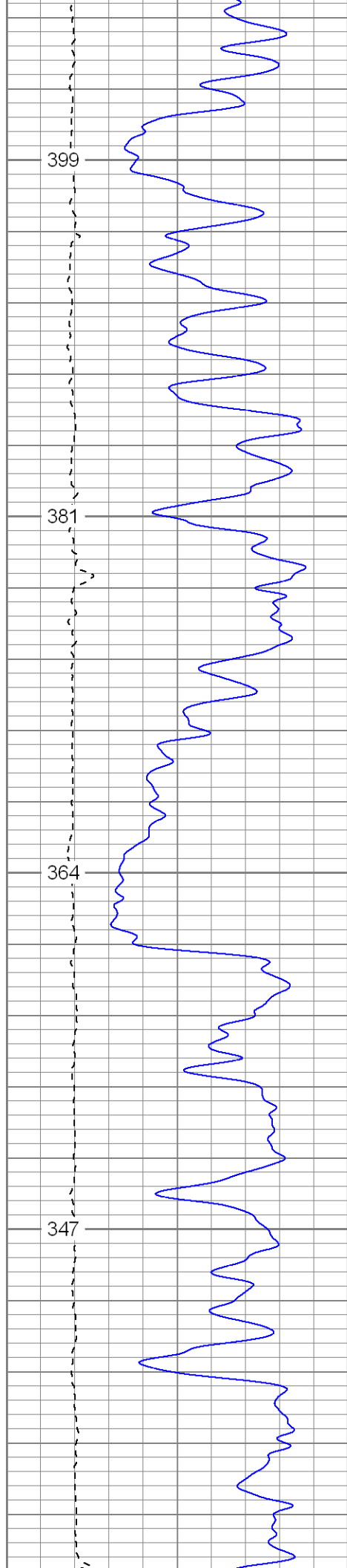
# Main Pass

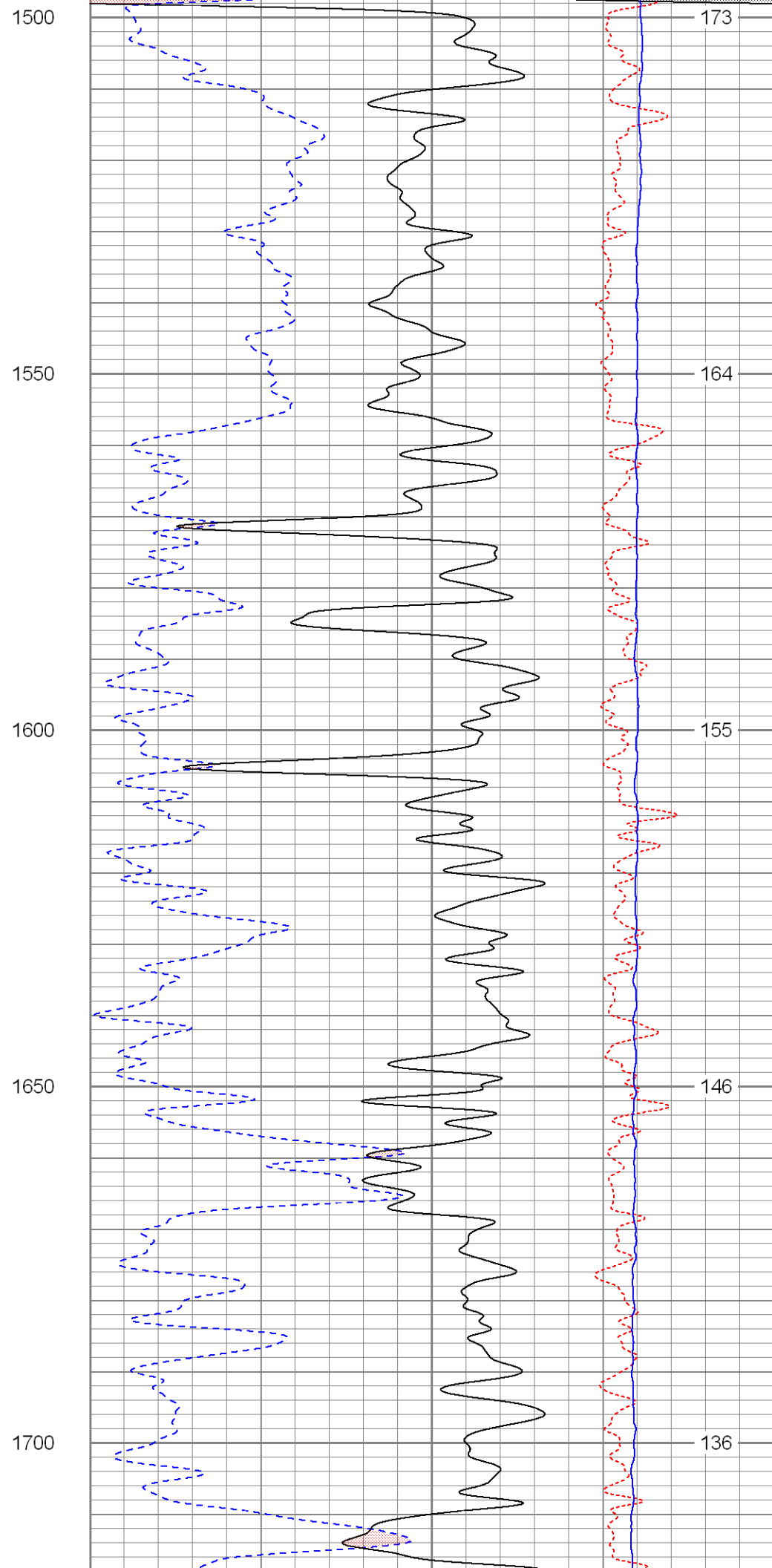
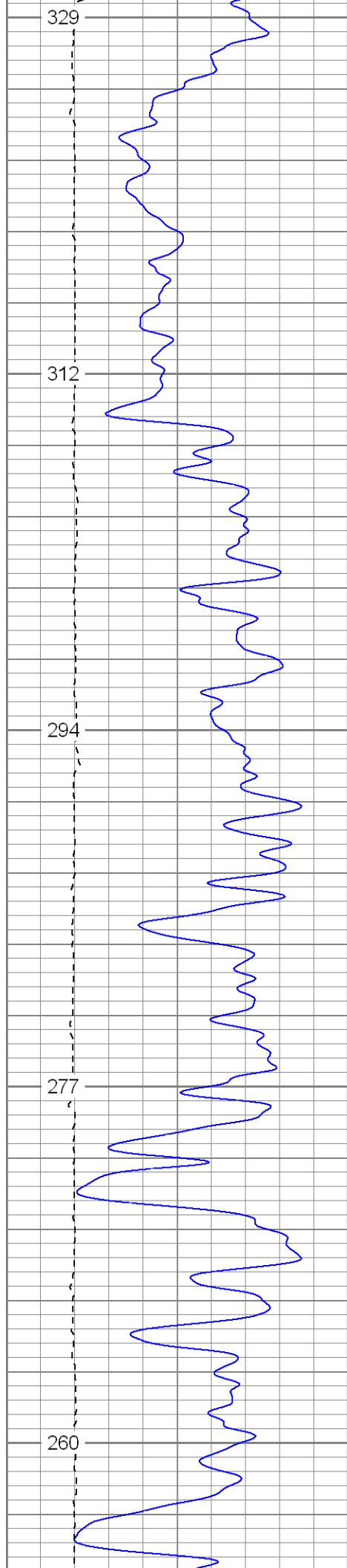
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 Dataset Pathname: pass4.1  
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 Charted by: Depth in Feet scaled 1:240



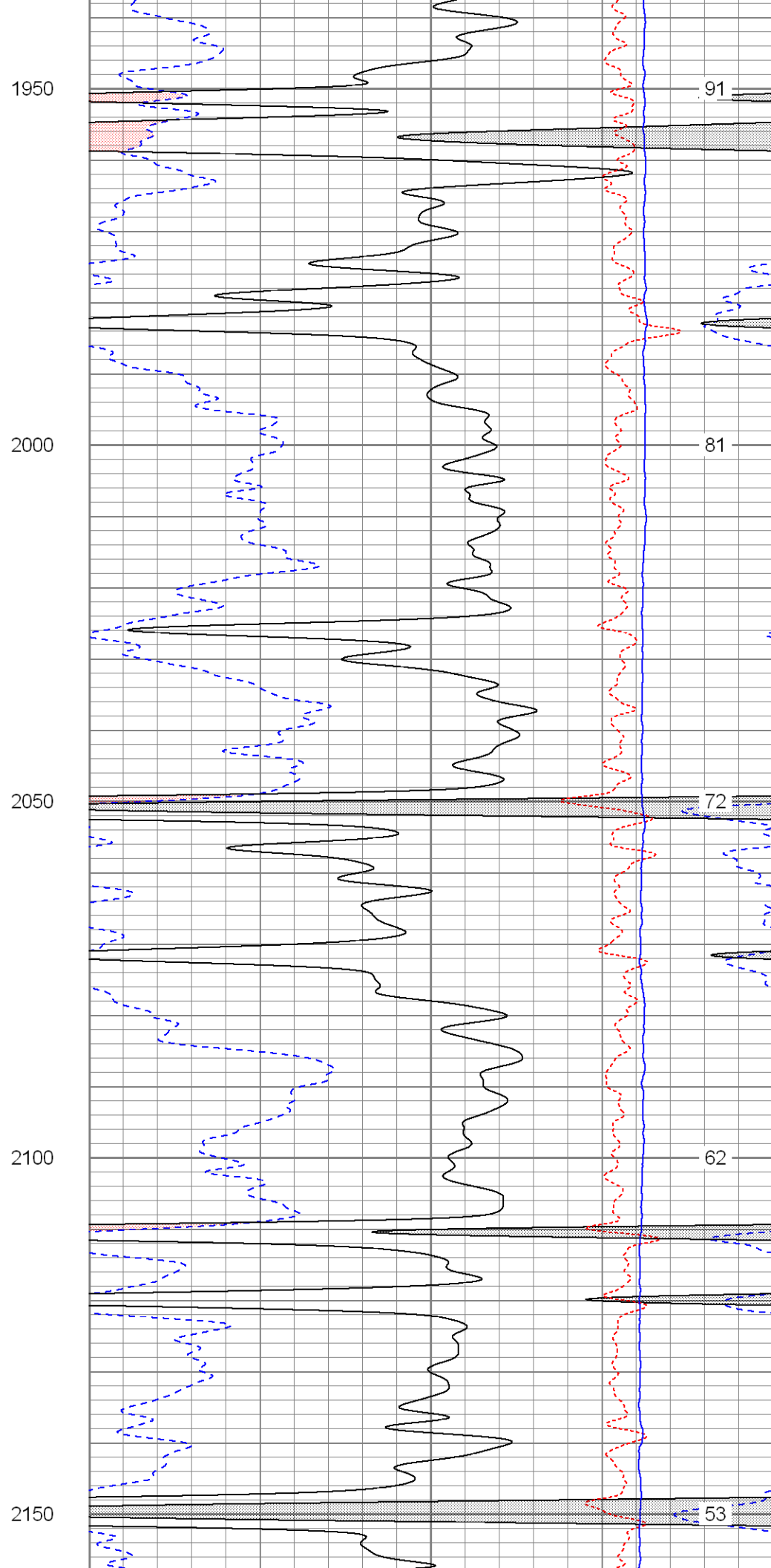
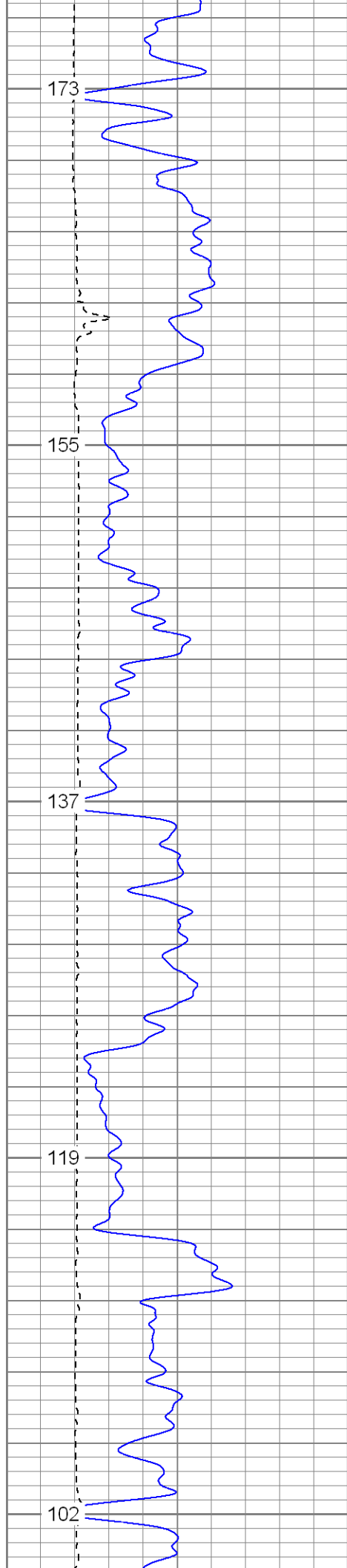




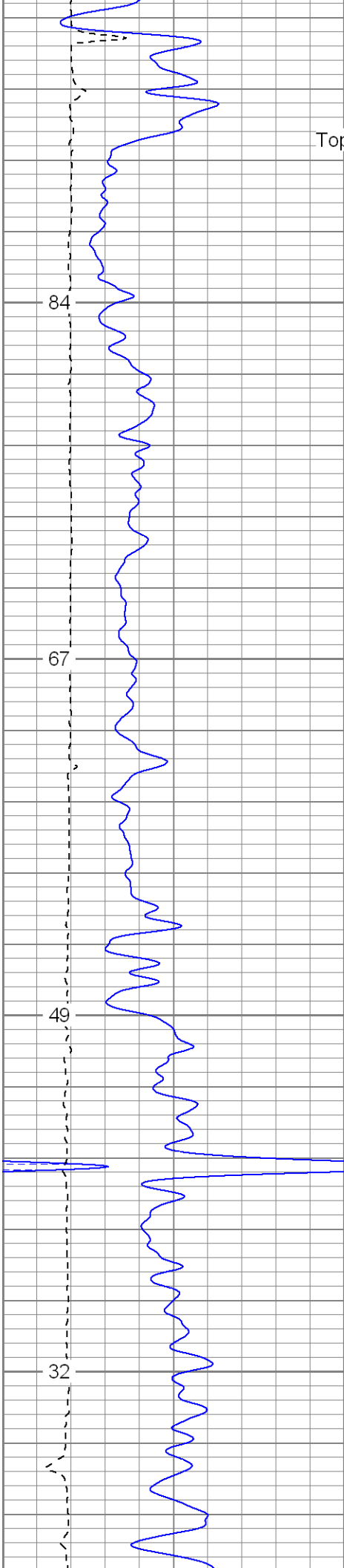












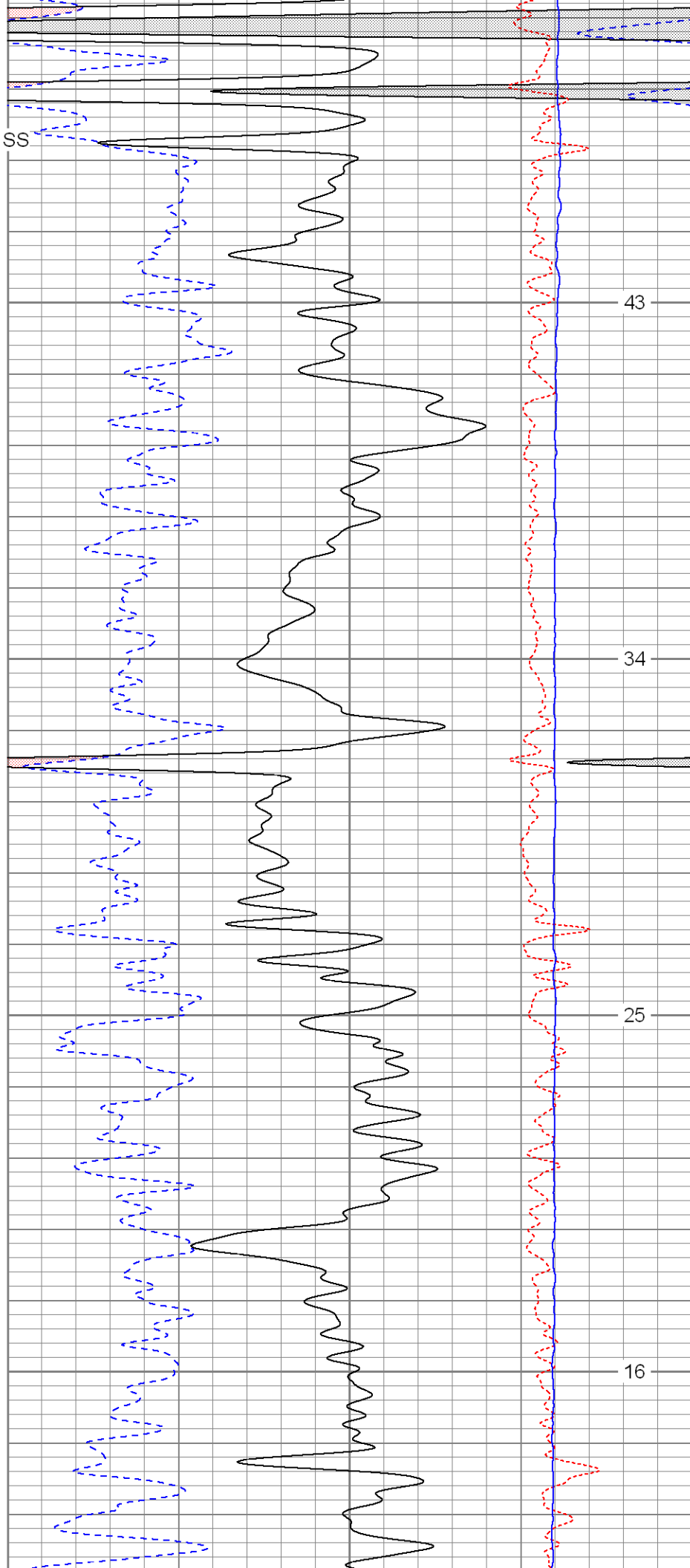
Top of Trinidad SS

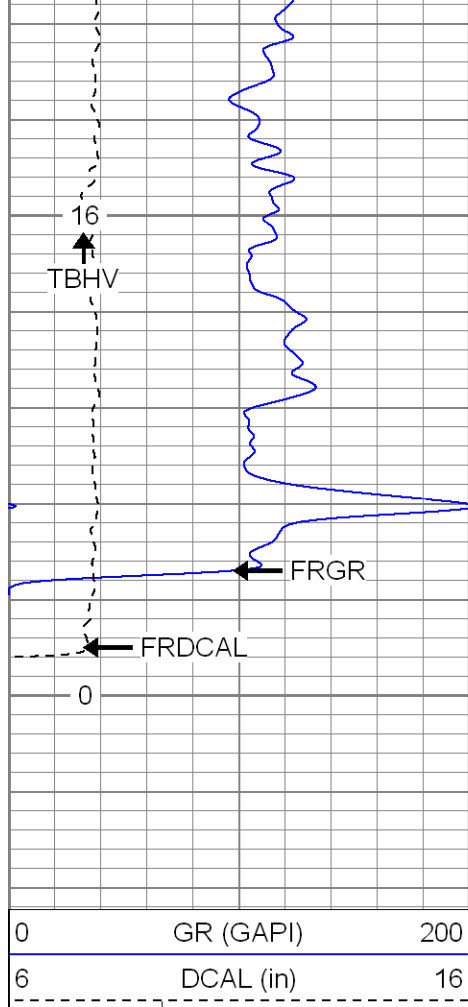
2200

2250

2300

2350

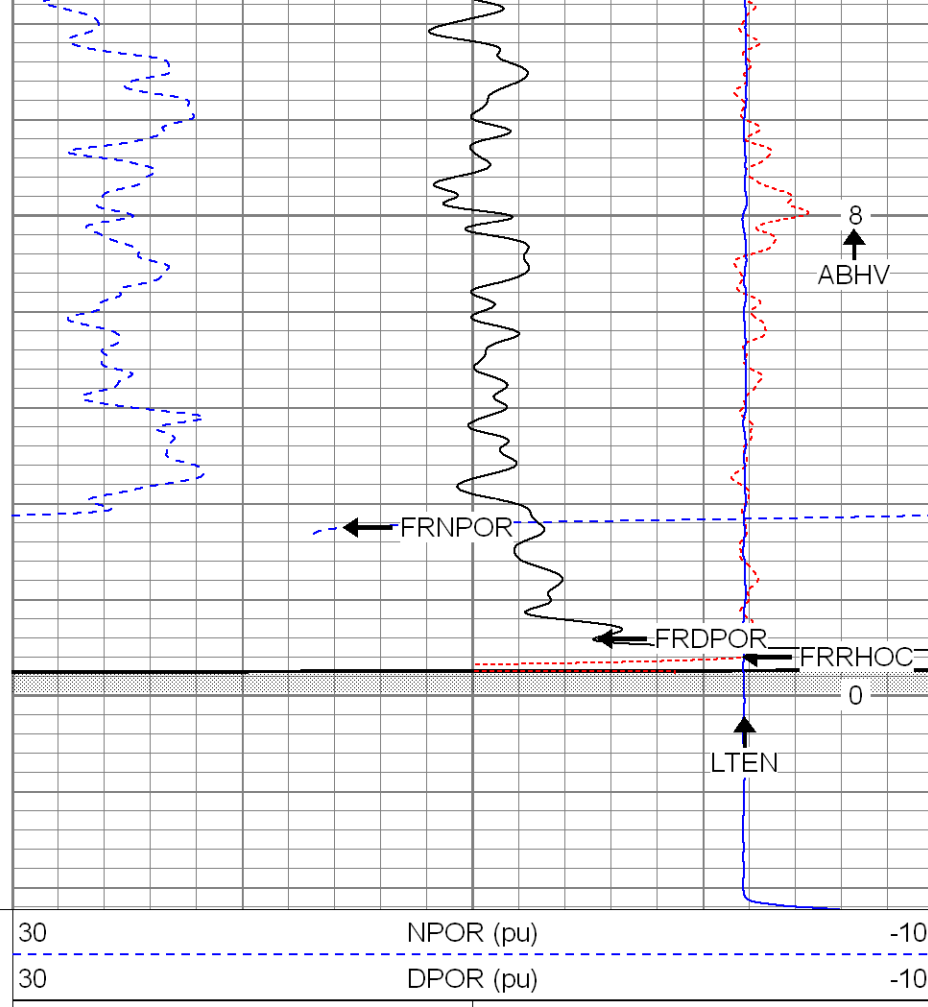




0	GR (GAPI)	200
6	DCAL (in)	16
TBHV (ft3)		

2400

2450



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



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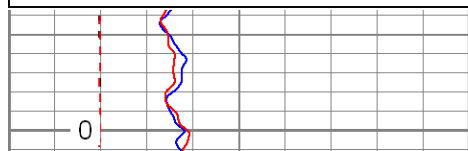
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# Repeat Pass

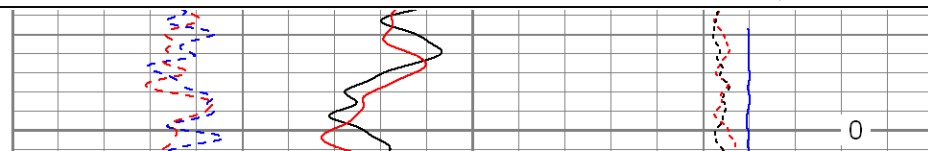
Database File: xtone2415.db  
 Dataset Pathname: pass3.2  
 Presentation Format: cdnl  
 Dataset Creation: Fri Mar 21 18:03:43 2008 by Calc Open-Cased 070814  
 Charted by: Depth in Feet scaled 1:240

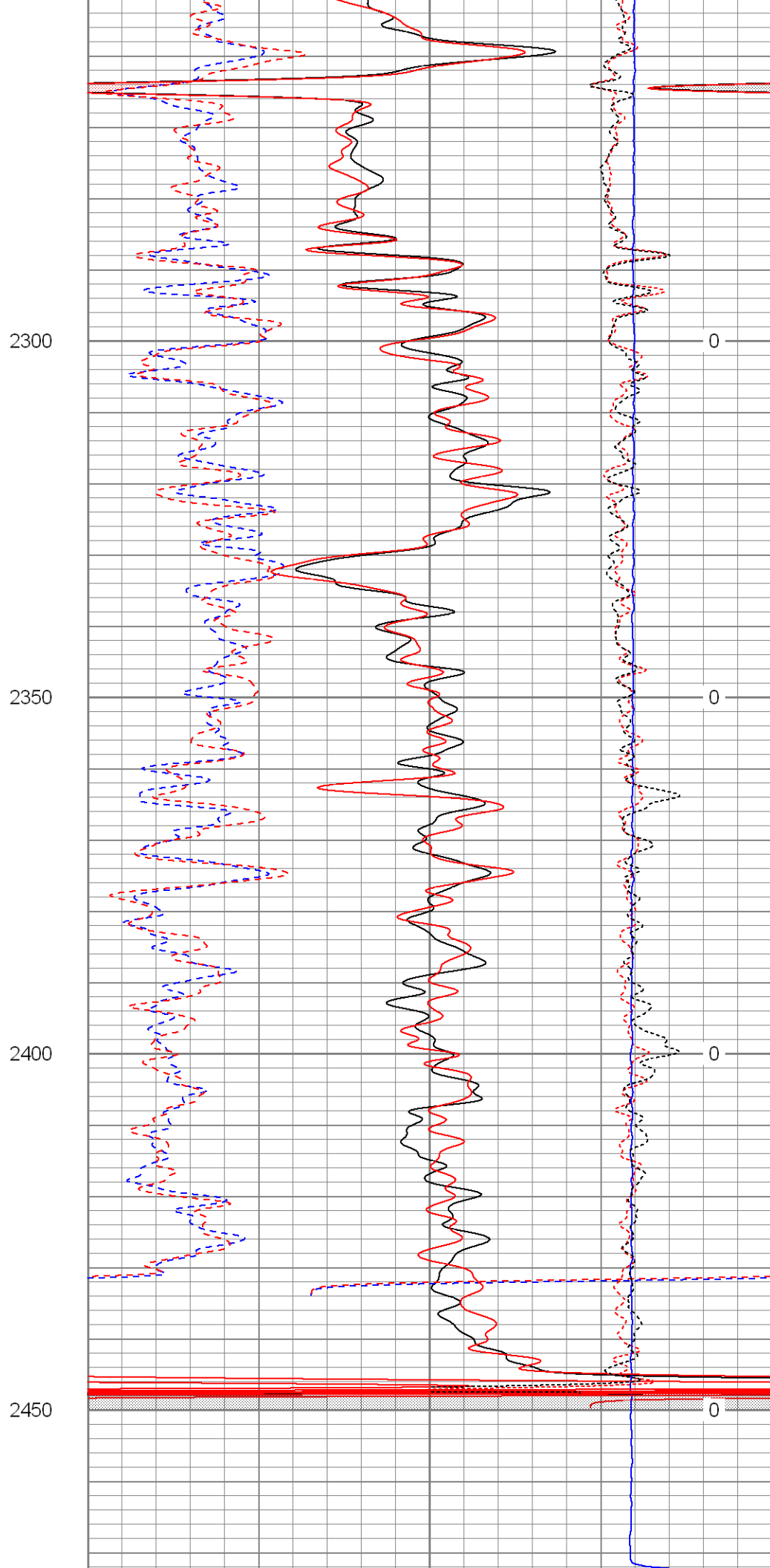
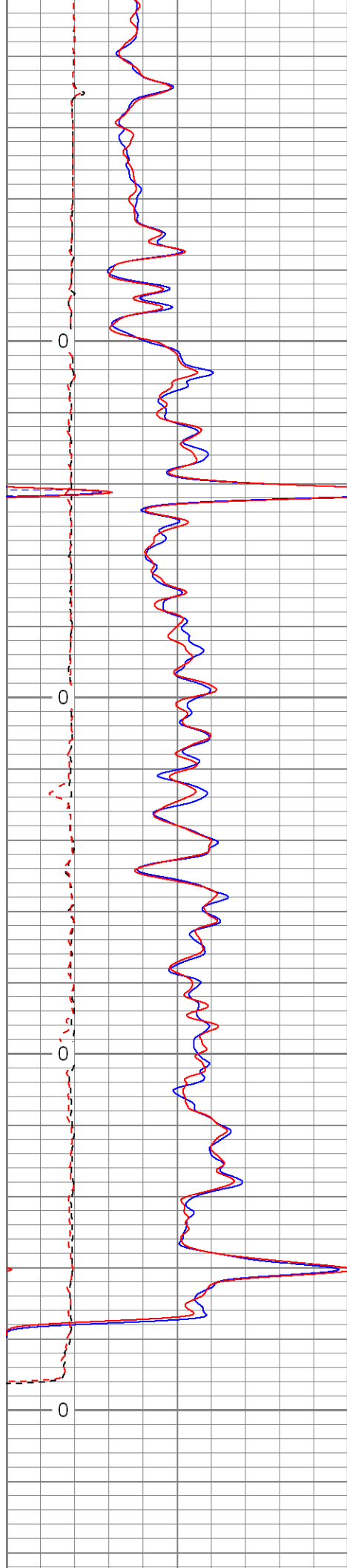
0	GR (GAPI)	200
6	DCAL (in)	16
0	GR-repeat (GAPI)	200
6	DCAL-repeat (in)	16
TBHV (ft3)		

30	NPOR (pu)	-10
30	DPOR (pu)	-10
30	NPOR-repeat (pu)	-10
30	DPOR-repeat (pu)	-10
-0.5	RHO� (g/cc)	0.5
4000	LTEN (lb)	0
-0.5	RHO�-repeat (g/cc)	0.5
ABHV (ft3)		



2250





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

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



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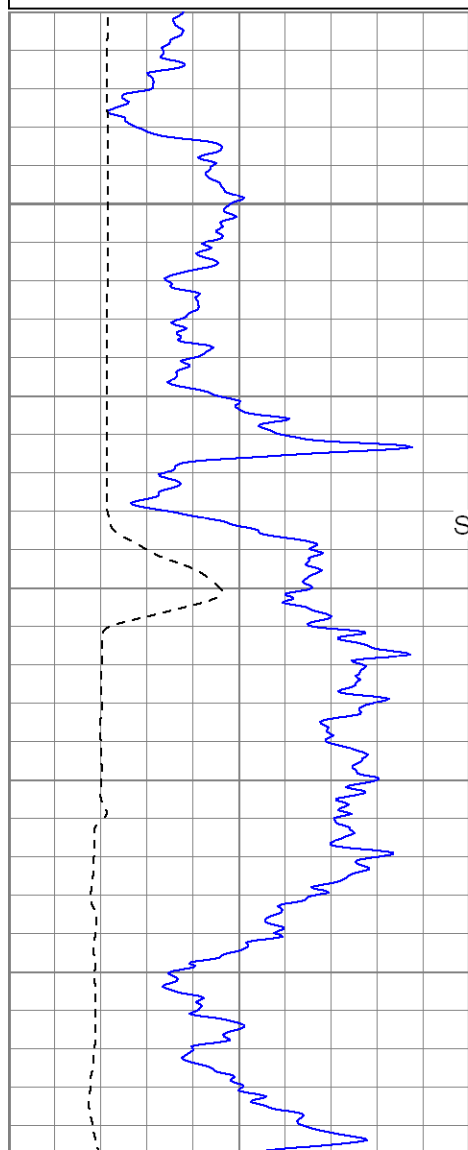
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# High Resolution Pass

Database File: xtone2415.db  
Dataset Pathname: pass4.2  
Presentation Format: cdlhr  
Dataset Creation: Sat Mar 22 11:16:32 2008 by Calc Open-Cased 070814  
Charted by: Depth in Feet scaled 1:120

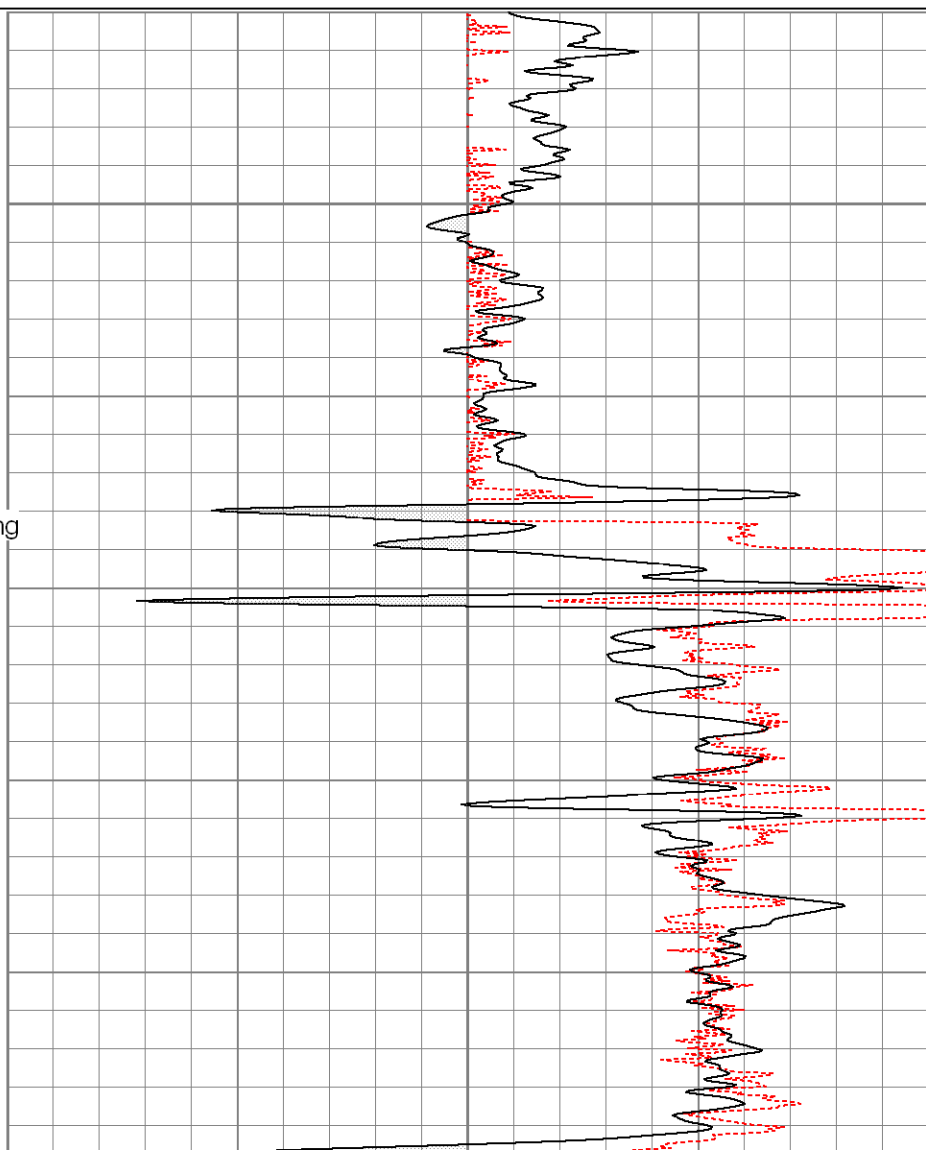
0	GR (GAPI)	200
6	DCAL (in)	16

1	RHOB (g/cc)	3
-0.5	RHOC (g/cc)	0.5



750

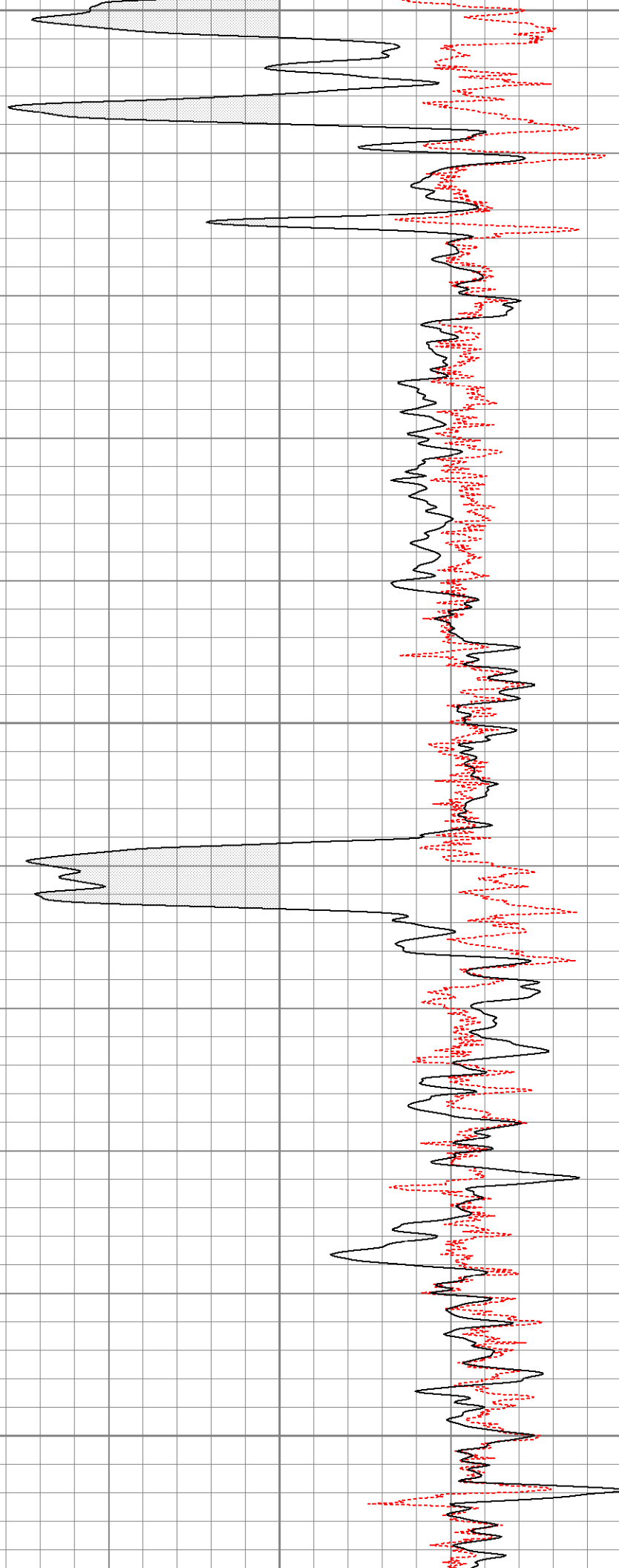
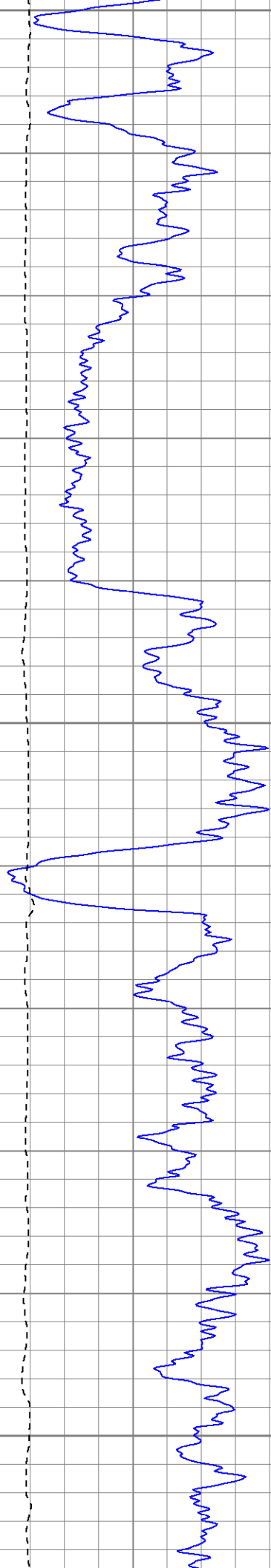
Surface Casing

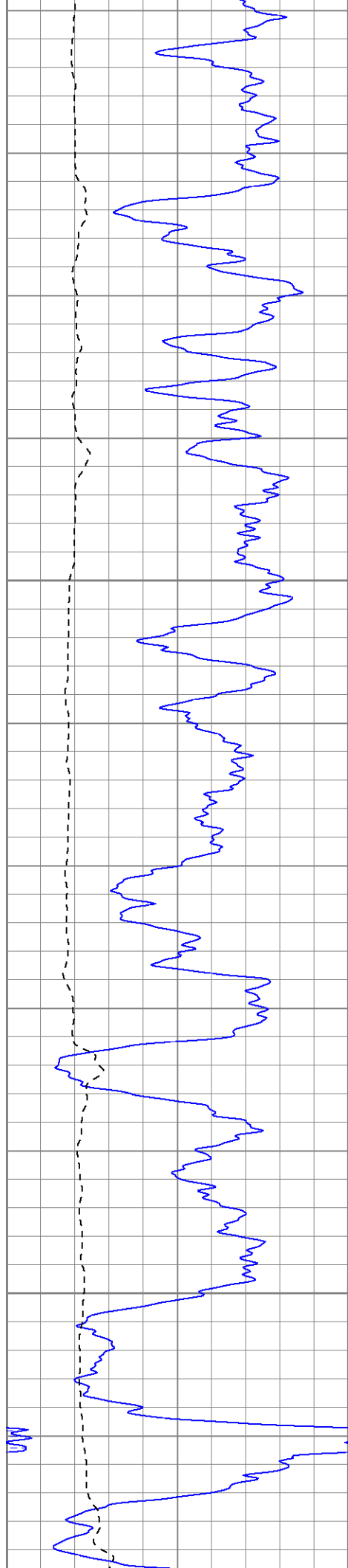


800

850

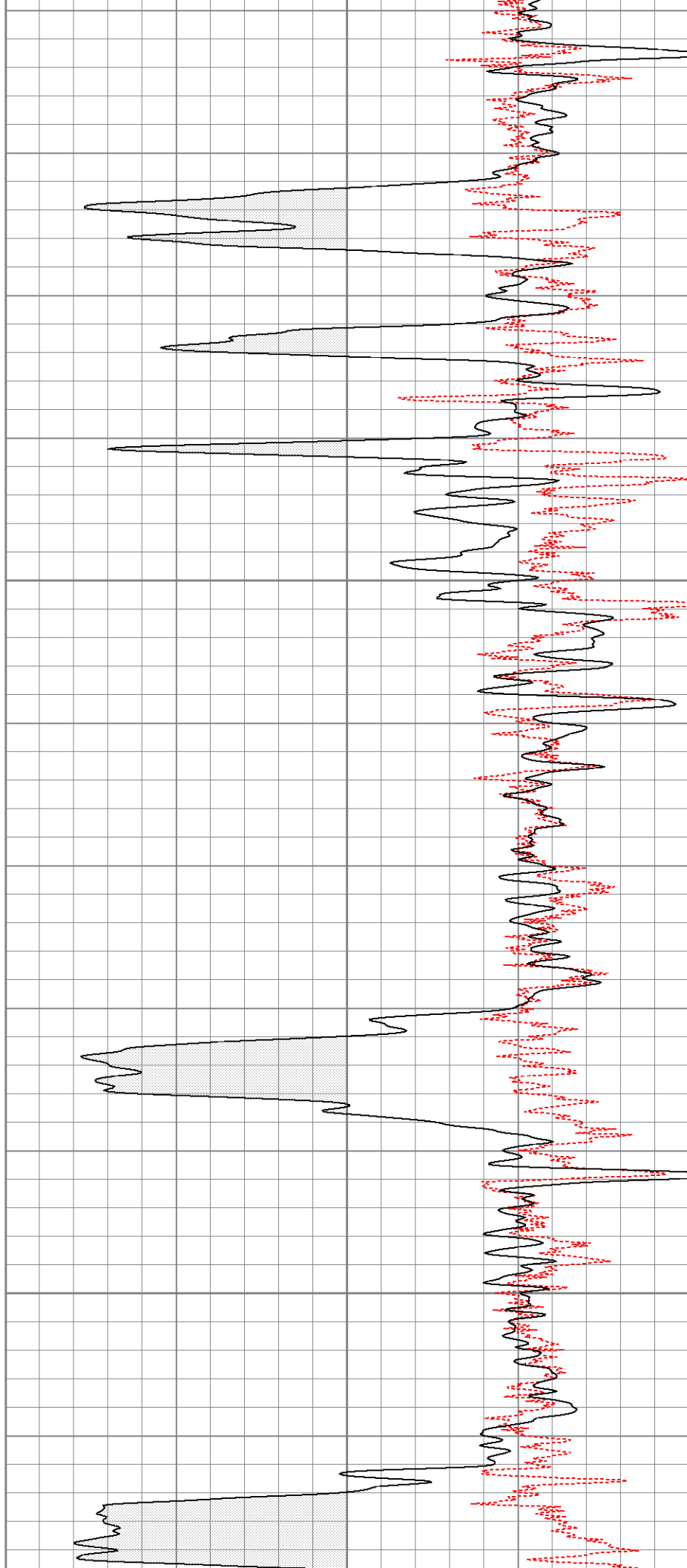
900

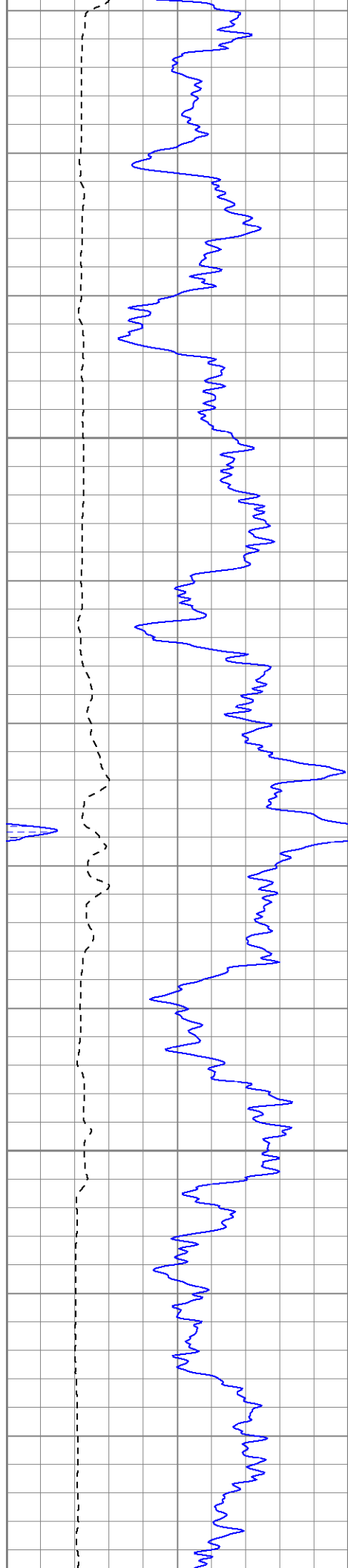




950

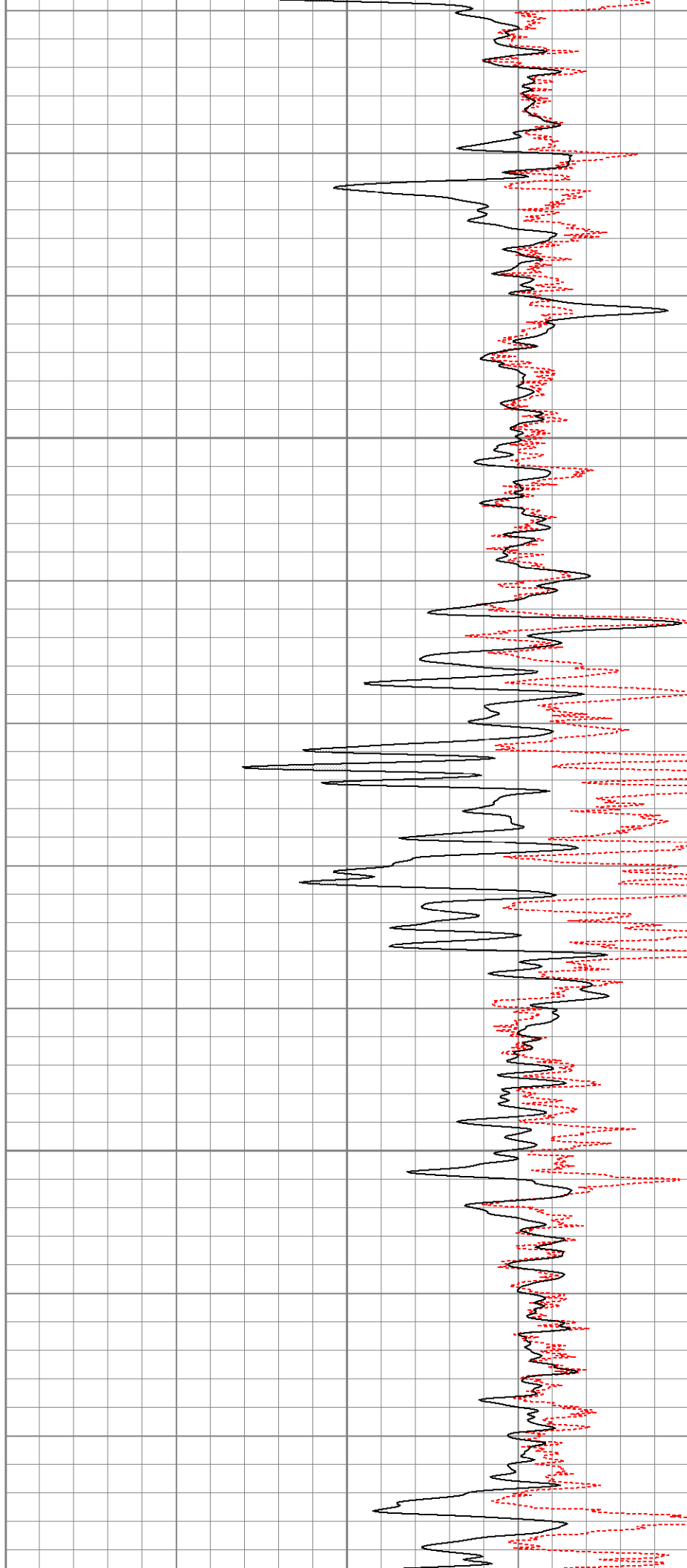
1000

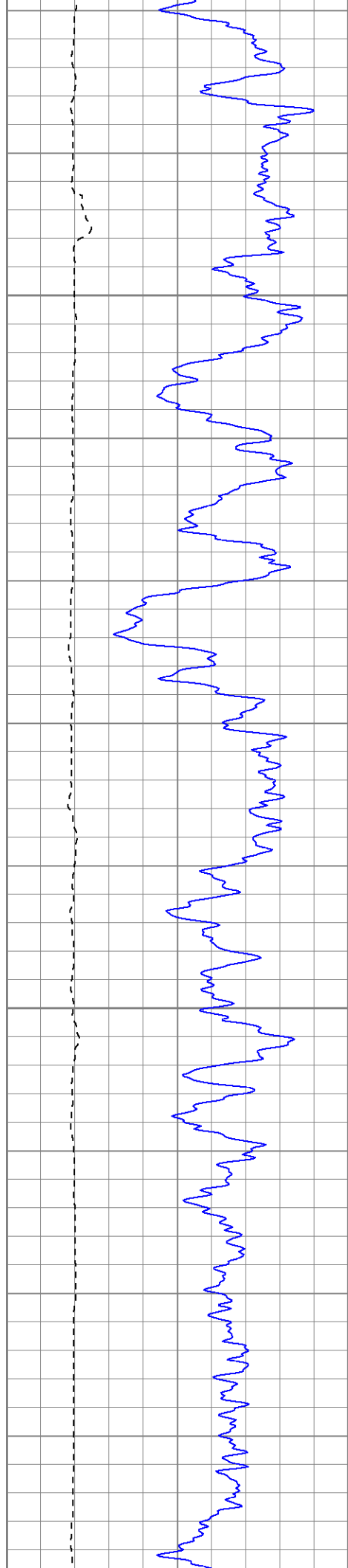




1050

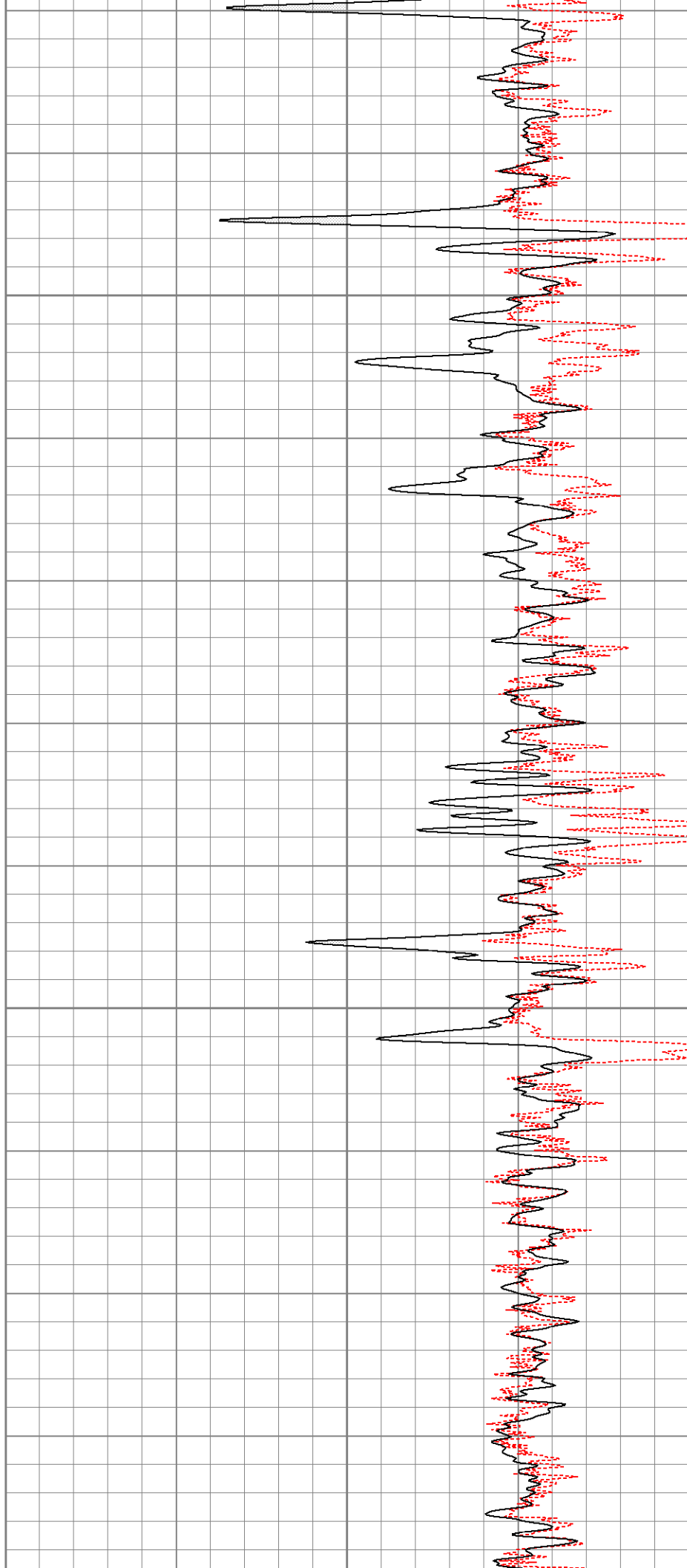
1100



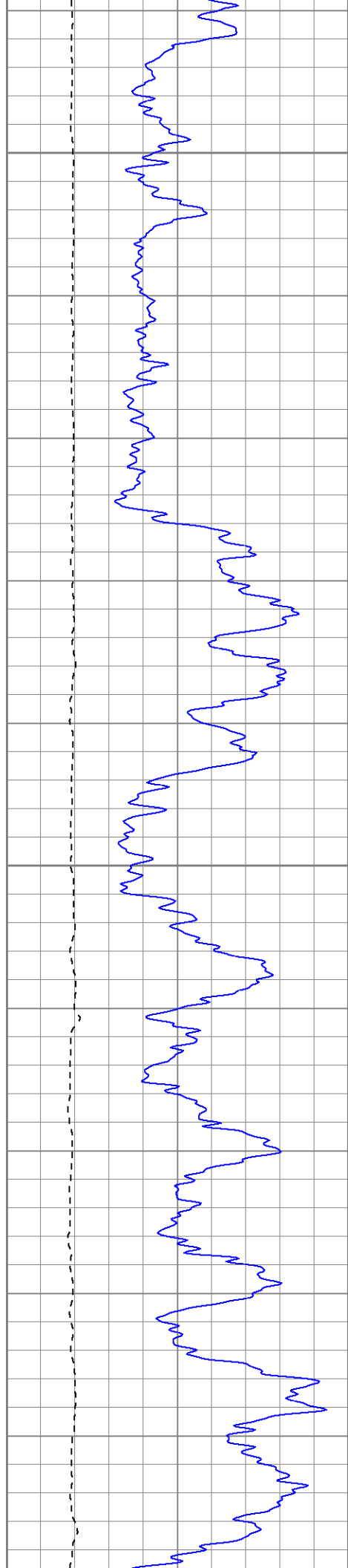


1150

1200

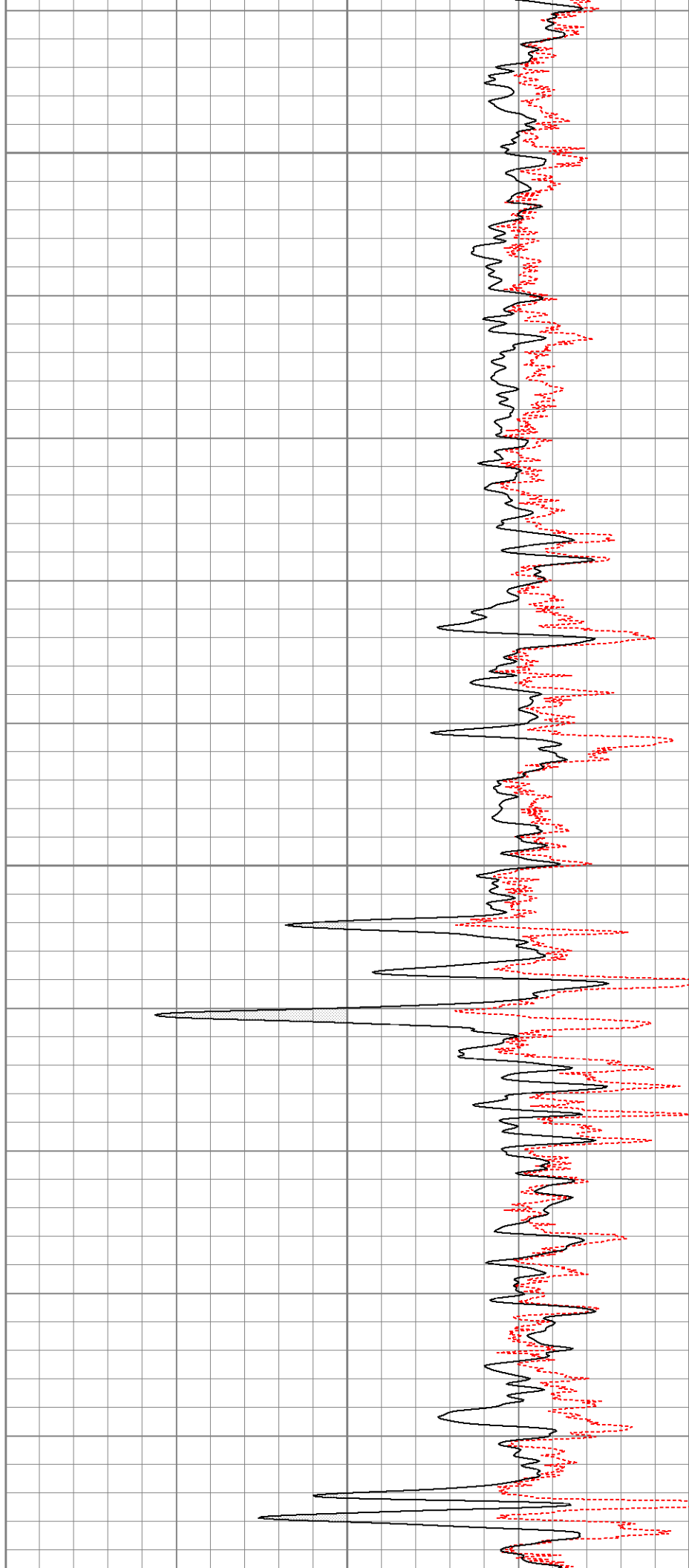






1250

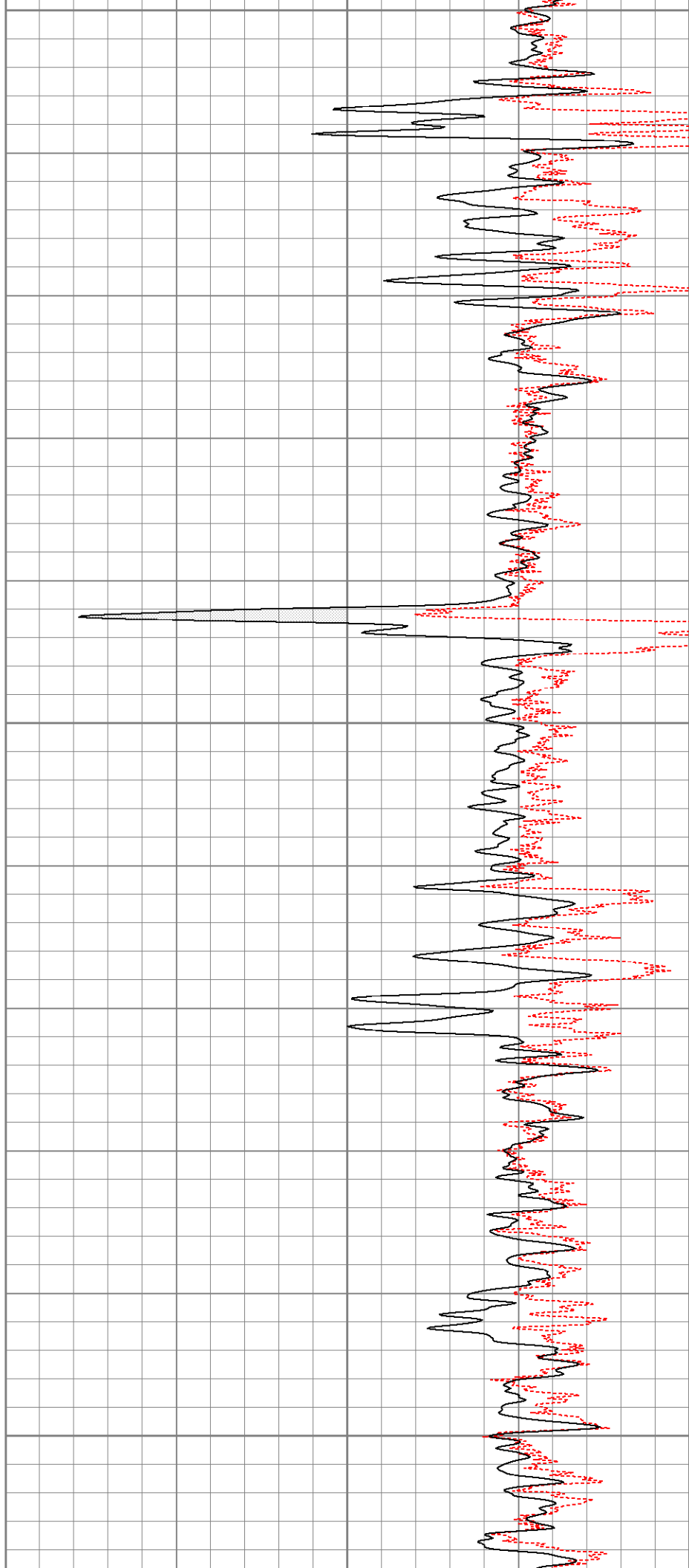
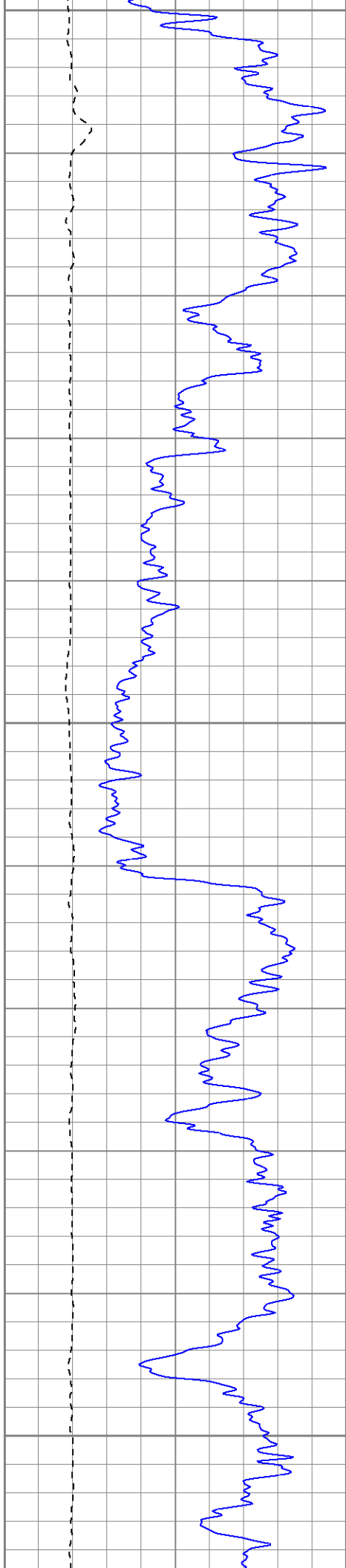
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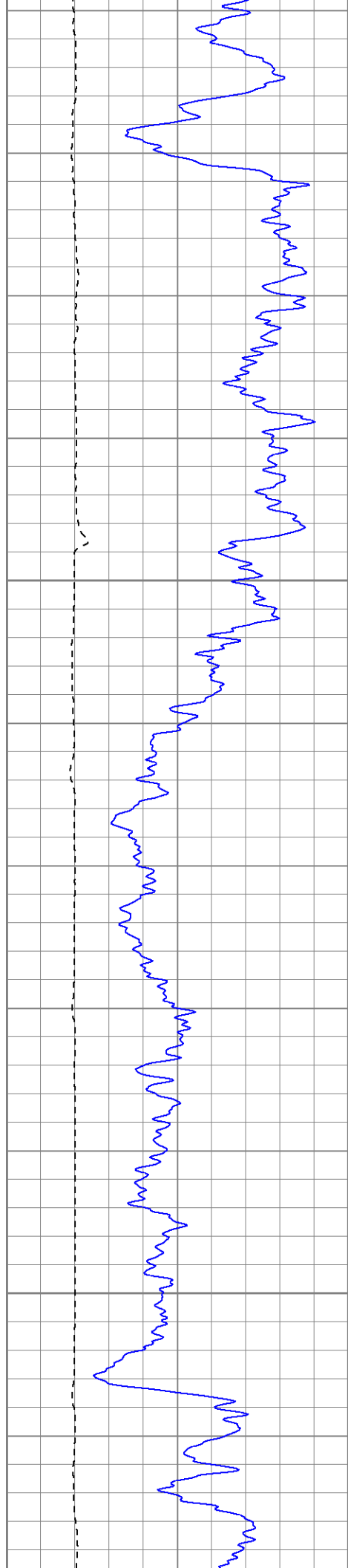


1350

1400

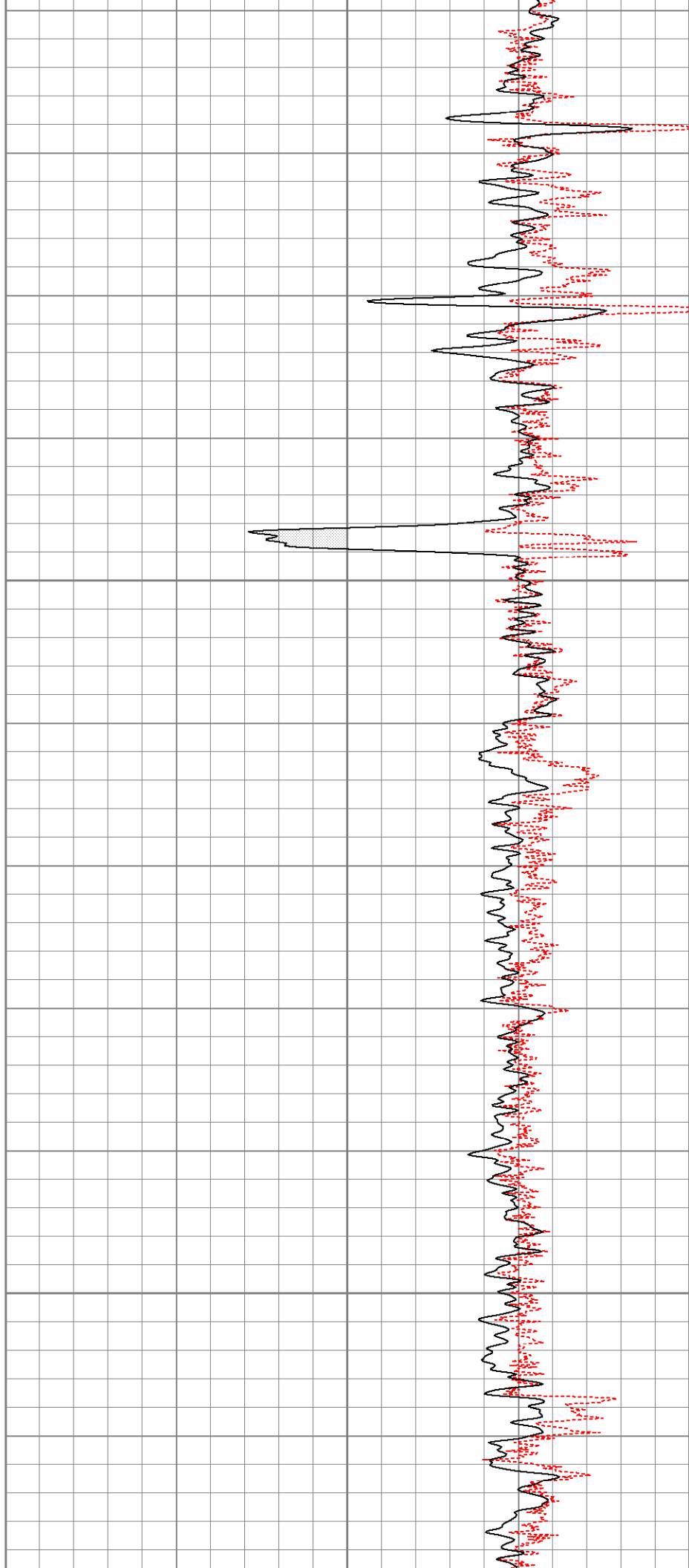
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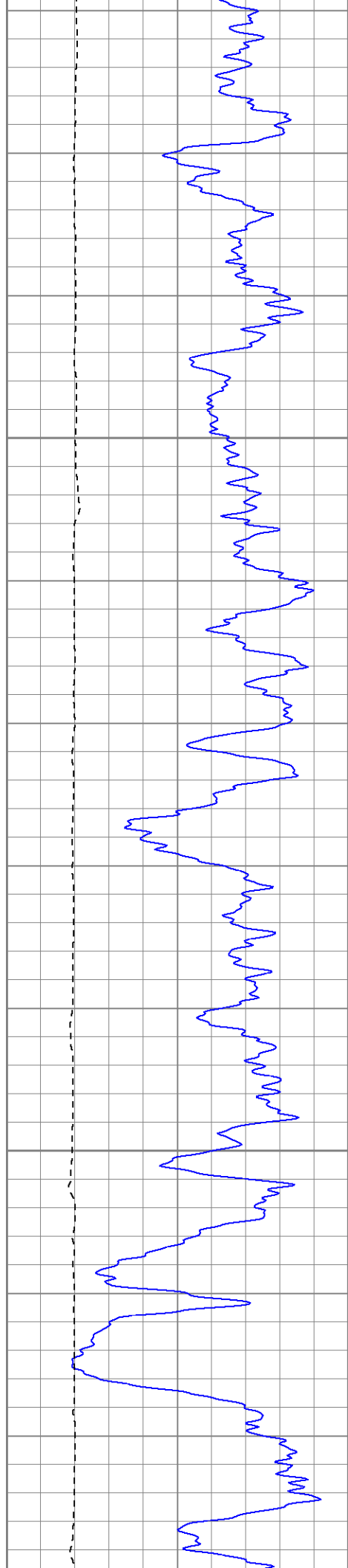




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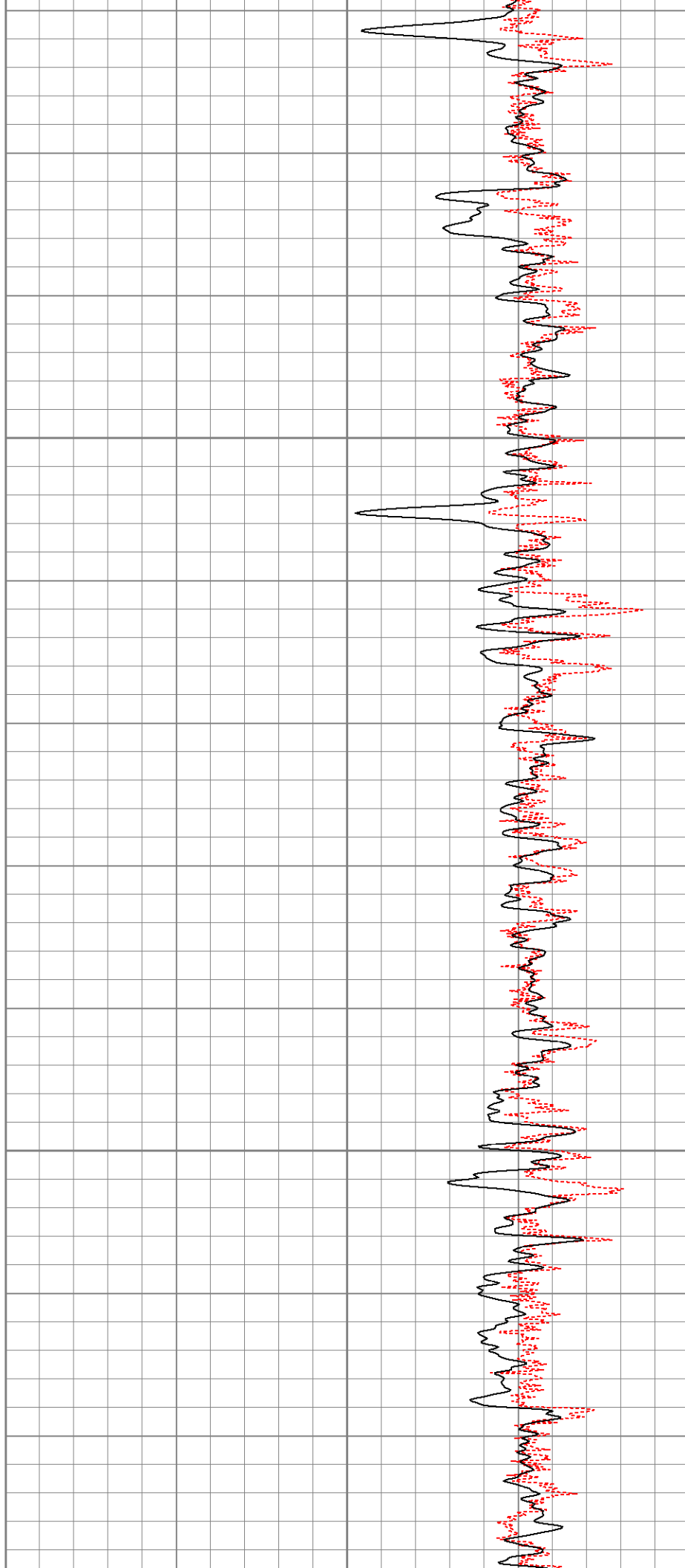
1550

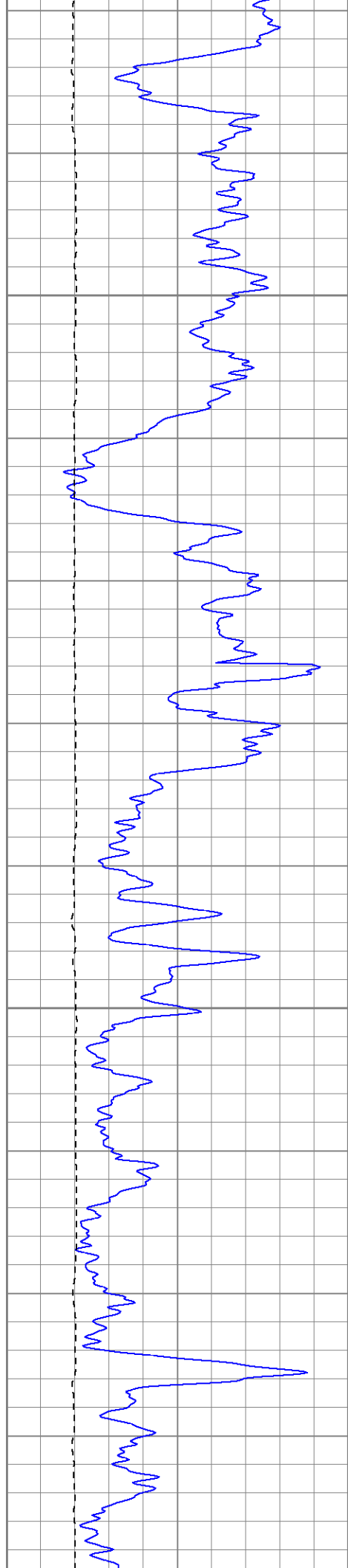




1600

1650

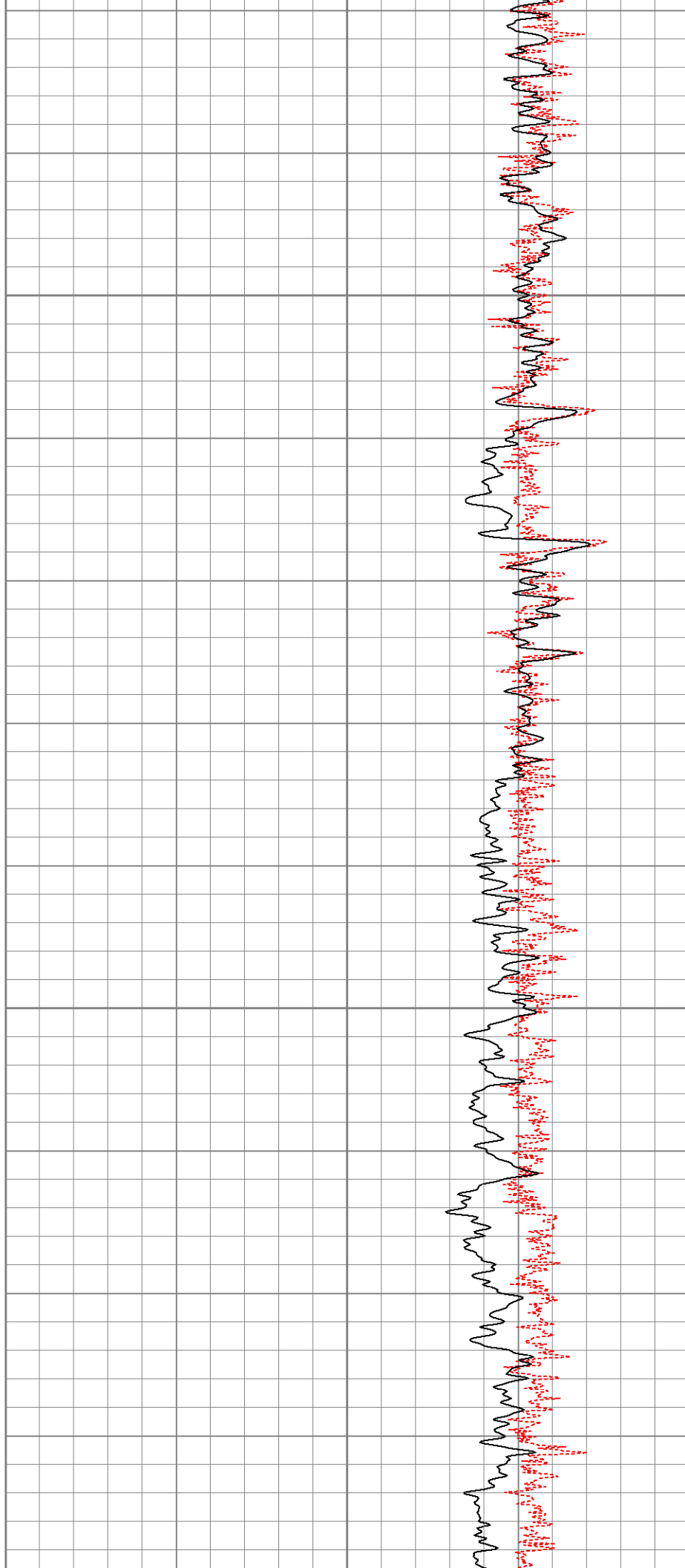


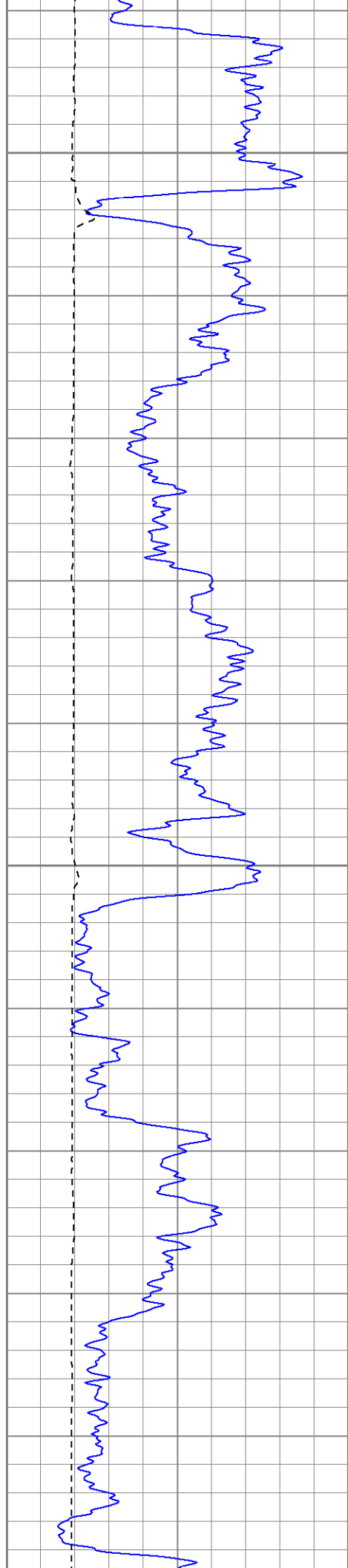


1700

Fluid Level

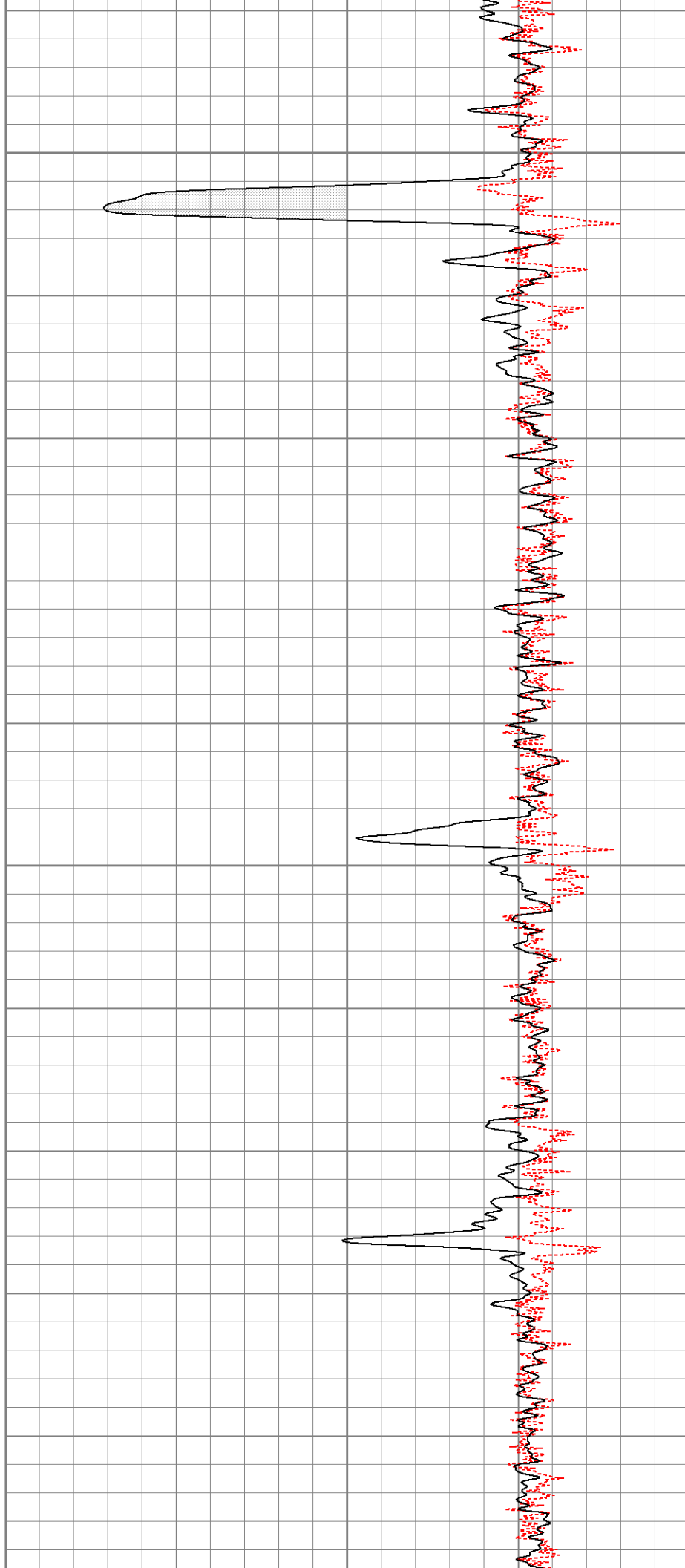
1750





1800

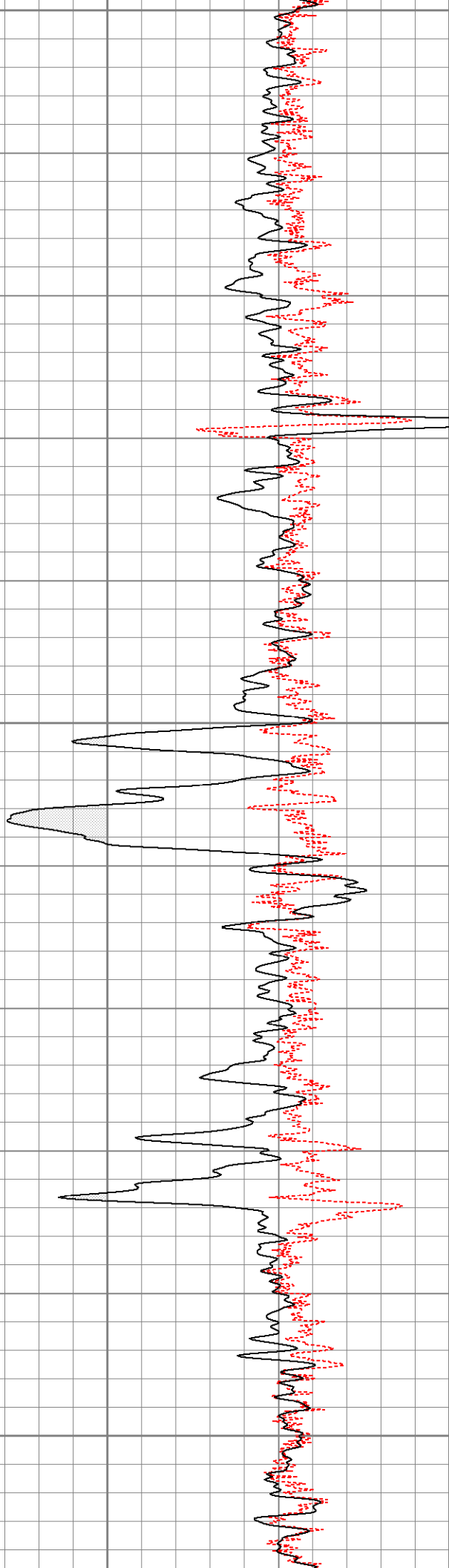
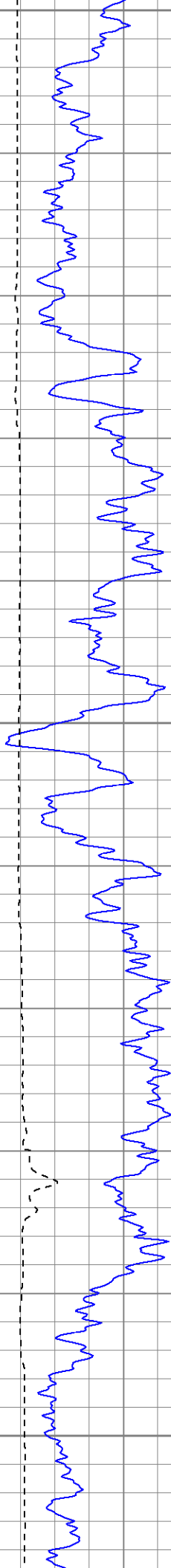
1850

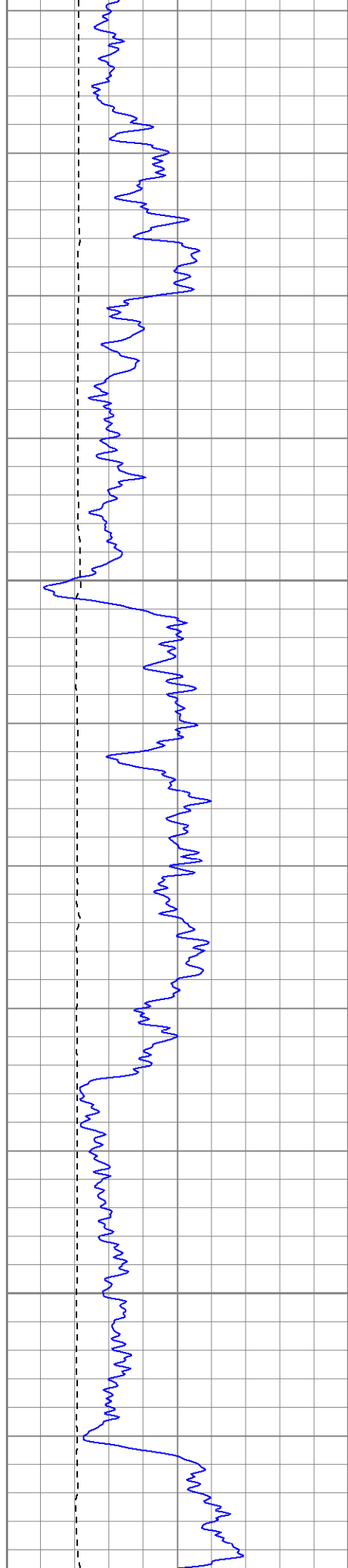


1900

1950

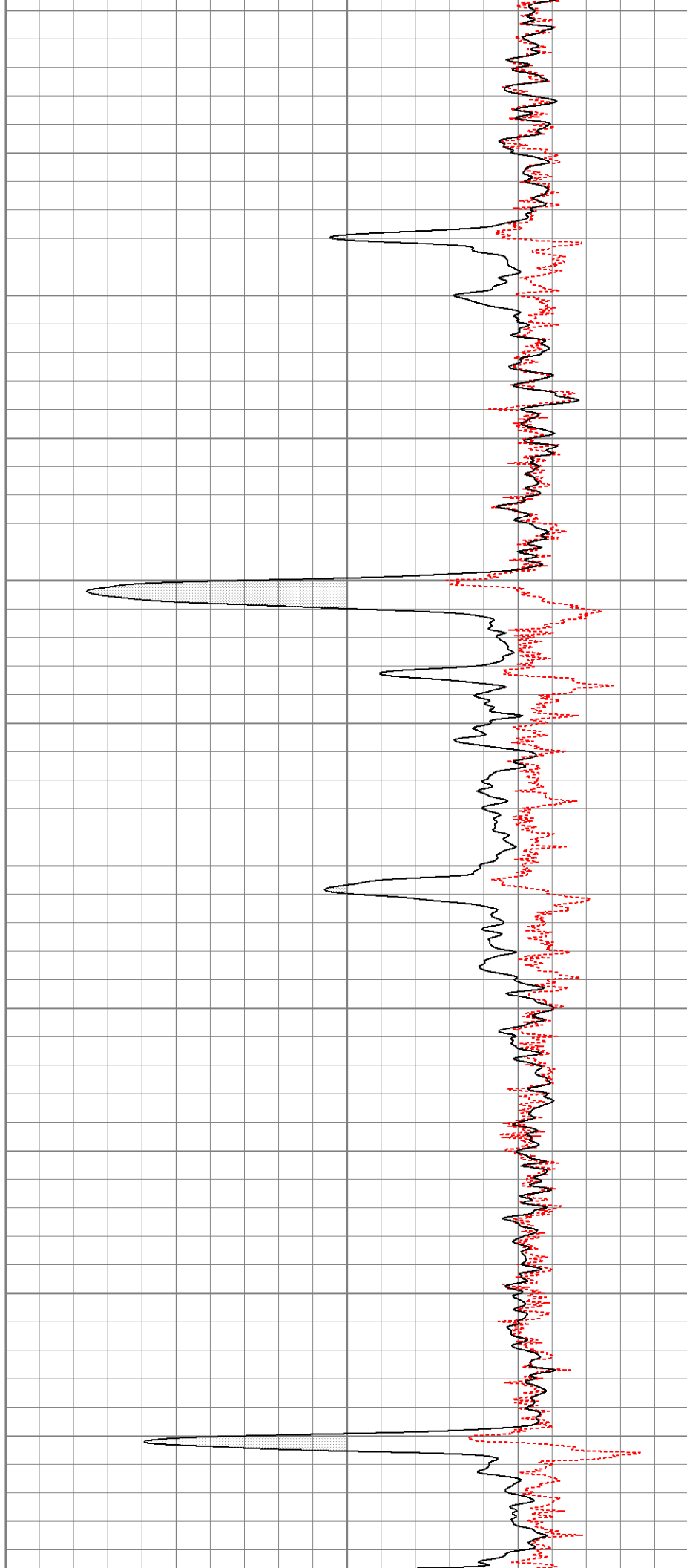
2000



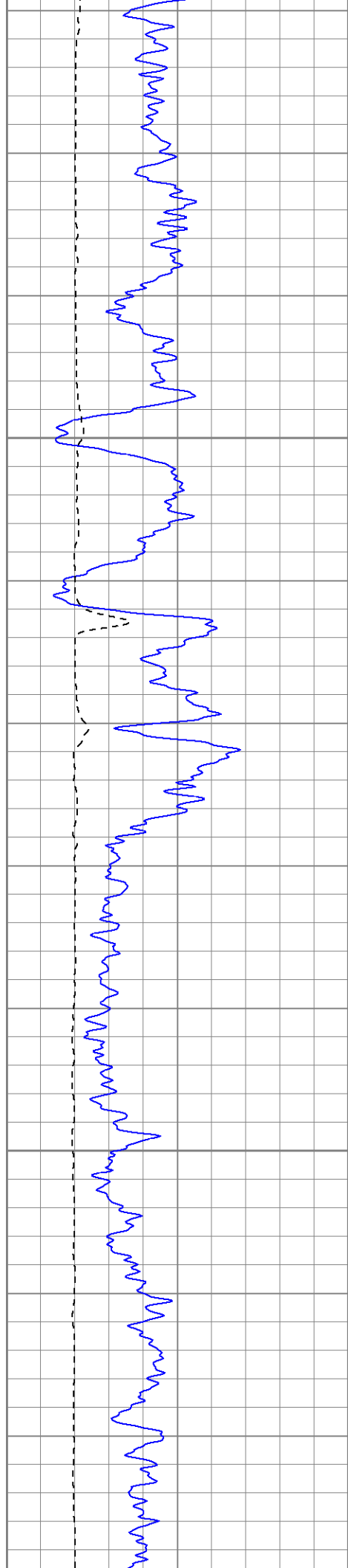


2050

2100

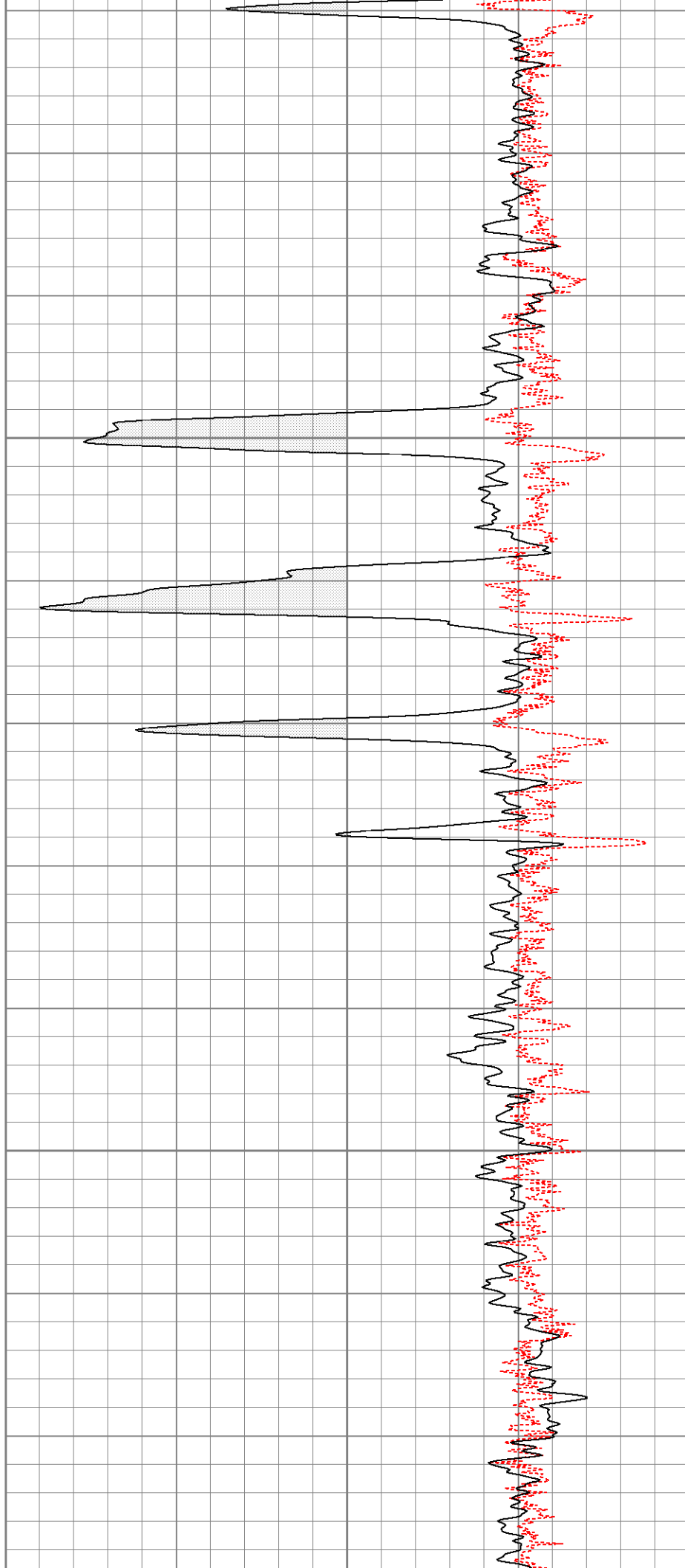


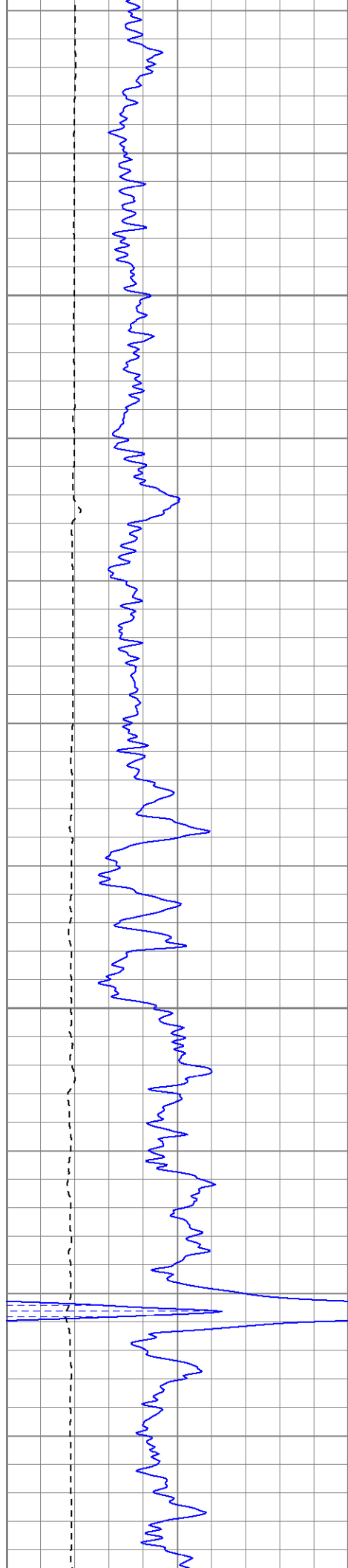




2150

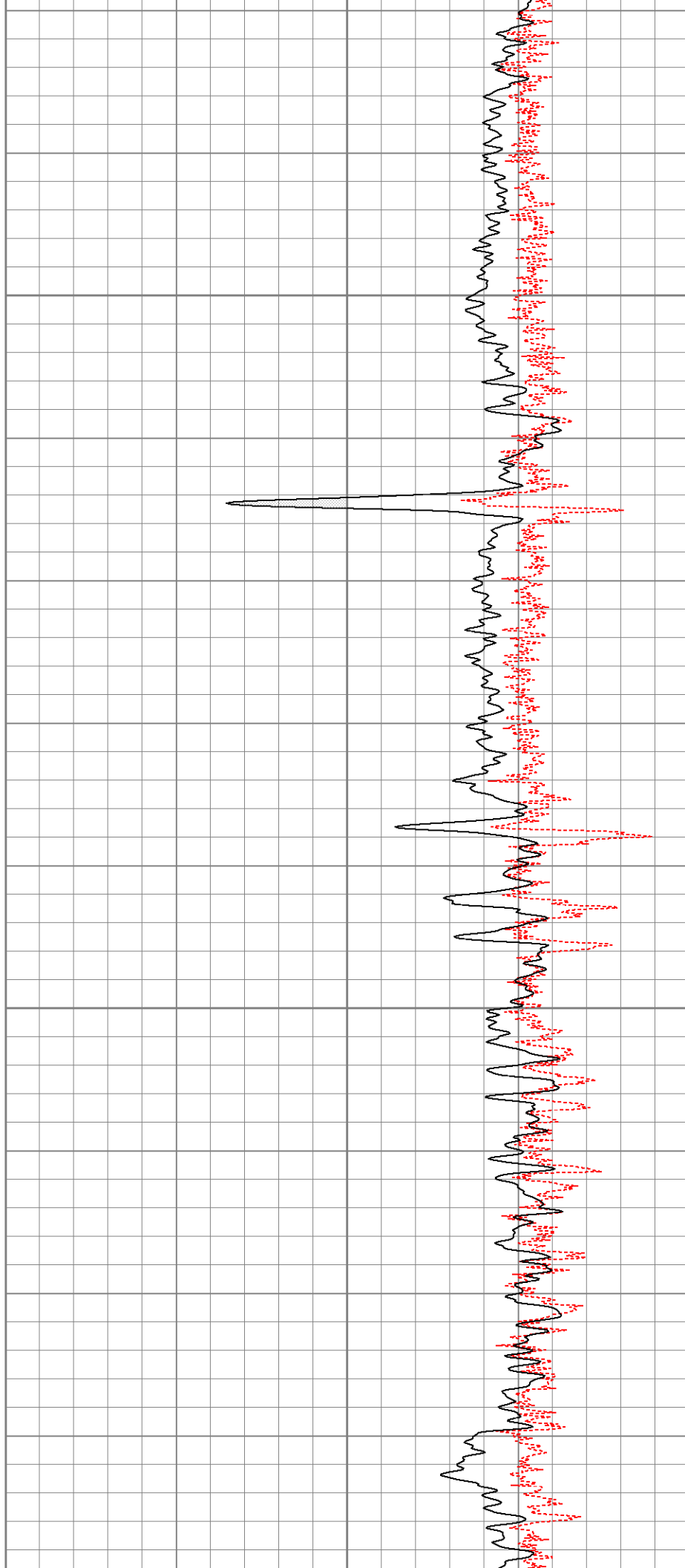
2200

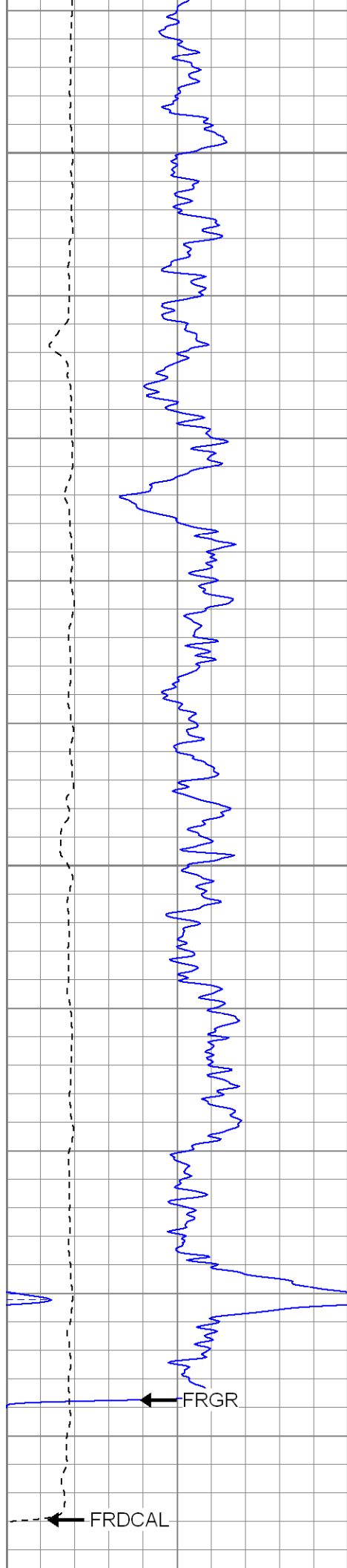




2250

2300



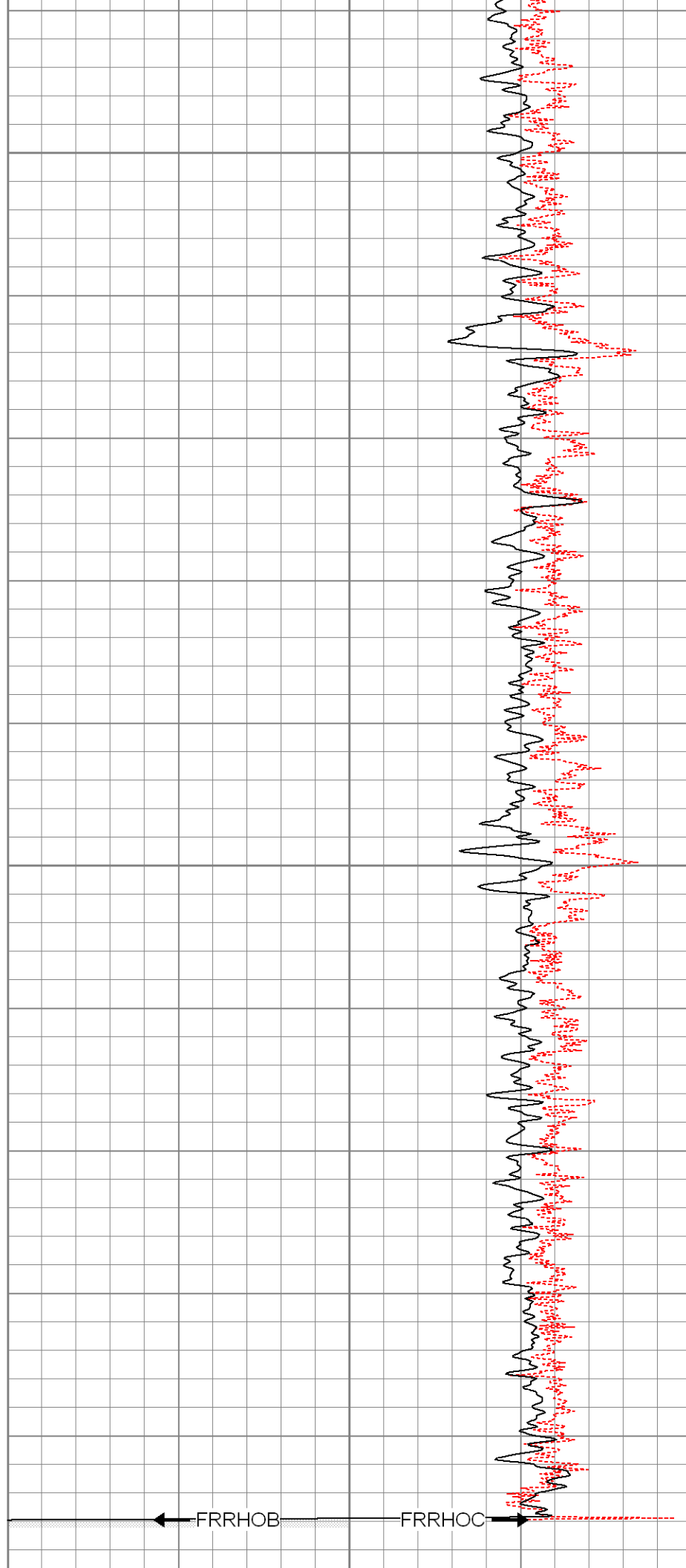


2350

2400

FRGR

FRDCAL




FRRHOB

FRRHOC

										2450										

Calibration Report									
Database File:		xtone2415.db							
Dataset Pathname:		pass1							
Dataset Creation:		Fri Mar 21 16:15:29 2008 by Log Open-Cased 070814							
Dual Induction Calibration Report									
Serial-Model:		5375-G							
Surface Cal Performed:		Wed Mar 05 01:17:28 2008							
Downhole Cal Performed:		Wed Mar 05 01:18:19 2008							
Surface Calibration									
		Readings			References			Results	
Loop:	Air	Loop		Air	Loop		m	b	
Deep	0.000	0.619	V	0.000	500.000	mmho-m	808.416	-0.143	
Medium	0.003	0.740	V	0.000	550.000	mmho-m	746.121	-2.291	
Internal:	Zero	Cal		Zero	Cal		m	b	
Deep	0.000	0.618	V	0.000	500.000	mmho-m	809.686	-0.193	
Medium	0.003	0.740	V	0.000	550.000	mmho-m	746.925	-2.612	
Downhole Calibration									
		Readings			References			Results	
Internal:	Zero	Cal		Zero	Cal		m	b	
Deep	0.133	499.798	mmho-m	0.049	499.265	mmho-m	0.999	-0.084	
Medium	0.460	549.973	mmho-m	0.319	549.727	mmho-m	1.000	-0.141	
Shallow	2.510	0.008	V	500.000	2.000	Ohm-m	189.000	-2.700	

Sensor	Offset (ft)	Schematic	Description	Len (ft)	OD (in)	Wt (lb)
NEU	40.47		None	0.75	1.50	5.00
			NEU-G (5145) Gearhart Epithermal	5.65	3.50	85.00
			GR-OH (2001)	3.56	3.25	40.00

