



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

COMPENSATED DENSITY NEUTRON LOG

Company XTO Energy Inc.
Well Golden Eagle 33-09
Field Purgatoire River
County Las Animas State Colorado

Location: API # : 05 071 09484 00

1731' FSL & 567' FEL

DIL

SEC 33 TWP 33S RGE 67W

Permanent Datum	Ground Level	Elevation	7516'
Log Measured From	Ground Level		
Drilling Measured From	Ground Level		

Elevation
K.B. -----
D.F. -----
G.L. 7516'

Date 3-1-08

Run Number	One		
Depth Driller	2209'		
Depth Logger	2209'		
Bottom Logged Interval	2187'		
Top Log Interval	Surface Casing		
Casing Driller	8 5/8" @ 455'		
Casing Logger	452'		
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	9:00 A.M.		
Time Logger on Bottom	11:30 A.M.		
Maximum Recorded Temperature	115 DEG F		
Equipment Number	T697		
Location	Trinidad		
Recorded By	J. Cappellucci		
Witnessed By	Mr. Dalton King		

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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 1546' to 1302' due to Foam.
Well Directions:
1st Bosque Entrance to Cherry Canyon, Past Compressor Station 5,
Up to first 4 way, stay left, take first left to location.



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Main Pass

Database File: xtoge3309.db
Dataset Pathname: pass2.1
Presentation Format: cdl
Dataset Creation: Sat Mar 01 13:09:00 2008 by Calc Open-Cased 070814
Charted by: Depth in Feet scaled 1:240

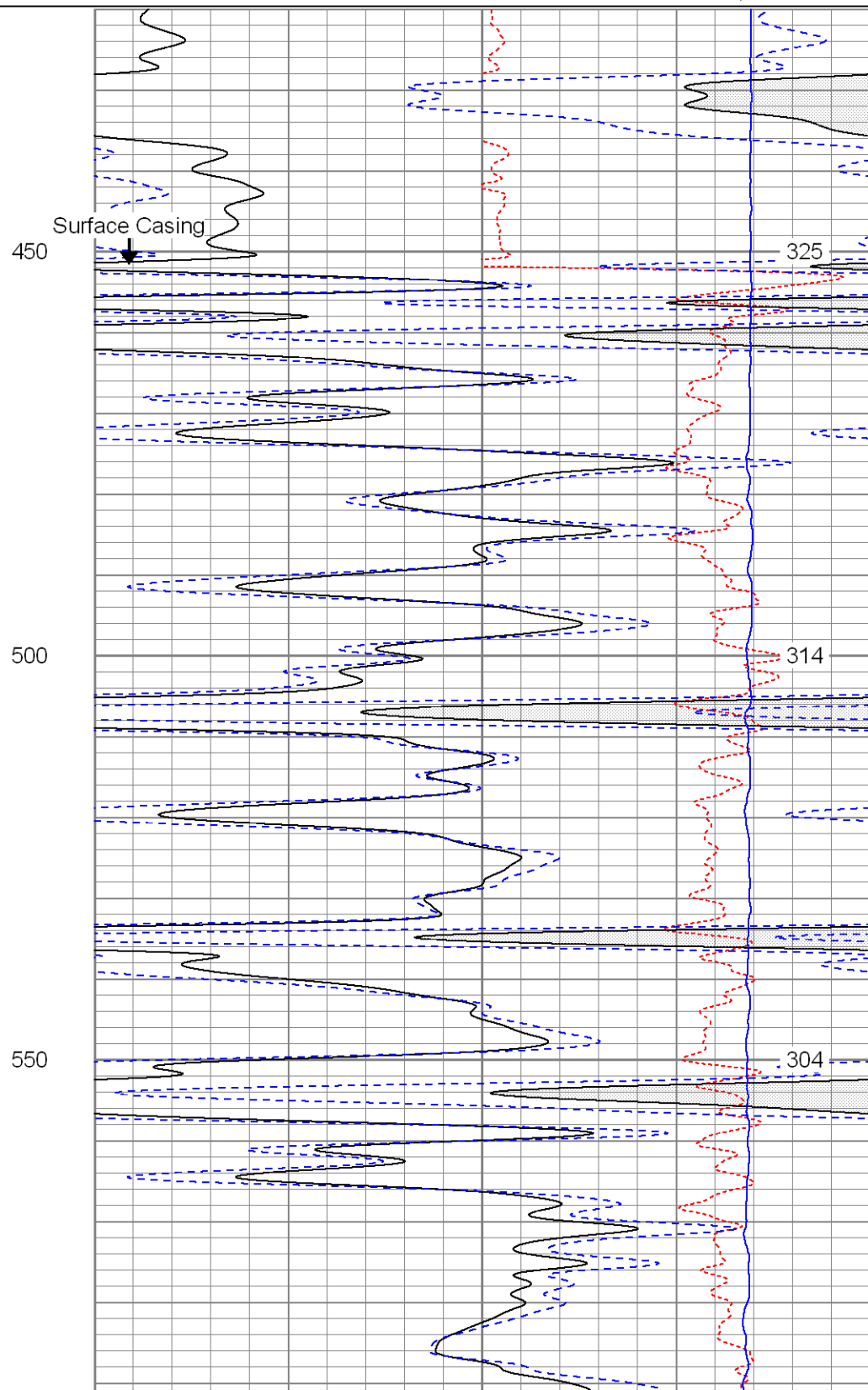
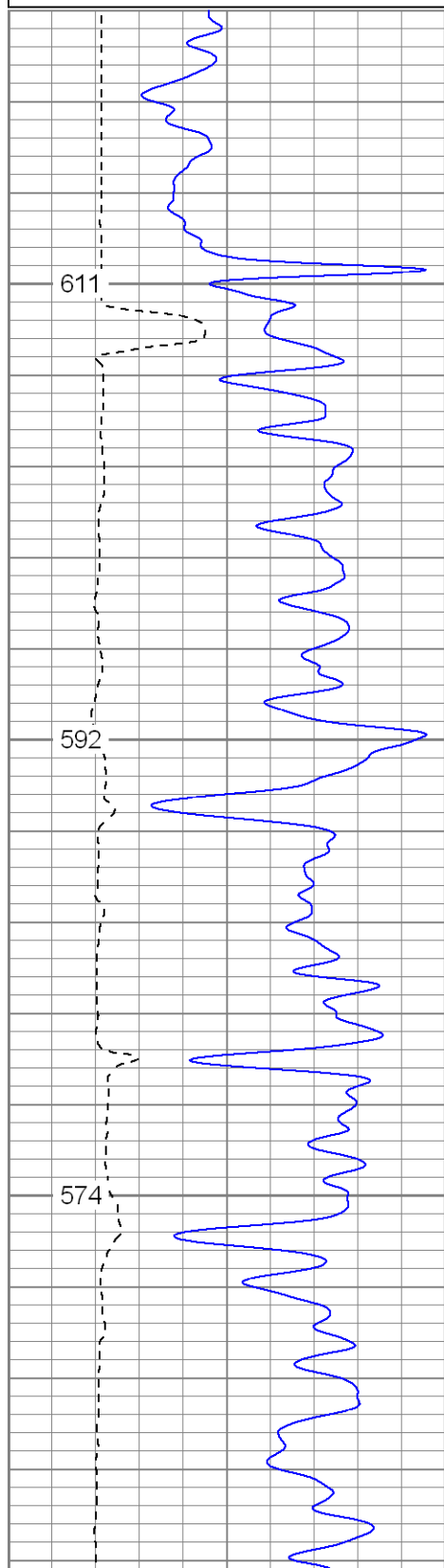
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6	DCAL (in)	16

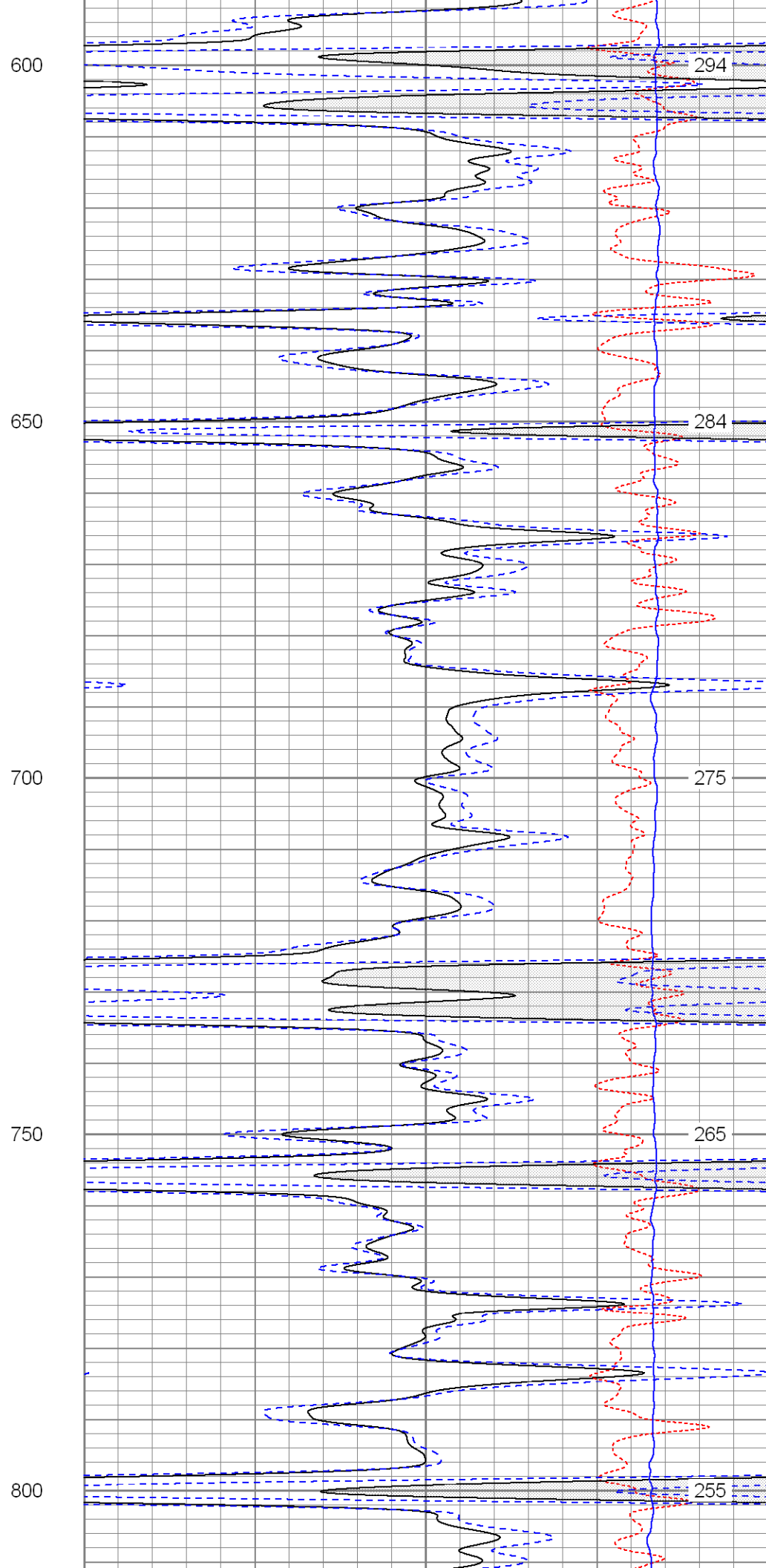
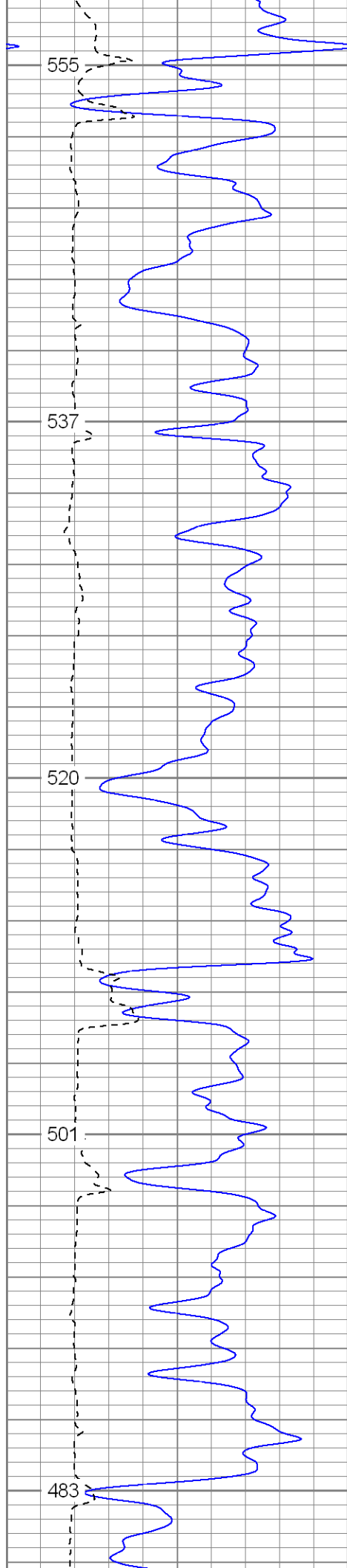
TBHV (ft3)		

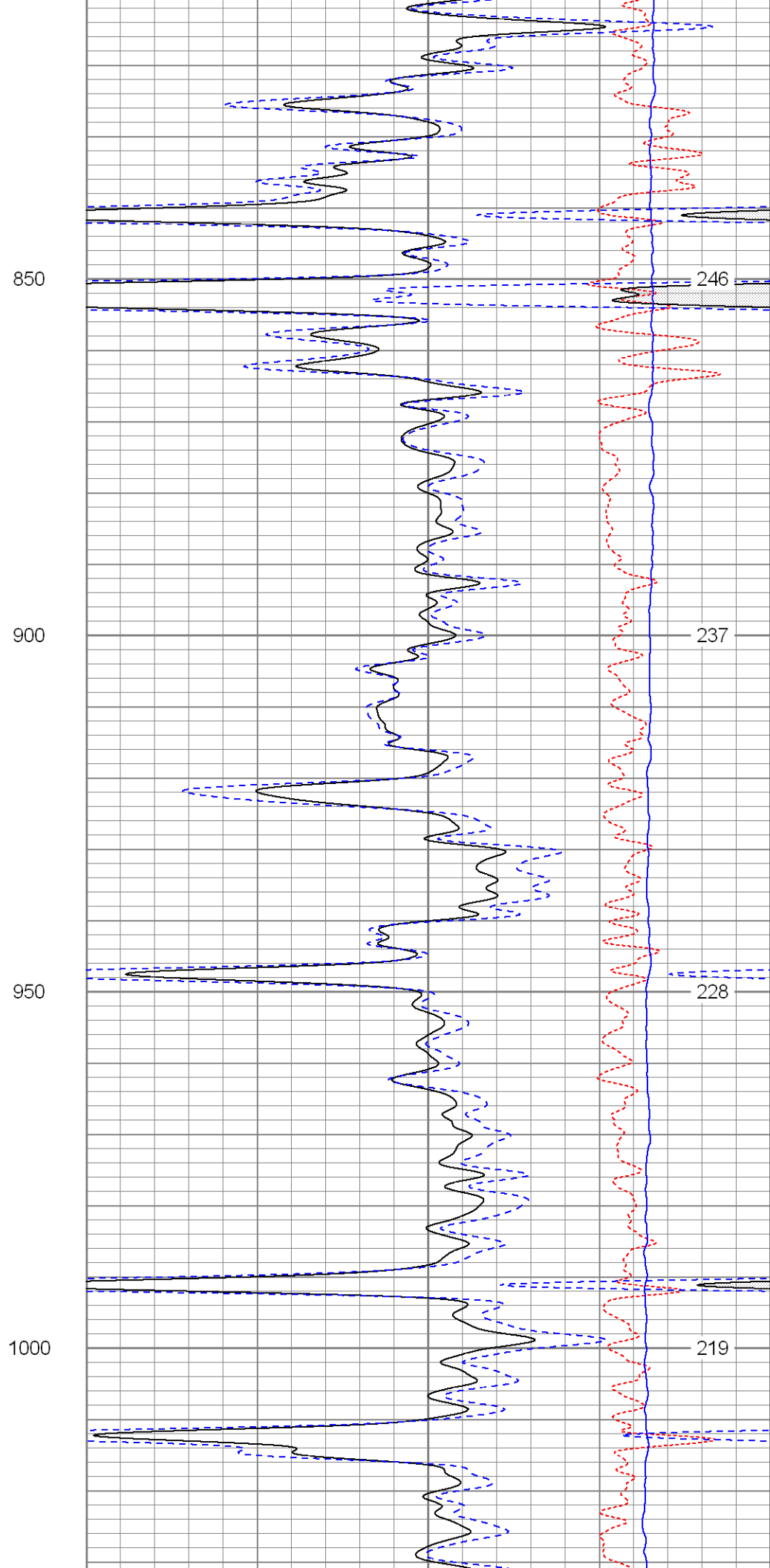
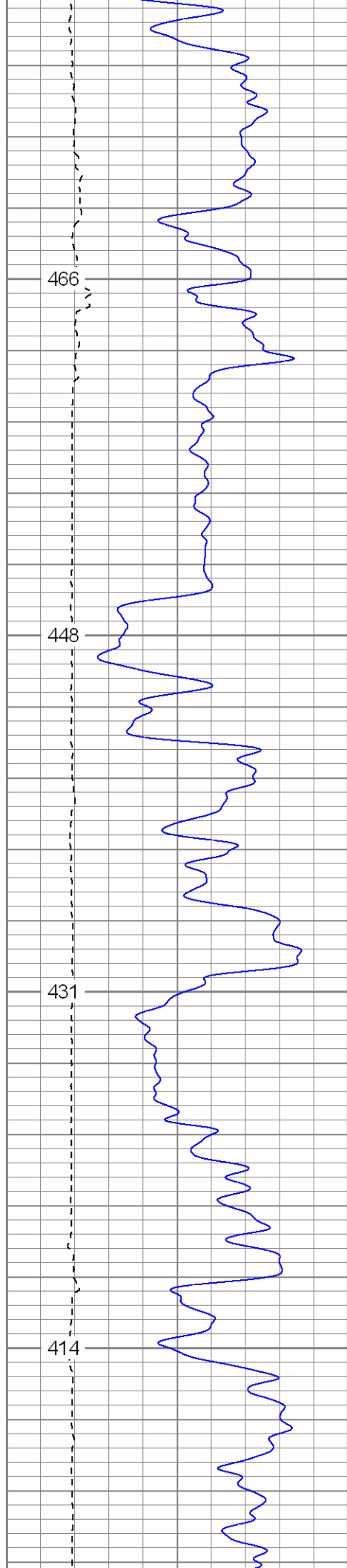
2	RHOB (g/cc)	3
1	RHOB (g/cc)	2
30	DPOR (pu)	-10

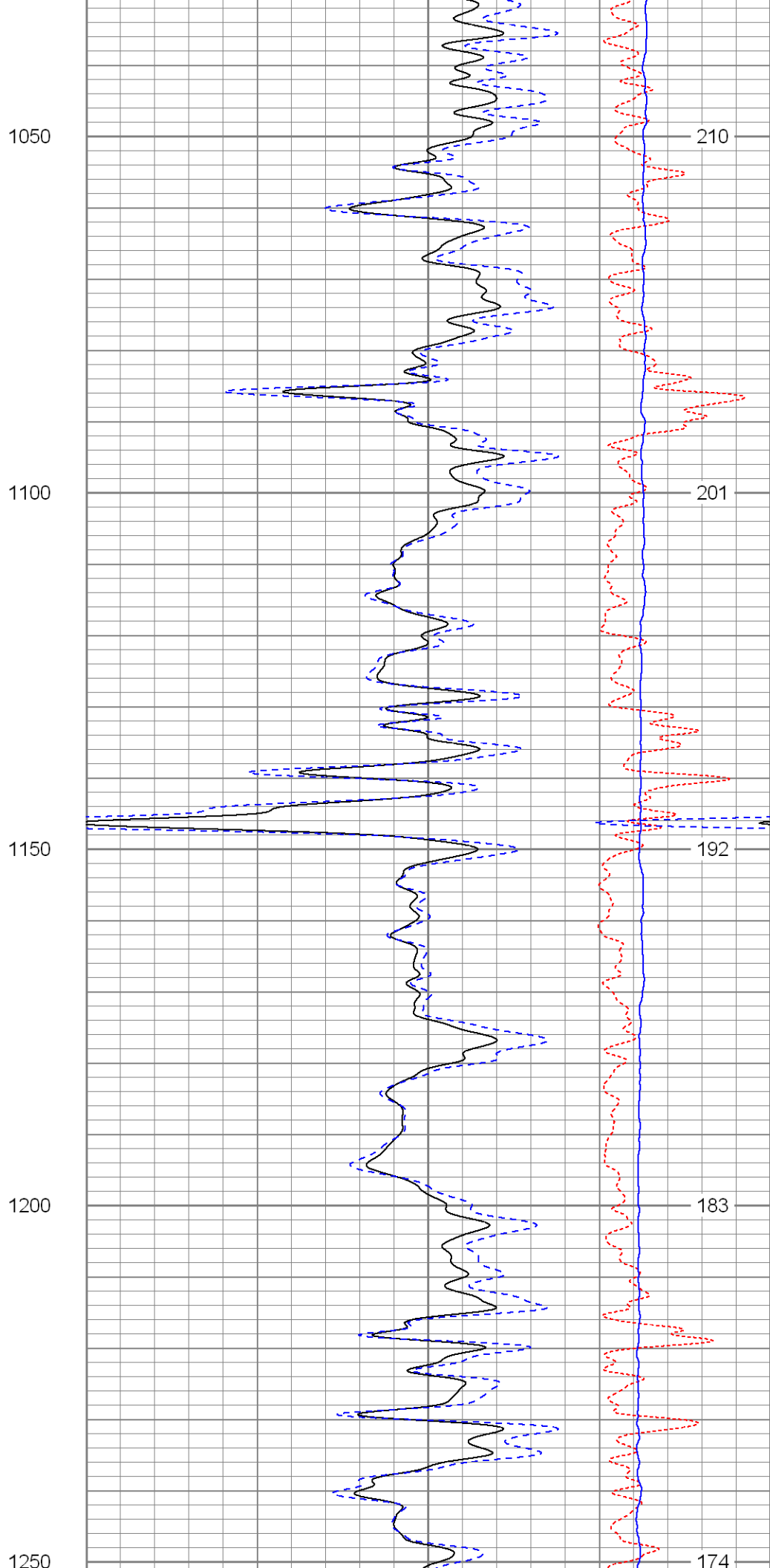
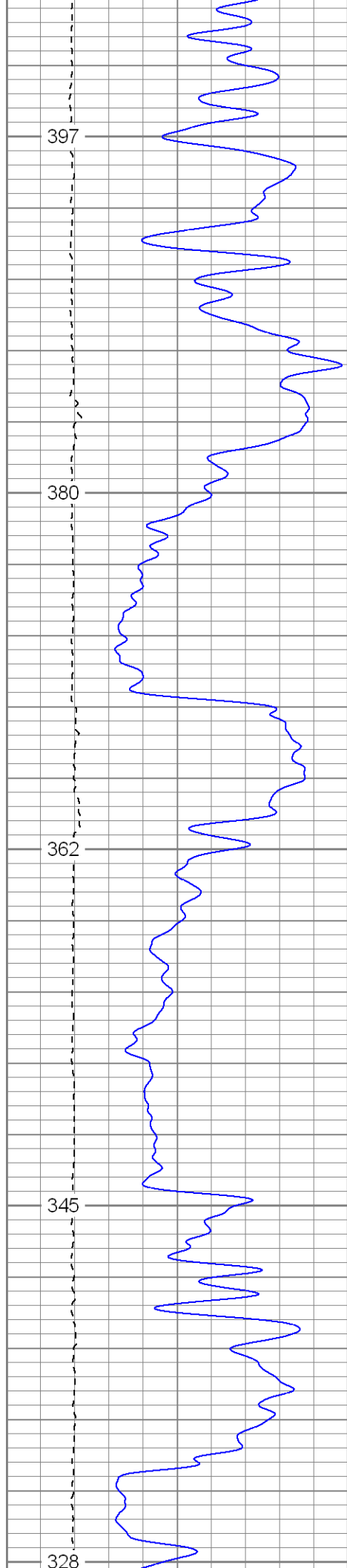
-0.5	RHOC (g/cc)	0.5
4000	LTEN (lb)	0

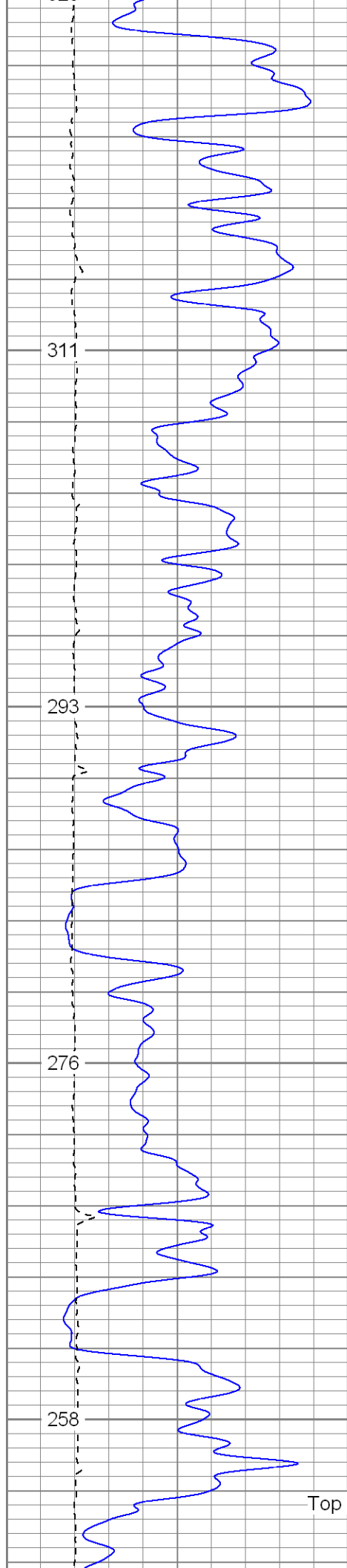
	ABHV (ft3)	











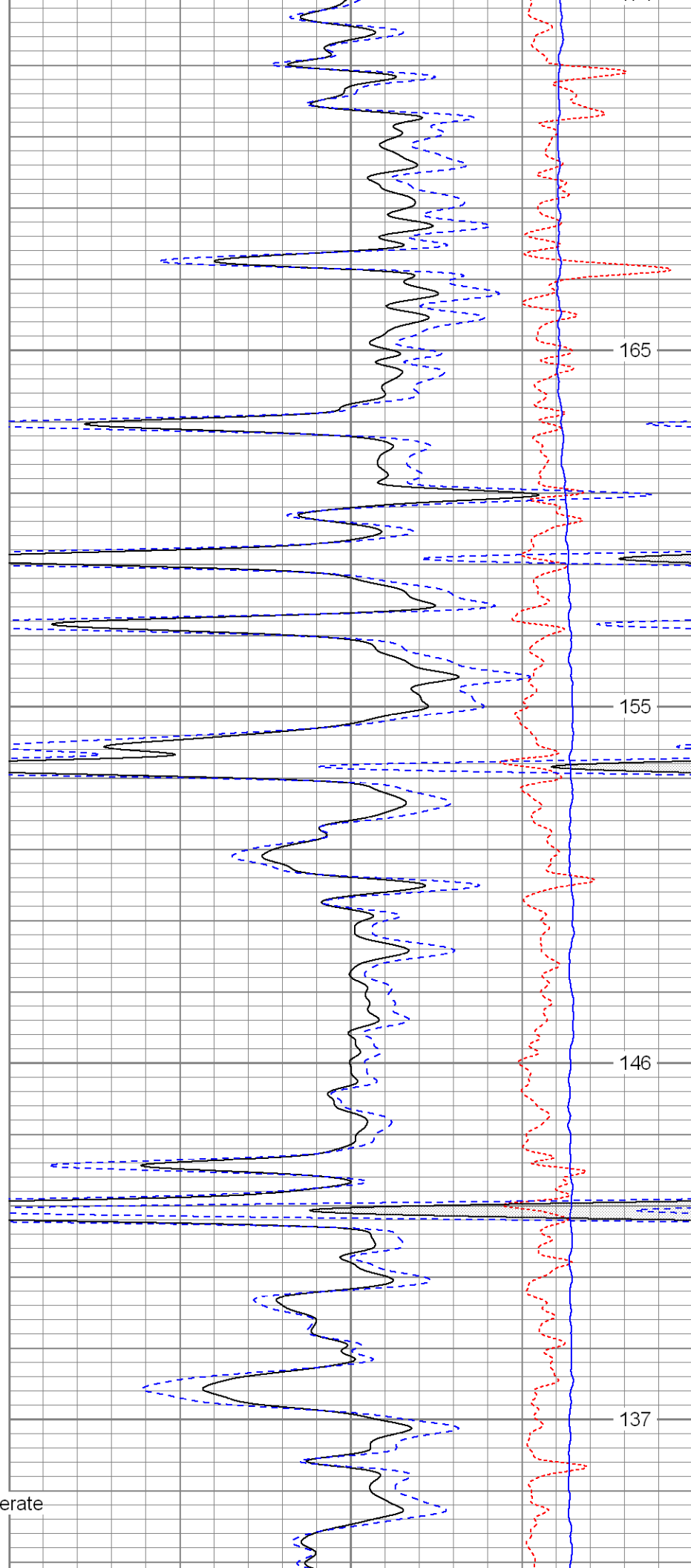
1300
Fluid Level

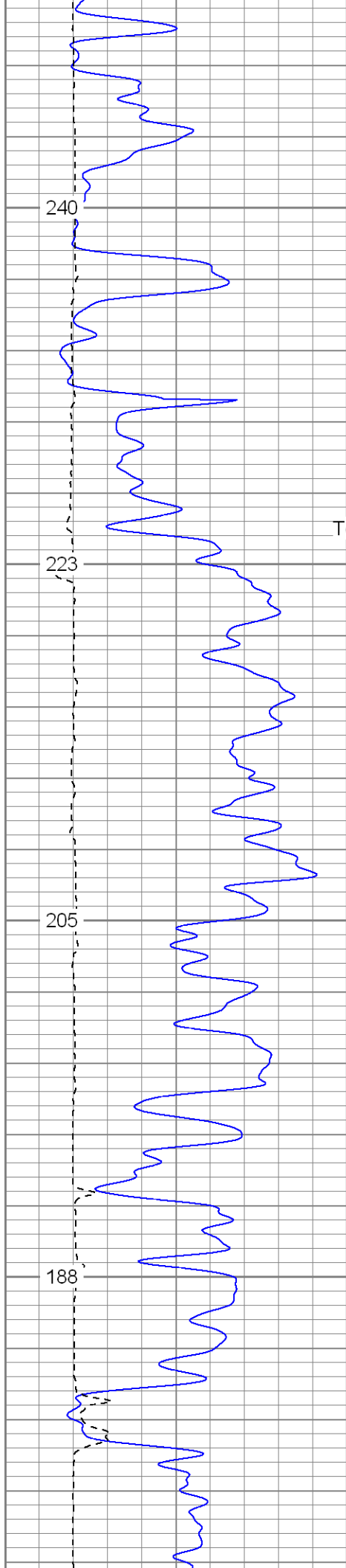
1350

1400

1450

Top Of Conglomerate





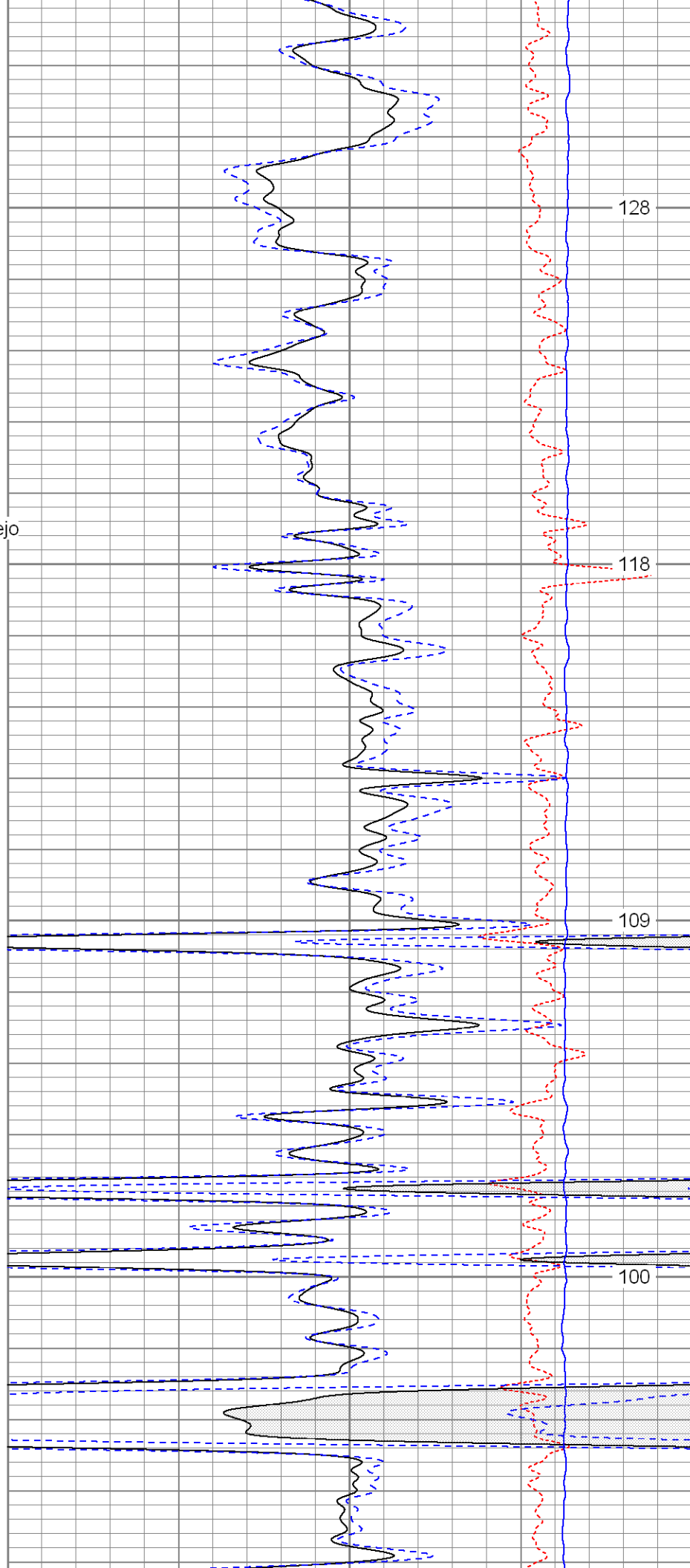
1500

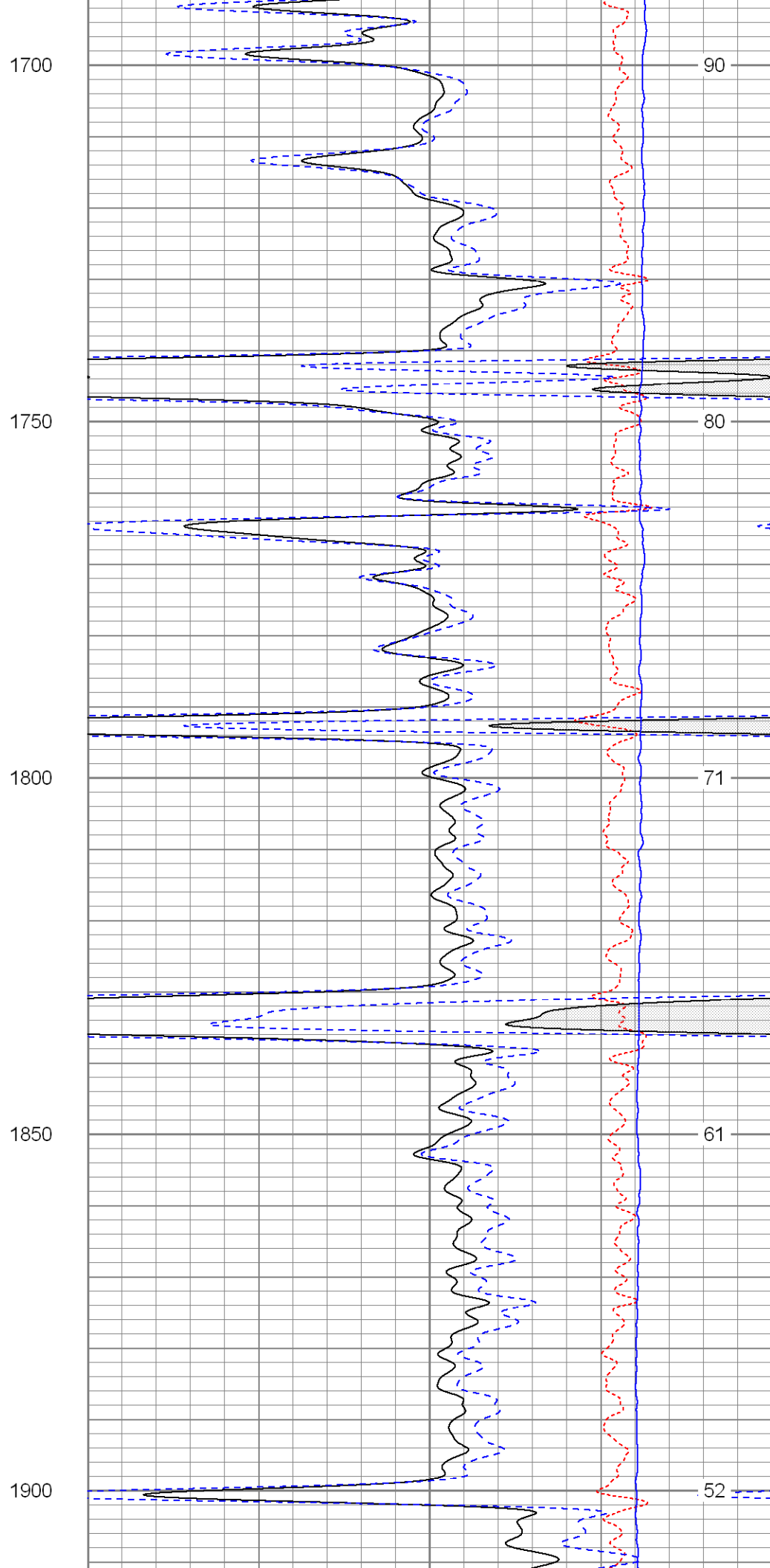
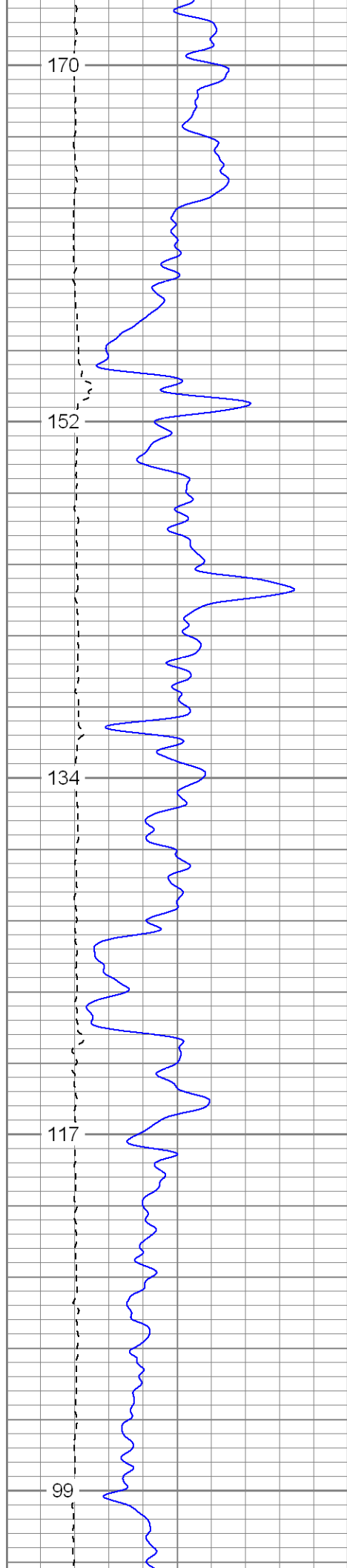
Top Of Vermejo

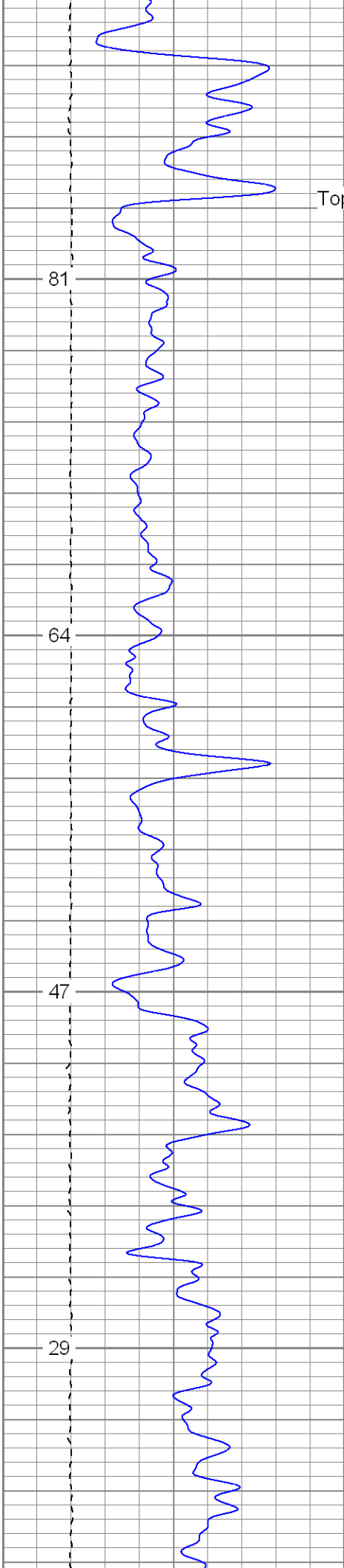
1550

1600

1650







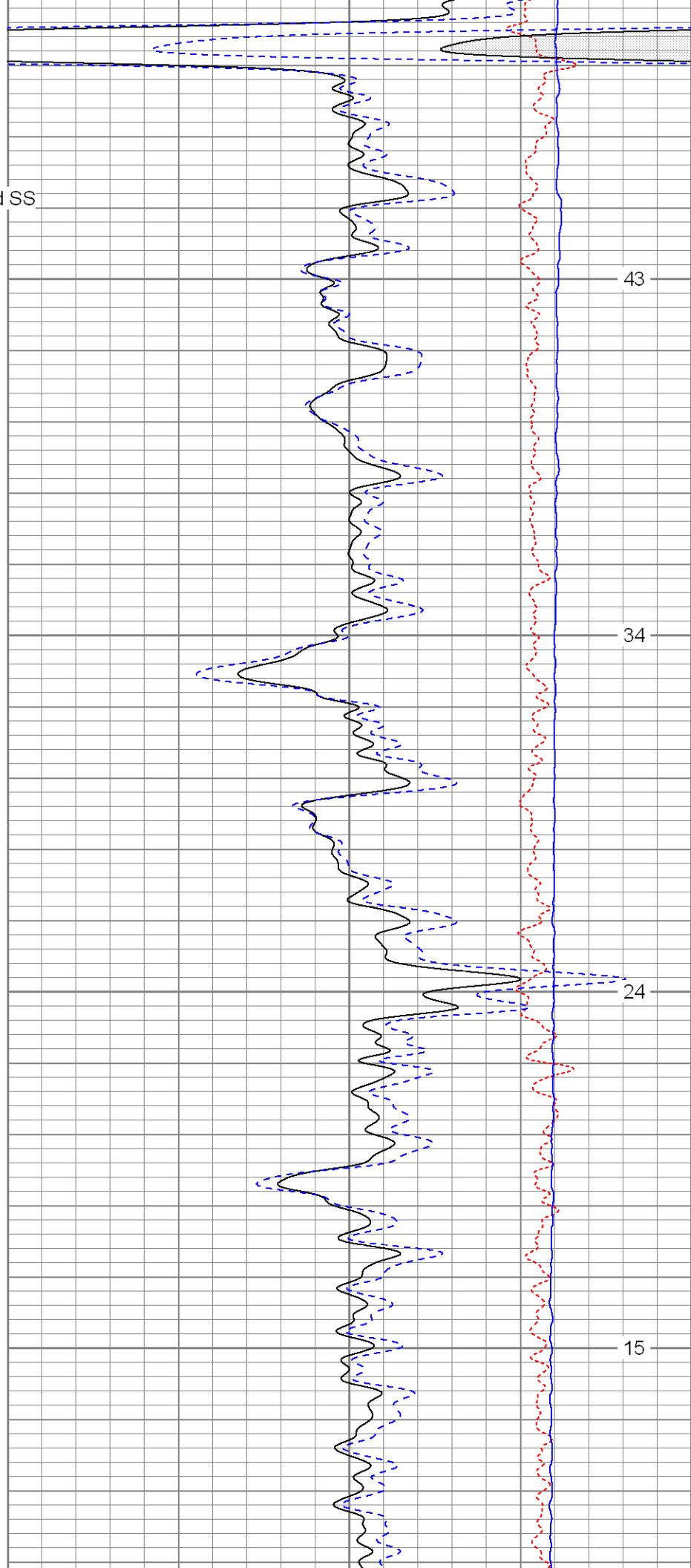
Top Of Trinidad SS

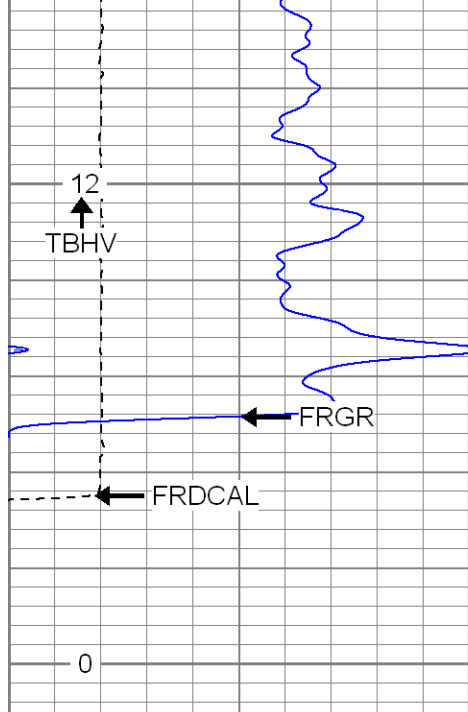
1950

2000

2050

2100

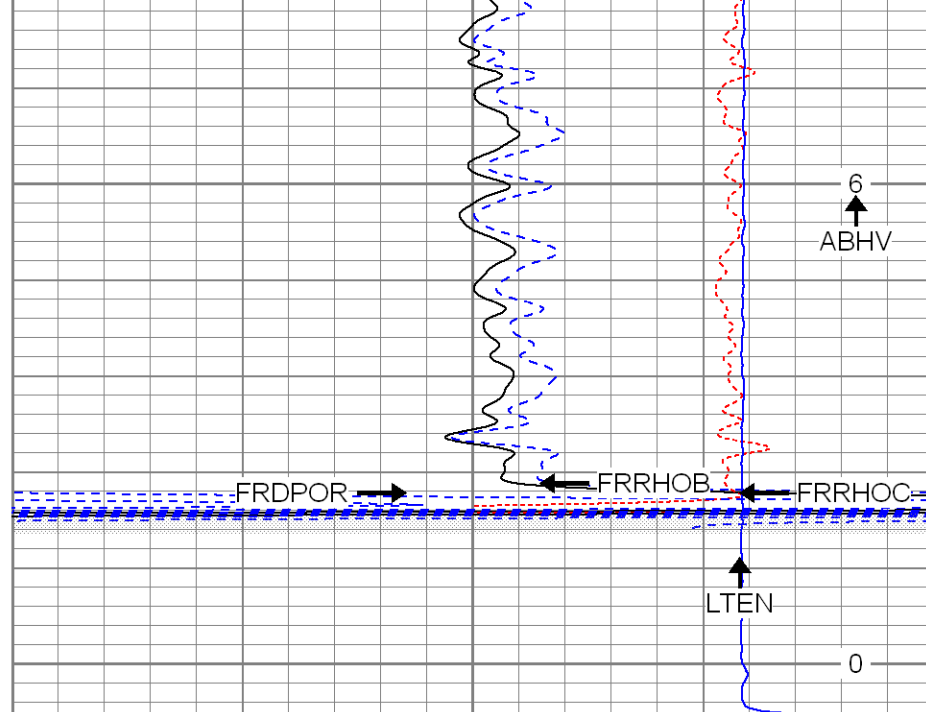




0	GR (GAPI)	200
6	DCAL (in)	16
TBHV (ft3)		

2150

2200



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



SUPERIOR

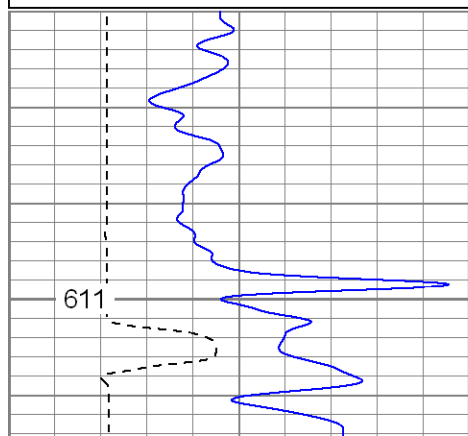
Black Lick, Pa.
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Wooster, Oh.
Cleveland, Ok.
Trinidad, Co.

Main Pass

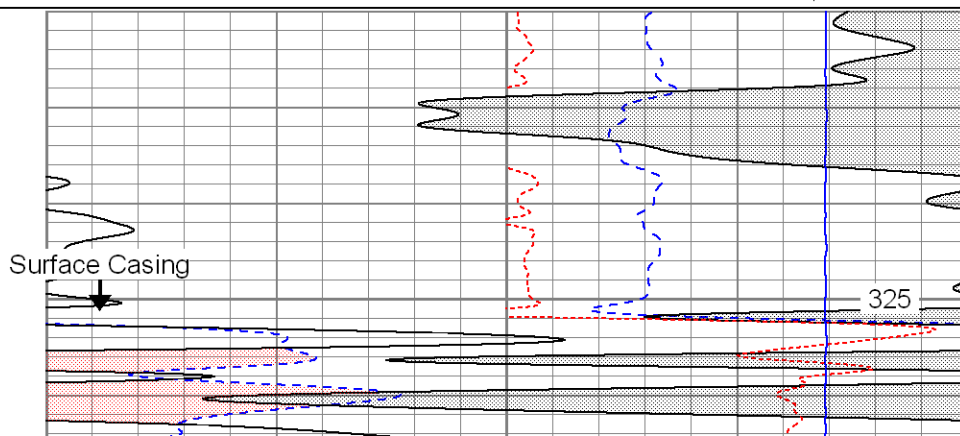
Database File: xtoge3309.db
Dataset Pathname: pass2.1
Presentation Format: cdnl
Dataset Creation: Sat Mar 01 13:09:00 2008 by Calc Open-Cased 070814
Charted by: Depth in Feet scaled 1:240

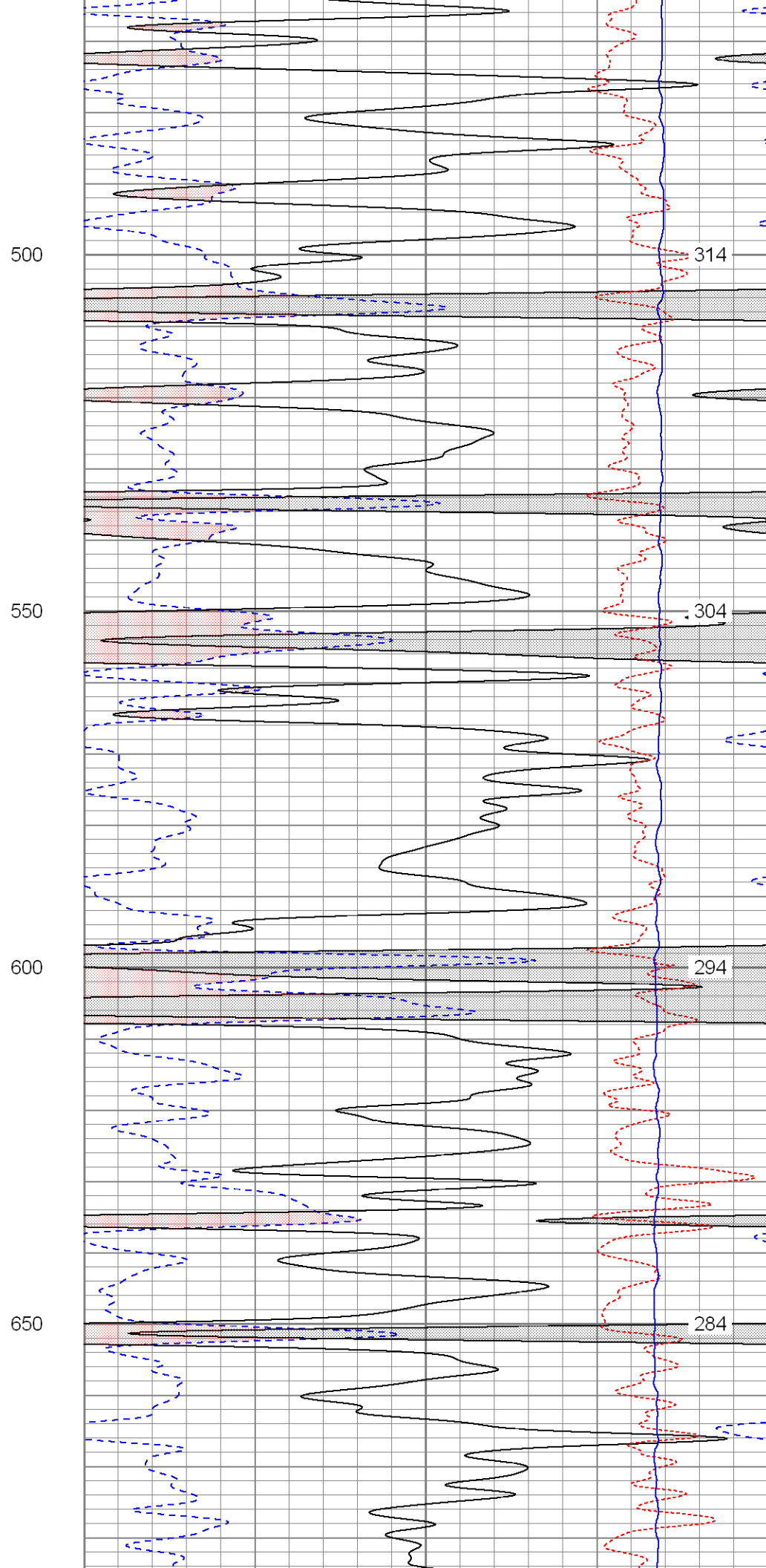
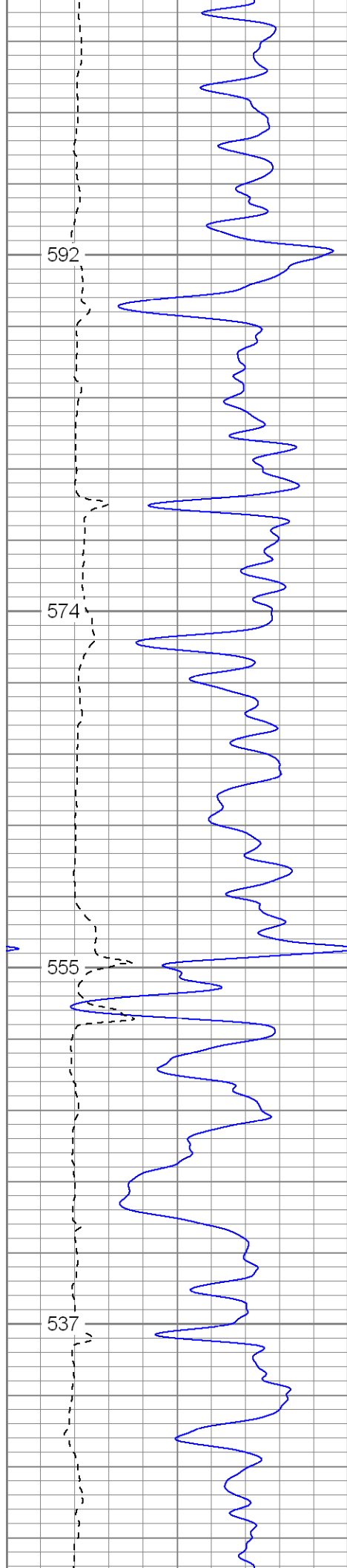
0	GR (GAPI)	200
6	DCAL (in)	16
TBHV (ft3)		

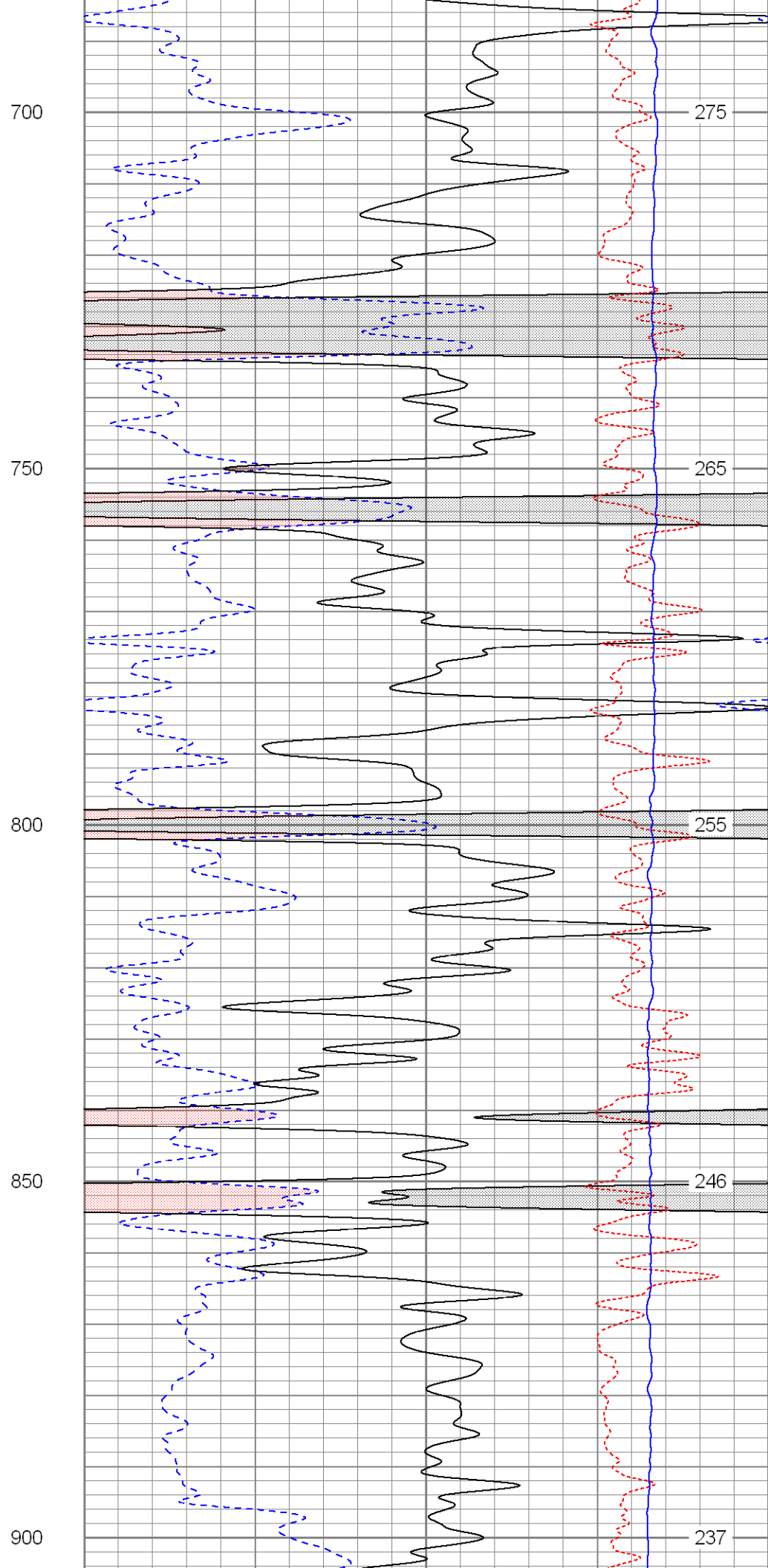
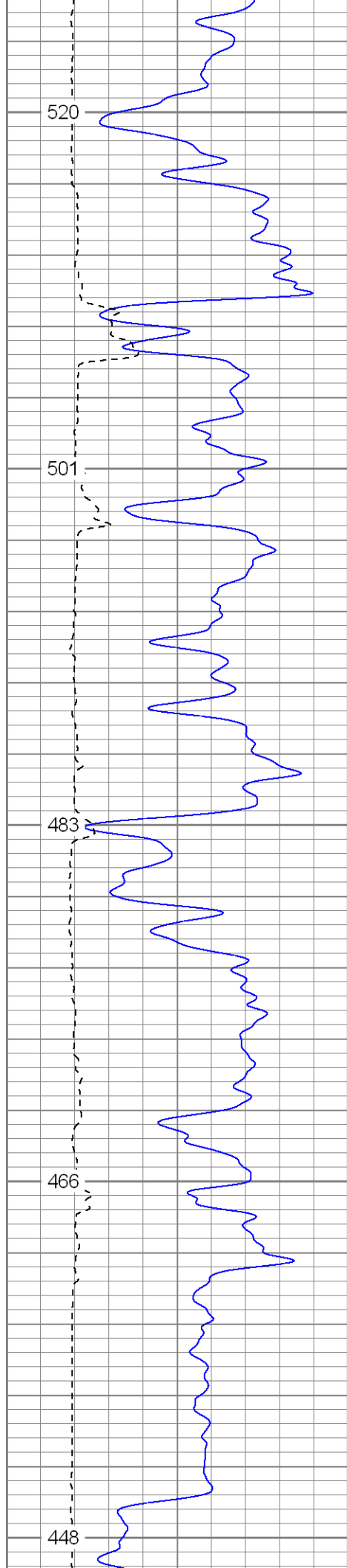
30	NPOR (pu)	-10
30	DPOR (pu)	-10
-0.5	RHOC (g/cc)	0.5
4000	LTEN (lb)	0
ABHV (ft3)		

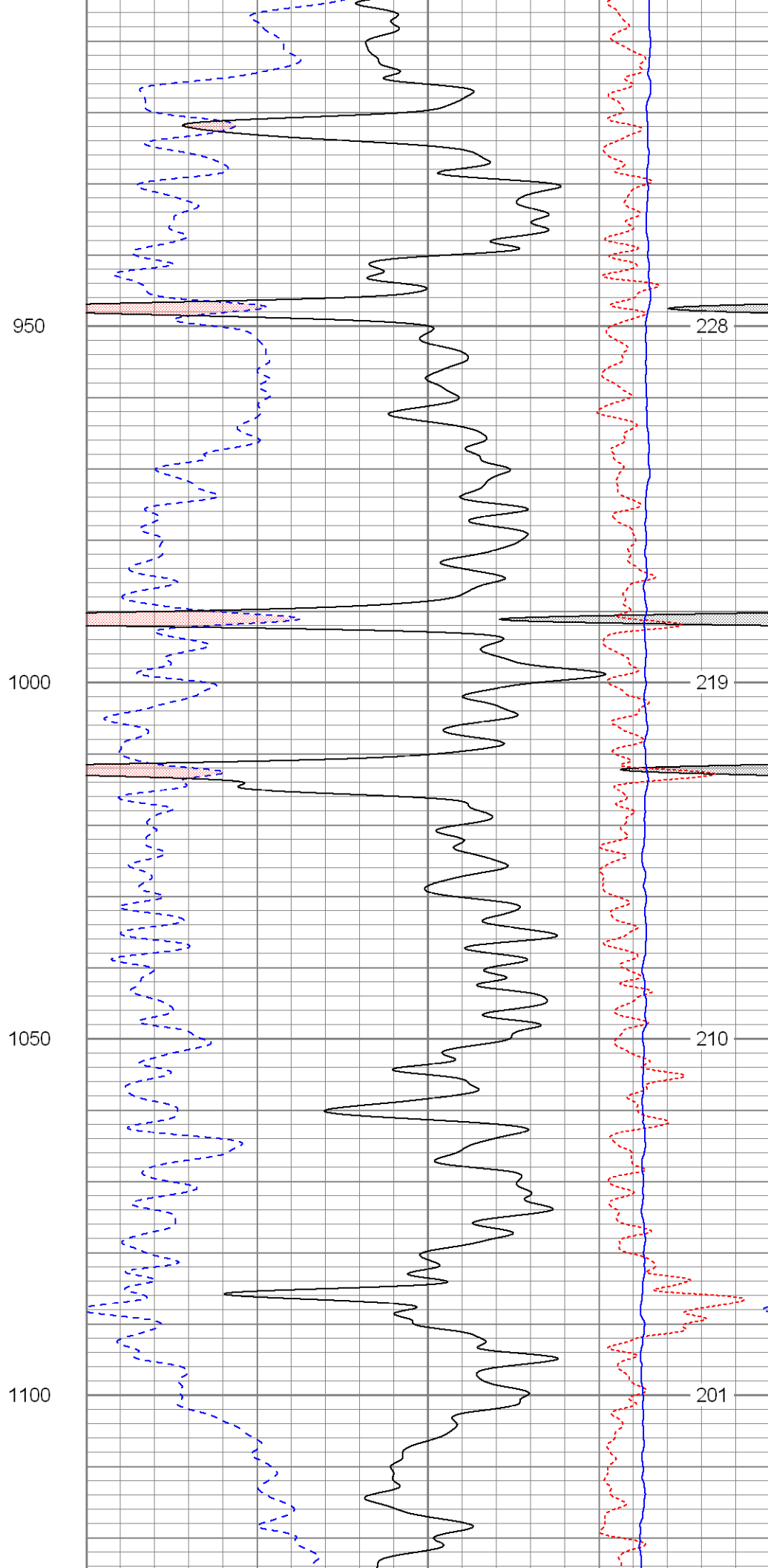
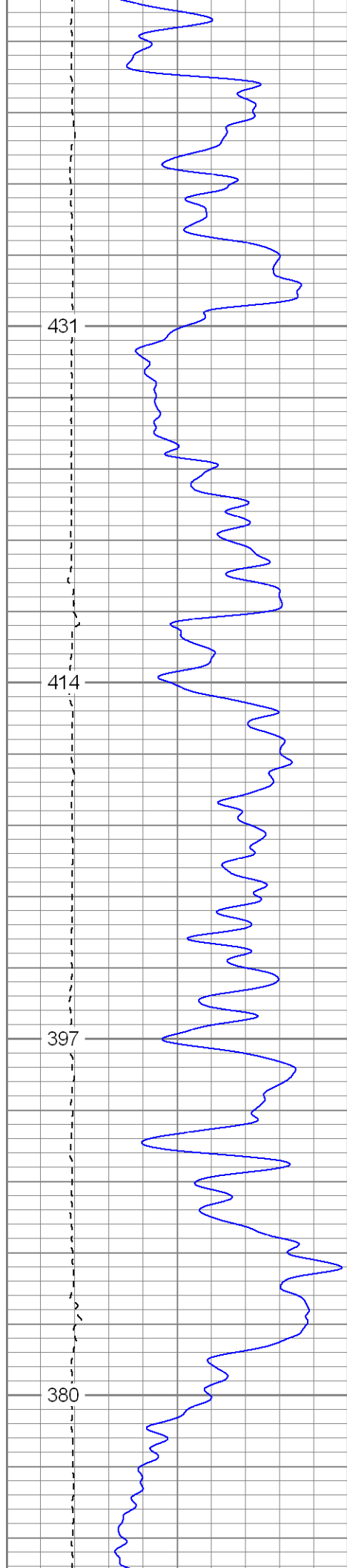


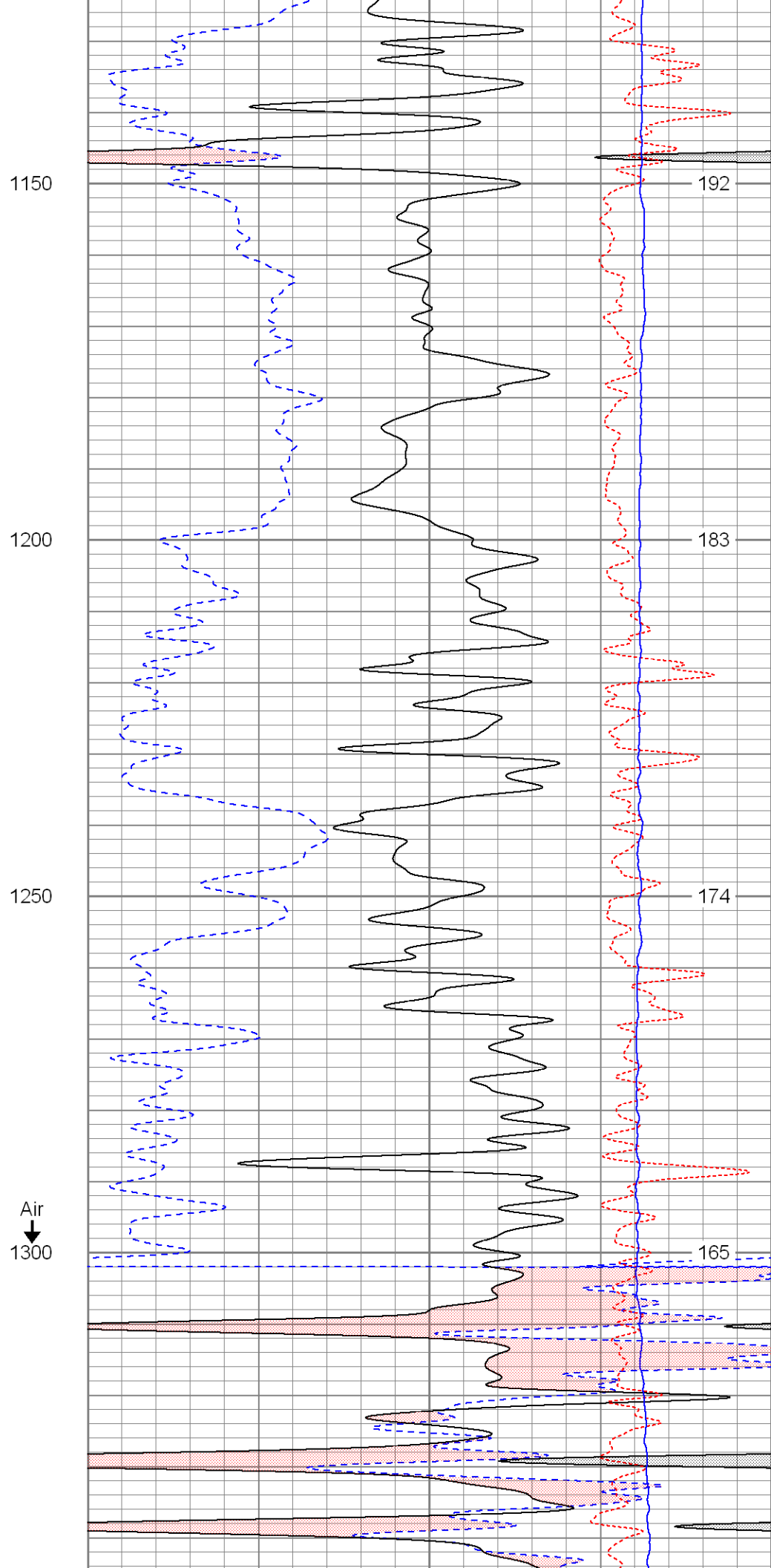
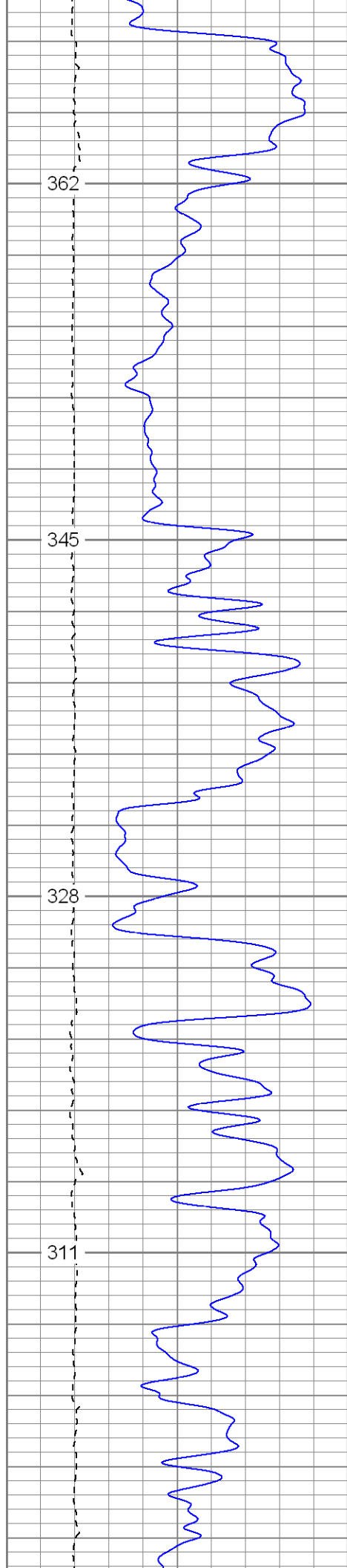
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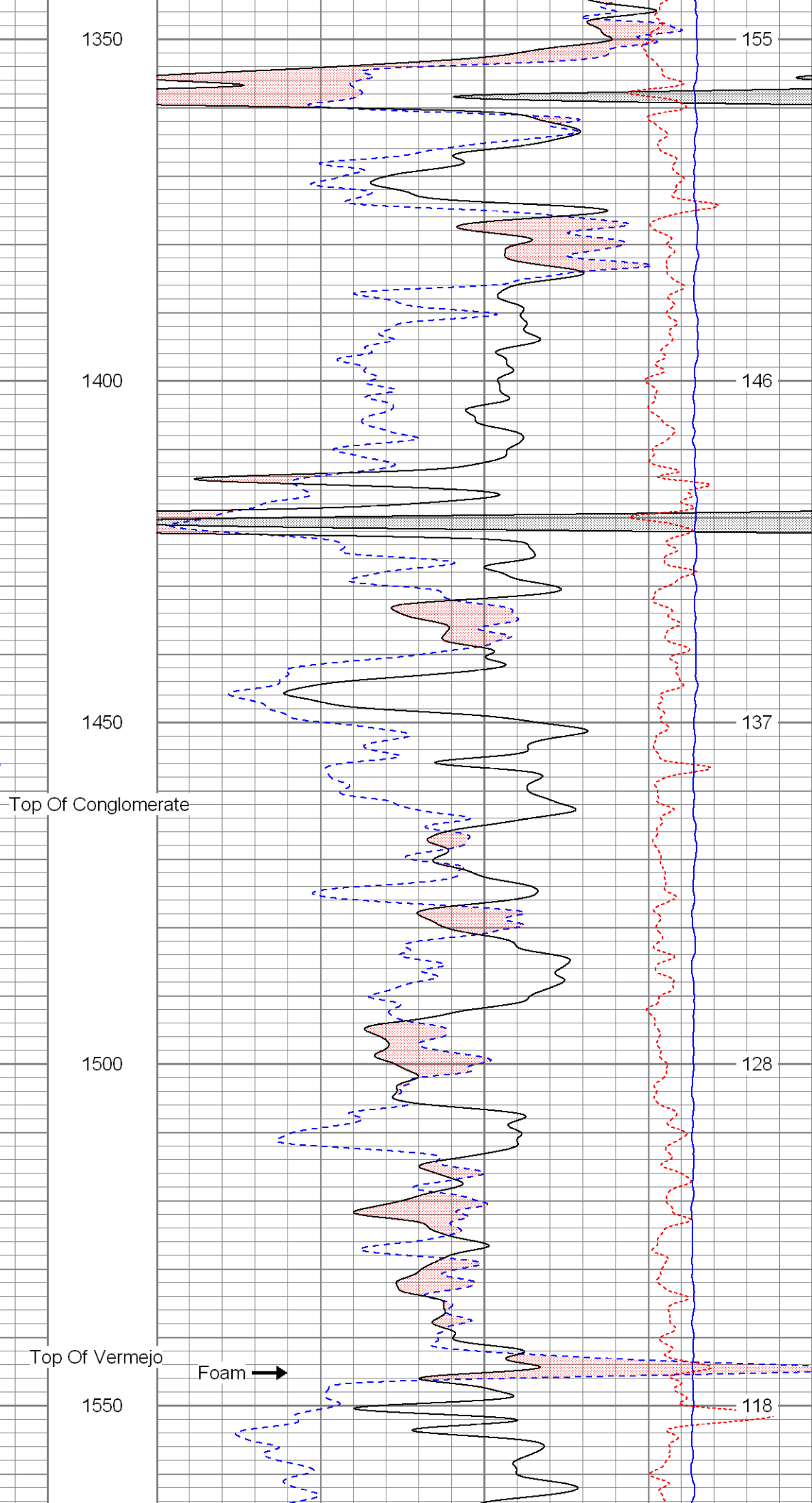
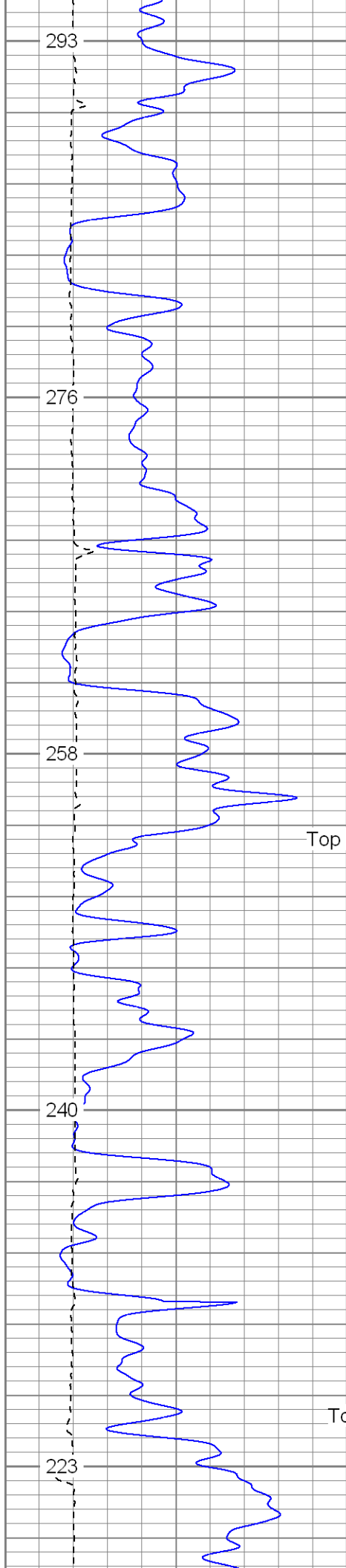


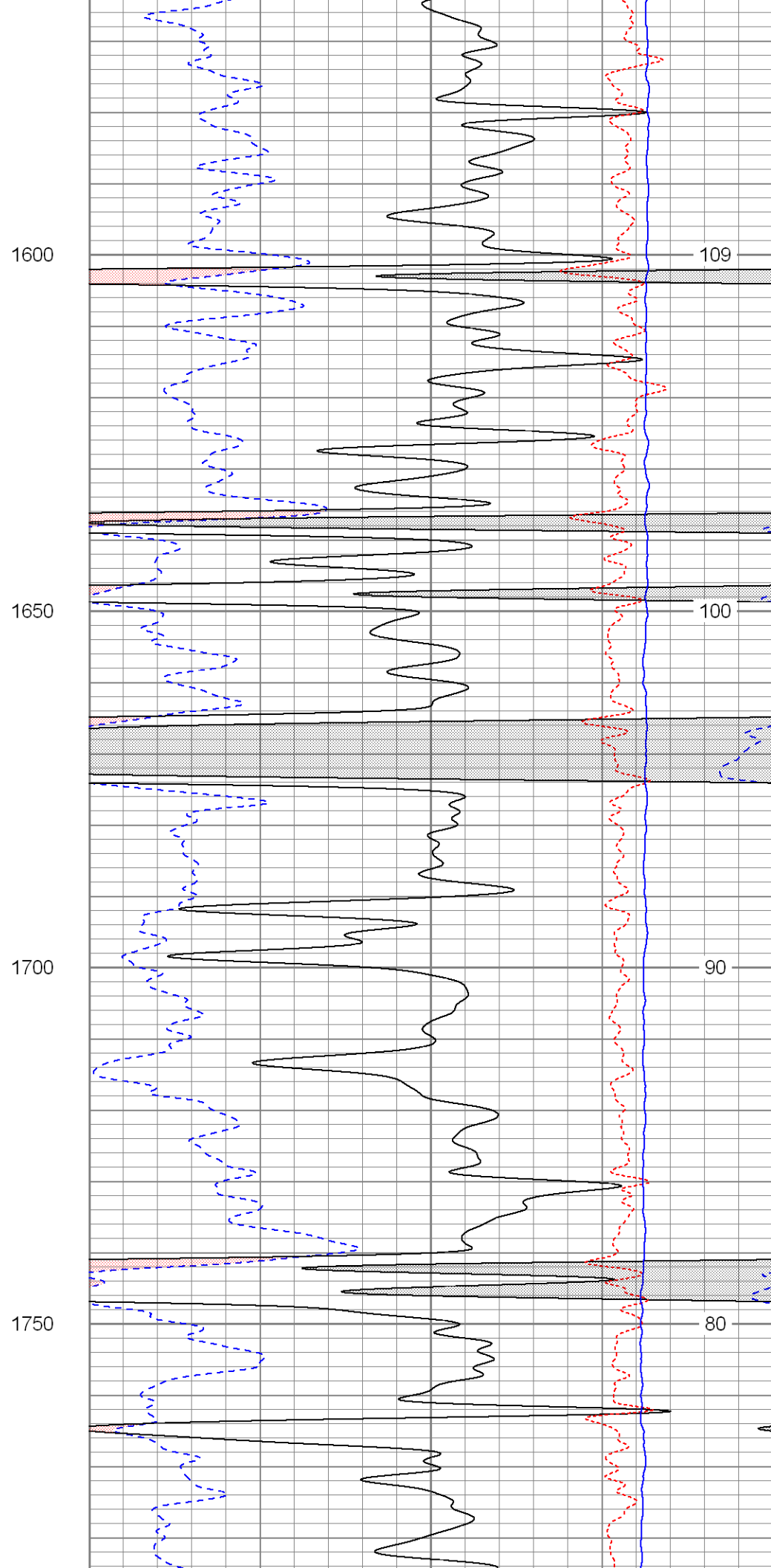
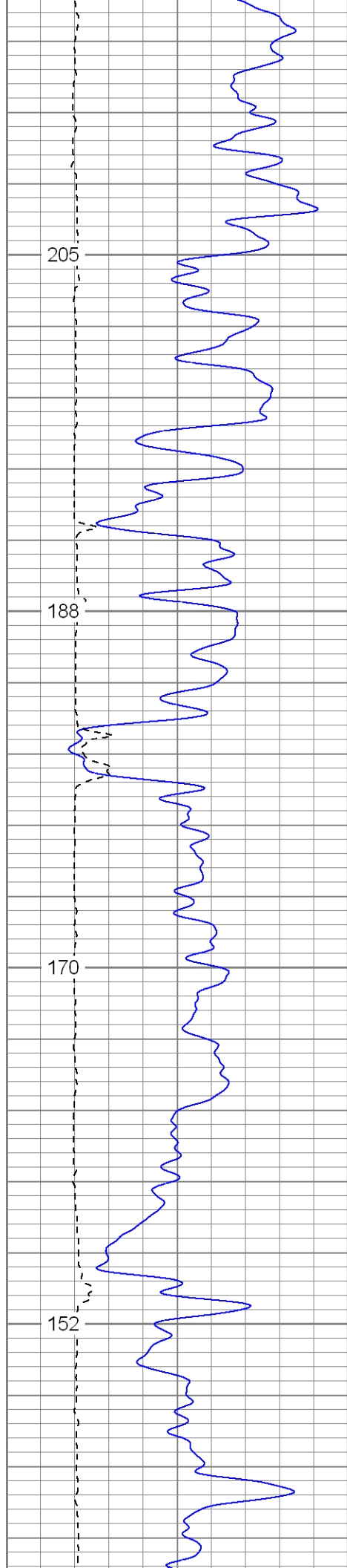


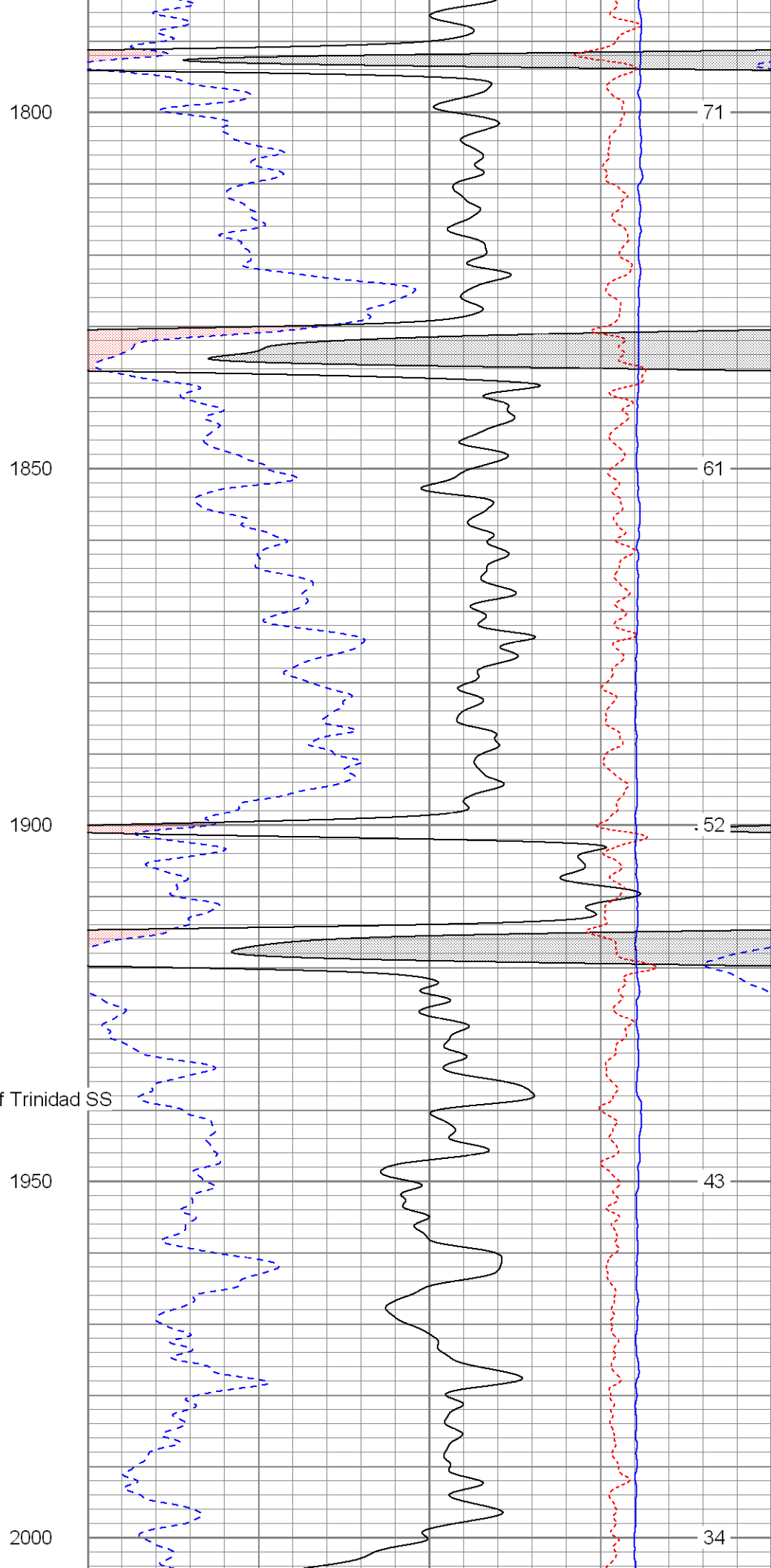
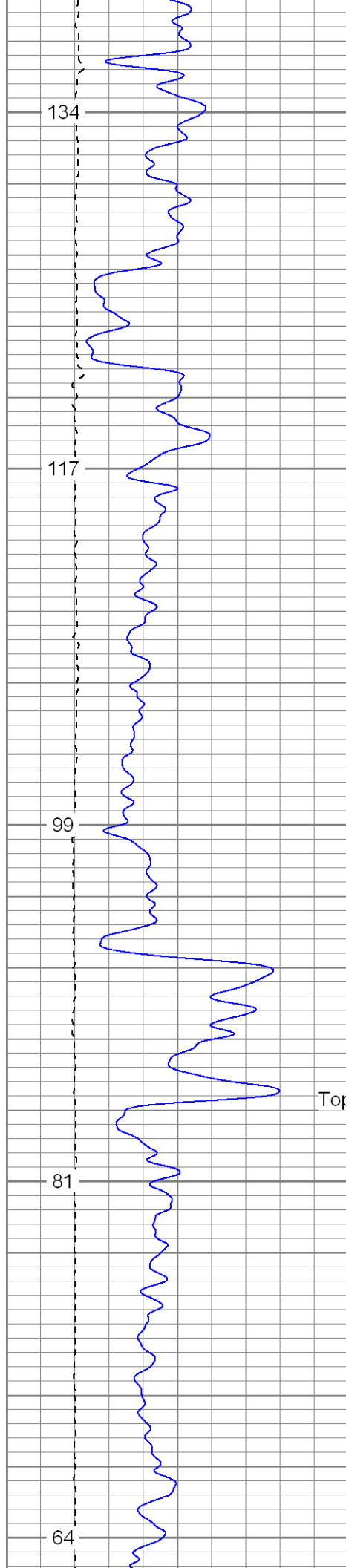


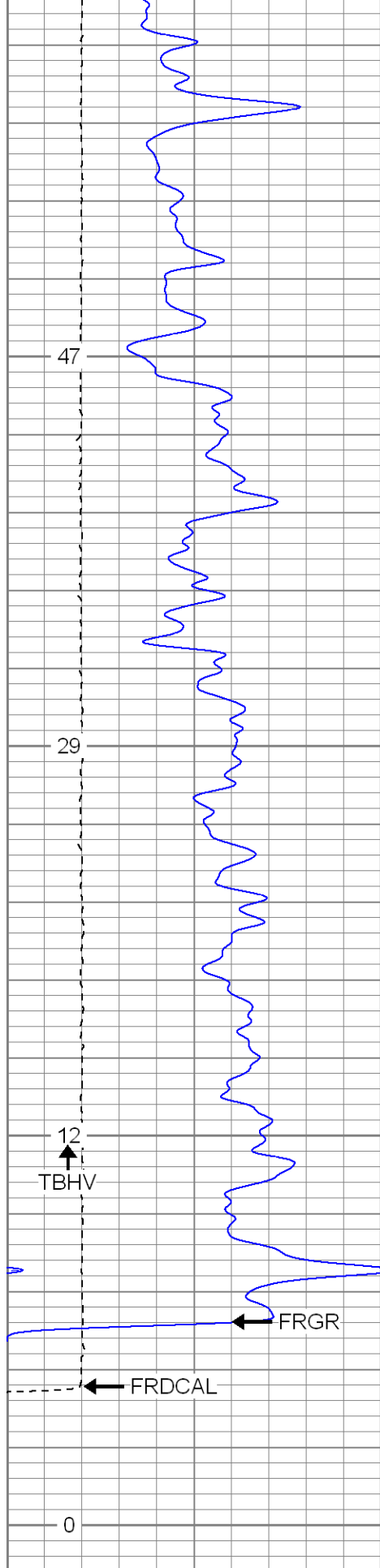




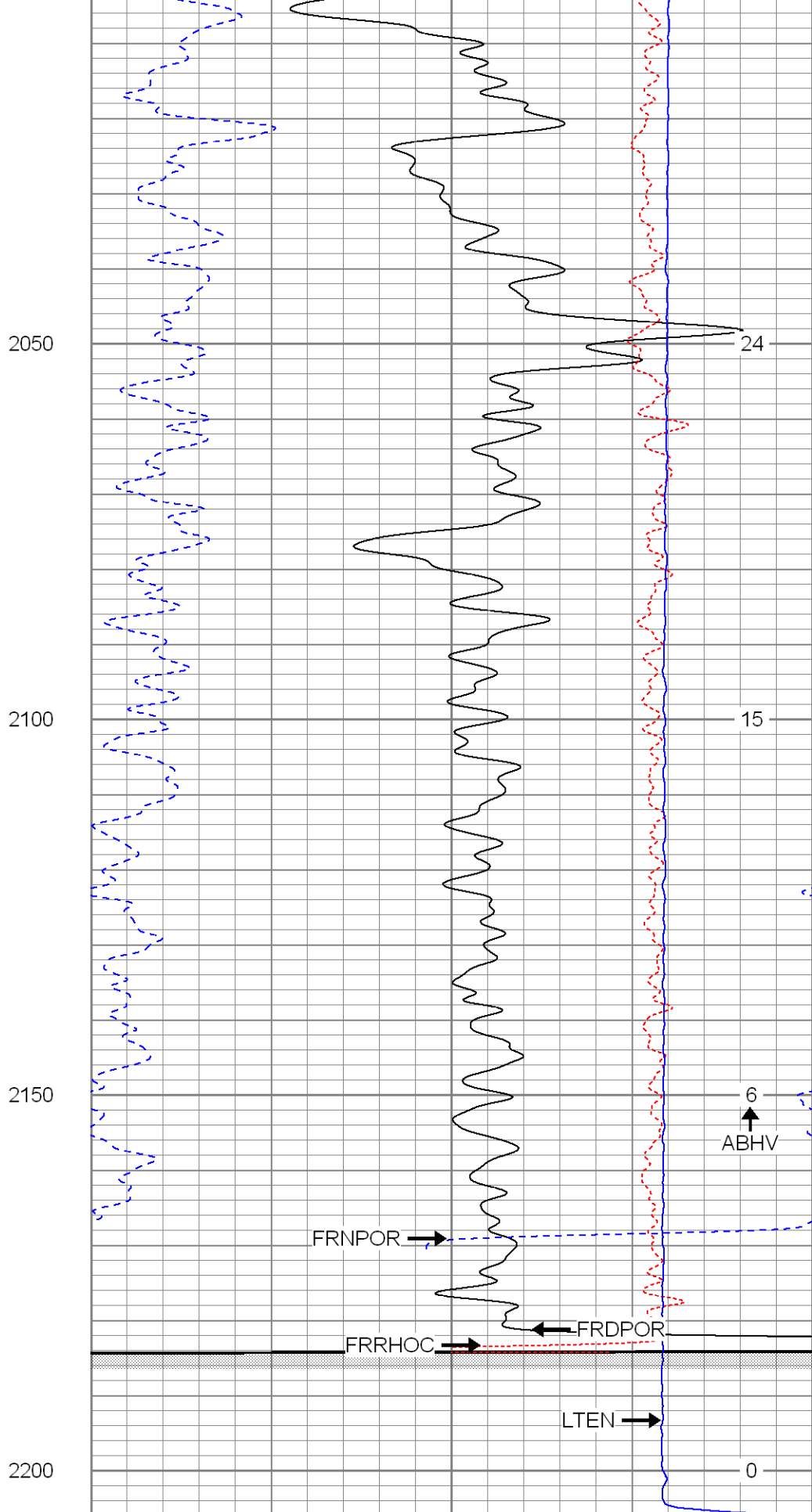








0	GR (GAPI)	200
6	DCAL (in)	16
TBHV (ft3)		



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



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Repeat Pass

Database File: xtoge3309.db
 Dataset Pathname: pass1.1
 Presentation Format: cdnl
 Dataset Creation: Sat Mar 01 12:05:12 2008 by Calc Open-Cased 070814
 Charted by: Depth in Feet scaled 1:240

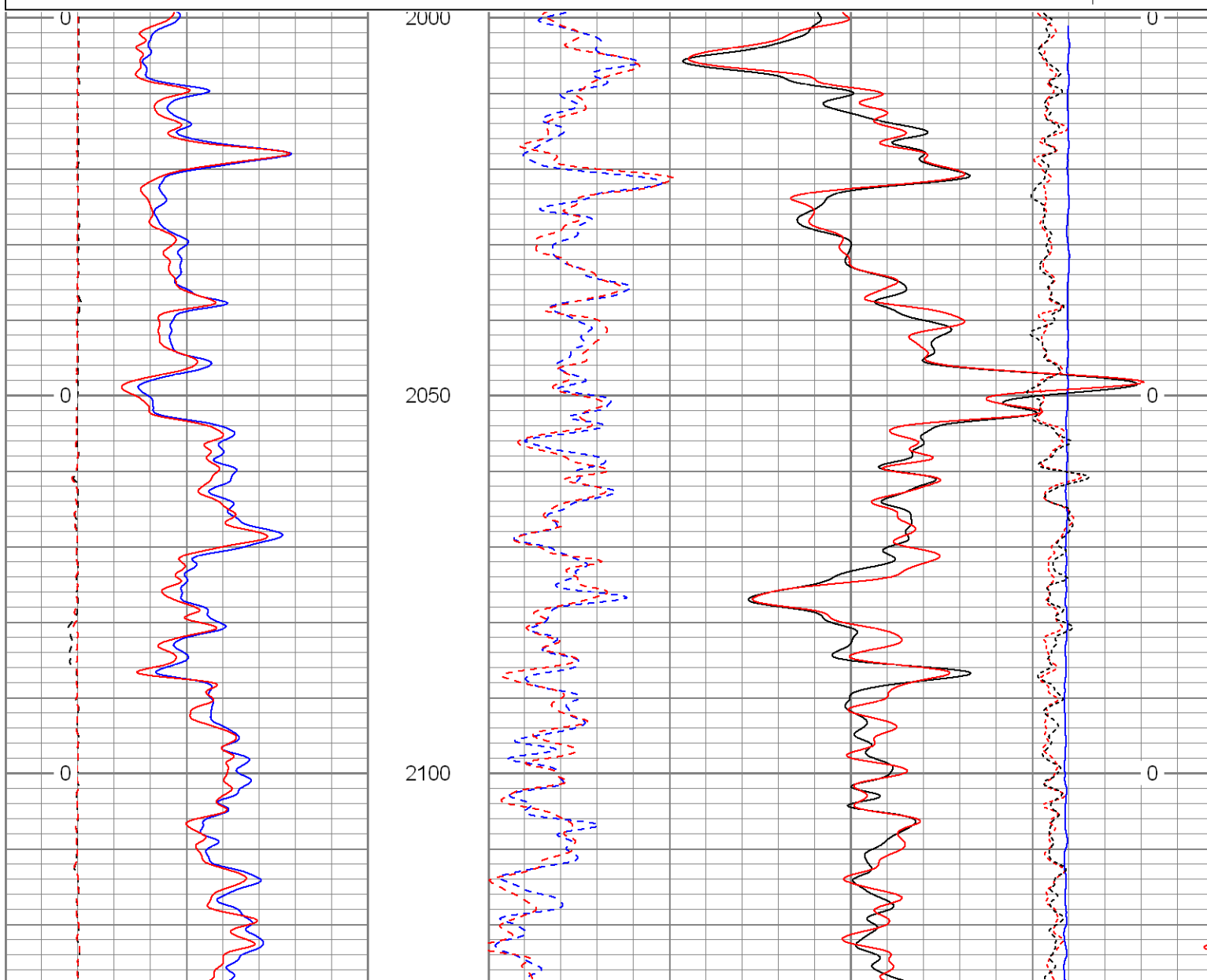
0	GR (GAPI)	200
6	DCAL (in)	16
0	GR-repeat (GAPI)	200
6	DCAL-repeat (in)	16

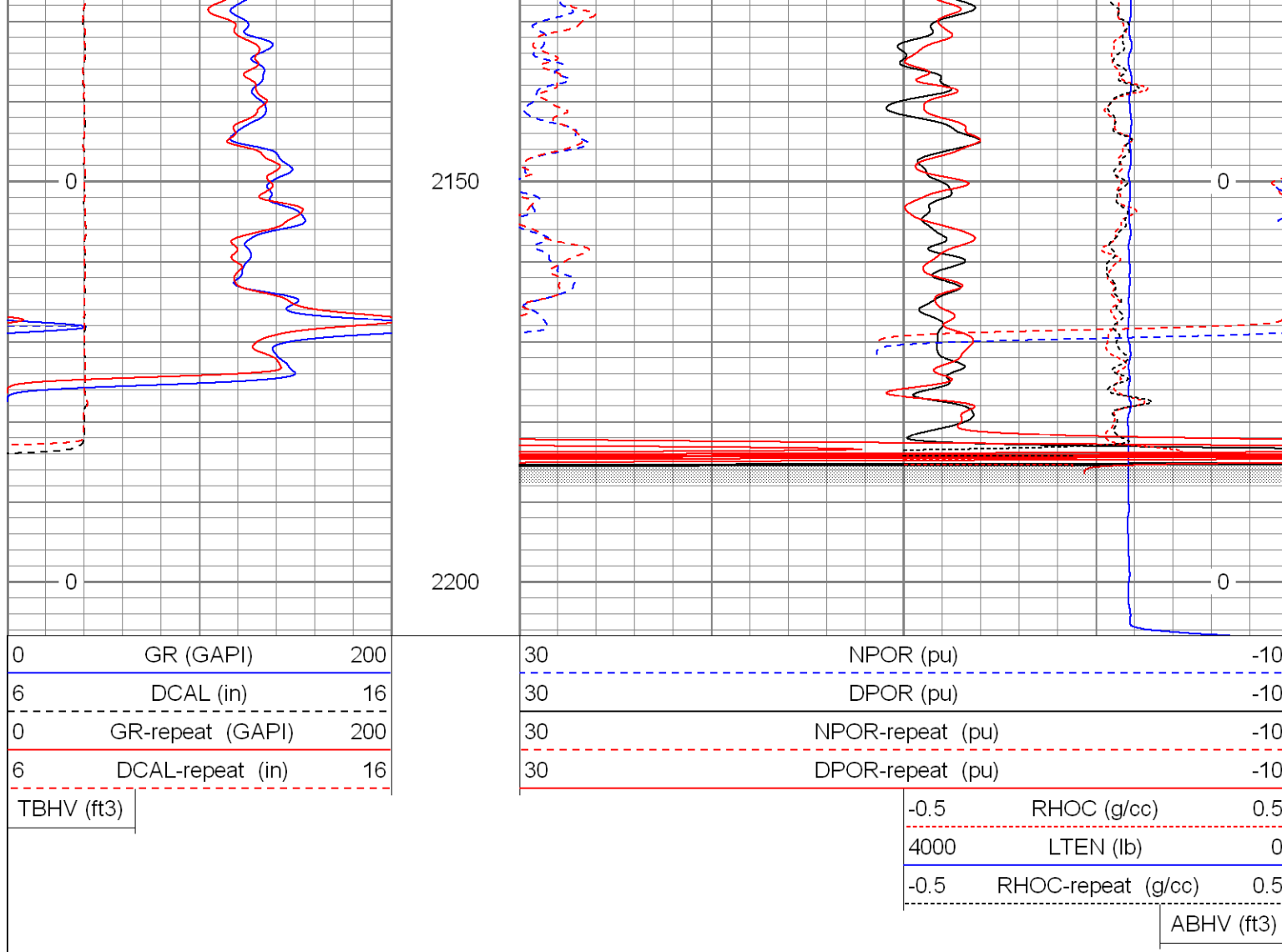
TBHV (ft3)

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

-0.5	RHOC (g/cc)	0.5
4000	LTEN (lb)	0
-0.5	RHOC-repeat (g/cc)	0.5

ABHV (ft3)





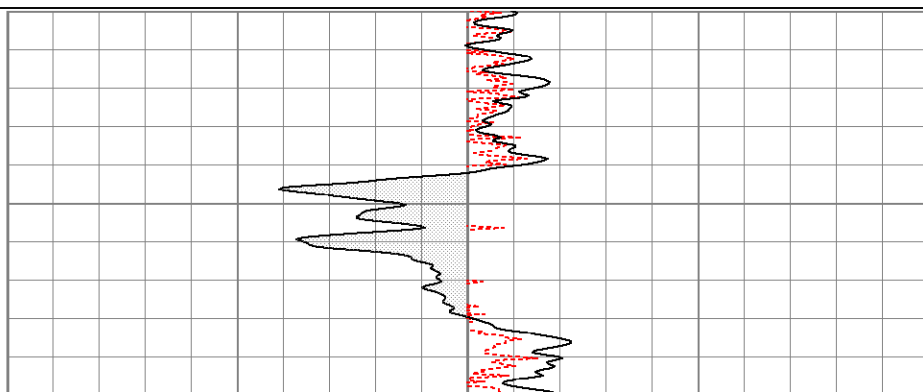
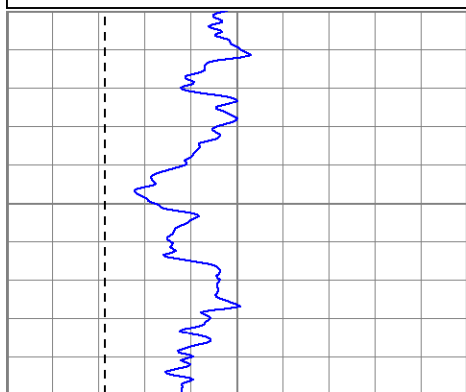
SUPERIOR

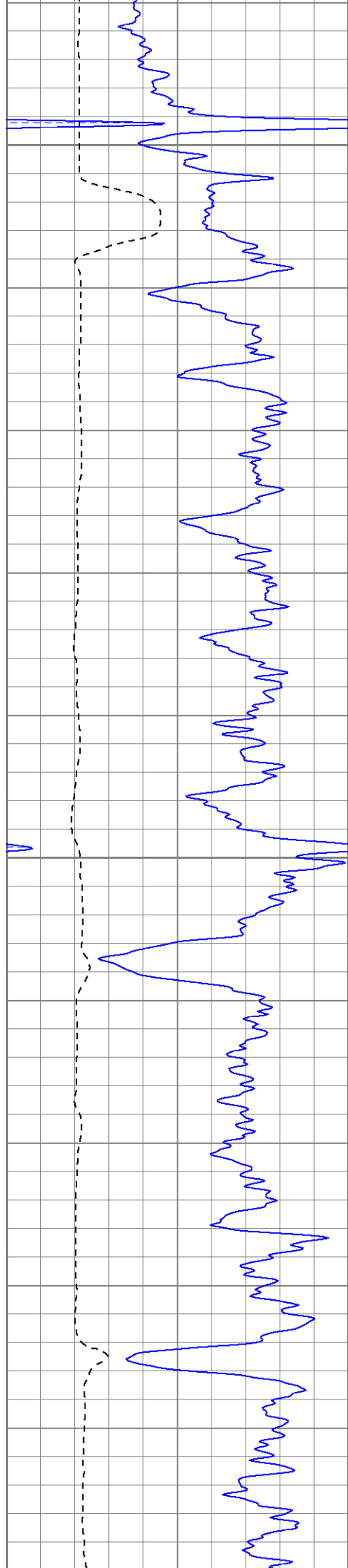
Black Lick, Pa.
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Cleveland, Ok.
Trinidad, Co.

High Resolution Pass

Database File: xtoge3309.db
Dataset Pathname: pass2.2
Presentation Format: cdlhr
Dataset Creation: Mon Mar 03 08:20:36 2008 by Calc Open-Cased 070814
Charted by: Depth in Feet scaled 1:120

0	GR (GAPI)	200	1	RHOB (g/cc)	3
6	DCAL (in)	16		-0.5	RHOC (g/cc) 0.5

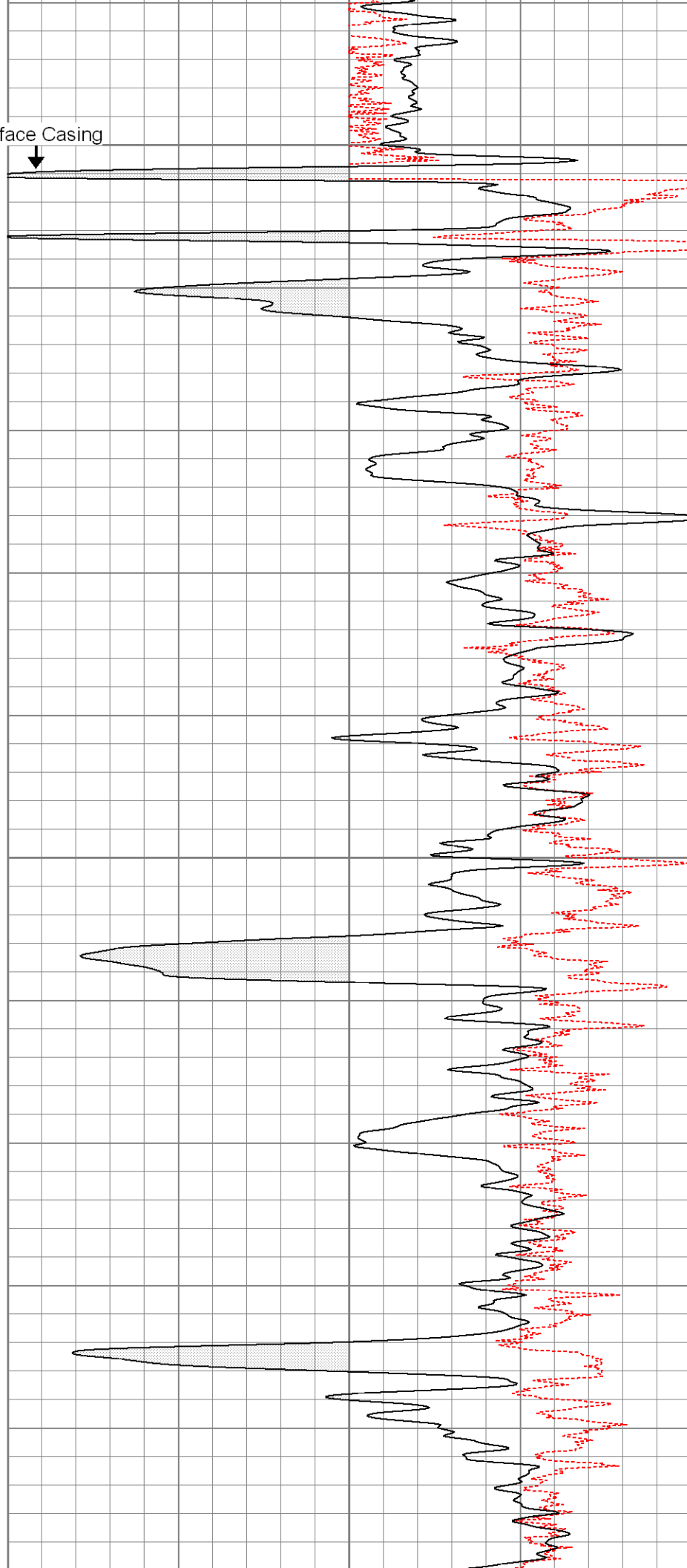




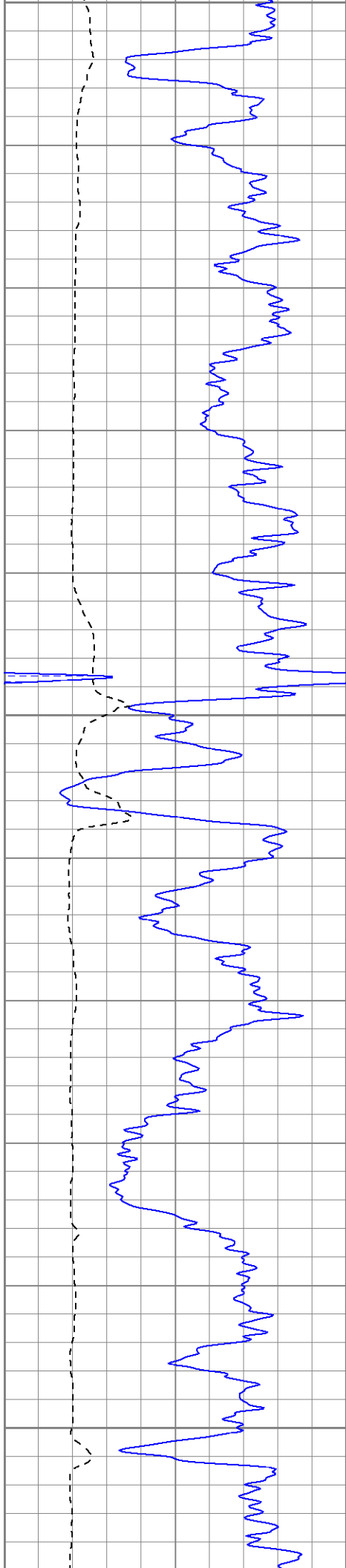
450 Surface Casing

500

550

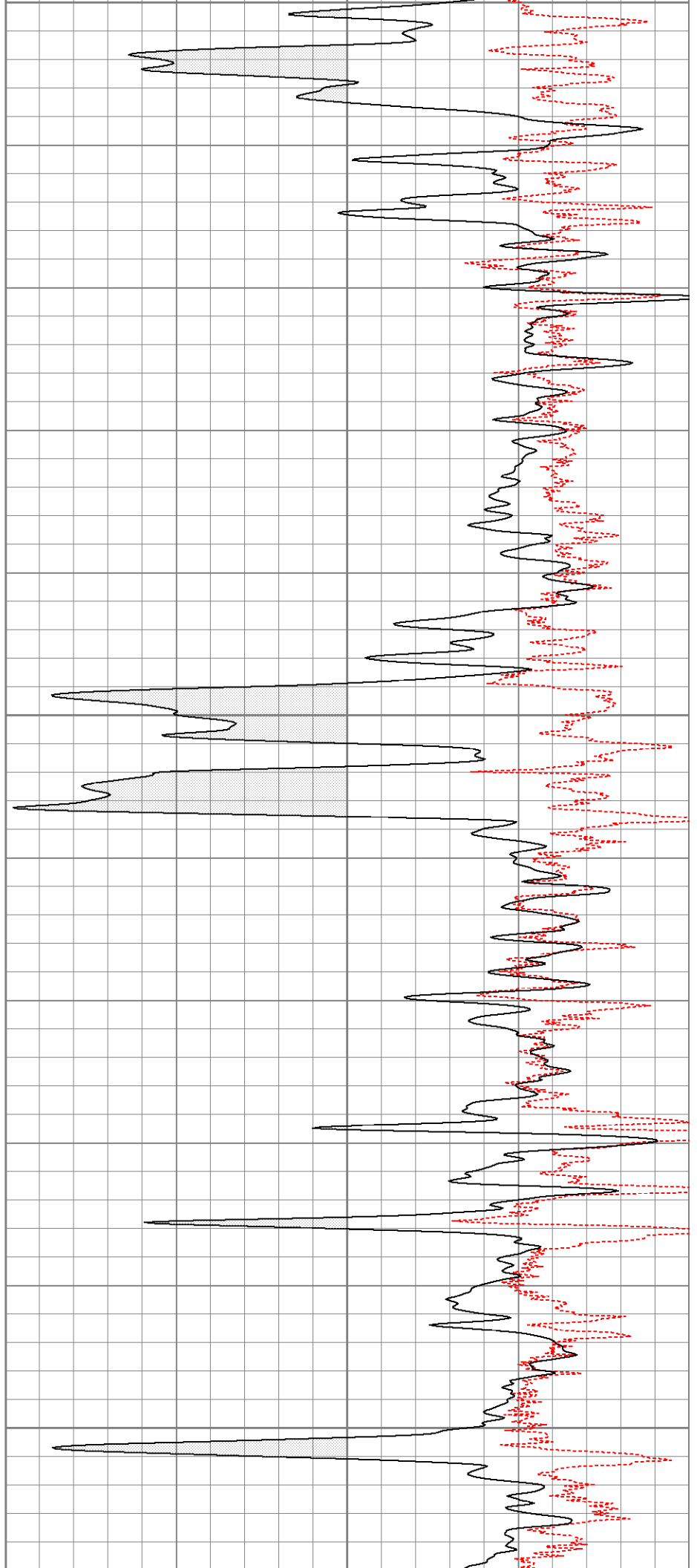


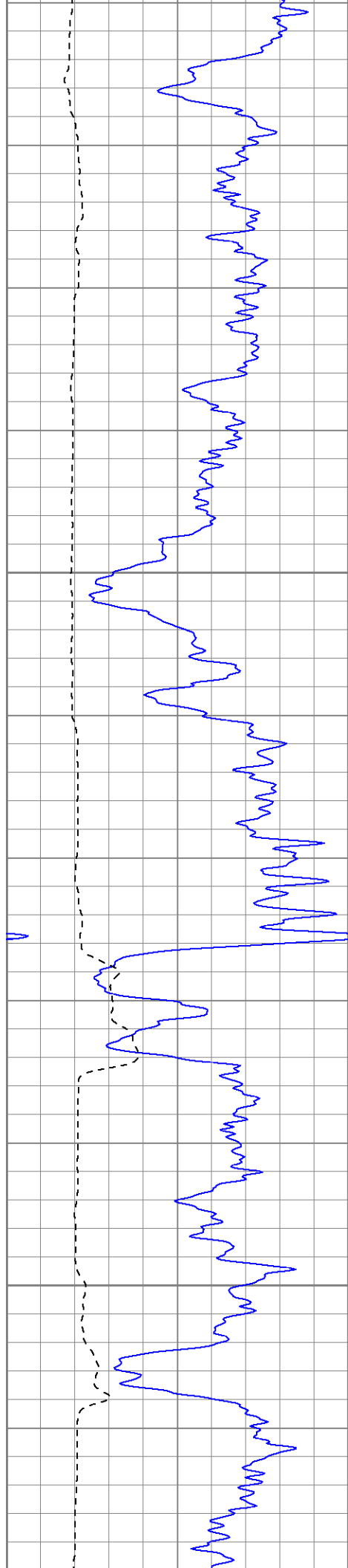
550



600

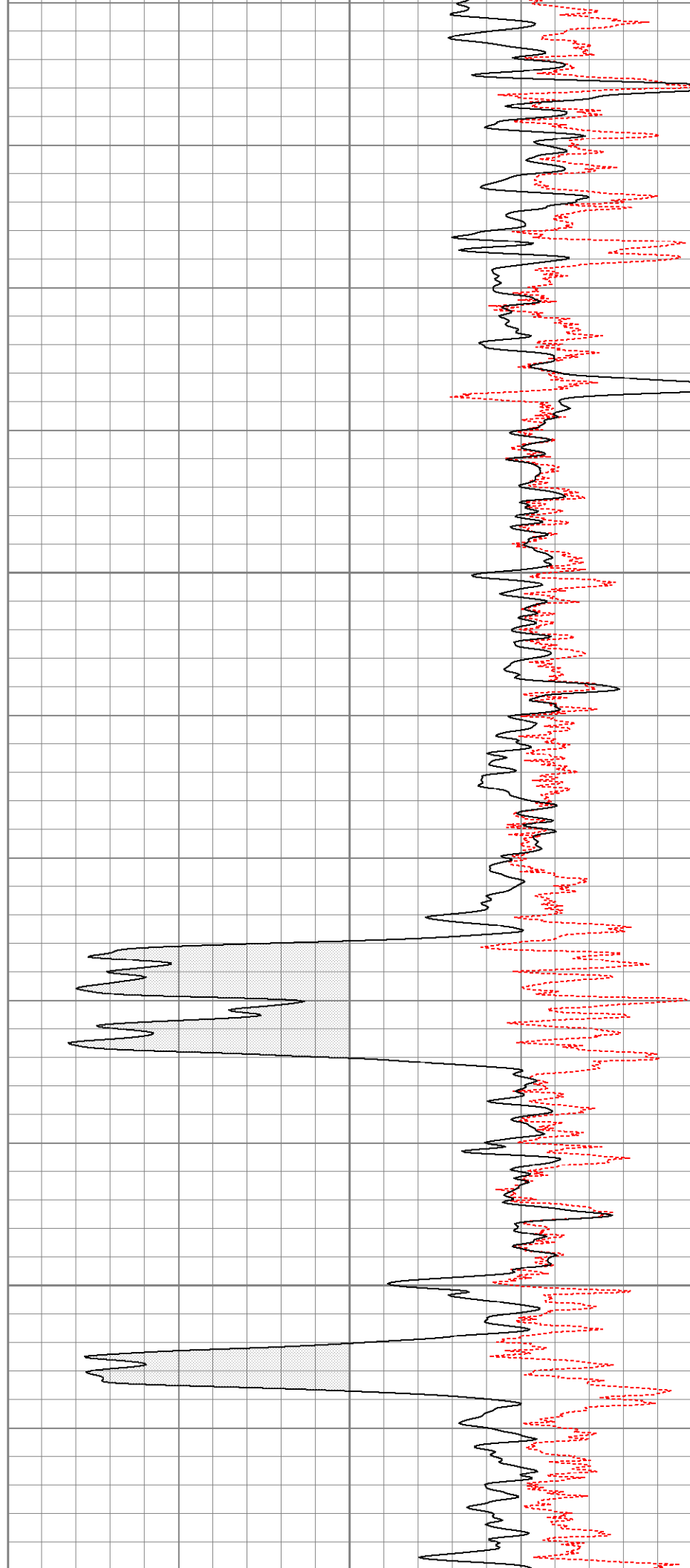
650

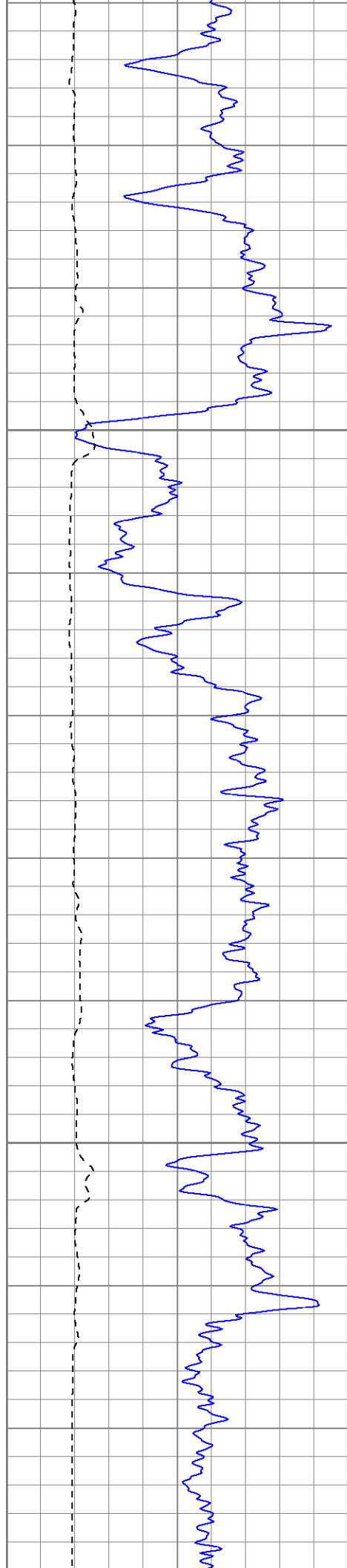




700

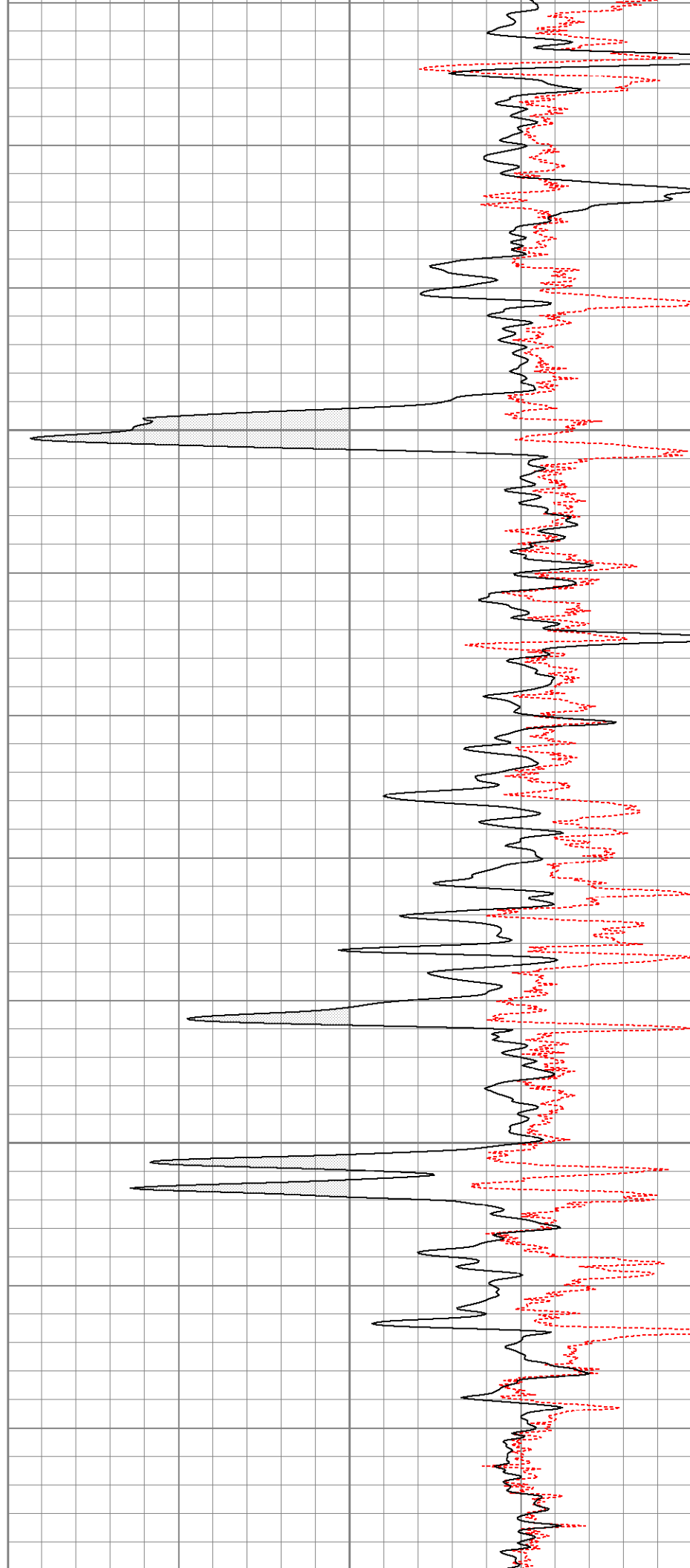
750

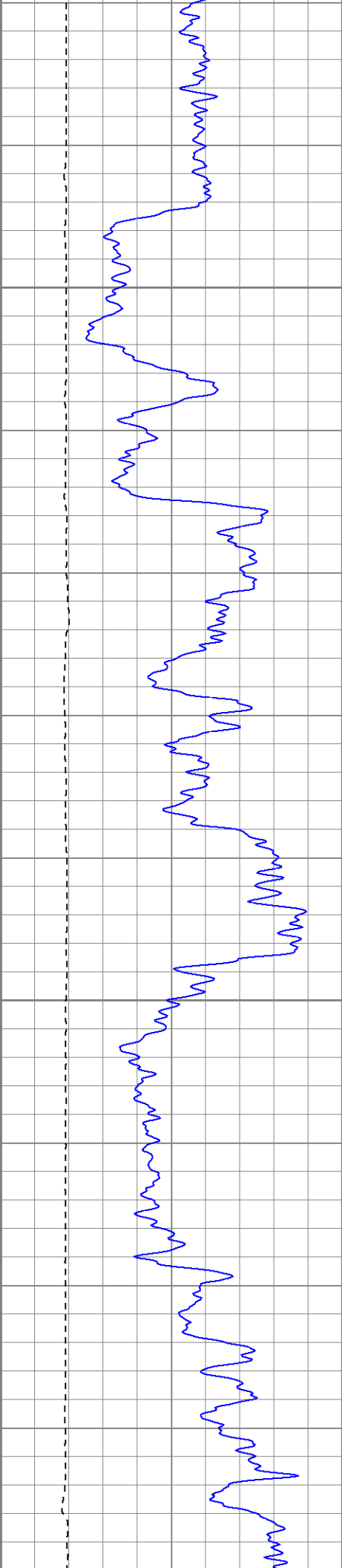




800

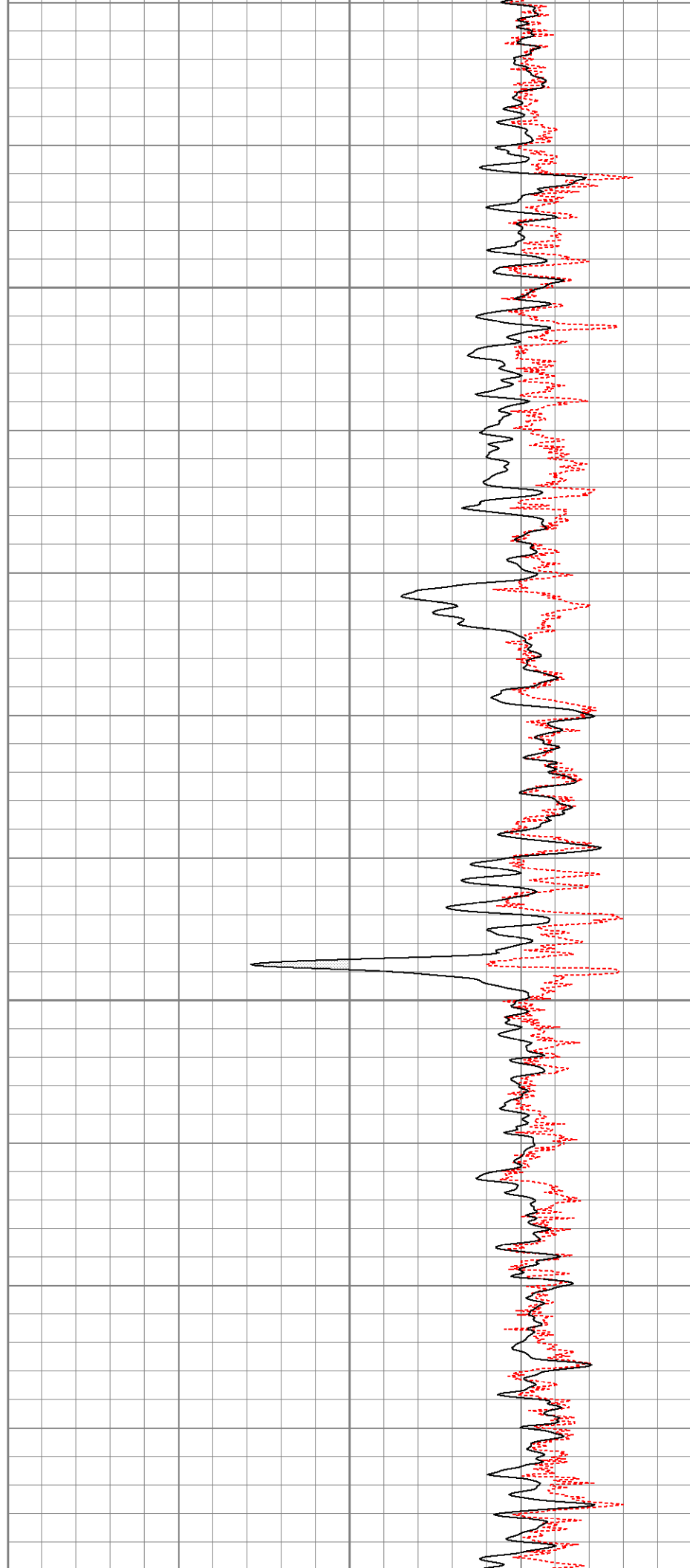
850

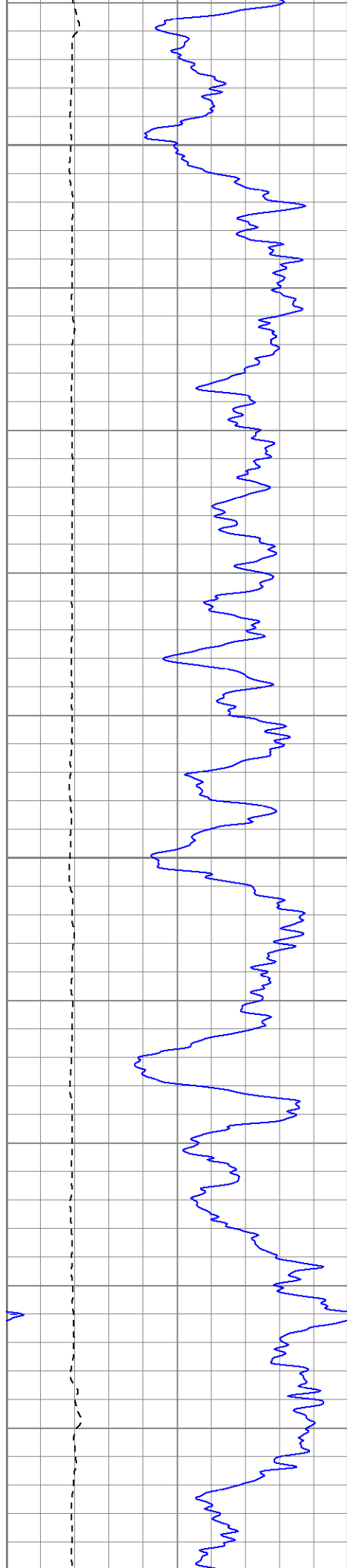




900

950

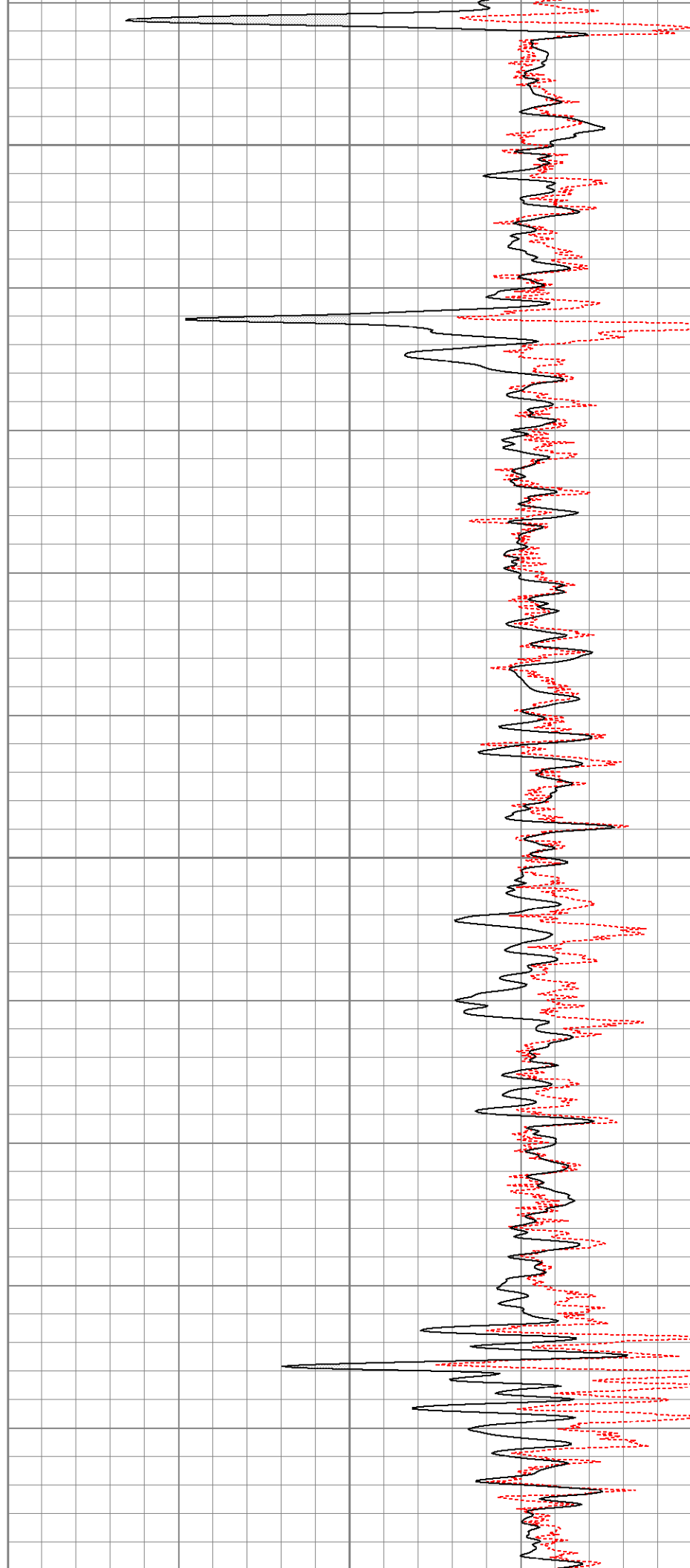




1000

1050

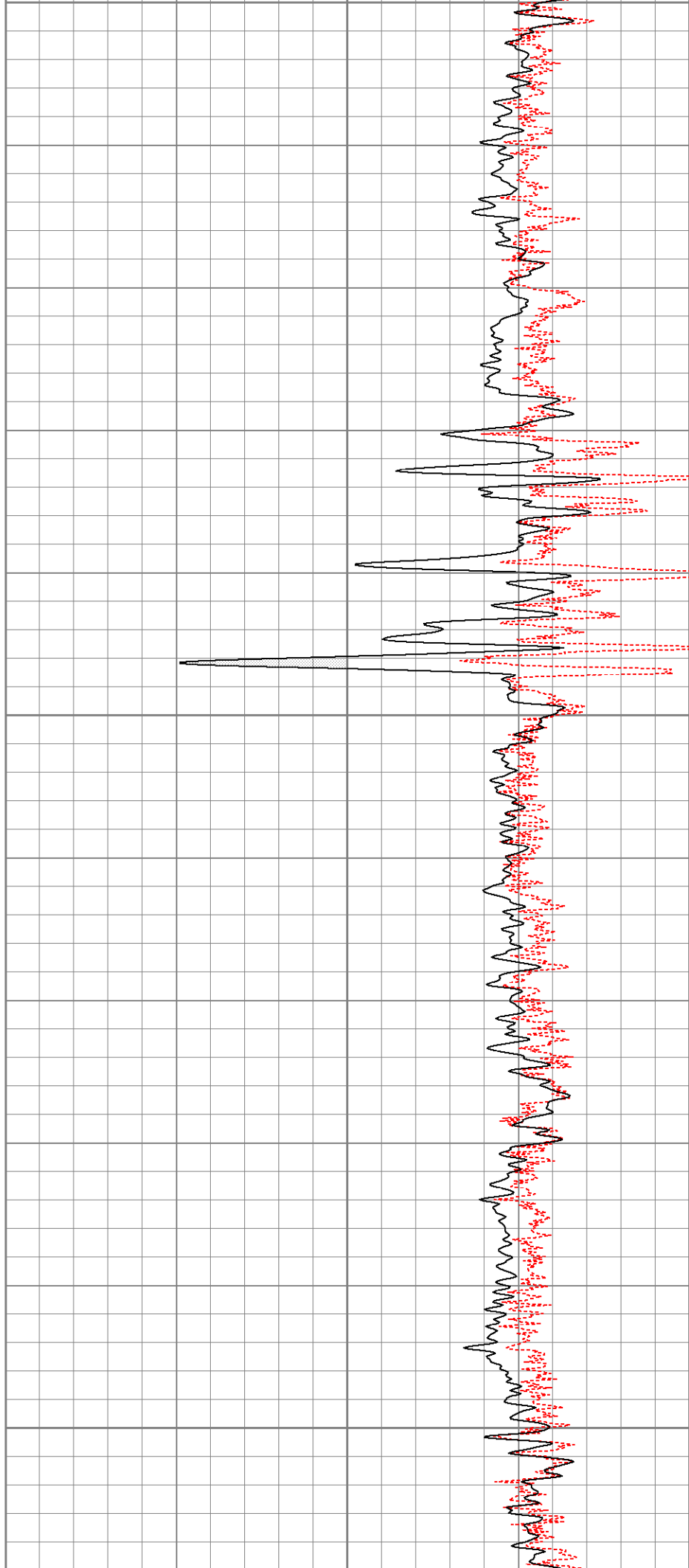
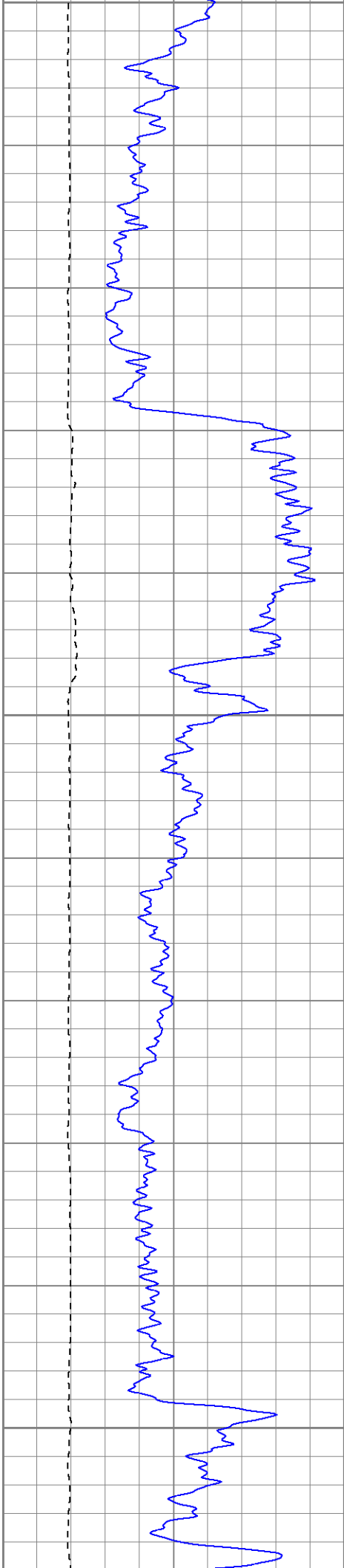
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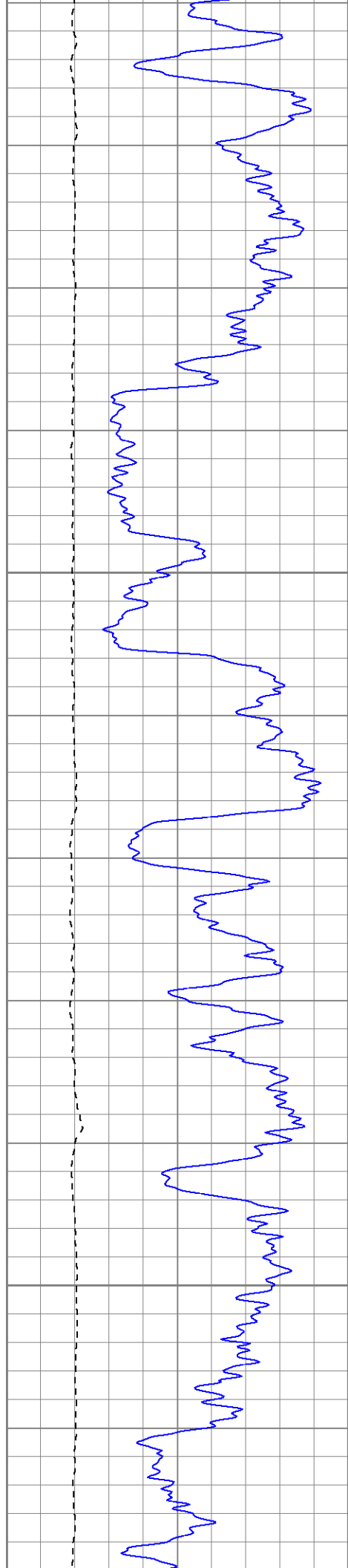


1100

1150

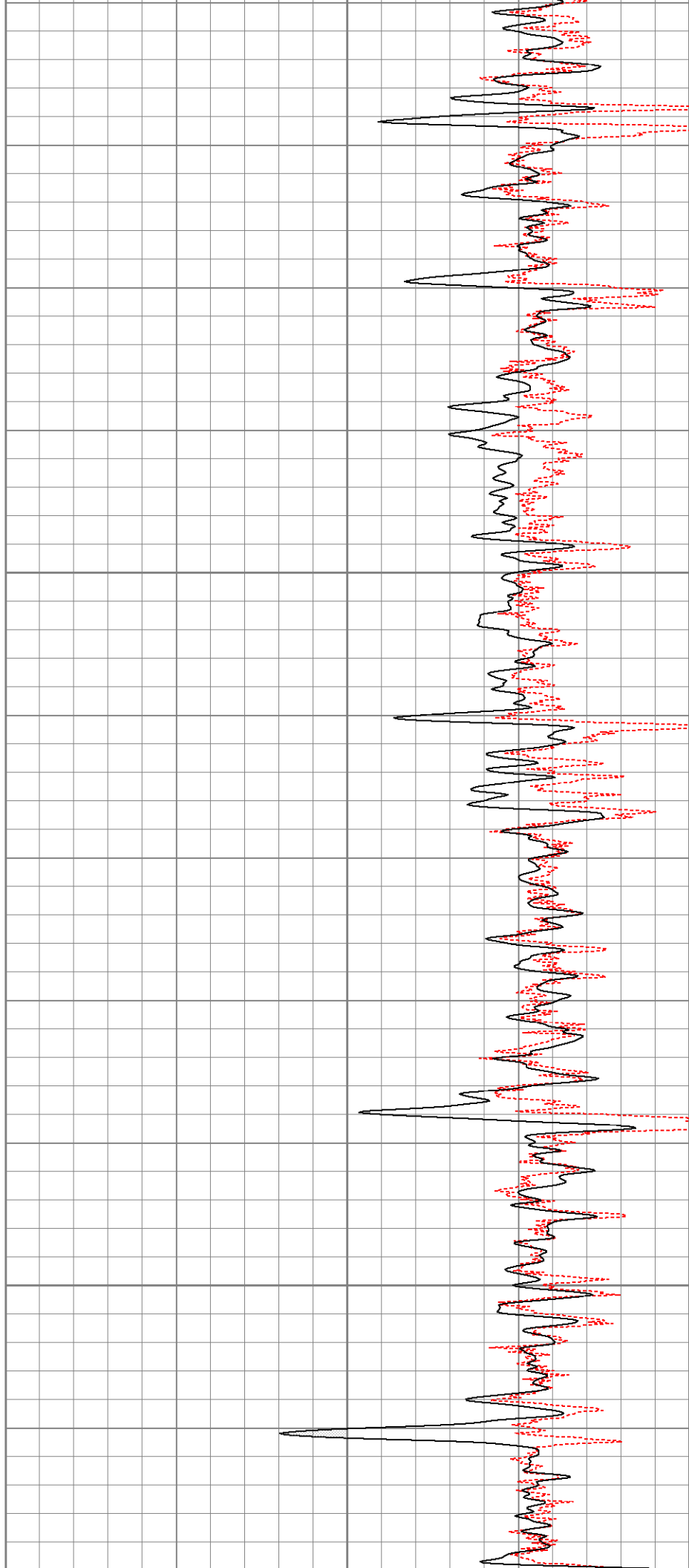
1200

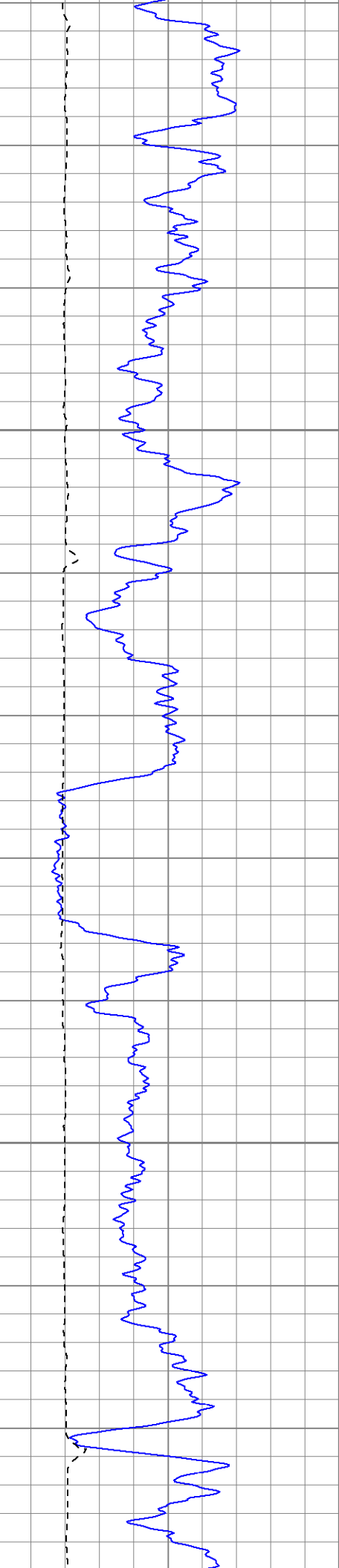




1250

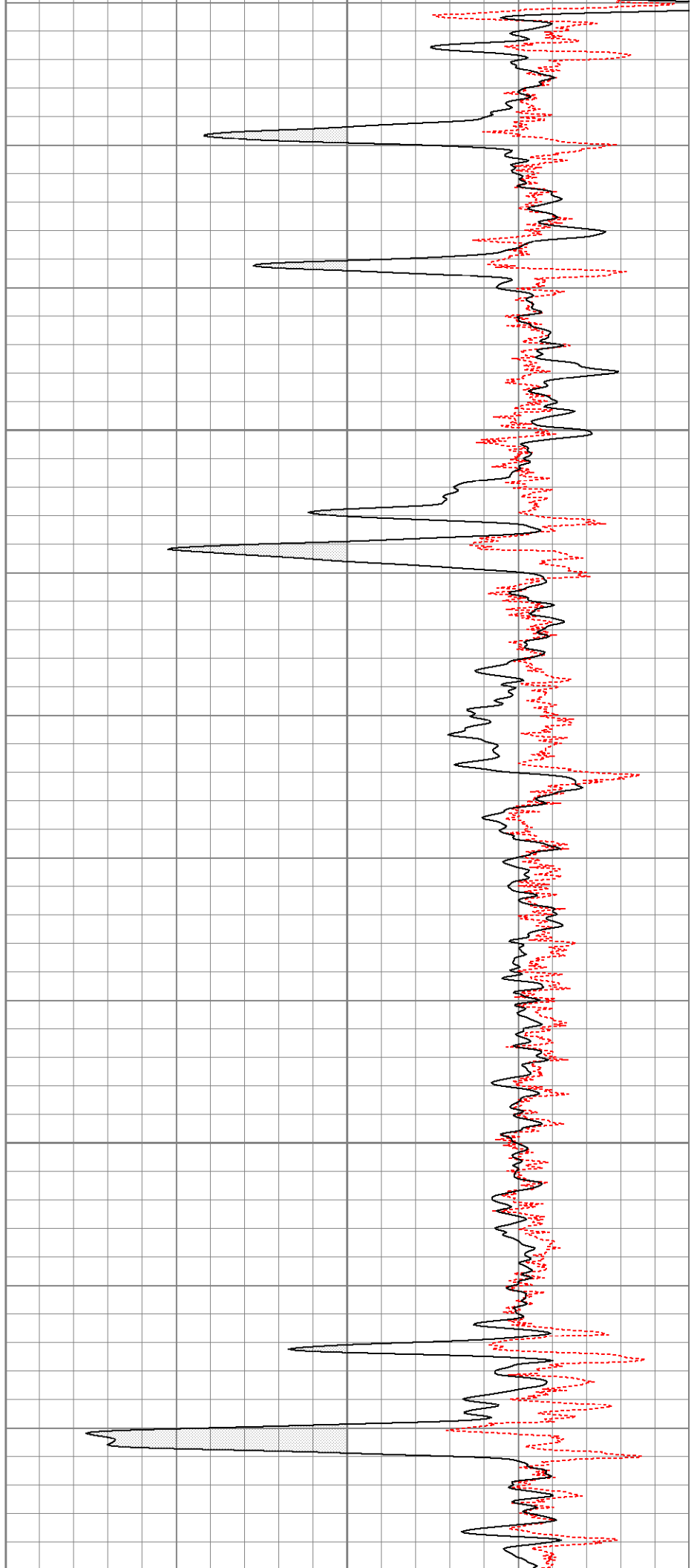
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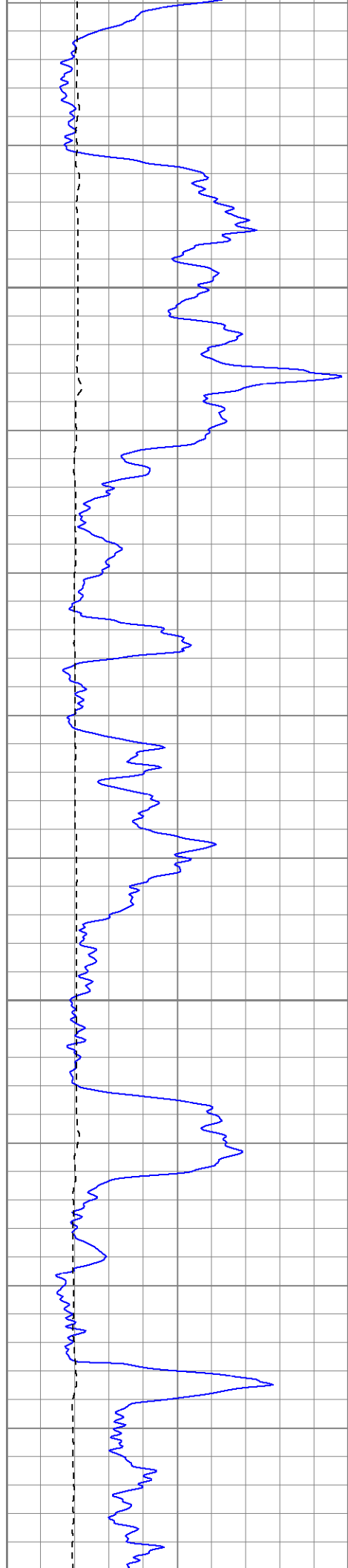




1350

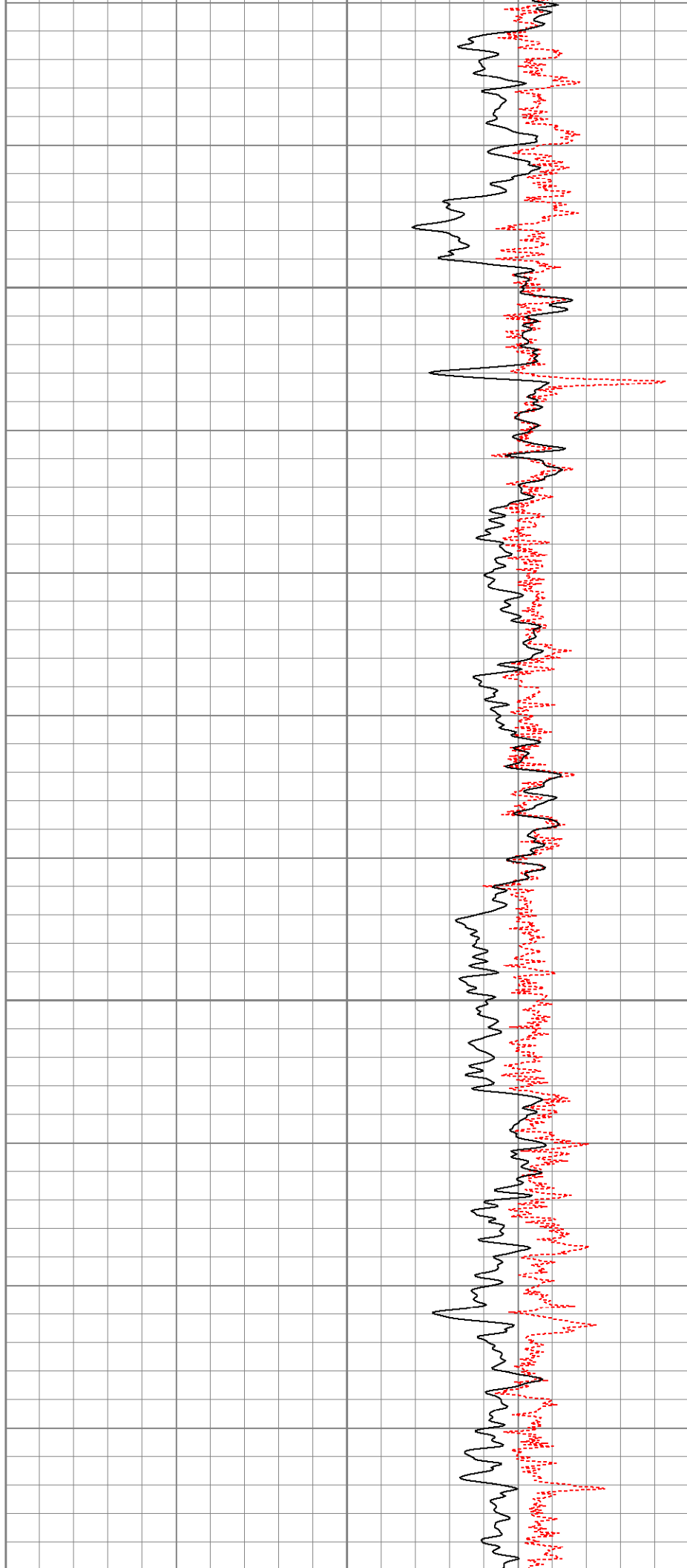
1400

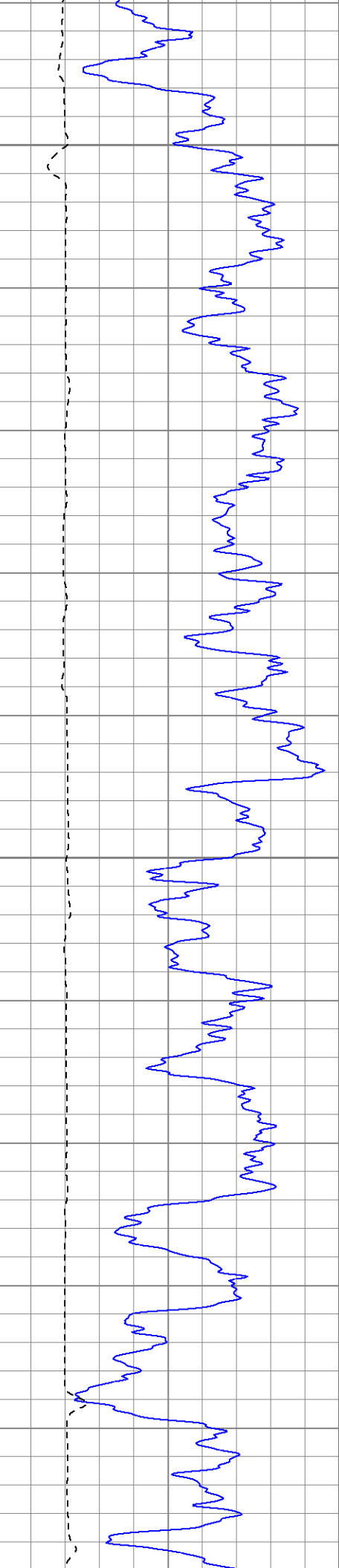




1450

1500

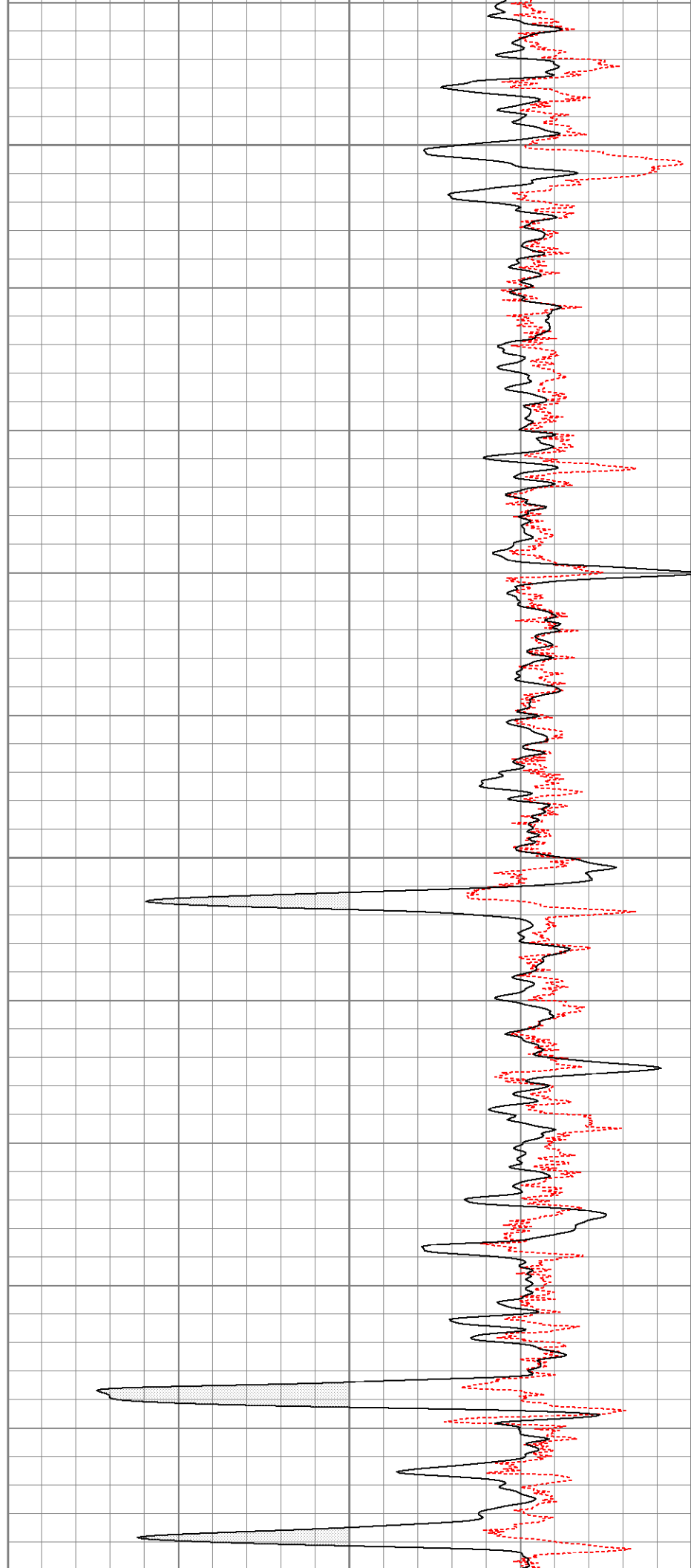




1550

1600

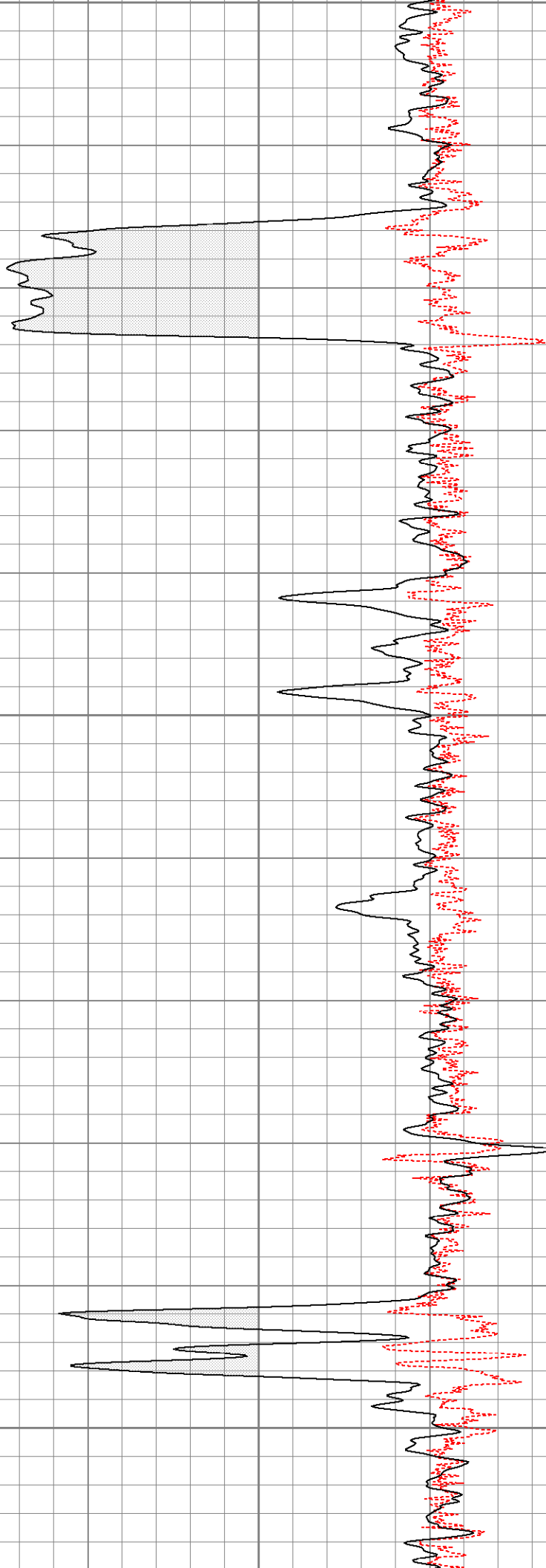
1650

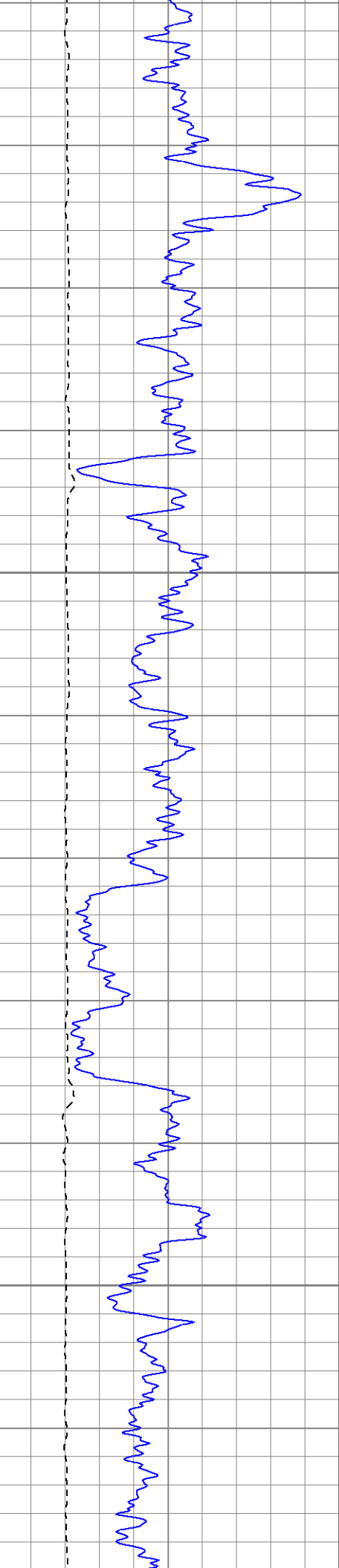


1650

1700

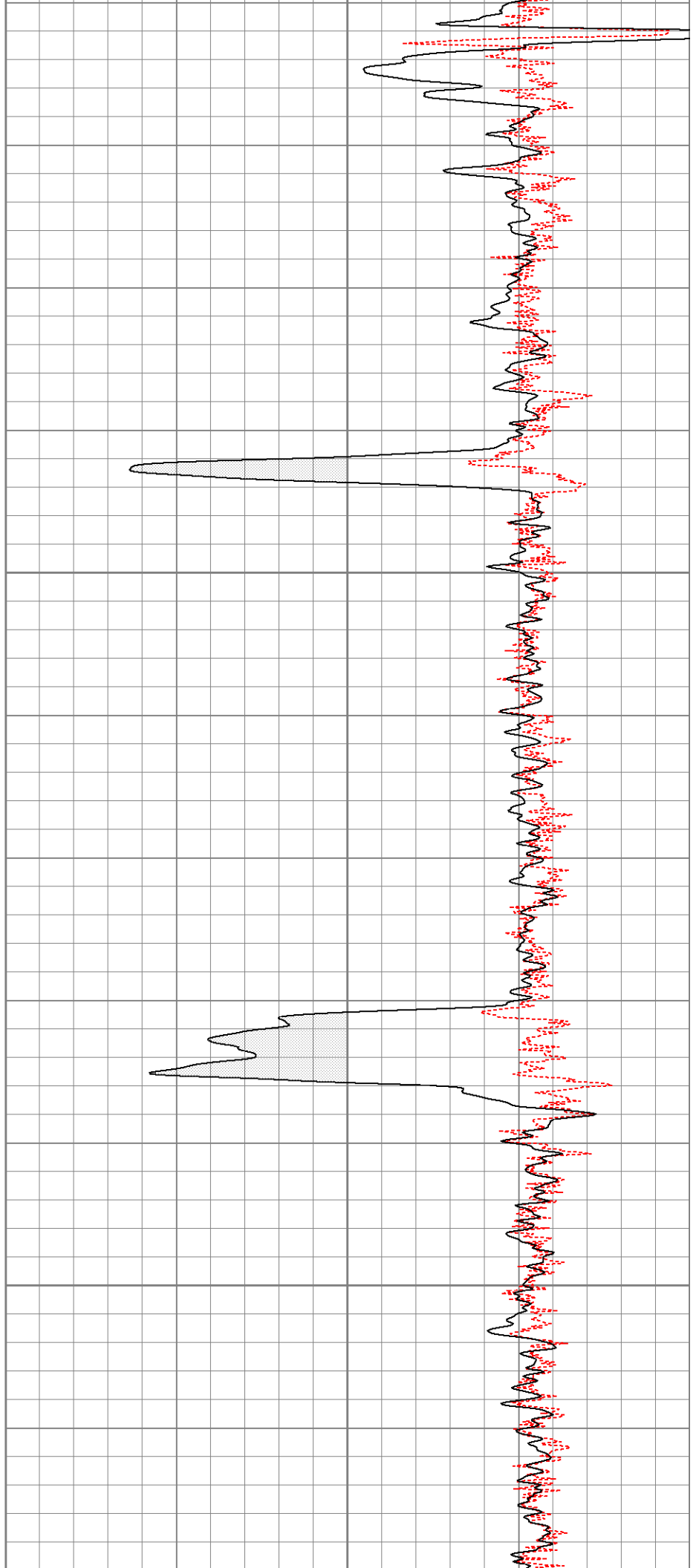
1750

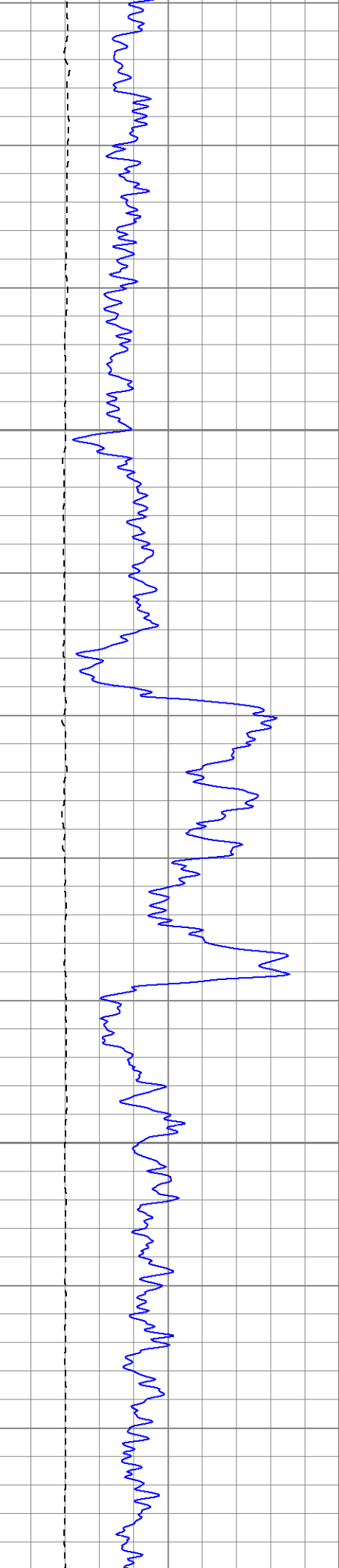




1800

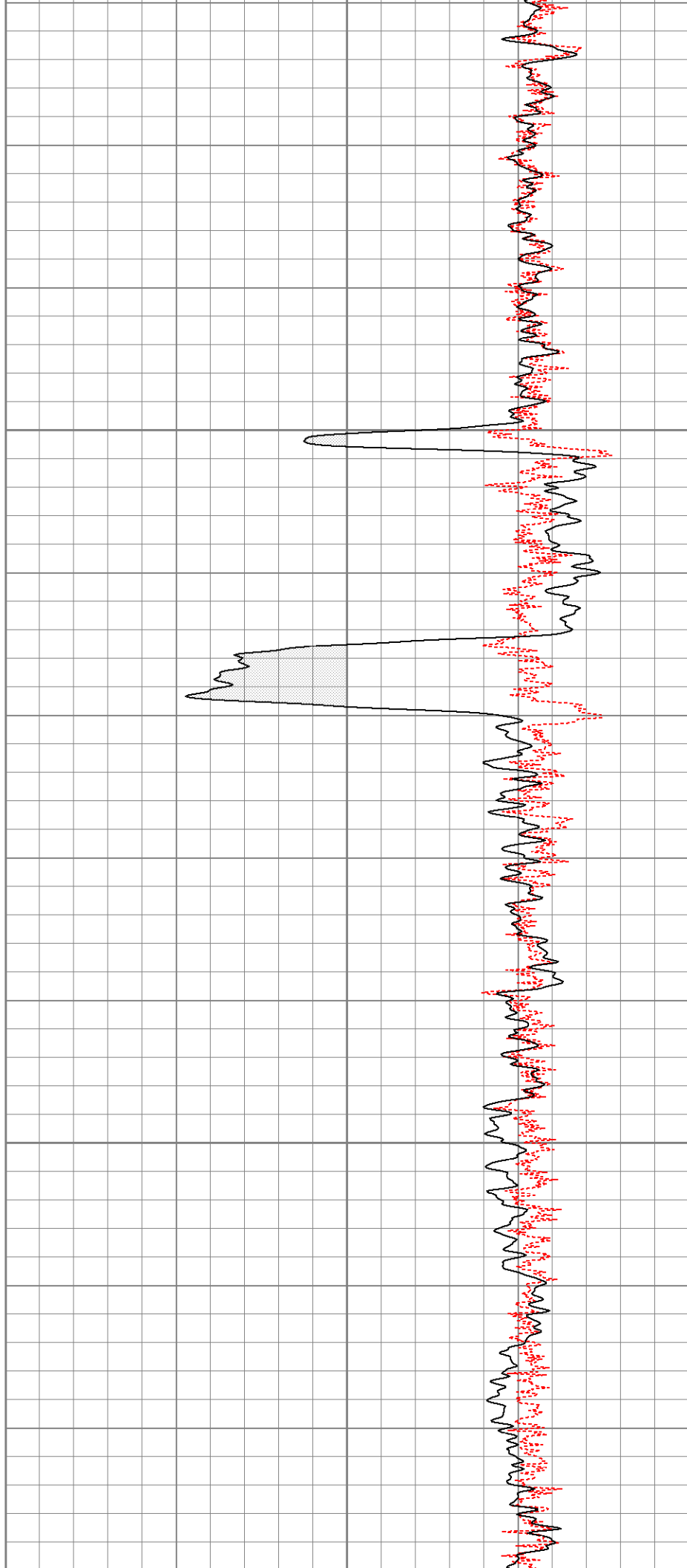
1850

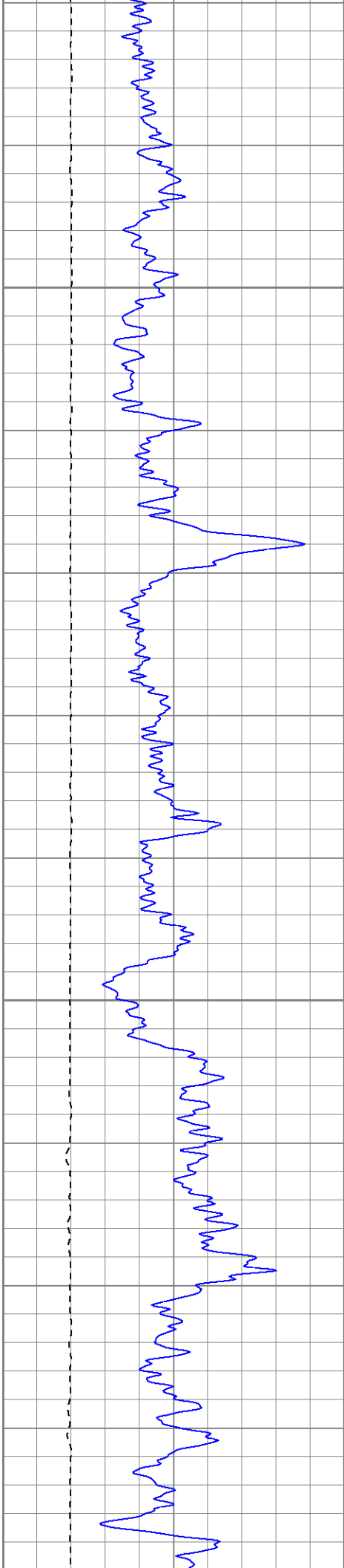




1900

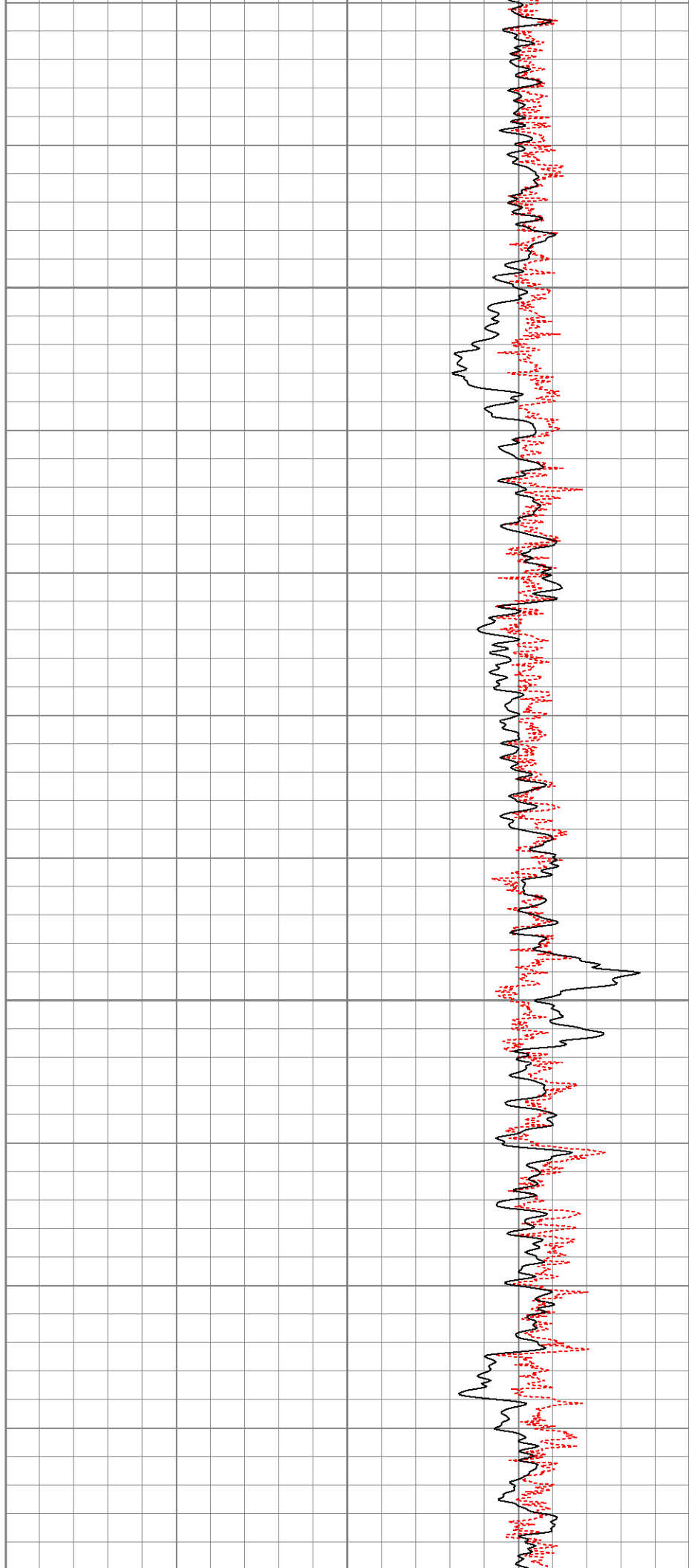
1950

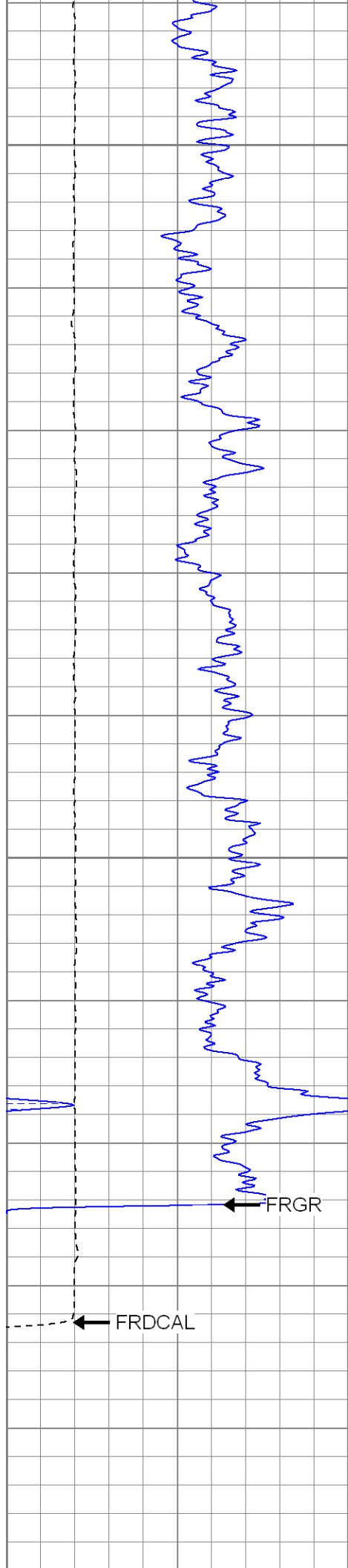




2000

2050

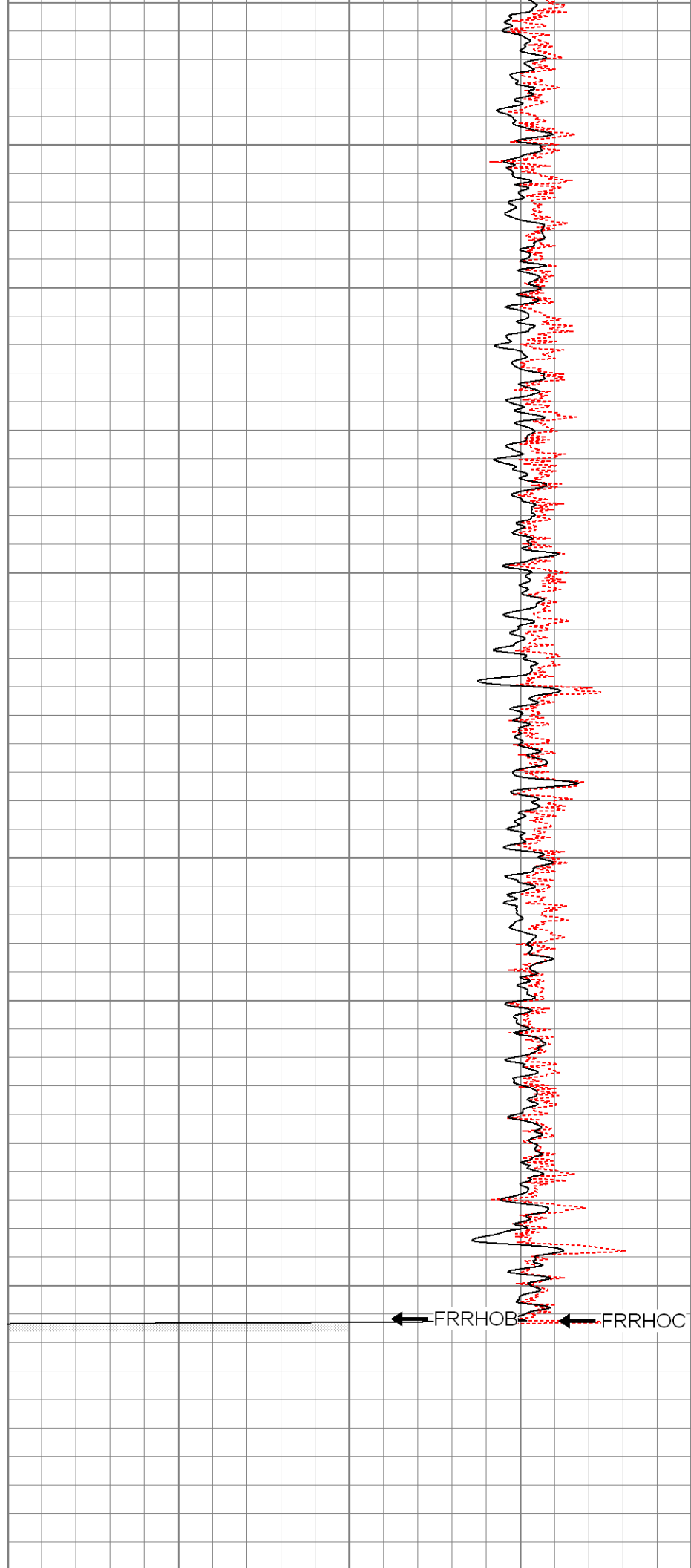




2100

2150




2200



Calibration Report									
Database File:		xtoge3309.db							
Dataset Pathname:		pass1							
Dataset Creation:		Sat Mar 01 11:30:58 2008 by Log Open-Cased 070814							
Dual Induction Calibration Report									
Serial-Model:		5375-G							
Surface Cal Performed:		Wed Feb 06 09:29:54 2008							
Downhole Cal Performed:		Wed Feb 06 09:31:14 2008							
Surface Calibration									
		Readings			References			Results	
Loop:	Air	Loop		Air	Loop		m	b	
Deep	0.002	0.622	V	0.000	500.000	mmho-m	806.307	-1.737	
Medium	0.005	0.745	V	0.000	550.000	mmho-m	742.812	-3.450	
Internal:	Zero	Cal		Zero	Cal		m	b	
Deep	0.003	0.622	V	0.000	500.000	mmho-m	806.784	-2.176	
Medium	0.005	0.745	V	0.000	550.000	mmho-m	743.382	-3.766	
Downhole Calibration									
		Readings			References			Results	
Internal:	Zero	Cal		Zero	Cal		m	b	
Deep	0.241	500.512	mmho-m	0.438	500.143	mmho-m	0.999	0.197	
Medium	0.213	550.041	mmho-m	0.313	549.891	mmho-m	1.000	0.100	
Shallow	2.508	0.009	V	500.000	2.000	Ohm-m	125.000	-3.000	
Compensated Density Calibration Report									
Serial-Model:		2118-poilex							
Source / Verifier:		/							
Master Calibration Performed:		Tue Feb 19 13:14:22 2008							
Master Calibration									
		Density			Far Detector		Near Detector		
Magnesium	1.710	g/cc		689.13	662.28	cps			
Aluminum	2.590	g/cc		156.84	466.09	cps			
Spine Angle = 76.65				Density/Spine Ratio = 0.578					
		Size			Reading				
Small Ring	8.50	in		4.33	V				
Large Ring	14.00	in		8.24	V				

Serial Number:	2001	
Tool Model:	OH	
Performed:	Wed Feb 06 09:46:55 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:	5145	
Tool Model:	G	
Performed:	Wed Feb 06 10:21:29 2008	
Calibrator Value:	1200	NAPI
Calibrator Reading:	1700	cps
Sensitivity:	1	NAPI/cps

Sensor	Offset (ft)	Schematic	Description	Len (ft)	OD (in)	Wt (lb)	
NEU	36.89		None	0.75	1.50	5.00	
			NEU-G (5145) Gearhart Epithermal	5.65	3.50	85.00	
GR	31.05		GR-OH (2001) 2001	3.56	3.25	40.00	
			CDL-poilex (2118)	8.83	4.00	275.00	
LSD	22.88						
DCAL	22.47						
SSD	22.30						
CILD SP	10.60			DIL-G (5375) Gearhart	21.05	4.00	345.00
	10.60						
CILM	6.89						
RLL3	1.70						

Dataset:	xtoge3309.db: field/well/run1/pass1
Total Length:	39.84 ft
Total Weight:	750.00 lb
O.D.	4.00 in