



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

# COMPENSATED DENSITY NEUTRON LOG

Company XTO Energy Inc.  
Well Hill Ranch East 23-10  
Field Purgatoire River  
County Las Animas State Colorado

Location: API # : 05 071 09441 00

1730' FSL & 2417' FEL

SEC 23 TWP 34S RGE 67W

Permanent Datum Ground Level Elevation 7681'  
Log Measured From Ground Level  
Drilling Measured From Ground Level

Other Services  
DIL  
Elevation  
K.B. -----  
D.F. -----  
G.L. 7681'

Date	4-12-08		
Run Number	One		
Depth Driller	2350'		
Depth Logger	2345'		
Bottom Logged Interval	2322'		
Top Log Interval	Surface Casing		
Casing Driller	8 5/8" @ 491'		
Casing Logger	491'		
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	11:00 P.M.		
Time Logger on Bottom	8:40 A.M.		
Maximum Recorded Temperature	104 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, at next Y stay right to location.

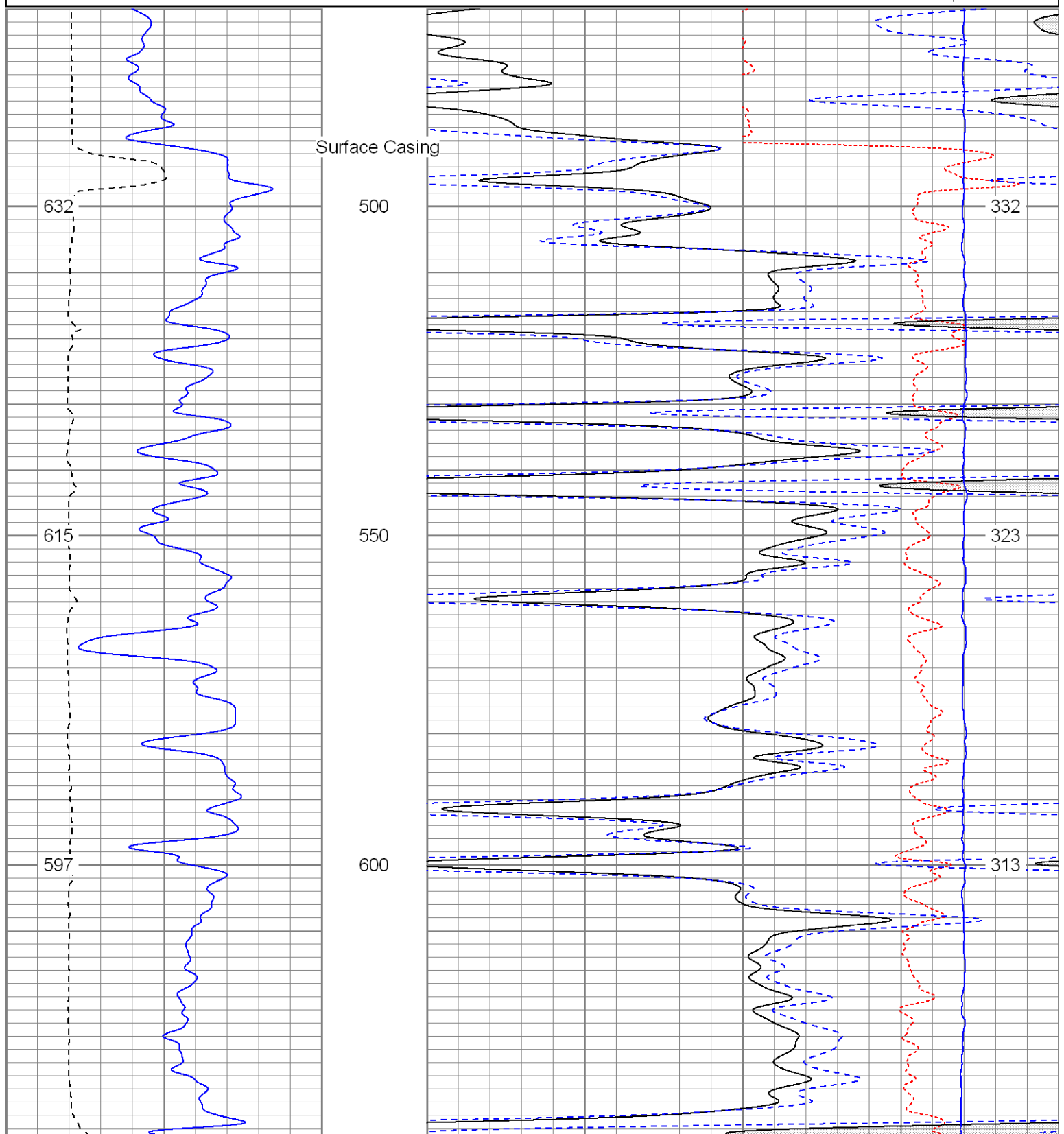


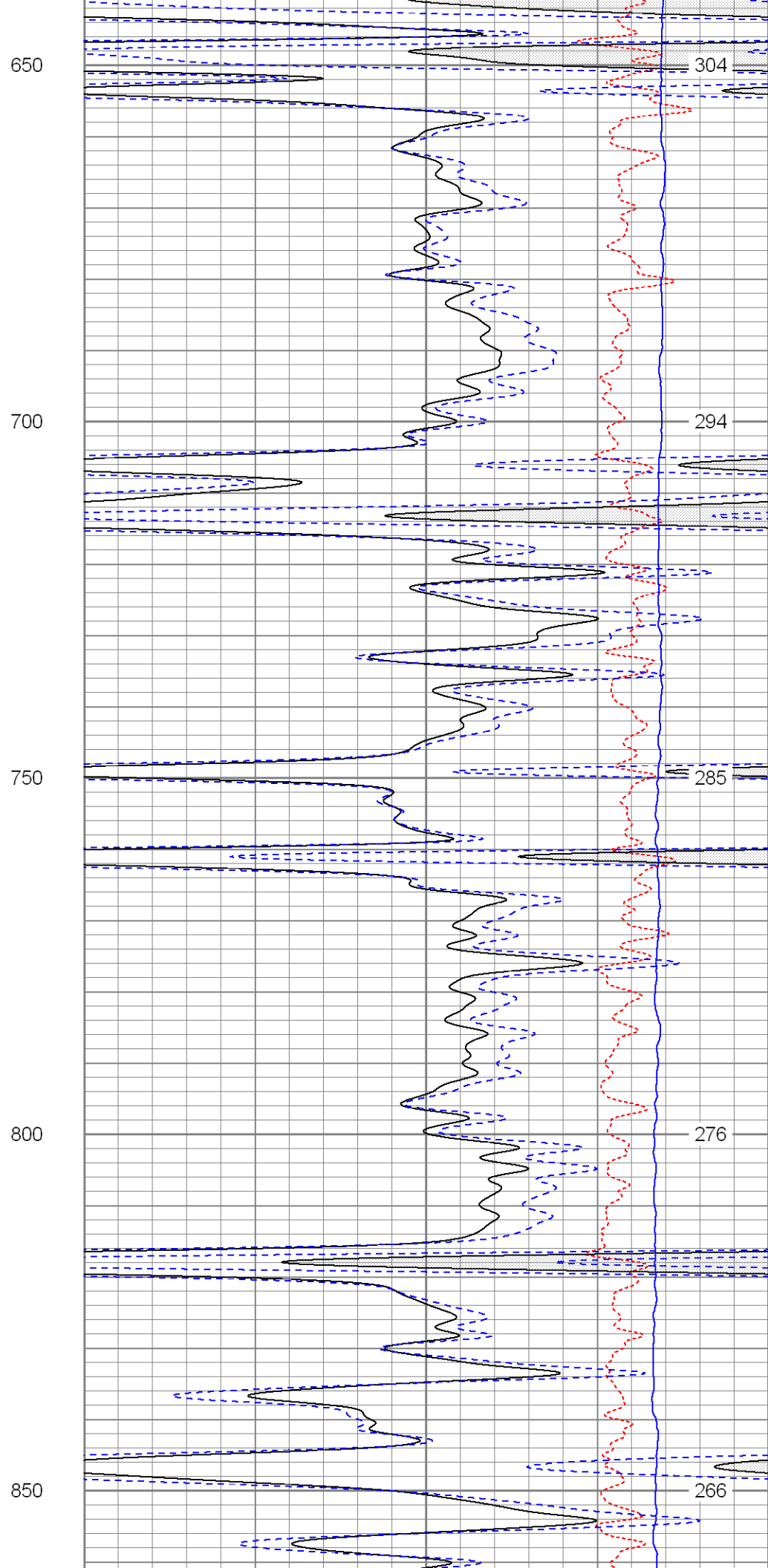
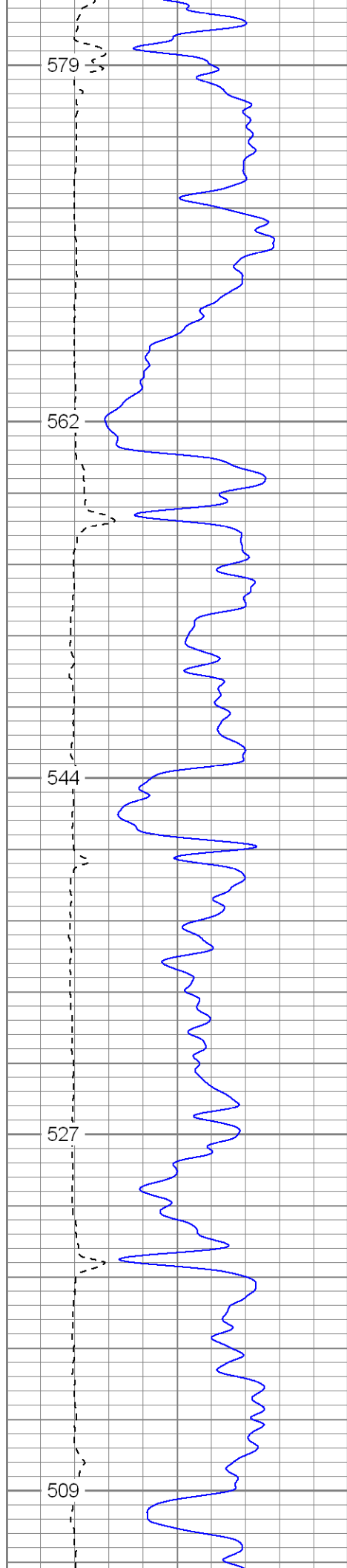
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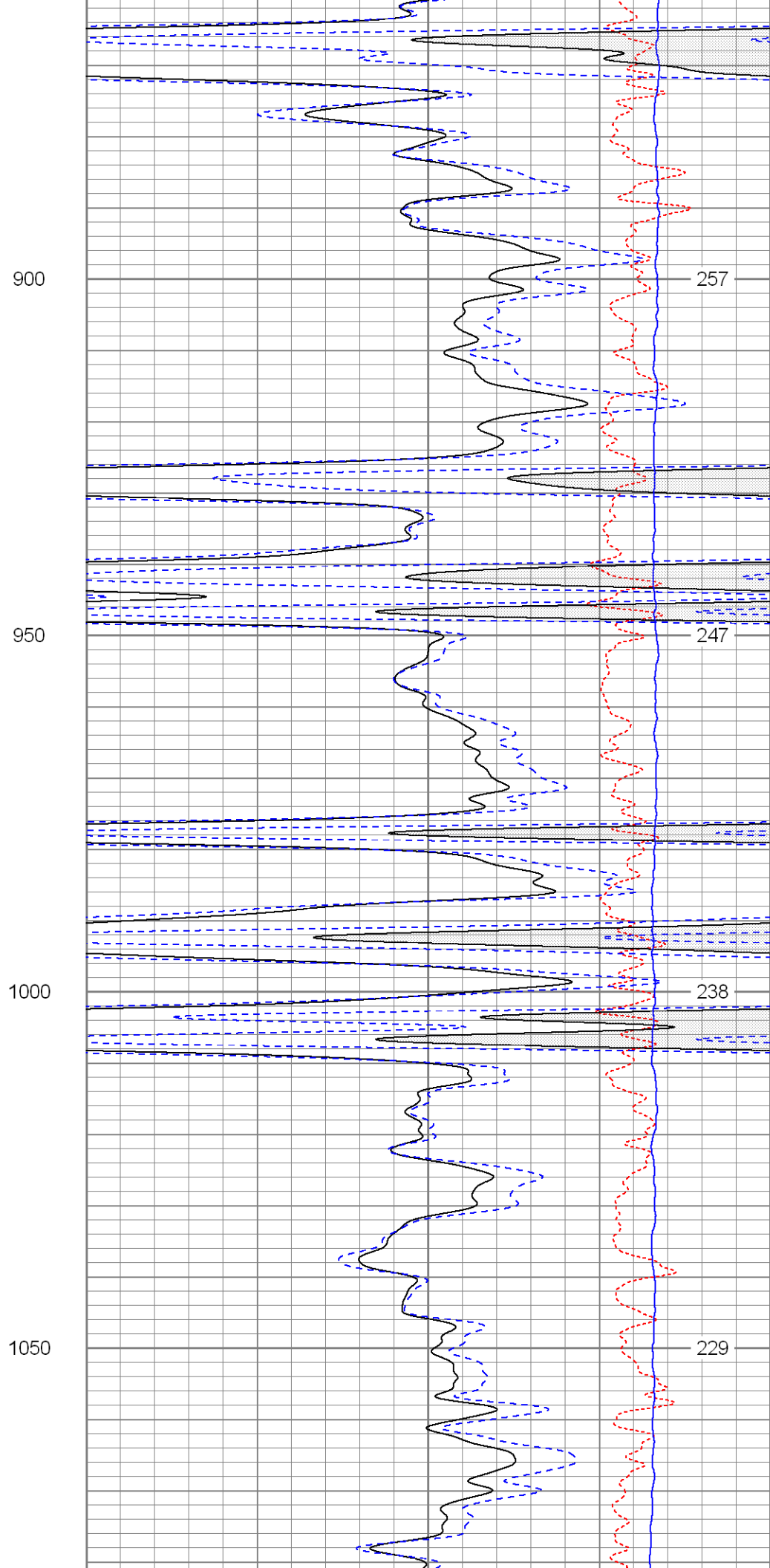
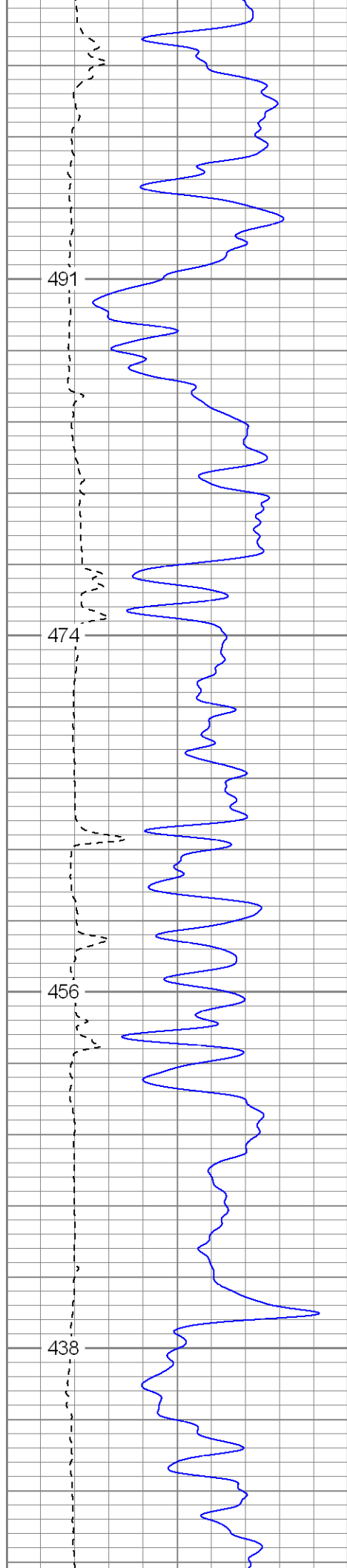
# Main Pass

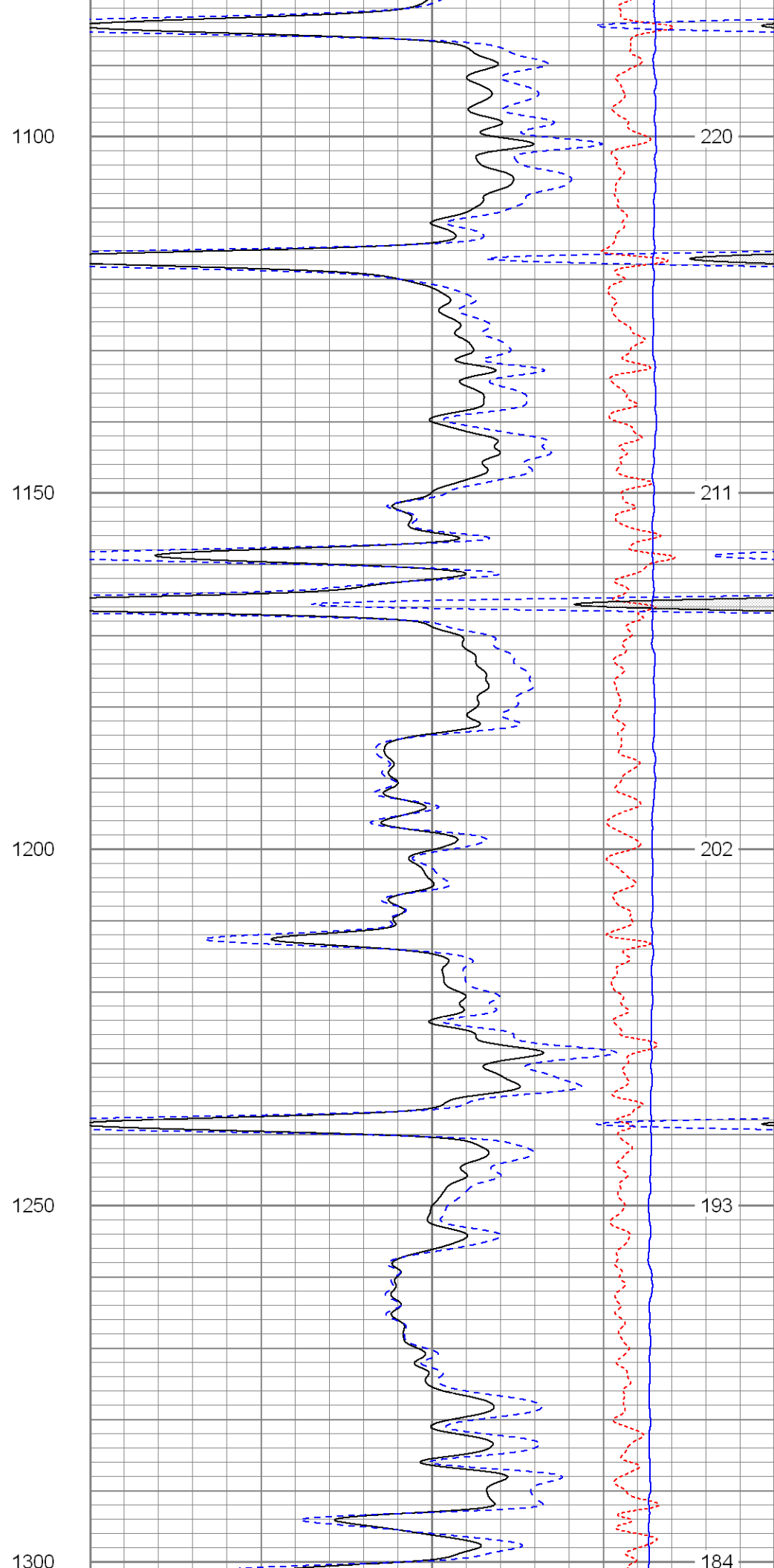
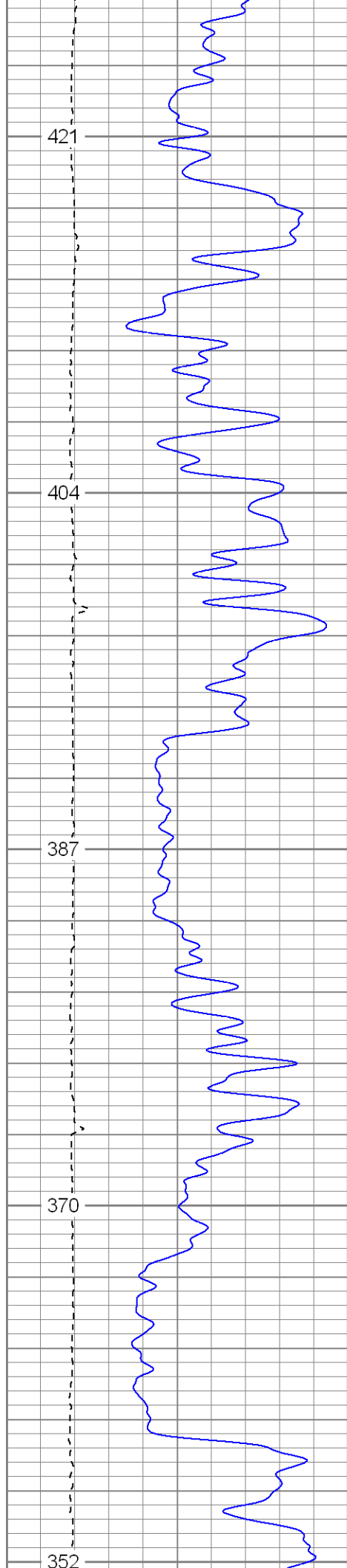
Database File: xtohre2310.db  
Dataset Pathname: pass2.1  
Presentation Format: cdl  
Dataset Creation: Sat Apr 12 10:16:01 2008 by Calc Open-Cased 070814  
Charted by: Depth in Feet scaled 1:240

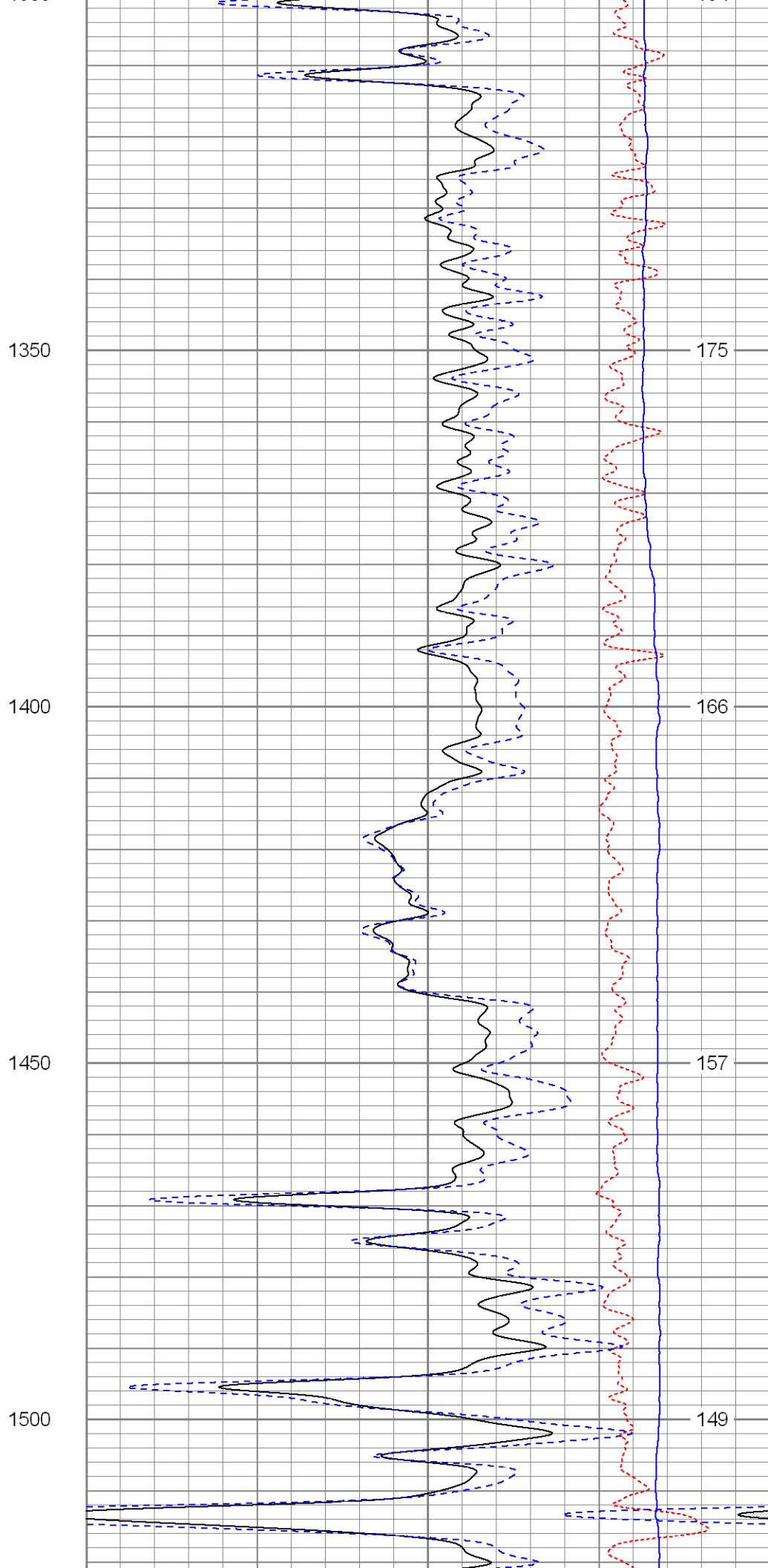
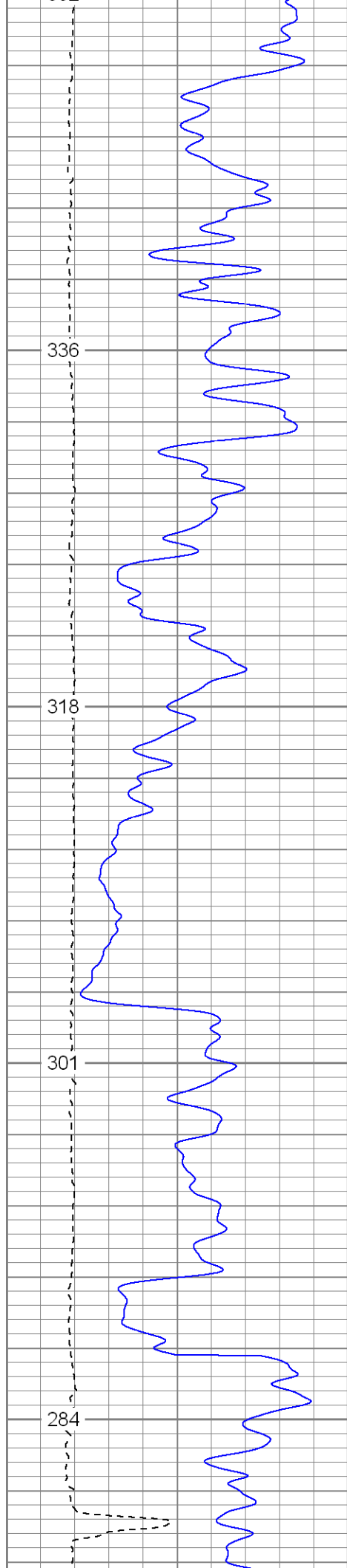
0	GR (GAPI)	200	2	RHOB (g/cc)	3	
6	DCAL (in)	16	1	RHOB (g/cc)	2	
TBHV (ft3)			30	DPOR (pu)	-10	
				-0.5	RHOC (g/cc)	0.5
				4000	LTEN (lb)	0
			ABHV (ft3)			

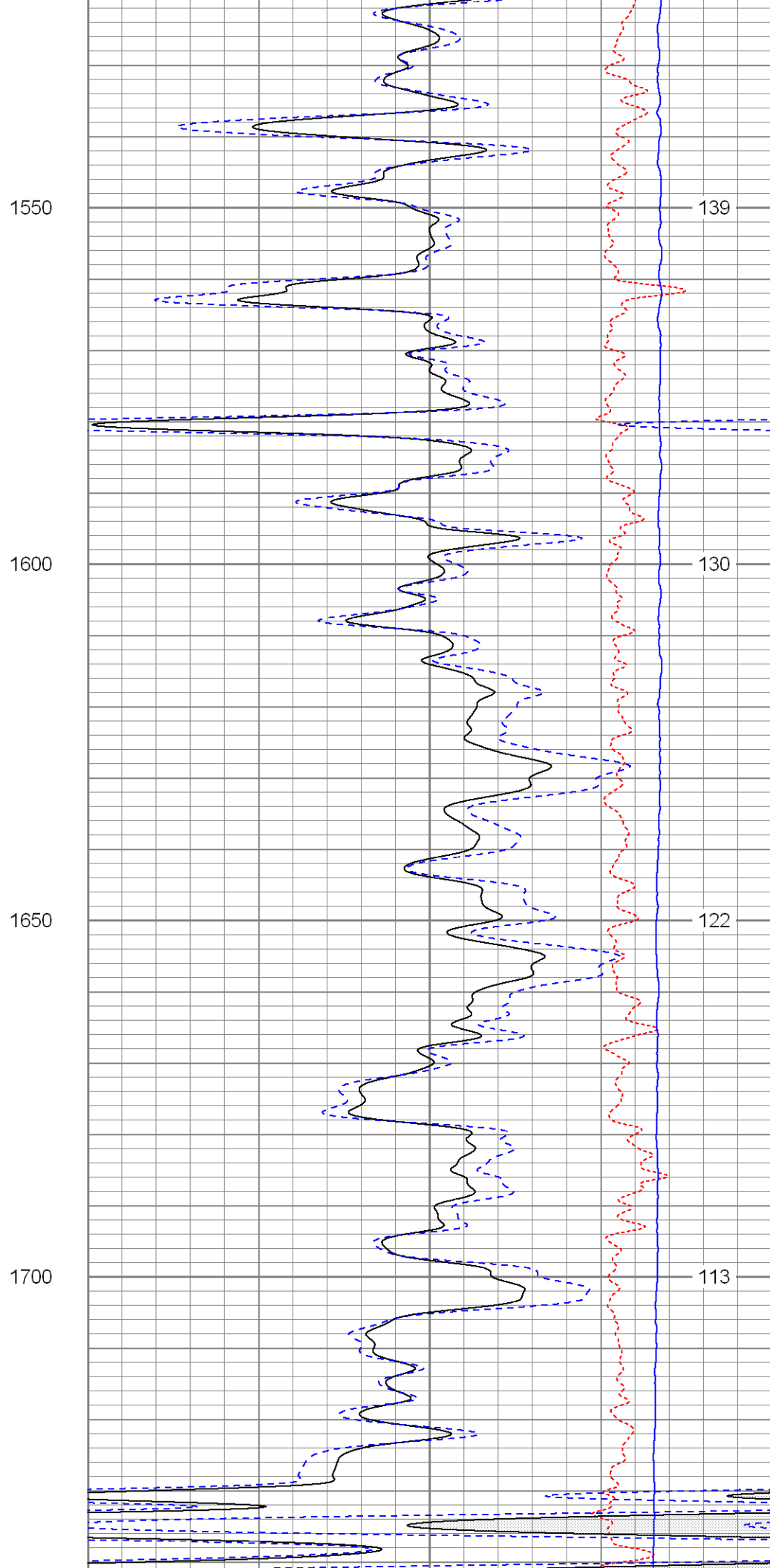
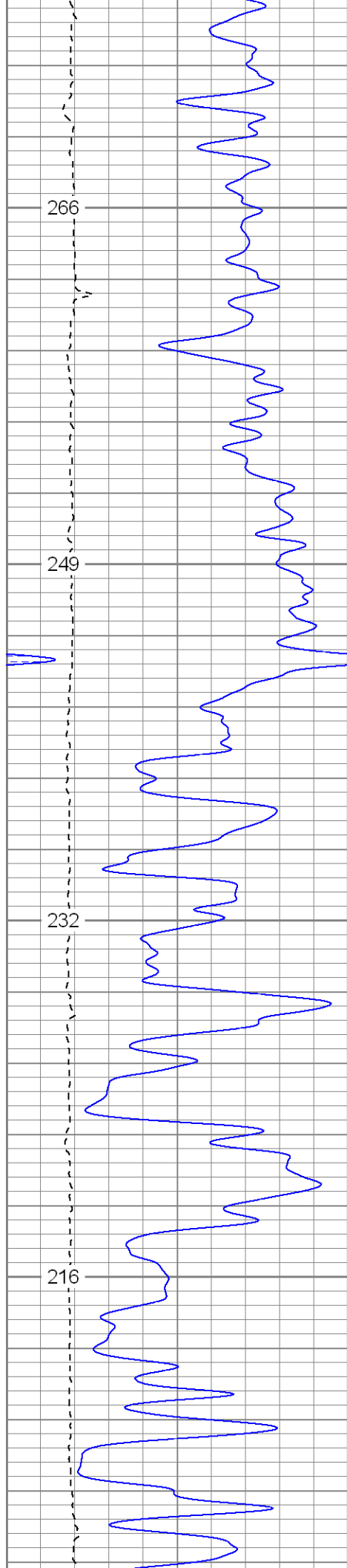


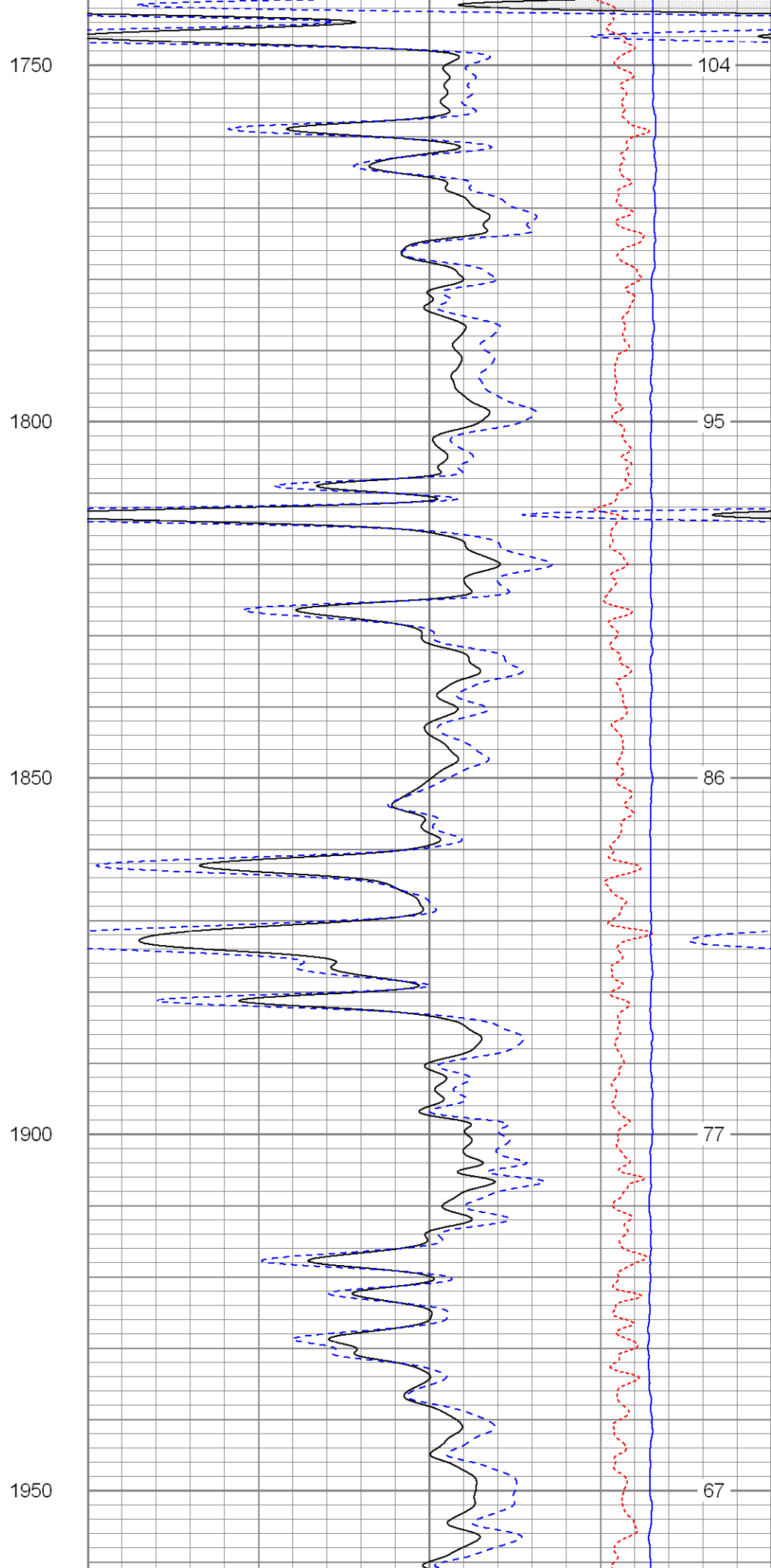
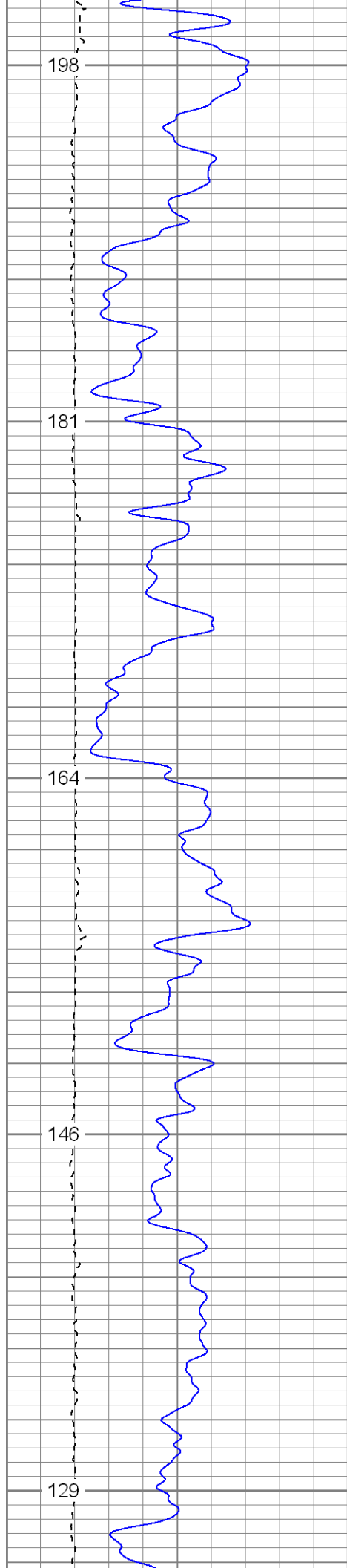




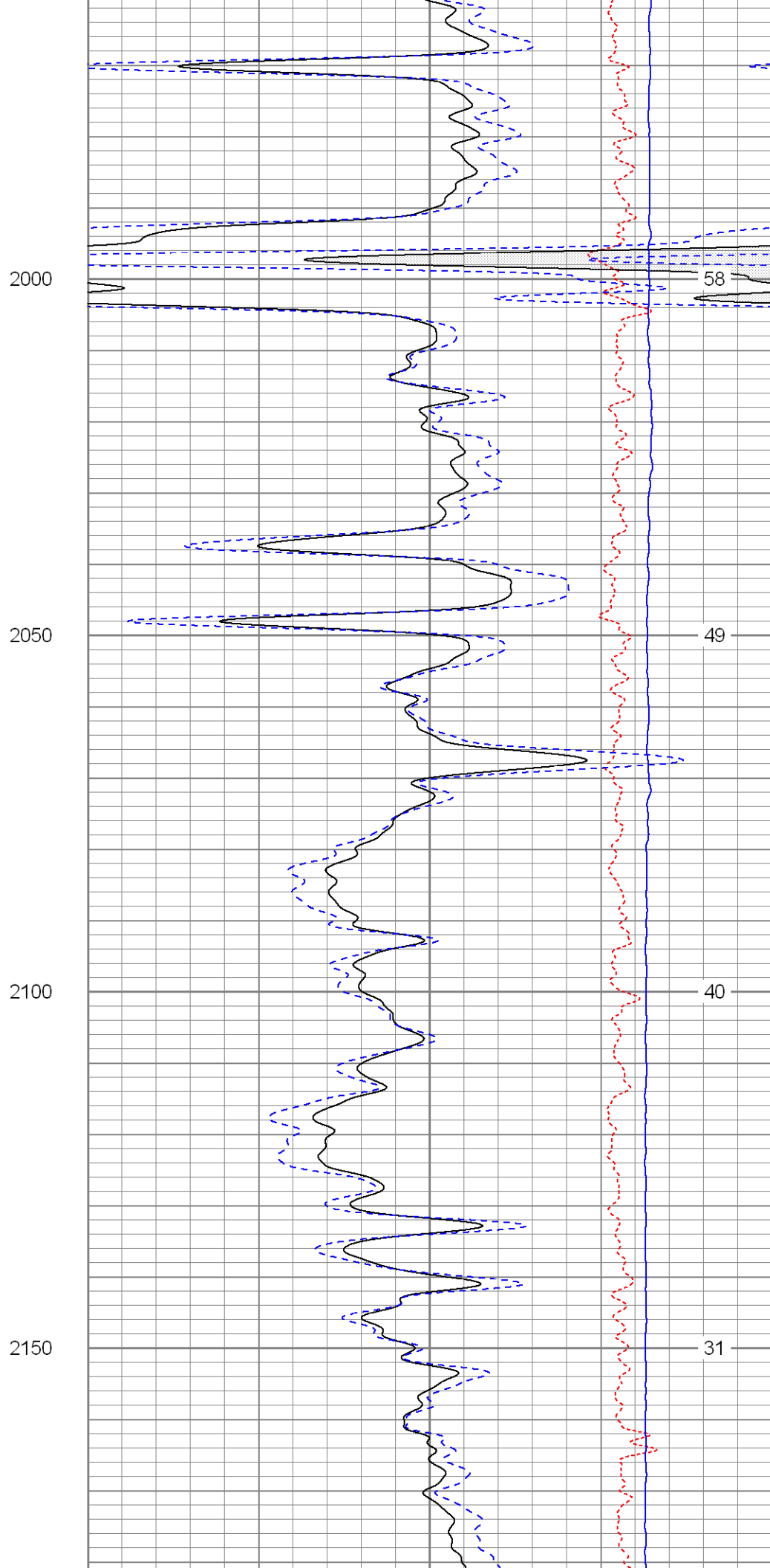
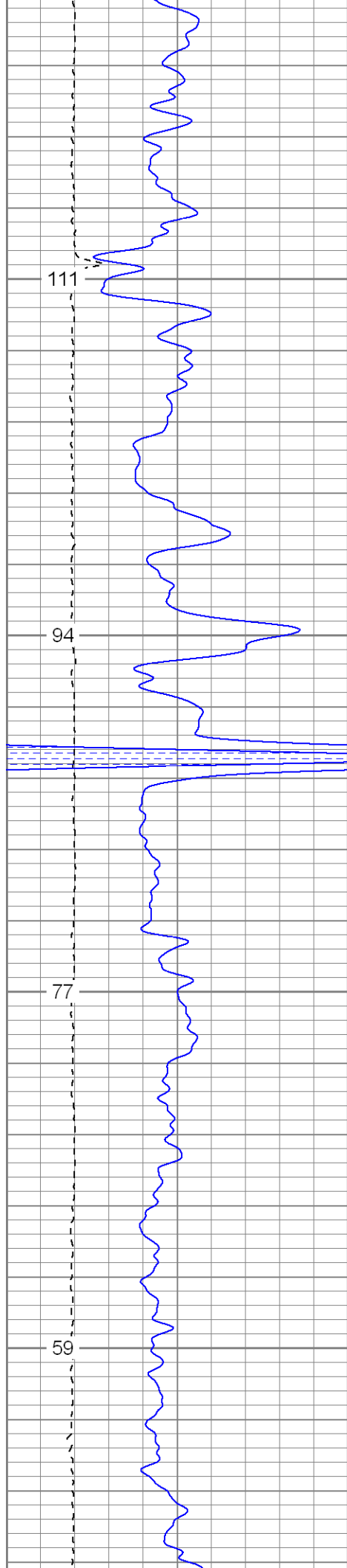


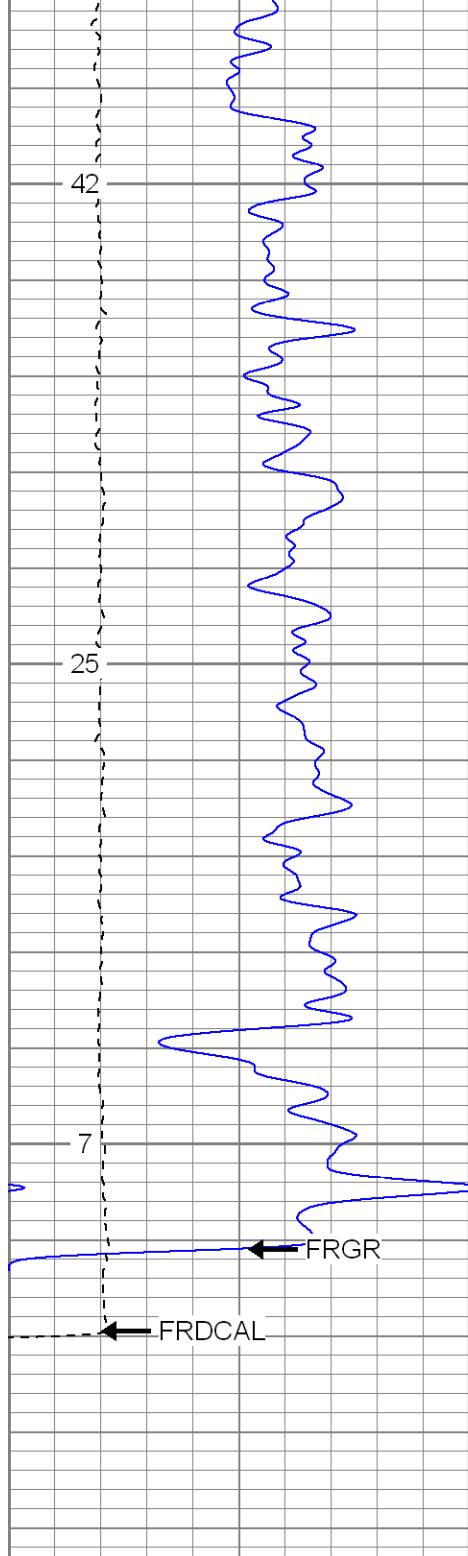




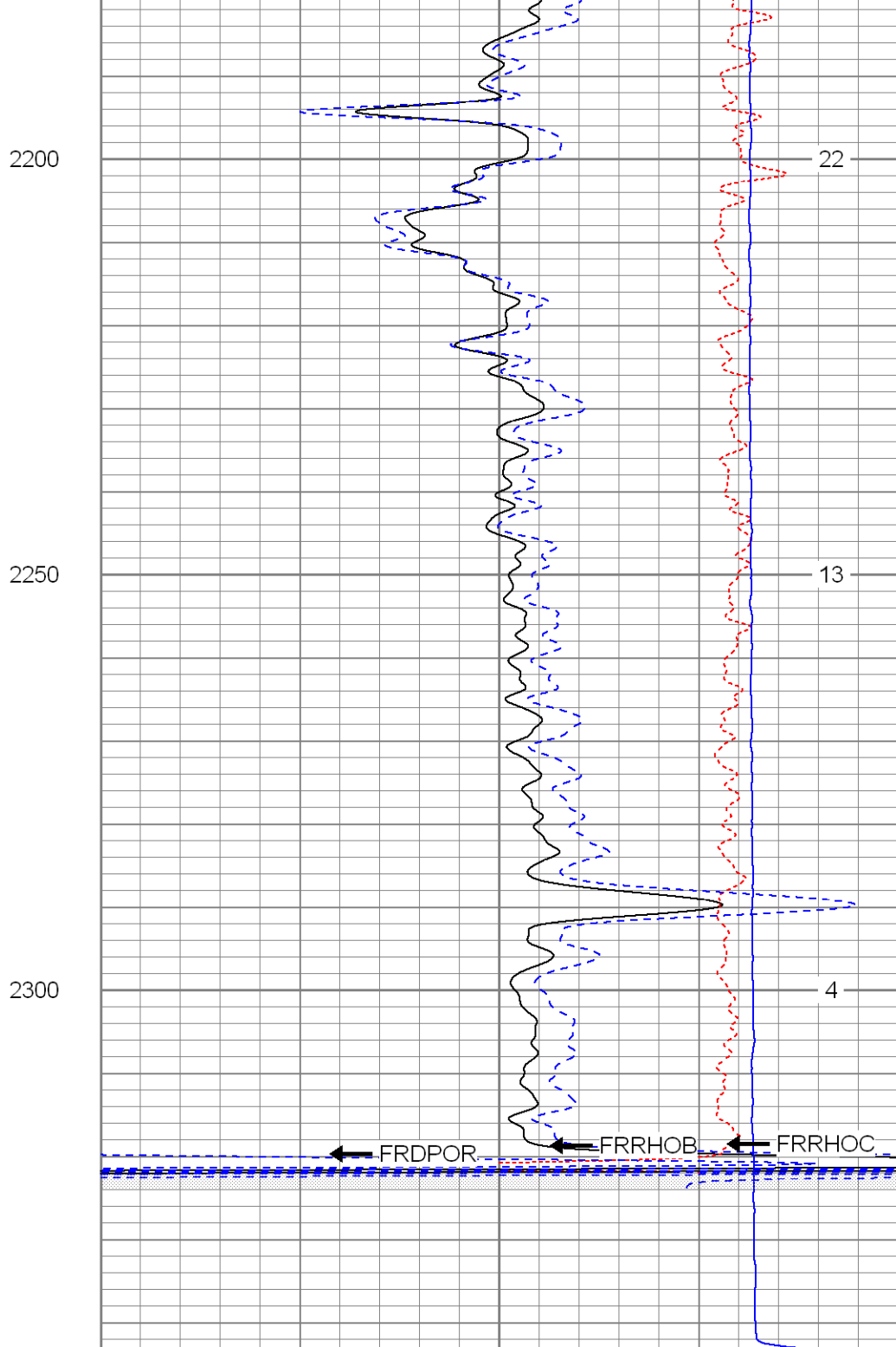








0	GR (GAPI)	200
6	DCAL (in)	16
TBHV (ft3)		



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



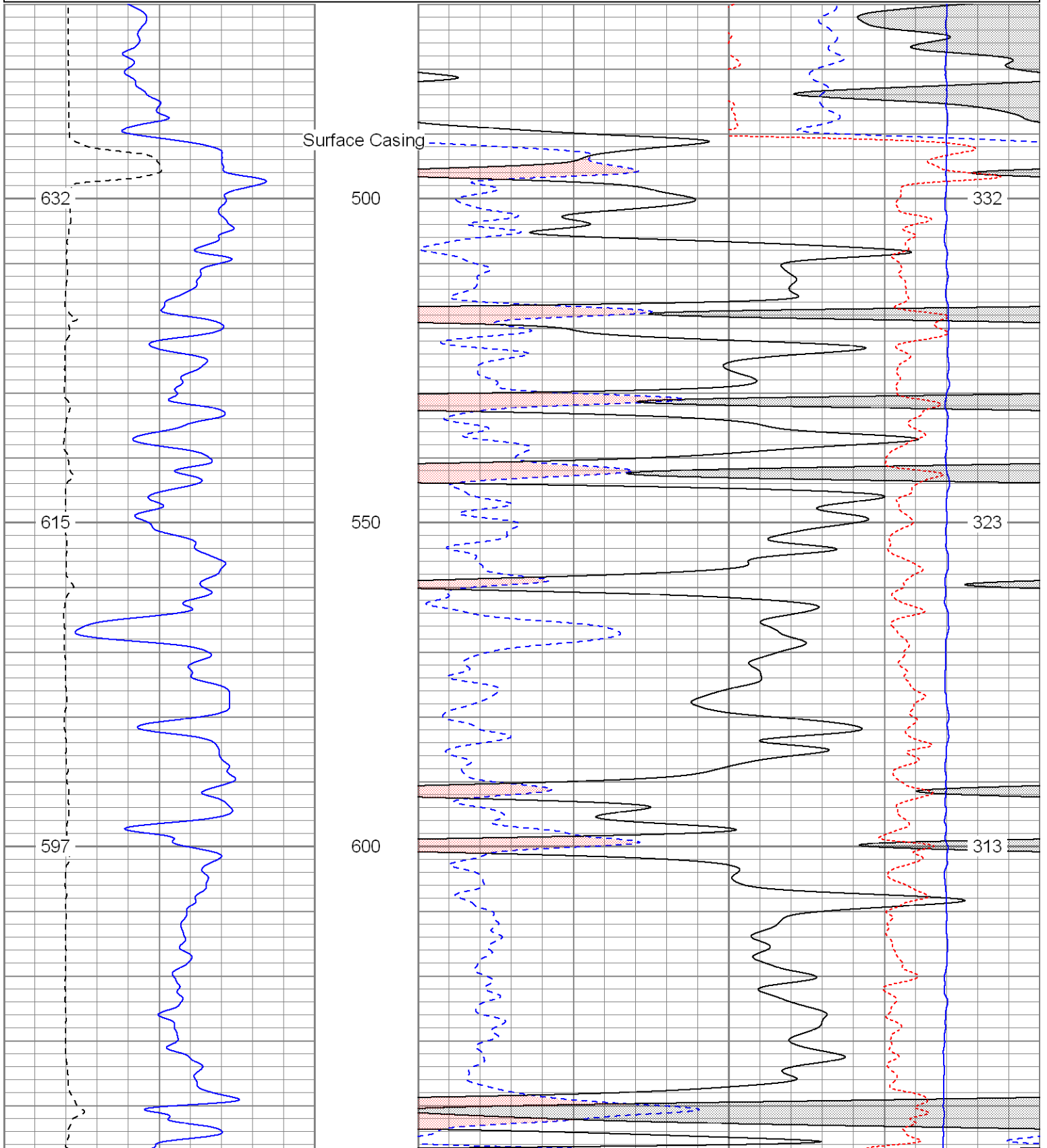
**SUPERIOR**

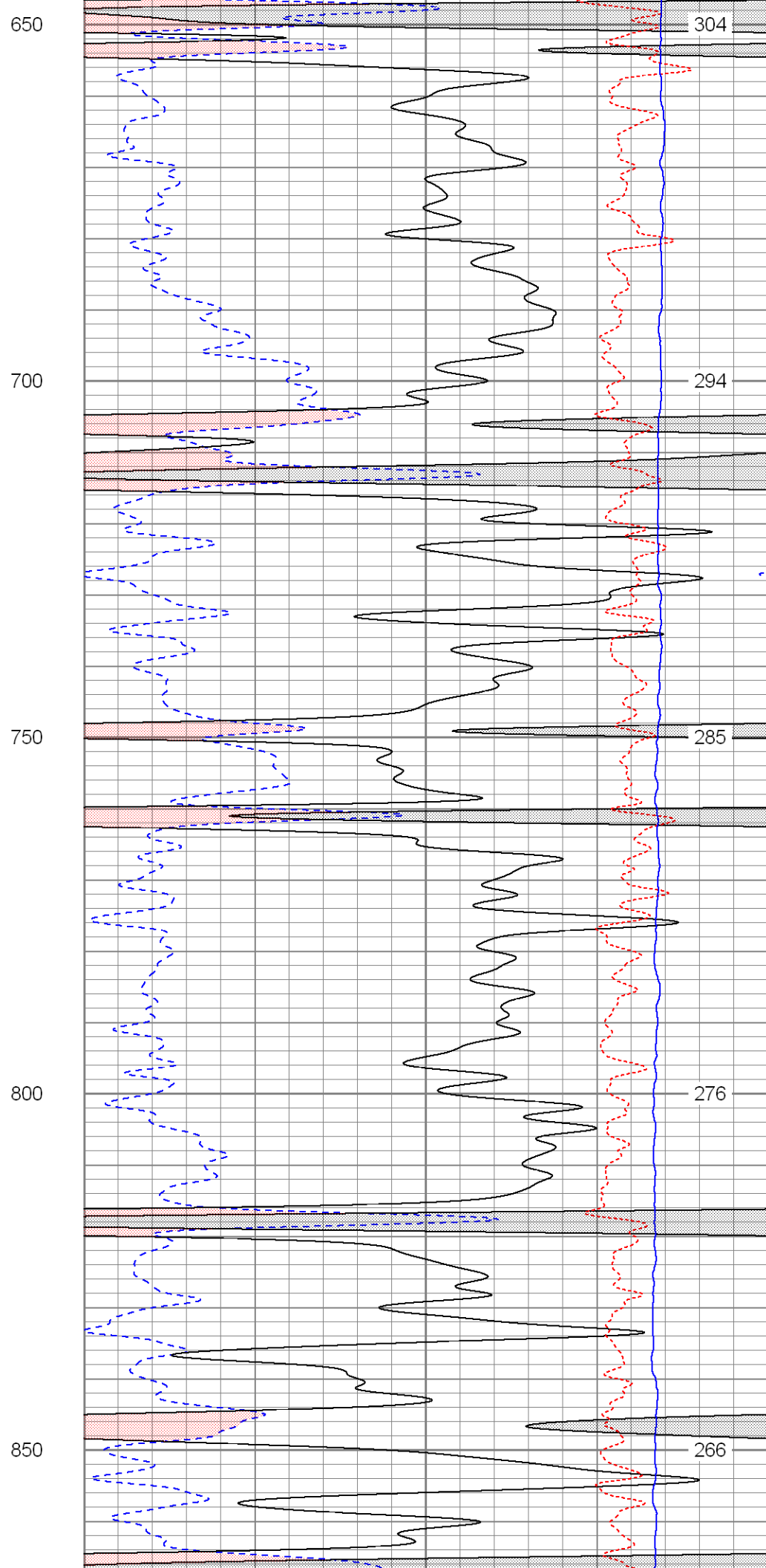
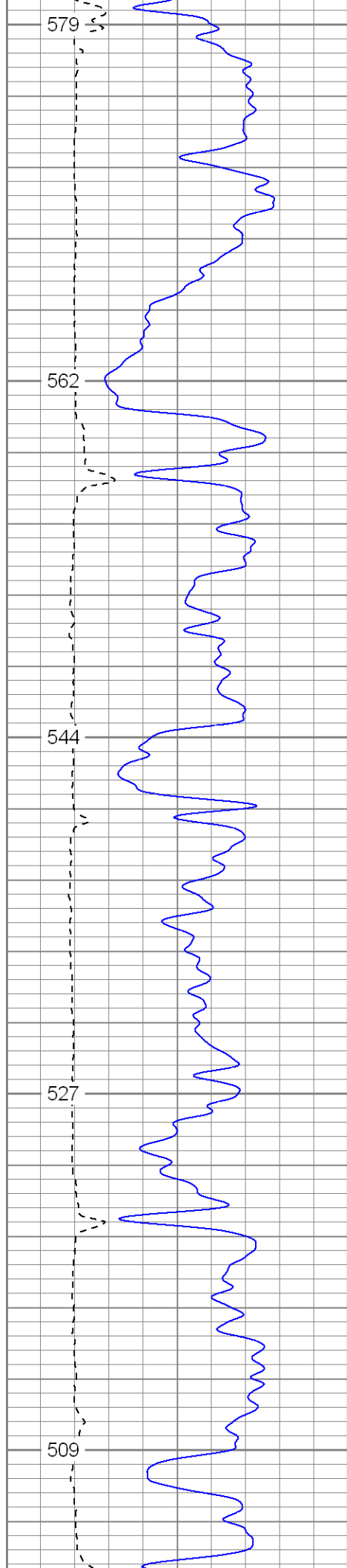
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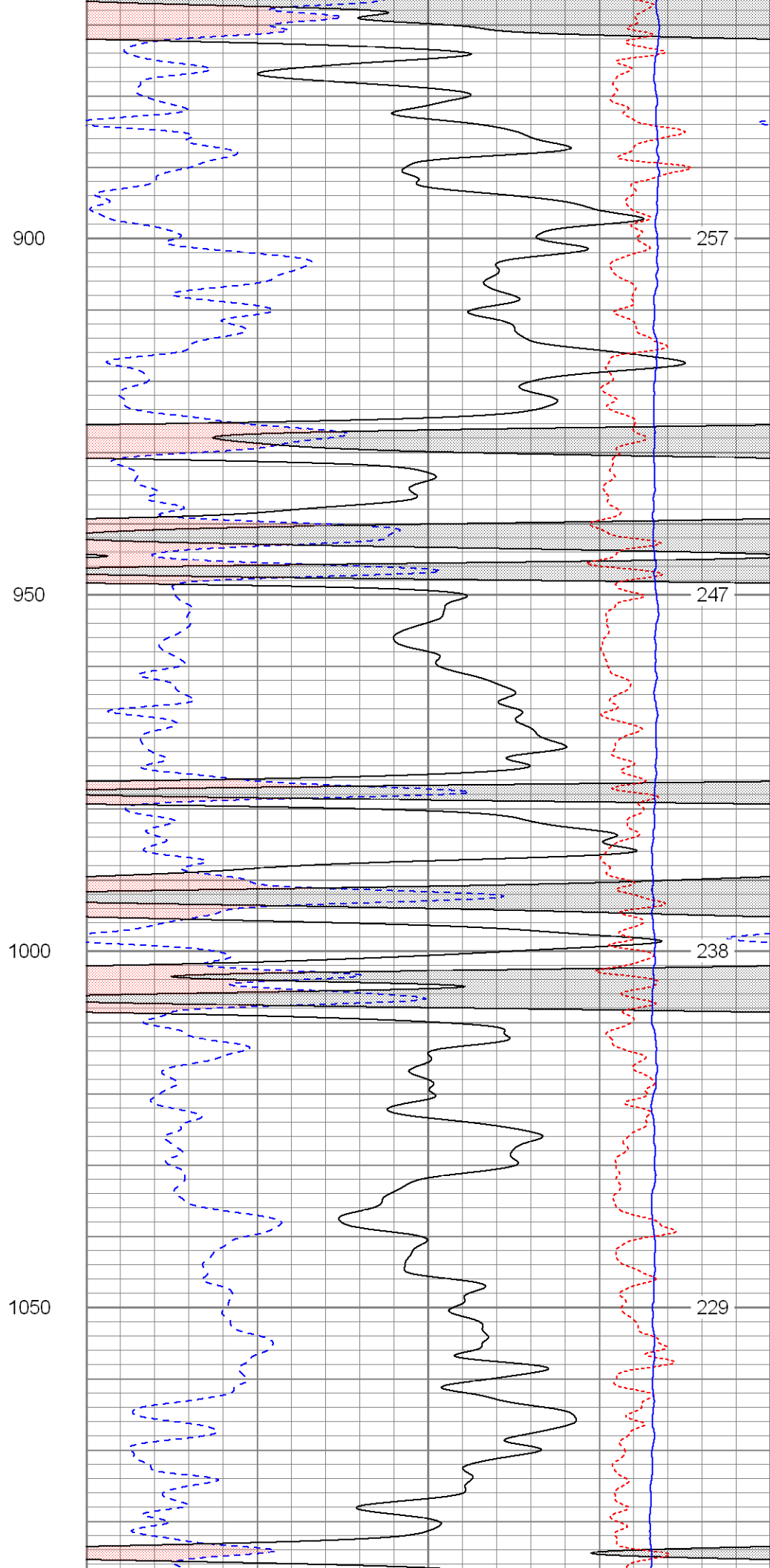
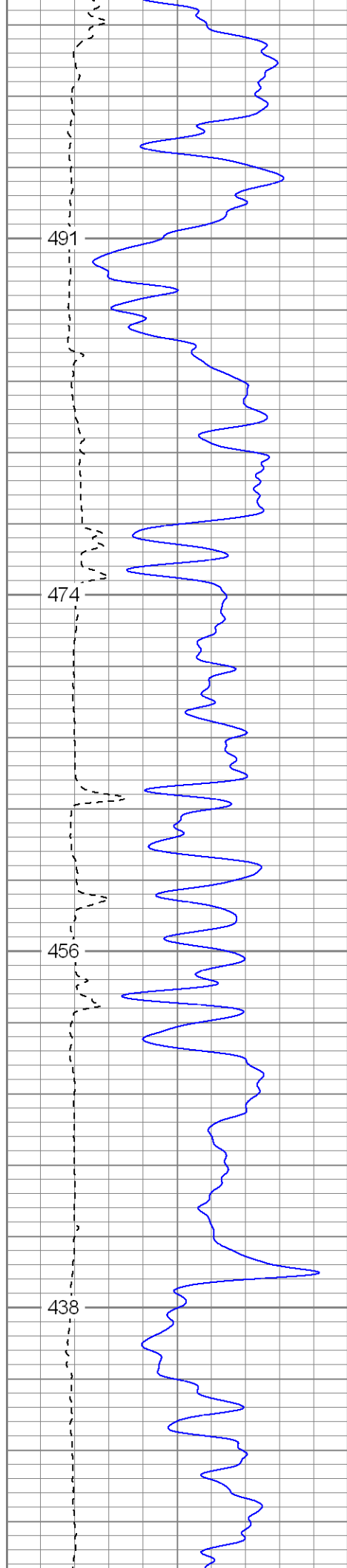
# Main Pass

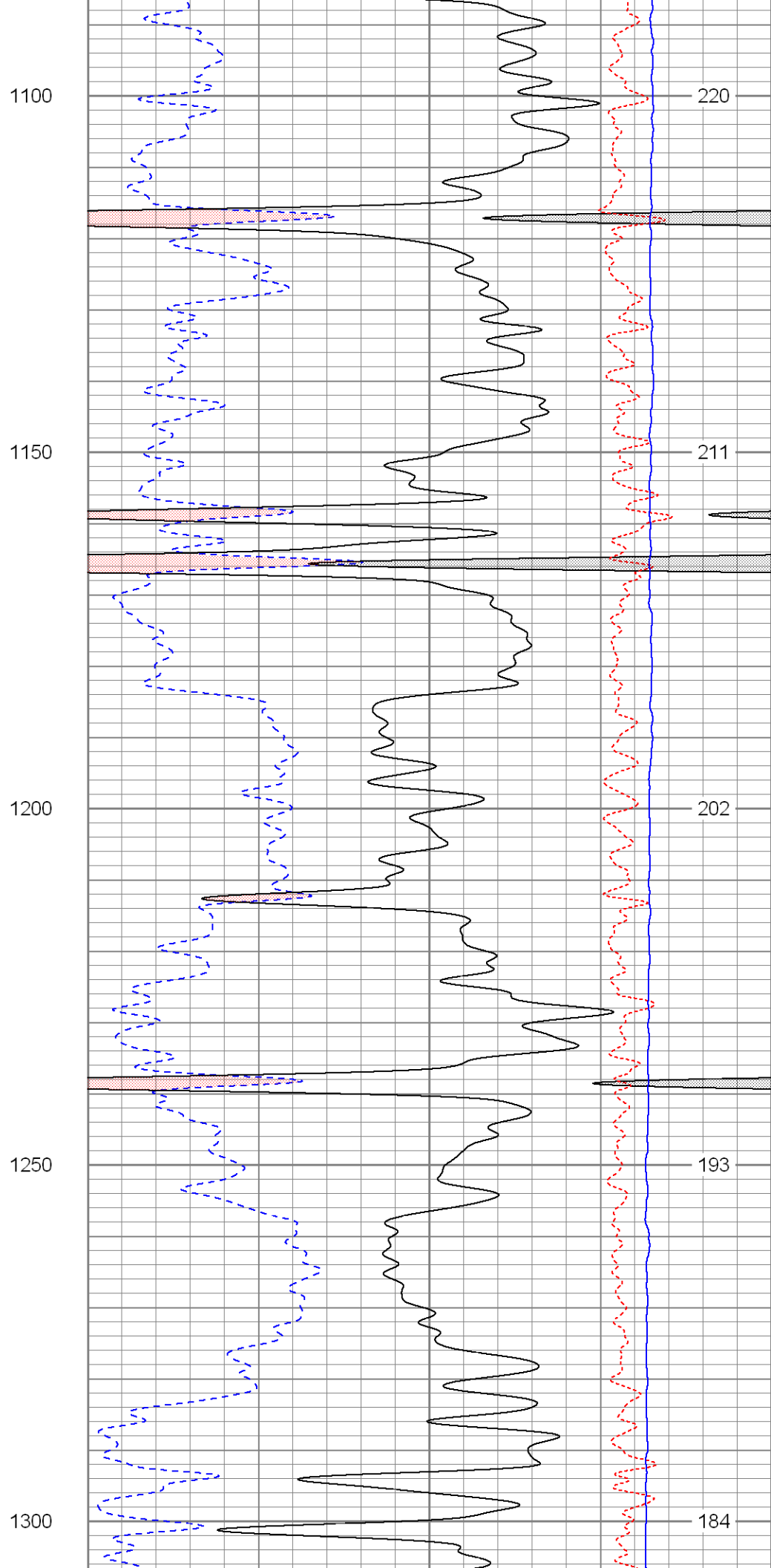
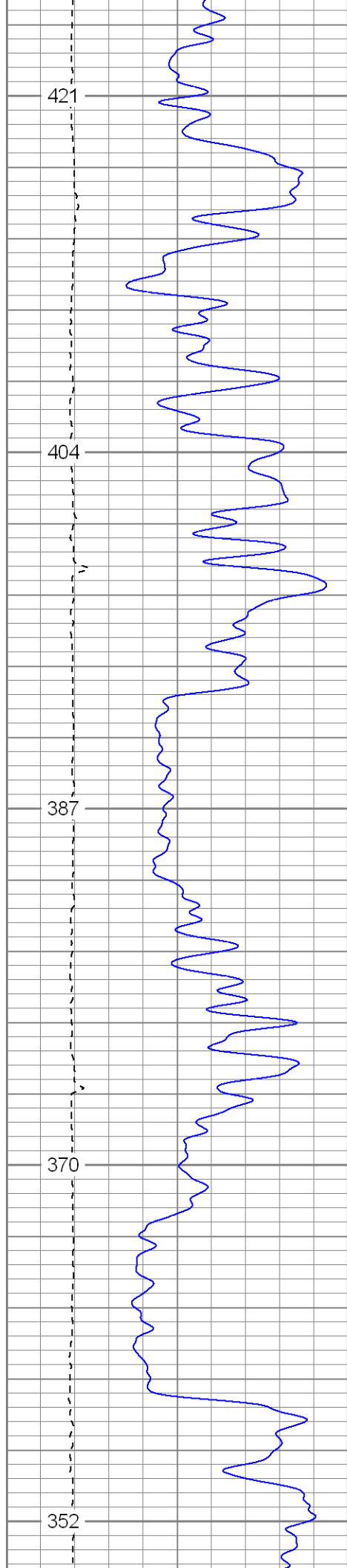
Database File: xtohre2310.db  
Dataset Pathname: pass2.1  
Presentation Format: cdnl  
Dataset Creation: Sat Apr 12 10:16:01 2008 by Calc Open-Cased 070814  
Charted by: Depth in Feet scaled 1:240

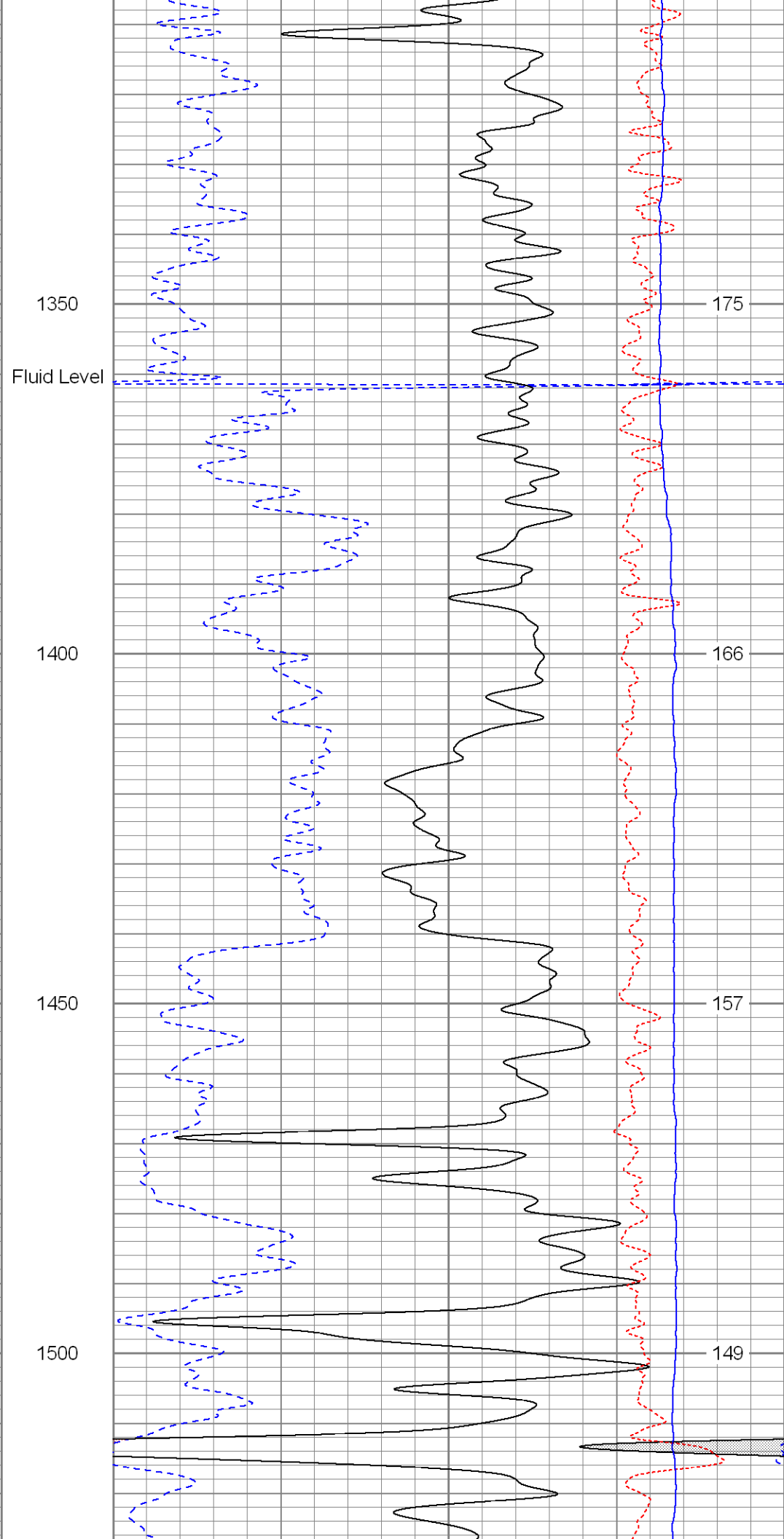
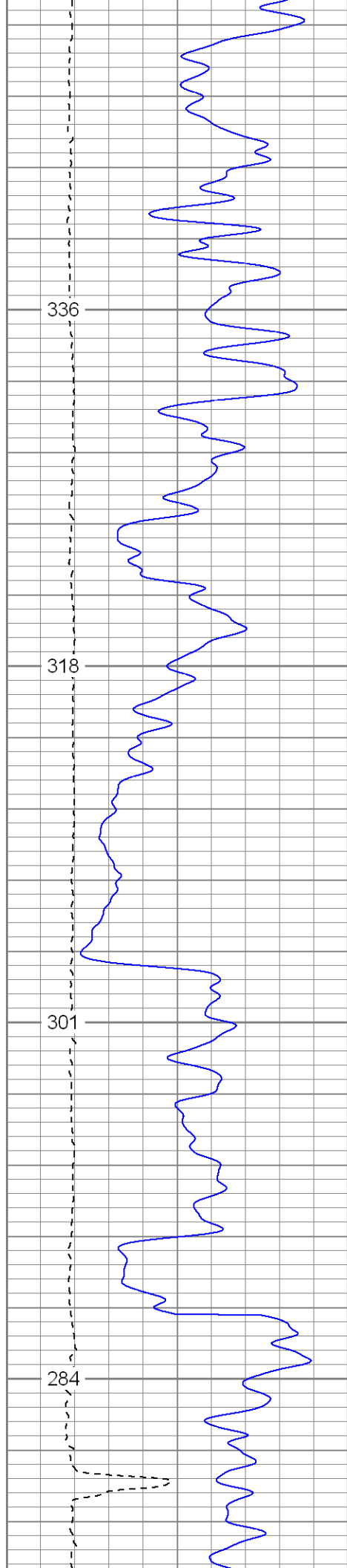
0	GR (GAPI)	200	30	NPOR (pu)	-10
6	DCAL (in)	16	30	DPOR (pu)	-10
TBHV (ft3)			-0.5 RHOC (g/cc) 0.5		
			4000 LTEN (lb) 0		
			ABHV (ft3)		

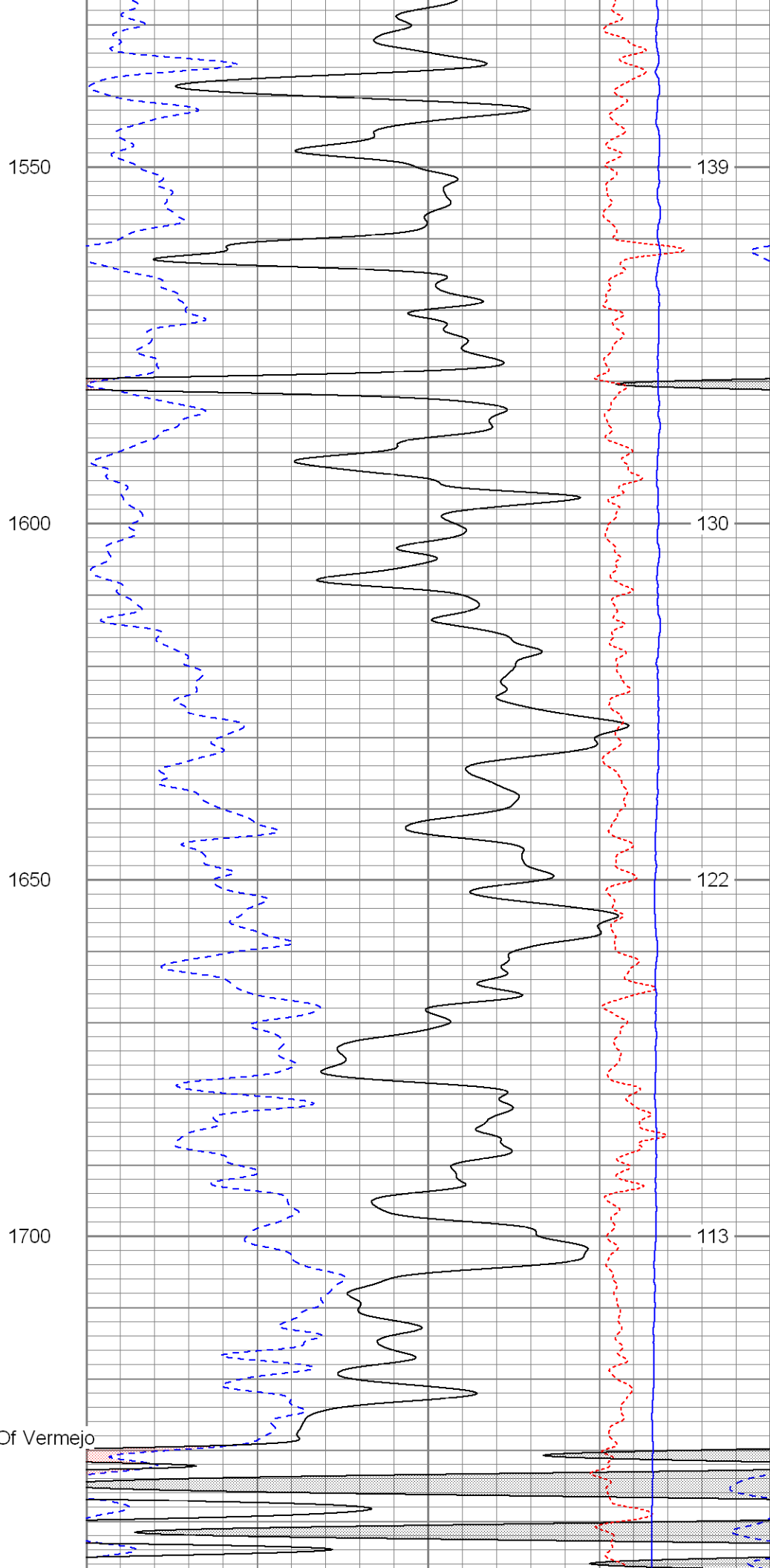
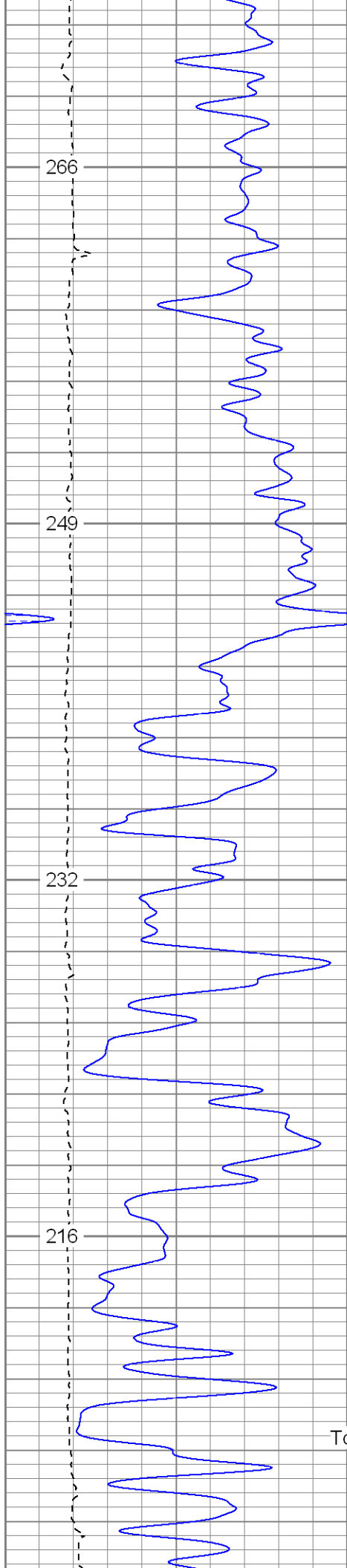




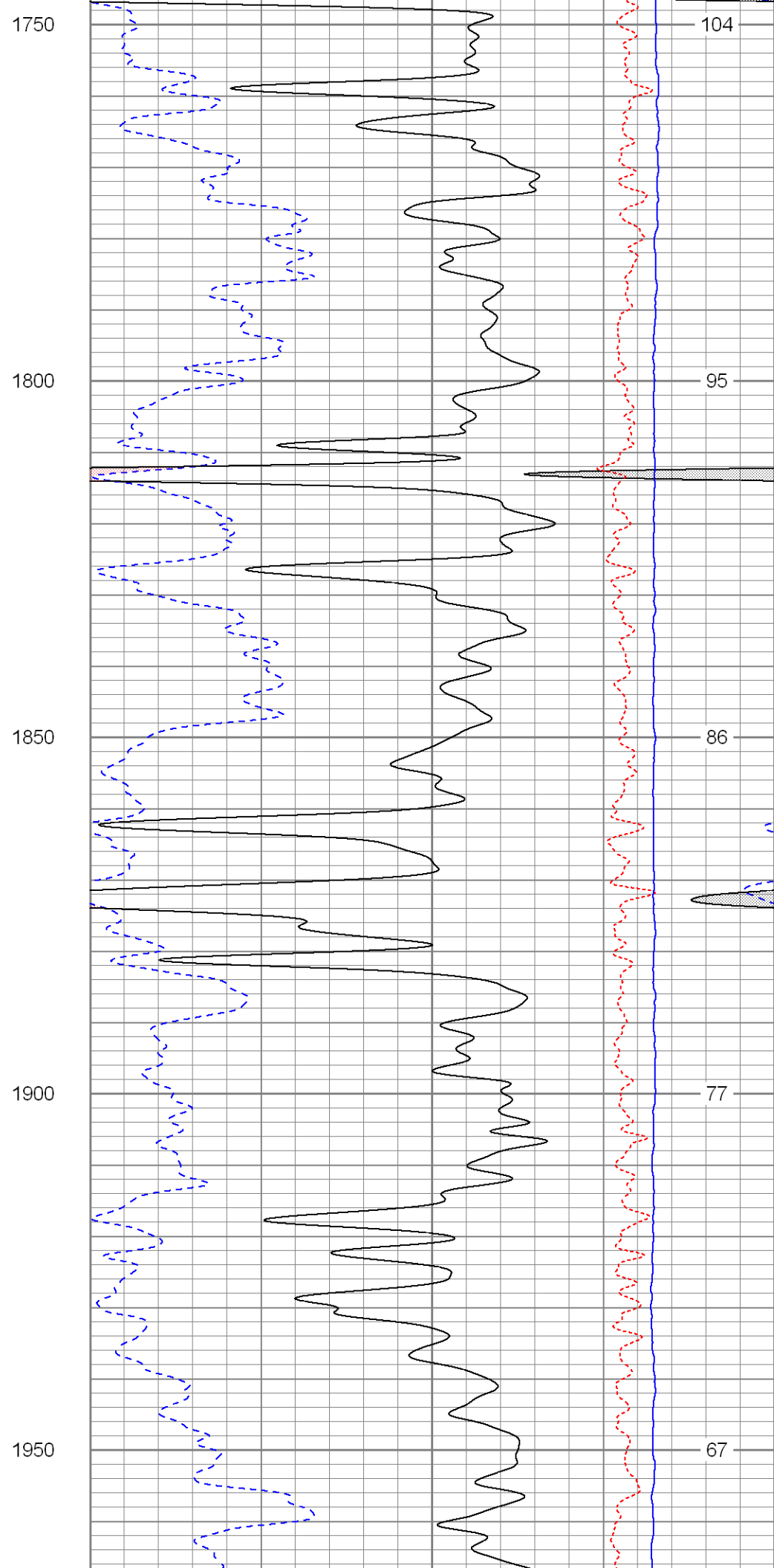
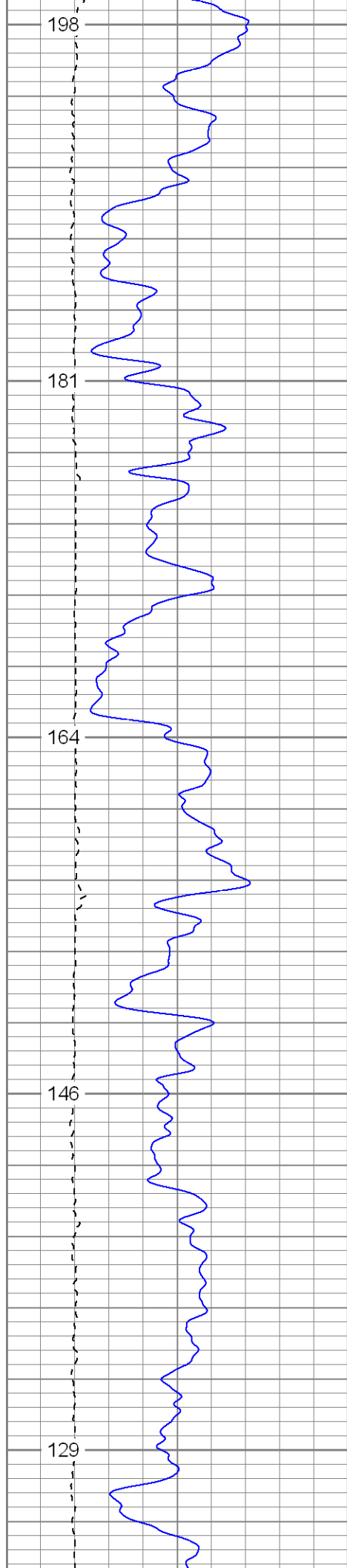


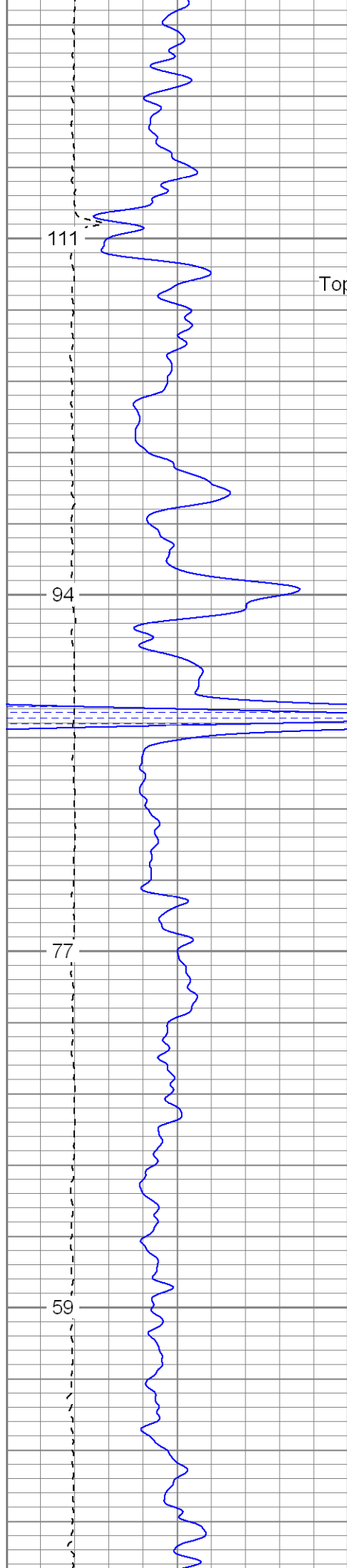






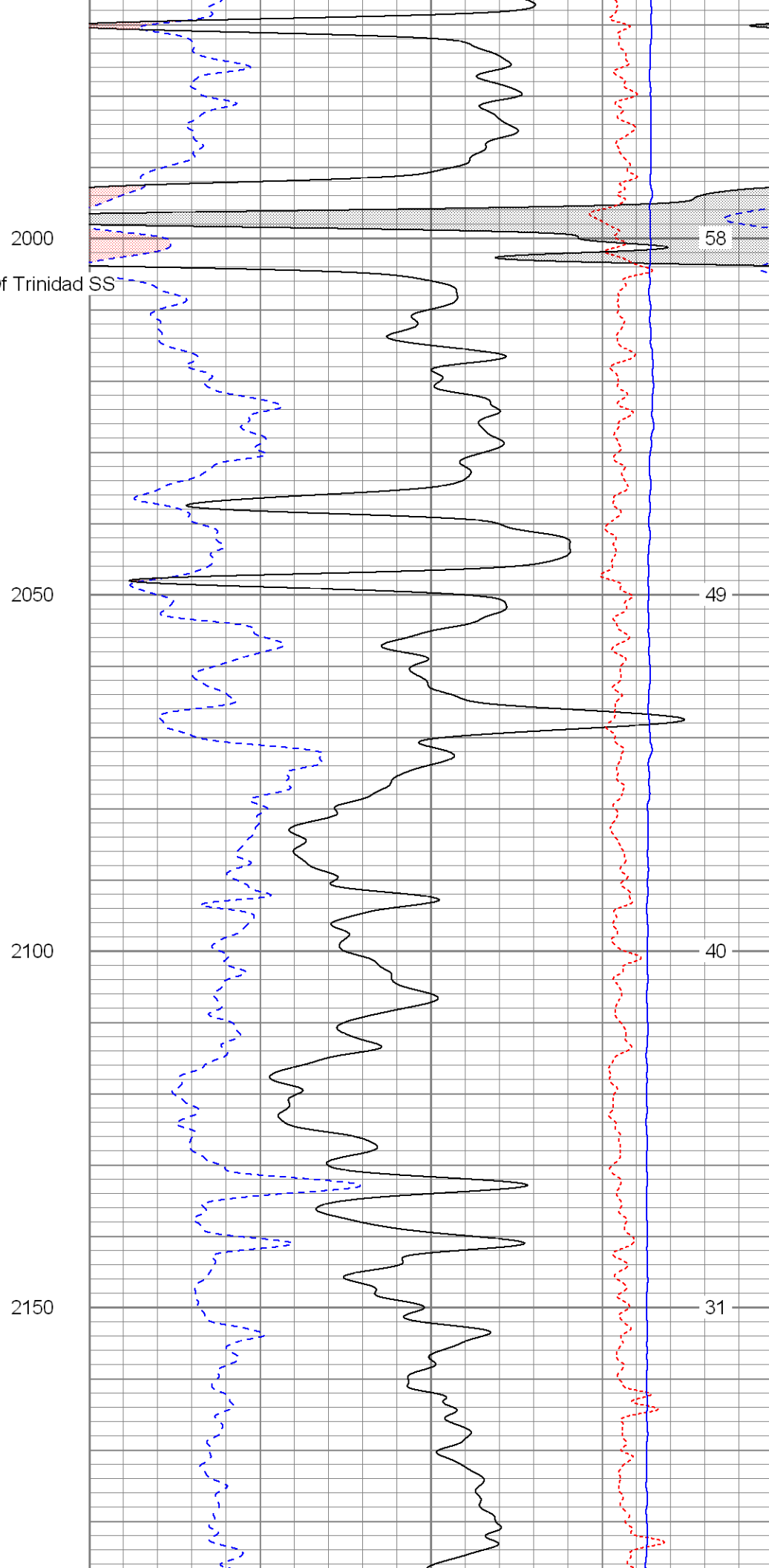


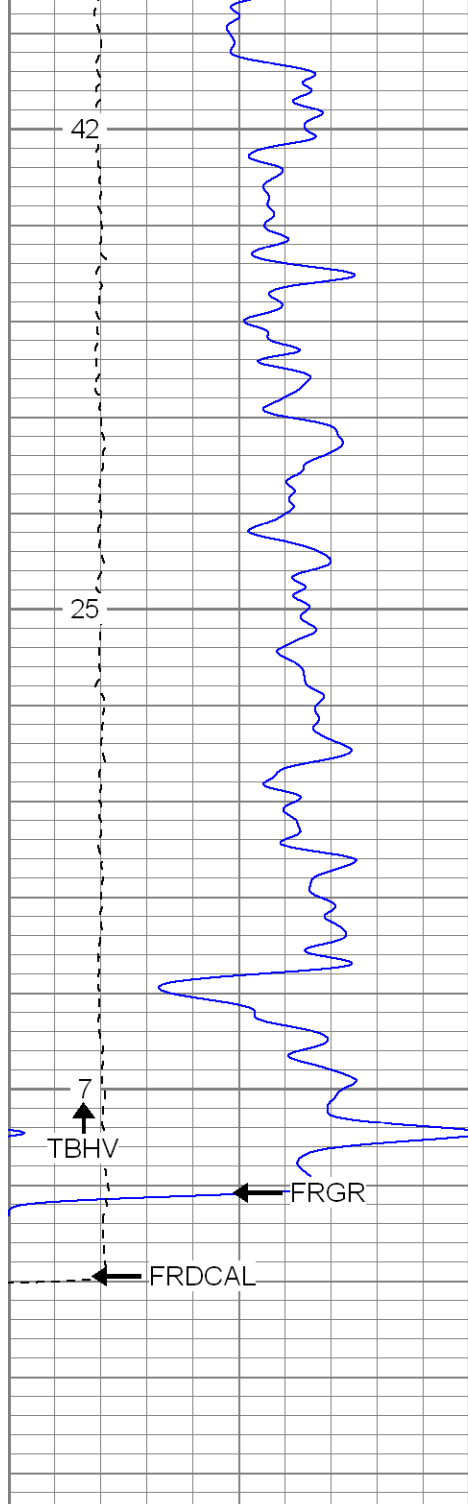




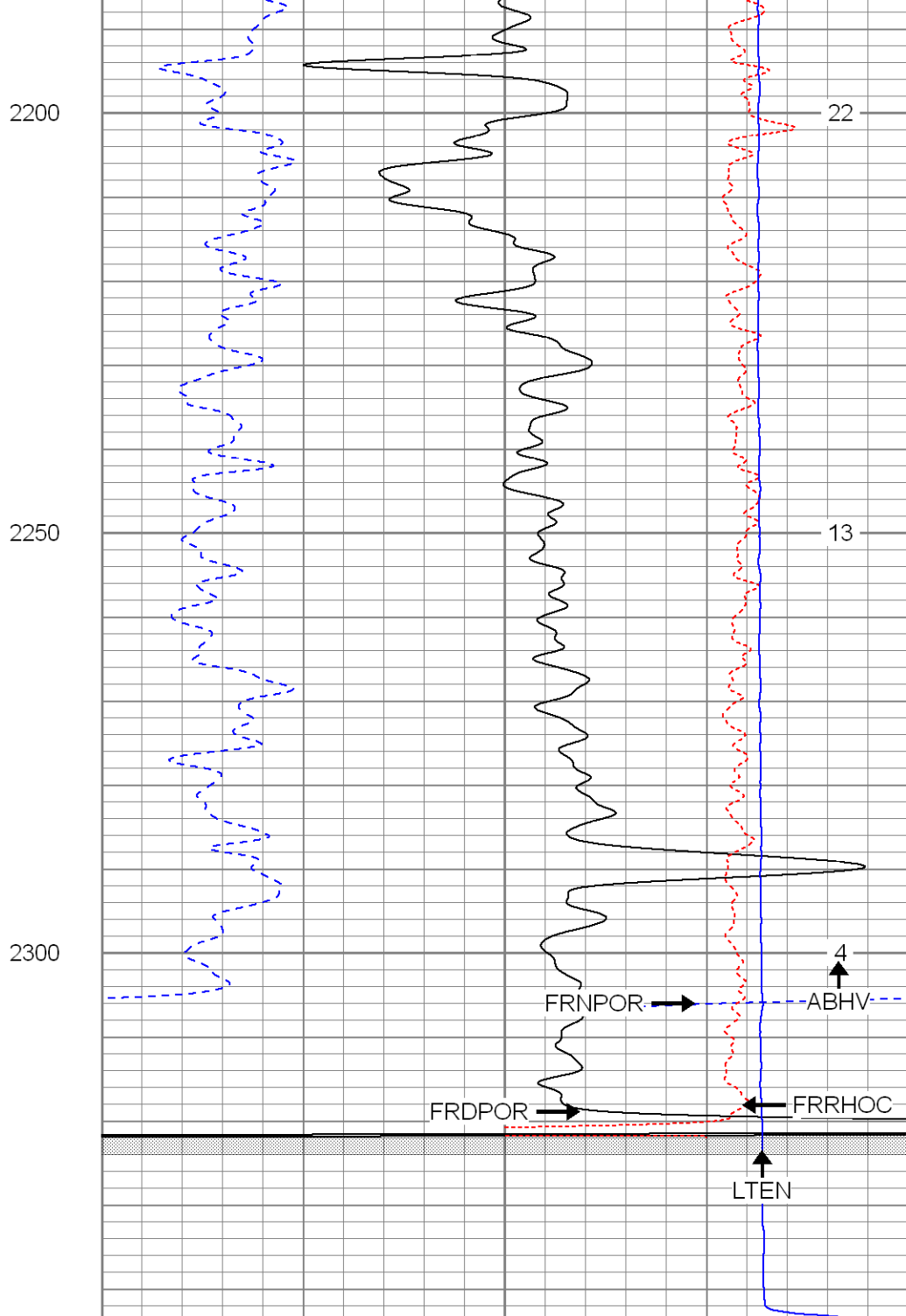
2000

Top Of Trinidad SS





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)		



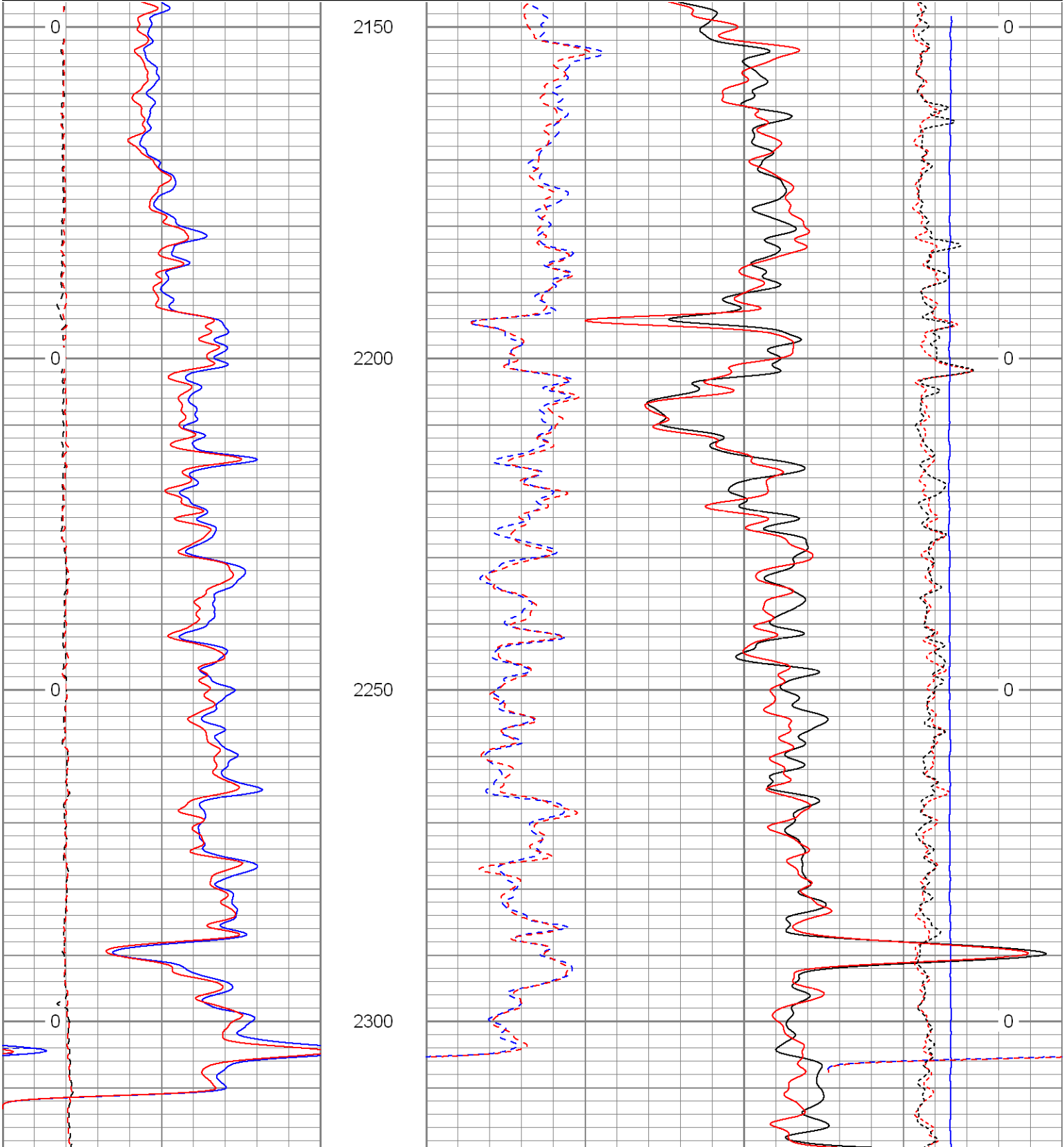
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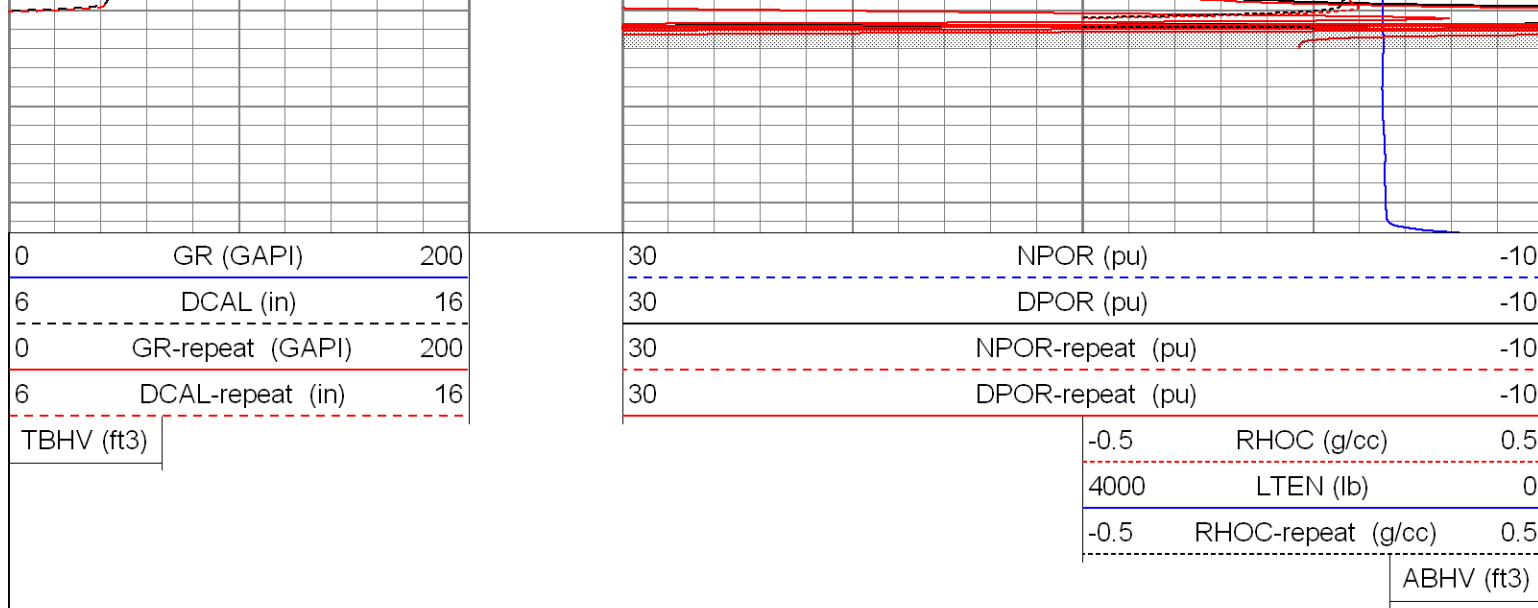
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# Repeat Pass

Database File: xtohre2310.db  
Dataset Pathname: pass1.1  
Presentation Format: cdnl  
Dataset Creation: Sat Apr 12 00:10:12 2008 by Gale Open Cased 070814

Dataset Creation: Sat Apr 12 09:10:12 2008 by Calc Open-Case07/08/14			Depth in Feet scaled 1:240		
Charted by:					
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		
			ABHV (ft3)		



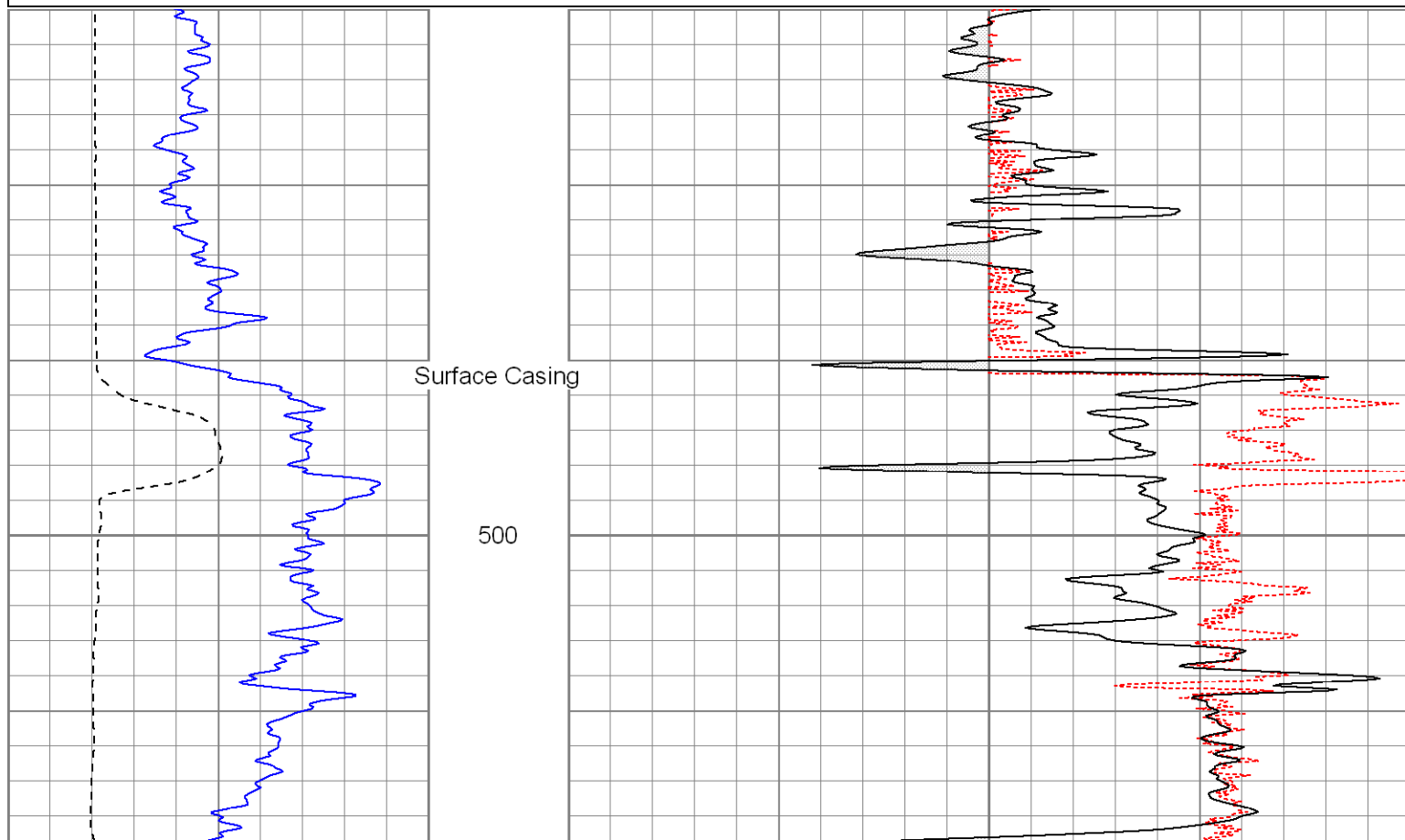
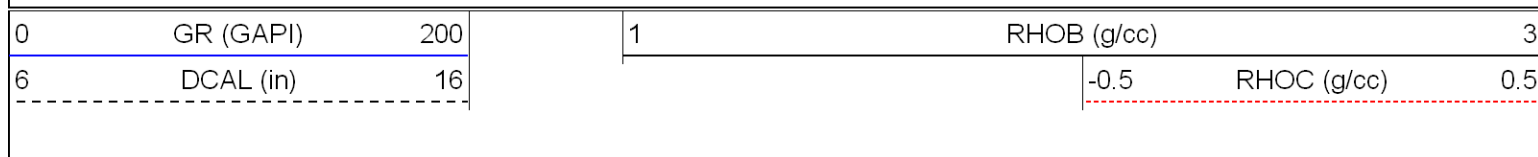




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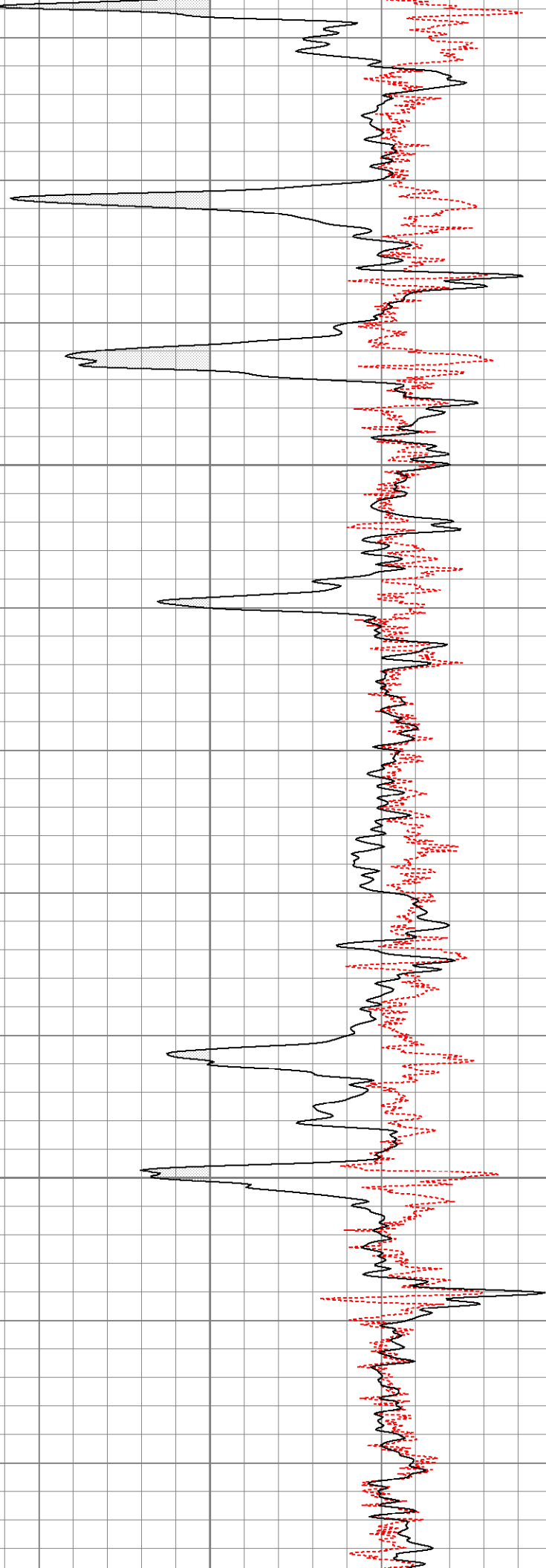
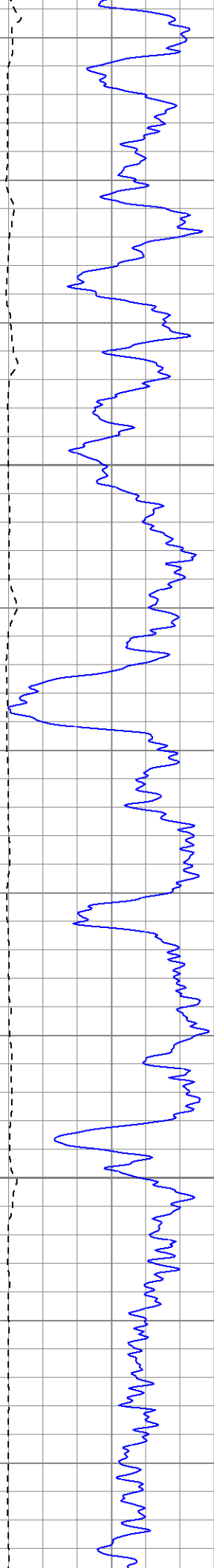
# High Resolution Pass

Database File: xtohre2310.db  
 Dataset Pathname: pass2.2  
 Presentation Format: cdlhr  
 Dataset Creation: Mon Apr 14 08:01:40 2008 by Calc Open-Cased 070814  
 Charted by: Depth in Feet scaled 1:120



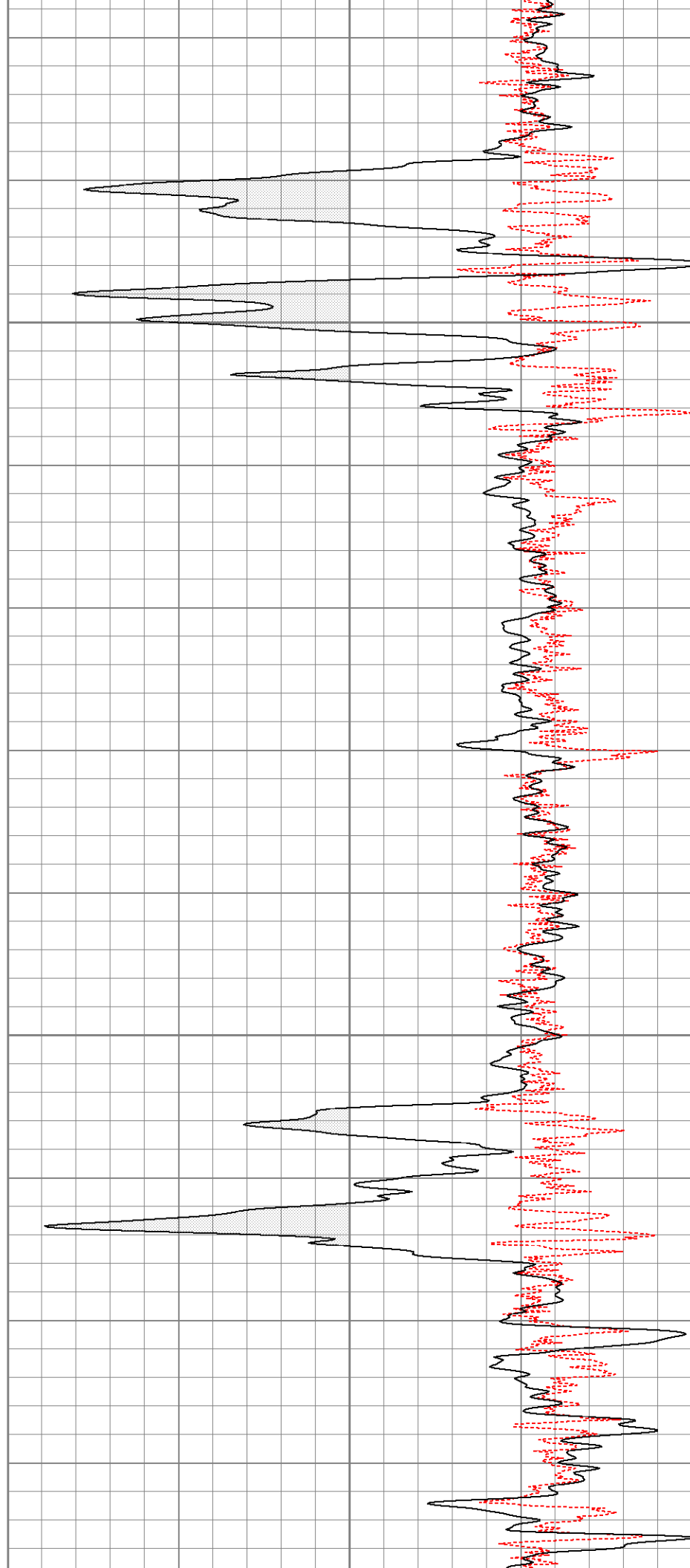
550

600



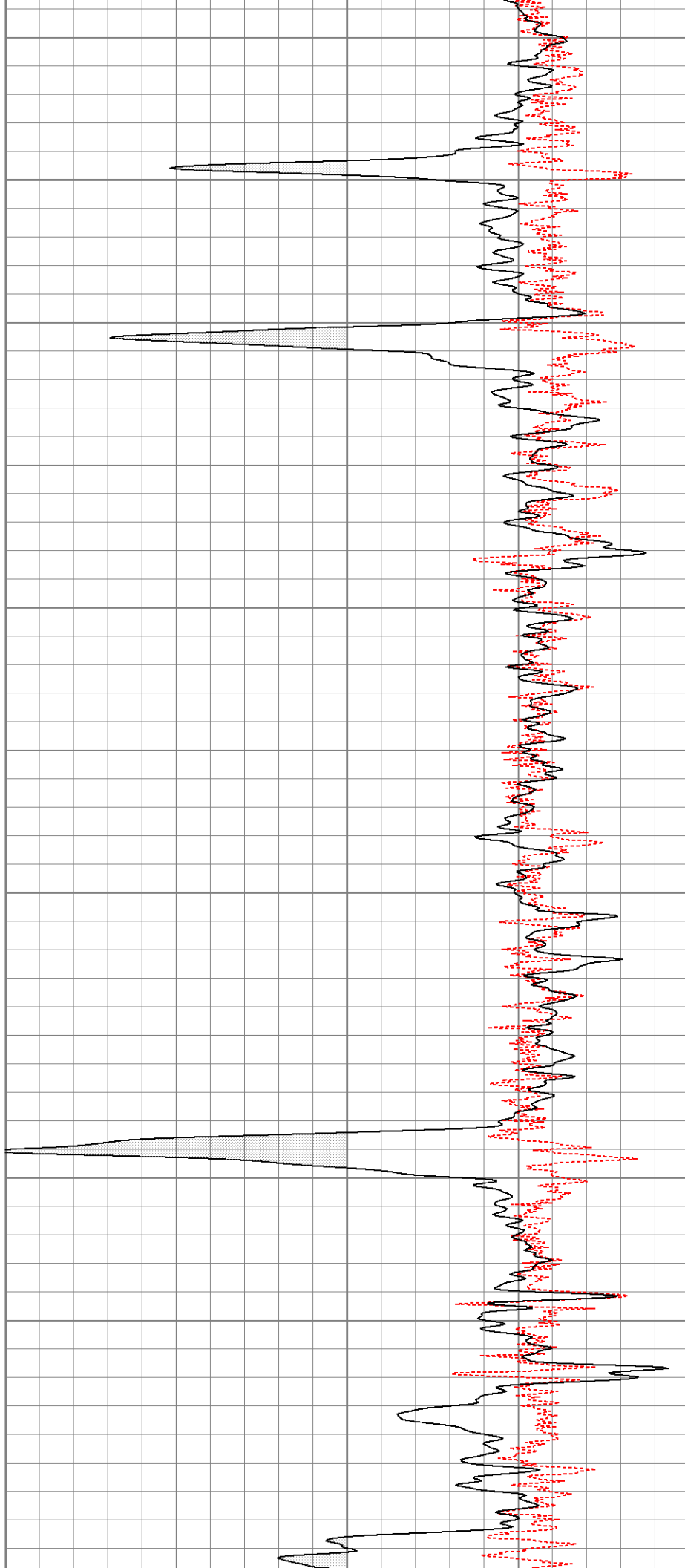
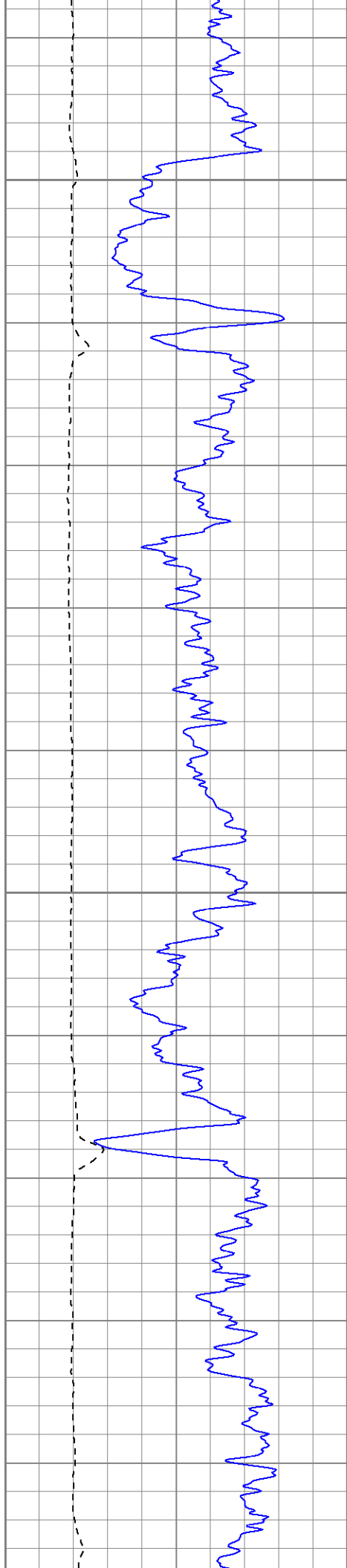
650

700

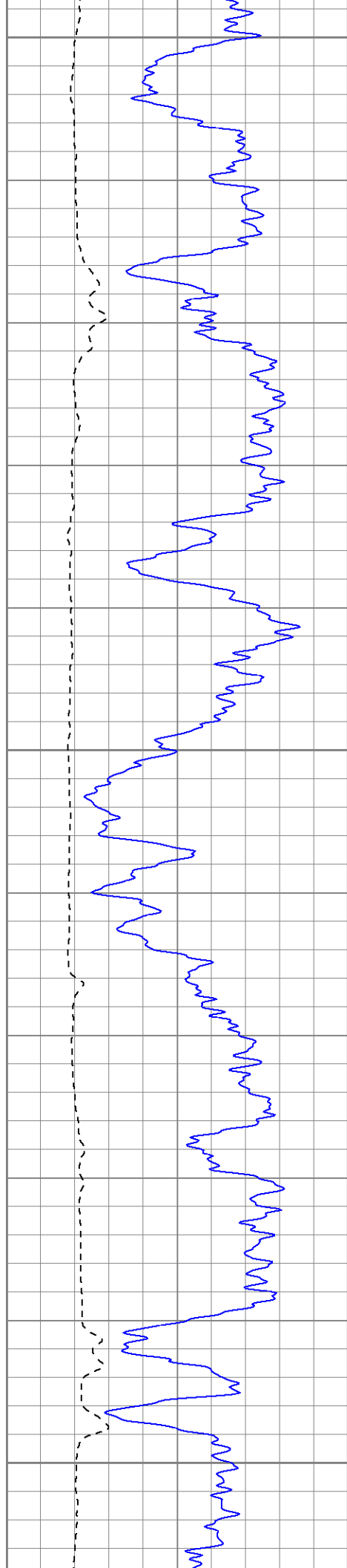


750

800



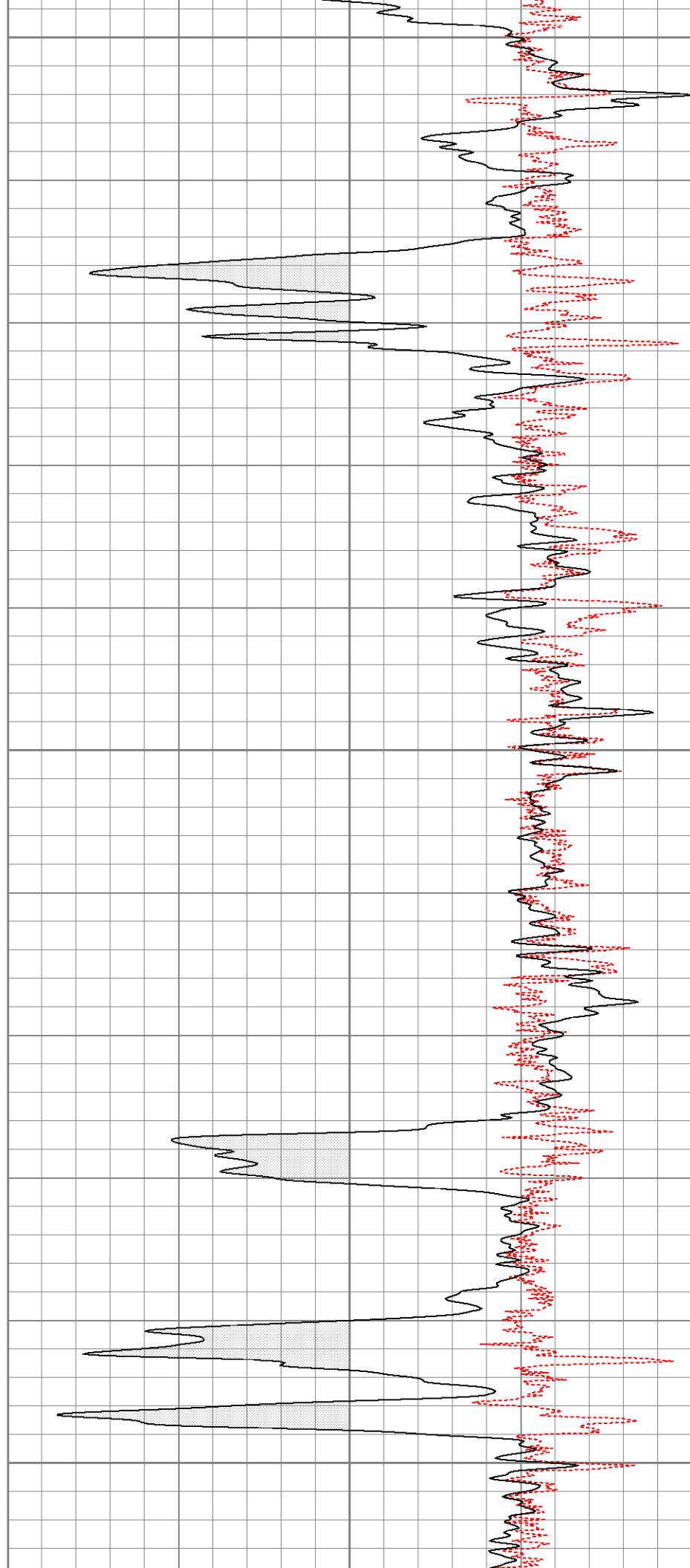


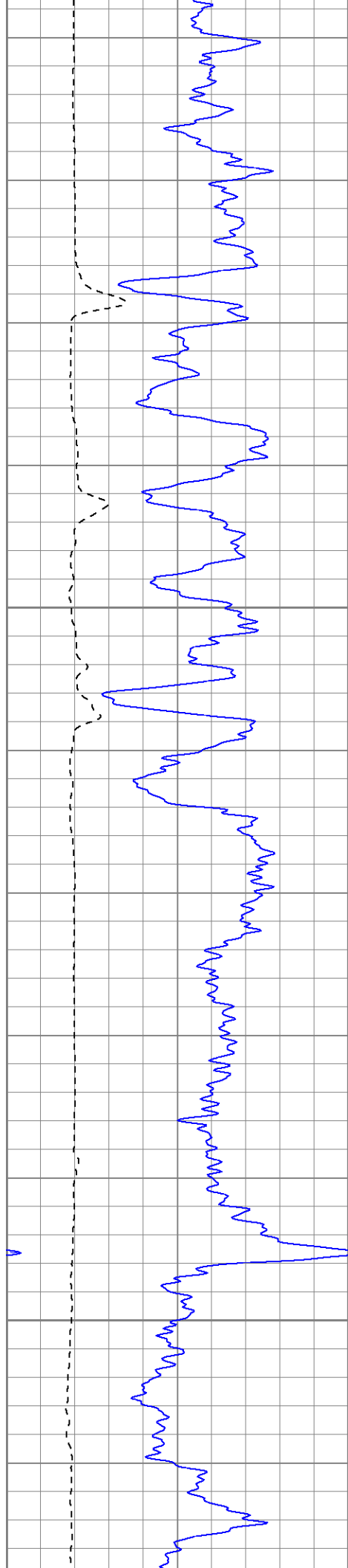


850

900

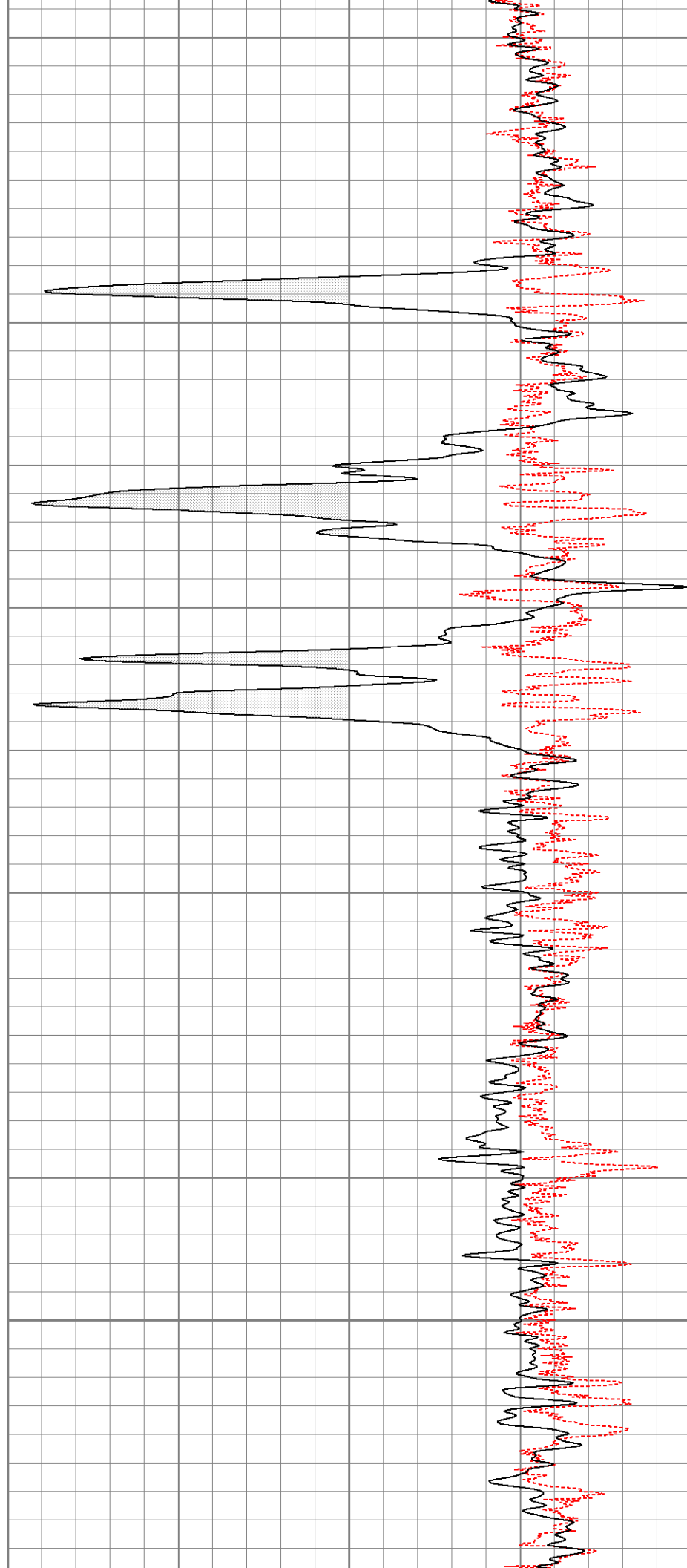
950

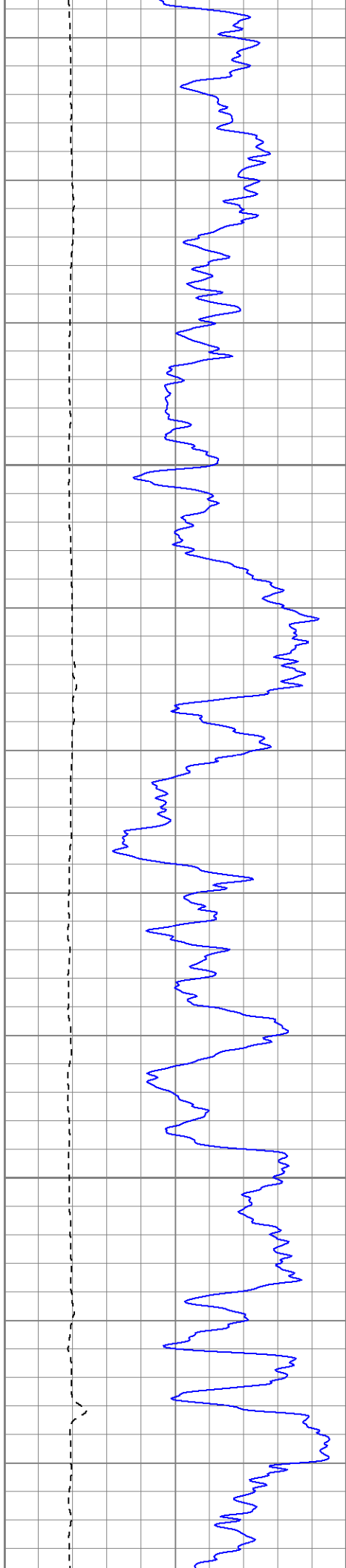




1000

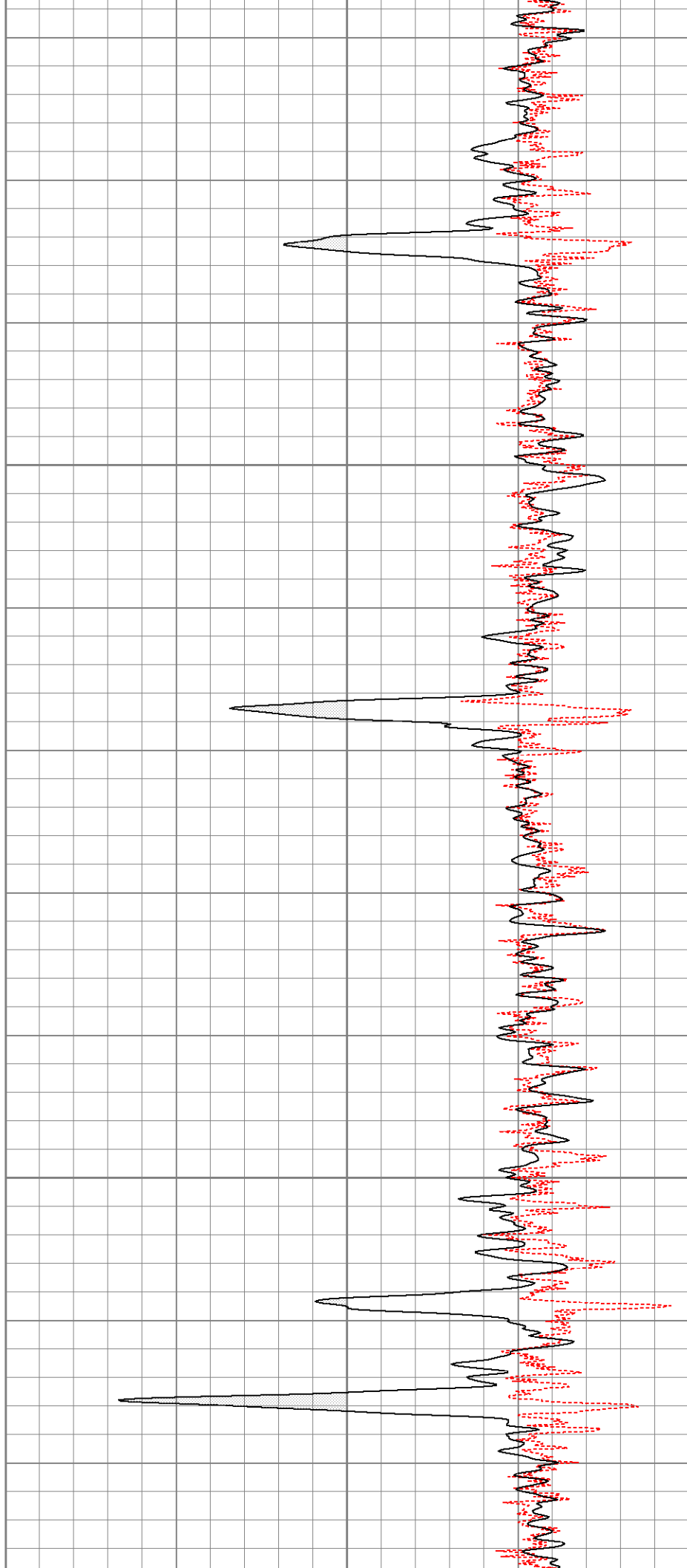
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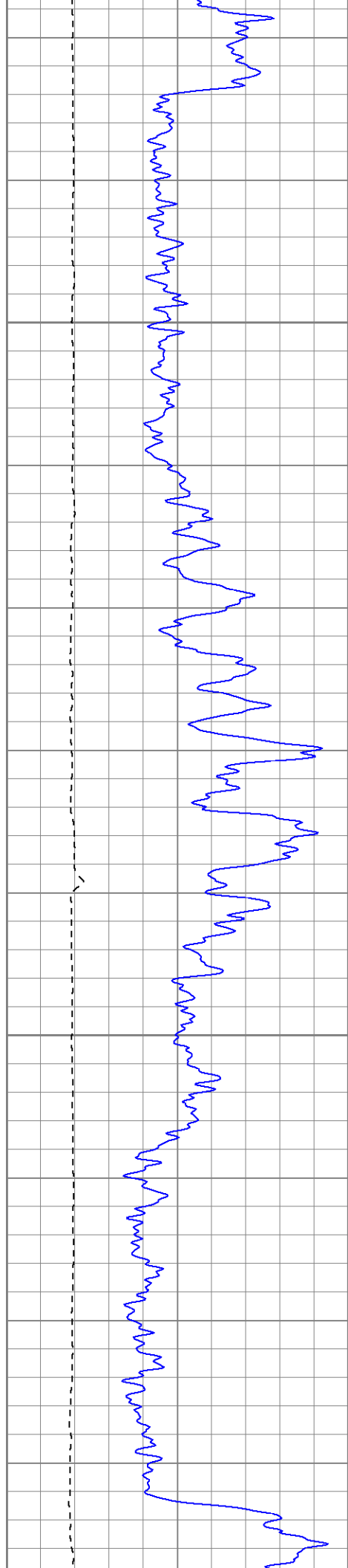




1100

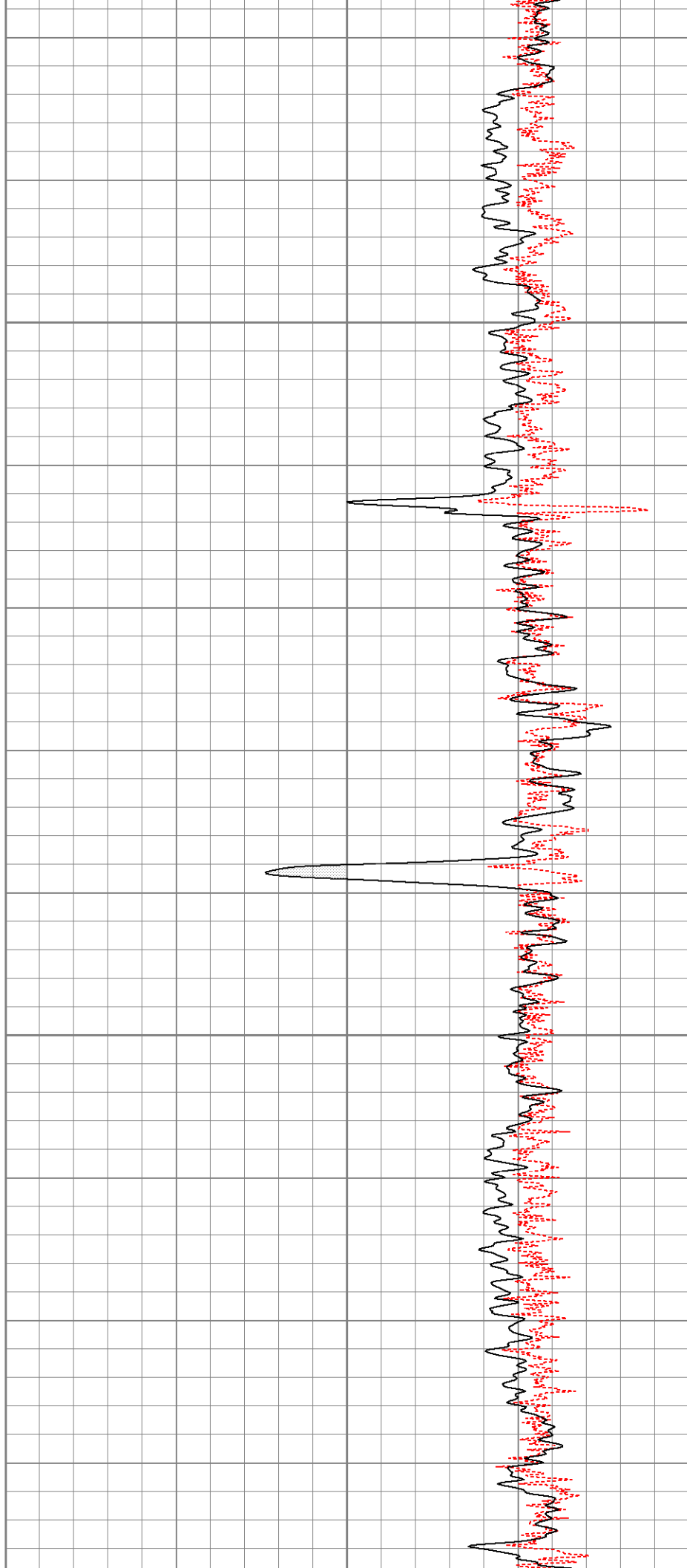
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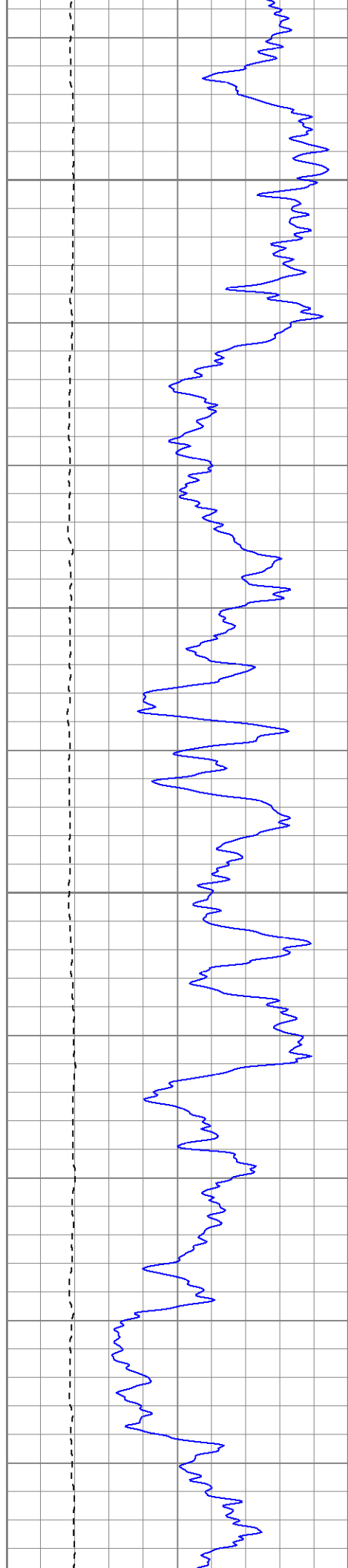




1200

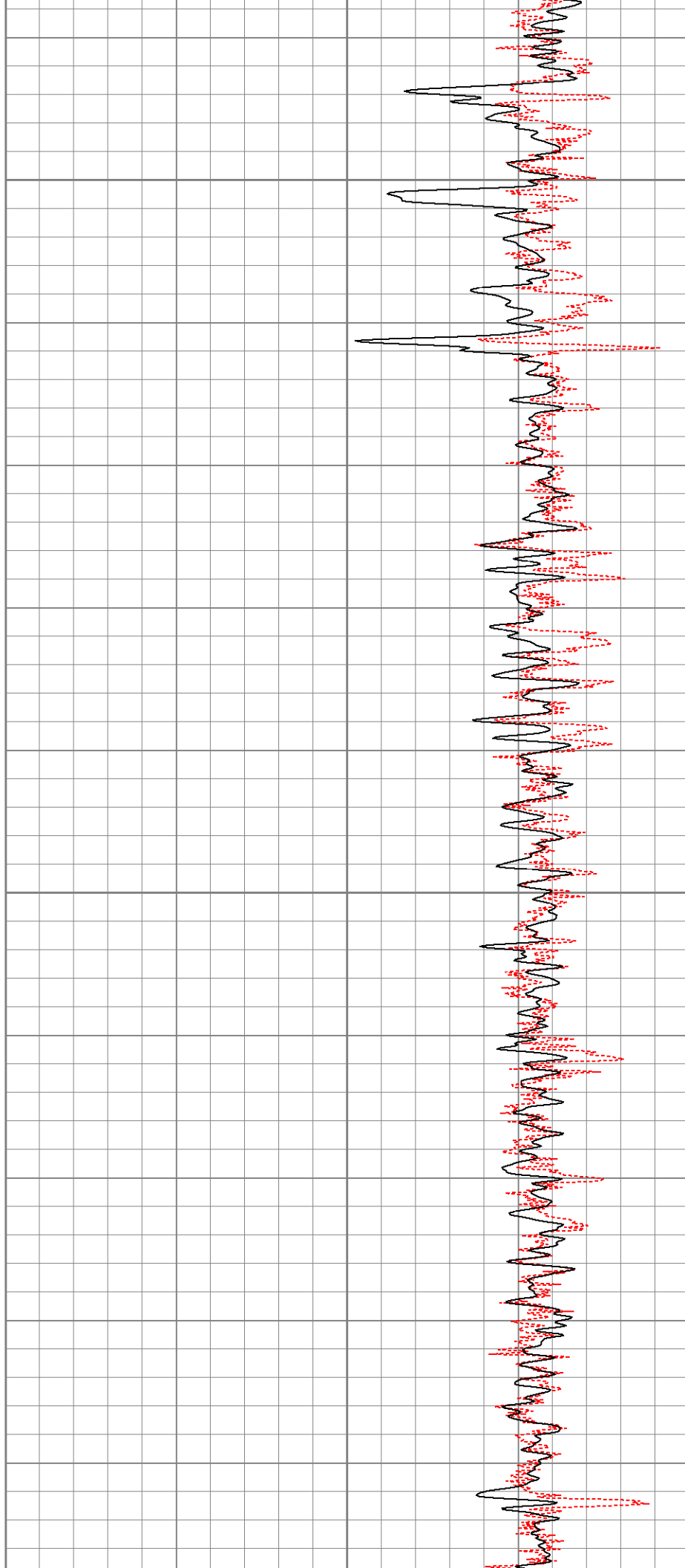
1250

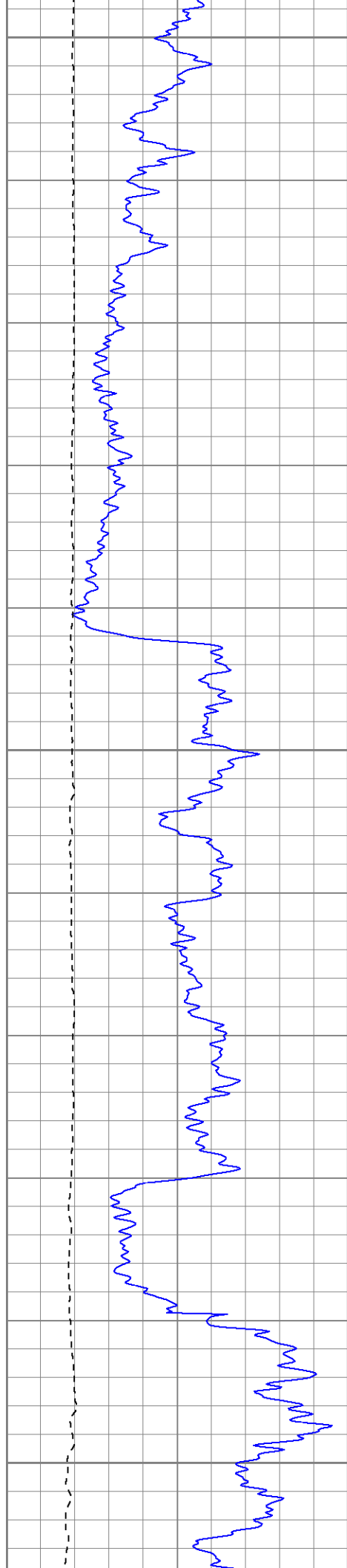




1300

1350

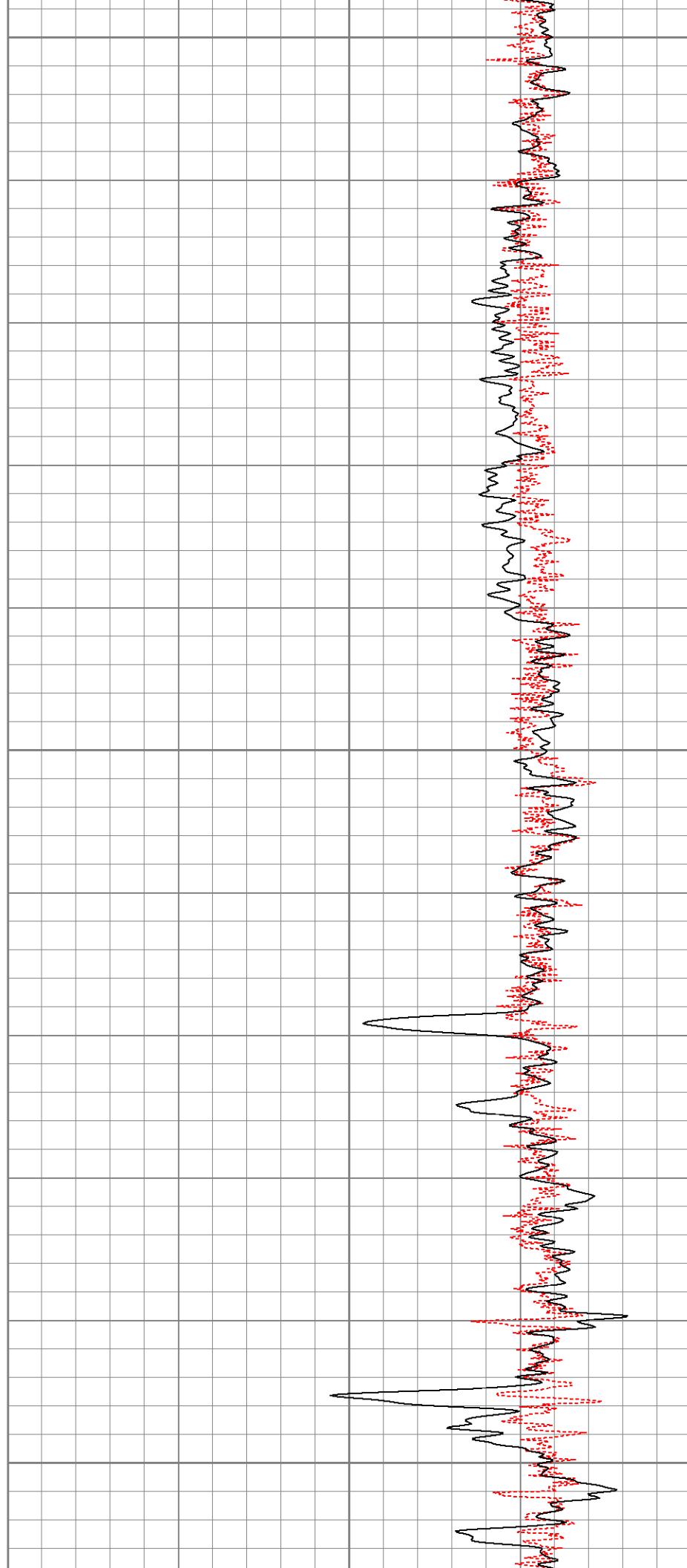


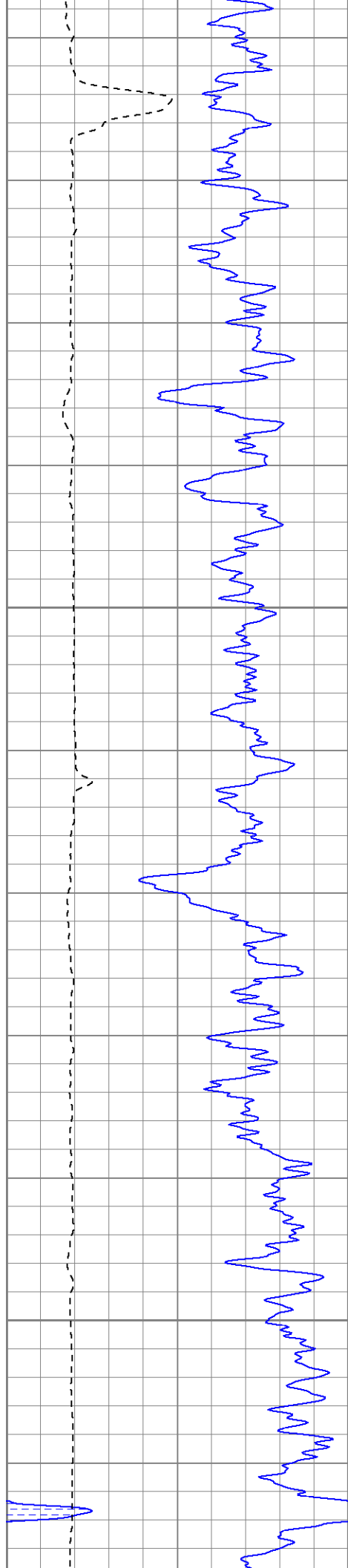


1400

1450

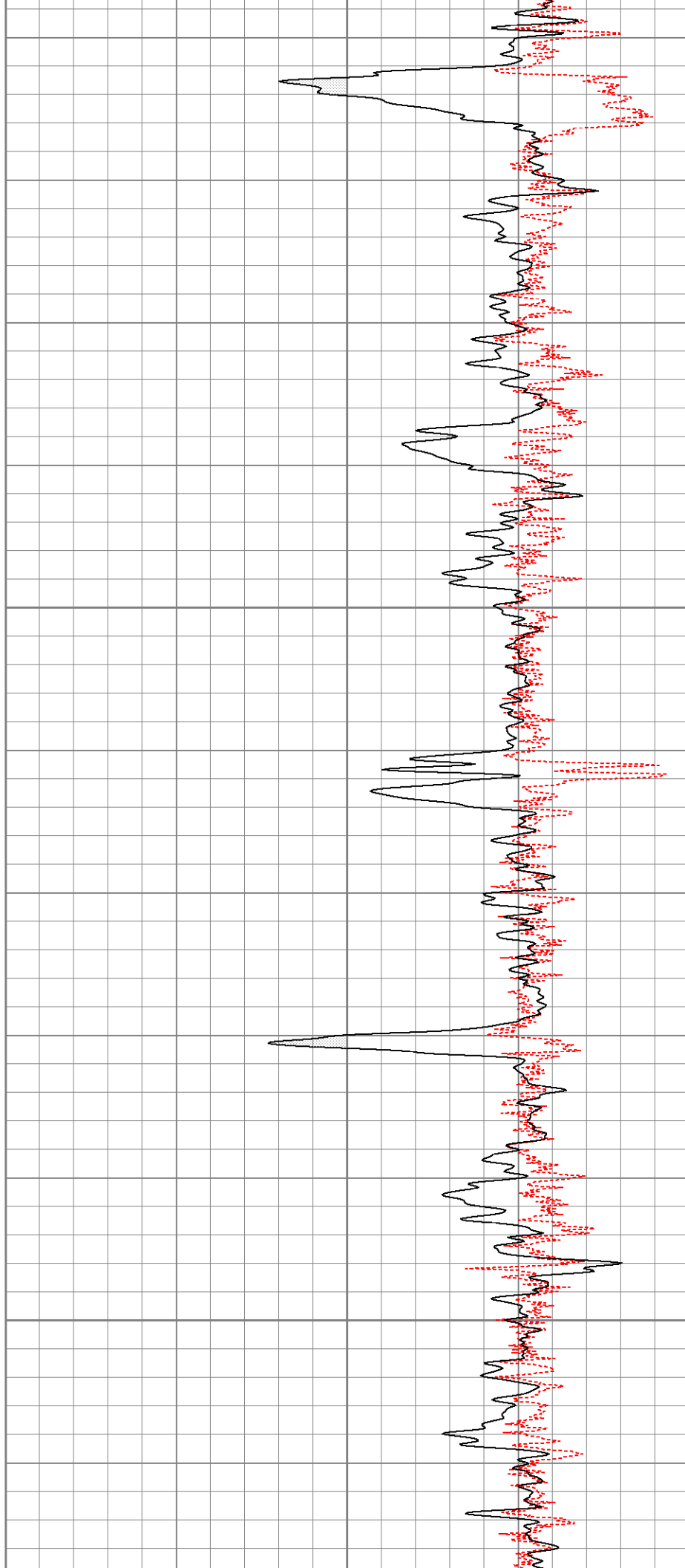
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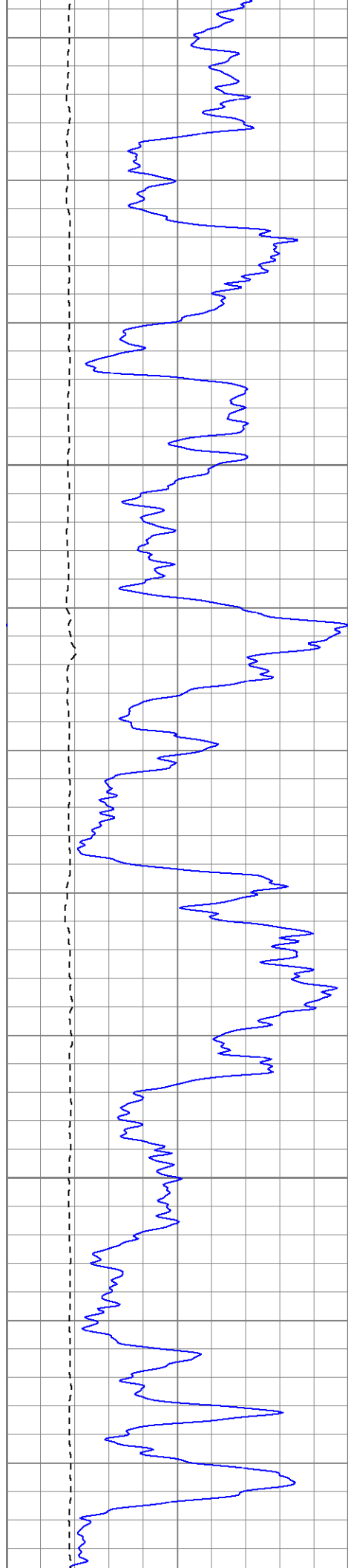




1550

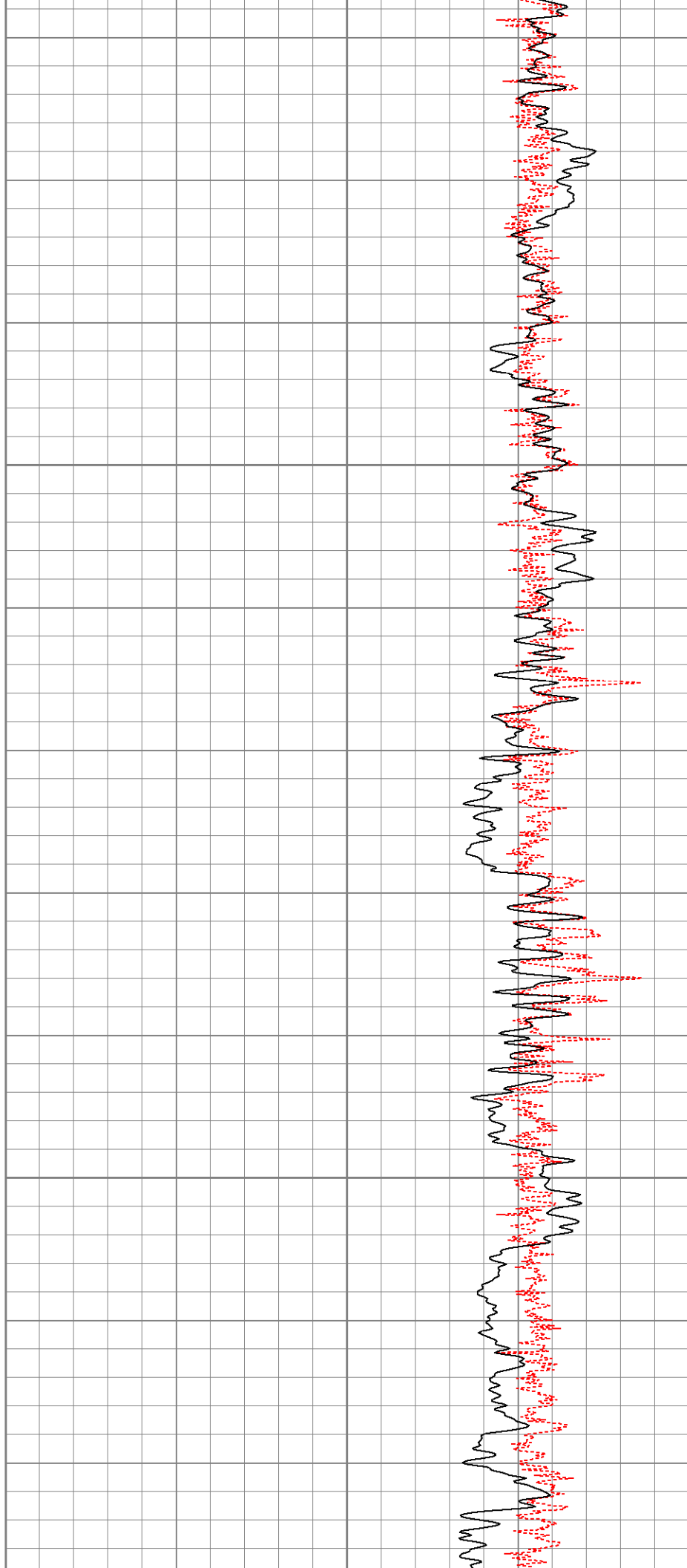
1600



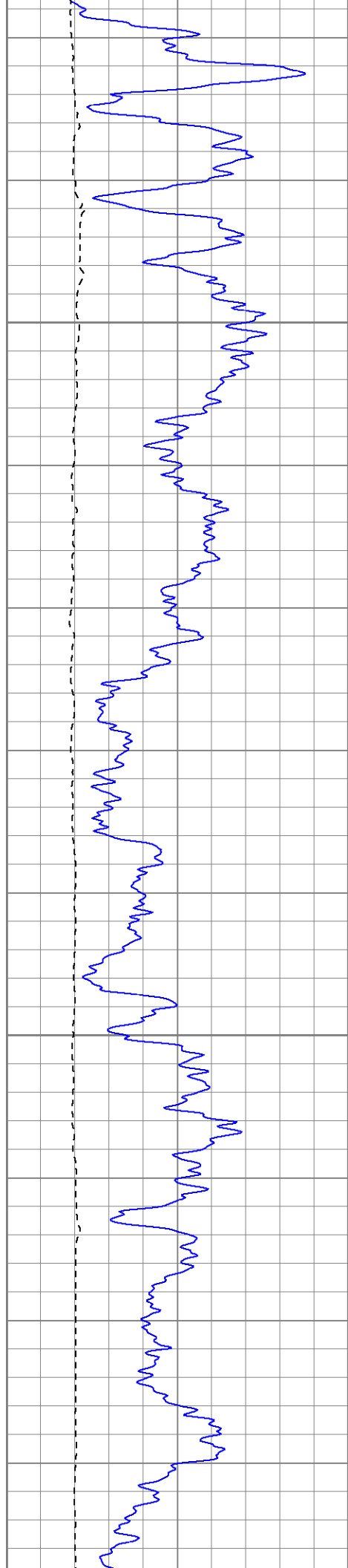


1650

1700

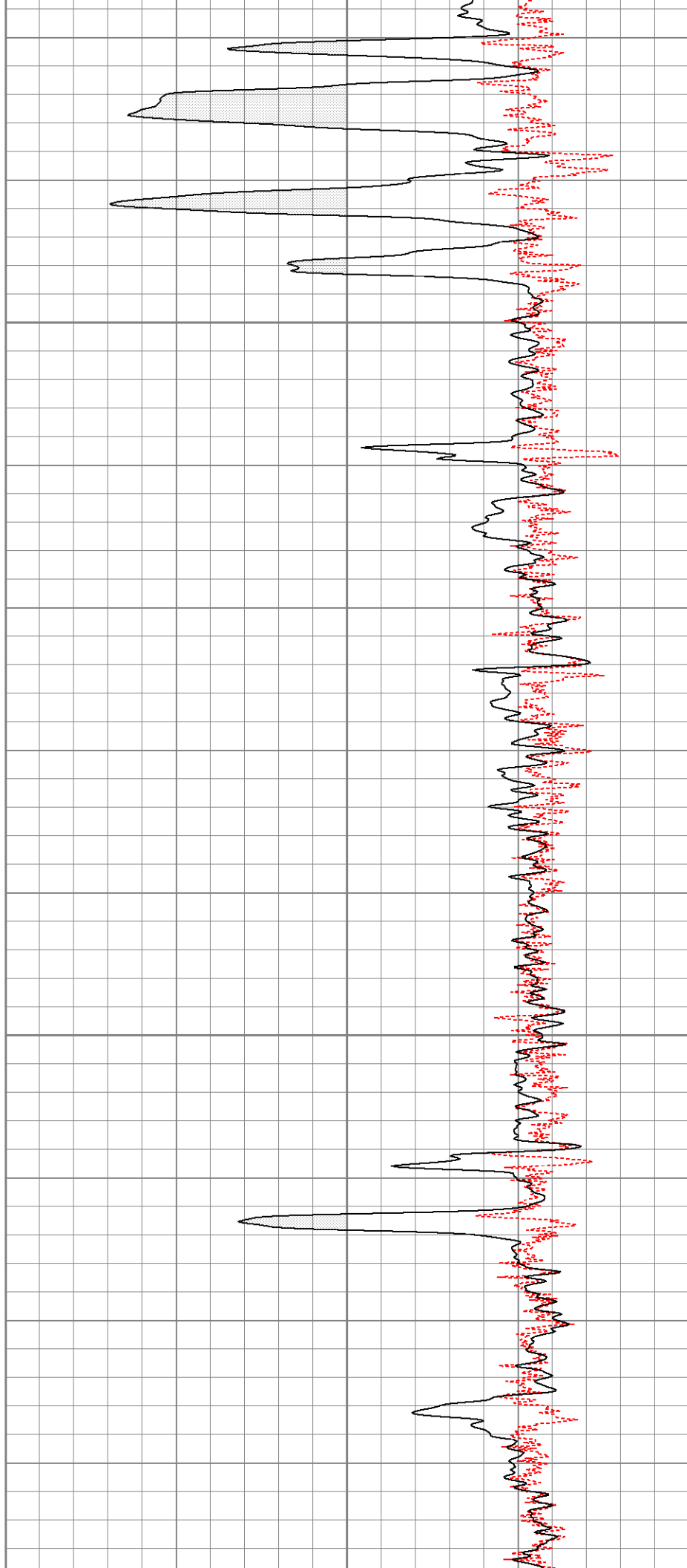






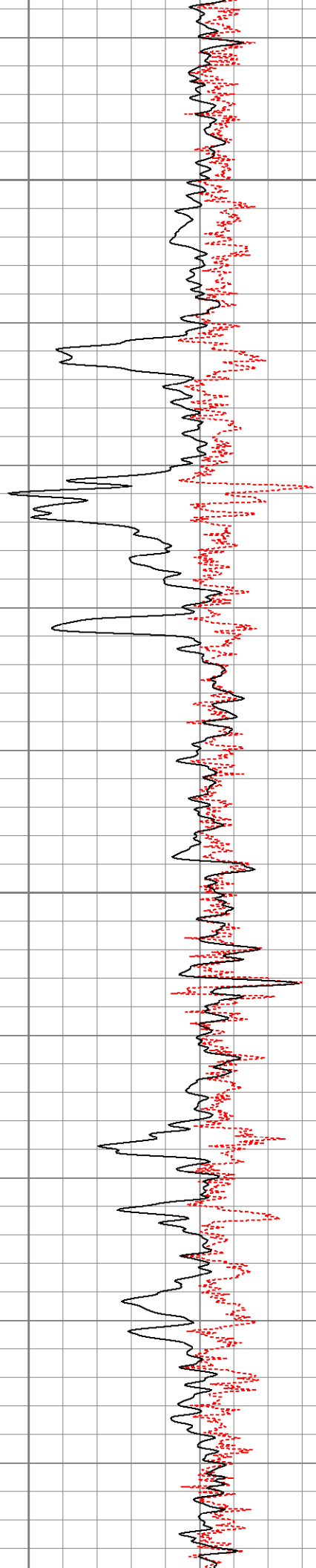
1750

1800



1850

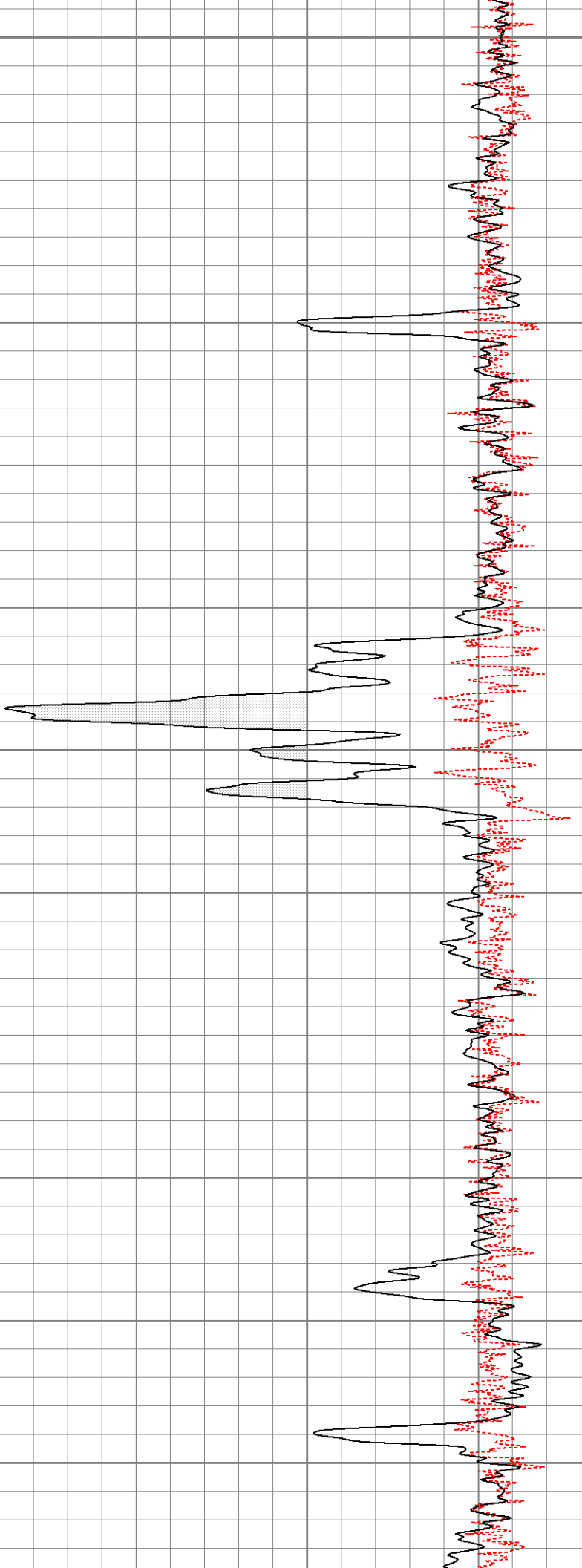
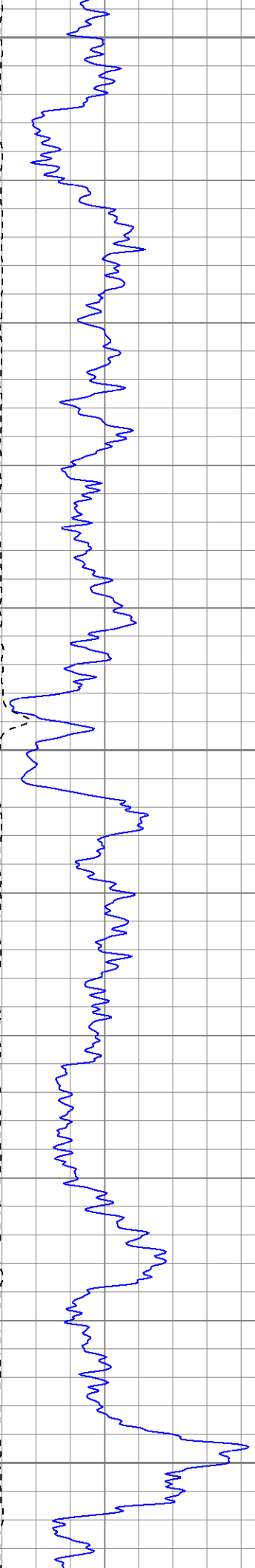
1900

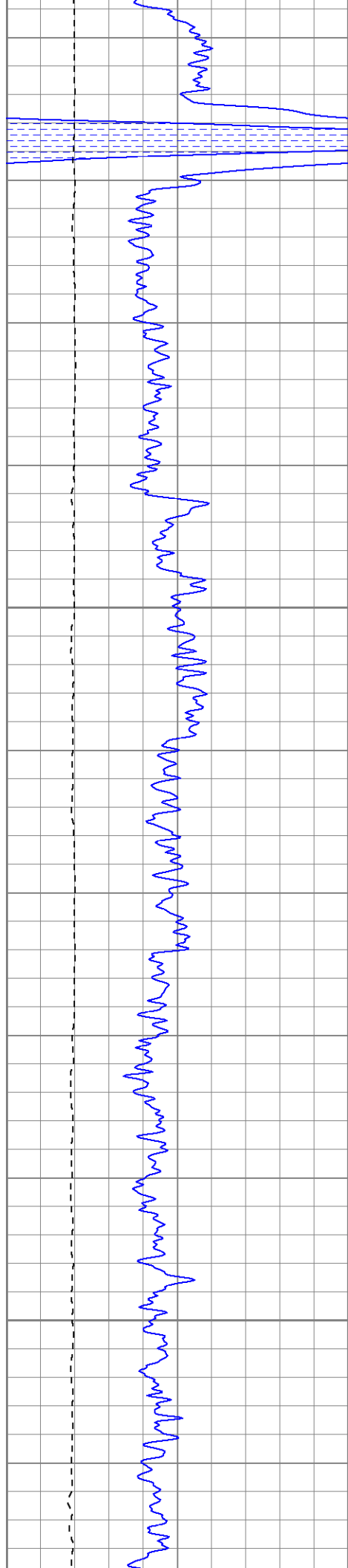


1950

2000

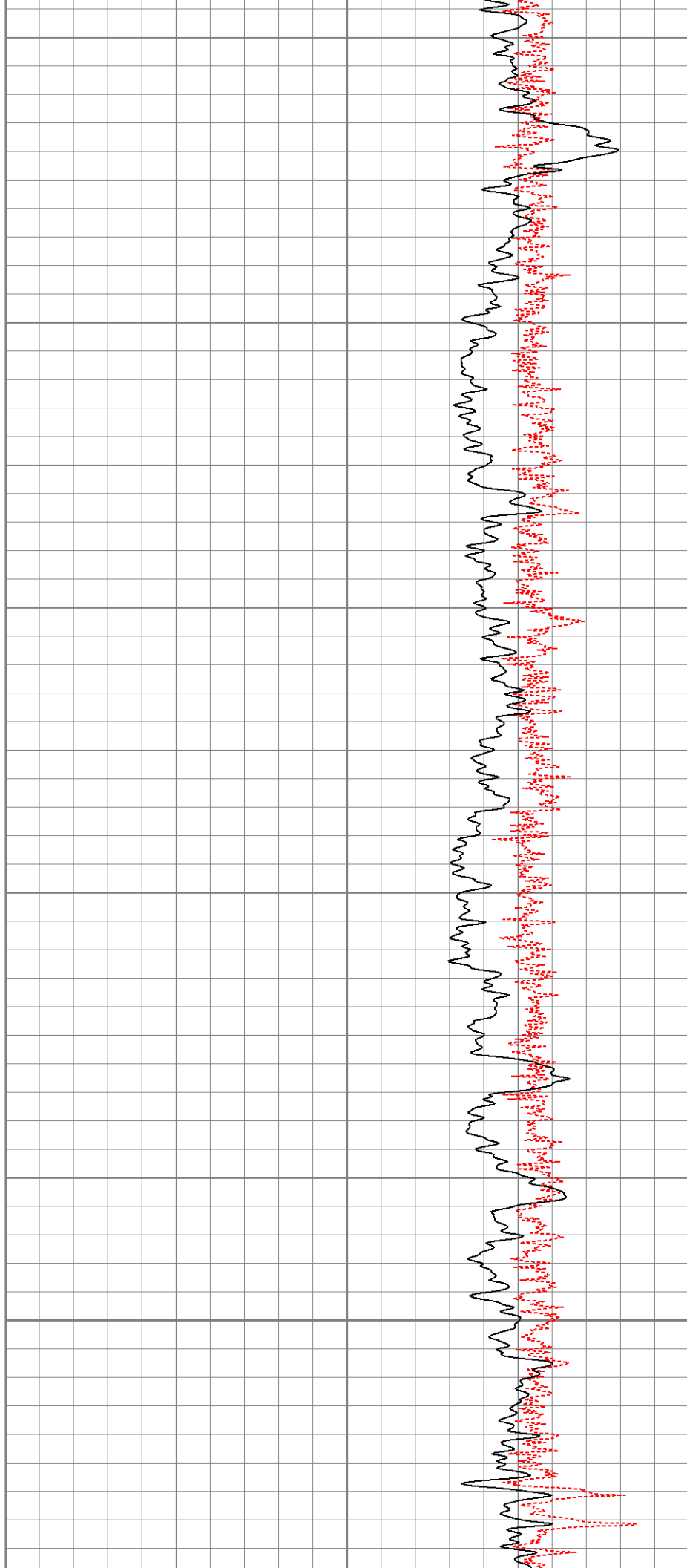
2050

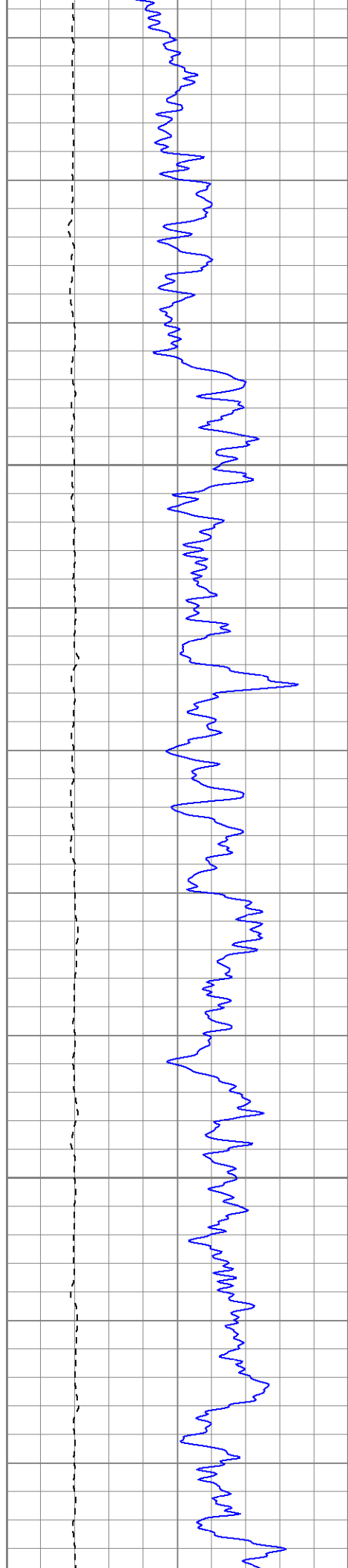




2100

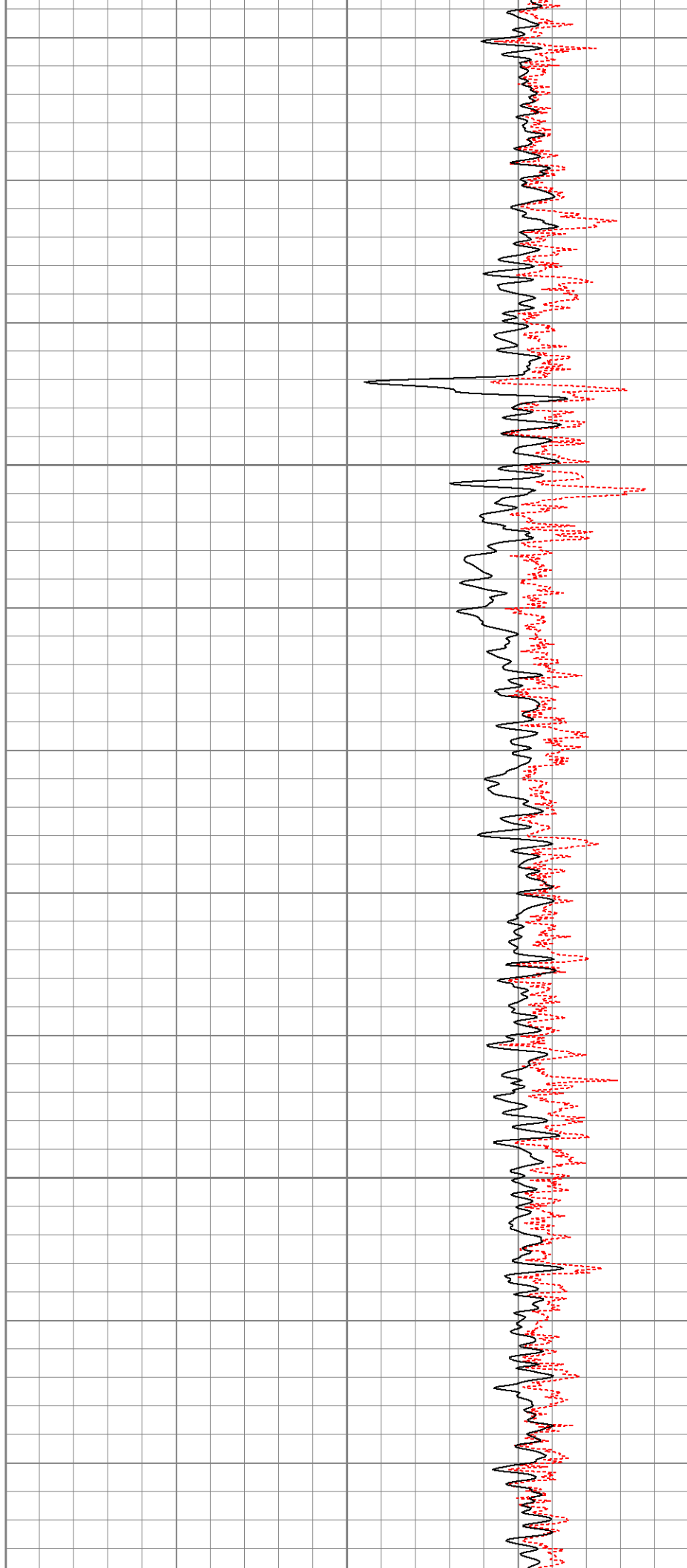
2150

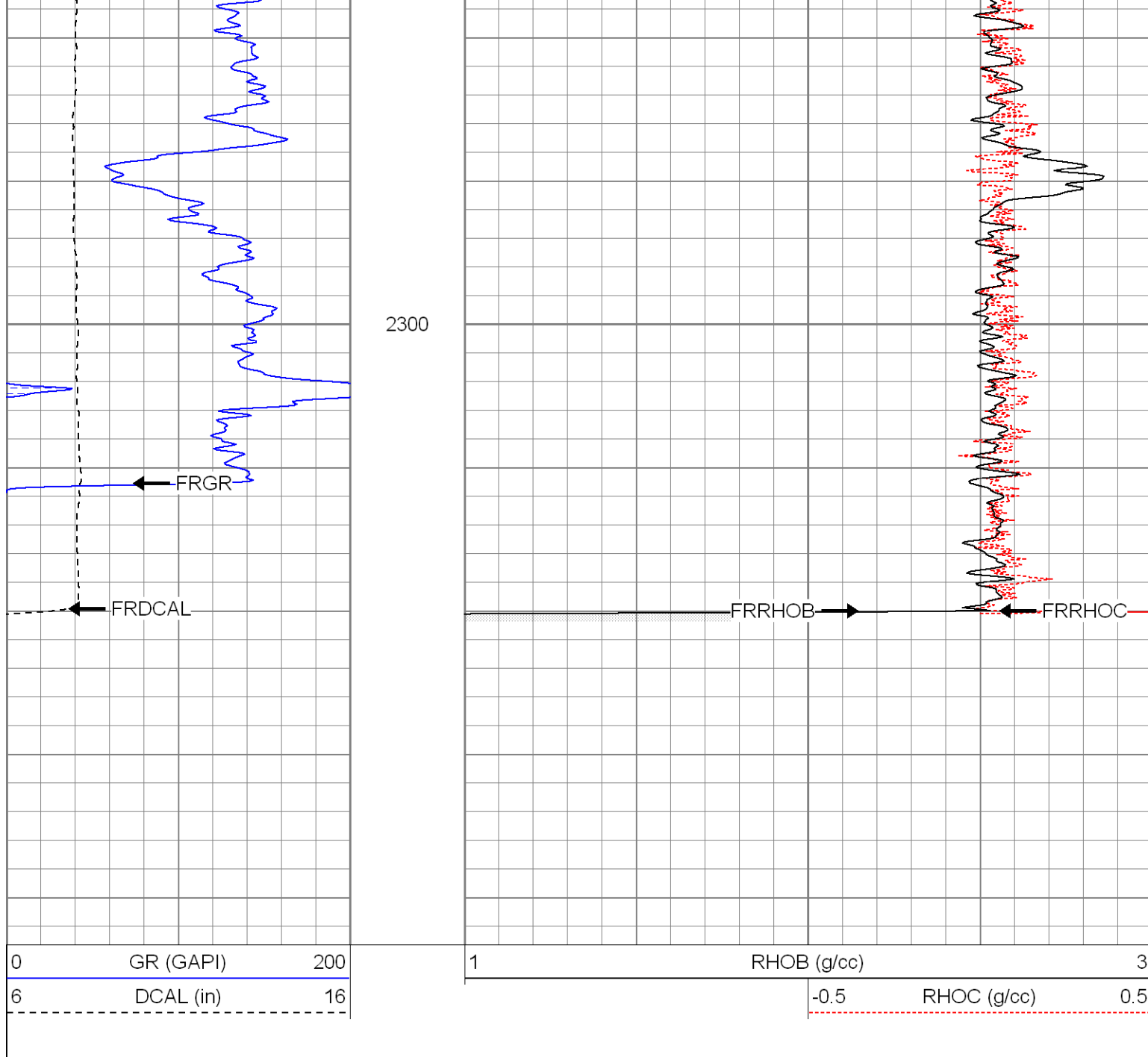




2200

2250





### Calibration Report

Database File: xtohre2310.db  
 Dataset Pathname: pass1  
 Dataset Creation: Sat Apr 12 08:39:26 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

Loop:	Readings			References			Results	
	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			
High Reference:		160.00	degF	5.35	V			
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						

Wed Apr 09 15:10:14 2008

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NAPI

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cps

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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	
			CDL-T2 (2542) Gearhart	9.29	4.00	201.00	
LSD	23.19			TEMP-CDLP (2542T) Probe Density/Temp	0.01	10.00	1.00
DCAL	22.98						
SSD	22.73						
TEMP	22.55						
CILD	10.60			DIL-G (5375) Gearhart	21.47	4.00	345.00
SP	10.60						
CILM	6.89						
RLL3	1.70						
Dataset: xtohre2310.db: field/well/run1/pass1 Total Length: 40.00 ft Total Weight: 677.00 lb O.D. 10.00 in							