

**Patterson**

**CEMENT BOND  
GAMMA RAY**

Company Pioneer Natural Resources		Company Pioneer Natural Resources	
Well	Doodlebugger 24-18	Well	Doodlebugger 24-18
Field	Purgatorie River	Field	Purgatorie River
County	Las Animas	County	Las Animas
State	CO	State	CO
Location:		API # : 05 071 08426 00	
231' FSL & 2196' FWL		Other Services DEVI. SURV./ TEMP.	
SEC 18 TWP 32S RGE 67W		Elevation	
Permanent Datum	Ground Level	Elevation	8080'
Log Measured From	Kelly Bushing 4' Above G.L.	K.B.	8084'
Drilling Measured From	Kelly Bushing	D.F.	-----
		G.L.	8080'
Date	10/29/05		
Run Number	one		
Depth Driller	3240'		
Depth Logger	3180'		
Bottom Logged Interval	3176'		
Top Log Interval	Surf.		
Open Hole Size	7 7/8"		
Type Fluid	water		
Density / Viscosity	///		
Max. Recorded Temp.	135F		
Estimated Cement Top	692'		
Time Well Ready	ROA		
Time Logger on Bottom	8:50		
Equipment Number	T244		
Location	Trinidad		
Recorded By	Worley		
Witnessed By			
Borehole Record		Tubing Record	
Run Number	Bit	From	To
		Size	Weight
			From
			To
Casing Record	Size	Wgt/Ft	Top
Surface String	8 5/8"		00
Prot. String			
Production String	5 1/2"		00
Liner			NA

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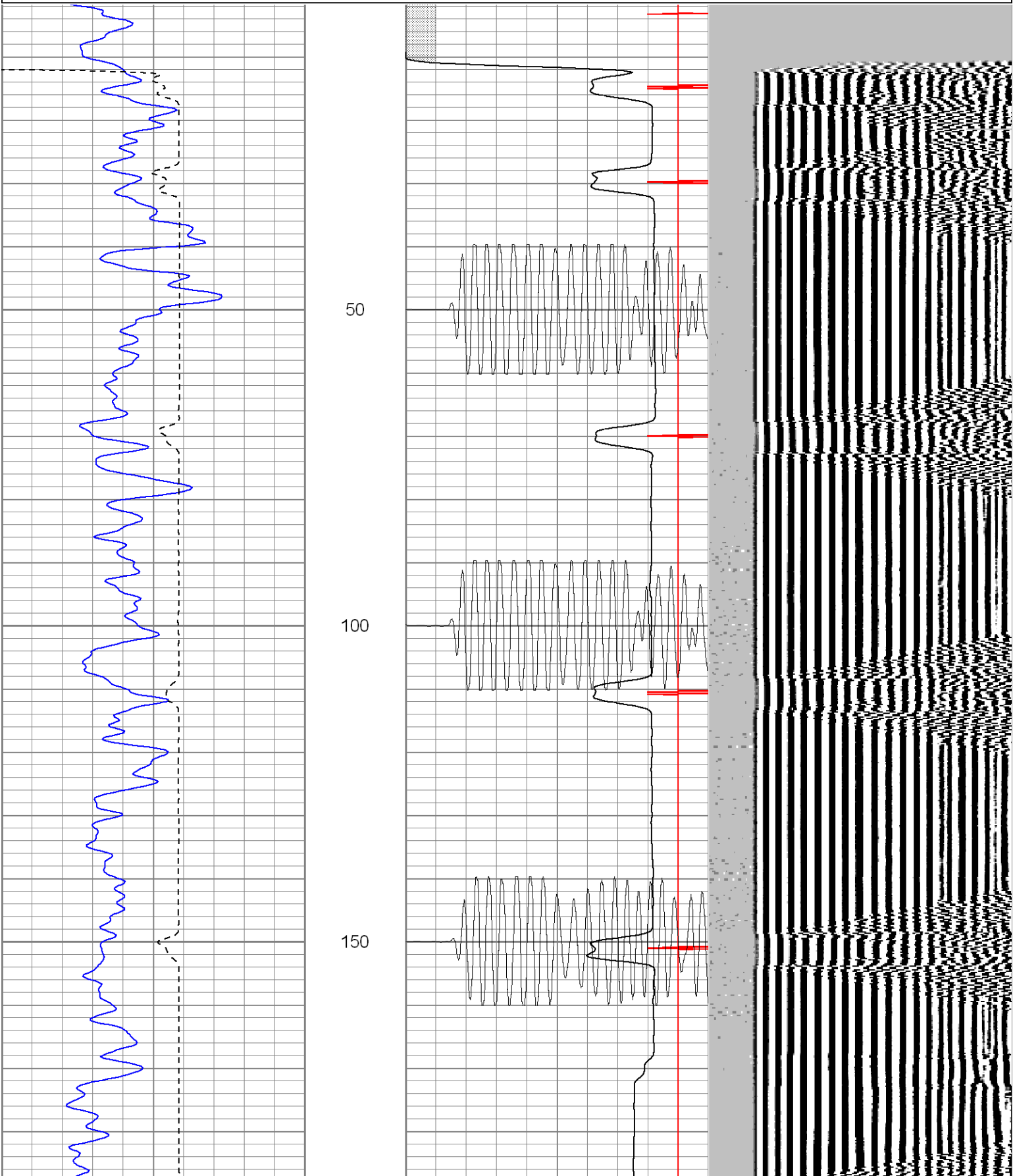
All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs, 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.

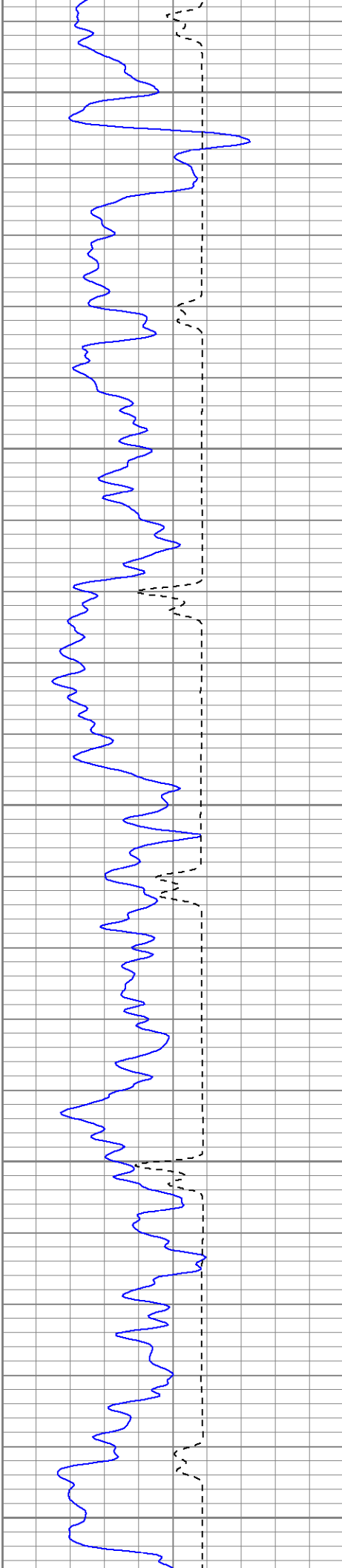
Comments

5 Degrees of Deviation @ T.D.

Database File: doodlebugger102905b.db  
Dataset Pathname: pass2  
Presentation Format: cblrt  
Dataset Creation: Sat Oct 29 08:58:48 2005 by Log Warrior 7.0 STD Cas  
Charted by: Depth in Feet scaled 1:240

0	GR (GAPI)	200	0	AMP3 (mV)	100	200	Variable Density	1200
400	TT3 (usec)	200	18	CCL	-2			
			200	CBL5	1200			





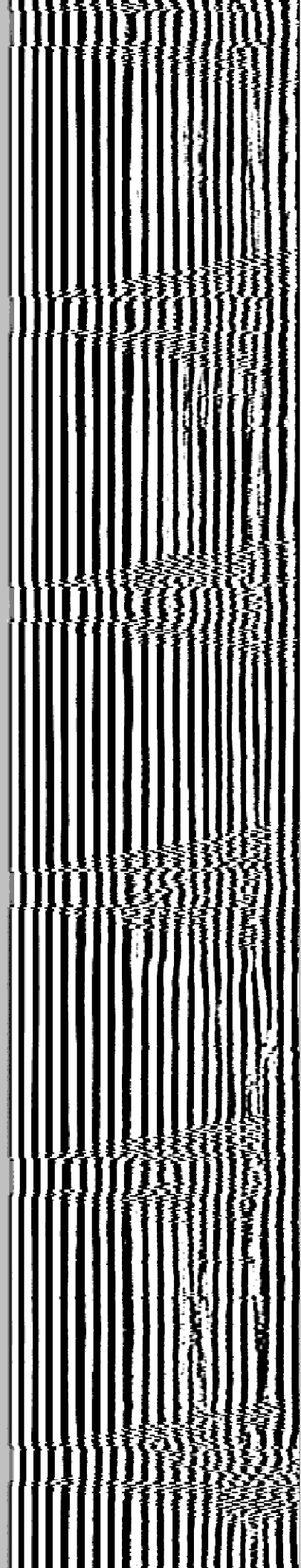
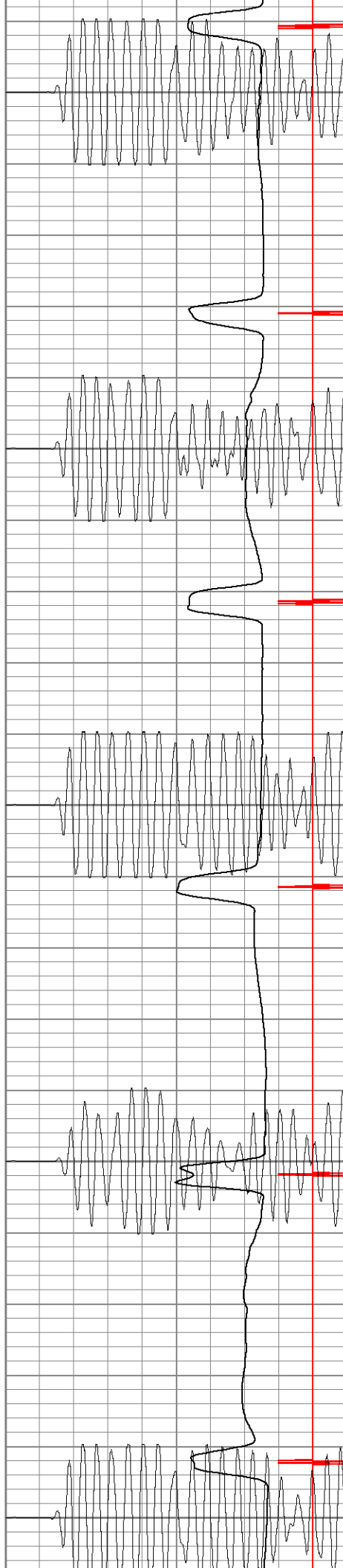
200

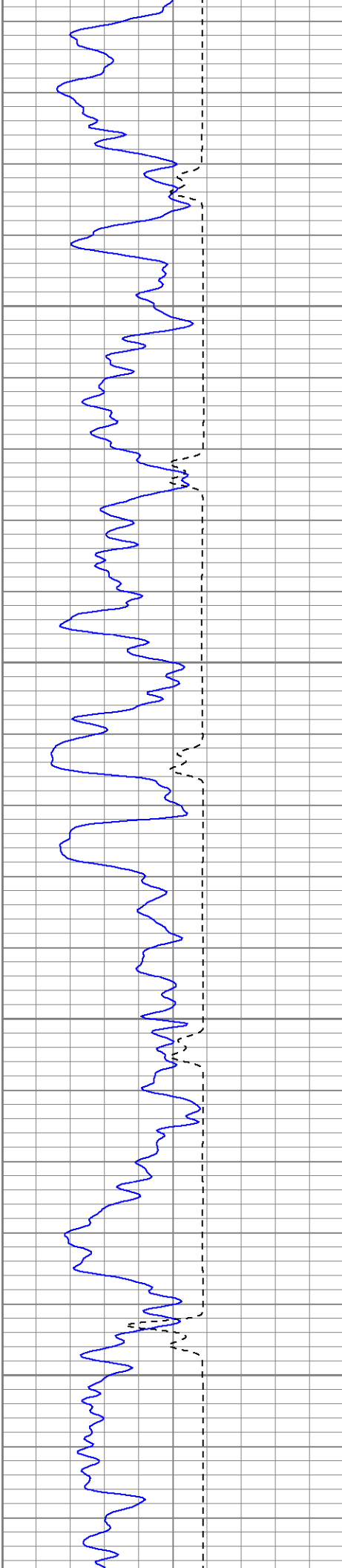
250

300

350

400



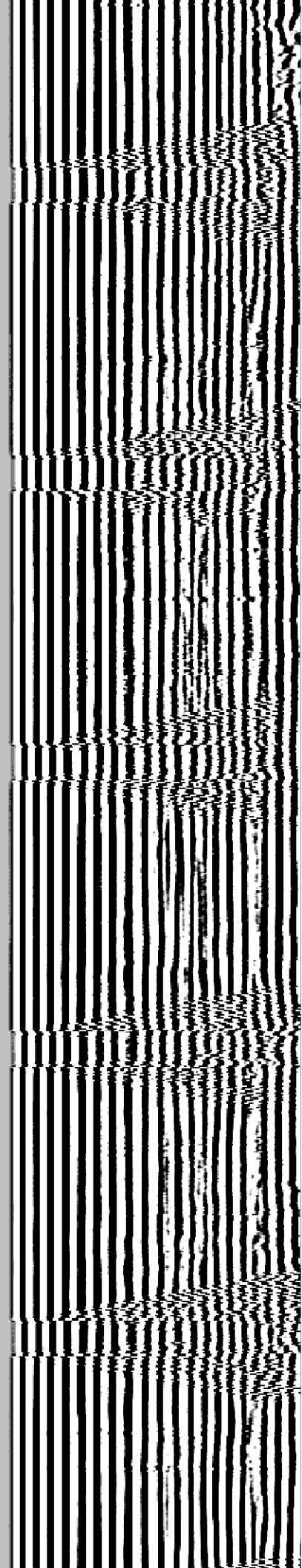


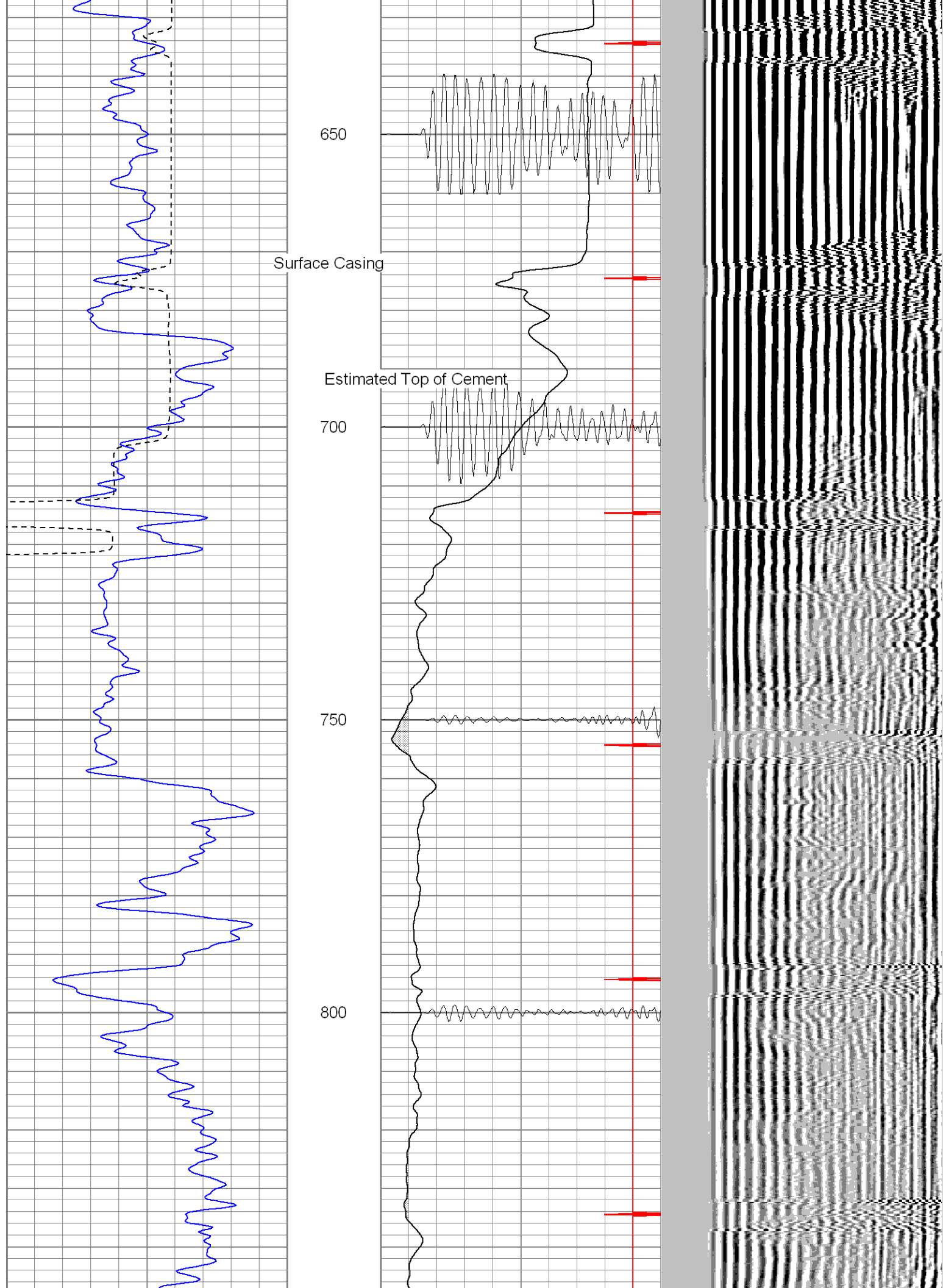
450

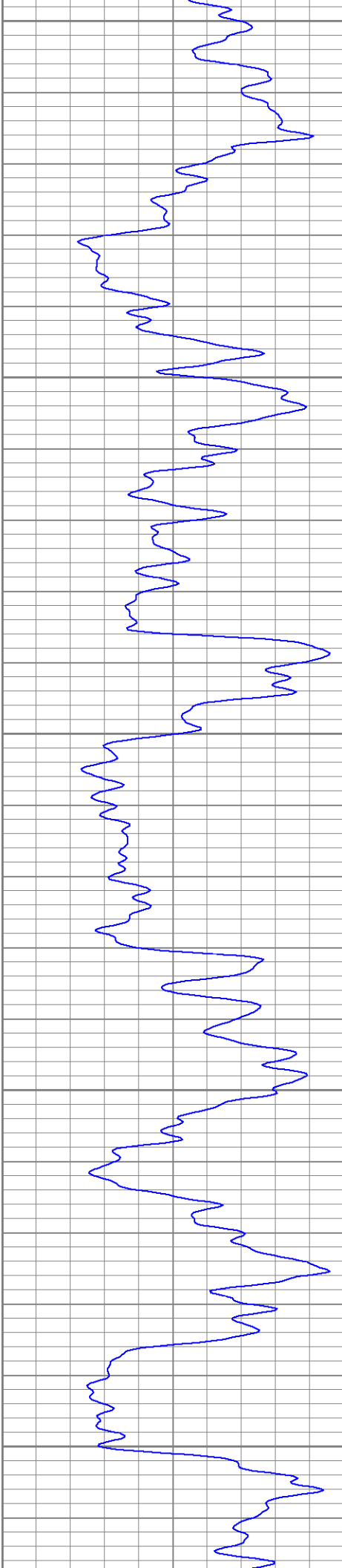
500

550

600







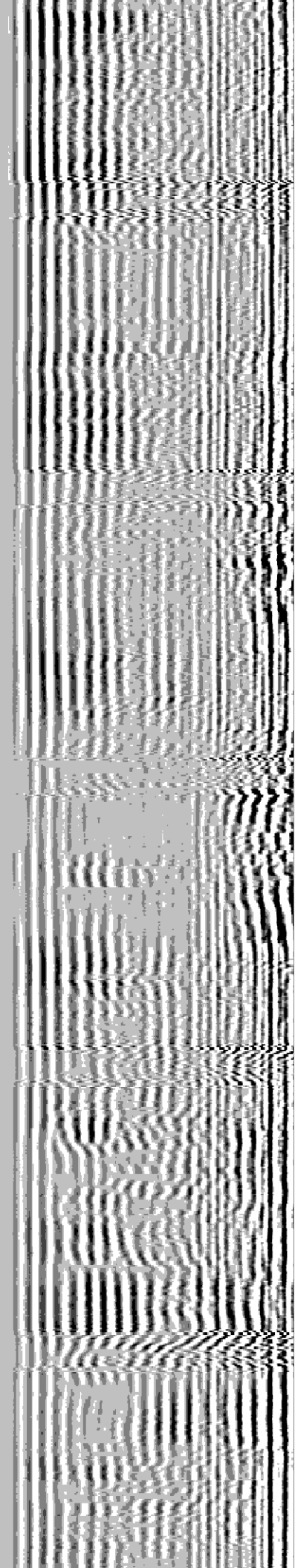
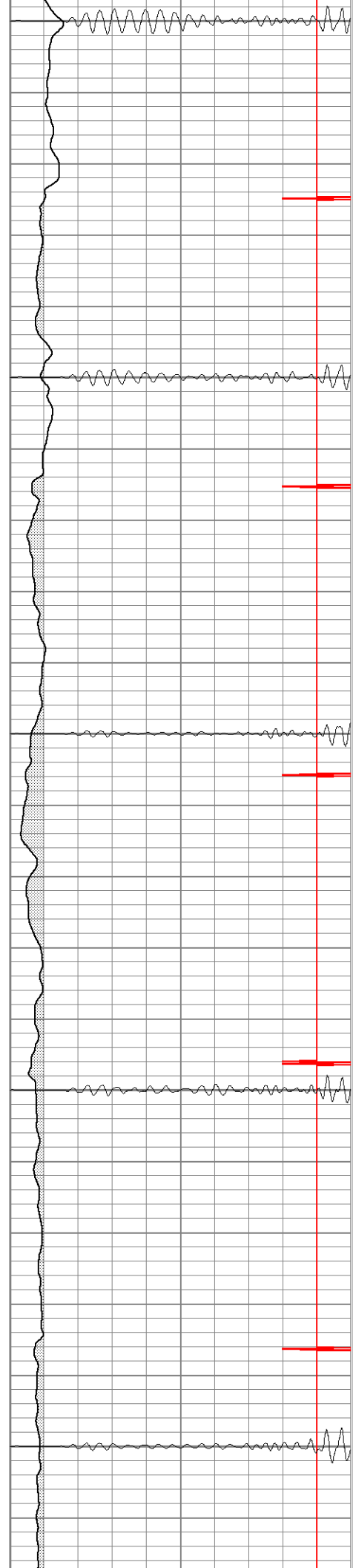
850

900

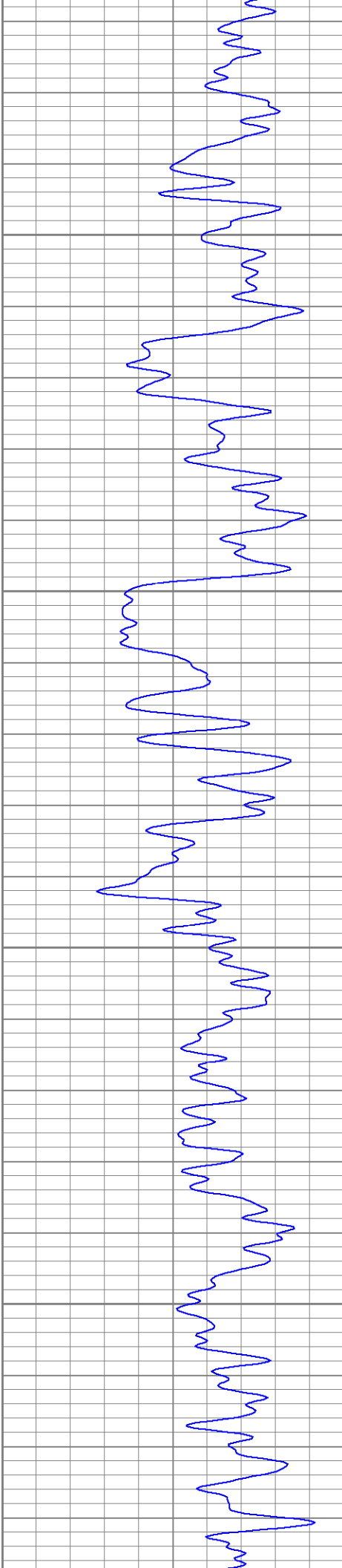
950

1000

1050





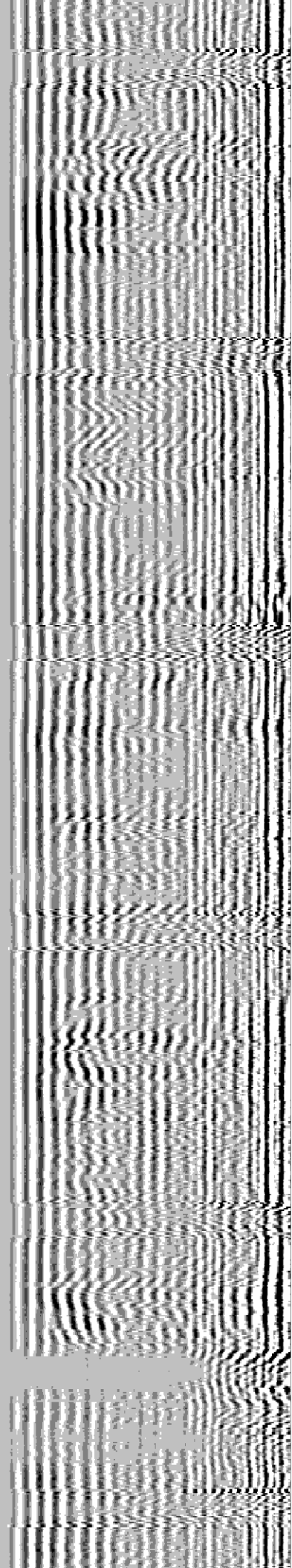
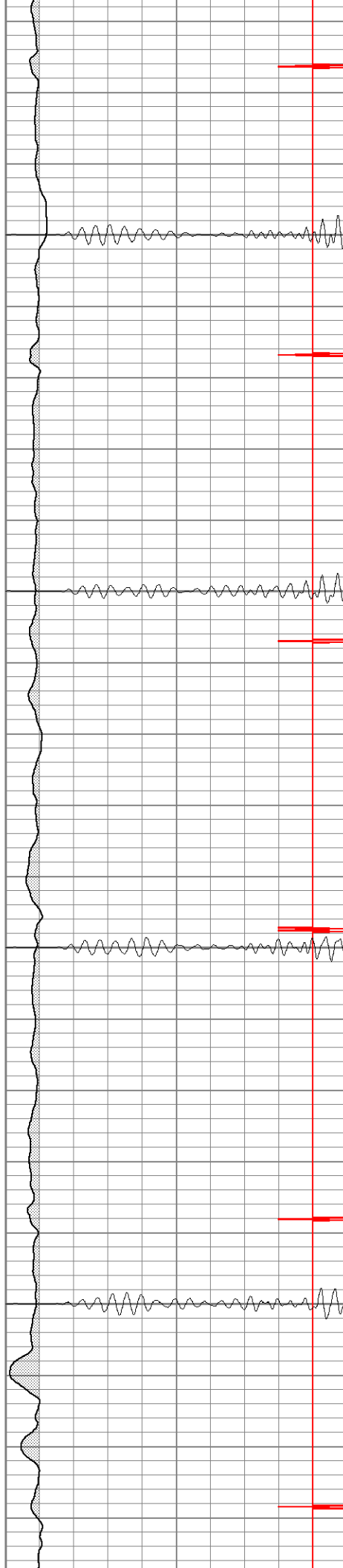


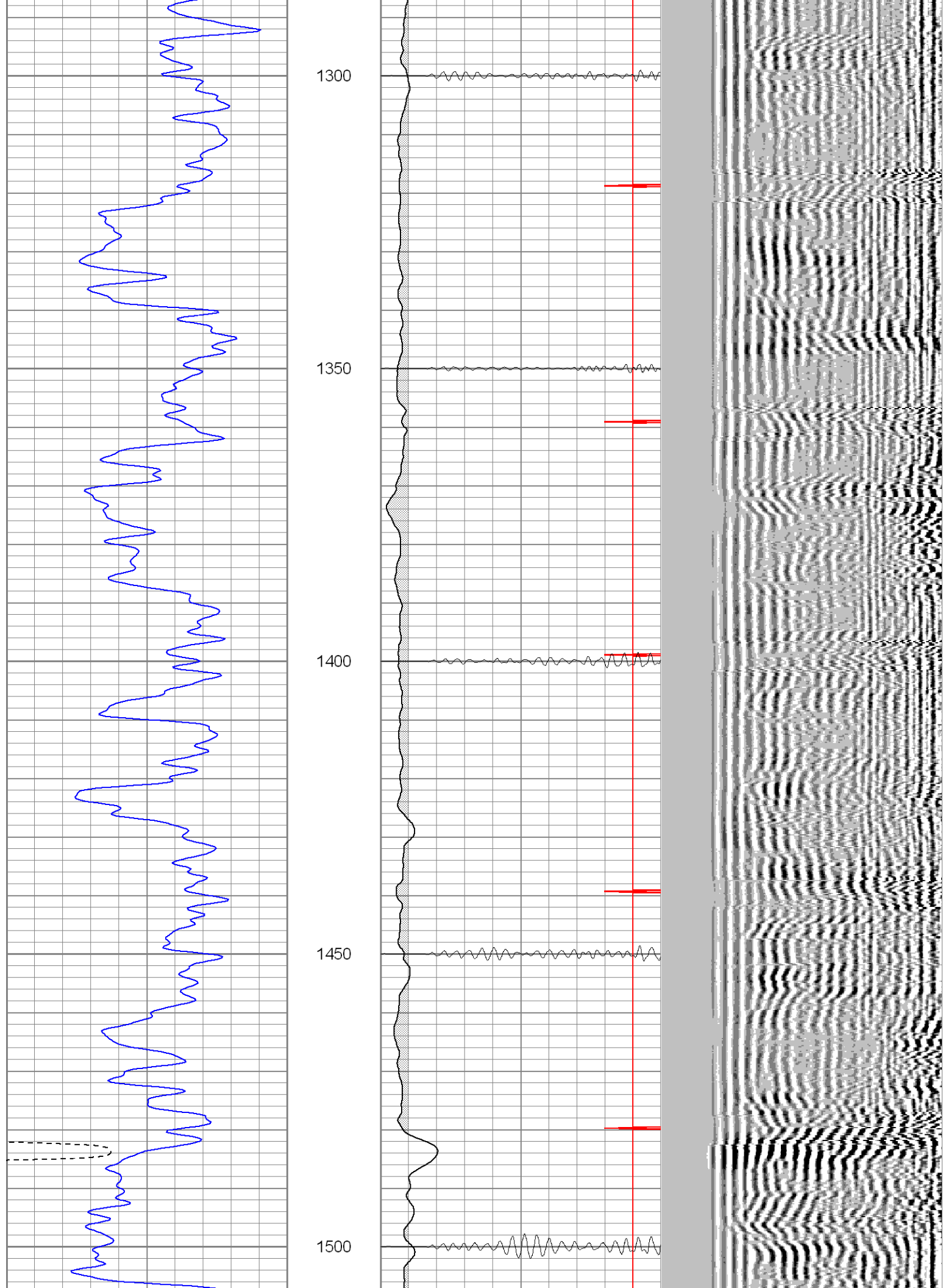
1100

1150

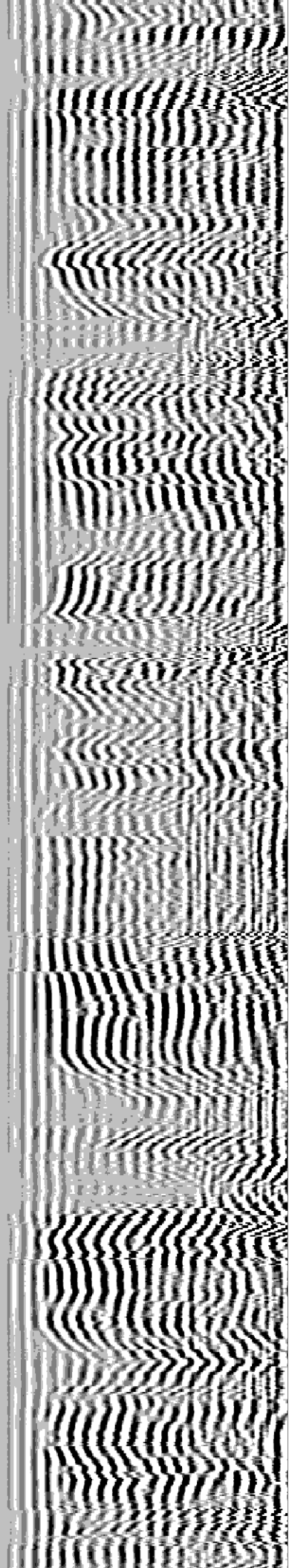
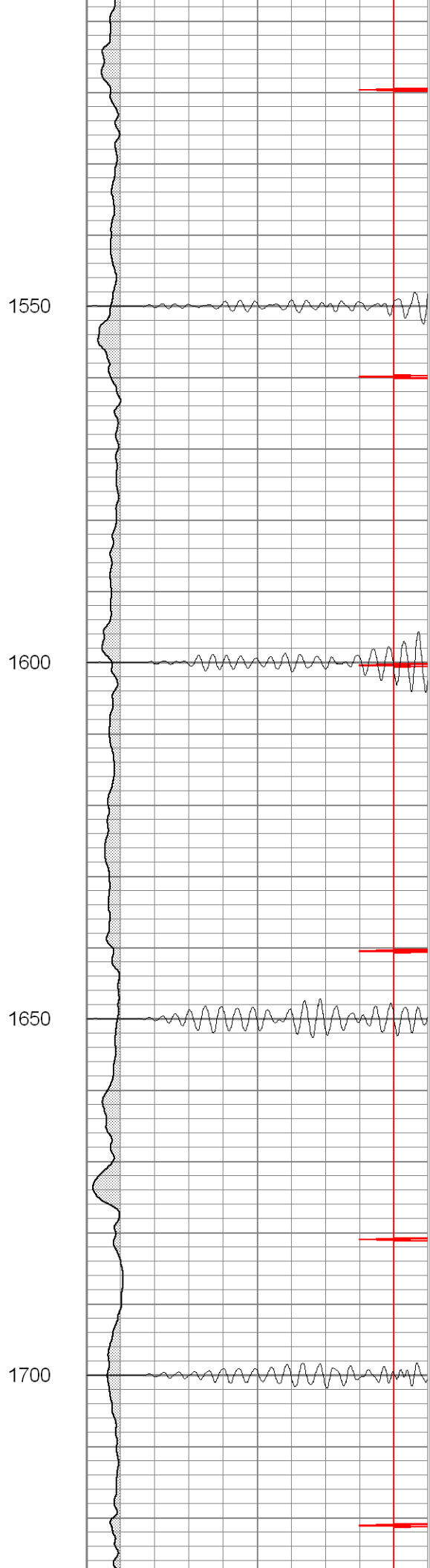
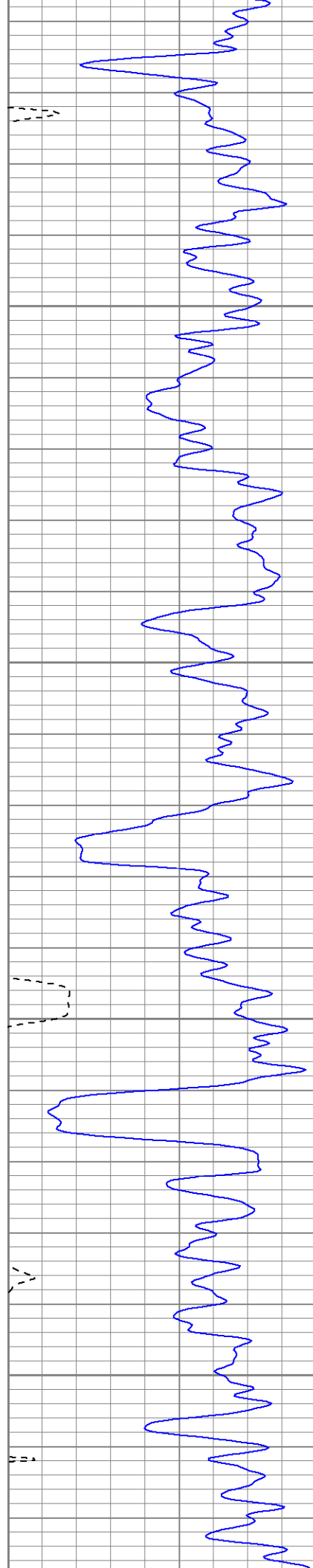
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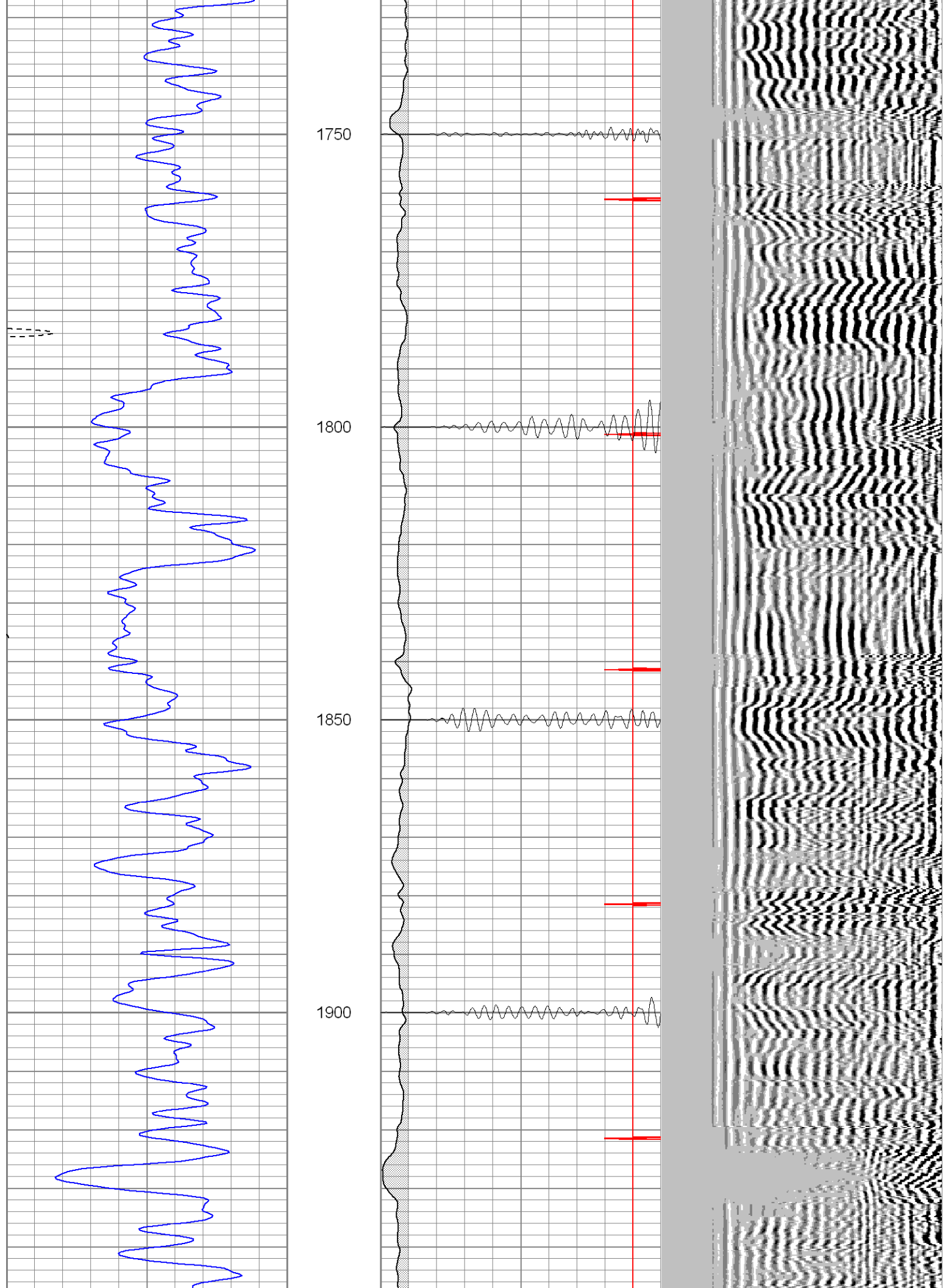
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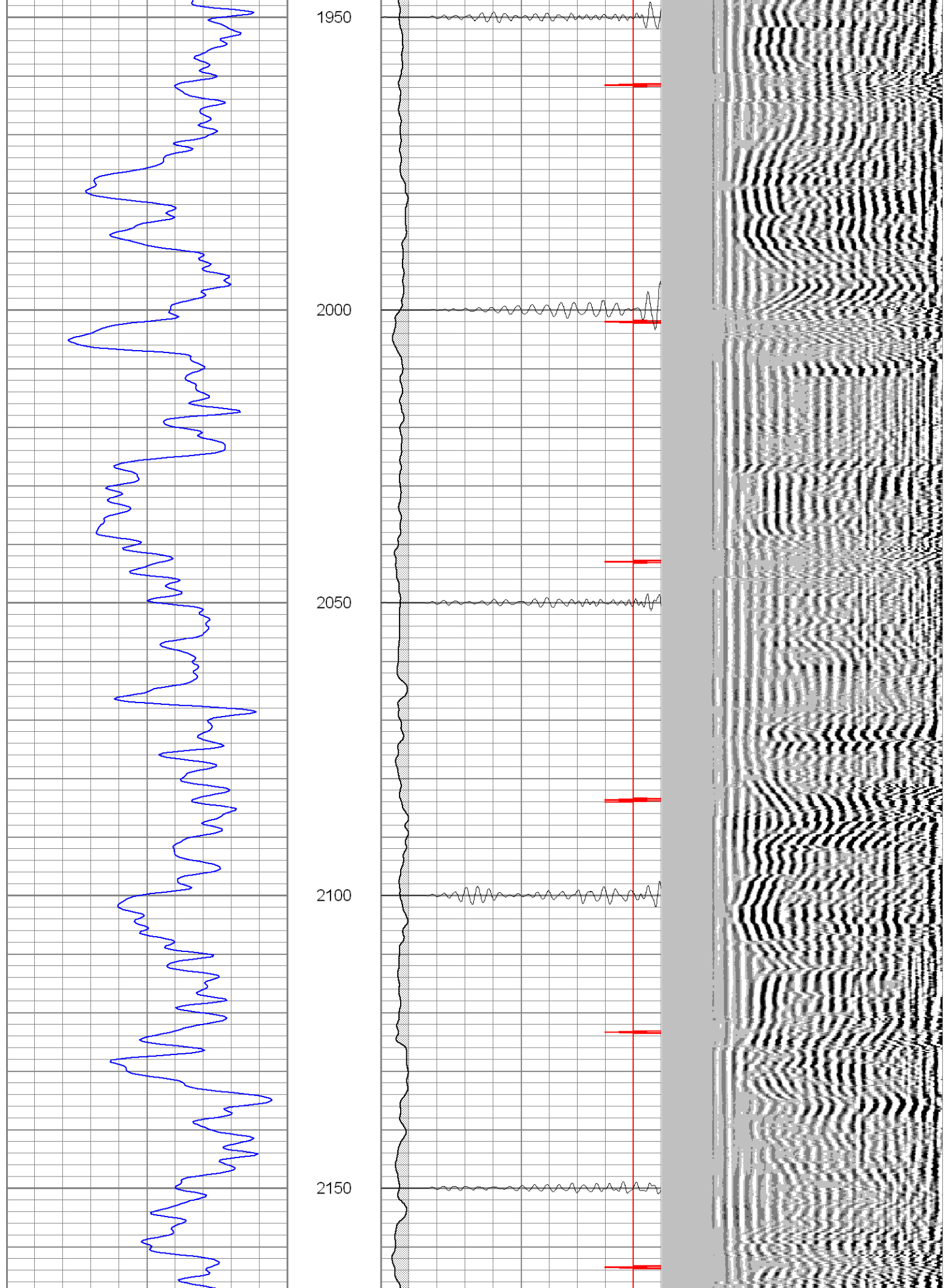


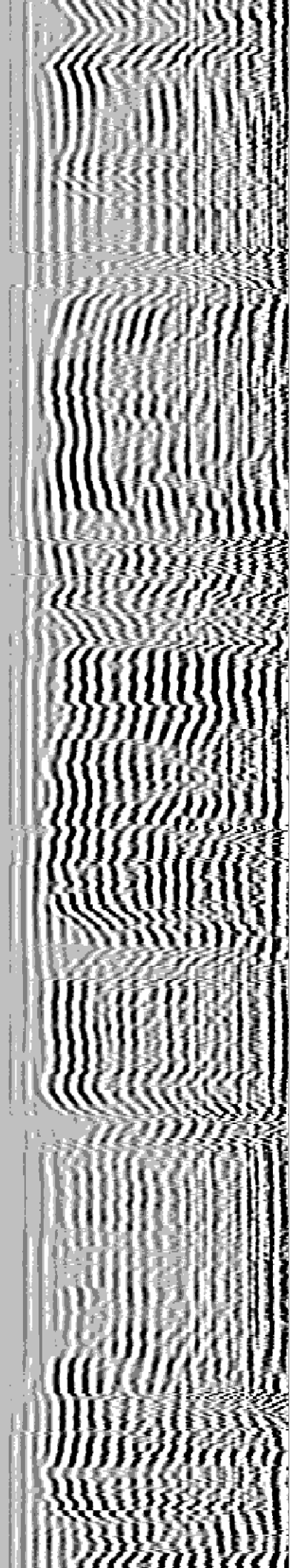
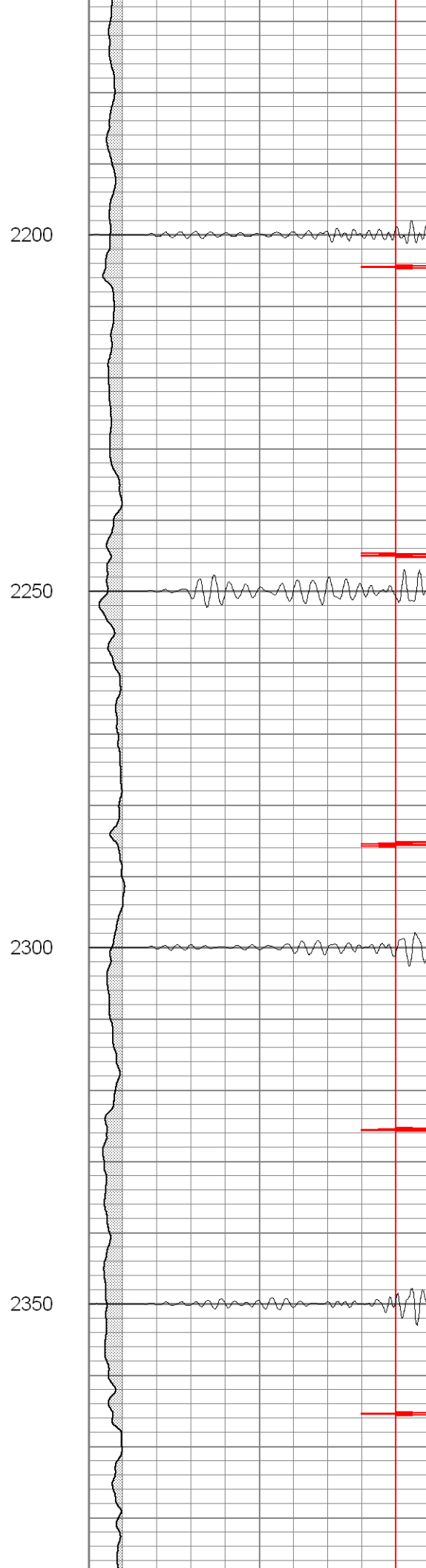
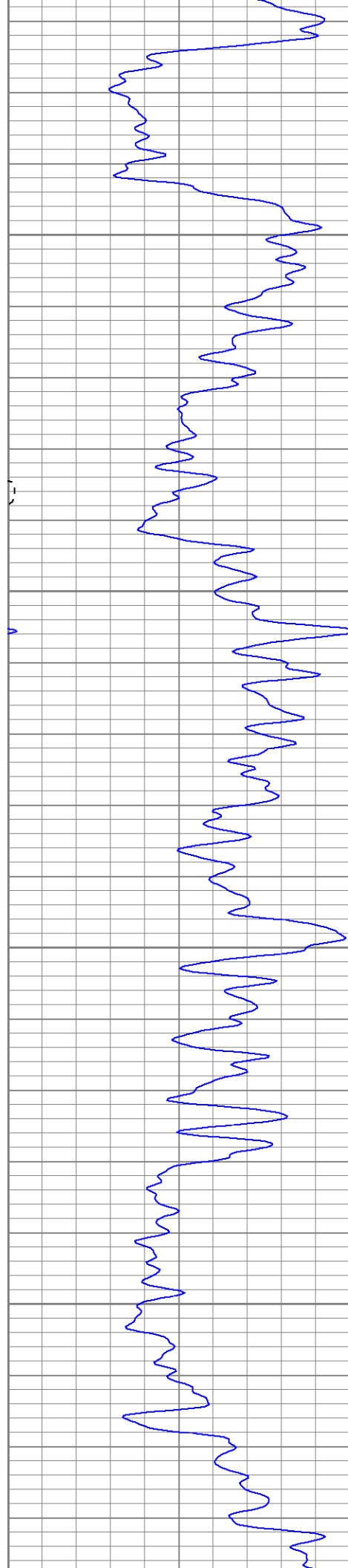




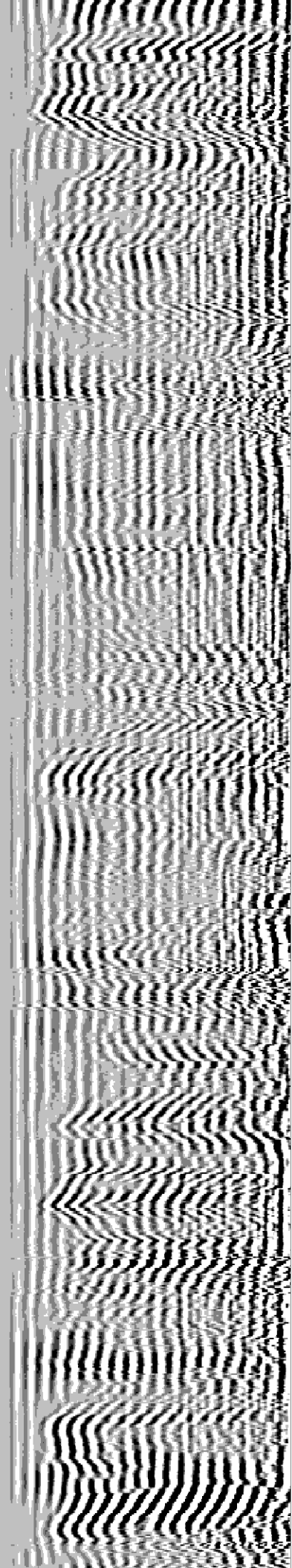
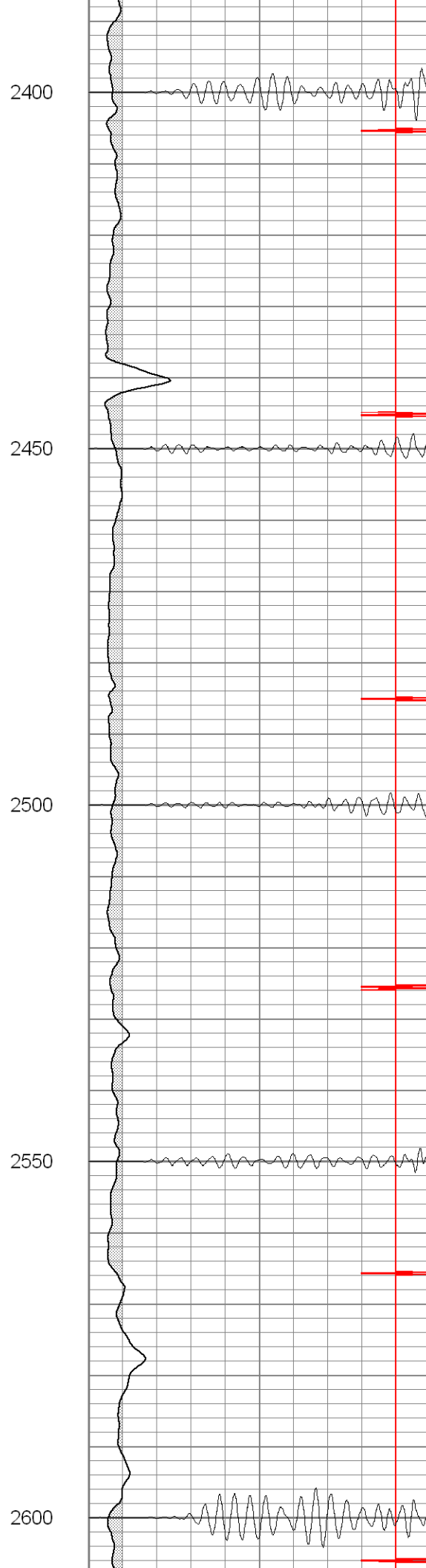
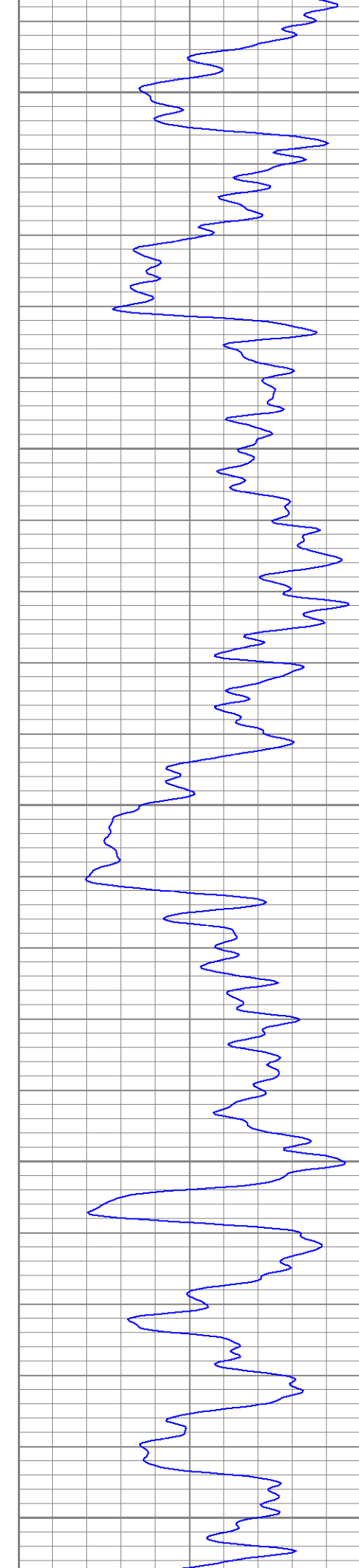


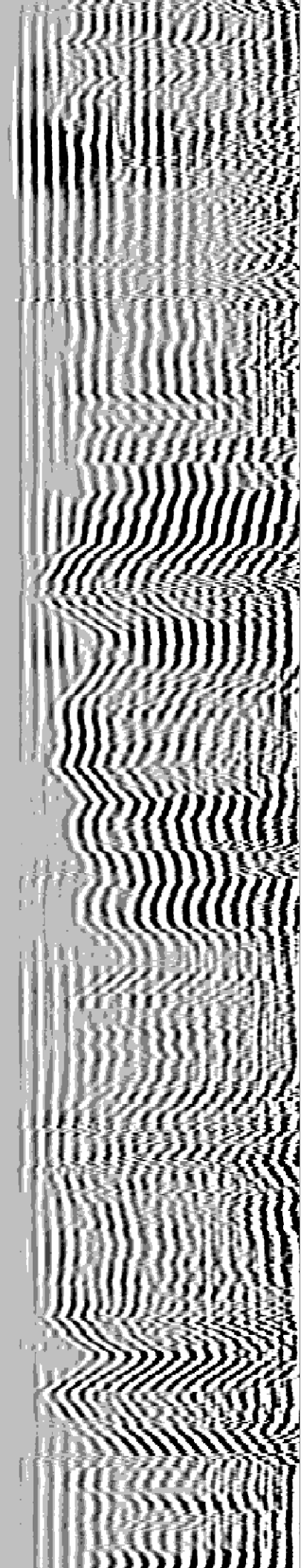
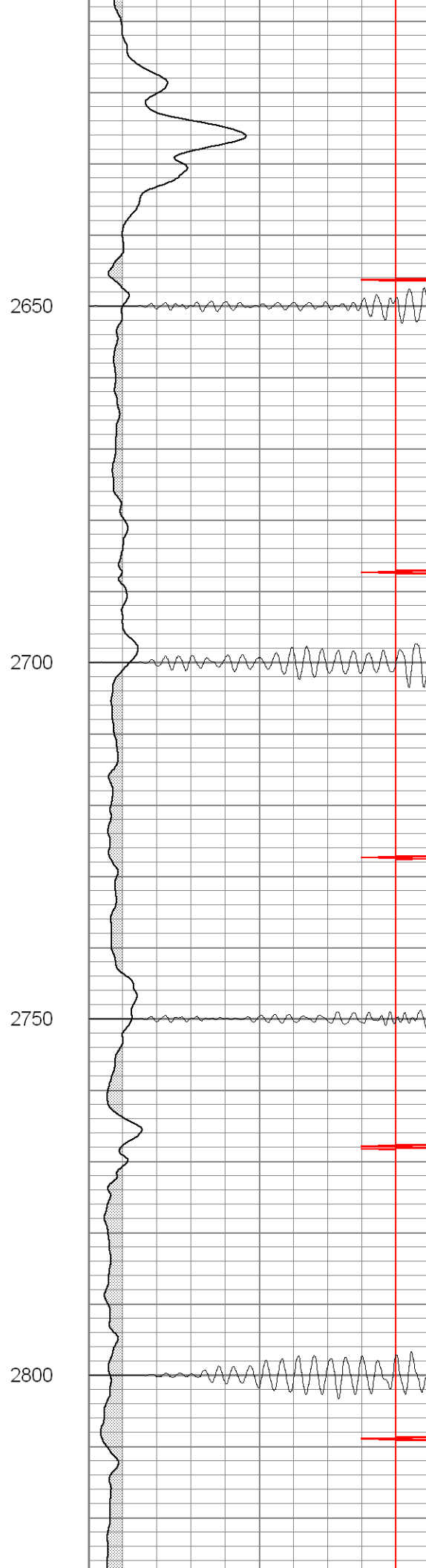
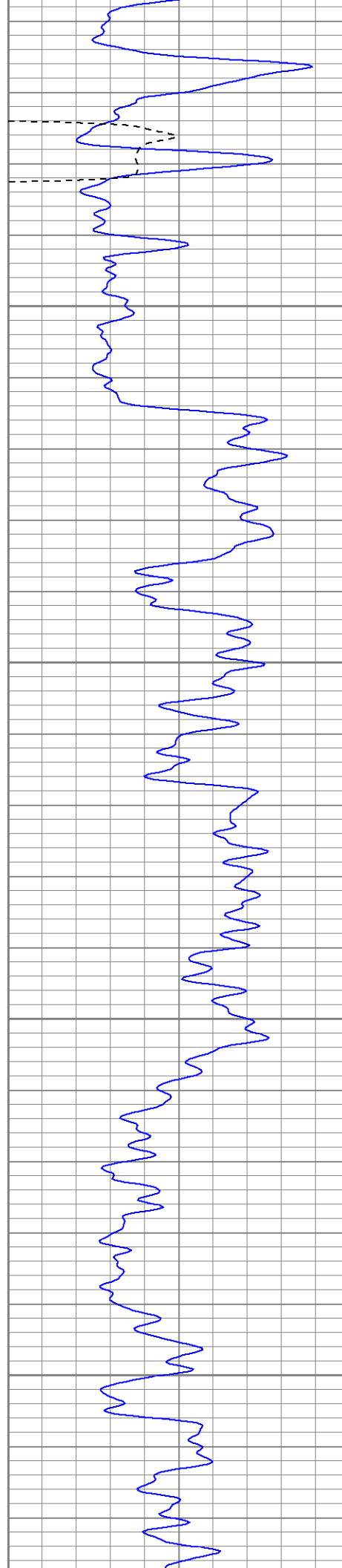




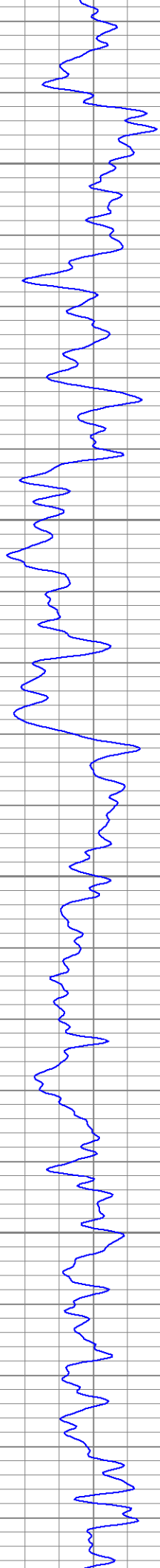












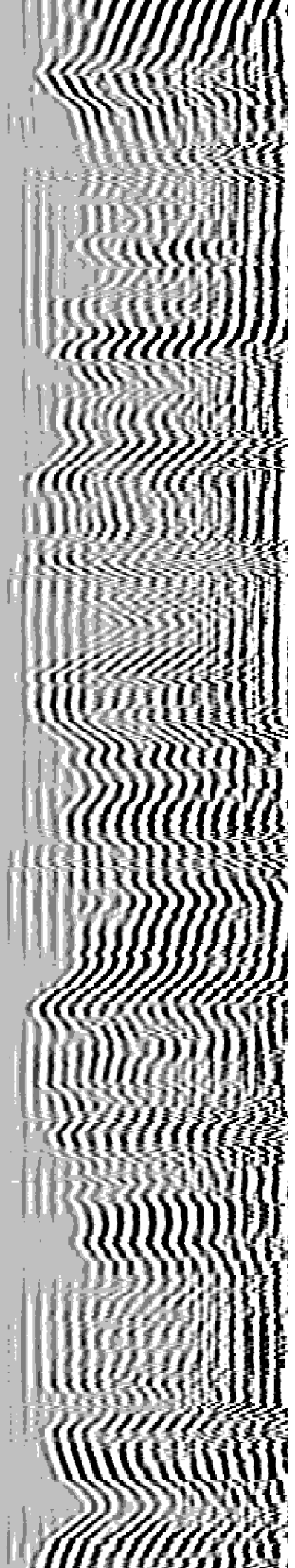
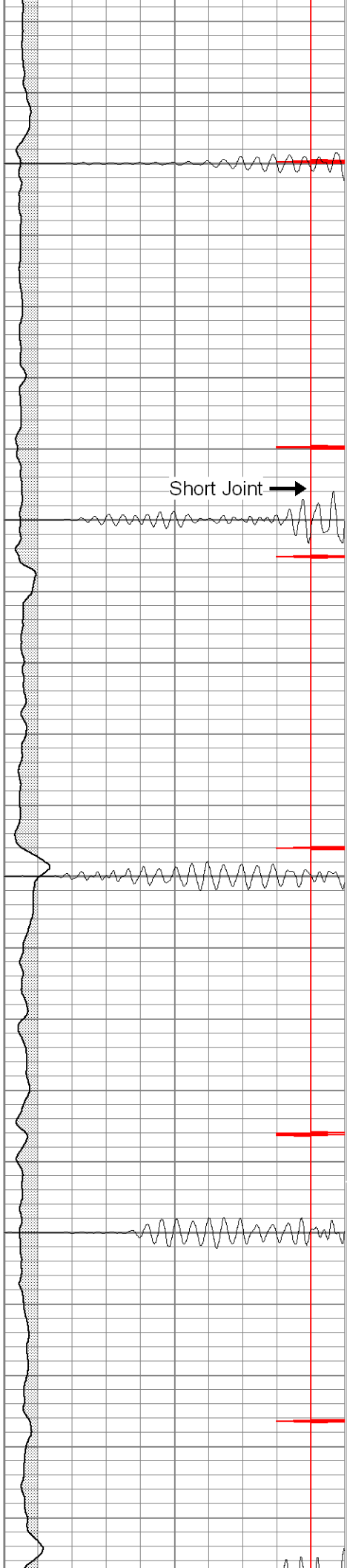
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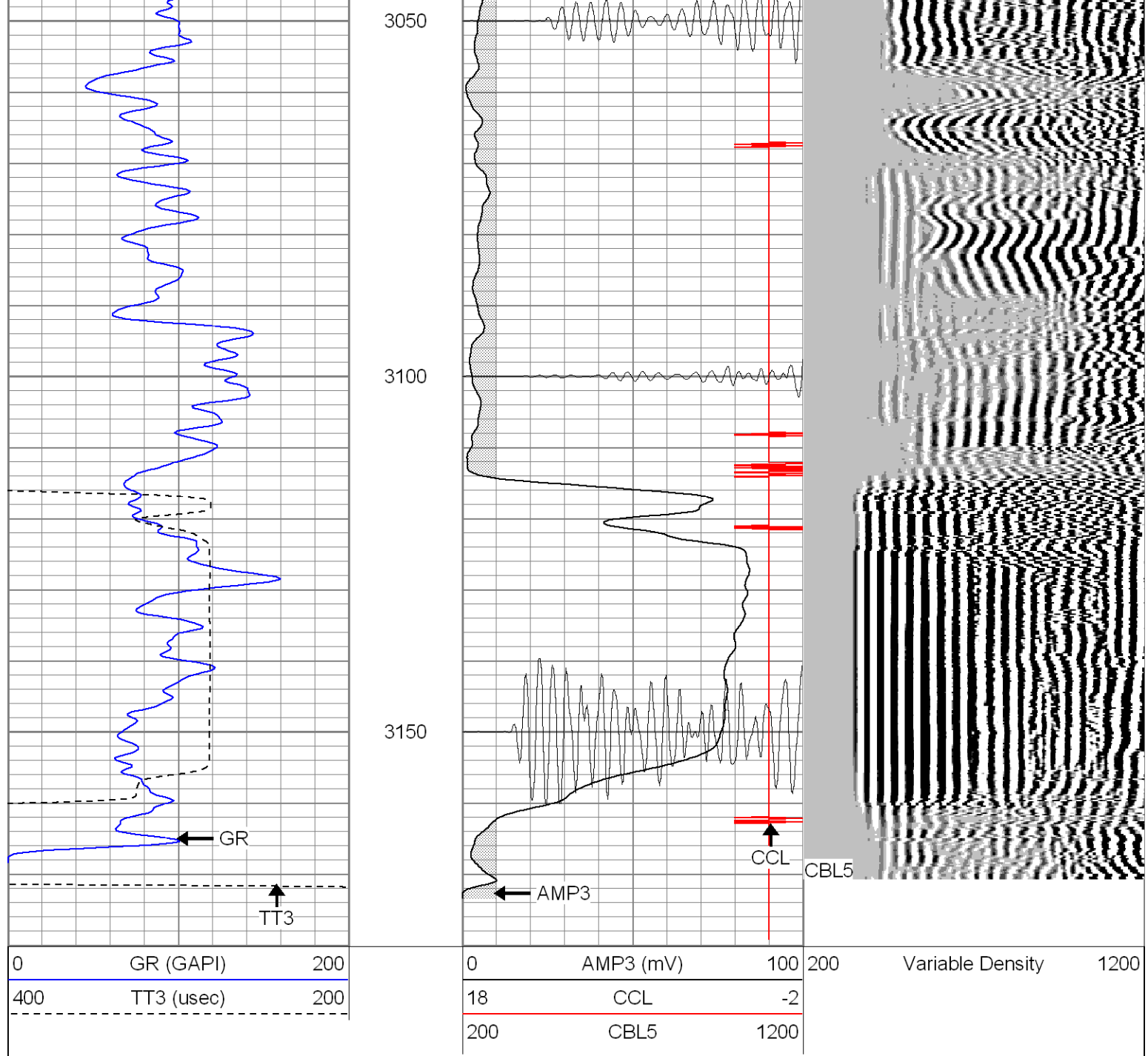
2900

2950

3000

Short Joint →

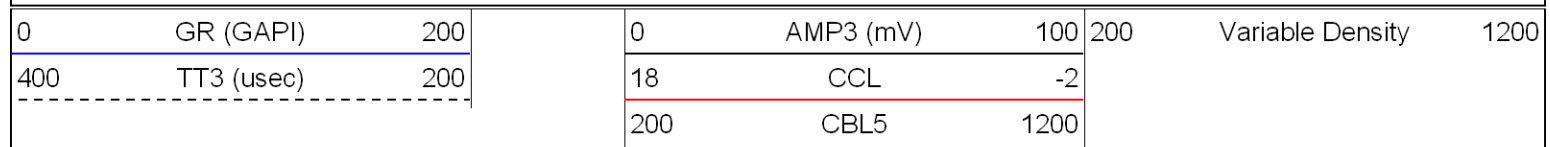


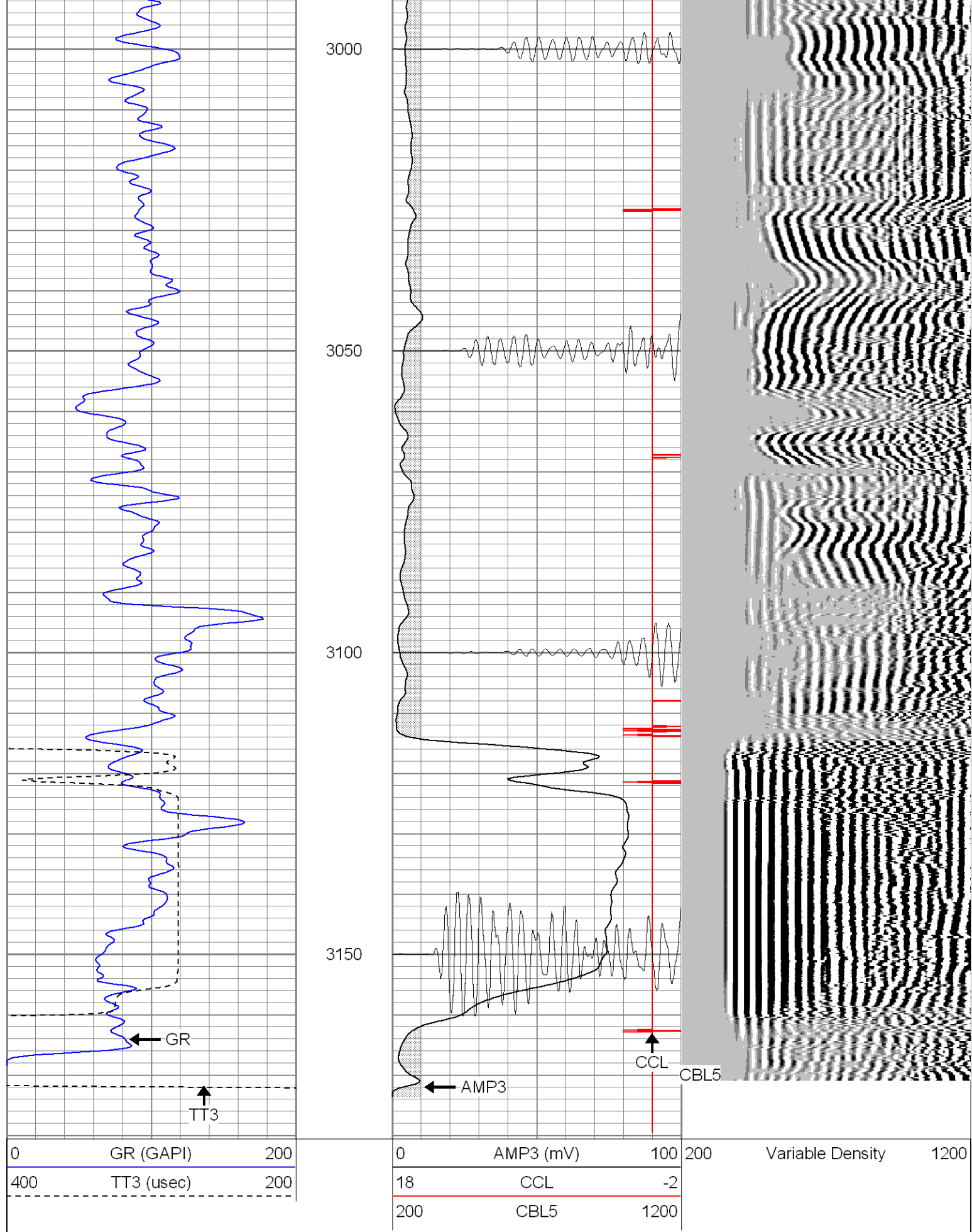


**Patterson**

## Repeat Section

Database File: doodlebugger102905b.db  
Dataset Pathname: pass1  
Presentation Format: cblrt  
Dataset Creation: Sat Oct 29 08:52:12 2005 by Log Warrior 7.0 STD Cas  
Charted by: Depth in Feet scaled 1:240





### Cement Bond Log Calibration Report

Serial Number:

Titan5

Serial Number:	Titan5		
Tool Model:	2		
Performed:	Fri Oct 28 08:54:43 2005		
Depth:	-47.6978	ft	
Casing Diameter:	5.5	in	
	3' Spacing	5' Spacing	
Signal Zero:	0	0	mV
Calibrated Amplitude:	85	71.921	mV
Reading at Signal Zero:	0	-0.0059082	V
Reading in Free Pipe:	1.4	1.86624	V
Gain:	60.7143	38.4164	
Offset:	0	0.226972	

#### Gamma Ray Calibration Report

Serial Number:	Titan5	
Tool Model:	T2	
Performed:	Tue Oct 25 10:11:23 2005	
Calibrator Value:	1.0	GAPI
Background Reading:	0.0	cps
Calibrator Reading:	1.0	cps
Sensitivity:	1.3000	GAPI/cps