

**Patterson**

**CEMENT BOND  
GAMMA RAY  
LOG**

Company		XTO Energy, Inc.	
Well		Hill Ranch 22-16	
Field		Purgatoire River	
County		Las Animas	
State		CO	
Location:		AP1 # : 05 071 08792 00	
SEC 22 TWP 34S RGE 67W		Other Services Pressure Control	
Permanent Datum		Ground Level	
Log Measured From		Ground Level	
Drilling Measured From		Ground Level	
Elevation		7820'	
K.B. -----		D.F. -----	
G.L. 7820'			
Date	10-4-06		
Run Number	One		
Depth Driller	2450'		
Depth Logger	2392'		
Bottom Logged Interval	2390'		
Top Log Interval	Surface		
Open Hole Size	7 7/8"		
Type Fluid	Water		
Density / Viscosity	///		
Max. Recorded Temp.	114F		
Estimated Cement Top	Surface		
Time Well Ready	ROA		
Time Logger on Bottom	10:20AM		
Equipment Number	1875		
Location	Trinidad		
Recorded By	E. Ray		
Witnessed By	Mr. Michael Polley		
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			N/A

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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**

Up Lorencito Canyon XTO hill, Stay on Main Road to White Dumpster, Turn Right, and stay on Main Road, Go past Compressor Station on Main Road, Drive thru HR 27-04 Right @ Y, thru HR 22-12, Take Next Right to Y stay Left, Next Left to Location

Or

Up Little Bingham @ top Go Left towards Compressor, To "T" go Left @ compressor station, Stay on Main Road, Drive thru HR 27-04 Right @ Y, thru HR 22-12, Take Next Right to Y stay Left, Next Left to Location

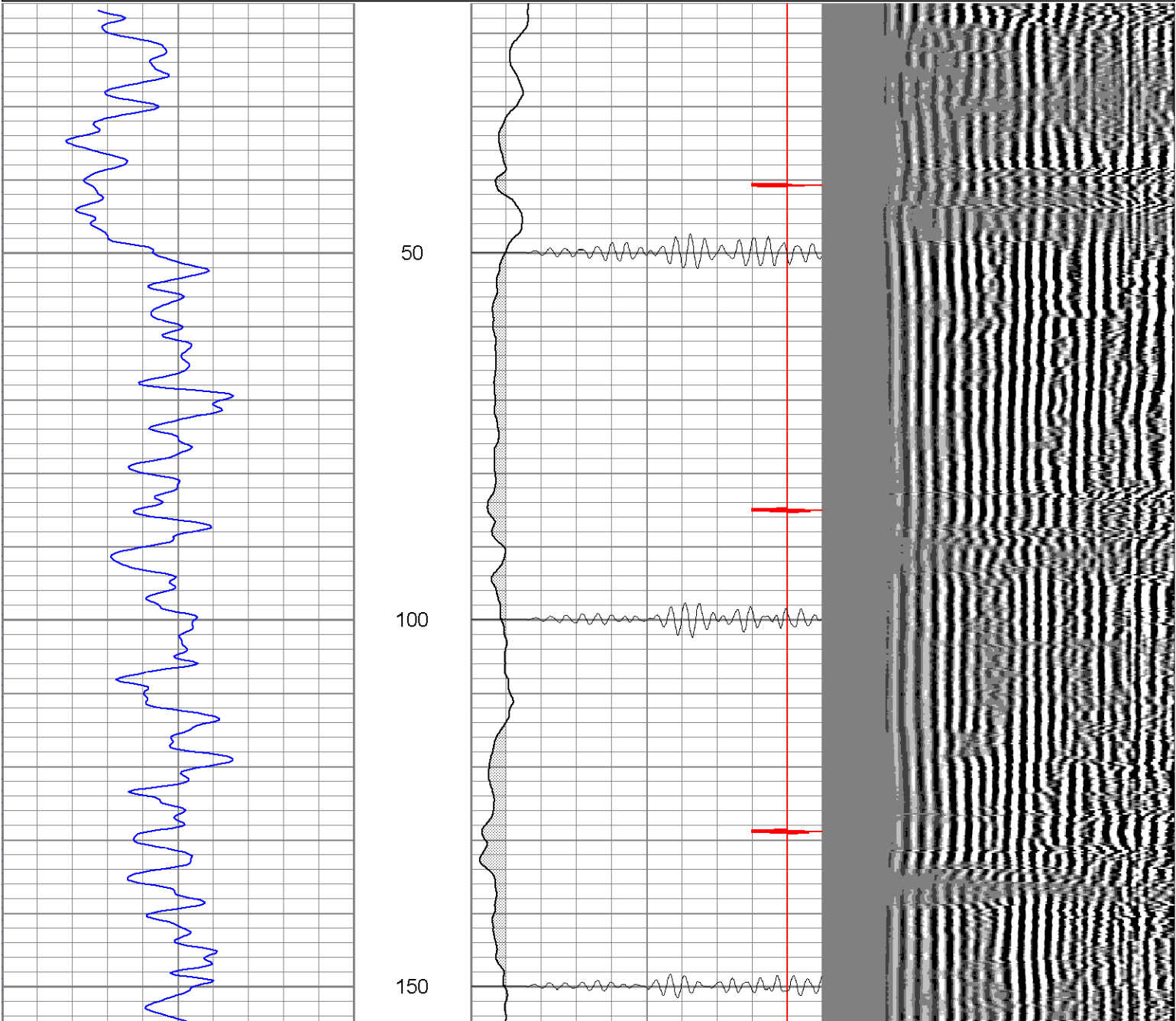
Repeat Pass (0 PSI)  
Main Pass (1000 PSI)

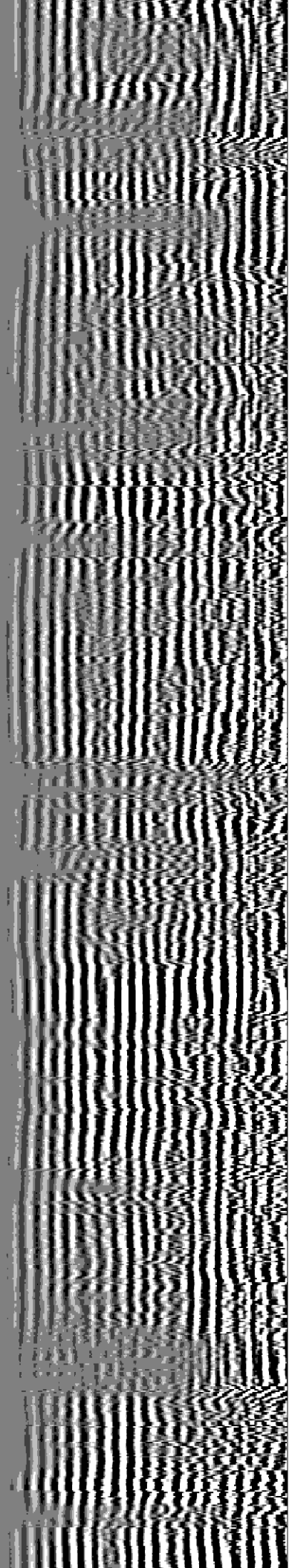
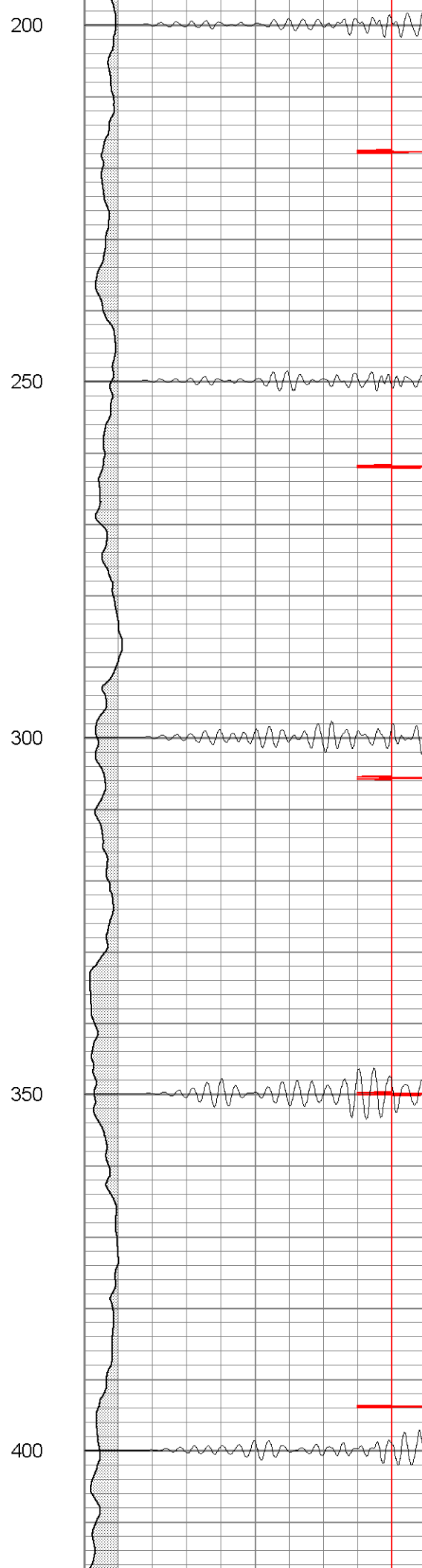
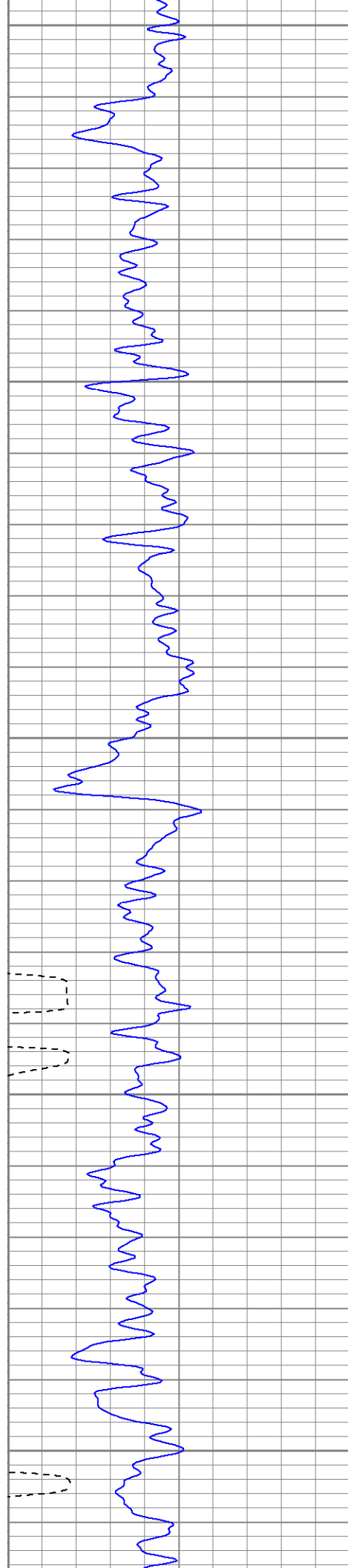
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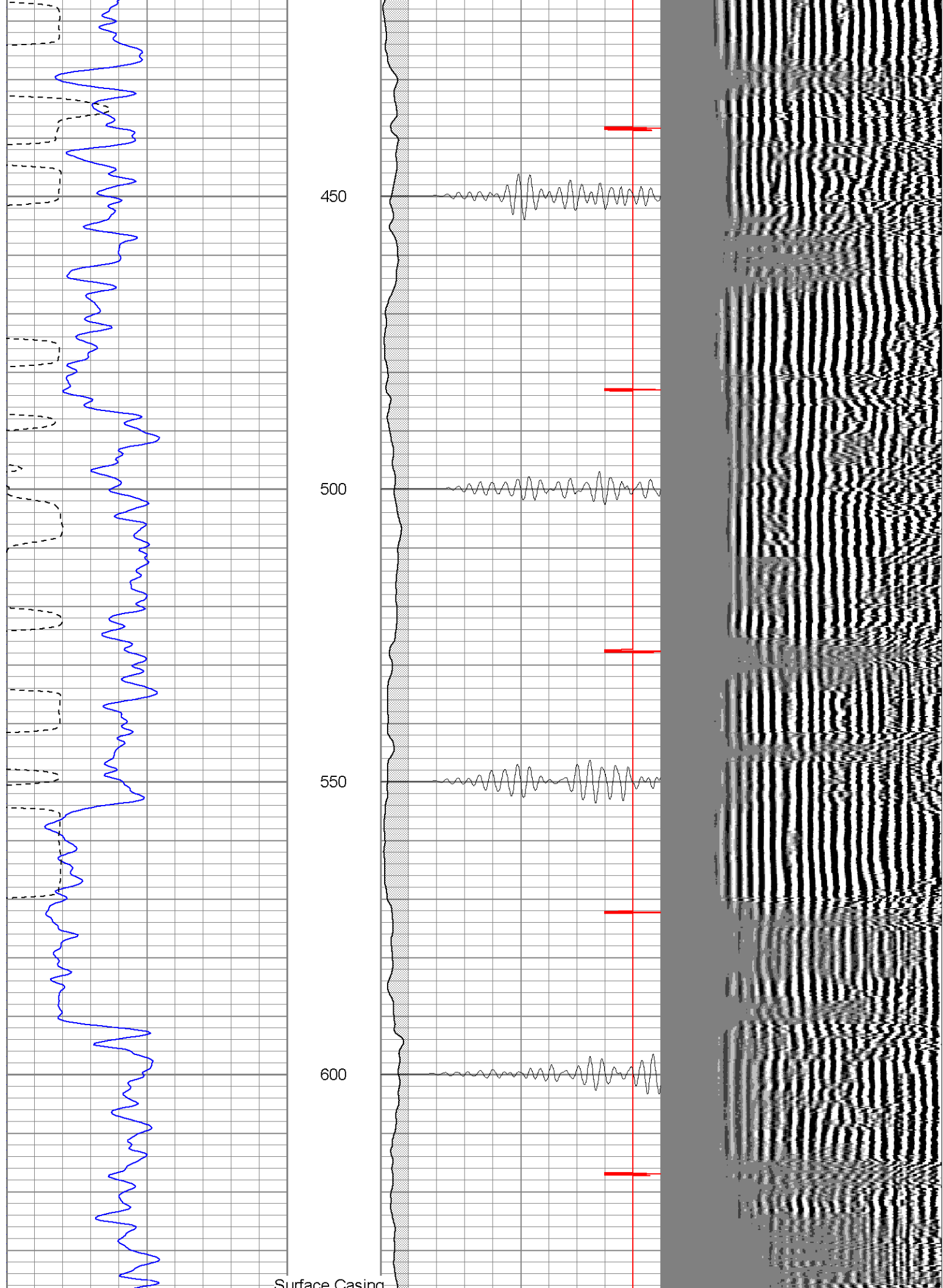
**Main Pass (1000 PSI)**

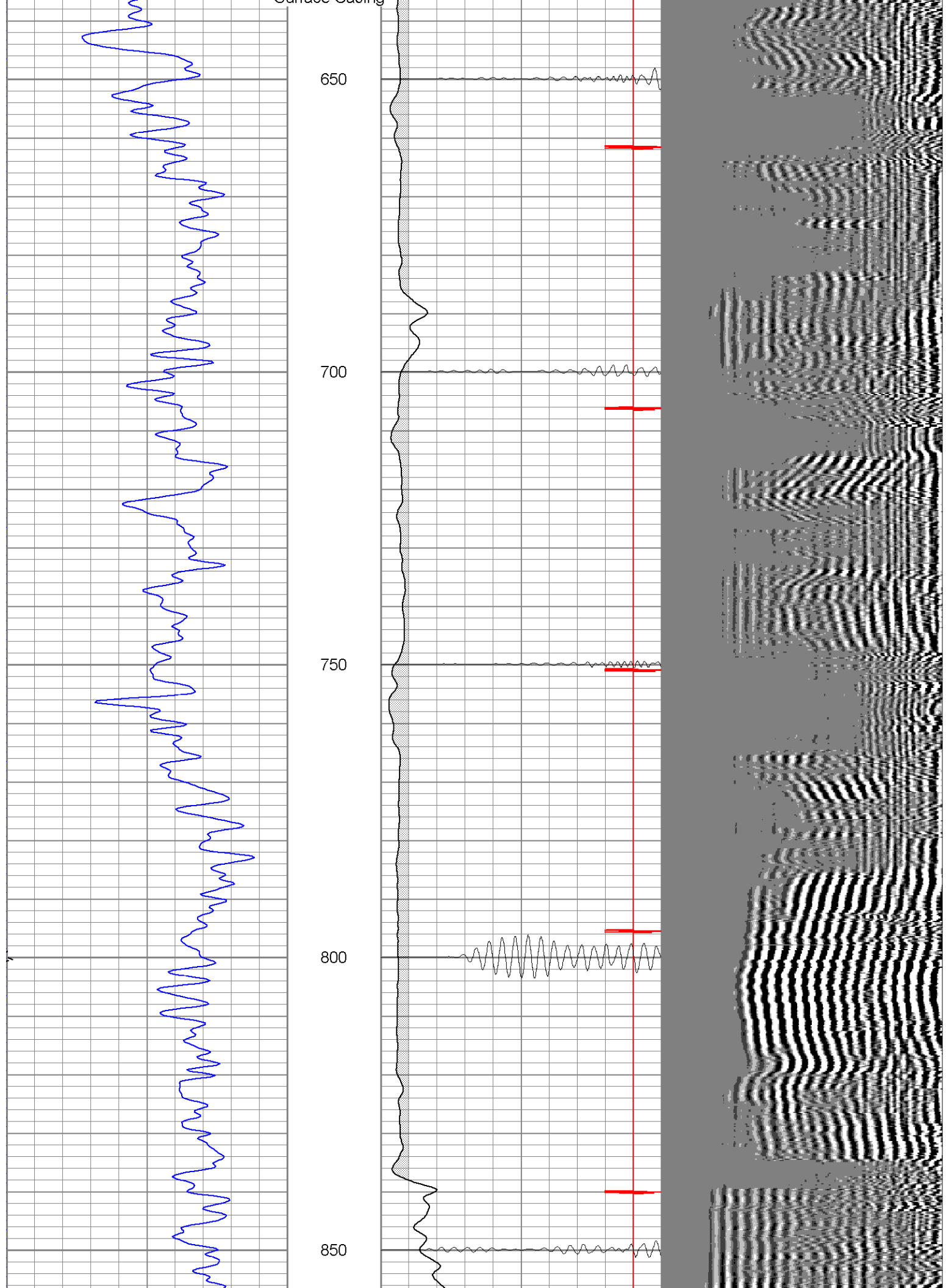
Database File: hillranch221610406b.db  
Dataset Pathname: pass3  
Presentation Format: cblrt  
Dataset Creation: Wed Oct 04 12:16:58 2006 by Log Open-Cased 060407  
Charted by: Depth in Feet scaled 1:240

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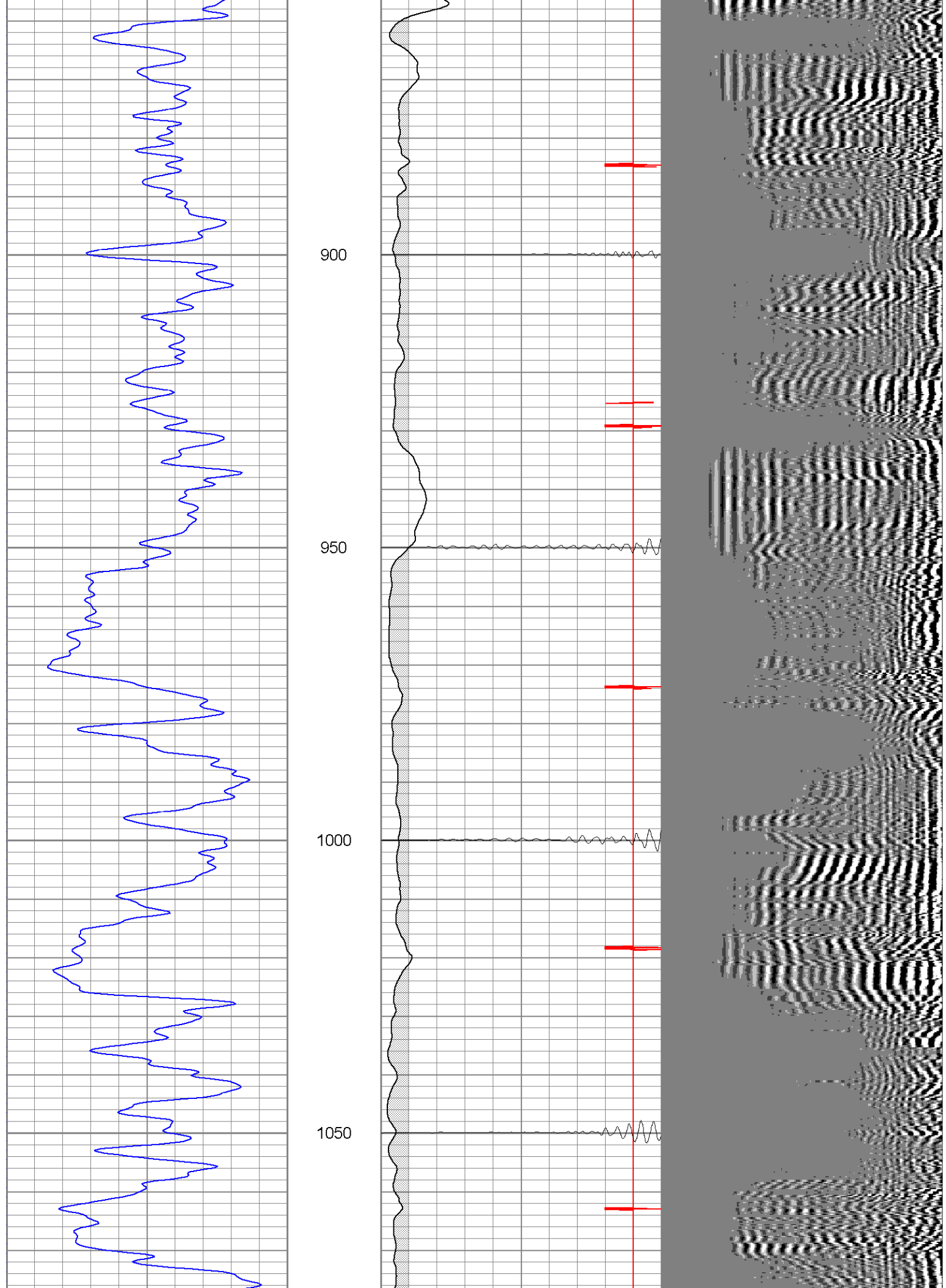


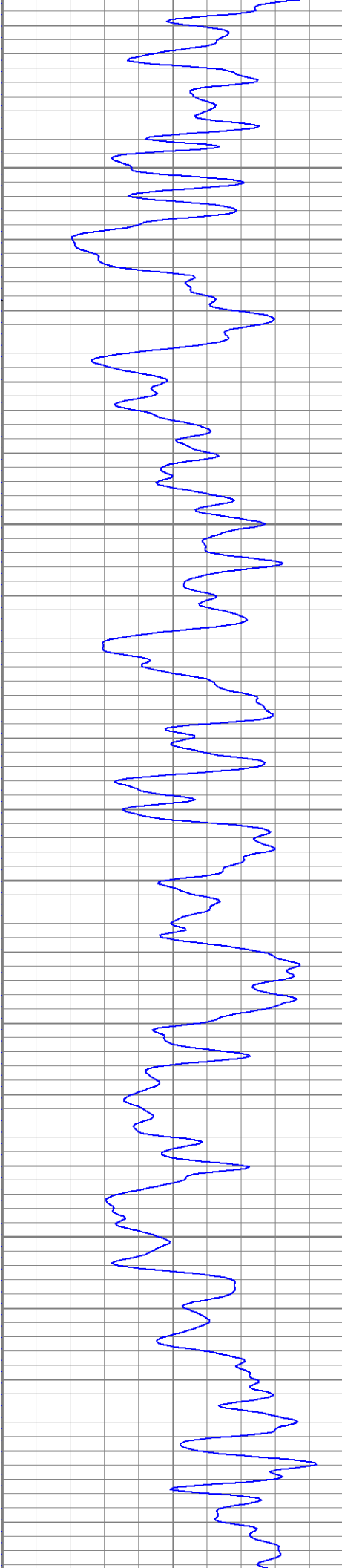










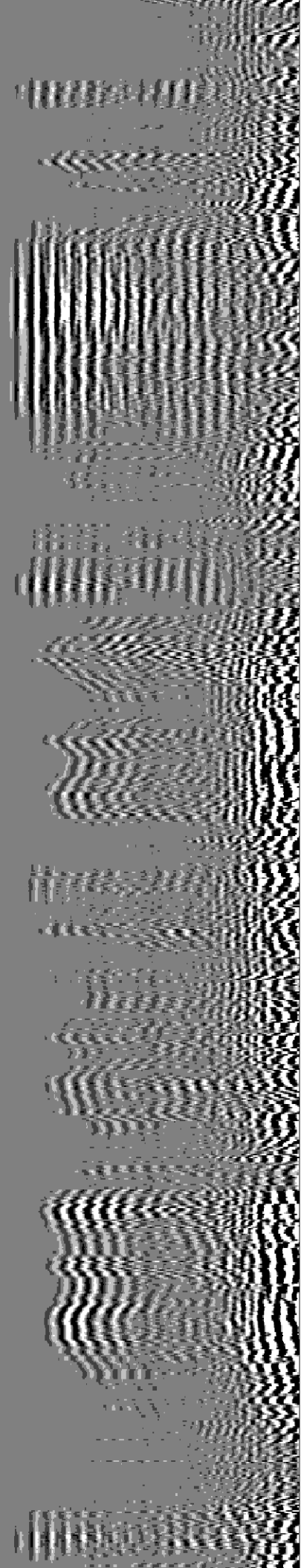


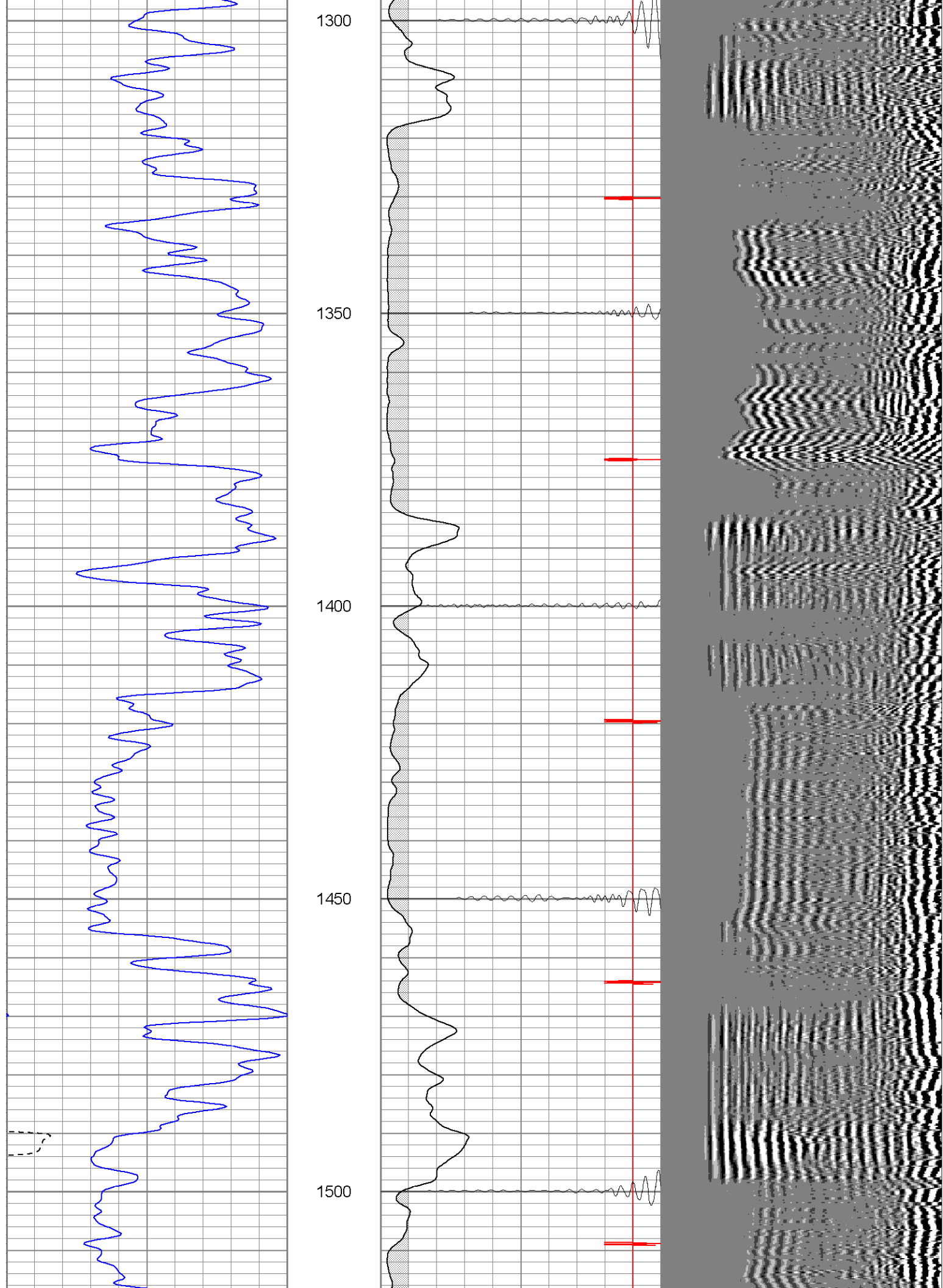
1100

1150

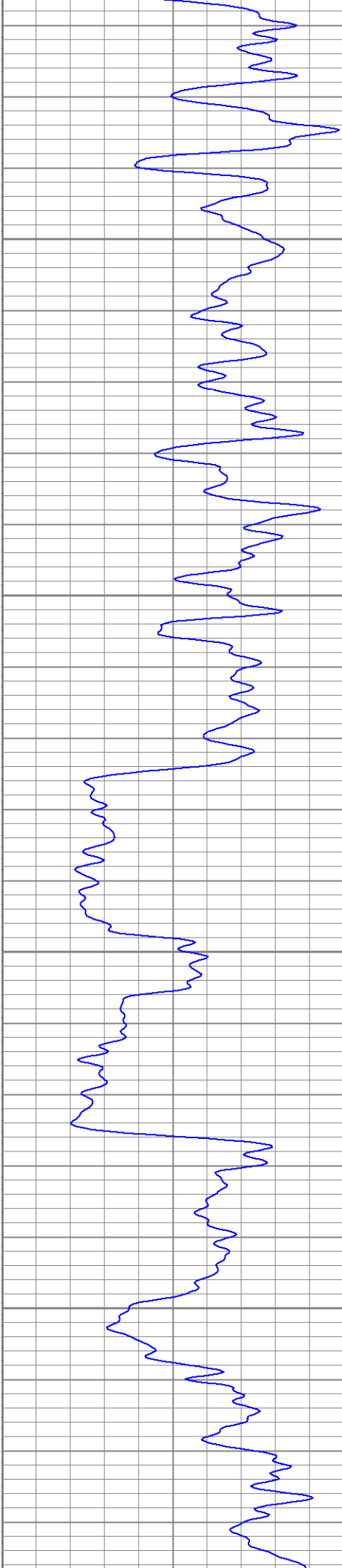
1200

1250







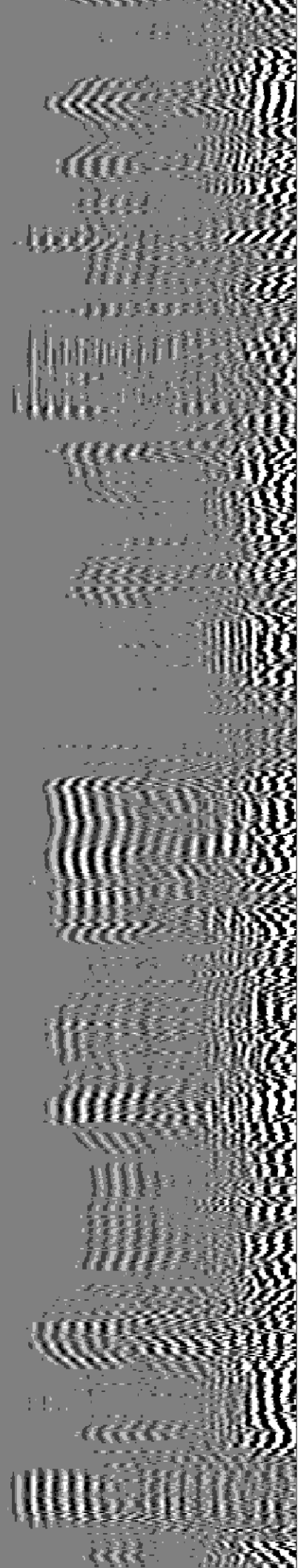
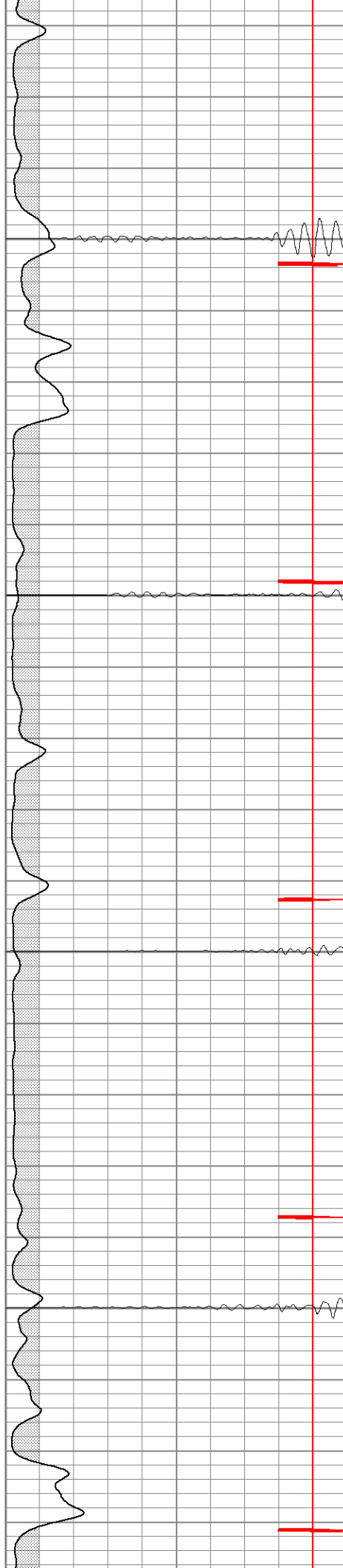


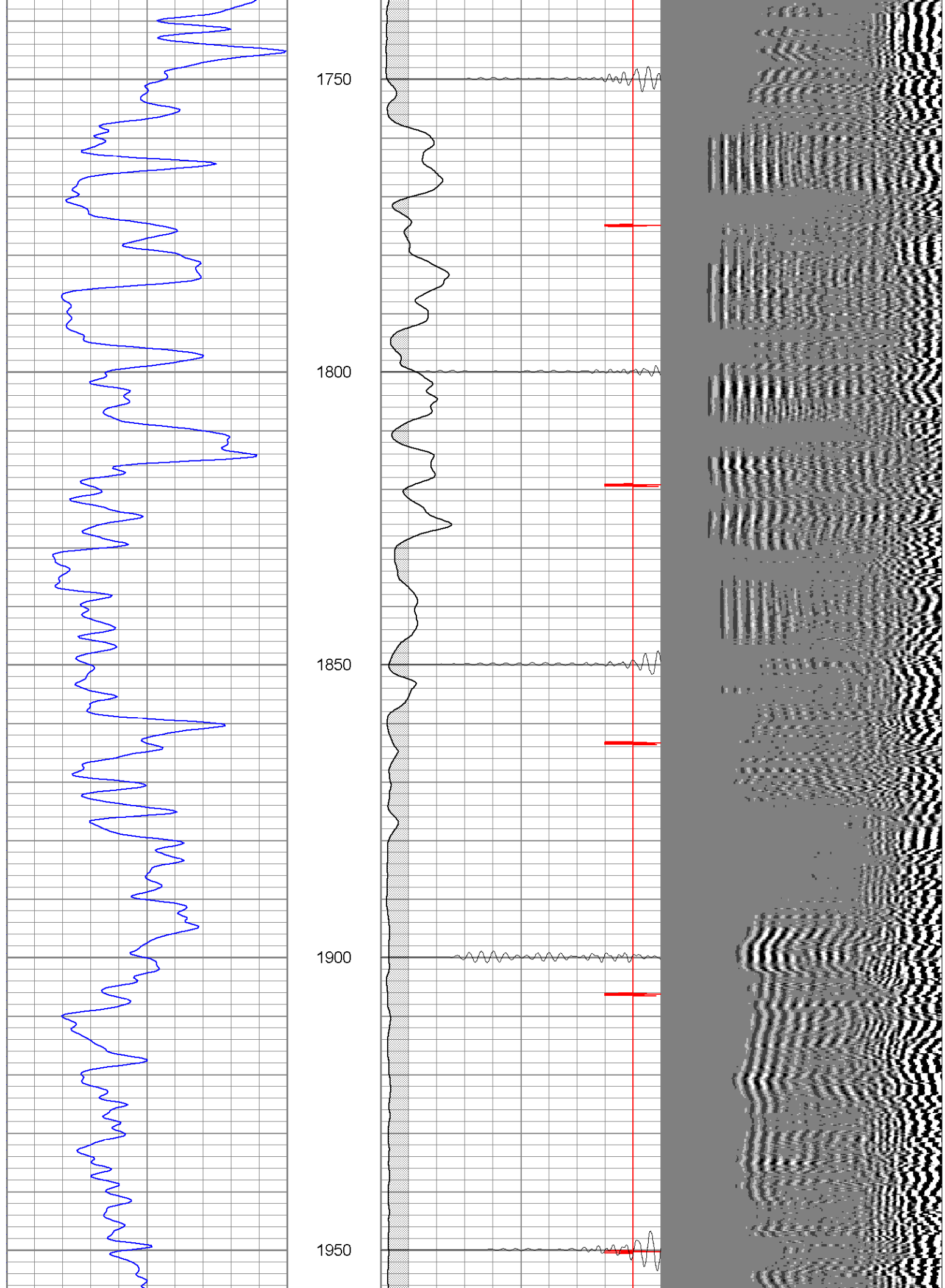
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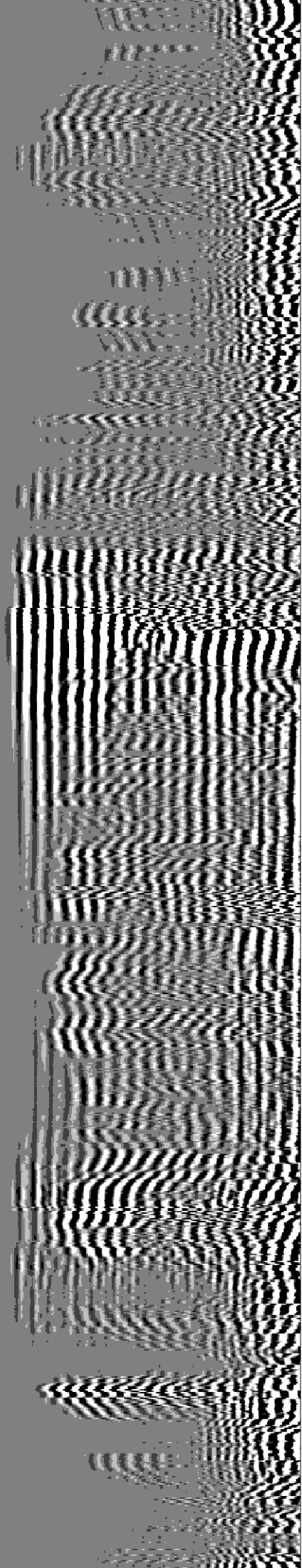
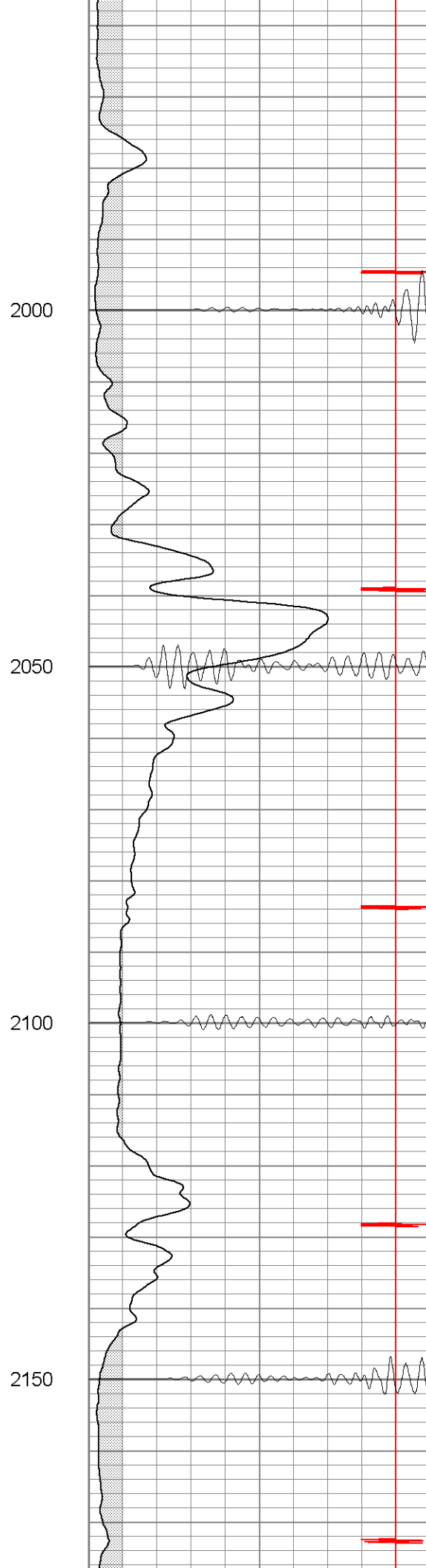
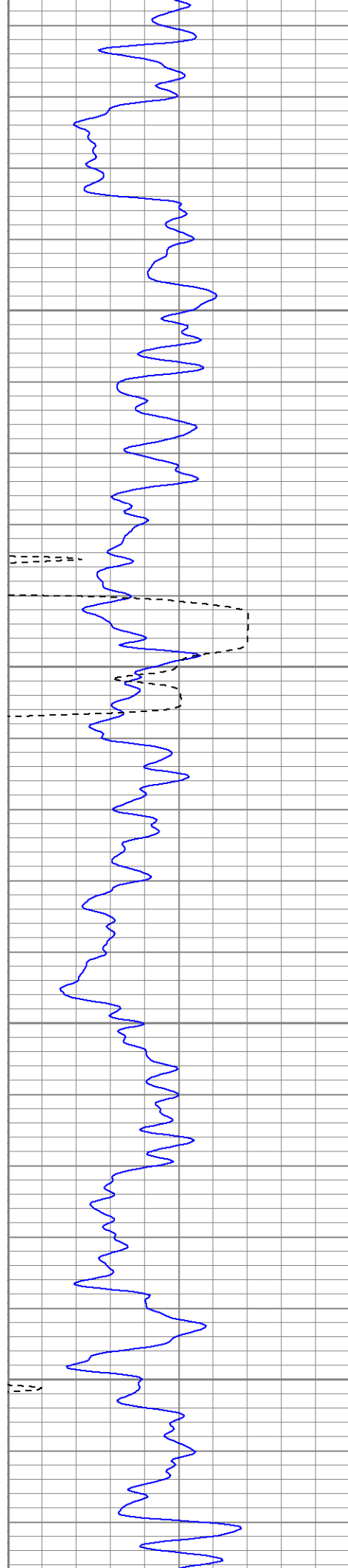
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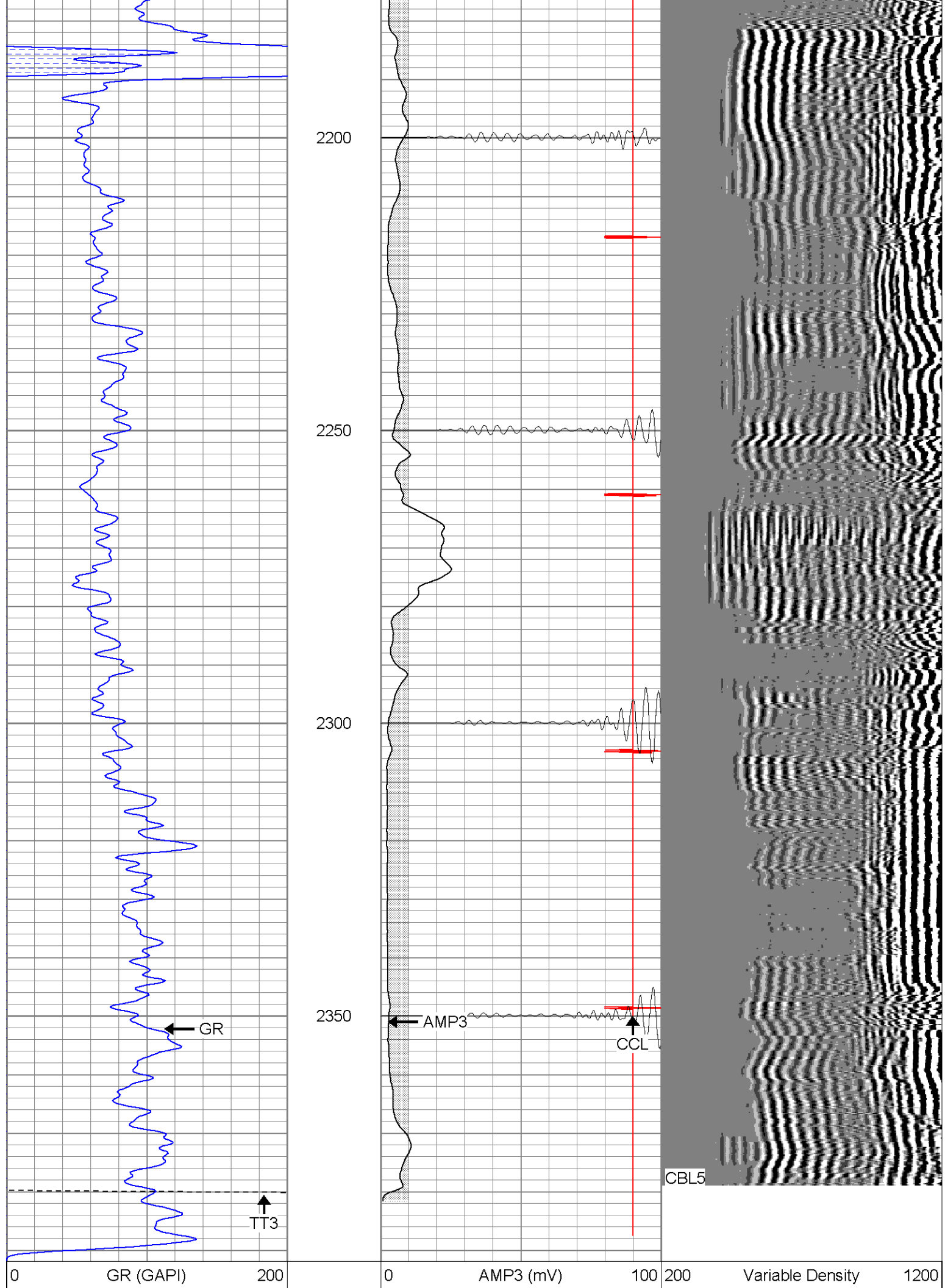
1650

1700









200	GR (GAPI)	400
400	TT3 (usec)	200
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18	CCL	-2
200	CBL5	1200

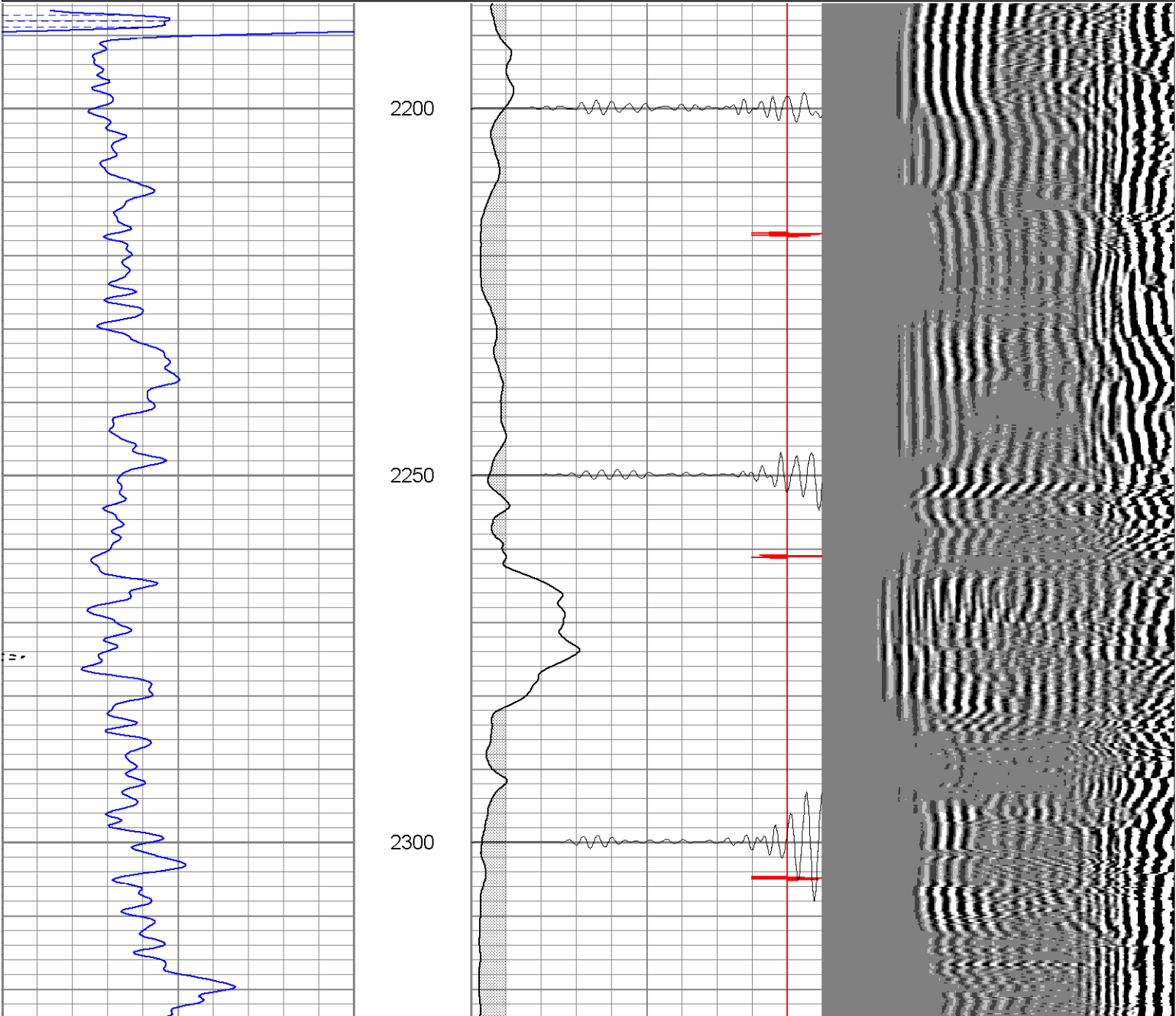
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# Repeat Section (0 PSI)

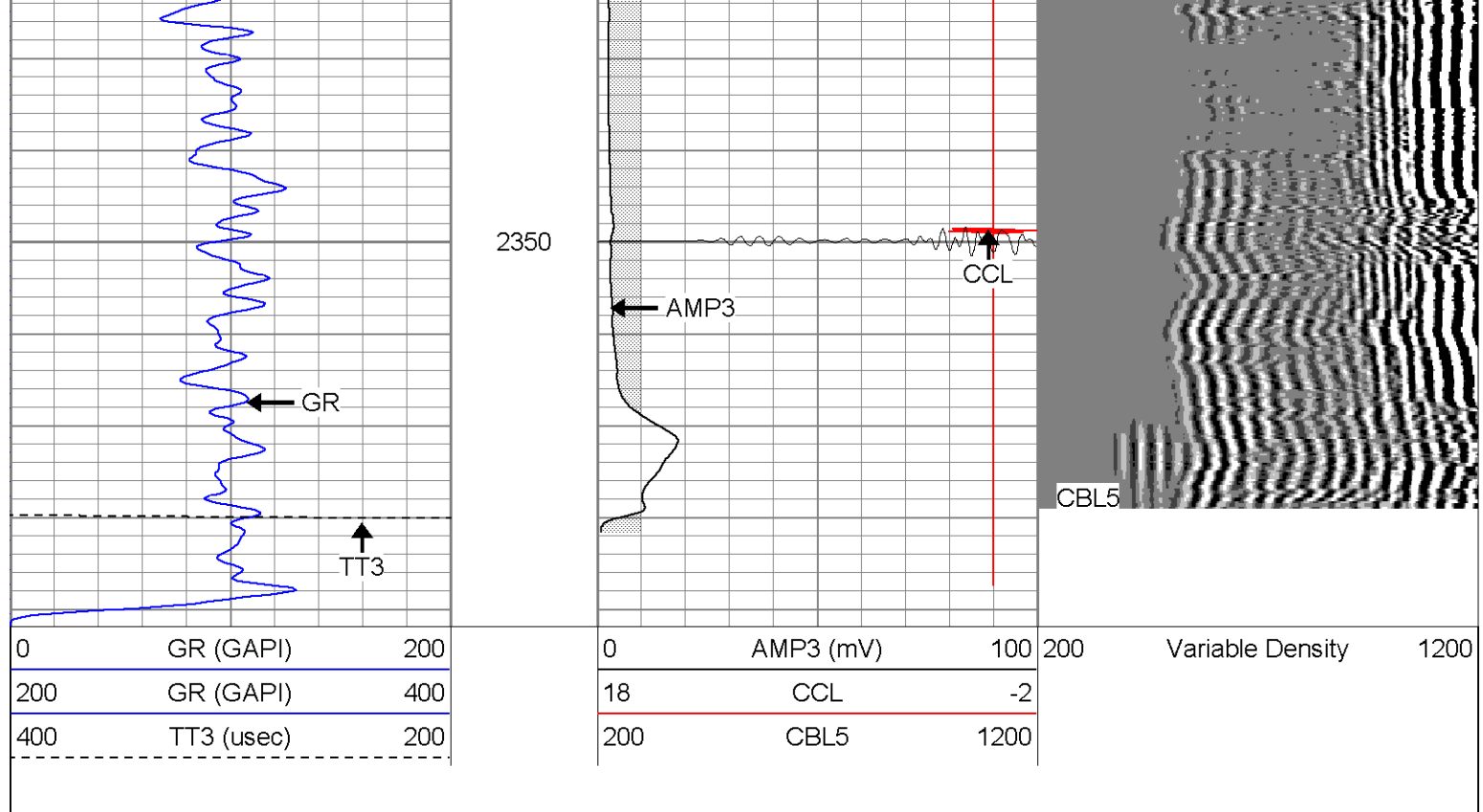
Database File: hillranch221610406b.db  
 Dataset Pathname: pass1  
 Presentation Format: cblrt  
 Dataset Creation: Wed Oct 04 10:30:55 2006 by Log Open-Cased 060407  
 Charted by: Depth in Feet scaled 1:240

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







### Calibration Report

Database File: hillranch221610406b.db  
 Dataset Pathname: pass1  
 Dataset Creation: Wed Oct 04 10:30:55 2006 by Log Open-Cased 060407

### Gamma Ray Calibration Report

Serial Number: Titan2.75  
 Tool Model: 2.75  
 Performed: Wed Oct 04 08:00:42 2006

Calibrator Value: 200.0 GAPI

Background Reading: 40.0 cps  
 Calibrator Reading: 240.0 cps

Sensitivity: 1.1000 GAPI/cps

### Cement Bond Log Calibration Report

Serial Number: Titan4  
 Tool Model: 4  
 Performed: Wed Oct 04 10:22:58 2006

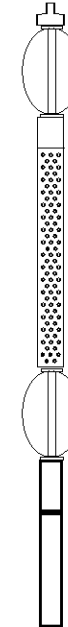
Depth: 1054.62 ft  
 Casing Diameter: 5.5 in

3' Spacing 5' Spacing

Signal Zero: 0 1 mV  
 Calibrated Amplitude: 85 85 mV  
 Reading at Signal Zero: 0.00161133 0.0143555 V  
 Reading in Free Pipe: 1.19 1.65081 V

Gain: 71.5254 51.3306  
 Offset: 1 0.263125

Channel	Offset (ft)	Calibration	Description	Gain (ft)	Offset (in)	Gain (ft)
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Sensor	Offset (ft)	Schematic	Description	Len (ft)	OD (in)	Wt (lb)
CHD	20.38		CHD-None (0)	0.75	1.50	5.00
CENT	19.63		CENT-X (2)	3.00	1.69	25.00
WVF5	12.82		CBL-4 (Titan4)	8.15	2.25	110.00
WVF3	11.82					
CENT	8.48		CENT-X (1)	3.00	1.69	25.00
CCL	4.27		CCL-2.75 (Titan2.75)	1.71	2.75	15.00
GR	1.42		GR-2.75 (Titan2.75) Two Point	3.77	2.75	25.00