

**Patterson**

**CEMENT  
BOND  
LOG**

Company Pioneer Natural Resources  
Well Lorencito 12-22-34-66  
Field Purgatoire River  
County Las Animas State Colorado

Location: API # : 05 071 08513 00  
1830' FSL & 556' FWL  
SEC 22 TWP 34S RGE 66W  
Permanent Datum Ground Level Elevation 7491'  
Log Measured From Kelly Bushing 4' Above G.L.  
Drilling Measured From Kelly Bushing  
Other Services  
Elevation  
K.B. 7495'  
D.F. -----  
G.L. 7491'

Company Pioneer Natural Resources  
Well Lorencito 12-22-34-66  
Field Purgatoire River  
County Las Animas  
State Colorado

Date 11-07-05

Run Number	One
Depth Driller	2025'
Depth Logger	2007'
Bottom Logged Interval	2005'
Top Log Interval	Surface
Open Hole Size	7 7/8"
Type Fluid	Water
Density / Viscosity	///
Max. Recorded Temp.	117 DEG F
Estimated Cement Top	Surface
Time Well Ready	ROA
Time Logger on Bottom	4:45 P.M.
Equipment Number	T720
Location	Trinidad
Recorded By	M. Norton
Witnessed By	

Borehole Record			Tubing Record				
Run Number	Bit	From	To	Size	Weight	From	To

Casing Record	Size	Wgt/Ft	Top	Bottom
Surface String	8 5/8"		00	264'
Prot. String				
Production String	5 1/2"		00	N/A
Liner				

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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

Well Directions:  
Up Lorencito Left At Windmill Just Past Compressor, First Left Up Hill,  
Drive Thru The Loencito 8-21, First Left To Location.

**Patterson**

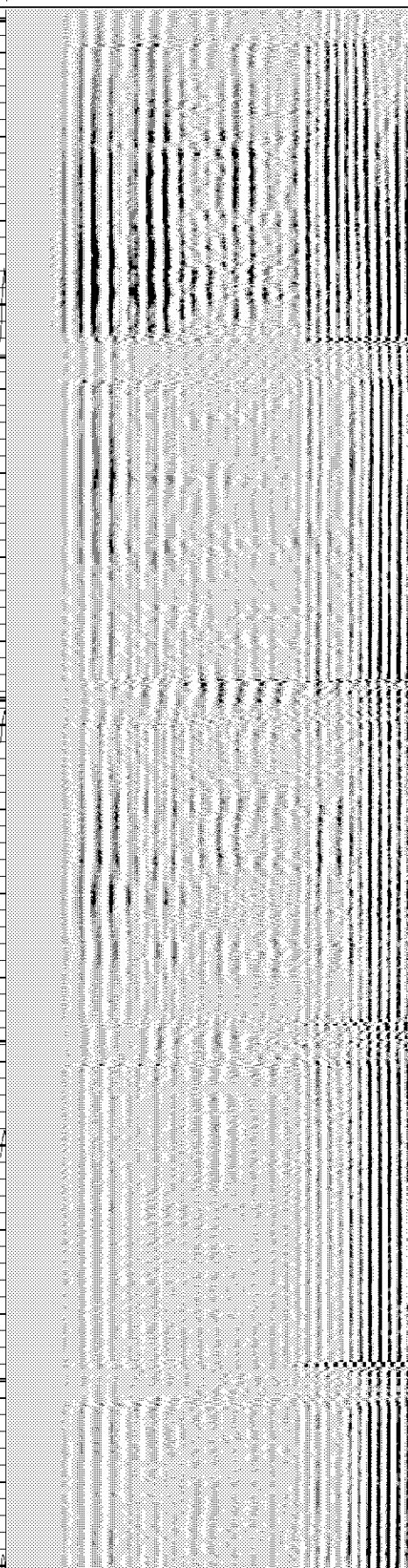
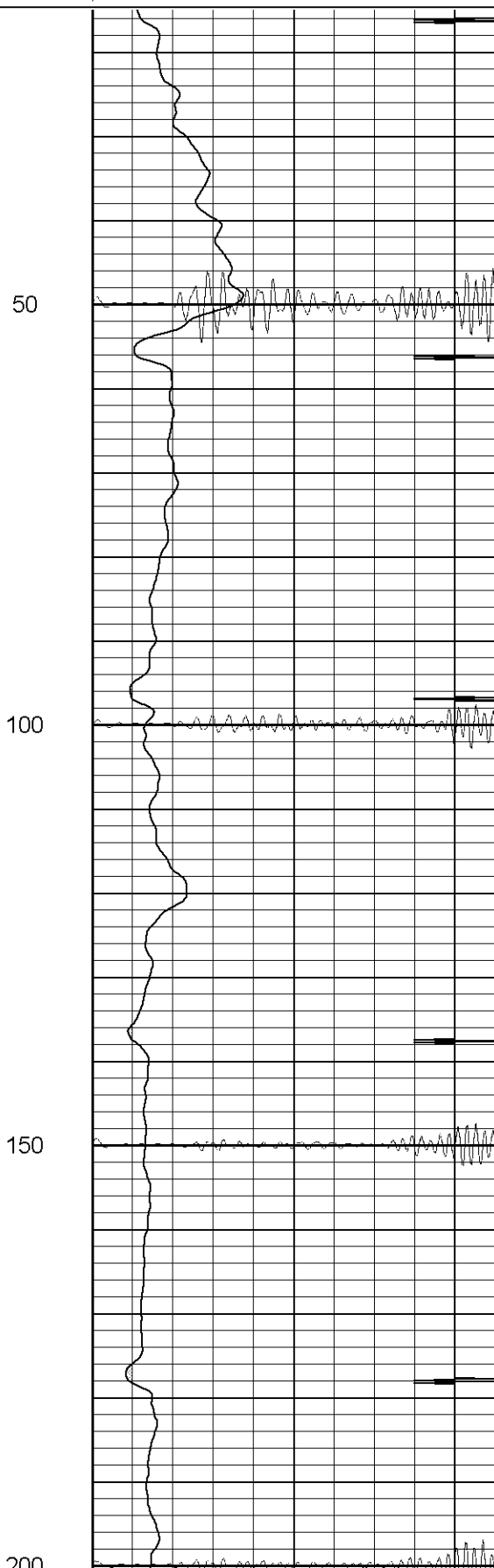
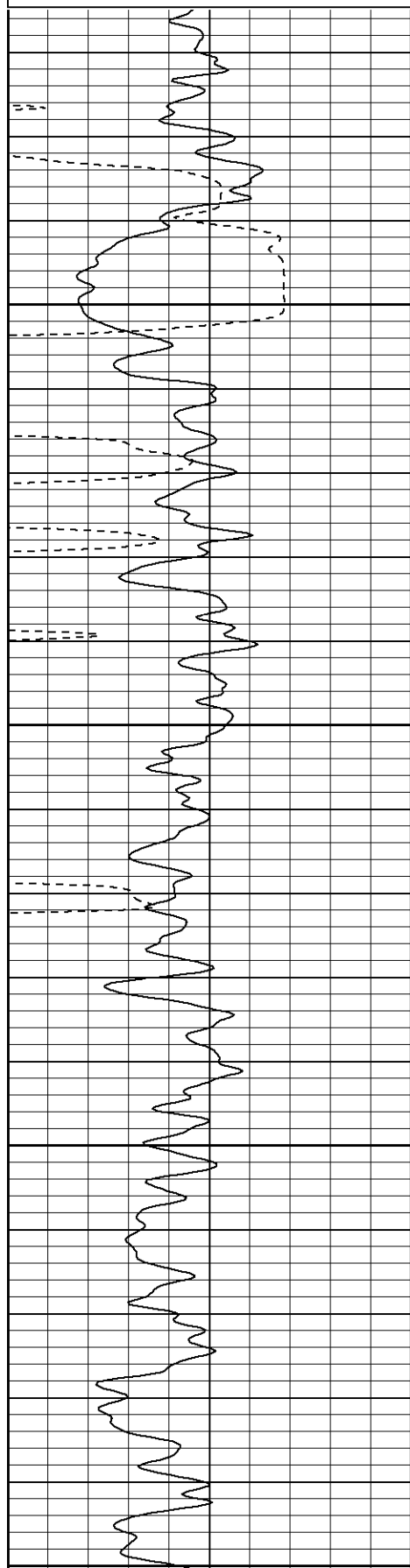
**Main Pass**

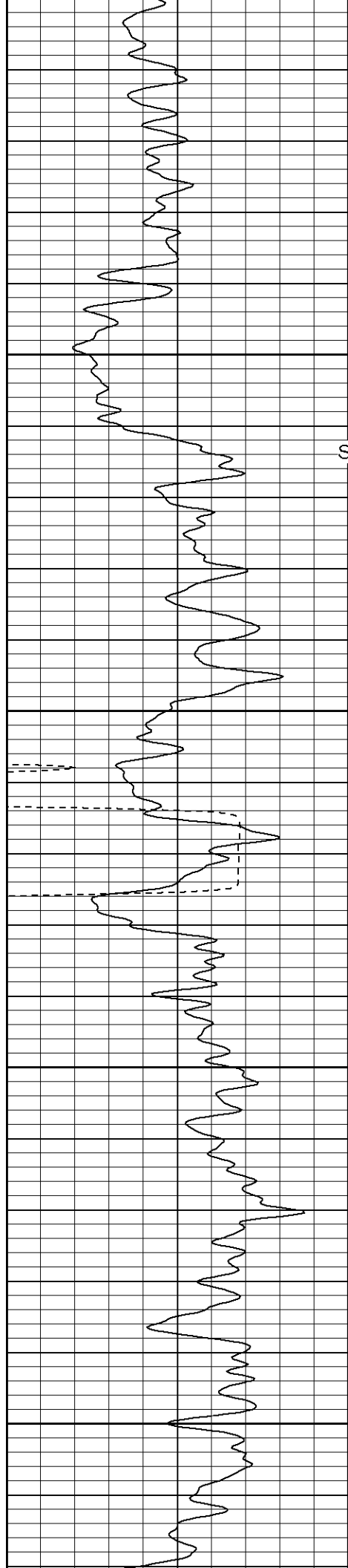
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Dataset Pathname: pass2.2  
Presentation Format: cblrt  
Dataset Creation: Tue Nov 08 08:37:43 2005 by Calc Warrior 7.0 STD Ope  
Charted by: Depth in Feet scaled 1:240

0	GR (GAPI)	200
400	TT3 (usec)	200

0	AMP3 (mV)	100
18	CCL	-2
100	CBL5	1200

200	Variable Density	1200
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200

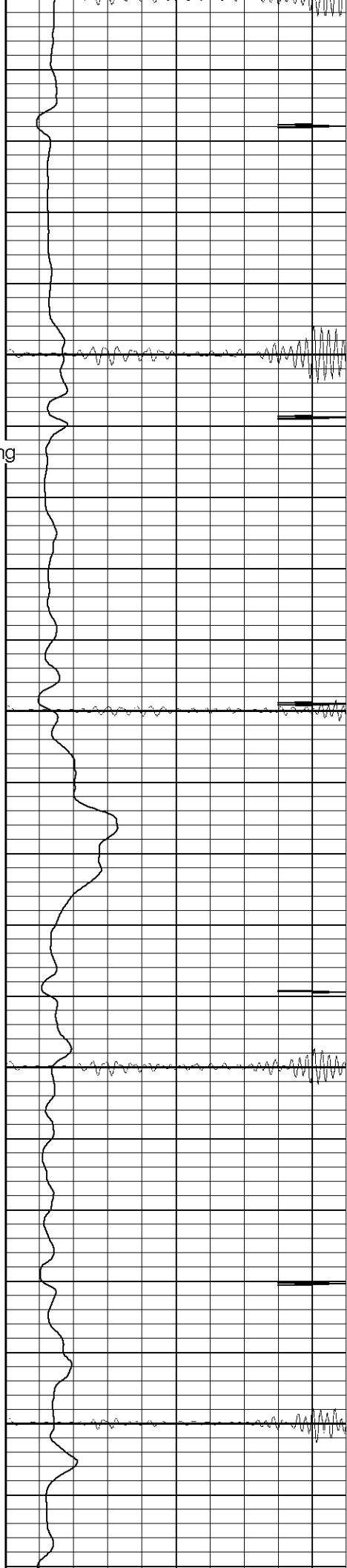
250

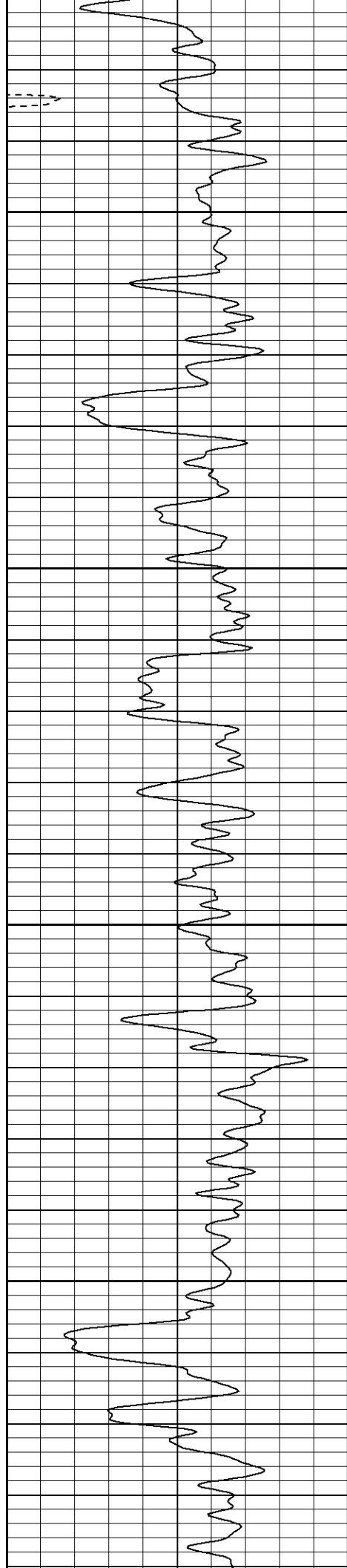
Surface Casing

300

350

400



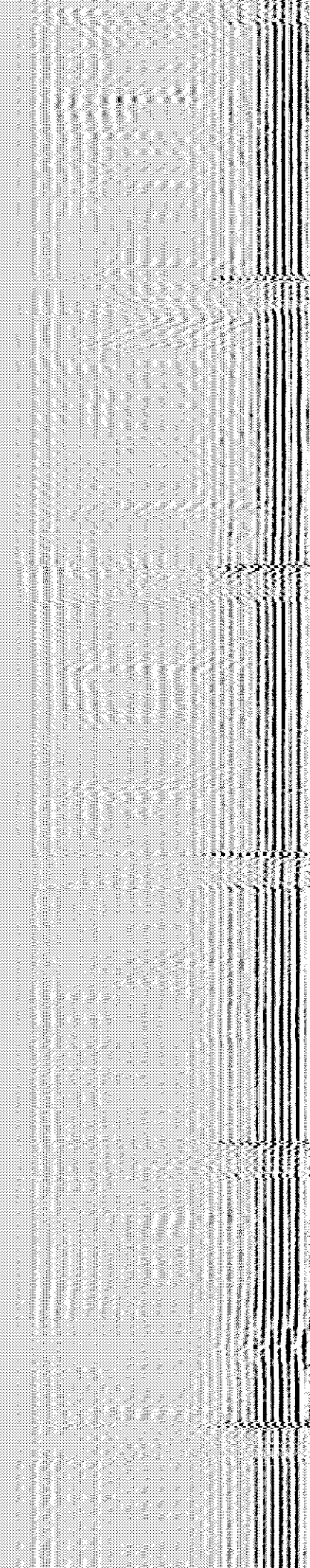
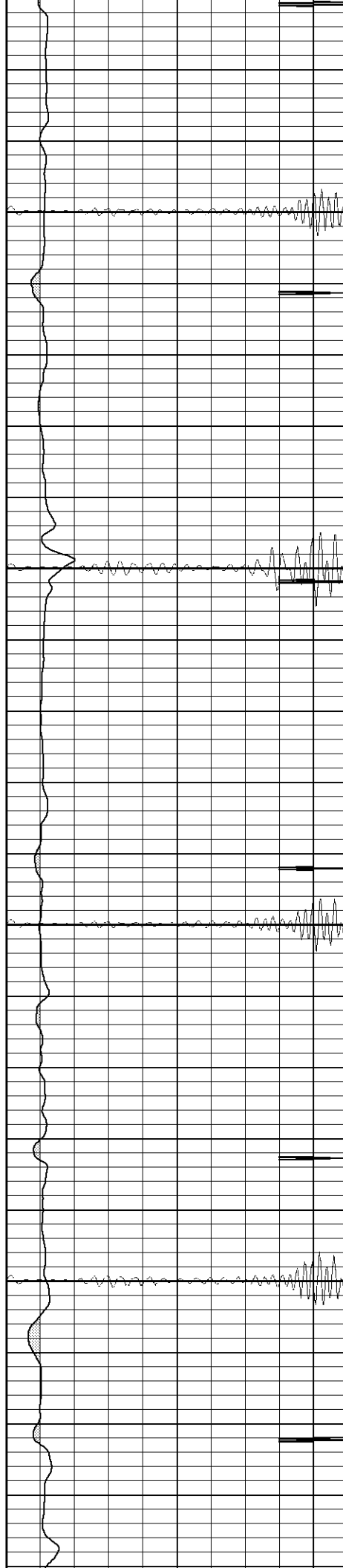


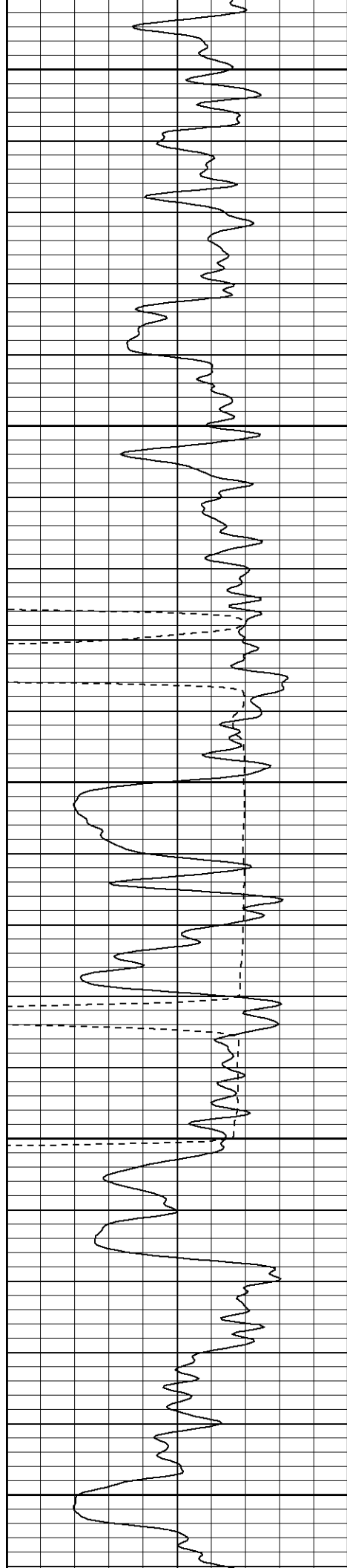
450

500

550

600





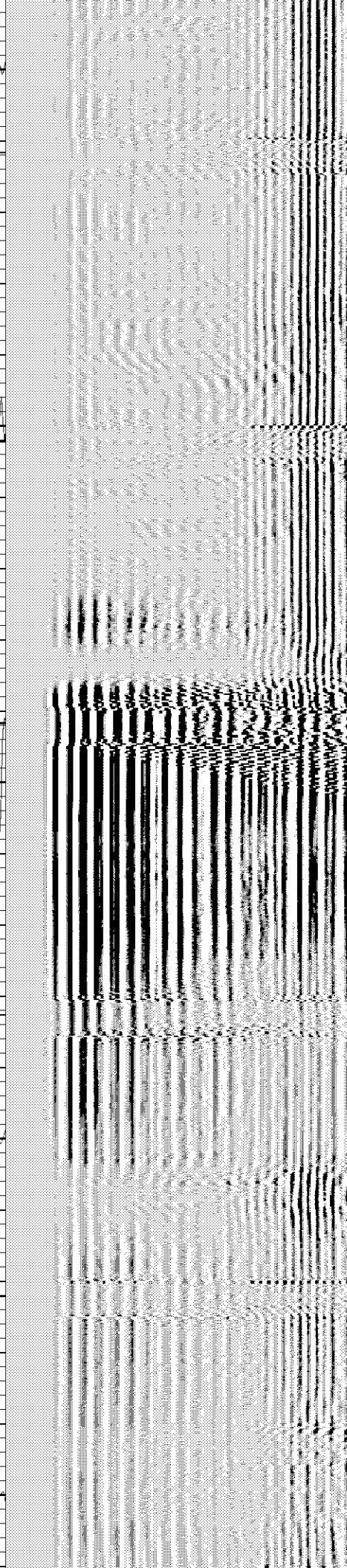
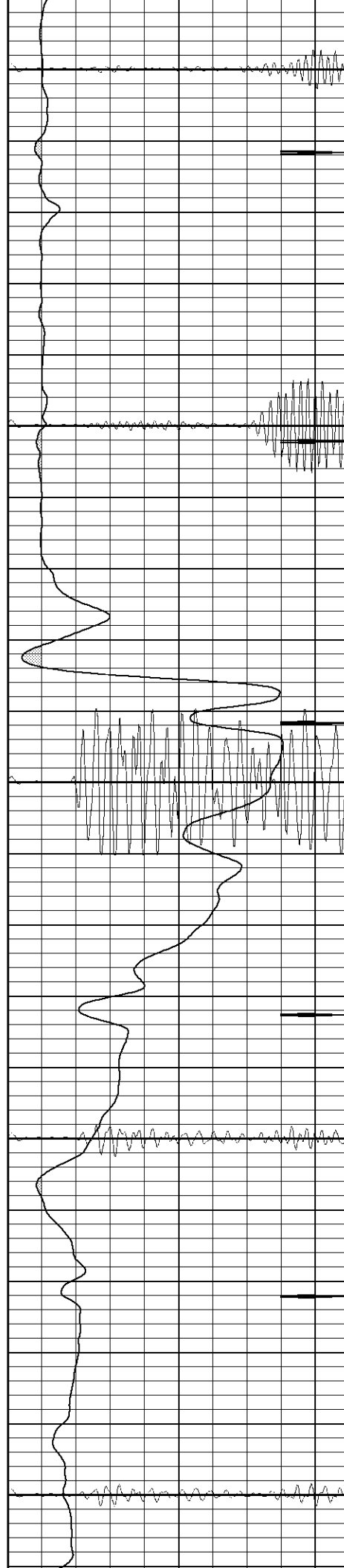
650

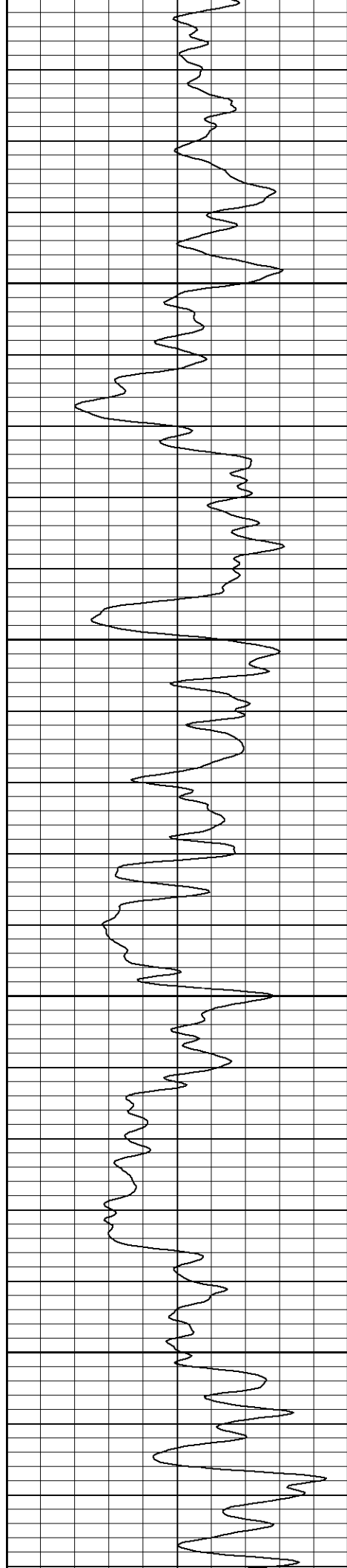
700

750

800

850



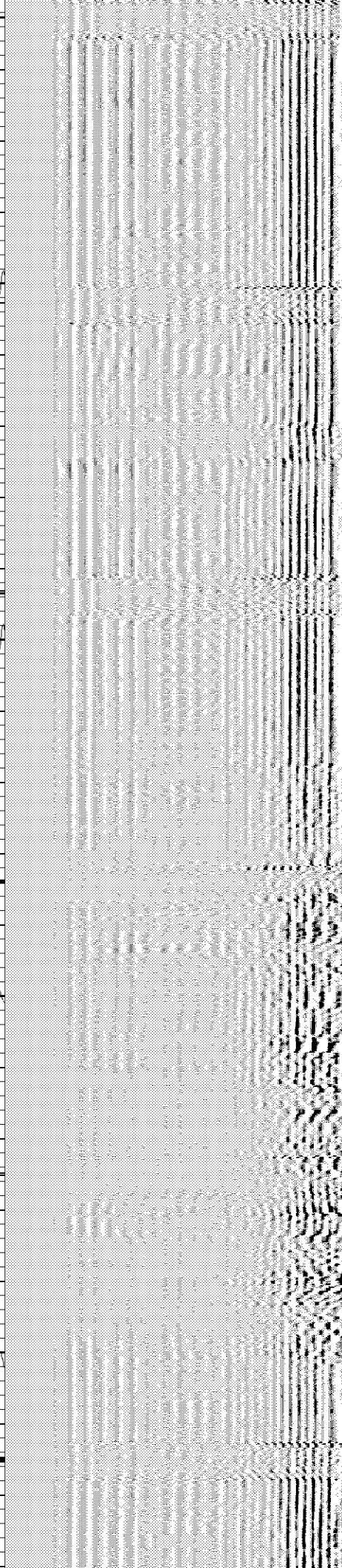
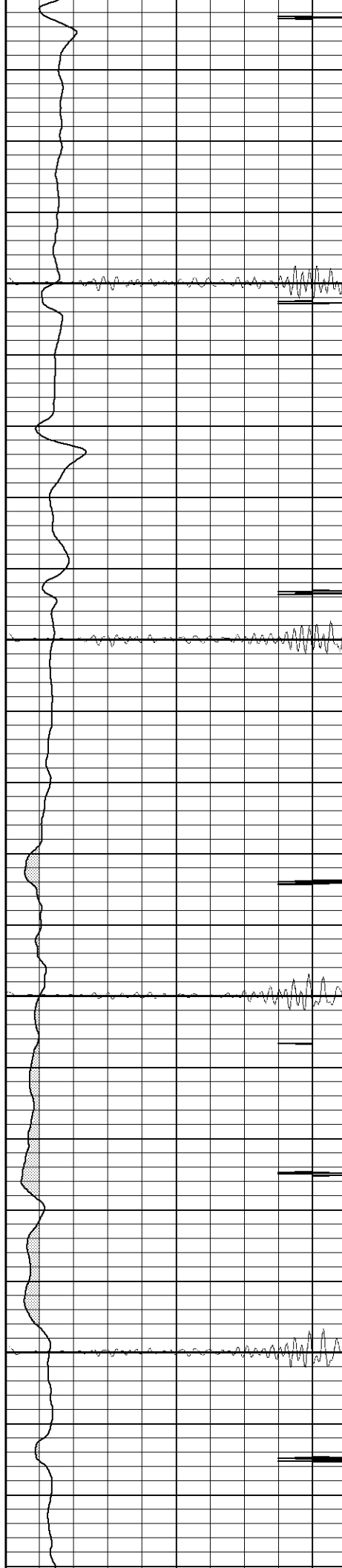


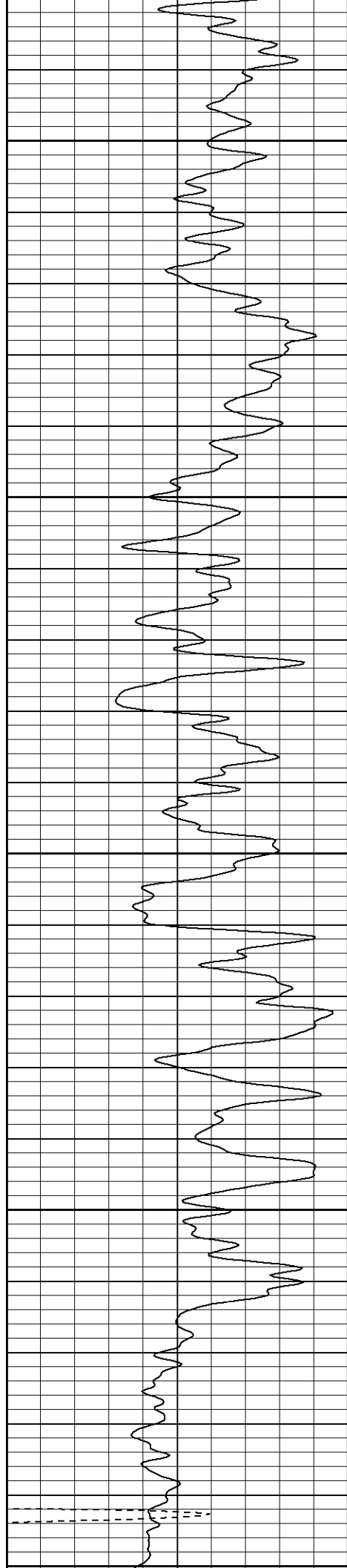
900

950

1000

1050





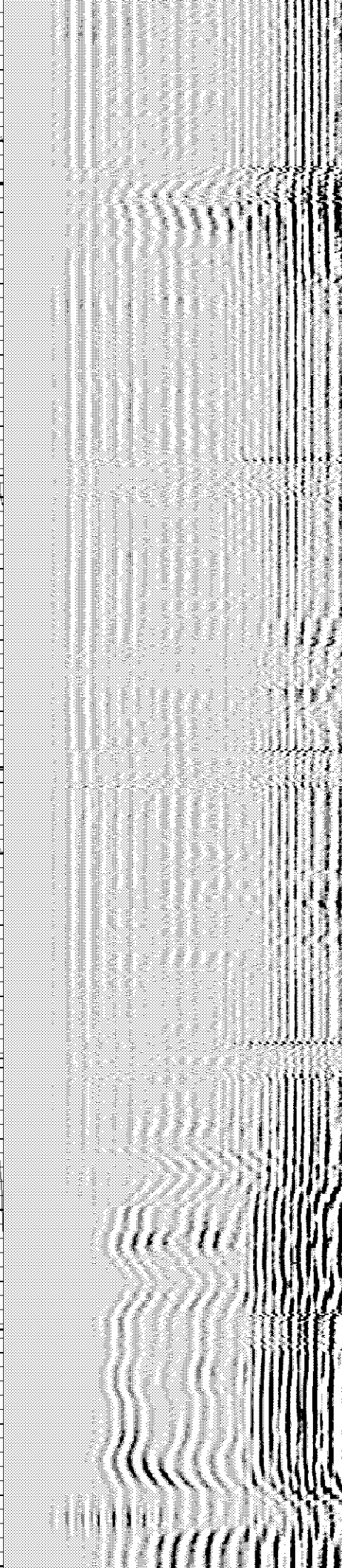
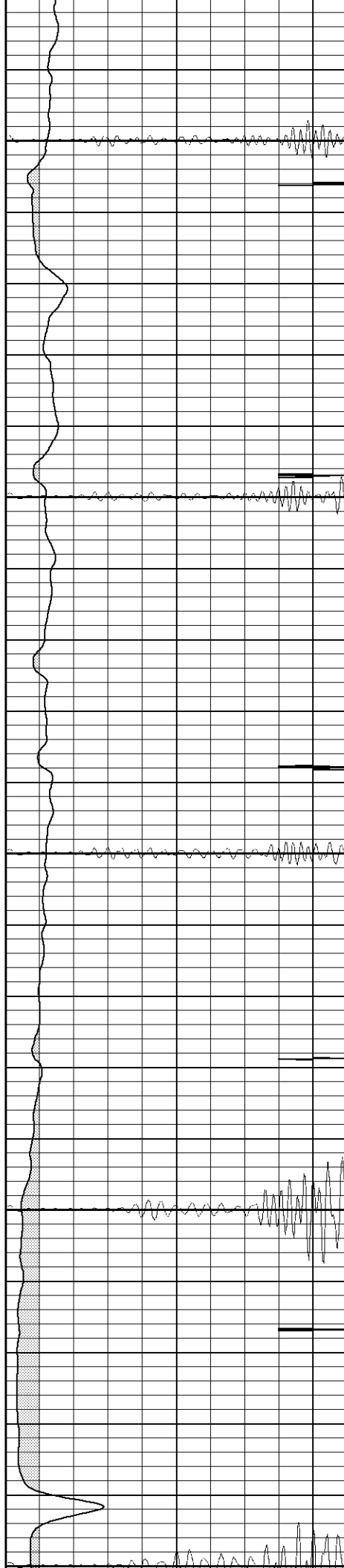
1100

1150

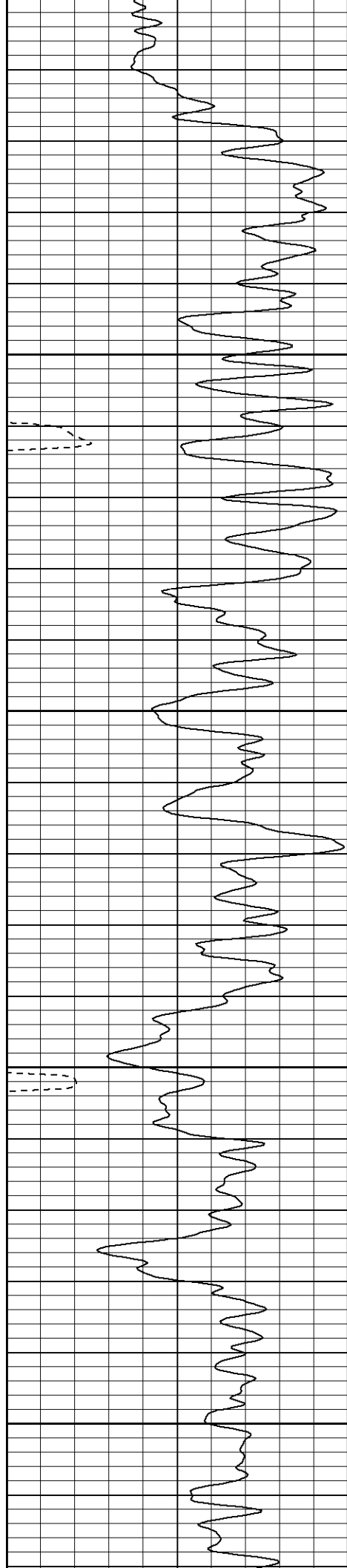
1200

1250

1300







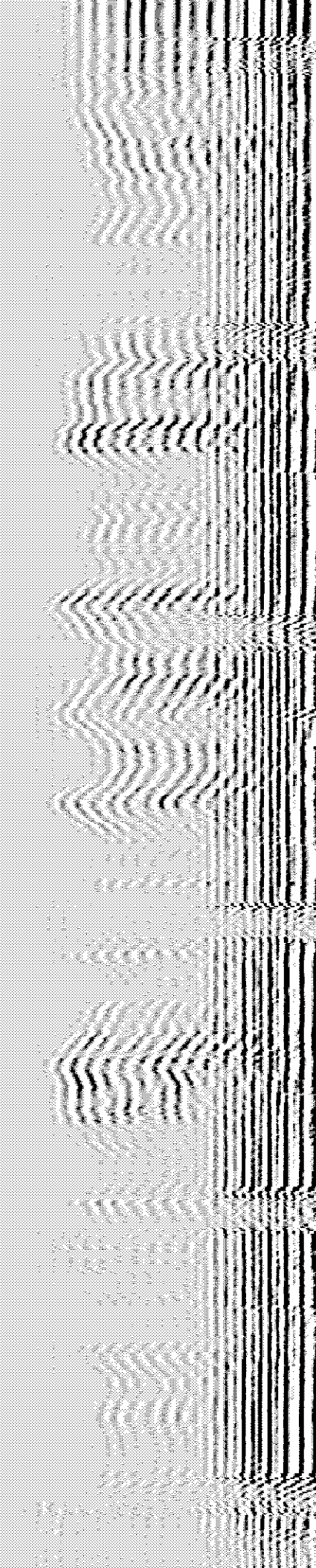
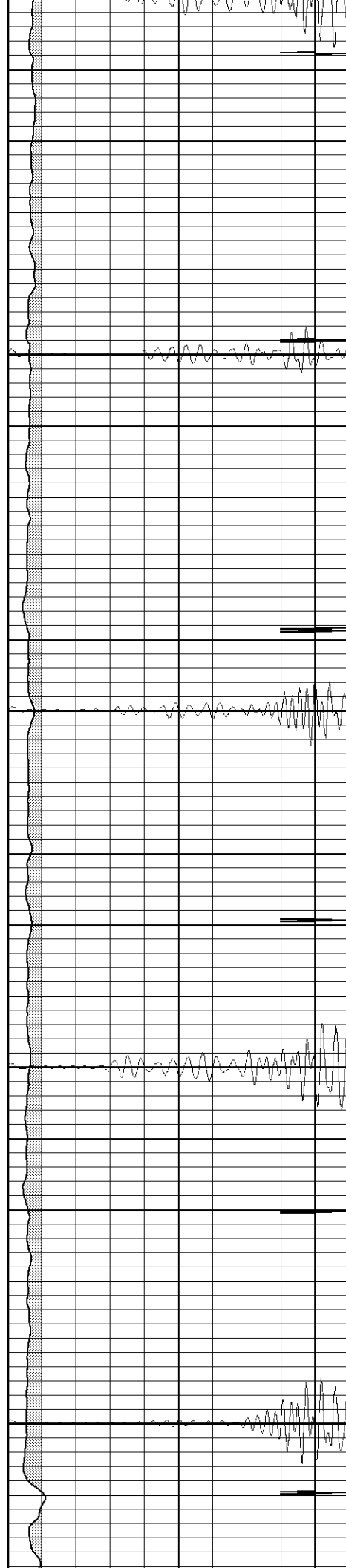
1300

1350

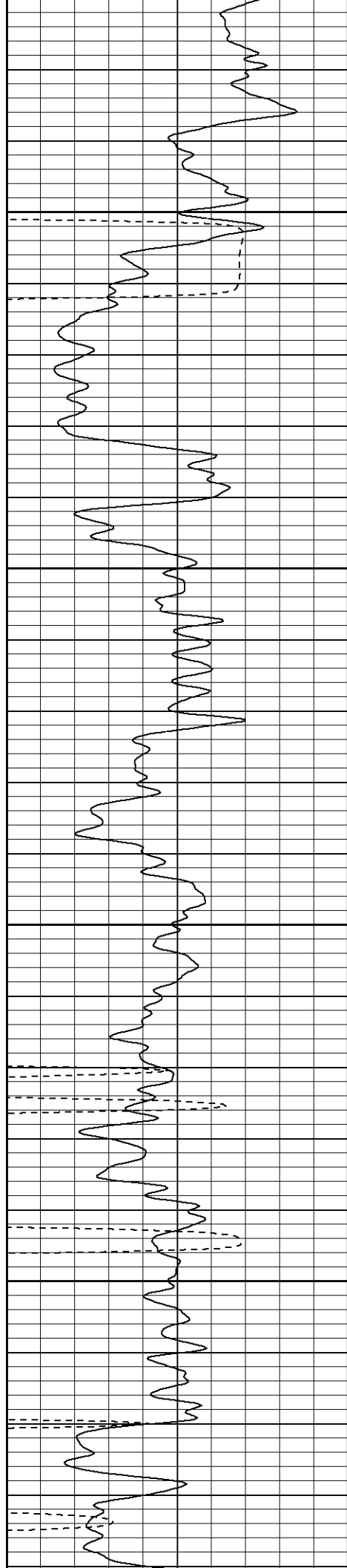
1400

1450

1500





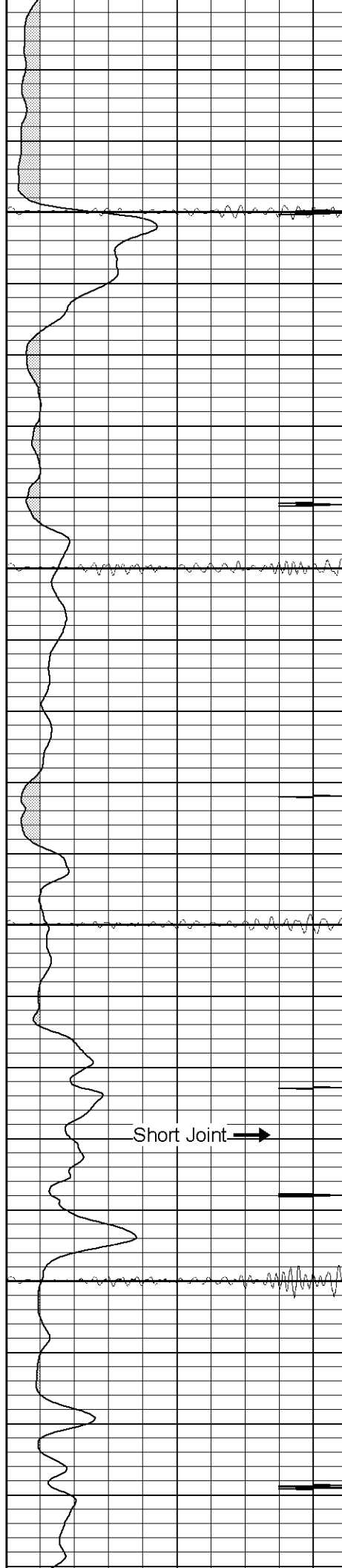


1550

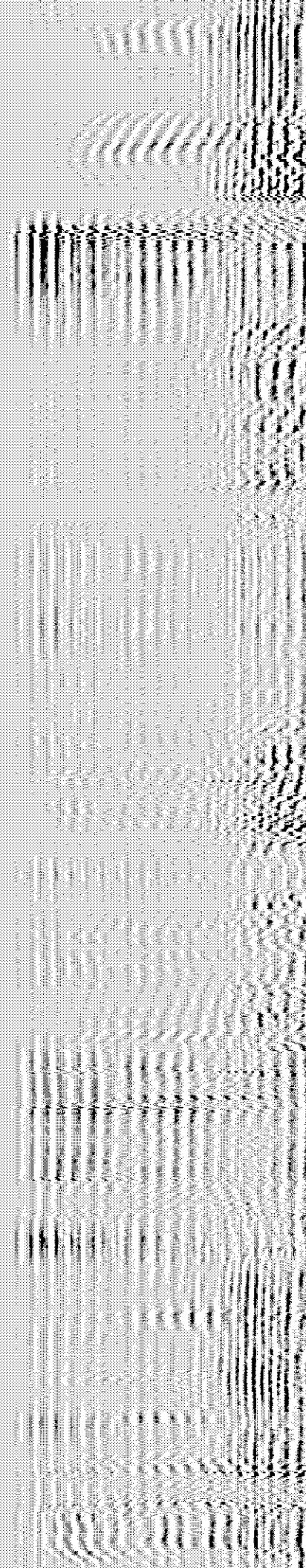
1600

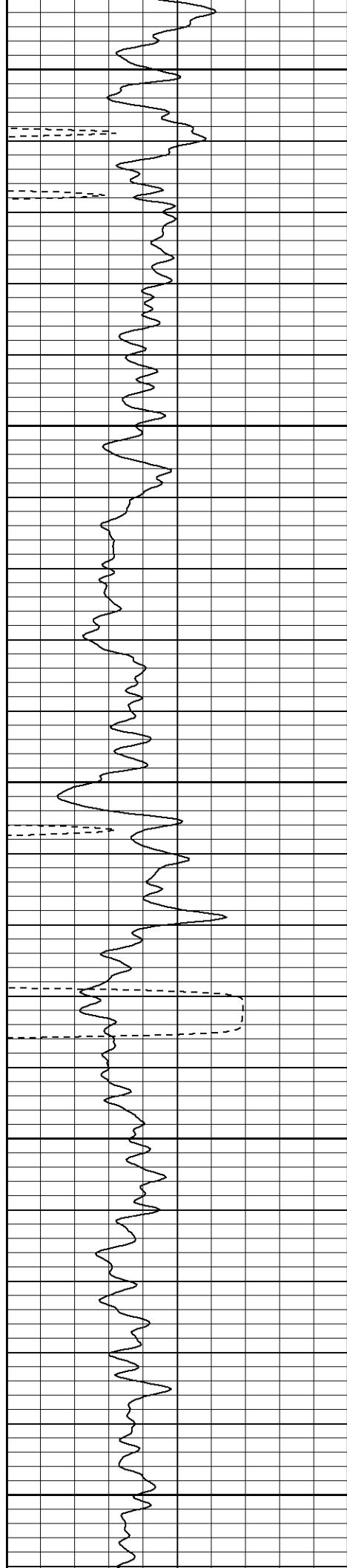
1650

1700



Short Joint →





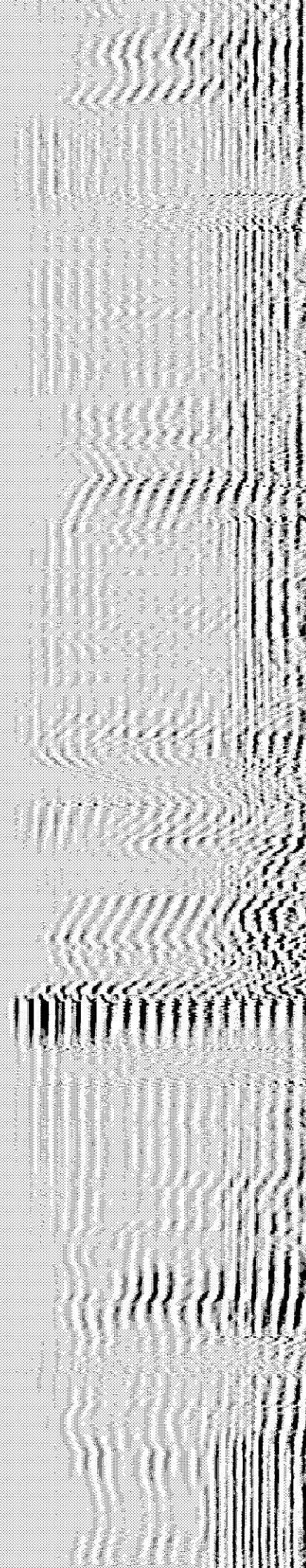
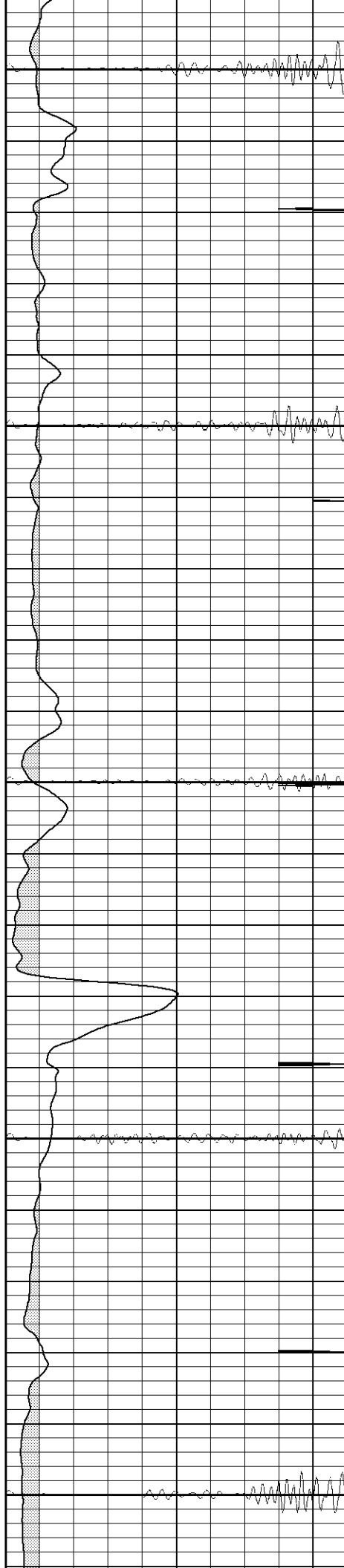
1750

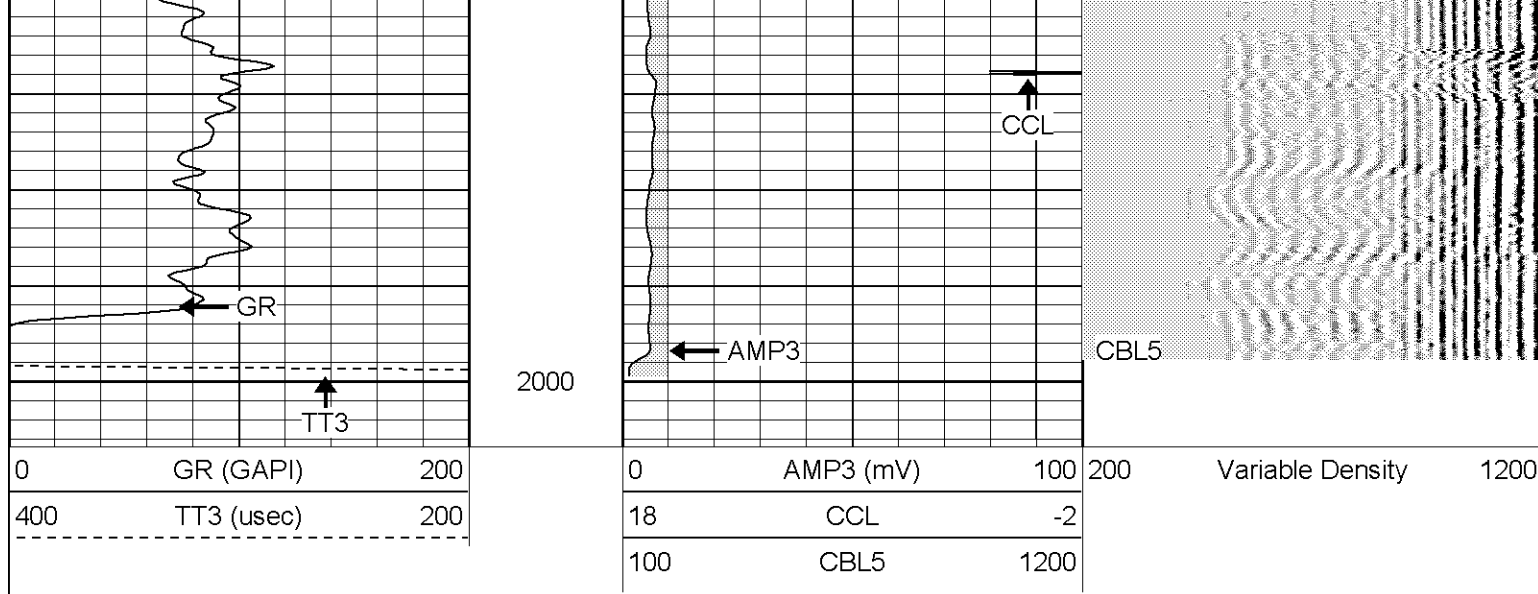
1800

1850

1900

1950

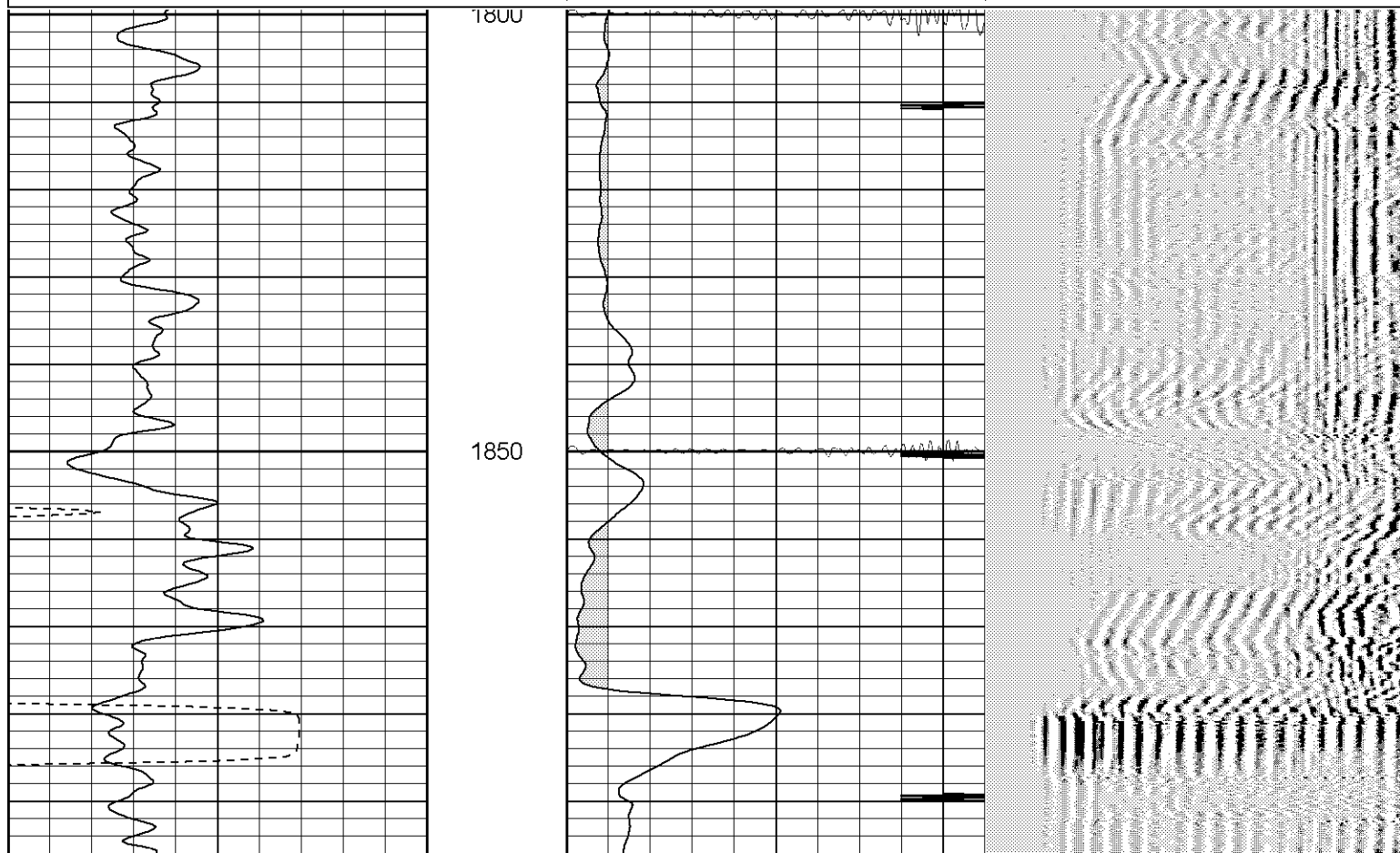
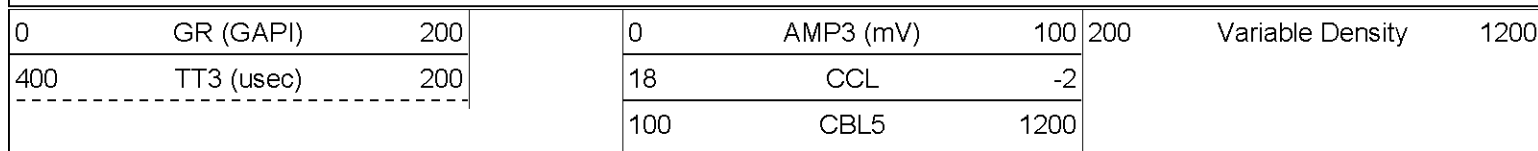


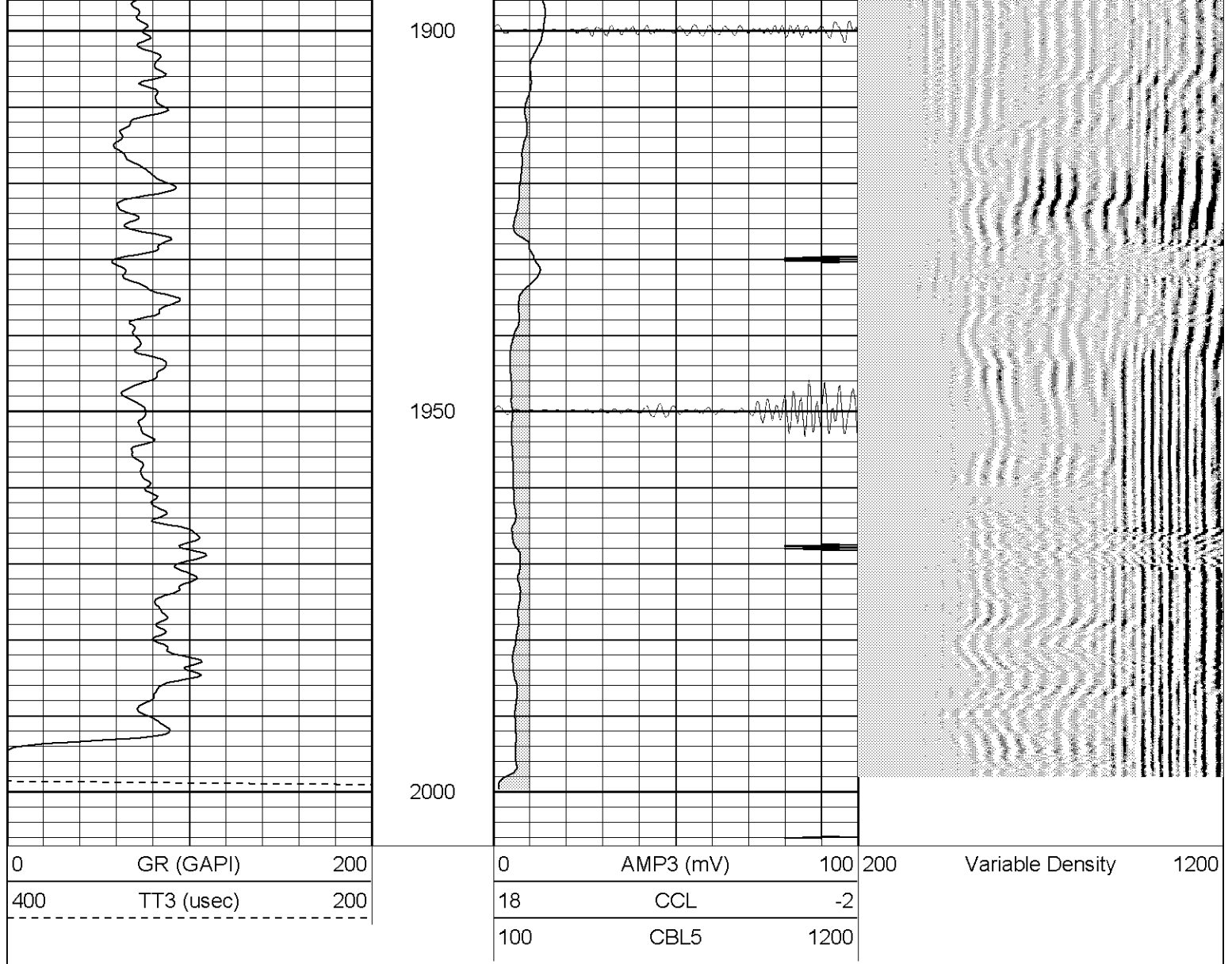


**Patterson**

# Repeat Section

Database File: lorencito1222110705b.db  
 Dataset Pathname: pass1.2  
 Presentation Format: cblrt  
 Dataset Creation: Tue Nov 08 08:50:25 2005 by Calc Warrior 7.0 STD Ope  
 Charted by: Depth in Feet scaled 1:240





### Cement Bond Log Calibration Report

Serial Number:	Titan3		
Tool Model:	T3		
Performed:	Mon Nov 07 09:55:44 2005		
Depth:	0	ft	
Casing Diameter:	0	in	
	3' Spacing	5' Spacing	
Signal Zero:	1	1	mV
Calibrated Amplitude:	85	85	mV
Reading at Signal Zero:	-0.01	-0.01	V
Reading in Free Pipe:	1.95	1.45	V
Gain:	42.8571	57.5342	
Offset:	1.42857	1.57534	

### Gamma Ray Calibration Report

Serial Number:	Titan3	
Tool Model:	T3	
Performed:	Mon Nov 07 16:37:20 2005	
Calibrator Value:	1.0	GAPI

Background Reading:	0.0	cps
Calibrator Reading:	1.0	cps
Sensitivity:	1.2500	GAPI/cps

Sensor	Offset (ft)	Schematic	Description	Len (ft)	OD (in)	Wt (lb)
CHD	15.41		None	0.75	1.50	5.00
GR	13.40		GR-T3 (Titan3) Titan3	2.52	2.25	25.00
WVF5	9.24		CBL-T3 (Titan3) Titan3	7.23	2.25	110.00
WVF3	8.24					
CENT	4.91		X	3.00	1.69	25.00
CCL	0.70		CCL-T2 (Titan2) Short	1.91	2.75	15.00
<div> Dataset: /field/well/run/_plots/_jobs/cbl  Total Length: 15.41 ft  Total Weight: 180.00 lb  O.D. 2.75 in </div>						