LOG-TECH

(785) 625-3858

Sonic Cement Bond Log

API No. 15-083-21772-00-00

Company American Warrior, Inc.
Well Helfrich - Gleason No. 1-5
Field Sawlog Creek South
County Hodgeman State Kansas

Location 1232' FSL & 2506' FEL
Sec: 5 Twp: 24S Rge: 21W

Other Services: Mast Trailer

Elevation
K.B. 2374
D.F.
G.L. 2366

Permanent Datum: Ground Level — Elevation 2366
Log Measured From: Kelly Bushing — 8 Ft. Above Perm. Datum
Drilling Measured From: Kelly Bushing

Run Number	One		
Date Survey	5/14/2012		
Date Cementing	4/20/2012		
Type Cementing Operation	Primary		
Depth Driller	4662		
Depth Logger	4636		
Logged Interval	4634 to 3350		to
Casing Driller	5.5 @ T.D.		@
Float Collar -- D.V. Tool	1410 \\\\		
Squeeze Depth	\\\\		
Amount & Type Cement	\\\\		
Amount & Type Admix	\\\\		
Type Fluid In Hole	Water		
Fluid Level	120		
Salinity PPM CL	\\\\		
Weight lb/gal -- Vis.	\\\\ \\\\		
Approx. Logged Cement Top	3580		
Calculated Cement Top	\\\\		
Max. Hole Temperature	123		
Tool No.	D-1		
Spacing Recorded	3-5		
Equipment -- Location	72 Hays		
Recorded By	K. Ladrigan		
Witnessed By	Joe Smith		

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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

Thank you for using Log-Tech (785) 625-3858

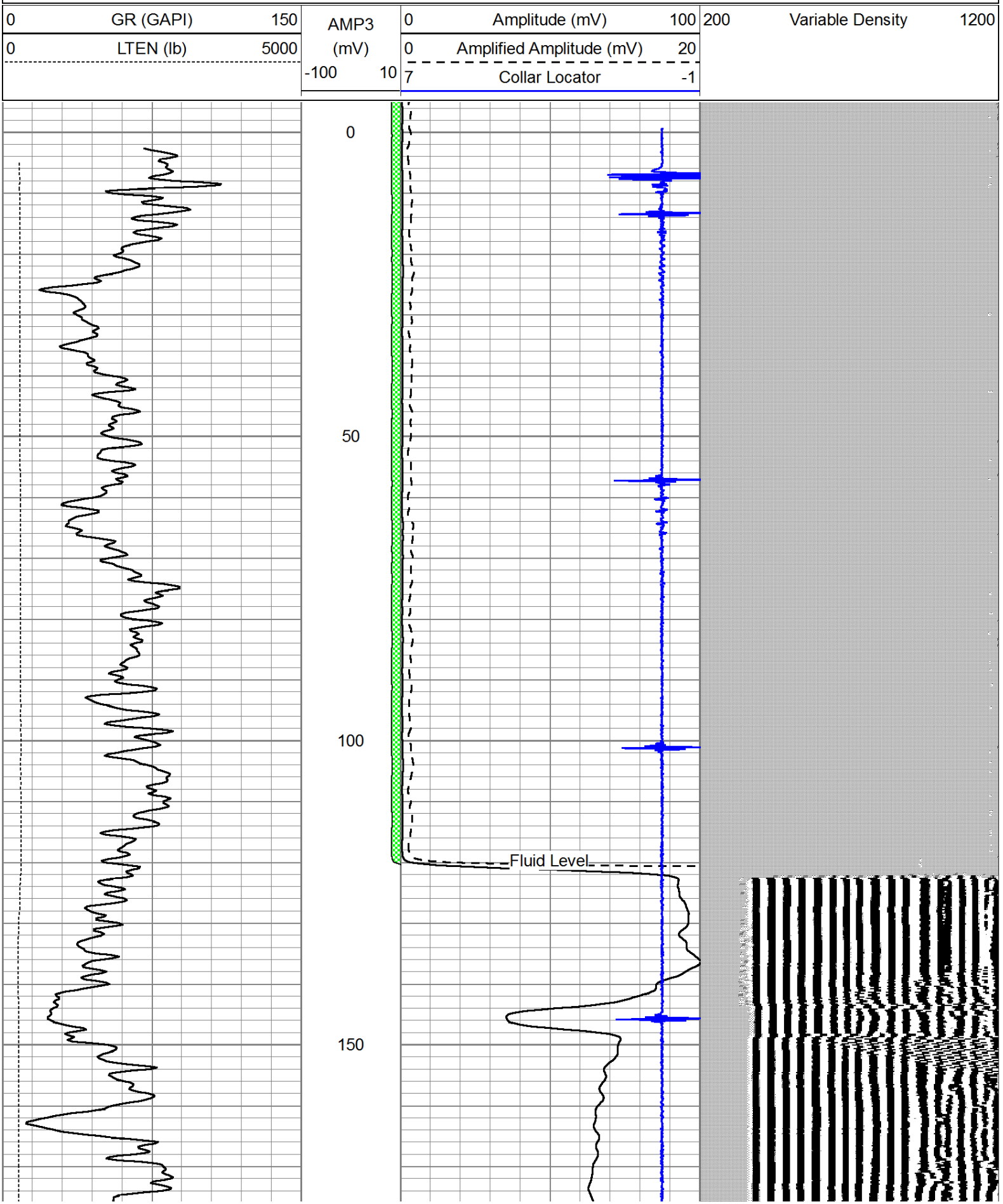
Hanston, KS., 4 East to 232 Road, South to F Road, .5 West
North Into.

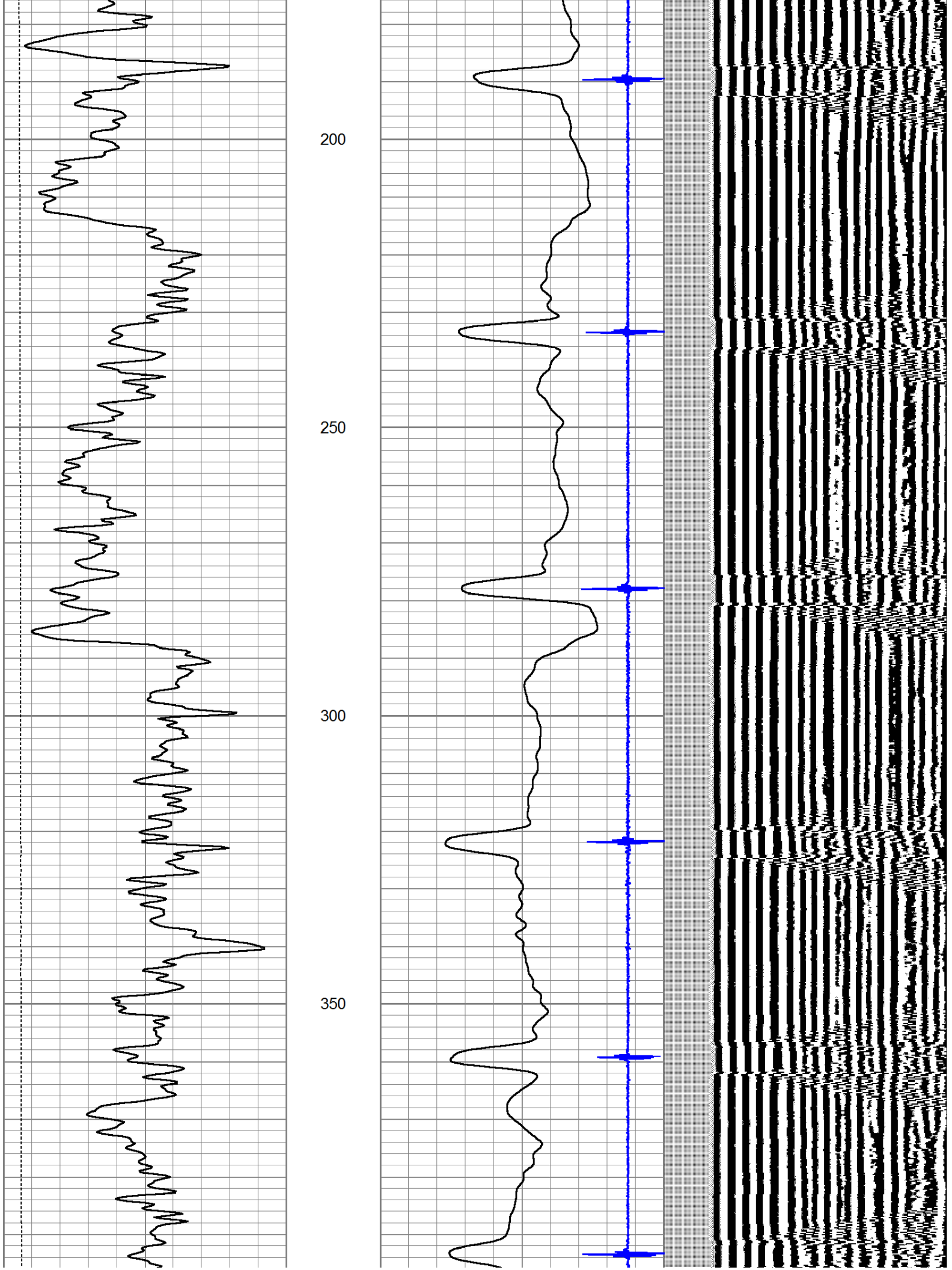
Port Collar @ 1410

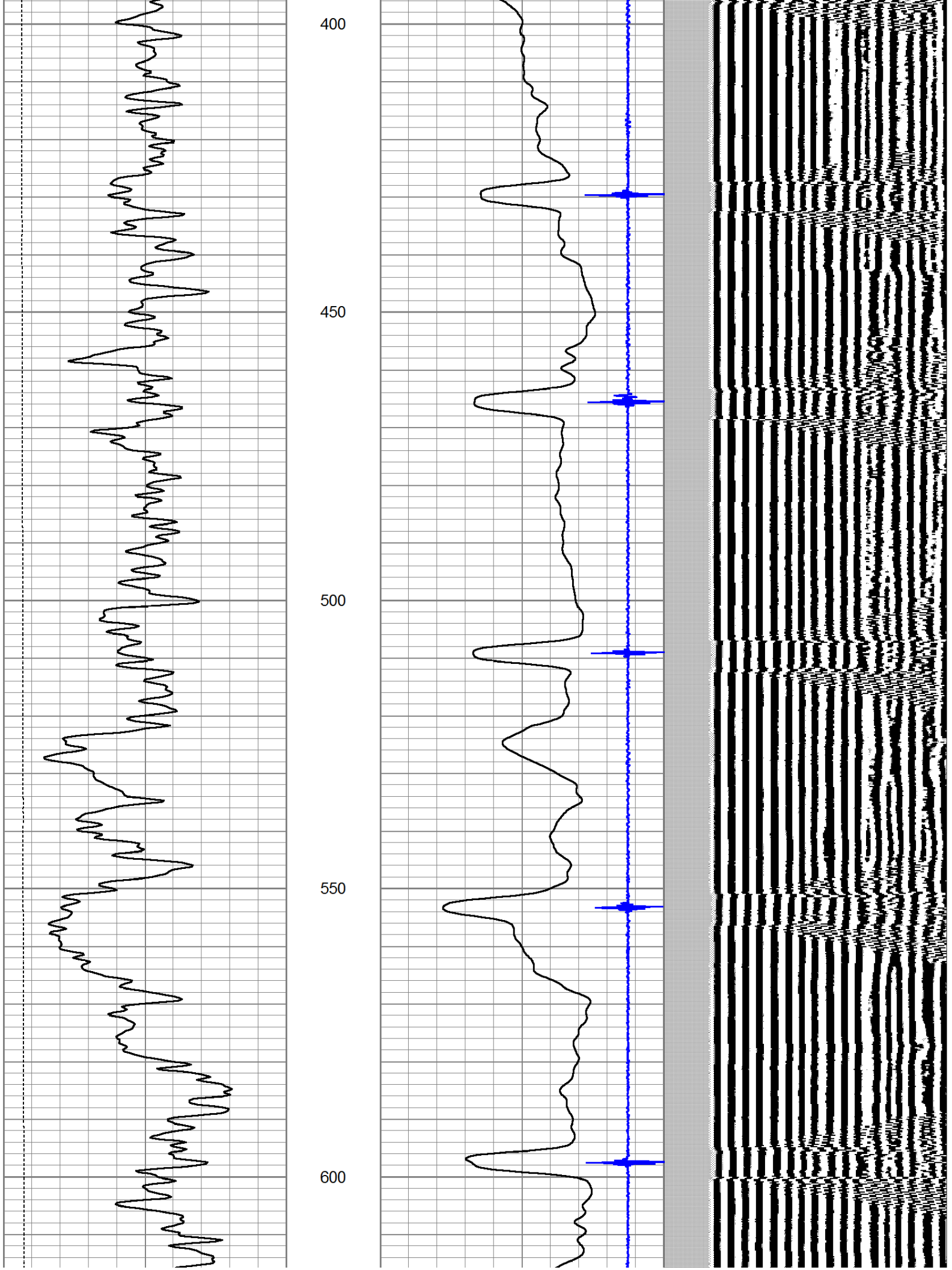
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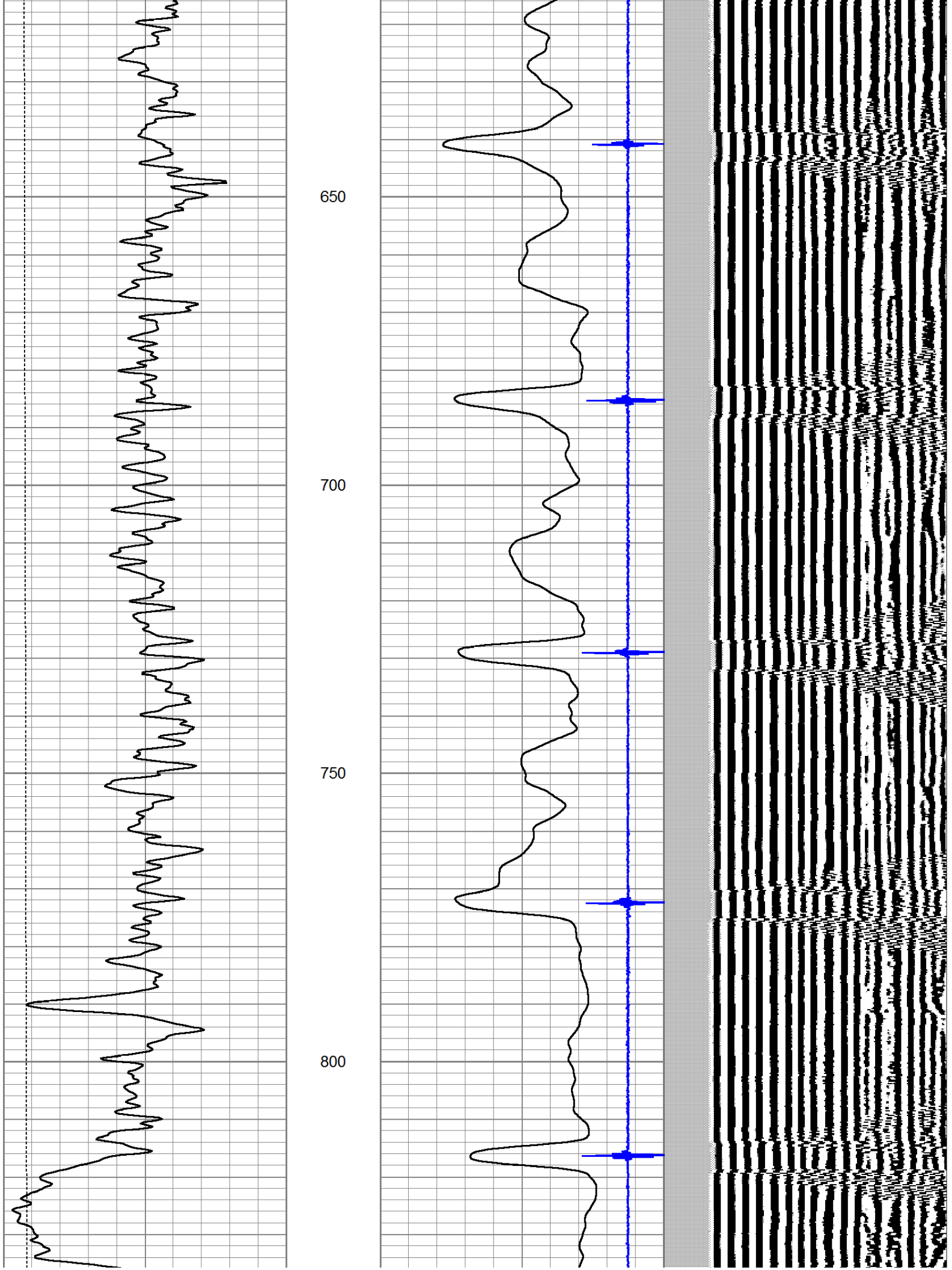
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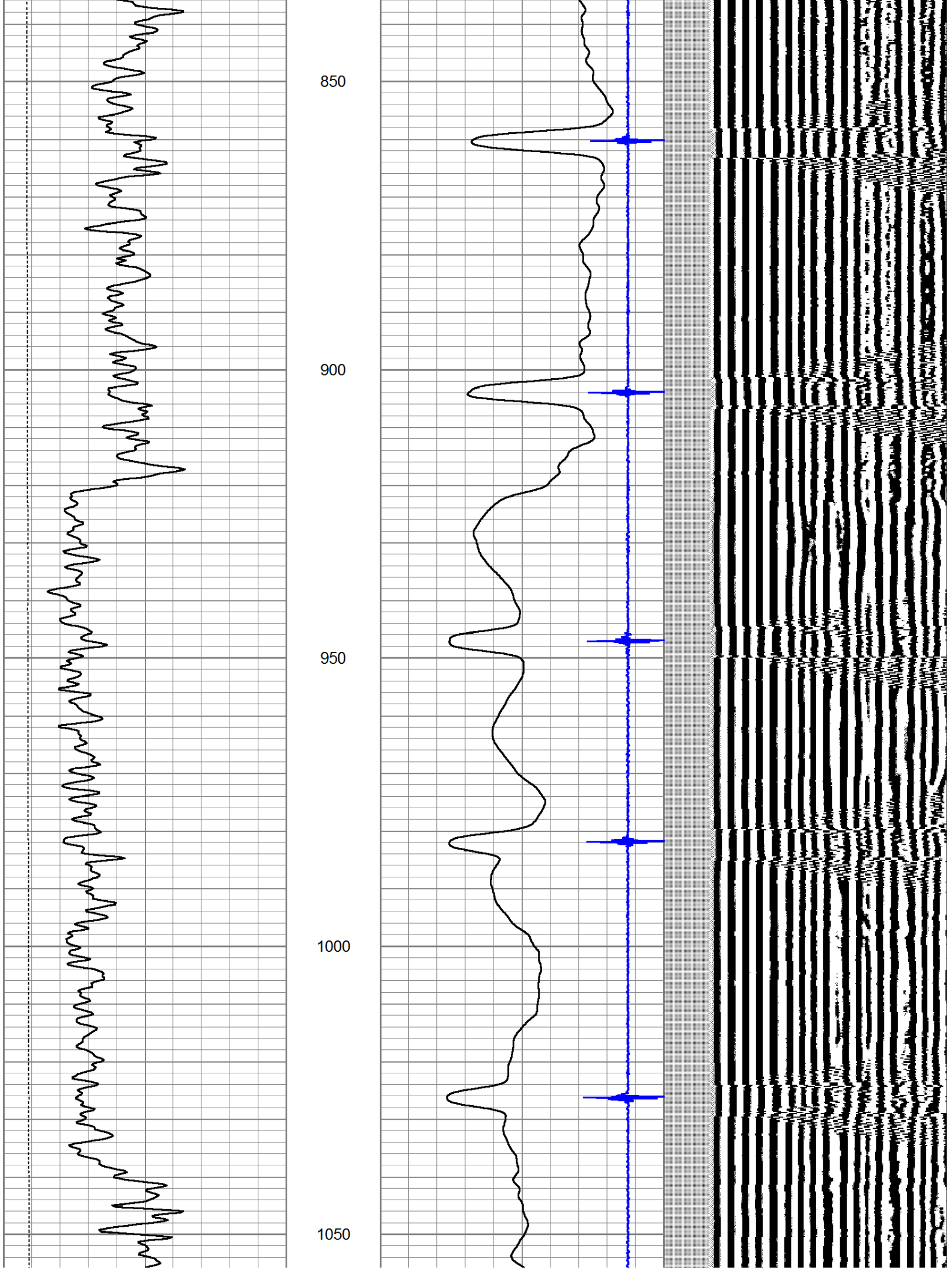
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Dataset Pathname:	grcbl/run1/pass5.1
Presentation Format:	cbldig
Dataset Creation:	Mon May 14 12:18:16 2012
Charted by:	Depth in Feet scaled 1:240

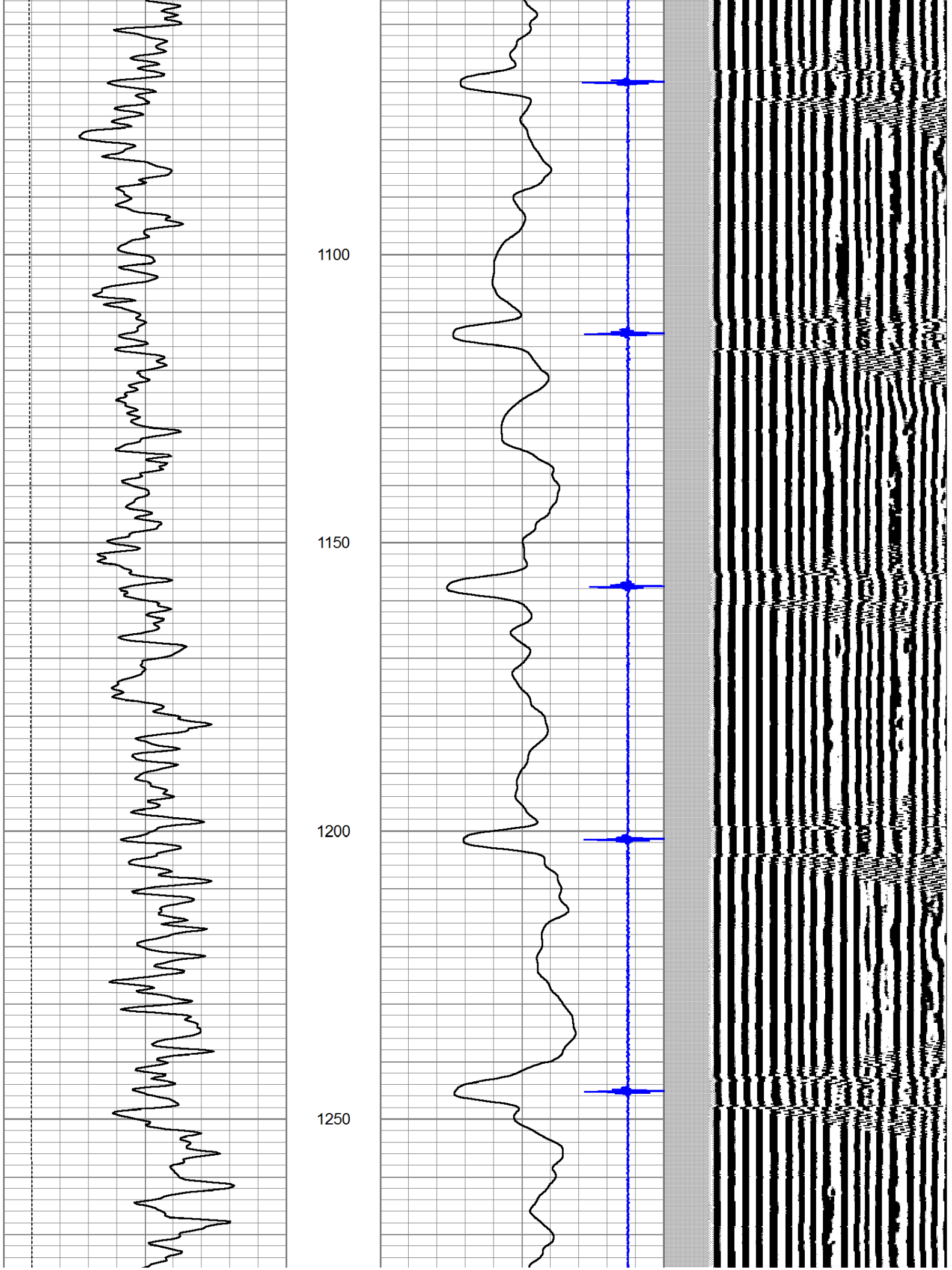


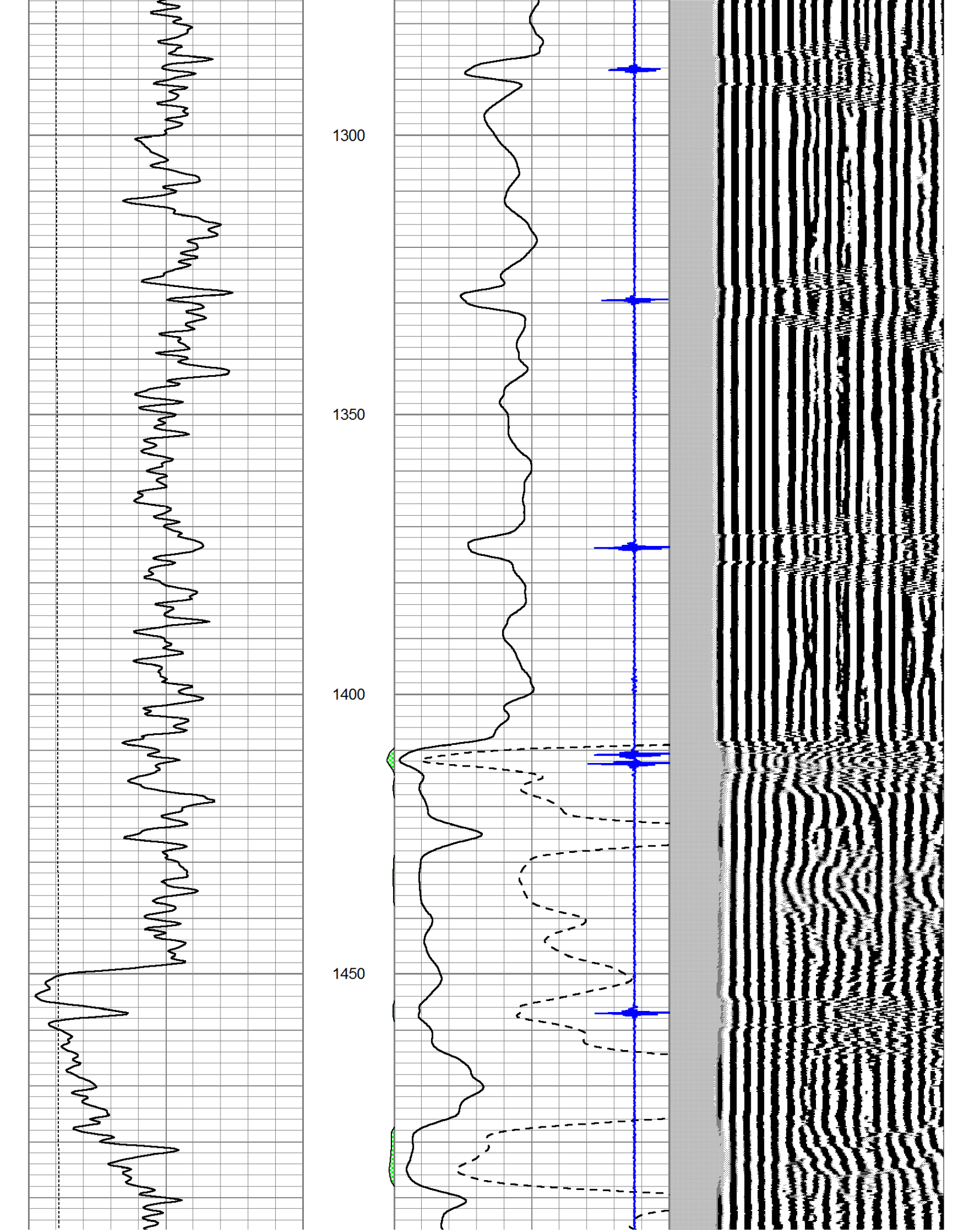

200
250
300
350

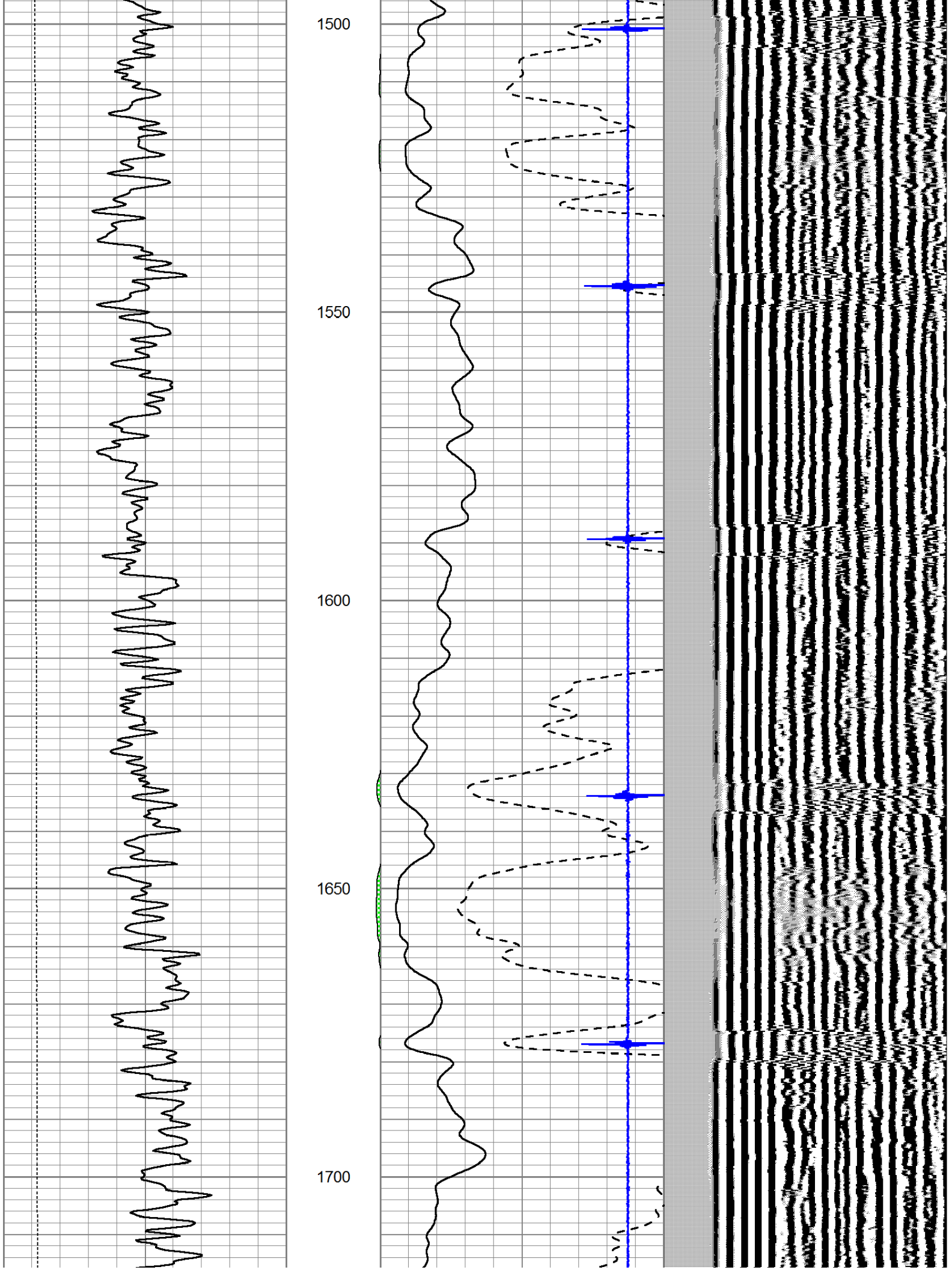

400
450
500
550
600

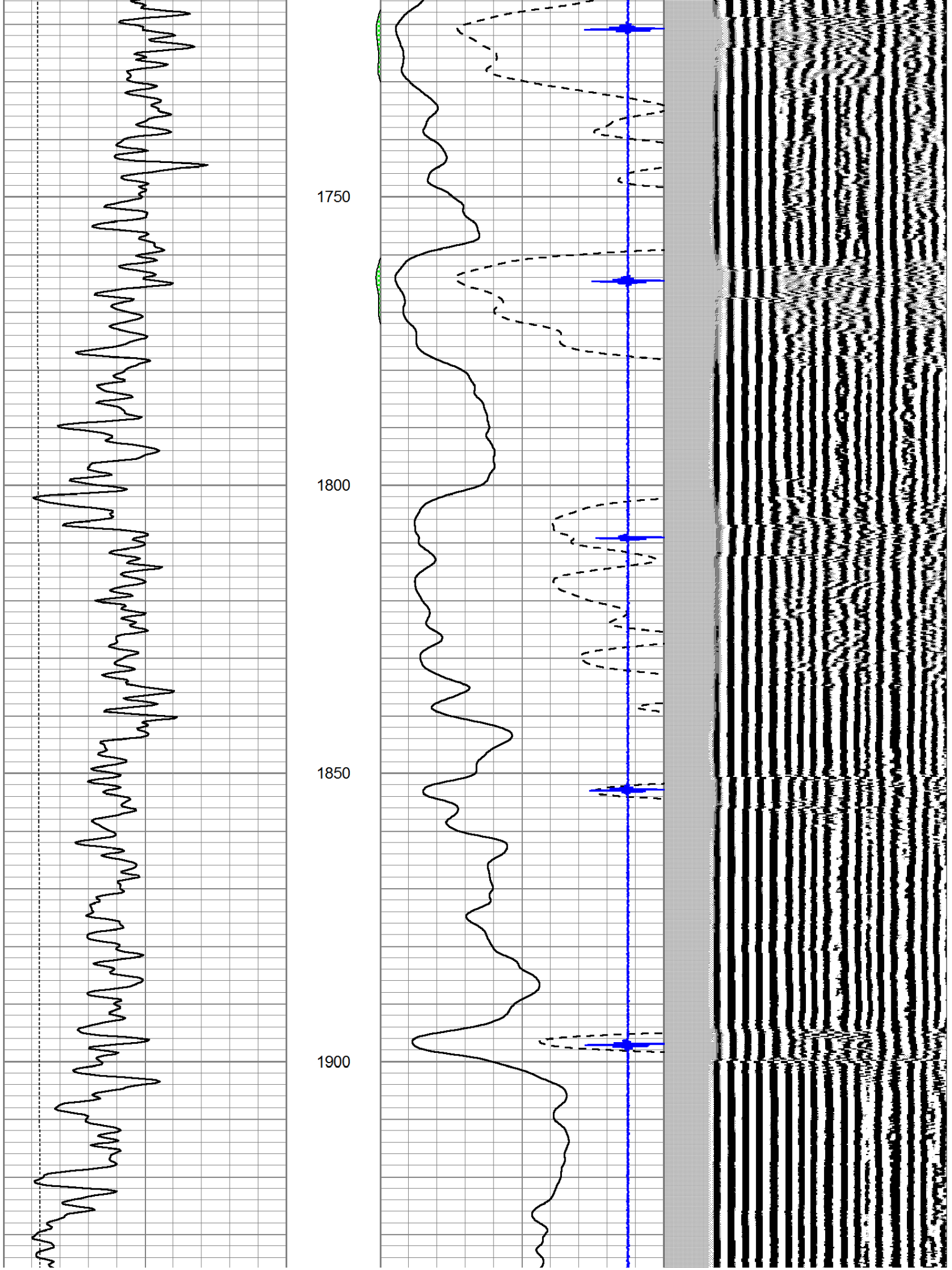

650
700
750
800

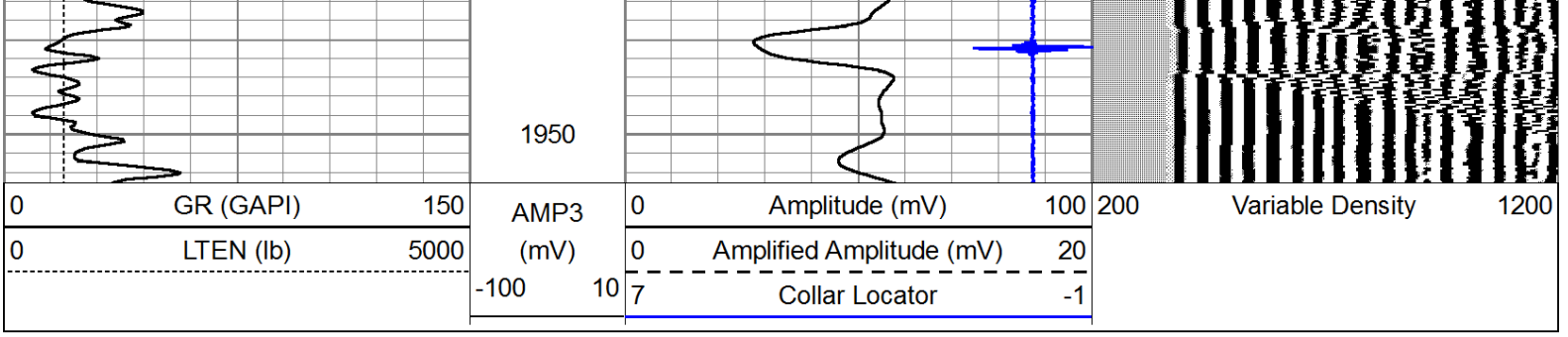

850
900
950
1000
1050


1100
1150
1200
1250


1300
1350
1400
1450


1500
1550
1600
1650
1700

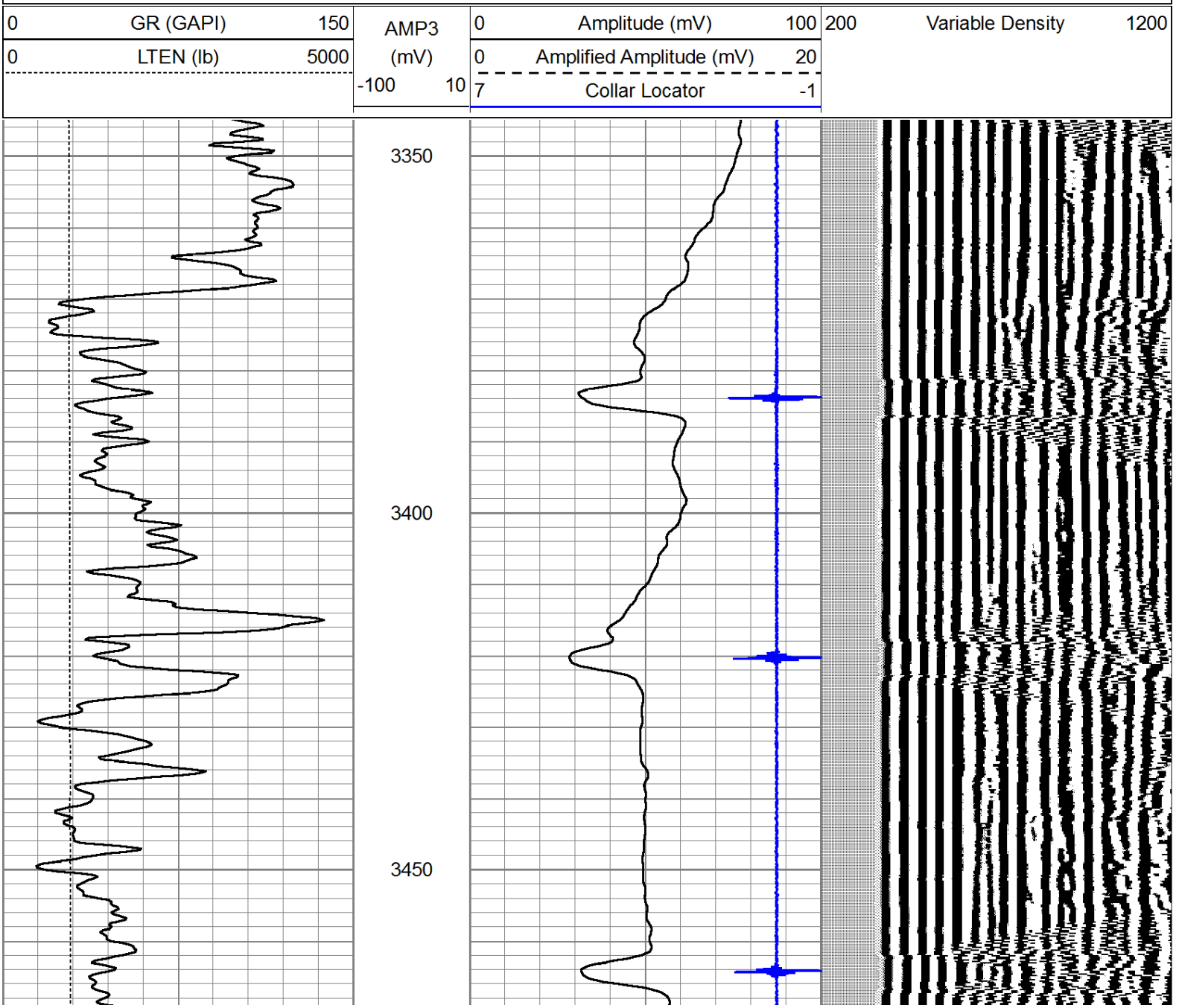

1750
1800
1850
1900

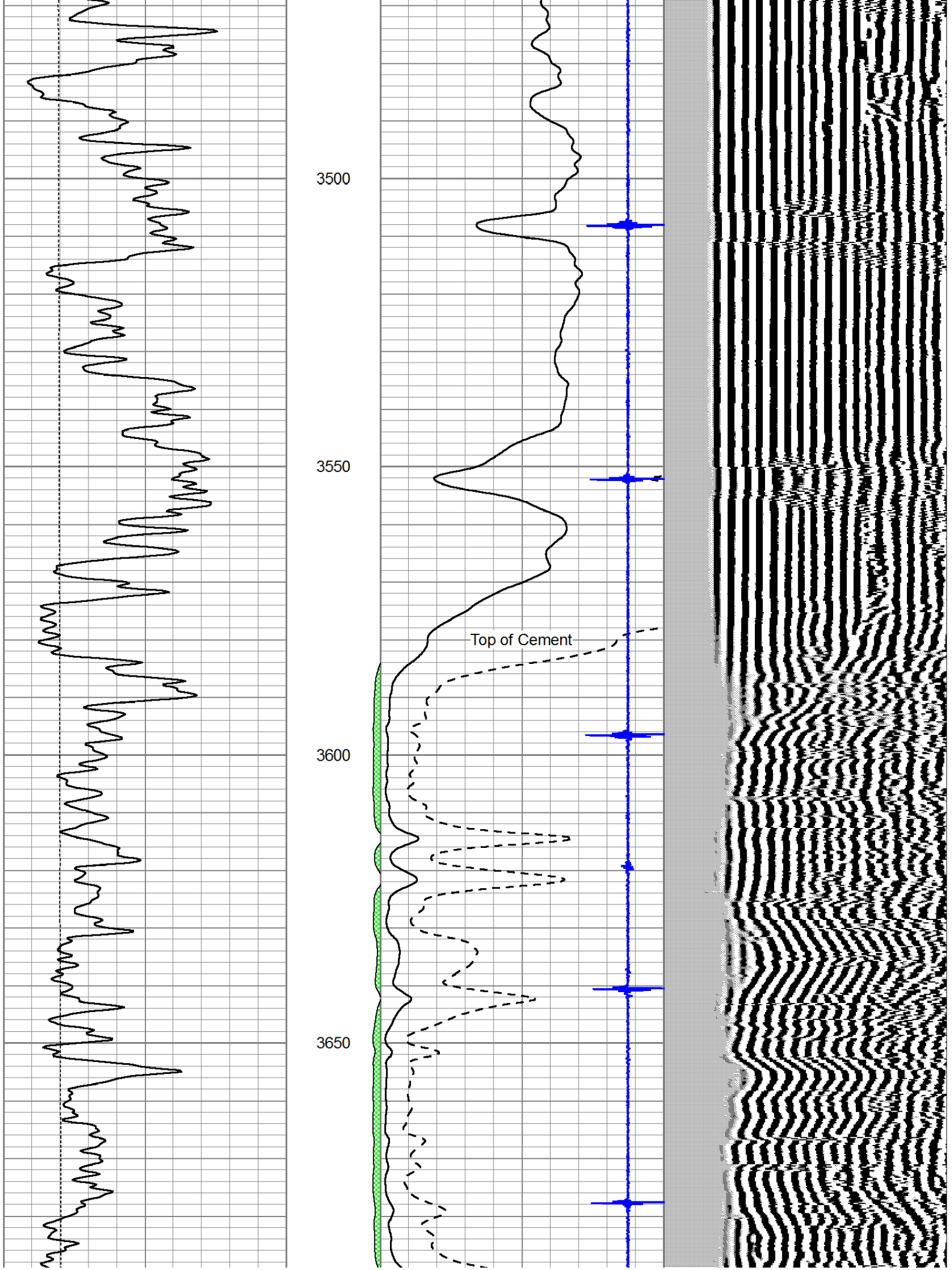


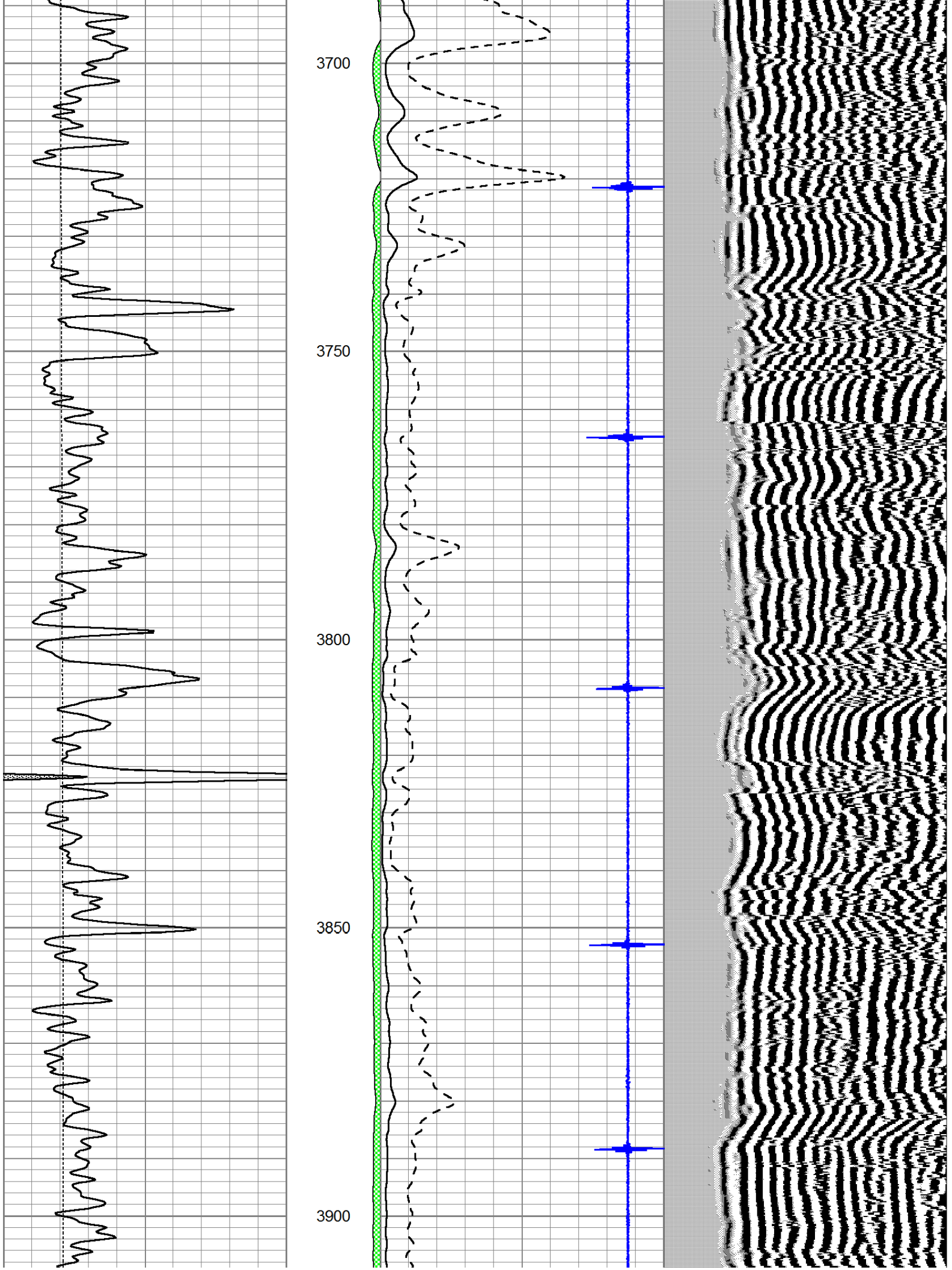
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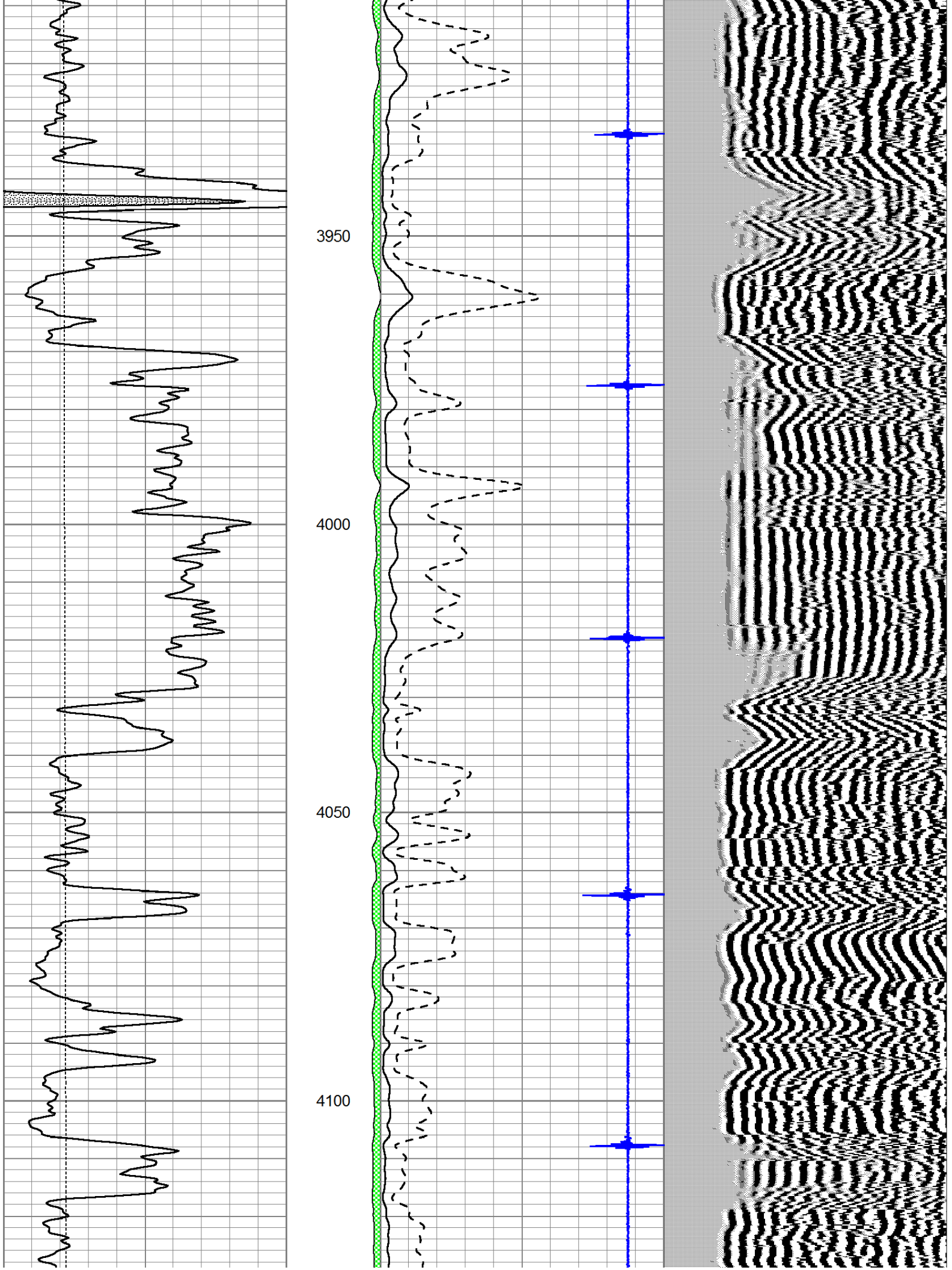
Main Pass

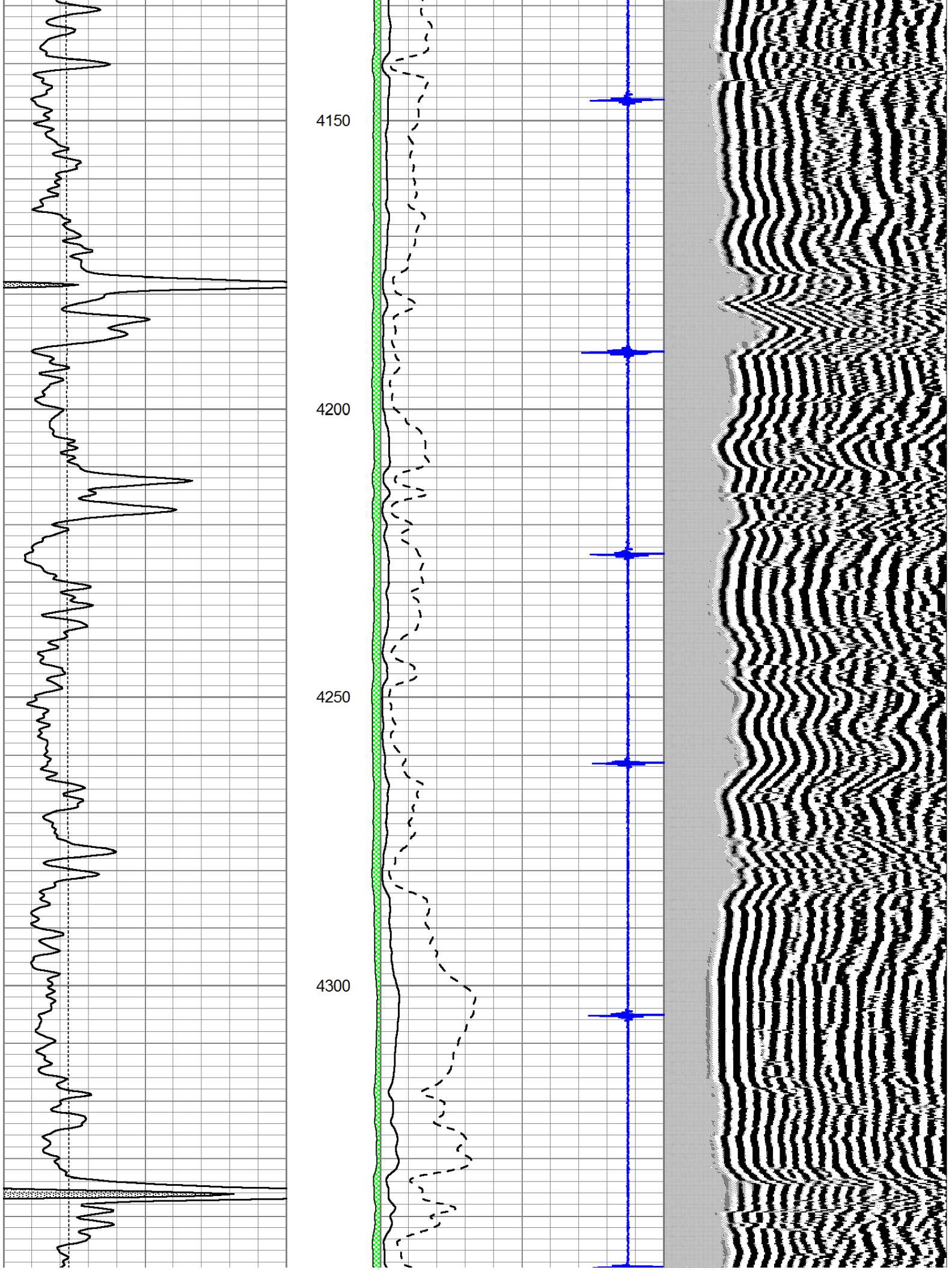
Database File: amwarr_helfrich-gleason1-5.db
Dataset Pathname: grcbl/run1/pass4
Presentation Format: cbldig
Dataset Creation: Mon May 14 11:21:01 2012 by Log SCH 111116
Charted by: Depth in Feet scaled 1:240

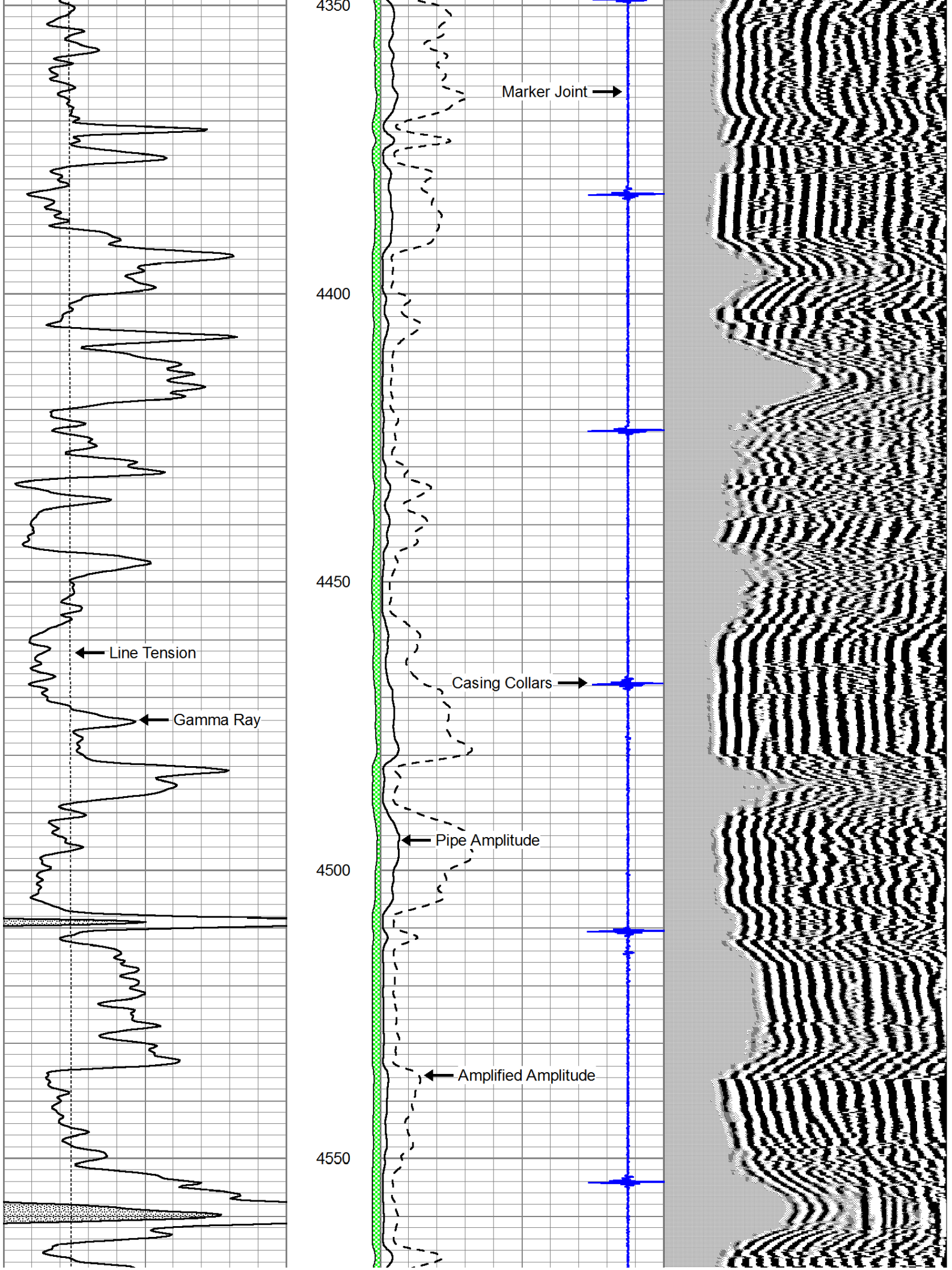


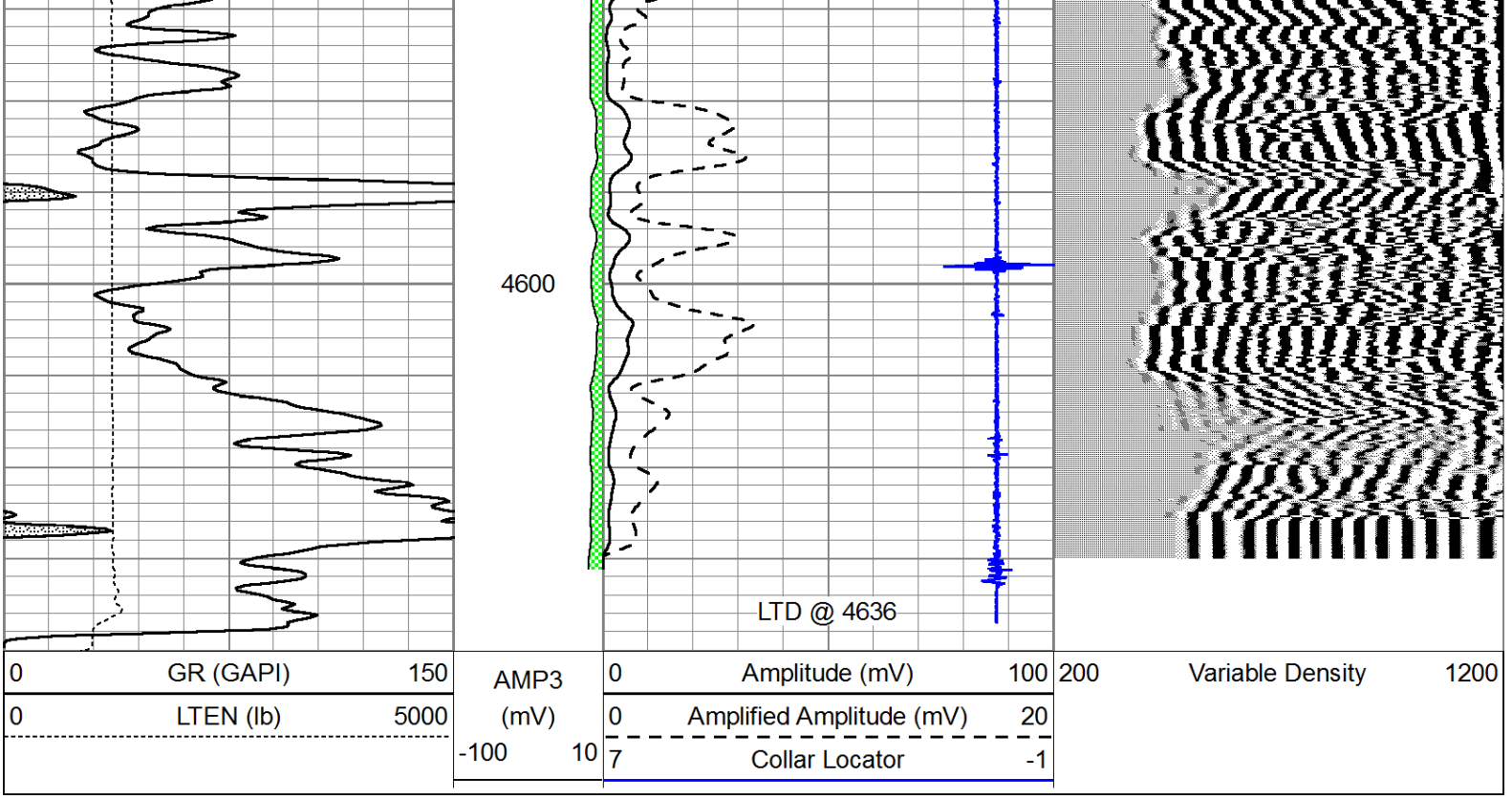

3500
3550
Top of Cement
3600
3650


3700
3750
3800
3850
3900


3950
4000
4050
4100


4150
4200
4250
4300

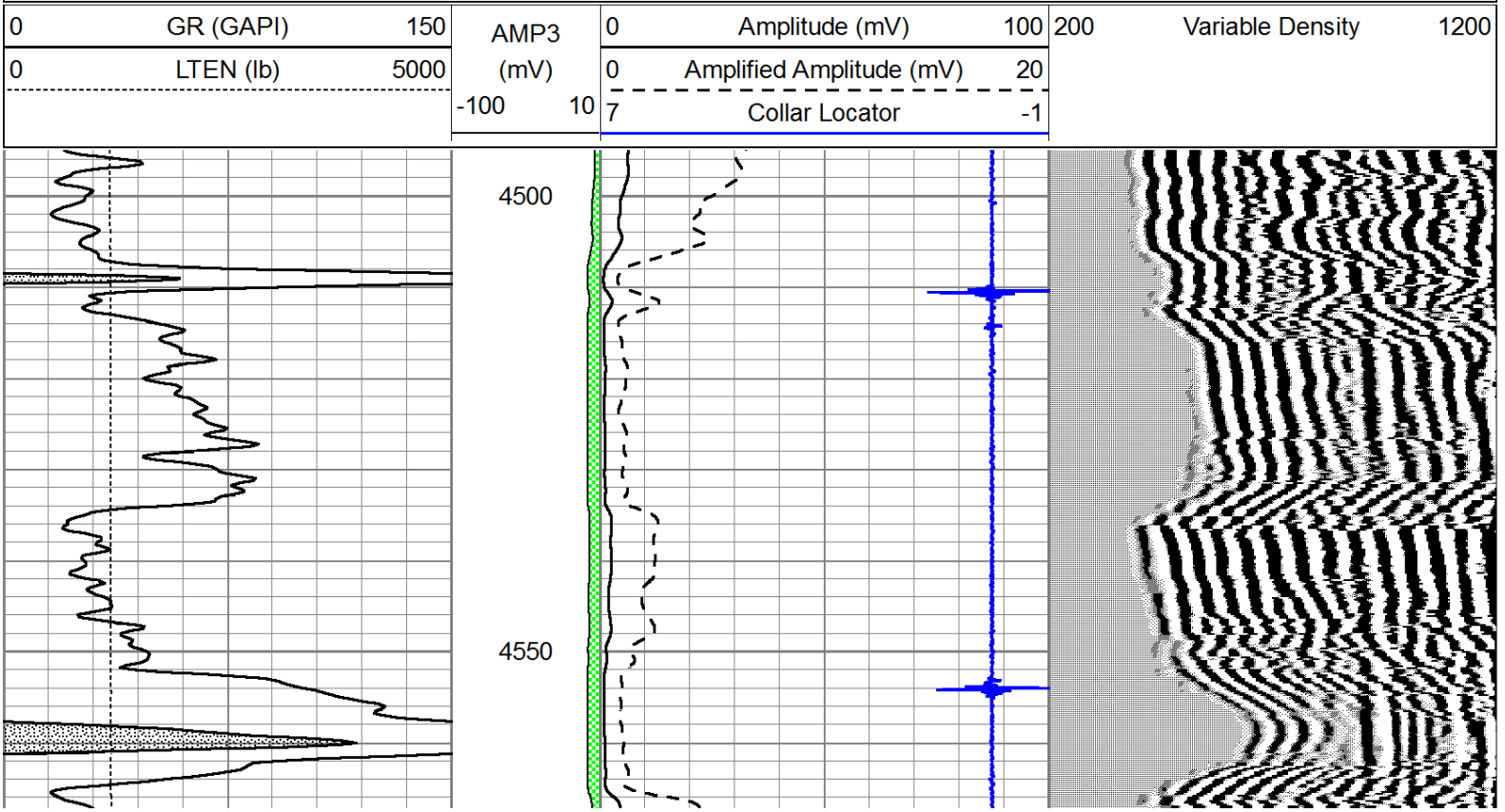

4350
Marker Joint
4400
4450
Line Tension
Casing Collars
Gamma Ray
Pipe Amplitude
4500
Amplified Amplitude
4550

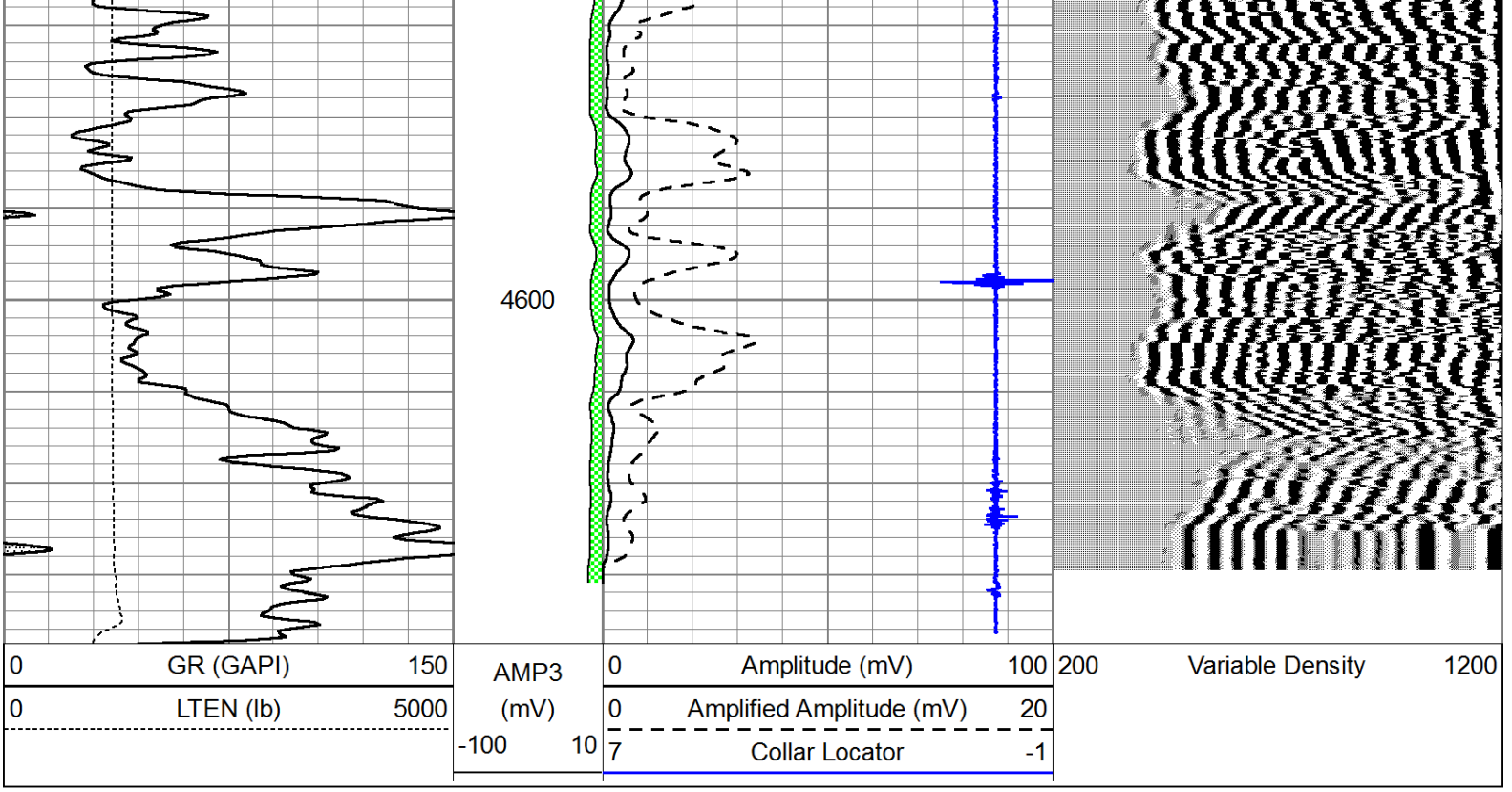


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Repeat Section

Database File: amwarr_helfrich-gleason1-5.db
Dataset Pathname: grcbl/run1/pass3
Presentation Format: cbldig
Dataset Creation: Mon May 14 11:16:39 2012 by Log SCH 111116
Charted by: Depth in Feet scaled 1:240




4600
0
GR (GAPI)
150
0
LTEN (lb)
5000
AMP3
(mV)
-100
10
0
Amplitude (mV)
100
0
Amplified Amplitude (mV)
20
7
Collar Locator
-1
200
Variable Density
1200