



Pioneer Energy Services

**Sonic Cement
Bond Log**

15-171-20905-00-00

API No.

Company **Murfin Drilling Company, Inc.**

Well **Welch No. 1-18**

Field

County **Scott**

State **Kansas**

Location

990' FSL & 1015' FWL

Sec: **18** Twp: **16S** Rge: **32W**

Other Services
Mast Trailer

Elevation

Permanent Datum Ground Level Elevation 2955
 Log Measured From Kelly Bushing 11 Ft. Above Perm. Datum
 Drilling Measured From Kelly Bushing

K.B. 2966
 D.F. 2955
 G.L. 2955

Run Number **One**

Date Survey **9/18/2012**

Date Cementing **9/10/2012**

Type Cementing Operation **Primary**

Depth Driller **4715**

Depth Logger **4690**

Logged Interval **4688 to 2900**

Casing Driller **5.5 @ T.D. @**

Float Collar -- D.V. Tool **2347**

Squeeze Depth **|||||**

Amount & Type Cement **|||||**

Amount & Type Admix **|||||**

Type Fluid In Hole **Water**

Fluid Level **Full**

Salinity PPM CL **|||||**

Weight lb/gal -- Vis. **|||||**

Approx. Logged Cement Top **3085**

Calculated Cement Top **|||||**

Max. Hole Temperature **125**

Tool No. **D-1**

Spacing Recorded **3-5**

Equipment -- Location **72 Hays**

Recorded By **K. Ladrigan**

Witnessed By **John Gerstner**

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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 Pioneer Energy Services, Inc. 785.625.3858

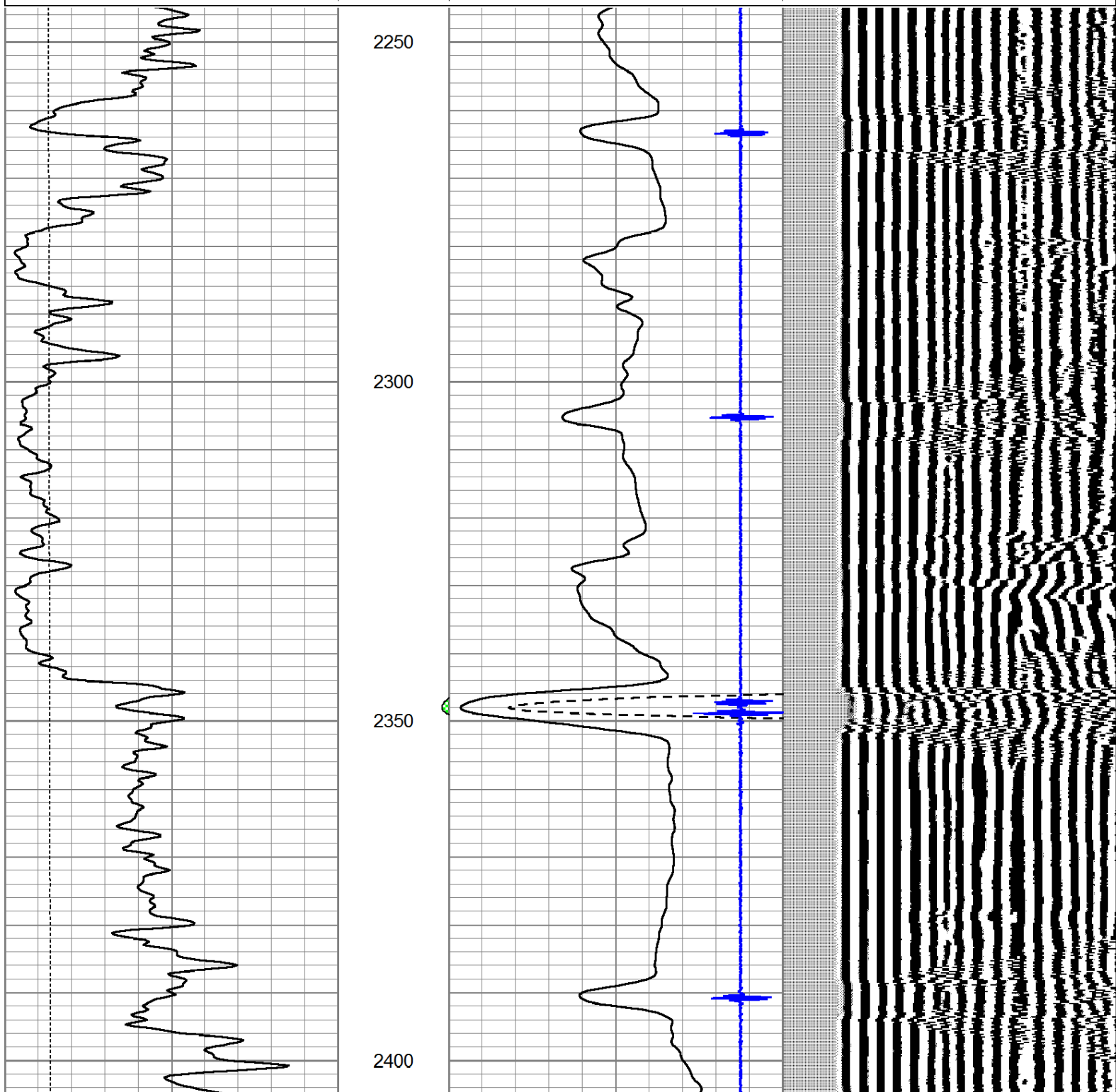
HWY 83 & HWY 4, 4.7 North to 270 Road, 1.5 West
 North and West Into.



Port Collar @ 2347

Database File: murfin-welch1-18.db
 Dataset Pathname: pass7
 Presentation Format: cldig
 Dataset Creation: Tue Sep 18 10:06:50 2012 by Log SCH 111116
 Charted by: Depth in Feet scaled 1:240

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0	LTEN (lb)	5000	(mV)	0	Amplified Amplitude (mV)	20			
			-100 10	7	Collar Locator	-1			

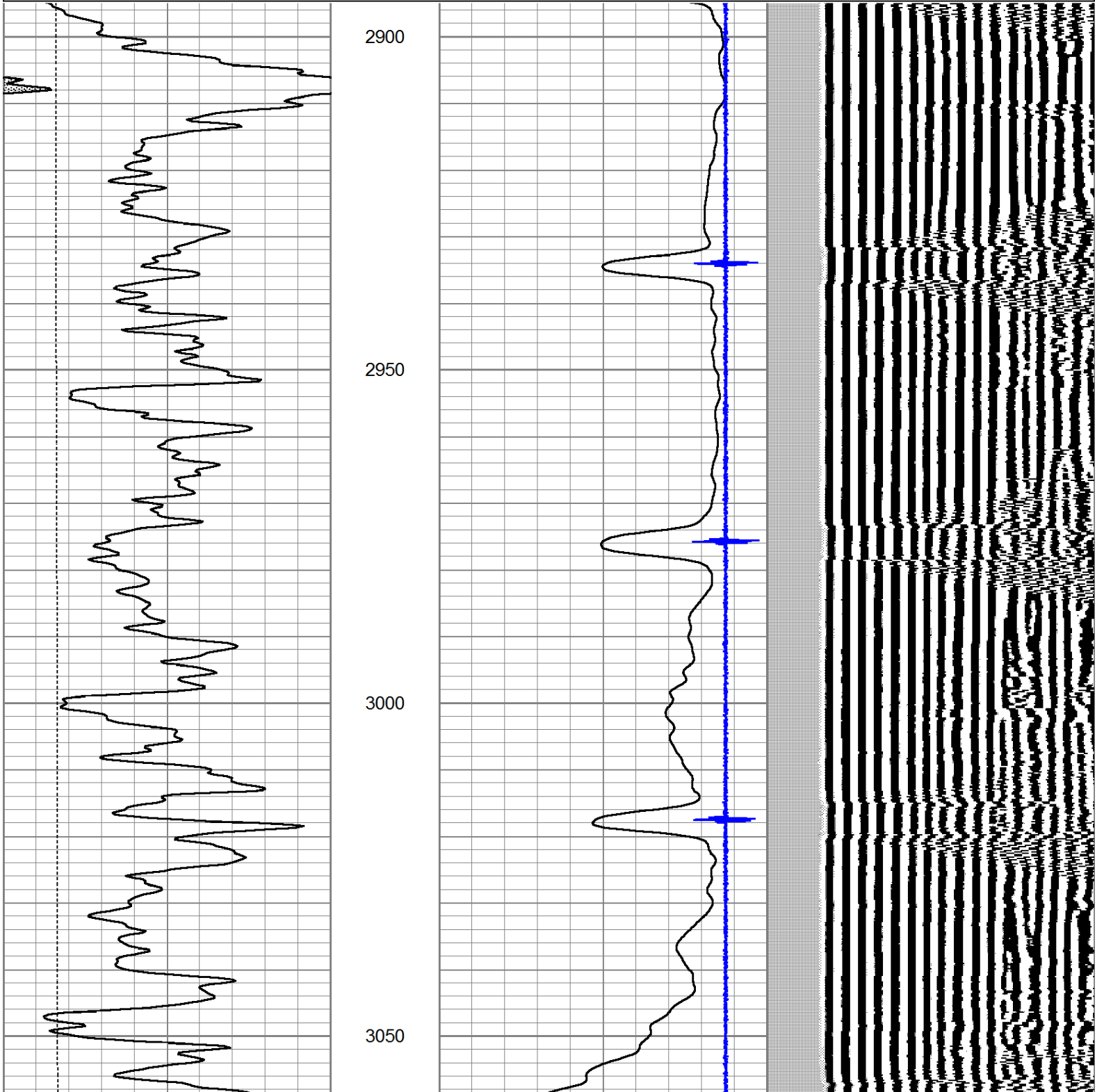


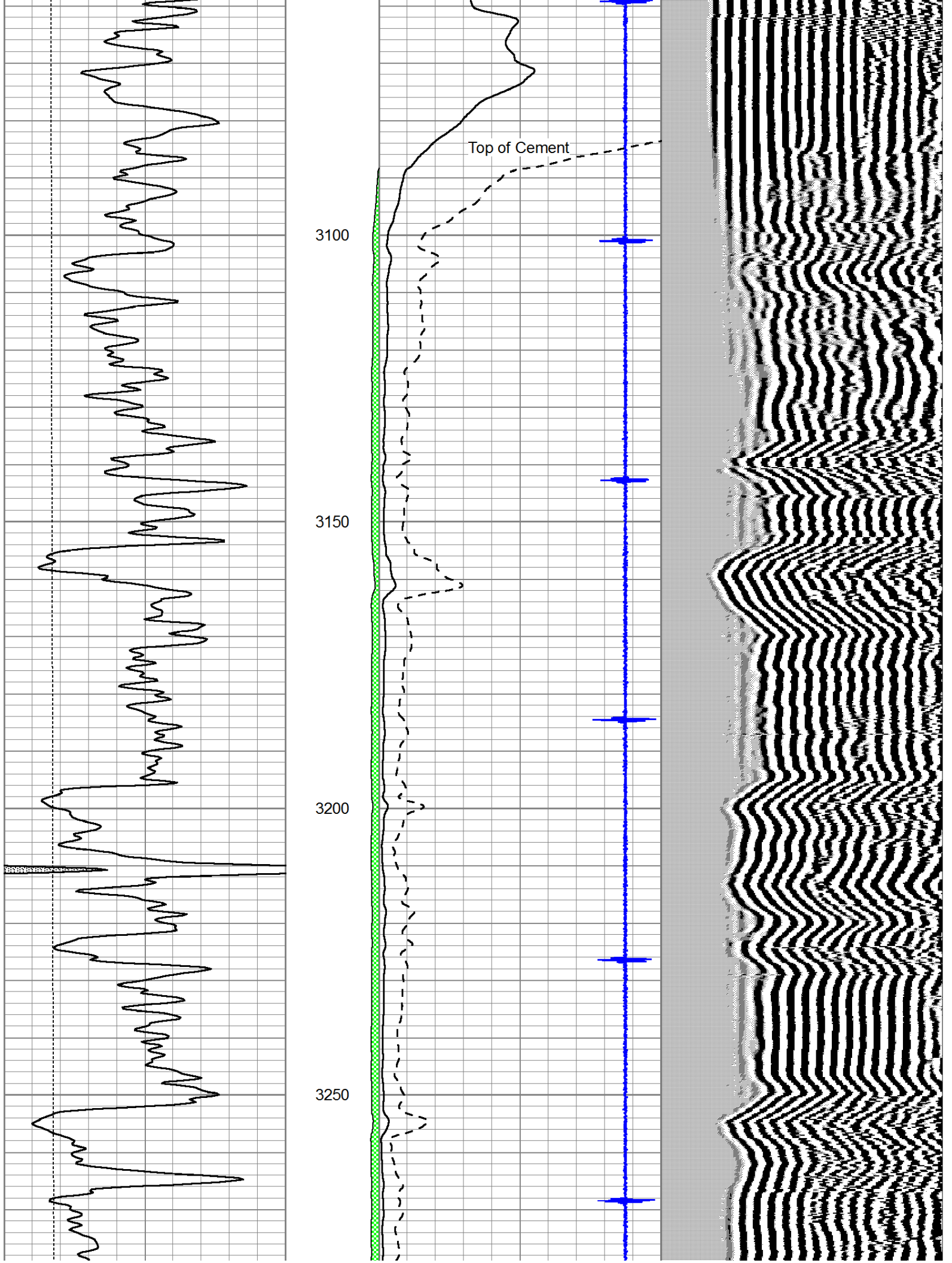
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			-100 10	7	Collar Locator	-1			

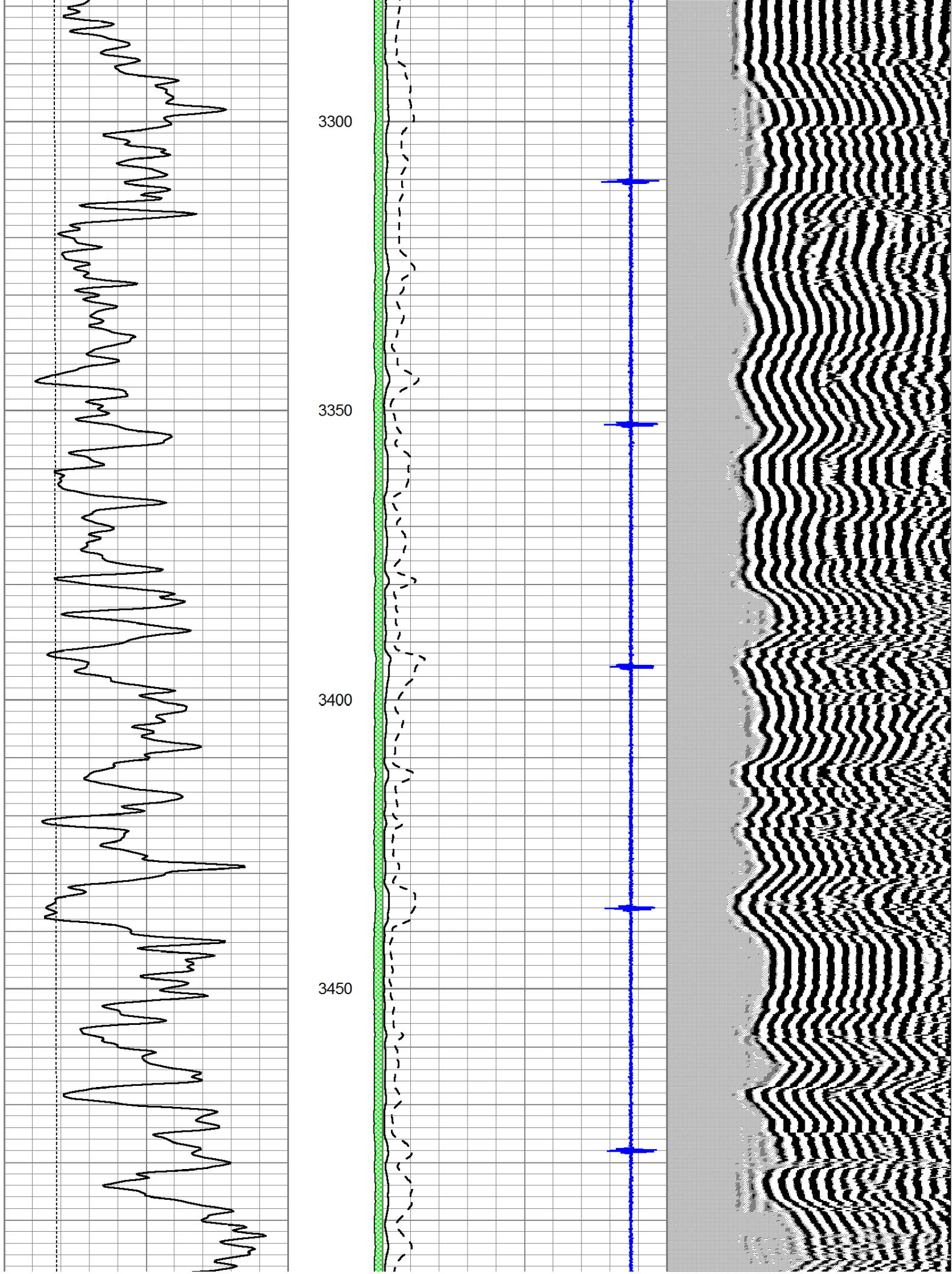
Main Pass

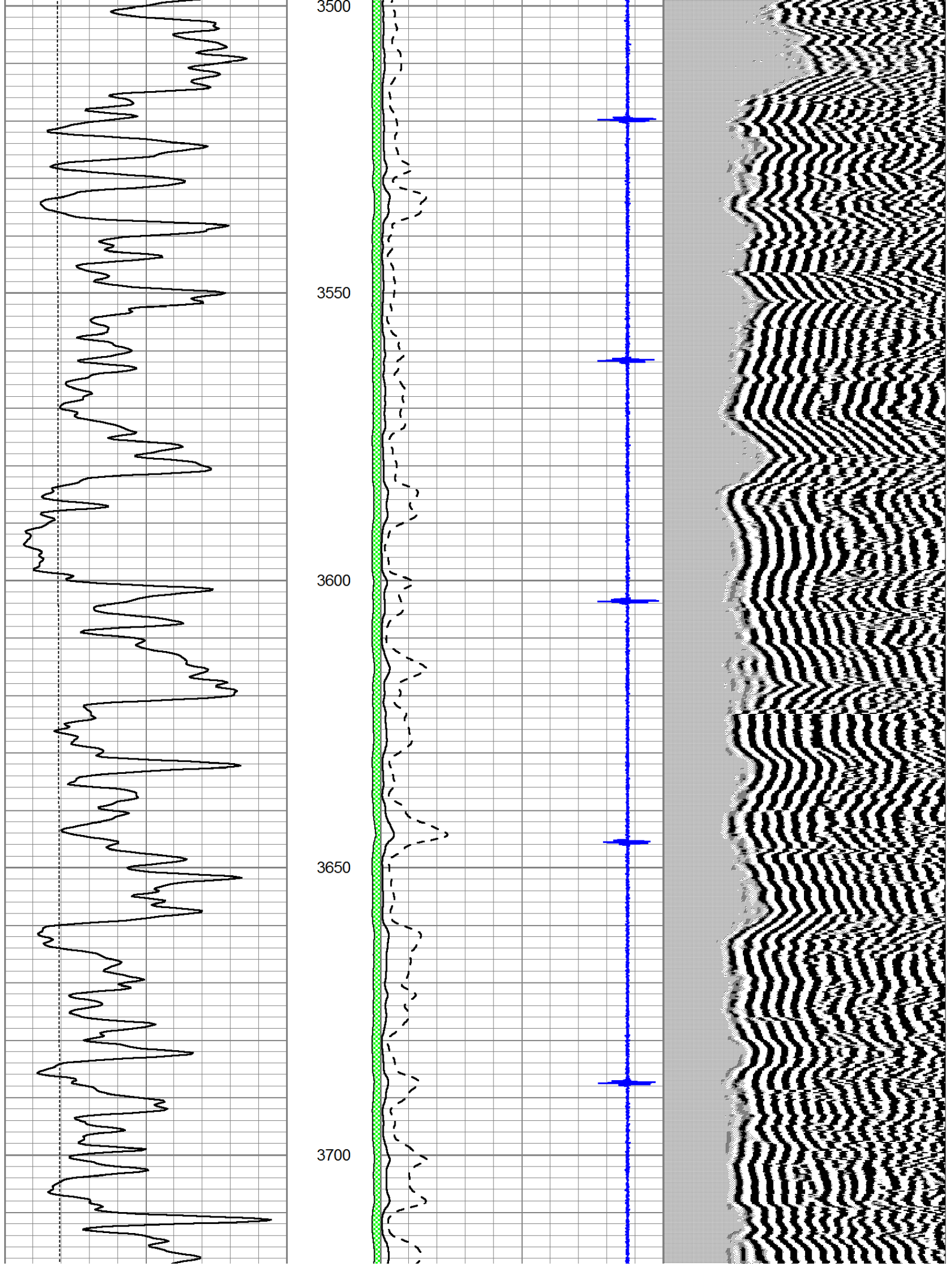
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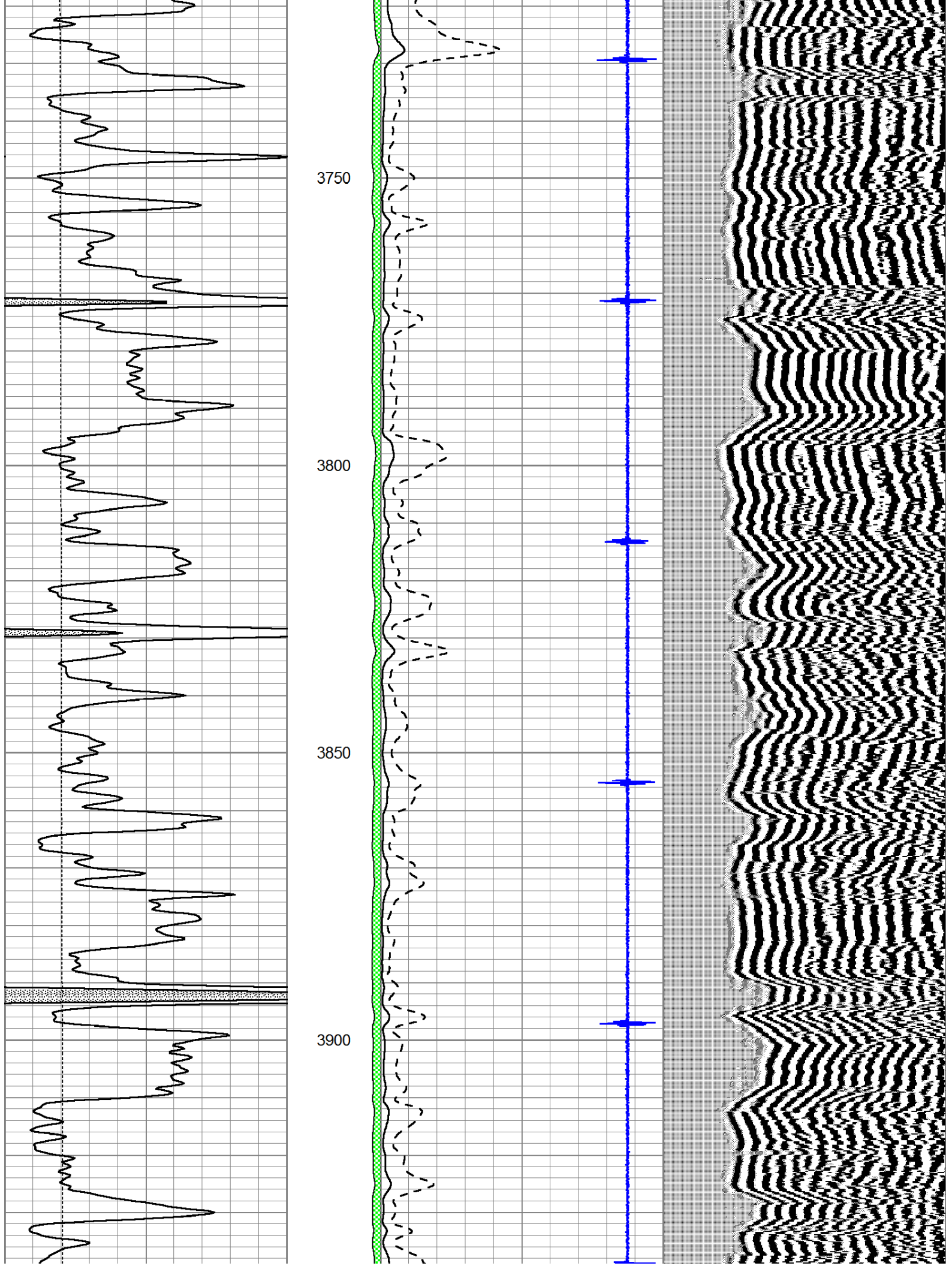
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0	LTEN (lb)	5000	(mV)	0	Amplified Amplitude (mV)	20			
			-100 10	7	Collar Locator	-1			

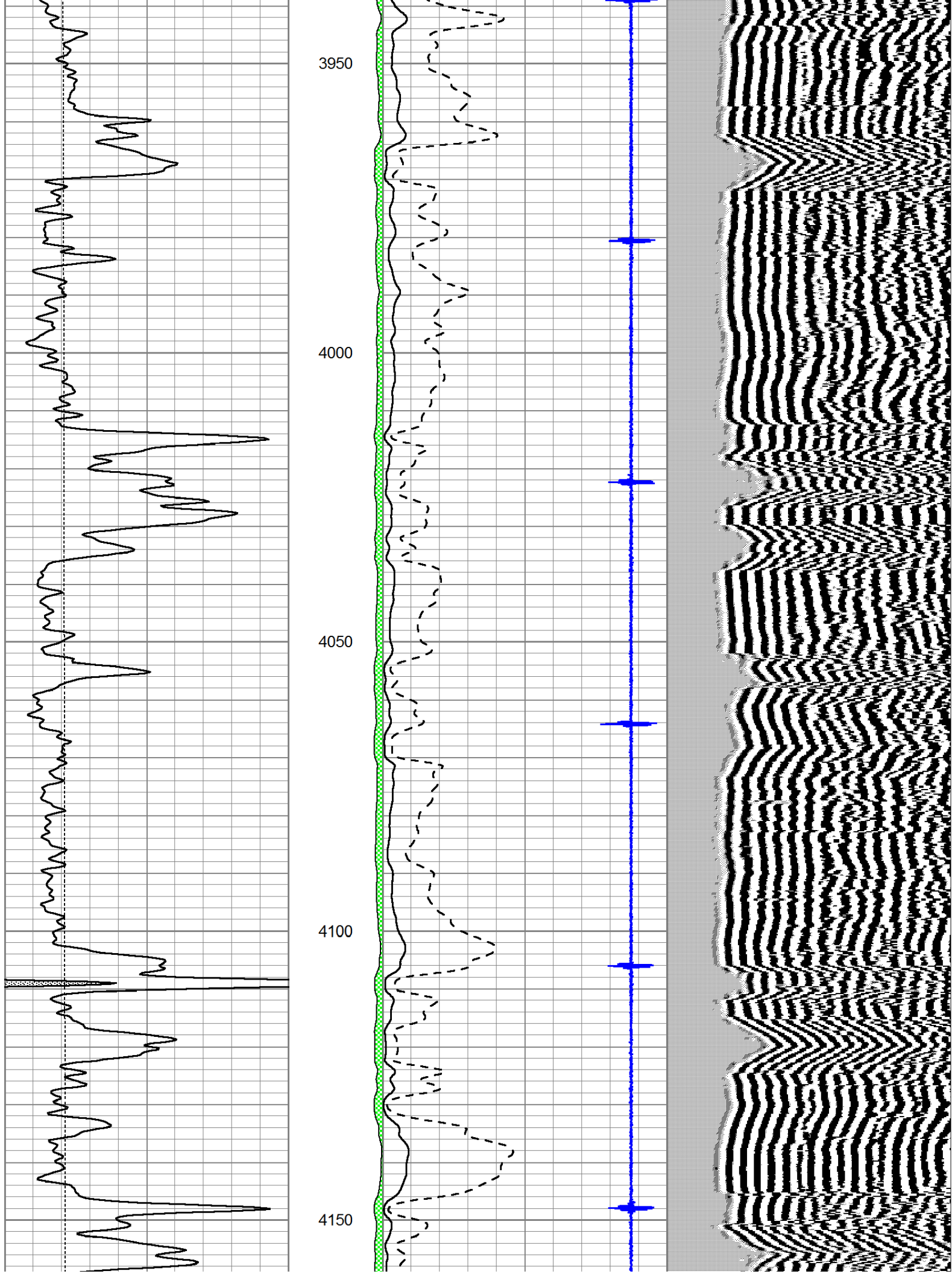


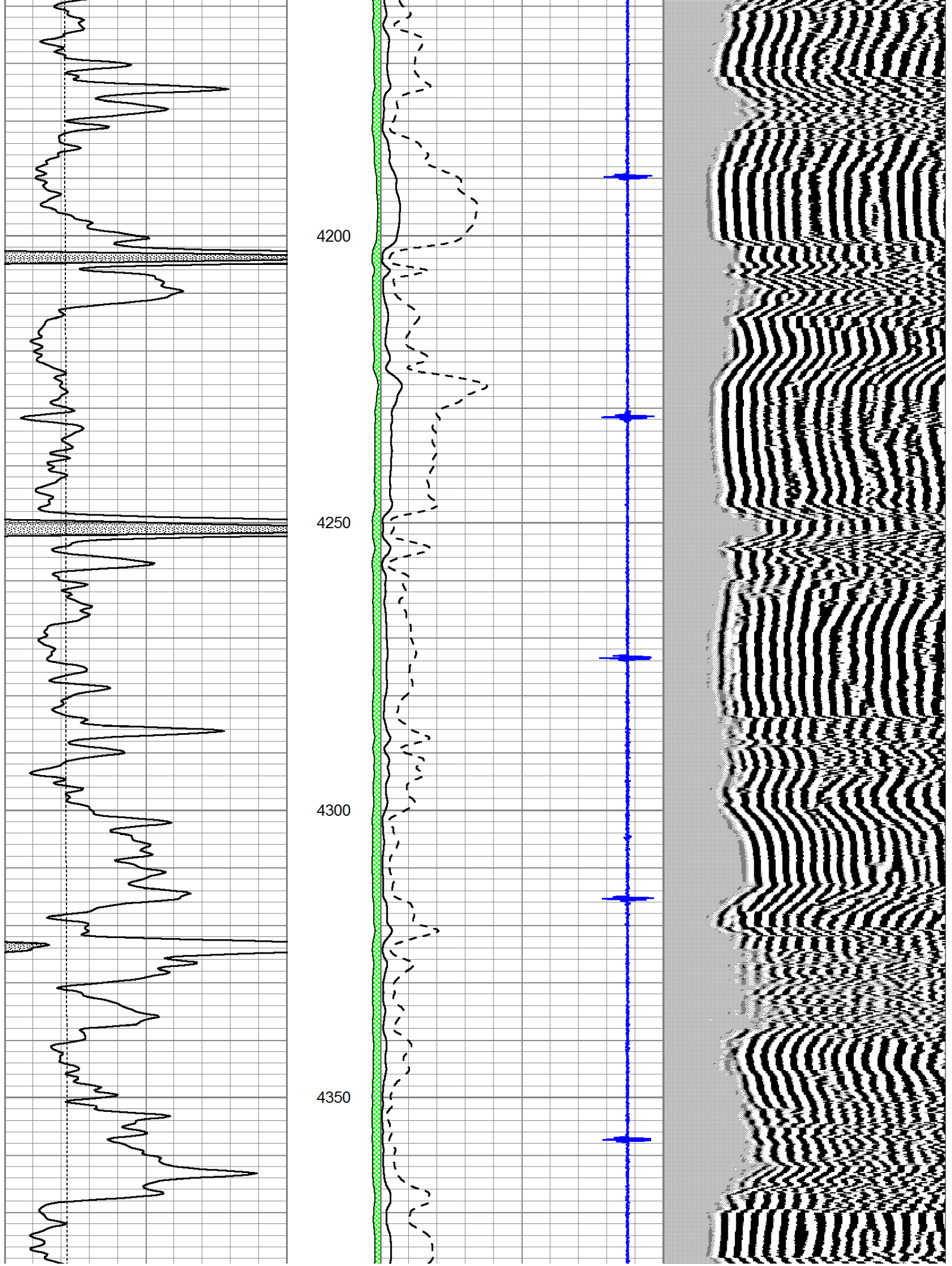


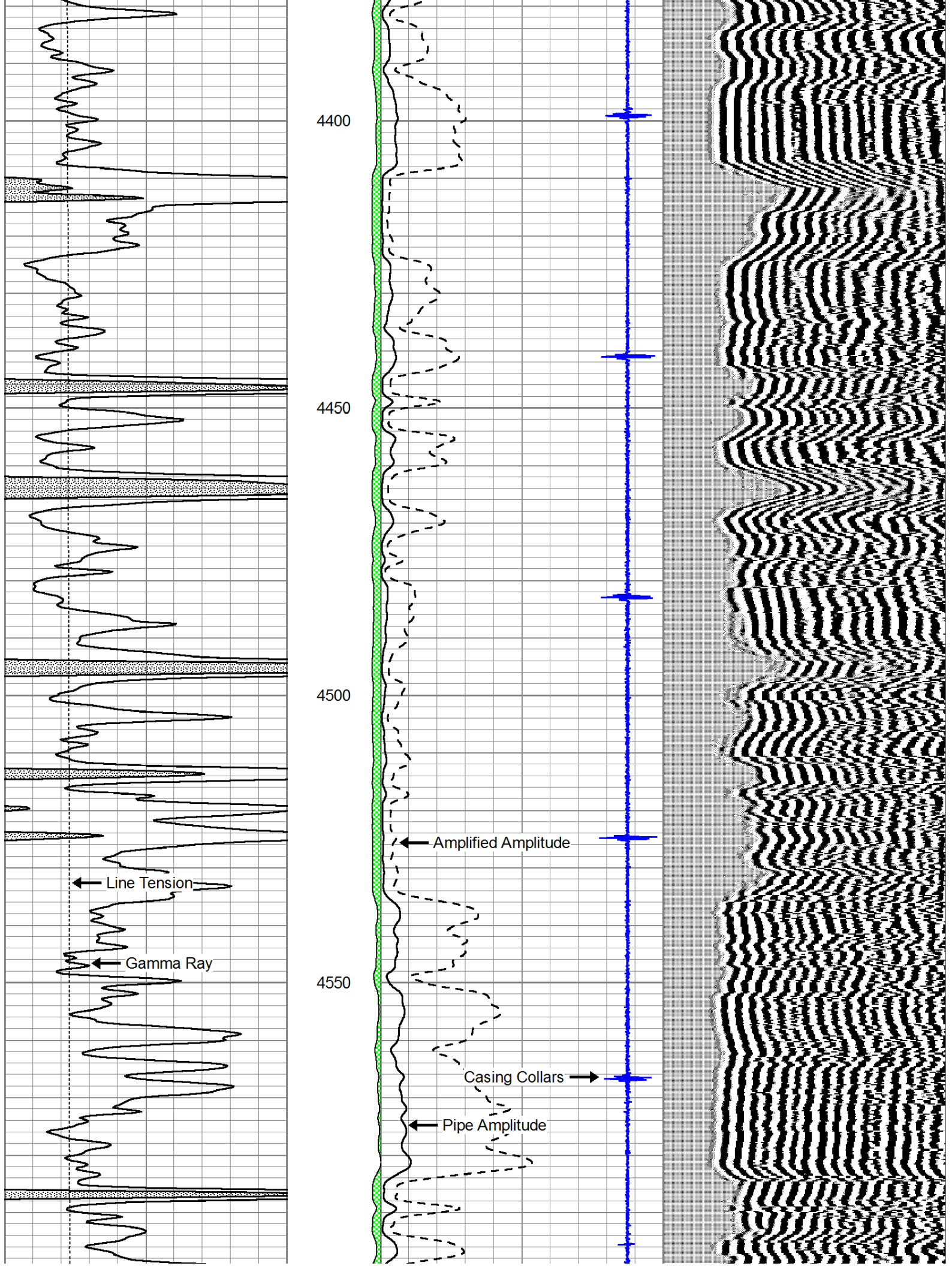


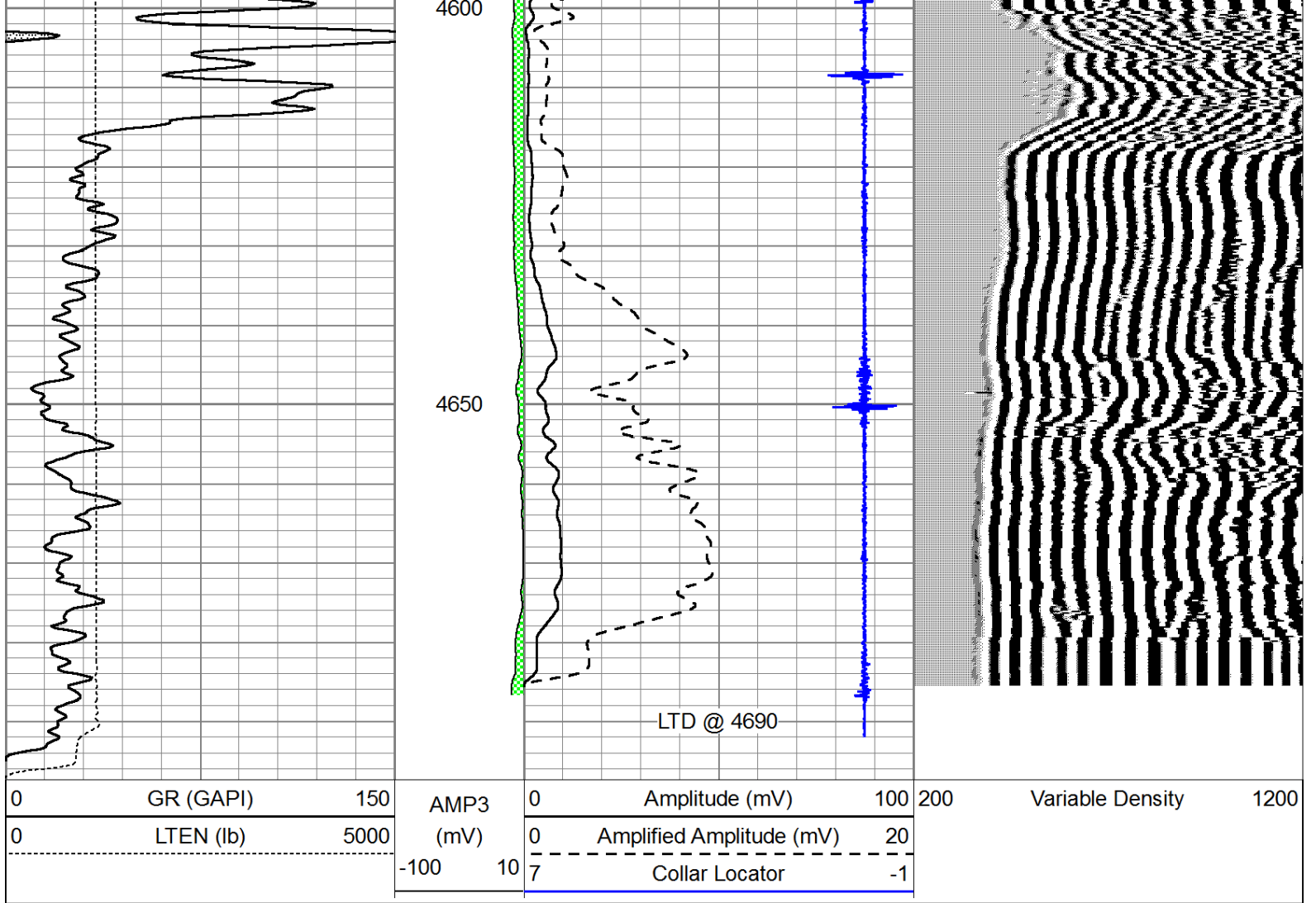












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Repeat Section

Database File: murfin-welch1-18.db
 Dataset Pathname: pass5
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 Charted by: Depth in Feet scaled 1:240

