



Pioneer Energy Services

Sonic Cement
Bond Log

15-101-22402-00-00

Company Larson Engineering, Inc.
Well Thomas Paris No. 1-12
Field Hineman NW
County Lane State Kansas

Location

2048' FSL & 2439' FEL

Sec: 12 Twp: 19S Rge: 29W

Other Services
Perforate

Elevation

K.B. 2803
D.F. 2796
G.L. 2796

Permanent Datum Ground Level Elevation 2796

Log Measured From Kelly Bushing 7 Ft. Above Perm. Datum

Drilling Measured From Kelly Bushing

Run Number One

Date Survey 10/22/2012

Date Cementing 10/14/2012

Type Cementing Operation Primary

Depth Driller 4676

Depth Logger 4629

Logged Interval 4627 to 3500

Casing Driller 5.5 @ T.D

Float Collar -- D.V. Tool 2102 @

Squeeze Depth

Amount & Type Cement

Amount & Type Admix

Type Fluid In Hole Water

Fluid Level 175

Salinity PPM CL

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

Approx. Logged Cement Top 3650

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 Tom Larson

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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

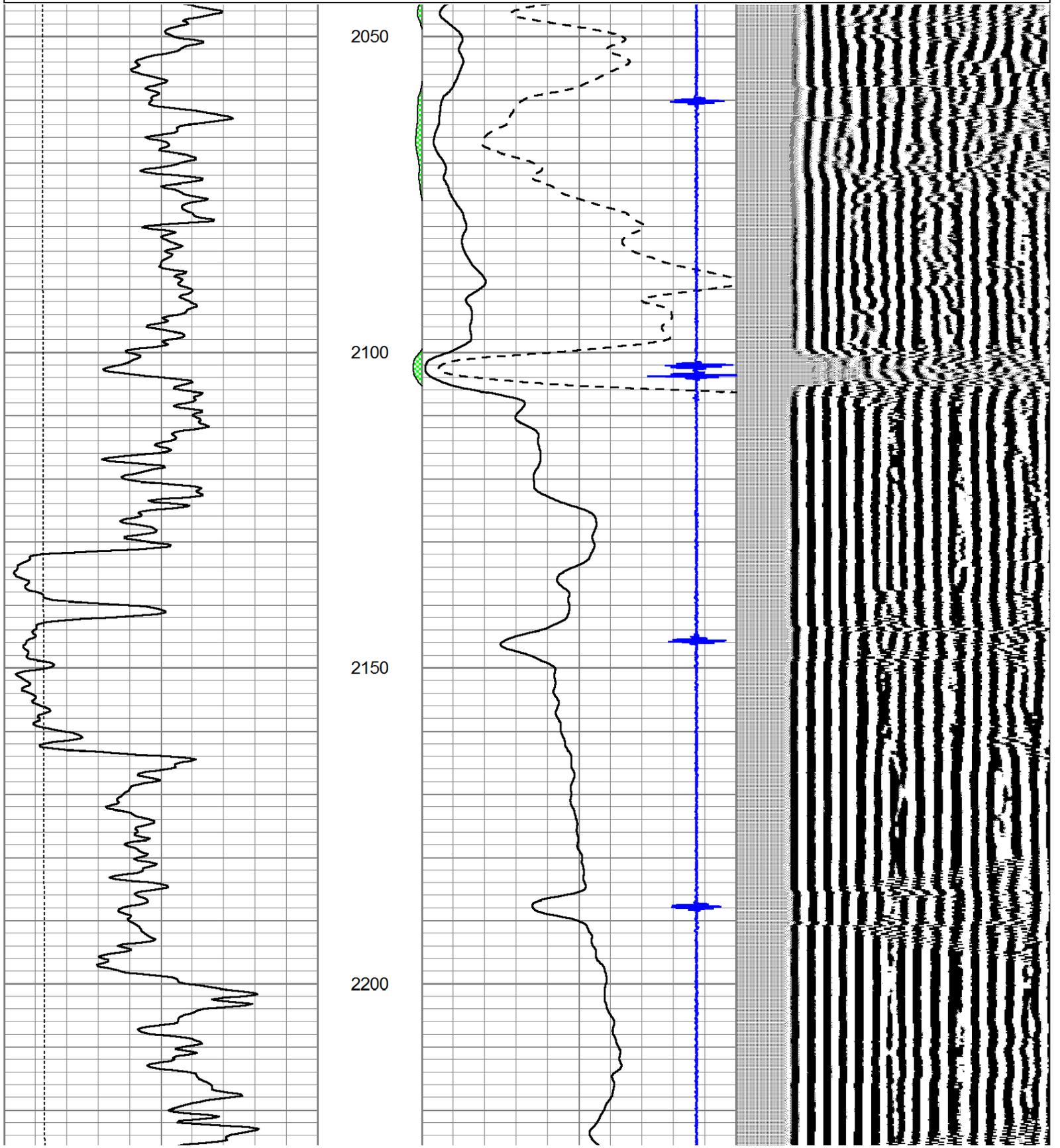
Dighton, KS., 4.5 South
West Into.

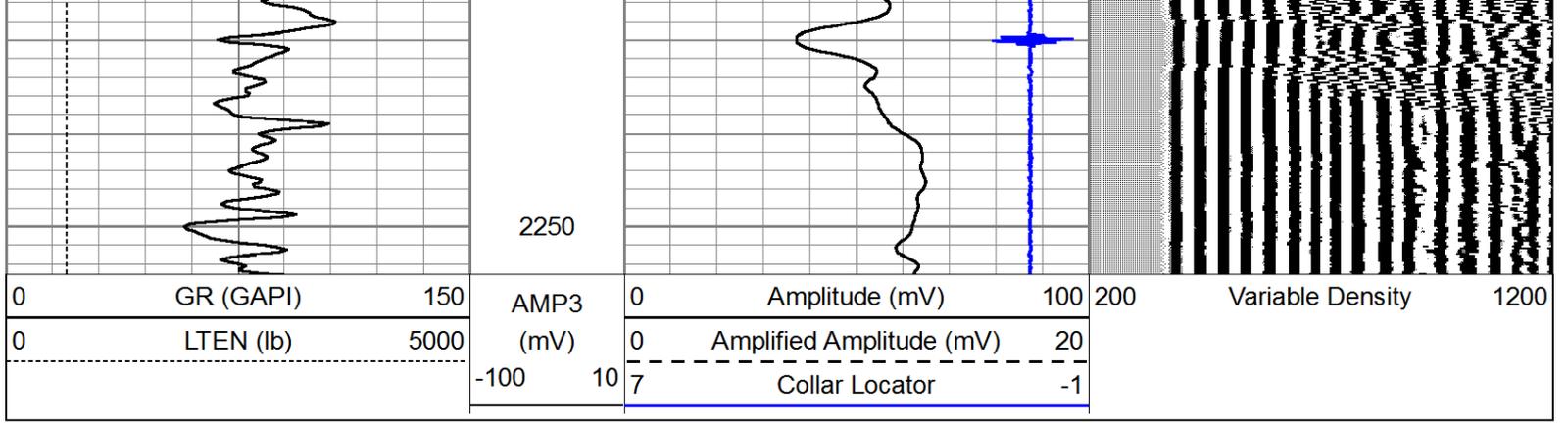


Port Collar @ 2102

Database File: larsonthomasparis1-12.db
 Dataset Pathname: ThomasPar/grcbl/pass4
 Presentation Format: cldig
 Dataset Creation: Mon Oct 22 08:55:10 2012 by Log SCH 111116
 Charted by: Depth in Feet scaled 1:240

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

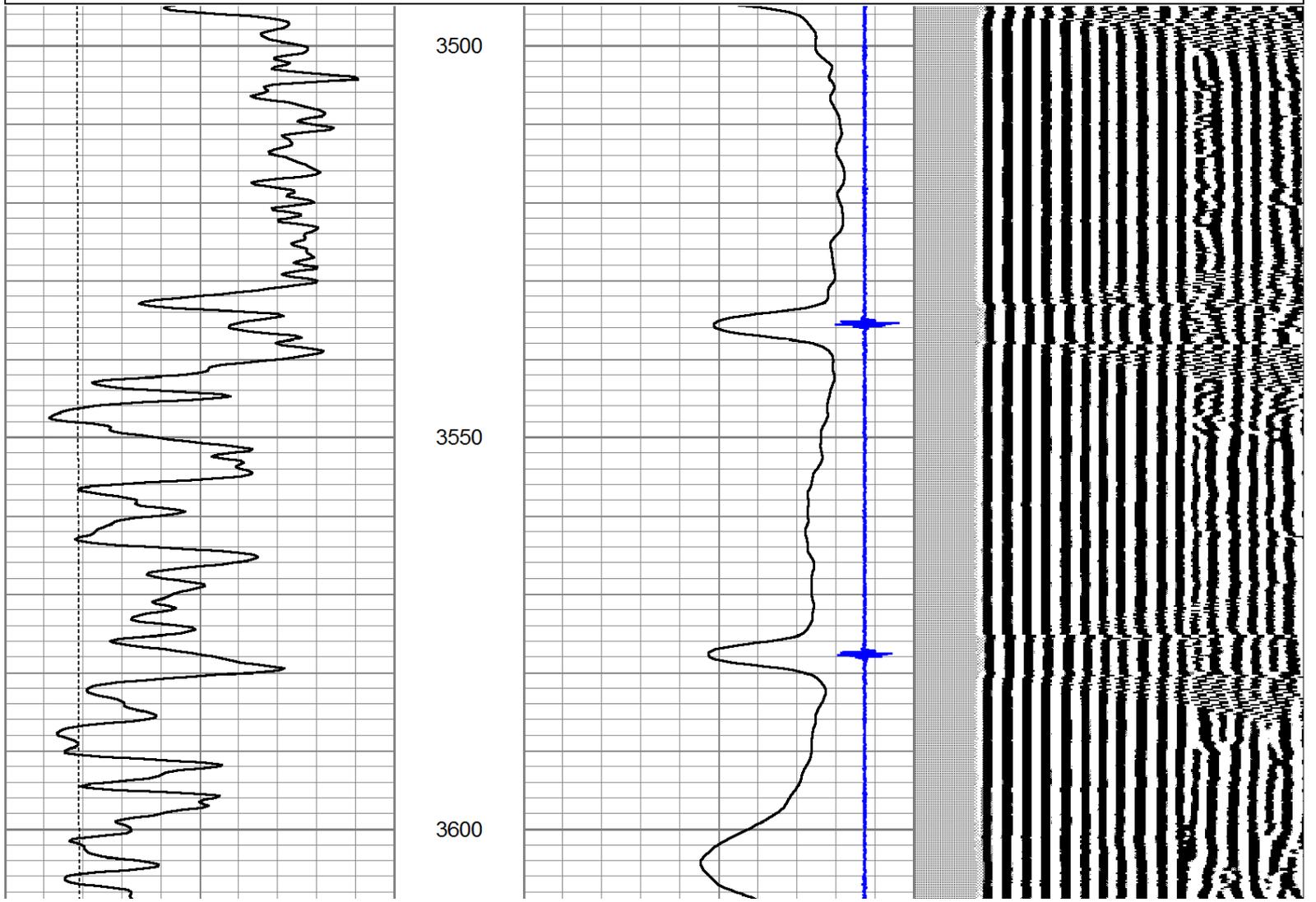
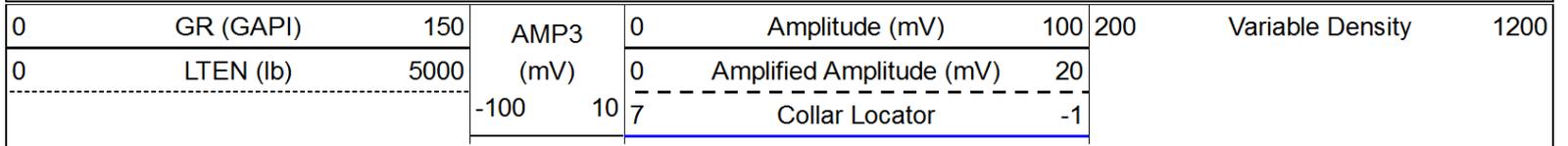


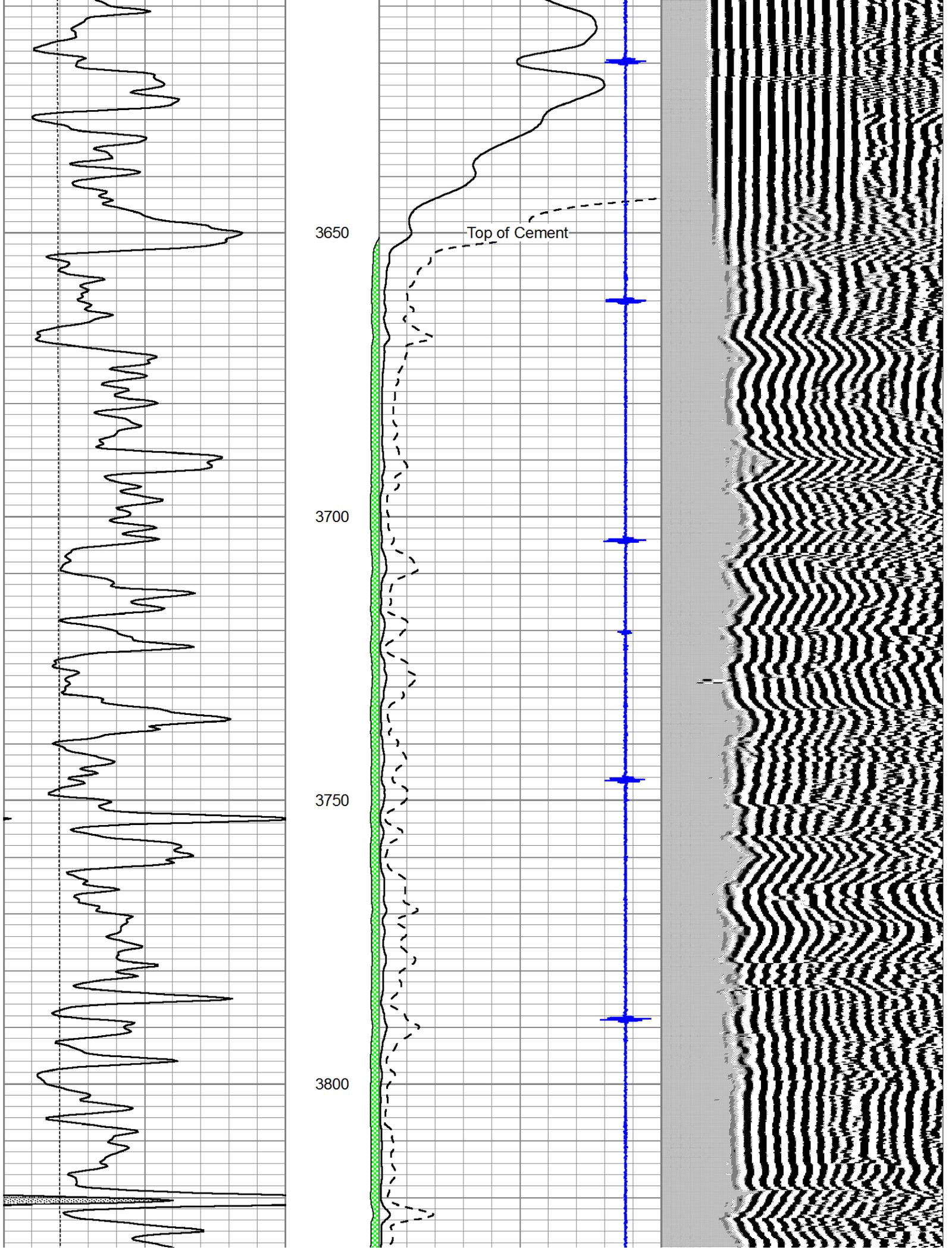


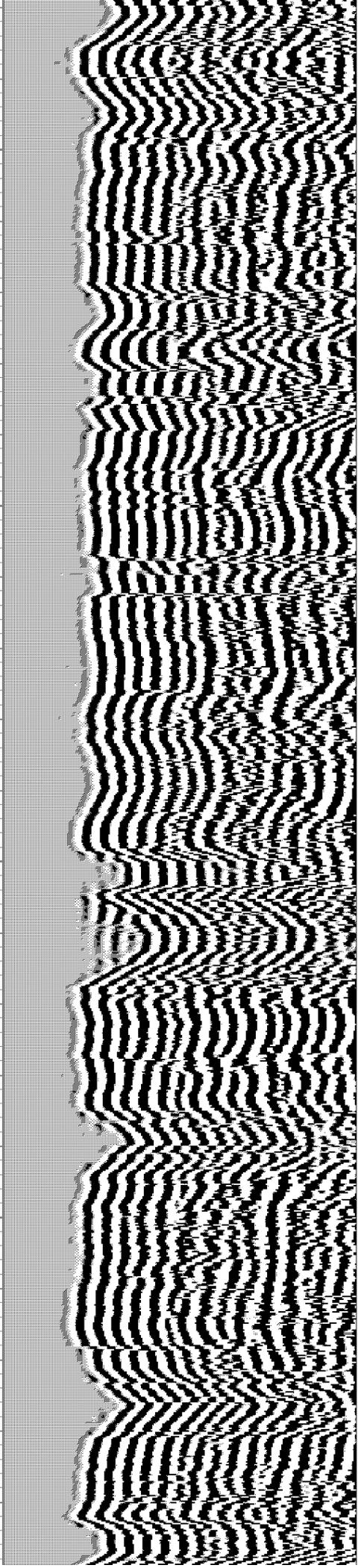
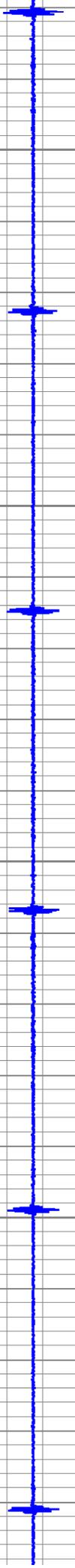
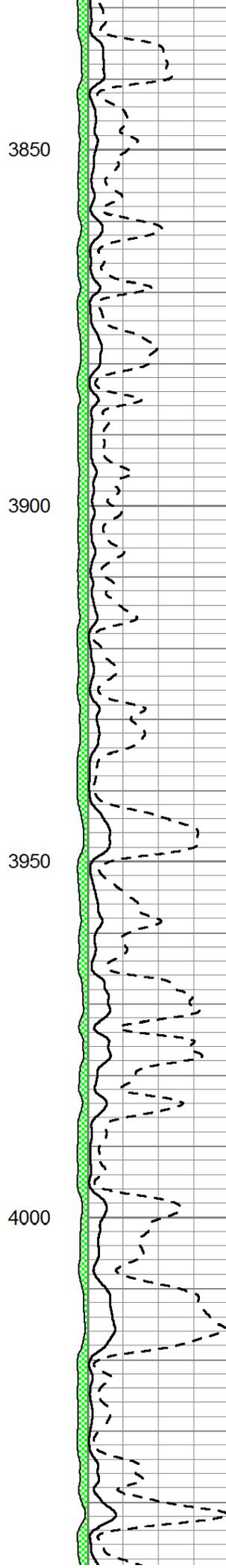
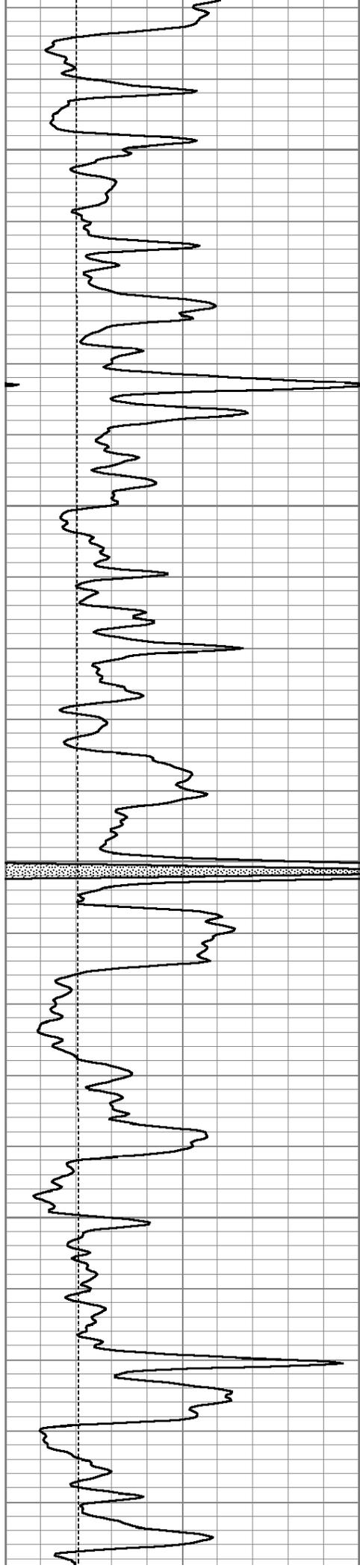
Pioneer Energy Services

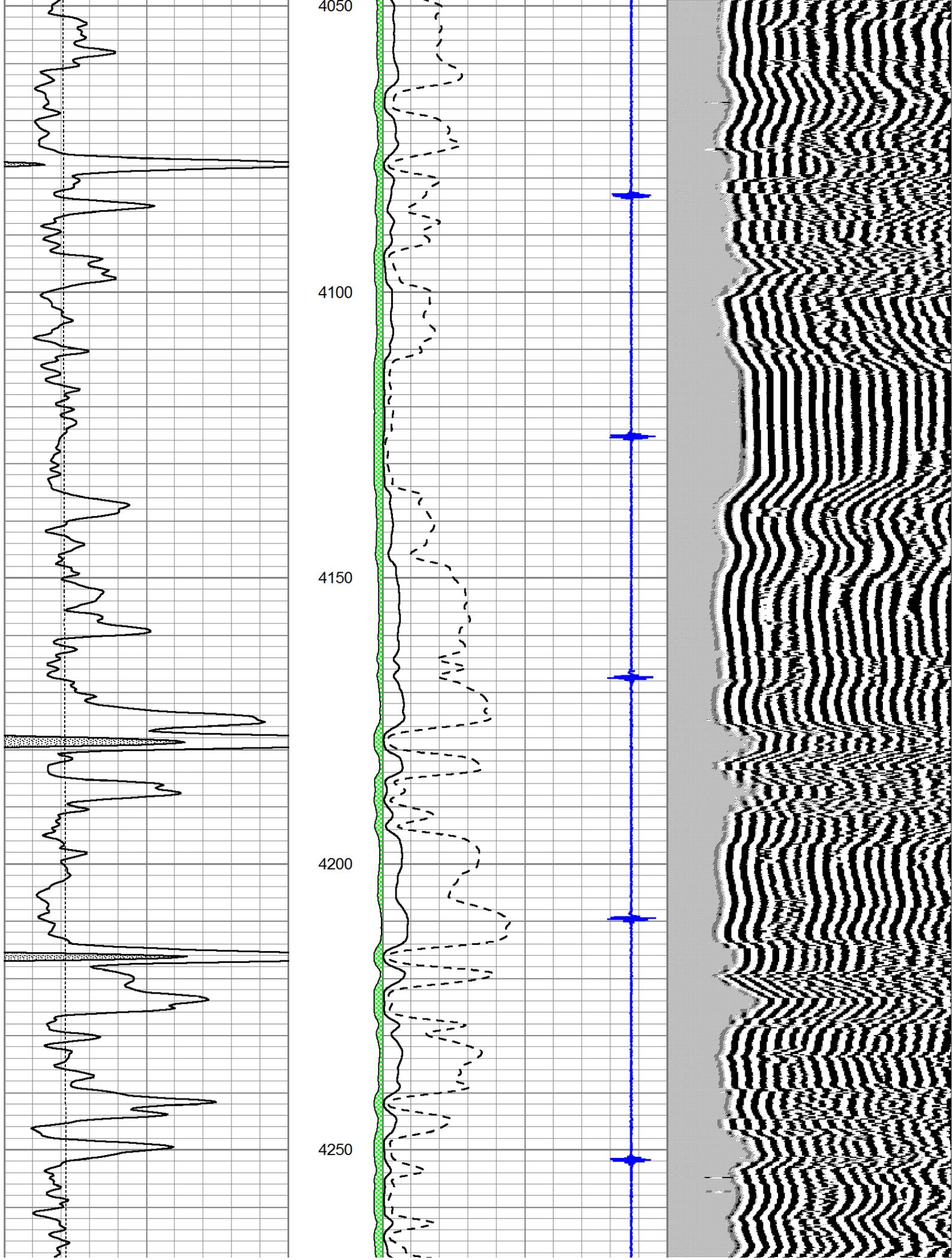
Main Pass

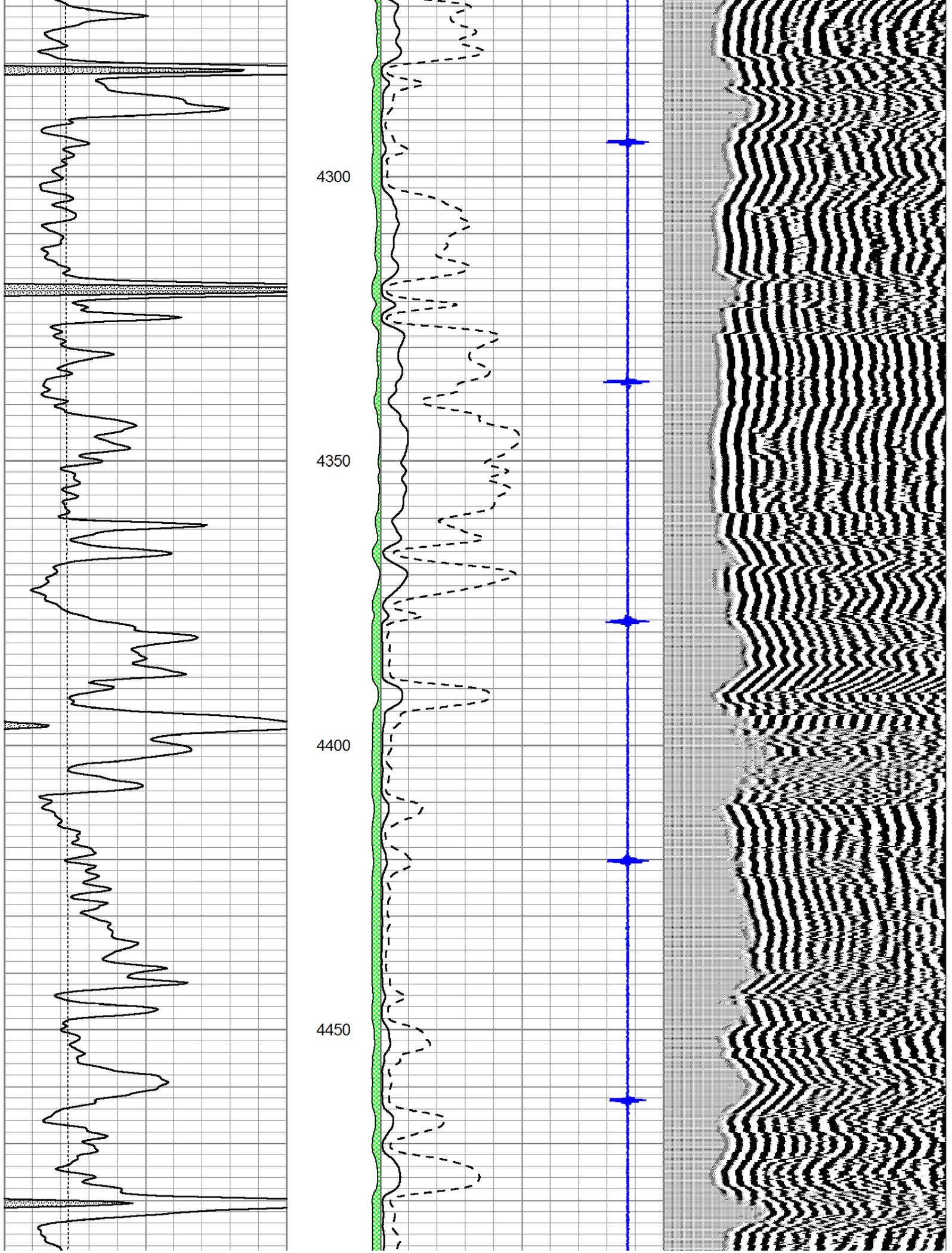
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 Presentation Format: cbl dig
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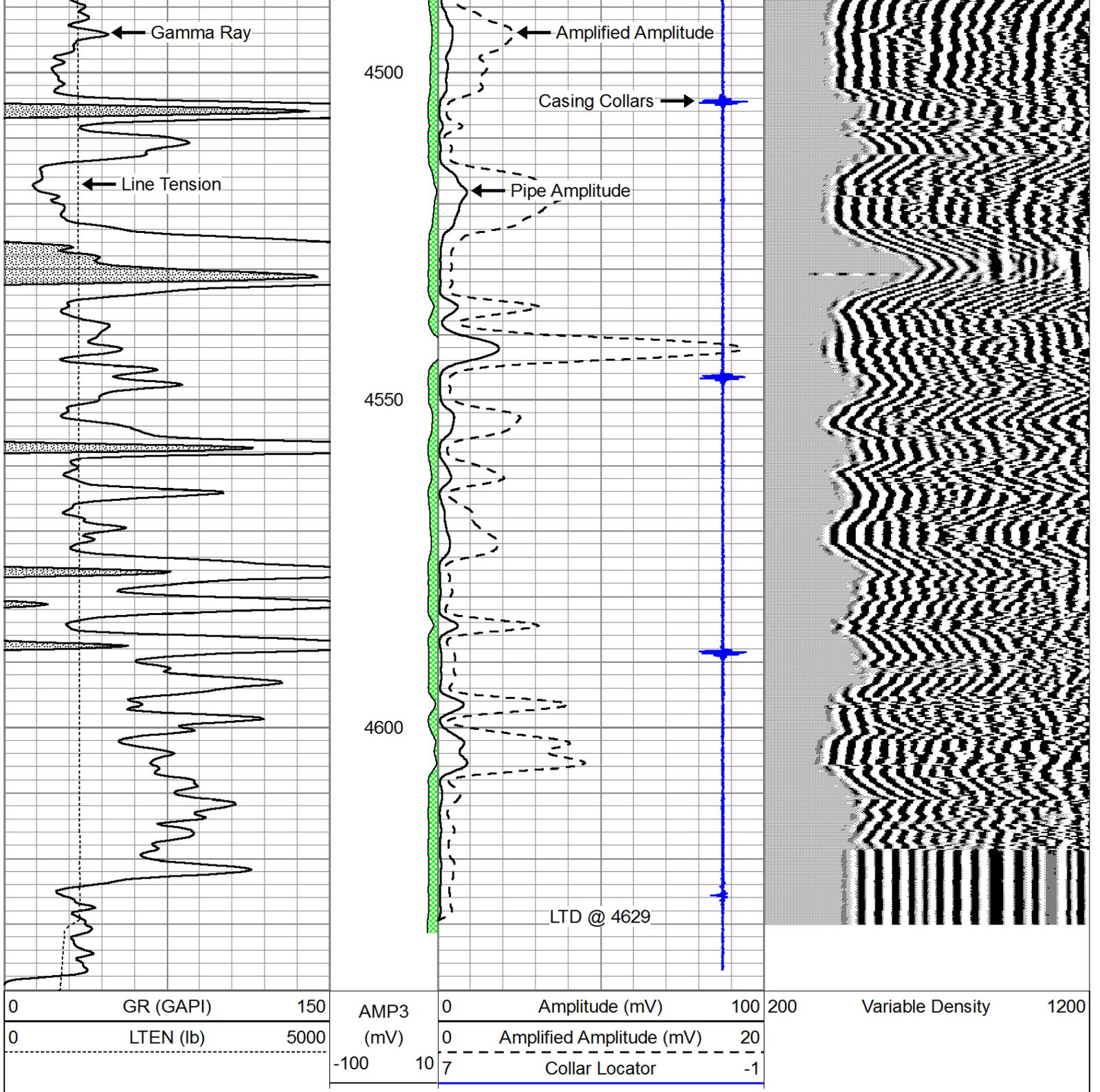








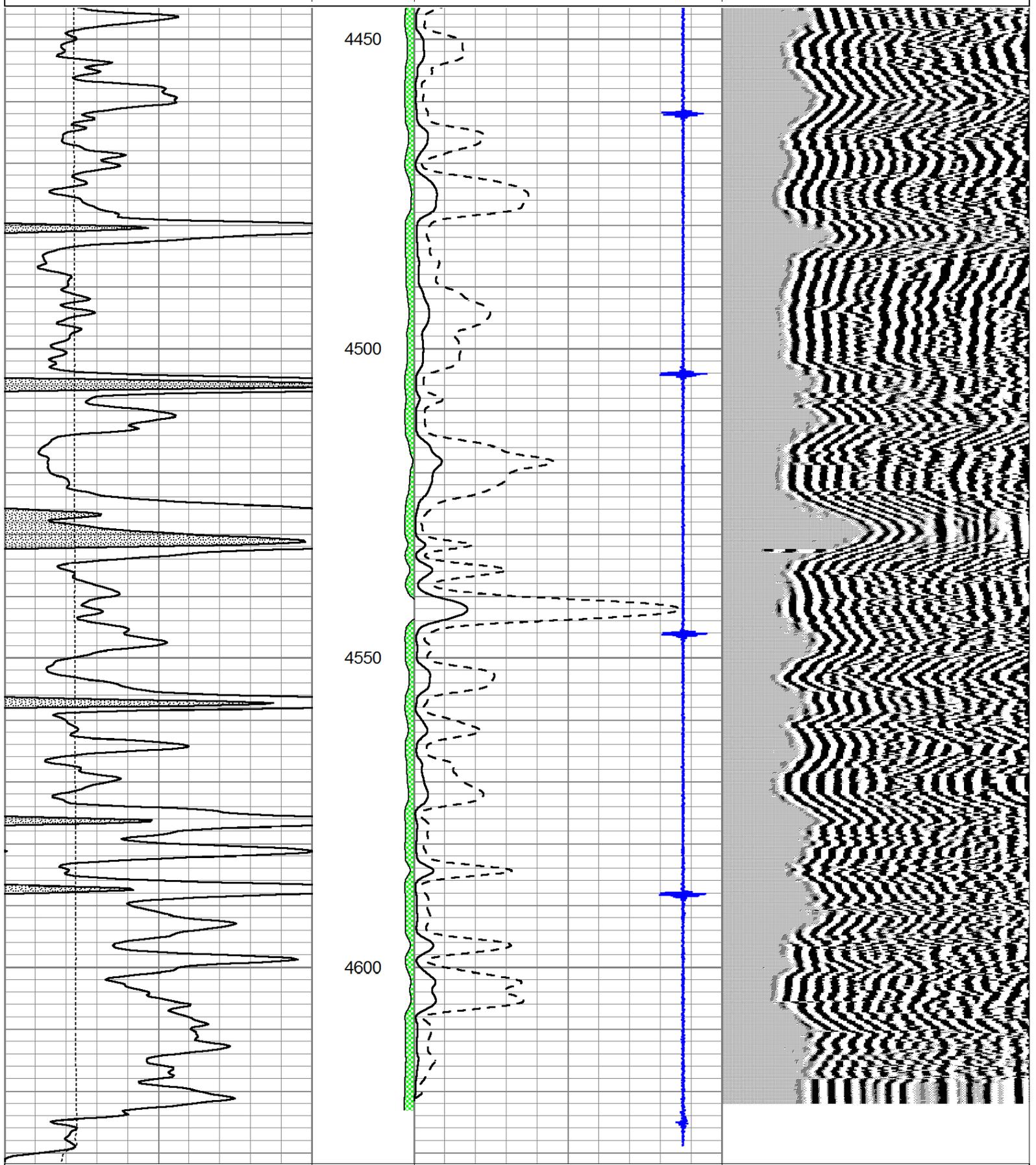




Repeat Section

Database File: larsonthomasparis1-12.db
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 Presentation Format: cbl dig
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 Charted by: Depth in Feet scaled 1:240

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0	LTEN (lb)	5000	(mV)	0	Amplified Amplitude (mV)	20			



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