



Radial Cement Bond  
Gamma Ray  
Casing Collar Log

Company Kerr McGee Oil & Gas Onshore LP  
Well Powers 30N-27HZ  
Field Wattenberg  
County Weld State Colorado

Location: API #: 05-123-36364  
SHL:510' FSL & 540 FWL  
SW/SW  
Permanent Datum SEC 27 TWP 2N RGE 65W  
Log Measured From Ground Level Elevation 4934  
Drilling Measured From Kelly Bushing  
Other Services  
Gauge run  
Plug  
Elevation  
K.B. 4948  
D.F. NA  
G.L. 4934

Company Kerr McGee Oil & Gas Onshore LP  
Well Powers 30N-27HZ  
Field Wattenberg  
County Weld  
State Colorado

Date

04-MAR-2013

Run Number

three

Depth Driller

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Bottom Logged Interval

6538

Top Log Interval

50'

Open Hole Size

9.625

Type Fluid

Water

Density / Viscosity

8.34LB/Gal

Max. Recorded Temp.

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Estimated Cement Top

910

Time Well Ready

ROA

Time Logger on Bottom

9:30

Equipment Number

HD0134

Location

Fort Lupton, CO

Recorded By

Patrick Grimes

Witnessed By

Van Franke

Run Number

Bit

From

To

Size

Weight

From

To

Casing Record

Size

Wgt/Ft

Top

Bottom

Surface String

9-5/8

36

Surface

1841

Prot. String

7

26

Surface

7543

Production String

4.5

11.6

Surface

6491

Liner

11.6

11.6

Surface

11577

Run Number

Bit

From

To

Size

Weight

From

To

Casing Record

Size

Wgt/Ft

Top

Bottom

Surface String

9-5/8

36

Surface

1841

Prot. String

7

26

Surface

7543

Production String

4.5

11.6

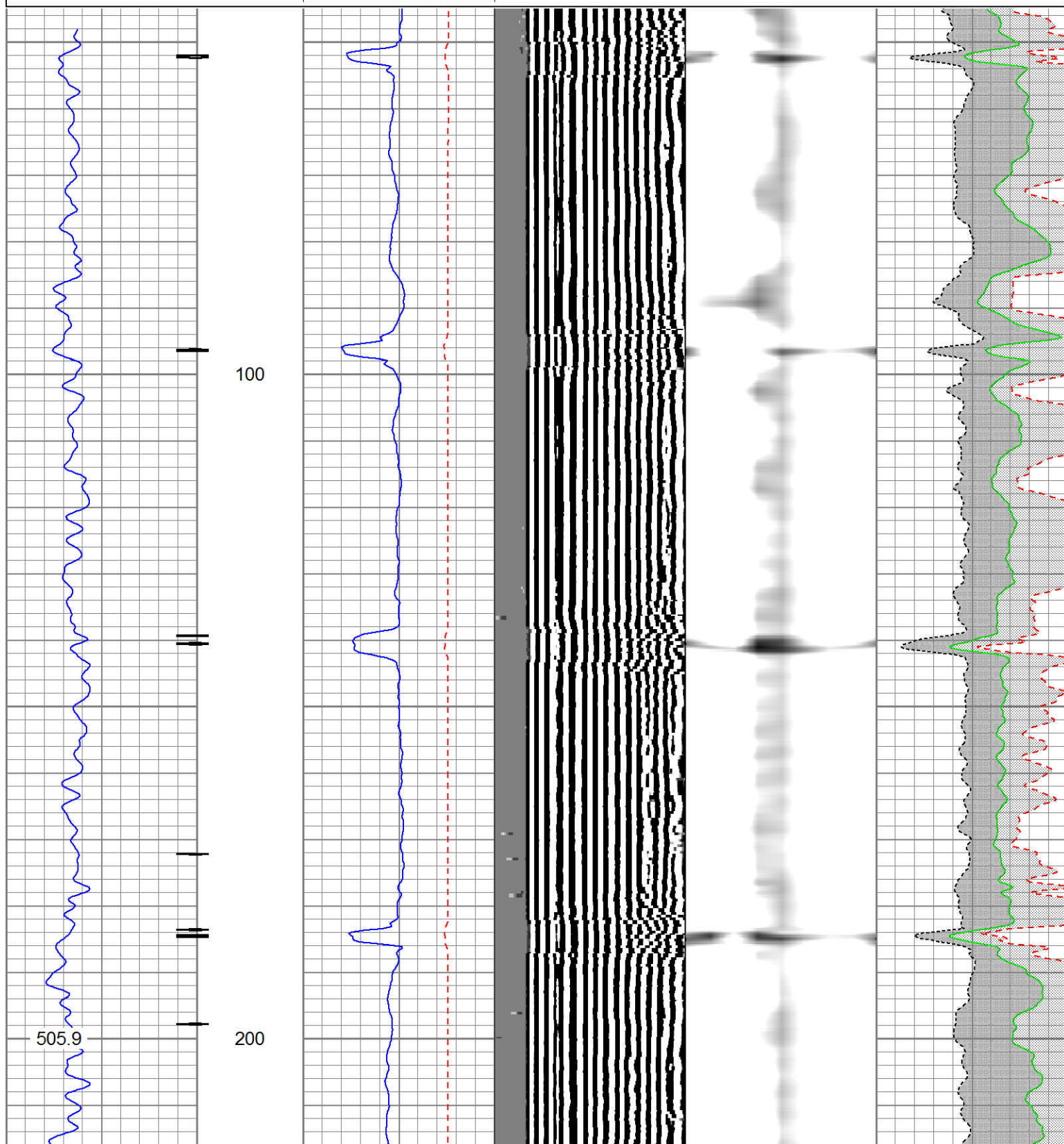
Radial Cement Bond is Primary Log  
Correlated to Casing Tally Reported Liner Top @6491  
Run CBL From Just Below Liner Top to Surface  
RCBL Logged with 2800 PSU Surface Induced Pressure  
Estimated Top of Cement 910'  
Corrected -14' @ Liner Top With Zero @ KB

Thank you for choosing Pure Energy Wireline an FMC Technologies Company

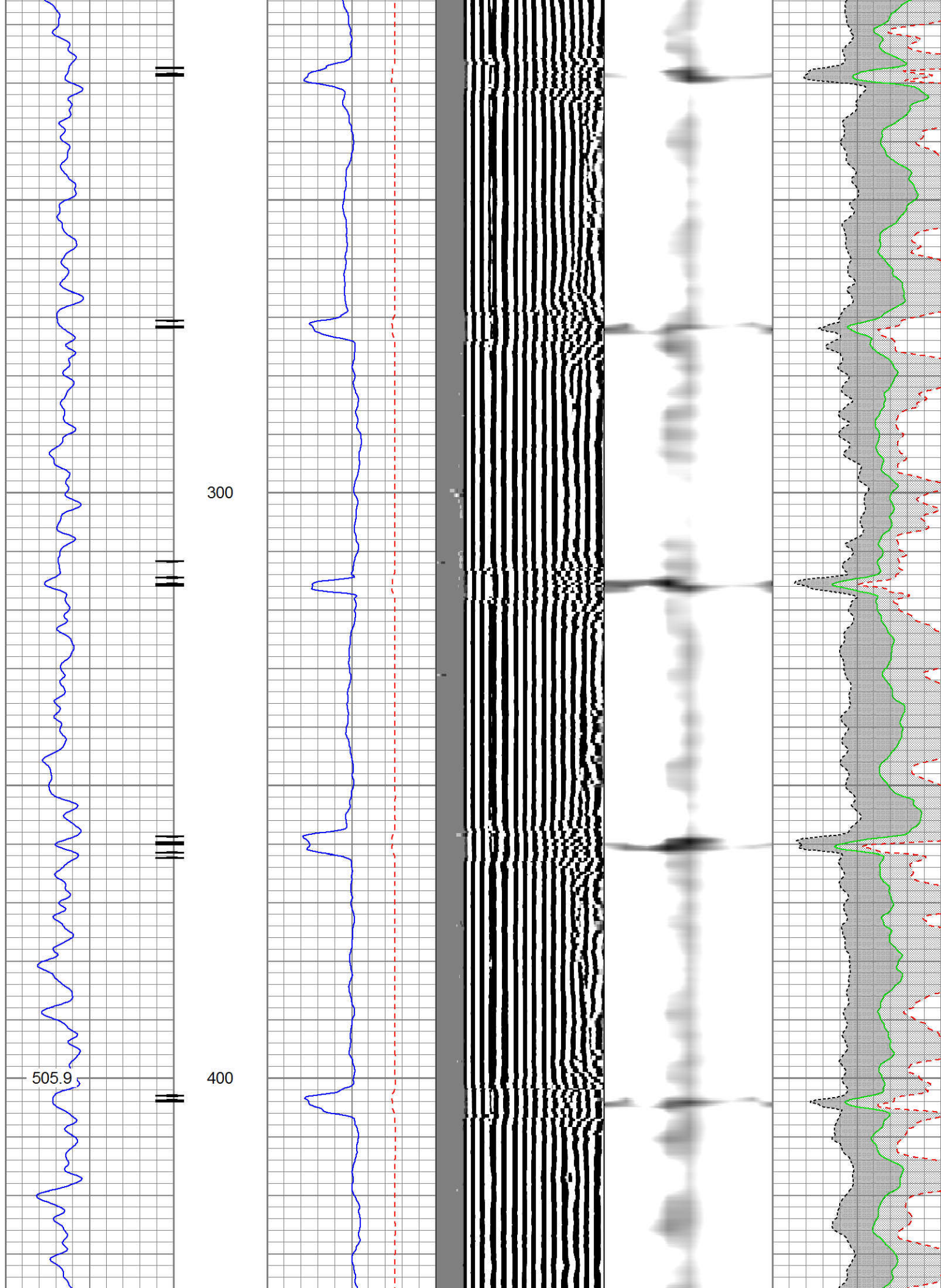
MAIN PASS 2800PSI

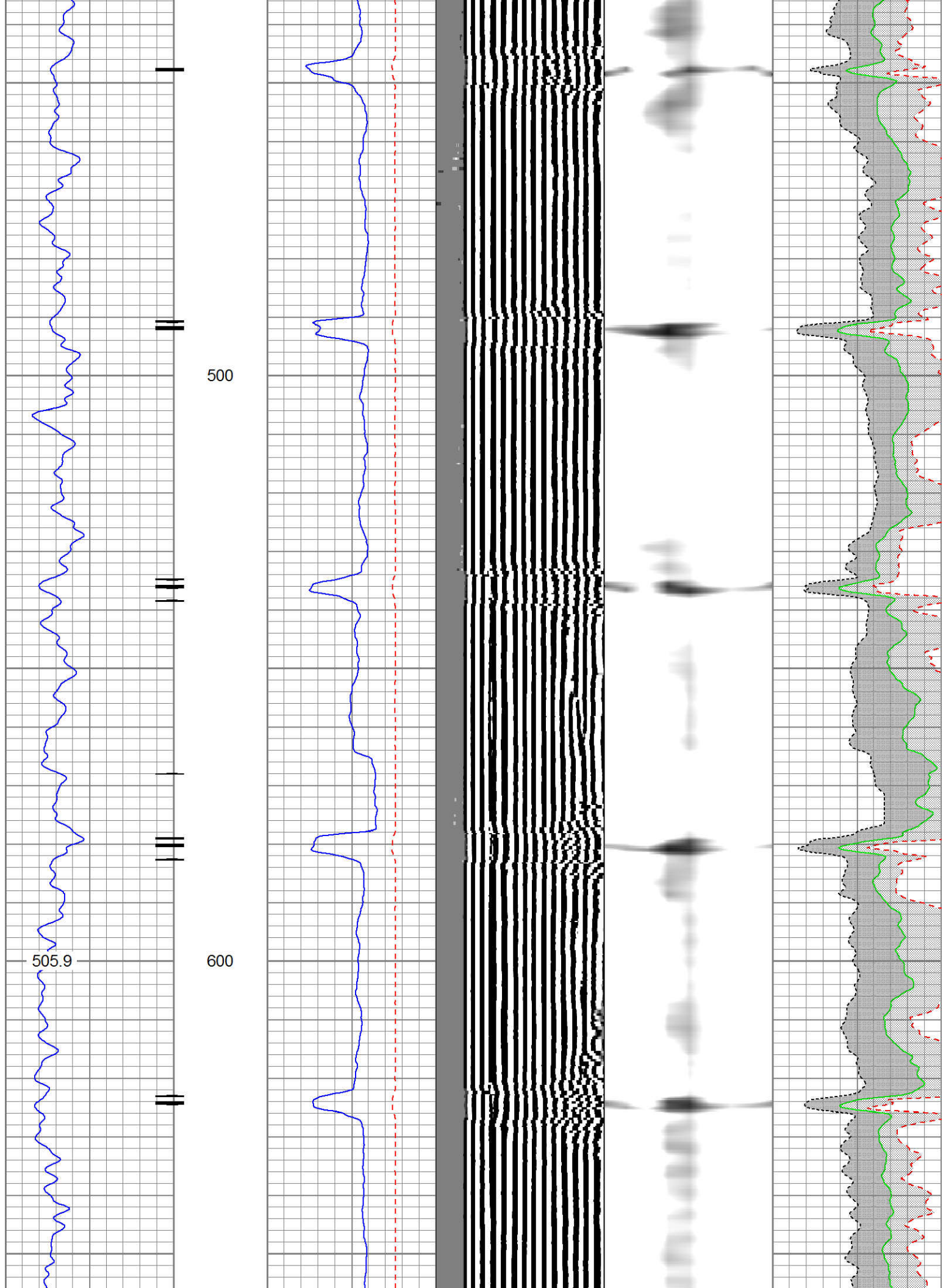
Database File: powers 30n-27hz.db  
Dataset Pathname: pass3.2  
Presentation Format: usrbt  
Dataset Creation: Mon Mar 04 13:06:16 2013 by Calc SCH 111116  
Charted by: Depth in Feet scaled 1:240

0	GR	120		3' Amplitude	5' Variable Density Log	Sector Map	Average Amplitude
	CCL			0 (mV) 100	200 1200		Minimum Amplitude
Temperature				3' Amplitude x 5			Maximum Amplitude
(degF)				0 (mV) 20			
				3' Travel Time			
				650 (usec) 150			

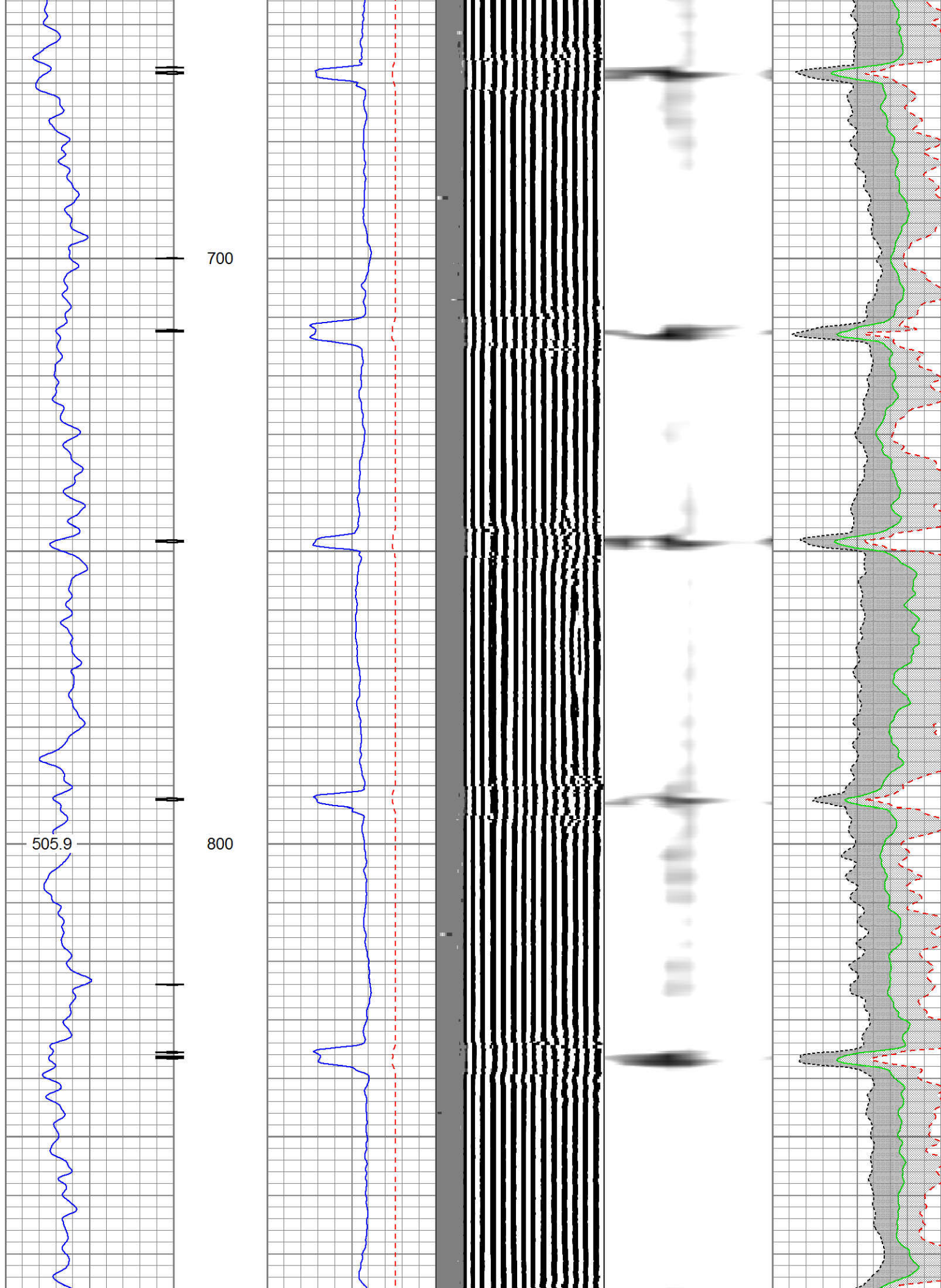


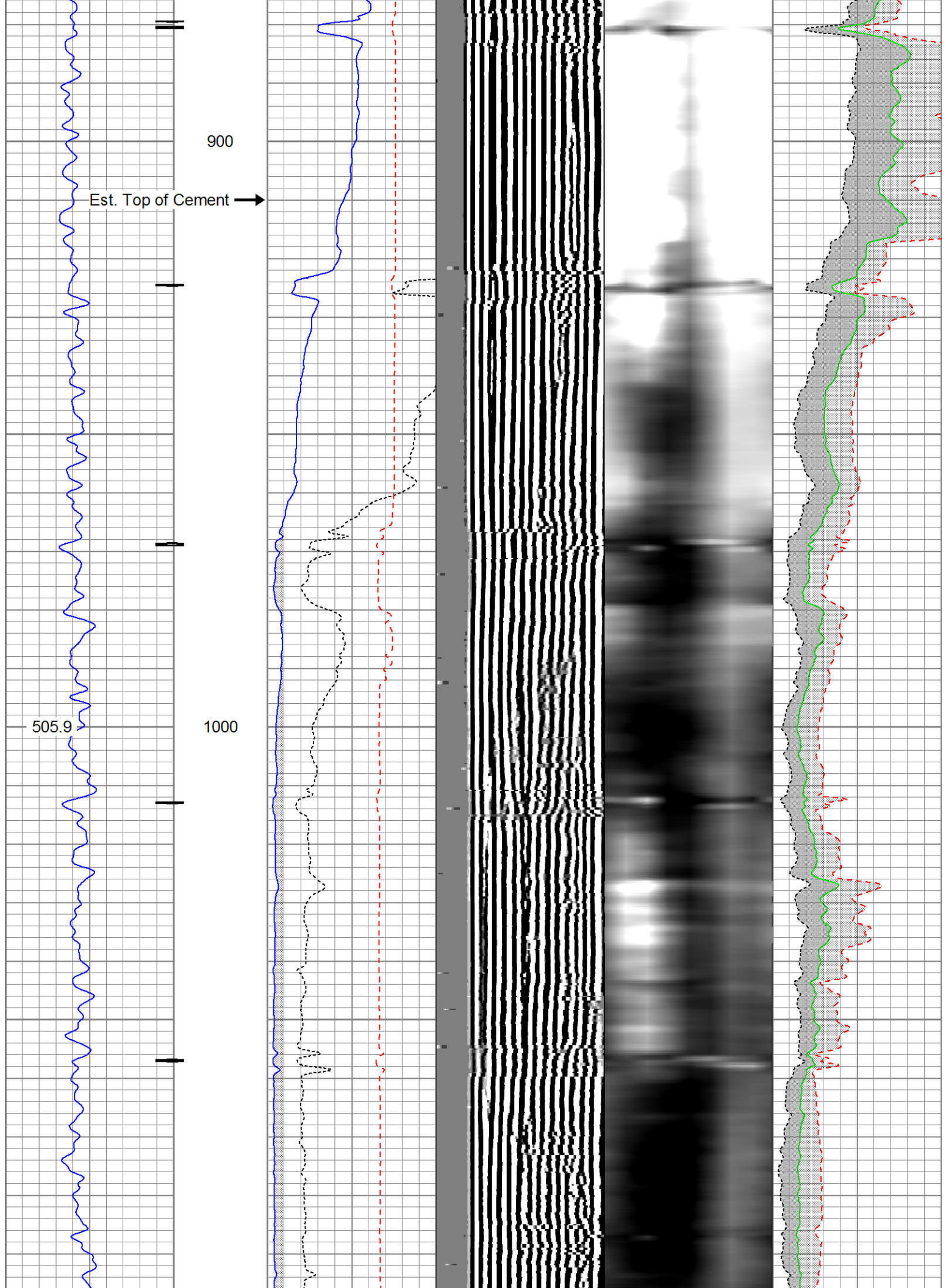




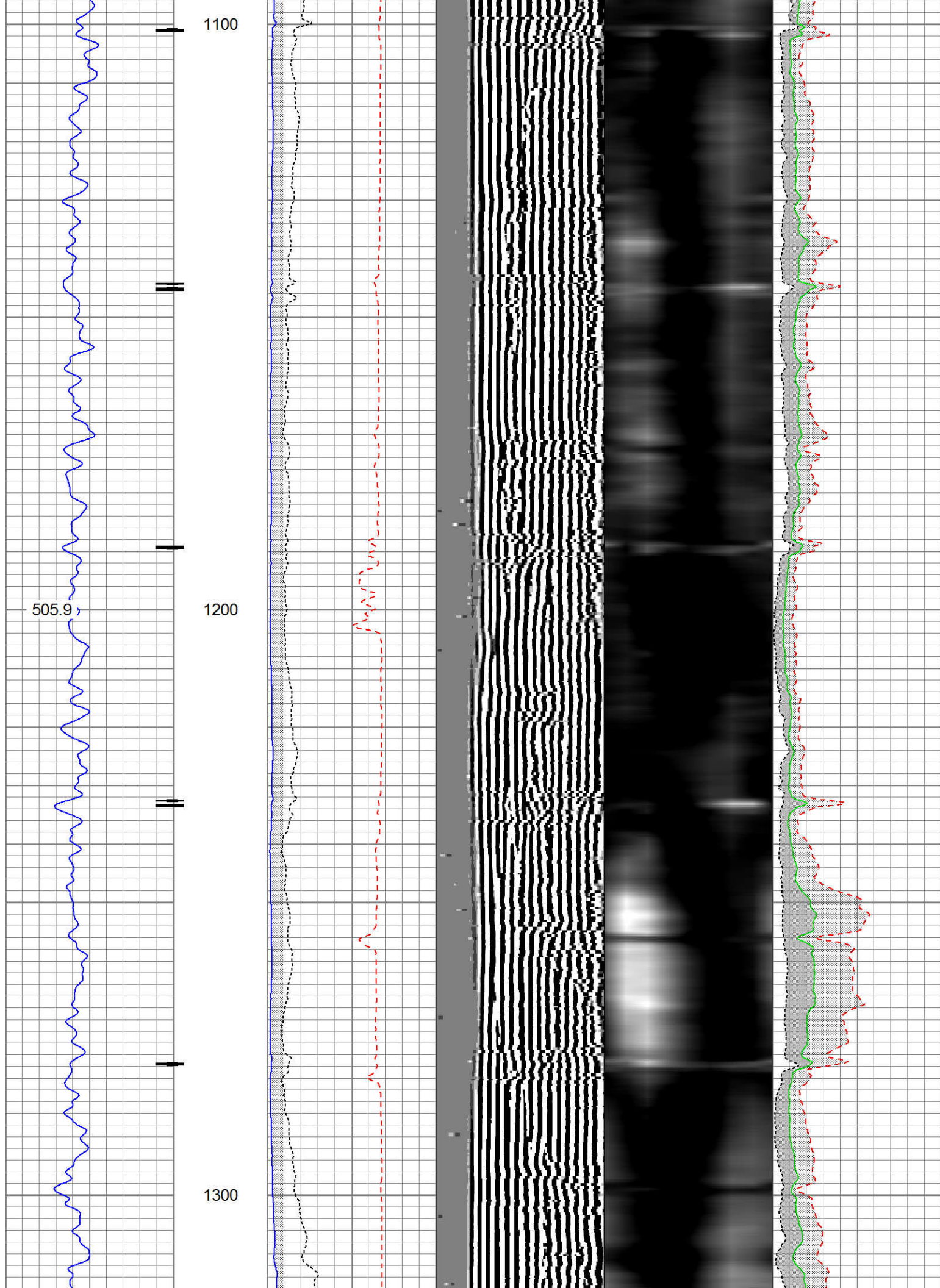




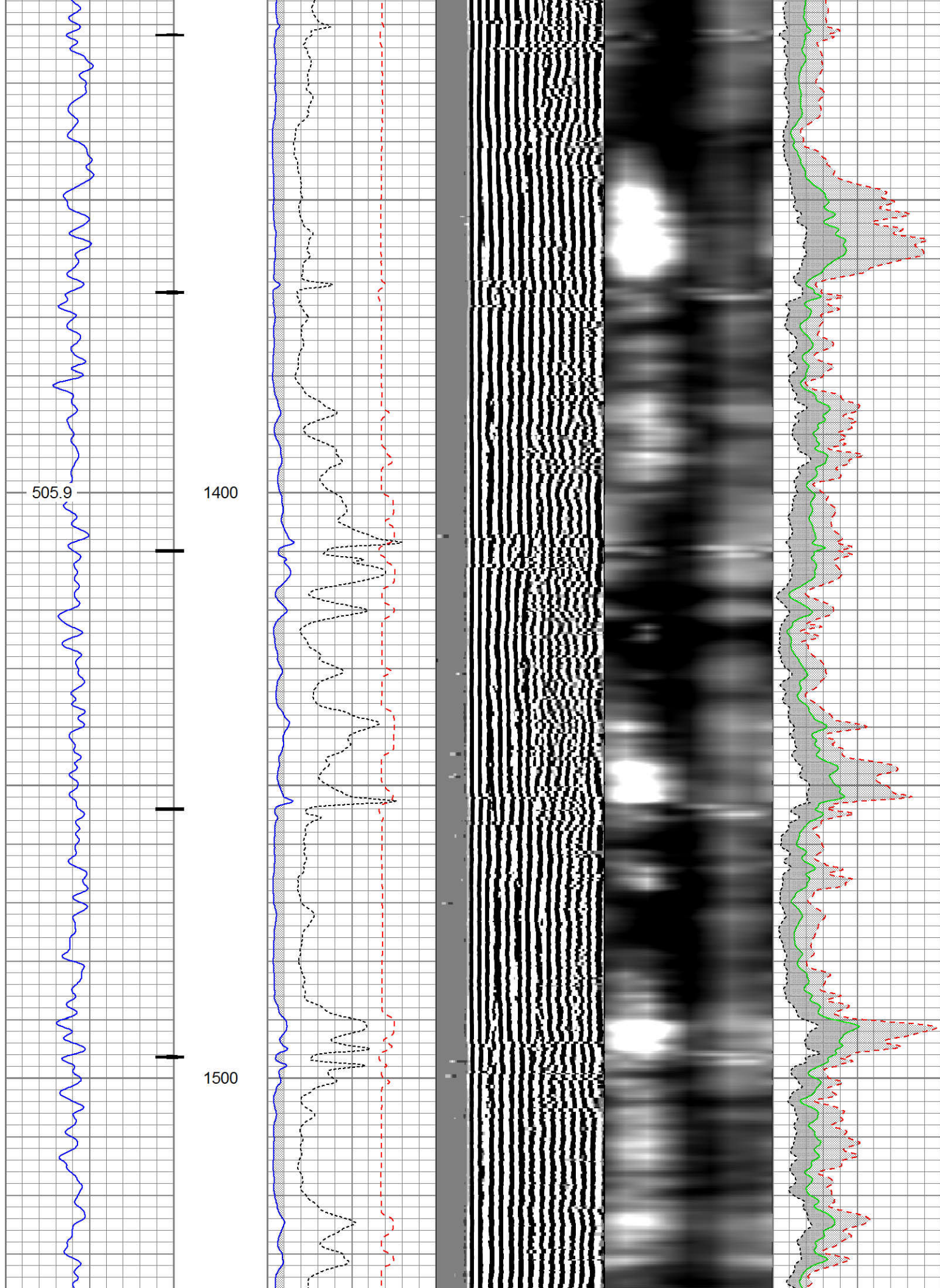




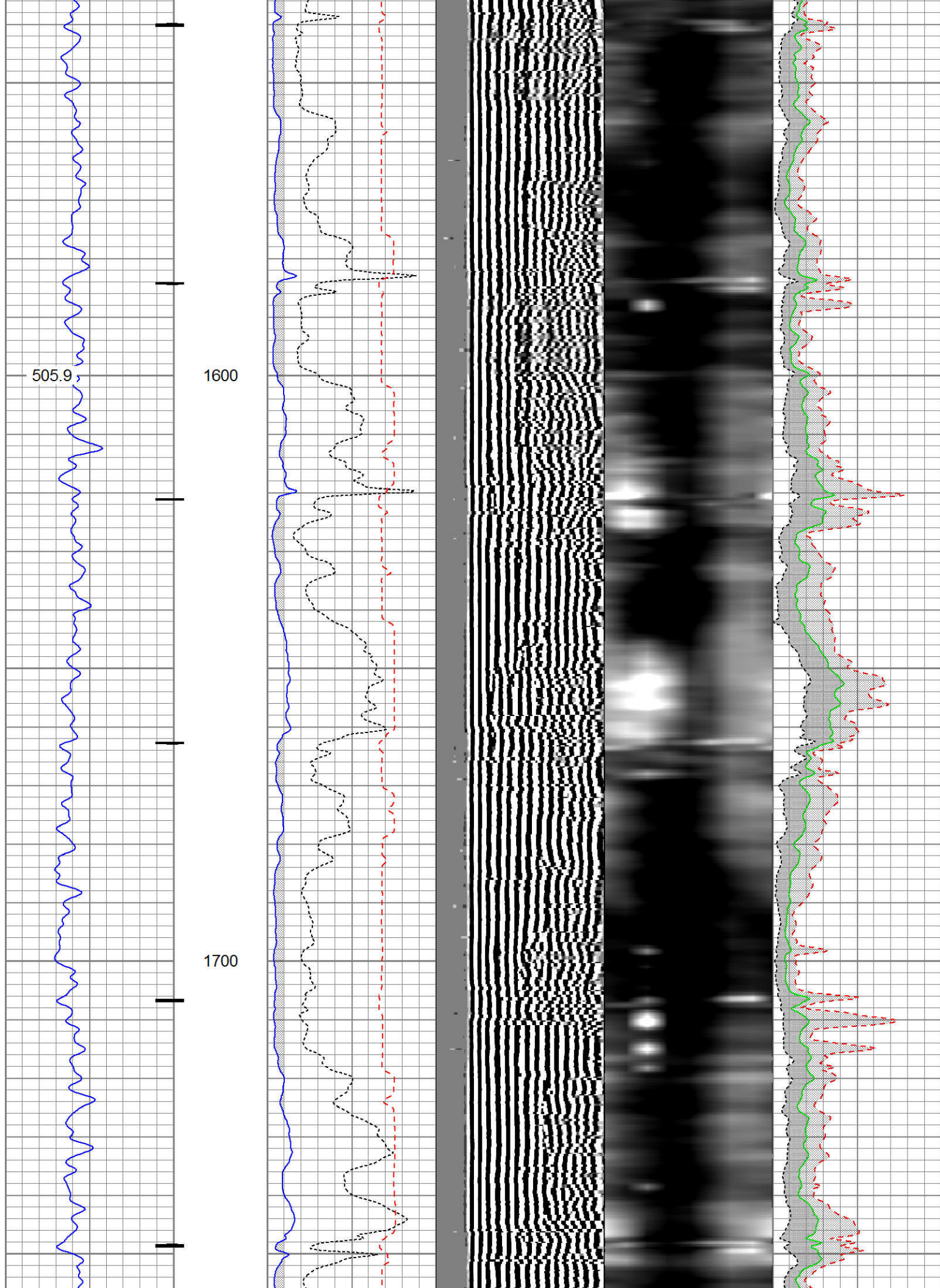




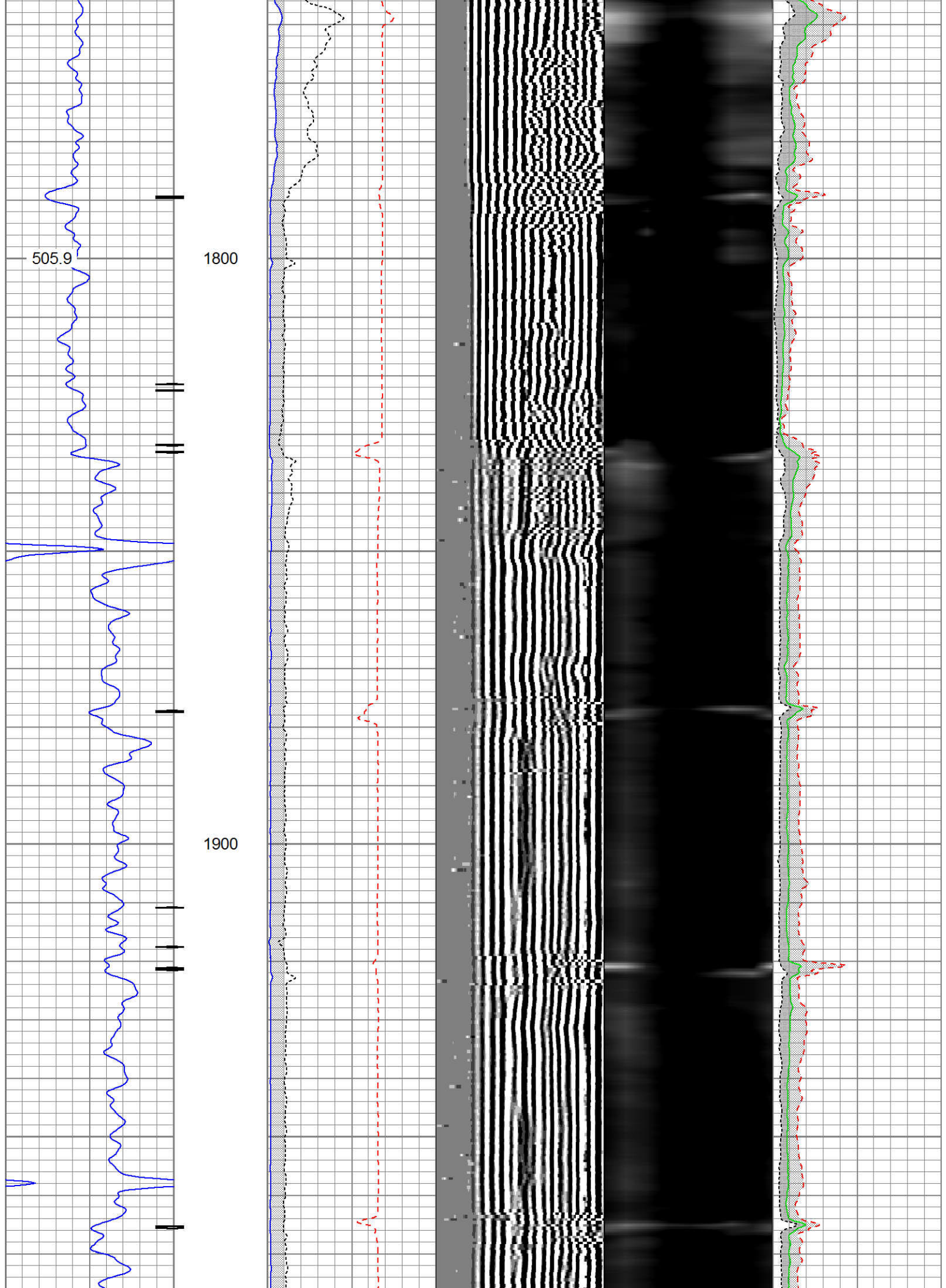




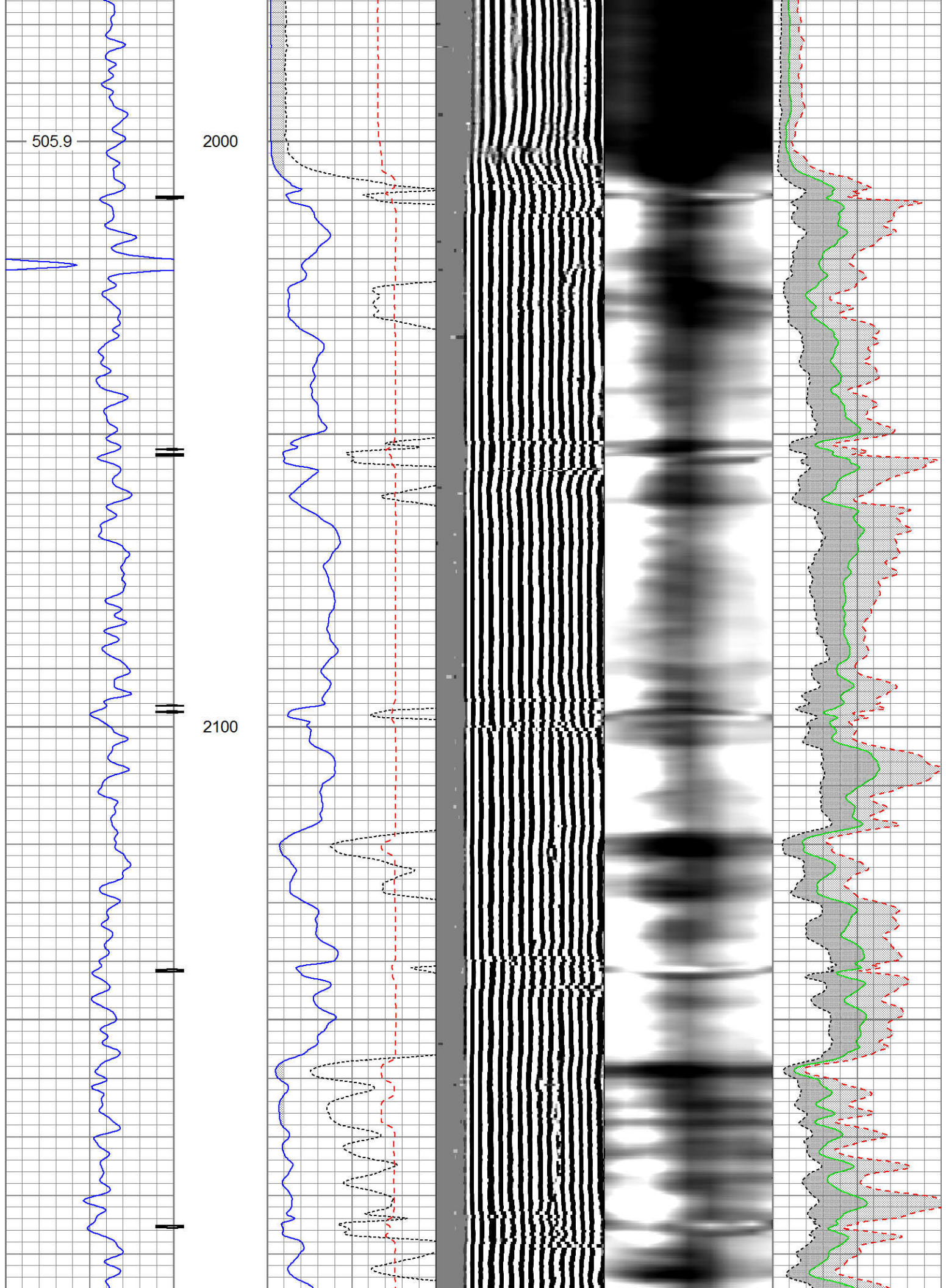




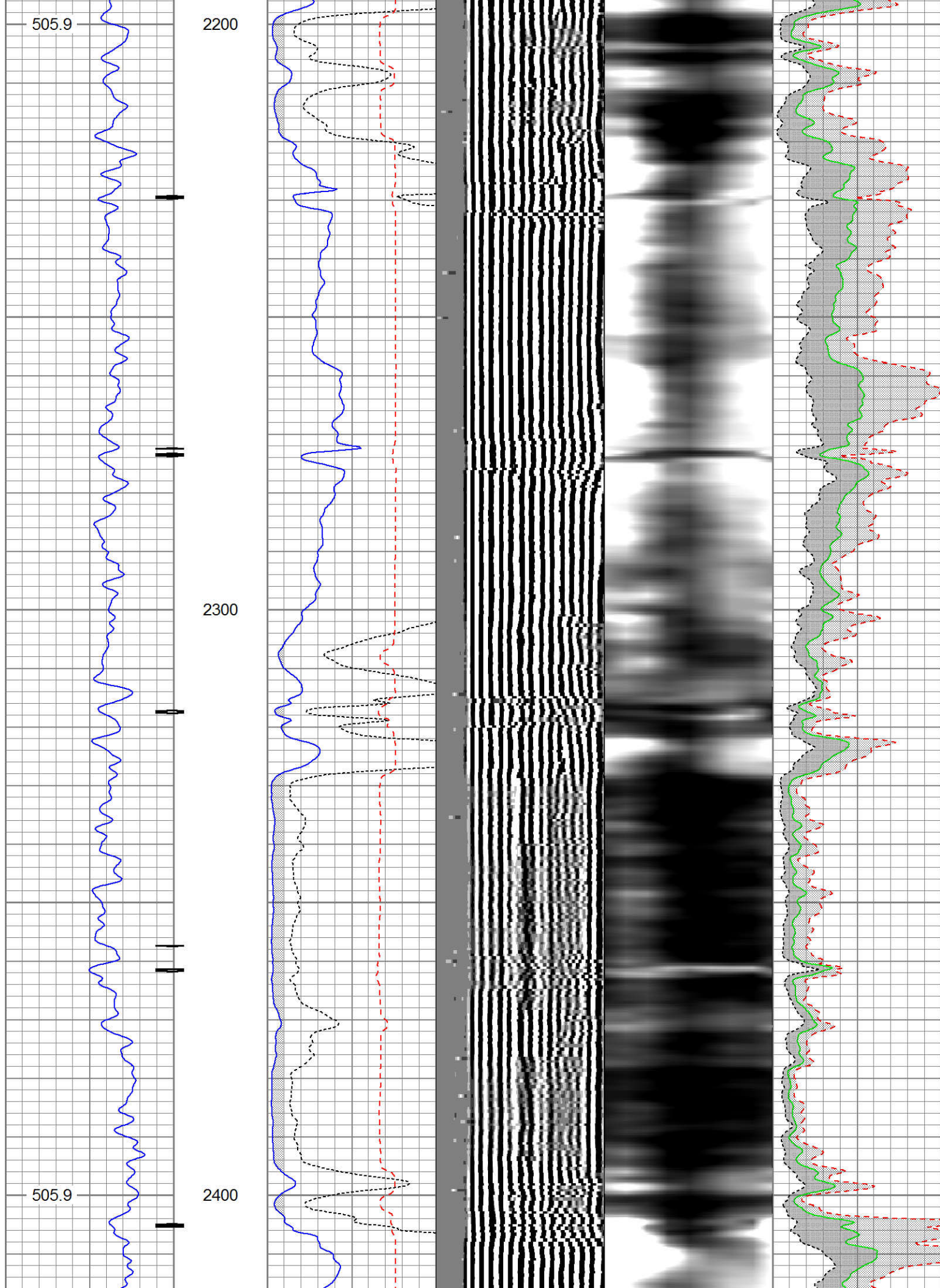




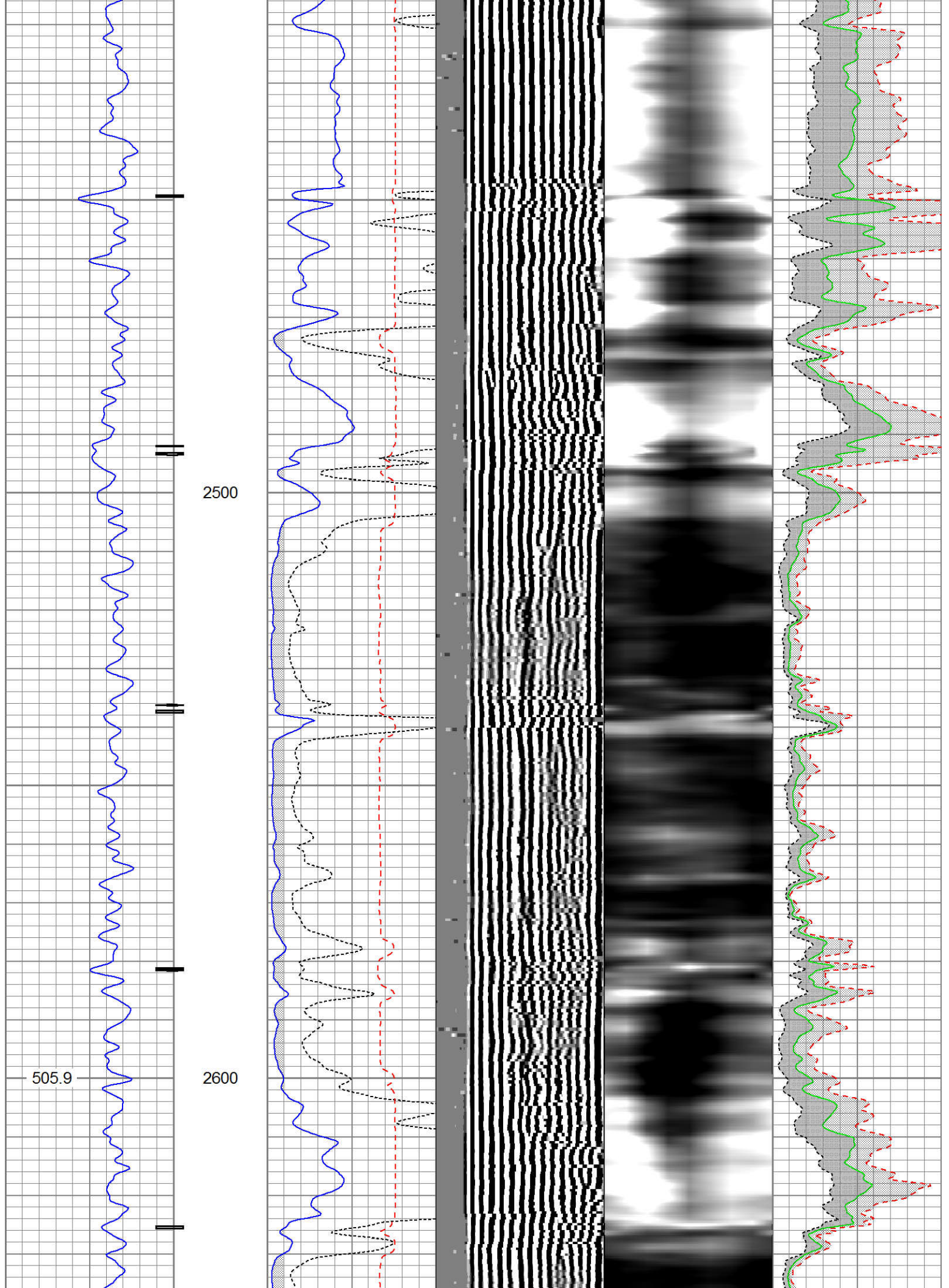




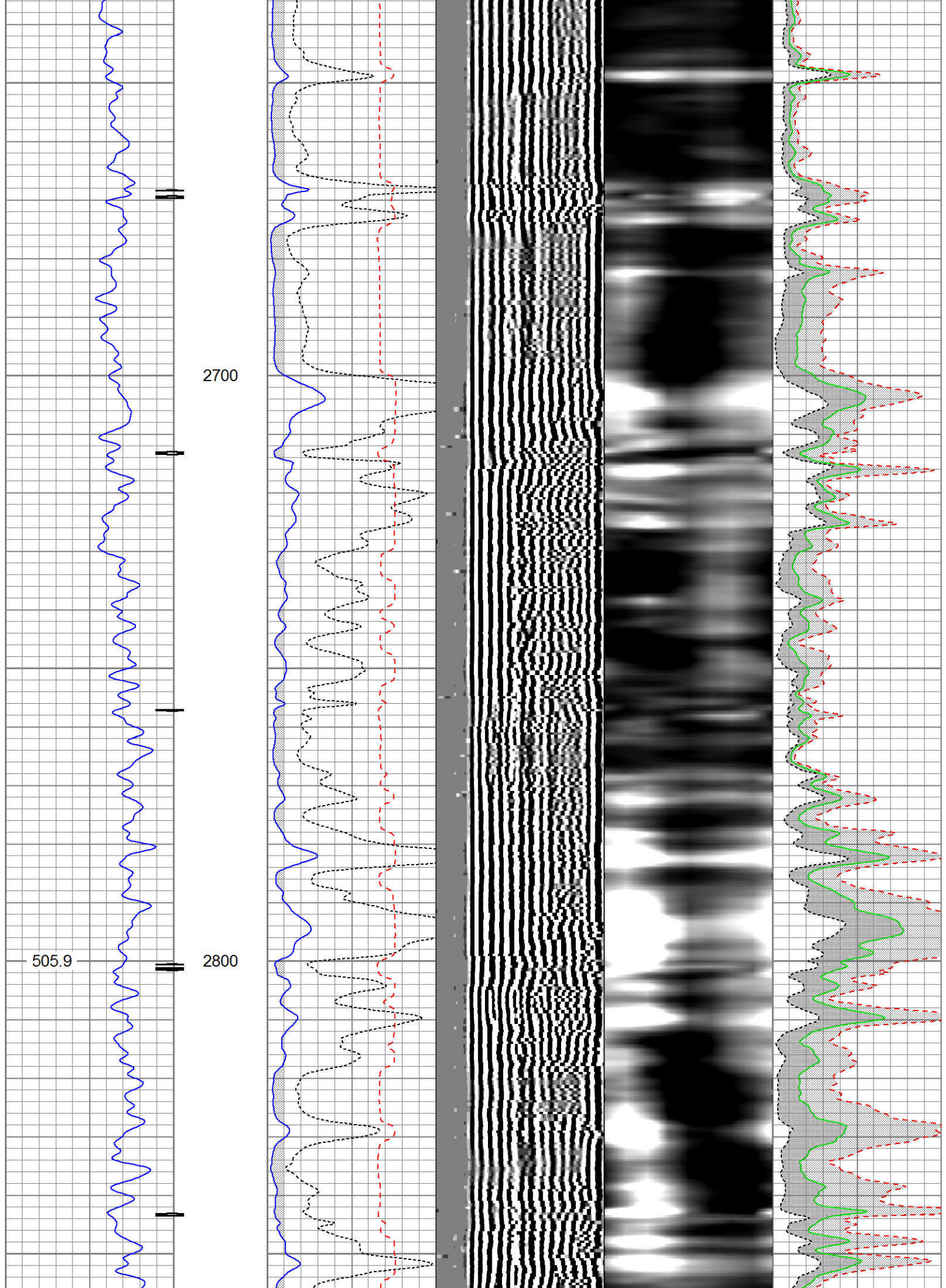




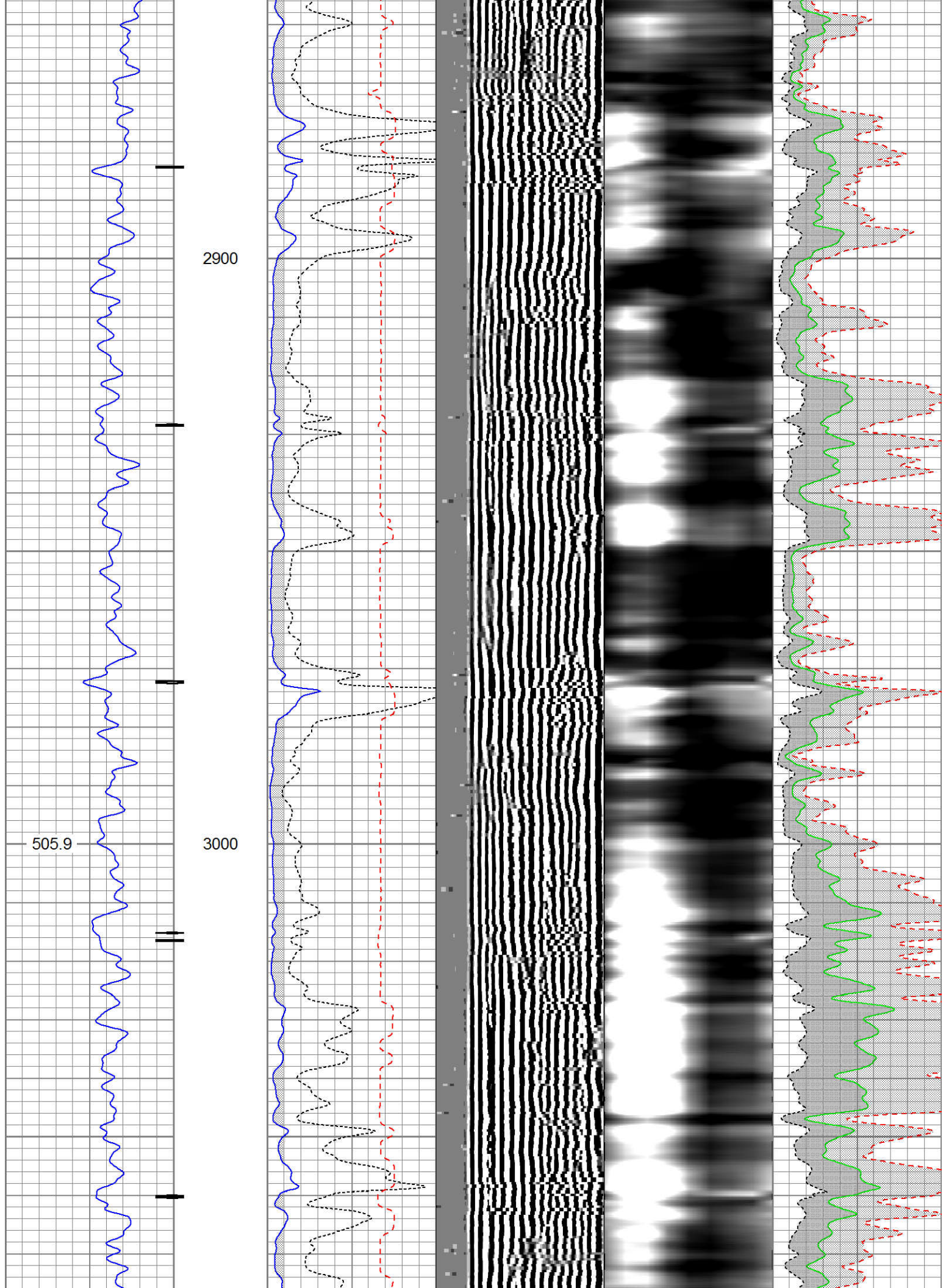




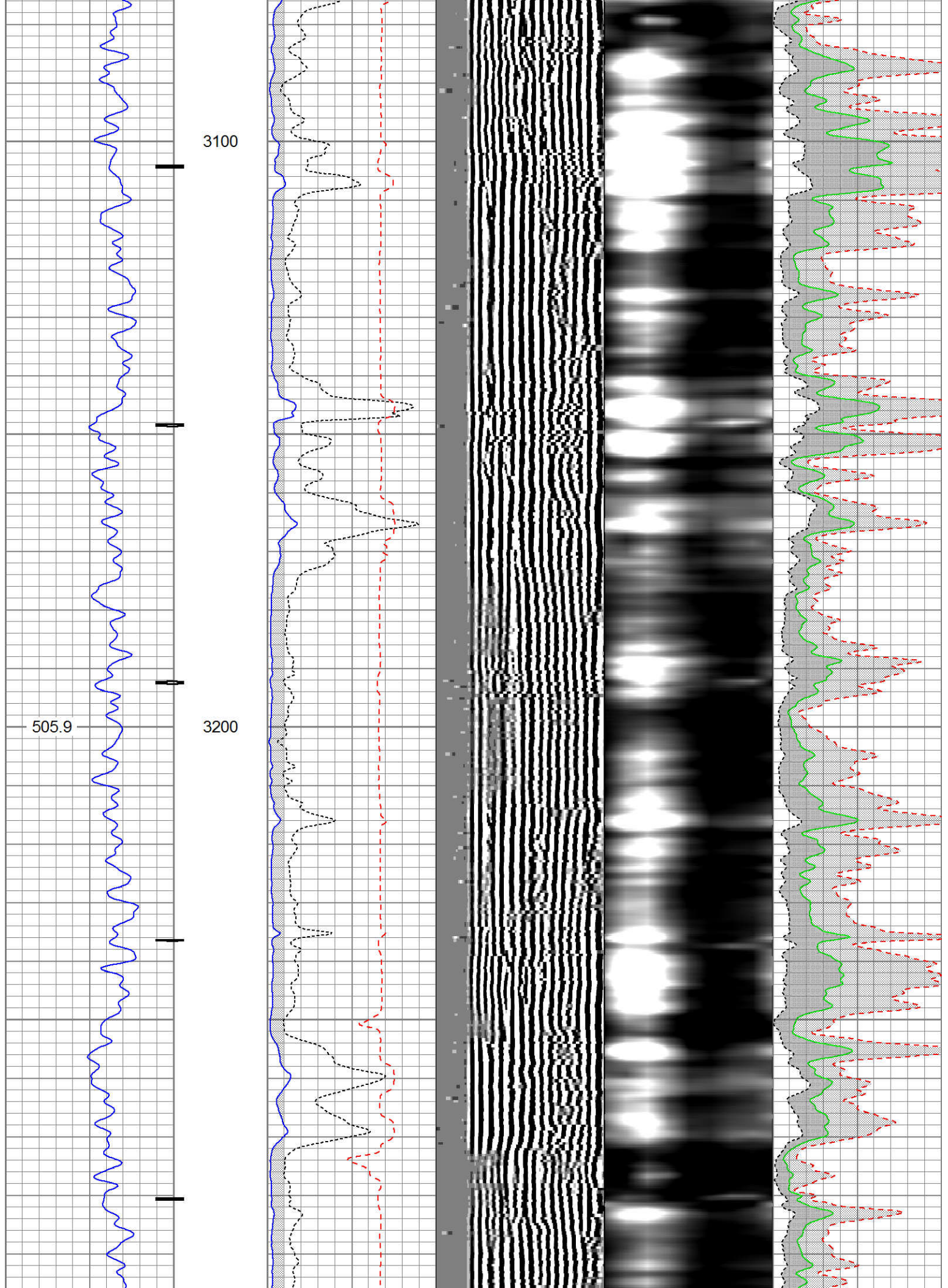




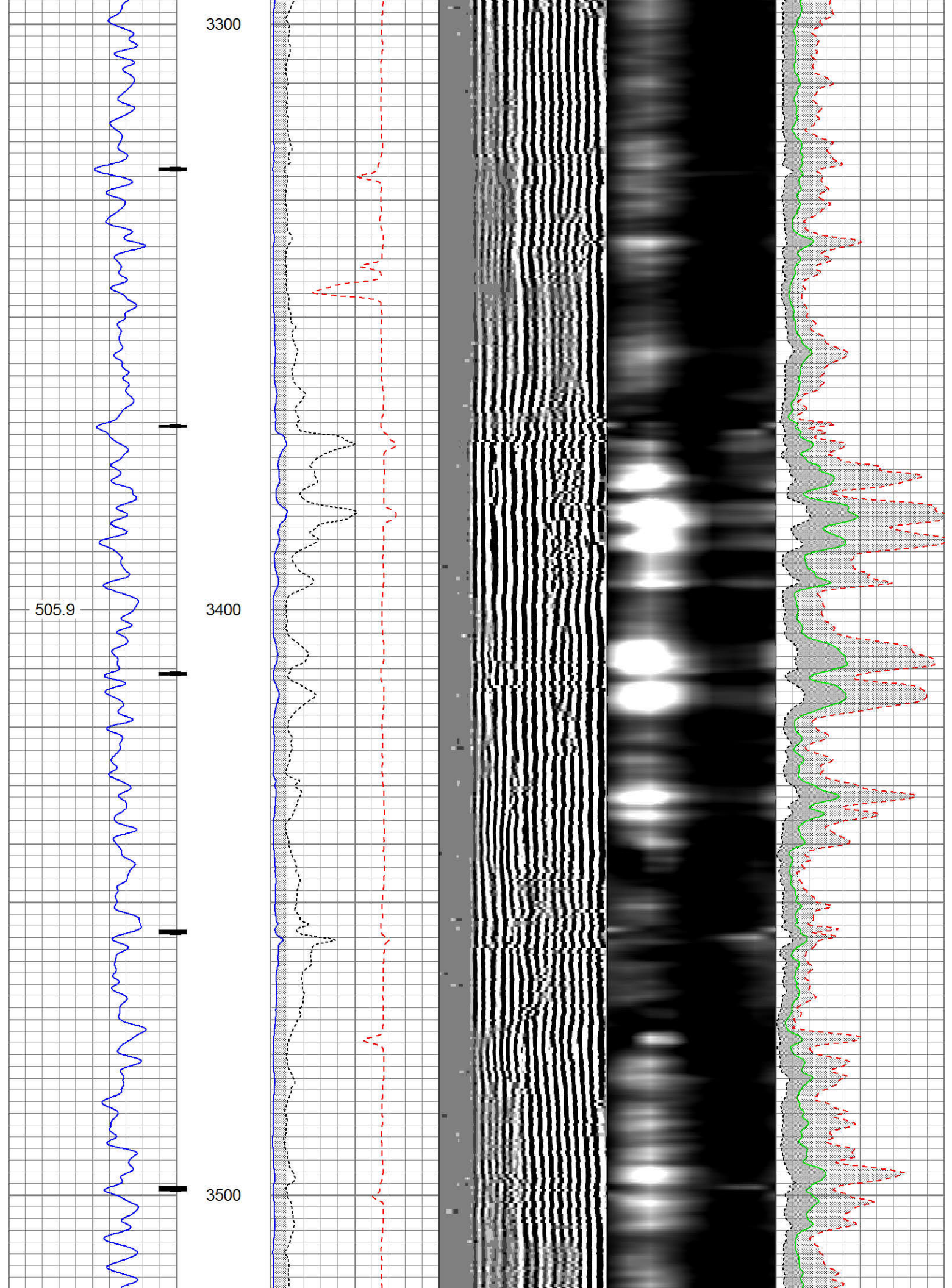




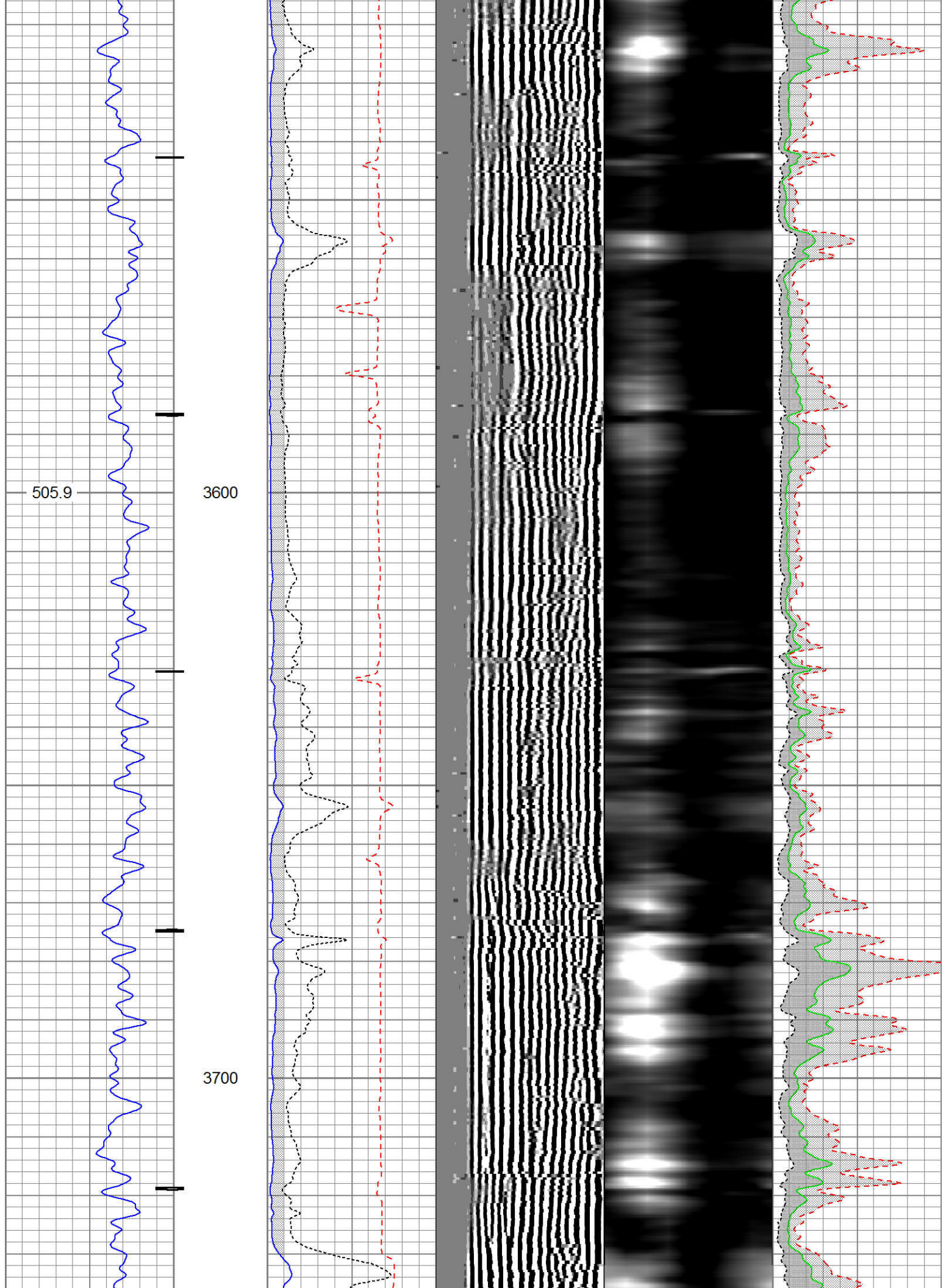




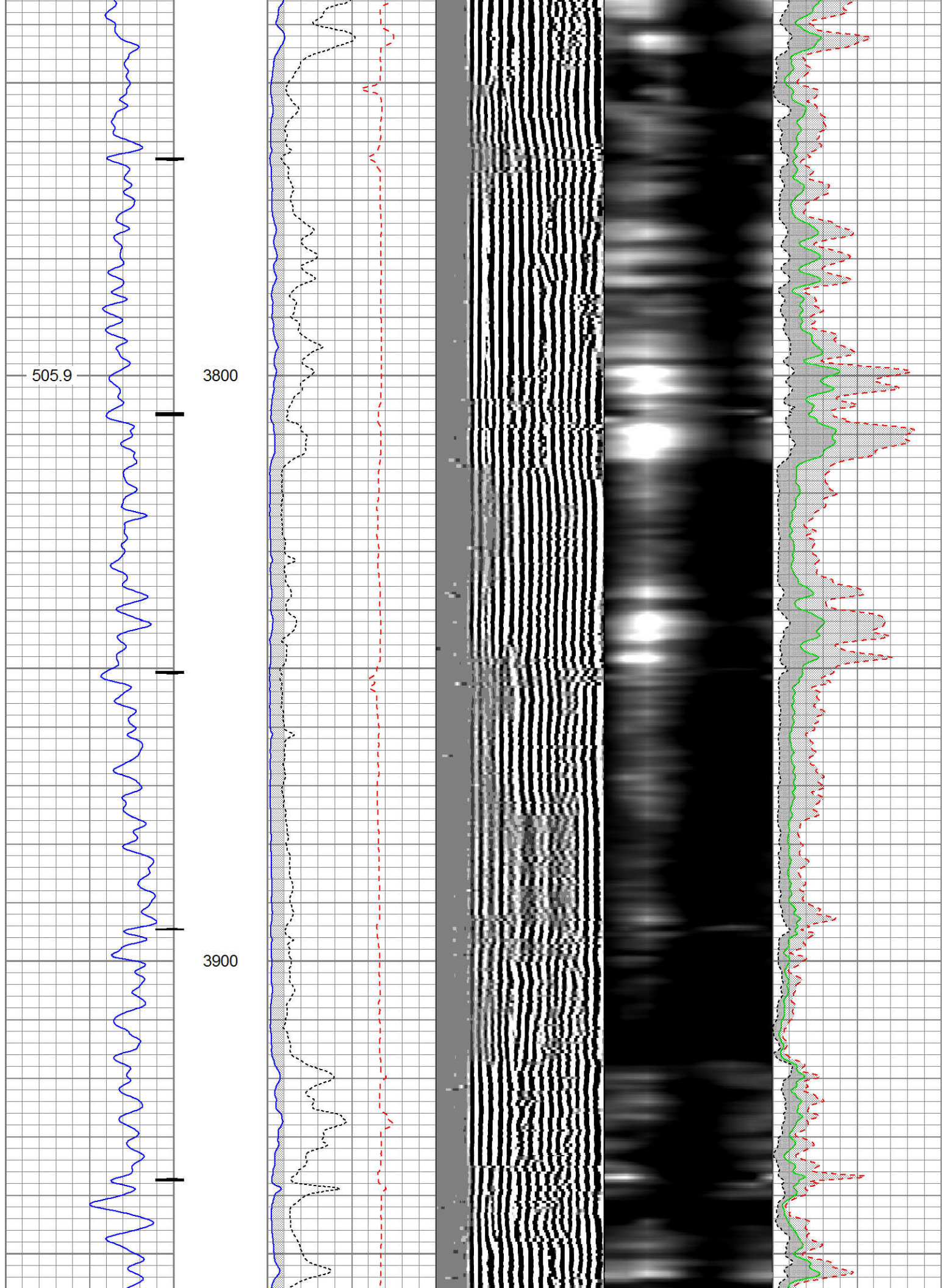




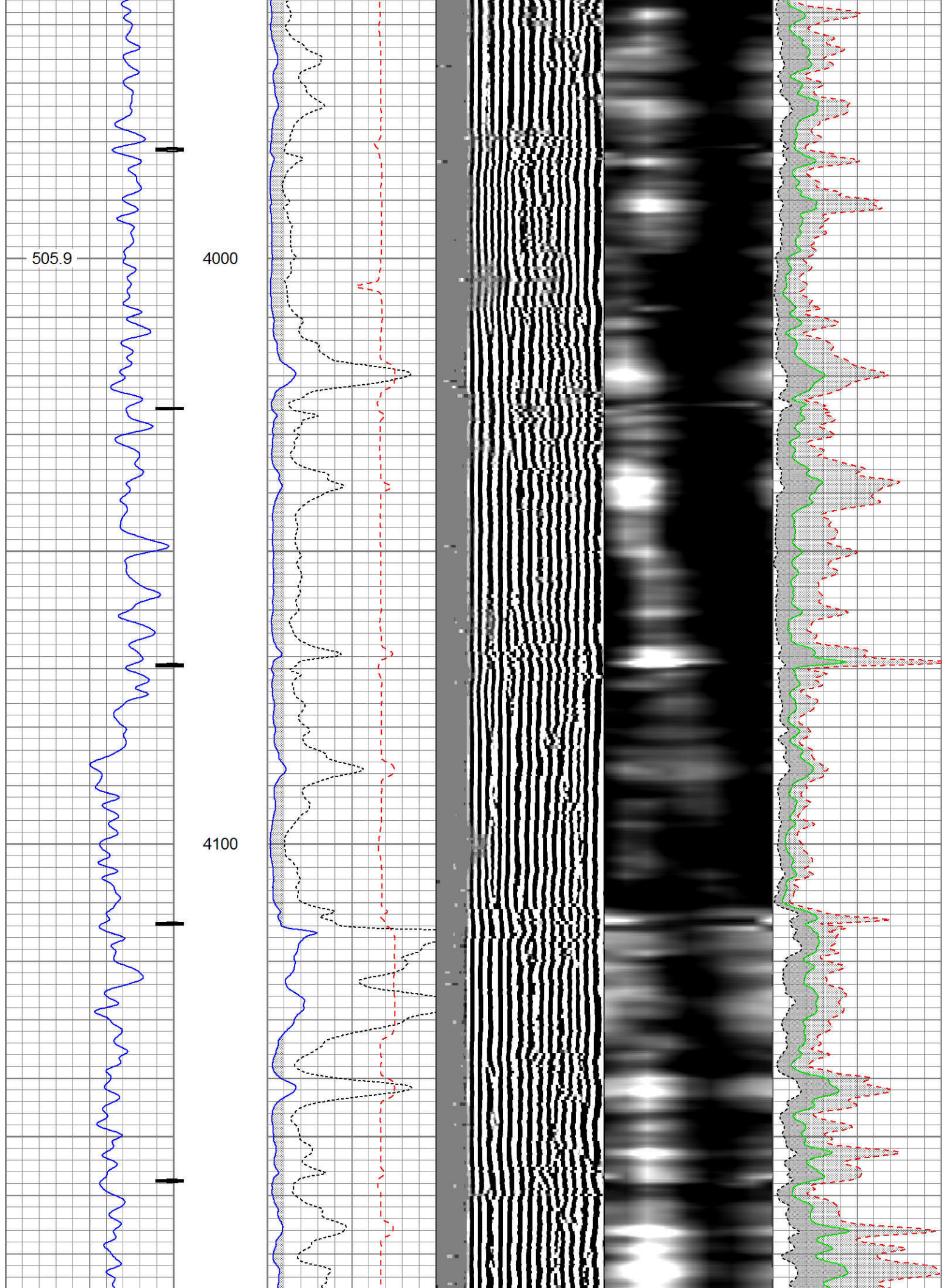




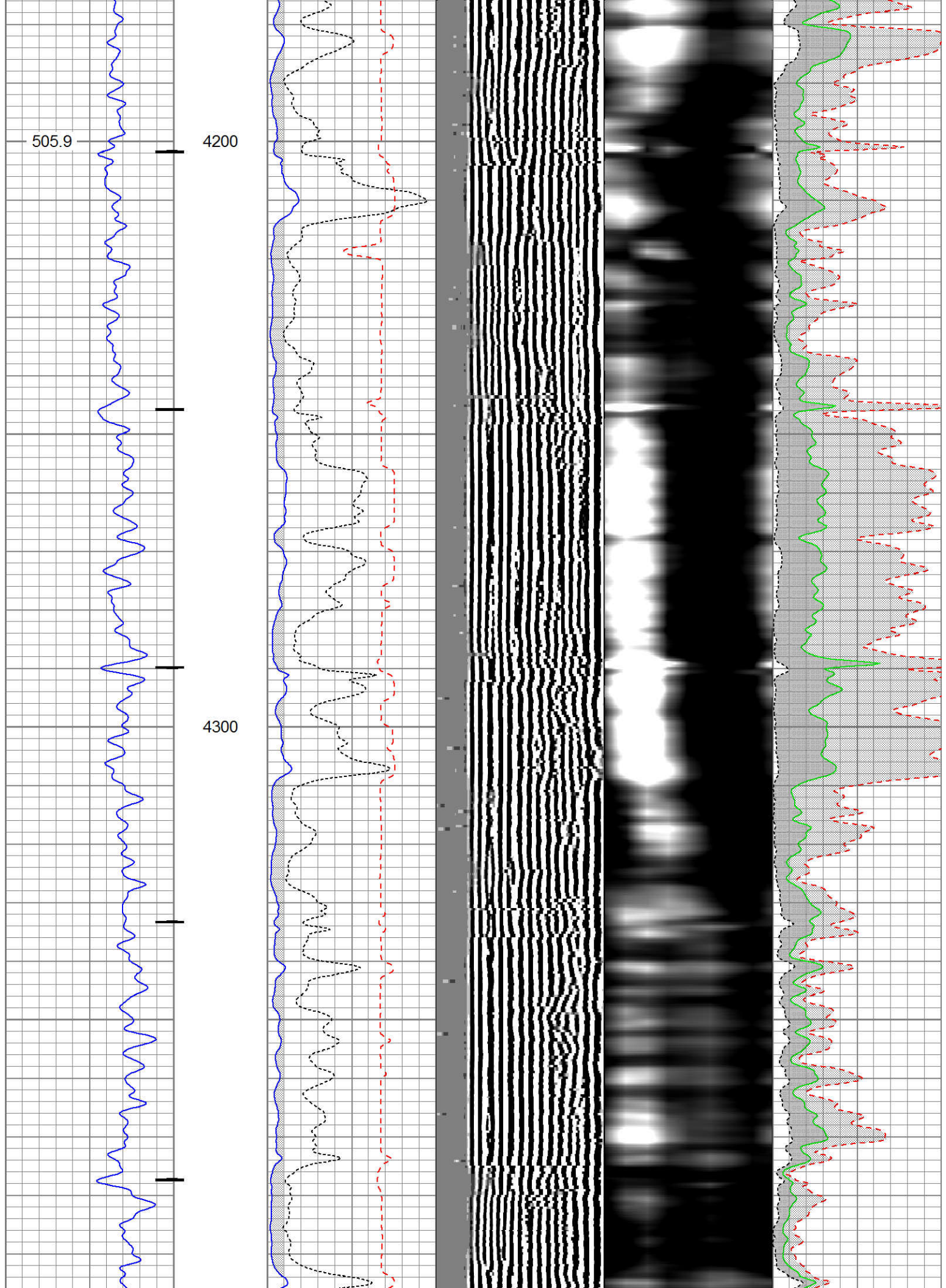




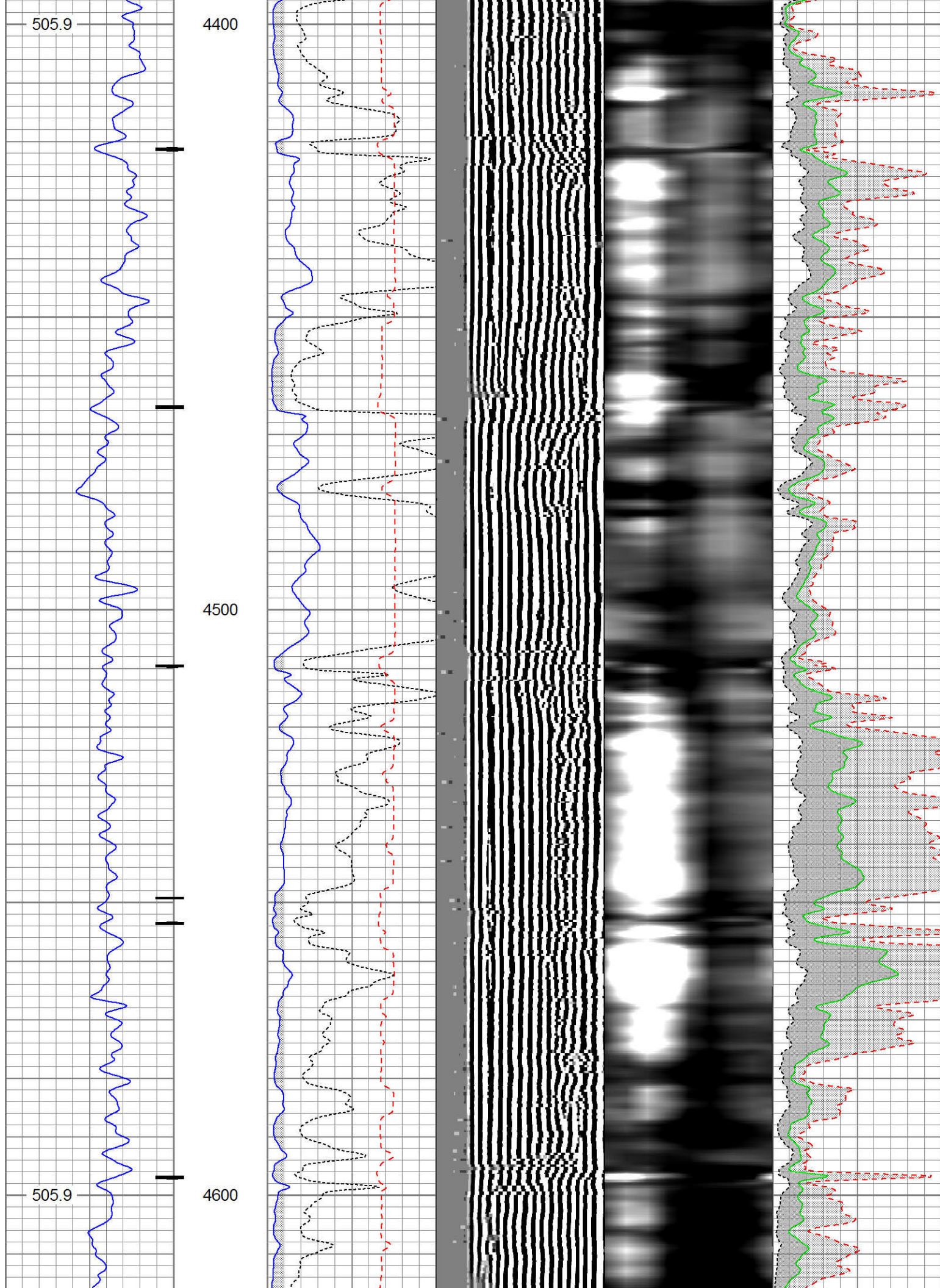




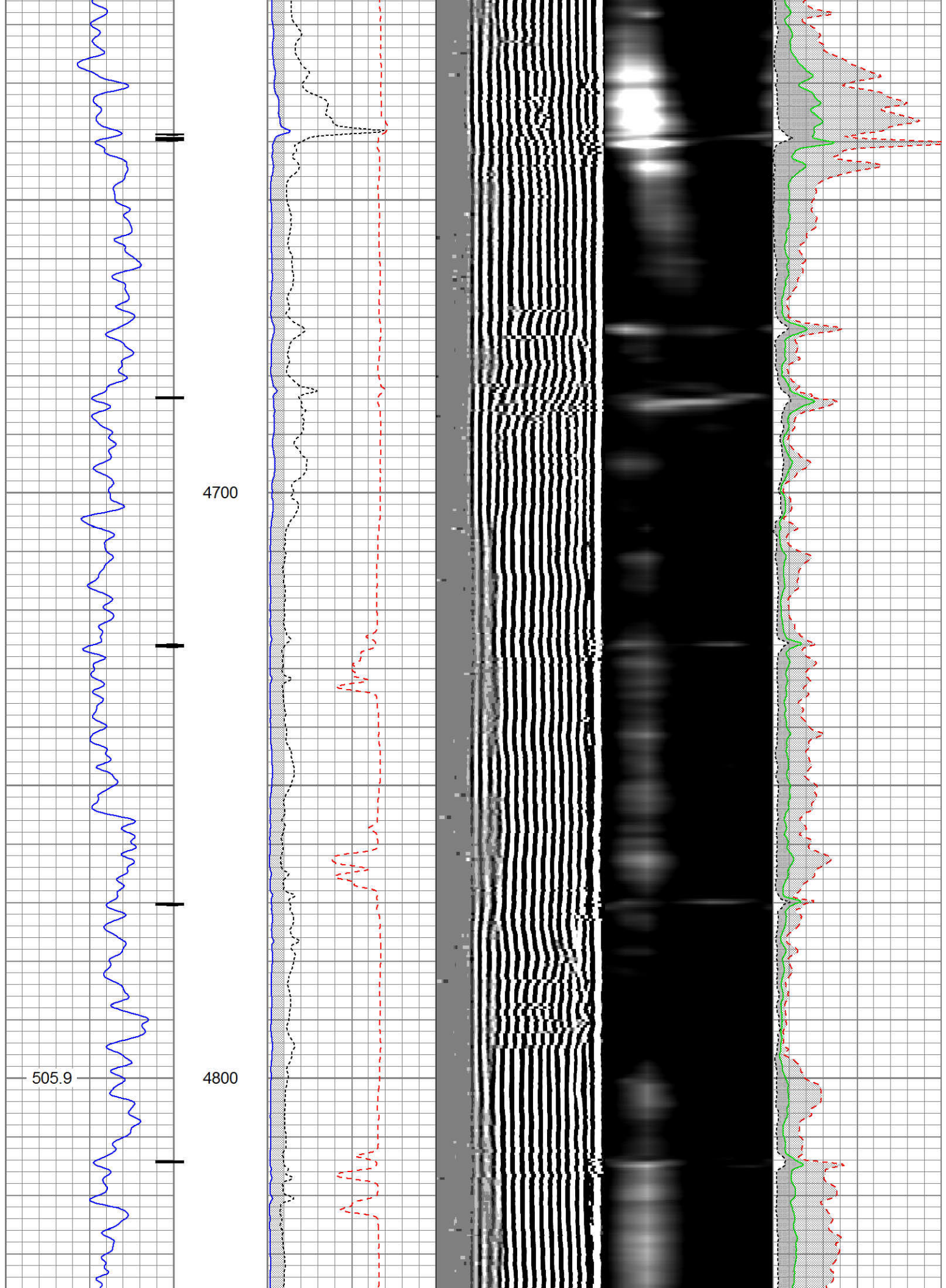




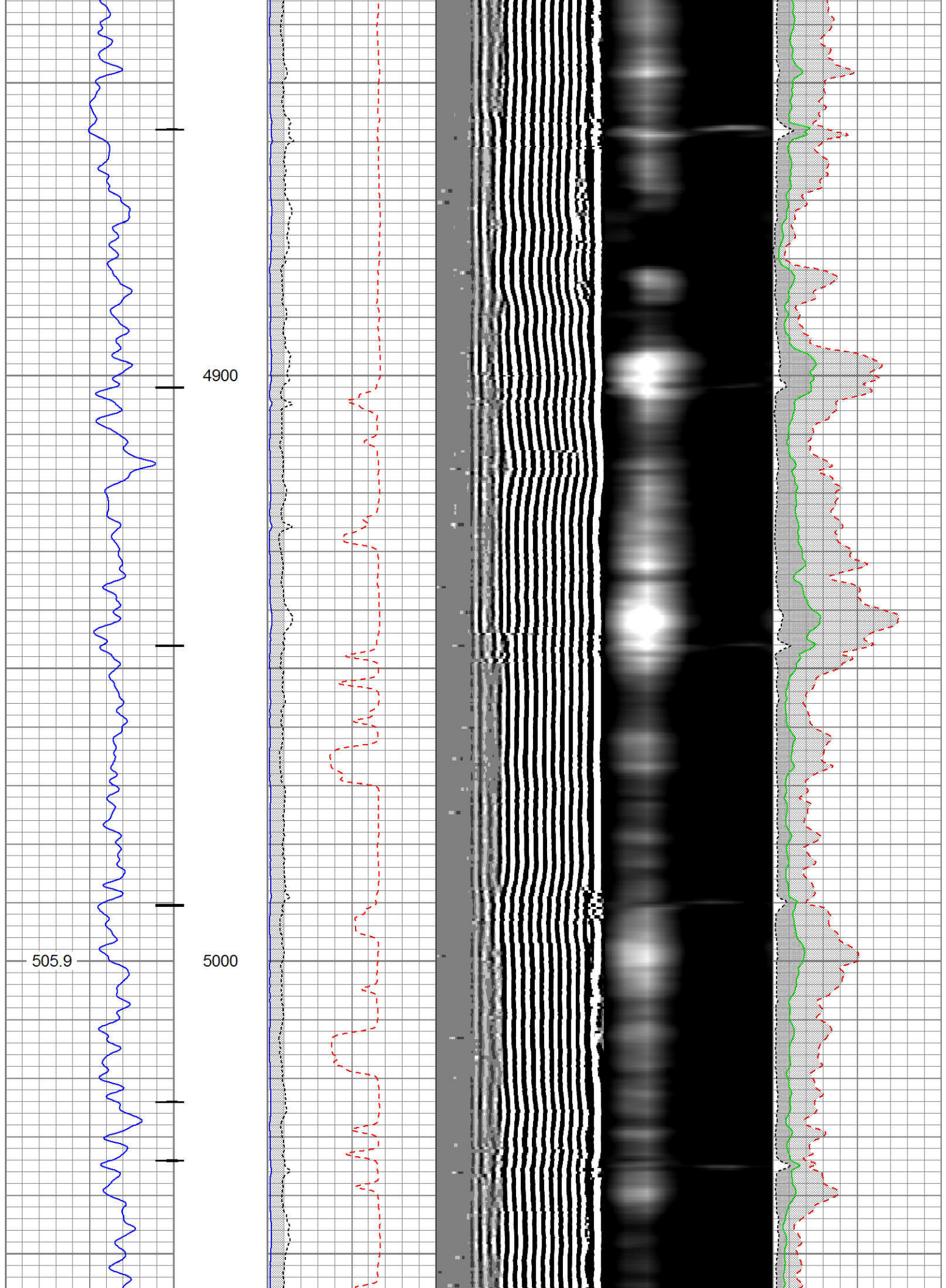




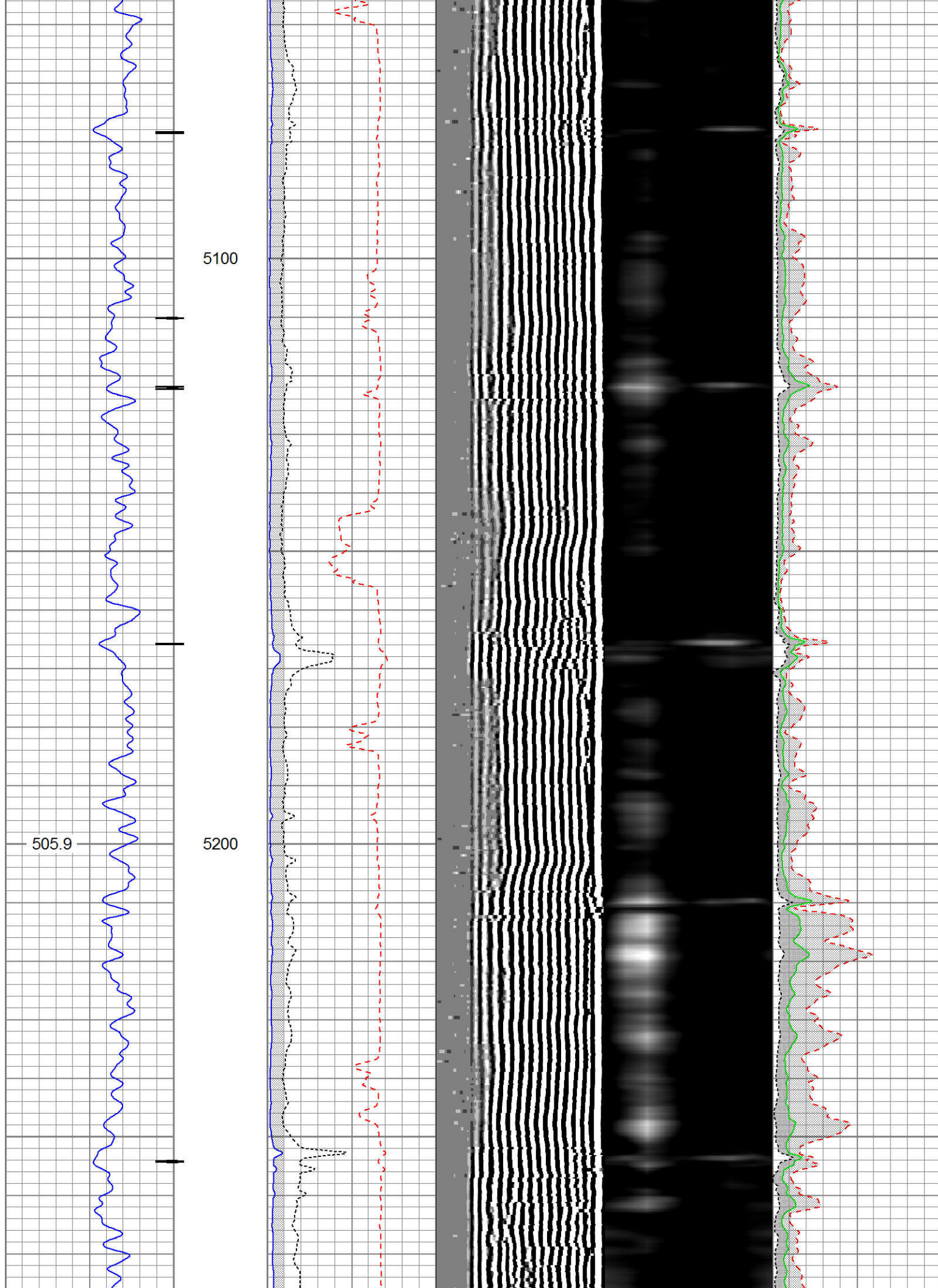




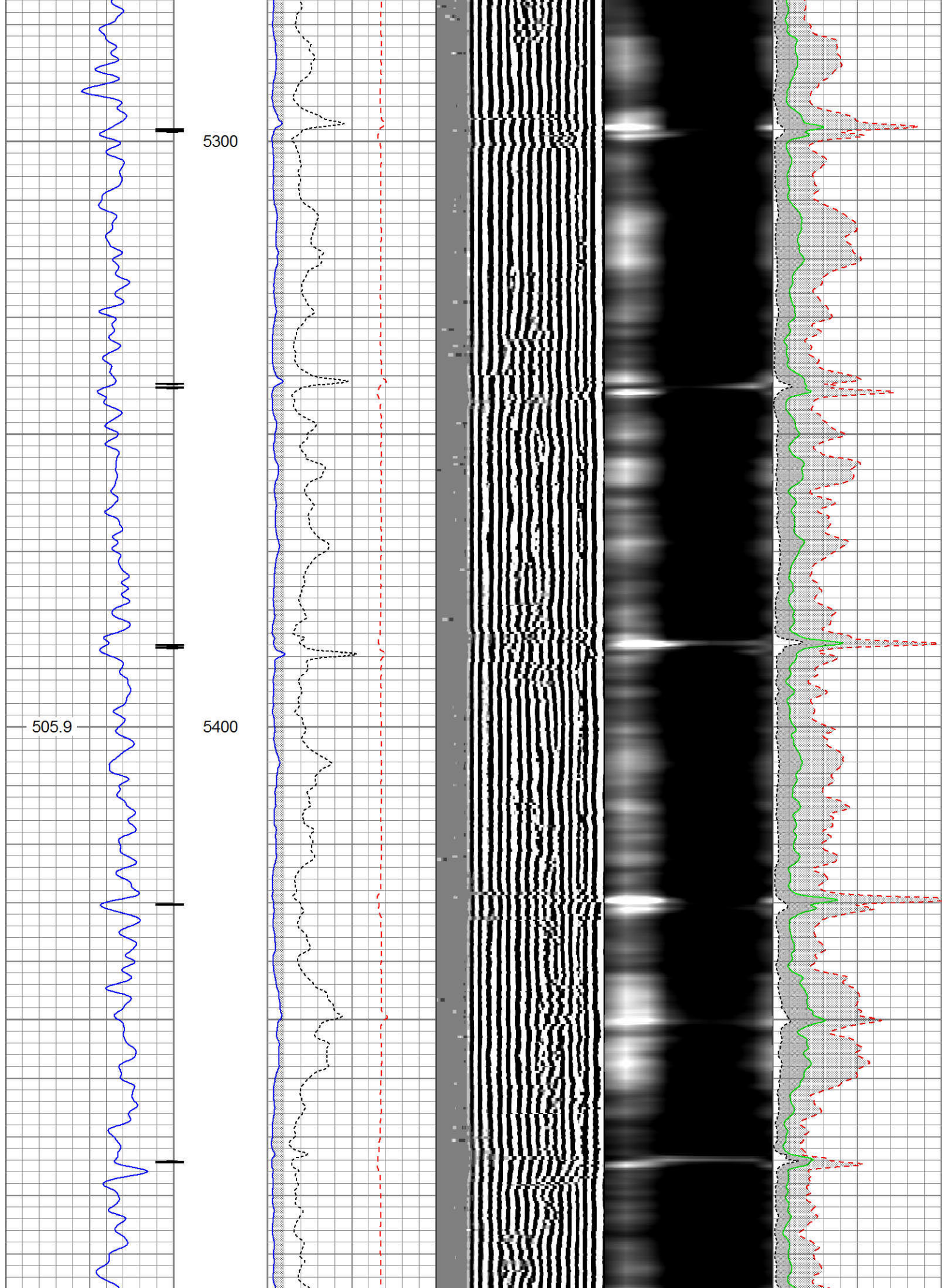




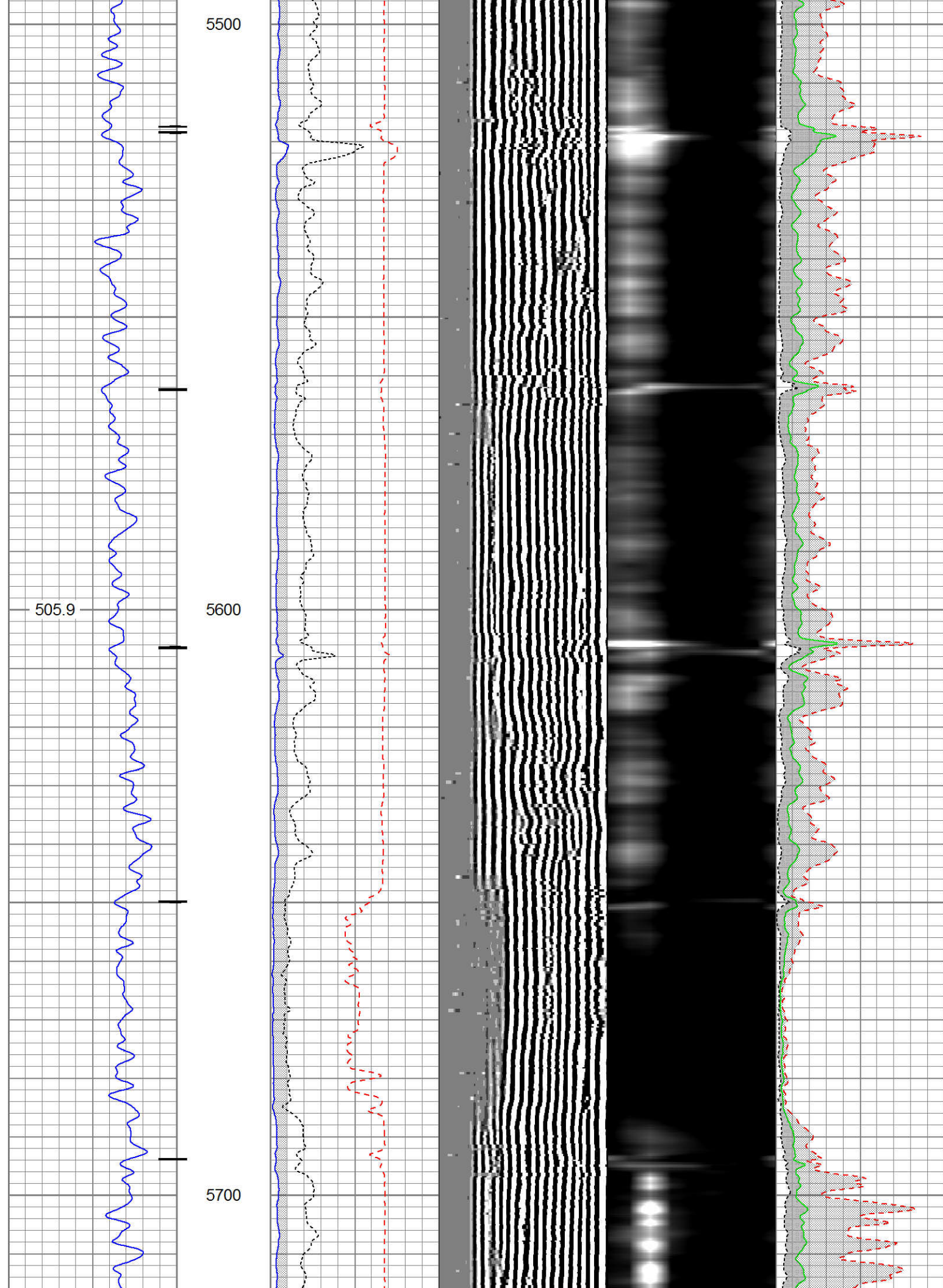




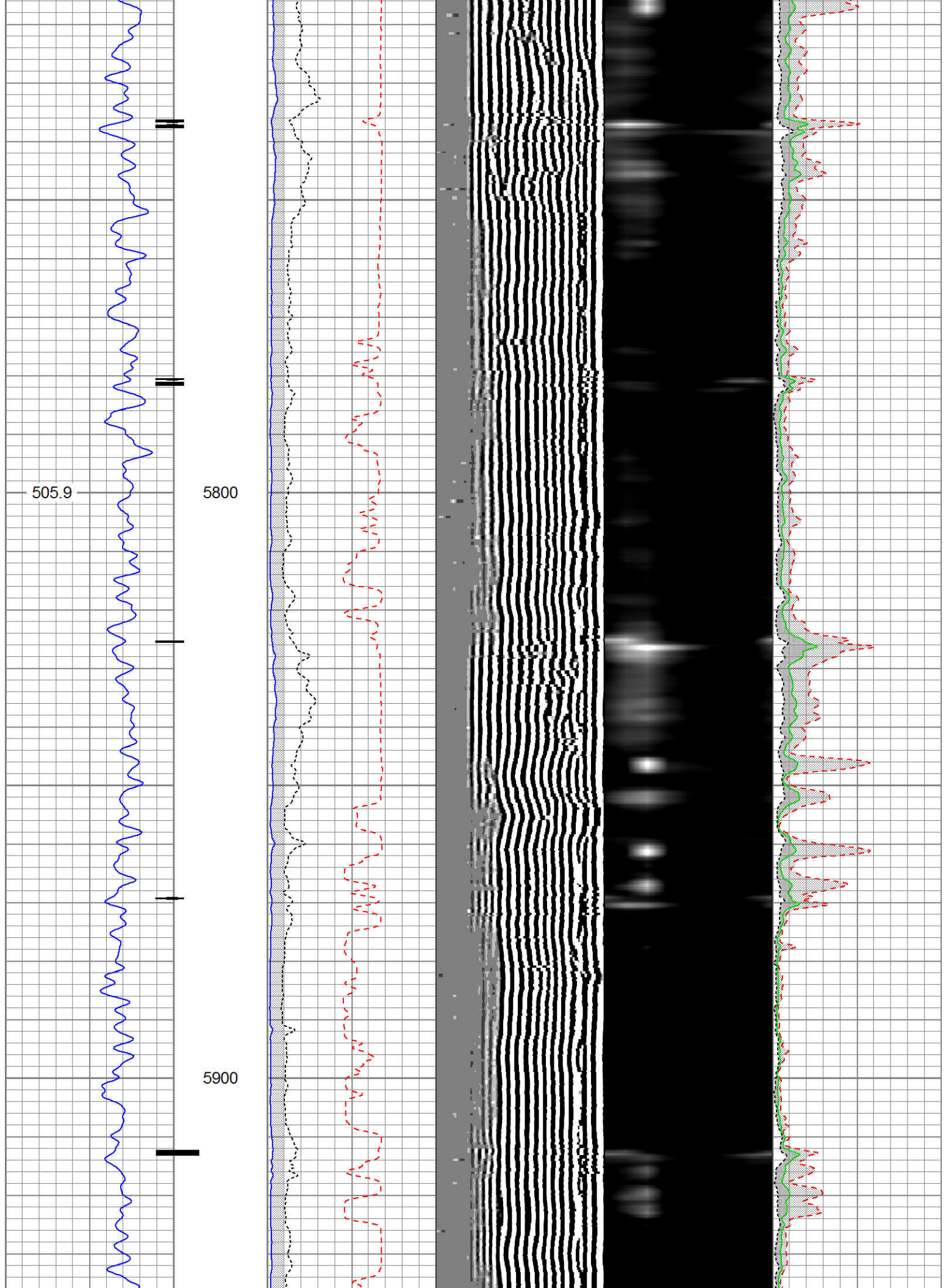




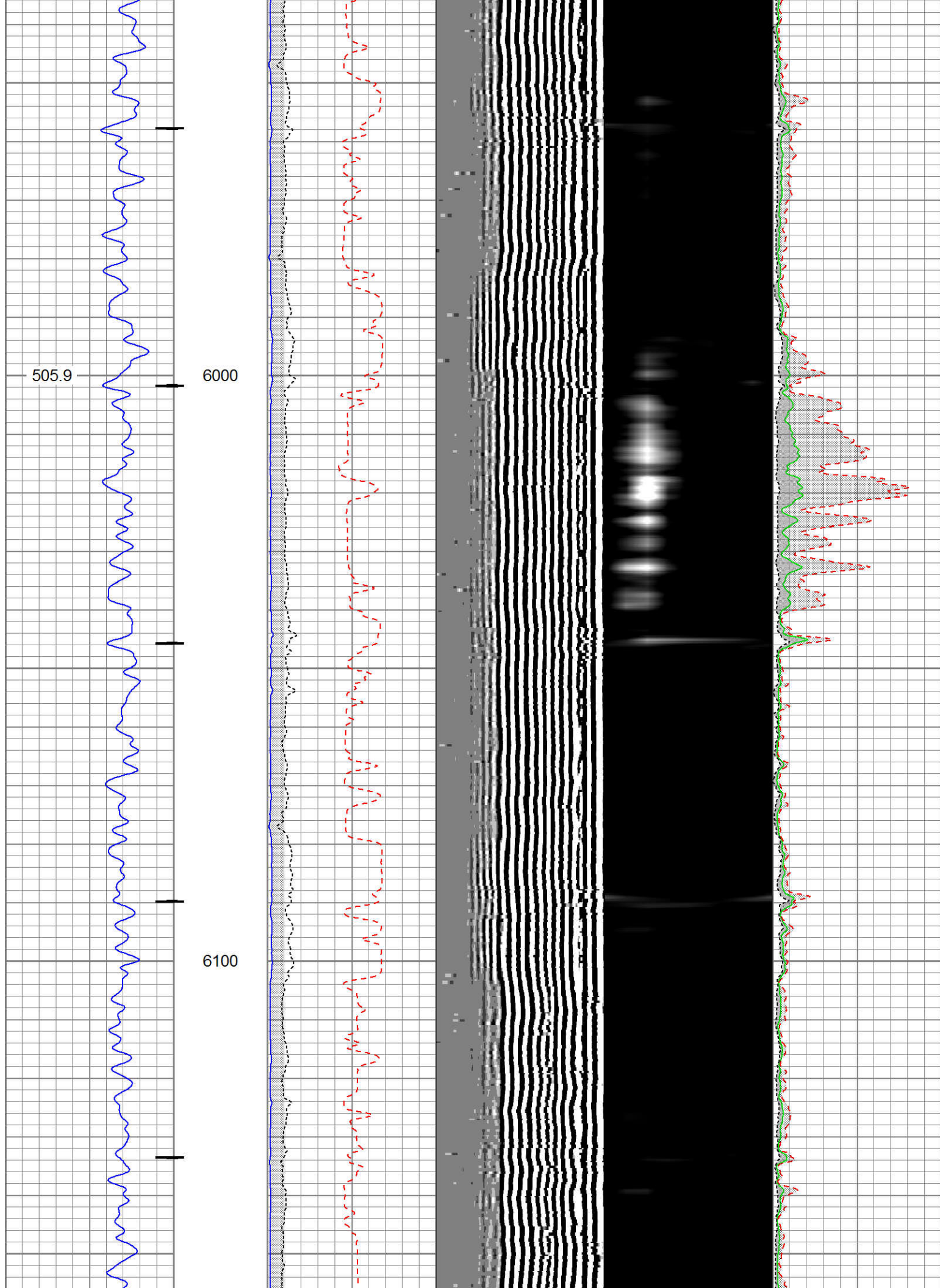




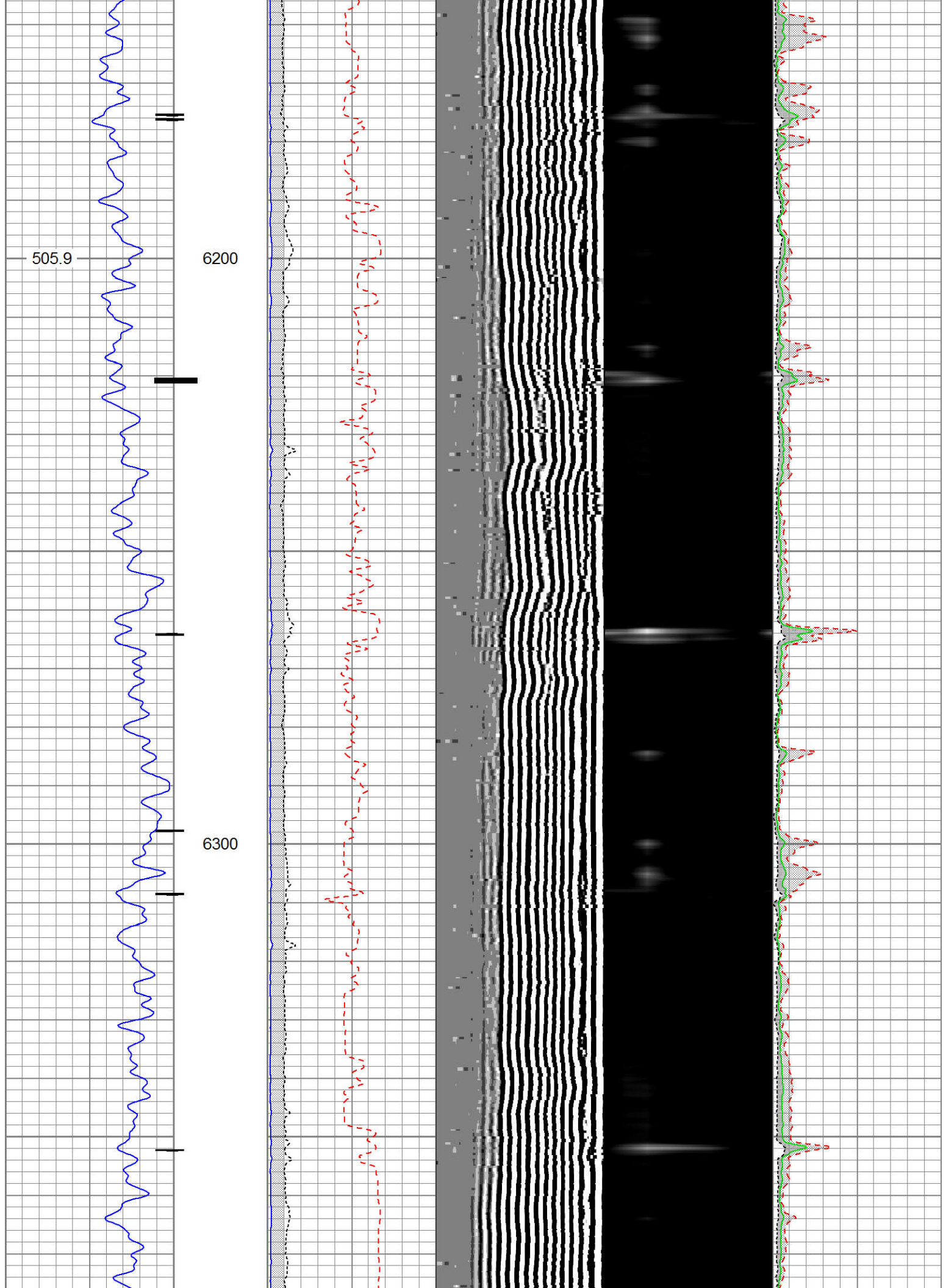




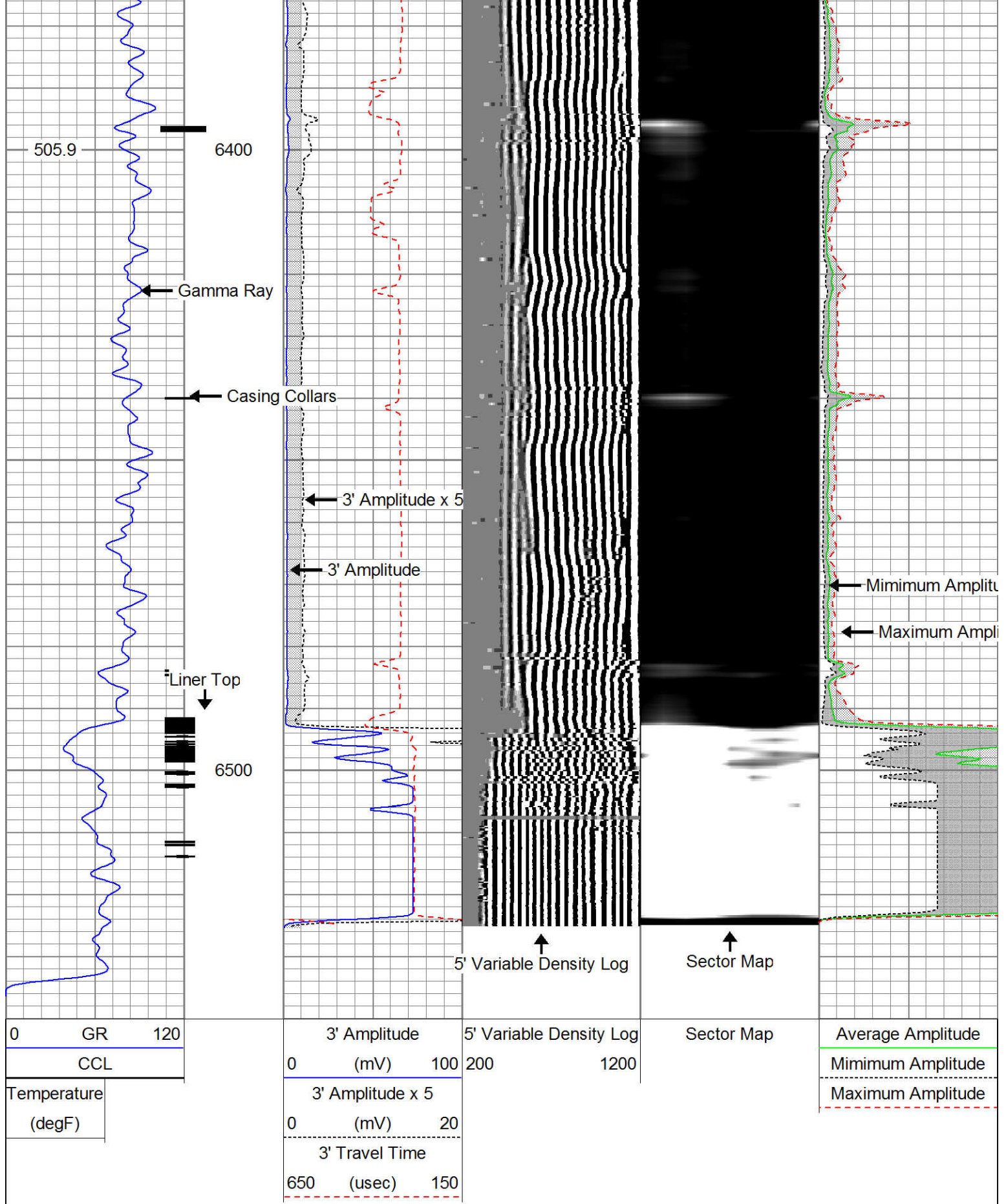












Sensor	Offset (ft)	Schematic	Description	Len (ft)	OD (in)	Wt (lb)
CCL	22.06		AES1563 Applied Science 1-7/16" cablehead with 1" fishing neck	1.04	1.56	2.00
			CCL LOG TypeA (AAAA)	1.53	2.75	26.00



CCL	22.93		CCL-LOG-TypeA (AAAA) Comprobe 2-3/4" Logging CCL with short body	1.55	2.75	20.00
			Sondex_IL_Cent Sondex bowspring inline electrical centralizer - 32.875"	2.74	2.75	20.00
TEMP	15.84					
WVFS1	14.47					
WVFS2	14.47					
WVFS3	14.47		TekCo_RIB-Type_A (AAAA) TekCo 2-3/4" Radial Incremental Bond with piston compensator (with Temp)	9.56	2.75	123.00
WVFS4	14.47					
WVFS5	14.47					
WVFS6	14.47					
WVFS7	14.47					
WVFS8	14.47					
WVF3FT	13.72					
WVF5FT	12.72					
WVFCAL	8.93					
WVFTEMP	8.93					
WVFSYNC	8.93		Sondex_IL_Cent Sondex bowspring inline electrical centralizer - 32.875"	2.74	2.75	20.00
GR	3.78		GR-TypeA (AAAA) Comprobe 2-3/4" Scintillating Gamma Ray (Low Temp)	3.45	2.75	38.00
			Sondex_IL_Cent Sondex bowspring inline electrical centralizer - 32.875"	2.74	2.75	20.00
Dataset: powers 30n-27hz.db: field/well/run1/pass3.2 Total Length: 23.80 ft Total Weight: 249.00 lb O.D. 2.75 in						

### Calibration Report

Database File: powers 30n-27hz.db  
 Dataset Pathname: pass3.2  
 Dataset Creation: Mon Mar 04 13:06:16 2013 by Calc SCH 111116



# Gamma Ray Calibration Report

Serial Number: AAAA  
Tool Model: TypeA  
Performed: Sun Feb 10 14:09:25 2013

Calibrator Value: 1.0

Background Reading: 0.0 cps  
Calibrator Reading: 1.0 cps

Sensitivity: 0.5000 /cps

## Segmented Cement Bond Log Calibration Report

Serial Number: AAAA  
Tool Model: Type\_A

Calibration Casing Diameter: 7.000 in  
Calibration Depth: 803.583 ft

Master Calibration, performed Thu Feb 28 14:06:11 2013:

	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3'	0.000	2.134	0.800	62.165	28.755	0.800
CAL	0.000	2.048				
5'	0.000	2.494	0.800	62.165	24.608	0.800
SUM						
S1	0.000	1.320	0.000	100.000	75.744	0.000
S2	0.000	0.728	0.000	100.000	137.311	0.000
S3	0.000	0.583	0.000	100.000	171.614	0.000
S4	0.000	0.980	0.000	100.000	102.064	0.000
S5	0.000	1.801	0.000	100.000	55.536	0.000
S6	0.000	2.494	0.000	100.000	40.092	0.000
S7	0.000	2.500	0.000	100.000	40.000	0.000
S8	0.000	2.180	0.000	100.000	45.871	0.000

Internal Reference Calibration, performed Wed Dec 31 17:00:00 1969:

	Raw (v)		Calibrated (v)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
CAL	0.000	0.000	0.000	2.048	1.000	0.000

Air Zero Calibration, performed Wed Feb 20 09:51:00 2013:

	Raw (v)		Calibrated (v)		Results	
	Zero		Zero		Offset	
3'	0.000		0.000		0.000	
5'	0.000		0.000		0.000	
SUM						
S1	0.000		0.000		0.000	
S2	0.000		0.000		0.000	
S3	0.000		0.000		0.000	
S4	0.000		0.000		0.000	
S5	0.000		0.000		0.000	
S6	0.000		0.000		0.000	
S7	0.000		0.000		0.000	
S8	0.000		0.000		0.000	



# Temperature Calibration Report

Serial Number: AAAA  
Tool Model: Type\_A  
Performed: Thu Nov 01 16:27:48 2012

	Reference	Reading
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Low Reference:	75.00 degF	300.00 usec
High Reference:	400.00 degF	1282.00usec

Gain: 0.33  
Offset: -24.29  
Delta Spacing 1



Company	Kerr McGee Oil & Gas Onshore LP
Well	Powers 30N-27HZ
Field	Wattenberg
County	Weld
State	Colorado