



Radial Cement Bond  
Gamma Ray  
Casing Collar Log

Company Civitas  
Well ANTELOPE 191  
Field Wattenberg  
County Weld  
State Colorado

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Well ANTELOPE 191  
Field Wattenberg  
County Weld State Colorado

Location: API #: 05-123-32710-00  
SEC 19 TWP 5N RGE 62W  
Permanent Datum Elevation 4667'  
Log Measured From  
Drilling Measured From  
Other Services  
Gyro  
Elevation  
K.B. 4678'  
D.F. ---  
G.L. 4667'

Date	02-NOV-2022	
Run Number	One	
Depth Driller	6835 FT	
Depth Logger	3405 FT	
Bottom Logged Interval	3400 FT	
Top Log Interval	Surface	
Open Hole Size	7.875"	
Type Fluid	Water	
Density / Viscosity	---	
Max. Recorded Temp.	129 °F	
Estimated Cement Top	See Log	
Time Well Ready	ROA	
Time Logger on Bottom	10:15	
Equipment Number	2-001	
Location	Platteville	
Recorded By	W.Wacker	
Witnessed By	Pete Burns	
Borehole Record		
Run Number	Bit	From
	To	Size
	Weight	From
		To
Tubing Record		
Casing Record	Size (in)	Wgt (lbs/Ft)
Surface Casing	8-5/8"	24
Intermediate #1	4-1/2"	11.6
Intermediate #2		
Liner		
	Grade	Top
	J-55	Surface
	N-80	Surface
		Bottom
		422 FT
		6782 FT

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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

Log ran as per customer request  
Well information from JW log ran 07-Mar-2011  
Depth referenced to Kelly Bushing at 11 FT  
Log ran with 0 PSI Surface Induced Pressure  
Logging tools were clean and free of any debris upon completion of operations

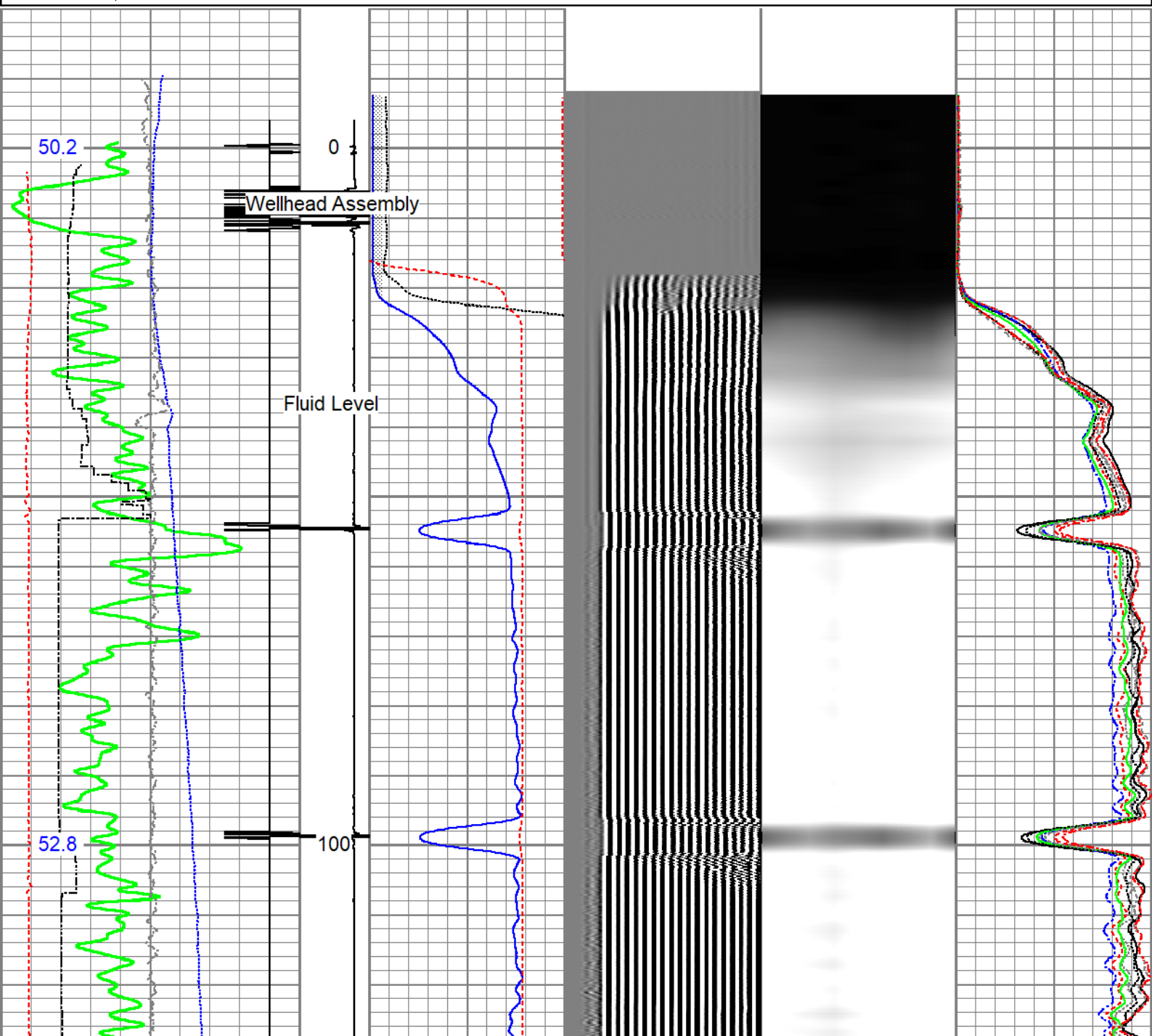
Main Pass

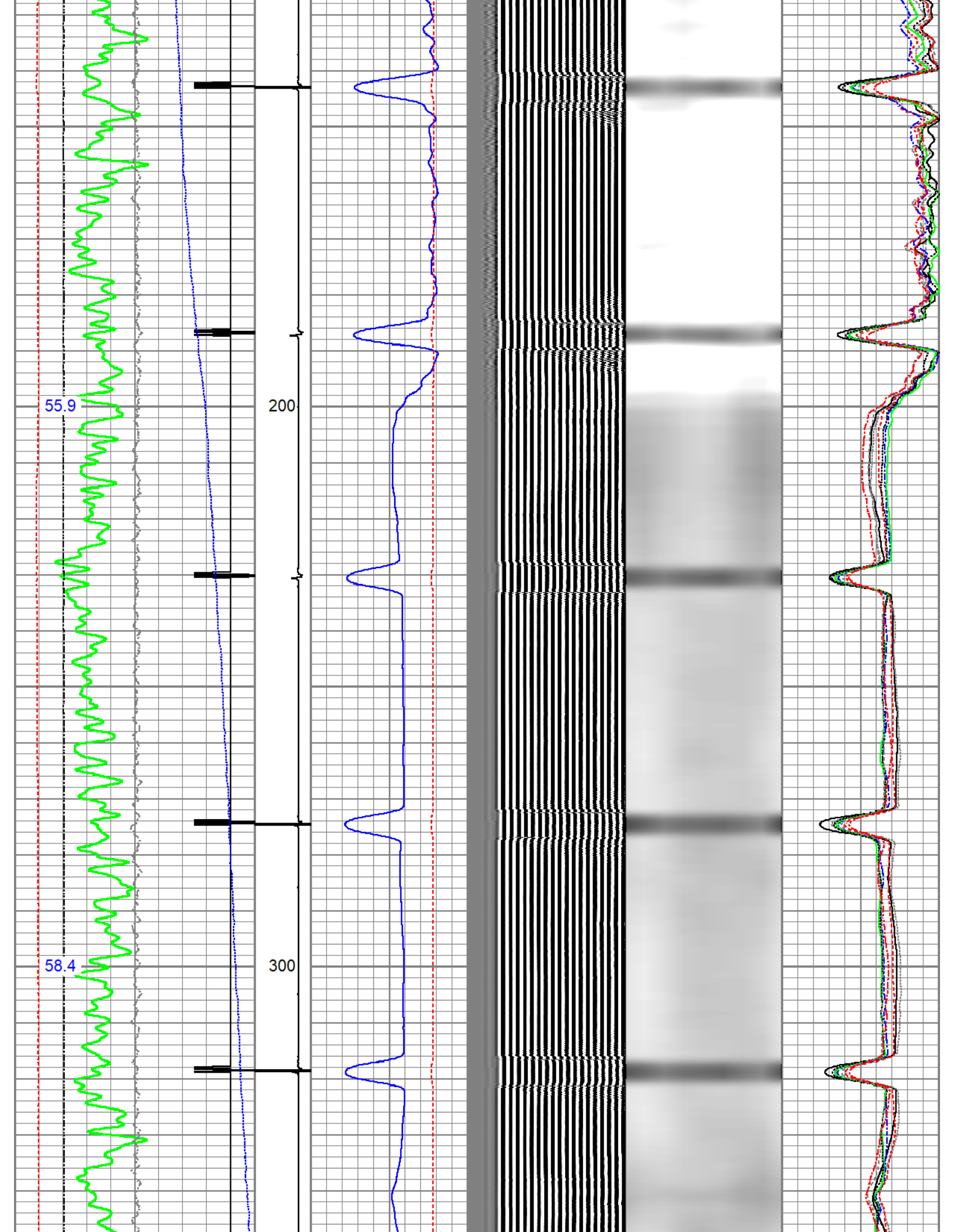


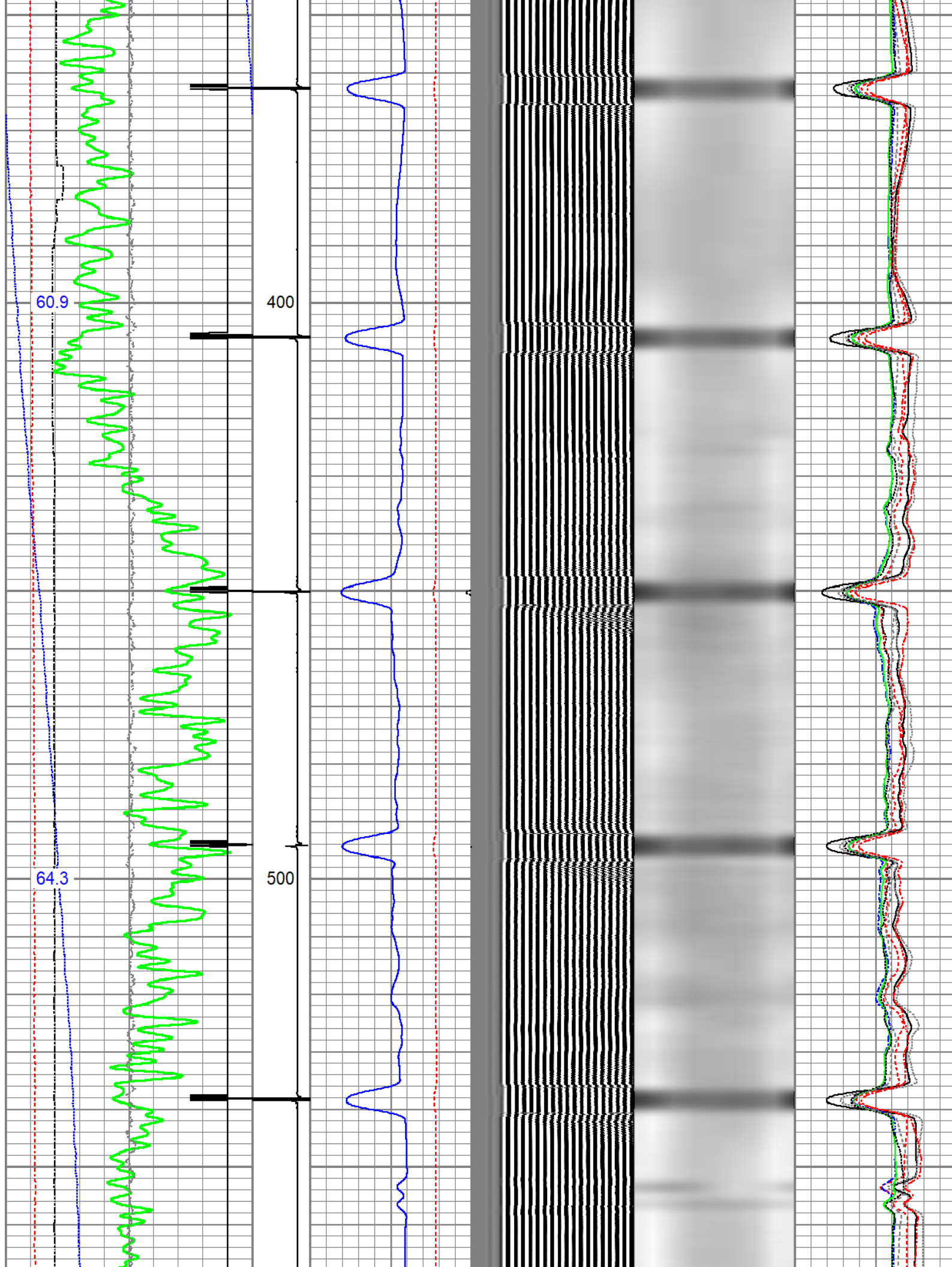
Recorded with no surface induced pressure

Database File	civitas_antelope-19_cbl.db		
Dataset Pathname	cbl-main/pass1.1		
Presentation Format	edge_rbl_noble		
Dataset Creation	Wed Nov 02 11:03:45 2022		
Charted by	Depth in Feet scaled 1:240		

0	Gamma Ray (GAPI)	120	CCL\$2	3' Amplitude	5' Variable Density	Sector Map	0	AMP S1	100
9	Casing Collar Locator	-1	9 -1 0	(mV) 100	200 (usec) 1200		0	AMP S2	100
0	Temperature (degF)	20		3' Amplitude x 5			0	AMP S3	100
-150	Line Speed (ft/min)	150		(mV) 20			0	AMP S4	100
0	Line Tension (lb)	2000		3' Travel Time			0	AMP S5	100
	Differential Temperature			650 (usec) 150			0	AMP S6	100
-2	(degF)	2					0	AMP S7	100
Temperature							0	AMP S8	100
(degF)									





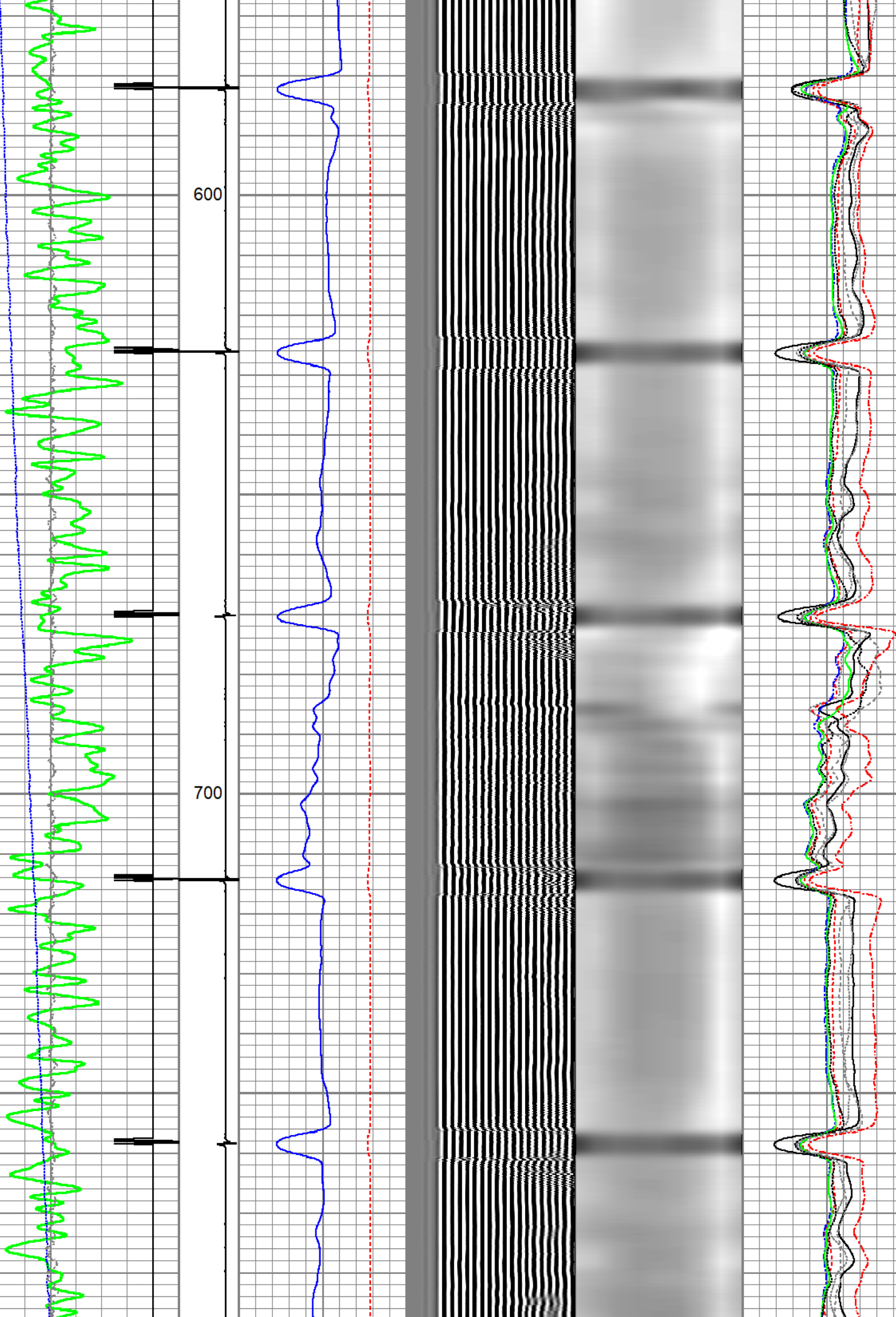


66.5

600

68.4

700



70.1

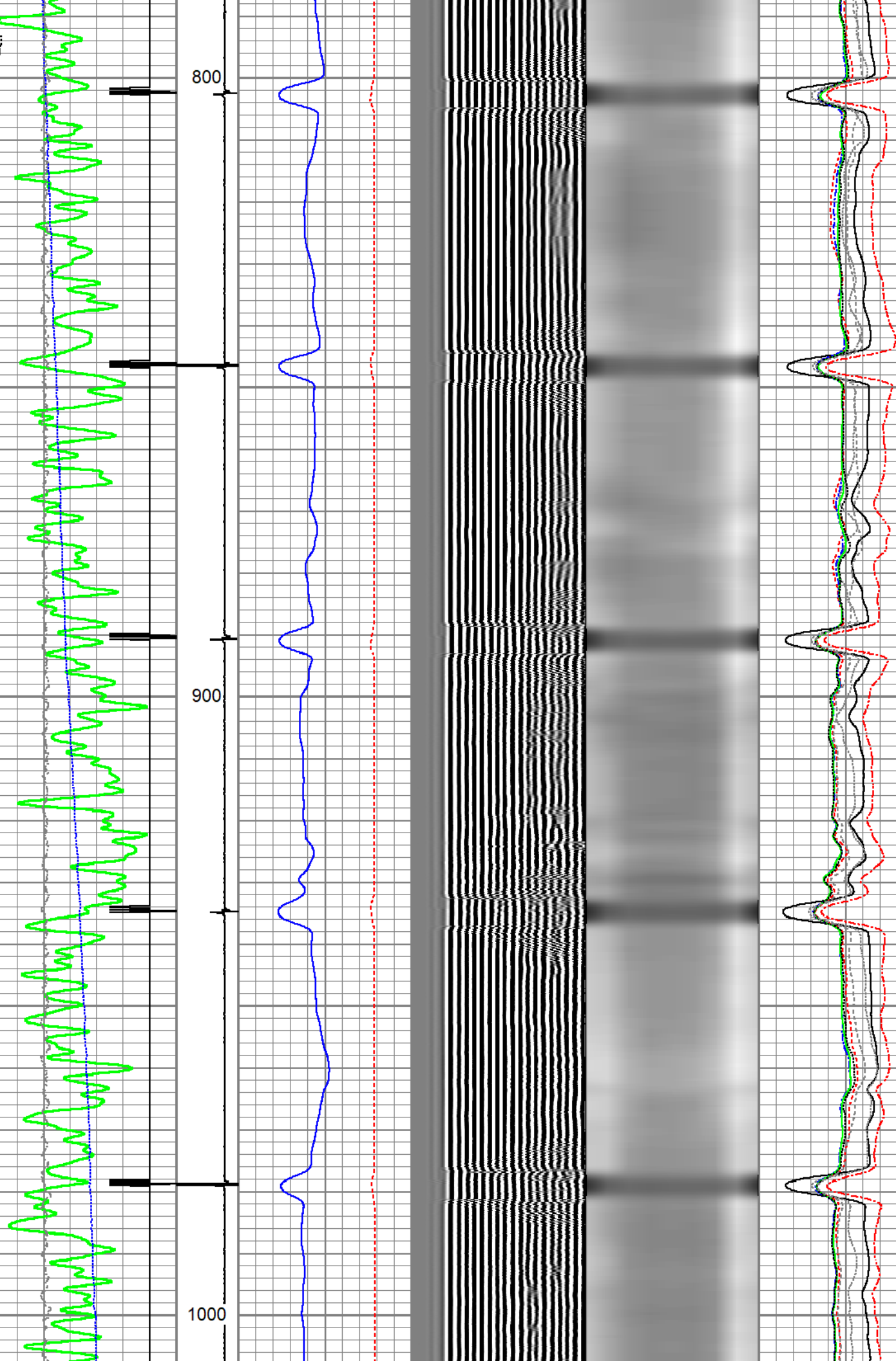
800

71.8

900

73.9

1000

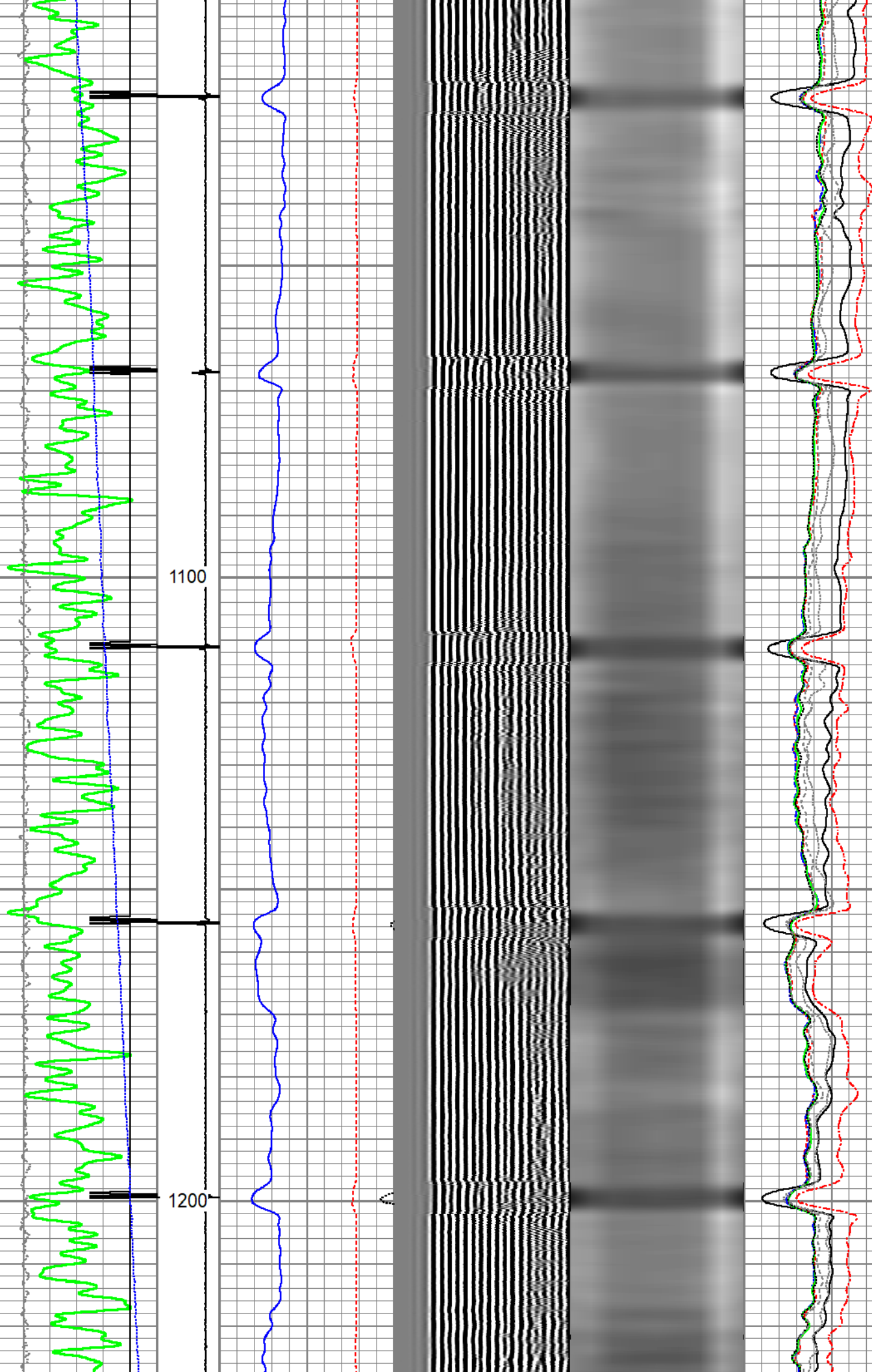


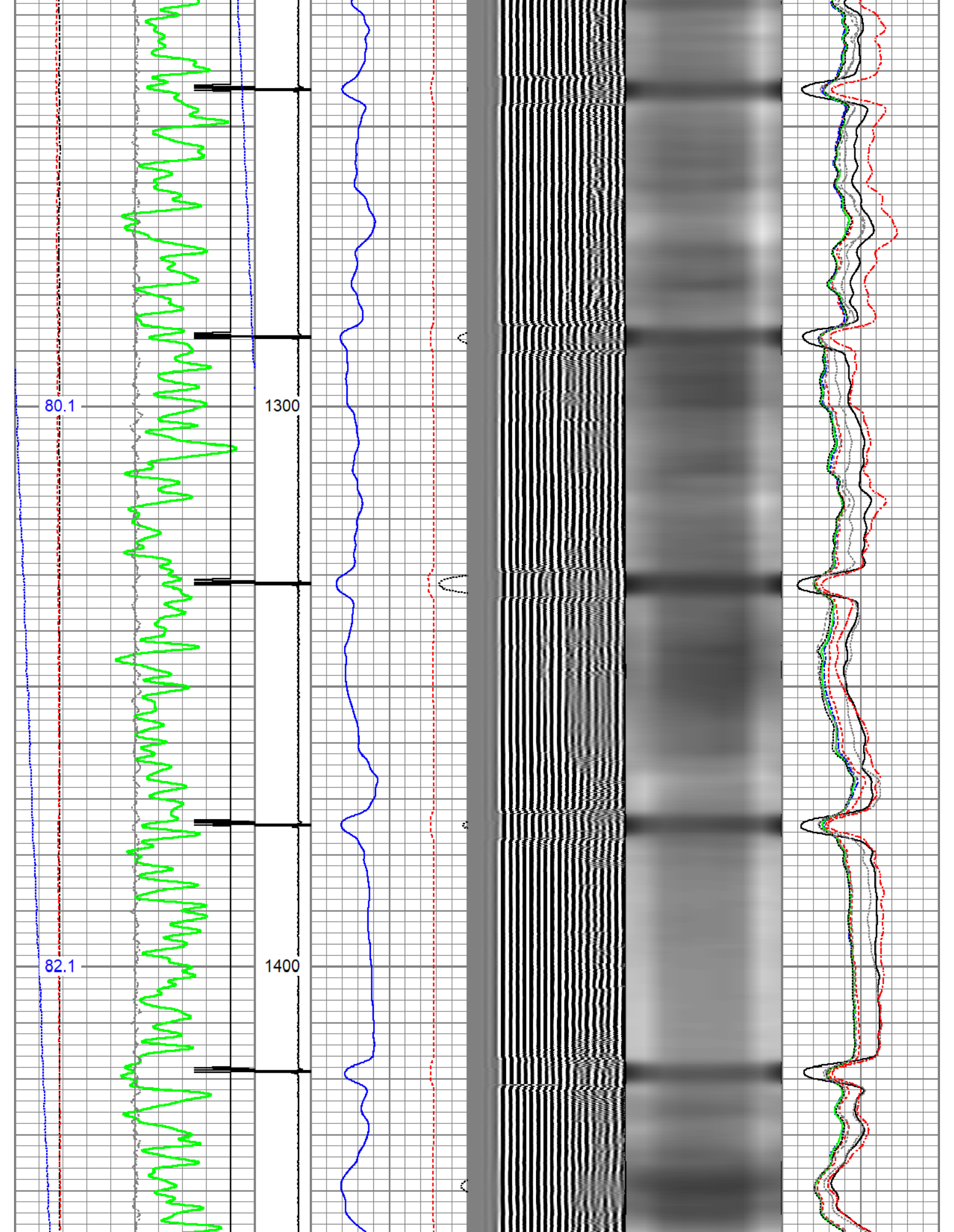
75.8

78.0

1100

1200



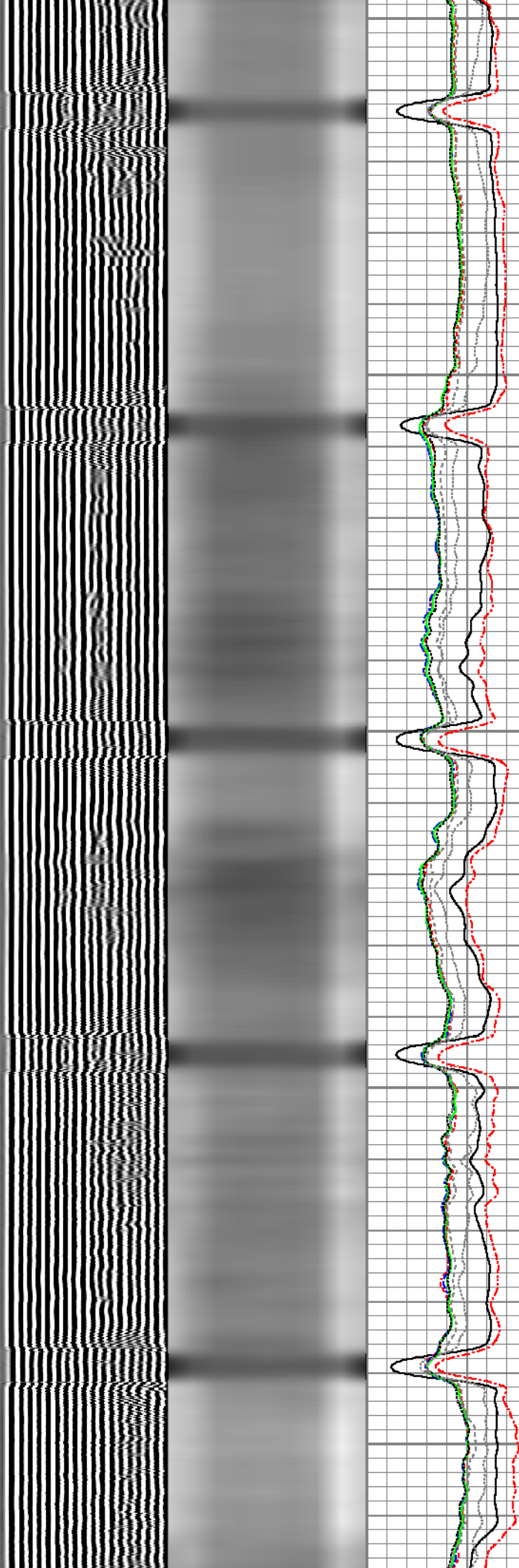
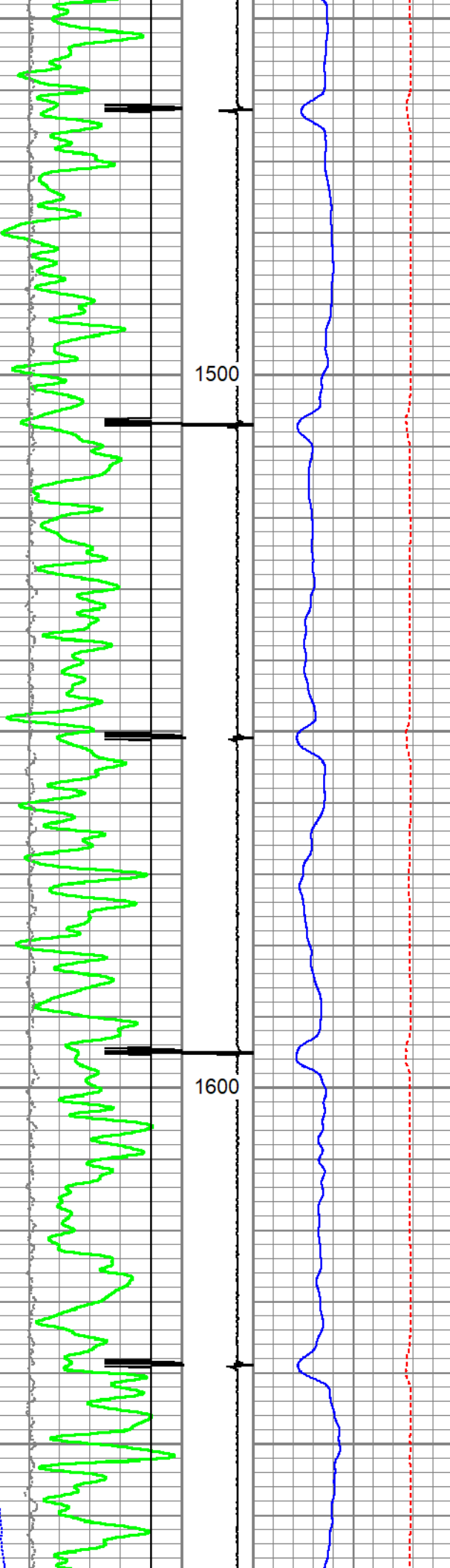


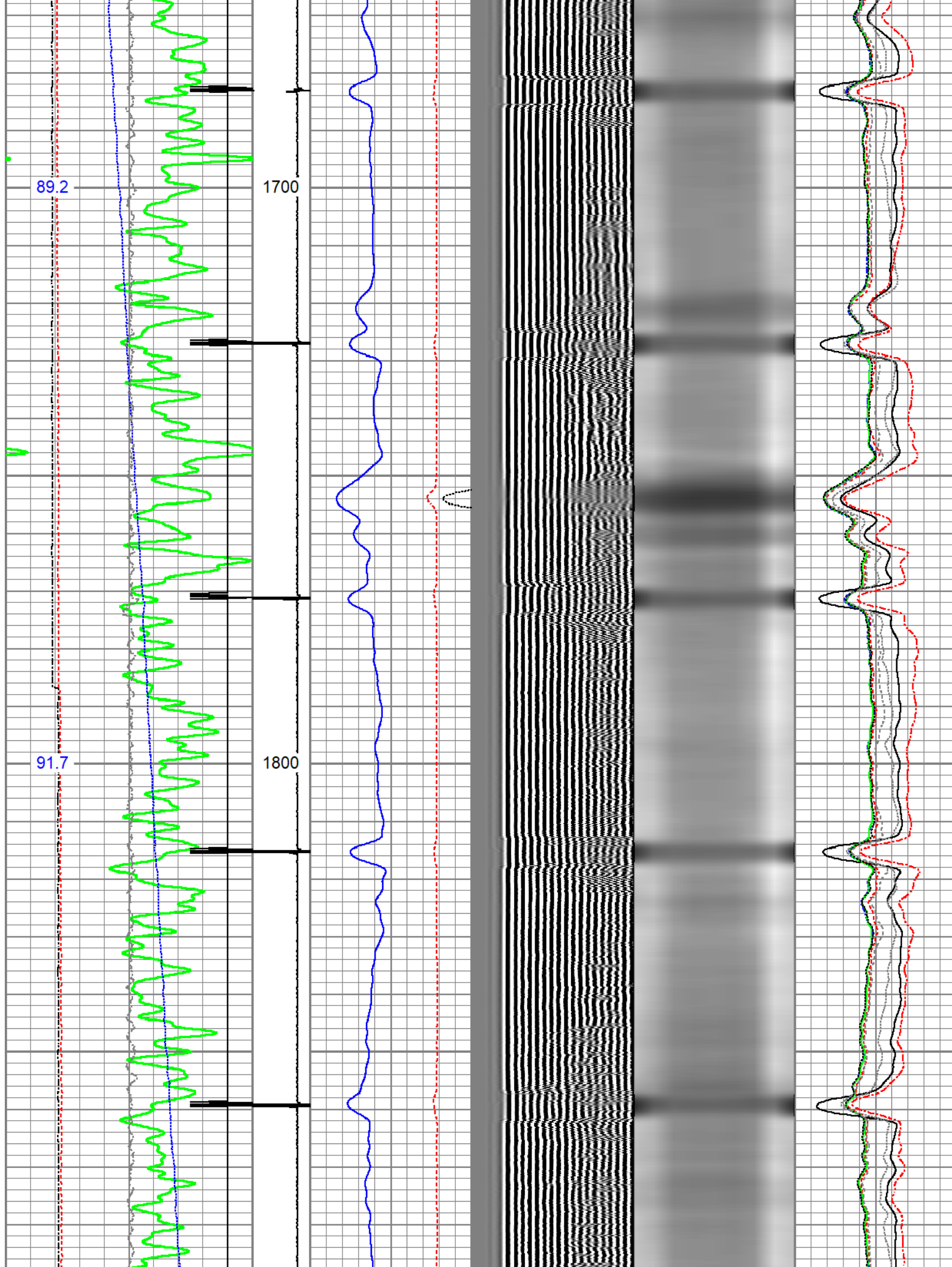
84.1

86.5

1500

1600





94.4

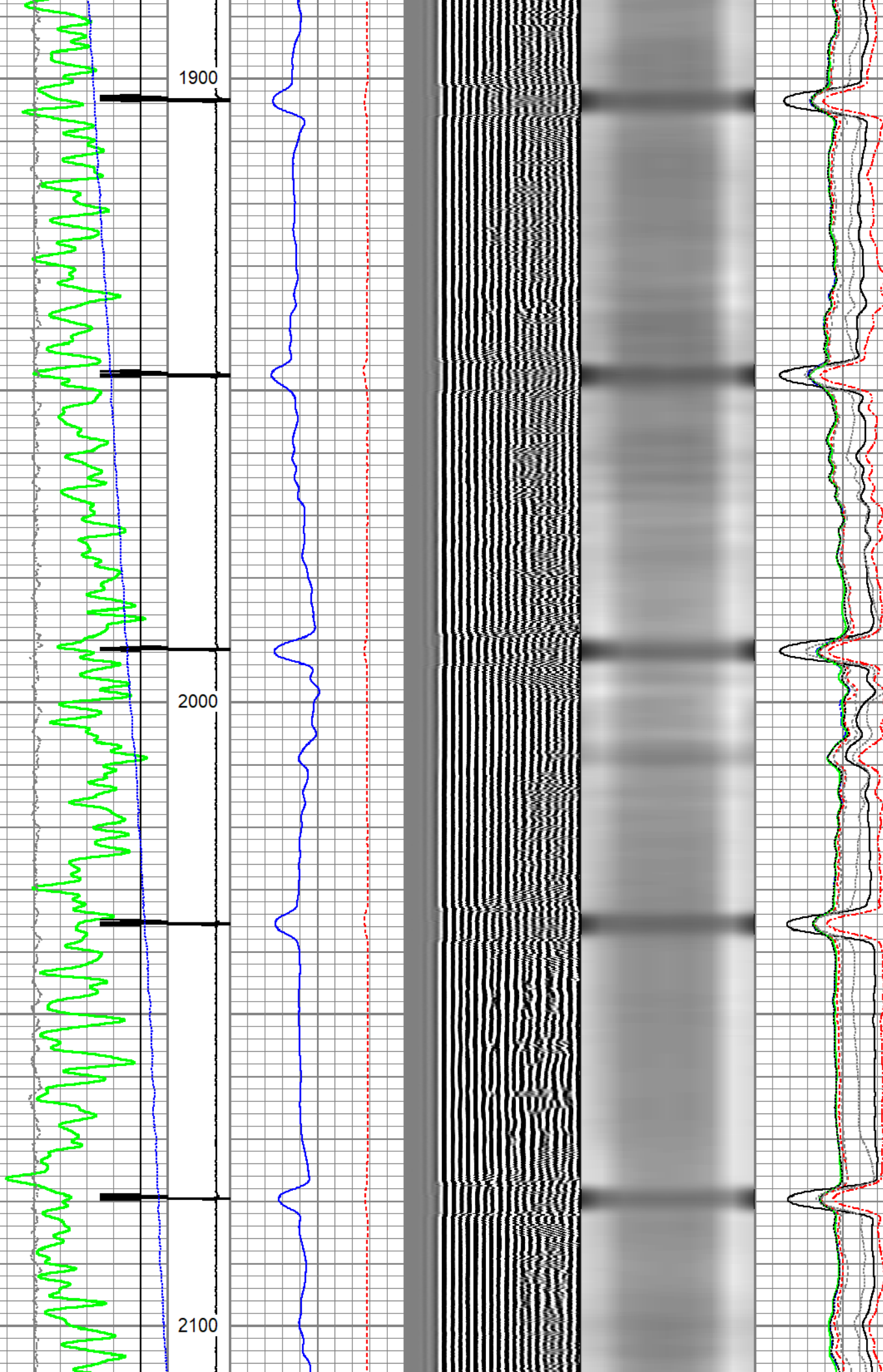
1900

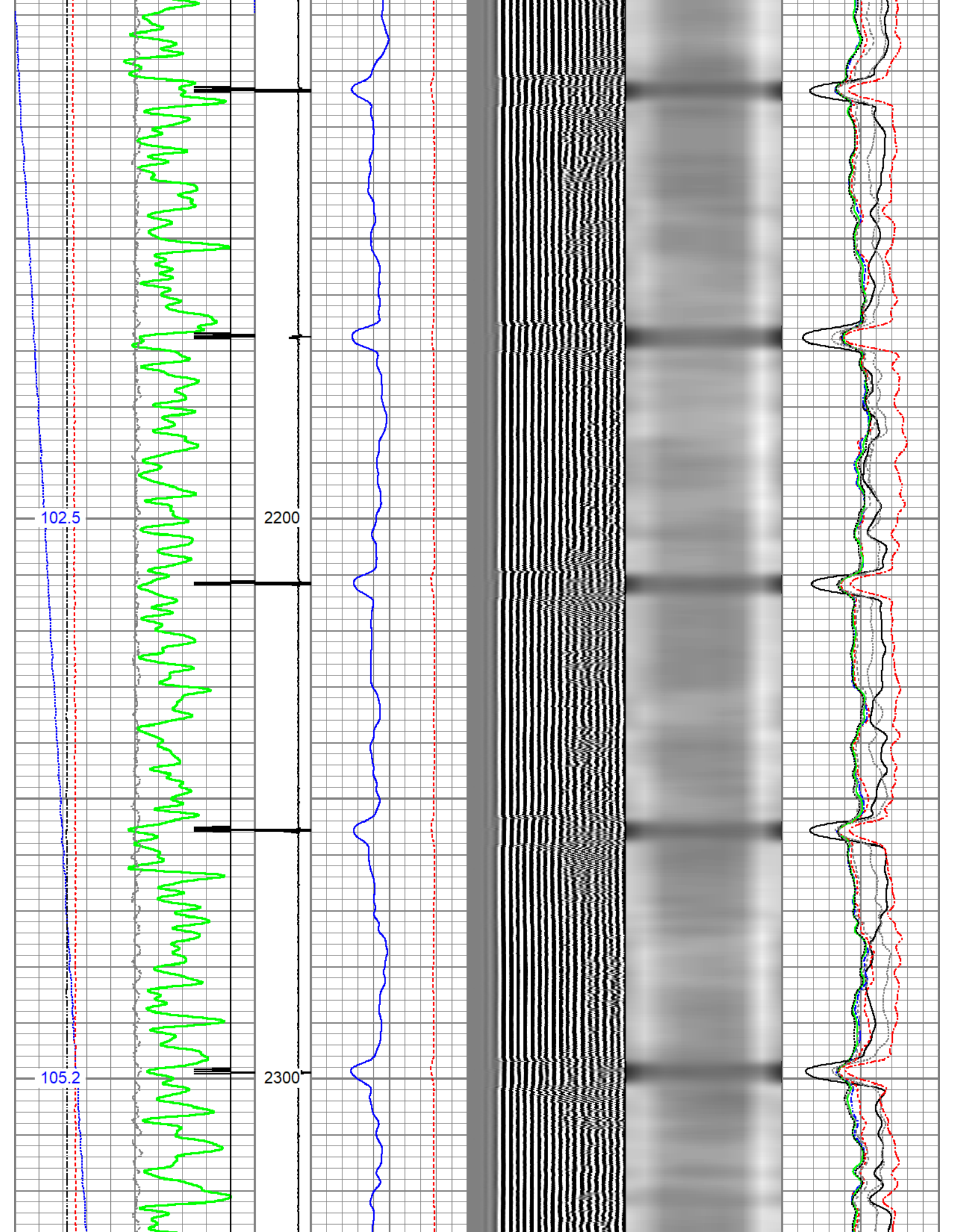
97.2

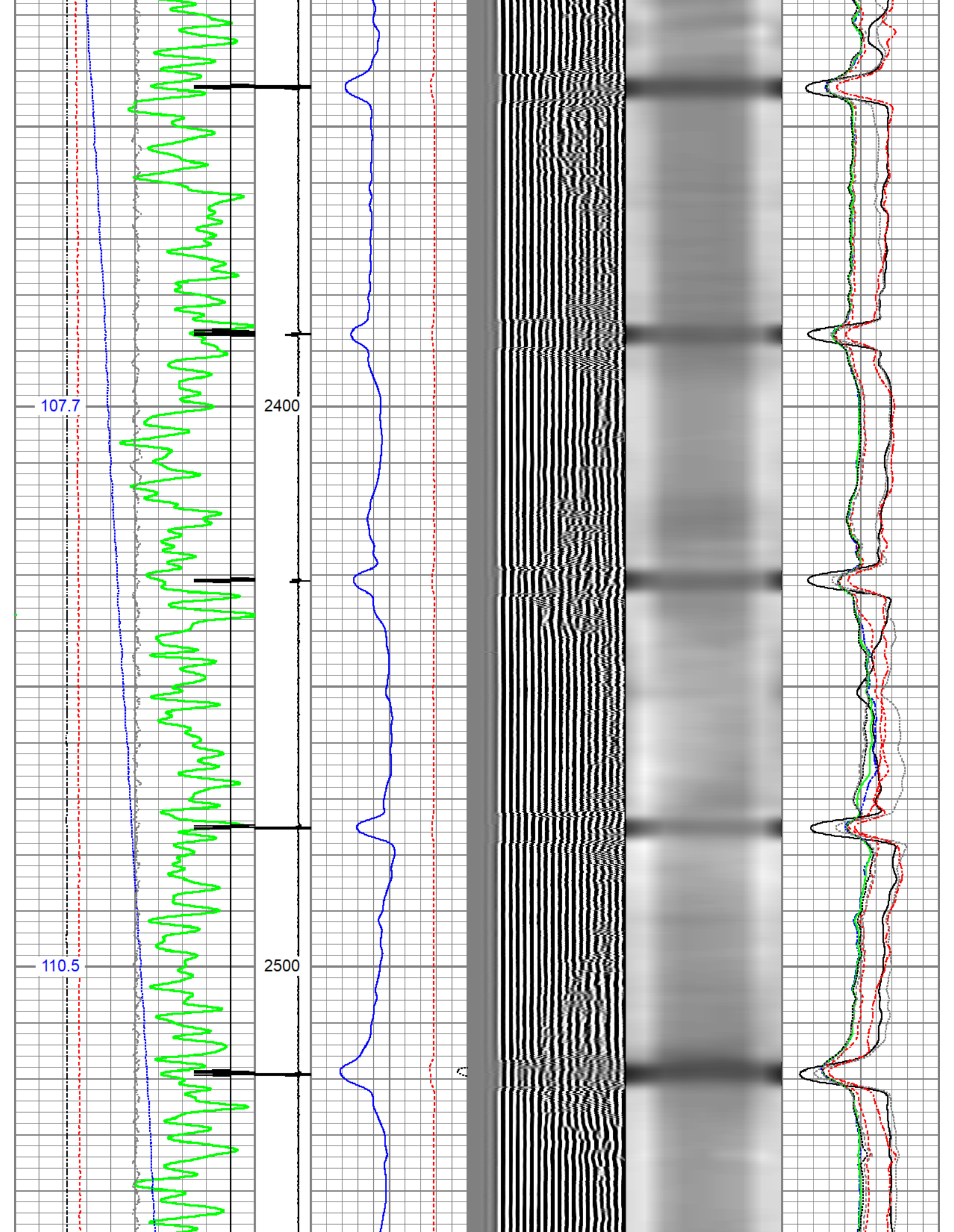
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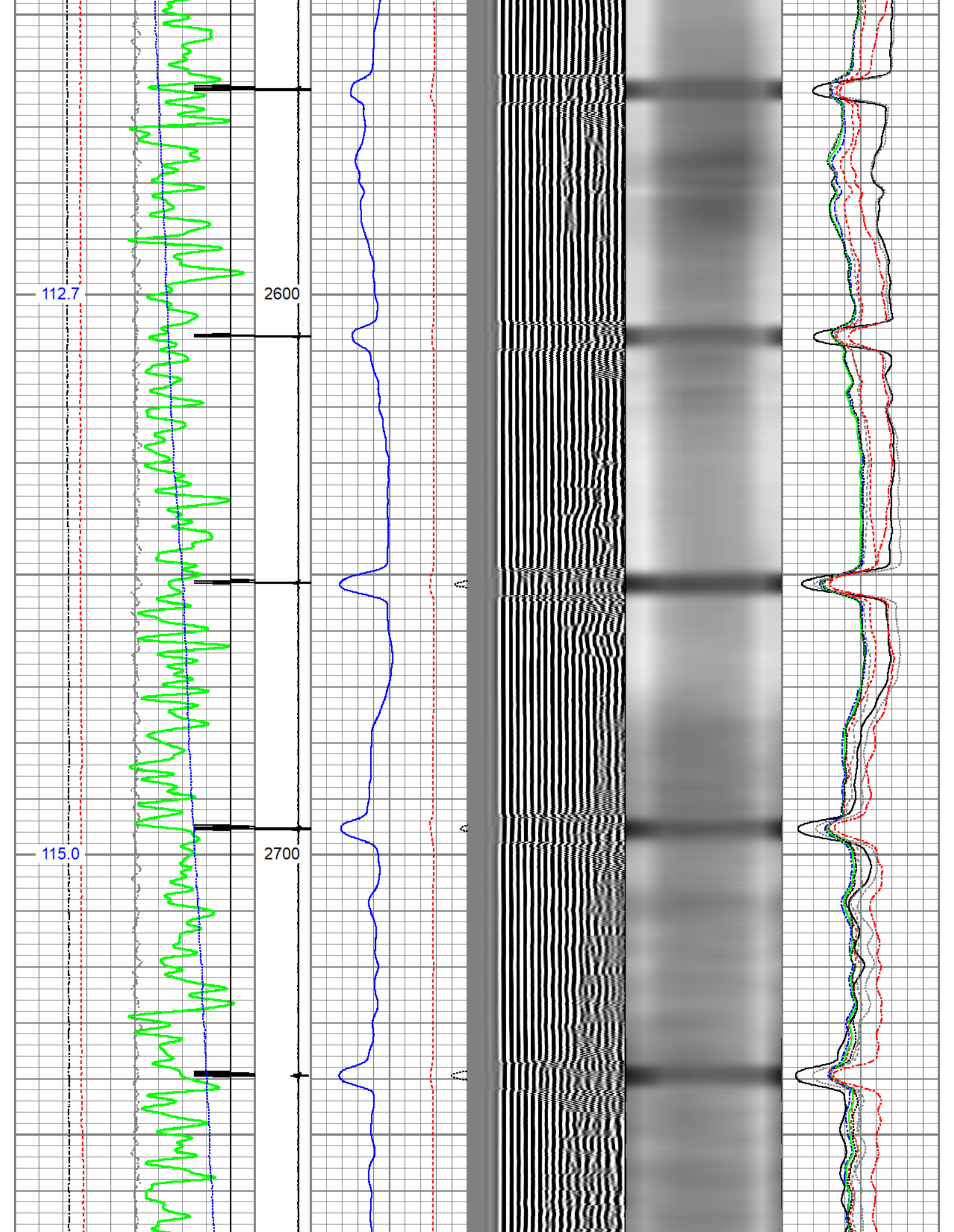
99.7

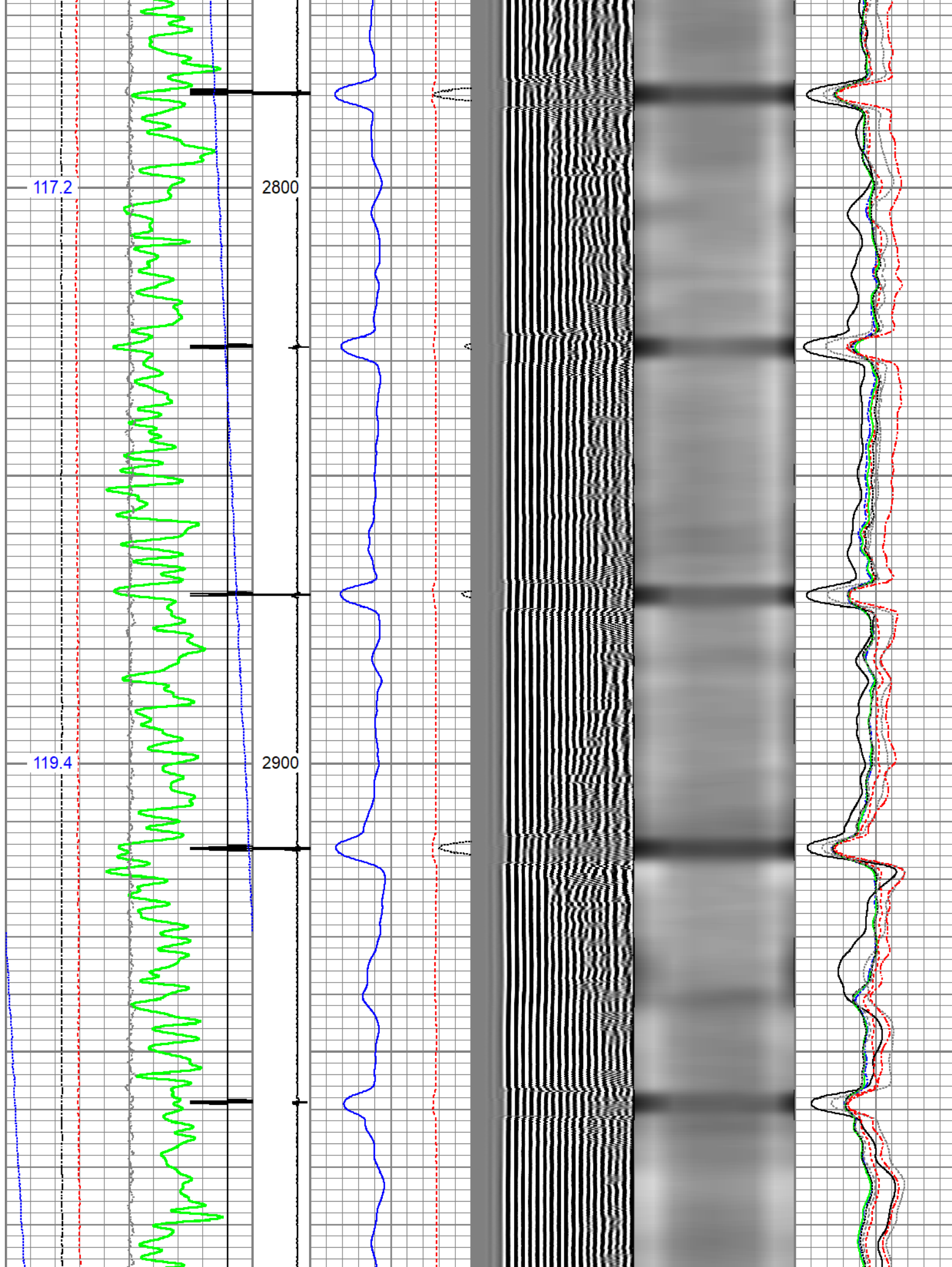
2100

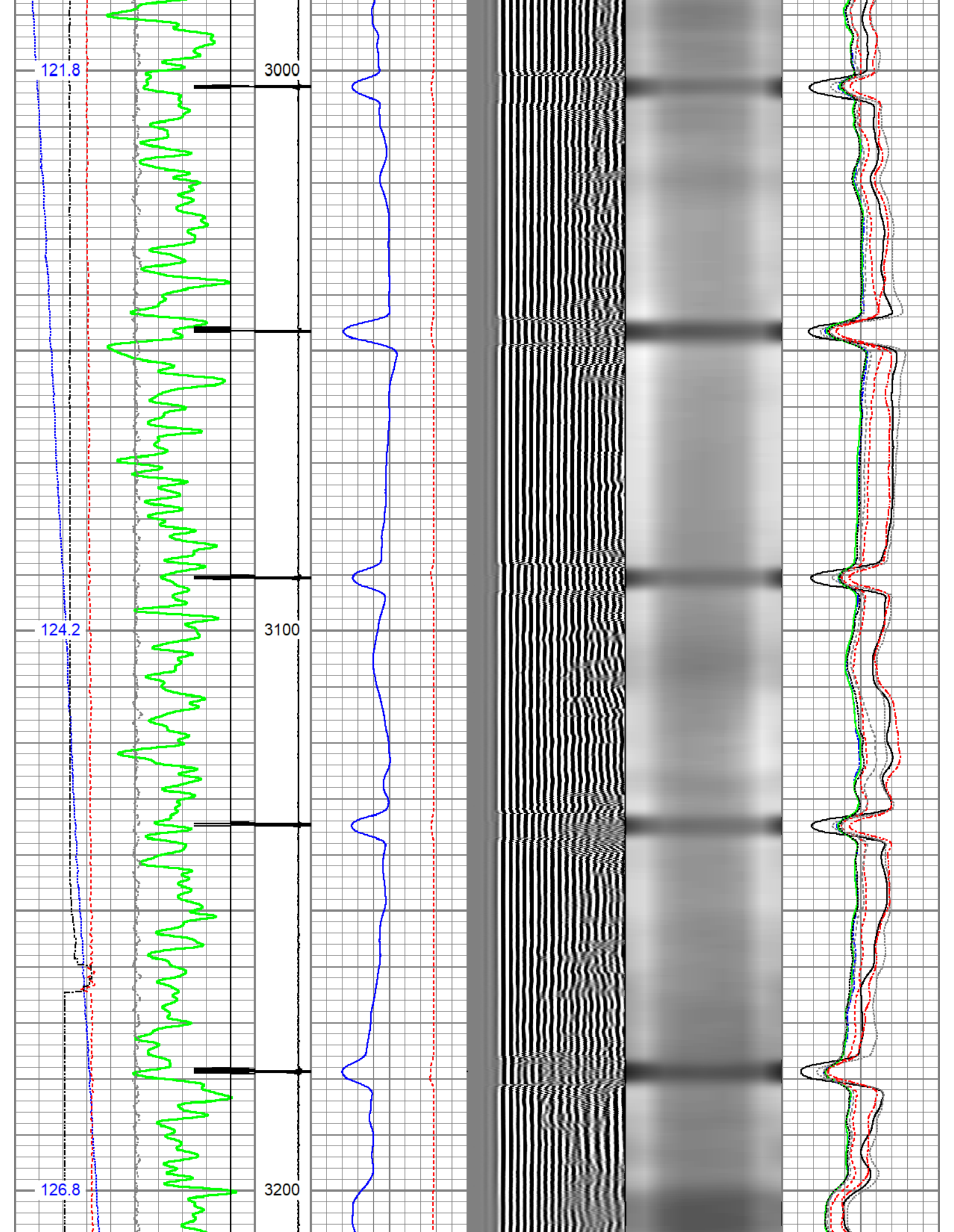


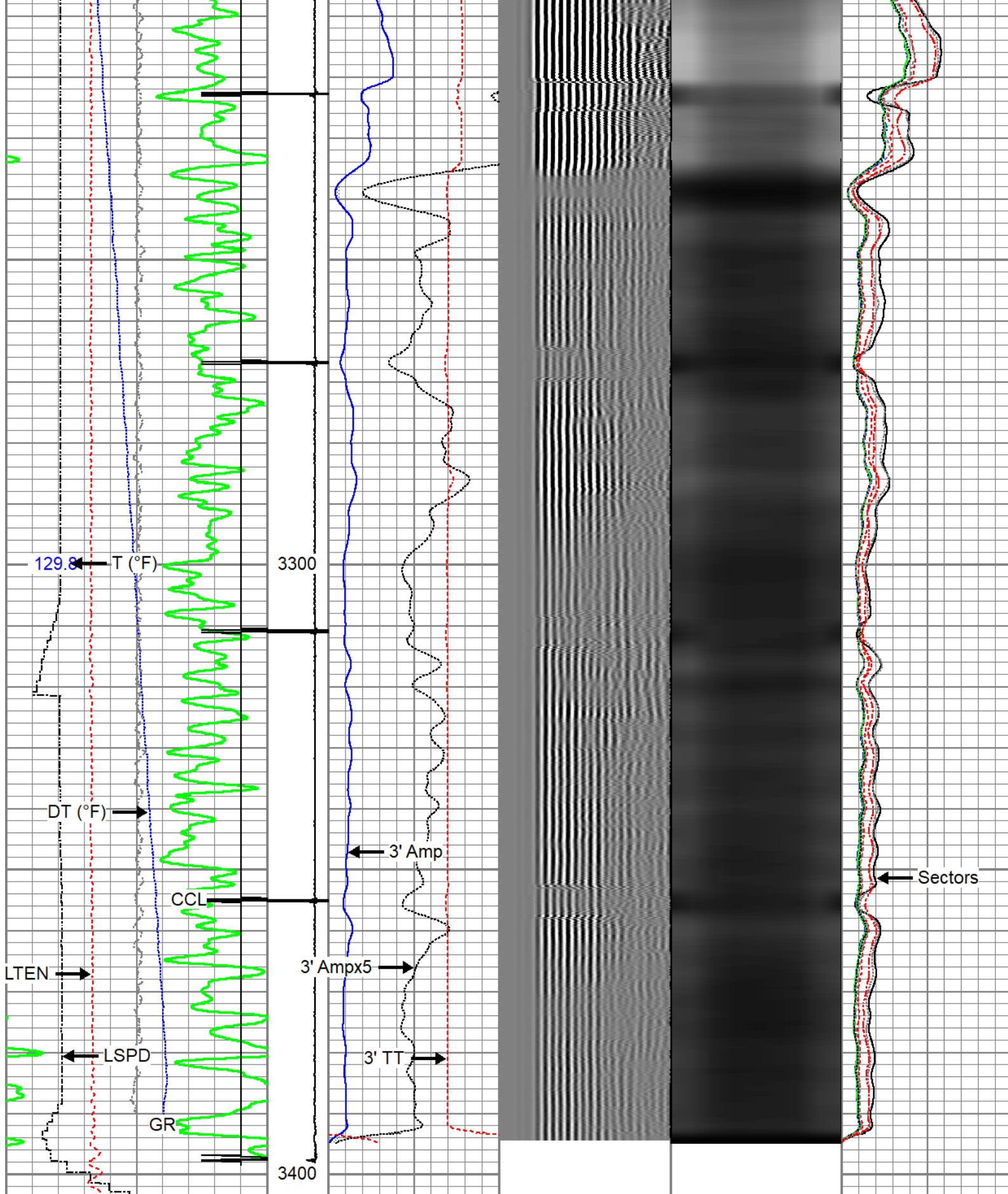












0	Gamma Ray (GAPI)	120	CCL\$2	3' Amplitude	5' Variable Density	Sector Map	0	AMP S1	100
9	Casing Collar Locator	-1	9 -1	(mV)	200 (usec)		0	AMP S2	100
0	Temperature (degF)	20		3' Amplitude x 5			0	AMP S3	100
-150	Line Speed (ft/min)	150		(mV)			0	AMP S4	100
0	Line Tension (lb)	2000		3' Travel Time			0	AMP S5	100

Line Tension (lb)	2000
Differential Temperature	
-2 (degF)	2
Temperature	
(degF)	

3' Travel Time	650 (usec)	150
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0	AMP S5	100
0	AMP S7	100
0	AMP S8	100

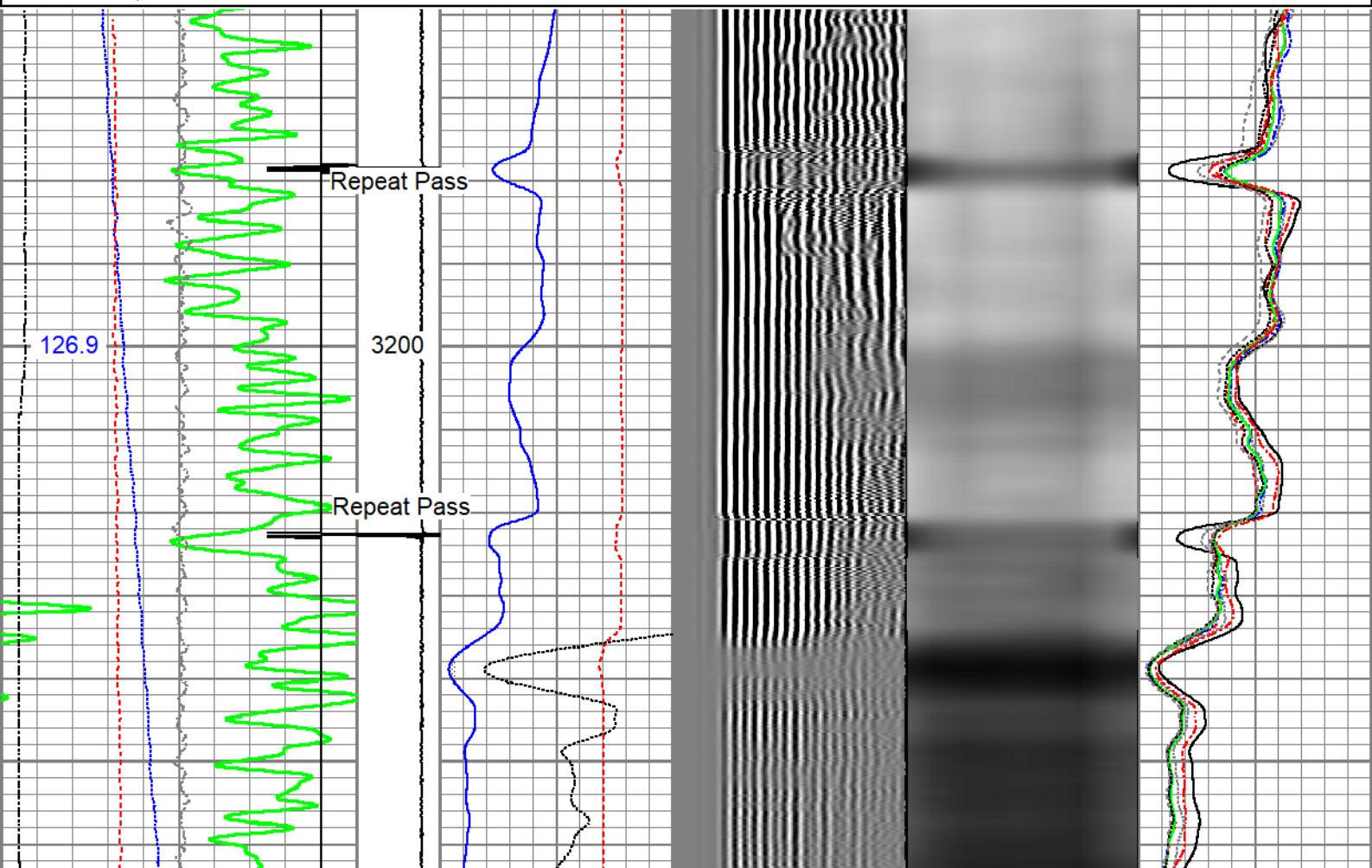
# Greenfield

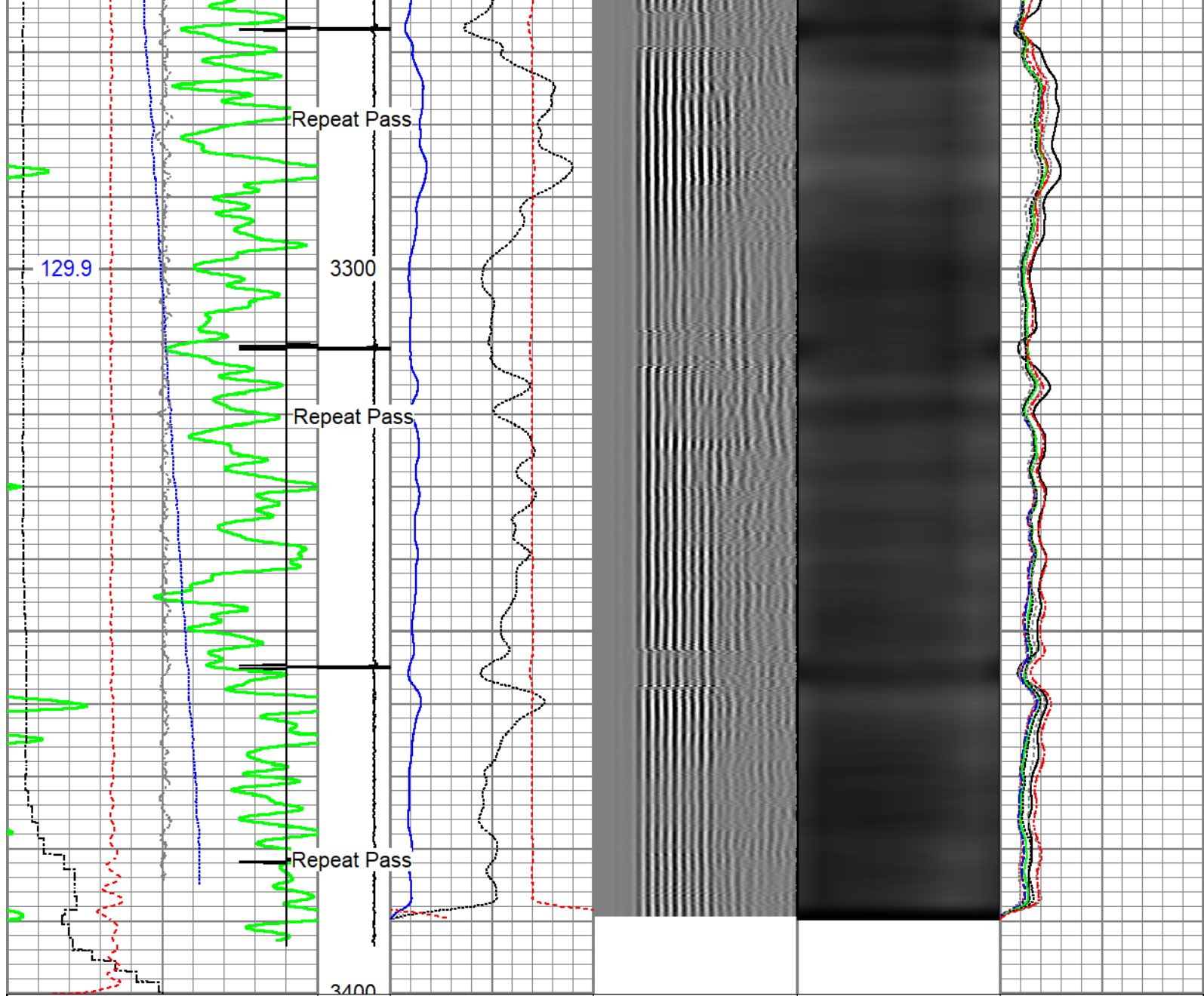
## Repeat Pass

Recorded with no surface induced pressure

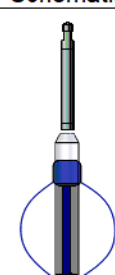
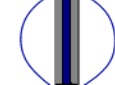
Database File	civitas_antelope-19_cbl.db
Dataset Pathname	cbl-repeat/pass1
Presentation Format	edge_rbl_noble
Dataset Creation	Wed Nov 02 10:16:39 2022
Charted by	Depth in Feet scaled 1:240

0	Gamma Ray (GAPI)	120	CCL\$2	3' Amplitude	5' Variable Density	Sector Map	0	AMP S1	100
9	Casing Collar Locator	-1	9 -1	0 (mV)	200 (usec)	1200	0	AMP S2	100
0	Temperature (degF)	20		3' Amplitude x 5			0	AMP S3	100
-150	Line Speed (ft/min)	150		0 (mV)	20		0	AMP S4	100
0	Line Tension (lb)	2000		3' Travel Time			0	AMP S5	100
	Differential Temperature			650 (usec)	150		0	AMP S6	100
-2	(degF)	2					0	AMP S7	100
Temperature							0	AMP S8	100
(degF)									





0	Gamma Ray (GAPI)	120	CCL\$2	3' Amplitude	5' Variable Density	Sector Map	0	AMP S1	100
9	Casing Collar Locator	-1	9 -1	(mV) 100	200 (usec) 1200		0	AMP S2	100
0	Temperature (degF)	20		3' Amplitude x 5			0	AMP S3	100
-150	Line Speed (ft/min)	150		(mV) 20			0	AMP S4	100
0	Line Tension (lb)	2000		3' Travel Time			0	AMP S5	100
	Differential Temperature			650 (usec) 150			0	AMP S6	100
-2	(degF)	2					0	AMP S7	100
	Temperature (degF)						0	AMP S8	100

Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb)
			Titan CHD-14375 GO Titan 1-7/16" Assembled Electric Cable Head with 1" Fishing Neck	1.03	1.44	3.60
			SO BS CENT-2750-4500 Slip Over 2-3/4" I.D. for 4-1/2" O.D. Casing Bow Spring Centralizer	1.33	3.25	10.00

TEMP	13.87					
WVFS8	11.64		Probe Radii-2750 RBT (FW1305-096)	9.39	2.75	105.00
WVFS7	11.64		Probe 2-3/4" Radial Cement Bond Tool with Integral Temperature Sub			
WVFS6	11.64					
WVFS5	11.64					
WVFS4	11.64					
WVFS3	11.64					
WVFS2	11.64					
WVFS1	11.64					
WVFCAL	11.64					
WVF3FT	11.64					
WVF5FT	10.64					
HEADVOLT	7.39					
CCL\$2	6.51					
CCL\$1	6.51					
GR	5.26		Probe GR-CCL-2750 GOB (FW1212-026)	4.51	2.75	55.00
			Probe 2-3/4" rev.2 Digital Scintillation Gamma Ray/CCL Combined with GO Bottom			
			Probe CENT-2750	2.88	2.75	20.00
			Probe 2-3/4" Electric Inline Bowspring Centralizer			
LOCTIM	0.00					
UTCTIM	0.00					

Dataset: civitas\_antelope-19\_cbl.db: field/well/cbl-main/pass1  
 Total length: 17.81 ft  
 Total weight: 193.60 lb  
 O.D.: 3.25 in

### Calibration Report

Database File civitas\_antelope-19\_cbl.db  
 Dataset Pathname cbl-main/pass1.1  
 Dataset Creation Wed Nov 02 11:03:45 2022

### Gamma Ray Calibration Report

Serial Number: FW1212-026

Serial Number: FW1212-026  
 Tool Model: 2750 GOB  
 Performed: Mon Oct 19 14:19:51 2020

Calibrator Value: 637.0 GAPI  
 Background Reading: 113.7 cps  
 Calibrator Reading: 1029.1 cps  
 Sensitivity: 0.6959 GAPI/cps

Segmented Cement Bond Log Calibration Report

Serial Number: FW1305-096  
 Tool Model: 2750 RBT

Calibration Casing Diameter: 4.500 in  
 Calibration Depth: 11.002 ft

Master Calibration, performed (Derived):

	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3'	0.000	0.630	0.800	81.196	127.598	0.772
CAL	0.913	0.914				
5'	0.000	0.679	0.800	81.196	118.462	0.791
SUM						
S1	0.000	0.645	0.000	100.000	155.045	-0.051
S2	0.000	0.692	0.000	100.000	144.647	-0.046
S3	0.000	0.740	0.000	100.000	135.174	-0.036
S4	0.000	0.769	0.000	100.000	130.053	-0.030
S5	0.000	0.780	0.000	100.000	128.230	-0.030
S6	0.000	0.773	0.000	100.000	129.337	-0.030
S7	0.000	0.744	0.000	100.000	134.444	-0.033
S8	0.000	0.733	0.000	100.000	136.512	-0.045

Air Zero Calibration, performed Wed Nov 2 09:54:22 2022:

	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: FW1305-096  
 Tool Model: 2750 RBT  
 Performed: Mon Oct 19 14:19:51 2020

Reference Reading

Low Reference: 100.00 degF 109.43 degF  
High Reference: 350.00 degF 405.87 degF

Gain: 0.84  
Offset: 7.72  
Delta Spacing 1



Company	Civitas
Well	ANTELOPE 19 I
Field	Wattenberg
County	Weld
State	Colorado