



Radial Cement Bond
Gamma Ray
Casing Collar Log

Company Kerr-McGee Oil & Gas Onshore, L.P.

Well Newby 11-33

Field Wattenberg

County Weld State Colorado

Location: API #: 05-123-29526

SEC 33 TWP 3N RGE 68W

Permanent Datum Ground Level Elevation
Log Measured From Kelly Bushing _ FT
Drilling Measured From Kelly Bushing
Other Services
CIBP
Dump Cement
Squeeze Gun
Elevation
K.B.
D.F.
G.L.

Company Kerr-McGee Oil & Gas Onshore, L.P.
Well Newby 11-33
Field Wattenberg
County Weld
State Colorado

Date	19-April-2018
Run Number	Three
Depth Driller	---
Depth Logger	3000 FT
Bottom Logged Interval	2998 FT
Top Log Interval	Surface
Open Hole Size	6.250"
Type Fluid	Water
Density / Viscosity	8.34 lbm/gal
Max. Recorded Temp.	117°F
E. Estimated Cement Top	See Log
Time Well Ready	ROA
Time Logger on Bottom	08:39
Equipment Number	HD-0343
Location	Fort Lupton, CO
Recorded By	M. Steinman
Witnessed By	Nate Windholz
Borehole Record	
Run Number	Bit From To Size Weight
Tubing Record	
Casing Record	Size (in) Wgt (lbs/ft) Grade Top Bottom
Surface Casing	8 5/8 24 Surface Surface
Intermediate #1	4 1/2 11.6 Surface Surface
Intermediate #2	
Inner	

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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
Depth referenced to KB 15 FT log
Adjusted -10 FT to BOC 1500 FT
Log ran from 3000 FT to Surface

Log ran with -0- PSI surface induced pressure

Logging tools were clean and free of any debris upon completion of operations <or list debris found>

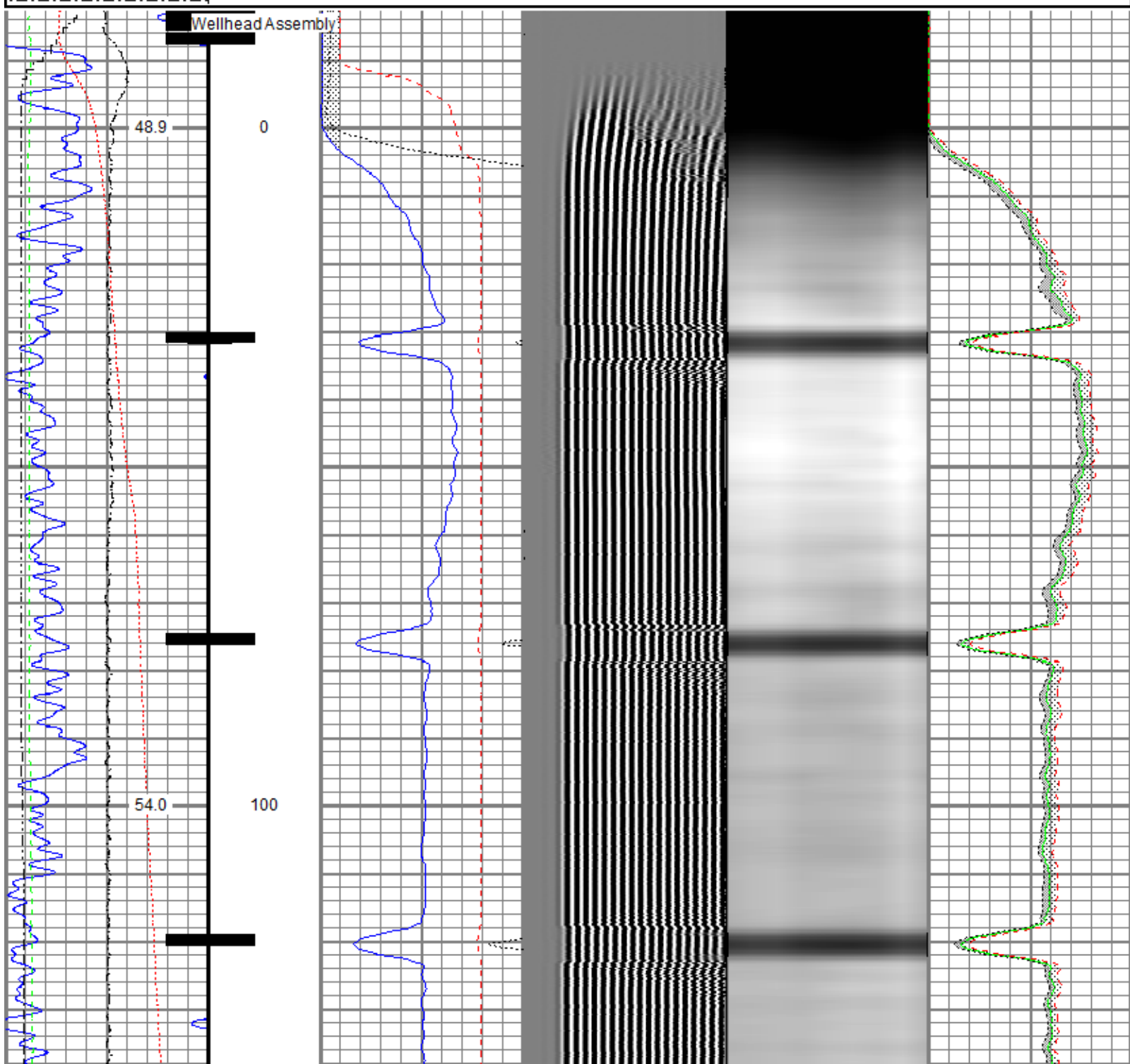
Thank you for choosing Reliance Oilfield Services, LLC!!

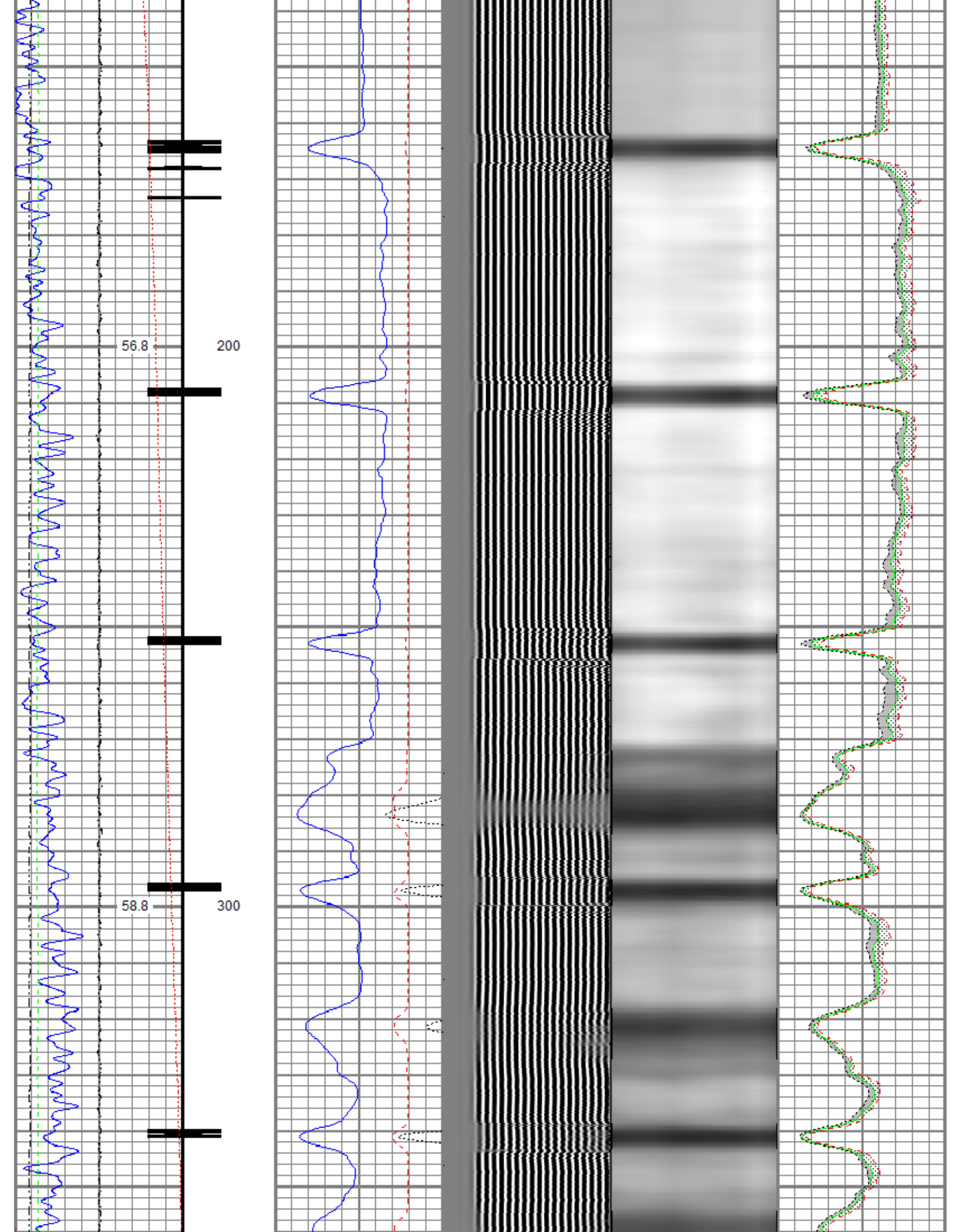
Main Pass

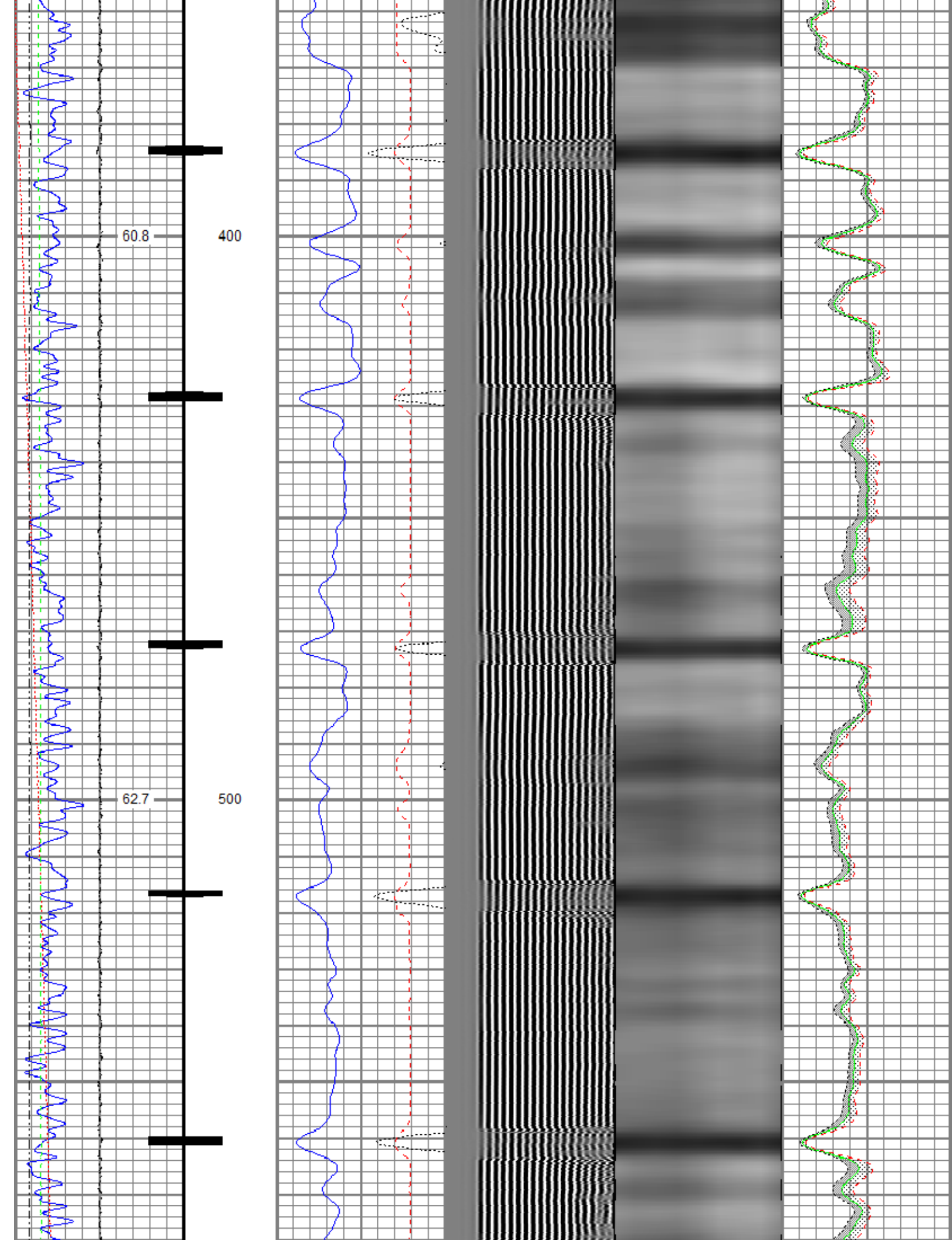


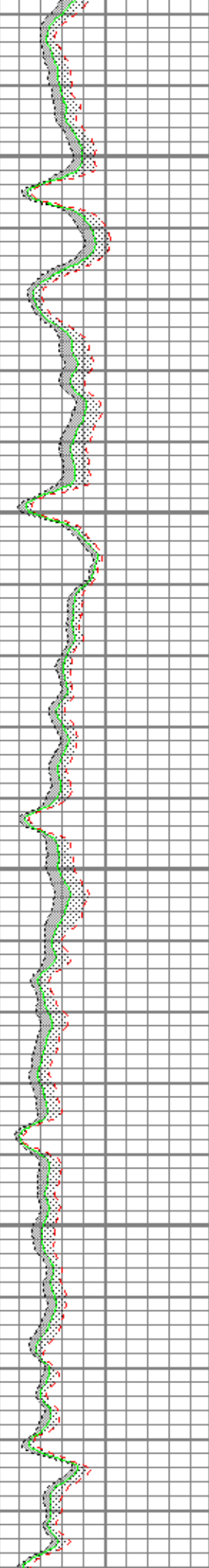
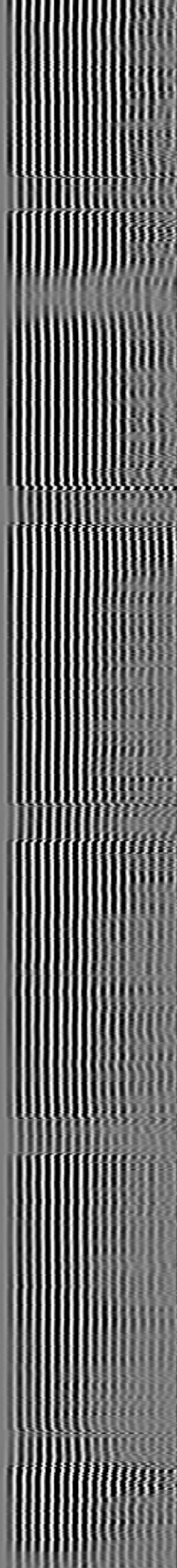
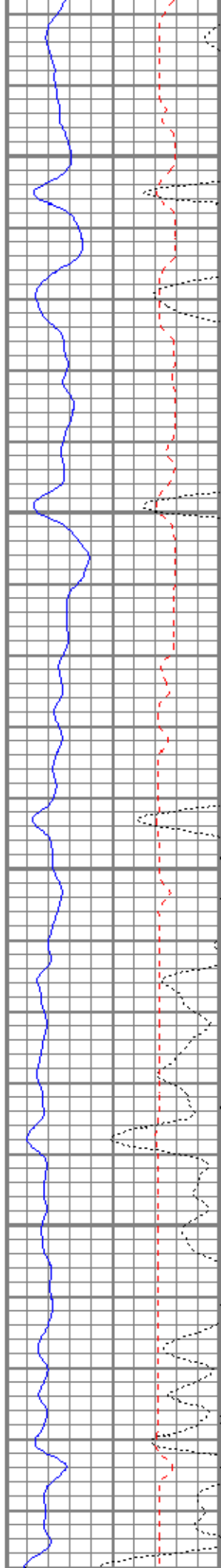
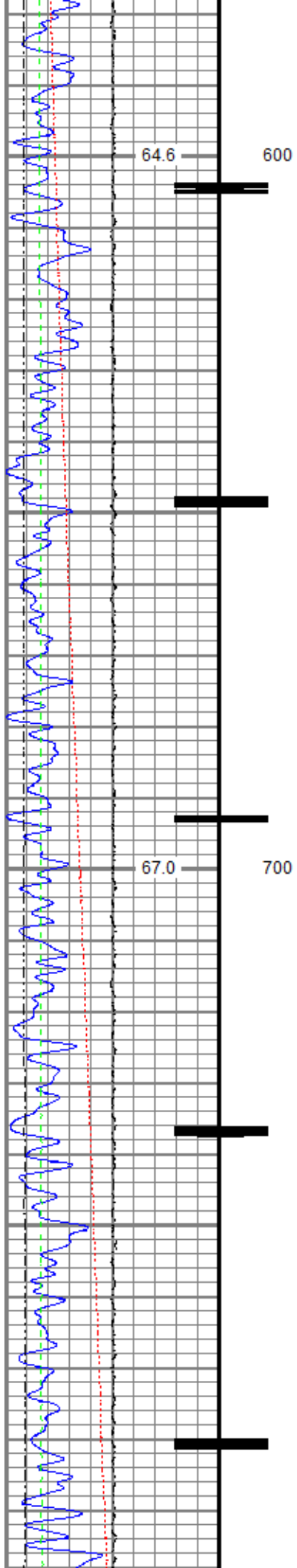
Database File anadarko_newby_11-33_rcbl19-april-2018_vert.db
 Dataset Pathname Main
 Presentation Format ros_radrii_vert
 Dataset Creation Thu Apr 19 08:42:37 2018
 Charted by Depth in Feet scaled 1:240

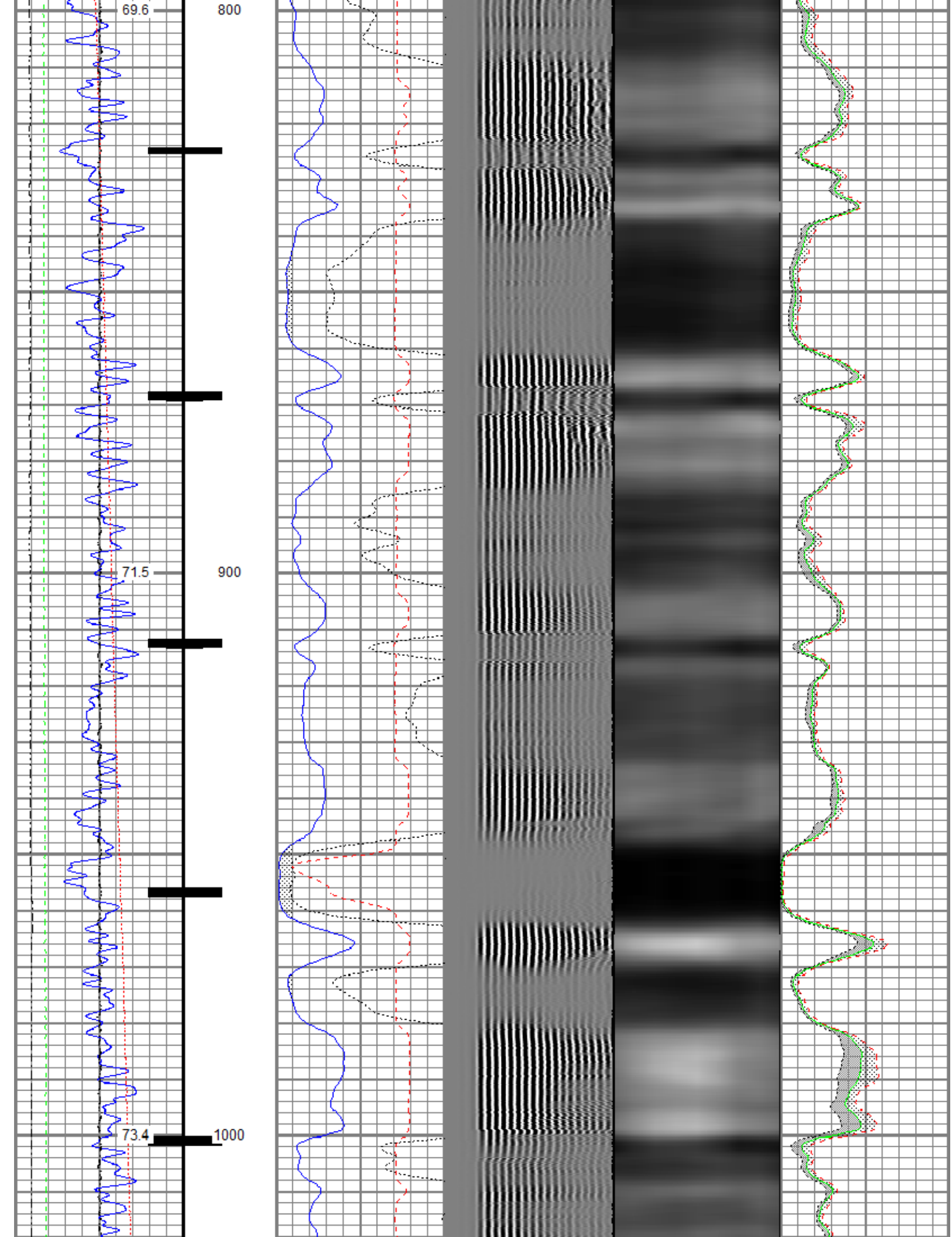
Gamma Ray	0	3' Amplitude (mV) 100	5' Variable Density Log	Sector Map	0	Average Amplitude 100
30 (GAPI) 130		3' Amplitude x 5	200 (usec) 1200			Minimum Amplitude
Casing Collar Locator	0	(mV) 20			0	100
0 Temperature (degF) 20		3' Travel Time				Maximum Amplitude
Line Speed	650	(usec) 150			0	100
-150 (ft/min) 150						
0 Line Tension (lb) 2000						
Differential Temperature						
-2 (degF) 2						

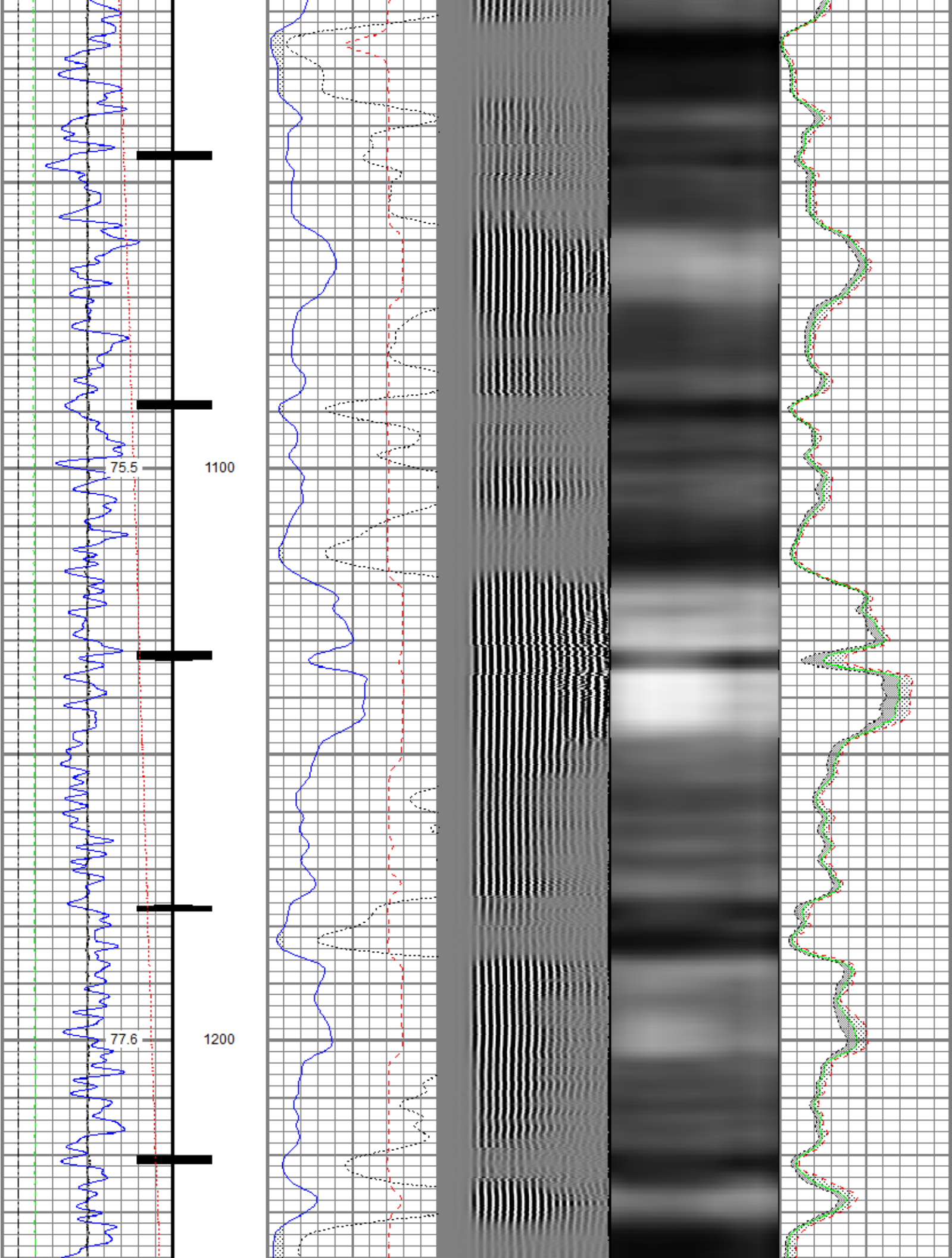


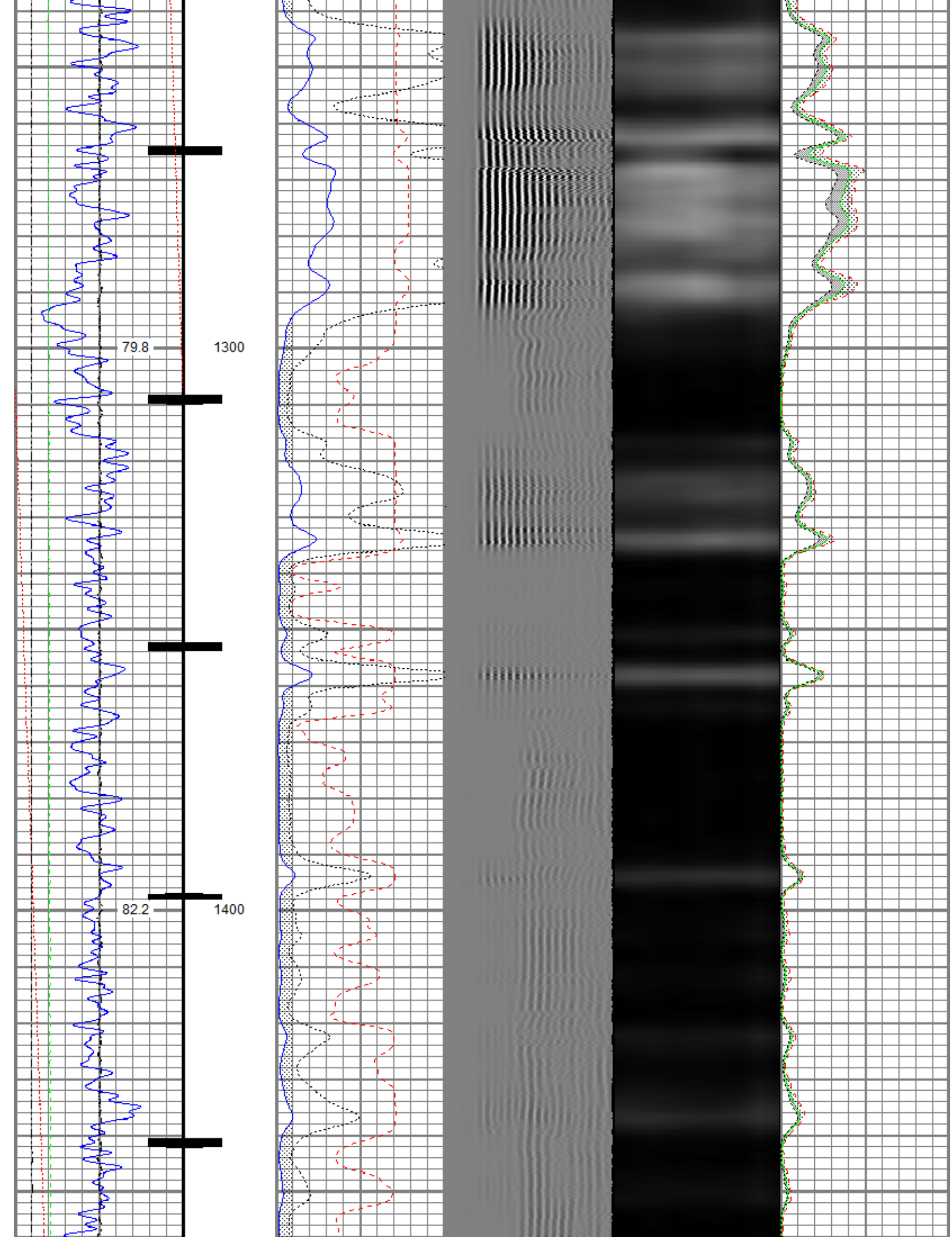


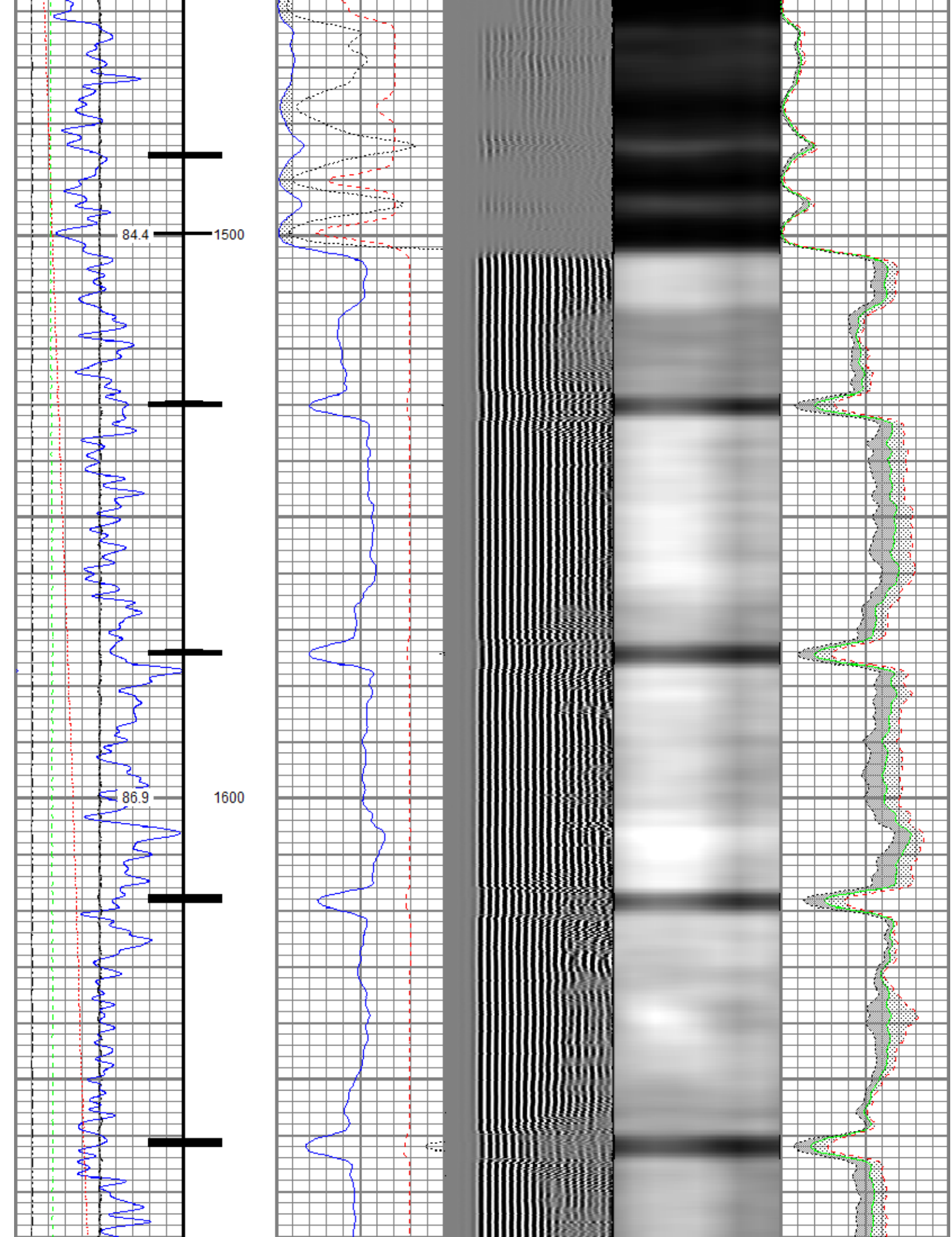


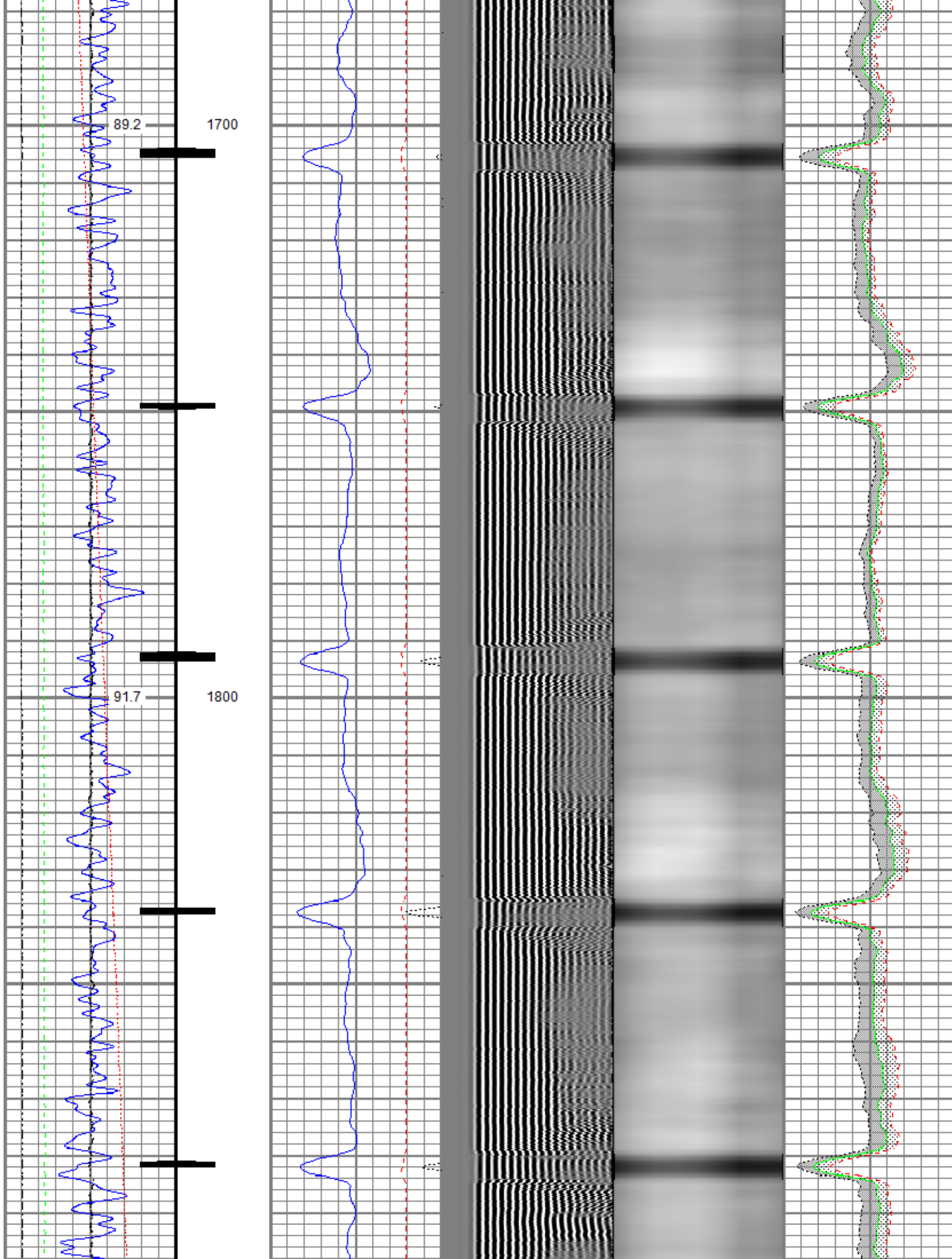


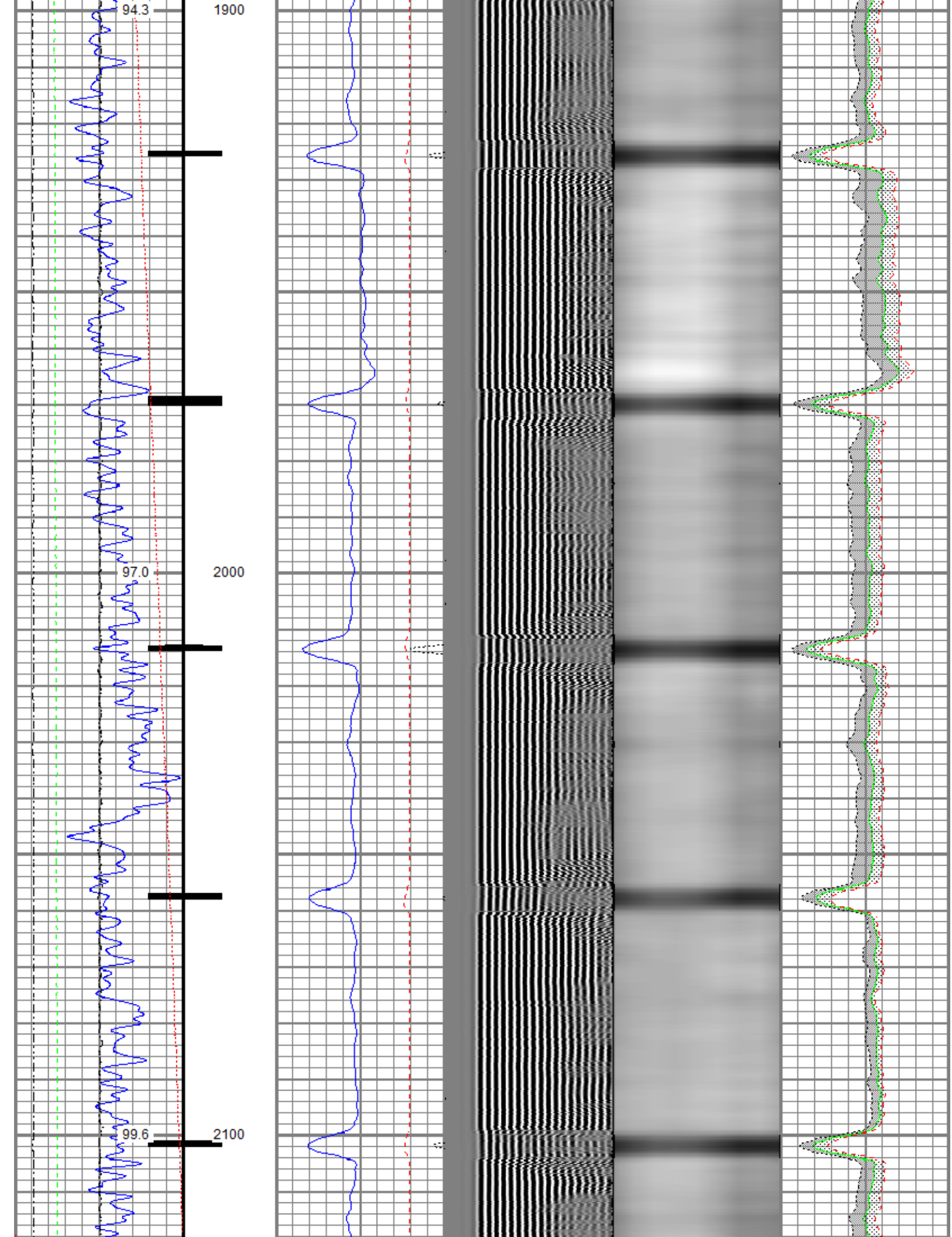


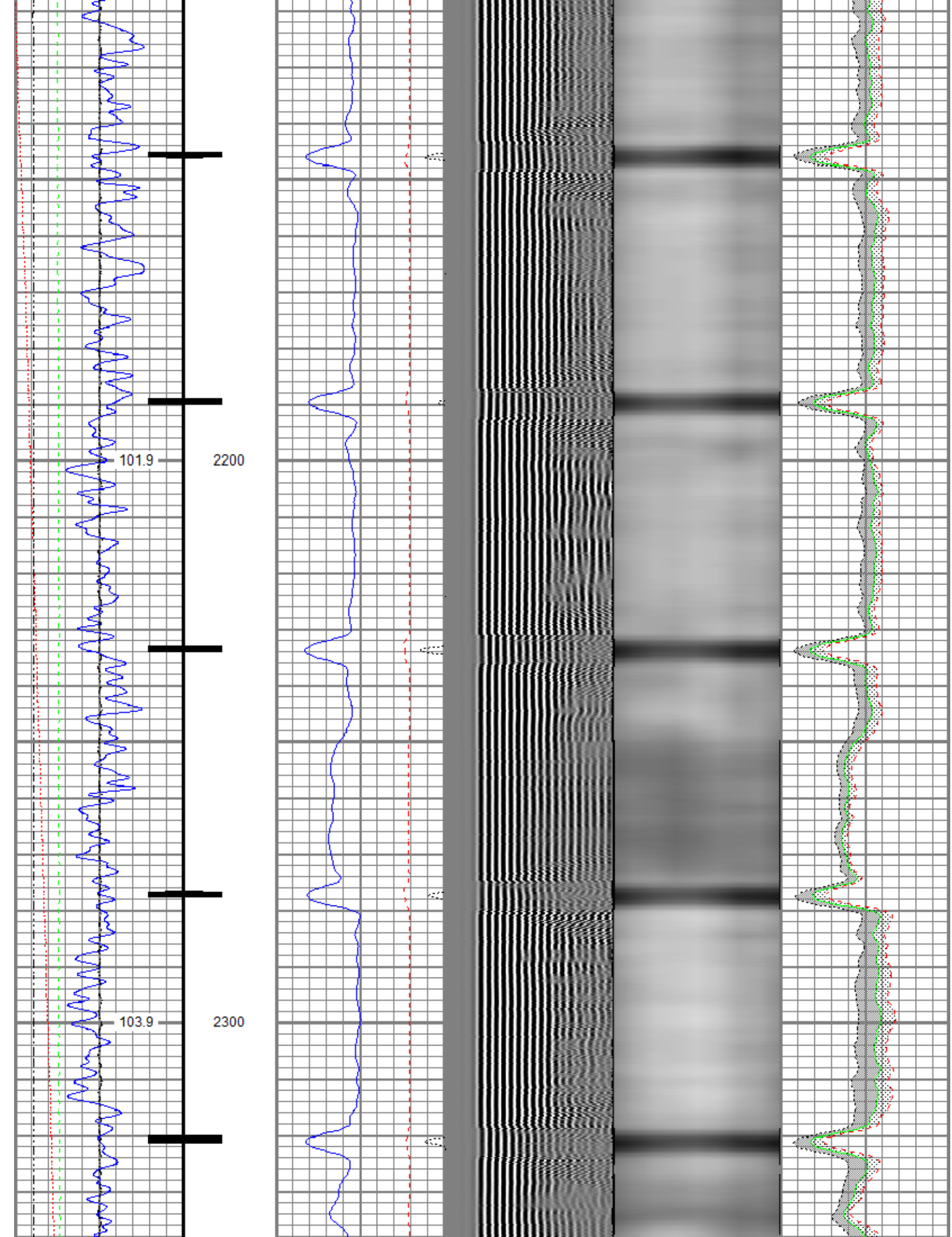


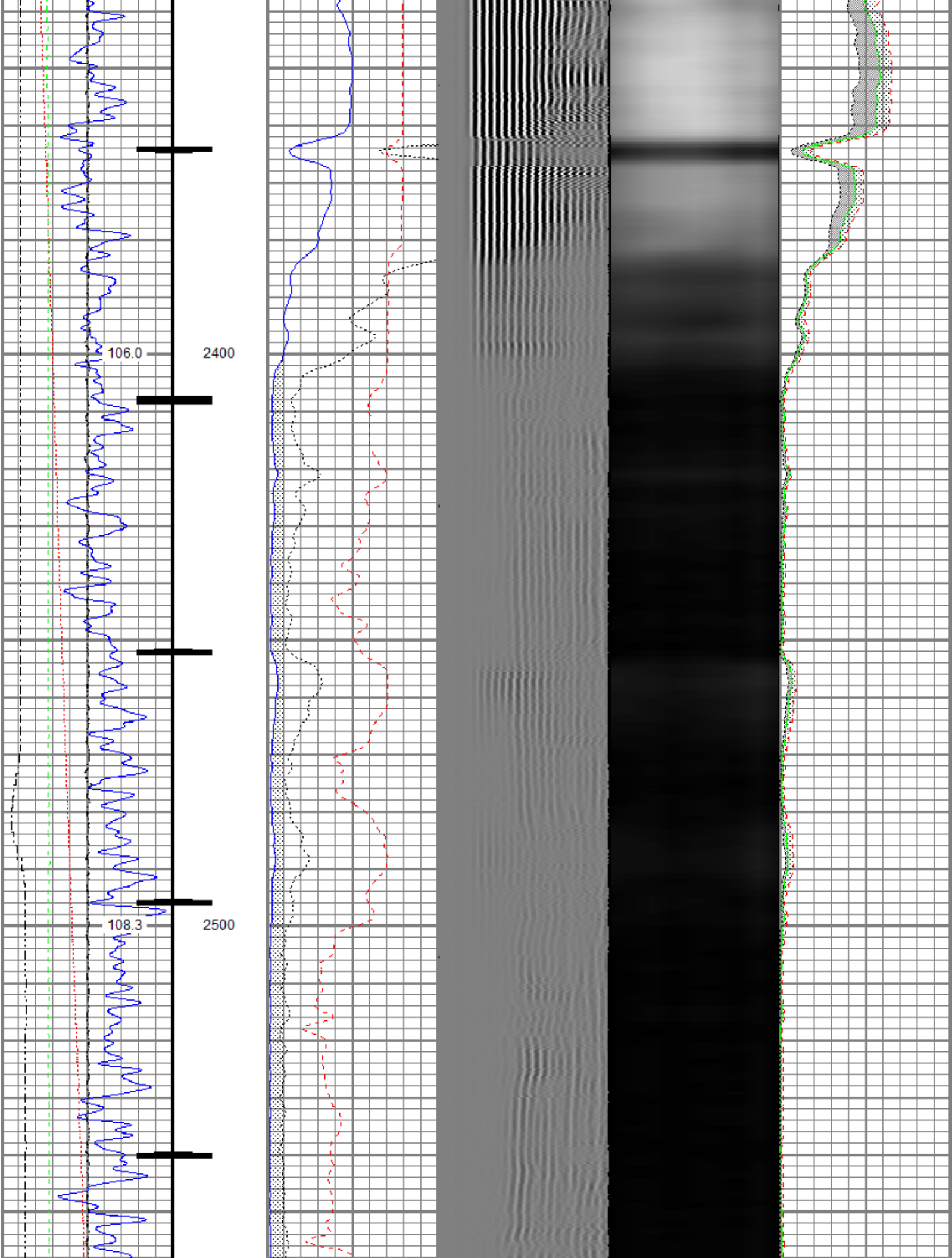


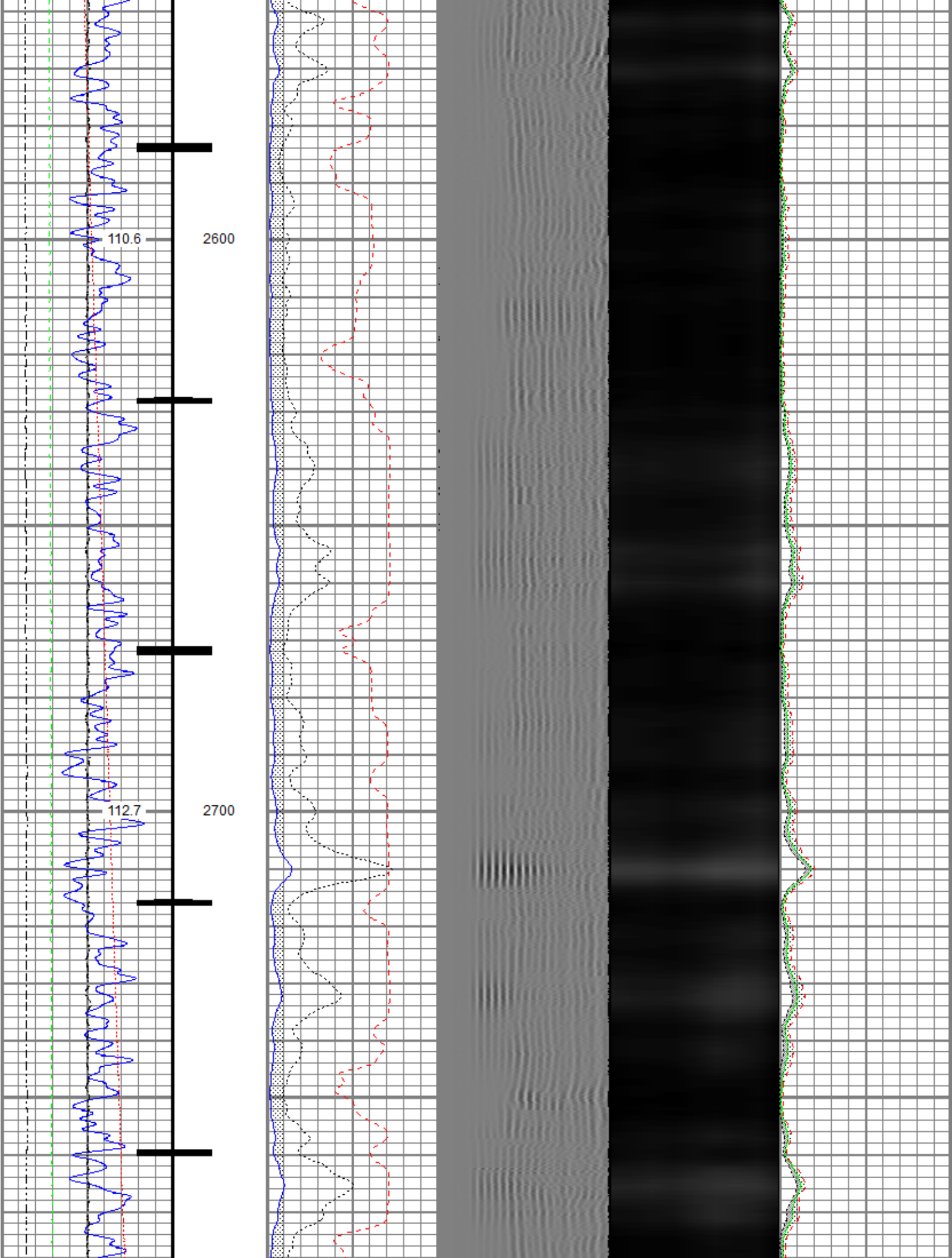


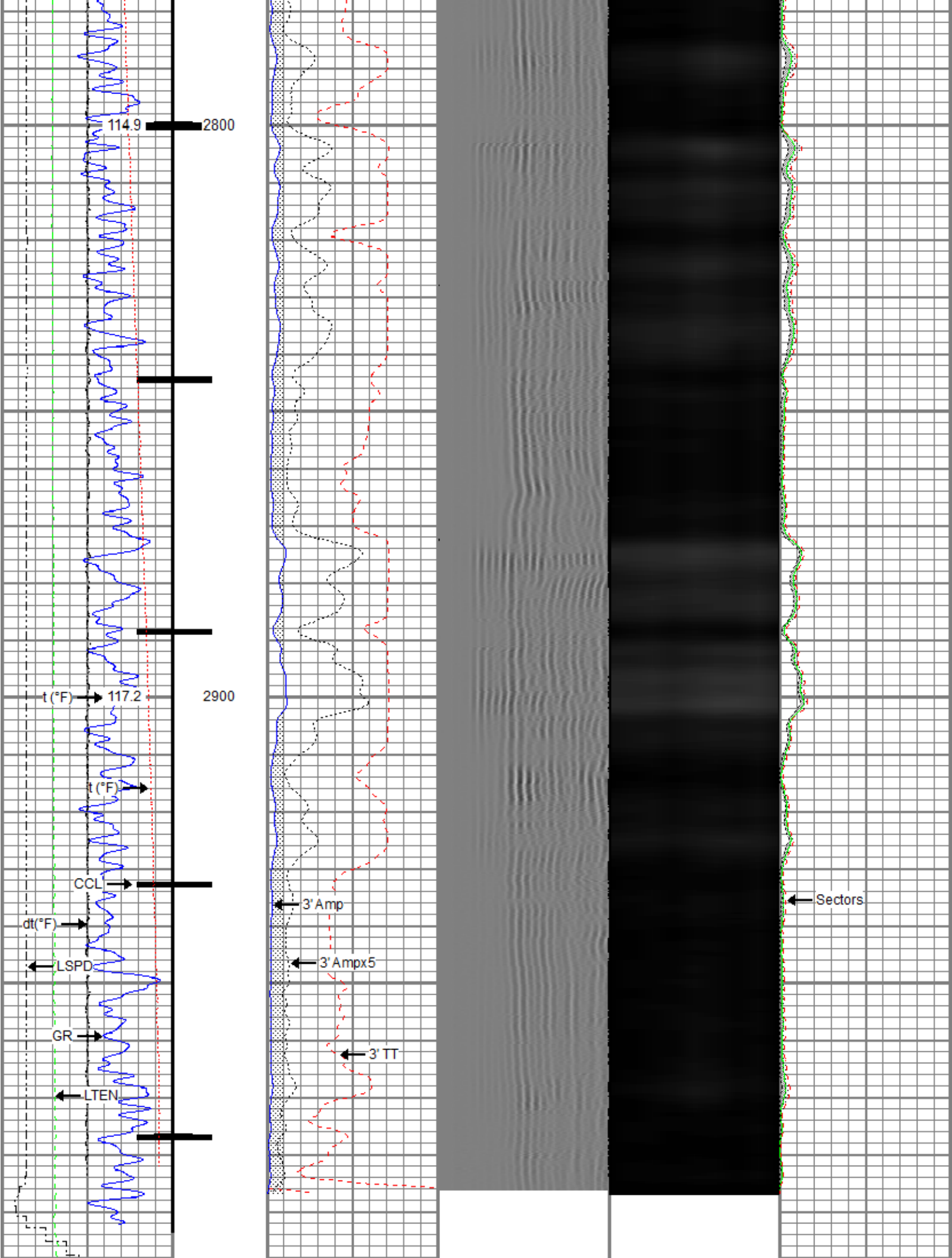












		3000					
Gamma Ray		0	3' Amplitude (mV) 100	5' Variable Density Log	Sector Map	0	Average Amplitude 100
30 (GAPI) 130			3' Amplitude x 5	200 (usec) 1200			Minimum Amplitude
Casing Collar Locator		0	(mV) 20			0	100
0 Temperature (degF) 20			3' Travel Time				Maximum Amplitude
Line Speed		650	(usec) 150			0	100
-150 (ft/min) 150							
0 Line Tension (lb) 2000							
Differential Temperature							
-2 (degF) 2							

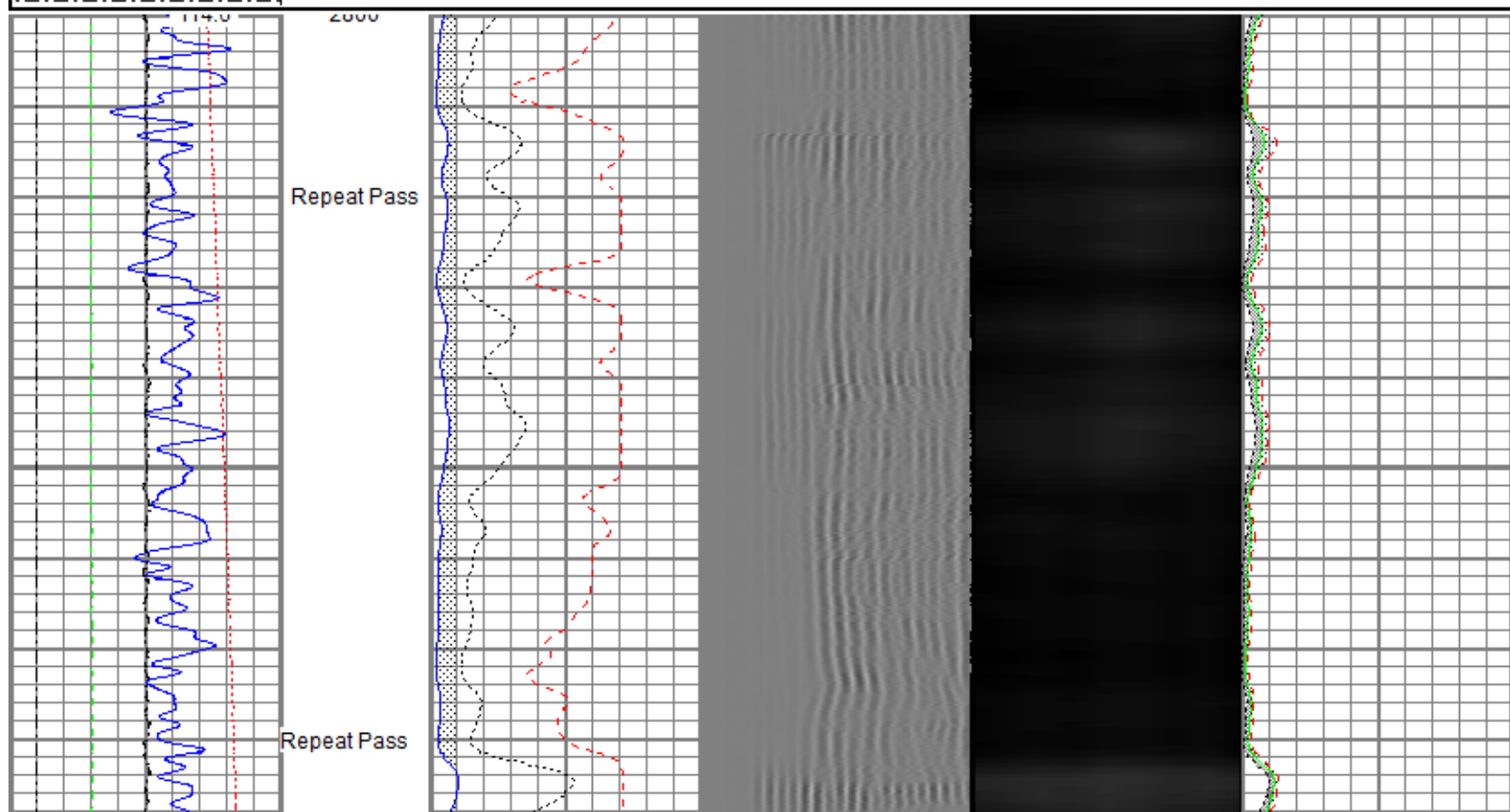


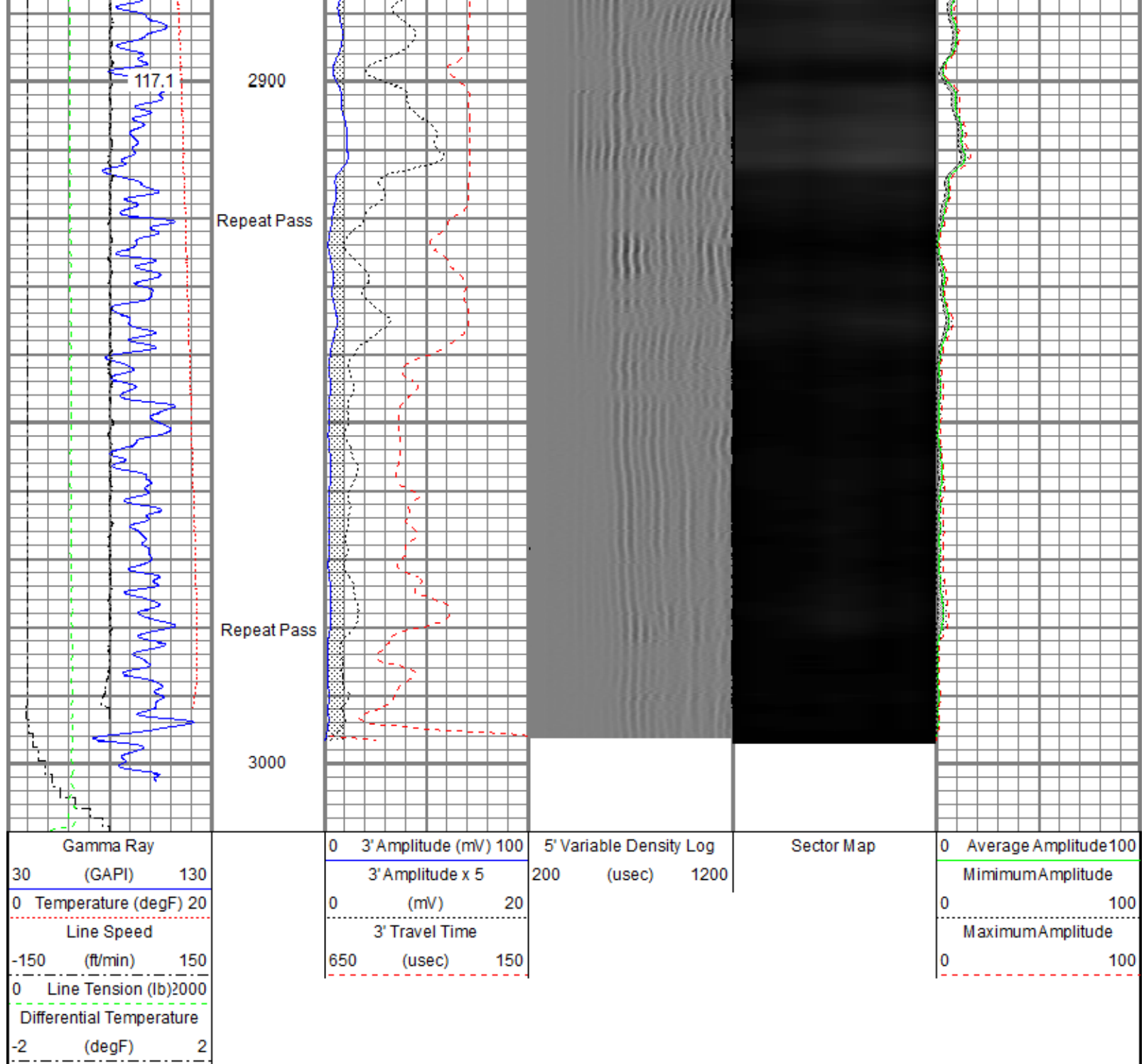
Repeat Pass

Logged With 0 PSI Surface Induced Pressure


Database File anadarko_newby_11-33_rcbl19-april-2018_vert.db
Dataset Pathname Repeat
Presentation Format ros_radrii_vert
Dataset Creation Thu Apr 19 08:39:12 2018
Charted by Depth in Feet scaled 1:240

Gamma Ray		0	3' Amplitude (mV) 100	5' Variable Density Log	Sector Map	0	Average Amplitude 100
30 (GAPI) 130			3' Amplitude x 5	200 (usec) 1200			Minimum Amplitude
0 Temperature (degF) 20		0	(mV) 20			0	100
Line Speed			3' Travel Time				Maximum Amplitude
-150 (ft/min) 150		650	(usec) 150			0	100
0 Line Tension (lb) 2000							
Differential Temperature							
-2 (degF) 2							





Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb)
			Titan CHD-14375 GO	1.03	1.44	3.60
			Titan 1-7/16" Assembled Electric Cable Head w/ 1" Fishing Neck			
			Probe CENT-2750	2.88	2.75	20.00
			Probe 2-3/4" Electric Inline Bowspring Centralizer			

TEMP	16.75					
WVFS8	14.52		Probe Radii-2750 RBT (FW1305-096) Probe 2-3/4" Radial Cement Bond Tool with Integral Temperature Sub	9.39	2.75	105.00
WVFS7	14.52					
WVFS6	14.52					
WVFS5	14.52					
WVFS4	14.52					
WVFS3	14.52					
WVFS2	14.52					
WVFS1	14.52					
WVFCAL	14.52					
WVF3FT	14.52					
WVF5FT	13.52					
HEADVOLT	10.27		Probe CENT-2750 Probe 2-3/4" Electric Inline Bowspring Centralizer	2.88	2.75	20.00
CCL\$2	6.51					
CCL\$1	6.51					
GR	5.26		Probe GR-CCL-2750 GOB (FW1212-026) Probe 2-3/4" rev.2 Digital Scintillation Gamma Ray/CCL Combined	4.51	2.75	55.00
			Probe CENT-2750 Probe 2-3/4" Electric Inline Bowspring Centralizer	2.88	2.75	20.00
Dataset: anadarko_newby_11-33_rcbl19-april-2018_vert.db: field/well/run1/Main Total length: 23.57 ft Total weight: 223.60 lb O.D.: 2.75 in						

Calibration Report		
Database File	anadarko_newby_11-33_rcbl19-april-2018_vert.db	
Dataset Pathname	Main	
Dataset Creation	Thu Apr 19 08:42:37 2018	
Gamma Ray Calibration Report		
Serial Number:	FW1212-026	
Tool Model:	2750 GOB	
Performed:	Sun Nov 12 12:27:51 2017	
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: 37.890 ft

Master Calibration, performed Thu Apr 19 08:17:50 2018:

	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3'	0.001	0.395	0.800	81.196	204.079	0.538
CAL	0.001	0.395				
5'	0.002	0.379	0.800	81.196	213.521	0.305
SUM						
S1	0.001	0.389	0.000	100.000	258.252	-0.353
S2	0.003	0.392	0.000	100.000	256.867	-0.721
S3	0.001	0.391	0.000	100.000	256.674	-0.376
S4	0.002	0.389	0.000	100.000	258.146	-0.460
S5	0.001	0.392	0.000	100.000	256.216	-0.363
S6	0.002	0.395	0.000	100.000	254.047	-0.443
S7	0.001	0.395	0.000	100.000	253.740	-0.310
S8	0.002	0.393	0.000	100.000	255.473	-0.384

Internal Reference Calibration, performed (Not Performed):

	Raw (v)		Calibrated (v)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
CAL	0.000	0.000	0.001	0.395	1.000	0.000

Air Zero Calibration, performed Thu Apr 19 08:18:11 2018:

	Raw (v)		Calibrated (v)		Results	
	Zero		Zero		Offset	
3'	0.001		0.000		-0.000	
5'	0.001		0.000		0.001	
SUM						
S1	0.001		0.000		0.000	
S2	0.002		0.000		0.001	
S3	0.002		0.000		-0.000	
S4	0.002		0.000		-0.000	
S5	0.001		0.000		-0.000	
S6	0.002		0.000		0.000	
S7	0.001		0.000		0.000	
S8	0.001		0.000		0.000	

Temperature Calibration Report

Serial Number: FW1305-096
 Tool Model: 2750 RBT
 Performed: Sun Nov 12 13:42:10 2017

	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	Kerr-McGee Oil & Gas Onshore, L.P.
Well	Newby 11-33
Field	Wattenberg
County	Weld
State	Colorado