



Radial Cement Bond
Gamma Ray
Casing Collar Log

Company Civitas
Well ANTELOPE 41-31
Field Wattenberg
County Weld
State Colorado

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Field Wattenberg
County Weld State Colorado

Location: API #: 05-123-32833
SEC 31 TWP 5N RGE 62W
Permanent Datum Elevation 4606'
Log Measured From
Drilling Measured From
Other Services
GYRO
Elevation
K.B. 4616 FT
D.F. ---
G.L. 4606 FT

Date	21 -JAN-23	
Run Number	ONE	
Depth Driller	6680 FT	
Depth Logger	2700 FT	
Bottom Logged Interval	2705 FT	
Top Log Interval	Surface	
Open Hole Size	7.875"	
Type Fluid	Water	
Density / Viscosity	---	
Max. Recorded Temp.	113°F	
Estimated Cement Top	See Log	
Time Well Ready	ROA	
Time Logger on Bottom	14:42	
Equipment Number	2-002	
Location	Platteville	
Recorded By	W.Dolph	
Witnessed By	Pete Burns	
Borehole Record		
Run Number	Bit	From
	To	Size
	Weight	From
	To	Weight
	Tubing Record	
	Size	Weight
	From	To
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
		Bottom
		432 FT
		6661 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 12-JULY-2011
Depth referenced to Kelly Bushing at 10 FT
Log ran with 0 PSI Surface Induced Pressure
Logging tools were clean and free of any debris upon completion of operations

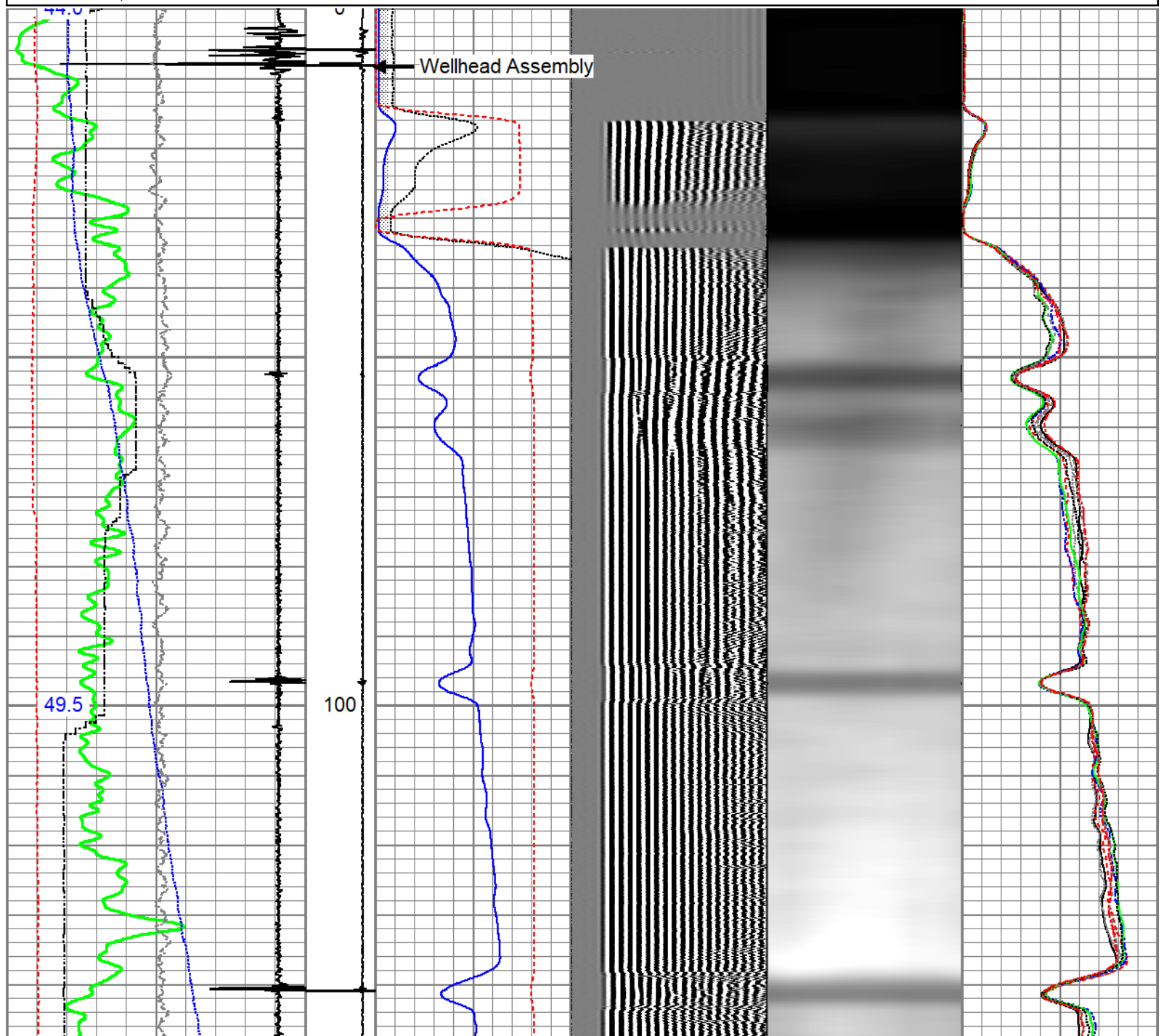
Main Pass

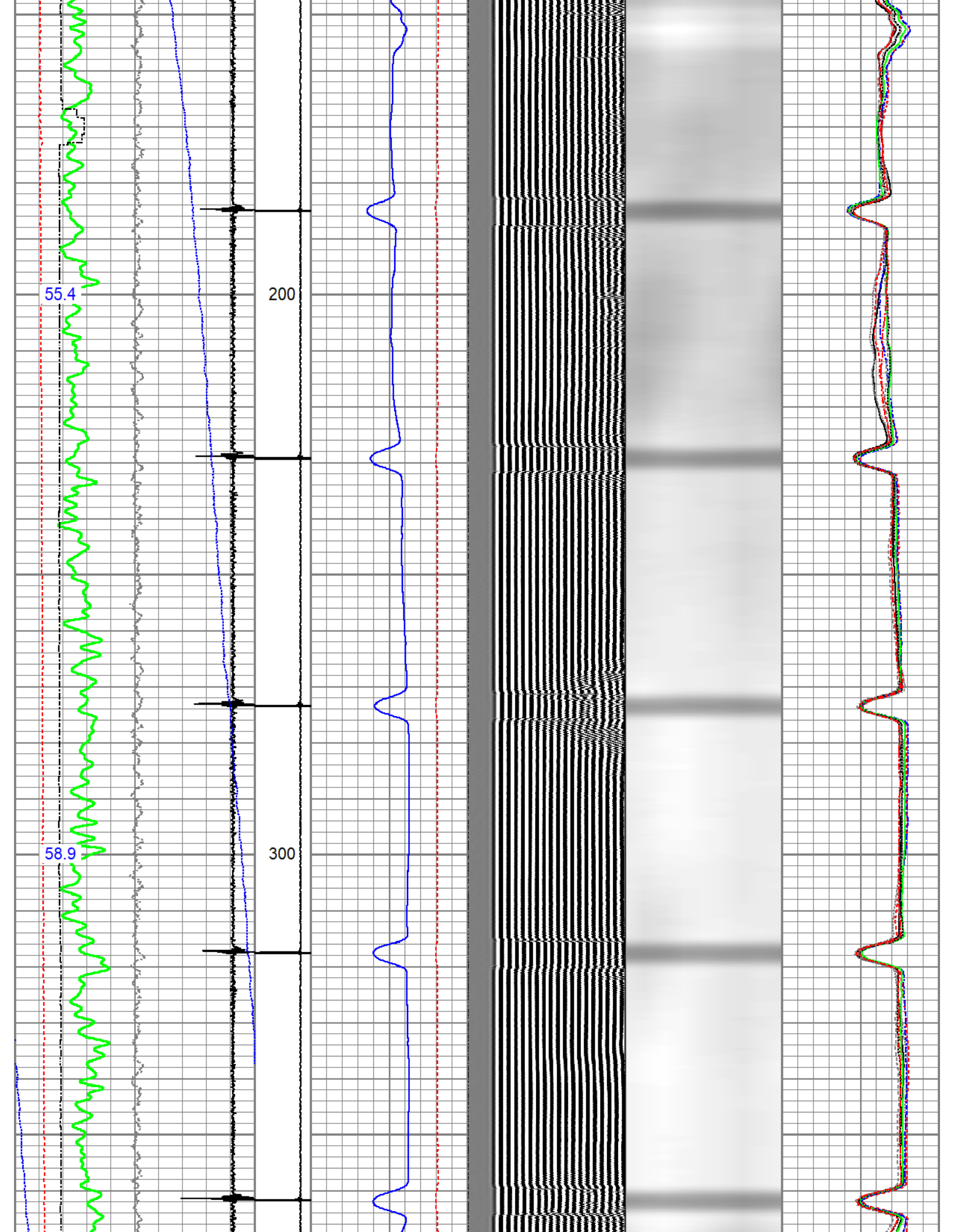


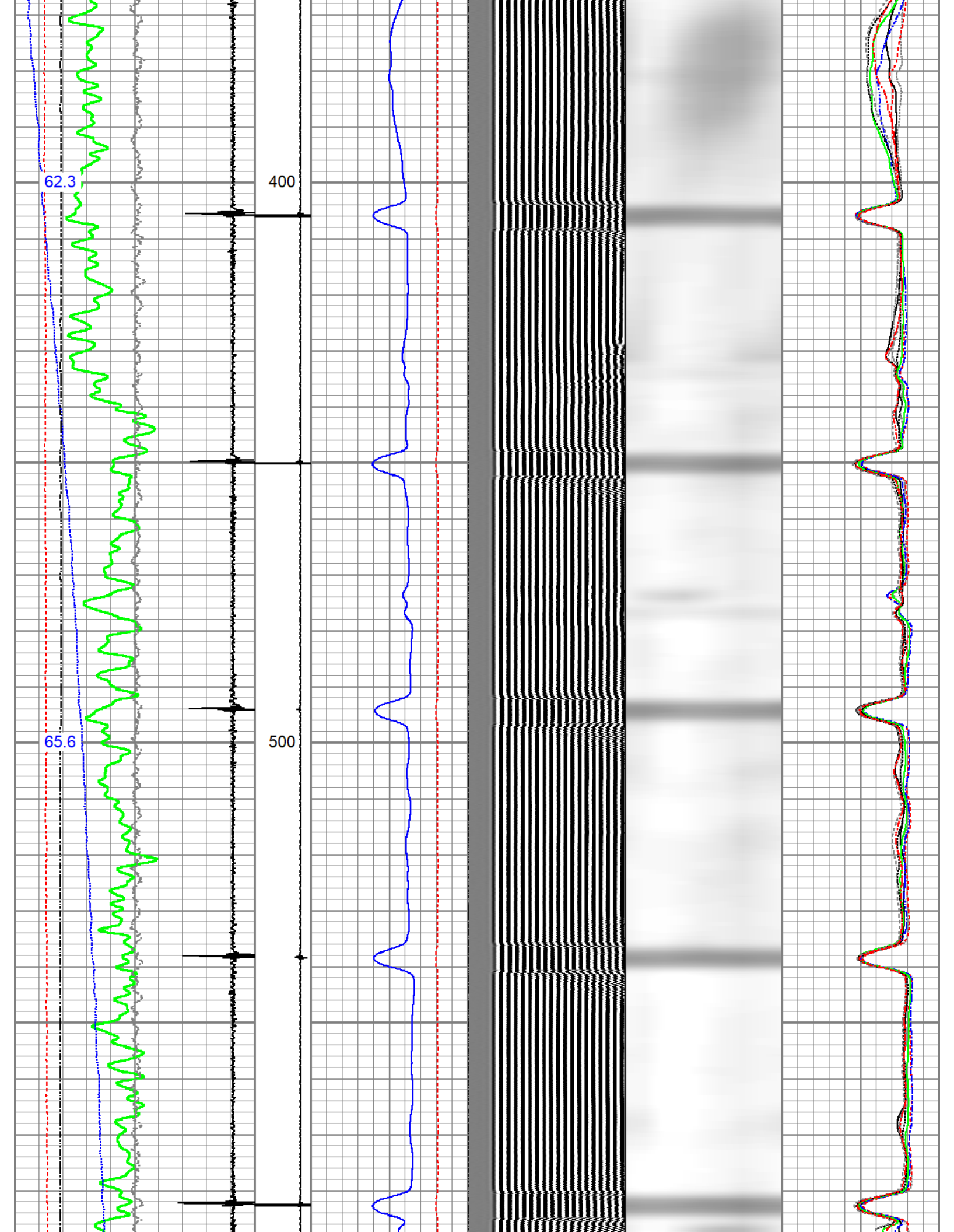
No Pressure Induced at Surface

Database File civitas_antelope_41-31.db
 Dataset Pathname CBL/pass4.1
 Presentation Format edge_rbl_noble
 Dataset Creation Sat Jan 21 15:23:33 2023
 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	(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)								







67.6

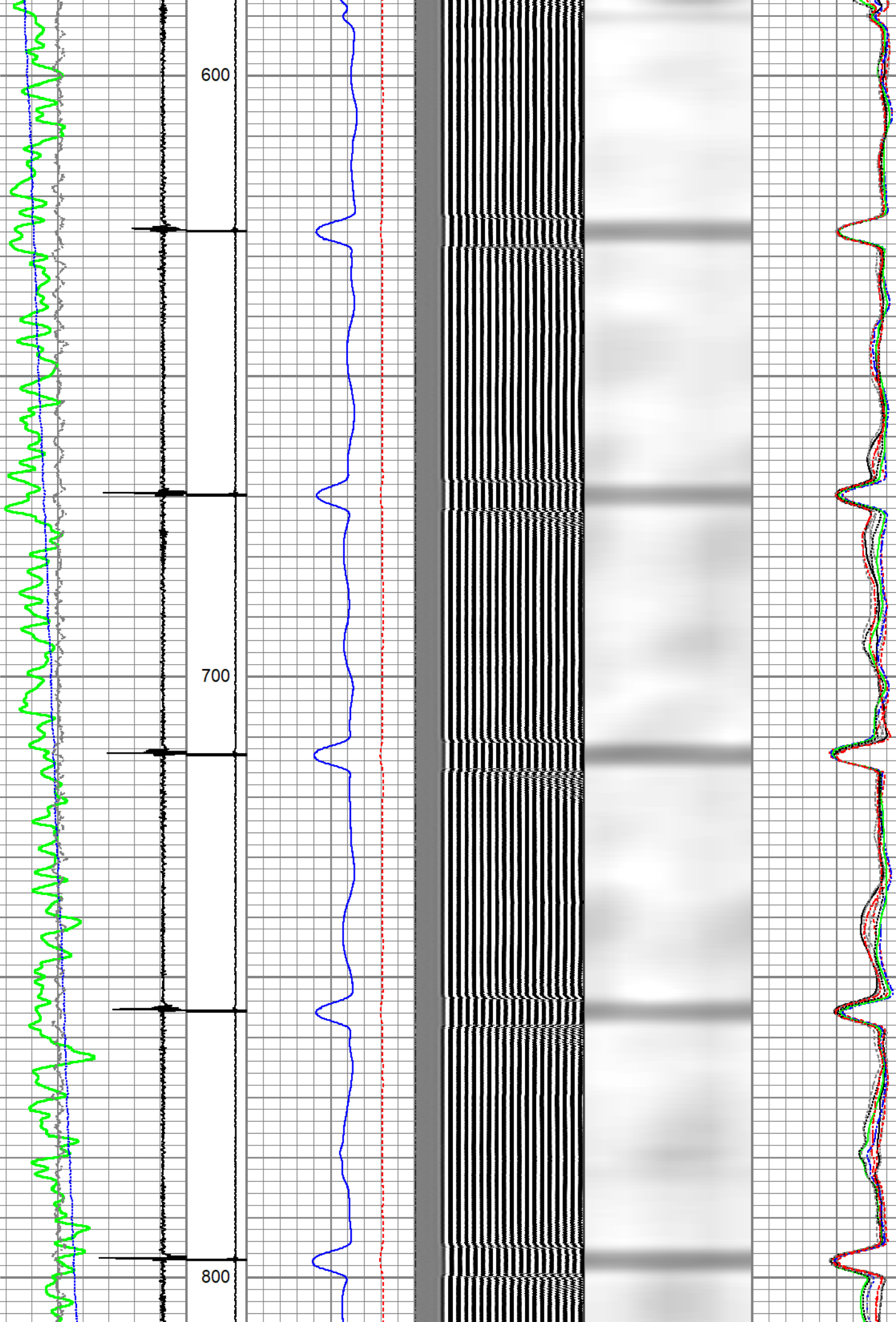
600

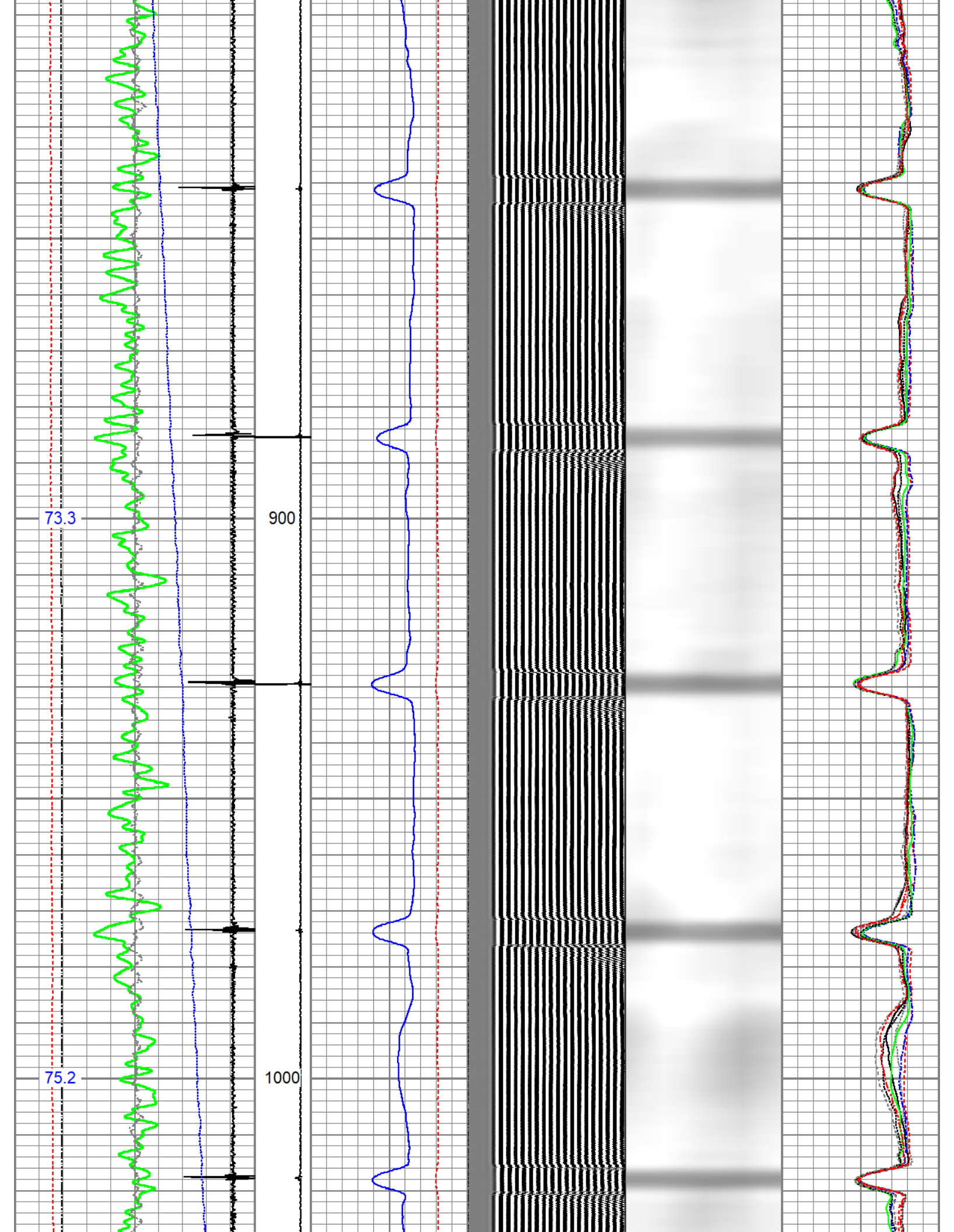
69.5

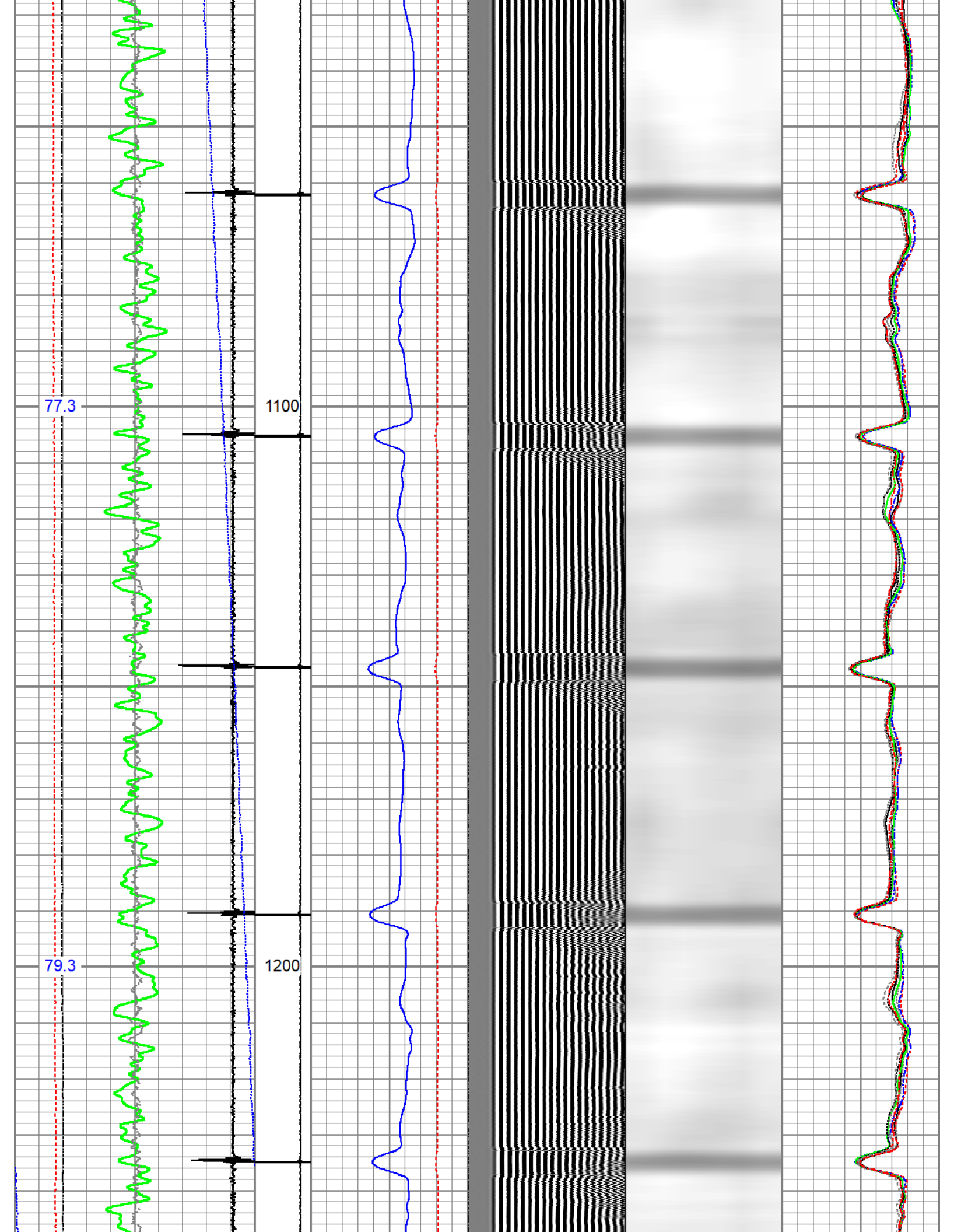
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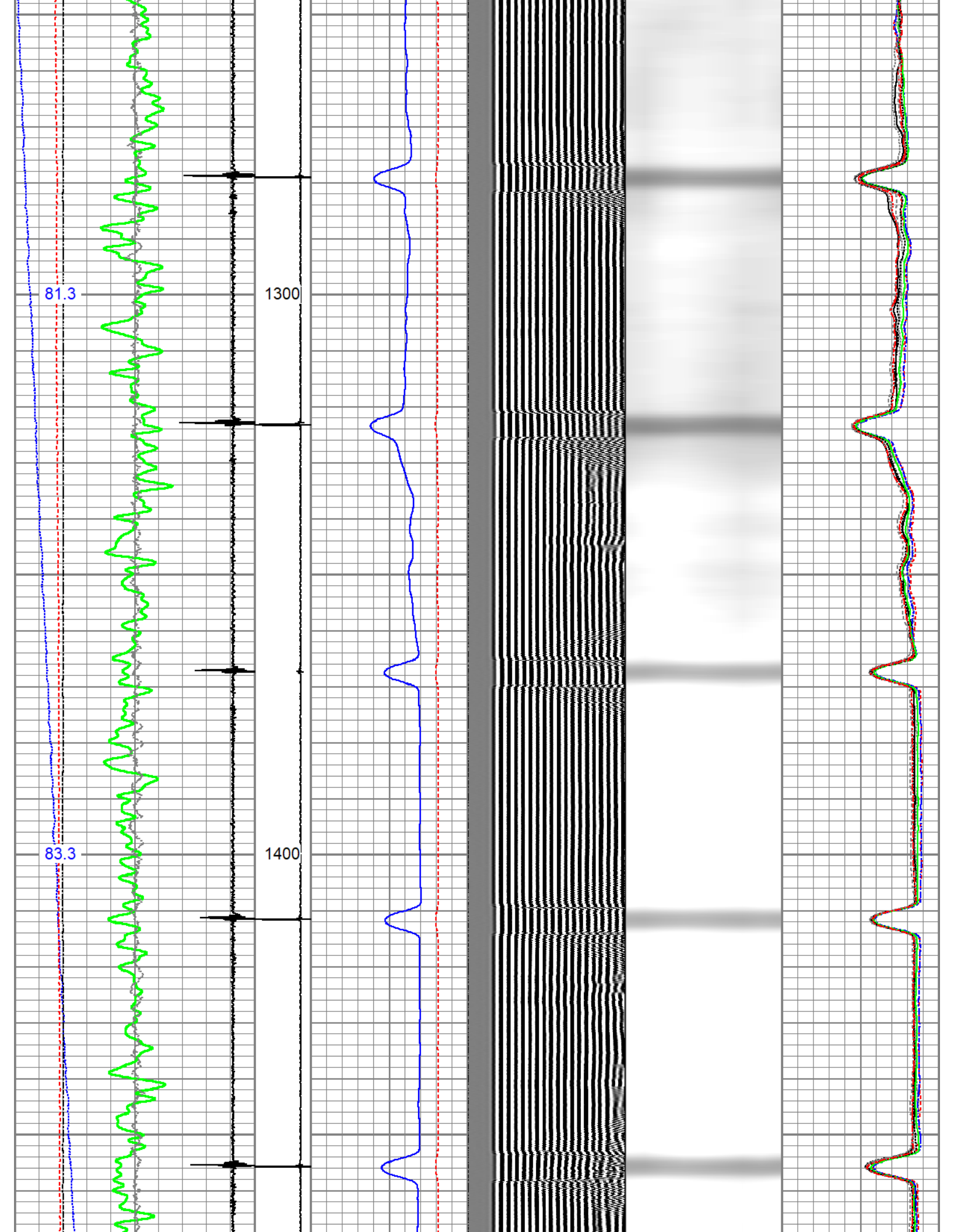
71.3

800







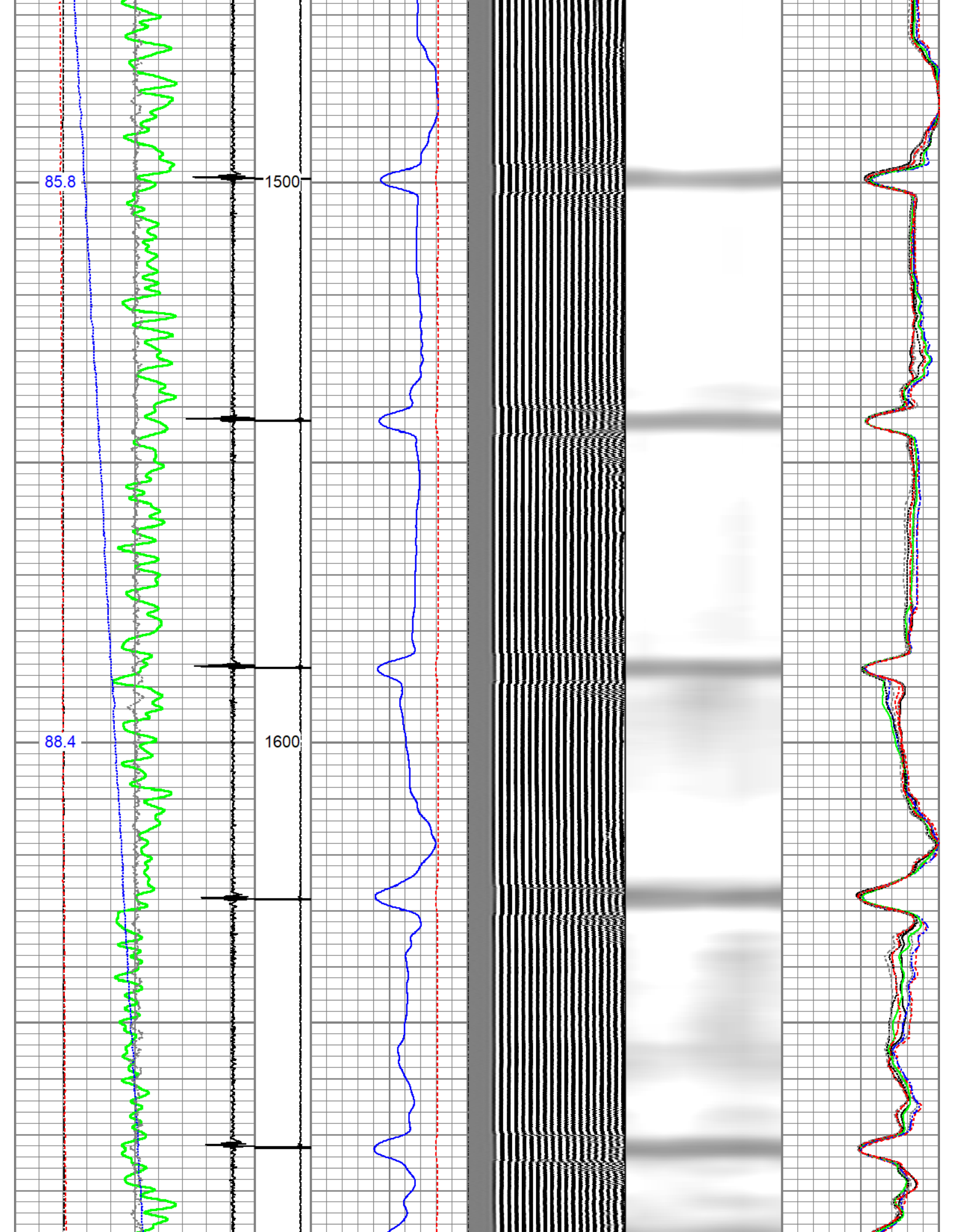


85.8

88.4

1500

1600



91.1

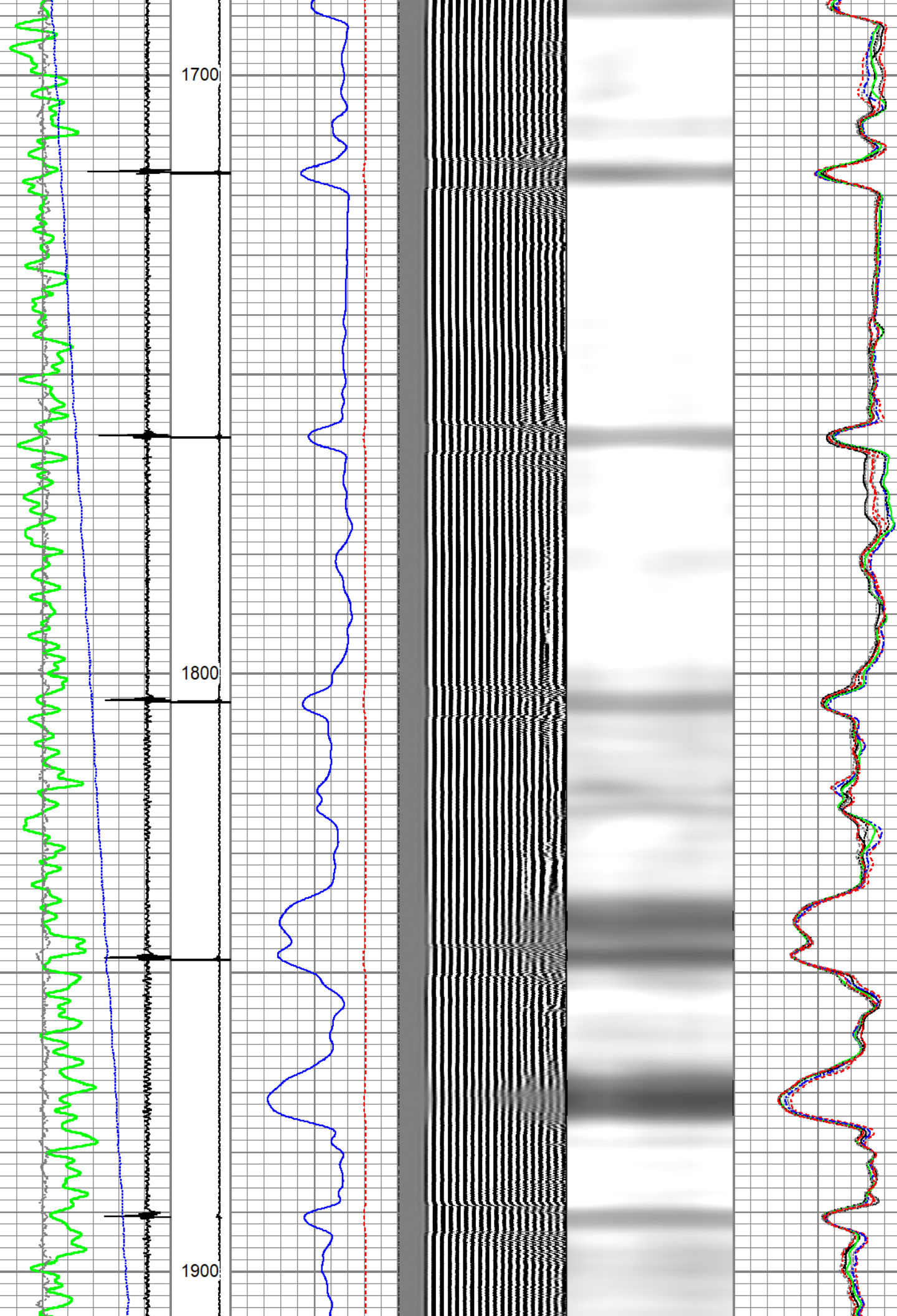
1700

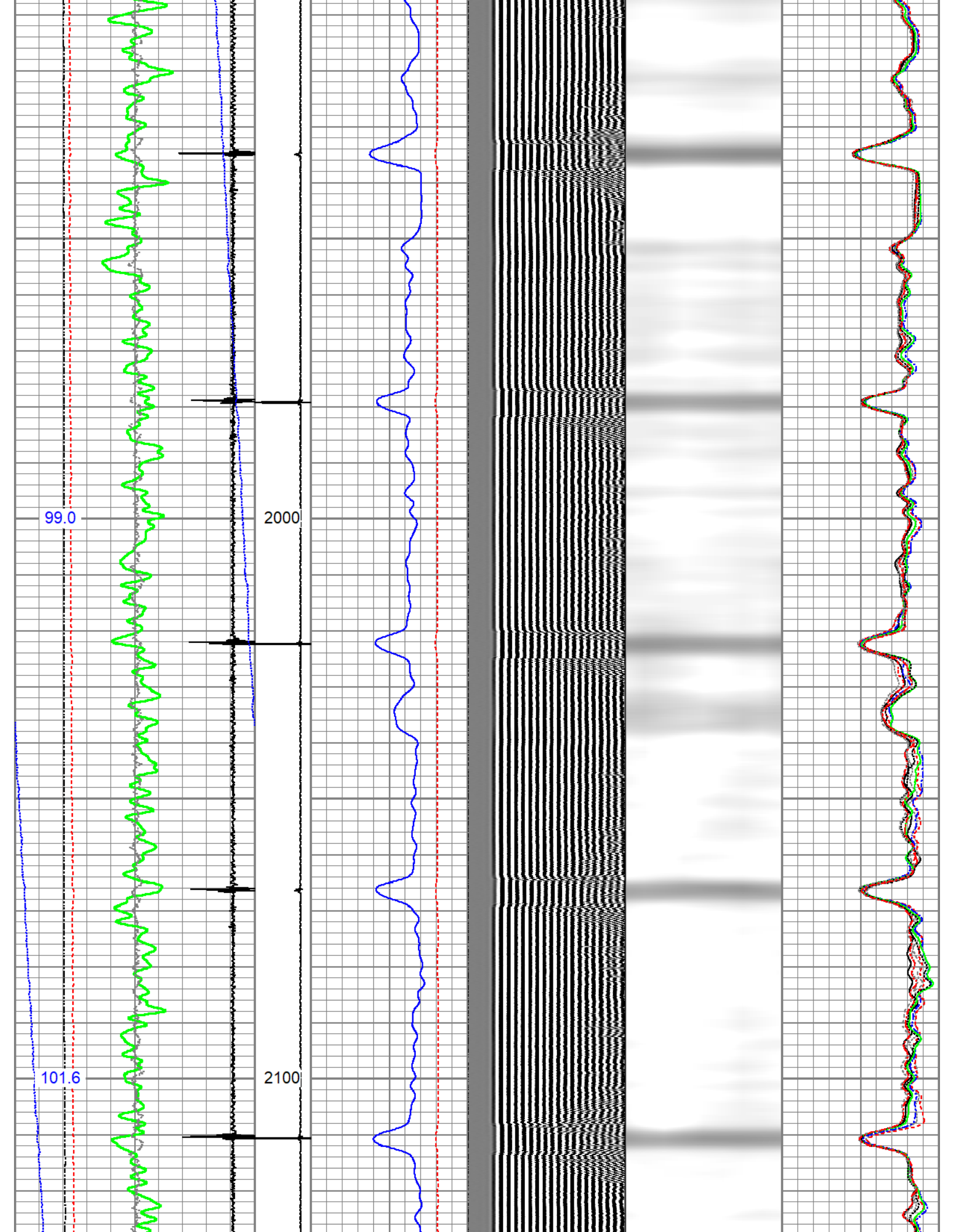
93.7

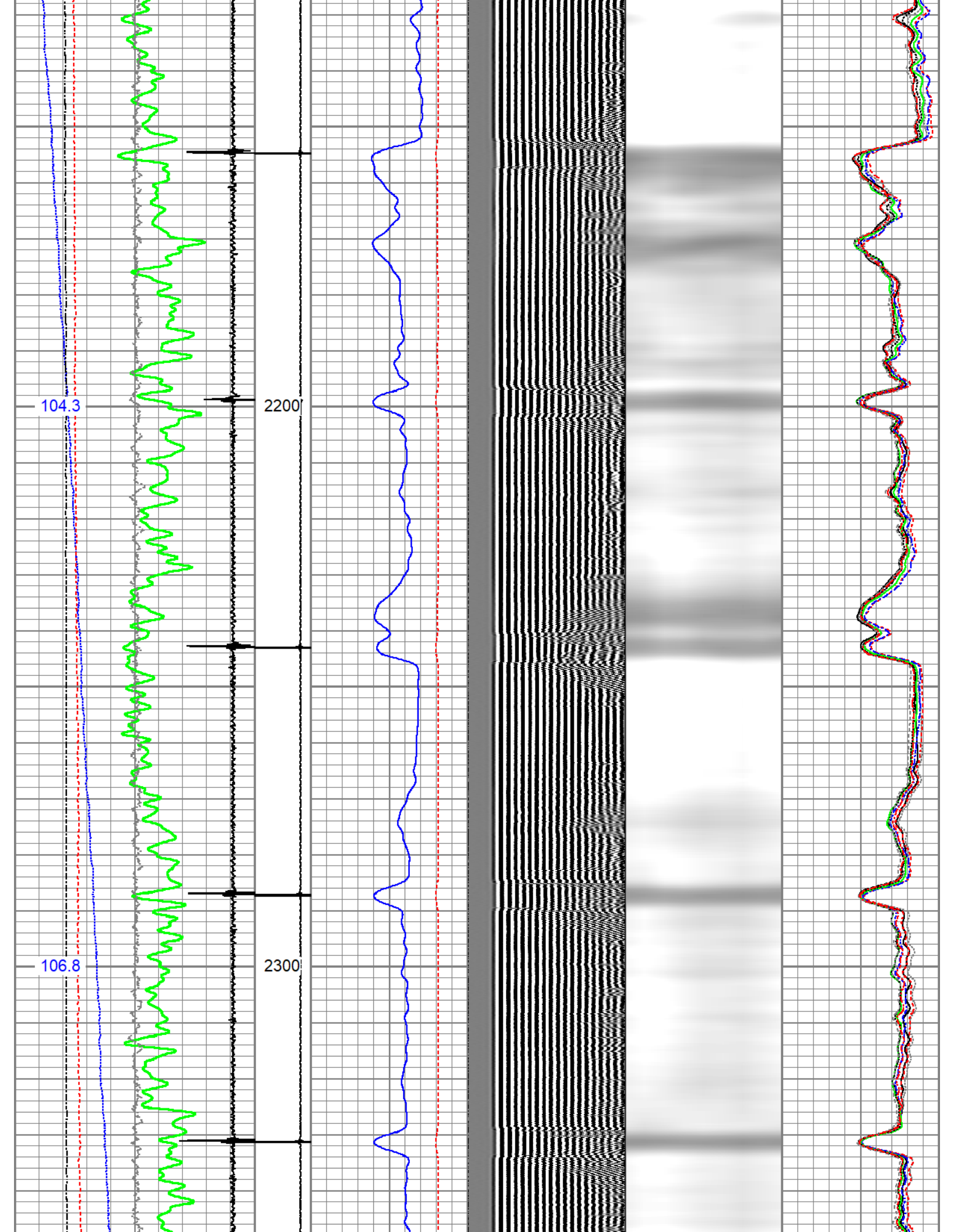
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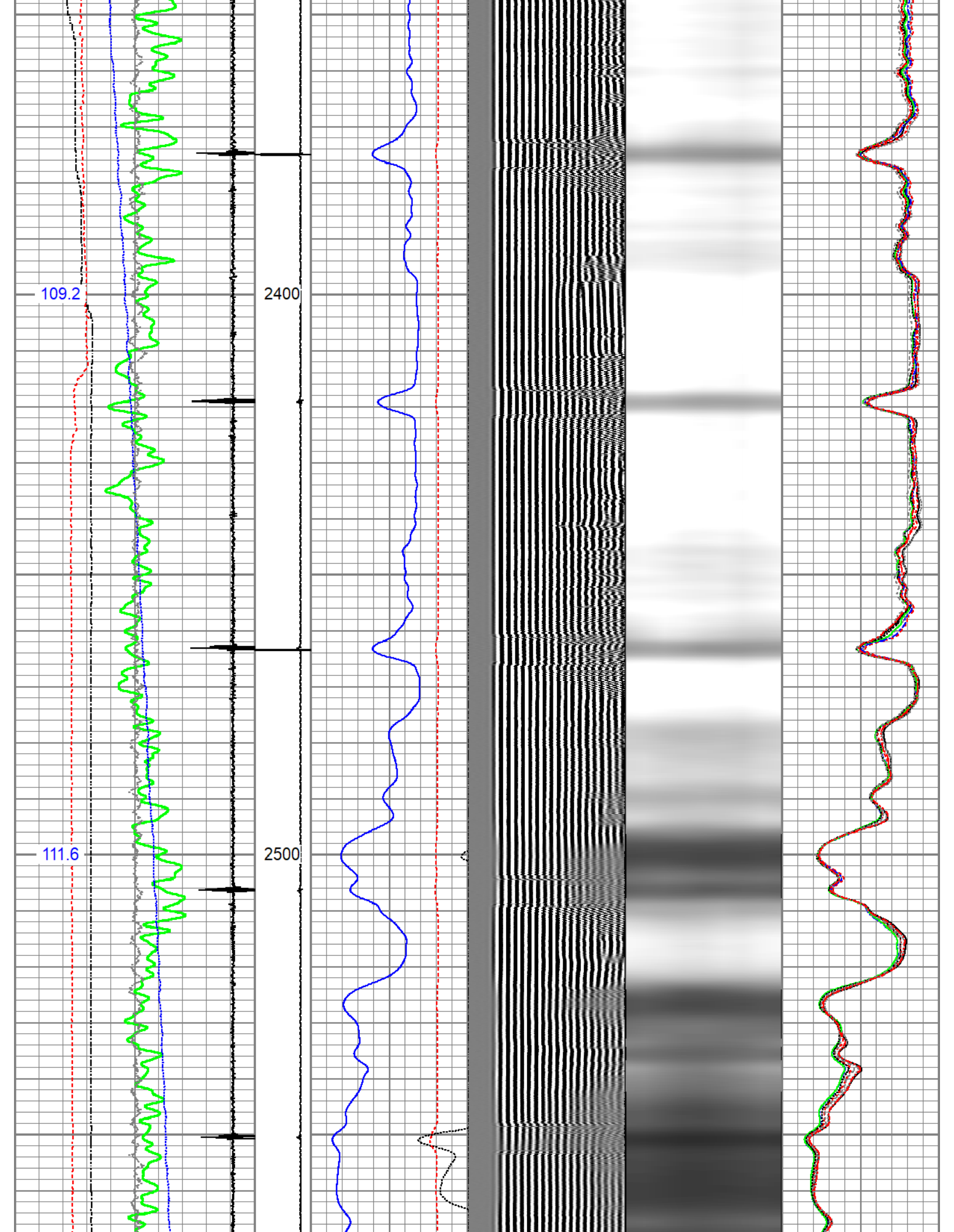
96.5

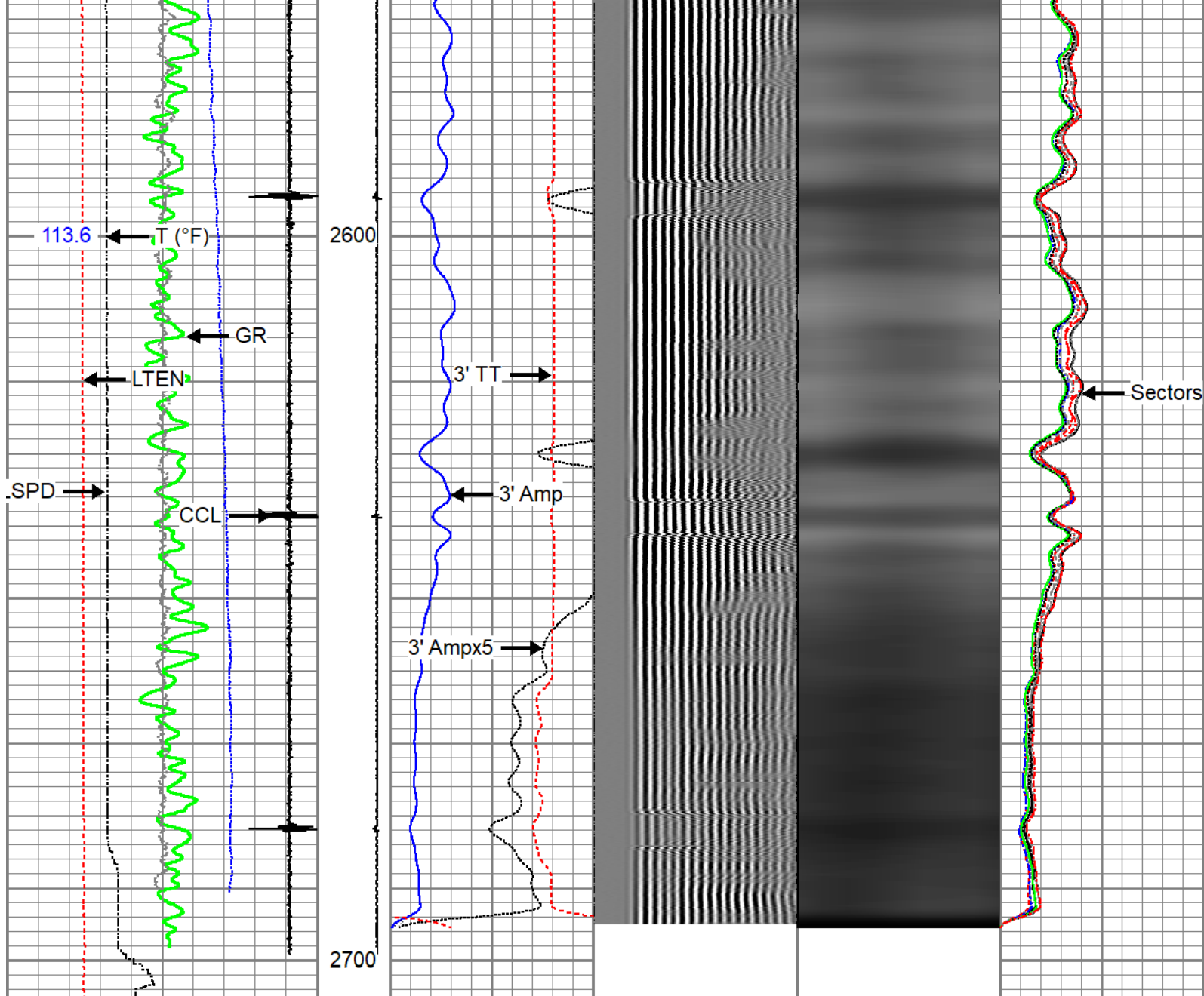
1900











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
	Differential Temperature			650 (usec)			0	AMP S6	100
-2	(degF)	2					0	AMP S7	100
	Temperature						0	AMP S8	100
	(degF)								

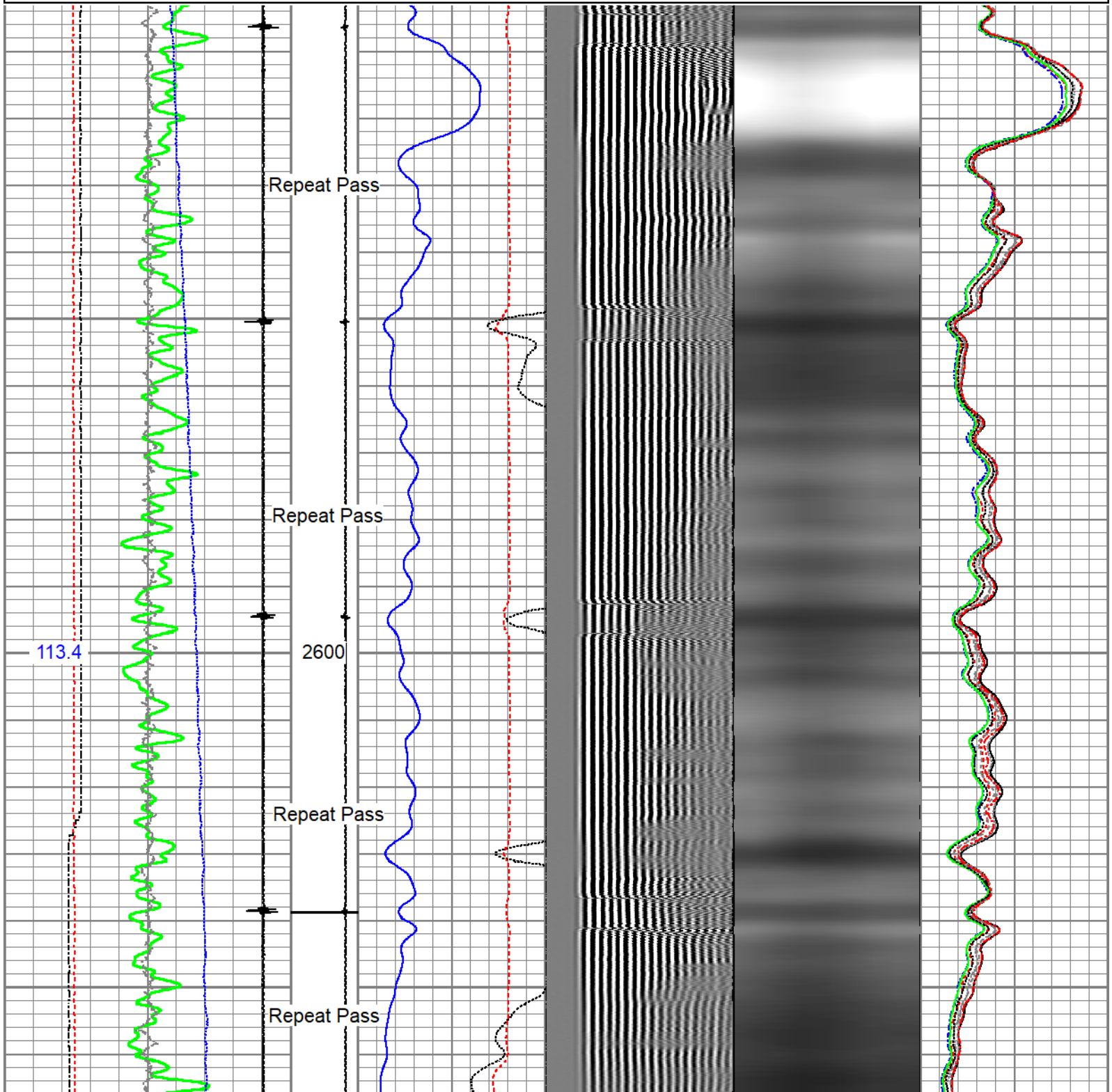


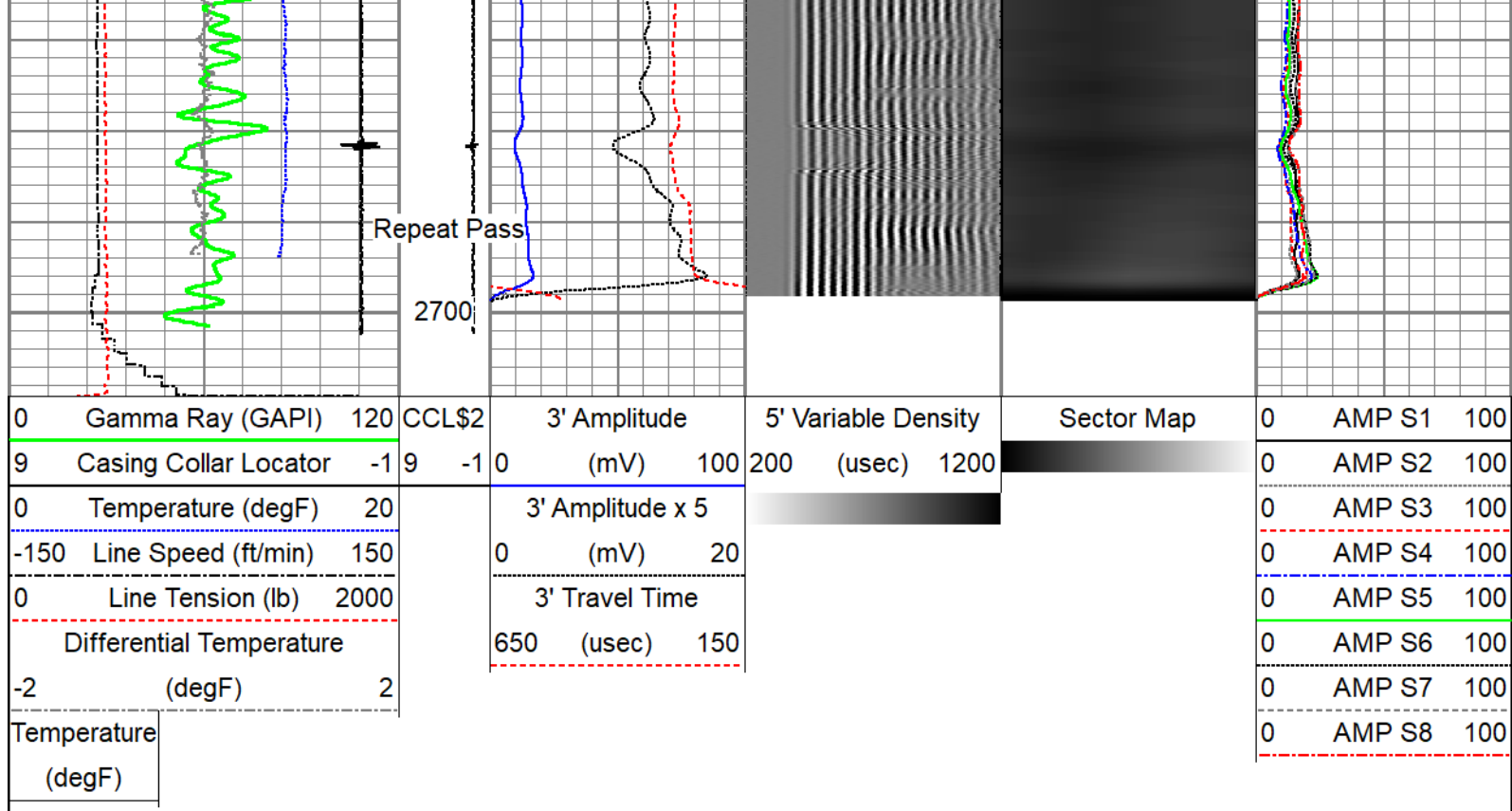
Repeat Pass

No Pressure Induced at Surface

Database File civitas_antelope_41-31.db
 Dataset Pathname CBL/pass3
 Presentation Format edge_rbl_noble

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)		1200	0	AMP S2
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)								





Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb)
ErrCt	18.10		Titan CHD-16875 GO Titan 1-11/16" Assembled Electric Cable Head with 1" Fishing Neck	1.03	1.69	5.40
RBT_HV	17.07		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	14.16		Probe Radii ACC-2750 RBTa (FW1302-002) Probe 2-3/4" Radial Cement Bond Tool with Integral Temperature Sub and Accelerometer	9.39	2.75	105.00
RBT_ACCZ	11.93					
RBT_ACCY	11.93					
RBT_ACCX	11.93					
WVFSYNC	11.93					
WVFS8	11.93					
WVFS7	11.93					
WVFS6	11.93					
WVFS5	11.93					
WVFS4	11.93					
WVFS3	11.93					
WVFS2	11.93					
WVFS1	11.93					
WVFCAL	11.93					
WVF3FT	11.93					
WVF5FT	10.93					

CCL\$2	6.80		4.80	2.75	55.00
CCL\$1	6.80				
GR	5.46				
LOCTIM	0.00				
UTCTIM	0.00				

Dataset: civitas_antelope_41-31.db: field/well/CBL/pass4.1
 Total length: 18.10 ft
 Total weight: 195.40 lb
 O.D.: 3.25 in

Calibration Report

Database File civitas_antelope_41-31.db
 Dataset Pathname CBL/pass4.1
 Dataset Creation Sat Jan 21 15:23:33 2023

Gamma Ray Calibration Report

Serial Number: FW1810-001
 Tool Model: 2750 6PB
 Performed: Mon Oct 19 14:19:51 2020

 Calibrator Value: 637.0 GAPI

 Background Reading: 100.1 cps
 Calibrator Reading: 1264.5 cps

 Sensitivity: 0.5471 GAPI/cps

Segmented Cement Bond Log Calibration Report

Serial Number: FW1302-002
 Tool Model: 2750 RBTa

 Calibration Casing Diameter: 4.500 in
 Calibration Depth: 119.491 ft

Master Calibration, performed (Derived):

	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3'	0.000	0.858	0.800	81.196	93.797	0.763
CAL	0.917	0.932				
5'	0.000	0.750	0.800	81.106	105.886	0.770

S	0.000	0.759	0.800	81.196	105.888	0.779
SUM						
S1	0.000	0.832	0.000	100.000	120.287	-0.045
S2	0.000	0.920	0.000	100.000	108.753	-0.038
S3	0.000	0.960	0.000	100.000	104.197	-0.037
S4	0.000	0.911	0.000	100.000	109.825	-0.041
S5	0.000	0.877	0.000	100.000	114.017	-0.047
S6	0.000	0.852	0.000	100.000	117.494	-0.054
S7	0.000	0.839	0.000	100.000	119.267	-0.054
S8	0.000	0.817	0.000	100.000	122.500	-0.053

Air Zero Calibration, performed Sat Jan 21 08:47:44 2023:

	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

Inclinometer Calibration Report

Performed:	Mon Oct 19 14:19:51 2020				
	Low Read.	High Read.	Low Ref.	High Ref.	
X Accelerometer	-891.00	891.00	-1.00	1.00	gee
Y Accelerometer	-899.00	877.00	-1.00	1.00	gee
Z Accelerometer	-7.47	873.36	0.00	1.00	gee

Temperature Calibration Report

Serial Number:	FW1302-002	
Tool Model:	2750 RBTa	
Performed:	Mon Oct 19 14:19:51 2020	
	Reference	Reading
Low Reference:	100.00 degF	110.72 degF
High Reference:	350.00 degF	409.18 degF
Gain:	0.84	
Offset:	7.26	
Delta Spacing	1	



Company Civitas
Well ANTELOPE 41-31

Greenfield

Field
County
State

Wattenberg
Weld
Colorado