



CEMENT BOND LOG

Company WHITING PETOLEUM
Well RAZOR 33M-2803
Field WILDCAT
County WELD
State COLORADO

Company WHITING PETOLEUM
Well RAZOR 33M-2803
Field WILDCAT
County WELD State COLORADO

Location: API #: 051233925700
Other Services
40CAL
3.75" GUAGE

SEC 33 TWP 10N RGE 58W
Permanent Datum GL 4729 Elevation
Log Measured From KB (18.5')
Drilling Measured From KELLY BUSHING
K.B. 4747.5
D.F. 4747.5
G.L. 4729

Date	25 JAN 2015		
Run Number	TWO		
Depth Driller	4962.7'		
Depth Logger	5050'		
Bottom Logged Interval	5040'		
Top Log Interval	0'		
Open Hole Size	11/A		
Type Fluid	WATER		
Density / Viscosity	11/A		
Max. Recorded Temp.	11/A		
Estimated Cement Top	11/A		
Time Well Ready	12:45		
Time Logger on Bottom	16:15		
Equipment Number	13033		
Location	BRIGHTON		
Recorded By	J. OSTLER		
Witnessed By			

Borehole Record				Tubing Record			
Run Number	Bit	From	To	Size	Weight	From	To
Casing Record		Size	Wgt/Ft	Top	Bottom		
Surface String		9.625"	36#	0'	1575'		
Prot. String		7"	29#	0'	6022.9'		
Production String							
Liner		4.5"	11.6"	4962.7'	13107'		

<<< Fold Here >>>

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

WELL WAS LOGGED WITH 1500 PSI AT THE WELL HEAD
CREW: GILBERTO CAVAZOS, MIKE BINGAHAM, TIM FISHEL

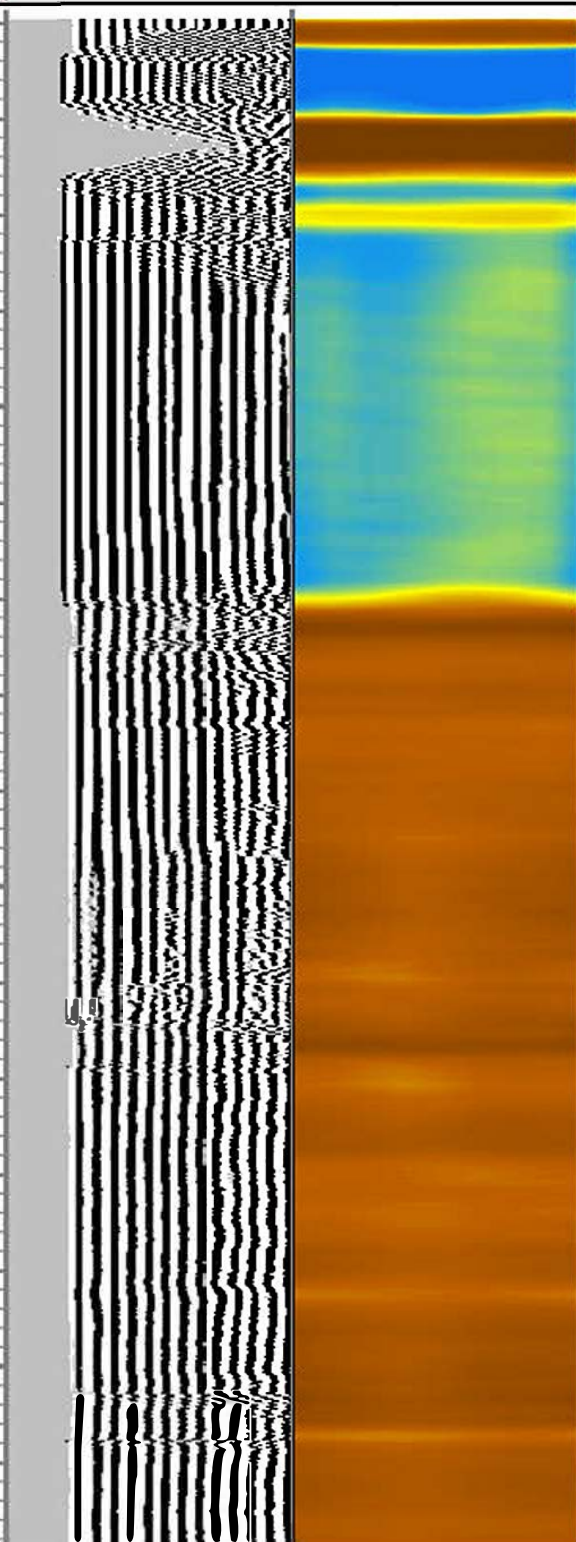
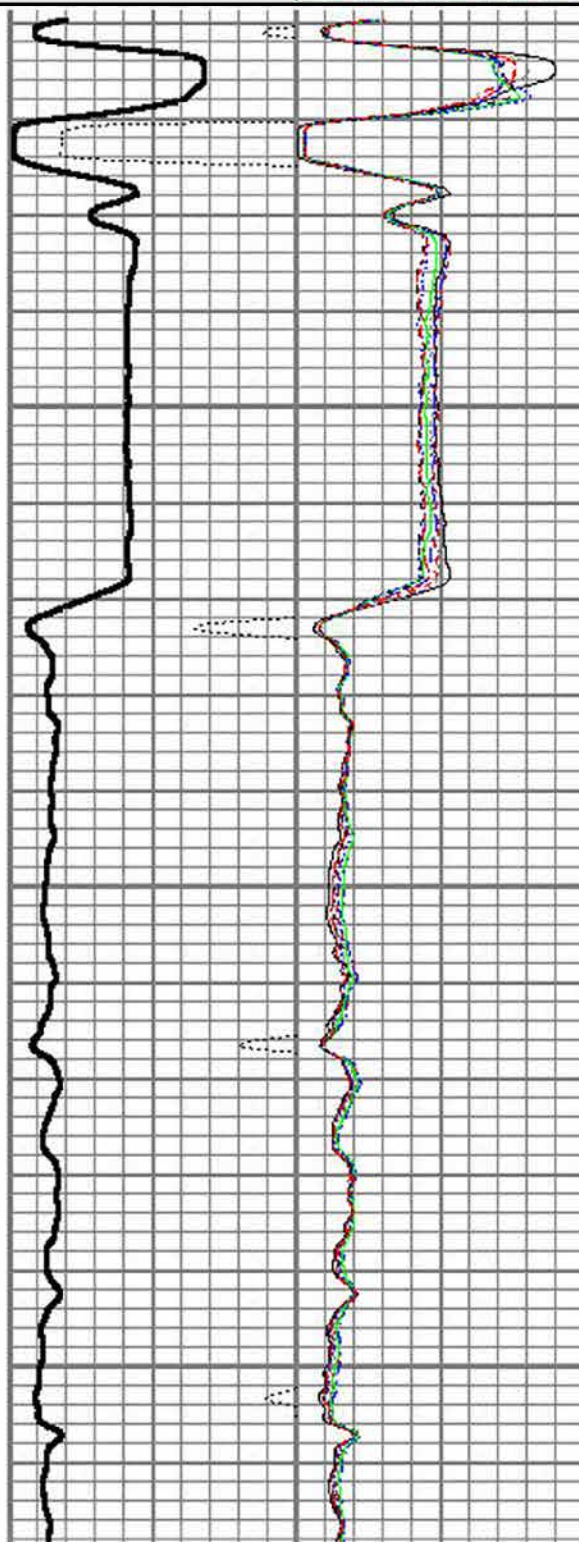
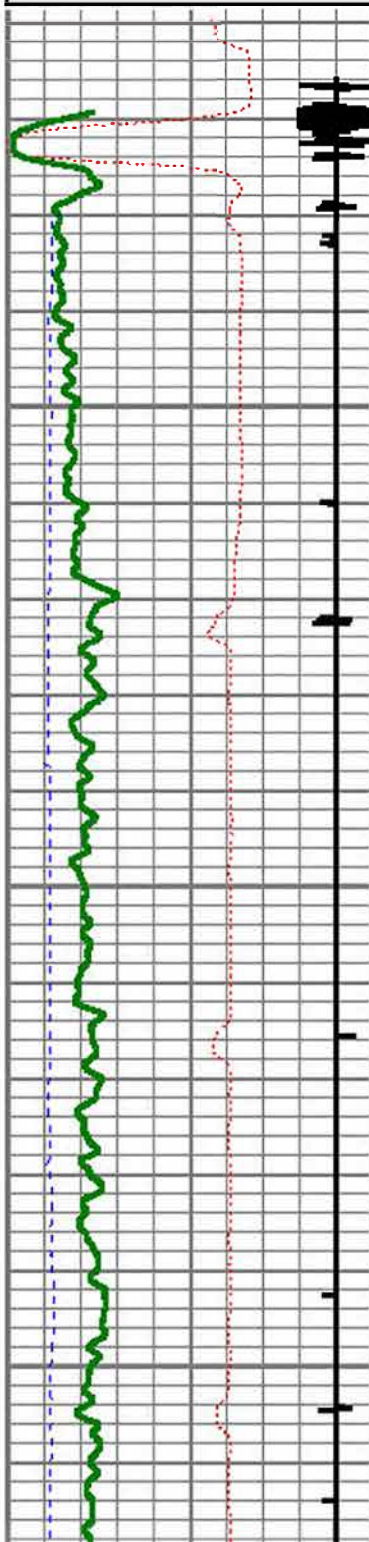
WIRELINE SERVICES

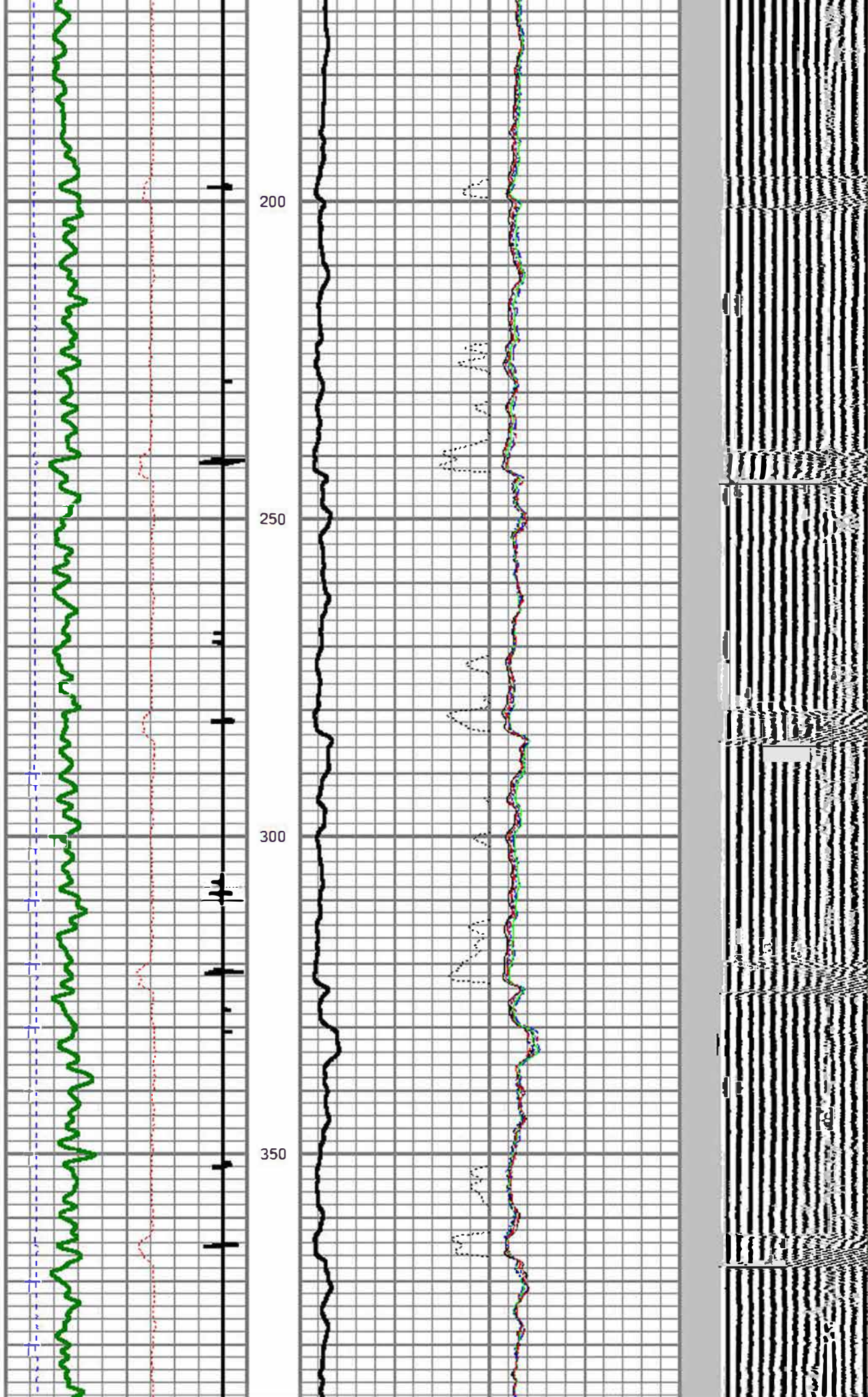
Database File: 2803.db
 Dataset Pathname: pass12
 Presentation Format: scbl03
 Dataset Creation: Sun Jan 25 13:36:03 2015 by Log 0
 Charted by: Depth in Feet scaled 1:240

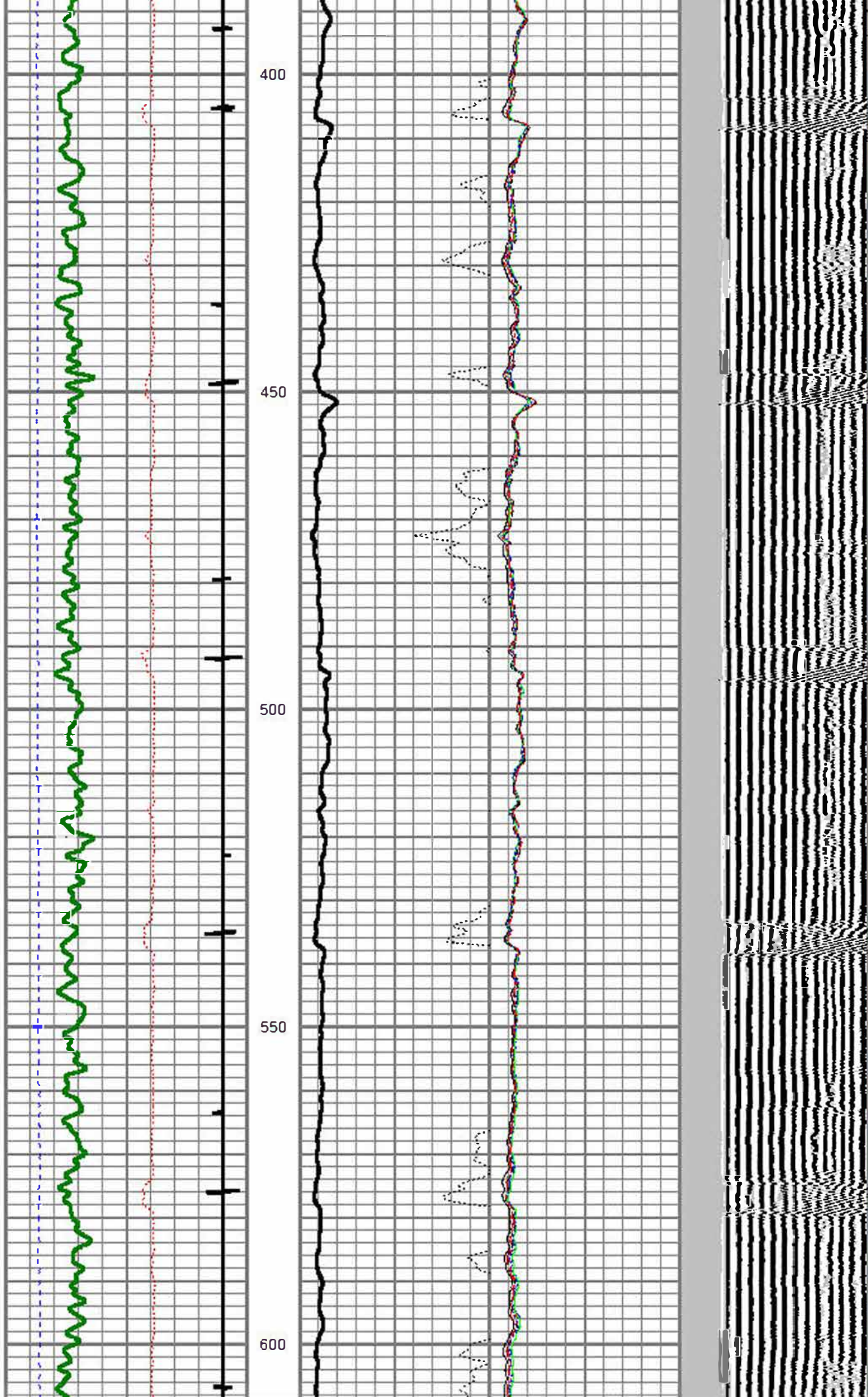
400	Travel Time (usec)	200
9	Casing Collar	-1
0	Gamma Ray (GAPI)	150
0	Line Tension (lb)	2000

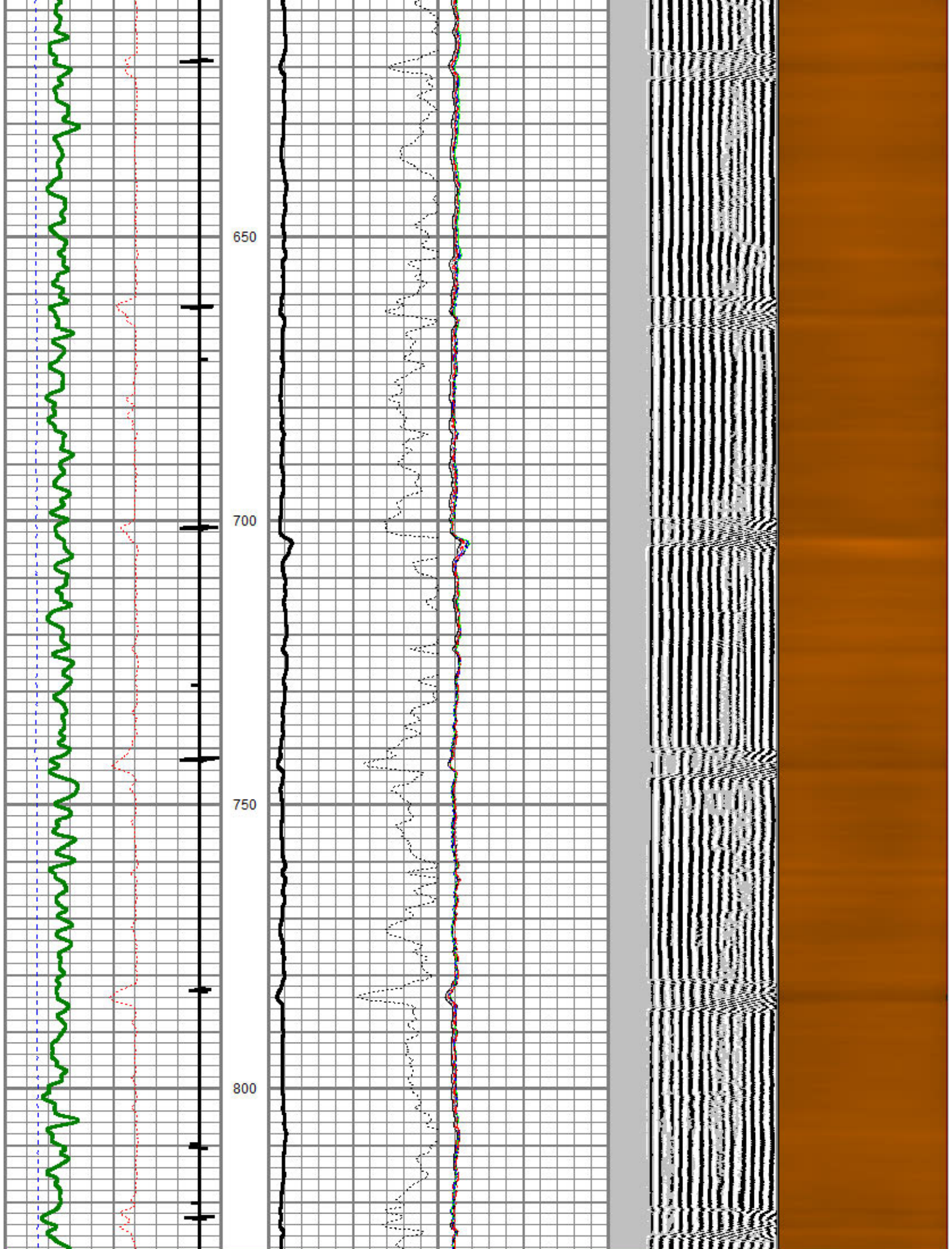
0	Amplitude (mV)	100	-5	AMPS1	150
	Amplified Amplitude		-5	AMPS2	150
0	(mV)	10	-5	AMPS3	150
			-5	AMPS4	150
			-5	AMPS5	150
			-5	AMPS6	150
			-5	AMPS7	150
			-5	AMPS8	150

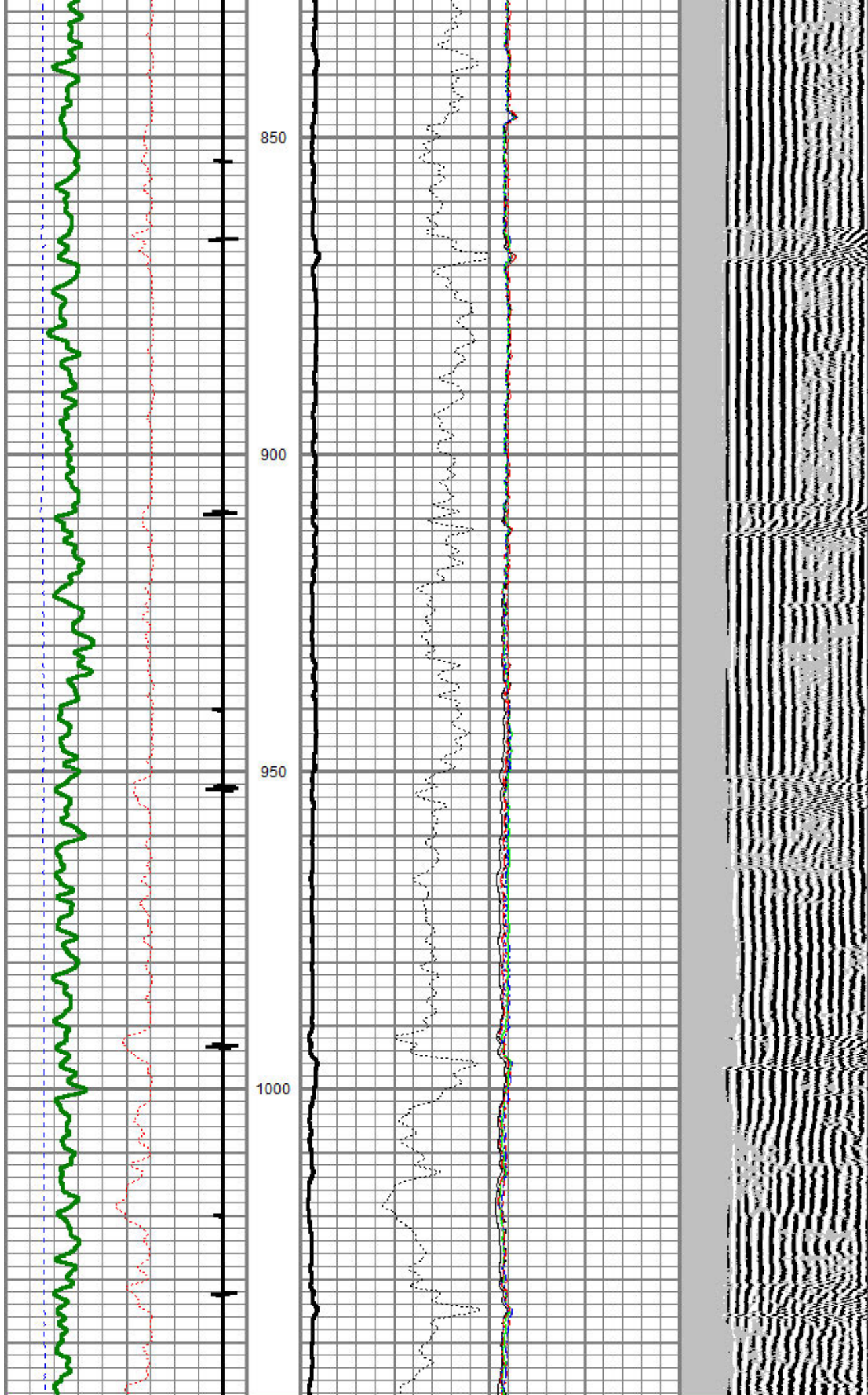
Variable Density	1	Cement Map	8
200	1200	0	100

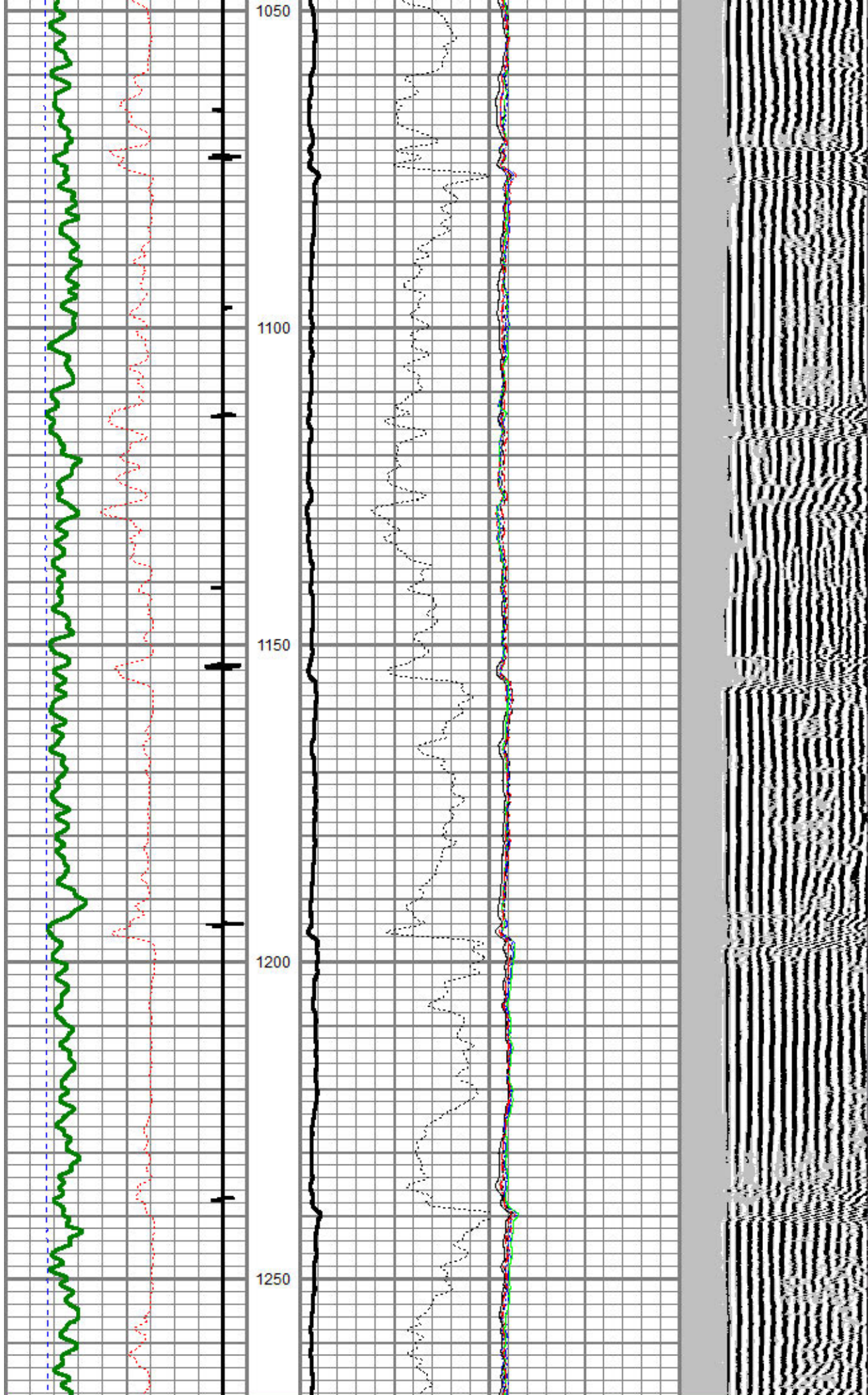


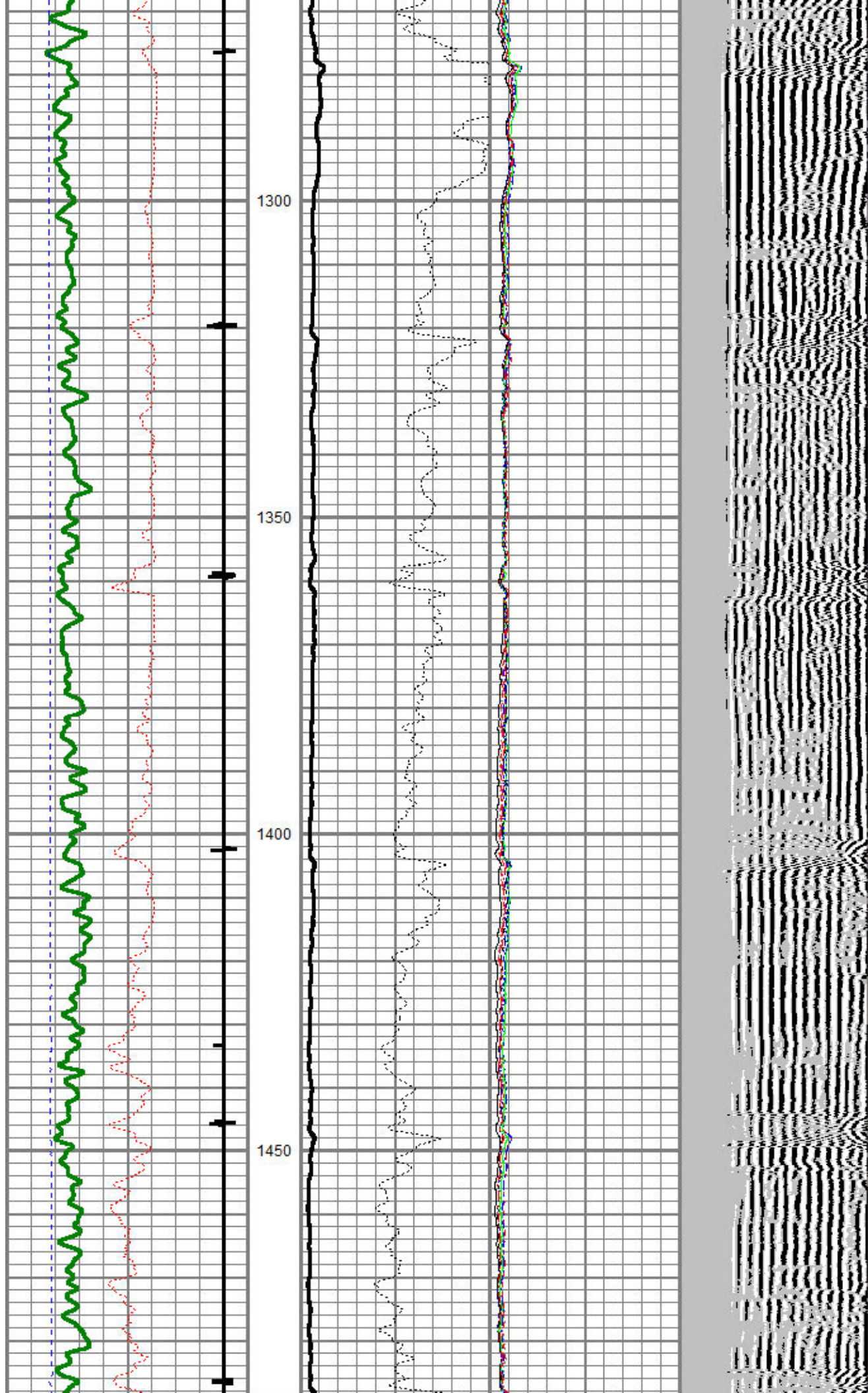


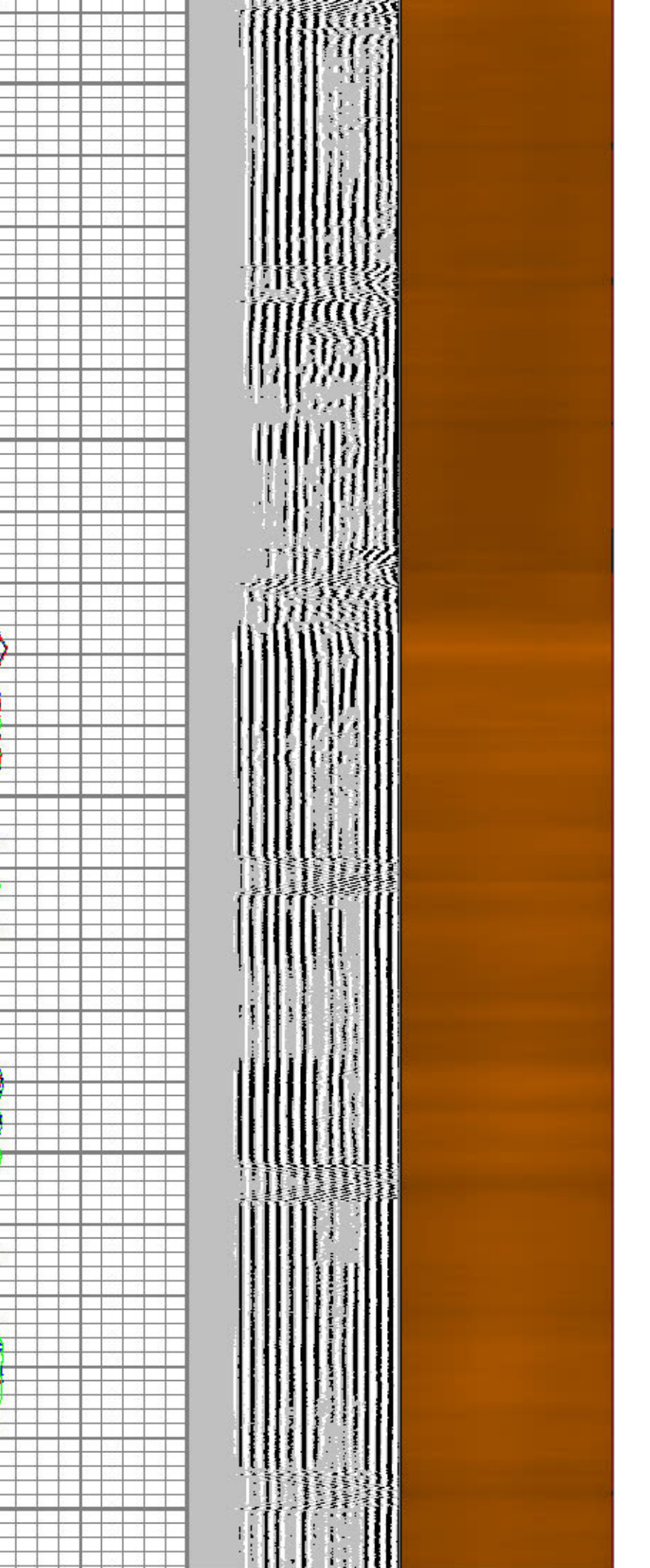
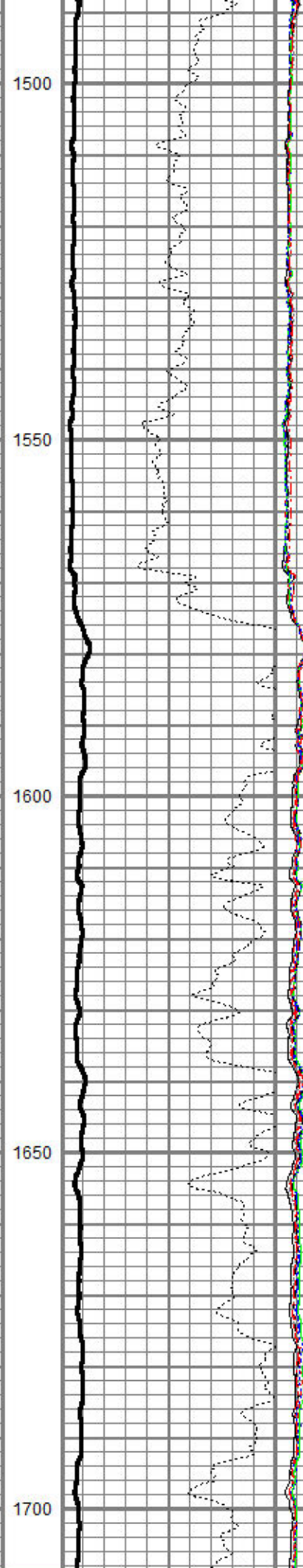
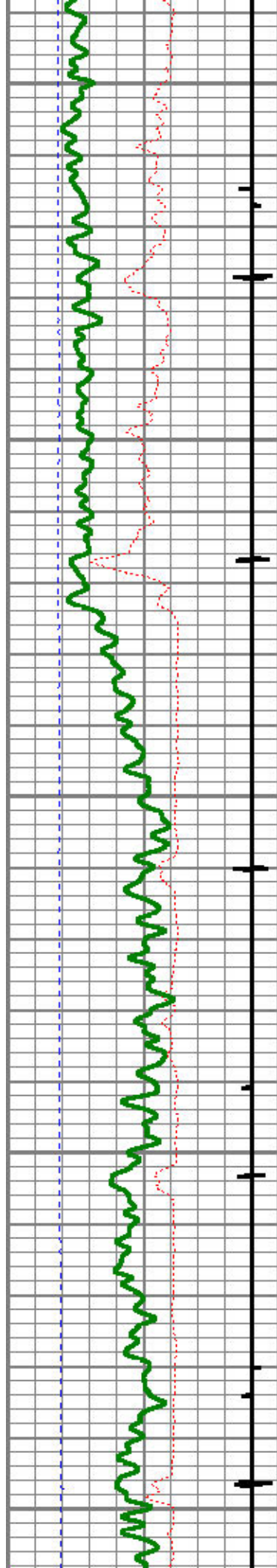


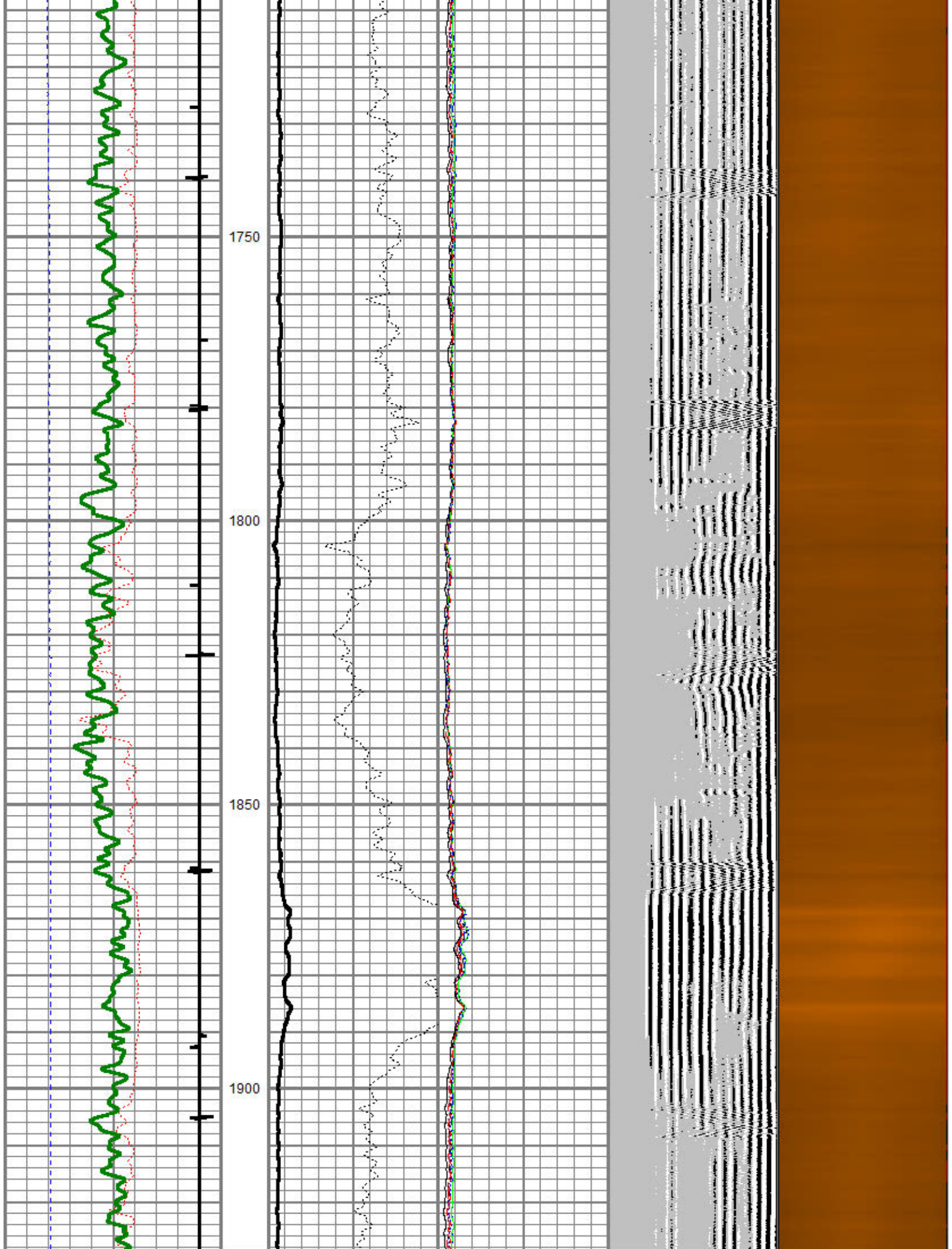


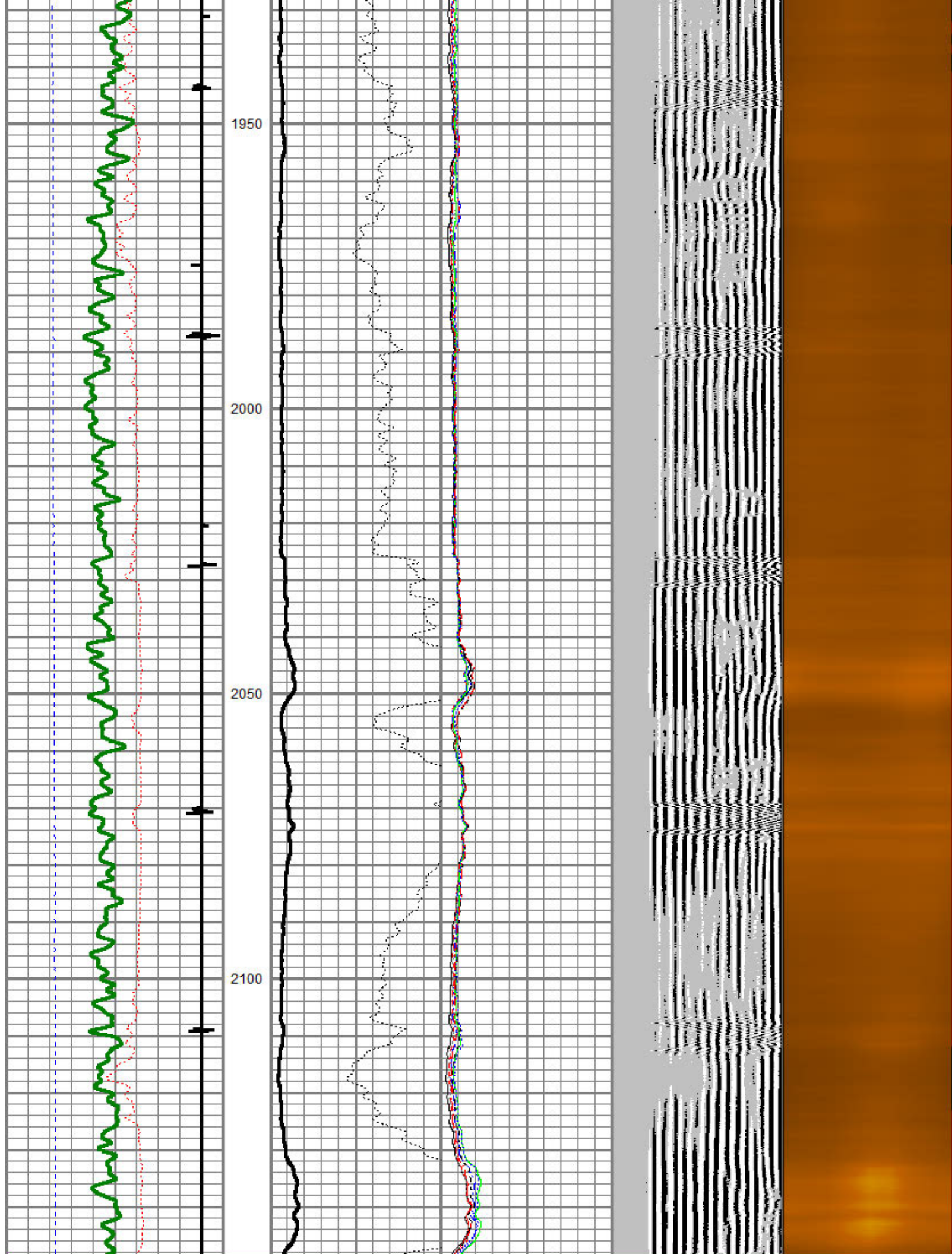


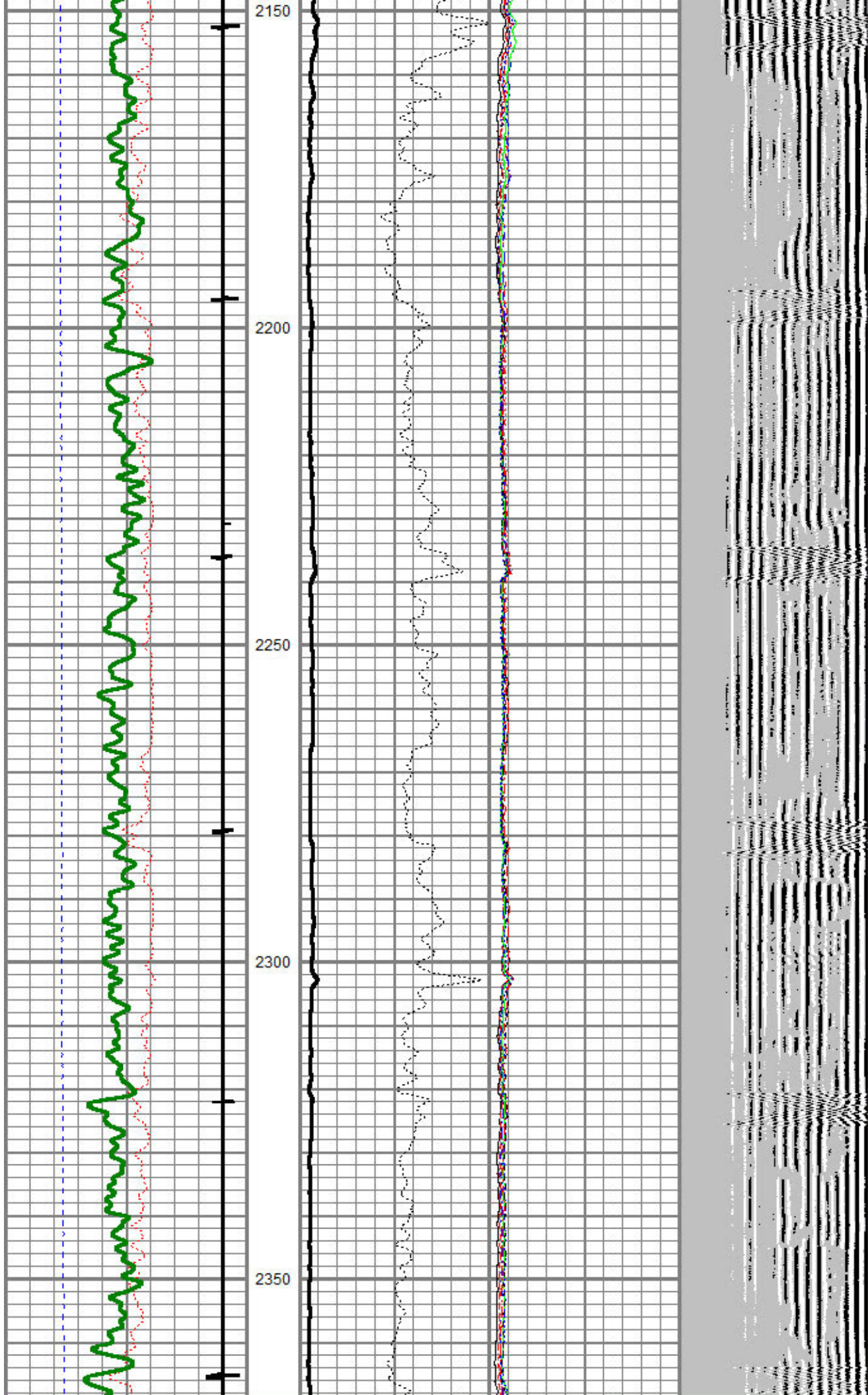


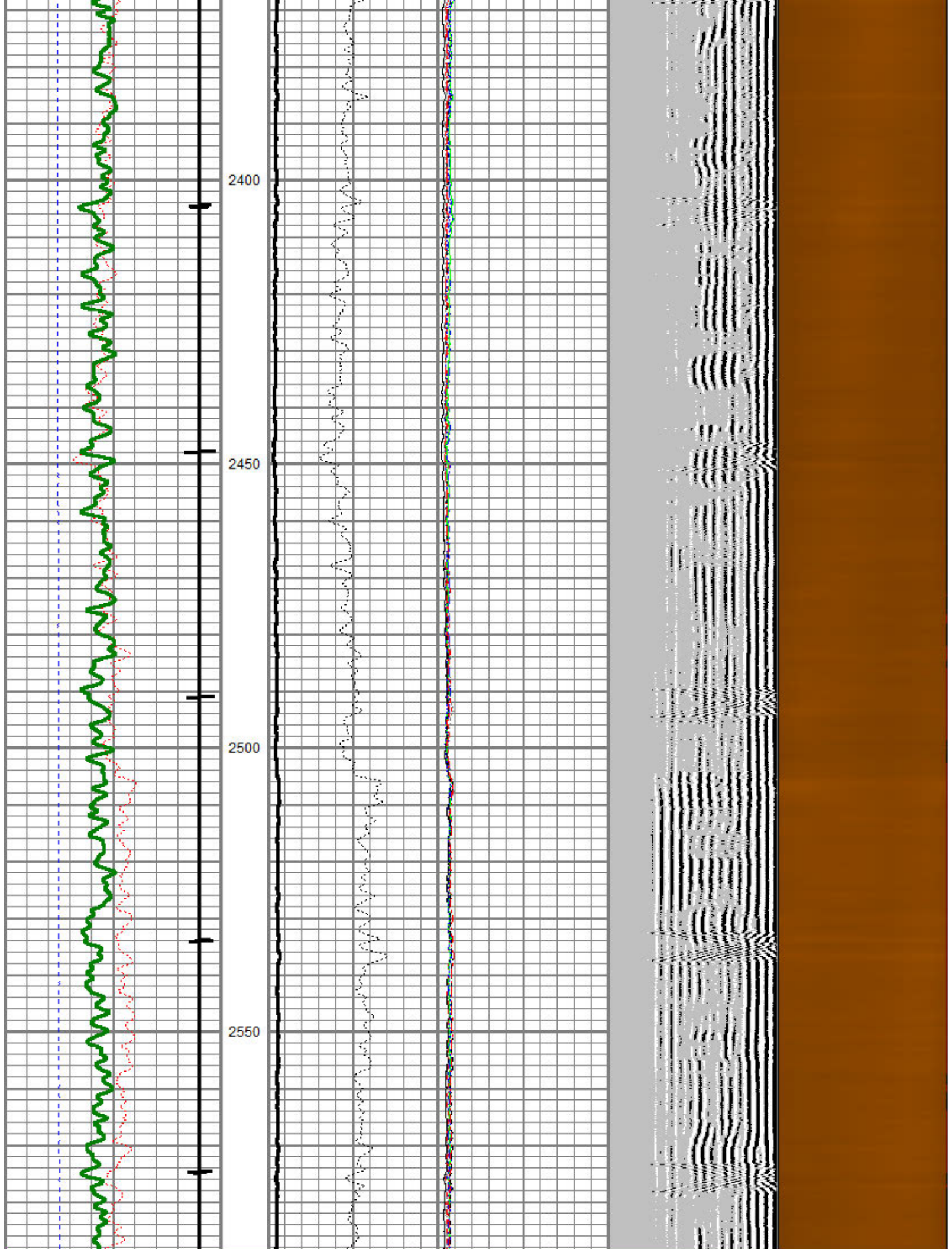


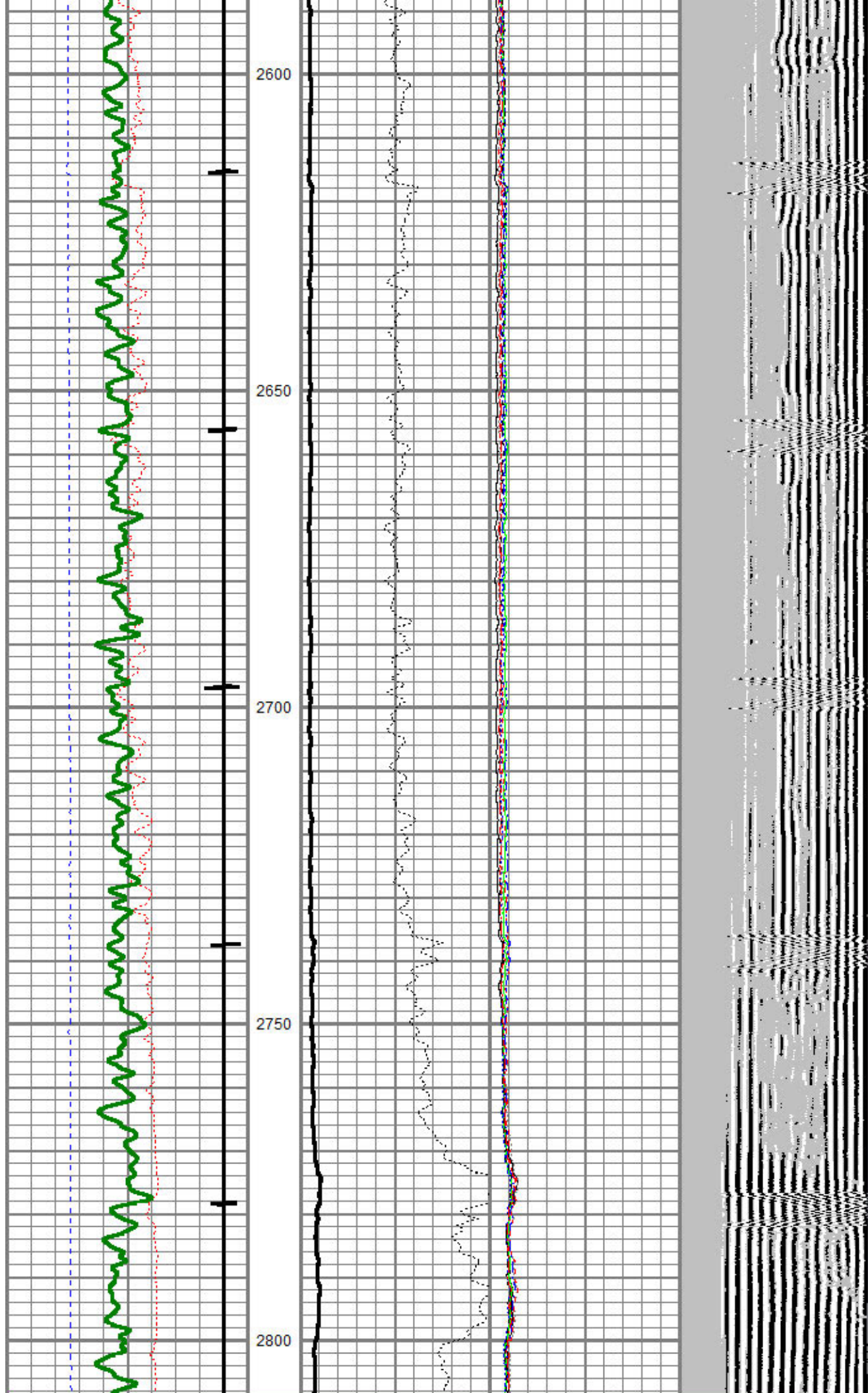


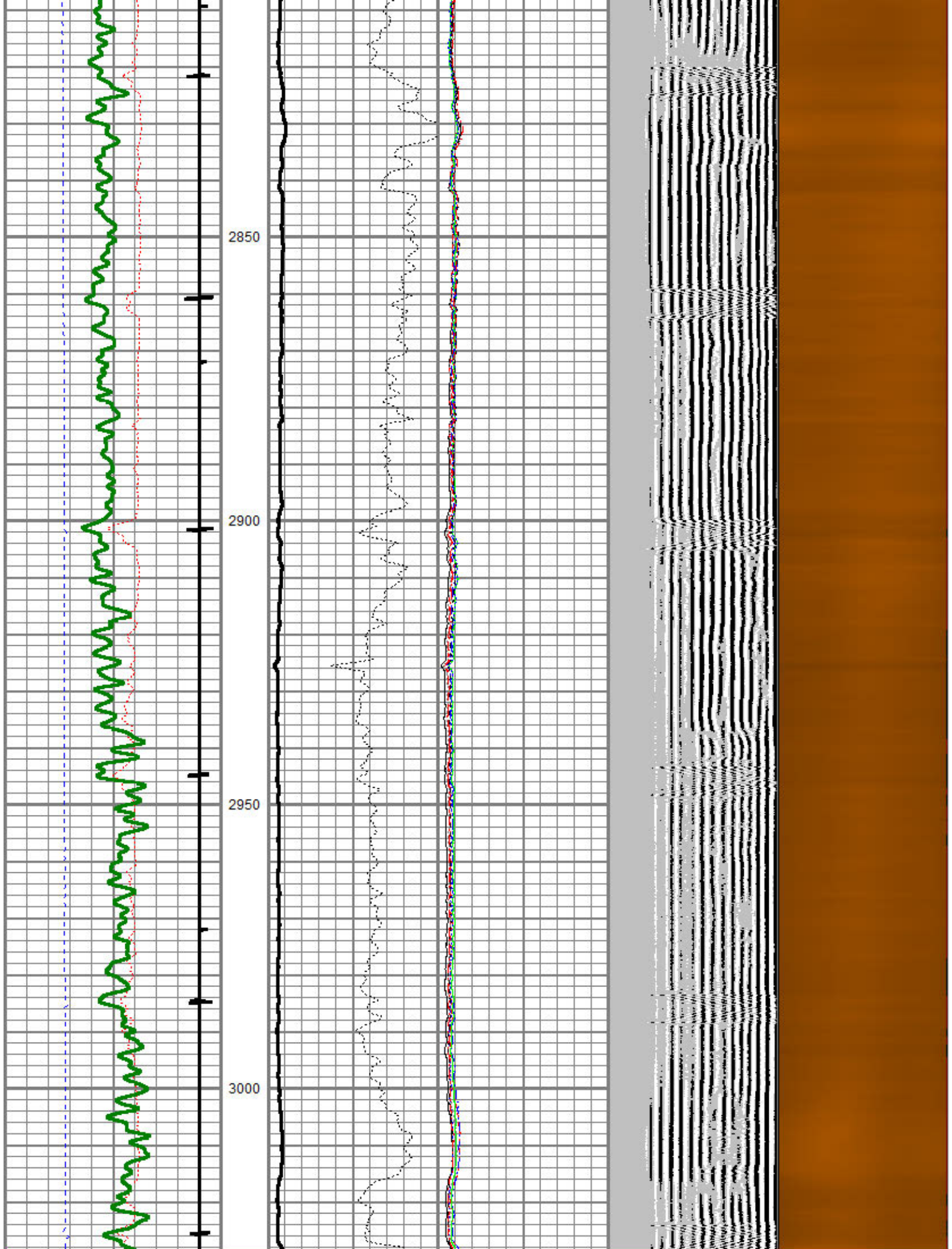


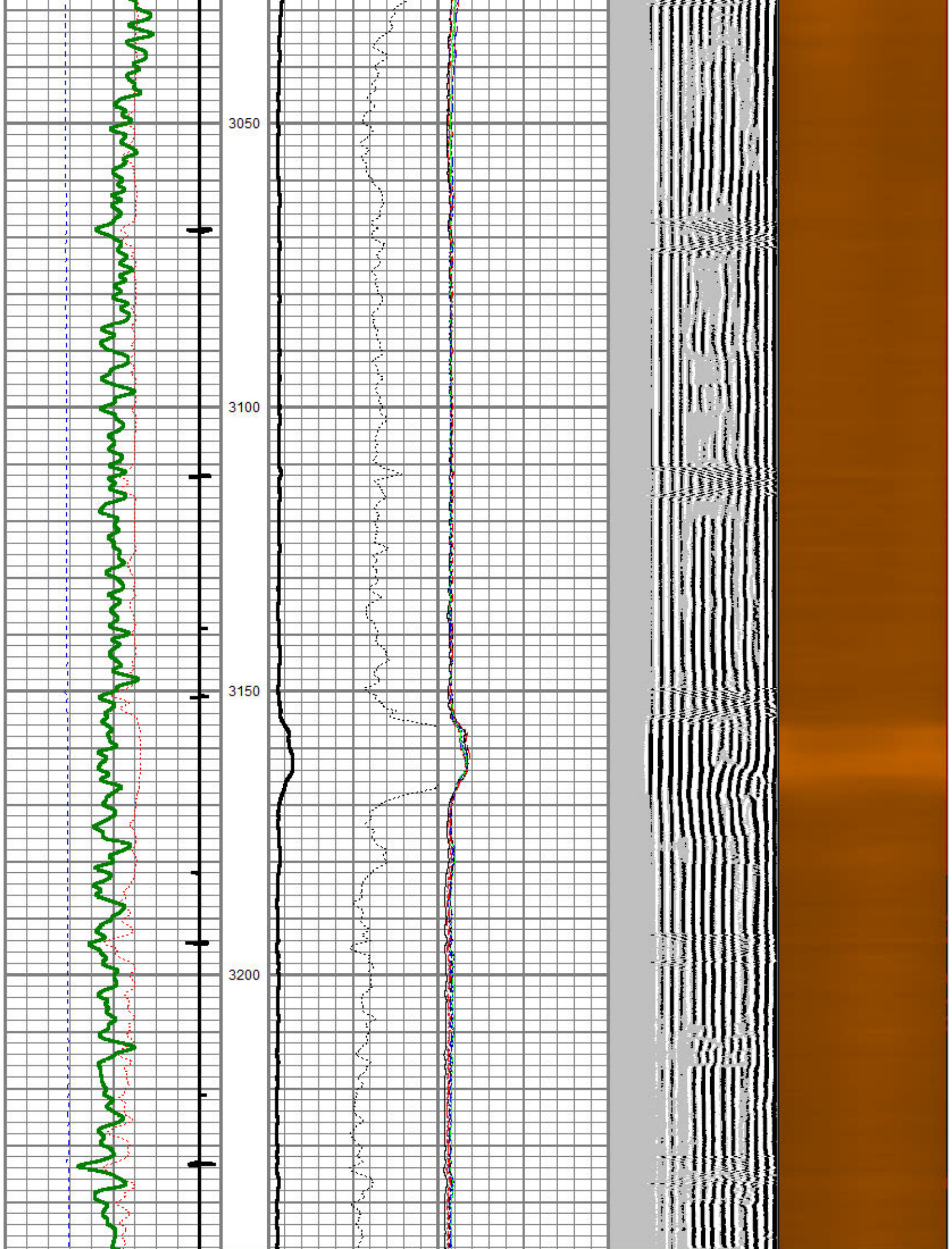


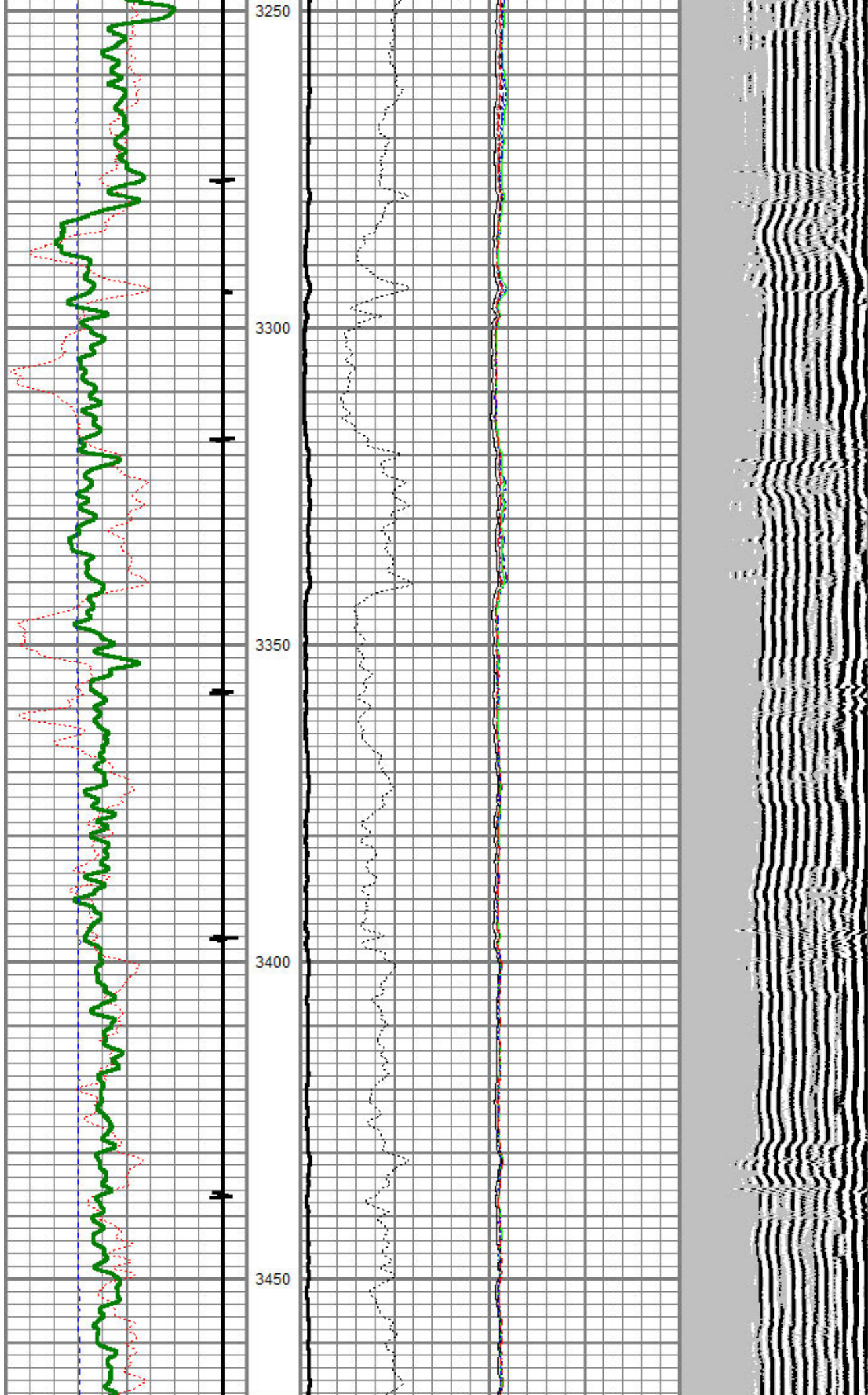


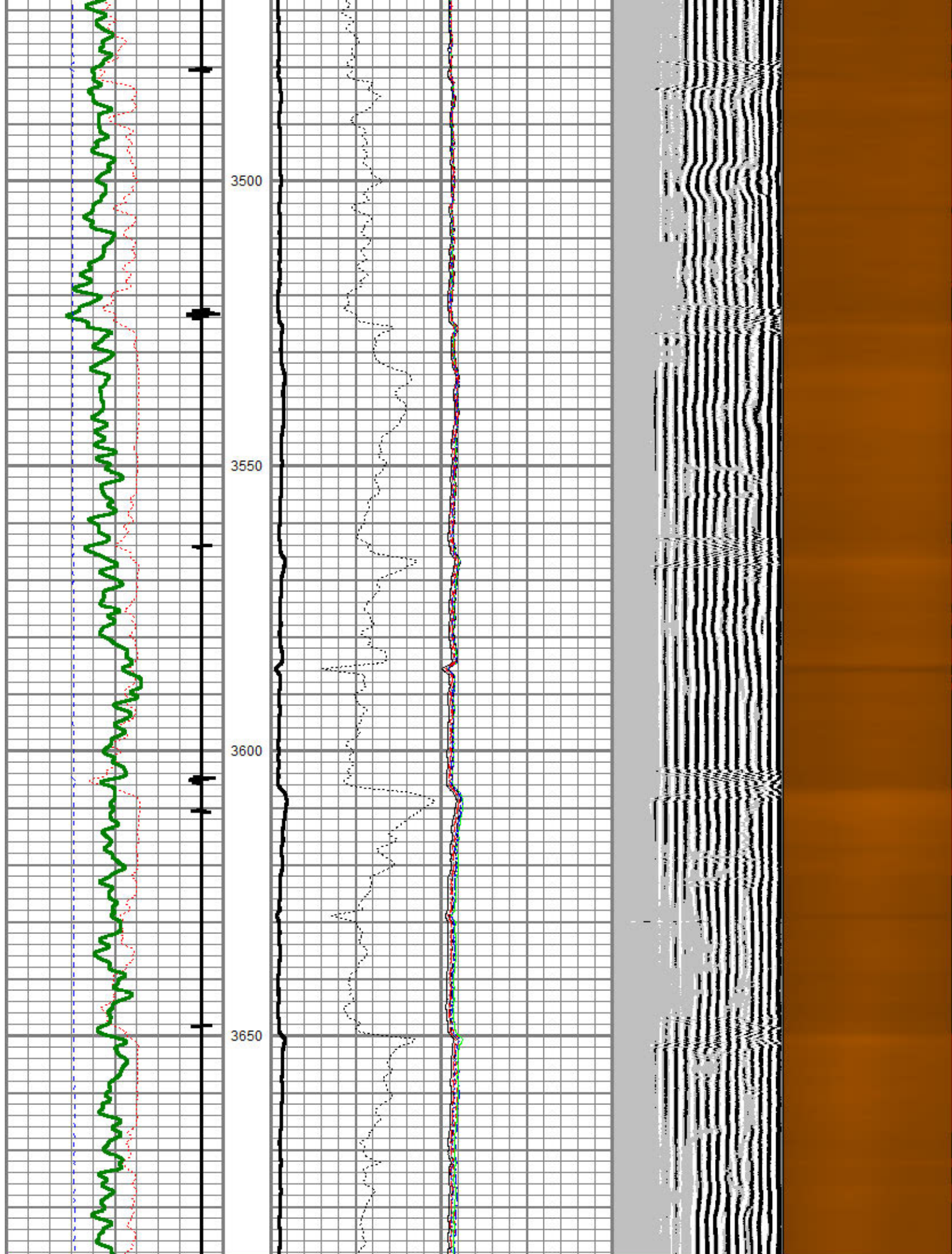


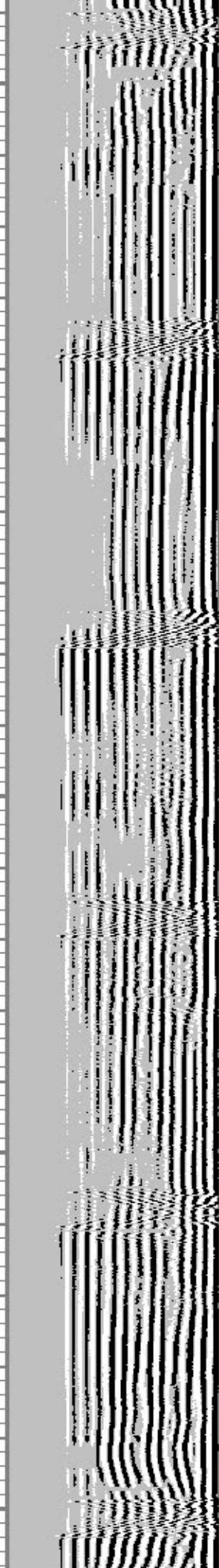
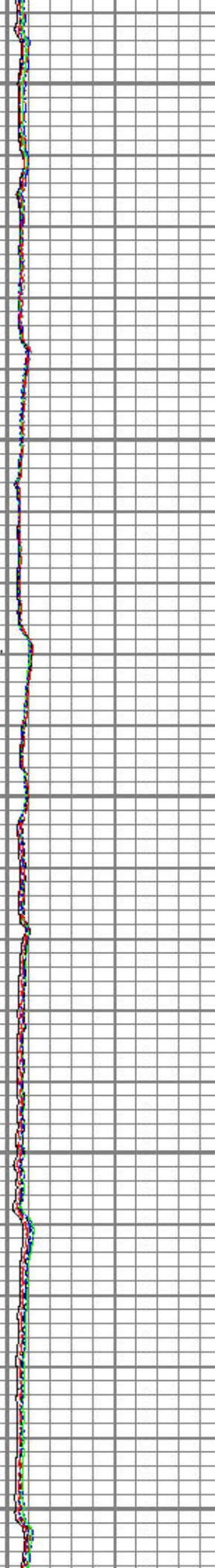
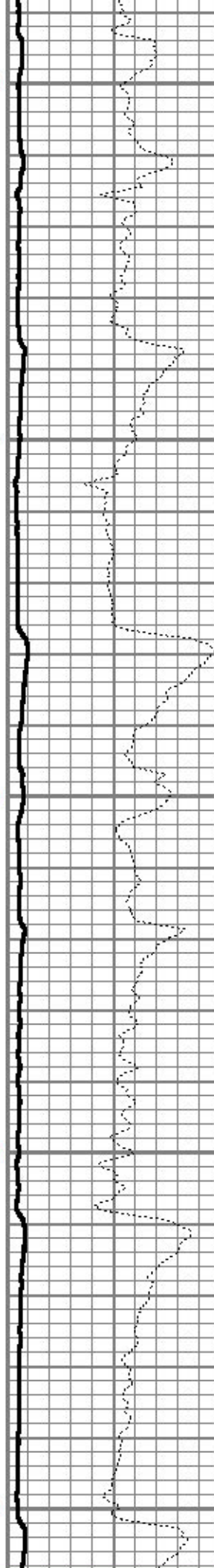
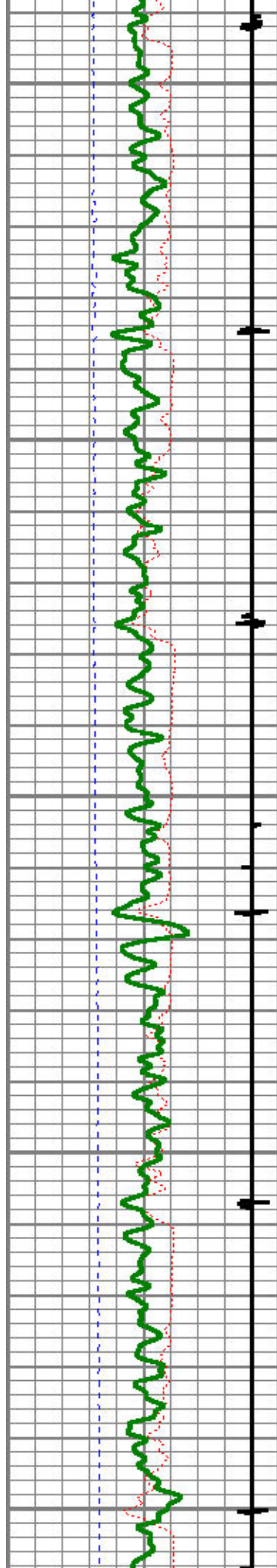


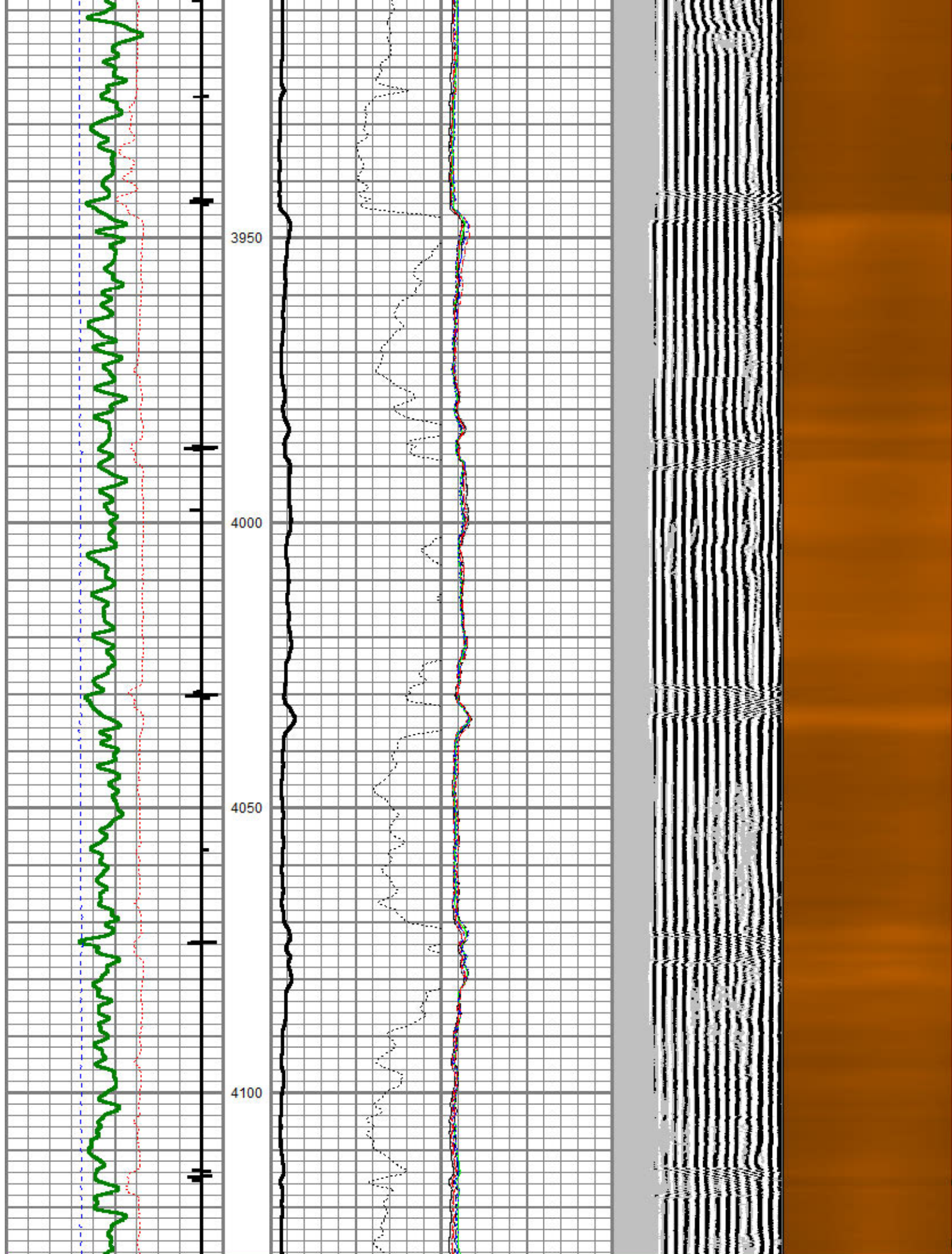


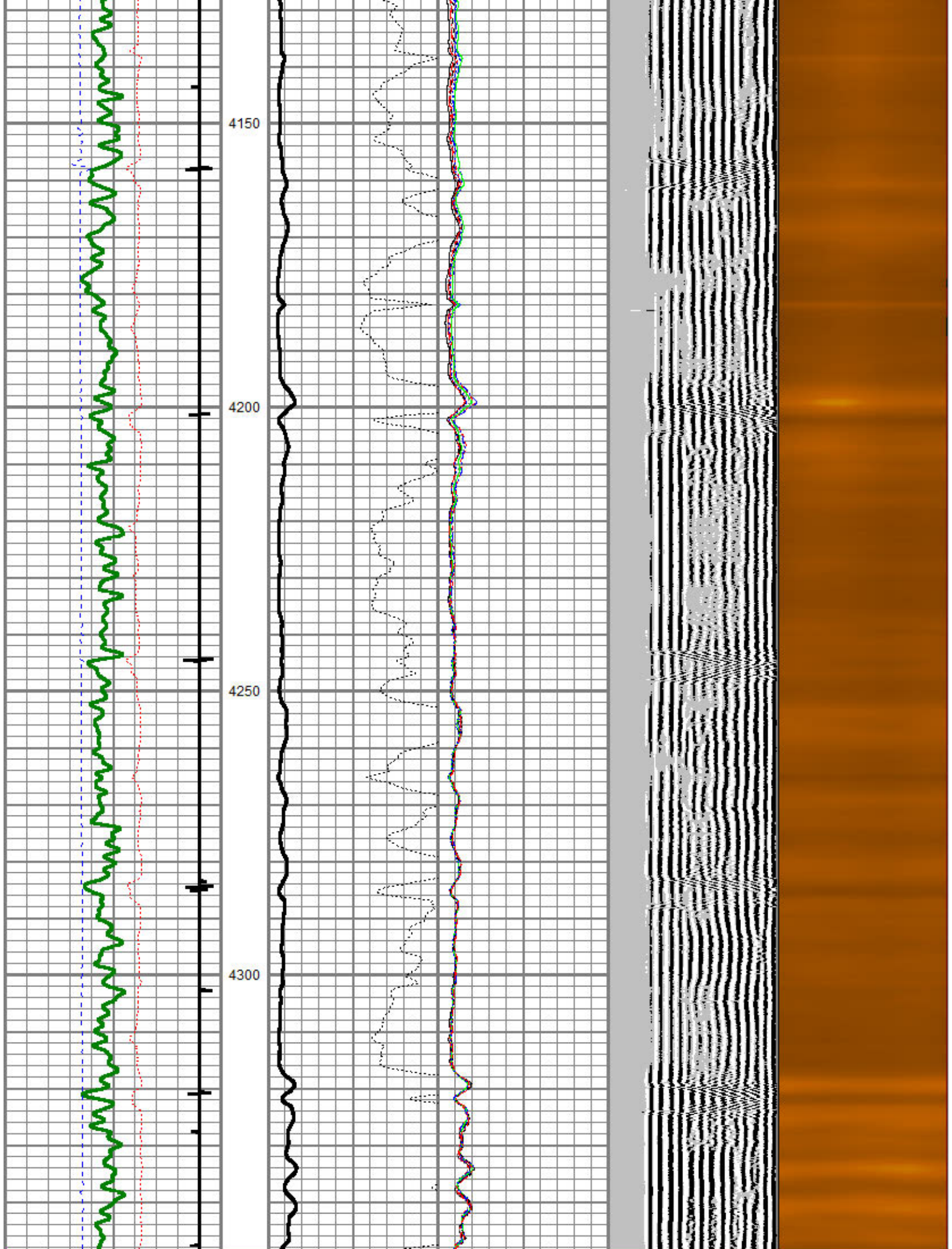


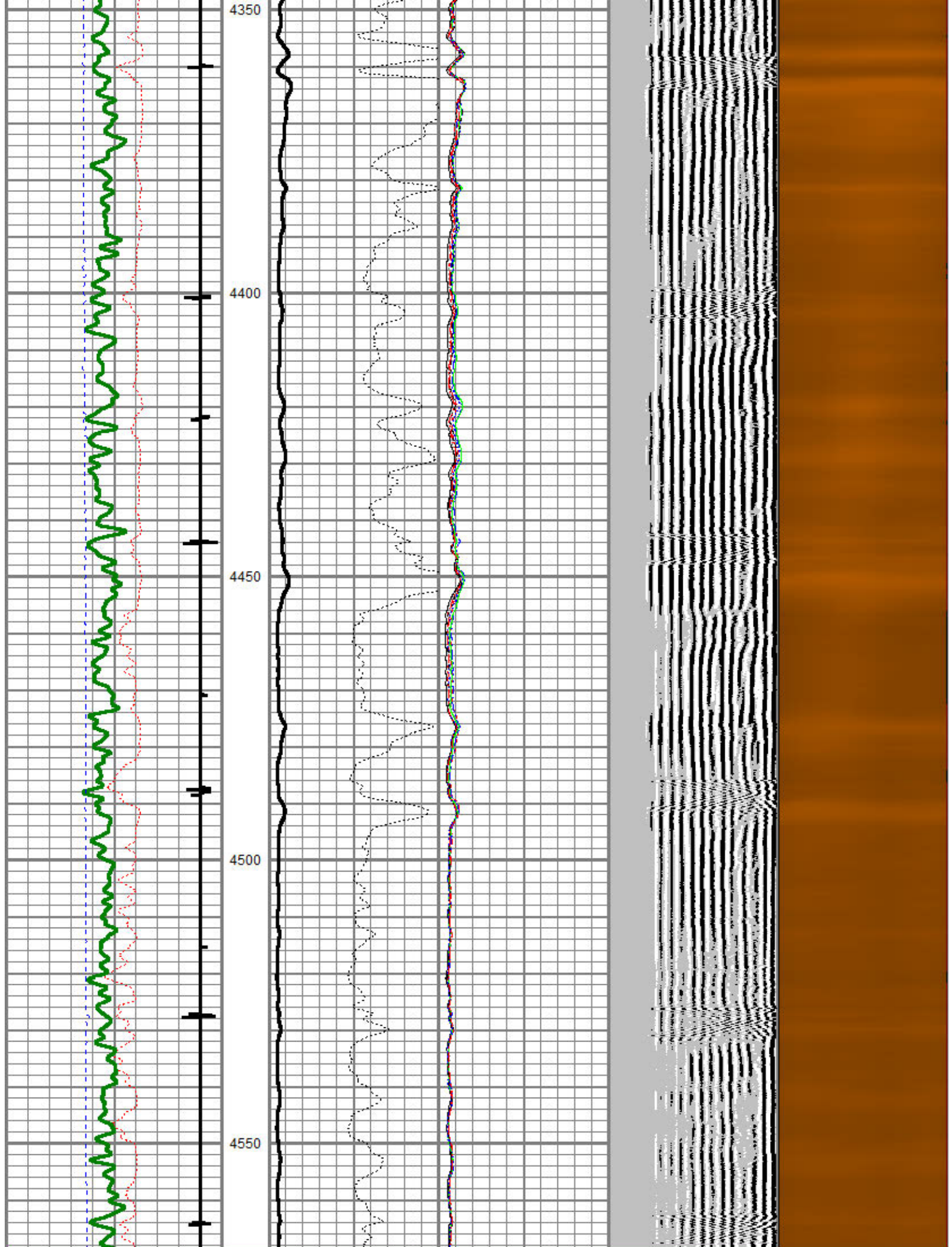


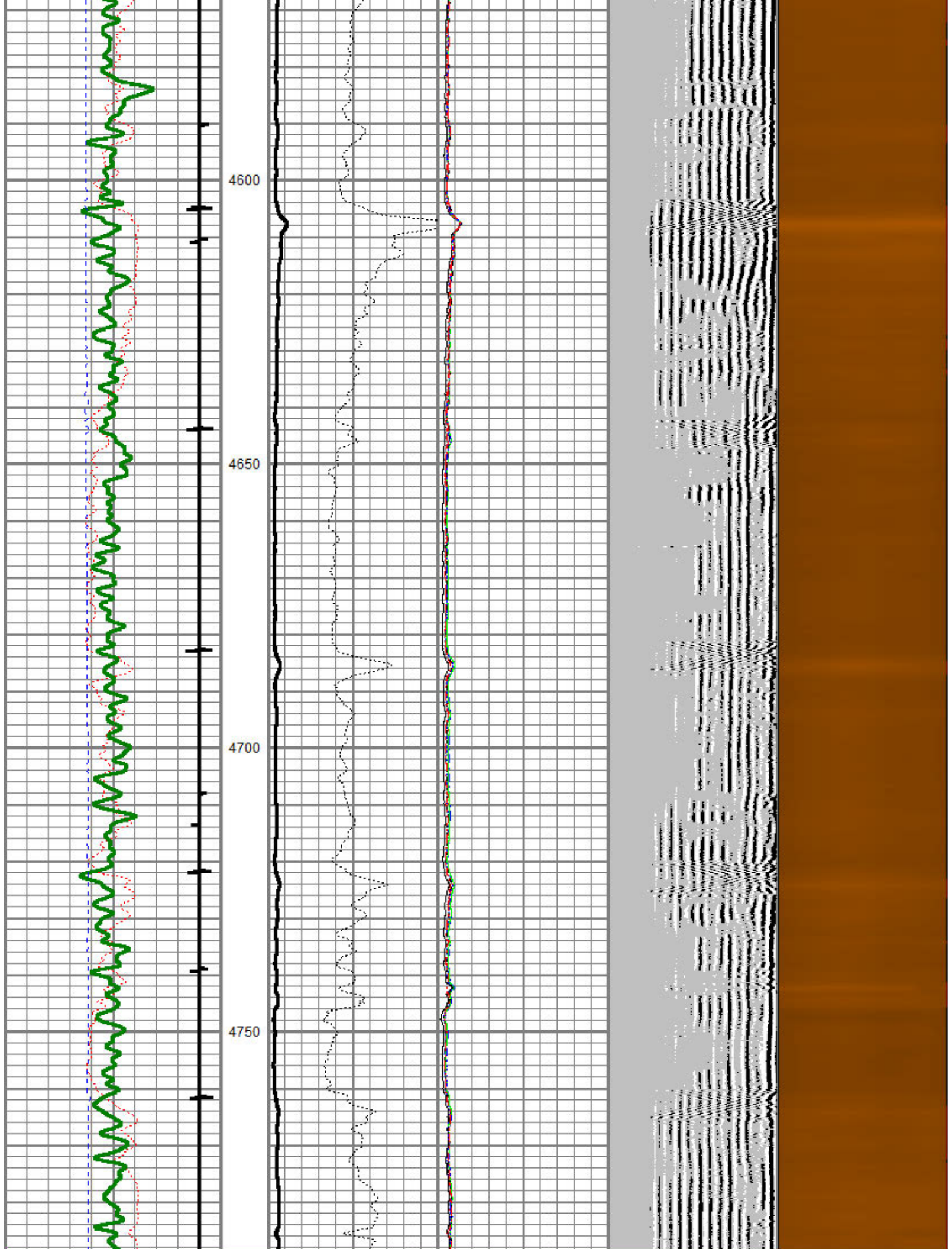


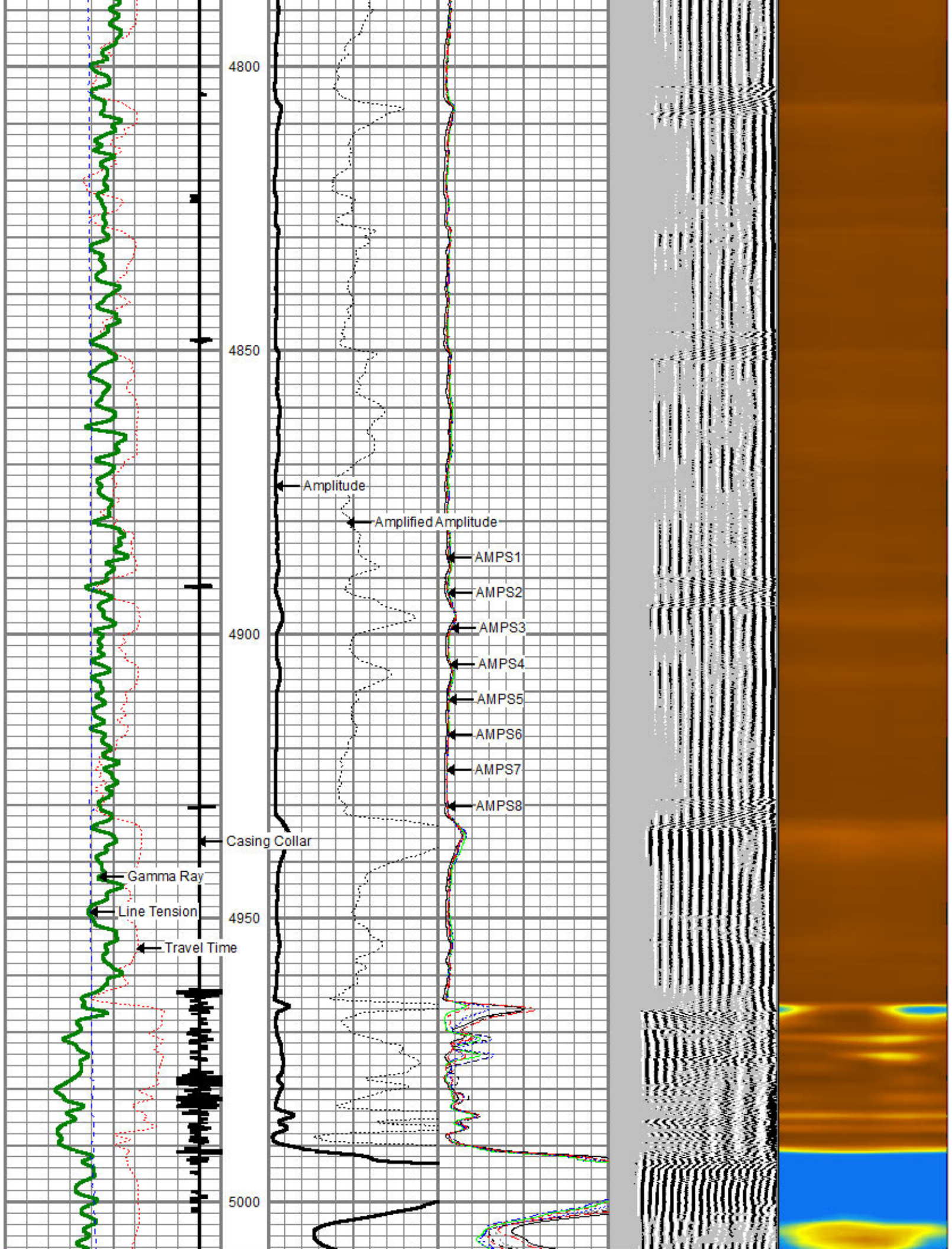


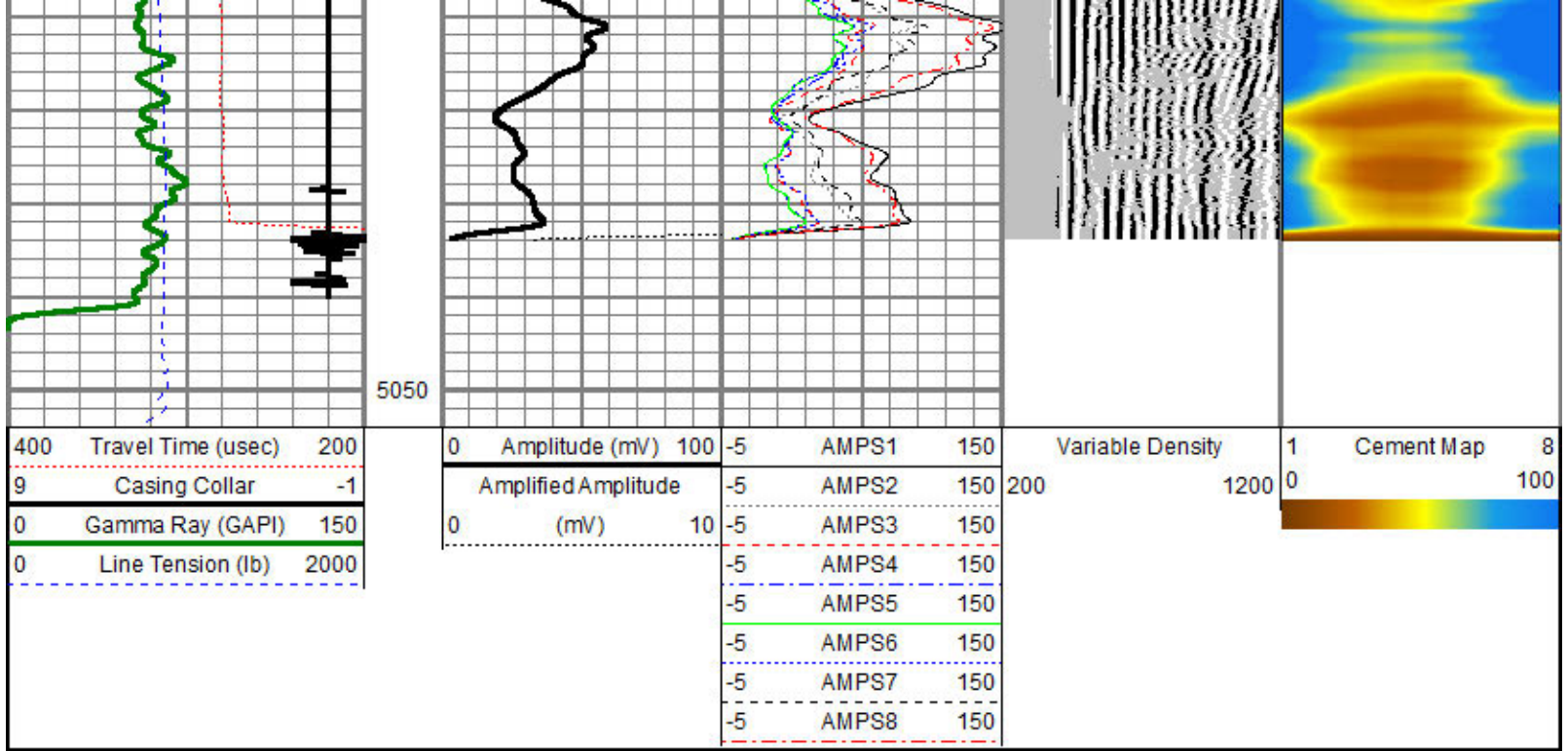






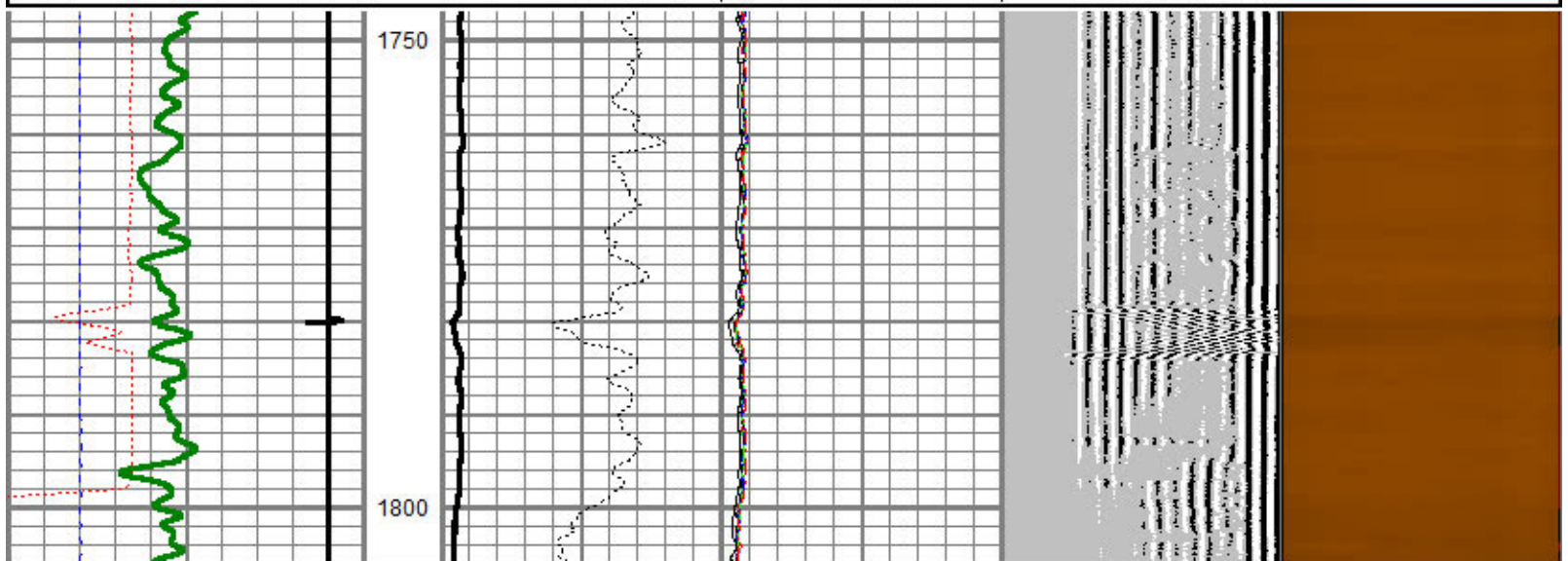
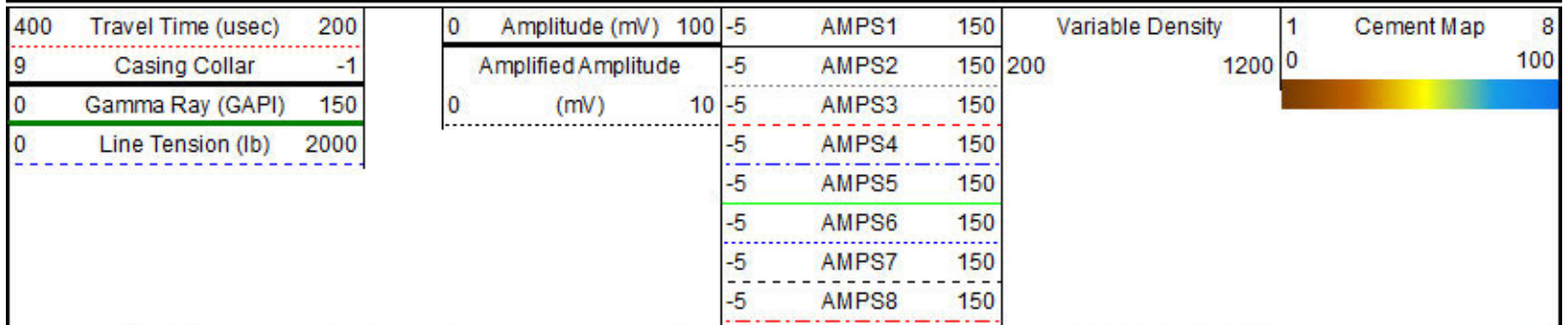


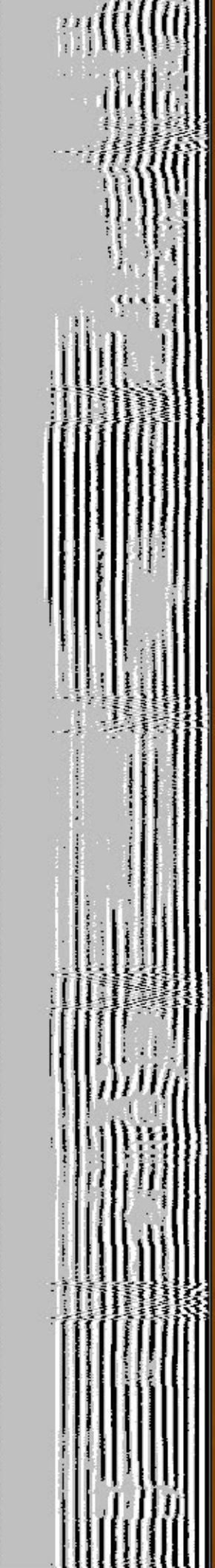
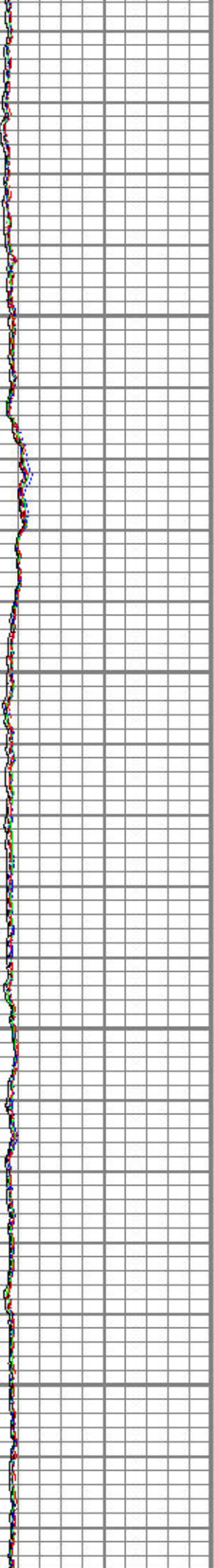
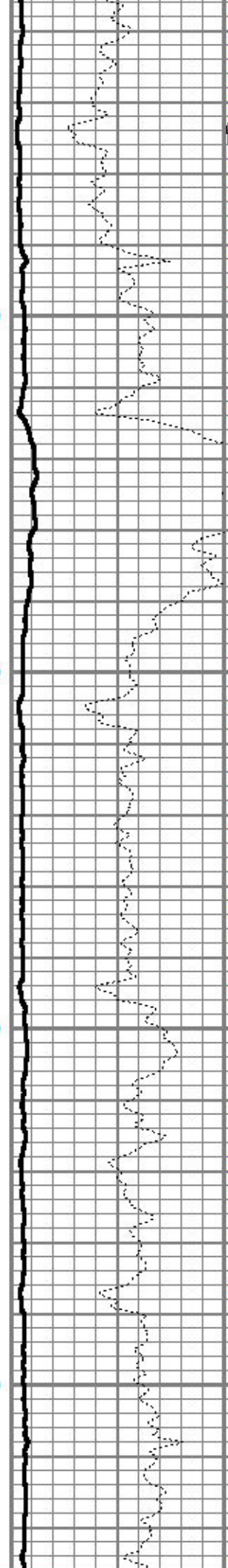
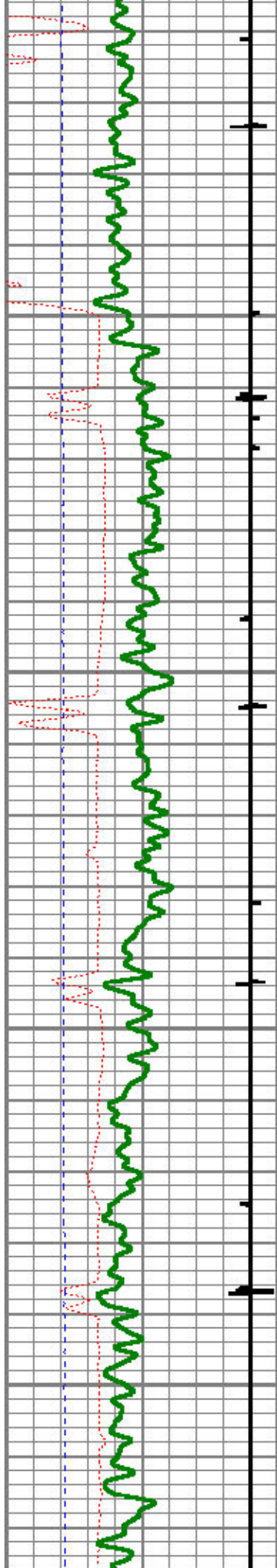


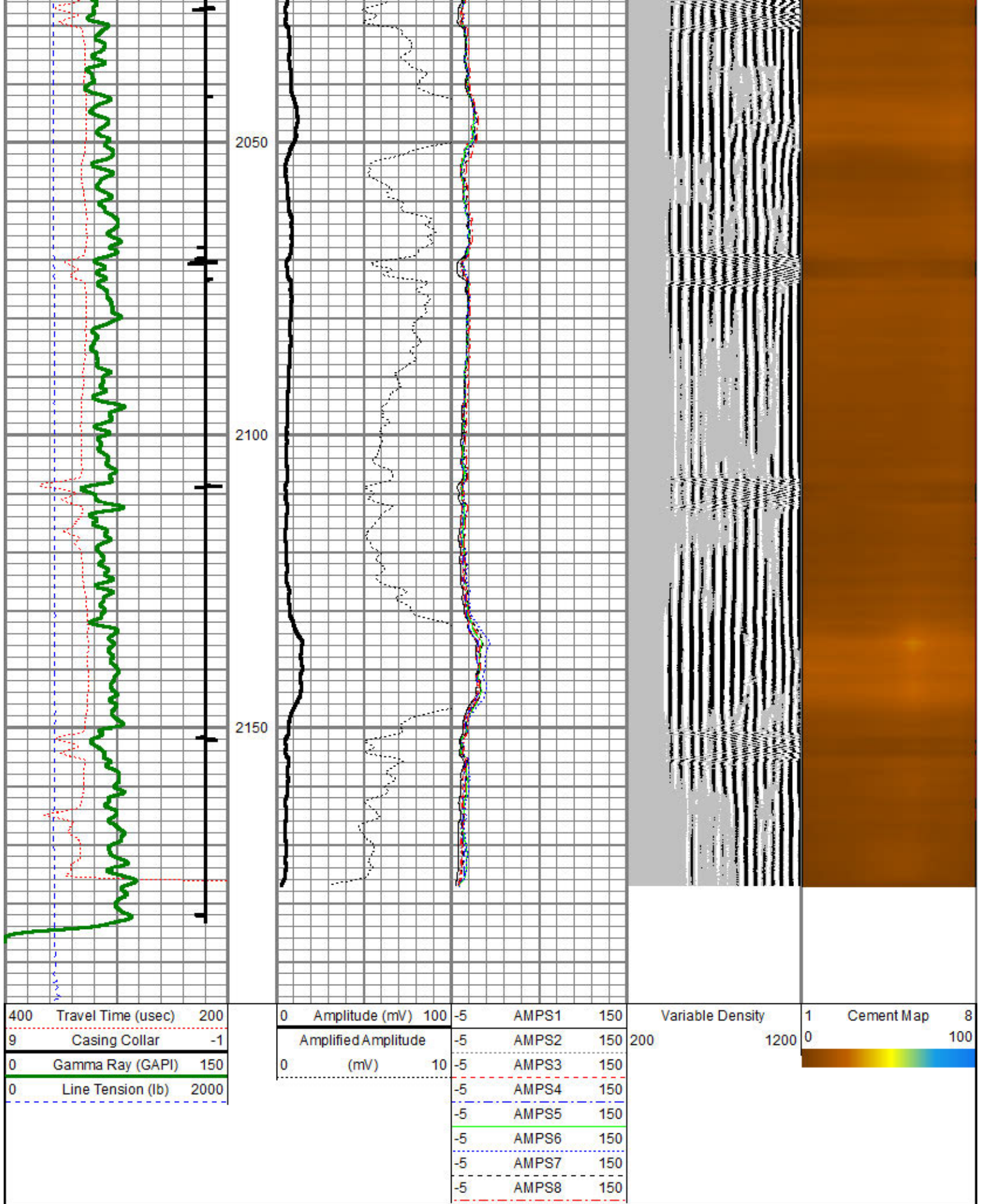


REPEAT PASS

Database File: 2803.db
 Dataset Pathname: pass20
 Presentation Format: scbl03
 Dataset Creation: Sun Jan 25 15:34:54 2015 by Log 0
 Charted by: Depth in Feet scaled 1:240







40 Arm Multi Sensor Caliper Calibration Report

Serial Number: 110814
 Tool Model: 40incl
 Performed: Sat Jan 24 17:08:02 2015

Ref ID: (inches)	3.00	4.00	5.00	6.00	7.00
Arm1	1.61	2.08	2.58	3.09	3.56
Arm2	1.60	2.08	2.57	3.07	3.56
Arm3	1.60	2.06	2.57	3.08	3.54
Arm4	1.61	2.08	2.57	3.07	3.55
Arm5	1.60	2.08	2.58	3.08	3.54
Arm6	1.61	2.09	2.57	3.07	3.55
Arm7	1.62	2.10	2.58	3.08	3.54
Arm8	1.60	2.08	2.58	3.08	3.53
Arm9	1.59	2.05	2.56	3.06	3.51
Arm10	1.61	2.09	2.58	3.07	3.53
Arm11	1.60	2.07	2.58	3.08	3.52
Arm12	1.60	2.10	2.58	3.06	3.54
Arm13	1.61	2.12	2.61	3.09	3.55
Arm14	1.60	2.10	2.58	3.07	3.54
Arm15	1.59	2.09	2.58	3.07	3.53
Arm16	1.60	2.10	2.59	3.07	3.54
Arm17	1.61	2.11	2.61	3.10	3.55
Arm18	1.59	2.11	2.60	3.08	3.56
Arm19	1.61	2.11	2.61	3.12	3.56
Arm20	1.59	2.10	2.59	3.08	3.55
Arm21	1.60	2.12	2.62	3.10	3.56
Arm22	1.62	2.13	2.63	3.12	3.58
Arm23	1.62	2.13	2.63	3.12	3.58
Arm24	1.61	2.12	2.62	3.11	3.59
Arm25	1.61	2.12	2.63	3.10	3.59
Arm26	1.61	2.12	2.62	3.11	3.59
Arm27	1.61	2.11	2.62	3.12	3.58
Arm28	1.61	2.12	2.62	3.12	3.60
Arm29	1.59	2.09	2.60	3.11	3.58
Arm30	1.61	2.11	2.61	3.11	3.60
Arm31	1.62	2.12	2.62	3.12	3.60
Arm32	1.62	2.12	2.61	3.12	3.59
Arm33	1.63	2.11	2.61	3.11	3.59
Arm34	1.60	2.10	2.60	3.11	3.60
Arm35	1.60	2.07	2.59	3.10	3.57
Arm36	1.60	2.09	2.58	3.09	3.57
Arm37	1.62	2.11	2.60	3.09	3.59
Arm38	1.61	2.09	2.58	3.09	3.58
Arm39	1.61	2.07	2.58	3.09	3.57
Arm40	1.61	2.08	2.57	3.06	3.57

* = Bad Arm Flag

Inclinometer Calibration Report

Performed:	Sat Jan 24 17:34:08 2015				
	Low Read.	High Read.	Low Ref.	High Ref.	
X Accelerometer	-3710.00	3588.00	-1.00	1.00	gee
Y Accelerometer	-3668.00	3670.00	-1.00	1.00	gee
Z Accelerometer	15.38	3636.62	0.00	1.00	gee

Gamma Ray Calibration Report

Serial Number: FW1311-4
Tool Model: Probe275
Performed: Sat Jan 24 17:41:23 2015

Calibrator Value: 1022.0 GAPI
Background Reading: 71.7 cps
Calibrator Reading: 1479.2 cps
Sensitivity: 0.7261 GAPI/cps

Segmented Cement Bond Log Calibration Report

Serial Number: FW1408-26
Tool Model: RBTC3
Calibration Casing Diameter: 5.500 in
Calibration Depth: 59.255 ft

Master Calibration, performed Sat Jan 24 17:58:31 2015:

	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3'	-0.013	0.929	2.000	71.921	74.222	2.944
CAL	-0.015	1.022				
5'	-0.017	0.934	2.000	71.921	73.574	3.239
SUM						
S1	0.045	0.941	0.000	100.000	120.000	-0.563
S2	-0.011	0.945	0.000	100.000	104.590	1.149
S3	-0.012	0.935	0.000	100.000	105.598	1.275
S4	-0.018	0.929	0.000	100.000	105.666	1.873
S5	-0.016	0.928	0.000	100.000	105.964	1.674
S6	-0.012	0.930	0.000	100.000	106.113	1.269
S7	-0.011	0.931	0.000	100.000	106.117	1.193
S8	-0.017	0.938	0.000	100.000	104.654	1.787

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	-0.015	1.022	1.000	0.000

Air Zero Calibration, performed Mon Dec 15 09:56:27 2014:


	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: FW1408-26
Tool Model: RBTC3
Performed: Sun Jun 13 13:33:21 1993

Low Reference:	0.00	degF	0.00	degC
High Reference:	1.00	degF	1.00	degC
Gain:	1.00			
Offset:	0.00			
Delta Spacing	1			

Sensor	Offset (ft)	Schematic	Description	Len (ft)	OD (in)	Wt (lb)
			PTS275	2.83	2.75	
			RBT-RBTC3 (FW1408-26)	9.25	2.75	100.00
WVF3FT	20.80					
WVFCAL	20.80					
WVFS1	20.80					
WVFS2	20.80					
WVFS3	20.80					
WVFS4	20.80					
WVFS5	20.80					
WVFS6	20.80					
WVFS7	20.80					
WVFS8	20.80					
WVF5FT	19.80					
TEMP	16.55					
CCL	13.59					
GR	12.26					
			GR-Probe275 (FW1311-4) Probe 2 3/4" Logging Gamma Ray	4.00	2.75	57.00
			PTS275	2.83	2.75	
ACCX	5.00					
ACCY	5.00					
ACCZ	5.00					
			Probe_MFCAL-40incl (110814)	6.89	2.75	50.00
ETEMP	2.00					

Meas	1.25				
Dataset: 2803.db: field/well/run1/pass12 Total Length: 28.64 ft Total Weight: 207.00 lb O.D. 3.71 in					



Company WHITING PETOLEUM

Well RAZOR 33M-2803

Field WILDCAT

County WELD

State COLORADO