



Radial Cement Bond
Gamma Ray CCL
Temperature Log

Company Antero Resources Corporation Well Calhoun Unit 2H Field South Canton County Doddridge State WV	Company Antero Resources Corporation			
	Well Calhoun Unit 2H			
	Field South Canton			
	County Doddridge		State WV	
	API # : 47-017-06912-00-00 AFE # : A11779 Location (LAT,LON): 39.314612, -80.762762 Township: West Union			Other Services None
Permanent Datum Ground Level Elevation 1216' Log Measured From KB = 30' Drilling Measured From KB			Elevation K.B. 1246' D.F. 1246' G.L. 1216'	
Date	16 JUL 2022			
Run Number	One			
Depth Driller (ft)	16278			
Depth Logger (ft)	7126			
Bottom Logged Interval (ft)	7114			
Top Log Interval	Surface			
Open Hole Size (in)	8.5			
Type Fluid	Water			
Density / Viscosity (lb/gal)	8.4			
Max. Recorded Temp. (°F)	151.1			
Estimated Cement Top (ft)	2570			
Time Well Ready	12:00 PM			
Time Logger on Bottom	08:05 PM			
Equipment Number	8018			
Location	Delmont, PA			
Recorded By	T. Trump			
Witnessed By	M. Johnson			
Casing Record	Size (in)	Weight (lb/ft)	Top (ft)	Bottom (ft)
Conductor String	20	78.67	Surface	130
Surface String	13.375	54.5	Surface	330
Intermediate String	9.625	36	Surface	2556
Production String	5.5	23	Surface	16263
Inclination Information (Approximated Values from Directional Survey)				
KOP	30°	60°	90°	
6430'	6680'	6970'	7300'	
THANK YOU FOR USING GR ENERGY SERVICES				

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 Correlated to Bottom Log Marker Joint
Log Adjusted -0.25'
Marker Joint Located @ 6130' - 6141'

Maximum Temperature Recorded was 151.1°F
Maximum Tension 1150 lbs

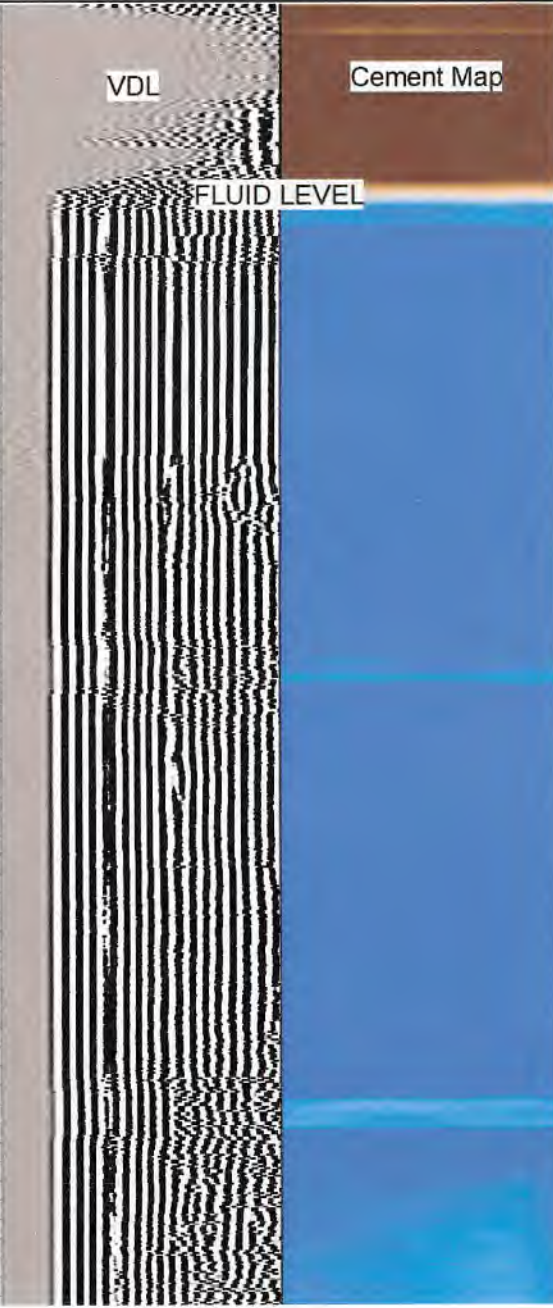
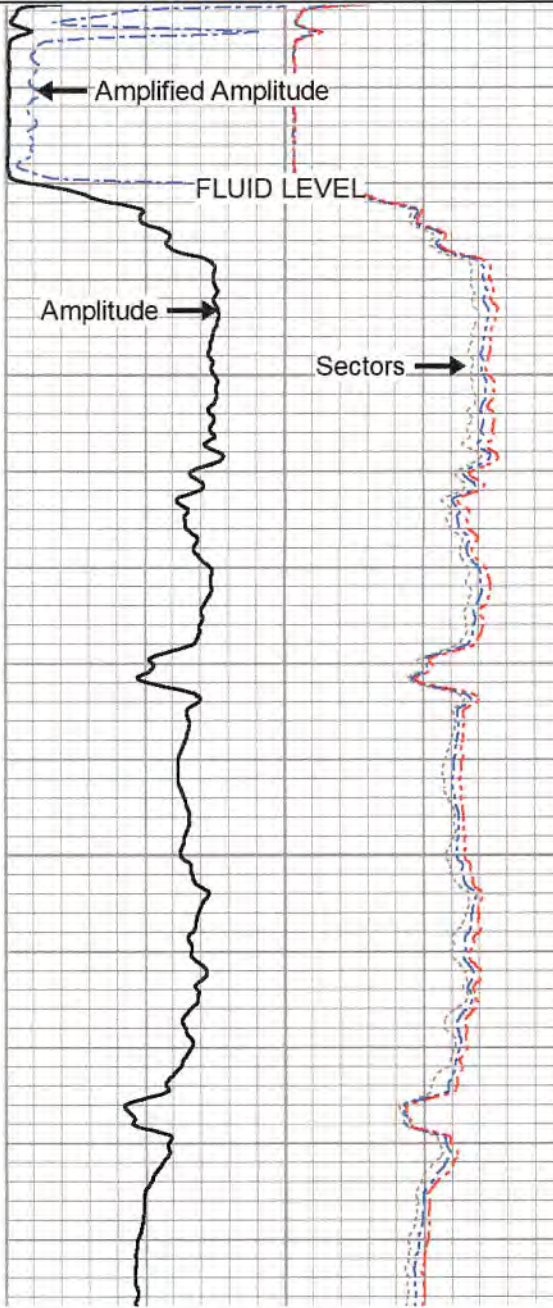
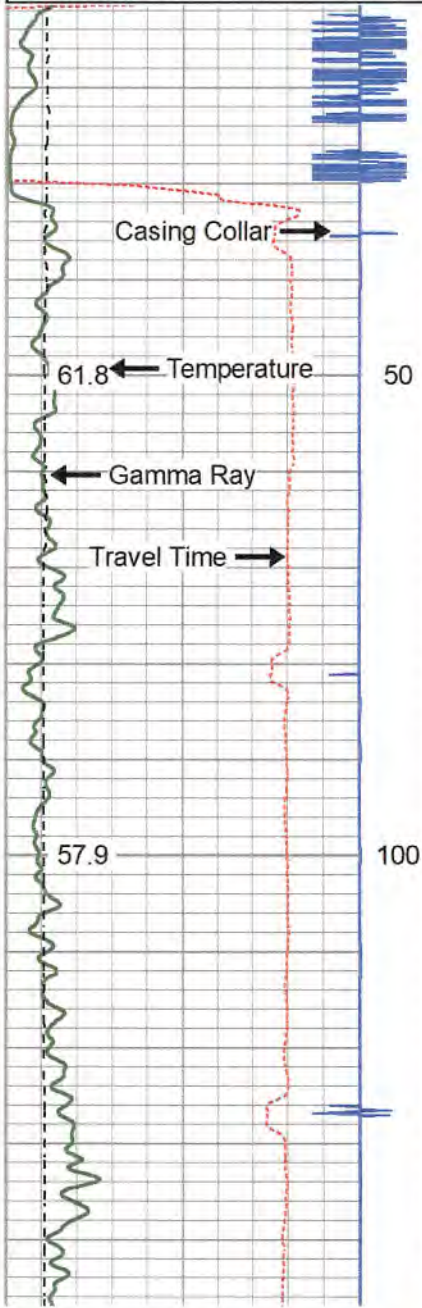
Estimated Top of Cement @ 2570'

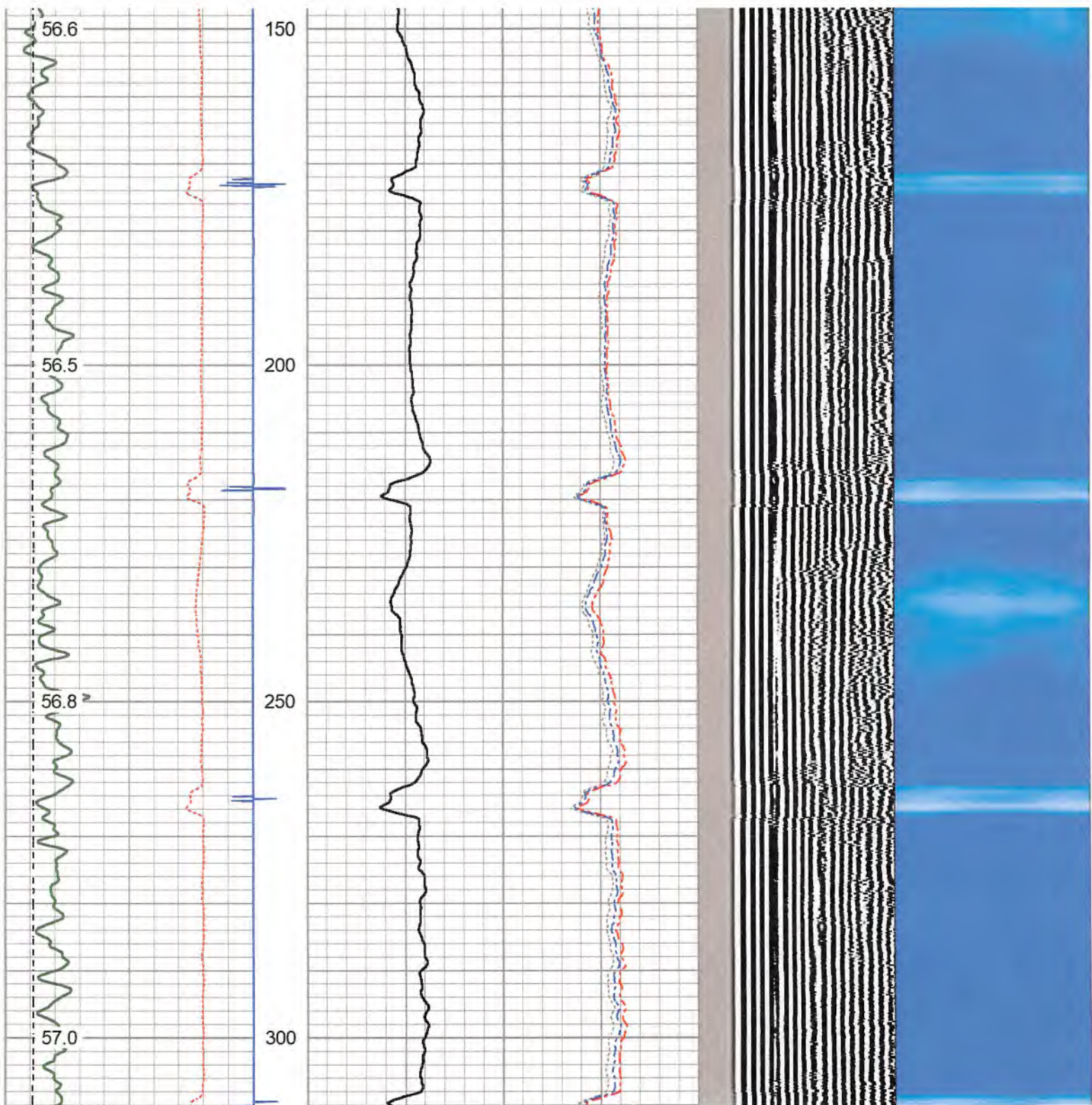


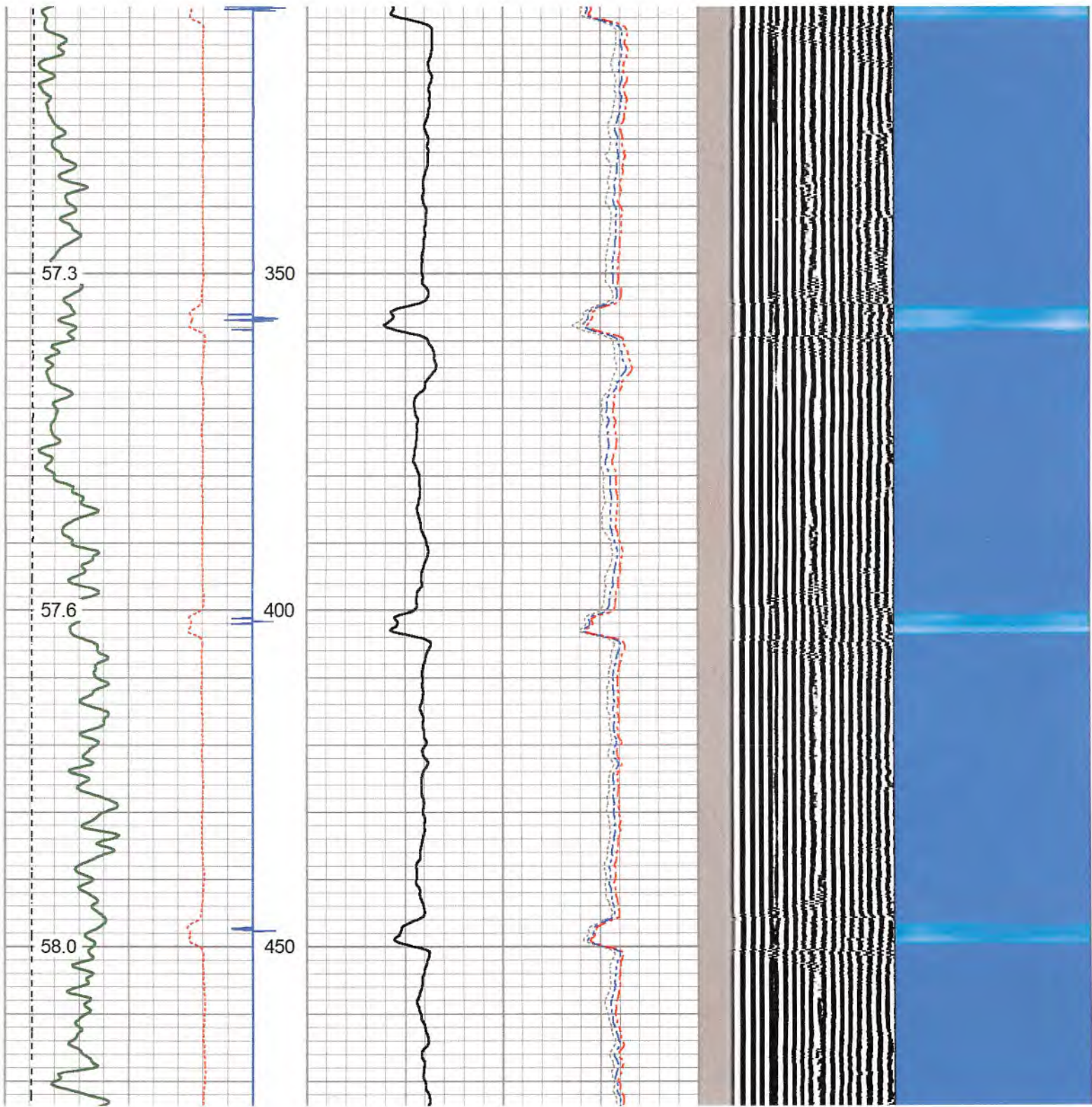
Main Pass (1500 PSI)

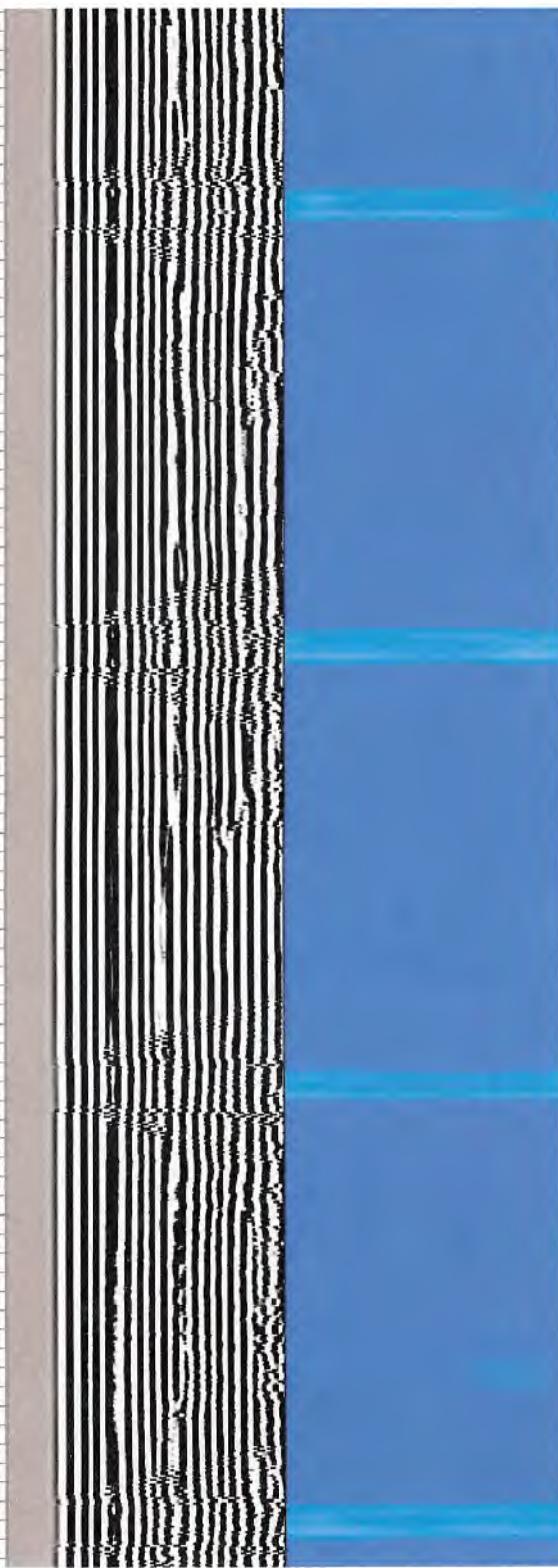
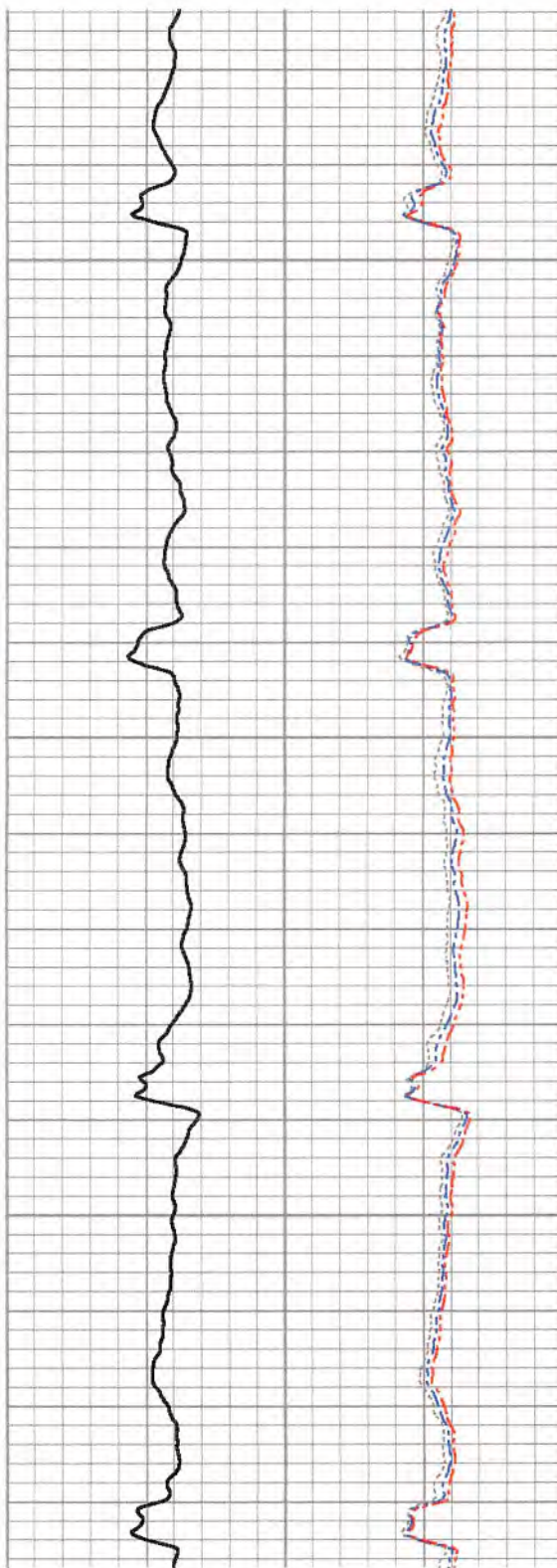
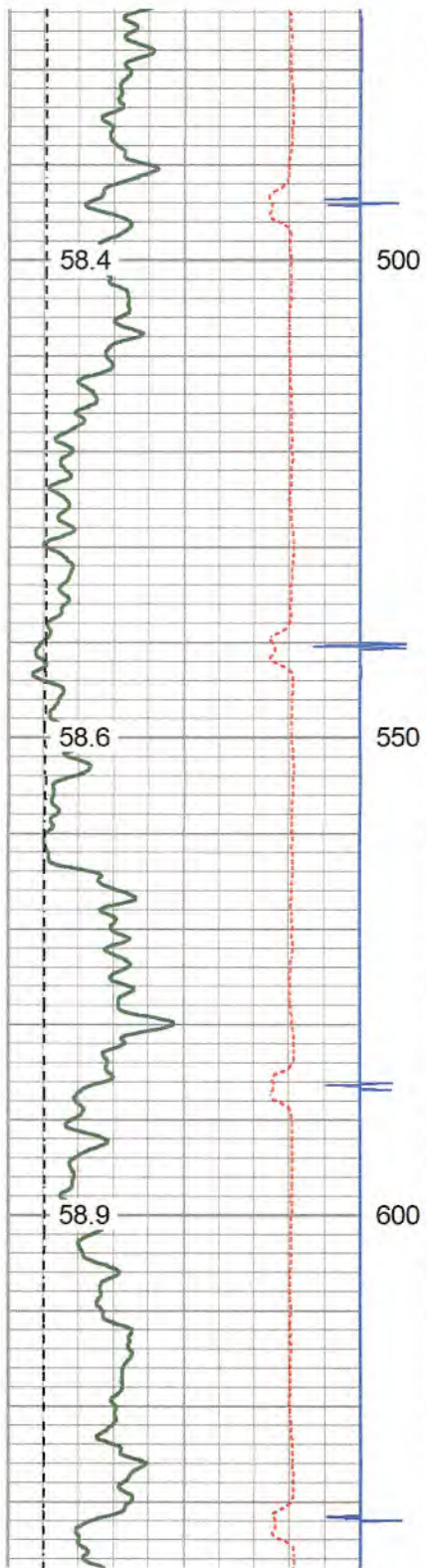
Database File	c:\users\logbox\desktop\antero gaspar\ant_gaspar_calhoun_2h.db
Dataset Pathname	rcbl/pass5
Presentation Format	tt_rcbl_std_bw
Dataset Creation	Sun Jul 17 00:19:10 2022
Charted by	Depth in Feet scaled 1:240

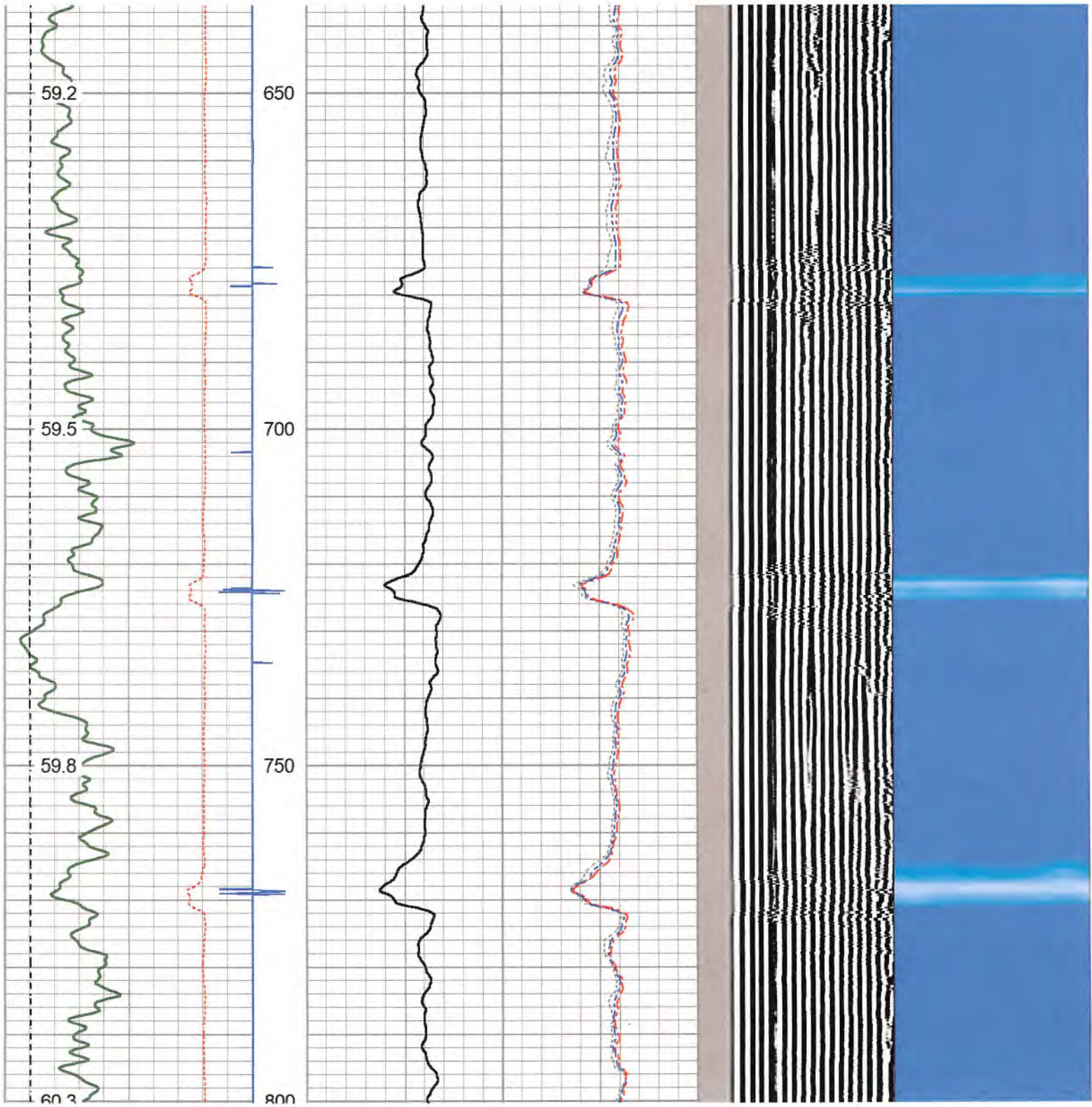
340	Travel Time (usec)	240	0	Amplitude (mV)	100	-5	AMPMin	150	200	VDL (usec)	1200	Cement Map
0	Gamma Ray (GAPI)	150	Amplified Amplitude		-5	AMPAvg	150					
0	Line Tension (lb)	3000	0	(mV)	10	-5	AMPMax	150				
TEMP (degF)		CCL										

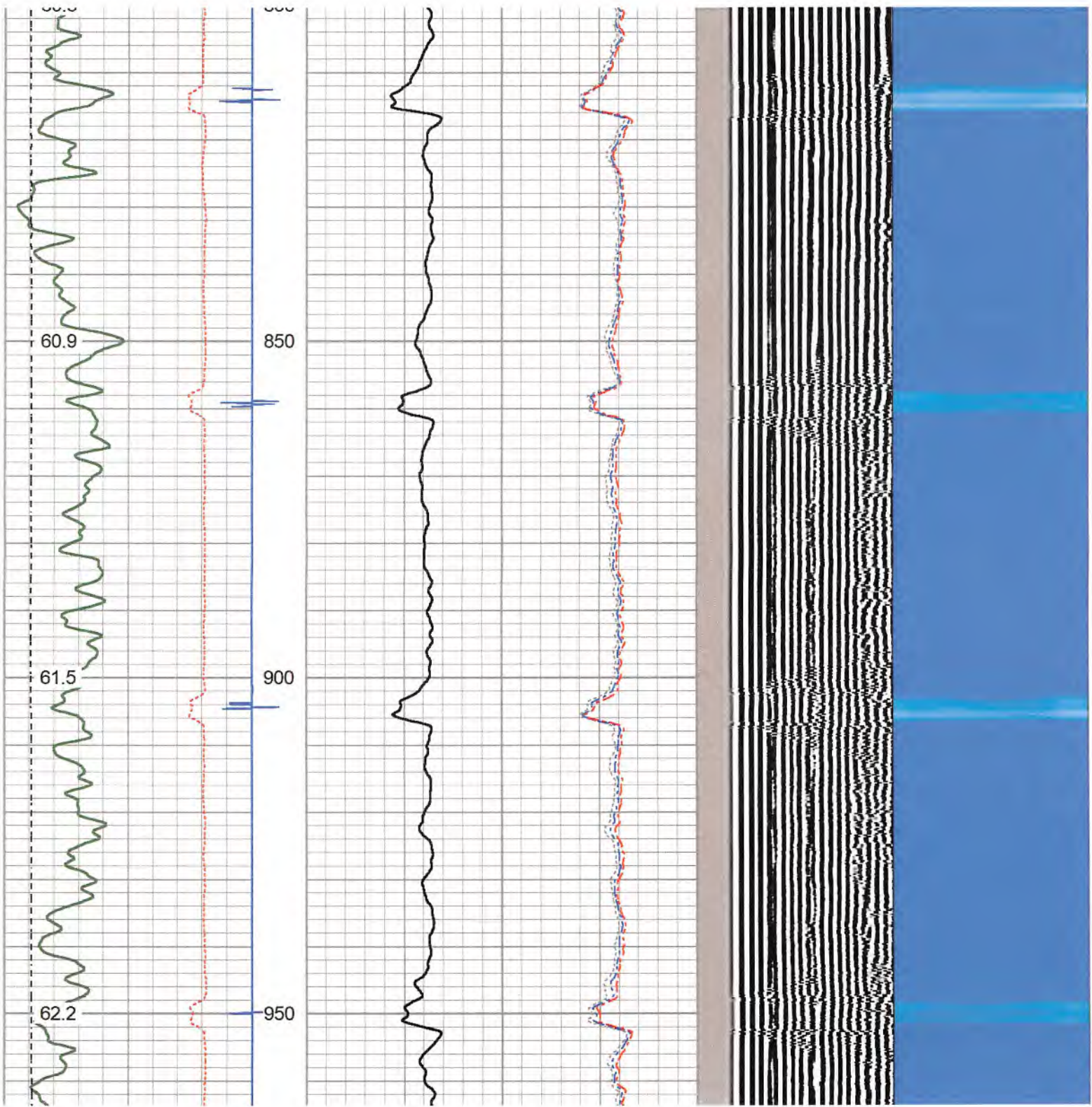


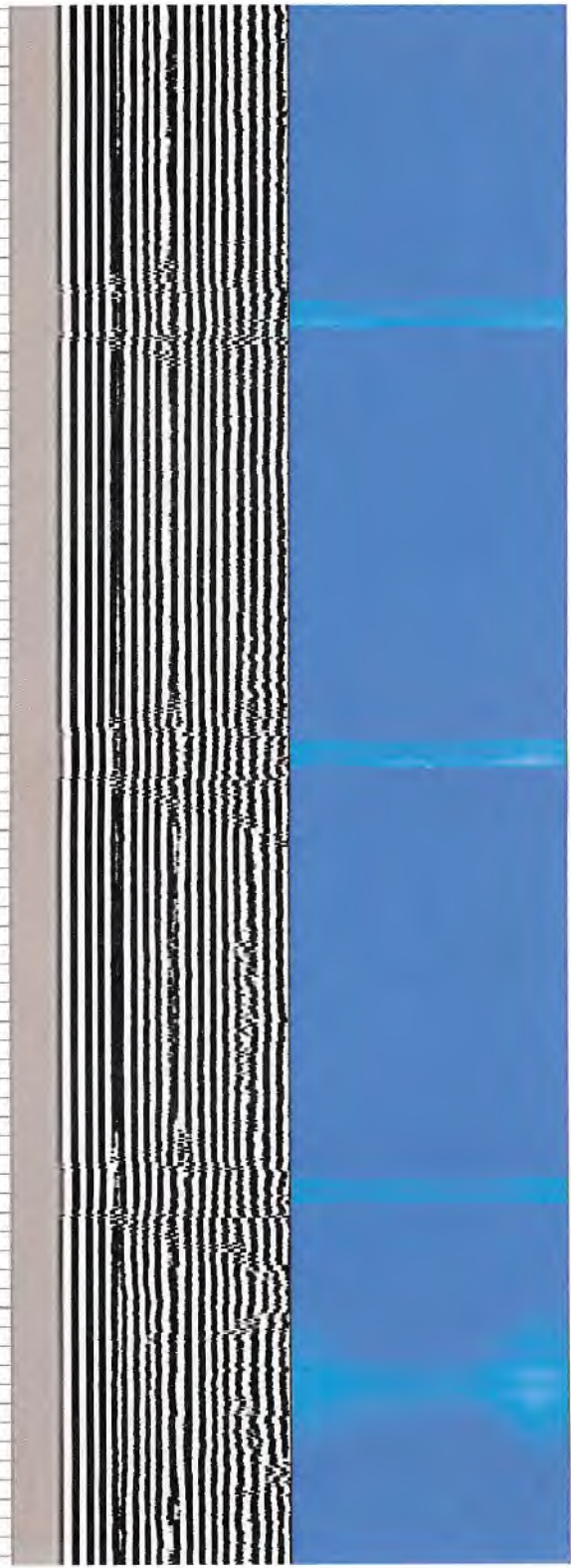
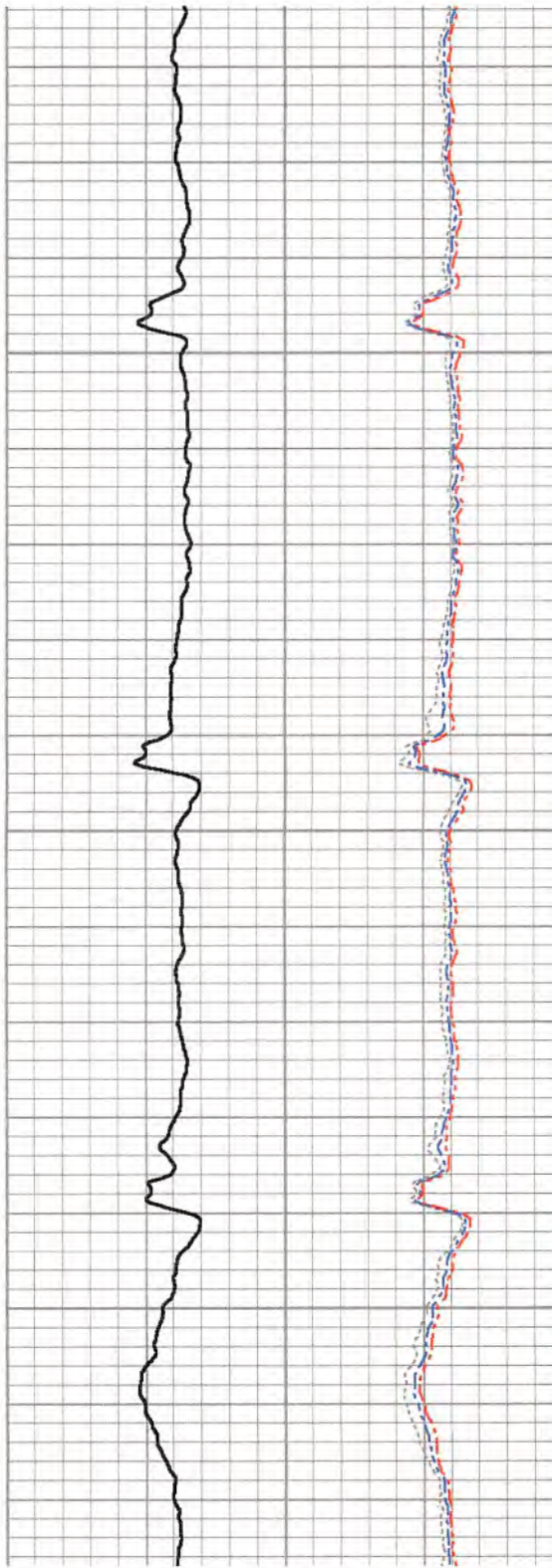
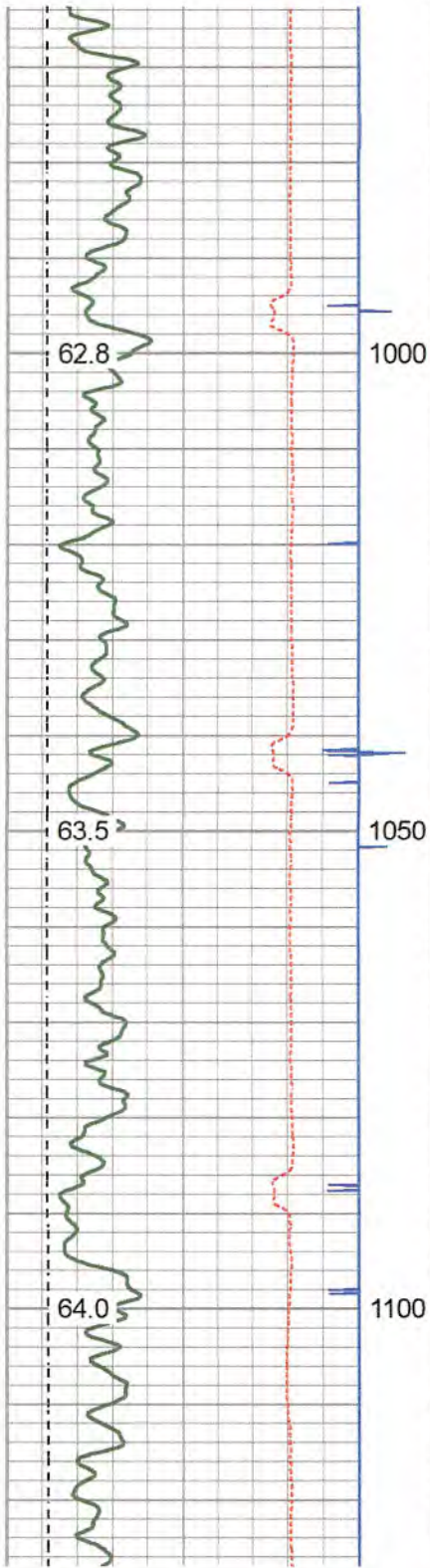


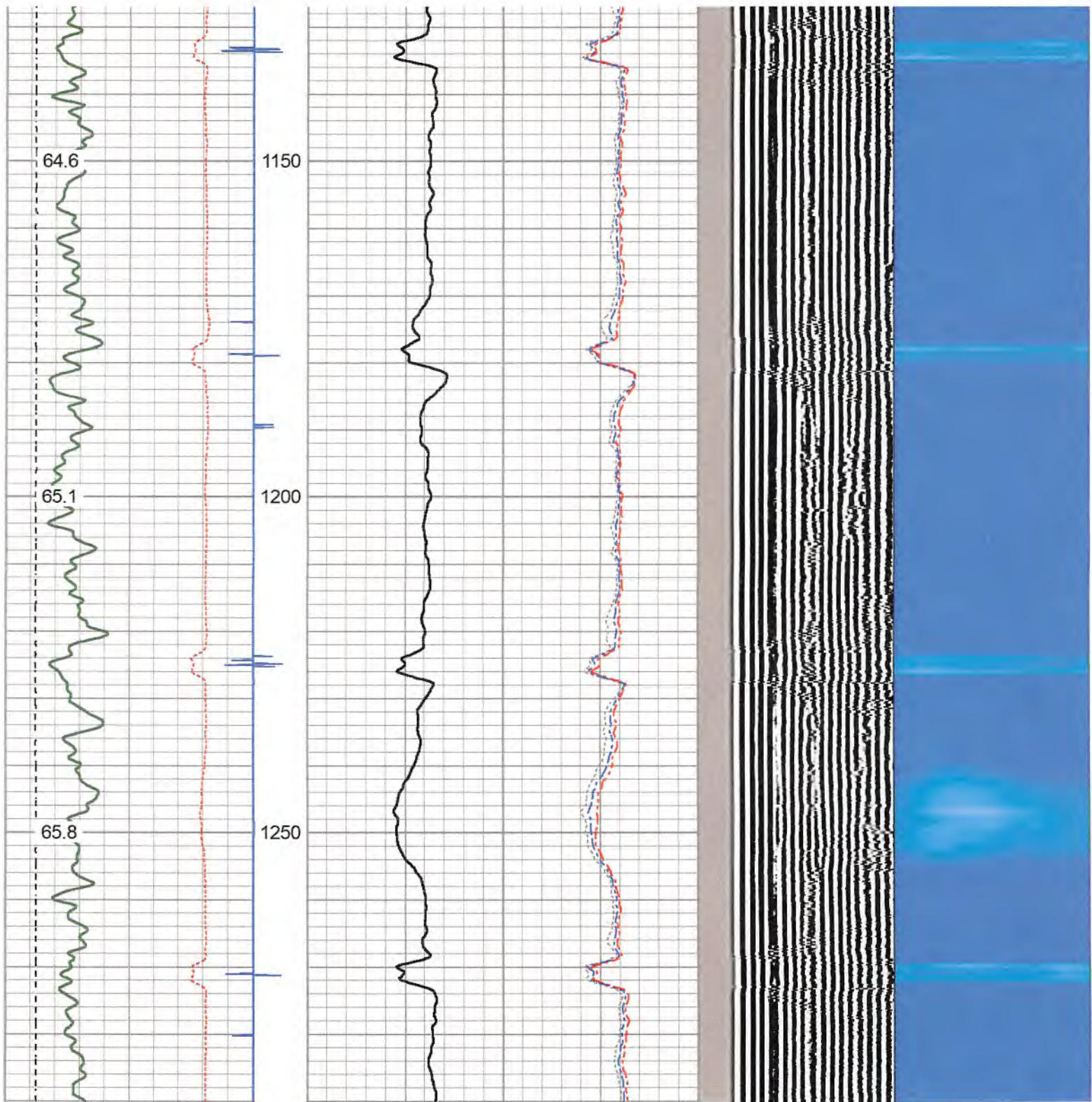


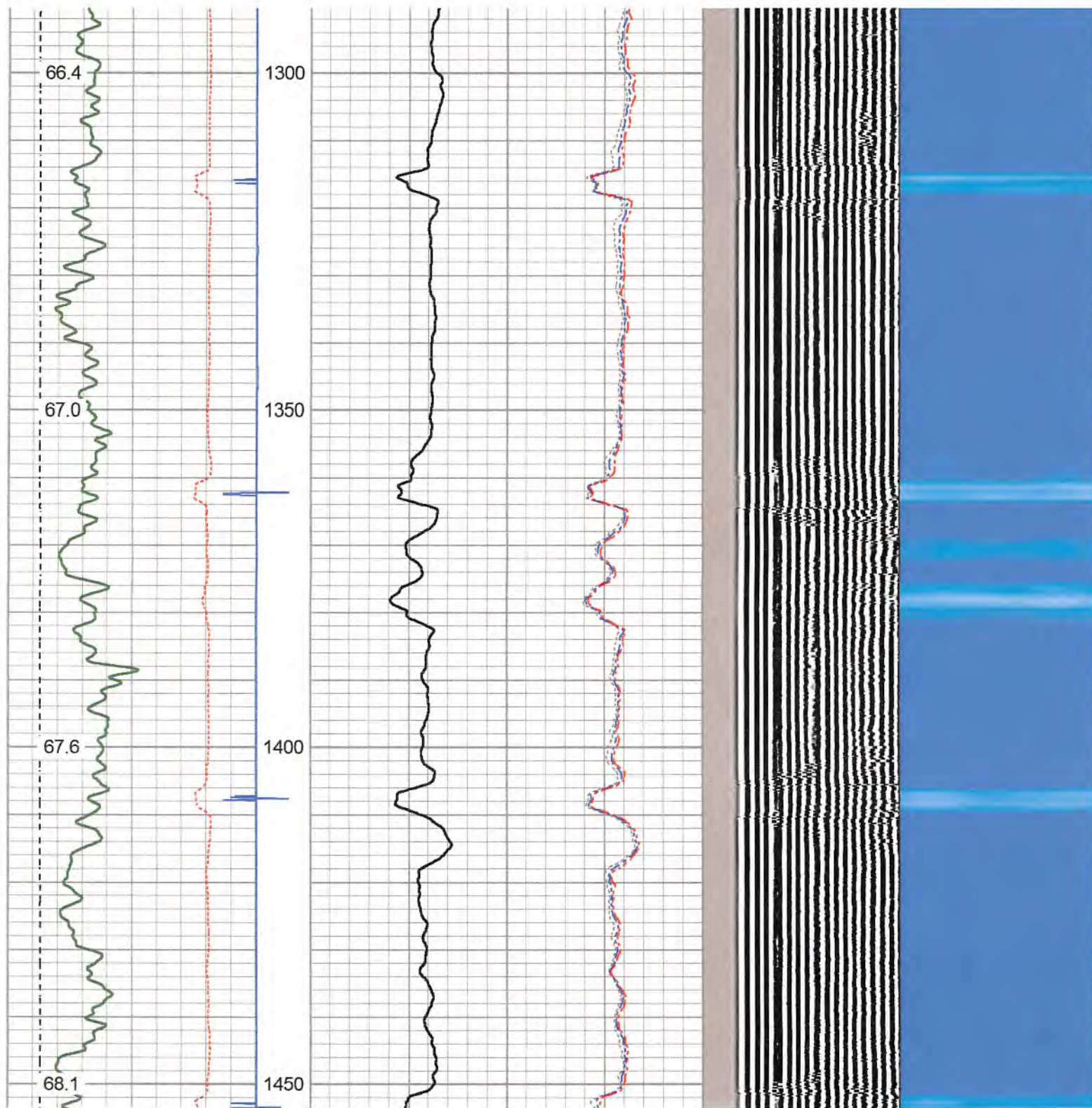


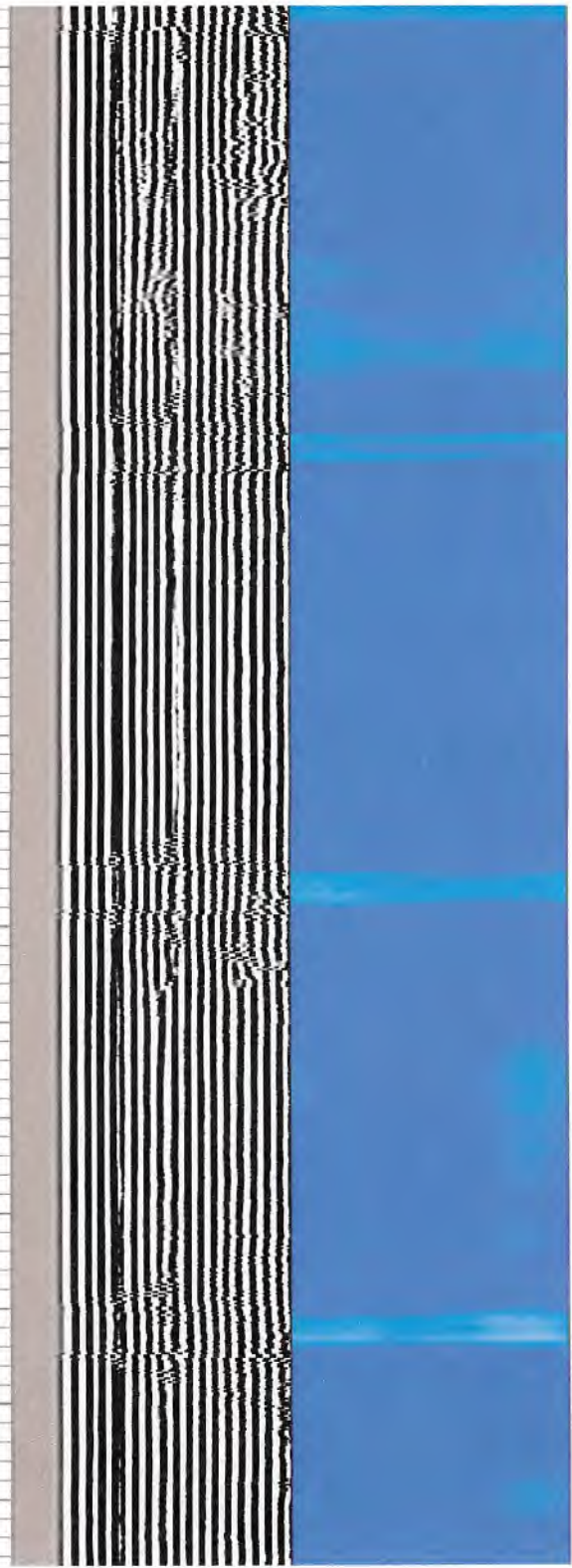
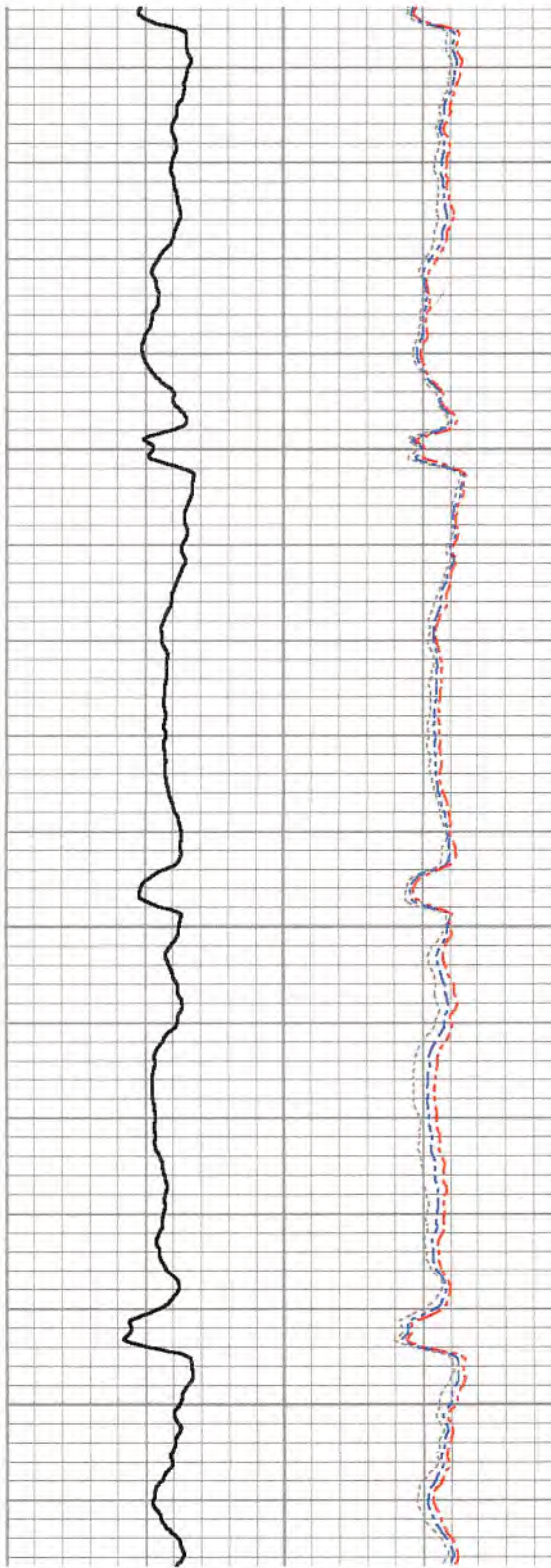
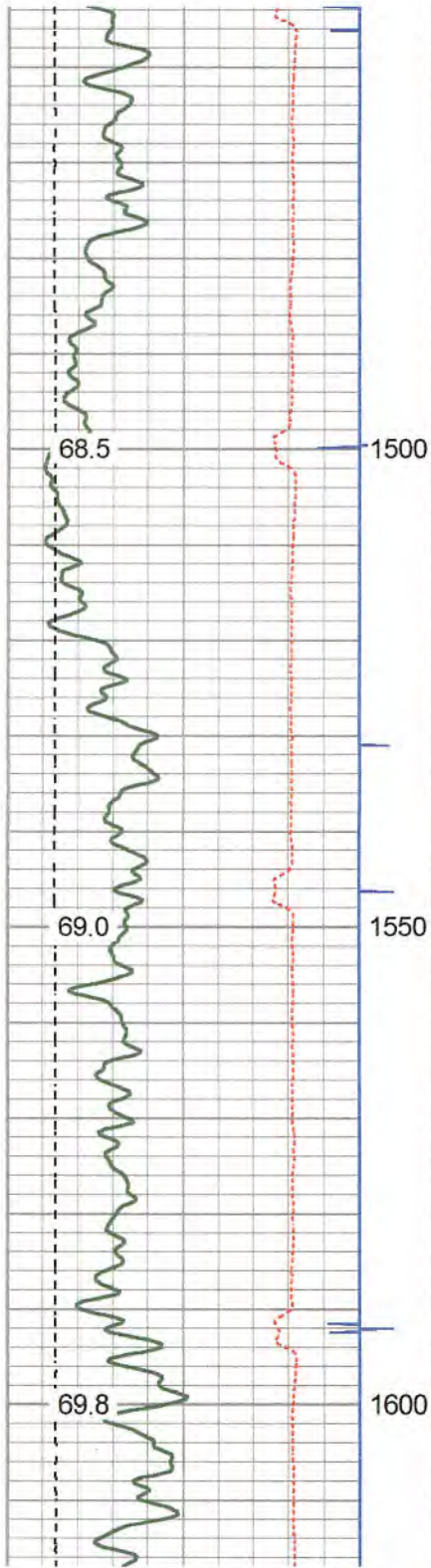


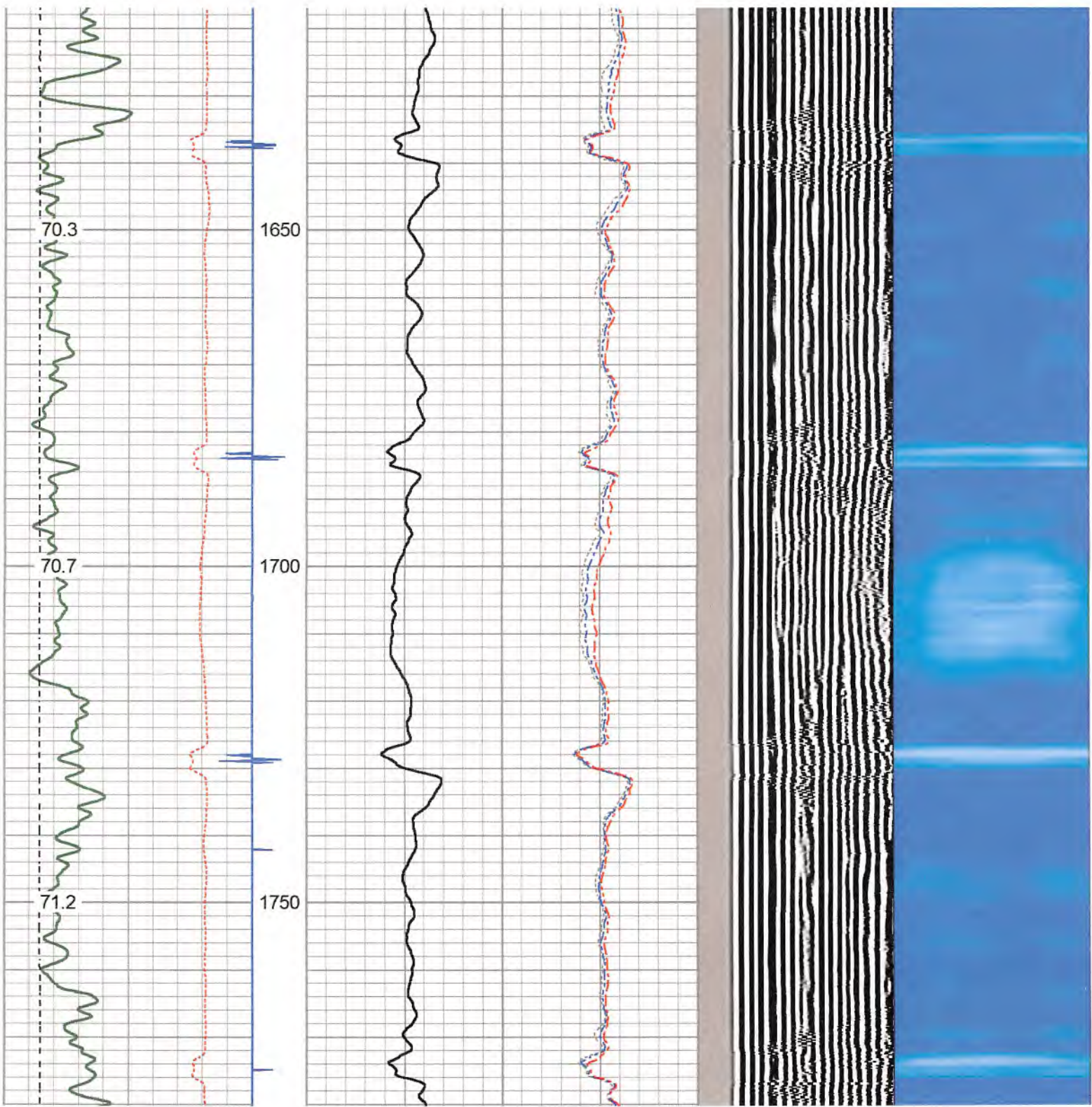


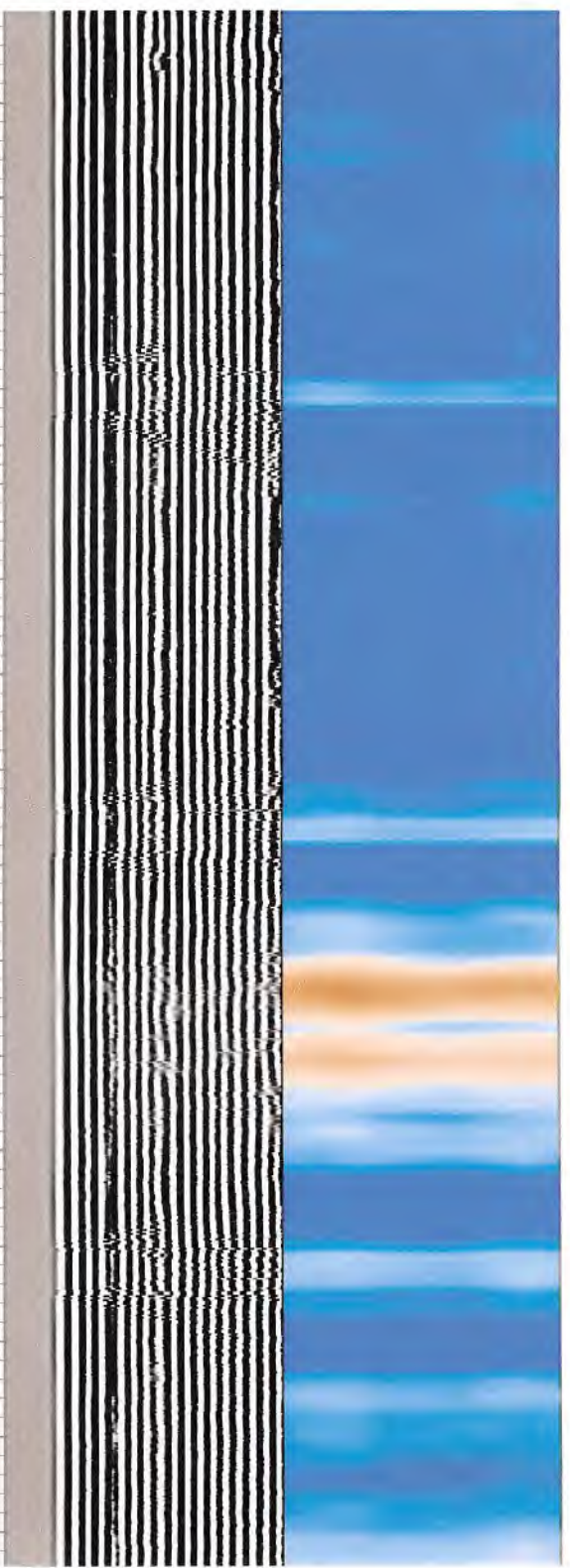
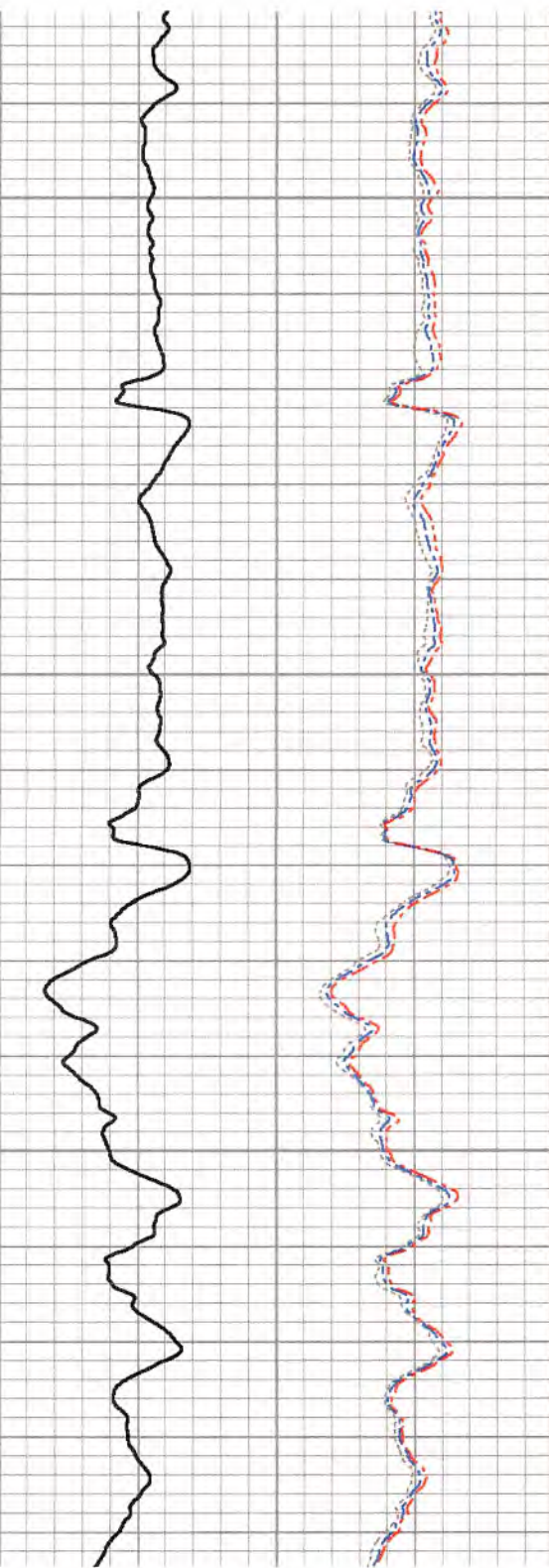
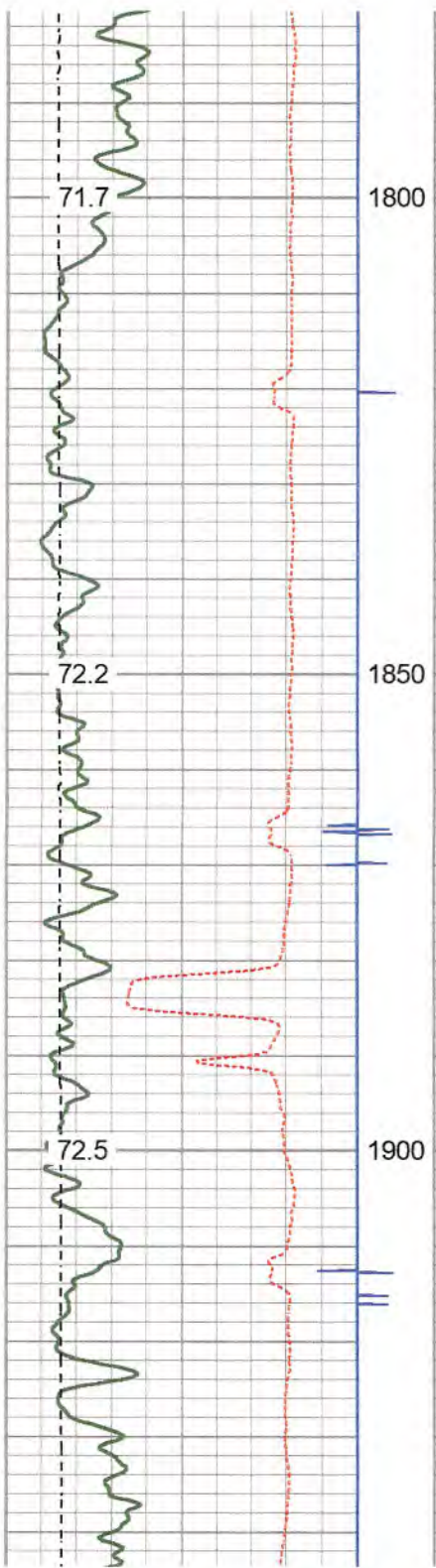


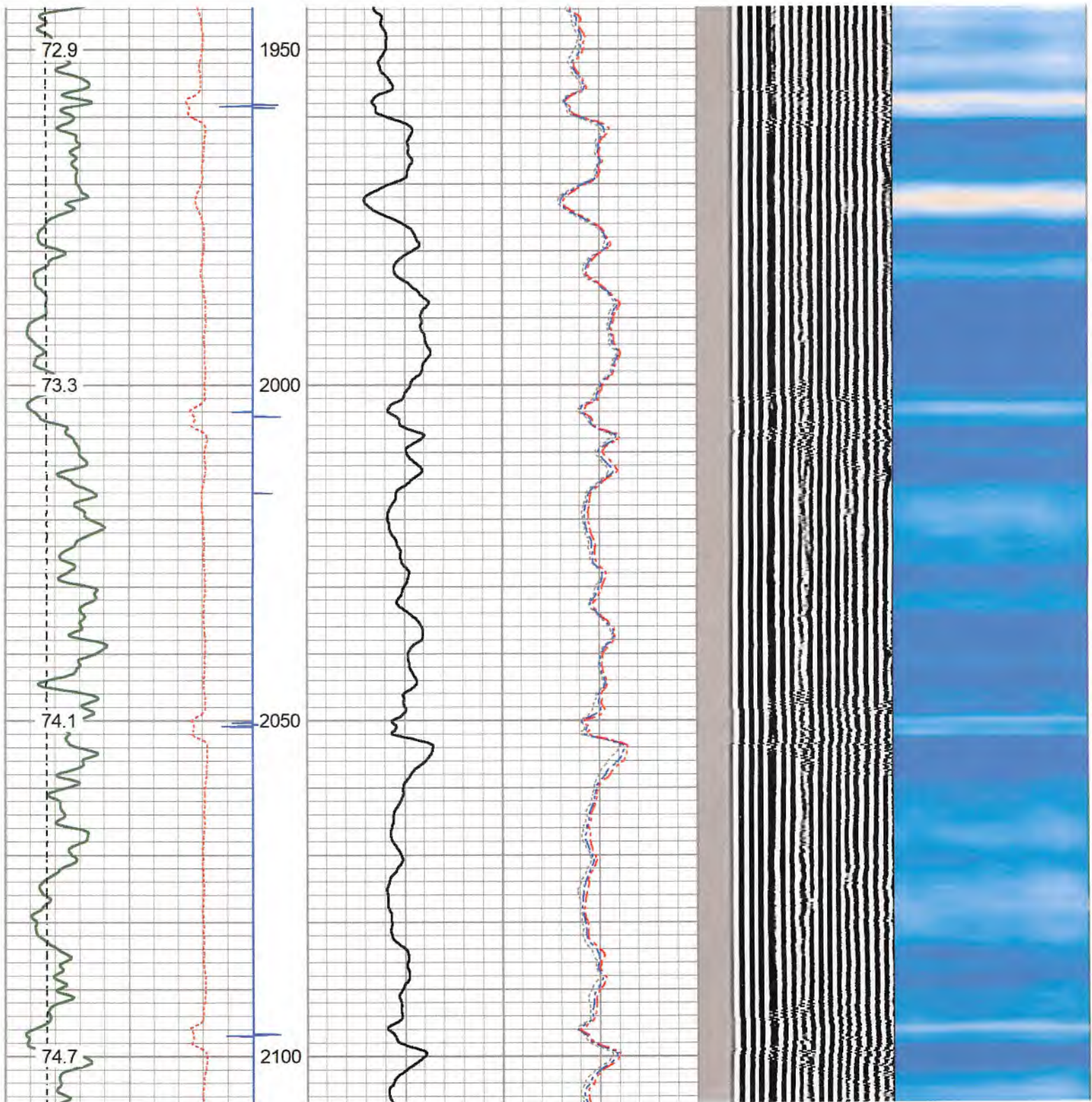


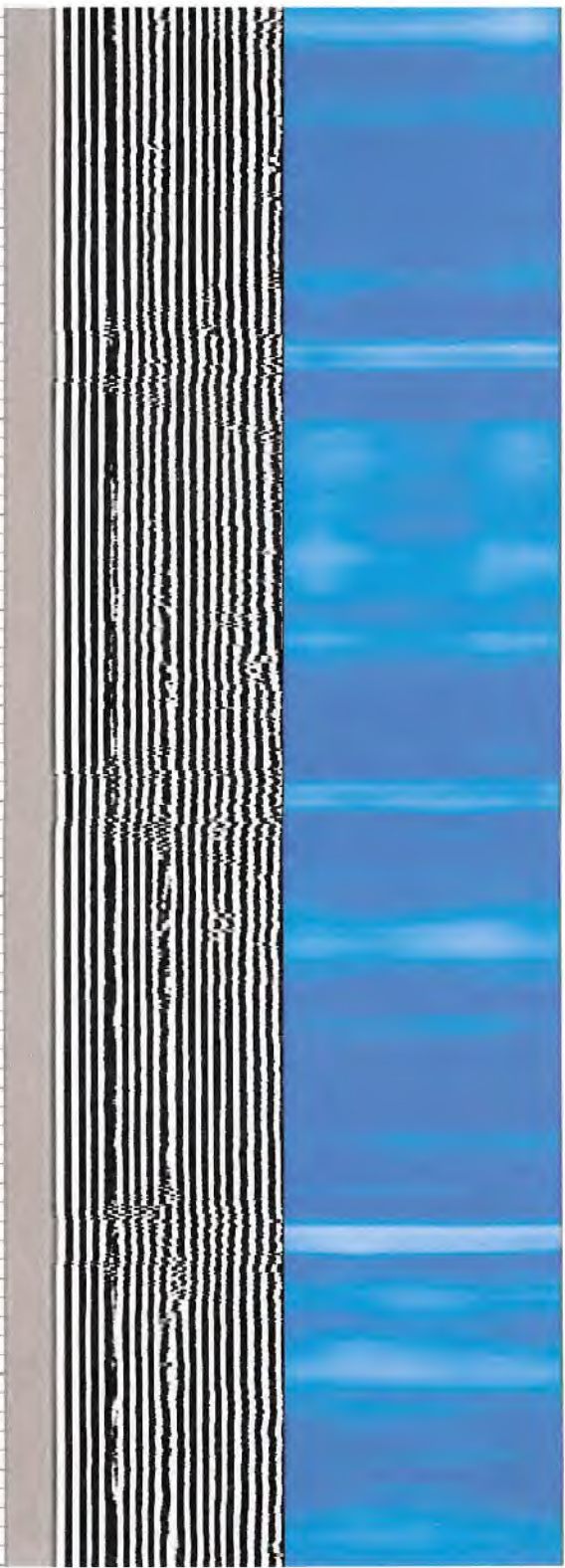
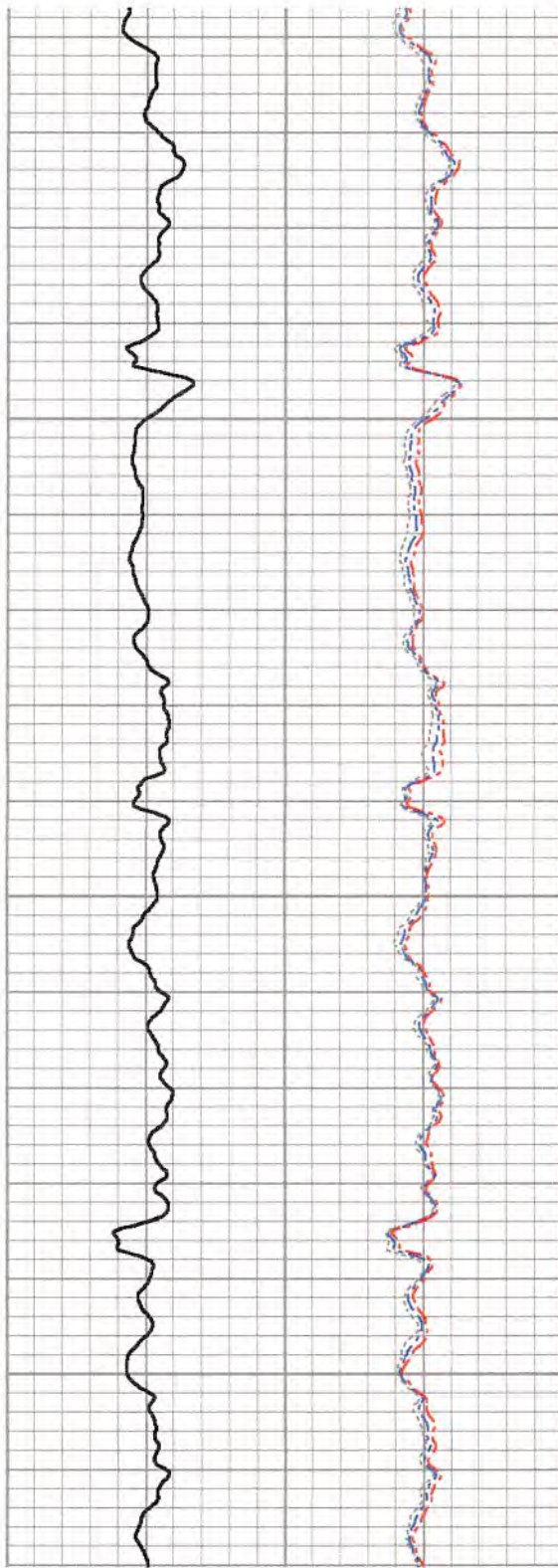
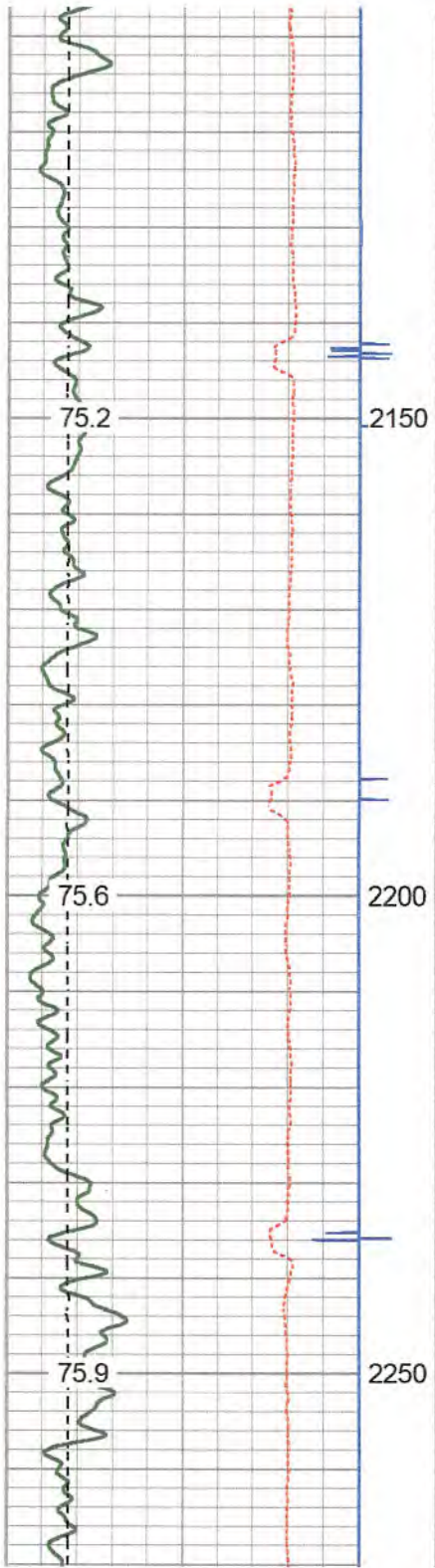


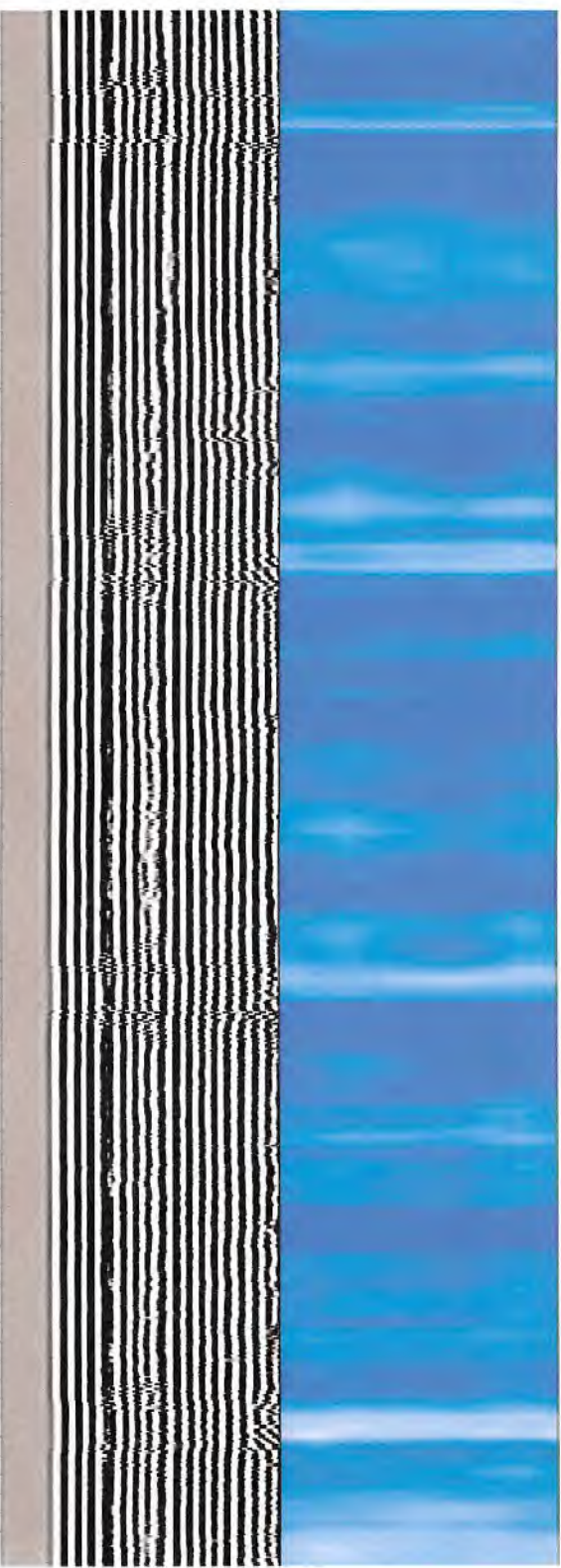
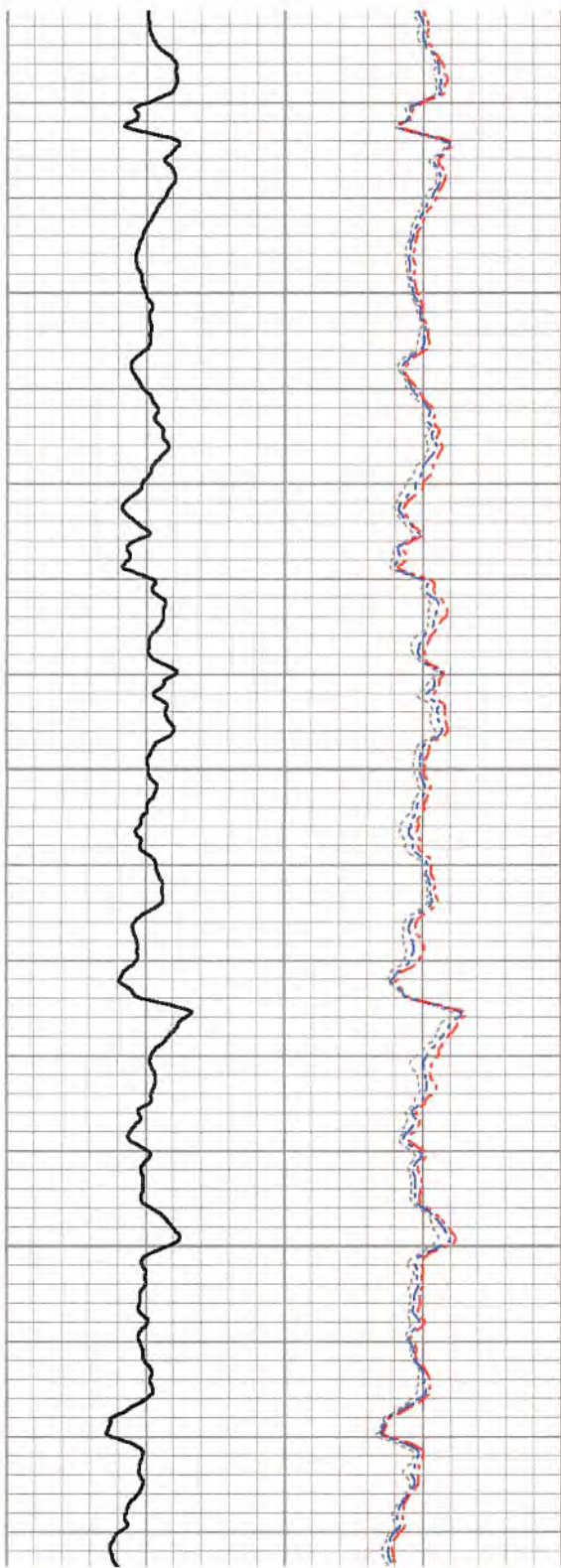
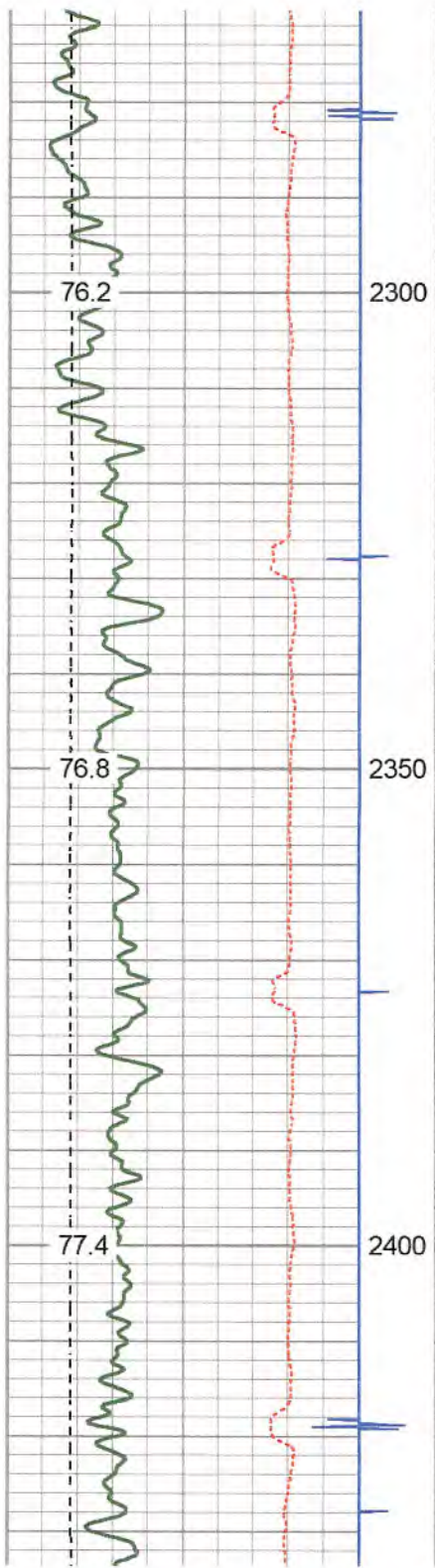


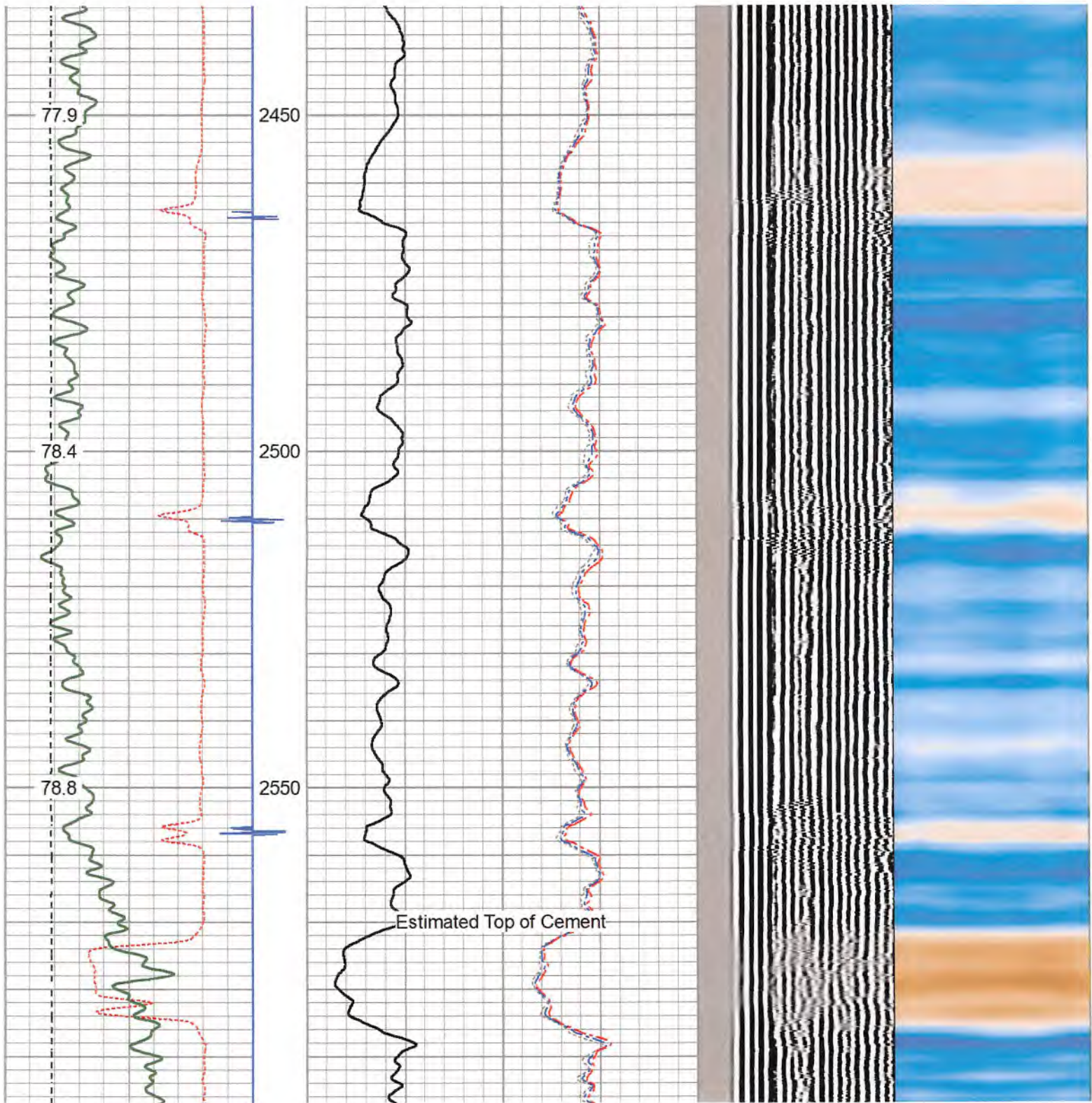


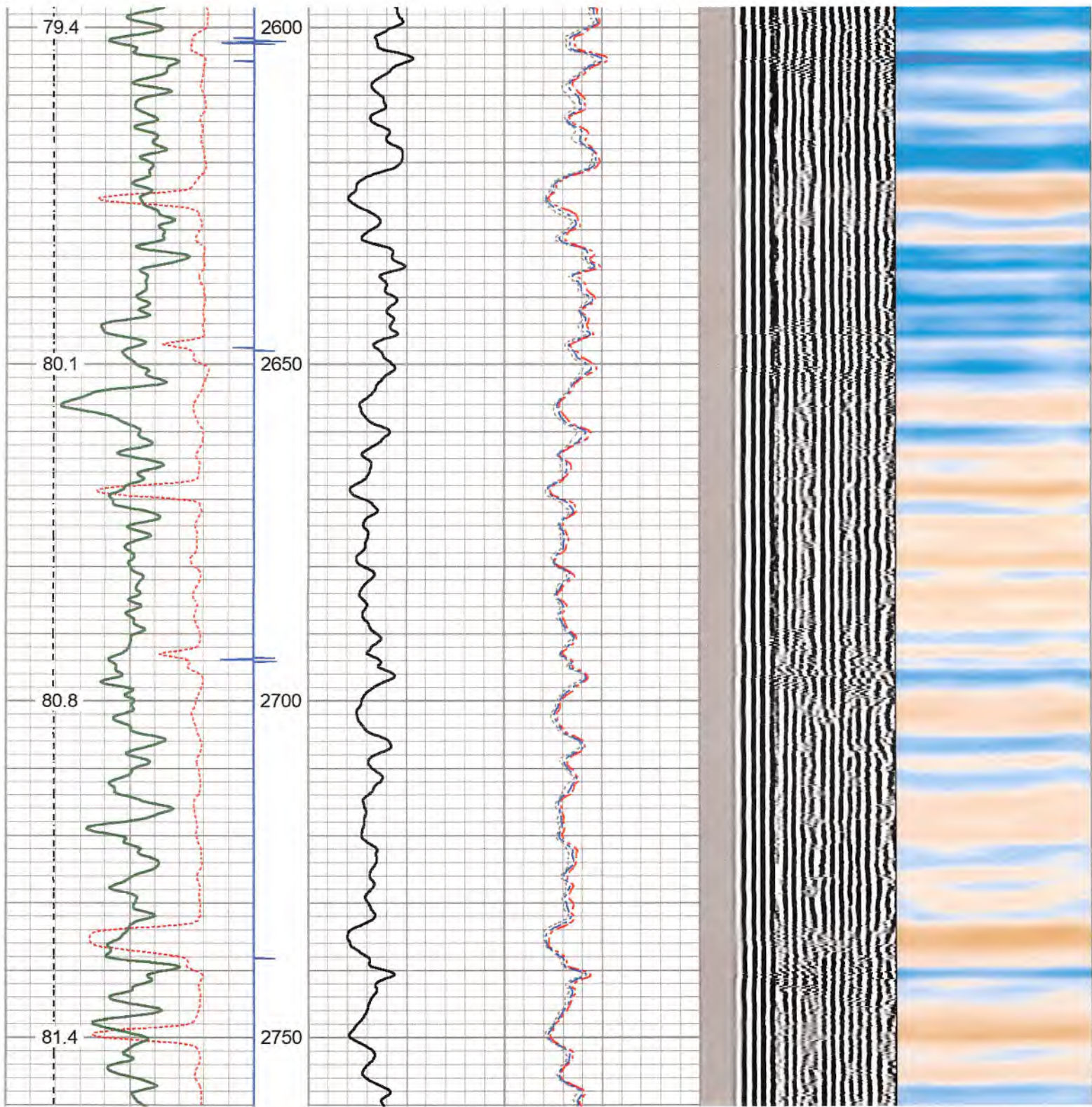


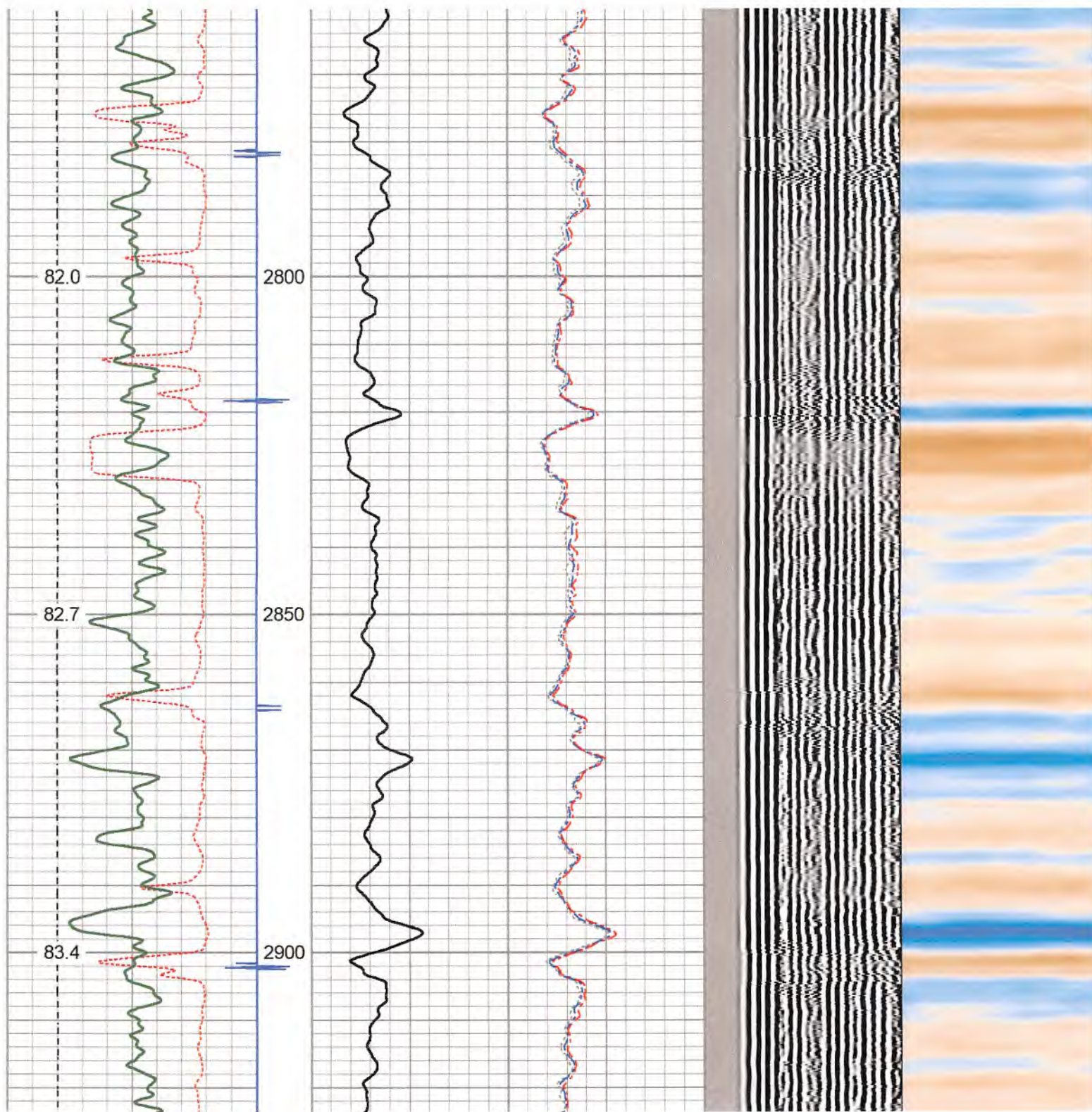


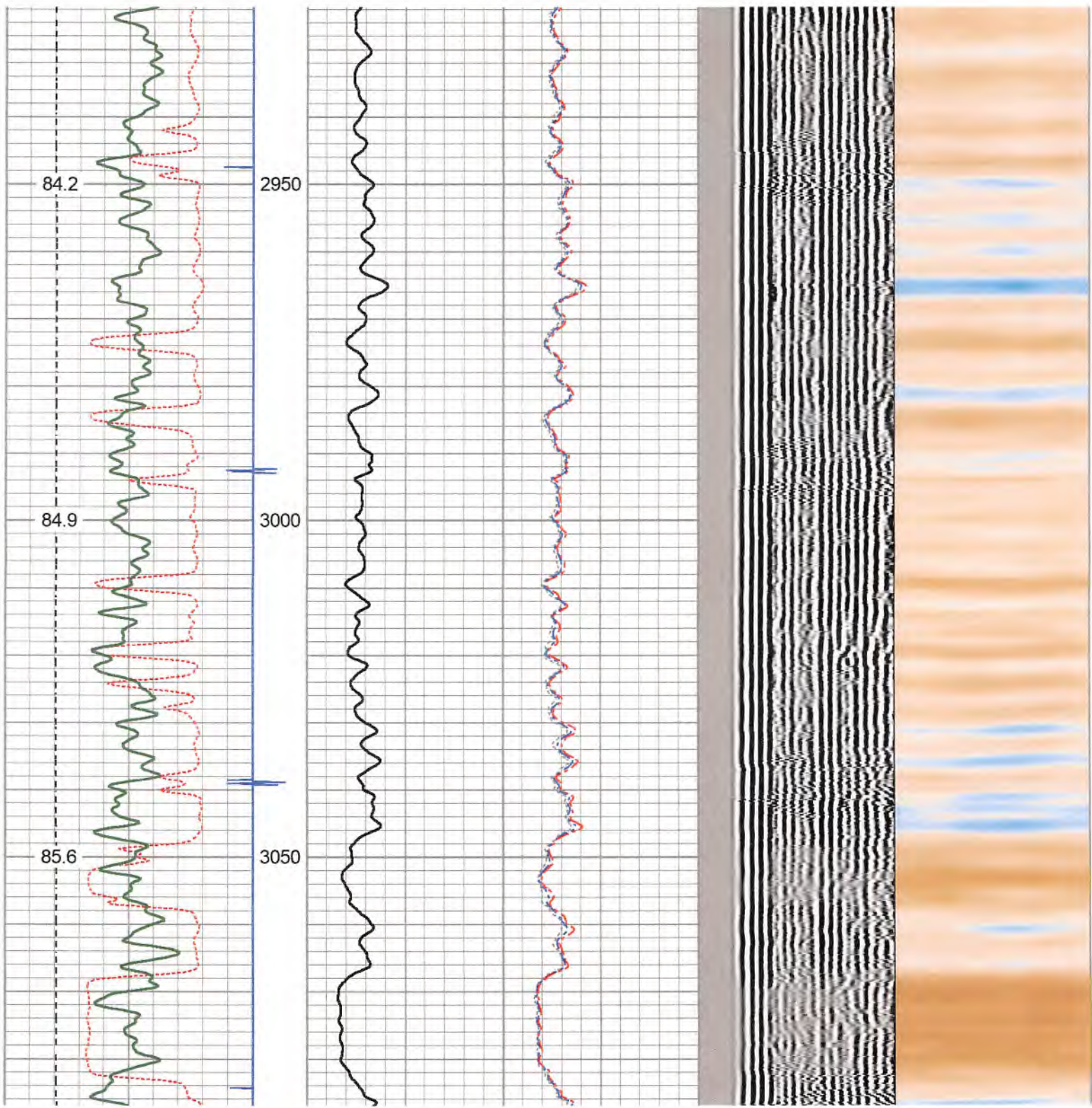


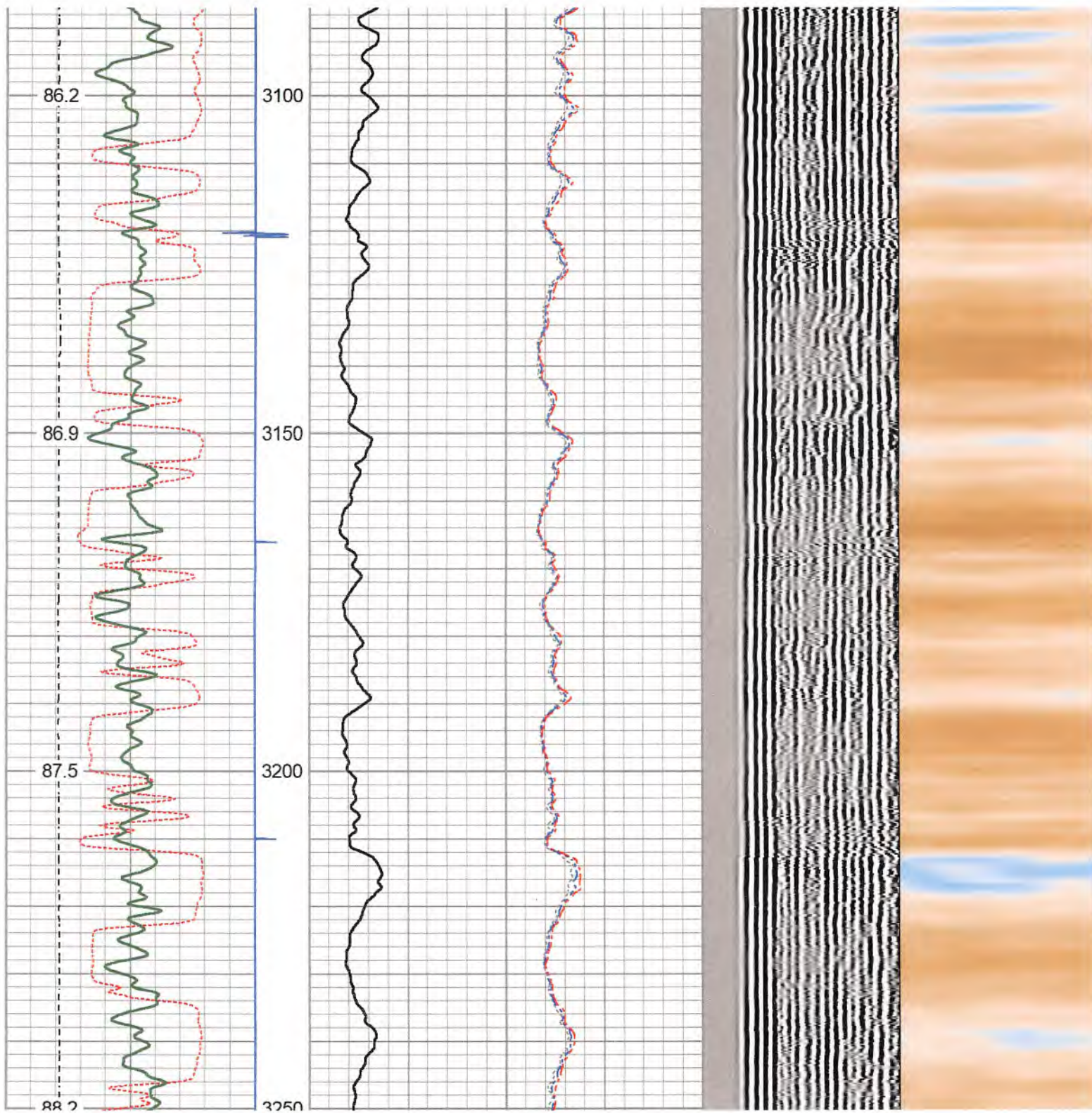


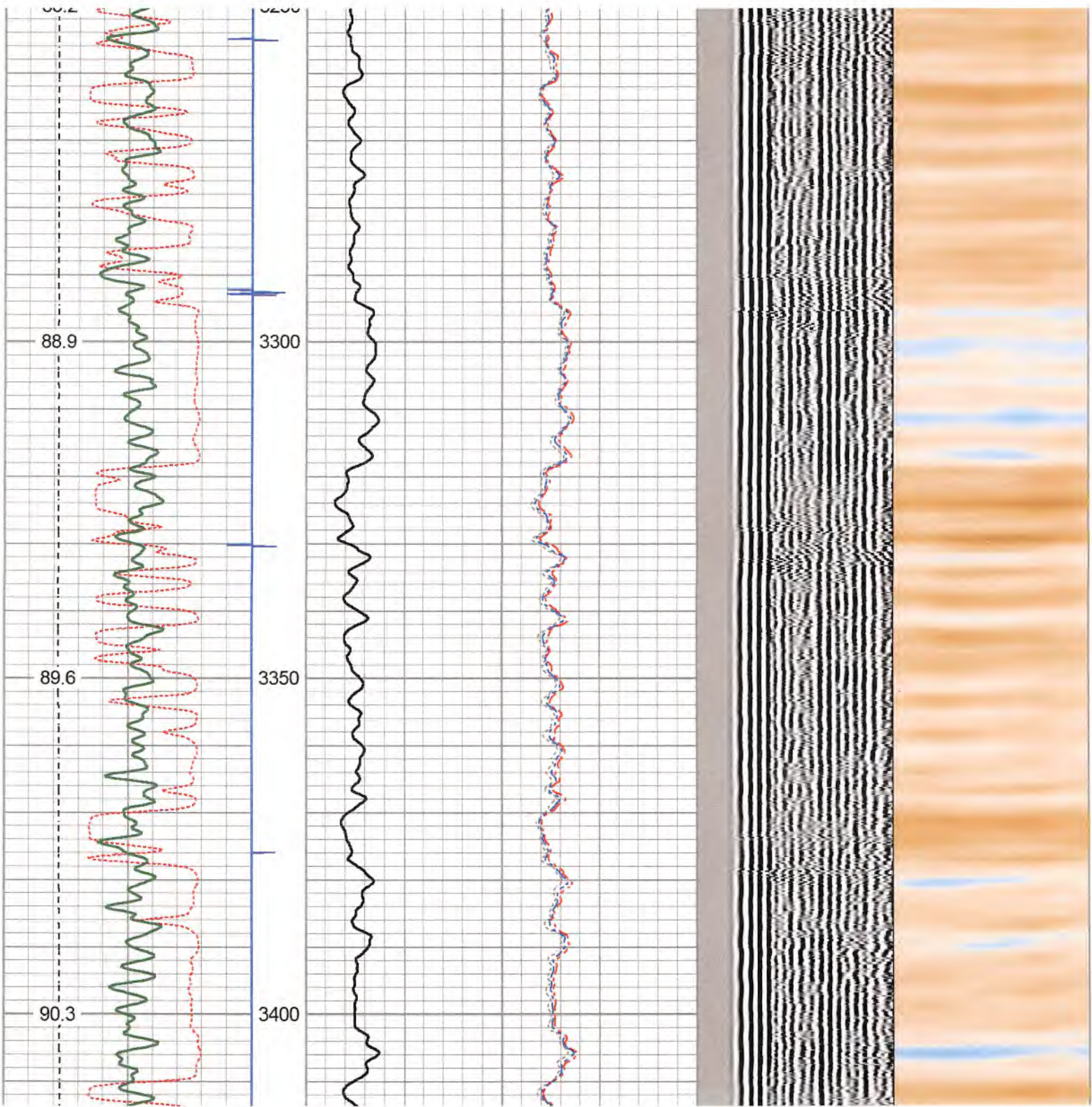


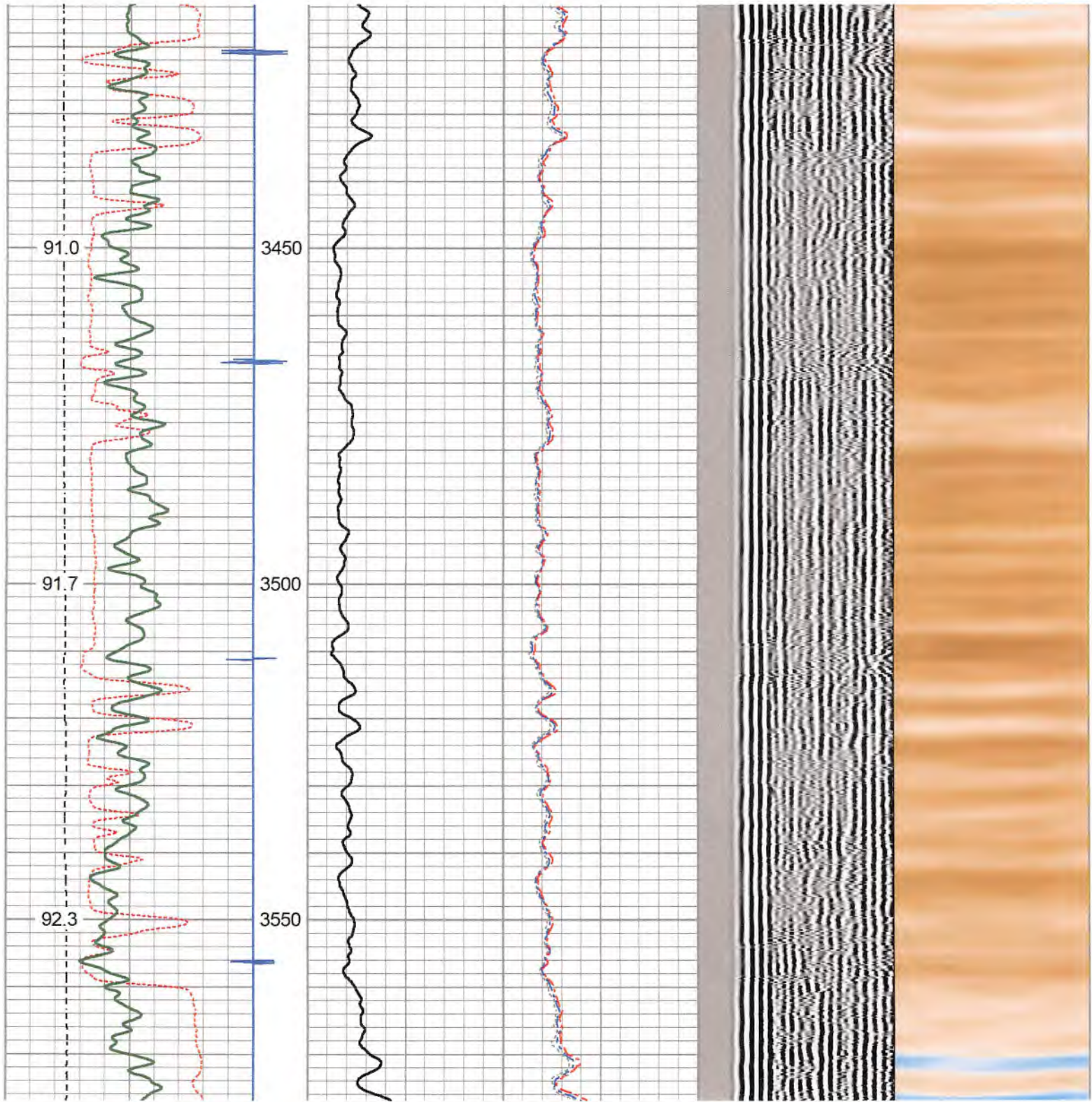


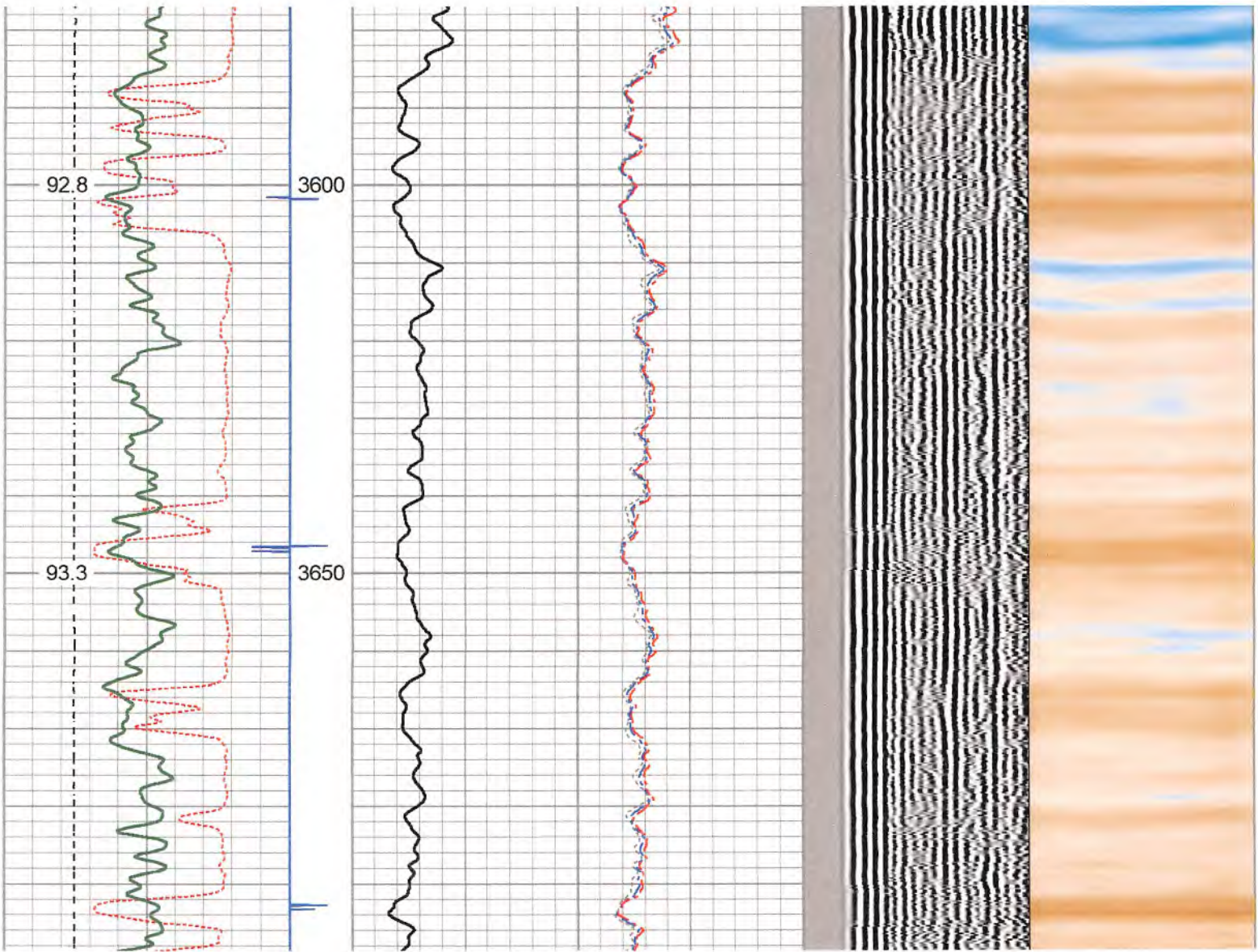


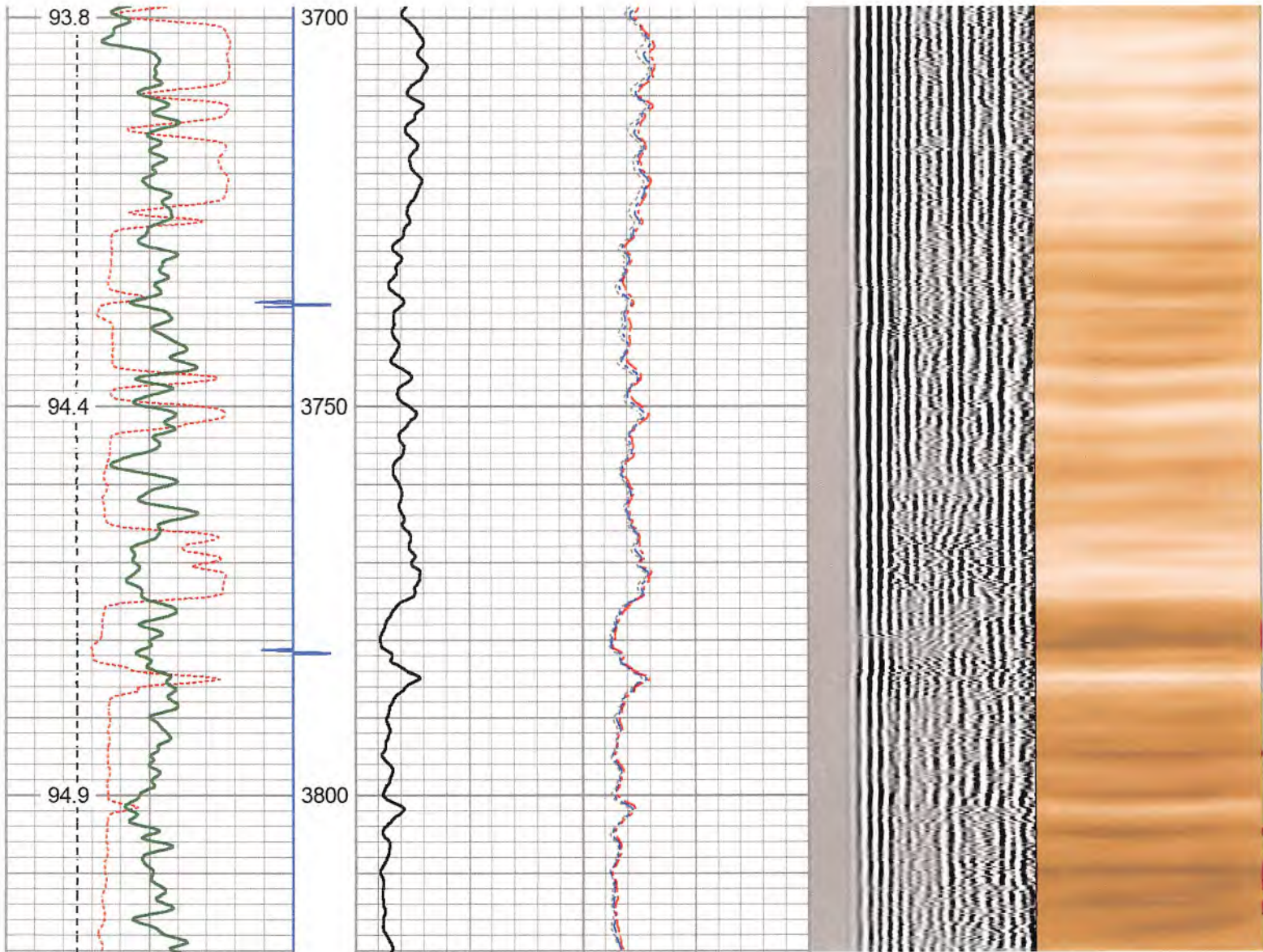


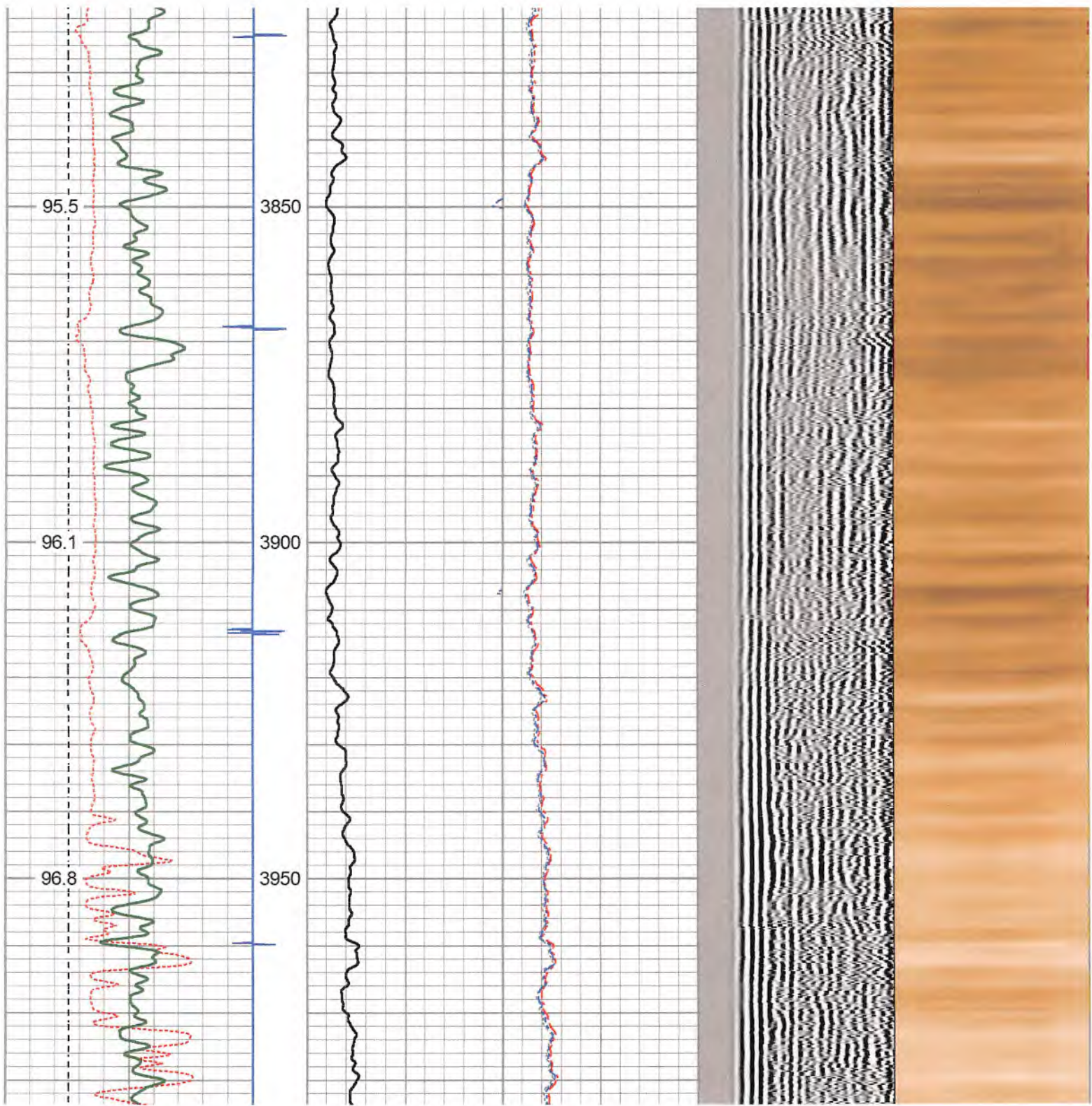


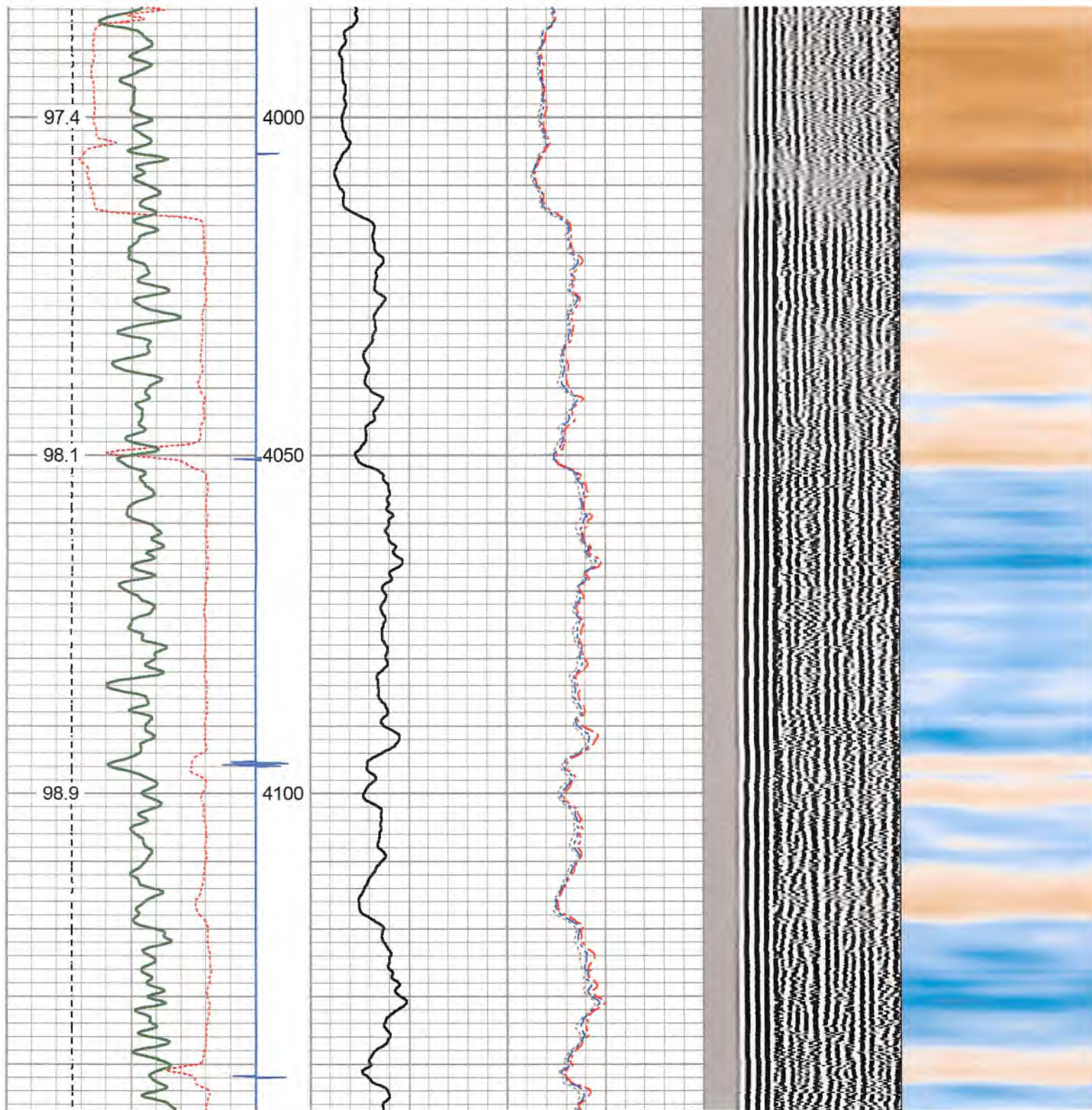


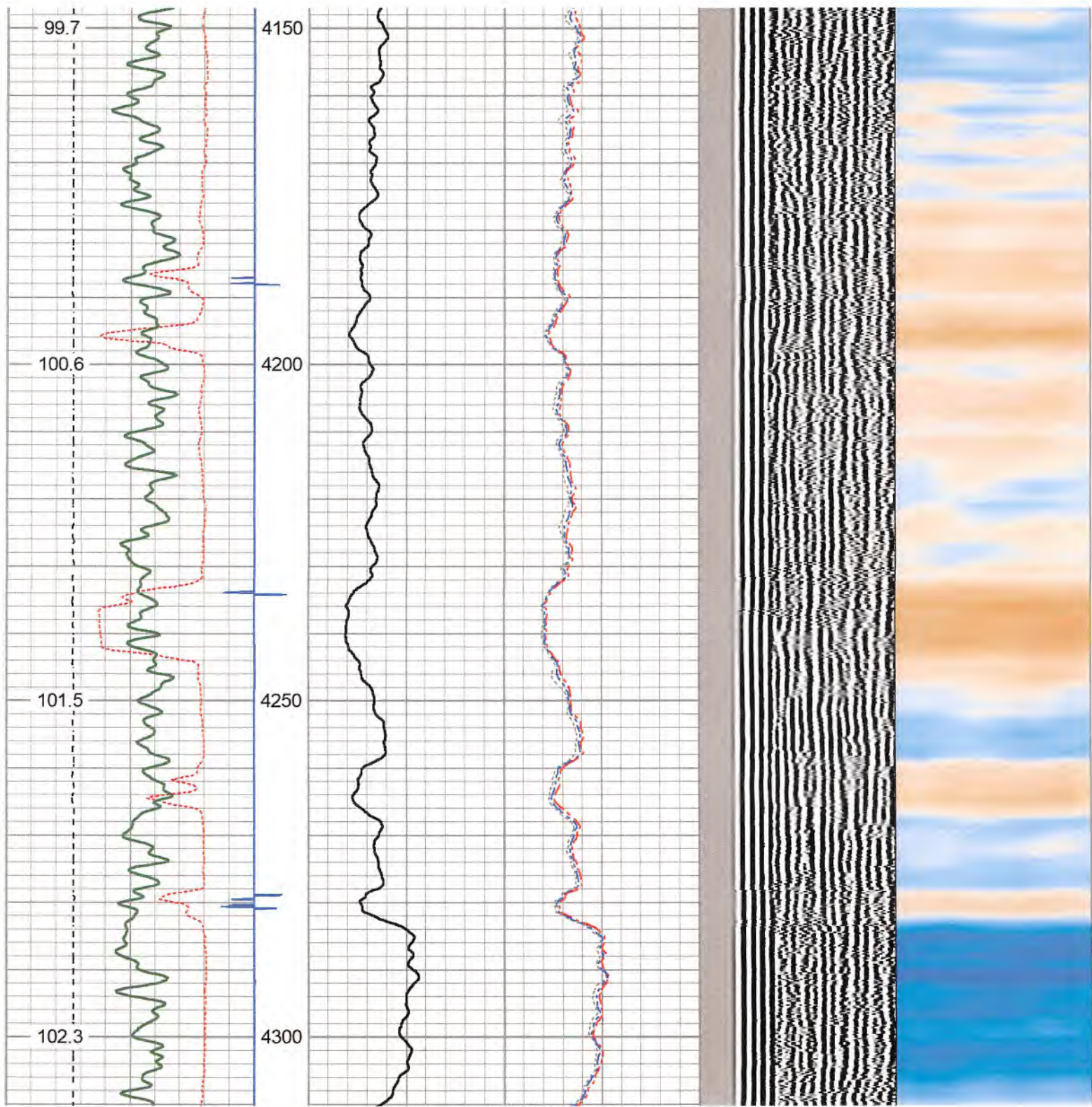


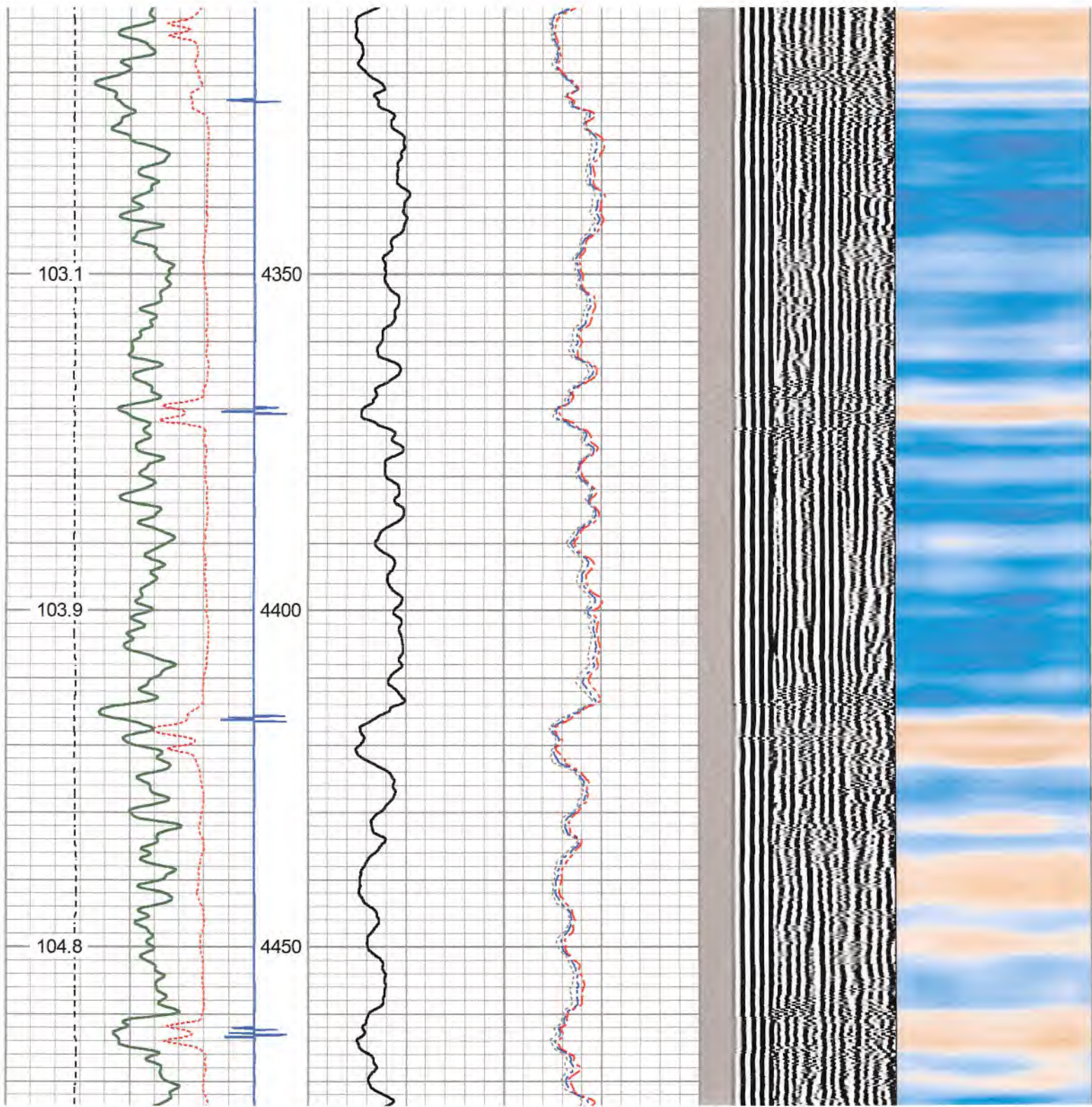


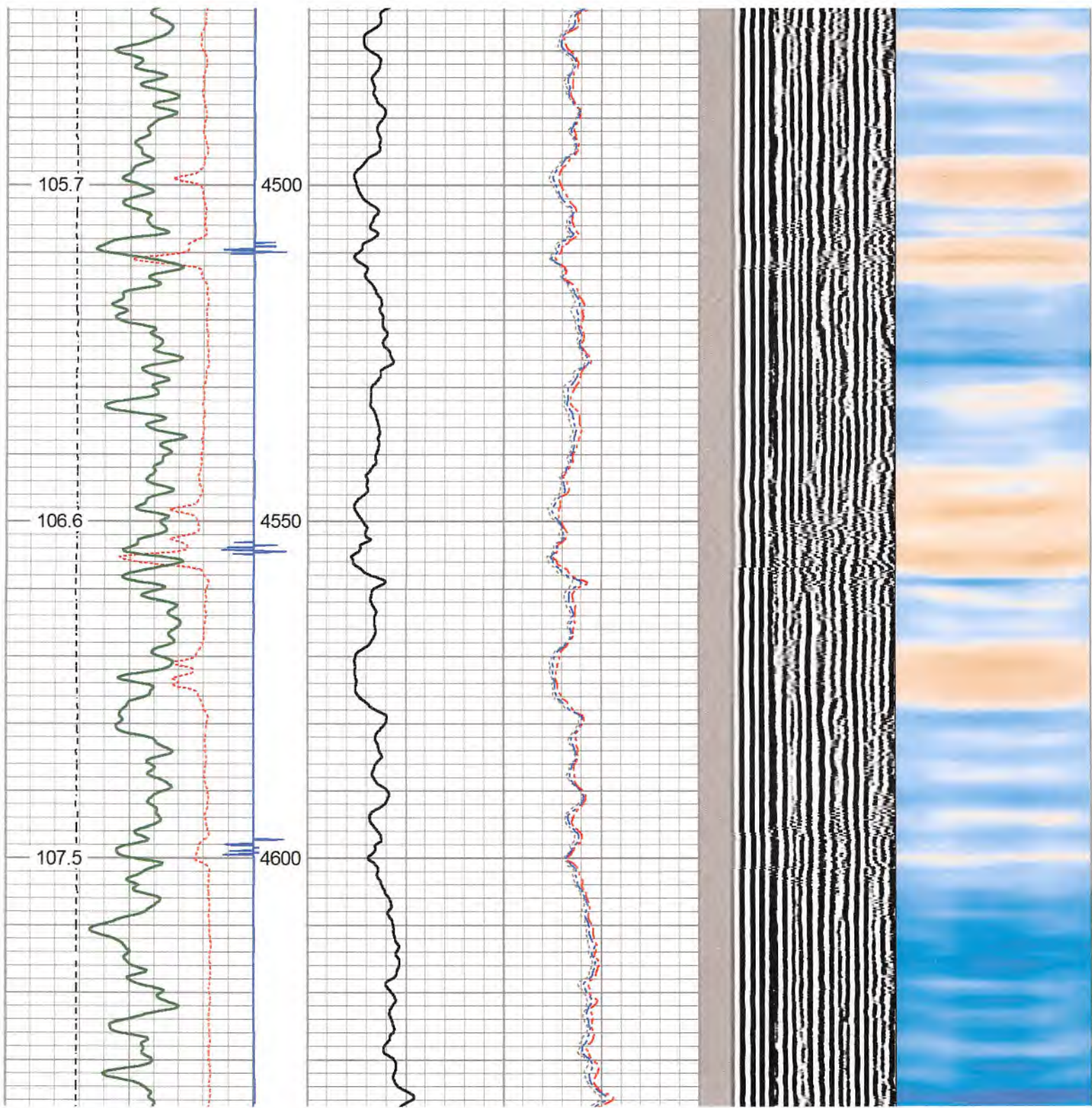


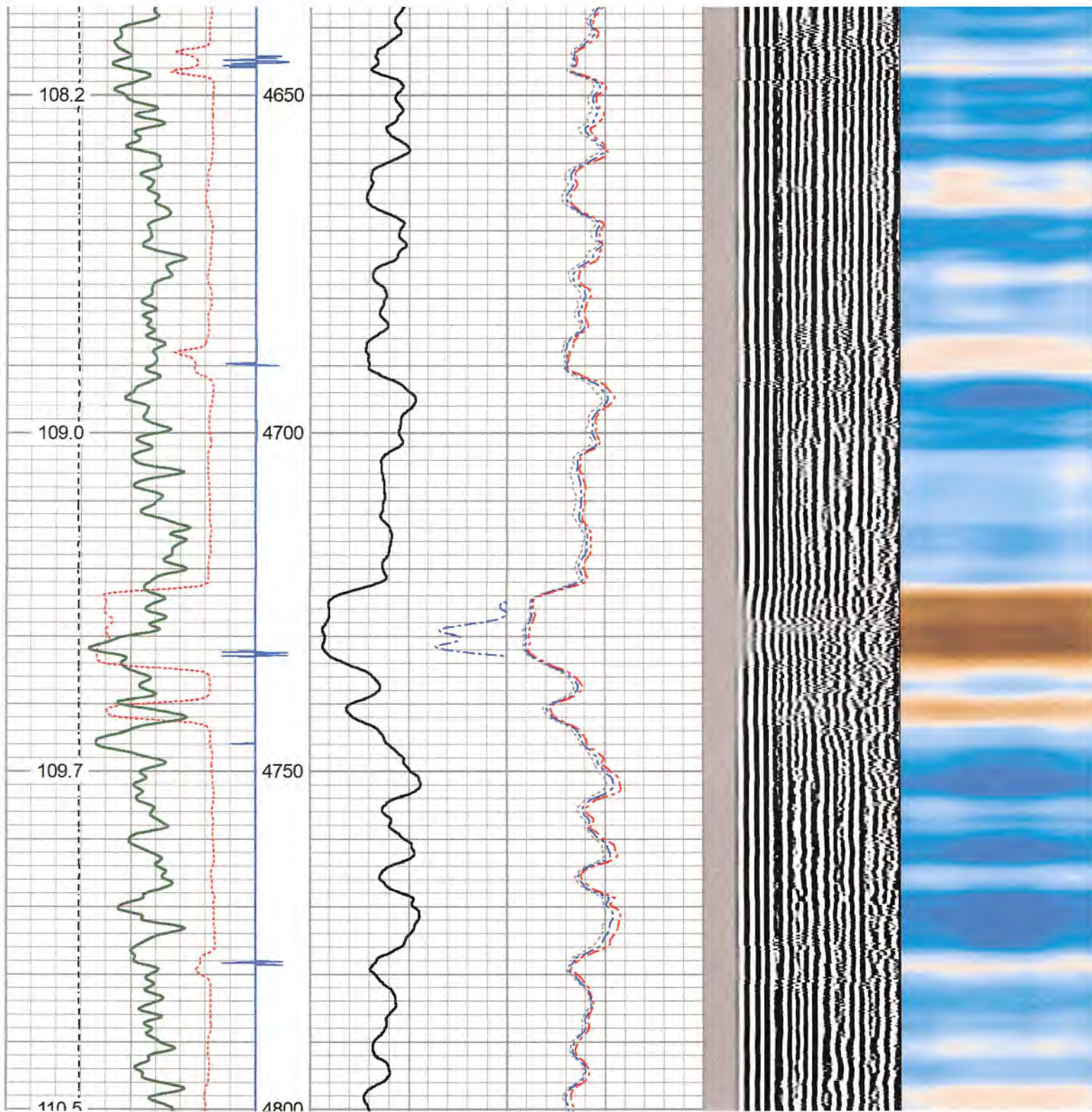


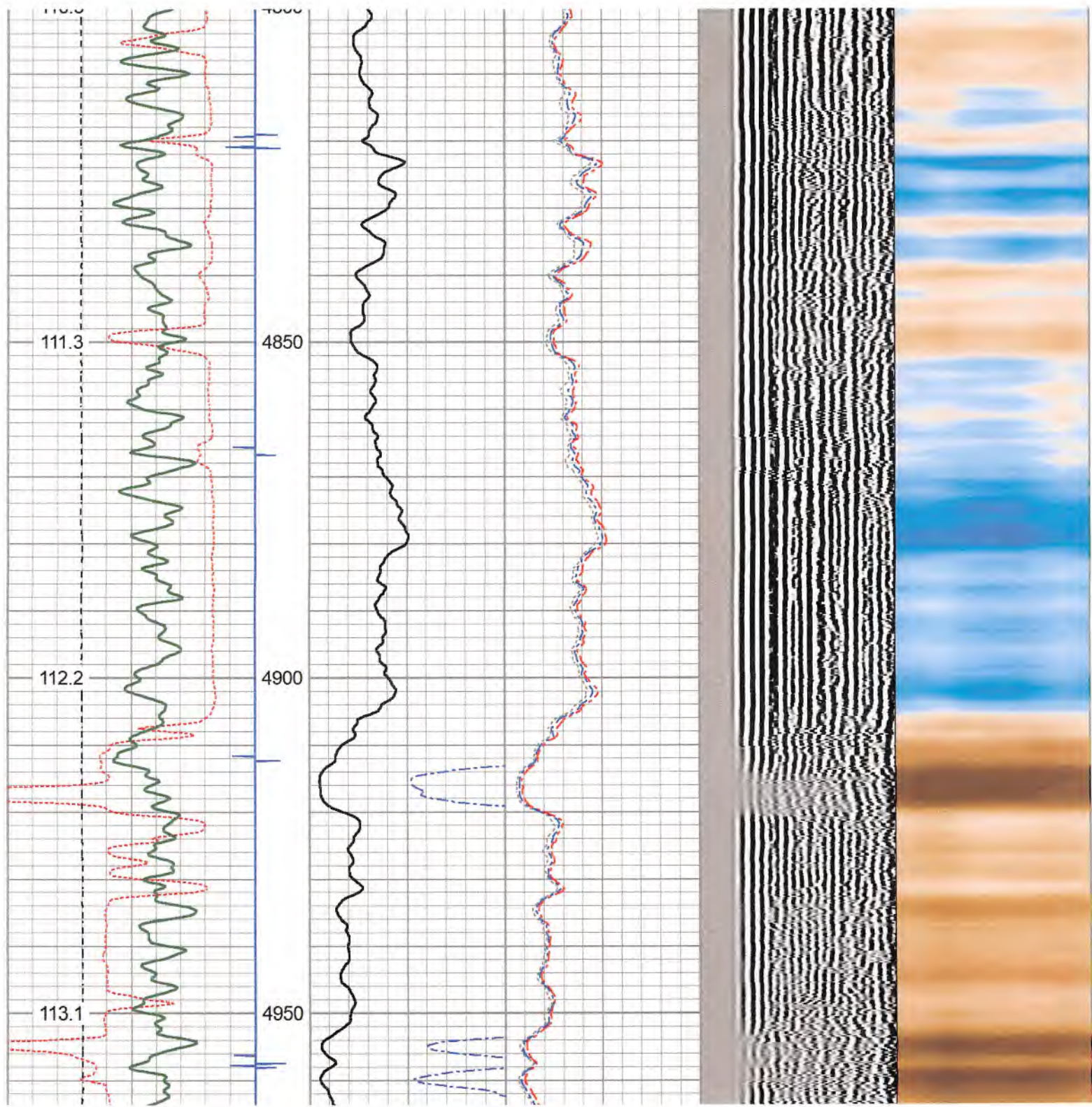


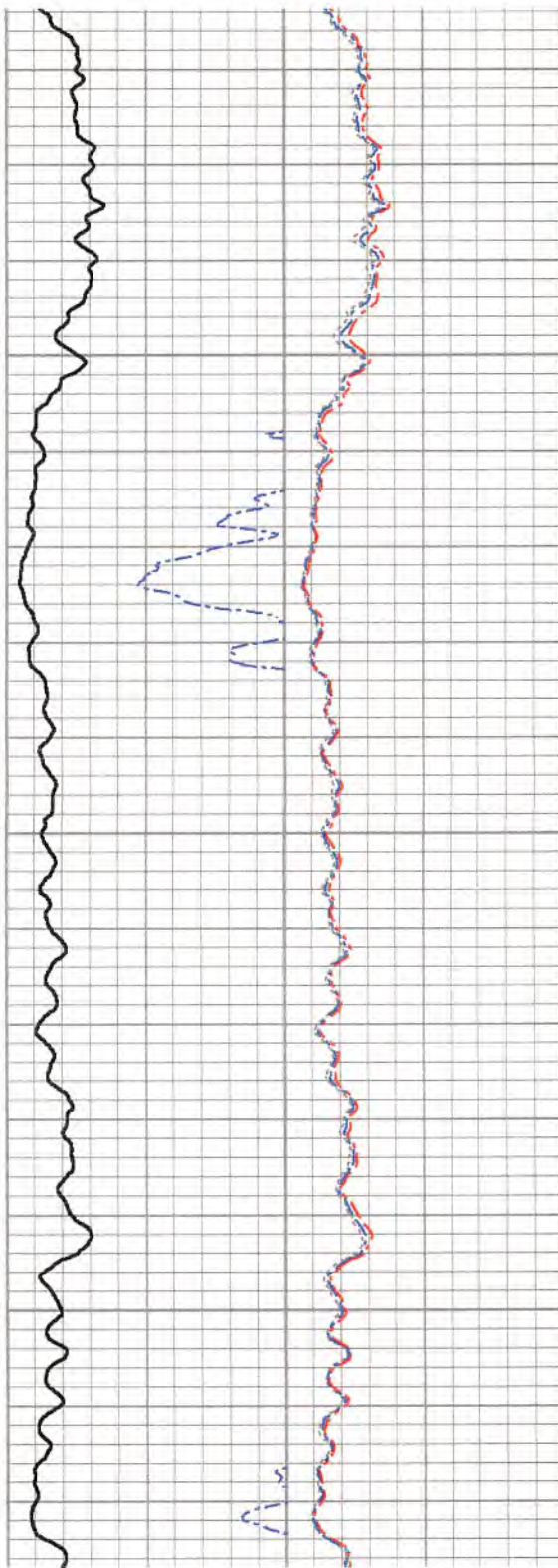
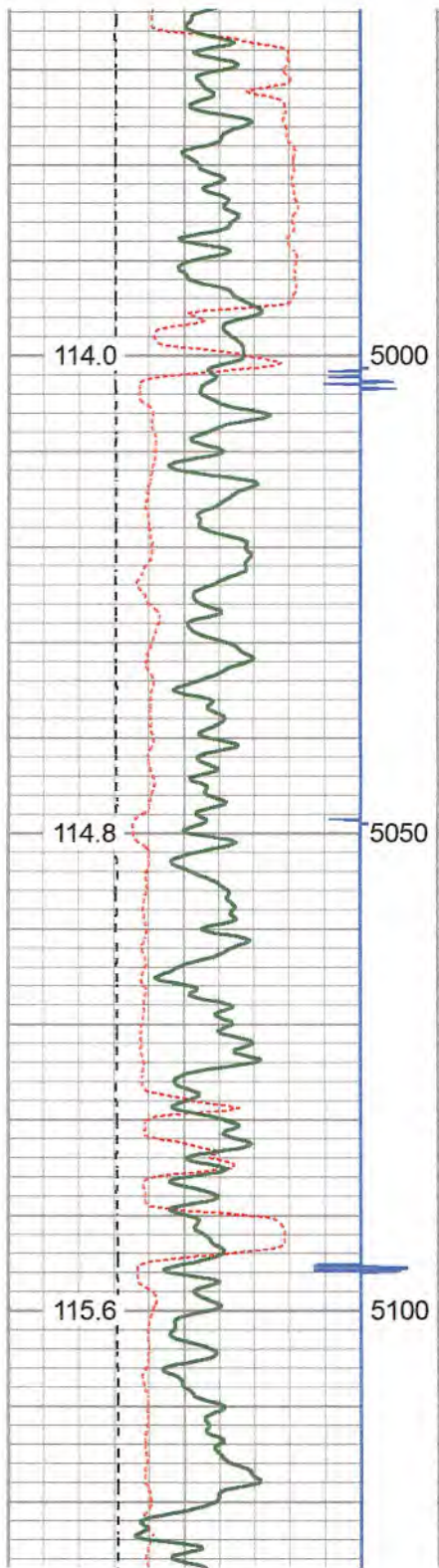


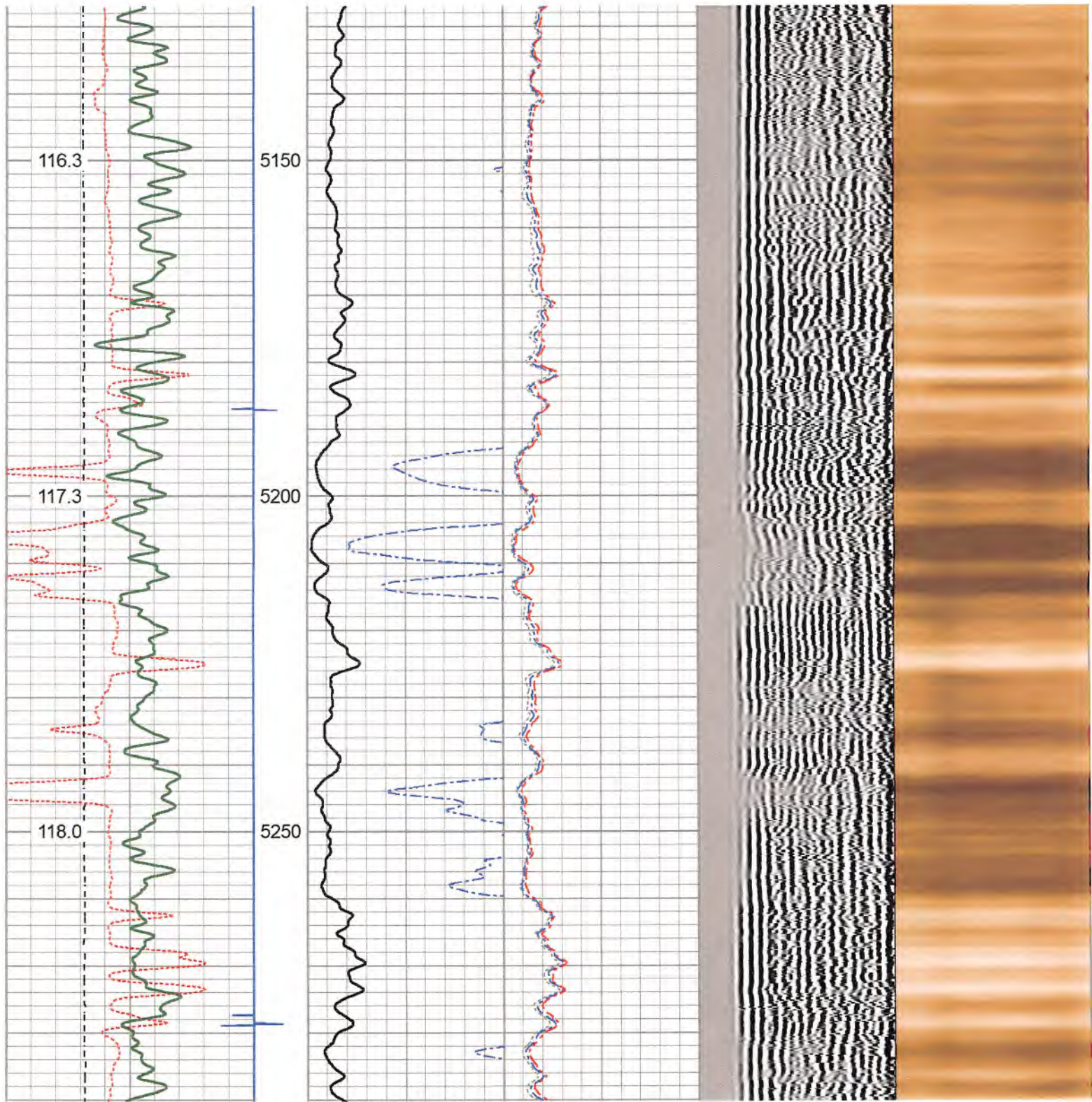


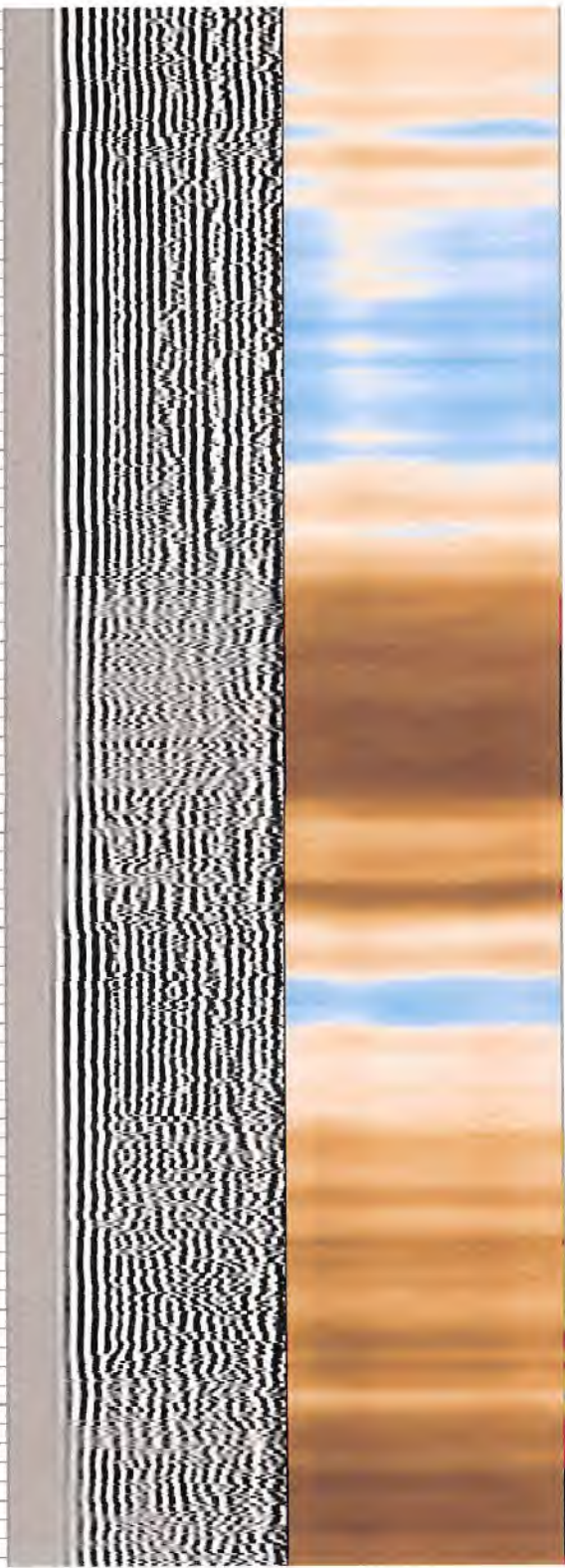
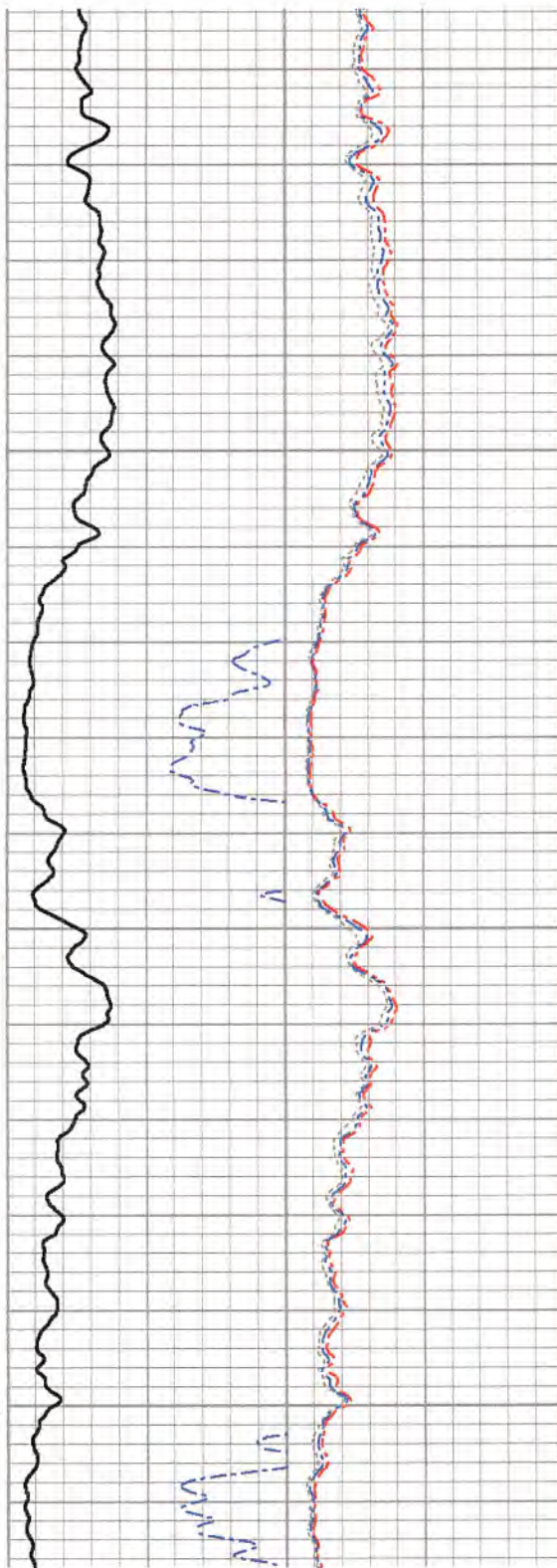
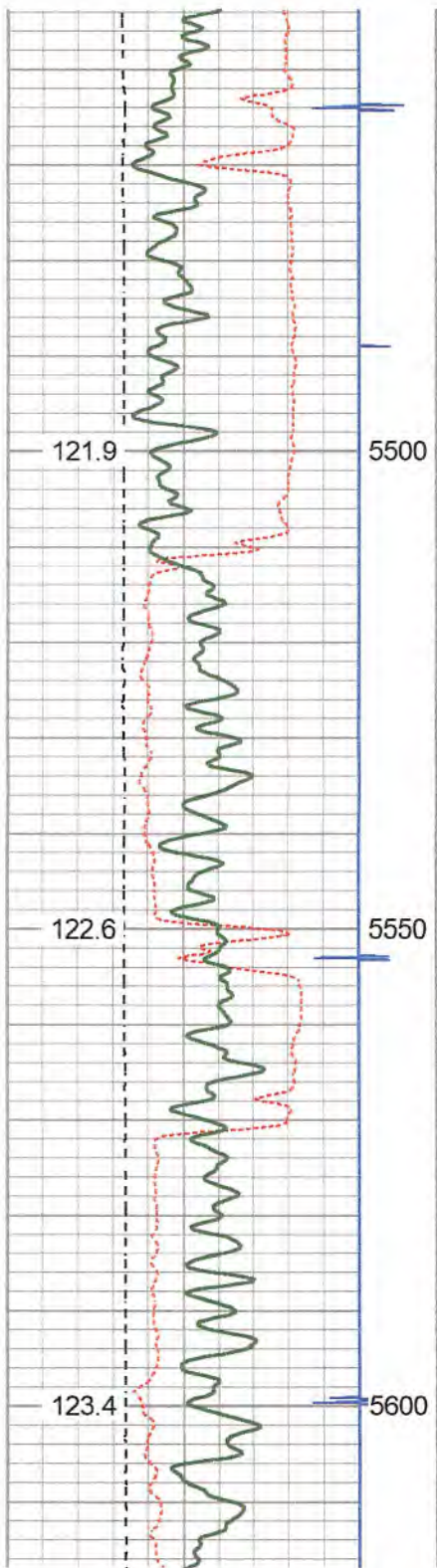


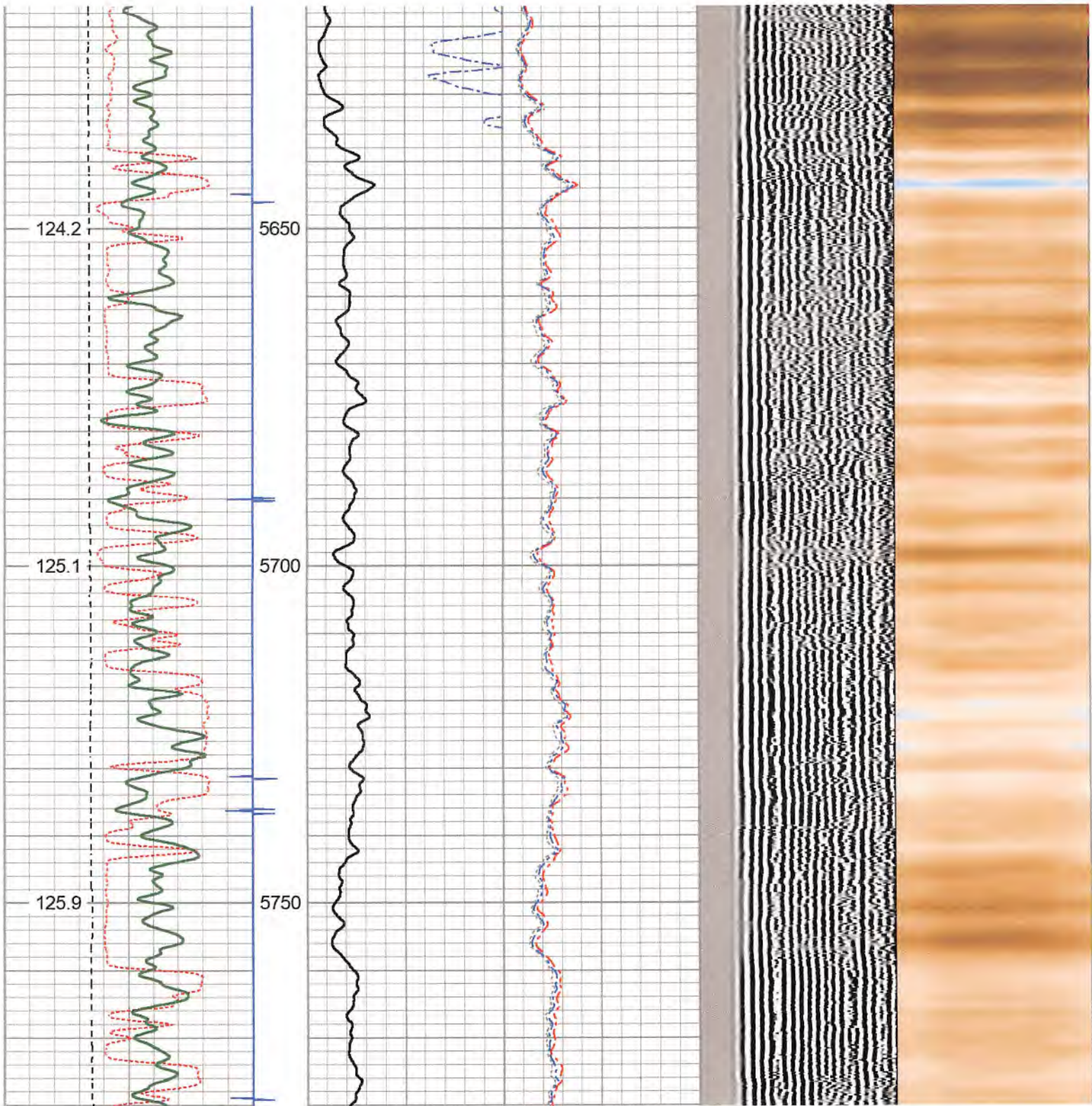


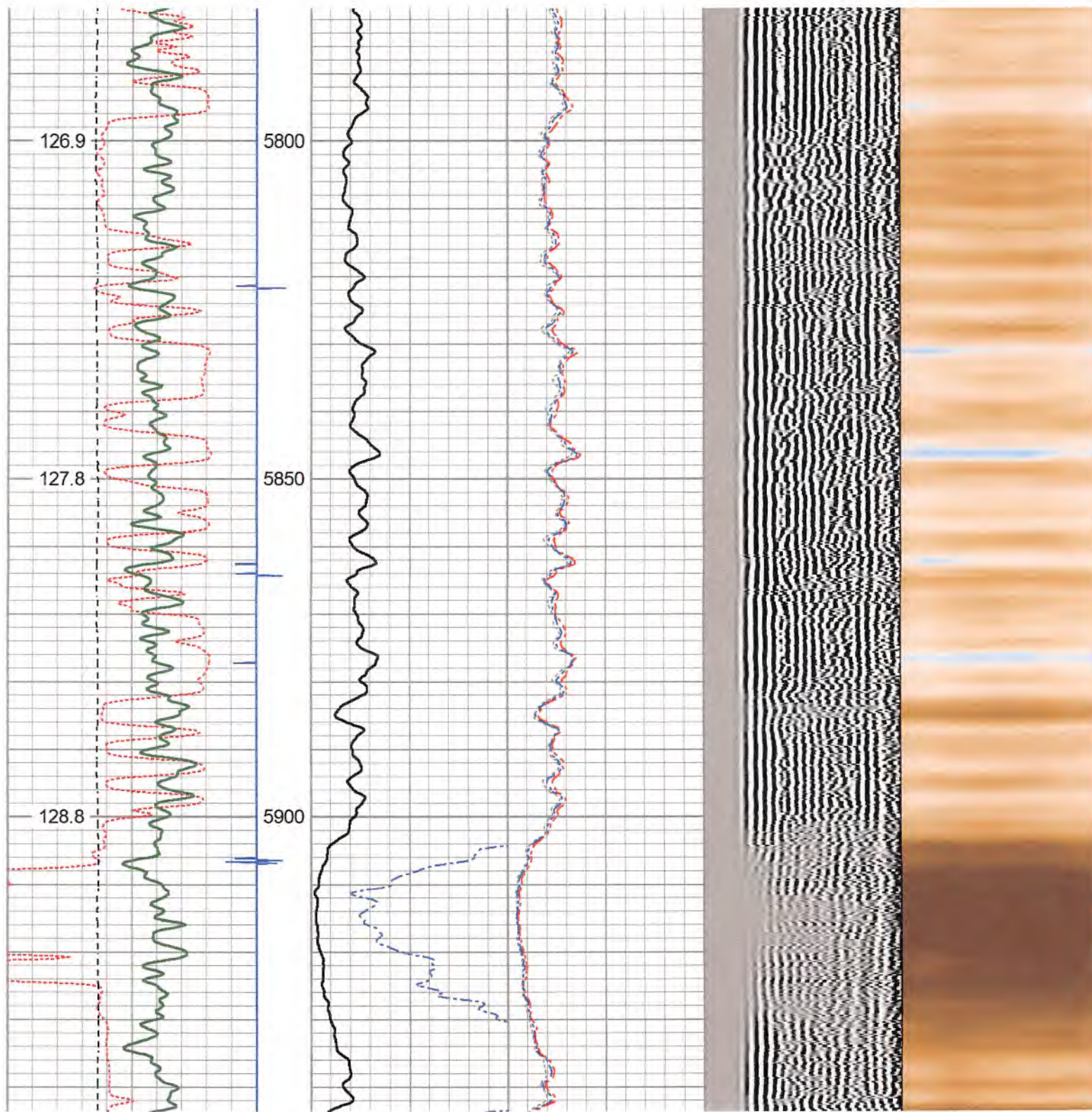


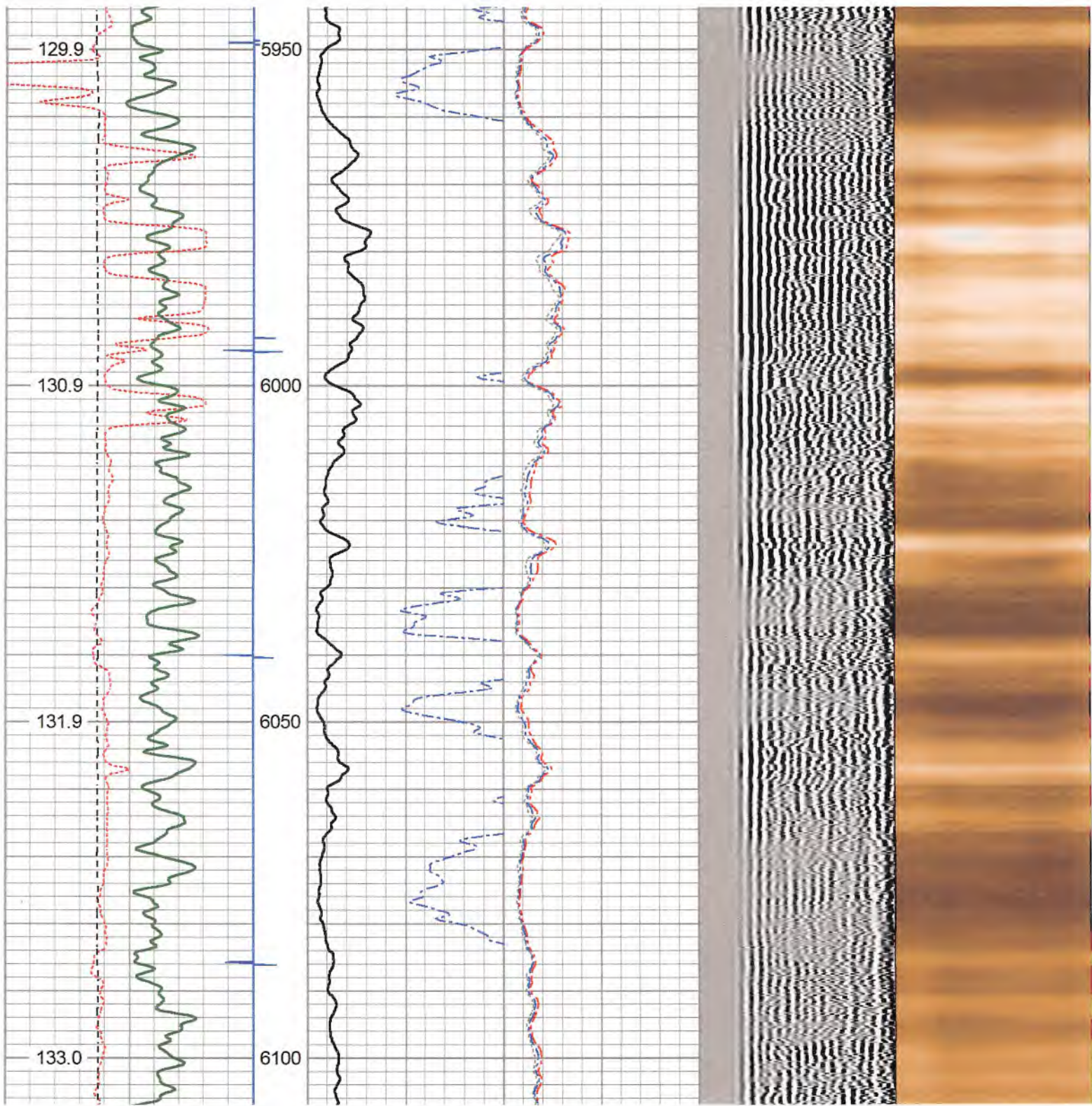


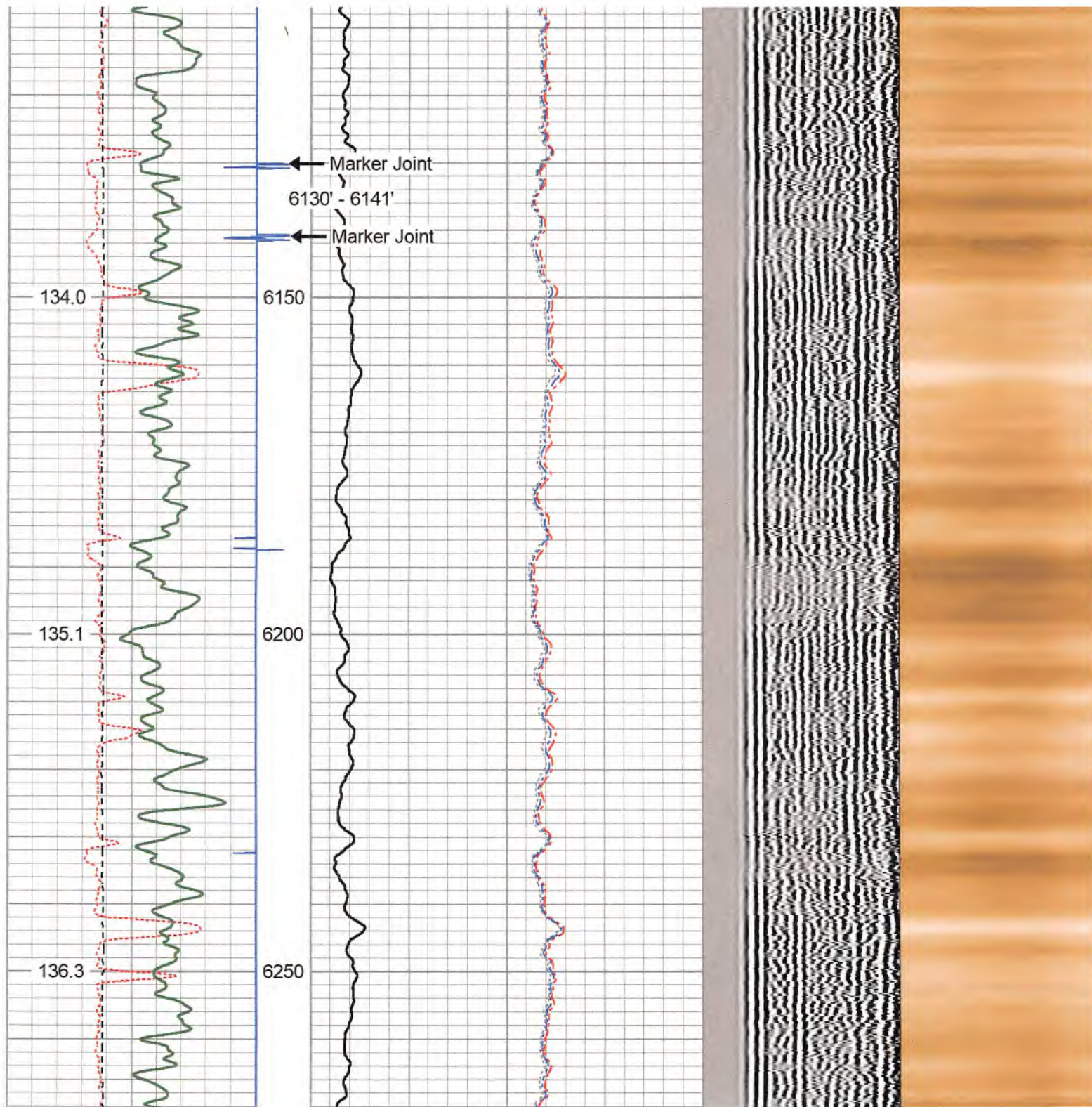


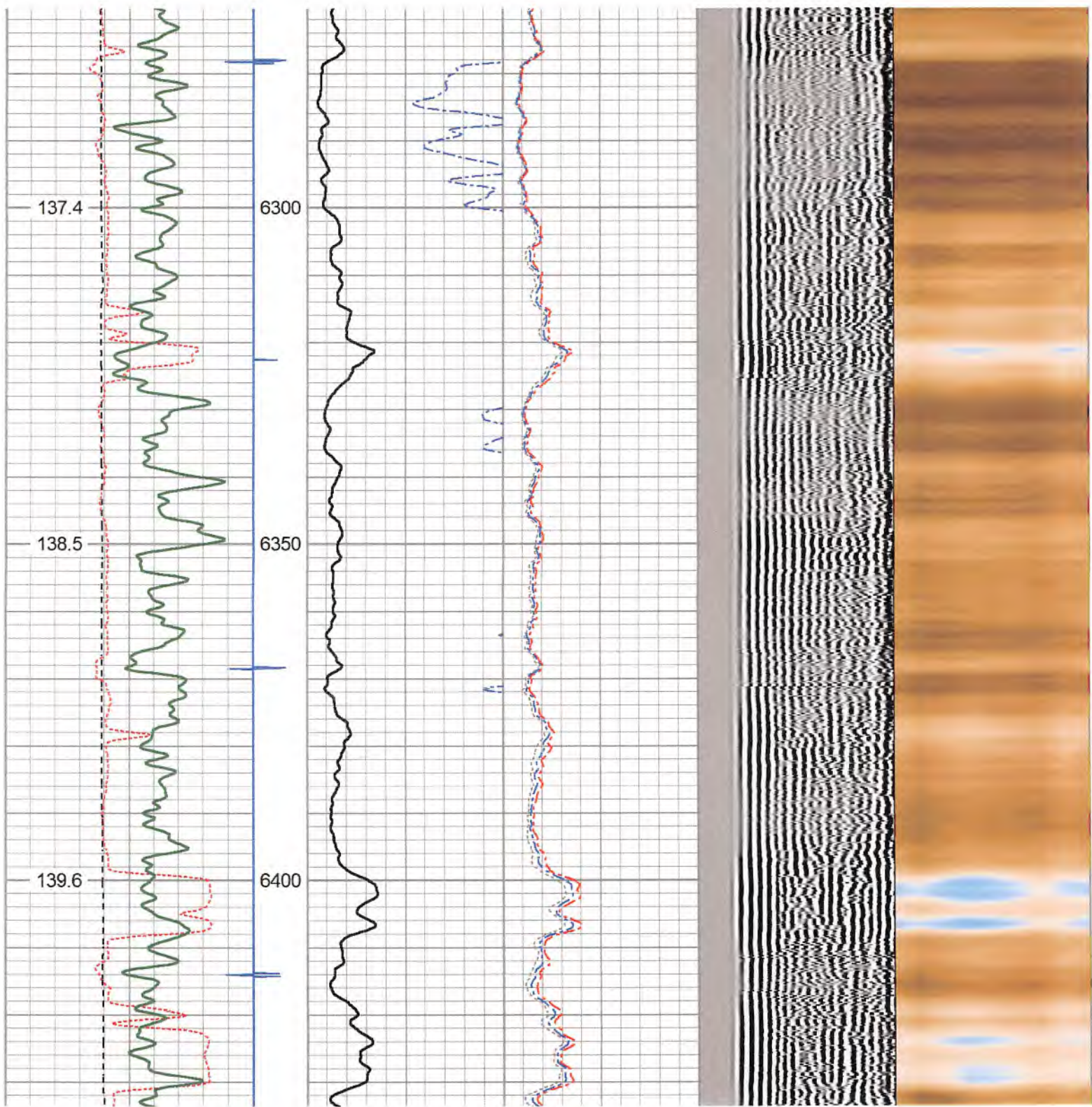


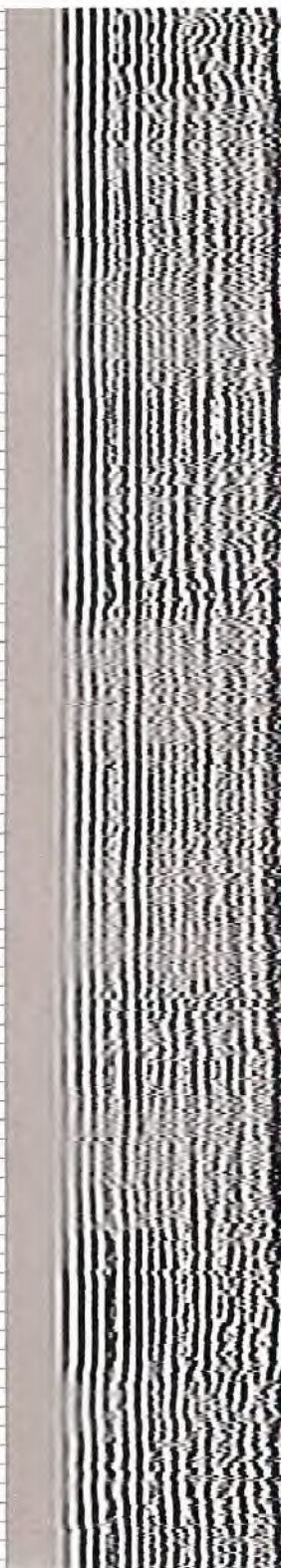
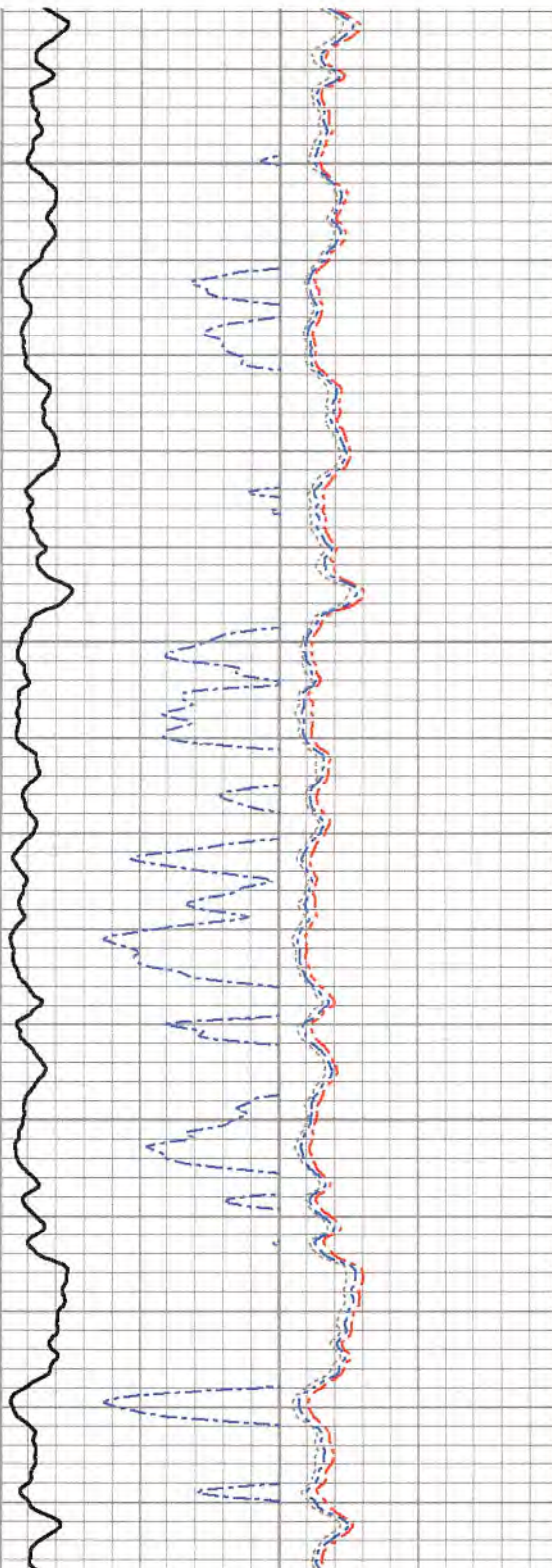
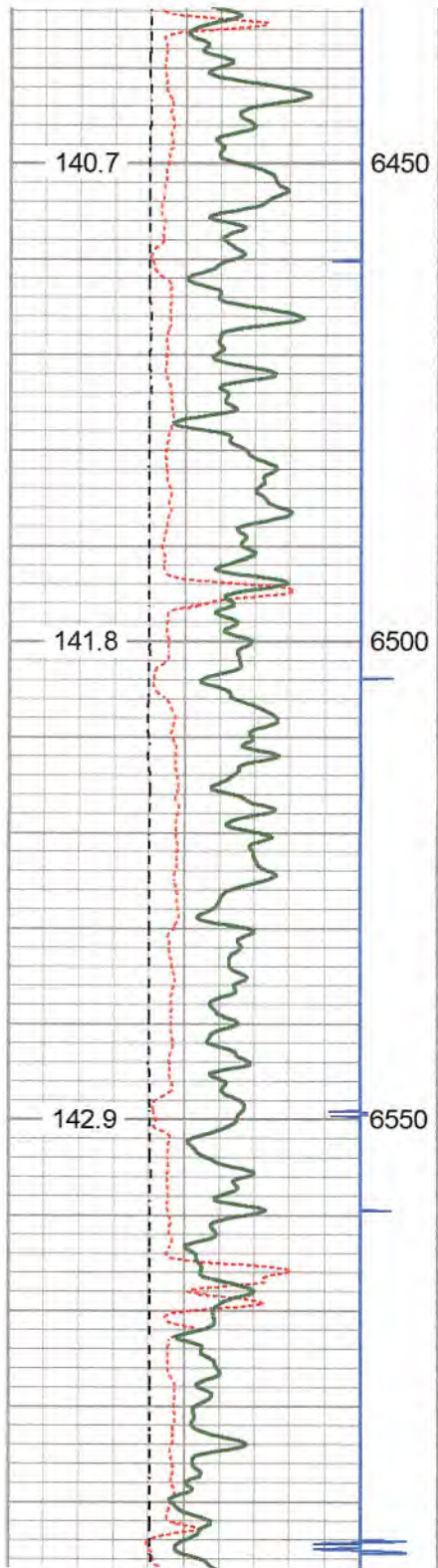


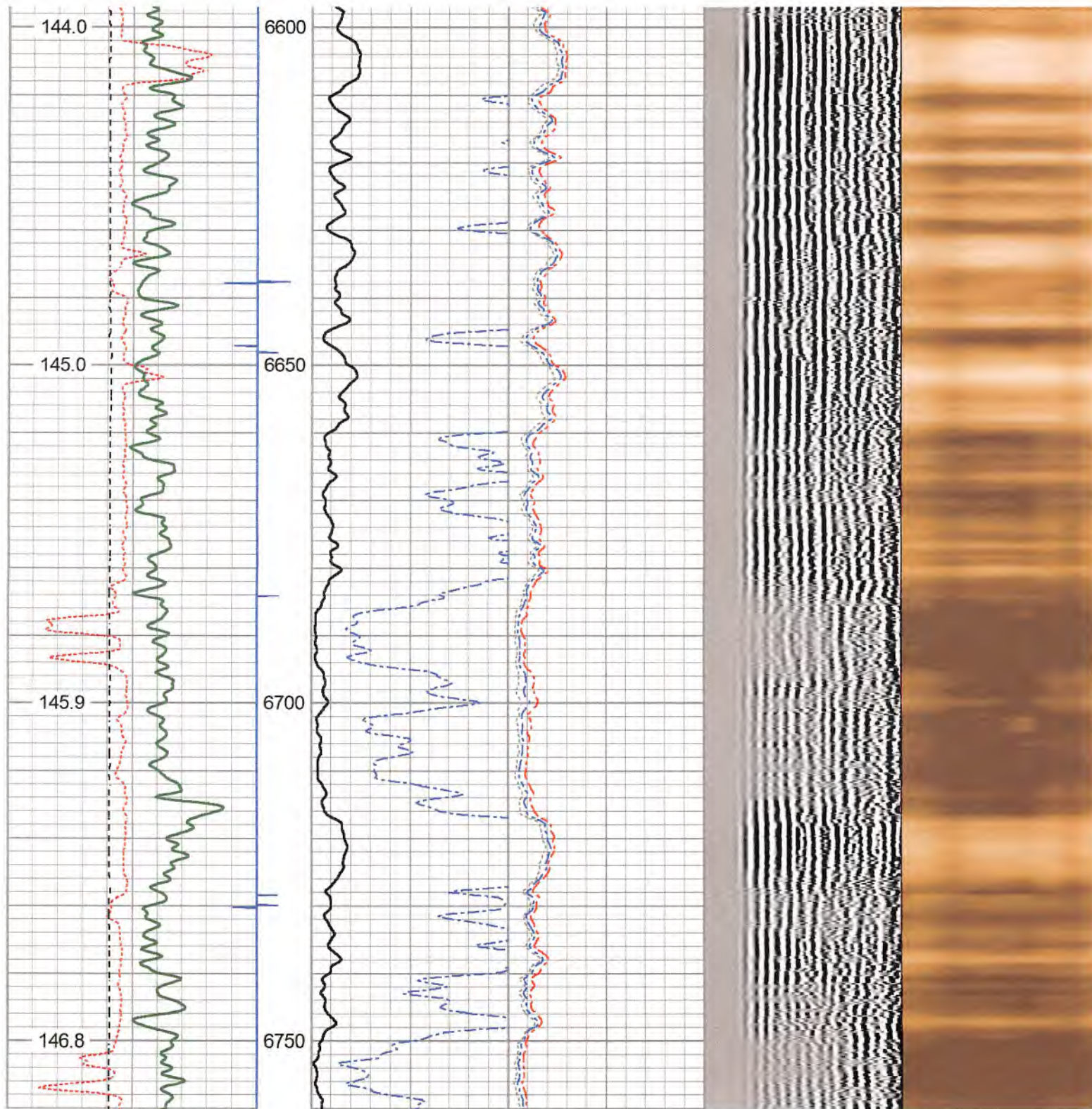


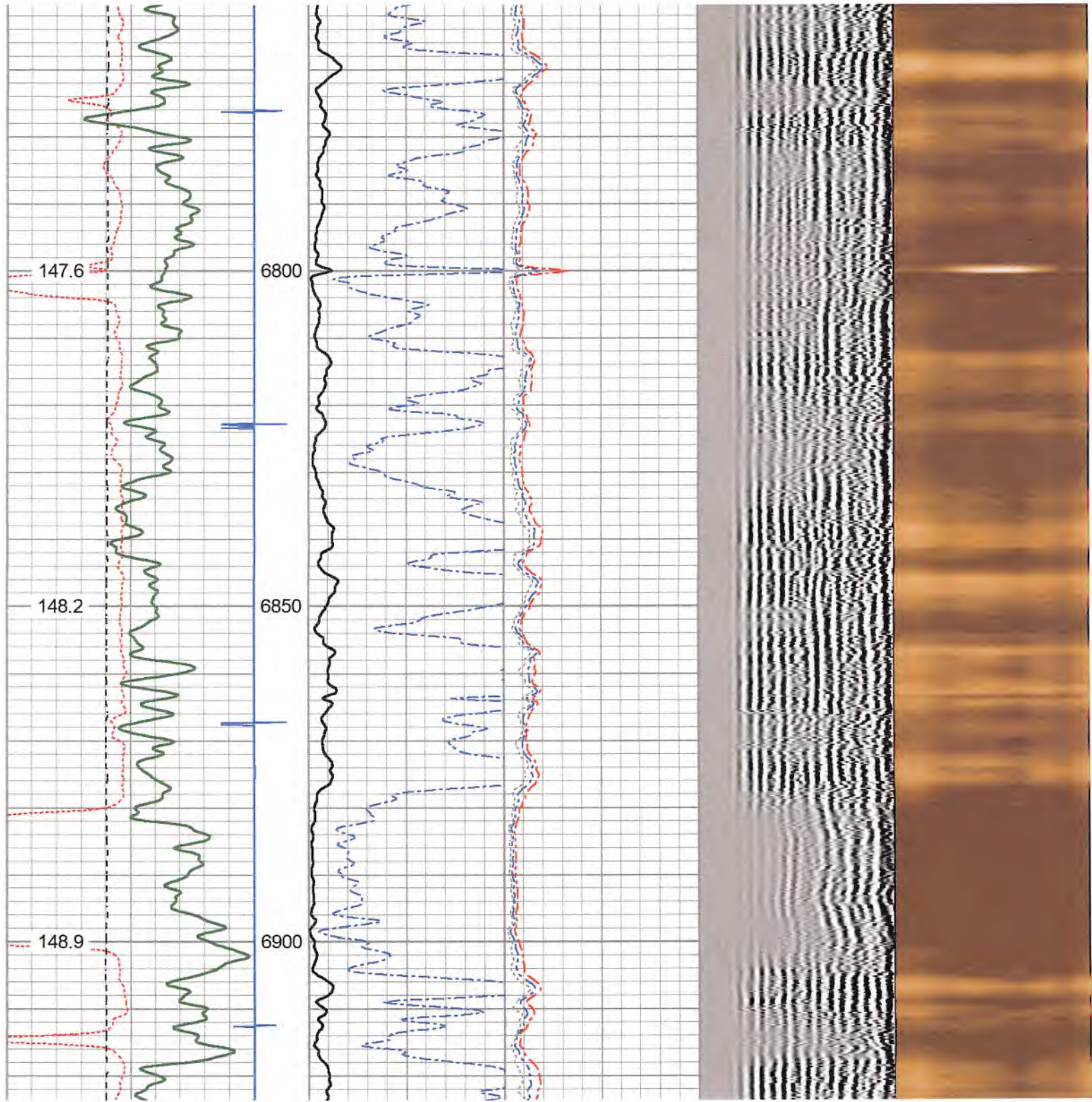


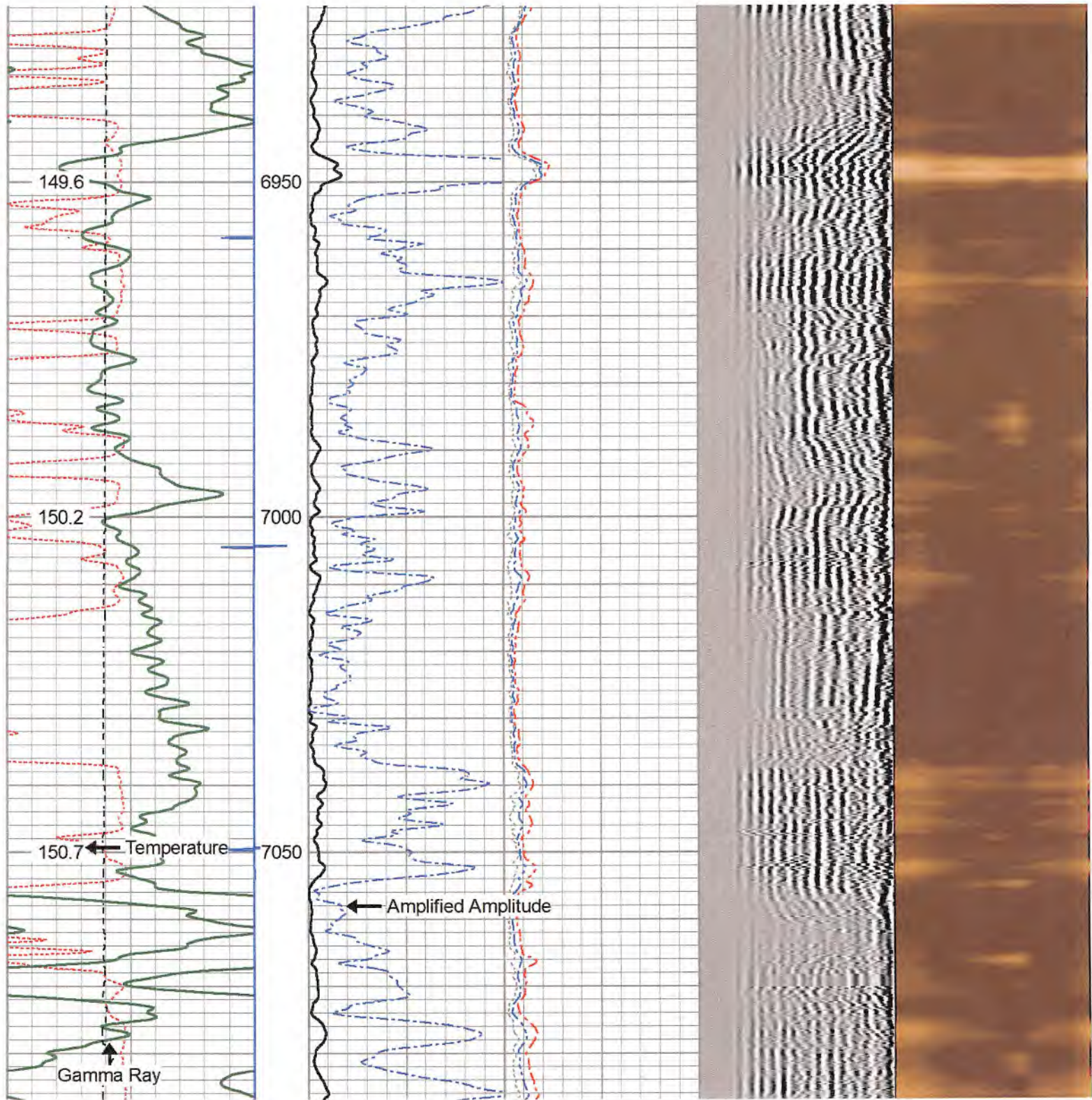


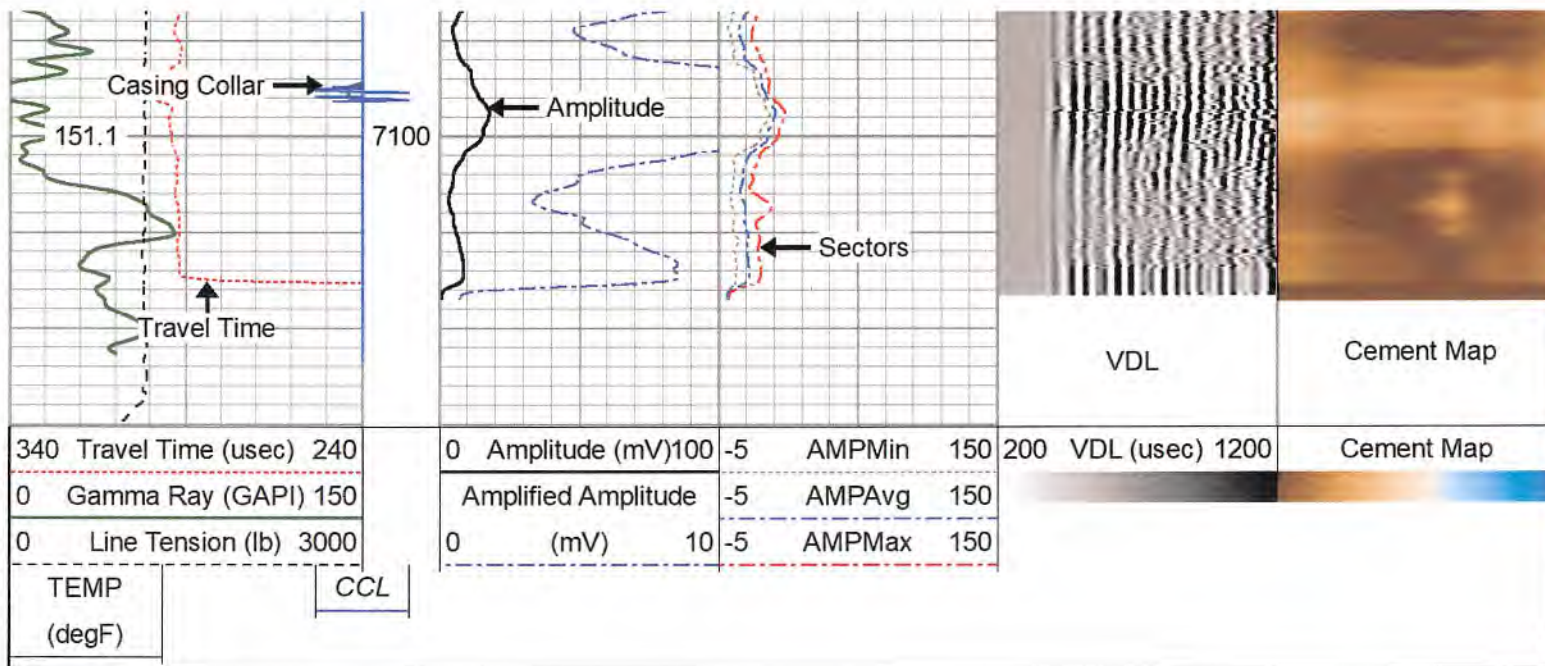






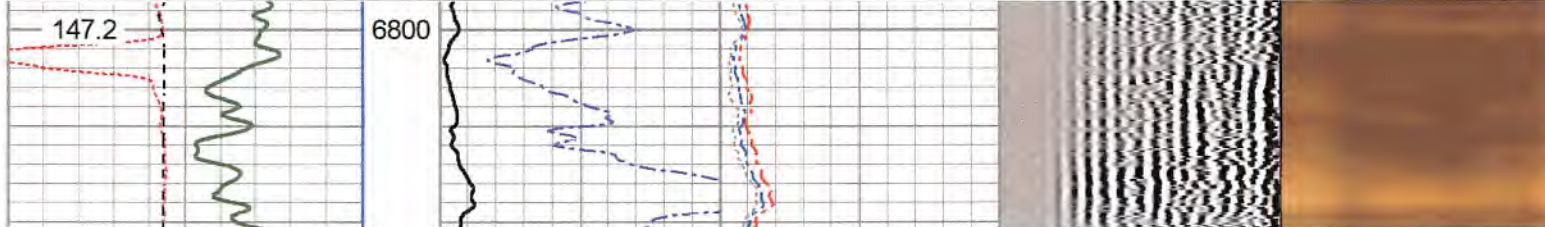
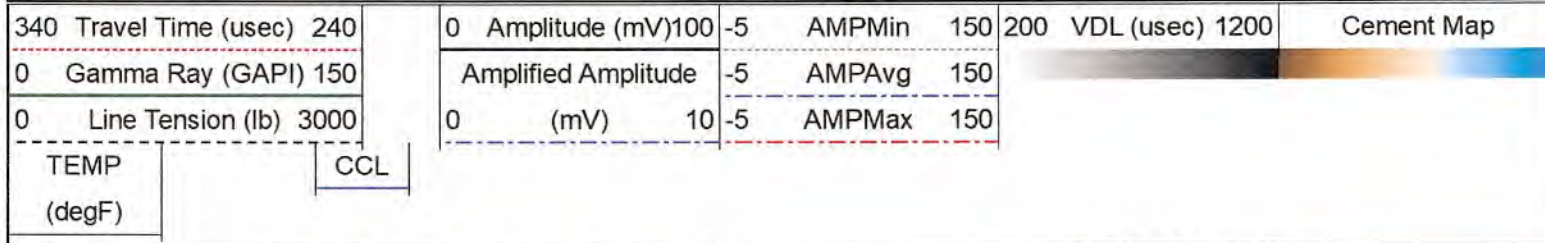


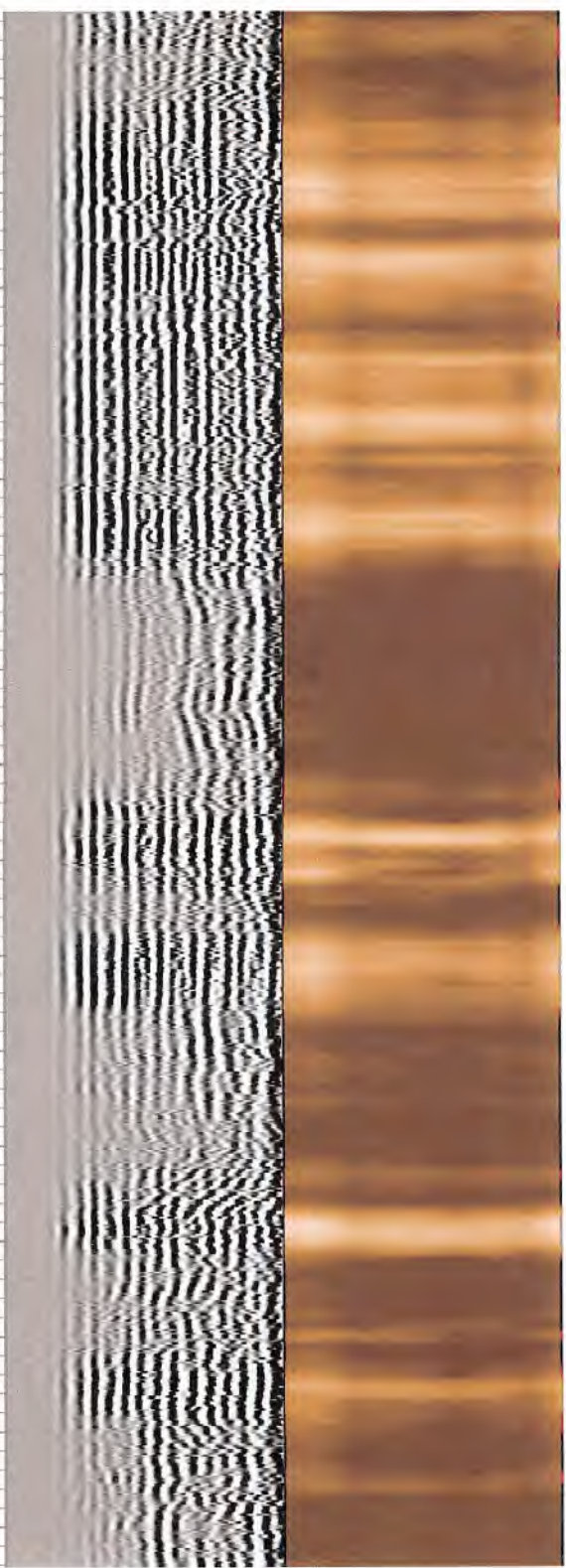
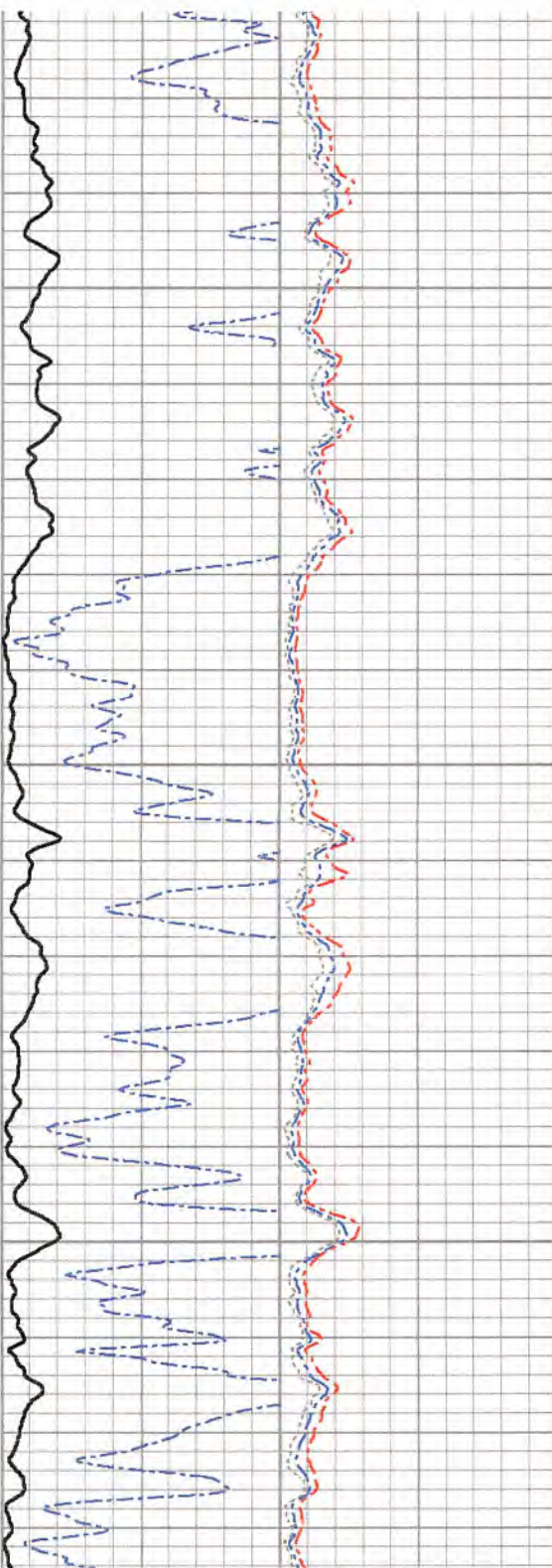
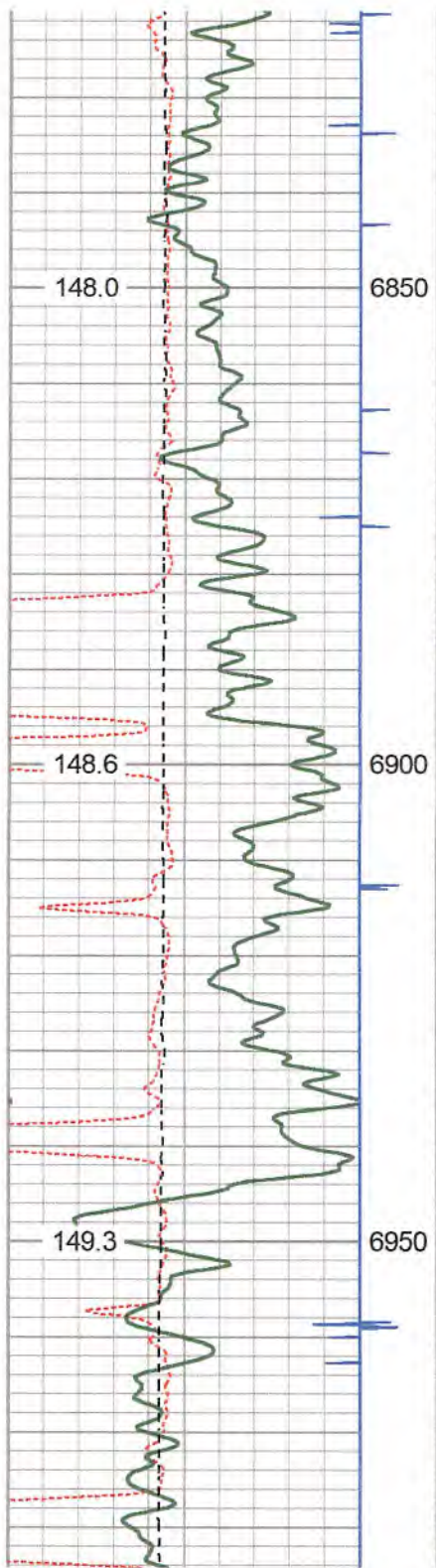


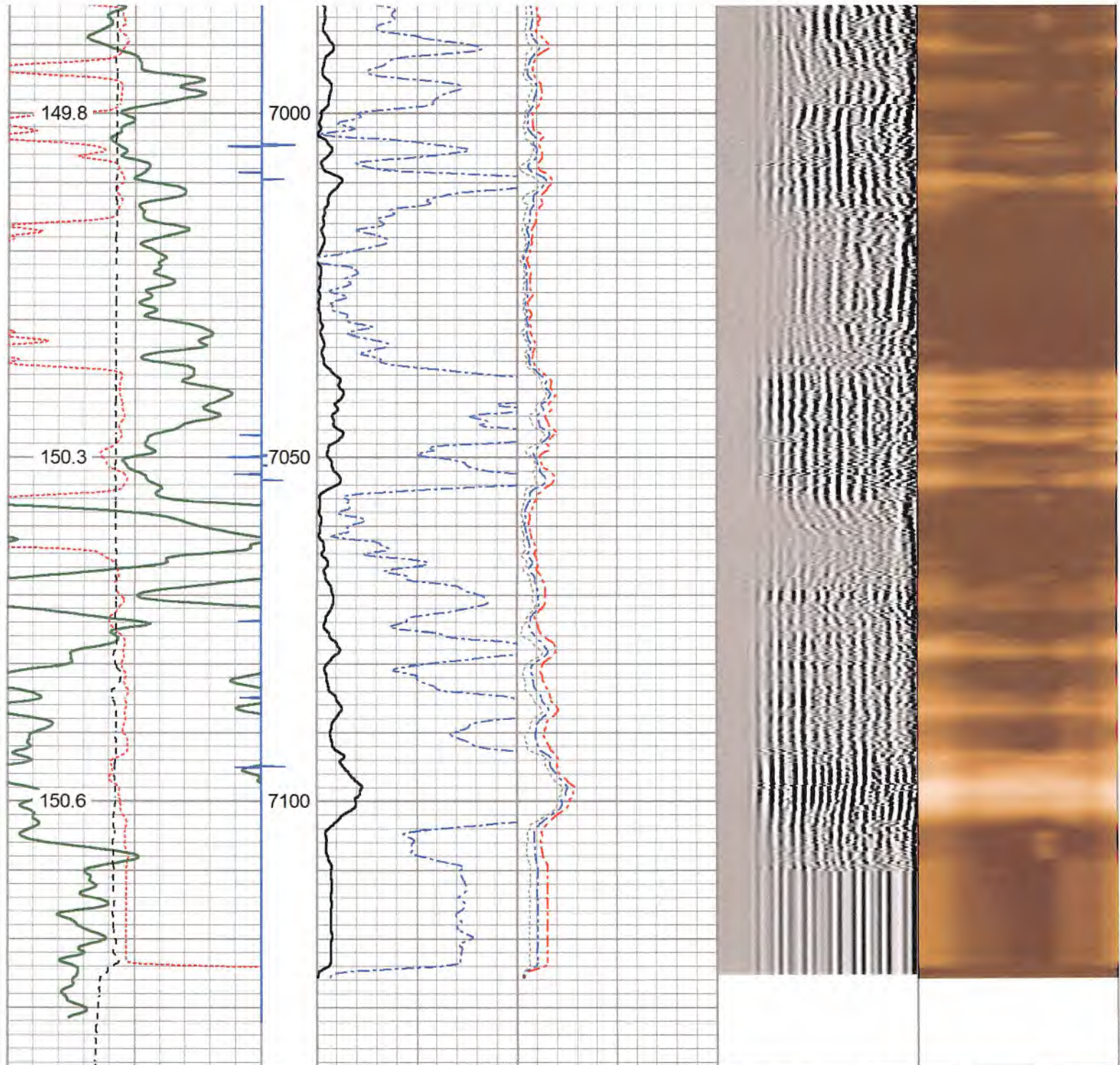


Energy Services **Repeat Pass (0 PSI)**

Database File c:\users\logbox\desktop\antero gaspar\ant_gaspar_calhoun_2h.db
 Dataset Pathname rcb/pass2
 Presentation Format tt_rcbl_std_bw
 Dataset Creation Sat Jul 16 20:02:02 2022
 Charted by Depth in Feet scaled 1:240







340	Travel Time (usec)	240	0	Amplitude (mV)	100	-5	AMPMIn	150	200	VDL (usec)	1200	Cement Map
0	Gamma Ray (GAPI)	150		Amplified Amplitude		-5	AMPAvg	150				

0	Line Tension (lb)	3000	0	(mV)	10	-5	AMPMax	150
TEMP		CCL						
(degF)								

Log Variables		Database: c:\users\logbox\desktop\antero gaspar\ant_gaspar_calhoun_2h.db					
		Dataset field/well/rcbl/pass2/_vars_					
Top - Bottom							
BOREID in 8.5	BOTTEMP degF 151.1	CASEOD in 5.5	CASETHCK in 0.42	CASEWGHT lb/ft 23	MAXAMPL mV 72	MINAMPL mV 1	MINATTN db/ft 0.8
PERFS No	PPT usec 368	SRFTEMP degF 78	TDEPTH ft 7126				
Variable Description							
BOREID : Borehole I.D.		CASEWGHT : Casing Weight		PERFS : Perforation Flag			
BOTTEMP : Bottom Hole Temperature		MAXAMPL : Maximum Amplitude		PPT : Predicted Pipe Time			
CASEOD : Casing O.D.		MINAMPL : Minimum Amplitude		SRFTEMP : Surface Temperature			
CASETHCK : Casing Thickness		MINATTN : Minimum Attenuation		TDEPTH : Total Depth			

Calibration Report	
Database File	c:\users\logbox\desktop\antero gaspar\ant_gaspar_calhoun_2h.db
Dataset Pathname	rcbl/pass2
Dataset Creation	Sat Jul 16 20:02:02 2022
Gamma Ray Calibration Report	
Serial Number:	GCT275-0000_base

Tool Model: GCT275-0000
 Performed: Wed May 29 12:12:35 2019
 Calibrator Value: 1094.2 GAPI
 Background Reading: 55.7 cps
 Calibrator Reading: 1704.2 cps
 Sensitivity: 0.6638 GAPI/cps

Segmented Cement Bond Log Calibration Report

Serial Number: RBT275C_Base
 Tool Model: RADII-275C
 Calibration Casing Diameter: 5.500 in
 Calibration Depth: 458.492 ft

Master Calibration, performed Sat Jul 16 13:58:01 2022:

	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3'	0.002	0.356	1.000	71.921	200.333	0.680
CAL	-0.000	0.871				
5'	0.001	0.264	1.000	71.921	269.711	0.826
SUM						
S1	-0.005	0.556	0.000	100.000	178.137	0.870
S2	0.002	0.471	0.000	100.000	213.156	-0.429
S3	0.001	0.368	0.000	100.000	272.867	-0.403
S4	0.001	0.373	0.000	100.000	268.978	-0.263
S5	0.001	0.389	0.000	100.000	257.691	-0.186
S6	0.002	0.384	0.000	100.000	261.441	-0.514
S7	0.001	0.382	0.000	100.000	262.775	-0.391
S8	0.001	0.468	0.000	100.000	244.226	0.460

50 0.001 0.400 0.000 100.000 214.220 -0.100

Internal Reference Calibration, performed Sat Jul 16 09:45:49 2022:


	Raw (v)		Calibrated (v)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
CAL	0.000	0.000	-0.000	0.871	1.000	0.000

Air Zero Calibration, performed Sat Jul 16 09:42:35 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

Inclinometer Calibration Report

Performed:	(Not Performed)				
	Low Read.	High Read.	Low Ref.	High Ref.	
X Accelerometer	0.00	1.00	0.00	1.00	gee
Y Accelerometer	0.00	1.00	0.00	1.00	gee
Z Accelerometer	0.00	1.00	0.00	1.00	gee

Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb)
			Cable_Head-1_7/16 Titan 1 7/16" Cable Head	1.02	1.44	3.31

			CENT-BC275-0000 Probe 2.75" Bowspring Centralizer	2.83	2.75	24.00
RBT_HV	19.19					
			RBT8-RADII-275C (RBT275C_Base) Probe 2.75" RADII 8 Sector Bond Tool	8.75	2.75	
WVFS8	14.69					
WVFS7	14.69					
WVFS6	14.69					
WVFS5	14.69					
WVFS4	14.69					
WVFS3	14.69					
WVFS2	14.69					
WVFS1	14.69					
WVF3FT	14.69					
WVF5FT	13.69					
RBT_ACCZ	10.44					
RBT_ACCY	10.44					
RBT_ACCX	10.44					
WVFSYNC	10.44					
WVFCAL	10.44		CENT-BC275-0000 Probe 2.75" Bowspring Centralizer	2.83	2.75	24.00
GCT_HV	7.60					
CCL\$2	6.64					
CCL\$1	6.64					

CCL#1	0.04					
GCT_Temp	6.09					
GR	5.22		GC-GCT275-0000 (GCT275-0000_base) Probe Gamma Ray - CCL w/ Temp	4.77	2.75	55.00
			CENT-BC275-0000 Probe 2.75" Bowspring Centralizer	2.83	2.75	24.00

Dataset: ant_gaspar_calhoun_2h.db: field/well/rcbl/pass2
 Total length: 23.04 ft
 Total weight: 130.31 lb
 O.D.: 2.75 in

	Company	Antero Resources Corporation	
	Well	Calhoun Unit 2H	
	Field	South Canton	
	County	Doddridge	
	State	WV	Country