



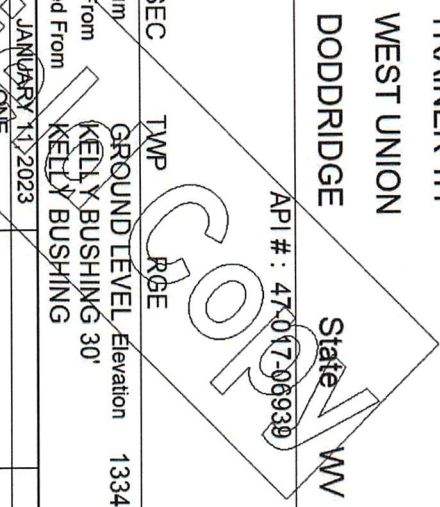
**RADIAL CEMENT BOND LOG
VARIABLE DENSITY LOG
GAMMA/CCL/TEMP**

Company ANTERO RESOURCES
Well TRAINER 1H
Field WEST UNION
County DODDRIDGE
State WV

Company ANTERO RESOURCES
Well TRAINER 1H
Field WEST UNION
County DODDRIDGE
State WV

Location: API #: 47-017-06939

SEC TYP RGE
Permanent Datum GROUND LEVEL Elevation 1334'
Log Measured From KELLY BUSHING 30'
Drilling Measured From KELLY BUSHING
Elevation
K.B. 1,364'
D.F. 1,364'
G.L. 1,334'



Date	JANUARY 11, 2023						
Run Number	ONE						
Depth Driller	22.416'						
Depth Logger	7.470'						
Bottom Logged Interval	7.454'						
Top Log Interval	SURFACE						
Open Hole Size	NA						
Type Fluid	FRESH WATER						
Density / Viscosity	8.6 LB/GAL						
Max. Recorded Temp.	147.8						
Estimated Cement Top	6.048'						
Time Well Ready	UPON ARRIVAL						
Time Logger on Bottom	10:30						
Equipment Number	116						
Location	CHARLEROI, PA						
Recorded By	C. DRUMMOND						
Witnessed By	BRYAN HEWARD						
Borehole Record							
Run Number	Bit	From	To	Size	Weight	From	To
Tubing Record							
Casing Record	Size	Wgt/Ft	Top	Bottom			
Conductor String	13.375"	54.5 LBS.	SURFACE	898'			
Surface String	9.625"	36 LBS.	SURFACE	3.283'			
Intermediate String	5.5	23 LBS.	SURFACE	22.416'			
Production String							

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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 CORRELATED TO MARKER JOINT
DEPTH SHIFT -4
MARKER JOINT 6,106' - 6,116'
MAIN PASS LOGGED WITH 1500 PSI
REPEAT PASS LOGGED WITH 0 PSI

THANK YOU FOR USING NINE ENERGY SERVICES

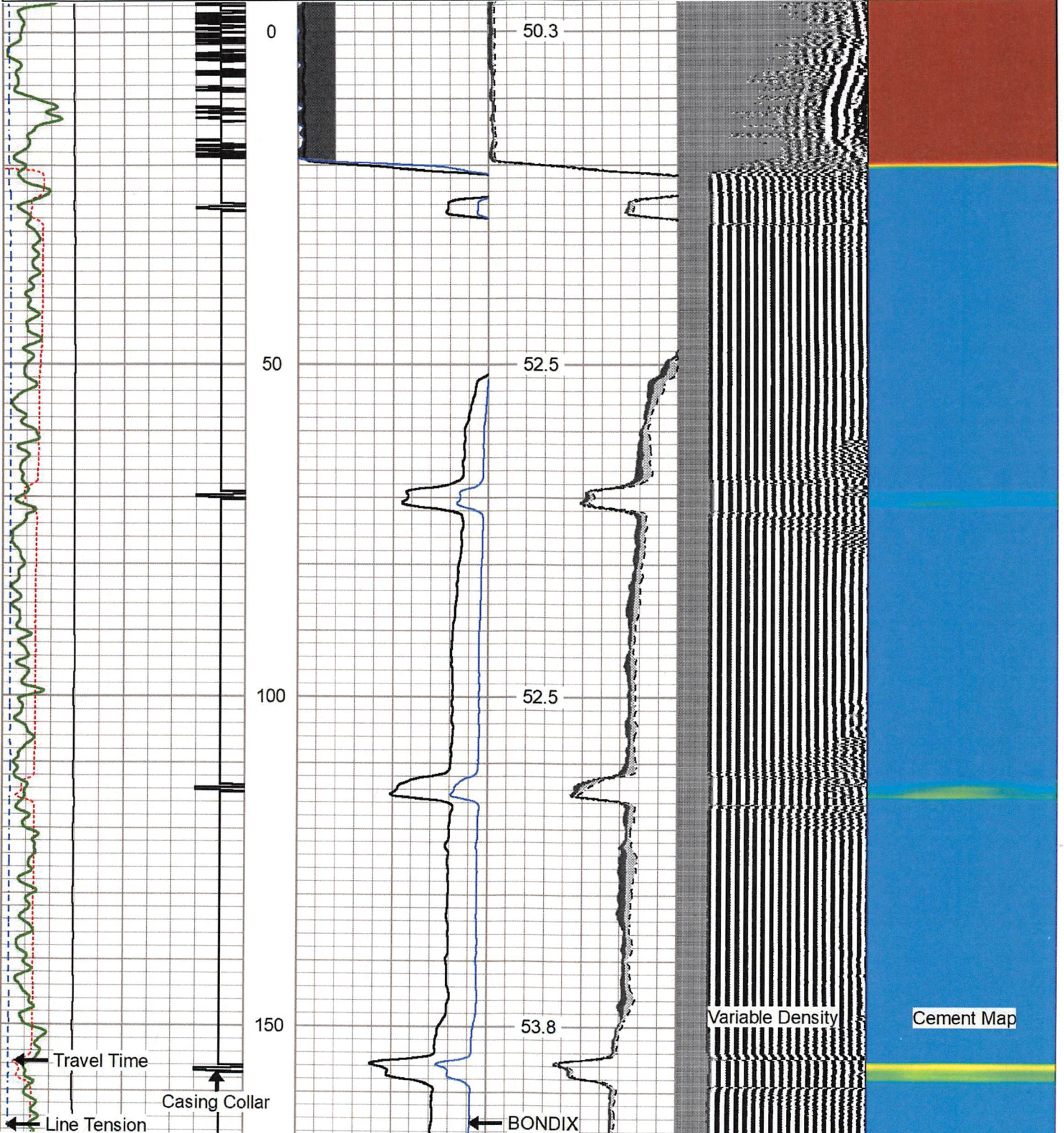
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Office of Oil and Gas
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WV Department of
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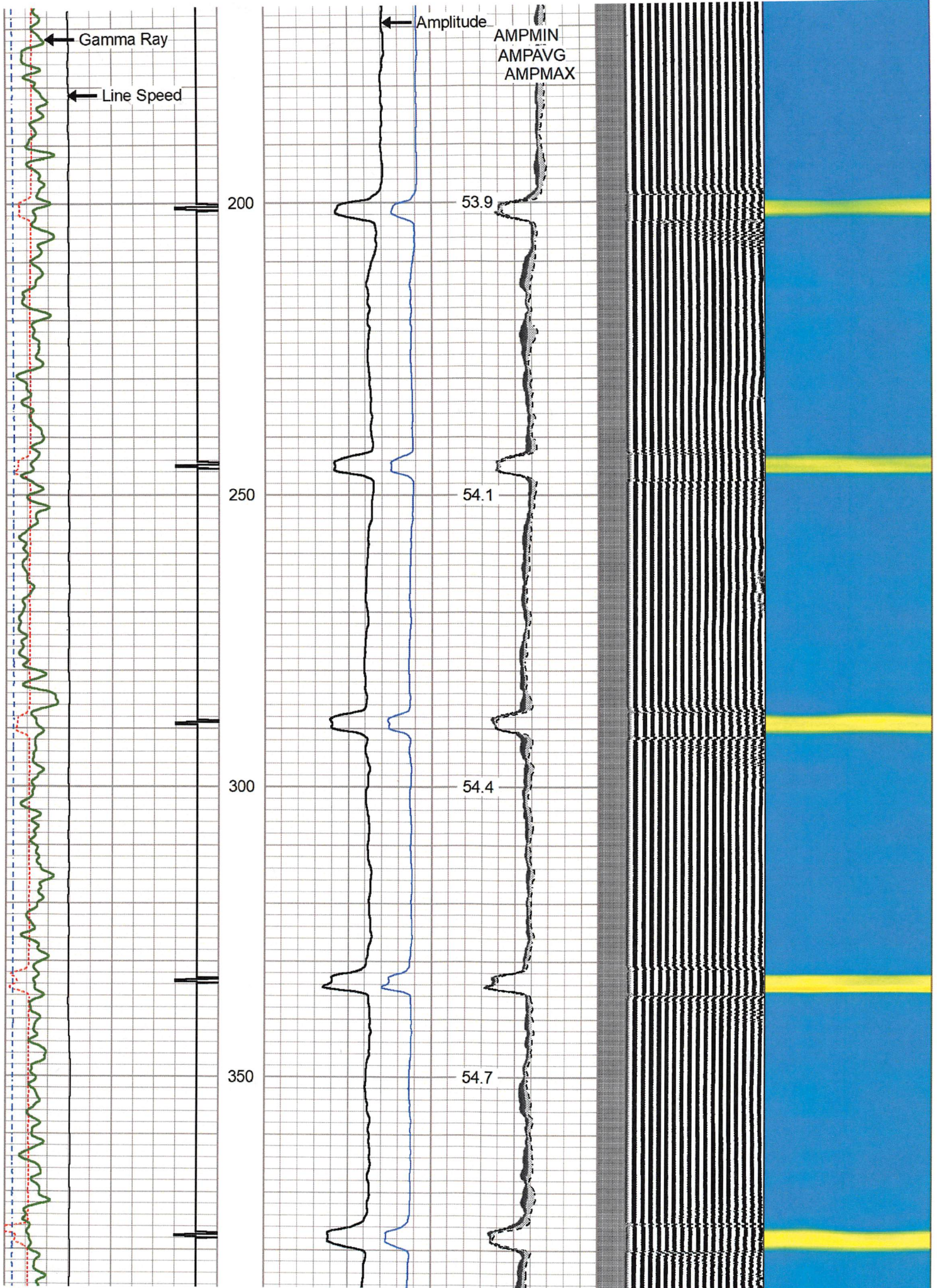


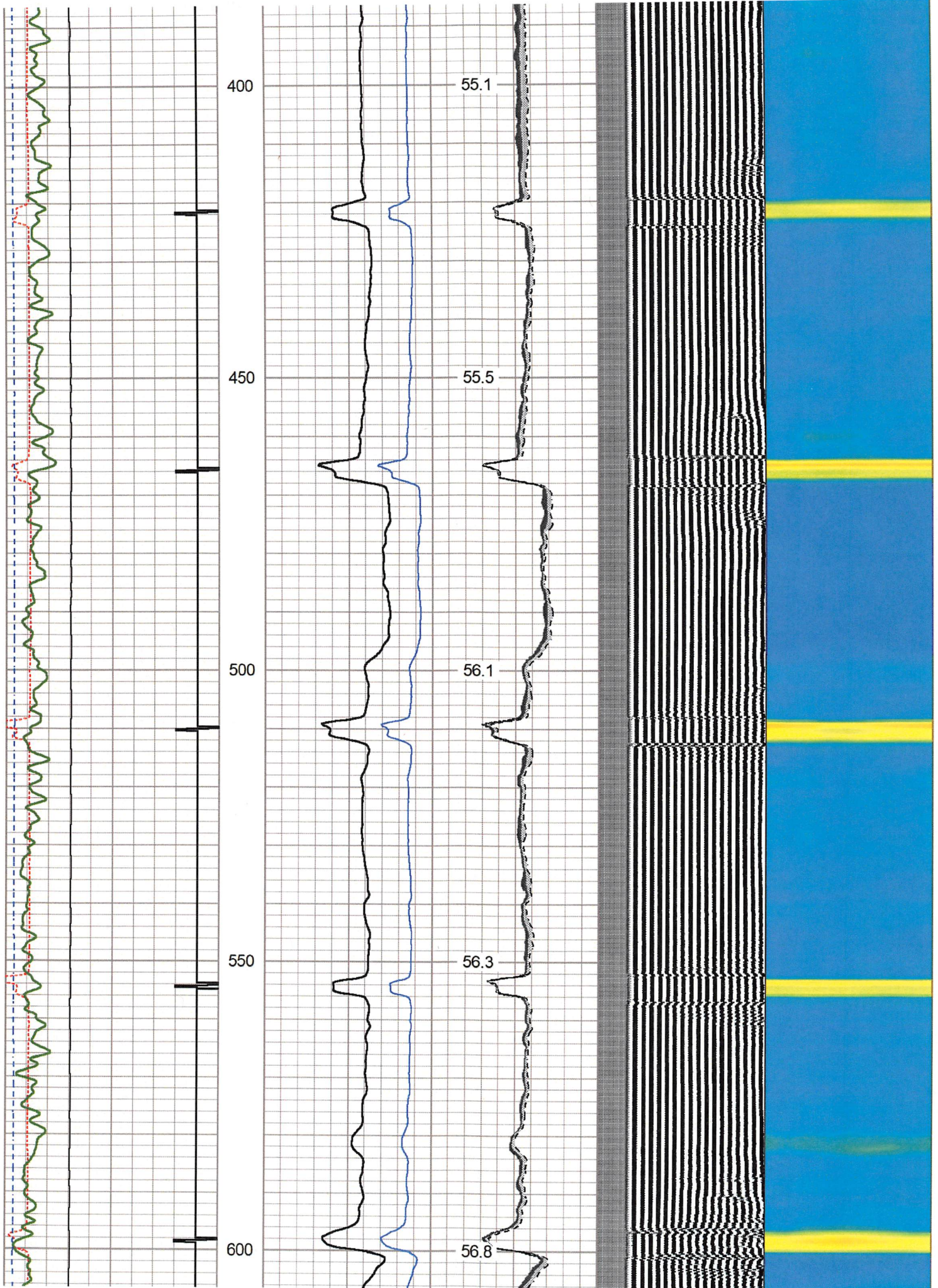
Main Pass 1500 PSI

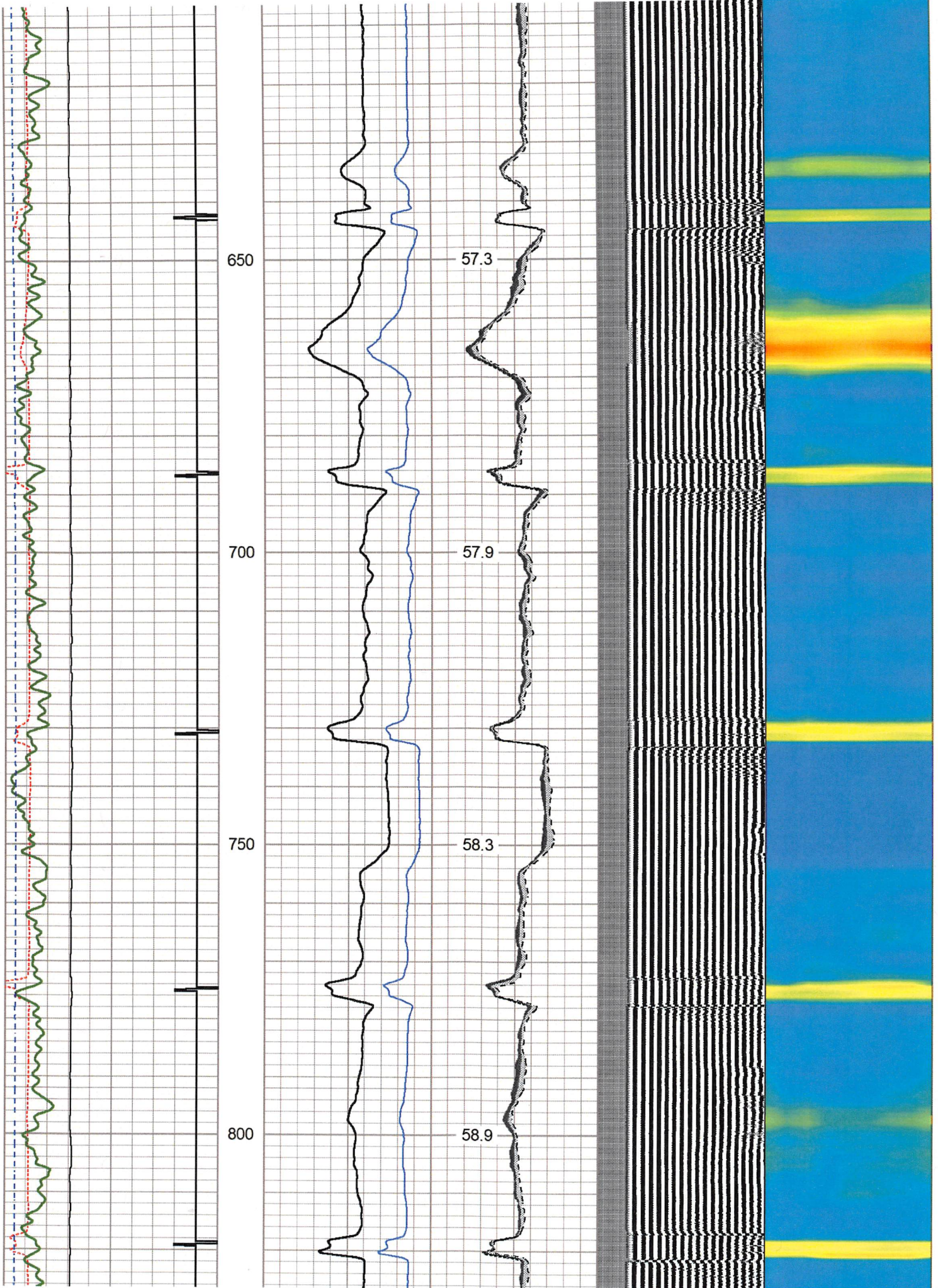
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 Dataset Pathname pass7
 Presentation Format rcbl 2
 Dataset Creation Wed Jan 11 10:54:01 2023
 Charted by Depth in Feet scaled 1:240

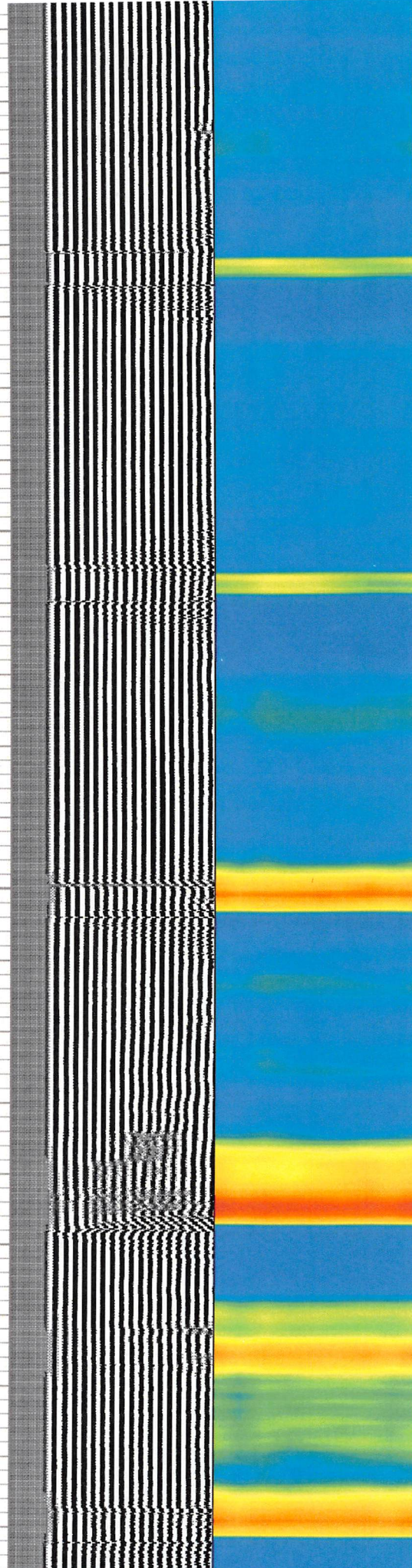
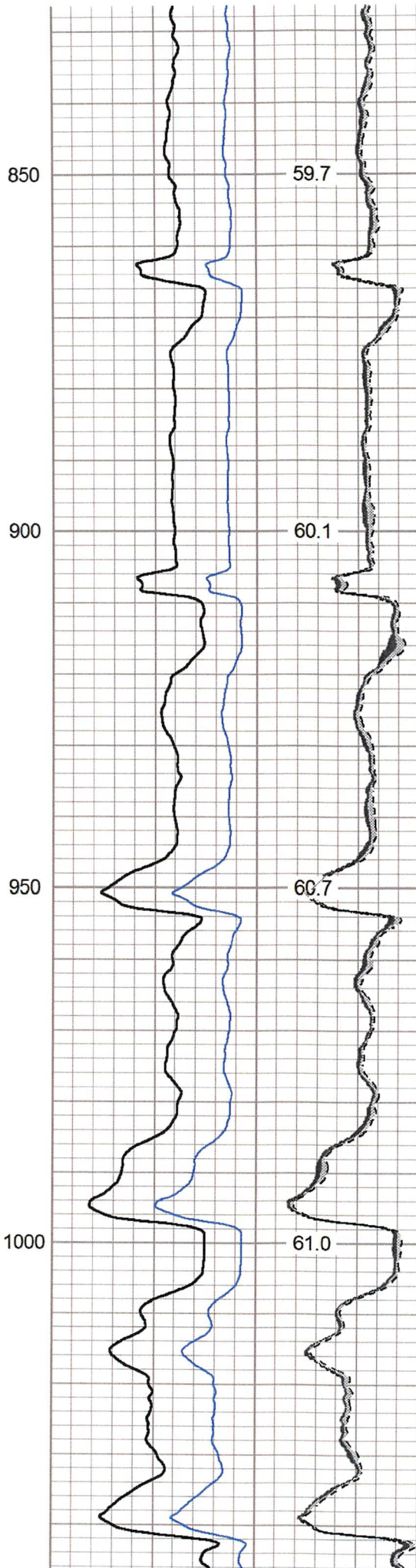
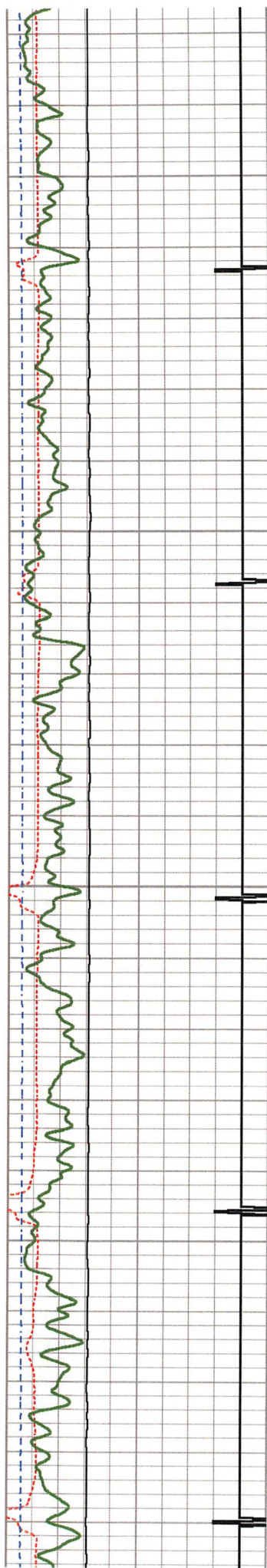
265	Travel Time (usec)	165	0	Amplitude (mV)	100	-5	AMPMIN	150	Variable Density	1	Cement Map	8
9	Casing Collar	-1	1	BONDIX	0	-5	AMPMAX	150	200	(usec)	1200	
0	Gamma Ray (GAPI)	150				-5	AMPAVG	150				
	Line Speed						TEMP					
-200	(ft/min)	200					(degF)					
0	Line Tension (lb)	5000										

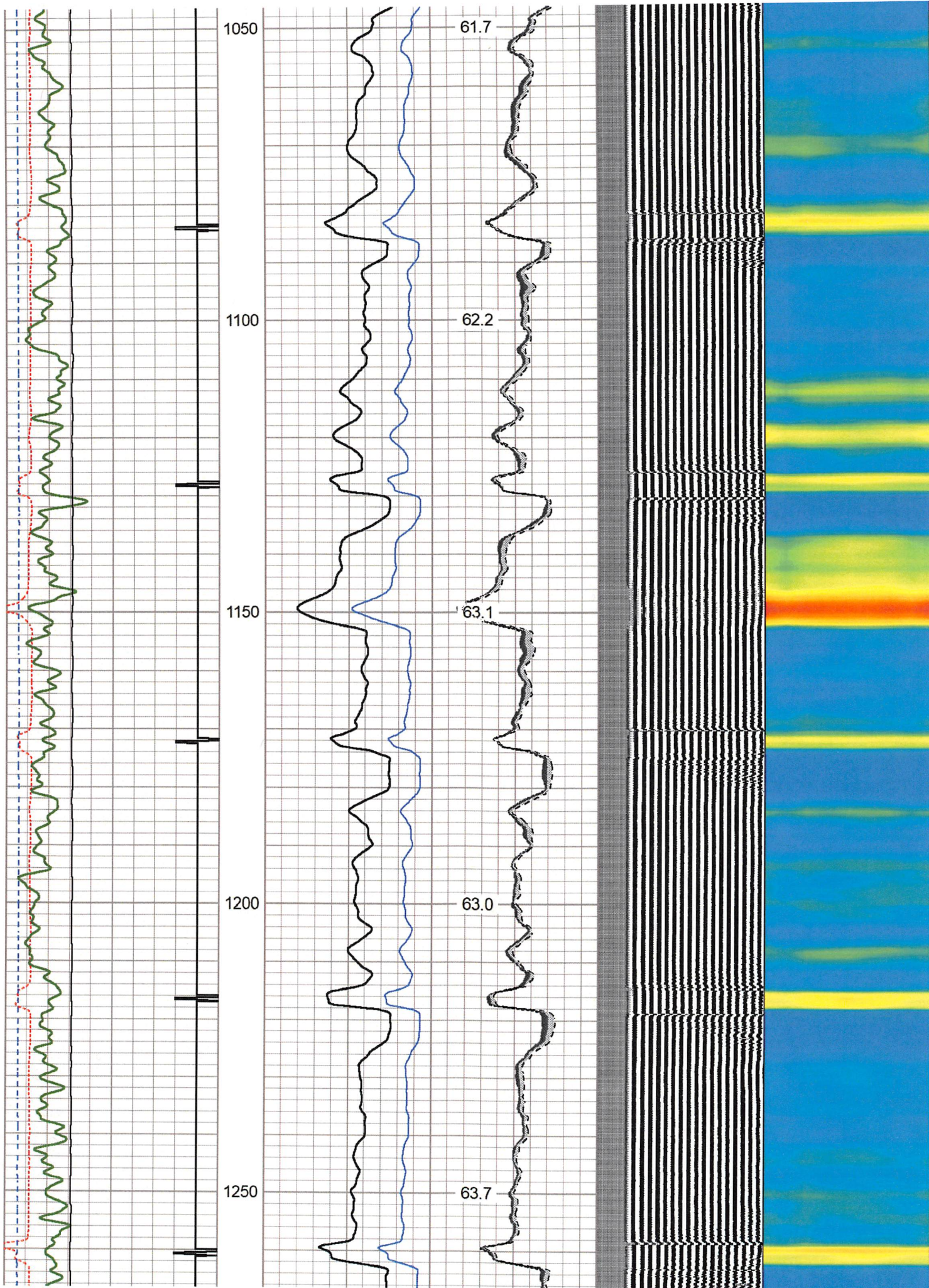


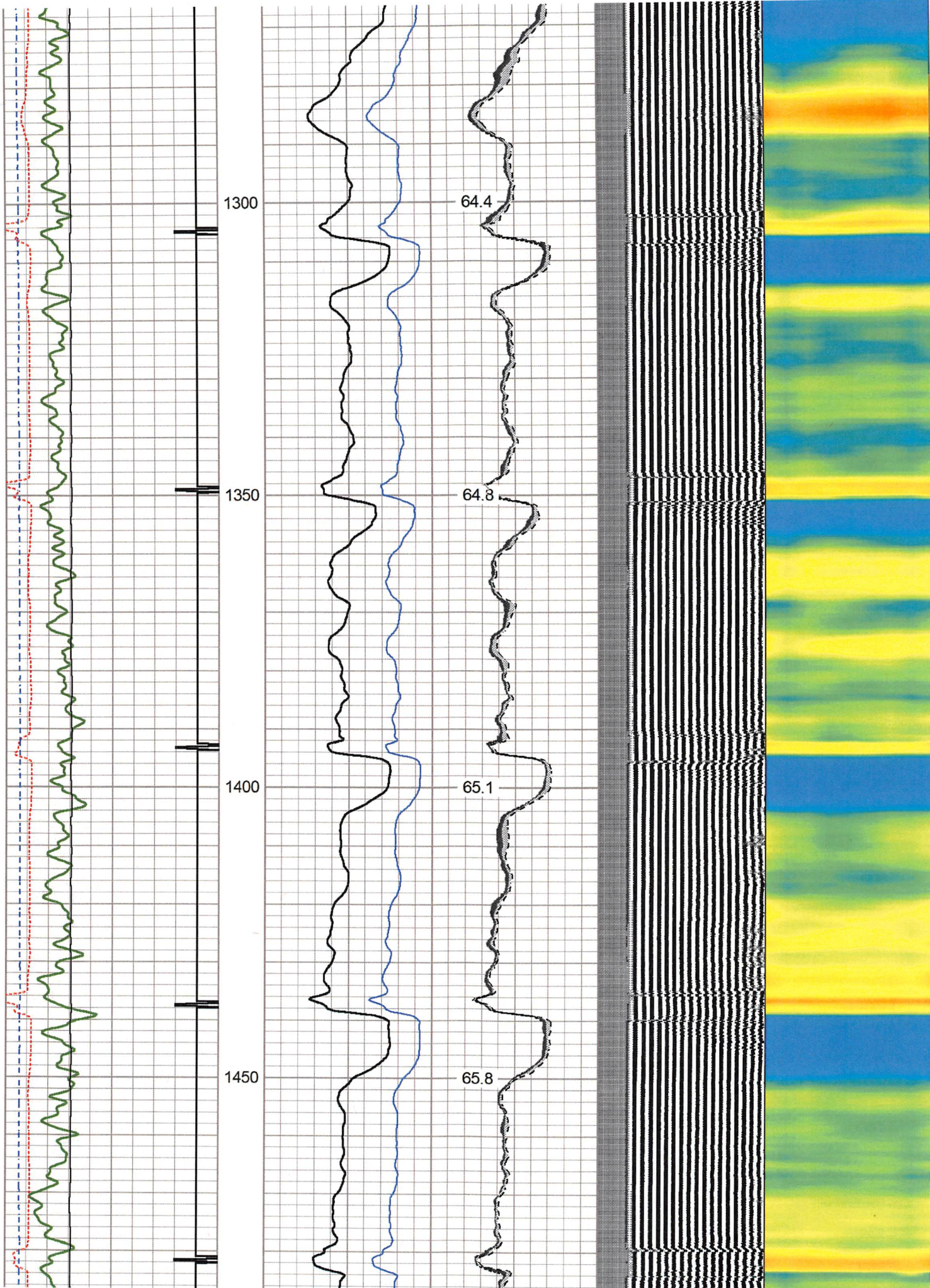


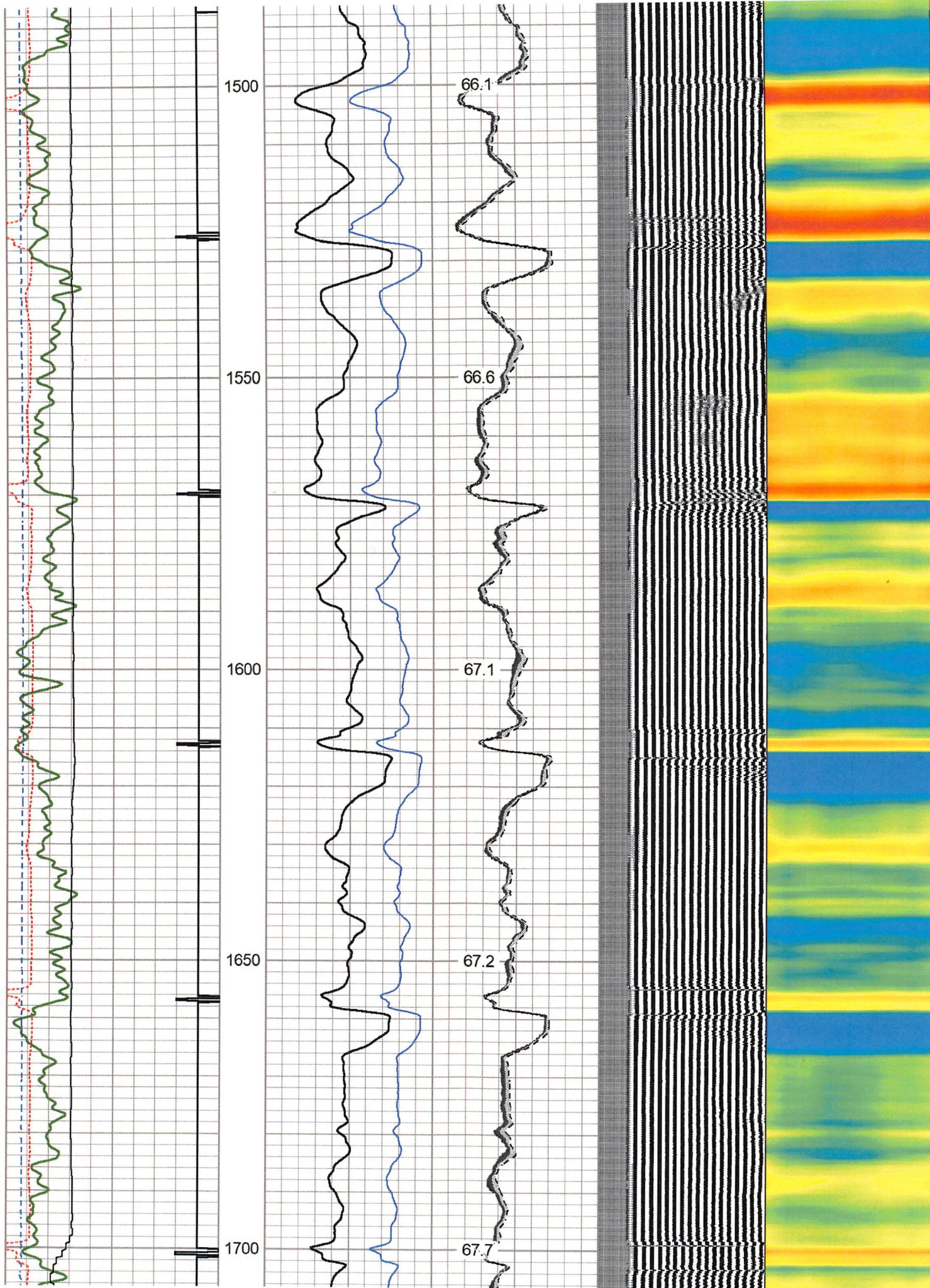


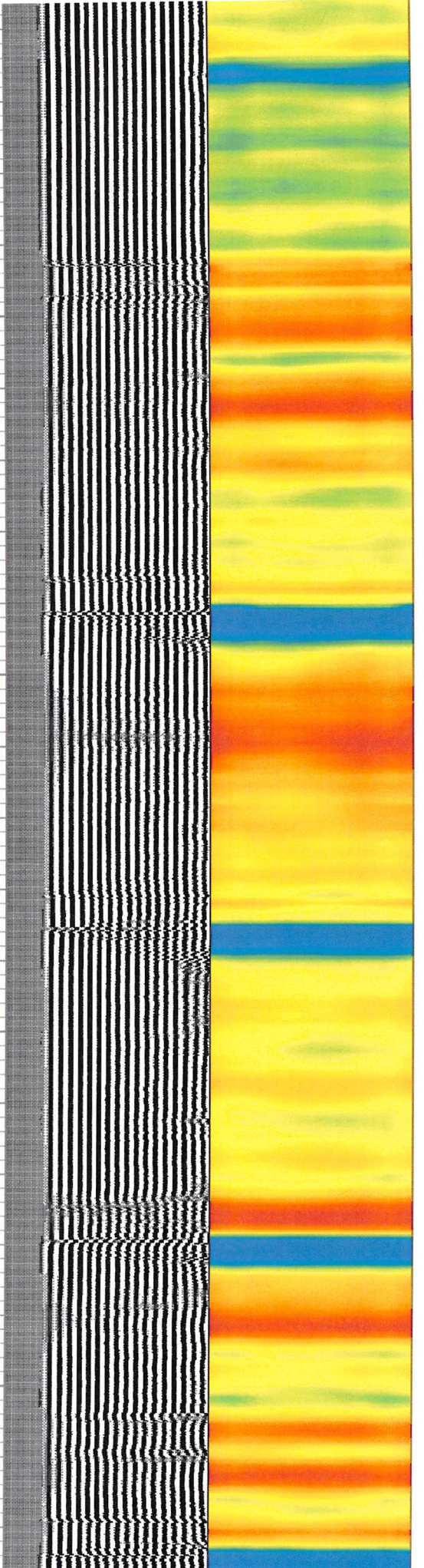
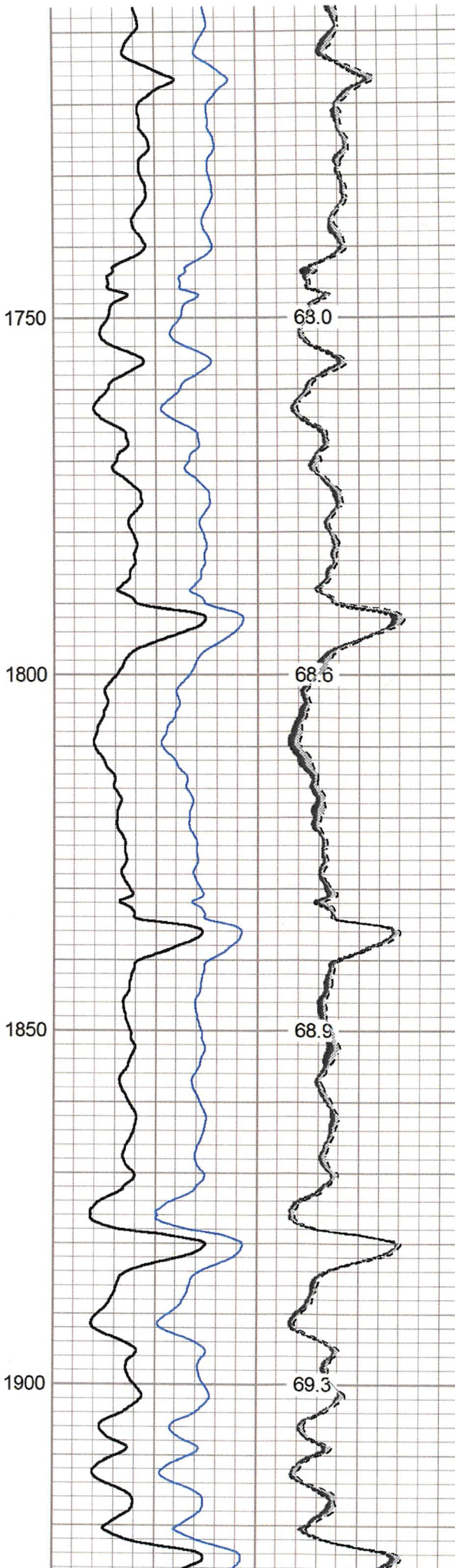
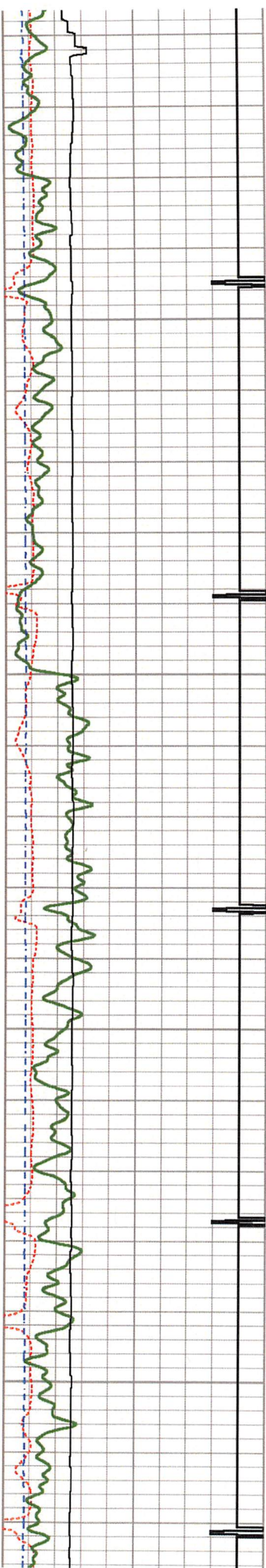


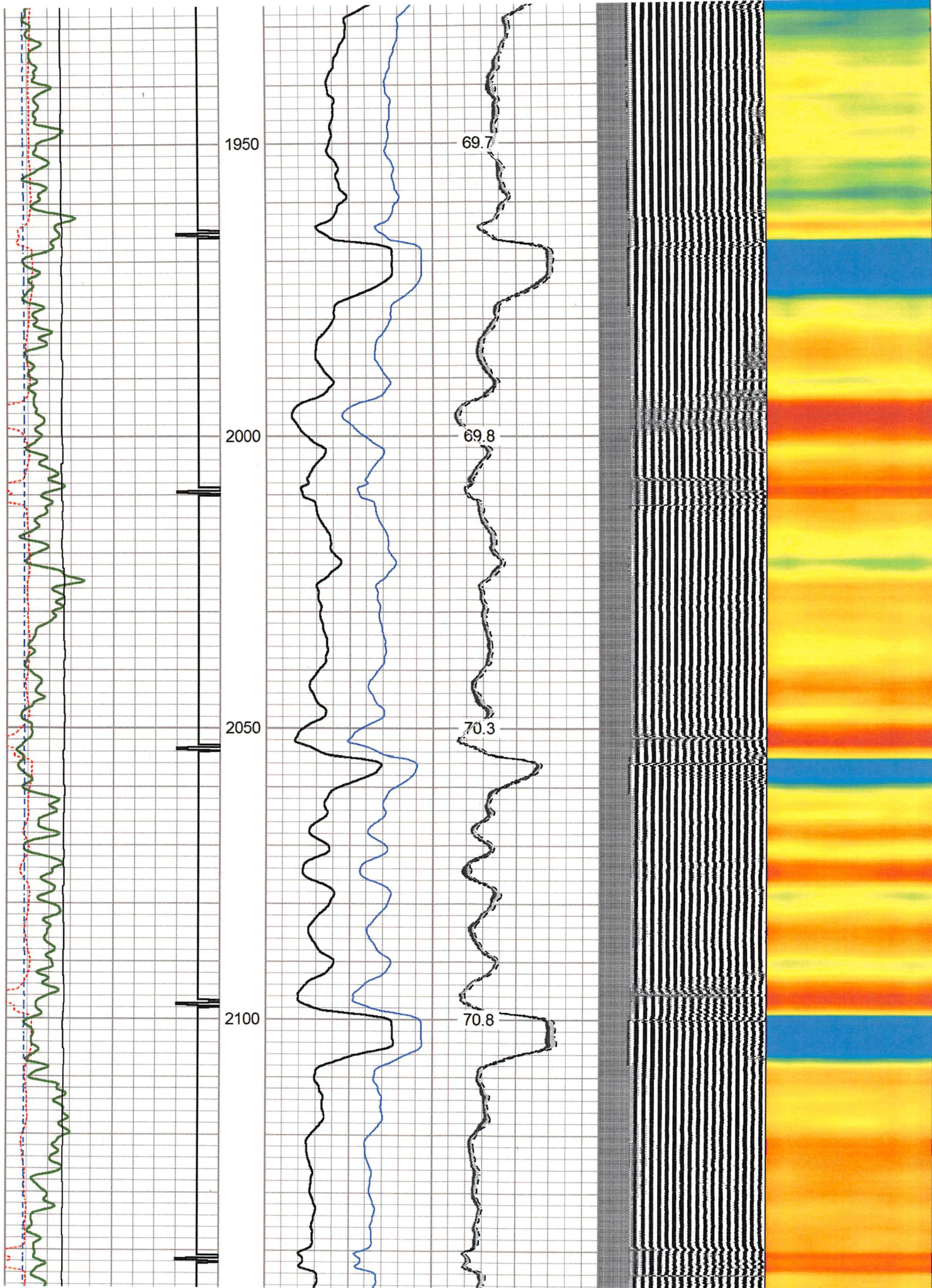


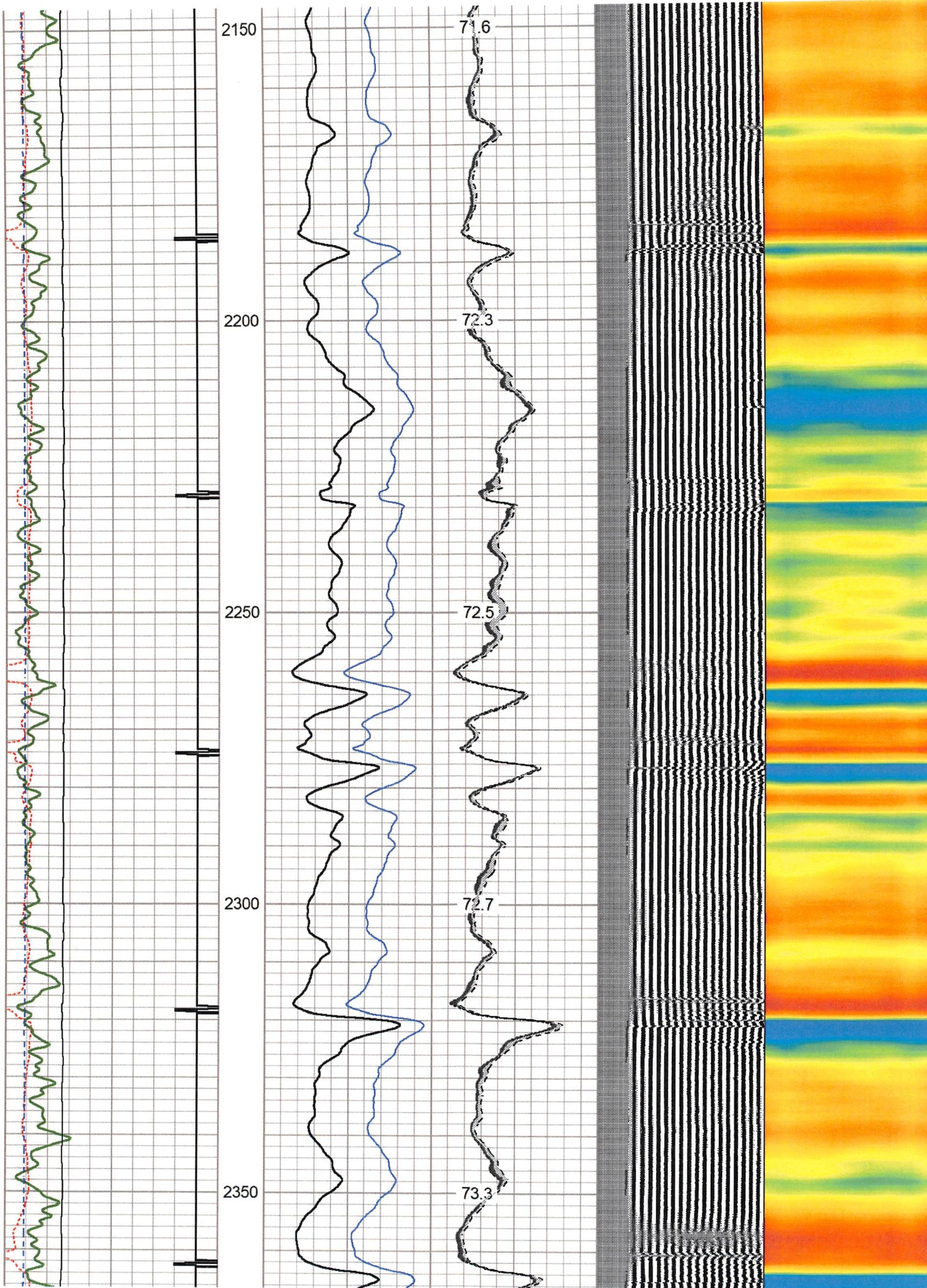


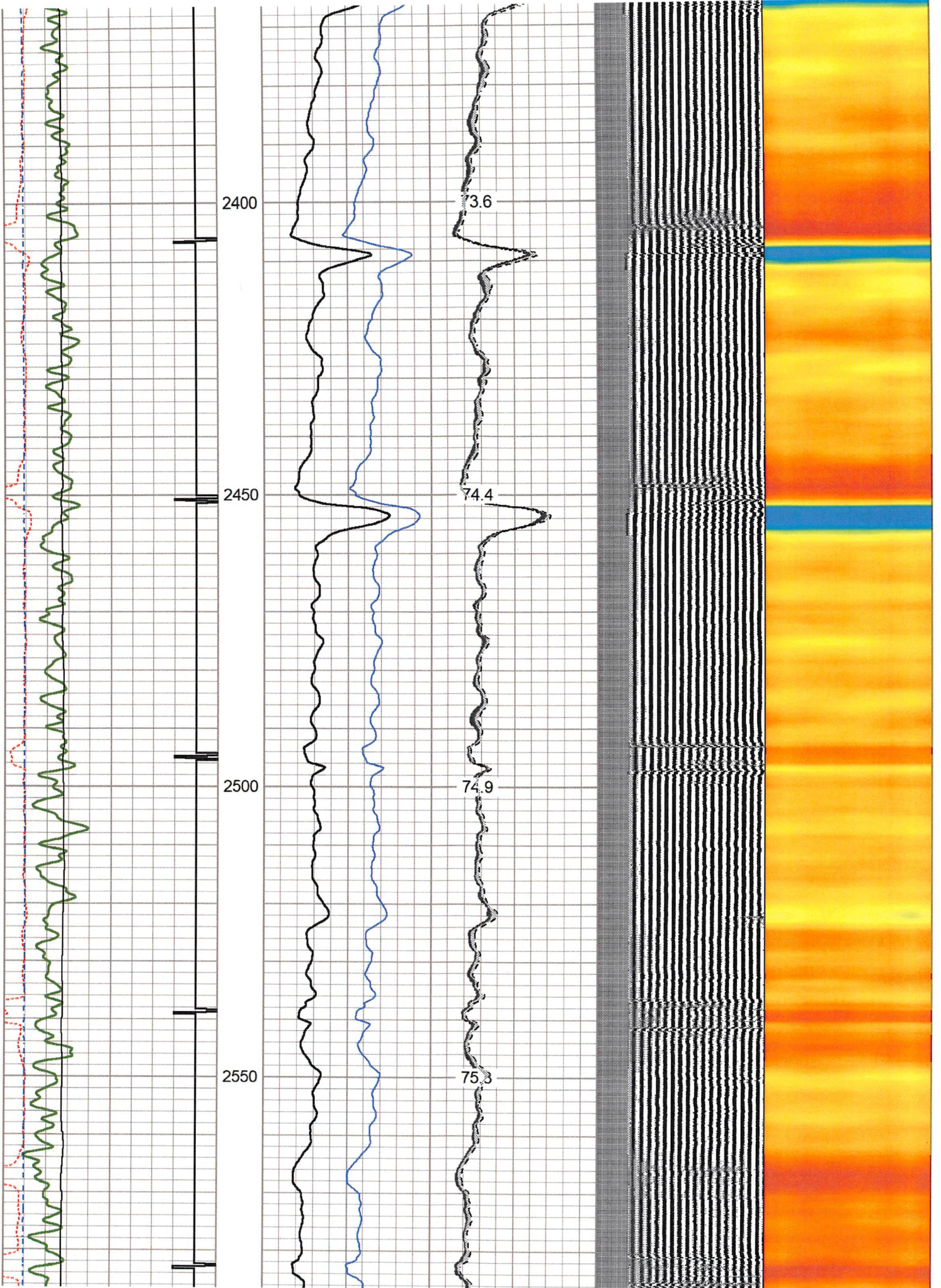


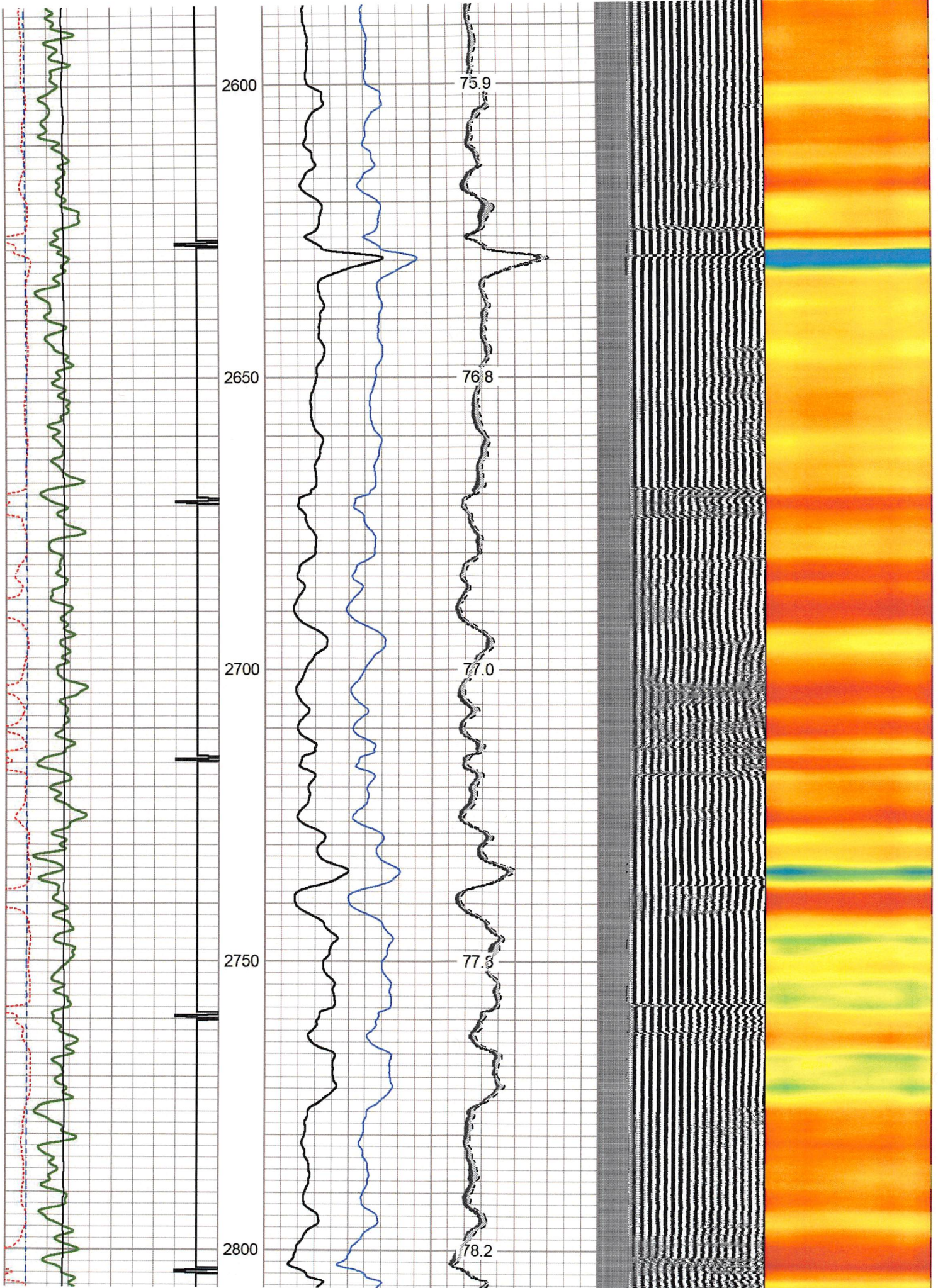


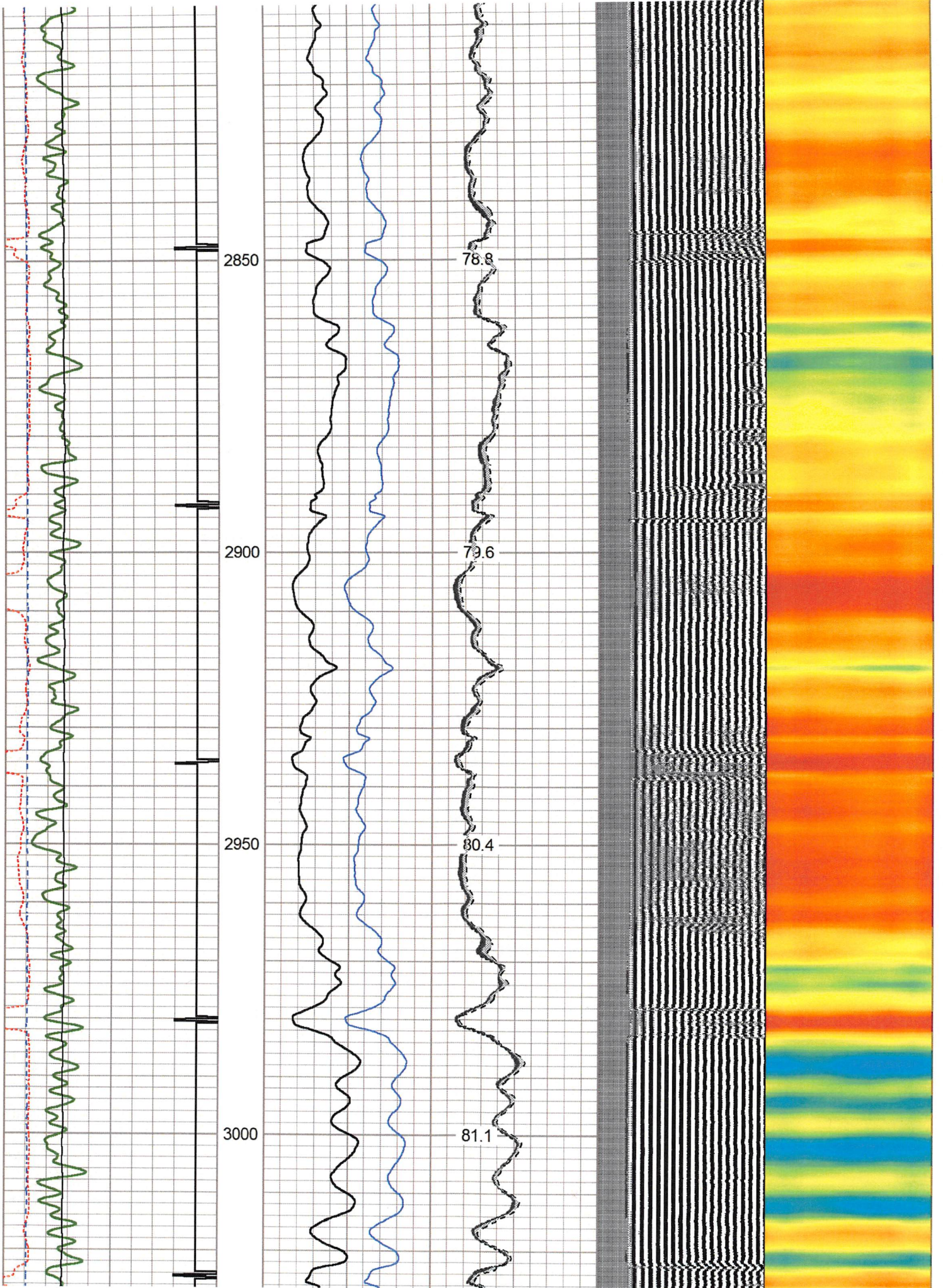


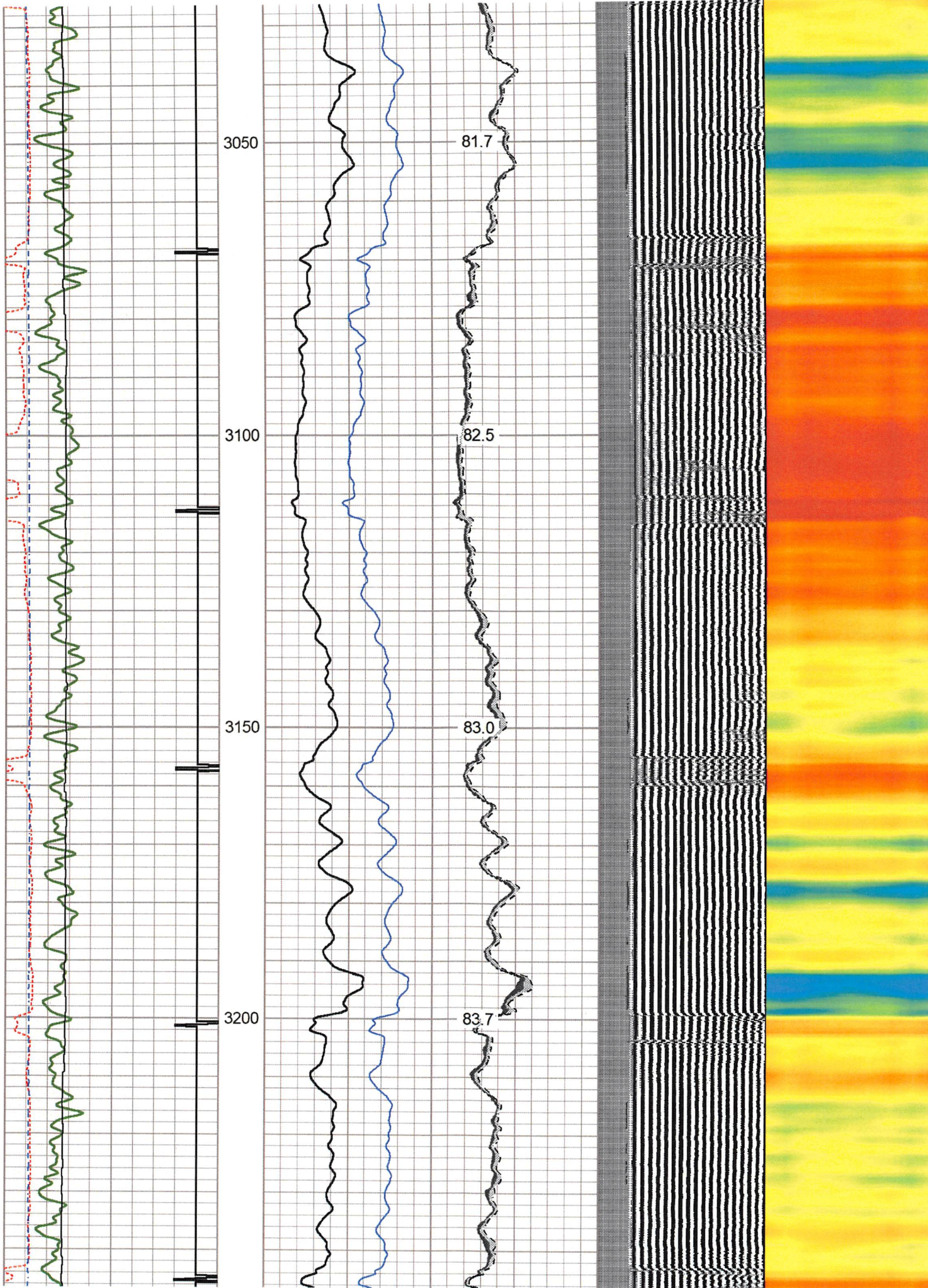


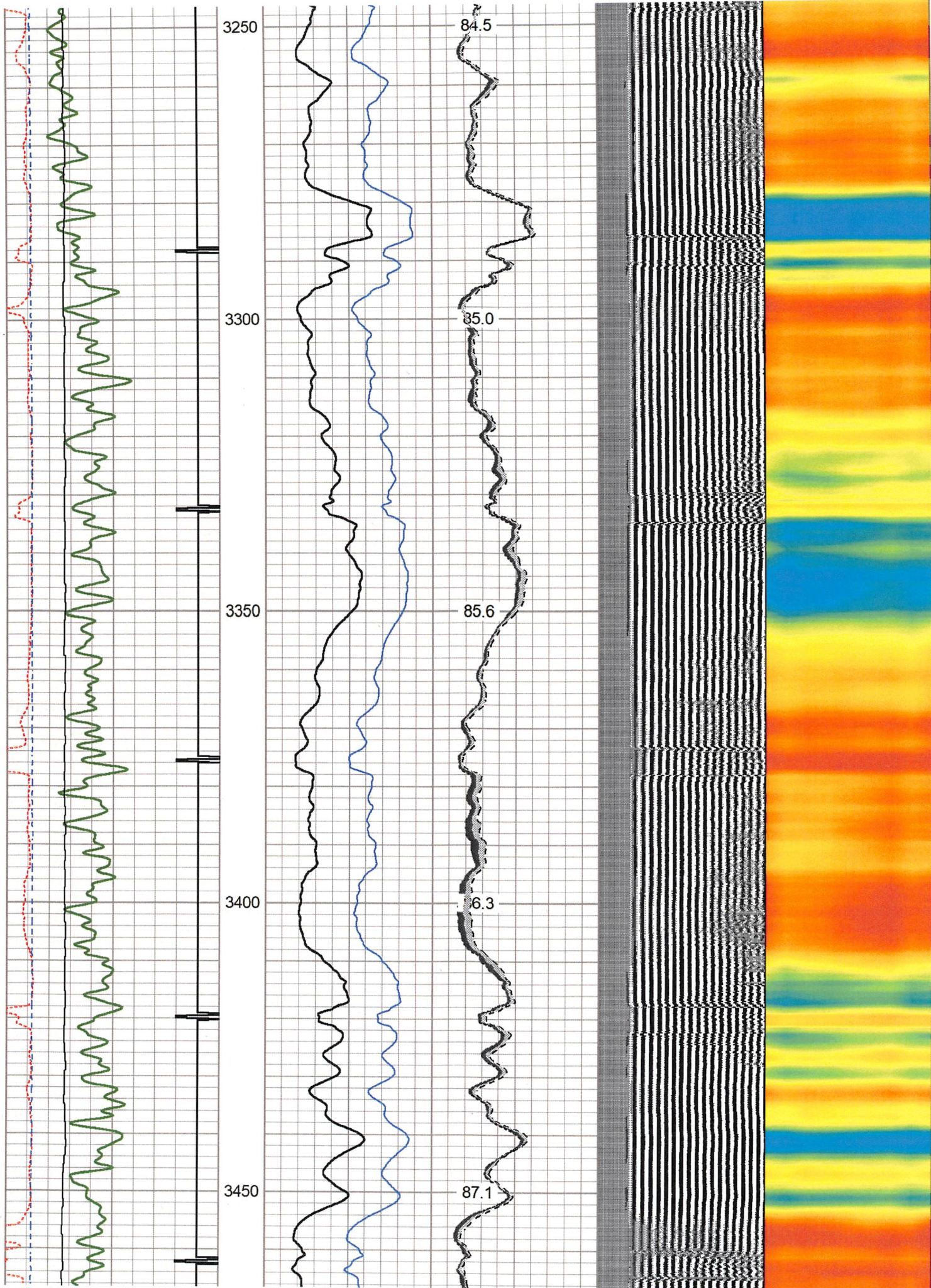


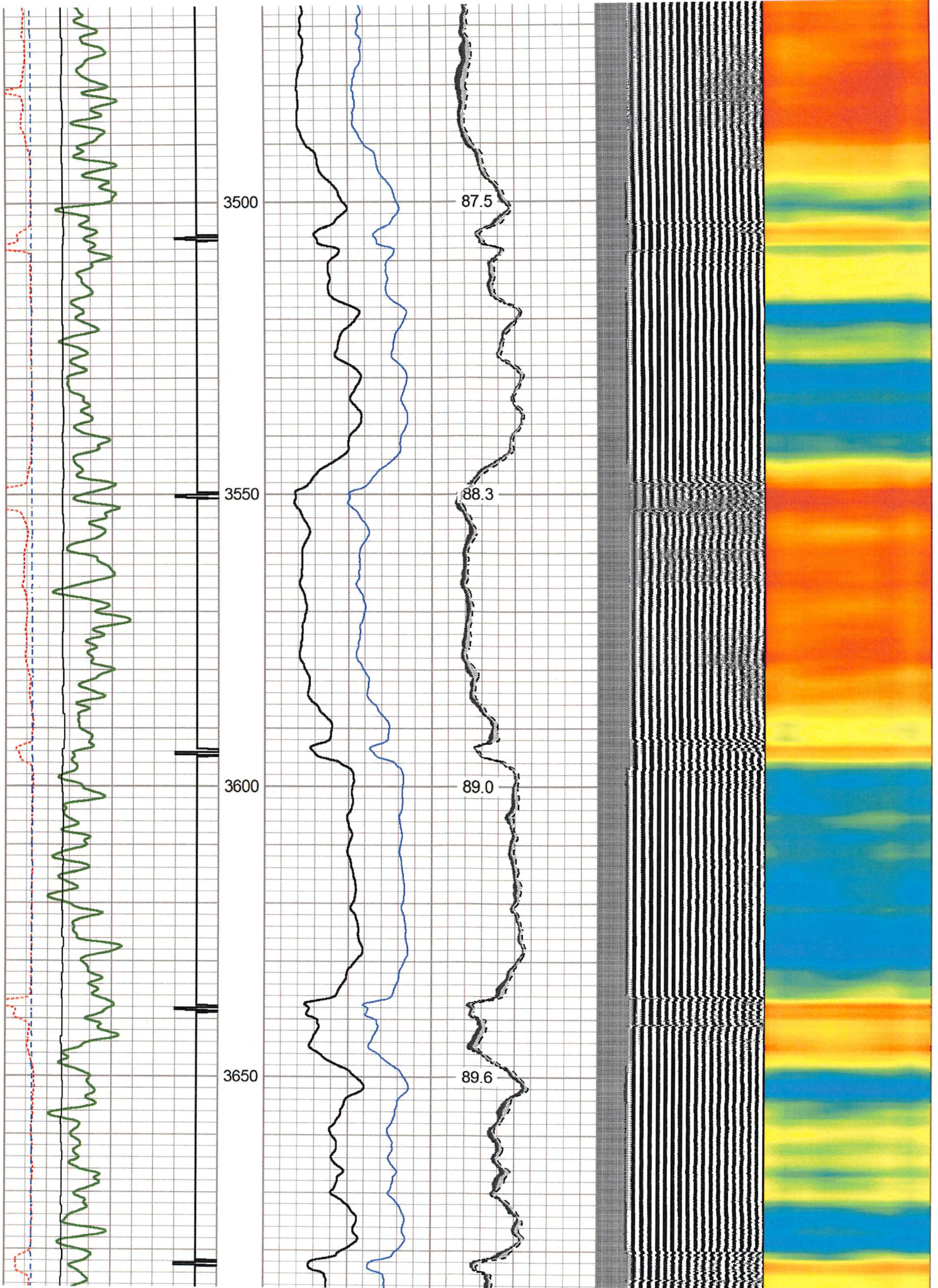


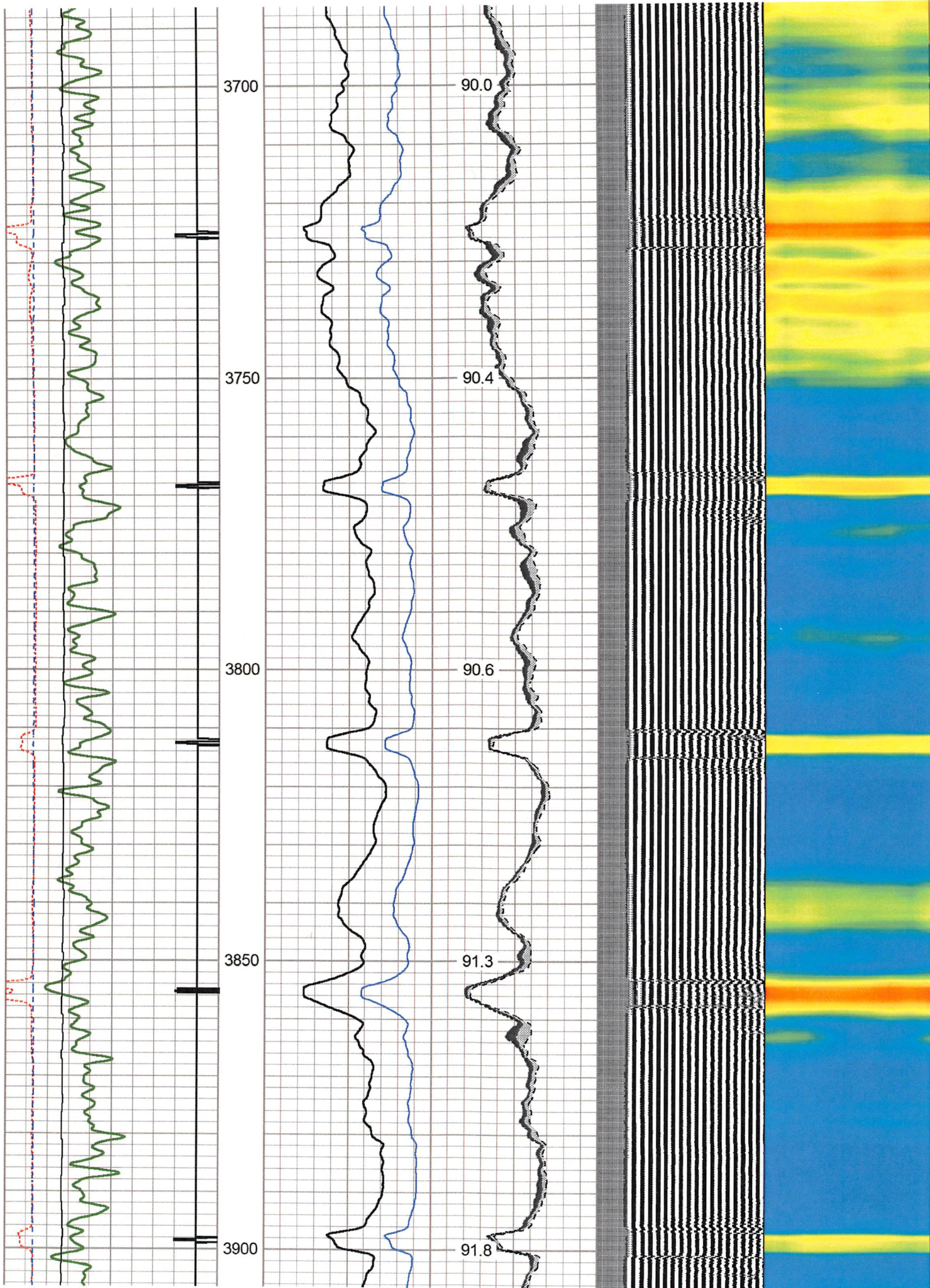


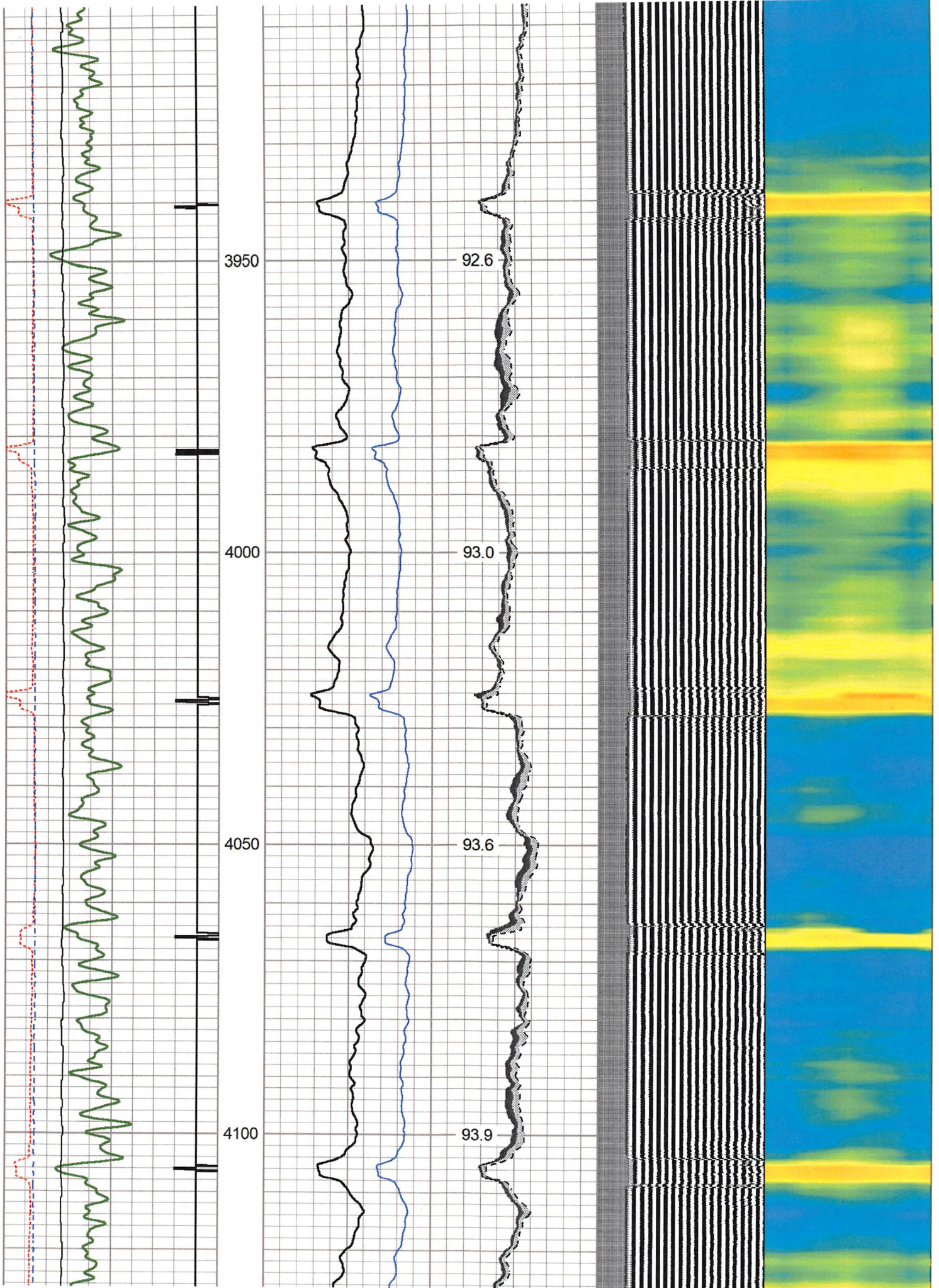


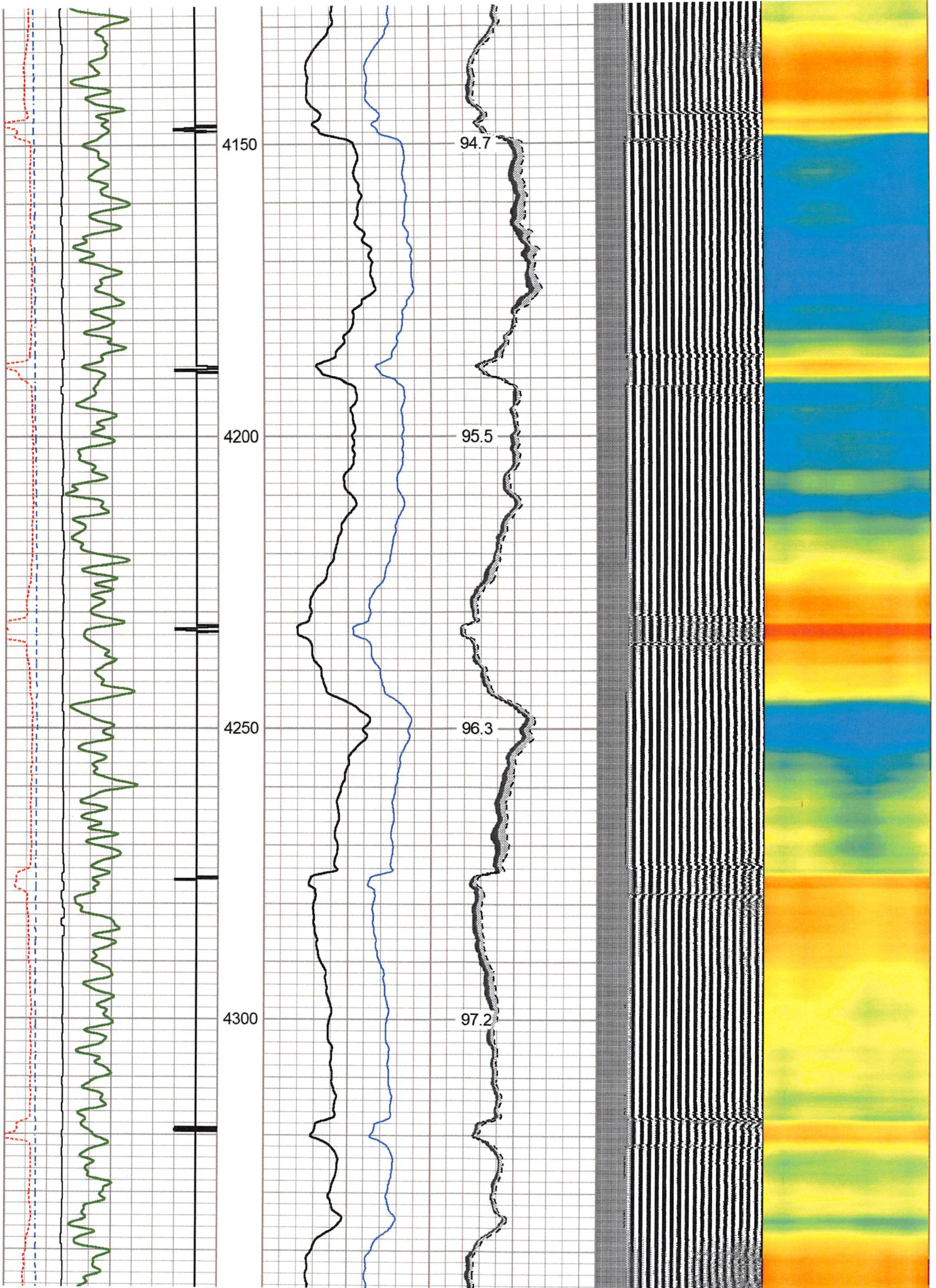


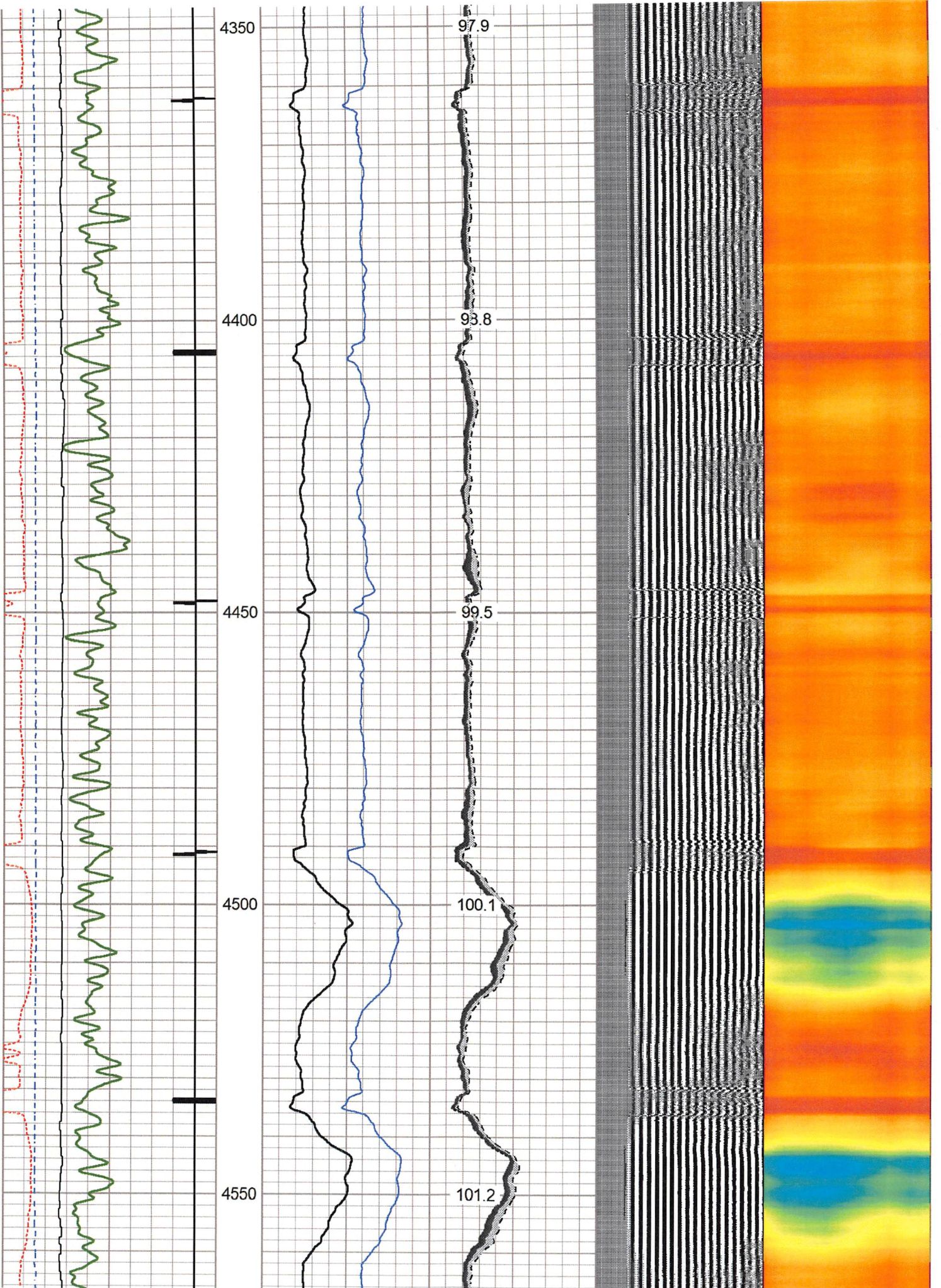


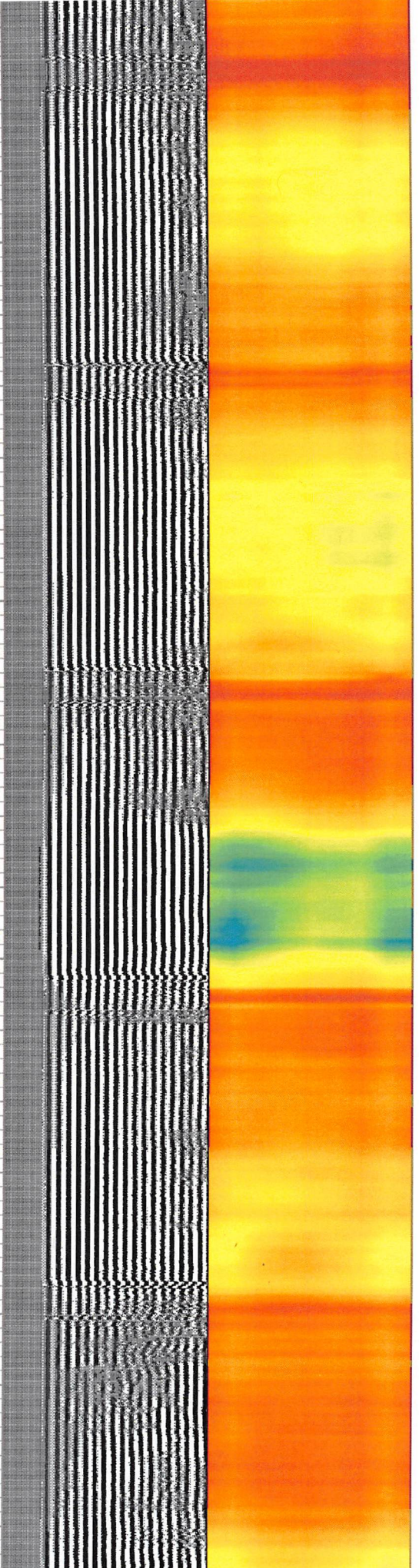
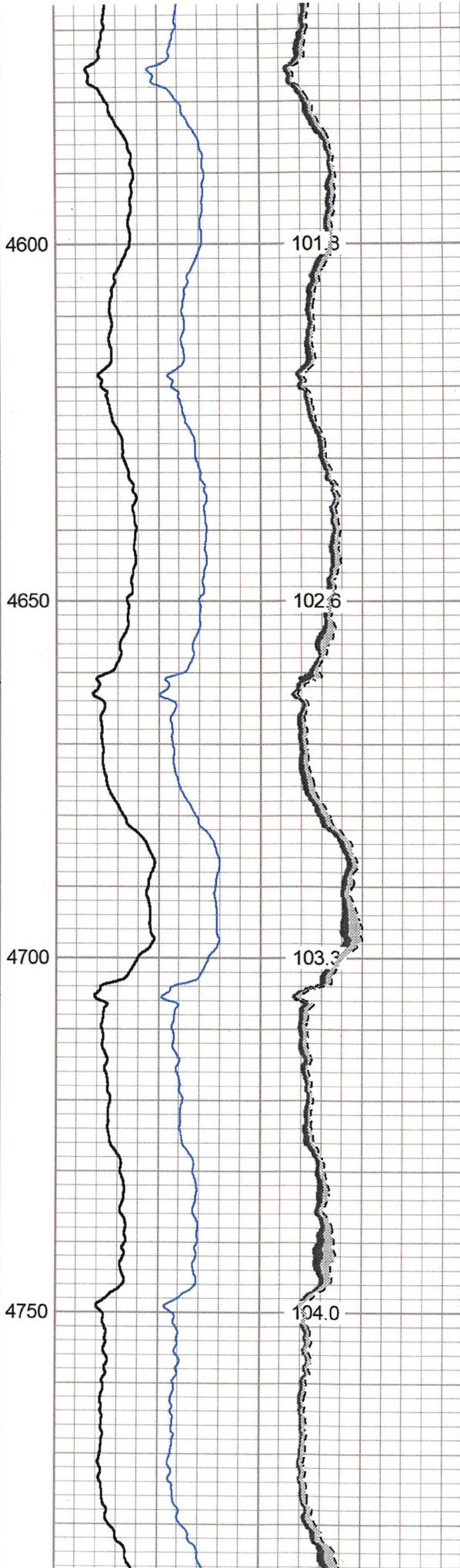
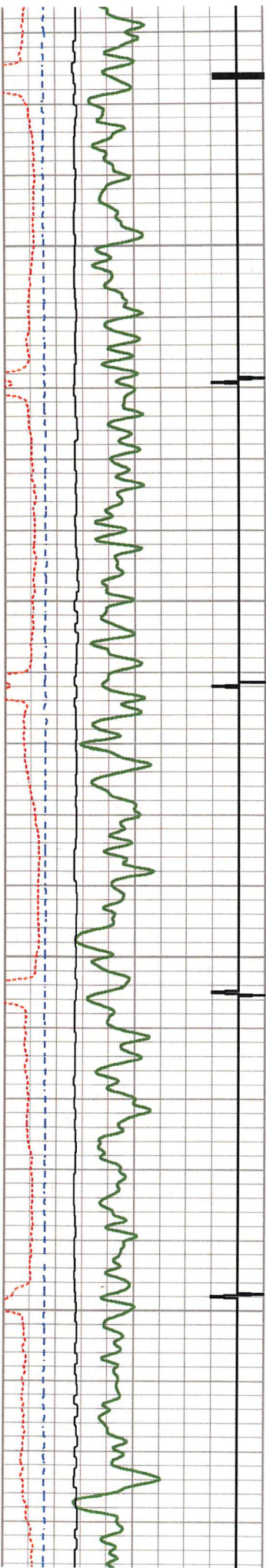


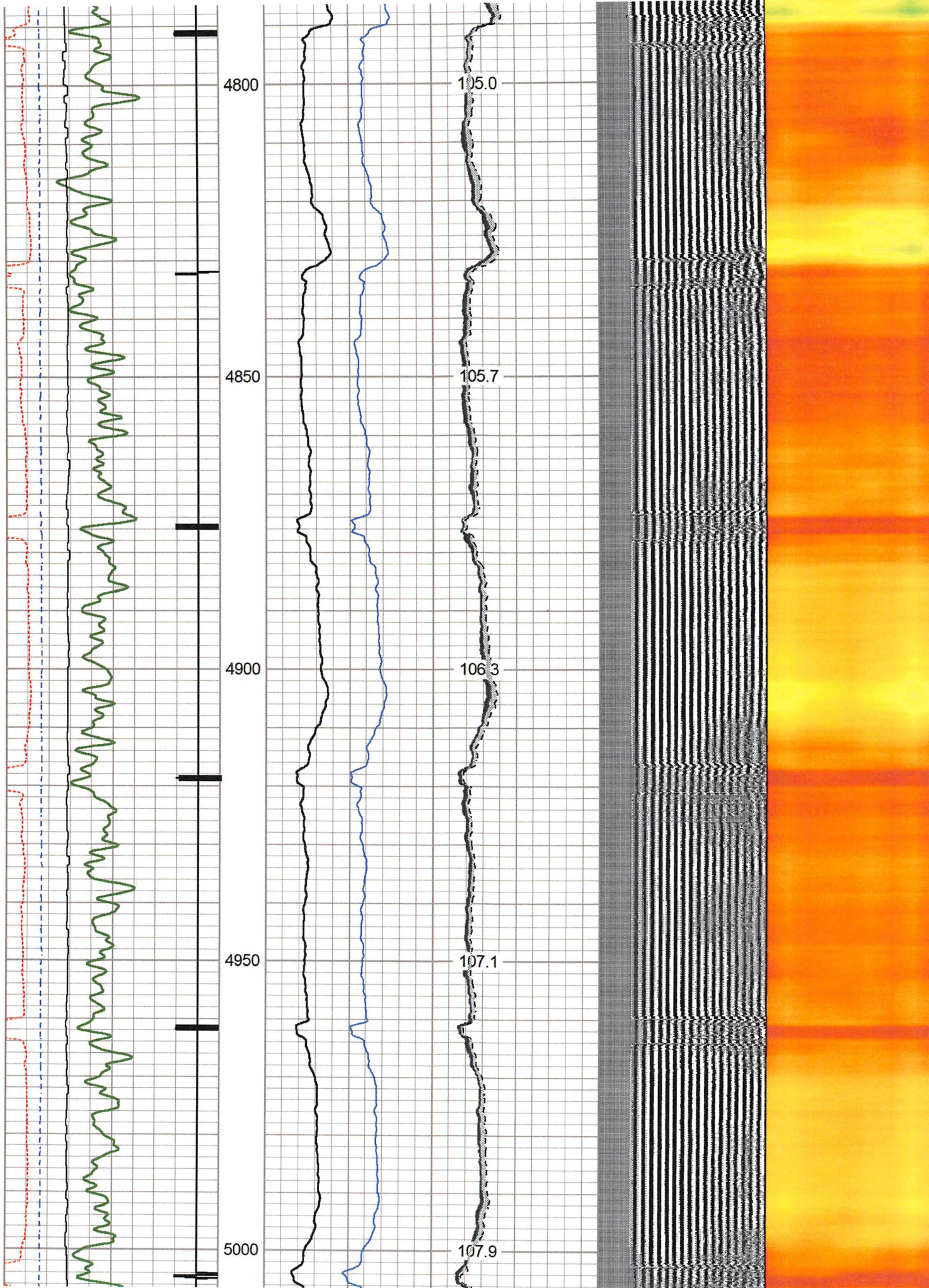


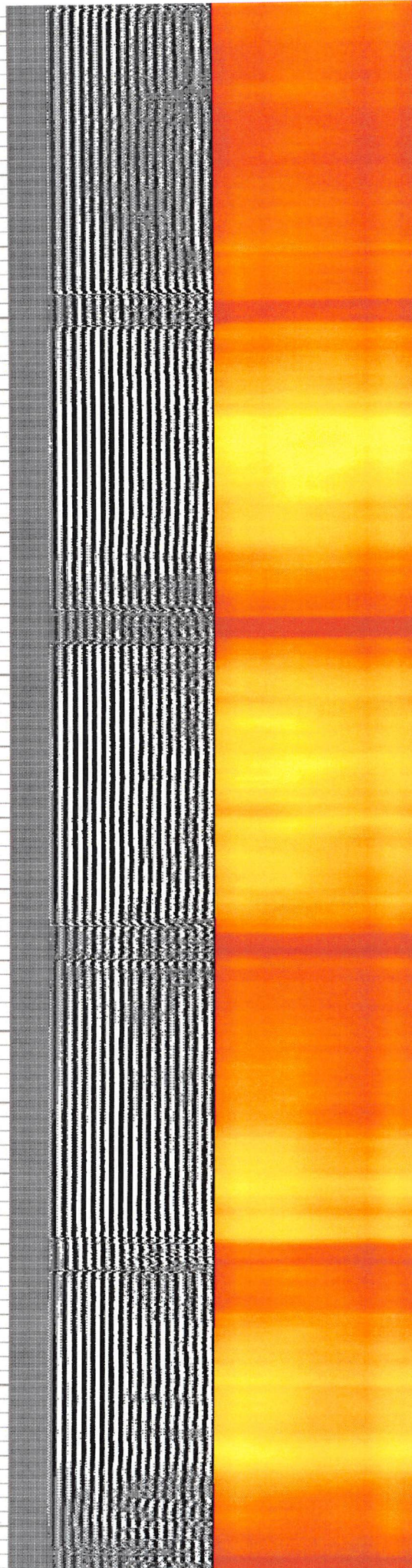
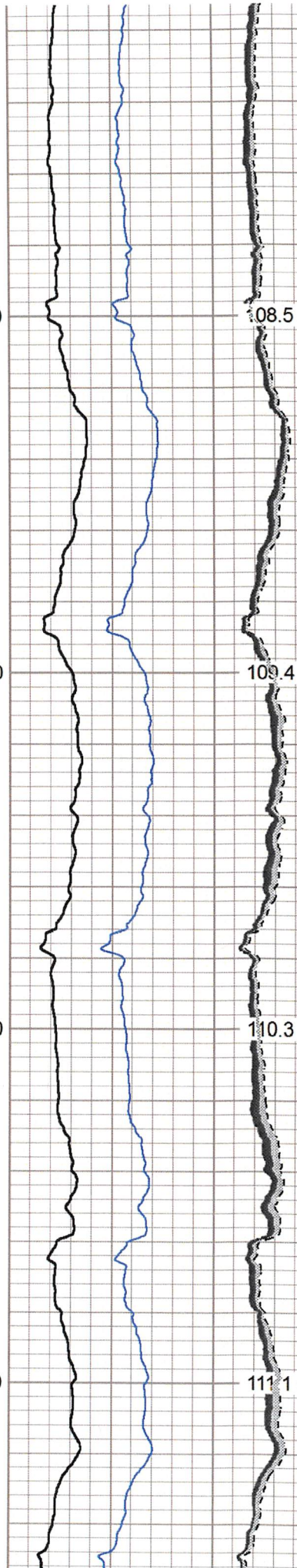
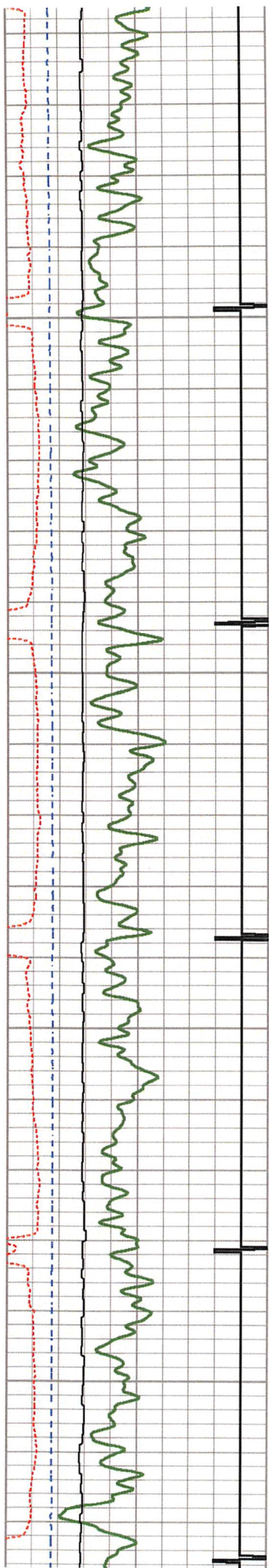


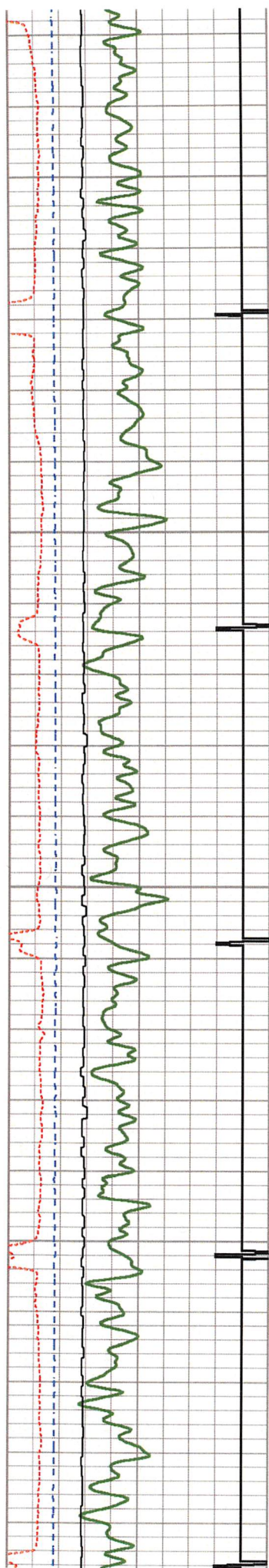












5250

5300

5350

5400

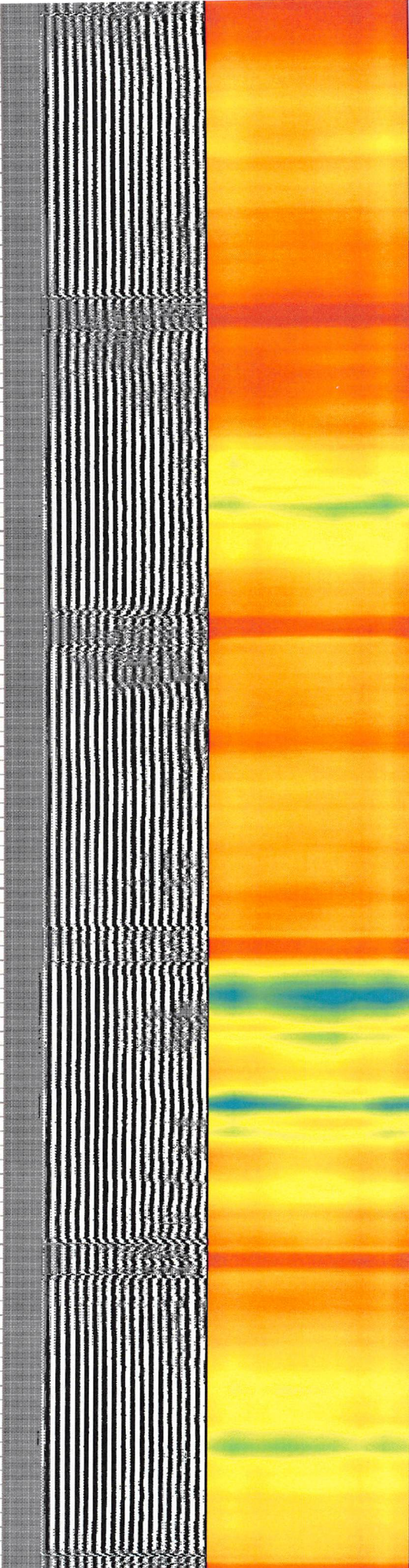


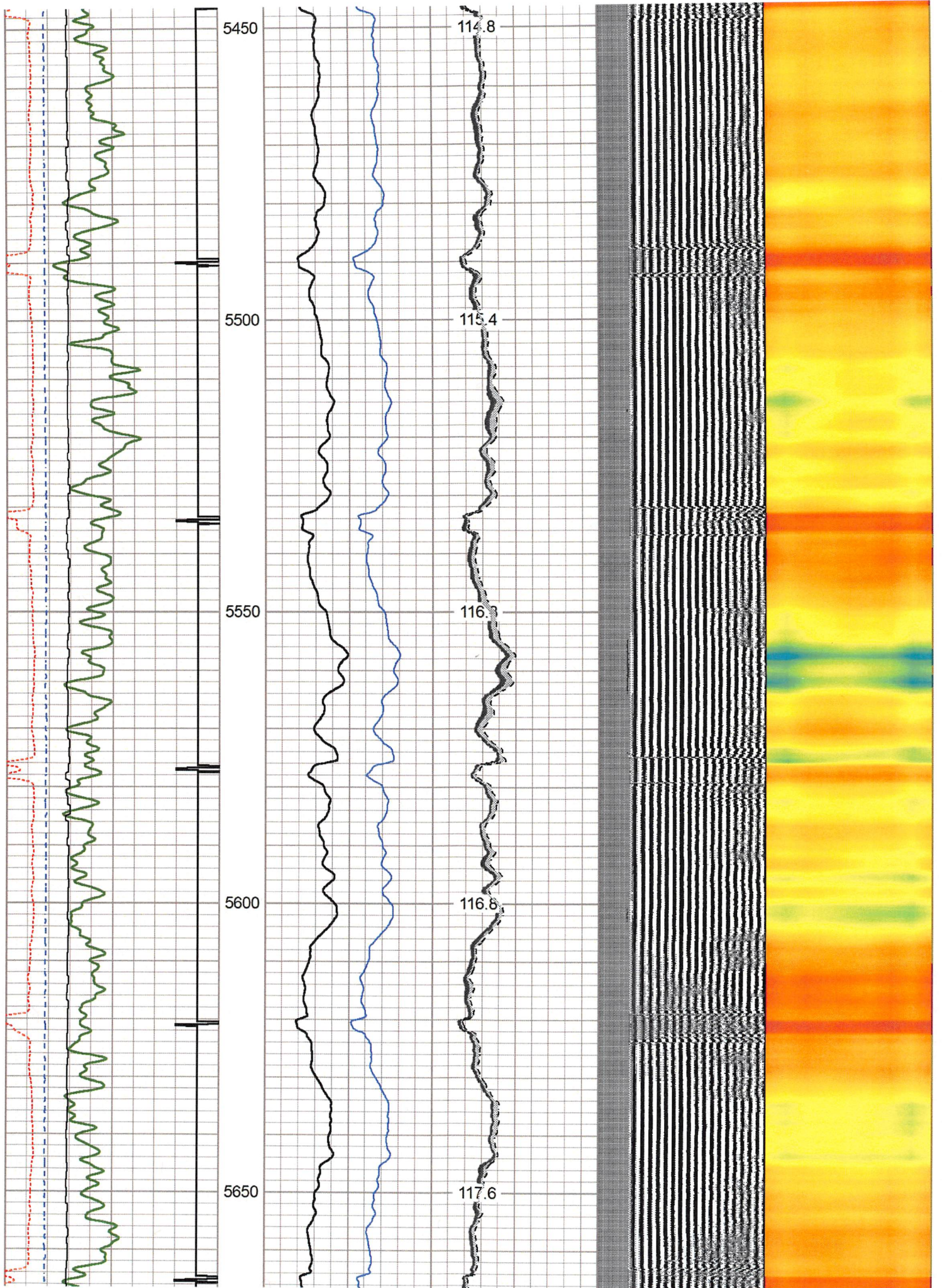
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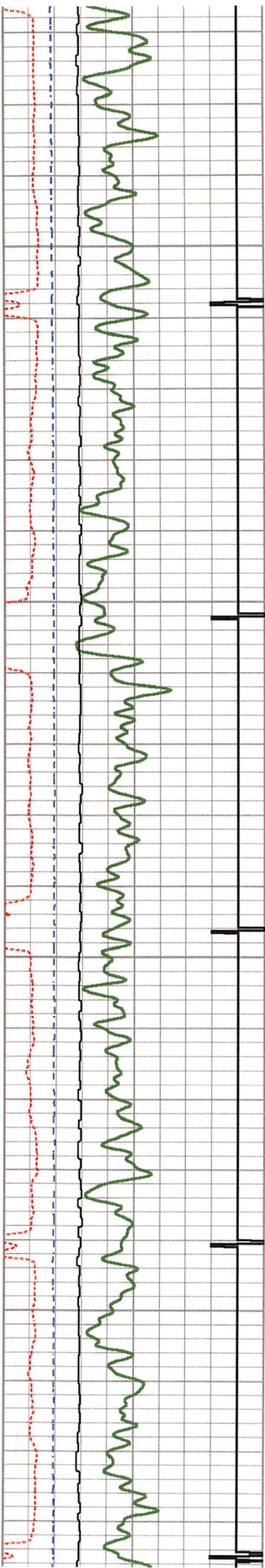
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113.3

114.0





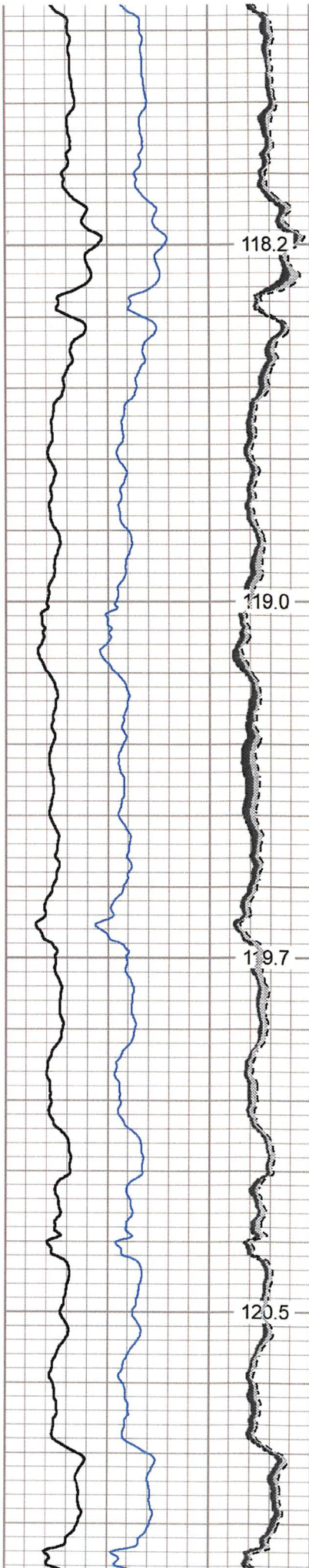


5700

5750

5800

5850

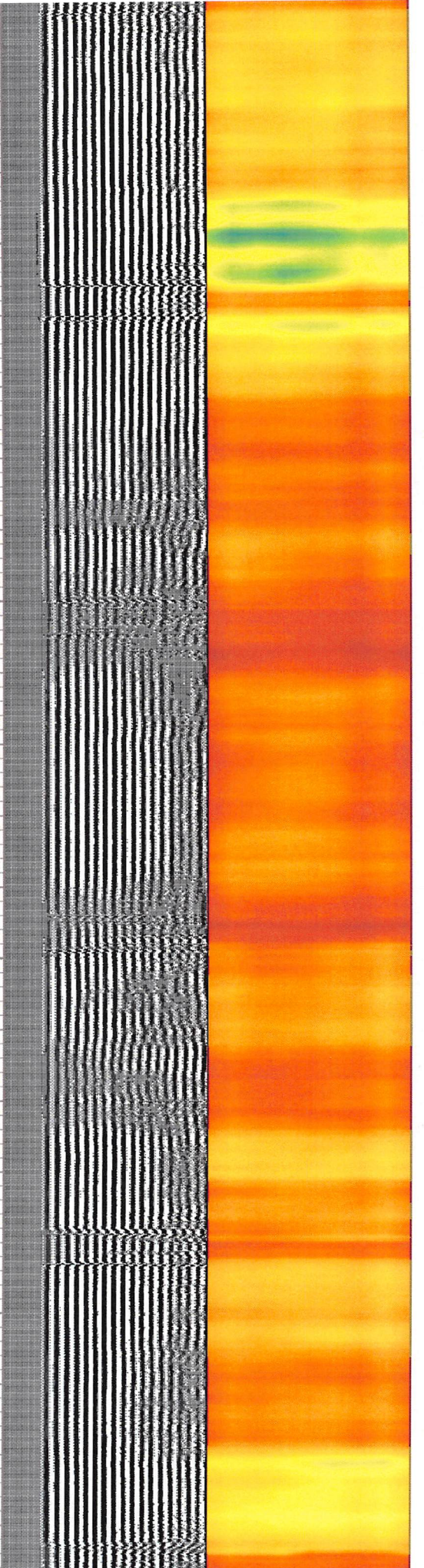


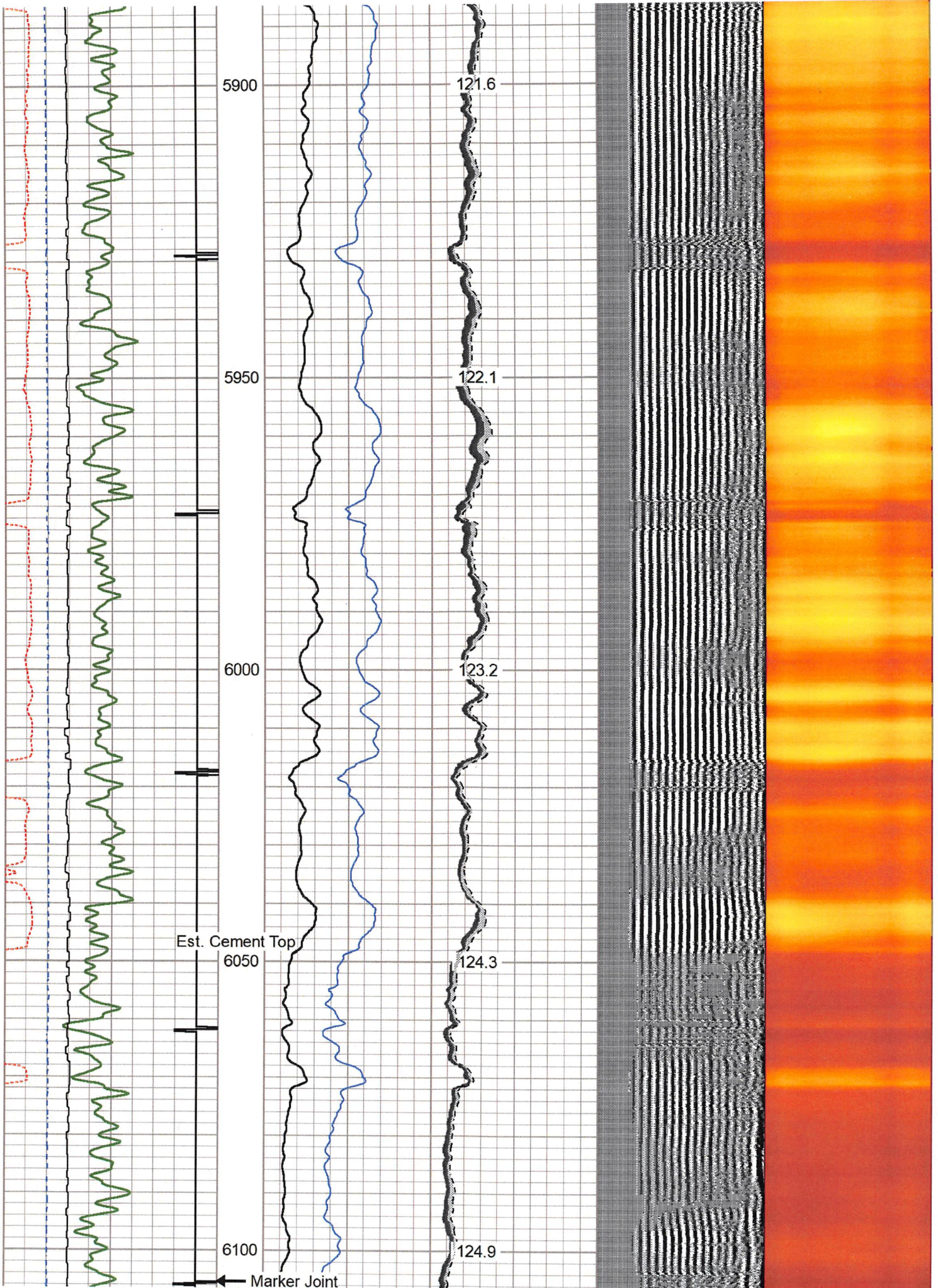
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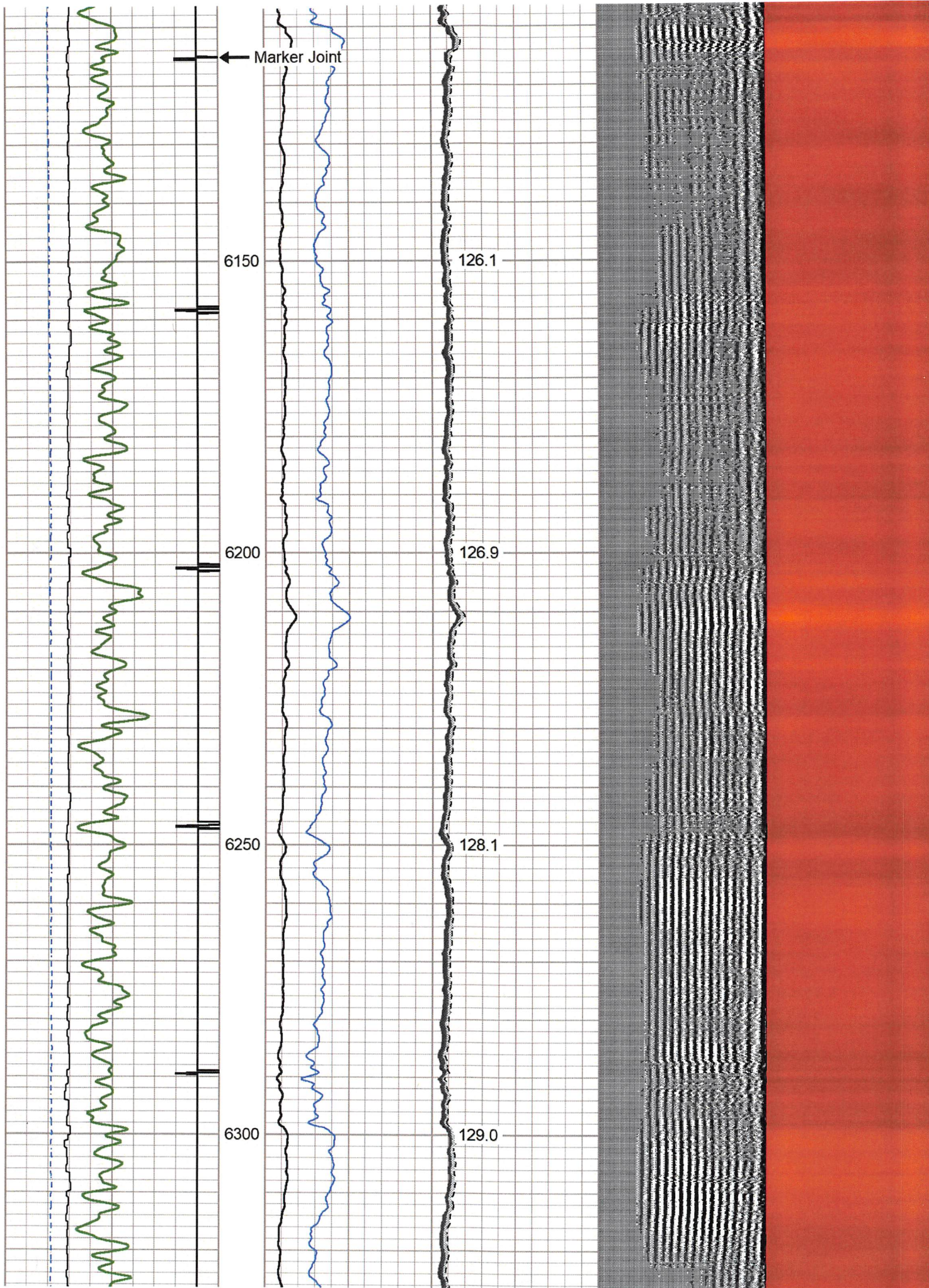
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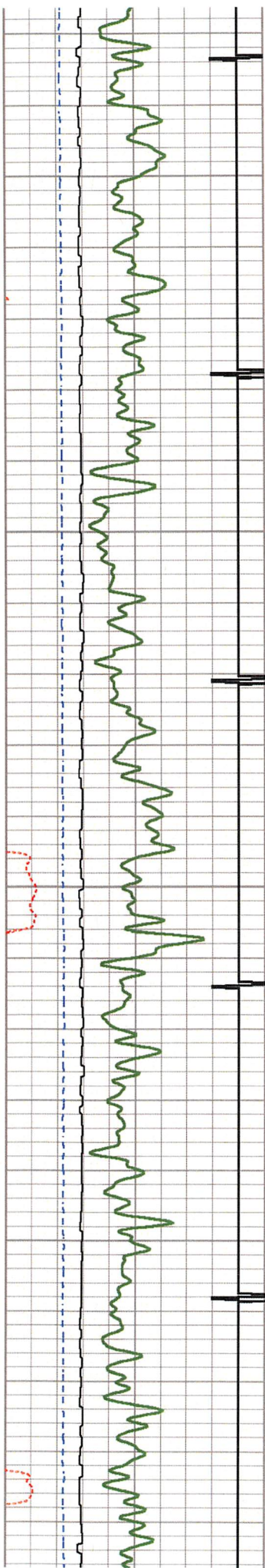
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120.5

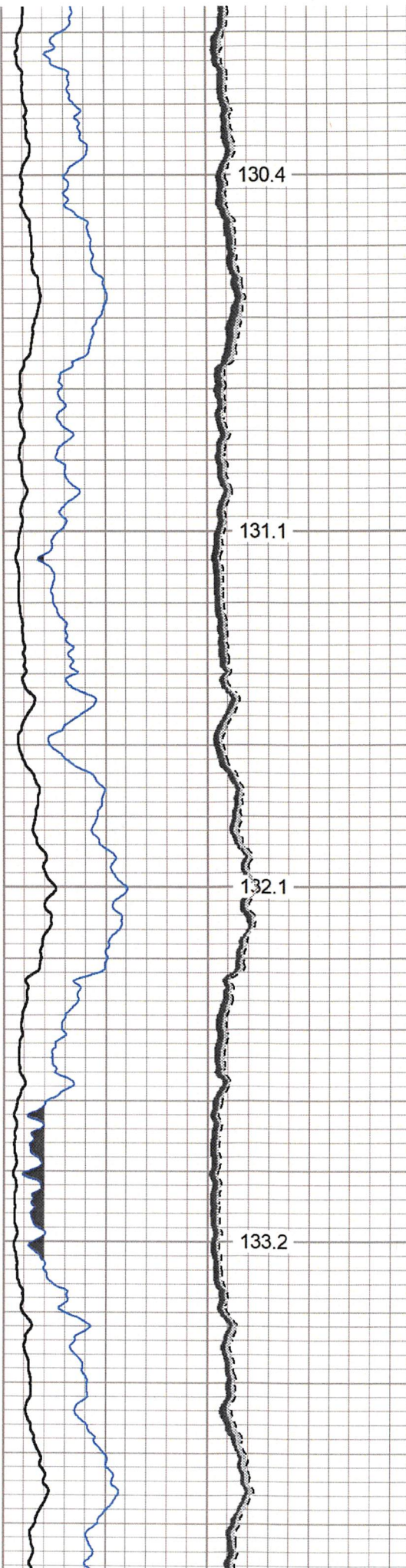




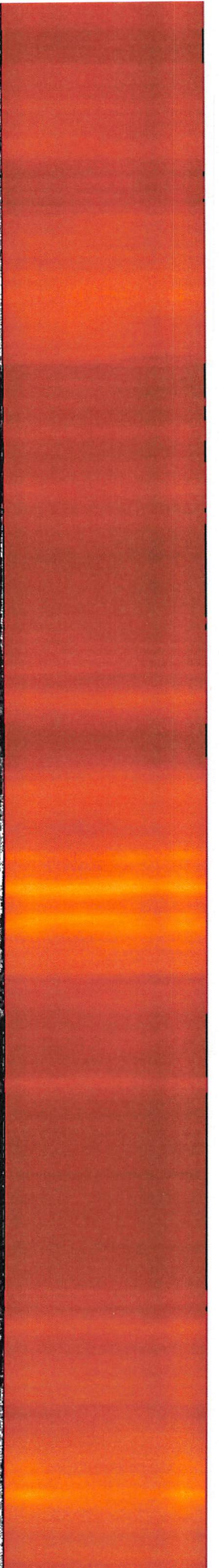
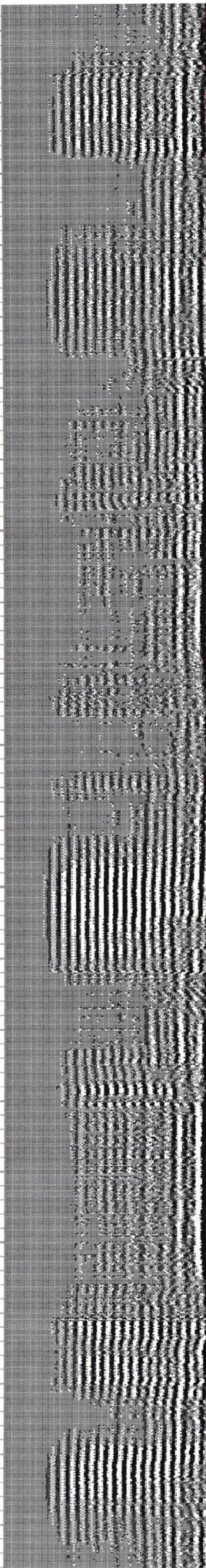


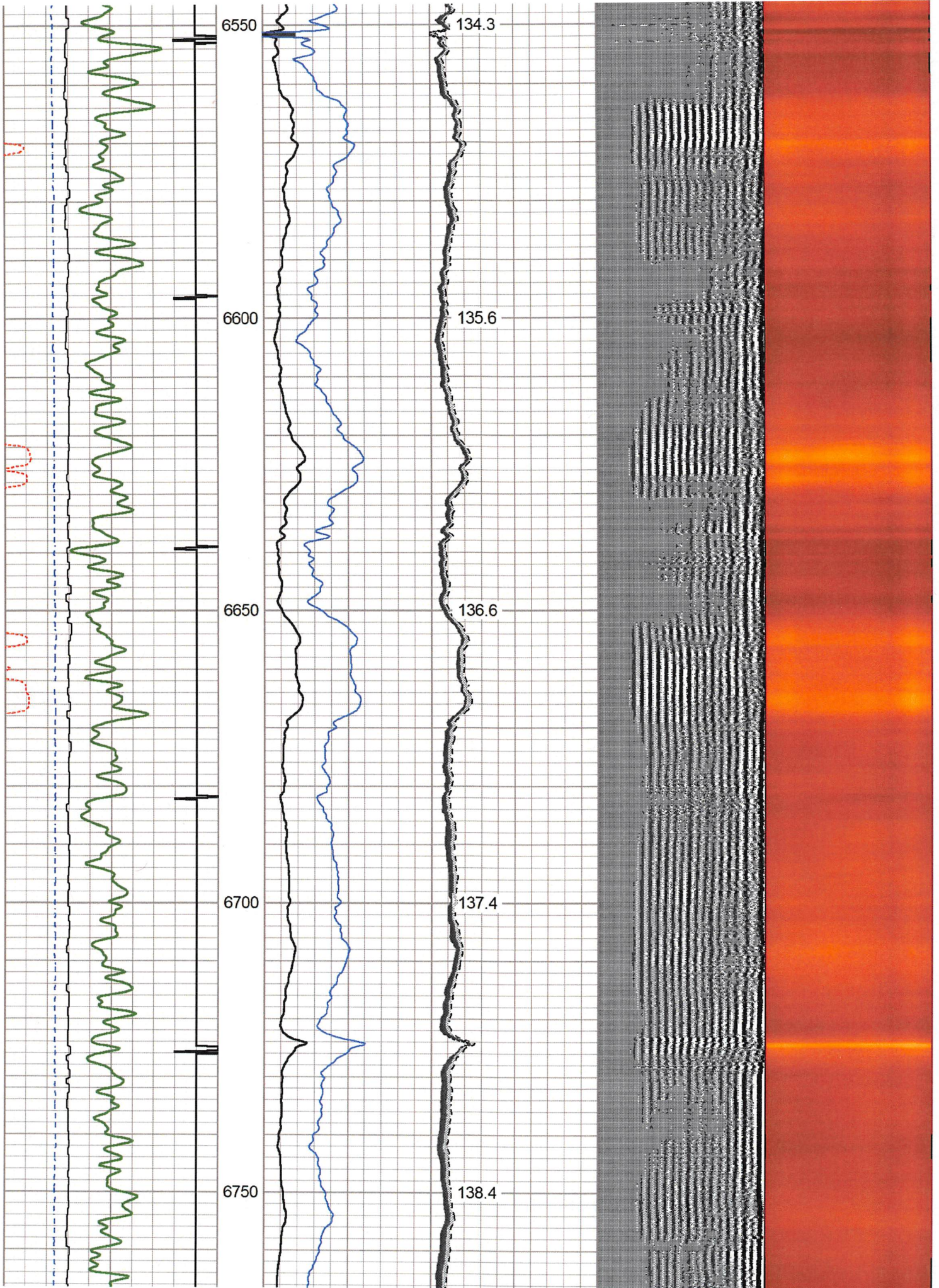


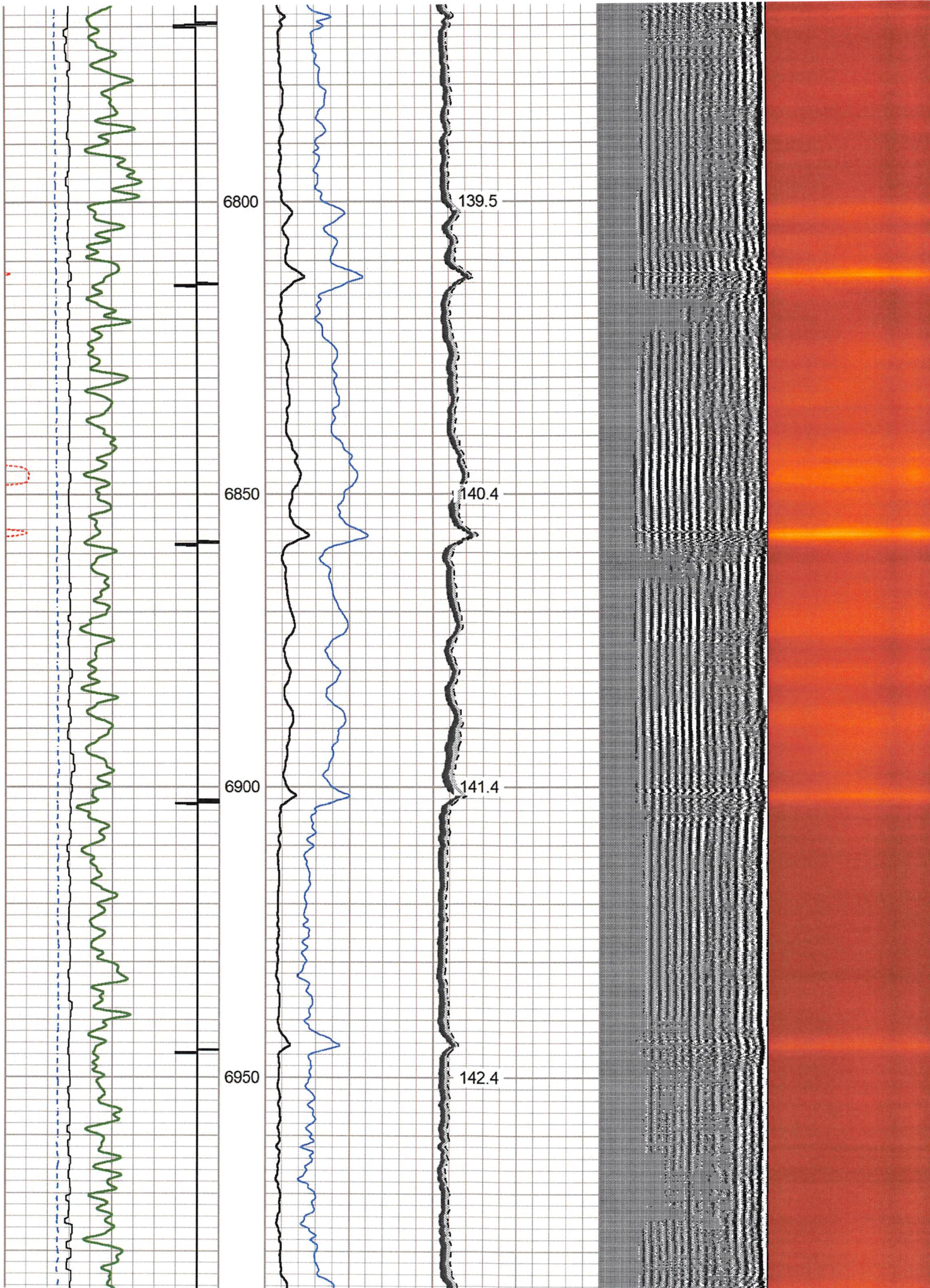
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6400
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6500

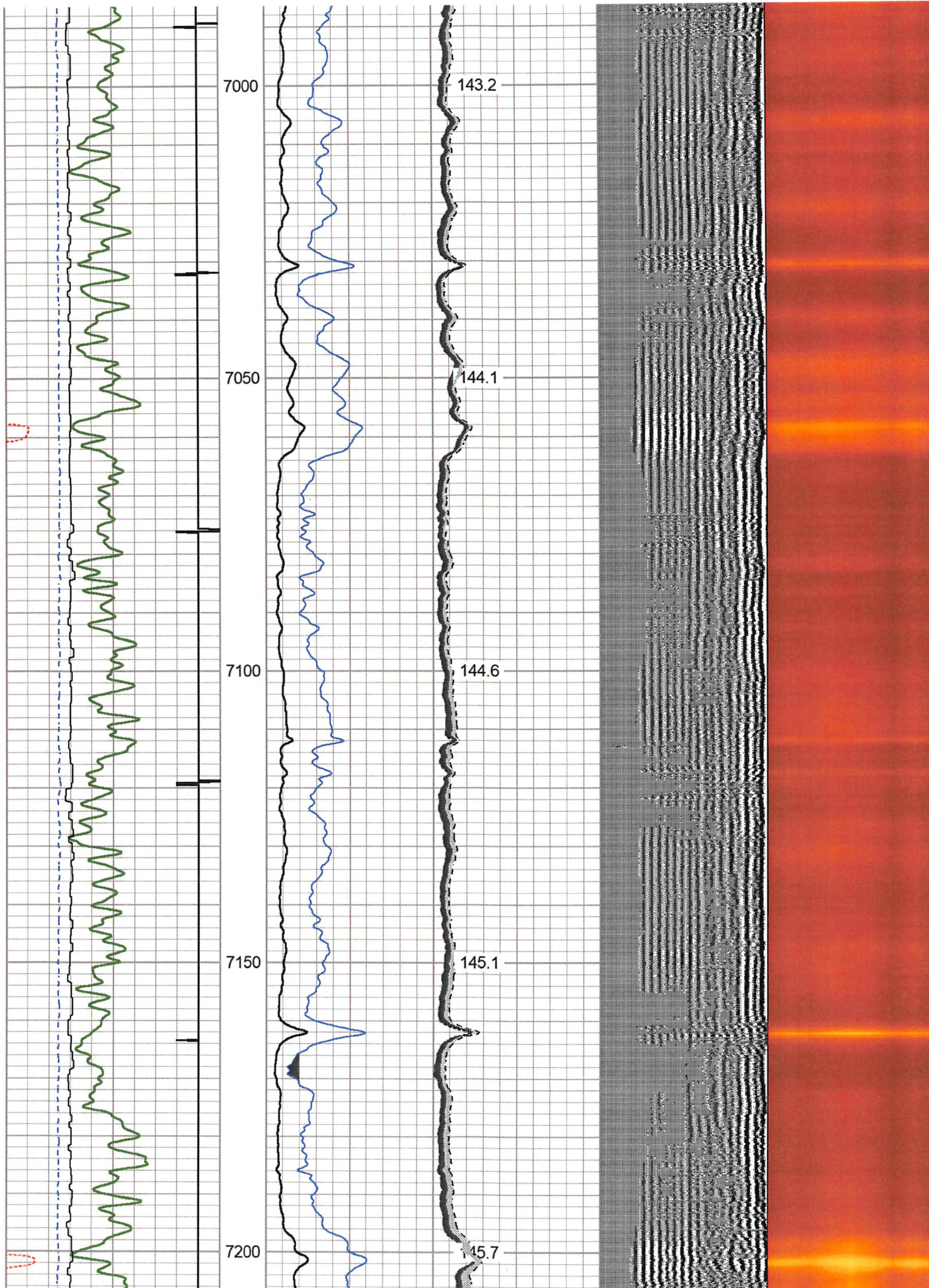


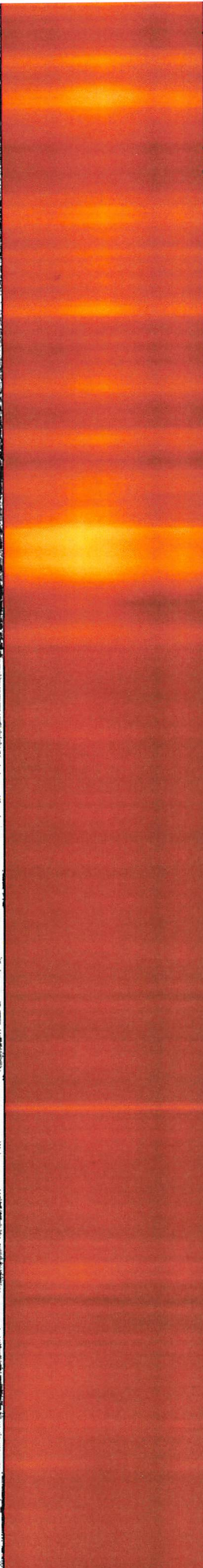
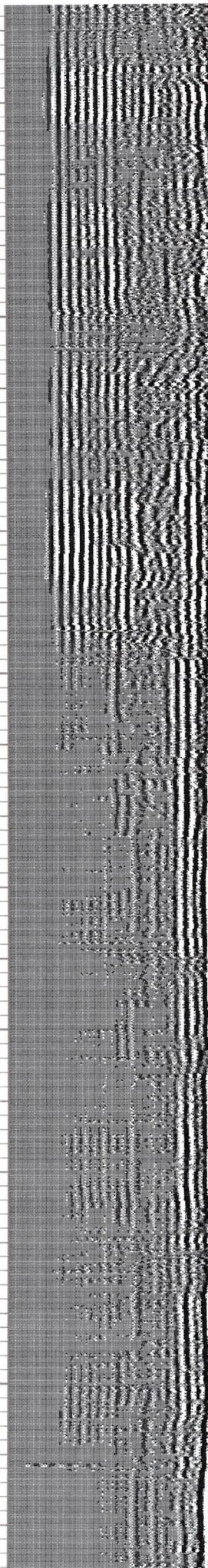
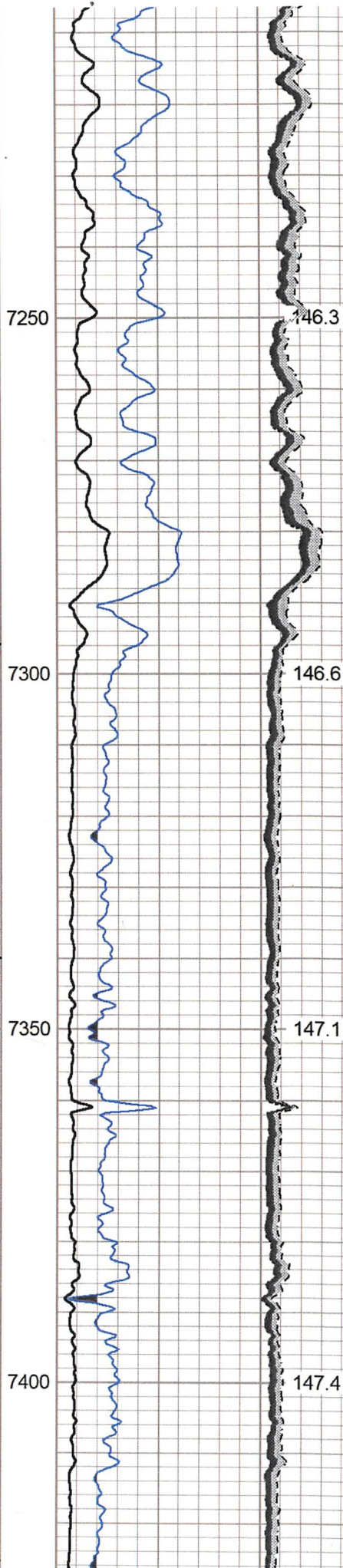
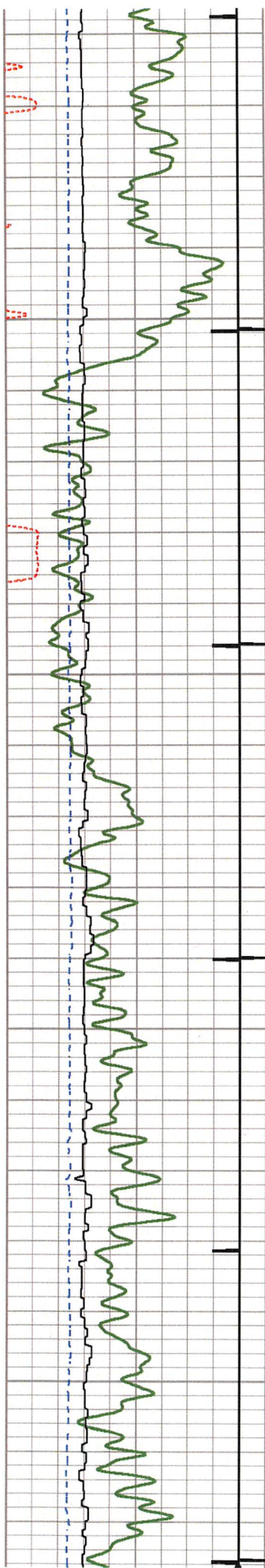
130.4
131.1
132.1
133.2

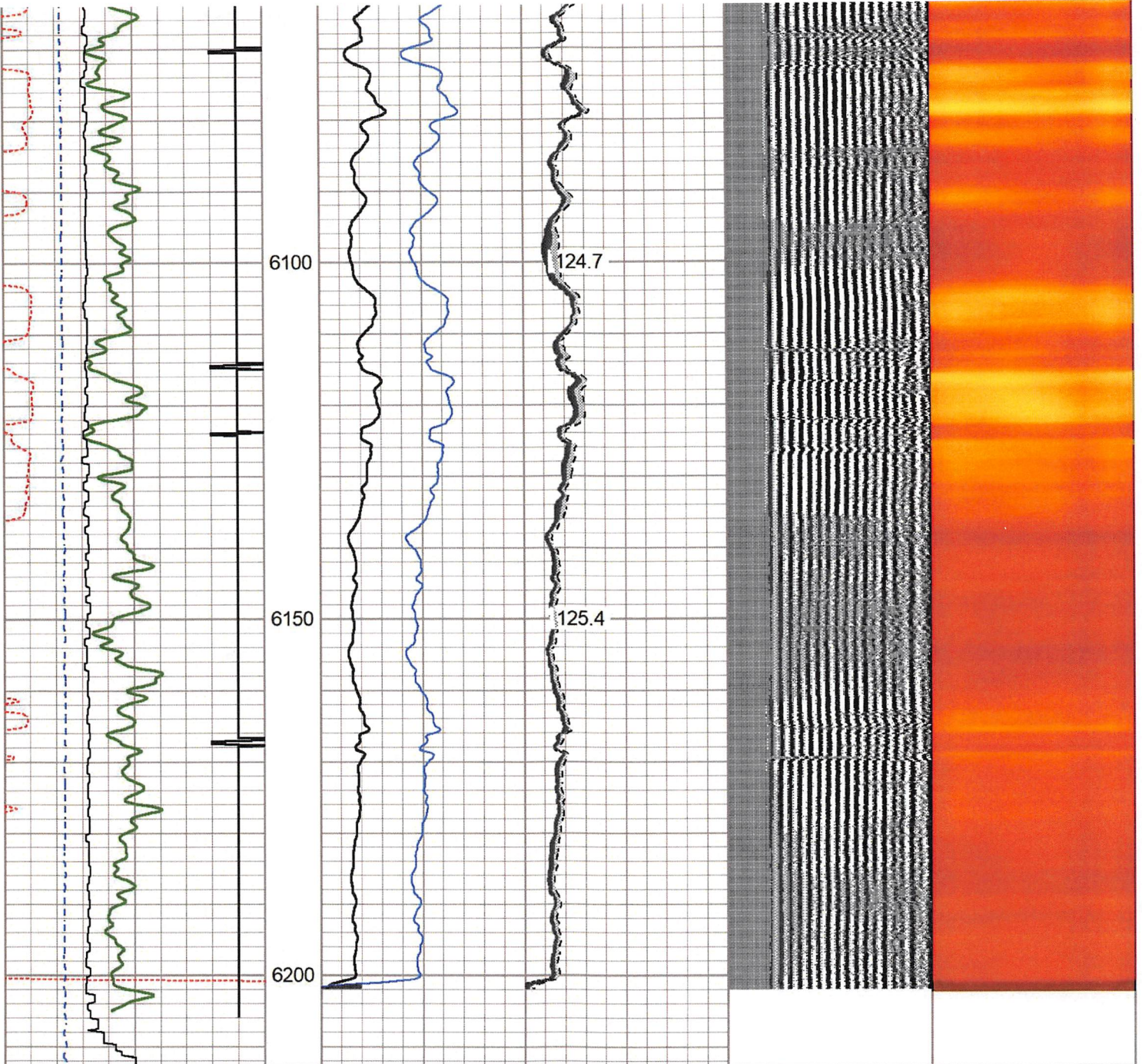












265	Travel Time (usec)	165	0	Amplitude (mV)	100	-5	AMPMIN	150	Variable Density	1	Cement Map	8
9	Casing Collar	-1	1	BONDIX	0	-5	AMPMAX	150	200	(usec)	1200	
0	Gamma Ray (GAPI)	150				-5	AMPAVG	150				
	Line Speed						TEMP					
-200	(ft/min)	200					(degF)					
0	Line Tension (lb)	5000										

Log Variables

DatabaseC:\ProgramData\Warrior\Data\antero_trainer_1h_rcbl_11_jan_2023.db
 Dataset field/well/run1/pass7/_vars_

Top - Bottom

BHTEMP_Src	BOREID	BOTTEMP	CASEOD	CASETHCK	CASEWGHT	MAXAMPL	MINAMPL
TEMP	in 7.875	degF 100	in 5.5	in 0.415	lb/ft 23	mV 71.9	mV 3.4
MINATTN	PERFS	PPT	SRFTEMP	TDEPTH			
db/ft		usec	degF	ft			

0.8	No	260	31	0
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Variable Description

BHTEMP_Src : BHTEMP Input Source Selector	MINAMPL : Minimum Amplitude
BOREID : Borehole I.D.	MINATTN : Minimum Attenuation
BOTTEMP : Bottom Hole Temperature	PERFS : Perforation Flag
CASEOD : Casing O.D.	PPT : Predicted Pipe Time
CASETHCK : Casing Thickness	SRFTEMP : Surface Temperature
CASEWGHT : Casing Weight	TDEPTH : Total Depth
MAXAMPL : Maximum Amplitude	

Calibration Report

Database File antero_trainer_1h_rcbl_11_jan_2023.db
Dataset Pathname pass7
Dataset Creation Wed Jan 11 10:54:01 2023

Gamma Ray Calibration Report

Serial Number: FW1211-86
Tool Model: Probe
Performed: Sun Nov 13 11:04:25 2022

Calibrator Value: 1.0 GAPI

Background Reading: 0.0 cps
Calibrator Reading: 1.0 cps

Sensitivity: 0.5000 GAPI/cps

Segmented Cement Bond Log Calibration Report

Serial Number: 2.75"
Tool Model: Probe275T

Calibration Casing Diameter: 5.500 in
Calibration Depth: 506.458 ft

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Master Calibration, performed Wed Jan 11 09:55:03 2023:

	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3'	0.004	0.563	3.400	71.921	122.407	2.964
CAL	0.998	1.002				
5'	-0.003	0.585	3.400	71.921	116.520	3.788
SUM						
S1	0.068	0.563	0.000	100.000	201.962	-13.744
S2	-0.005	0.515	0.000	100.000	192.183	0.934
S3	-0.002	0.567	0.000	100.000	175.749	0.423
S4	-0.002	0.600	0.000	100.000	165.914	0.381
S5	-0.003	0.627	0.000	100.000	158.852	0.442
S6	-0.006	0.618	0.000	100.000	160.203	0.952
S7	0.006	0.580	0.000	100.000	174.146	-0.988
S8	-0.007	0.543	0.000	100.000	181.633	1.315

Internal Reference Calibration, performed Wed Nov 23 14:17:52 2011:

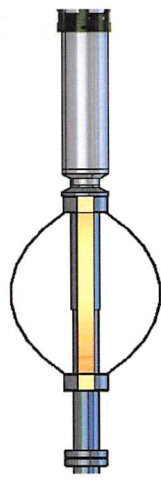
	Raw (v)		Calibrated (v)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
CAI	0.000	0.000	0.998	1.002	1.000	0.000

Air Zero Calibration, performed Wed Jan 11 09:18:23 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

Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb)
HeadVolt	16.95		CHD-Titan Standard 1 7/16" Cable Head	1.02	1.44	1.00
Temp	14.10		CENT-Overbody Antelope (SP-919-0233)	1.67	4.88	5.00
WVFS8	11.86		RBT-Probe275T (2.75") Probe 2.75" Radial with Integral Temperature Sub	9.39	2.75	90.00
WVFS7	11.86					
WVFS6	11.86					
WVFS5	11.86					
WVFS4	11.86					
WVFS3	11.86					
WVFS2	11.86					
WVFS1	11.86					
WVF3FT	11.86					
WVF5FT	10.86					
WVFCAL	7.61					
HEADVOLT	7.61					
CCL	6.71					
GR	5.38		GR-Probe (FW1211-86) Probe 2 3/4" Logging Gamma Ray	4.78	2.75	57.00
			CENT-Overbody	1.67	4.88	5.00

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JUN 2 2023
WV Department of
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Antelope (SP-919-0233)

Centralizer-Probe_2.75
Bowspring Centralizer

2.83

2.75

24.00

Dataset: antero_trainer_1h_rcbl_11_jan_2023.db: field/well/run1/pass7
Total length: 18.03 ft
Total weight: 182.00 lb
O.D.: 4.88 in