



**RADIAL
BOND
LOG**

Company ANTERO RESOURCES
Well TAPEATS 3H
Field RABBIT EARS
County TYLER State WV

Location: API #:

SEC TWP RGE Elevation 25'
Log Measured From KB KB
Drilling Measured From KB KB

Other Services
GR
CCL
Elevation
K.B. N/A
D.F. N/A
G.L. N/A

Company ANTERO RESOURCES
Well TAPEATS 3H
Field RABBIT EARS
County TYLER
State WV

Date 9-MAY-2021

Run Number ONE

Depth Driller 24049'

Depth Logger 7734'

Bottom Logged Interval 7720'

Top Log Interval SURFACE

Open Hole Size 8 5/8"

Type Fluid FRESH WATER

Density / Viscosity 8.3#

Max. Recorded Temp. 142°F

Estimated Cement Top 5190'

Time Well Ready 12:05

Time Logger on Bottom 12:40

Equipment Number TK-111

Location CHARLEROI, PA

Recorded By D.JOSEPHIK

Witnessed By DANIEL MARTINEZ

Borehole Record		Tubing Record				
Run Number	Bit From	To	Size	Weight	From	To
Casing Record	Size	Wgt/Ft	Top	Bottom		
Surface String						
Prot. String						
Production String	5 1/2"	23#	SURFACE	24049'		
Liner						

<<< 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

LOG ZEROED @ GROUND LEVEL

MARKER JOINT @ 6795'-6806'


FREE PIPE= 71.9mv
BONDED PIPE= 2.2mv

ETOC @ 5190'

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Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb)
			CHD-Titan Standard 1 7/16" Cable Head	1.02	1.44	1.00

SM

			CENT-Titn275Adj Titan 2 3/4" Adjustable Centralizer	2.86	2.75	35.00
HeadVolt	19.83					
Temp	16.98					
WVFS8	14.75		RBT-Probe275T (FW1312-32) Probe 2.75" Radial with Integral Temperature Sub	9.39	2.75	90.00
WVFS7	14.75					
WVFS6	14.75					
WVFS5	14.75					
WVFS4	14.75					
WVFS3	14.75					
WVFS2	14.75					
WVFS1	14.75					
WVF3FT	14.75					
WVF5FT	13.75					
WVFCAL	10.50					
HEADVOLT	10.50		CENT-Titn275Adj Titan 2 3/4" Adjustable Centralizer	2.86	2.75	35.00
CCL	6.73					
GR	5.40		GR-Probe (FW1211-86) Probe 2 3/4" Logging Gamma Ray	4.78	2.75	57.00
			CENT-Titn275Adj Titan 2 3/4" Adjustable Centralizer	2.86	2.75	35.00

Dataset: antero_tapeat_3h_may_9_2021_rcbl.db: field/well/rcbl/main
Total length: 23.77 ft
Total weight: 253.00 lb
O.D.: 2.75 in

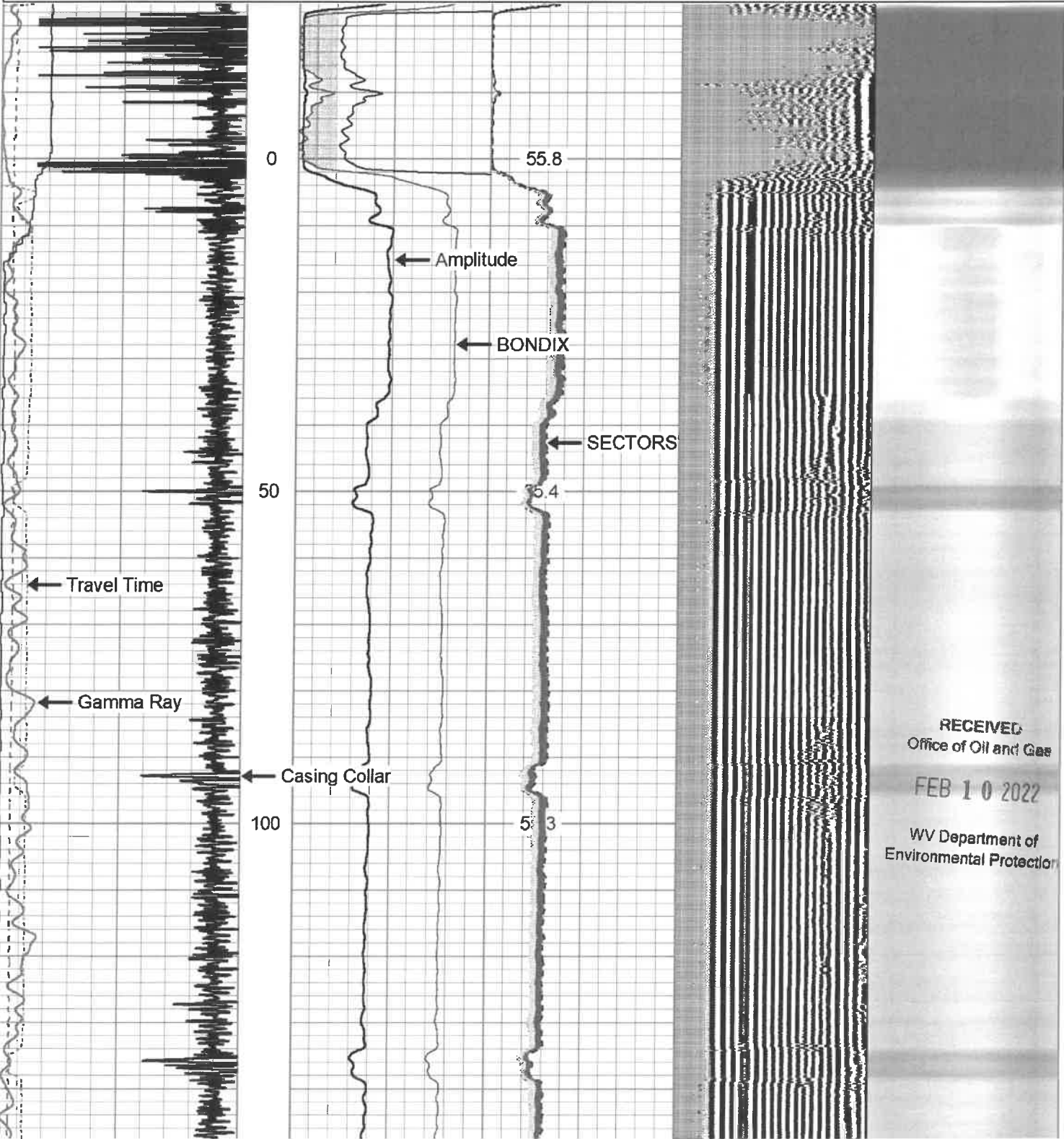


MAIN LOG

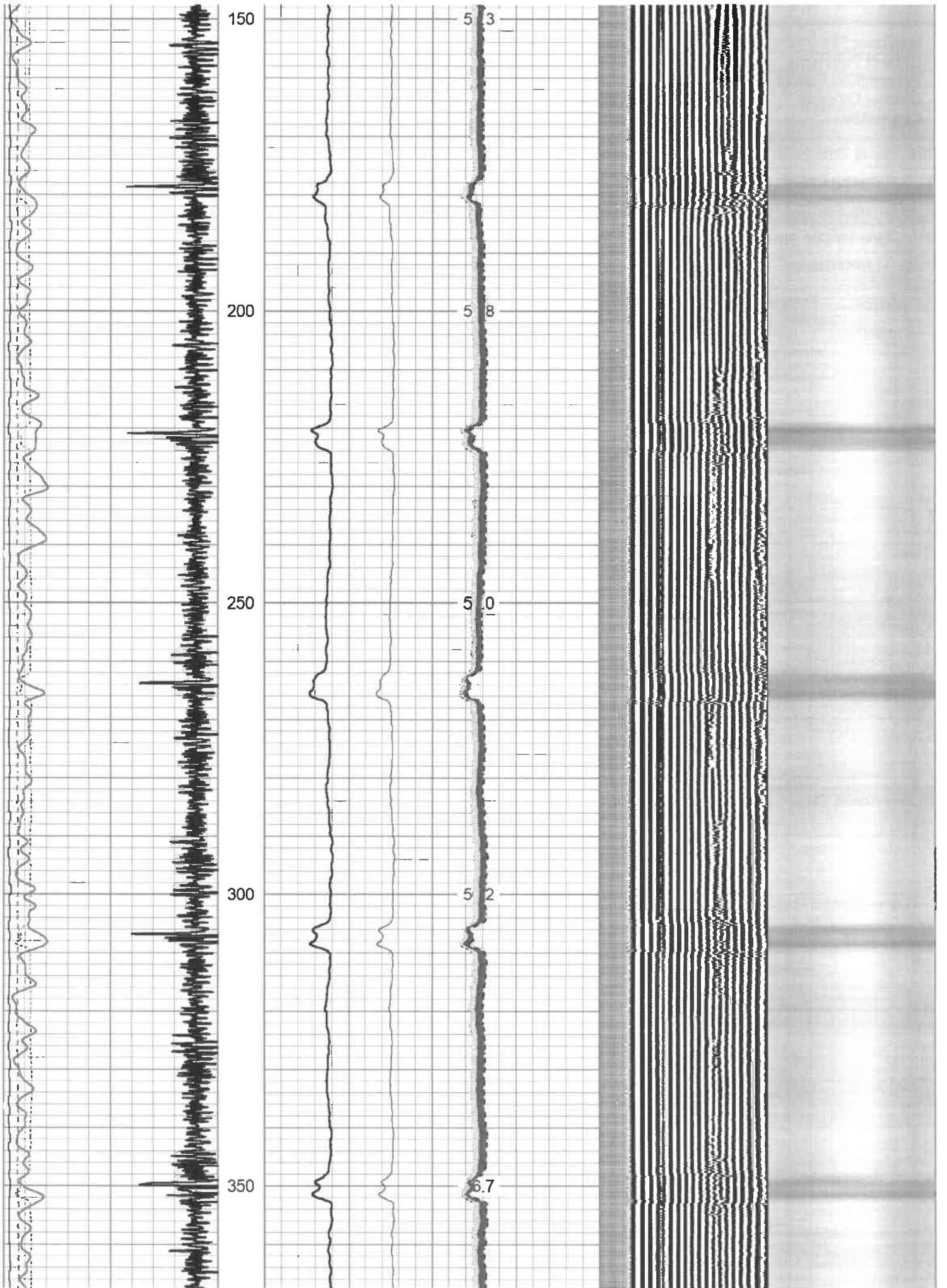
APPLIED 1500 PSI

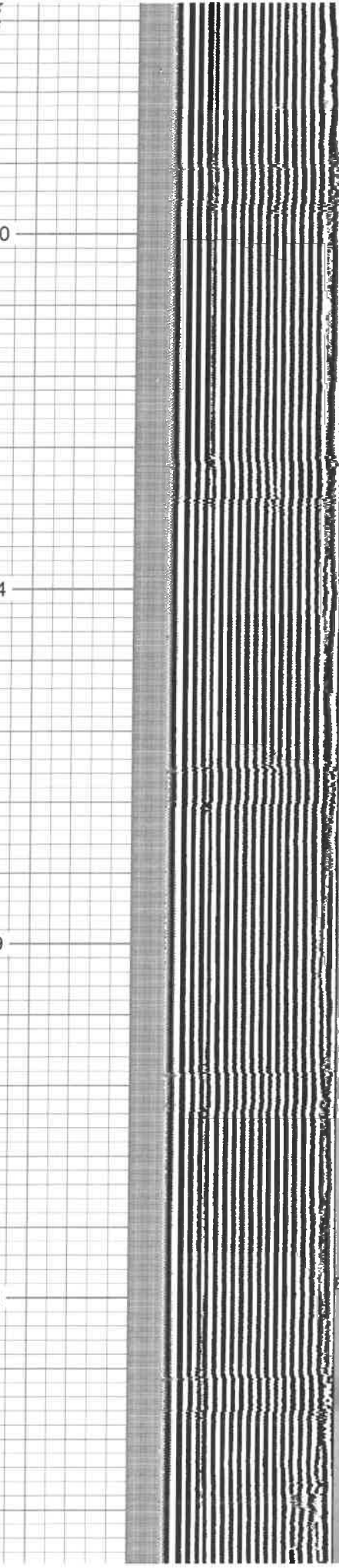
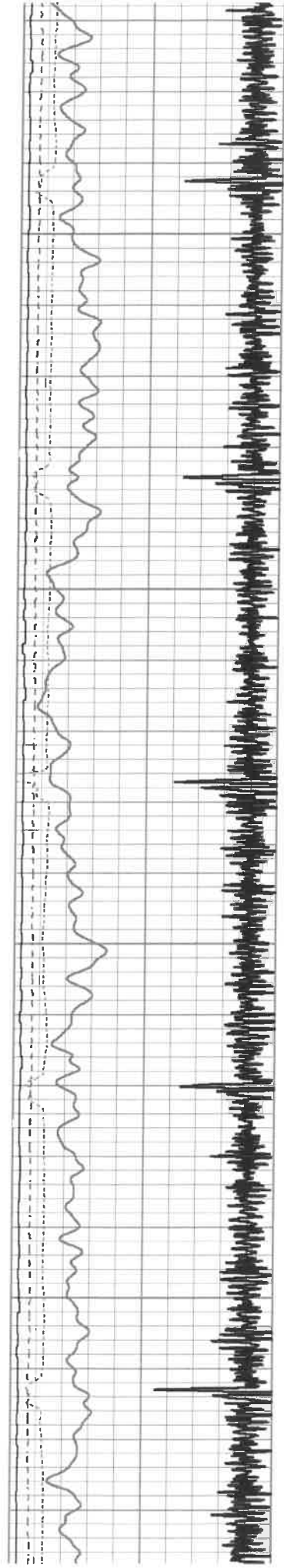
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 Dataset Pathname rcbl/main
 Presentation Format scbl03
 Dataset Creation Mon May 10 13:23:32 2021
 Charted by Depth in Feet scaled 1:240

291	Travel Time (usec)	191	0	Amplitude (mV)	100	0	AMPMIN	150	Variable Density	1	Cement Map	8
9	Casing Collar	-1	1	BONDIX	0	0	AMPMAX	150	200 (usec)	1200		
0	Gamma Ray (GAPI)	150		AMP3FTX5		0	AMPAVG	150				
0	Line Tension (lb)	5000	0	(mV)	10		TEMP					
-100	LSPD (ft/min)	100					(degF)					



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400

450

500

550

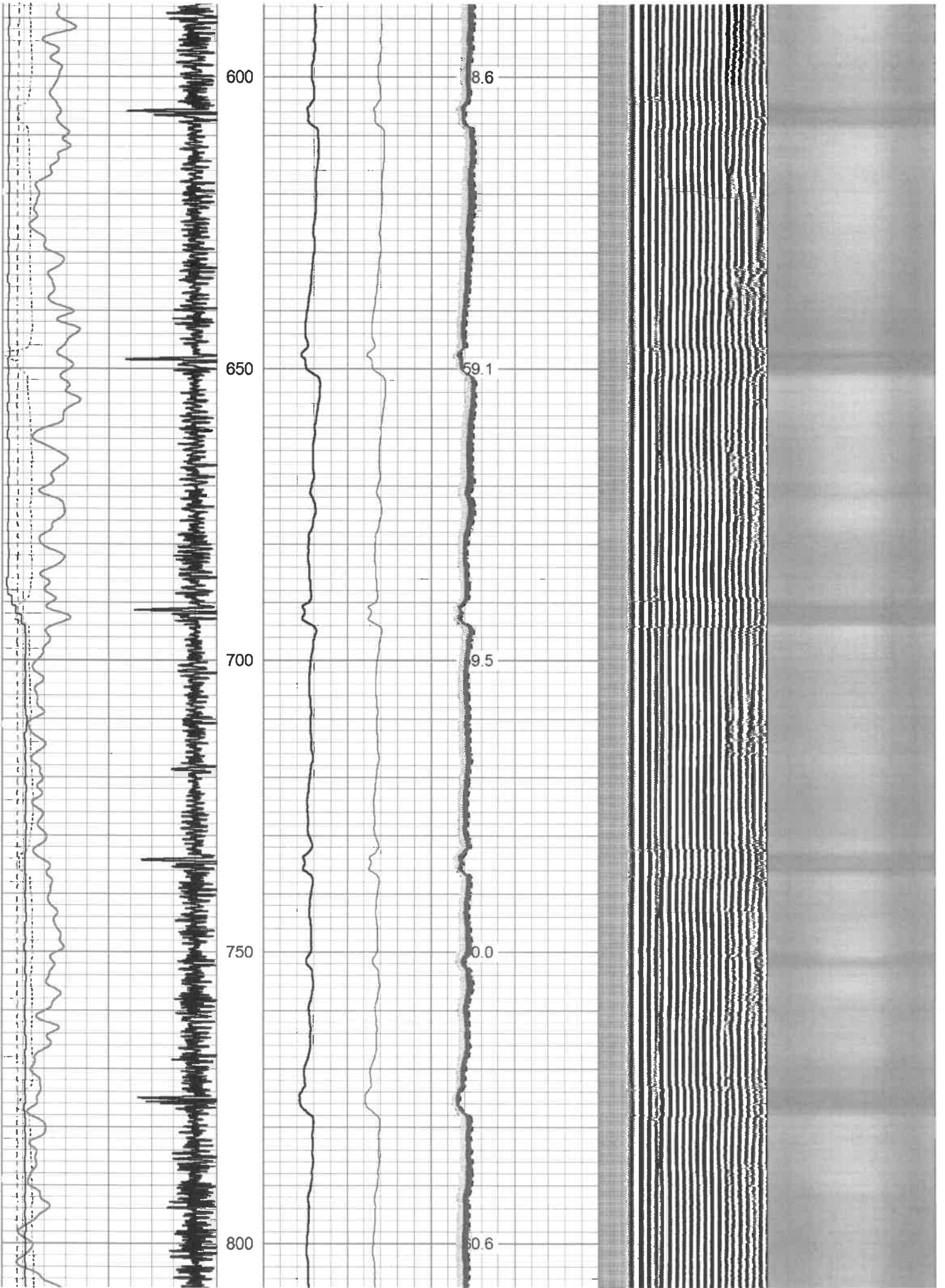
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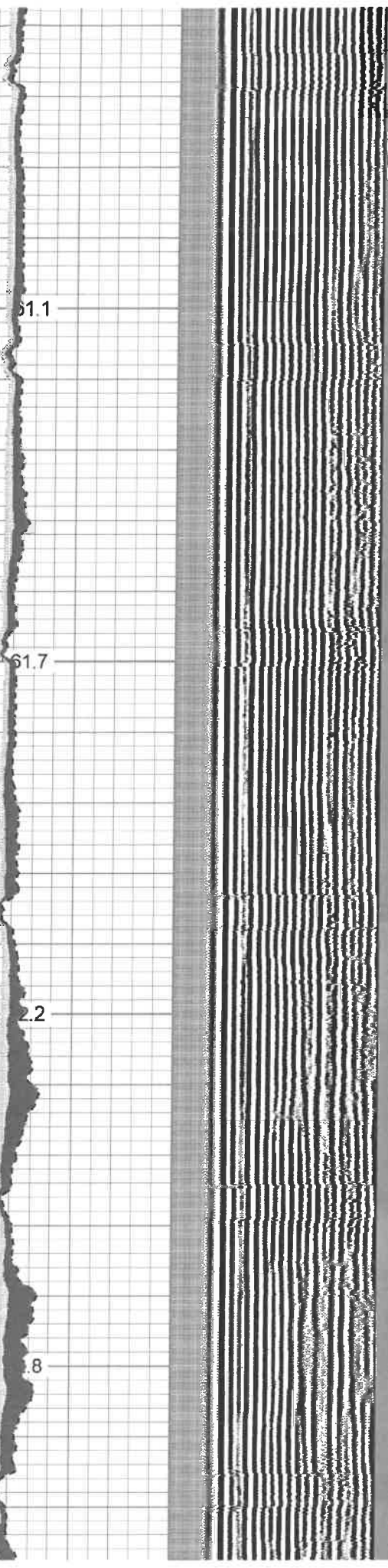
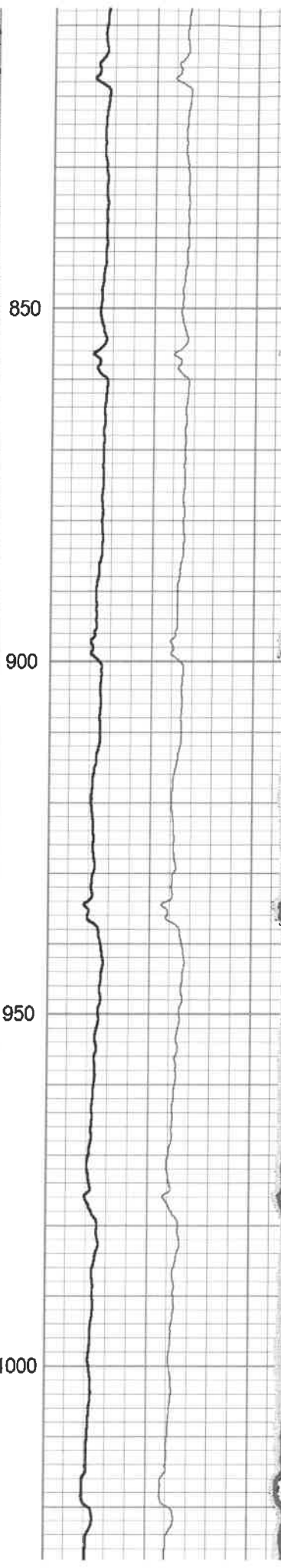
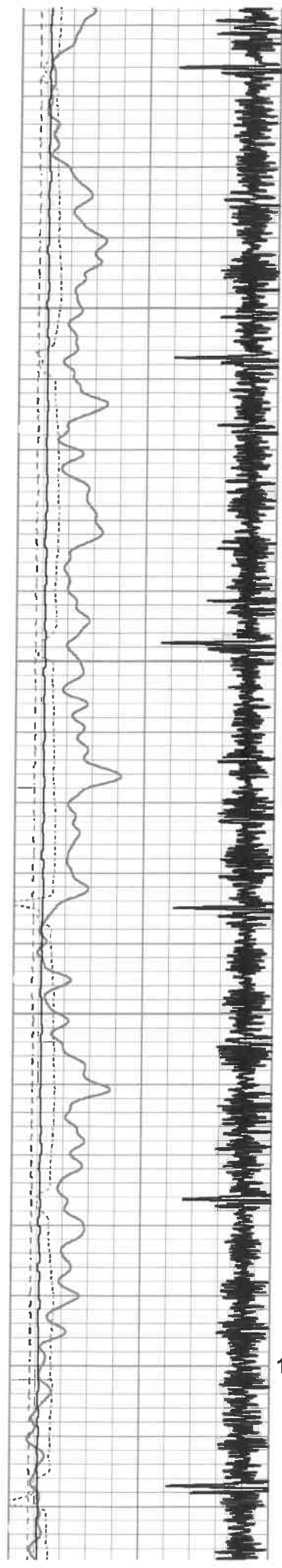
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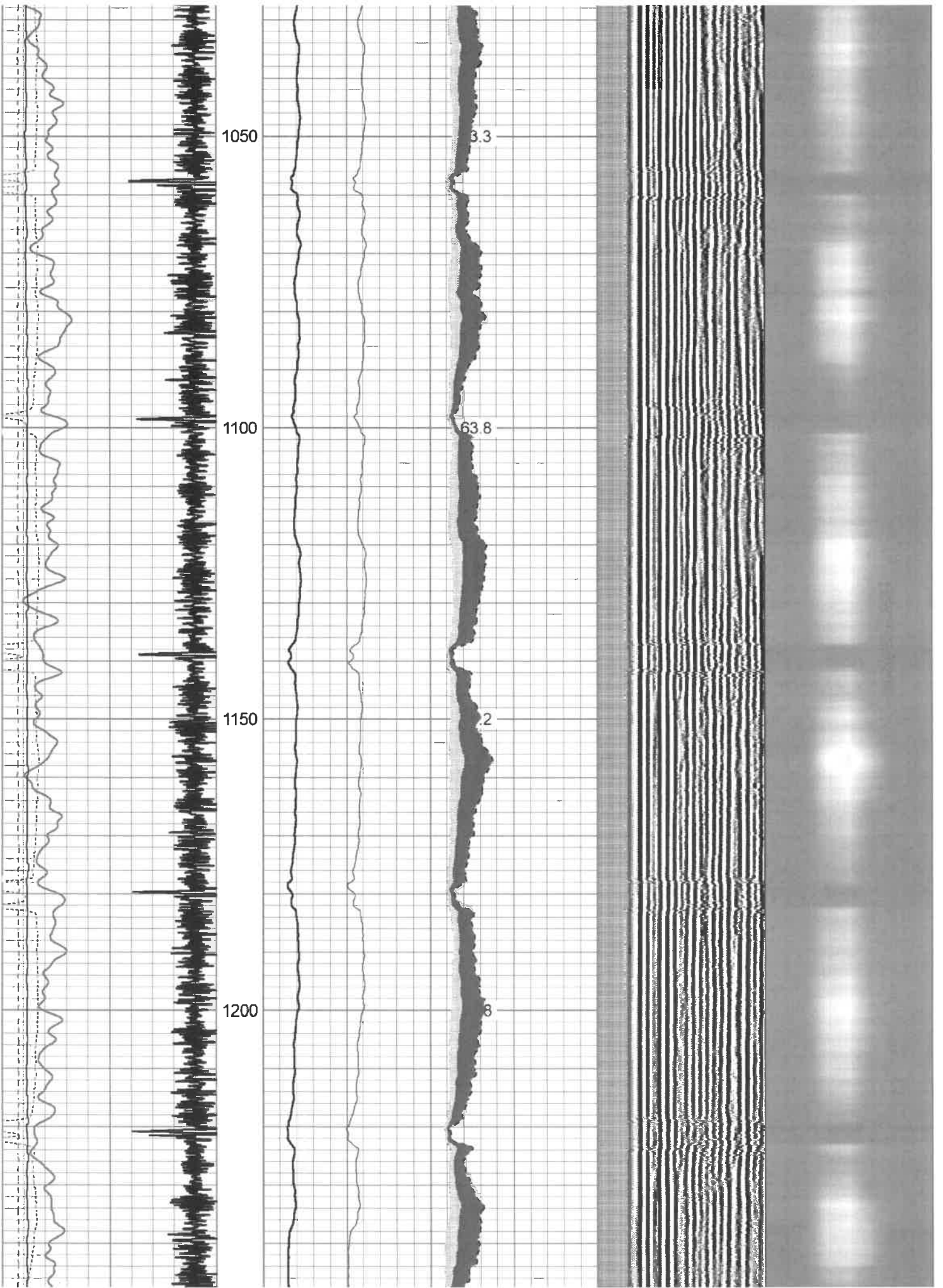
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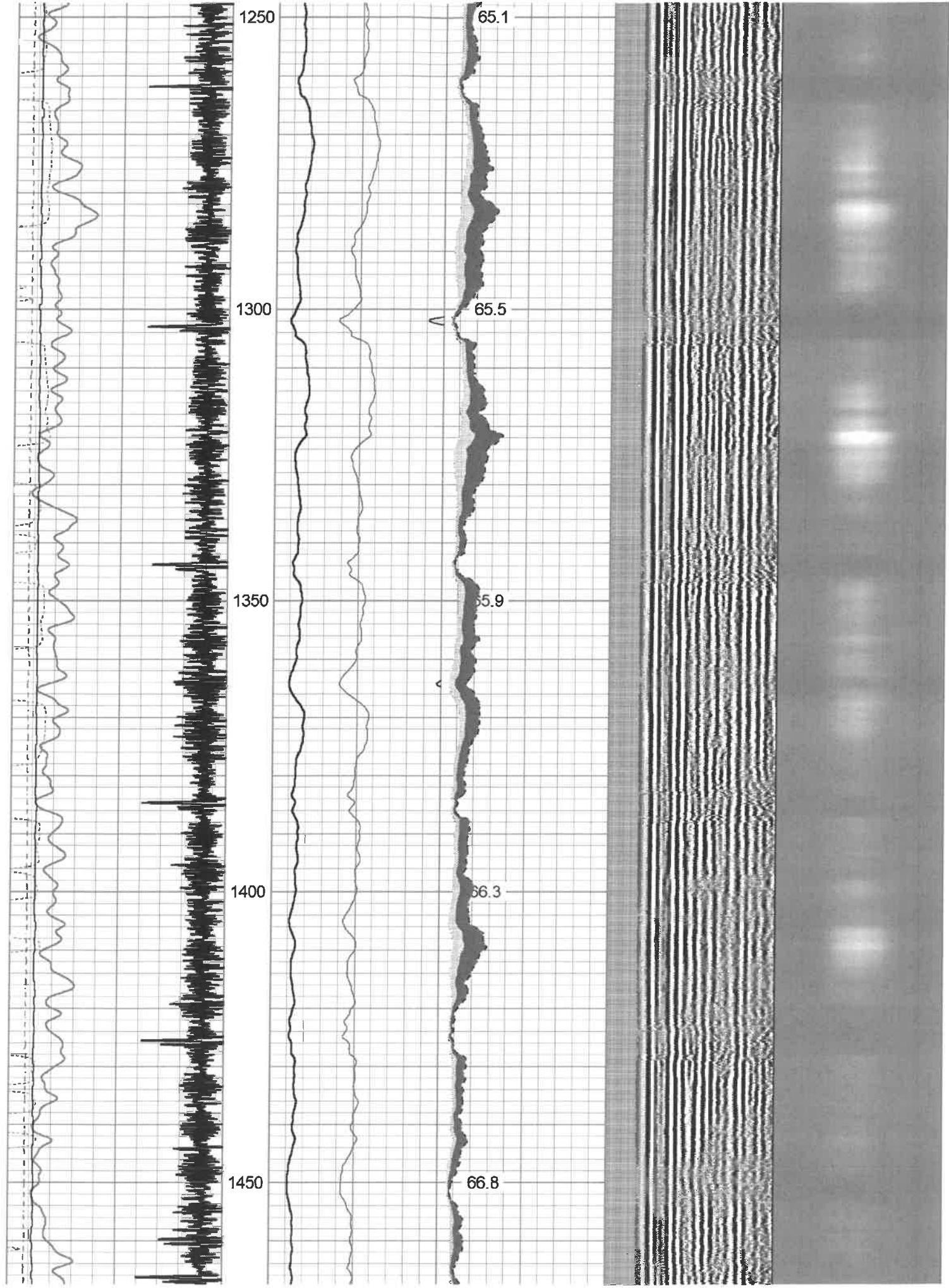
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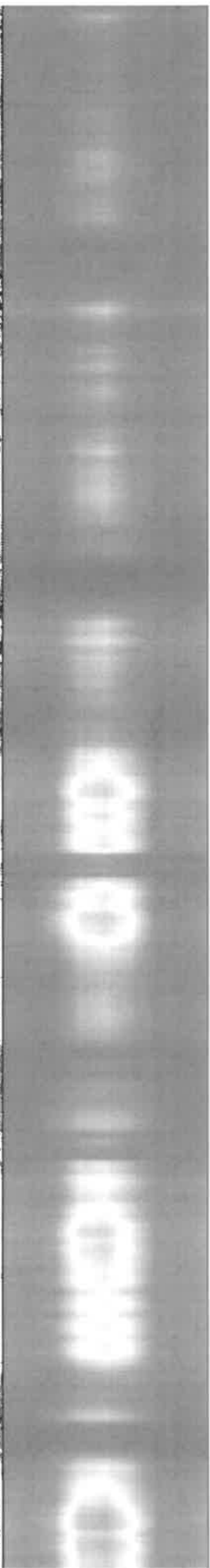
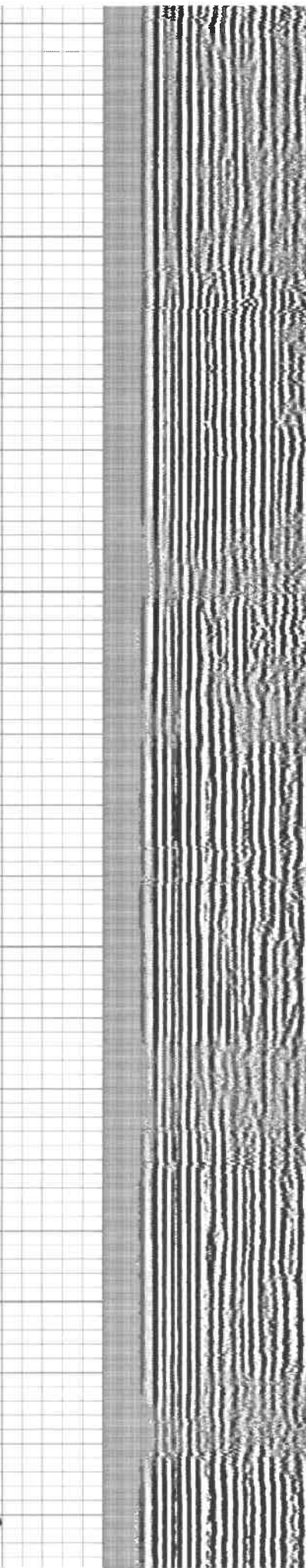
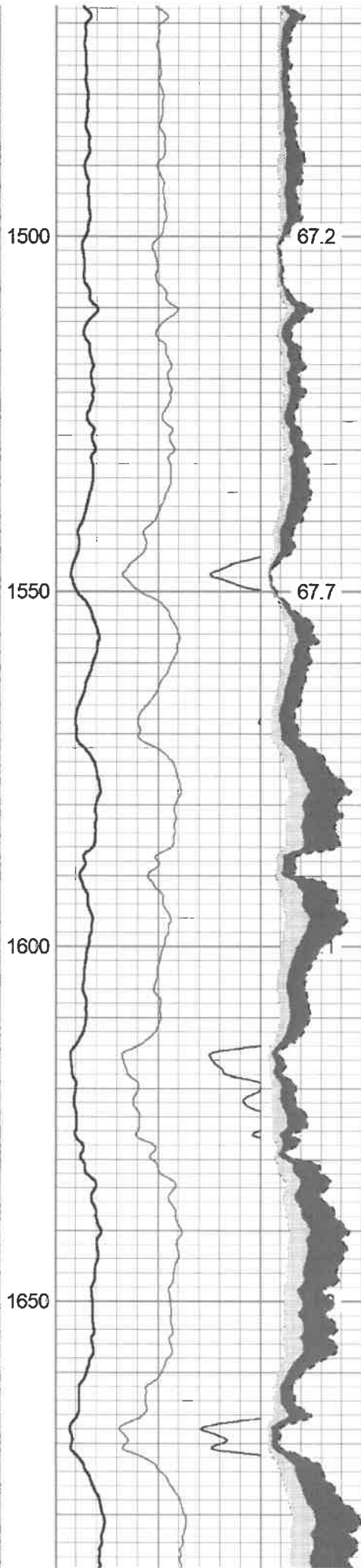
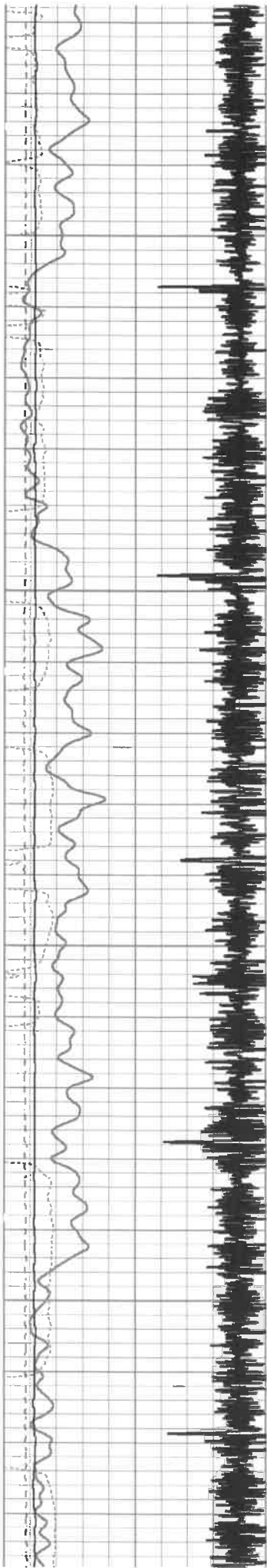
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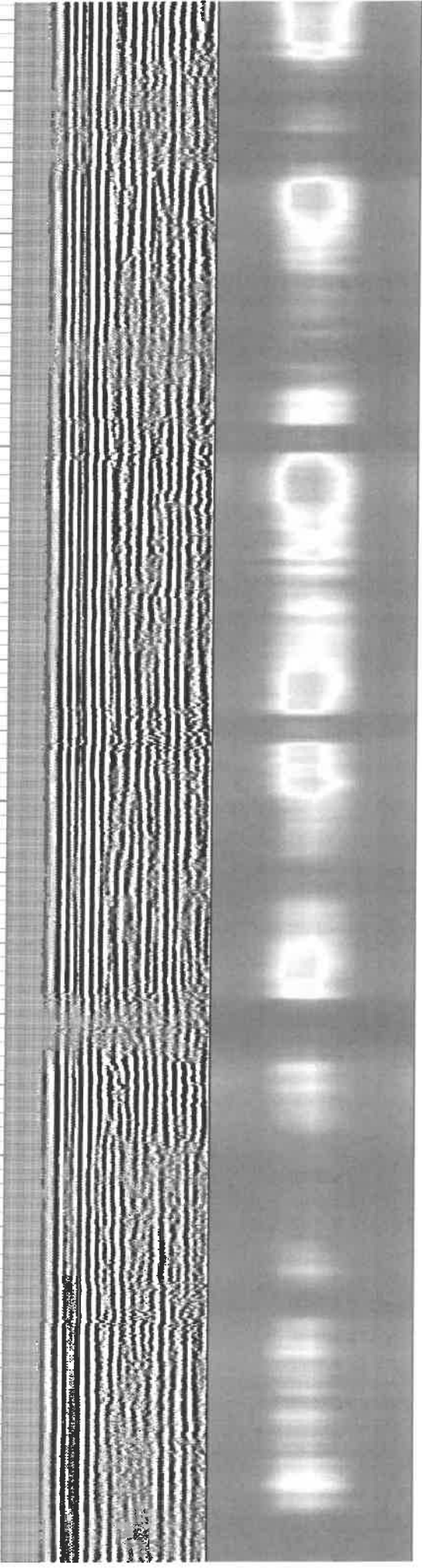
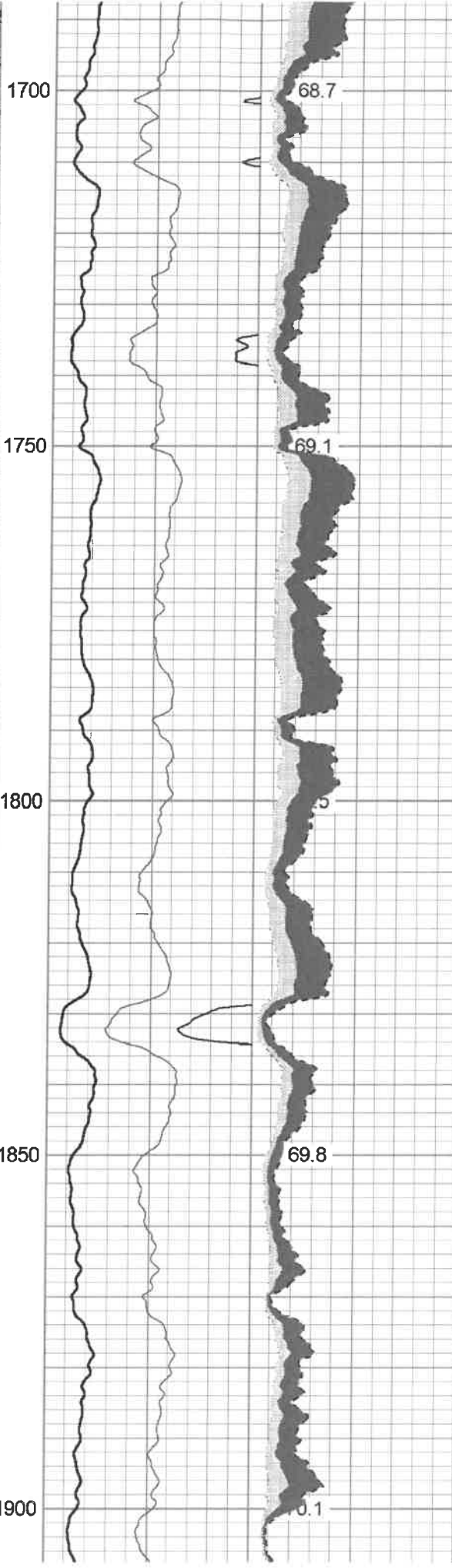
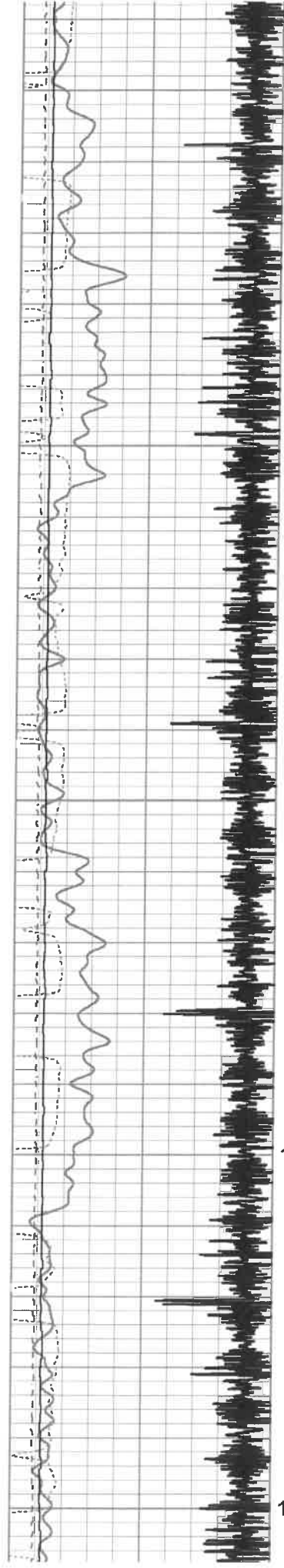


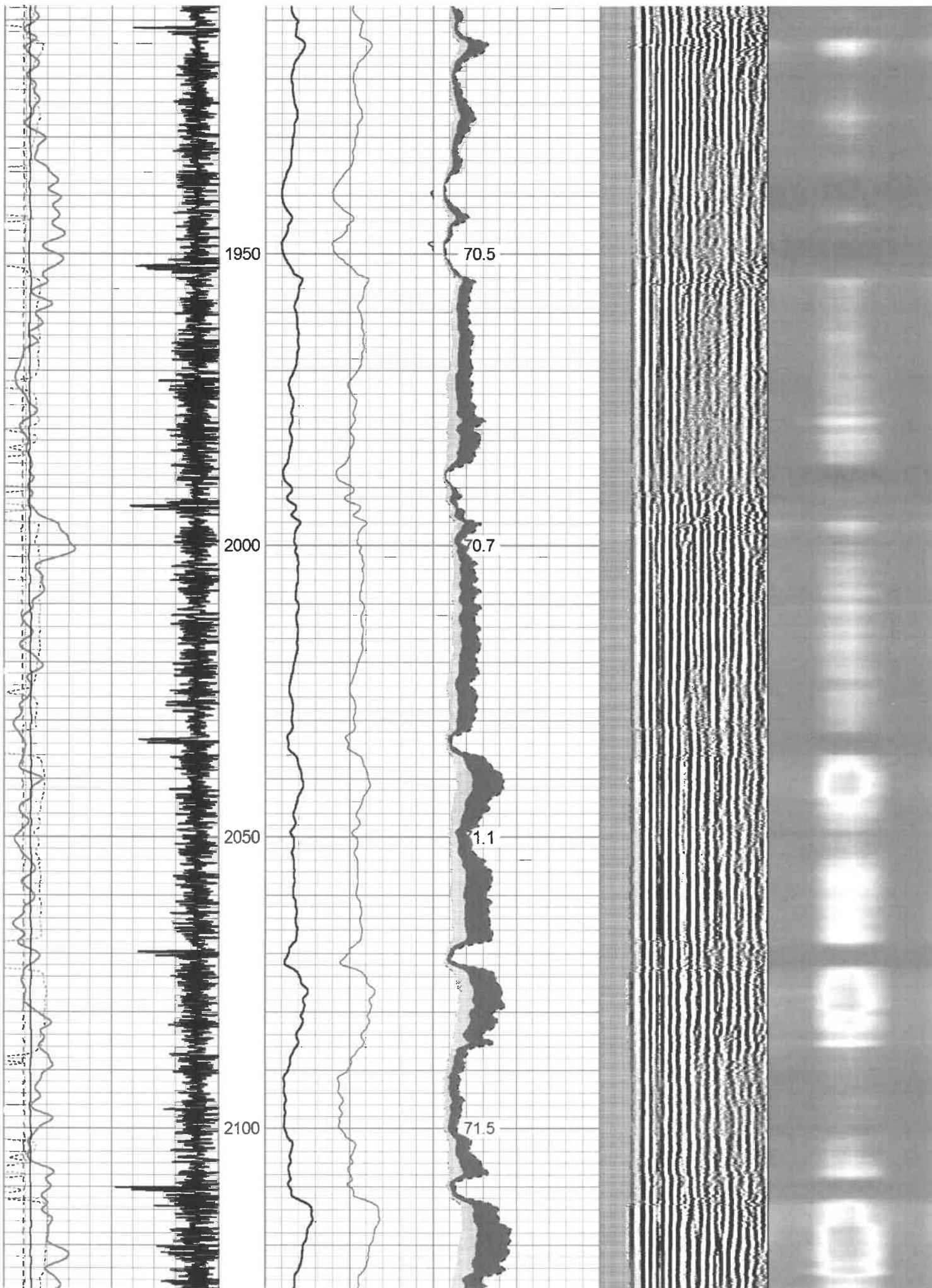


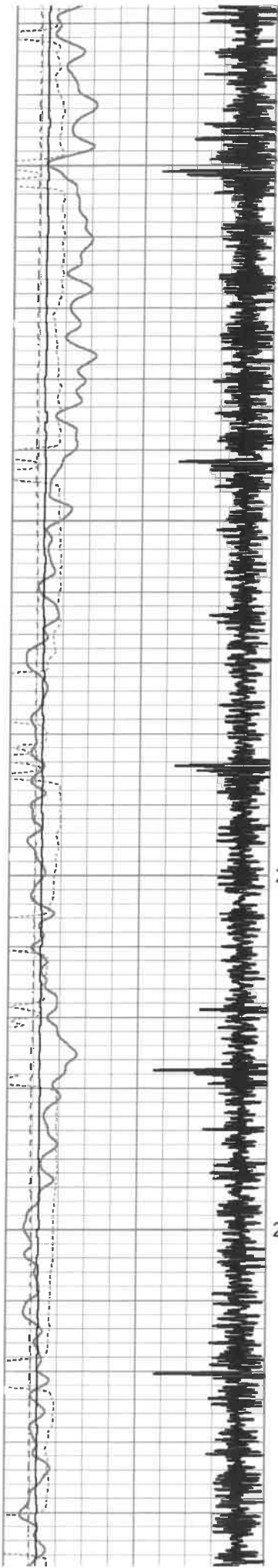




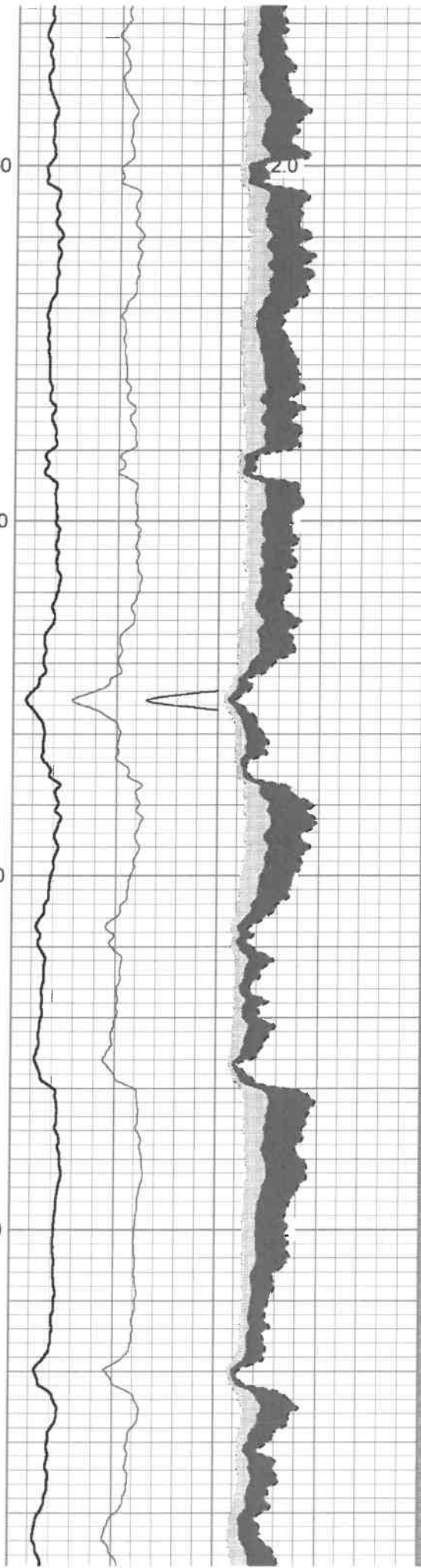




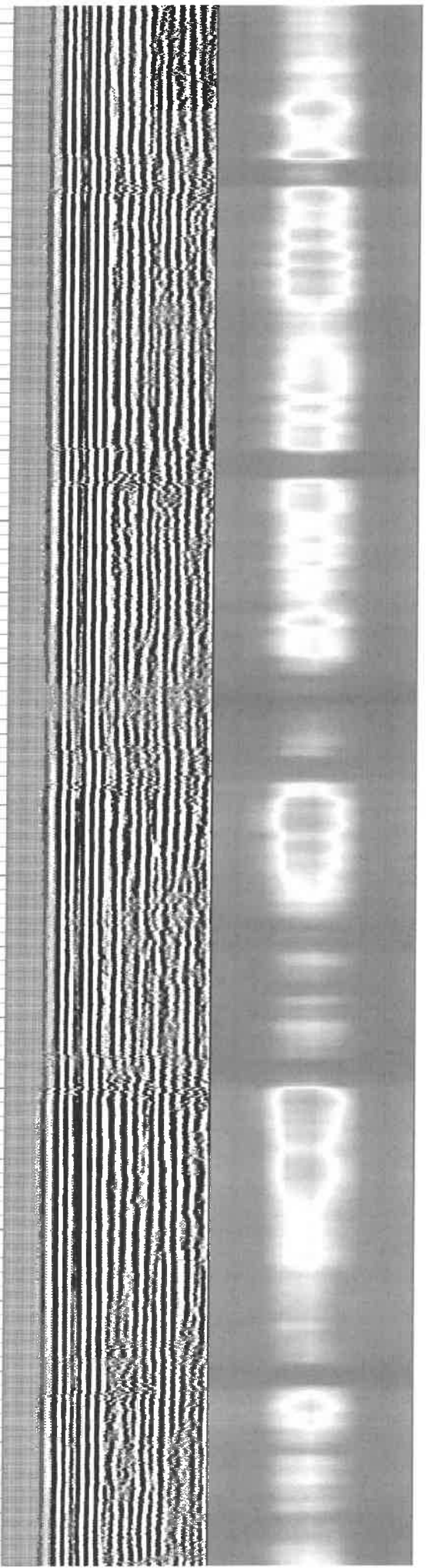


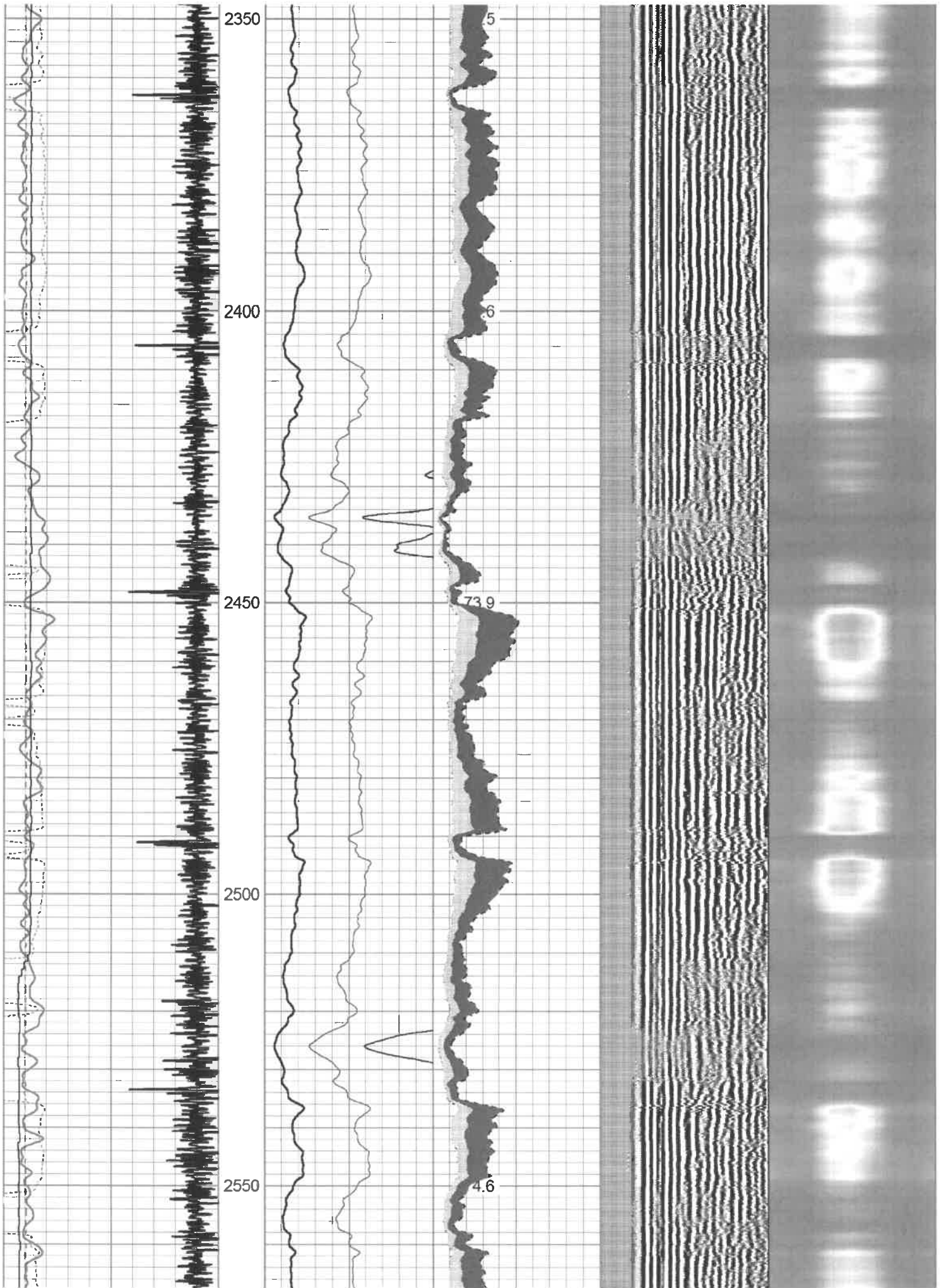


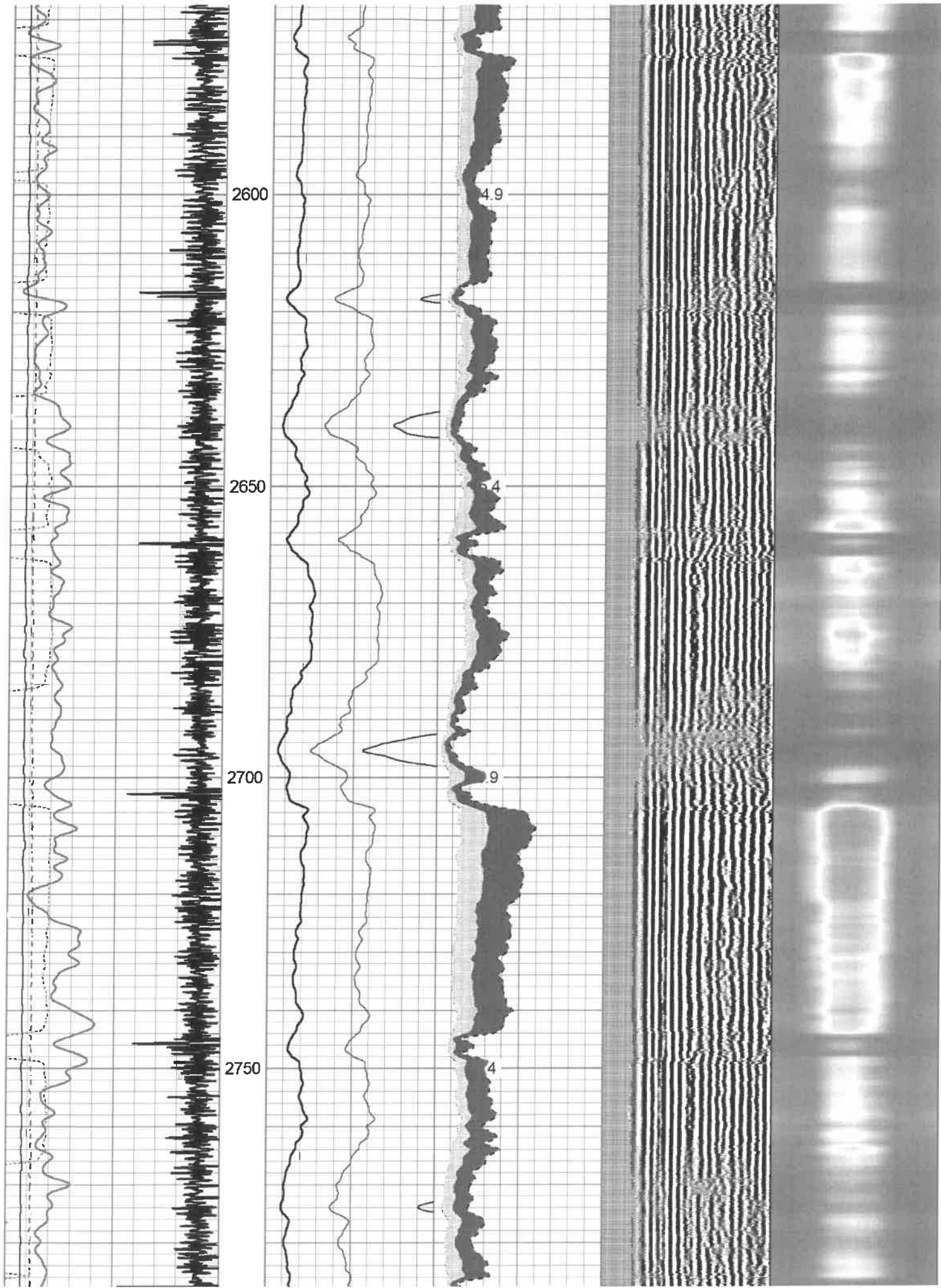
2150
2200
2250
2300

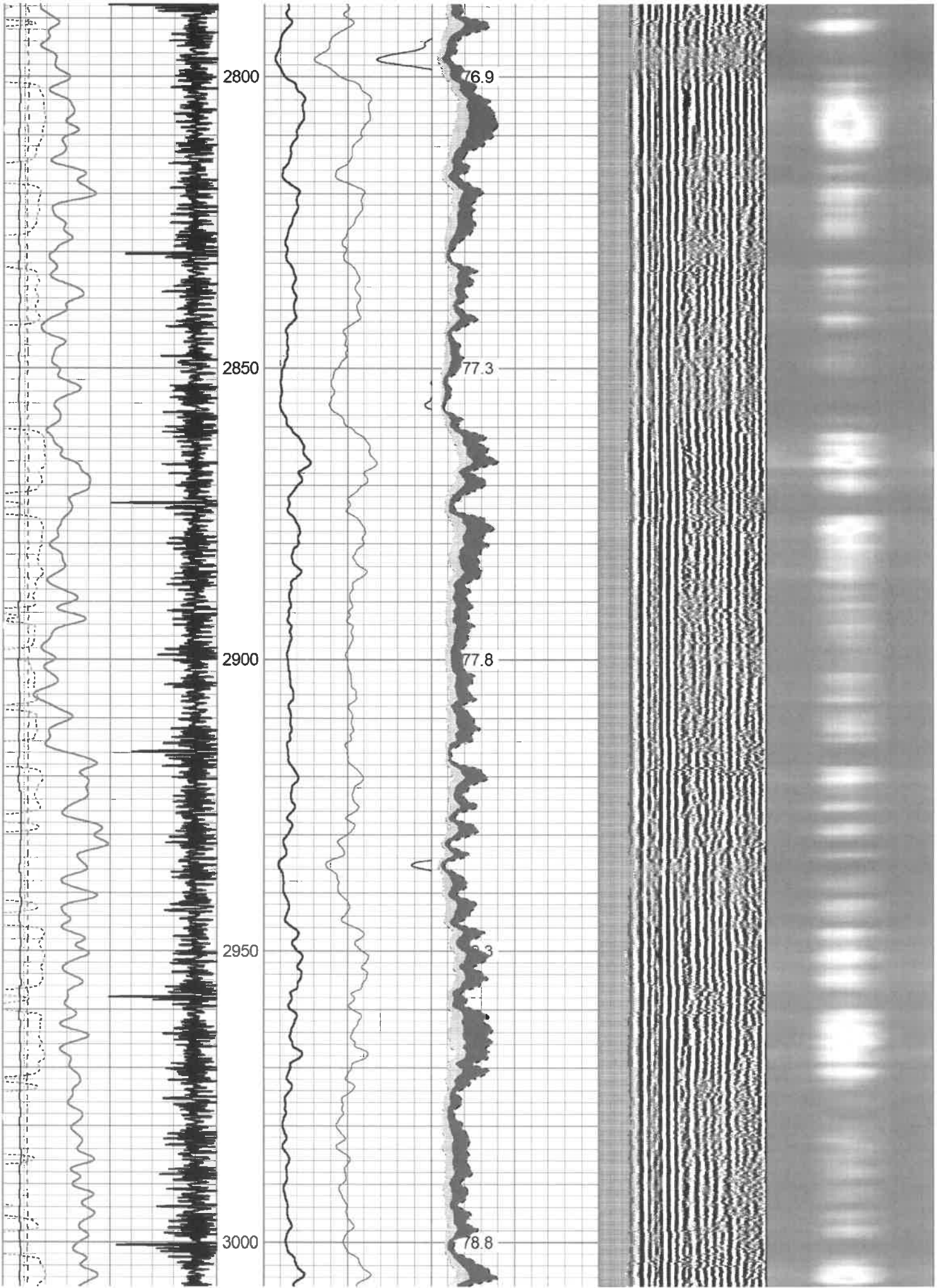


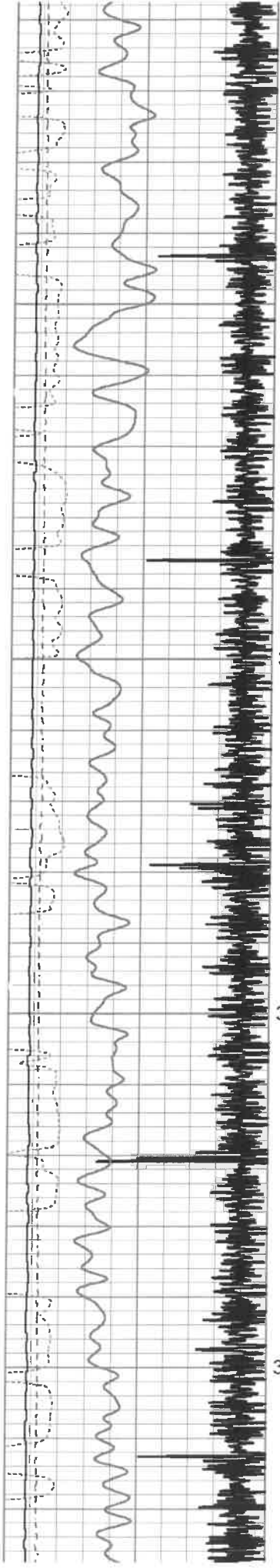
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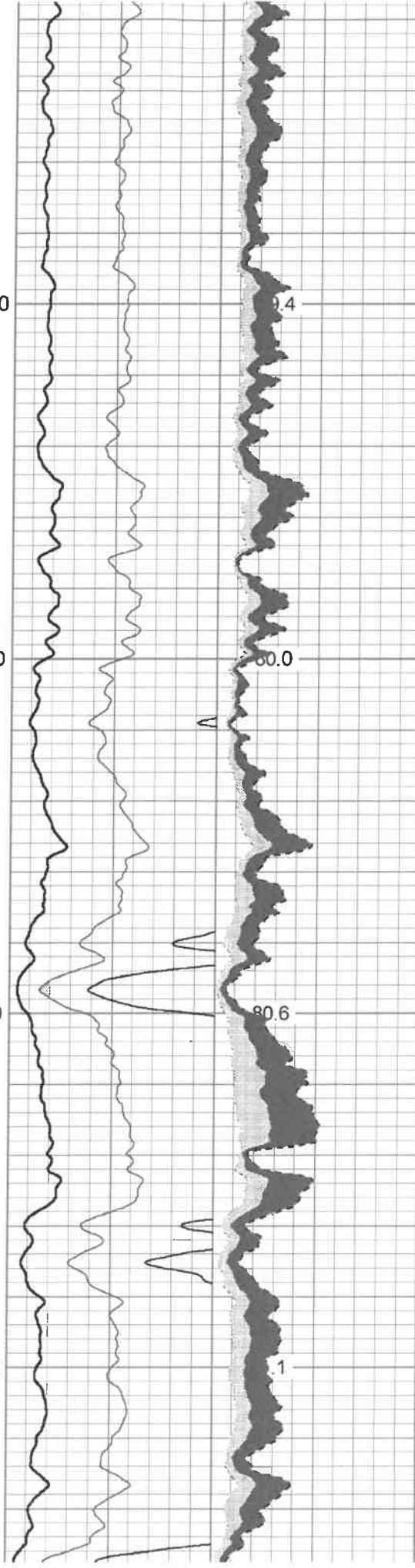


3050

3100

3150

3200

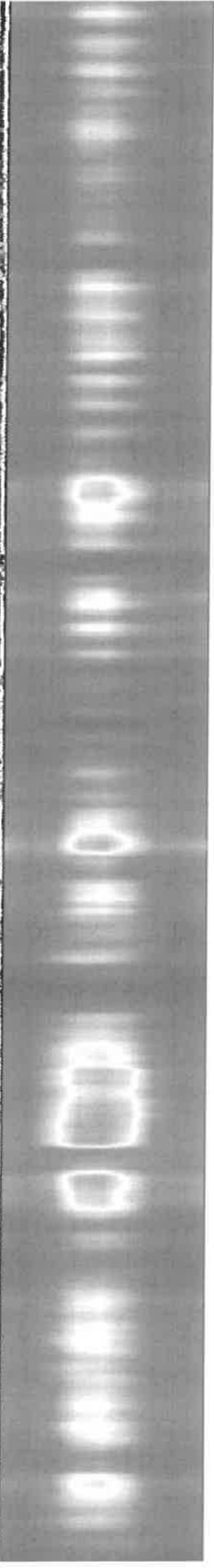
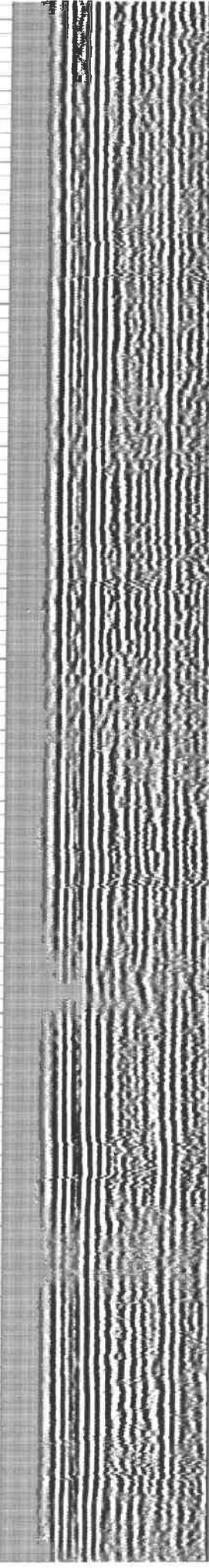


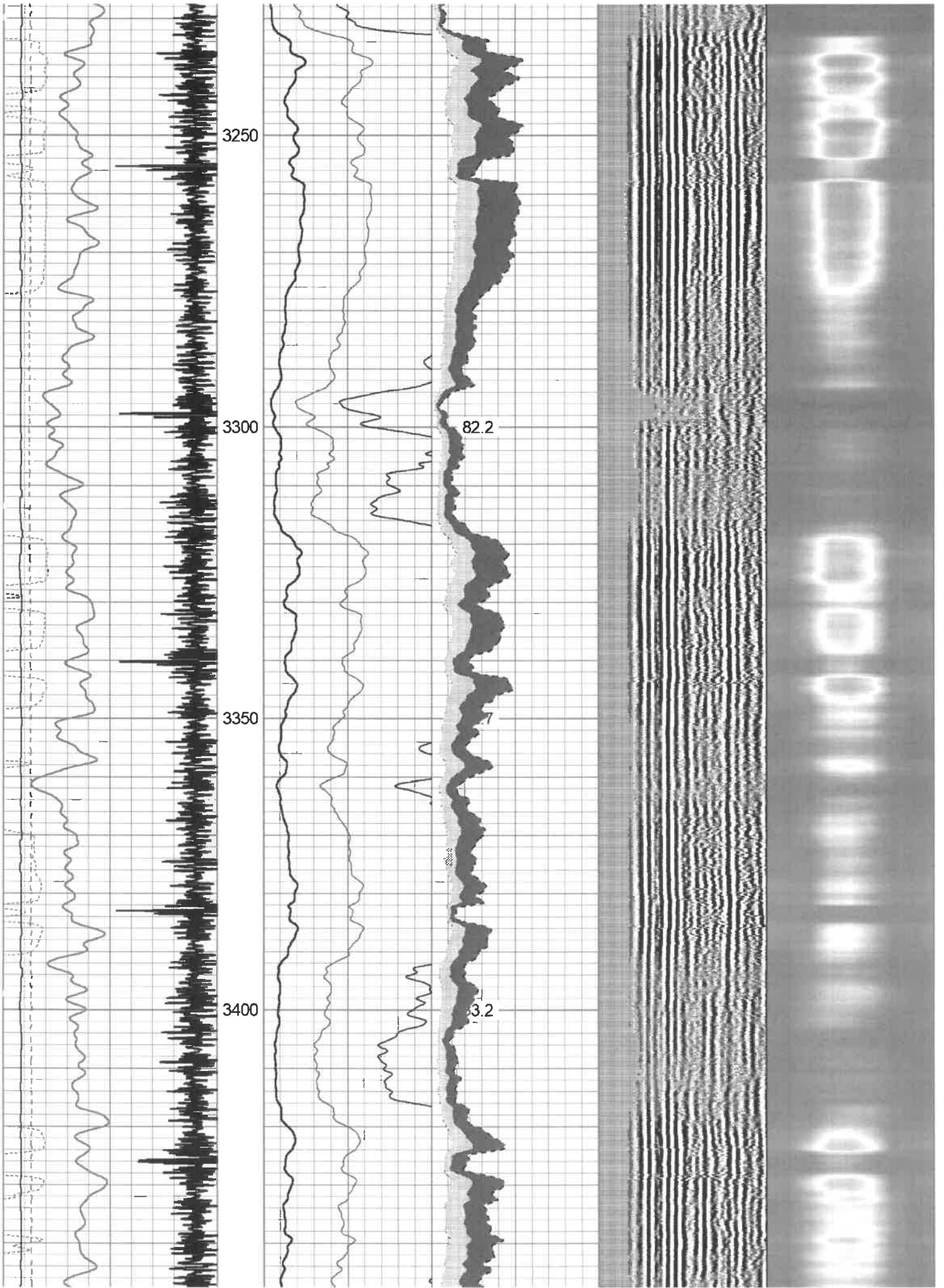
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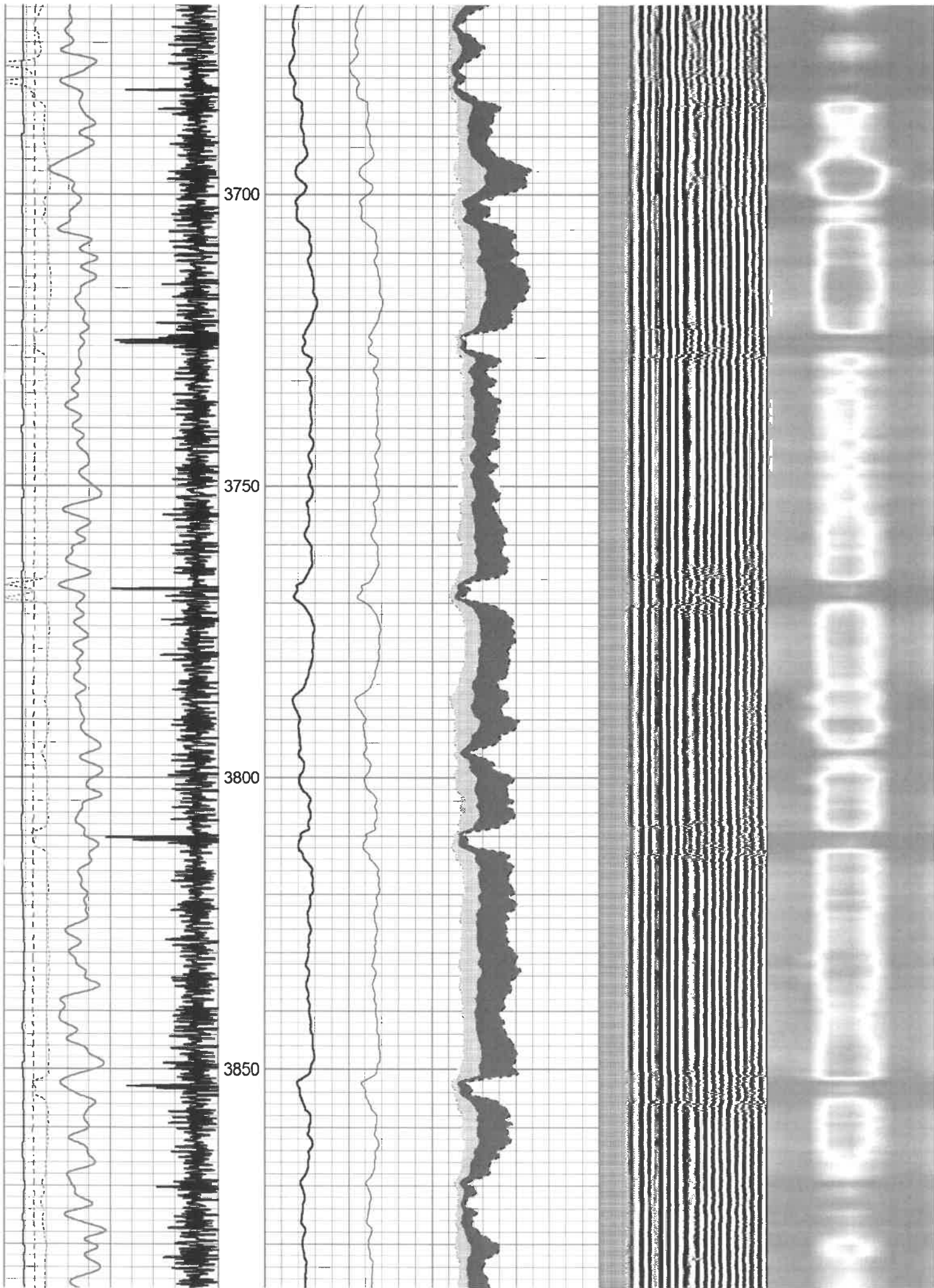
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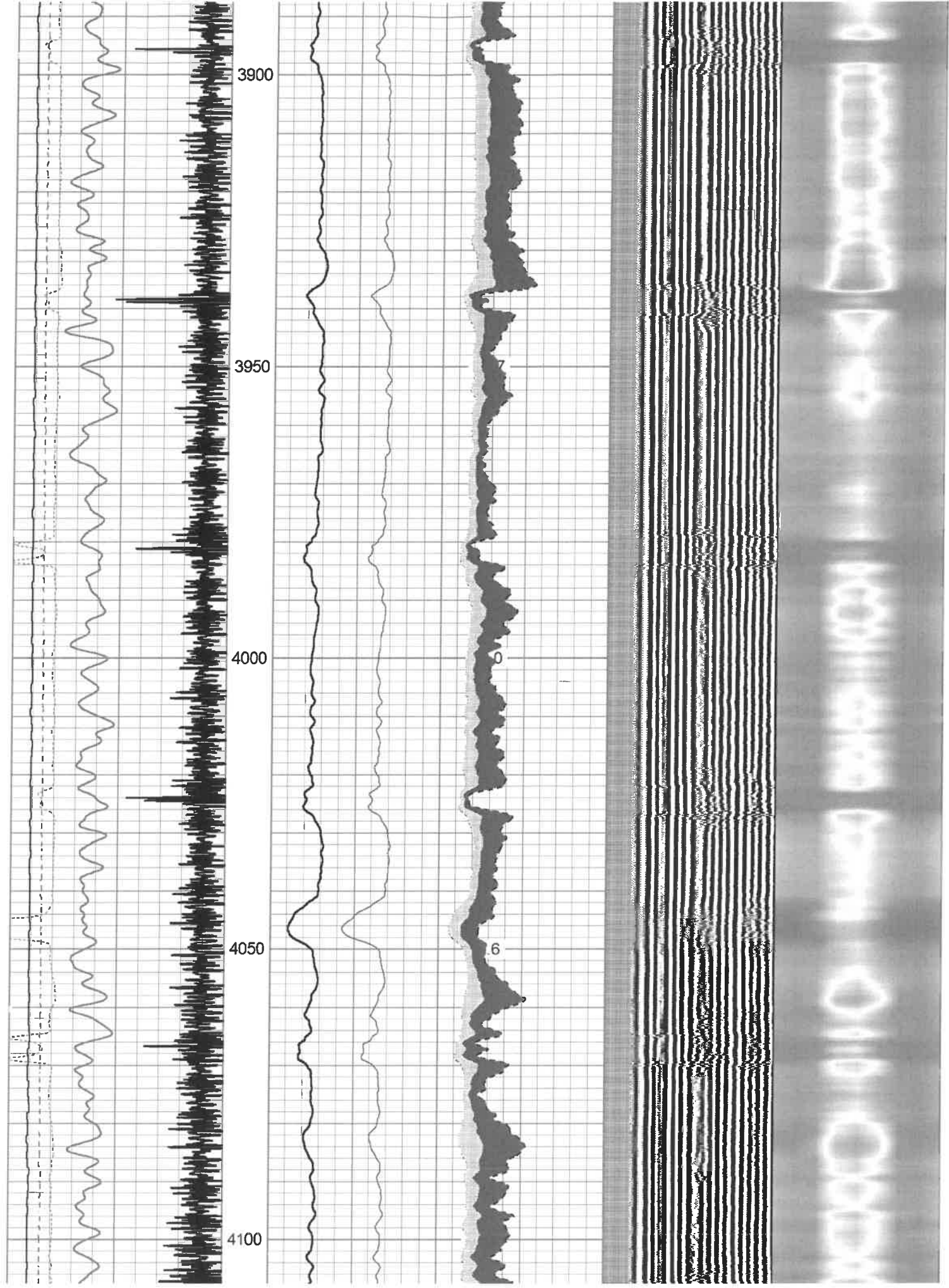
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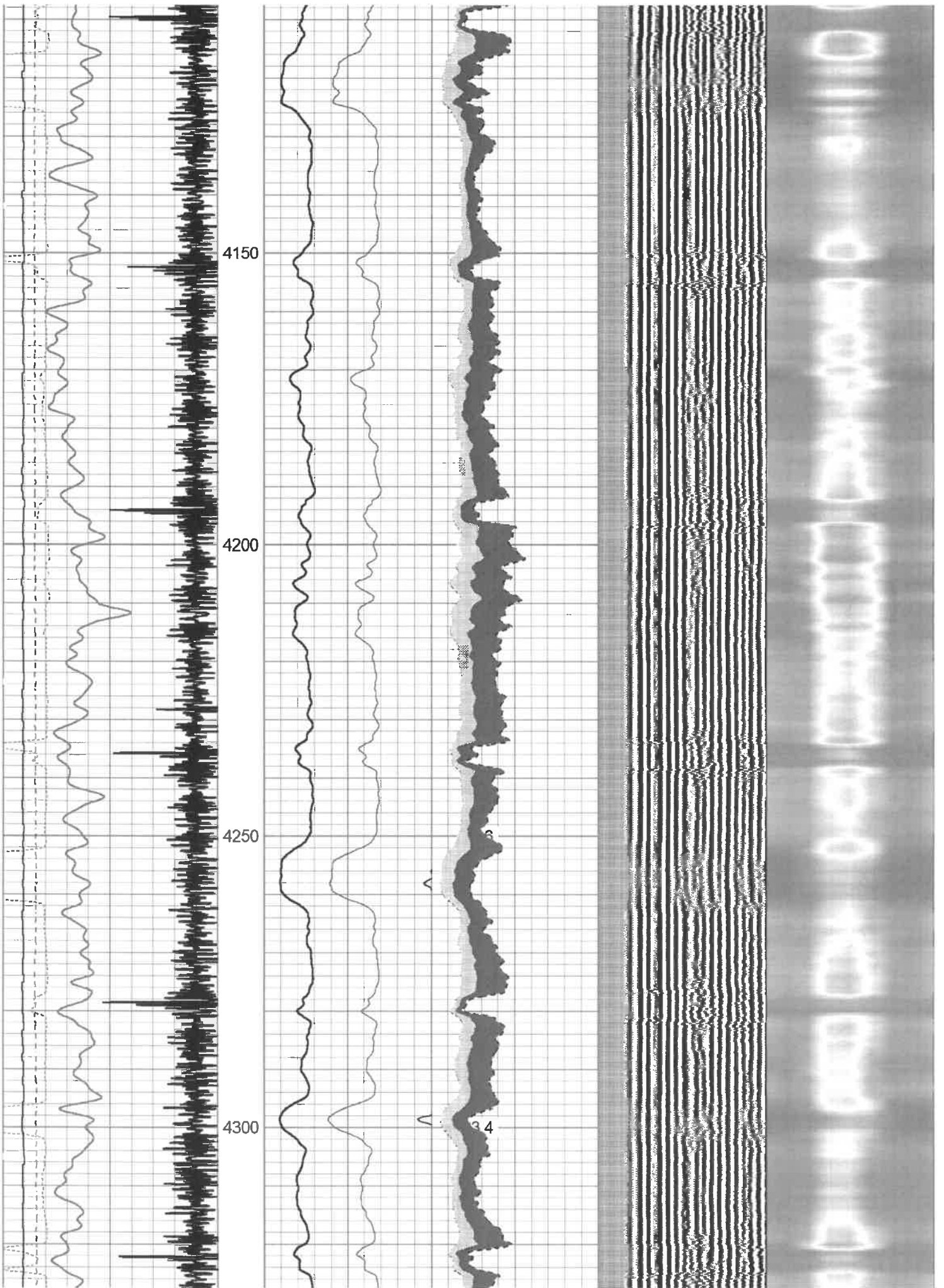
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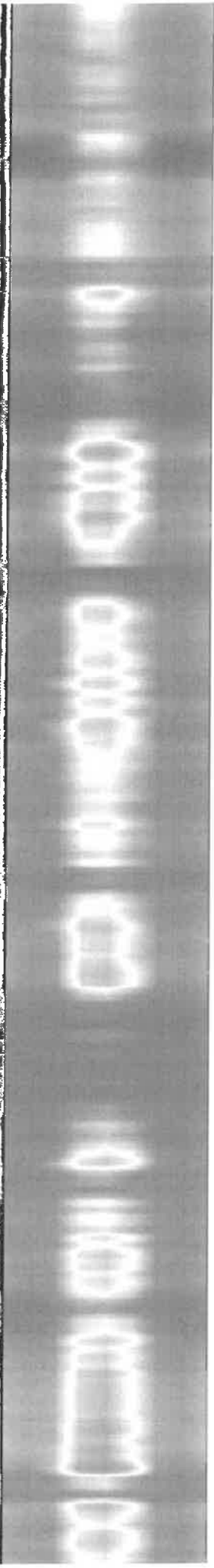
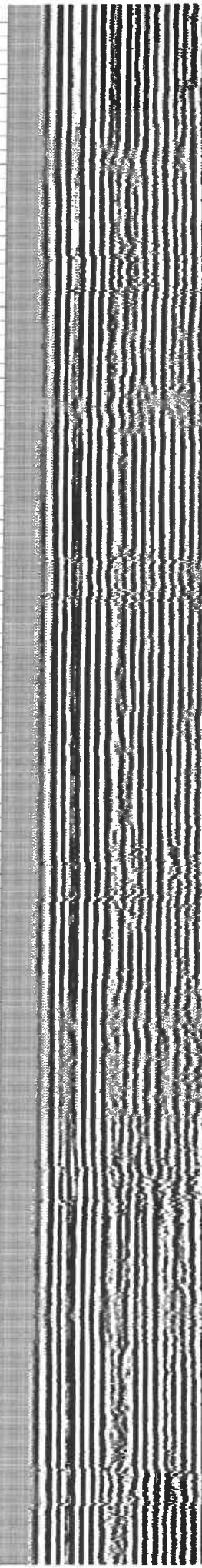
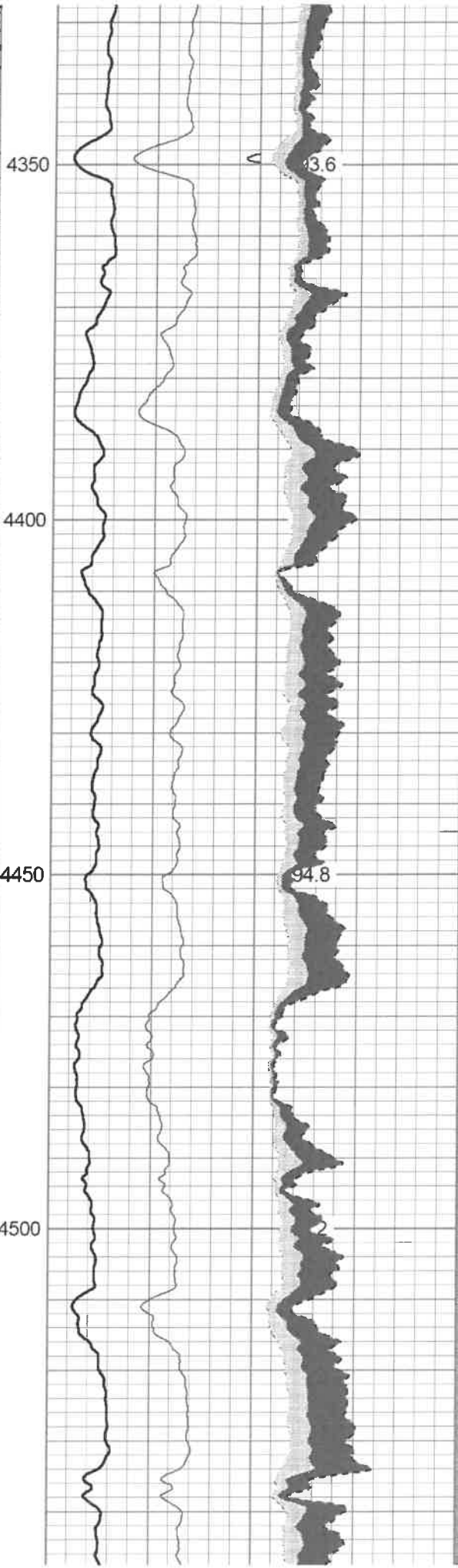
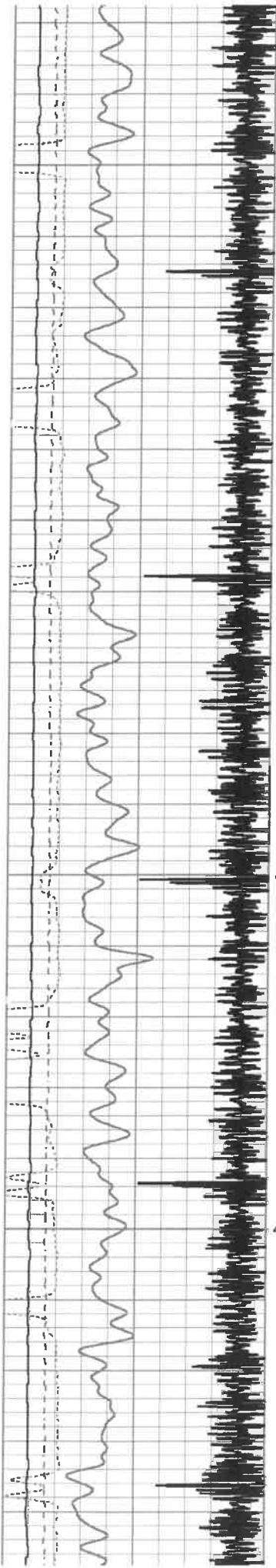


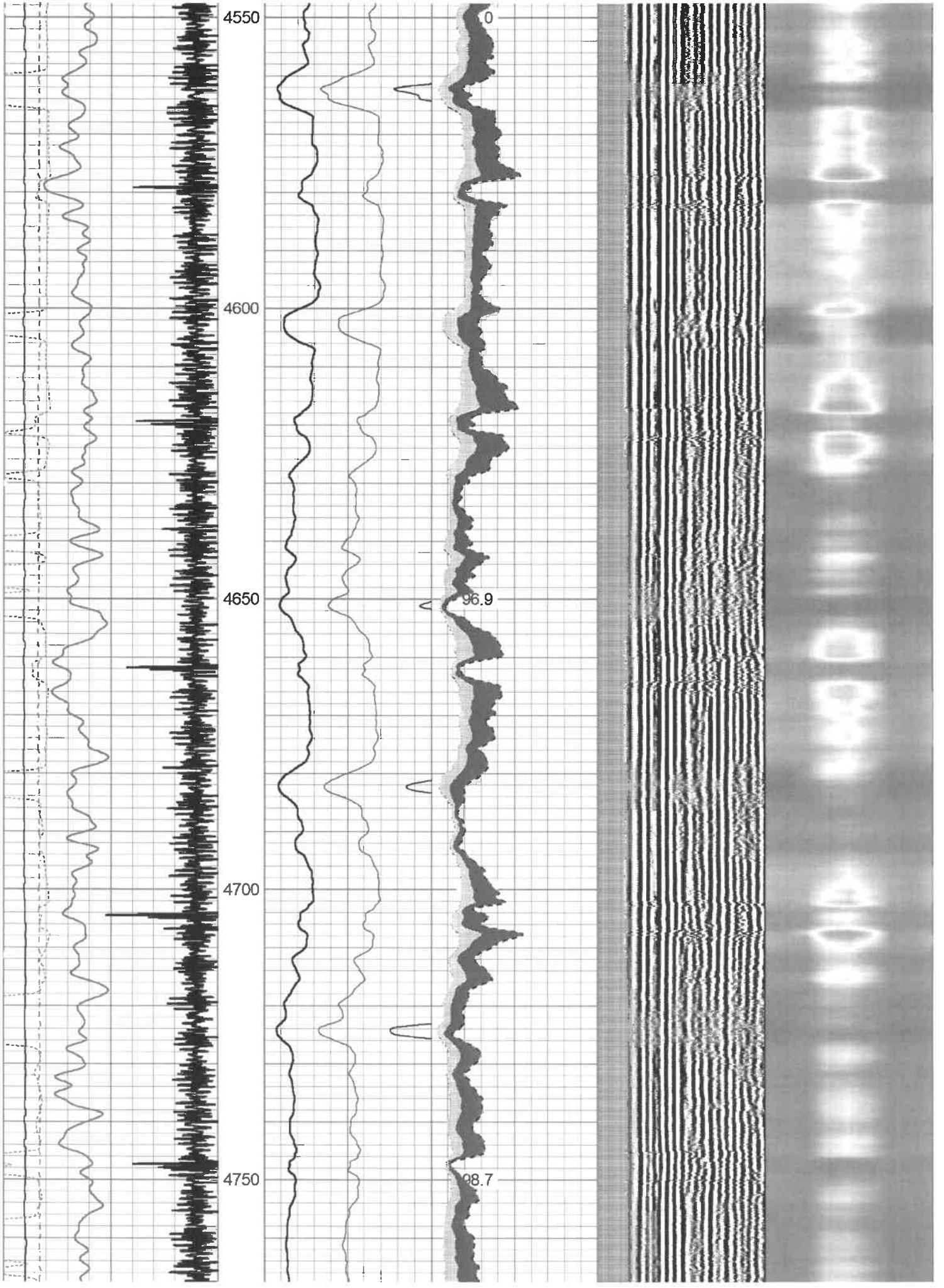


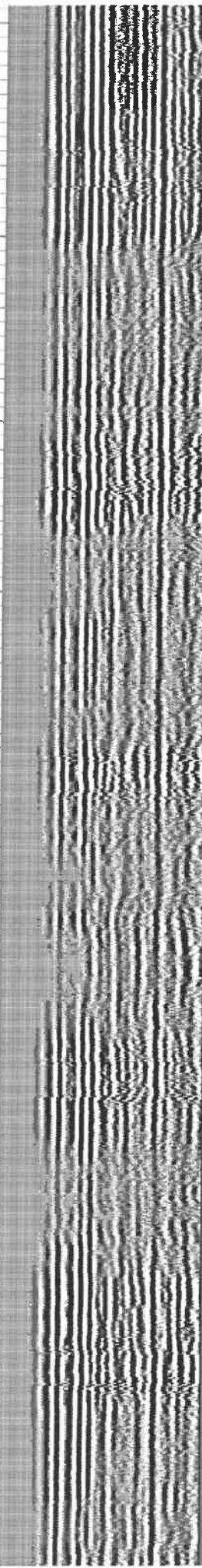
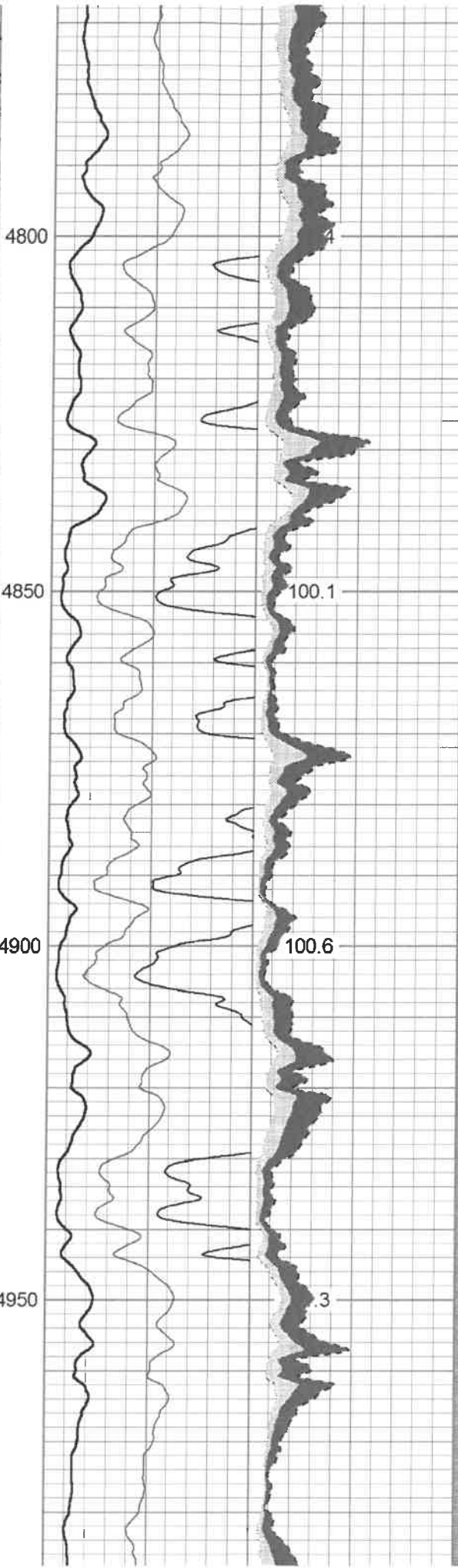
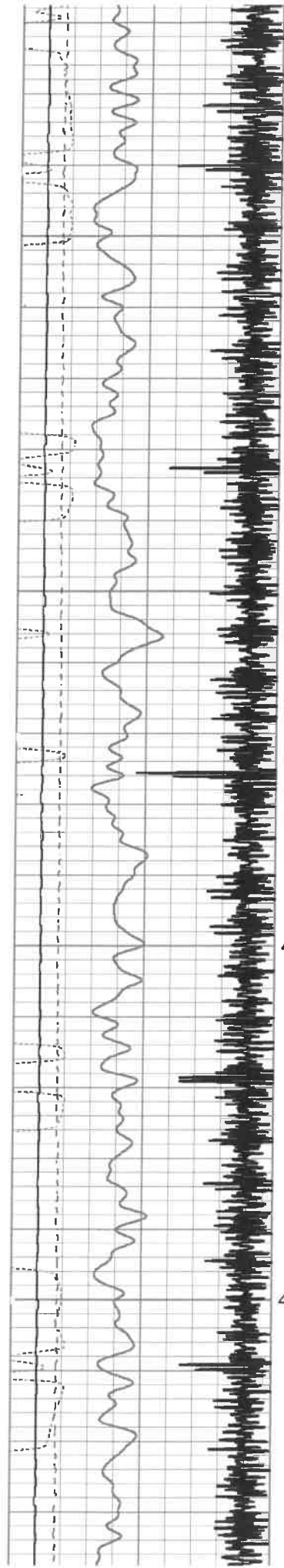


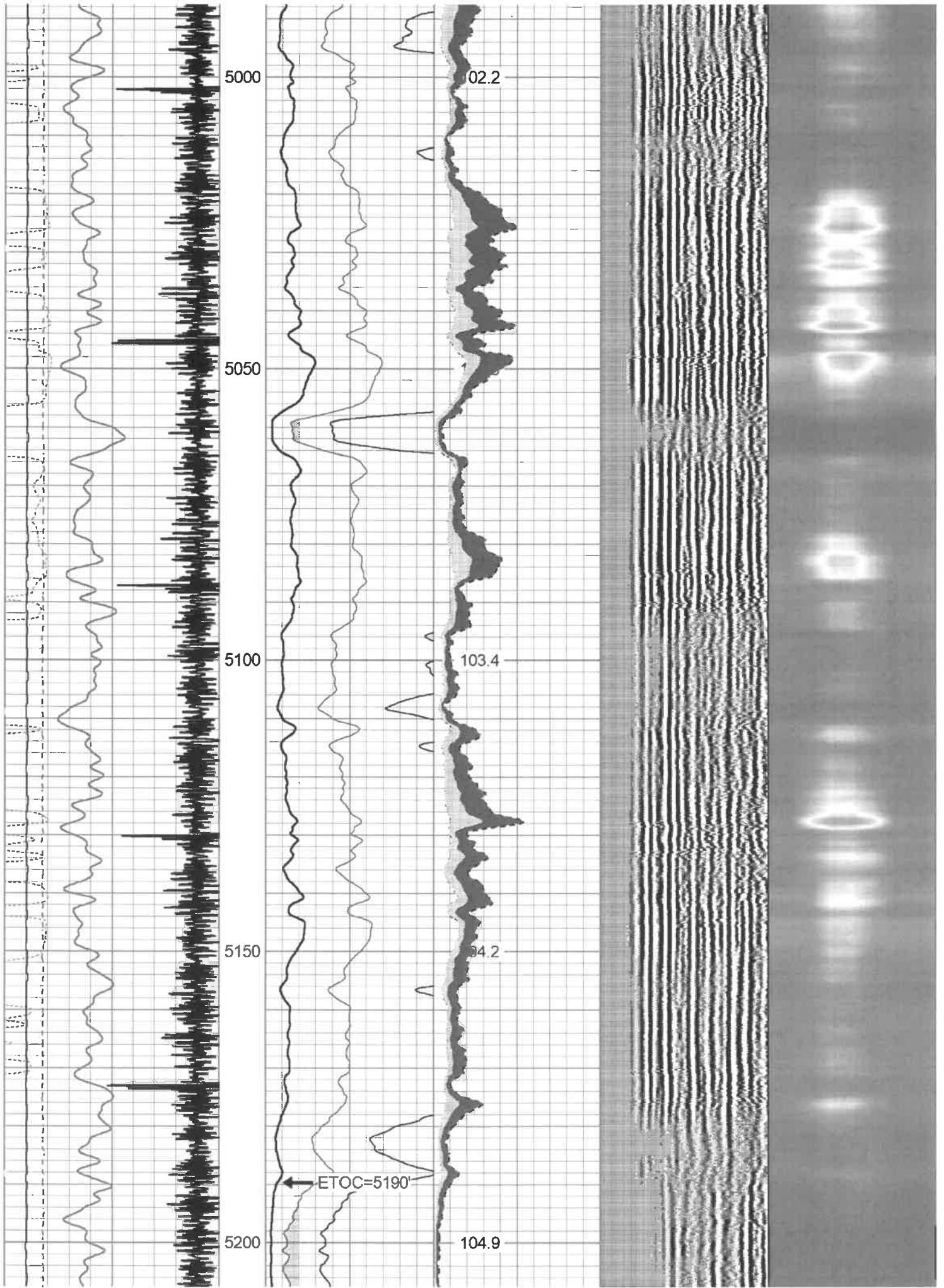


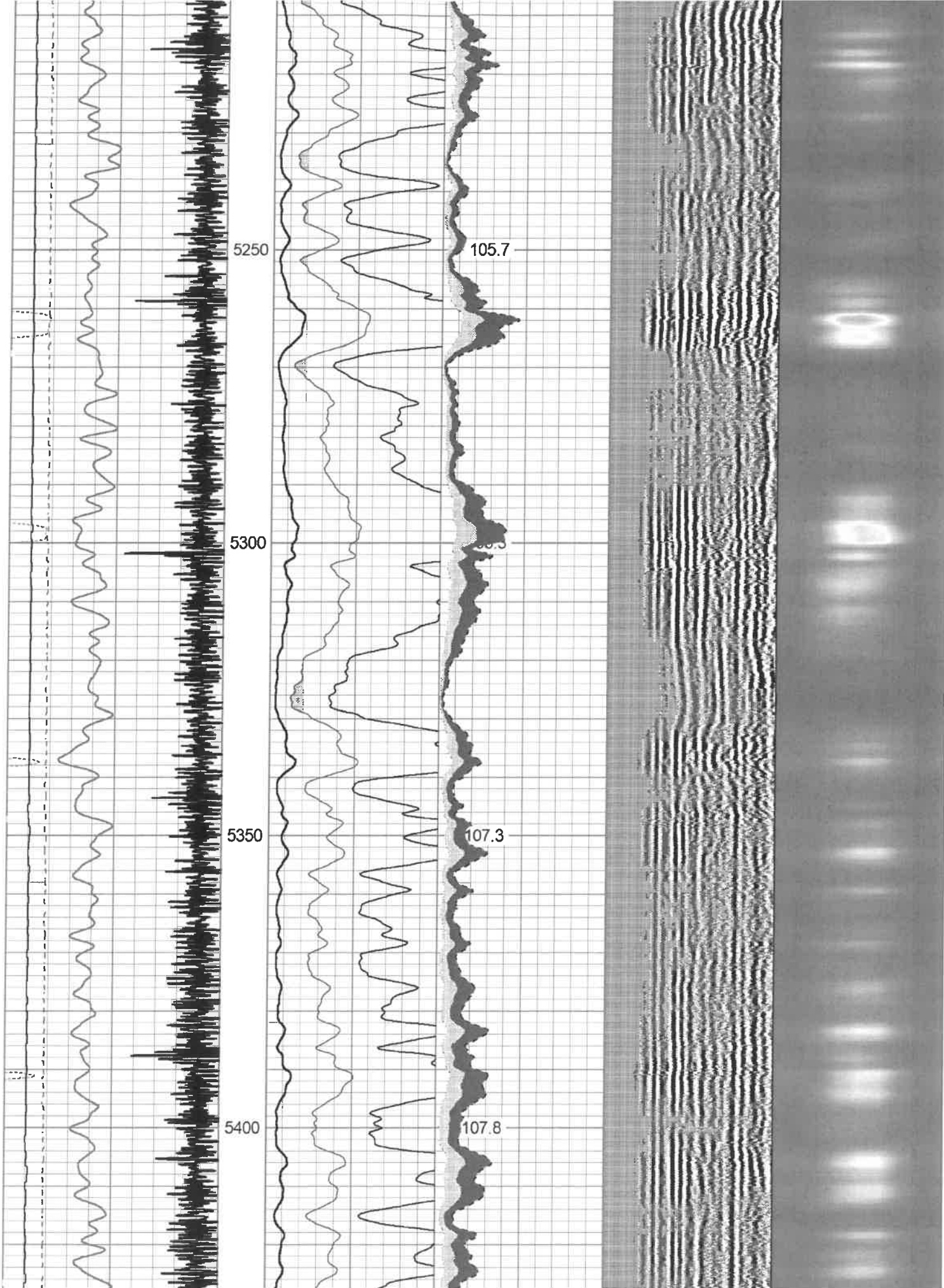


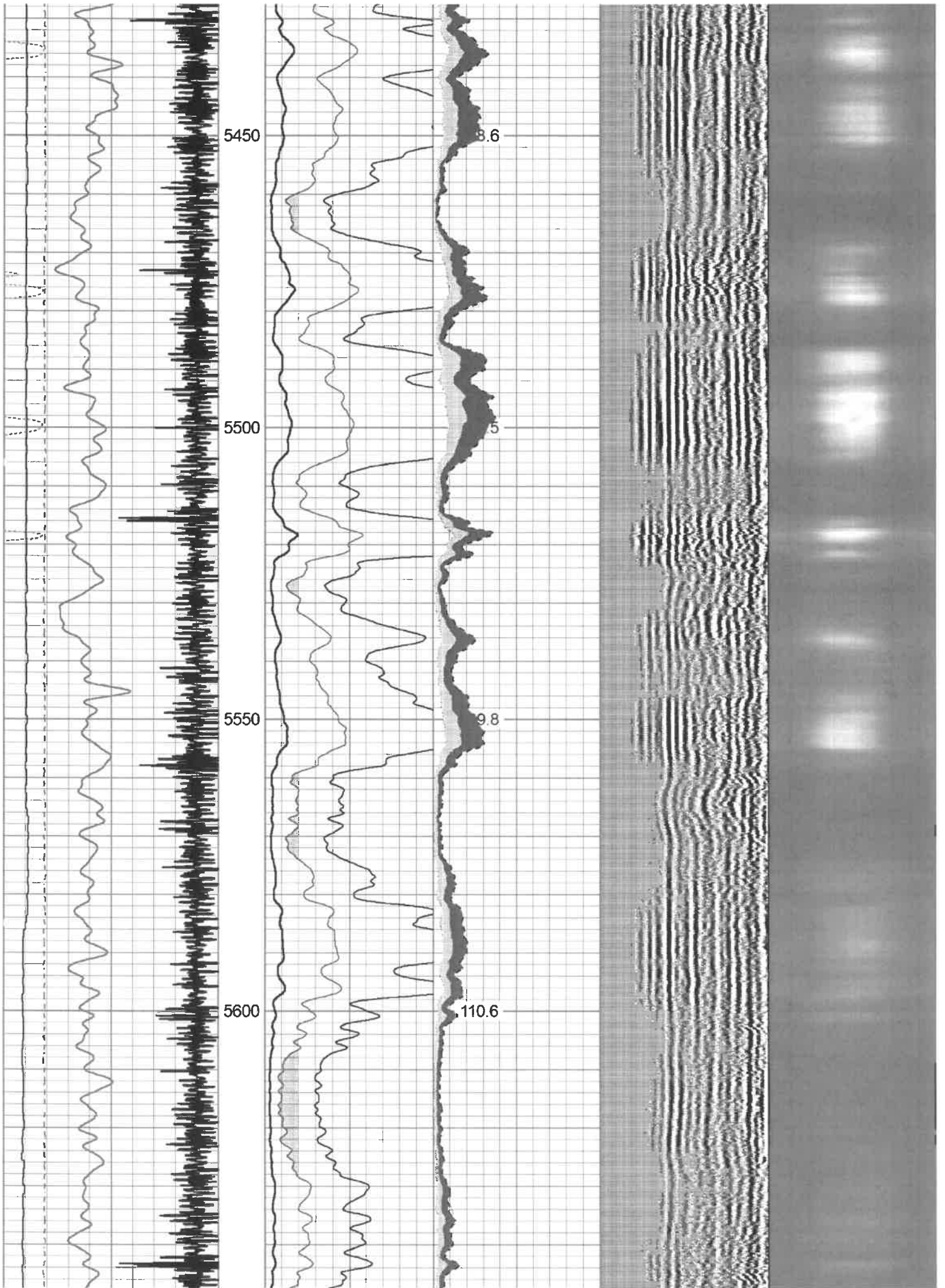


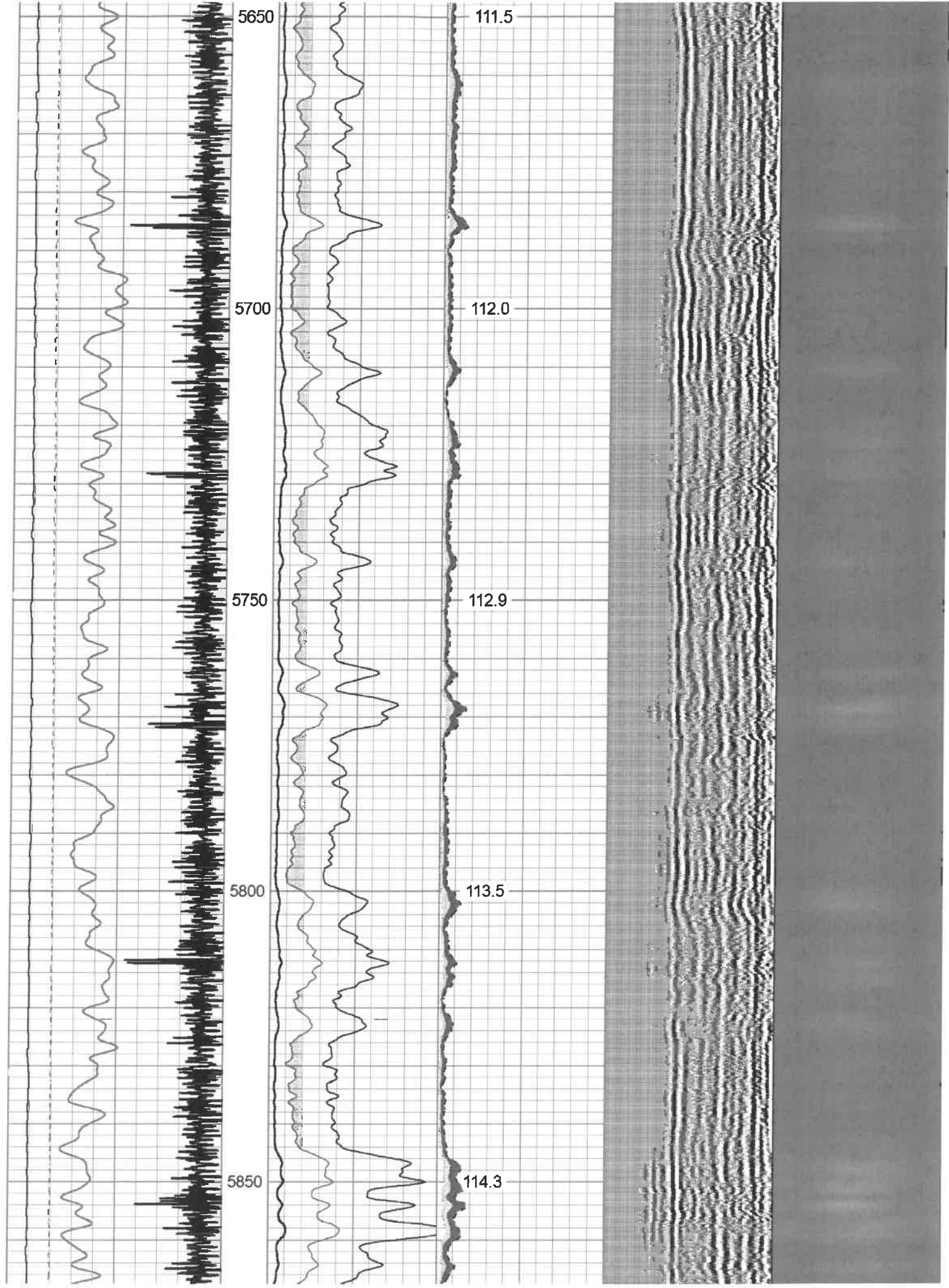


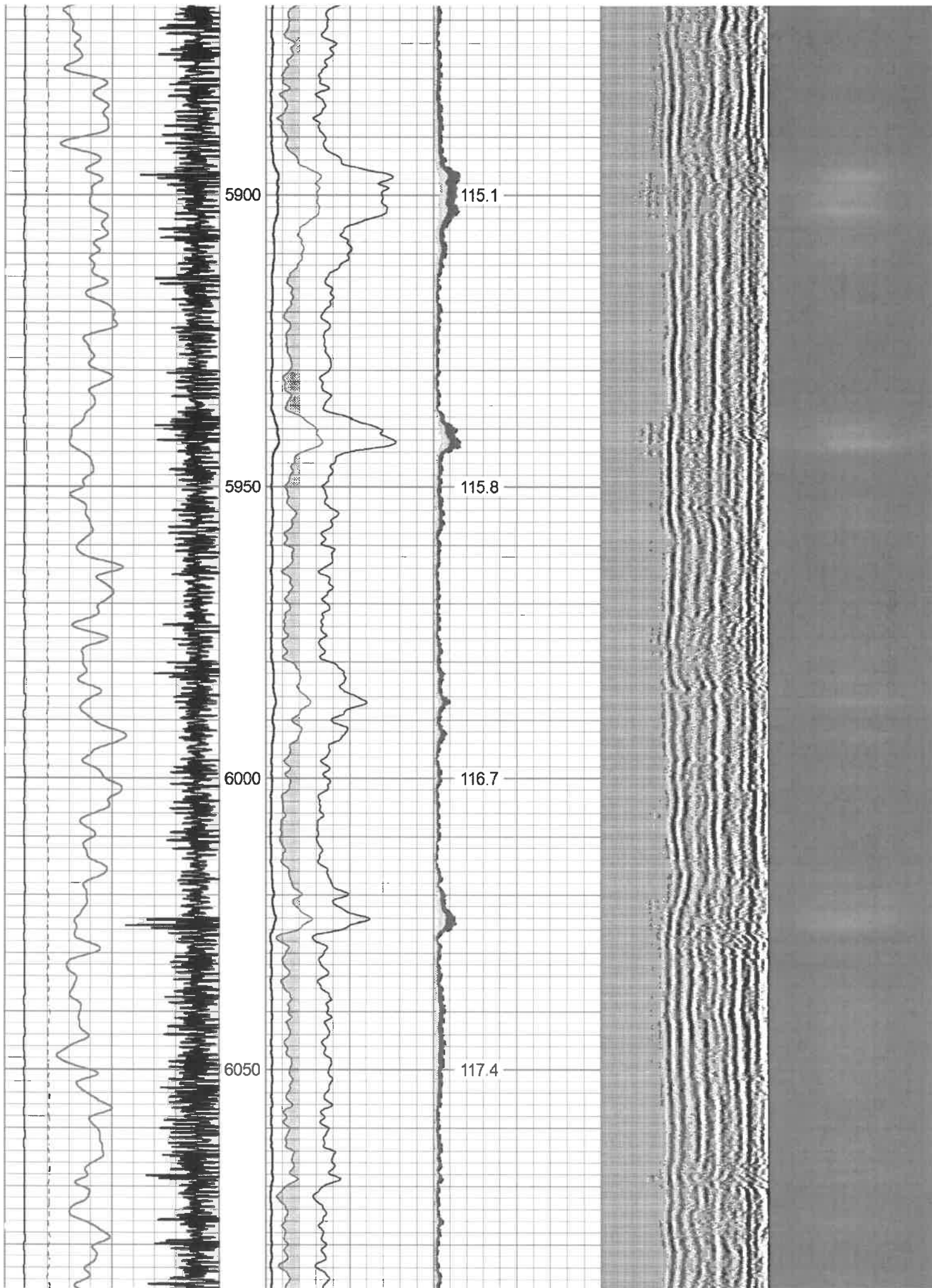


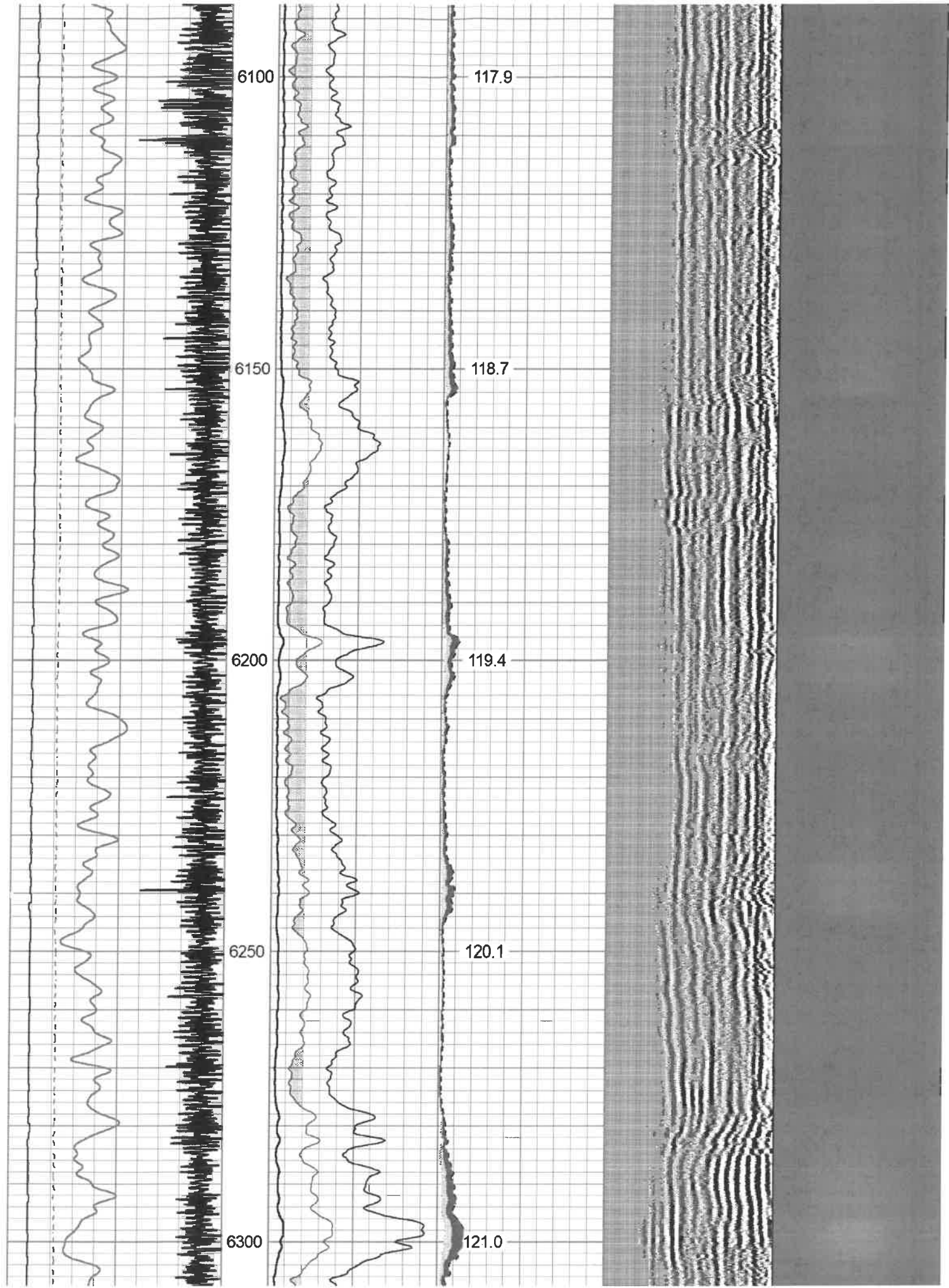


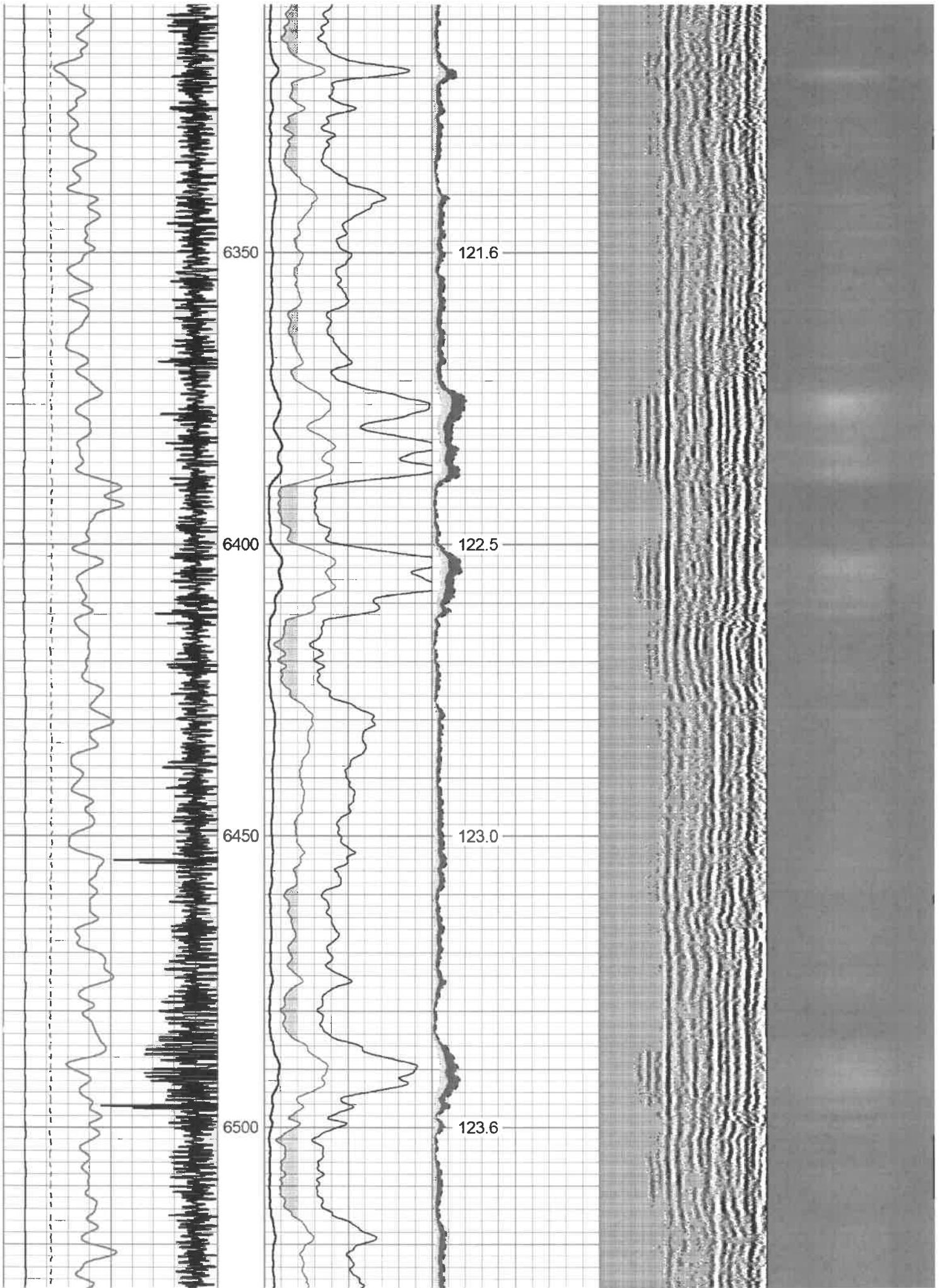


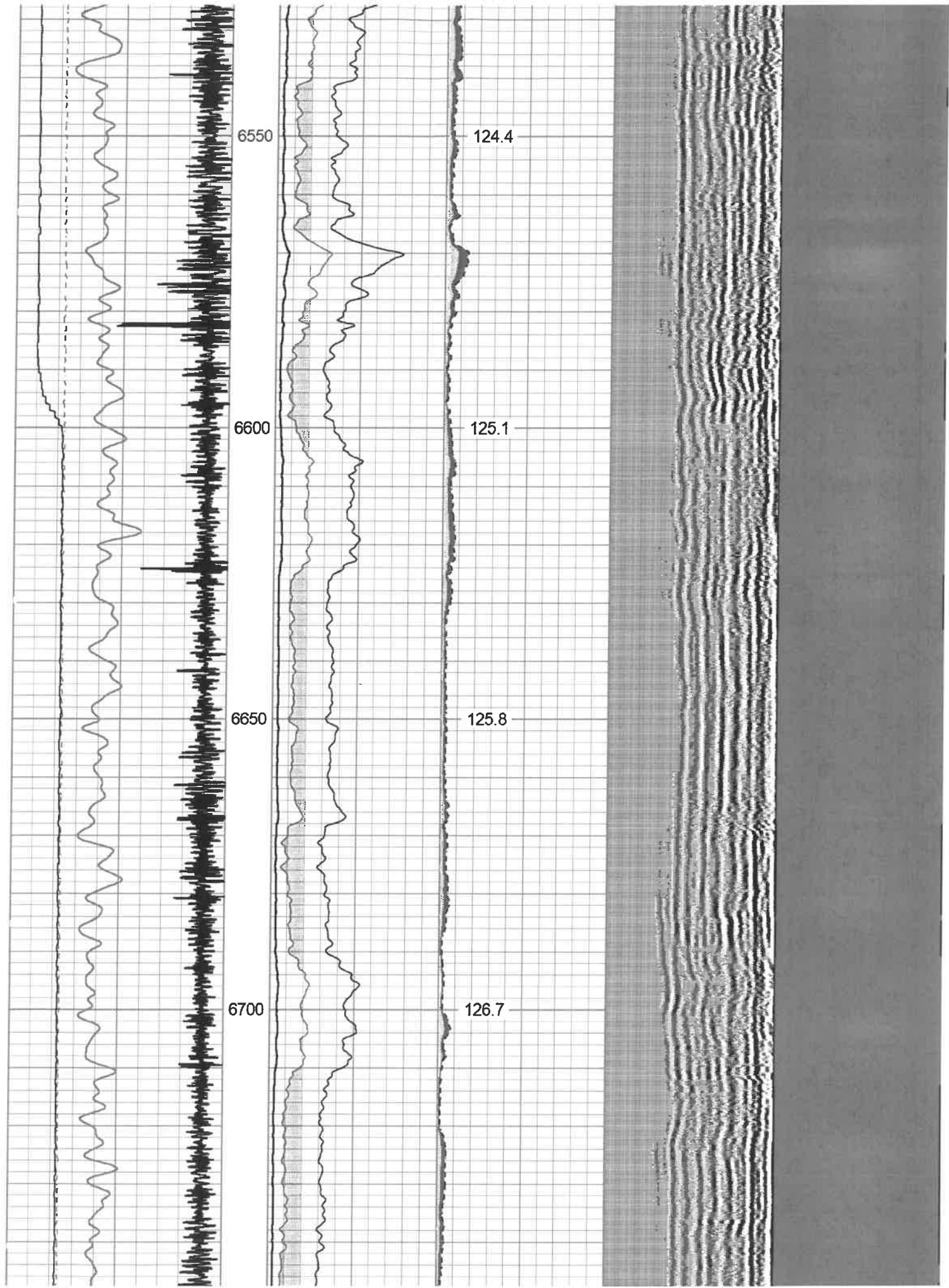


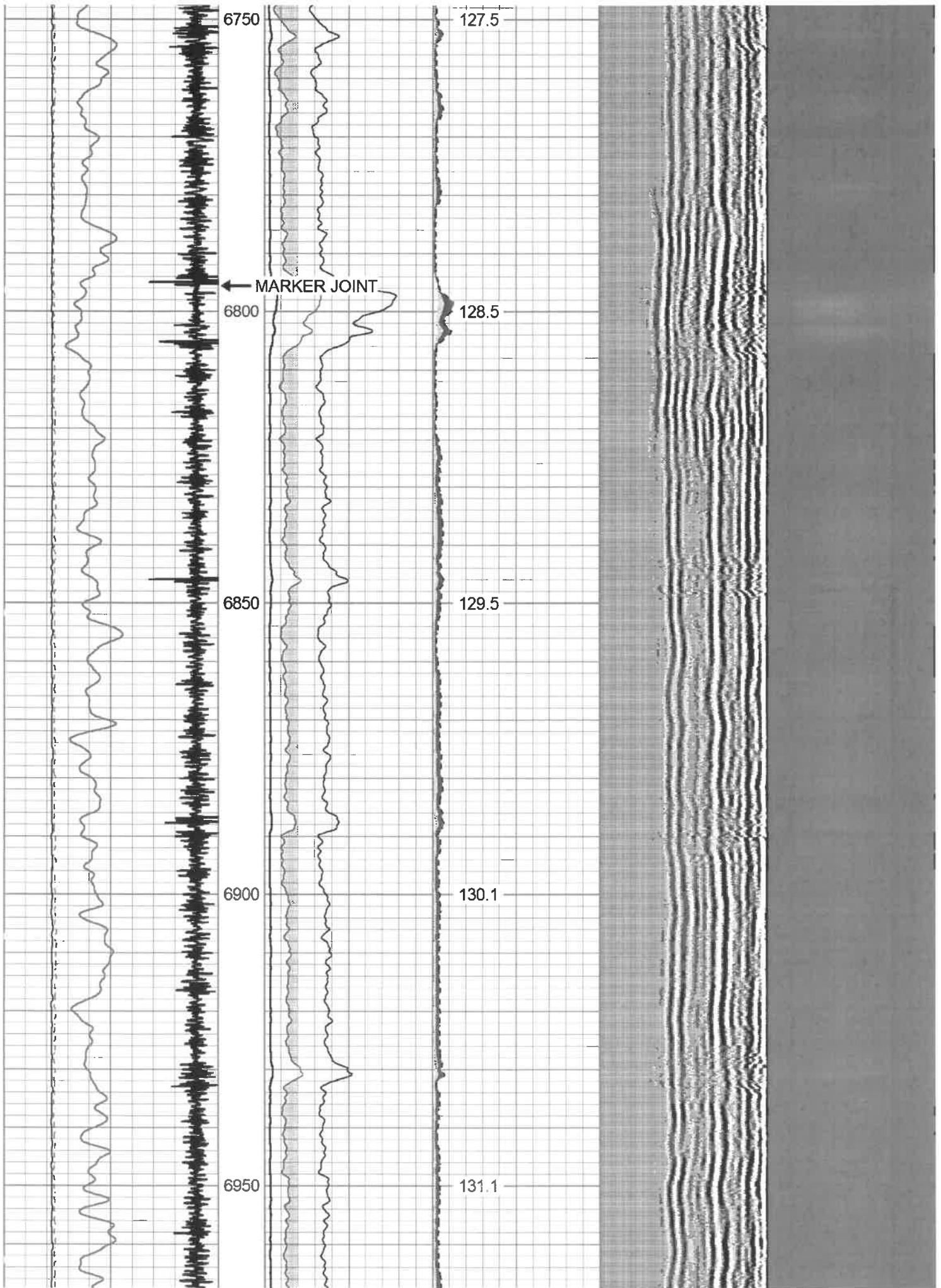


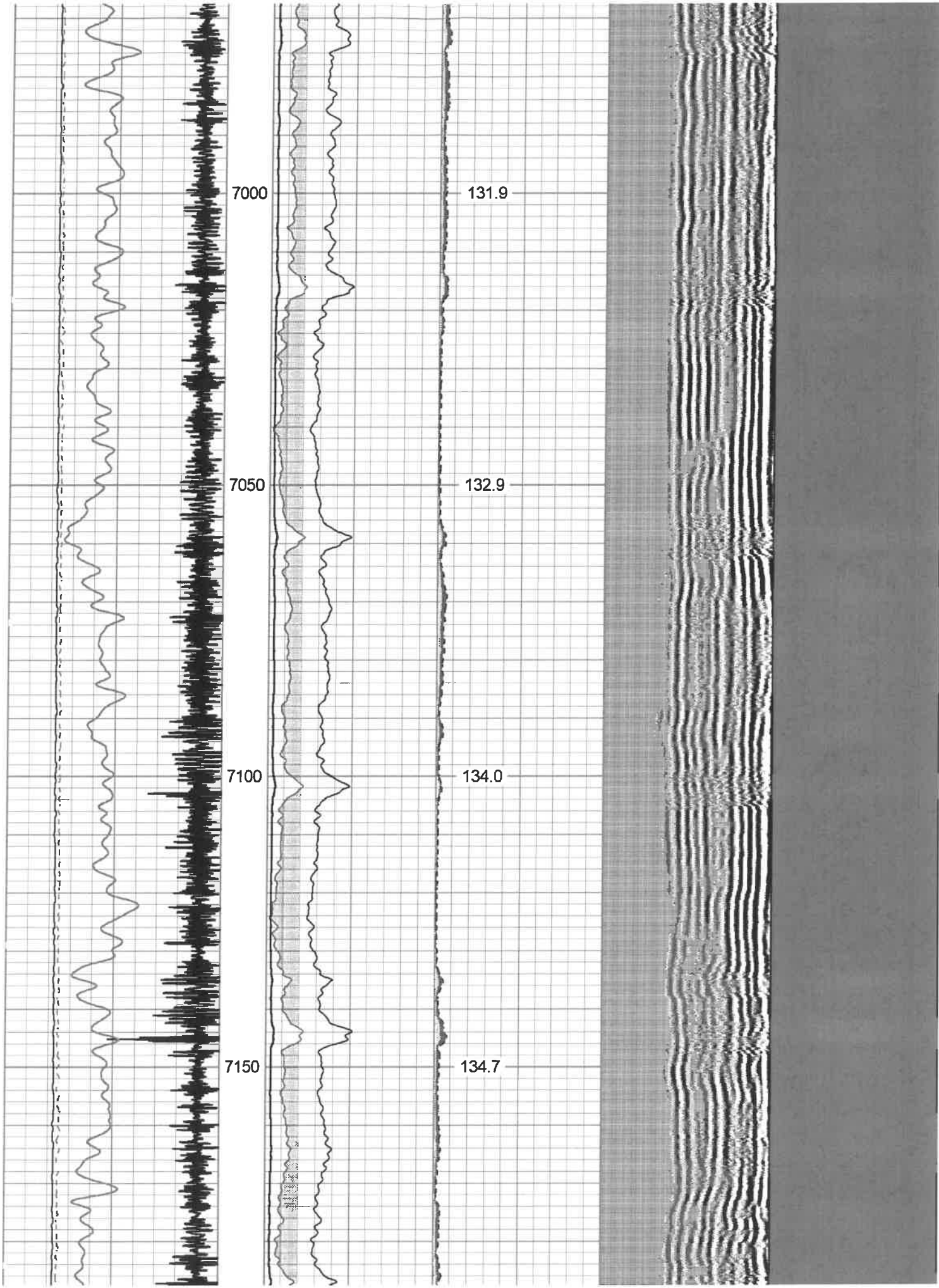


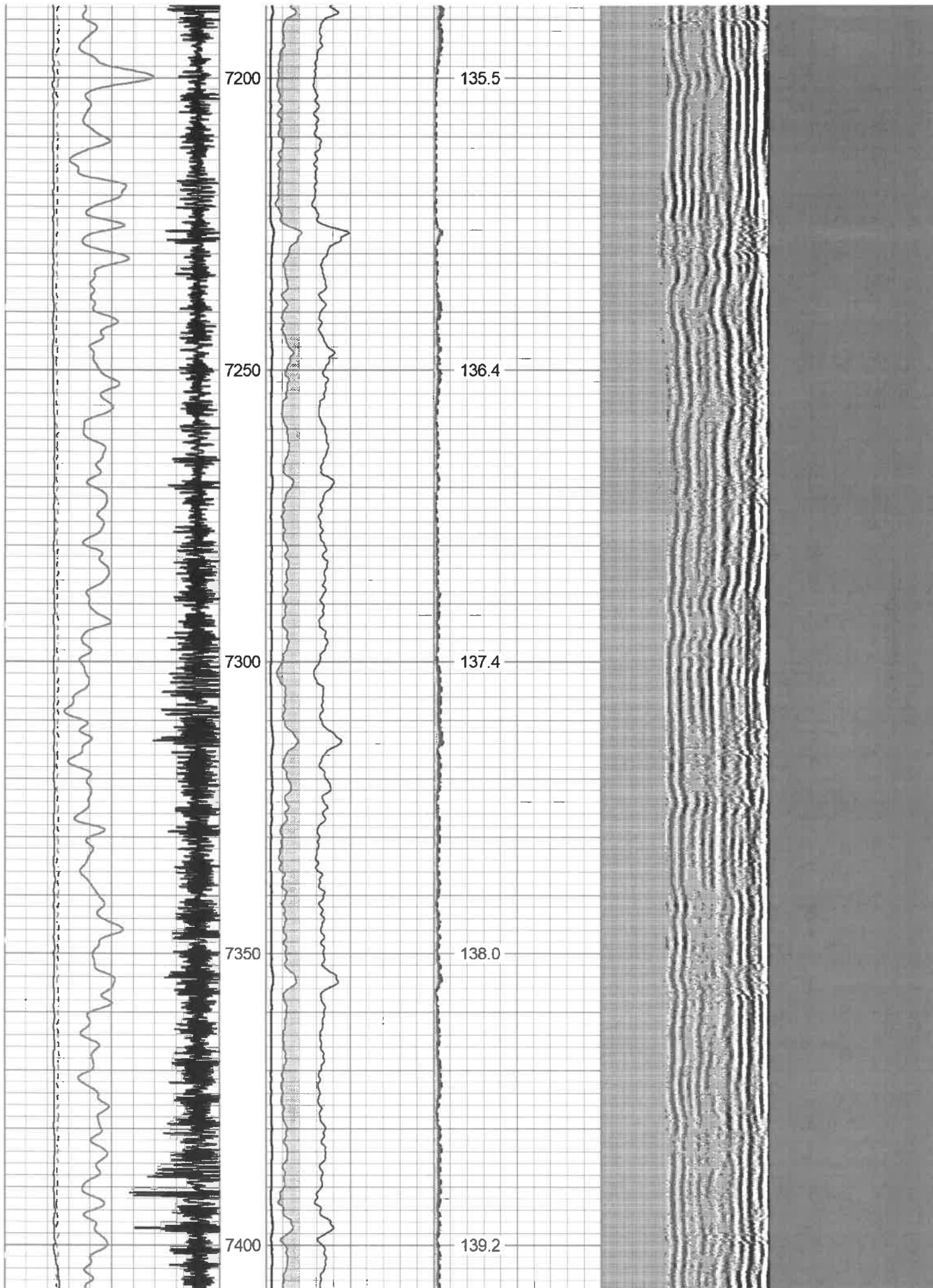


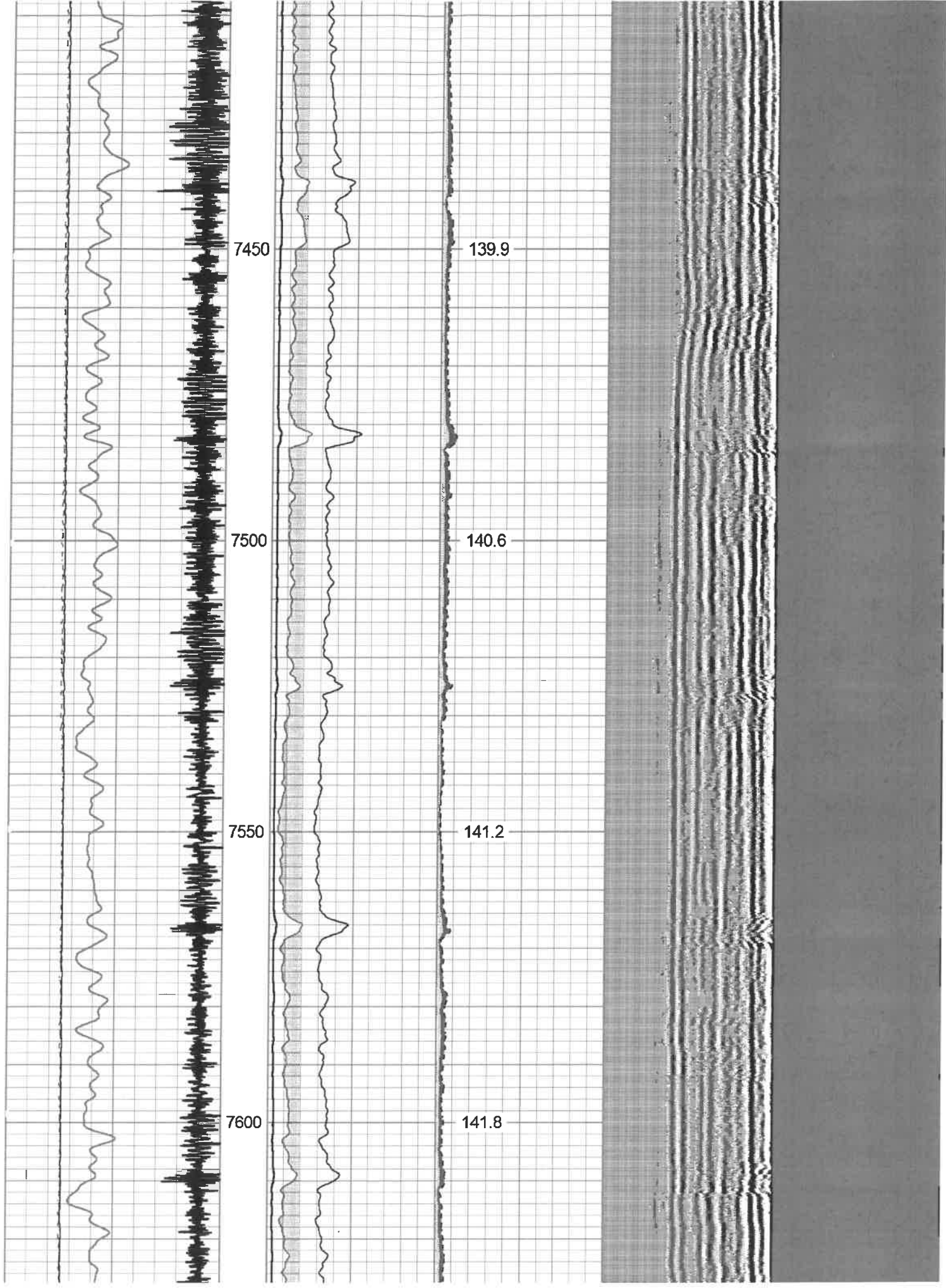


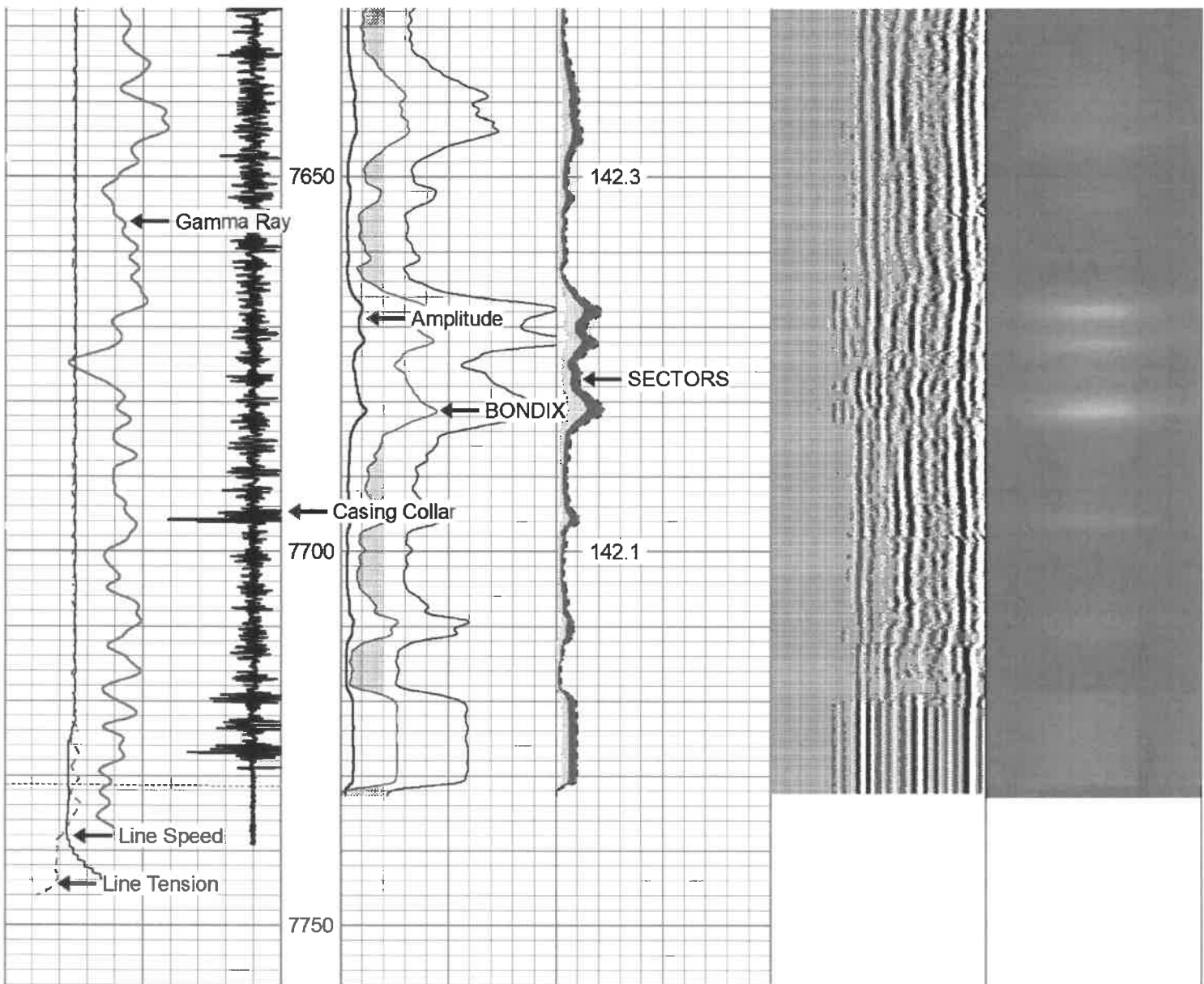












291	Travel Time (usec)	191	0	Amplitude (mV)	100	0	AMPMIN	150	Variable Density	1	Cement Map	8
9	Casing Collar	-1	1	BONDIX	0	0	AMPMAX	150	200 (usec)	1200		
0	Gamma Ray (GAPI)	150		AMP3FTX5		0	AMPAVG	150				
0	Line Tension (lb)	5000	0	(mV)	10		TEMP					
-100	LSPD (ft/min)	100					(degF)					



REPEAT LOG

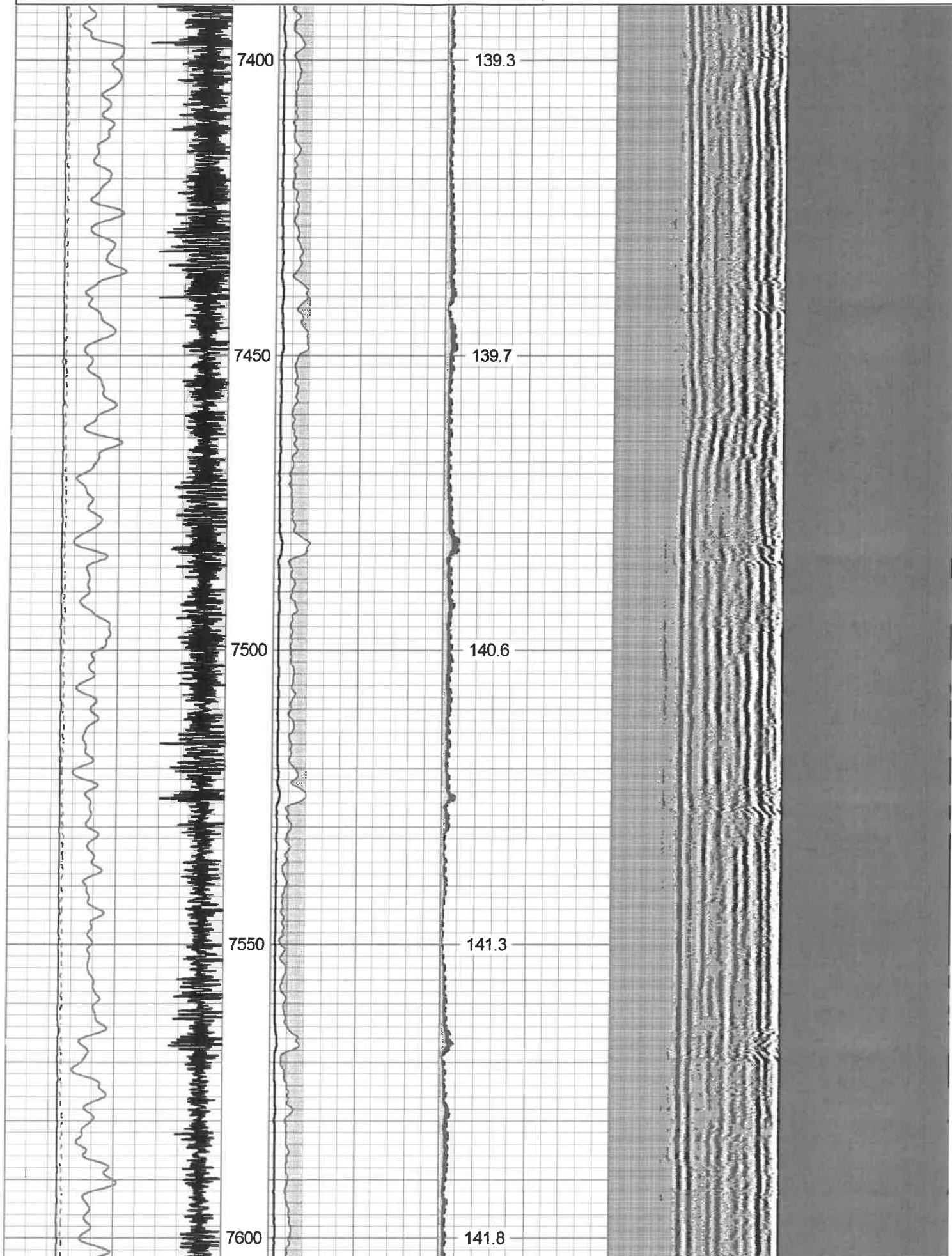
APPLIED 1500 PSI

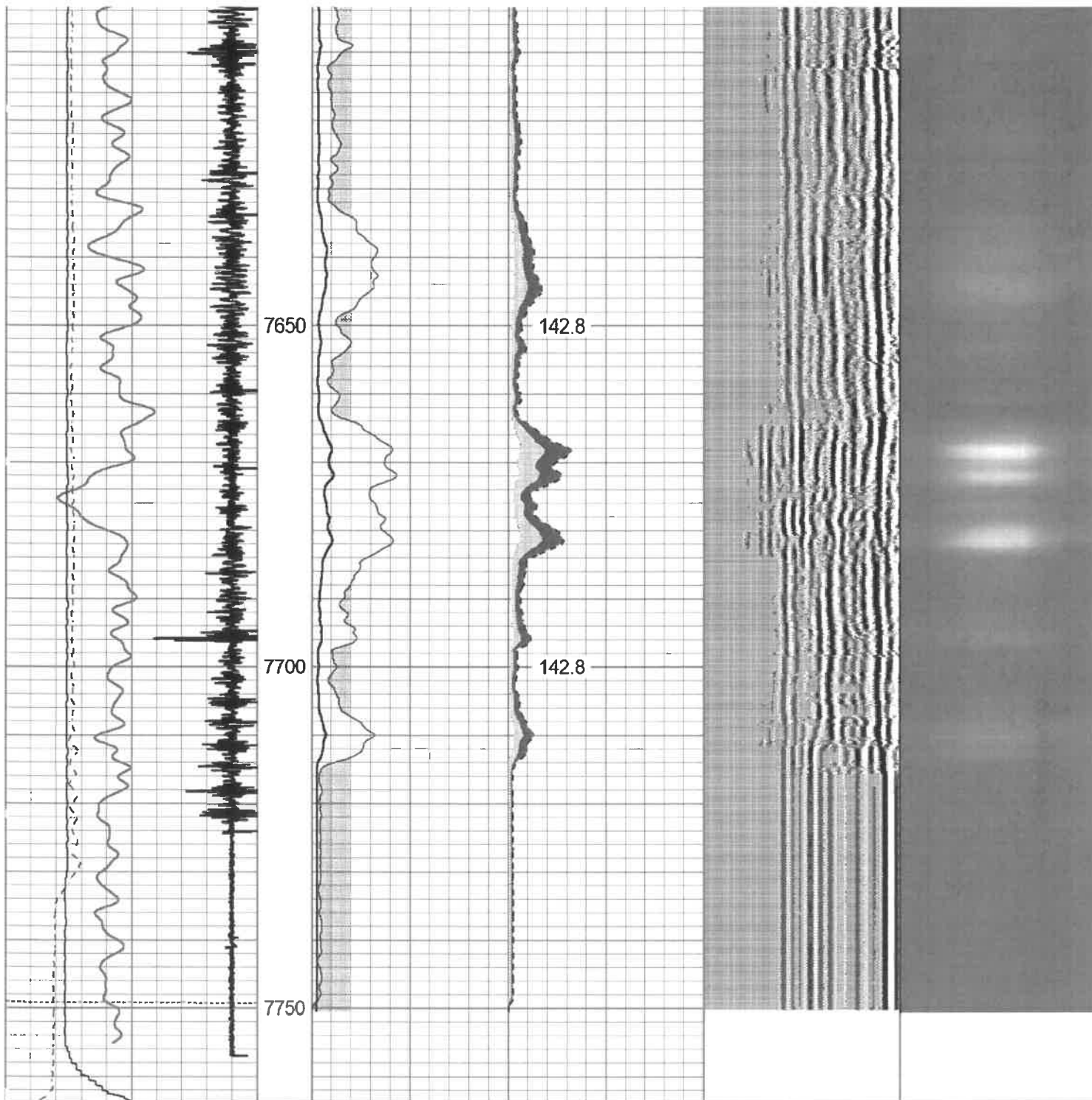
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 Dataset Pathname rcbl/repeat
 Presentation Format scbl03
 Dataset Creation Mon May 10 12:43:44 2021
 Charted by Depth in Feet scaled 1:240

291	Travel Time (usec)	191	0	Amplitude (mV)	100	0	AMPMIN	150	Variable Density	1	Cement Map	8
9	Casing Collar	-1	1	BONDIX	0	0	AMPMAX	150	200 (usec)	1200		
0	Gamma Ray (GAPI)	150				0	AMPAVG	150				
0	Line Tension (lb)	5000					TEMP					

-100 LSPD (ft/min) 100

(degF)





291	Travel Time (usec)	191	0	Amplitude (mV)	100	0	AMPMIN	150	Variable Density	1	Cement Map	8
9	Casing Collar	-1	1	BONDIX	0	0	AMPMAX	150	200 (usec)	1200		
0	Gamma Ray (GAPI)	150	0	AMPAVG	150							
0	Line Tension (lb)	5000	TEMP									
-100	LSPD (ft/min)	100	(degF)									

Log Variables DatabaseC:\ProgramData\Warrior\Data\antero_tapeat_3h_may_9_2021_rcbl.db
 Dataset field/well/rcbl/main/_vars_

Top - Bottom

BHTEMP_Src	BOREID	BOTTEMP	CASEOD	CASETHCK	CASEWGHT	MAXAMPL	MINAMPL
	in	degF	in	in	lb/ft	mV	mV
TEMP	7.875	100	5.5	0	23	71.9	2.2

MINATTN db/ft 0.8	PERFS No	PPT usec 261	SRFTEMP degF 0	TDEPTH ft 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_tapeat_3h_may_9_2021_rcbl.db
Dataset Pathname rcbl/main
Dataset Creation Mon May 10 13:23:32 2021

Gamma Ray Calibration Report

Serial Number:	FW1211-86
Tool Model:	Probe
Performed:	Thu Oct 15 06:46:53 2020
Calibrator Value:	1.0 GAPI
Background Reading:	0.0 cps
Calibrator Reading:	1.0 cps
Sensitivity:	0.7000 GAPI/cps

Segmented Cement Bond Log Calibration Report

Serial Number:	FW1312-32
Tool Model:	Probe275T
Calibration Casing Diameter:	5.500 in
Calibration Depth:	516.633 ft

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FEB 10 2022

Master Calibration, performed Mon May 10 08:15:25 2021:

WV Department of
Environmental Protection

	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3'	0.001	1.397	2.200	71.921	49.924	2.171
CAL	0.000	0.756				
5'	0.000	1.229	2.200	71.921	56.745	2.177
SUM						
S1	0.001	2.010	0.000	71.921	35.797	-0.039
S2	0.001	1.704	0.000	71.921	42.224	-0.038
S3	0.000	1.365	0.000	71.921	52.706	-0.017
S4	0.001	1.341	0.000	71.921	53.684	-0.048
S5	0.001	1.301	0.000	71.921	55.300	-0.045
S6	0.000	1.242	0.000	71.921	57.936	-0.016
S7	0.001	1.433	0.000	71.921	50.210	-0.029
S8	0.001	1.977	0.000	71.921	36.400	-0.038

Internal Reference Calibration, performed Sat Apr 04 17:44:51 2020:

	Raw (v)		Calibrated (v)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset

SM

	<u>Zero</u>	<u>Cal</u>	<u>Zero</u>	<u>Cal</u>	<u>Gain</u>	<u>Offset</u>
CAL	0.000	0.000	0.000	0.756	1.000	0.000

Air Zero Calibration, performed Mon May 10 07:45:25 2021:

	<u>Raw (v)</u>	<u>Calibrated (v)</u>	<u>Results</u>
	<u>Zero</u>	<u>Zero</u>	<u>Offset</u>
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



Company ANTERO RESOURCES
Well TAPEATS 3H
Field RABBIT EARS
County TYLER
State WV