



**RADIAL
BOND
LOG**

Company ANTERO RESOURCES
Well TAPEATS 1H
Field RABBIT EARS
County TYLER
State WV

Company ANTERO RESOURCES

Well TAPEATS 1H

Field RABBIT EARS

County TYLER

State WV

Location: API #:

Other Services
GR
CCL

SEC TWP RGE

Permanent Datum GL Elevation 25'

Log Measured From KB KB
Drilling Measured From KB KB

Elevation
K.B. N/A
D.F. N/A
G.L. N/A

Date 9-MAY-2021

Run Number ONE

Depth Driller 23456'

Depth Logger 7197'

Bottom Logged Interval 7182'

Top Log Interval SURFACE

Open Hole Size 8 5/8"

Type Fluid FRESH WATER

Density / Viscosity 8.3#

Max. Recorded Temp. 143°F

Estimated Cement Top 6154'

Time Well Ready 17.45

Time Logger on Bottom 18.30

Equipment Number TK-111

Location CHARLEROL, PA

Recorded By D. JOSEPHIK

Witnessed By DANIEL MARTINEZ

Borehole Record

Run Number	Bit	From	To	Size	Weight	From	To

Tubing Record

Run Number	Bit	From	To	Size	Weight	From	To

Casing Record

Run Number	Bit	From	To	Size	Weight	From	To

Surface String

Run Number	Bit	From	To	Size	Weight	From	To

Prot. String

Run Number	Bit	From	To	Size	Weight	From	To

Production String

Run Number	Bit	From	To	Size	Weight	From	To

Liner

Run Number	Bit	From	To	Size	Weight	From	To

<<< 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

**FREE PIPE= 71.9mv
BONDED PIPE= 2.2mv**


ETOC @ 6154'

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SM

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

			CENT-Titn275Adj Titan 2 3/4" Adjustable Centralizer	2.86	2.75	35.00
HeadVolt	19.83					
Temp	16.98					
			RBT-Probe275T (FW1312-32) Probe 2.75" Radial with Integral Temperature Sub	9.39	2.75	90.00
WVFS8	14.75					
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_vishnu_2h_may_9_2021_rcbl.db: field/well/run1/MAIN
 Total length: 23.77 ft
 Total weight: 253.00 lb
 O.D.: 2.75 in

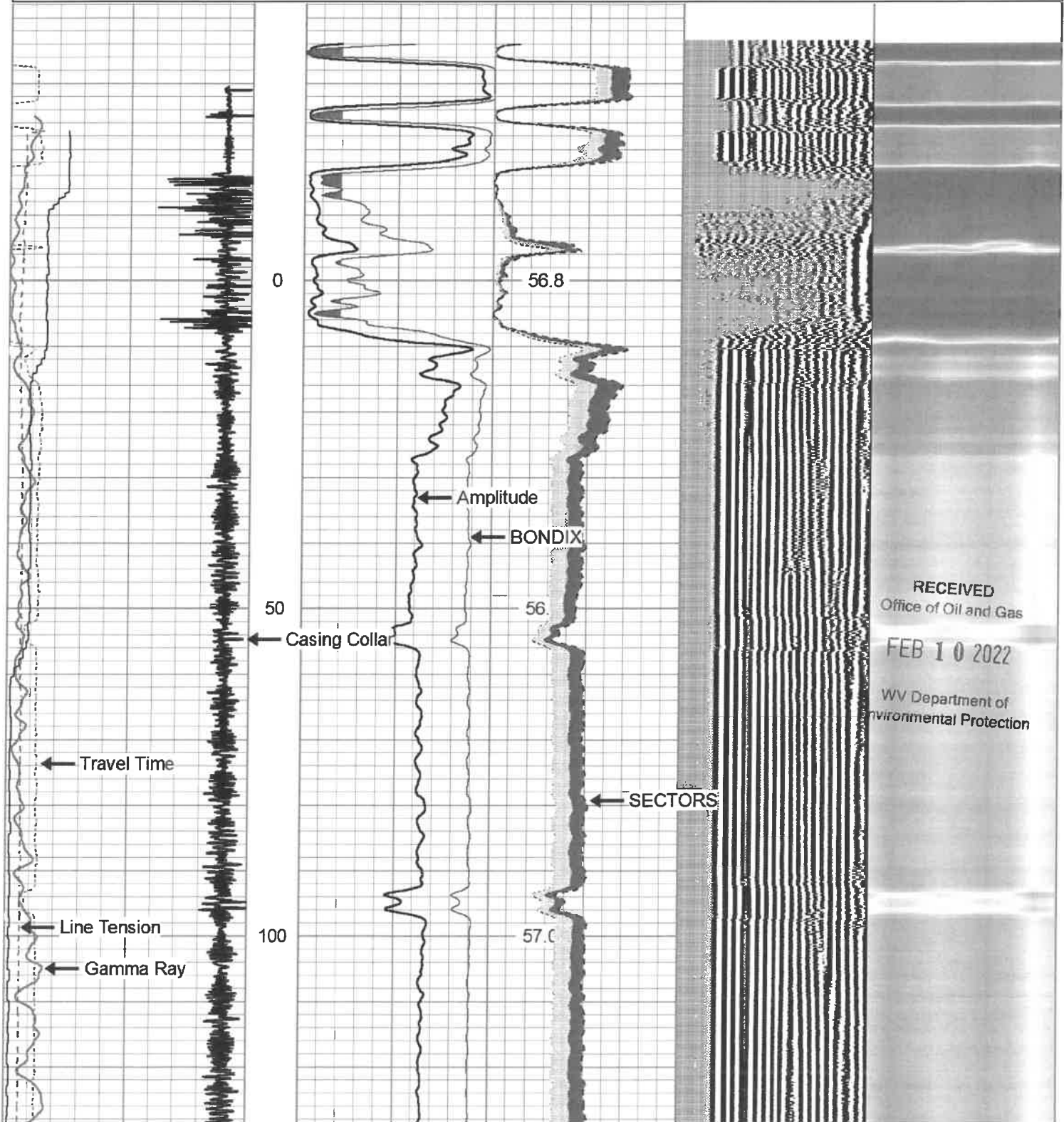


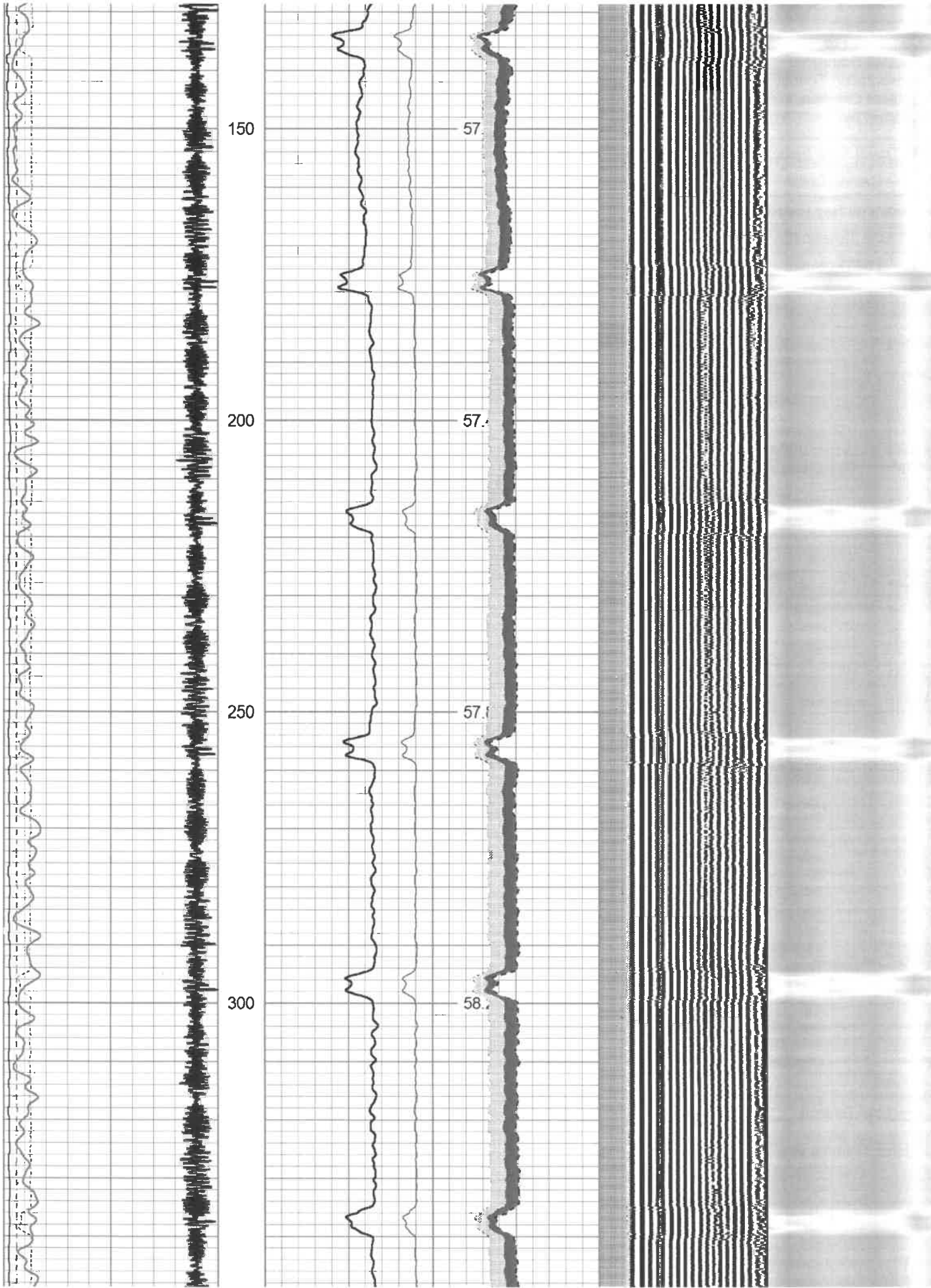
MAIN LOG

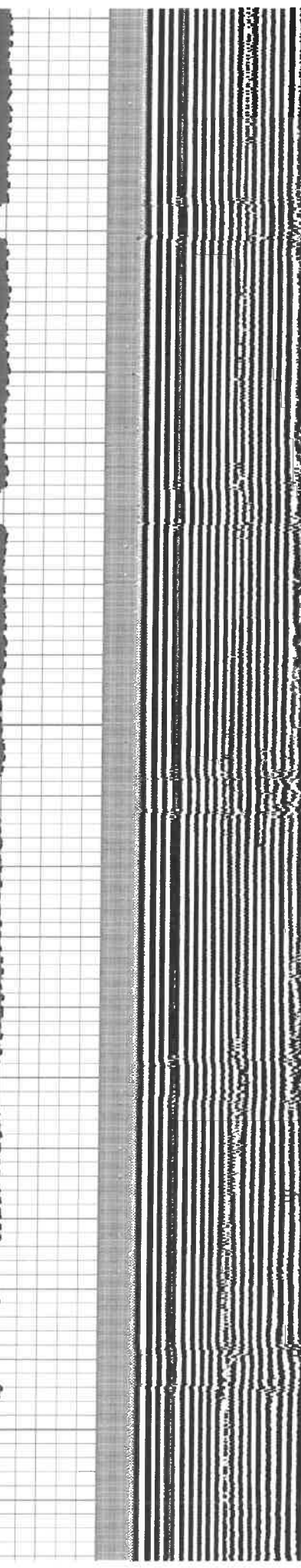
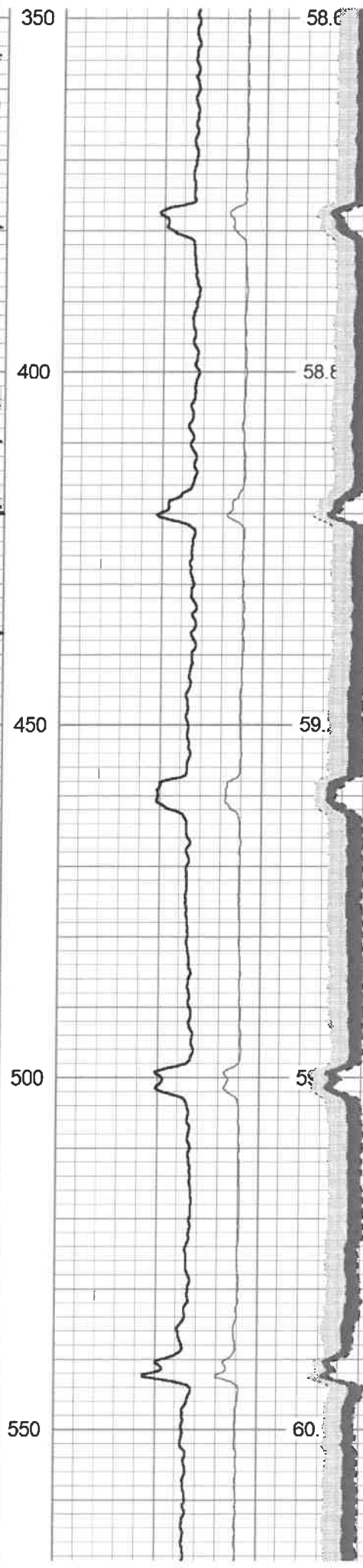
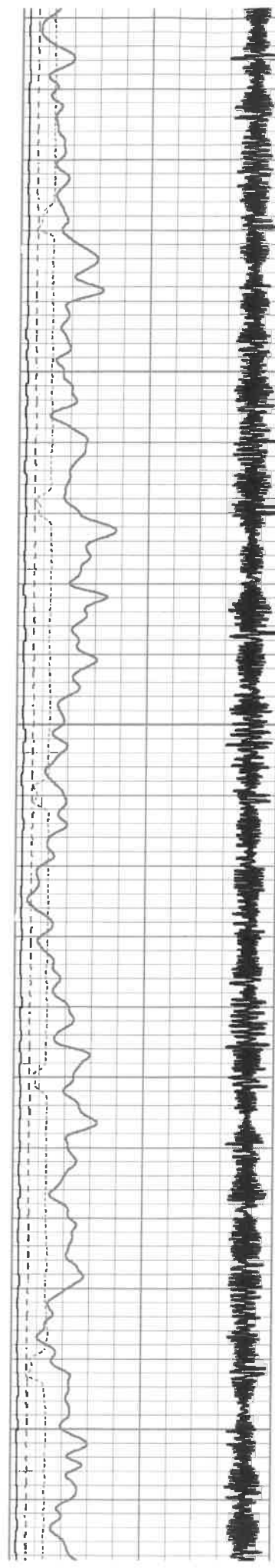
1500 PSI APPLIED

Database File antero_vishnu_2h_may_9_2021_rcbl.db
 Dataset Pathname MAIN
 Presentation Format rcbl-bond index for antero 1020
 Dataset Creation Sun May 09 18:39:18 2021
 Charted by Depth in Feet scaled 1:240

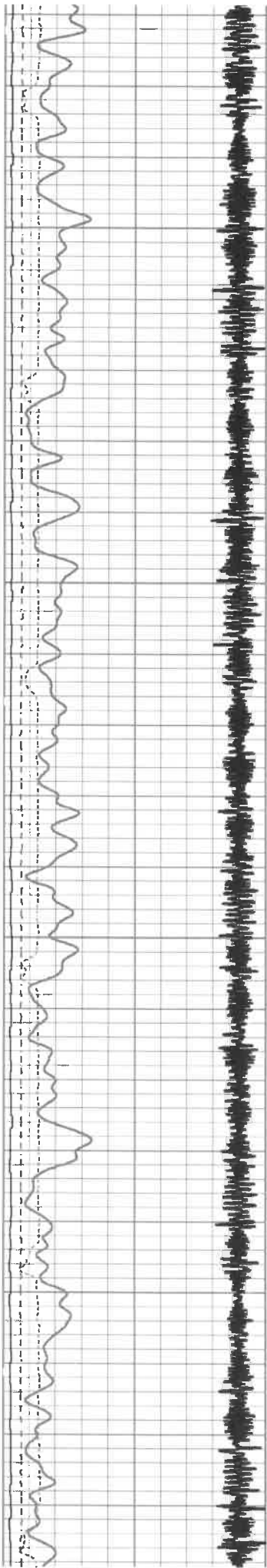
291	Travel Time (usec)	191	0	Amplitude (mV)	100	0	AMPMIN	150	Variable Density	1	Cement Map	8
9	Casing Collar	-1	1	BONDIX	0	0	AMPMAX	150	200 (usec)	1200		
0	Gamma Ray (GAPI)	150				0	AMPAVG	150				
0	Line Tension (lb)	5000					TEMP					
-100	LSPD (ft/min)	100					(degF)					







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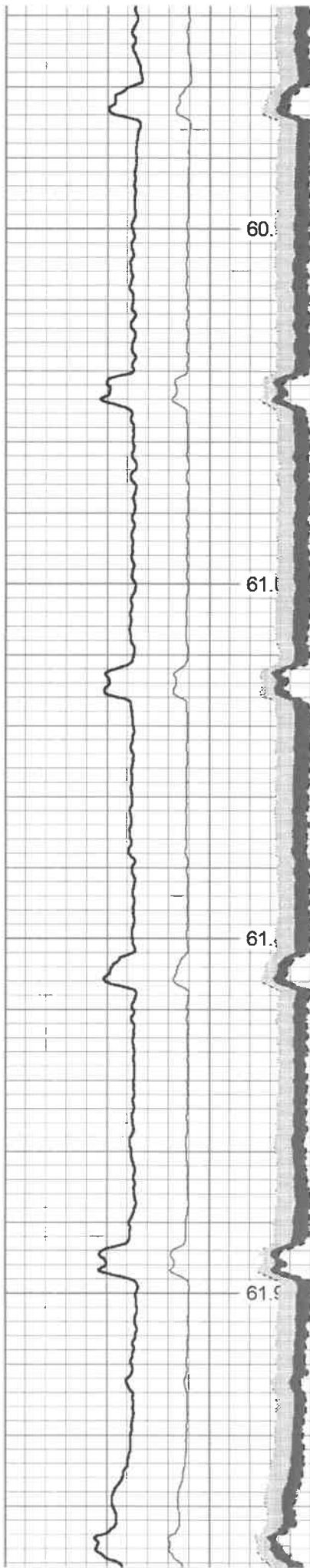


600

650

700

750

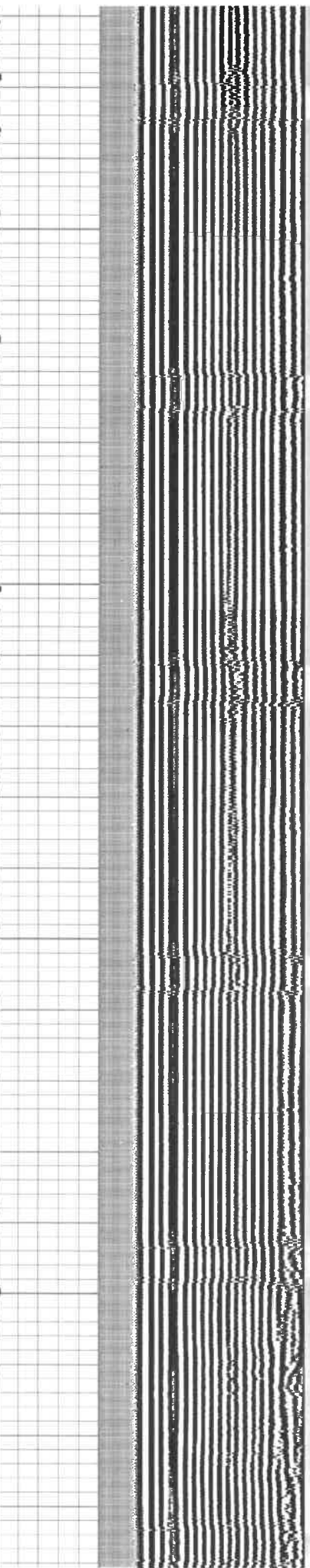


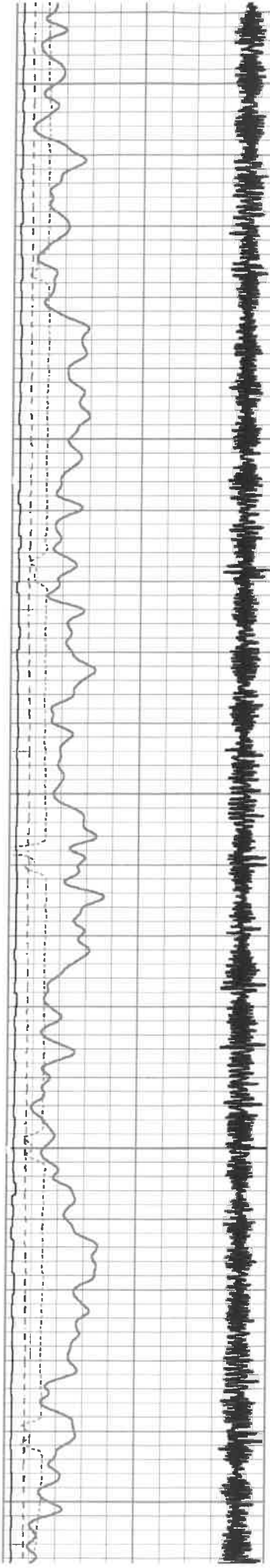
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61.0

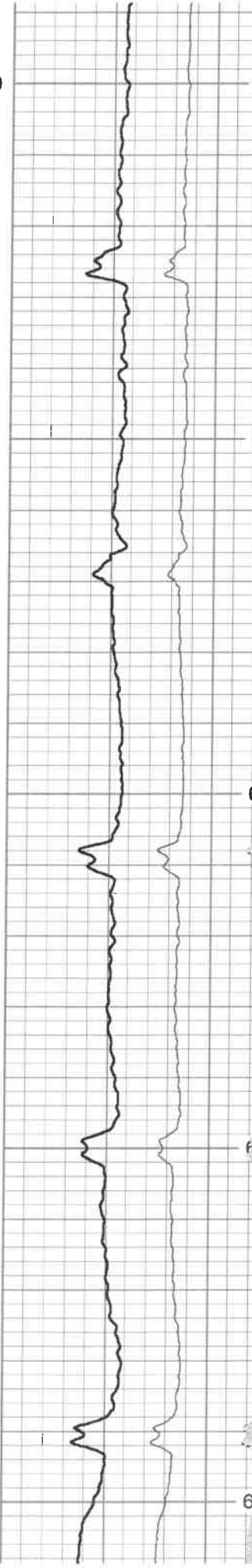
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61.9

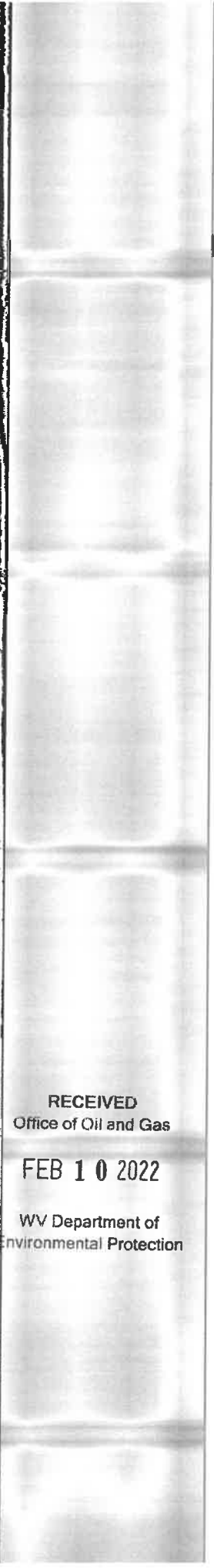
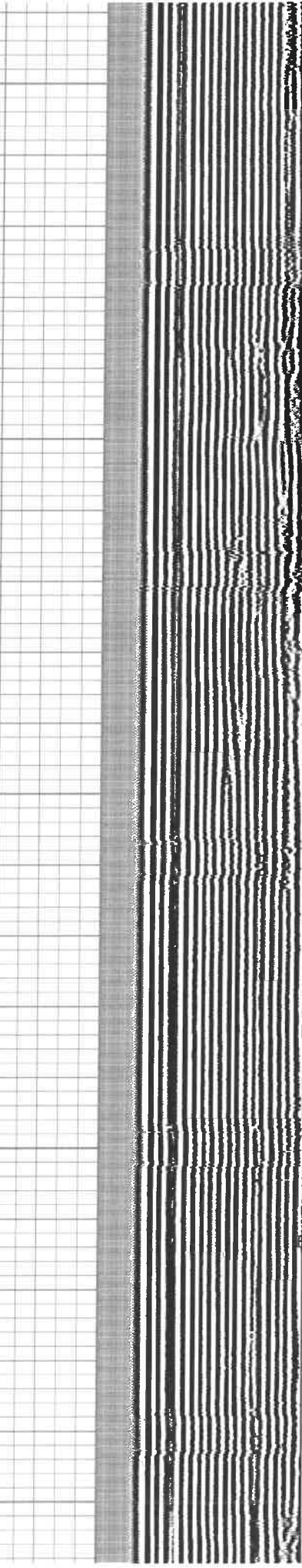




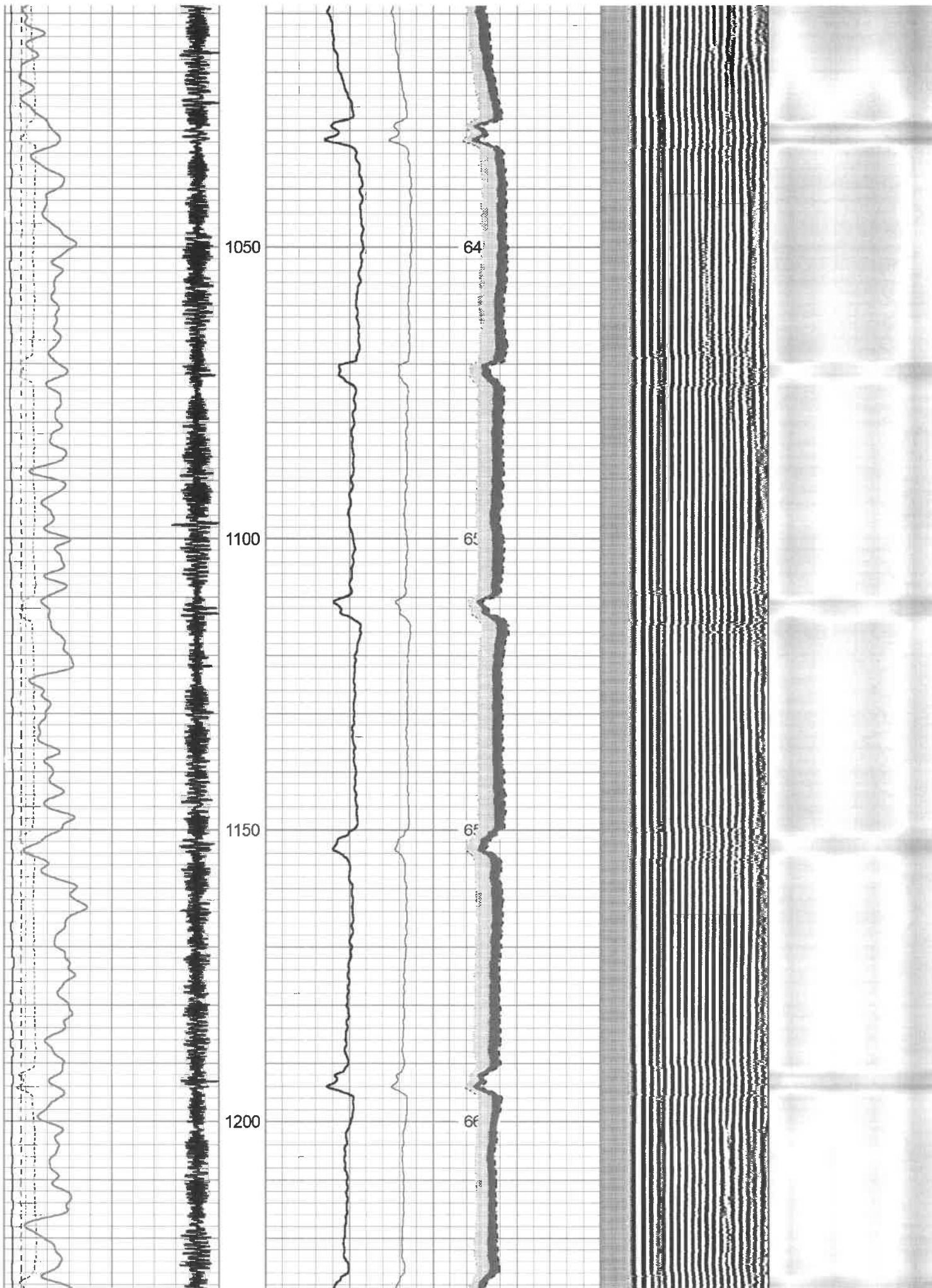
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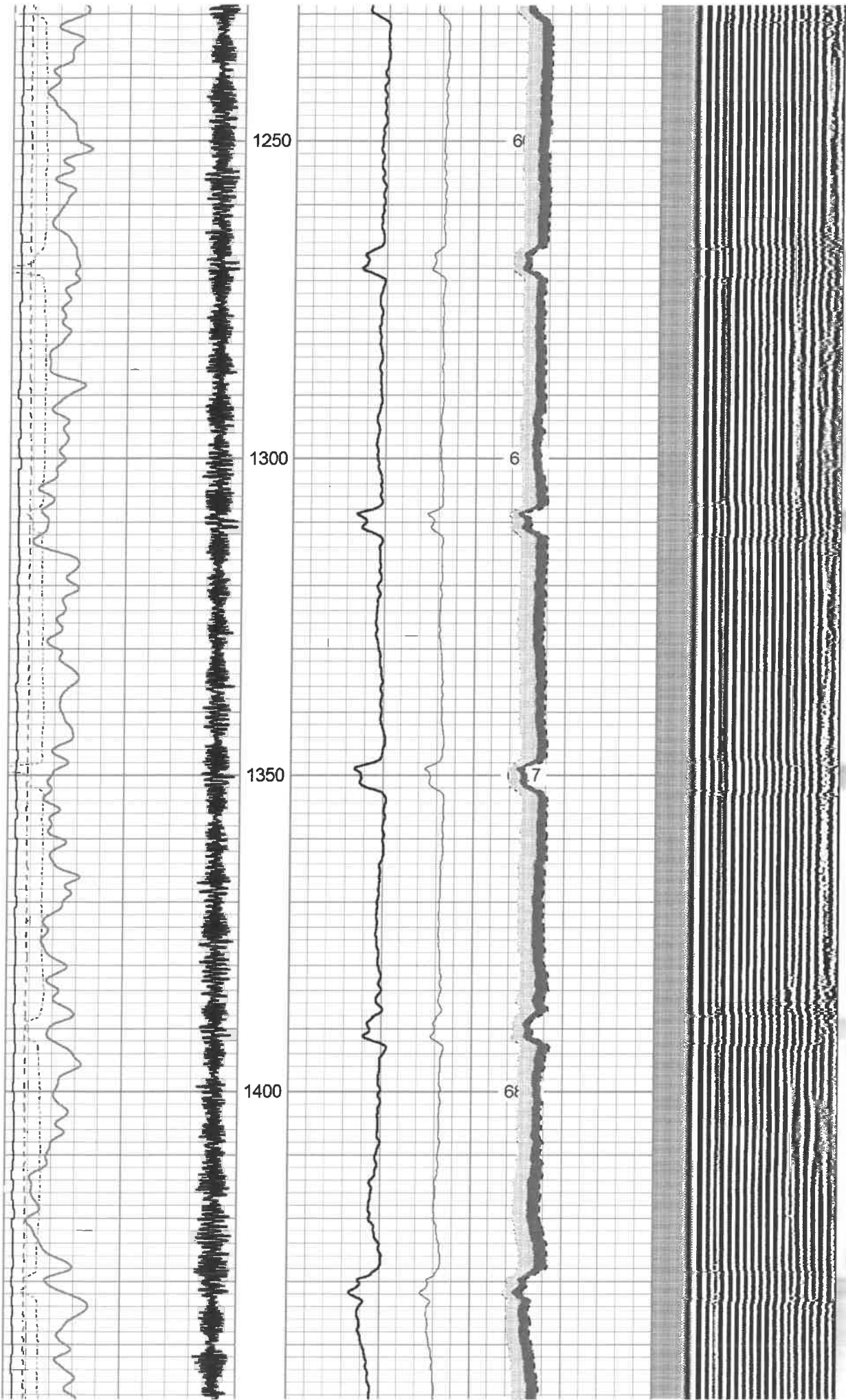


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62
63
68
6

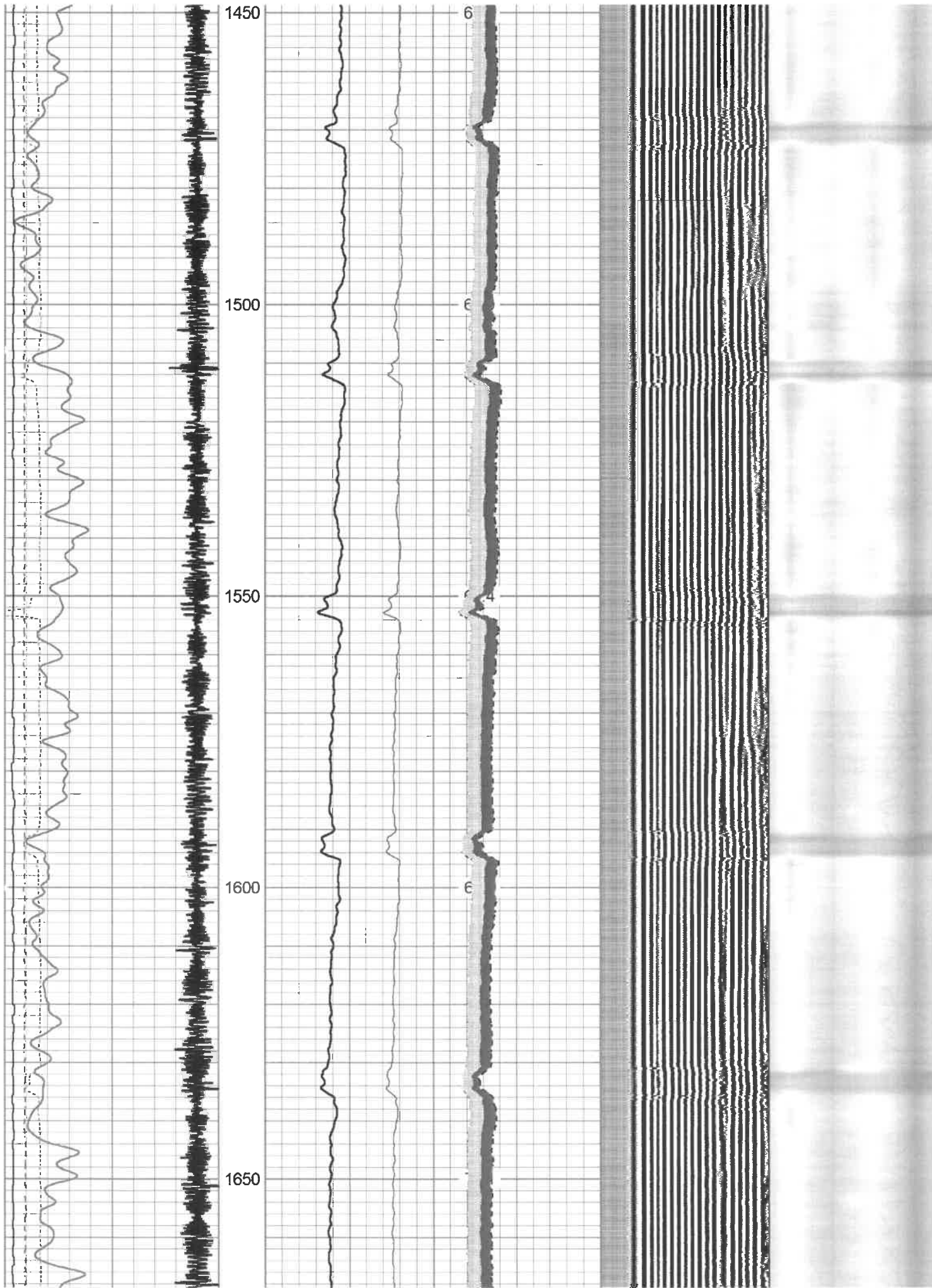


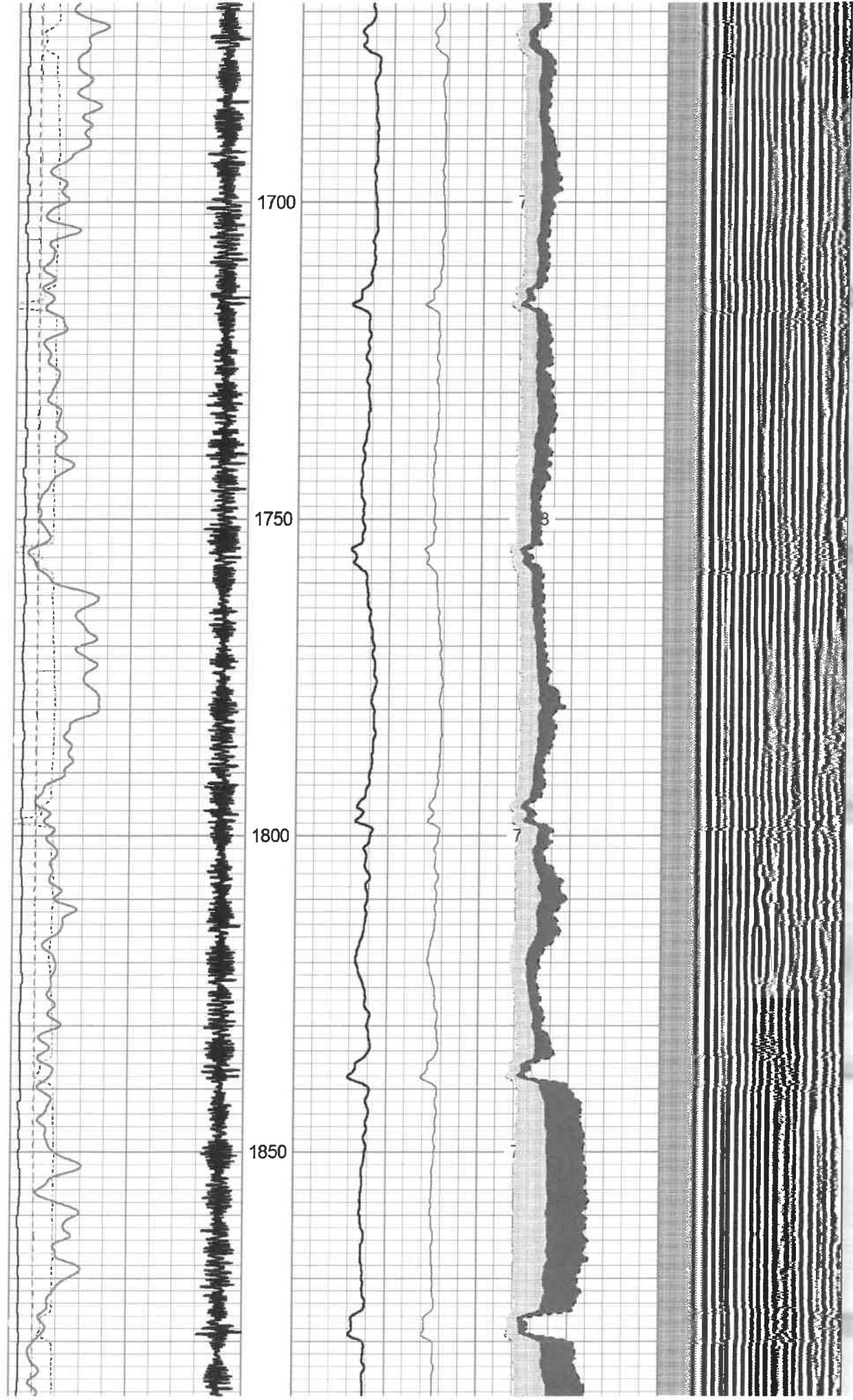
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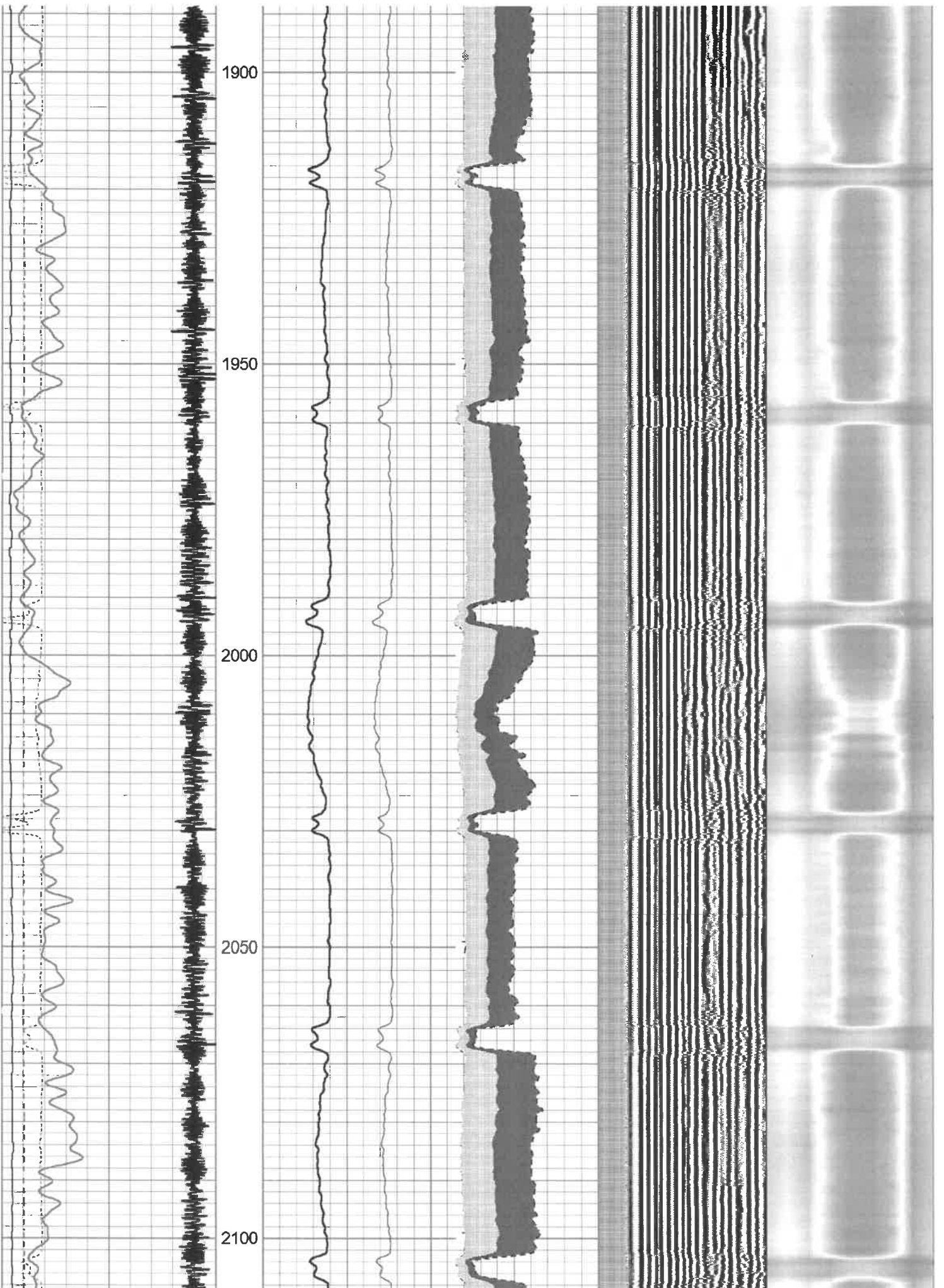


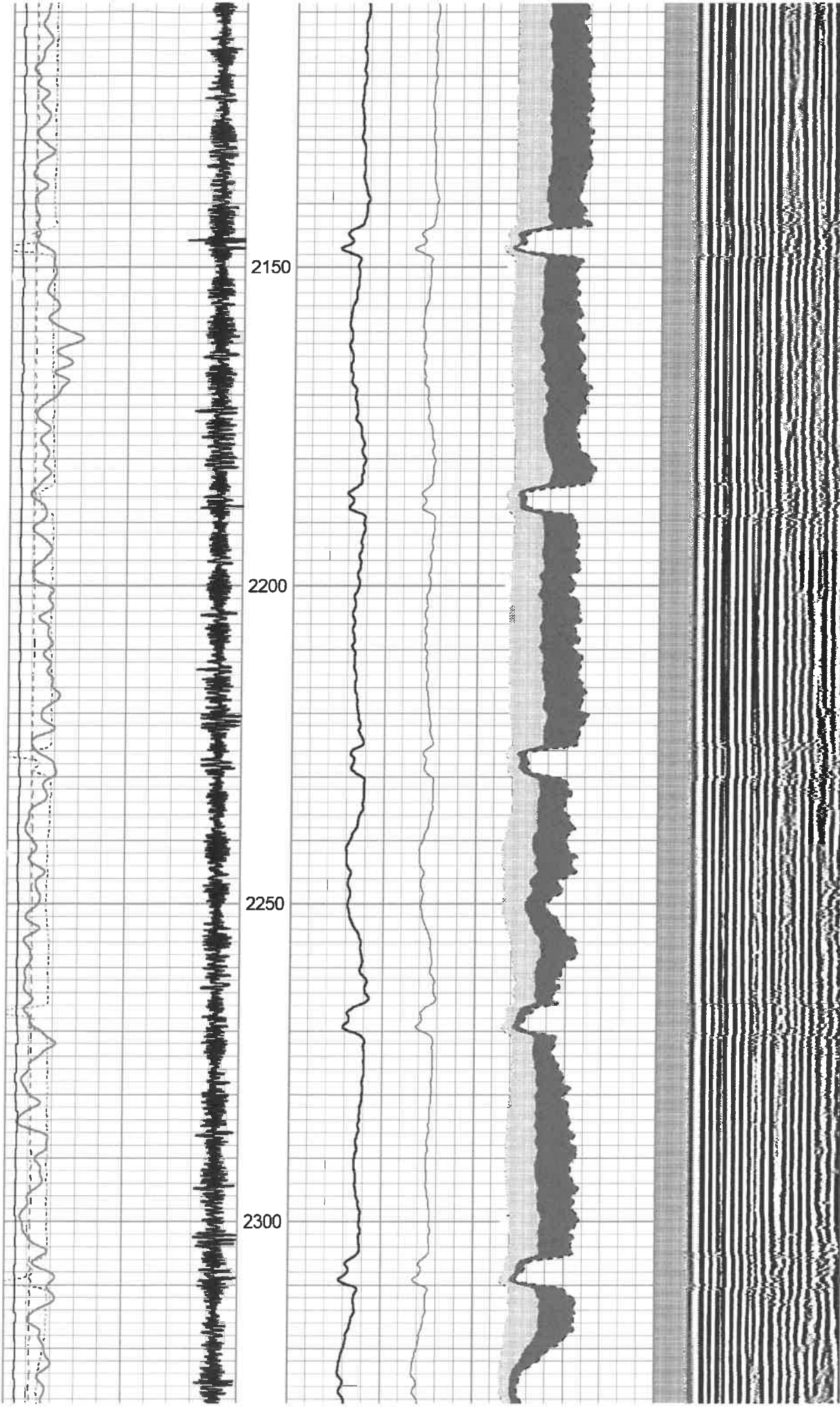


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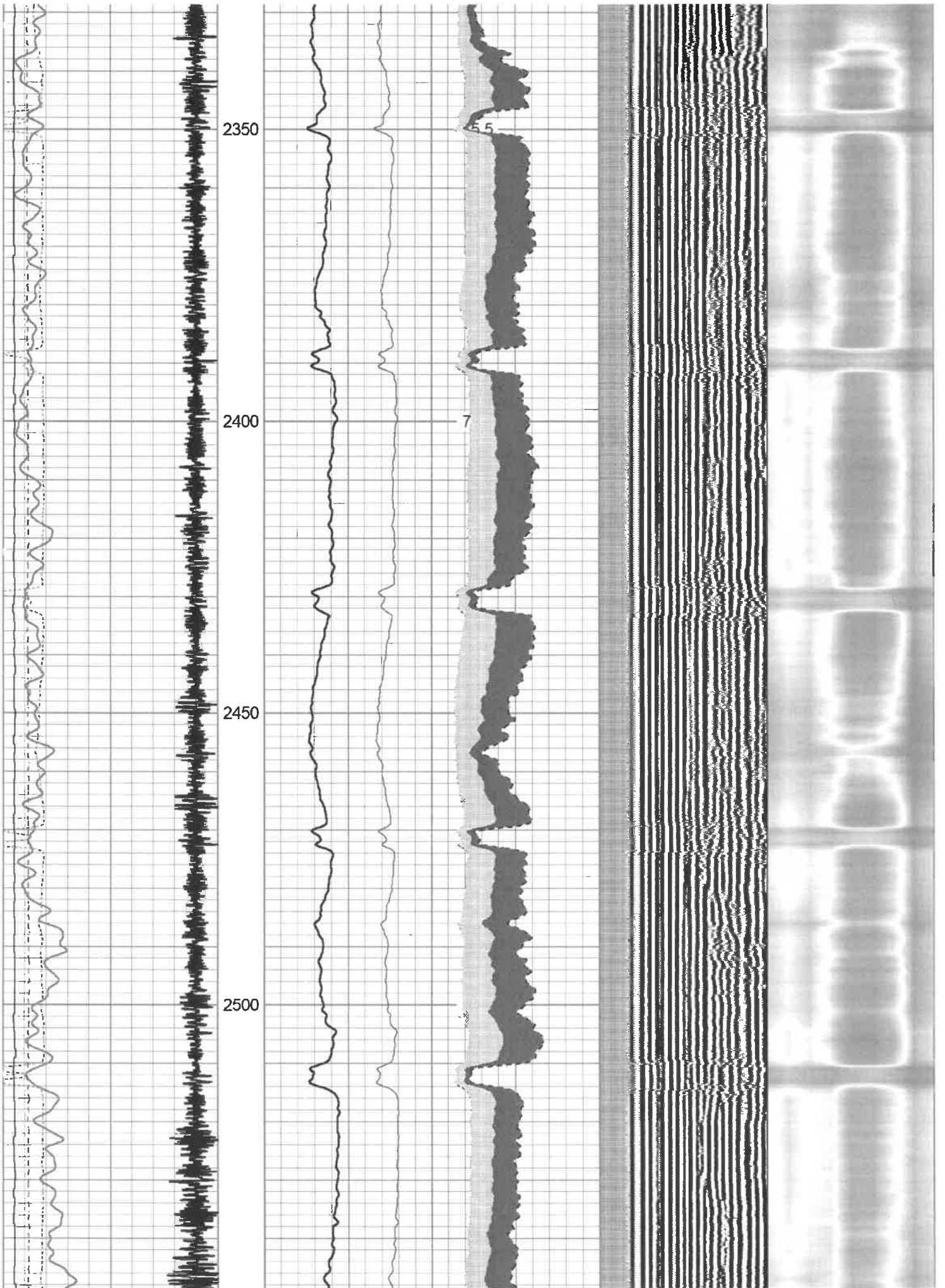
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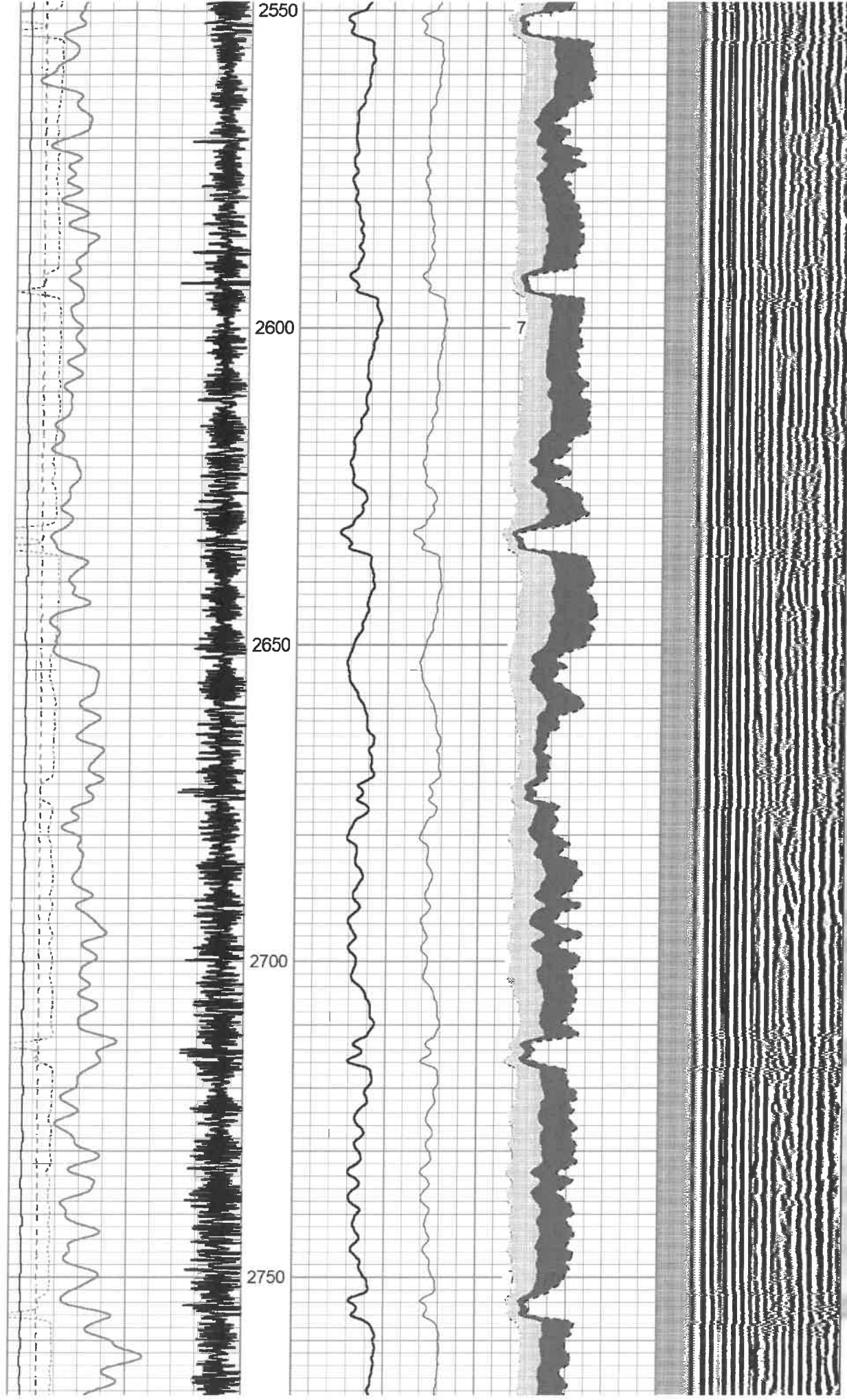
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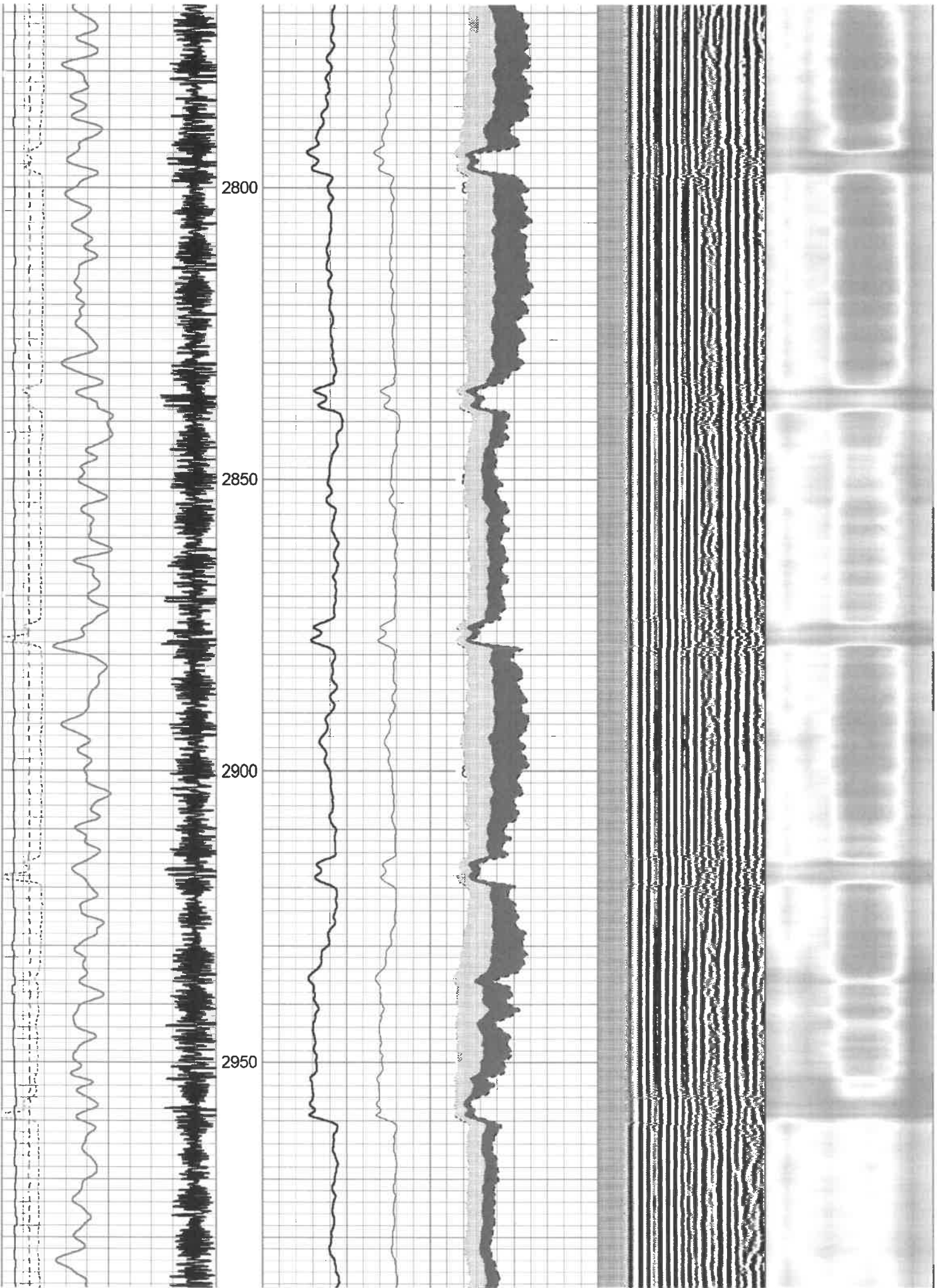


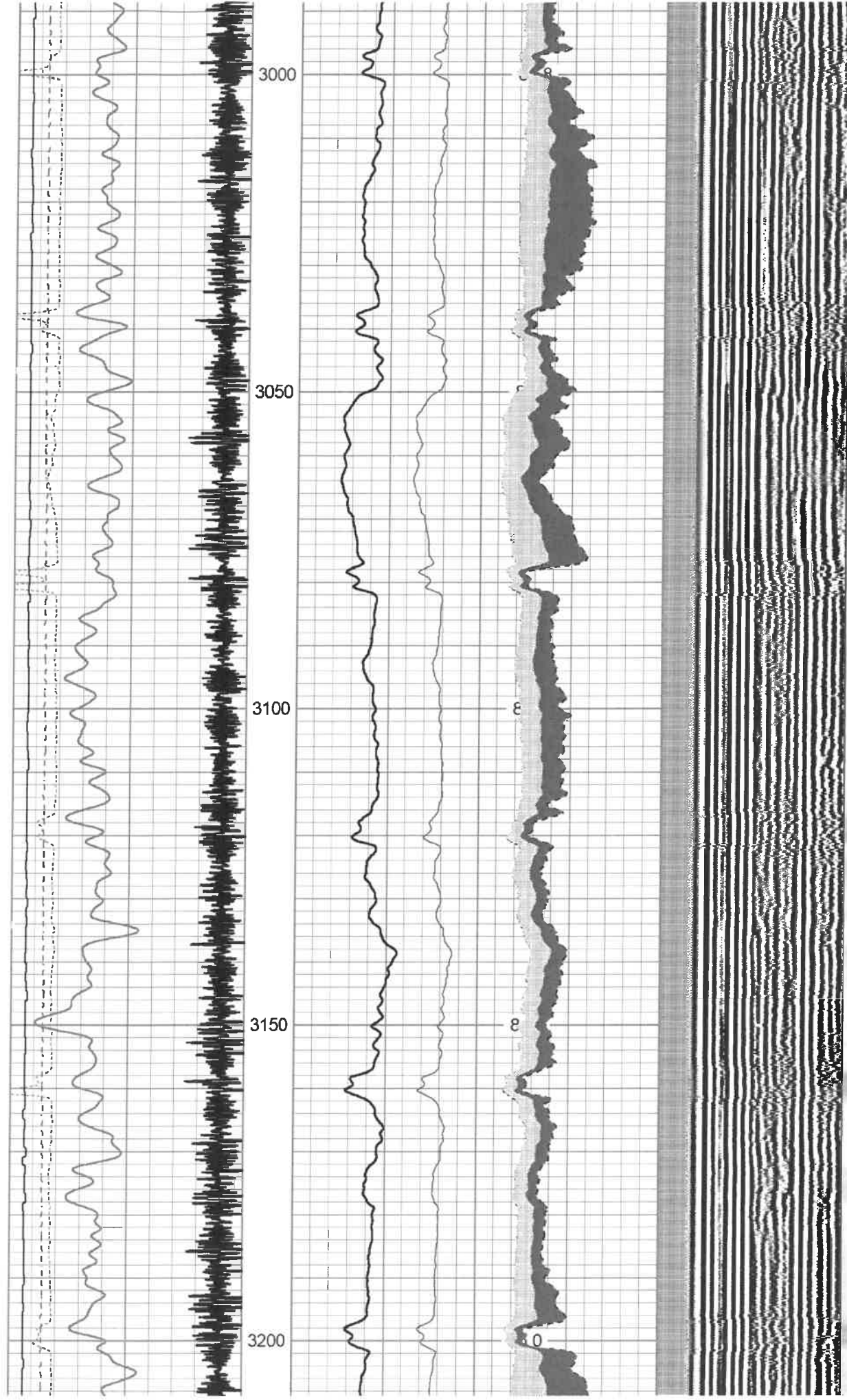
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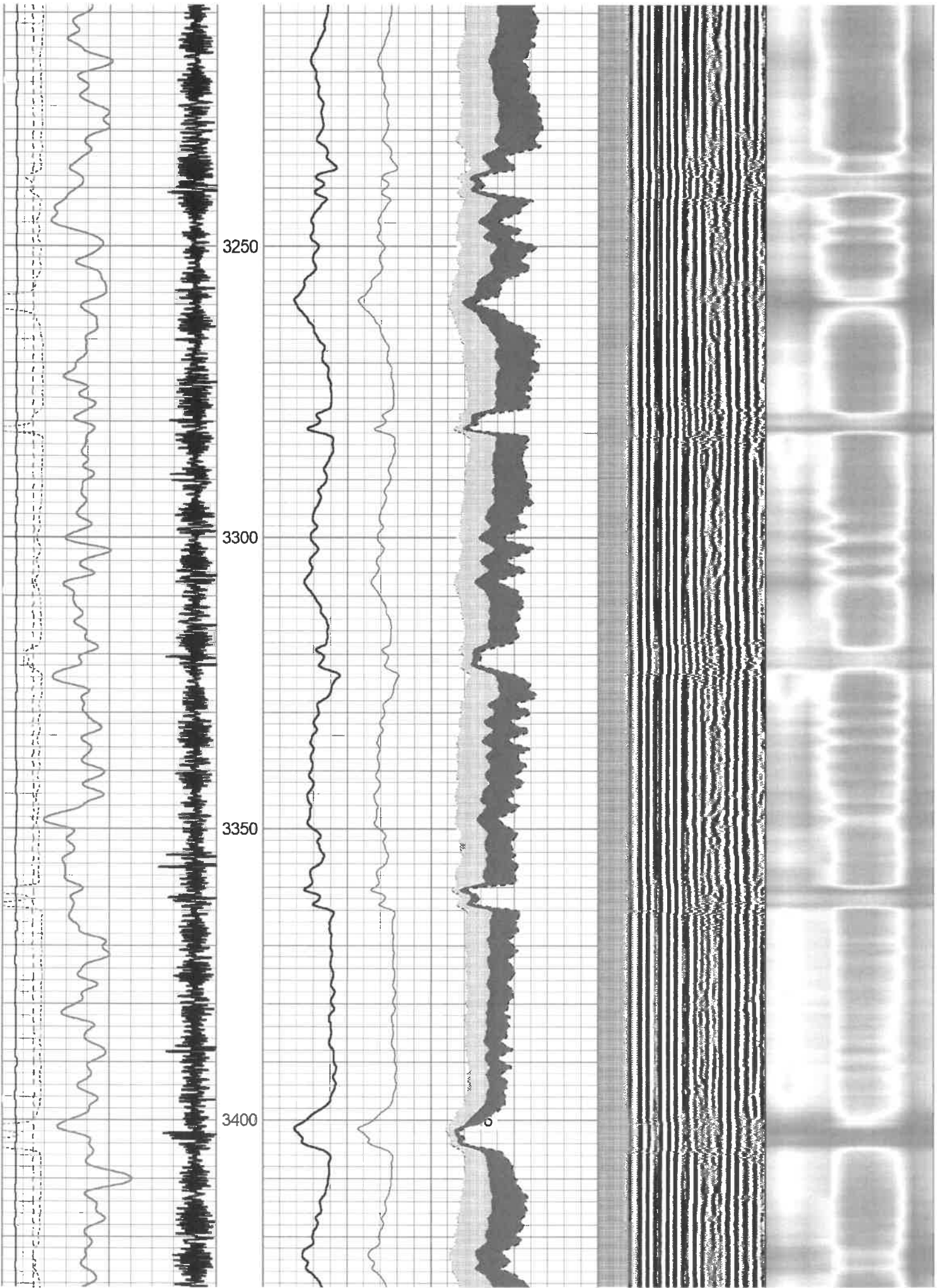


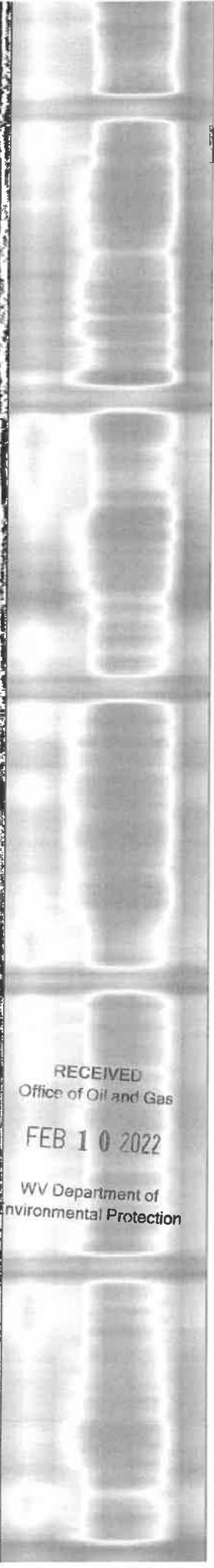
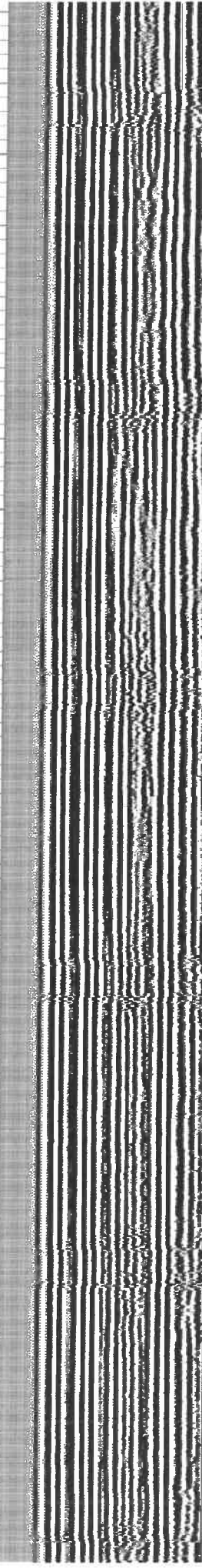
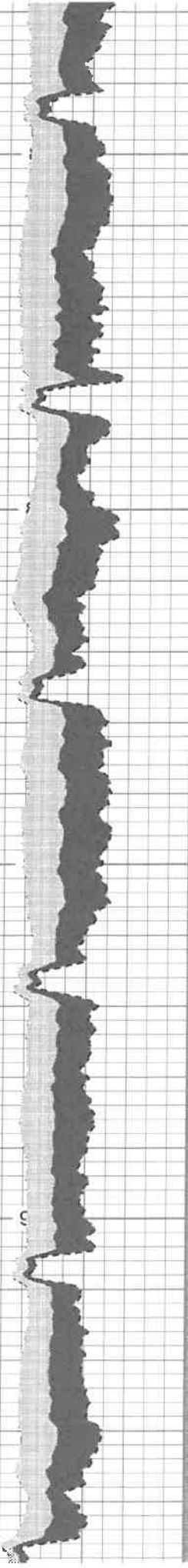
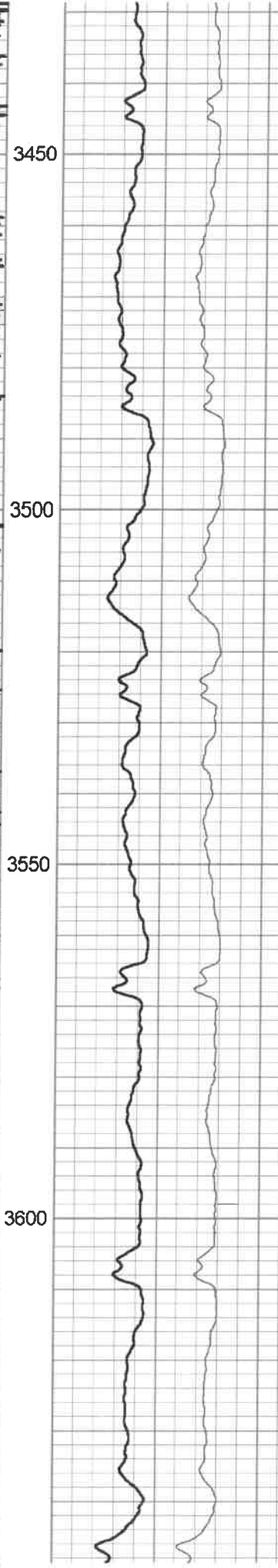
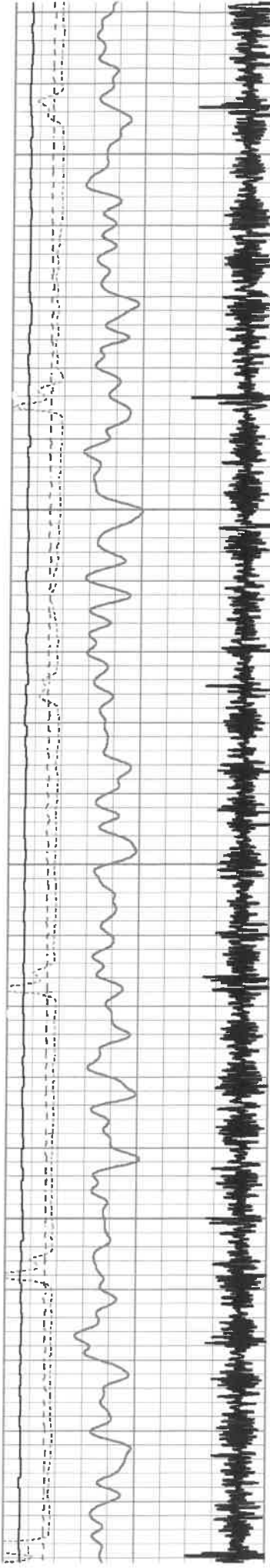
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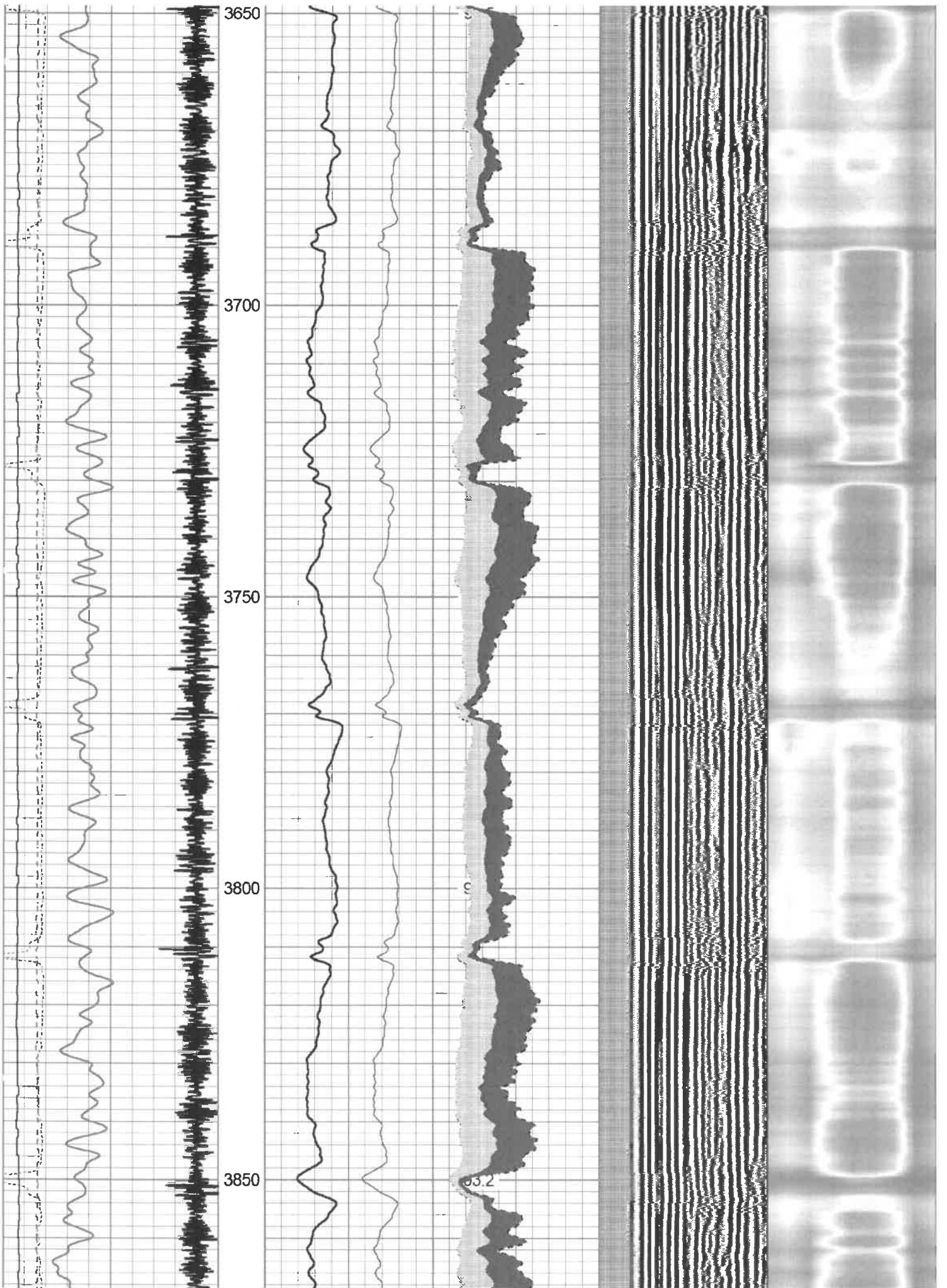


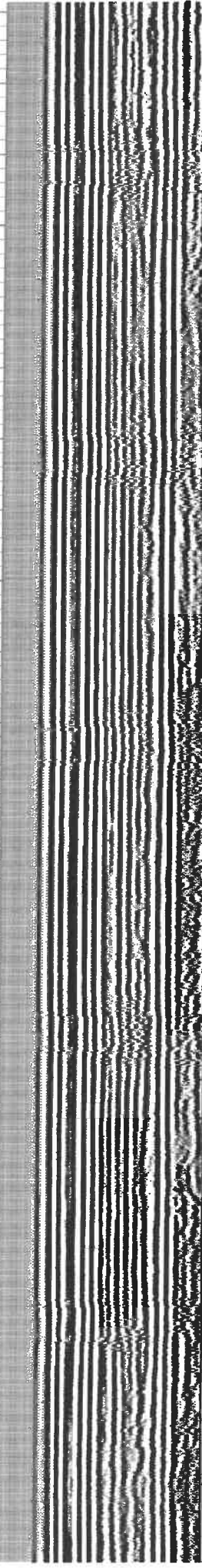
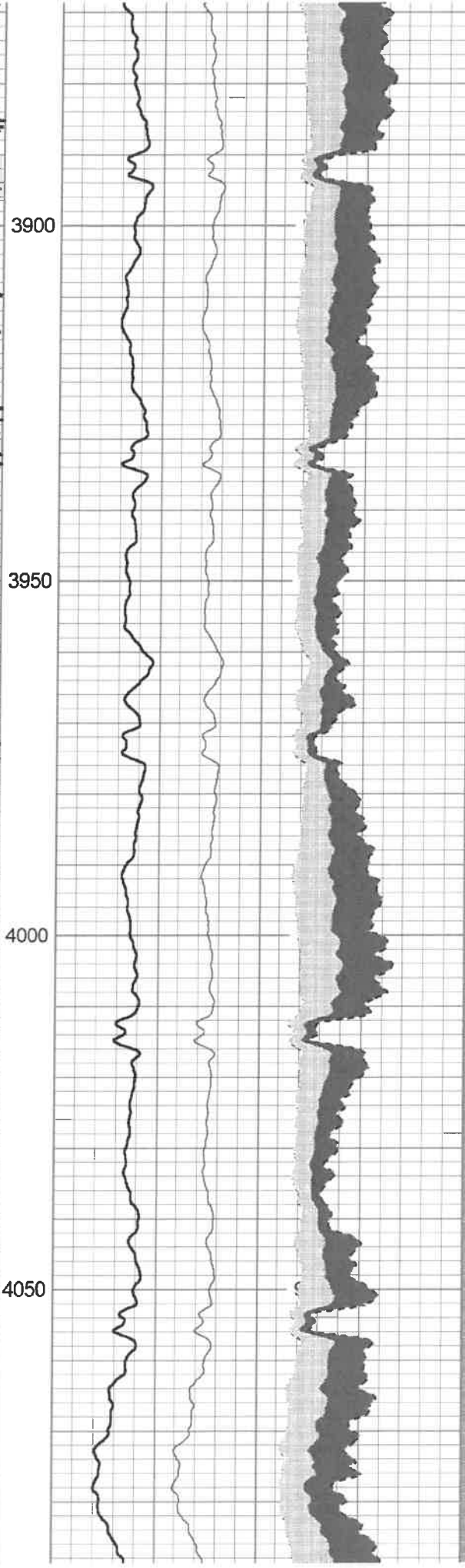
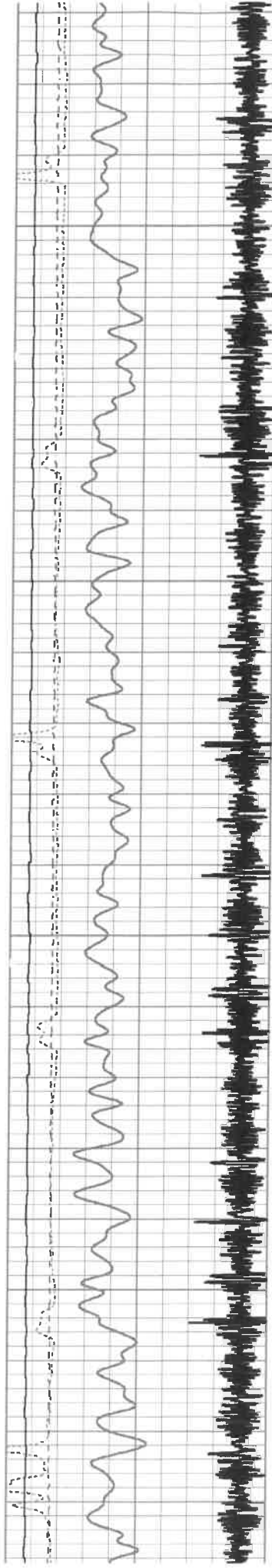
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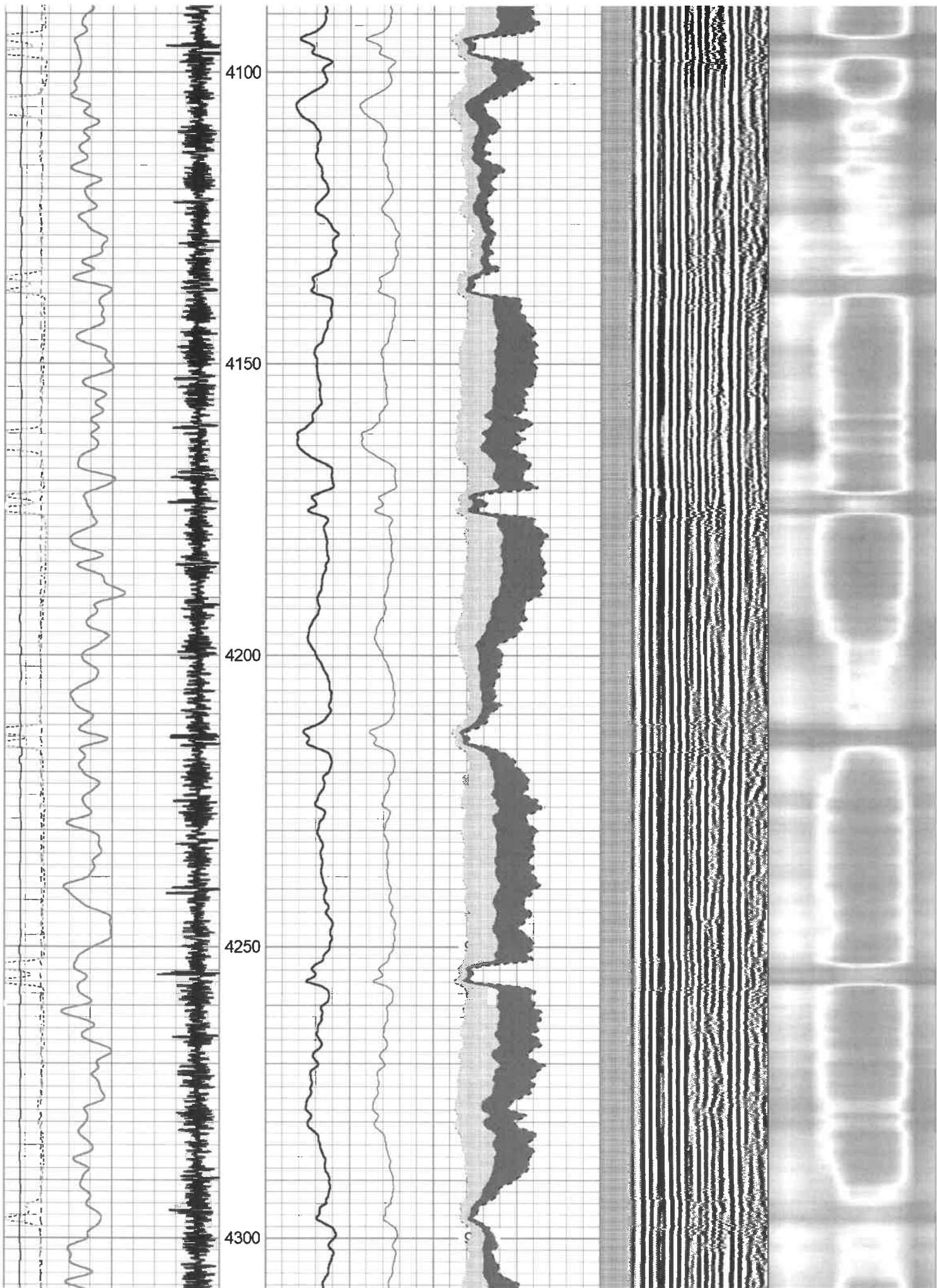


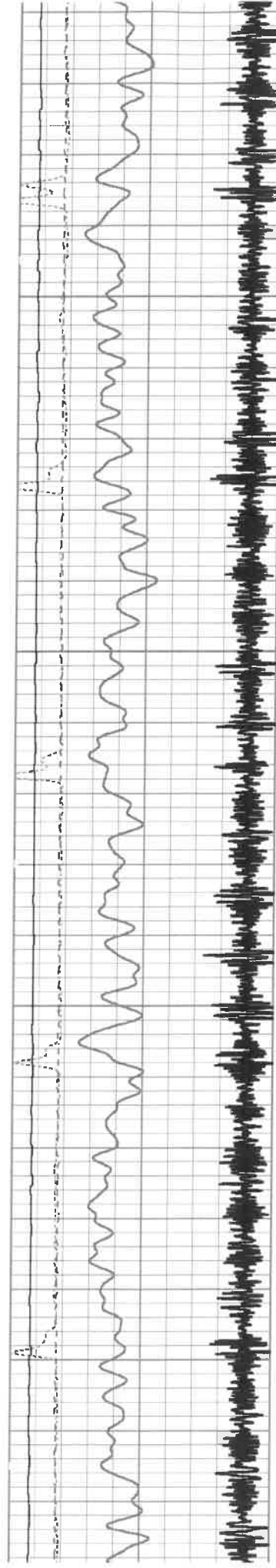
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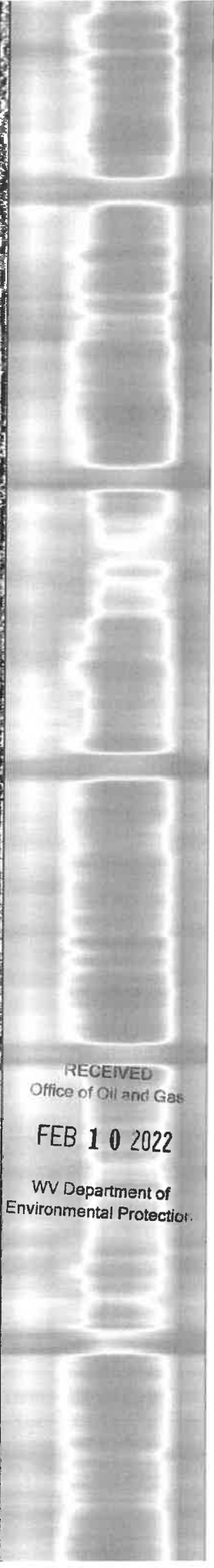
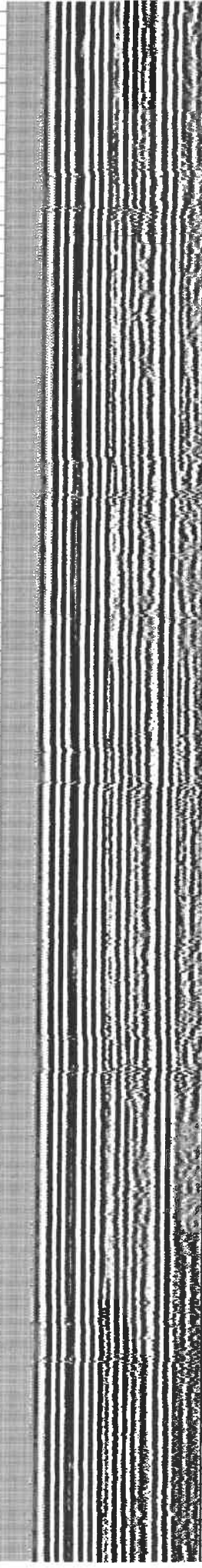
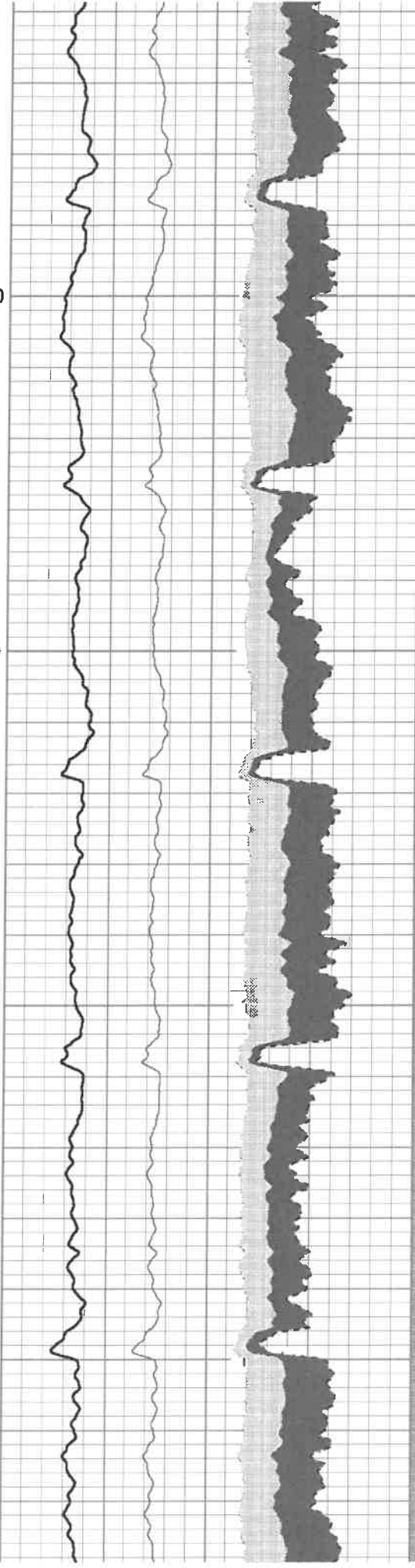


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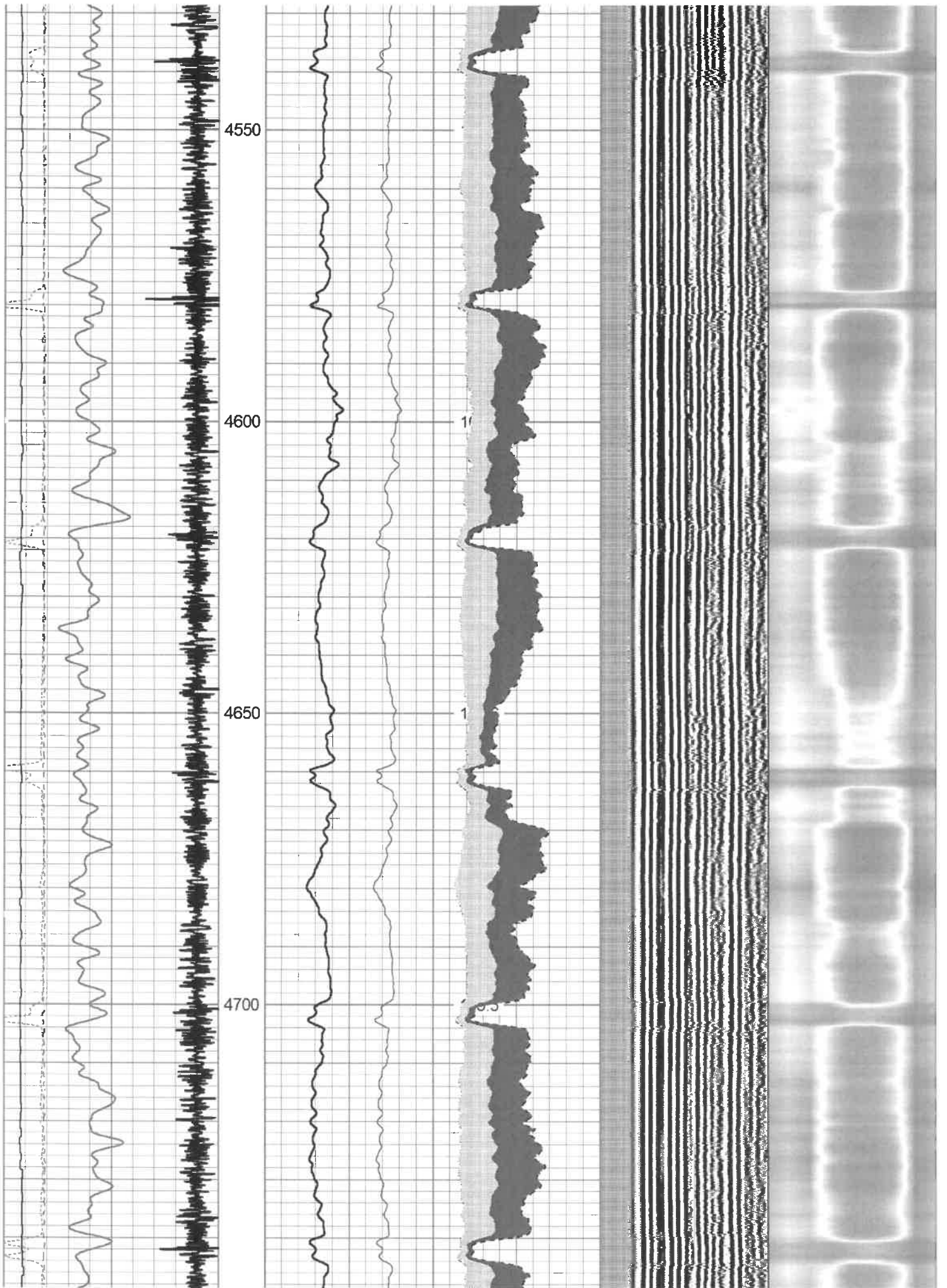


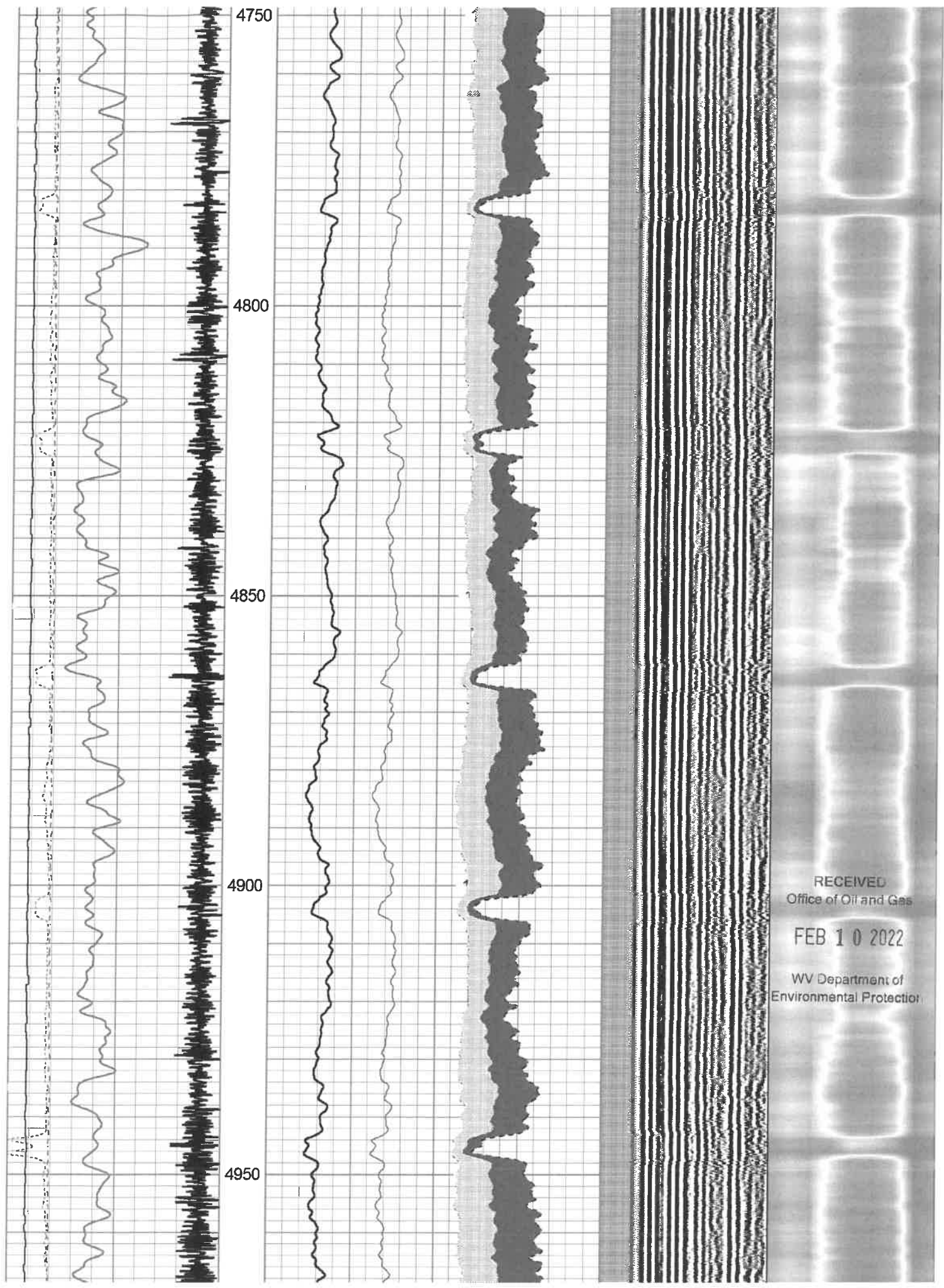


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4400
4450
4500



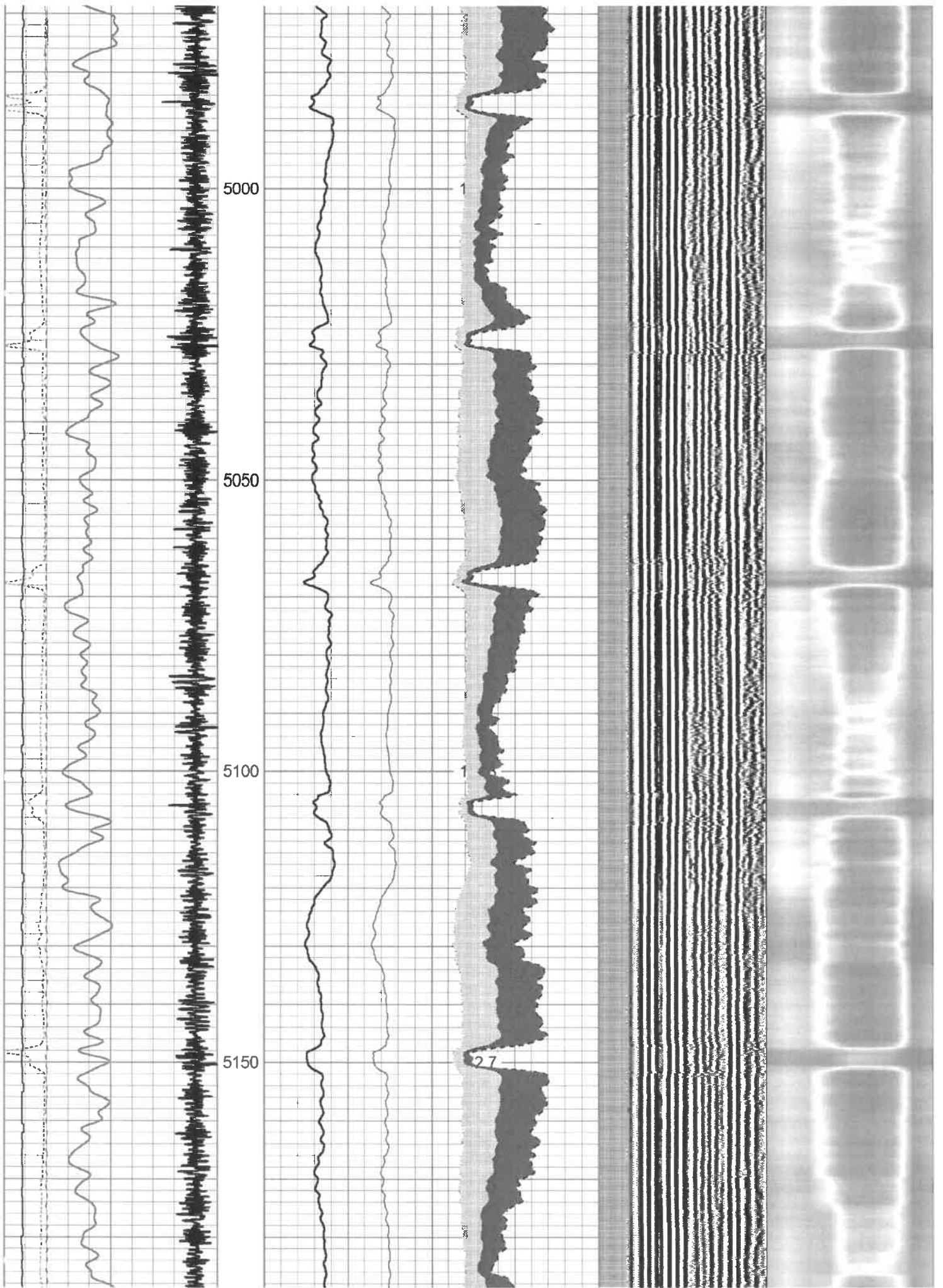
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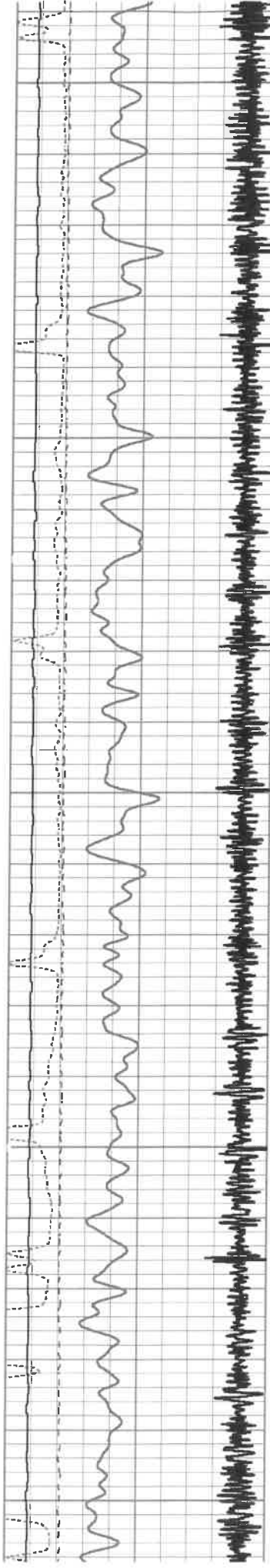




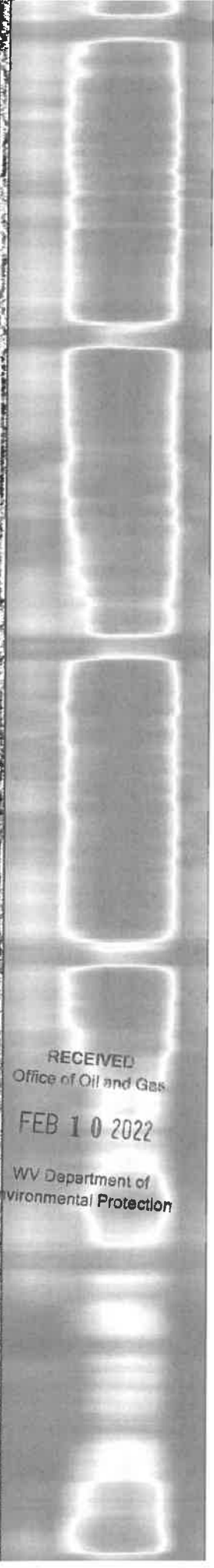
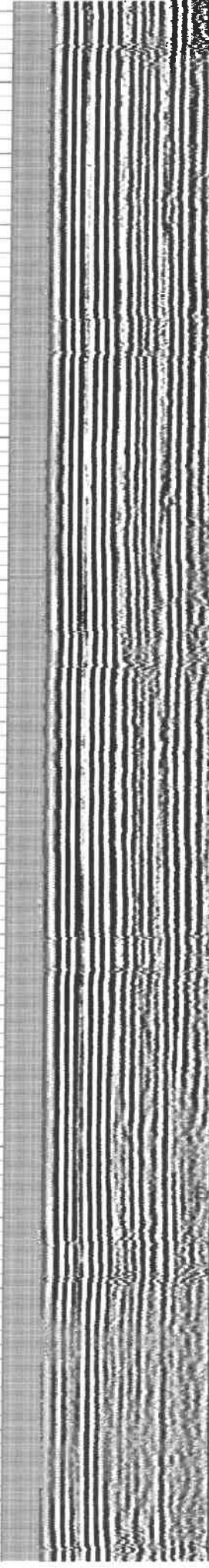
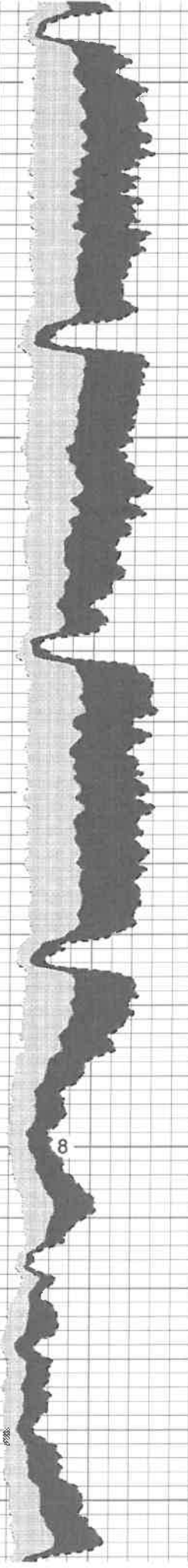
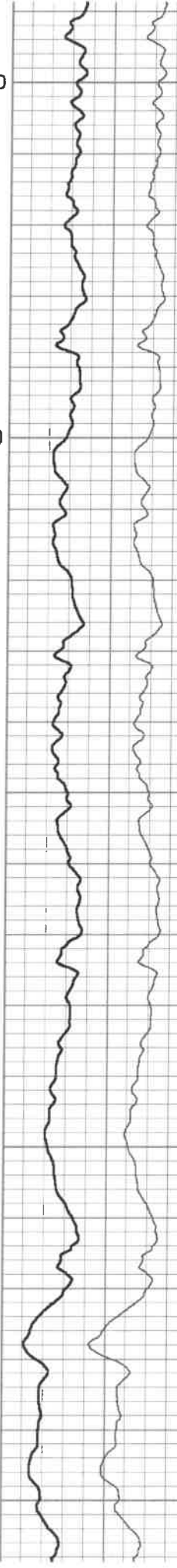
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4800
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4900
4950

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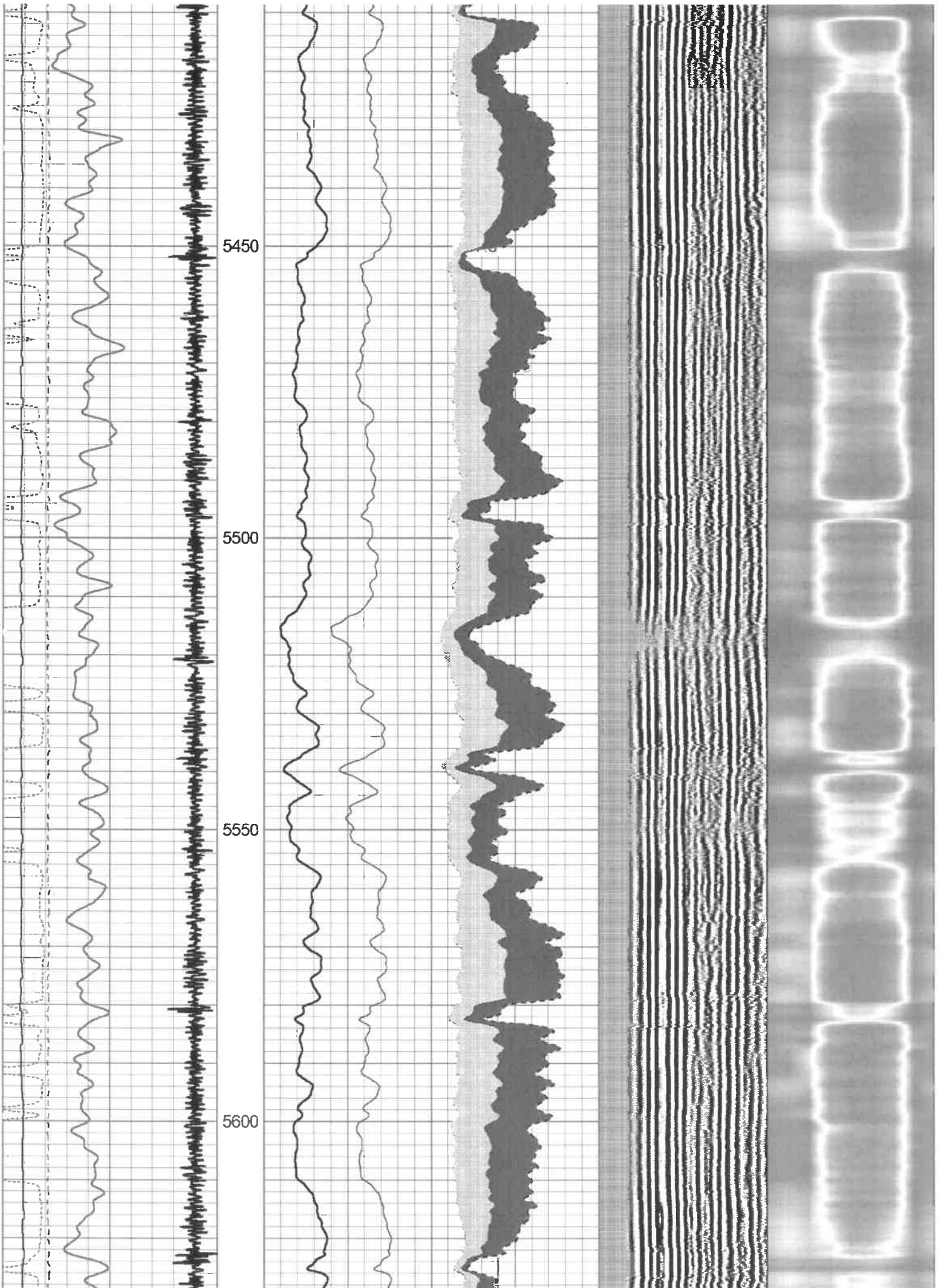


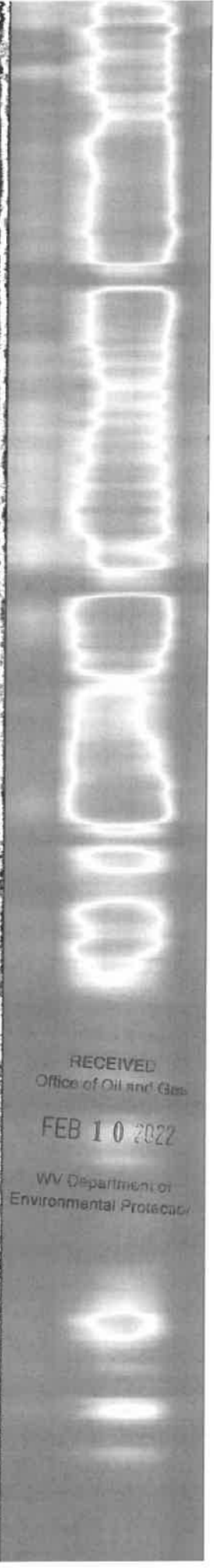
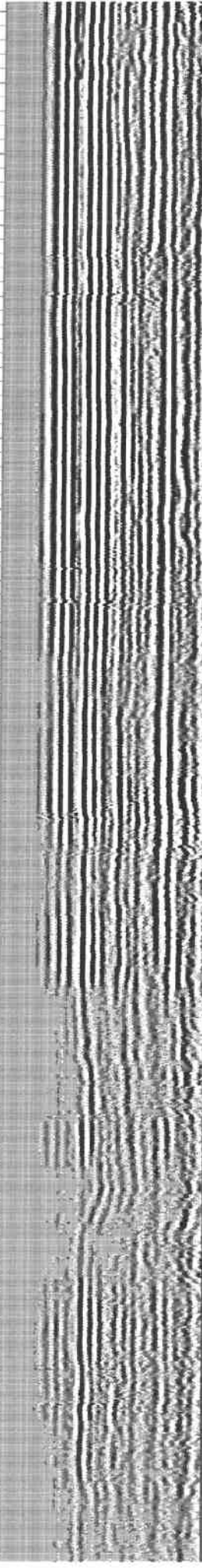
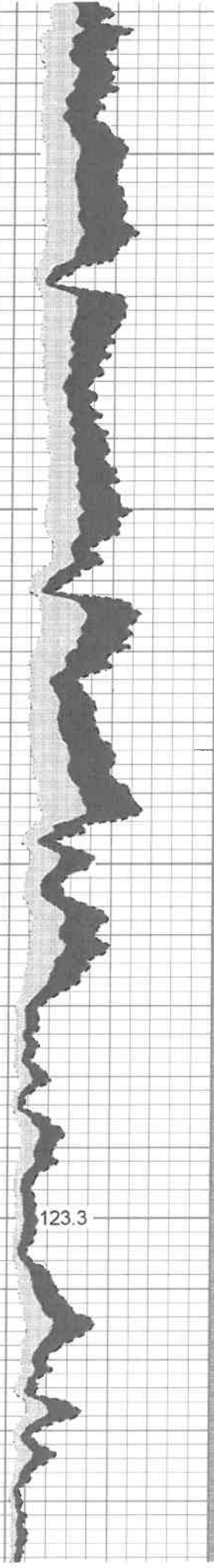
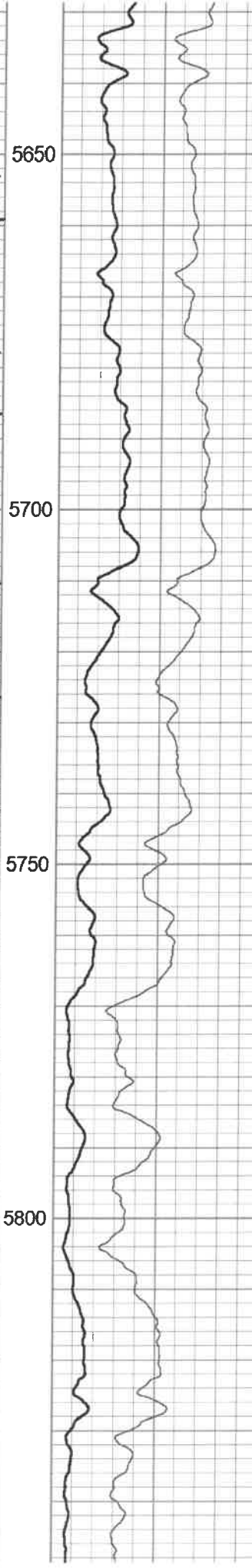
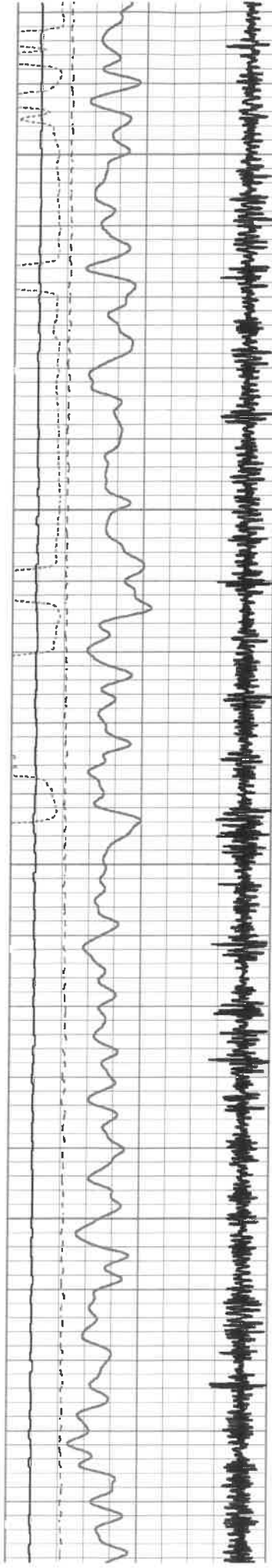


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5250
5300
5350
5400

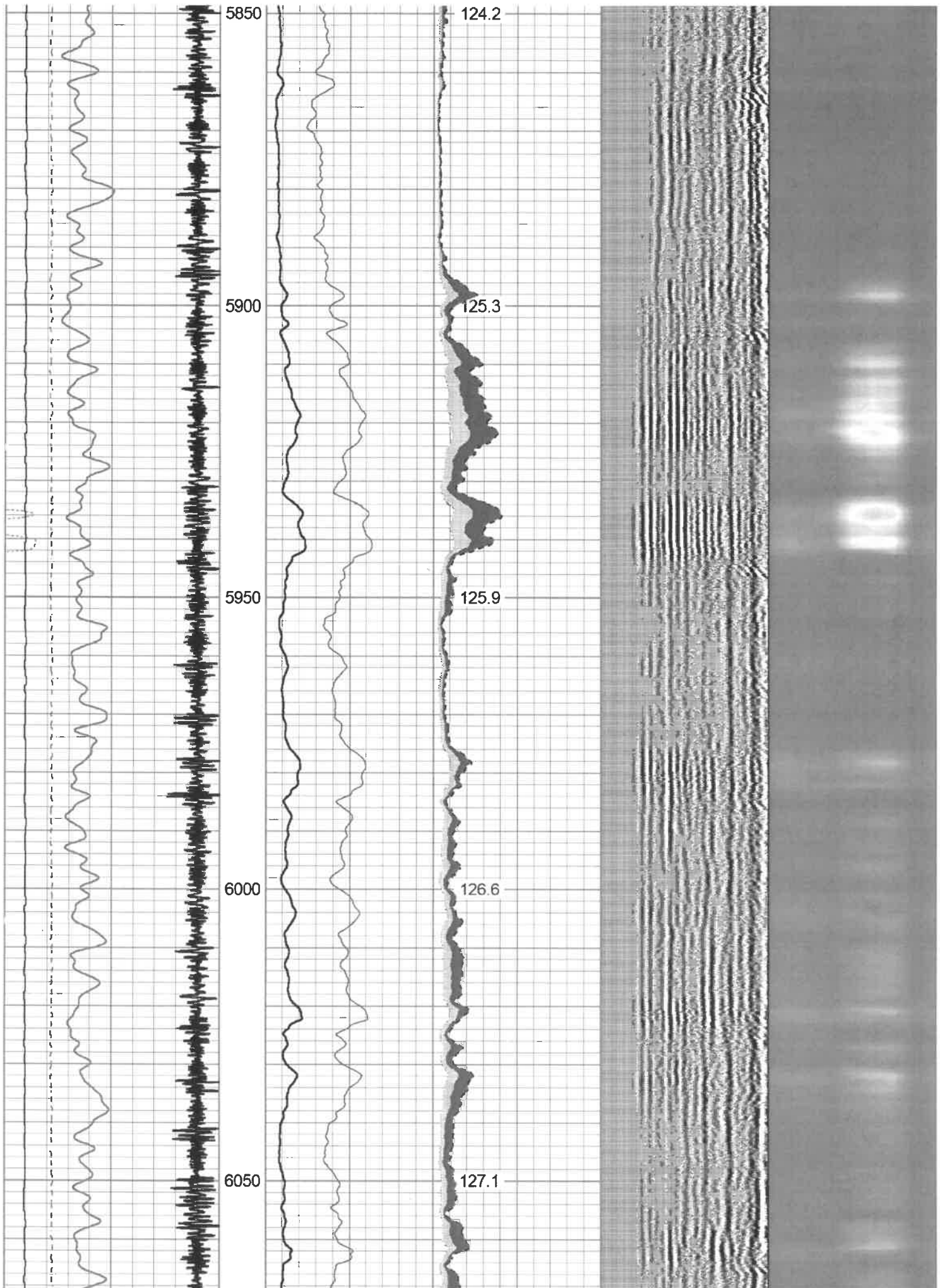


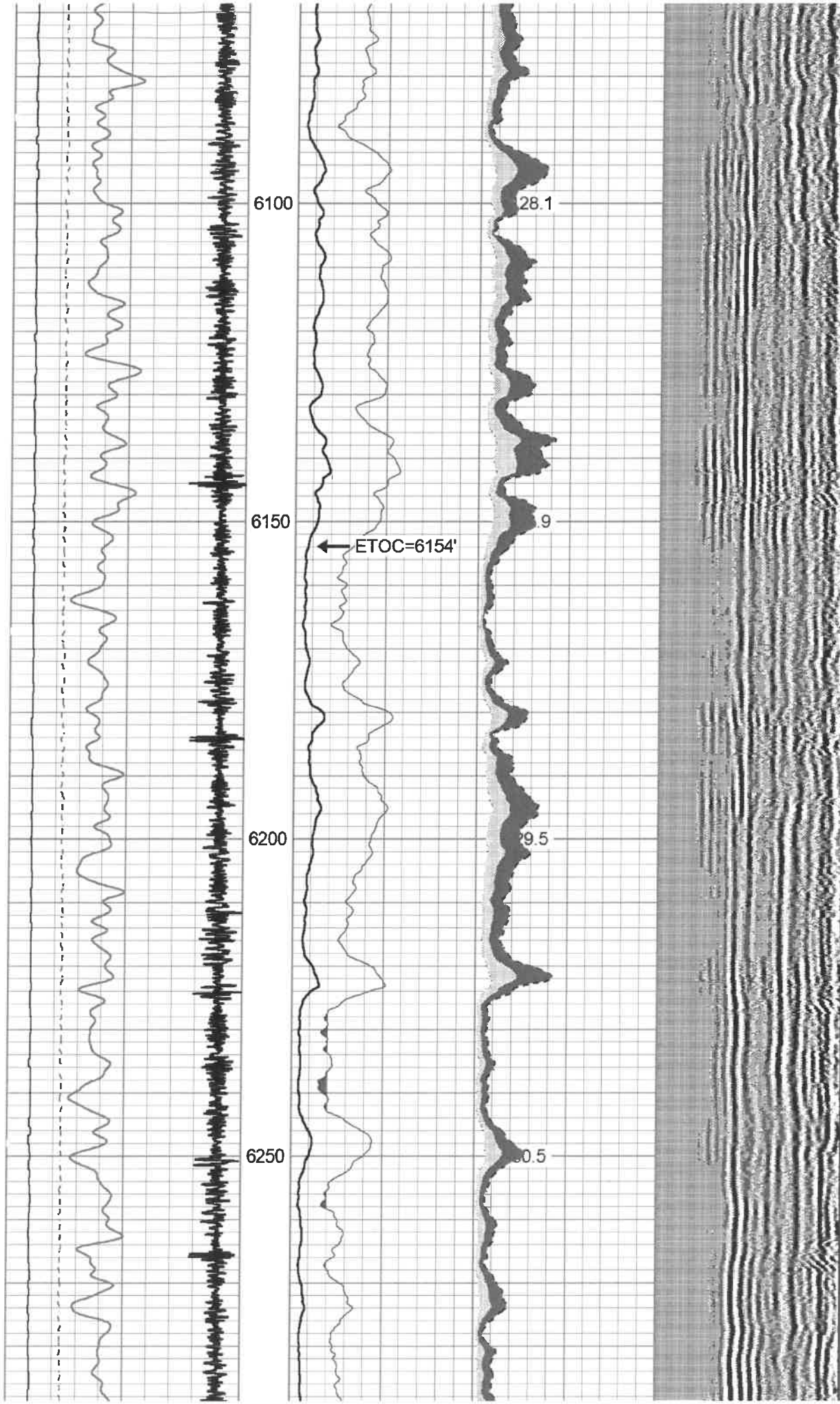
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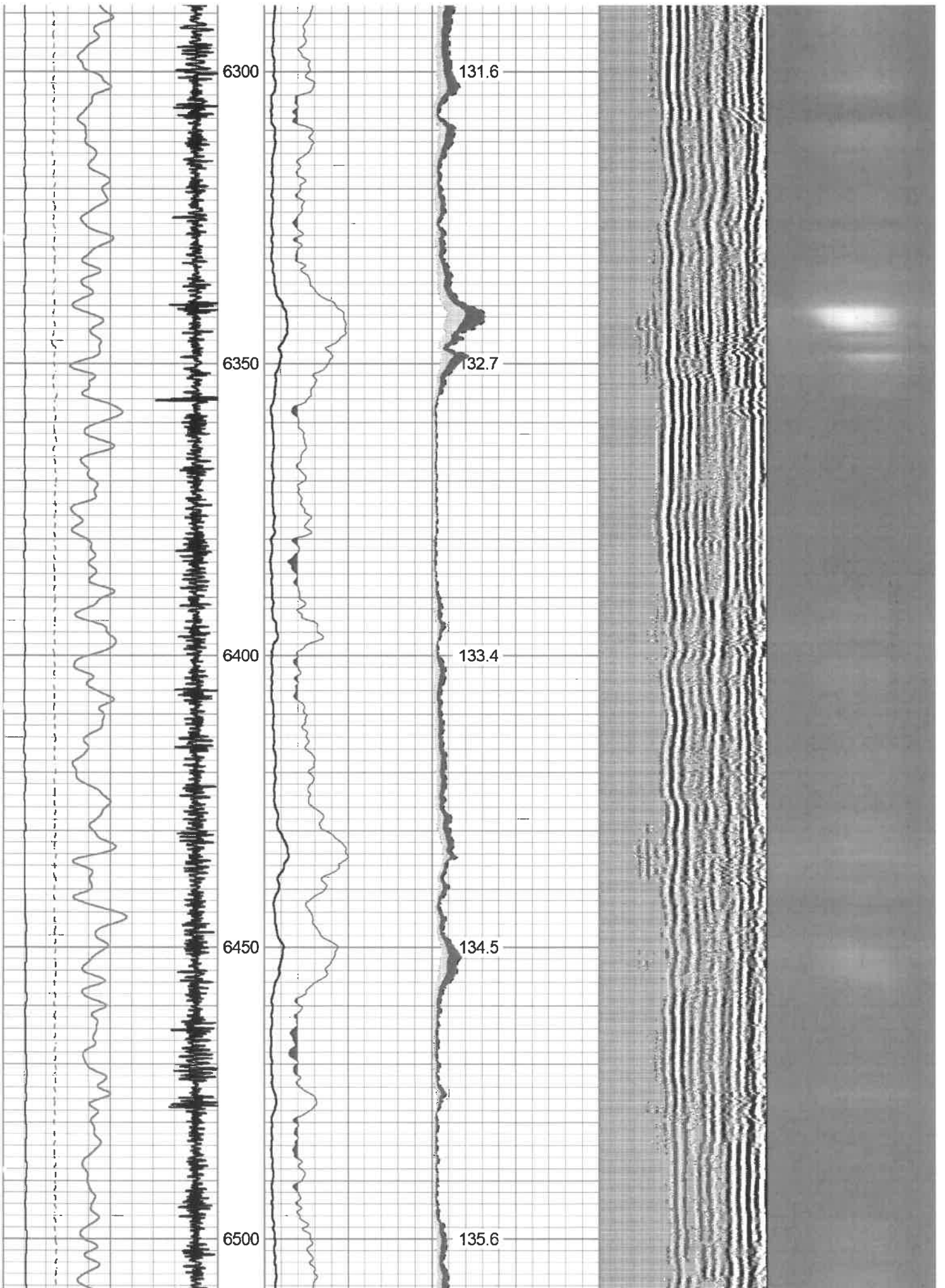


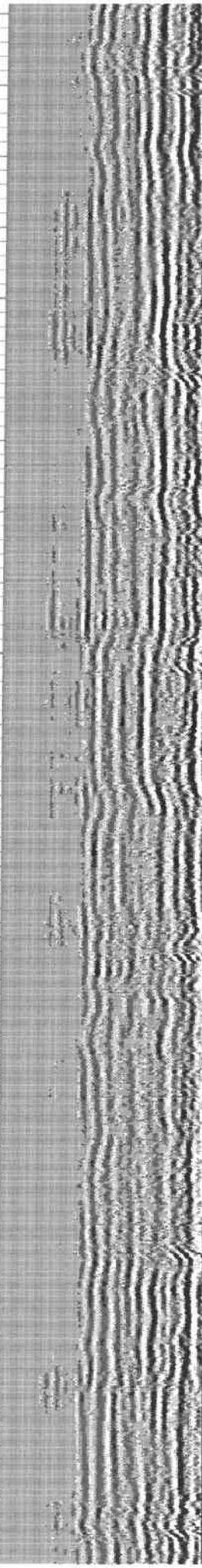
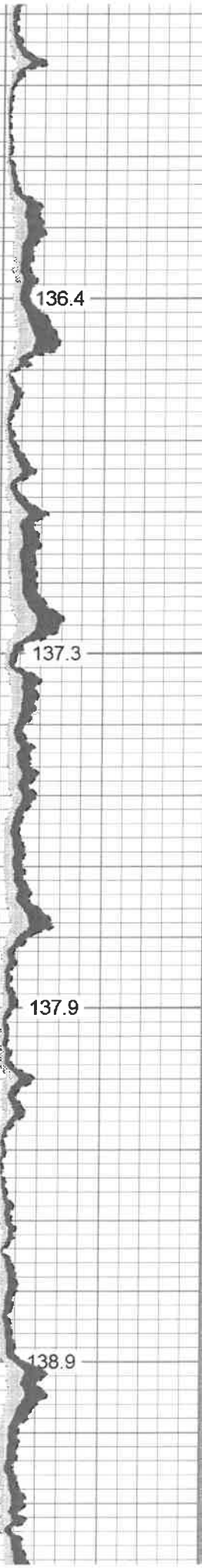
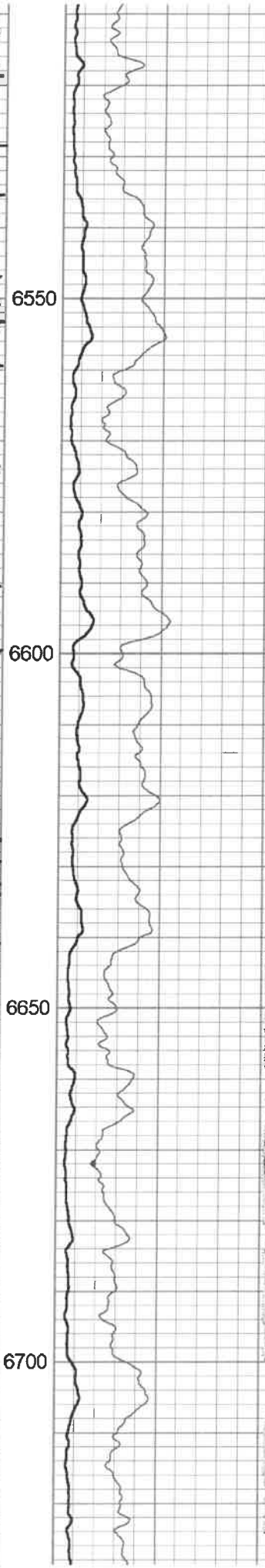
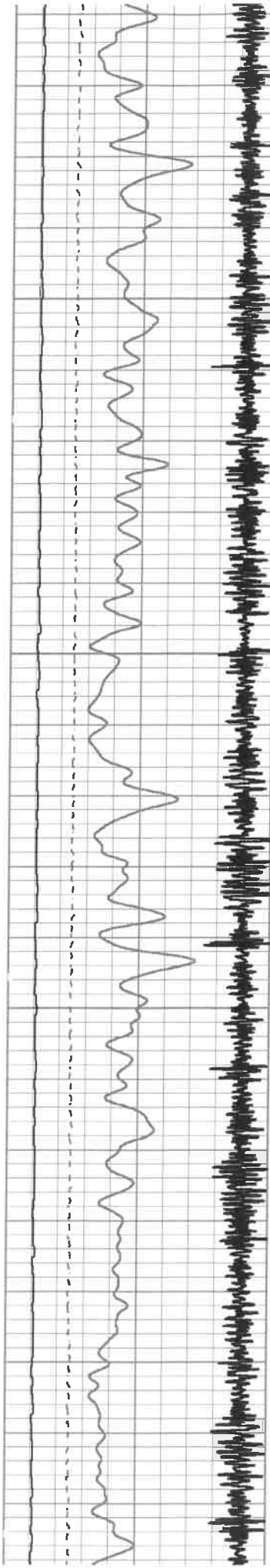
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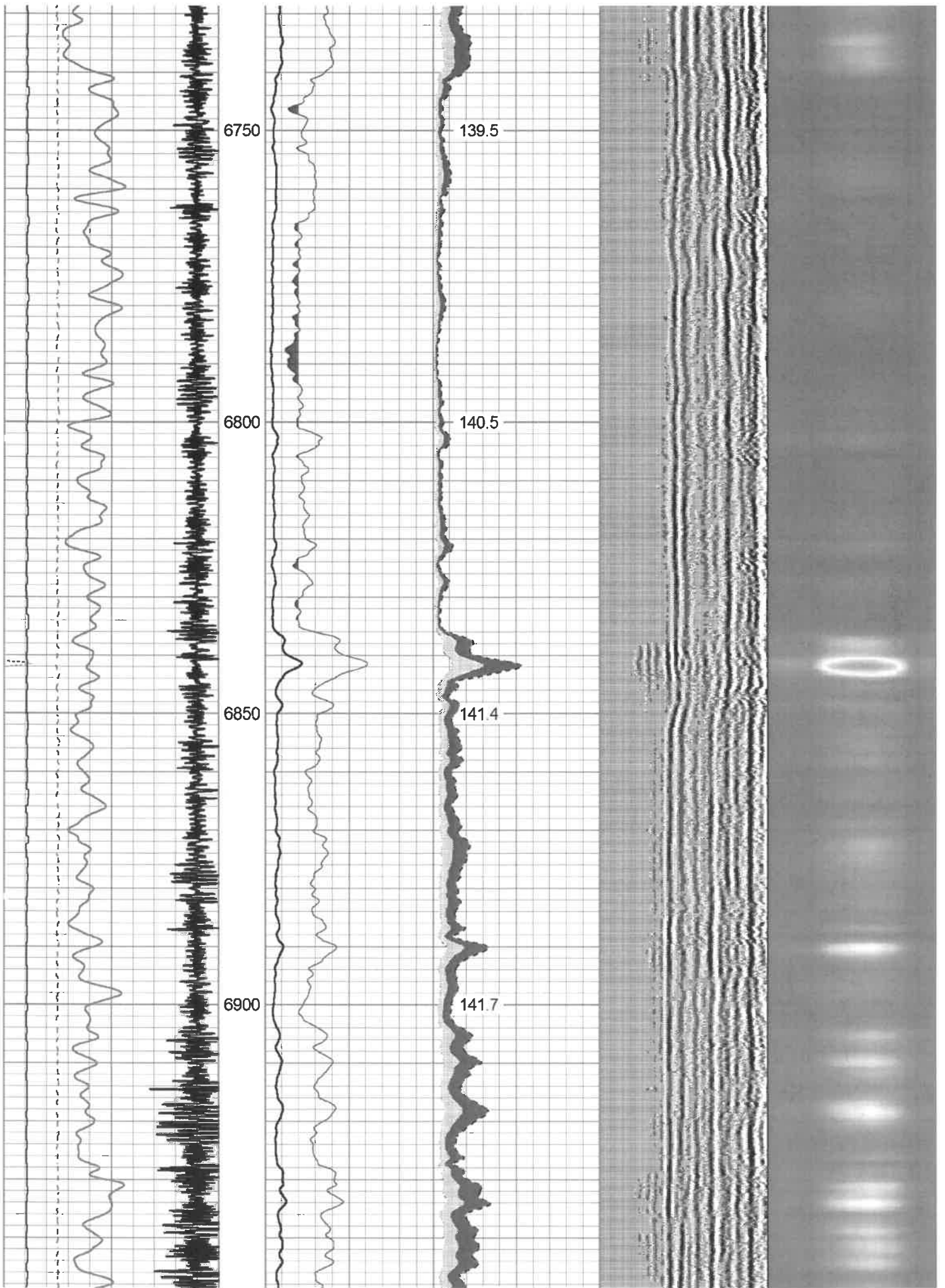


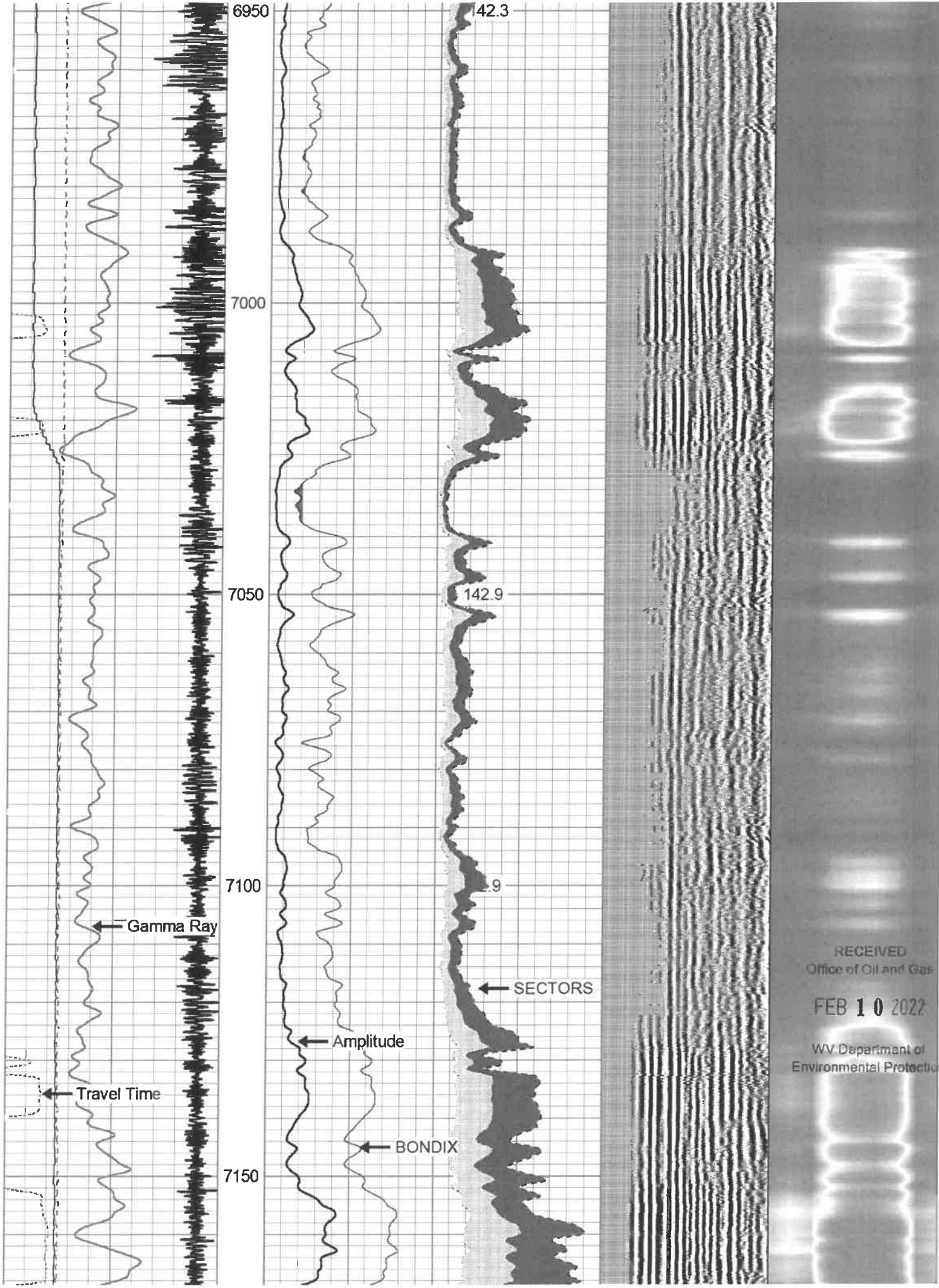
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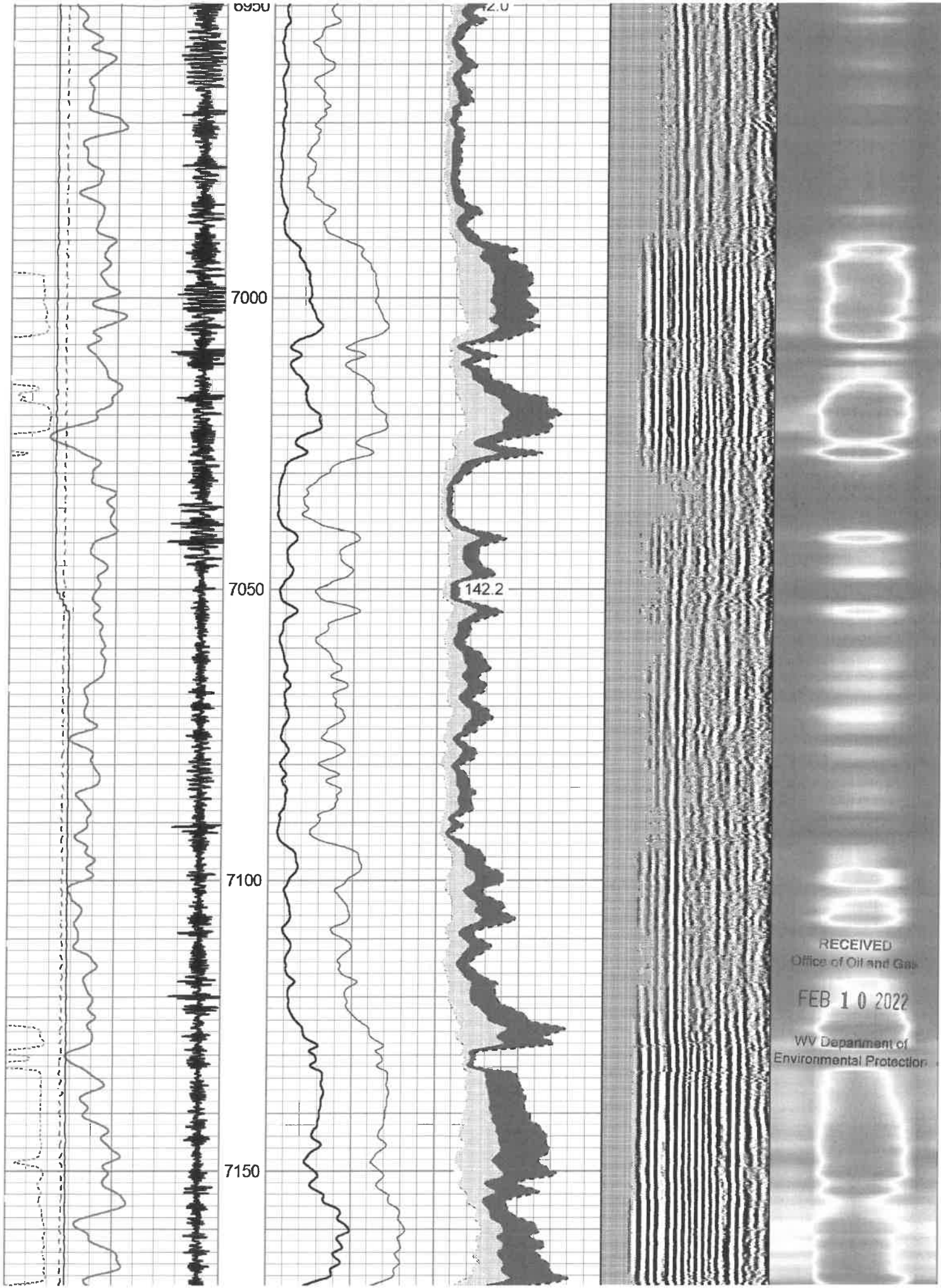




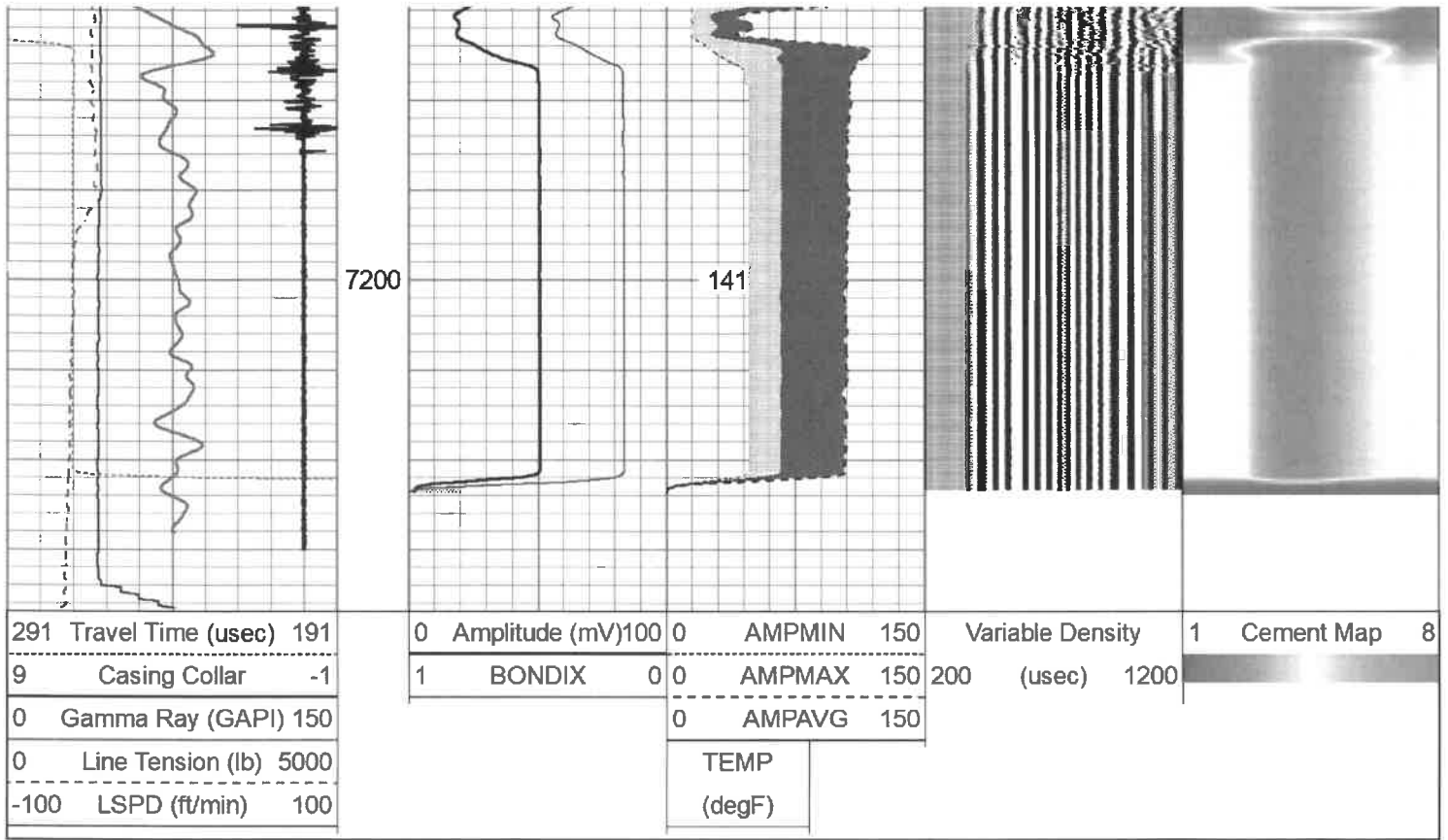
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Log Variables

Database: C:\ProgramData\Warrior\Data\antero_vishnu_2h_may_9_2021_rcbl.db
 Dataset: field/well/run1/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	20	71.9	2.2
MINATTN	PERFS	PPT	SRFTEMP	TDEPTH			
db/ft		usec	degF	ft			
0.8	No	261	0	0			

Variable Description

BHTEMP_Src : BHTEMP Input Source Selector
 BOREID : Borehole I.D.
 BOTTEMP : Bottom Hole Temperature
 CASEOD : Casing O.D.
 CASETHCK : Casing Thickness
 CASEWGHT : Casing Weight
 MAXAMPL : Maximum Amplitude

MINAMPL : Minimum Amplitude
 MINATTN : Minimum Attenuation
 PERFS : Perforation Flag
 PPT : Predicted Pipe Time
 SRFTEMP : Surface Temperature
 TDEPTH : Total Depth

Calibration Report

Database File: antero_vishnu_2h_may_9_2021_rcbl.db
 Dataset Pathname: MAIN
 Dataset Creation: Sun May 09 18:39:18 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: 311.617 ft

Master Calibration, performed Sun May 09 15:07:21 2021:

	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3'	0.001	0.908	2.200	71.921	76.880	2.151
CAL	0.001	0.754				
5'	0.001	0.914	2.200	71.921	76.322	2.130
SUM						
S1	0.001	1.474	0.000	71.921	48.844	-0.061
S2	0.001	1.124	0.000	71.921	64.046	-0.065
S3	0.001	0.936	0.000	71.921	76.876	-0.042
S4	0.001	1.000	0.000	71.921	72.016	-0.062
S5	0.001	1.011	0.000	71.921	71.239	-0.082
S6	0.001	0.929	0.000	71.921	77.479	-0.054
S7	0.001	0.943	0.000	71.921	76.339	-0.076
S8	0.001	1.303	0.000	71.921	55.213	-0.034

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

	Raw (v)		Calibrated (v)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
CAL	0.000	0.000	0.001	0.754	1.000	0.000

Air Zero Calibration, performed Sun May 09 11:29:49 2021:

	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

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Company ANTERO RESOURCES
 Well TAPEATS 1H
 Field RABBIT EARS

JM



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