



RADIAL BOND LOG WITH GAMMA RAY

MIDWEST WIRELINE

Comp. Black Oak Exploration, LLC		Company Black Oak Exploration, LLC	
Well Argabright #1-4		Well Argabright #1-4	
Field		Field	
Co. Rawlins		County Rawlins	
State Kansas		State Kansas	
Location:		API # : 15-153-21271-00-00	
2125 FSL & 2100 FEL		Other Services	
SEC 4 TWP 3S RGE 34W		Perforate	
Permanent Datum	Ground Level Elevation	2898	
Log Measured From	KB 5	Above Perm. Datum	
Drilling Measured From	Kelly Bushing	Elevation	
		K.B. 2903	
		D.F. G.L. 2898	
Date of Service	11/10/2021		
Run Number	One		
Depth Driller or PBTD	4540		
Depth Logger	4482		
Bottom Log Interval	4480		
Top Log Interval	0		
Open Hole Size	7.875		
Type Fluid	Water		
Fluid Level	Full		
Fluid Density			
Max. Recorded Temperature	121 Deg. F.		
Max. Wellhead Pressure	00 PSI		
Wellhead Connection	Flowtee		
Estimated Cement Top	Surface		
Unit Number	T-106		
Wireline Size	.288		
Location	Hays, KS		
Recorded By	M. Hiss		
Witnessed By	Clayton Camozzi		
Tubing Record	Size	Wt/Ft	Top
Surface Casing	8.625	23#	00
Production Casing	5.5	15.5	00
Liner Record			TD

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All interpretations are opinions based on inferences from electrical or other measurements and Midwest Wireline LLC cannot and does not guarantee the accuracy or correctness of any interpretation, and Midwest Wireline LLC will not 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.

Comments

N/A DENOTES NOT AVAILABLE OR NON-APPLICABLE.

Atwood Kansas,
West to Rd 16, 2 North, 1/2 West,
North Into.

THANK YOU FOR USING MIDWEST WIRELINE LLC!

Your Midwest Wireline Crew	Tool Data - Services	Serial Number
Engineer: M. Hiss Operator: J. Begler Operator: Operator:		

Company	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb)
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Log Variables

DatabaseC:\ProgramData\Warrior\Data\black_oak_argabright_#1_4_scbl.db
Dataset field/well/run1/pass3/_vars_

Top - Bottom

BOREID in 7.875	BOTTEMP degF 121	CASEOD in 5.5	CASETHCK in 0.275	CASEWGHT lb/ft 15.5	MAXAMPL mV 0	MINAMPL mV 1	MINATTN db/ft 0.08
NPORSEL Limestone	NPORSHIFT 0	PERFS 0	PPT usec 0	SRFTEMP degF 50	TDEPTH ft 4482		

Variable Description

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
NPORSEL : Neutron Porosity Curve Select
NPORSHIFT : NPORSHIFT
PERFS : Perforation Flag
PPT : Predicted Pipe Time
SRFTEMP : Surface Temperature
TDEPTH : Total Depth

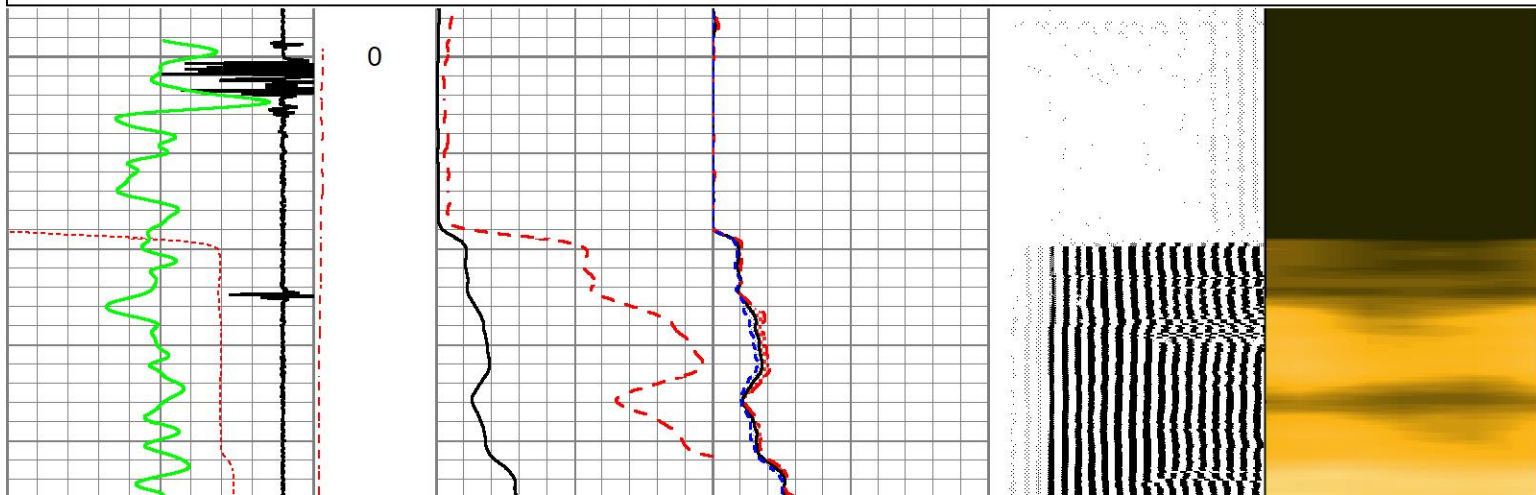


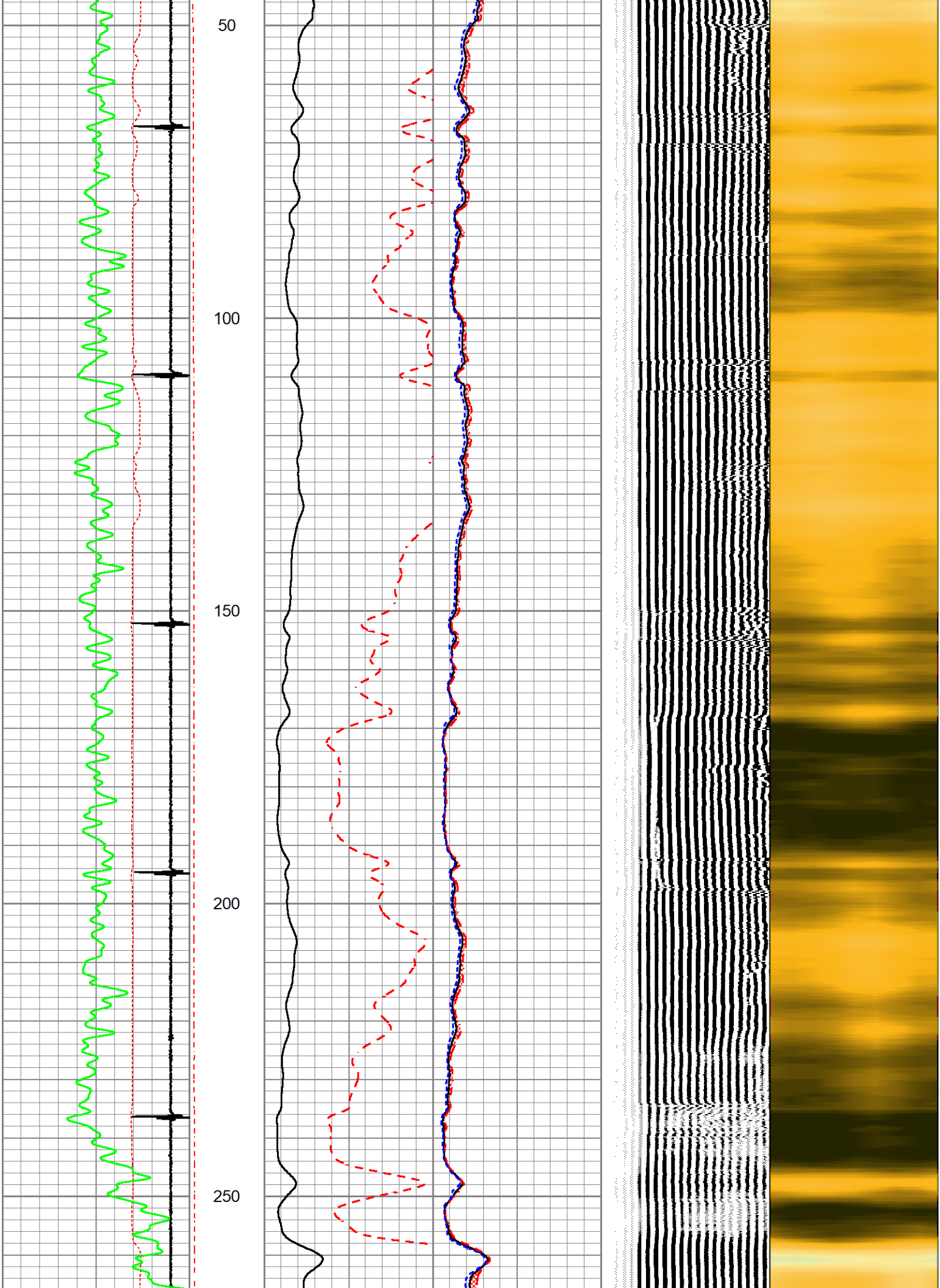
MAIN LOG

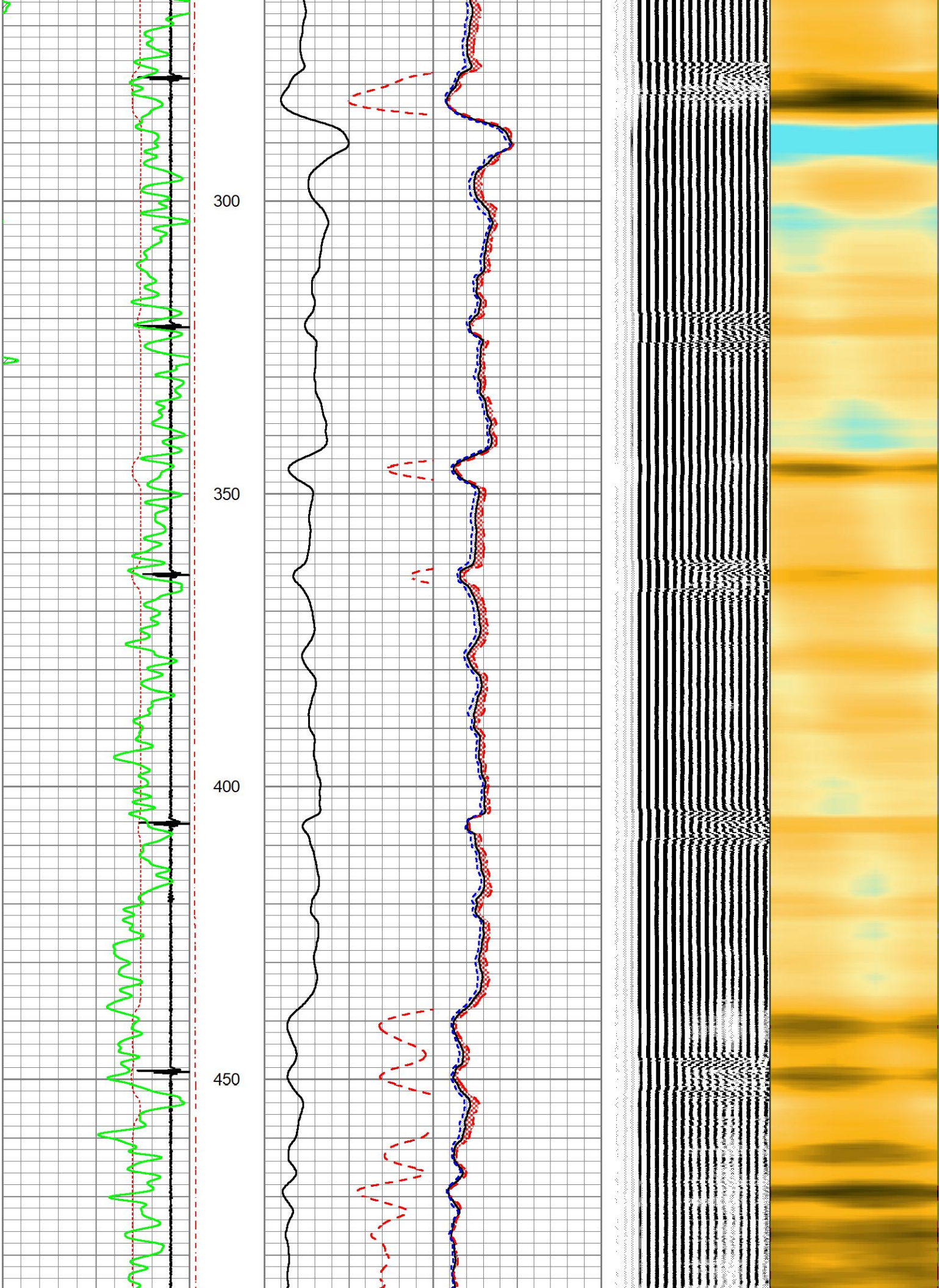
ZERO PSI APPLIED AT SURFACE

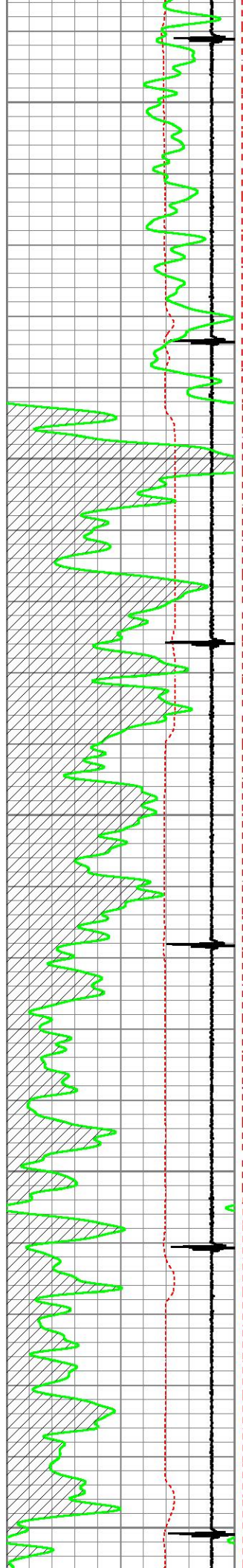
Database File black_oak_argabright_#1_4_scbl.db
Dataset Pathname pass3.1
Presentation Format pinr_scbl
Dataset Creation Wed Nov 10 10:56:36 2021
Charted by Depth in Feet scaled 1:240

3' Travel Time	Line Tension	3' Amplitude (mV)	Sector Amplitude Average	200 VDL (usec) 1200	1	Sector Map	8
1000 (usec)	0	0 (12000)	0				
-9 Collar Locator	1	3' Amplified Amplitude X 5	0				
0 Gamma Ray	150	0 (mV)	0				
			150				
			Sector Amplitude Maximum				
			0				
			150				
			Sector Amplitude Minimum				
			0				
			150				









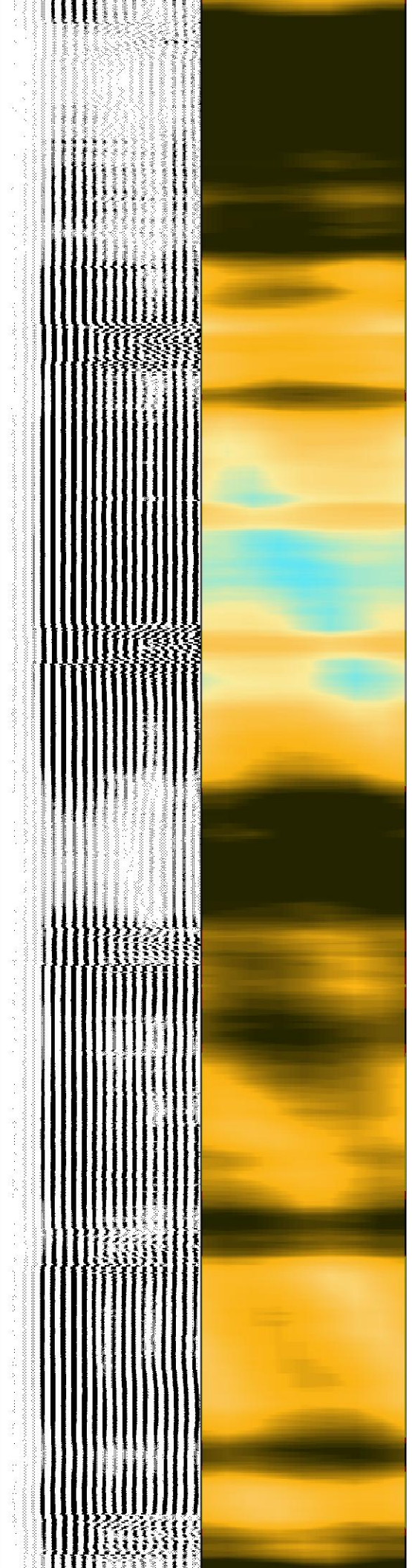
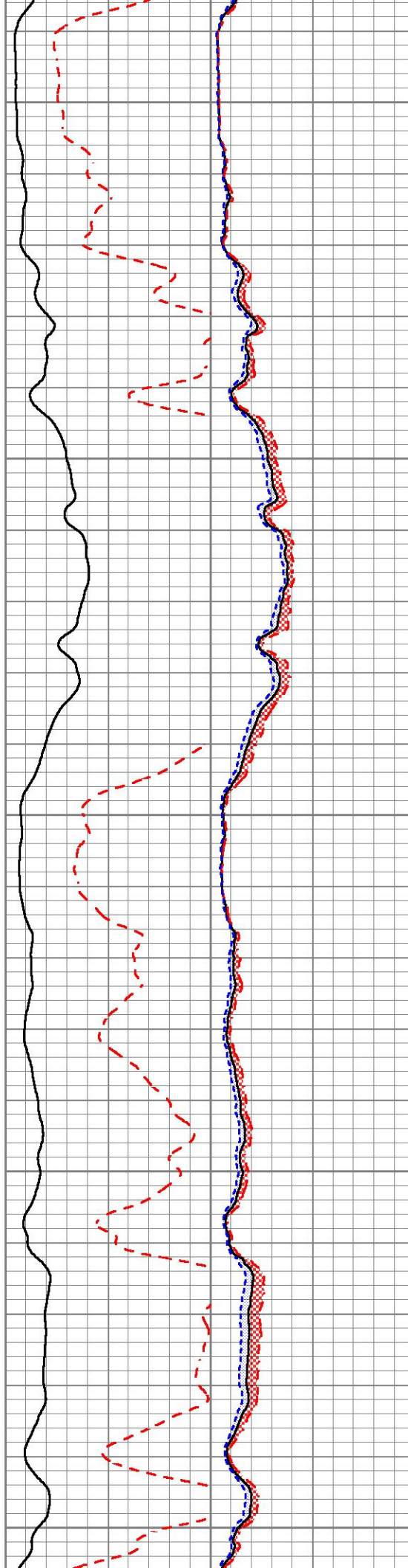
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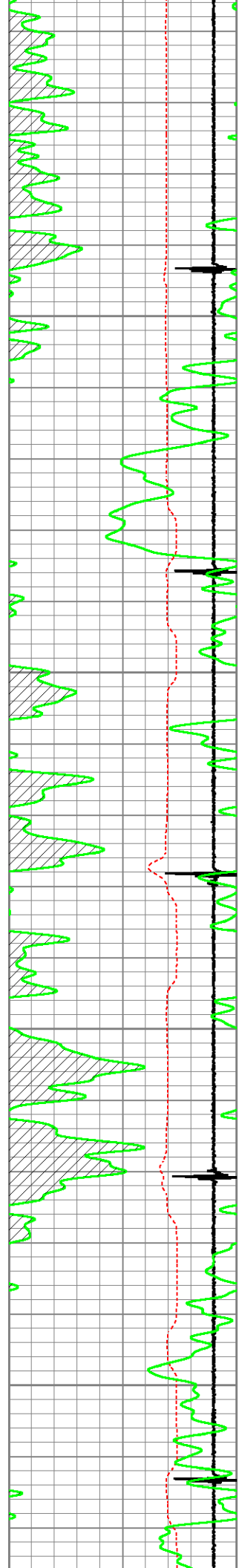
550

600

650

700



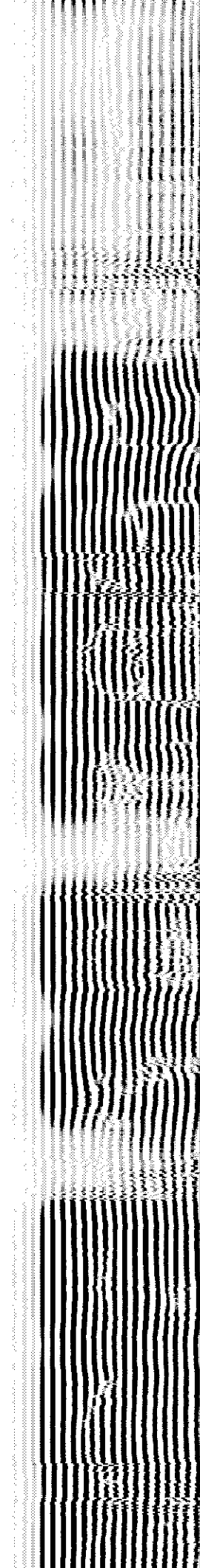
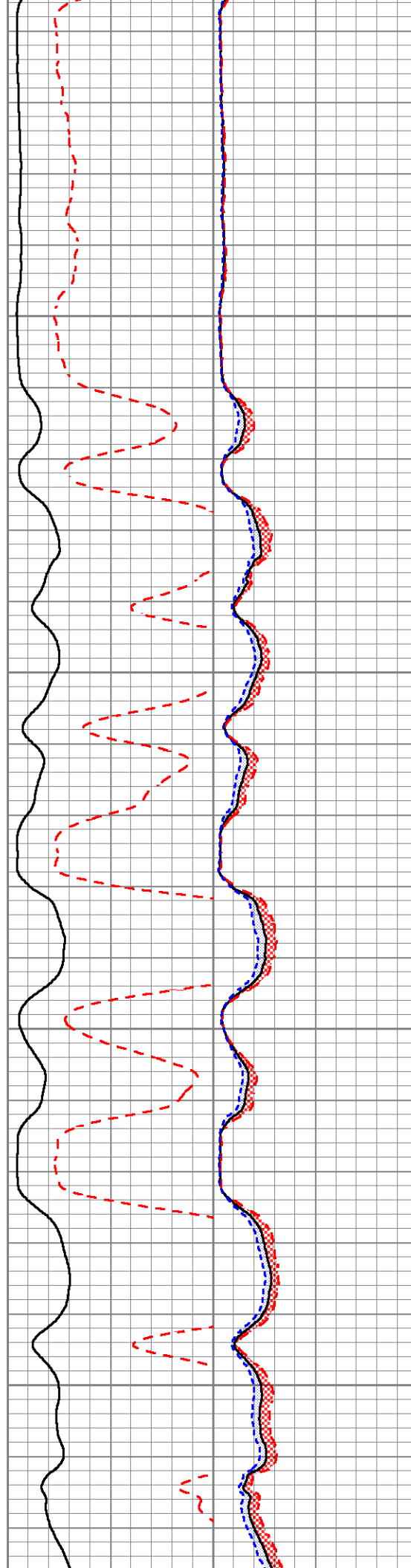


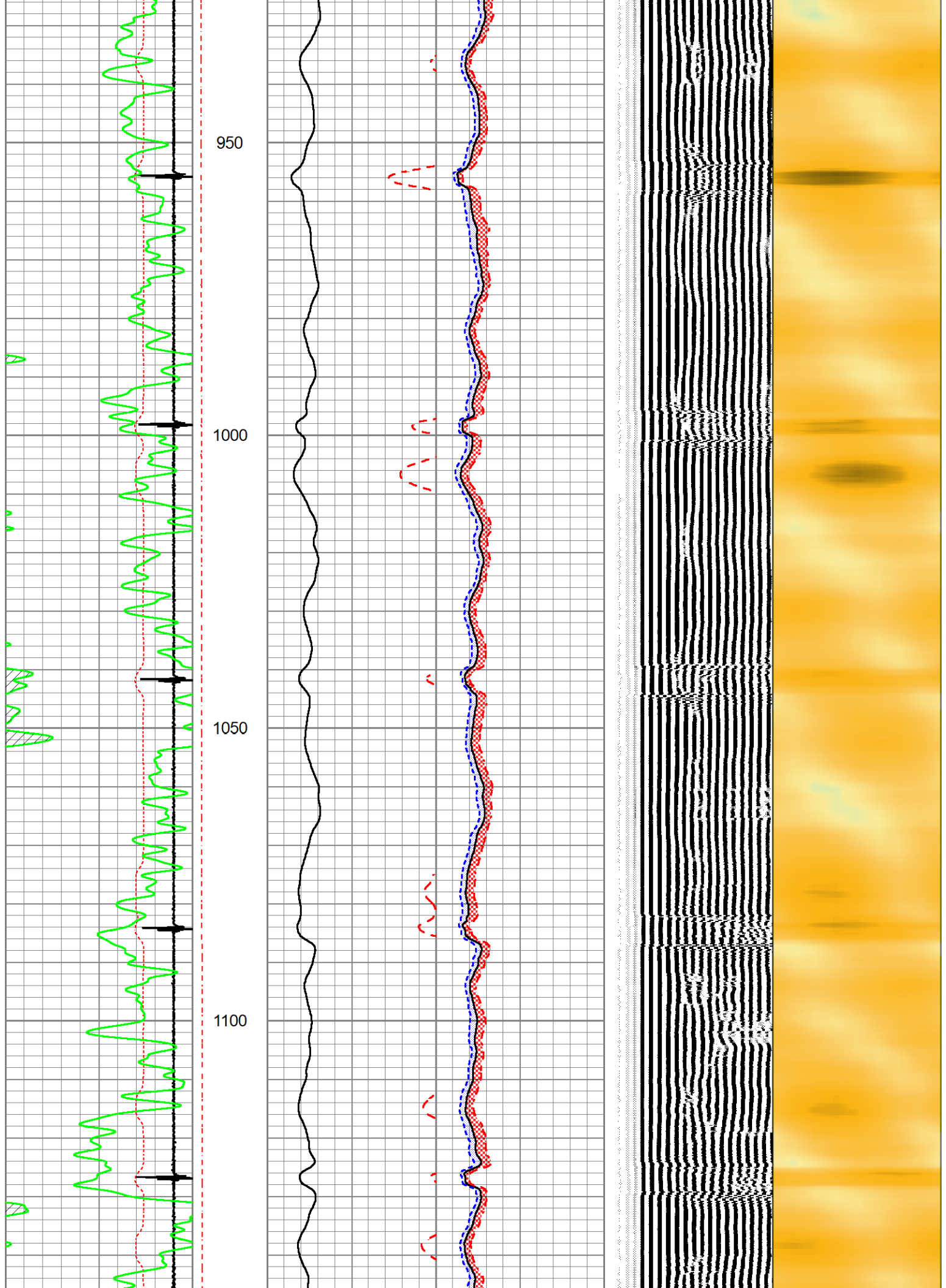
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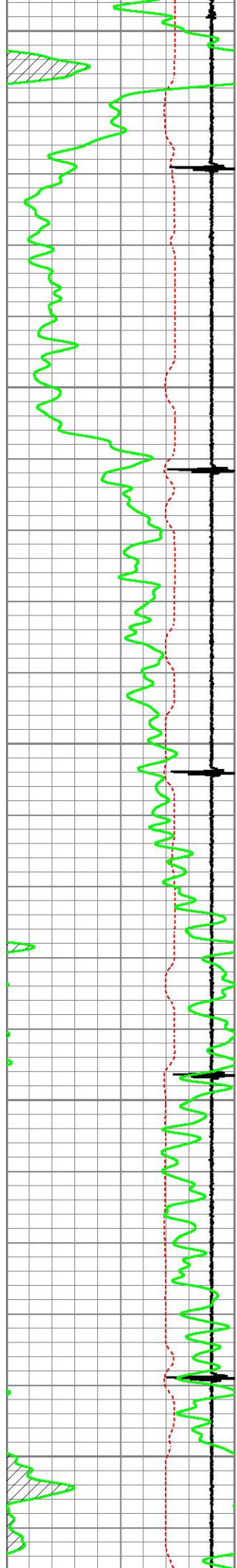
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850

900







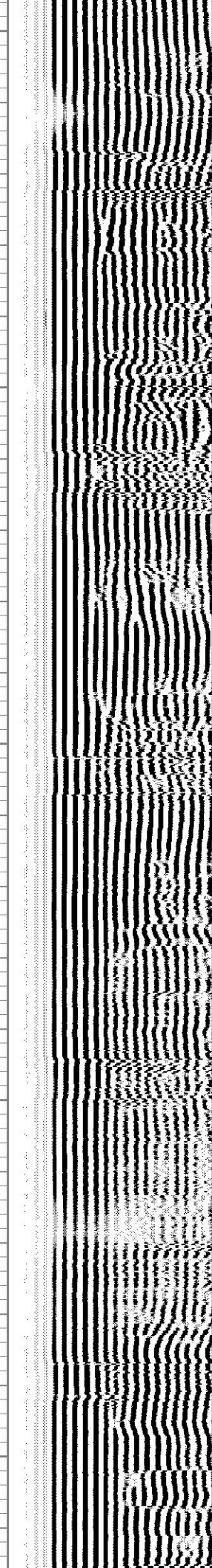
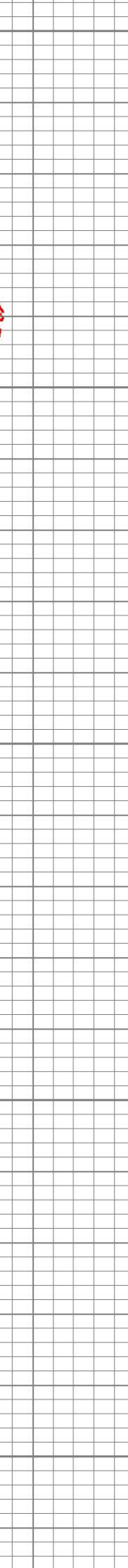
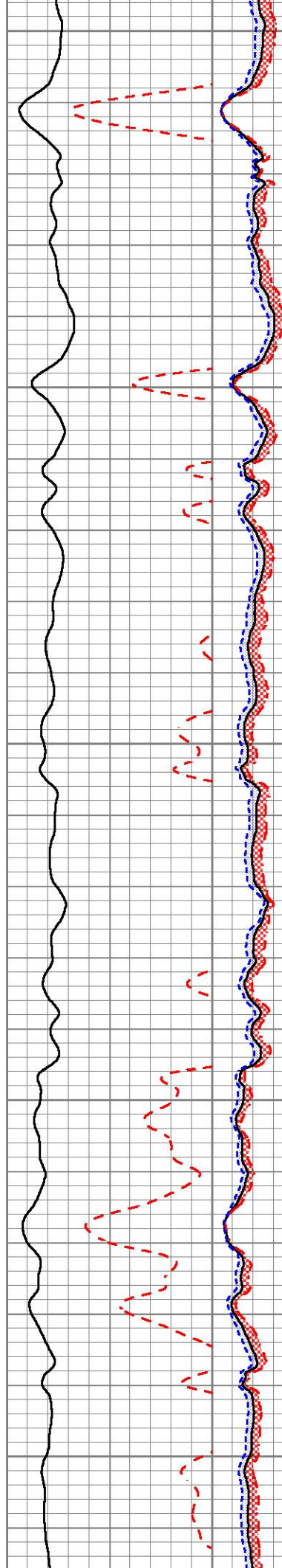
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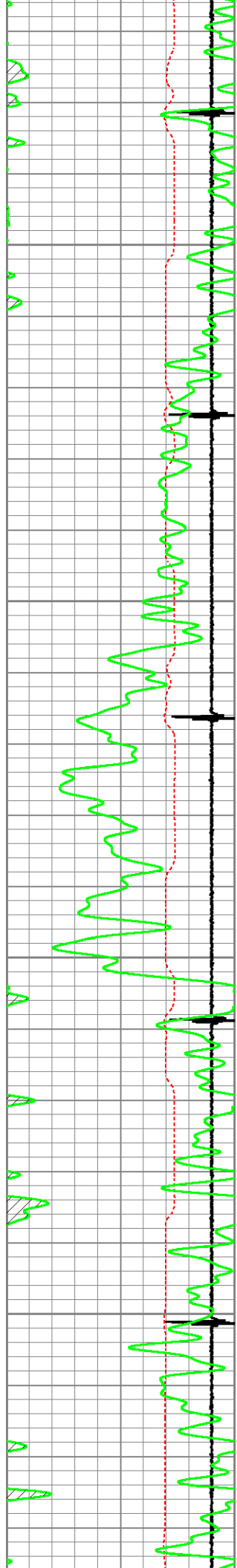
1200

1250

1300

1350



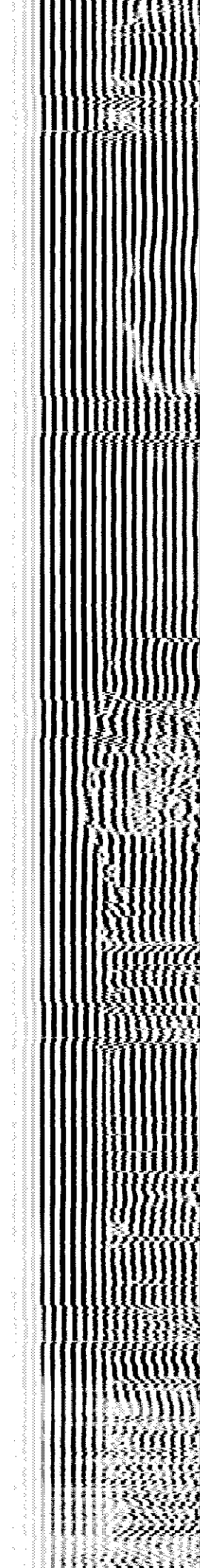
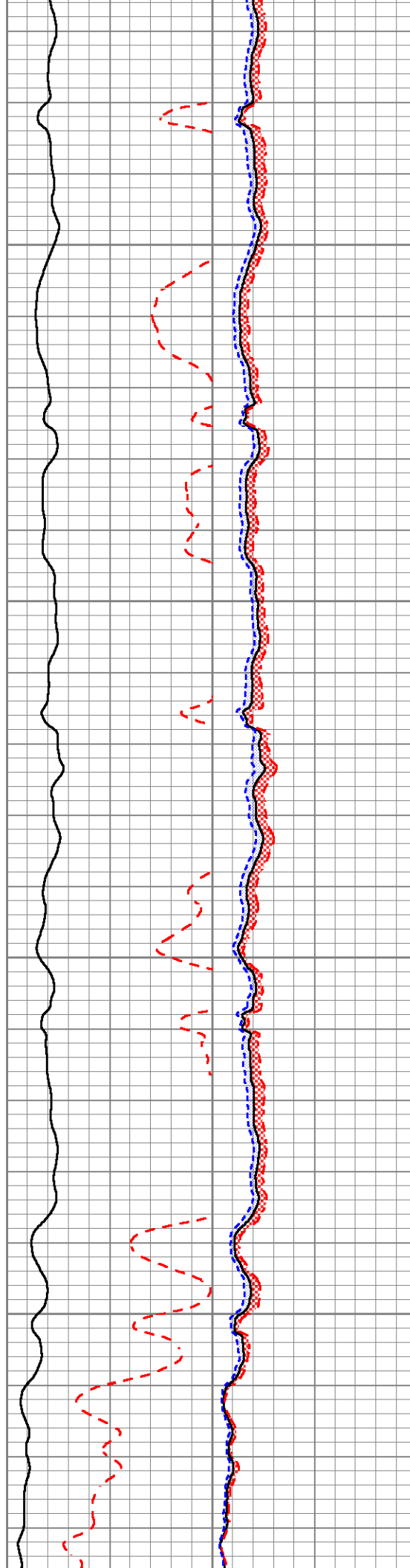


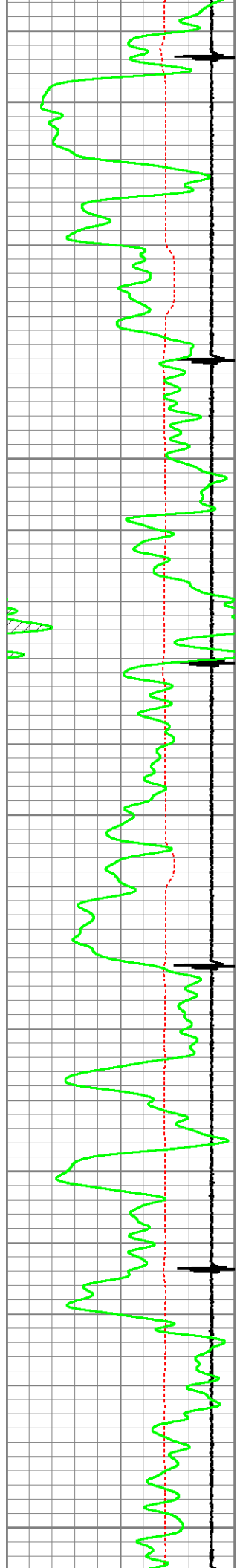
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1450

1500

1550





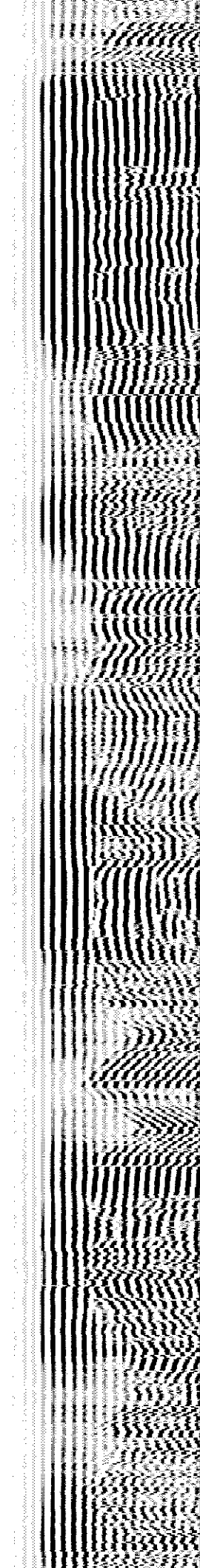
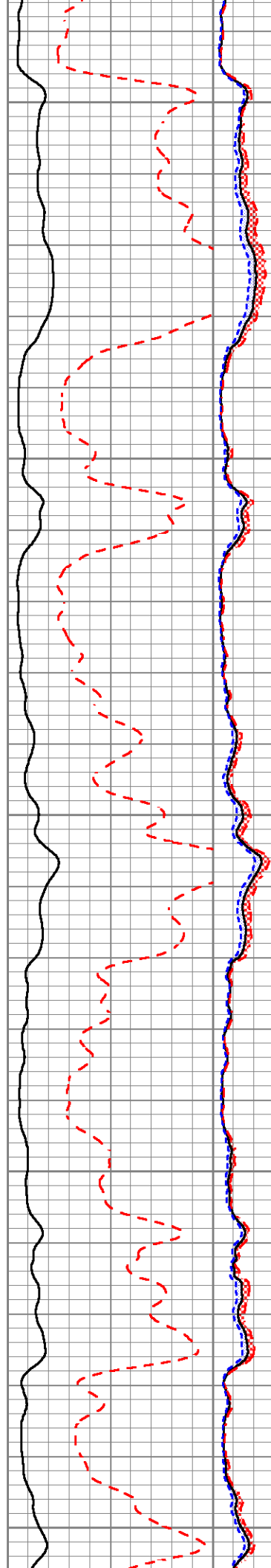
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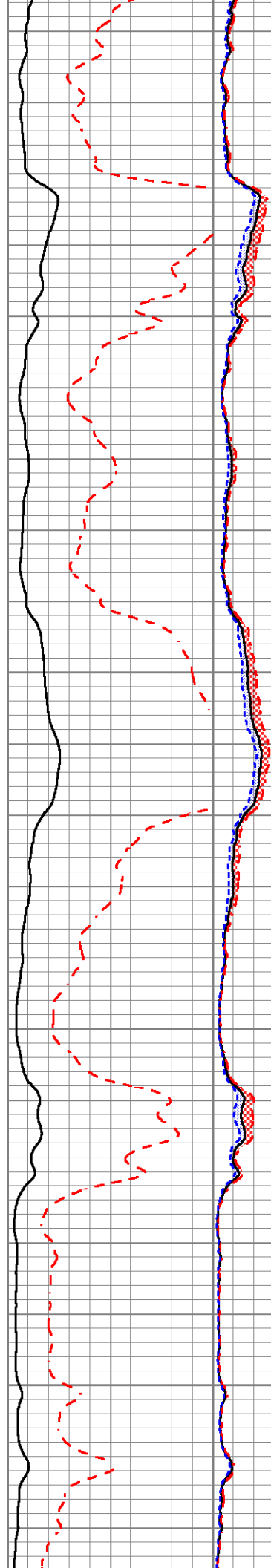
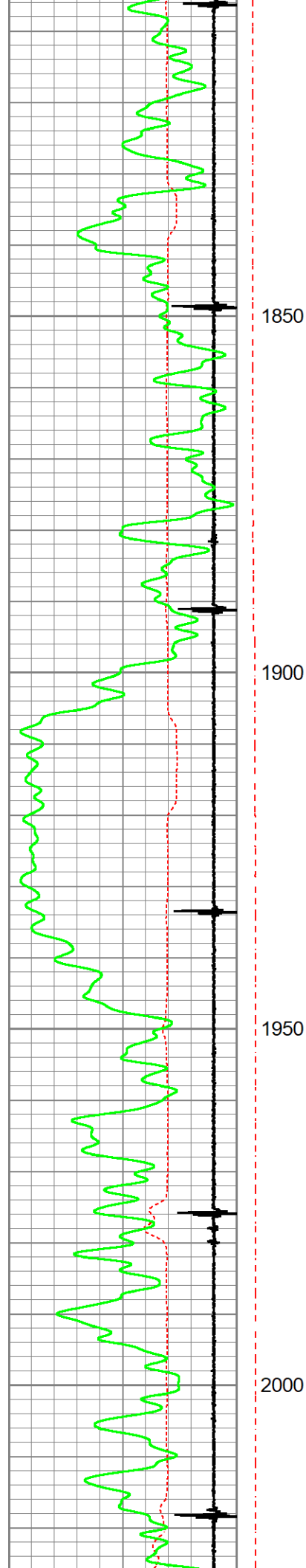
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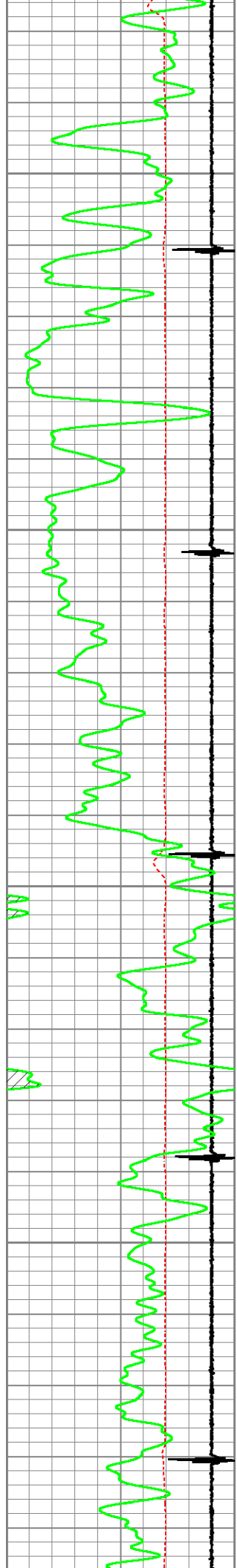
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1750

1800





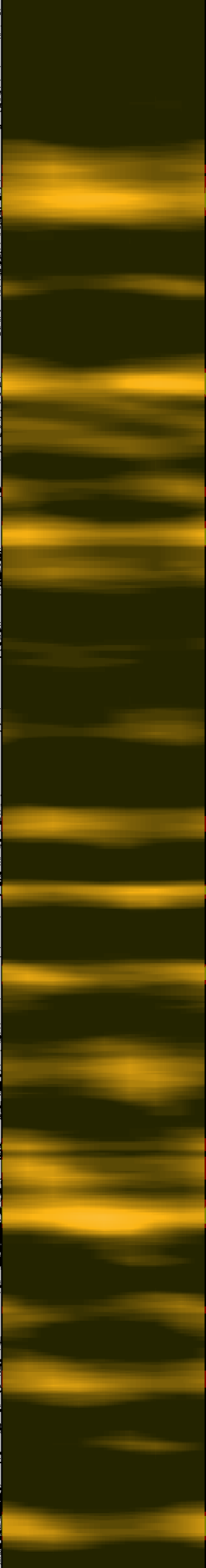
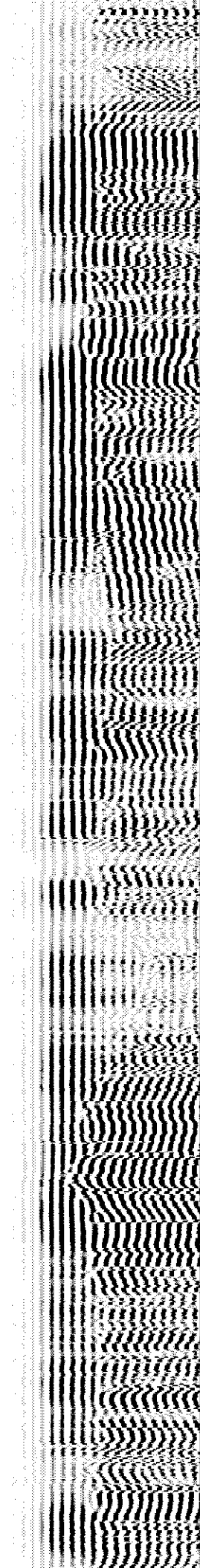
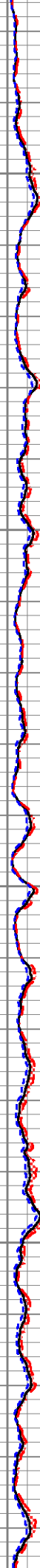
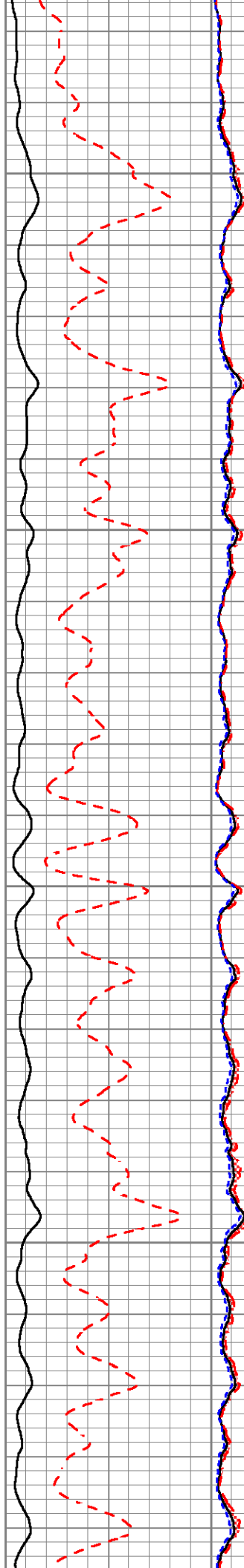


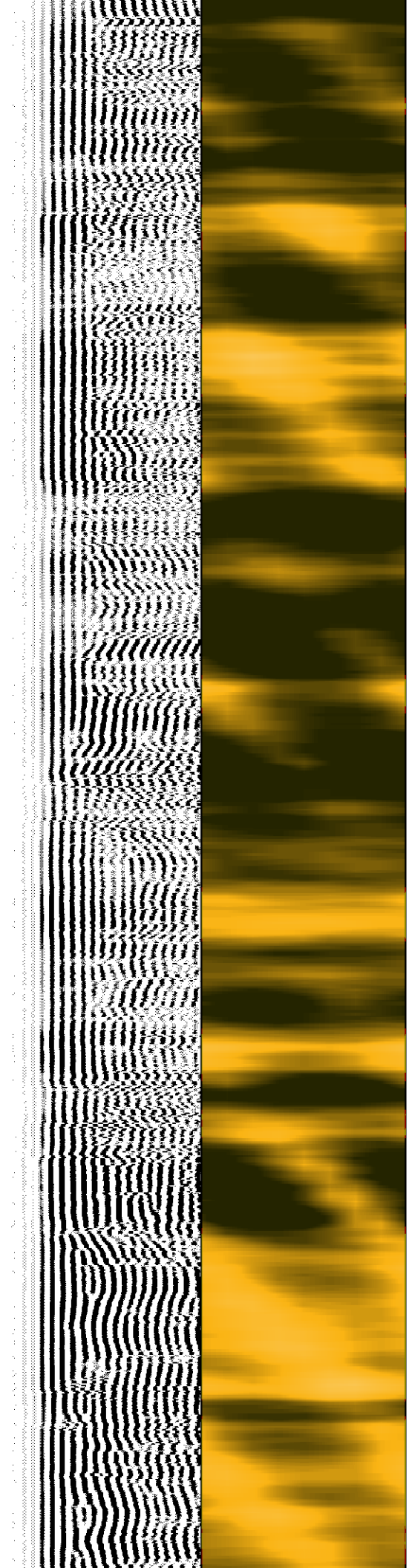
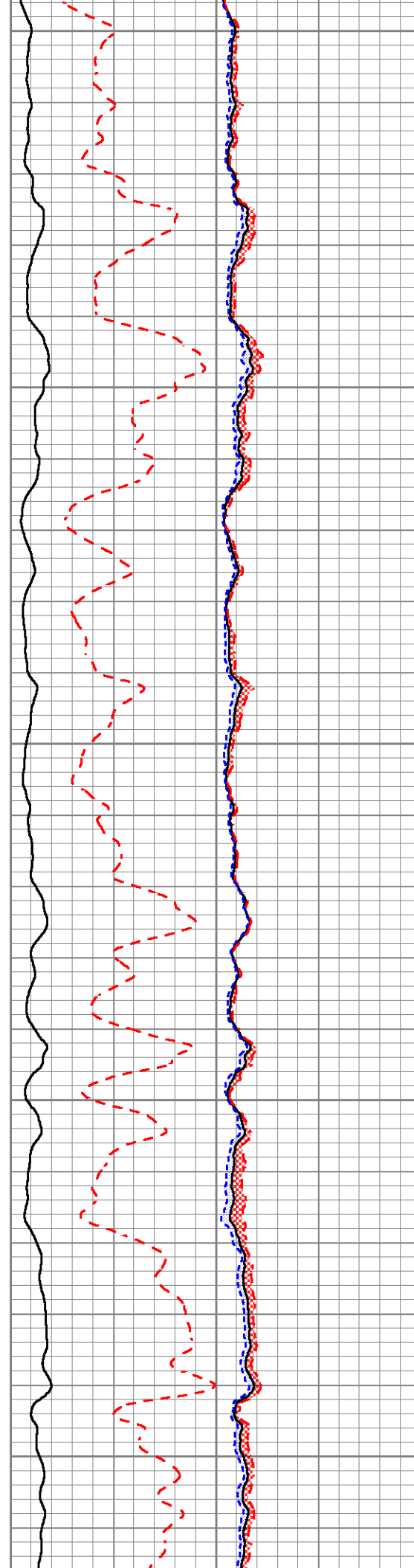
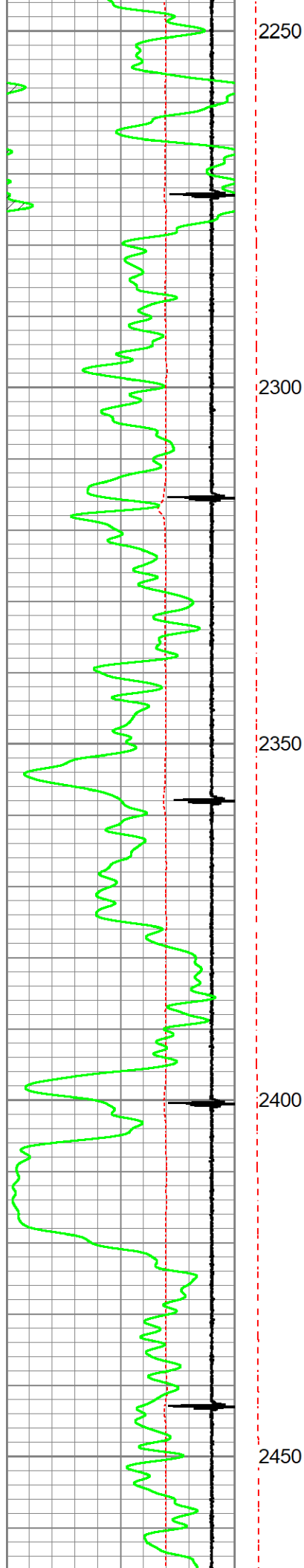
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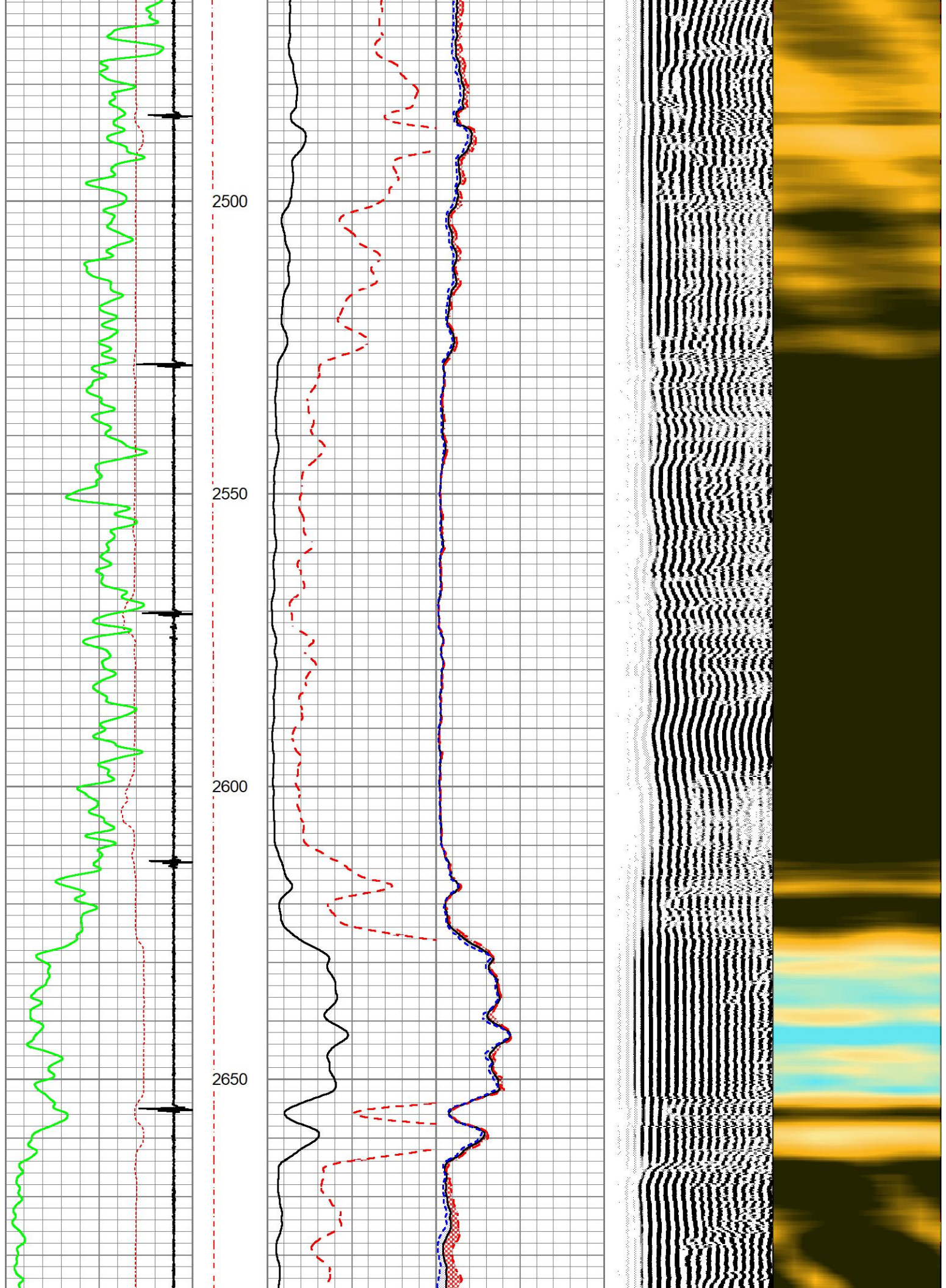
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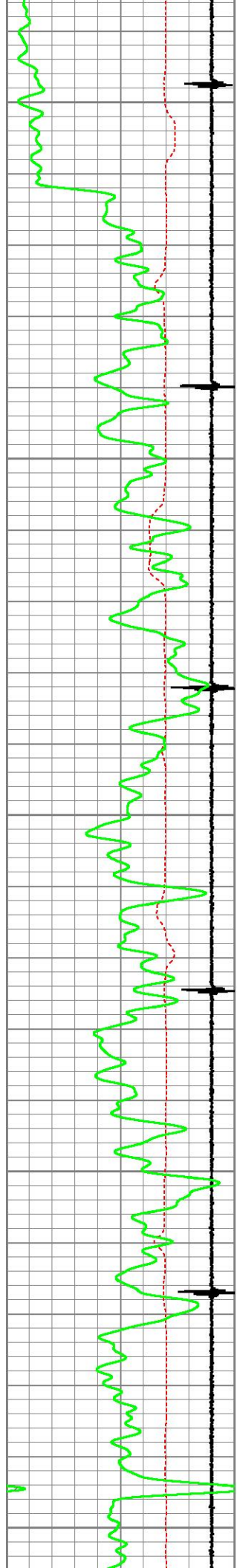
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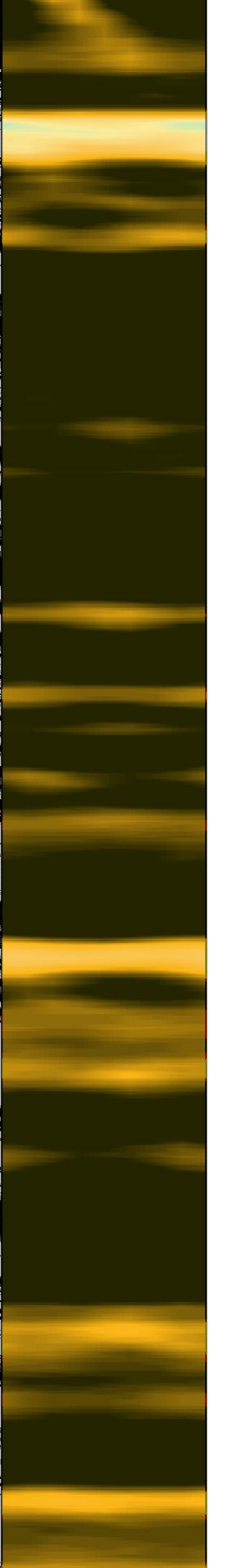
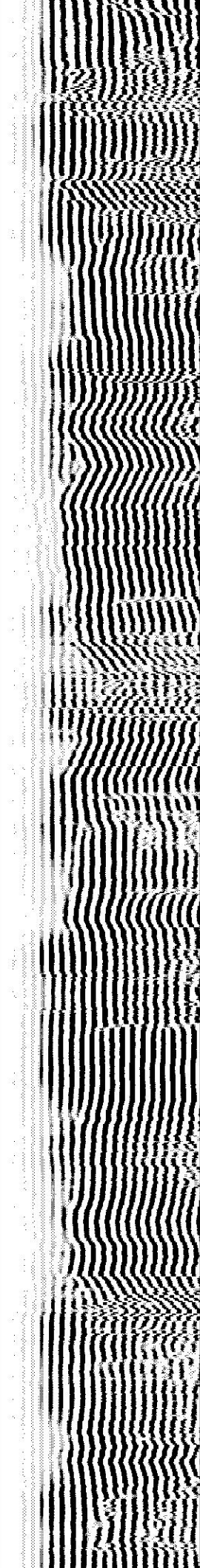
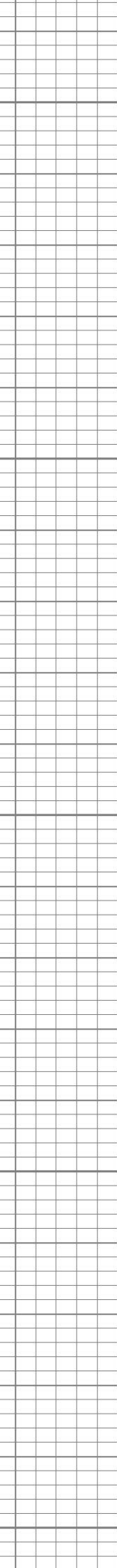
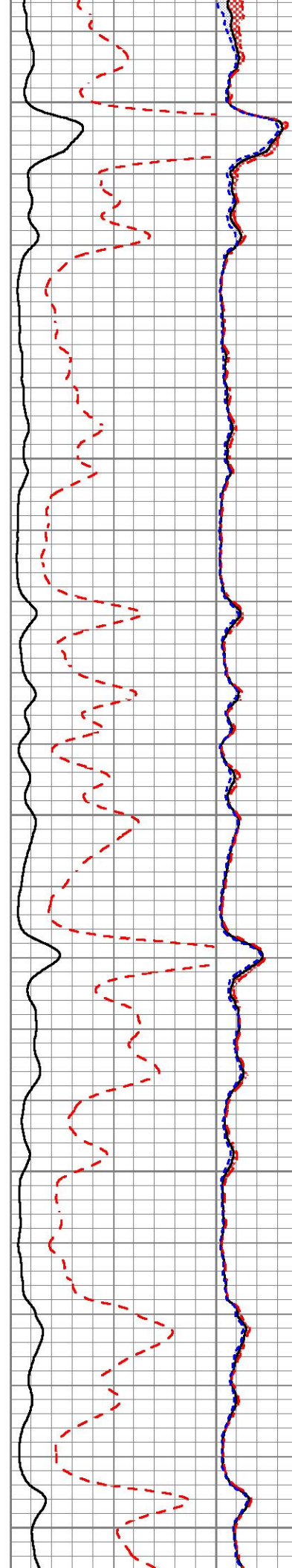
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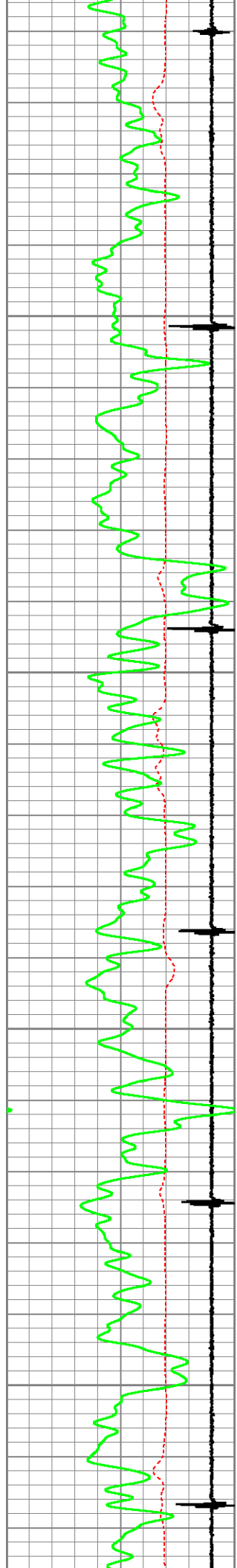
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2800

2850

2900



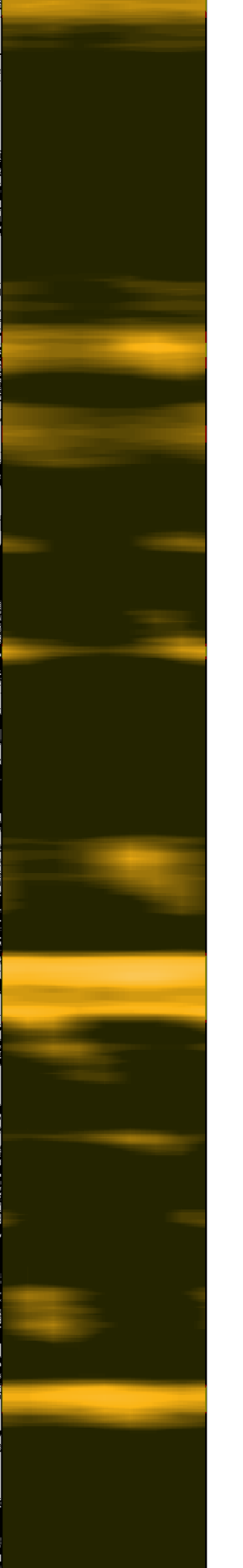
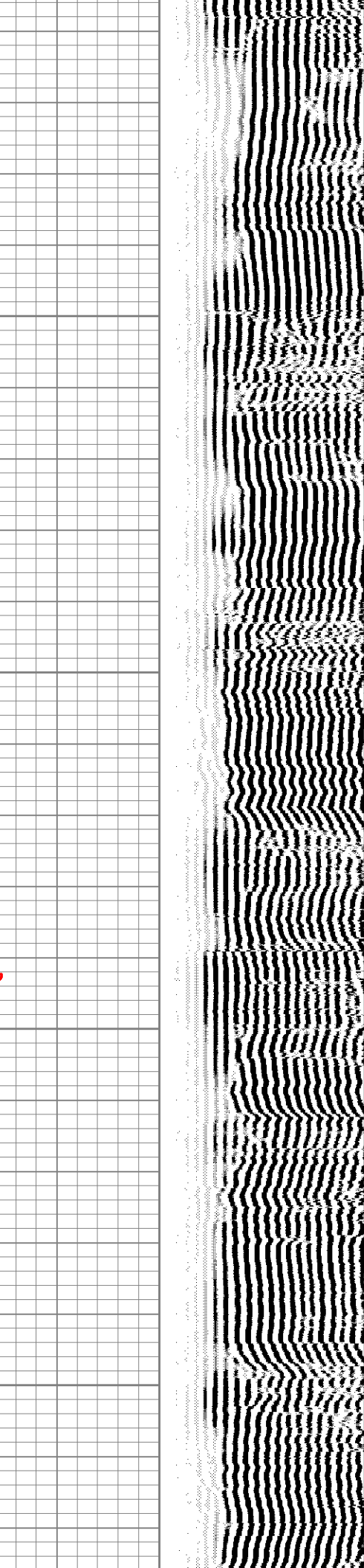
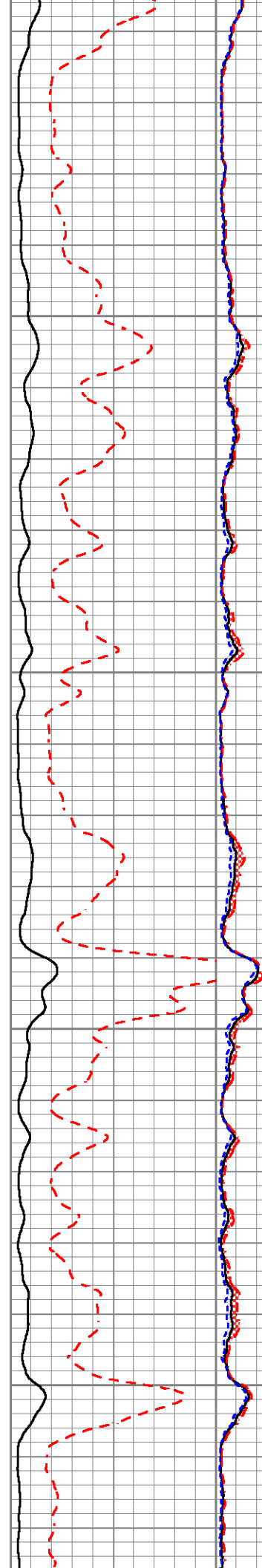


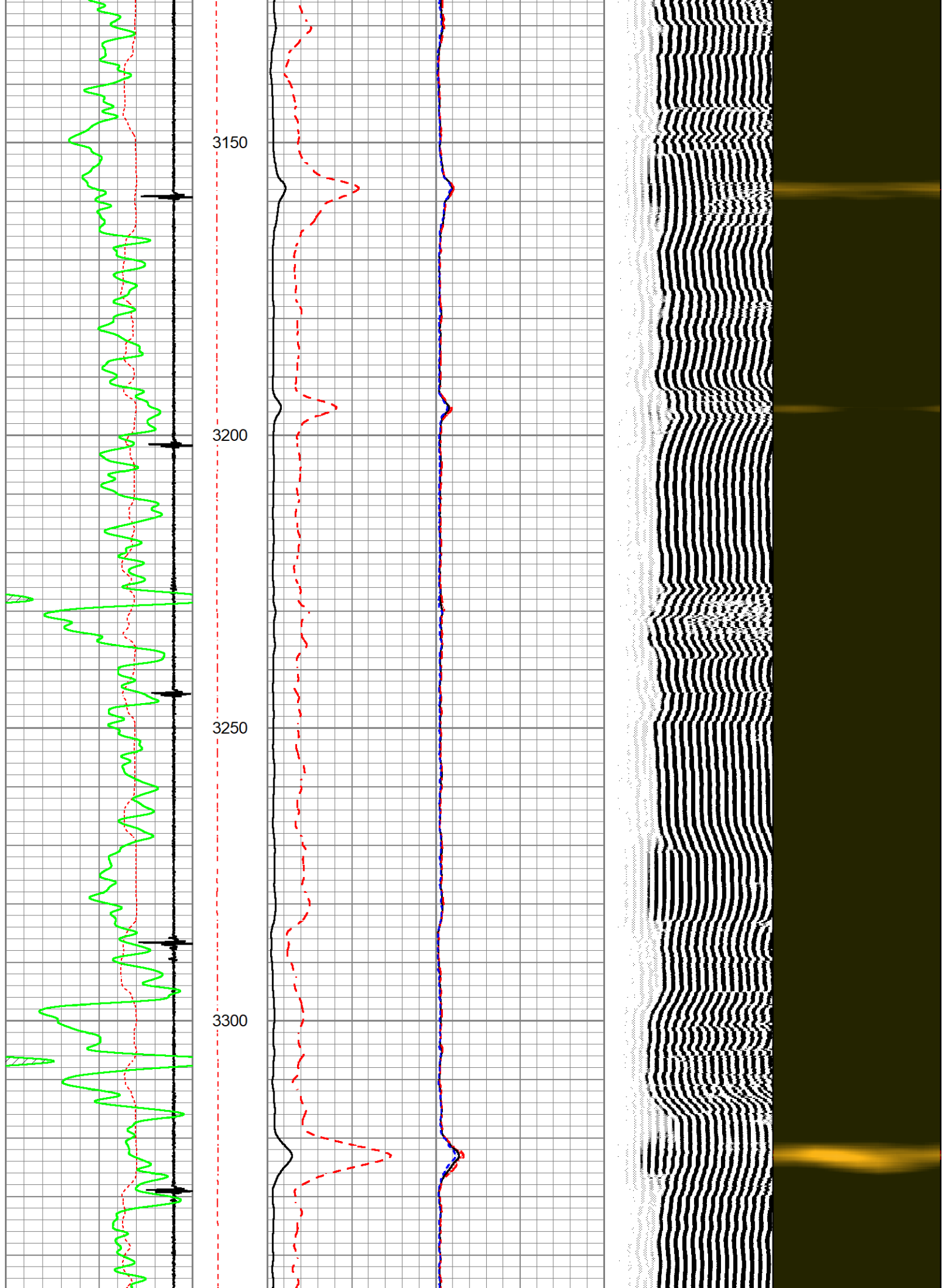
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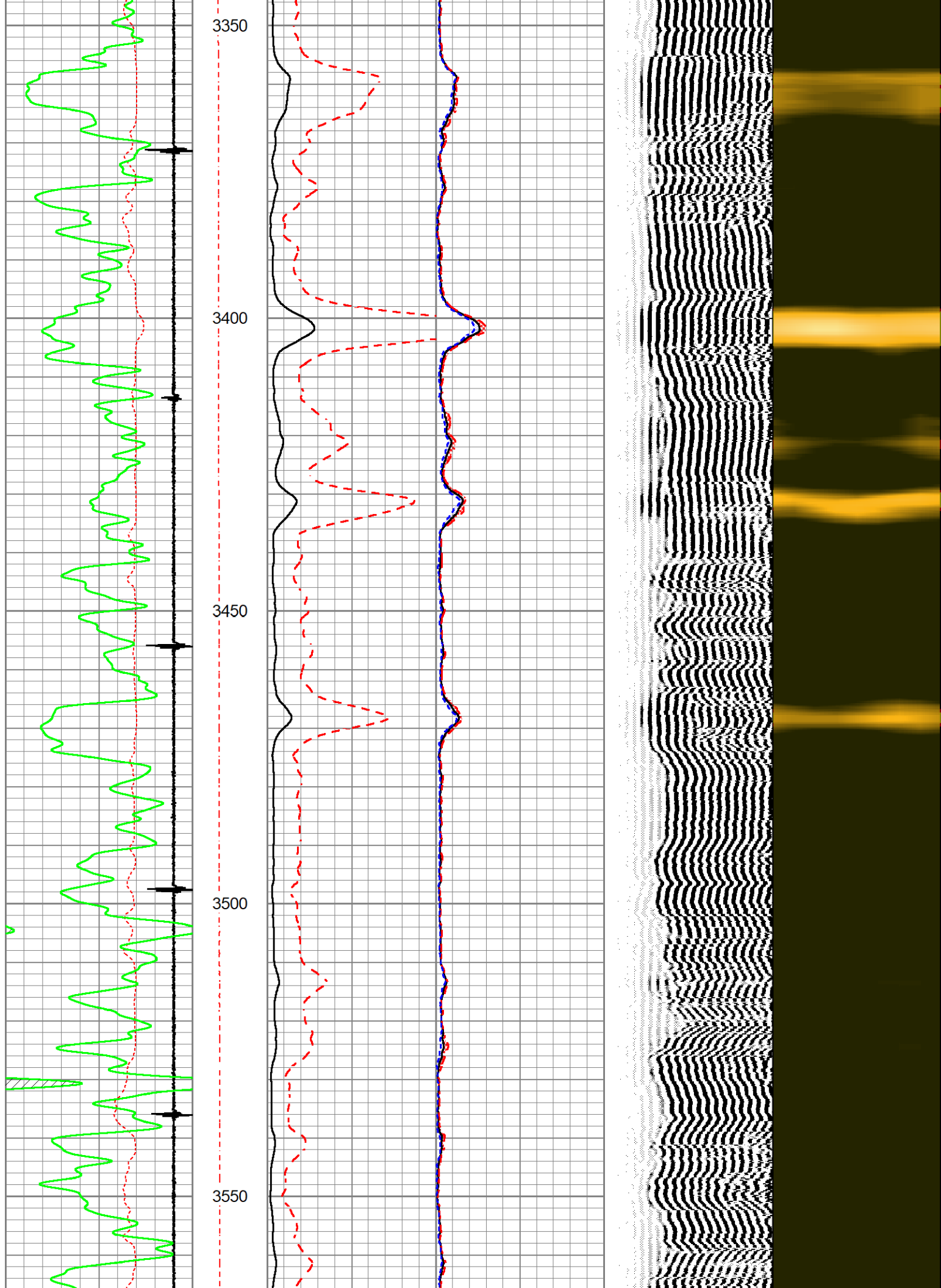
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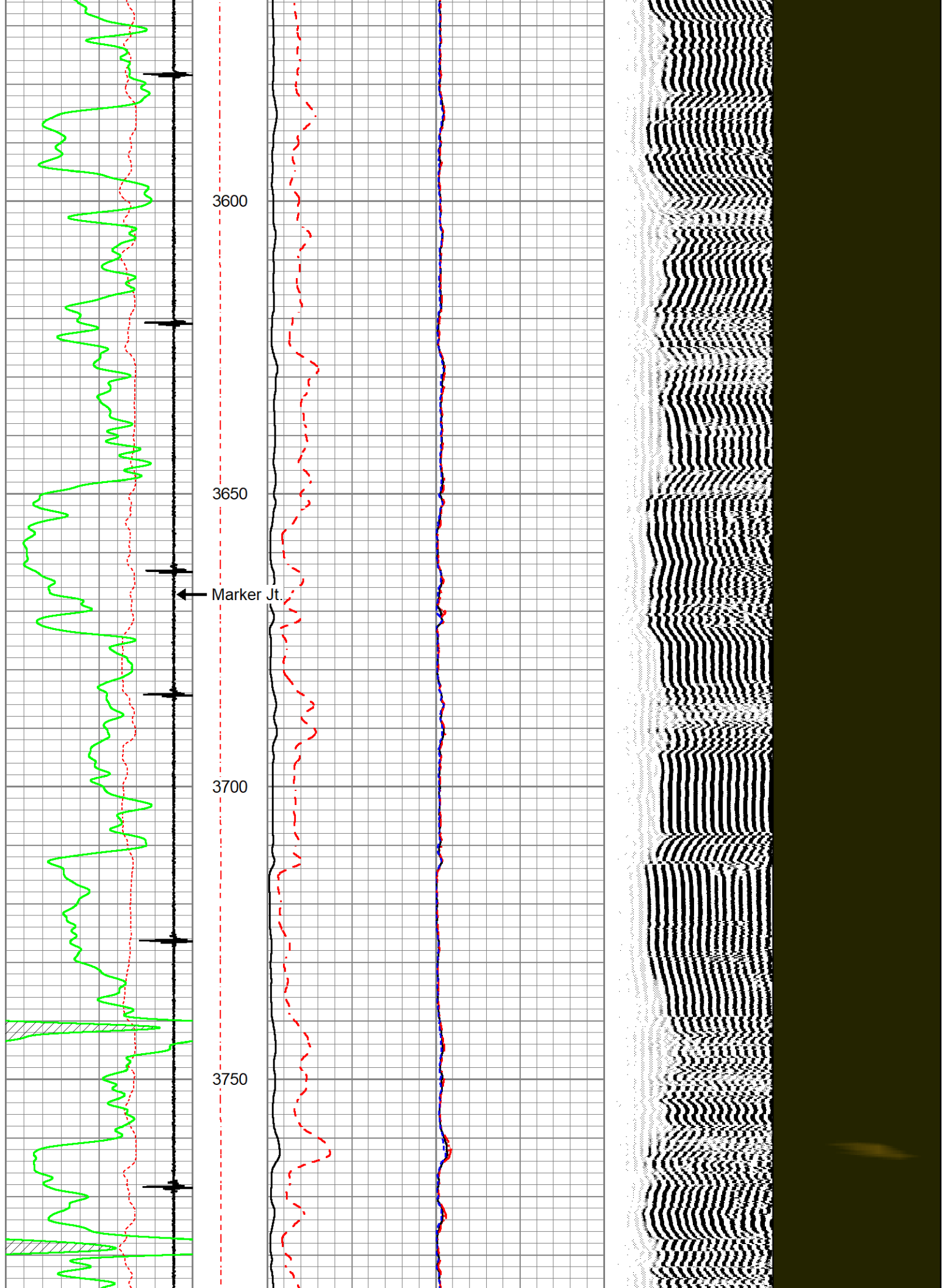
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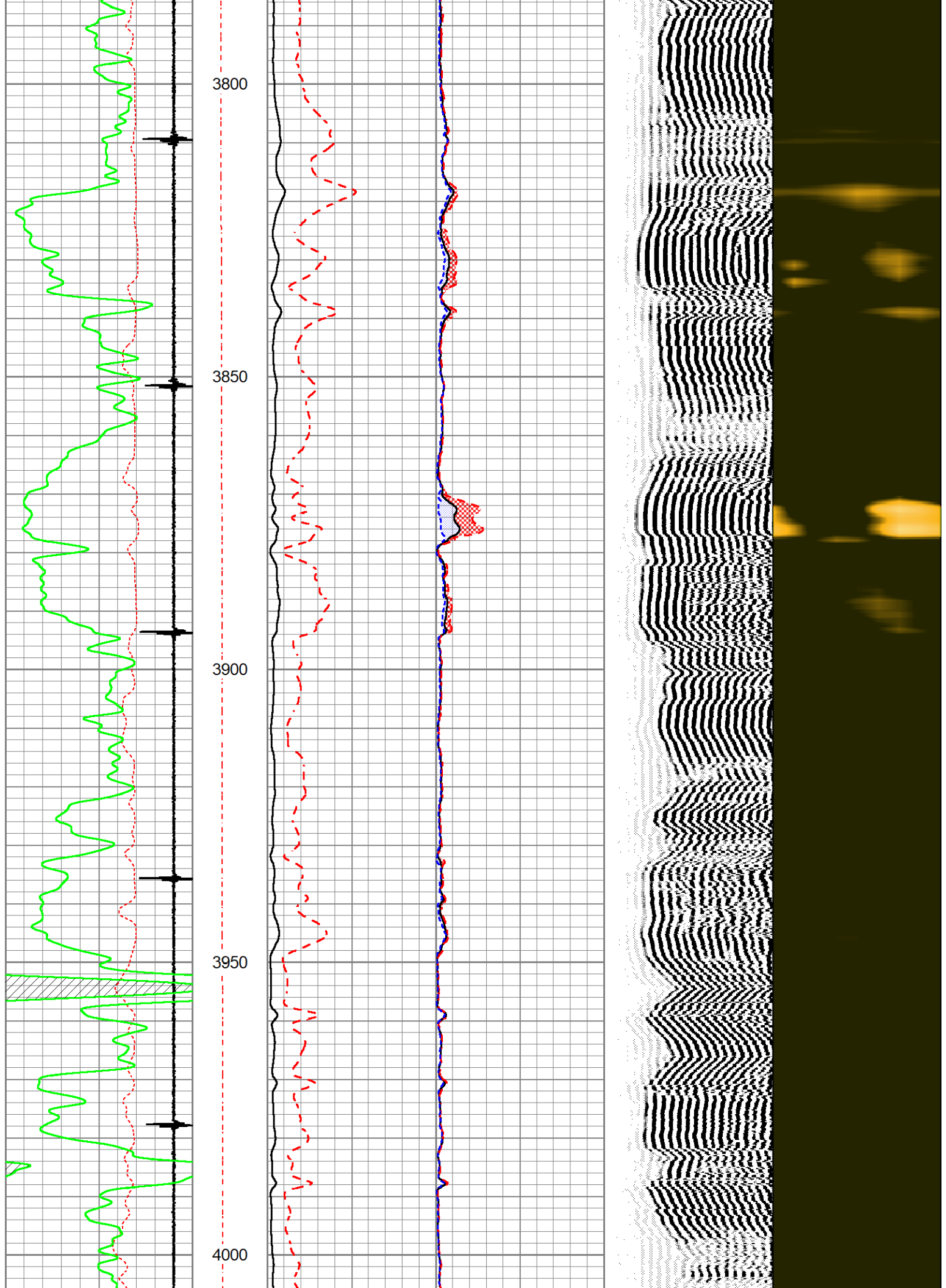
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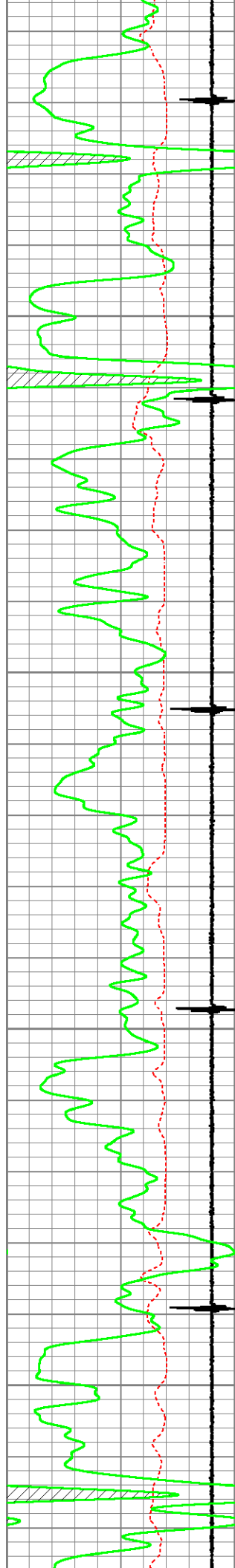










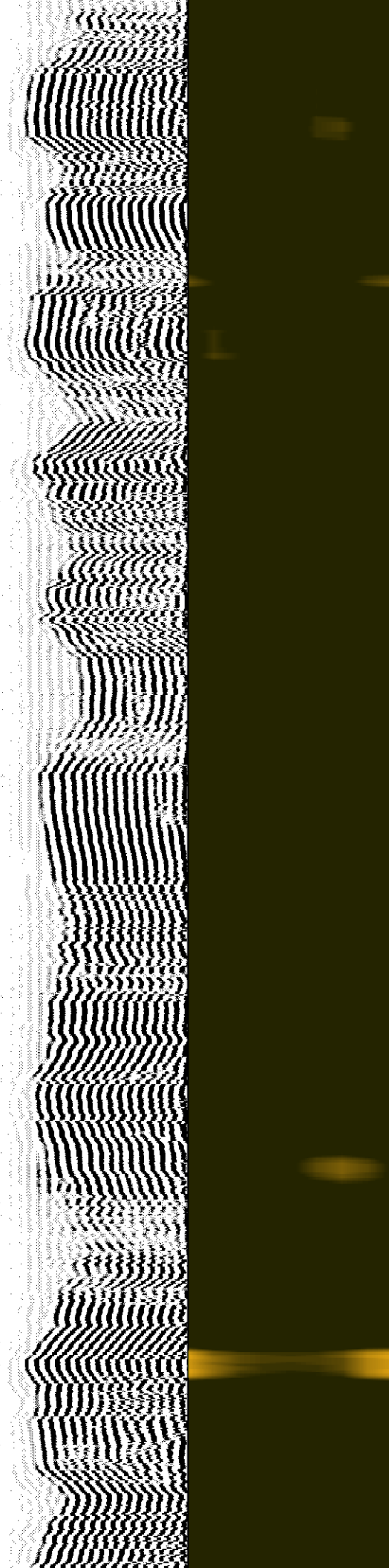
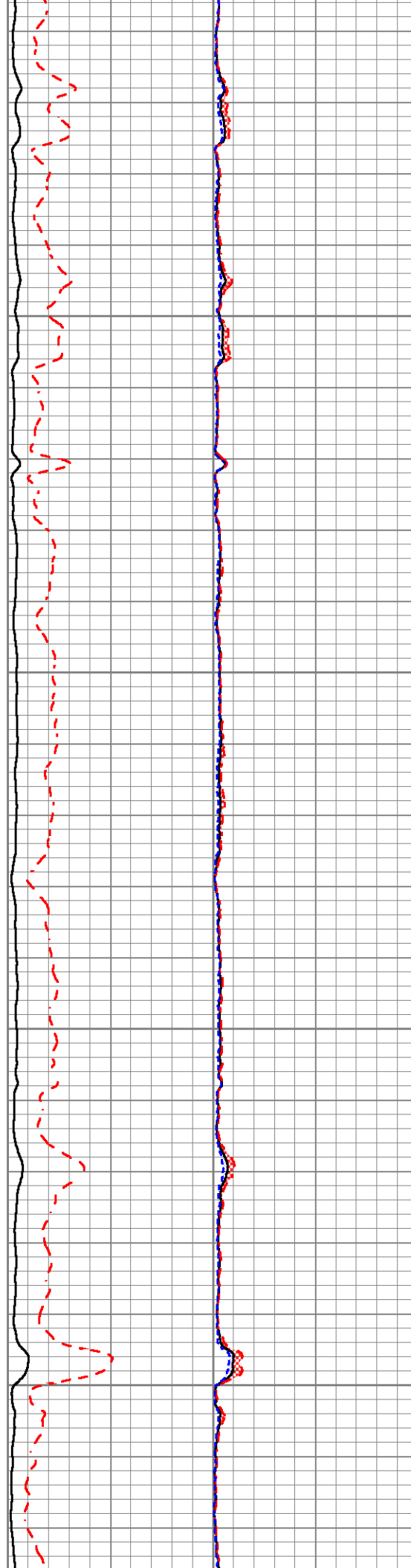


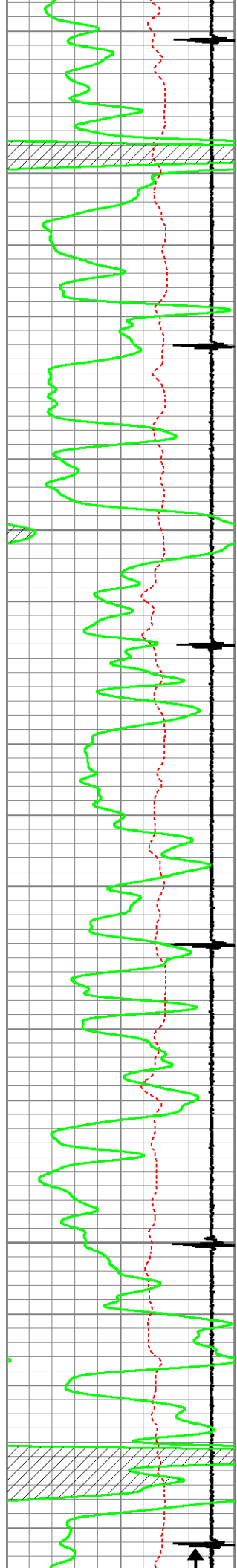
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4100

4150

4200





4250

4300

4350

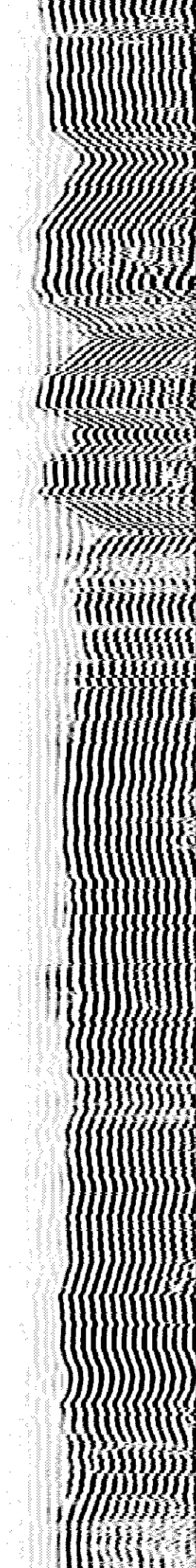
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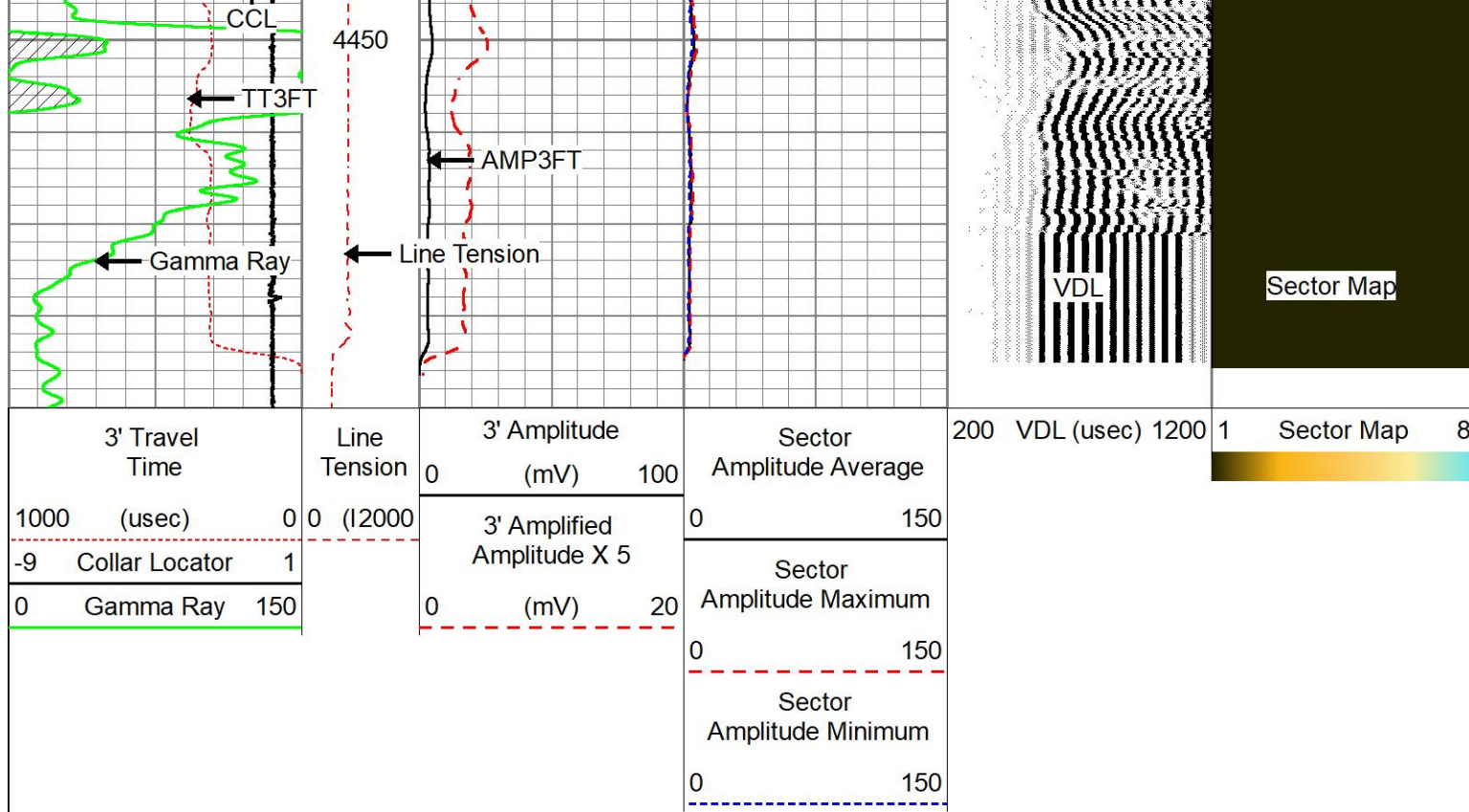
AMPMIN →

← AMPAVG

← AMPMAX

← AMP3FT X5

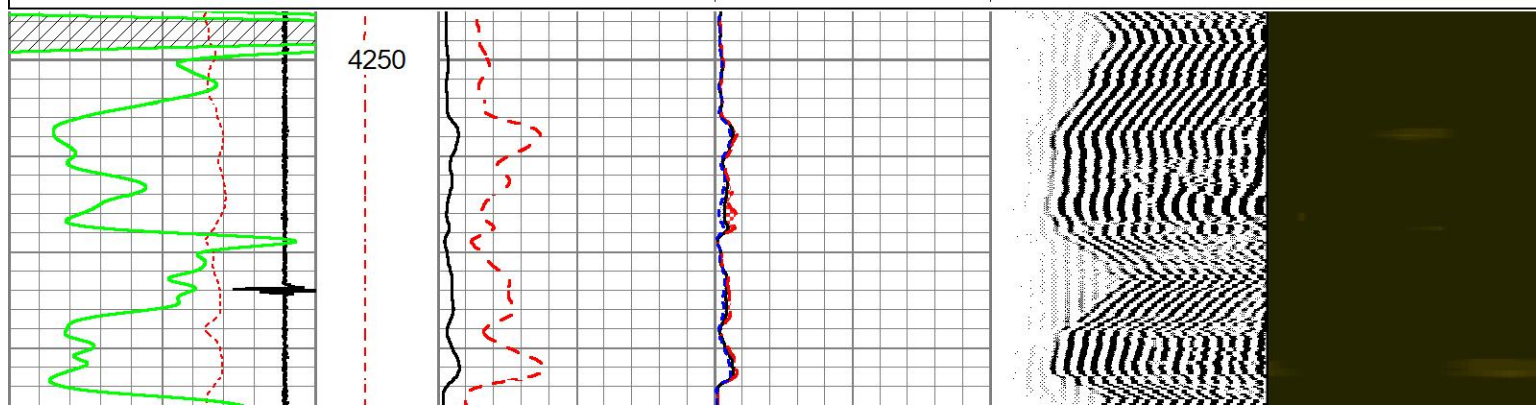
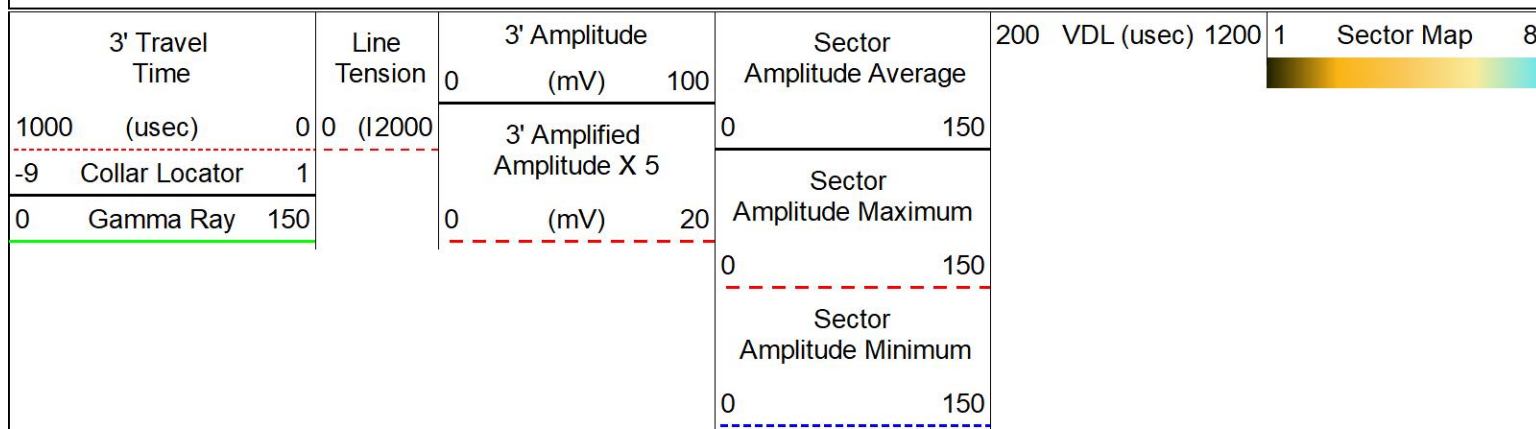


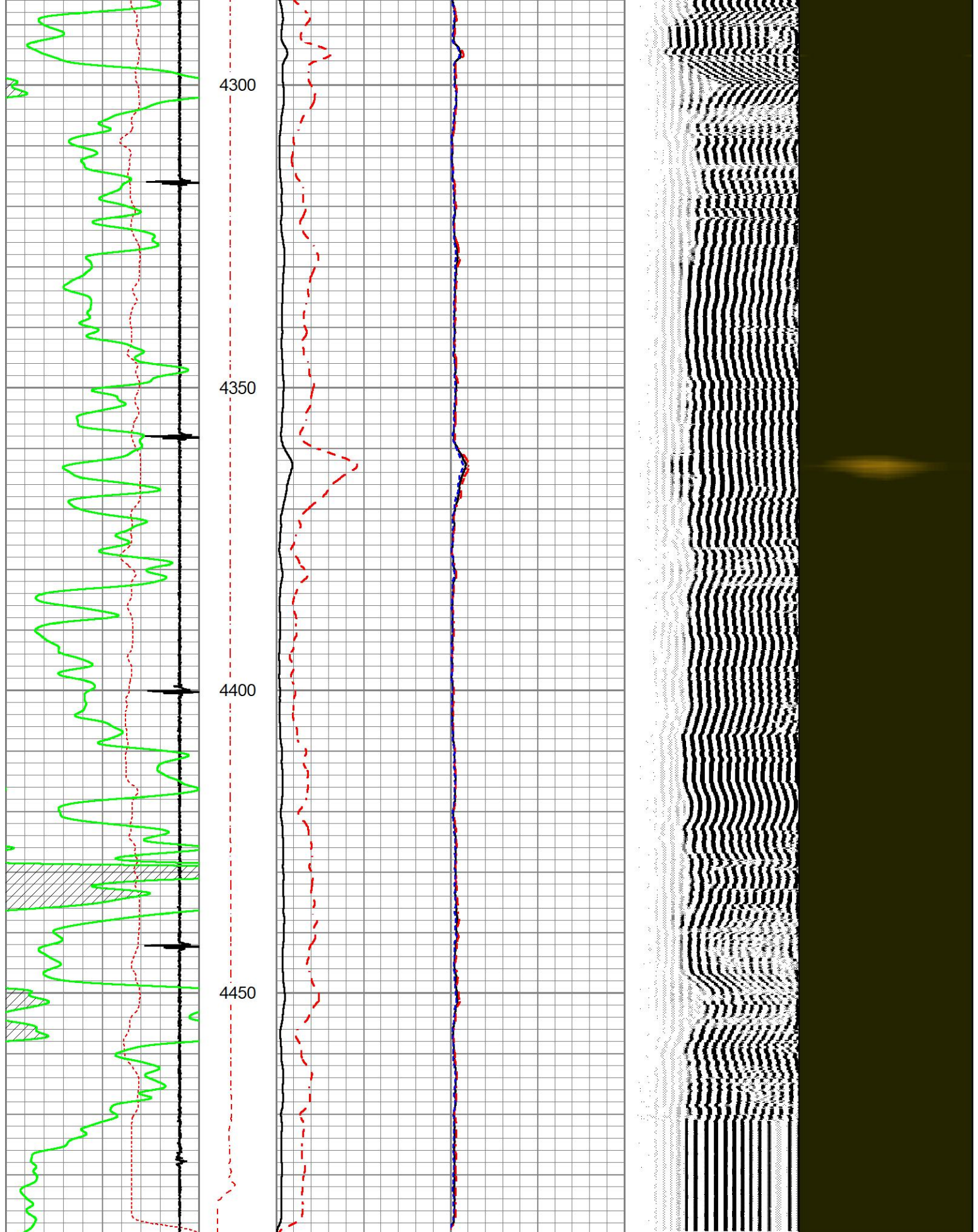


REPEAT SECTION

ZERO PSI APPLIED AT SURFACE

Database File black_oak_argabright_#1_4_scbl.db
 Dataset Pathname pass2
 Presentation Format pinr_scbl
 Dataset Creation Wed Nov 10 09:19:10 2021
 Charted by Depth in Feet scaled 1:240





3' Travel Time	Line Tension	3' Amplitude (mV)	Sector Amplitude Average	200 VDL (usec) 1200	1	Sector Map	8
1000 (usec)	0 0 (12000)	0 100	0 150				
		3' Amplified Amplitude X 5					

-9	Collar Locator	1	Amplitude X 5	Sector
0	Gamma Ray	150	0 (mV) 20	Amplitude Maximum
			0 150	Sector
				Amplitude Minimum
			0 150	

Calibration Report	
Database File	black_oak_argabright_#1_4_scbl.db
Dataset Pathname	pass3
Dataset Creation	Wed Nov 10 09:28:16 2021

Gamma Ray Calibration Report		
Serial Number:	060802	
Tool Model:	2 3/4" Probe	
Performed:	Tue May 11 19:37:17 2021	
Calibrator Value:	1.0	
Background Reading:	0.0	cps
Calibrator Reading:	1.0	cps
Sensitivity:	1.0000	/cps

	Company	Black Oak Exploration, LLC
	Well	Argabright #1-4
	Field	
	County	Rawlins
	State	Kansas