

HALLIBURTON

CEMENT BOND LOG

Company	SYNERGY RESOURCES			Company	SYNERGY RESOURCES		
Well	EVANS 24N-14B-L			Well	EVANS 24N-14B-L		
Field	WATTENBERG			Field	WATTENBERG		
County	WELD	State	CO	County	WELD	State	CO
Permanent Datum				Sec: 26 Twp: 5N Rge: 66W			
Log Measured From	GL	Elevation	4748	N/A			
Drilling Measured From	KB	15 Ft. above perm. datum	K.B. D.F. 4762 G.L. 4748	Other Services			
Date @ Time Logged	25-NOV-2016		Type Fluid in Hole	FRESH WATER			
Run No.	ONE	Density of Fluid	8.33	SURFACE			
Depth - Driller	16915'	Fluid Level	443'	11726109 / BRIGHTON			
Depth - Logger	6617'	Cement Top Est. Logged	443'	TROY SCHROCK			
Bottom - Logged Interval	6605'	Equipment / Location	Recorded by	BRIAN BARONY			
Top - Log Interval	SURFACE	Witnessed by					
Max. Recorded Temp.	217	Protection		Liner			
CEMENTING DATA	Surface String	String	N/A	N/A			
Date / Time Cemented	N/A						
Primary / Squeeze							
Expected Compressive Strength	psi@ hrs	psi@ hrs	psi@ hrs				
Cement Volume	/	/	/				
Cement Type / Weight	/	/	/				
Formulation	/	/	/				
Mud Type / Mud Wgt.	/	/	/				
Borehole Record				Casing & Tubing Record			
Run Number	Bit From	To	Size	Weight	From	To	
ONE	8.5"	0	16915'	5.5"	20	0	16915'

<<< Fold Here >>>

HALLIBURTON DOES NOT GUARANTEE THE ACCURACY OF ANY INTERPRETATION OF THE LOG DATA, CONVERSION OF LOG DATA TO PHYSICAL ROCK PARAMETERS OR RECOMMENDATIONS WHICH MAY BE GIVEN BY HALLIBURTON PERSONNEL OR WHICH APPEAR ON THE LOG OR IN ANY OTHER FORM. ANY USER OF SUCH DATA, INTERPRETATIONS, CONVERSIONS, OR RECOMMENDATIONS AGREES THAT HALLIBURTON IS NOT RESPONSIBLE EXCEPT WHERE DUE TO GROSS NEGLIGENCE OR WILLFUL MISCONDUCT, FOR ANY LOSS, DAMAGES, OR EXPENSES RESULTING FROM THE USE THEREOF.

Comments

MARKER JOINT @6519'-6541'

ESTIMATED TOP OF CEMENT @ 443'

CORRELATED TO MARKER JOINT

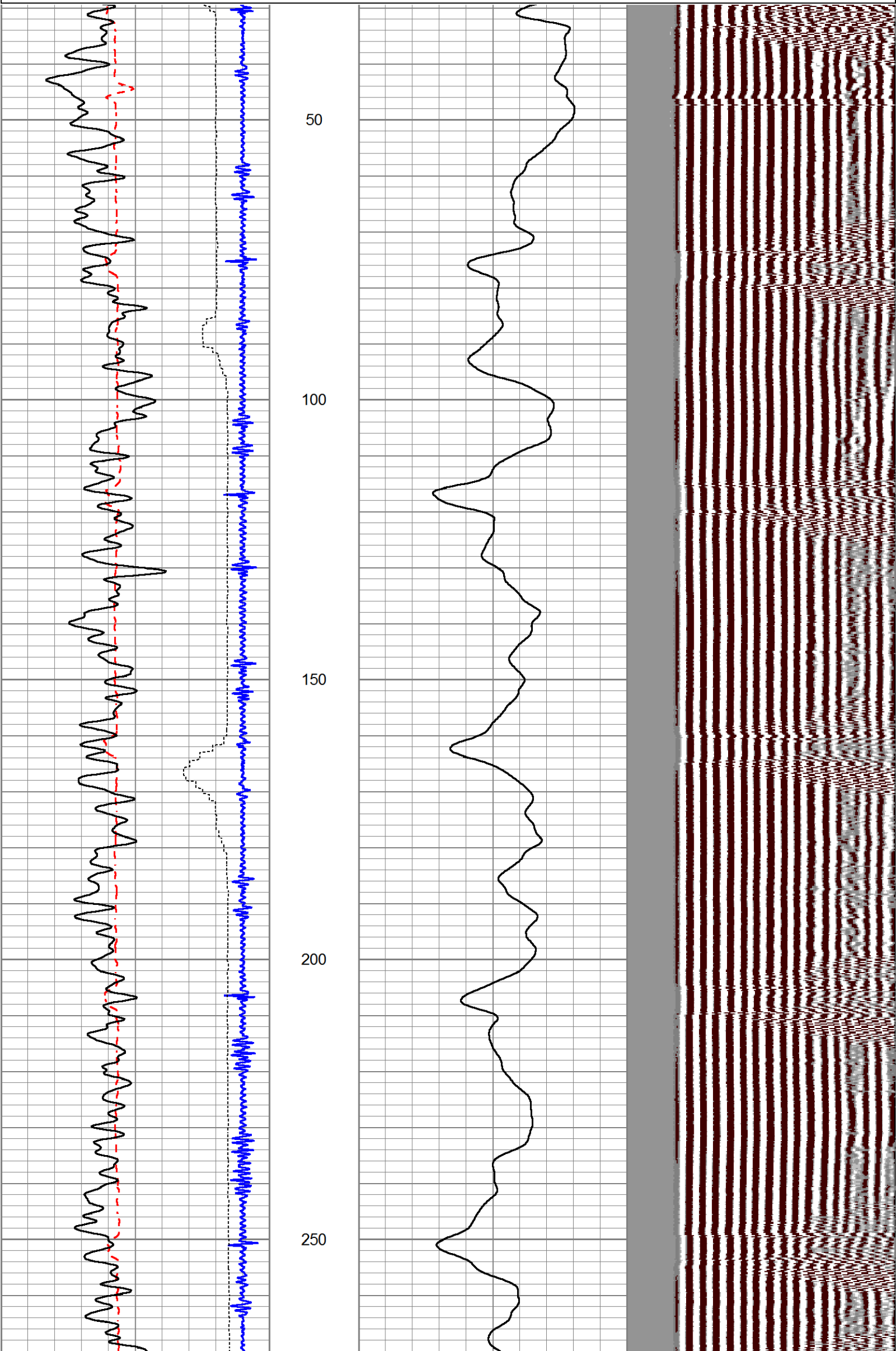
THANK YOU FOR CHOOSING HALLIBURTON ENERGY SERVICES
YOUR CREW TODAY: T. SCHROCK, S. GILLESPIE, M. DEAL

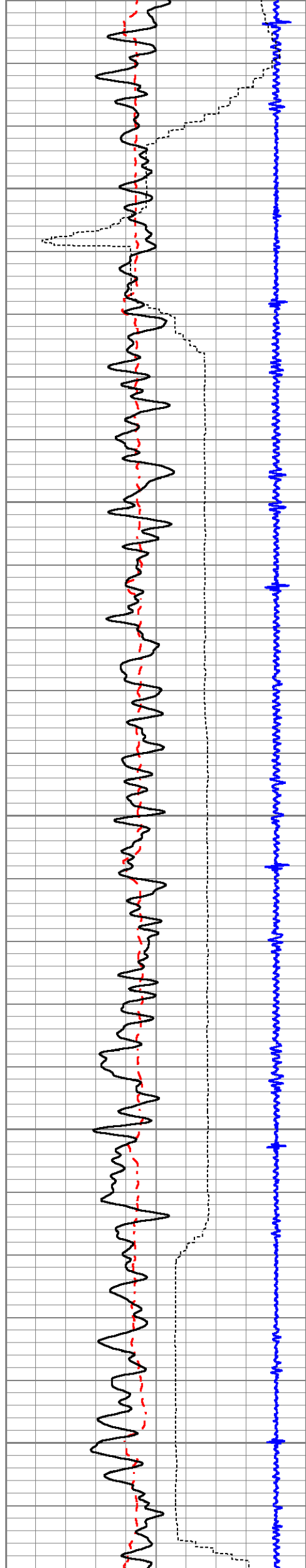
MAIN PASS

SCALE: 5"=100'

Database File f:\synergy evans pad\24n-14b\synergy_evans_24n14b_cbl.db
Dataset Pathname pass8
Presentation Format scbl_dr
Dataset Creation Fri Nov 25 10:37:33 2016
Charted by Depth in Feet scaled 1:240

300	TT3FT (usec)	200	0	Amplified Amplitude (mV)	10	200	VDL (usec)	1200
-9	Collar Locator	1	0	Amplitude (mV)	100			





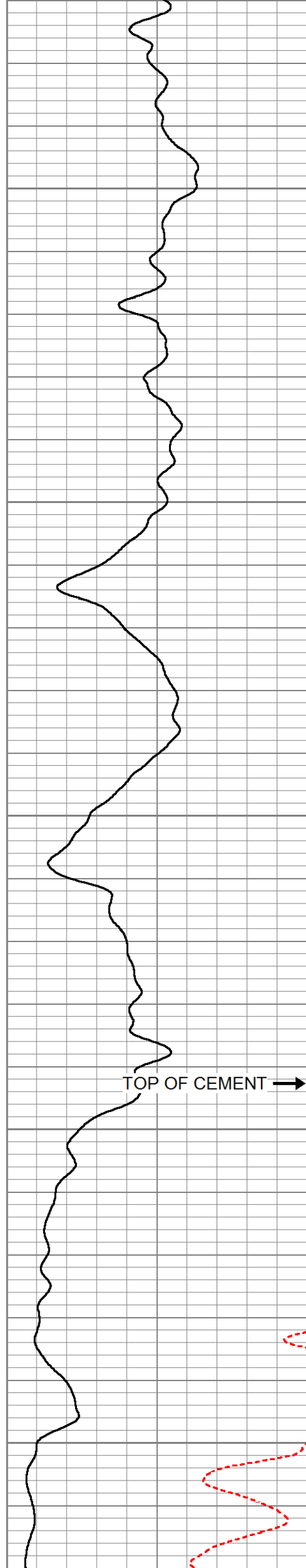
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350

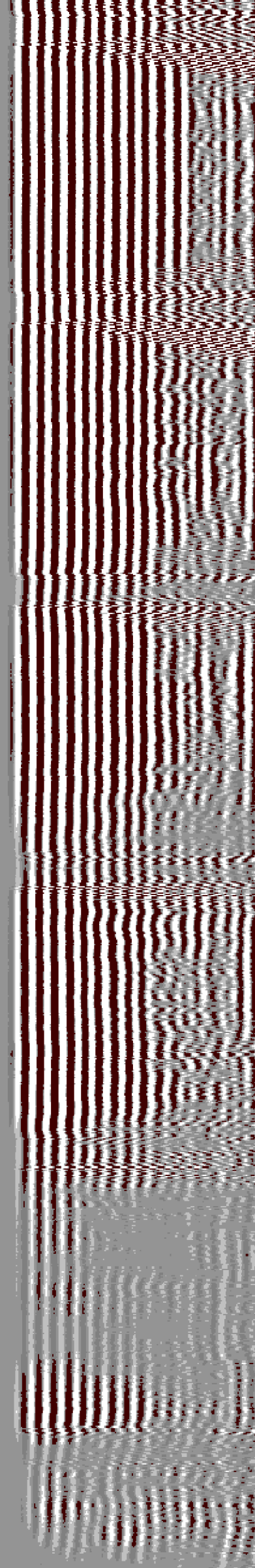
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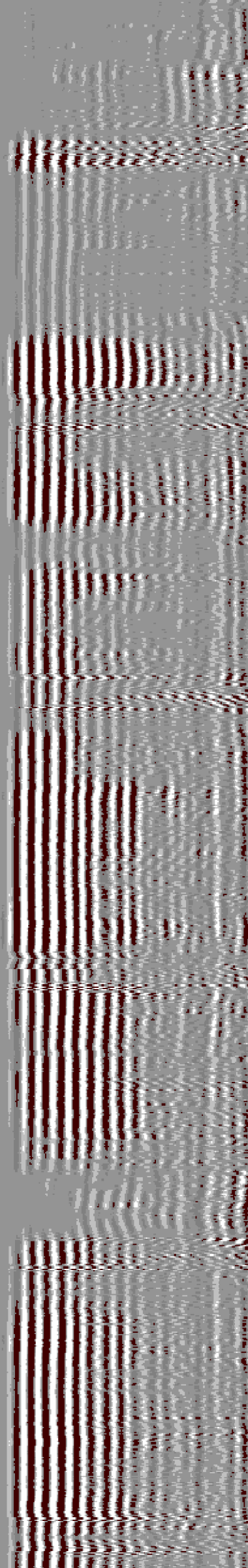
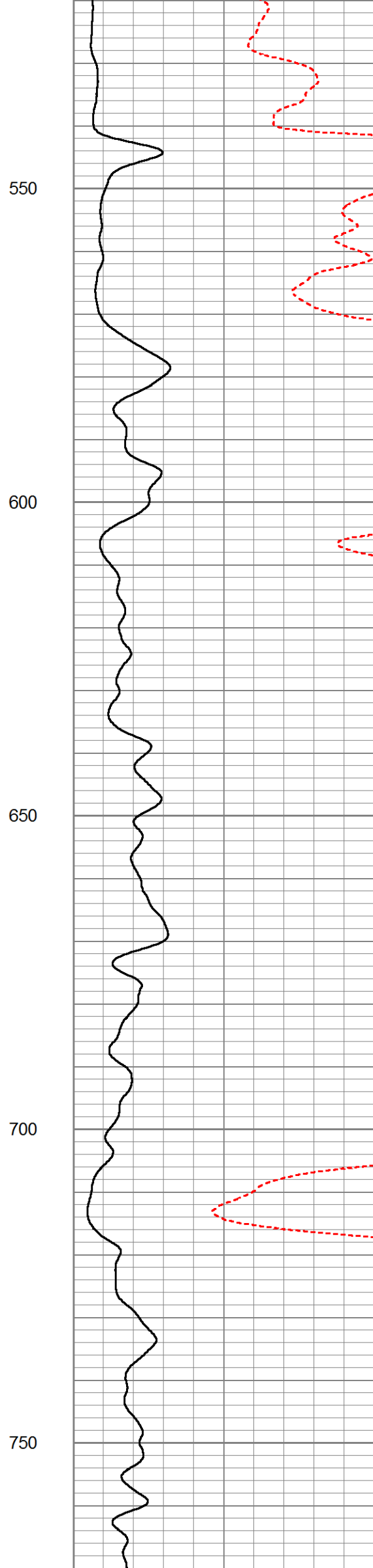
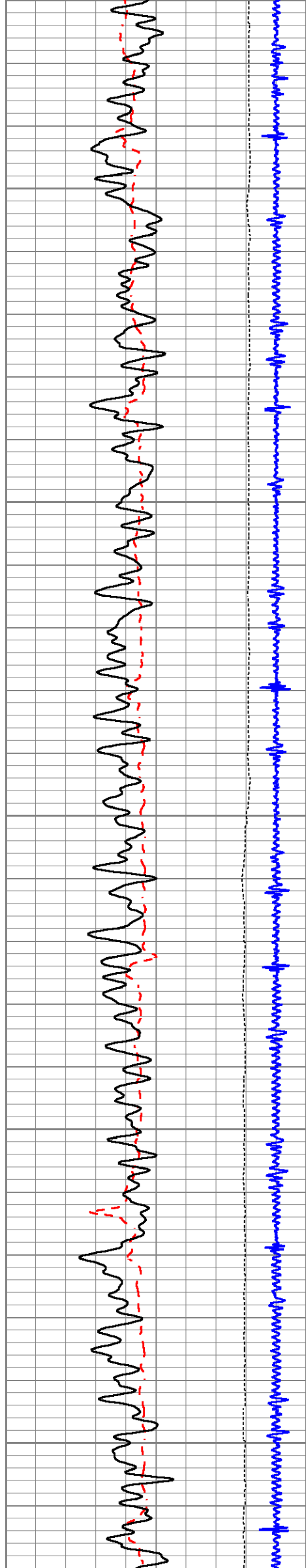
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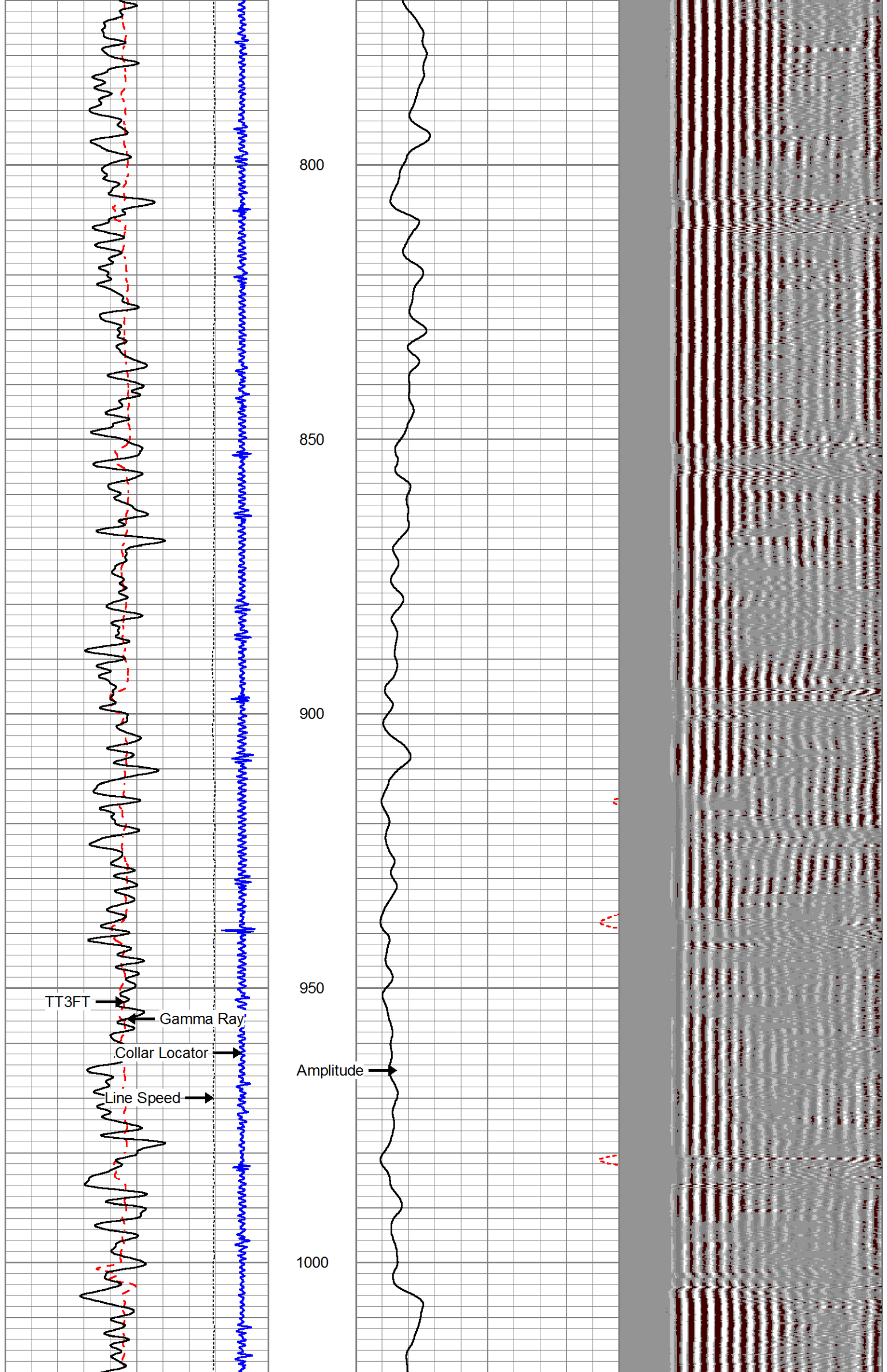
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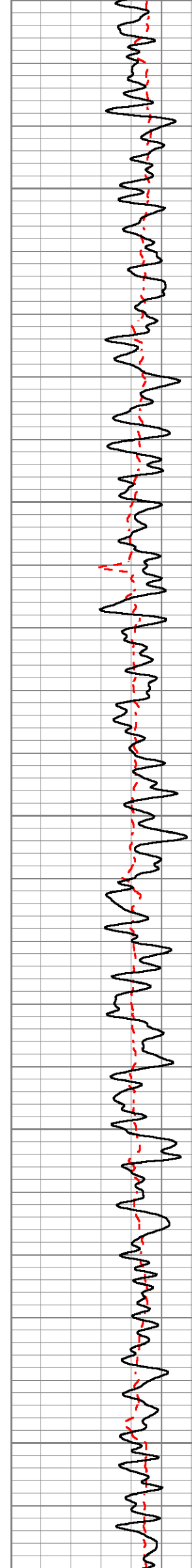
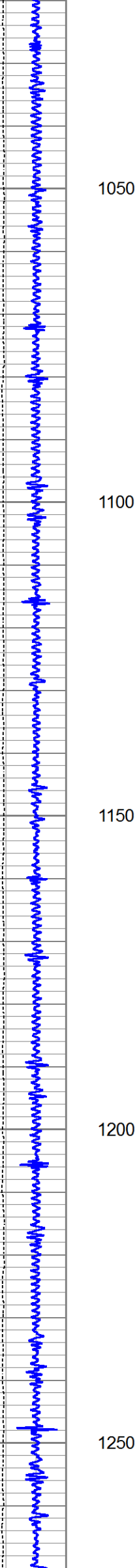
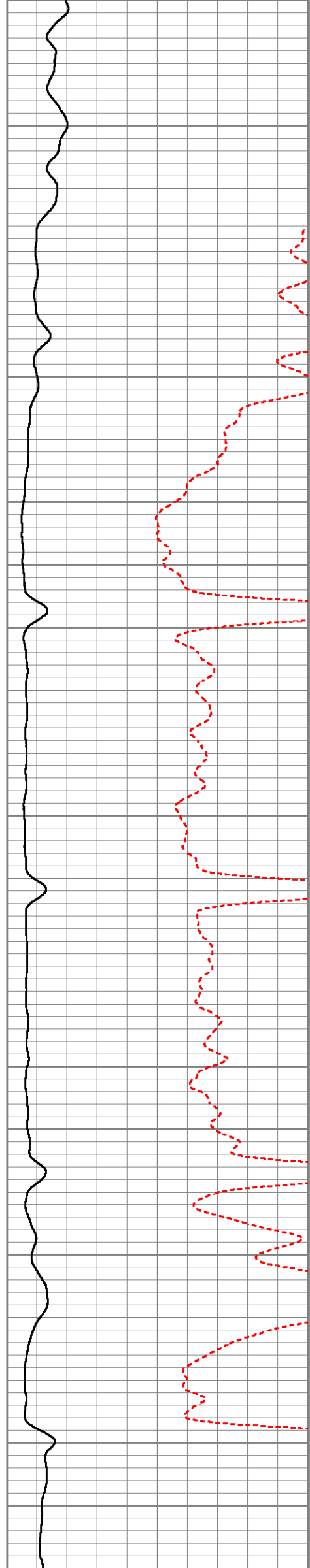
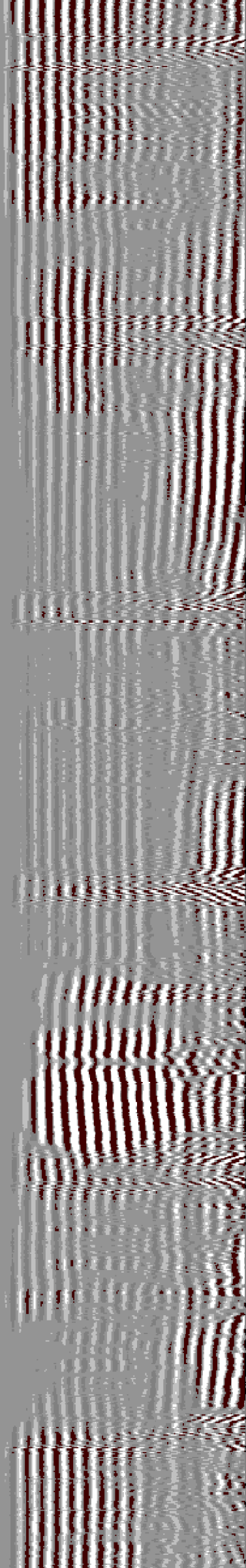


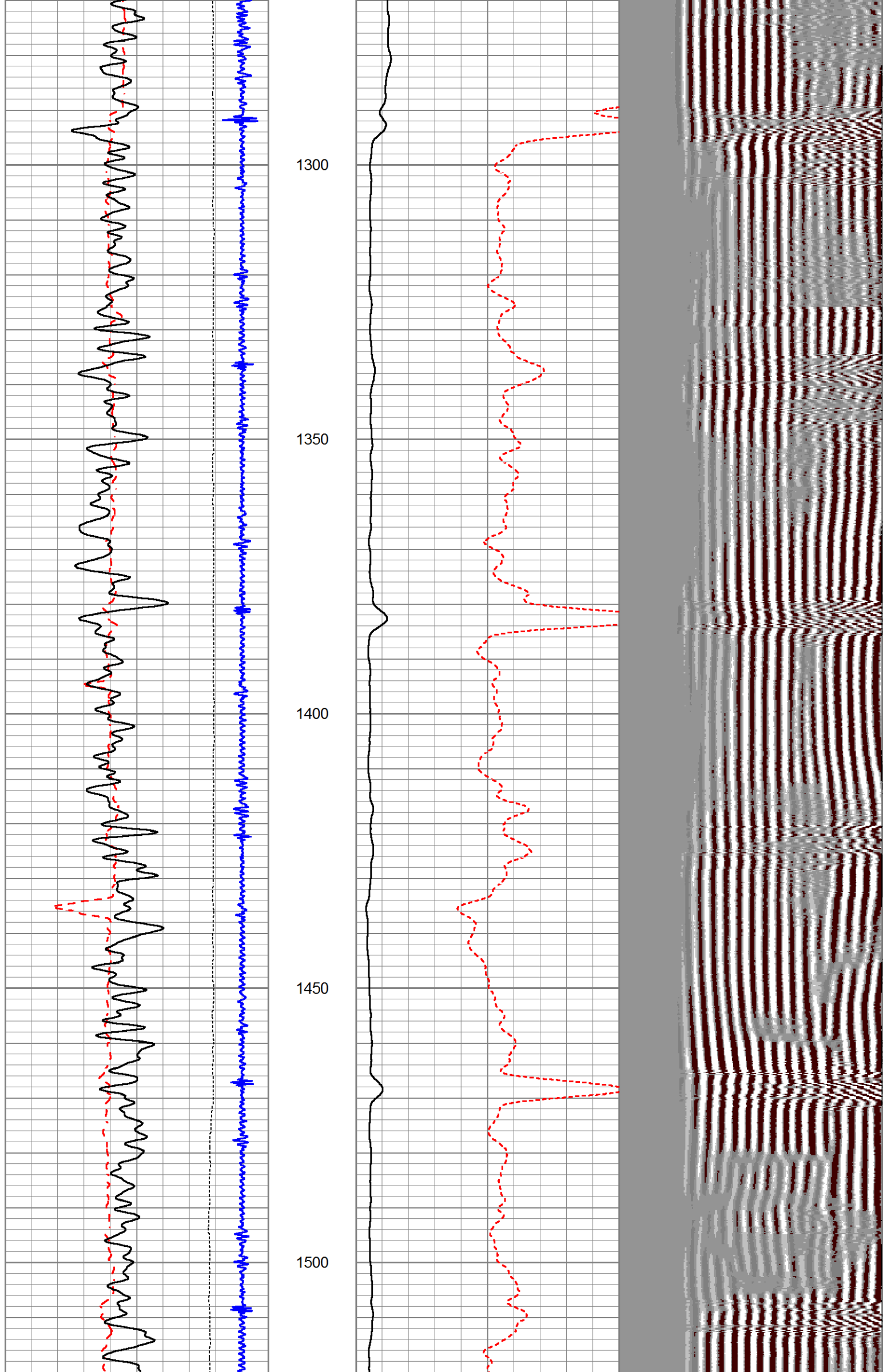
TOP OF CEMENT →

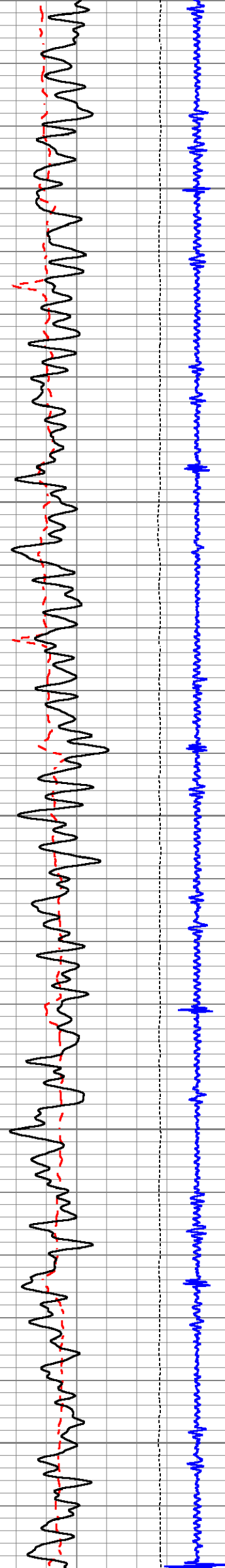












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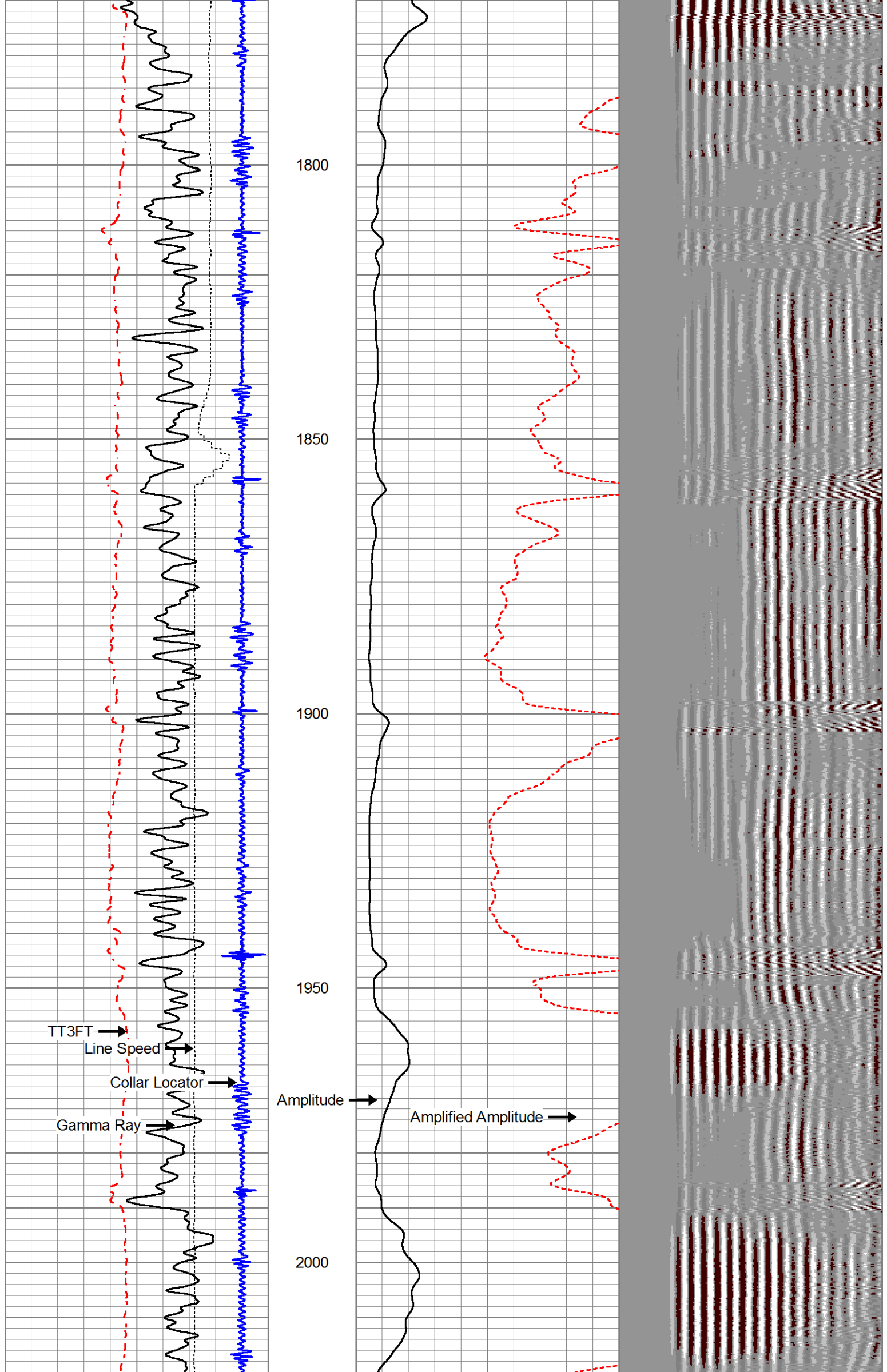
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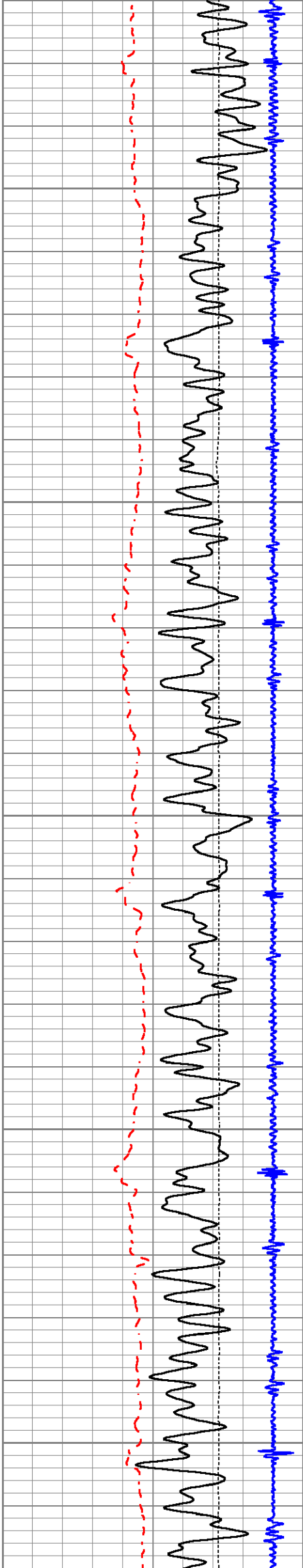
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1700

1750







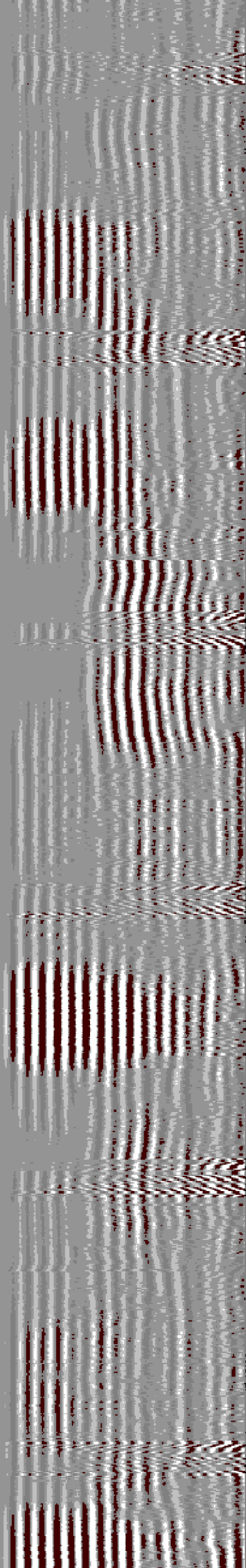
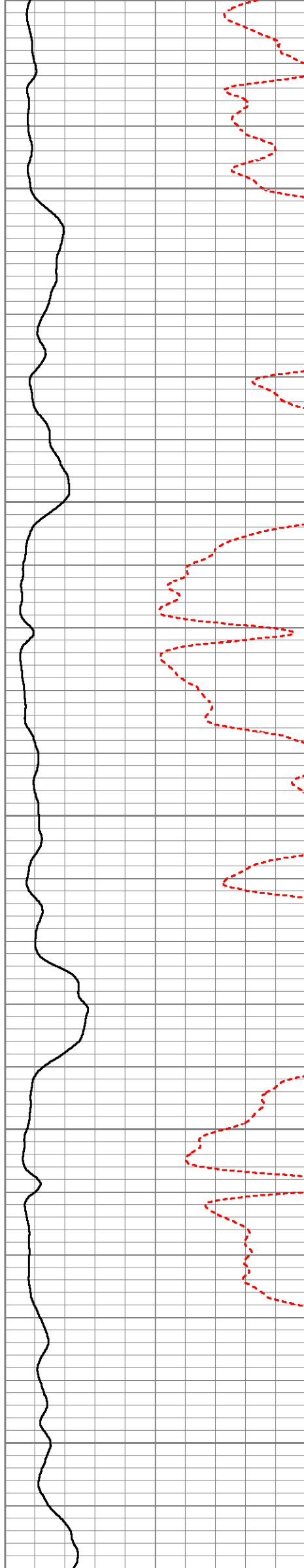
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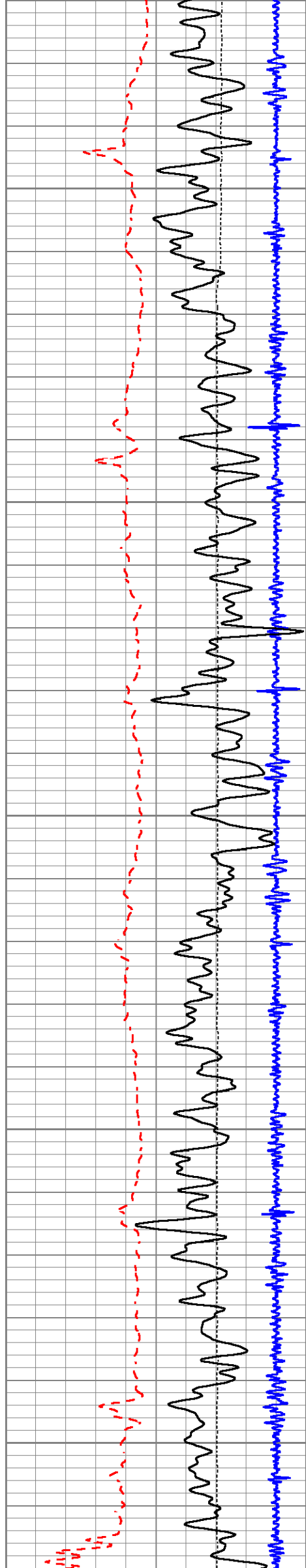
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2150

2200

2250





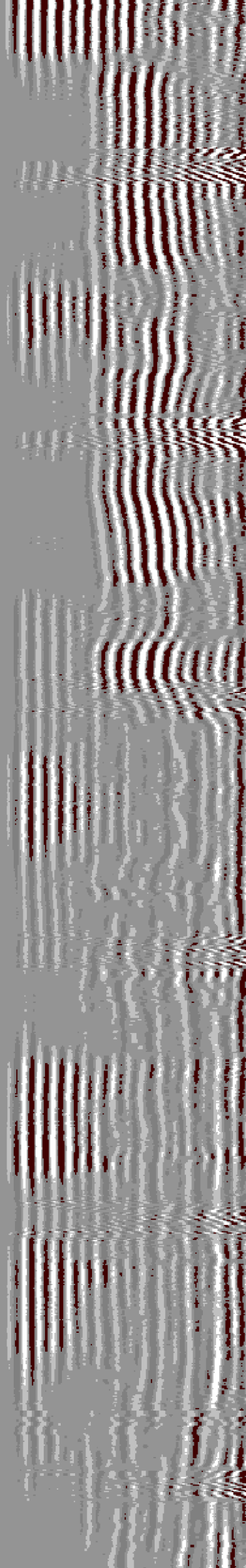
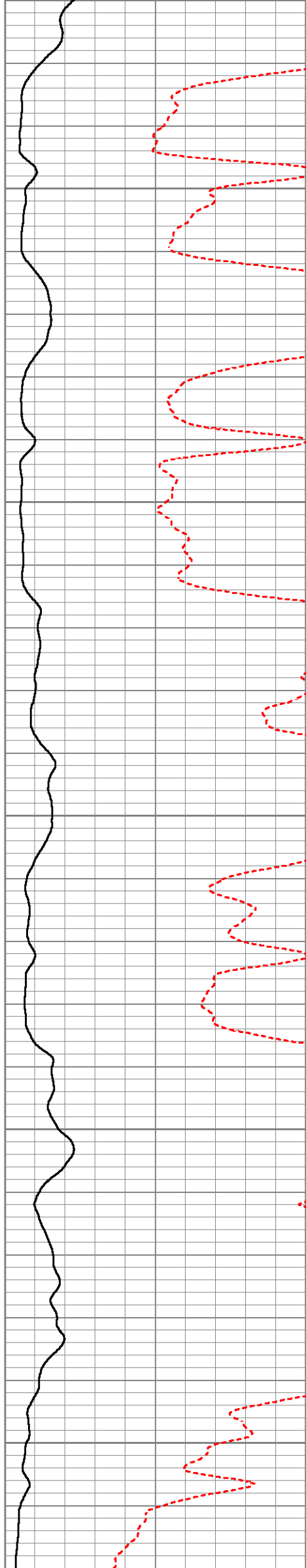
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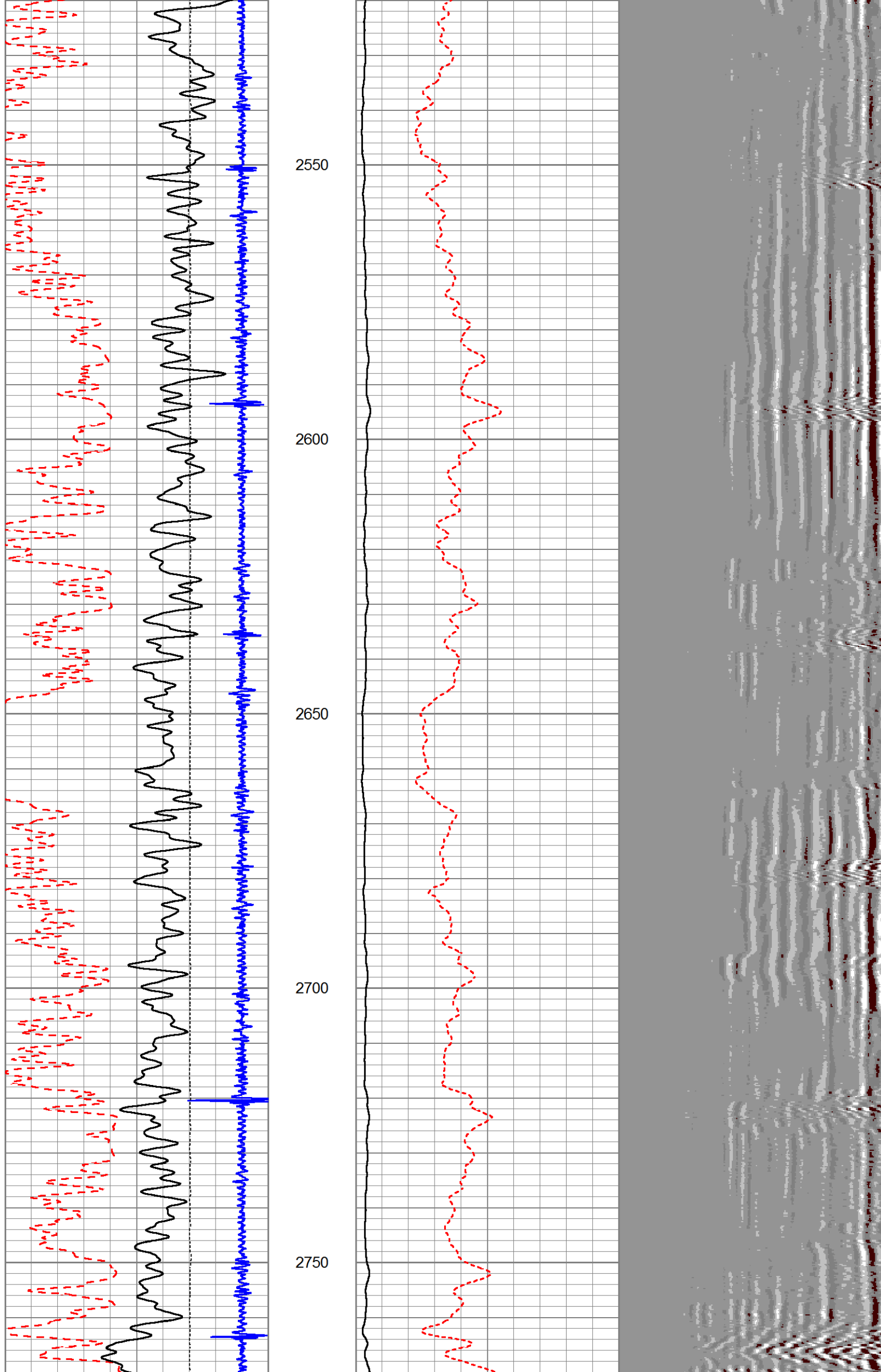
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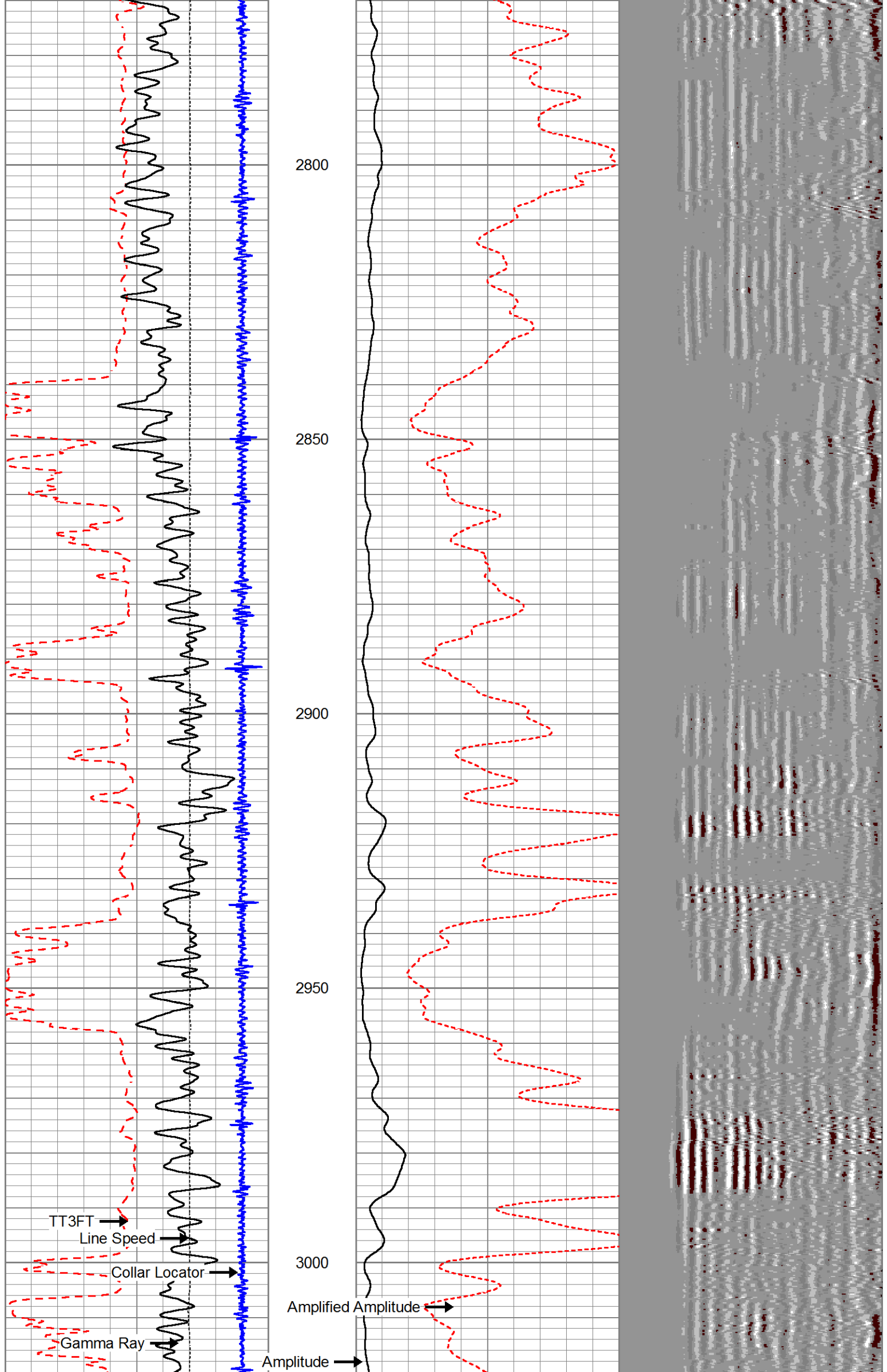
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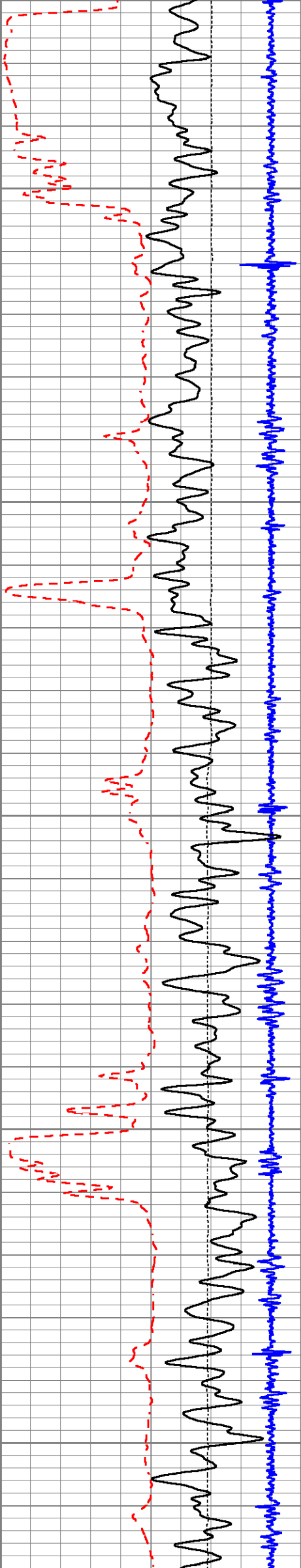
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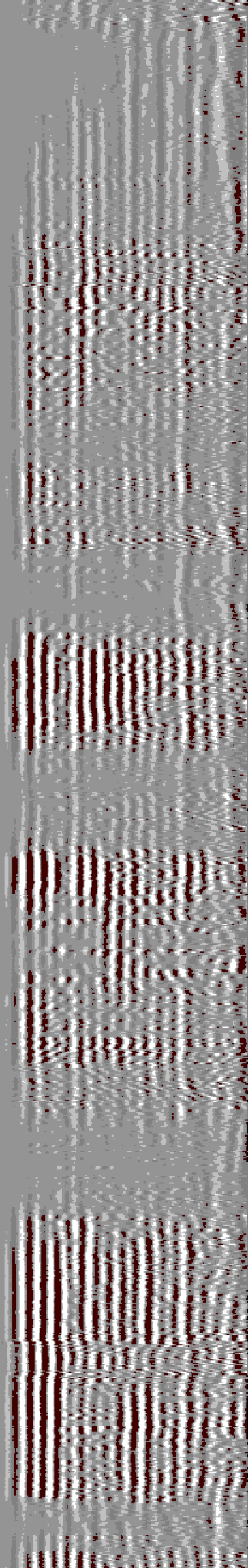
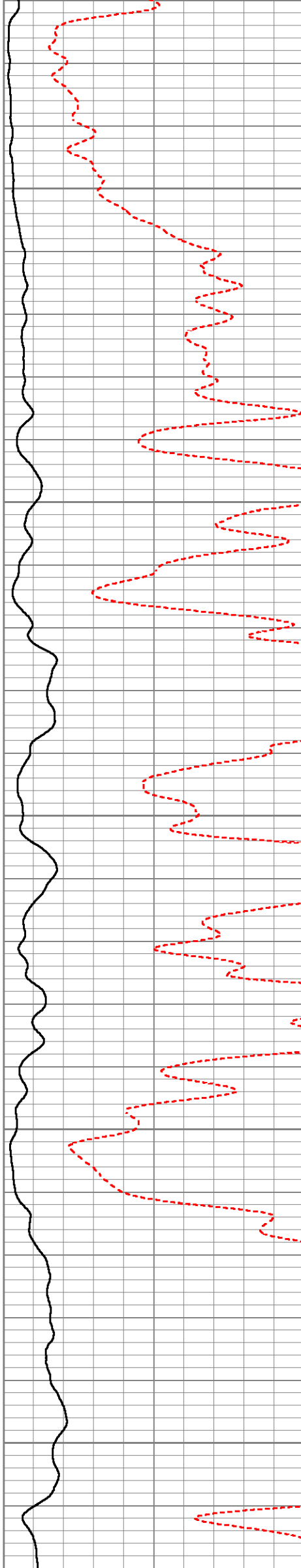
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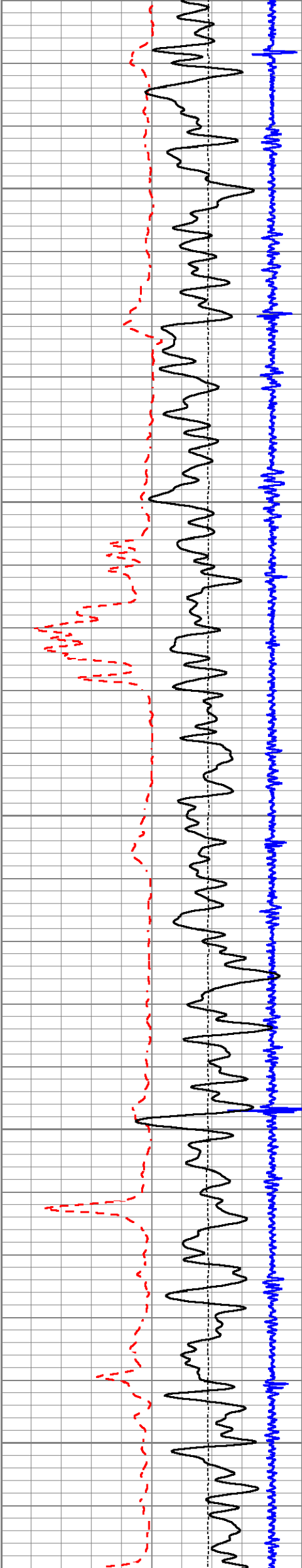
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3200

3250





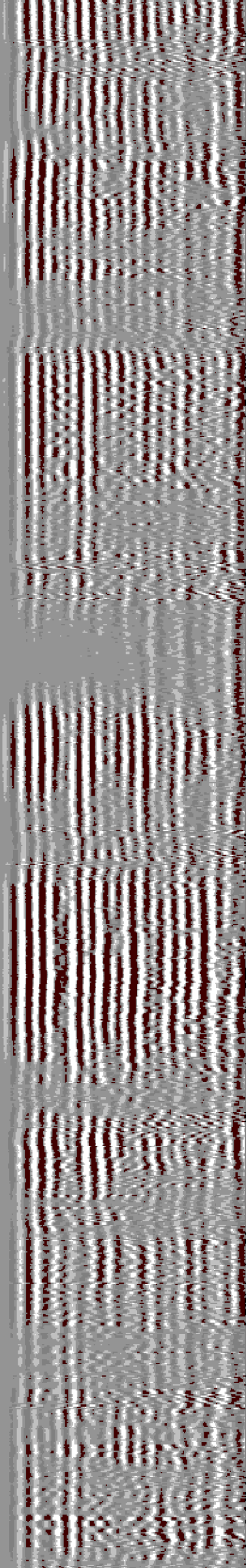
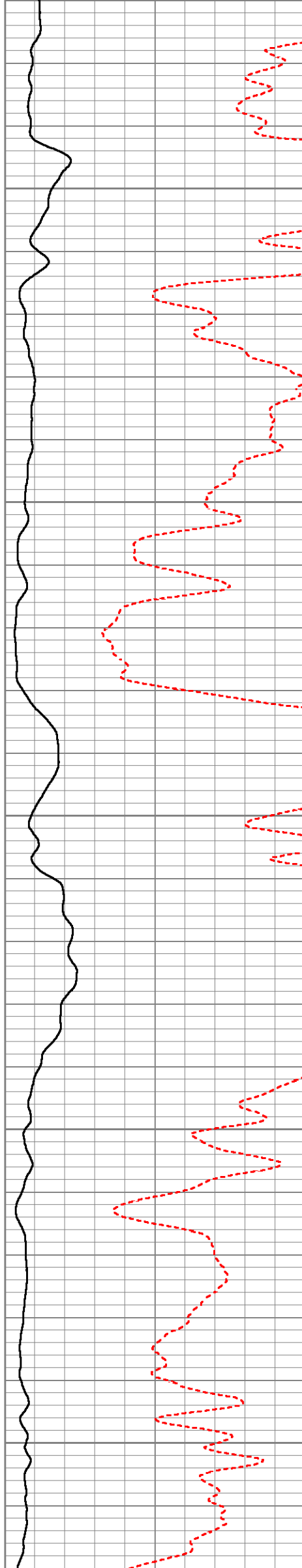
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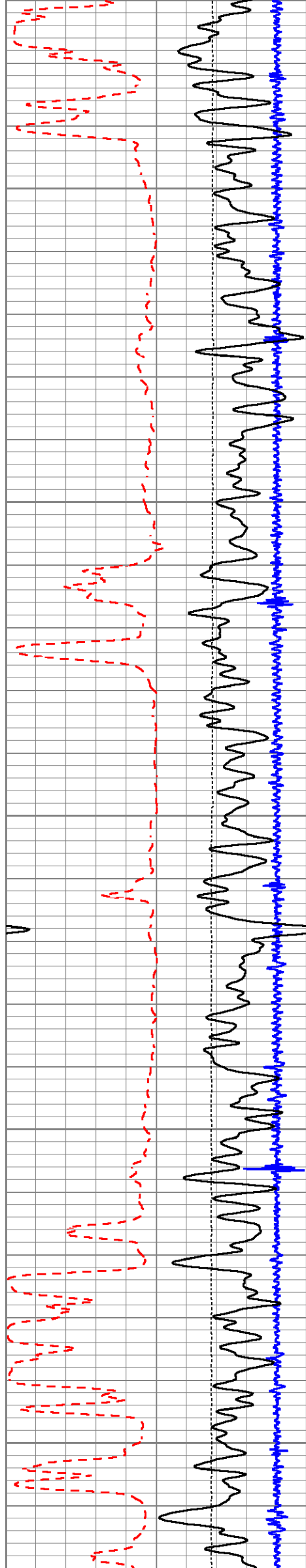
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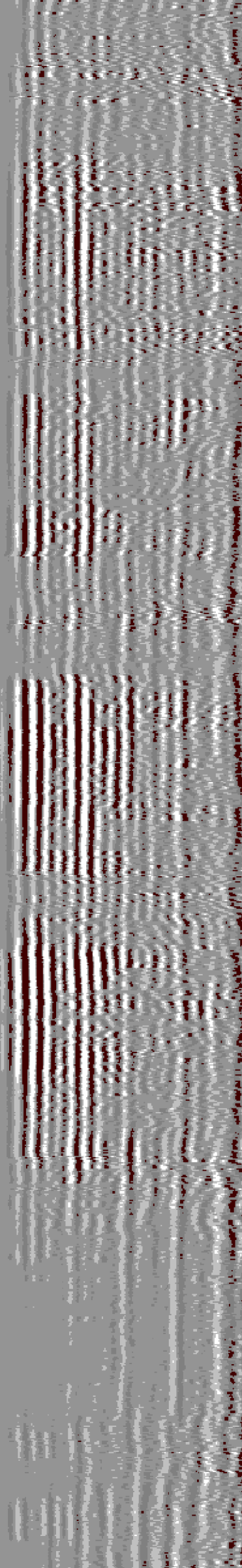
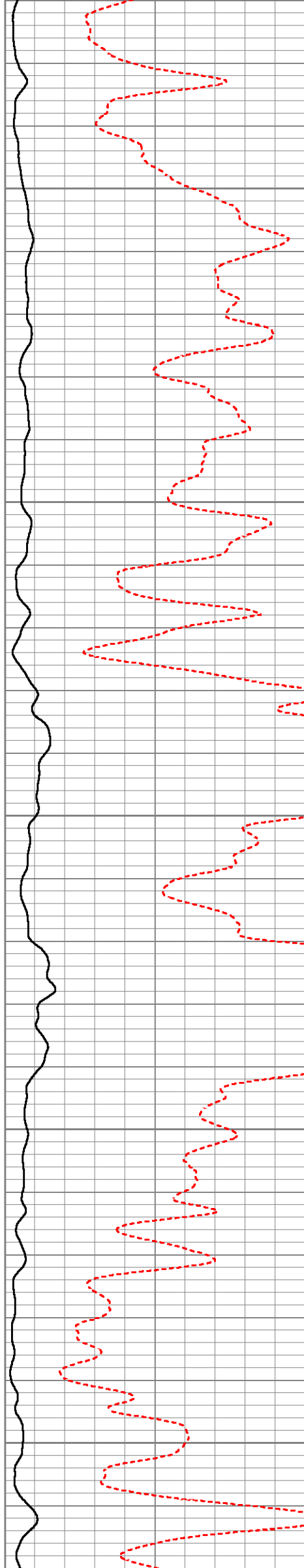
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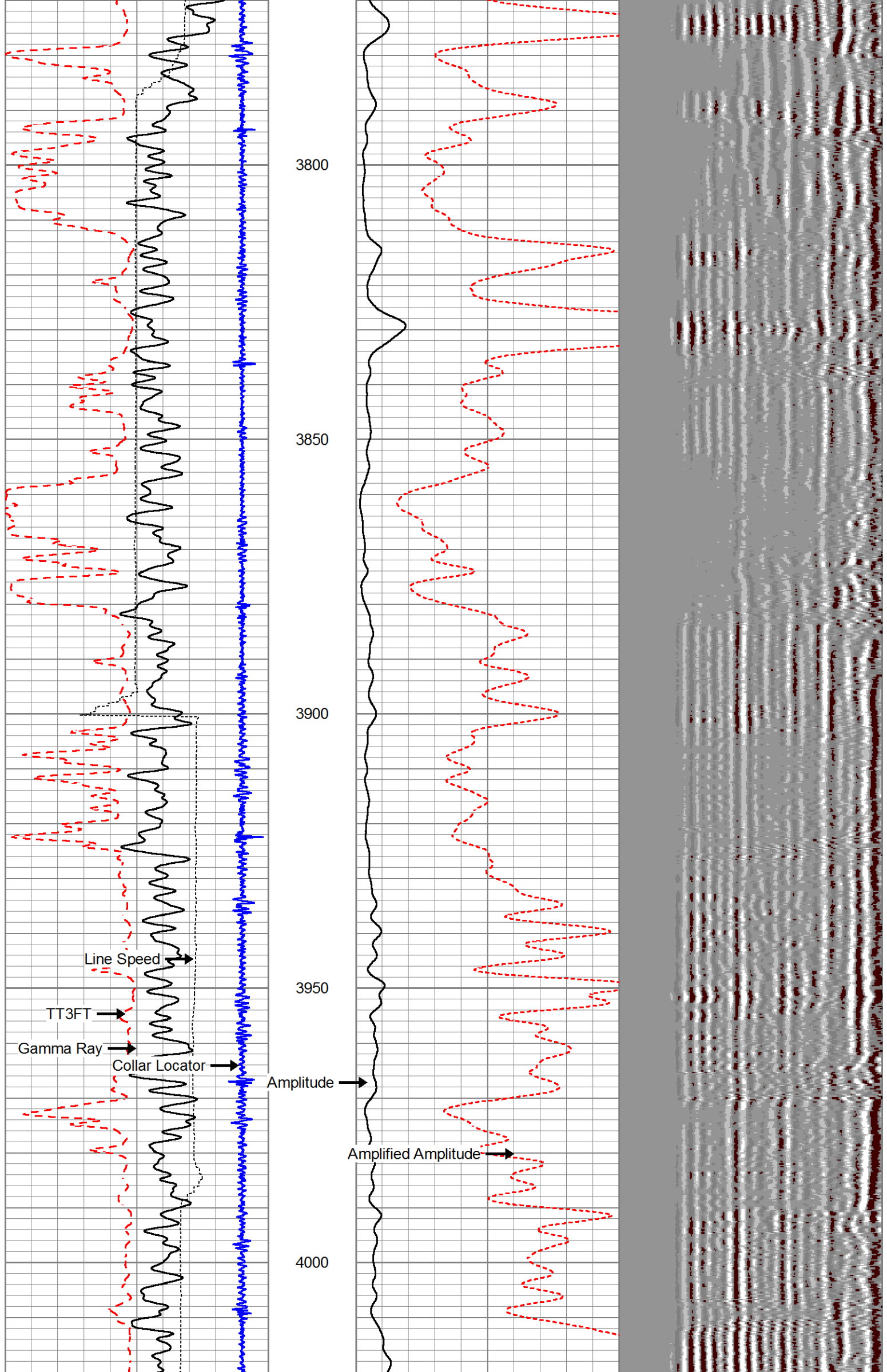
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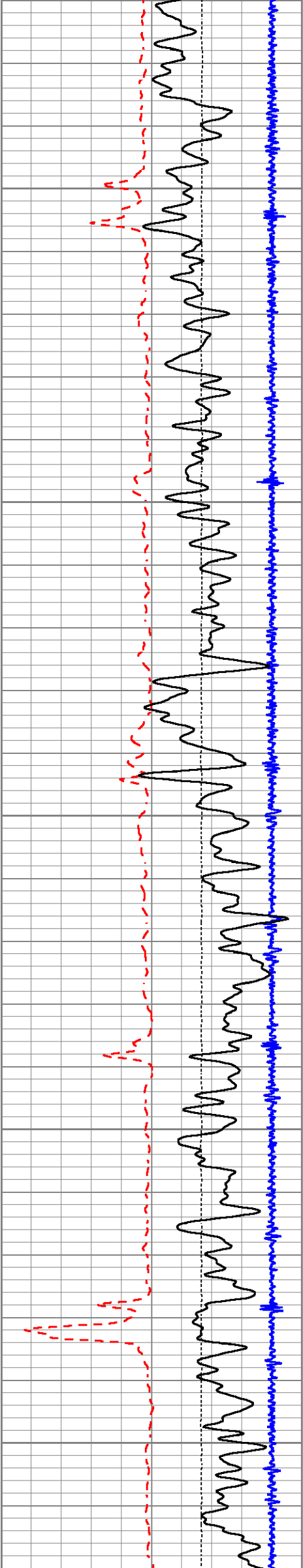
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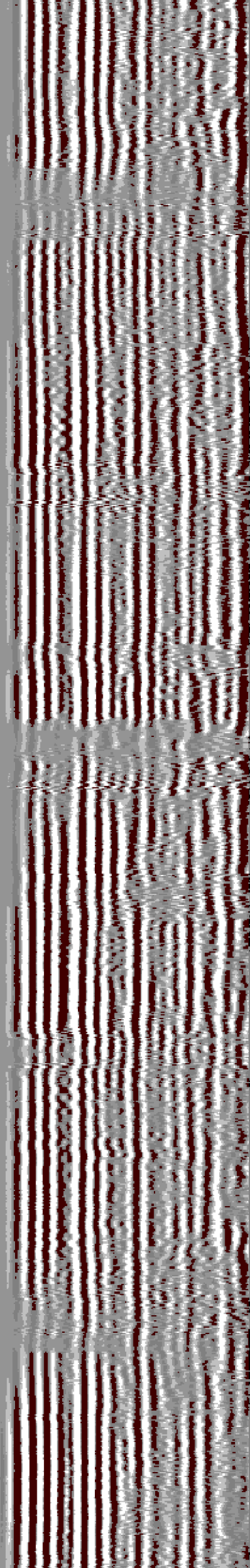
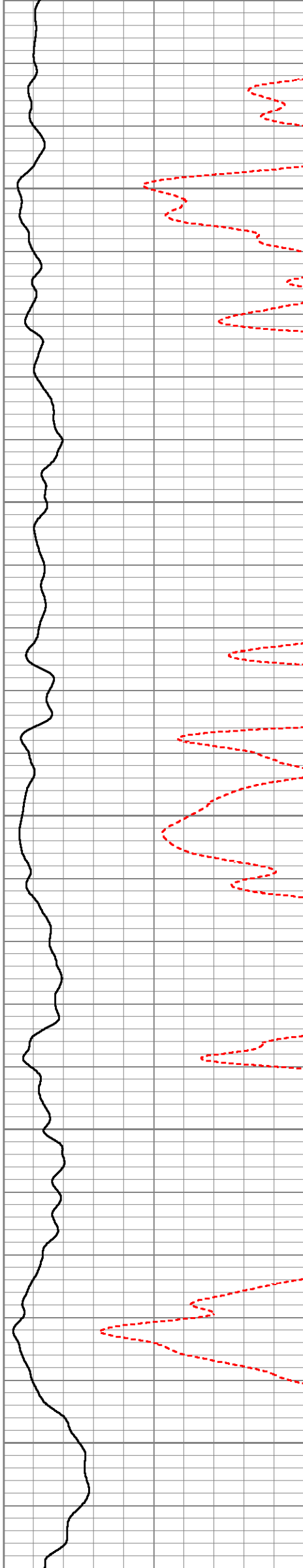
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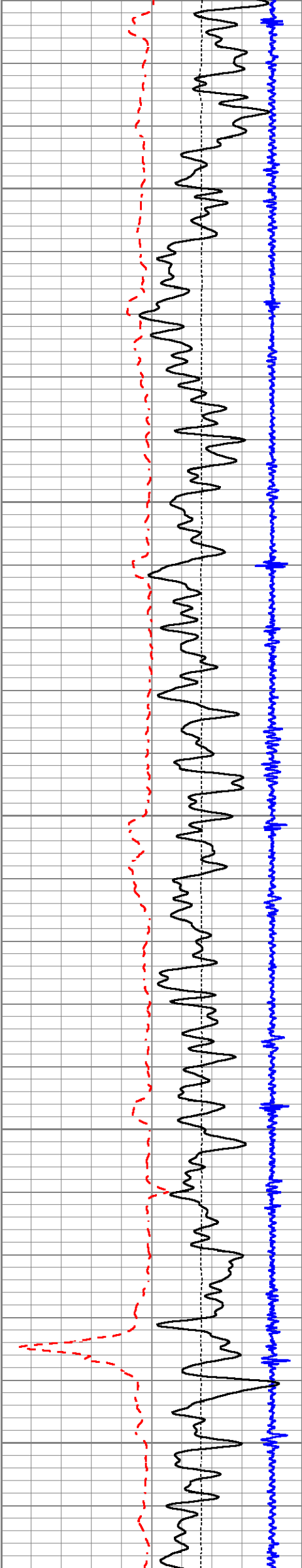
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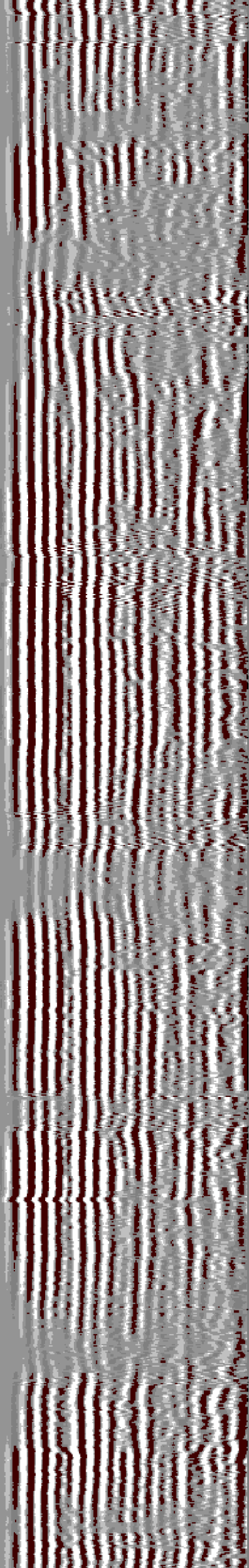
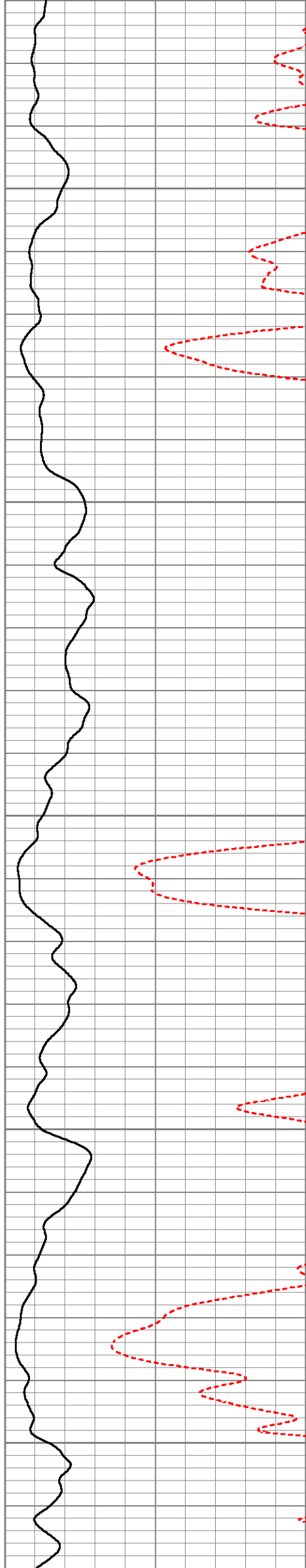
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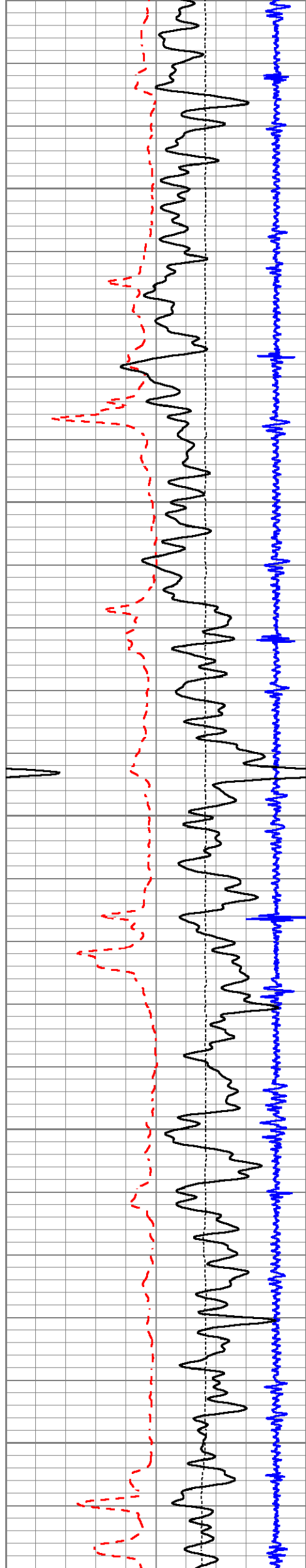
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4450

4500





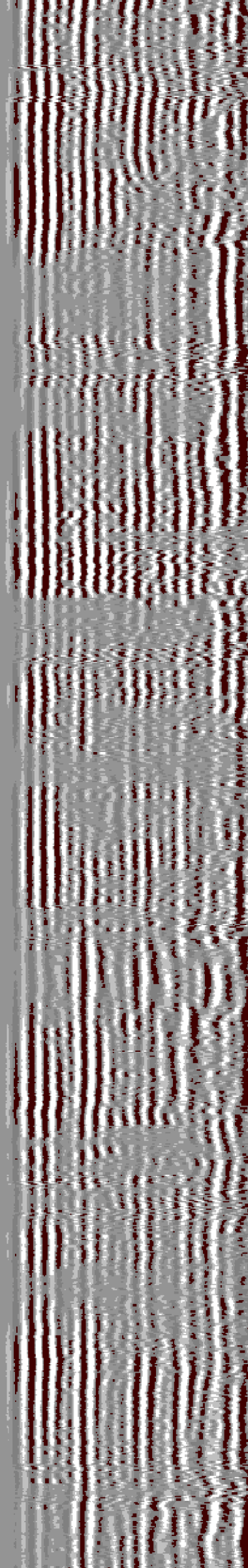
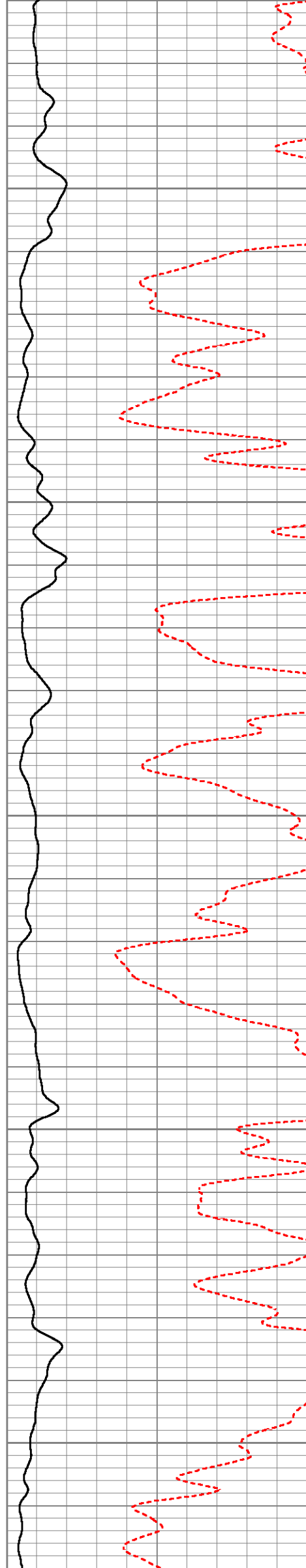
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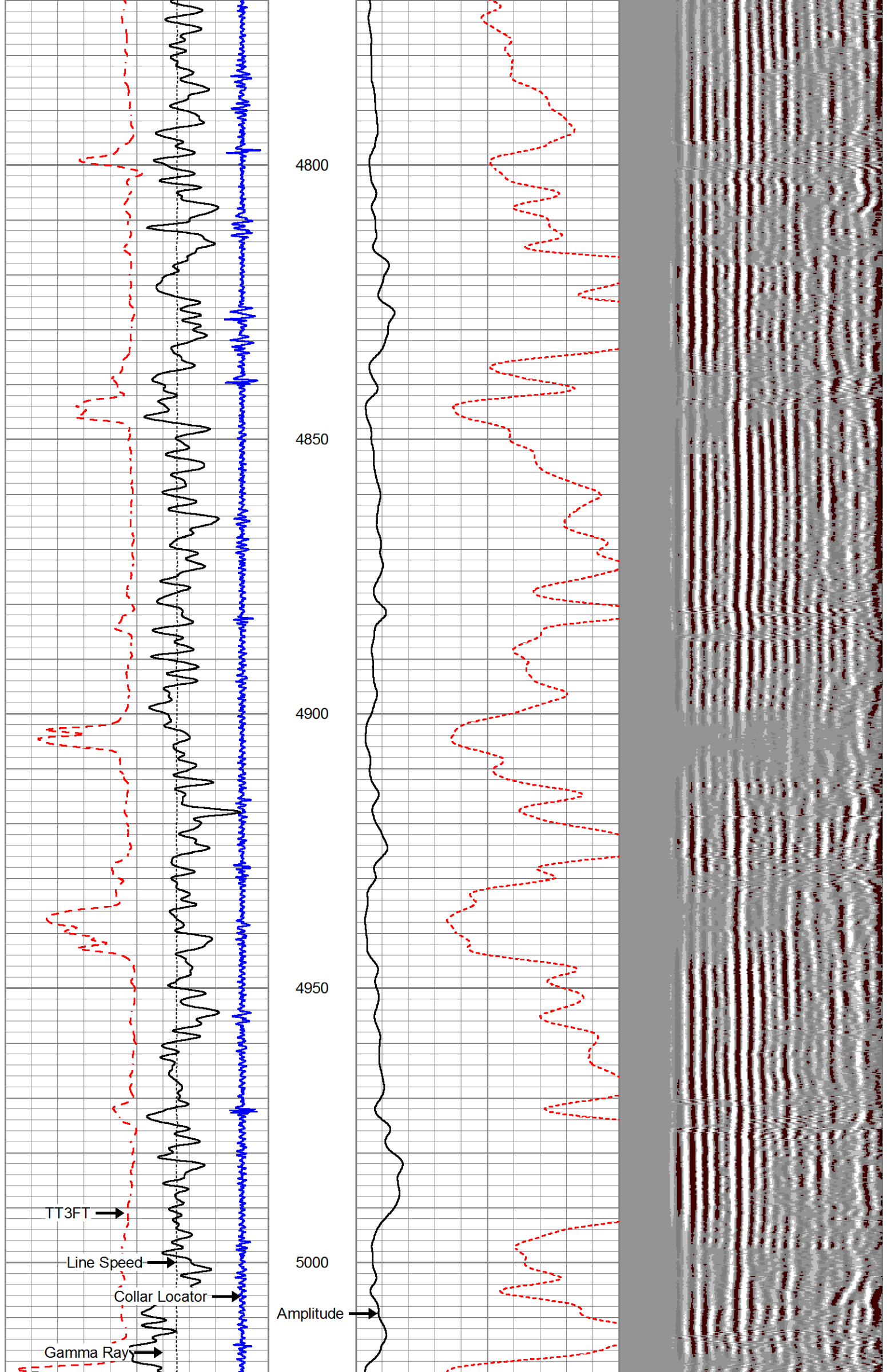
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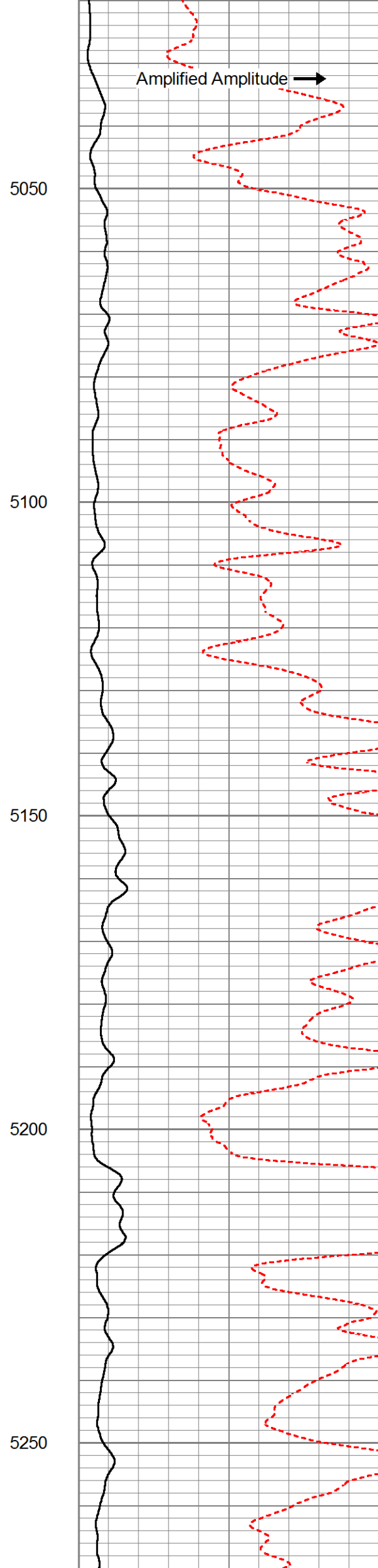
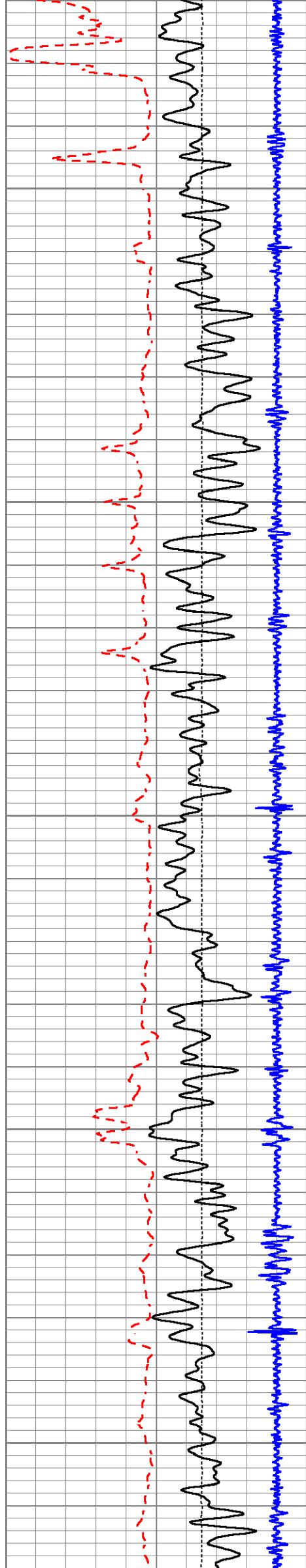
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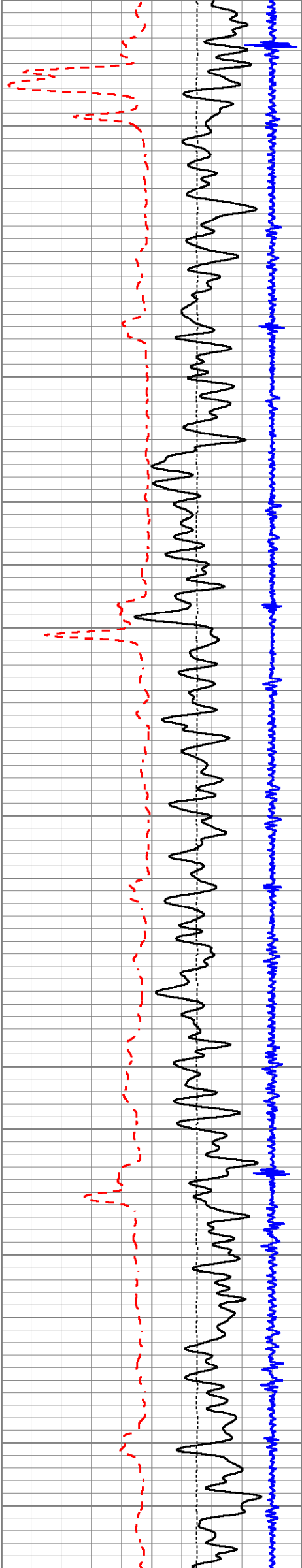
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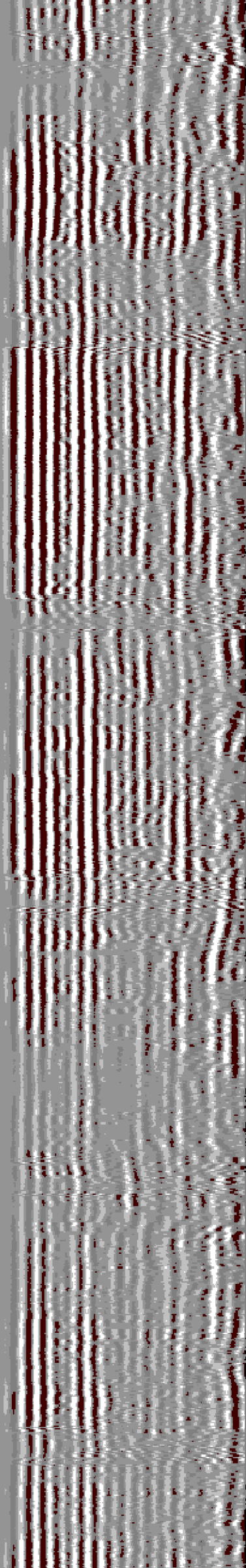
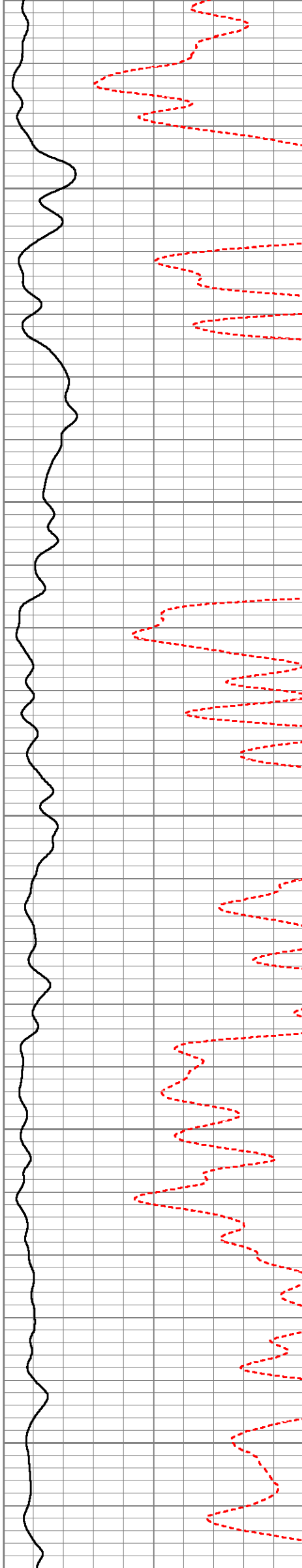
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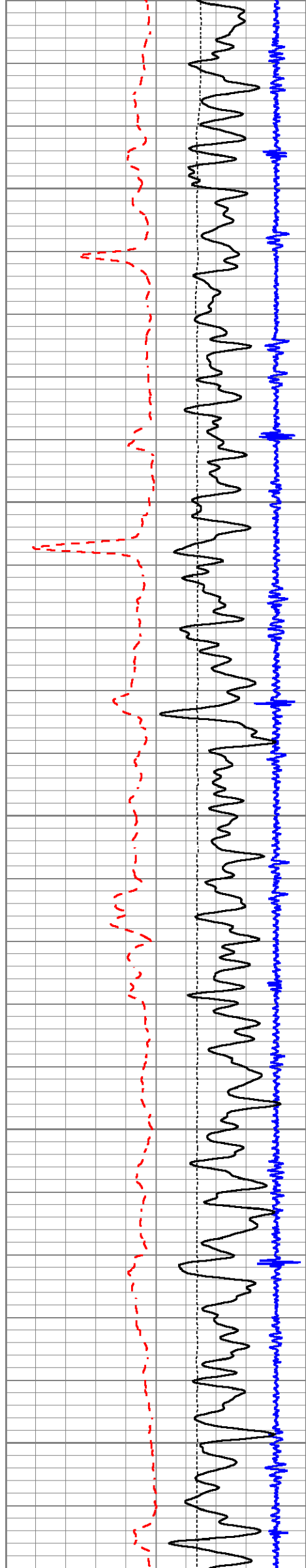
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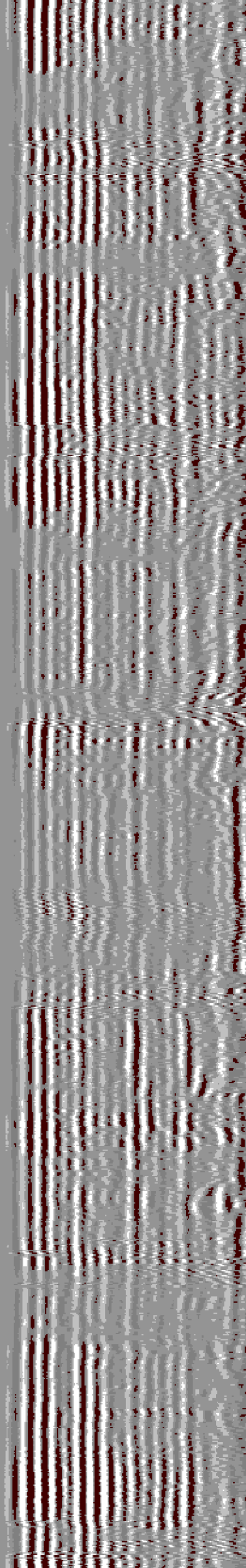
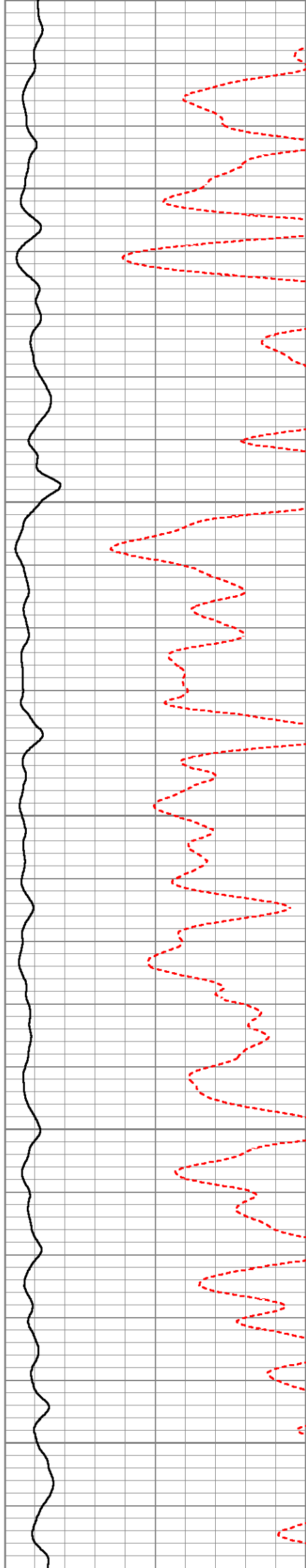
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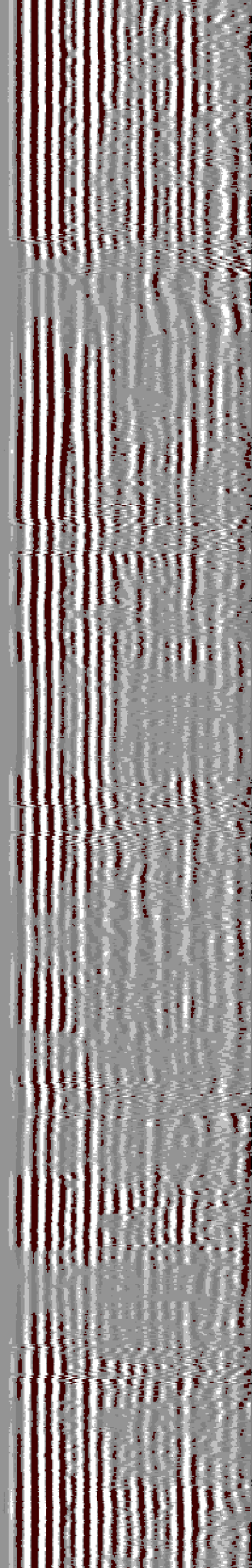
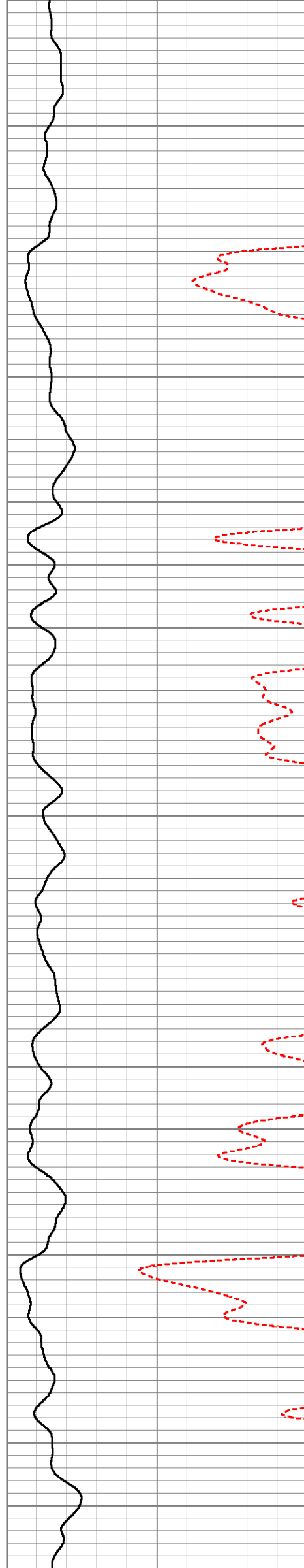
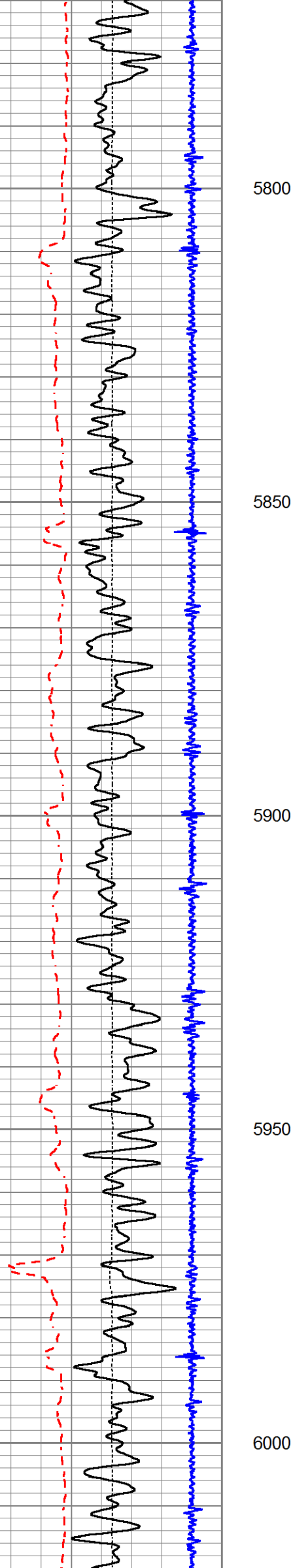
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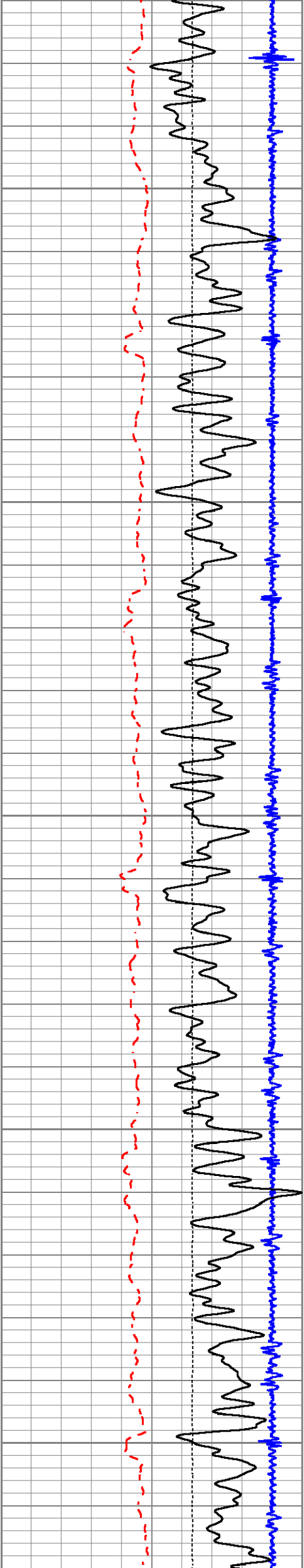
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5750







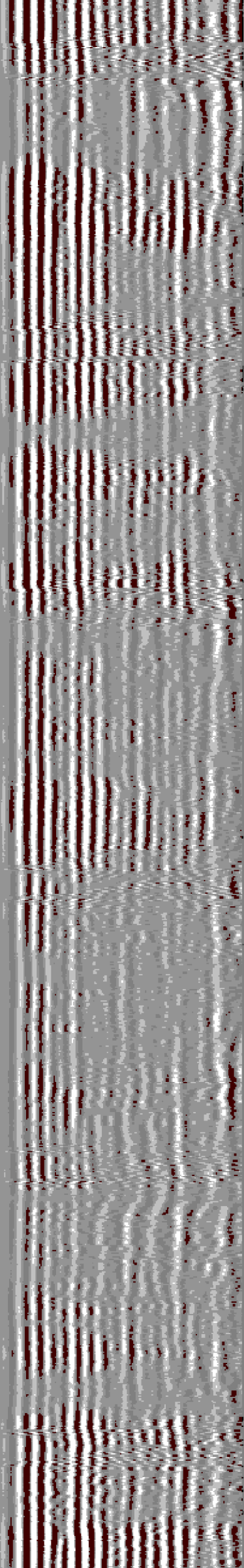
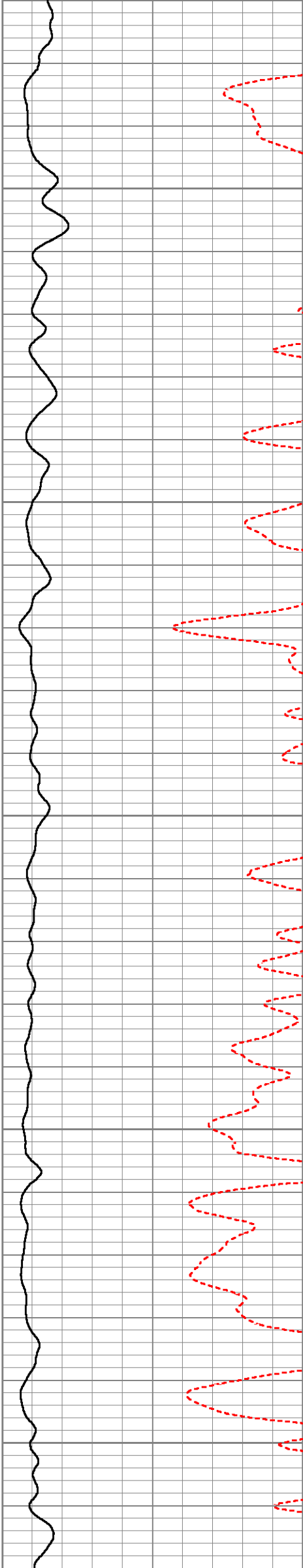
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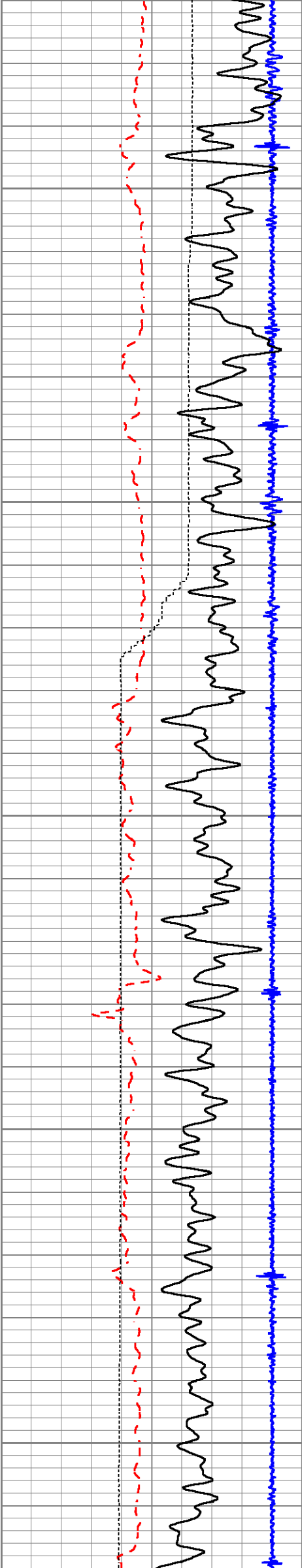
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6150

6200

6250





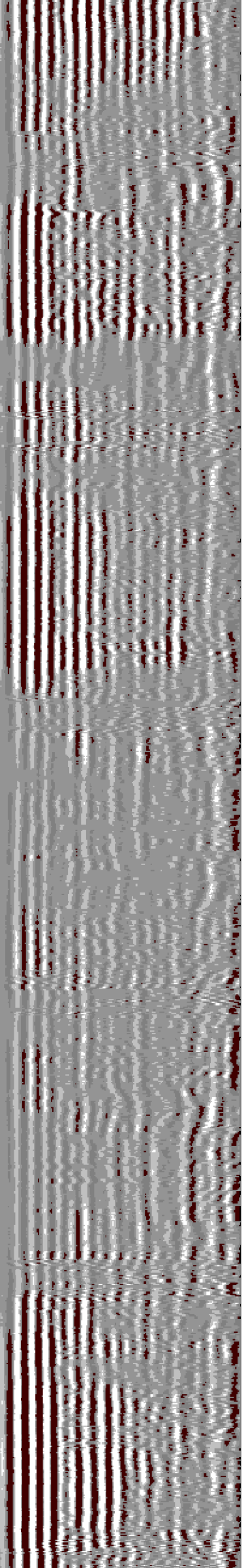
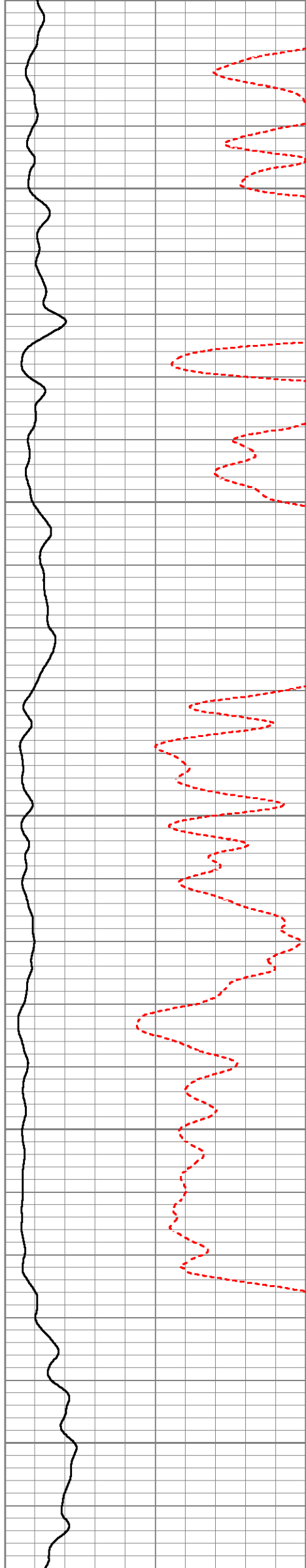
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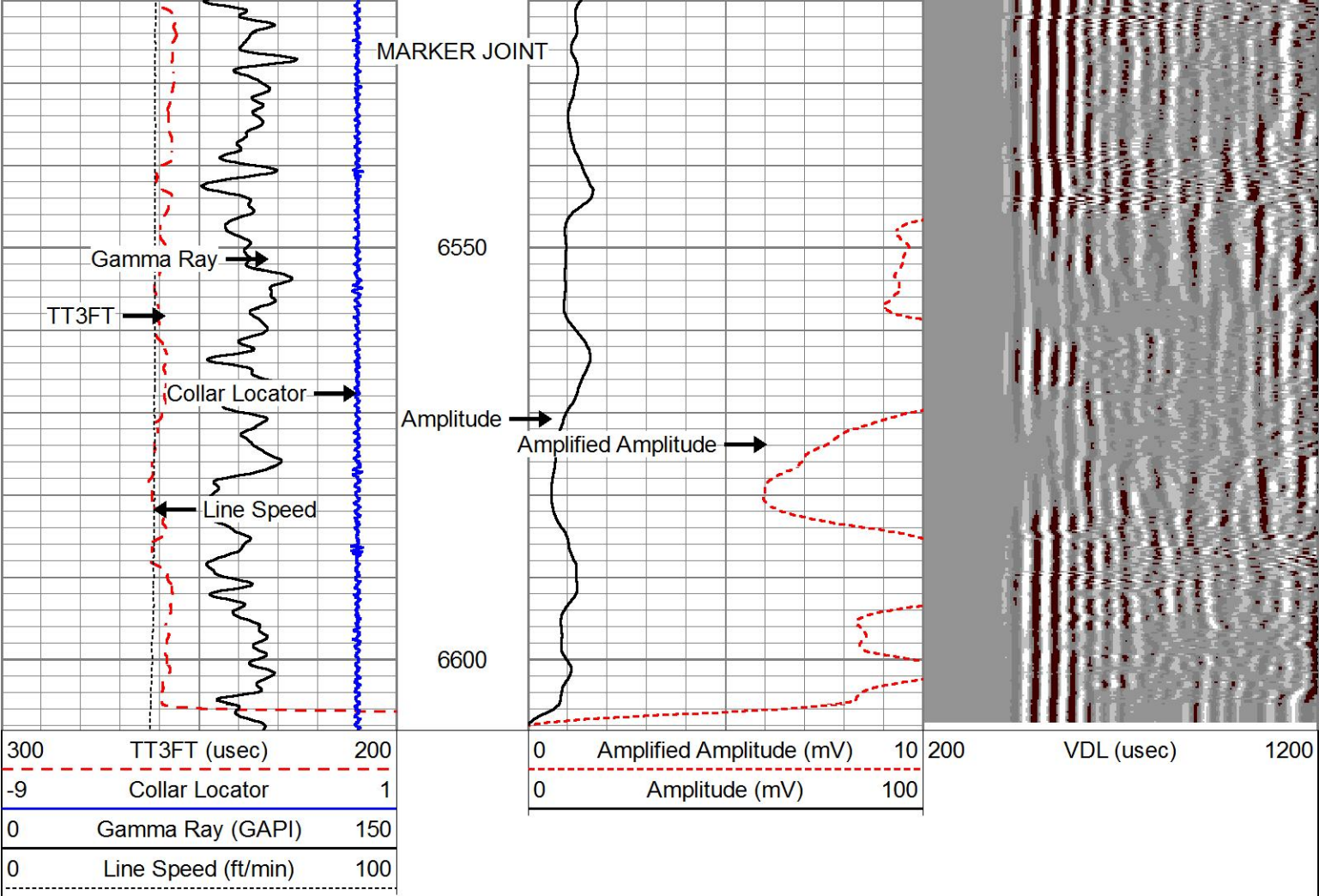
6350

6400

6450

6500





MAIN PASS

SCALE: 5"=100'

HALLIBURTON

REPEAT PASS

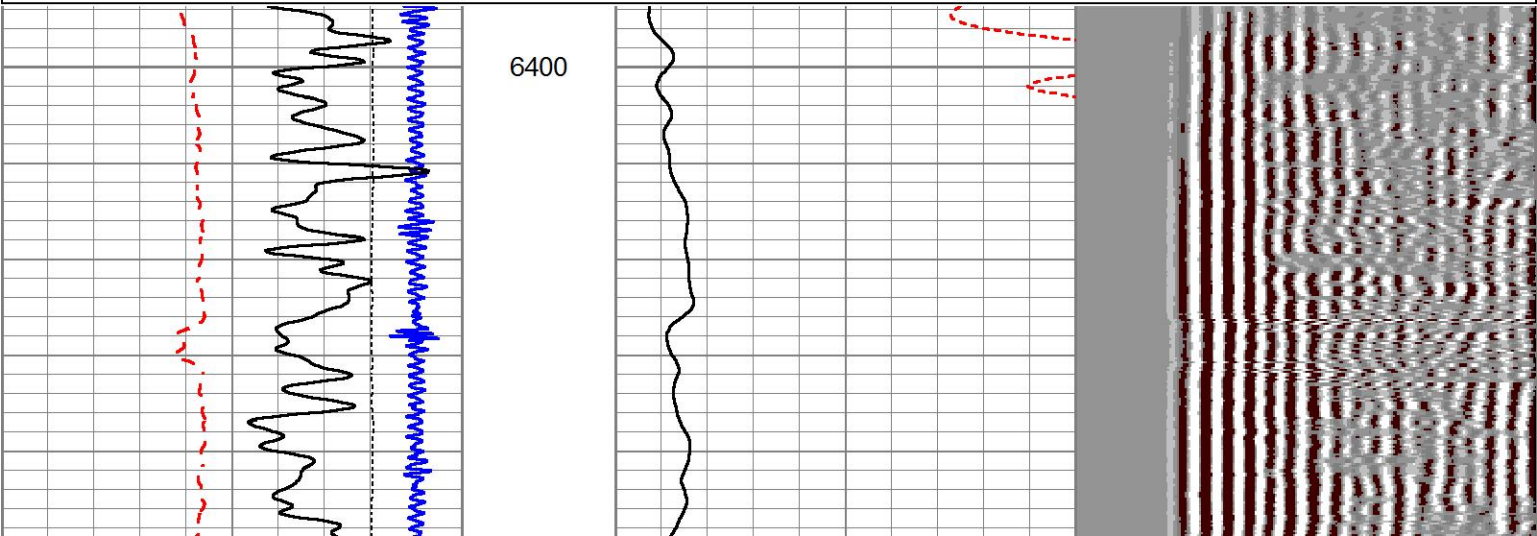
SCALE: 5"=100'

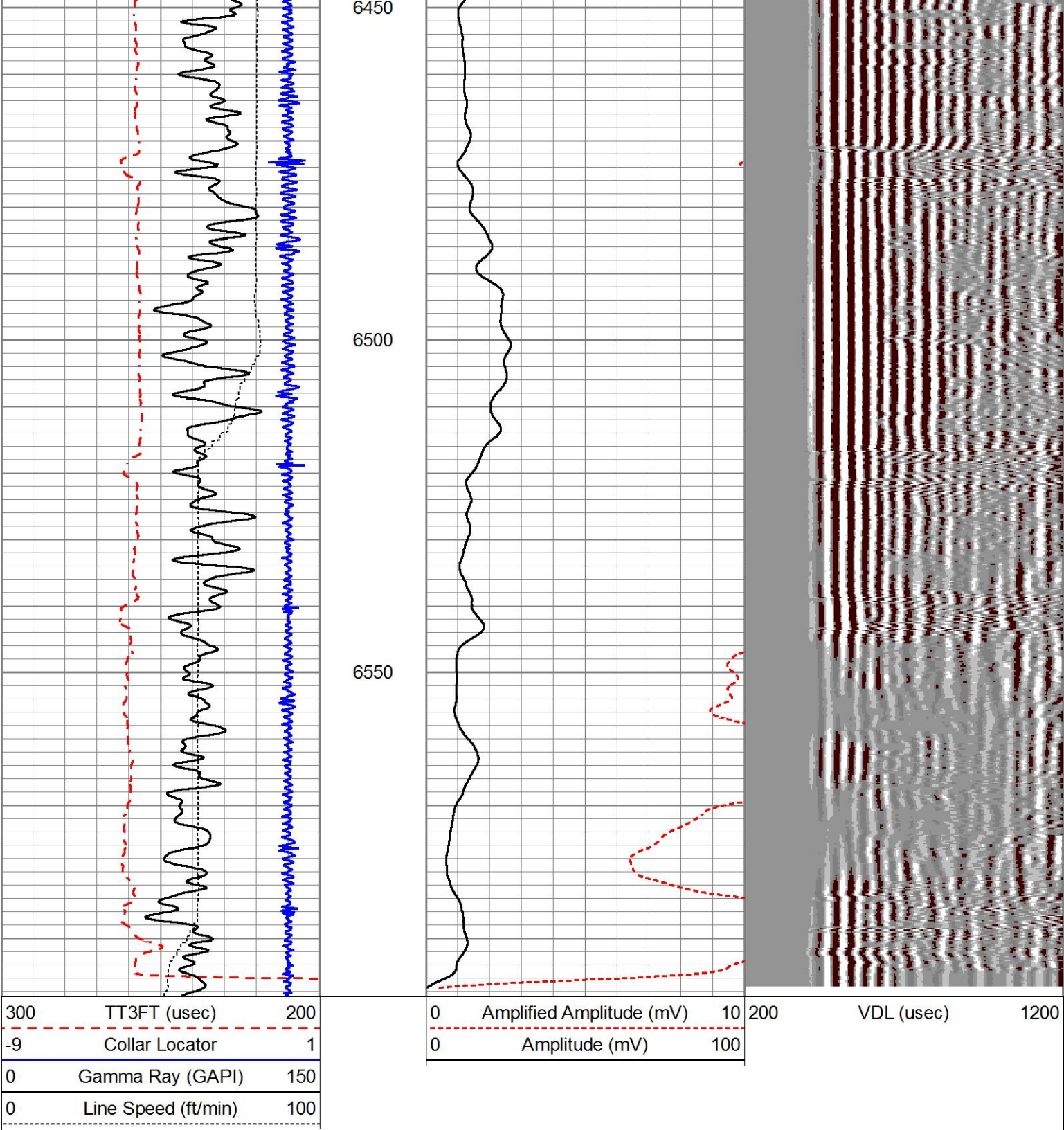
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Dataset Pathname	pass6
Presentation Format	scbl_dr
Dataset Creation	Fri Nov 25 10:30:50 2016
Charted by	Depth in Feet scaled 1:240

300	TT3FT (usec)	200
-9	Collar Locator	1
0	Gamma Ray (GAPI)	150
0	Line Speed (ft/min)	100

0	Amplified Amplitude (mV)	10
0	Amplitude (mV)	100

200	VDL (usec)	1200
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REPEAT PASS

SCALE: 5"=100'

HALLIBURTON

Calibration Report

Database File F:\Synergy Evans Pad\24N-14B\synergy_evans_24n14b_cbl.db
Dataset Pathname pass8
Dataset Creation Fri Nov 25 10:37:33 2016

Temperature Calibration Report

Serial Number: 001
Tool Model: T_Temp
Performed: Mon Apr 04 13:27:25 2011

	Reference	Reading
Low Reference:	0.00 degF	0.00 cps
High Reference:	1.00 degF	1.00 cps

Gain: 0.10

Gain:	0.10
Offset:	0.00
Delta Spacing	1

Gamma Ray Calibration Report		
Serial Number:	308	
Tool Model:	Probe	
Performed:	Mon Nov 21 15:26:47 2016	
Calibrator Value:	243.0	GAPI
Background Reading:	98.5	cps
Calibrator Reading:	348.2	cps
Sensitivity:	0.9733	GAPI/cps



Segmented Cement Bond Log Calibration Report		
Serial Number:	ProbeDIG_001	
Tool Model:	Digital	
Calibration Casing Diameter:	5.500	in
Calibration Depth:	1667.915	ft


Master Calibration, performed Fri Nov 25 09:22:46 2016:						
	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3'	0.002	0.658	0.000	72.000	109.659	-0.171
CAL						
5'	0.000	0.561	0.000	72.000	128.432	-0.052
SUM						
S1						
S2						
S3						
S4						
S5						
S6						
S7						
S8						

Internal Reference Calibration, performed (Not Performed):						
	Raw (v)		Calibrated (v)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
CAL						

Air Zero Calibration, performed Fri Nov 25 00:50:07 2016:						
	Raw (v)		Calibrated (v)		Results	
	Zero		Zero		Offset	
3'	0.000		0.000		0.000	
5'	0.000		0.000		0.000	
SUM						
S1						
S2						
S3						
S4						
S5						
S6						
S7						
S8						

BHTEMP_Src TEMP	BITSIZE in 7.875	BOTTEMP degF 100	CASEOD in 5.5	CASETHCK in 0	CASEWGHT lb/ft 17	MAXAMPL mV 0	MINAMPL mV 1
MINATTN db/ft 0.8	MudWgt lb/gal 9.5	PERFS 0	PPT usec 0	SRFTEMP degF 0	TDEPTH ft 0		

Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb)
WVF3FT	12.90		STNDCH-1_11_16_CH 1.6875 IN CABLE HEAD	1.50	1.44	1.00
			CENT-Probe_275 (00001) Inline Centralizer	2.83	5.00	15.00
			PRBDIGCBL-Digital (ProbeDIG_001) Probe 3' and 5' with Digital Telemetry	9.17	2.75	100.00
			CENT-Probe_275 (00001) Inline Centralizer	2.83	5.00	15.00
CCL	5.11		GR-Probe (308) Probe 2.75" 4 Channel Pulse	4.33	2.75	30.00
GR	2.38					

TEMP	0.42		TEMP-T_Temp (001) Titan 1.375 Temp Tool	1.48	1.38	5.00
Dataset: synergy_evans_24n14b_cbl.db: field/well/run1/pass8 Total length: 22.15 ft Total weight: 166.00 lb O.D.: 5.00 in						

Company	SYNERGY RESOURCES				
Well	EVANS 24N-14B-L				
Field	WATTENBERG				
County	WELD		State	CO	
HALLIBURTON	CEMENT BOND LOG				