

HALLIBURTON

CEMENT BOND LOG

Company		FIFTH CREEK ENERGY	
Well		CRITTER CREEK 278-1527H	
Field		HEREFORD	
County		WELD	State CO

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Well		CRITTER CREEK 278-1527H	
Field		HEREFORD	
County		WELD	State CO

API No.: 05123447110000 Serv #: 904167365

Location: SURFACE HOLE LOCATION:
SWSE 279' FSL & 1690' FEL

LAT: 40.915953
LONG: -104.415617

Other Services

Sec: 15 Twp: 11N Rge: 63W

JUNK BASKET
GAUGE RING
PLUG & PERF

Permanent Datum	GROUND LEVEL	Elevation	5228'	Elevation
Log Measured From	KB	16 Ft. above perm. datum		K.B. 5244' D.F. 5244' G.L. 5228'
Drilling Measured From	KB			

Date @ Time Logged	7/19/2017 @ 23:00	Type Fluid in Hole	FRESH WATER
Run No.	ONE	Density of Fluid	8.4#
Depth - Driller	17844'	Fluid Level	SURFACE
Depth - Logger	7568'	Cement Top Est. Logged	926'
Bottom - Logged Interval	7559'	Equipment / Location	11875120 / BRIGHTON
Top - Log Interval	SURFACE	Recorded by	J. SCHMIDT
Max. Recorded Temp.	N/A	Witnessed by	C. HALSTEAD

CEMENTING DATA	Surface	Protection	Production	Liner
	String	String	String	

Date / Time Cemented				
Primary / Squeeze				
Expected				
Compressive Strength	psi@ hrs	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	

<<< 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

MAIN PASS WAS LOGGED AT 2000 PSI

DEPTH CORRELATED TO KB DUE TO LACK OF MARKER JOINT IN LOGGED INTERVAL

TOOLS RAN IN 5.5" 17# CASING

***THANK YOU FOR CHOOSING HALLIBURTON ENERGY SERVICES**

Service Ticket No.	904167365	API No.	05123447110000	PGM Ver	WARRIOR 8
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The Well Name, Location, Borehole Description, and / or Cementing Data Furnished by Client

EQUIPMENT DATA							
GAMMA		CBL					
Run No.	ONE	Run No.	ONE	Run No.		Run No.	
Serial No.	275	Serial No.	275	Serial No.		Serial No.	
Model No.	PROBE CBL	Model No.	PROBE CBL	Model No.		Model No.	
Diameter	2.75"	Diameter	2.75"	Diameter		Diameter	

LOGGING DATA					
General Data					
Pass	Depths		Well Head	Speed	Logging Run Comments
No	From	To	Pressure	Ft/Min	

ONE	CURVE	SURFACE	2000 PSI	100			
	GAMMA		AMP 3 FT				
Pass	Scale		Scale		Scale		Scale
No.	L	R	L	R	L	R	L
	0	300	0	100			
DIRECTIONAL INFORMATION							
Maximum Deviation			deg. @		KOP		

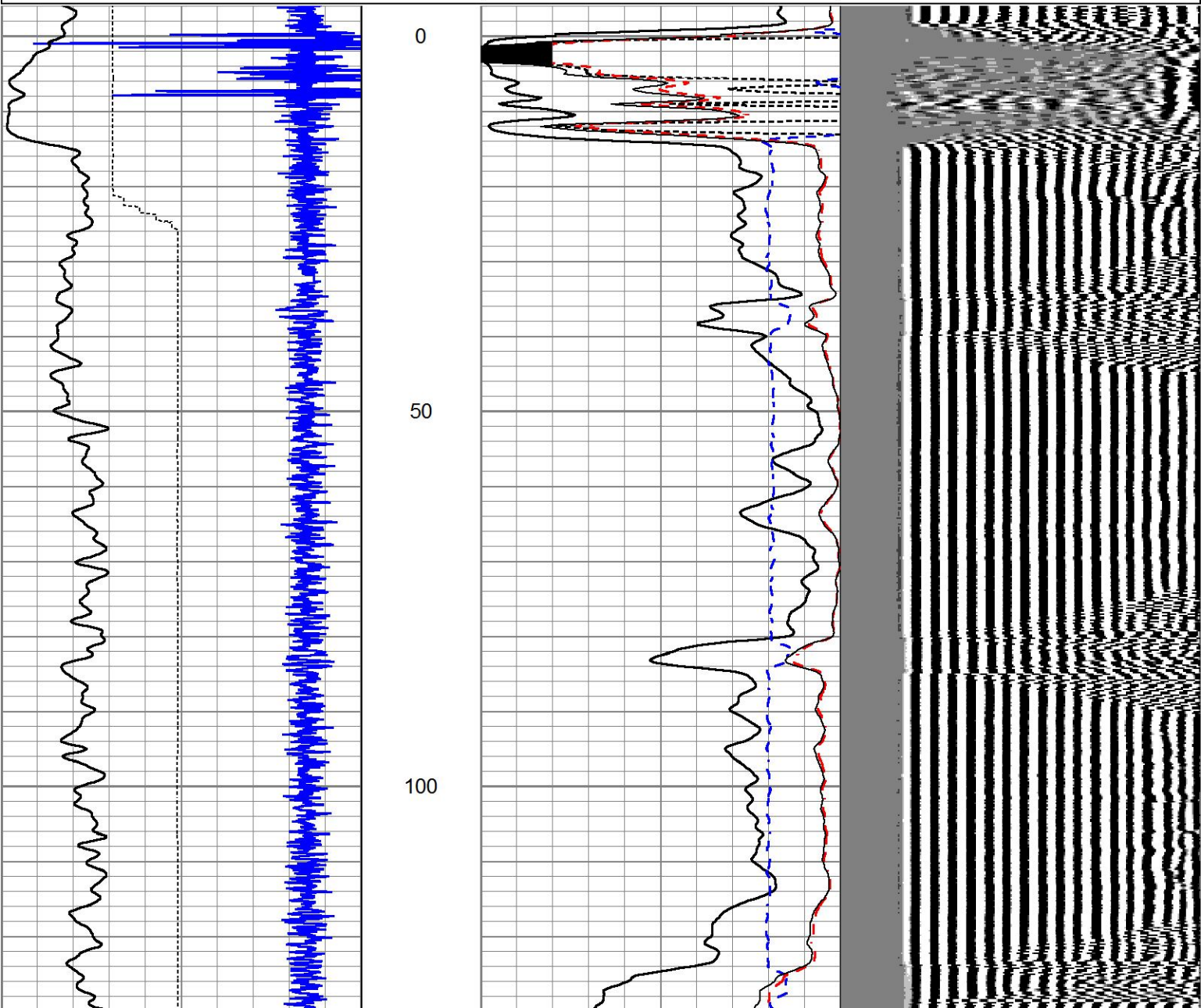
HALLIBURTON

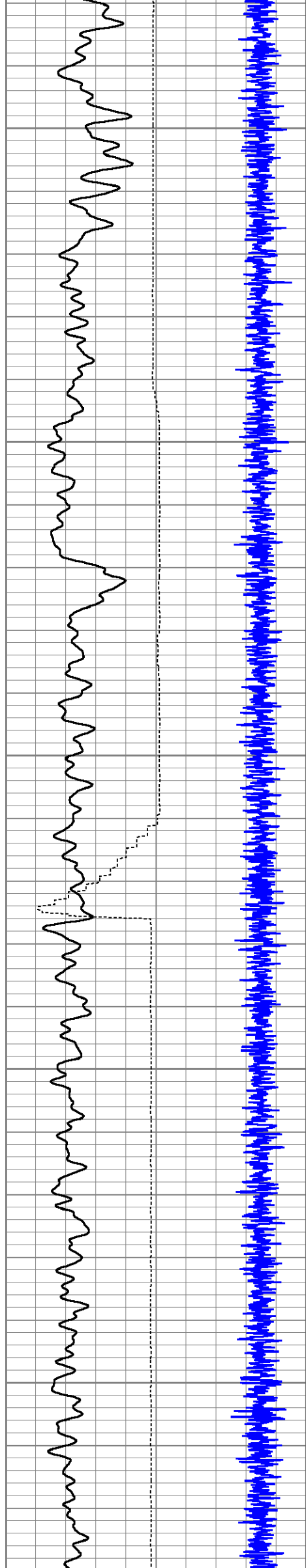
MAIN PASS (2000 PSI)

5" = 100'

Database File	critter_creek_278.db
Dataset Pathname	MAIN
Presentation Format	cbl_dr
Dataset Creation	Wed Jul 19 23:11:53 2017
Charted by	Depth in Feet scaled 1:240

0.15	Collar Locator	-0.01	0	AMP3FT (mV)	100	200	WVF5FT (usec)	1200
0	Gamma Ray (GAPI)	300	200	TT3FT (usec)	275			
0	Line Speed (ft/min)	200	-15	Attenuation (db/ft)	0			
			1	Bond Index	0			
			200	PPT (usec)	275			





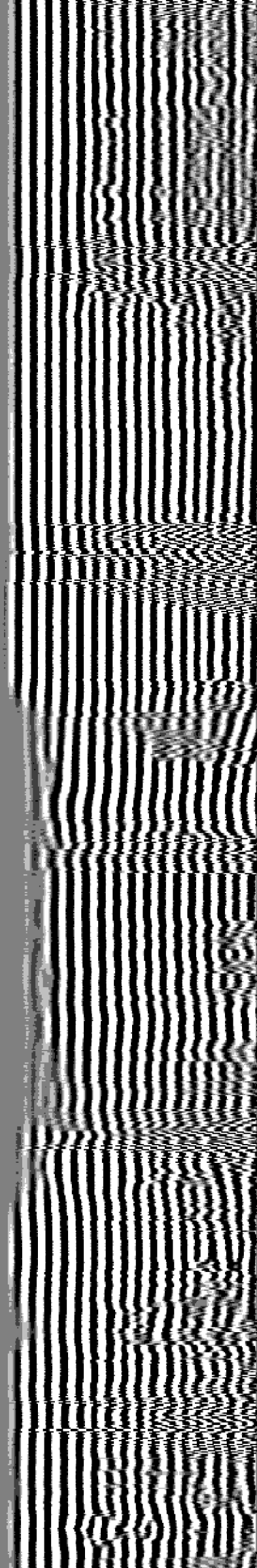
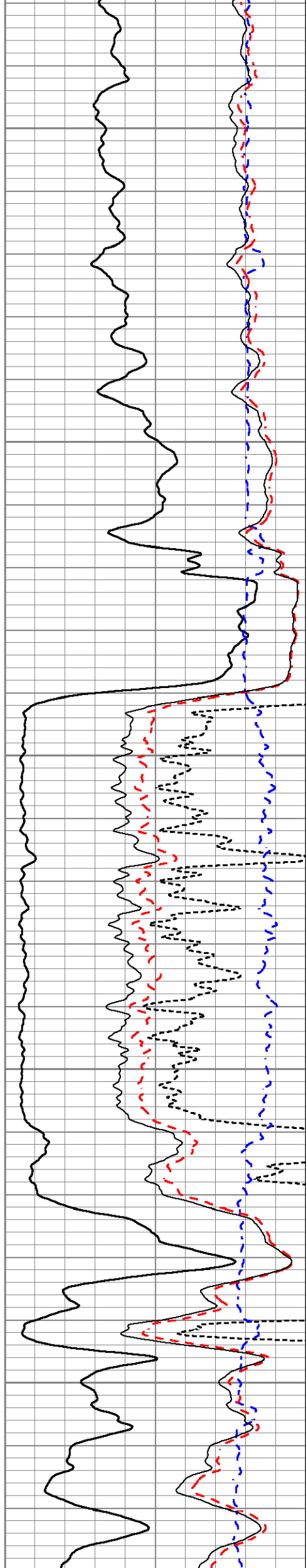
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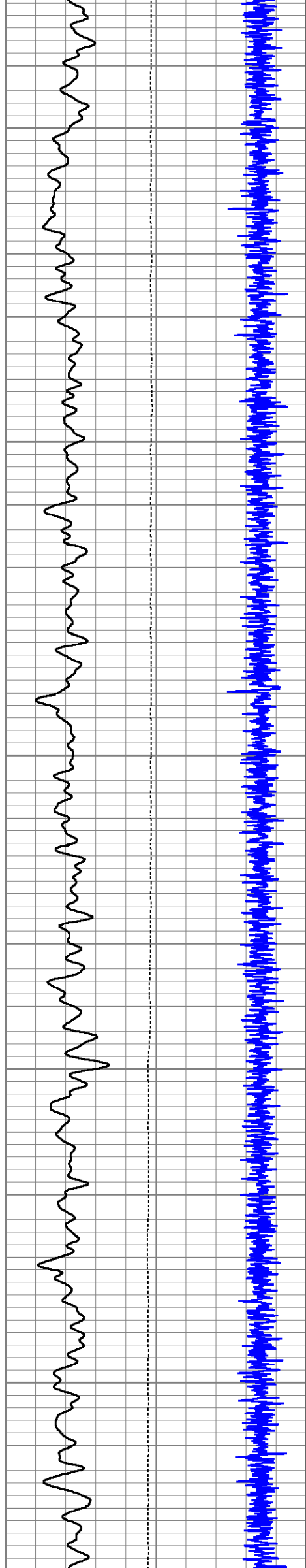
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250

300

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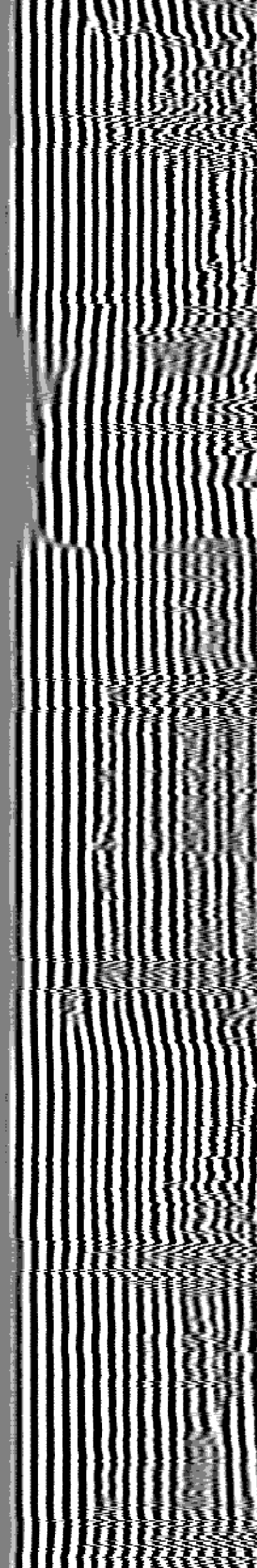
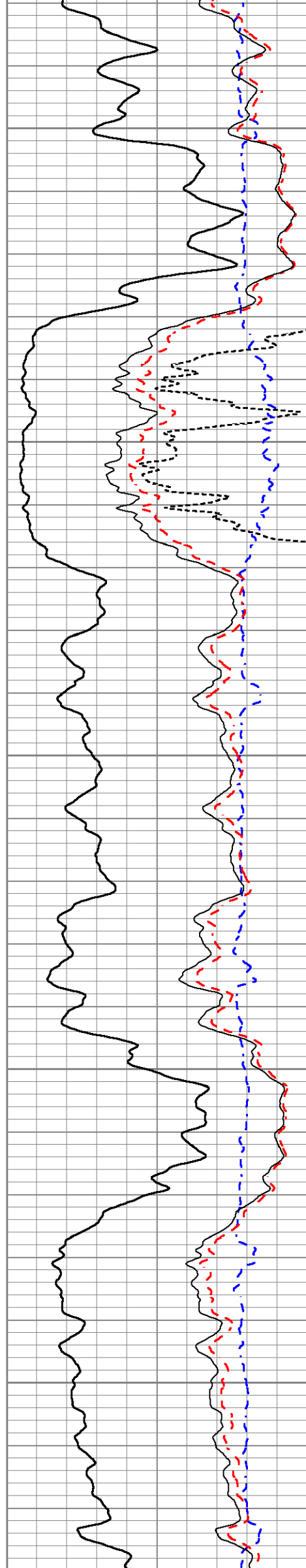
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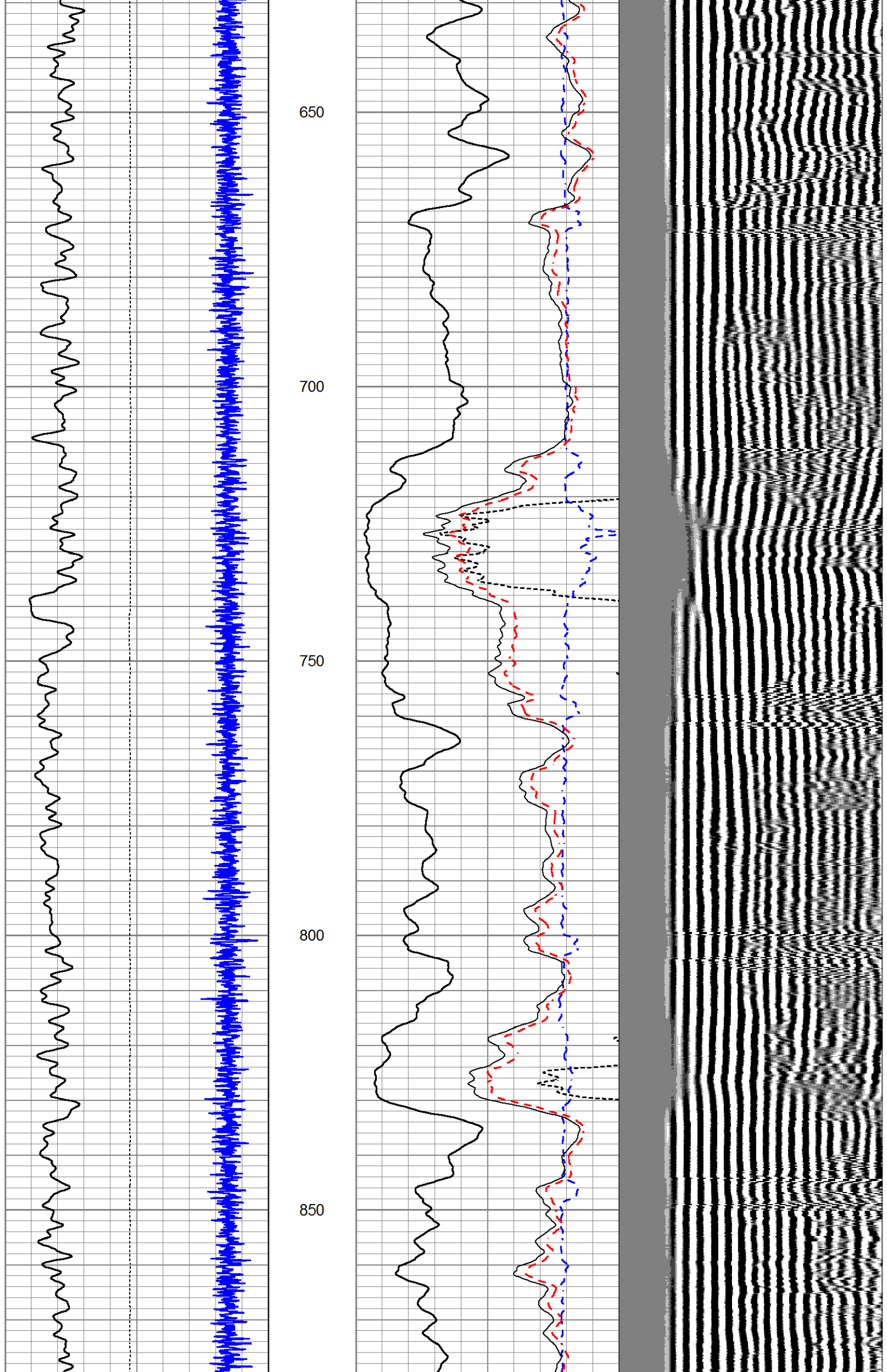
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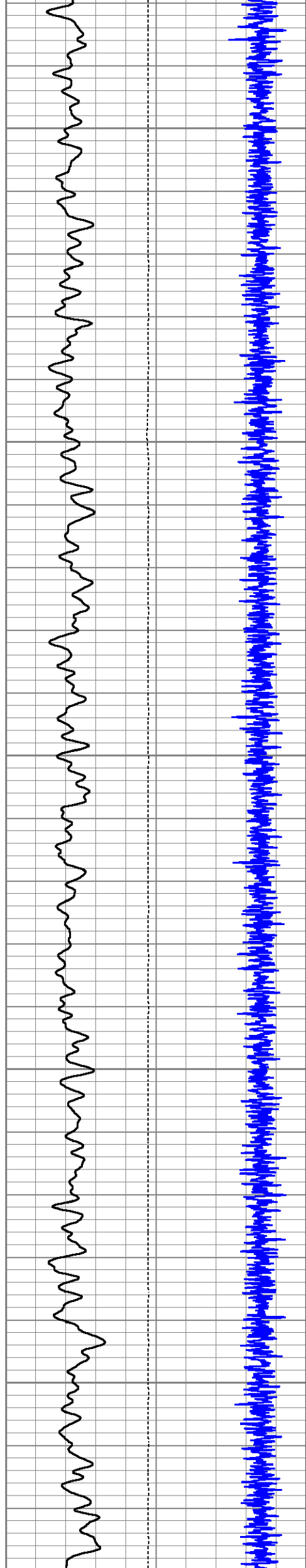
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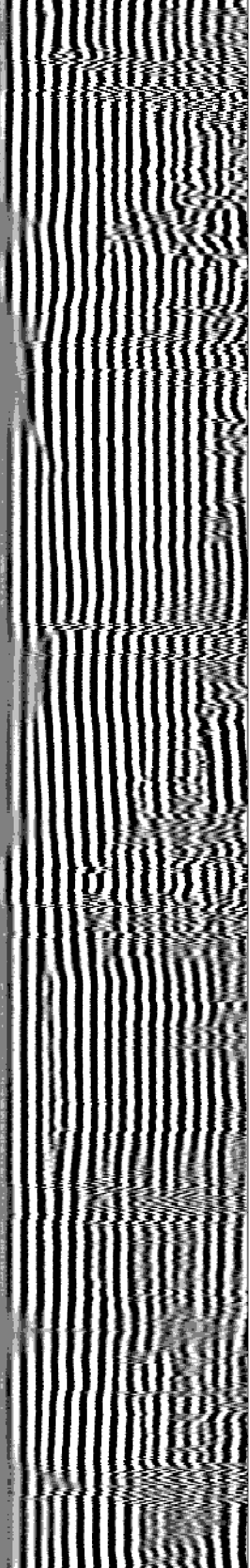
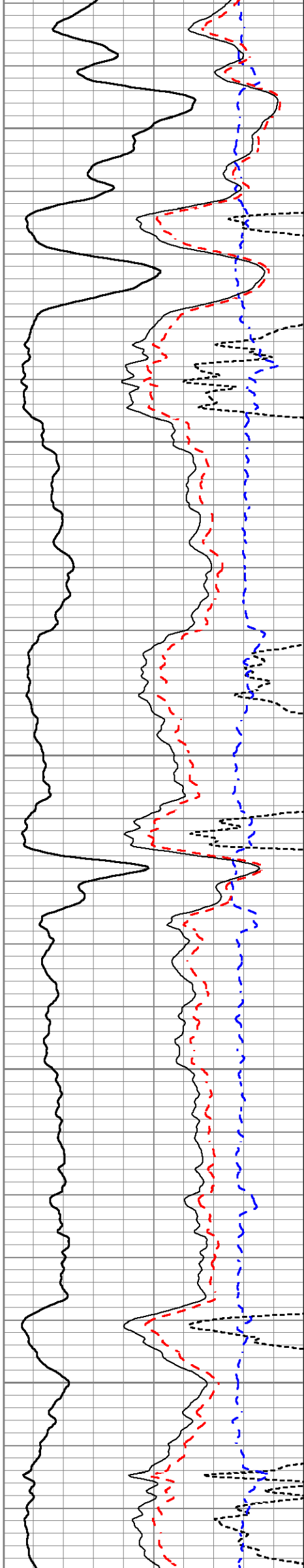
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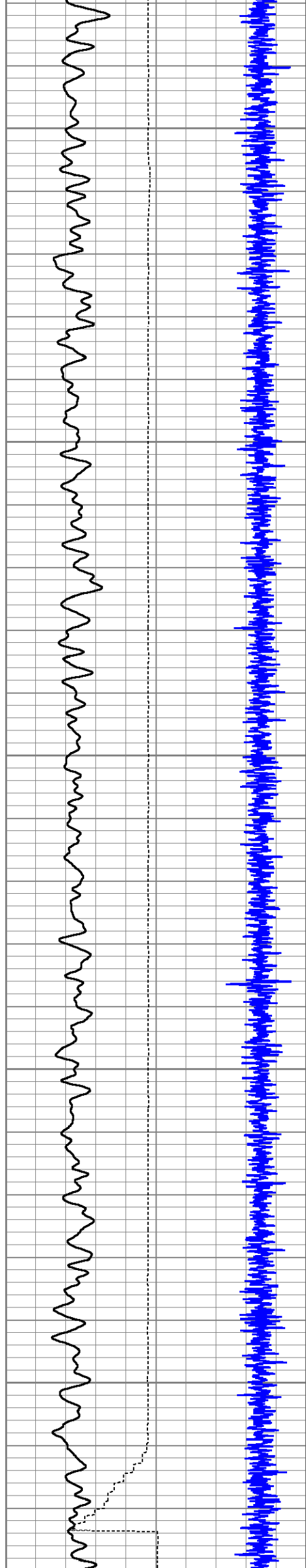
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1000

1050

1100





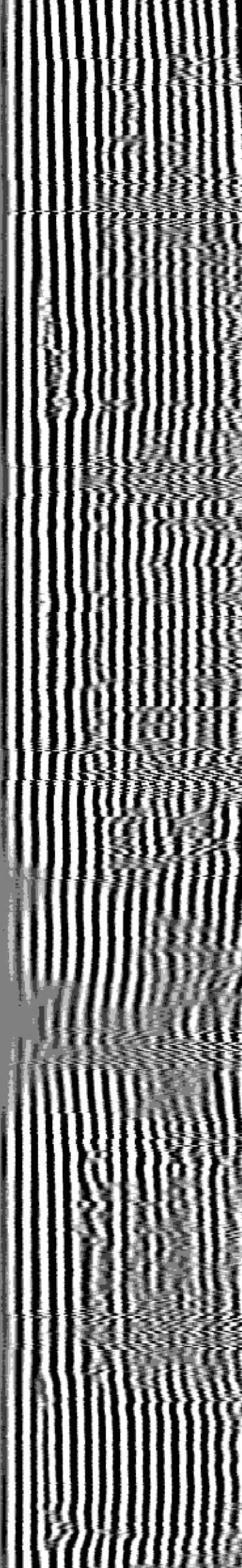
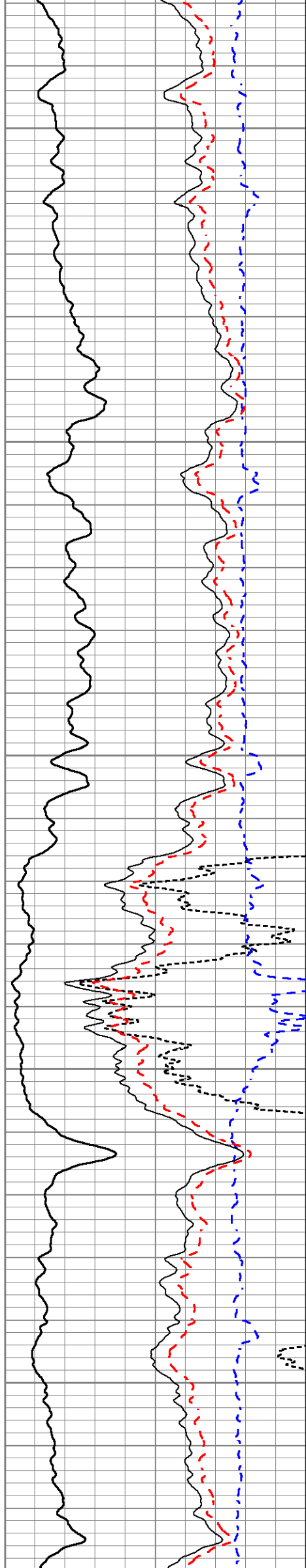
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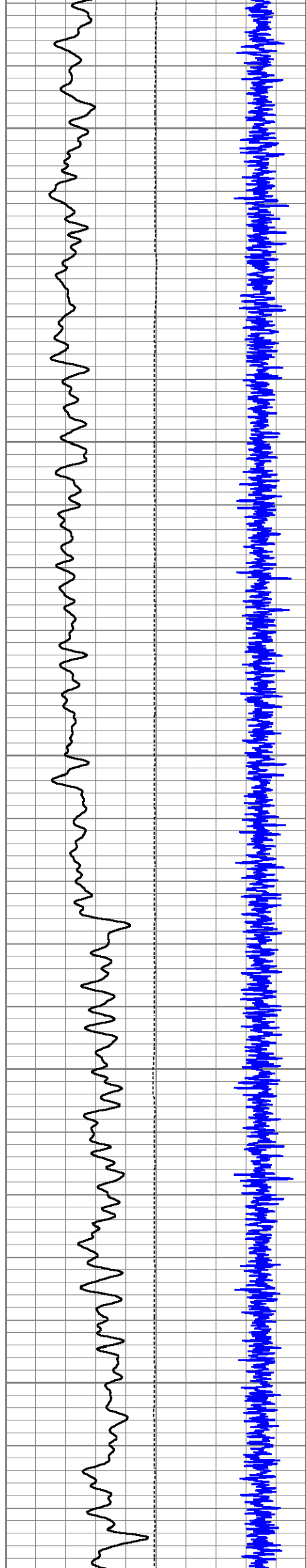
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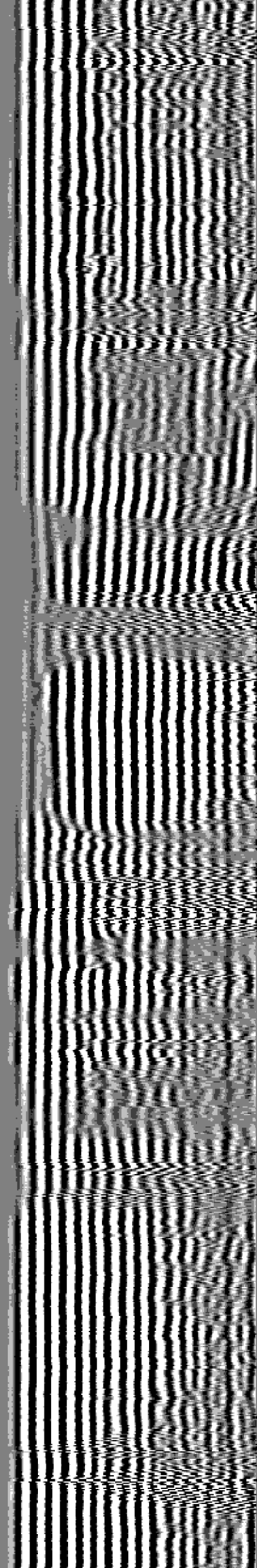
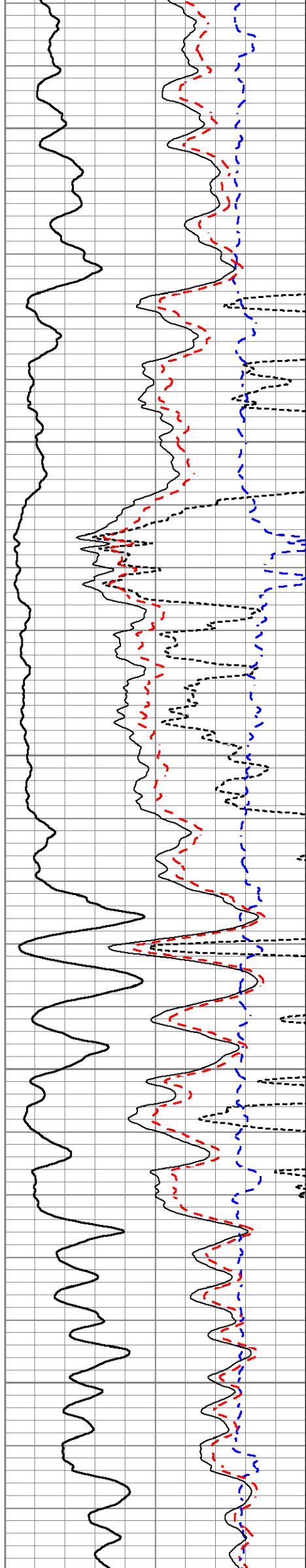
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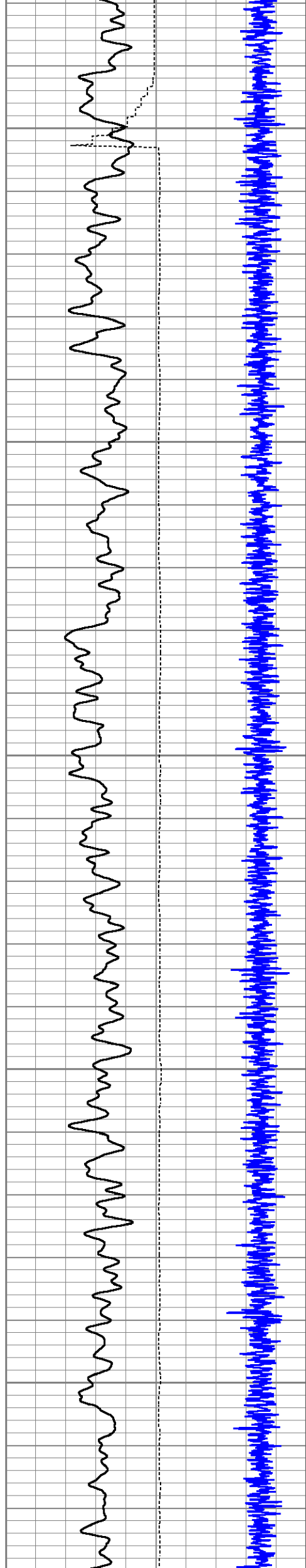
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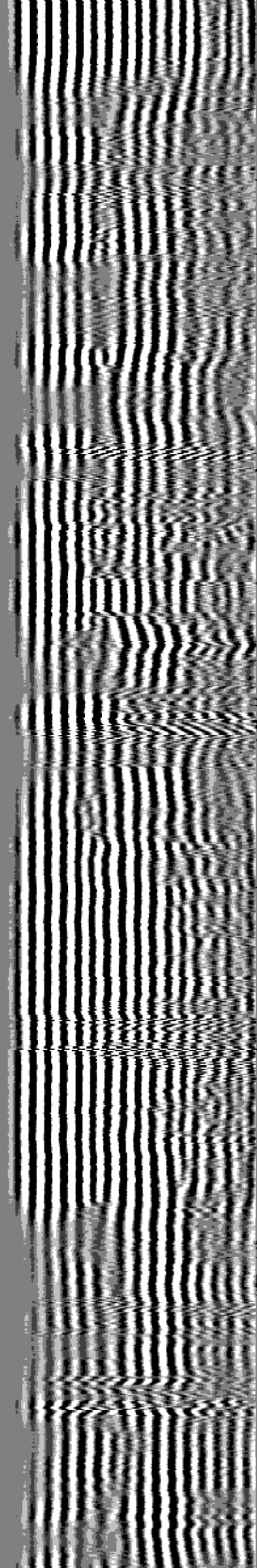
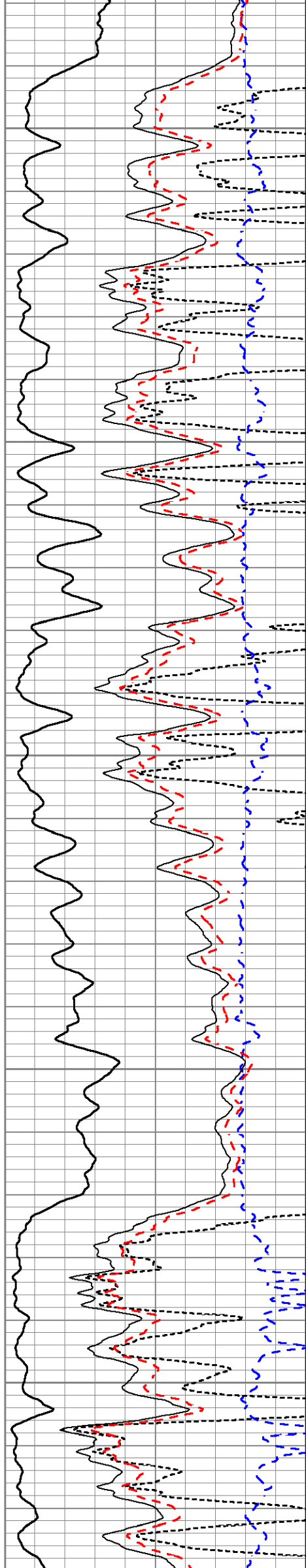
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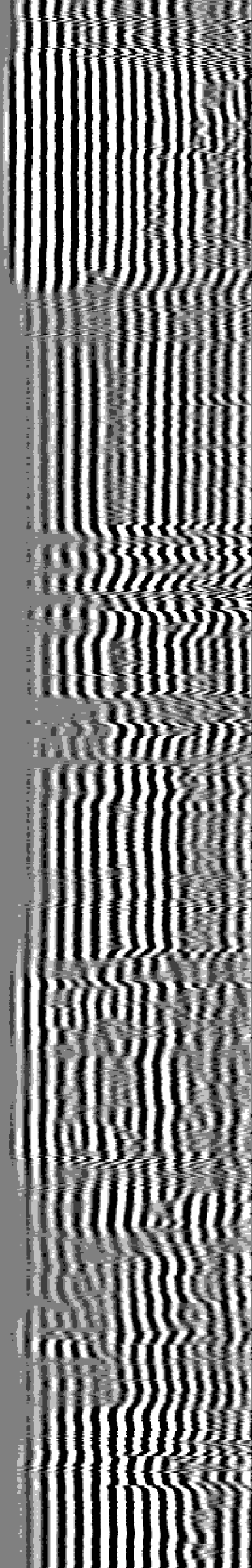
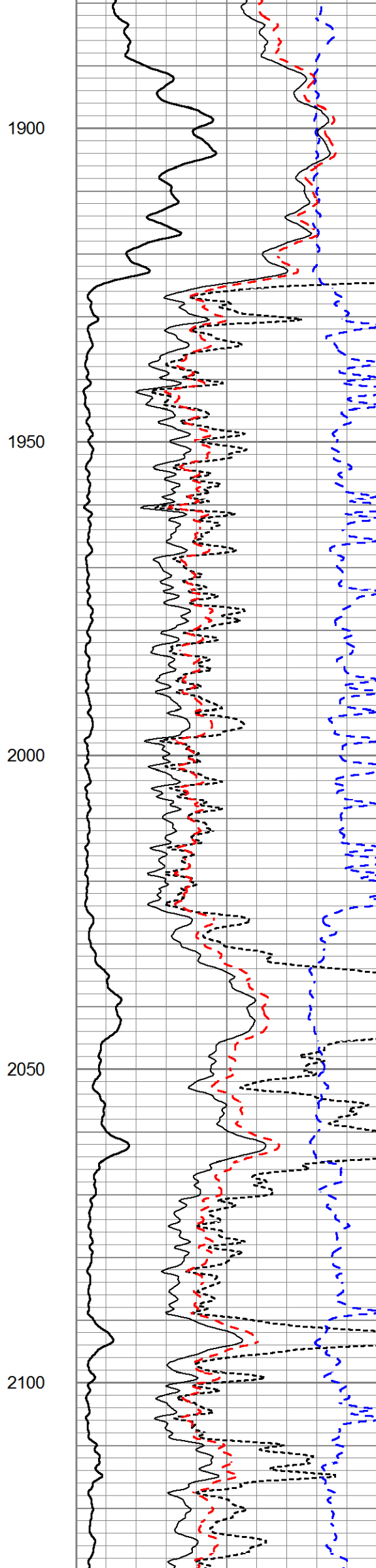
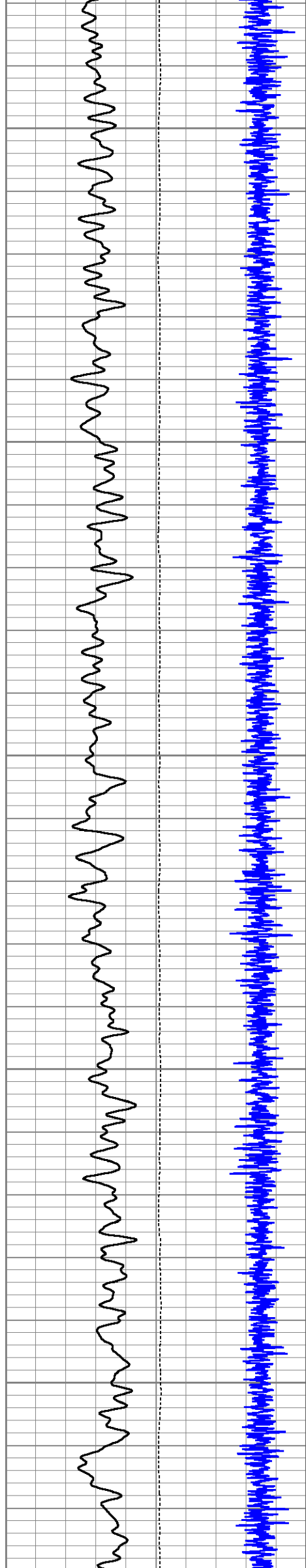
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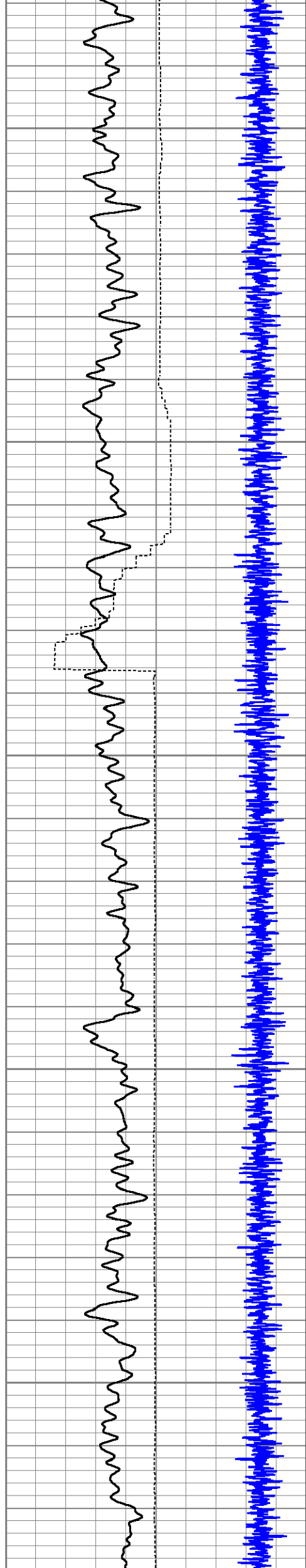
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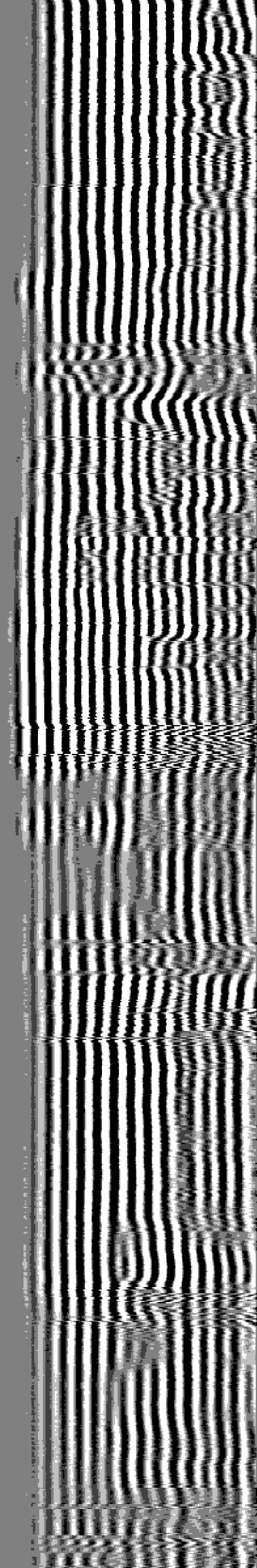
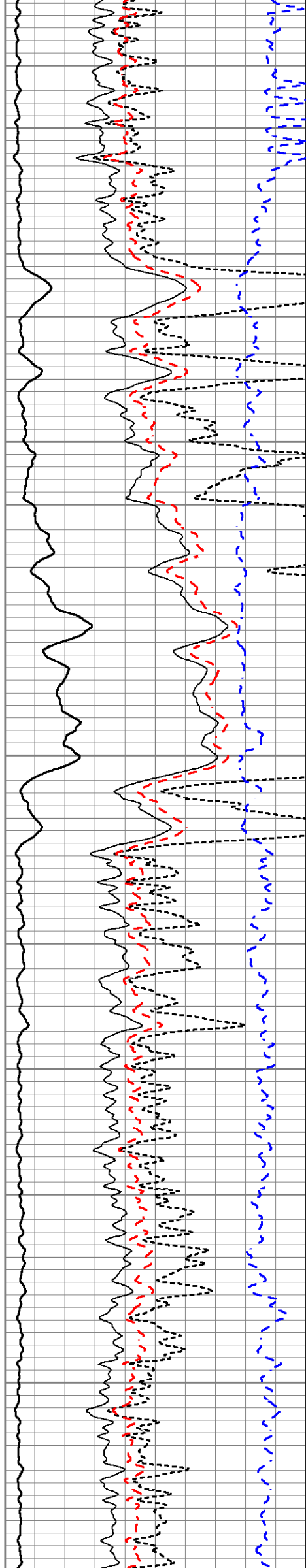
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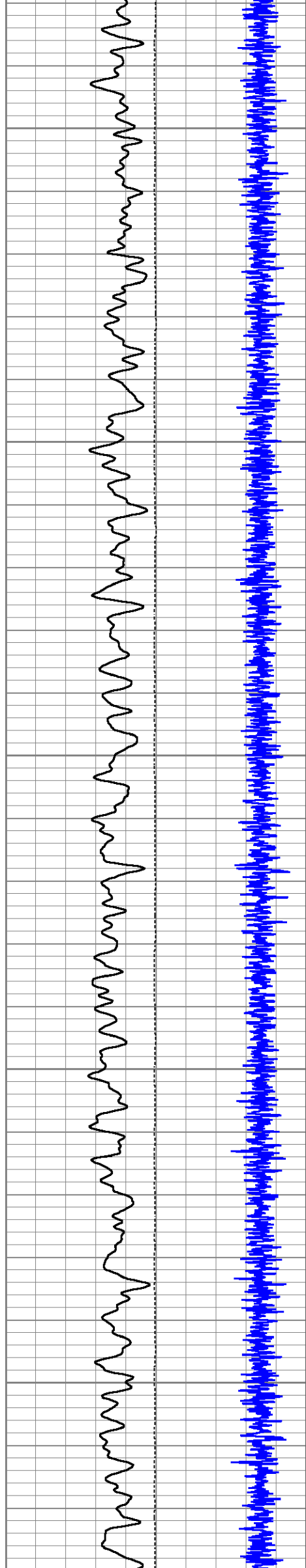
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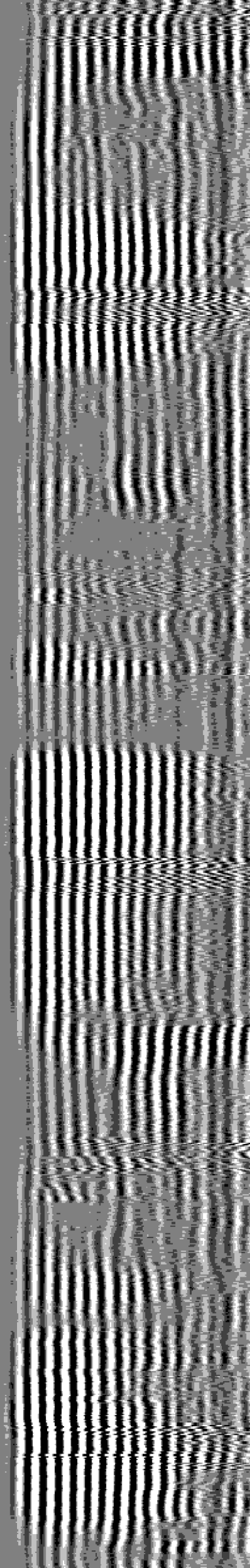
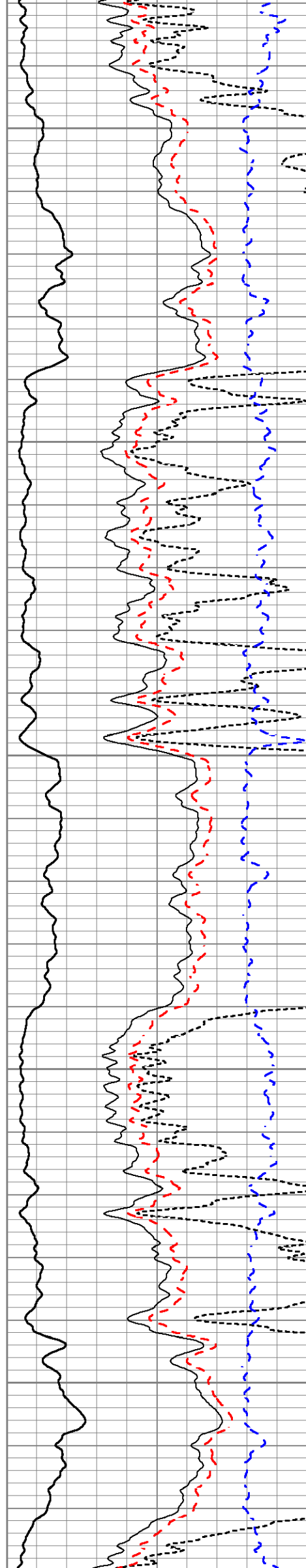
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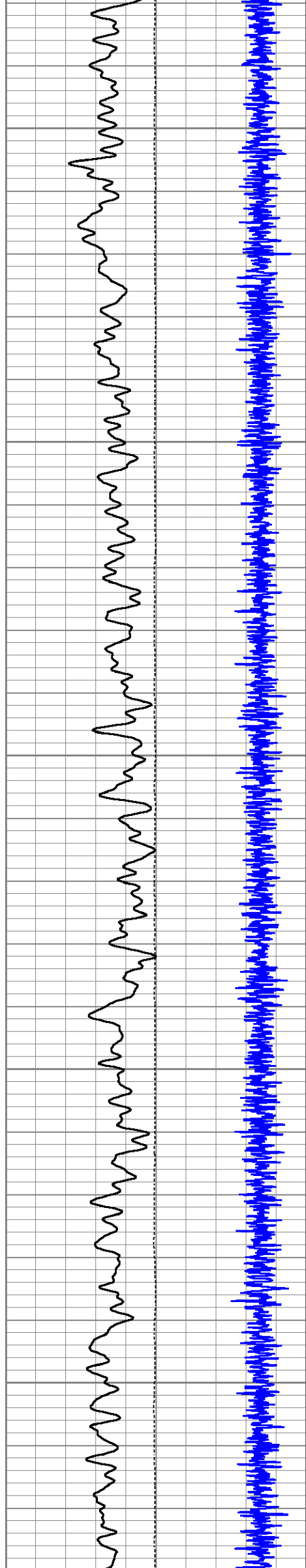
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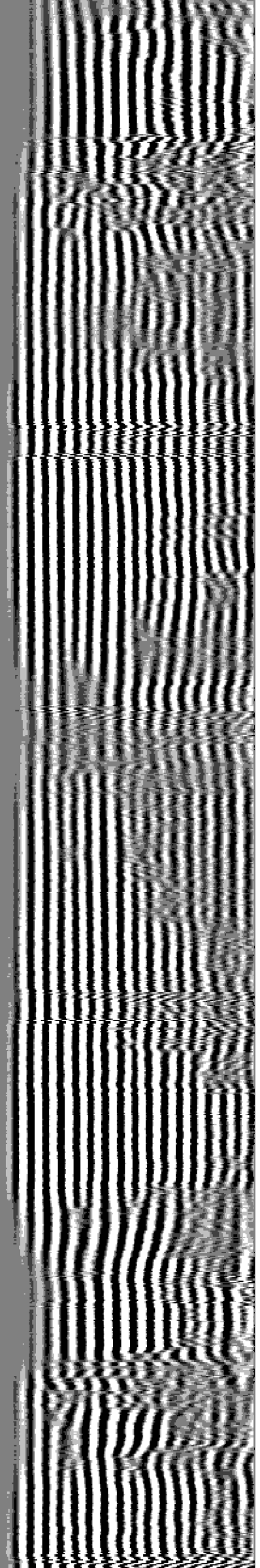
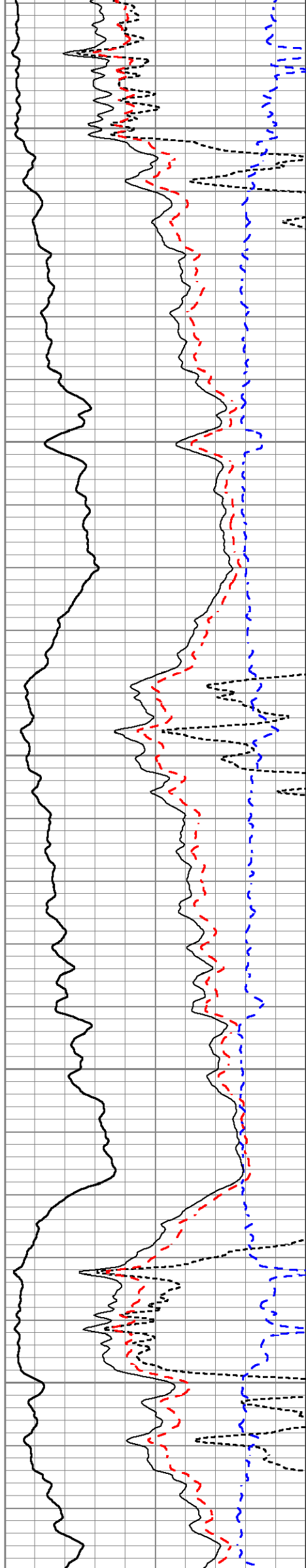
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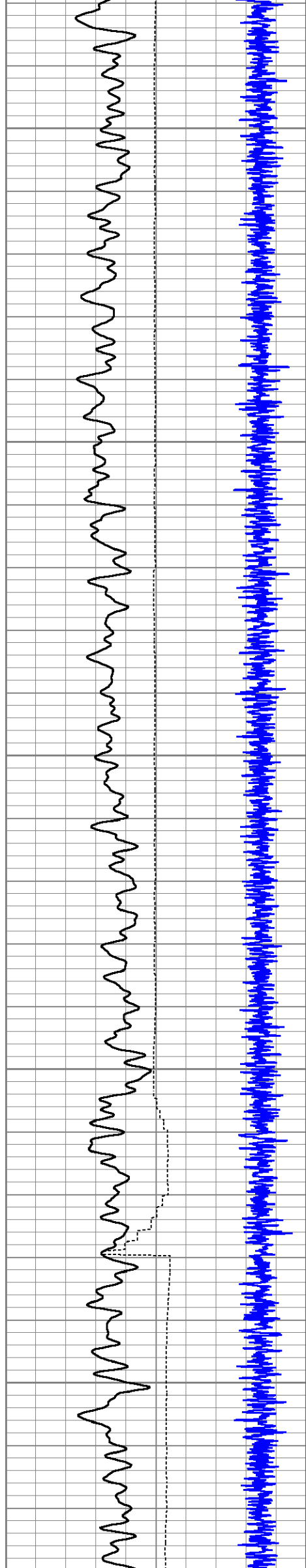
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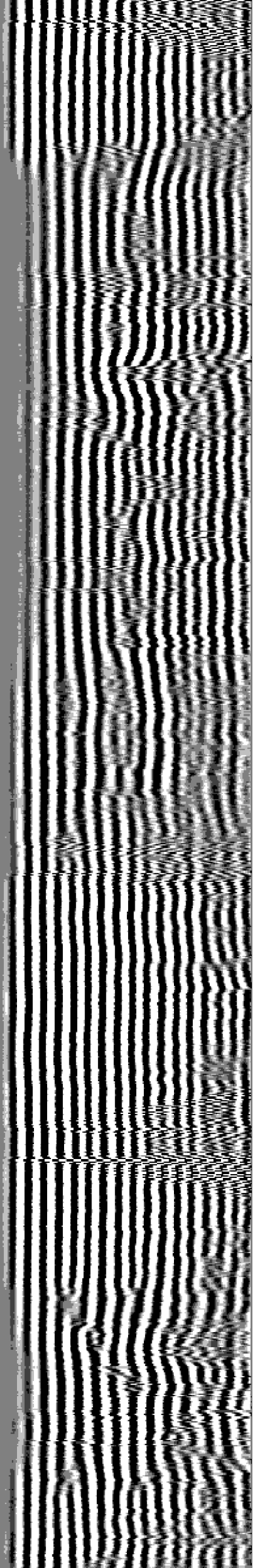
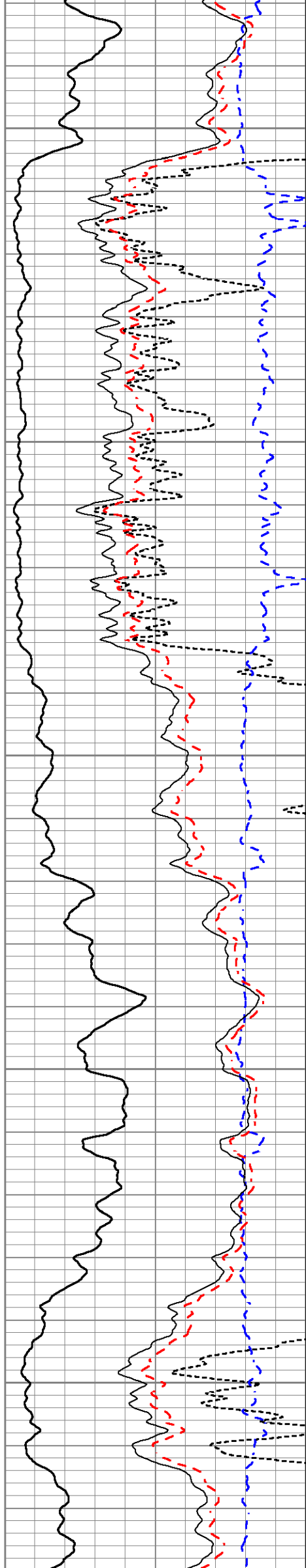
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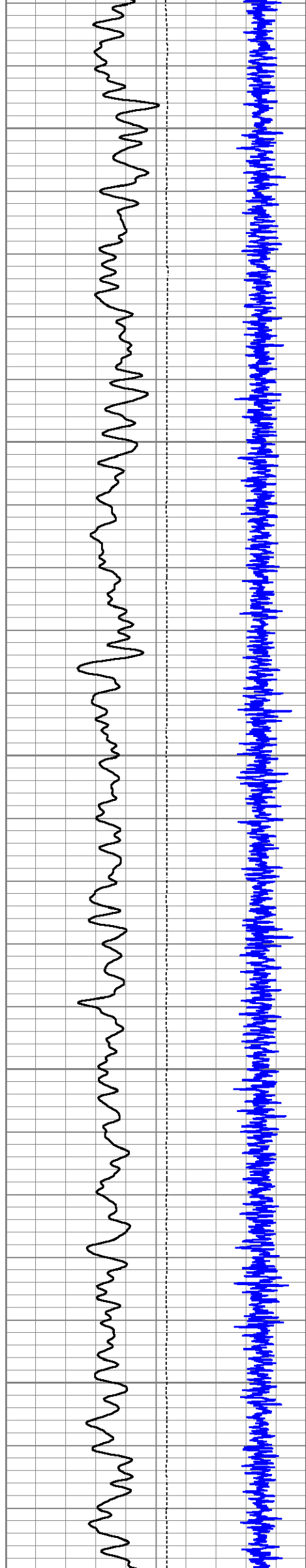
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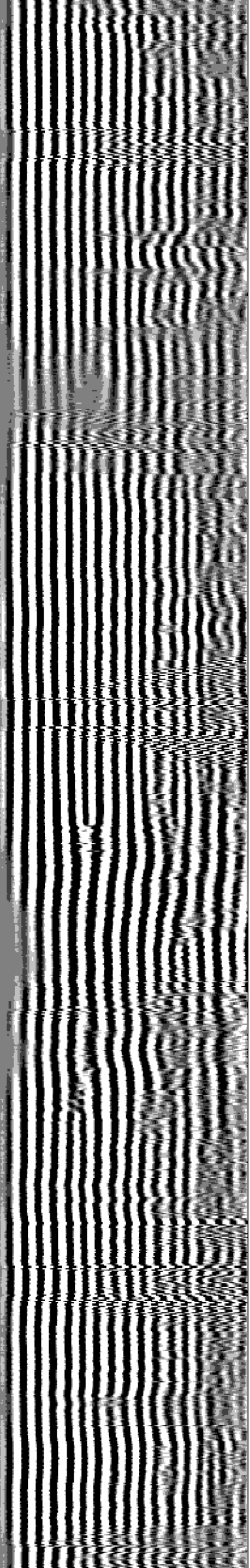
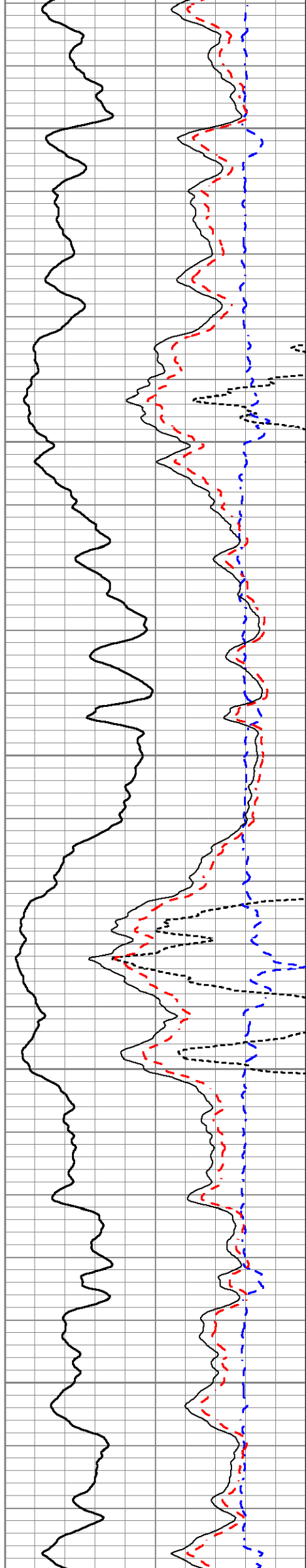
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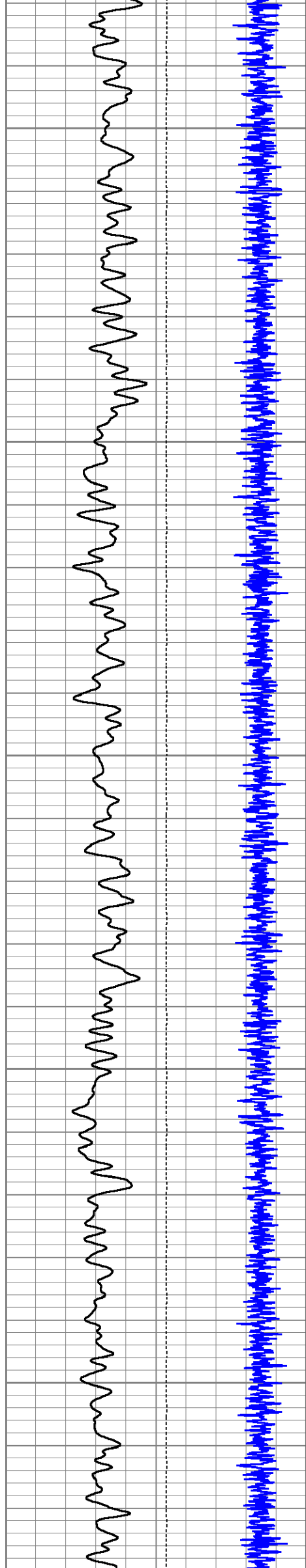
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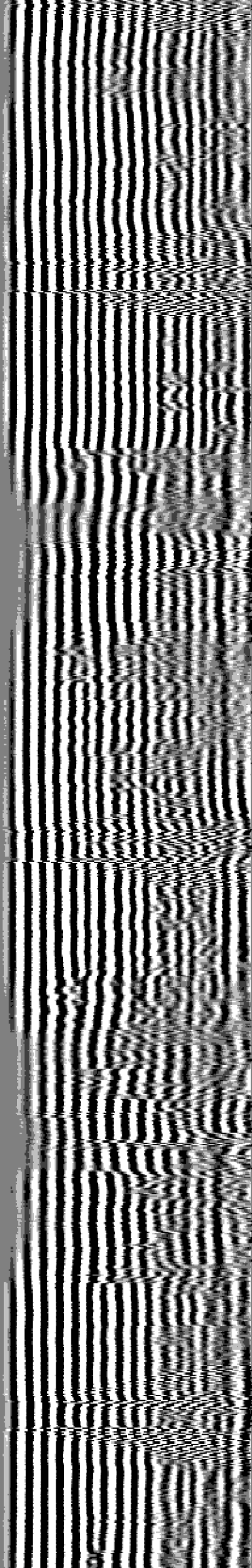
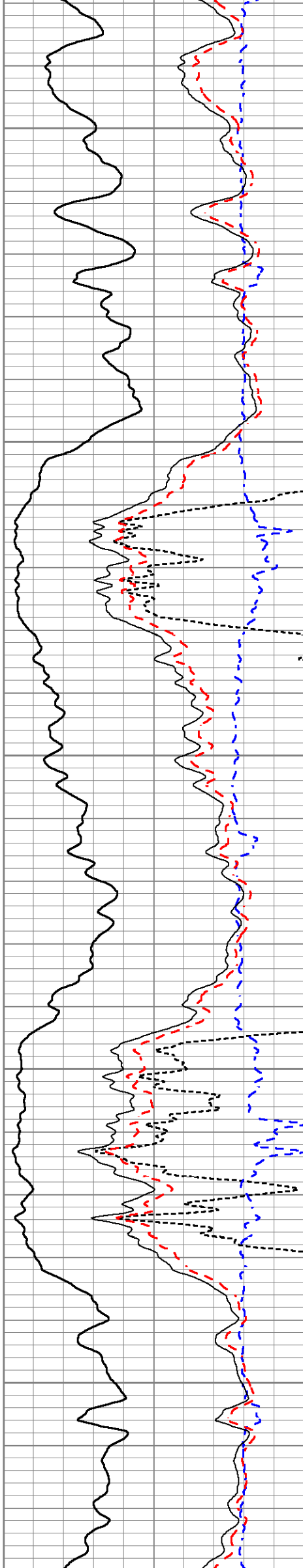
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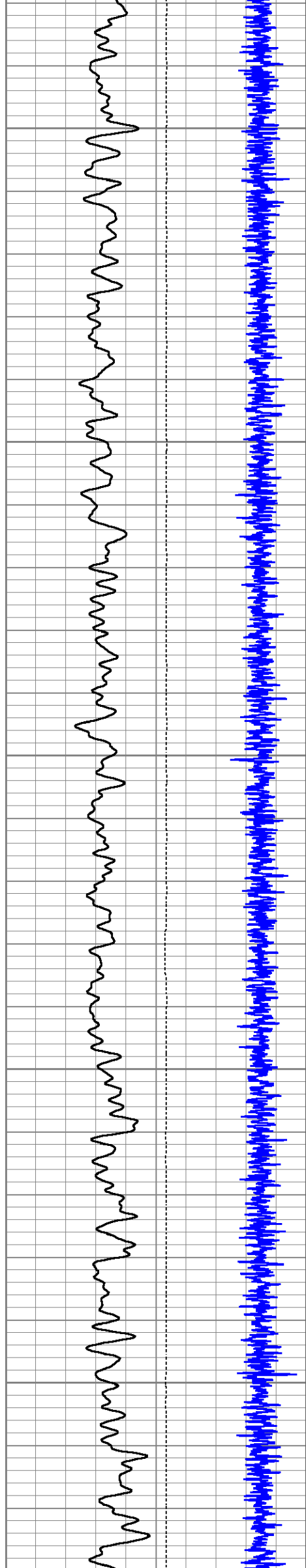
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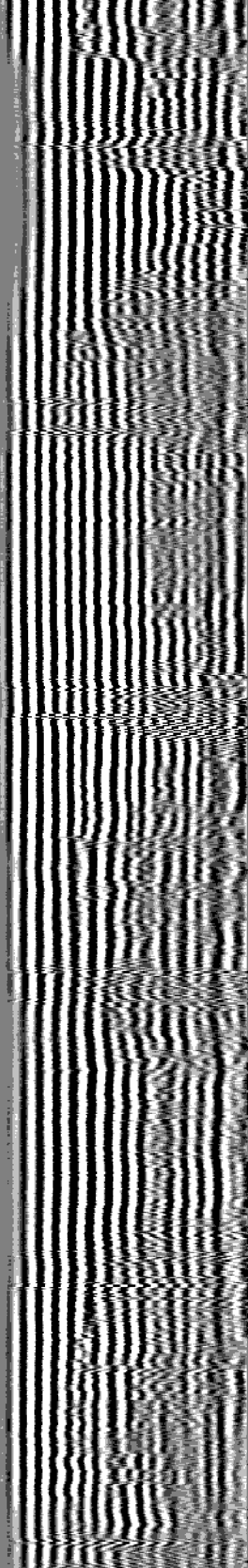
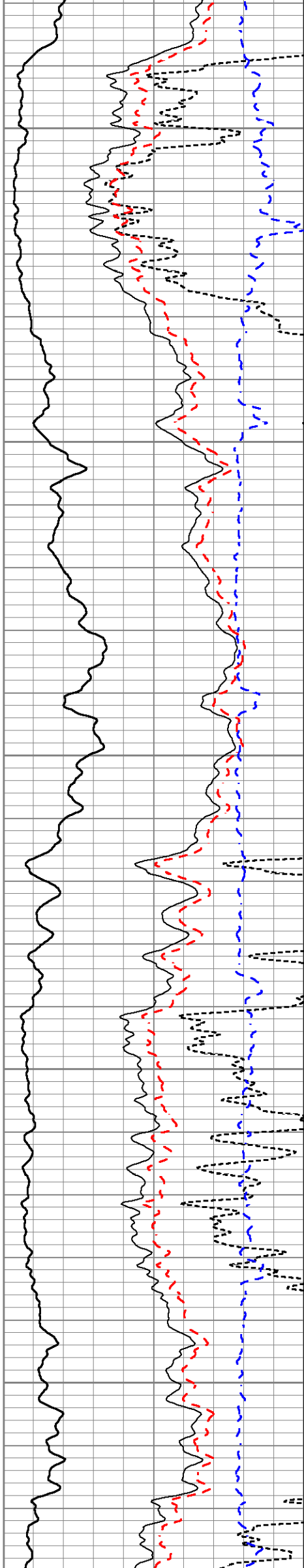
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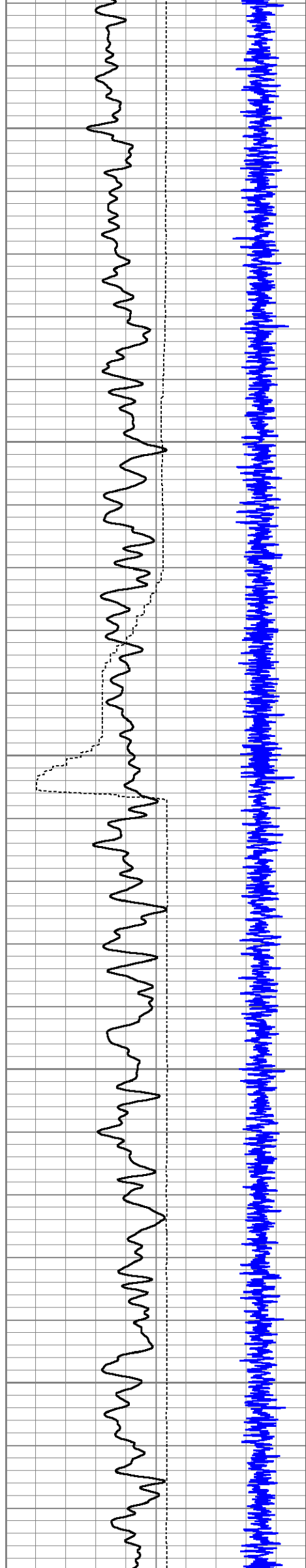
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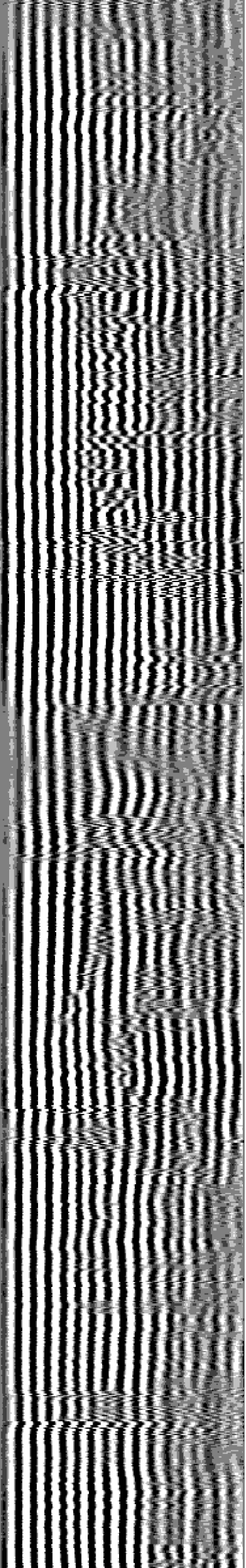
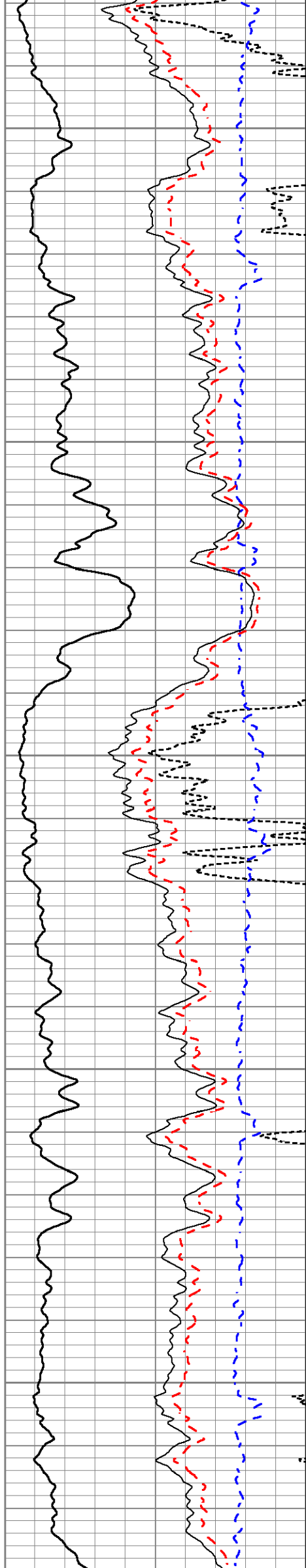
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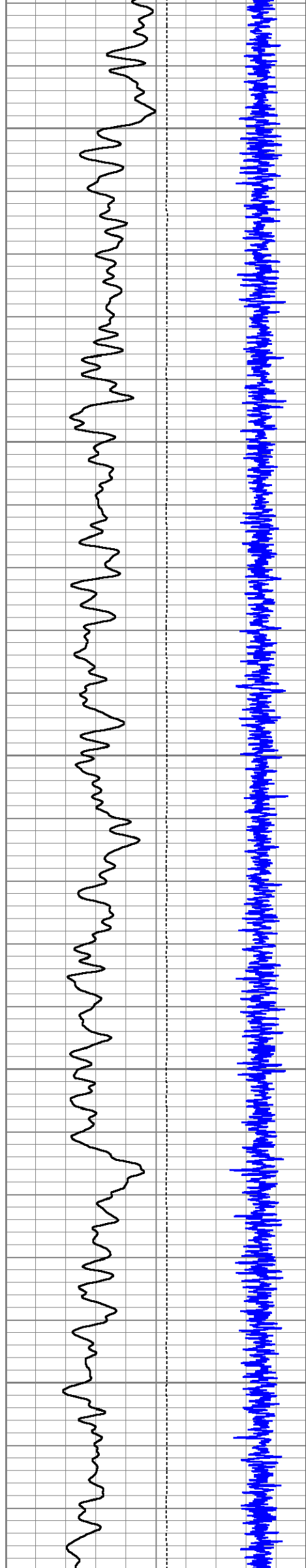
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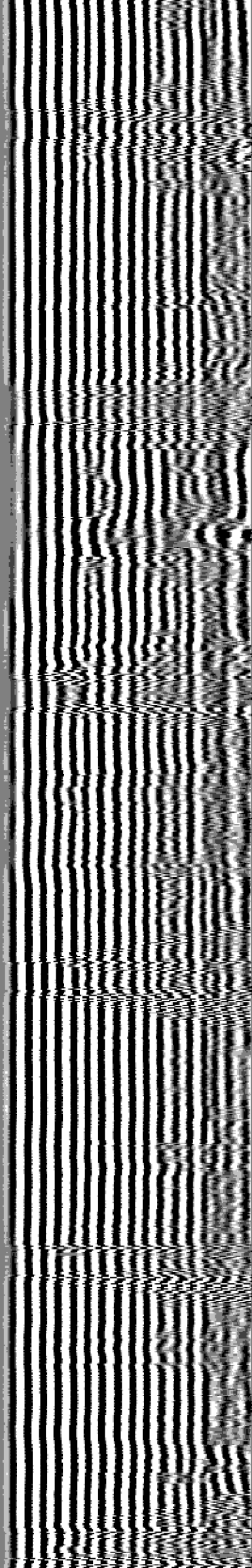
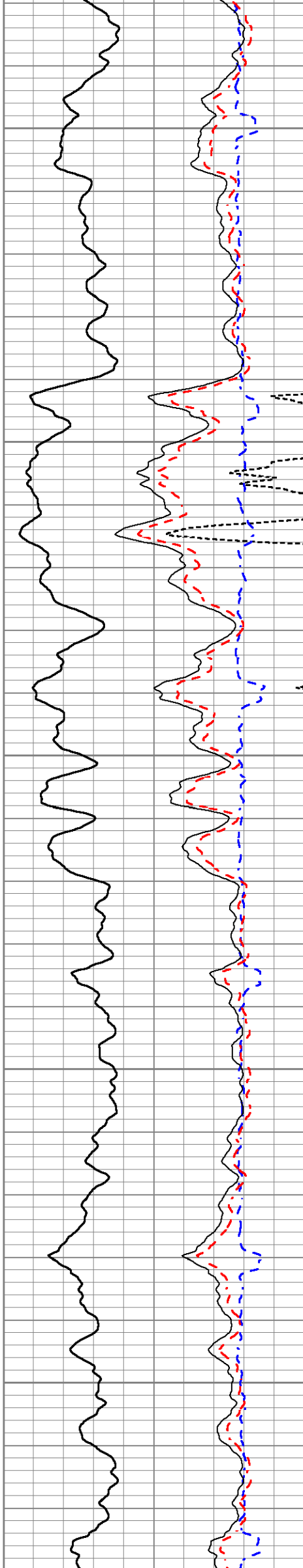
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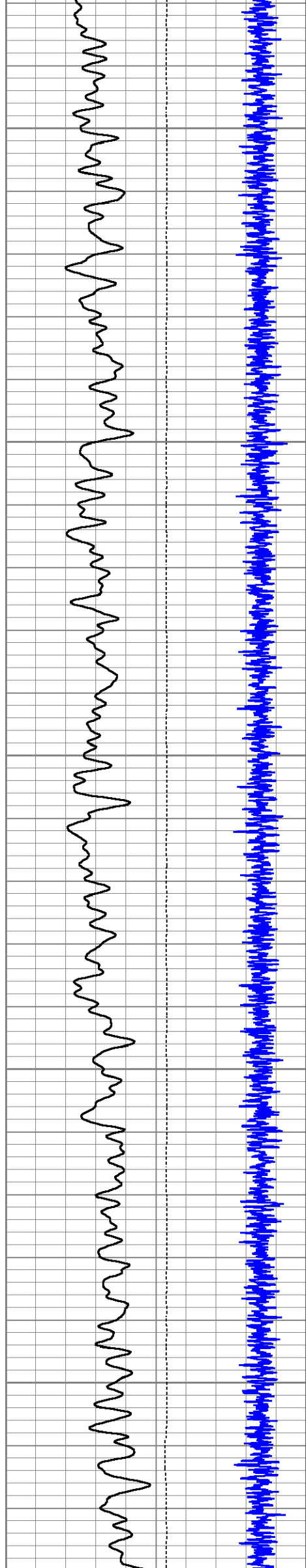
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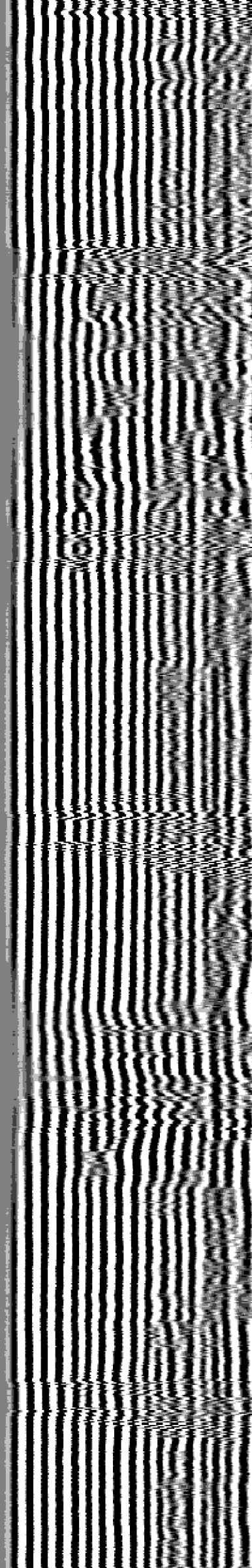
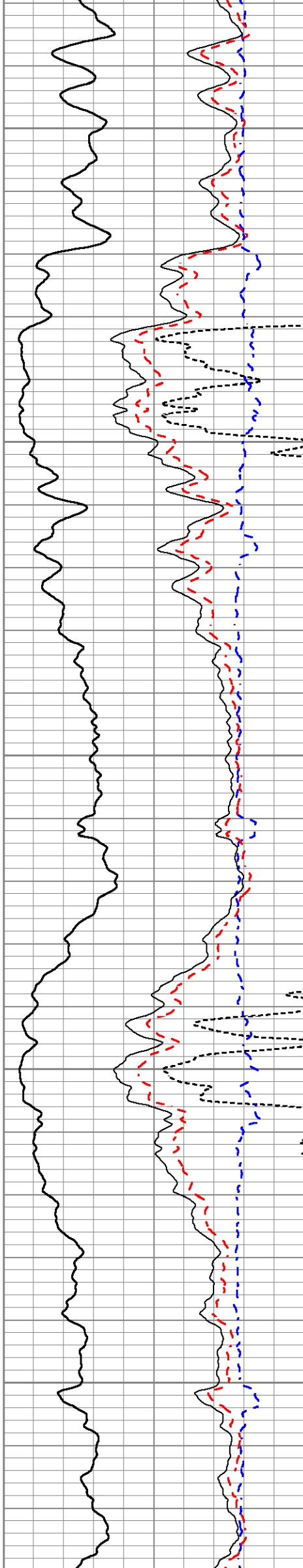
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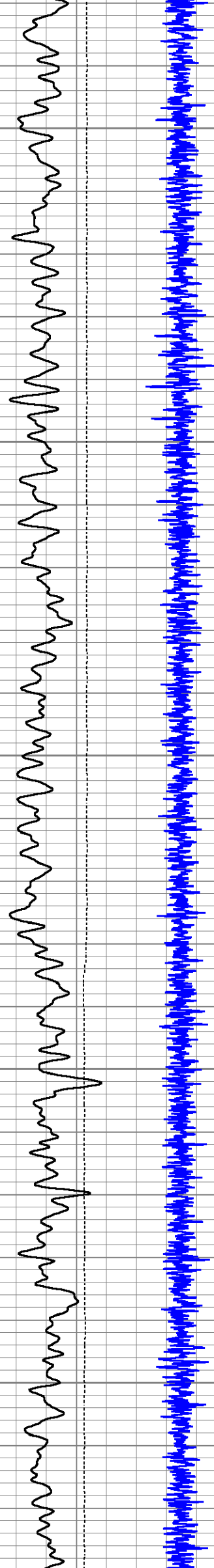
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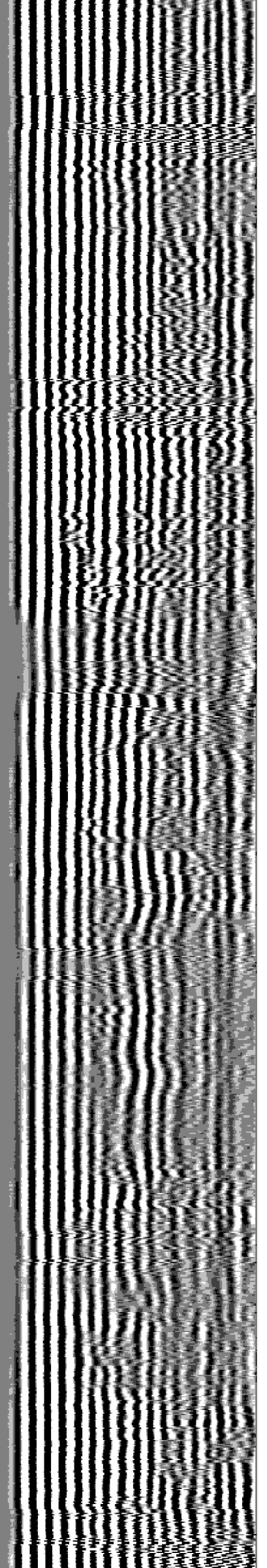
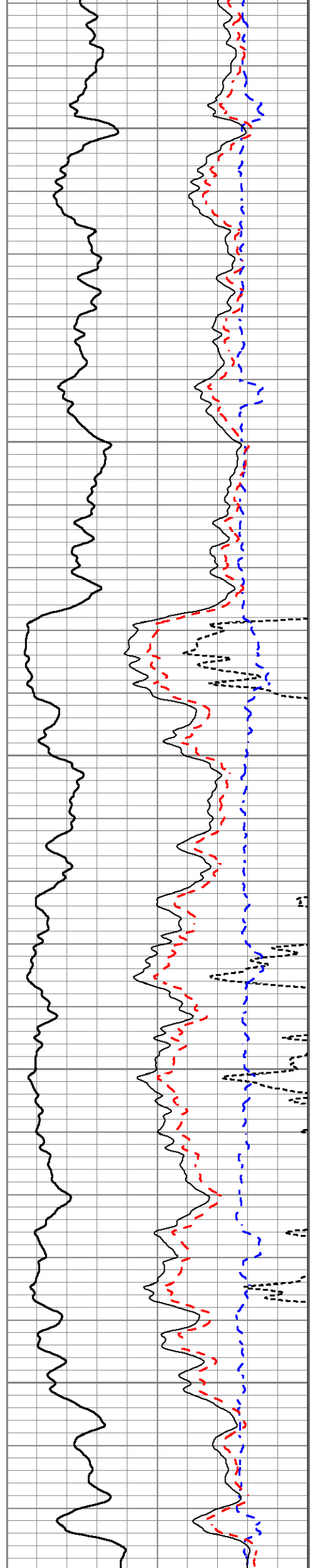
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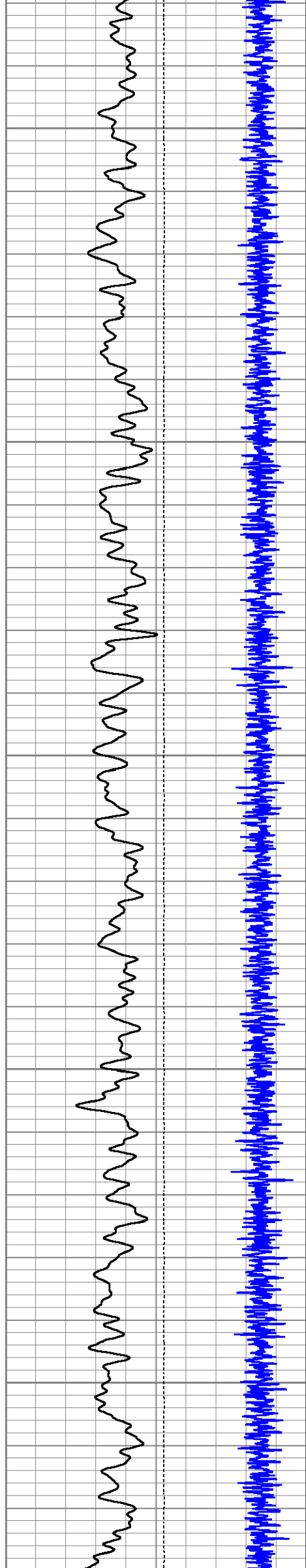
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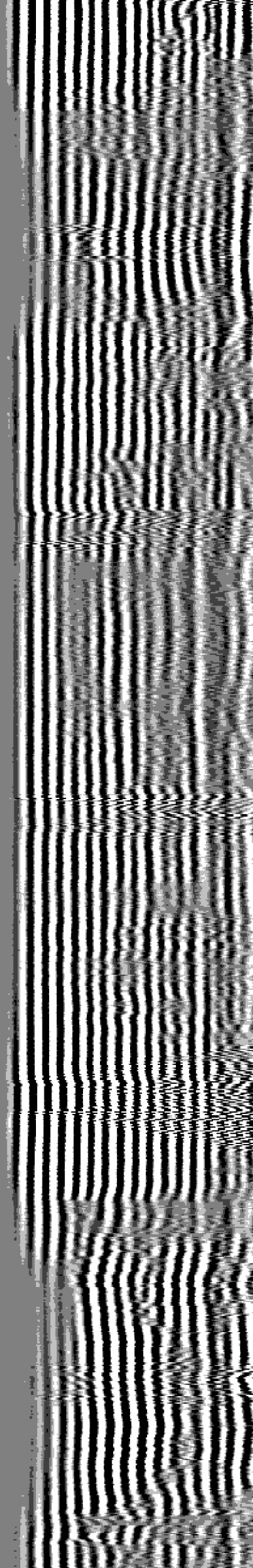
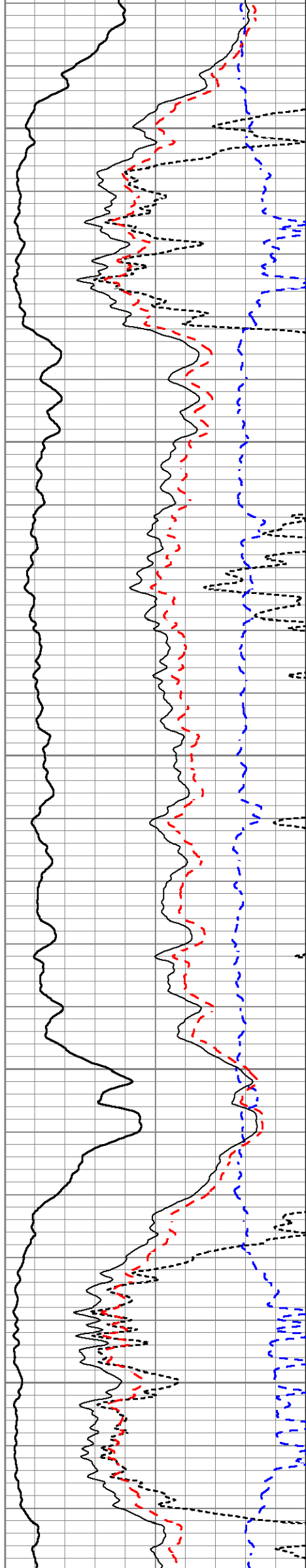
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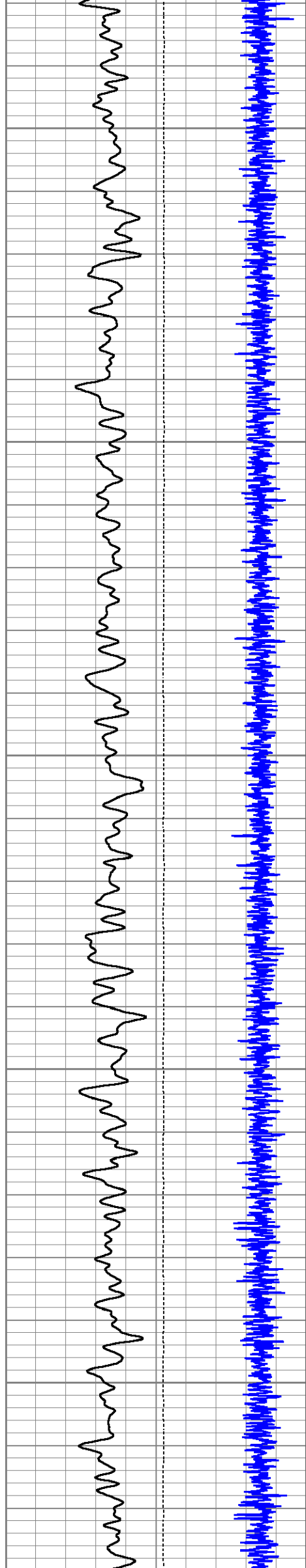
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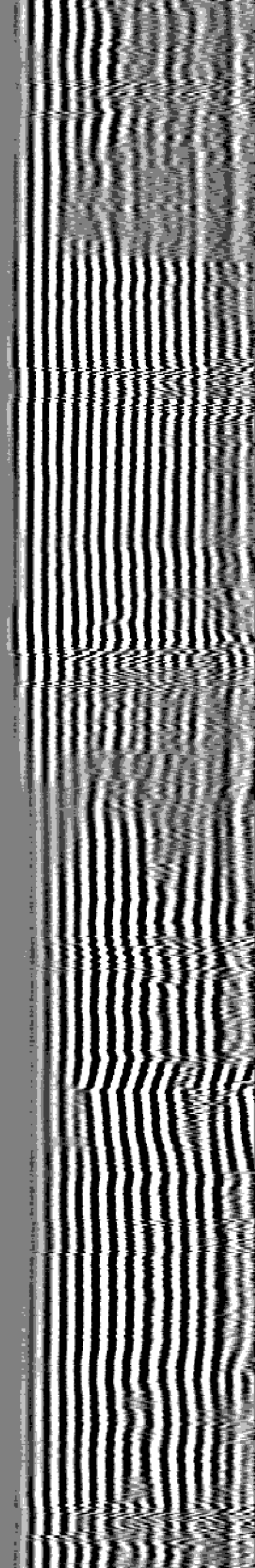
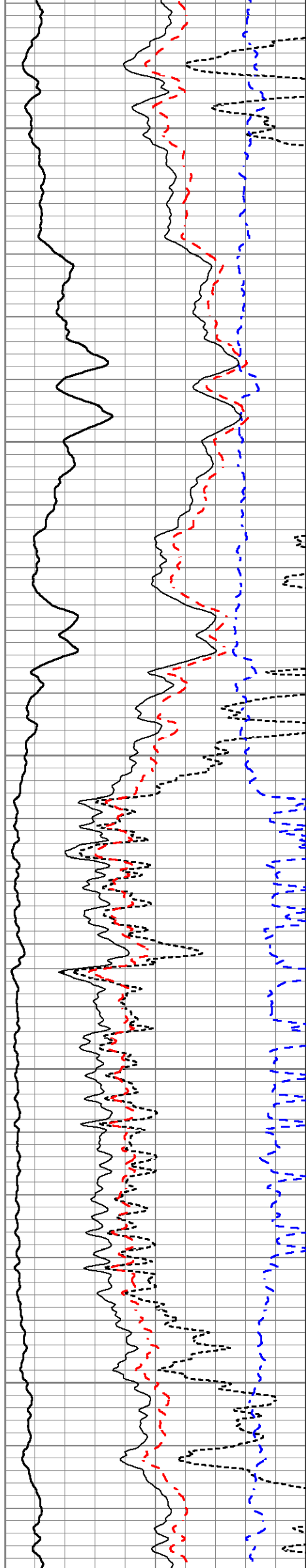
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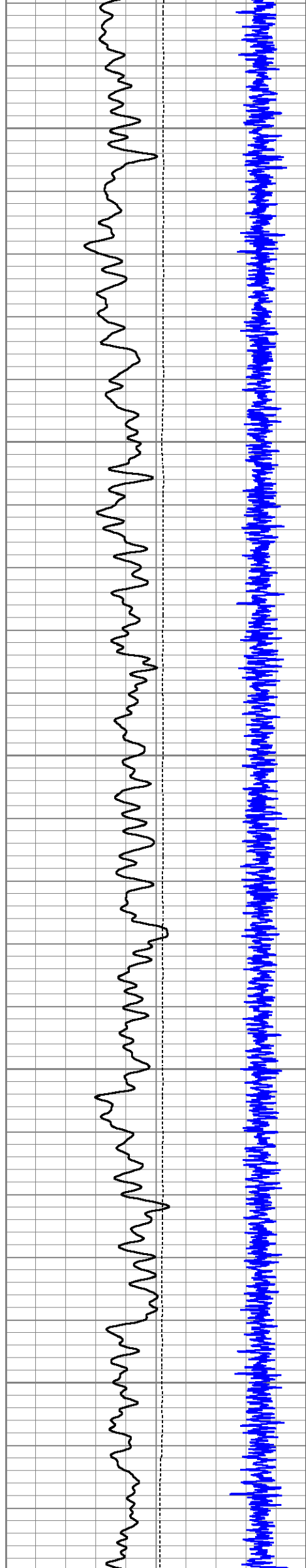
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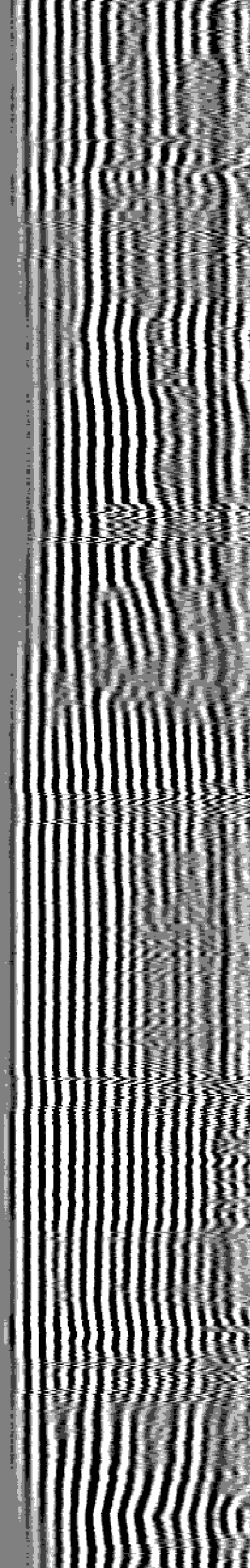
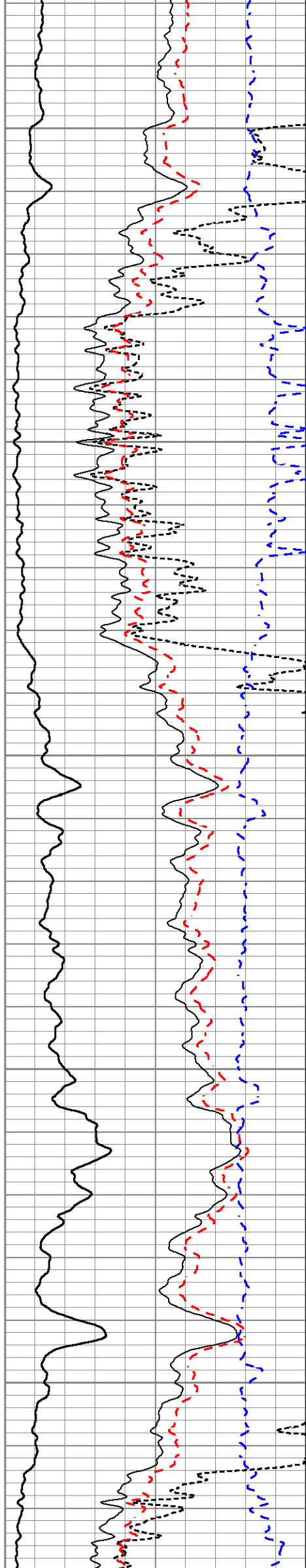
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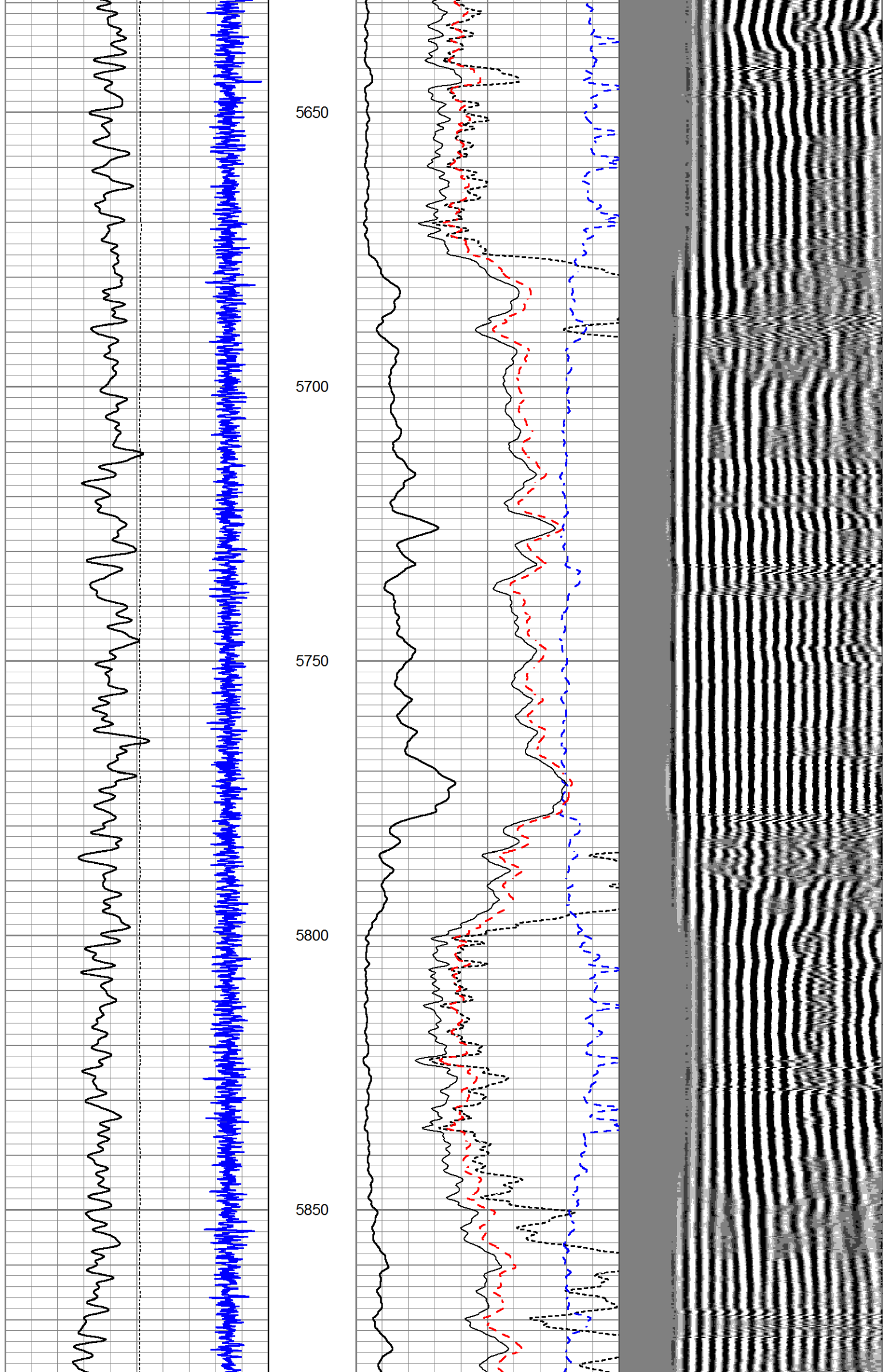
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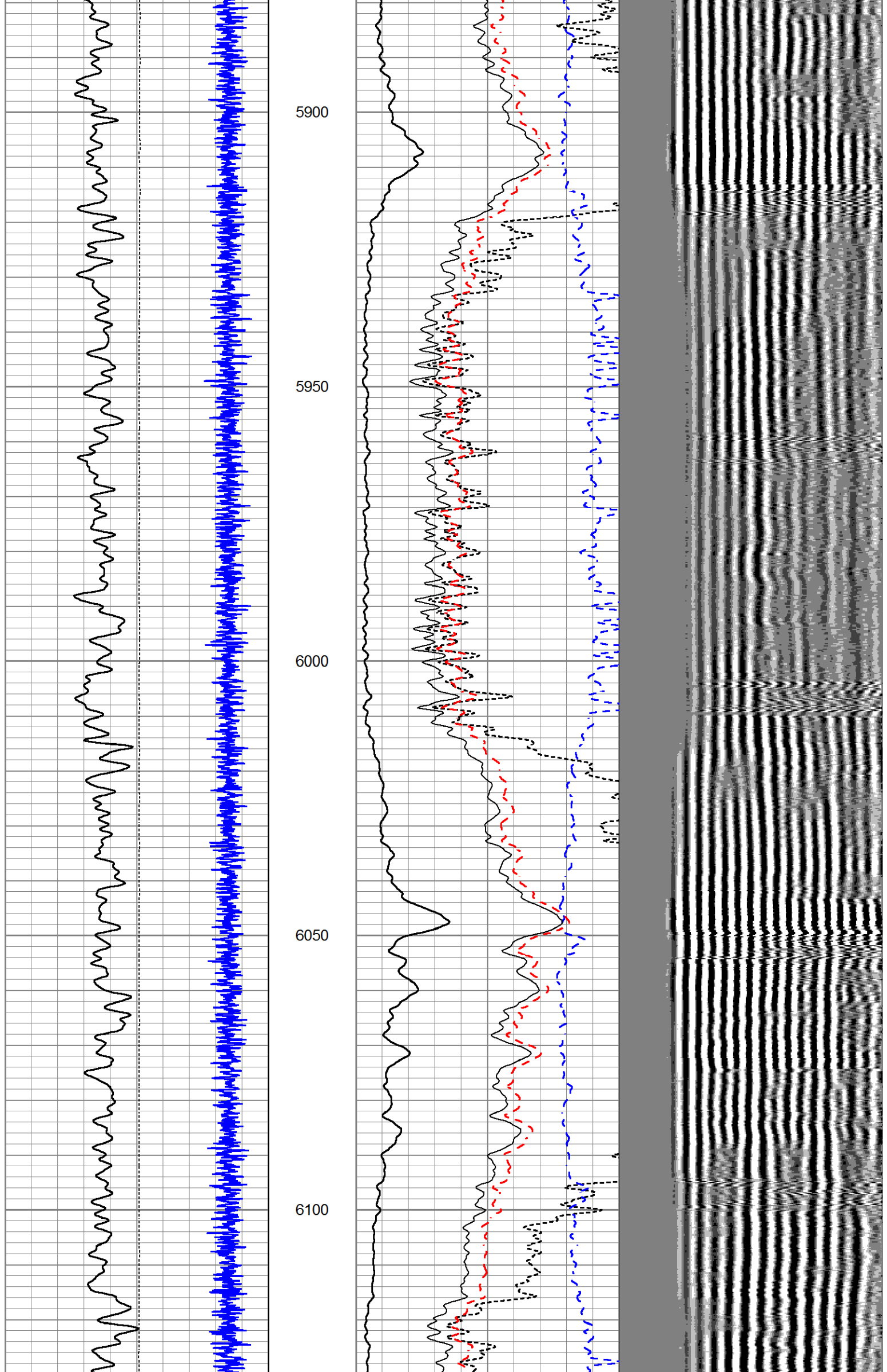
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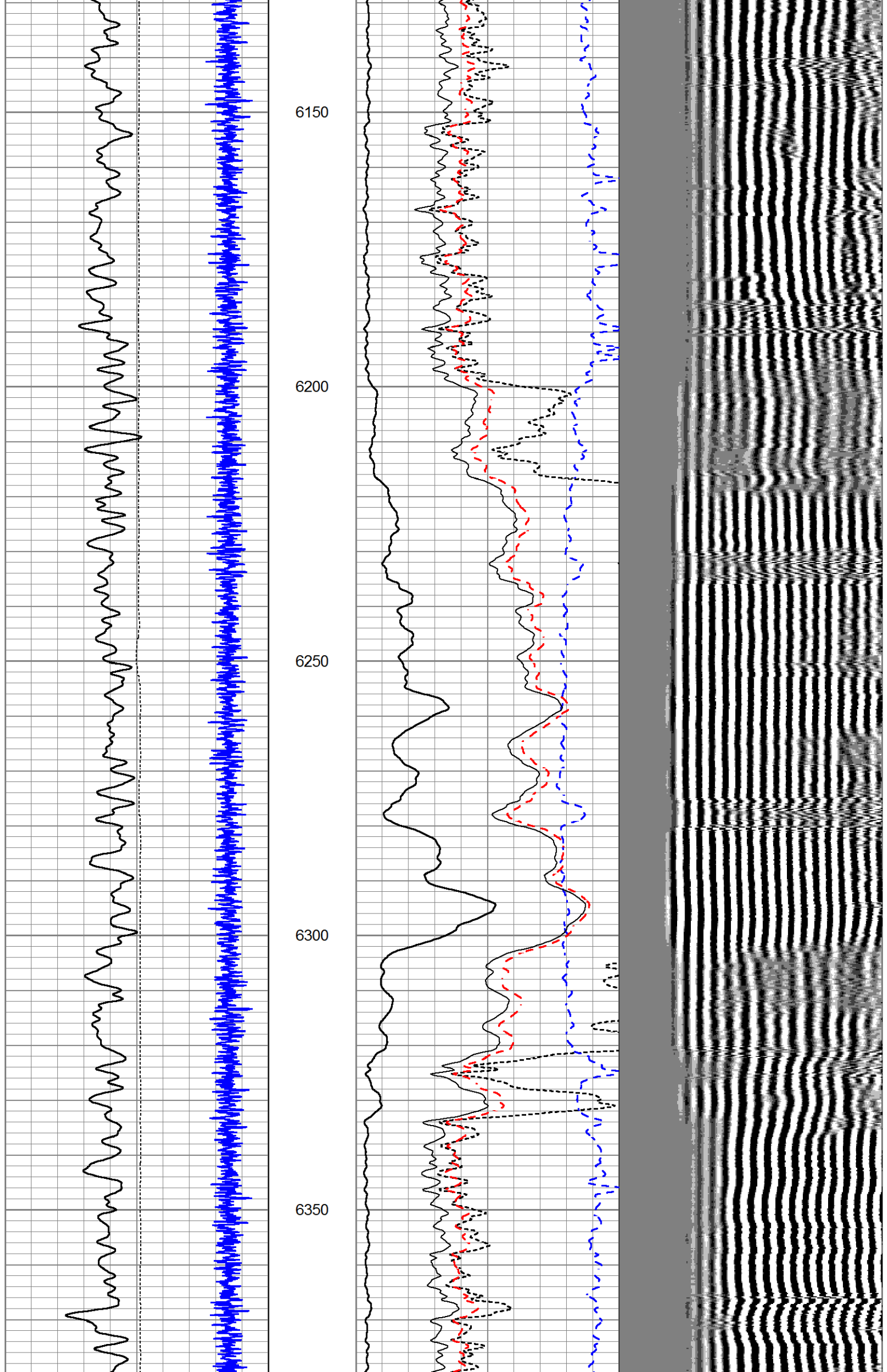
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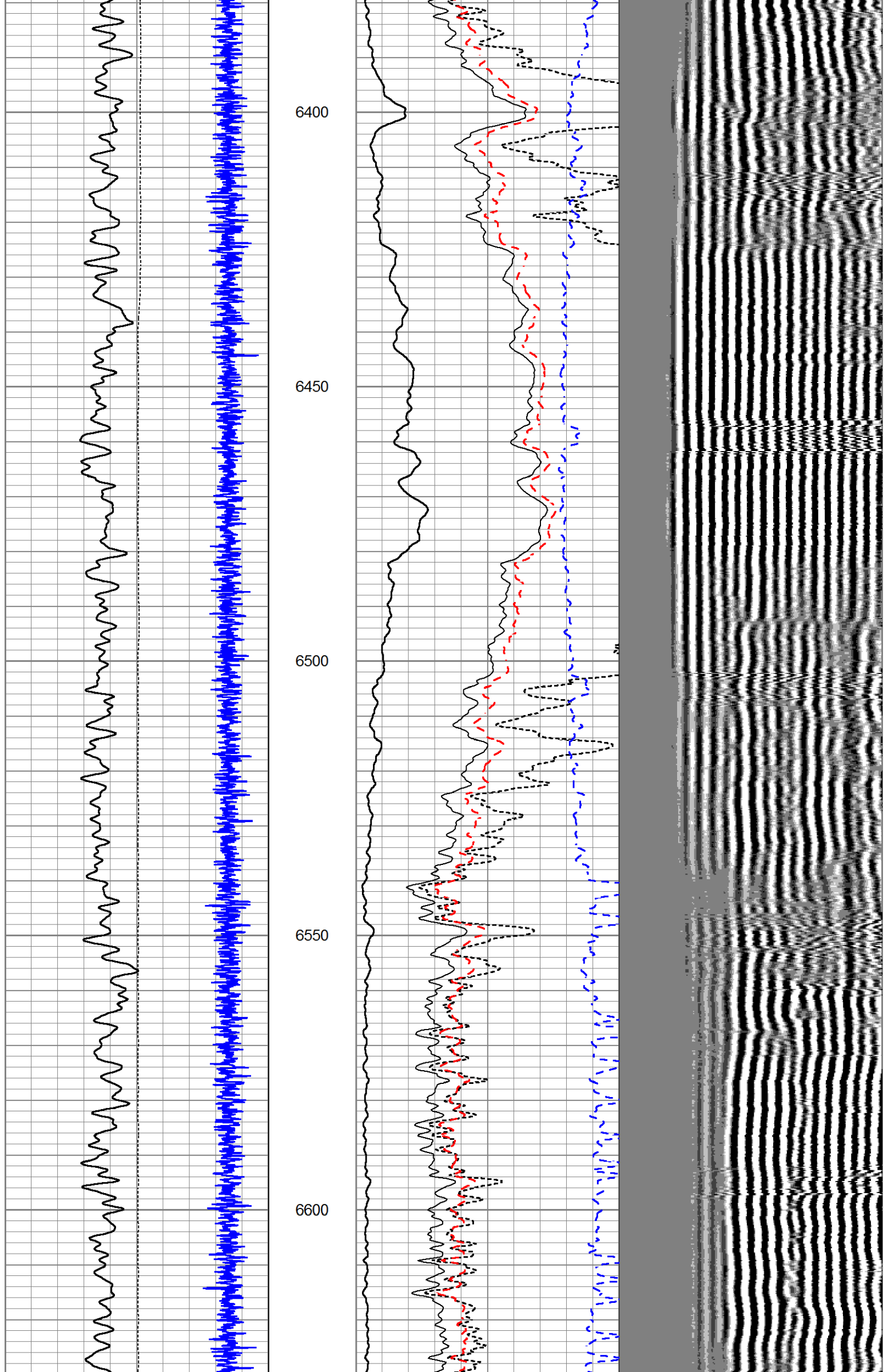
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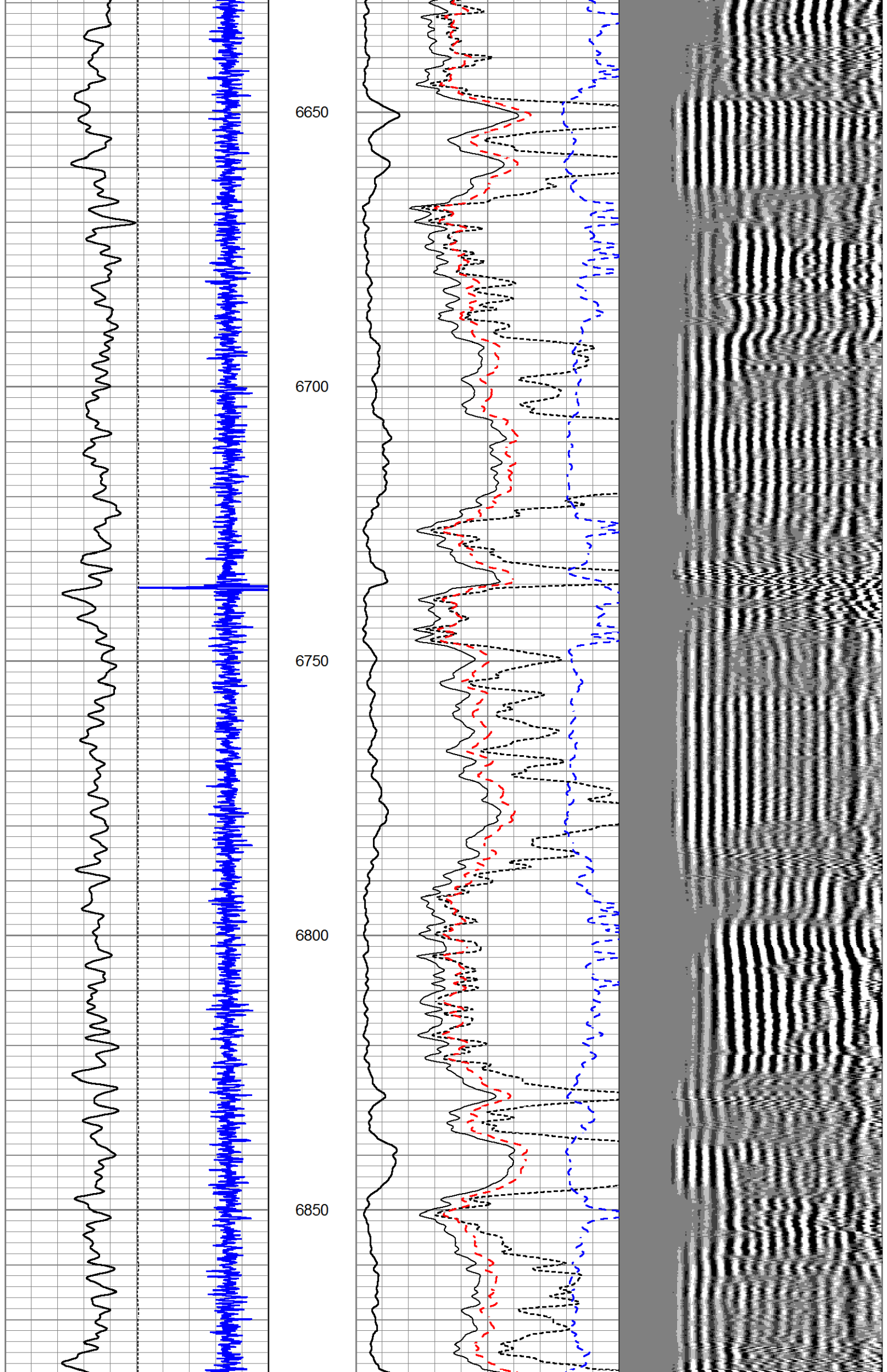


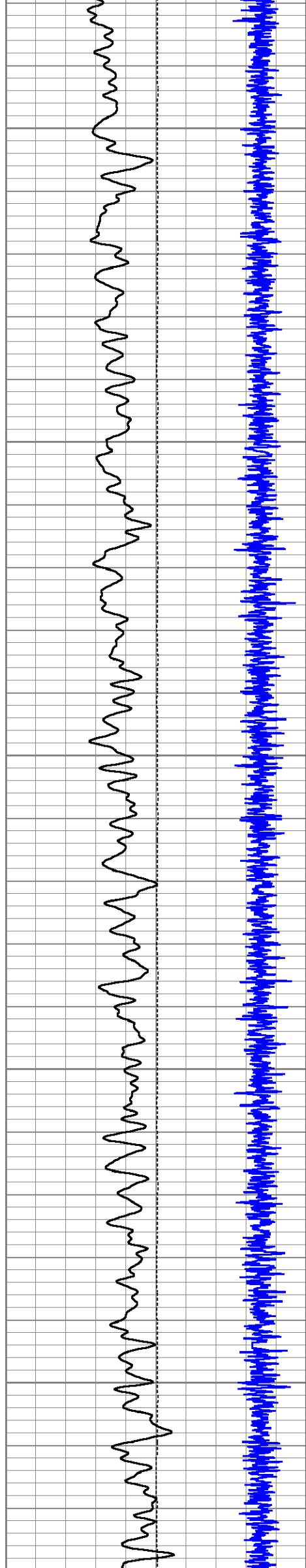












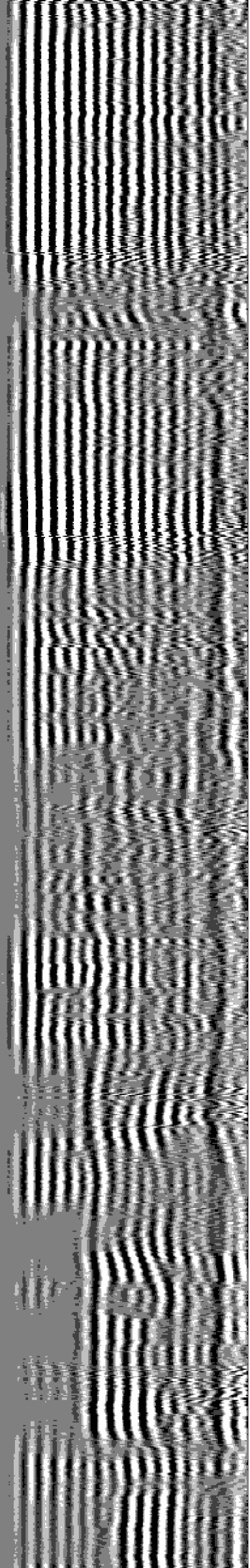
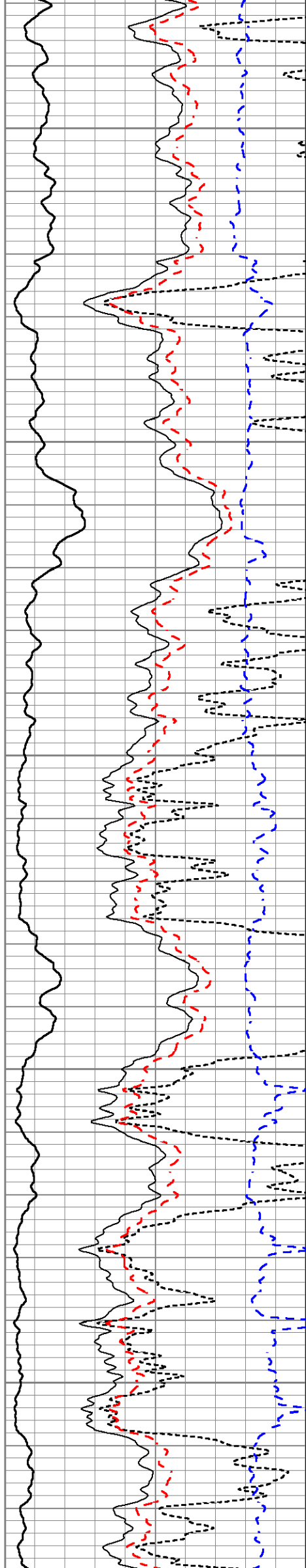
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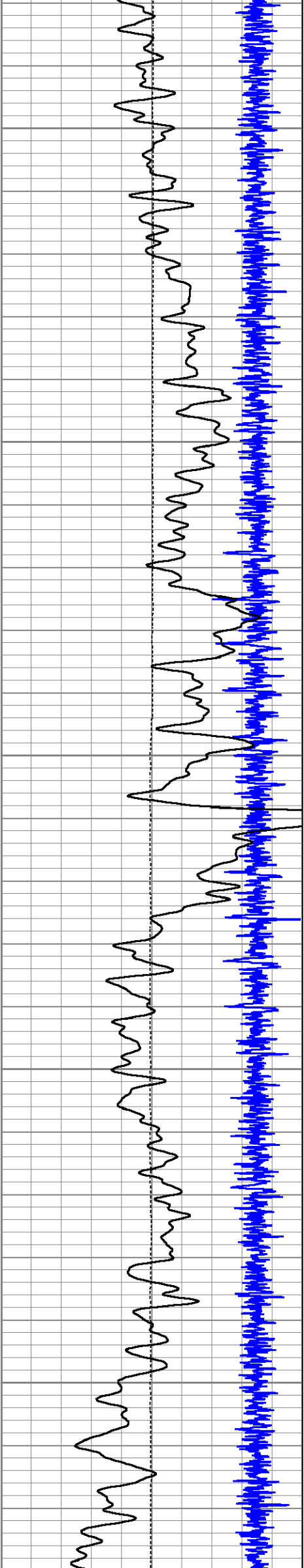
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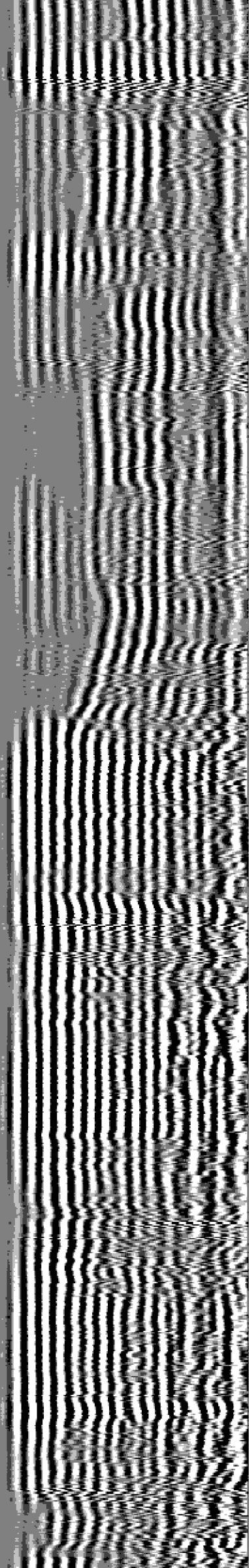
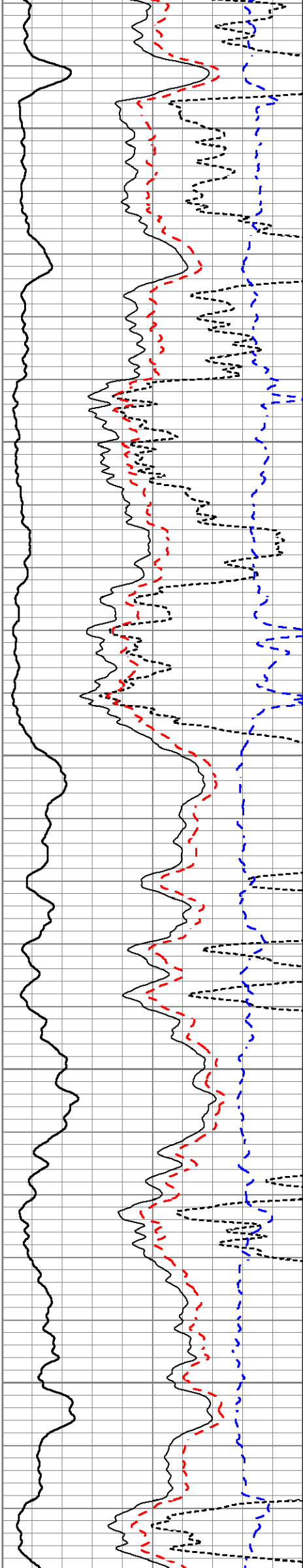
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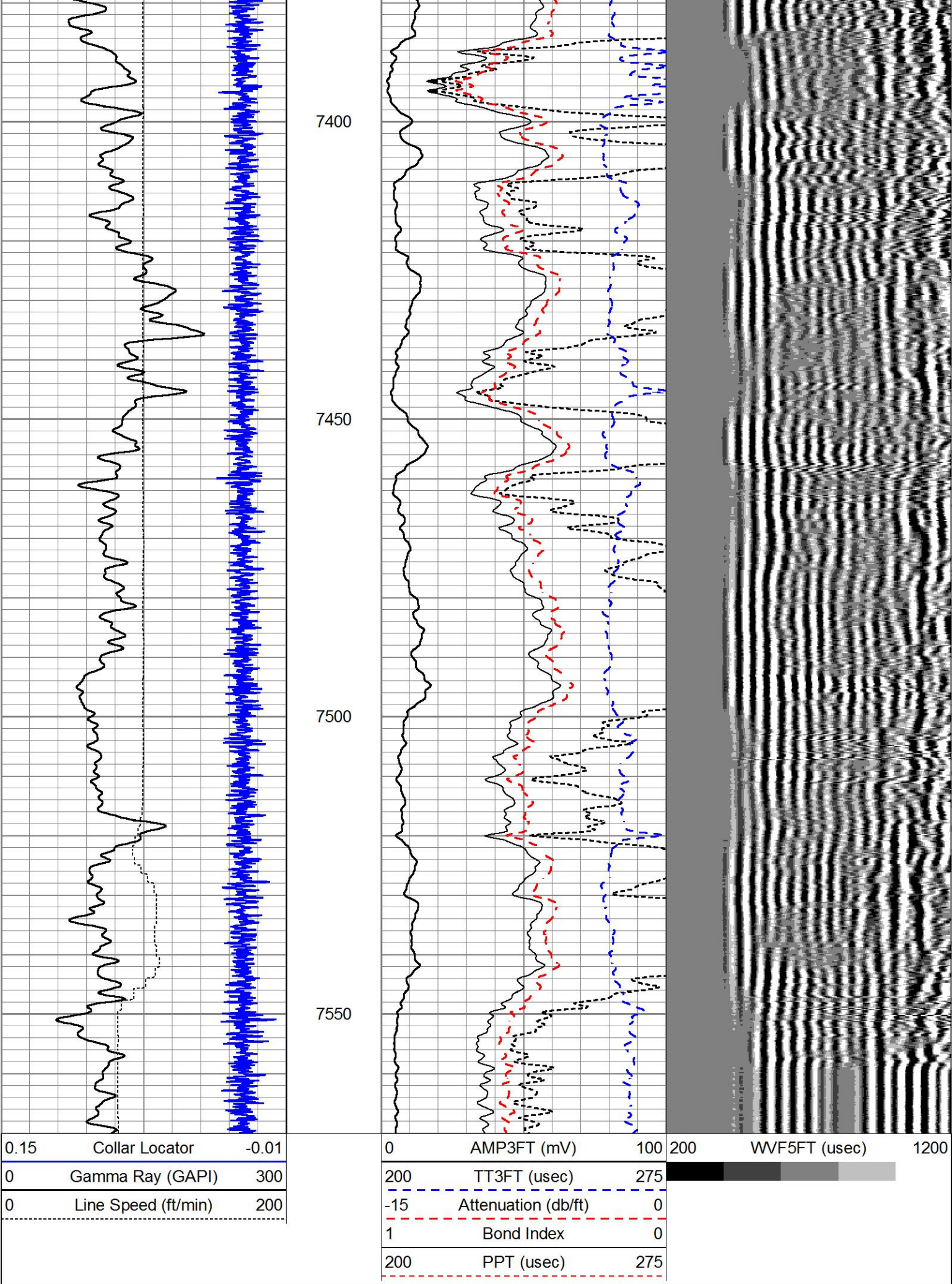
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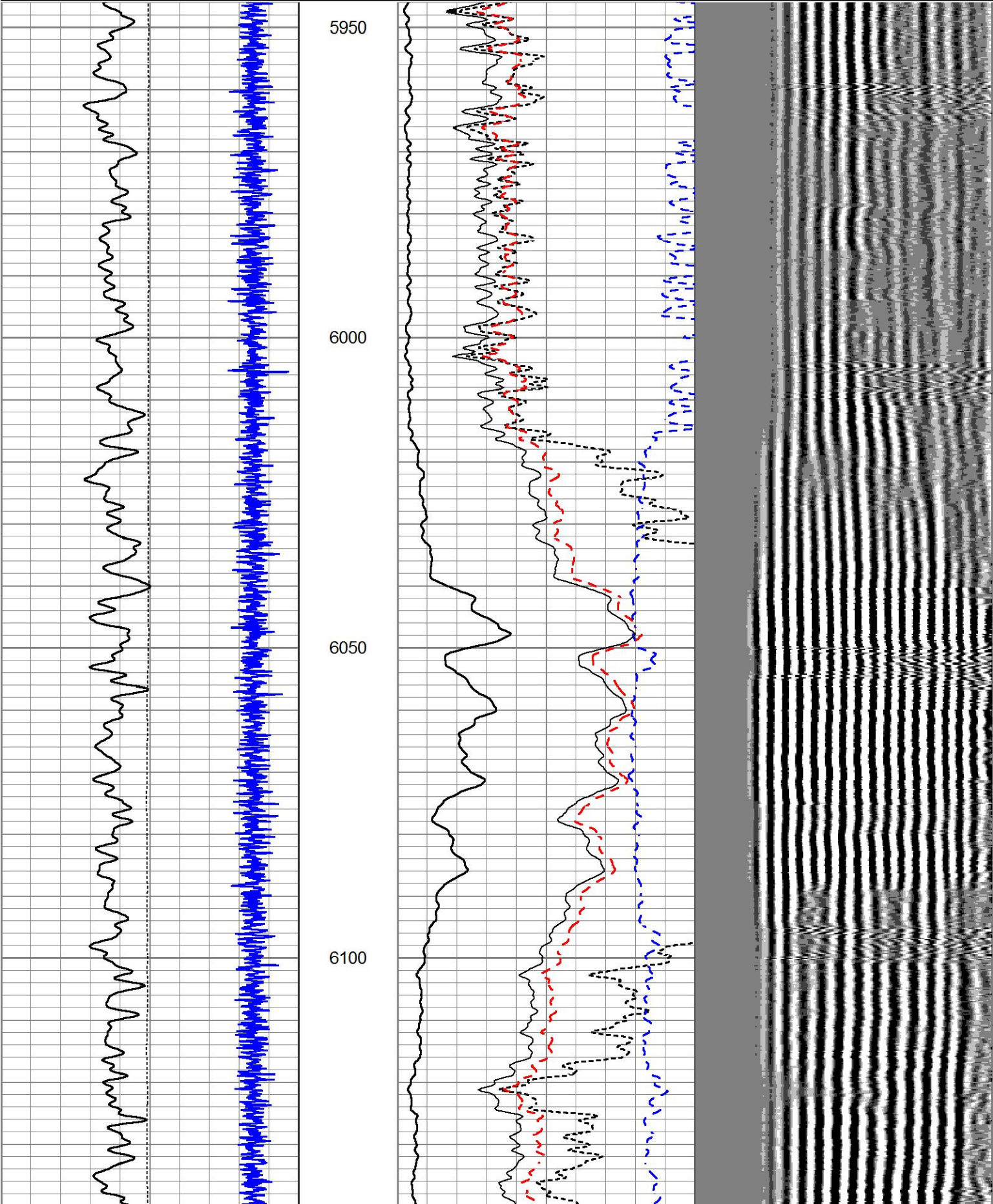
MAIN PASS (2000 PSI)

5" = 100'

REPEAT PASS (0 PSI)

Database File	critter_creek_278.db		
Dataset Pathname	RPT		
Presentation Format	cbl_dr		
Dataset Creation	Wed Jul 19 22:13:27 2017		
Charted by	Depth in Feet scaled 1:240		

0.15	Collar Locator	-0.01	0	AMP3FT (mV)	100	200	WVF5FT (usec)	1200
0	Gamma Ray (GAPI)	300	200	TT3FT (usec)	275	<div></div>		
0	Line Speed (ft/min)	200	-15	Attenuation (db/ft)	0			
			1	Bond Index	0			
			200	PPT (usec)	275			




3'	0.000	0.910	0.250	72.000	77.944	-0.240
CAL	0.007	0.927	0.250	72.000	77.944	-0.260
5'						
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 Wed Jul 19 14:11:31 2017:						
	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						

Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb)
			STNDCH-STND_CH 1.4375 IN CABLE HEAD	1.28	1.44	5.25
			SLIP-OBC Slip On 3 .625 Dits Centralizer	3.00	3.63	5.00
WVF3FT	8.52		CBL-Probe (275) Probe 2.75" Dual Receiver Bond	8.92	2.75	60.00
WVF5FT	7.52					

DCCL CCL	3.64		4.33	2.75	30.00
	3.64				
GR	0.90		3.00	3.63	5.00
Dataset: critter_creek_278.db: field/well/run1/MAIN Total length: 14.53 ft Total weight: 105.25 lb O.D.: 3.63 in					