

HALLIBURTON										ACOUSTIC CEMENT BOND LOG									
Company					URSA OPERATING CO, LLC					Company					URSA OPERATING CO, LLC				
Well					WATSON RANCH B 24AWI-17-07-95					Well					WATSON RANCH B 24AWI-17-07-95				
Field					PARACHUTE					Field					PARACHUTE				
County					GARFIELD					Country					CO				
Location:					SURFACE HOLE LOCATION: 1047 FSL' & 1978' FWL BOTTOM HOLE LOCATION: 1047 FSL' & 1978' FWL					Other Services					RMT-I JB/GR				
Permanent Datum					GROUND LEVEL					Elevation					5585 ft				
Log Measured From					KB					17 ft					above perm. datum				
Drilling Measured From					KB										K.B. D.F. G.L. 5585 ft				
Date Logged					03 JUNE 2015					Type Fluid in Hole					WATER				
Run No.					ONE					Density of Fluid					8.4 ppG				
Depth - Driller					7,420'					Fluid Level					FULL				
Depth - Logger					7,310'					Cement Top Est. Logged					1767'				
Bottom - Logged Interval					7,310'					Equipment / Location					11698439 / GJ, CO				
Top - Logged Interval					1,500'					Recorded by					P. DIMPFL				
Max. Recorded Temp.					185.0 degF					Witnessed by					R. TOLLE				
CEMENTING DATA					Surface					Protection					Production				
					String					String					String				
Date / Time Cemented																			
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					12.25" SURFACE 1700'					9.625" 32# SURFACE					1700'				
TWO					8.75" 1700' 7420'					5.5" SURFACE					7420'				

Service Ticket No.	902452765	API No.	05-045-22801-0000	PGM Ver	14.11.12001
The Well Name, Location, Borehole Description, and / or Cementing Data Furnished by Client					
EQUIPMENT DATA					
TELEMETRY		CEMENT BOND TOOL		RESERVOIR MONITOR TOOL	
Run No.	ONE	Run No.	ONE	Run No.	ONE
Serial No.	10000028	Serial No.	12082235	Serial No.	11680606
Model No.	TTTC-U-002	Model No.	RBT-004	Model No.	RMTI-A
Diameter	1.688"	Diameter	3.125"	Diameter	2.125"
LOGGING DATA					
General Data					
Pass	Depths		Well Head	Speed	Logging Run Comments
No	From	To	Pressure	Ft/Min	

No.	7310'	3308'	0	25	MAIN LOG SECTION			
	GAMMA RAY		NEAR BORE SI (SGBN)		RATIO (RNF)		SGIN	
Pass	Scale		Scale		Scale		Scale	
No.	L	R	L	R	L	R	L	L
ONE	0	200	200	0	2	0.5	60	0
DIRECTIONAL INFORMATION								
Maximum Deviation			deg. @		KOP			

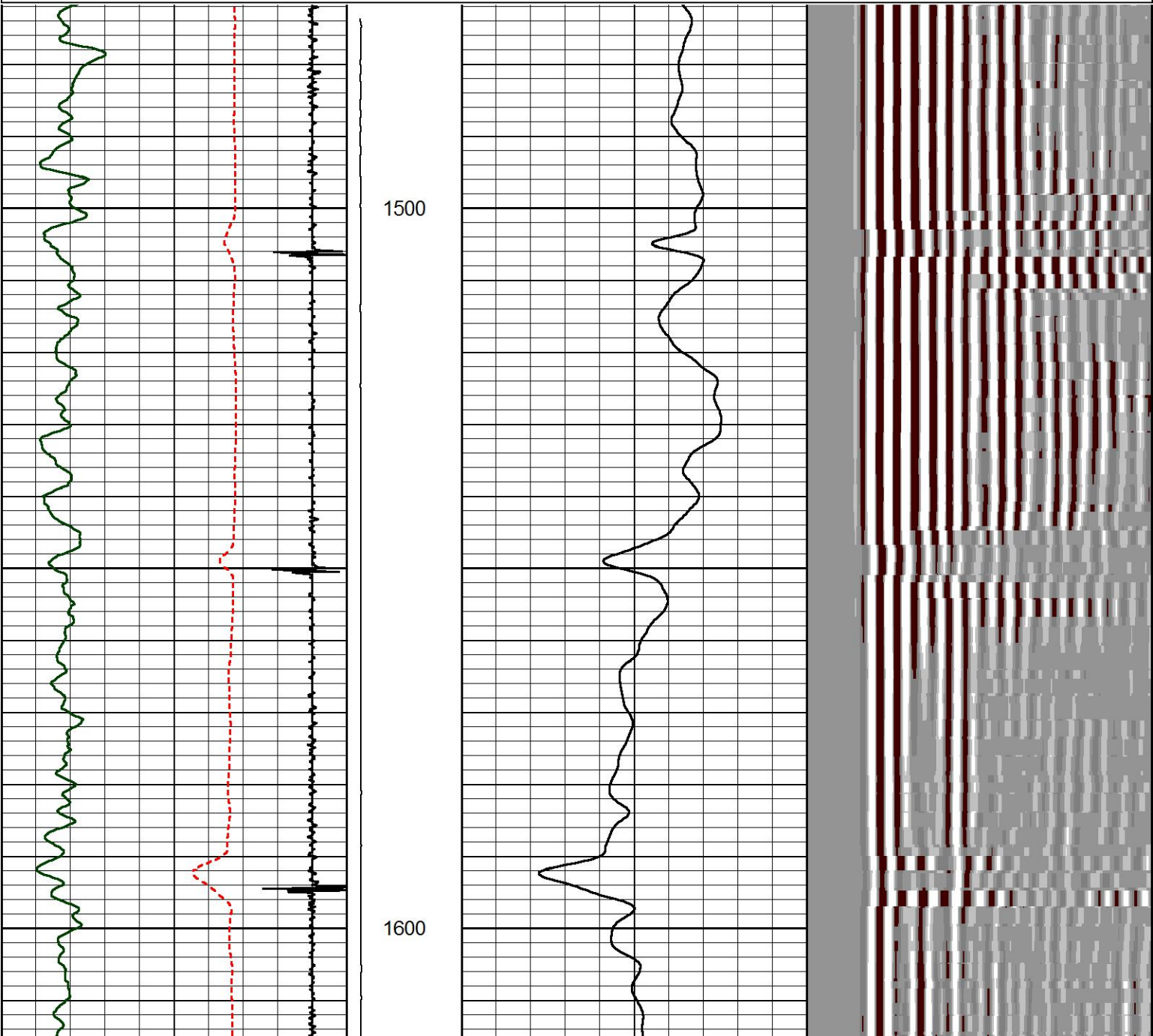
HALLIBURTON

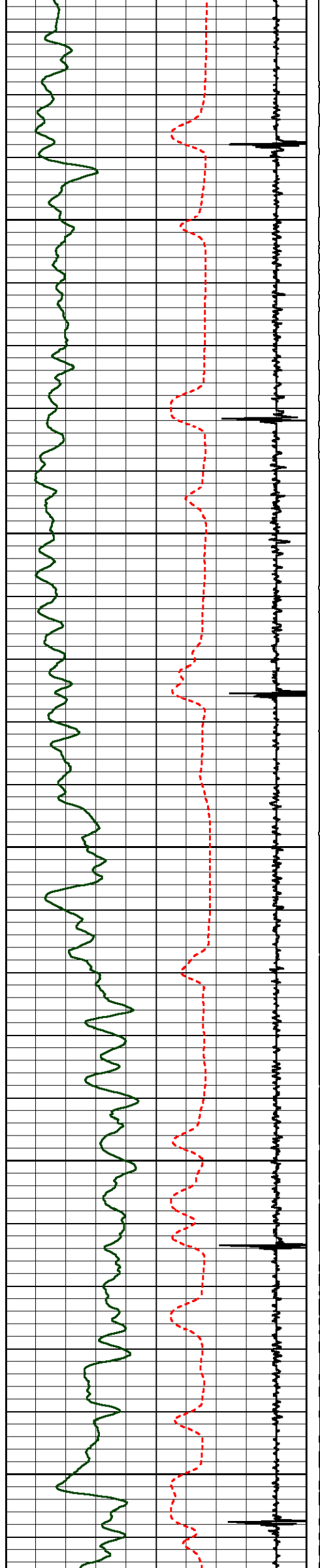
MAIN LOG SECTION

5" = 100'

Database File	watson_b_24awi_combo.db
Dataset Pathname	RMT_MAIN
Presentation Format	hcbl
Dataset Creation	Wed Jun 03 06:46:54 2015
Charted by	Depth in Feet scaled 1:240

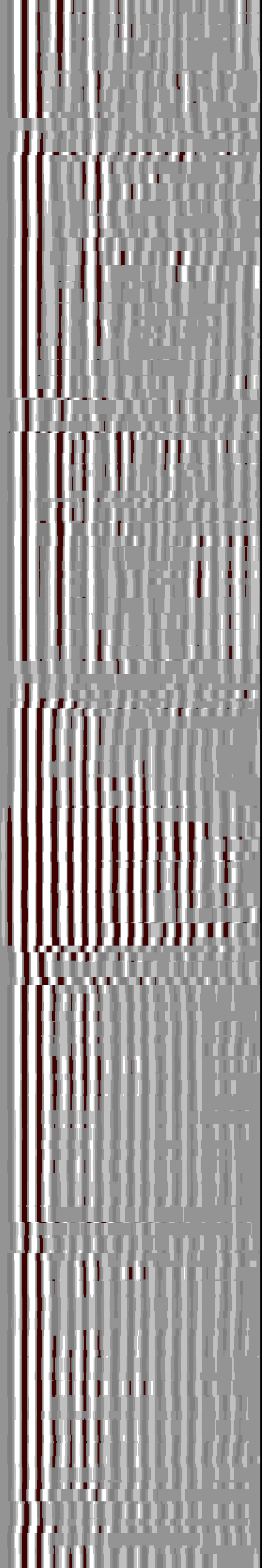
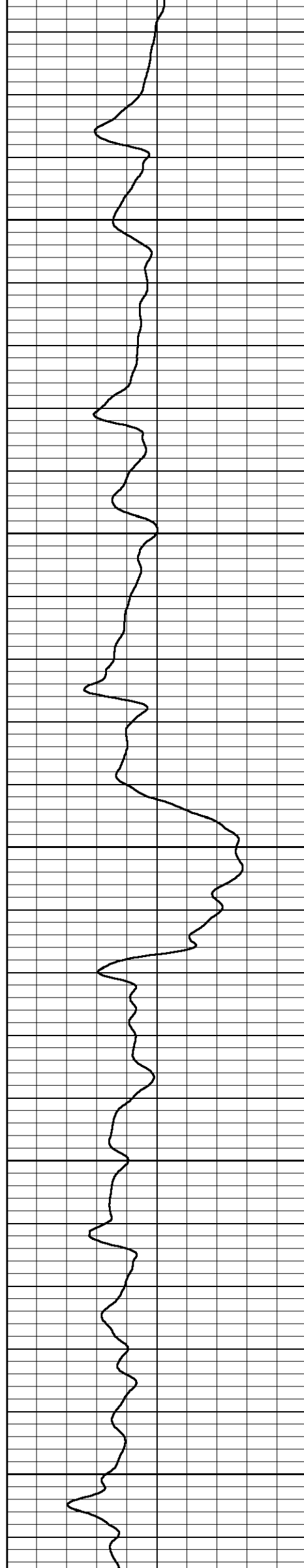
370	3' Travel Time (usec)	170	LTEN	0	AMPLITUDE (mV) (mV)	100	200	MSG	1200
-5400	CCL	600	0	(lb,4000	0	Amplified Amplitude (mV)	10		
0	Gamma Ray (GAPI)	200							

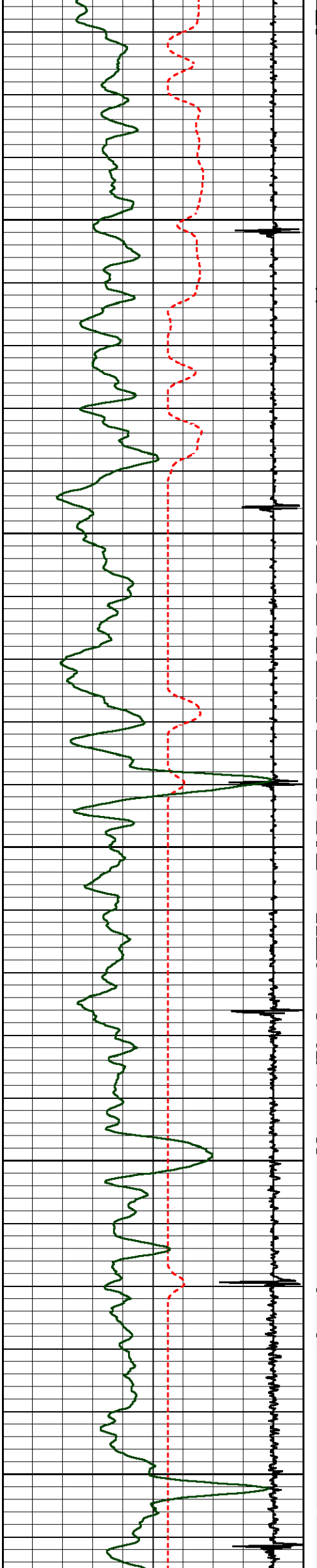




1700

1800

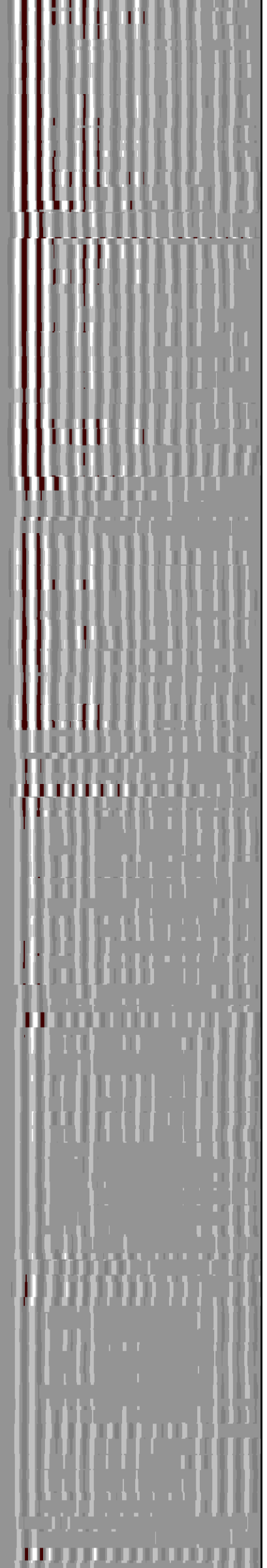
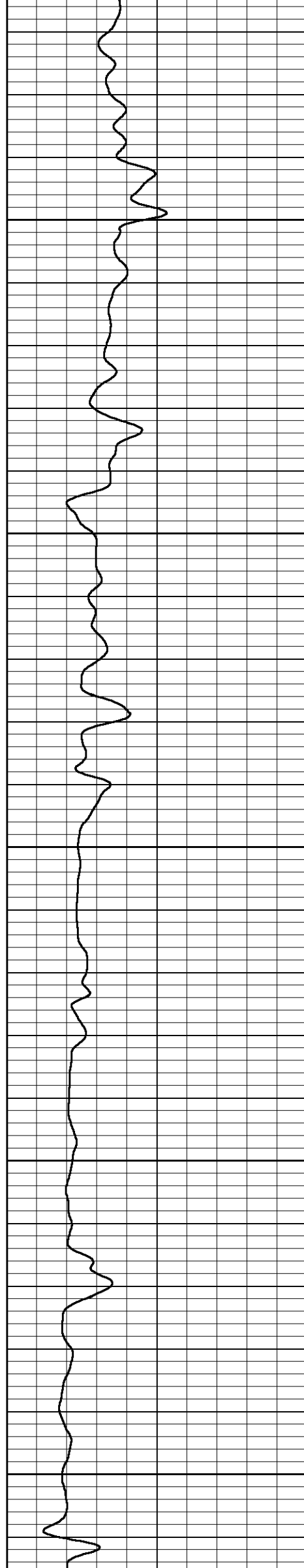




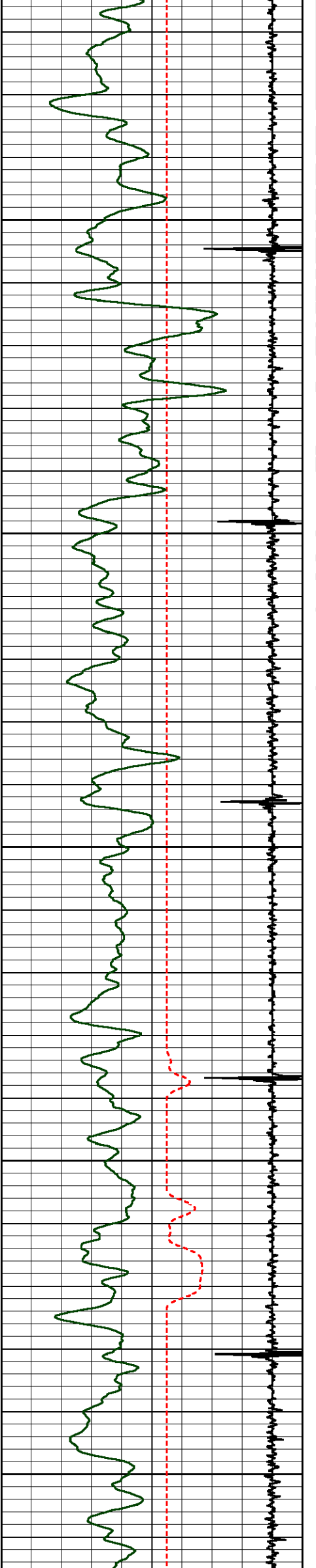
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2000

2100

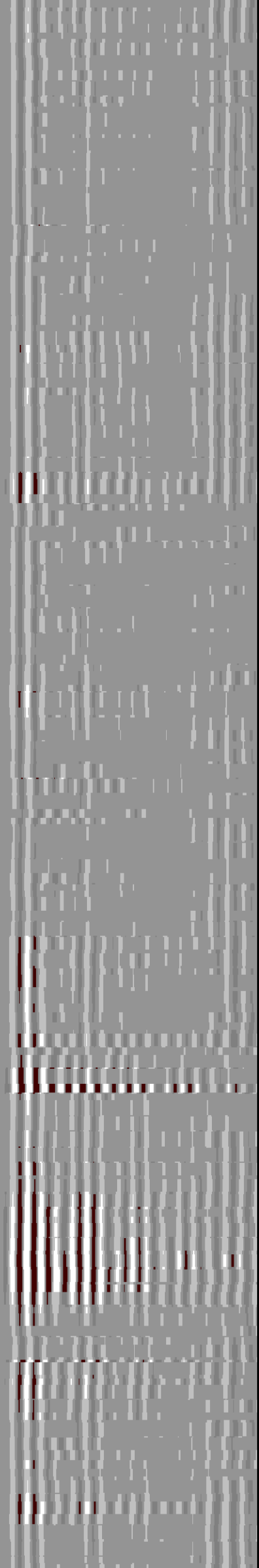
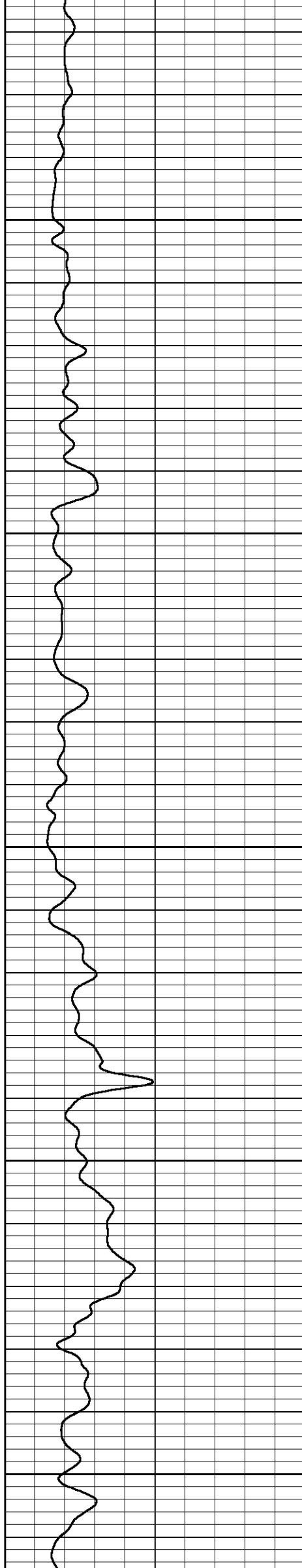


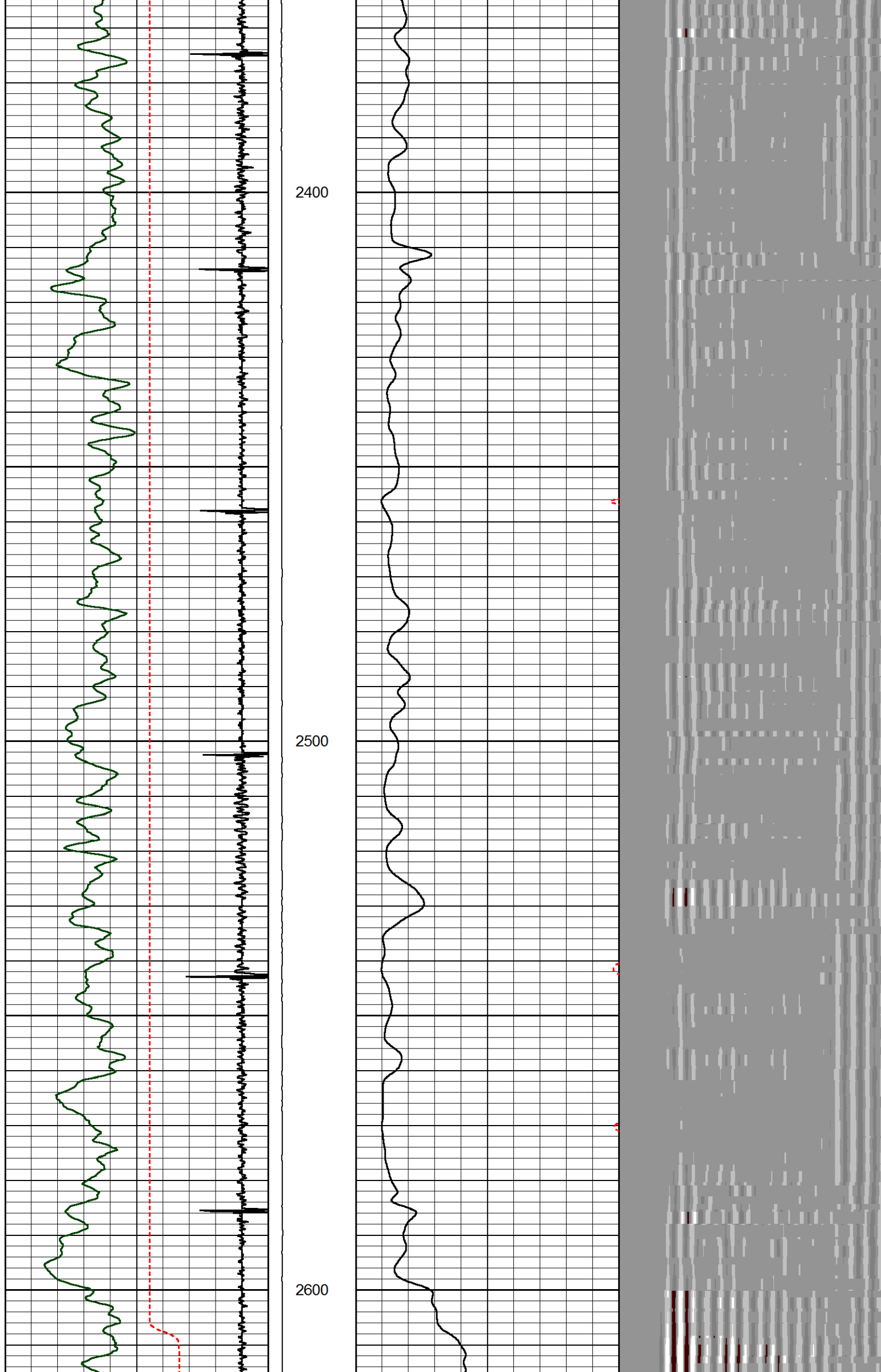


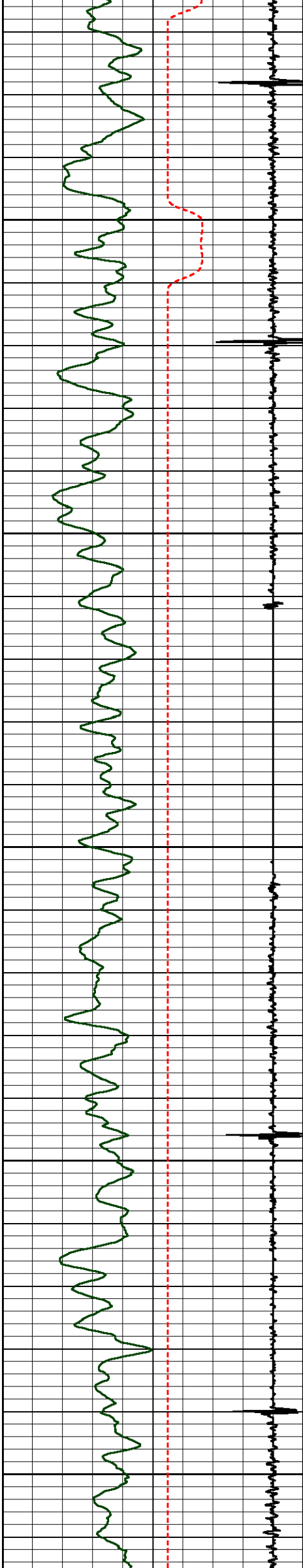


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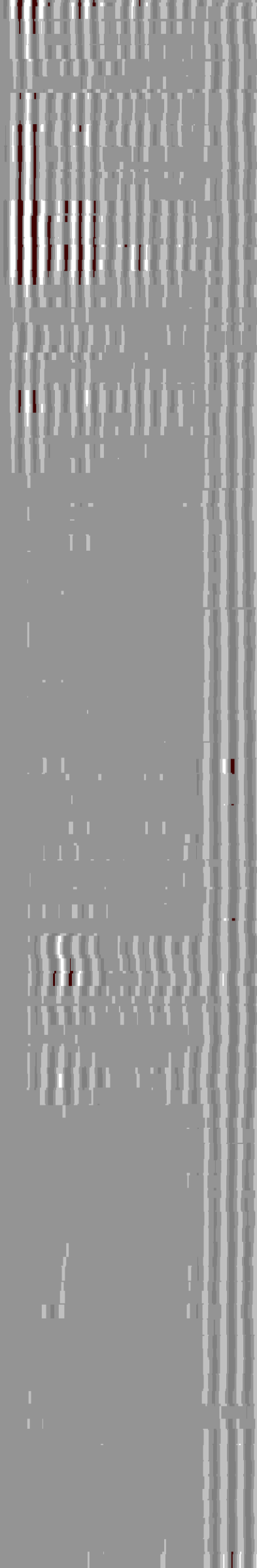
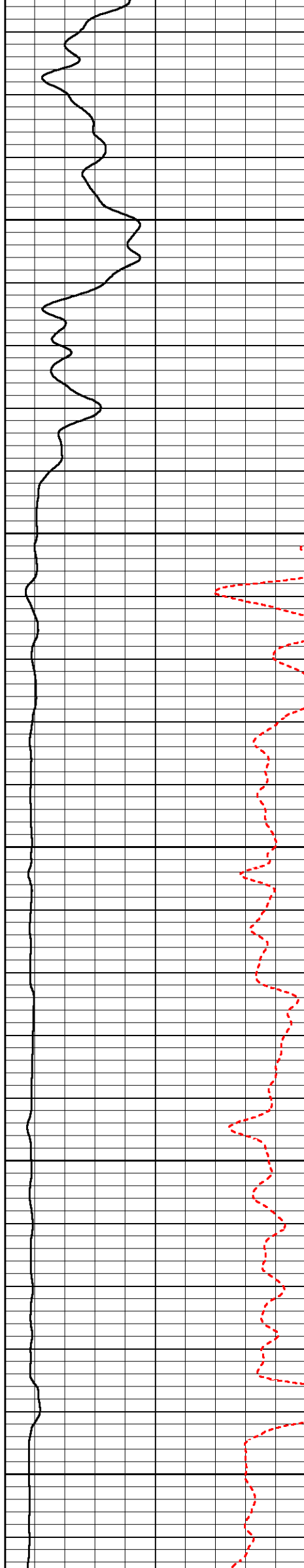


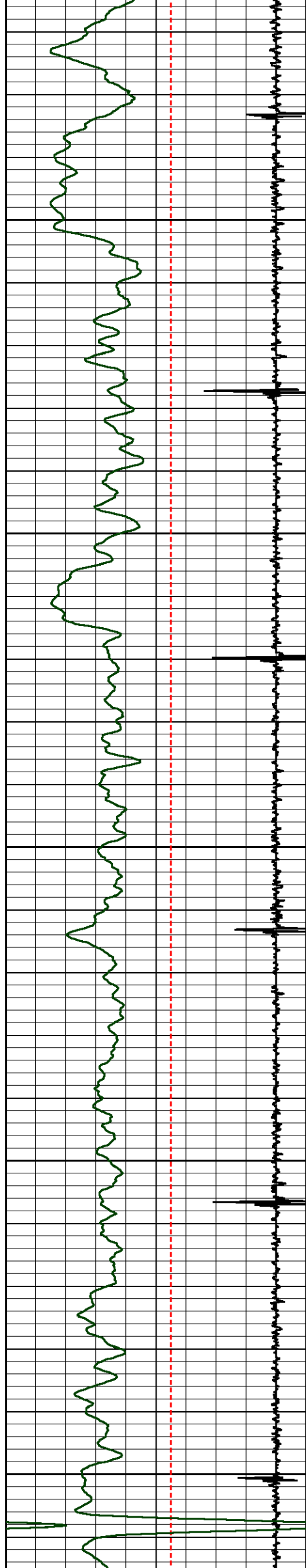




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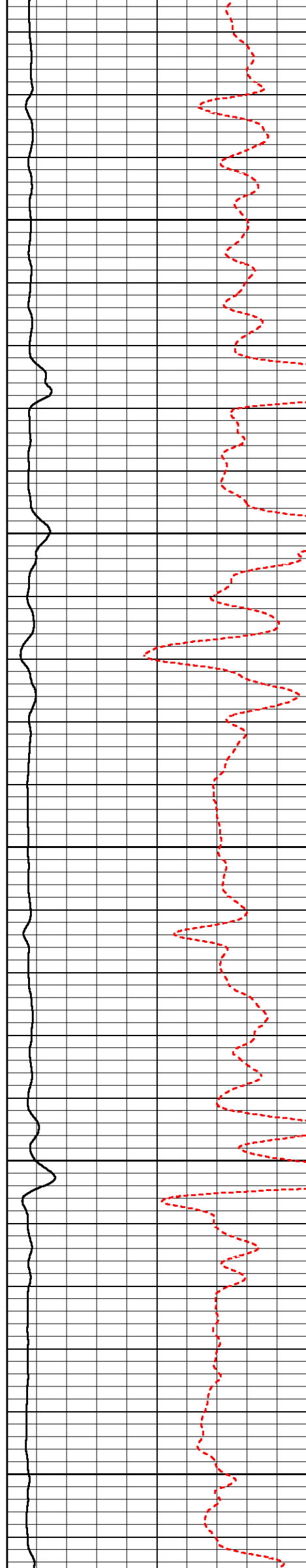




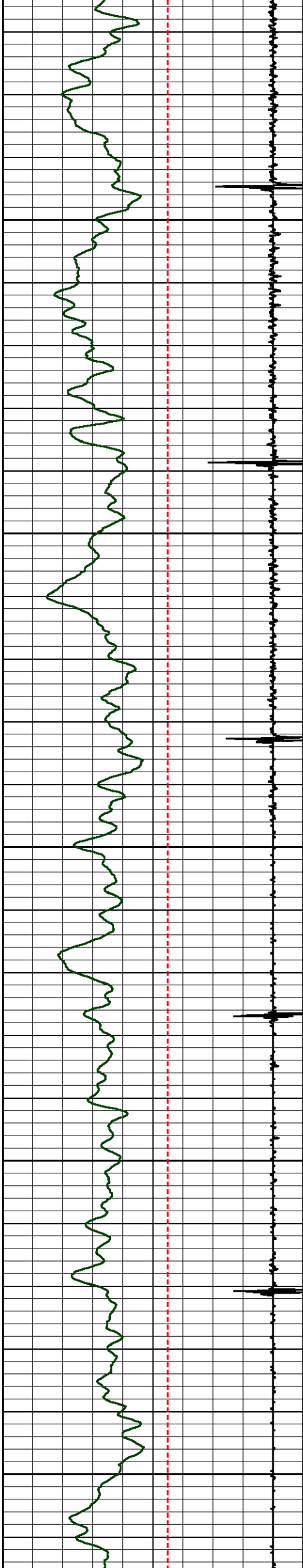
2900

3000

3100

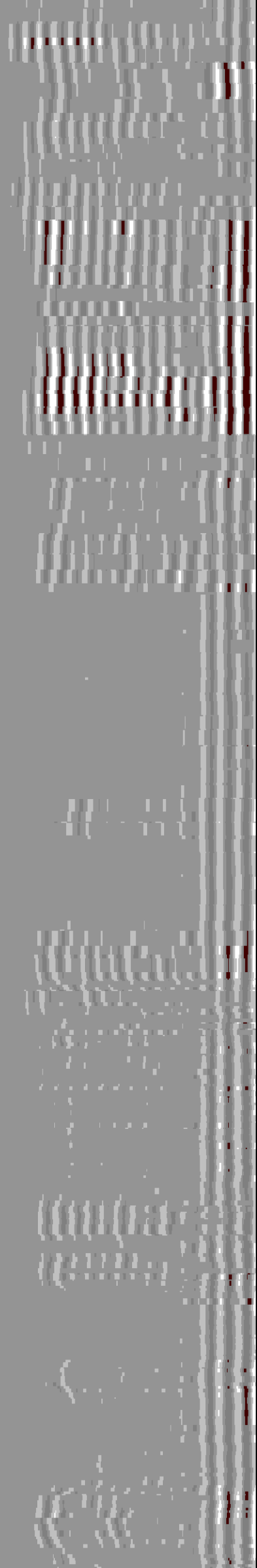
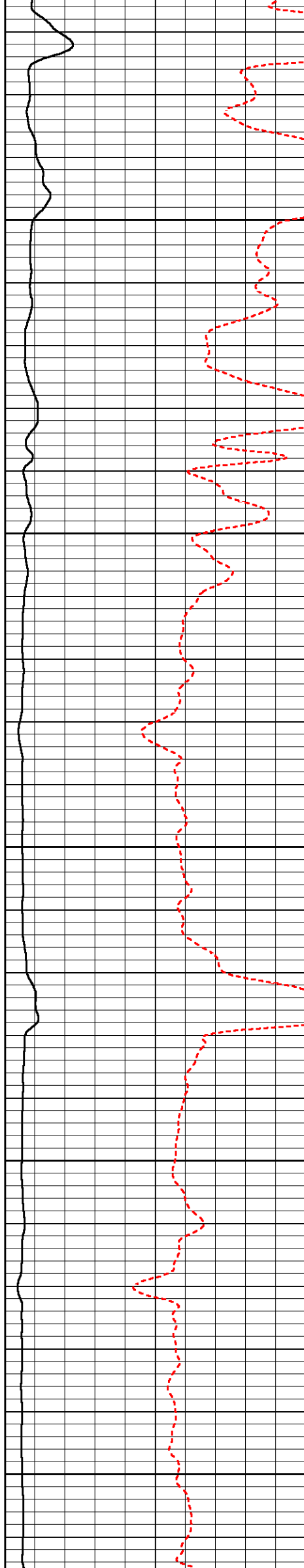


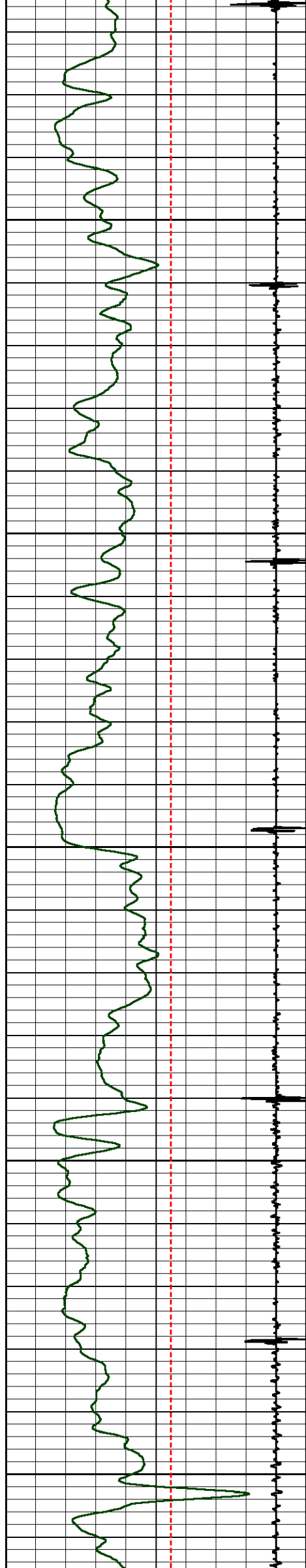




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3300

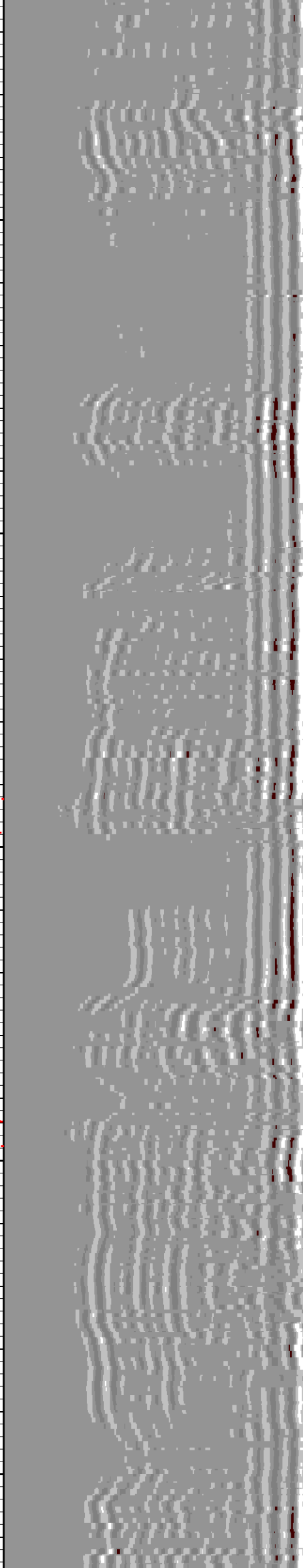
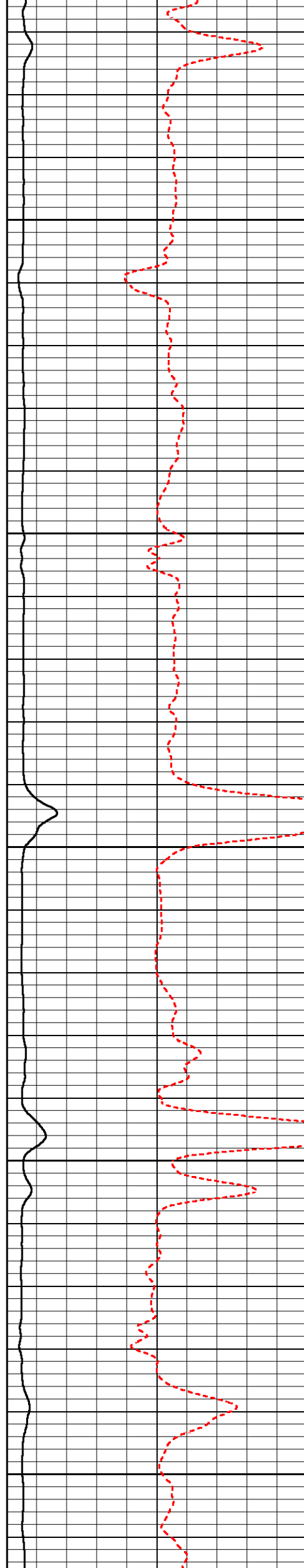


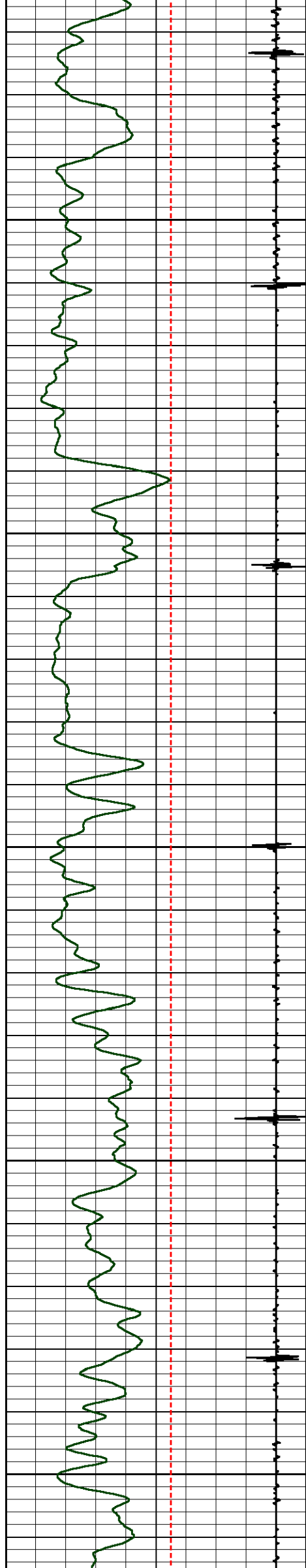


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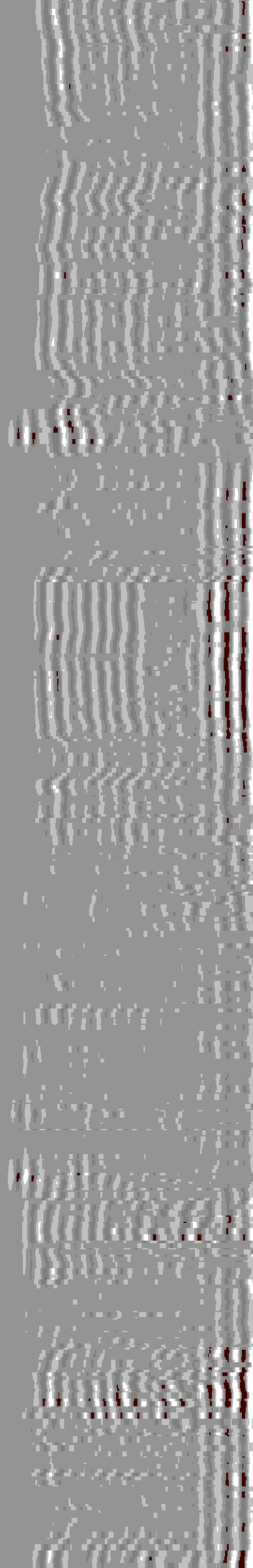
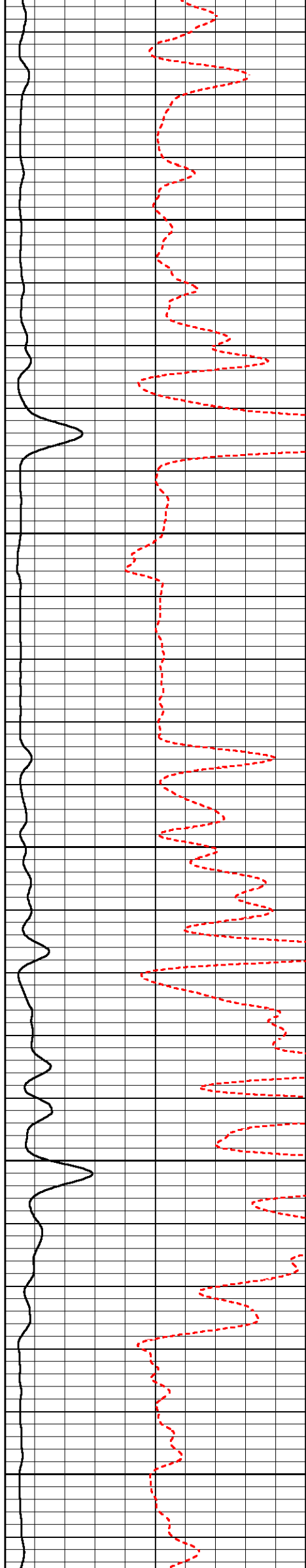
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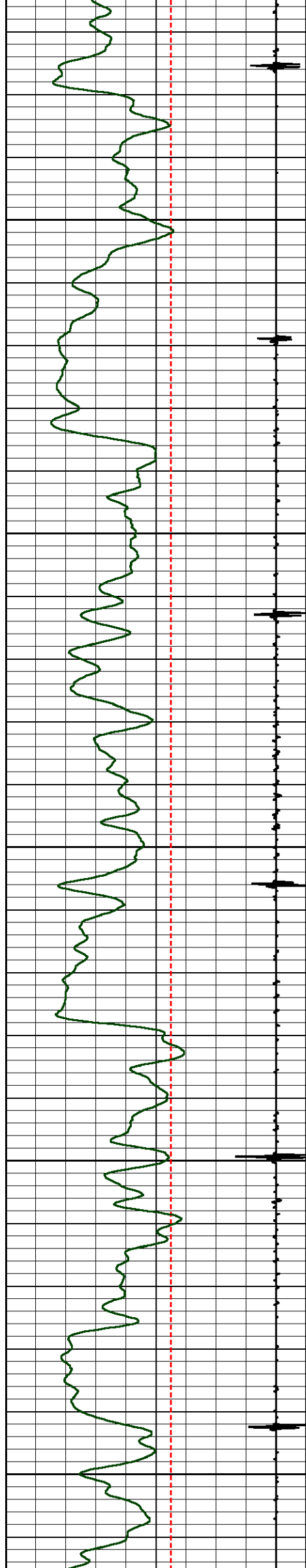




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3800

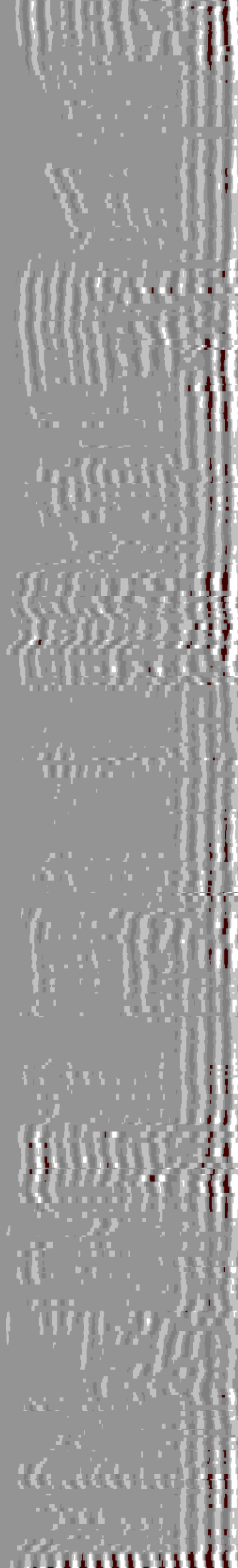
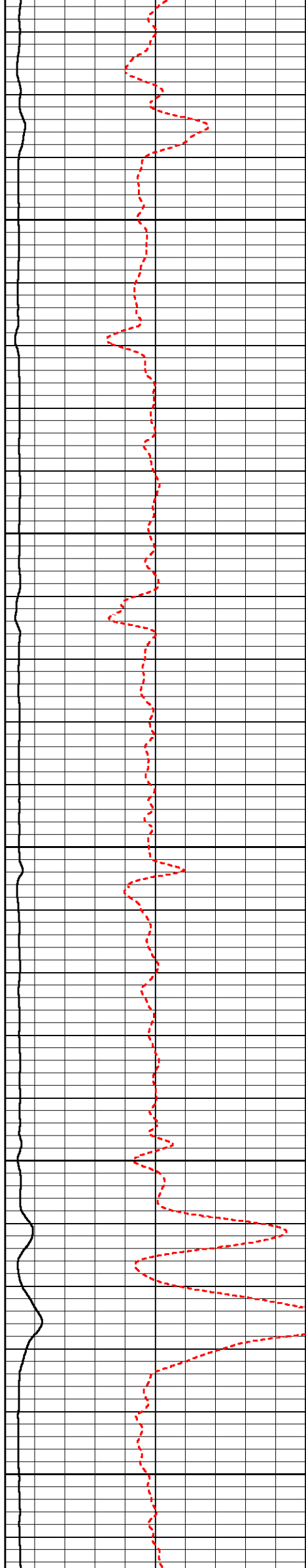


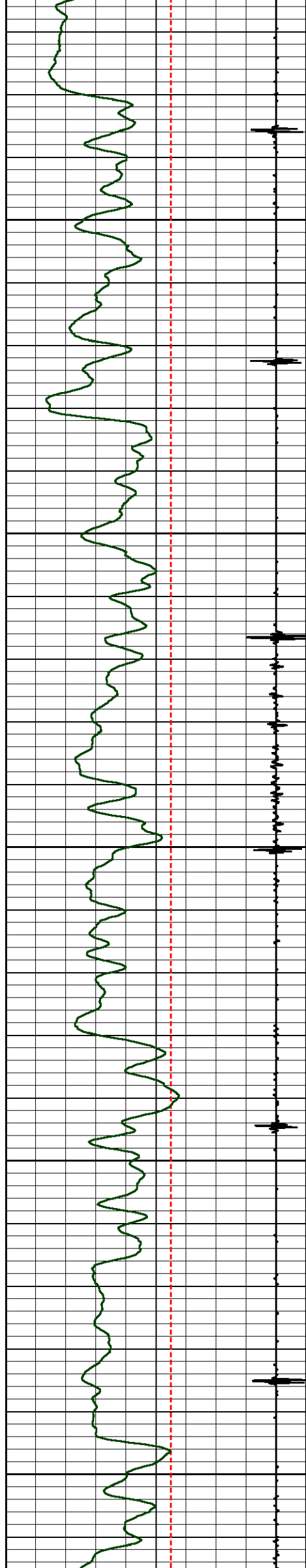


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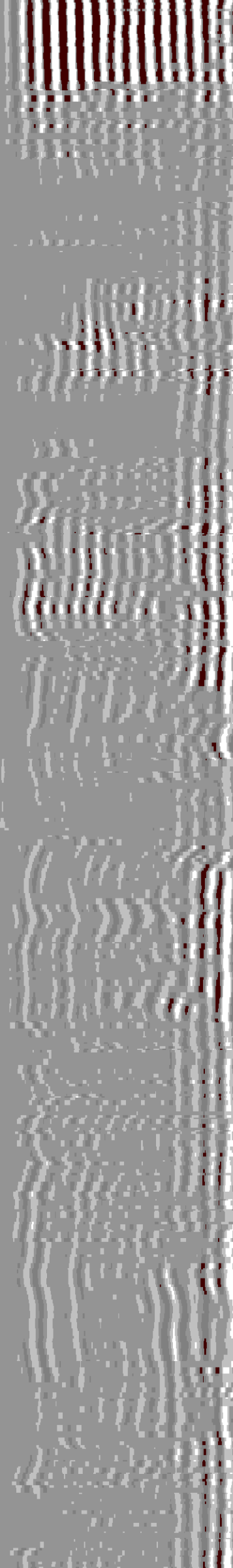
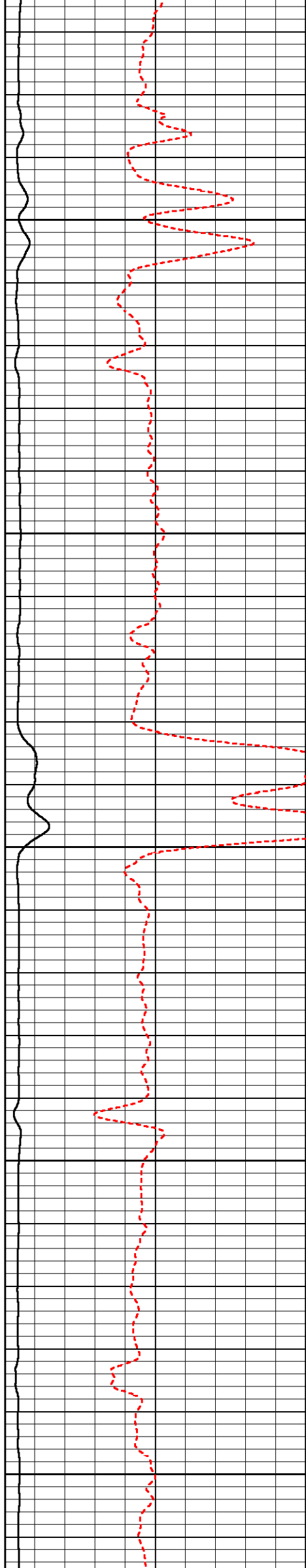
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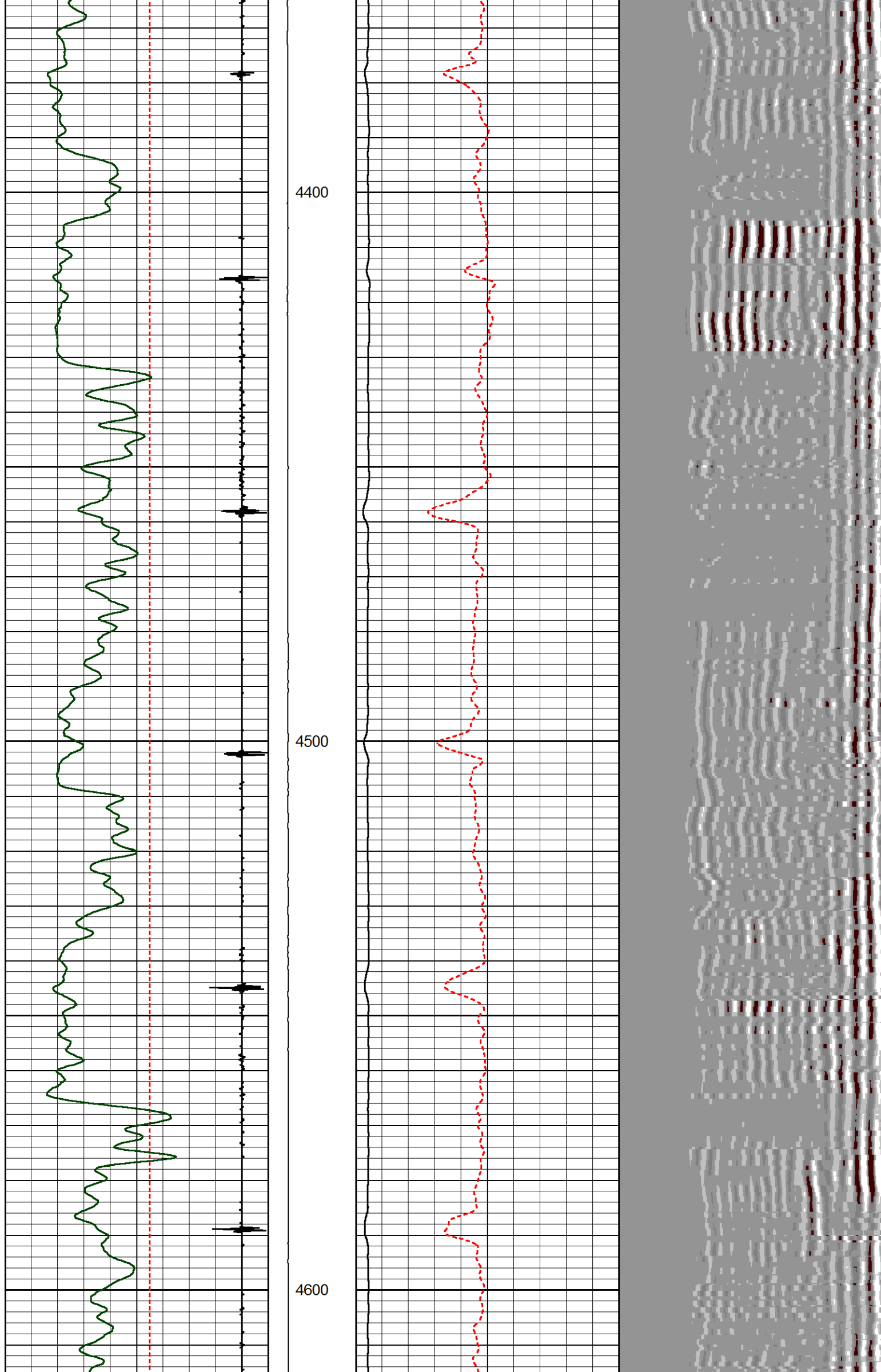




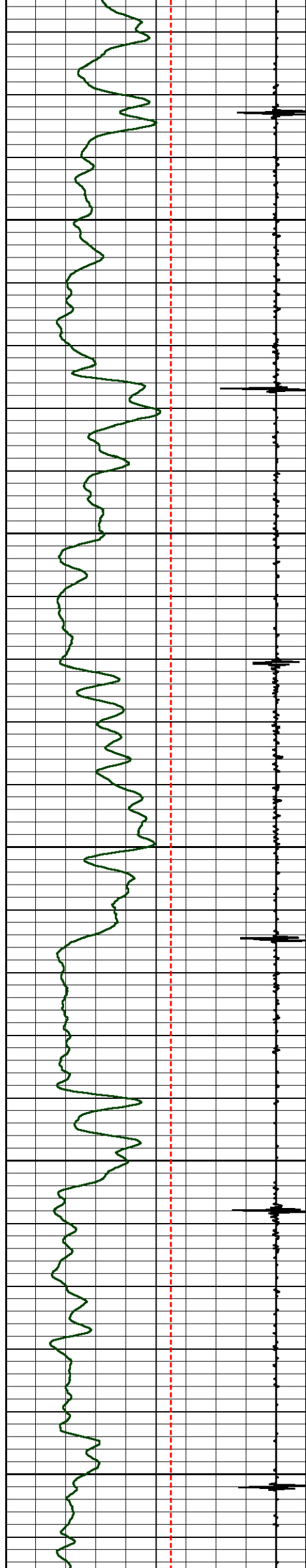
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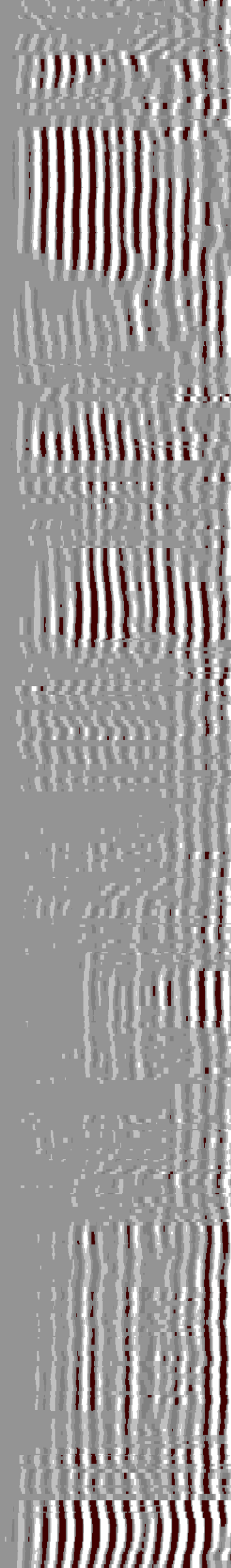
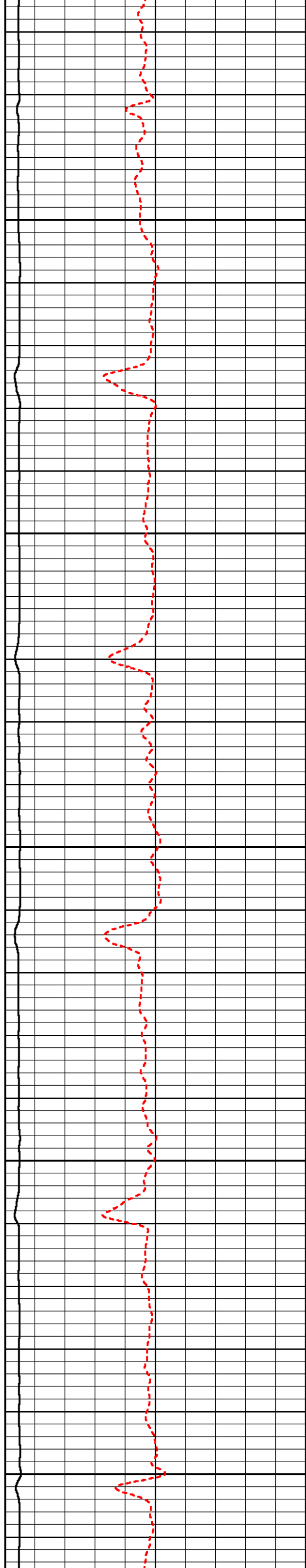


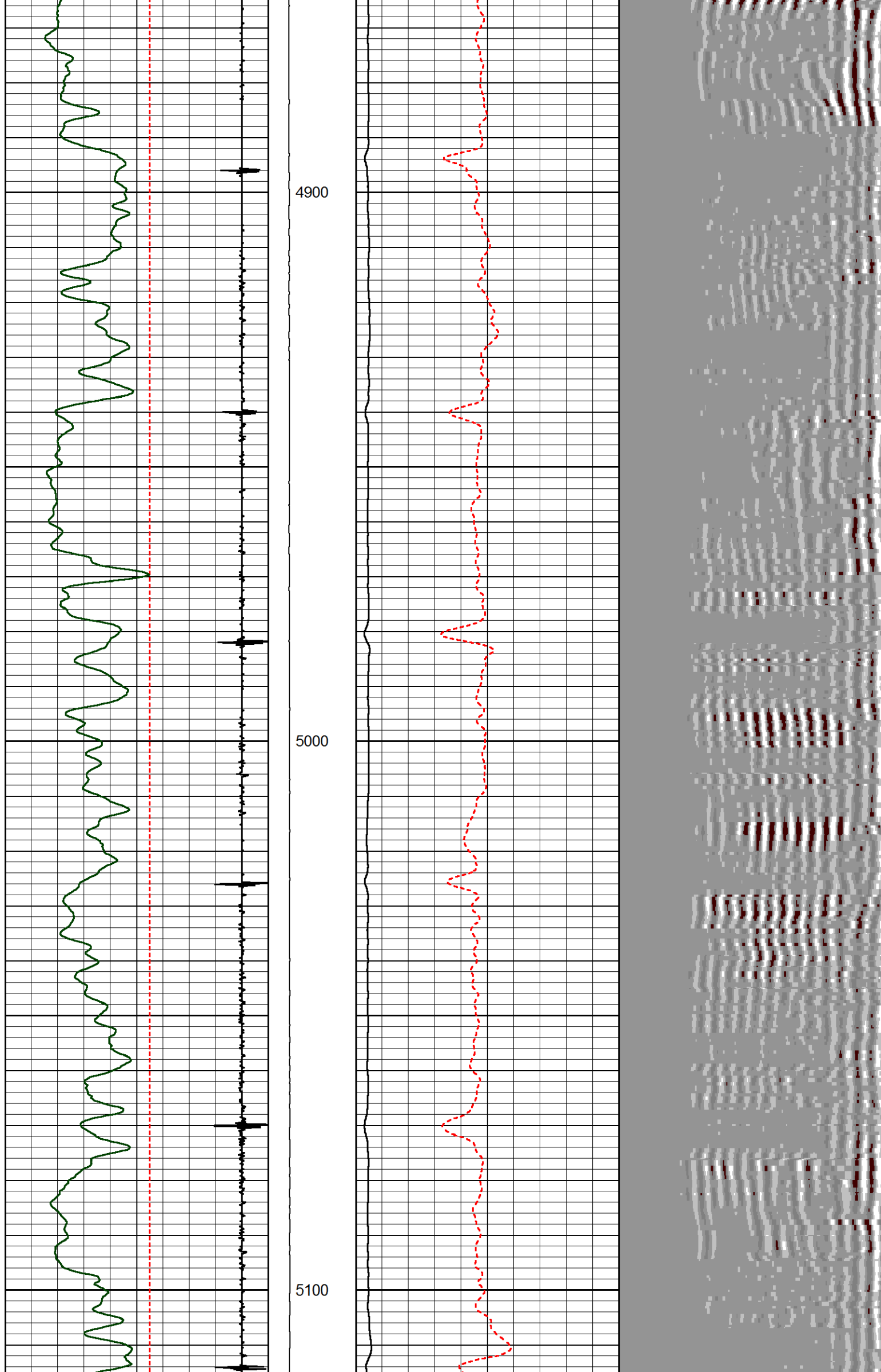


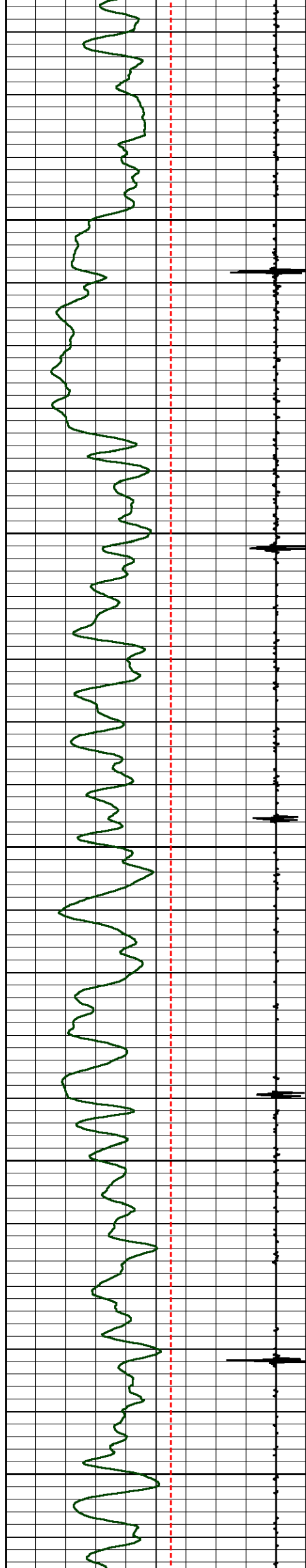


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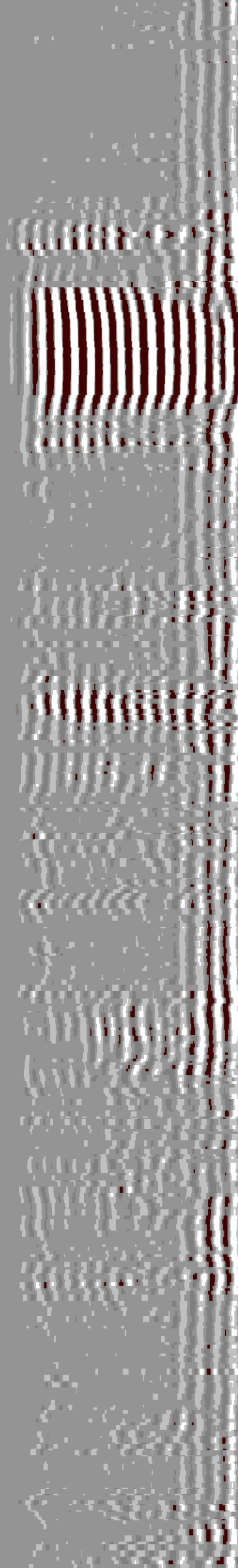
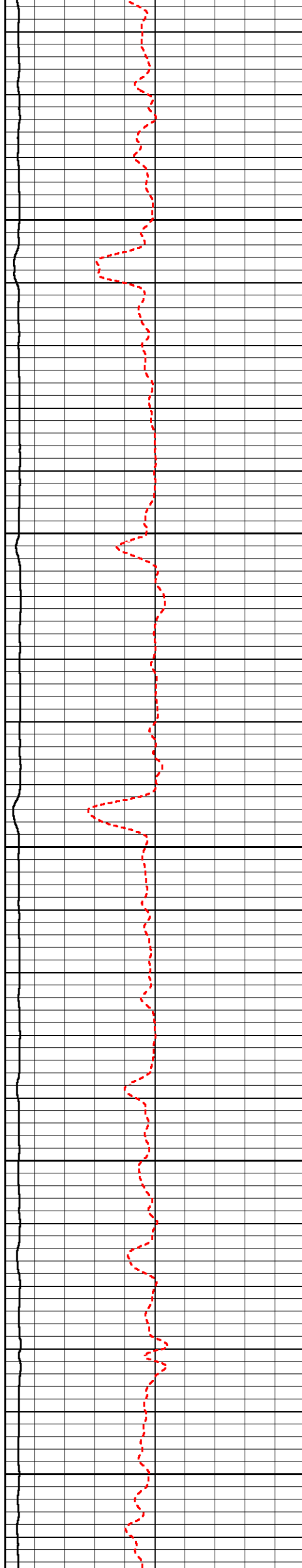


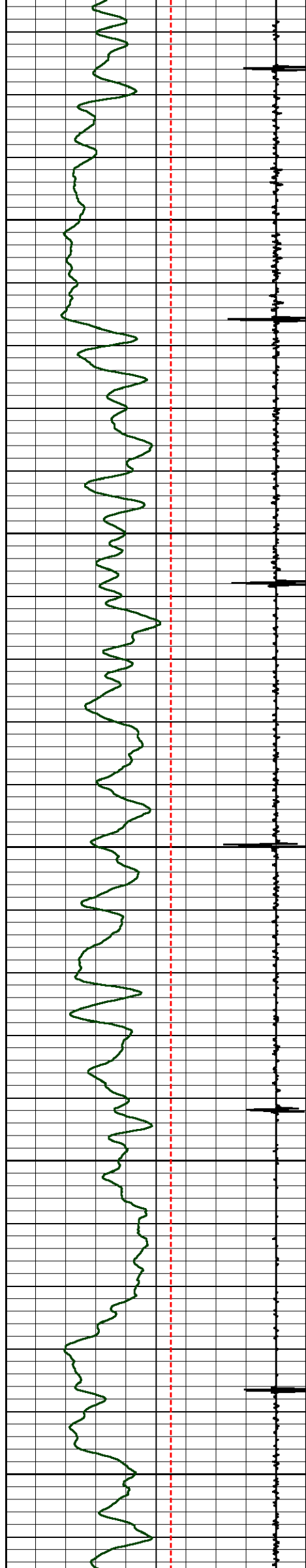




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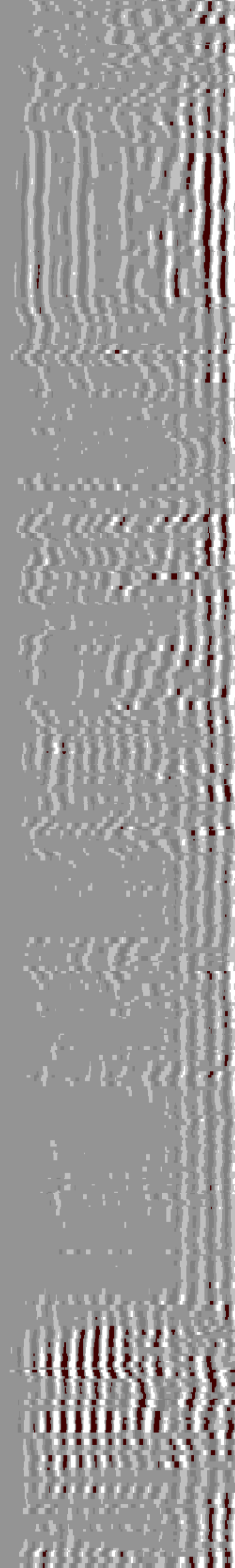
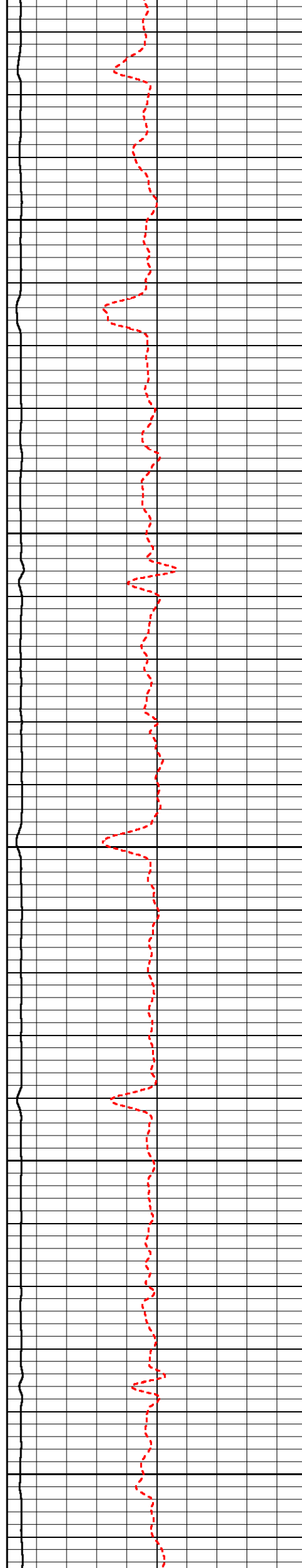


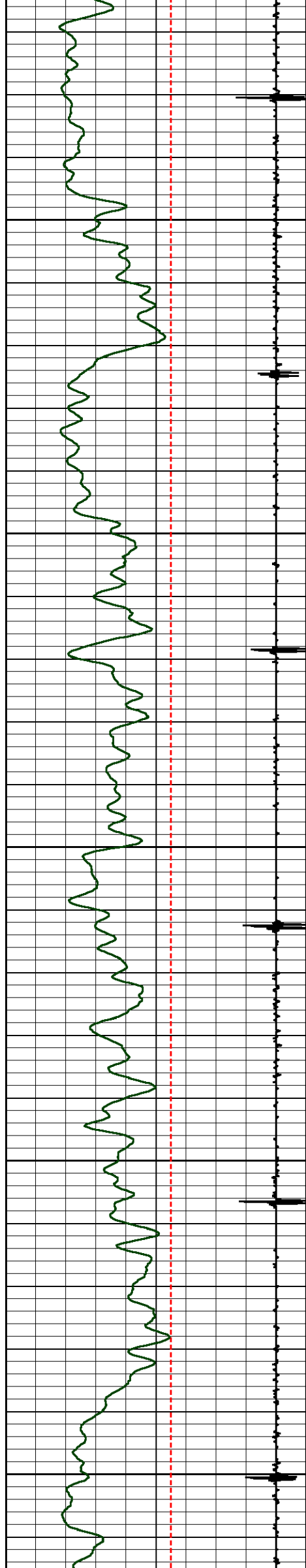


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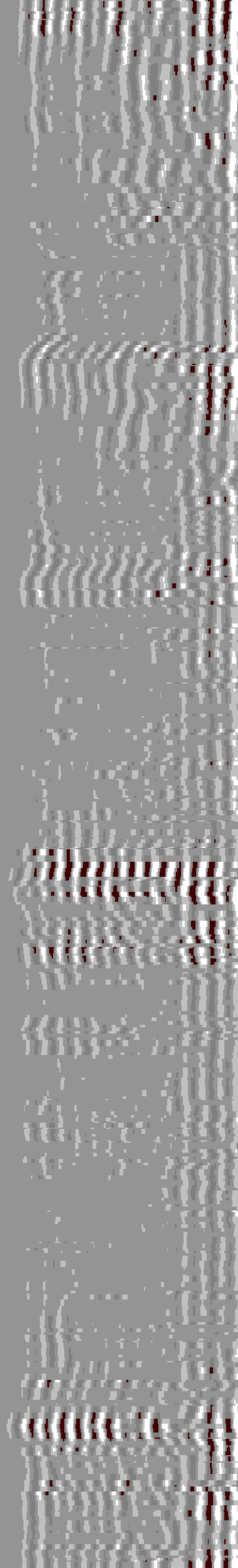
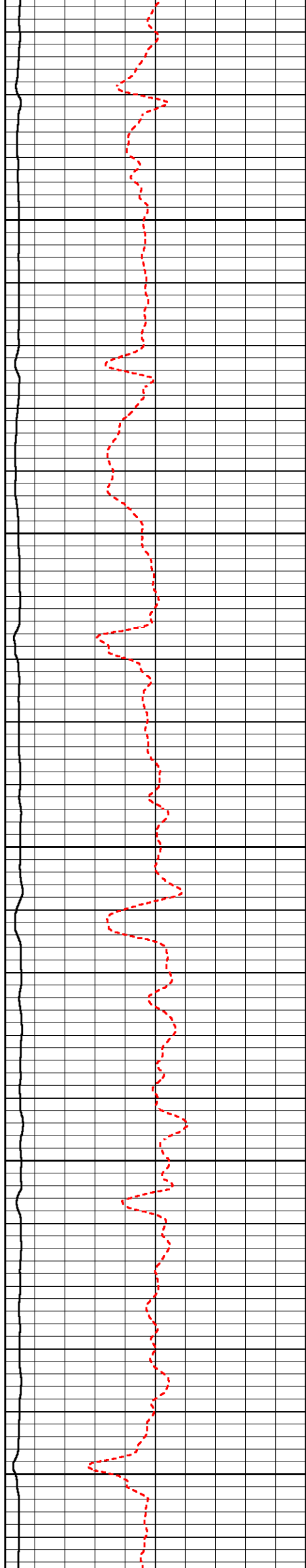
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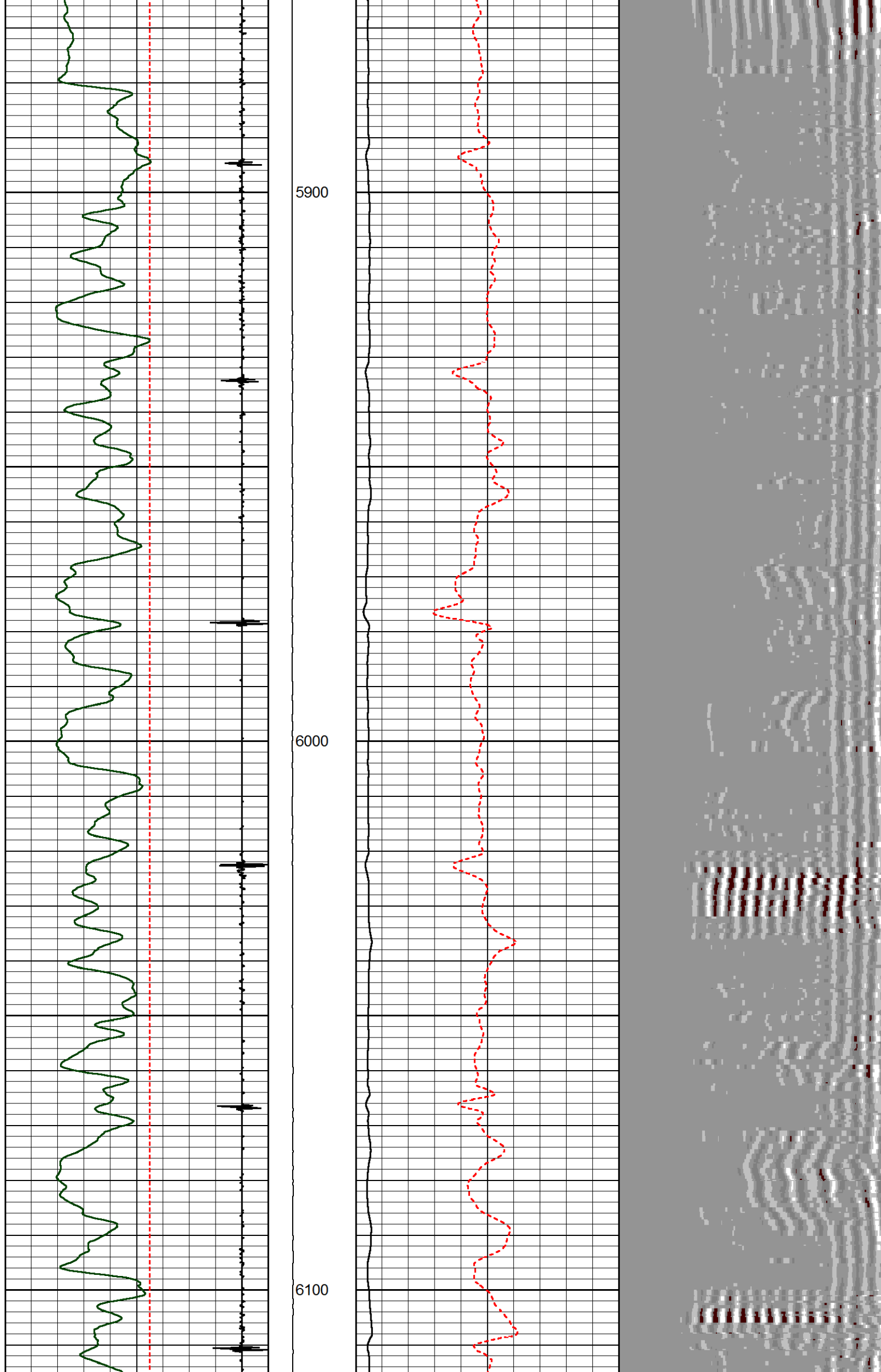




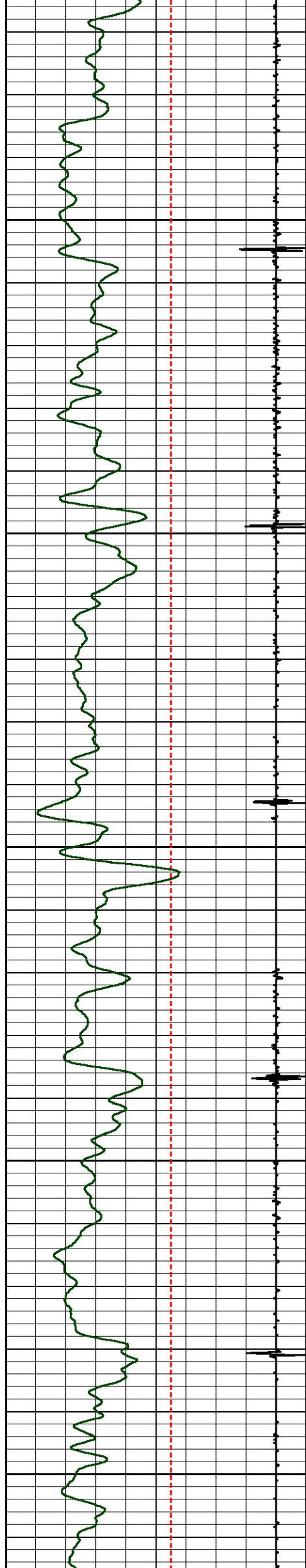
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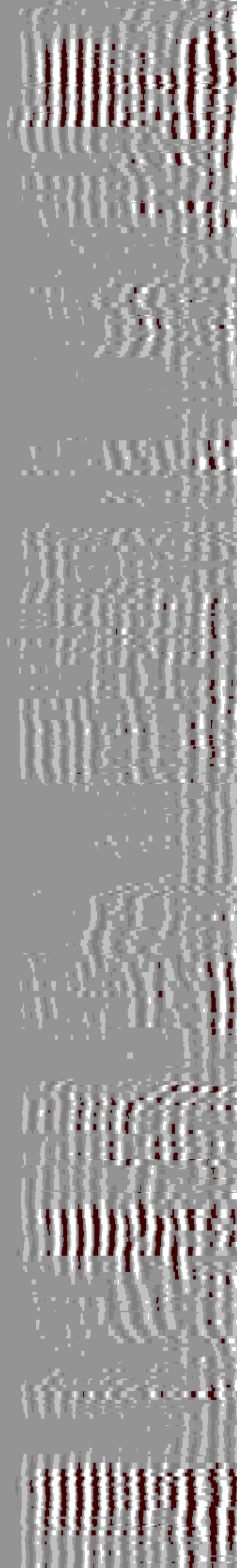


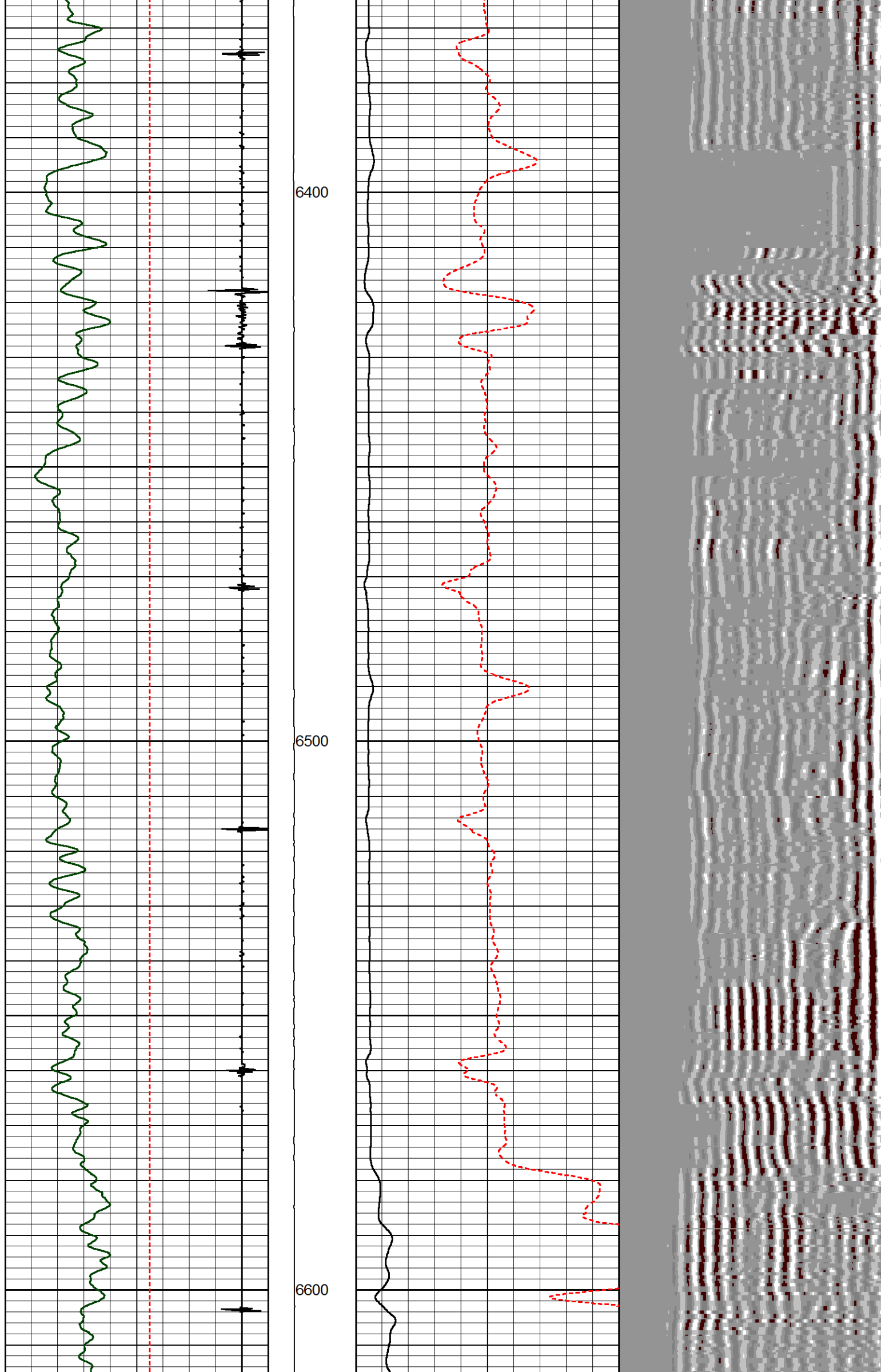


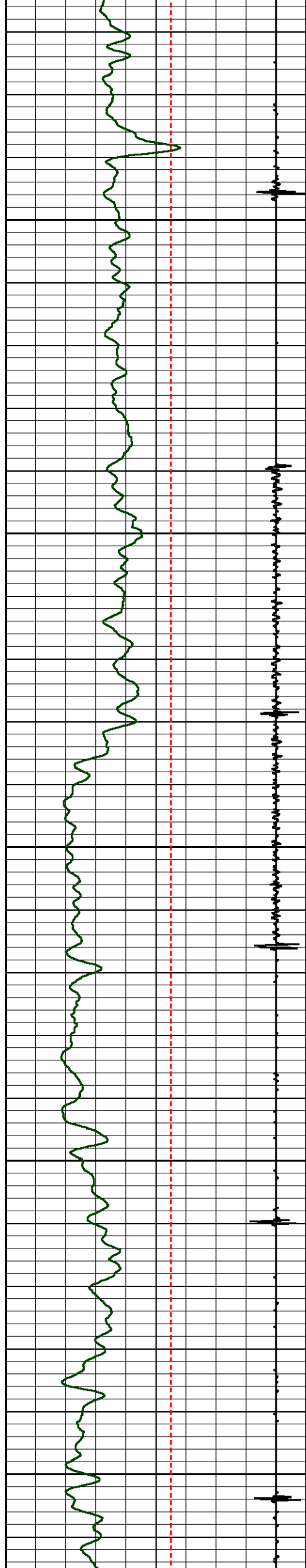


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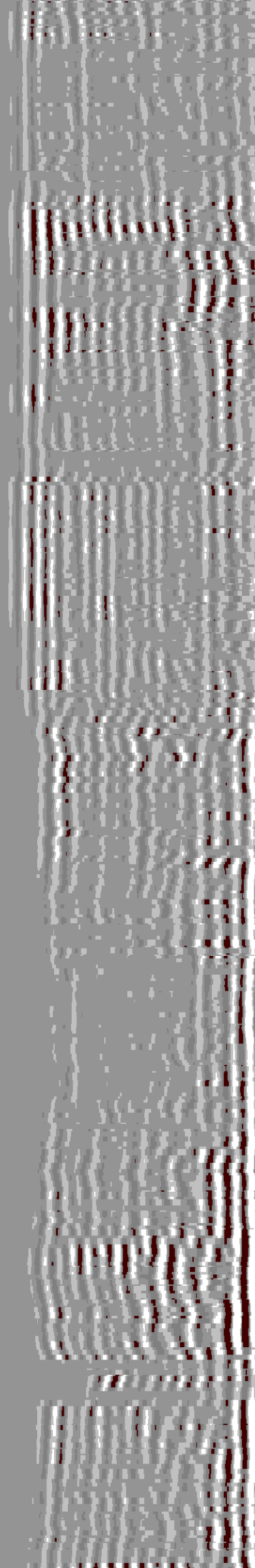
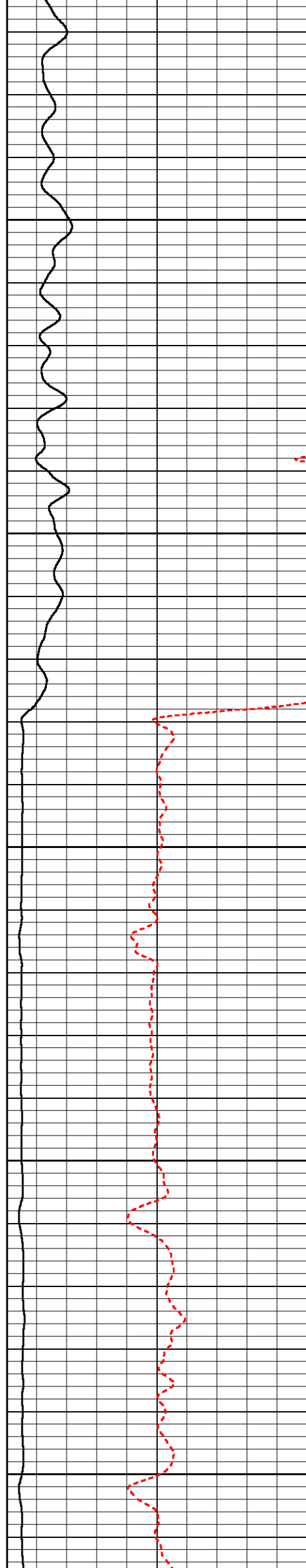


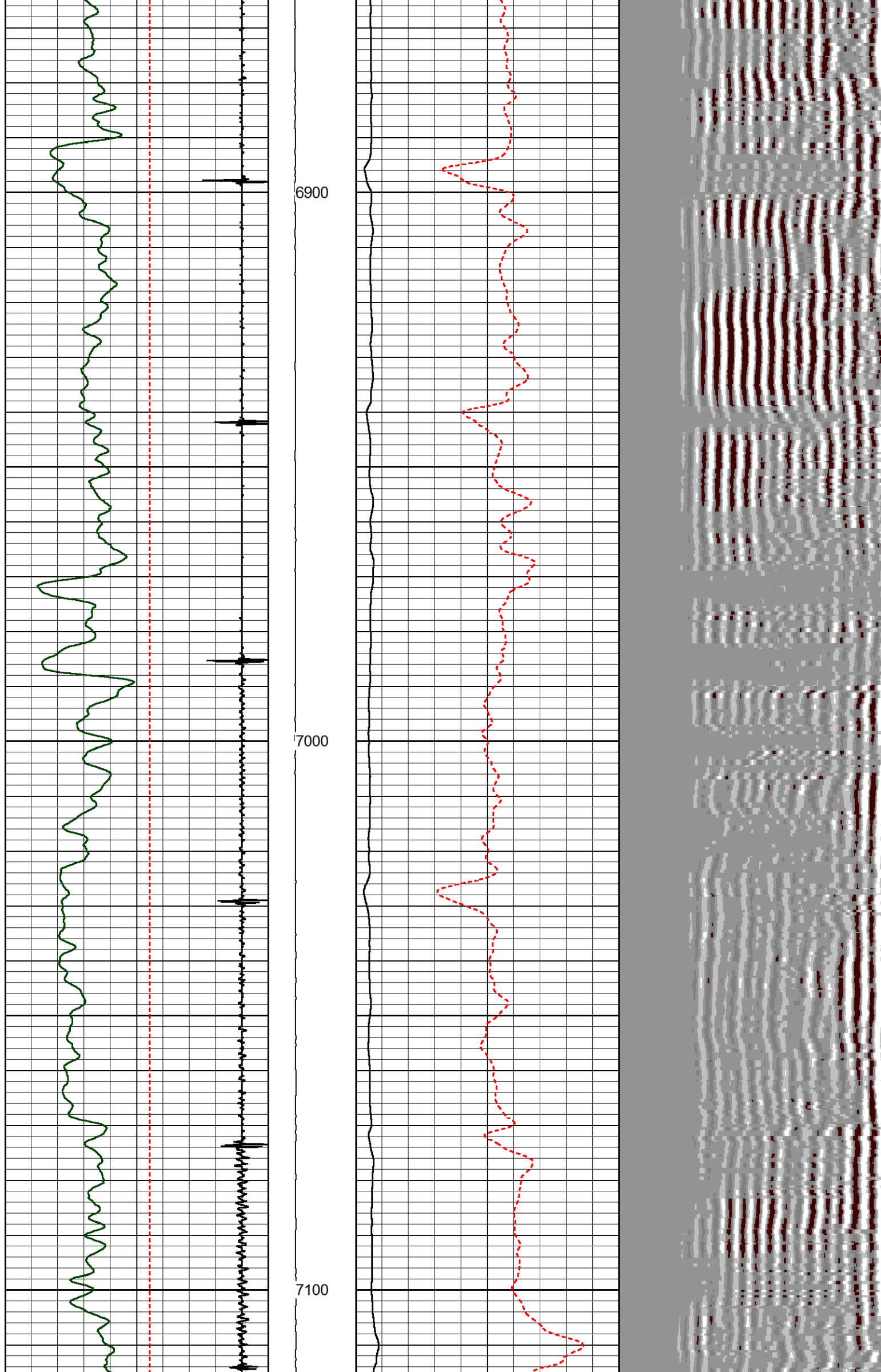


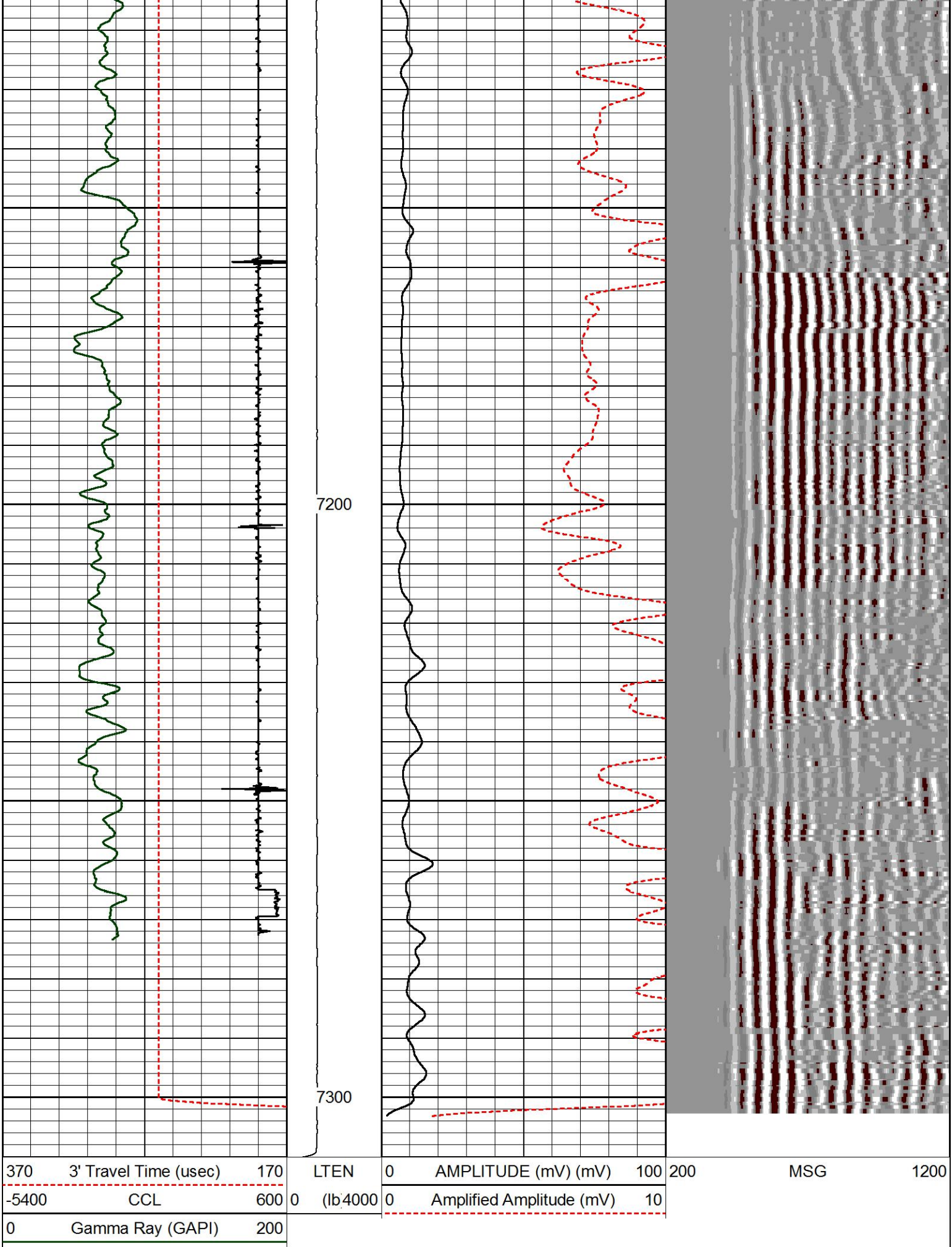


6700

6800







MAIN LOG SECTION

5" = 100'

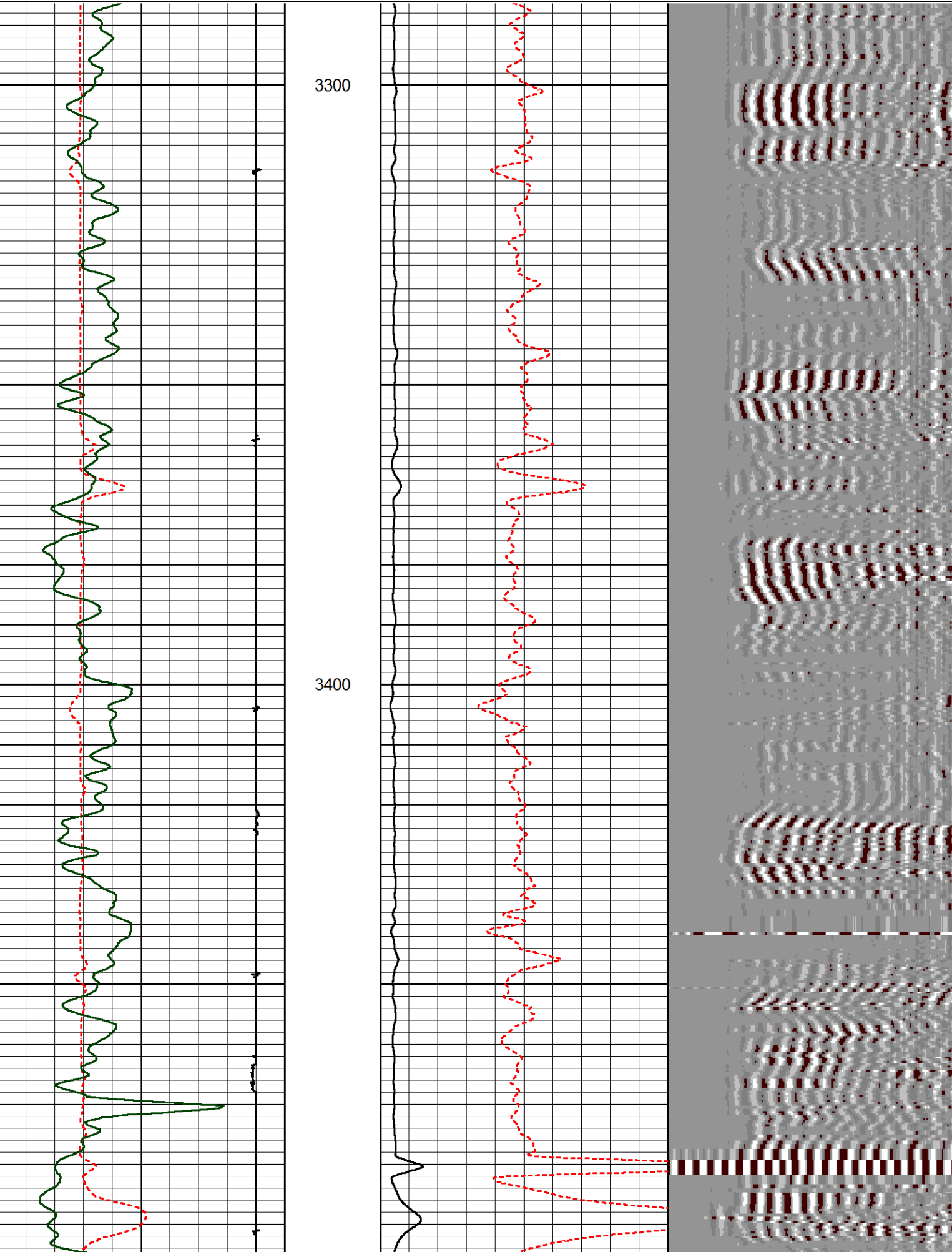
REPEAT LOG SECTION

5" = 100'



Database File        watson\_b\_24awi\_combo.db  
Dataset Pathname    RMT\_RPT1  
Presentation Format   hcbl  
Dataset Creation     Wed Jun 03 03:56:47 2015  
Charted by           Depth in Feet scaled 1:240

370	3' Travel Time (usec)	170	LTEN	0	AMPLITUDE (mV) (mV)	100	200	MSG	1060
-5400	CCL	600	0 (lb.4000)	0	Amplified Amplitude (mV)	10			
0	Gamma Ray (GAPI)	200							







Serial Number:	12082235
Tool Model:	004
Calibration Casing Diameter:	4.500 in
Calibration Depth:	229.967 ft

Master Calibration, performed Wed Jun 03 05:55:02 2015:						
	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3FT	-0.013	0.709	0.000	82.500	114.126	1.532
5FT	-0.015	0.698	0.000	82.500	115.772	1.713
S1	-0.007	0.733	0.000	100.000	135.171	0.967
S2	0.001	0.717	0.000	100.000	139.591	-0.075
S3	0.003	0.687	0.000	100.000	146.179	-0.430
S4	-0.000	0.652	0.000	100.000	153.403	0.039
S5	0.001	0.671	0.000	100.000	149.367	-0.215
S6	0.002	0.675	0.000	100.000	148.616	-0.303
S7	0.005	0.702	0.000	100.000	143.405	-0.691
S8	0.003	0.720	0.000	100.000	139.420	-0.385

Calibration Report


Serial Number:	12082235
Tool Model:	004
Performed:	
Reference (degF)	Reading ( )
Low: 0.000	0.000
High: 1.000	1.000
Gain = 1.000	Offset = 0.000

Reservoir Monitor Tool I Calibration Report

Serial-Model:	11680606-A
Shop Calibration Performed:	Mon Jun 01 14:01:58 2015

Carbon/Oxygen Mode					
Stabilization					
Result	Logged	Expected Value	Diff.	Tol.	Units
GENV	75.00	80.00	-5.00	+/-15.00	V
ITCR2	3230	3250	-20	+/-250	cps
Near Detector					
H	Channel	Expected Value	Amplitude	FWHM	Tol.
Fe	60	60 +/-2	0.0244	5.81	<6.00
NGAIN = 0.998	206	206 +/-2	0.0944	-----	-----
Far Detector					
H	Channel	Expected Value	Amplitude	FWHM	Tol.
Fe	60	60 +/-2	0.0365	5.60	<6.50
FGAIN = 0.994	209	208 +/-2	0.0910	-----	-----
Flask Temperature	65.6 degF				
Result	Logged	Expected Value	Diff.	Tol.	Units
COIR2	0.45	0.45	-0.00	+/-0.02	
LIRI2	1.64	1.64	-0.00	+/-0.05	
TCCR2	5062	5000	62	+/-1000	cps

ITCR2	3213	3200	13	+/-250	cps
Sigma Mode					
Stabilization					
Result	Logged	Expected Value	Diff.	Tol.	Units
GENV	76.00	80.00	-4.00	+/-15.00	V
FCAP	10334	10000	334	+/-500	cps
Horizontal Water Tank					
Result	Logged	Expected Value	Diff.	Tol.	Units
N/F Normalizer	0.94	0.95	-0.01		
N/F Inel Norm	0.61	0.61	0.00		
RNF	1.07	1.07	-0.00	+/-0.12	
RINC	1.63	1.64	-0.01	+/-0.18	
SGFN	24.06	24.00	0.06	+/-0.50	cu
SGFF	22.87	22.85	0.02	+/-0.50	cu
FSIN	25058	24000	1058	+/-2000	cps
FCAP	10528	10000	528	+/-1000	cps
NFTR	0.86			<5.00	
FFTR	0.91			<5.00	
NBKG	133			<500	cps
FBKG	102			<500	cps
RTN	0.44	0.40	0.04	+/-0.10	usec
RTF	0.47	0.40	0.07	+/-0.10	usec
Calibration Software Modules					
HRMTI Module	2013.11.14.0				
RMTI Module	2014.8.28.1				
Log Data Acquisition Software Modules					
HRMTI Module	2013.11.14.0				
RMTI Module	2014.8.28.1				
Gamma Ray Calibration Report					
Type / Serial:		002 / 10000028			
SHOP CALIBRATION		Wed Jun 03 00:21:49 2015			
	Counts/Sec.	Gain	Offset	Jig	Units
Background	39.9				cps
Calibrator	330.3				cps
		1.4048			GAPI/cps
PRIMARY VERIFICATION					
Background	55.8				cps
Calibrator	458.8				cps
Difference				403.0	GAPI
BEFORE SURVEY VERIFICATION					
Background	0.0				cps
Calibrator	0.0				cps
Difference				0.0	GAPI
AFTER SURVEY VERIFICATION					
Background	0.0				cps
Calibrator	0.0				cps
Difference				0.0	GAPI

Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb)
			STNDCH-STND_CH 1.4375 IN CABLE HEAD	1.50	1.44	1.00

CCL	37.26							
GR	35.00			TTTCU-002 (10000028) Through Tubing Telemetry Cartridge - Ultrawire	7.65	1.69	100.00	
				XHU-003 (12218041) Crossover Halliburton 1553 to Ultrawire	1.58	1.69	7.00	
RmtTFGT RmtTNGT	24.35 23.85			RMTI-A (11680606) Halliburton RMTI Tool	14.00	2.13	77.00	
RmtFP5V RmtCommFWa	16.10 16.10			X-OVER-SondexxGo Sondex Box x Go Pin Cross Over	0.31	1.69	1.00	
				AUH-001 (000001) Adaptor Ultrawire/Halliburton	0.38	1.69	3.00	
				CENT-CSSMid3.00Roller CSS 3.00" MIDDLE ROLLER CENTRALIZER	2.75	3.00	36.00	
CBLTEMP	8.31			RBT-004 (12082235) Radial Bond Tool (UW 3 1/8) 20K Rated	9.48	3.13	140.00	
				CENT-Probe_275 Probe 2 3/4 Centralizer	2.88	2.75	20.00	
LLMTEN	0.00			BUL-001 (000001) Bullnose	0.30	1.69	1.50	
Dataset: watson_b_24awi_combo.db: field/well/run1/RMT_MAIN Total length: 40.83 ft Total weight: 386.50 lb O.D.: 3.13 in								

Well	WATSON RANCH B 24AWI-17-07-95		
Field	PARACHUTE		
County	GARFIELD	State	CO
<b>HALLIBURTON</b>	ACOUSTIC CEMENT BOND LOG		