

HALLIBURTON

CEMENT BOND LOG
(CBL-M)

Company

EXTRACTION OIL & GAS LLC

Well

JANSSEN 5

Field

WATTENBERG

County

WELD

State

CO

Company

EXTRACTION OIL & GAS LLC

Well

JANSSEN 5

Field

WATTENBERG

County

WELD

State

CO

API No.: 05123423620000

Serv #: 903015538

Other Services

Location: SURFACE HOLE LOCATION:
2231' FNL & 2397' FWL SENW

LATITUDE: 40.503089
LONGITUDE: -104.688271

JUNK BASKET
GAUGE RING
CBL-M

Sec: 8

Twp: 6N

Rge: 65W

Permanent Datum

G.L.

Elevation

4778'

Elevation

Log Measured From

K.B.

25

Ft. above perm. datum

K.B.

4803'

D.F.

4803'

G.L.

4778'

Drilling Measured From

K.B.

G.L.

4778'

Date @ Time Logged

1/6/16 @ 09:00

Type Fluid in Hole

FRESH WATER

Run No.

ONE

Density of Fluid

8.5 PPG

Depth - Driller

6862'

Fluid Level

64'

Depth - Logger

6862'

Cement Top Est. Logged

SURFACE

Bottom - Logged Interval

6862'

Equipment / Location

1187/5120 / BRIGHTON

Top - Log Interval

SURFACE

Recorded by

J. SCHMIDT

Max. Recorded Temp.

212 F

Witnessed by

L. SIEGEL

CEMENTING DATA

Surface

Protection

String

Production

String

Liner

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.

/

/

/

Run Number

Bit

From

To

Size

Weight

From

To

Borehole Record

Casing & Tubing Record

<<< 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

GR-CBL-CAST RAN IN COMBINATION

NO LOGS AVAILABLE TO CORRELATE WITH

TOOLS RAN IN 5.5" 20lb CASING.

CAST CONFIG: 3 5/8" HEAD, BROWN 350KHz TRANSDUCER, CIM, 60 SHOTS, 4SPF.

THANK YOU FOR CHOOSING HALLIBURTON ENERGY SERVICES

Service Ticket No.

903015538

API No.

05123423620000

PGM Ver

WARRIOR 8

The Well Name, Location, Borehole Description, and / or Cementing Data Furnished by Client

EQUIPMENT DATA

TELEMETRY		CAST		CBL			
Run No.	ONE	Run No.	ONE	Run No.	ONE	Run No.	
Serial No.	21764	Serial No.	11523900	Serial No.	11923474	Serial No.	
Model No.	TTTCU-002	Model No.	CAST-M	Model No.	HCBL-M	Model No.	
Diameter	1.69"	Diameter	3.125"	Diameter	2.75"	Diameter	

LOGGING DATA

General Data

Pass	Depths		Well Head	Speed	Logging Run Comments		
No	From	To	Pressure	Ft/Min			

No.	FROM	TO	Pressure	THICK				
ONE	6862'	SURFACE	14.7 psi	55				
	GAMMA		CBL					
Pass	Scale		Scale		Scale		Scale	
No.	L	R	L	R	L	R	L	L
	0	150	0	100				
DIRECTIONAL INFORMATION								
Maximum Deviation			deg. @		KOP			

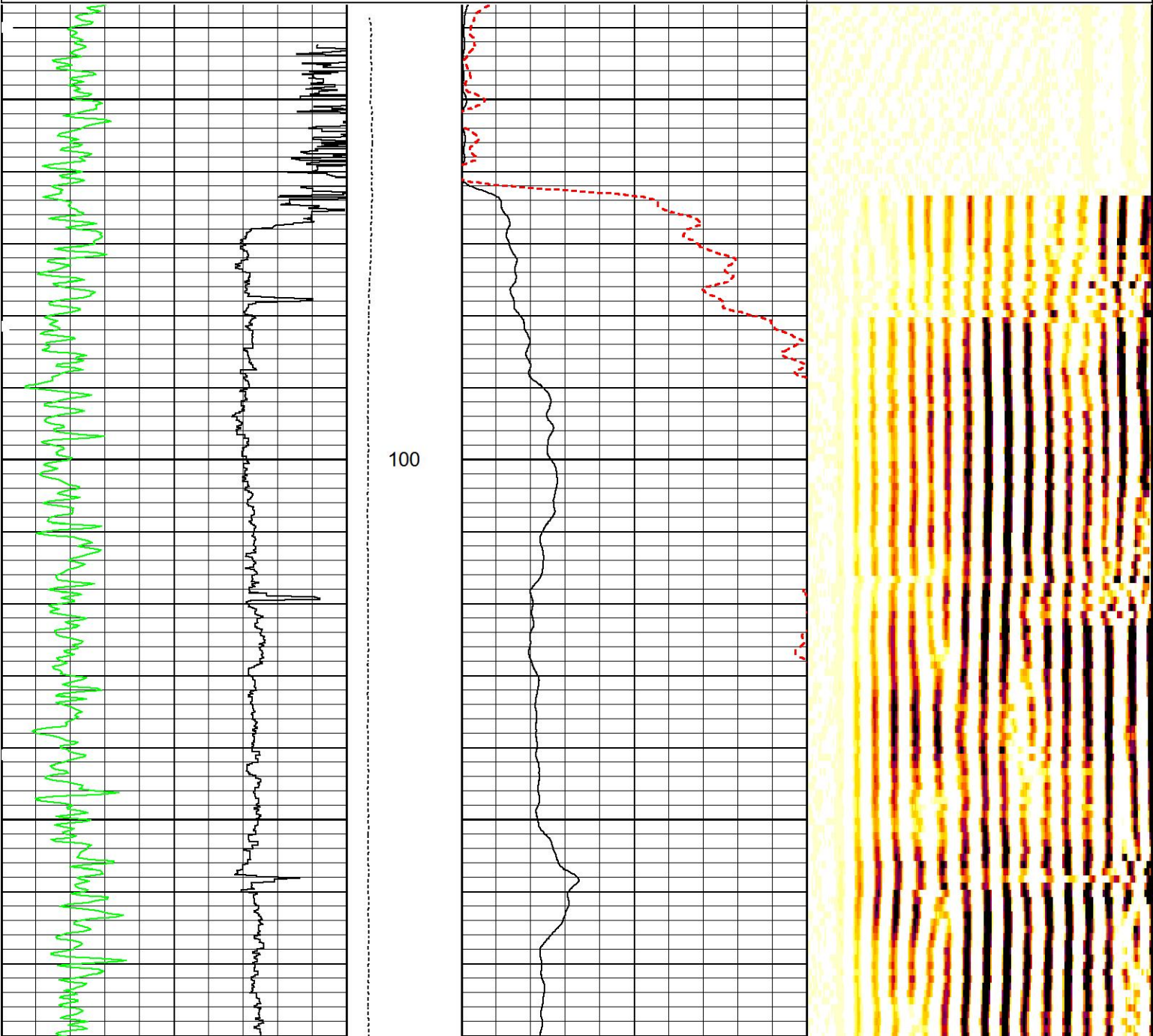
MAIN PASS

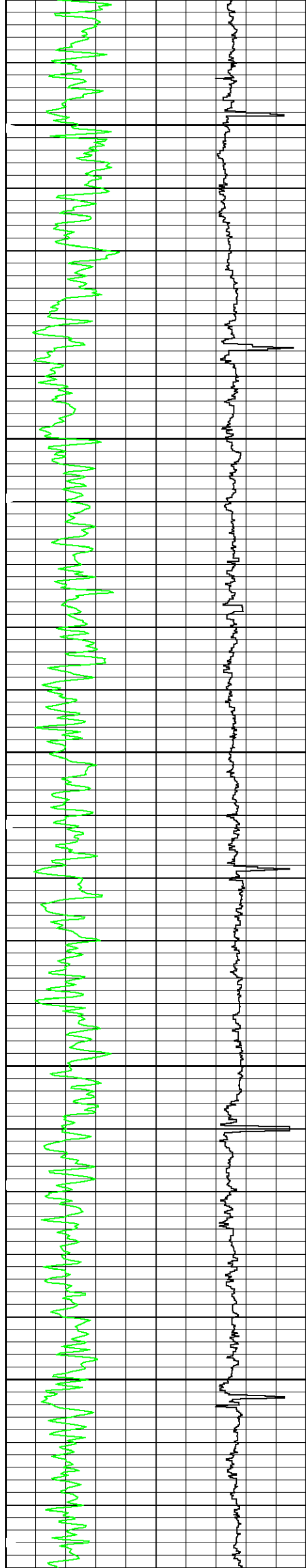
HALLIBURTON

5" = 100'

Database File janssen_5.db
Dataset Pathname MAIN
Presentation Format hcbl
Dataset Creation Wed Jan 06 09:23:06 2016
Charted by Depth in Feet scaled 1:240

3' Travel Time		LTEN	0	3' Amplitude (mV)	100	200	MSG	1060
-11	ACCL (MRayl)	9 0	(lb2000	0	3' Amplitude X5 (mV)	20	10	500
0	Gamma Ray (GAPI)	150						

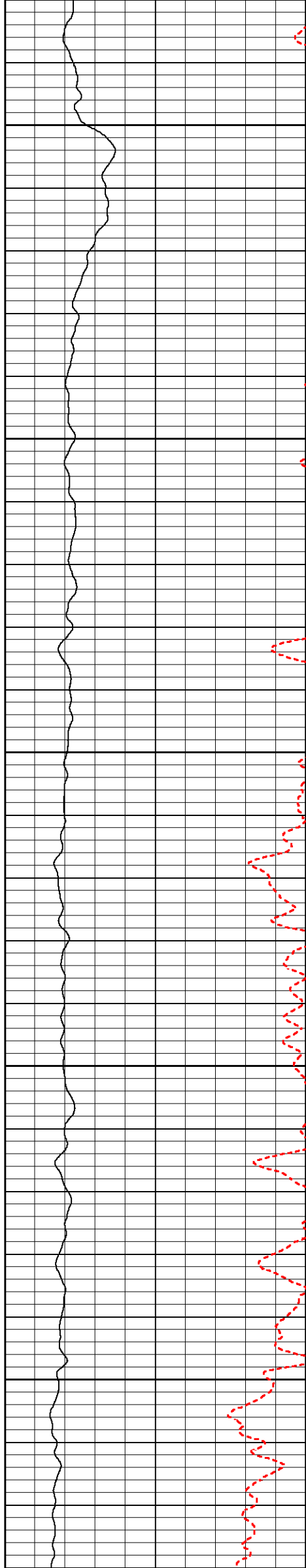


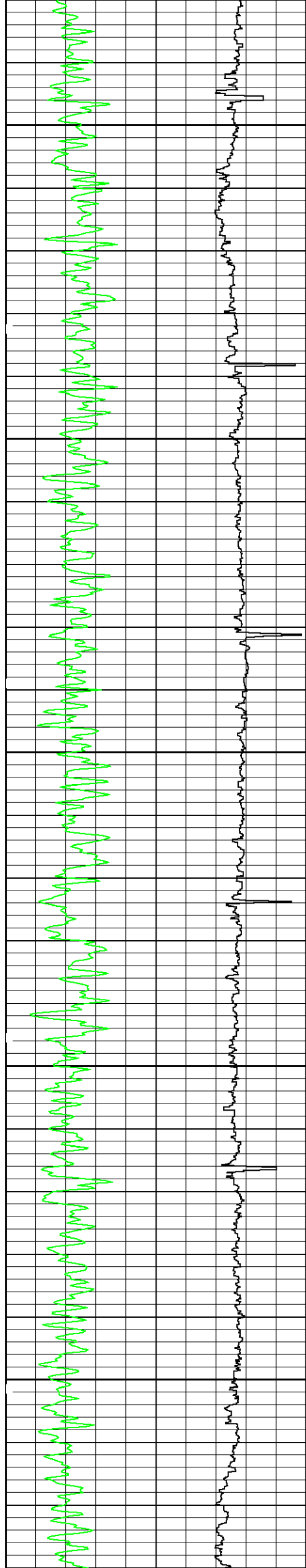


200

300

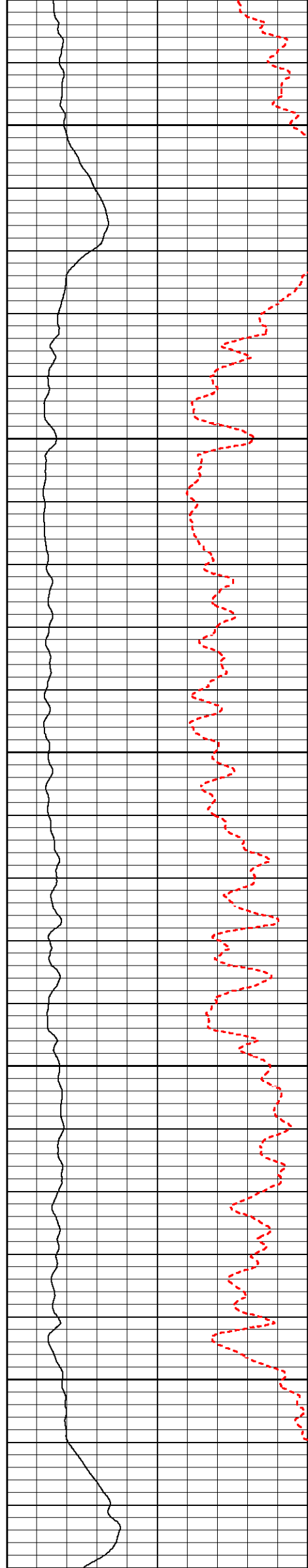
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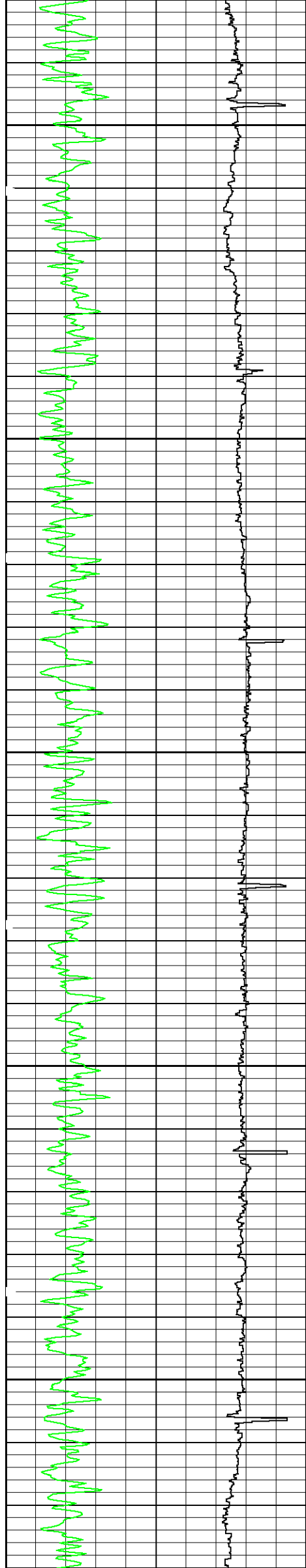




500

600

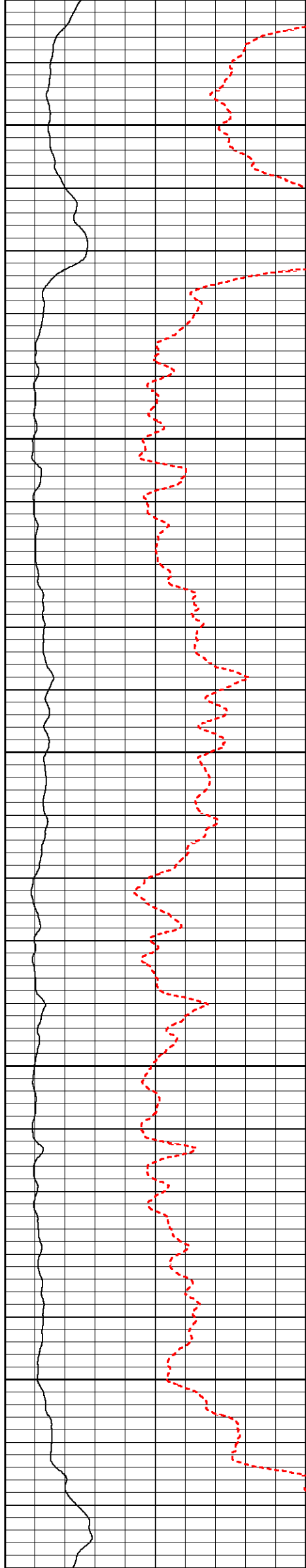


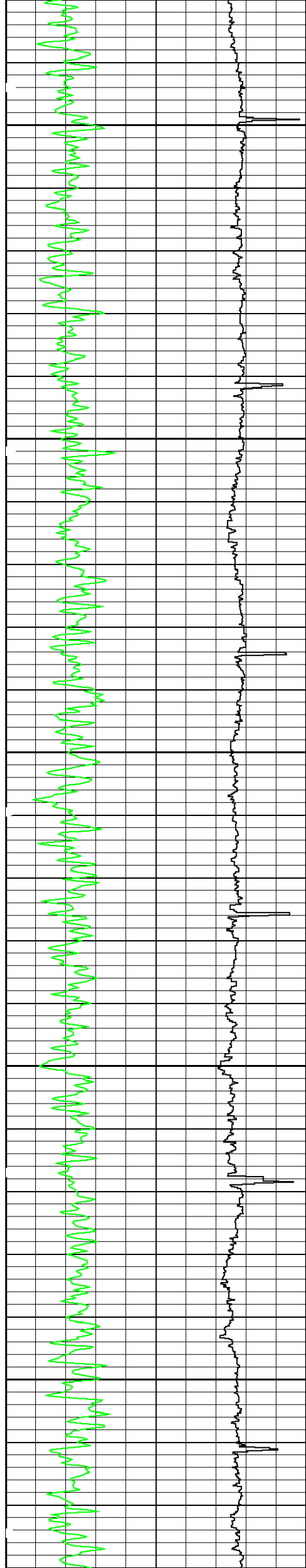


700

800

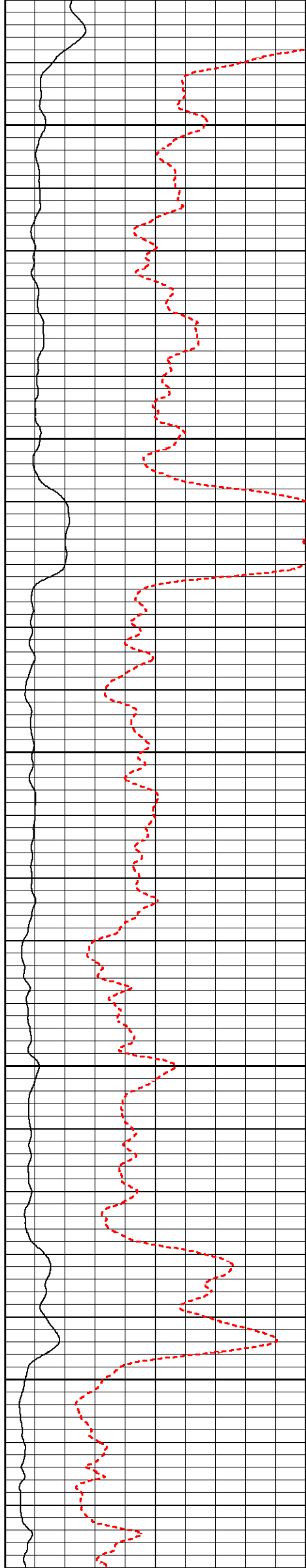
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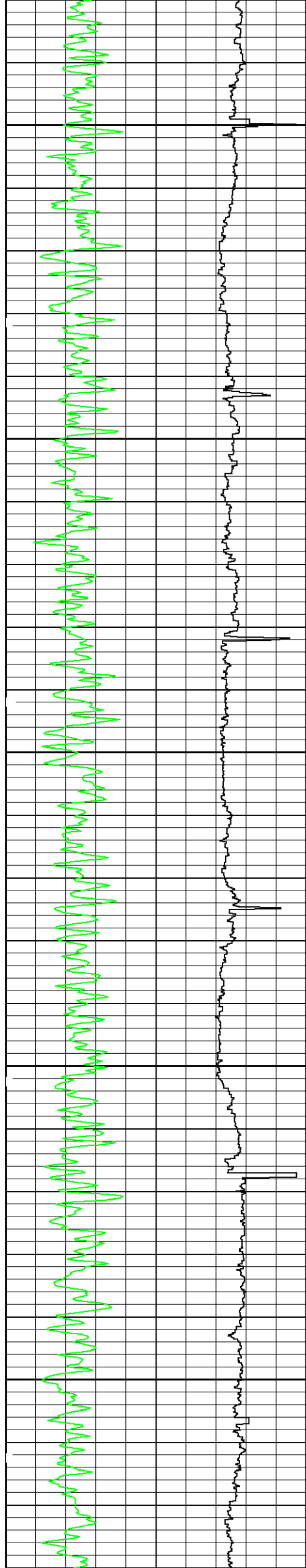




1000

1100

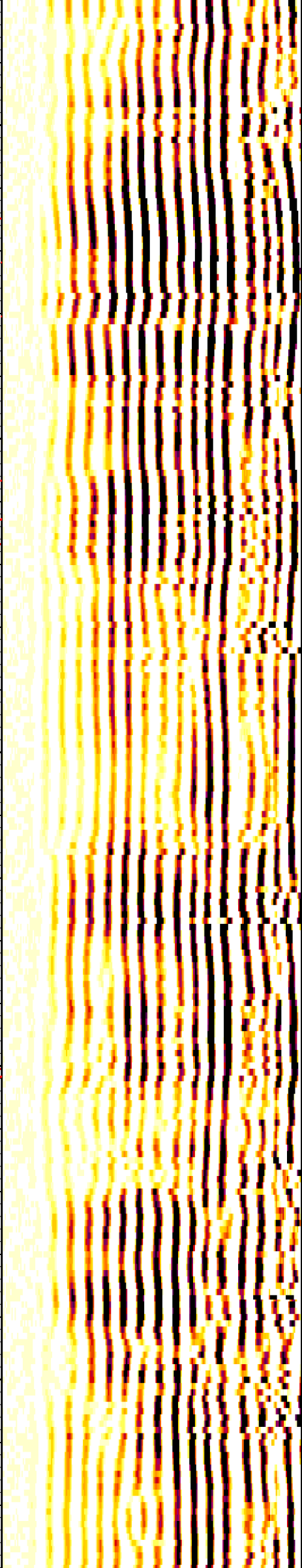
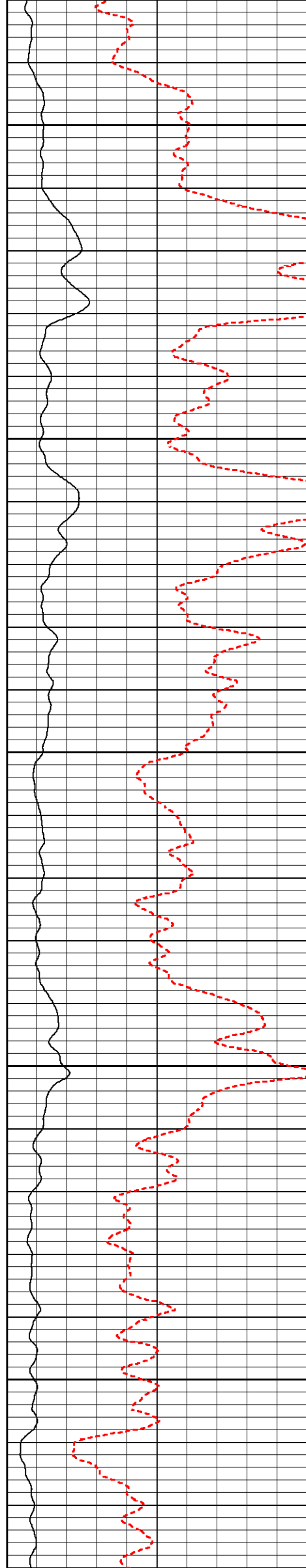


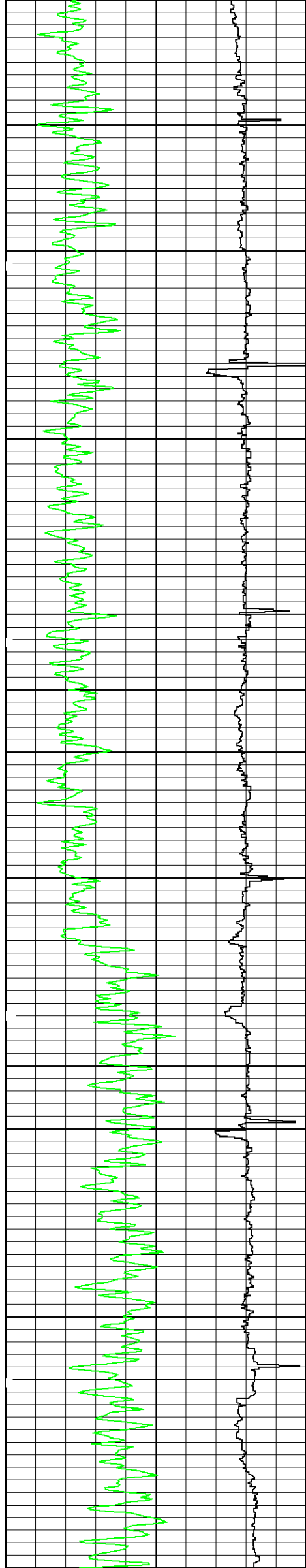


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1300

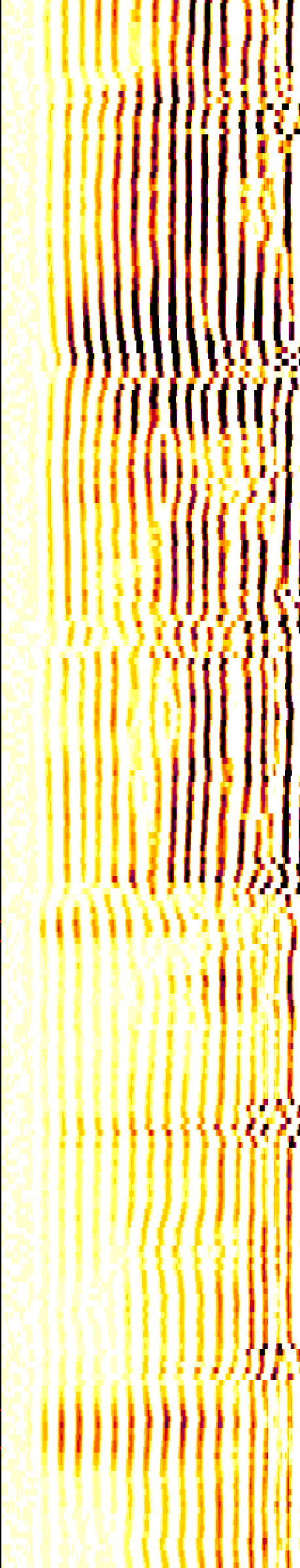
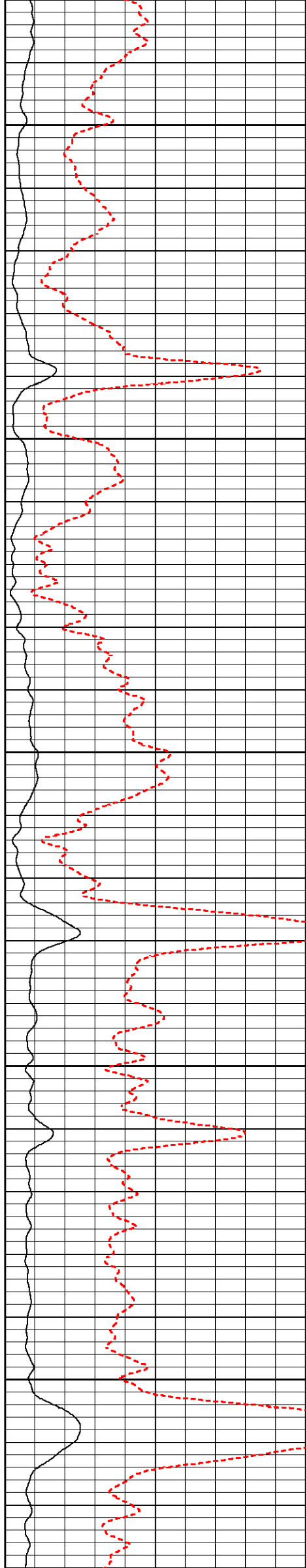
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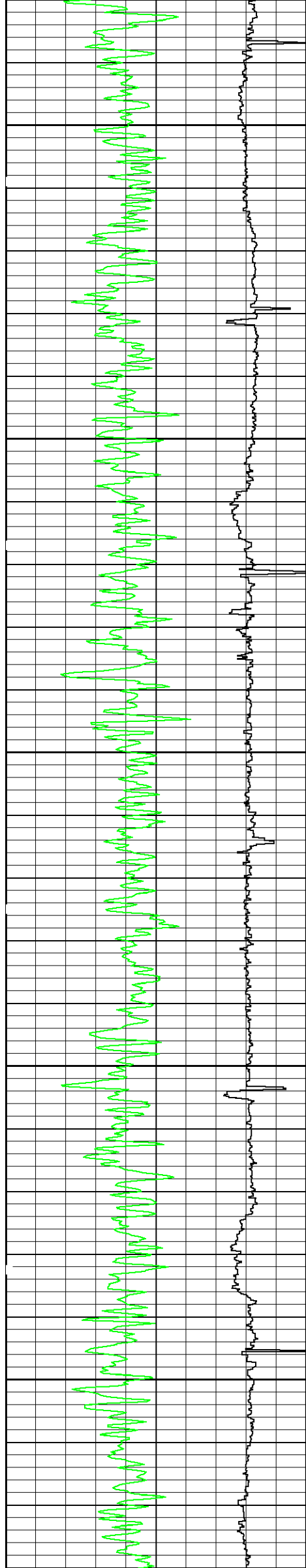




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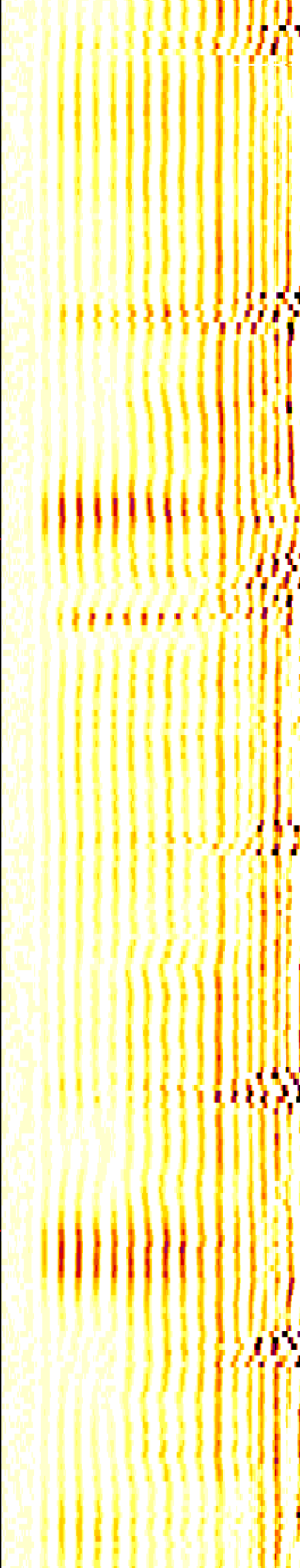
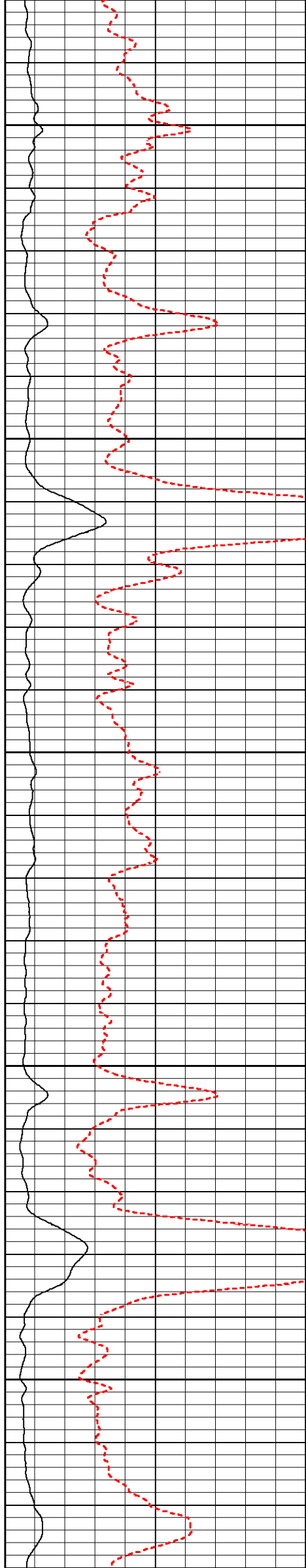


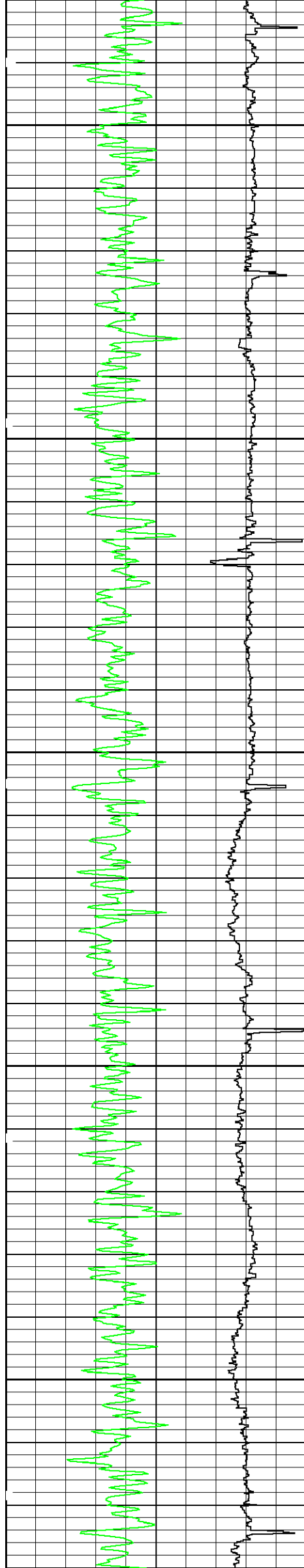


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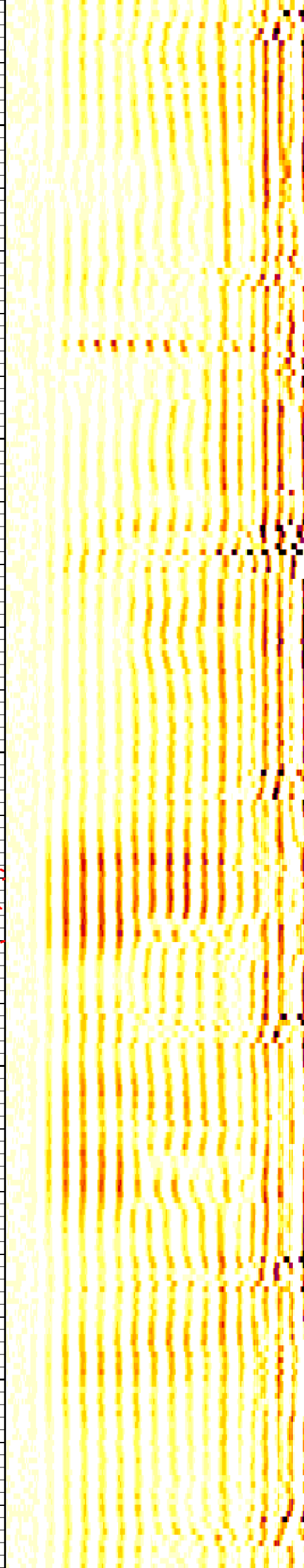
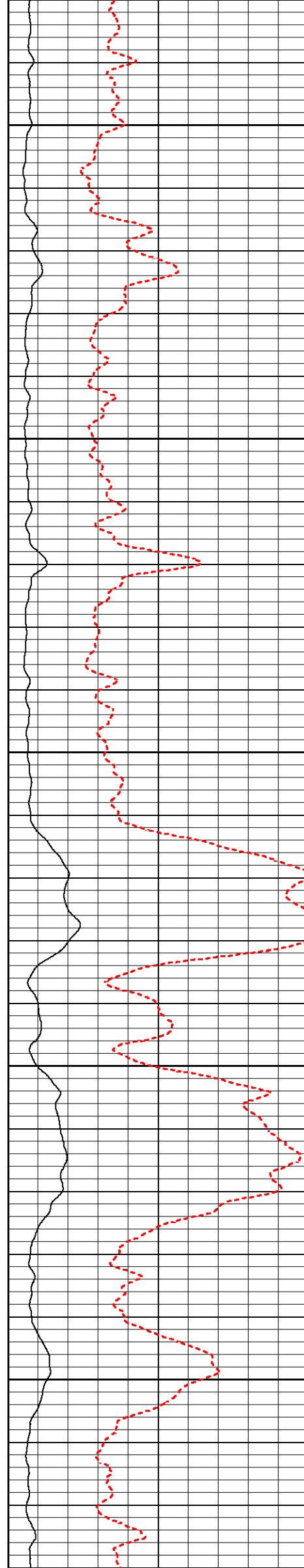
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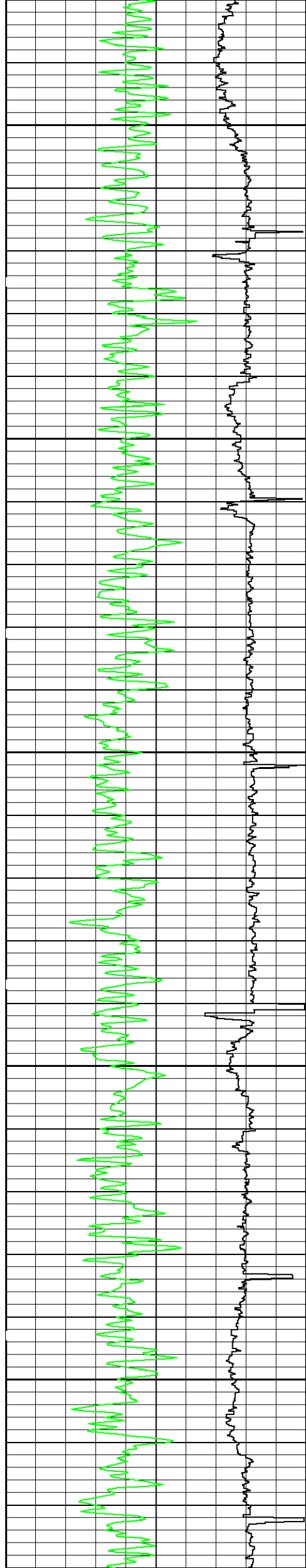




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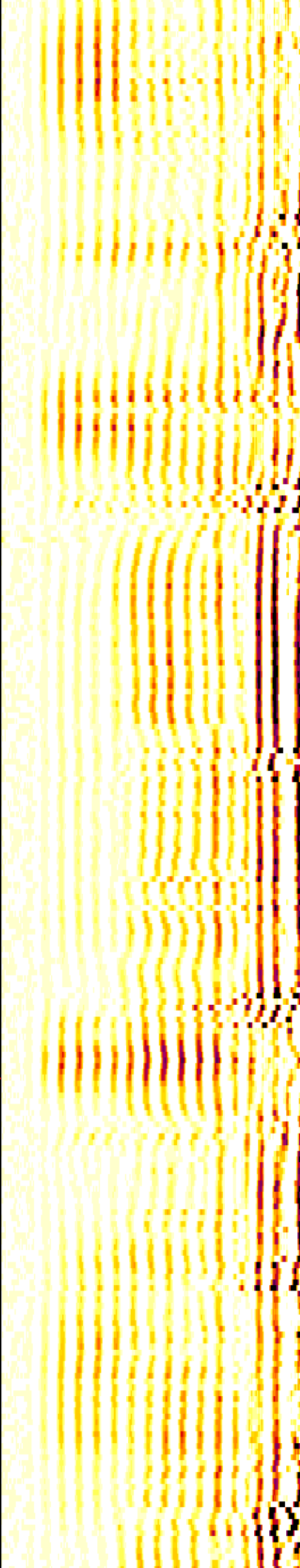
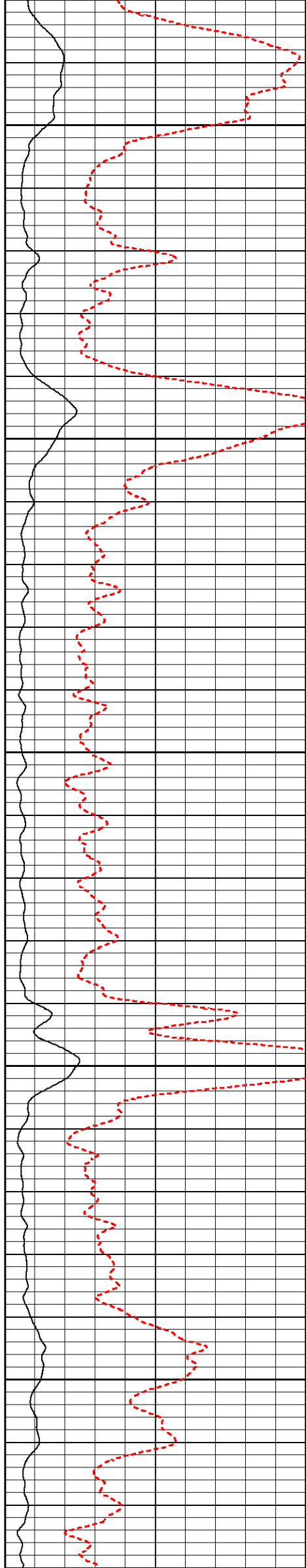


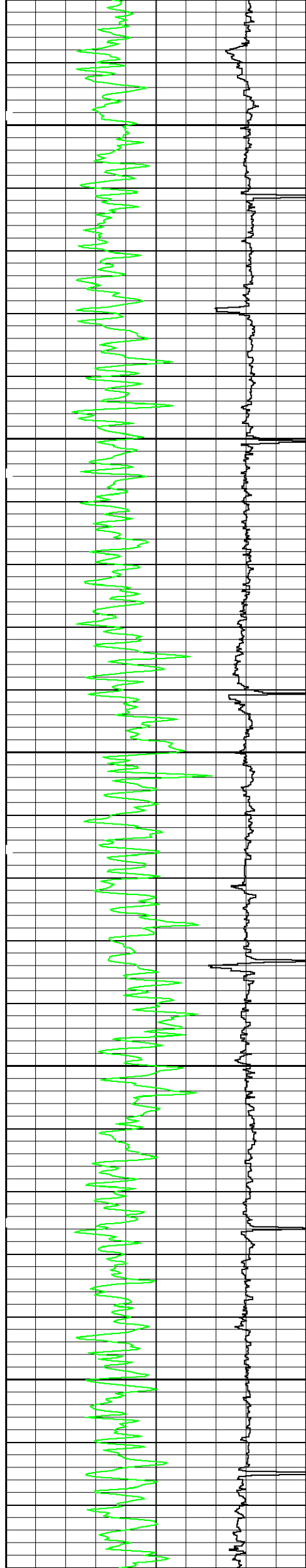


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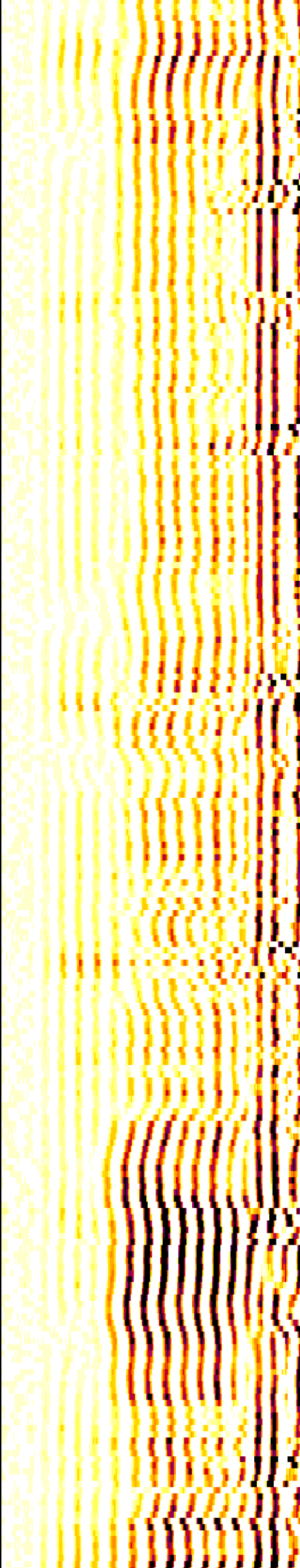
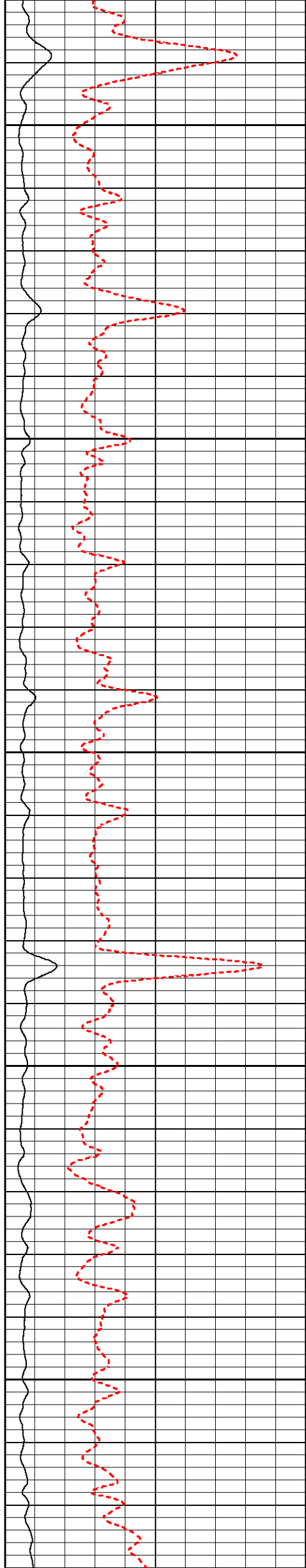
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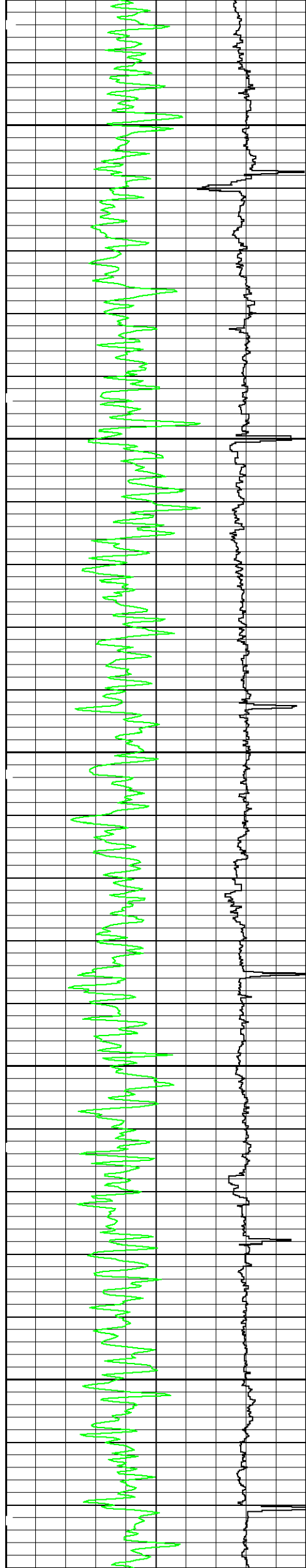




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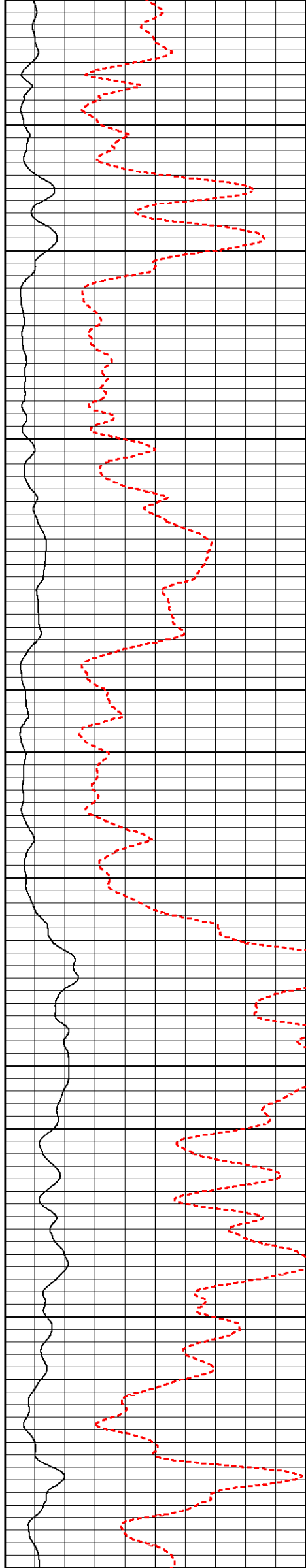


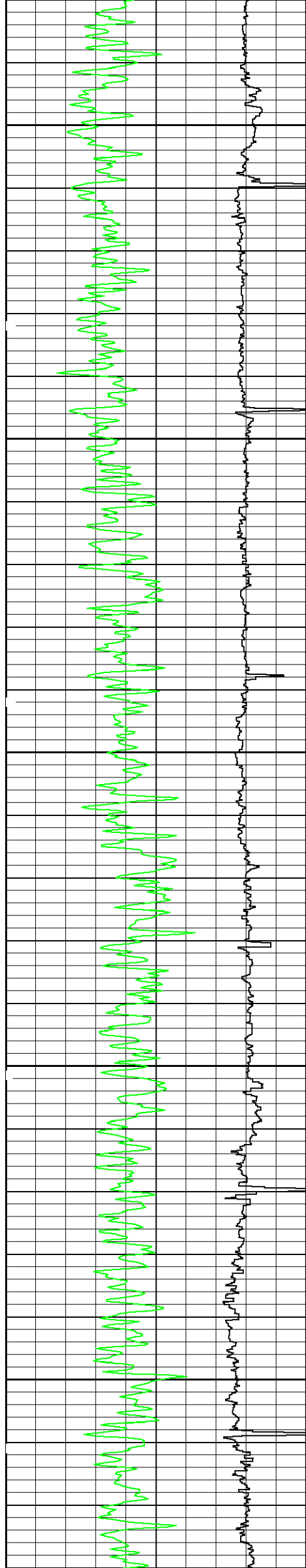


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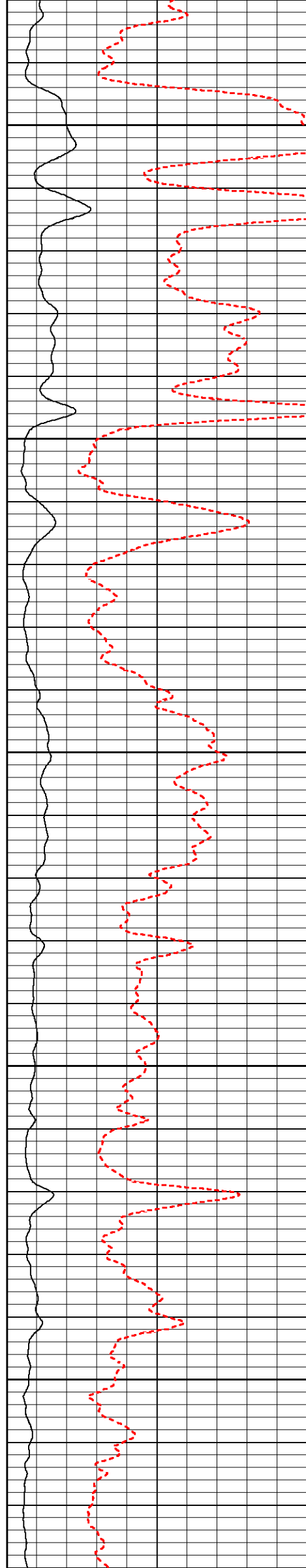
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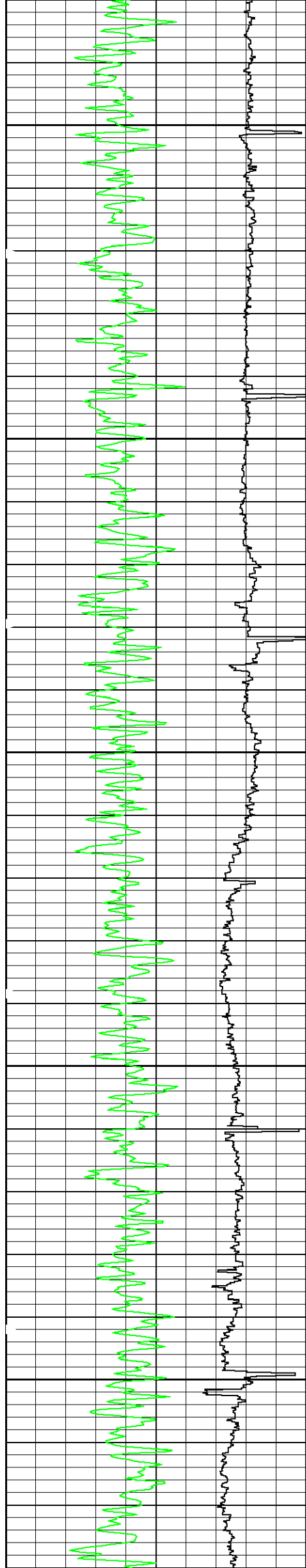




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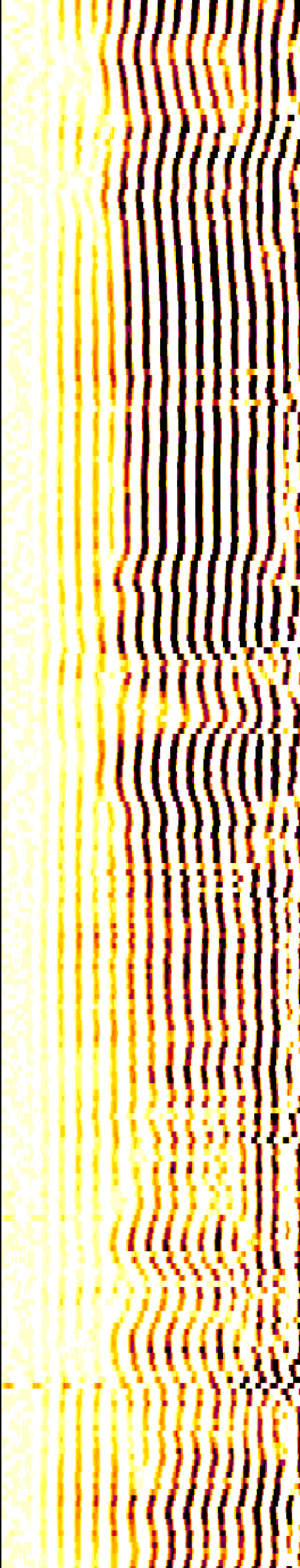
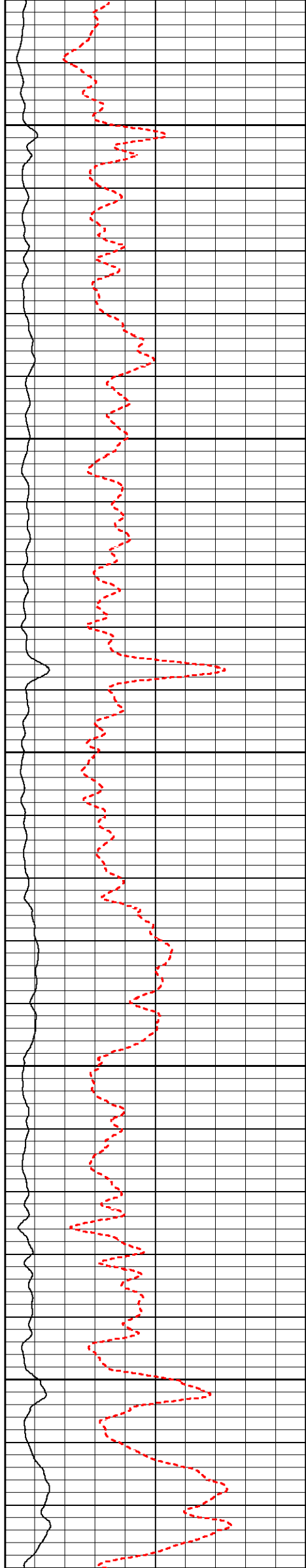


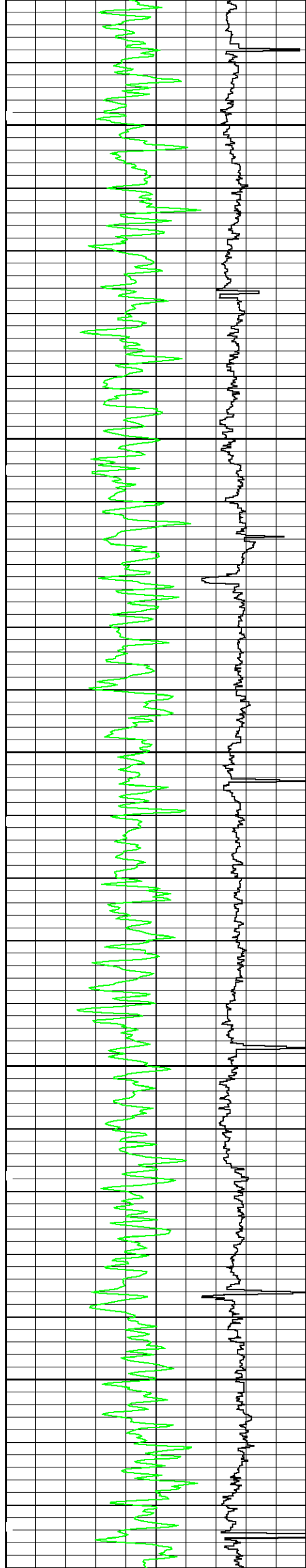


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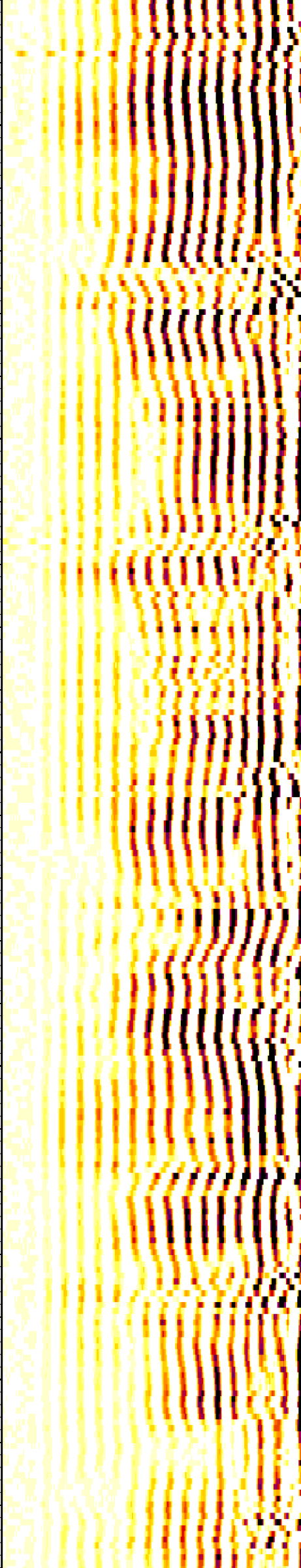
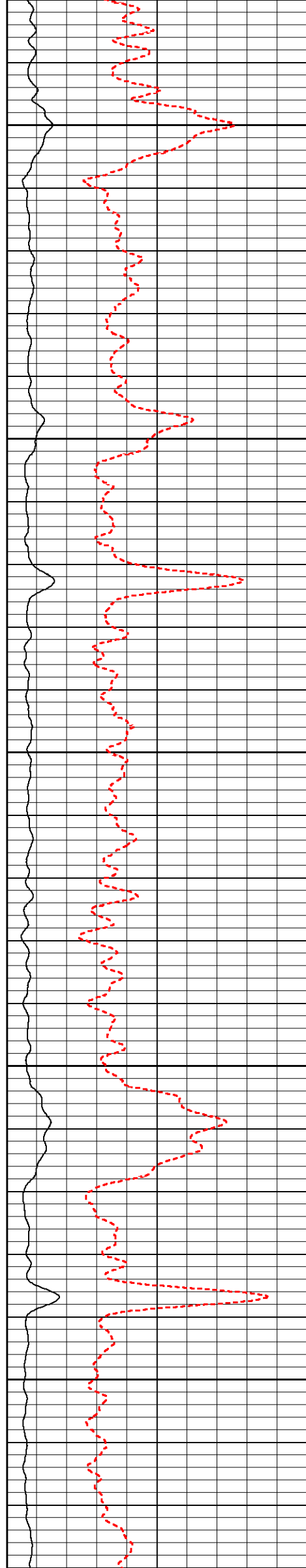
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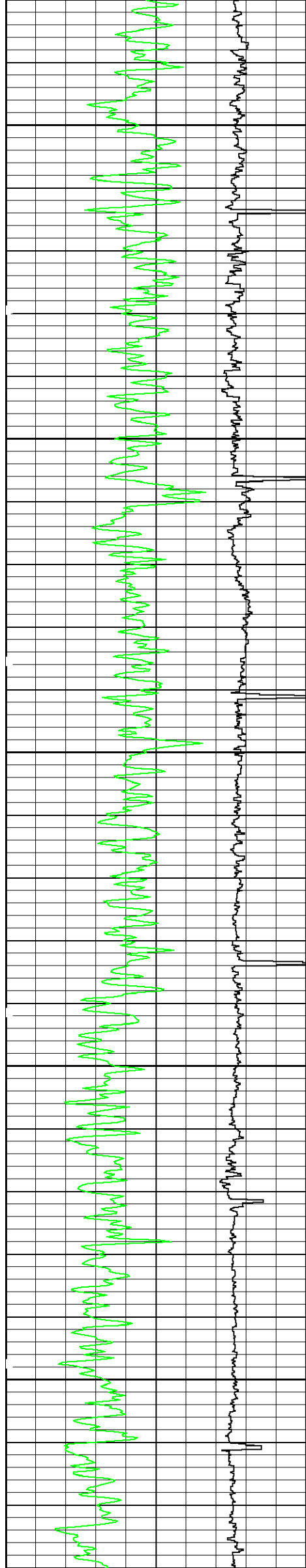




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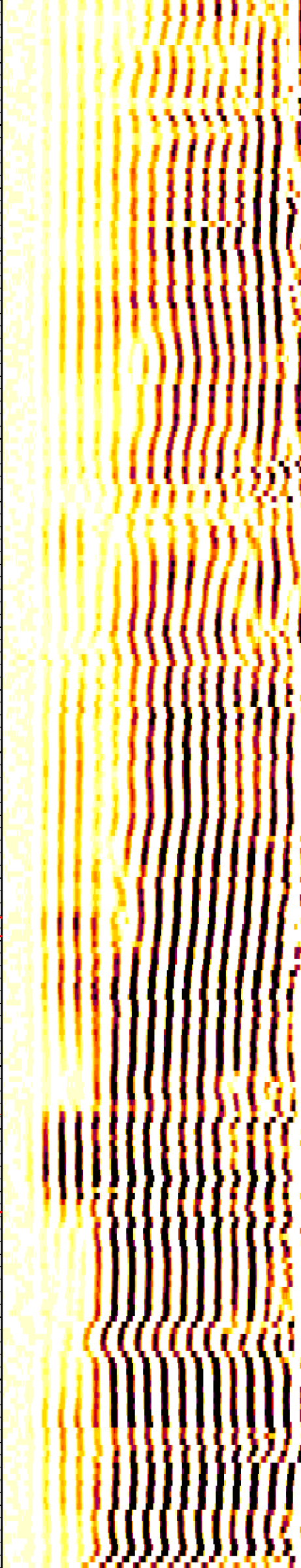
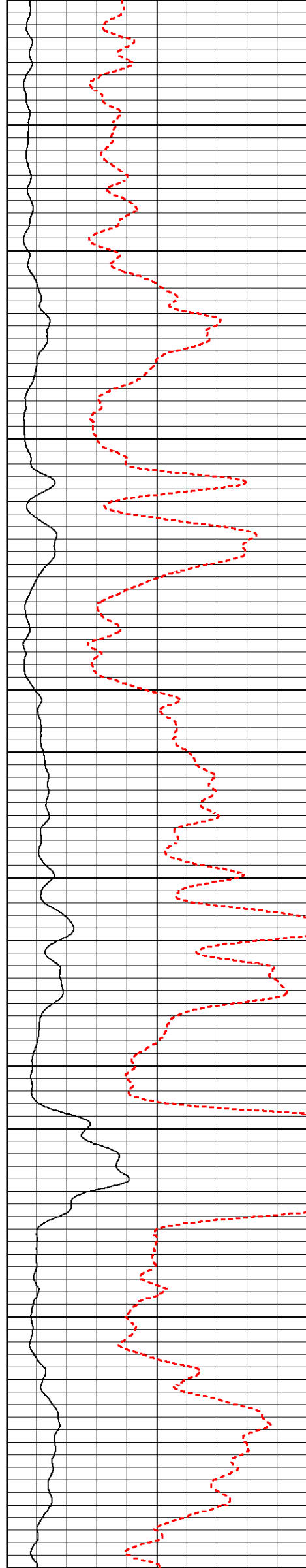


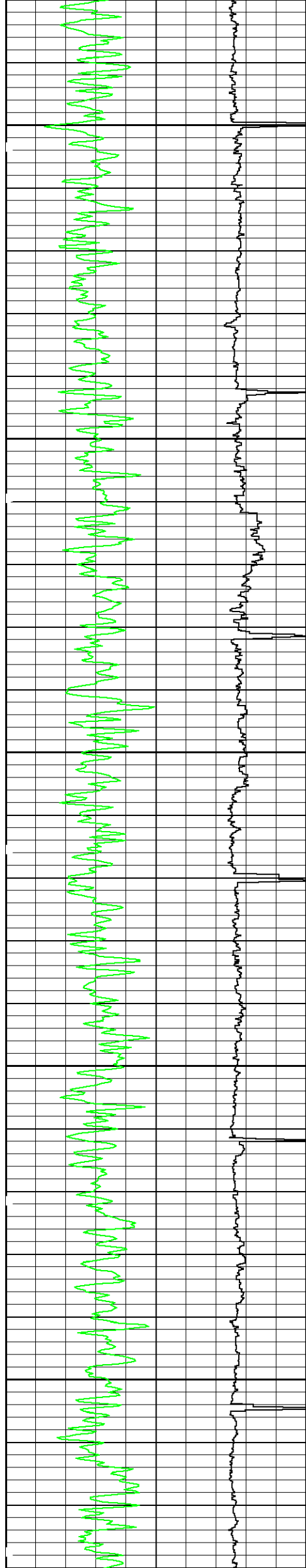


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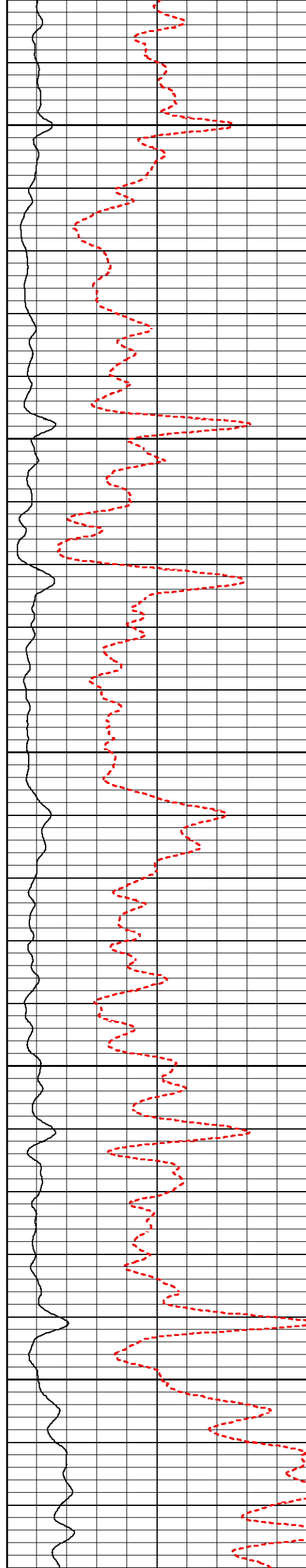
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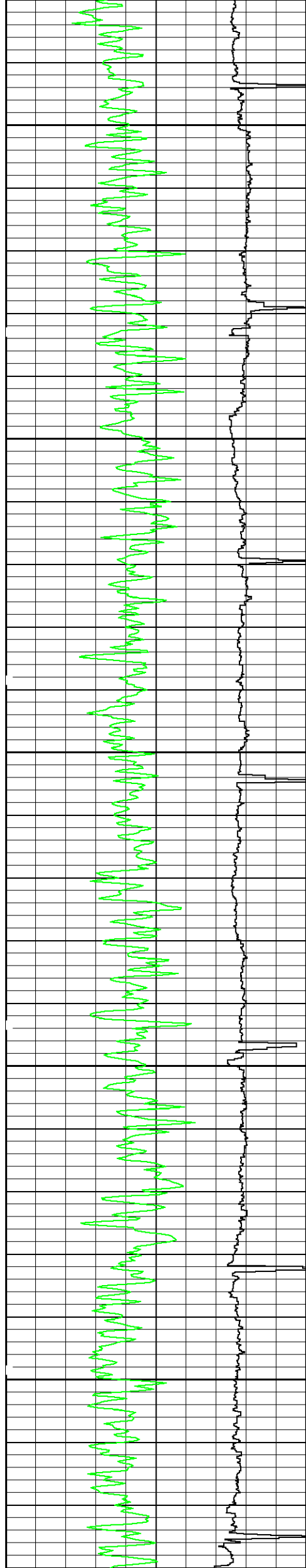




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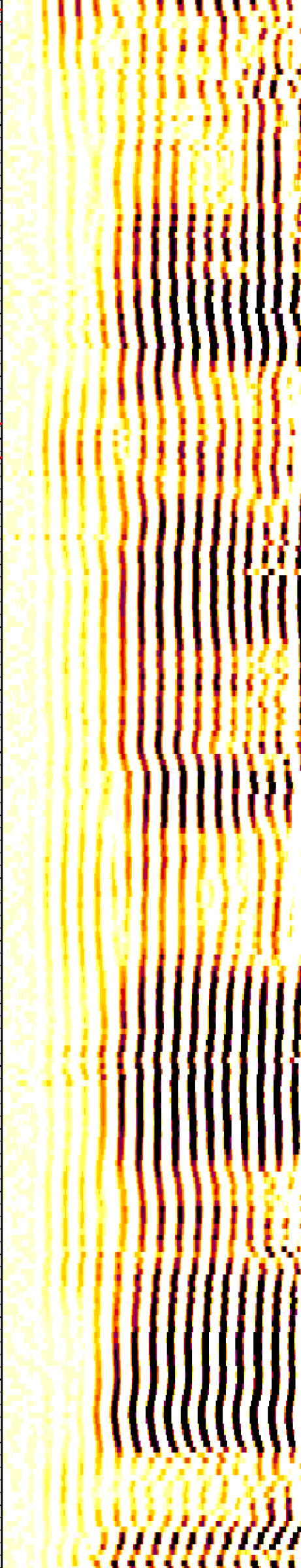
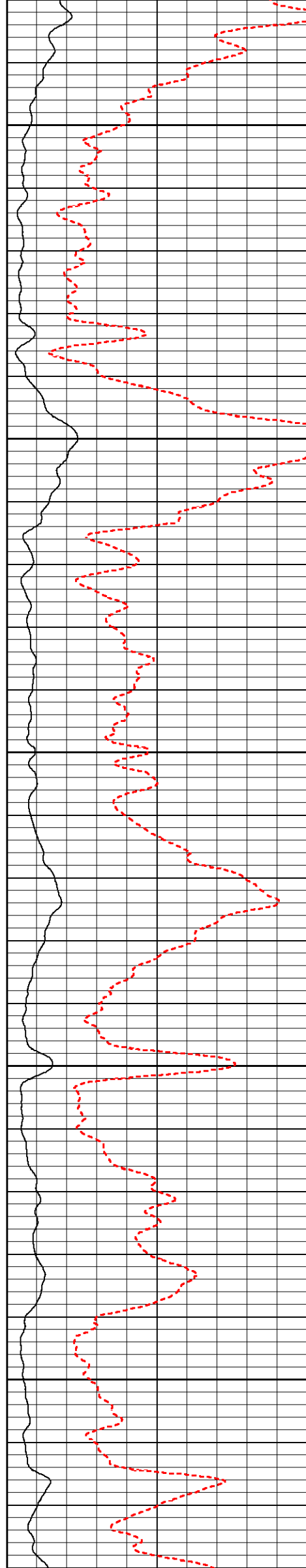


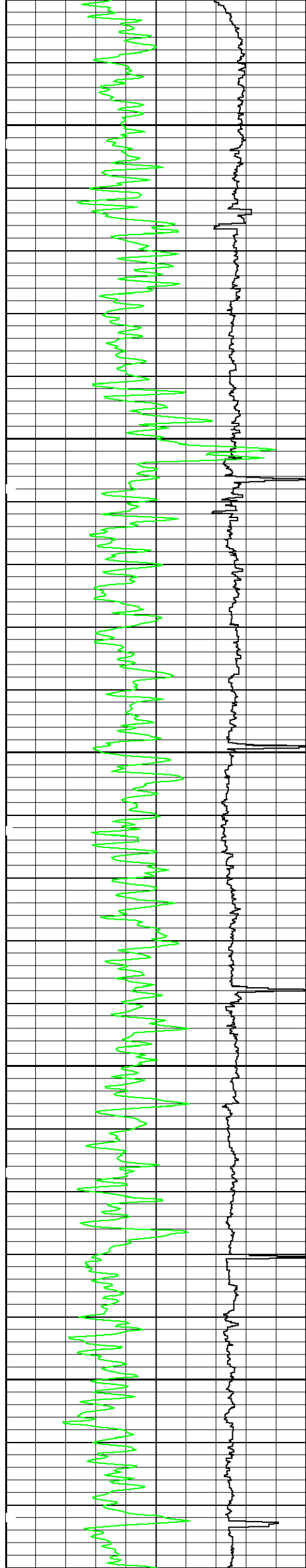


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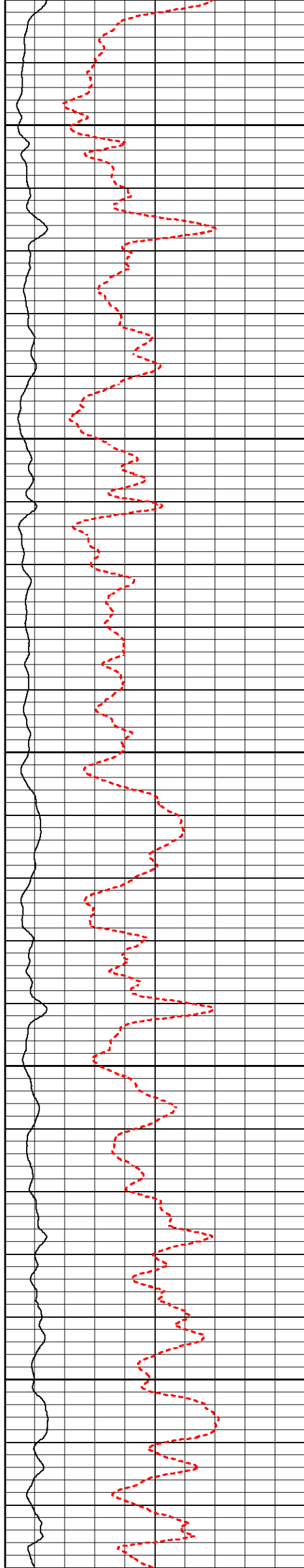
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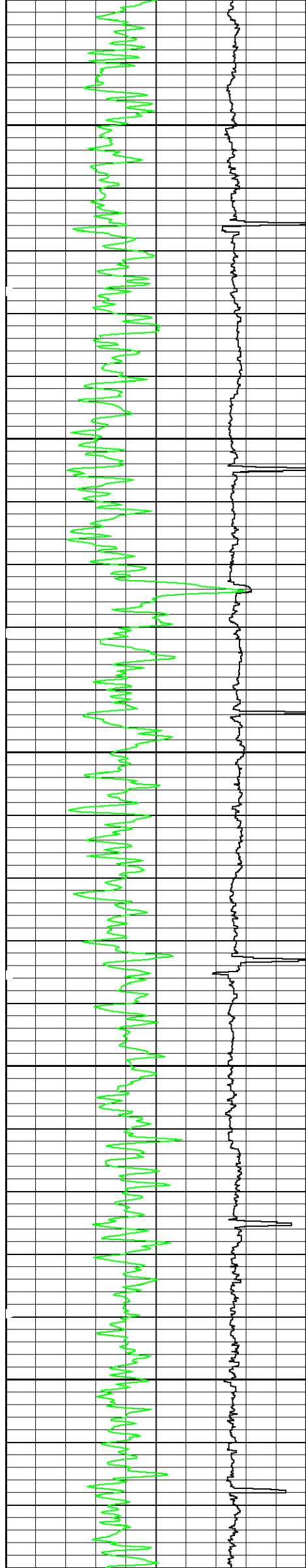




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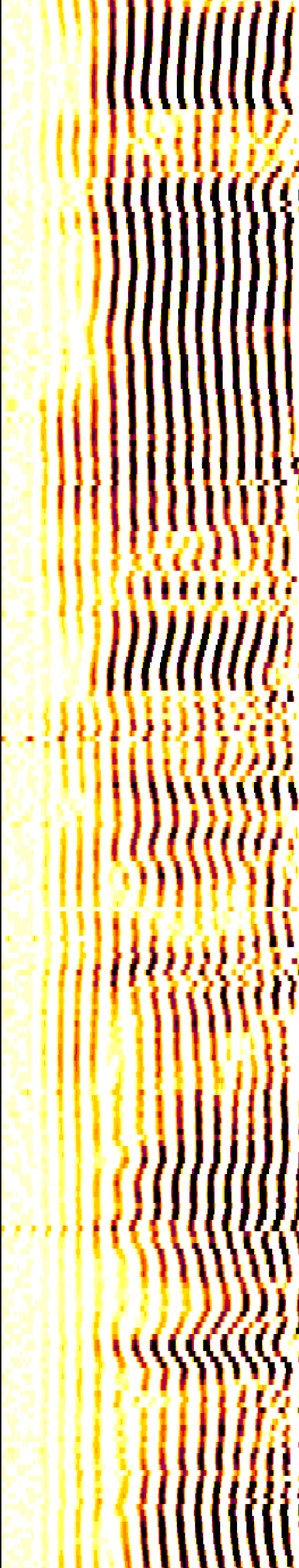
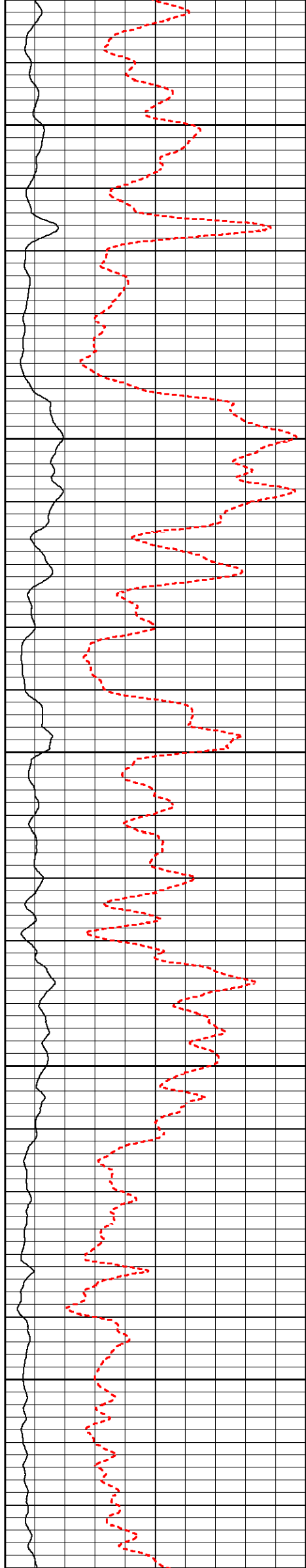


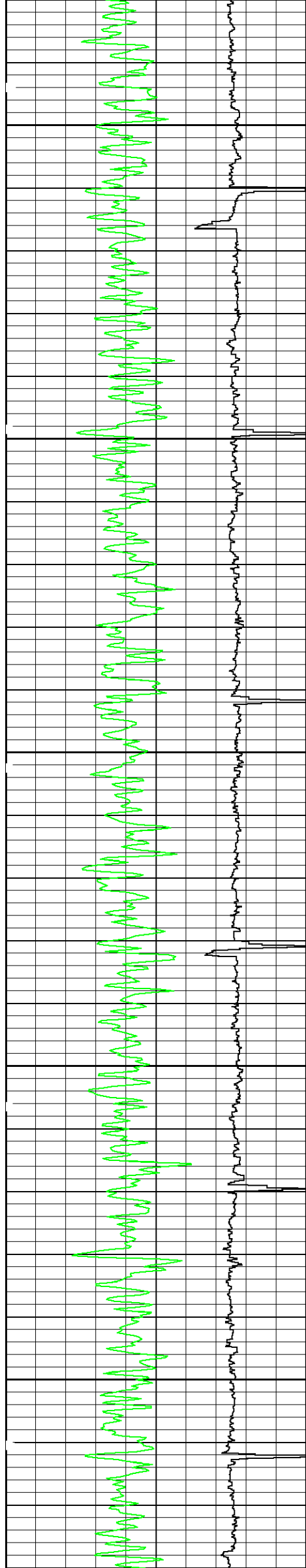


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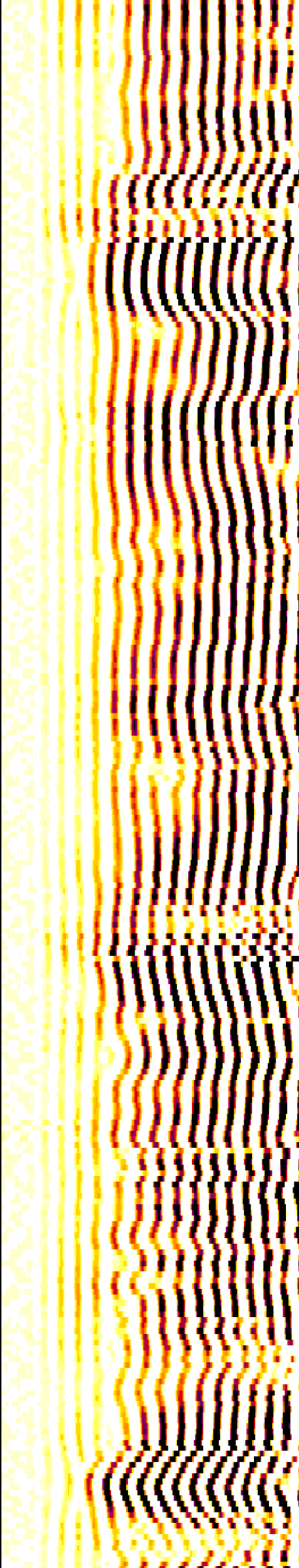
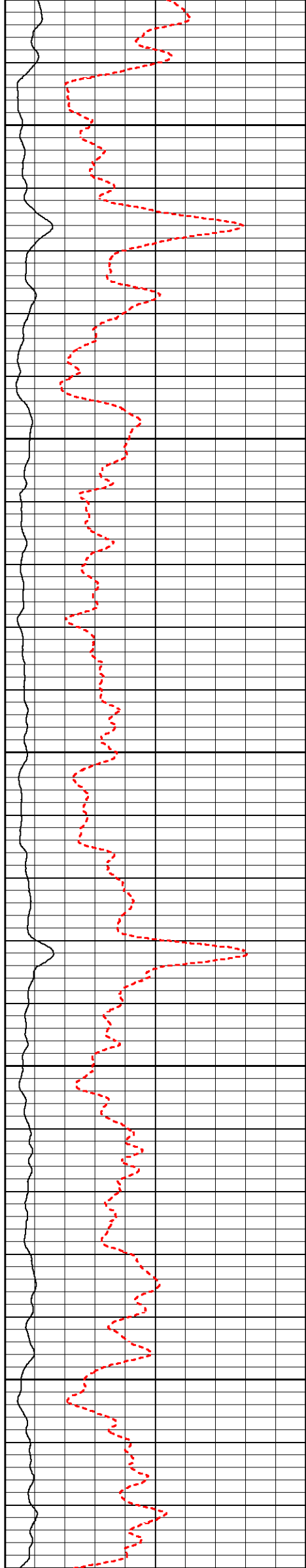
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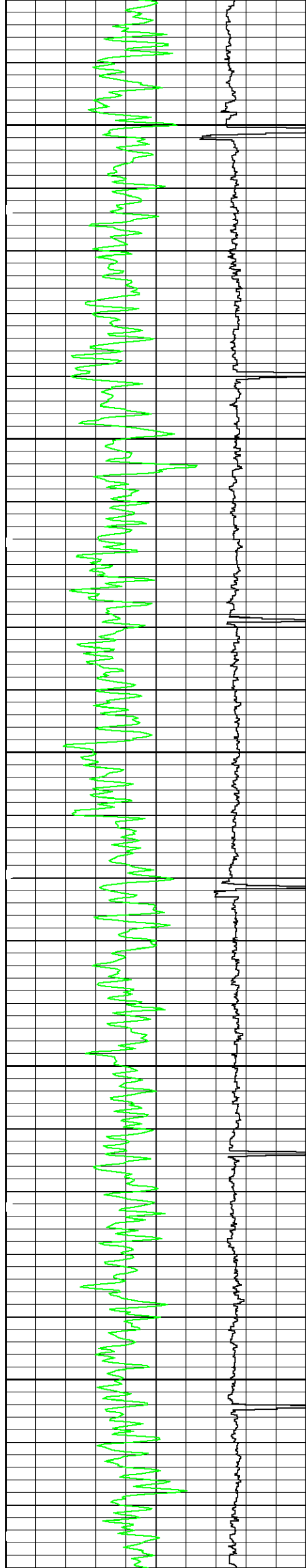




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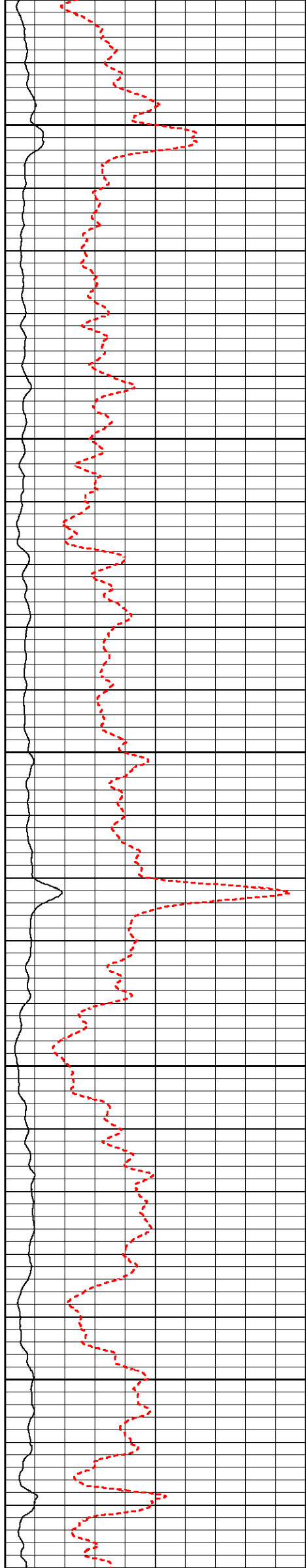


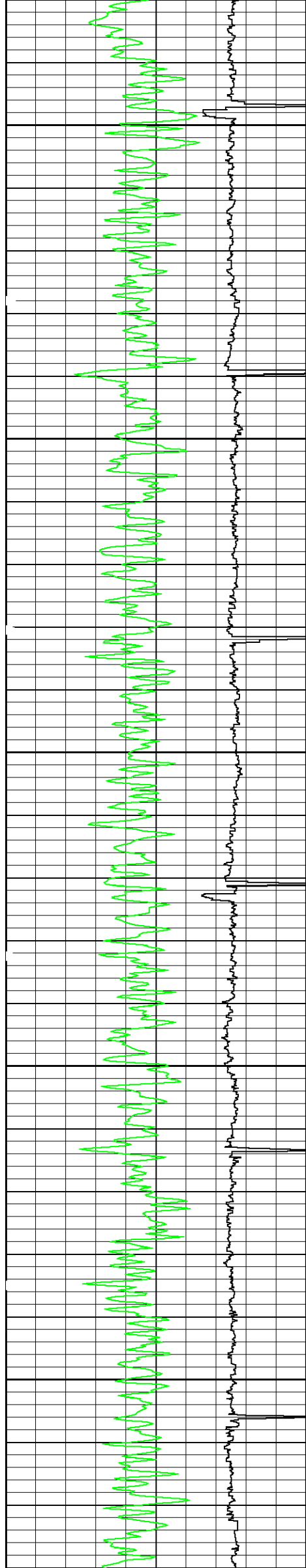


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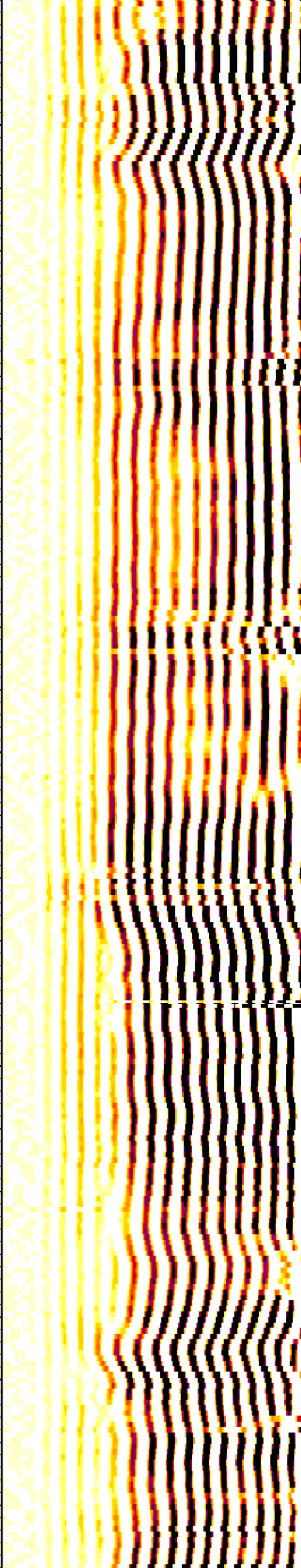
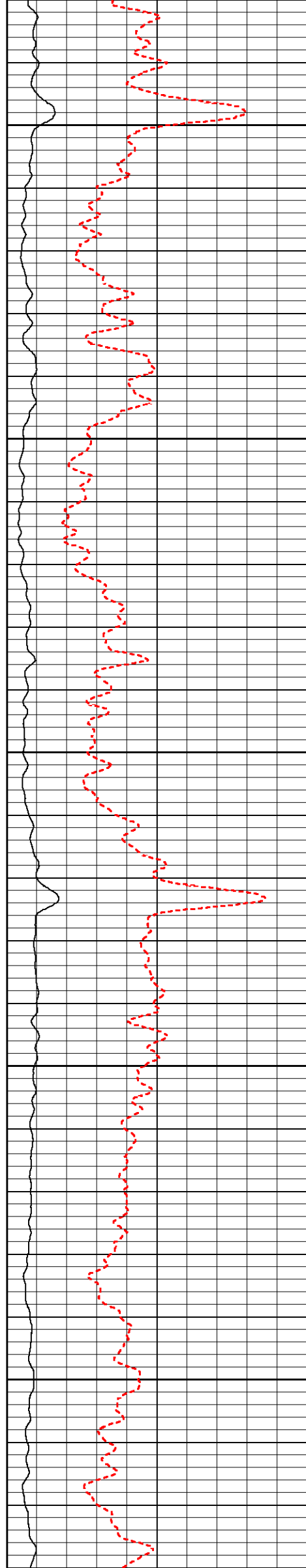
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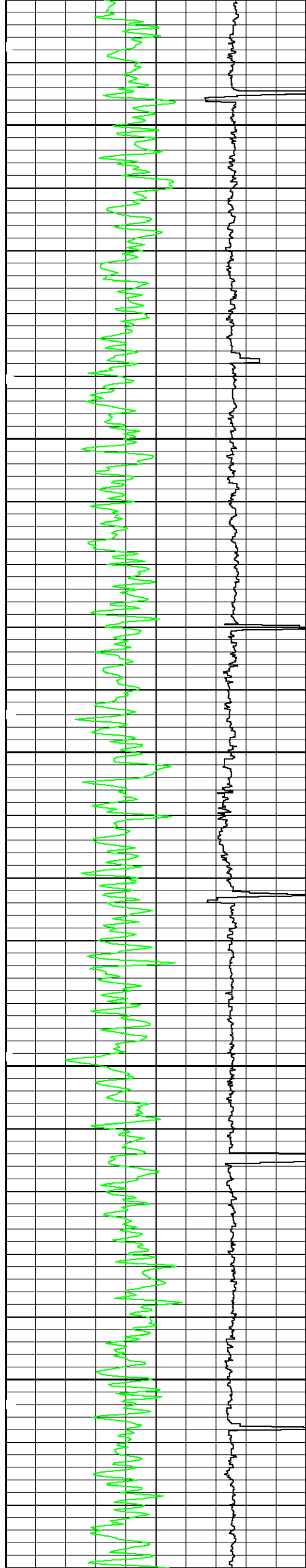




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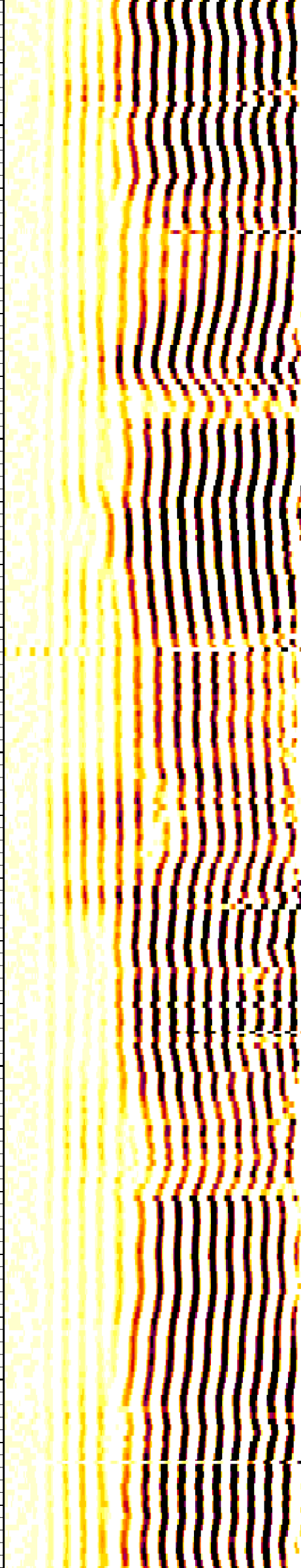
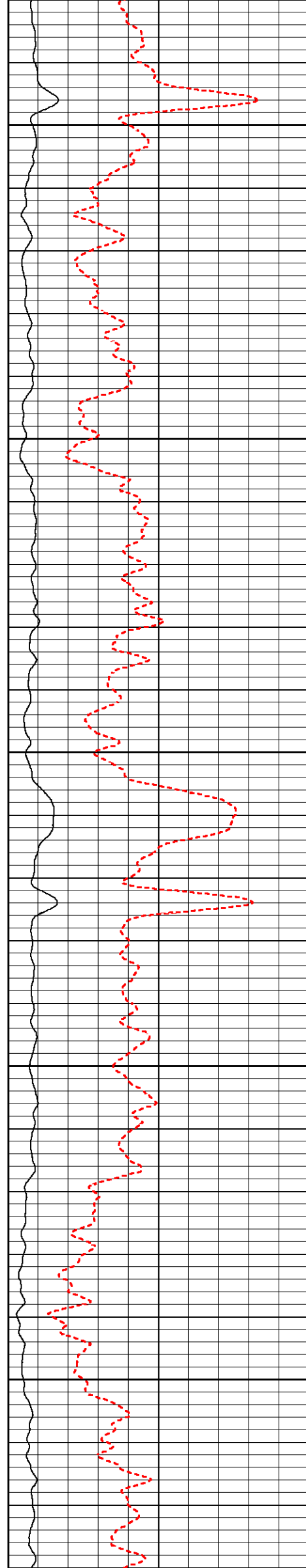


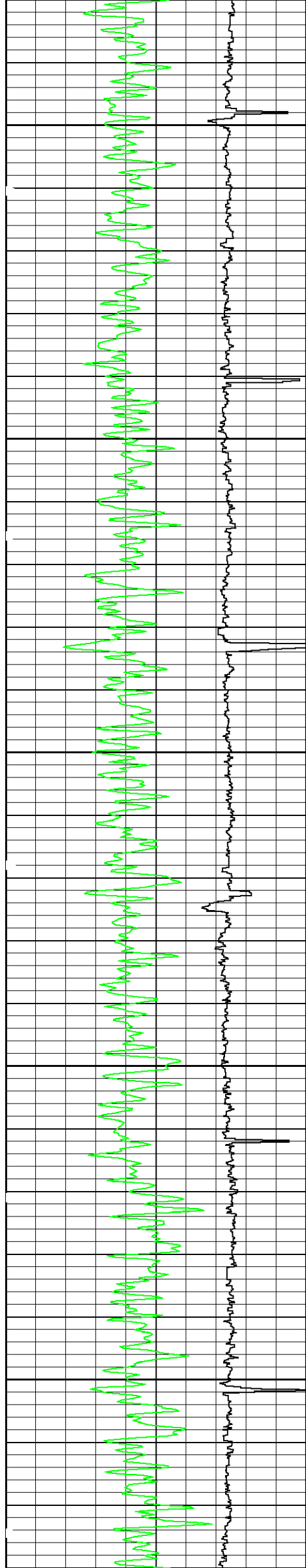


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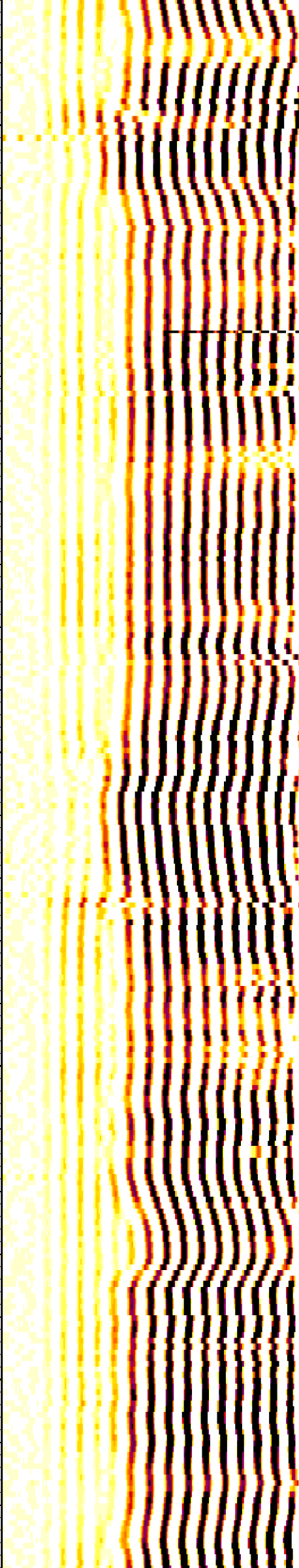
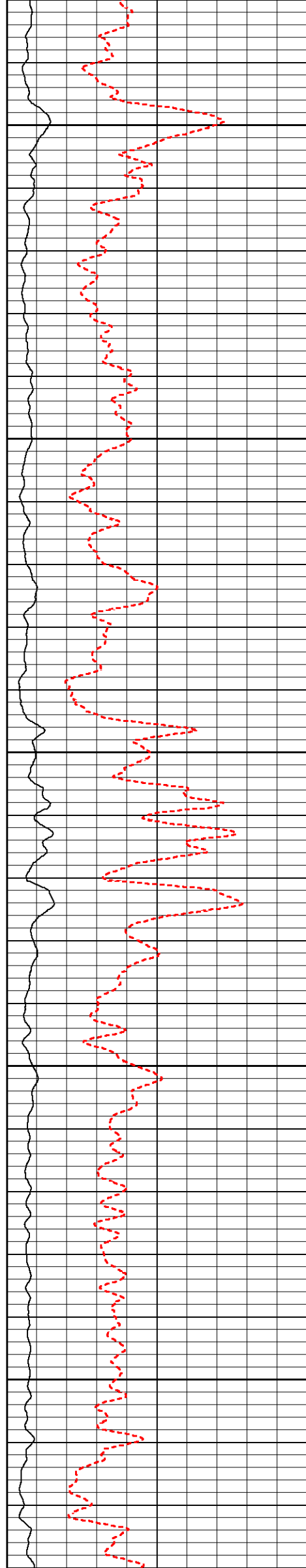
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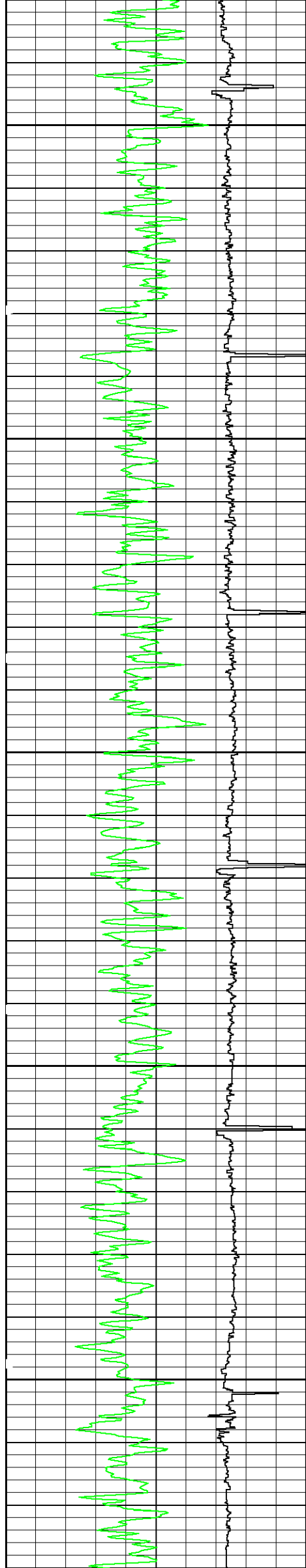




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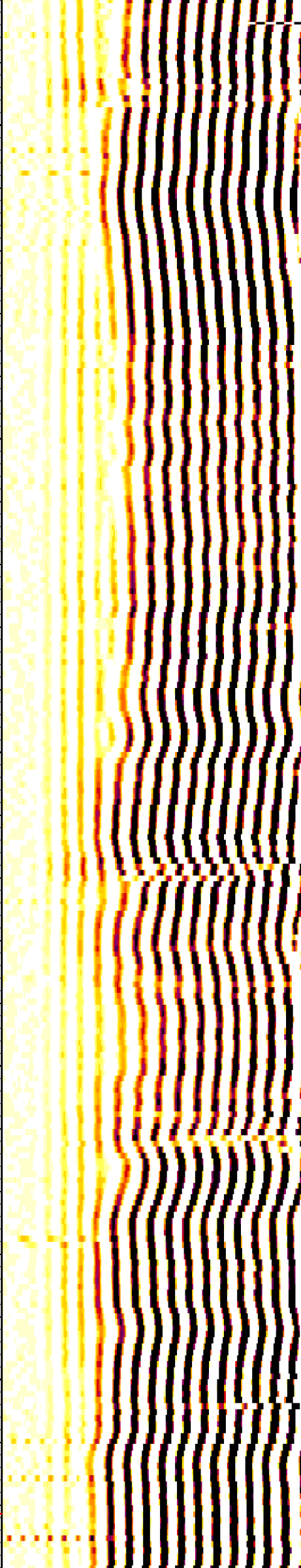
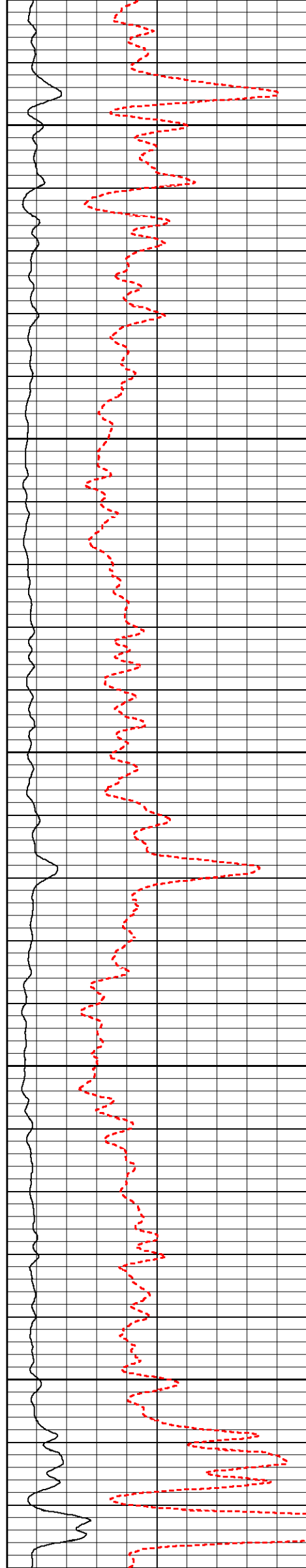


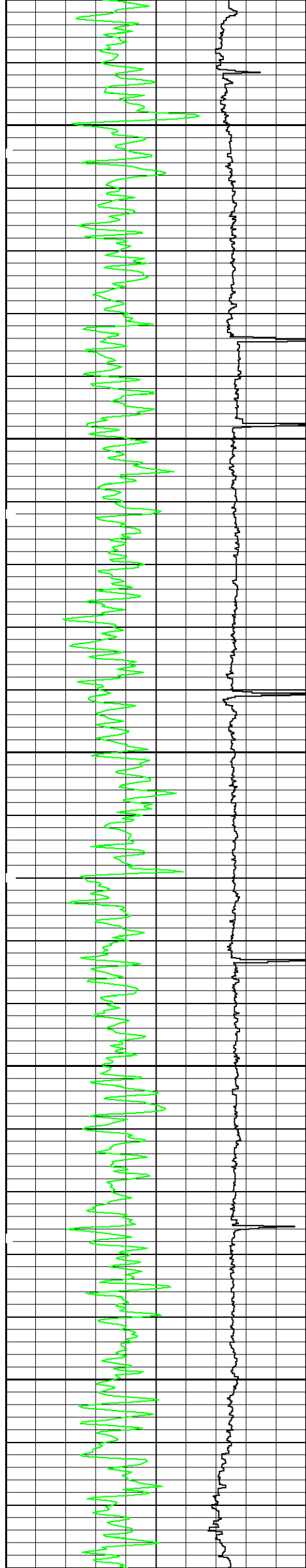


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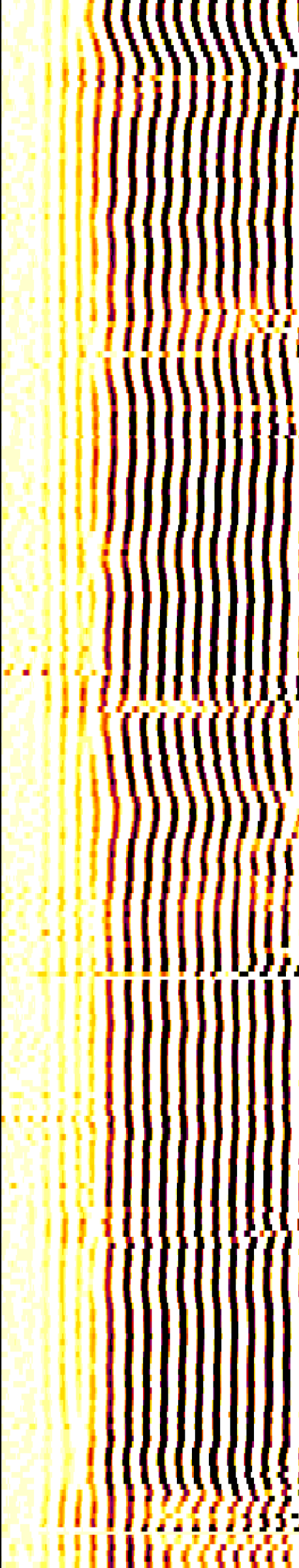
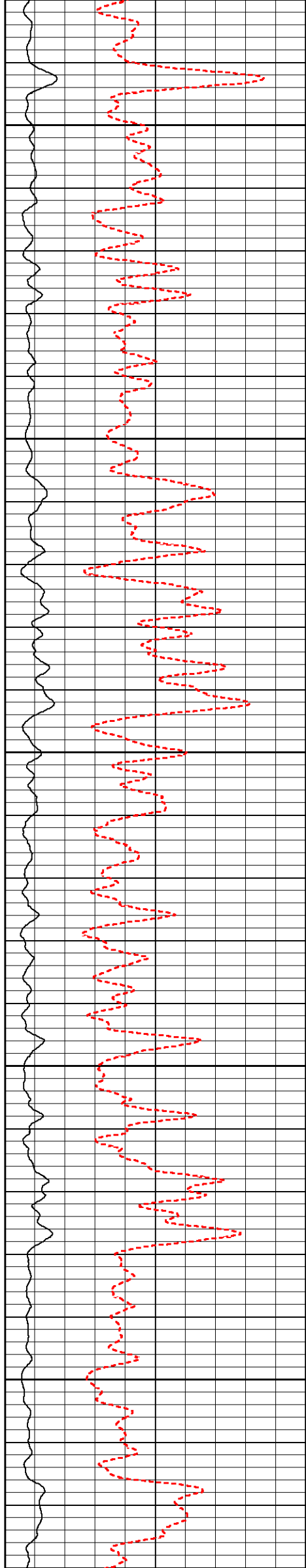
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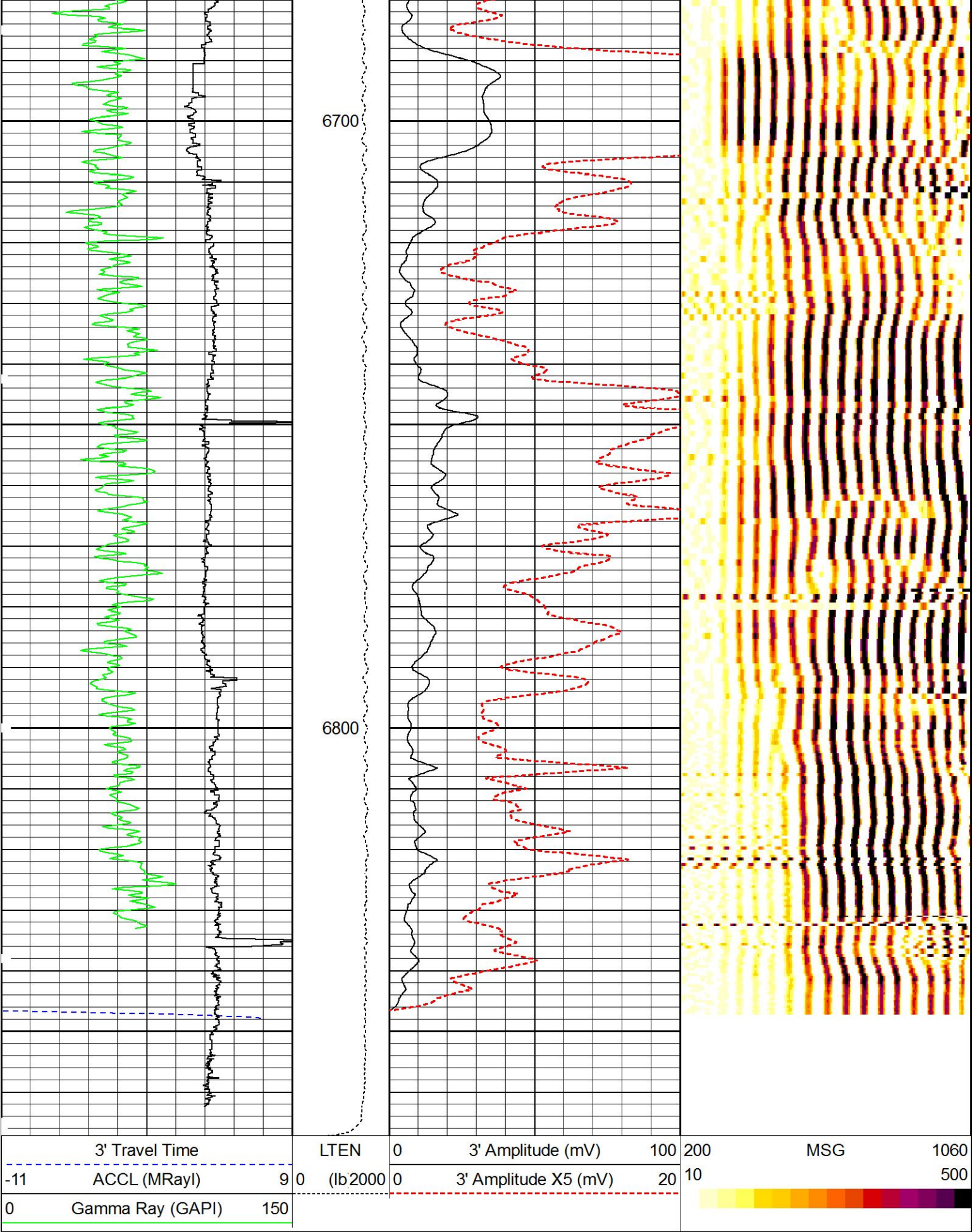




6500

6600





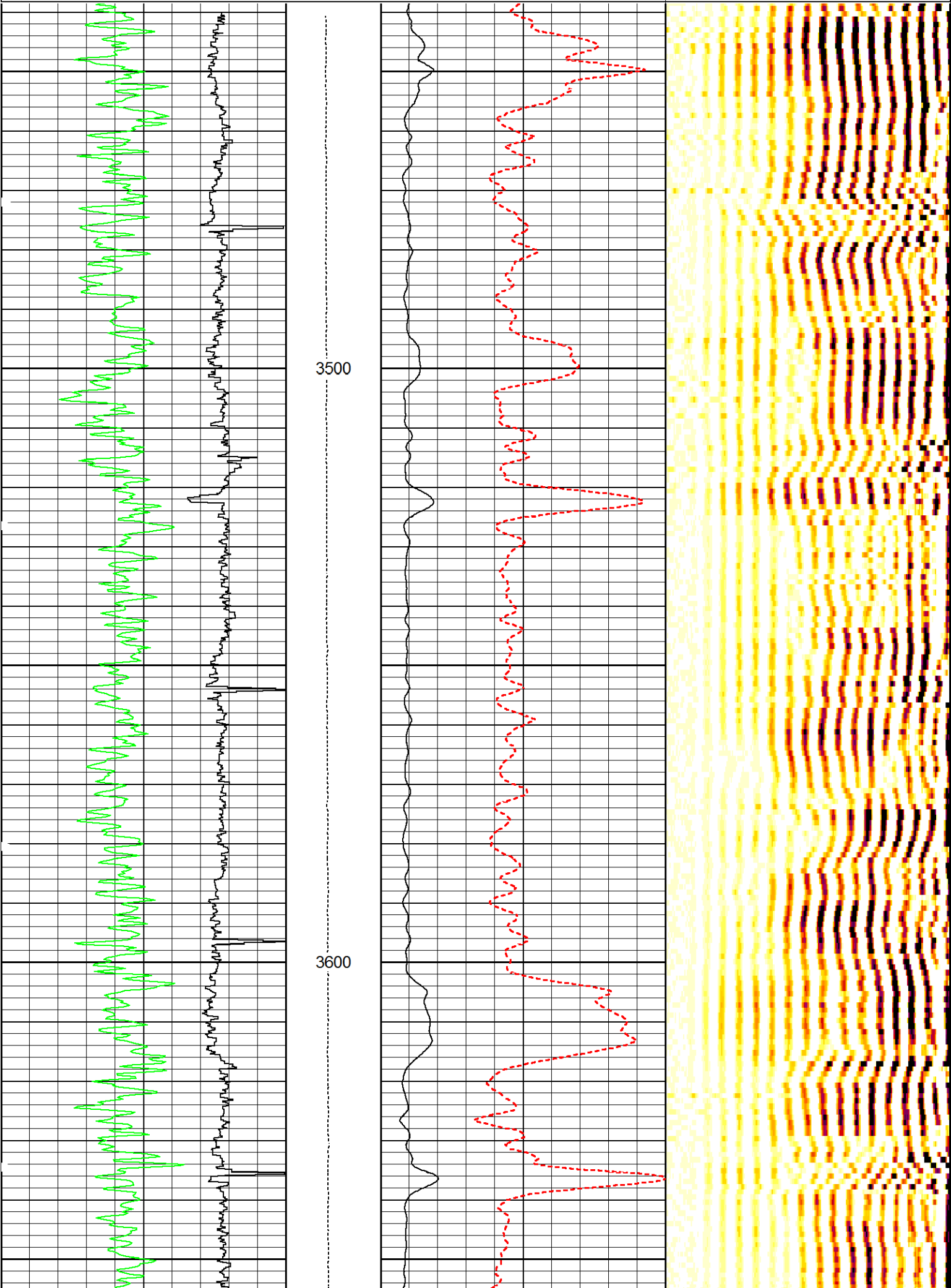
MAIN PASS

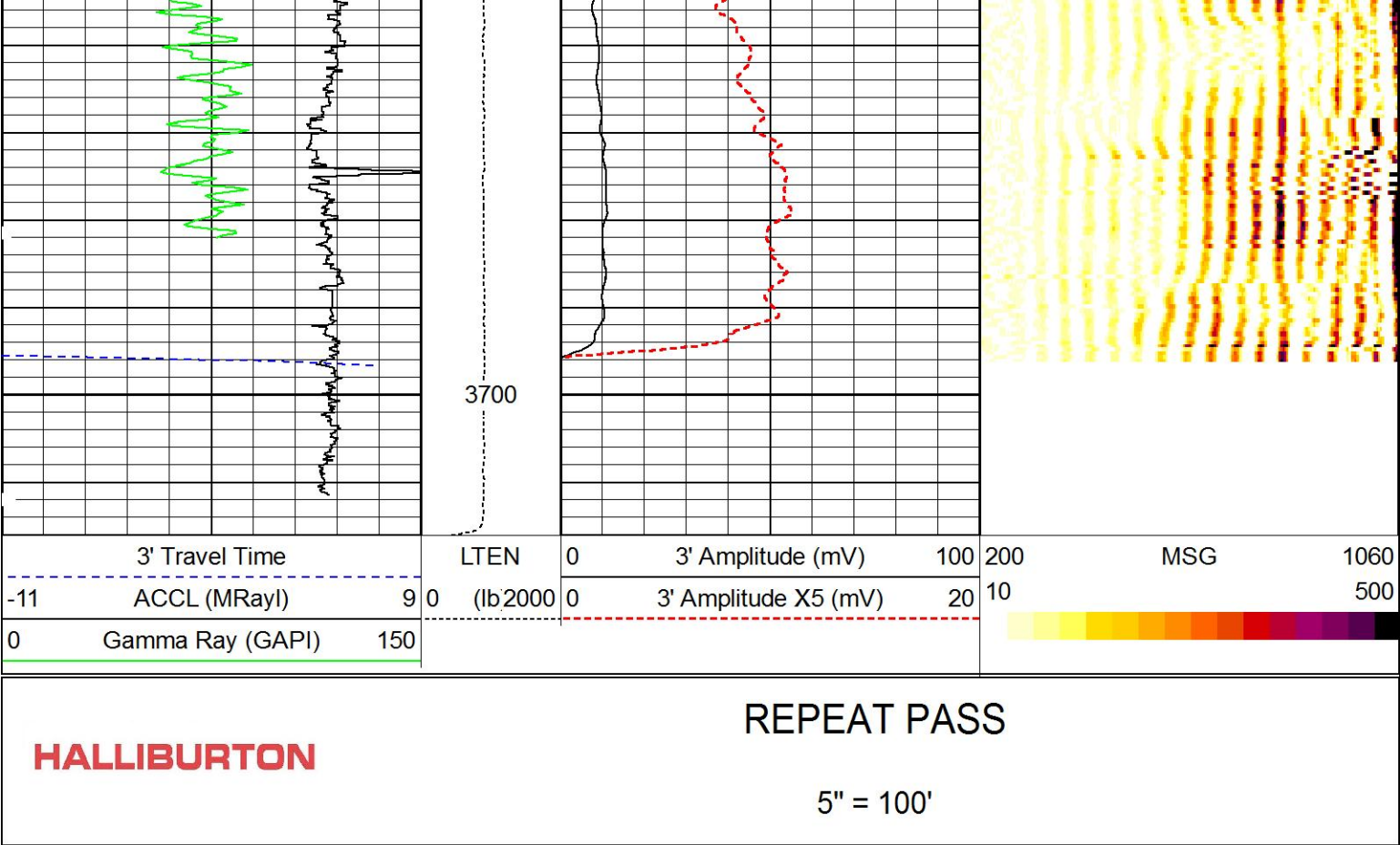
5" = 100'

REPEAT PASS

5" = 100'

3' Travel Time			LTEN	0	3' Amplitude (mV)	100	200	MSG	1060
-11	ACCL (MRayl)	9	0	(lb2000	0	3' Amplitude X5 (mV)	20	10	500
0	Gamma Ray (GAPI)	150							





Log Variables DatabaseC:\ProgramData\Warrior\Data\janssen_5.db
Dataset field/well/run1/MAIN/_vars_

Top - Bottom

BHTEMP_Src	MSGGN	USERFTT usec/ft	ZREF MRayl	CASEWGHT lb/ft	SRFTEMP degF	MudWgt lb/gal	CASETHCK in
TEMP	1	0	1.7	20	30	8.5	0.357
CASEOD in	PERFS	TDEPTH ft	BOTTEMP degF	BITSIZE in			
5.5	0	6800	220	7.875			

Calibration Report

Database File janssen_5.db
Dataset Pathname MAIN
Dataset Creation Wed Jan 06 09:23:06 2016

Circumferential Acoustic Scanning Tool Shop Calibration Report

Serial-Model: 11501505-3 5/8 EXT SCAN
Calibration Performed: Mon Jan 04 12:18:54 2016

Mudcell Transducer

Main Transducer

	Measured	Expected	Measured	Expected	Units
W/O Calibrator	50.60	44.00	N/A	N/A	usec
W Calibrator	40.60	35.00	54.60	50.00	usec
Calibrated Offsets					
Name	Value	Units			
TCAL	4.6000	usec			
MCAL	0.6000	usec			

XY Accelerometers Calibration Report

Performed: (Not Performed)

Low Read. High Read. Low Ref. High Ref.

X Accelerometer	0.000	1.000	gee	0.000	1.000	gee
Y Accelerometer	0.000	1.000	gee	0.000	1.000	gee


Cement Bond Log Shop Calibration Report


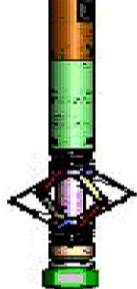
Serial-Model:	11923474-A
Calibration Performed:	Tue Jan 05 16:30:54 2016

Free Pipe Calibration		
TT	Measured	Units
Amplitude	259.0	usec
Log Base Line	300.1	mV
	8.2	mV
Calibration References and Gain		
Name	Value	Units
Pipe O.D.	5.500	in
Pipe Weight	20.0	lb/ft
Pipe Ref. Amp.	71.9	mV
Amp. Gain	0.246	

Gamma Ray Calibration Report

Serial Number:	21764	
Tool Model:	002	
Performed:	Tue Jan 05 16:18:05 2016	
Calibrator Value:	205.0	GAPI
Background Reading:	51.1	cps
Calibrator Reading:	209.1	cps
Sensitivity:	1.2981	GAPI/cps

Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb)	
CCL	35.10		CHD-titan	1.00	1.69	2.00	
			TTTCU-002 (21764) Through Tubing Telemetry Cartridge - Ultrawire	7.65	1.69	100.00	
GR	32.84		XHU-003 (11983708) Crossover Halliburton 1553 to Ultrawire	1.58	1.69	7.00	
			CENT-CASTM-CENT CAST M INLINE CENTRALIZER	2.16	3.13	25.00	
Temp	23.12						

TT3FT	20.87		HCBLM-A (11923474) Halliburton HCBLM Tool	9.38	2.75	116.00
AMP3FT	20.87		CENT-CASTM-CENT CAST M INLINE CENTRALIZER	2.16	3.13	25.00
			HAL-CAST-M-ELECT-CAST-M-Elect (11527.57?) CAST M ELECTRONIC		2.75	30.00
AccY2	0.00		HAL-CAST-M-3 5/8 EXT SCAN (115015056.65) 3 5/8 EXT SCAN CASTM		3.13	276.00
AccX2	0.00					
AccY1	0.00					
AccX1	0.00					
SCAN	0.00					
LOCTIM	0.00					
UTCTIM	0.00					
LLMTEN	0.00					
Dataset:			janssen_5.db: field/well/run1/MAIN			
Total length:			38.17 ft			
Total weight:			581.00 lb			
O.D.:			3.13 in			

Company	EXTRACTION OIL & GAS LLC				
Well	JANSSEN 5				
Field	WATTENBERG				
County	WELD	State	CO		
HALLIBURTON	CEMENT BOND LOG (CBL-M)				