



PIONEER

Pioneer Energy Services

RADIAL BOND LOG WITH GAMMA RAY

Comp. HIGHPOINT OPERATING CORP.
Well CRITTER CREEK 16-6302BE
Field HEREFORD
Co. WELD
State COLORADO

Company **HIGHPOINT OPERATING CORP.**
Well **CRITTER CREEK 16-6302BE**
Field **HEREFORD**
County **WELD** State **COLORADO**

Location: API # : 05-123-47295
575' FSL & 785' FWL
SW SW
SEC 16 TWP 11N RGE 63W
Permanent Datum GL Elevation 5269'
Log Measured From KB 16.5' Above Perm. Datum
Drilling Measured From KB
Other Services
NONE
K.B. 5285.5'
D.F. N/A
G.L. 5269'

Date of Service	04 DECEMBER		
Run Number	ONE		
Depth Driller or PBTD	7863'		
Depth Logger	7634'		
Bottom Log Interval	7634'		
Top Log Interval	SURFACE		
Open Hole Size	8.75"		
Type Fluid	WATER		
Fluid Level	FULL		
Fluid Density	N/A		
Max. Recorded Temperature	N/A		
Max. Wellhead Pressure	ZERO		
Wellhead Connection	OPEN		
Estimated Cement Top	N/A		
Unit Number	P-57		
Wireline Size	9/32"		
Location	FORT MORGAN		
Recorded By	SCHOENROGGE		
Witnessed By	MR. HUNTER		
	Size	Wt/Ft	Top
Tubing Record			Bottom
Surface Casing	9.625"	36#	SURFACE 1555'
Production Casing	7"	23#	SURFACE 7899.65'
Liner Record			

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All interpretations are opinions based on inferences from electrical or other measurements and Pioneer Wireline Services, LLC cannot and does not guarantee the accuracy or correctness of any interpretation, and Pioneer Wireline Services, LLC will not be liable or responsible for any loss, costs, damages, or expenses incurred or sustained by anyone resulting from any interpretation made by any of our officers, agents or employees.

Comments

N/A DENOTES NOT AVAILABLE OR NON-APPLICABLE.
CORRELATED TO CUSTOMER MARKER JOINT
NO FREE PIPE PASS. RAN CALS FROM LAST WELL ON PAD

THANK YOU FOR USING PIONEER ENERGY SERVICES!

Your Pioneer Energy Services Crew

Engineer: SCHOENROGGE
Operator: JOHN
Operator: GERARDO
Operator:

Tool Data - Services

Serial Number

SEE DIAGRAM + OVERBODIES

Top - Bottom

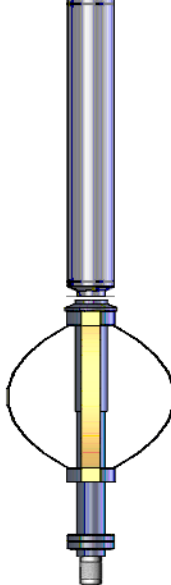
BOREID in 8.75	BOTTEMP degF 220	CASEOD in 7	CASETHCK in 0.317	CASEWGHT lb/ft 23	MAXAMPL mV 62.1	MINAMPL mV 1
MINATTN db/ft 0.8	PERFS 0	PPT usec 287	SRFTEMP degF 50	TDEPTH ft 7800		


Variable Description

BOREID : Borehole I.D.
BOTTEMP : Bottom Hole Temperature
CASEOD : Casing O.D.
CASETHCK : Casing Thickness
CASEWGHT : Casing Weight
MAXAMPL : Maximum Amplitude

MINAMPL : Minimum Amplitude
MINATTN : Minimum Attenuation
PERFS : Perforation Flag
PPT : Predicted Pipe Time
SRFTEMP : Surface Temperature
TDEPTH : Total Depth

Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb)
			Cable Head-Titan_144 1 7/16" Titan Cable Head	1.03	1.44	2.00
WVFS8	15.47		PROBE-RBT-DIGITAL-RBL-DC (FW1401) Probe 2 3/4" Radii Bond-Corrosion Package	4 8.75	2.75	100.00
WVFS7	15.47					
WVFS6	15.47					
WVFS5	15.47					
WVFS4	15.47					
WVFS3	15.47					
WVFS2	15.47					
WVFS1	15.47					
WVFCAL	15.47					
WVF3FT	15.47					
WVF5FT	14.47					
			Centralizer-275 Probe 2 3/4" Probe Adjustable Spring Centralizer	2.88	2.75	15.00
CCL	7.26		CCL_Logging-275 TekCo_2 (TekCo-275) 2 3/4"	1.83	2.75	15.00


GR	4.03		GR-275 Probe (080629) Probe 2.75" Gamma Ray	3.36	2.75	40.00
			Centralizer-275 Probe 2 3/4" Probe Adjustable Spring Centralizer	2.88	2.75	15.00
			Bullnose-PROBE Probe Go Pin Pressure Cap	0.33	1.38	1.00
Dataset: highpoint_critter creek 16-6302be_0512347295_20181204_scbl.db: field/well/run1/pass3.1 Total length: 21.07 ft Total weight: 188.00 lb O.D.: 2.75 in						



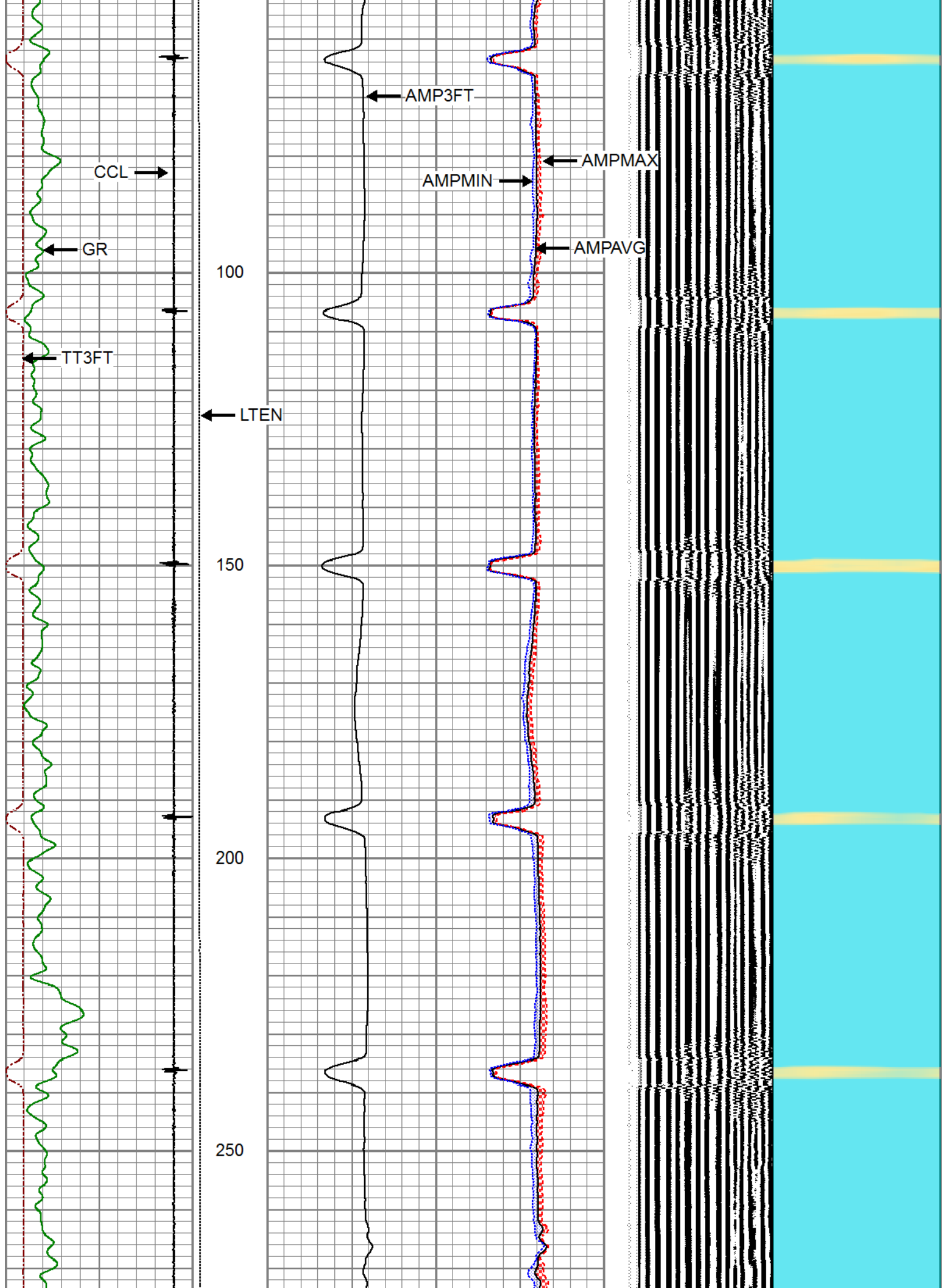
MAIN LOG

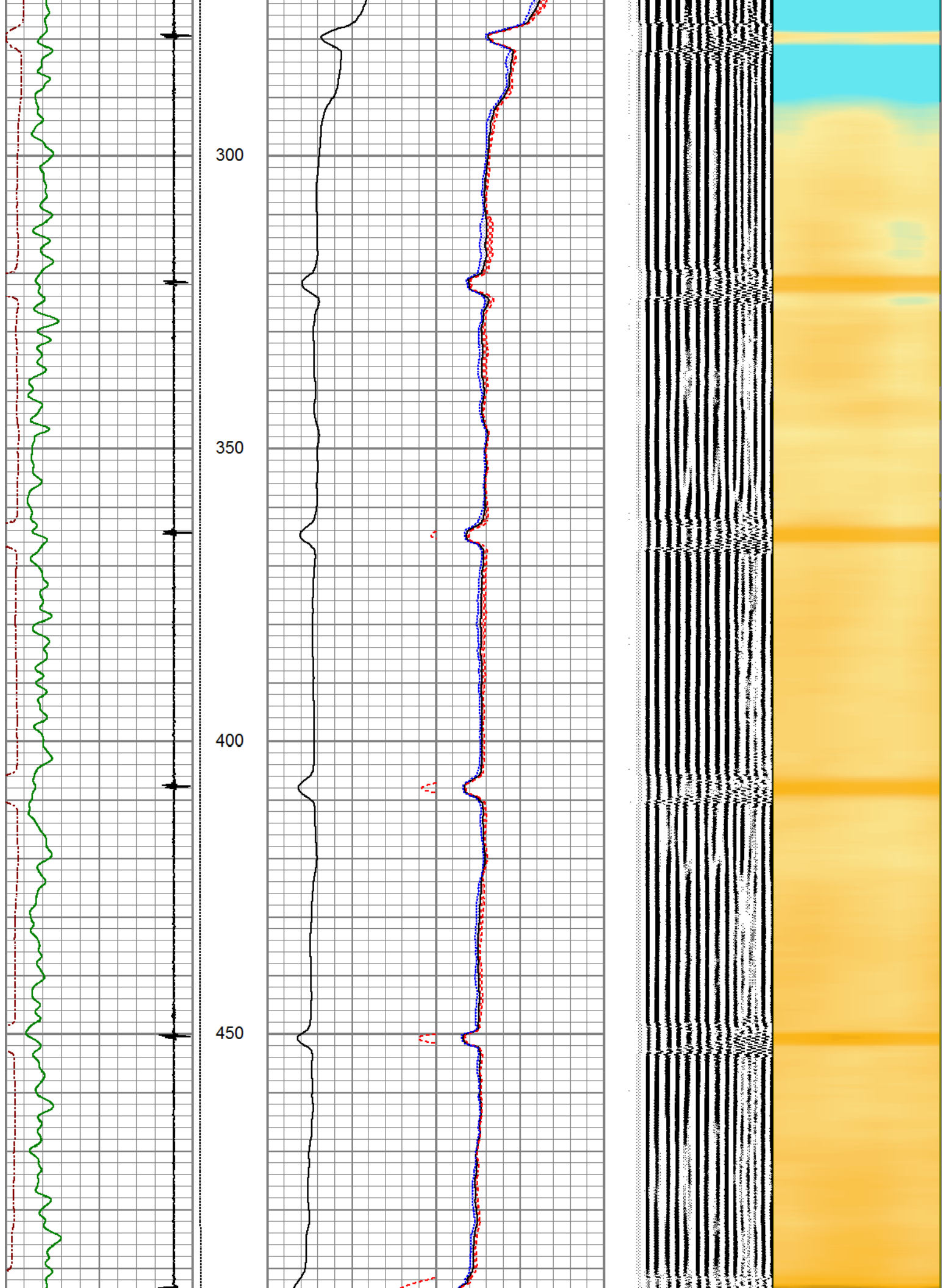
ZERO PSI APPLIED AT SURFACE

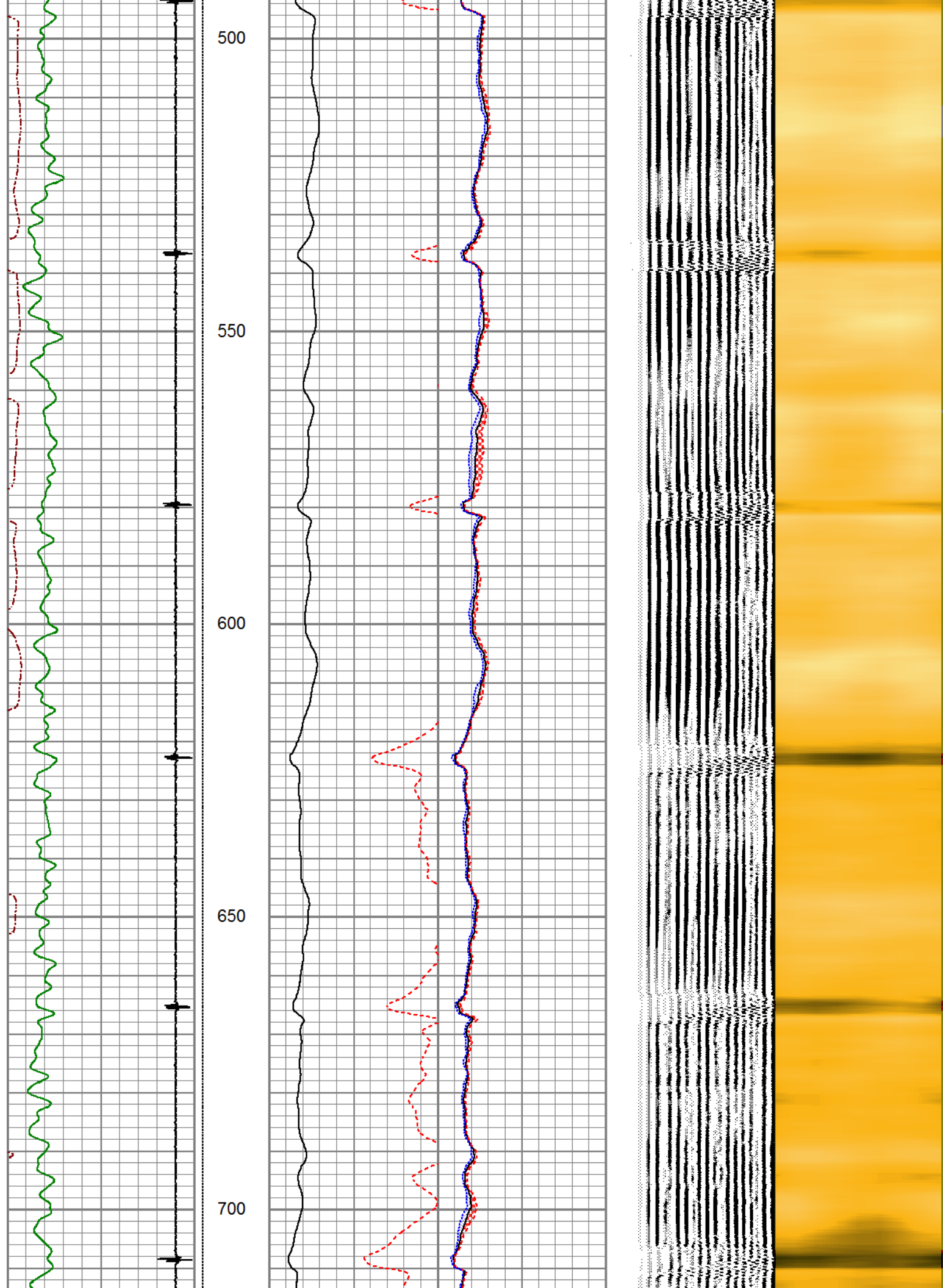
Database File	highpoint_critter creek 16-6302be_0512347295_20181204_scbl.db
Dataset Pathname	pass3.1
Presentation Format	pinr_scbl
Dataset Creation	Tue Dec 04 17:21:30 2018
Charted by	Depth in Feet scaled 1:240

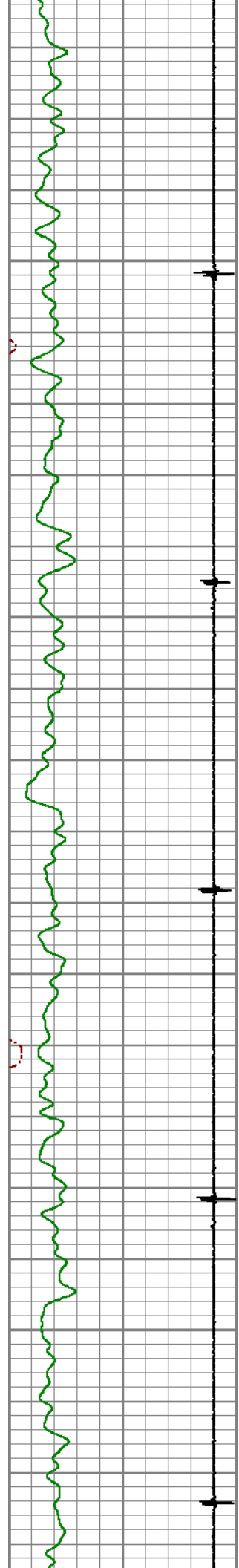
3Ft Travel Time			LTEN		3' Amplitude		Sector		VDL			1		Sector Map		8	
300	(usec)	200		(lb)	0	(mV)	100	Amplitude Average		200	(usec)	1200					
-9	Collar Locator	1	0	4000	3' Amplified Amplitude X 5		0150										
Gamma Ray							Sector Amplitude Maximum										
0	(GAPI)	150			0	(mV)			20	0150							
					Sector Amplitude Minimum												
							0	150									









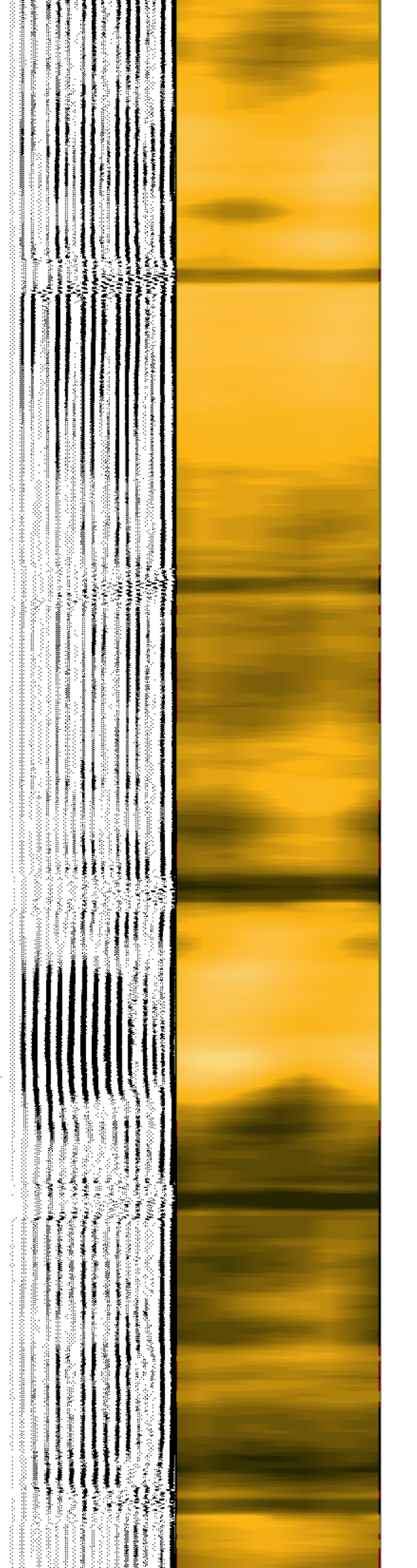
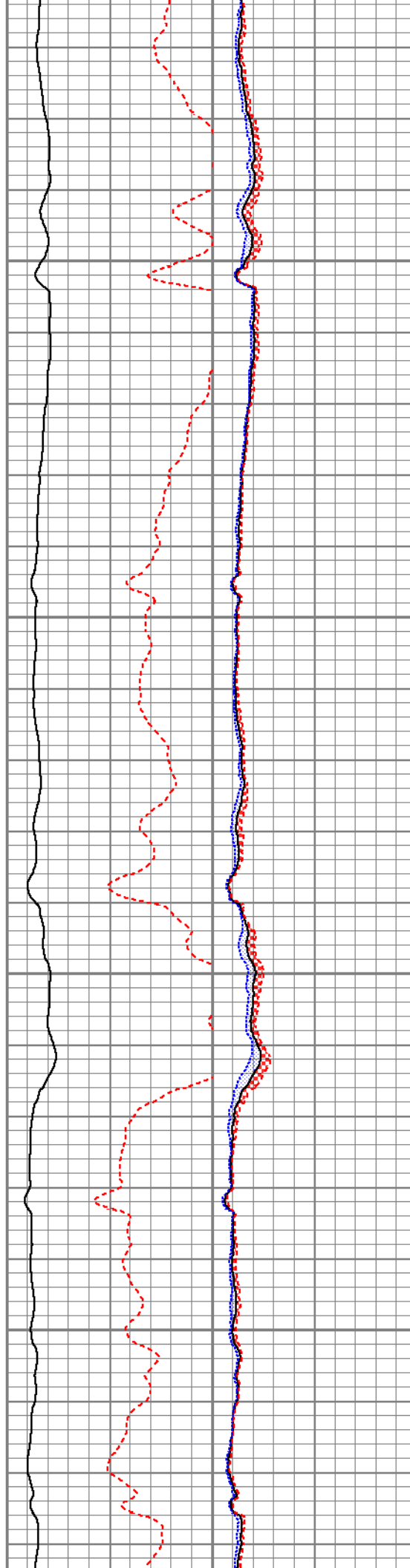


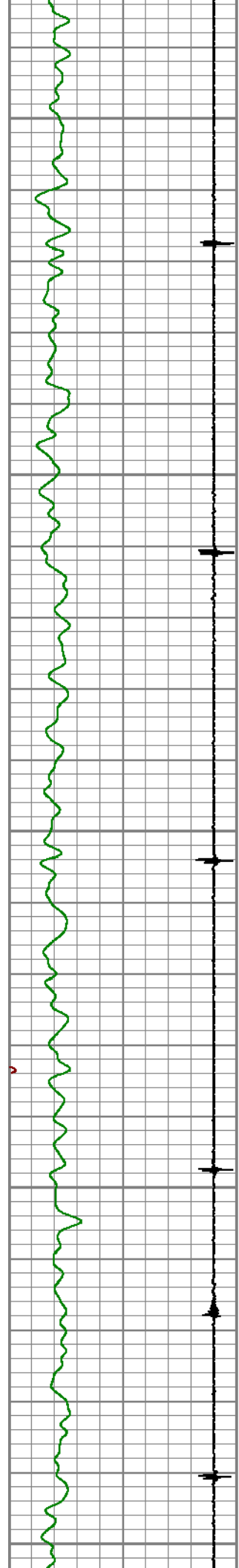
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800

850

900





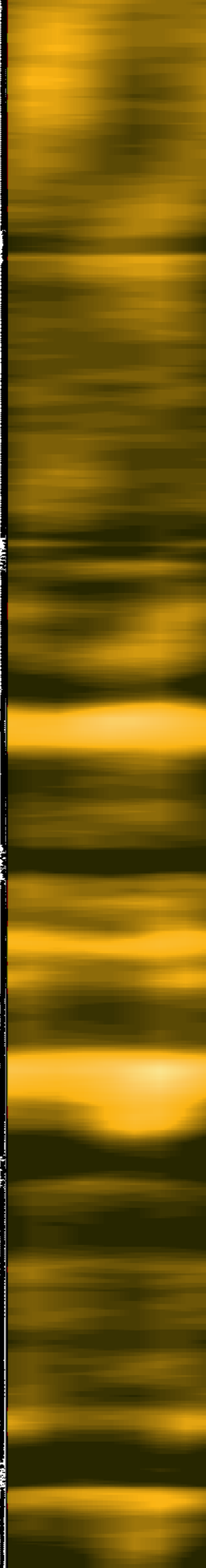
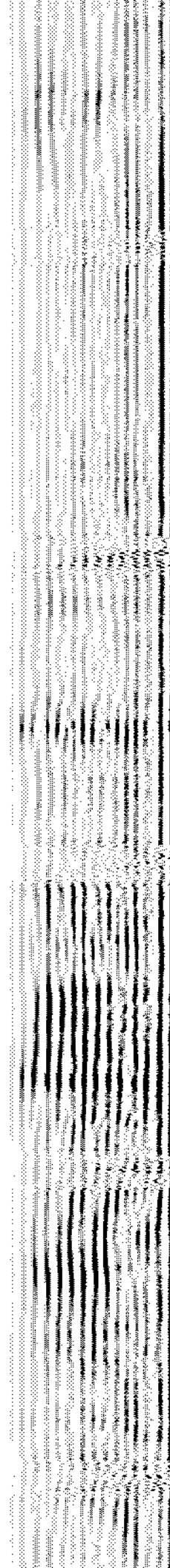
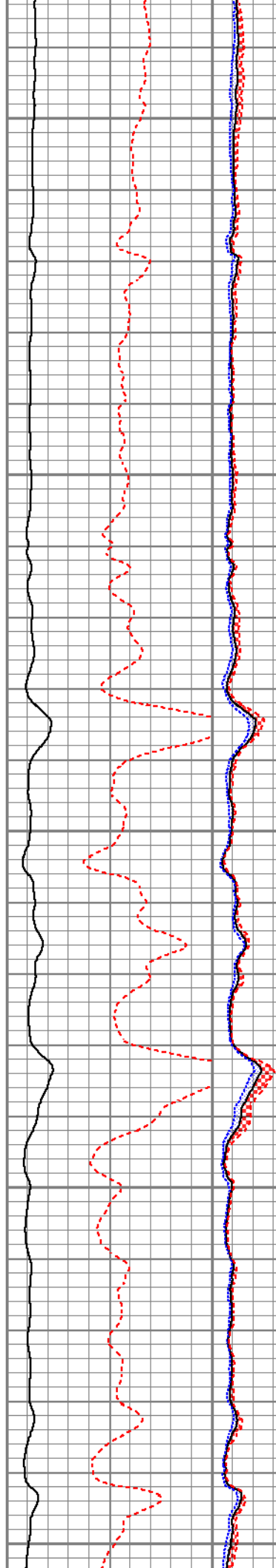
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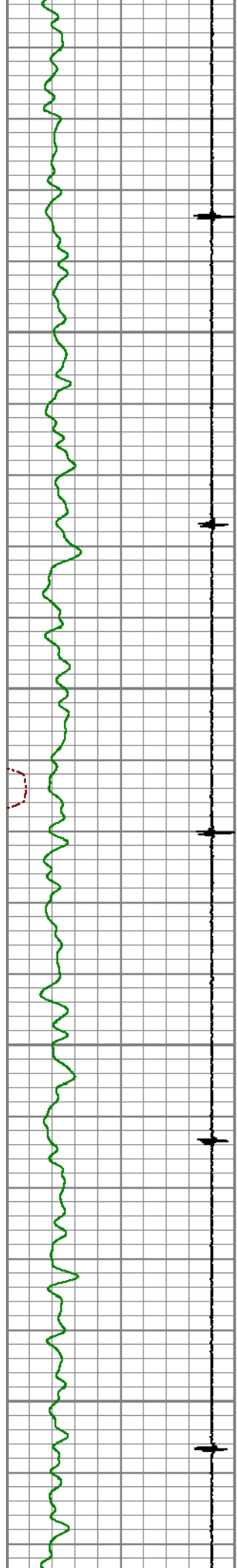
1000

1050

1100

1150



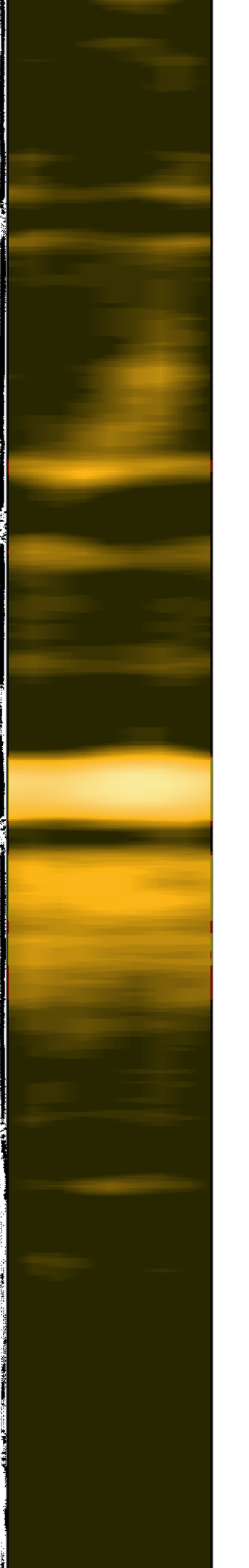
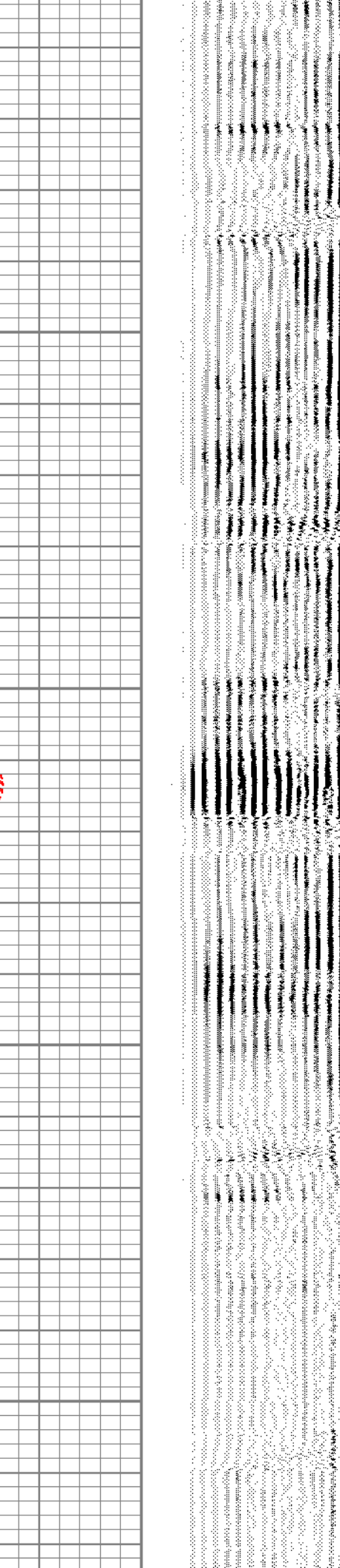
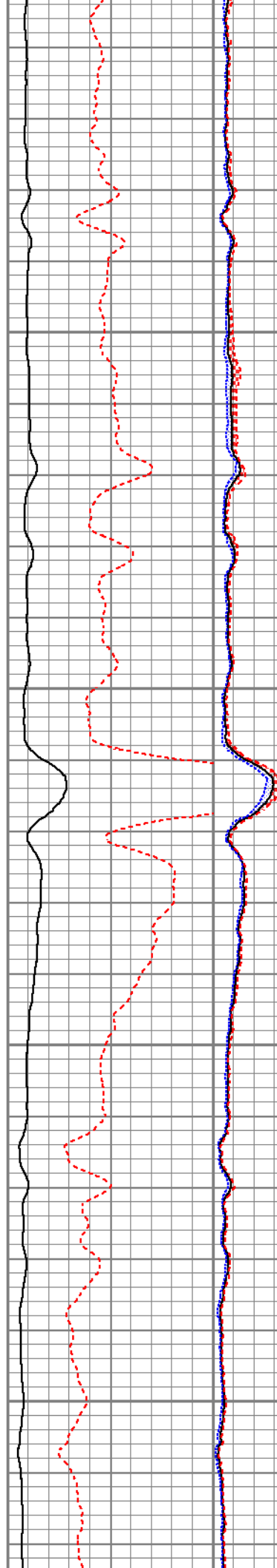


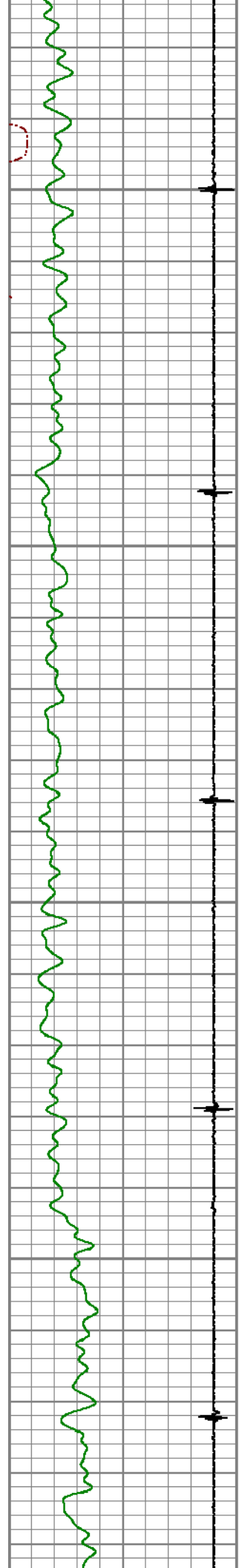
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1300

1350



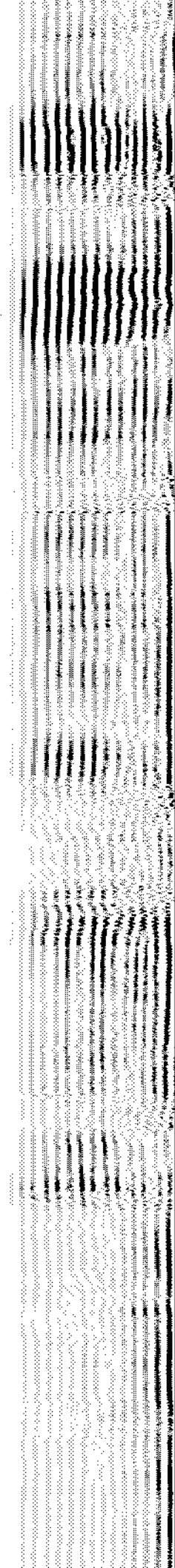


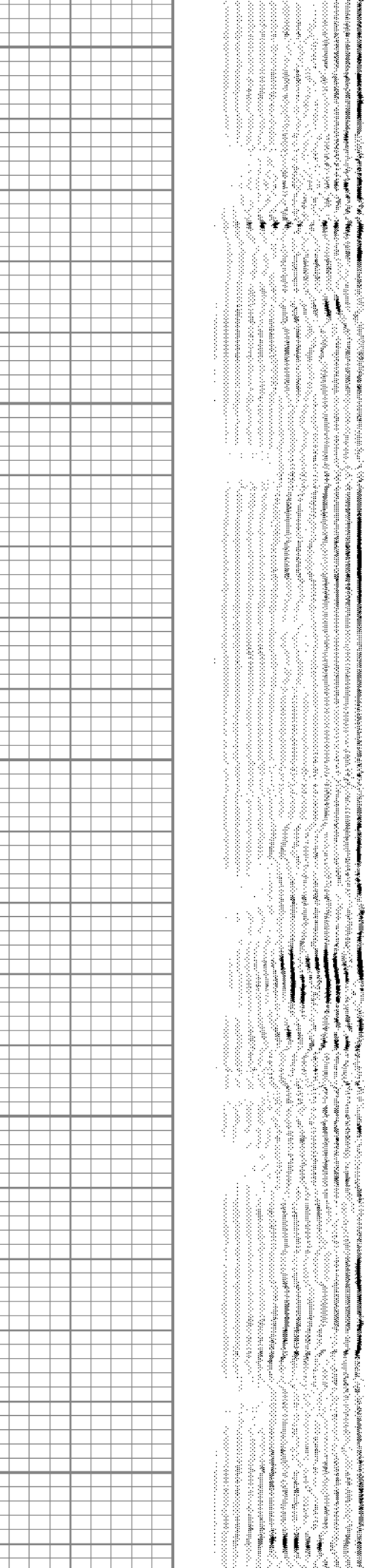
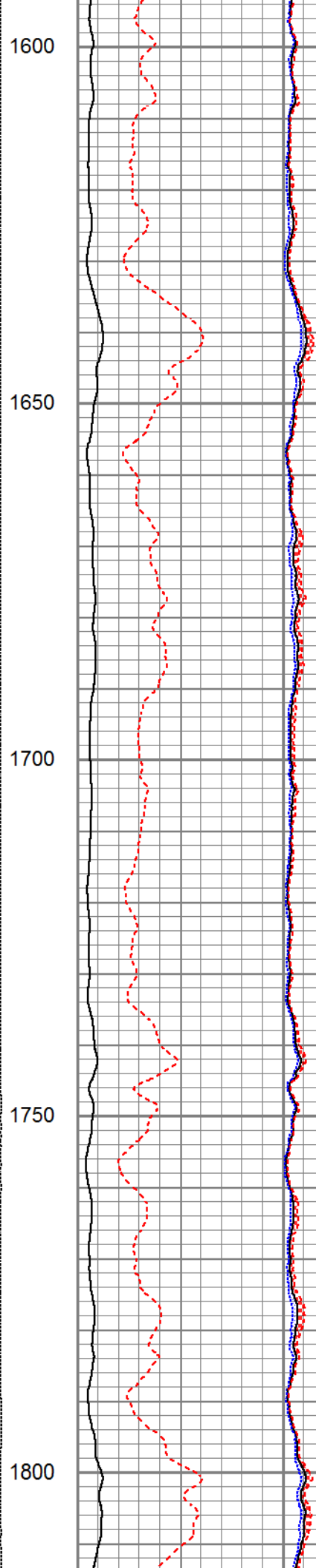
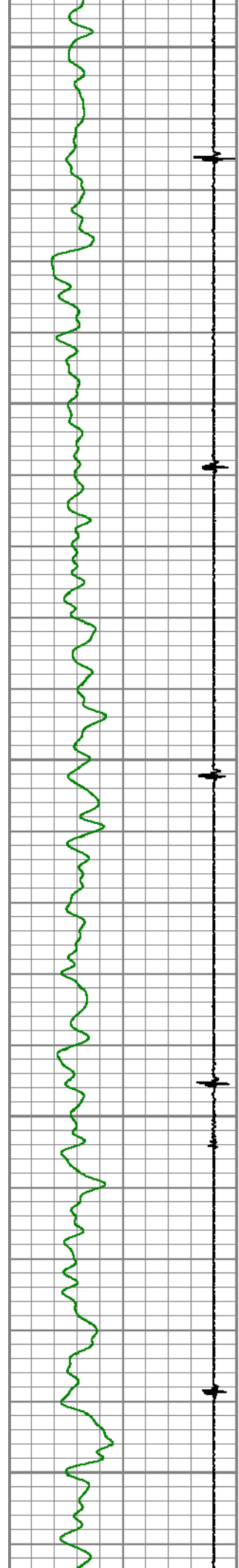
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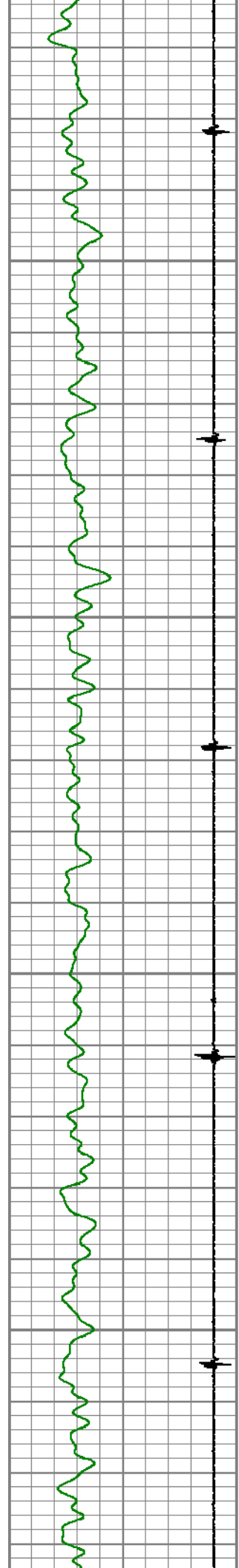
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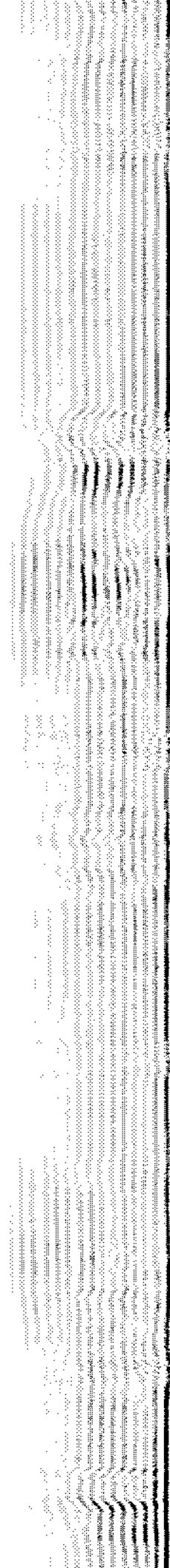
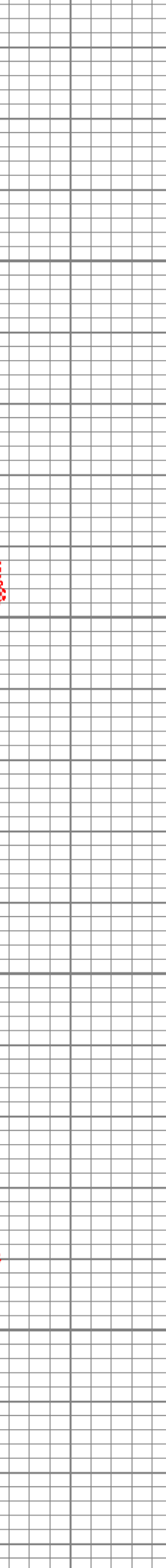
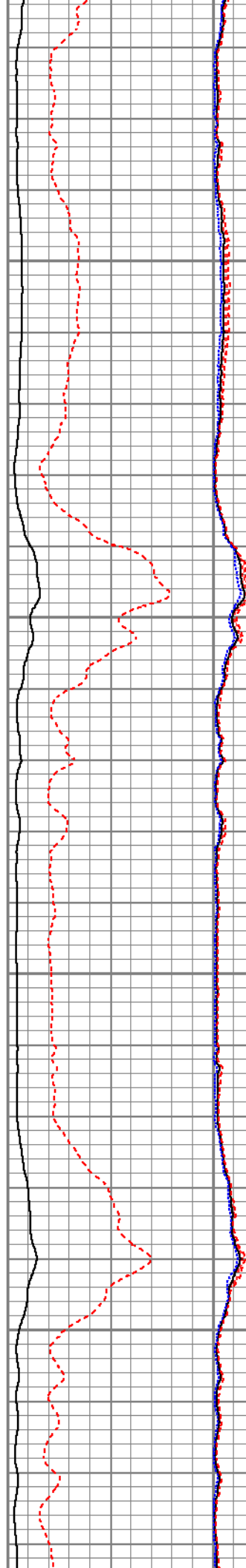


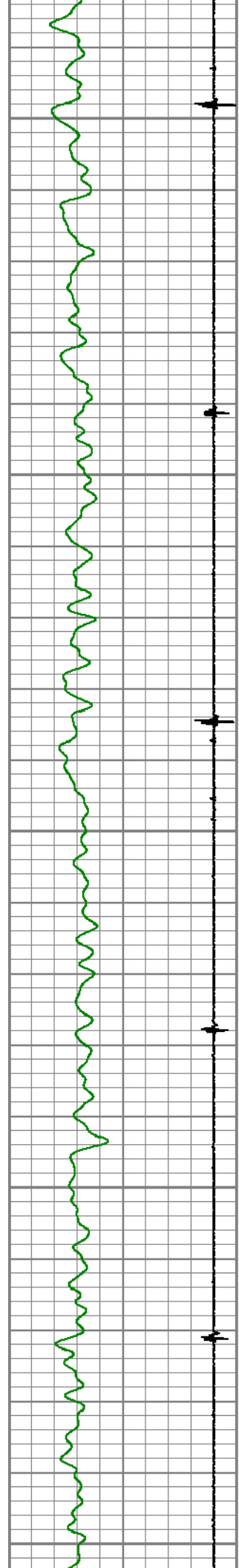
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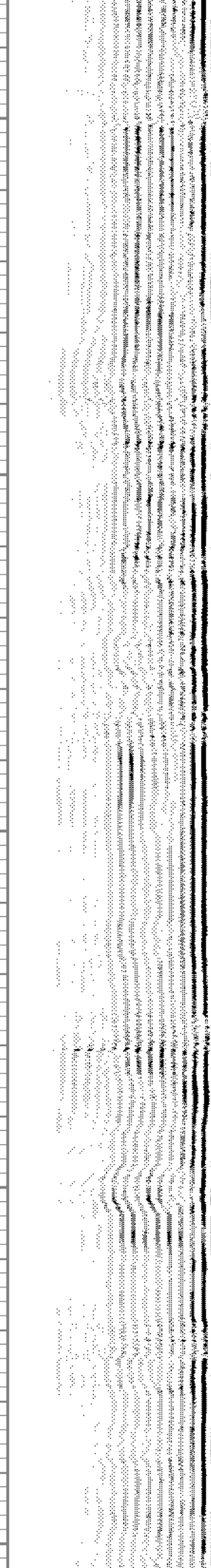
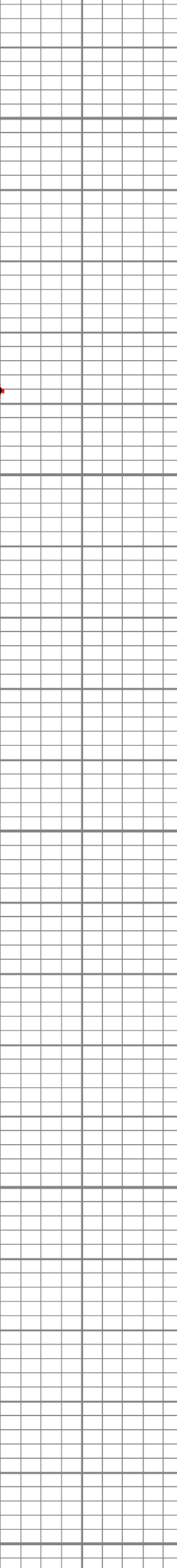
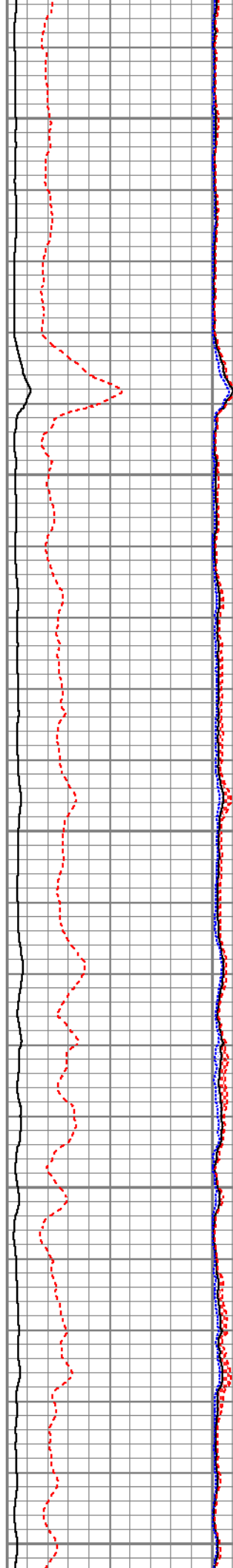
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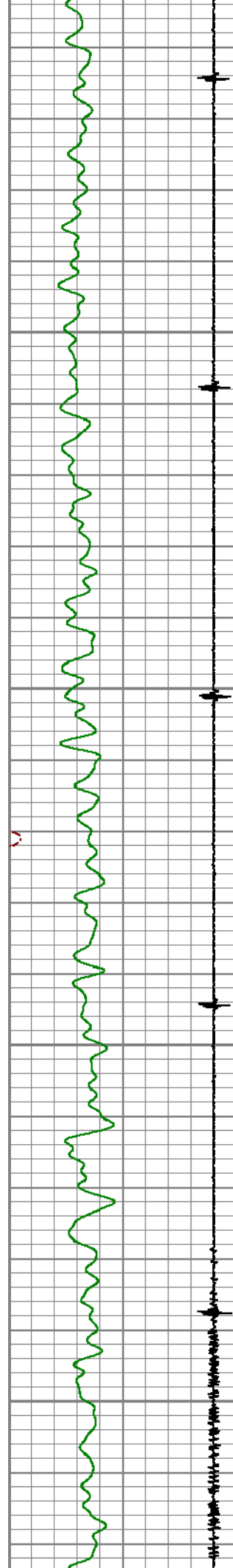
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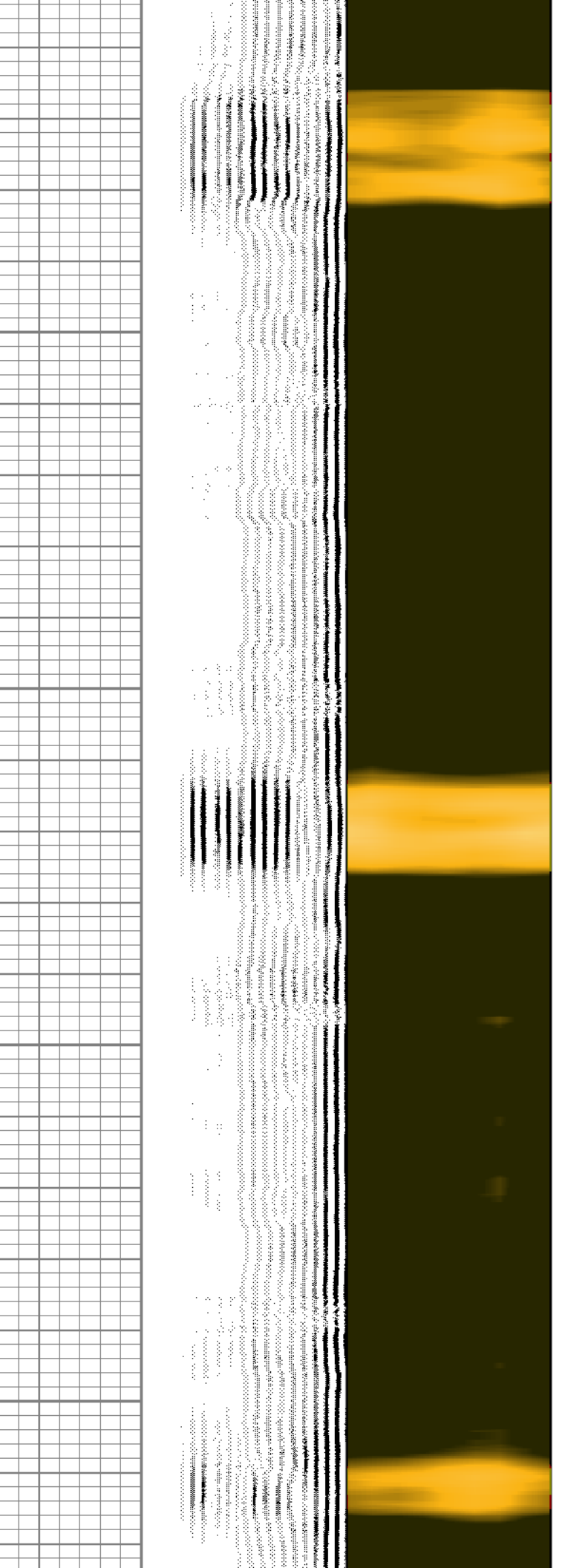
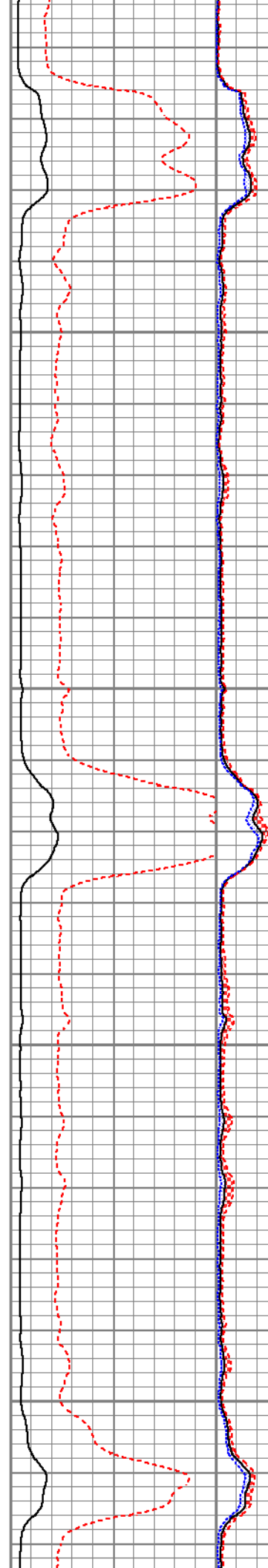


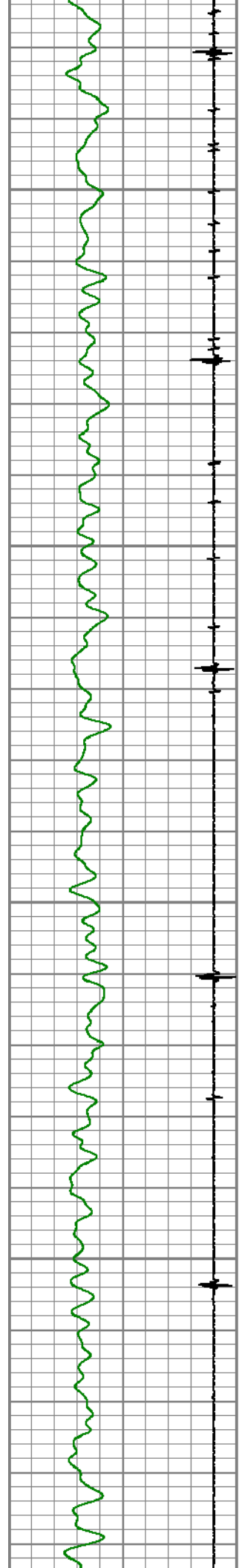
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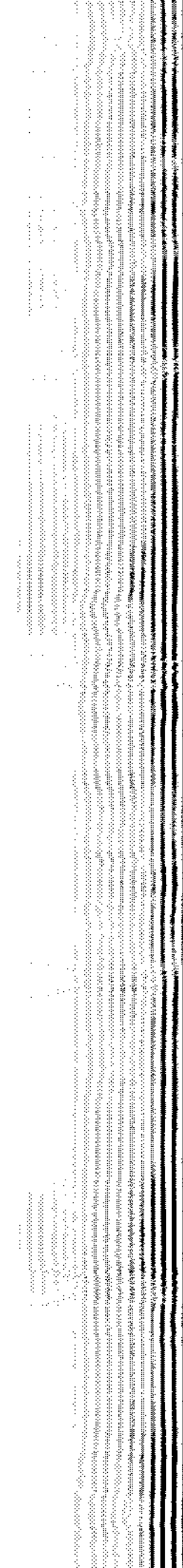
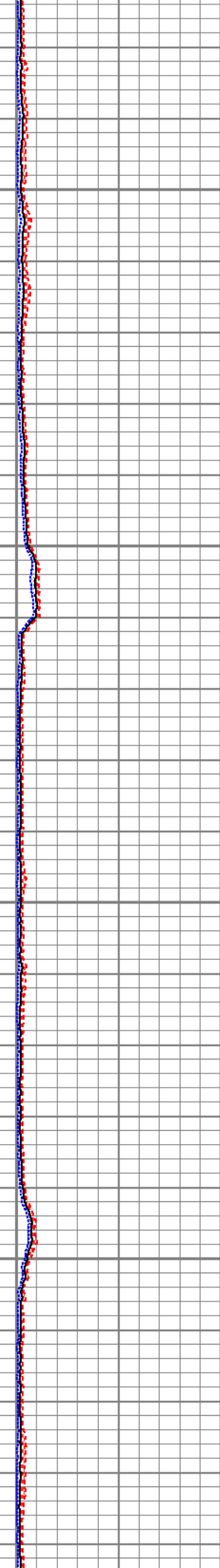
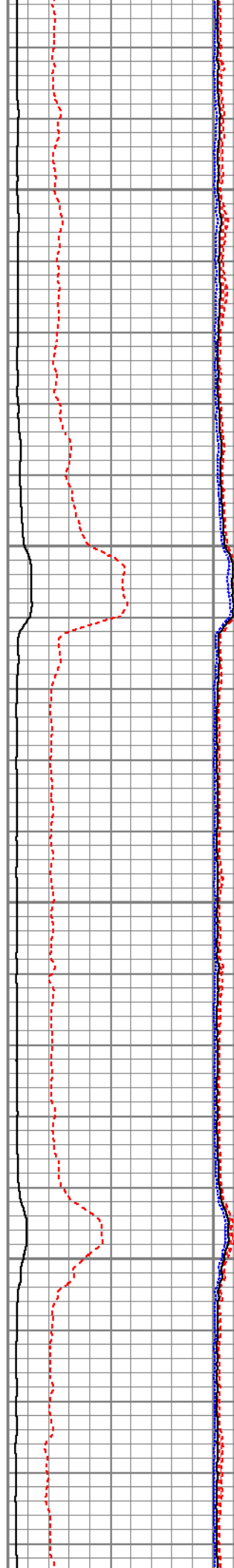


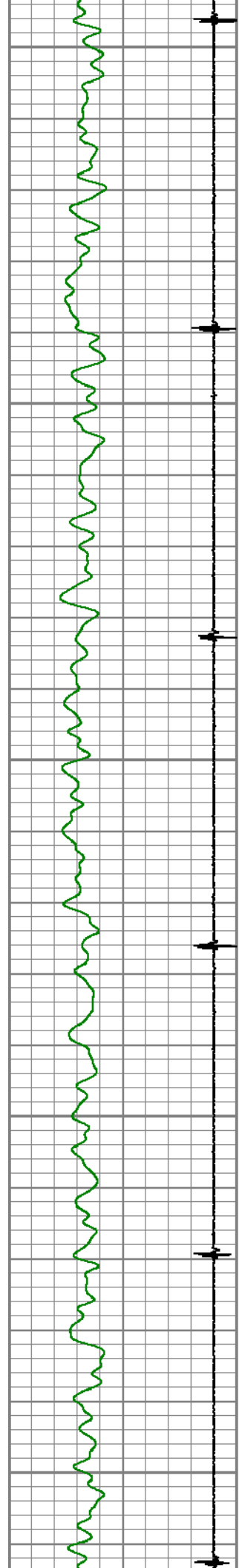
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2600

2650





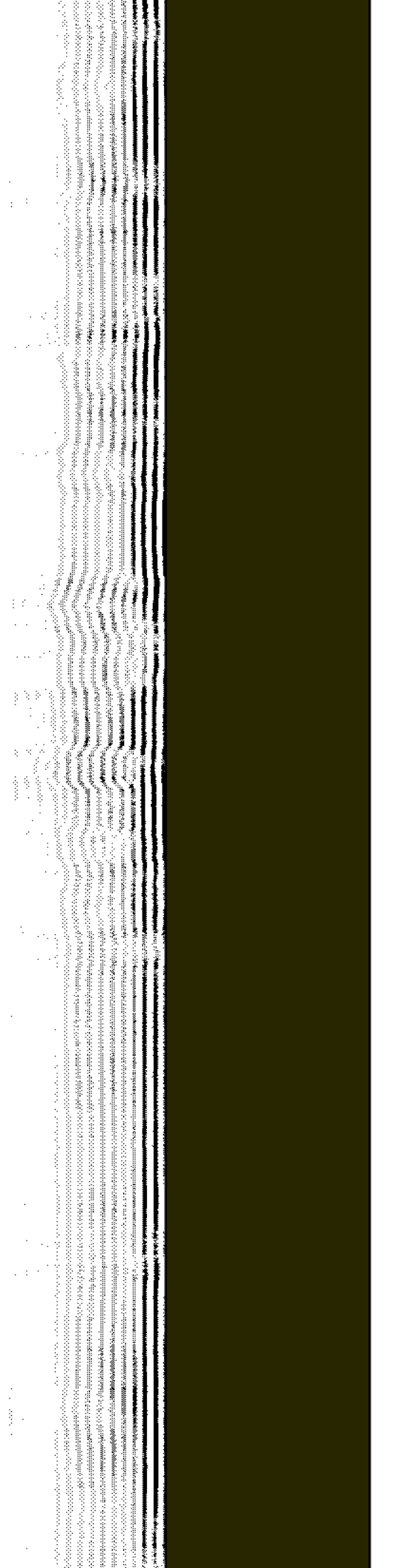
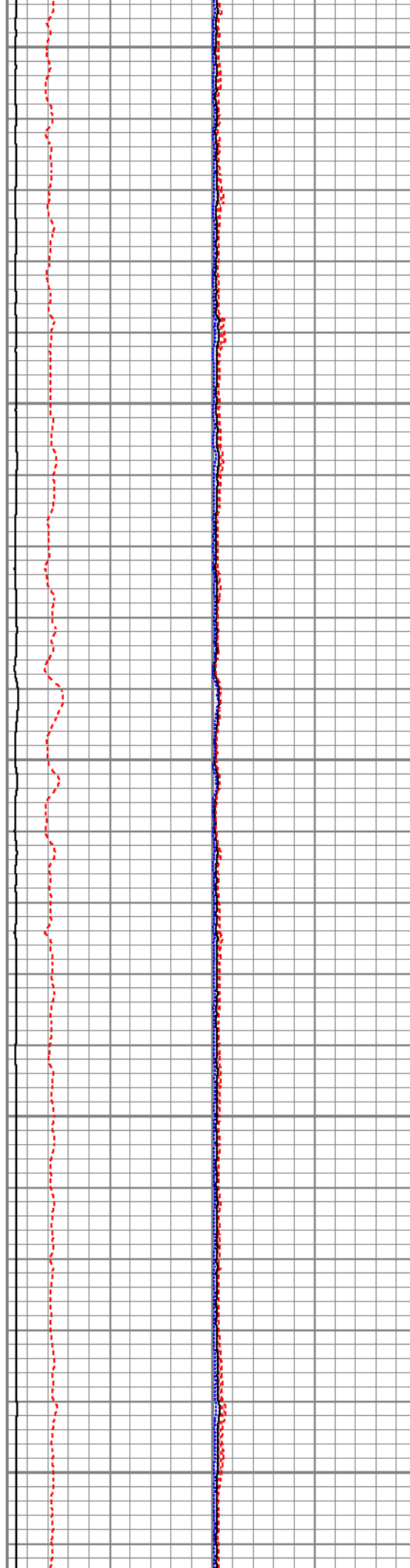
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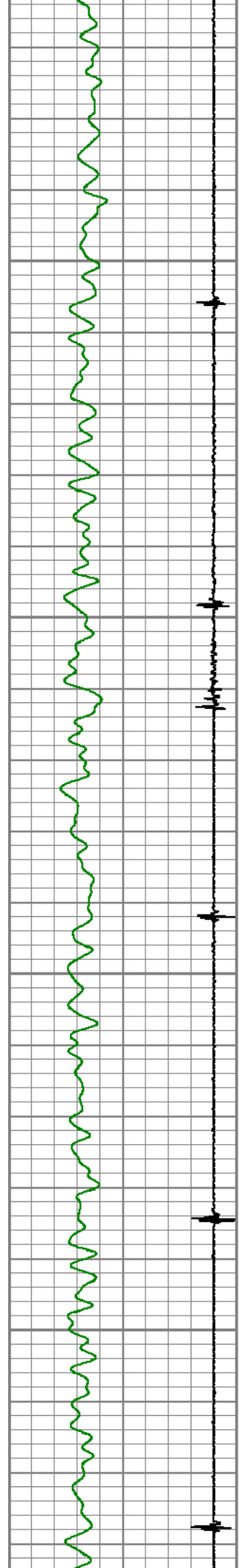
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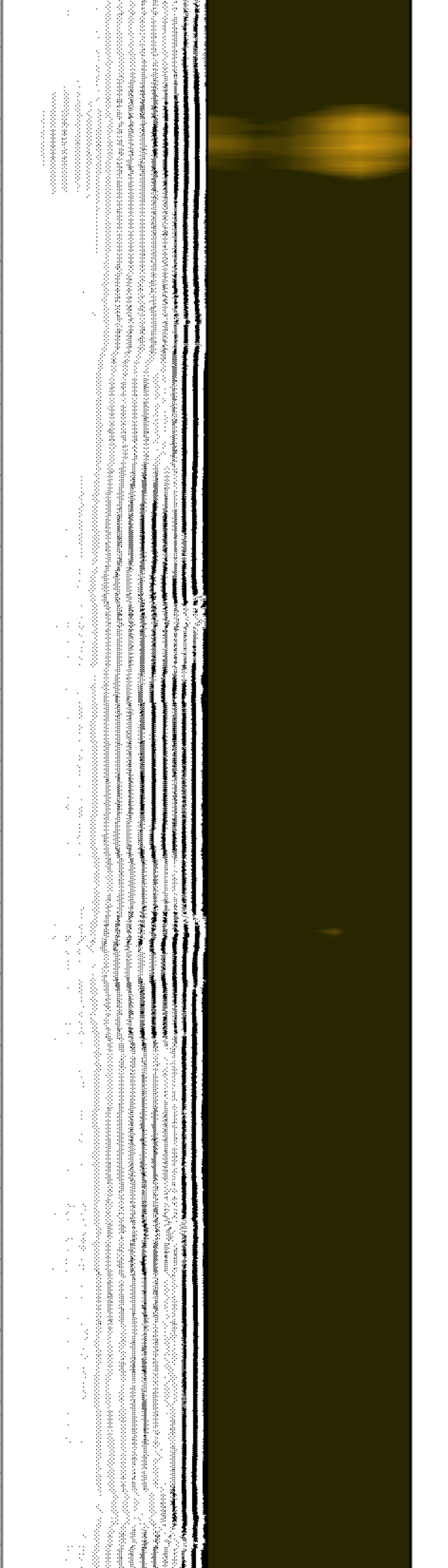
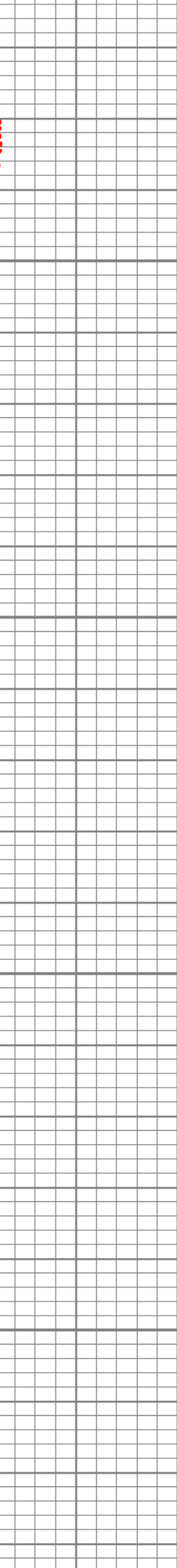
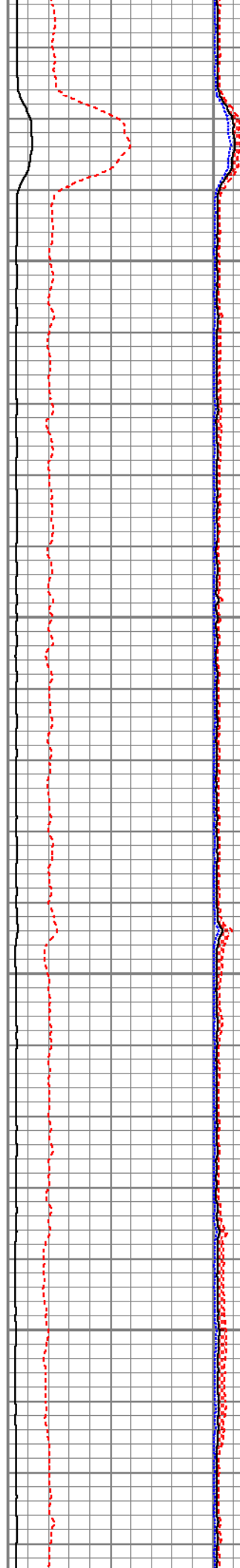


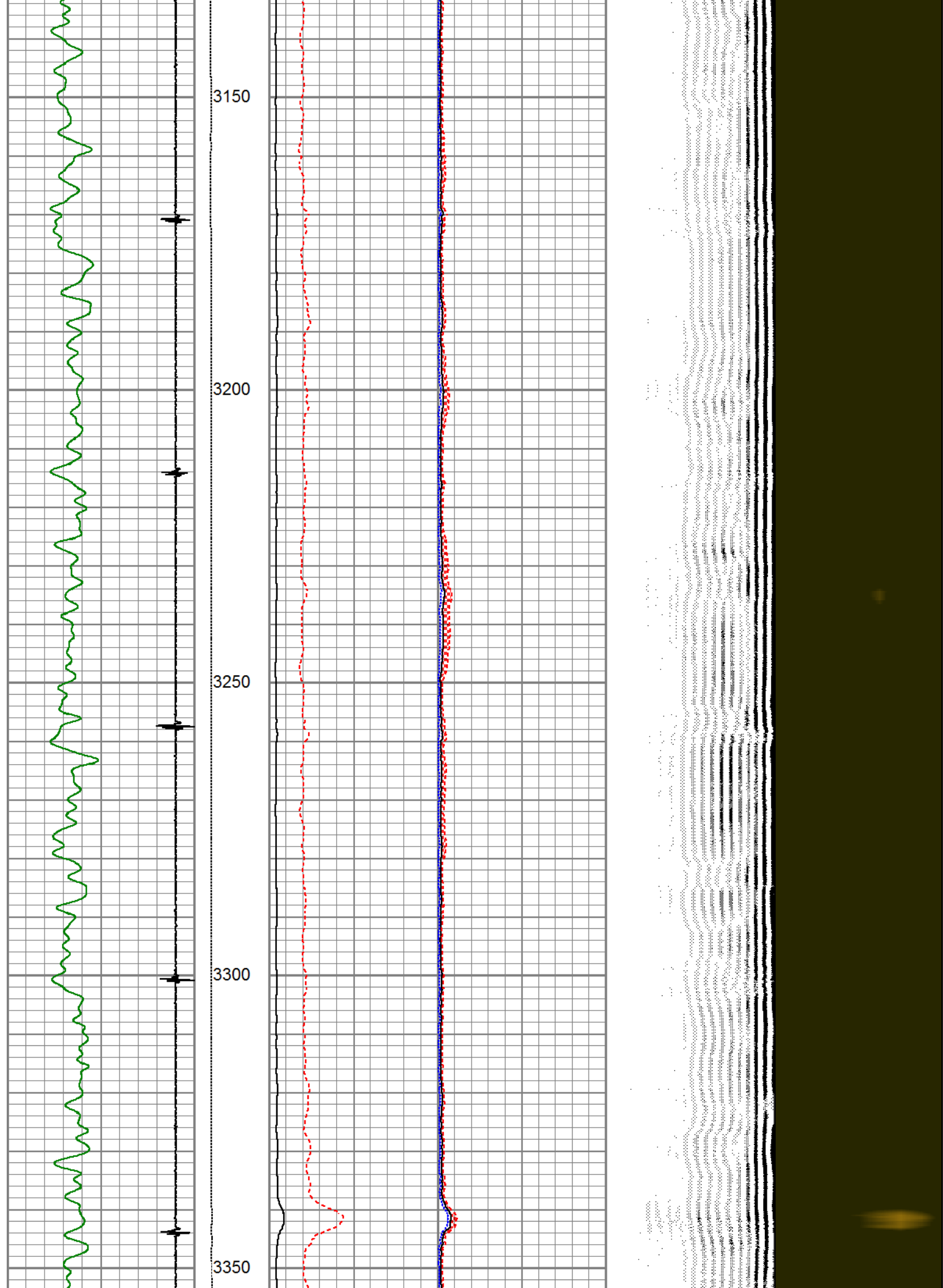
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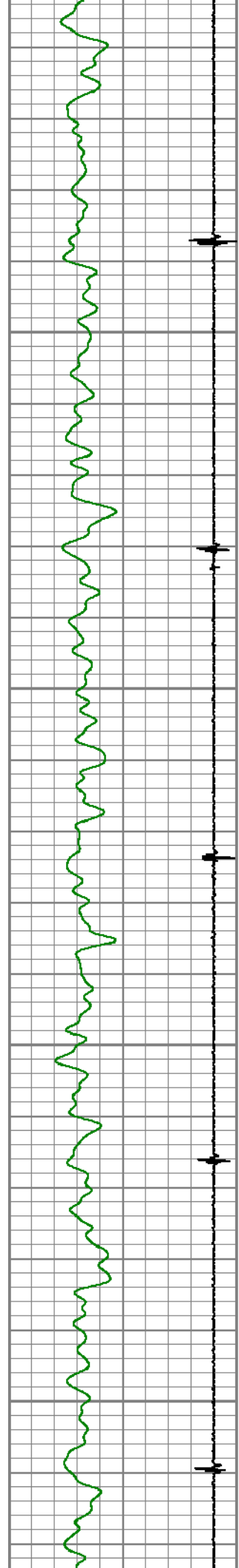
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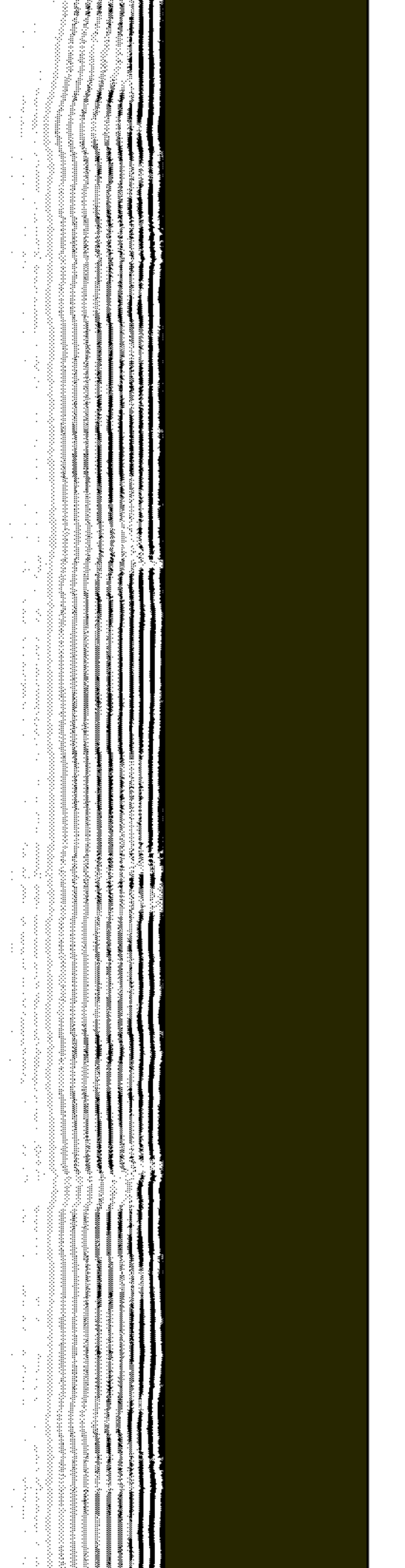
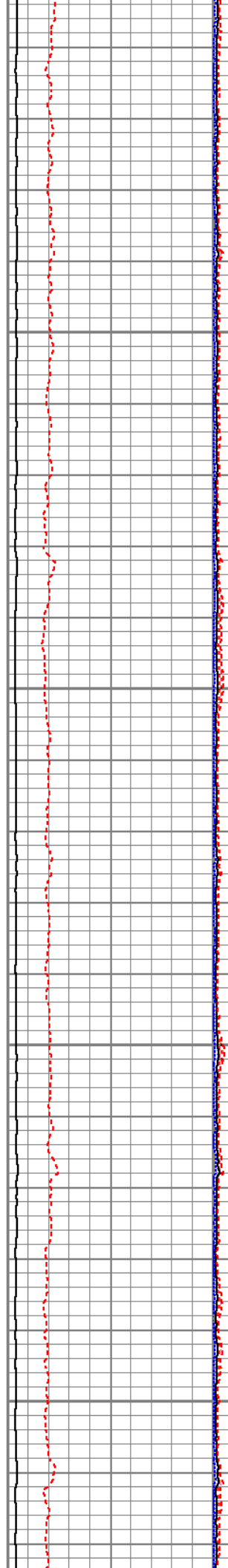


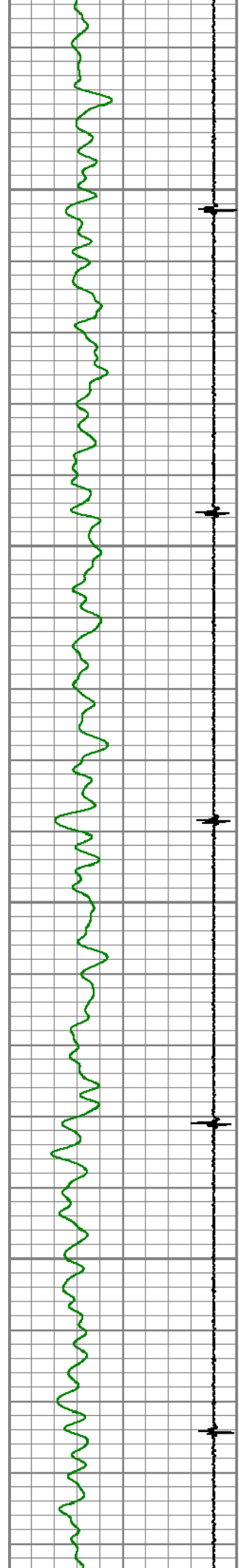
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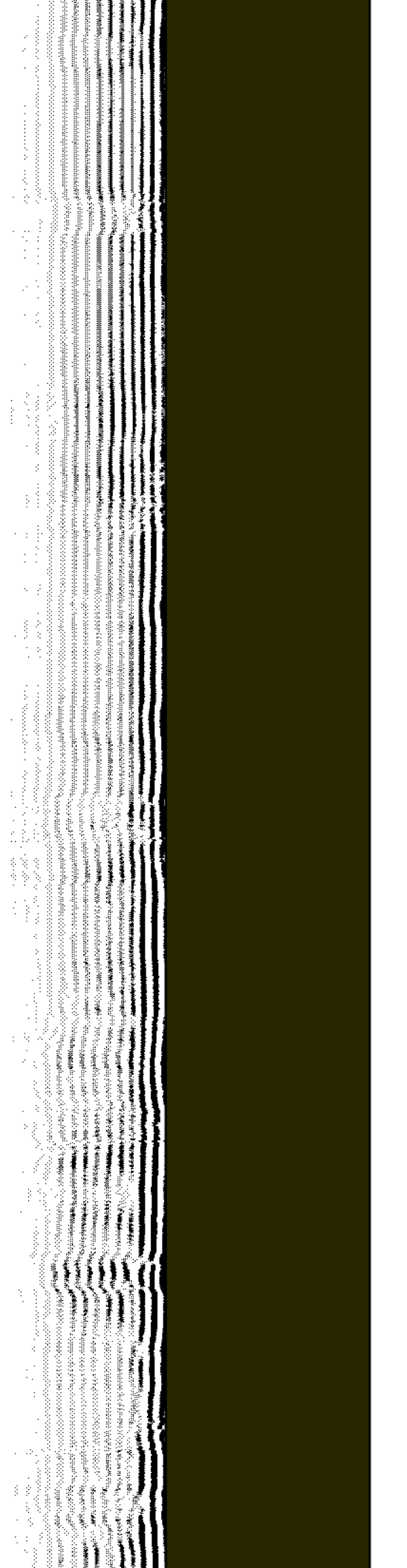


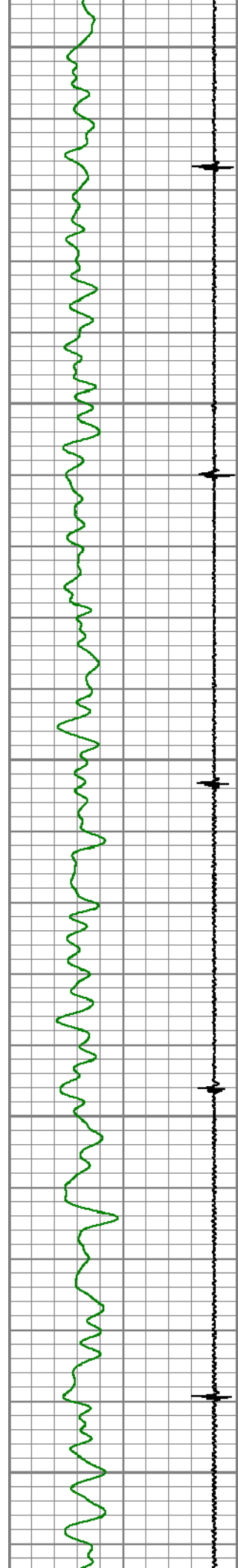
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3750





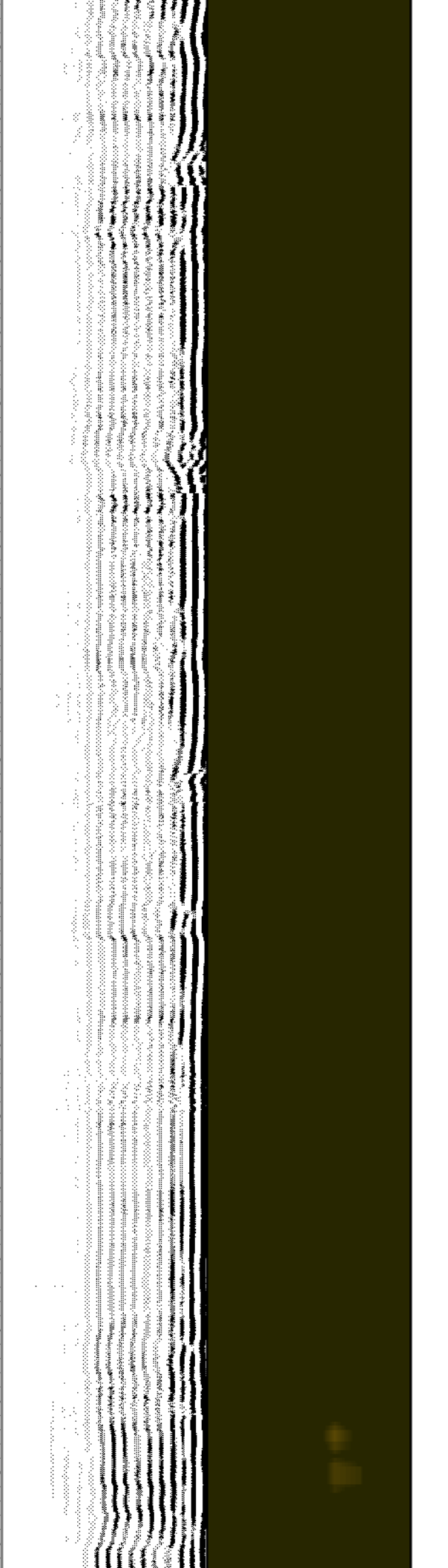
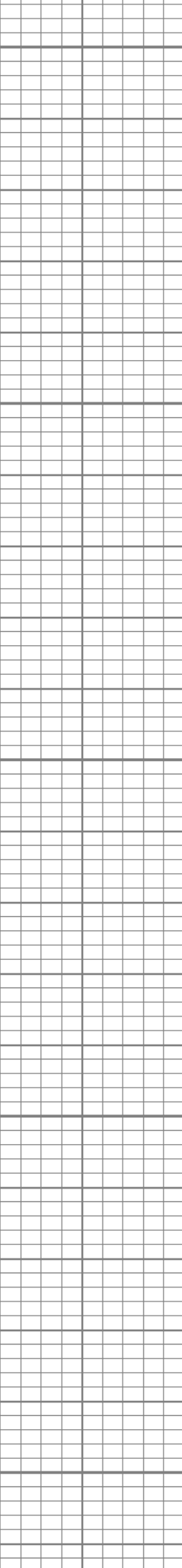
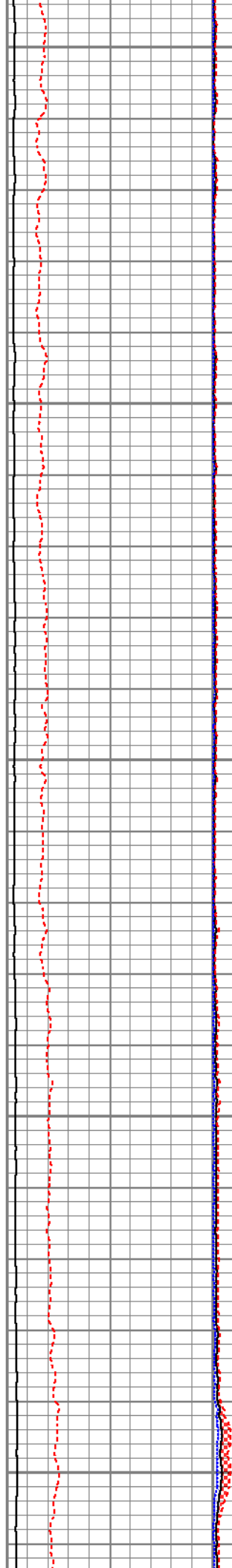
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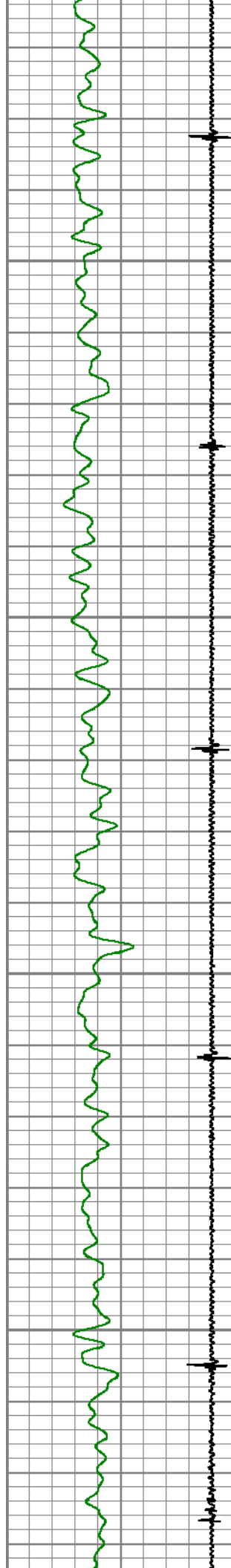
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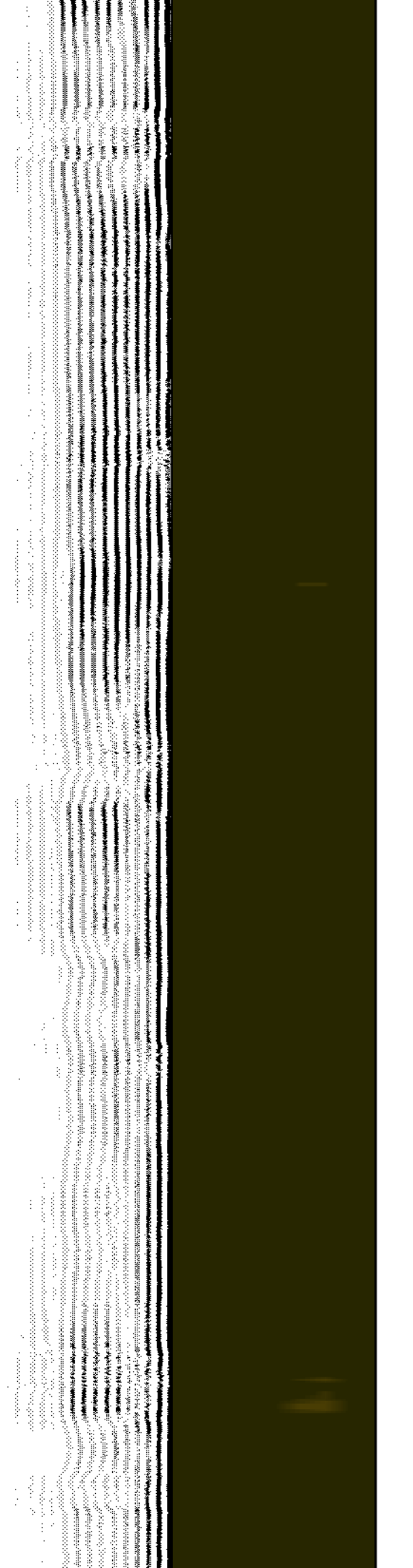
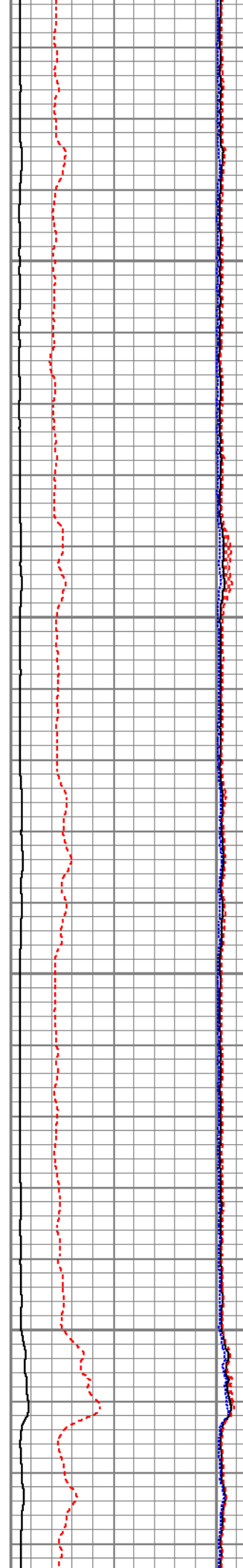


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4150

4200



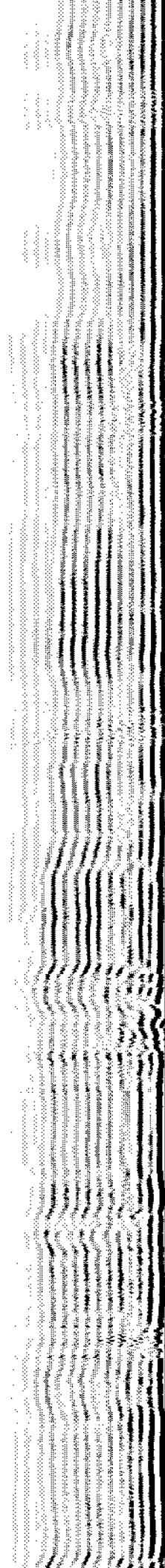
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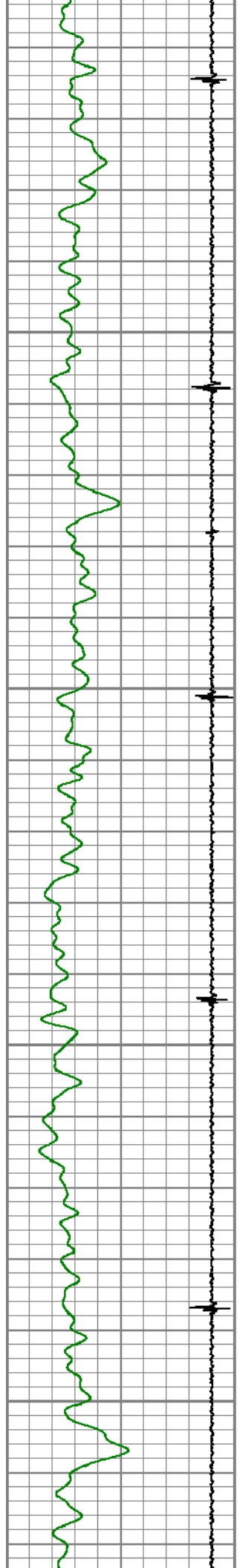
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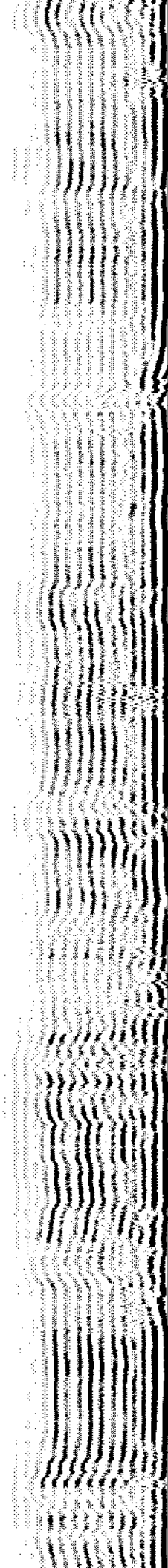
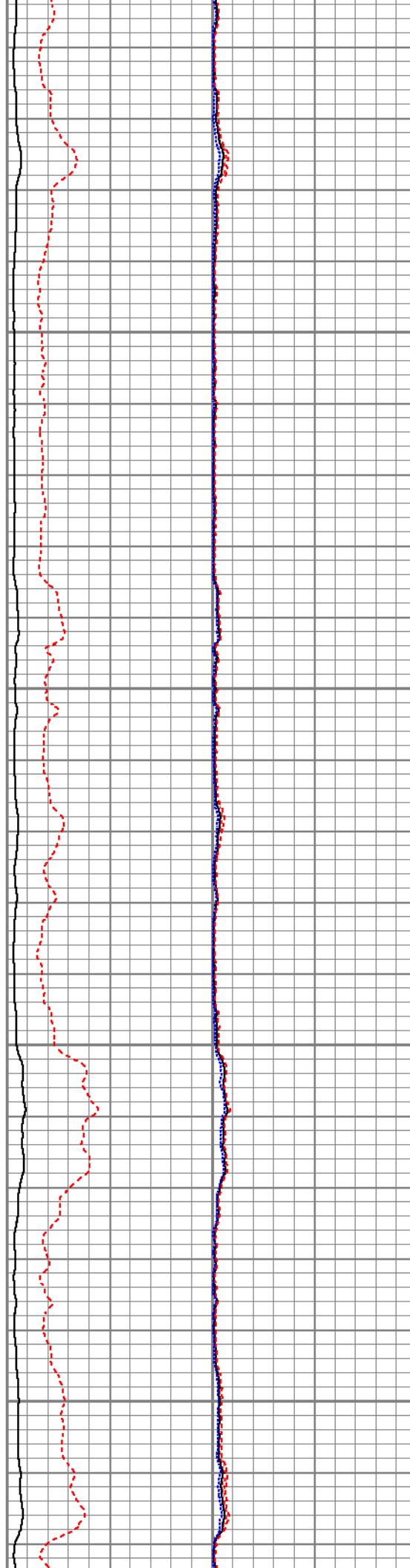


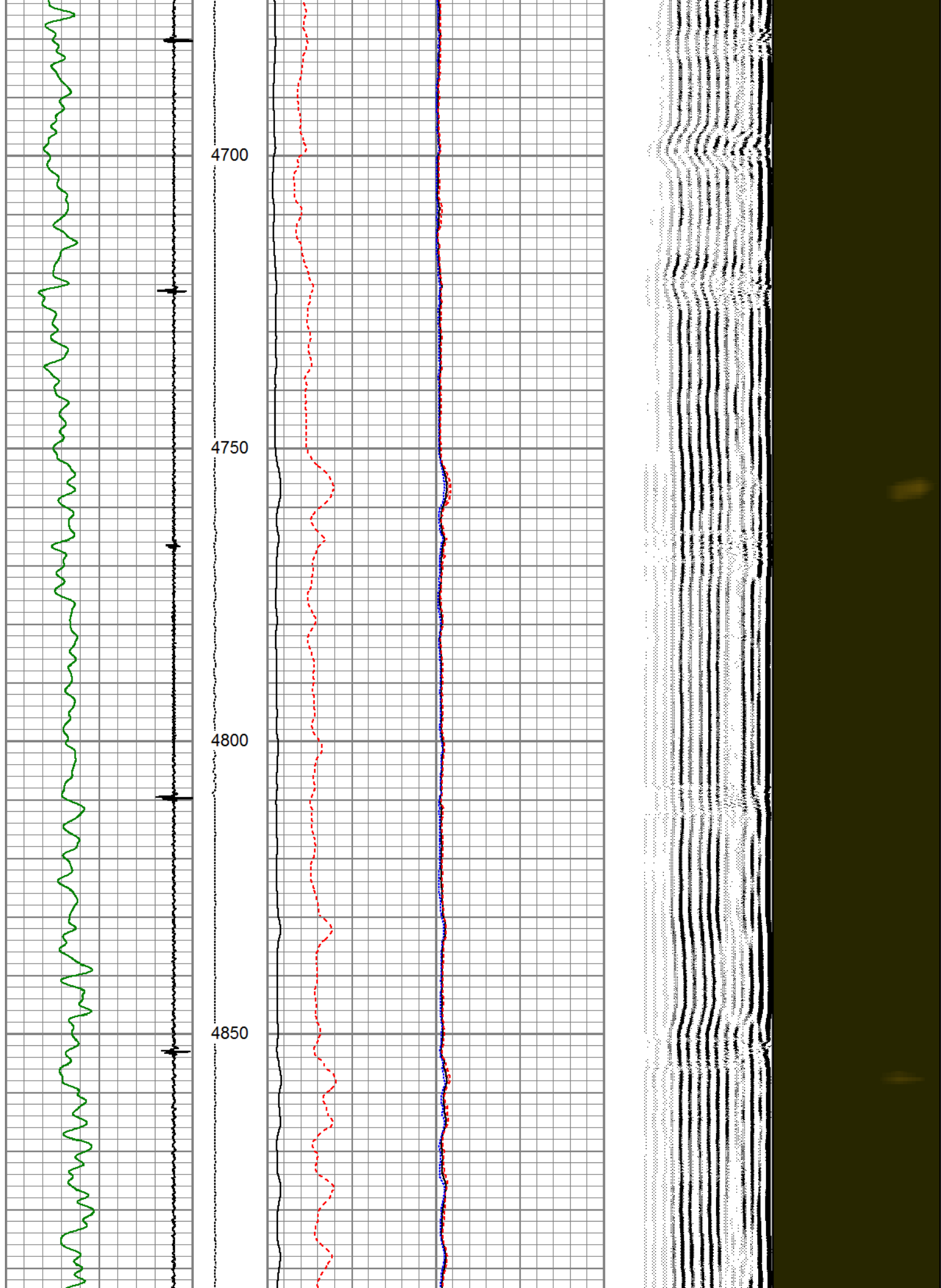
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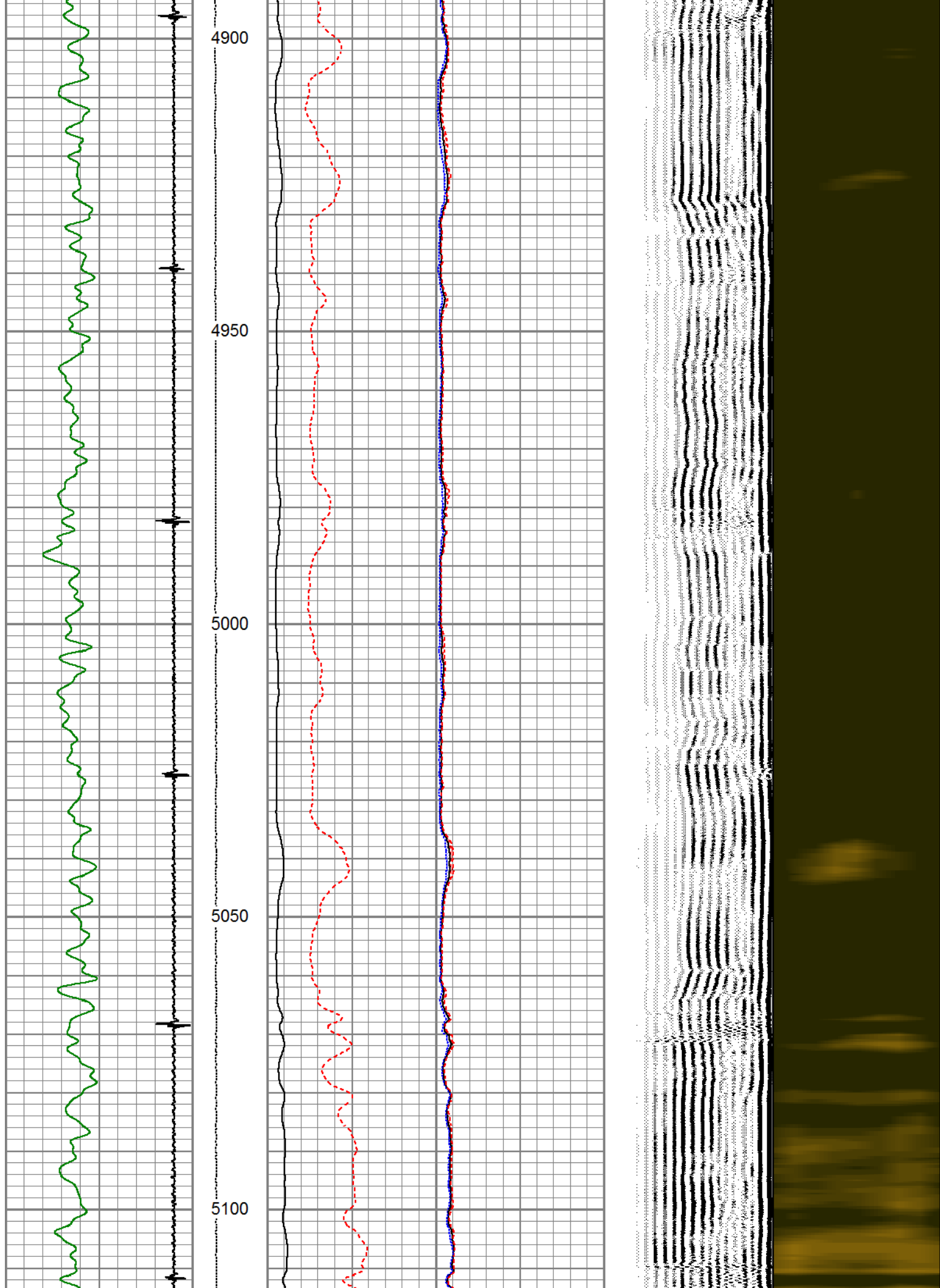
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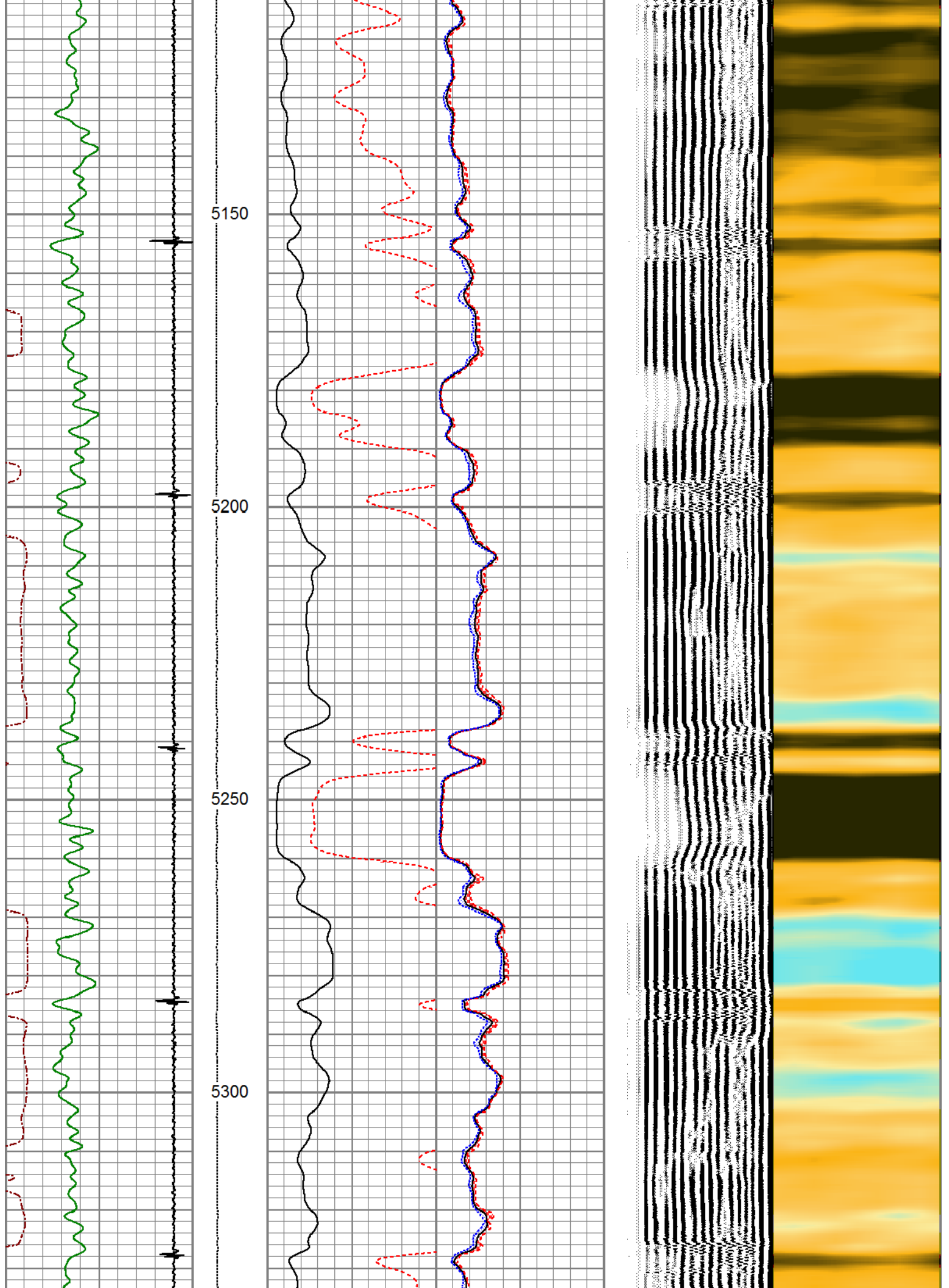
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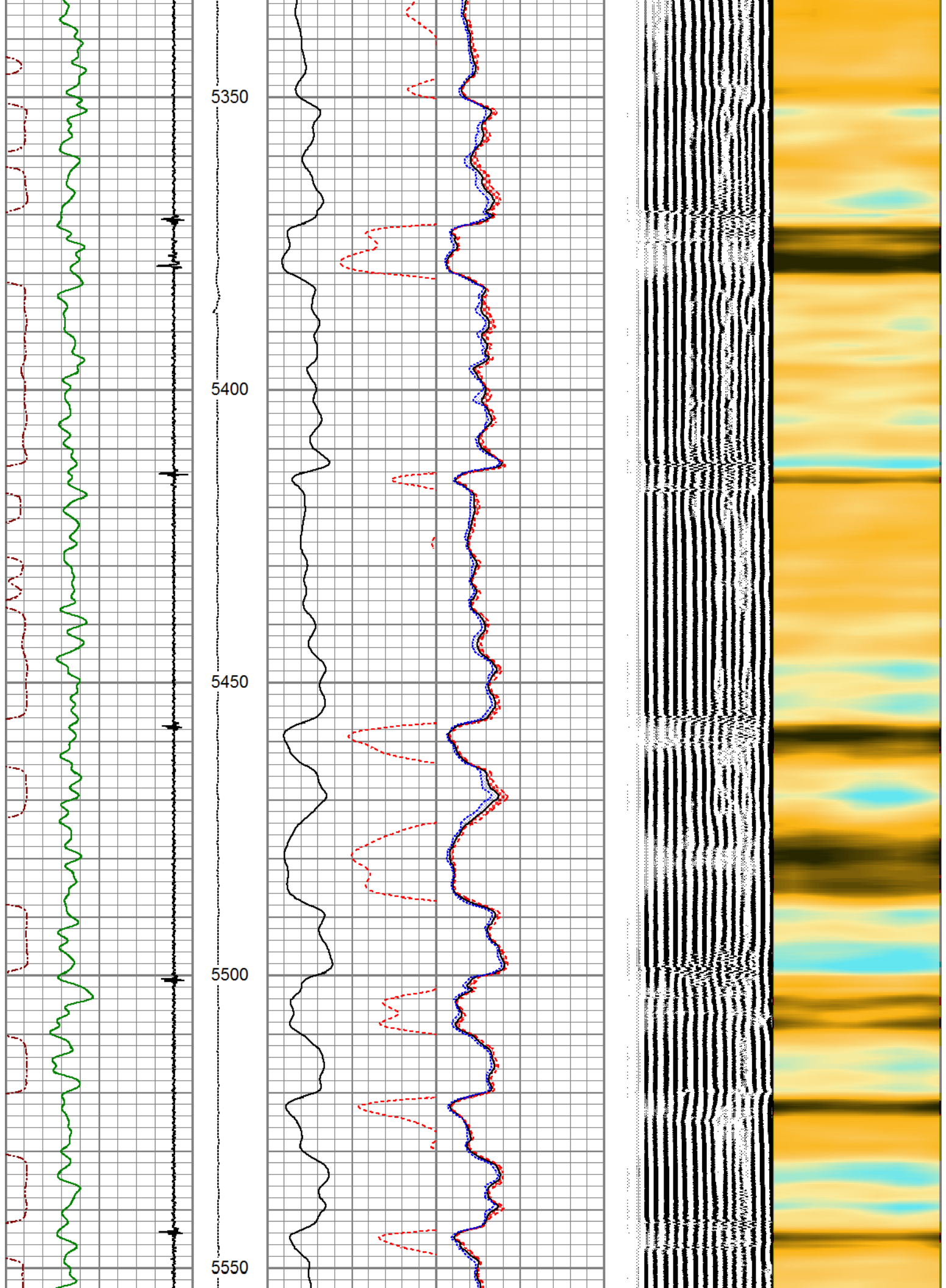
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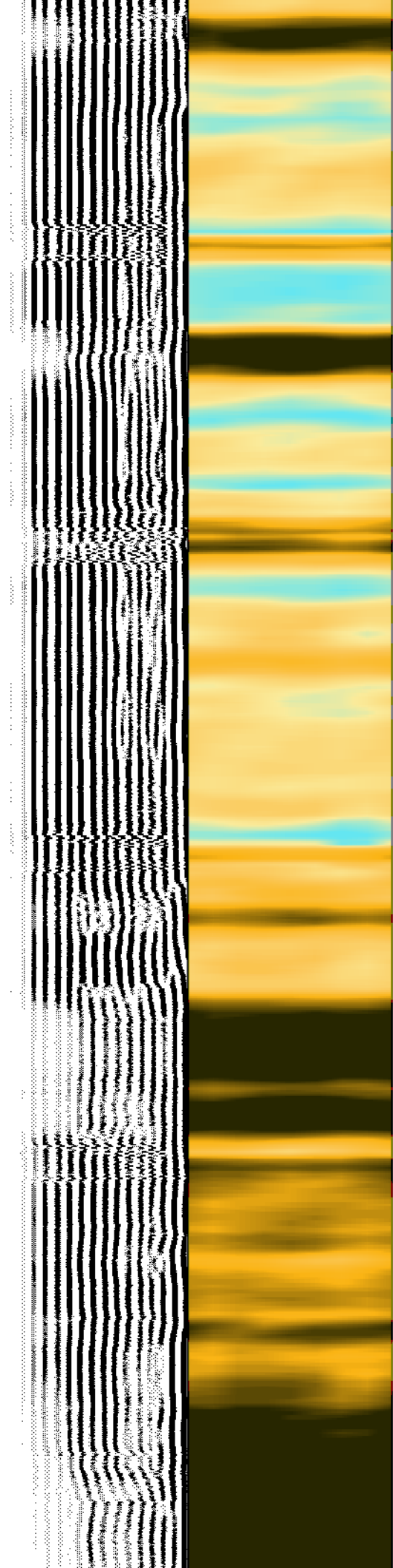
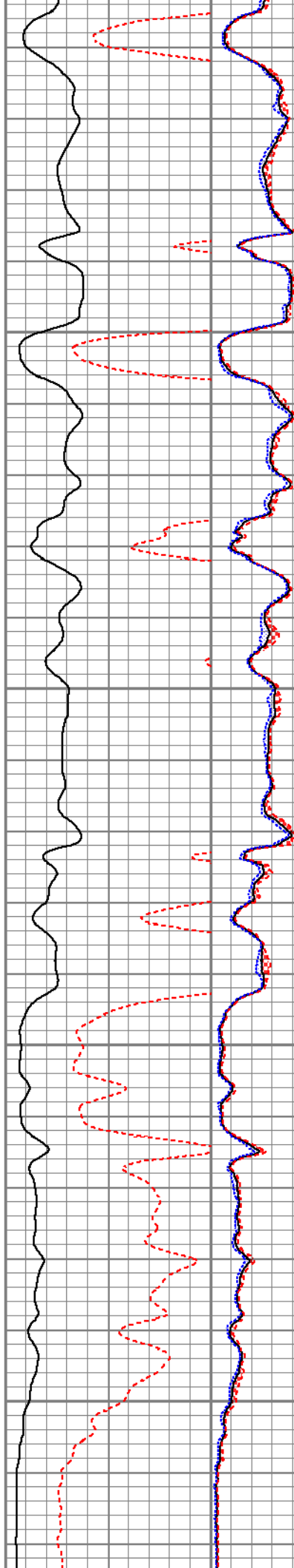
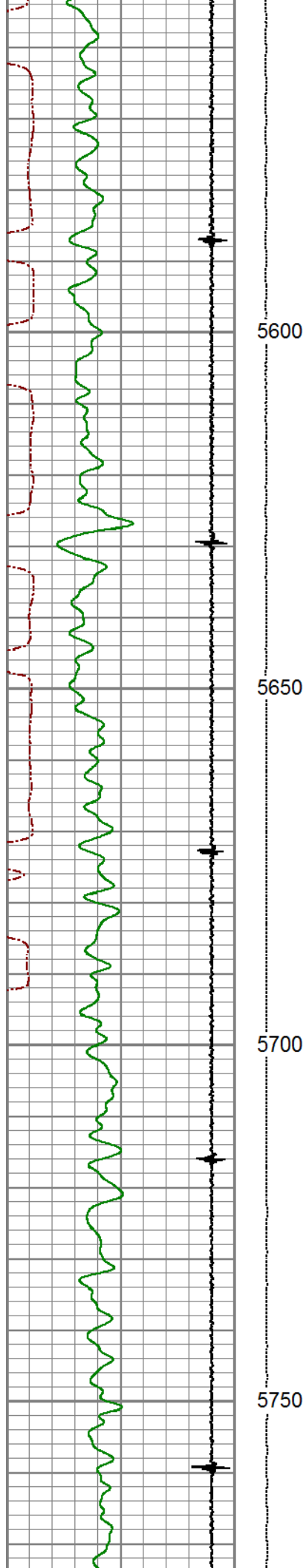


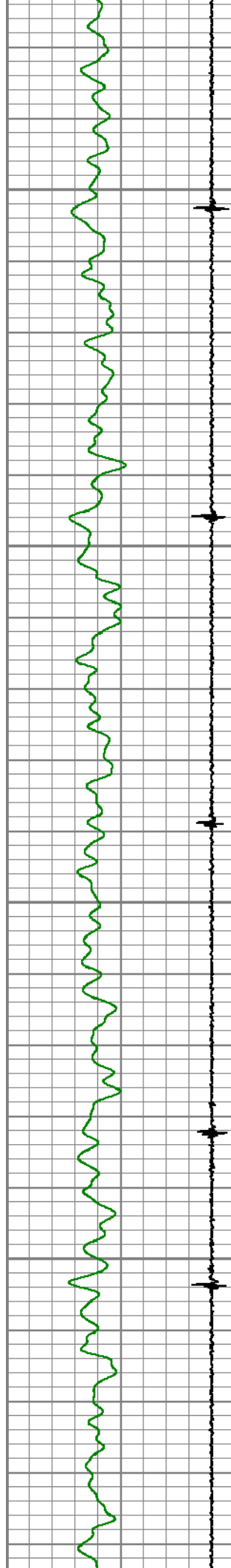










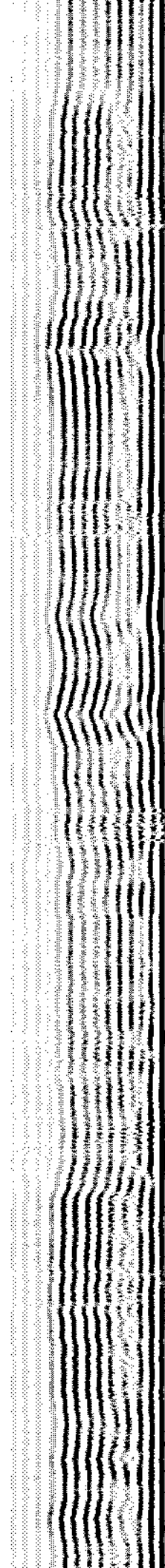
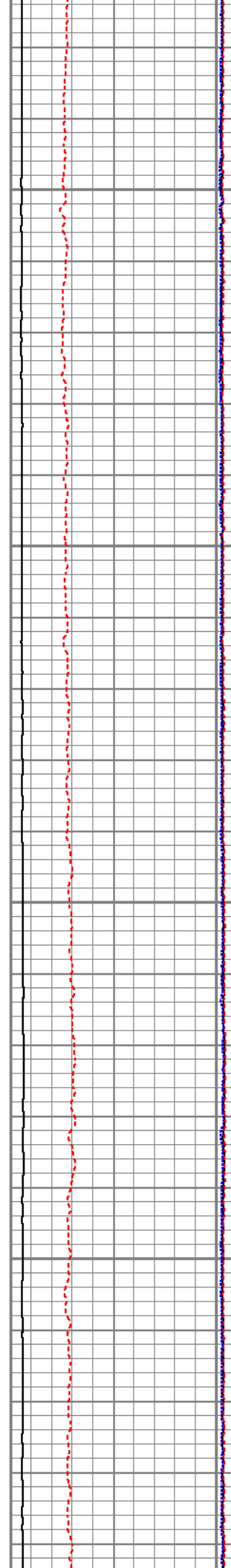


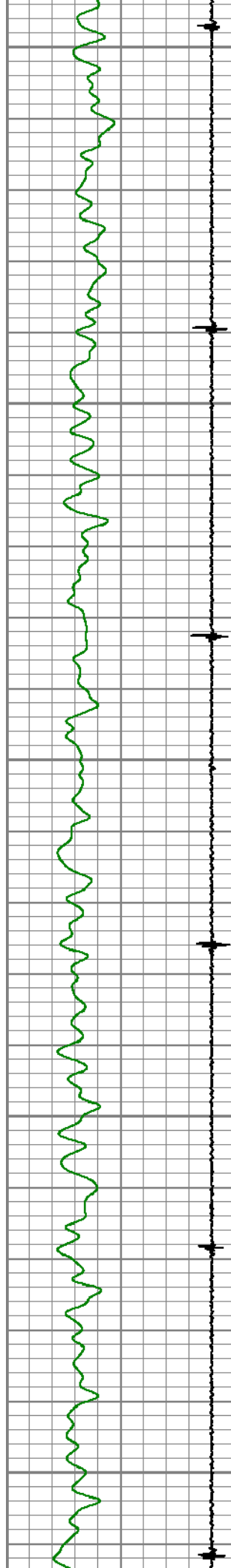
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5950





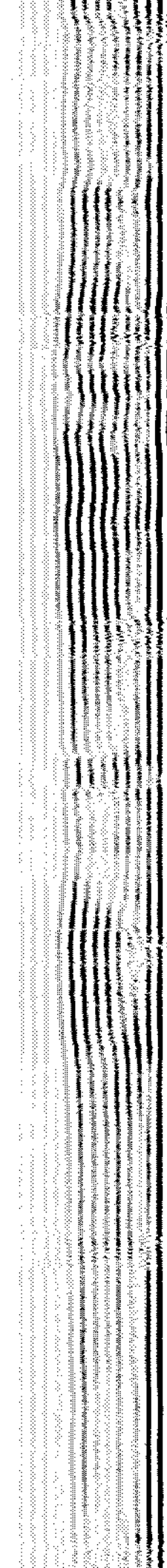
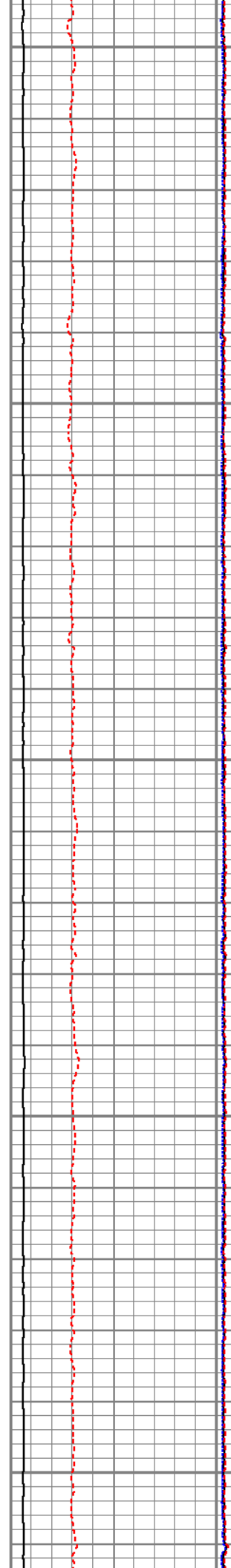
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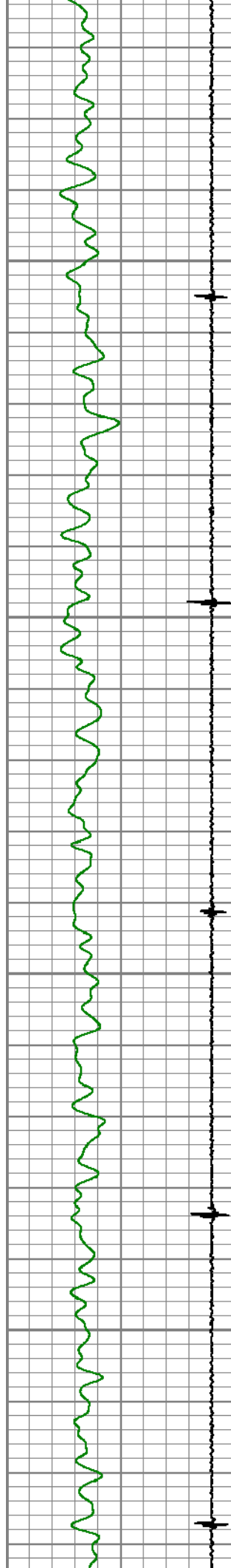
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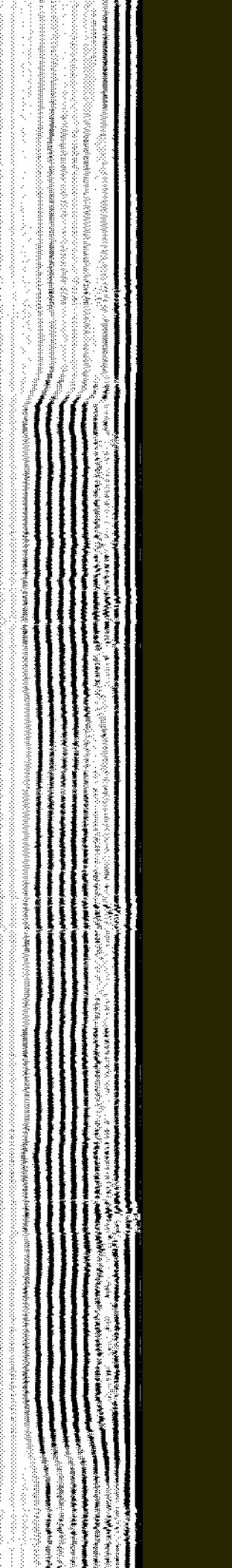
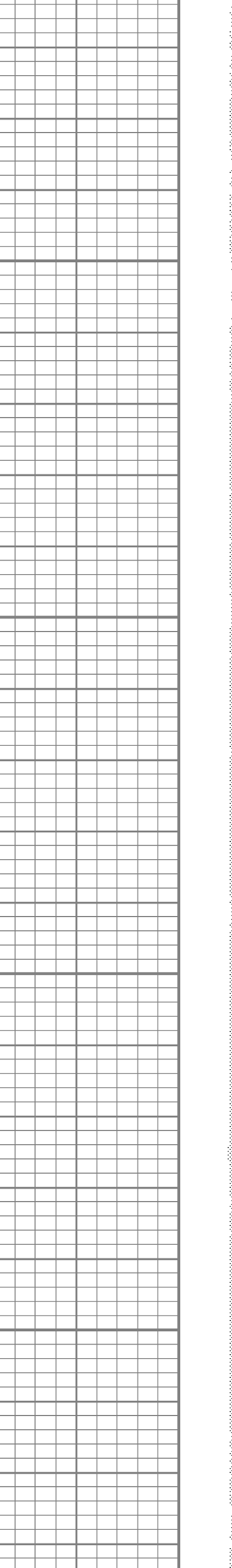
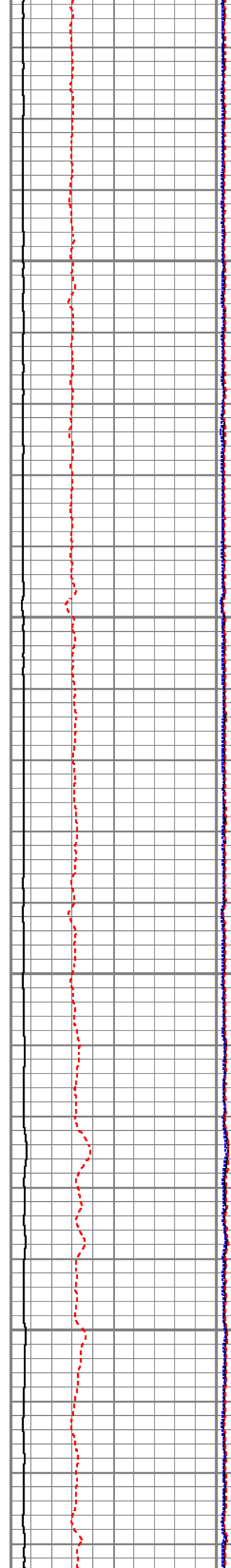


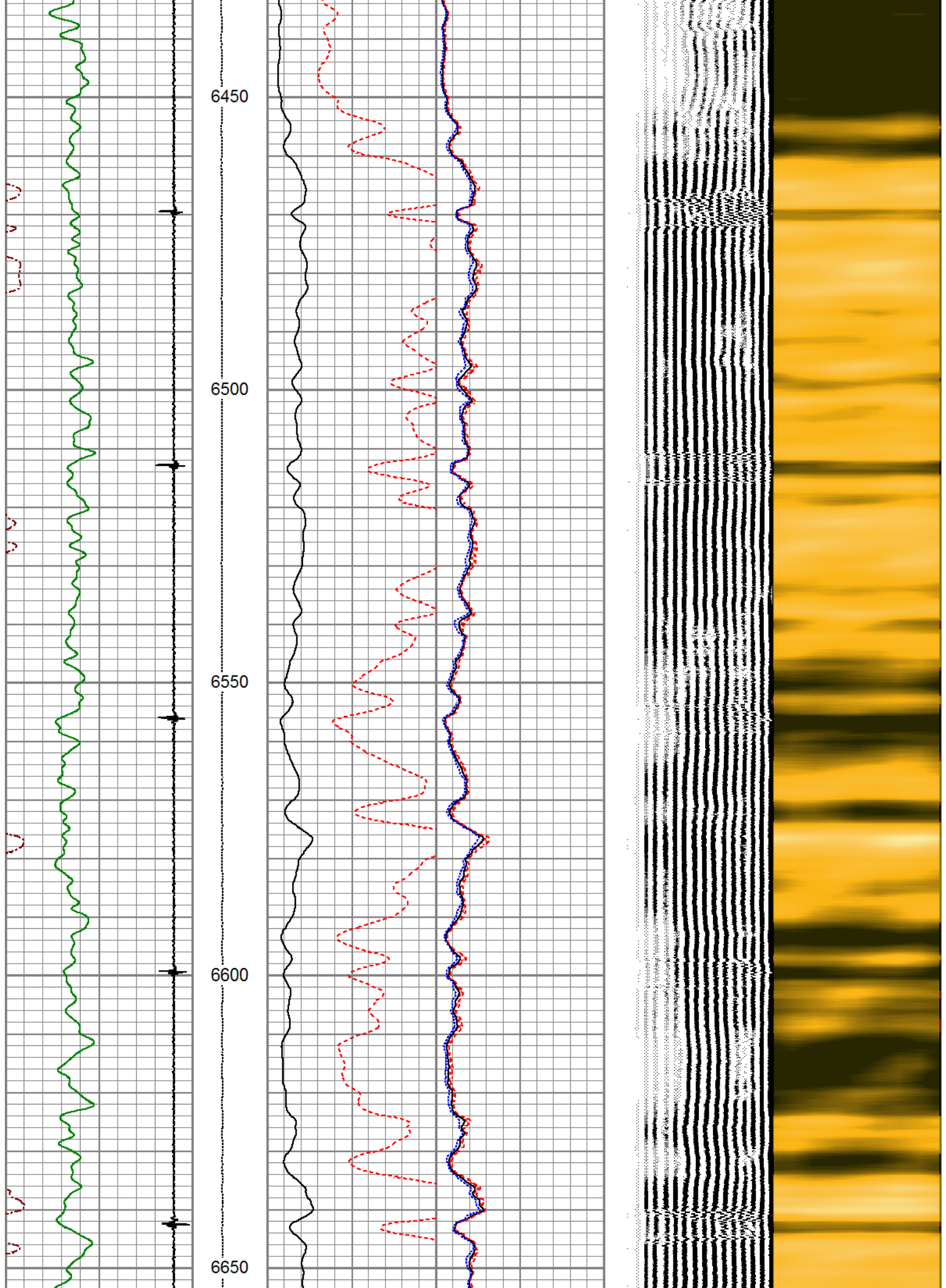
6250

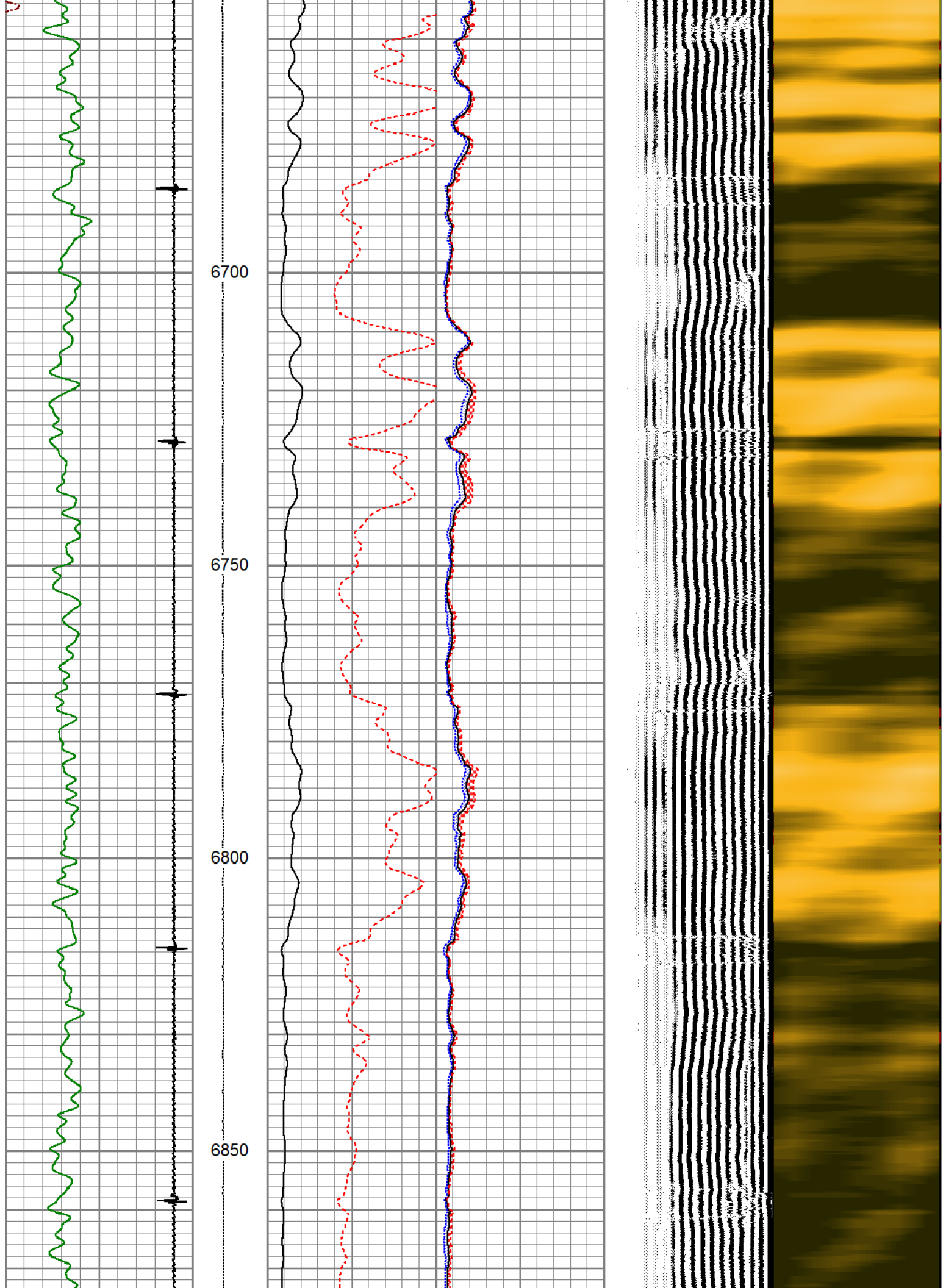
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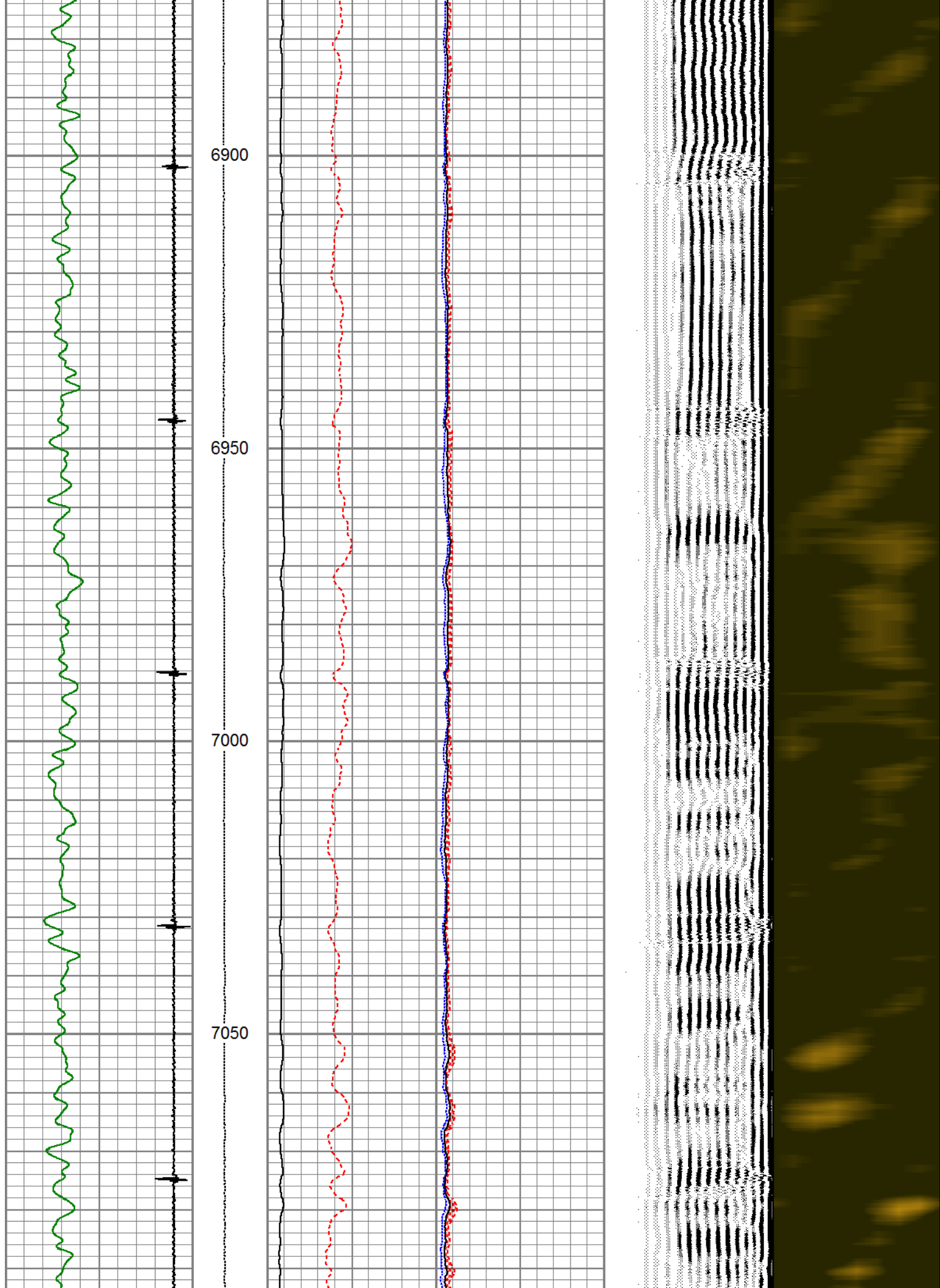
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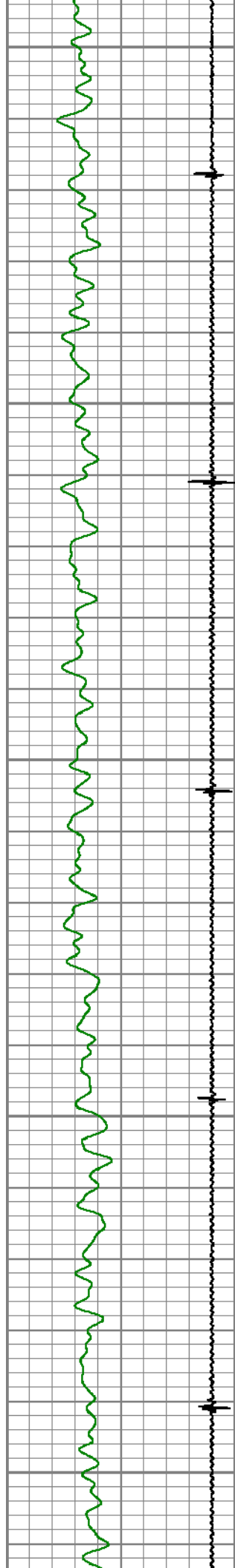
6400











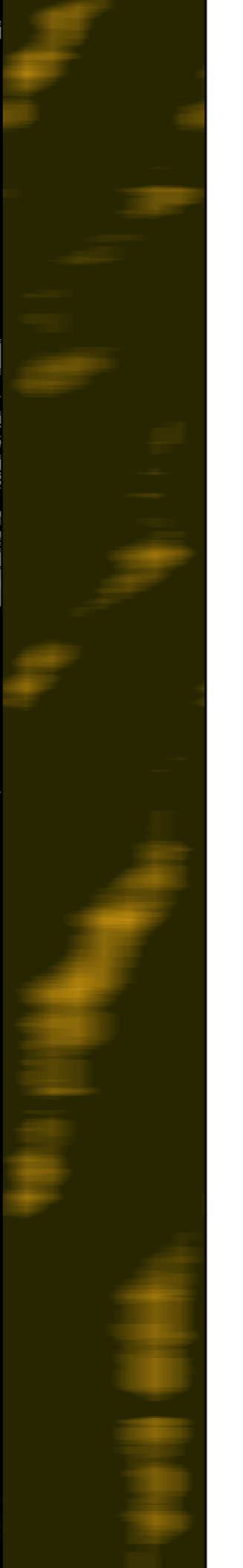
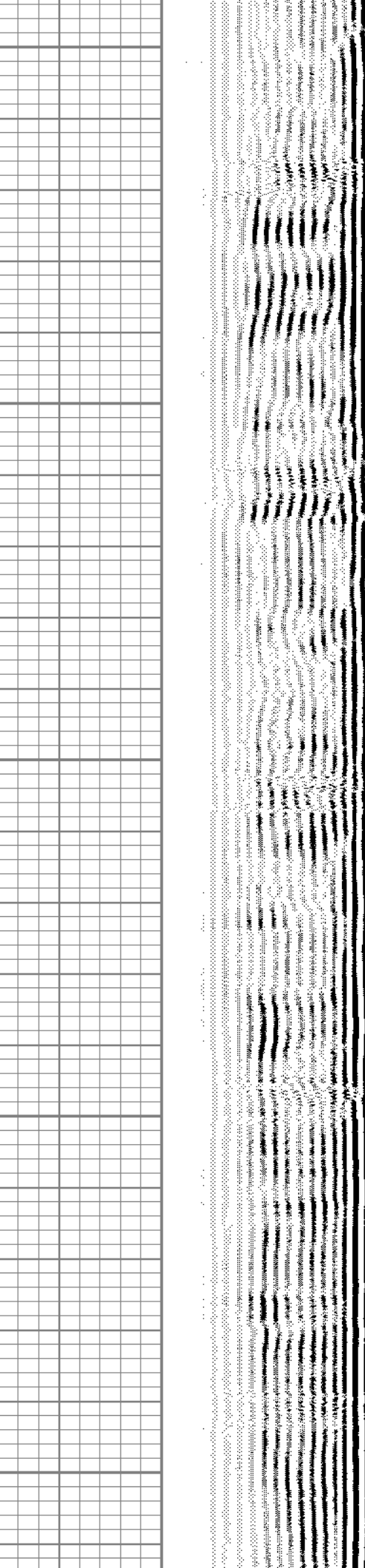
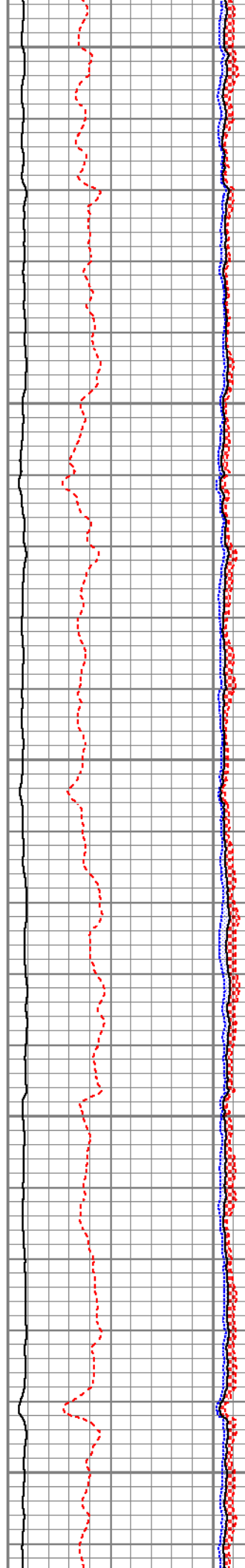
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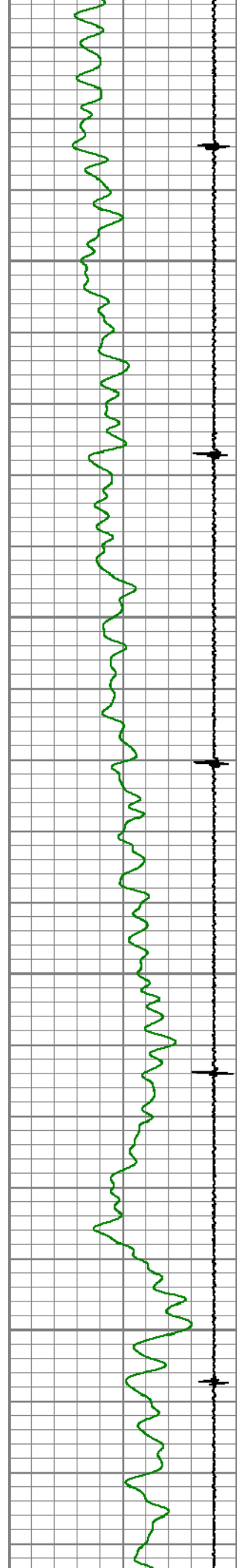
7150

7200

7250

7300



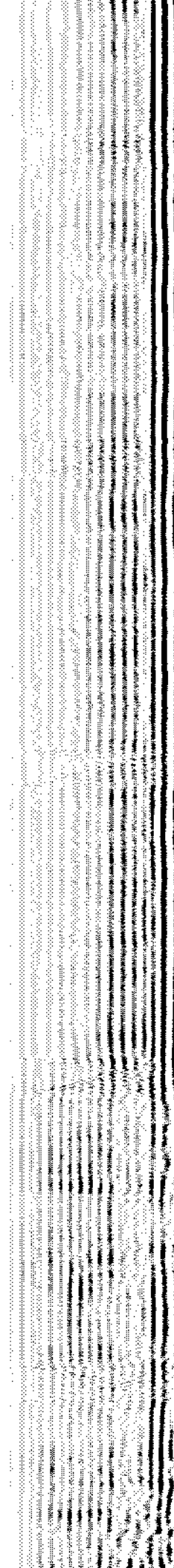
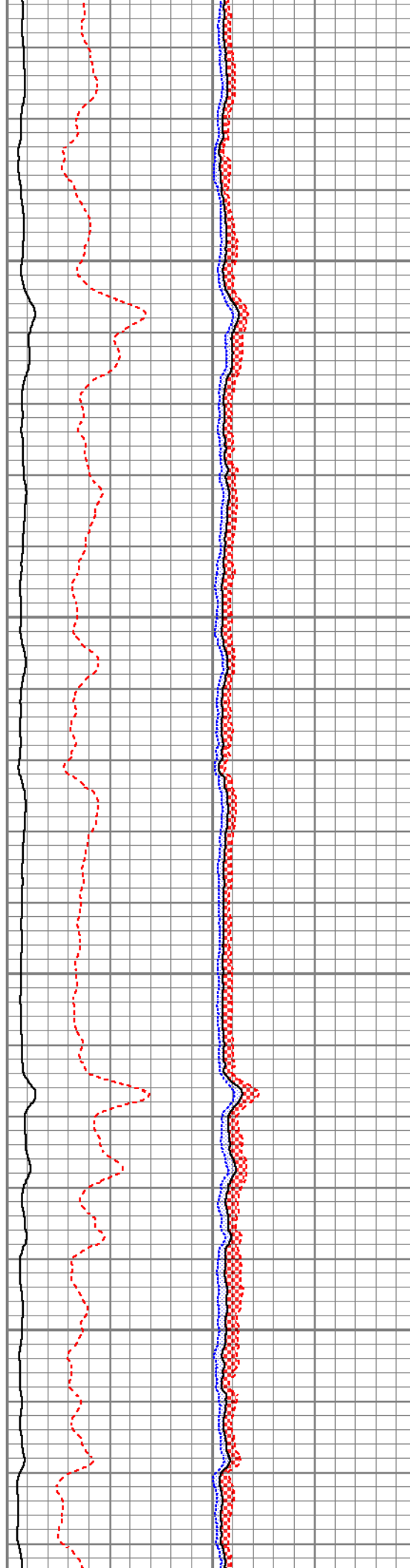


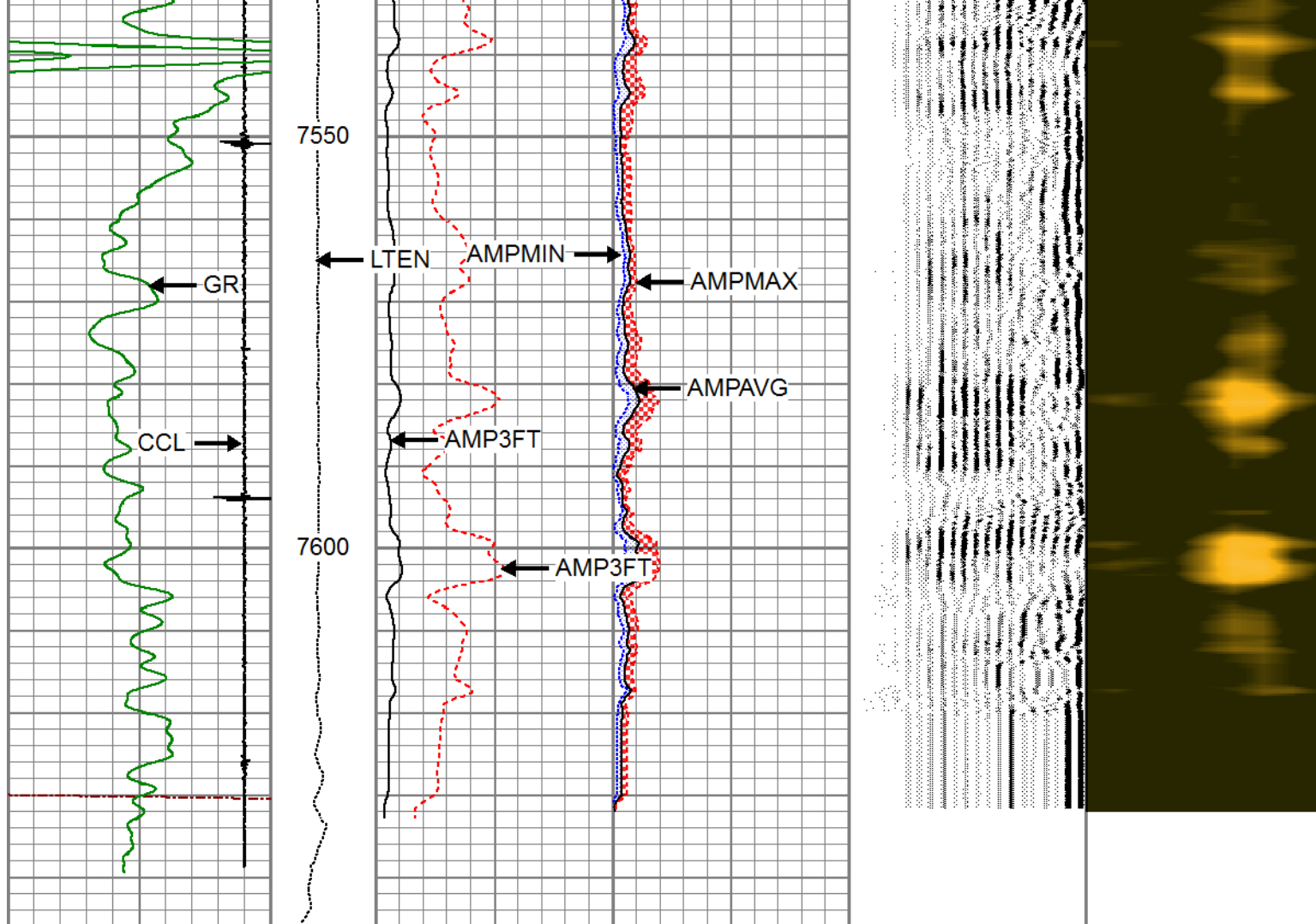
7350

7400

7450

7500





3Ft Travel Time 300 (usec) 200	LTEN (lb)	3' Amplitude 0 (mV) 100	Sector Amplitude Average	VDL (usec) 1200	1 Sector Map 8
-9 Collar Locator 1	0 4000	3' Amplified Amplitude X 5	0 150		
Gamma Ray 0 (GAPI) 150		0 (mV) 20	Sector Amplitude Maximum		
			0 150		
			Sector Amplitude Minimum		
			0 150		



MAIN LOG

ZERO PSI APPLIED AT SURFACE

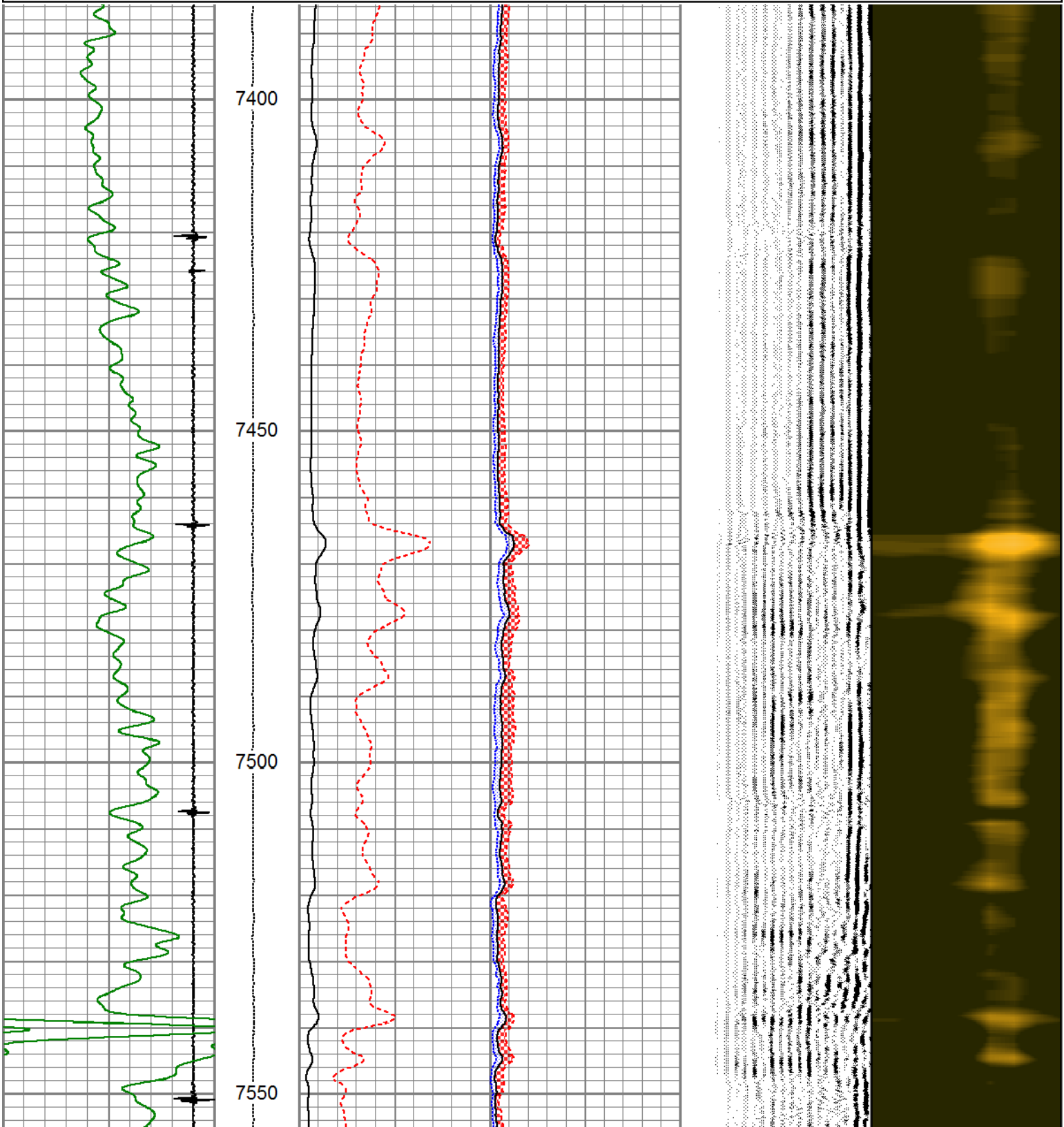


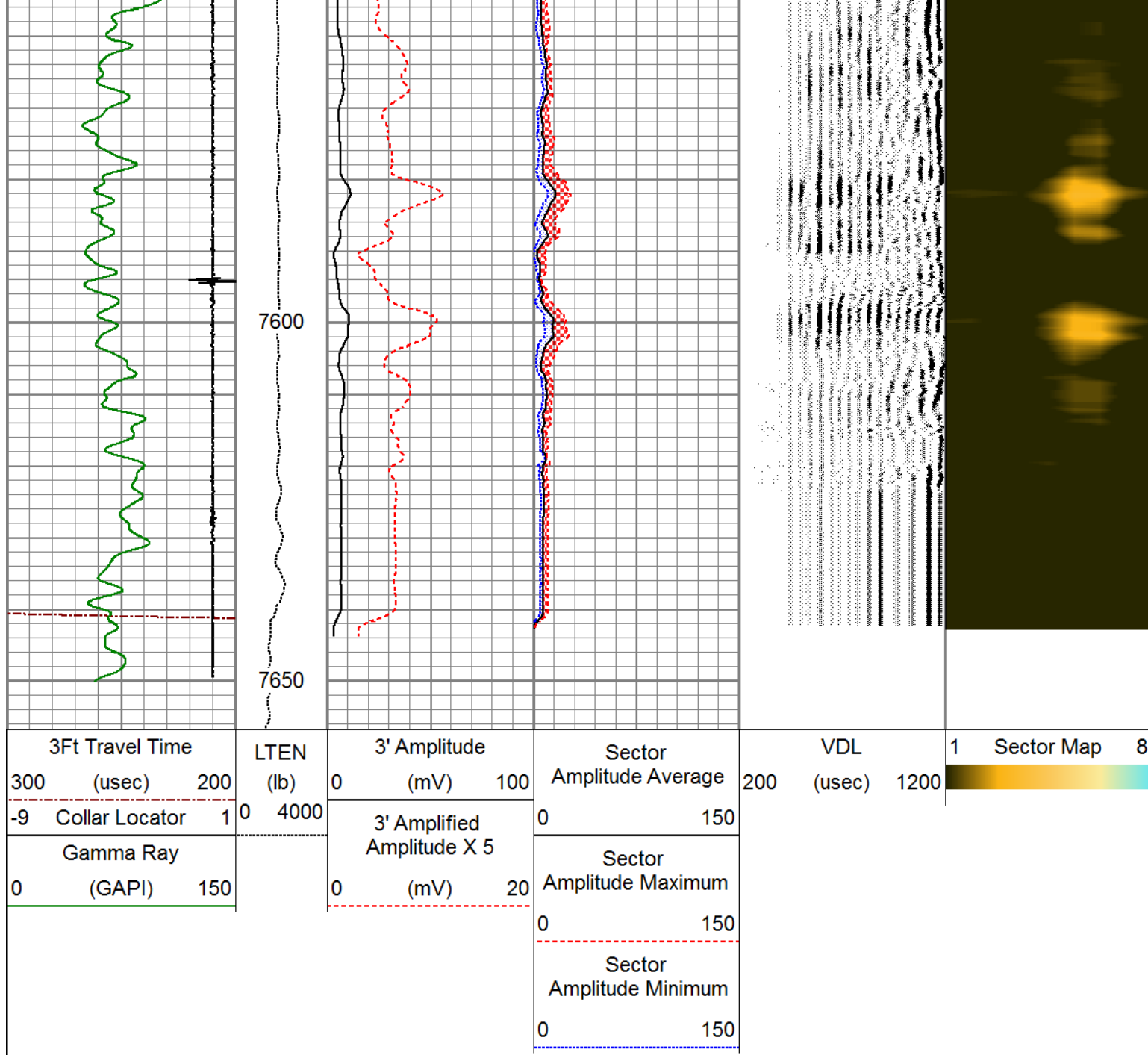
REPEAT SECTION

ZERO PSI APPLIED AT SURFACE

Database File	highpoint_critter creek 16-6302be_0512347295_20181204_scbl.db
Dataset Pathname	pass2.1
Presentation Format	pinr_scbl
Dataset Creation	Tue Dec 04 18:20:15 2018
Charted by	Depth in Feet scaled 1:240

3Ft Travel Time			LTEN (lb)	3' Amplitude		Sector	VDL		1	Sector Map	8		
300	(usec)	200		0	(mV)	100	Amplitude Average	200				(usec)	1200
-9	Collar Locator	1		3' Amplified Amplitude X 5		0	150						
Gamma Ray		0		0		(mV)	20	Sector Amplitude Maximum				0	150
0	(GAPI)			150									
					Sector Amplitude Minimum		0	150					





Calibration Report		
Database File	highpoint_crtter creek 16-6302bw_0512347347_20181204_scbl.db	
Dataset Pathname	pass2	
Dataset Creation	Tue Dec 04 13:56:41 2018	
Gamma Ray Calibration Report		
Serial Number:	080629	
Tool Model:	275 Probe	
Performed:	Mon Dec 03 02:24:27 2018	
Calibrator Value:	1.0	GAPI
Background Reading:	0.0	cps
Calibrator Reading:	1.0	cps
Sensitivity:	0.6800	GAPI/cps

Serial Number:	FW1401-41-T		
Tool Model:	RBL-DC		
Calibration Casing Diameter:	7.000	in	
Calibration Depth:	384.524	ft	

Master Calibration, performed Tue Dec 04 13:56:22 2018:

	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3'	-0.008	1.031	1.000	62.165	58.870	1.492
CAL	-0.006	1.496				
5'	0.043	1.163	1.000	62.165	54.601	-1.359
SUM						
S1	0.031	1.069	0.000	100.000	96.373	-2.999
S2	0.001	1.053	0.000	100.000	95.045	-0.122
S3	0.004	1.042	0.000	100.000	96.366	-0.368
S4	0.005	1.014	0.000	100.000	99.113	-0.541
S5	0.006	0.994	0.000	100.000	101.195	-0.557
S6	0.005	0.982	0.000	100.000	102.339	-0.517
S7	0.002	0.998	0.000	100.000	100.407	-0.237
S8	-0.000	1.037	0.000	100.000	96.456	0.016

Air Zero Calibration, performed Thu Nov 29 15:24:07 2018:

	Raw (v)		Calibrated (v)		Results	
	Zero		Zero		Offset	
3'	0.000		0.000			0.000
5'	0.000		0.000			0.000
SUM						
S1	0.000		0.000			0.000
S2	0.000		0.000			0.000
S3	0.000		0.000			0.000
S4	0.000		0.000			0.000
S5	0.000		0.000			0.000
S6	0.000		0.000			0.000
S7	0.000		0.000			0.000
S8	0.000		0.000			0.000



Company	HIGHPOINT OPERATING CORP.
Well	CRITTER CREEK 16-6302BE
Field	HEREFORD
County	WELD
State	COLORADO