



**RADIAL BOND LOG
WITH GAMMA RAY**

Comp. ANADARKO PETROLEUM CORP.
Well REIGLE 32-4
Field WATTENBERG
Co. WELD
State COLORADO

Company **ANADARKO PETROLEUM CORP.**
Well **REIGLE 32-4**
Field **WATTENBERG**
County **WELD** State **COLORADO**

Location: API #: 05-123-32632
2299' FNL & 2514' FWL
SEC 4 TWP 2N RGE 65W
SE NW
Permanent Datum GL Elevation 4860'
Log Measured From KB 16' Above Perm. Datum
Drilling Measured From KB
Other Services
NONE
Elevation
K.B. 4876'
D.F. N/A
G.L. 4860'

Date of Service	08 APRIL 2019			
Run Number	ONE			
Depth Driller or P8TD	4460'			
Depth Logger	4458'			
Bottom Log Interval	4458'			
Top Log Interval	SURFACE			
Open Hole Size	7.875			
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-132			
Wireline Size	9/32			
Location	FORT MORGAN			
Recorded By	SCHOENROGGE			
Witnessed By	MR. MONTELONGO			
Tubing Record	Size	WV/Ft	Top	Bottom
Surface Casing	8.625"		SURFACE	728'
Production Casing	4.5"		SURFACE	7918'
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.
PROBE S/N 070151 CALIBRATED ON 03/05/2019
DEPTHS ARE WIRELINE
NO FREE PIPE PASS

THANK YOU FOR USING PIONEER ENERGY SERVICES!

Your Pioneer Energy Services Crew	Tool Data - Services	Serial Number
Engineer: SCHOENROGGE / GRANT Operator: RYAN Operator: GABE Operator:	SEE DIAGRAM	PLUS OVERBODIES

Log Variables

Top - Bottom


BOREID in 7.875	BOTTEMP degF 130	CASEOD in 4.5	CASETHCK in 0.25	CASEWGHT lb/ft 11.6	MAXAMPL mV 81.2	MINAMPL mV 0.7
MINATTN db/ft 0.8	PERFS 0	PPT usec 249	SRFTEMP degF 50	TDEPTH ft 4500		


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 WVFS7 WVFS6 WVFS5 WVFS4 WVFS3 WVFS2 WVFS1 WVFCAL WVF3FT WVF5FT	9.27 9.27 9.27 9.27 9.27 9.27 9.27 9.27 9.27 9.27 8.27		PROBE-RBT-DIGITAL-RBL-D (070151) Probe 2 3/4" Radii Bond-Digital	8.75	2.75	100.00

CCL	4.21		PROBE-GR/CCL-DIGITAL-275 Probe GCT 4.75134) 2.75 Probe 2 3/4" Gamma Ray/Temp/CCL	2.75	60.00	
GCT_TEMP	3.42					
GR	2.83					
			Bullnose-PROBE Probe Go Pin Pressure Cap	0.33	1.38	1.00
Dataset:		anadarko_reigle 32-4_0512332632_20190408_scbl.db: field/well/run1/pass11.1				
Total length:		14.86 ft				
Total weight:		183.00 lb				
O.D.:		3.75 in				

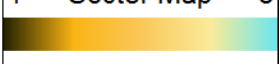


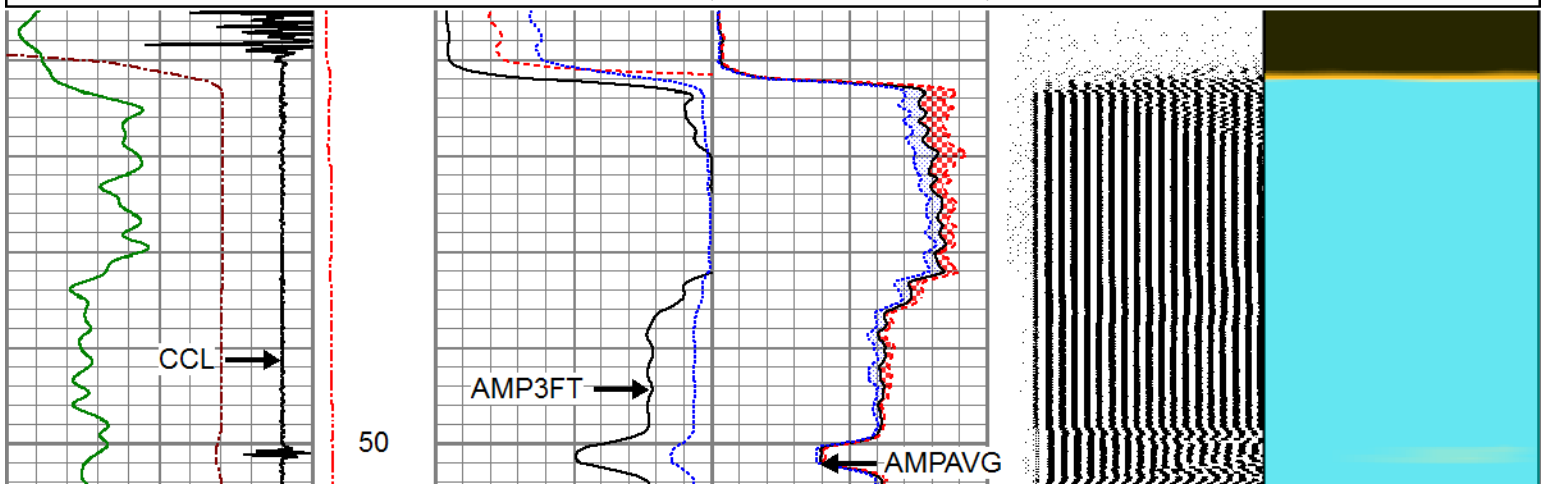
PIONEER
Pioneer Energy Services

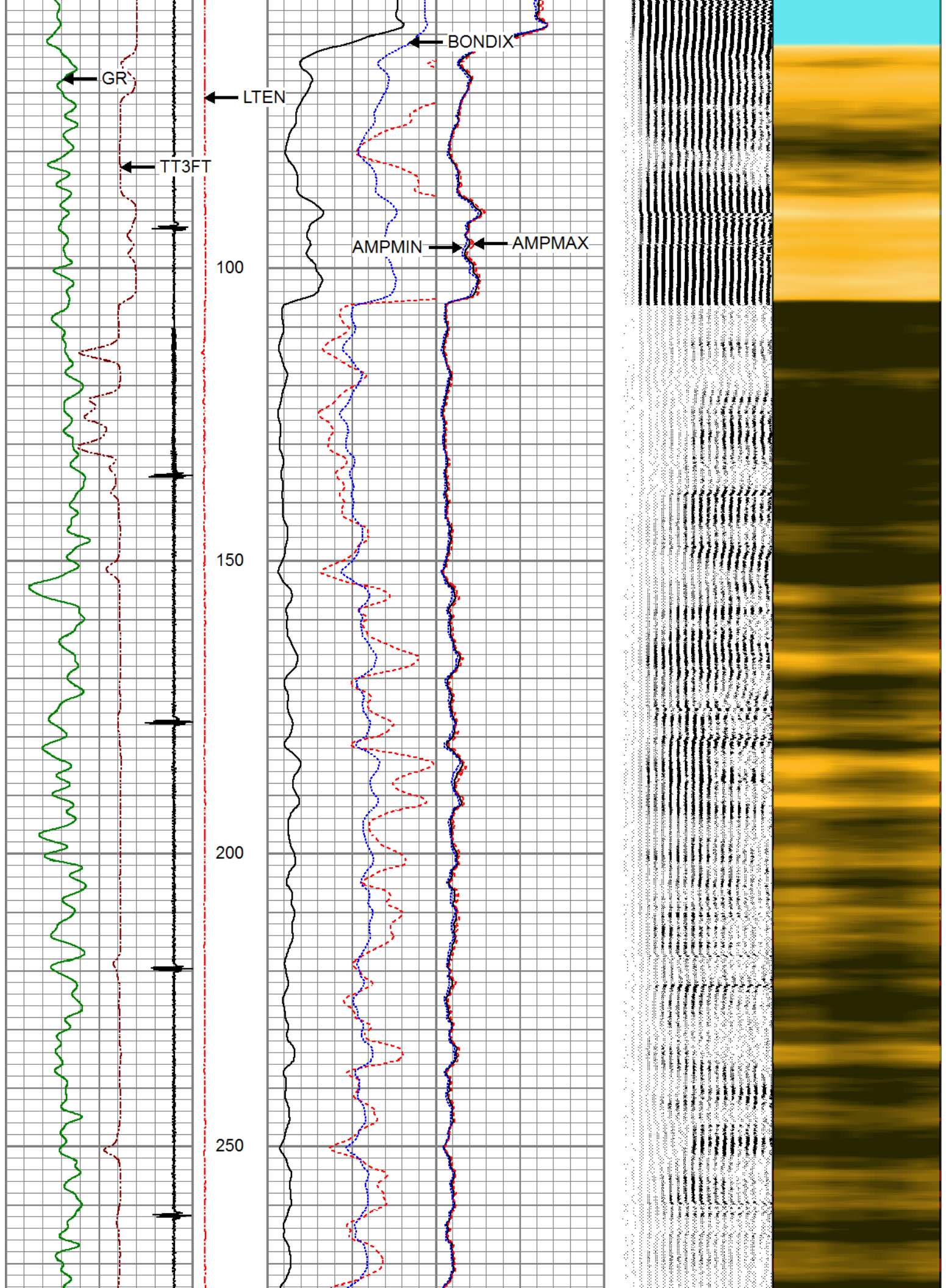
MAIN LOG

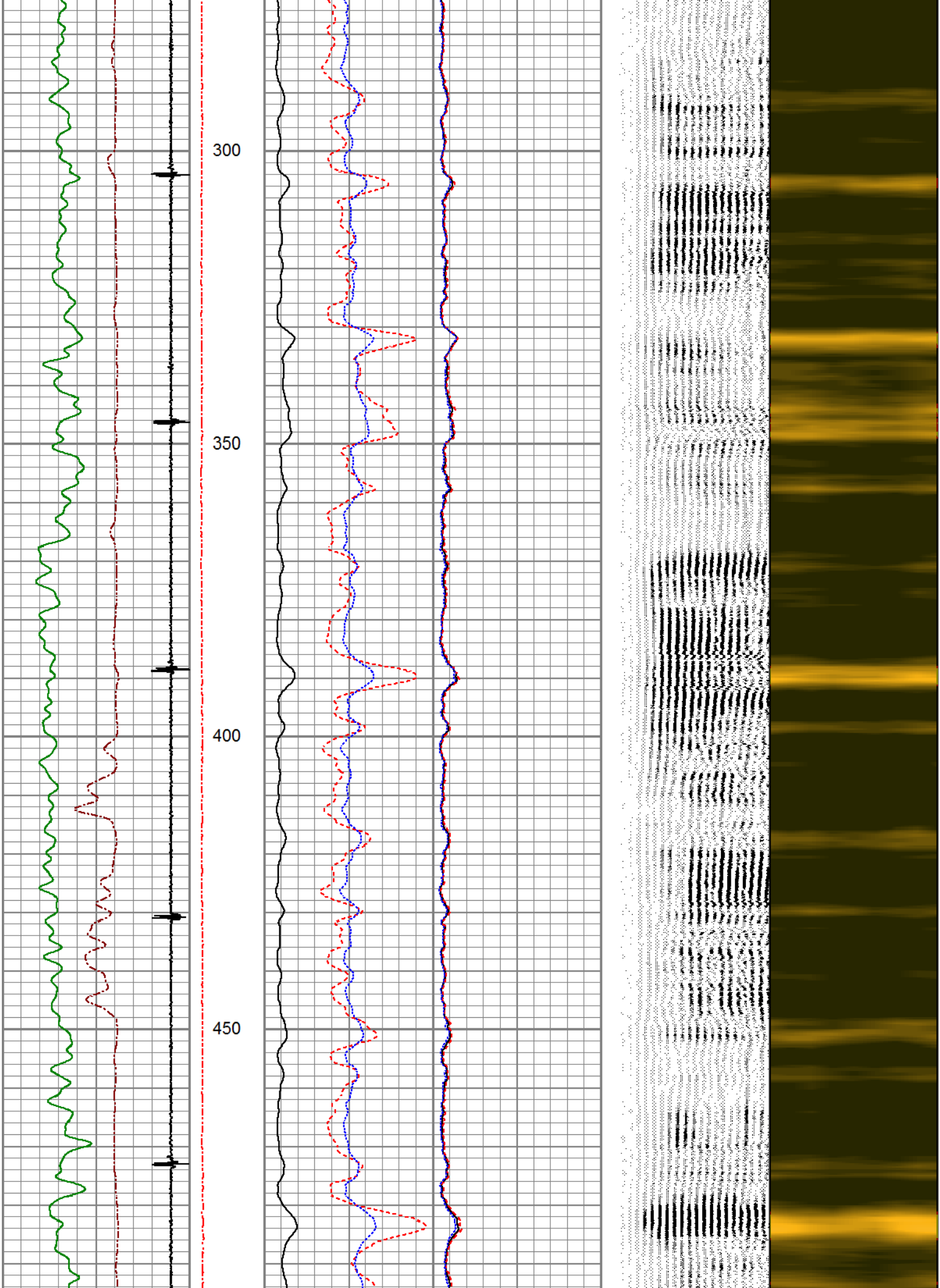
500 PSI APPLIED AT SURFACE

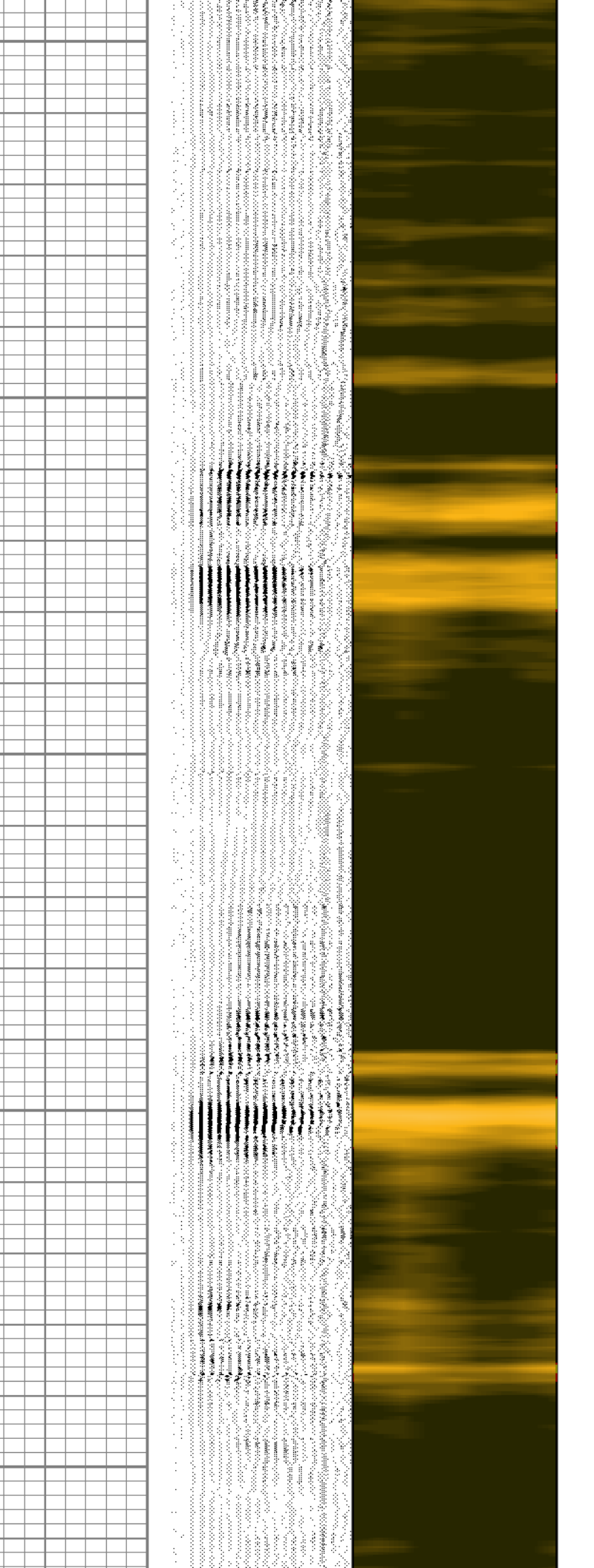
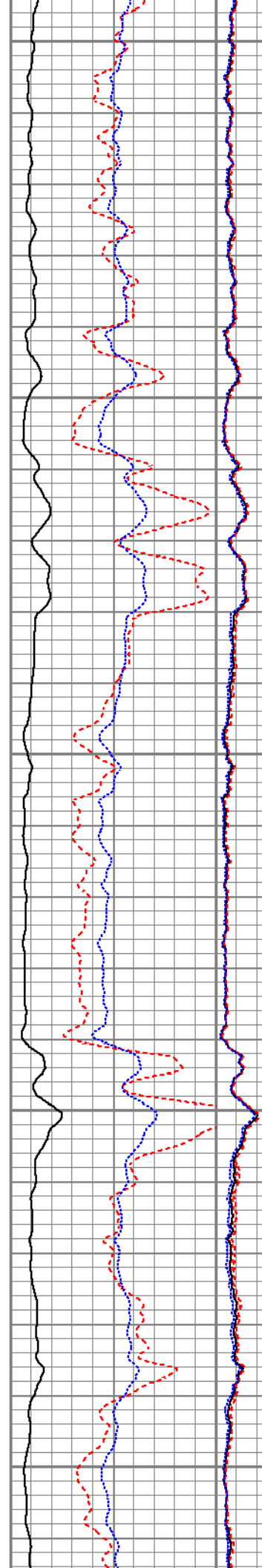
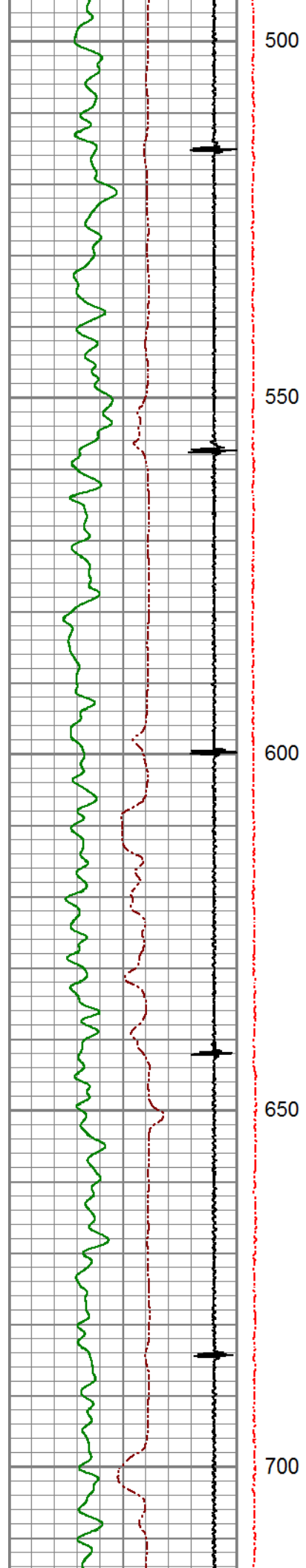
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Presentation Format	pinr_scbl
Dataset Creation	Mon Apr 08 16:45:41 2019
Charted by	Depth in Feet scaled 1:240

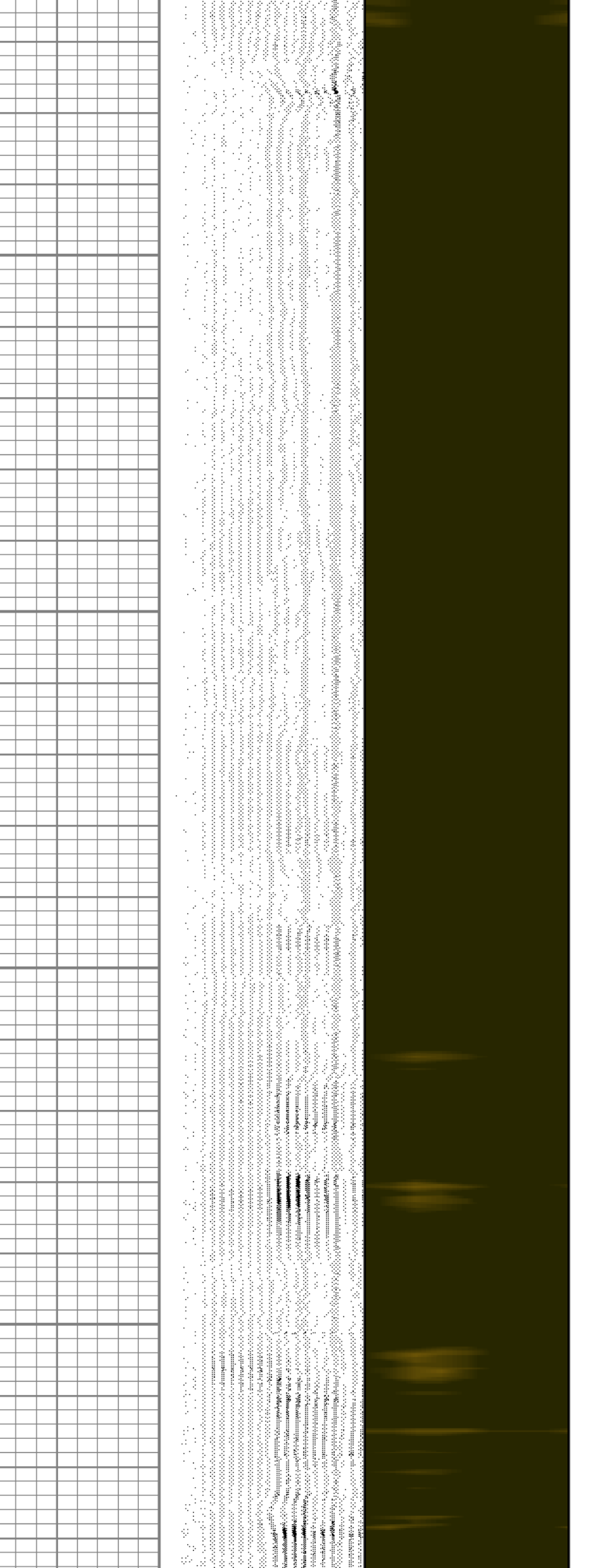
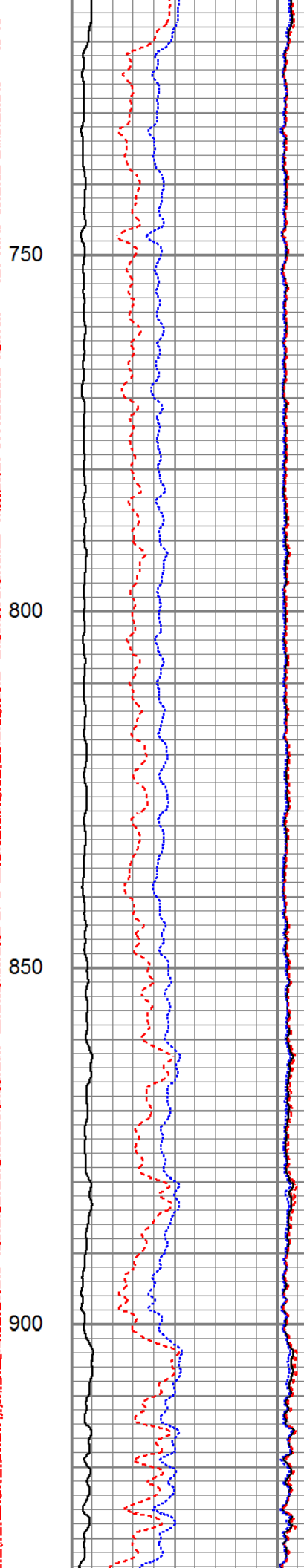
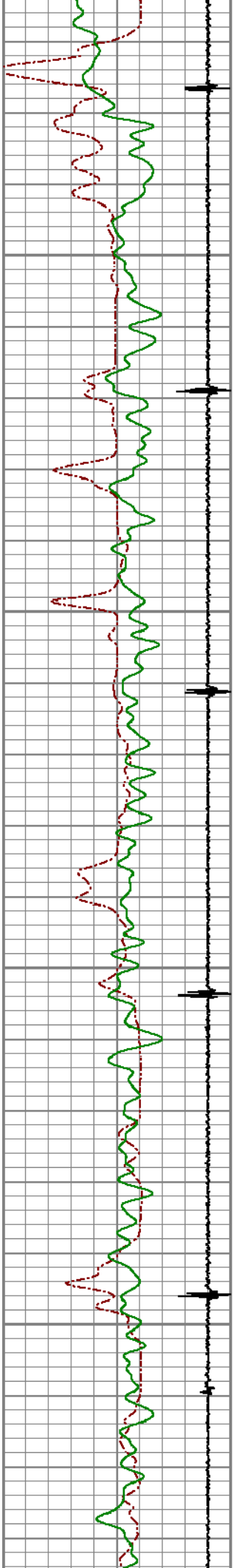
3Ft Travel Time 600 (usec) 100	ineTensio (lb) 0 2000	3' Amplitude 0 (mV) 100	Sector Amplitude Average	200	VDL (usec) 1200	1	Sector Map	8
-9 Collar Locator 1		3' Amplified Amplitude X 5	0 150	Sector Amplitude Maximum	0 150			
Gamma Ray 0 (GAPI) 150	0 (mV) 20	0 150	Sector Amplitude Minimum	0 150				
	1 Bond Index 0	0 150						

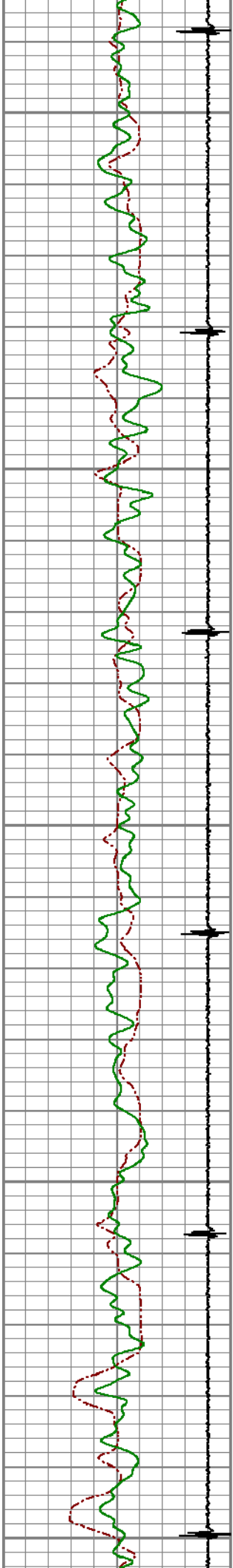




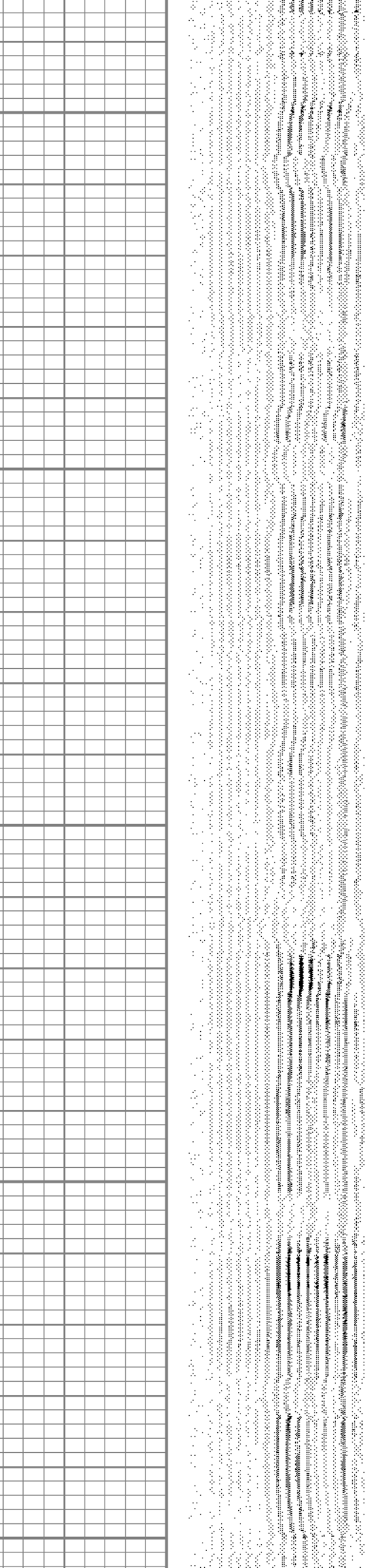
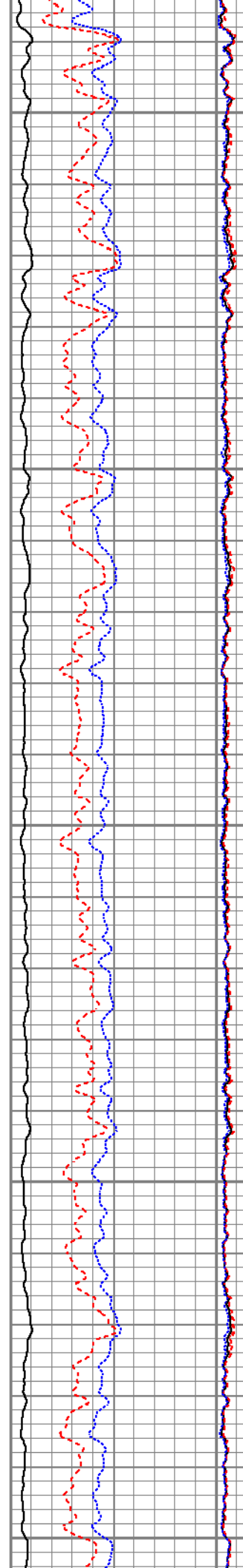


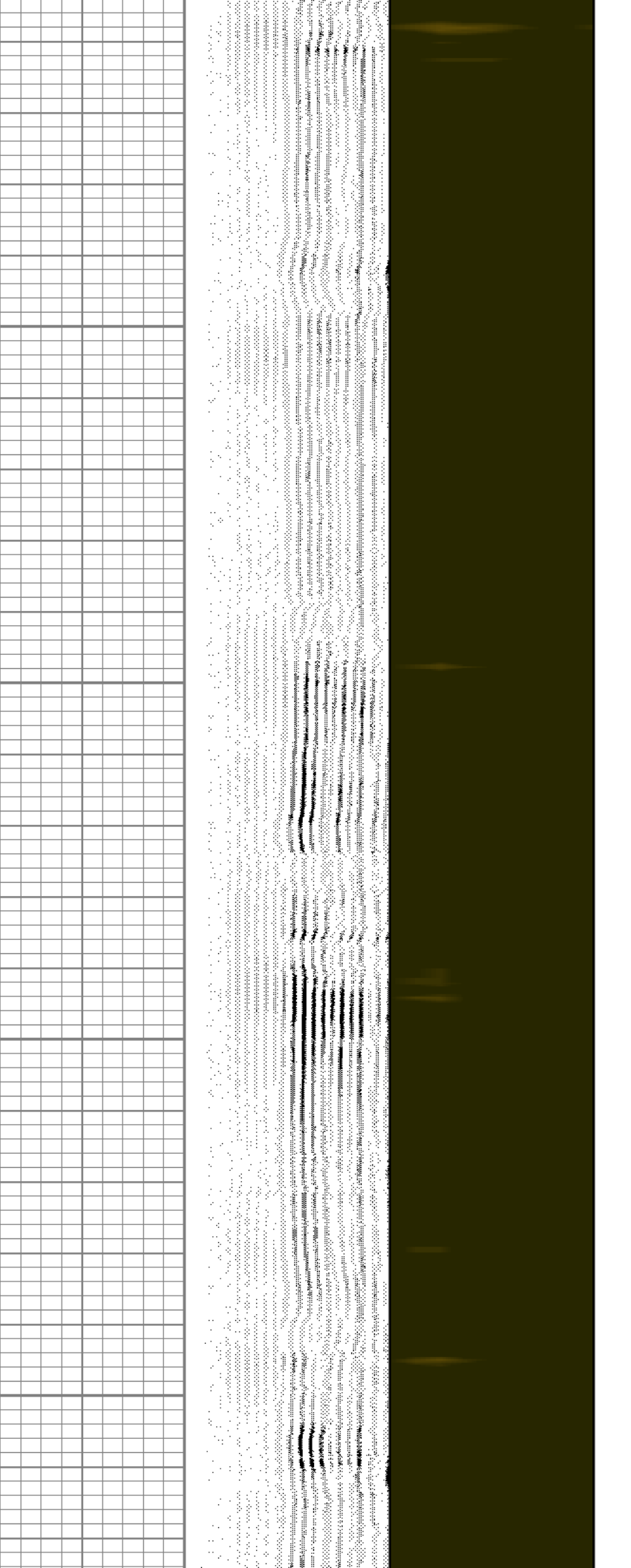
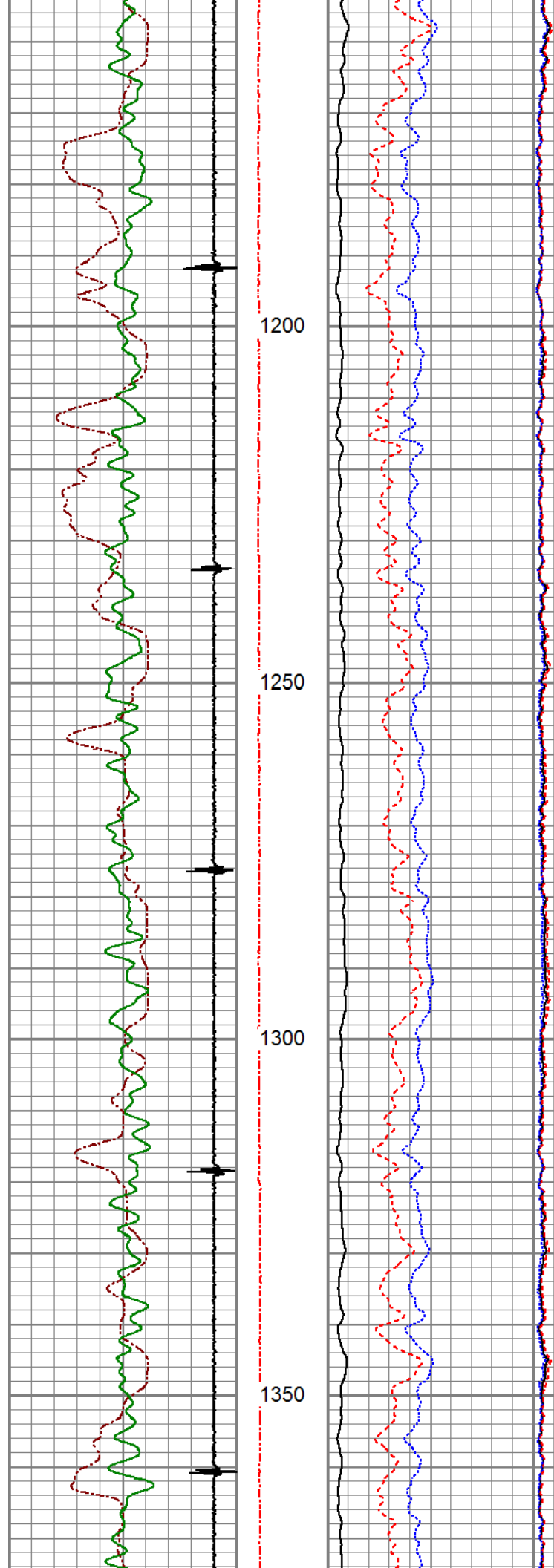


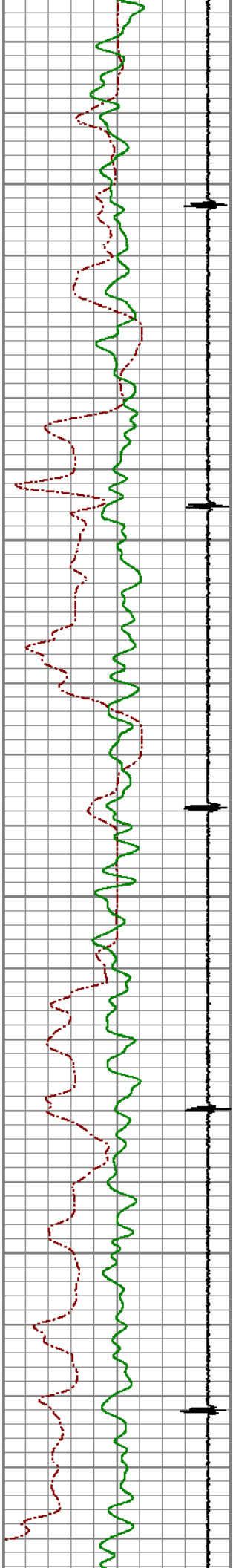




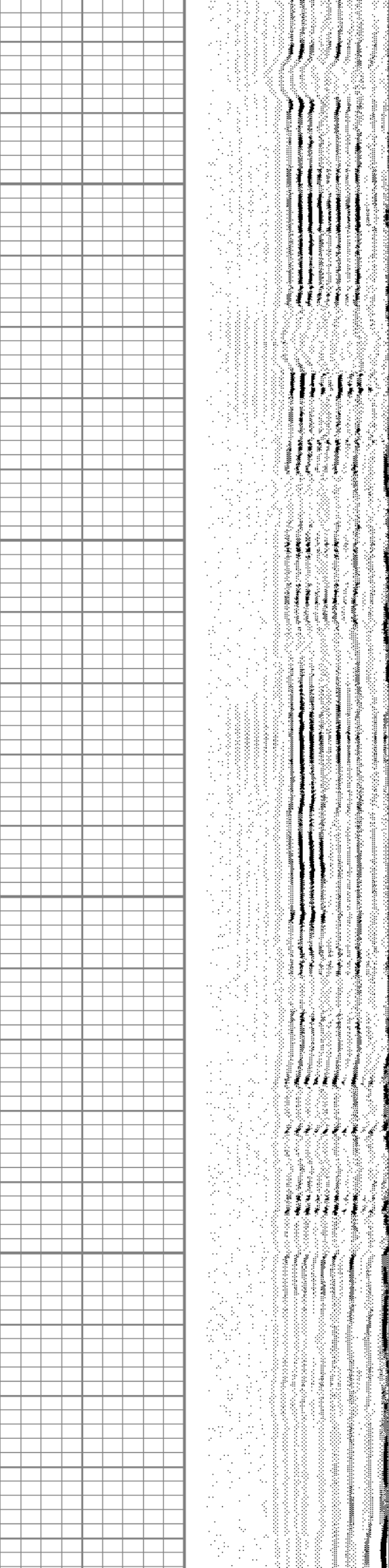
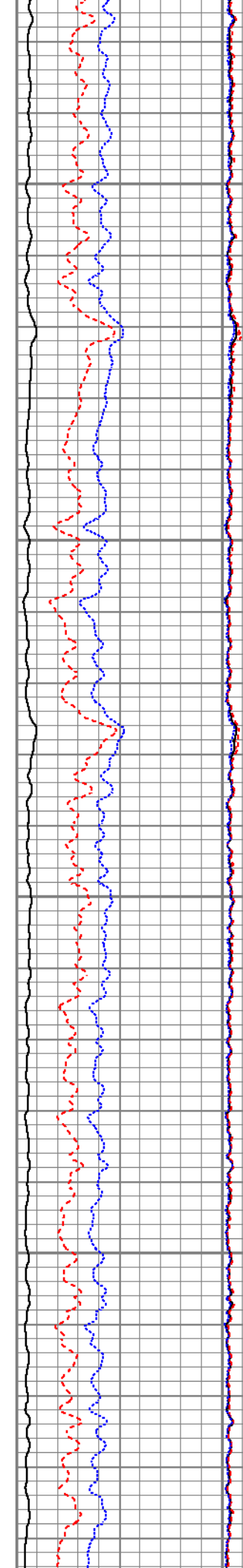
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1000
1050
1100
1150

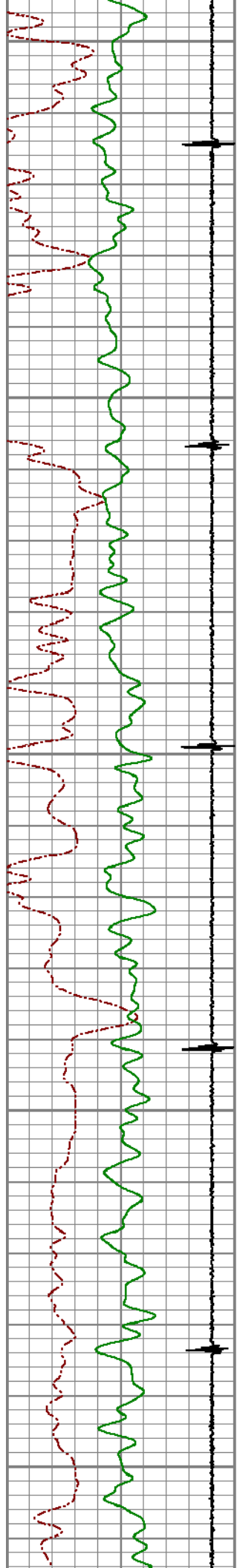




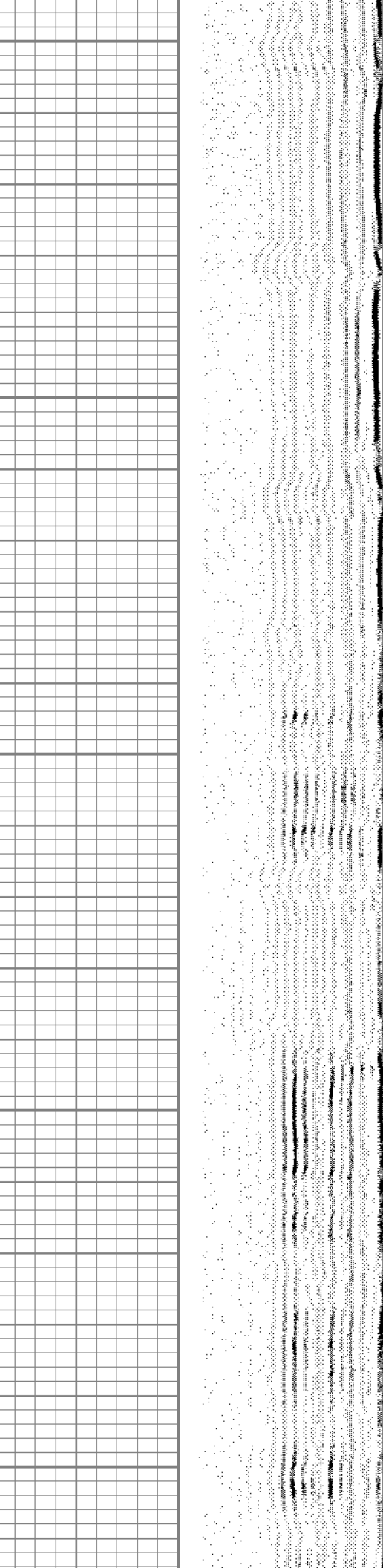
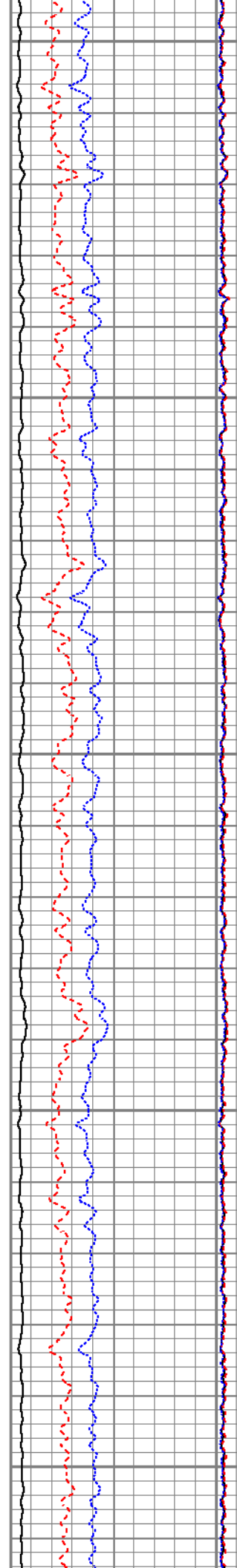


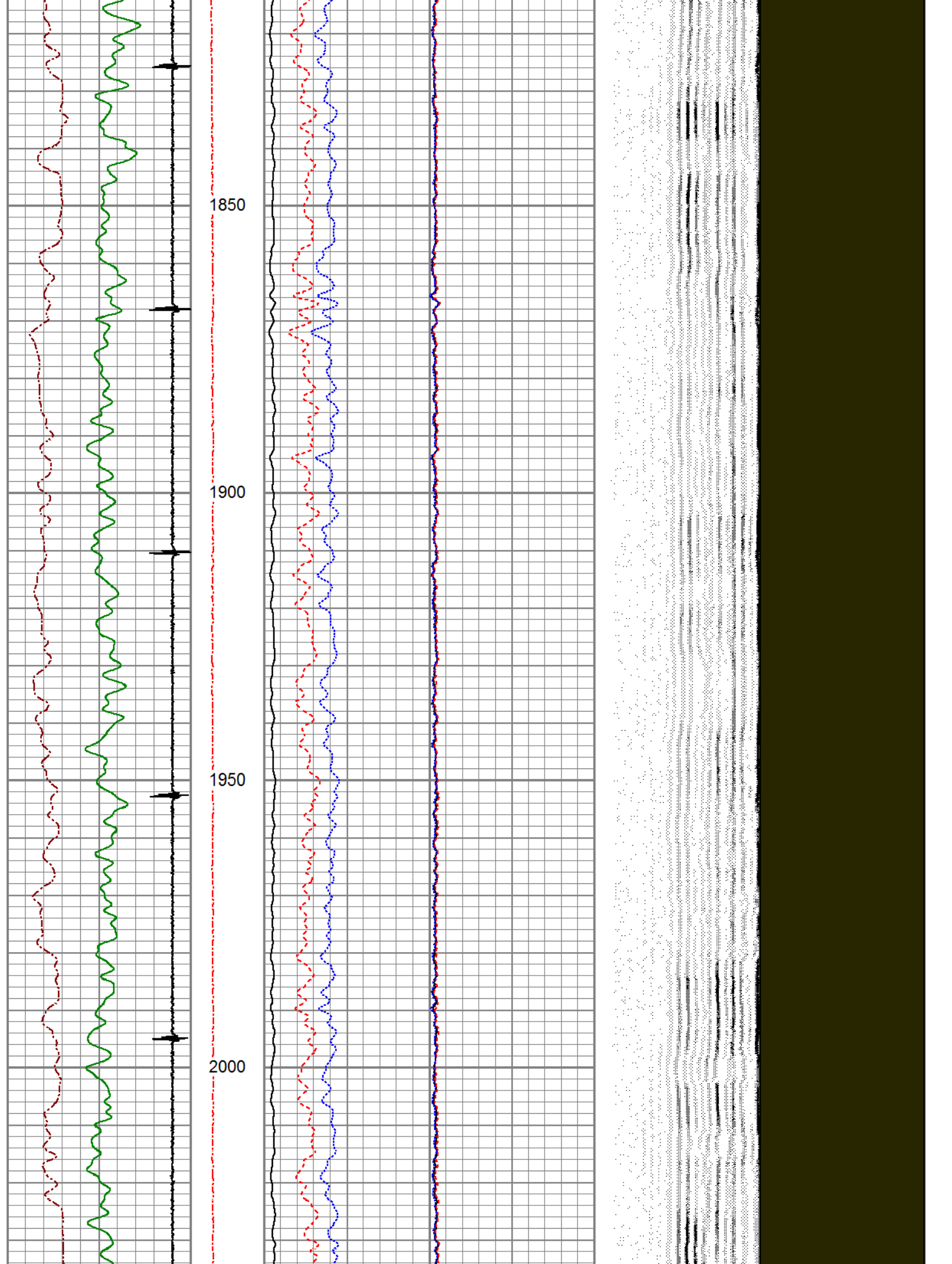
1400
1450
1500
1550



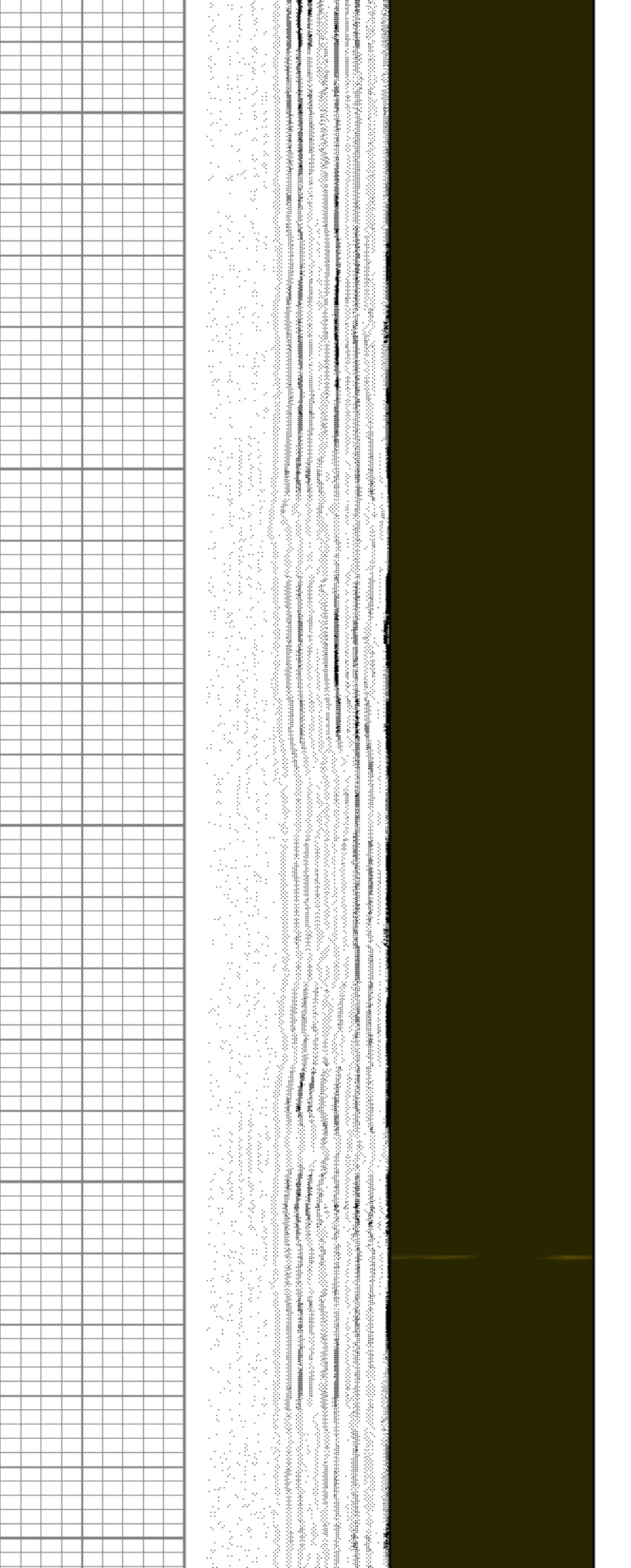
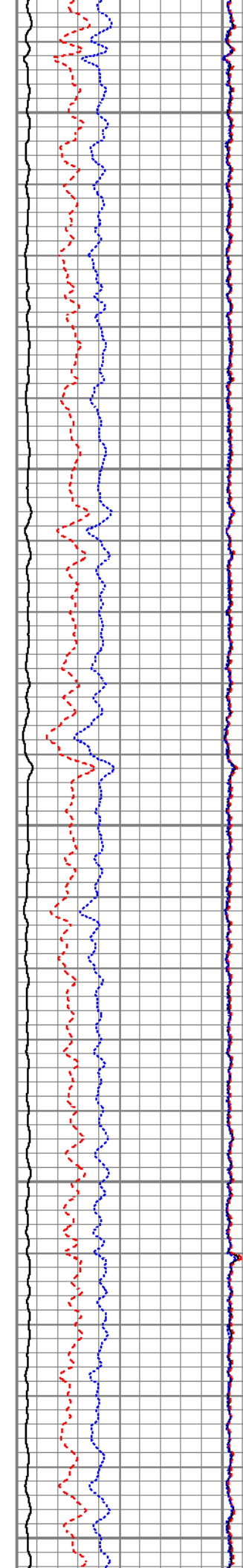
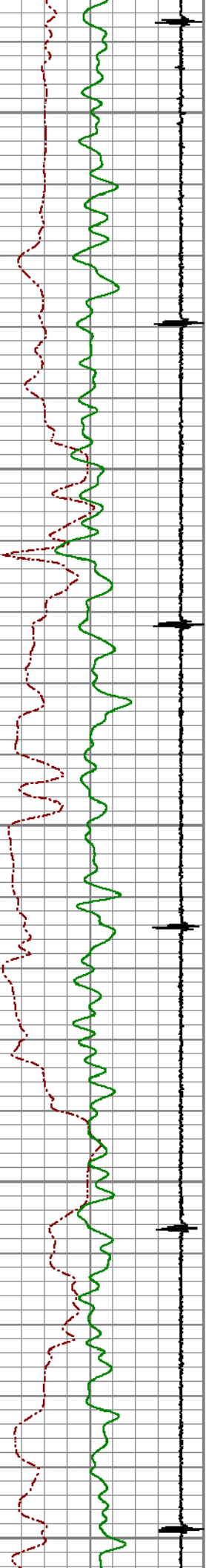


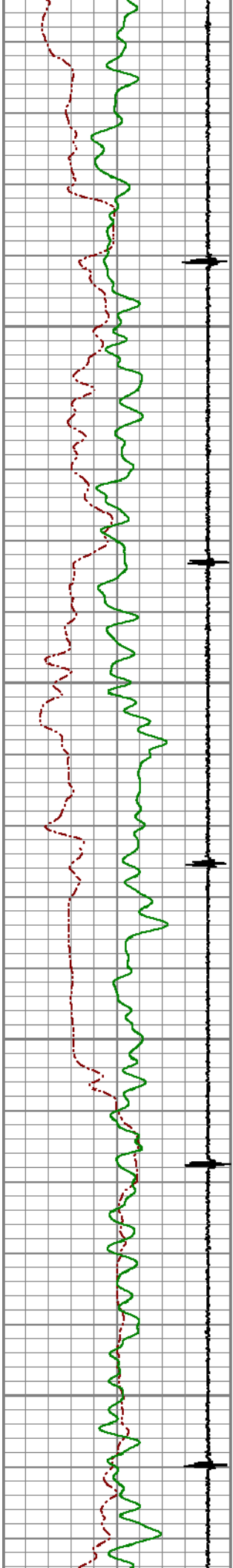
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1650
1700
1750
1800





2050
2100
2150
2200
2250



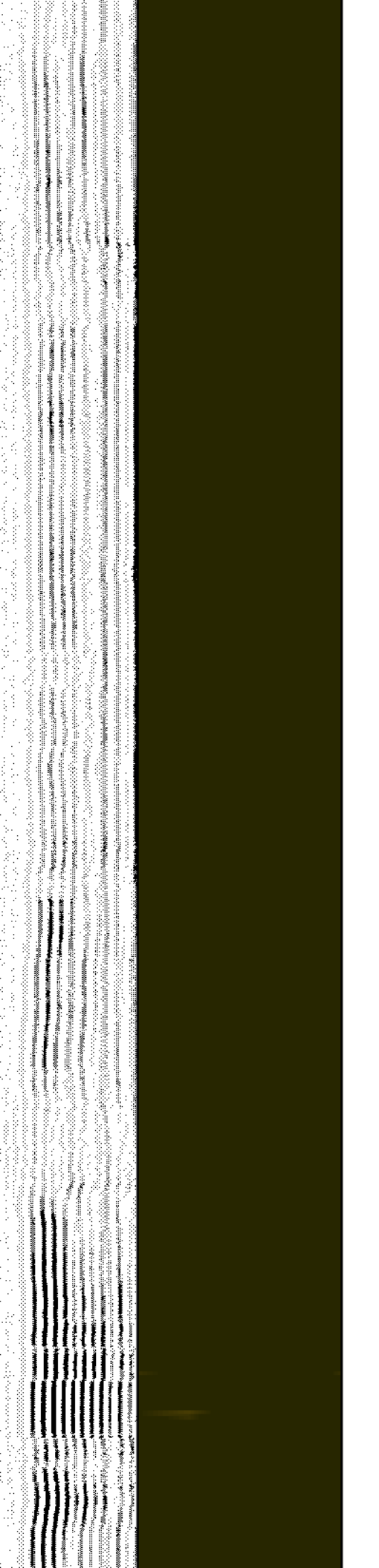
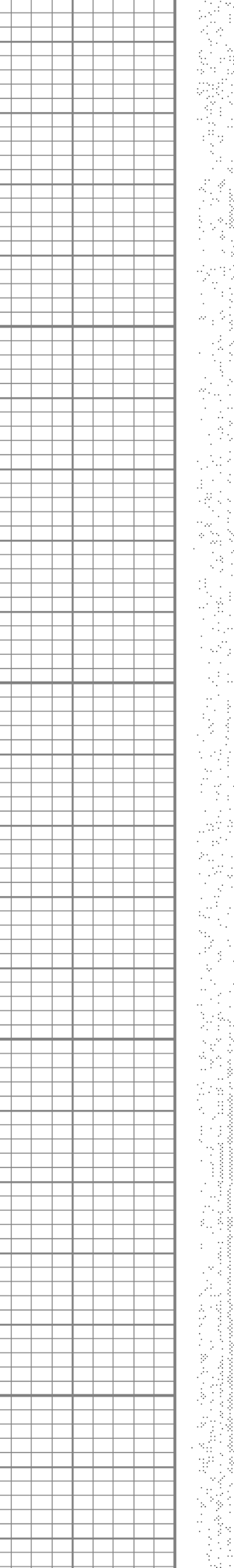
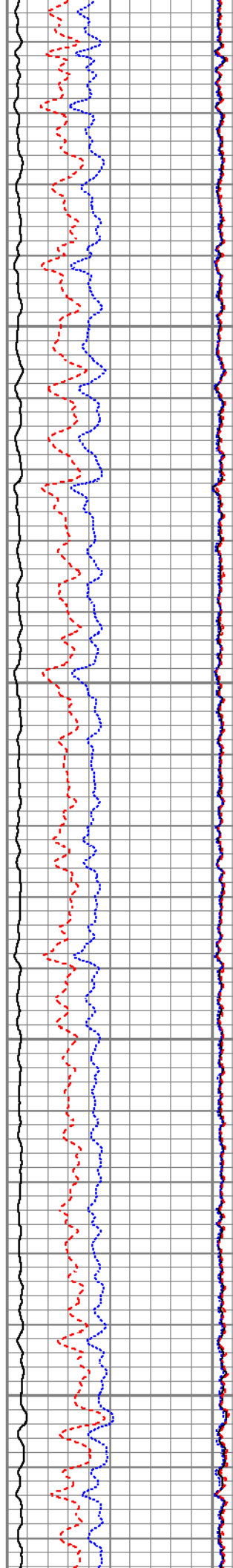


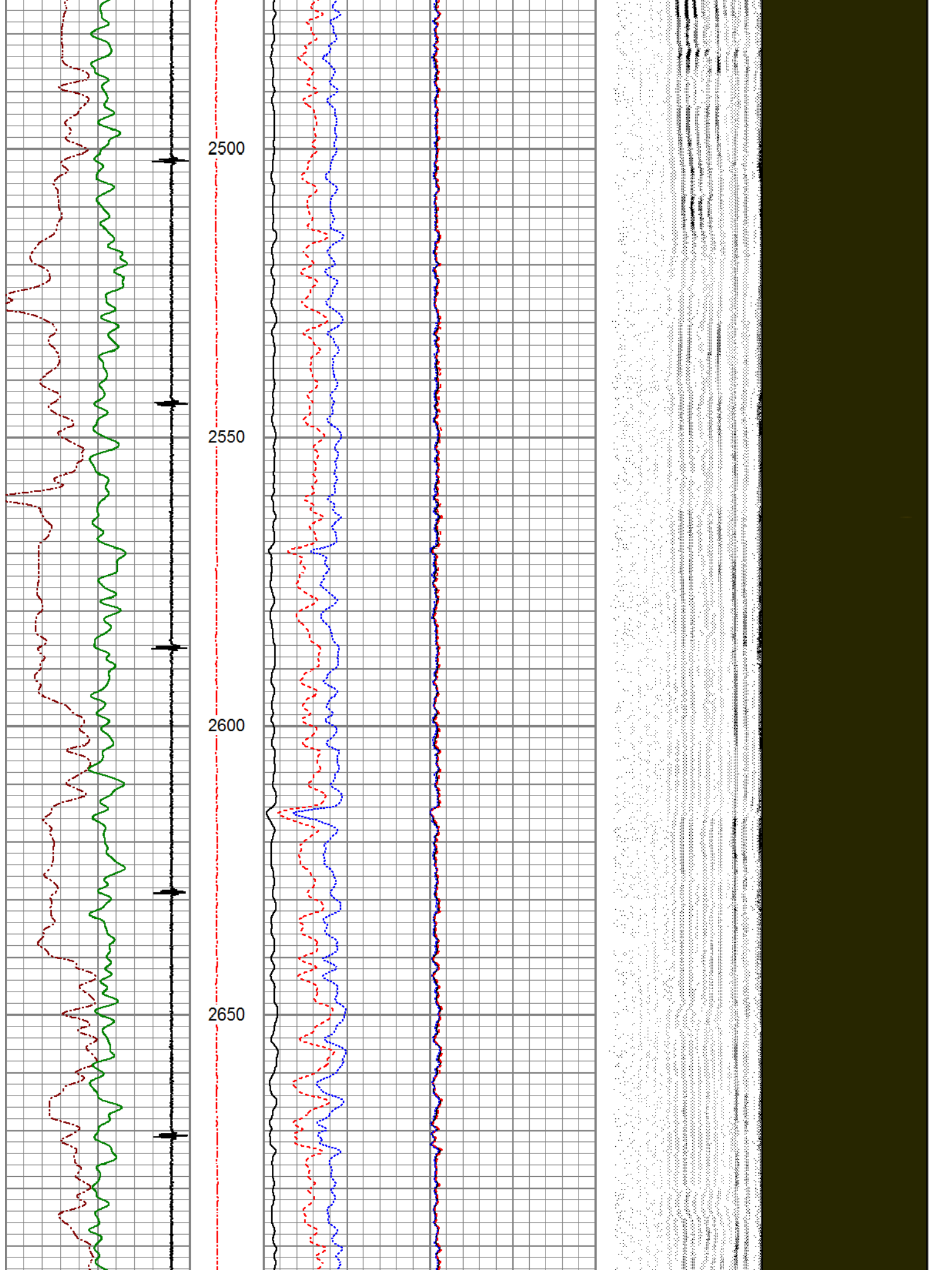
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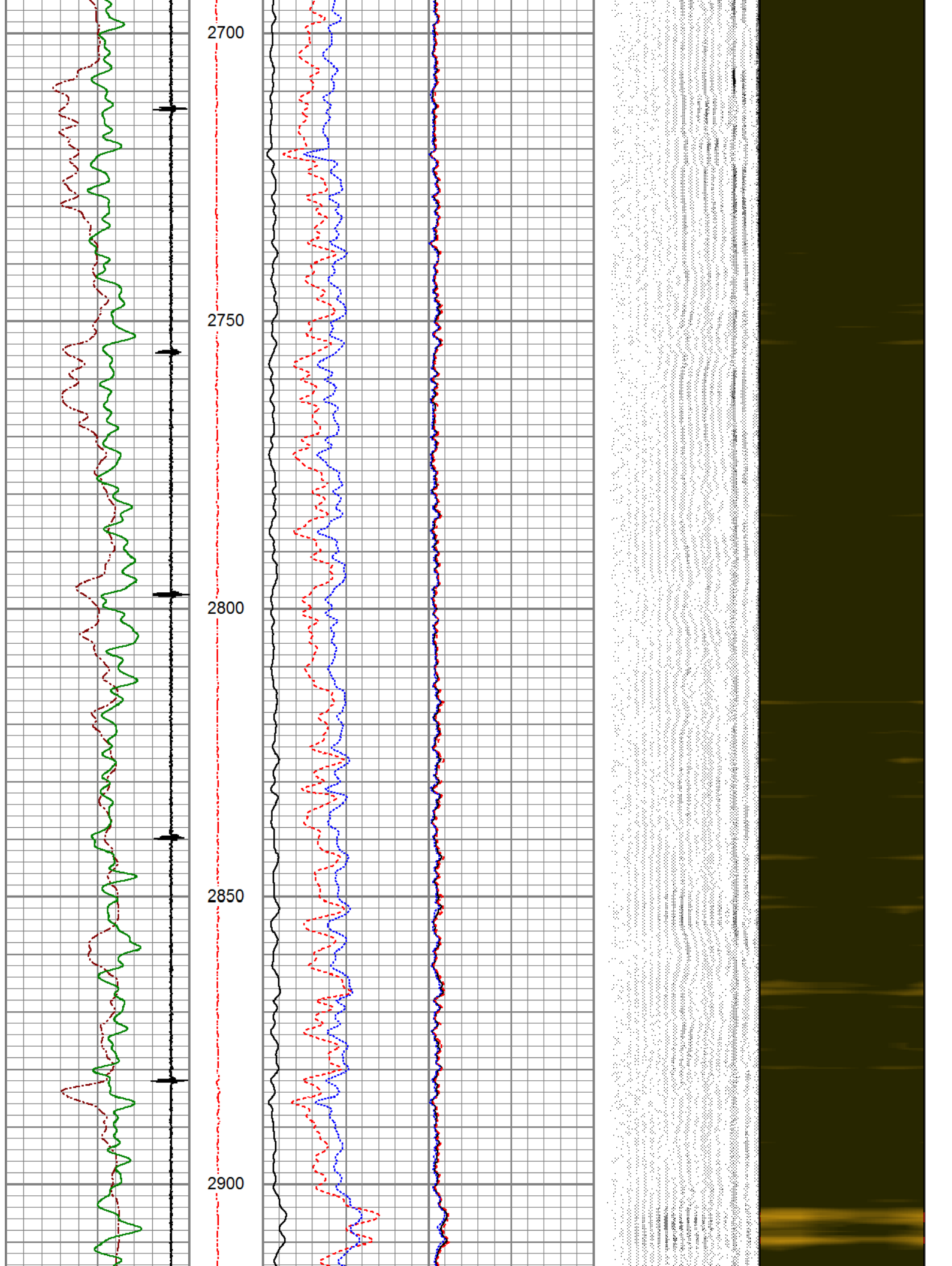
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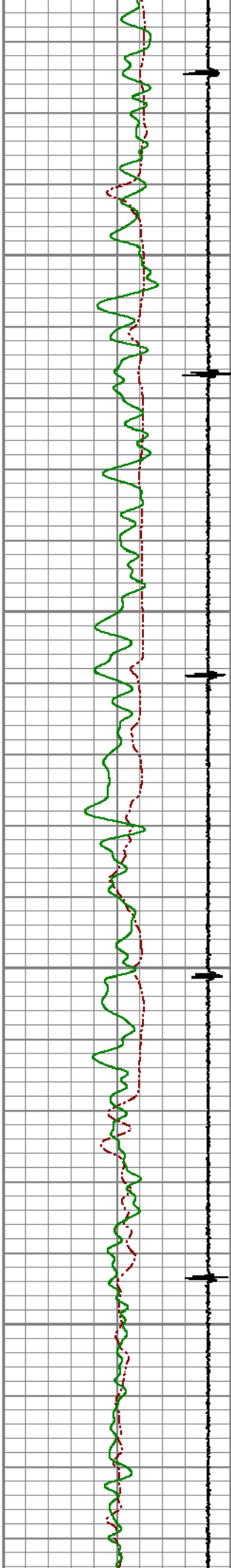
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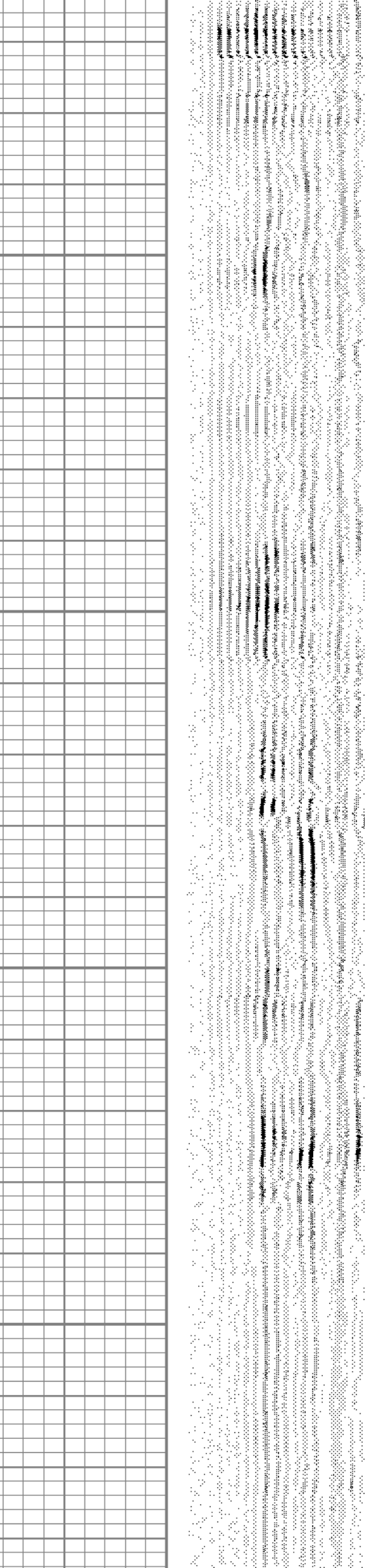
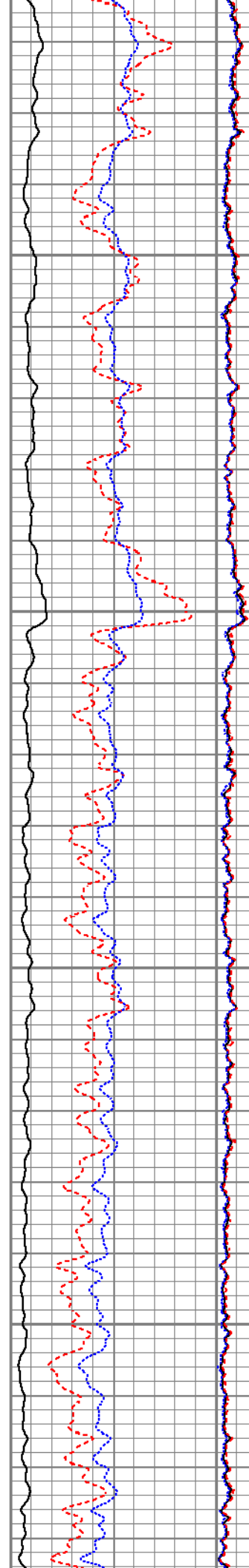


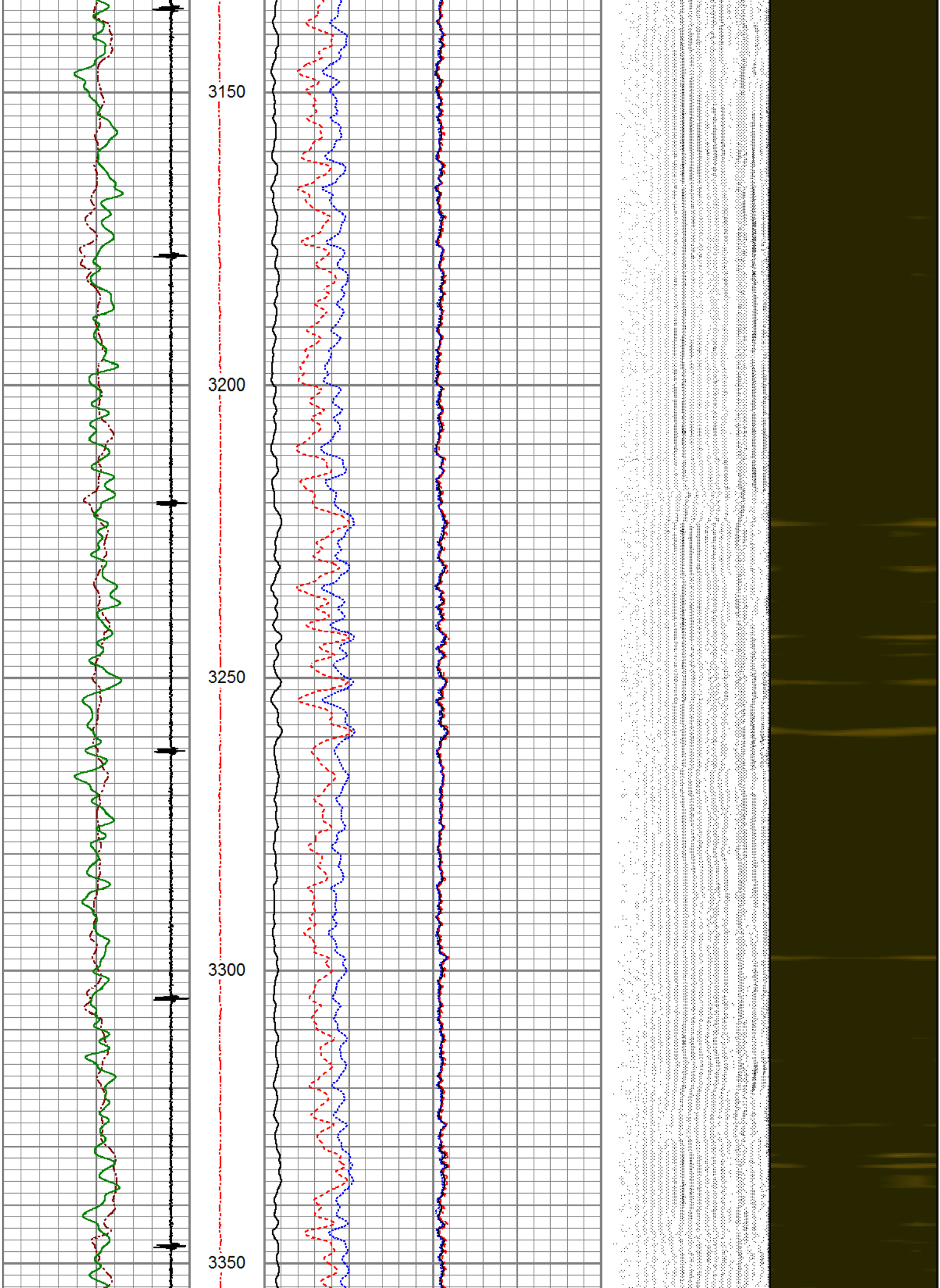
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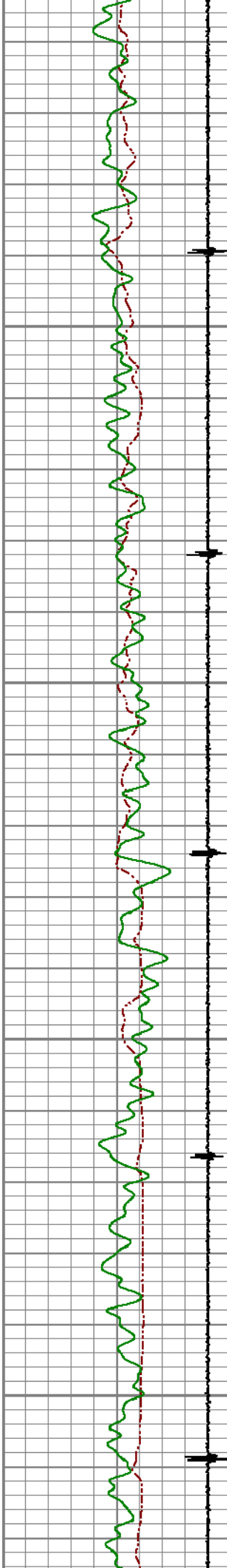
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3050

3100





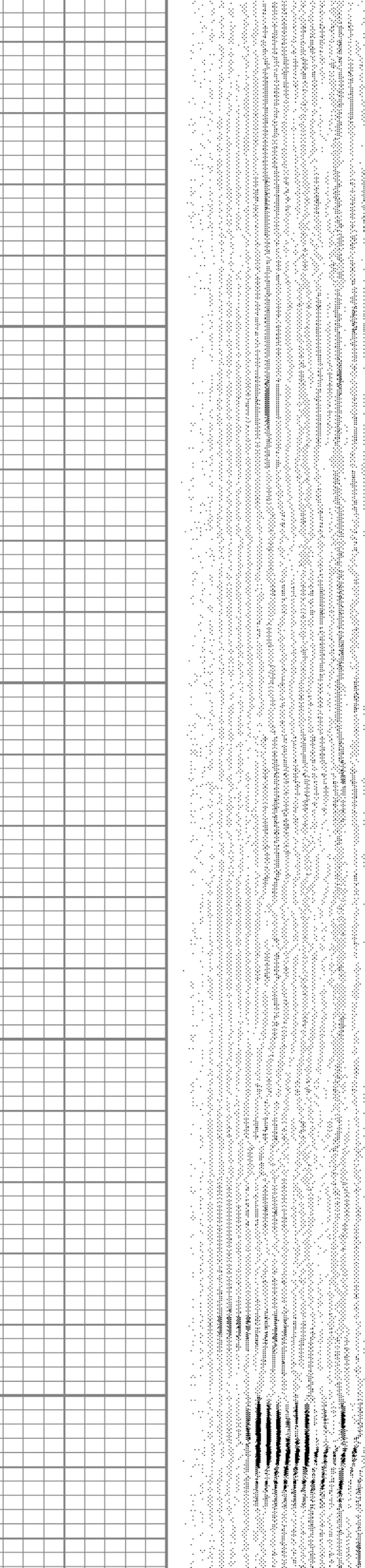
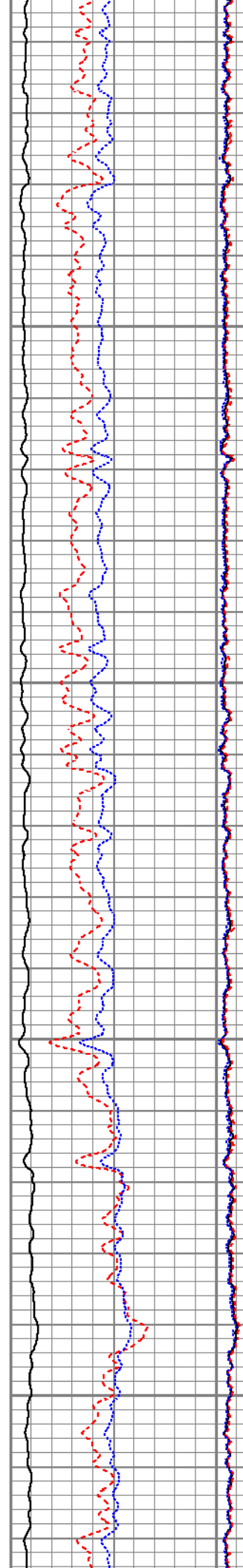


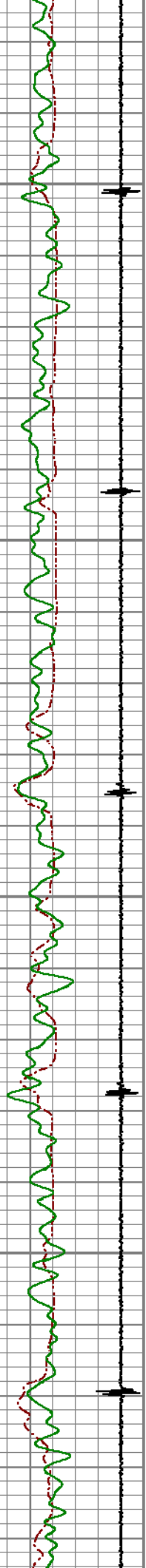
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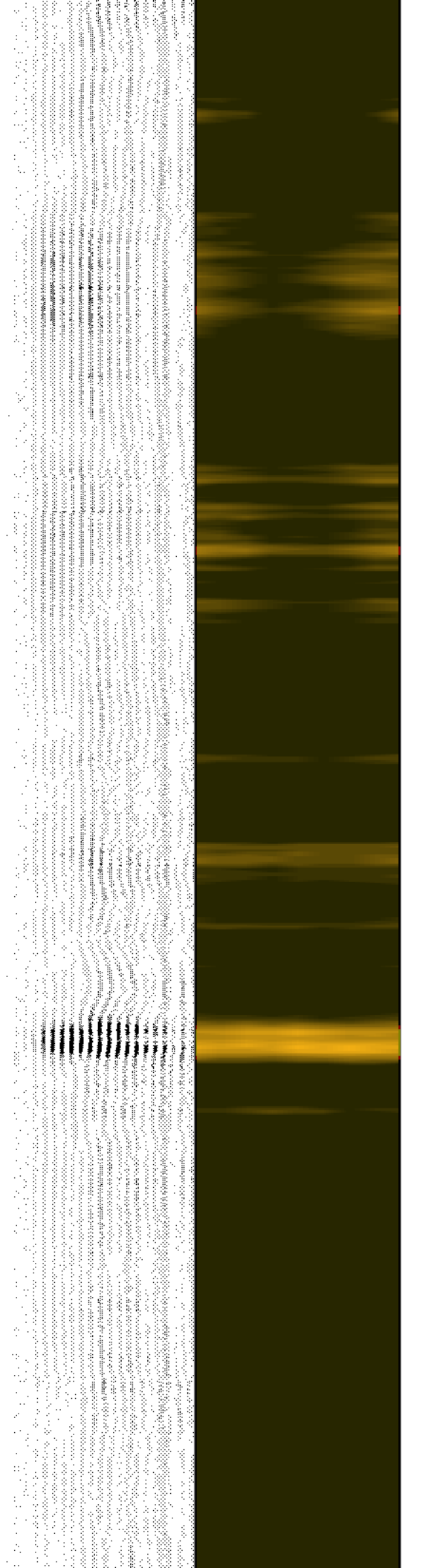
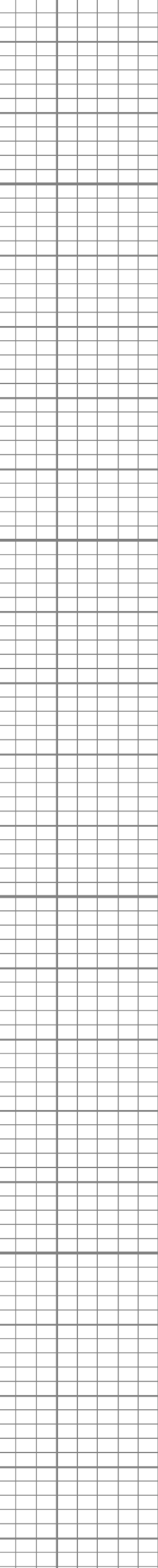
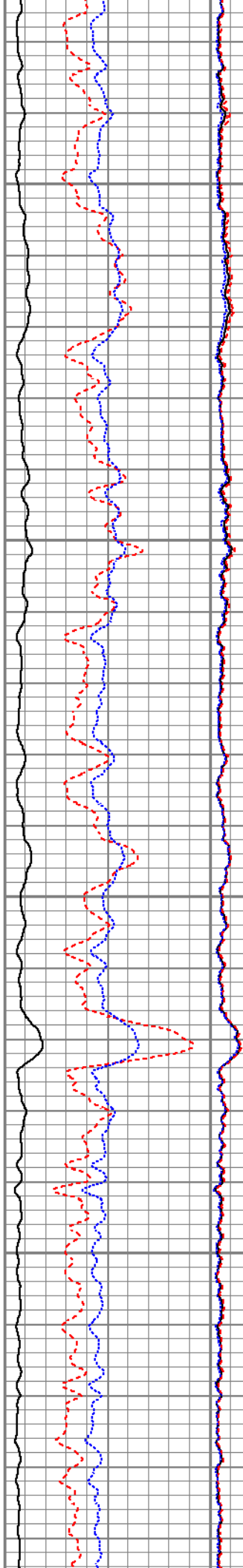
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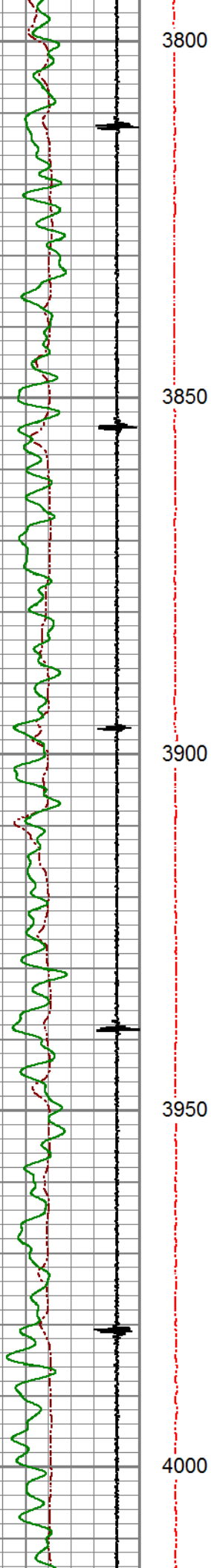
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3600
3650
3700
3750





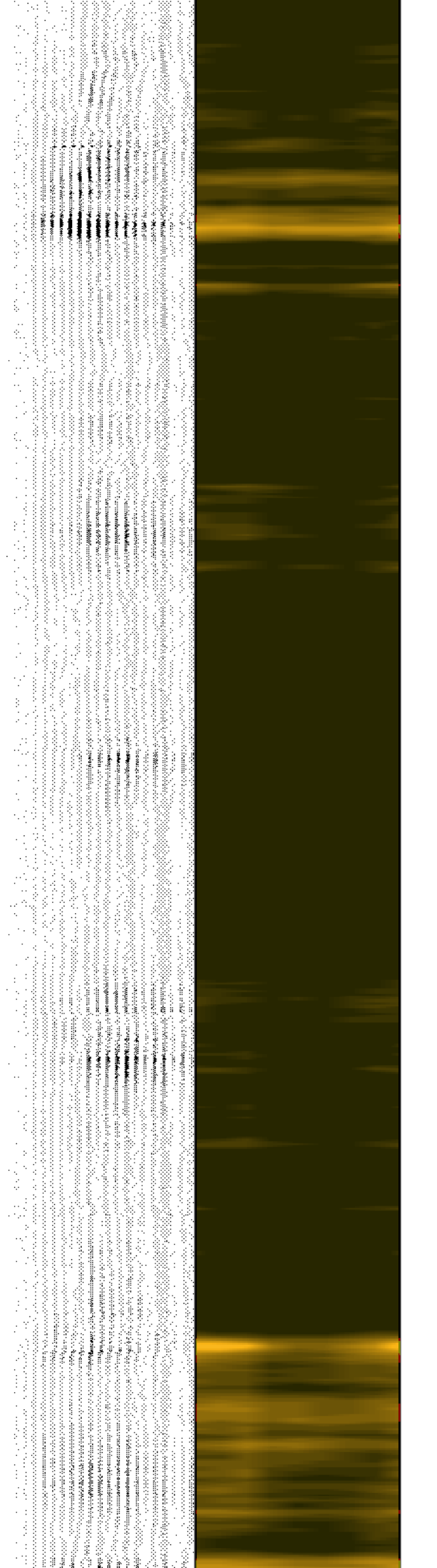
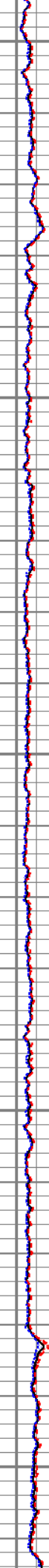
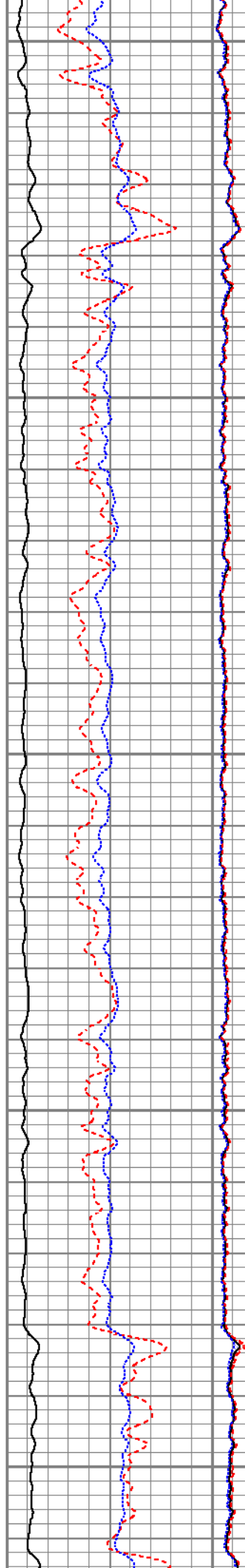
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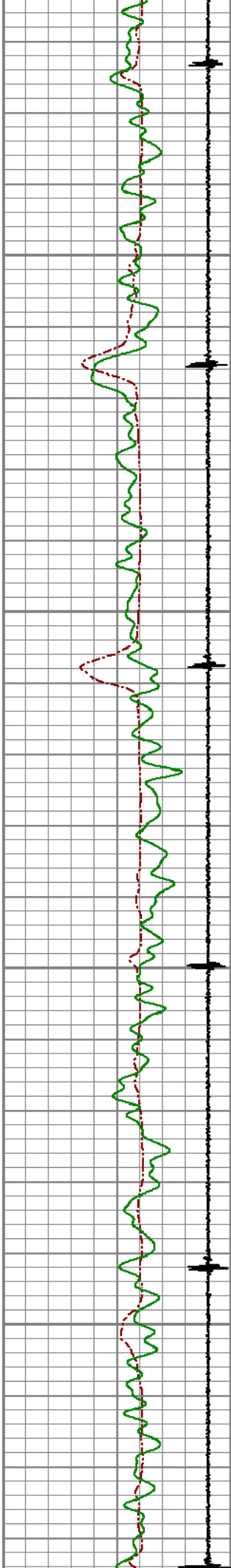
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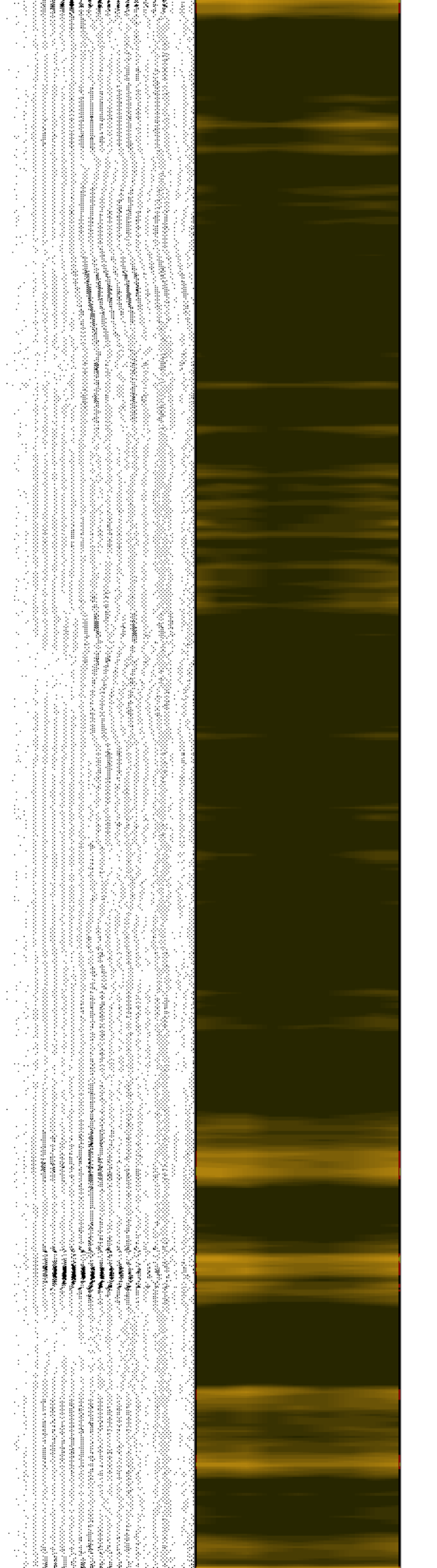
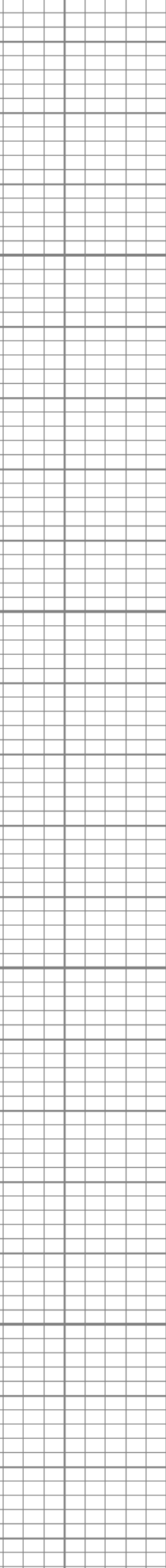
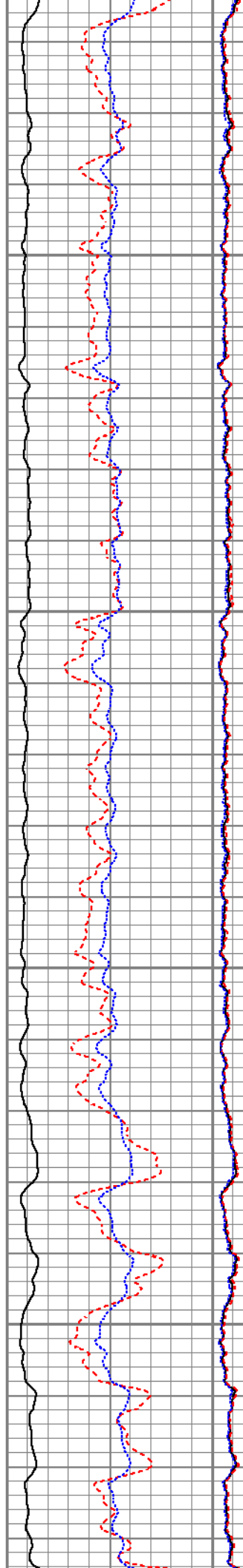
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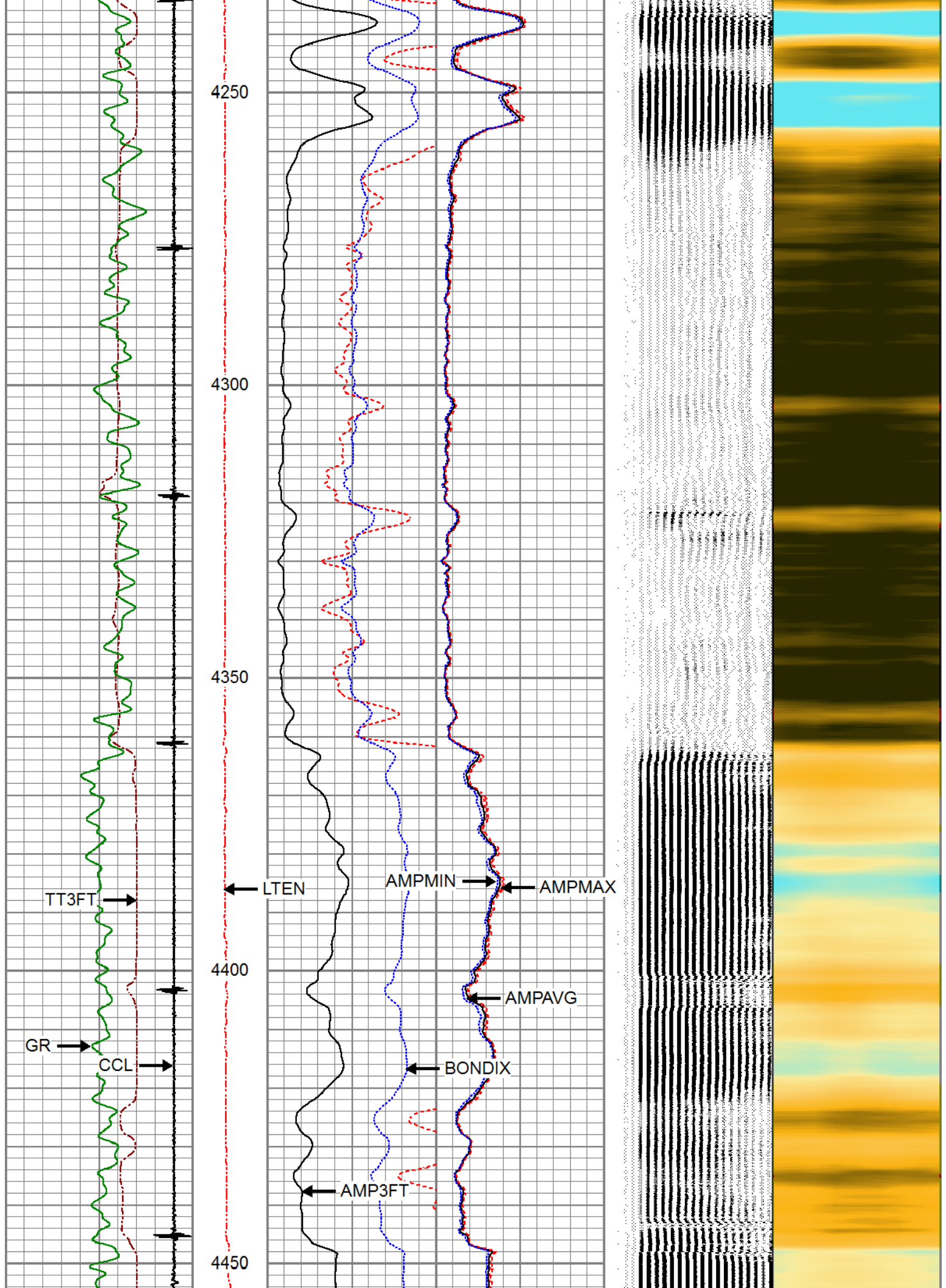
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4100
4150
4200





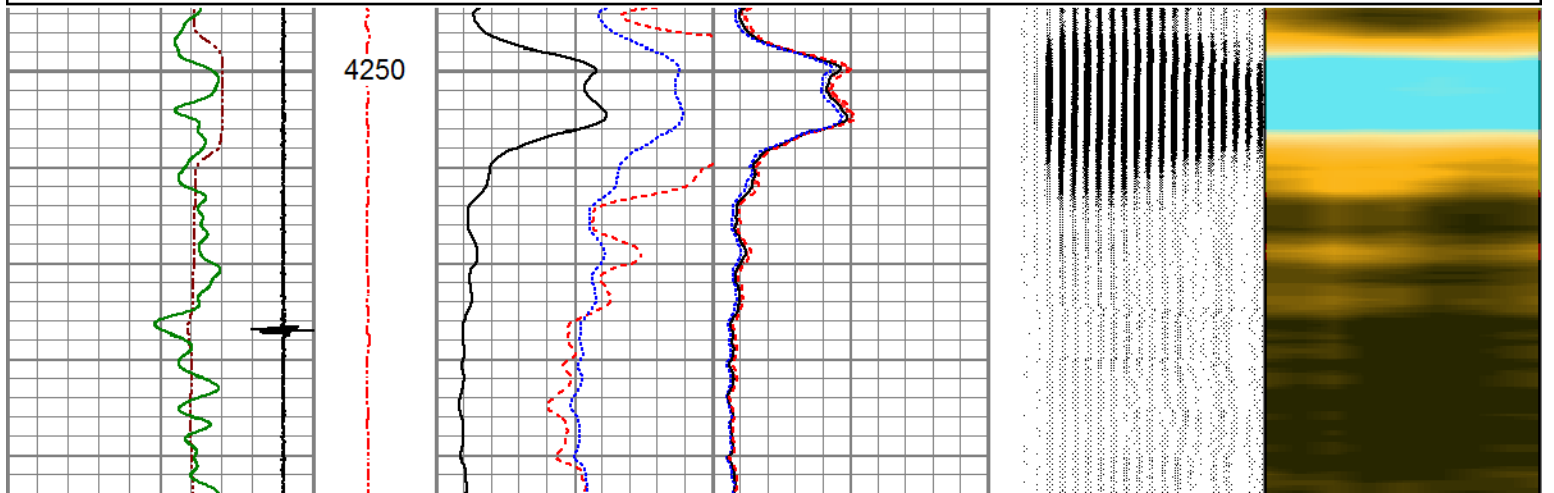
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-9 Collar Locator 1			3' Amplified Amplitude X 5 (mV) 20		0 150						
Gamma Ray (GAPI) 150			0		Sector Amplitude Maximum						
			1 Bond Index 0		0 150		Sector Amplitude Minimum				
				0		150					

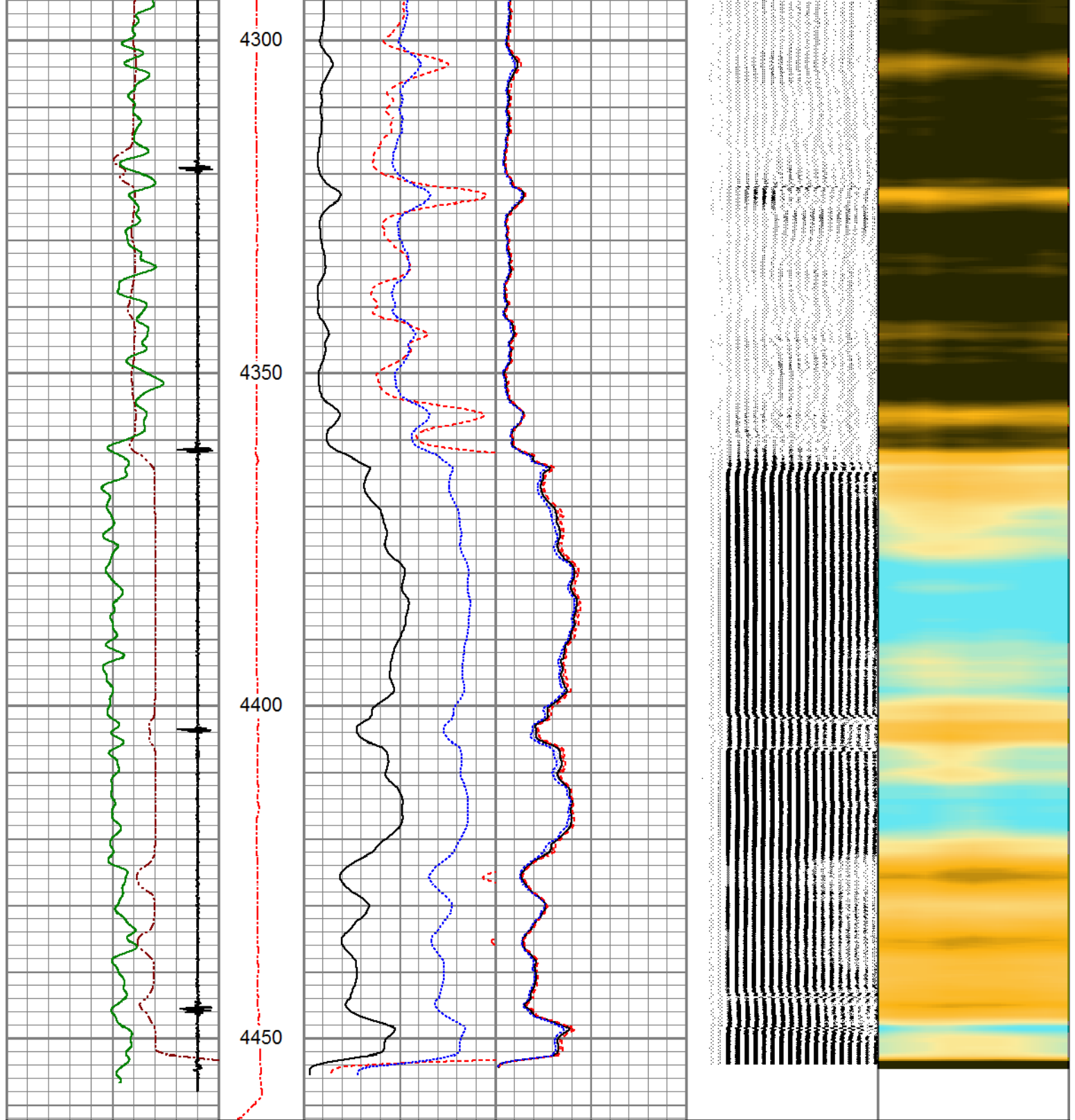
 PIONEER Pioneer Energy Services	MAIN LOG
	500 PSI APPLIED AT SURFACE

 PIONEER Pioneer Energy Services	REPEAT SECTION
	ZERO PSI APPLIED AT SURFACE

Database File	anadarko_reigle 32-4_0512332632_20190408_scbl.db
Dataset Pathname	pass11.1
Presentation Format	pinr_scbl
Dataset Creation	Mon Apr 08 16:53:04 2019
Charted by	Depth in Feet scaled 1:240

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-9 Collar Locator 1			3' Amplified Amplitude X 5 (mV) 20		0 150						
Gamma Ray (GAPI) 150			0		Sector Amplitude Maximum						
			1 Bond Index 0		0 150		Sector Amplitude Minimum				
				0		150					





3Ft Travel Time 600 (usec) 100	Line Tension (lb) 0 2000	3' Amplitude (mV) 0 100	Sector Amplitude Average 0 150	VDL (usec) 200 1200	1 Sector Map 8
-9 Collar Locator 1		3' Amplified Amplitude X 5 (mV) 0 20	Sector Amplitude Maximum 0 150		
Gamma Ray (GAPI) 150		1 Bond Index 0	Sector Amplitude Minimum 0 150		

Calibration Report

Database File anadarko_reigle 32-4_0512332632_20190408_scbl.db
 Dataset Pathname pass12
 Dataset Creation Mon Apr 08 15:42:54 2019

Gamma Ray Calibration Report

Serial Number: 141134
 Tool Model: 275 Probe GCT
 Performed: Mon Apr 08 11:44:46 2019

Calibrator Value: 1.0 GAPI

Background Reading: 0.0 cps
 Calibrator Reading: 1.0 cps

Sensitivity: 0.6600 GAPI/cps

Segmented Cement Bond Log Calibration Report

Serial Number: 070151
 Tool Model: RBL-D

Calibration Casing Diameter: 5.500 in
 Calibration Depth: 0.000 ft

Master Calibration, performed Tue Mar 05 09:00:24 2019:

	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3'	0.019	0.892	0.700	71.921	81.627	0.180
CAL	0.016	0.995				
5'	0.016	0.819	0.700	71.921	88.716	-0.722
SUM						
S1	0.044	0.692	0.000	100.000	154.292	-6.752
S2	0.016	0.812	0.000	100.000	125.561	-1.994
S3	0.017	0.893	0.000	100.000	114.133	-1.923
S4	0.028	0.963	0.000	100.000	106.930	-2.947
S5	0.061	1.002	0.000	100.000	106.300	-6.488
S6	0.046	0.988	0.000	100.000	106.173	-4.865
S7	0.020	0.922	0.000	100.000	110.904	-2.258
S8	0.016	0.810	0.000	100.000	125.835	-1.963

Air Zero Calibration, performed Mon Apr 08 13:46:46 2019:

	Raw (v)		Calibrated (v)		Results	
	Zero		Zero		Offset	
3'	0.019		0.000		0.000	
5'	0.030		0.000		-0.014	
SUM						
S1	0.025		0.000		0.019	
S2	0.021		0.000		-0.005	
S3	0.022		0.000		-0.005	
S4	0.022		0.000		0.005	
S5	0.020		0.000		0.041	
S6	0.022		0.000		0.024	
S7	0.023		0.000		-0.002	
S8	0.022		0.000		-0.006	



PIONEER

Pioneer Energy Services

Company	ANADARKO PETROLEUM CORP.
Well	REIGLE 32-4
Field	WATTENBERG
County	WELD
State	COLORADO