



RADIAL BOND LOG WITH GAMMA RAY

Pioneer Energy Services

Comp. ANADARKO PETROLEUM CORP.
Well VONDERLAGE 22-31
Field WATTENBERG
Co. WELD
State COLORADO

Company ANADARKO PETROLEUM CORP.
Well VONDERLAGE 22-31
Field WATTENBERG
County WELD **State** COLORADO

Location: SEC 31 TWP 3N RGE 66W
 565' FSL & 475' FWL
API #: 05-123-26765
SW SW
Permanent Datum GL **Elevation** 4821'
Log Measured From KB **12'** **Above Perm. Datum**
Drilling Measured From KB **Elevation** 4833'
D.F. N/A
G.L. 4821'

Date of Service	10 MARCH 2020			
Run Number	ONE			
Depth Driller or P8TD	7390'			
Depth Logger	3500'			
Bottom Log Interval	3500'			
Top Log Interval	SURFACE			
Open Hole Size	7.875"			
Type Fluid	WATER			
Fluid Level	6'			
Fluid Density	N/A			
Max. Recorded Temperature	N/A			
Max. Wellhead Pressure	ZERO			
Wellhead Connection	OPEN			
Estimated Cement Top	760'			
Unit Number	P-133			
Wireline Size	9/32"			
Location	FORT MORGAN CO.			
Recorded By	P LOPEZ			
Witnessed By	MR. JEREMY DUTY			
Tubing Record	Size	WV/Ft	Top	Bottom
Surface Casing	8.63"		SURFACE	680'
Production Casing	4.50"	24#	SURFACE	8298'
Liner Record		11.60#		

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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.
 DEPTH REFERENCE TO J-W WIRELINE COMPANY CBL DATED APRIL-29-13

THANK YOU FOR USING PIONEER ENERGY SERVICES!

Your Pioneer Energy Services Crew	Tool Data - Services	Serial Number
Engineer: P LOPEZ	RBL-DC	140141
Operator: G SOTO	GR CCL	110246
Operator: C COBAIN		
Operator:		

Log Variables

DatabaseC:\ProgramData\Warrion\Data\anadarko_vonderlage_22-31_0512326765_20200310_
Dataset field/well/run1/pass10/_vars_

Top - Bottom

BOREID in 7.875	BOTTEMP degF 180	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 No	PPT usec 0	SRFTEMP degF 50	TDEPTH ft 3500		


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
			Centralizer-275 Probe 2 3/4" Probe Adjustable Spring Centralizer	2.88	2.75	15.00
WVFS8	14.76		PROBE-RBT-DIGITAL-RBL-DC (FW1401-41-T) Probe 2 3/4" Radii Bond-Corrosion Package	8.75	2.75	100.00
WVFS7	14.76					
WVFS6	14.76					
WVFS5	14.76					
WVFS4	14.76					
WVFS3	14.76					
WVFS2	14.76					
WVFS1	14.76					
WVFCAL	14.76					
WVF3FT	14.76					
WVF5FT	13.76					
HEADVOLT	10.57					
			Centralizer-275 Probe 2 3/4" Probe Adjustable Spring Centralizer	2.88	2.75	15.00

CCL	6.78		PROBE-GR/CCL-ANALOG-GR/CCL-A (110246) 2 3/4" Gamma with CCL-Analog	4.54	2.75	60.00
GR	4.05		Centralizer-275 Probe 2 3/4" Probe Adjustable Spring Centralizer	2.88	2.75	15.00
			Bullnose-Titan GO Pin Pressure Cap	0.27	1.38	1.00
Dataset: anadarko_vonderlage 22-31_0512326765_20200310_scbl.db: field/well/run1/pass10 Total length: 23.23 ft Total weight: 208.00 lb O.D.: 2.75 in						



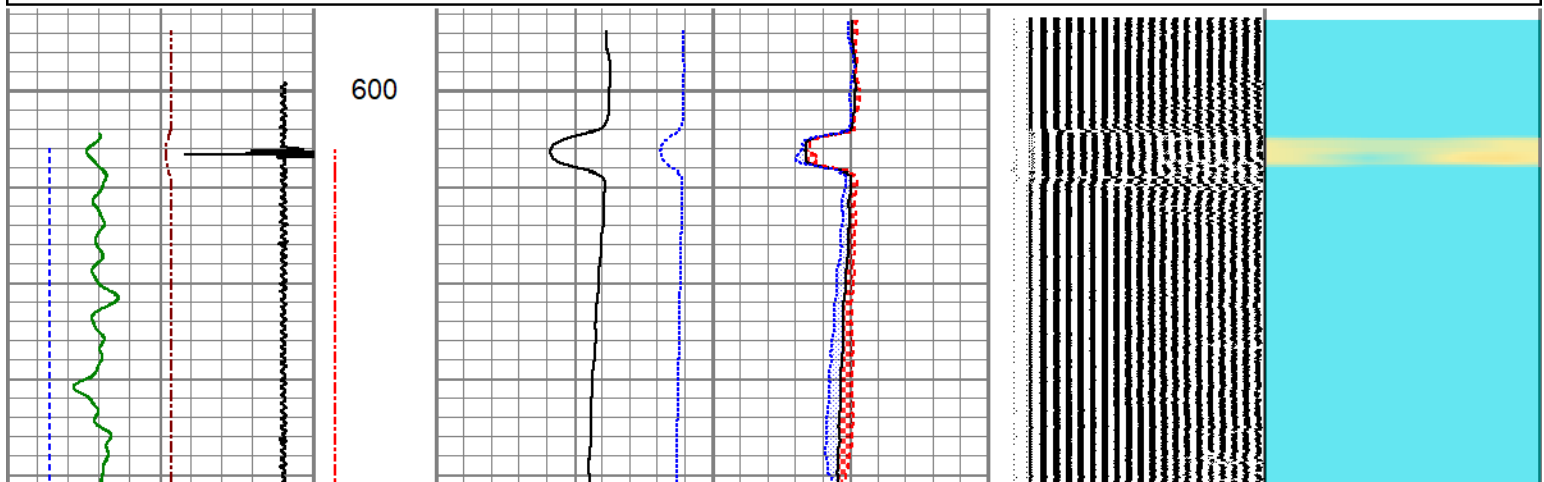
PIONEER
Pioneer Energy Services

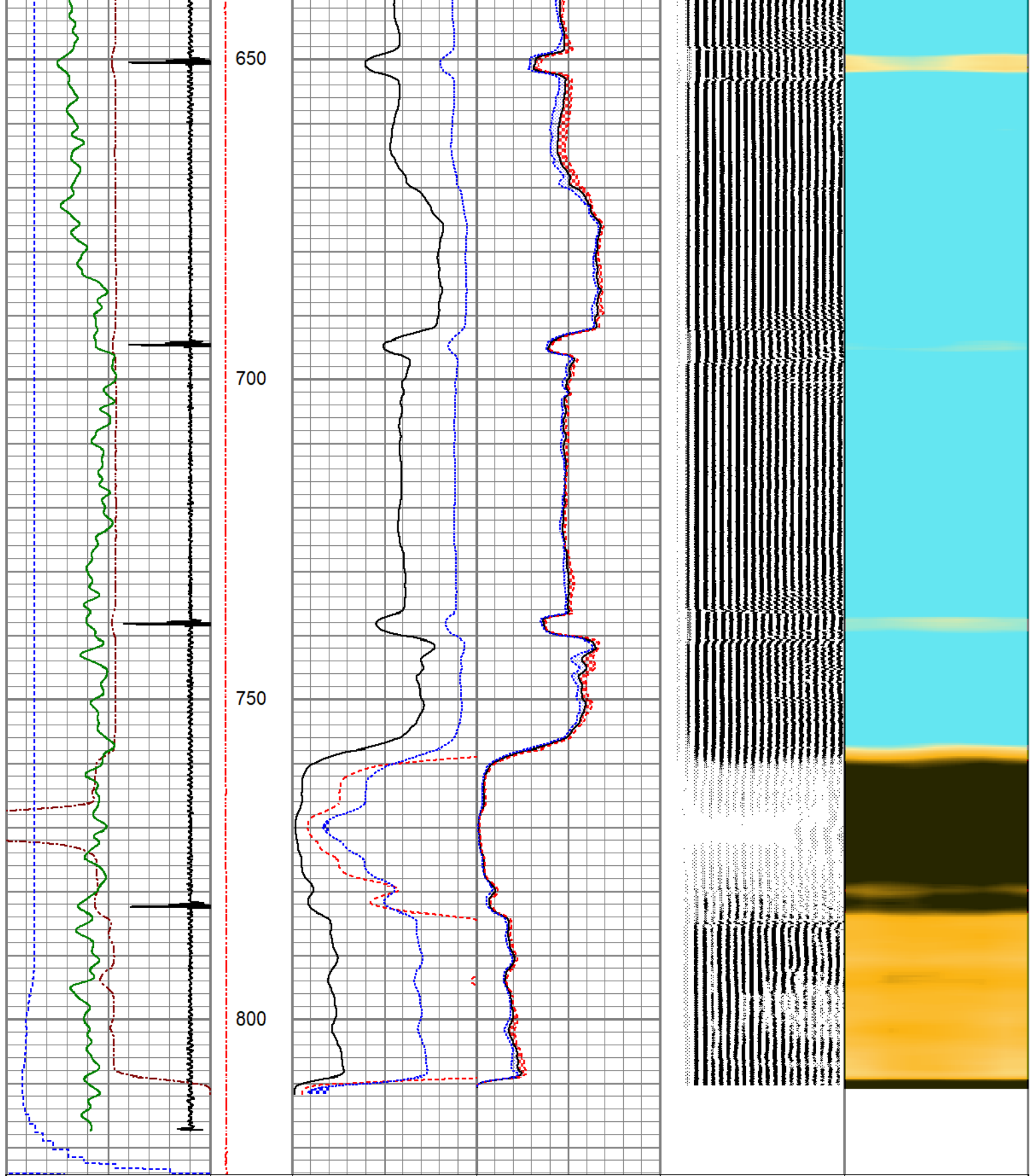
FREE PIPE SECTION

ZERO PSI APPLIED AT SURFACE

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Dataset Pathname	pass4
Presentation Format	pinr_scbl
Dataset Creation	Tue Mar 10 09:56:18 2020
Charted by	Depth in Feet scaled 1:240

3Ft Travel Time 500 (usec)	ineTensio (lb)	3' Amplitude (mV)	Sector Amplitude Average	VDL (usec)	1 Sector Map 8
0	0	0	0	1200	
-9 Collar Locator	10 2000	3' Amplified Amplitude X 5	0 150		
Gamma Ray 0 (GAPI) 150		0 (mV) 20	Sector Amplitude Maximum		
-100 LSPD (ft/min) 100		1 Bond Index 0	0 150		
			Sector Amplitude Minimum		
			0 150		





3Ft Travel Time 500 (usec)	0	3' Amplitude (mV)	0 100	Sector Amplitude Average	200 150	VDL (usec)	1 8	Sector Map
-9 Collar Locator	1	3' Amplified Amplitude X 5 (mV)	0 20	Sector Amplitude Maximum	0 150			
Gamma Ray (GAPI)	0 150	Bond Index	0 1	Sector Amplitude Minimum	0 150			
-100 LSPD (ft/min)	100							

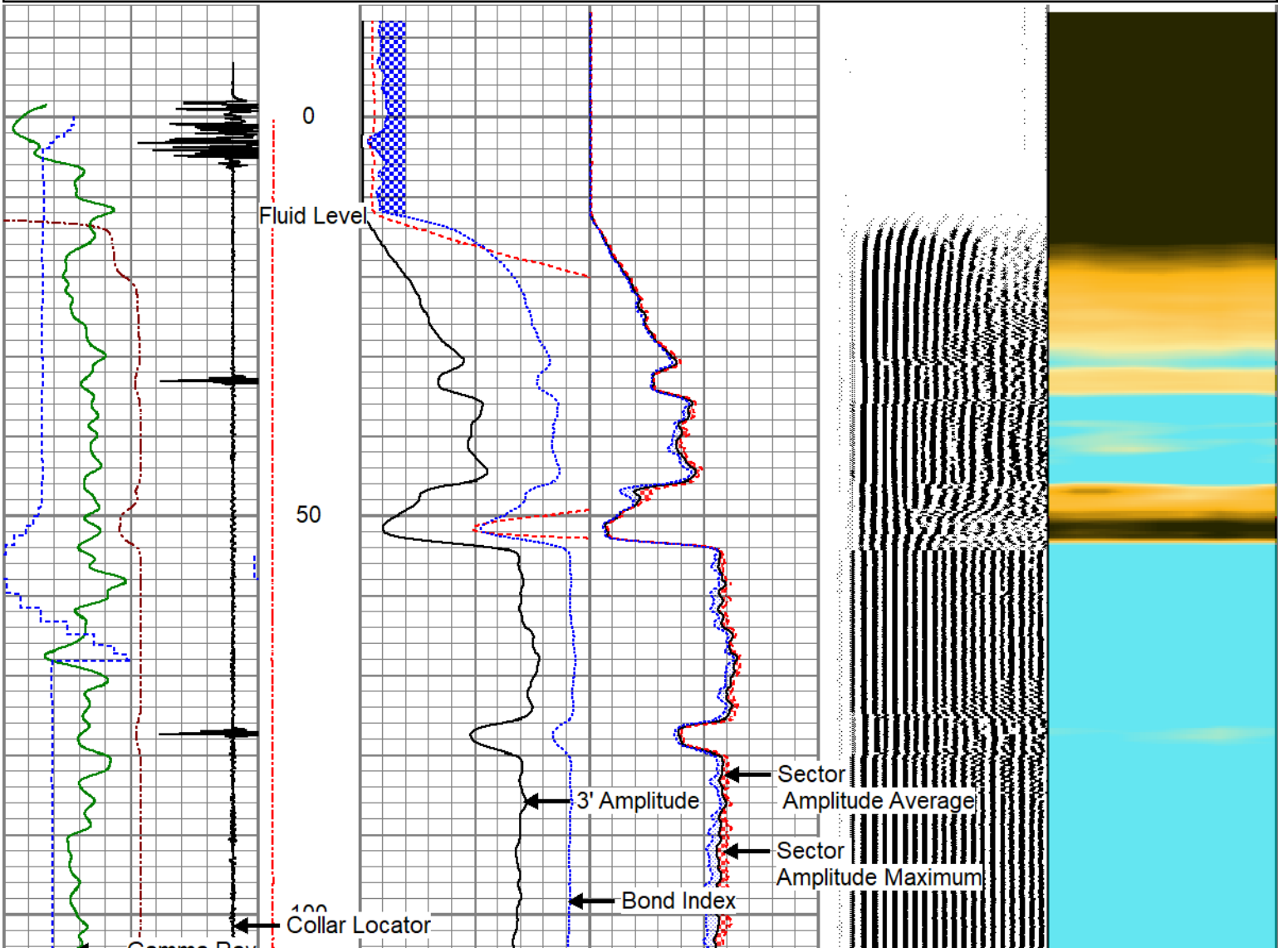


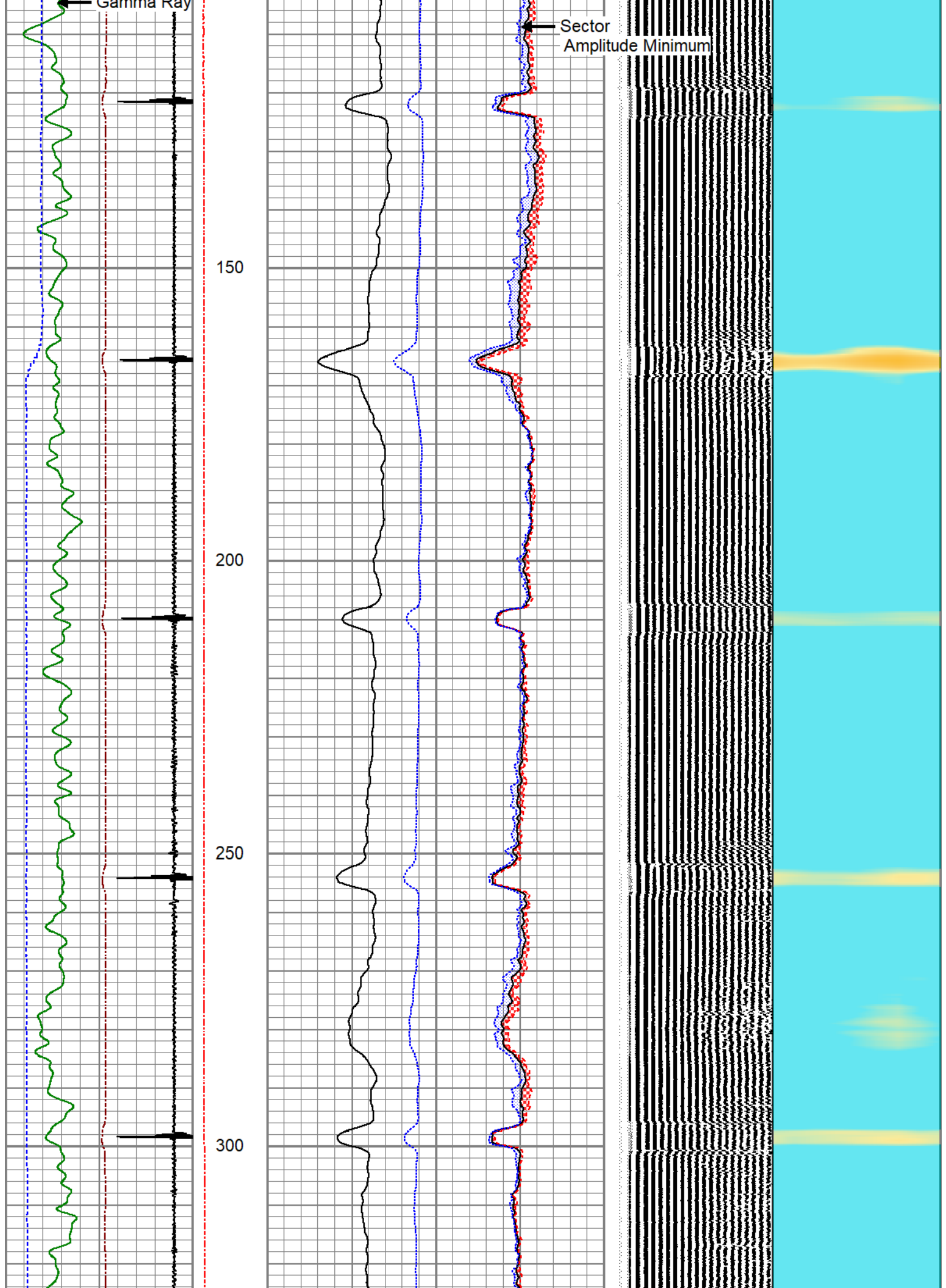
MAIN LOG

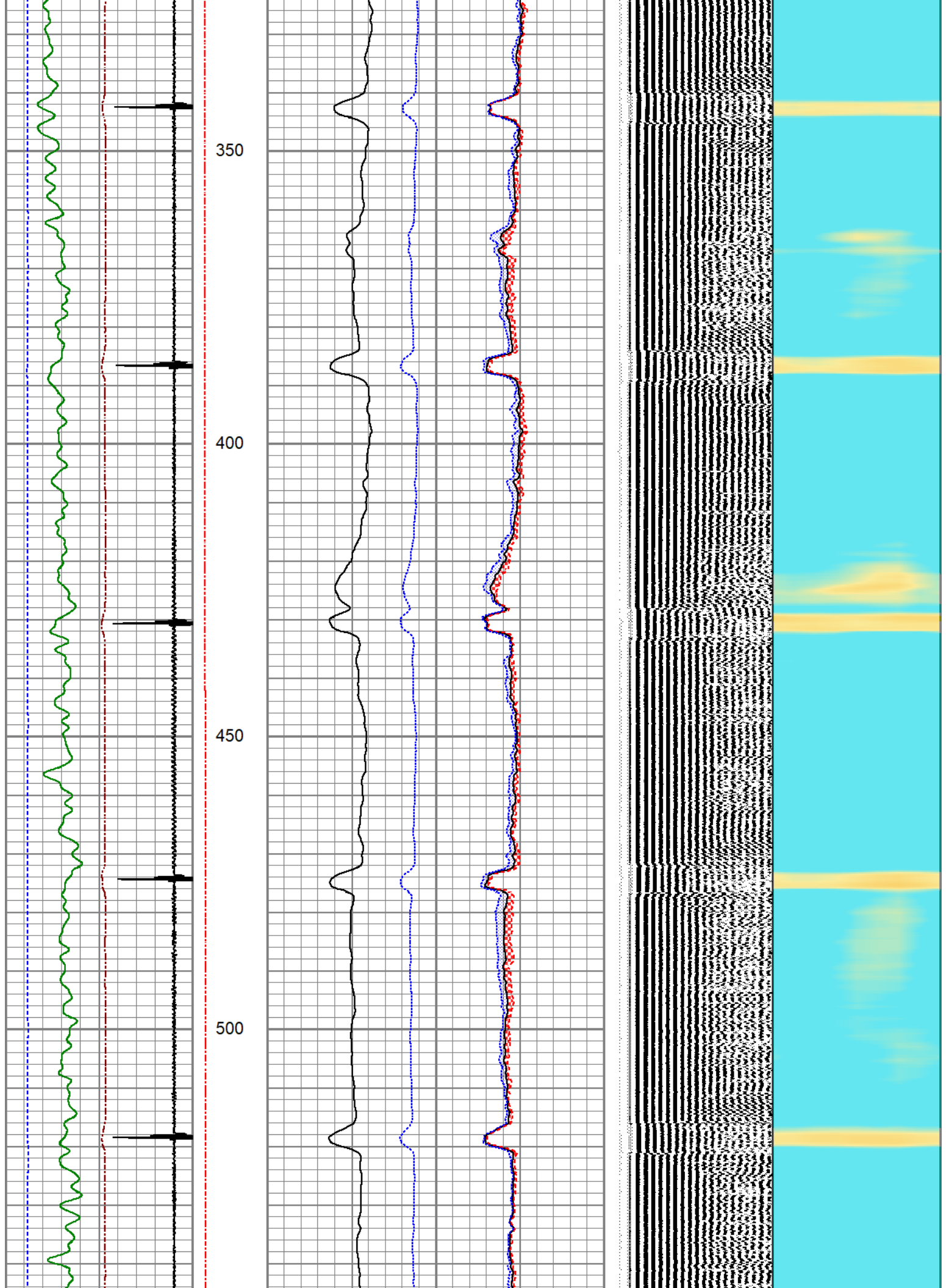
ZERO PSI APPLIED AT SURFACE

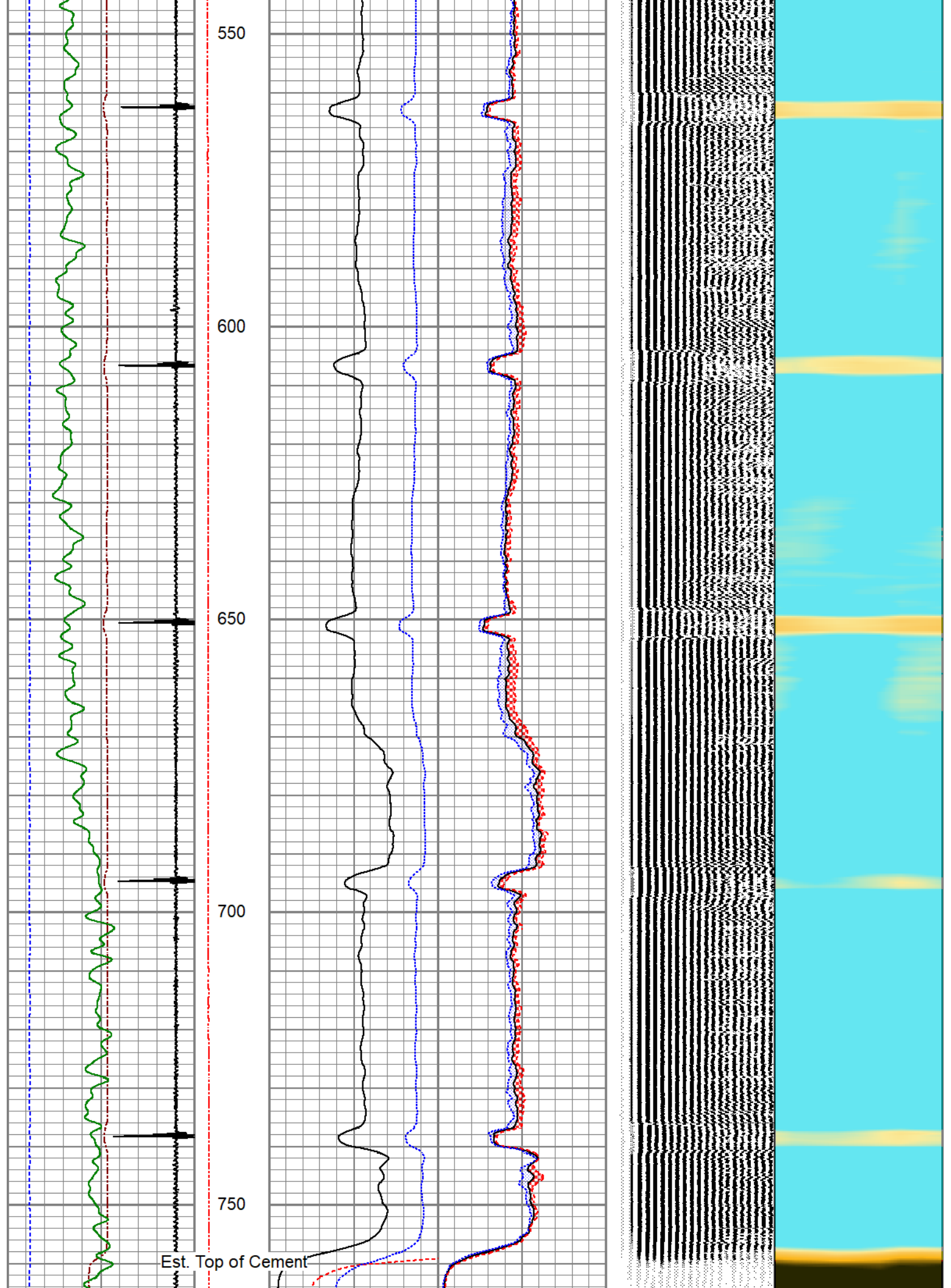
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 Dataset Creation Tue Mar 10 10:14:15 2020
 Charted by Depth in Feet scaled 1:240

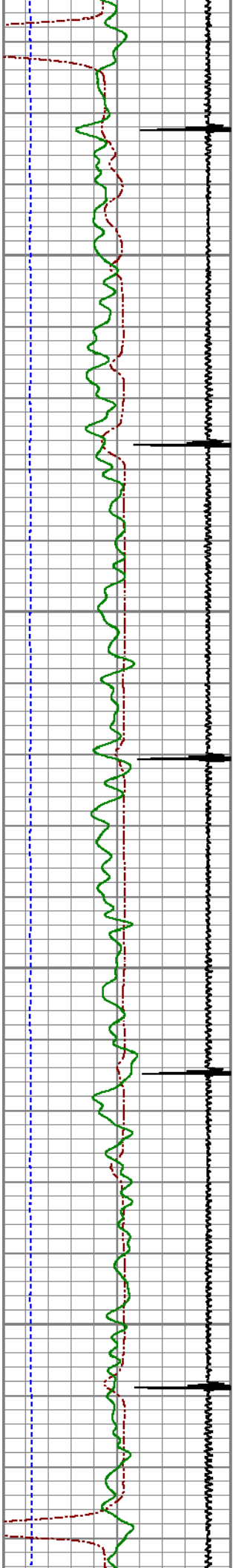
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-9 Collar Locator	0 2000	0 100	0 150	200 1200	
Gamma Ray 0 (GAPI) 150		3' Amplified Amplitude X 5 0 (mV) 20	Sector Amplitude Maximum		
-100 LSPD (ft/min) 100		1 Bond Index 0	0 150		
			Sector Amplitude Minimum		
			0 150		









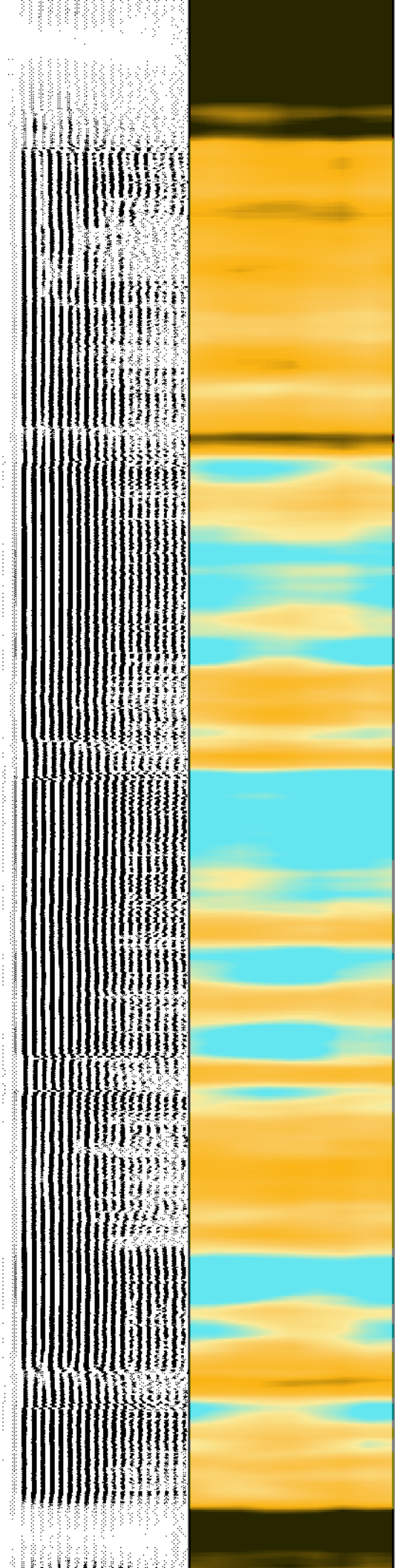
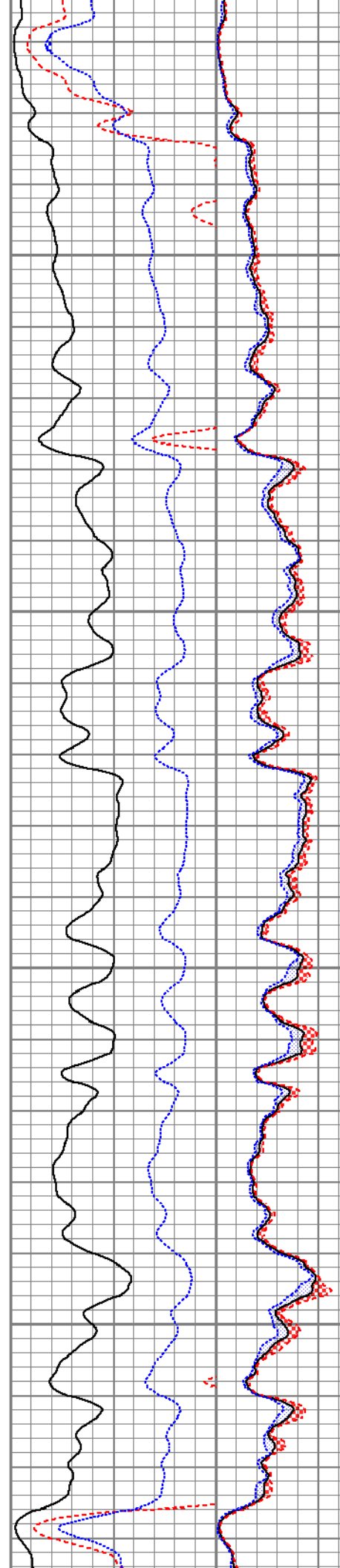


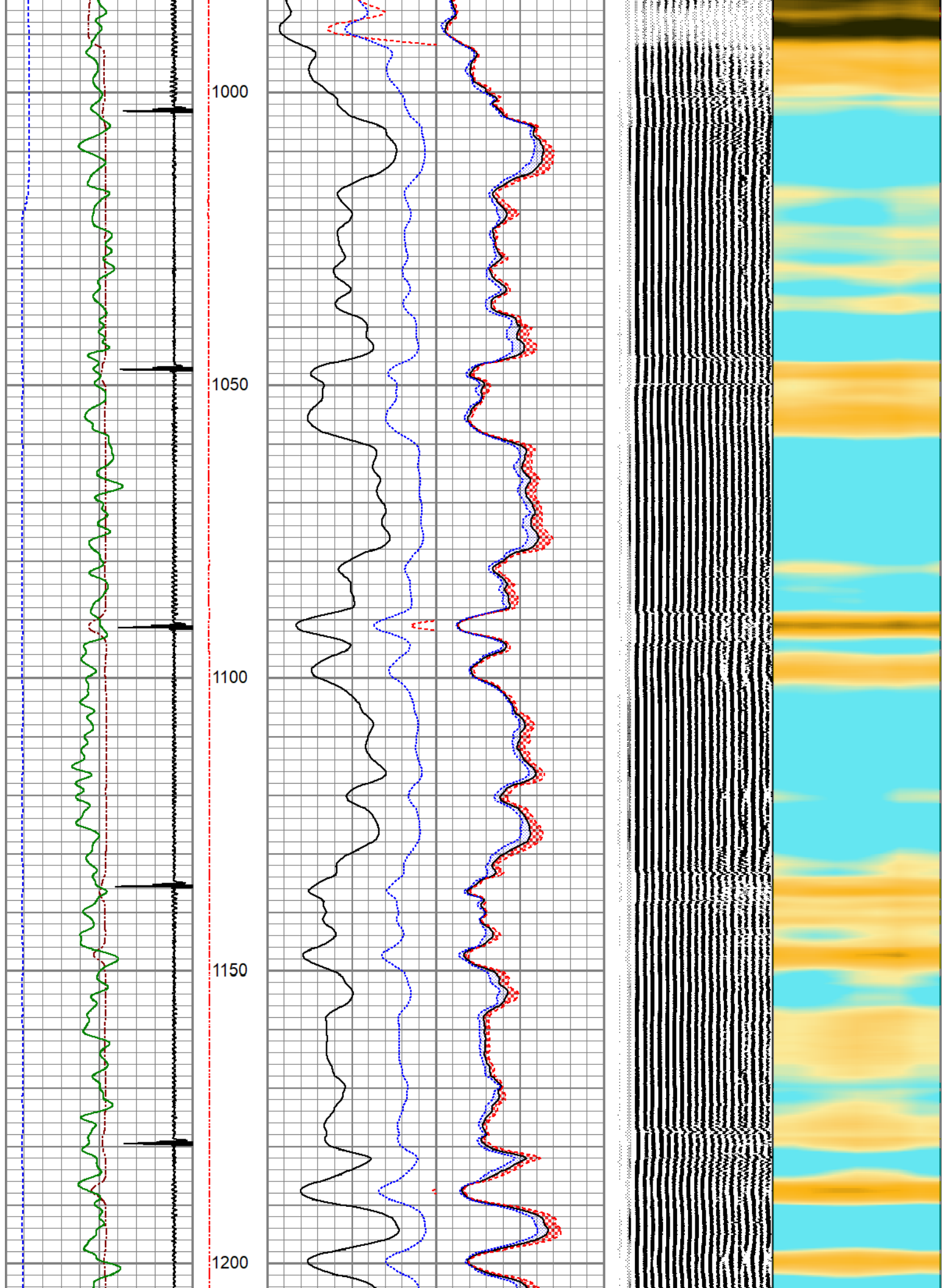
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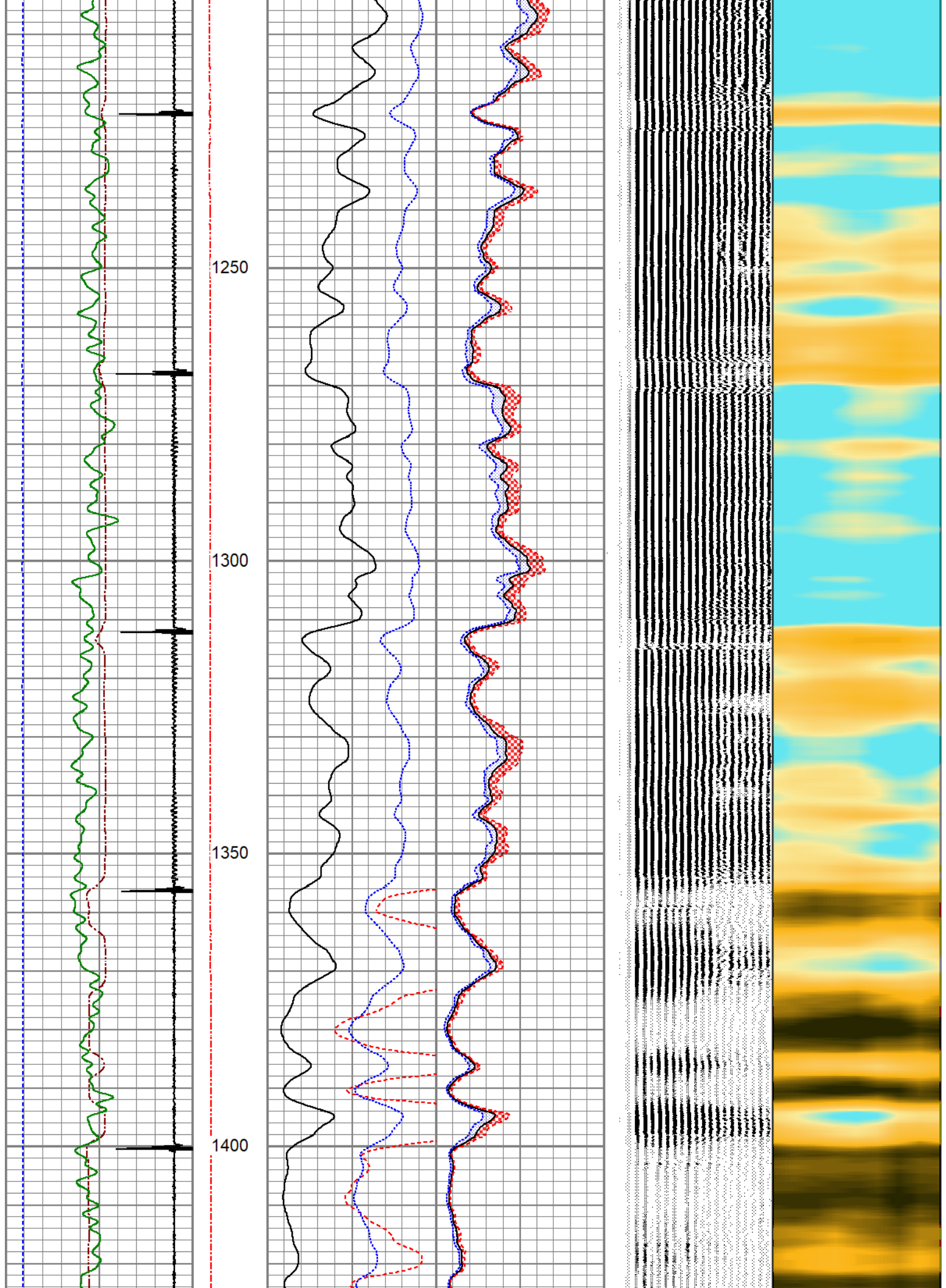
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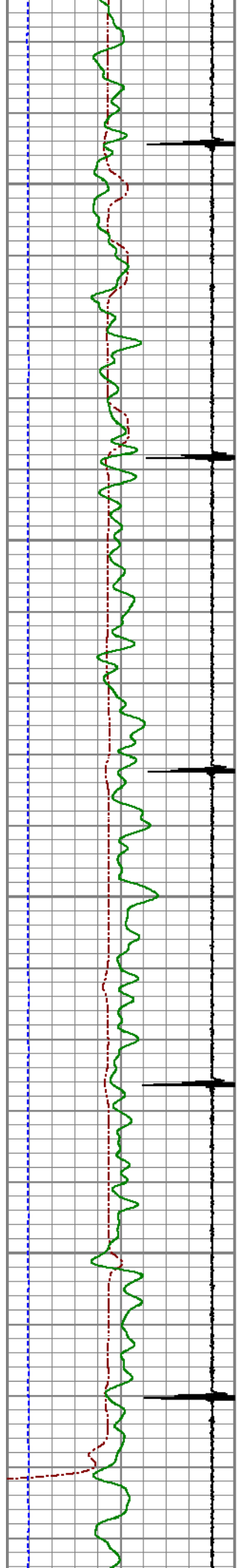
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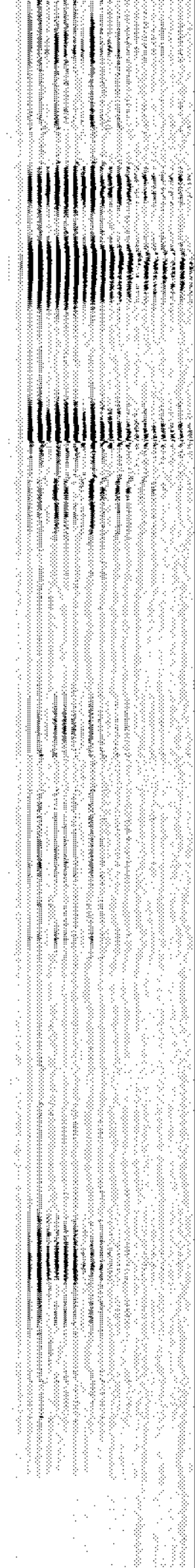
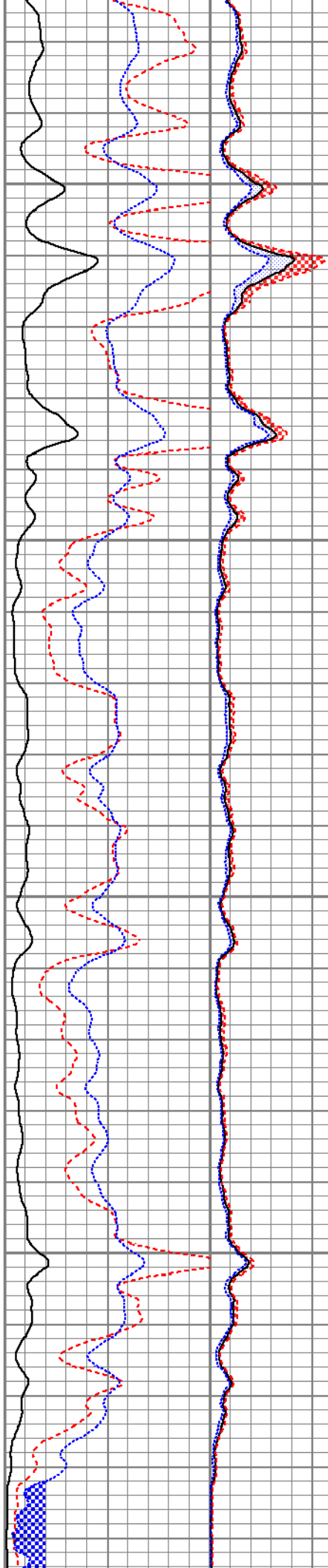


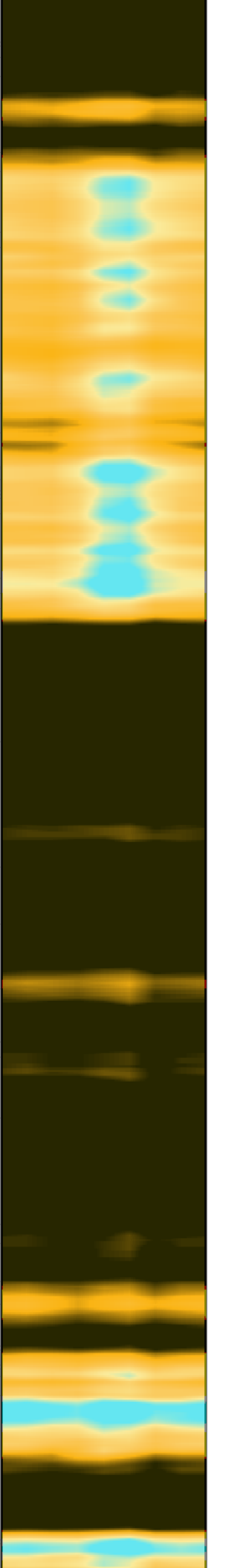
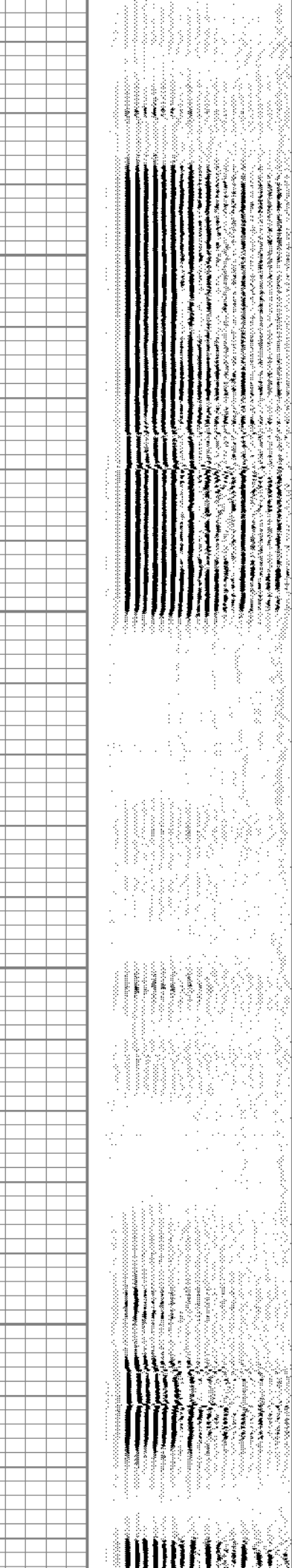
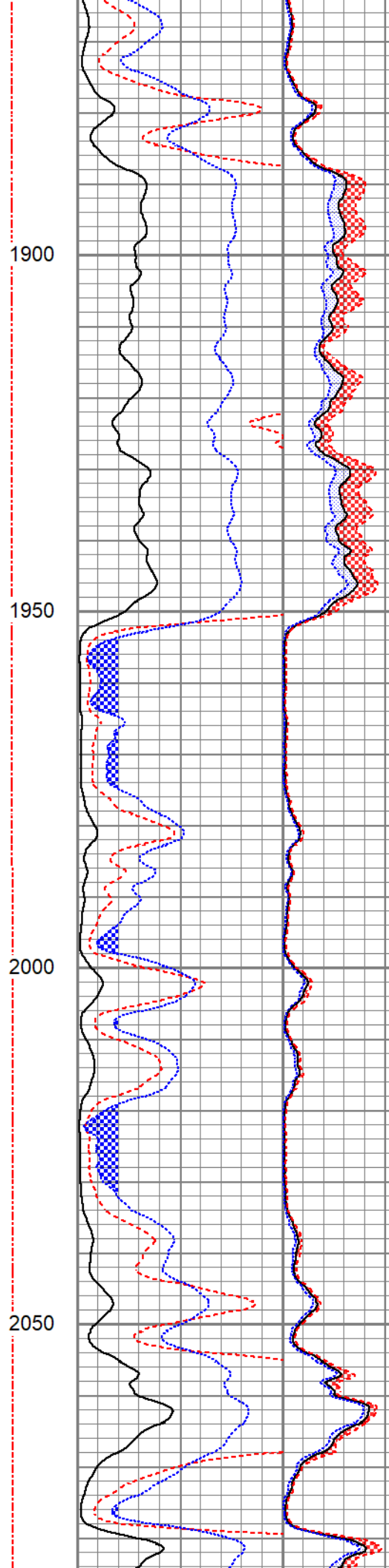
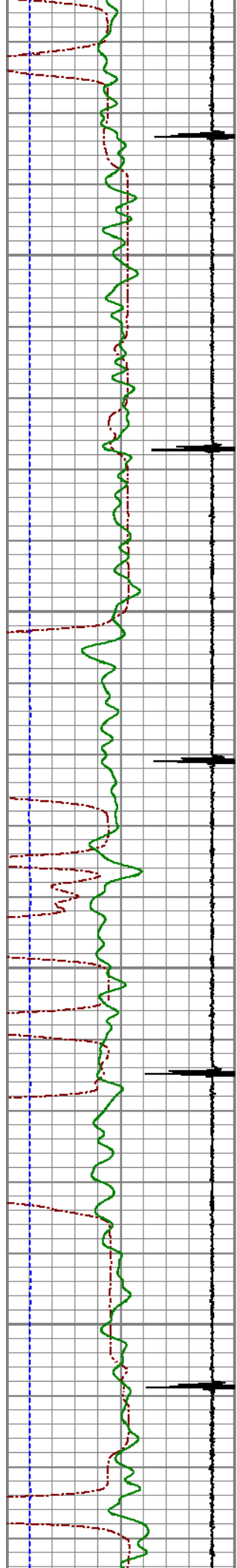


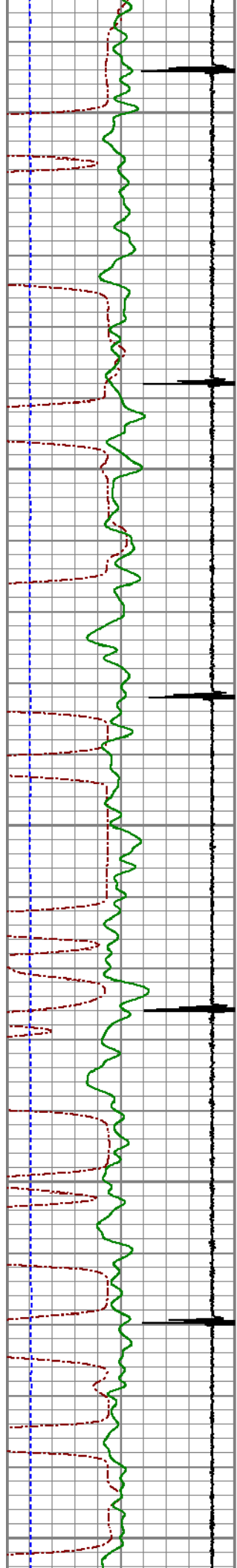




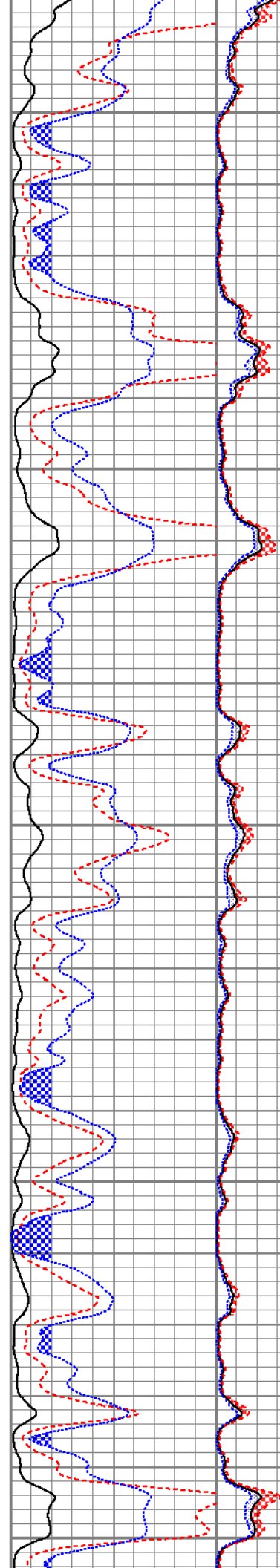
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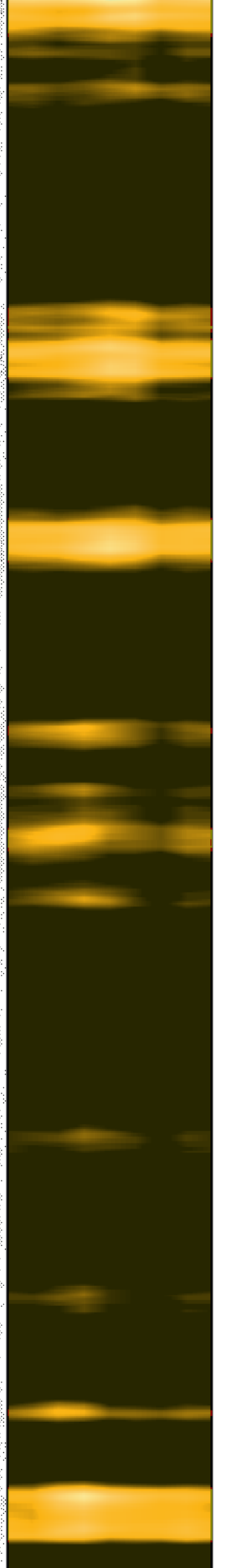


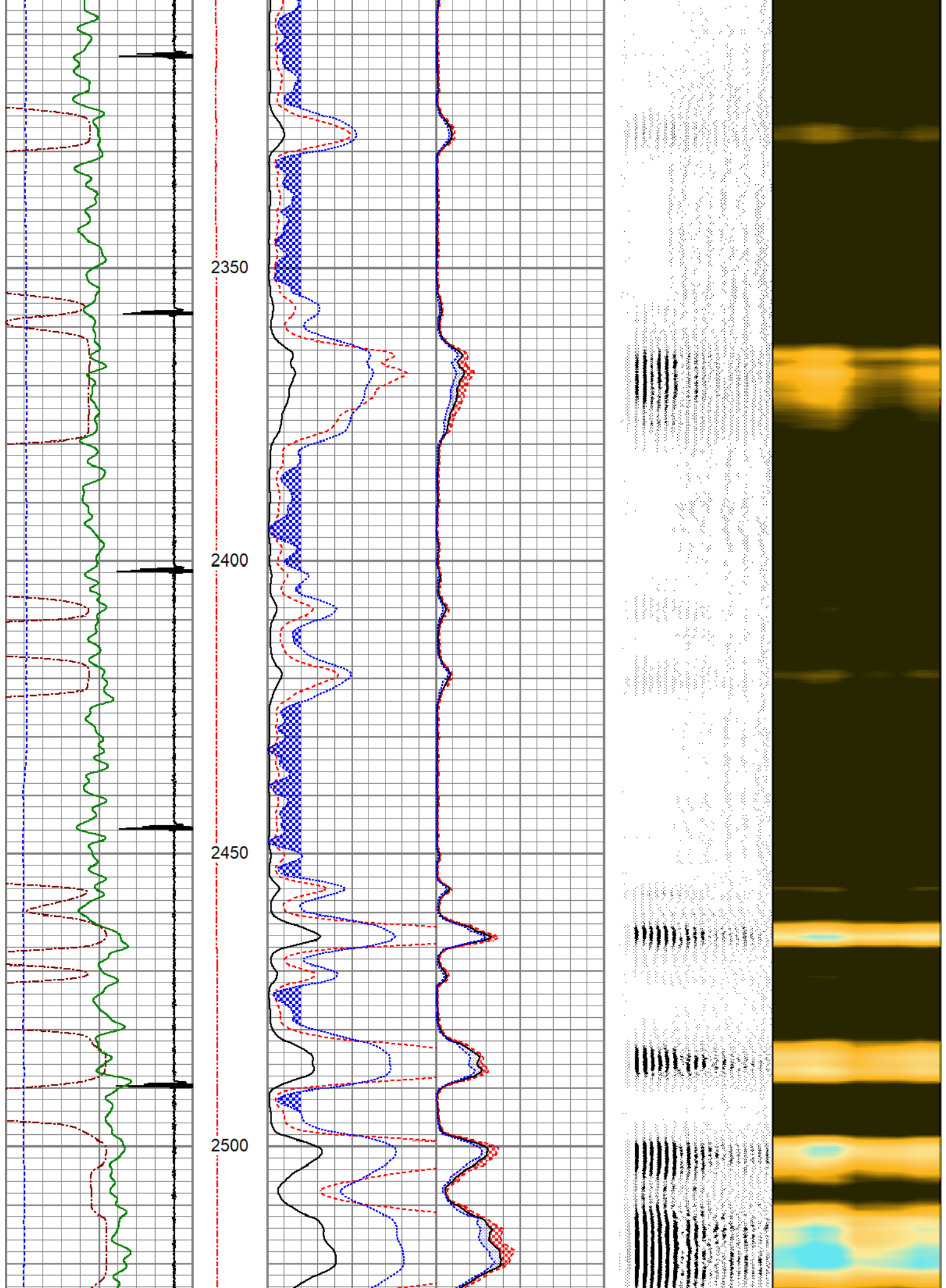


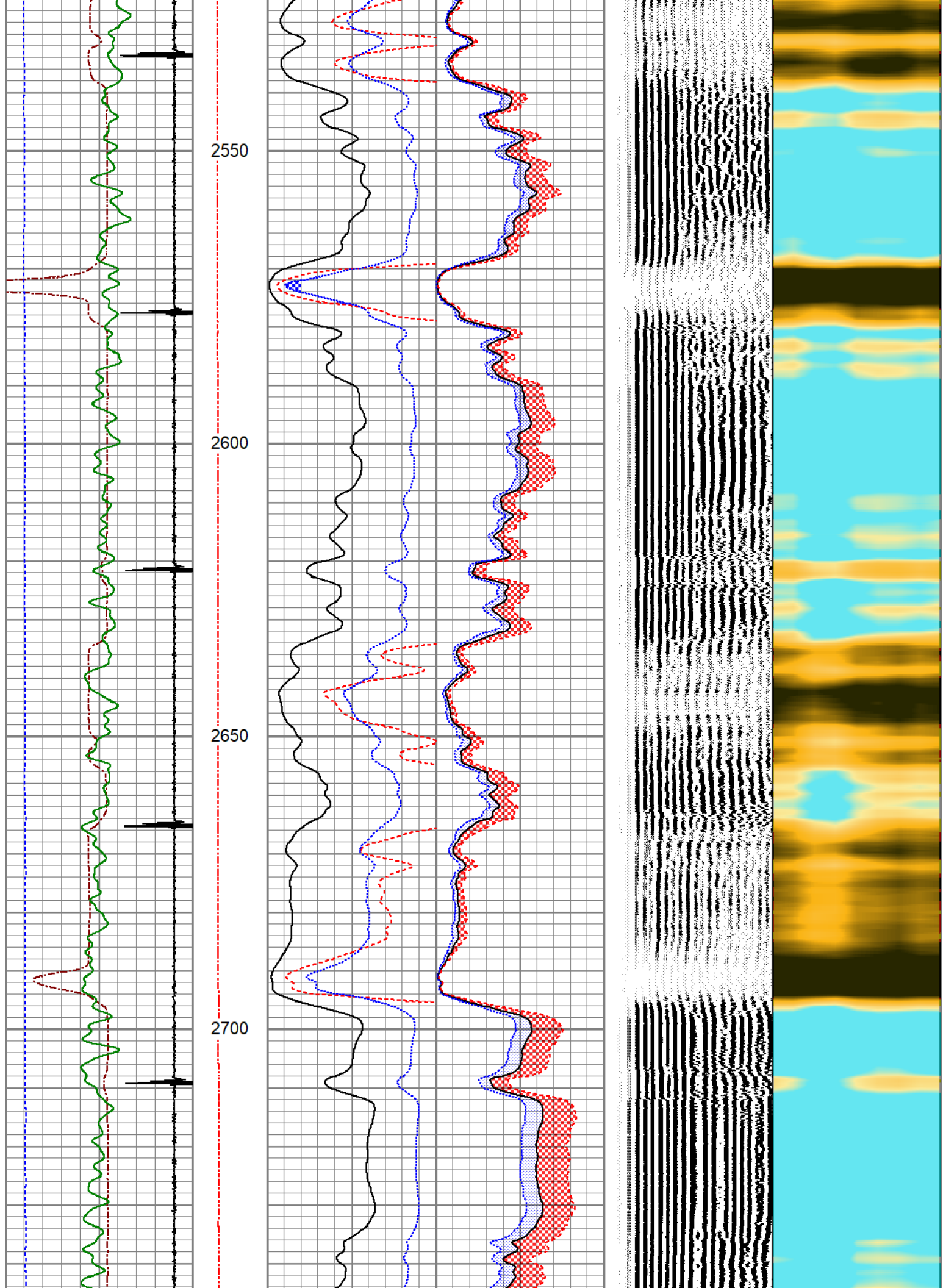
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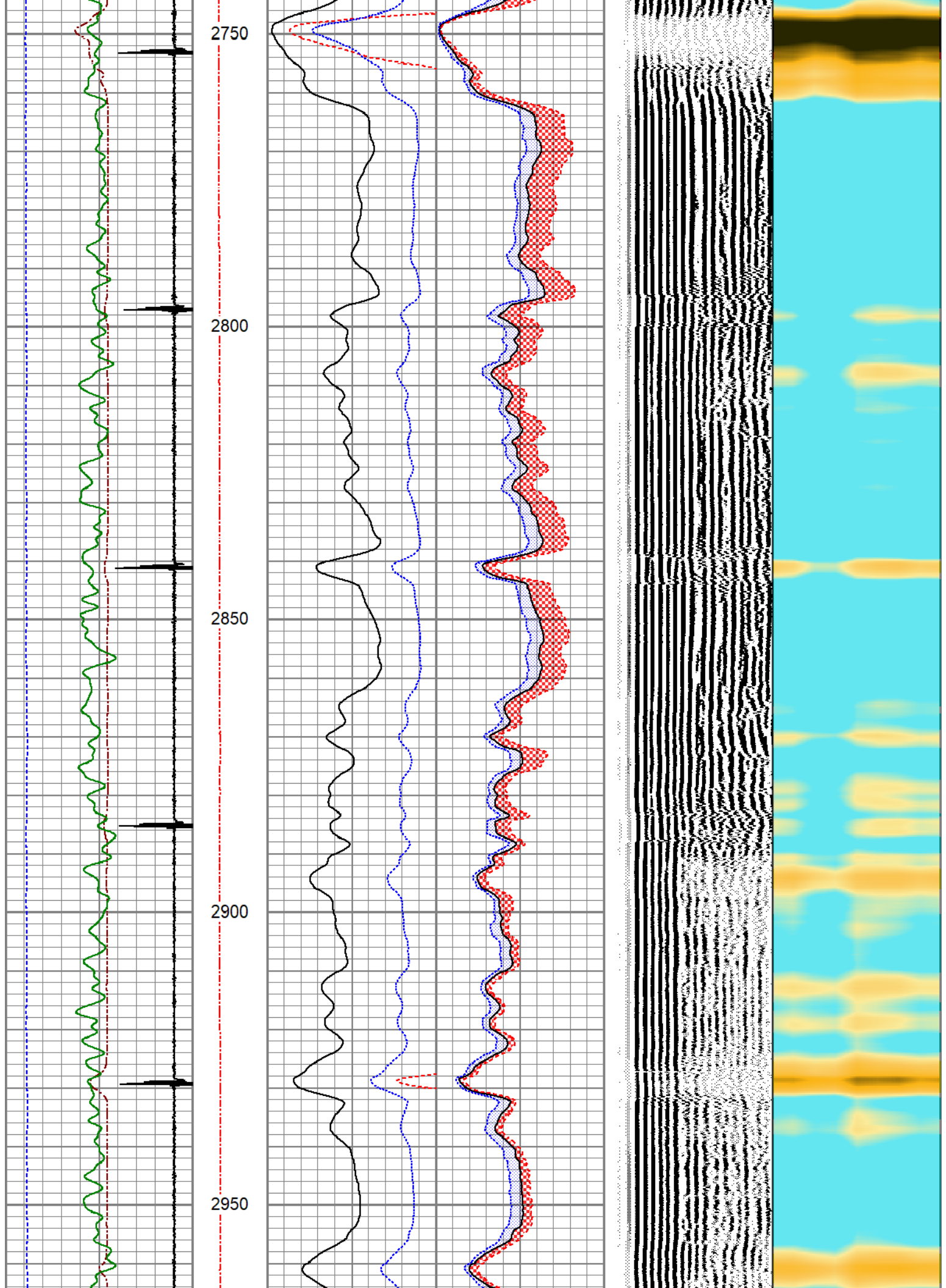


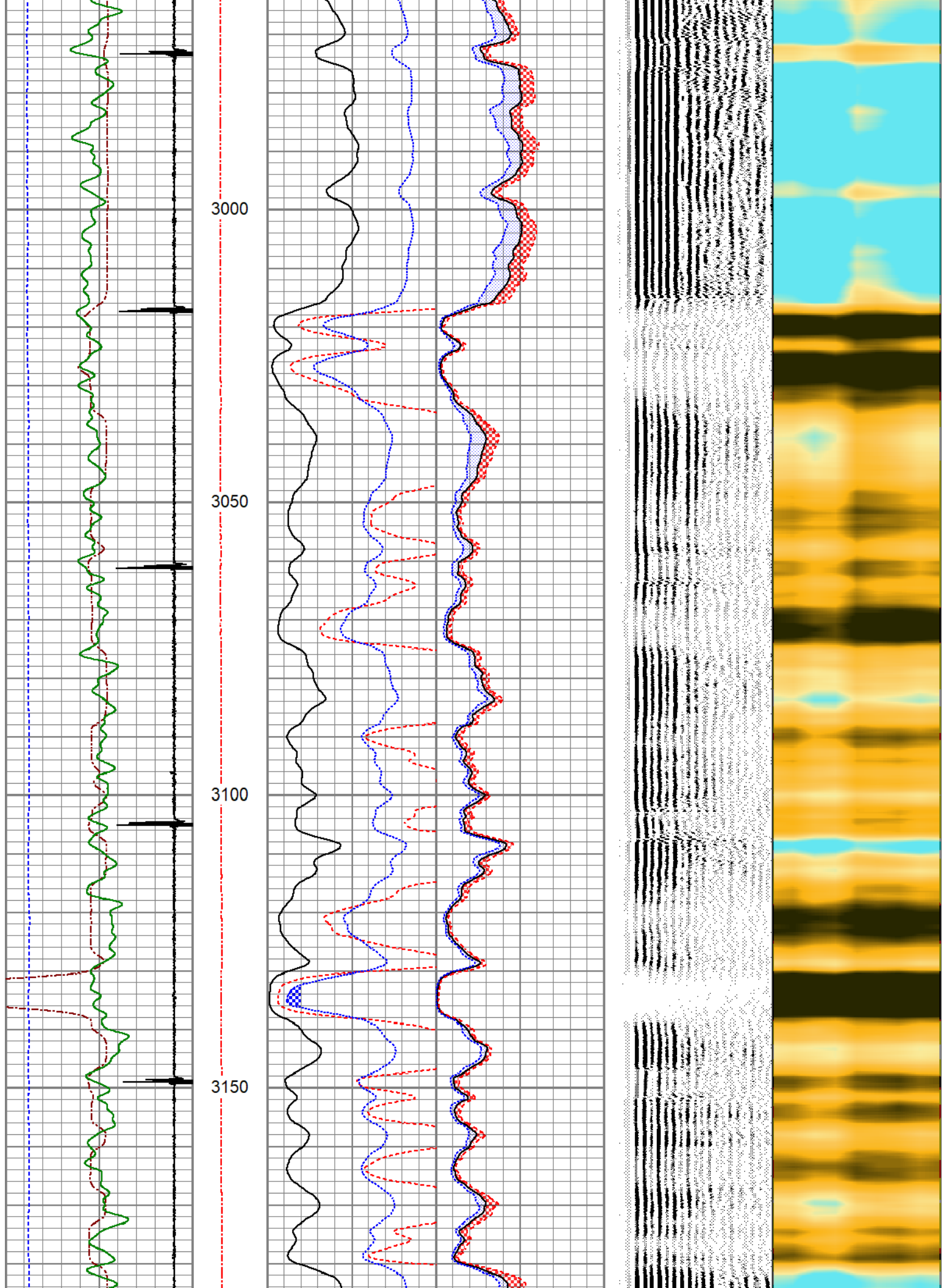
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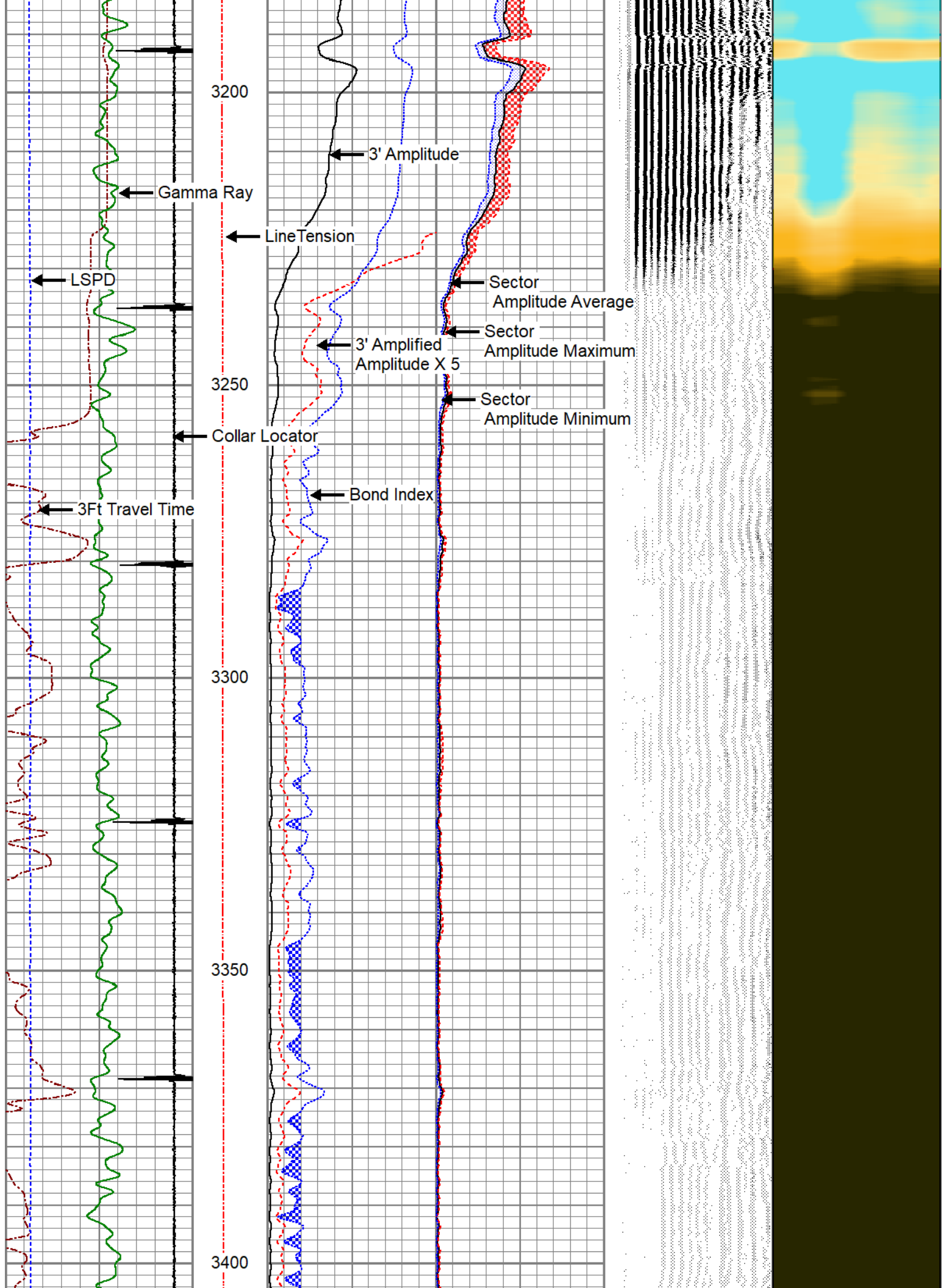


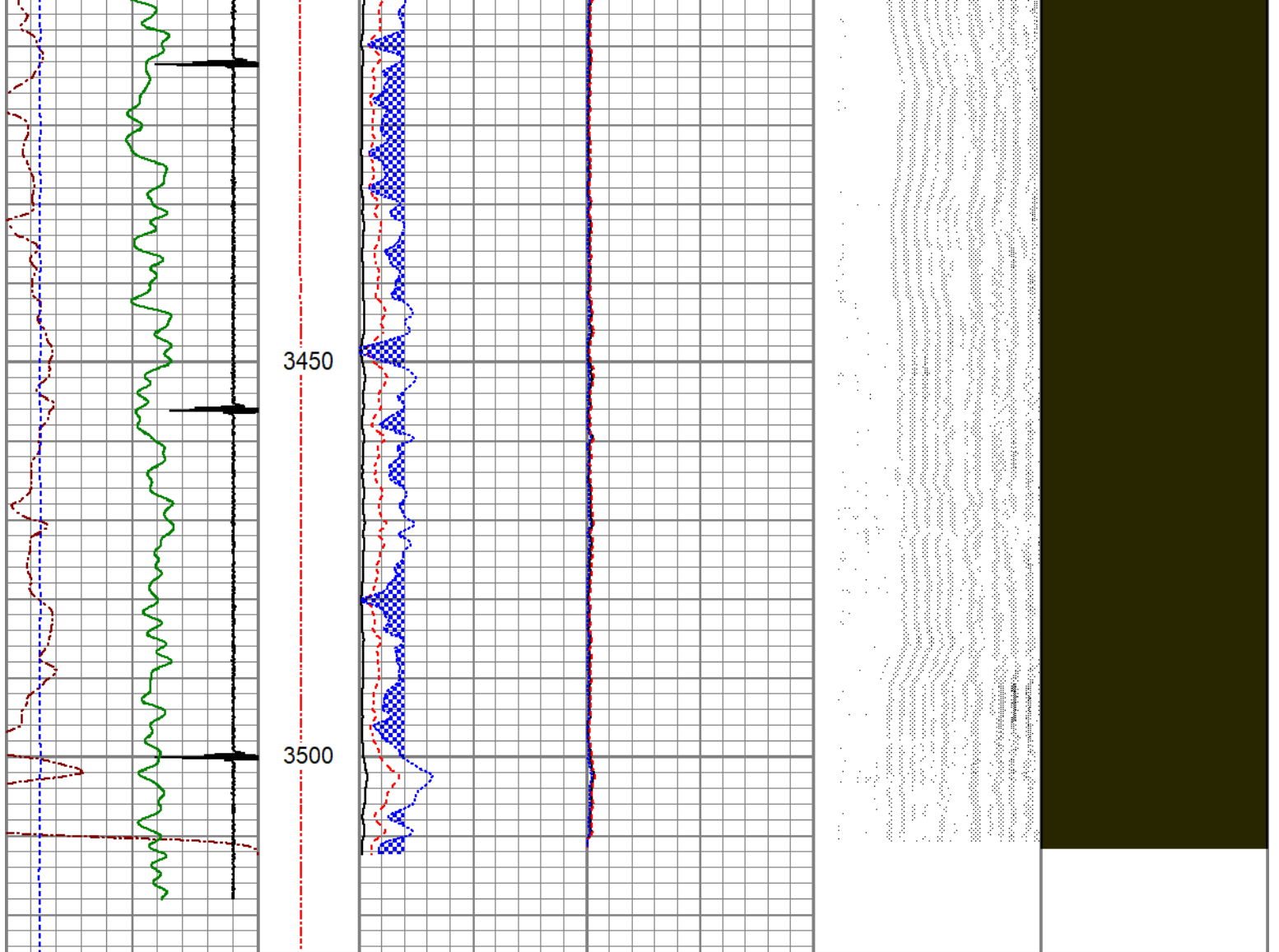












3Ft Travel Time 500 (usec)	Line Tension (lb)	3' Amplitude (mV)	Sector Amplitude Average	VDL (usec)	1	Sector Map	8
-9 Collar Locator	0 2000	0 100	0 150	200 1200			
Gamma Ray 0 (GAPI)		3' Amplified Amplitude X 5 0 (mV)	Sector Amplitude Maximum				
-100 LSPD (ft/min)	100	1 20	0 150				
		Bond Index	Sector Amplitude Minimum				
		0 0	0 150				

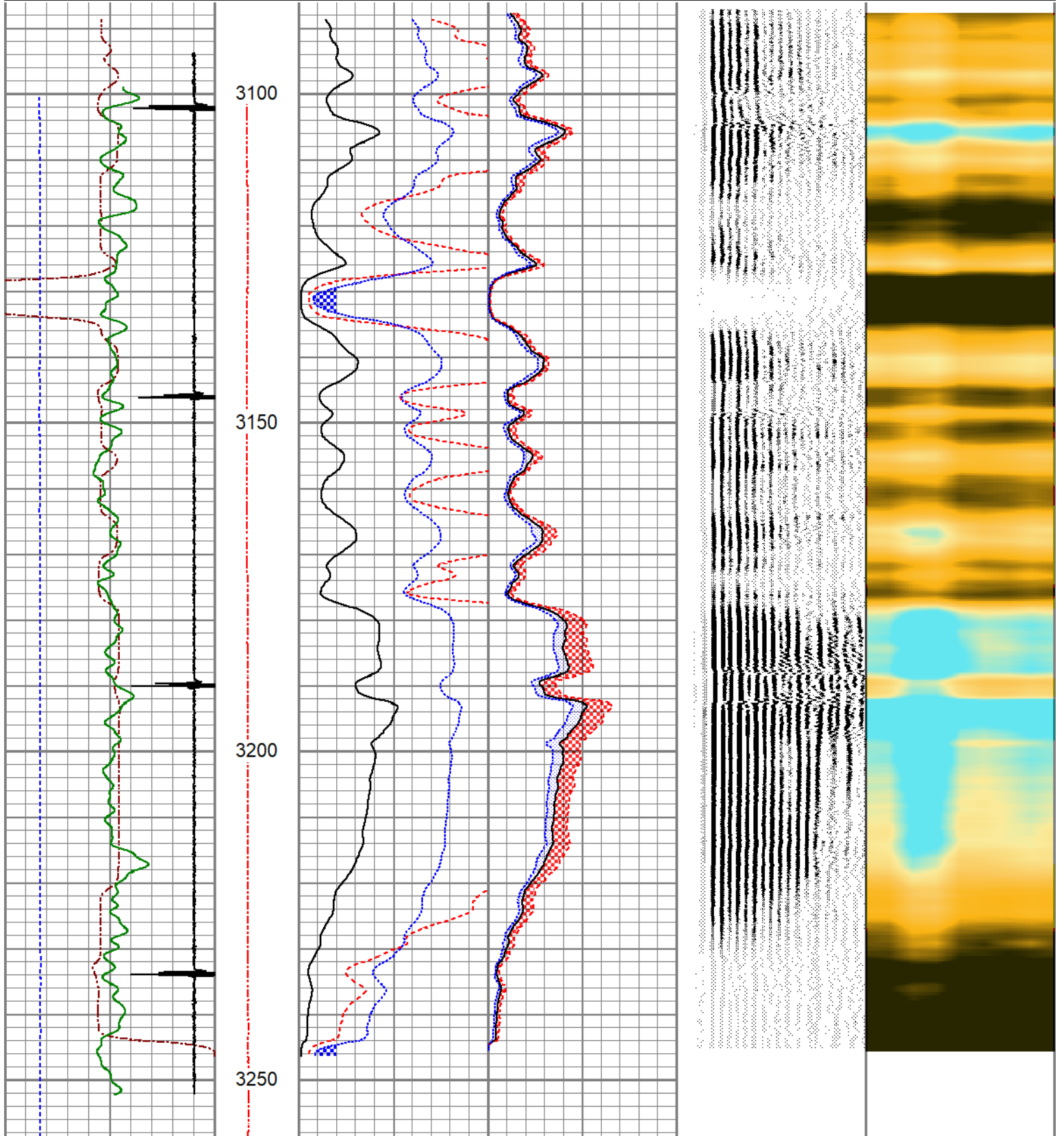


REPEAT SECTION
ZERO PSI APPLIED AT SURFACE

Database File: anadarko_vonderlage 22-31_0512326765_20200310_scbl.db
 Dataset Pathname: pass7
 Presentation Format: pinr_scbl
 Dataset Creation: Tue Mar 10 10:09:40 2020
 Charted by: Depth in Feet scaled 1:240

3Ft Travel Time 500 (usec)	Line Tension (lb)	3' Amplitude (mV)	Sector Amplitude Average	VDL (usec)	1	Sector Map	8

500 (usec)	0	0 (lb)	0	100	0	150
-9 Collar Locator	1	0 2000	3' Amplified Amplitude X 5	0	150	
Gamma Ray (GAPI)	150		0 (mV)	20	Sector Amplitude Maximum	
-100 LSPD (ft/min)	100		1 Bond Index	0	0	150
					Sector Amplitude Minimum	
					0	150



3Ft Travel Time	Line Tension	3' Amplitude	Sector Amplitude Average	VDL	1	Sector Map	8
500 (usec)	0 (lb)	0 (mV)	100	200 (usec)			1200

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



PIONEER

Pioneer Energy Services

Company	ANADARKO PETROLEUM CORP.
Well	VONDERLAGE 22-31
Field	WATTENBERG
County	WELD
State	COLORADO