

Company ANTERO  
Well CAVATICA 1H  
Field MARCELLUS  
County WETZEL 4710303481  
State WV

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Well CAVATICA 1H  
Field MARCELLUS  
County WETZEL  
State WV

Location: API #:

Permanent Datum SEC TWP RGE Elevation N/A  
Log Measured From GL 9.5' ABOVE RIG FLOOR  
Drilling Measured From RIG FLOOR  
Other Services GR CCL  
Elevation K.B. N/A D.F. N/A G.L. N/A

Date	17-MAY
Run Number	ONE
Depth Driller	3540'
Depth Logger	3485'
Bottom Logged Interval	3462'
Open Hole Size	10.75" SURFACE
Type Fluid	BRINE
Density / Viscosity	8.7#
Max. Recorded Temp.	89°F
Estimated Cement Top	N/A
Time Well Ready	18:30
Time Logger on Bottom	18:50
Equipment Number	P1 / G1
Location	CHARLEROI, PA
Recorded By	D.JOSEPHIK
Witnessed By	ERIC MAY

Borehole Record		Tubing Record					
Run Number	Bit	From	To	Size	Weight	From	To

Casing Record	Size	Wgt/Ft	Top	Bottom
Surface String	9.625"	36#	SURFACE	3540'
Prot. String				
Production String				
Liner				

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All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on our part, 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. These interpretations are also subject to our general terms and conditions set out in our current Price Schedule.


**Comments**

**LOG ZERO TOP OF 9.625" CASING (9.5' ABOVE RIG FLOOR)**

**FREE PIPE =51.3mv**  
**BONDED PIPE = 1mv**

**THANK YOU FOR USING 9 ENERGY SERVICE**

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Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb)
CHD	20.91		CHD-Titan Standard 1 7/16" Cable Head	1.02	1.44	1.00
CENT	19.89					

			CENT-Titn275Adj Titan 2 3/4" Adjustable Centralizer	2.86	2.75	35.00
RBT HeadVolt	17.03 16.97					
Temp	14.12					
WVFS8	11.89					
WVFS7	11.89					
WVFS6	11.89					
WVFS5	11.89					
WVFS4	11.89					
WVFS3	11.89					
WVFS2	11.89					
WVFS1	11.89					
WVF3FT	11.89					
WVF5FT	10.89					
CENT	7.64					
WVFCAL	7.64					
HEADVOLT	7.64					
			RBT-Probe275T (FW1312-32) Probe 2.75" Radial with Integral Temperature Sub	9.39	2.75	90.00
			CENT-Titn275Adj Titan 2 3/4" Adjustable Centralizer	2.86	2.75	35.00
GR	4.78					
CCL	3.88					
GR	2.54		GR-Probe (275) Probe 2 3/4" Logging Gamma Ray	4.78	2.75	57.00

Dataset: antero\_cavatica1a\_cbl\_may-17-2022.db: field/well/run1/pass5  
 Total length: 20.91 ft  
 Total weight: 218.00 lb  
 O.D.: 2.75 in



MAIN LOG

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0 PSI APPLIED



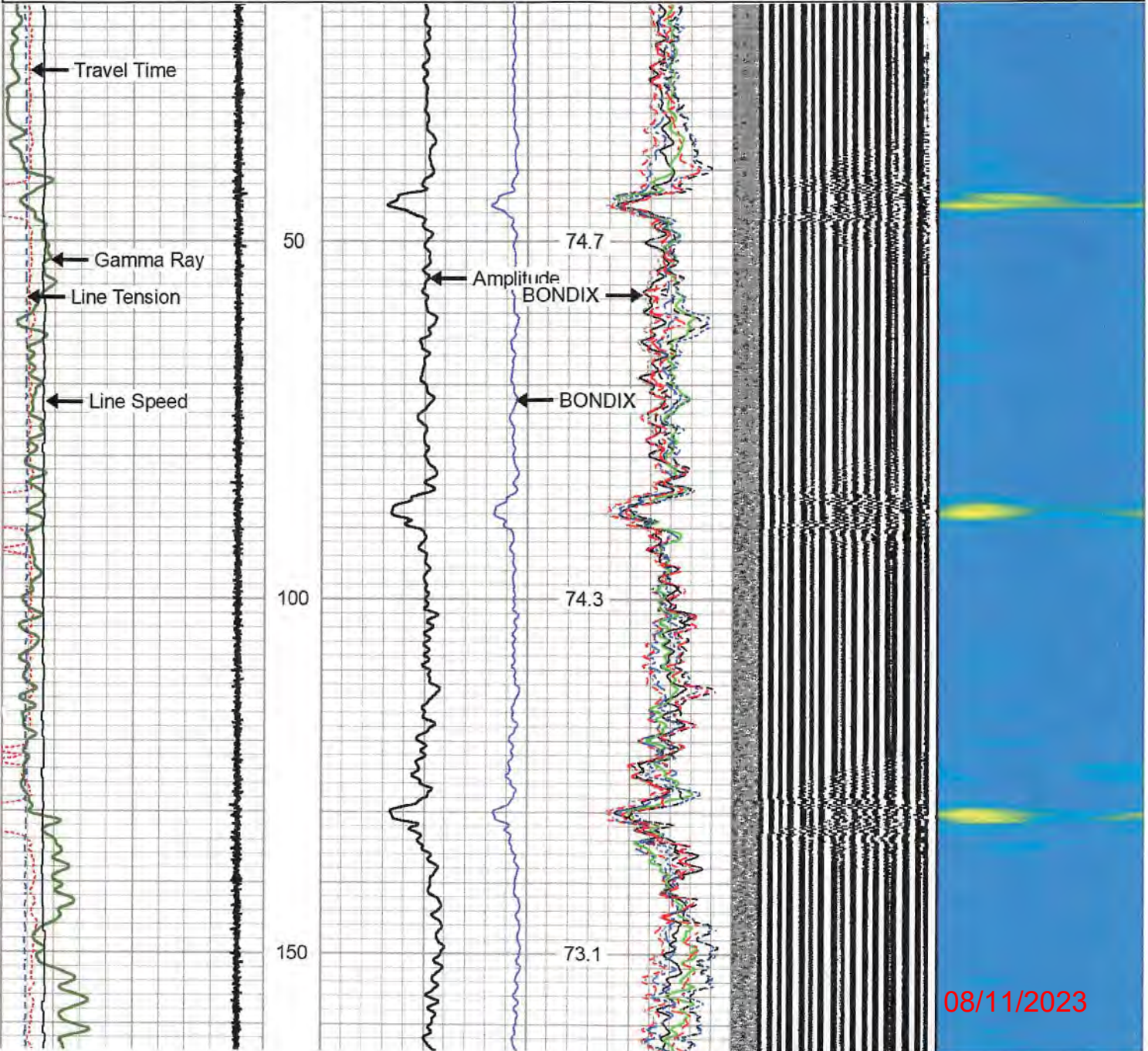
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 Dataset Pathname pass5  
 Presentation Format rcbl-bond index for antero 1020  
 Dataset Creation Tue May 17 18:48:24 2022  
 Charted by Depth in Feet scaled 1:240

340	Travel Time (usec)	240
9	Casing Collar	-1
0	Gamma Ray (GAPI)	150
0	Line Tension (lb)	5000
-100	LSPD (ft/min)	100

0	Amplitude (mV)	100	-5	Sector 1	150
1	BONDIX	0	-5	Sector 2	150
			-5	Sector 3	150
			-5	Sector 4	150
			-5	Sector 5	150
			-5	Sector 6	150
			-5	Sector 7	150
			-5	Sector 8	150

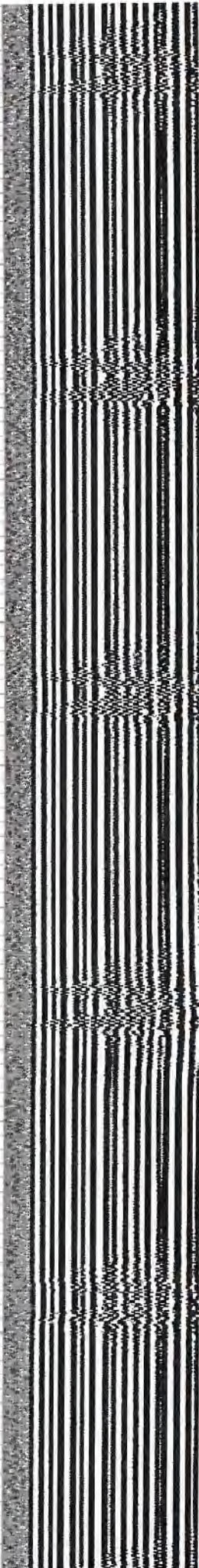
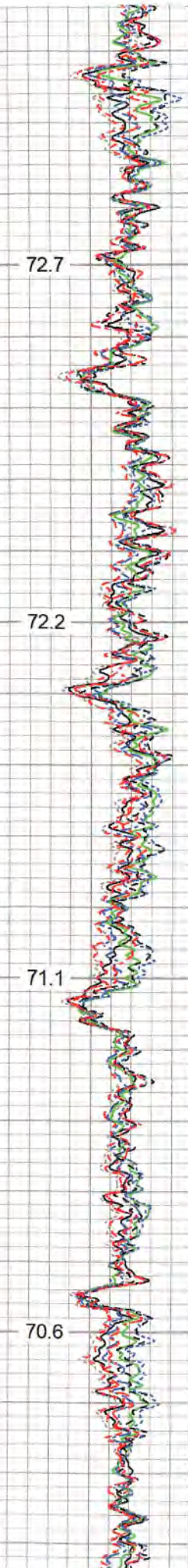
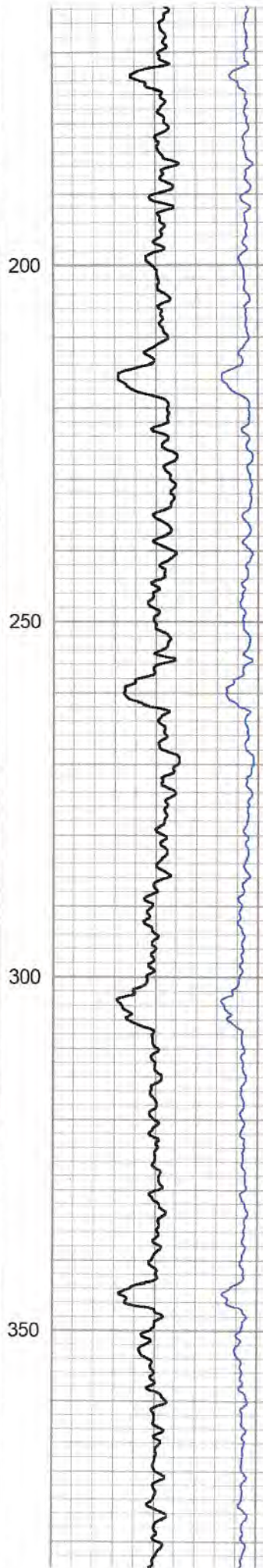
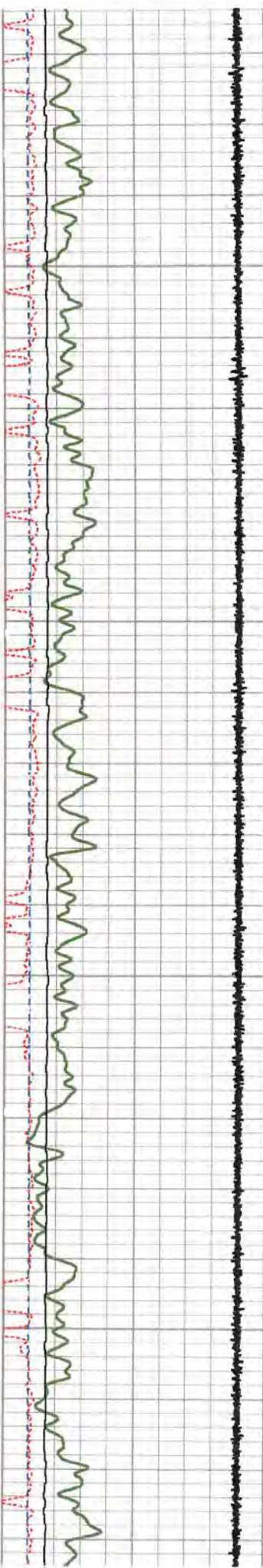
TEMP  
(degF)

Variable Density 1 Cement Map 8  
 300 (usec) 1400



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72.7

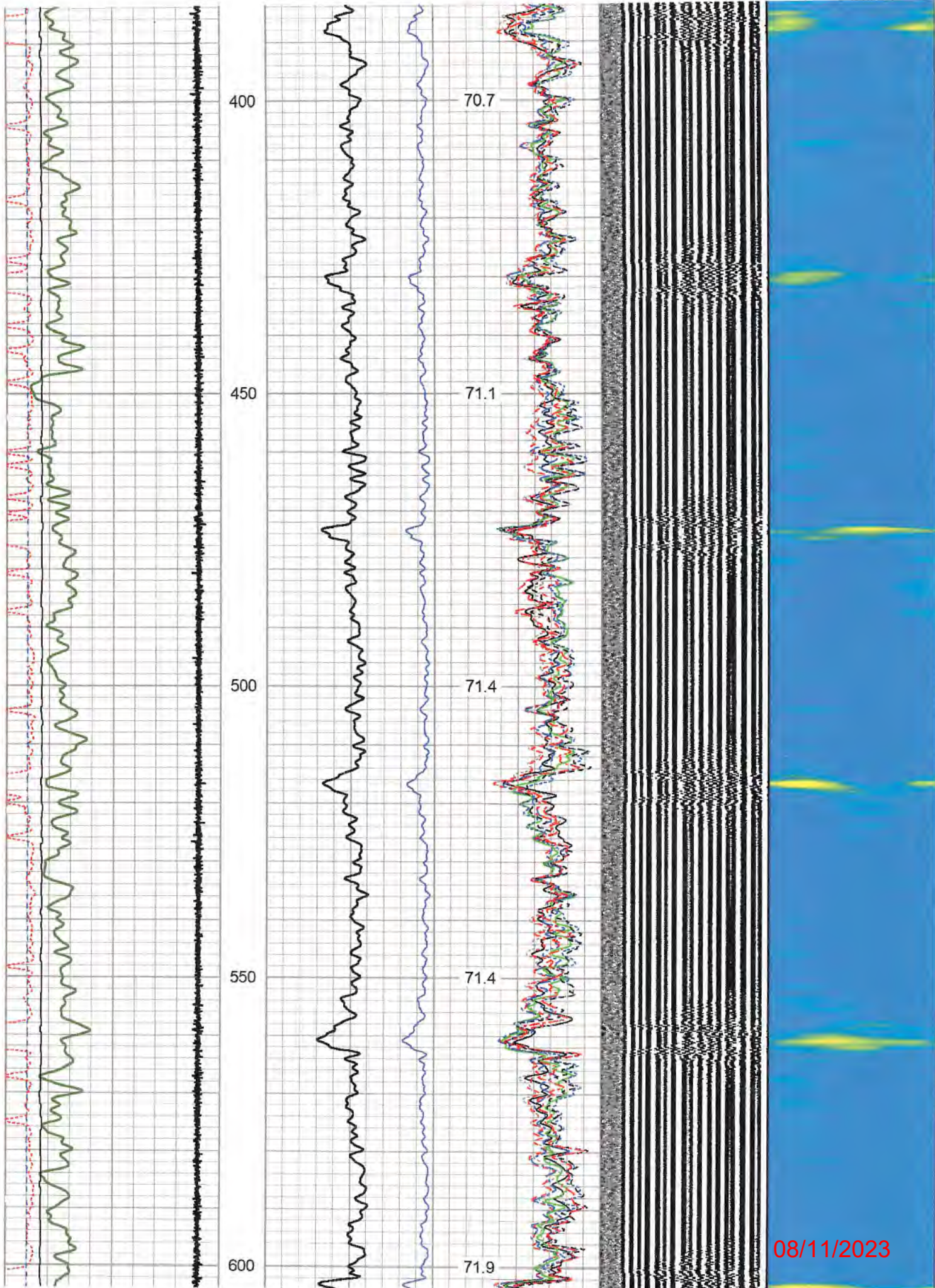
72.2

71.1

70.6

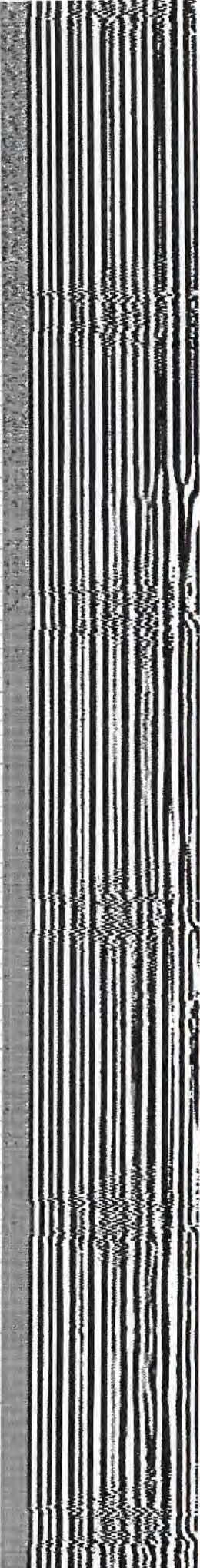
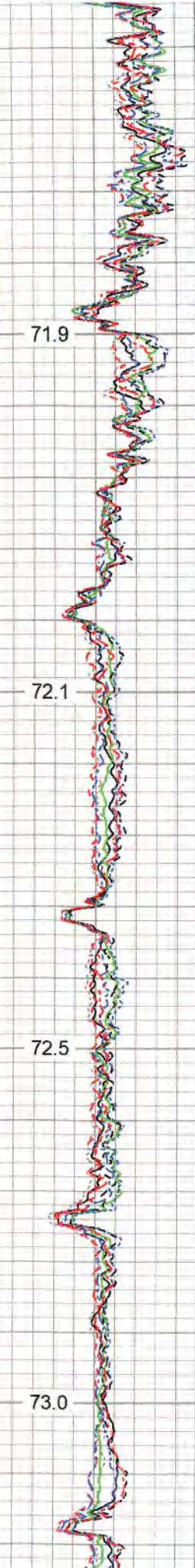
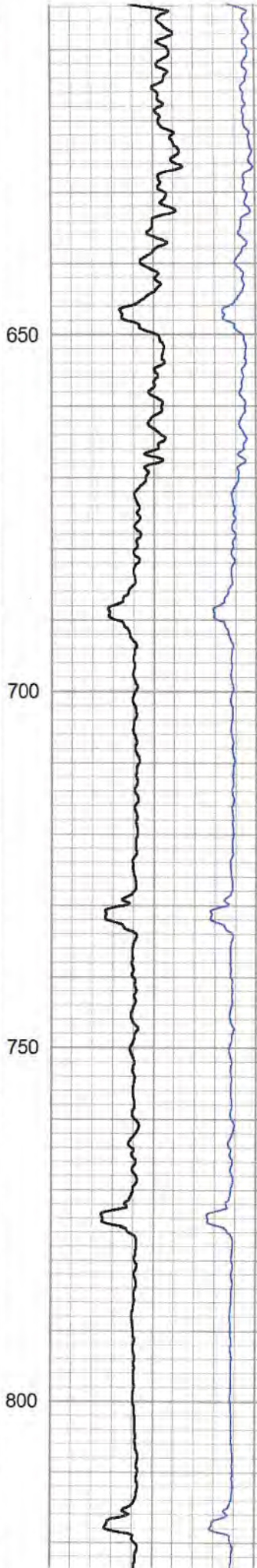
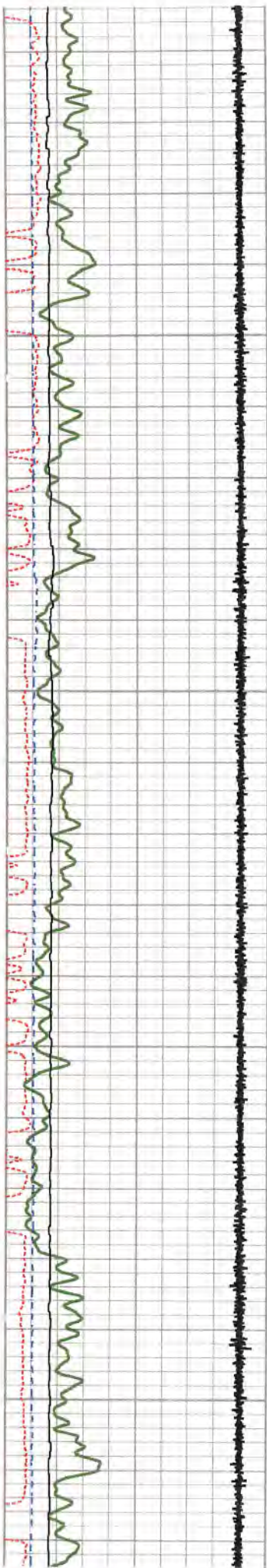
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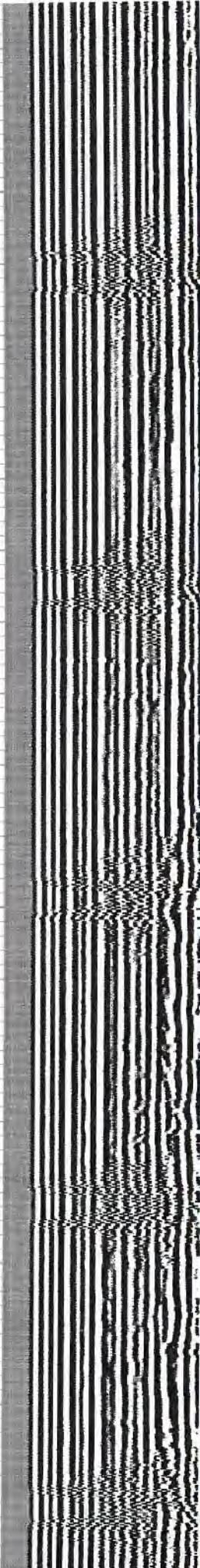
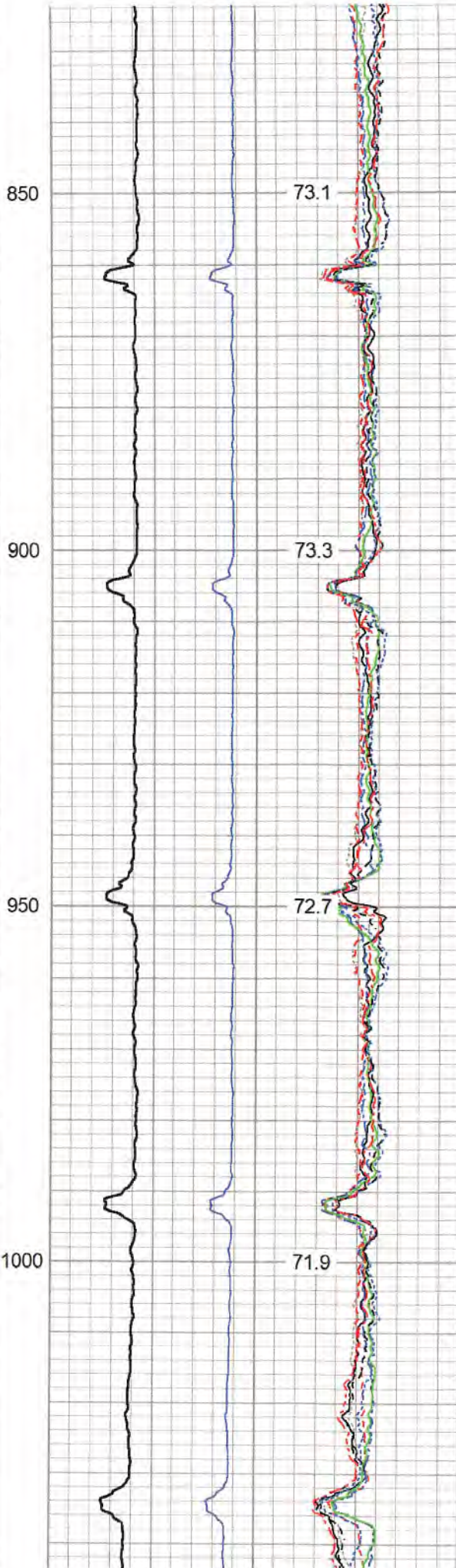
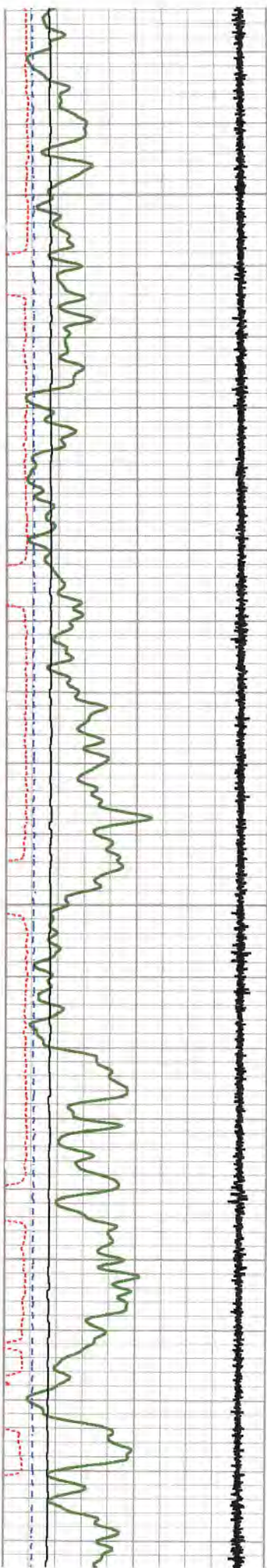
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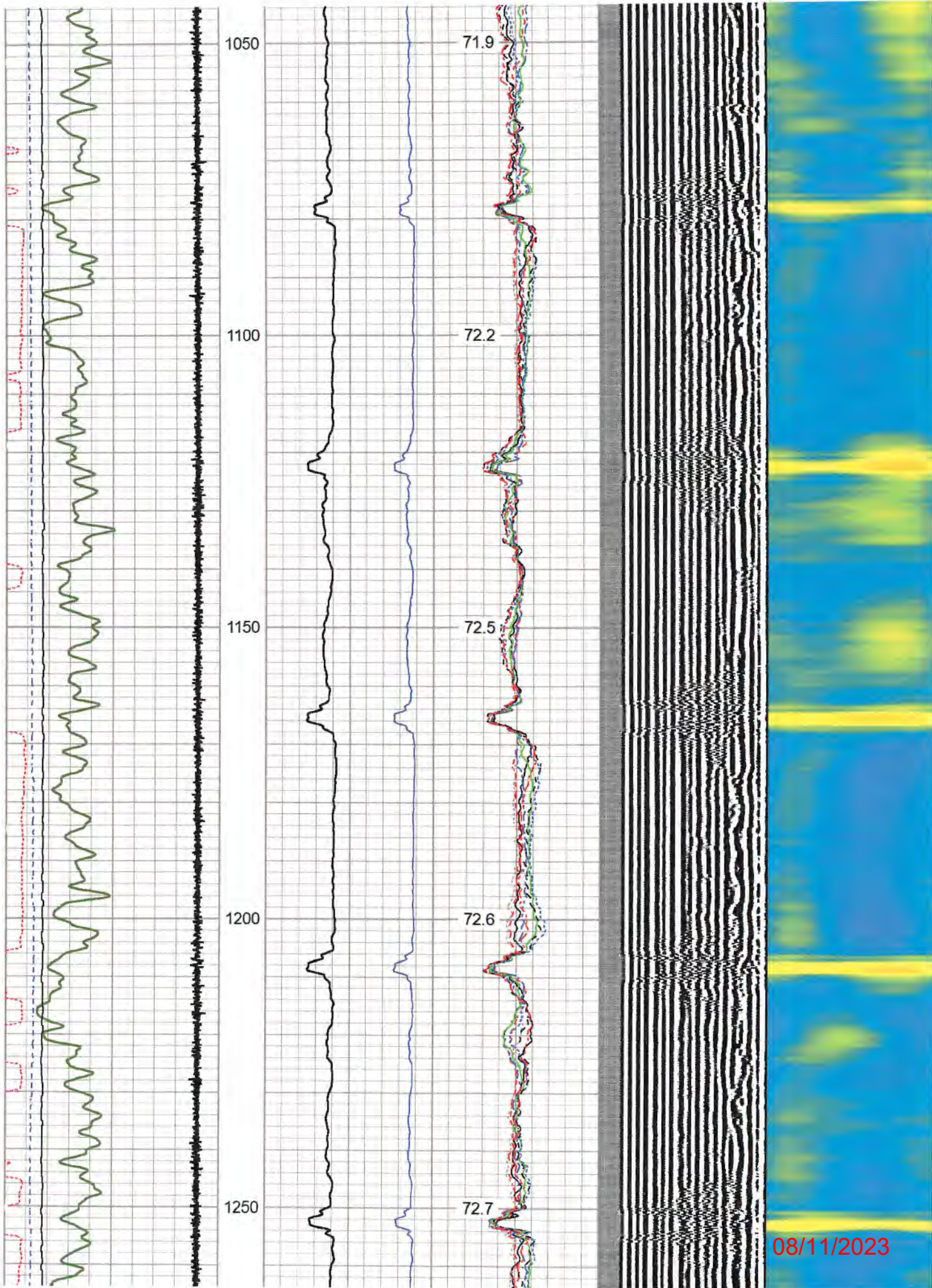
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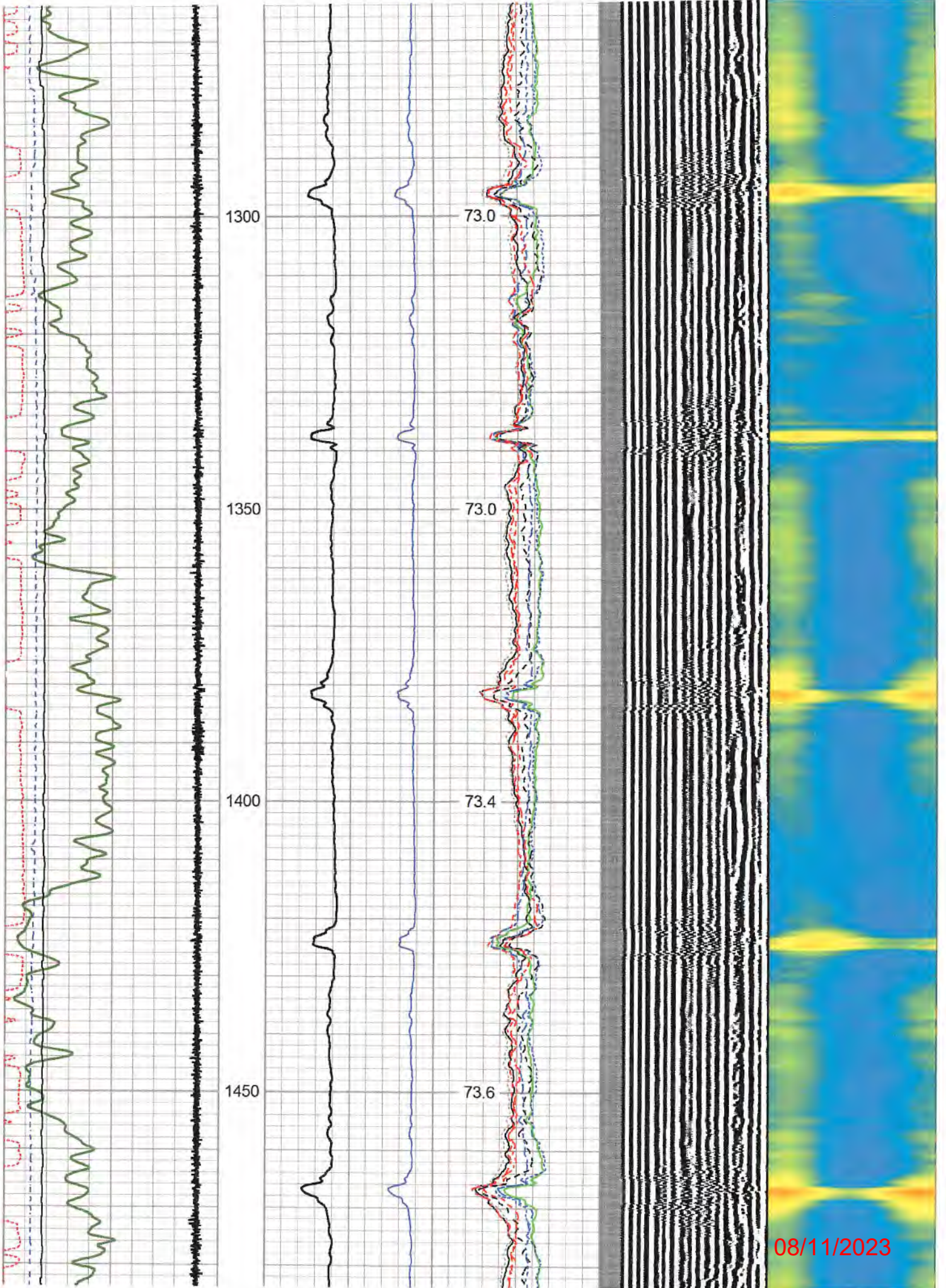


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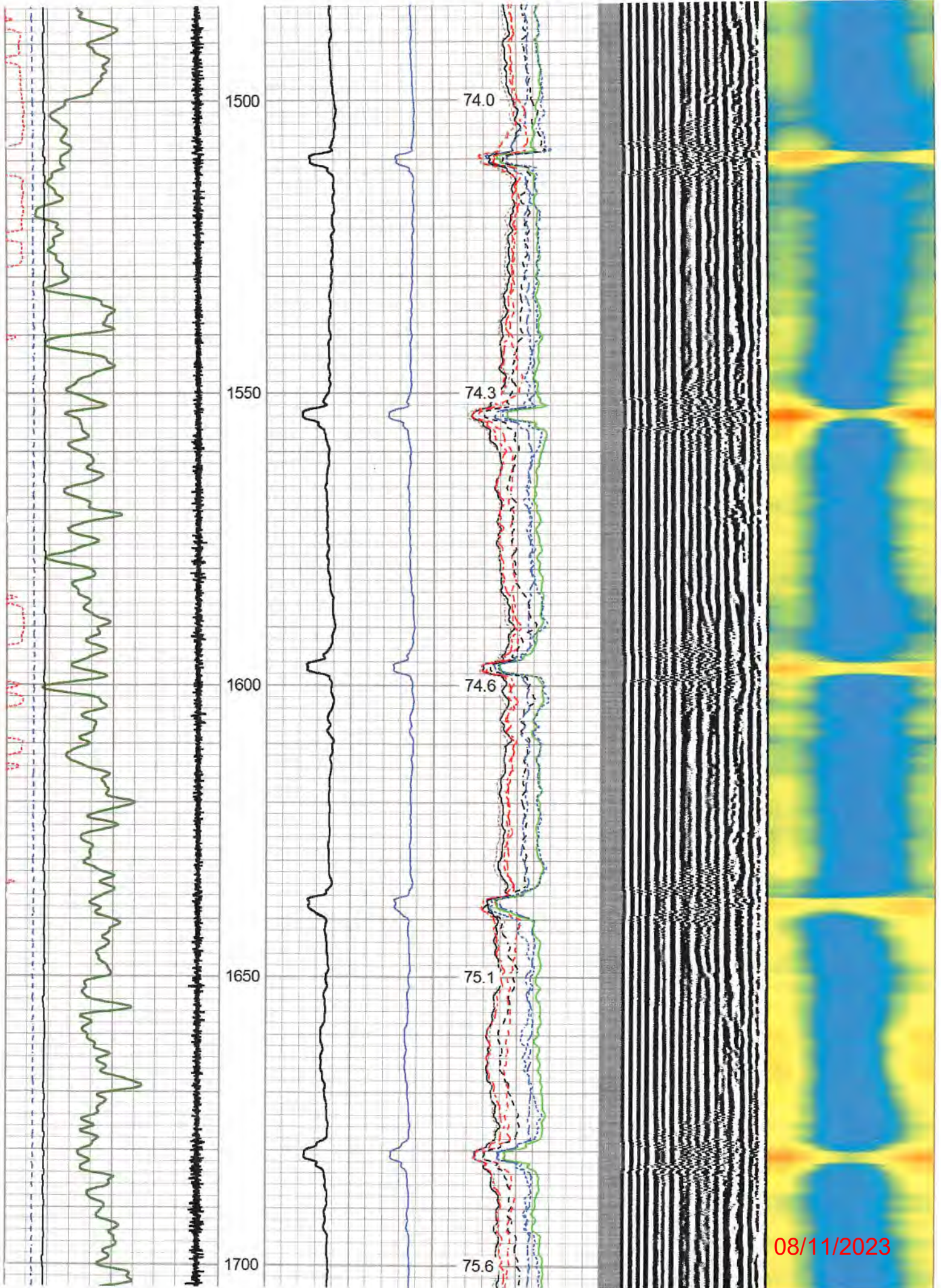




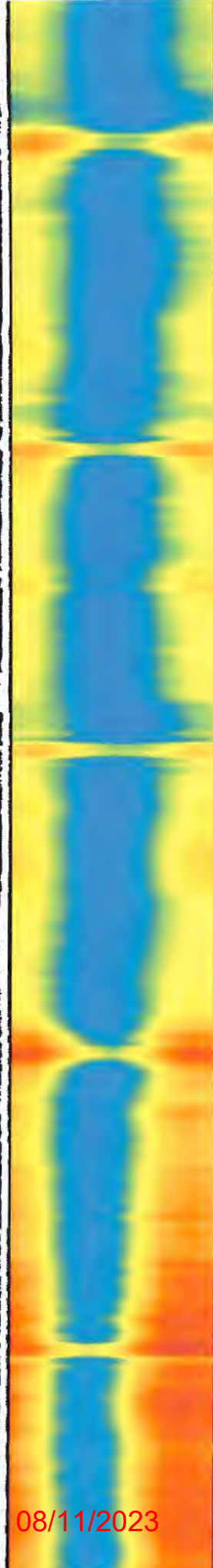
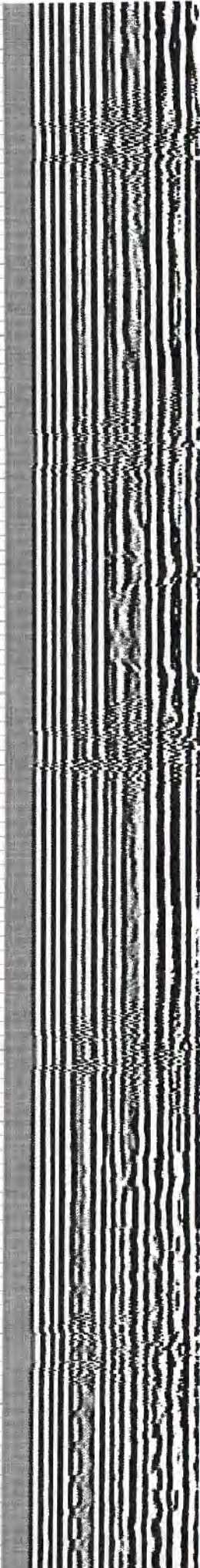
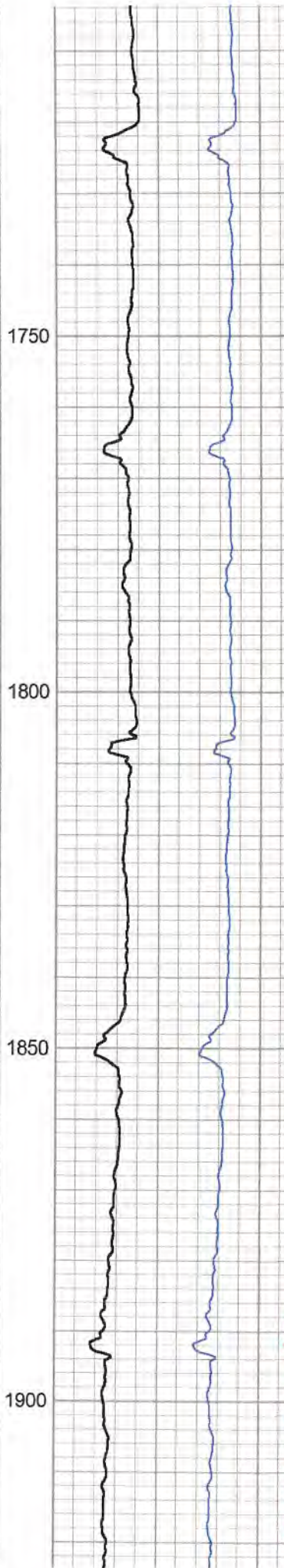
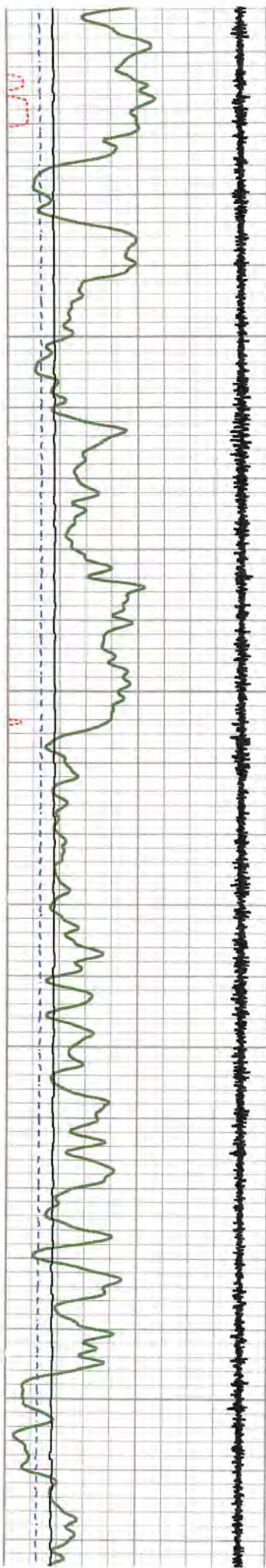


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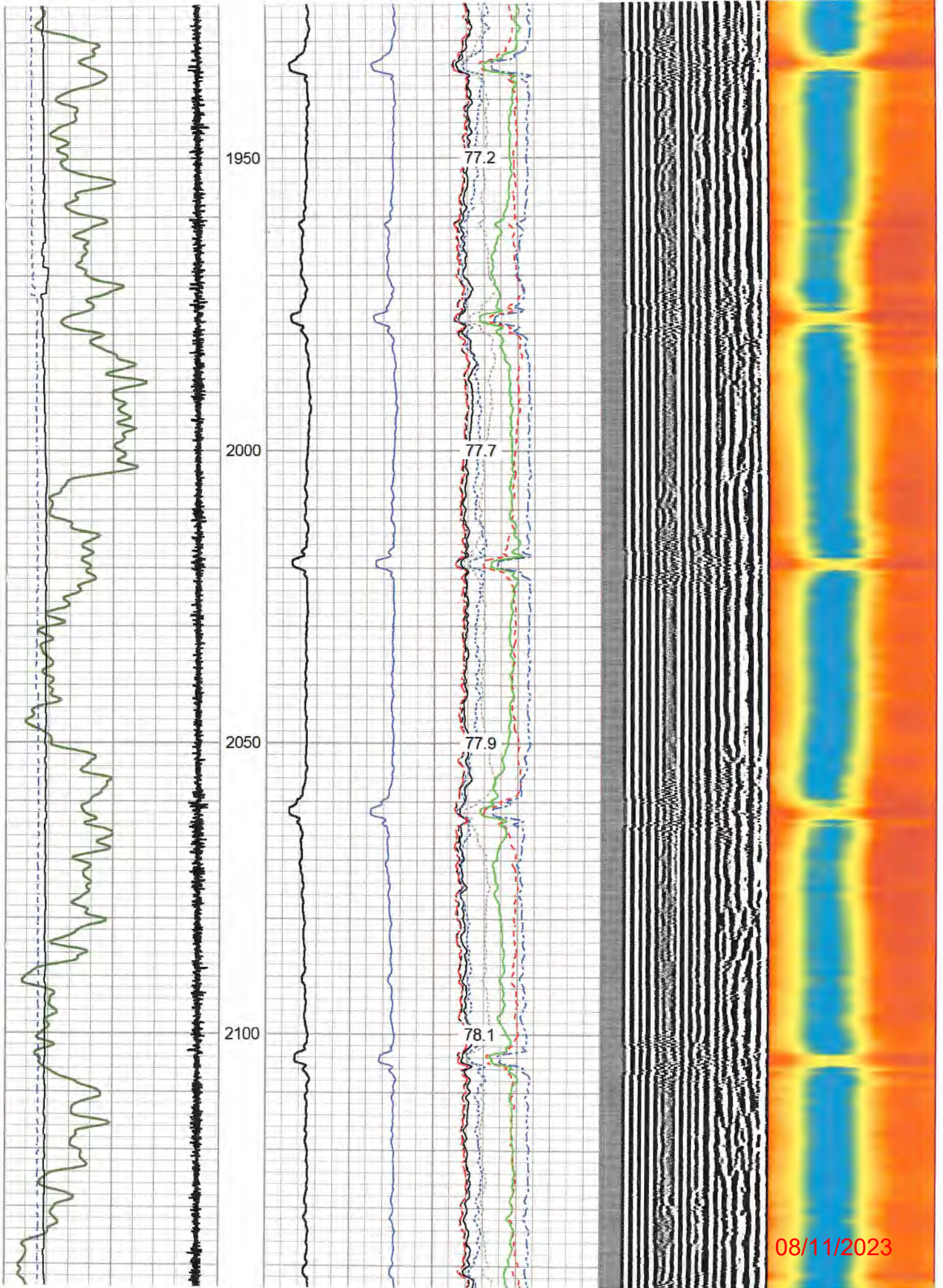






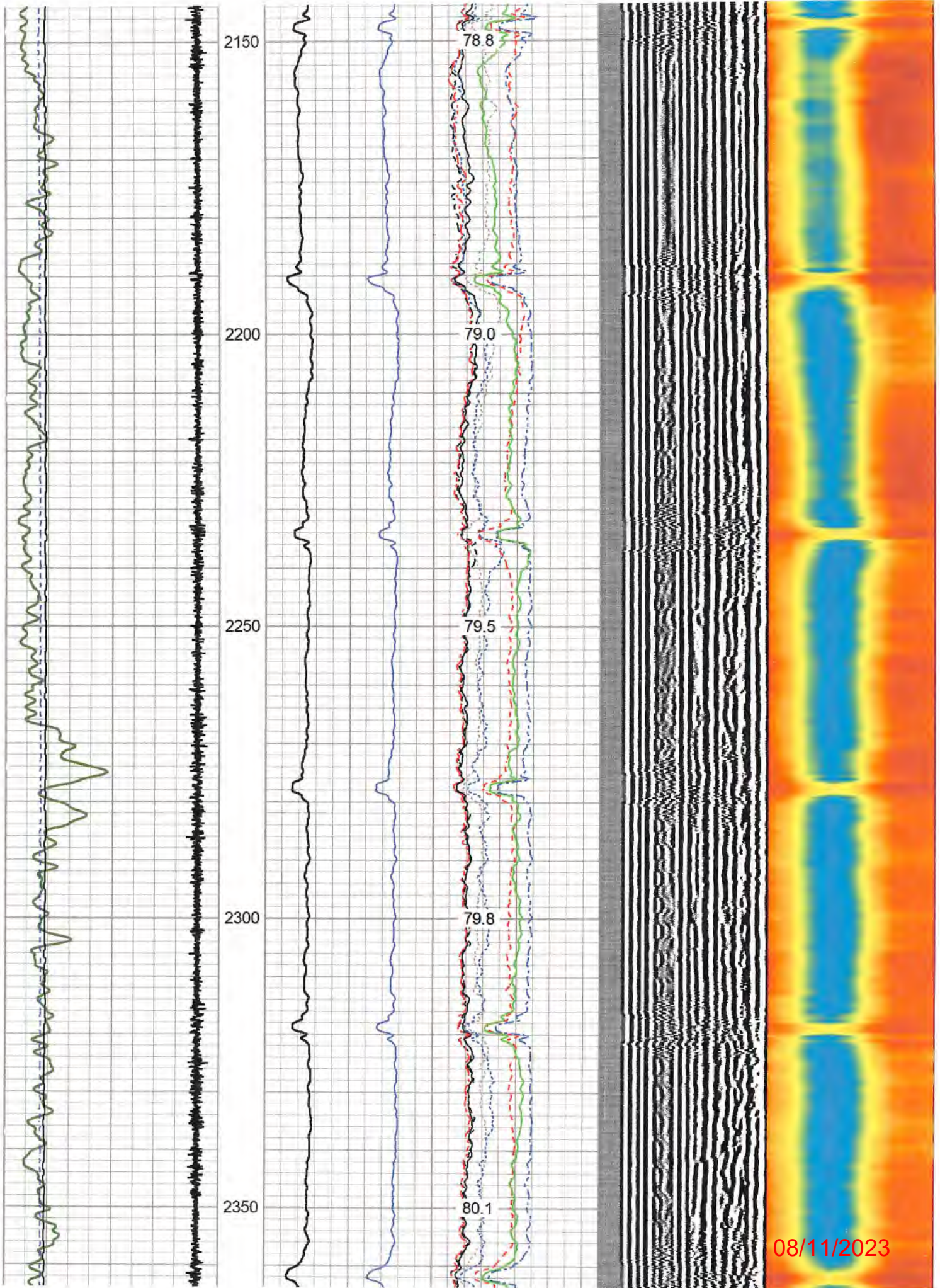
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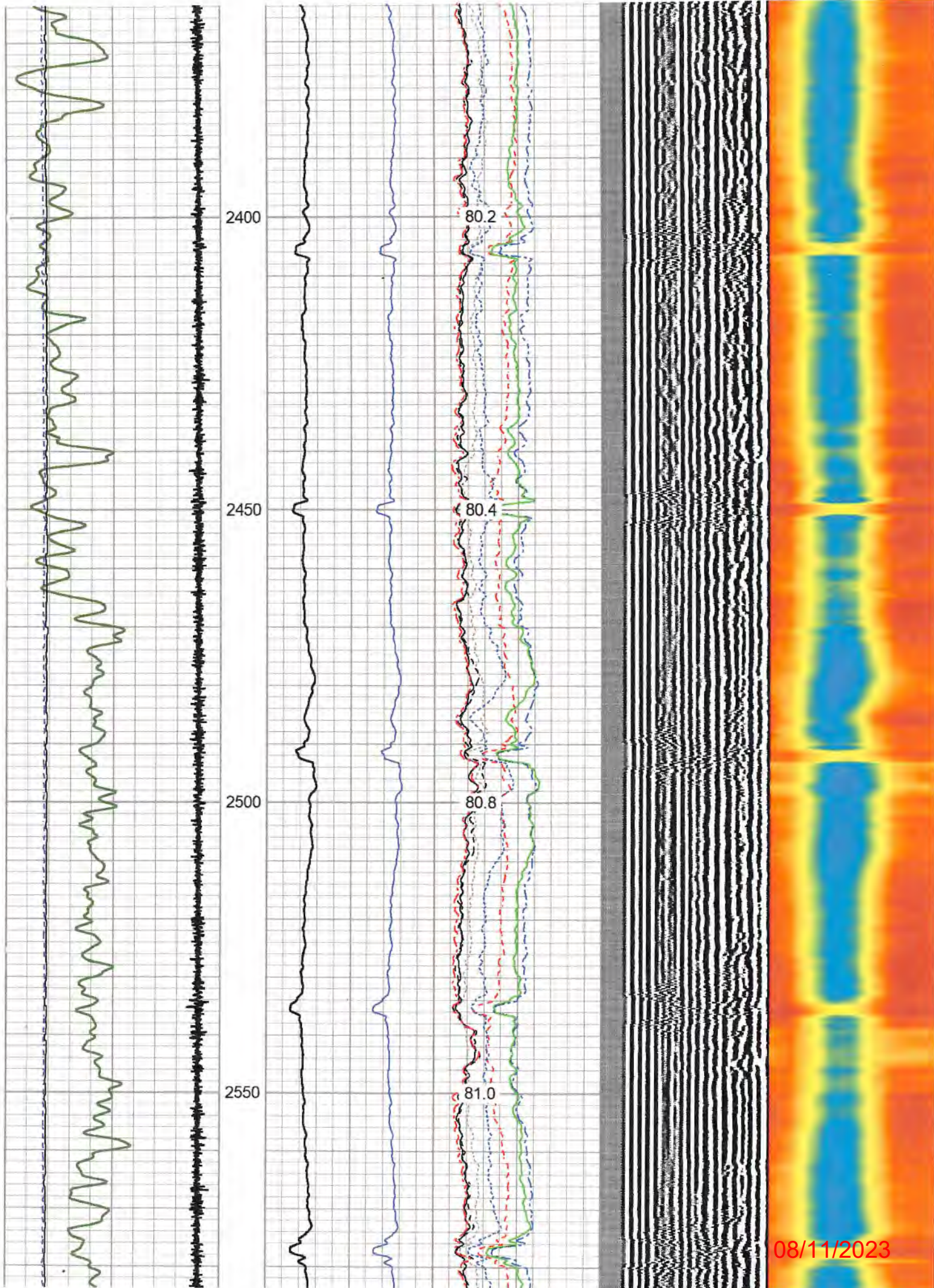
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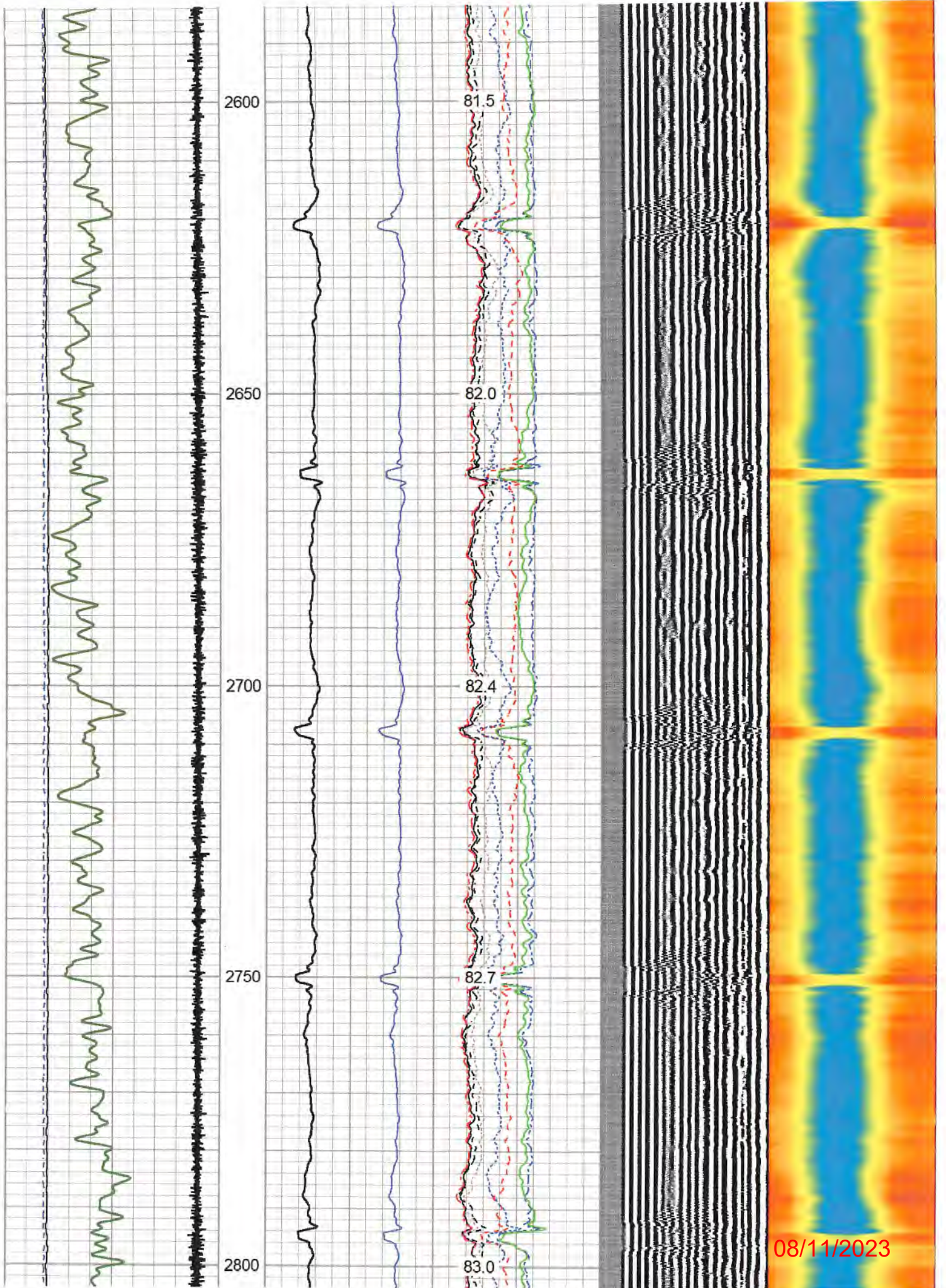


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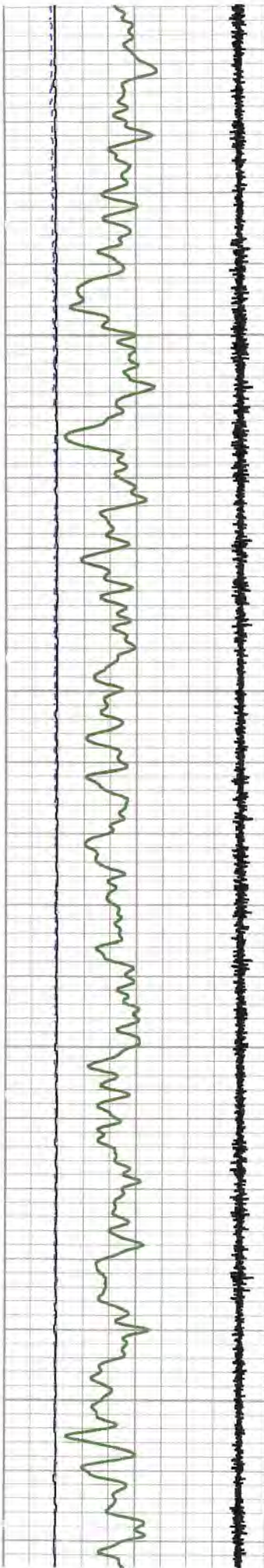






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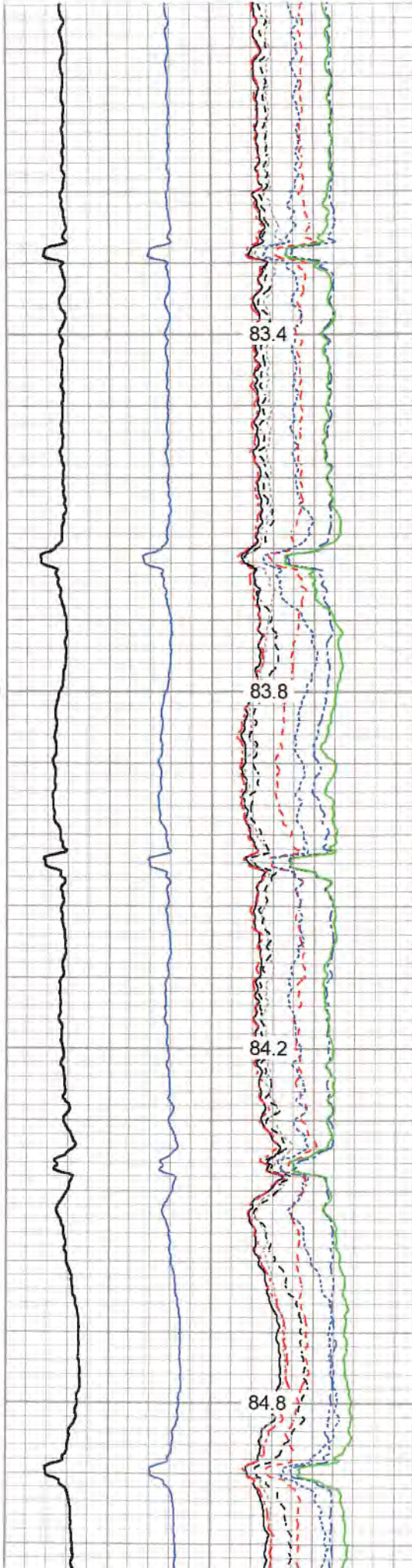


2850

2900

2950

3000

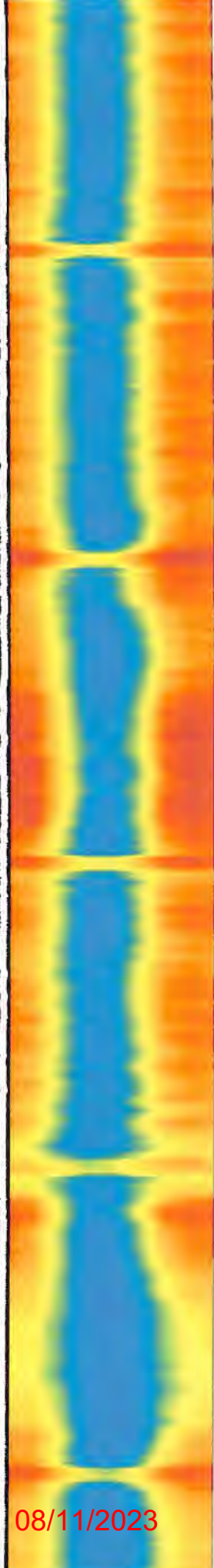
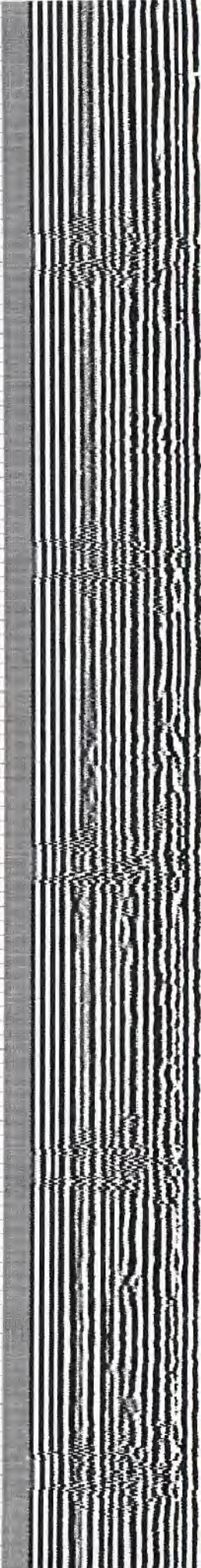


83.4

83.8

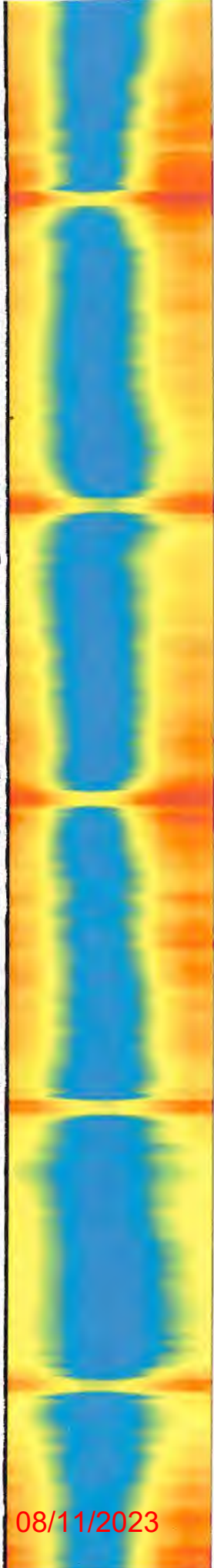
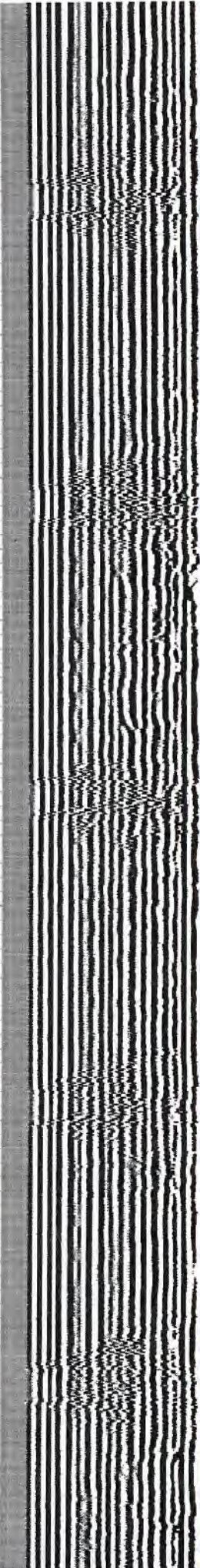
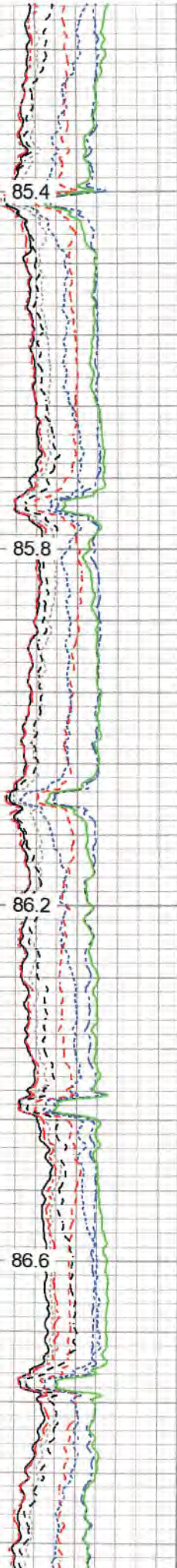
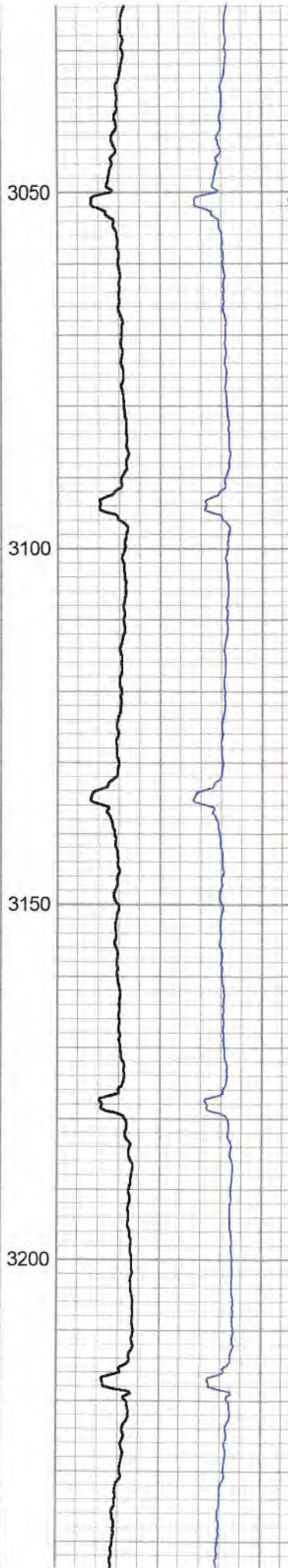
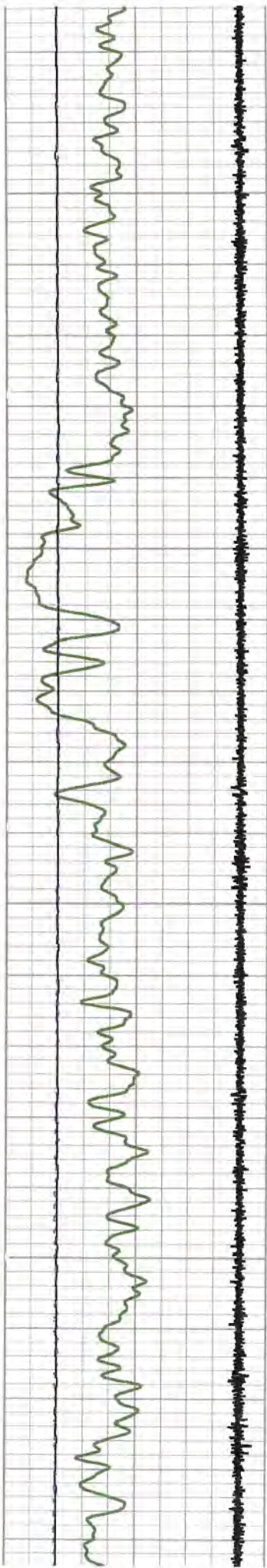
84.2

84.8



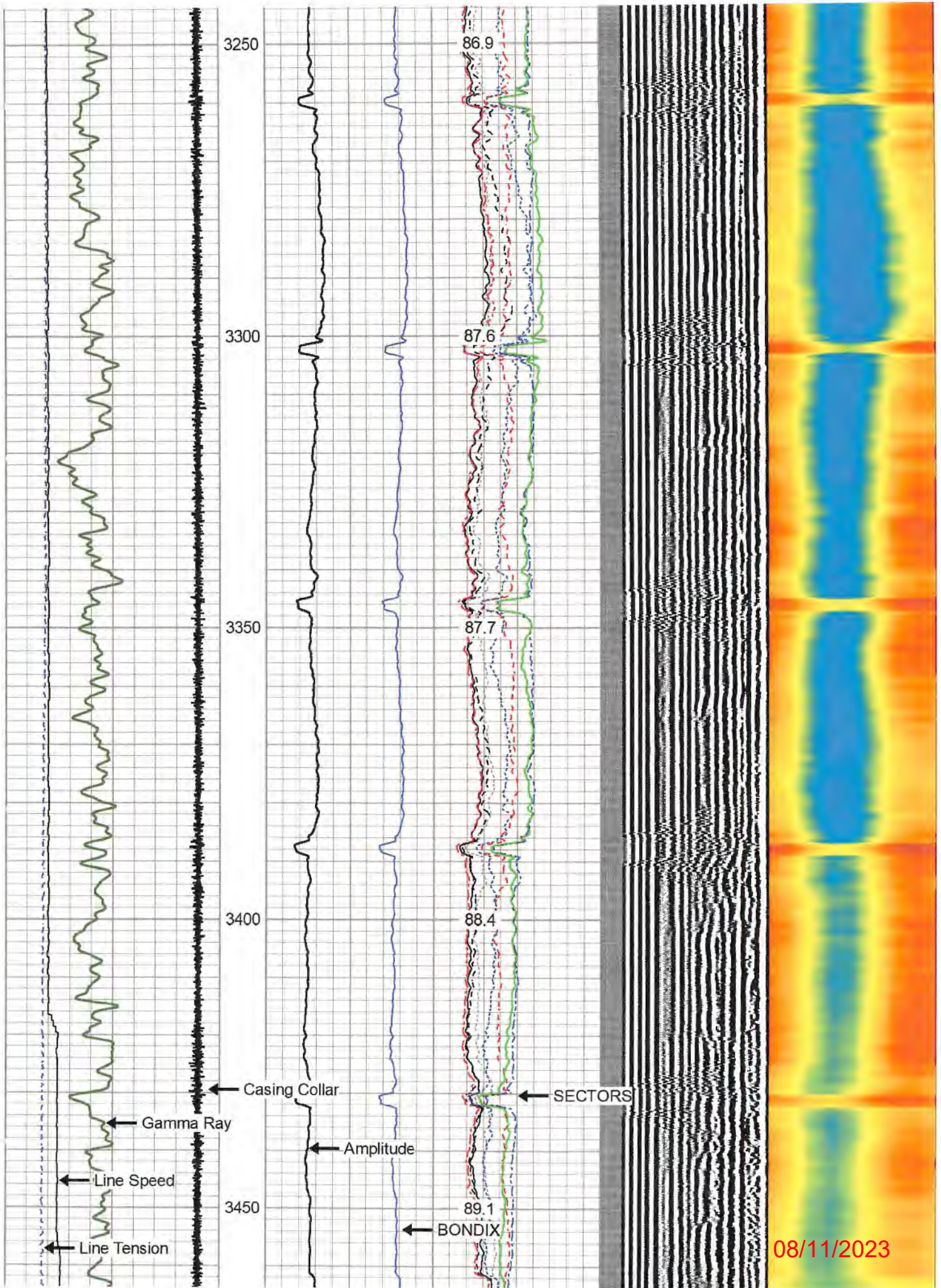
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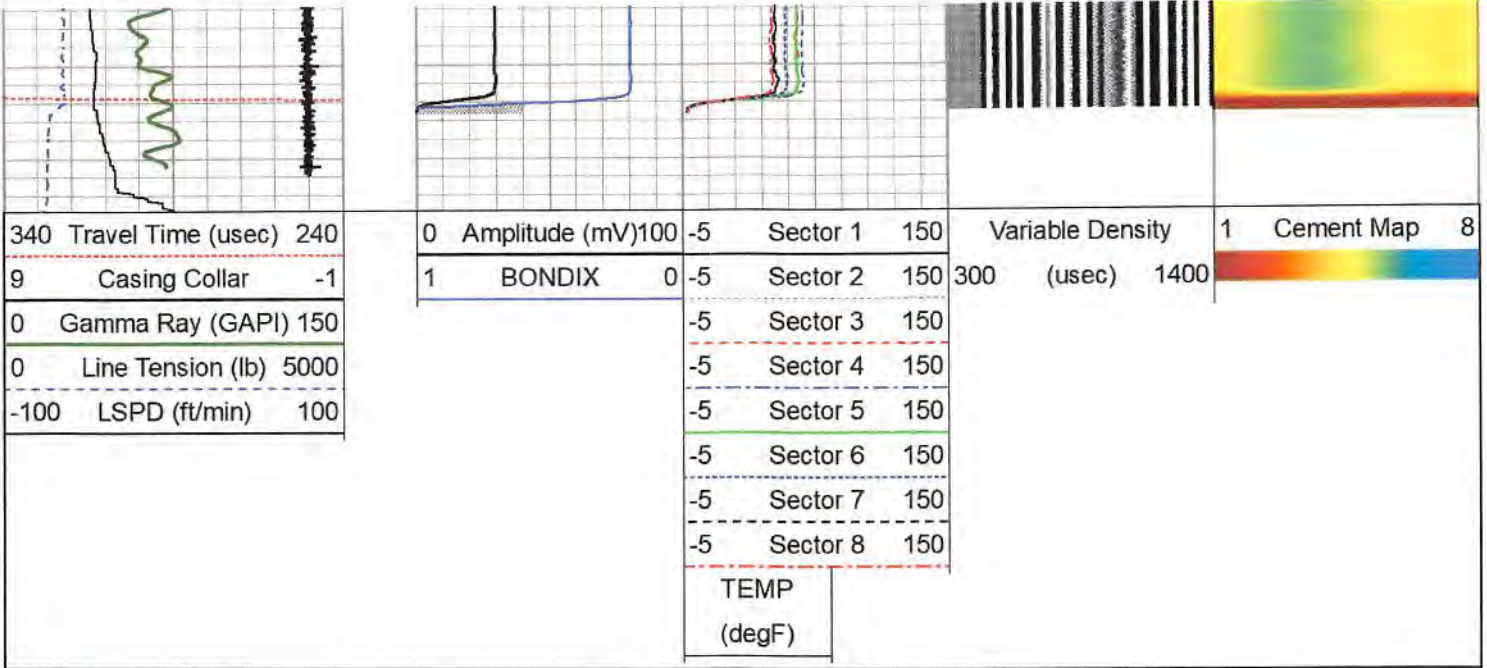
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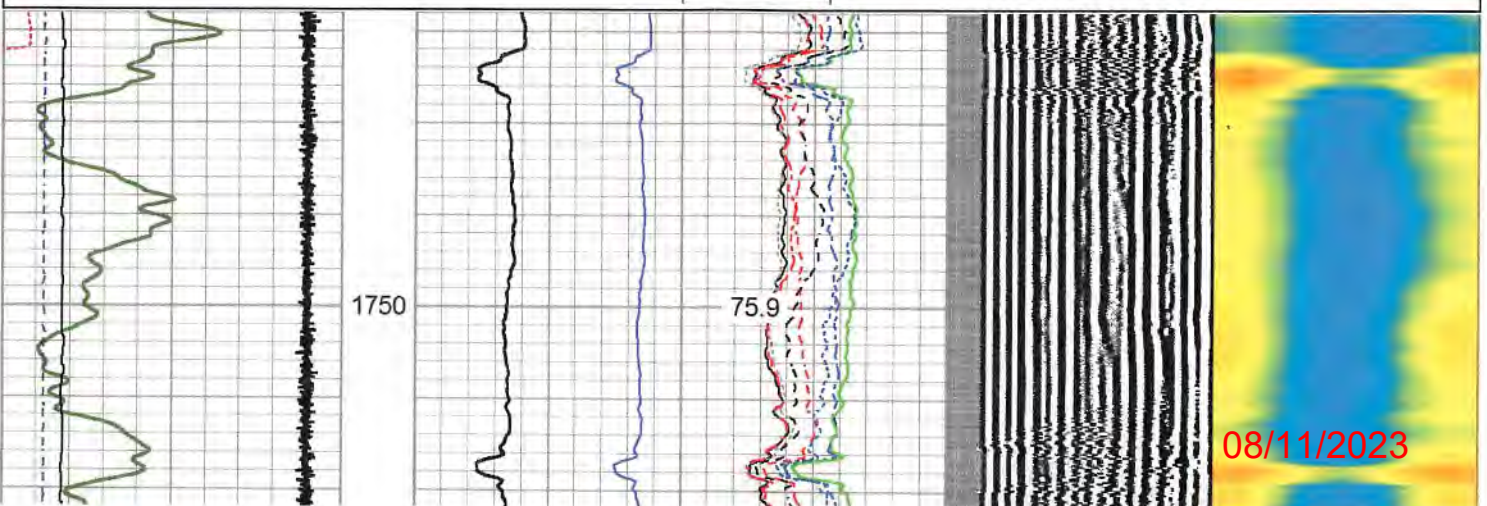
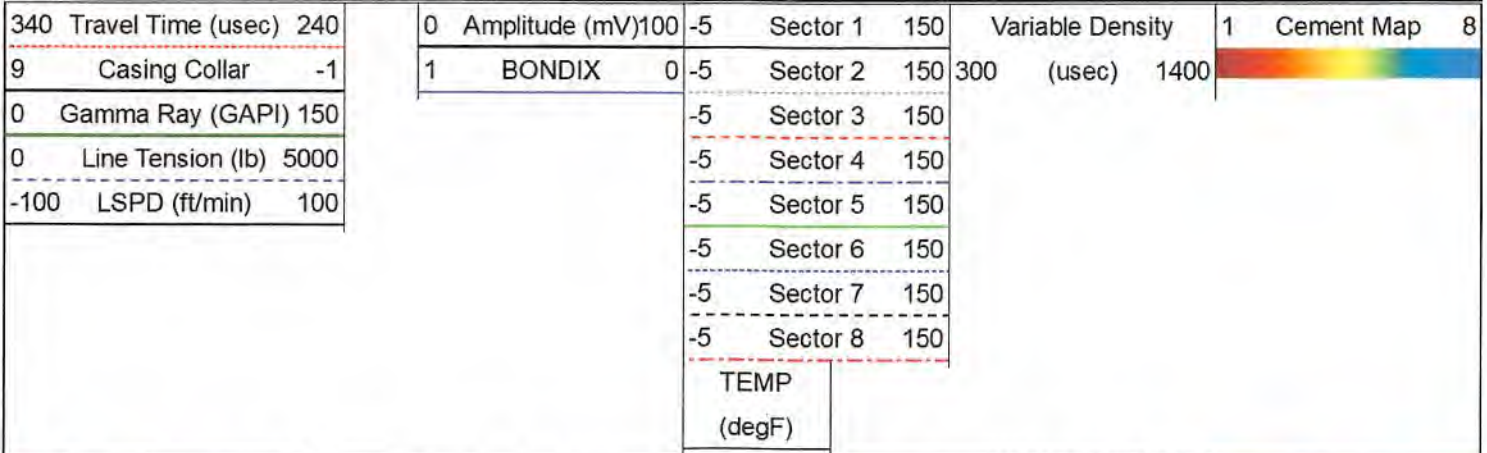




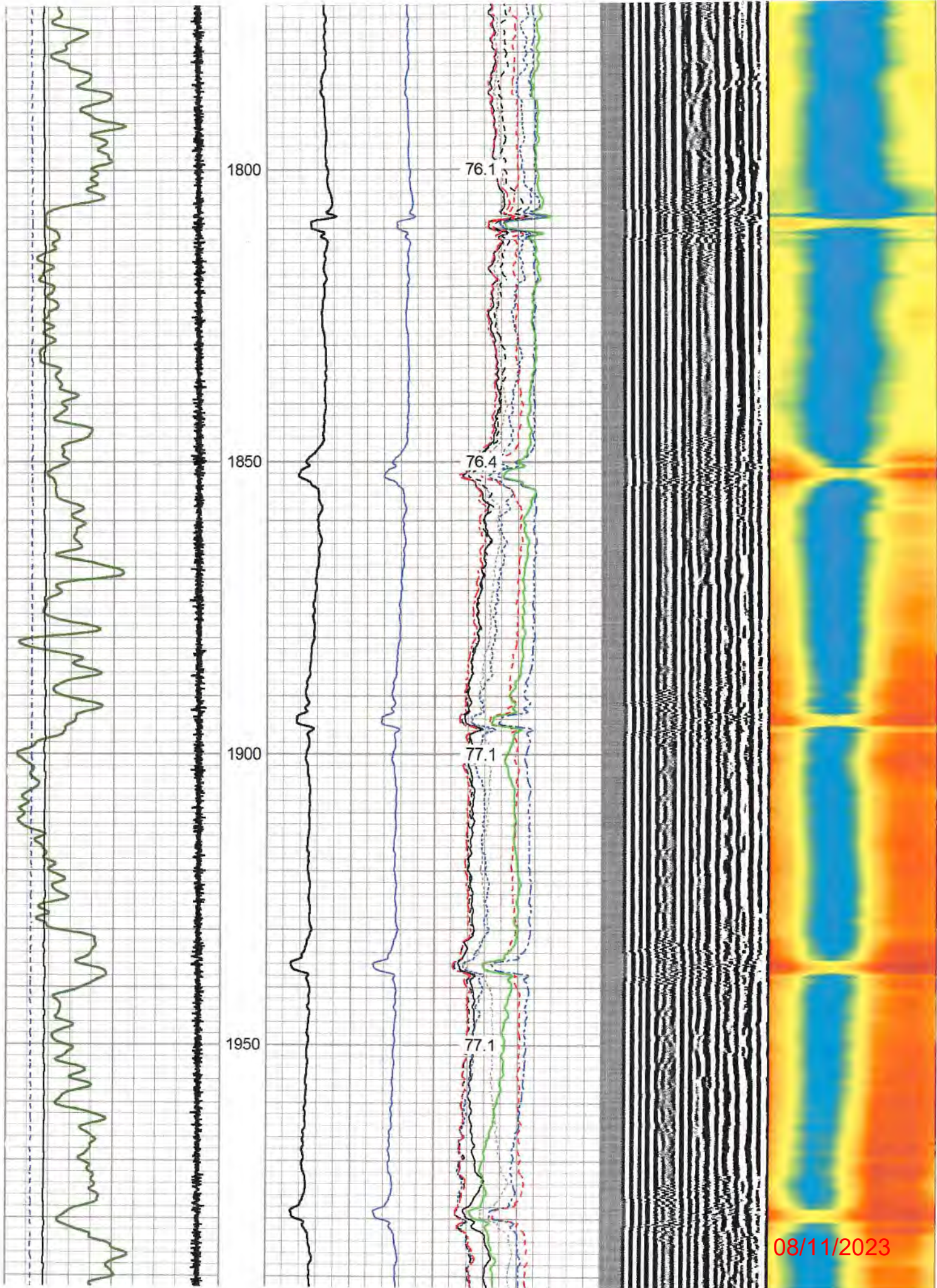
## REPEAT LOG

0 PSI APPLIED

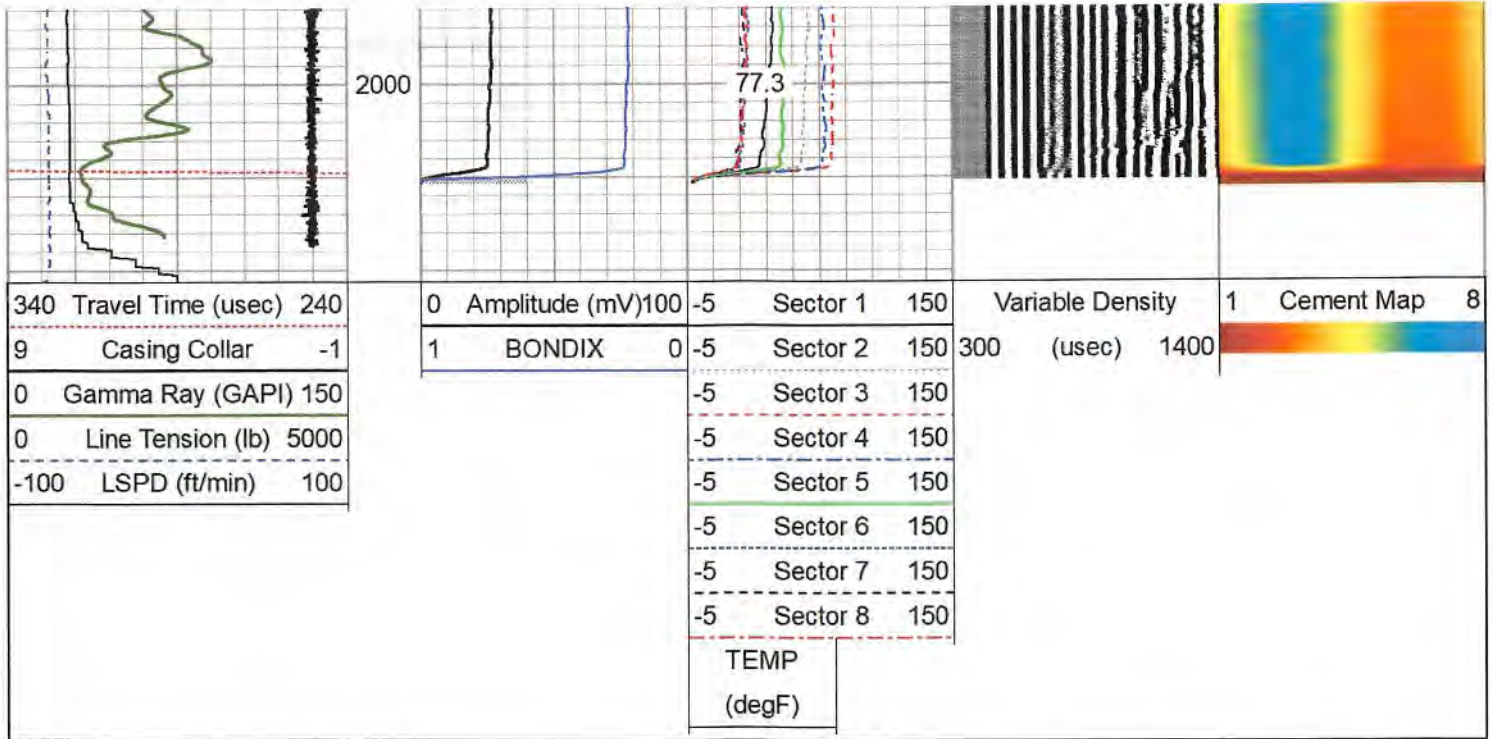
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 Dataset Pathname pass7  
 Presentation Format rcb-bond index for antero 1020  
 Dataset Creation Tue May 17 19:51:19 2022  
 Charted by Depth in Feet scaled 1:240











### Log Variables

DatabaseC:\ProgramData\Warrior\Data\antero\_cavatica1a\_cbl\_may-17-2022.db  
Dataset field/well/run1/pass5/\_vars\_

**Top - Bottom**

BHTEMP_Src	BOREID in	BOTTEMP degF	CASEOD in	CASETHCK in	CASEWGHT lb/ft	MAXAMPL mV	MINAMPL mV
TEMP	10.75	100	9.625	0	36	51.3	1
MINATTN db/ft	PERFS	PPT usec	SRFTEMP degF	TDEPTH ft			
0.8	No	329	0	0			

**Variable Description**

BHTEMP_Src : BHTEMP Input Source Selector	MINAMPL : Minimum Amplitude
BOREID : Borehole I.D.	MINATTN : Minimum Attenuation
BOTTEMP : Bottom Hole Temperature	PERFS : Perforation Flag
CASEOD : Casing O.D.	PPT : Predicted Pipe Time
CASETHCK : Casing Thickness	SRFTEMP : Surface Temperature
CASEWGHT : Casing Weight	TDEPTH : Total Depth
MAXAMPL : Maximum Amplitude	

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**Calibration Report**

Database File	antero_cavatica1a_cbl_may-17-2022.db
Dataset Pathname	pass5
Dataset Creation	Tue May 17 18:48:24 2022

FEB 24 2023  
WV Department of Environmental Protection

**Gamma Ray Calibration Report**

Serial Number:	275	
Tool Model:	Probe	
Performed:	Thu Apr 07 08:17:10 2016	
Calibrator Value:	100.0	GAPI
Background Reading:	35.0	cps
Calibrator Reading:	160.0	cps

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Sensitivity:

0.5000

GAPI/cps

## Segmented Cement Bond Log Calibration Report

Serial Number: FW1312-32  
 Tool Model: Probe275T  
 Calibration Casing Diameter: 9.625 in  
 Calibration Depth: 250.283 ft

Master Calibration, performed Tue May 17 18:27:19 2022:

	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3'	0.008	0.494	1.000	51.300	103.509	0.204
CAL	0.008	0.813				
5'	0.008	0.586	1.000	51.300	86.921	0.340
SUM						
S1	0.008	0.344	0.000	100.000	297.221	-2.315
S2	0.008	0.565	0.000	100.000	179.441	-1.389
S3	0.008	0.612	0.000	100.000	165.351	-1.247
S4	0.008	0.600	0.000	100.000	169.026	-1.347
S5	0.008	0.526	0.000	100.000	193.080	-1.499
S6	0.008	0.470	0.000	100.000	216.011	-1.632
S7	0.008	0.440	0.000	100.000	231.393	-1.808
S8	0.008	0.456	0.000	100.000	222.972	-1.737

Internal Reference Calibration, performed (Not Performed):

	Raw (v)		Calibrated (v)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
CAL	0.000	0.000	0.008	0.813	1.000	0.000

Air Zero Calibration, performed Thu Oct 28 10:17:51 2021:

	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	

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Environmental Protection

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