



**Radial Cement Bond
Variable Density Log
W/ Gamma/ CCL/ Temp**

Company Antero Resources
Well Eldon Folger 1H
Field River Front
County Tyler
State WV

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Field River Front
County Tyler State WV

Location: API #: 47-095-02783

SEC	TWP	RGE	Elevation
Permanent Datum	Ground Level	Elevation	K.B.
Log Measured From	Kelly Bushing	30' A.P.D.	D.F.
Drilling Measured From	Kelly Bushing		G.L.

Date	17-Sep-2022		
Run Number	One		
Depth Driller	21,656'		
Depth Logger	6,960'		
Bottom Logged Interval	6,964'		
Top Log Interval	Surface		
Open Hole Size	8.75"		
Type Fluid	Water		
Density / Viscosity	8.3#		
Max. Recorded Temp.	138 Deg.F.		
Estimated Cement Top	5,238'		
Time Well Ready	9:00		
Time Logger on Bottom	9:27		
Equipment Number	104 P2 G2		
Location	Charleroi		
Recorded By	Matt McNally		
Witnessed By	Justin Deffie		
Borehole Record			
Run Number	Bit	From	To
Tubing Record			
	Size	Weight	To
Casing Record			
	Size	Wgt/Ft	Bottom
Conductor String			
Surface String			
Intermediate String			
Intermediate String			
Production String			
	5 1/2"	23#	Surface
			21,658'

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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

Primary Log on Well
Log Correlated to Marker Joint at 6,471'-6,482'
Depth Shift -32'
Main Pass 1,500 PSI
Repeat Pass 0 PSI
100 % Free Pipe= 71.9mv
100 % Bond=3.4mv

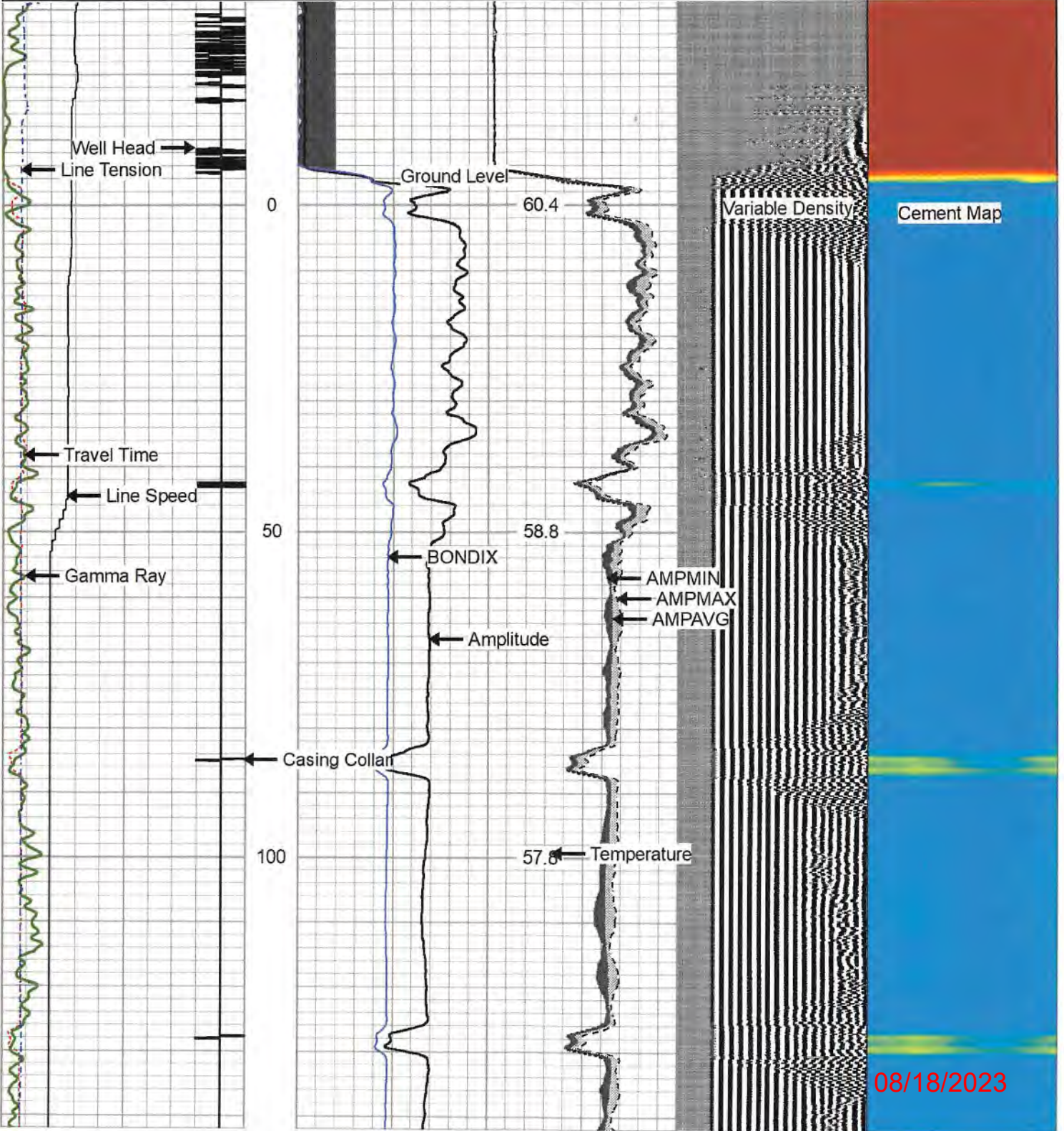
Thank You for Choosing Nine Energy of Charleroi, Pa.

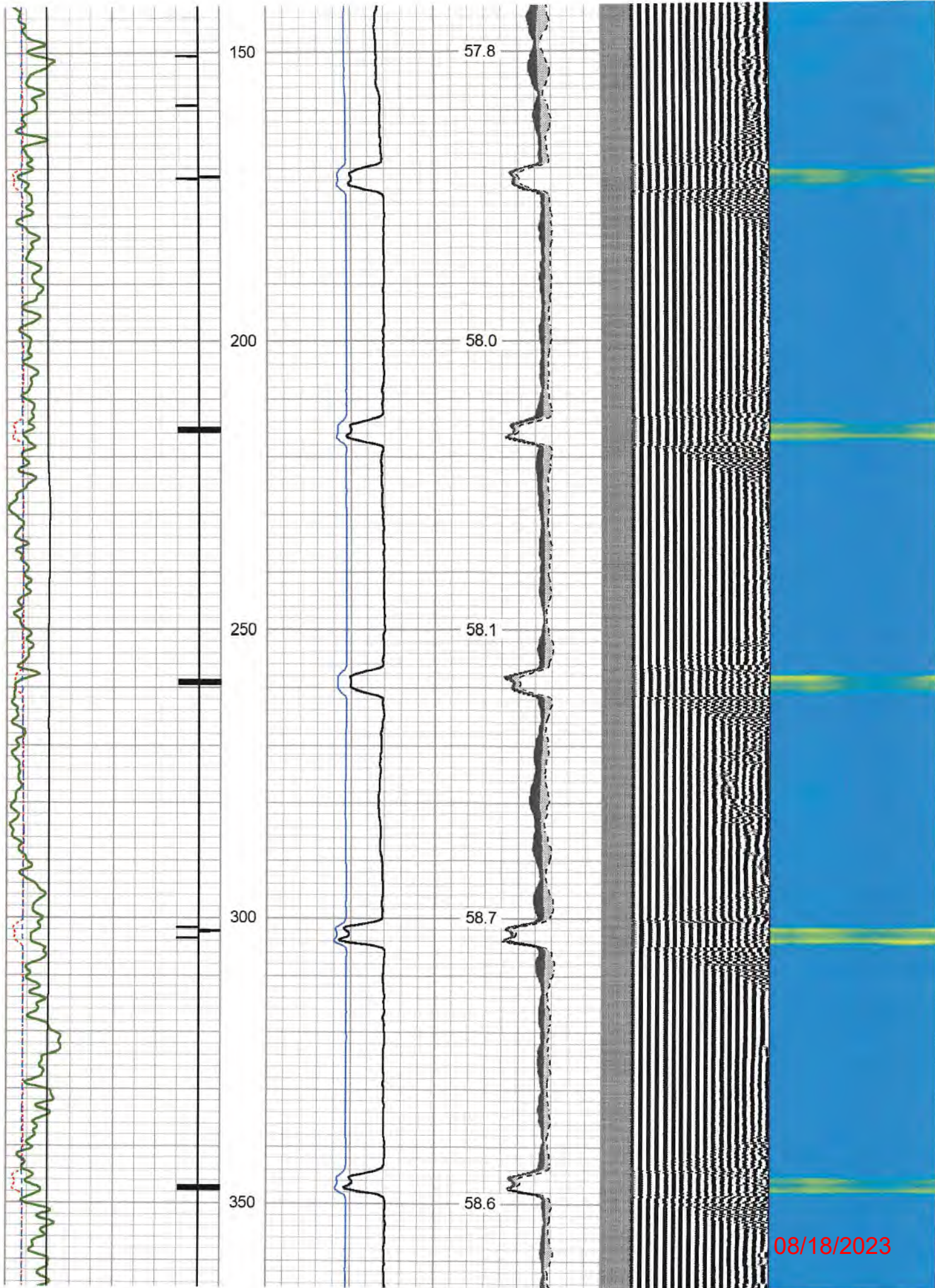


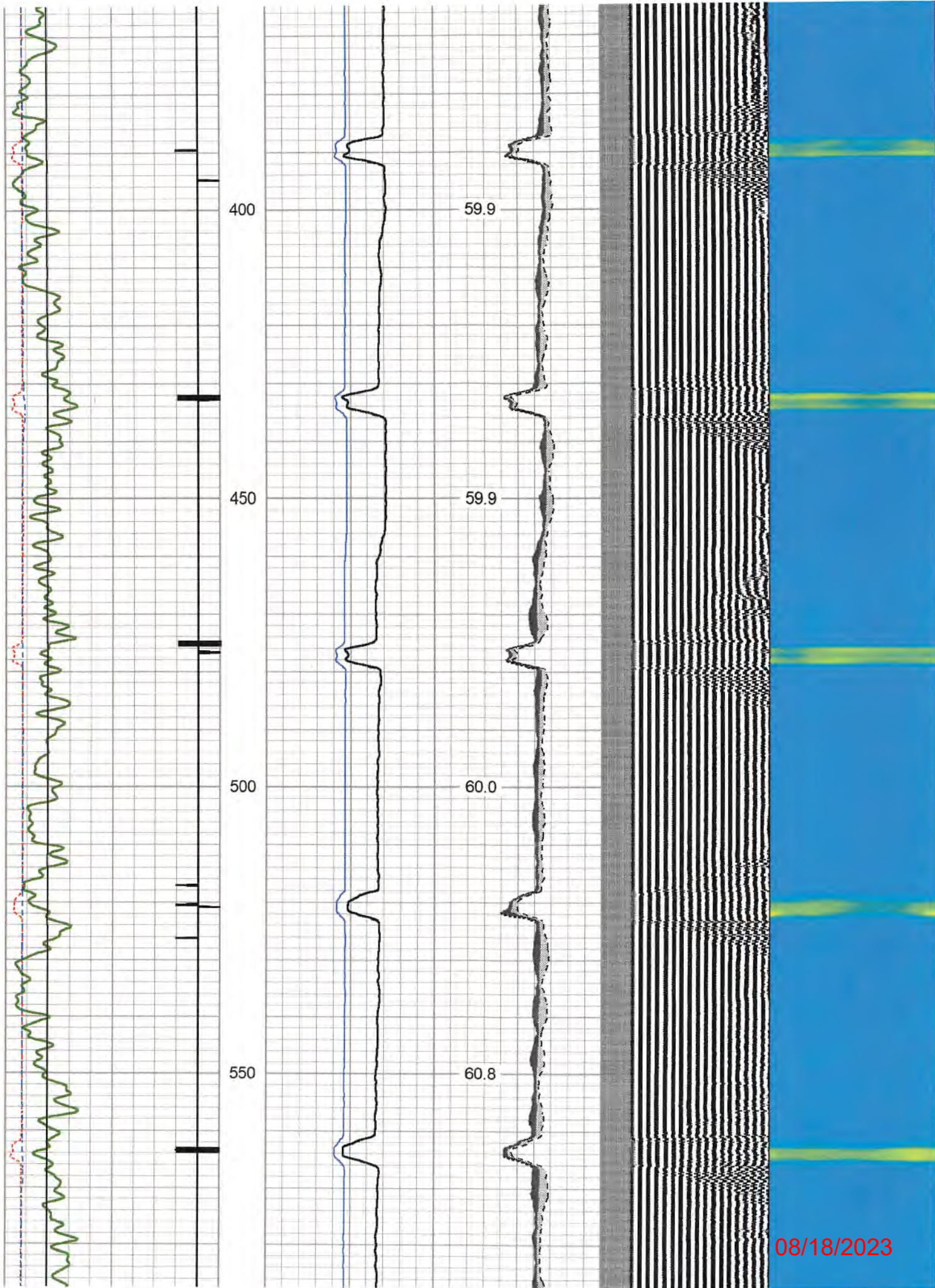
Main Pass 1,500 PSI

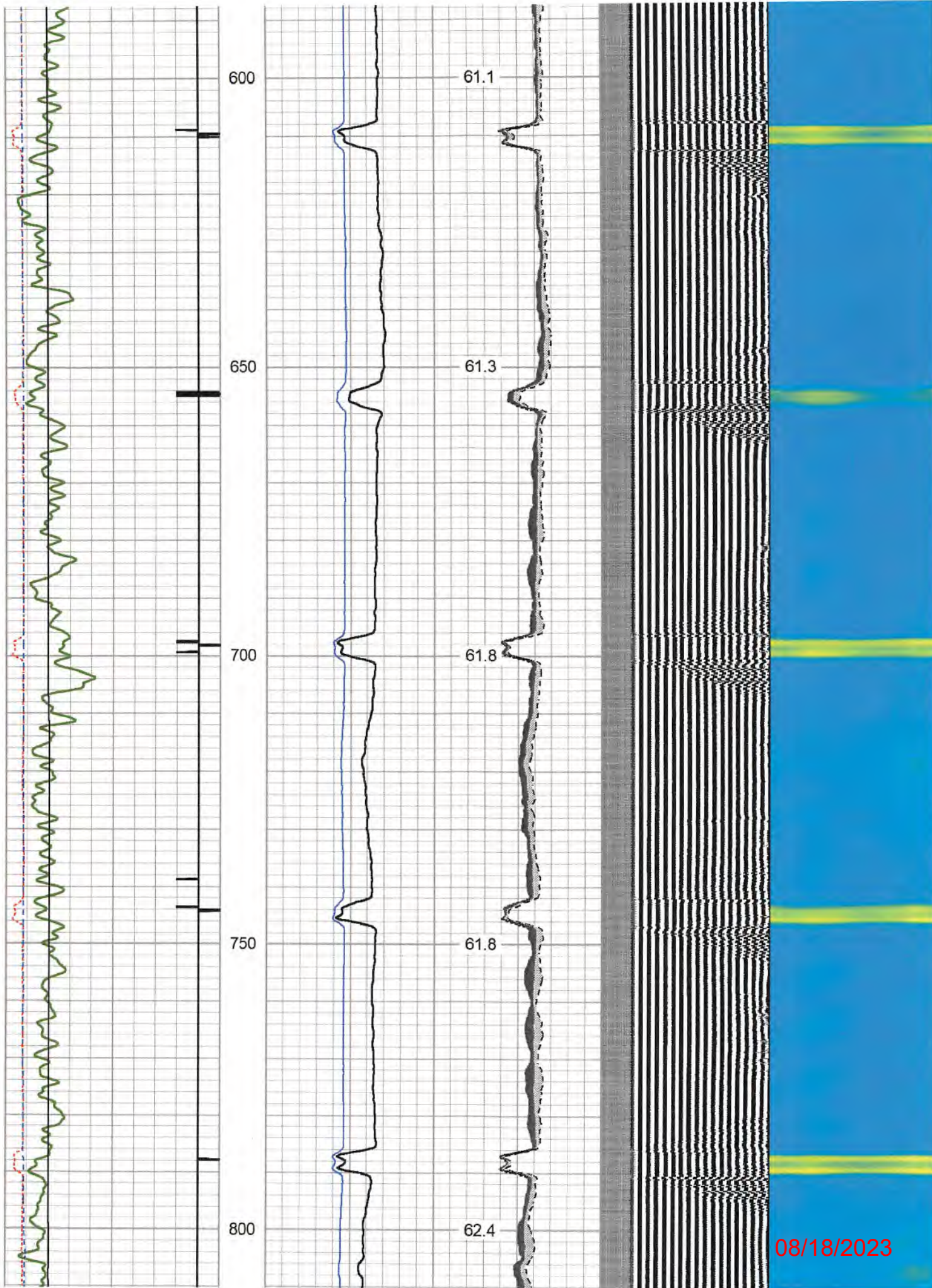
Database File antero_folger_1h_rcbl_16_sep_2022.db
 Dataset Pathname river_front/folger_1h/run1/pass4
 Presentation Format rcbl-bond index 1020
 Dataset Creation Fri Sep 16 19:54:29 2022
 Charted by Depth in Feet scaled 1:240

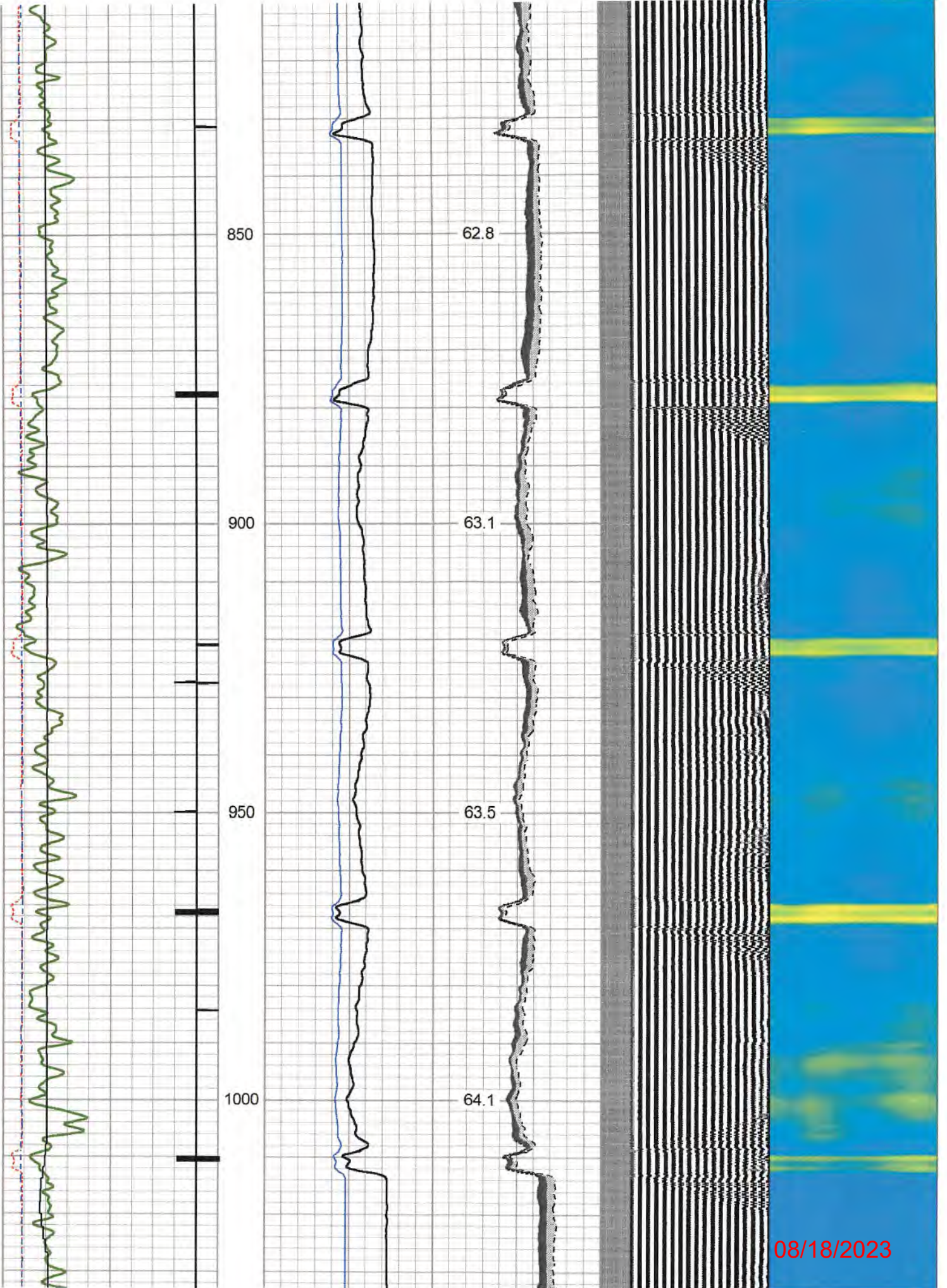
270	Travel Time (usec)	160	0	Amplitude (mV)	100	-5	AMPMIN	150	Variable Density	1	Cement Map	8
9	Casing Collar	-1	1	BONDIX	0	-5	AMPMAX	150	200	(usec)	1200	
0	Gamma Ray (GAPI)	150				-5	AMPAVG	150				
	Line Speed						TEMP					
-200	(ft/min)	200					(degF)					
0	Line Tension (lb)	3000										

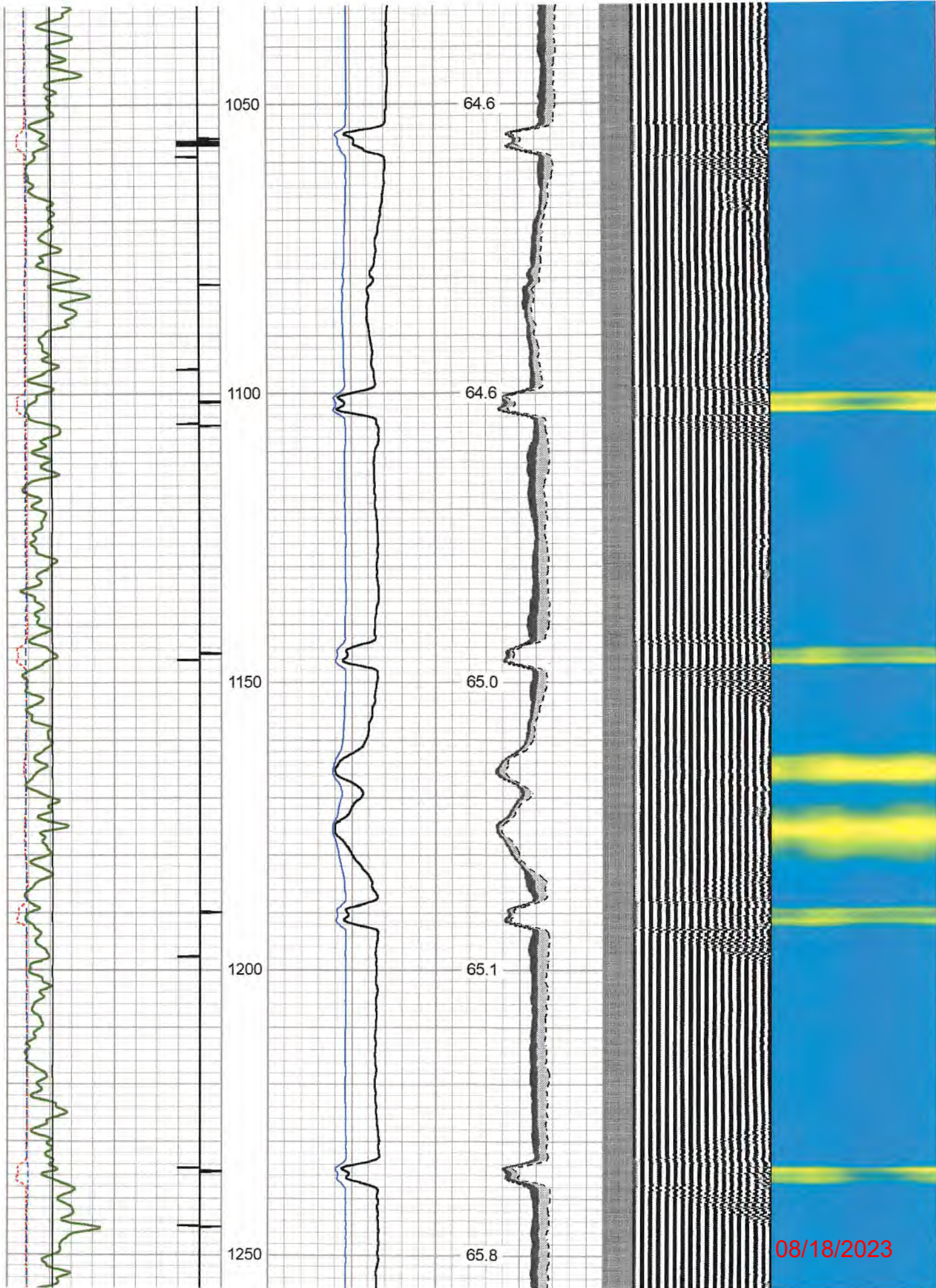


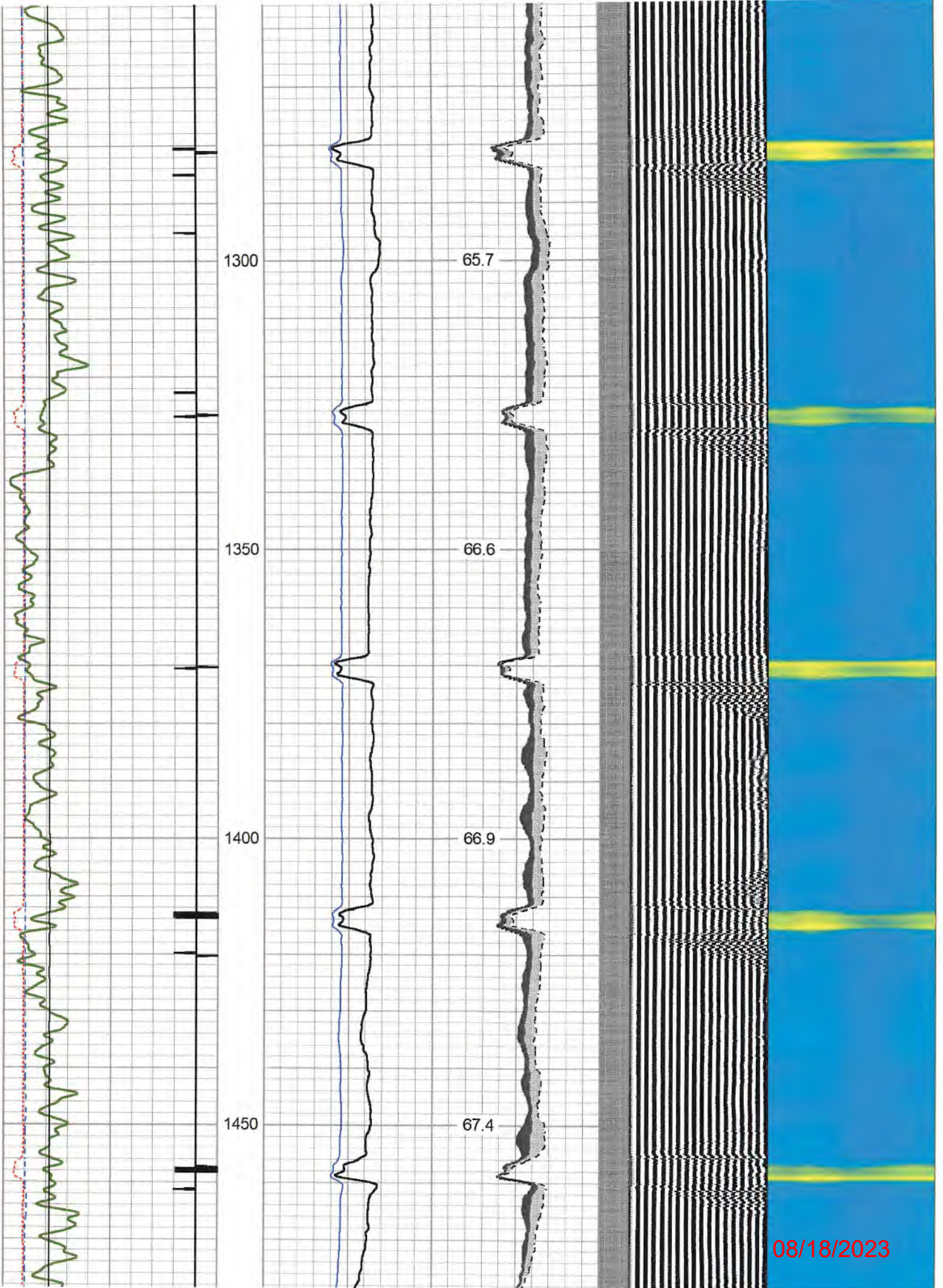


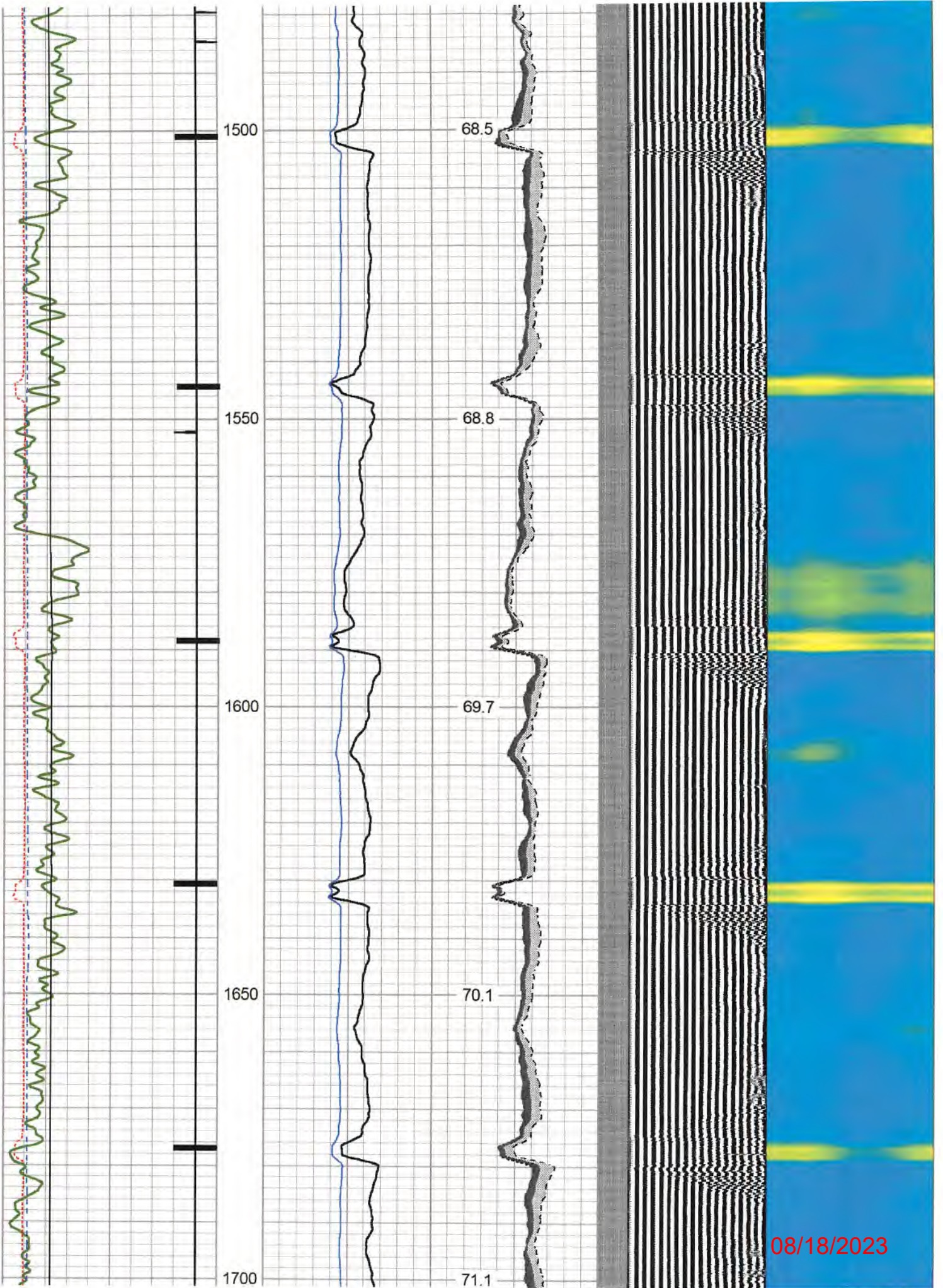




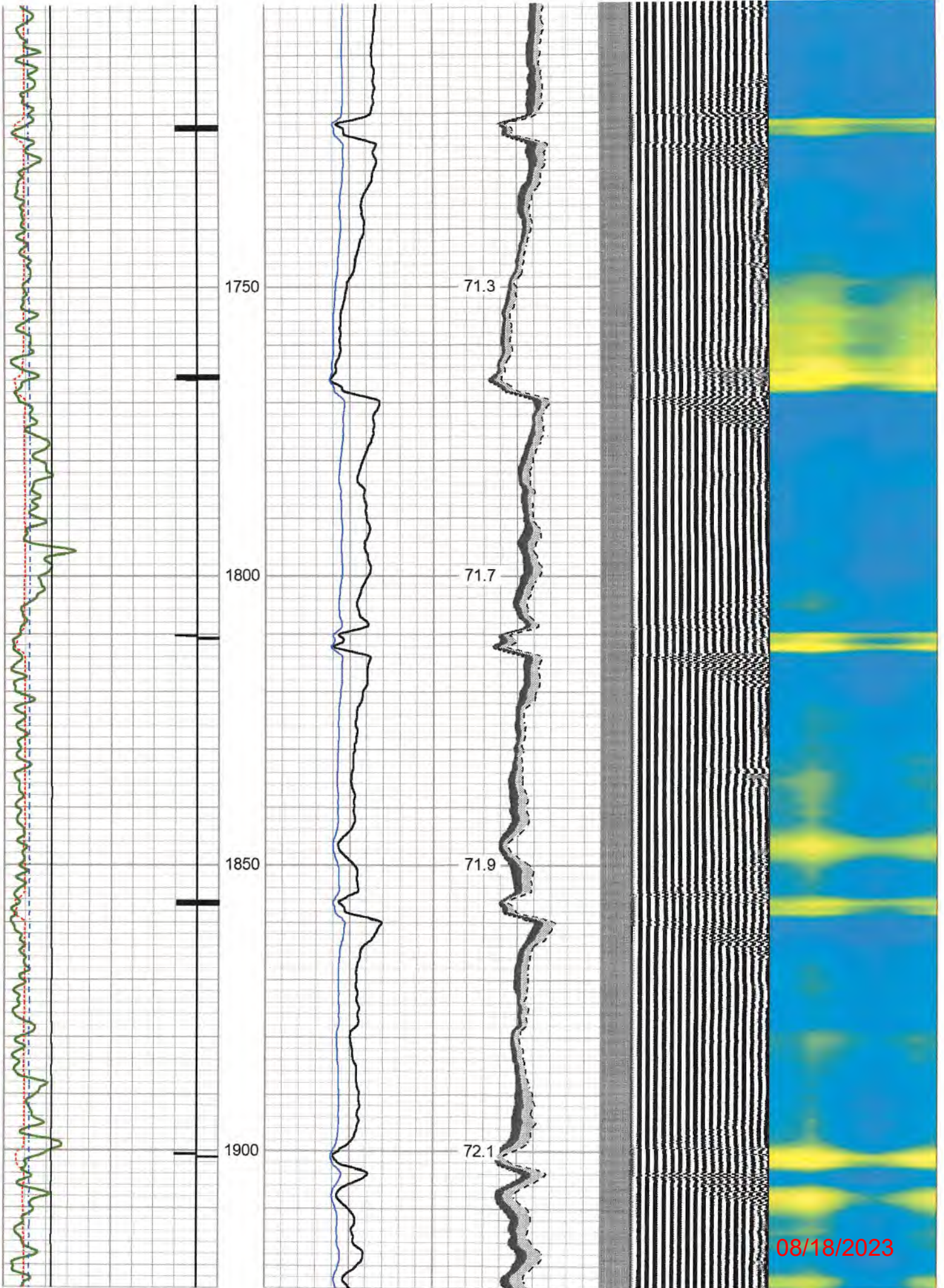


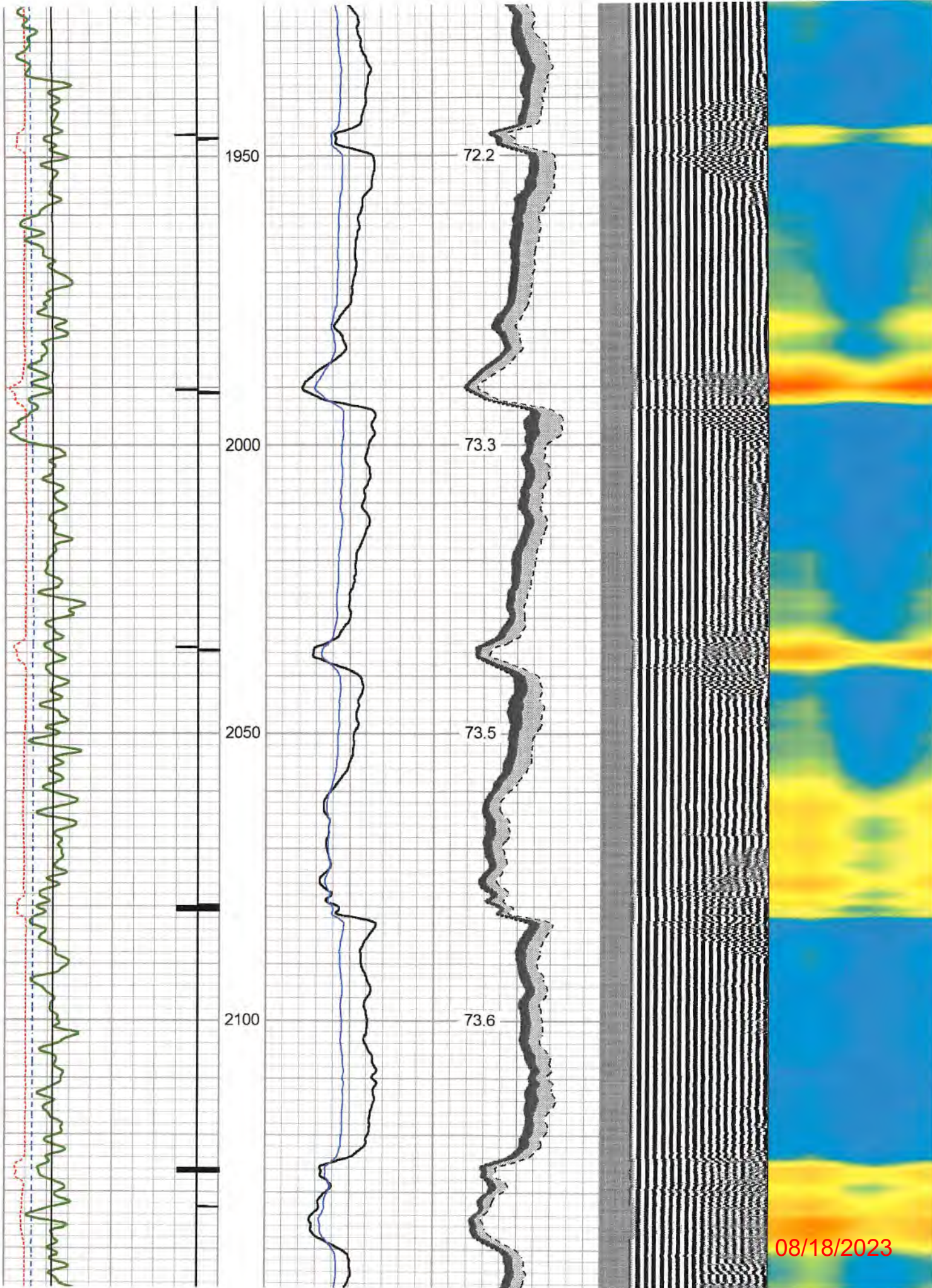




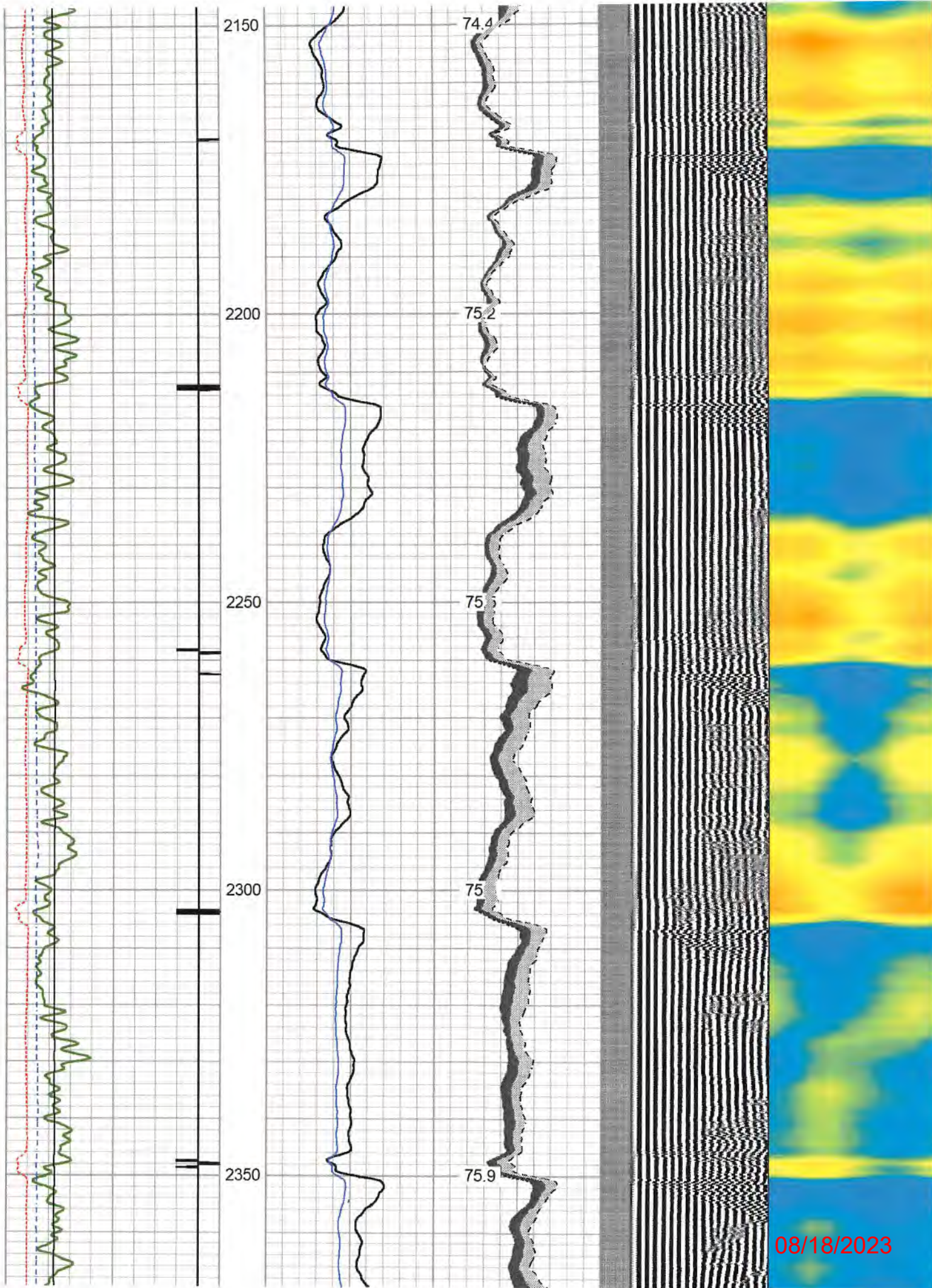


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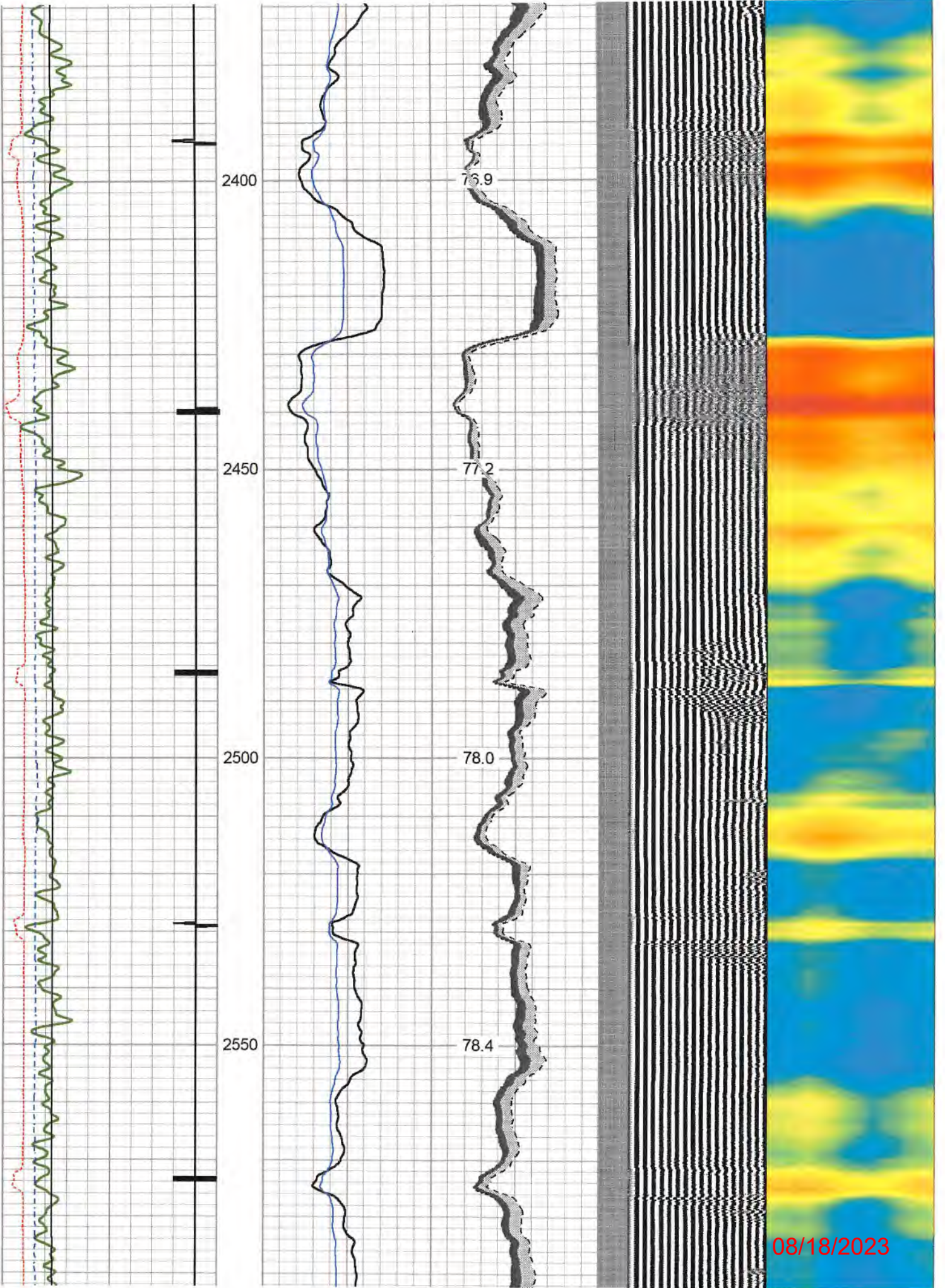


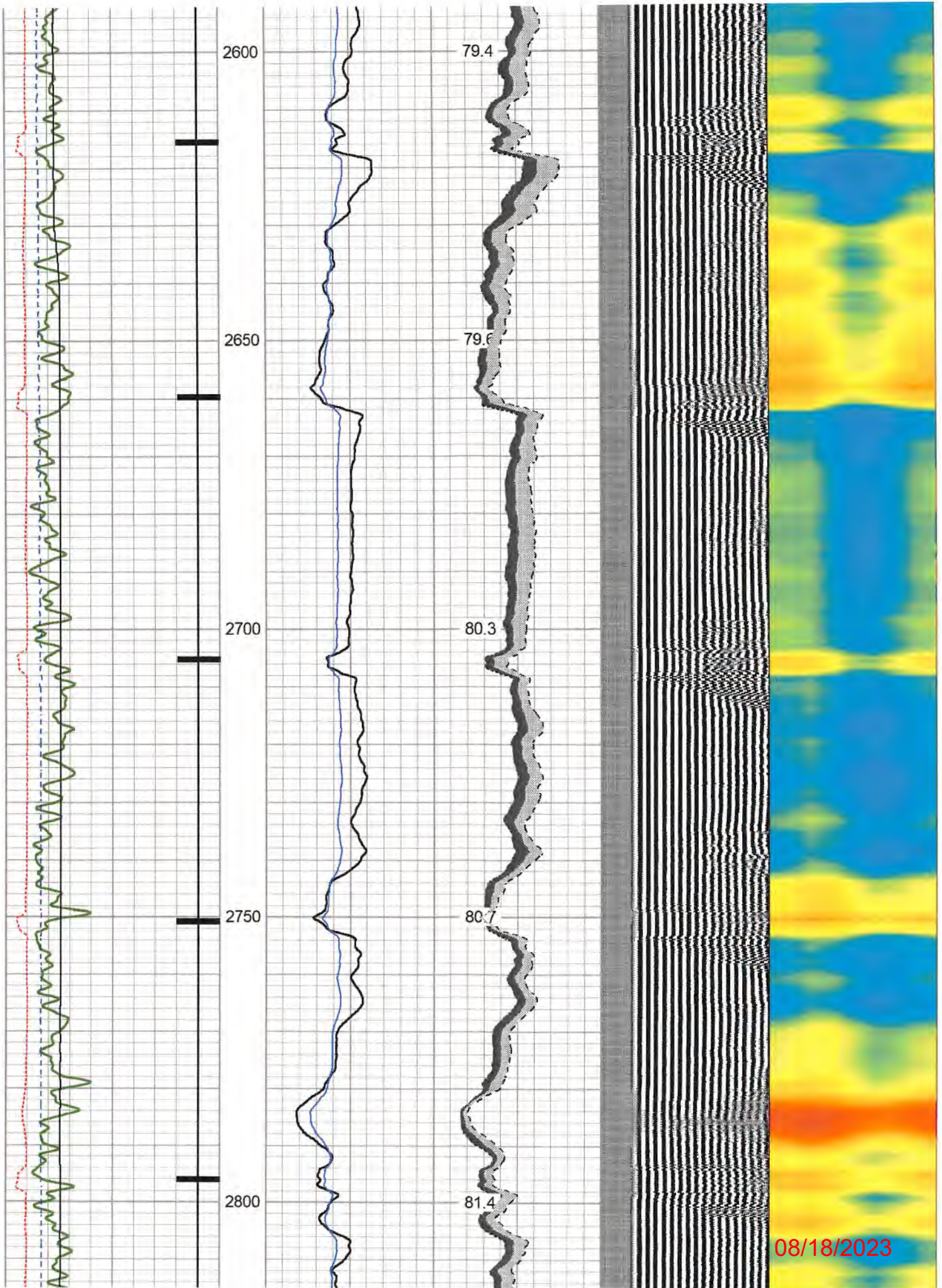


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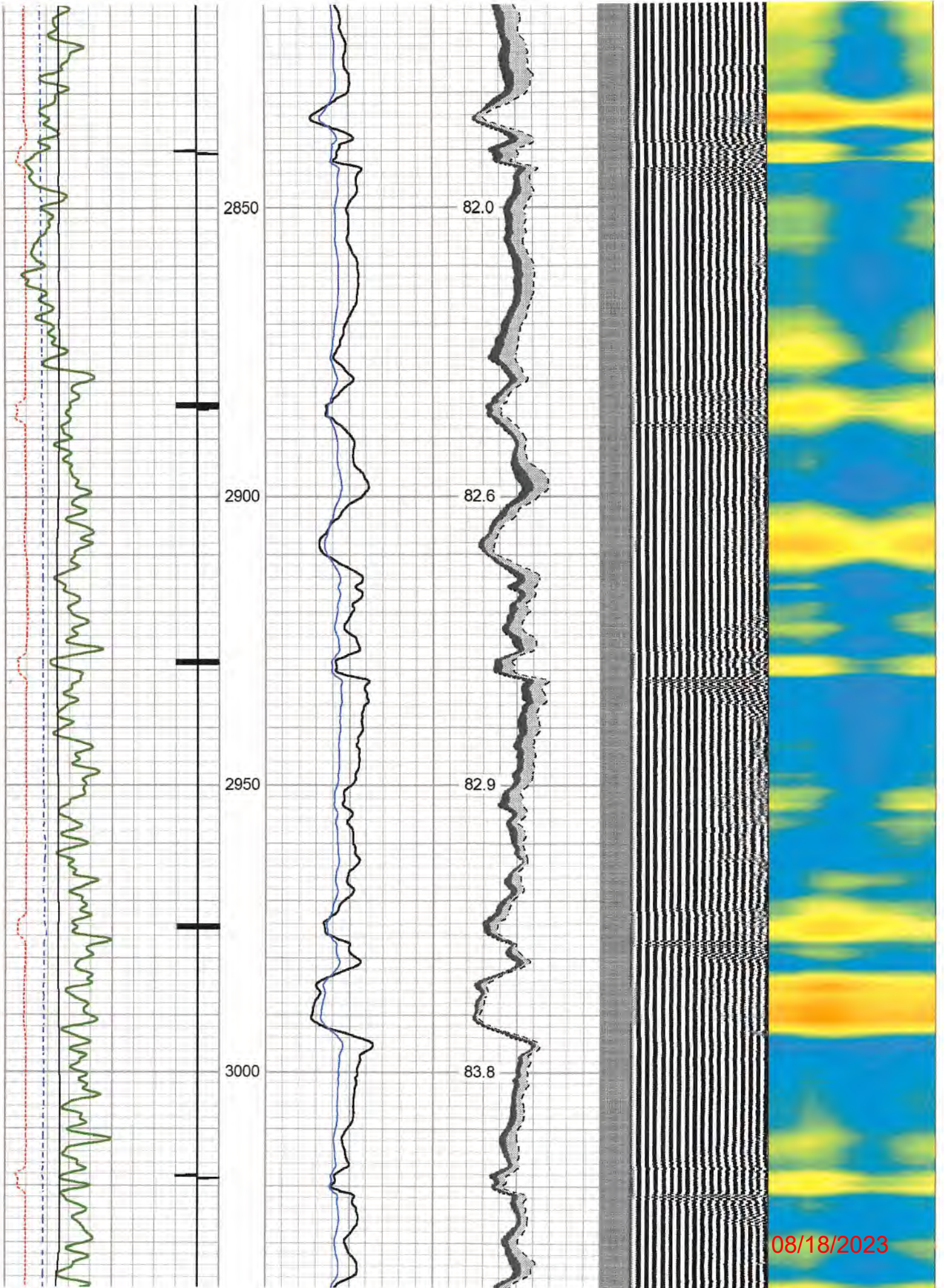


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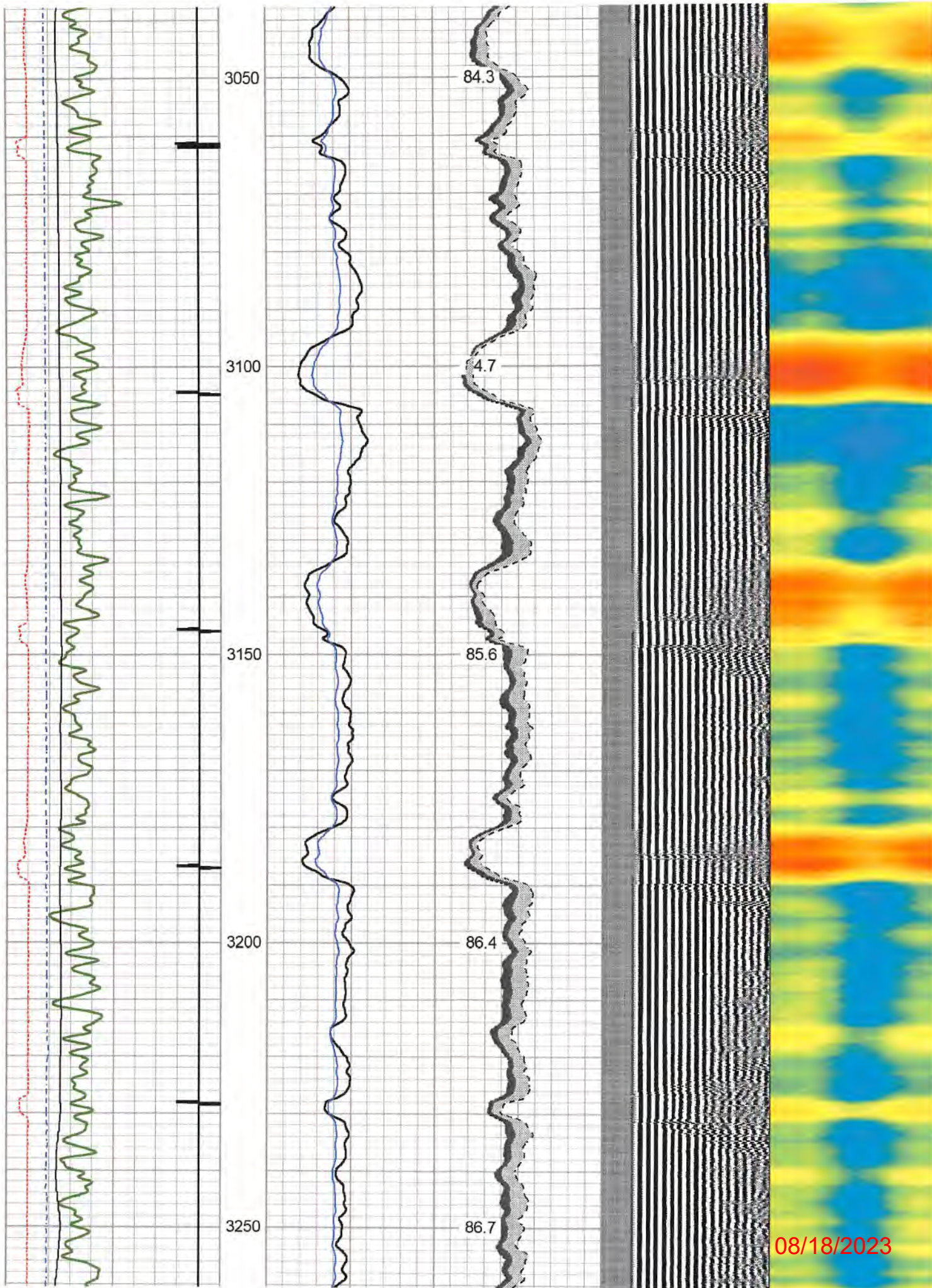


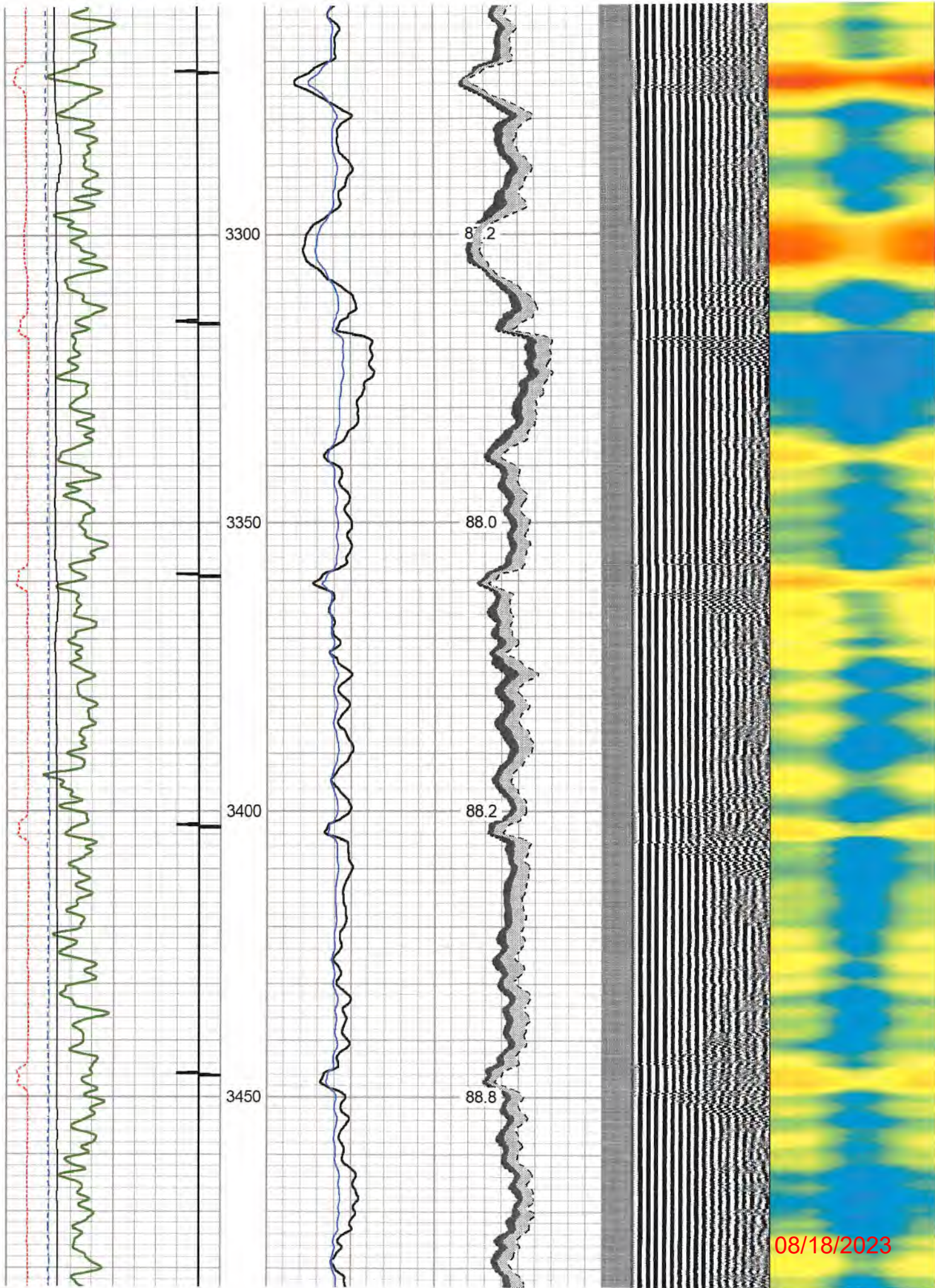


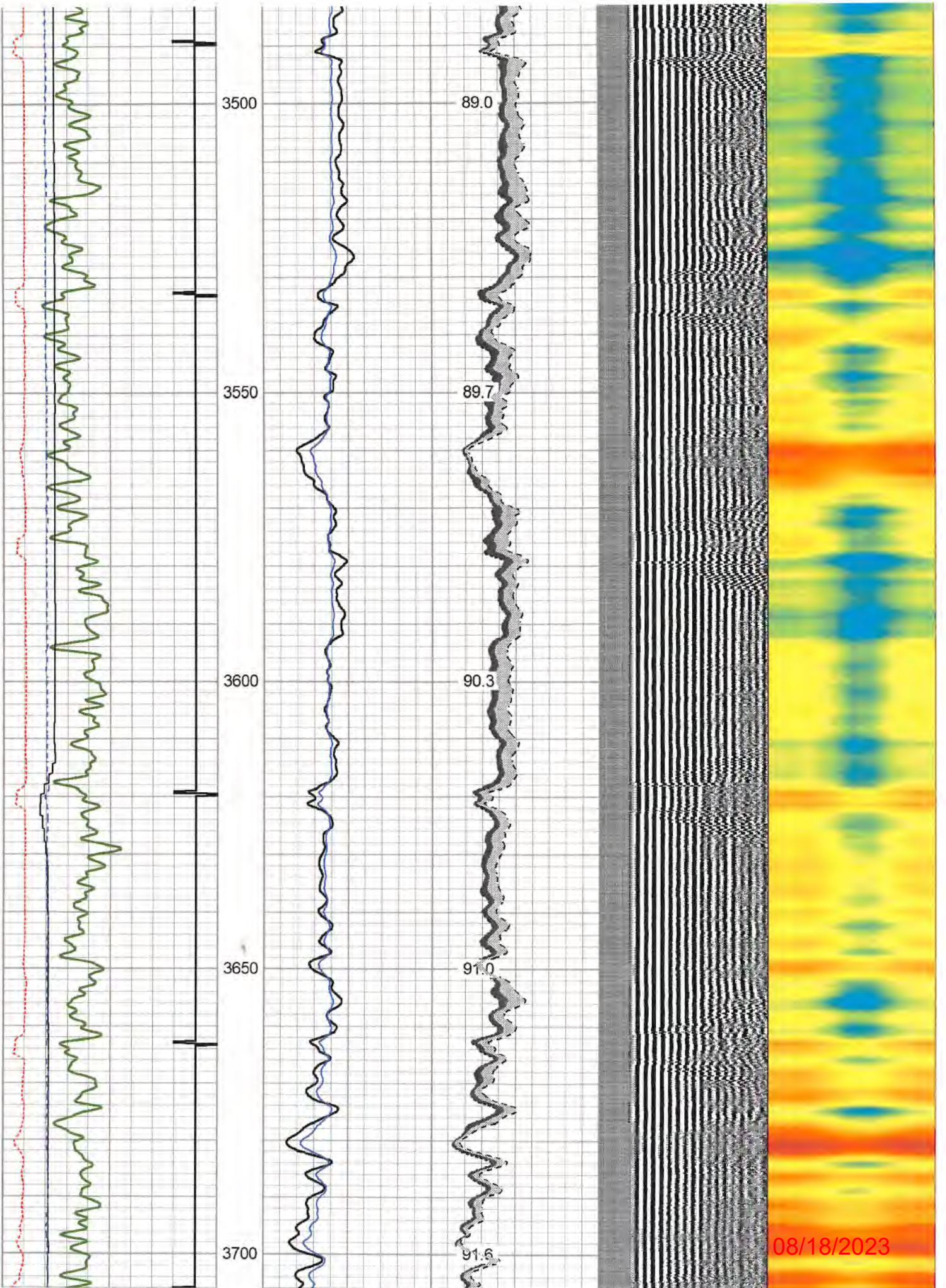
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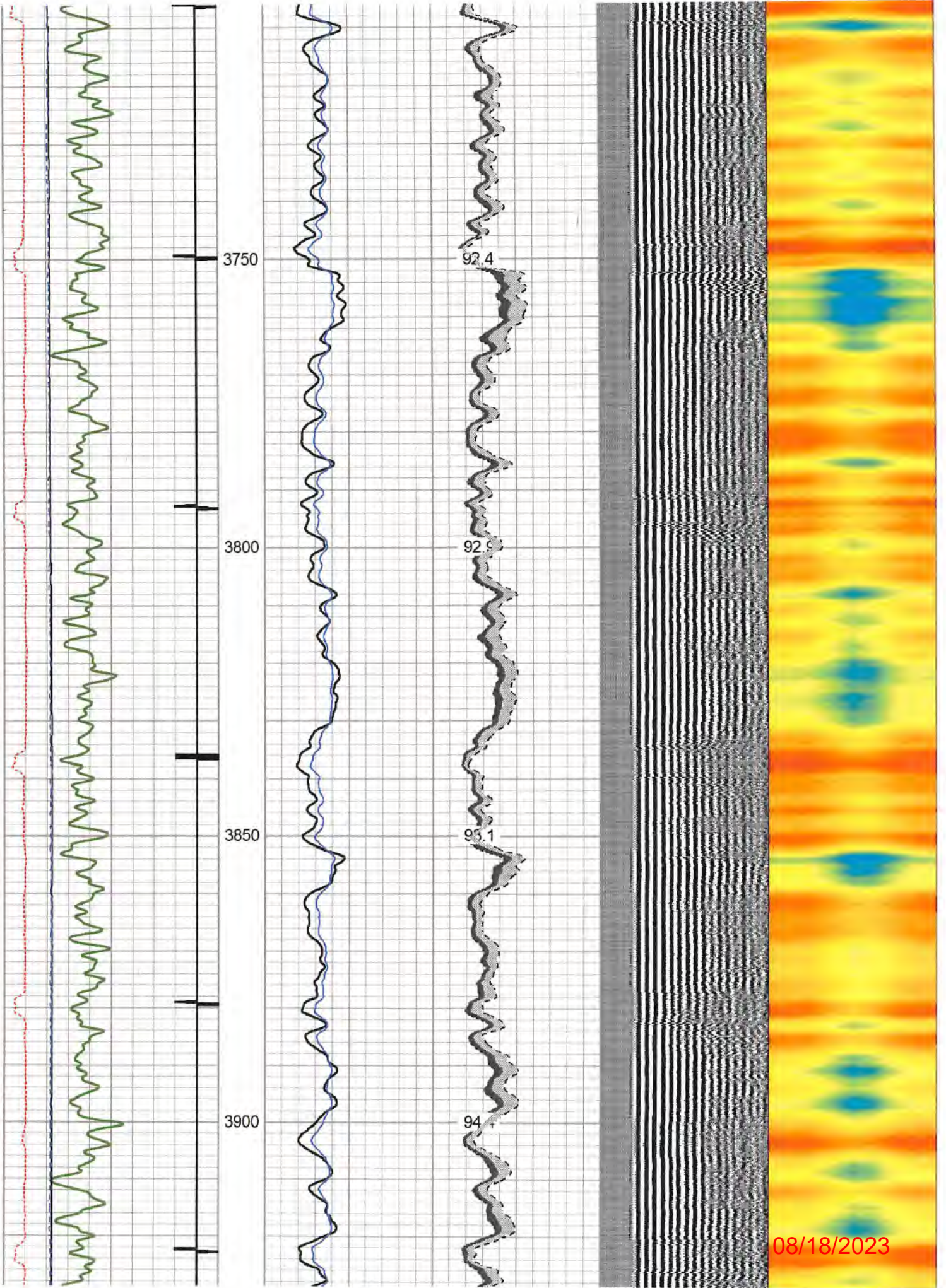
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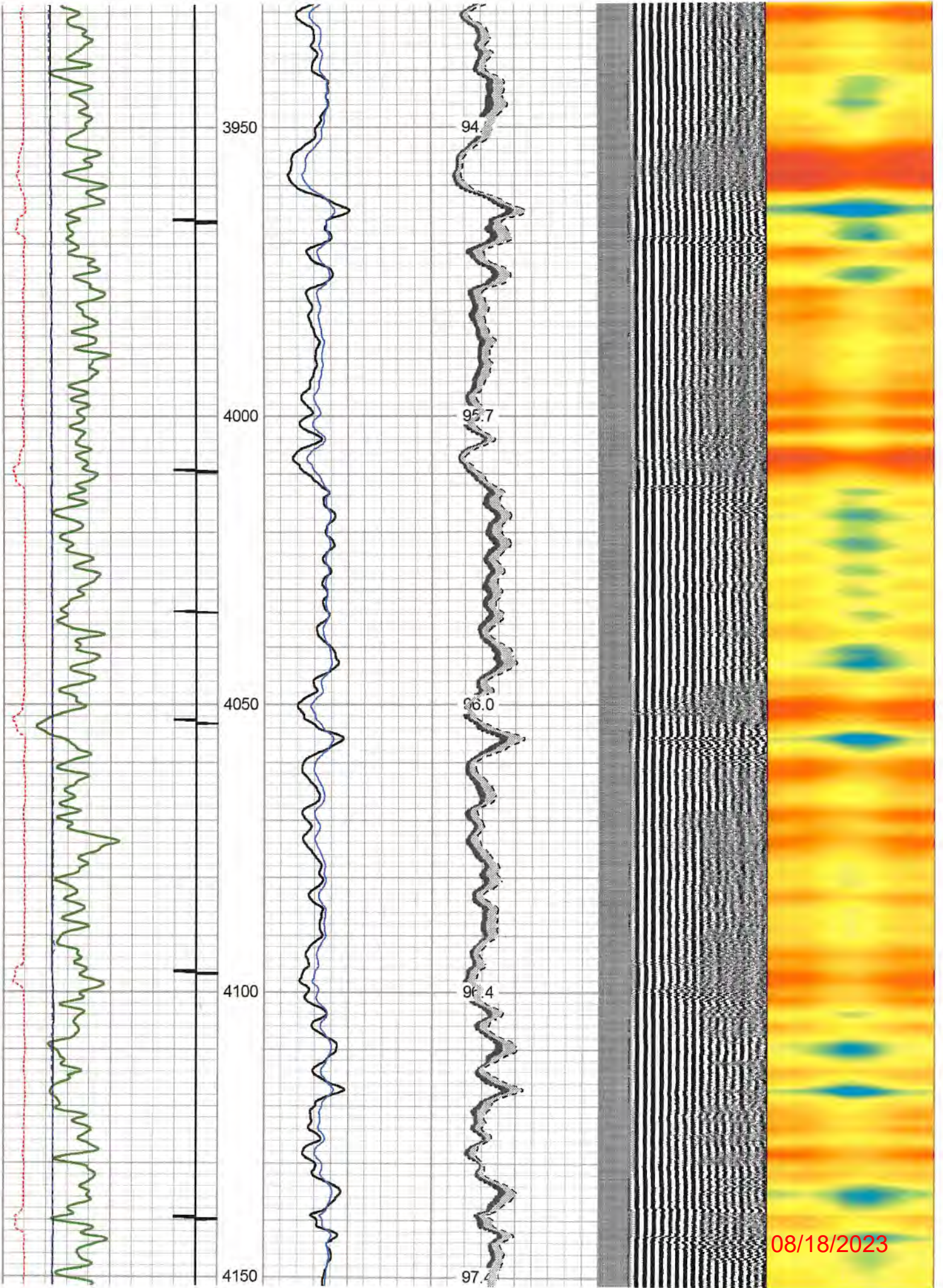


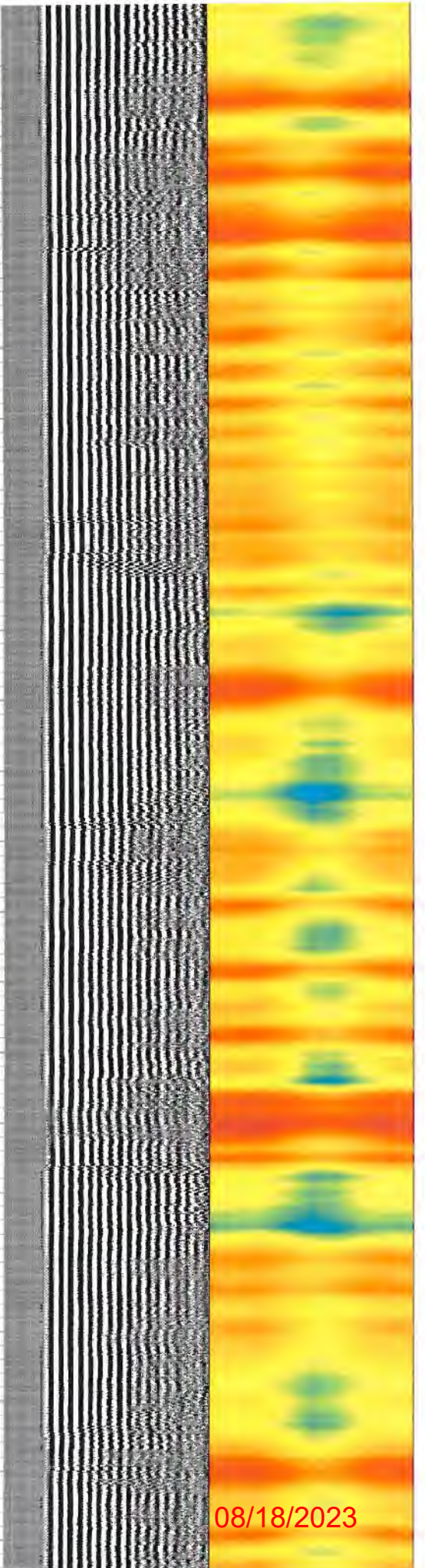
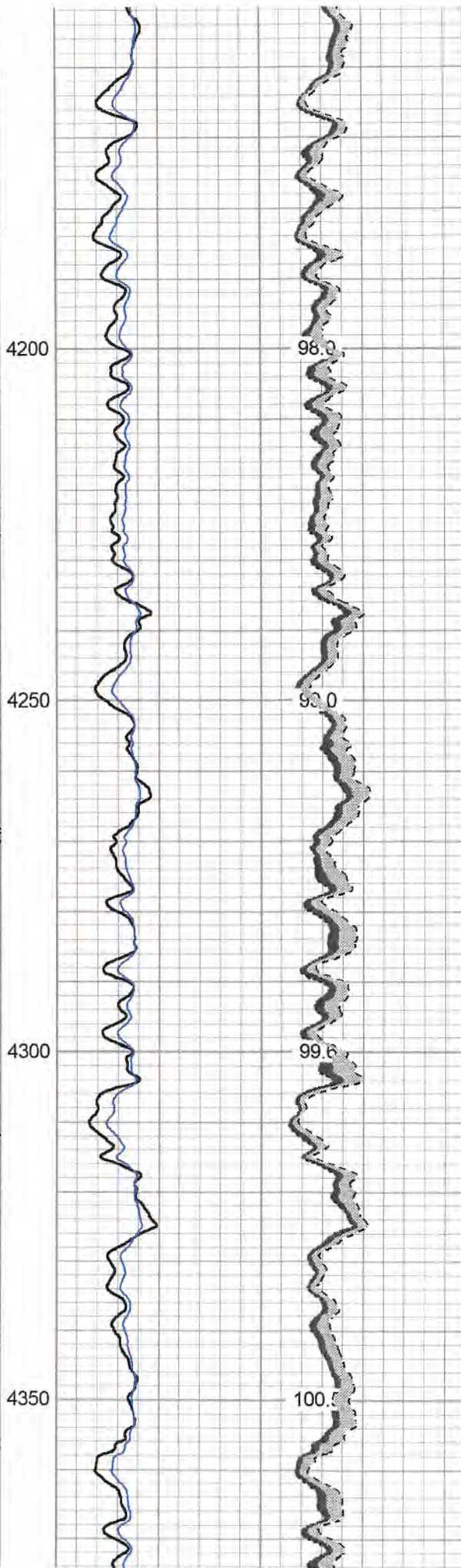
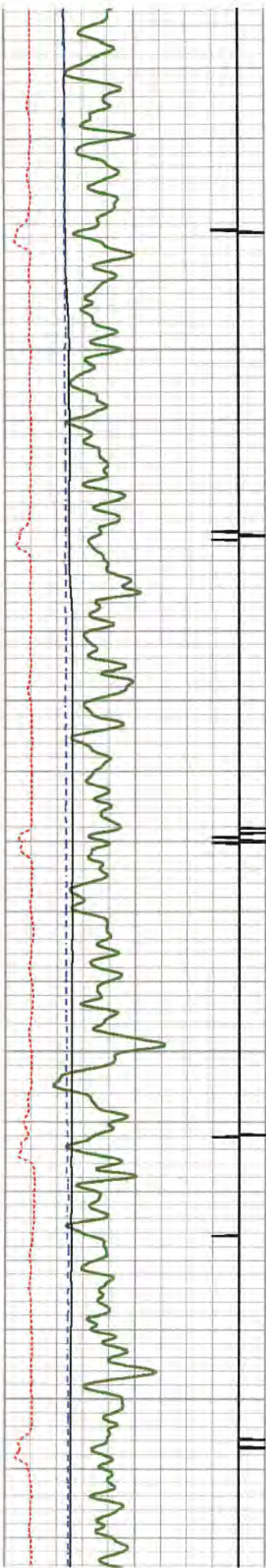


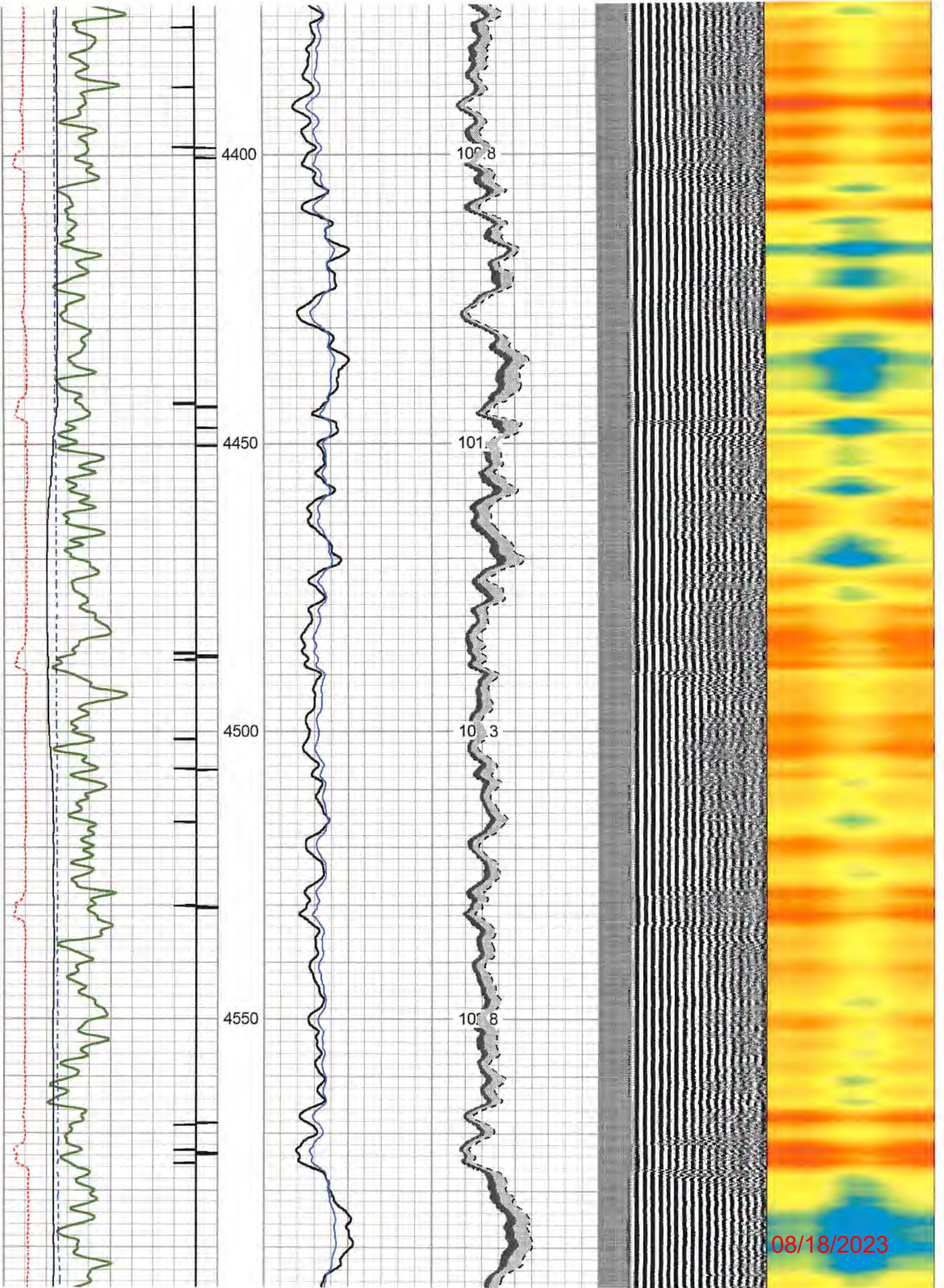


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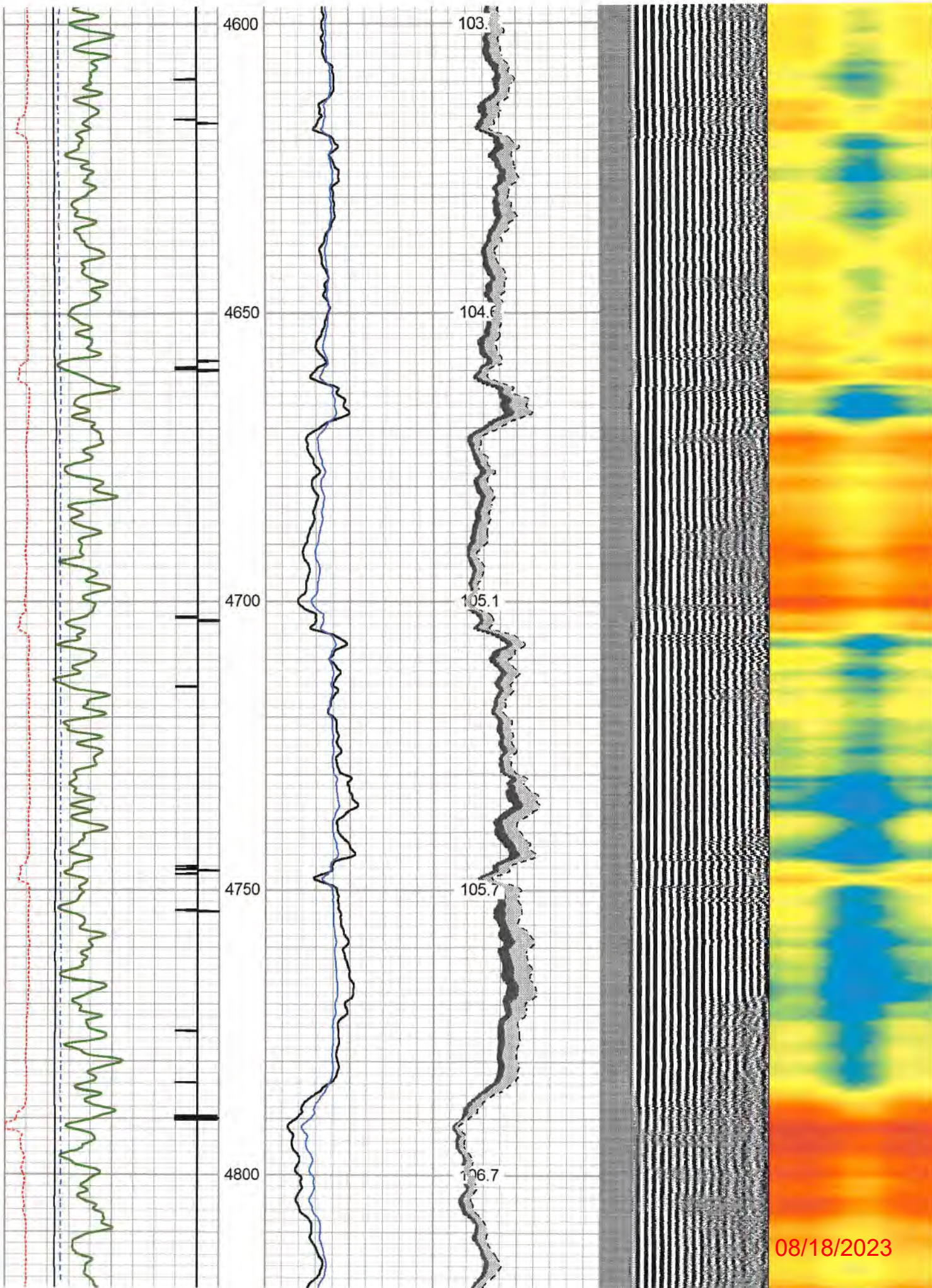


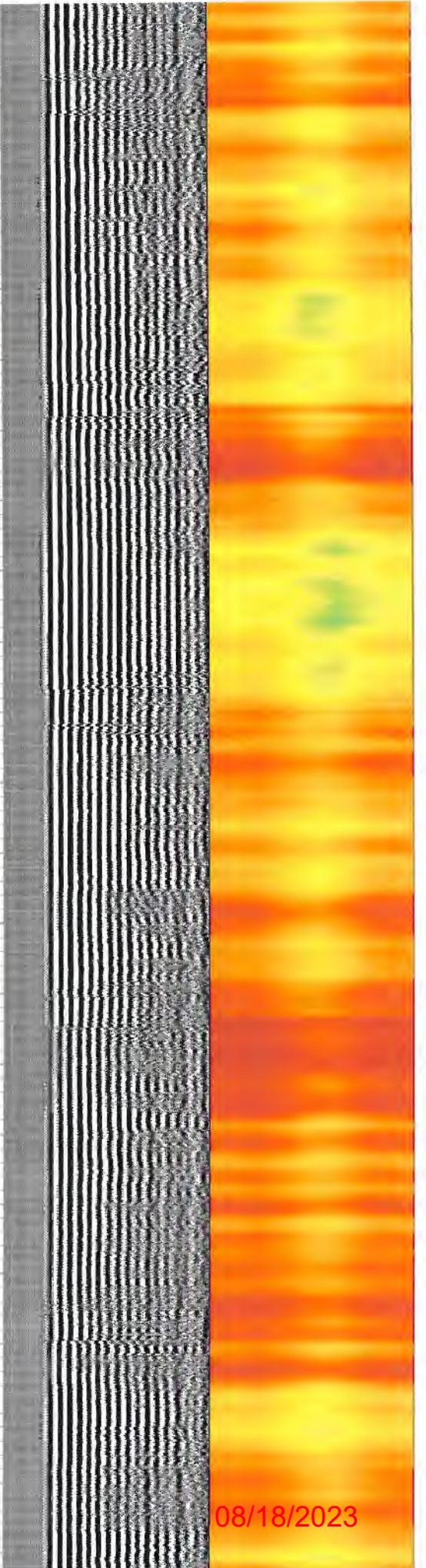
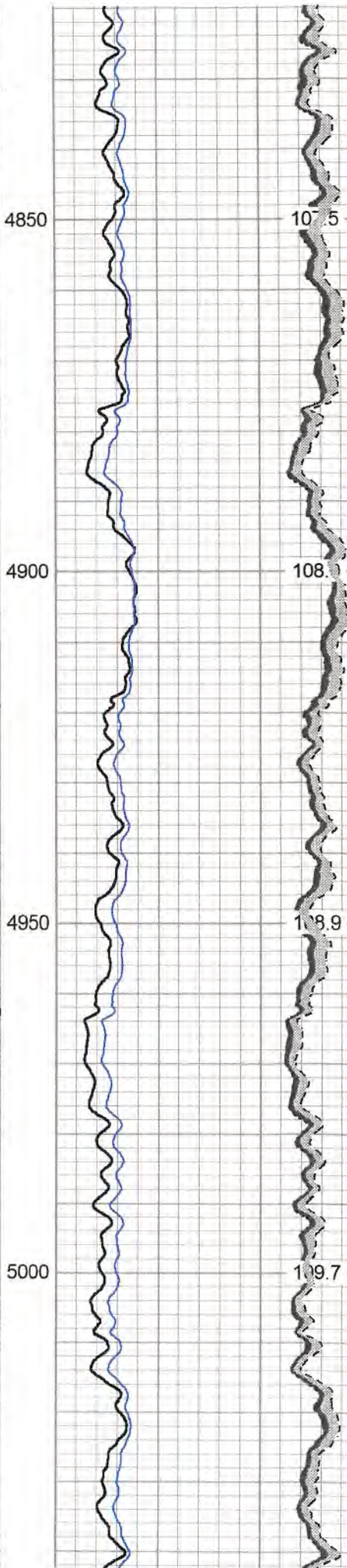
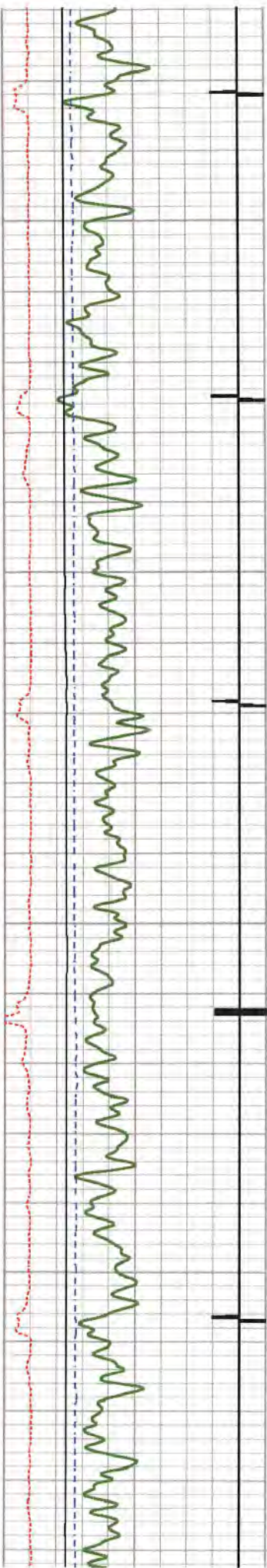




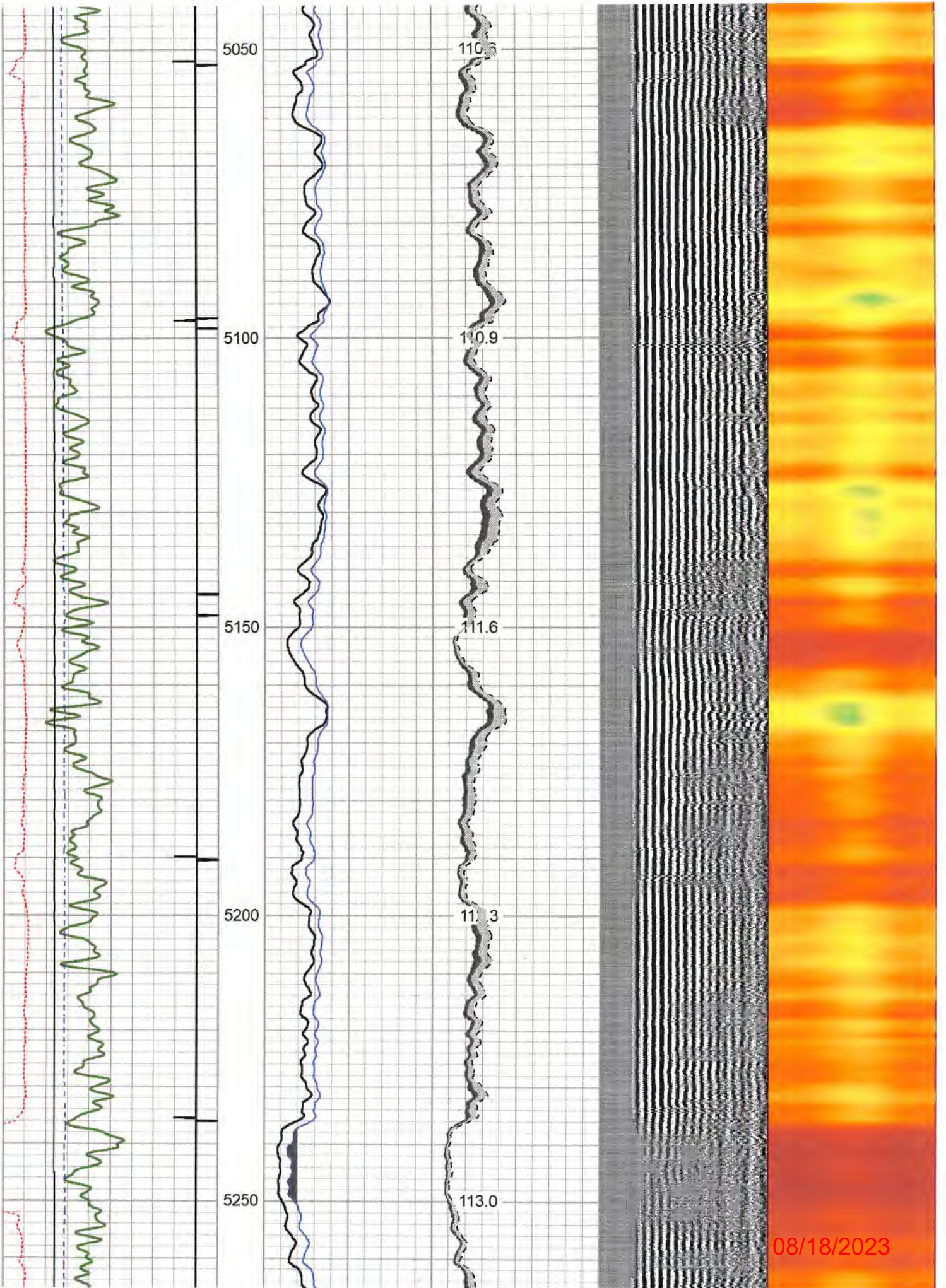


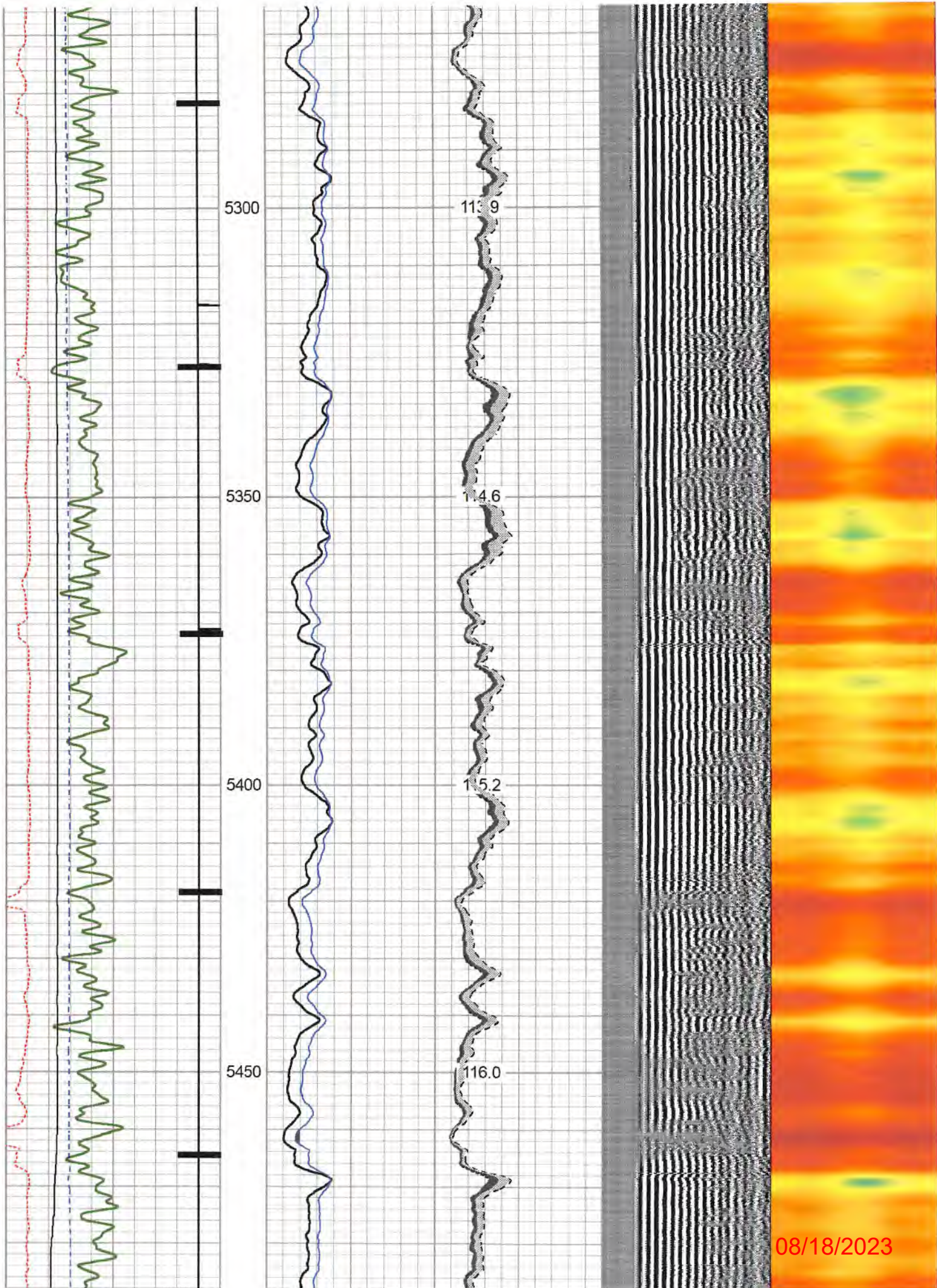
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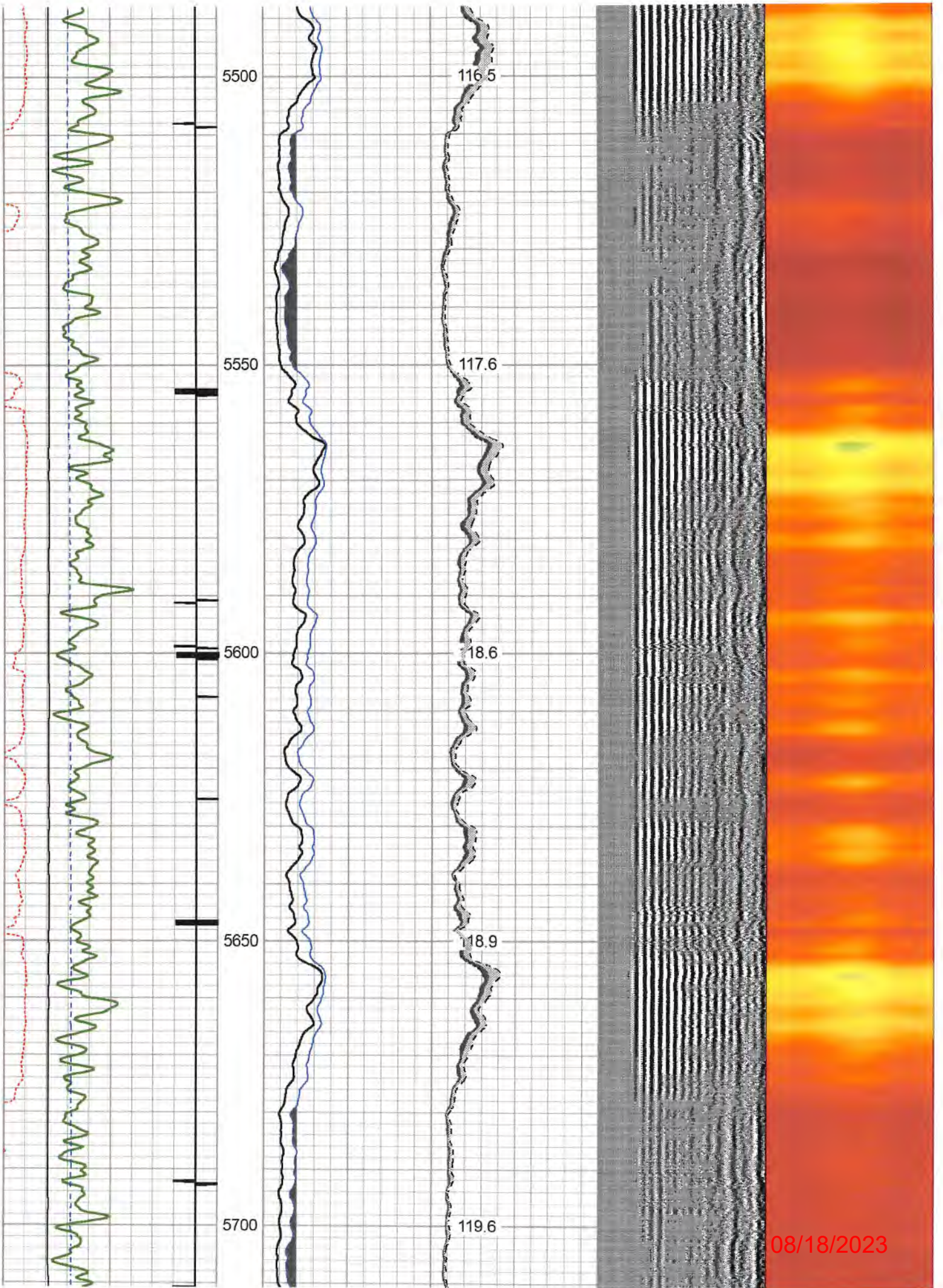


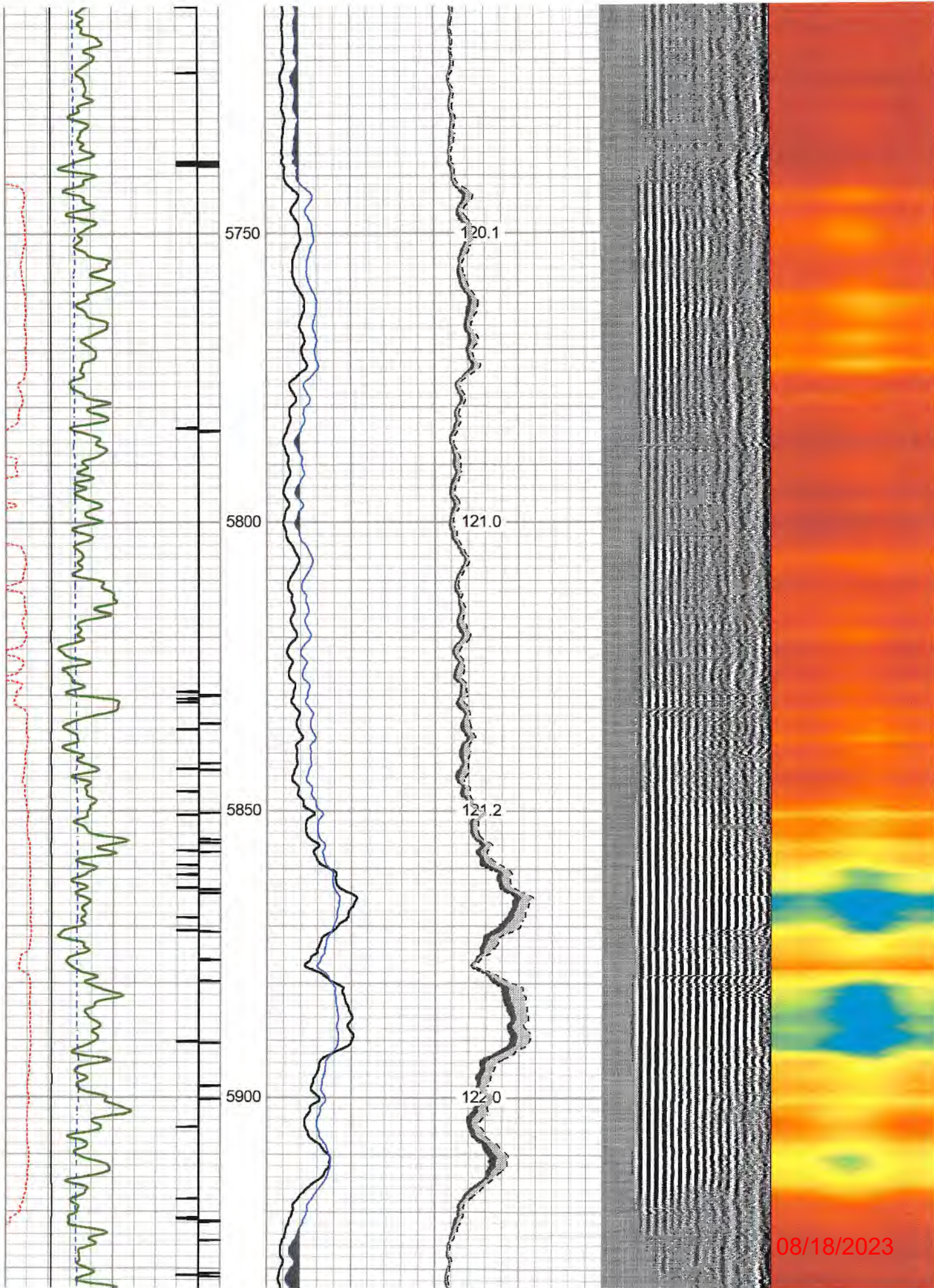


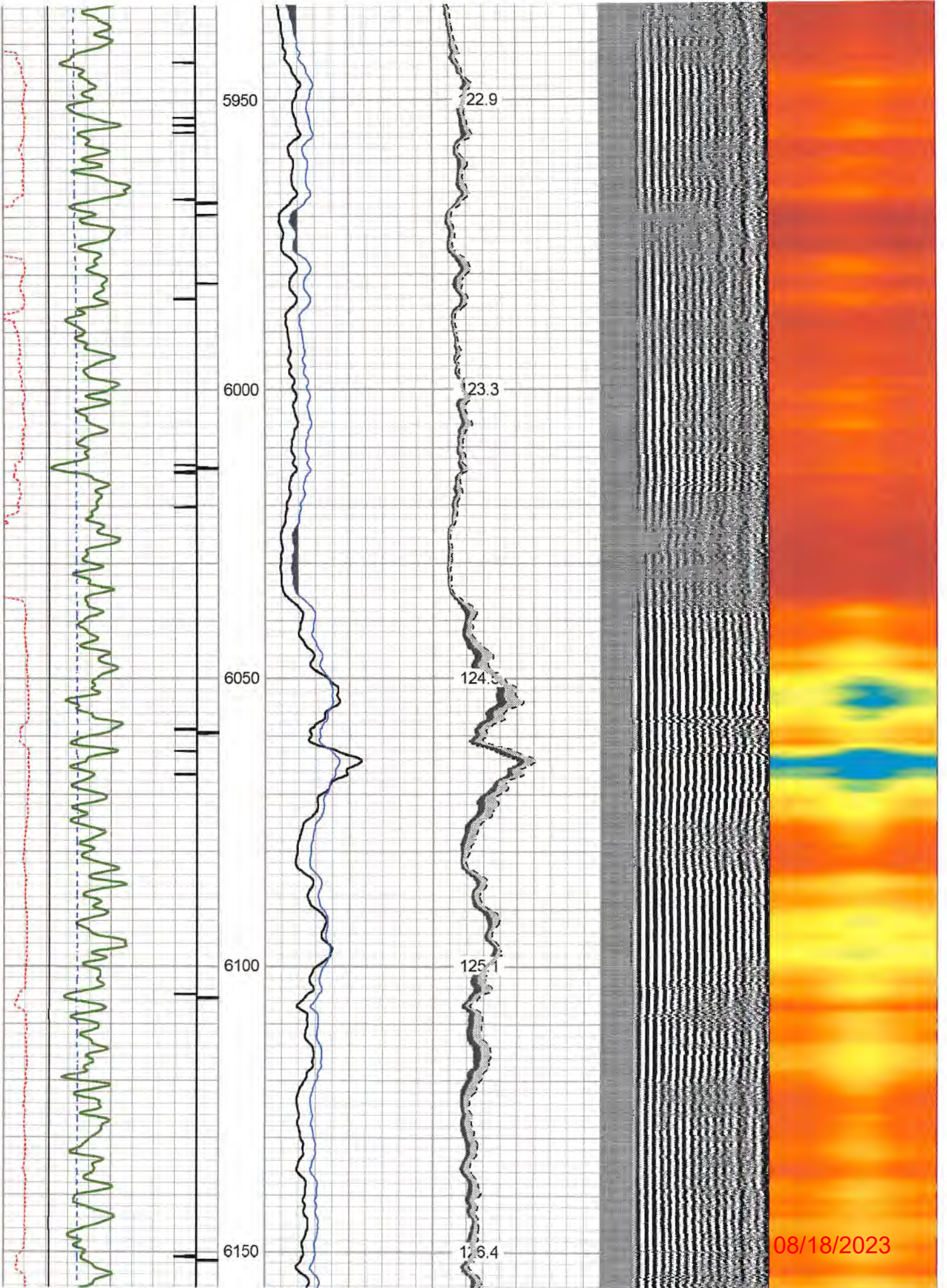
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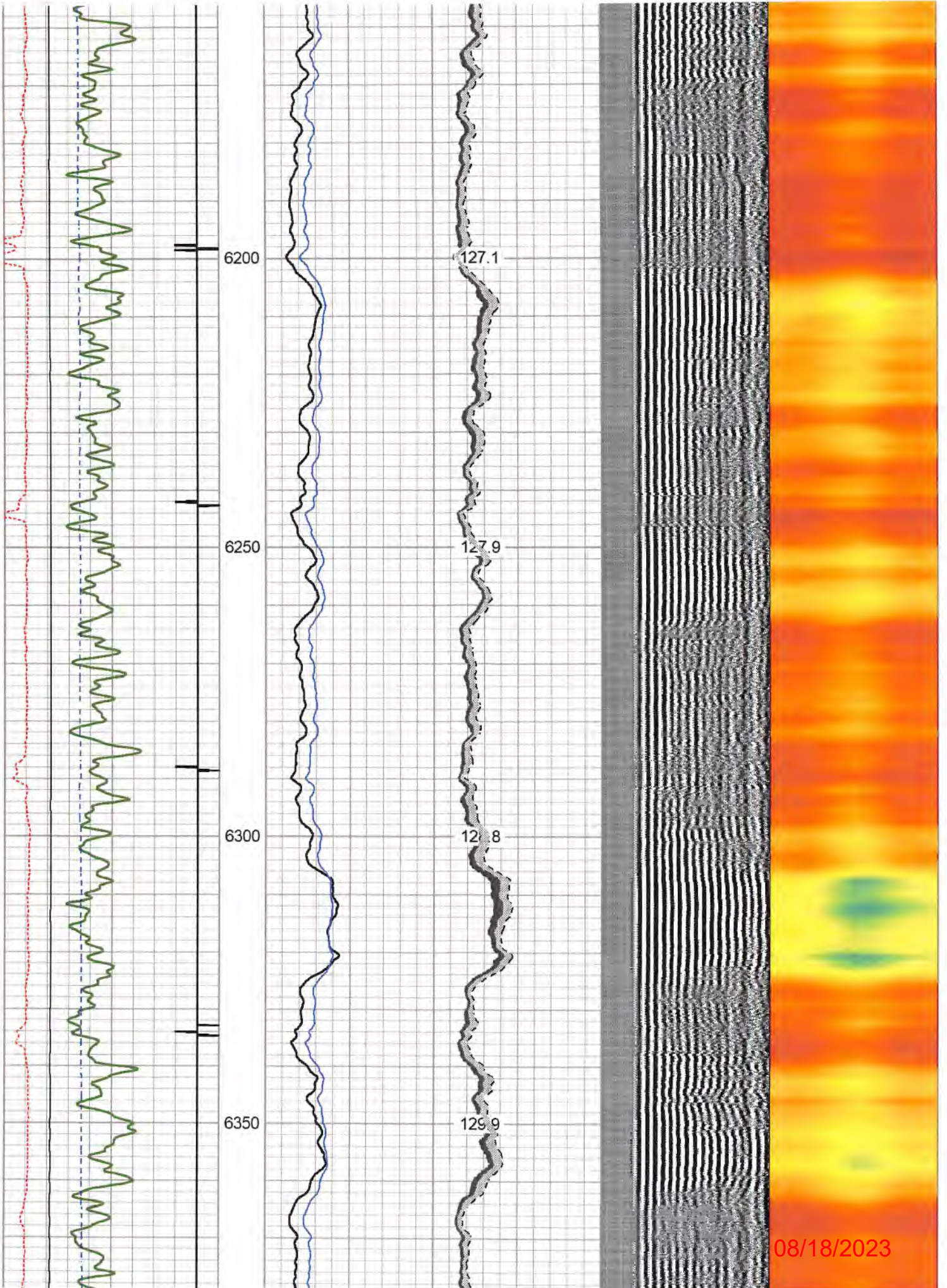


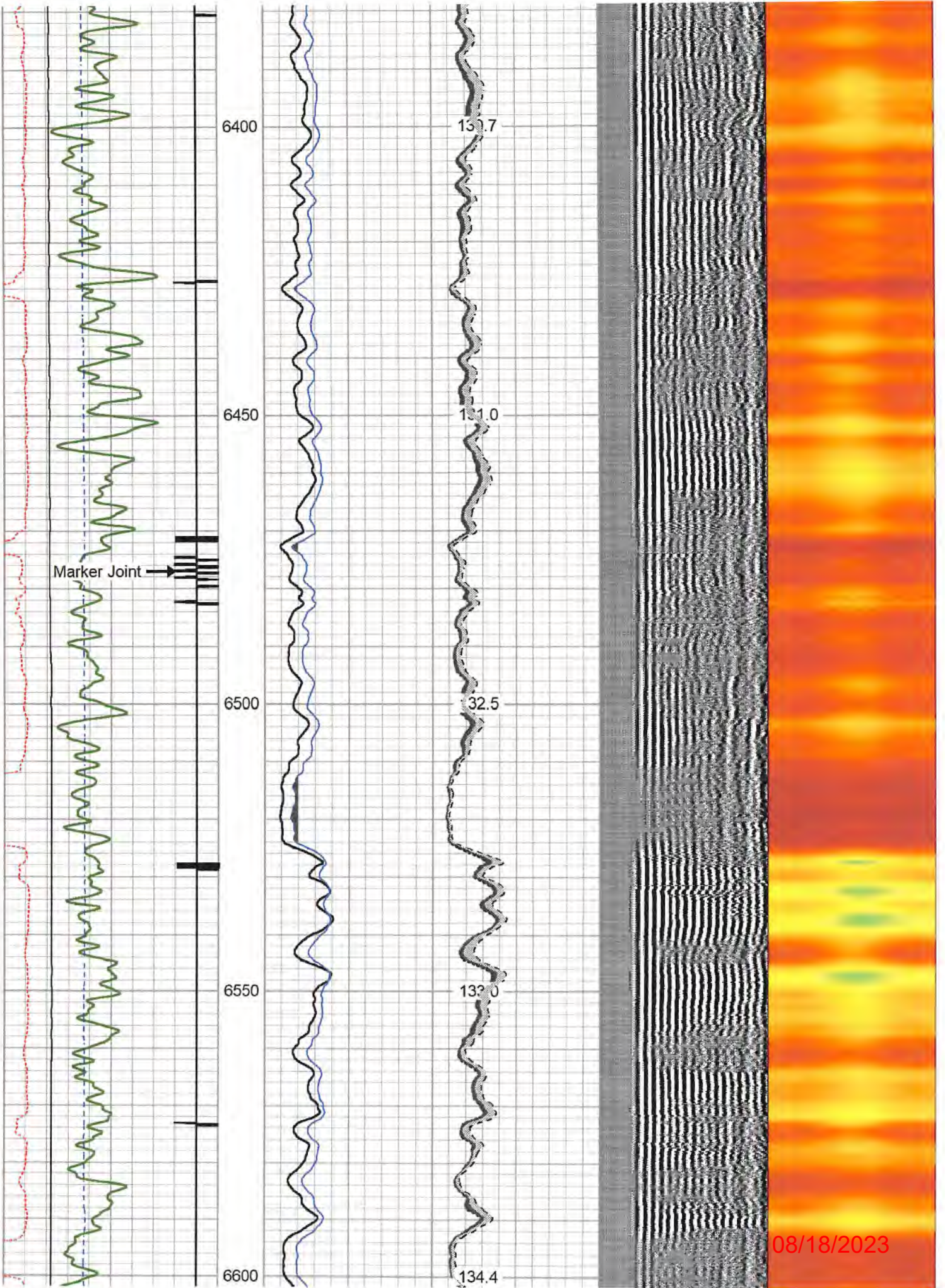




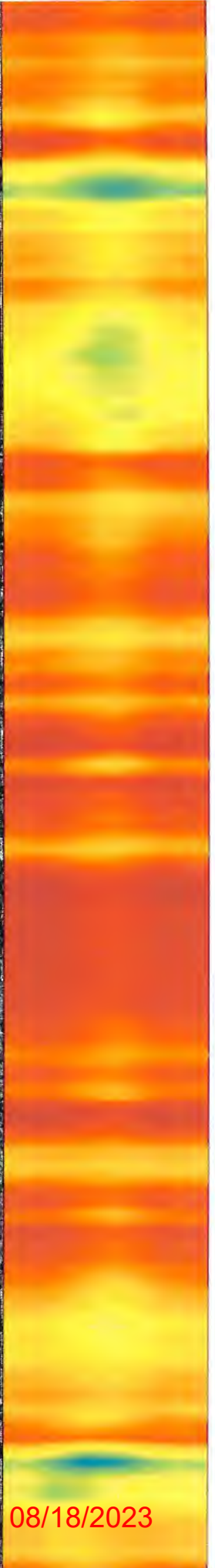
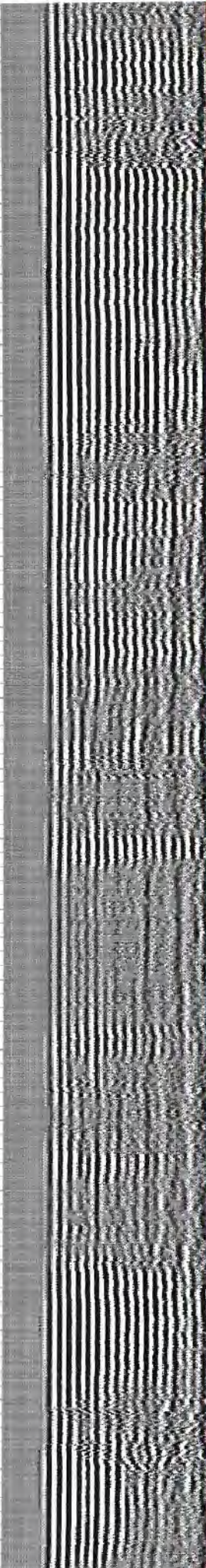
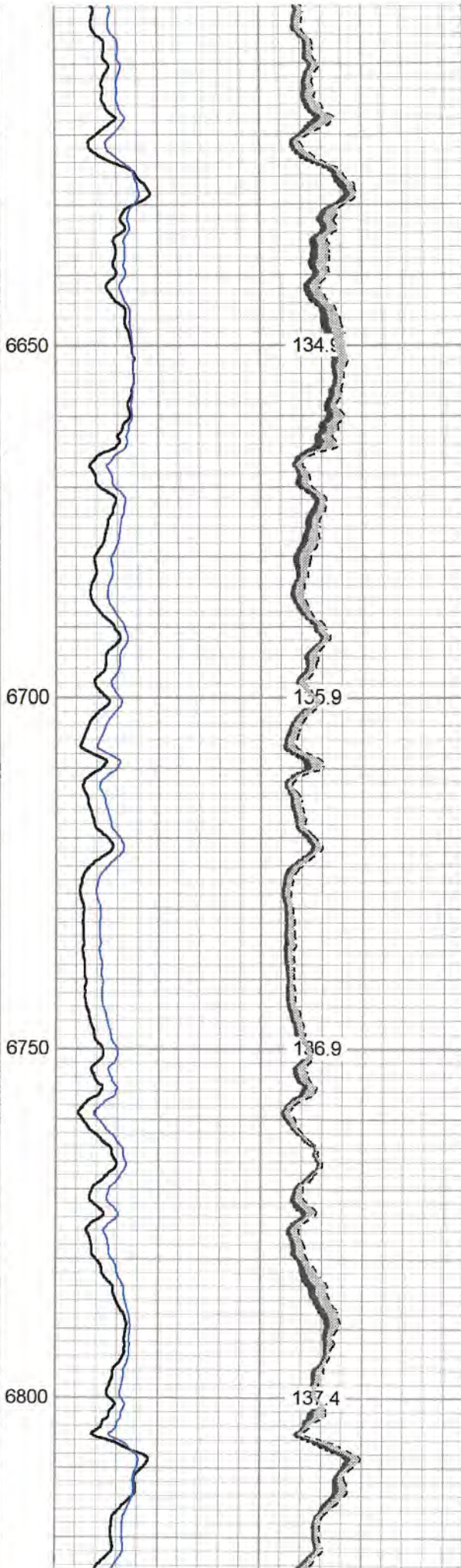
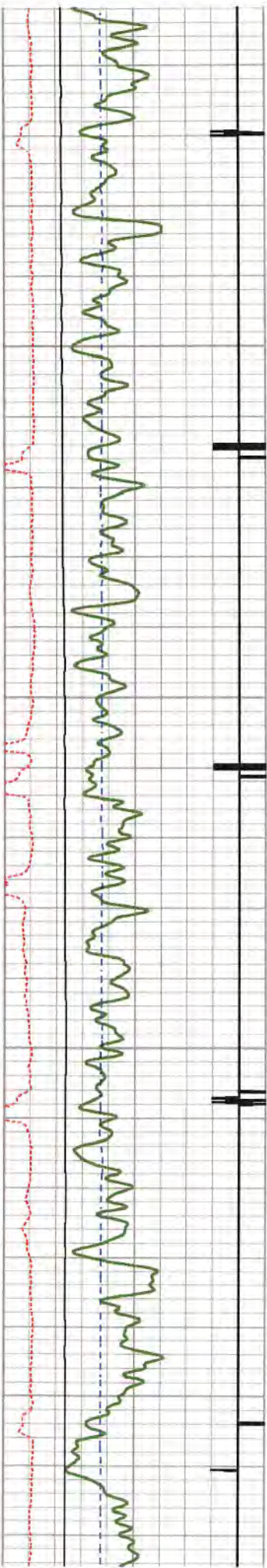




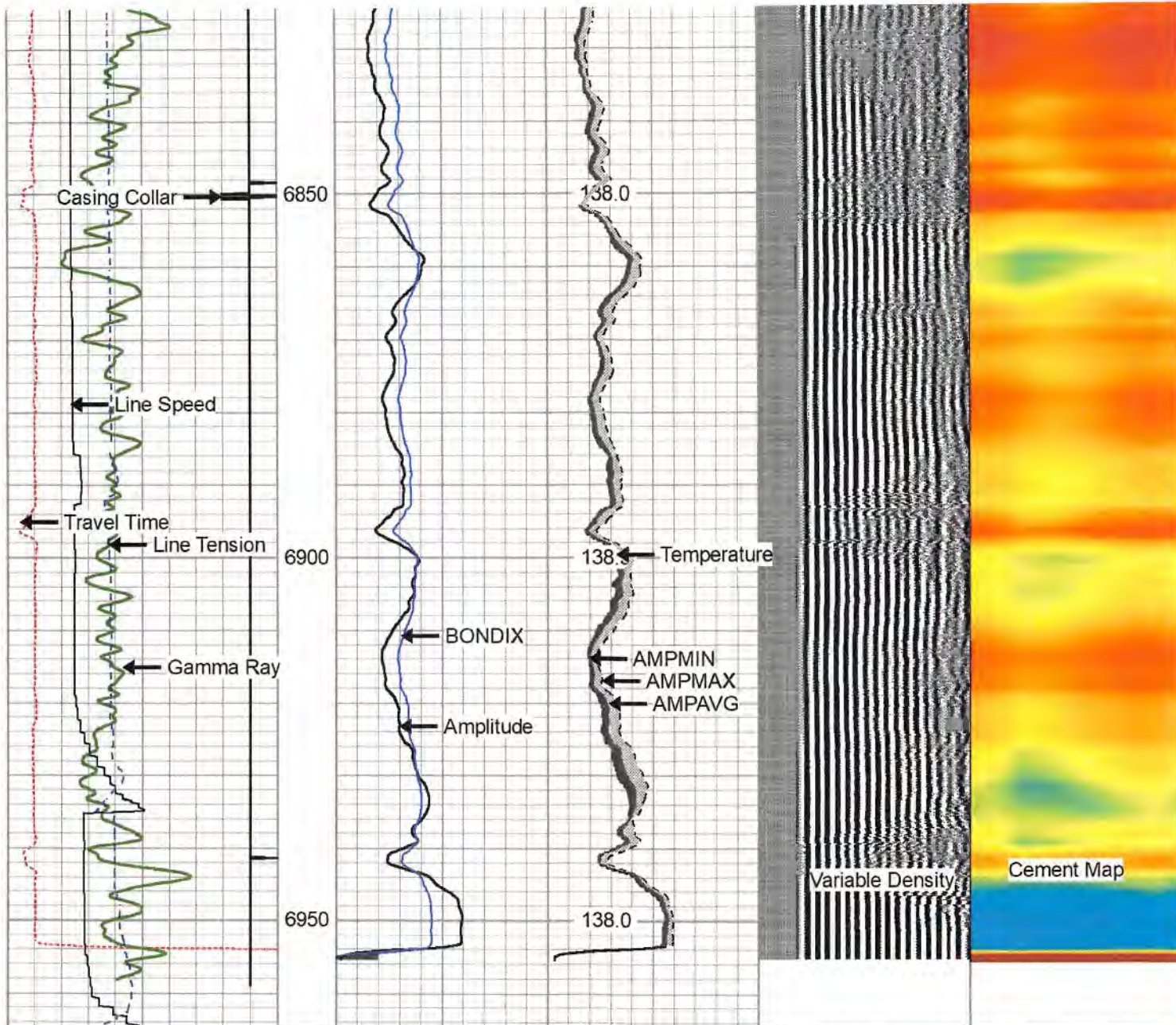




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270	Travel Time (usec)	160	0	Amplitude (mV)	100	-5	AMPMIN	150	Variable Density	1	Cement Map	8
9	Casing Collar	-1	1	BONDIX	0	-5	AMPMAX	150	200	(usec)	1200	
0	Gamma Ray (GAPI)	150				-5	AMPAVG	150				
	Line Speed						TEMP					
-200	(ft/min)	200					(degF)					
0	Line Tension (lb)	3000										



Repeat Pass 0 PSI

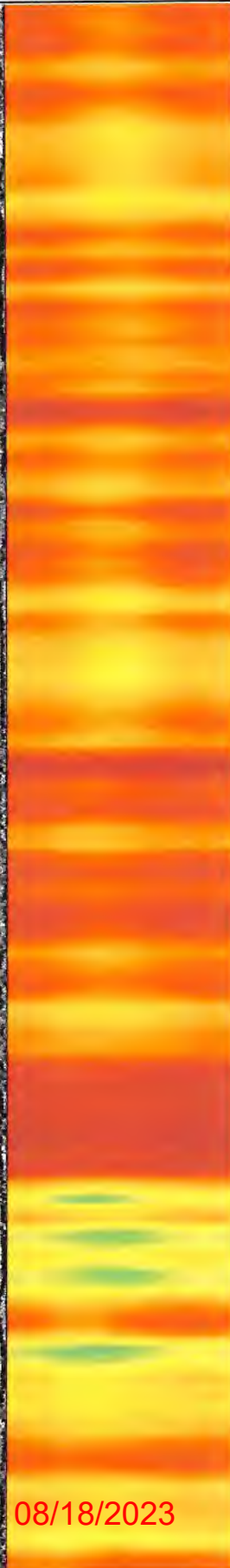
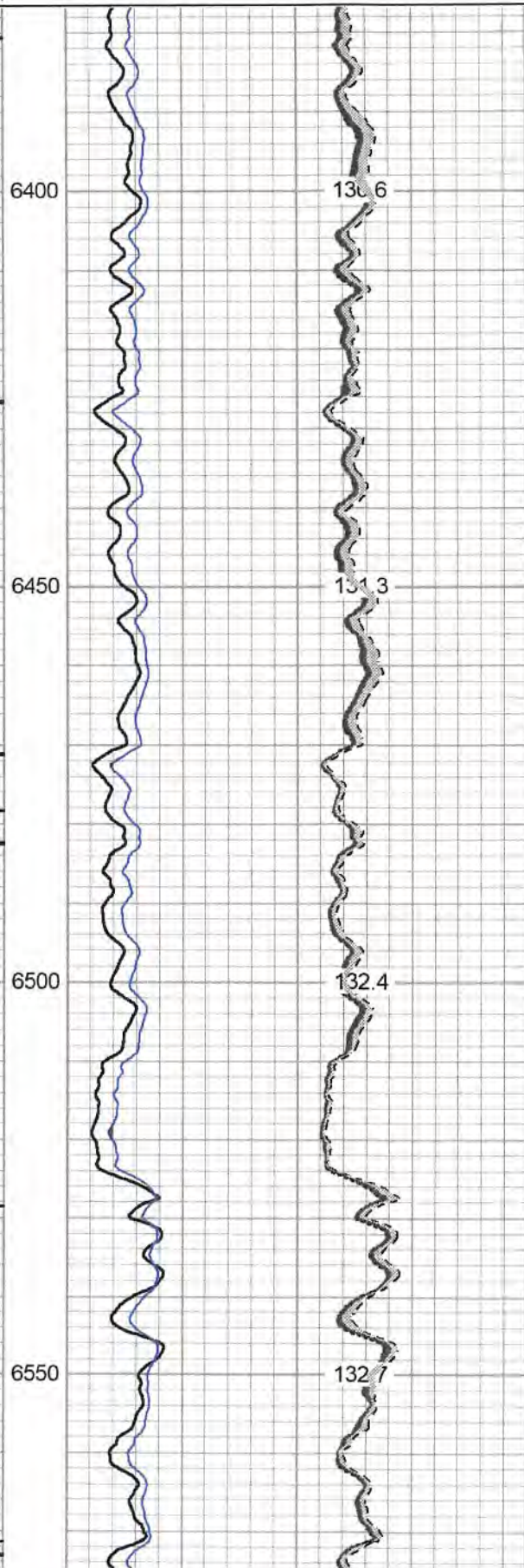
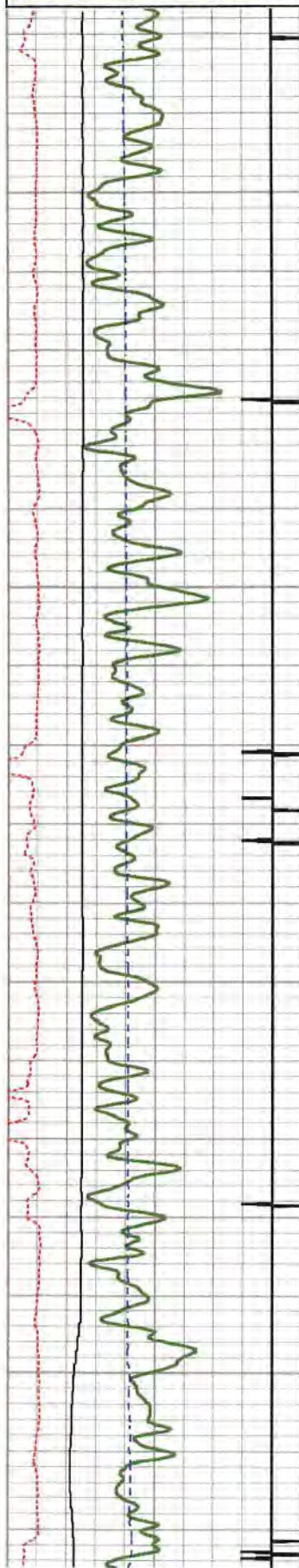
Database File	antero_folger_1h_rcbl_16_sep_2022.db											
Dataset Pathname	river_front/folger_1h/run1/pass2											
Presentation Format	rcbl-bond index 1020											
Dataset Creation	Fri Sep 16 19:49:51 2022											
Charted by	Depth in Feet scaled 1:240											

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270	Travel Time (usec)	160	0	Amplitude (mV)	100	-5	AMPMIN	150	Variable Density	1	Cement Map	8
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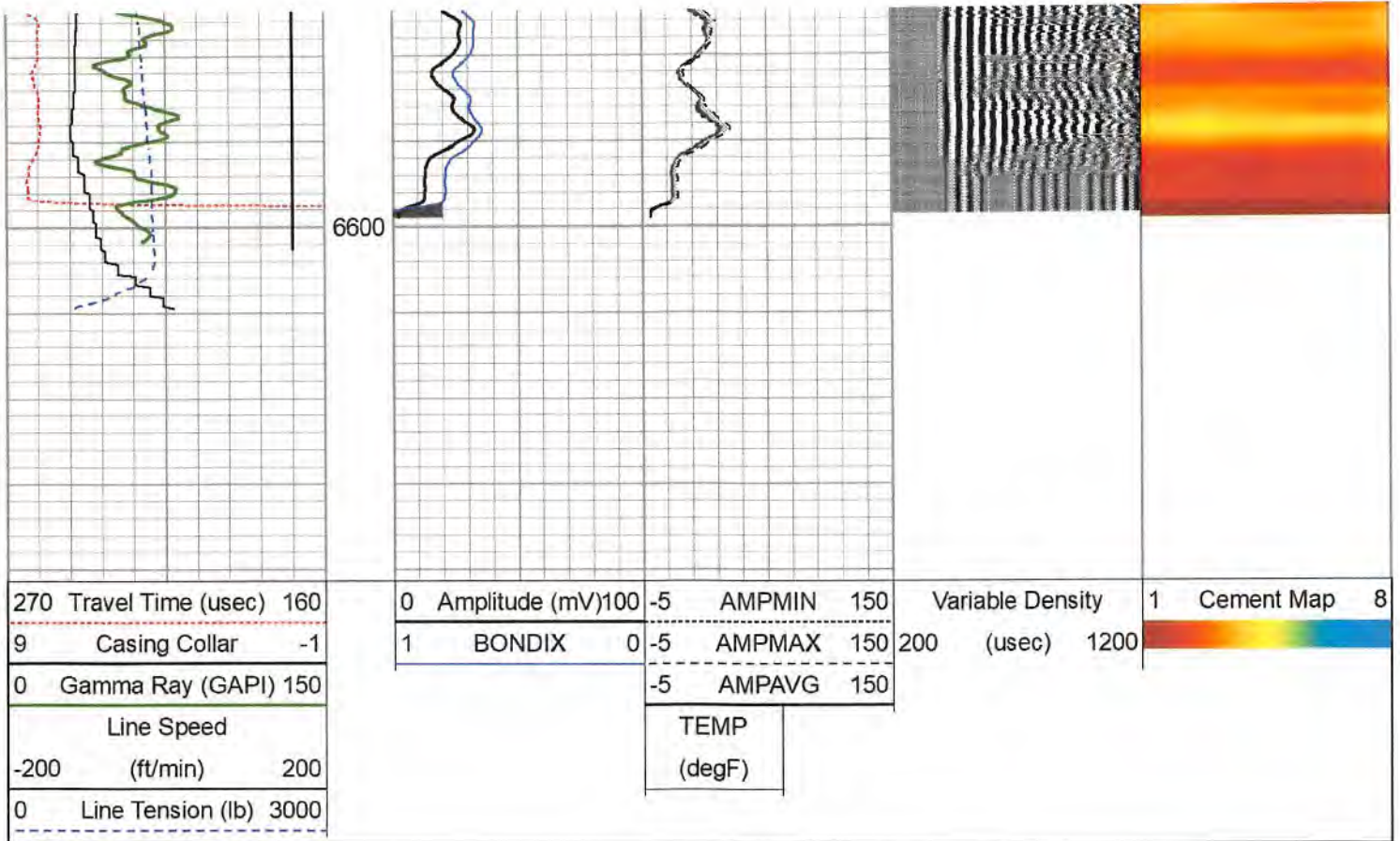
9 Casing Collar -1
 0 Gamma Ray (GAPI) 150
 Line Speed
 -200 (ft/min) 200
 0 Line Tension (lb) 3000

1 BONDIX 0 -5 AMPMAX 150 200 (usec) 1200
 -5 AMPAVG 150
 TEMP
 (degF)



6400 130.6
 6450 131.3
 6500 132.4
 6550 132.7

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Log Variables

Database: C:\ProgramData\Warrrior\Data\antero_folger_1h_rcbl_16_sep_2022.db
 Dataset: river_front/folger_1h/run1/pass4/_vars_

Top - Bottom

BHTEMP_Src	BOREID	BOTTEMP	CASEOD	CASETHCK	CASEWGHT	MAXAMPL	MINAMPL
TEMP	7.875	138	5.5	0.415	23	71.9	3.4
MINATTN	PERFS	PPT	SRFTEMP	TDEPTH			
9.6	No	261	65	6960			

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	

Calibration Report

Database File	antero_folger_1h_rcbl_16_sep_2022.db
Dataset Pathname	river_front/folger_1h/run1/pass4
Dataset Creation	Fri Sep 16 19:54:29 2022

Gamma Ray Calibration Report

Serial Number:	275
Tool Model:	Probe
Performed:	Thu Apr 07 08:17:10 2016

08/18/2023

Calibrator Value:	100.0	GAPI
Background Reading:	35.0	cps
Calibrator Reading:	160.0	cps
Sensitivity:	0.5000	GAPI/cps

Segmented Cement Bond Log Calibration Report

Serial Number:	FW1312-32	
Tool Model:	Probe275T	
Calibration Casing Diameter:	5.500	in
Calibration Depth:	191.158	ft

Master Calibration, performed Fri Sep 16 00:13:48 2022:


	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3'	0.010	0.704	3.400	71.921	98.818	2.382
CAL	0.846	0.967				
5'	0.008	0.702	3.400	71.921	98.785	2.608
SUM						
S1	0.001	0.722	0.000	100.000	138.577	-0.101
S2	0.002	0.691	0.000	100.000	145.135	-0.243
S3	0.001	0.753	0.000	100.000	132.905	-0.120
S4	0.000	0.728	0.000	100.000	137.364	-0.042
S5	-0.000	0.681	0.000	100.000	146.902	0.009
S6	-0.000	0.671	0.000	100.000	149.002	0.002
S7	-0.000	0.689	0.000	100.000	145.086	0.062
S8	0.000	0.725	0.000	100.000	138.080	-0.042

Internal Reference Calibration, performed (Not Performed):

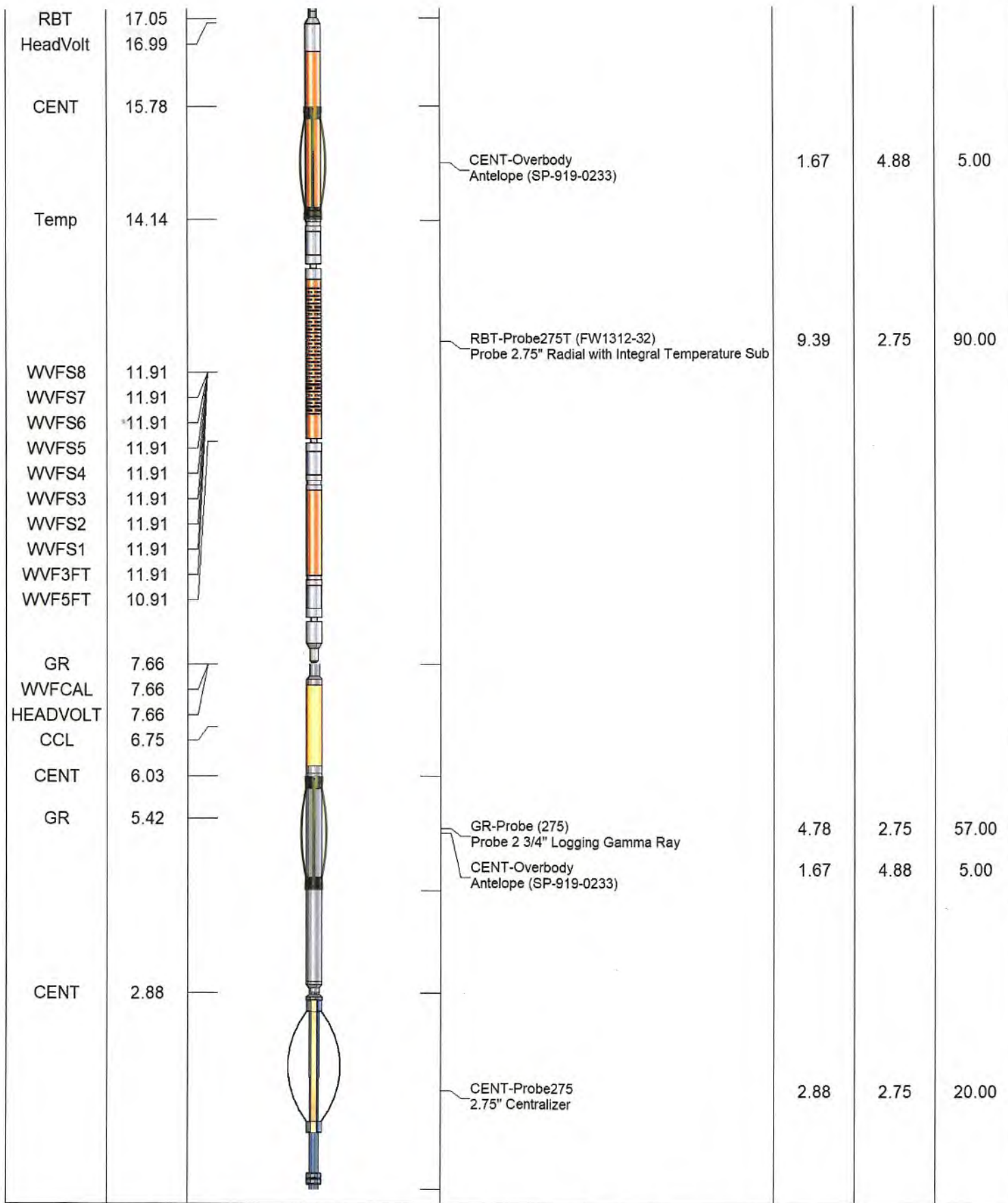
	Raw (v)		Calibrated (v)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
CAL	0.000	0.000	0.846	0.967	1.000	0.000

Air Zero Calibration, performed Thu Sep 15 21:55:09 2022:

	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	

Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb)
CHD	18.07		CHD-Titan Standard 1 7/16" Cable Head	1.02	1.44	1.00

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Dataset: antero_folger_1h_rcbl_16_sep_2022.db: river_front/folger_1h/run1/pass4
 Total length: 18.07 ft
 Total weight: 178.00 lb
 O.D.: 4.88 in



well	Eidon Folger 1H
Field	River Front
County	Tyler
State	WV

08/18/2023