



**RADIAL CEMENT BOND LOG**  
**GAMMA RAY / CCL**

Company ANTERO  
Well TEN MILE 2H  
Field MARCELLUS  
County HARRISON State WV

Location: API #: N/A  
*4703305696*  
Other Services NONE

Company ANTERO  
Well TEN MILE 2H  
Field MARCELLUS  
County HARRISON State WV

Permanent Datum G.L. Elevation N/A  
Log Measured From K.B.20 FT  
Drilling Measured From KELLY BUSHING

SEC TWP RGE Elevation  
K.B. D.F. G.L.

Date SEPT.11.2013

Run Number ONE

Depth Driller N/A

Depth Logger 7367'

Bottom Logged Interval 7354'

Top Log Interval SURFACE

Open Hole Size N/A

Type Fluid H<sub>2</sub>O

Density / Viscosity N/A

Max. Recorded Temp. N/A

Estimated Cement Top SURFACE

Time Well Ready 0:20

Time Logger on Bottom 1:00

Equipment Number 107

Location WASHINGTON PA

Recorded By C.WESTERFIELD

Witnessed By MR.J.BRANSCUM

Run Number	Borehole Record		Tubing Record				
	Bit	From	To	Size	Weight	From	To
Casing Record							
Surface String				Size	Wgt/Ft	Top	Bottom
Prot. String							
Production String							
Liner							

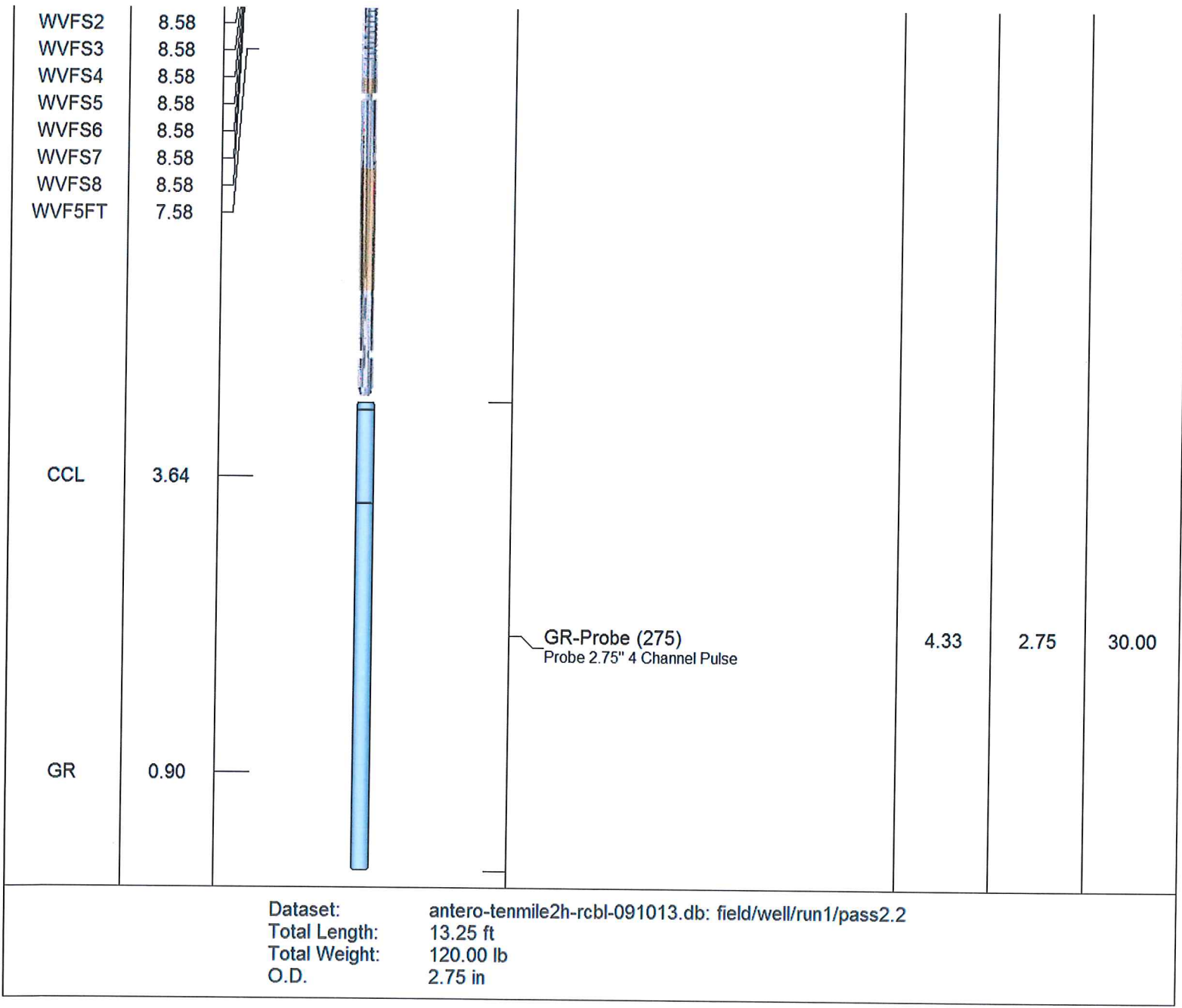
FIELD COPY

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

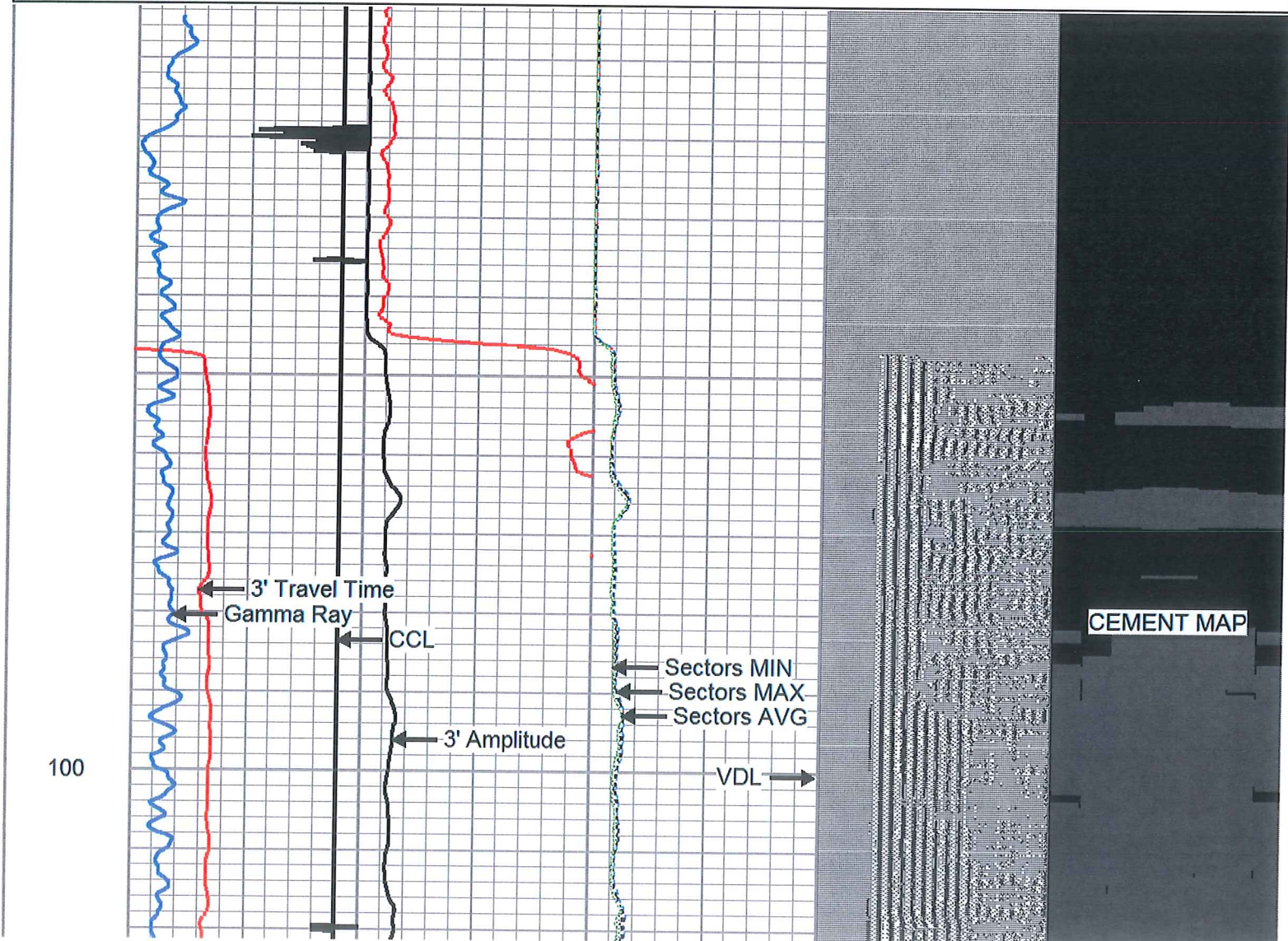
LOG MEASURED FROM 20 FT K.B  
 ESTIMATED CEMENT TOP @ SURFACE  
 NO WELL INFO AT TIME OF JOB

Sensor	Offset (ft)	Schematic	Description	Len (ft)	OD (in)	Wt (lb)
HEADVOLT	13.25					
IntTemp	11.83					
WV3FT	8.58					
WVFCAL	8.58					
WVFS1	8.58					
			RBT-Probe (Base) Probe Radii Bond Tool with Digital Telemetry	8.92	2.75	90.00

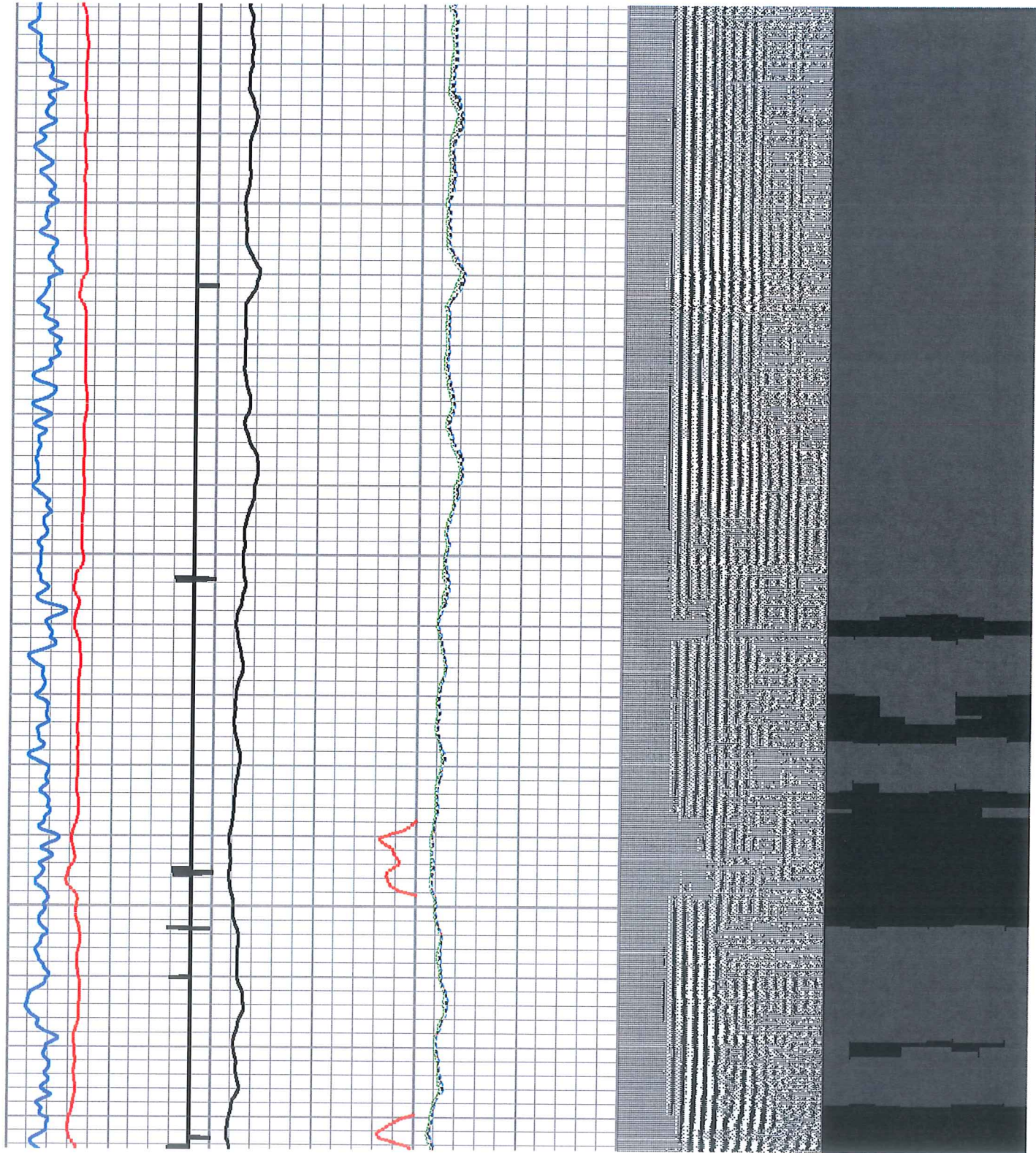


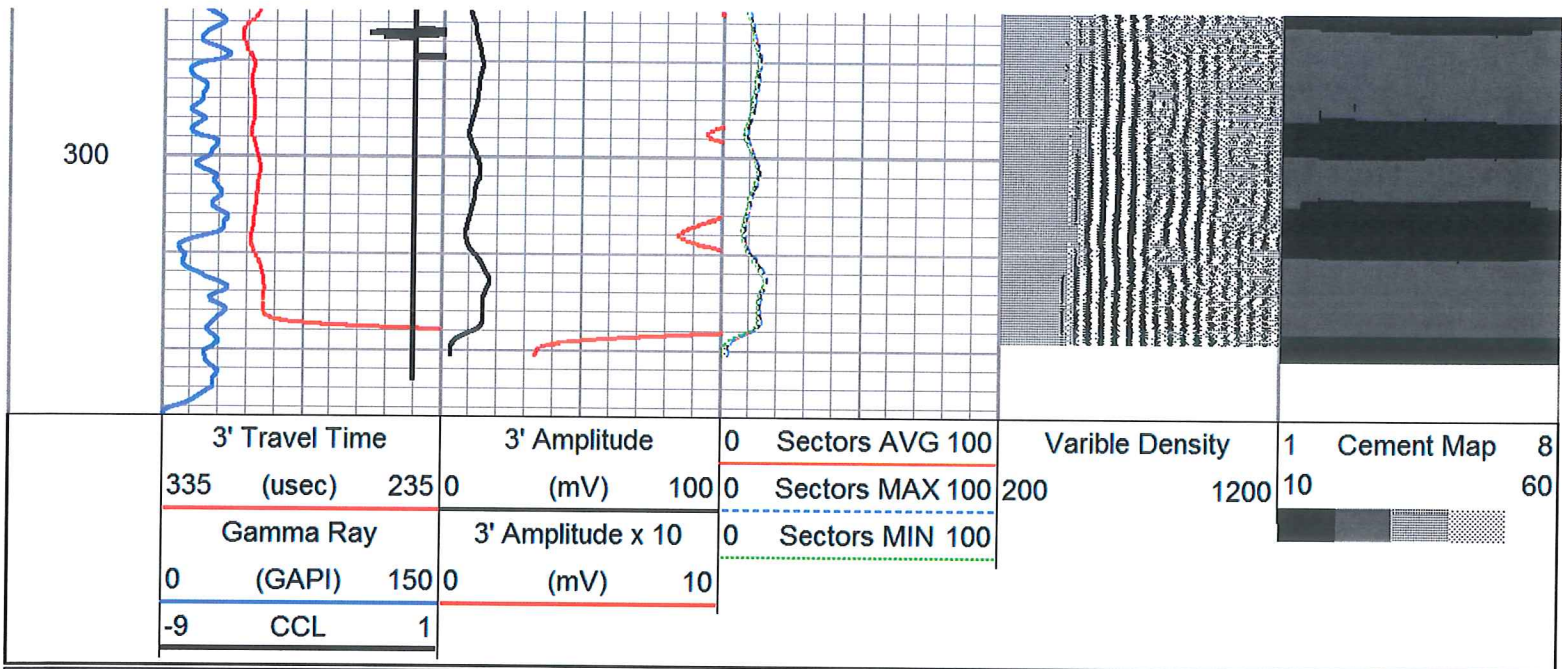
Database File: antero-tenmile2h-rcbl-091013.db  
 Dataset Pathname: pass6  
 Presentation Format: scbl02  
 Dataset Creation: Wed Sep 11 02:44:43 2013 by Log SCH 120430  
 Charted by: Depth in Feet scaled 1:240

	3' Travel Time	3' Amplitude	0 Sectors AVG 100	Variable Density	1 Cement Map	8
335 (usec)	235	0 (mV)	100	200	10	60
Gamma Ray	3' Amplitude x 10	0 Sectors MAX 100				
0 (GAPI)	150	0 (mV)	10			
-9 CCL	1					



200



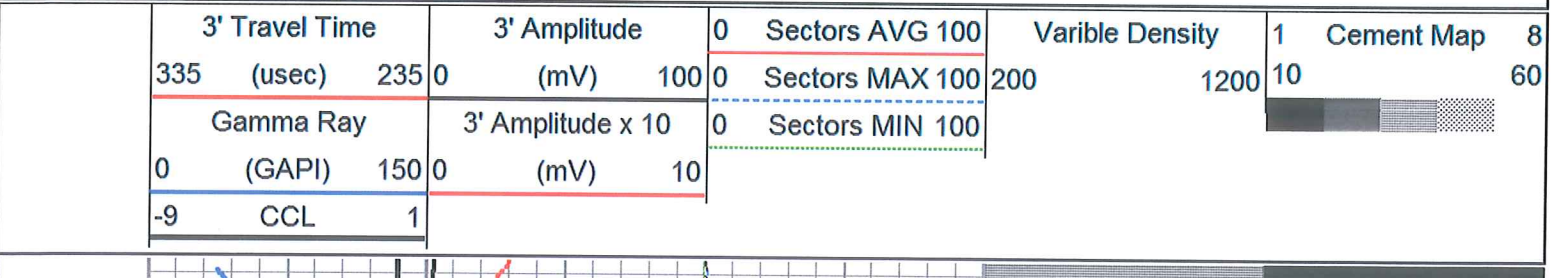



# SURFACE REPEAT PASS

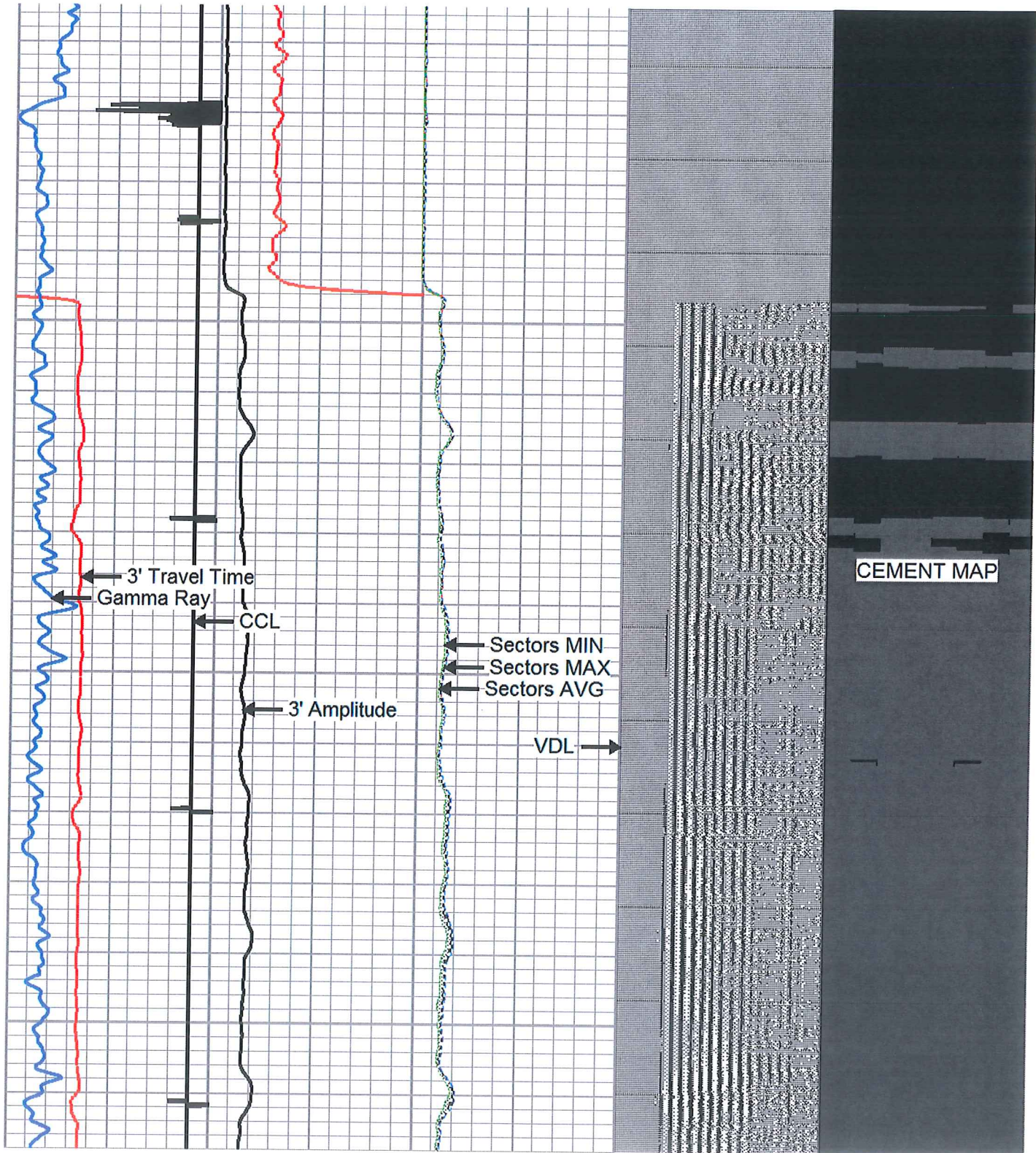


# MAIN PASS

Database File: antero-tenmile2h-rcbl-091013.db  
 Dataset Pathname: merge6  
 Presentation Format: scbl02  
 Dataset Creation: Wed Sep 11 09:31:27 2013 by Calc SCH 120430  
 Charted by: Depth in Feet scaled 1:240

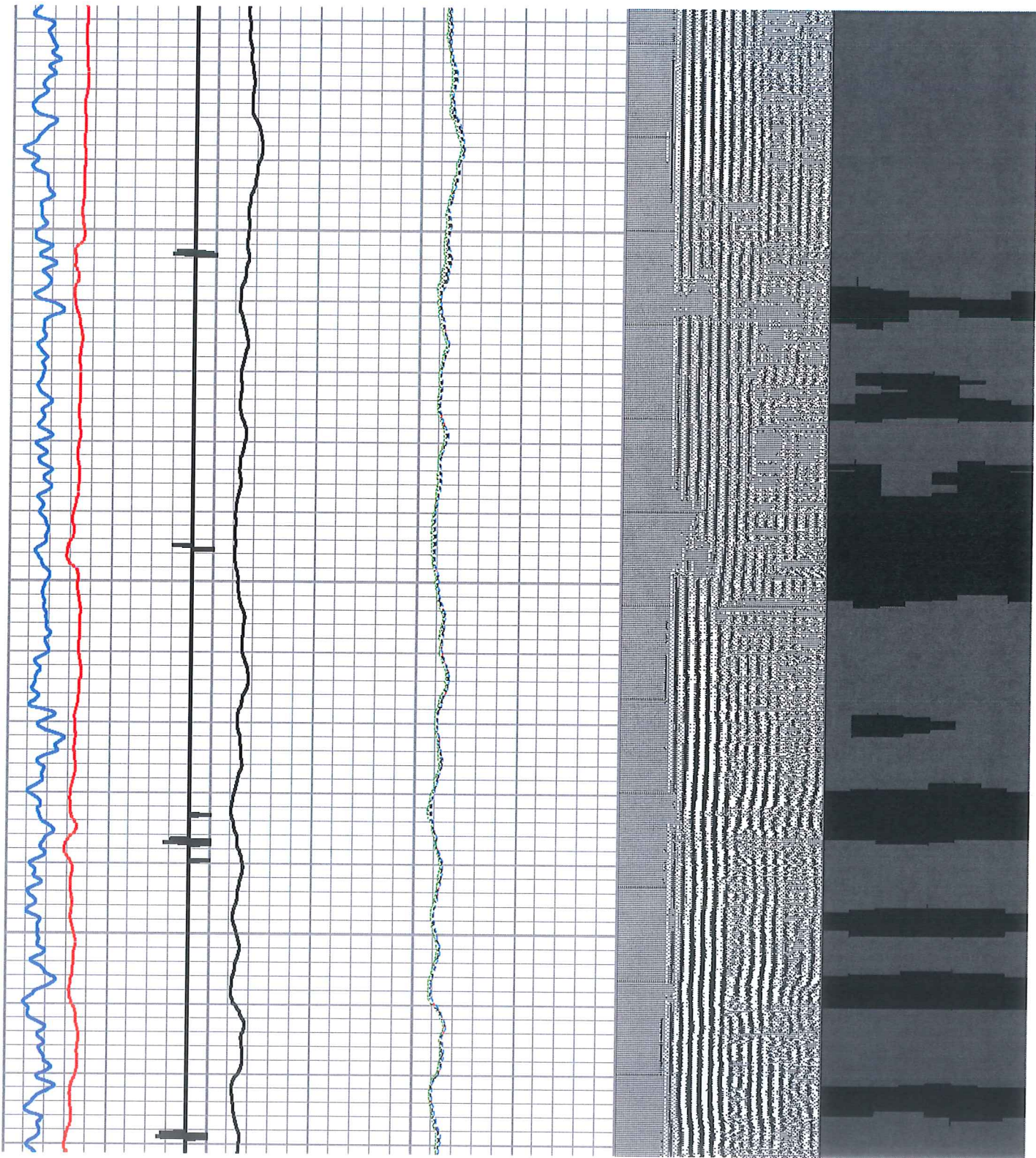


100



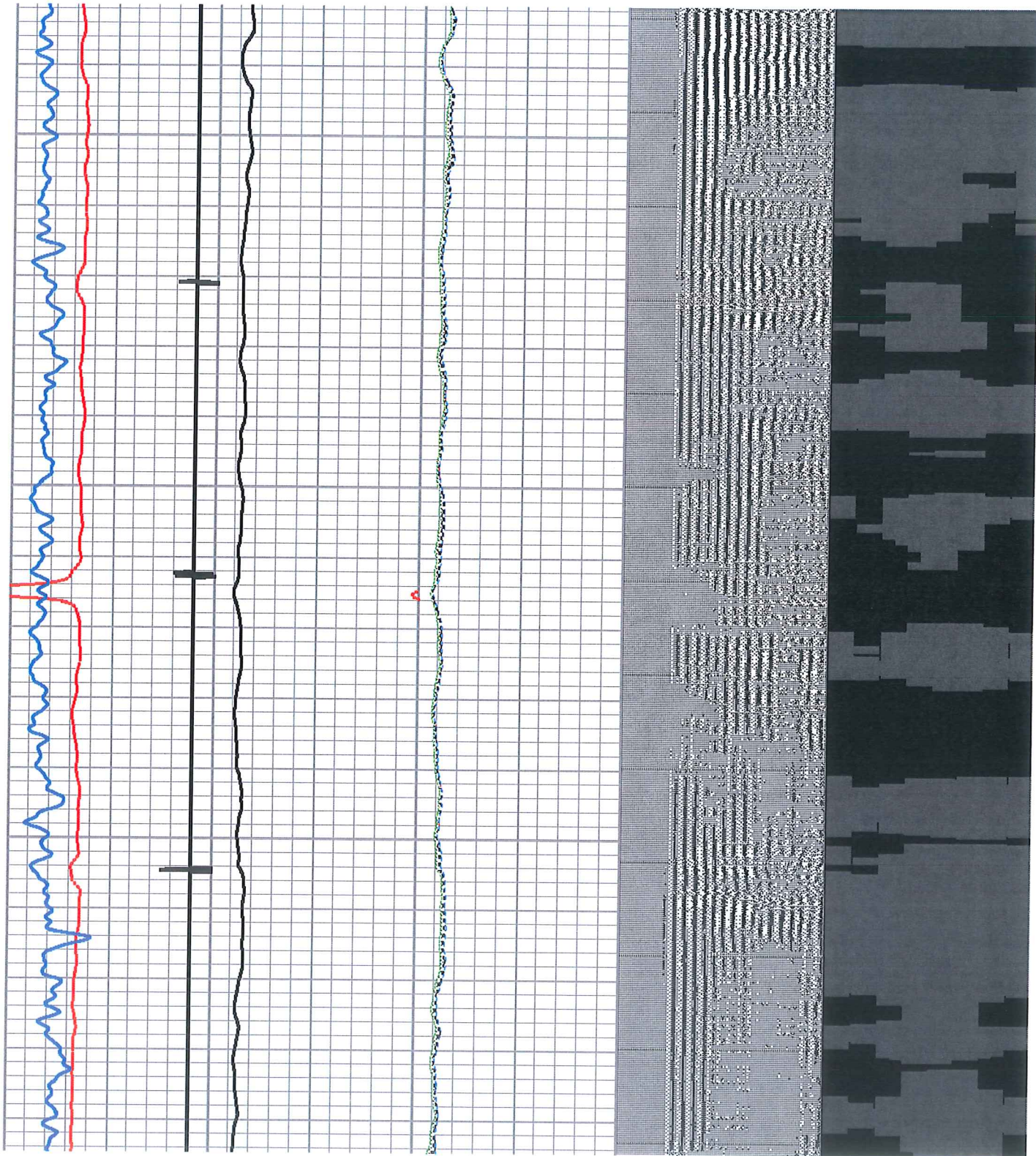
200

300



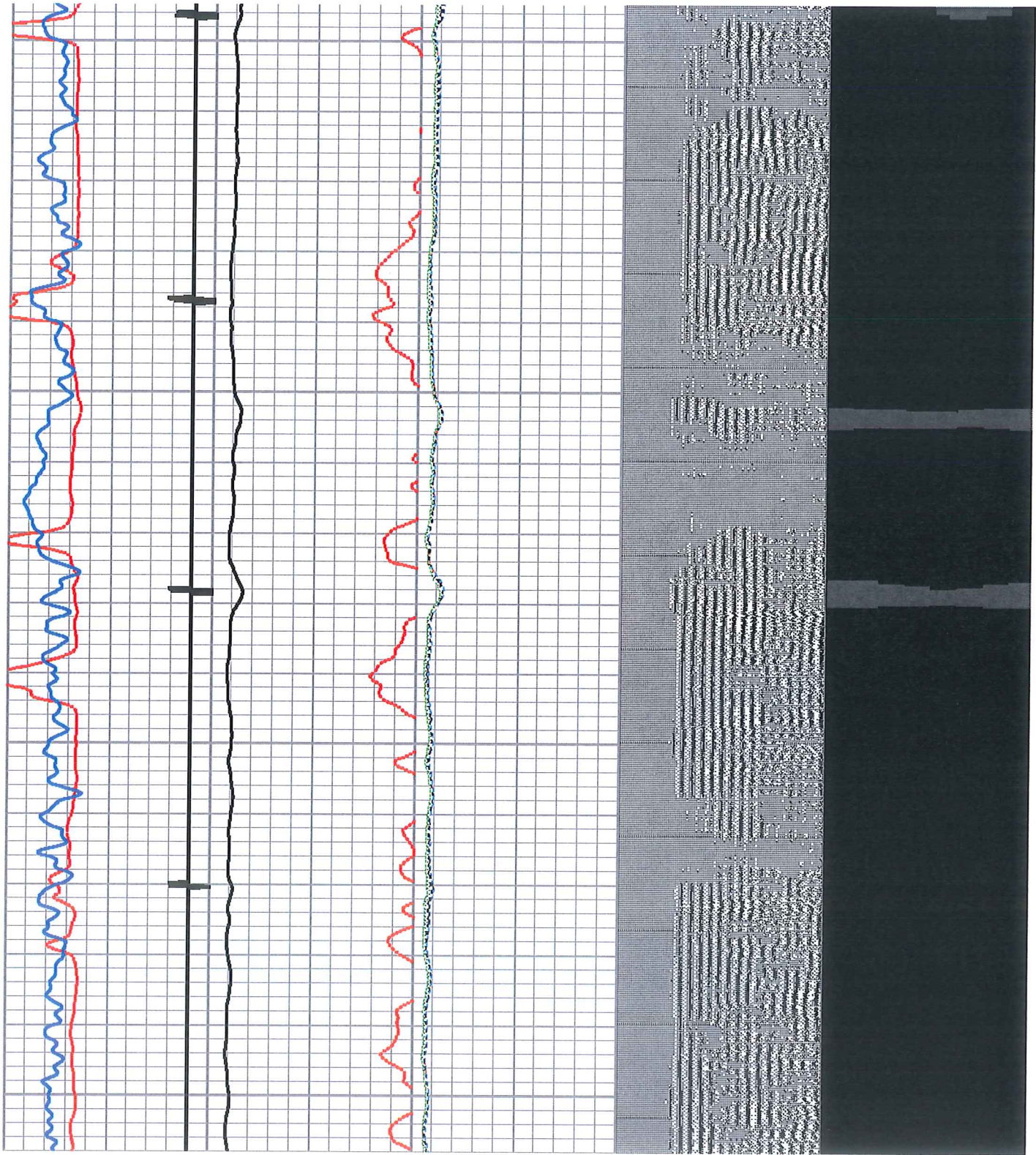


400



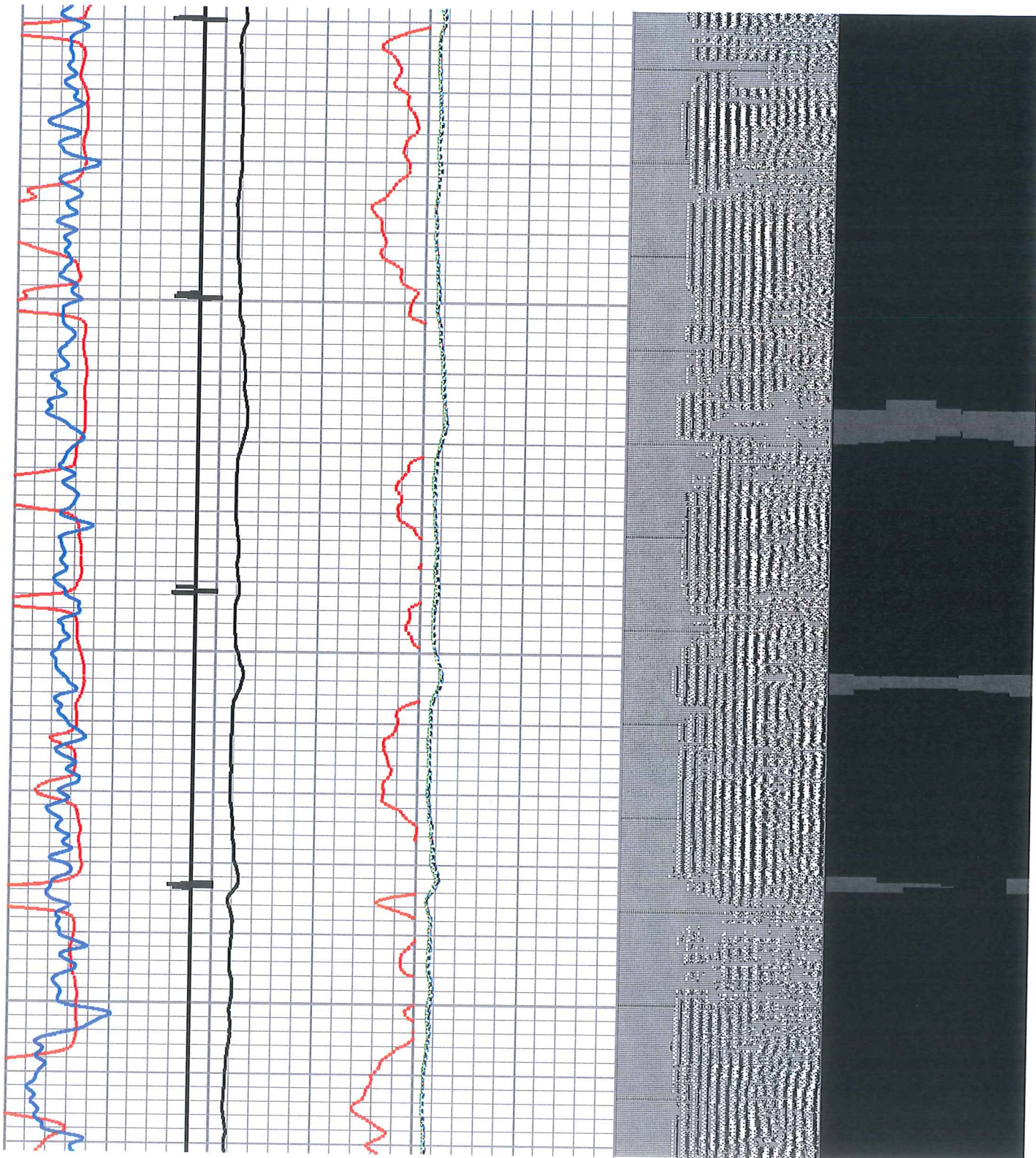
500

600

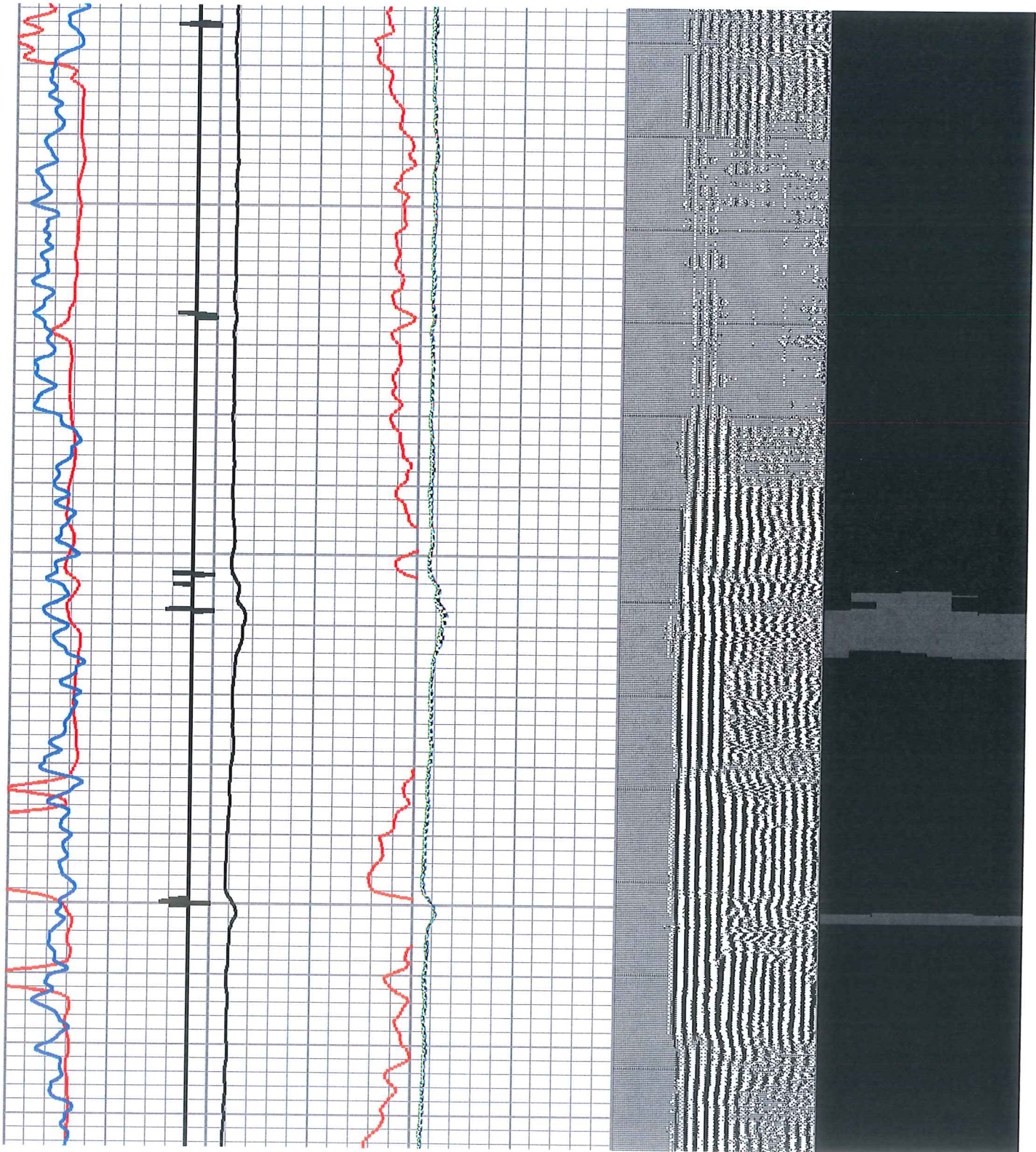


700

800

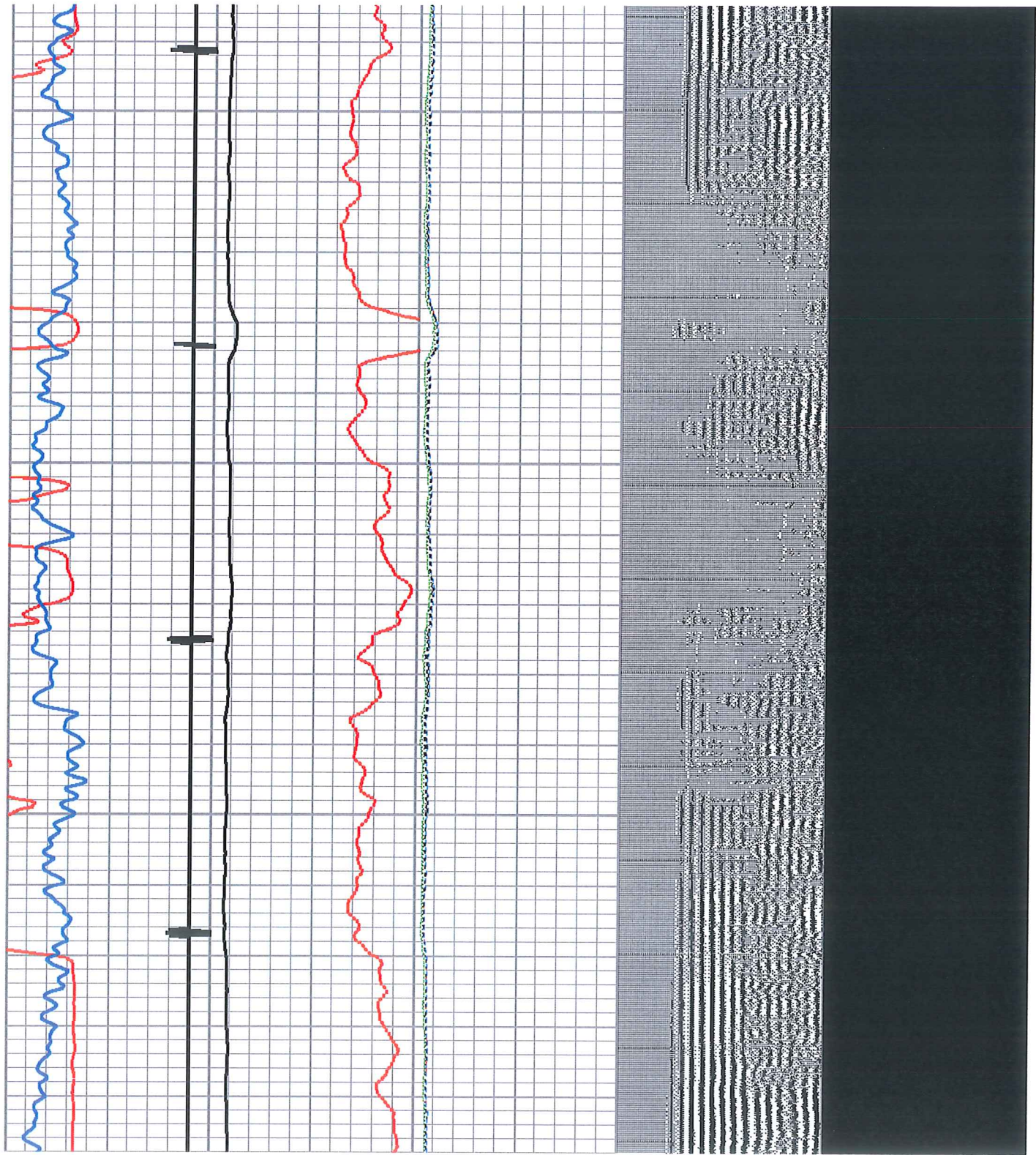


900



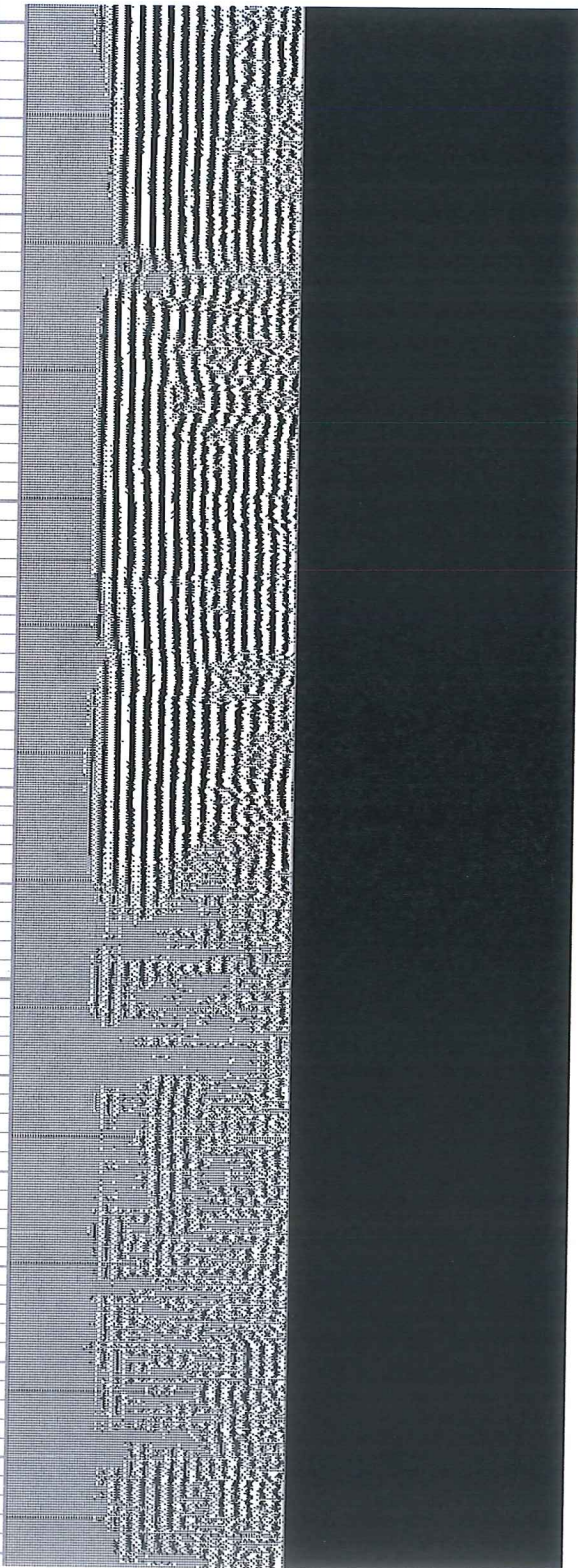
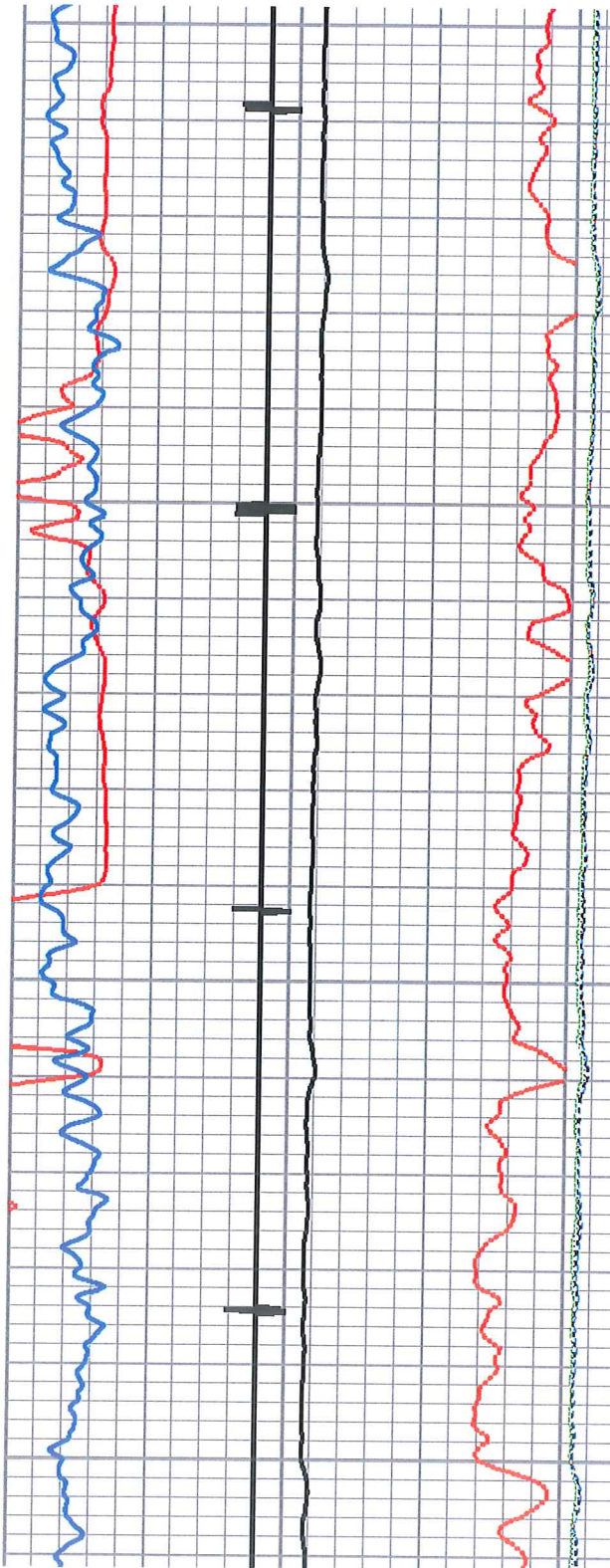
1000

1100

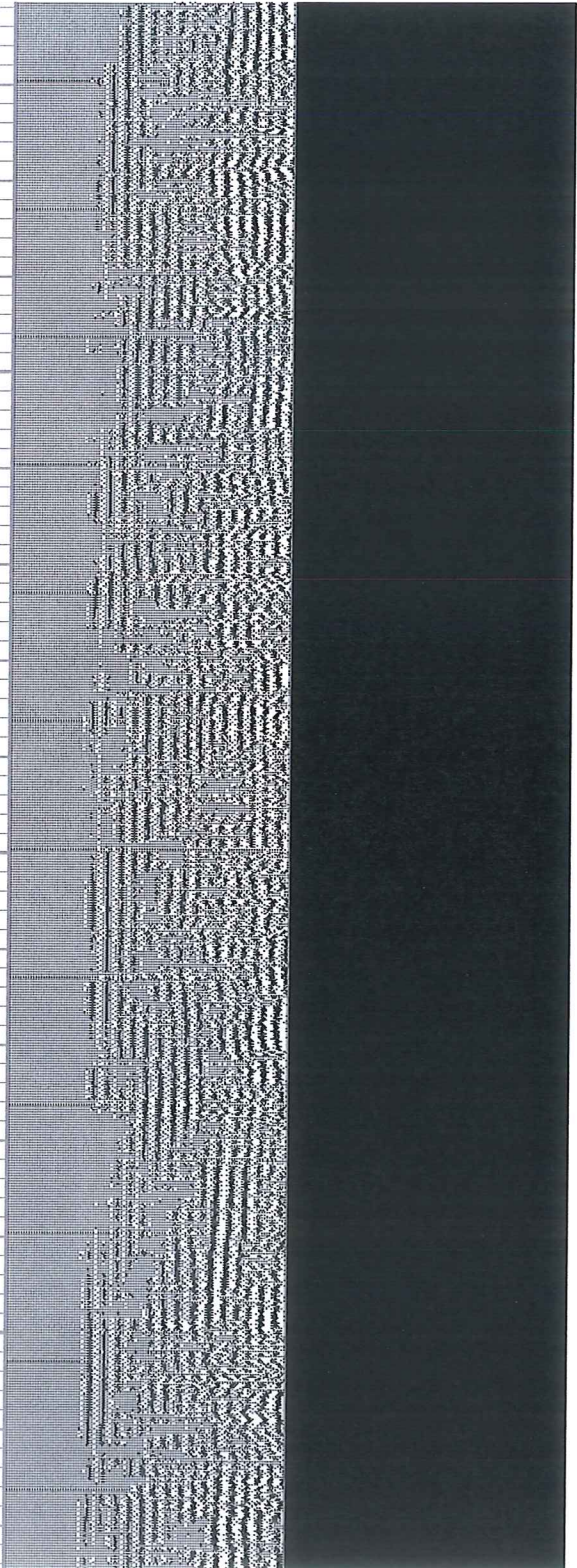
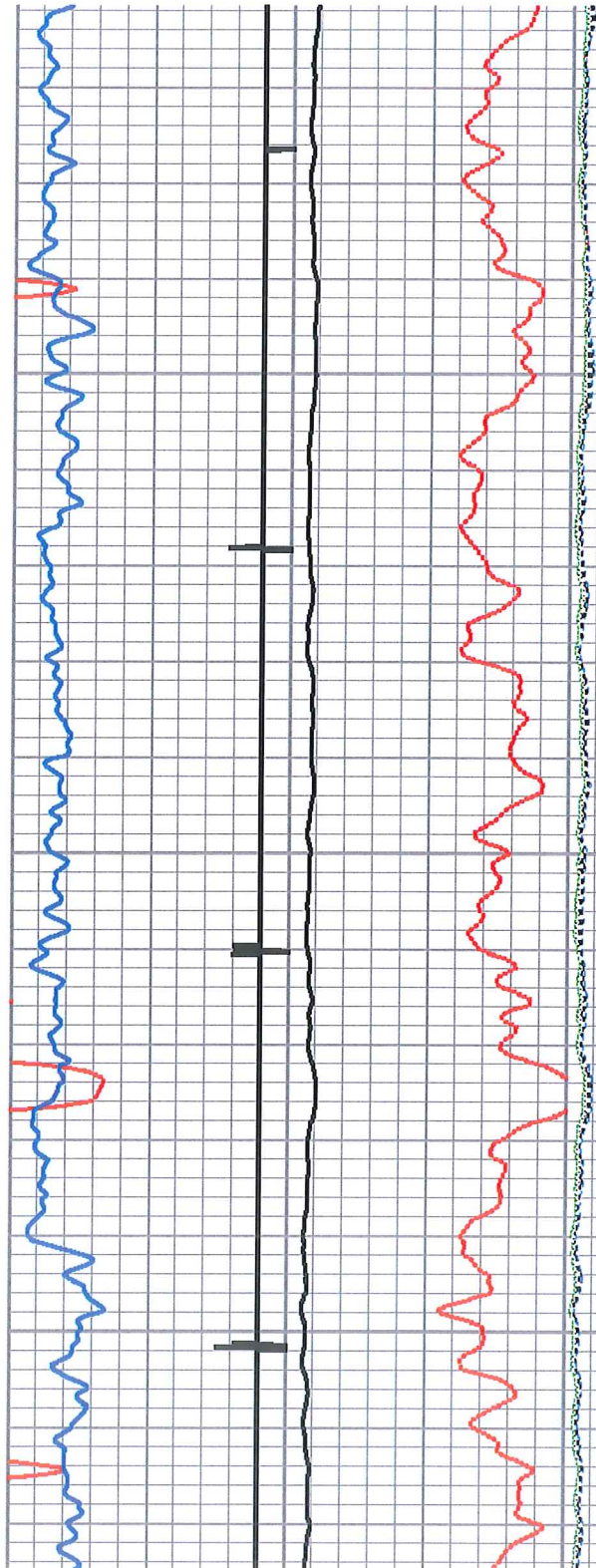


1200

1300

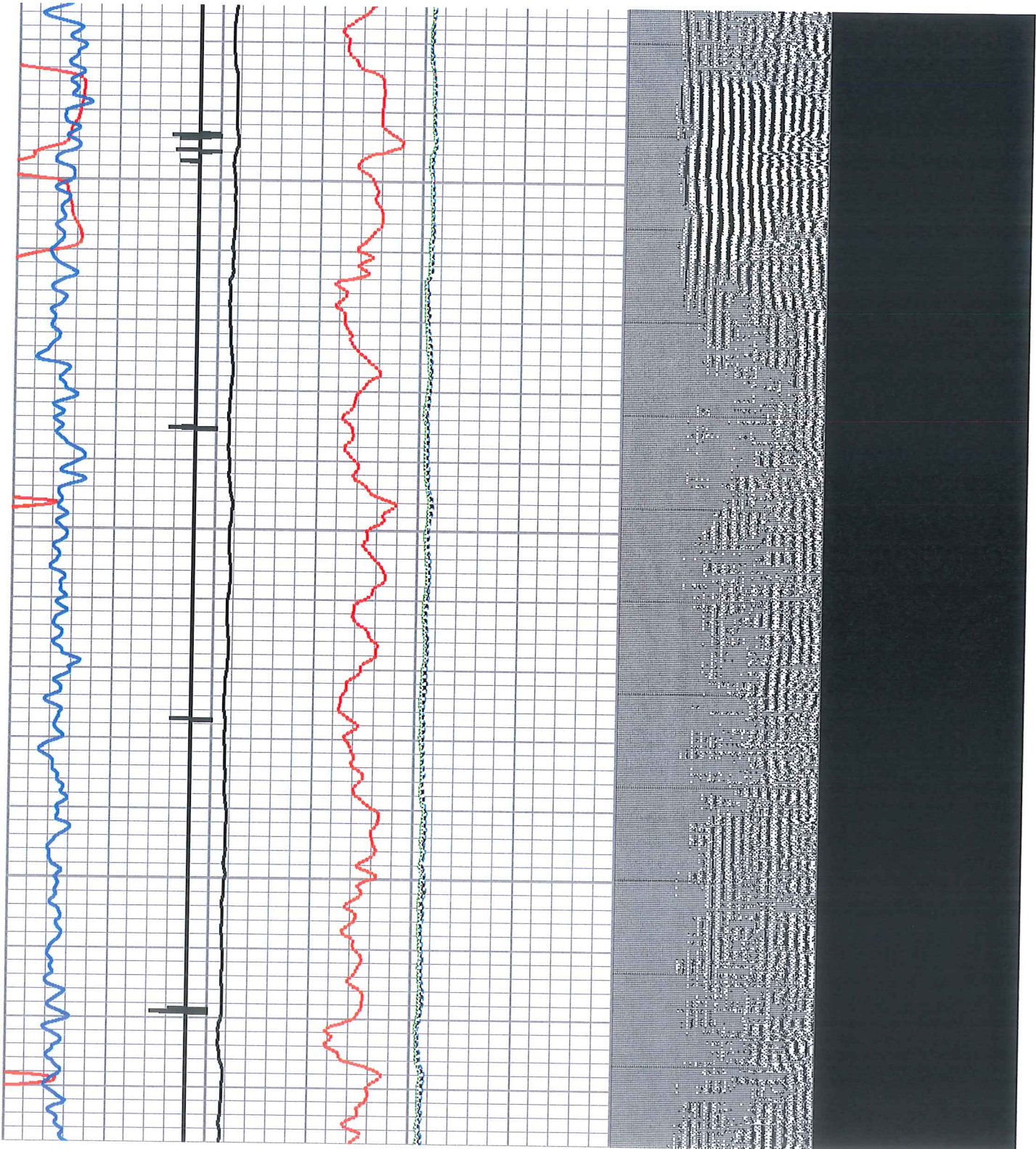


1400



1500

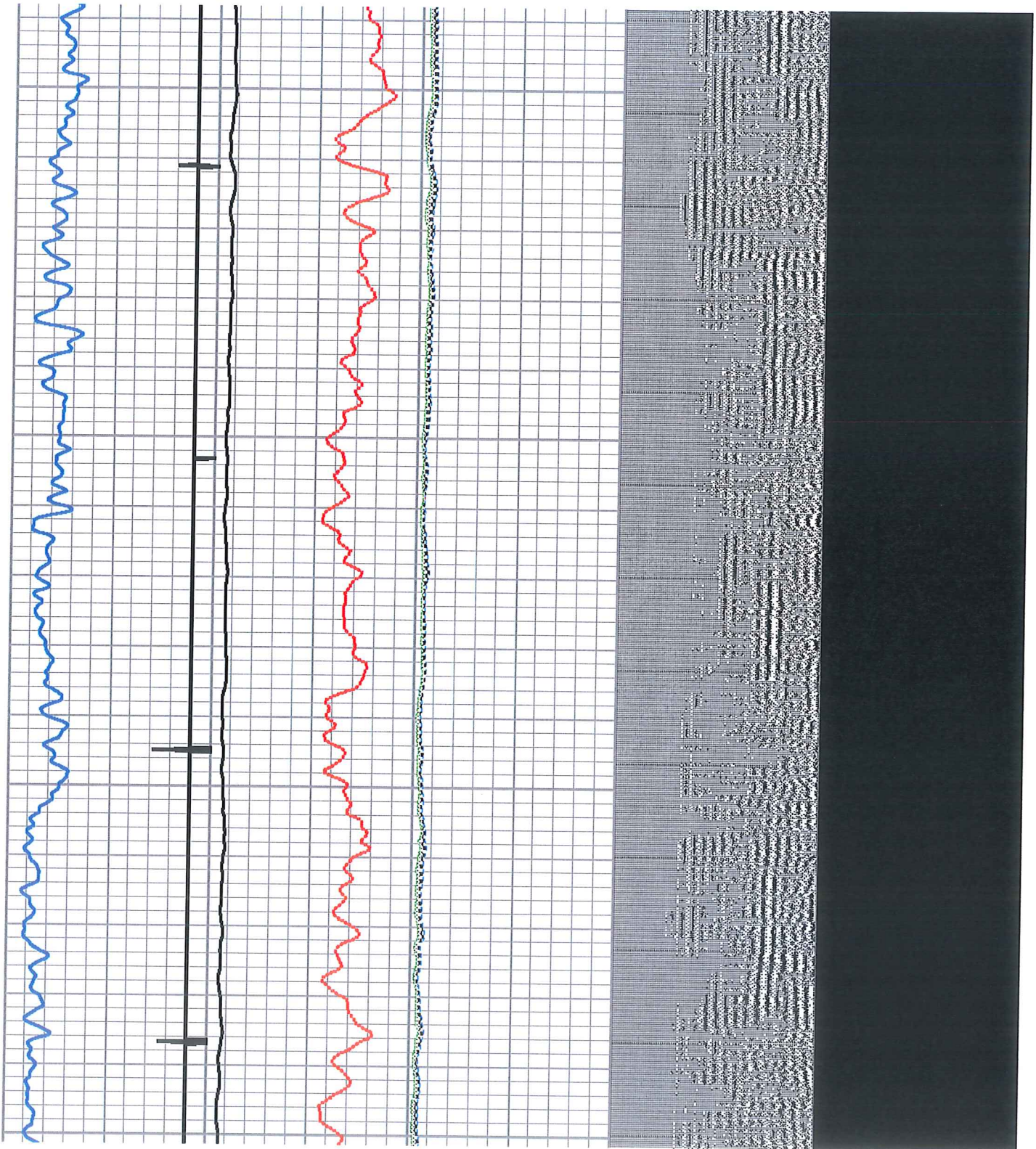
1600



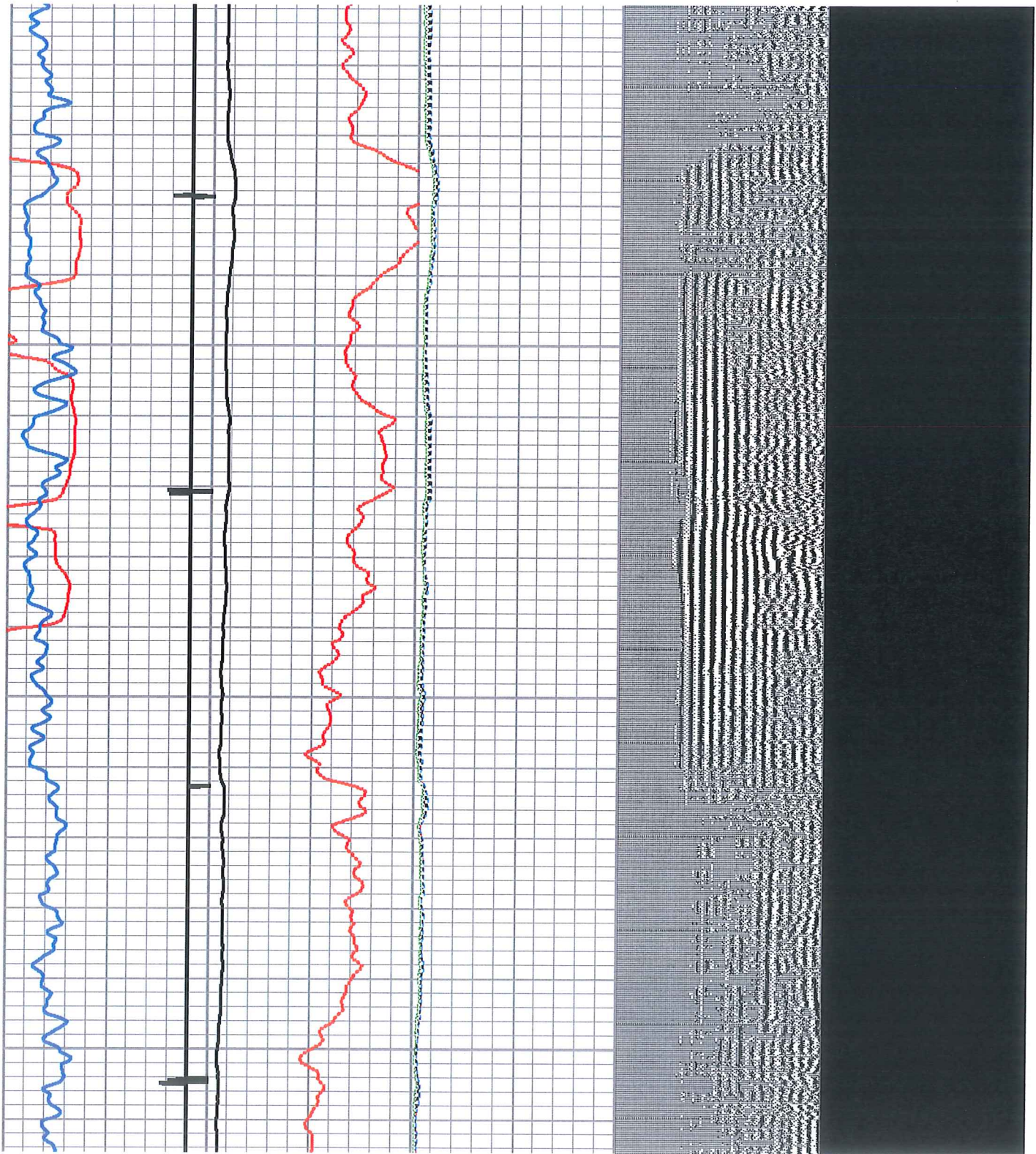


1800

1700

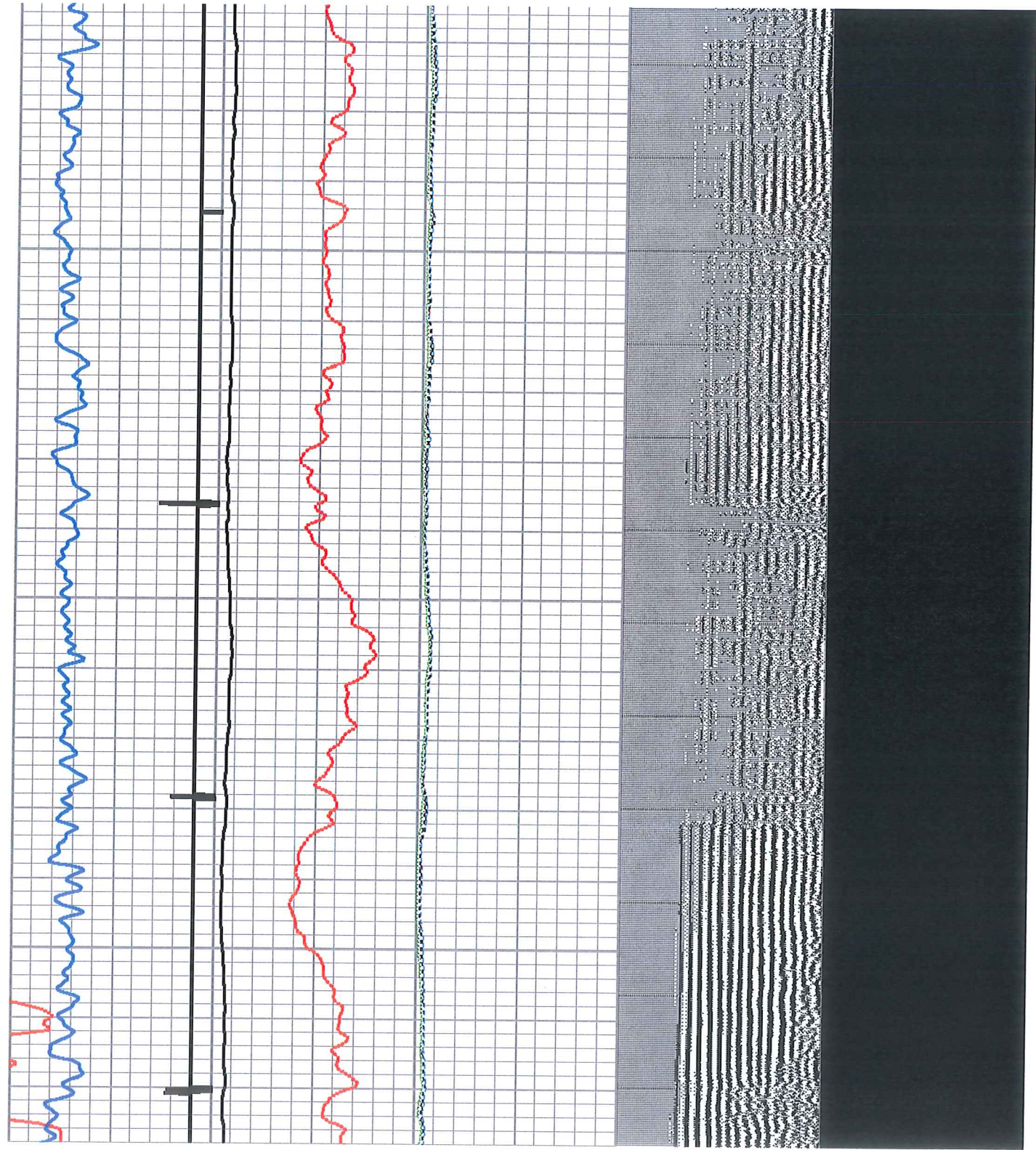


1900

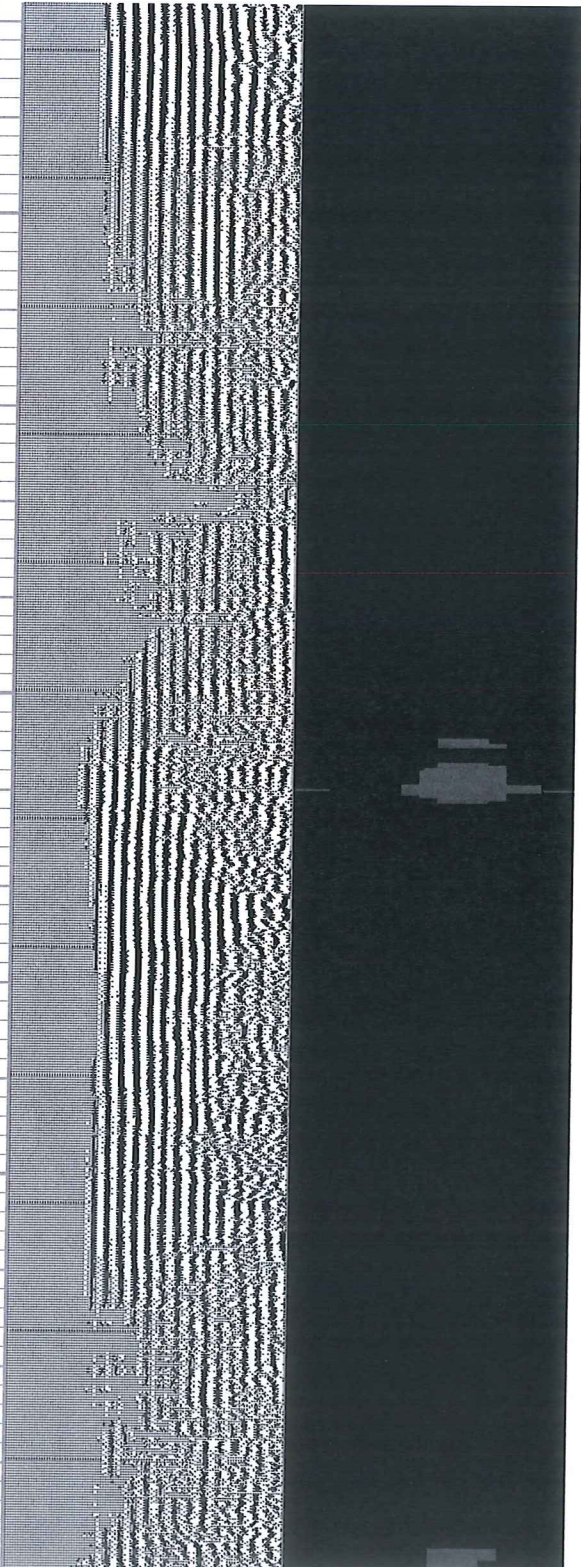
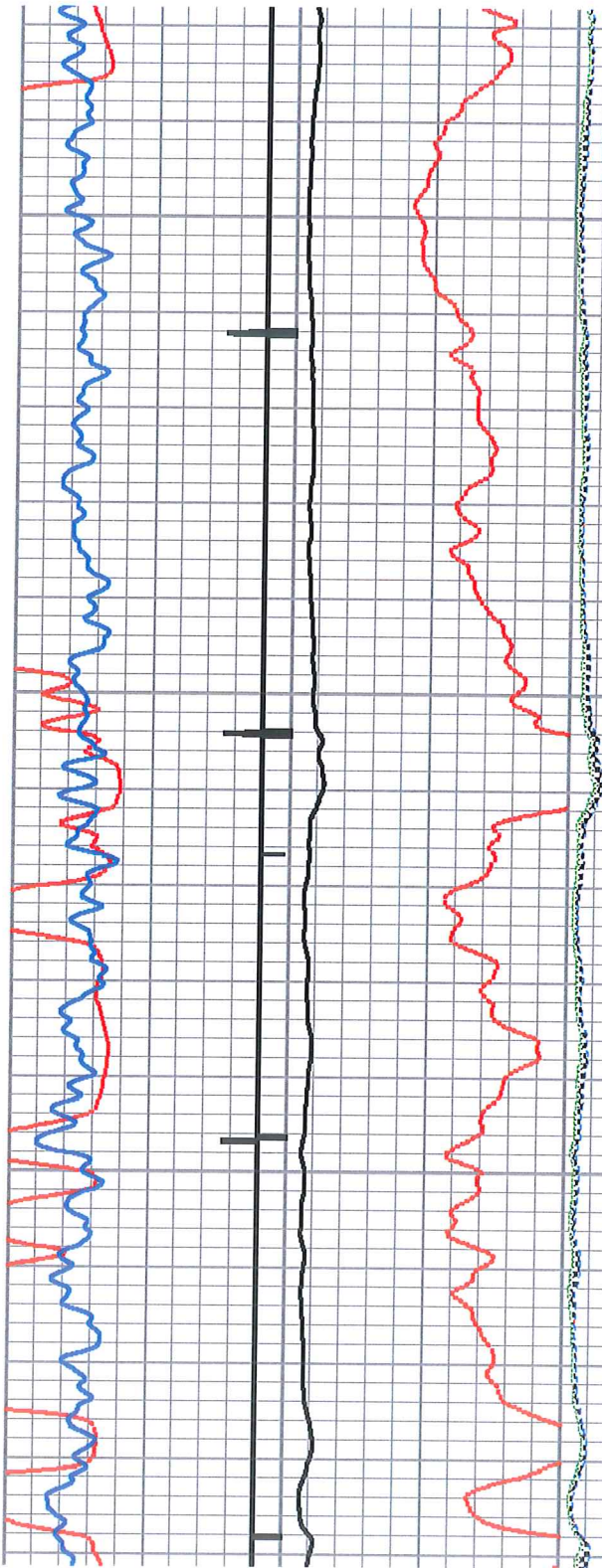


2000

2100

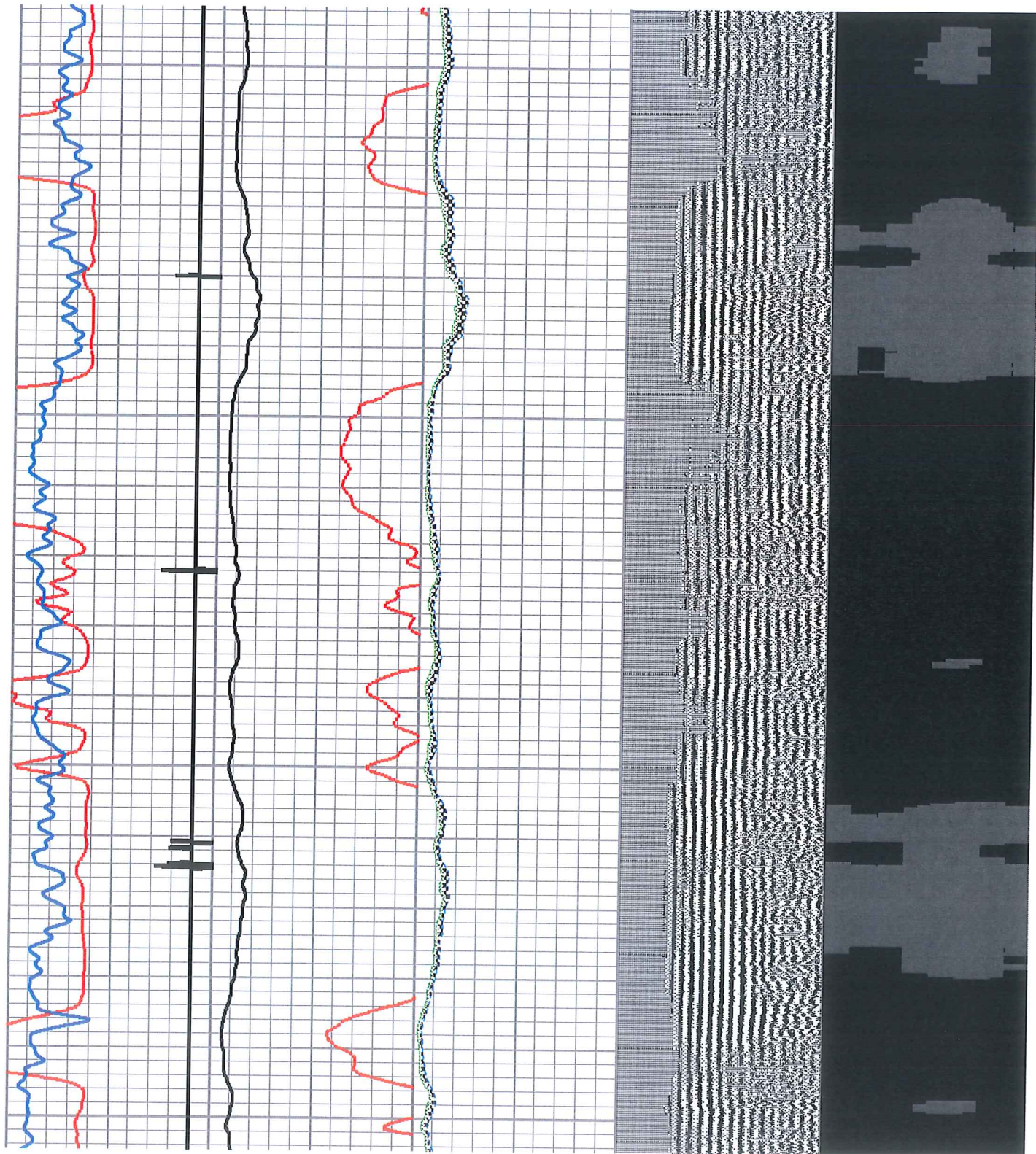


2200



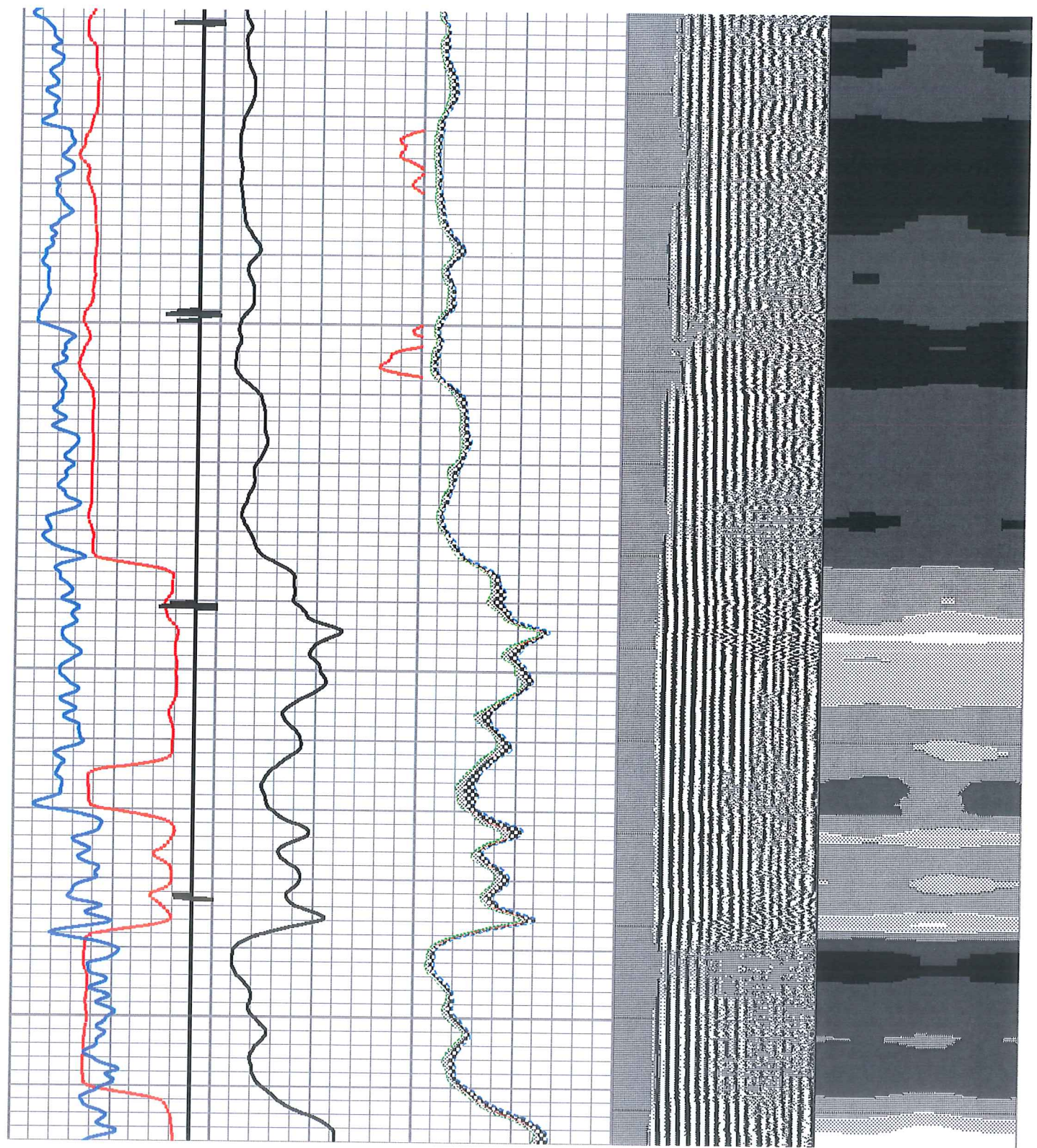
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2400

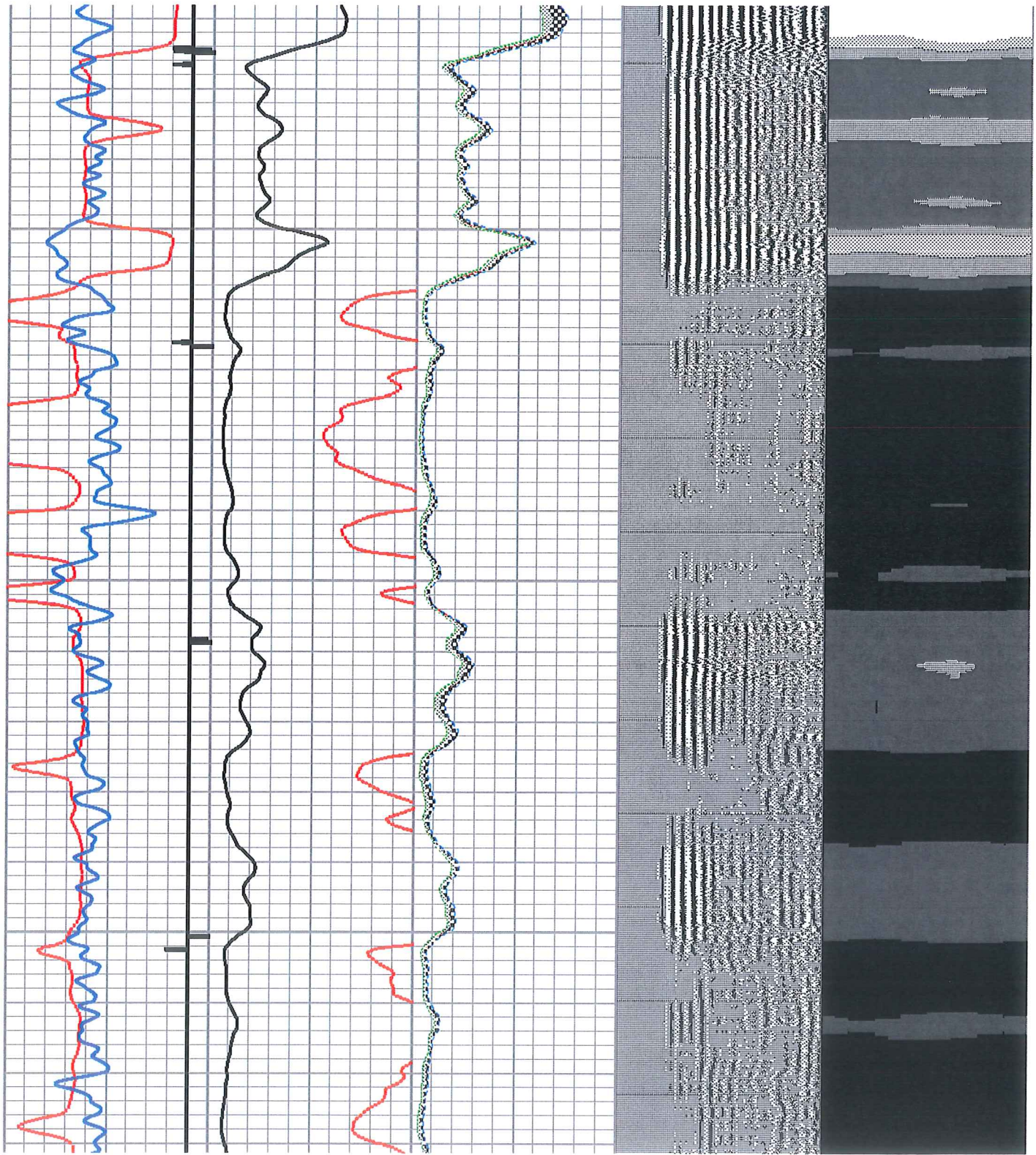


2500

2600

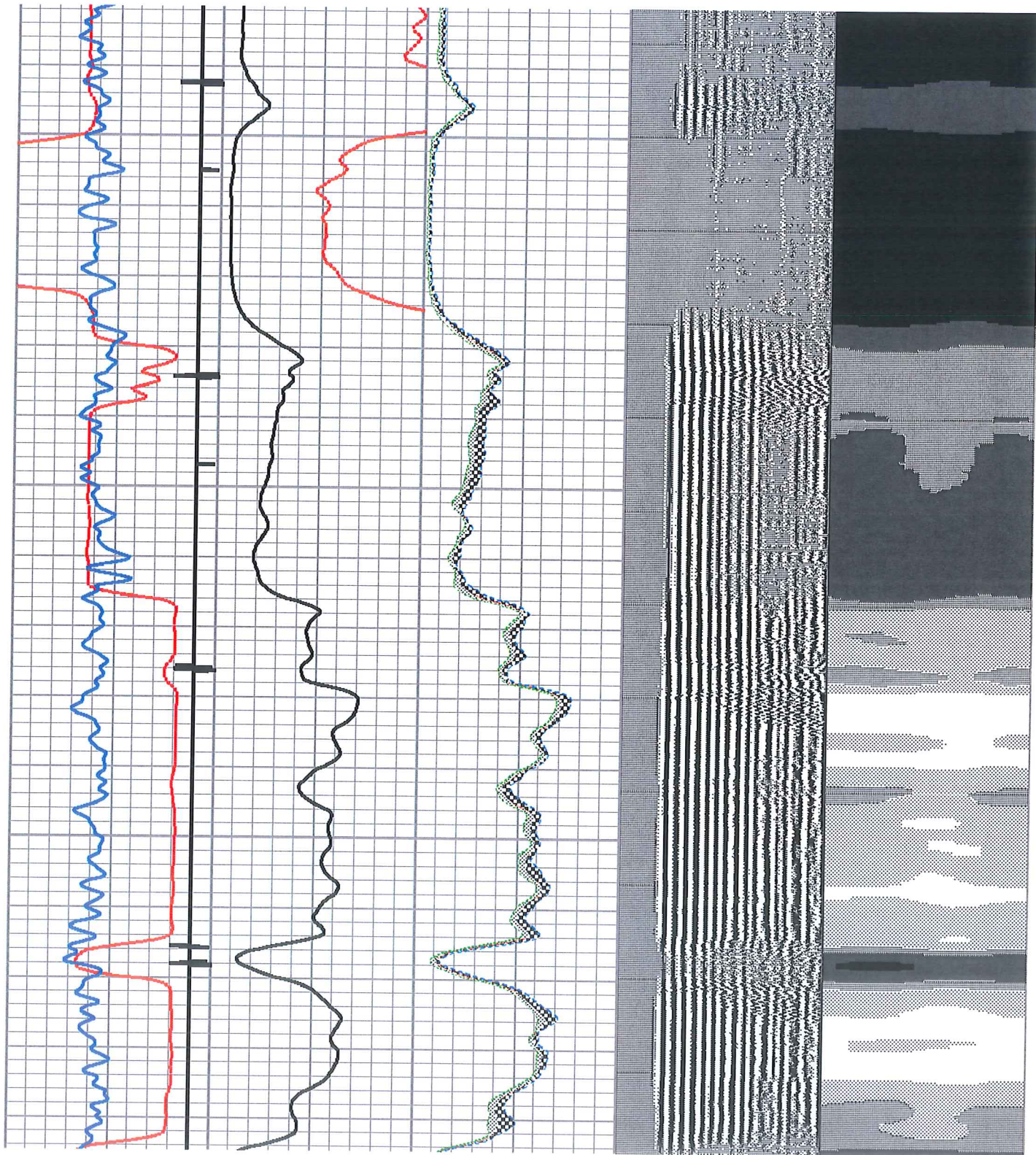


2700



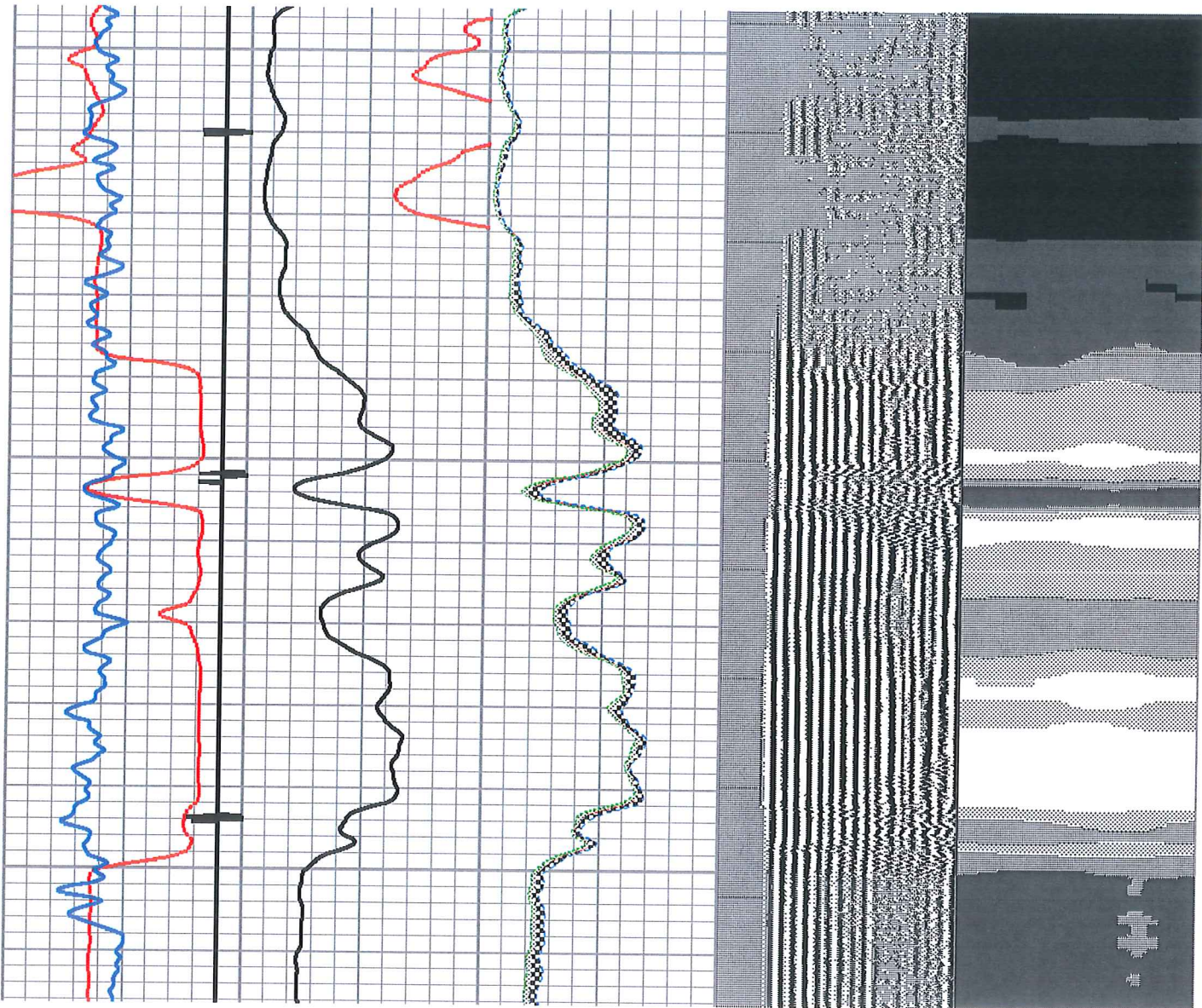
2800

2900

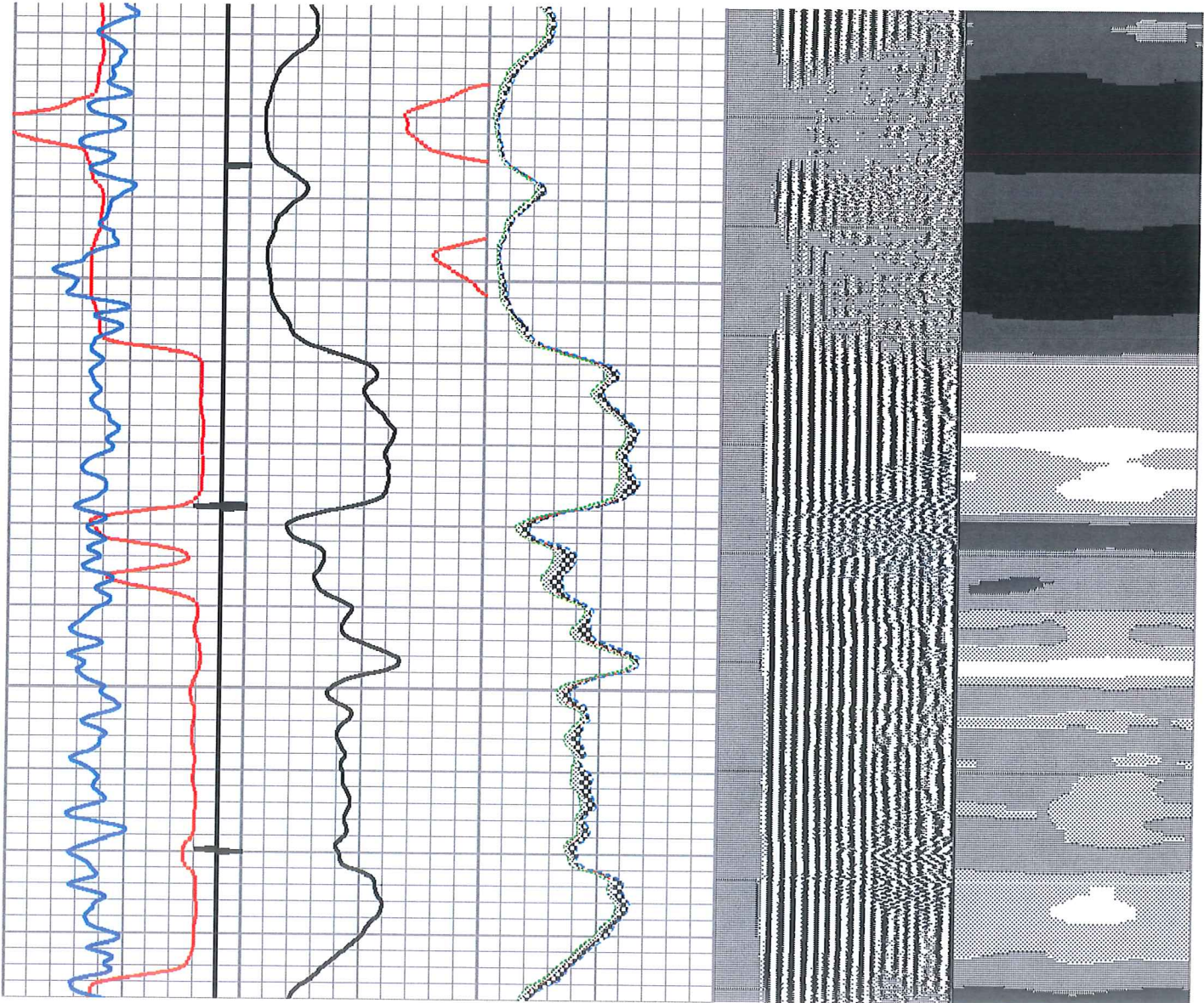




3000

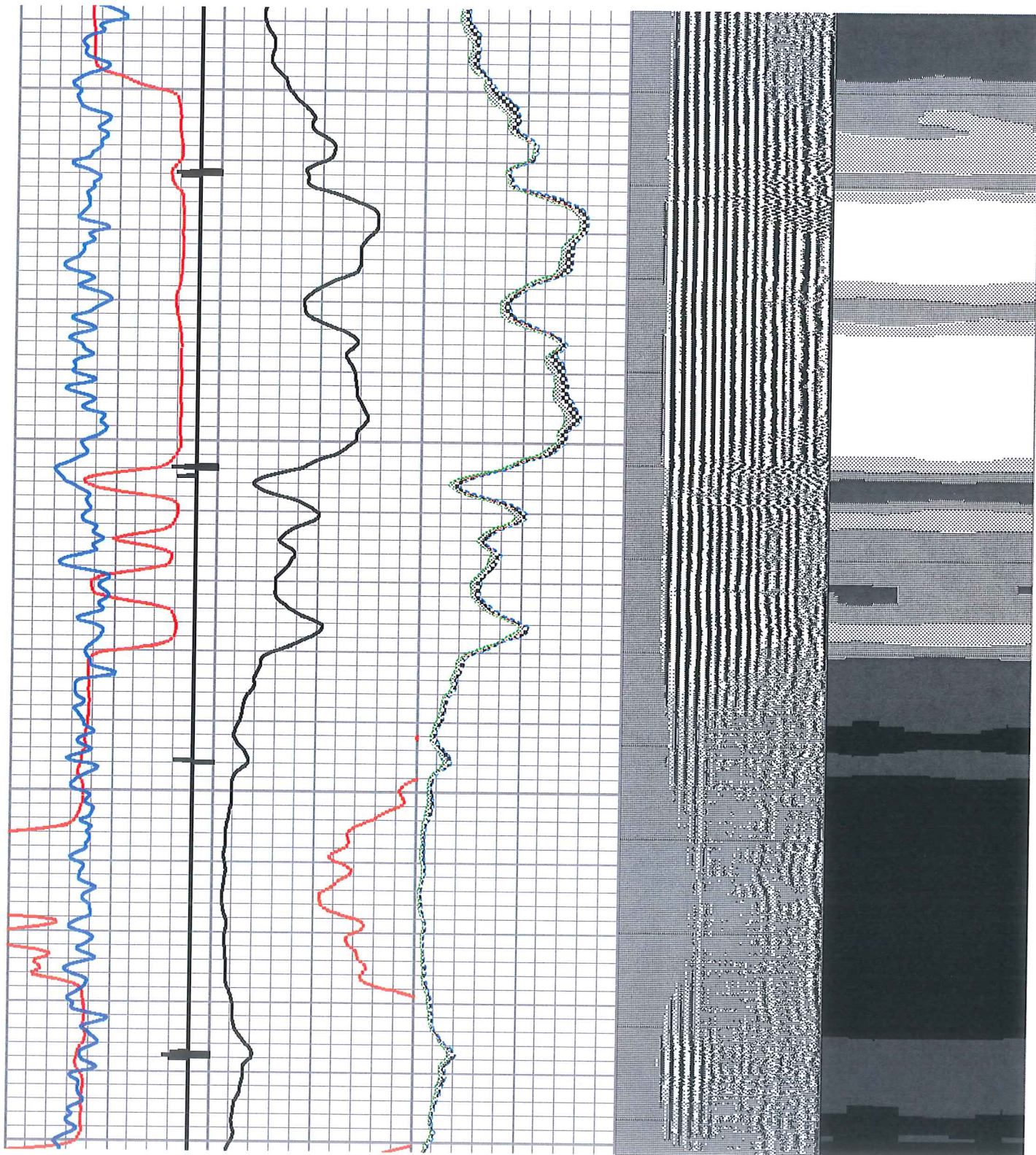


3100



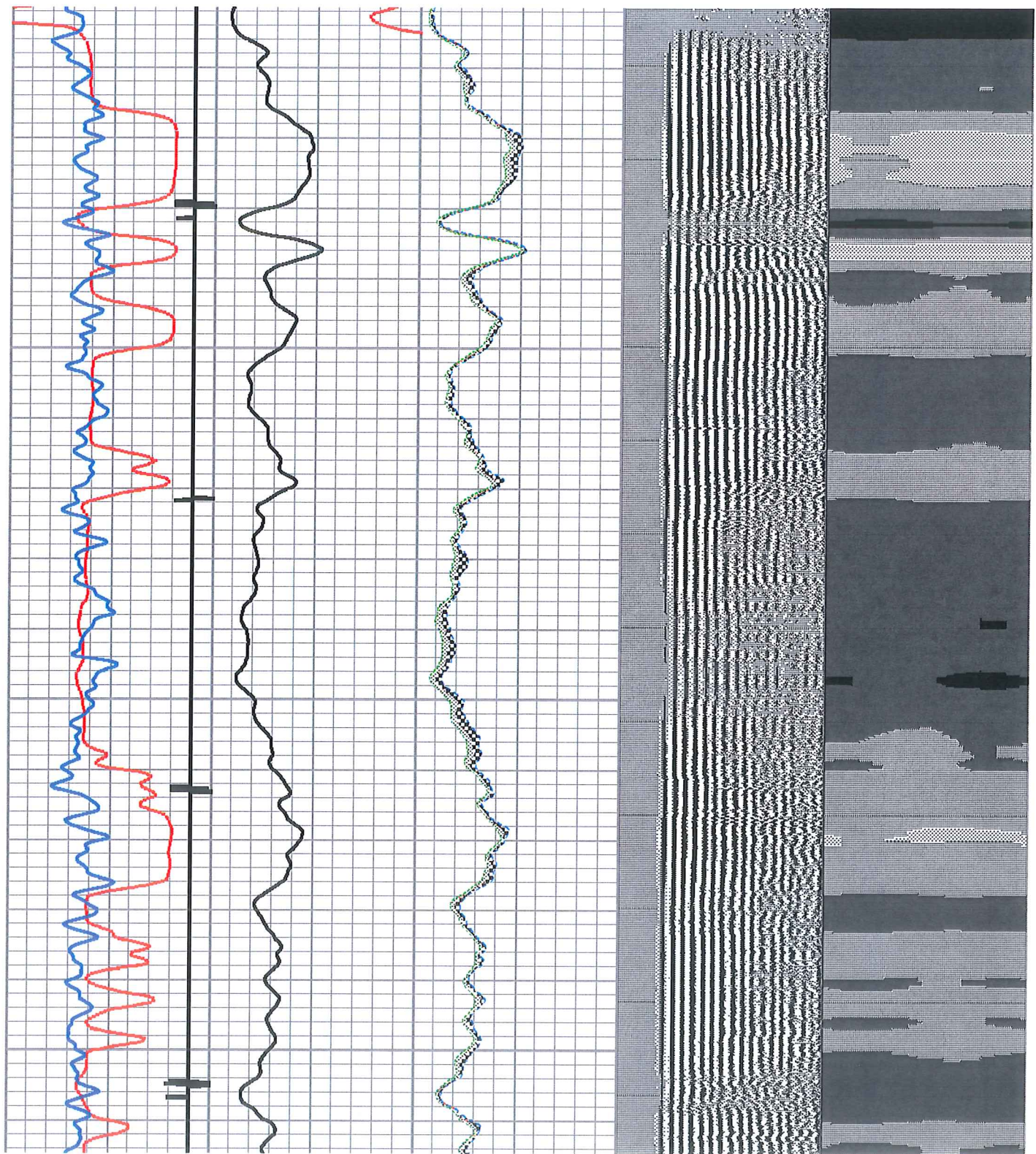
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3300

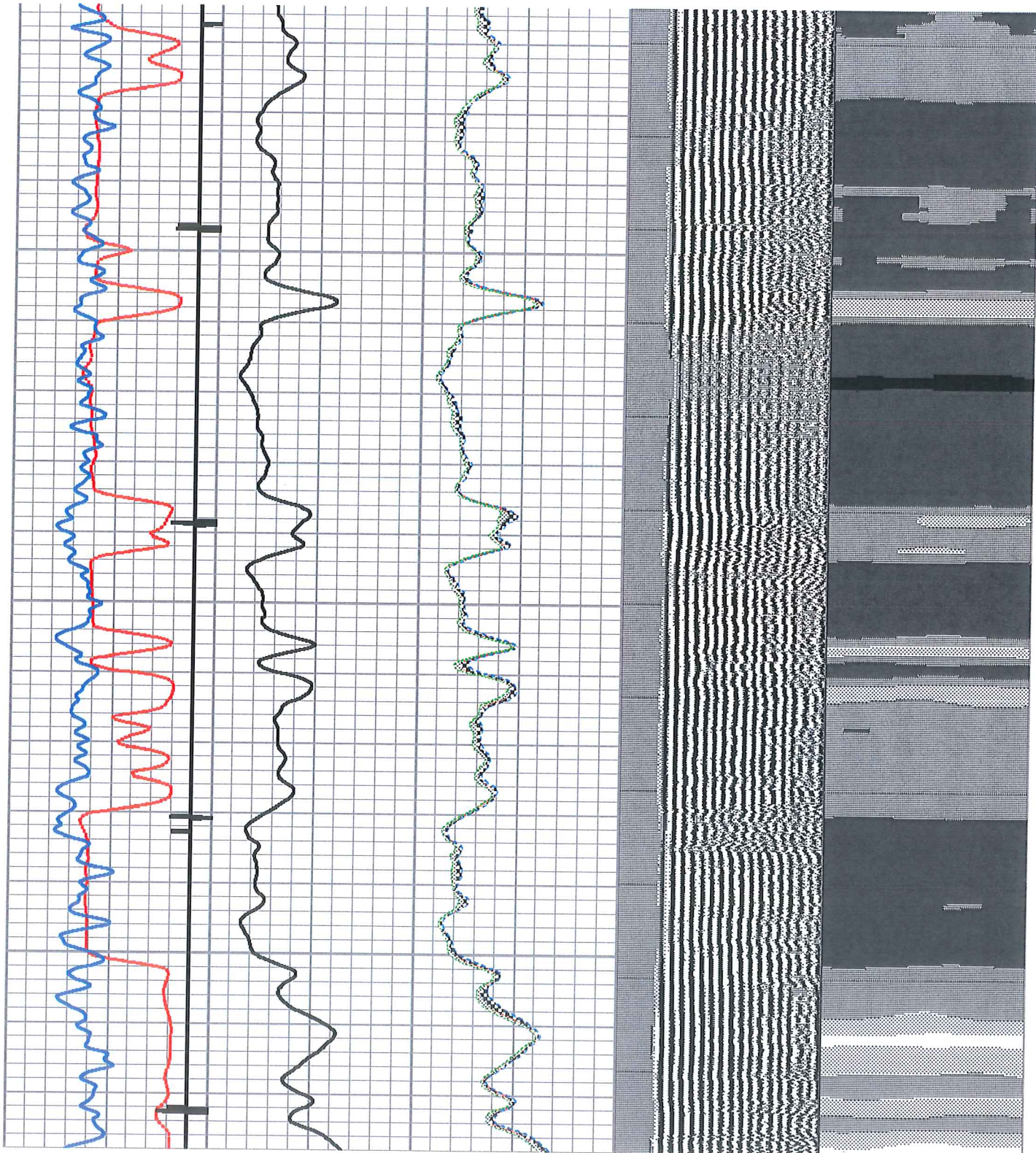


3400

3500

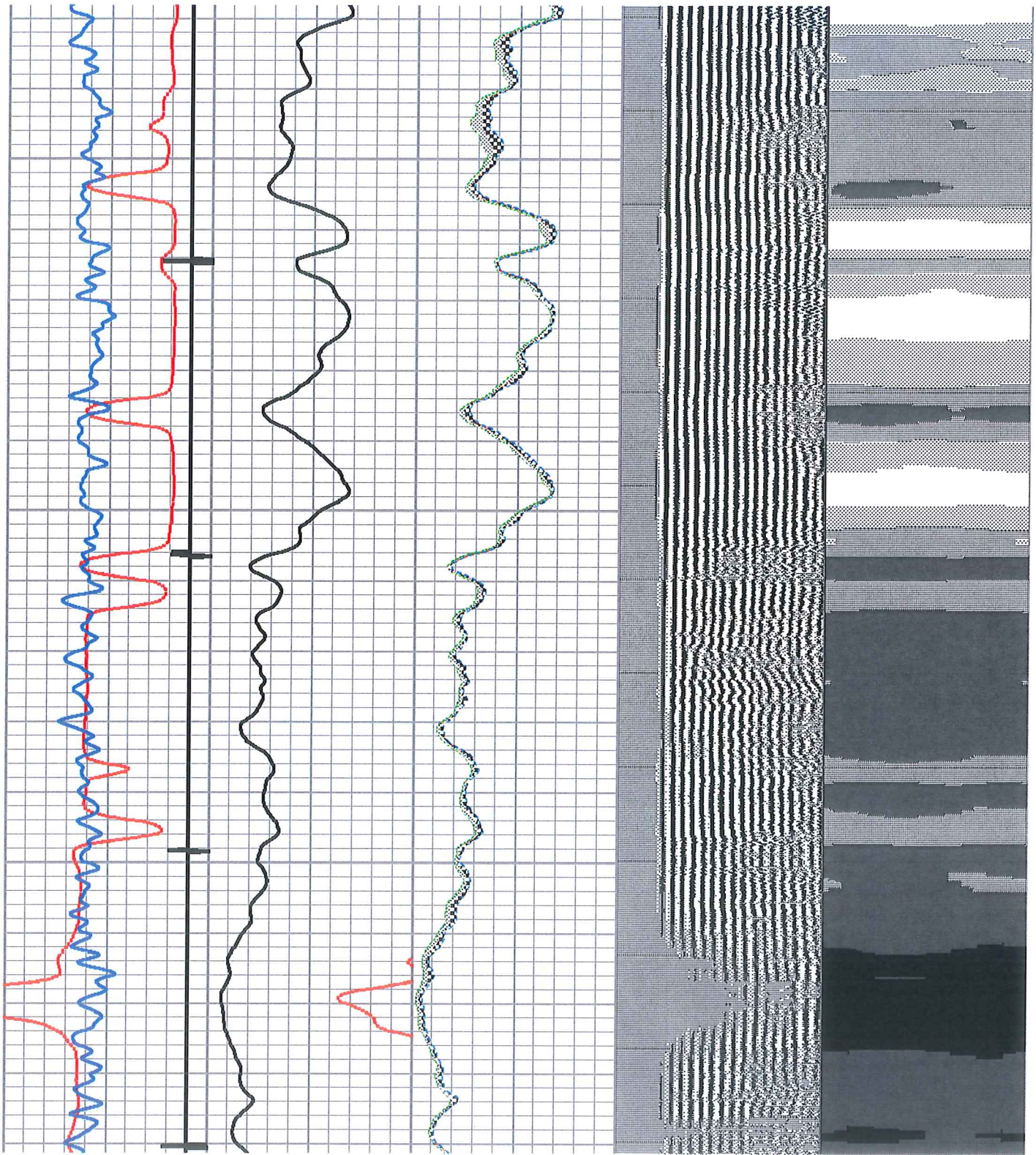


3600



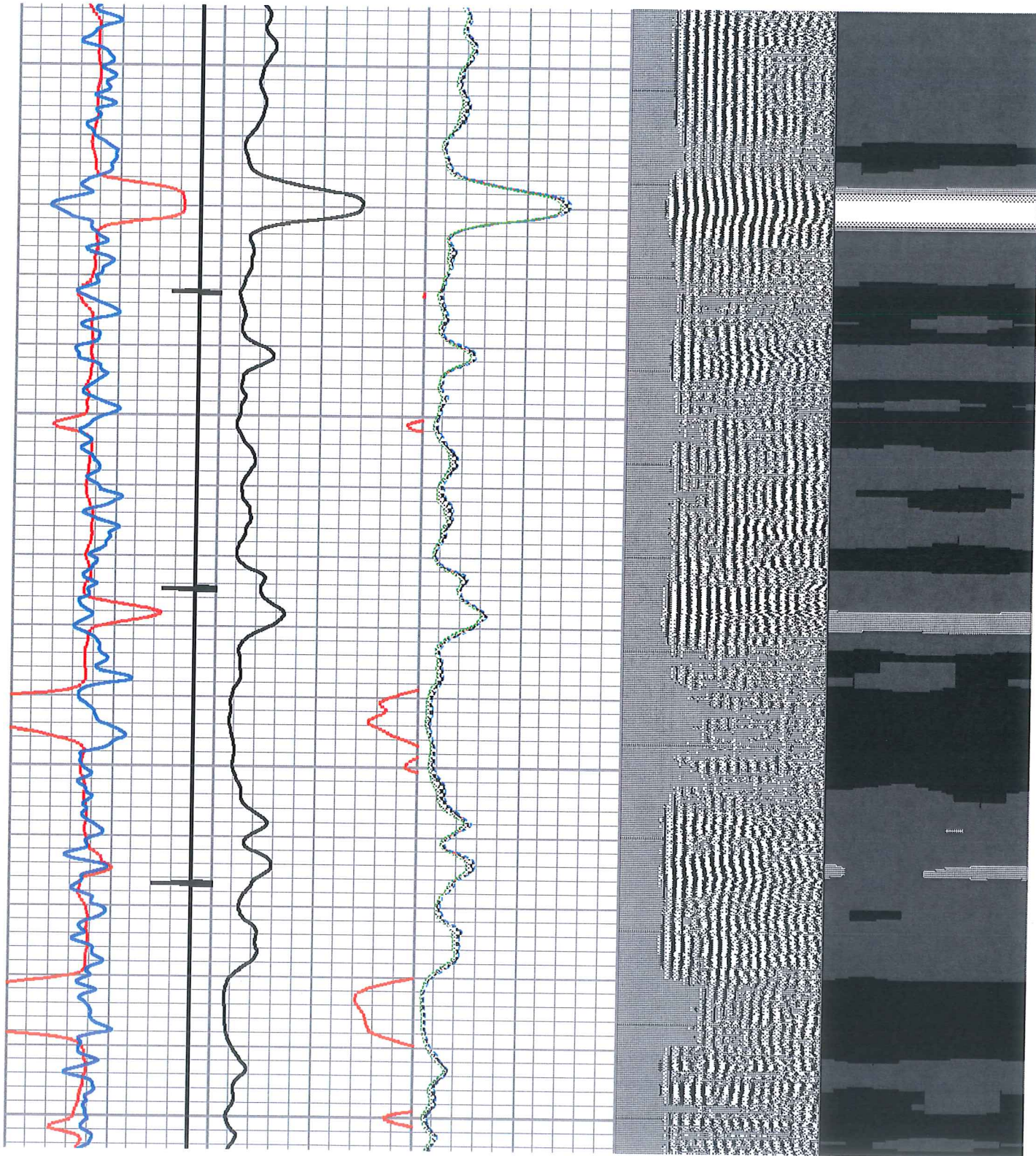
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3800

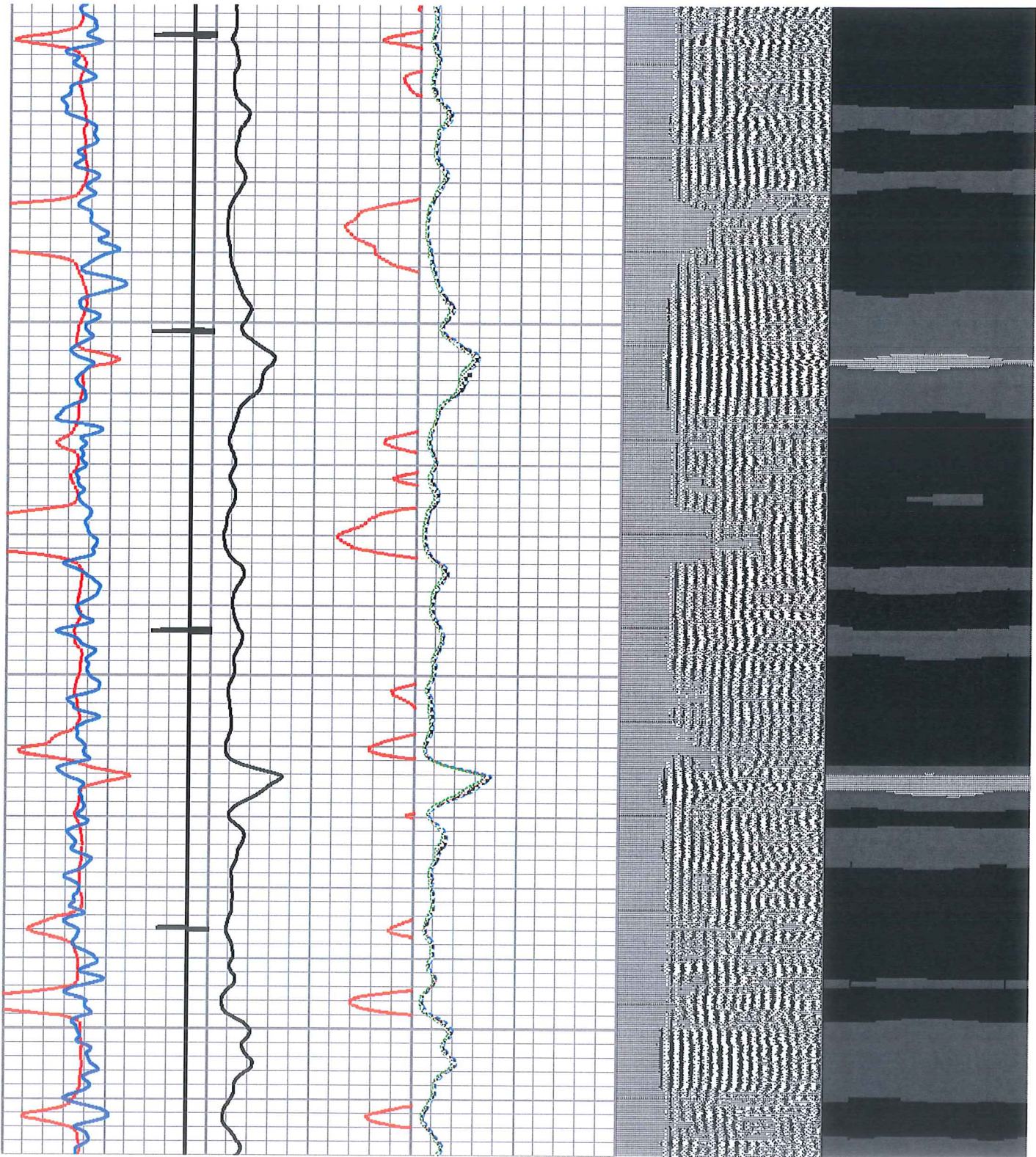


4000

3900



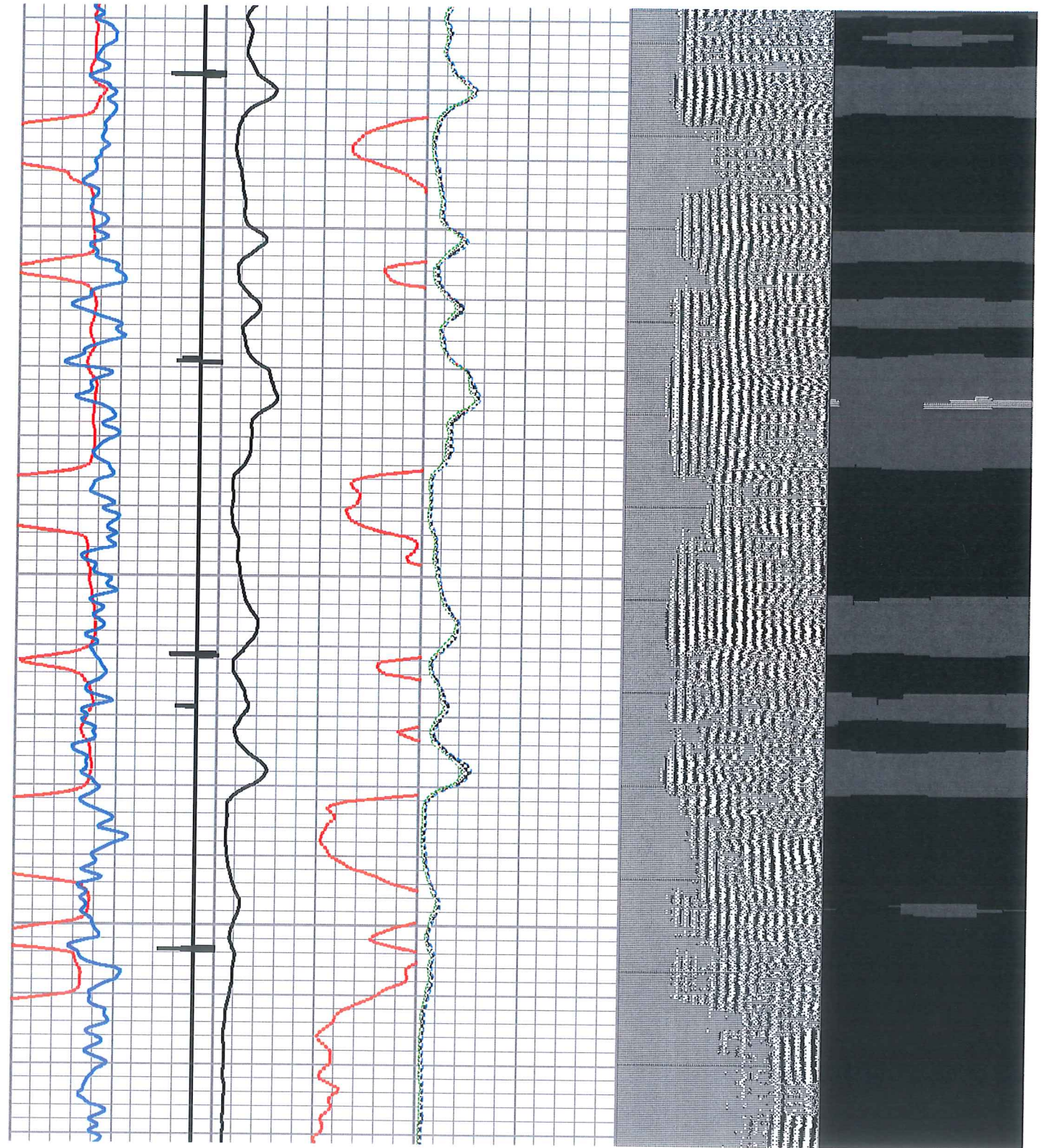
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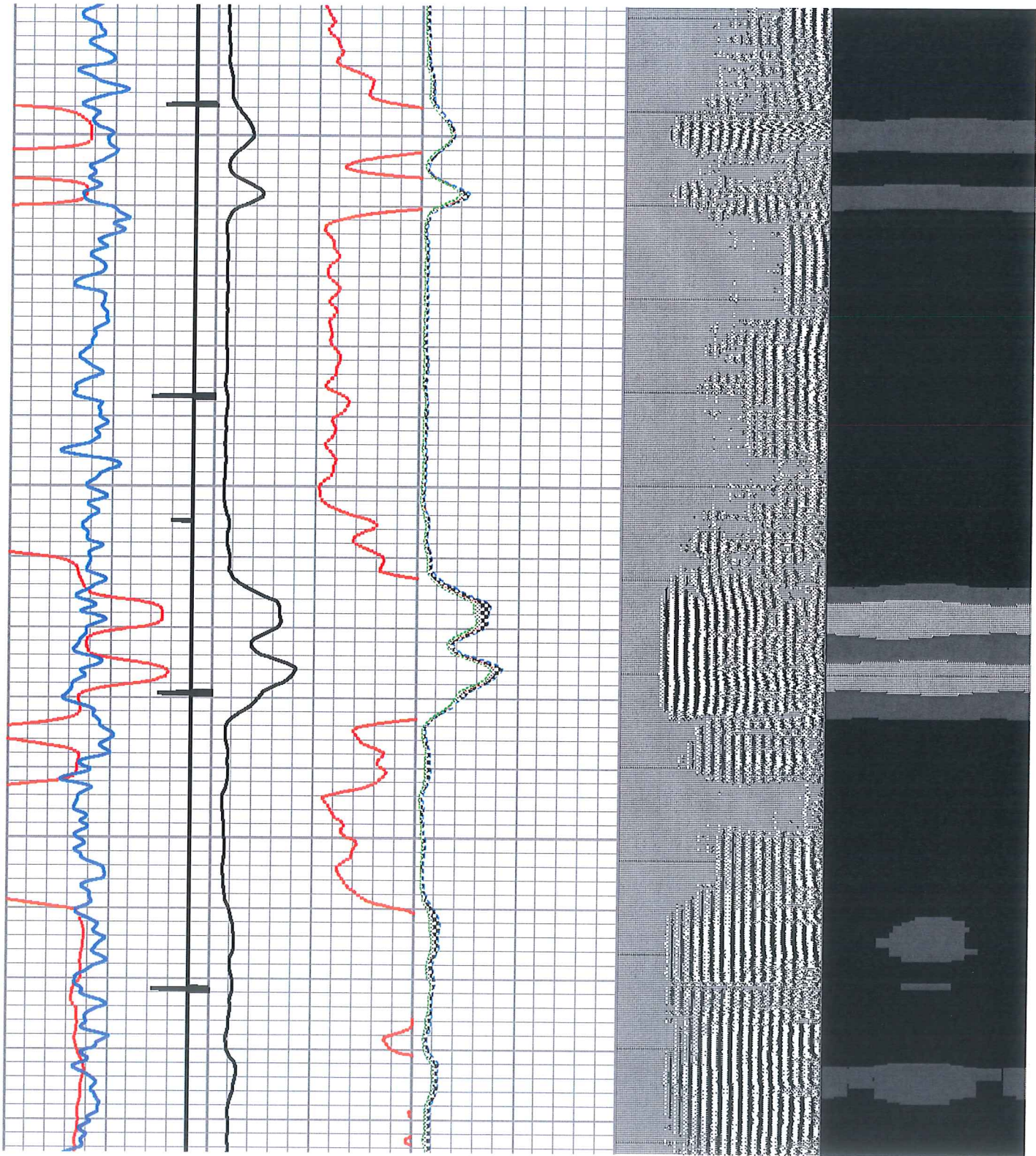


4200

4300

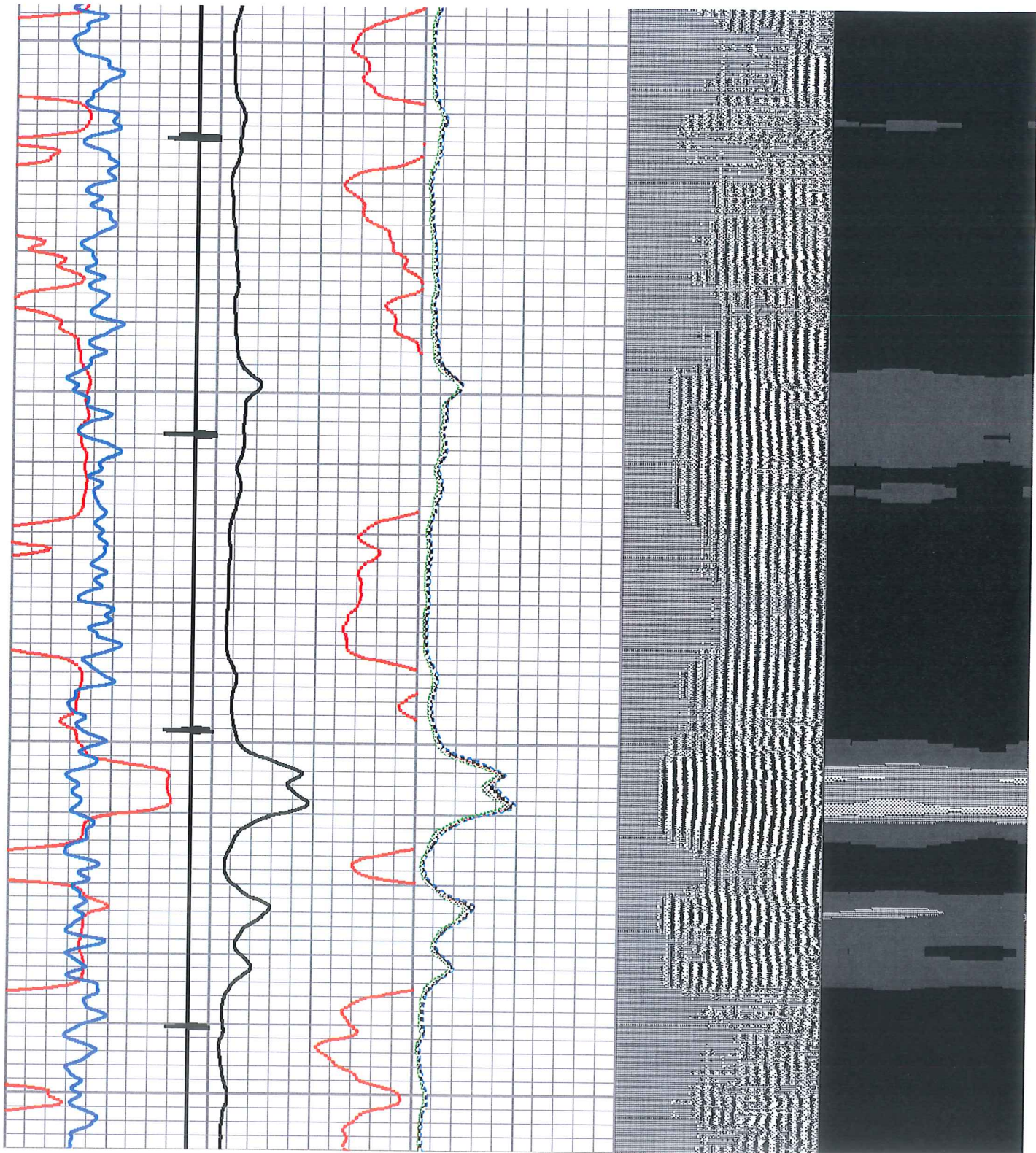


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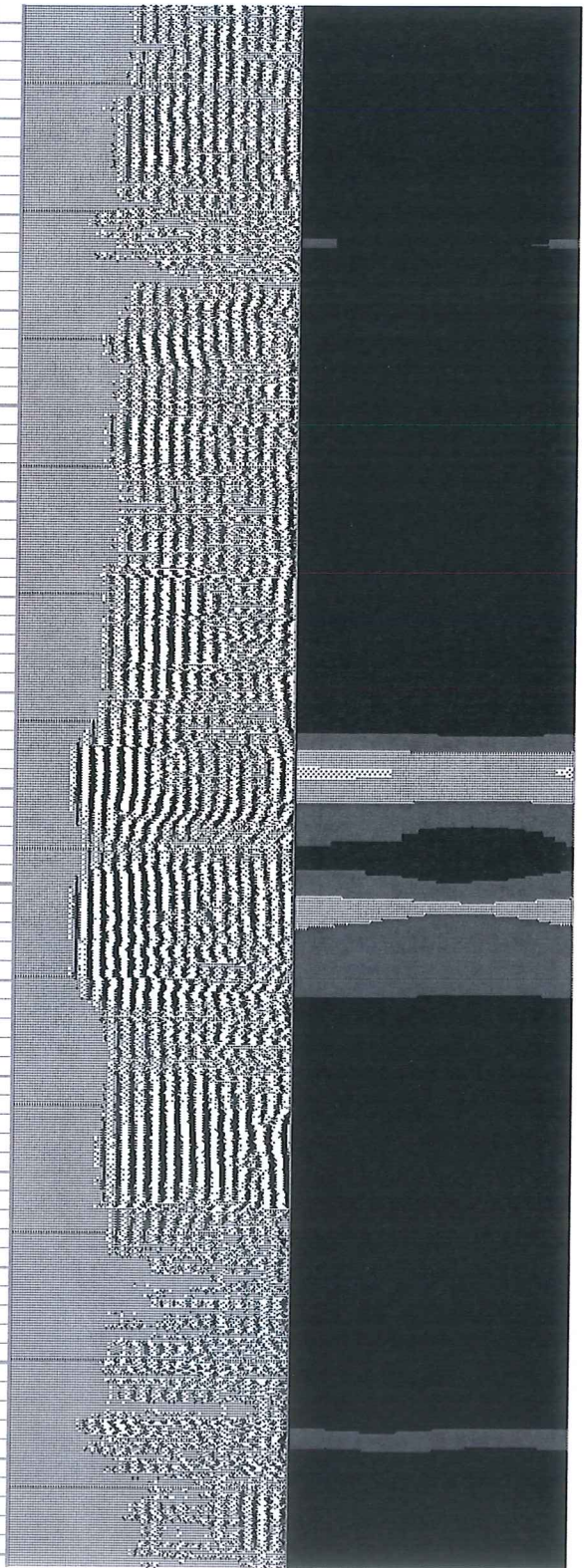
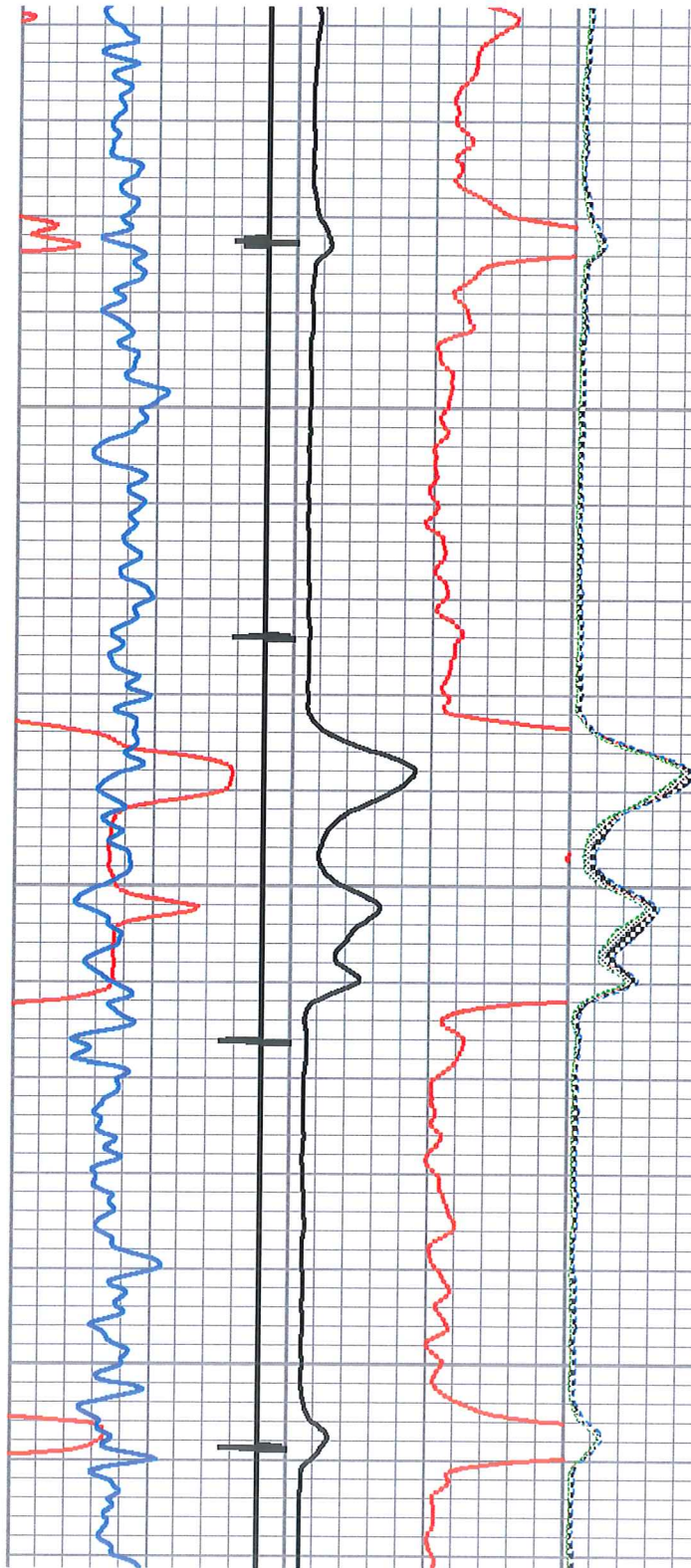
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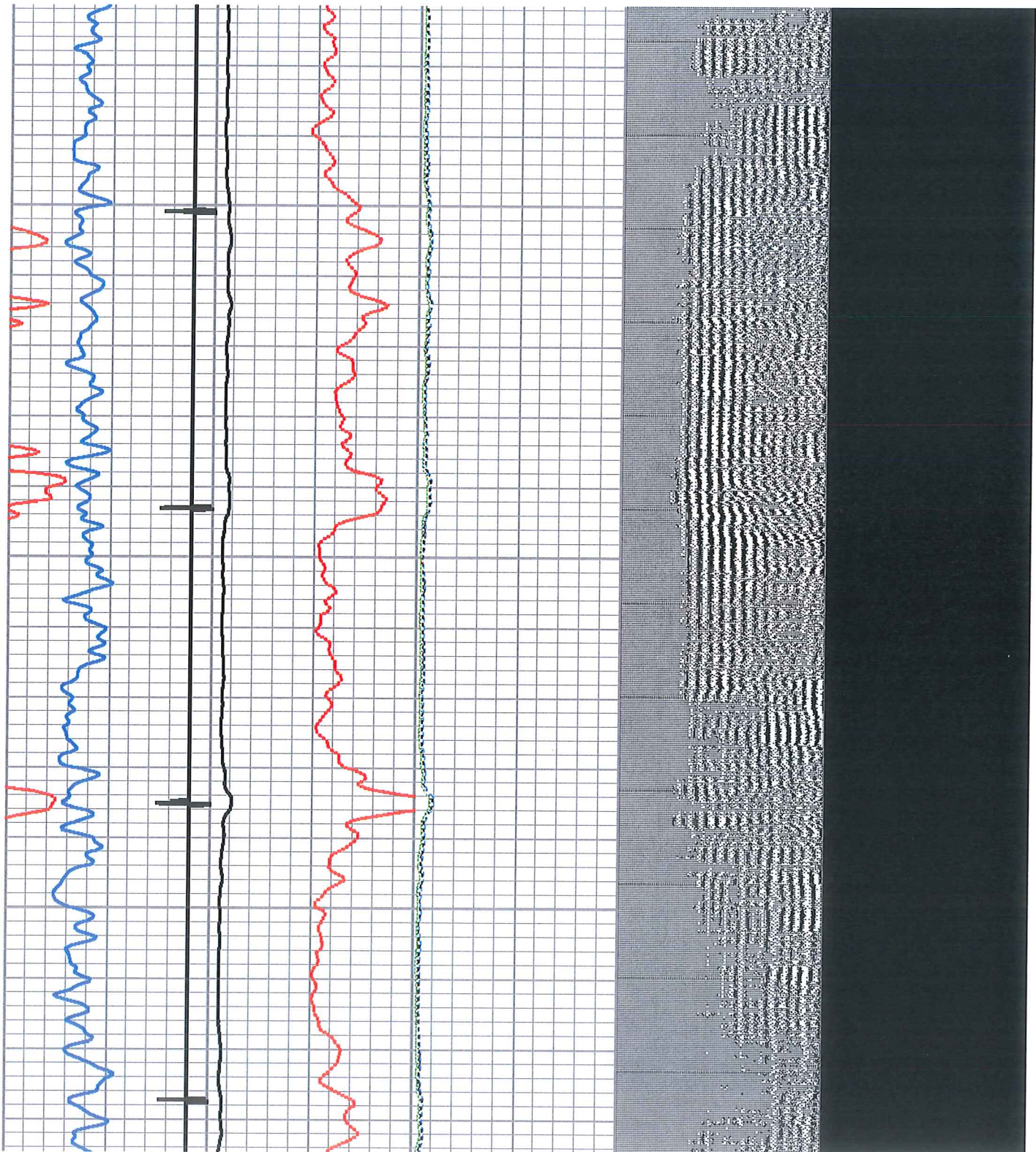


4700

4800

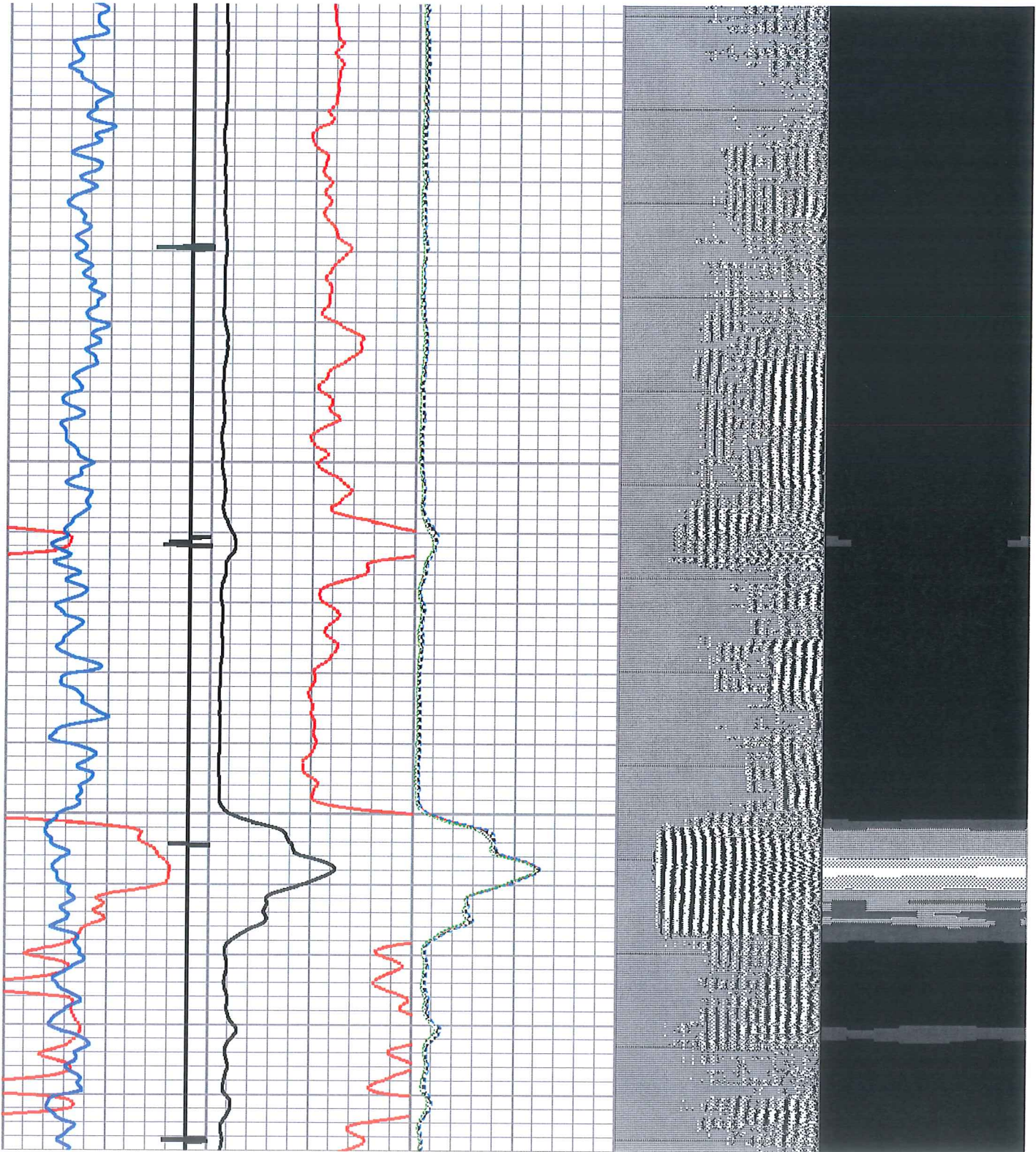


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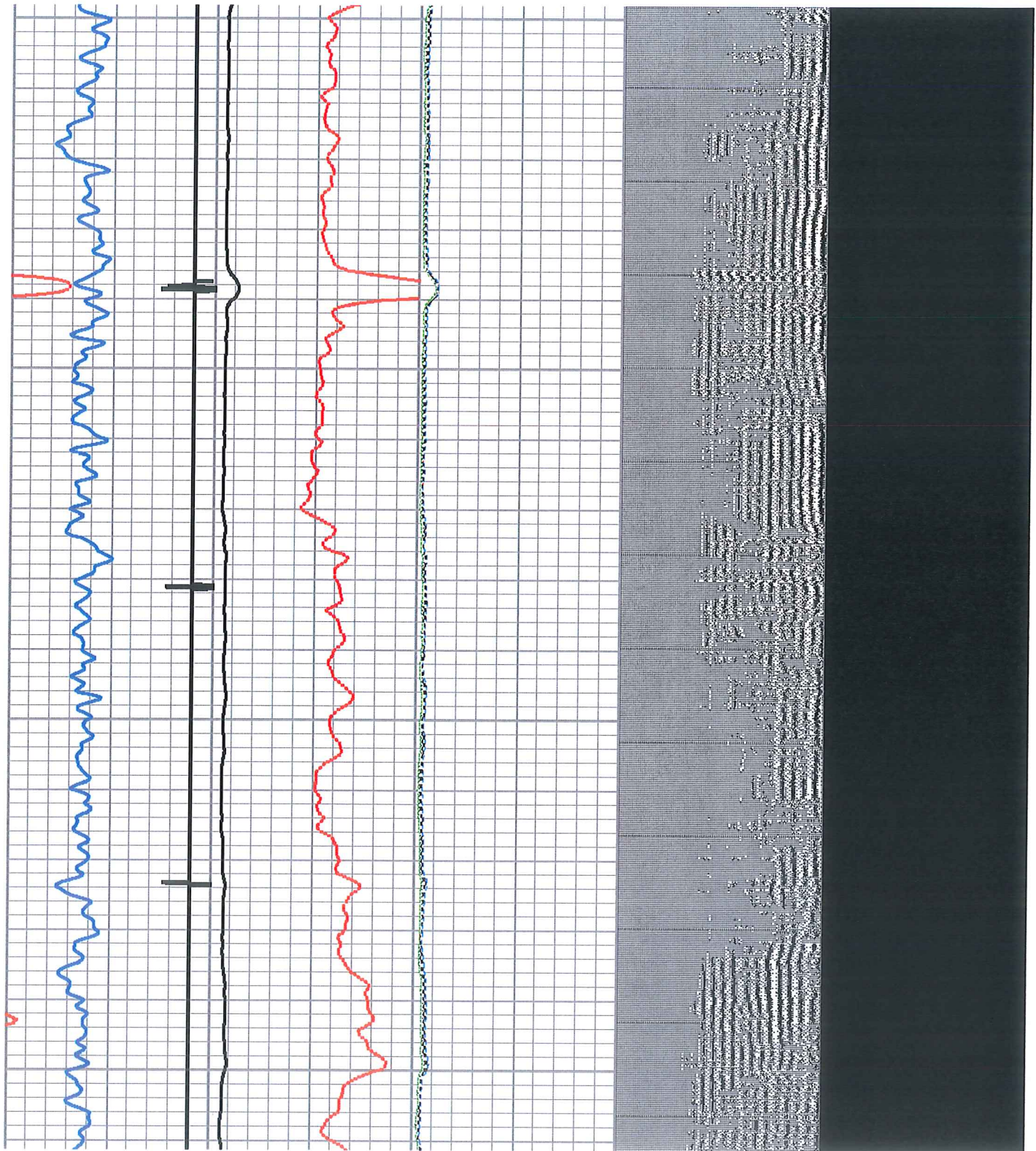
5000

5100

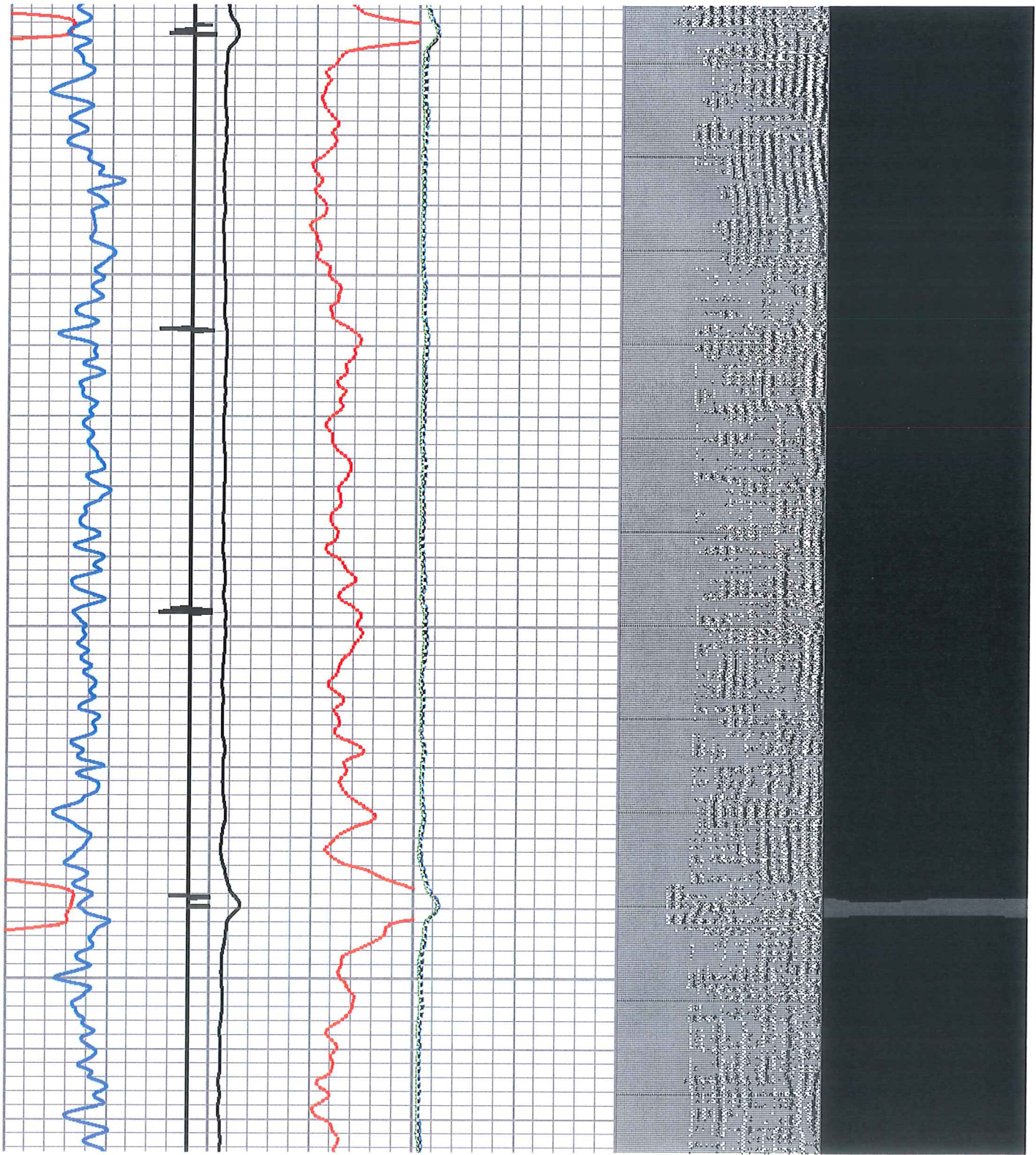


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5300



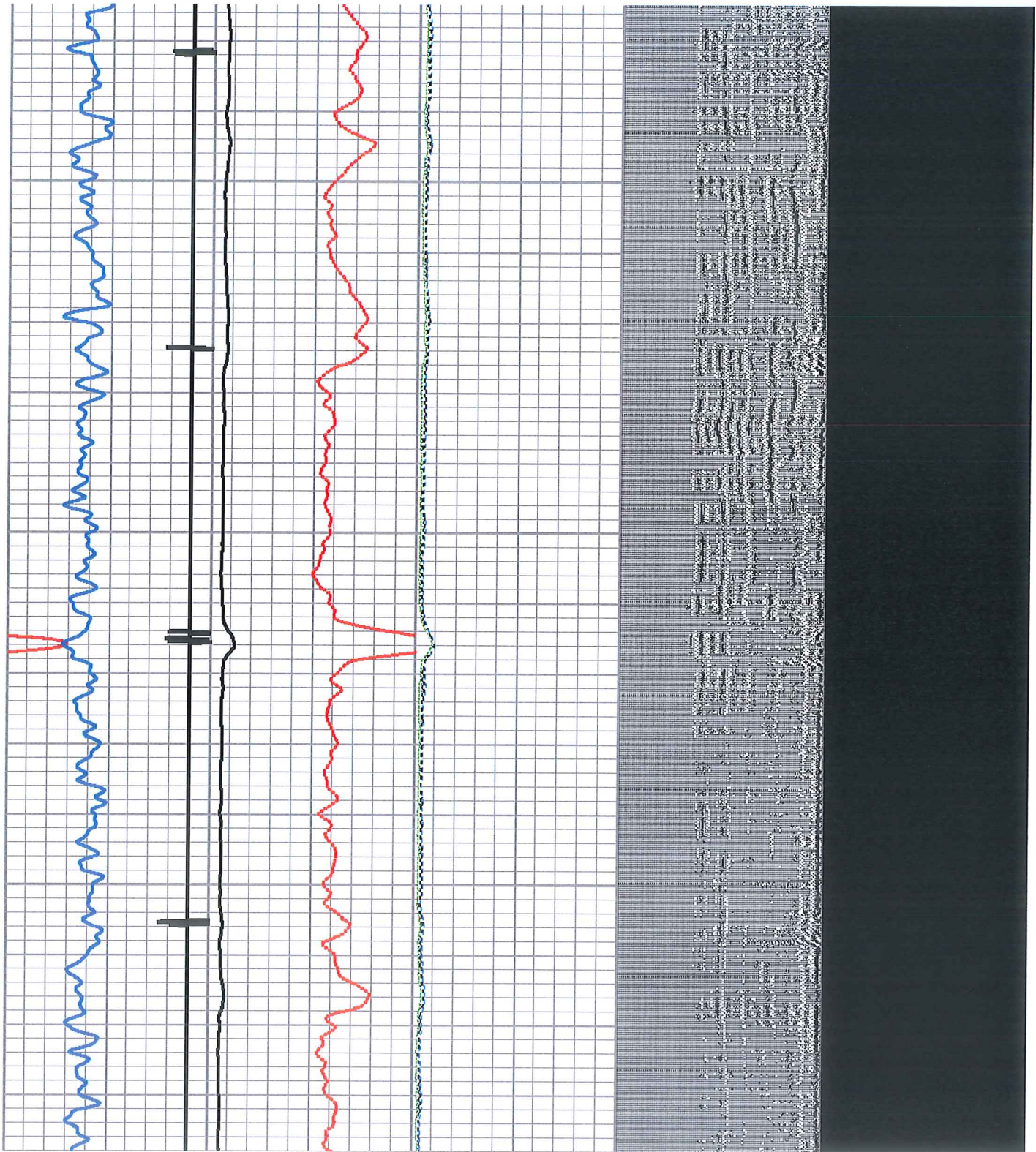
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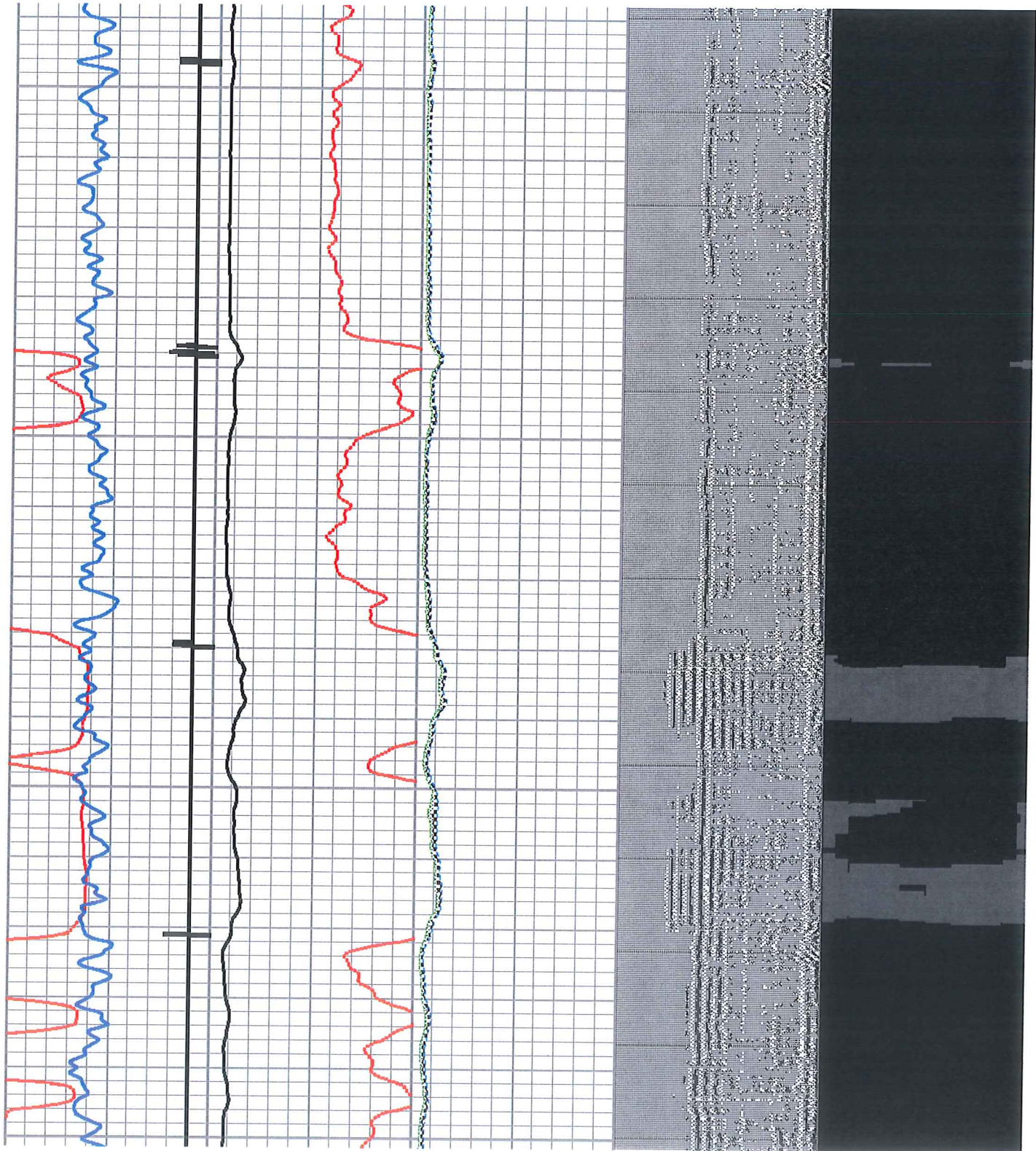
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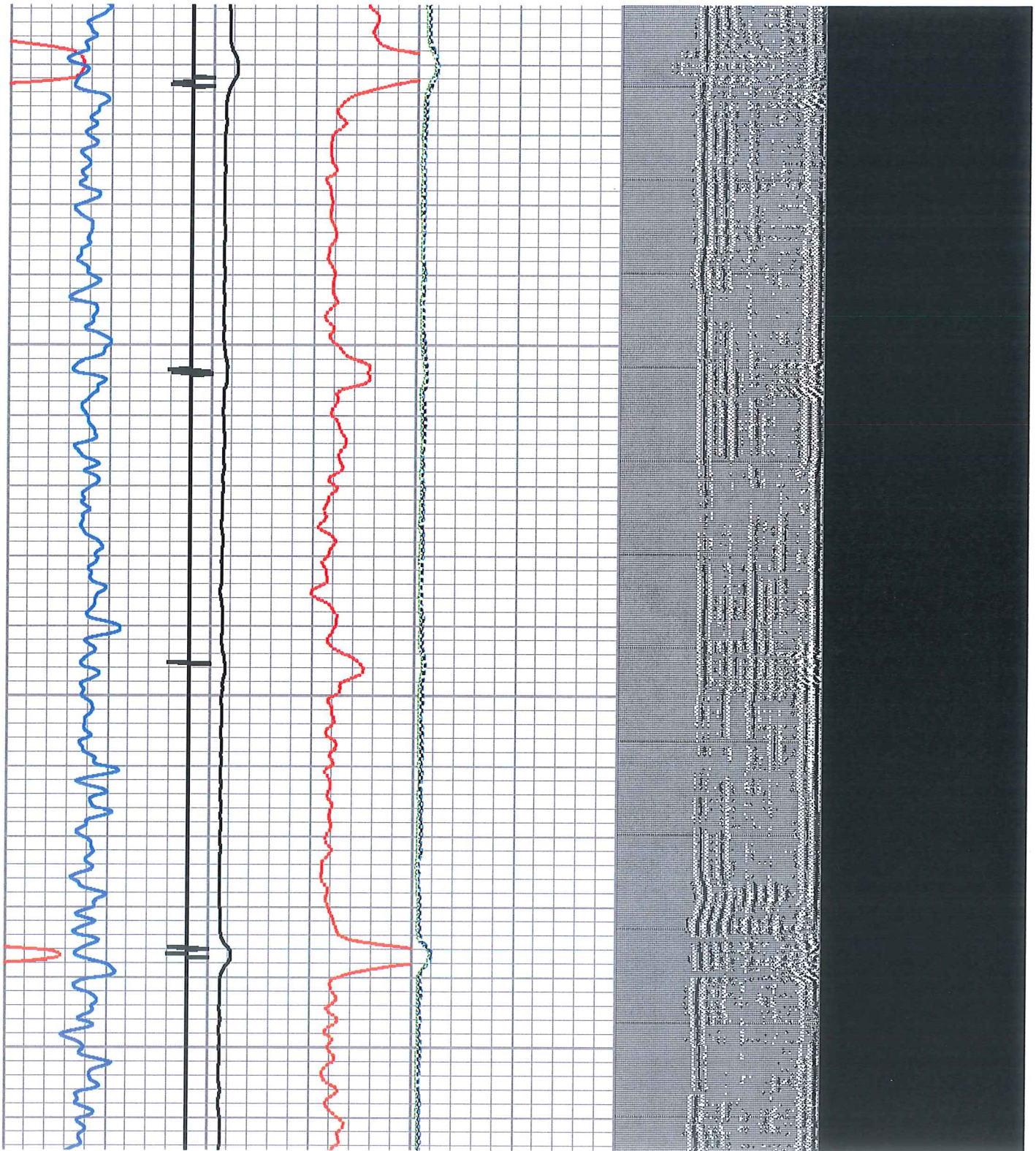


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5800

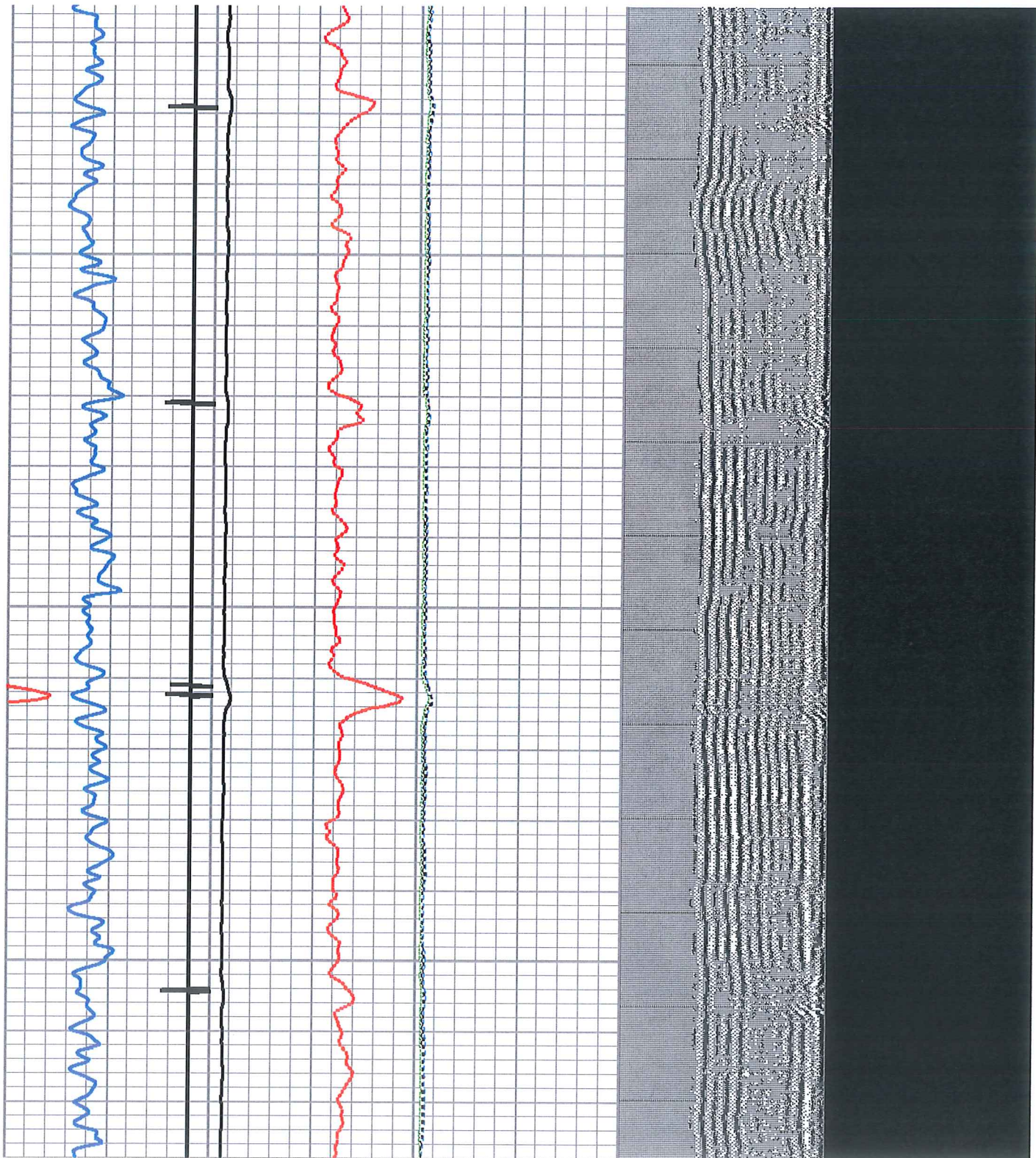


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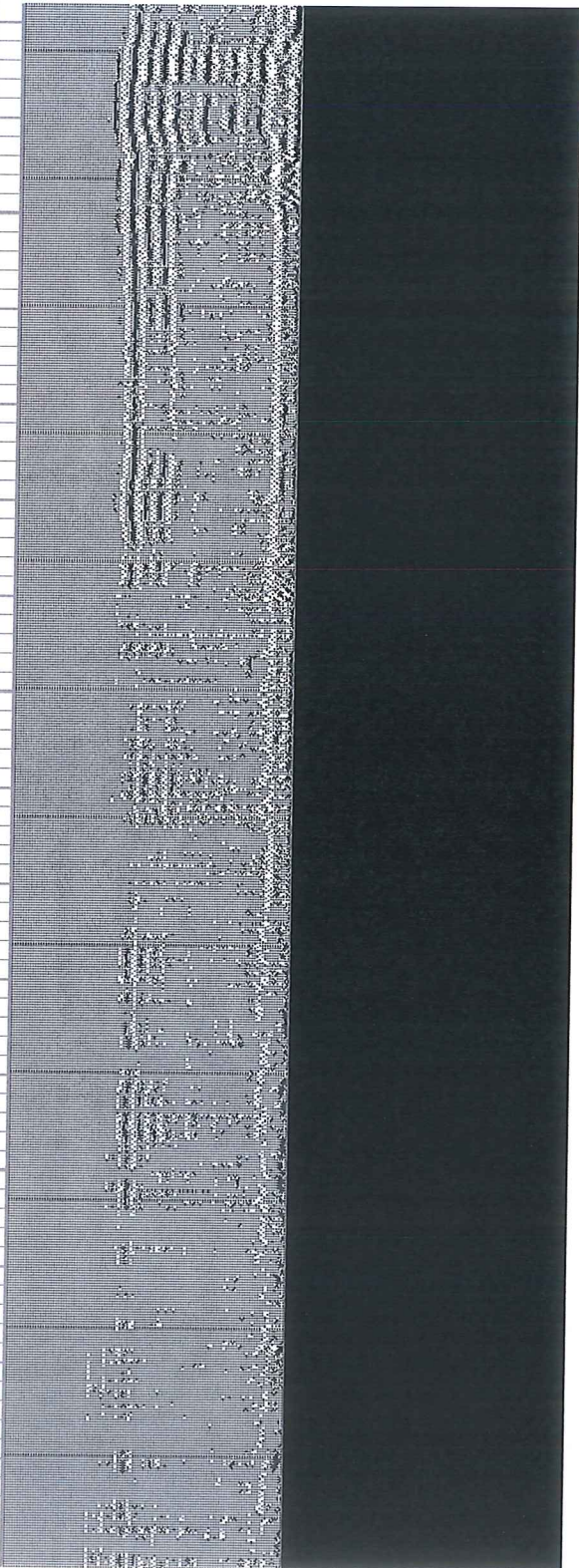
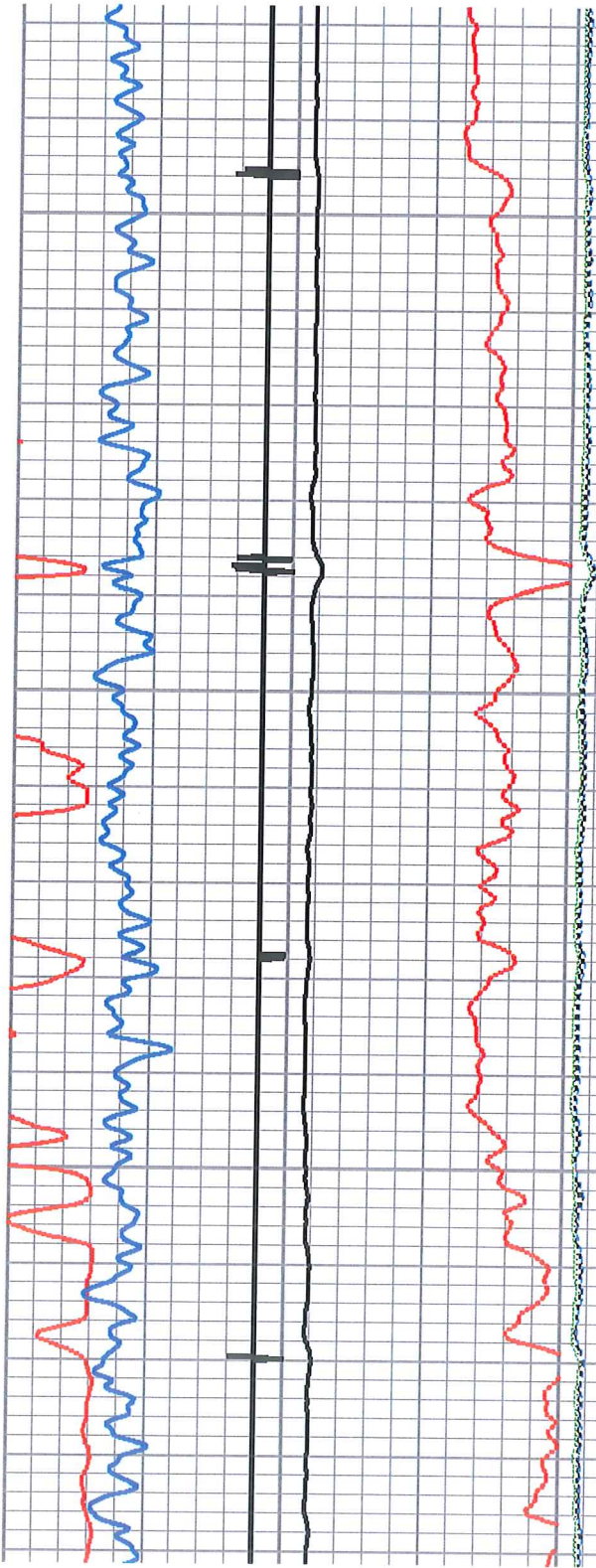


6000

6100

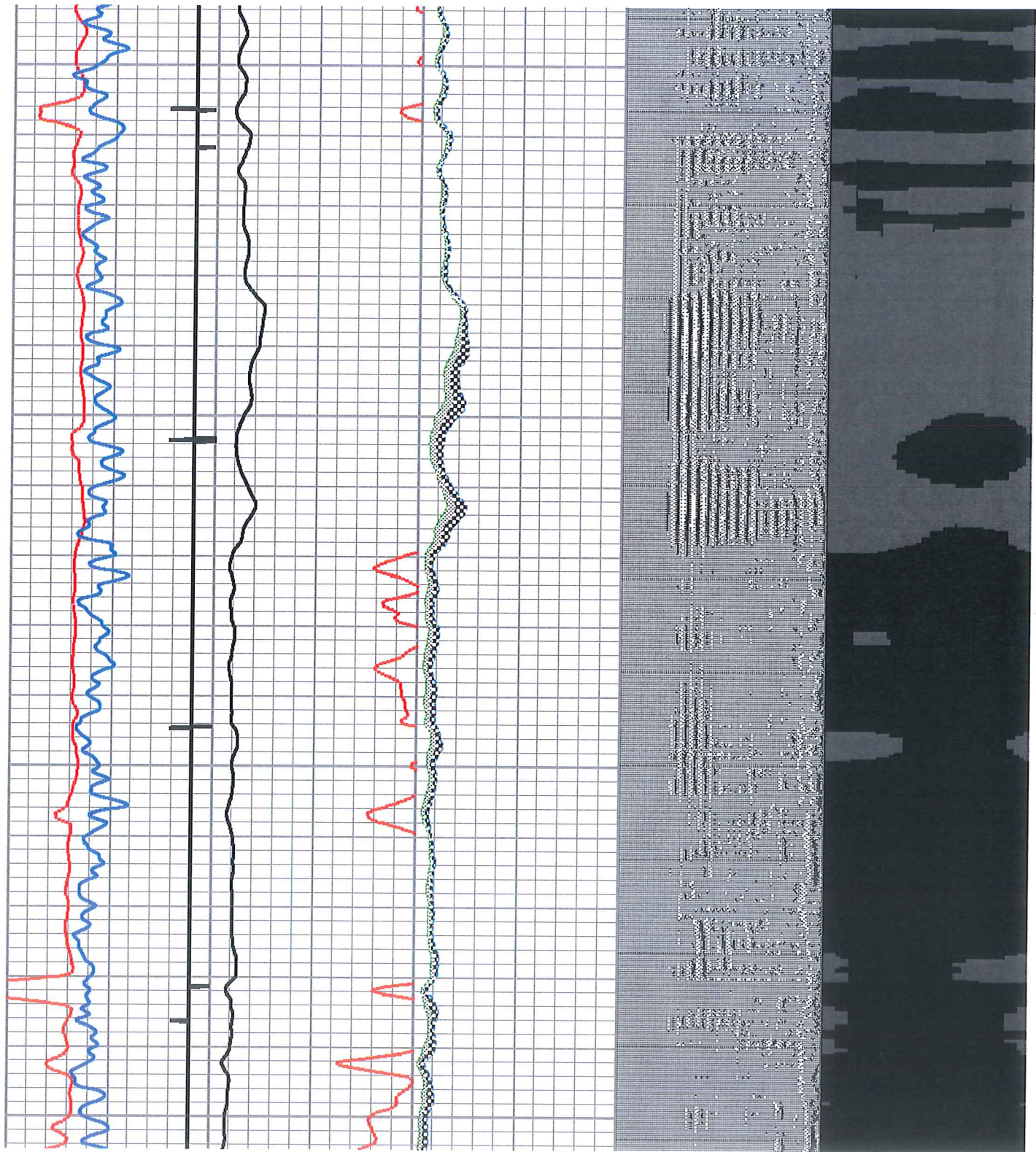


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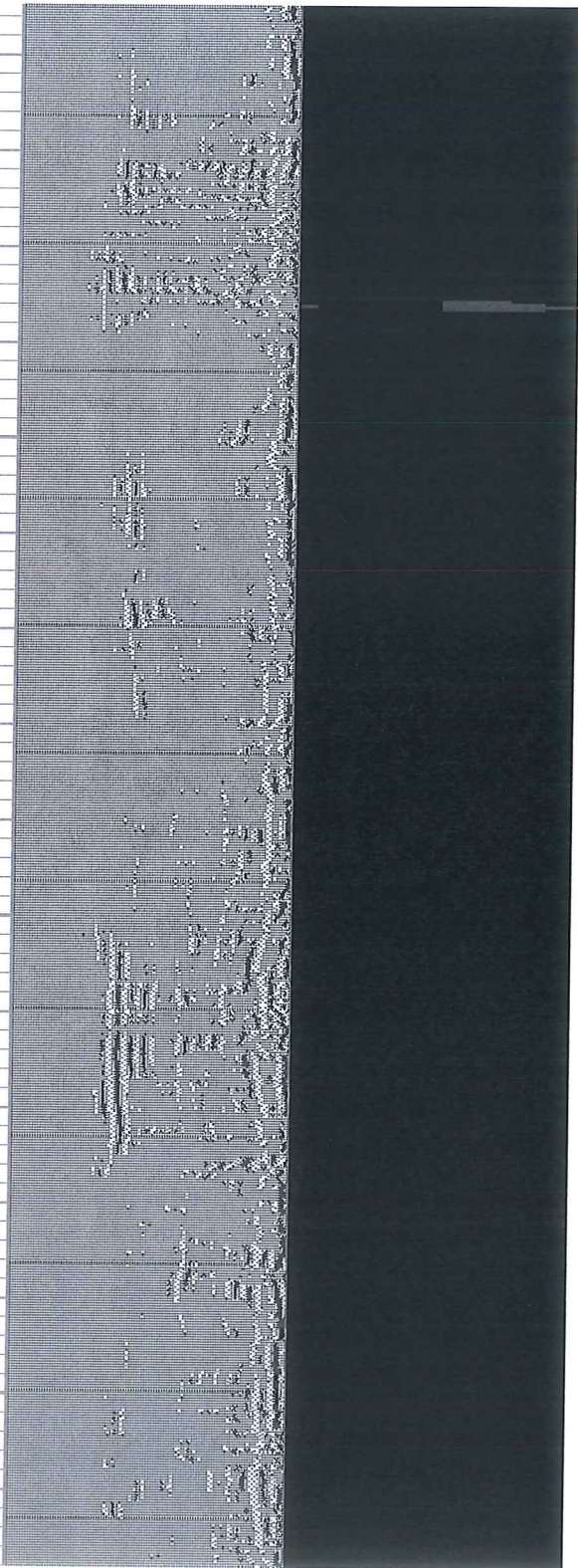
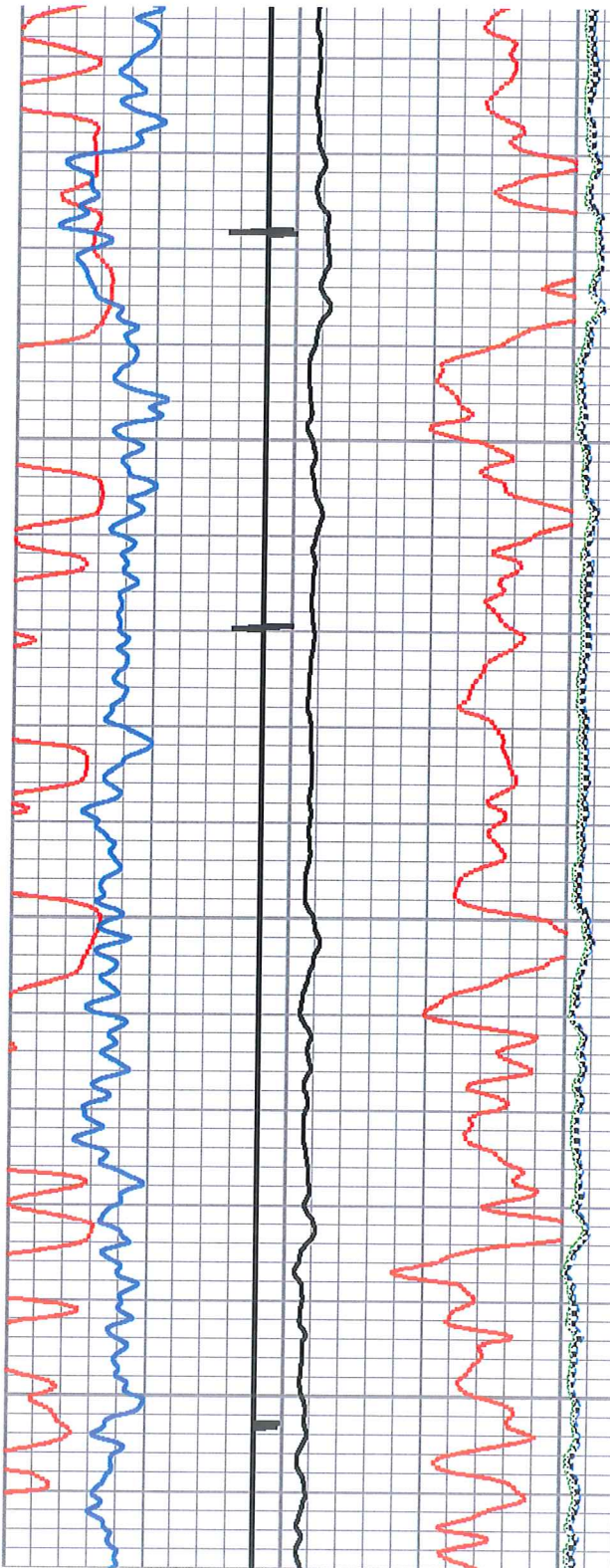
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6400

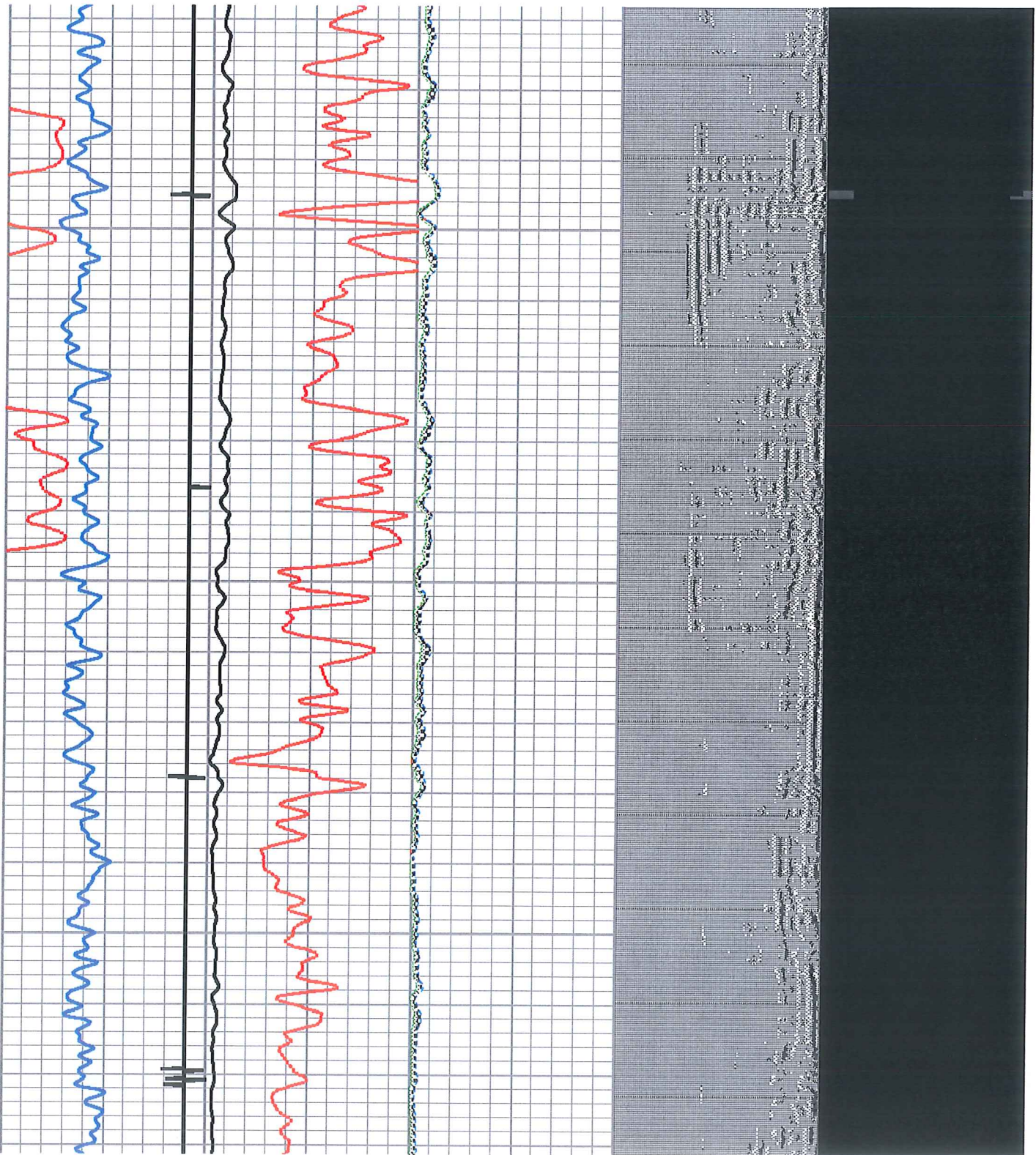


6500

6600



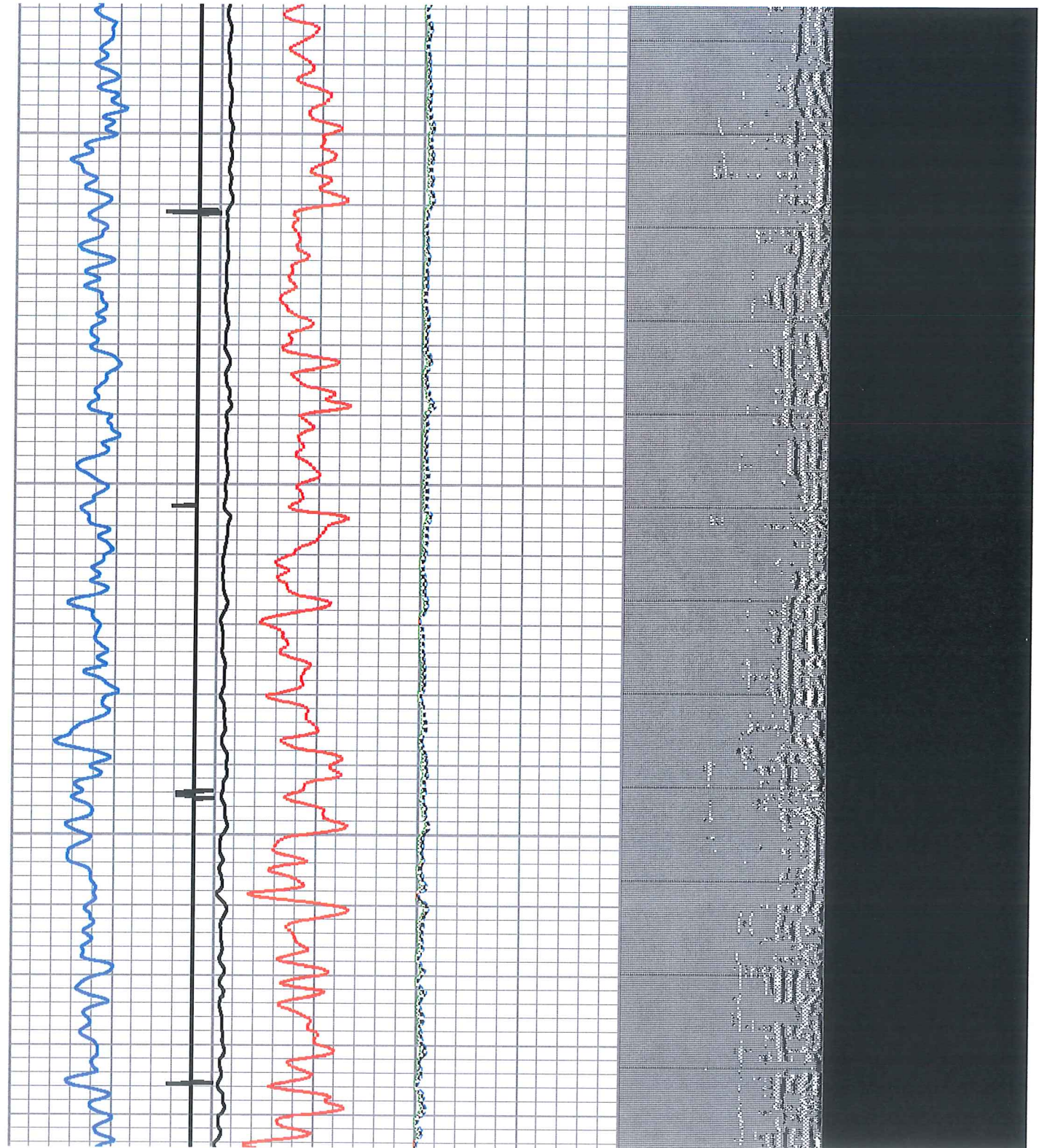
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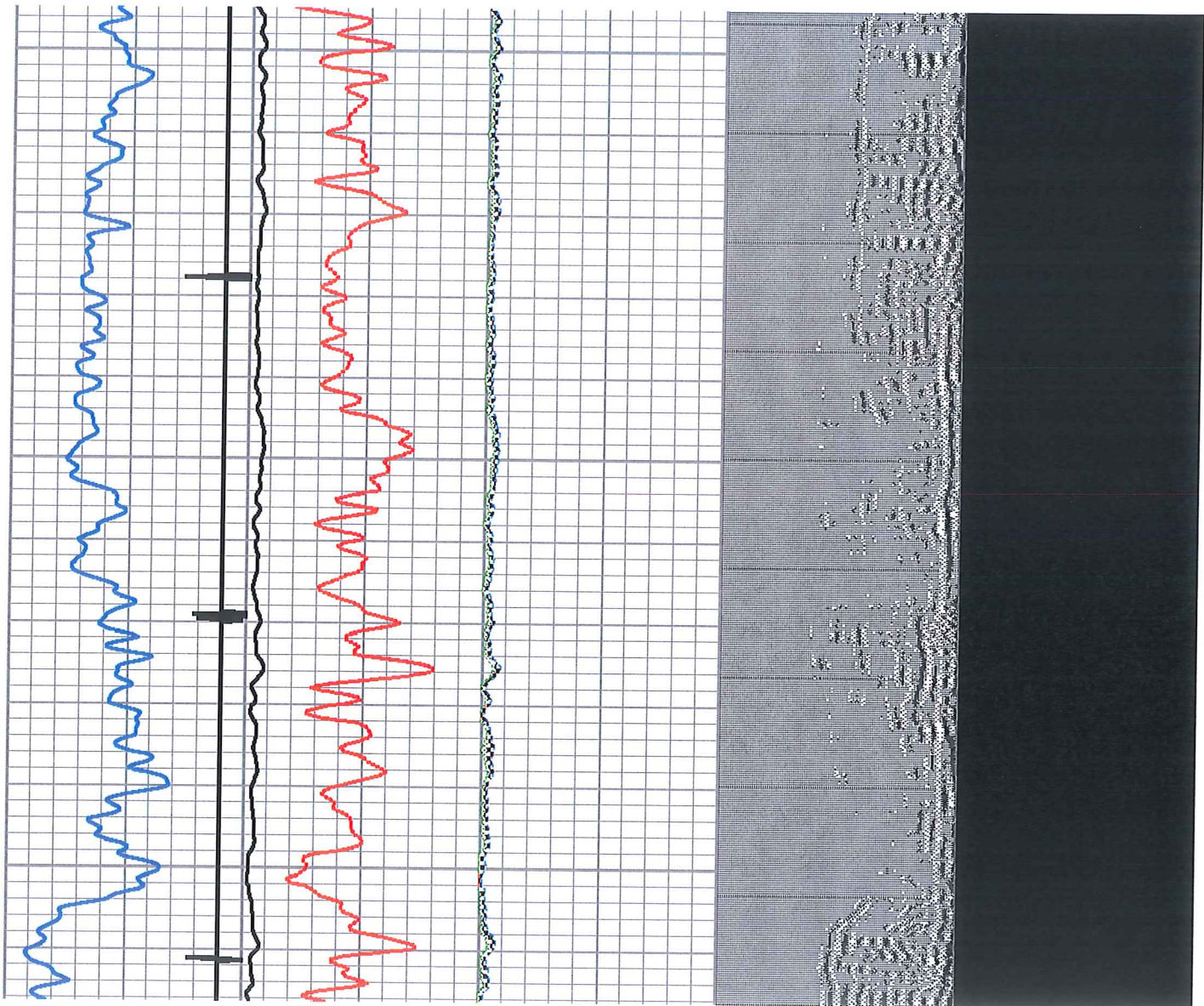


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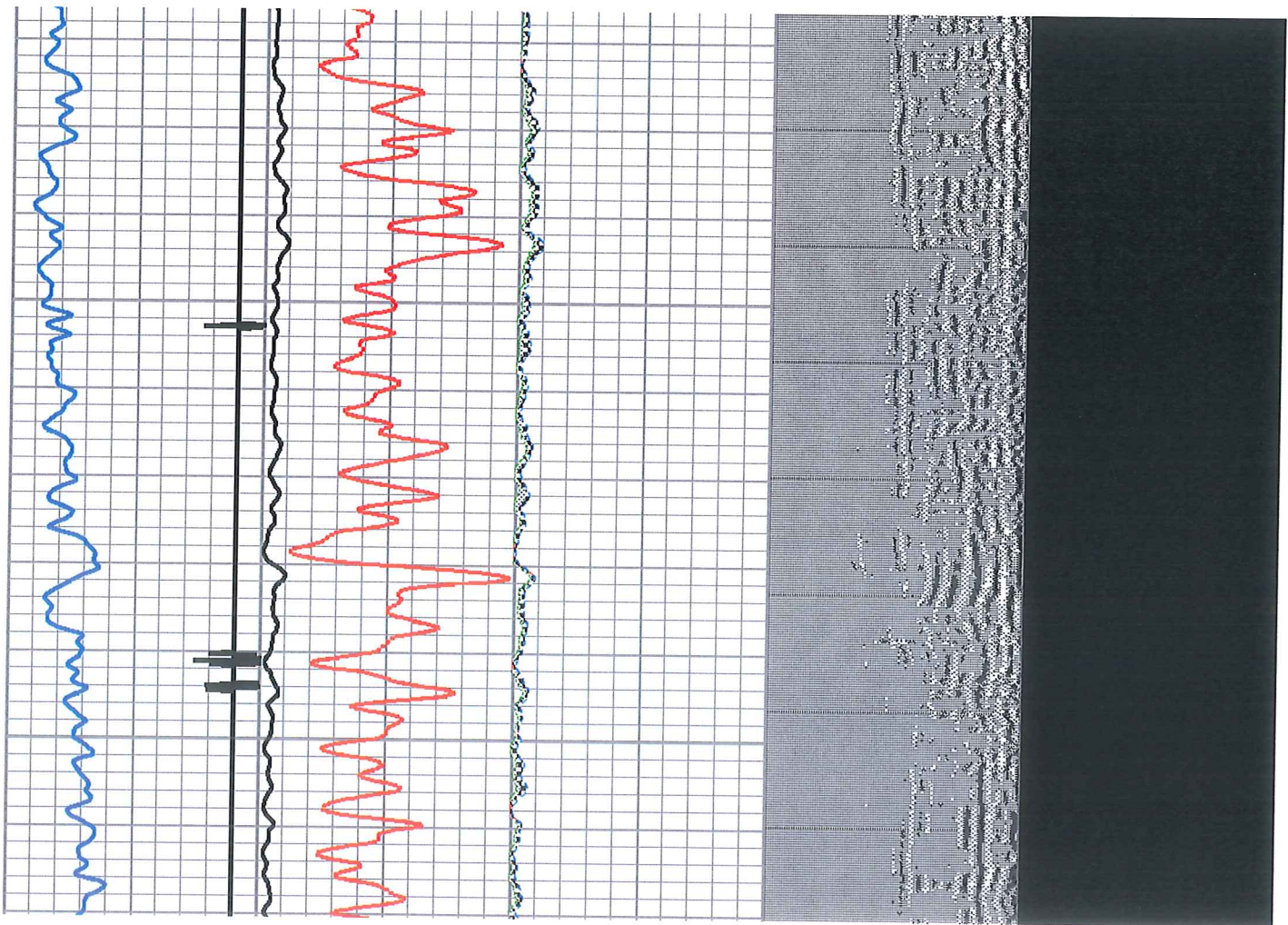
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7000

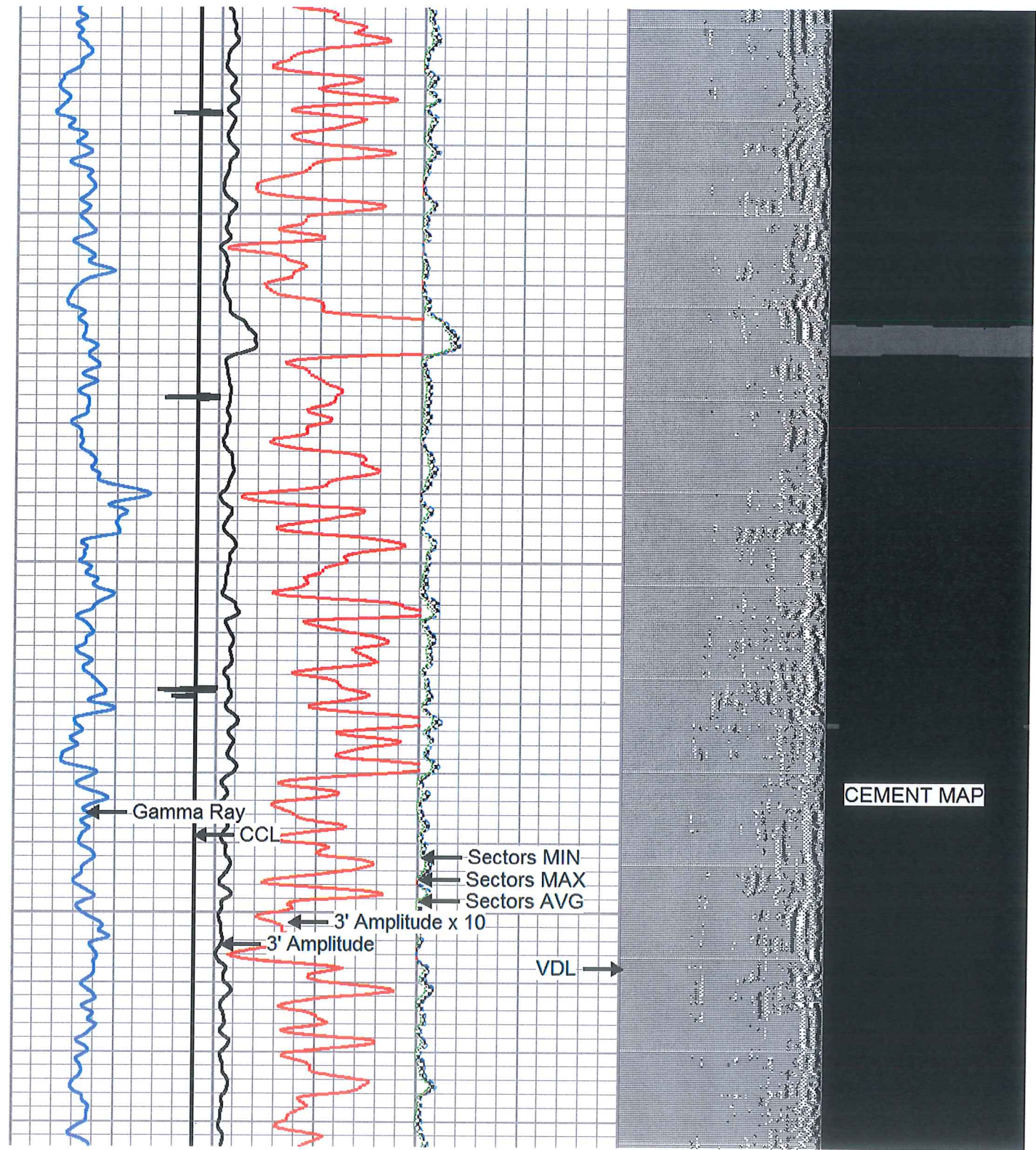


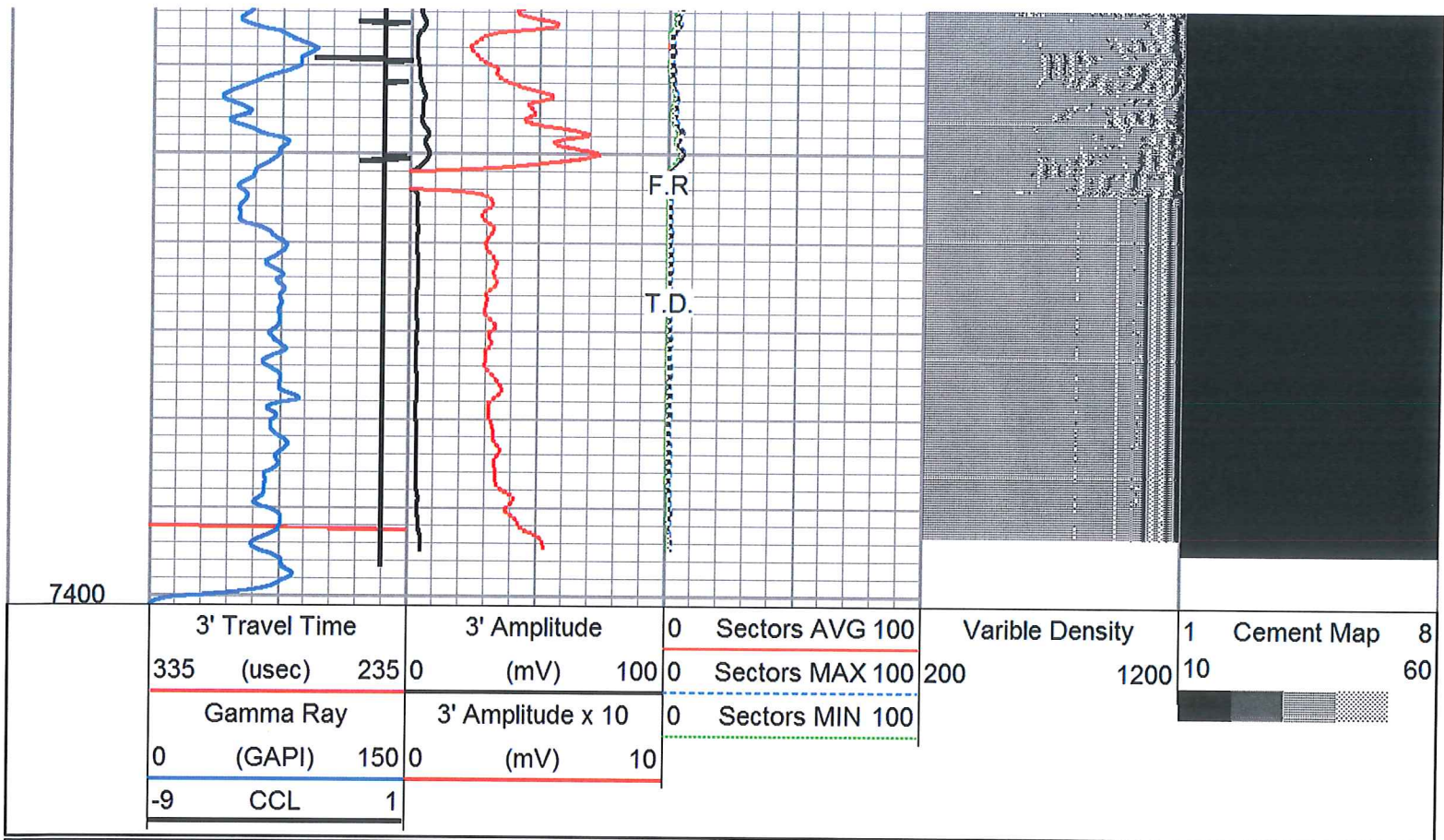
7100



7200

7300






# MAIN PASS

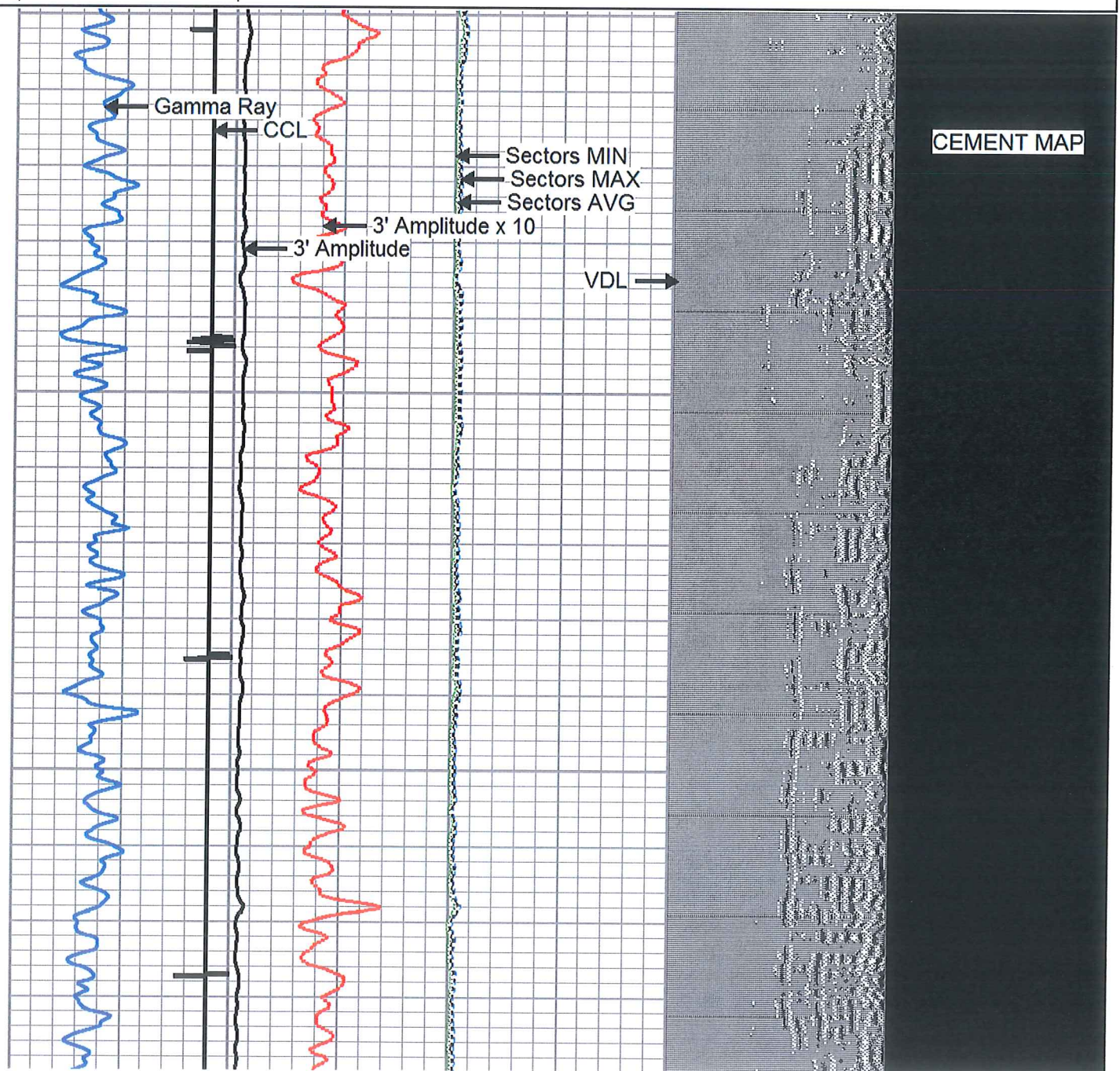


# REPEAT PASS

Database File: antero-tenmile2h-rcbl-091013.db  
 Dataset Pathname: pass2.2  
 Presentation Format: scbl02  
 Dataset Creation: Wed Sep 11 09:36:25 2013 by Calc SCH 120430  
 Charted by: Depth in Feet scaled 1:240

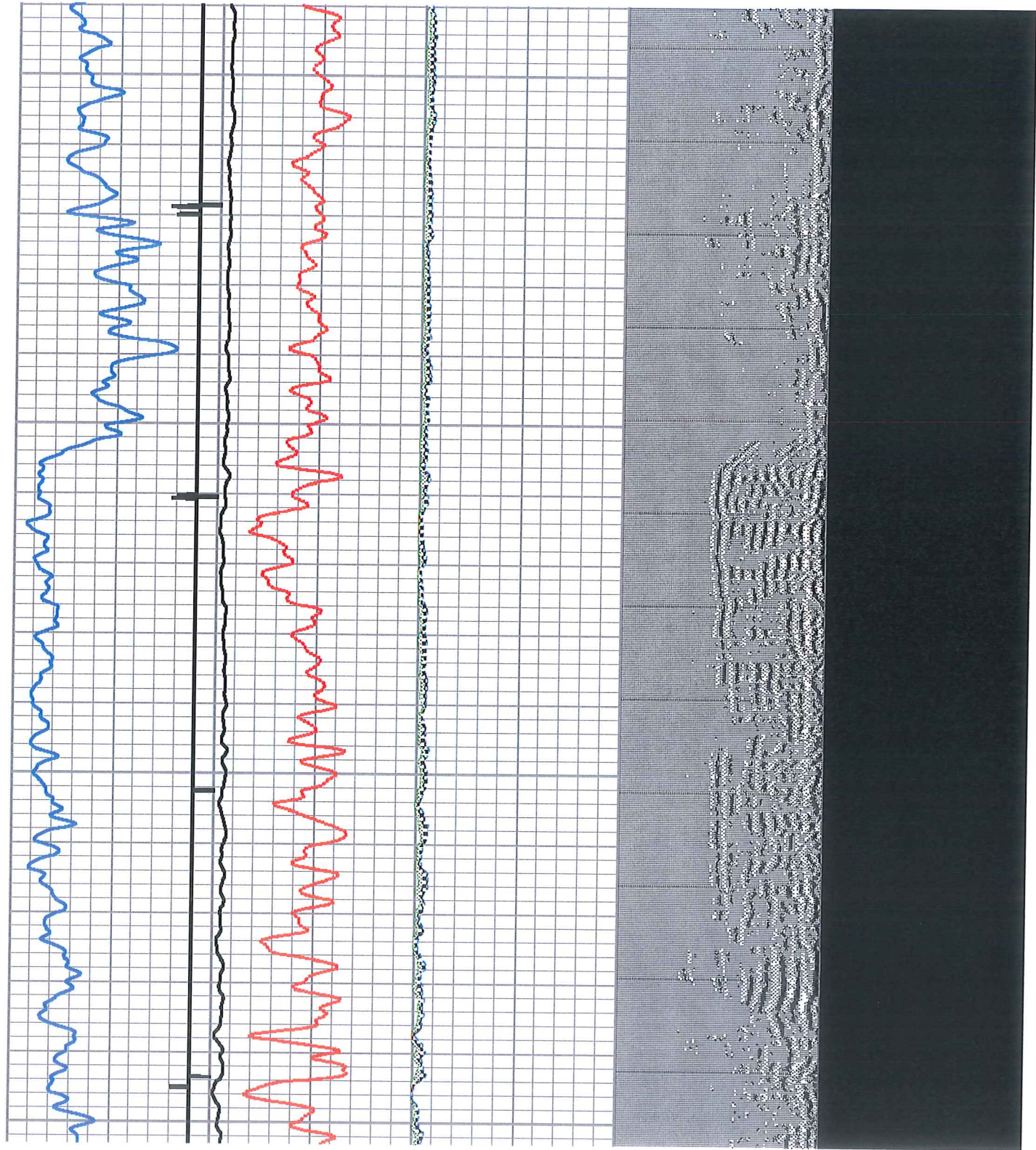
335	(usec)	235	0	(mV)	100	0	Sectors MAX	100	200	1200	10	60
Gamma Ray		3' Amplitude x 10		0		Sectors MIN		100				
0	(GAPI)	150	0	(mV)	10							
-9	CCL	1										

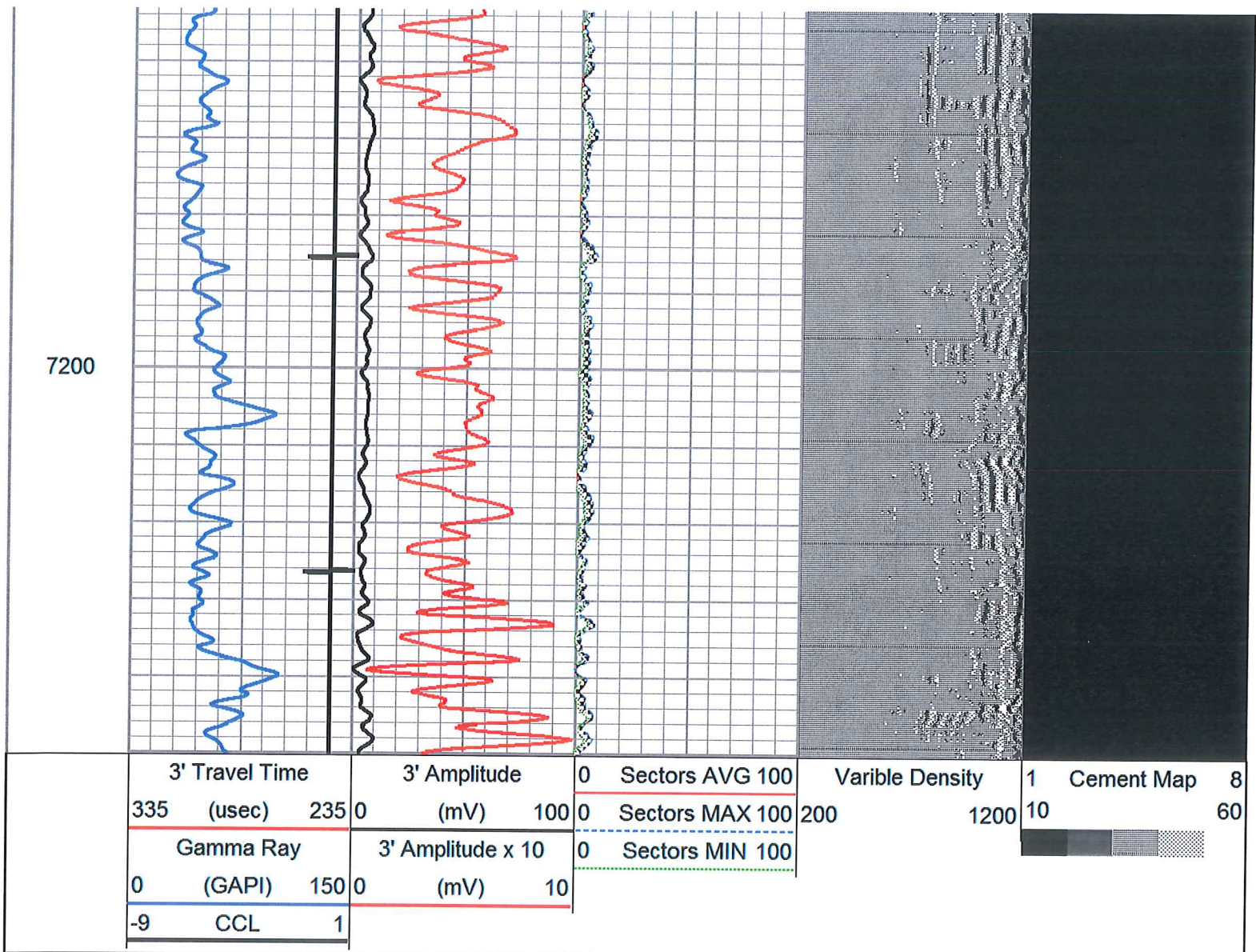
6900



7000

7100






# REPEAT PASS

Calibration Report

Database File: antero-tenmile2h-rcbl-091013.db  
 Dataset Pathname: pass3  
 Dataset Creation: Wed Sep 11 01:00:47 2013 by Log SCH 120430



**Gamma Ray Calibration Report**

Serial Number: 275  
 Tool Model: Probe  
 Performed: Thu Dec 16 15:42:53 2010

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: Base  
 Tool Model: Probe

Calibration Casing Diameter: 5.500            in  
 Calibration Depth: 136.350            ft

**Master Calibration, performed Tue Sep 10 22:16:32 2013:**

	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3'	-0.011	0.307	1.000	71.921	223.378	3.378
CAL	-0.009	0.456				
5'	-0.010	0.266	1.000	71.921	256.891	3.675
SUM						
S1	-0.002	0.307	0.500	71.921	230.901	1.064
S2	-0.010	0.298	0.500	71.921	231.385	2.873
S3	-0.009	0.308	0.500	71.921	224.962	2.549
S4	-0.010	0.321	0.500	71.921	215.476	2.659
S5	-0.010	0.330	0.500	71.921	210.294	2.528
S6	-0.010	0.327	0.500	71.921	212.086	2.600
S7	-0.010	0.307	0.500	71.921	225.239	2.815
S8	-0.010	0.295	0.500	71.921	233.939	2.885

**Internal Reference Calibration, performed Tue Nov 21 11:42:07 2006:**

	Raw (v)		Calibrated (v)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset

CAL	0.000	0.000	-0.009	0.456	1.000	0.000
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Air Zero Calibration, performed Tue Sep 10 22:09:11 2013:

	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	ANTERO
Well	TEN MILE 2H
Field	MARCELLUS
County	HARRISON
State	WV