

Pioneer Energy Services

**PIONEER****GAMMA RAY CCL  
CEMENT BOND VDL  
SECTOR MAP**

Company	EnCana Oil & Gas (USA) Inc.	Country	USA
Well	Drieth 4B-6H-I368		
Field	Wattenberg		
County	Weld		
State	Colorado		
Location:	APL # : 05-123-37614	Other Services	None
SHL: 2212' FNL & 758' FEL SENE			
SEC 6 TWP 3N RGE 68W			
Permanent Datum	GL	Elevation	5110
Log Measured From	KB		
Drilling Measured From	KB		
		K.B. 5140	
		D.F. 5139	
		G.L. 5110	

Date	September 27, 2014
Run Number	1
Depth Driller	11492
Depth Logger	7200
Bottom Logged Interval	7200
Top Log Interval	0
Open Hole Size	8-3/4"
Type Fluid	WBM
Density / Viscosity	10.6 / 45
Max. Recorded Temp.	NA
Estimated Cement Top	660
Time Well Ready	0515
Time Logger on Bottom	0745
Equipment Number	49
Location	Ft. Morgan, CO
Recorded By	Shaun Stump
Witnessed By	Nate Curley

Borehole Record				Tubing Record			
Run Number	Bit	From	To	Size	Weight	From	To
Casing Record							
Surface String		Size		Wgt/Ft		Top	Bottom
Prot. String							
Production String		7"		26 lbs		0	7200
Liner							

&lt;&lt;&lt; Fold Here &gt;&gt;&gt;

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**

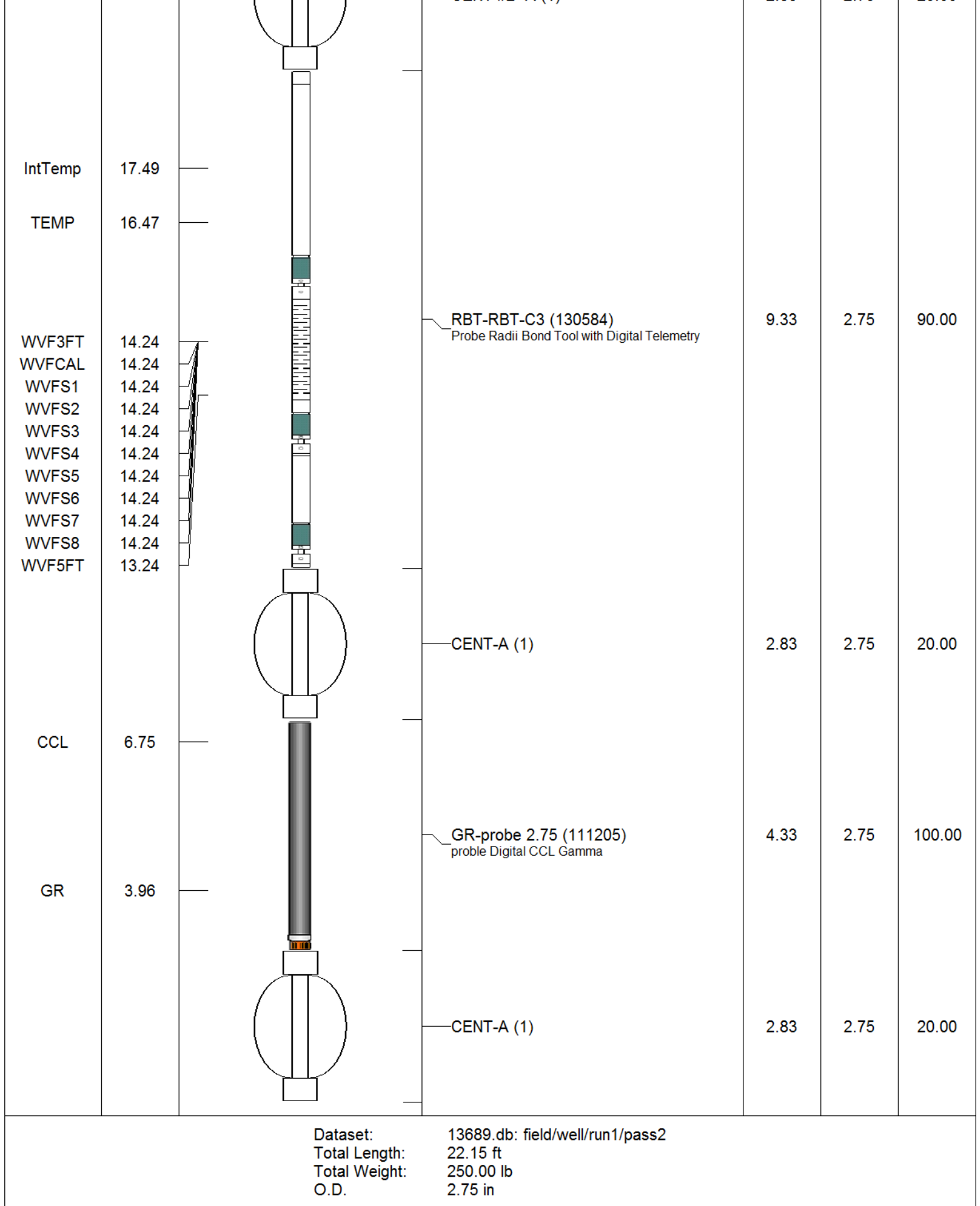
Depth Correlated to 7" Tally

H&amp;P Rig 522

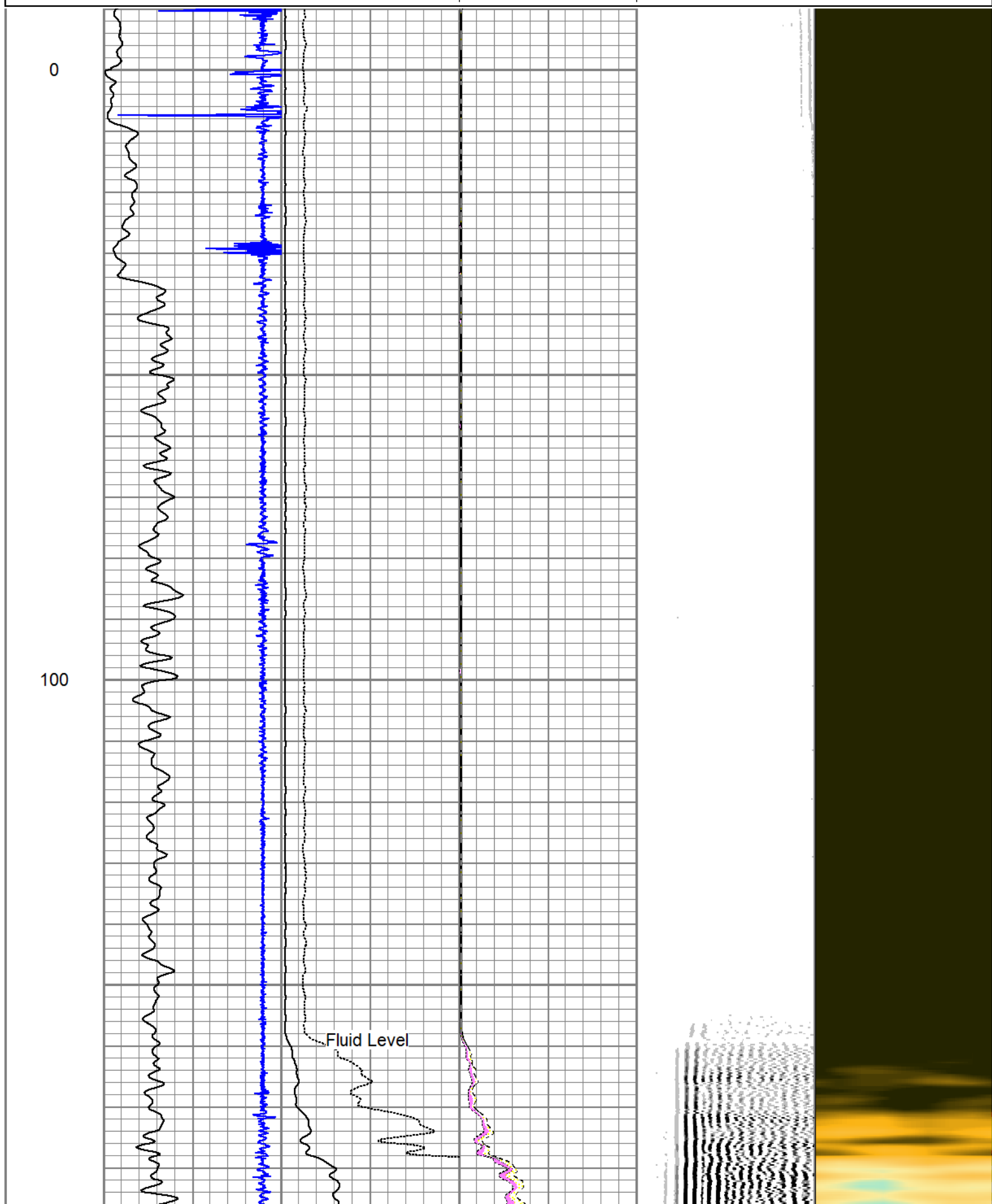
Thank You for using Pioneer Energy Services

SO# 2-013689

Sensor	Offset (ft)	Schematic	Description	Len (ft)	OD (in)	Wt (lb)
			CENT #2 -A (1)	2.83	2.75	20.00



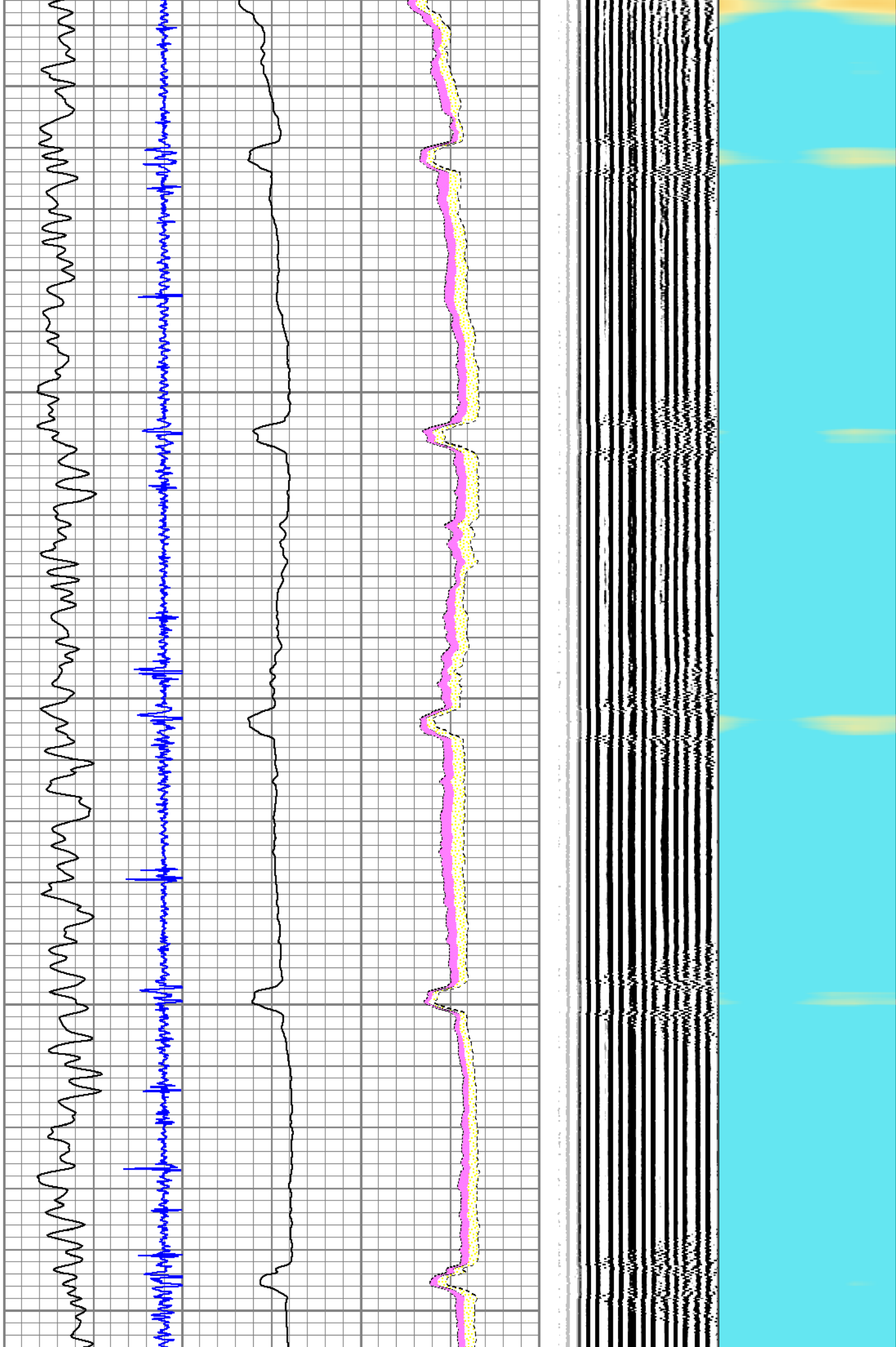
-9	CCL	1	0	AMP (mV)	100	0	AMPAVG	150	200	VDL	1200	1	SECTOR MAP	8
0	GR (GAPI)	200	0	AMPx5 (mV)	20	0	AMPMAX	150				10		60
						0	AMPMIN	150						



200

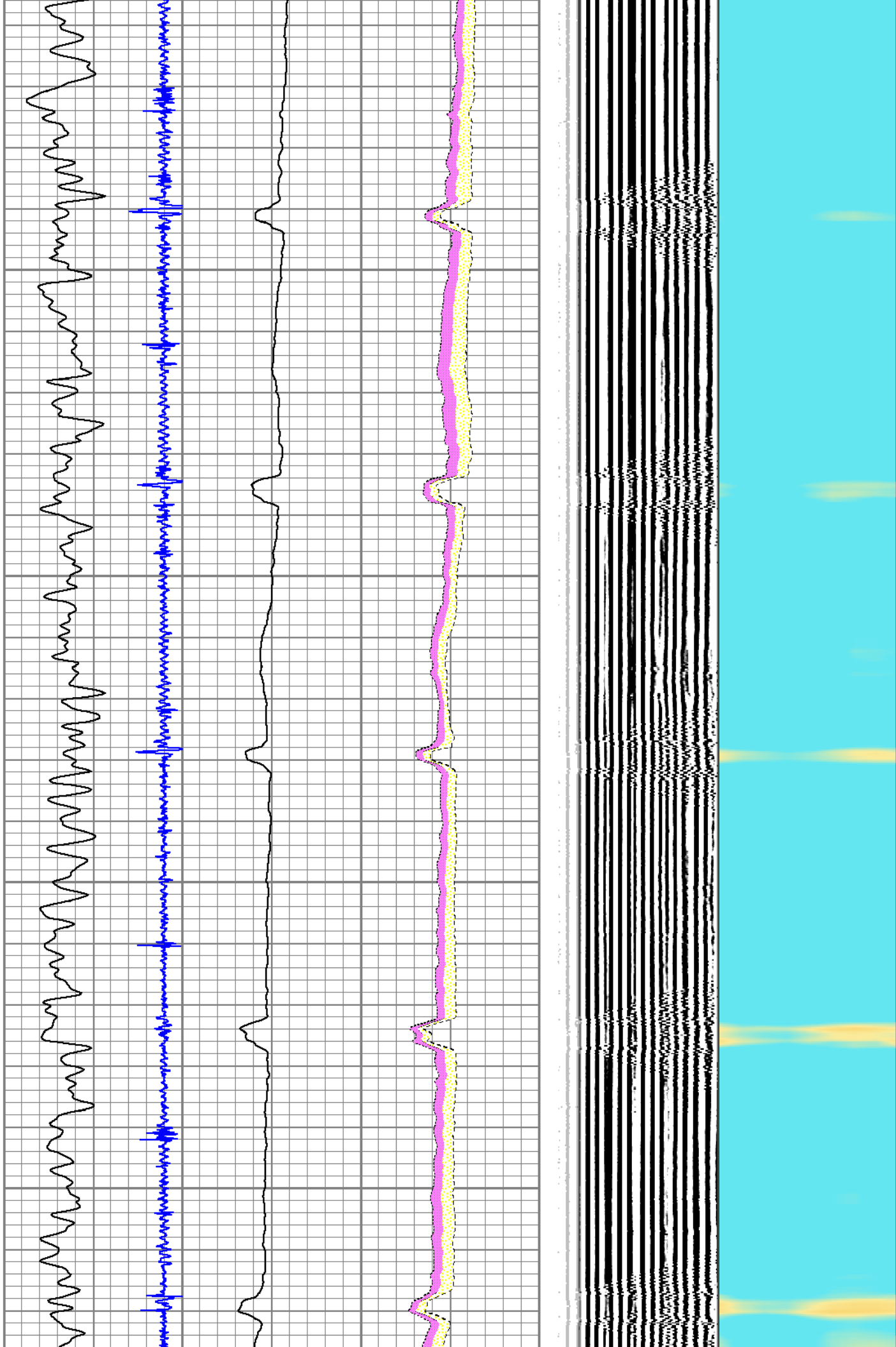
300

400



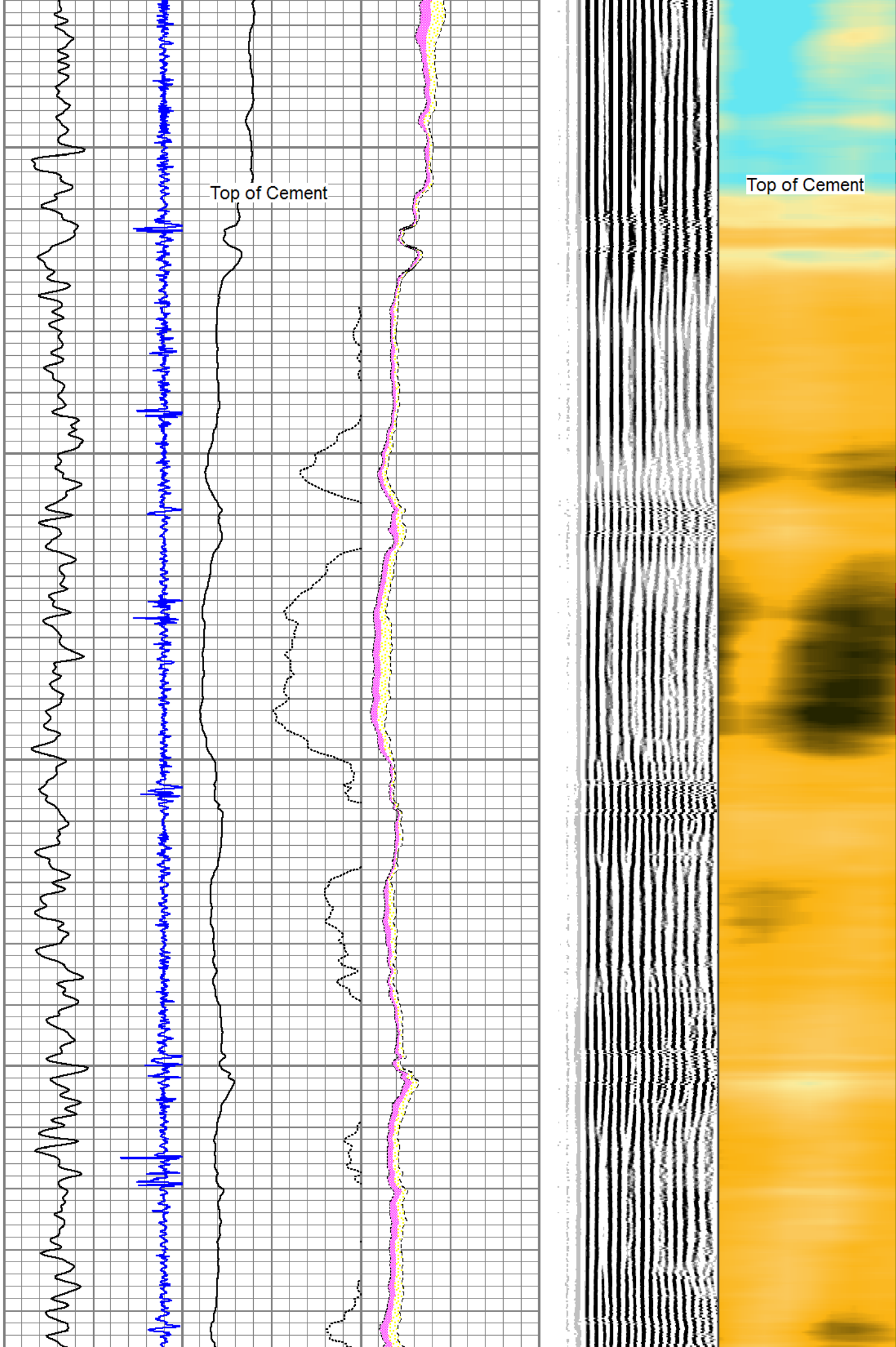
500

600



700

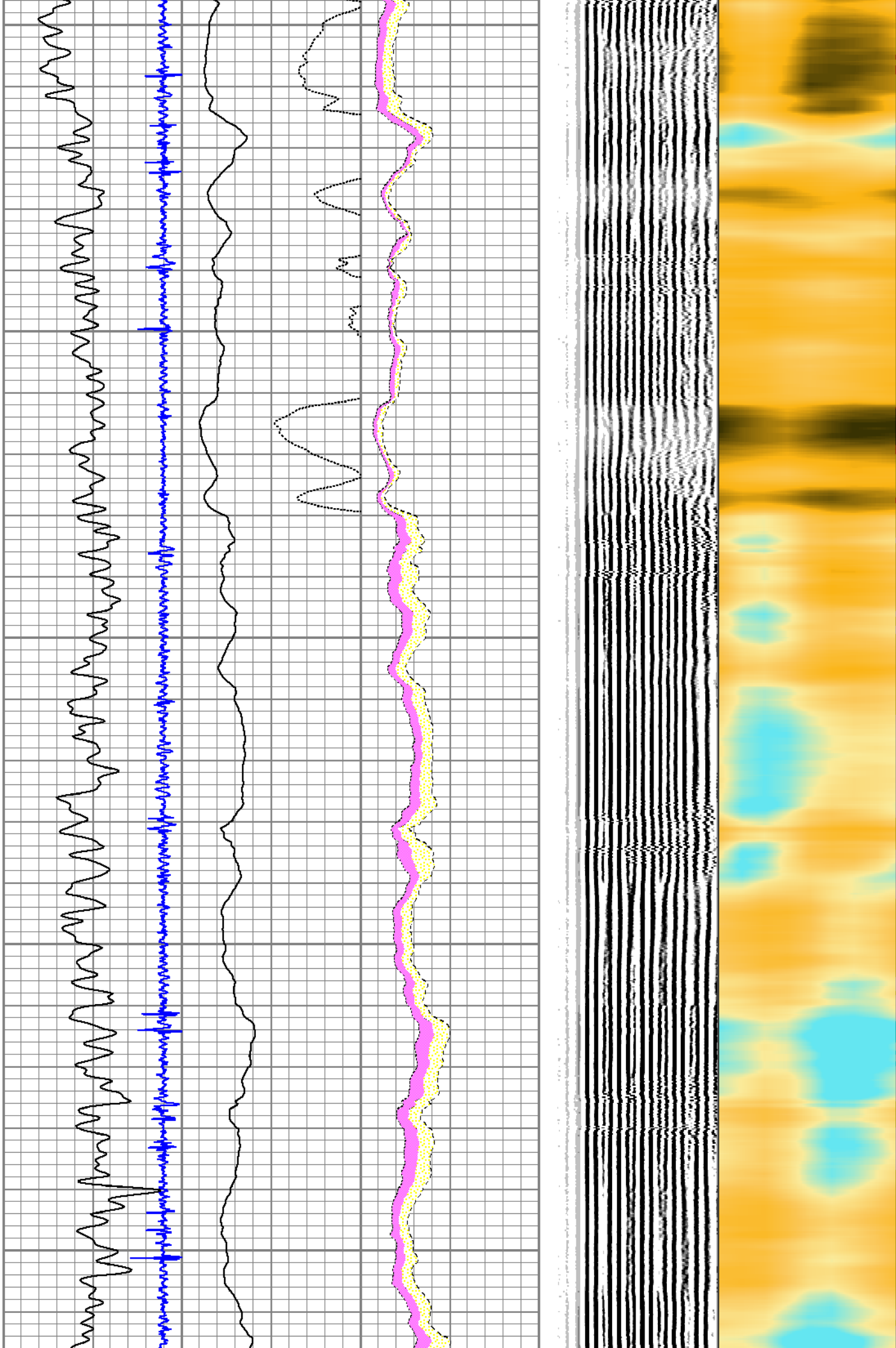
800





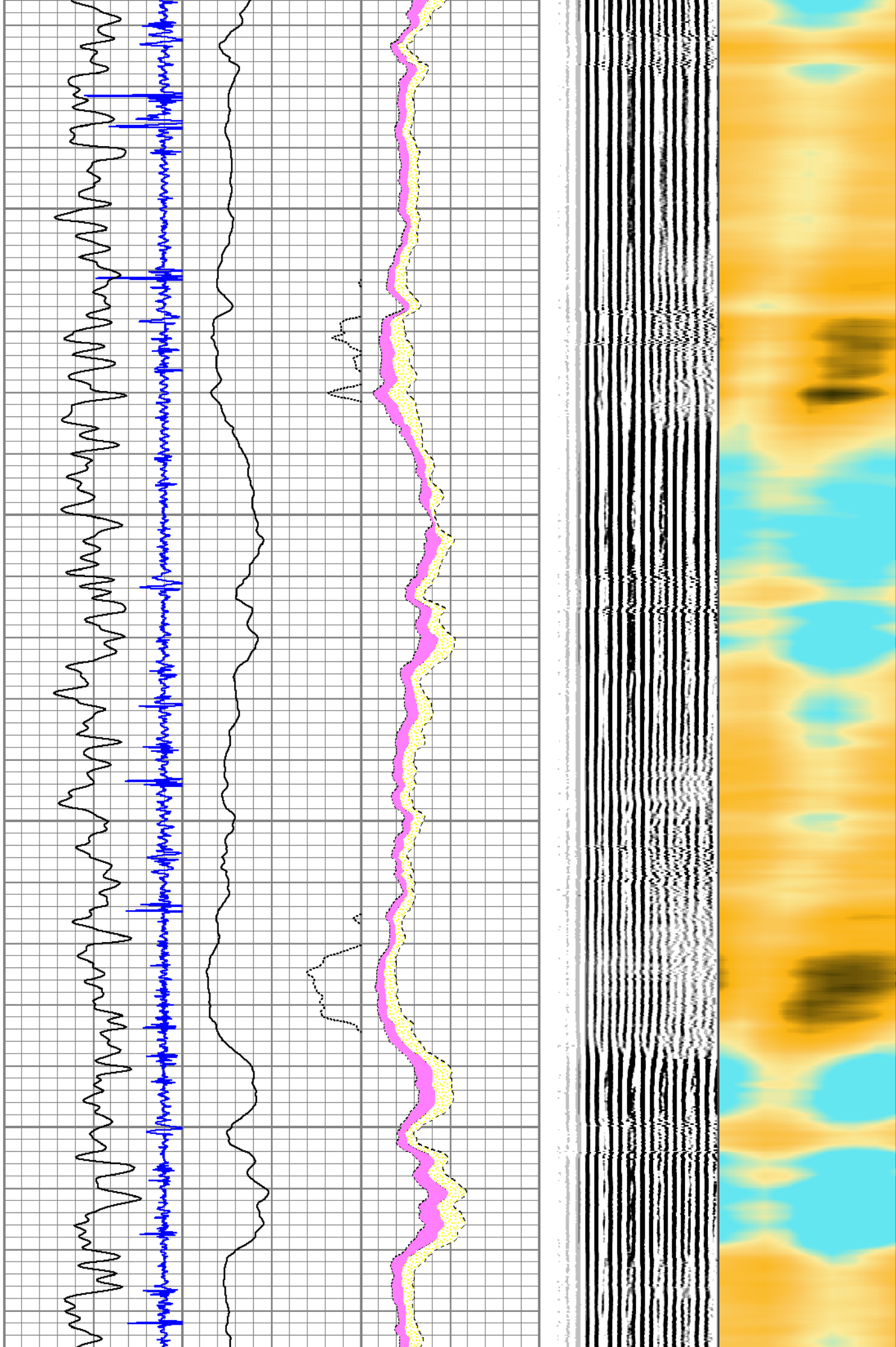
900

1000



1100

1200

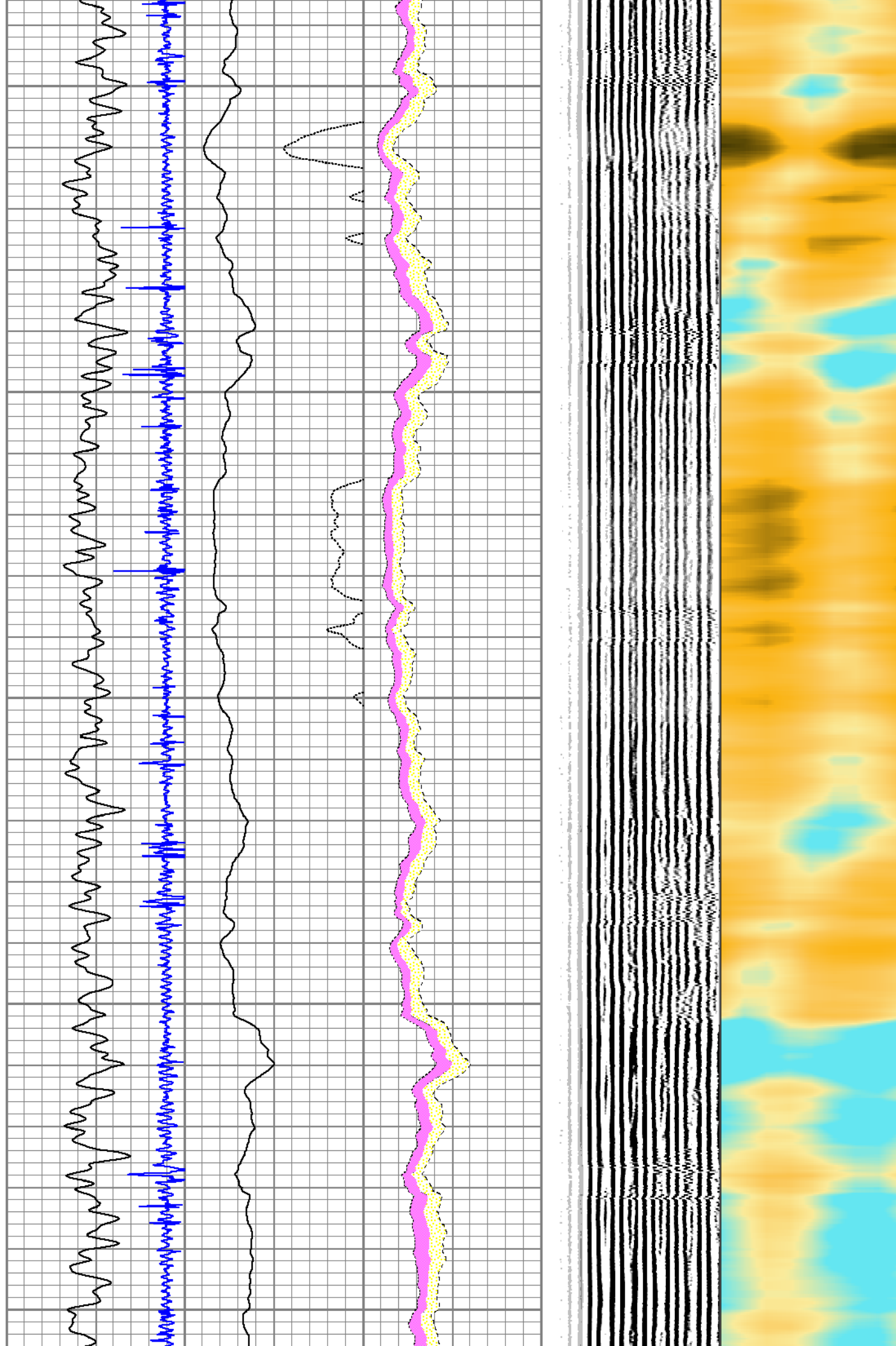




1300

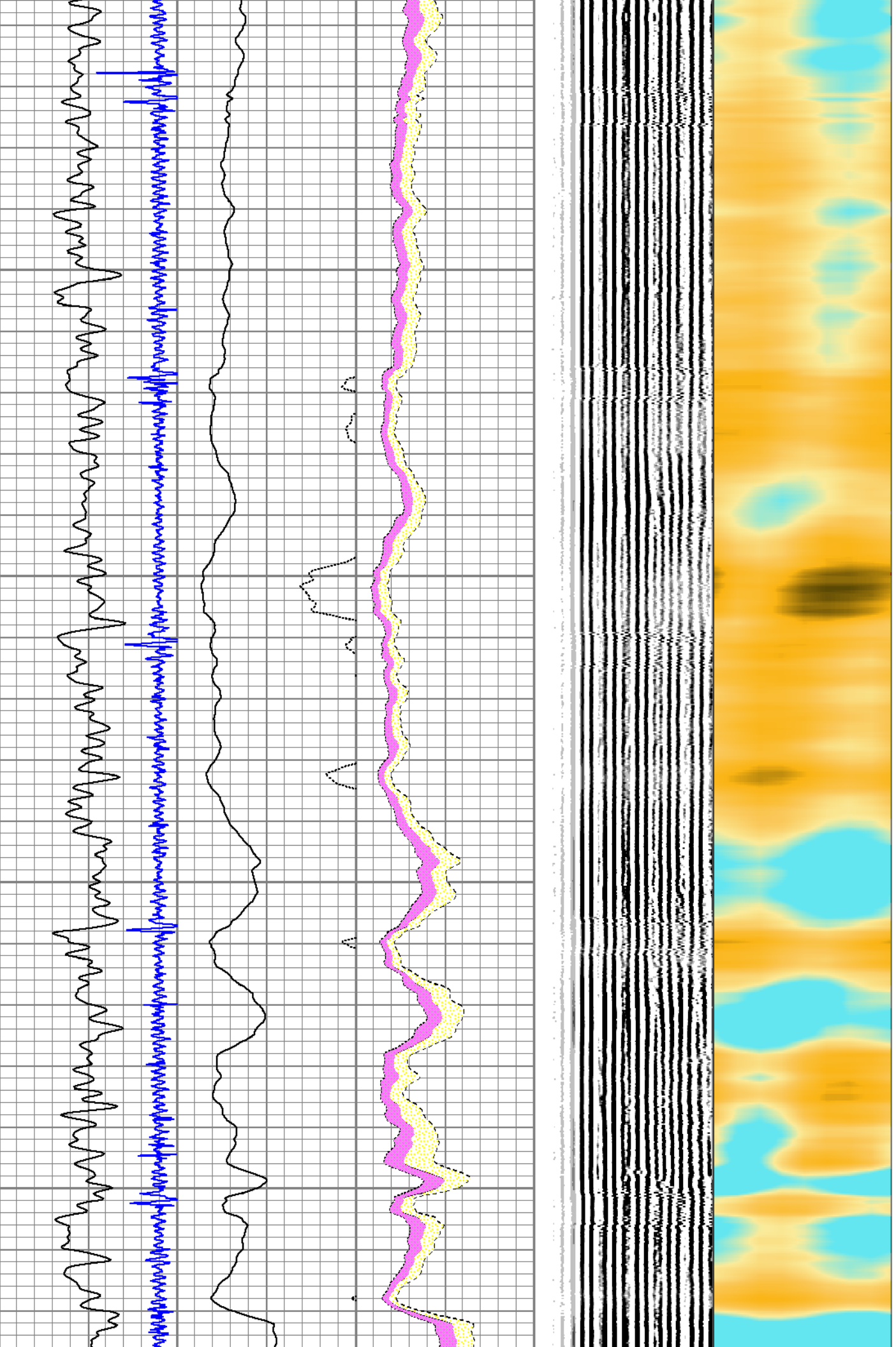
1400

1500



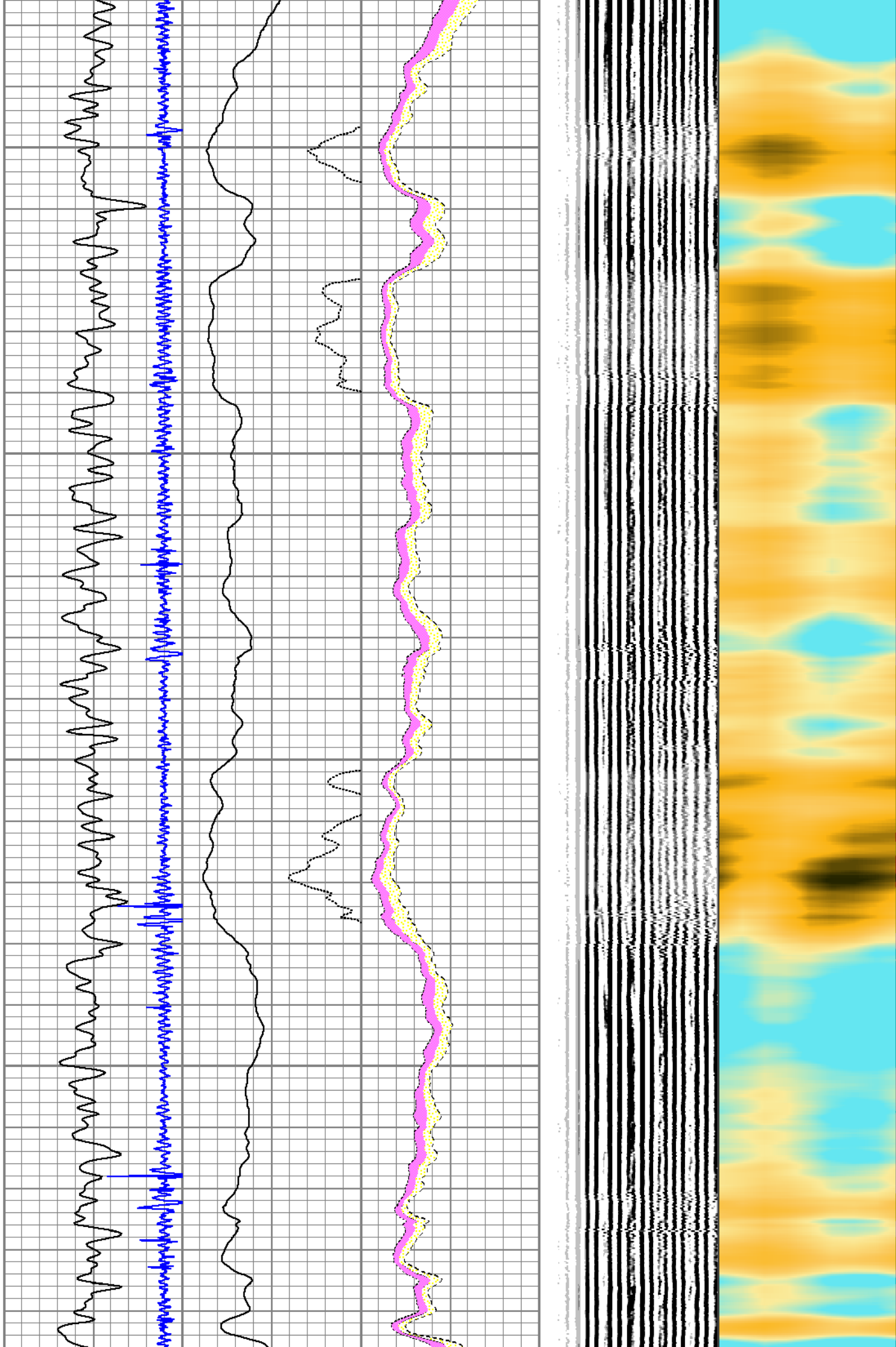
1600

1700



1800

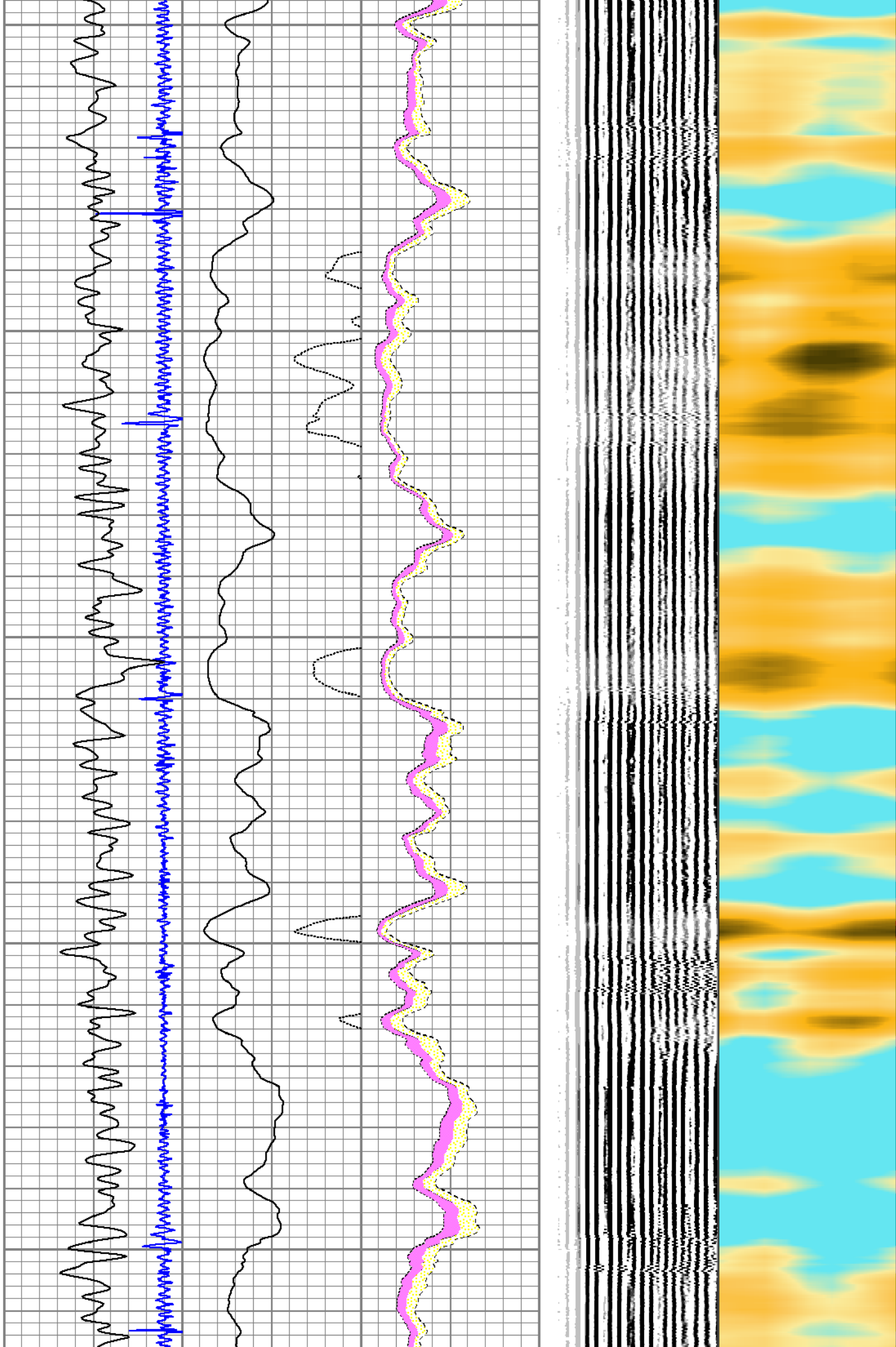
1900





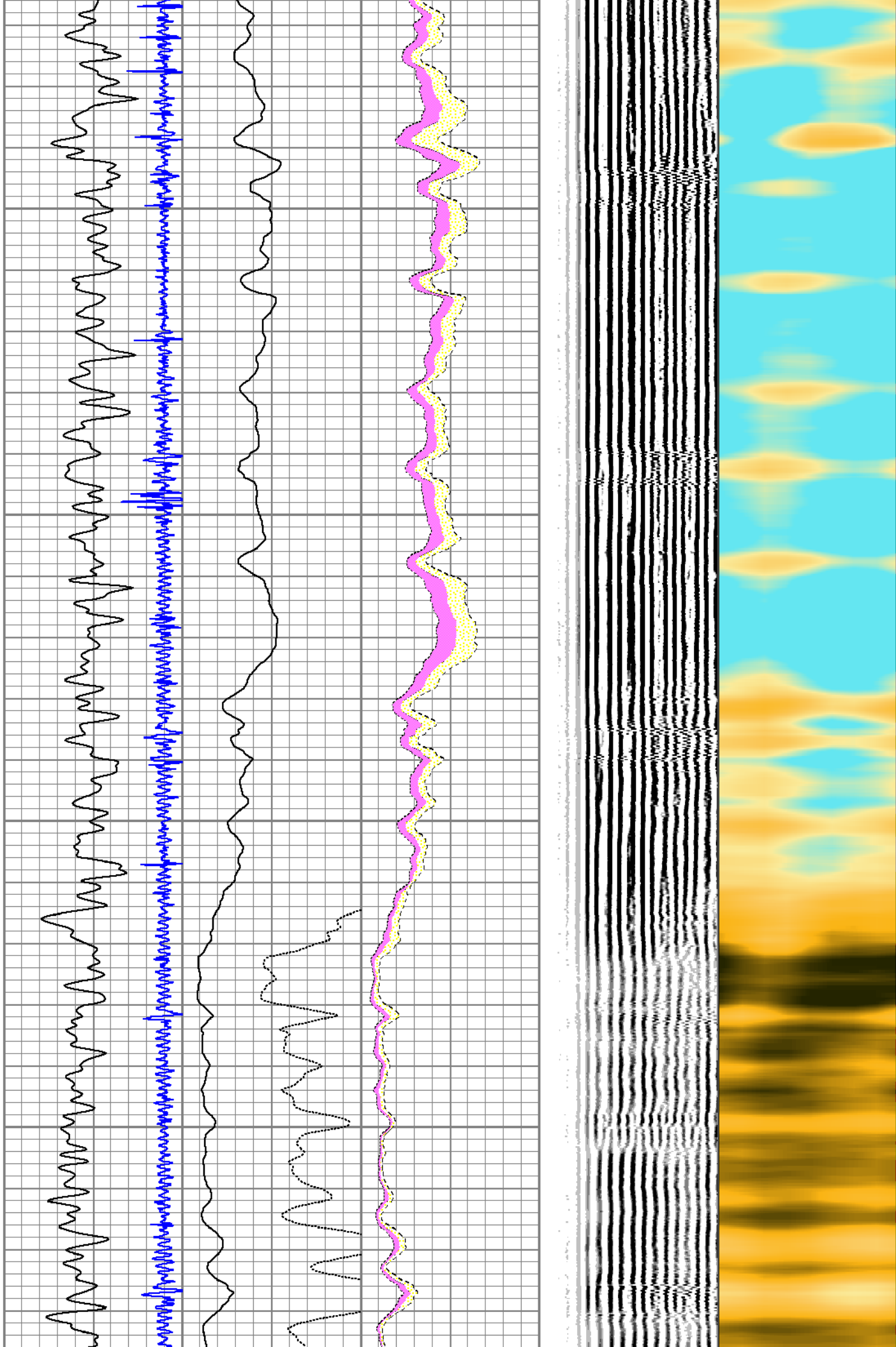
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2100

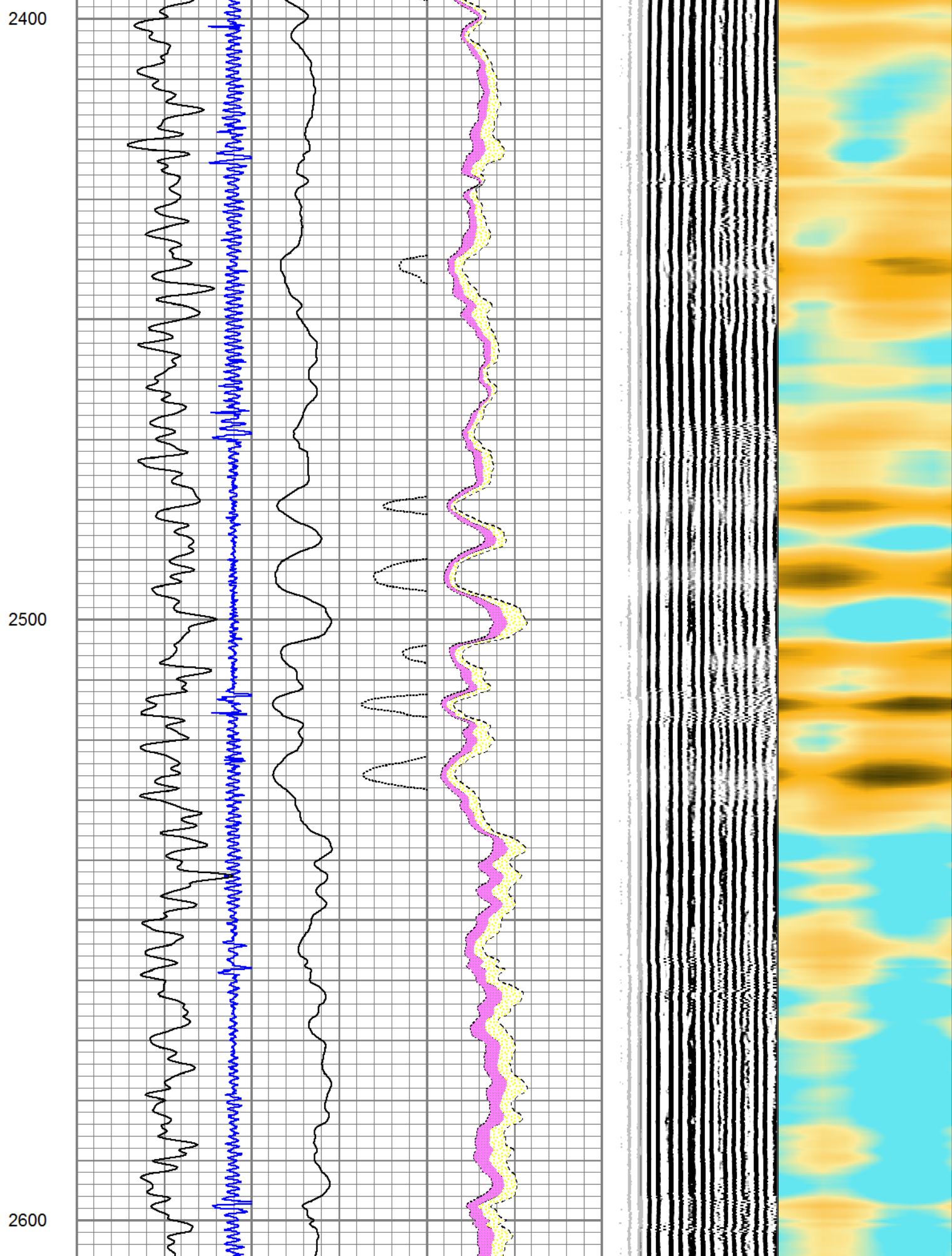


2200

2300

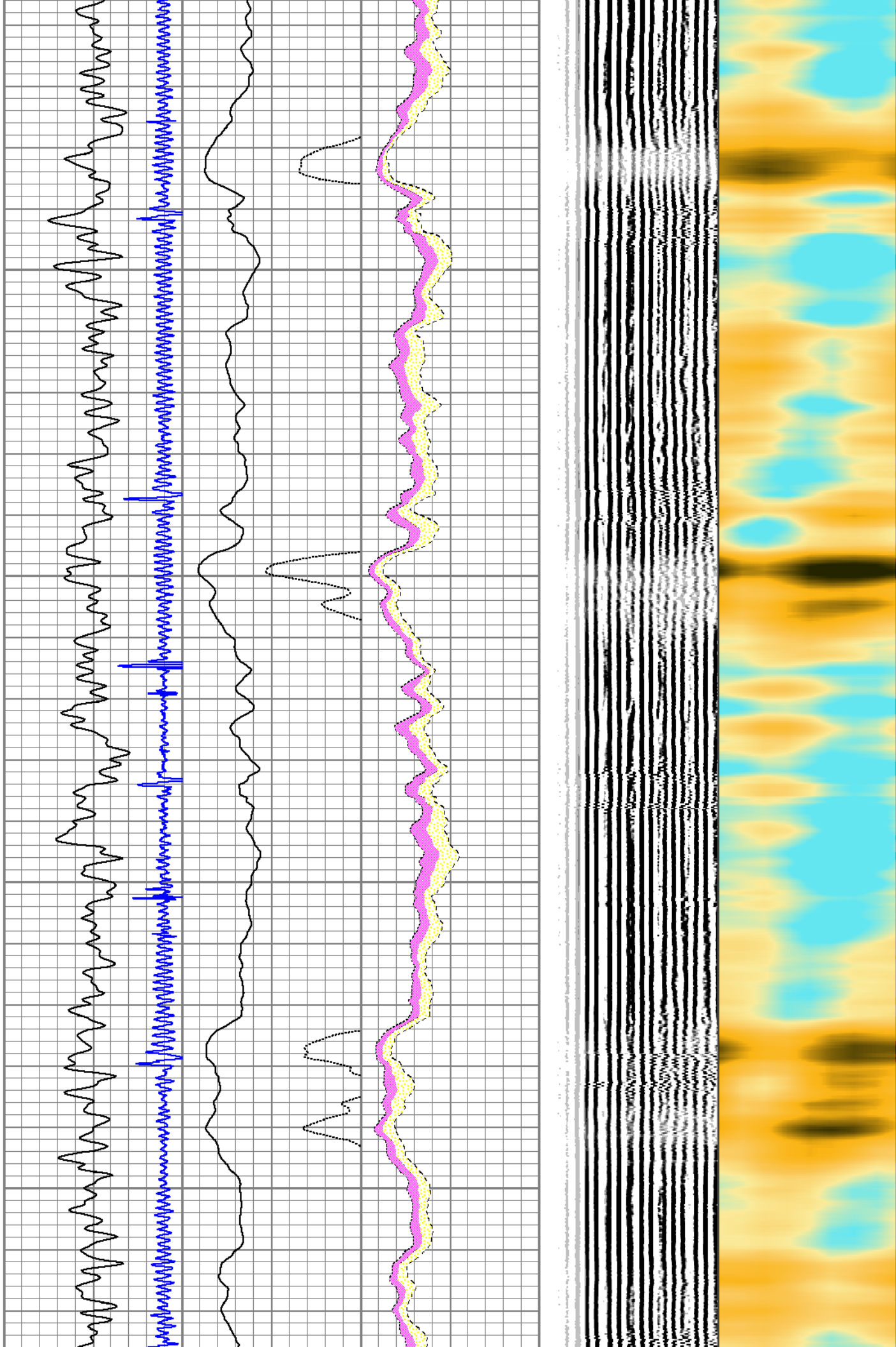






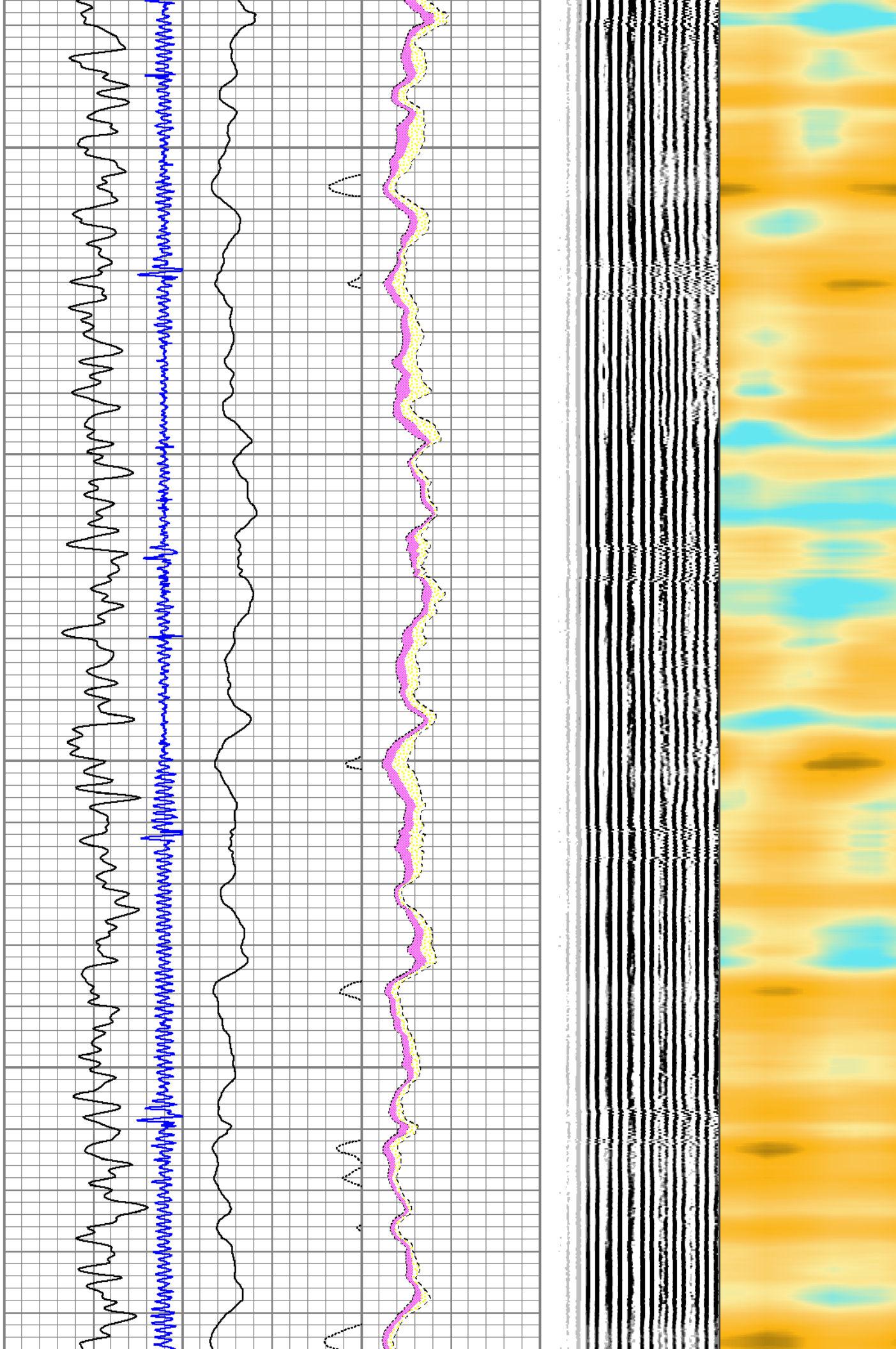
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2800



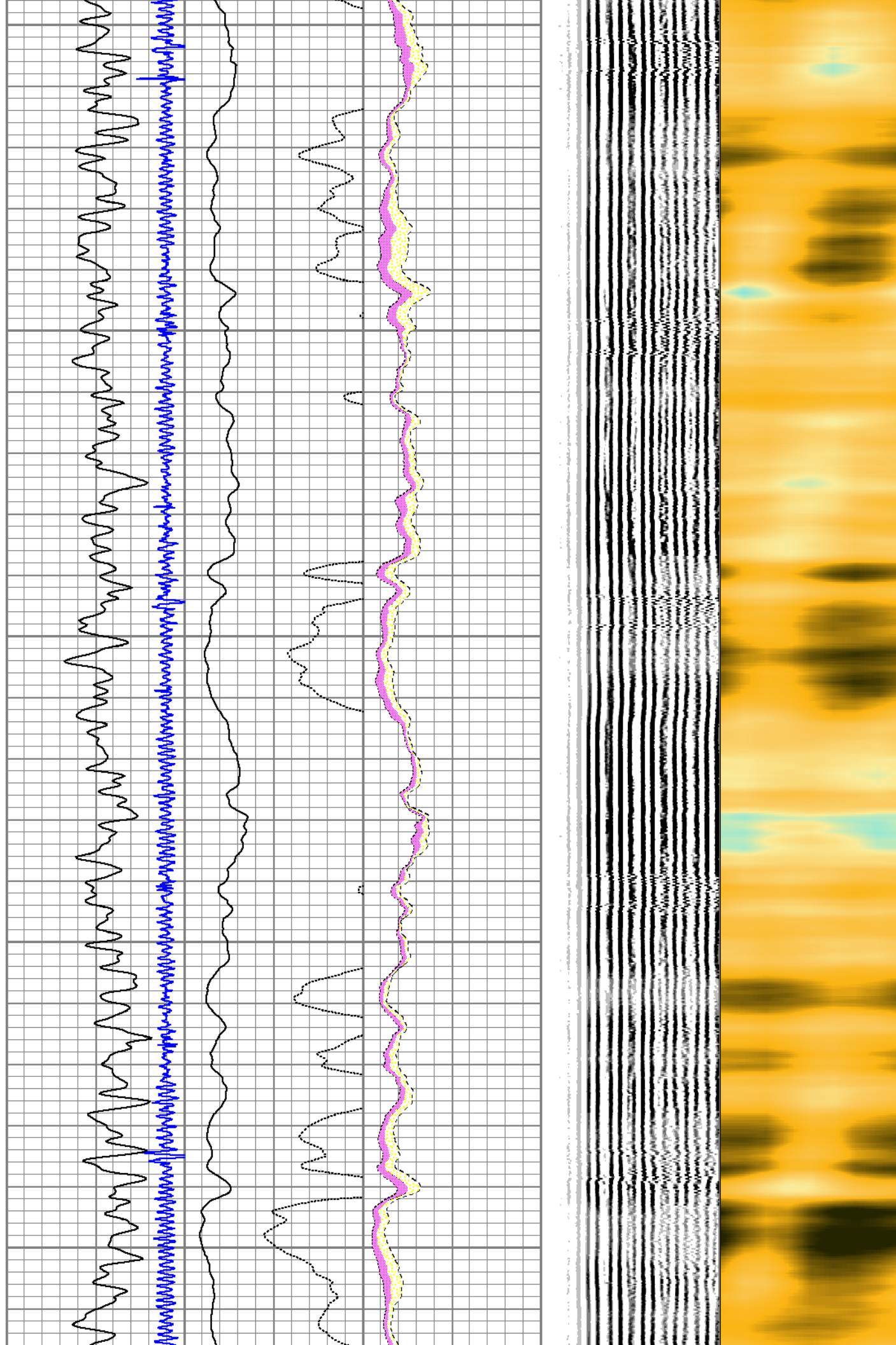
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3000



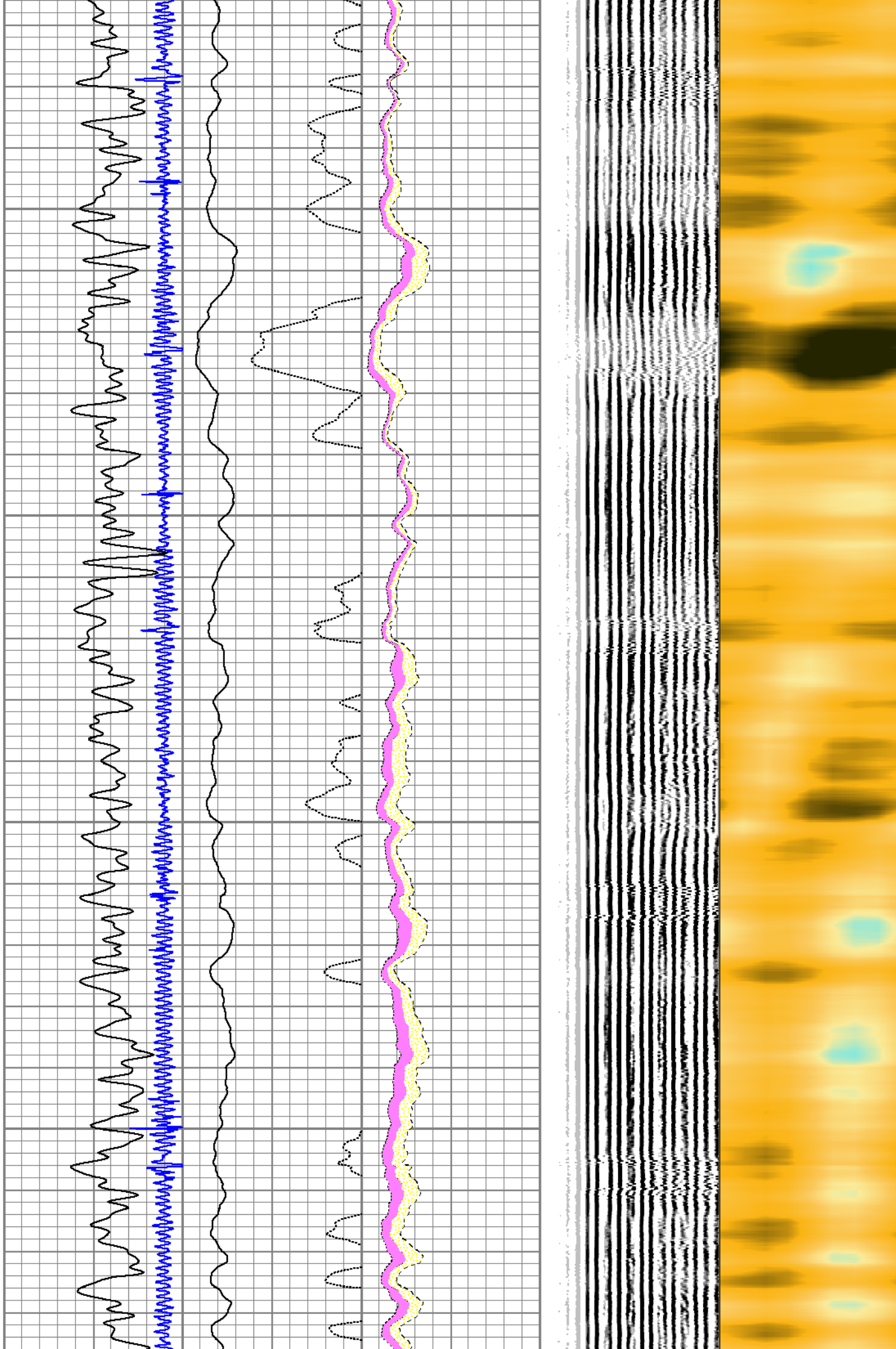


3200



3300

3400

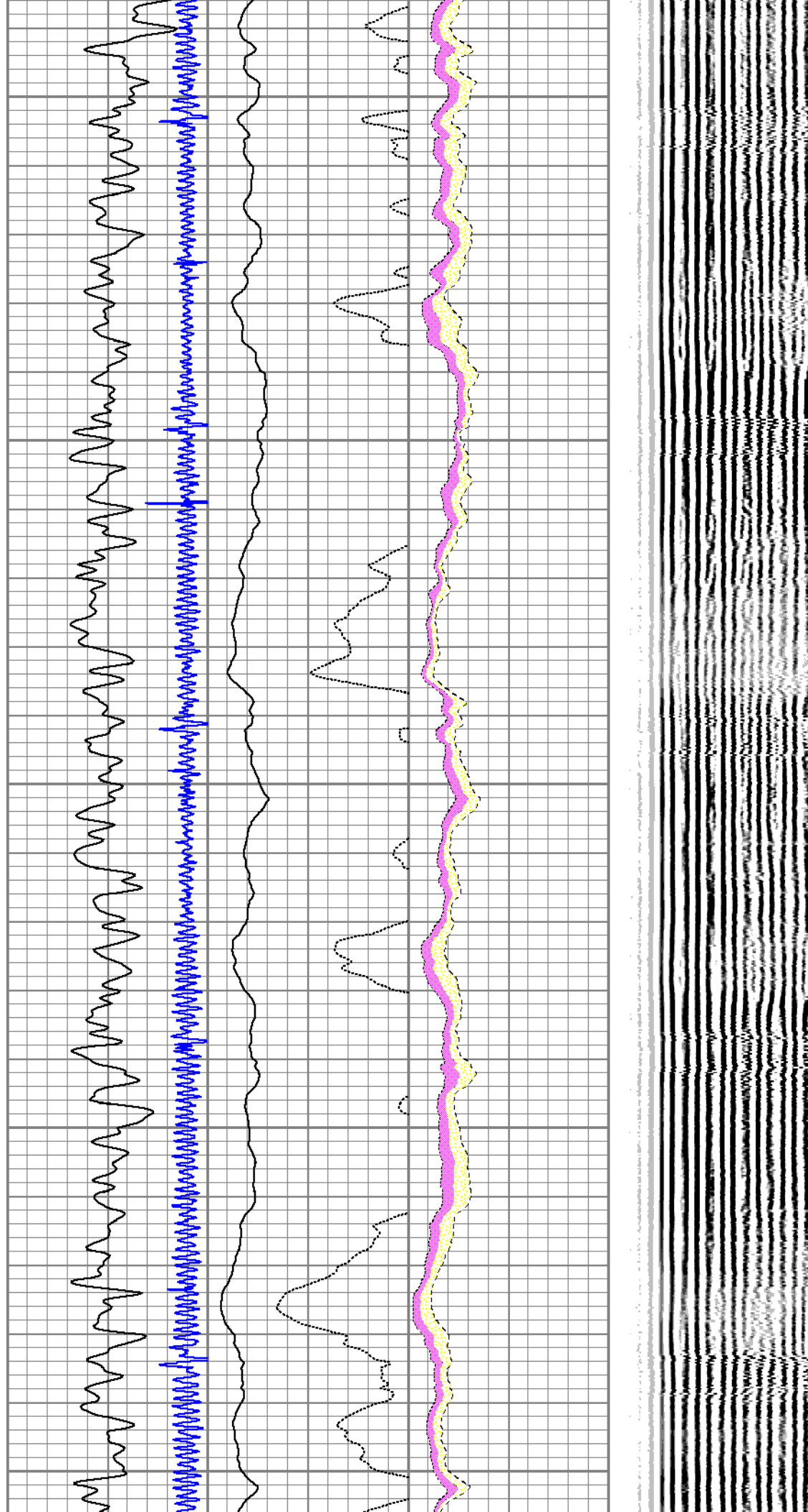


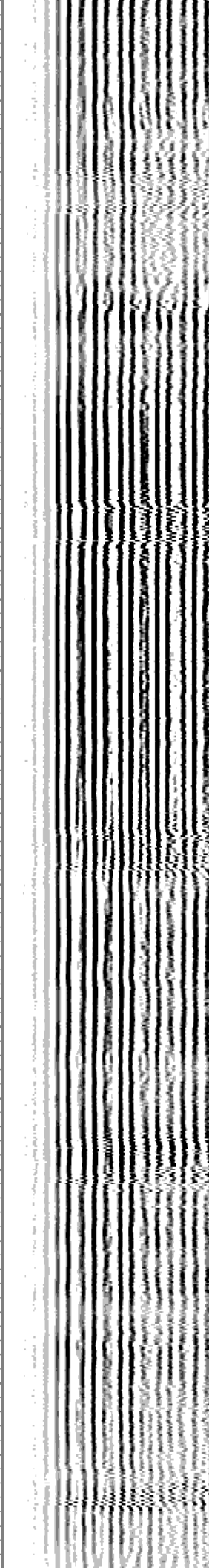
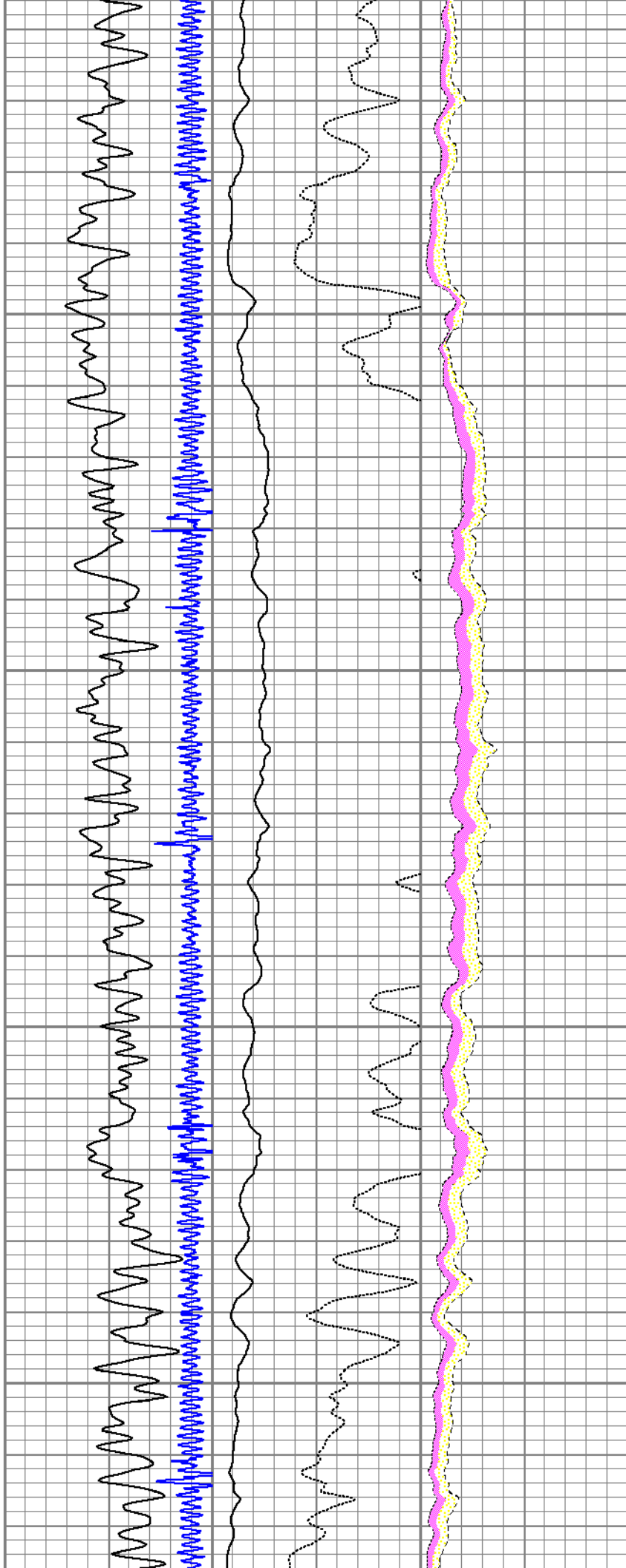


3500

3600

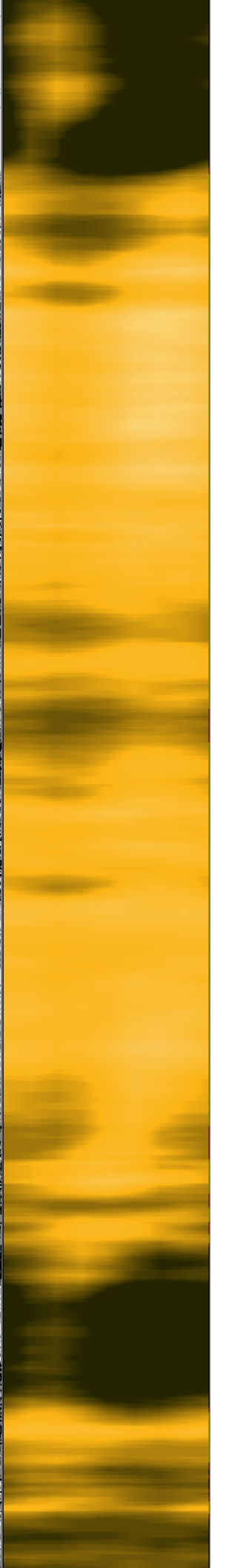
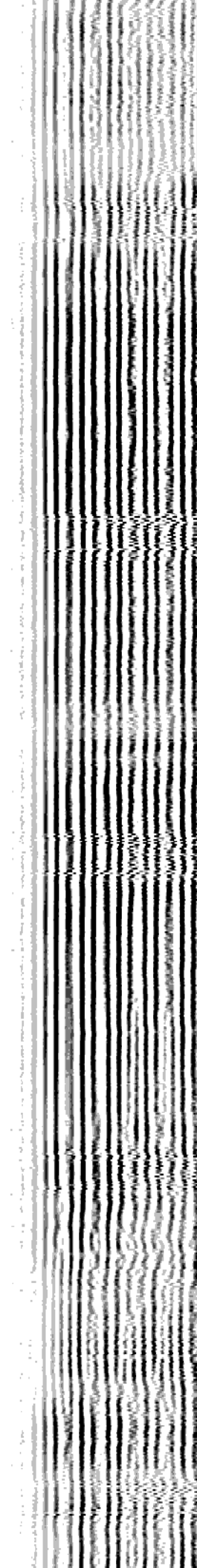
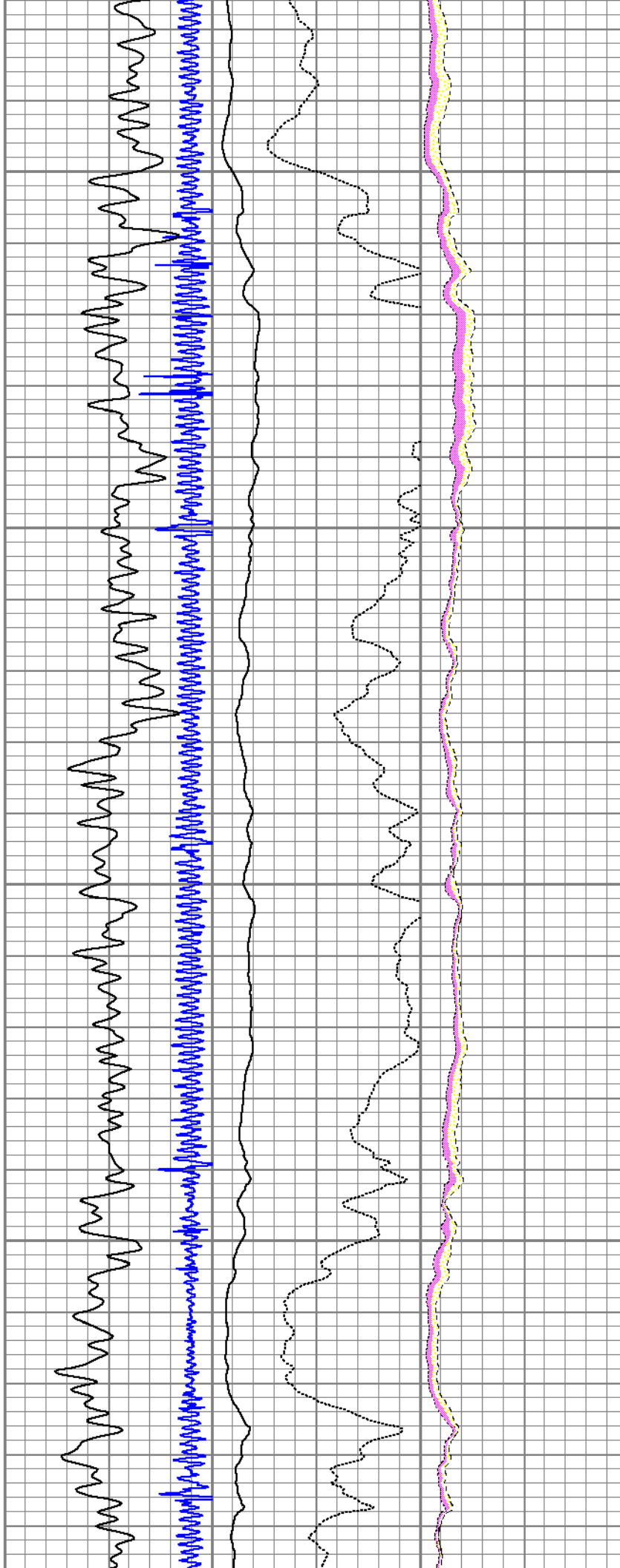
3700





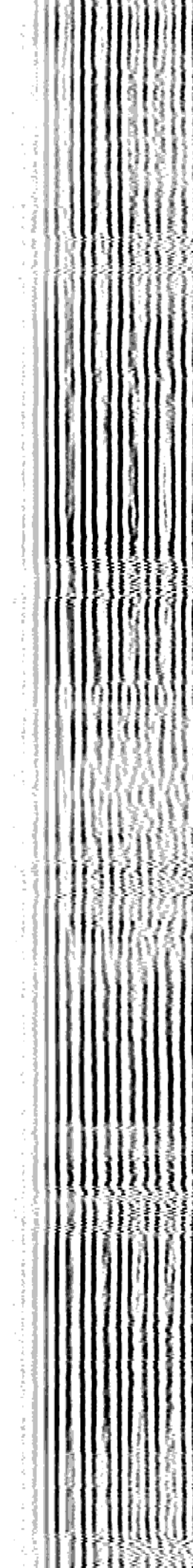
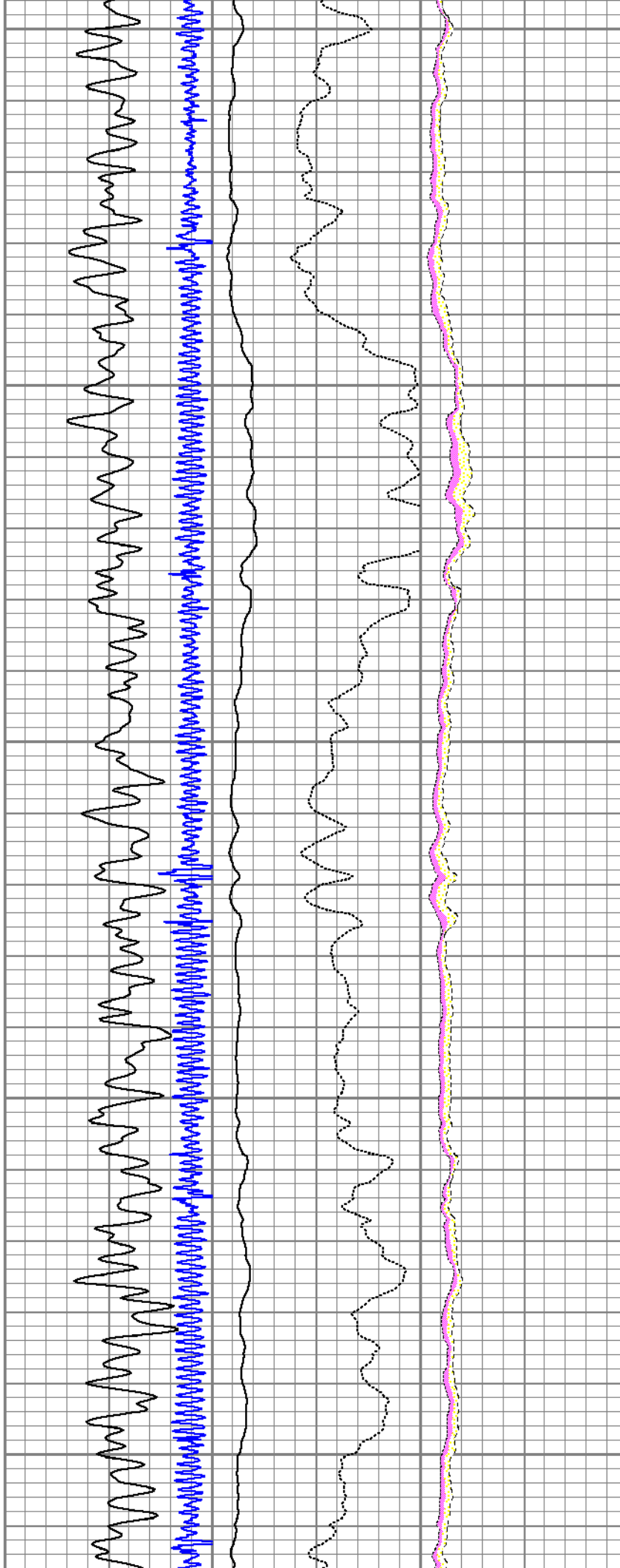
4000

4100



4200

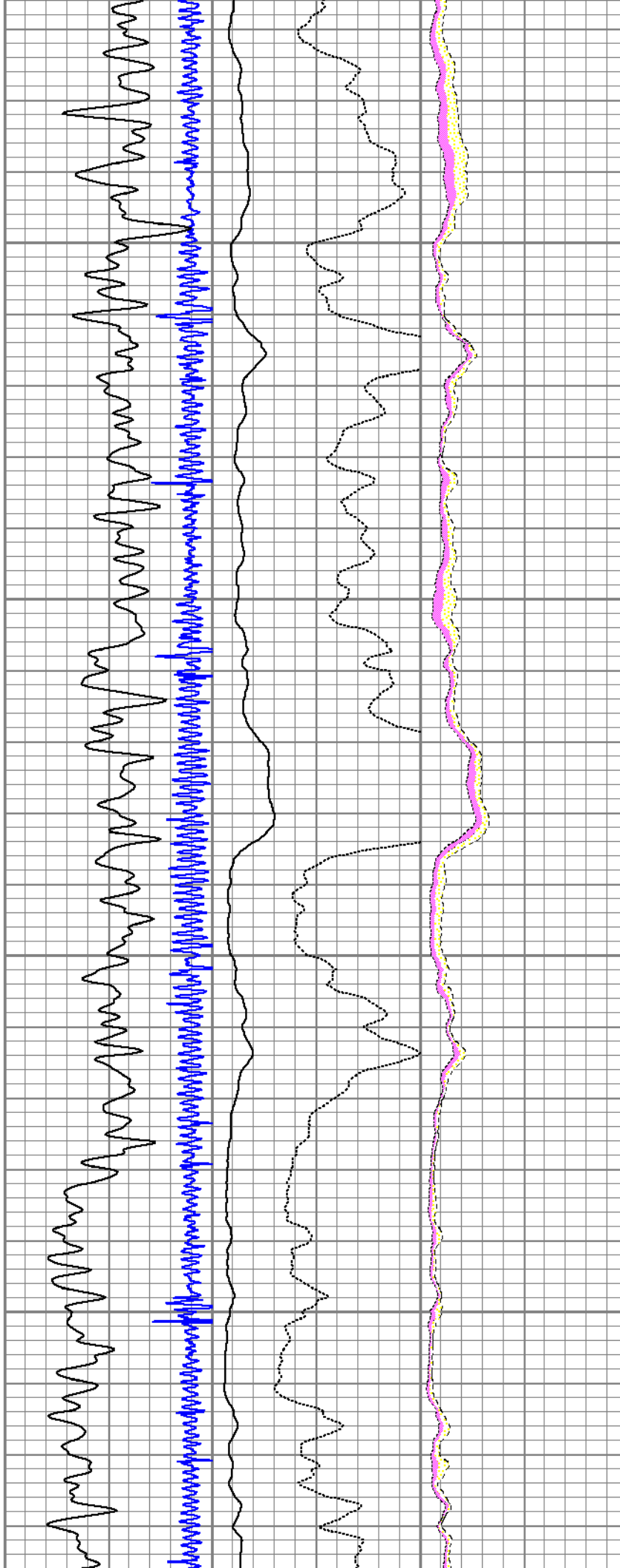
4300





4400

4500

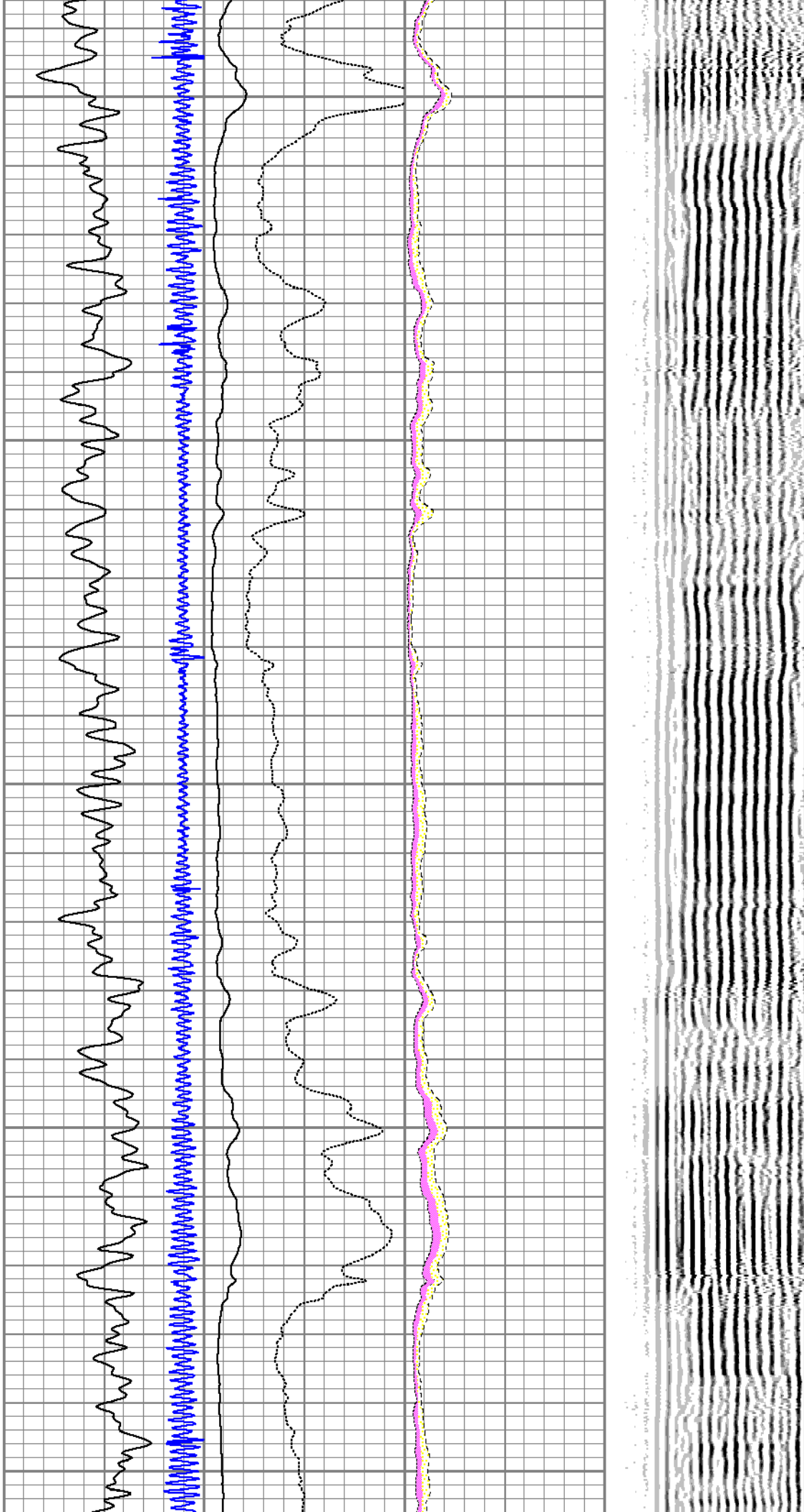




4600

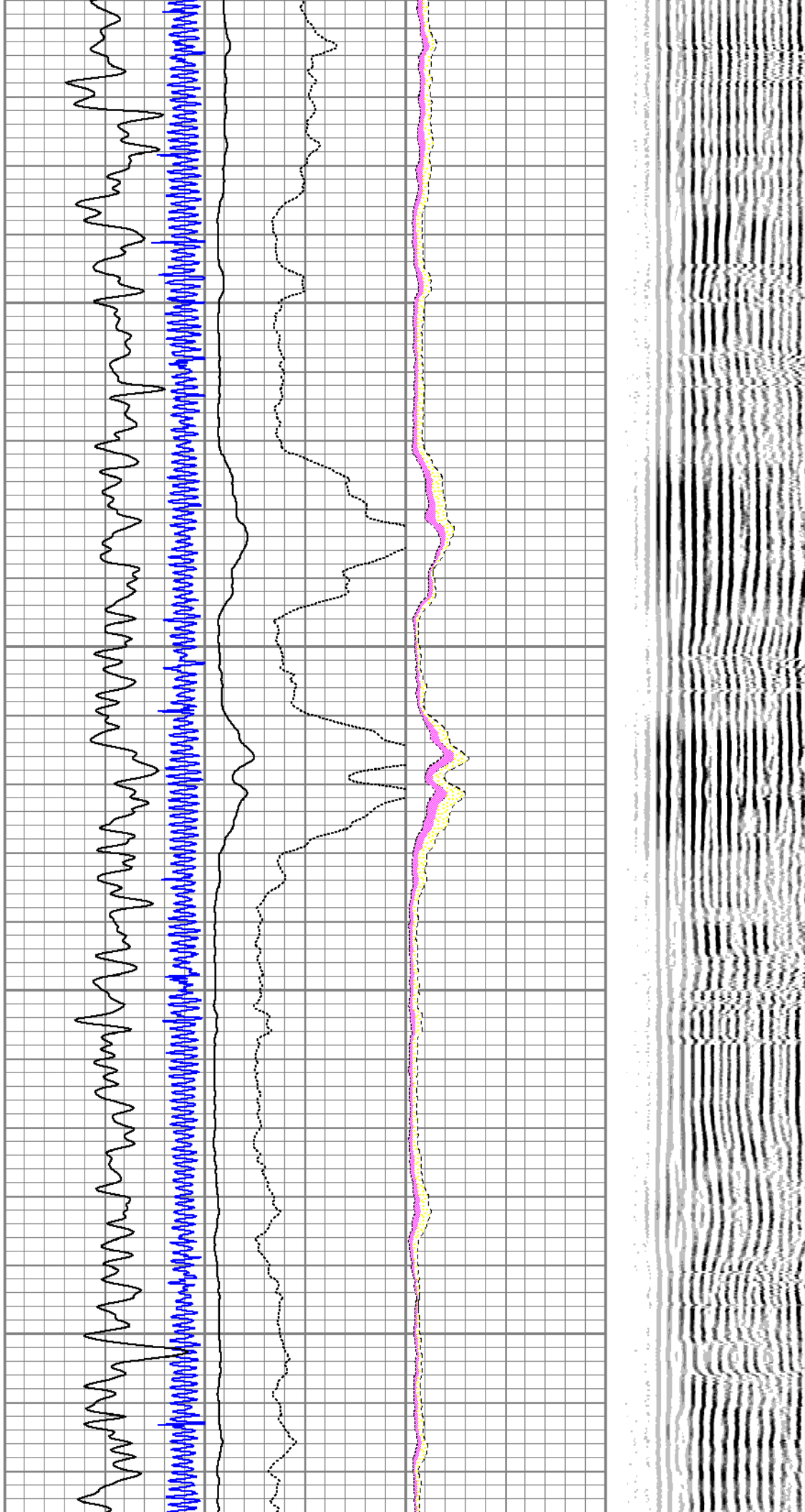
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4800

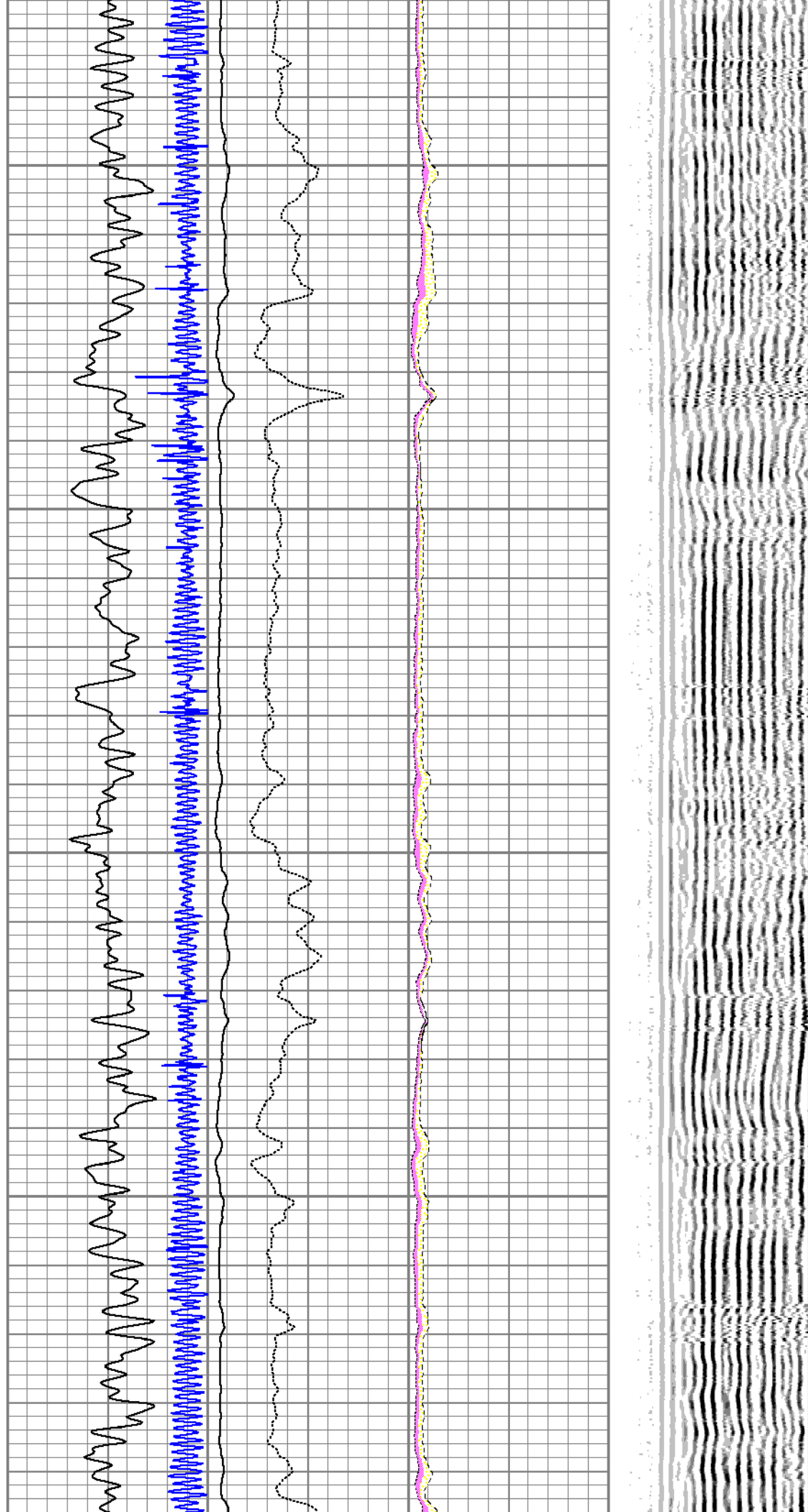


4900

5000



5200



5300

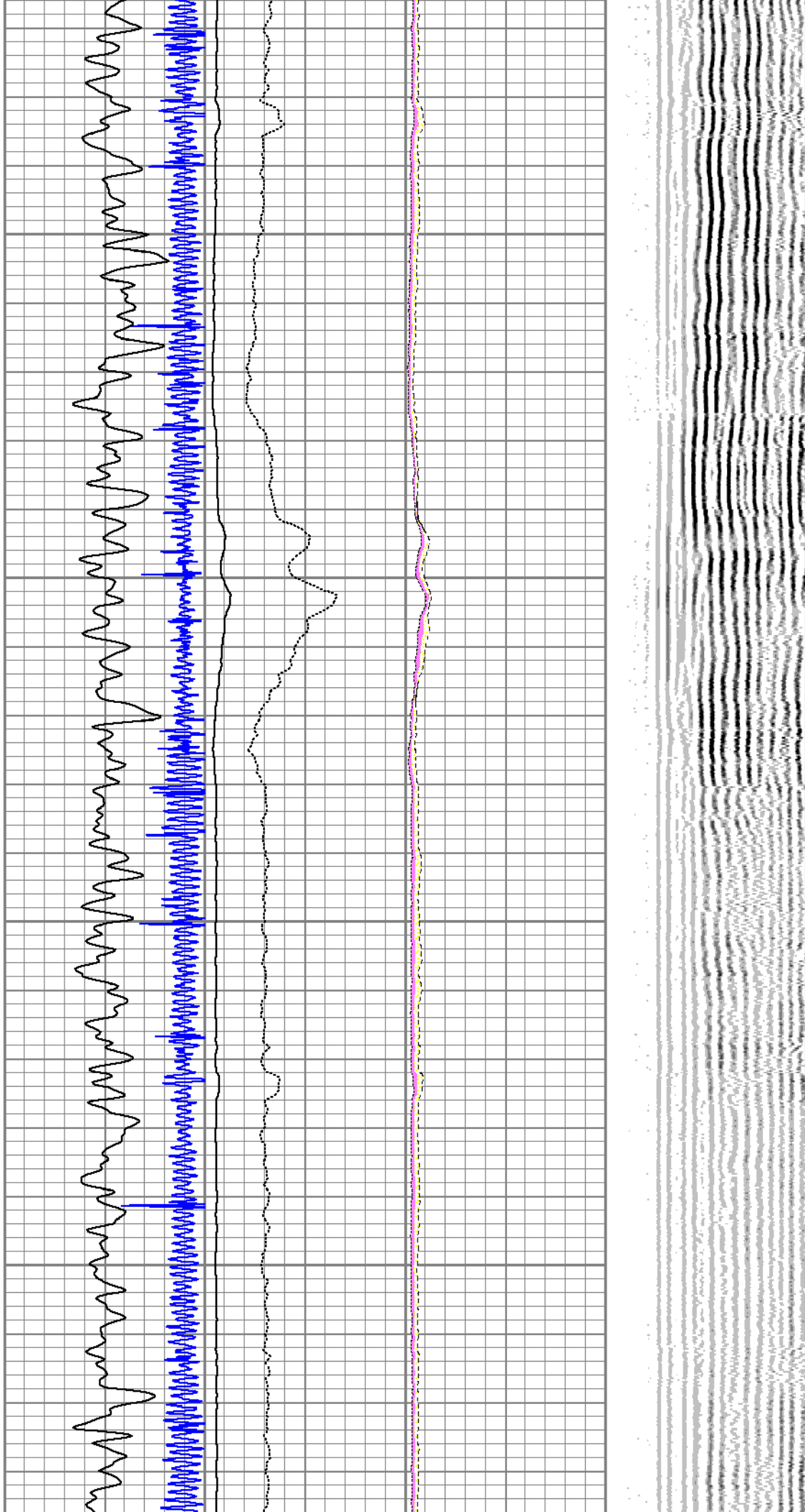
5400





5500

5600

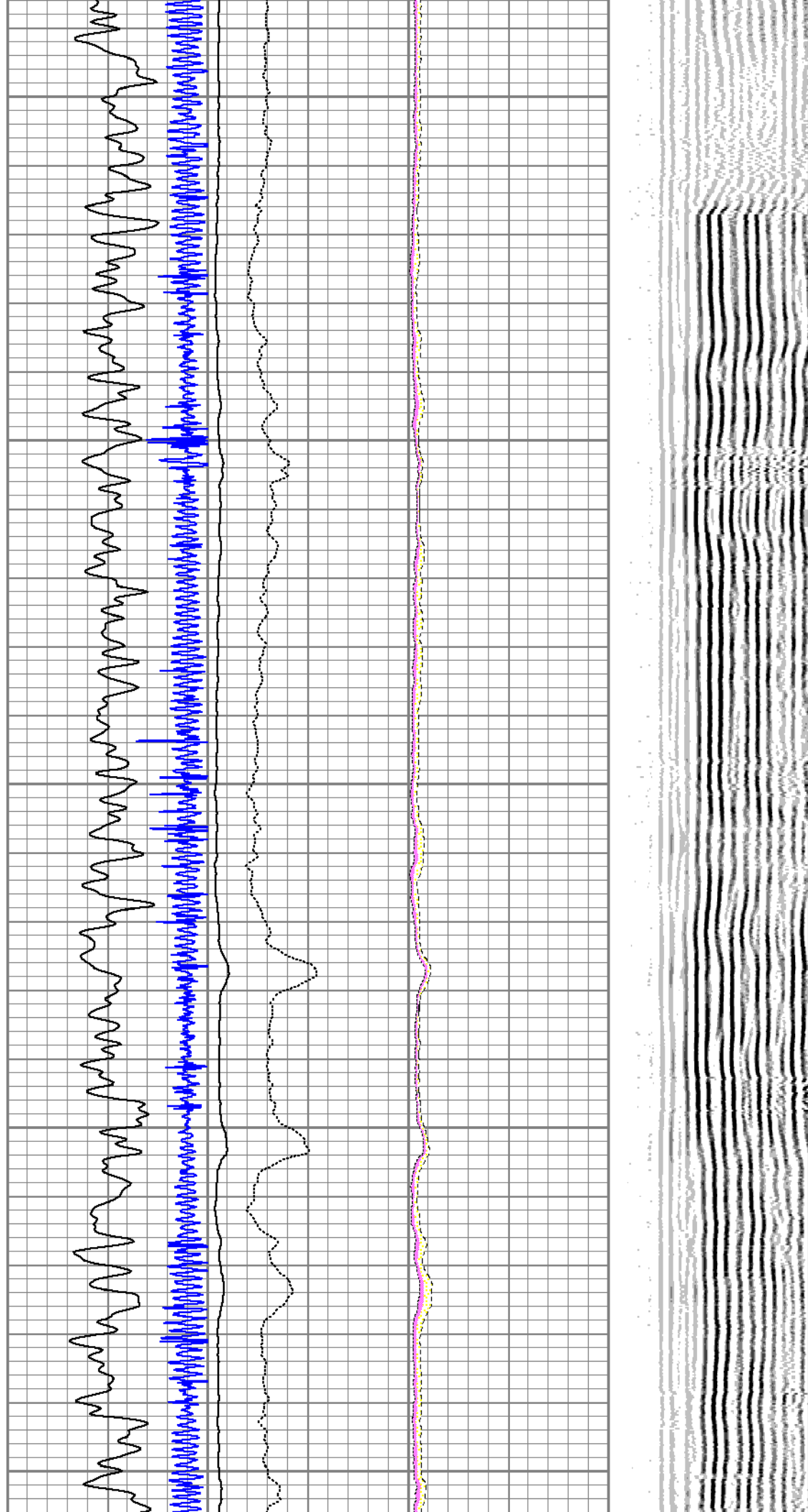




5700

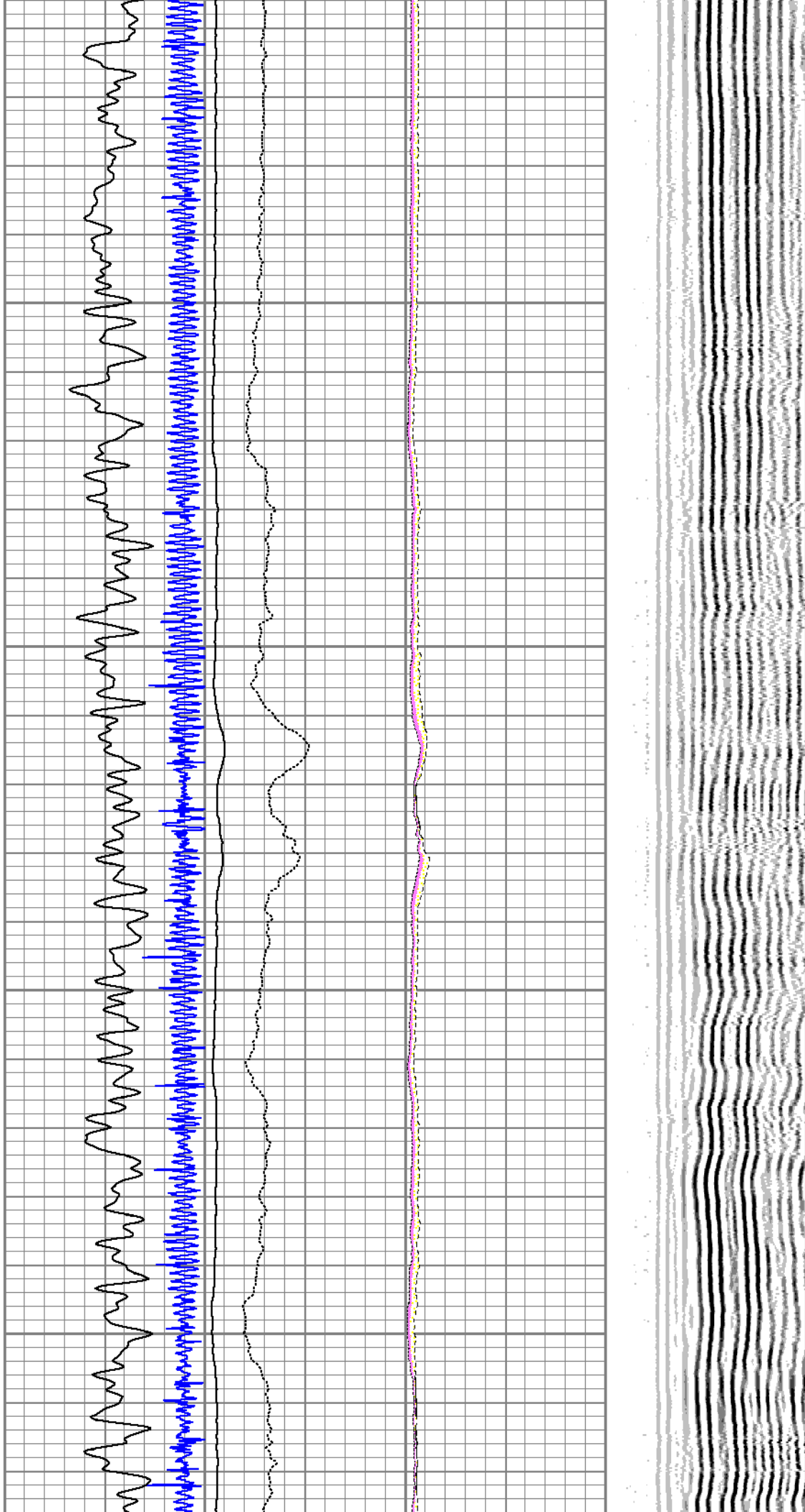
5800

5900



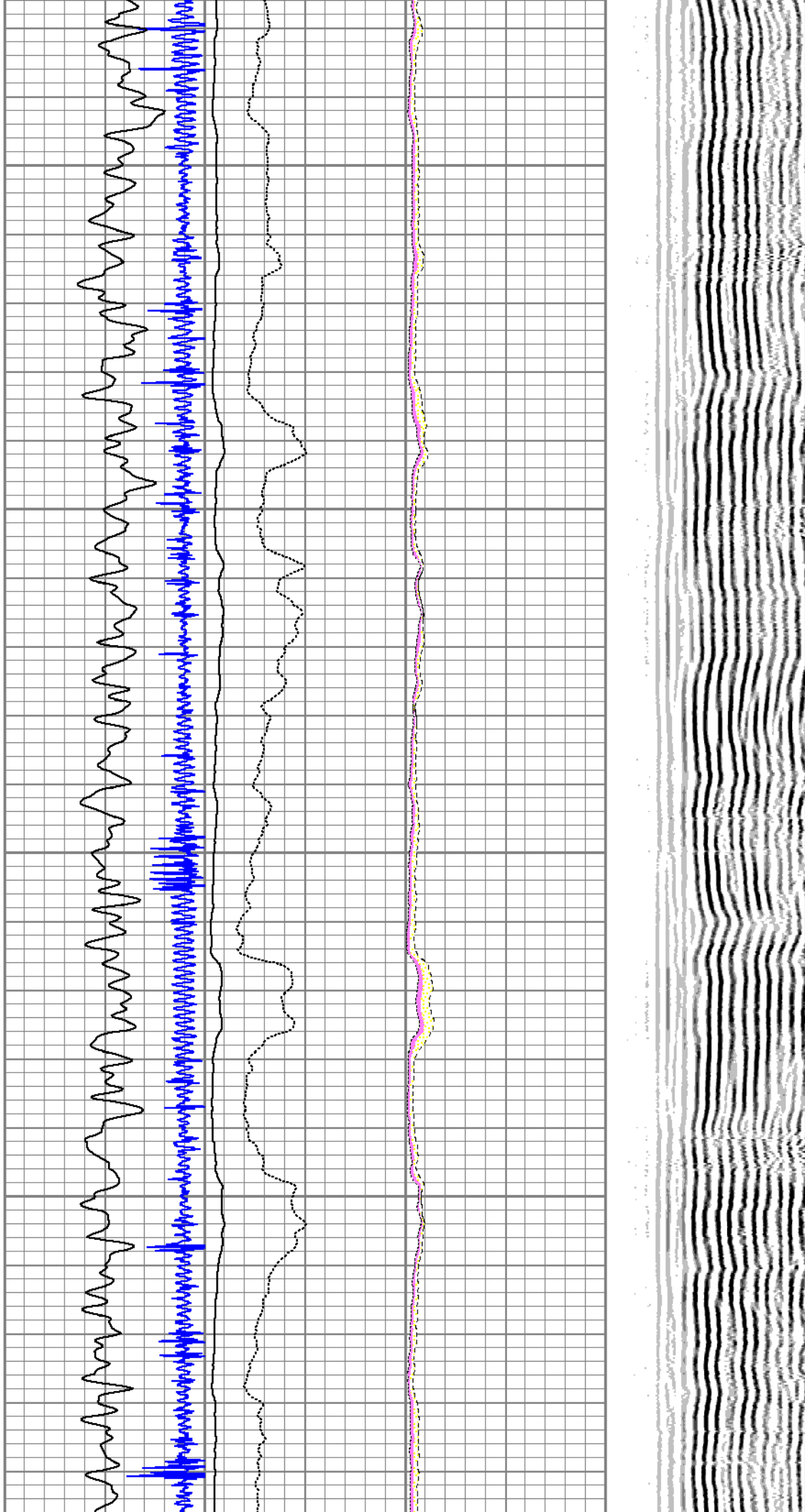
6000

6100



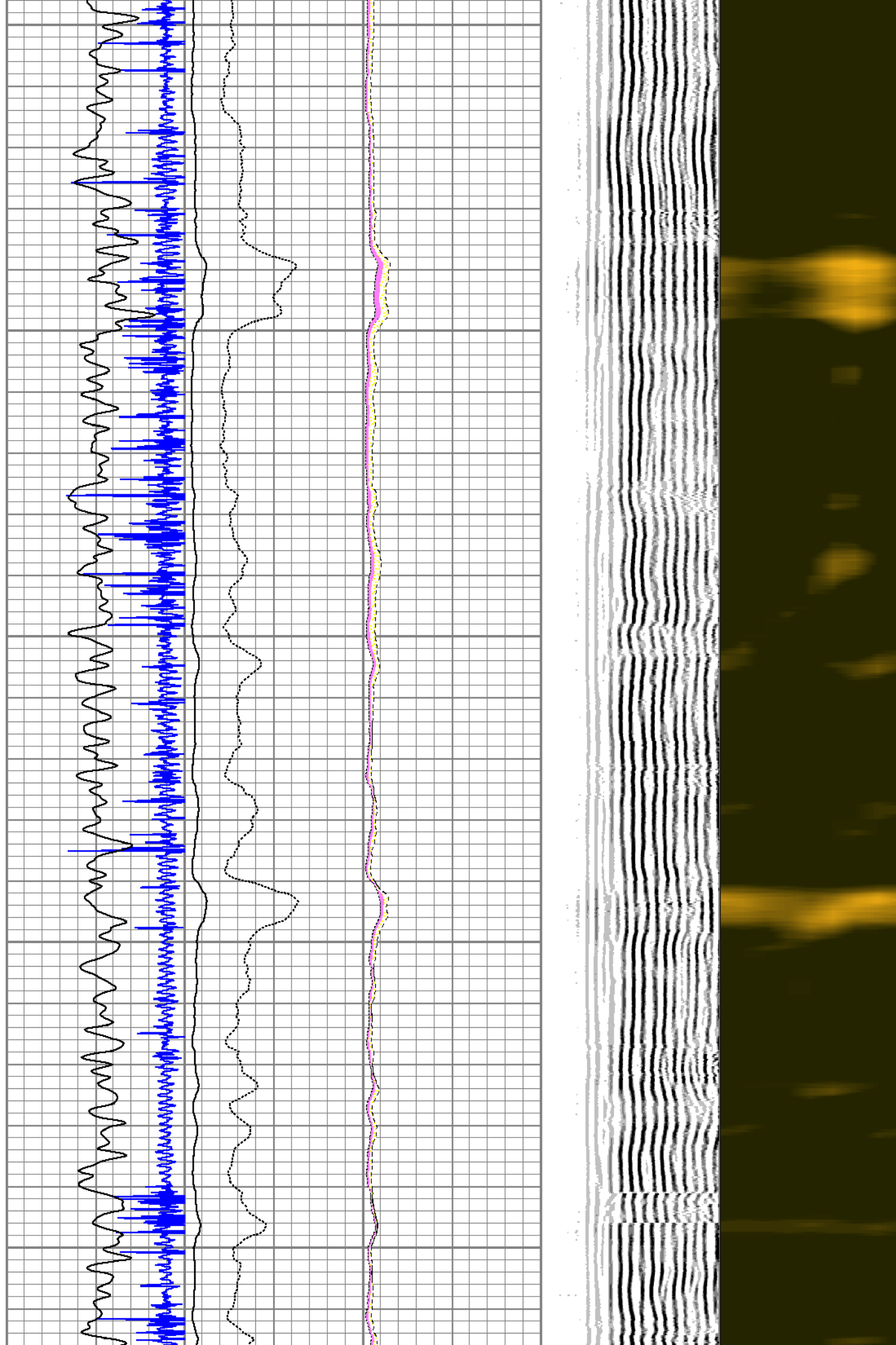
6200

6300



6400

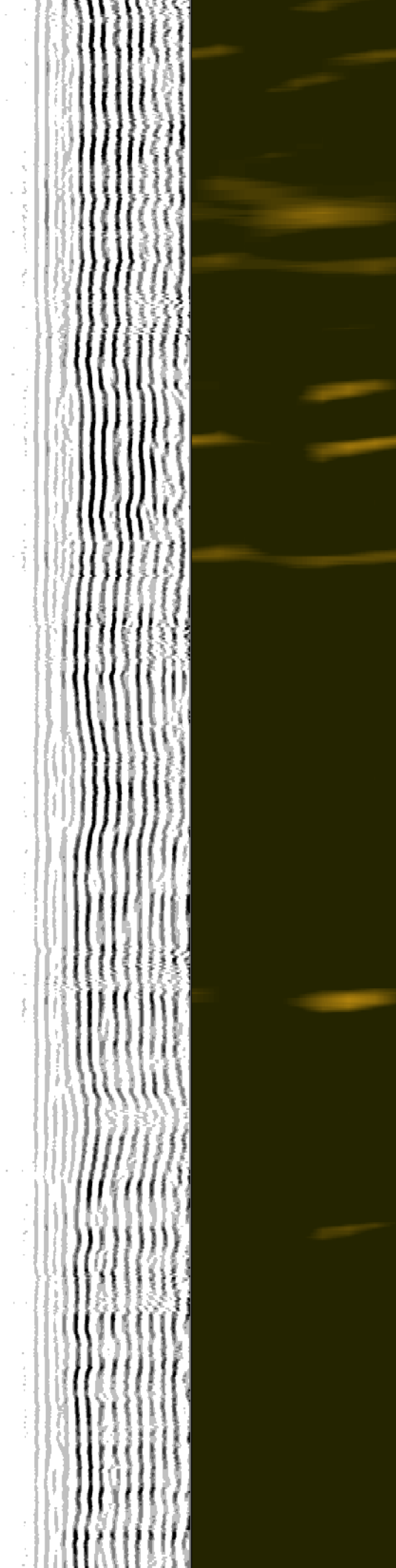
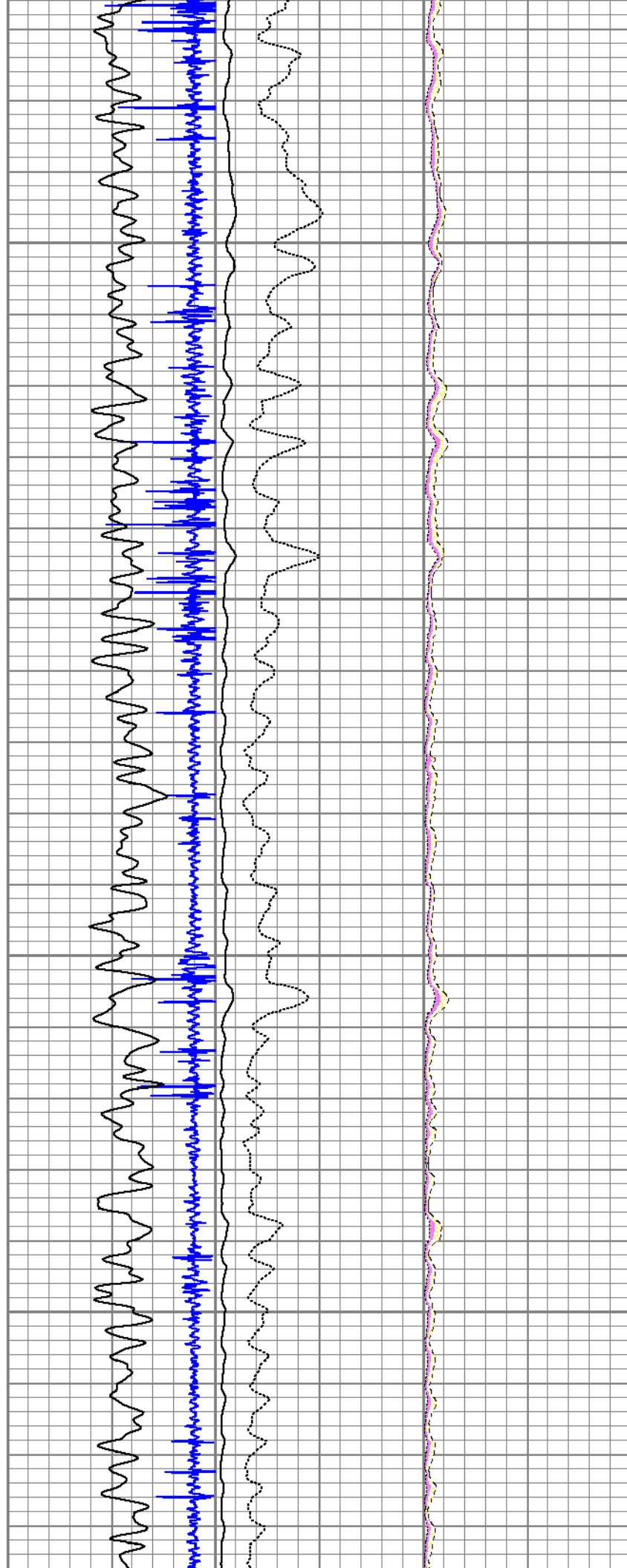
6500





6600

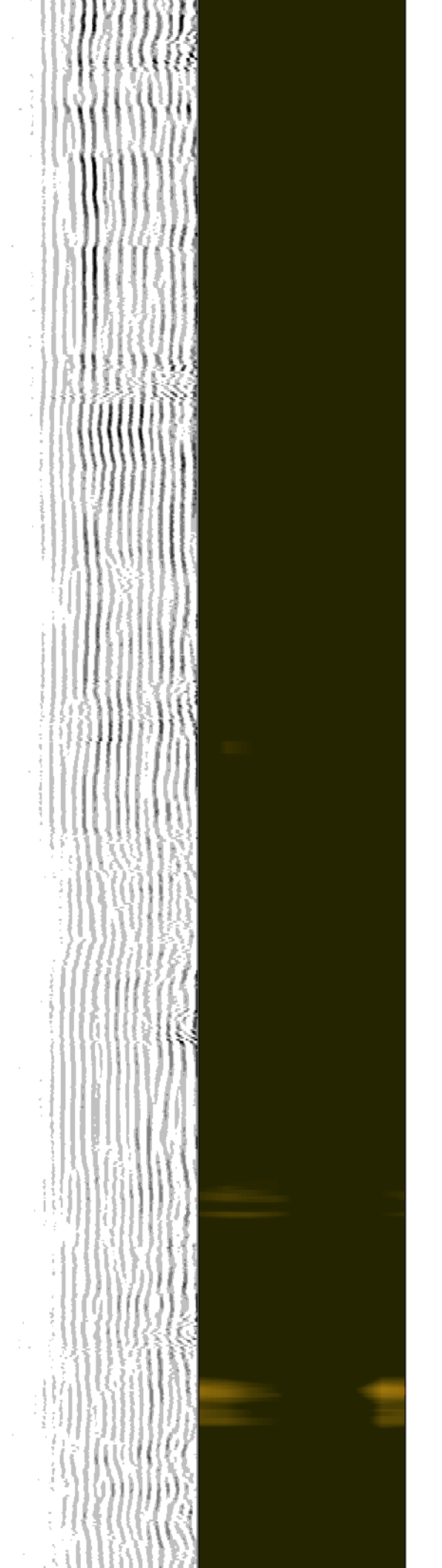
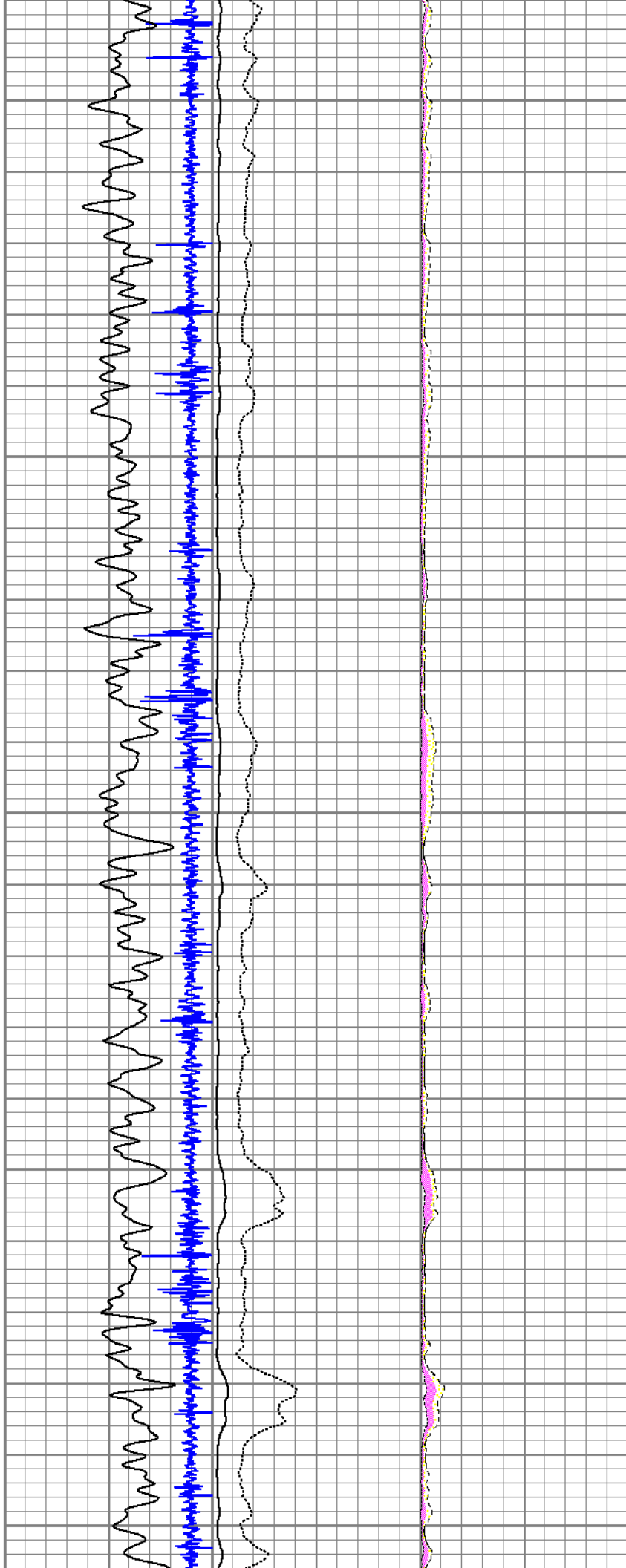
6700



6800

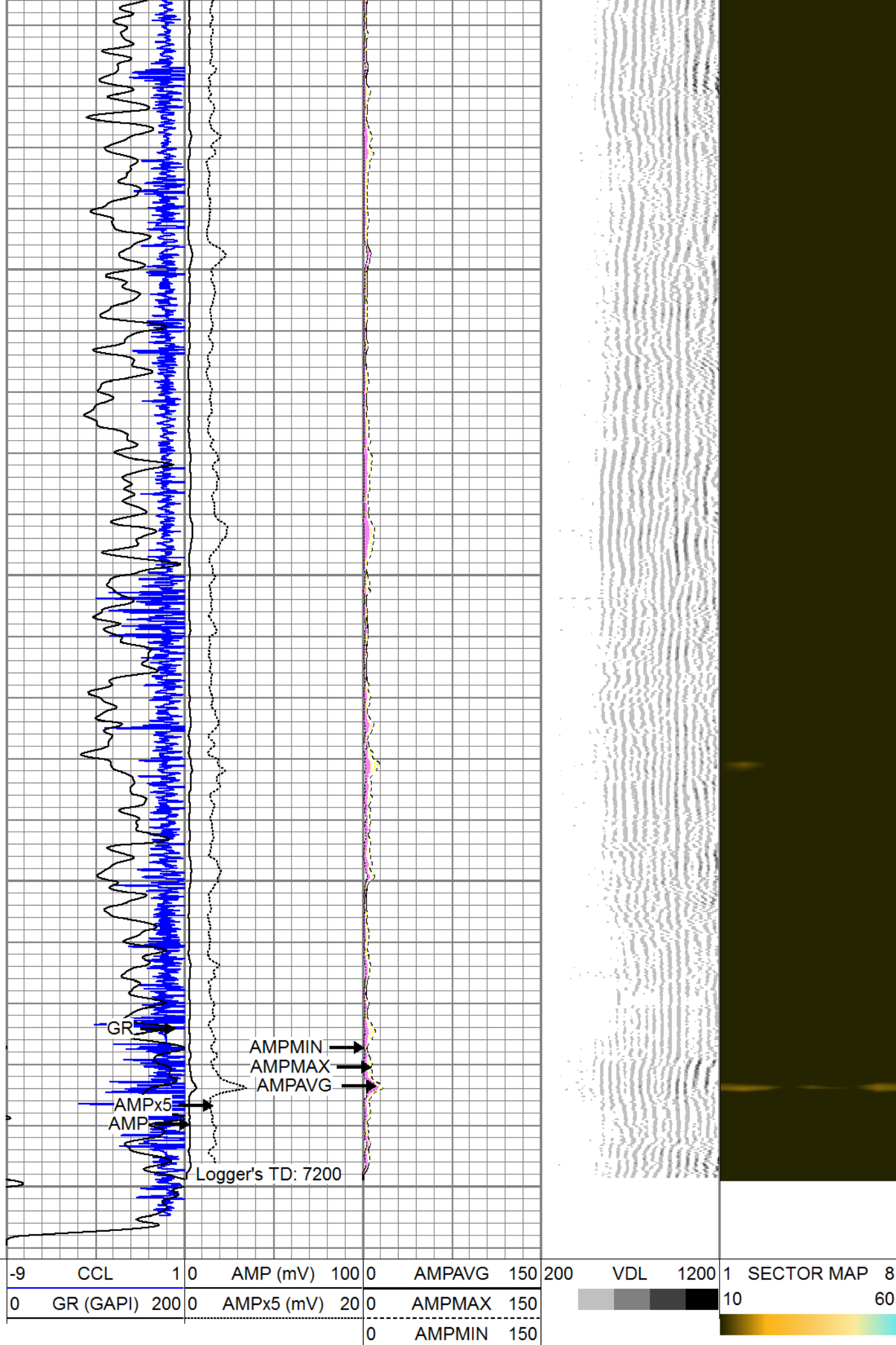
6900

7000



7100

7200



# Calibration Report

Database File: 13689.db  
 Dataset Pathname: Final  
 Dataset Creation: Sat Sep 27 09:05:47 2014 by Calc 0

## Gamma Ray Calibration Report

Serial Number: 111205  
 Tool Model: probe 2.75  
 Performed: Wed Jun 11 10:38:21 2014

Calibrator Value: 1.0 GAPI

Background Reading: 0.0 cps  
 Calibrator Reading: 1.0 cps

Sensitivity: 1.0000 GAPI/cps

## Segmented Cement Bond Log Calibration Report

Serial Number: 130584  
 Tool Model: RBT-C3

Calibration Casing Diameter: 7.000 in  
 Calibration Depth: -3.845 ft

Master Calibration, performed Sat Sep 27 09:05:38 2014:

	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3'	-0.003	0.779	1.500	62.165	77.535	1.743
CAL	0.012	1.007				
5'	-0.005	0.784	1.500	62.165	76.809	1.921
SUM						
S1	-0.005	0.816	0.000	100.000	121.813	0.581
S2	-0.002	0.858	0.000	100.000	116.234	0.275
S3	-0.003	0.945	0.000	100.000	105.507	0.270
S4	-0.003	0.958	0.000	100.000	104.127	0.277
S5	-0.003	0.923	0.000	100.000	107.984	0.311
S6	-0.003	0.857	0.000	100.000	116.281	0.328
S7	-0.004	0.801	0.000	100.000	124.275	0.497
S8	-0.003	0.791	0.000	100.000	126.039	0.335

Internal Reference Calibration, performed Wed Dec 31 17:00:00 1969:

	Raw (v)		Calibrated (v)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
CAL	0.000	0.000	0.012	1.007	1.000	0.000

Air Zero Calibration, performed Mon Sep 08 11:38:23 2014:

	Raw (v)		Calibrated (v)		Results	
	Zero		Zero		Offset	
3'	0.016		0.000		-0.003	



5'	0.018	0.000	-0.005
SUM			
S1	0.015	0.000	-0.005
S2	0.015	0.000	-0.002
S3	0.015	0.000	-0.003
S4	0.015	0.000	-0.003
S5	0.015	0.000	-0.003
S6	0.015	0.000	-0.003
S7	0.016	0.000	-0.004
S8	0.015	0.000	-0.003

### Temperature Calibration Report

Serial Number: 130584  
 Tool Model: RBT-C3  
 Performed: Wed Aug 13 16:18:33 2014

	Reference	Reading
Low Reference:	0.00 degF	0.00 degF
High Reference:	1.00 degF	1.00 degF
Gain:	0.77	
Offset:	15.00	
Delta Spacing	1	

## Log Variables

Database: C:\Warrior\Data\13689.db  
 Dataset: field/well/run1/Final

### Top - Bottom

PPT usec 0	CASEWGHT lb/ft 26	MAXAMPL mV 0	MINAMPL mV 1.5	MINATTN db/ft 0.08	CASEOD in 7	PERFS 0
TDEPTH ft 0	BOTTEMP degF 204	BOREID in 7.875				