



**RADIAL  
SECTOR BOND LOG  
WITH GAMMA RAY**

Pioneer Energy Services

CompanyANADARKO PETROLEUM CORP

Well NRC 29N-8HZ  
Field WATTENBERG  
County WELD State COLORADO

Company **ANADARKO PETROLEUM CORP**  
Well **NRC 29N-8HZ**  
Field **WATTENBERG**  
County **WELD** State **COLORADO**

Location: API # : 05123389510000 Other Services  
SHL: 402' FSL & 2245' FWL  
SESW  
Permanent Datum GL Elevation 5052  
Log Measured From KB  
Drilling Measured From KB  
Caliper  
K.B. 5077  
D.F. 5077  
G.L. 5052

Date of Service 27-APR-2014

Run Number ONE

Depth Driller or PBTD 12445

Depth Logger 6900

Bottom Log Interval 6896

Top Log Interval SURFACE

Open Hole Size 8-3/4"

Type Fluid WATER

Fluid Level SURFACE

Fluid Density 8.33

Max. Recorded Temperature NA

Max. Wellhead Pressure 2800

Wellhead Connection 7-1/16" FLANGE

Estimated Cement Top 50

Unit Number 75

Wireline Size 9/32"

Location FT. MORGAN, CO

Recorded By SCHUMAN

Witnessed By MR. TREVOR DANIEL

Size W/Ft

Top

Bottom

Tubing Record

Surface Casing 9-5/8" 36 # SURFACE 1246

Production Casing 7" 26 # SURFACE 7969

Liner Record 4-1/2" 11.6 # 6807 12430

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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.

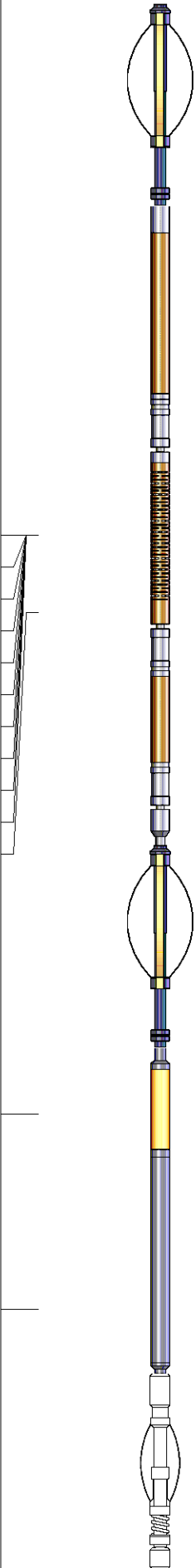
THANK YOU FOR USING PIONEER Energy SERVICES

Your Pioneer Energy Services Crew

Engineer: SHAUN  
Operator: GENO  
Operator: AJ  
Operator: GARRETT

Tool Data - Services  
RADIAL BOND TOOL

Serial Number  
1304-33

Sensor	Offset (ft)	Schematic	Description	Len (ft)	OD (in)	Wt (lb)
			PTS275	2.83	2.75	
WVF3FT	14.44		RBT-Probe (Base) Probe Radii Bond Tool with Digital Telemetry	8.92	2.75	90.00
WVFCAL	14.44					
WVFS1	14.44					
WVFS2	14.44					
WVFS3	14.44					
WVFS4	14.44					
WVFS5	14.44					
WVFS6	14.44					
WVFS7	14.44					
WVFS8	14.44					
WVF5FT	13.35					
			PTS275	2.83	2.75	
CCL	6.36		GR_CCL-Probe (111212) Probe Gamma CCL	4.54	2.75	100.00
GR	3.63		2.75 2 3/4" Tekco Adjustable Centralizer	2.73	2.75	25.00
Dataset: nrc29n-8hz_RBL.db: field/well/rbl/pass1 Total Length: 21.85 ft Total Weight: 215.00 lb O.D. 2.75 in						



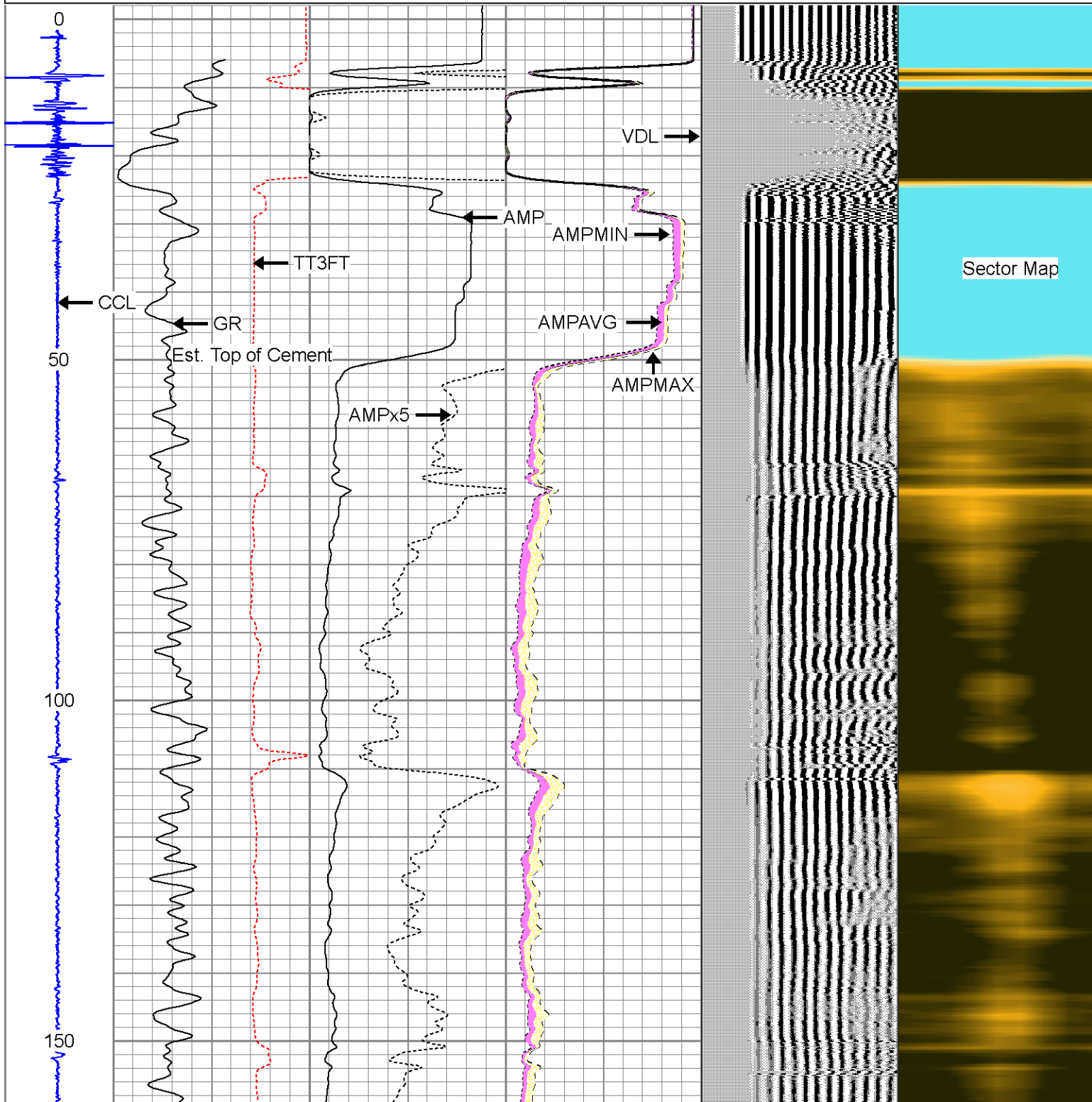
Pioneer Energy Services

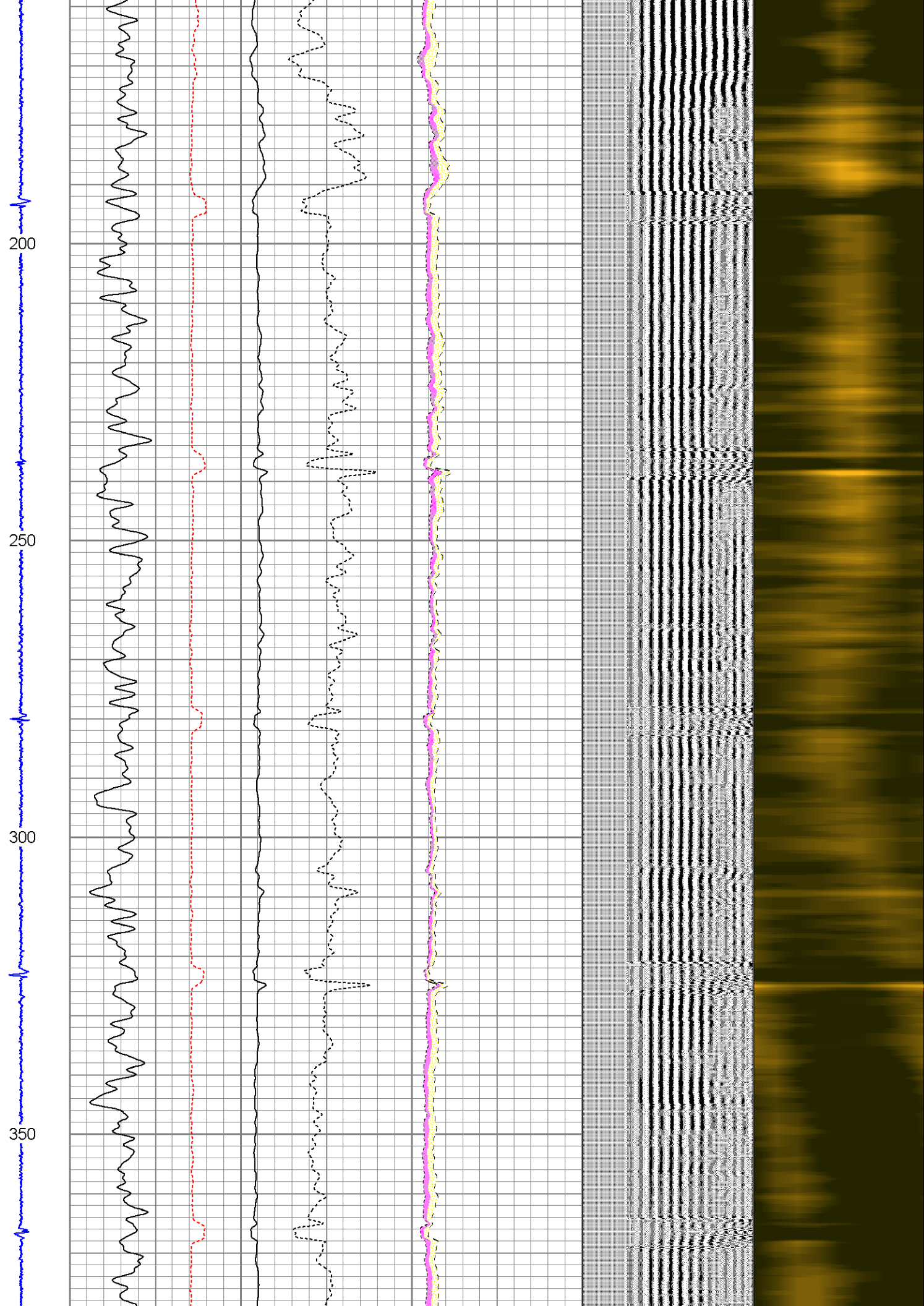
# MAIN PASS

Logged with 2800 PSI applied at surface

Database File: nrc29n-8hz\_rbl.db  
Dataset Pathname: rbl/pass2.1  
Presentation Format: scbl02  
Dataset Creation: Sun Apr 27 10:04:01 2014 by Calc 7.0 B1  
Charted by: Depth in Feet scaled 1:240

-2	CCL	2	0	GR (GAPI)	200	0	AMP (mV)	100	0	AMPAVG	100	200	VDL	1200	1	SECTOR MAP	8
				TT3FT		0	AMPx5 (mV)	20	0	AMPMAX	100				10		60
				262 (usec)	362				0	AMPMIN	100						





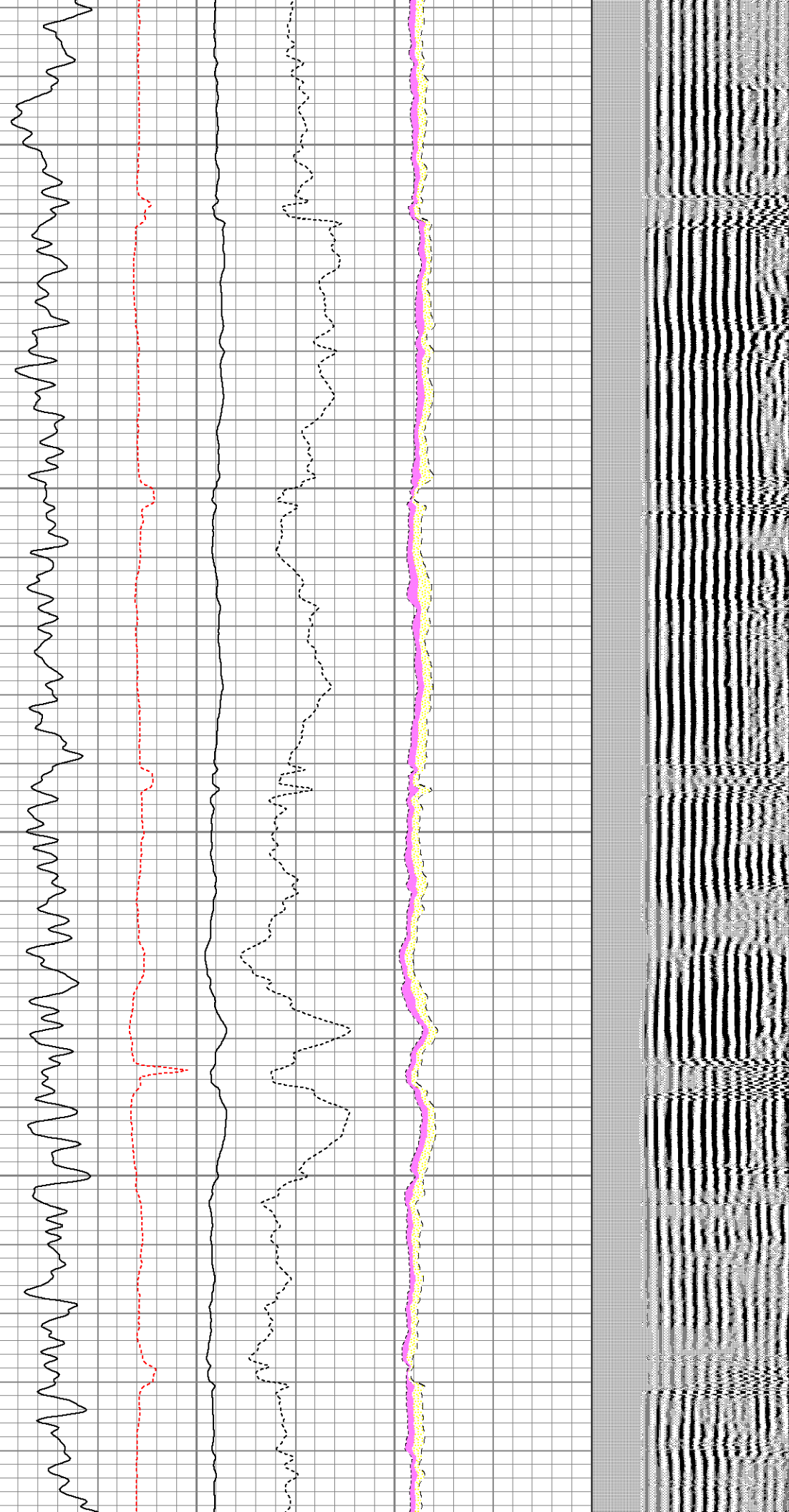


400

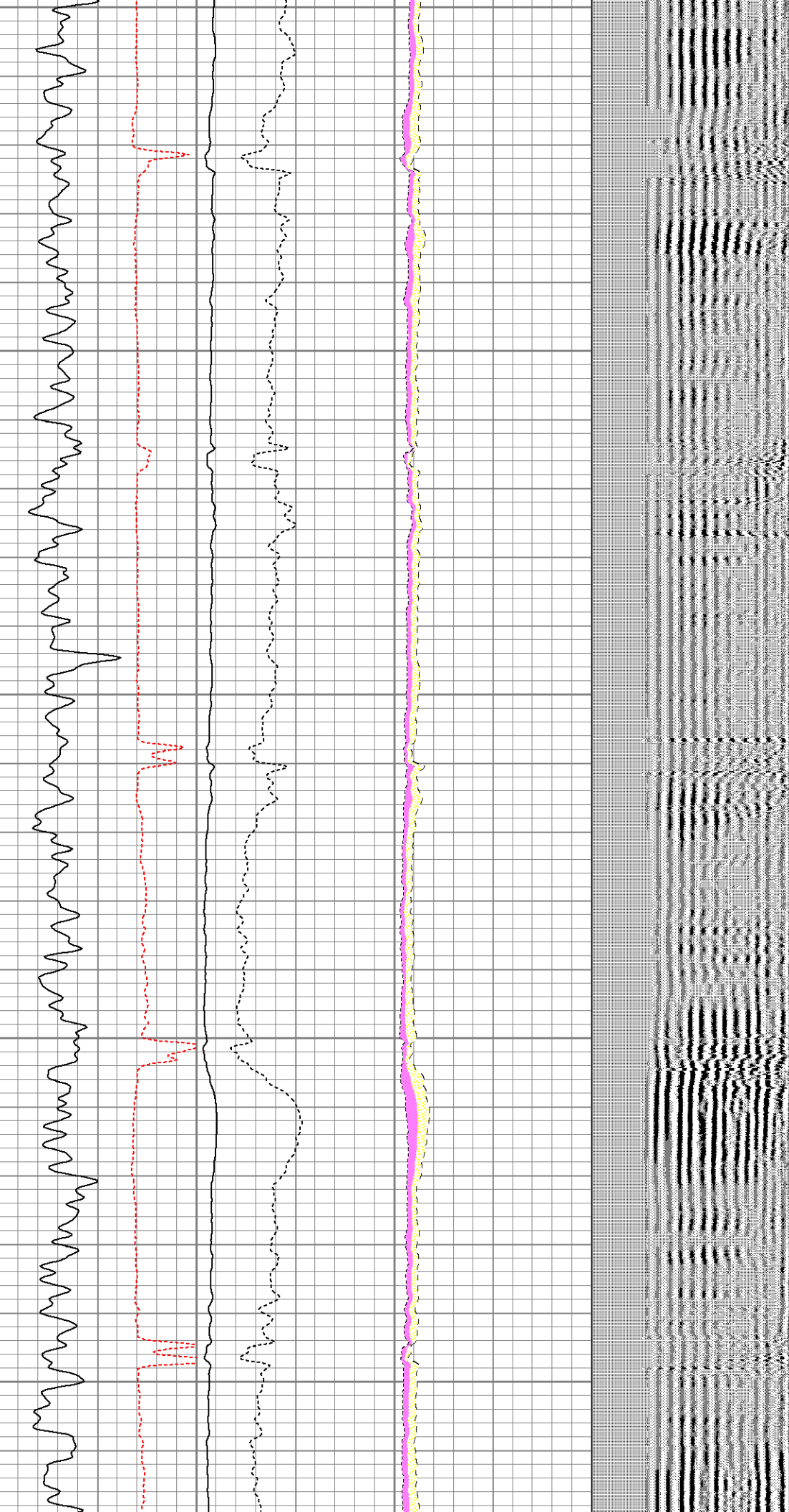
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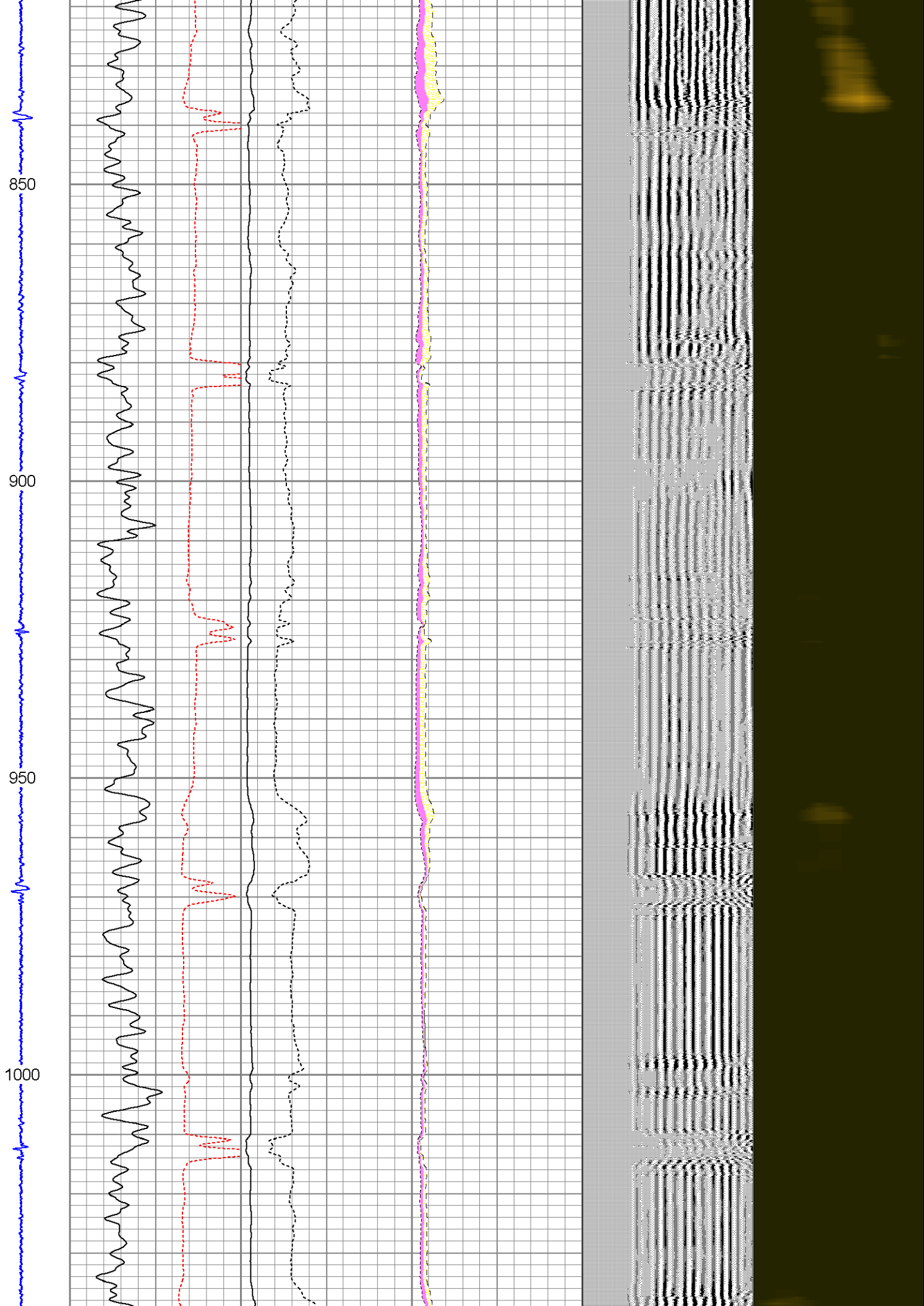
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550

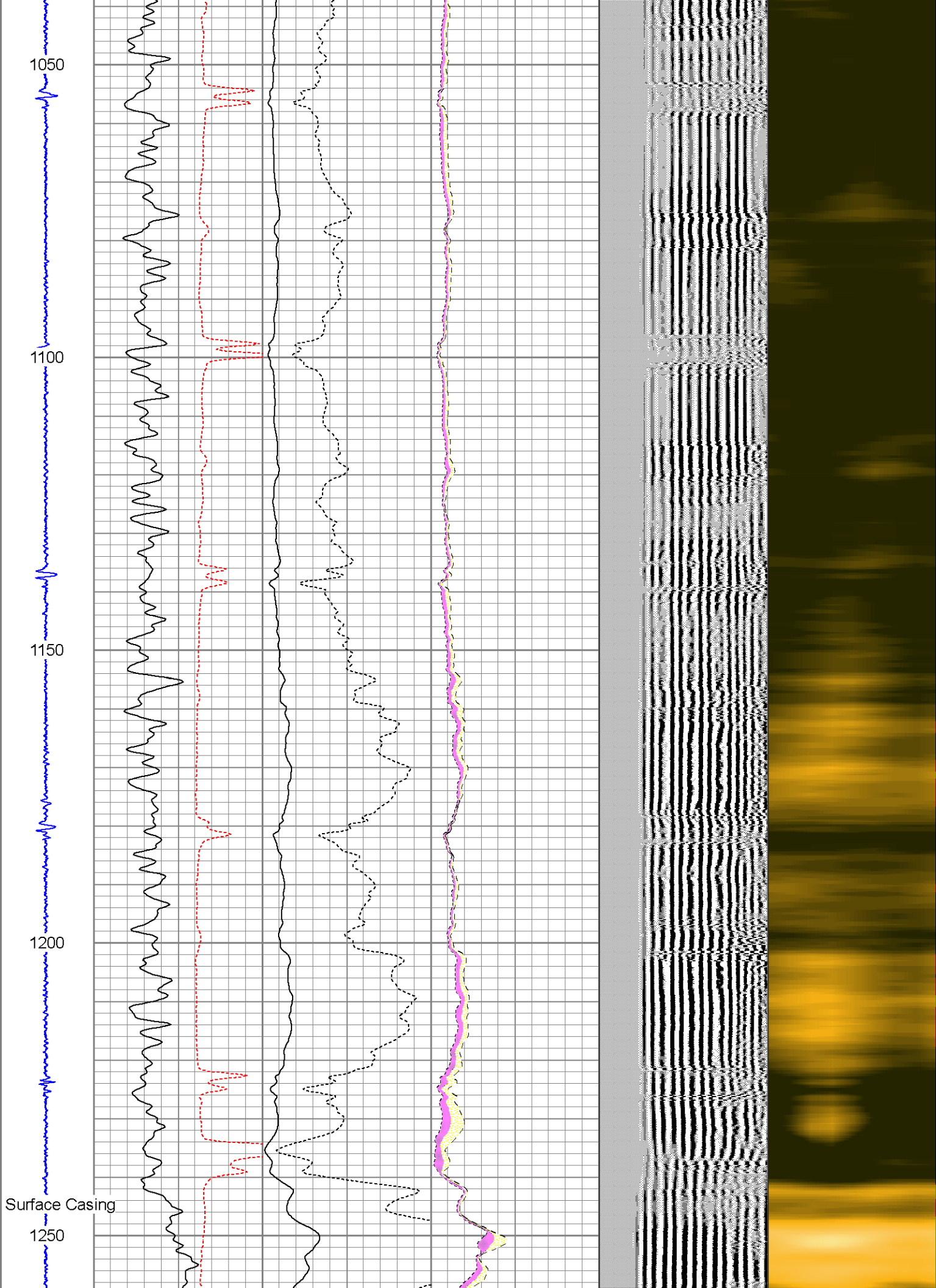


600 650 700 750 800









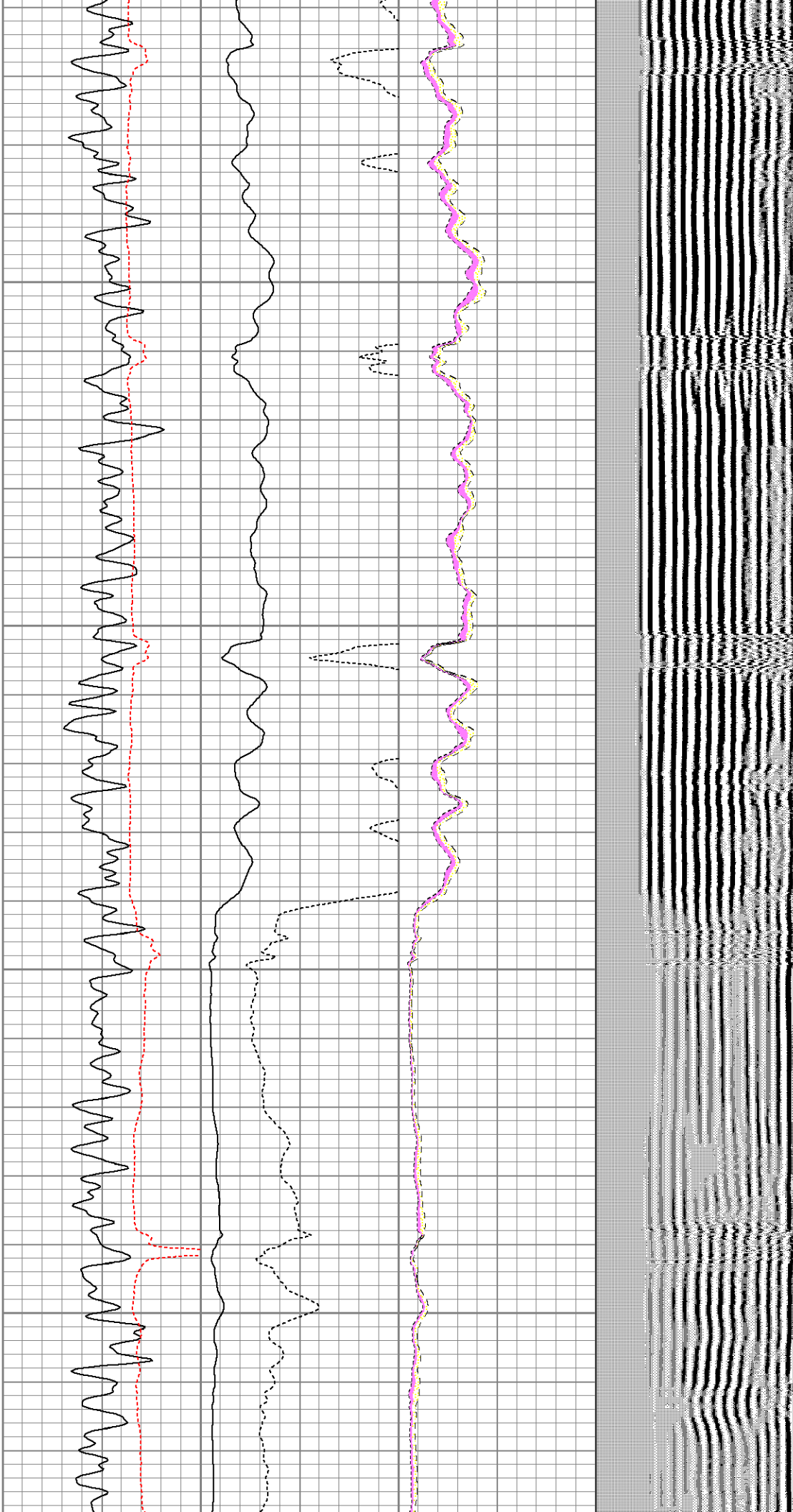


1300

1350

1400

1450



1500

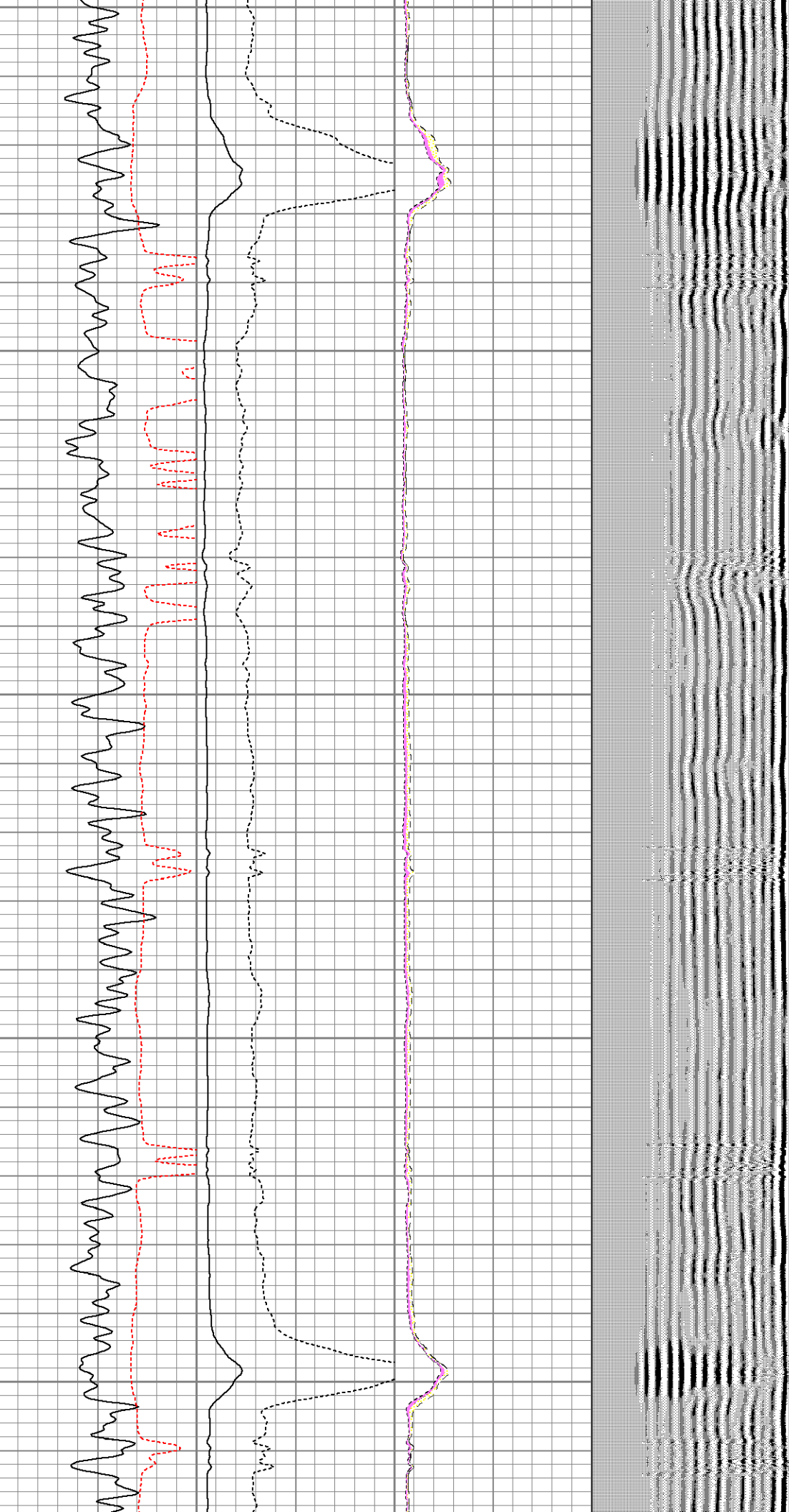
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1600

1650



1700  
1750  
1800  
1850  
1900



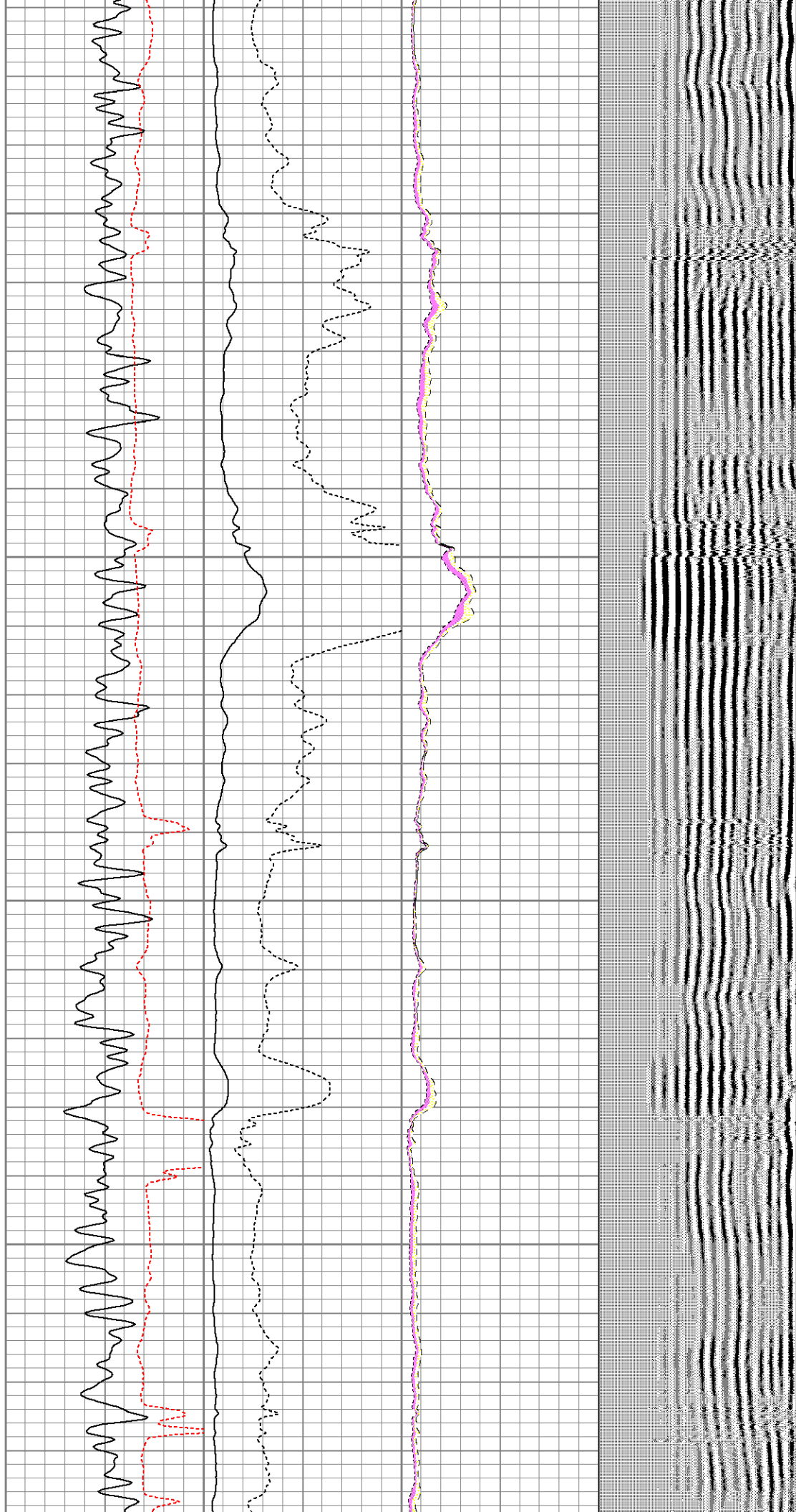


1950

2000

2050

2100



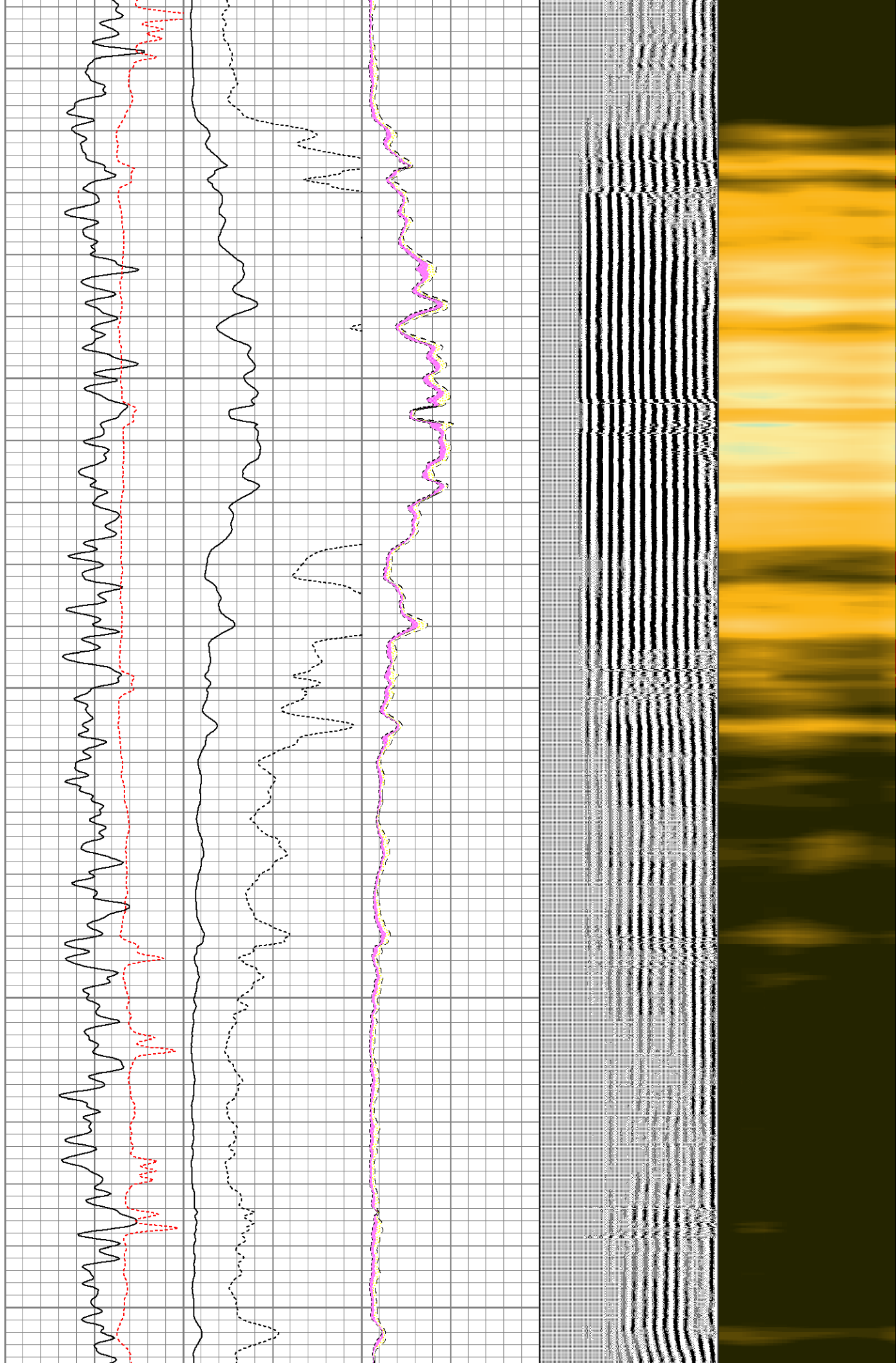
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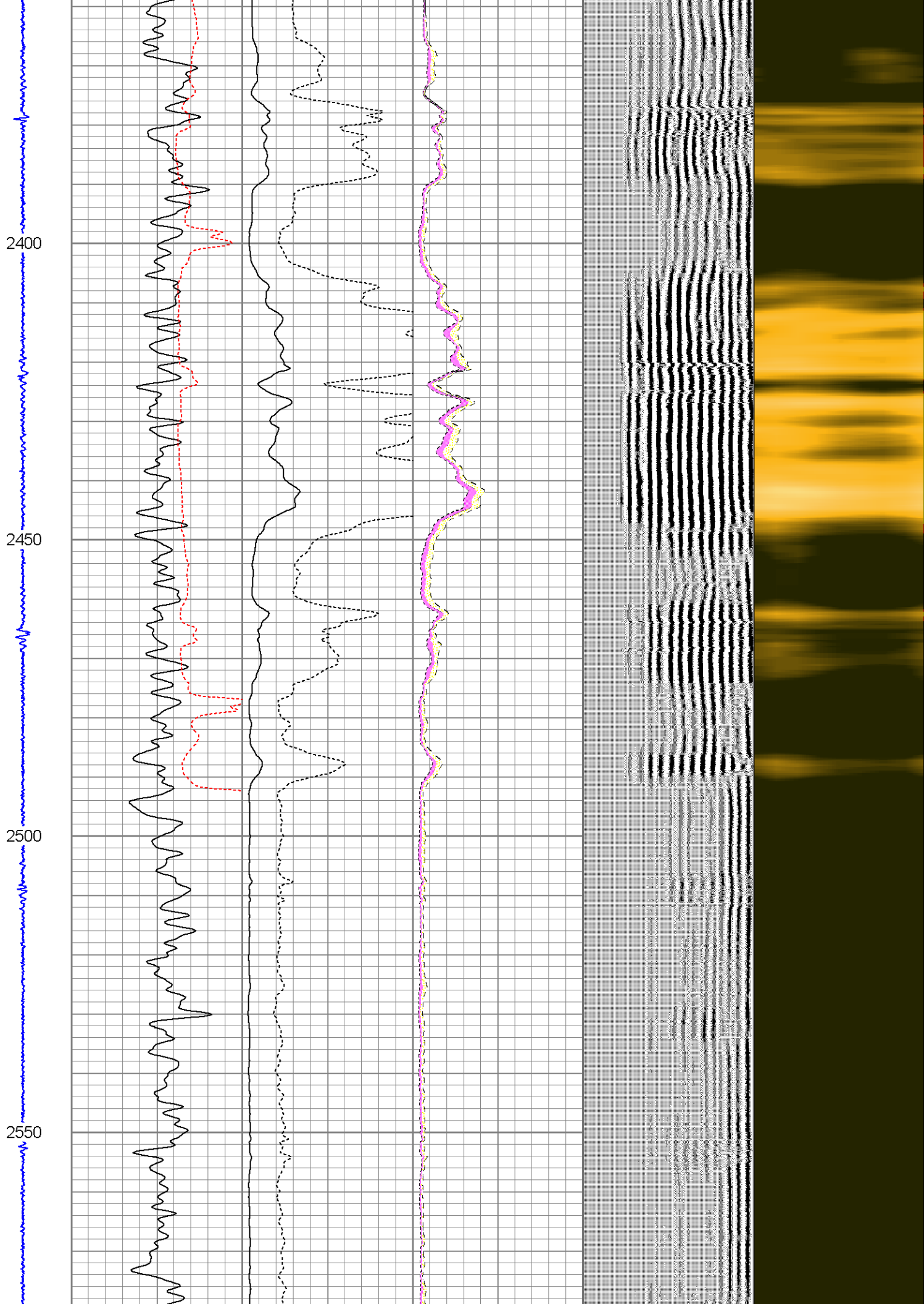
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2250

2300

2350





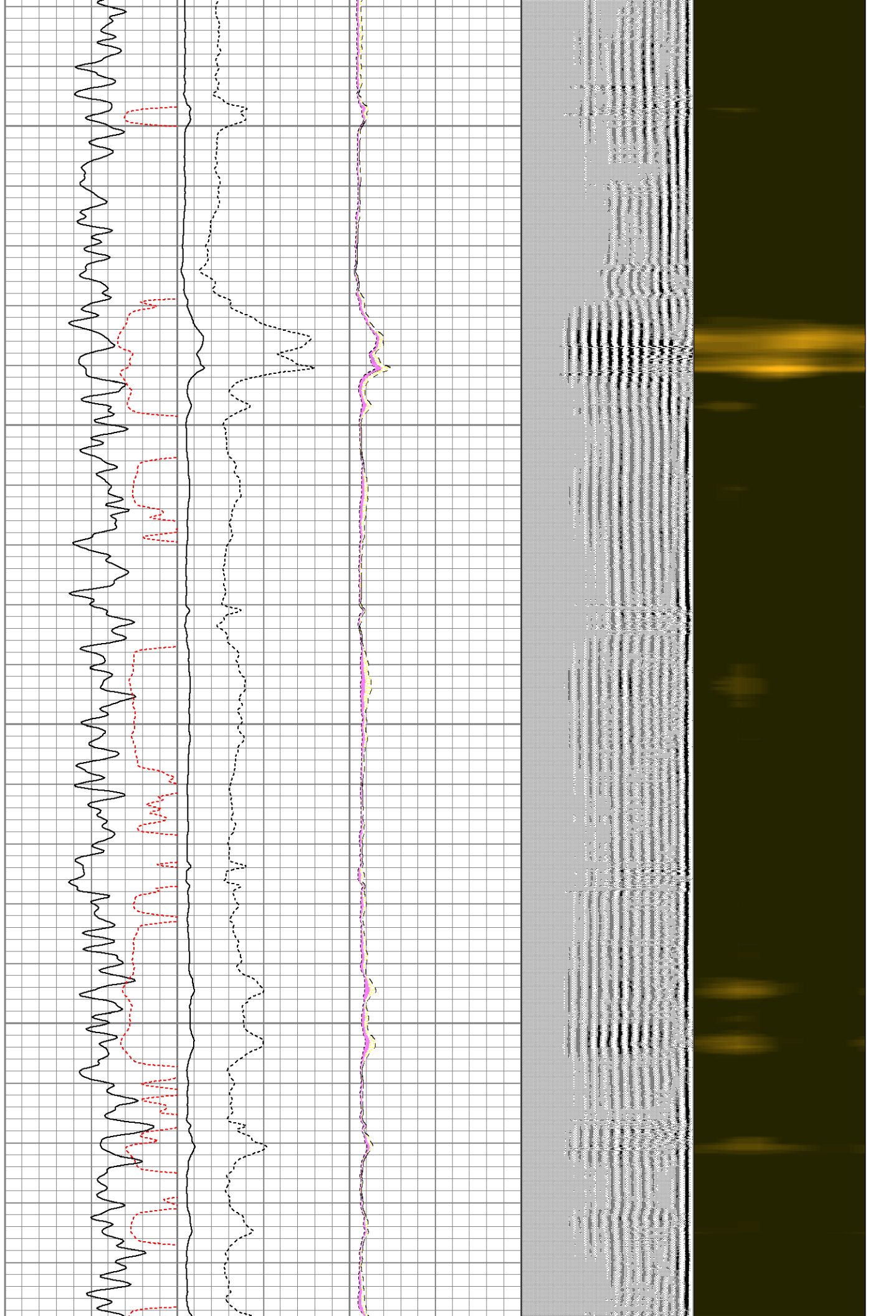


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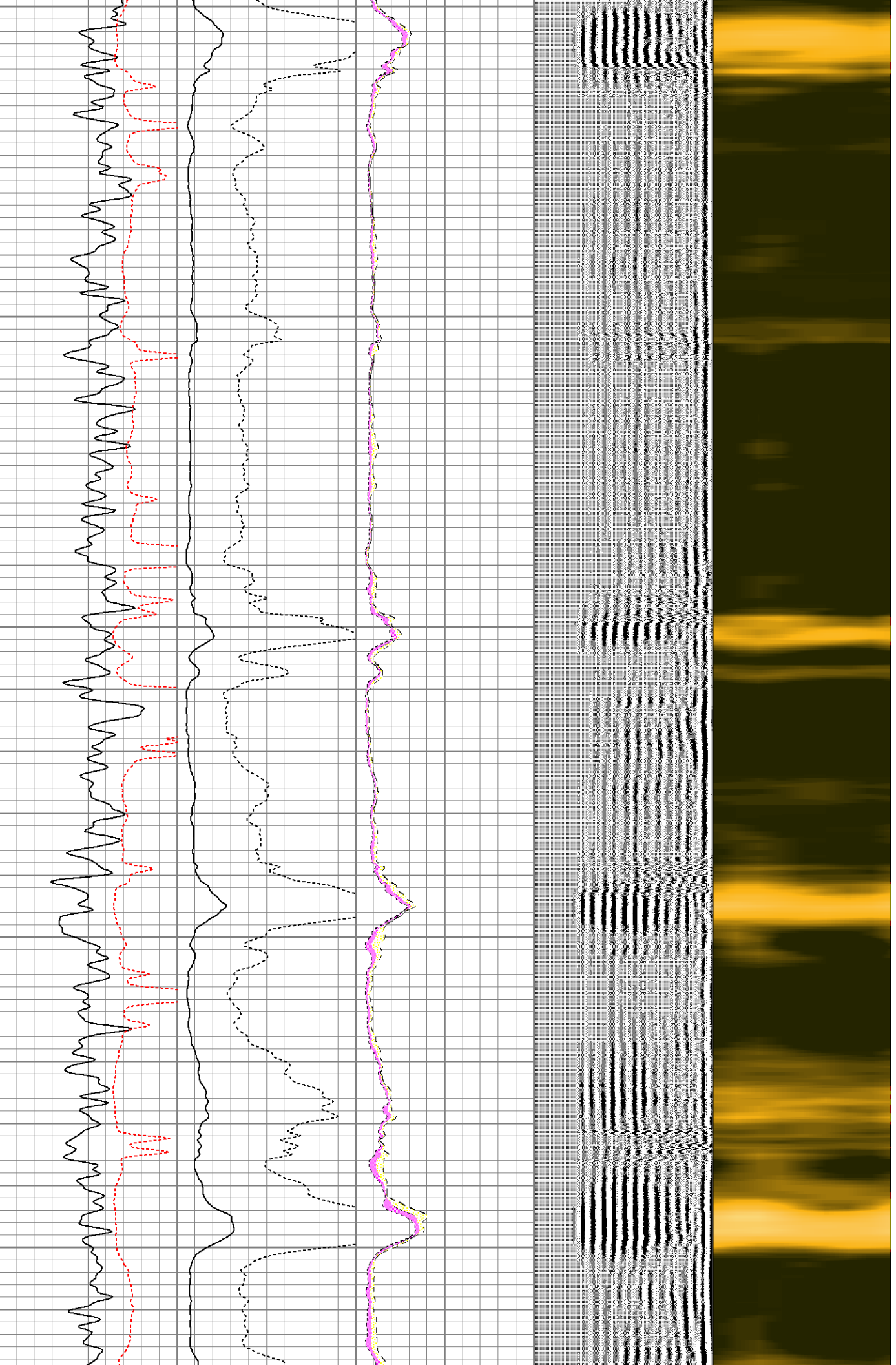
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2700

2750



2800  
2850  
2900  
2950  
3000



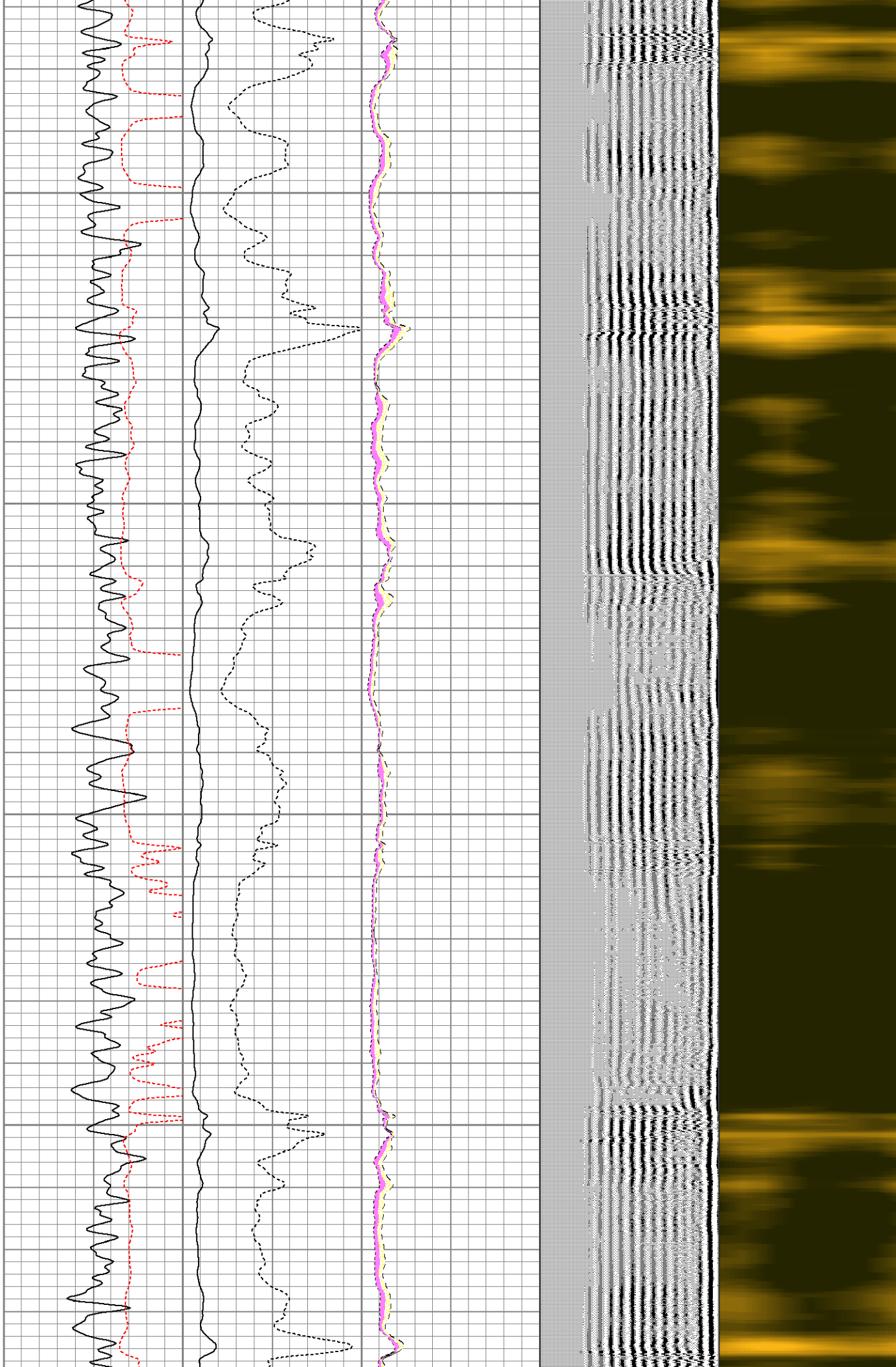


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3100

3150

3200





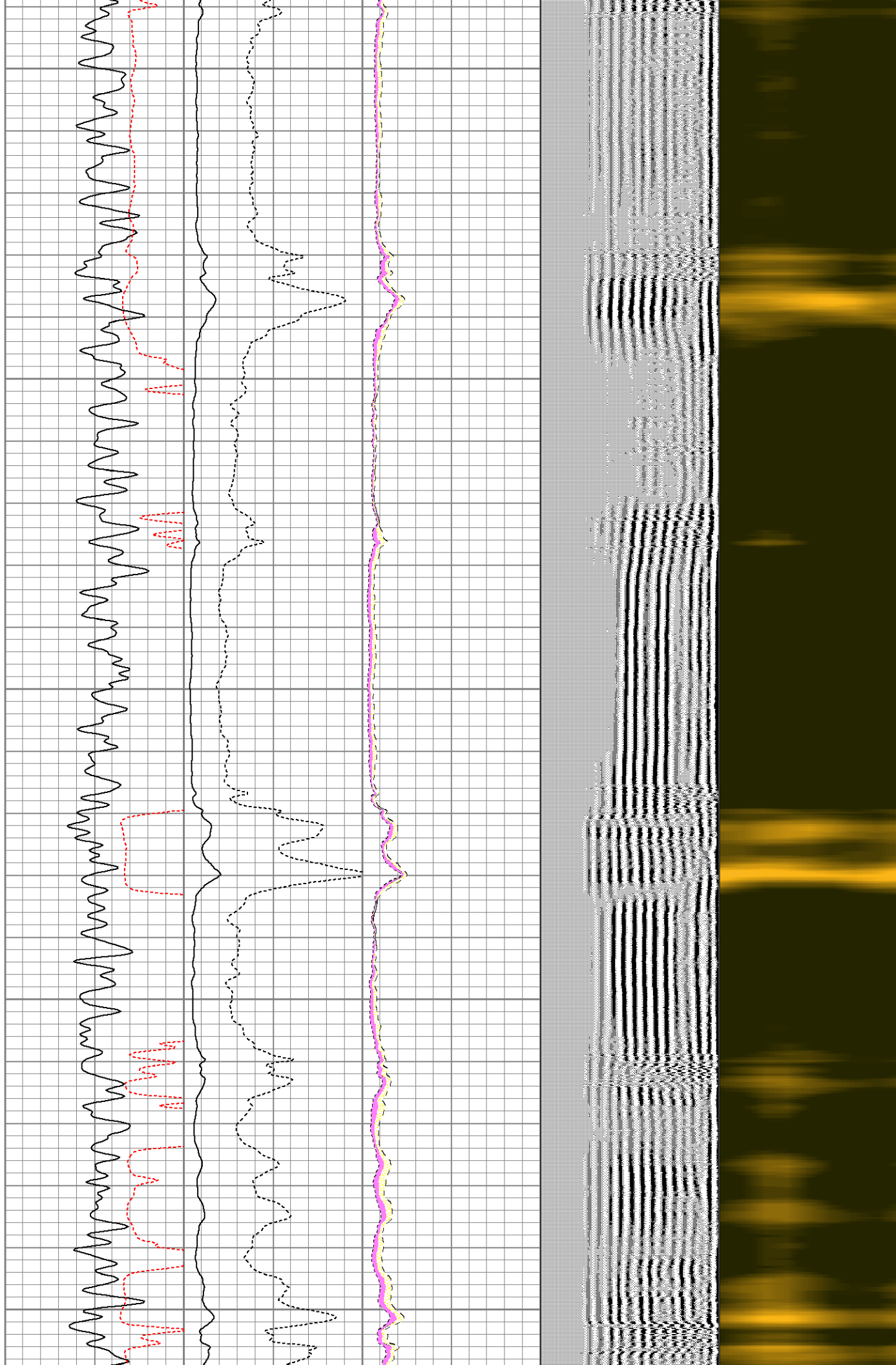
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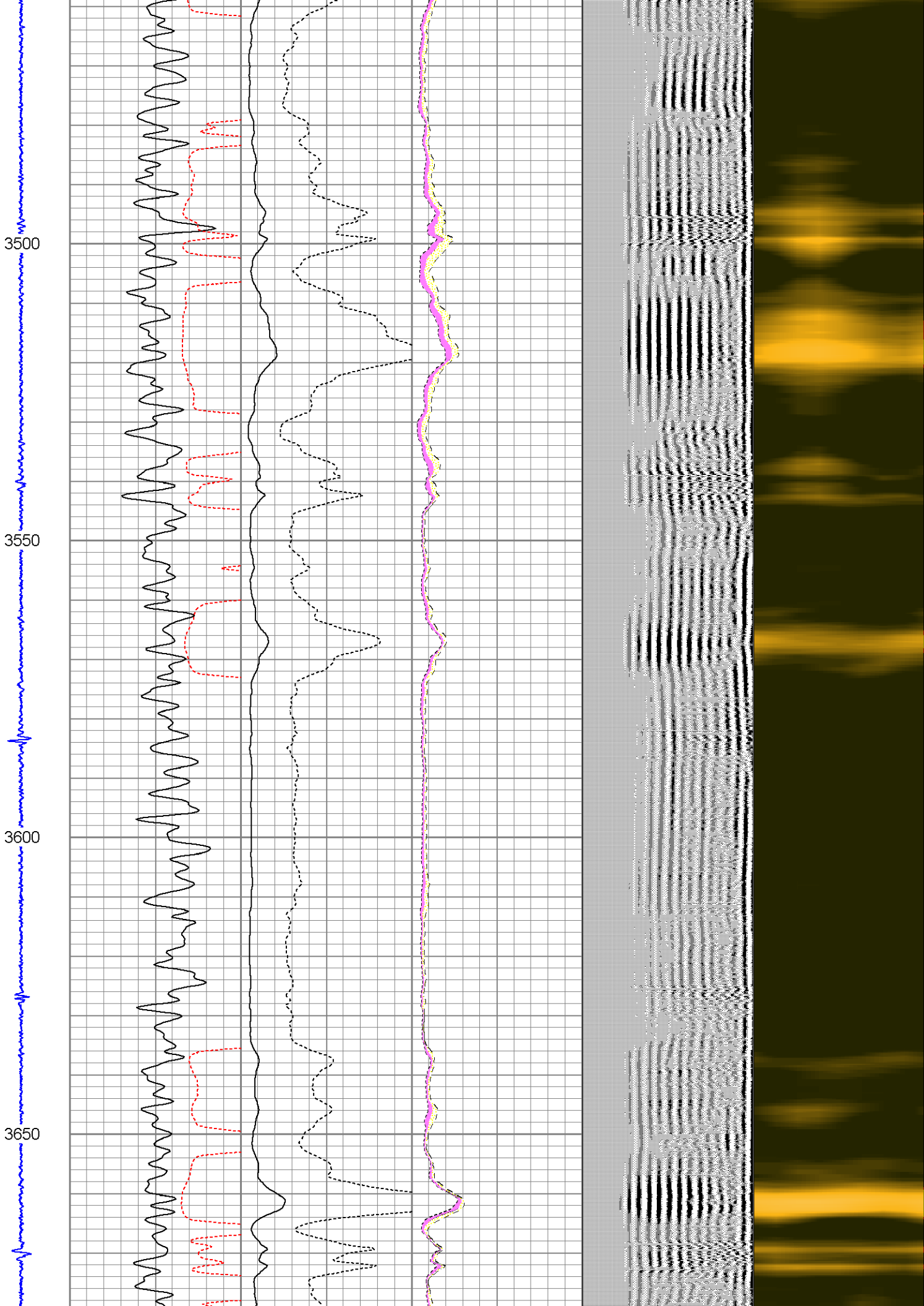
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3450



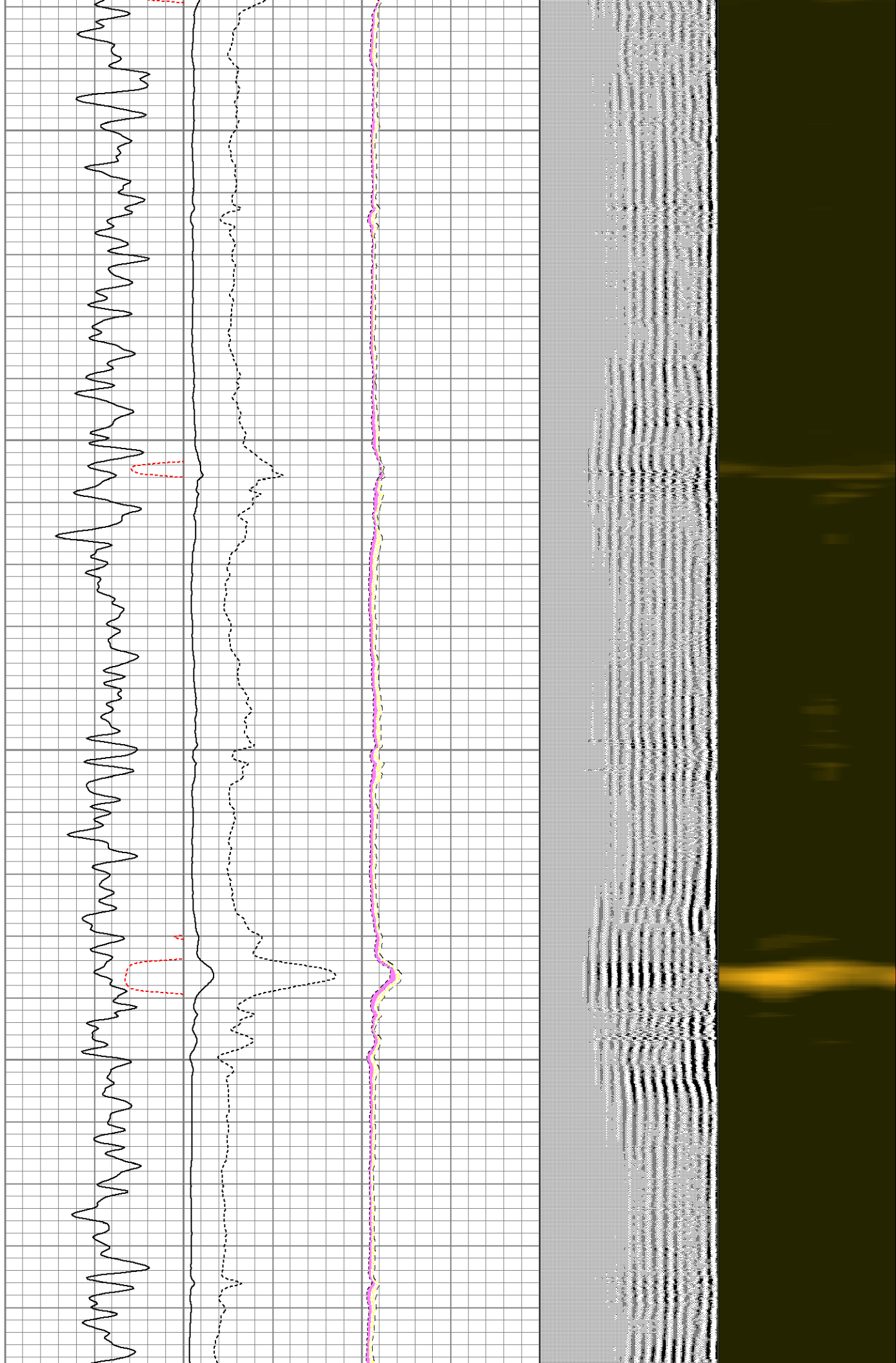


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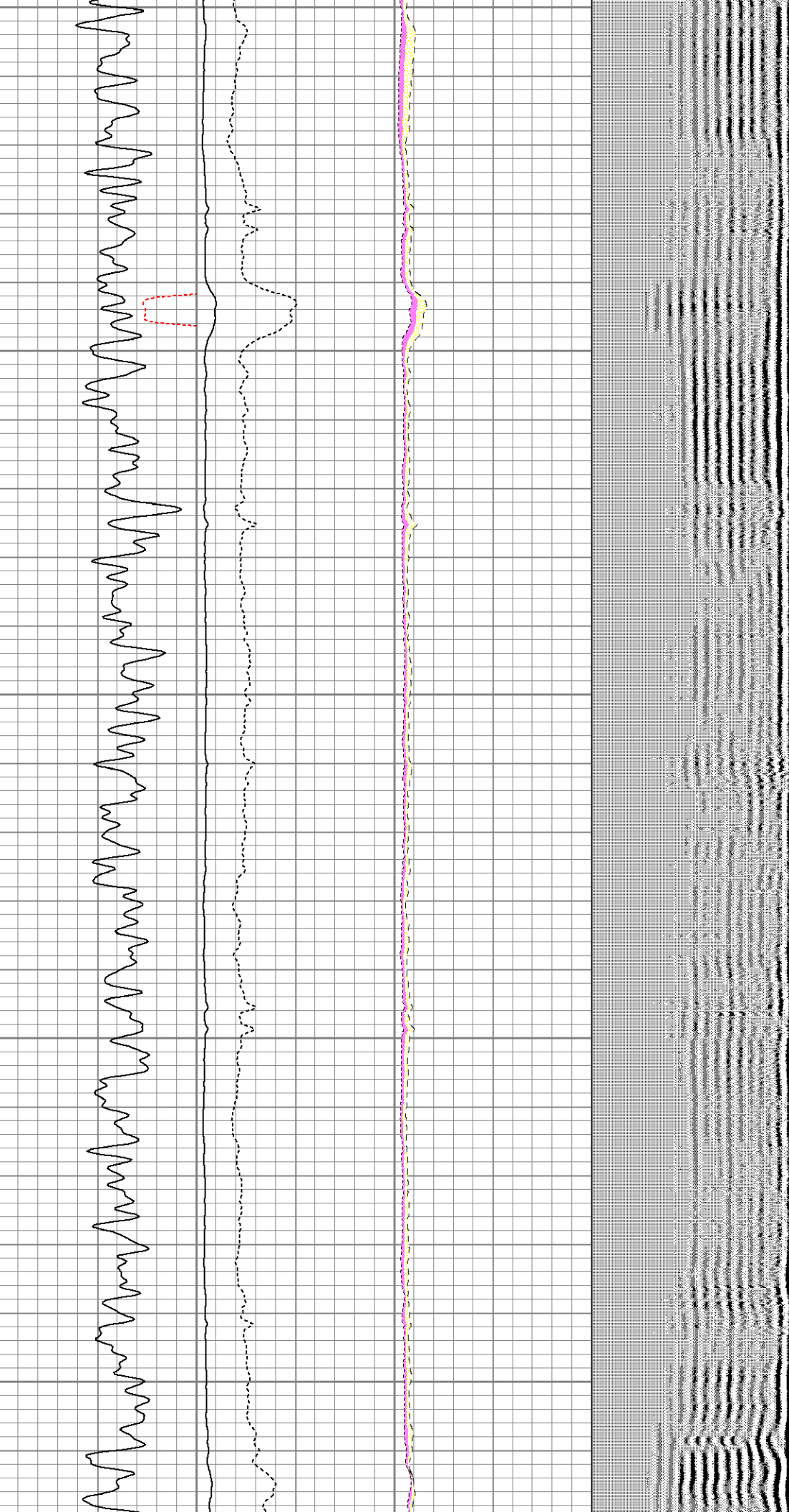
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3850





3900  
3950  
4000  
4050  
4100

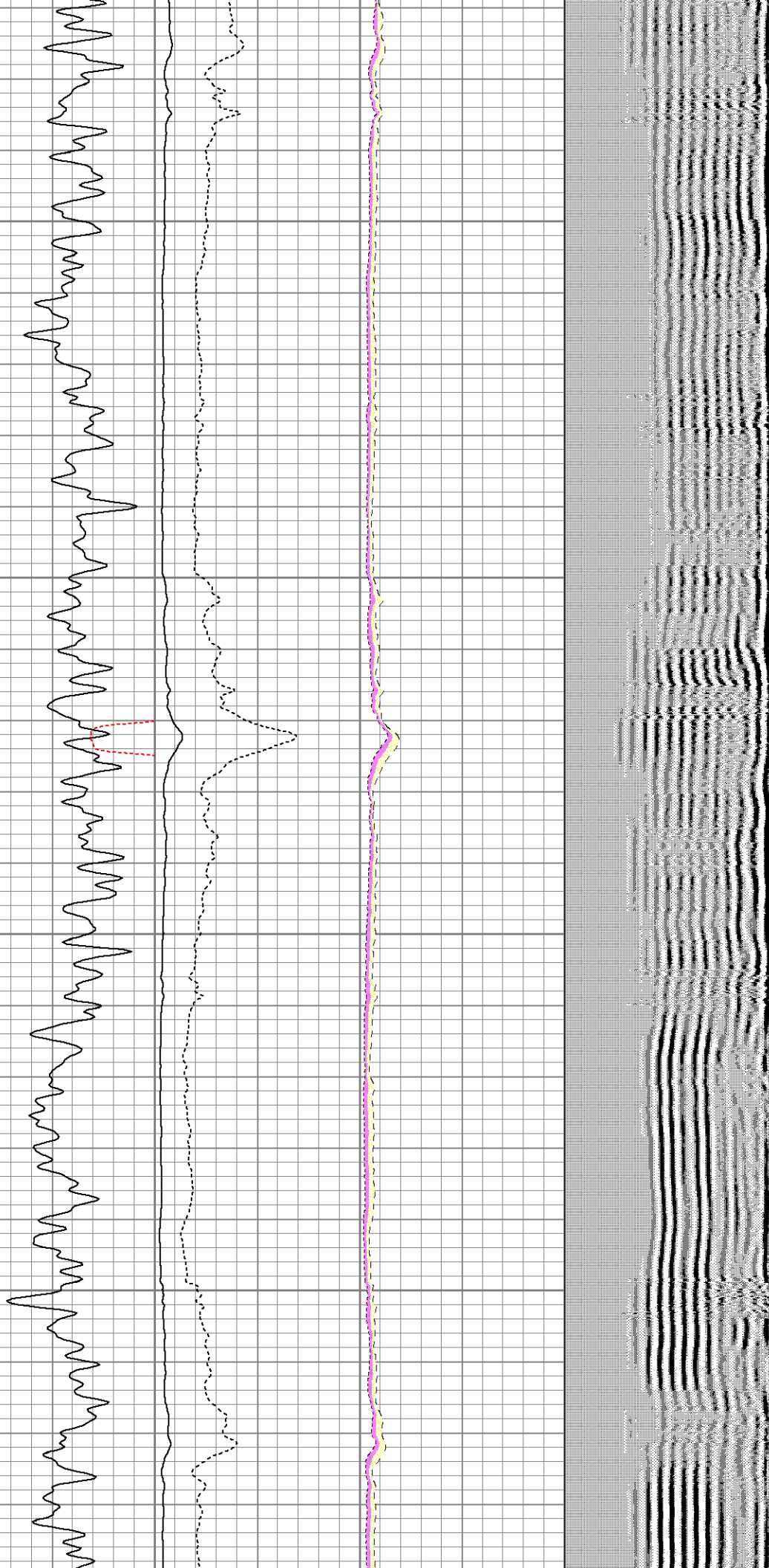


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4200

4250

4300



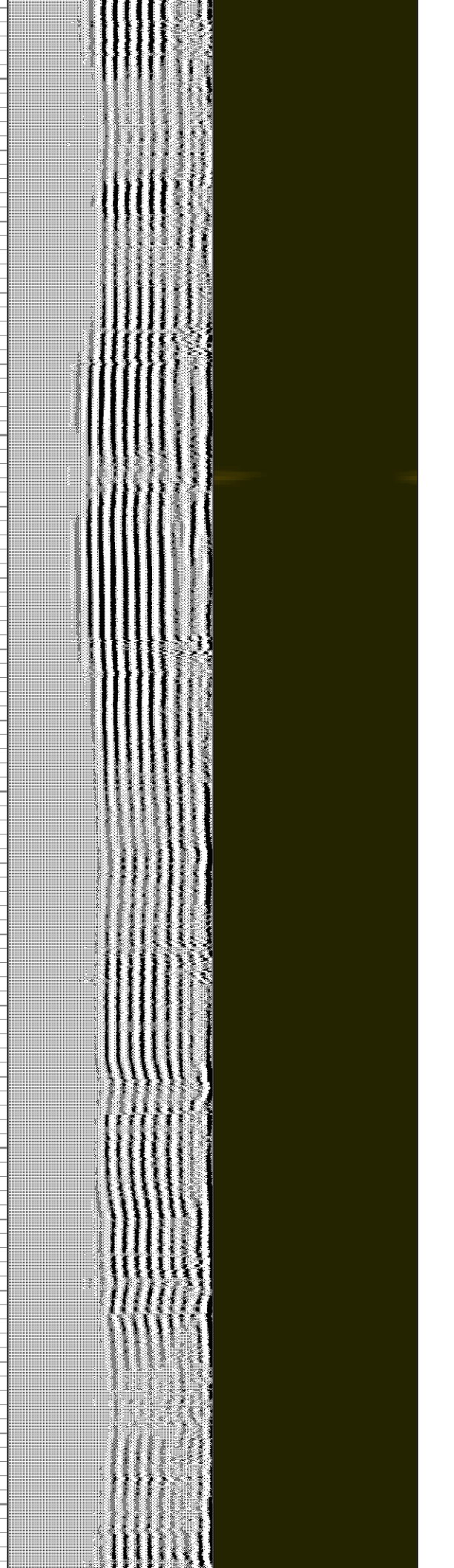
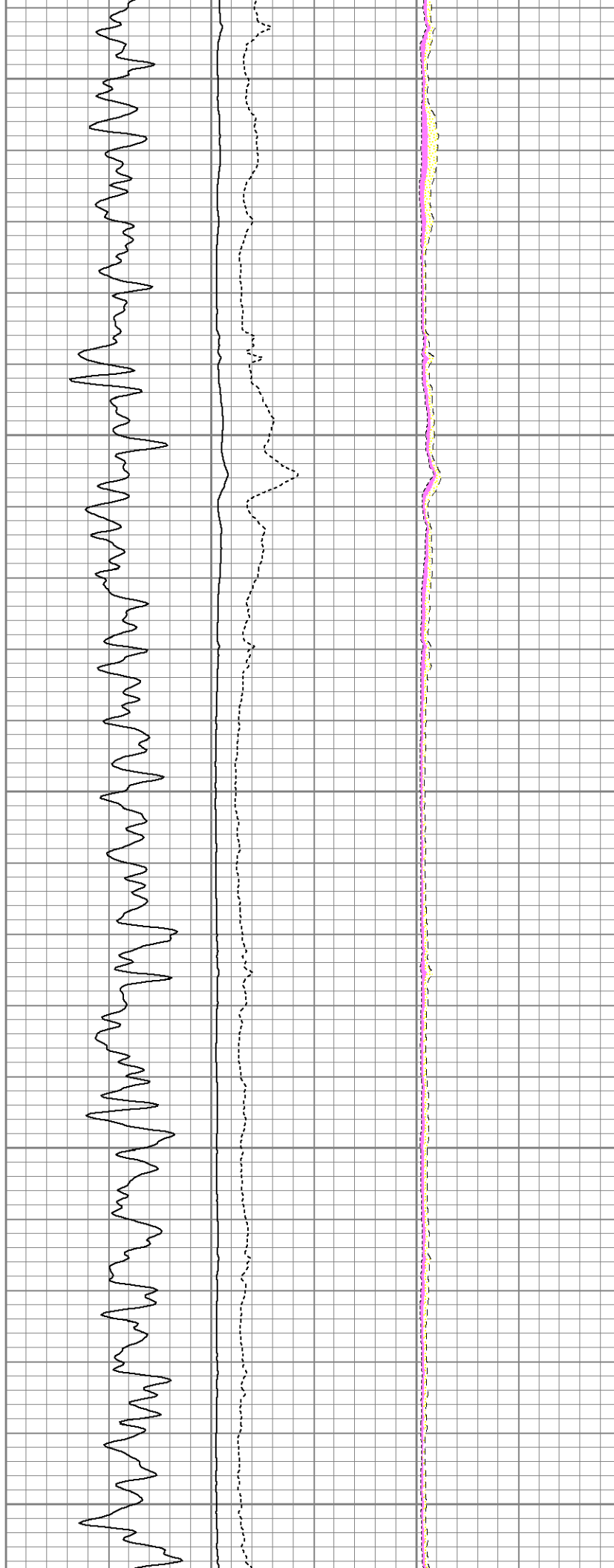
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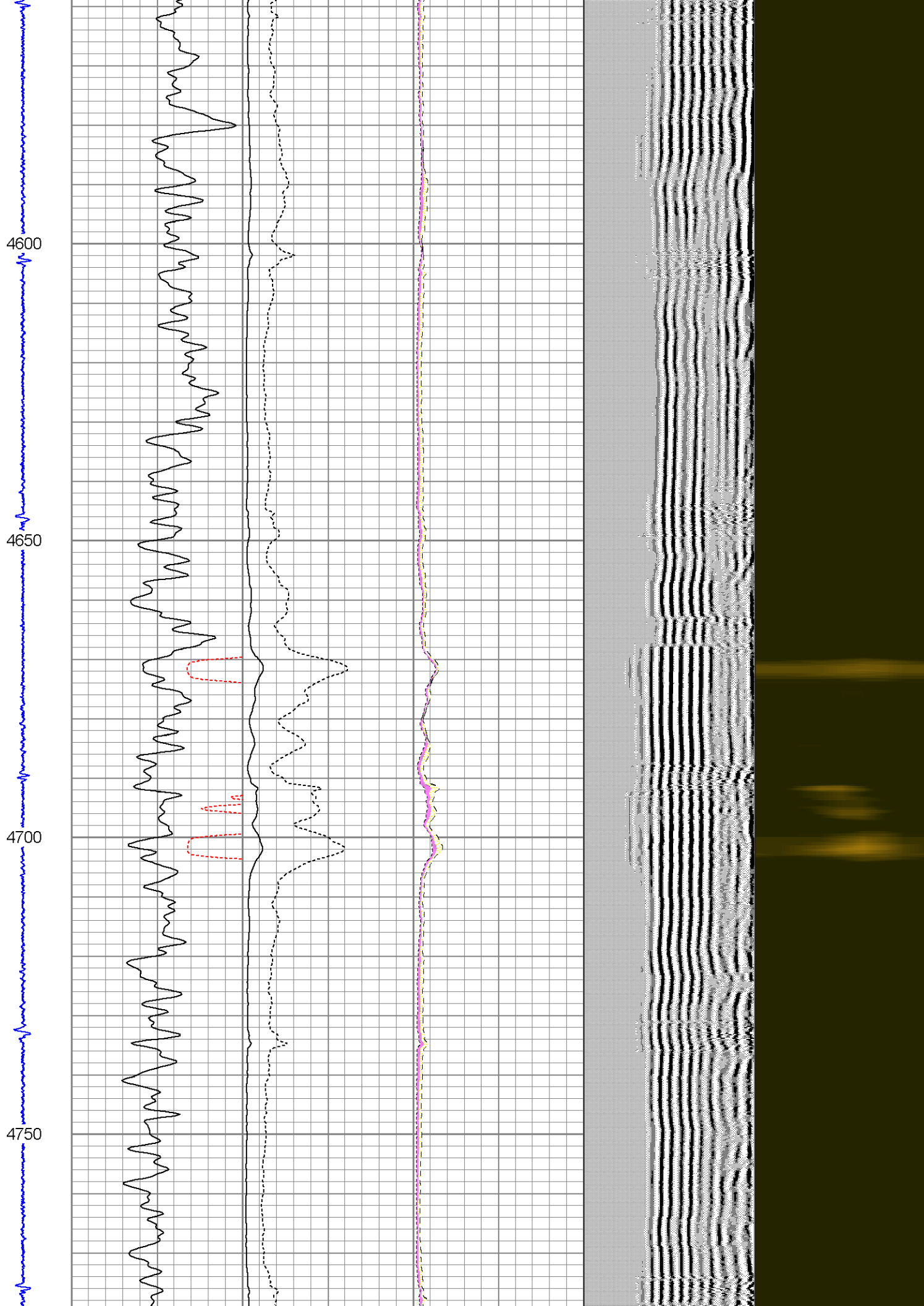
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4550





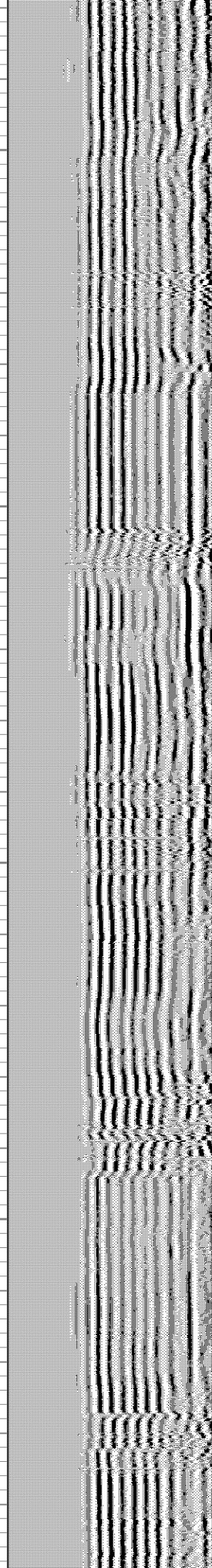
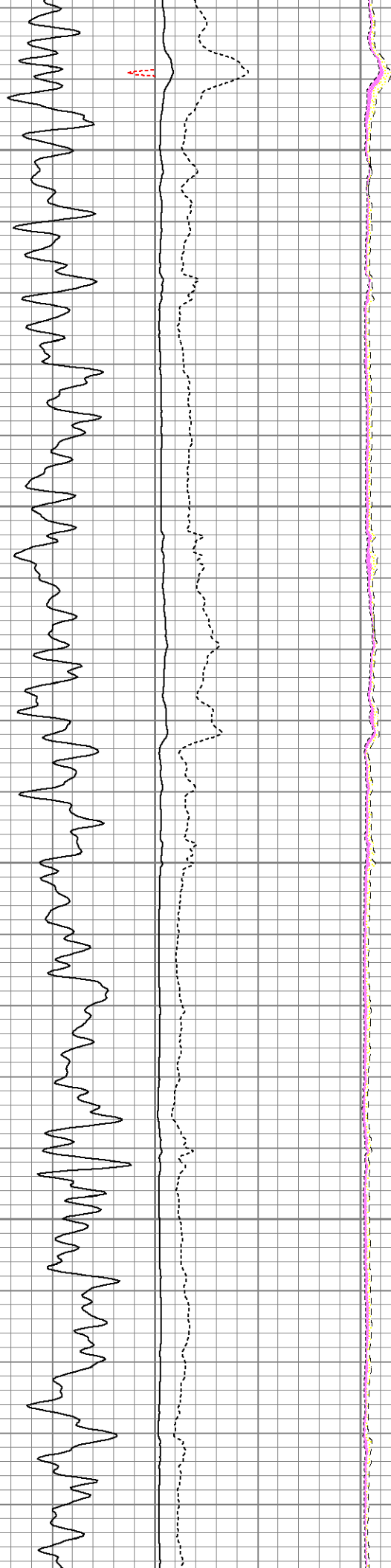


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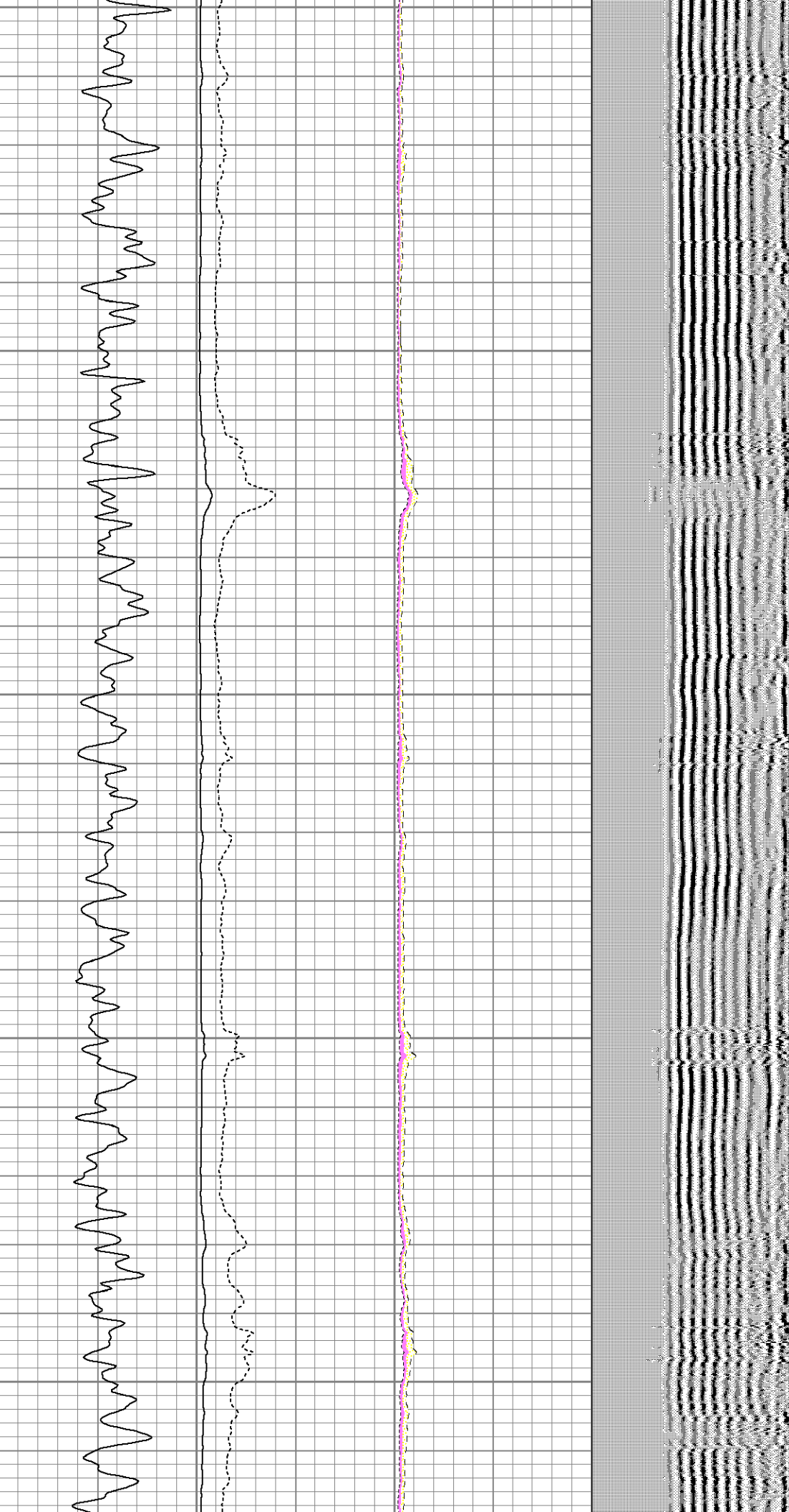
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4900

4950



5000  
5050  
5100  
5150  
5200





5250

5300

5350

5400



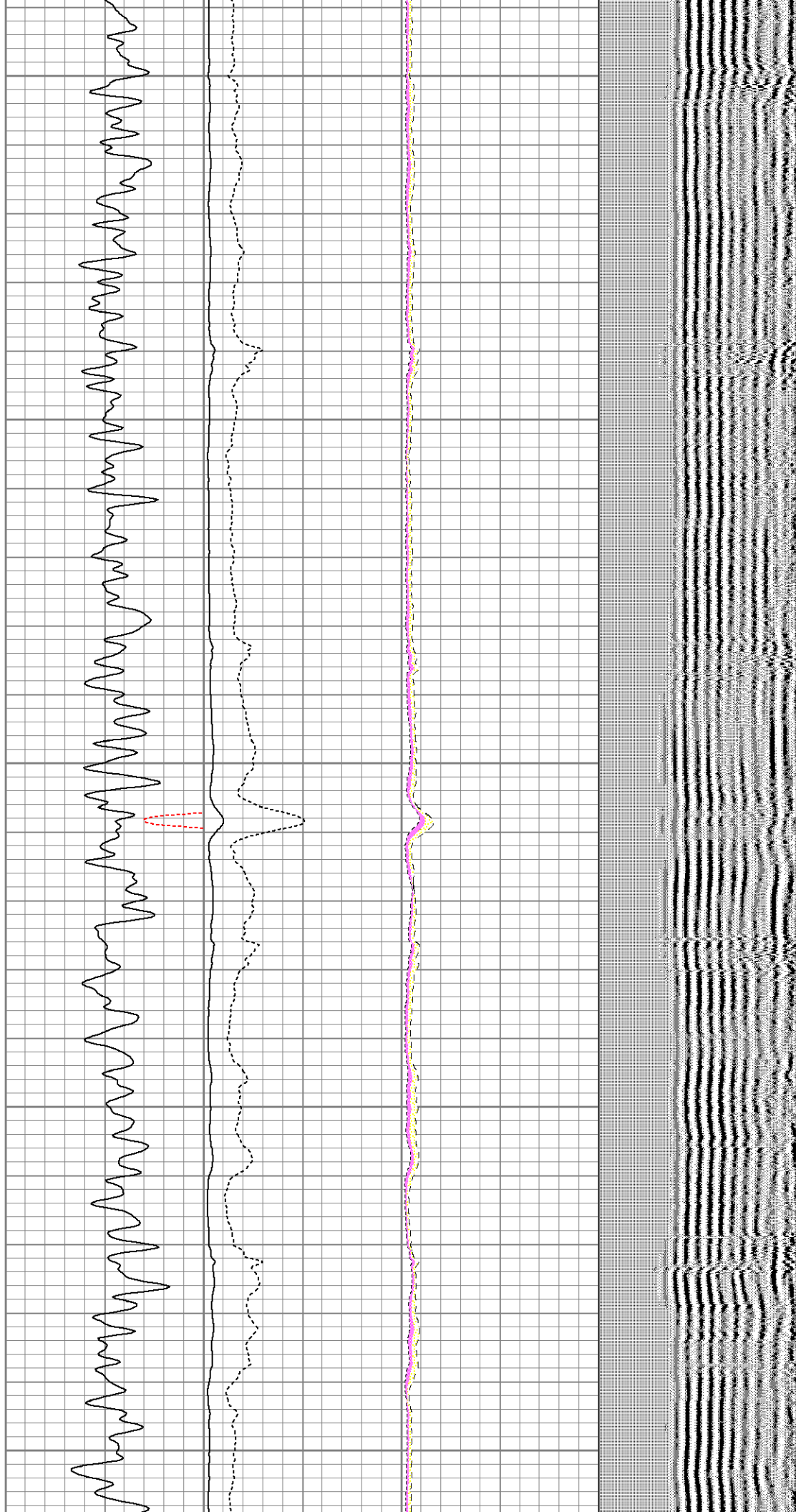
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5600

5650

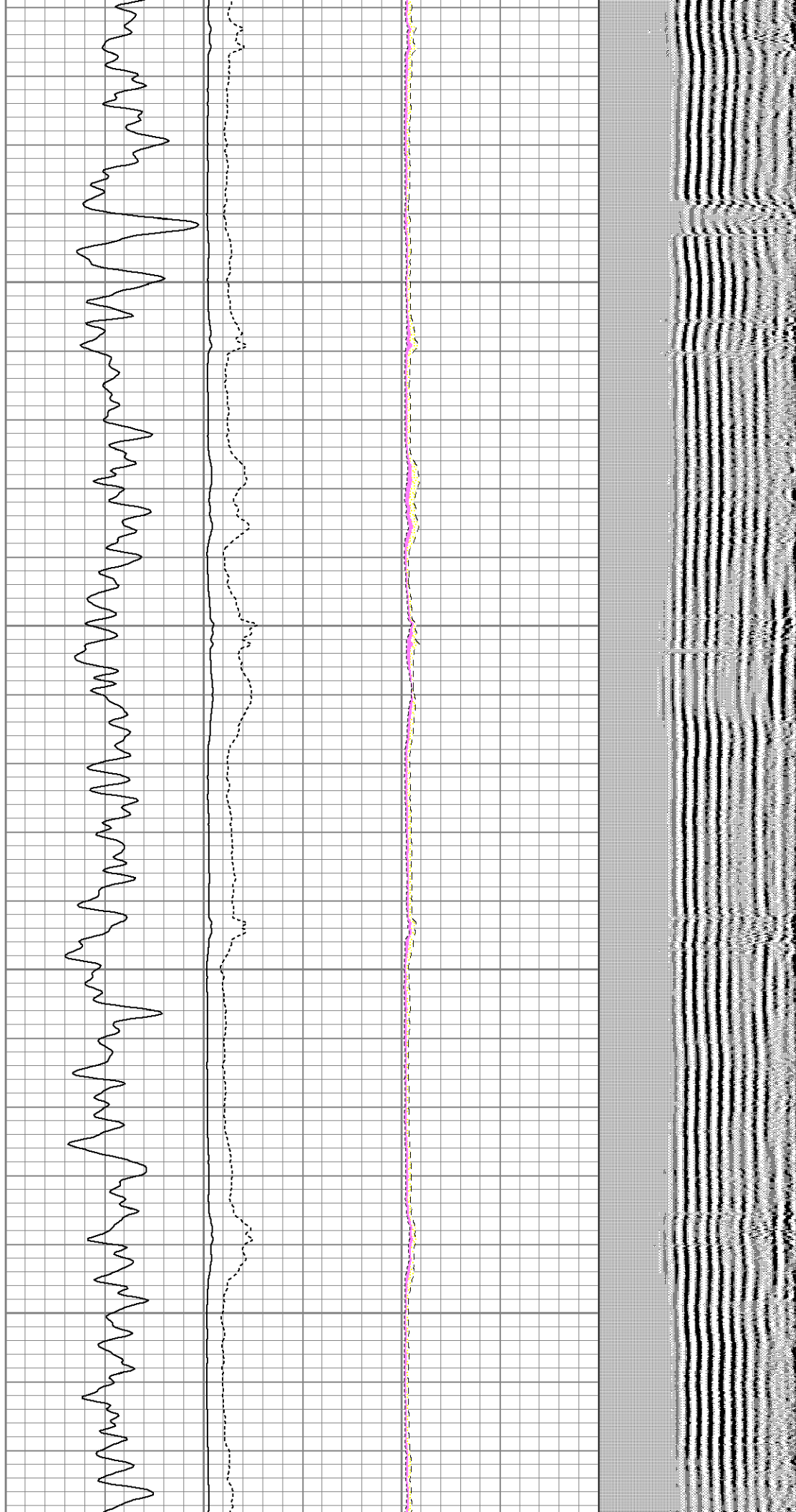


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5800

5850



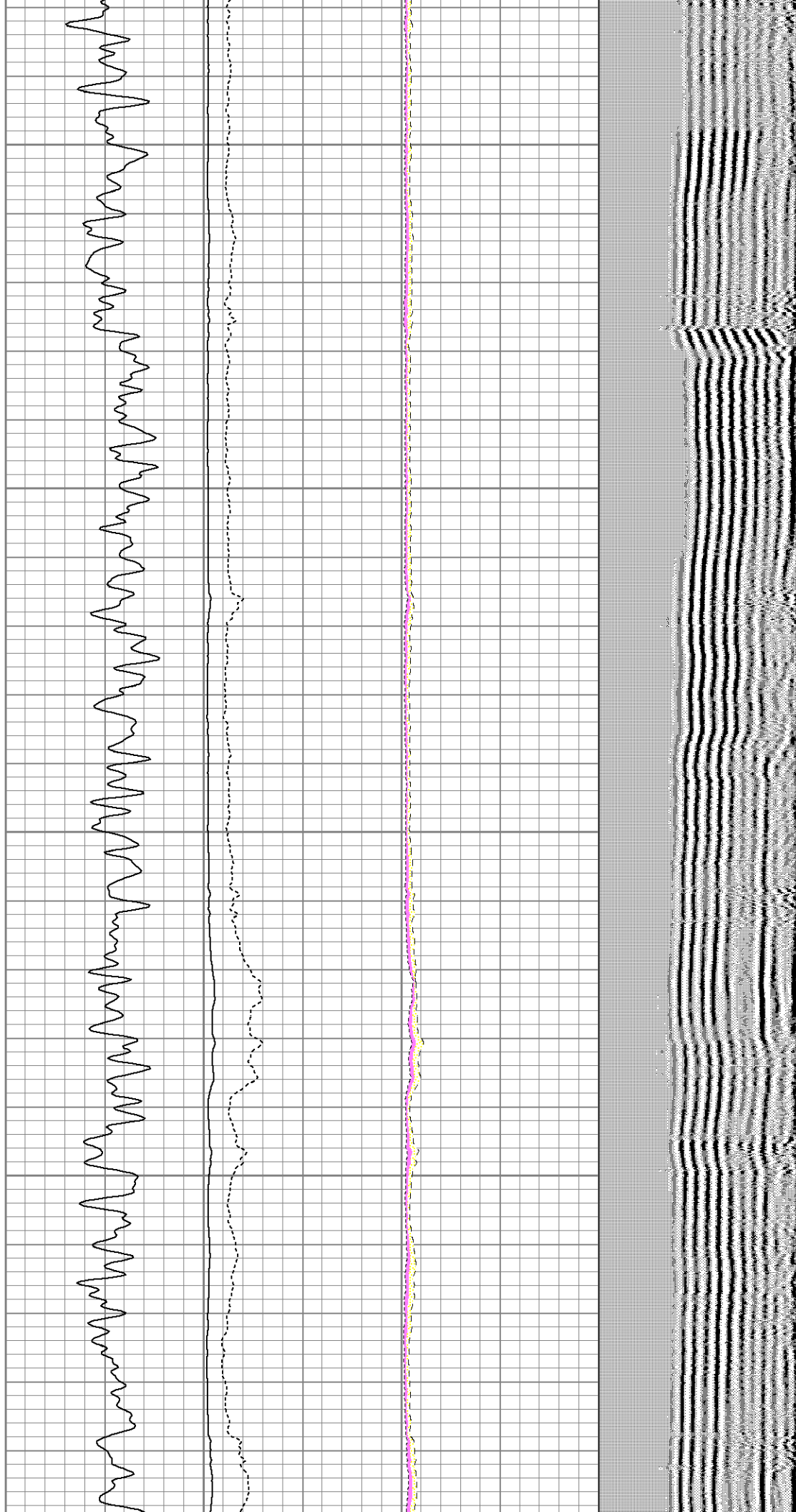


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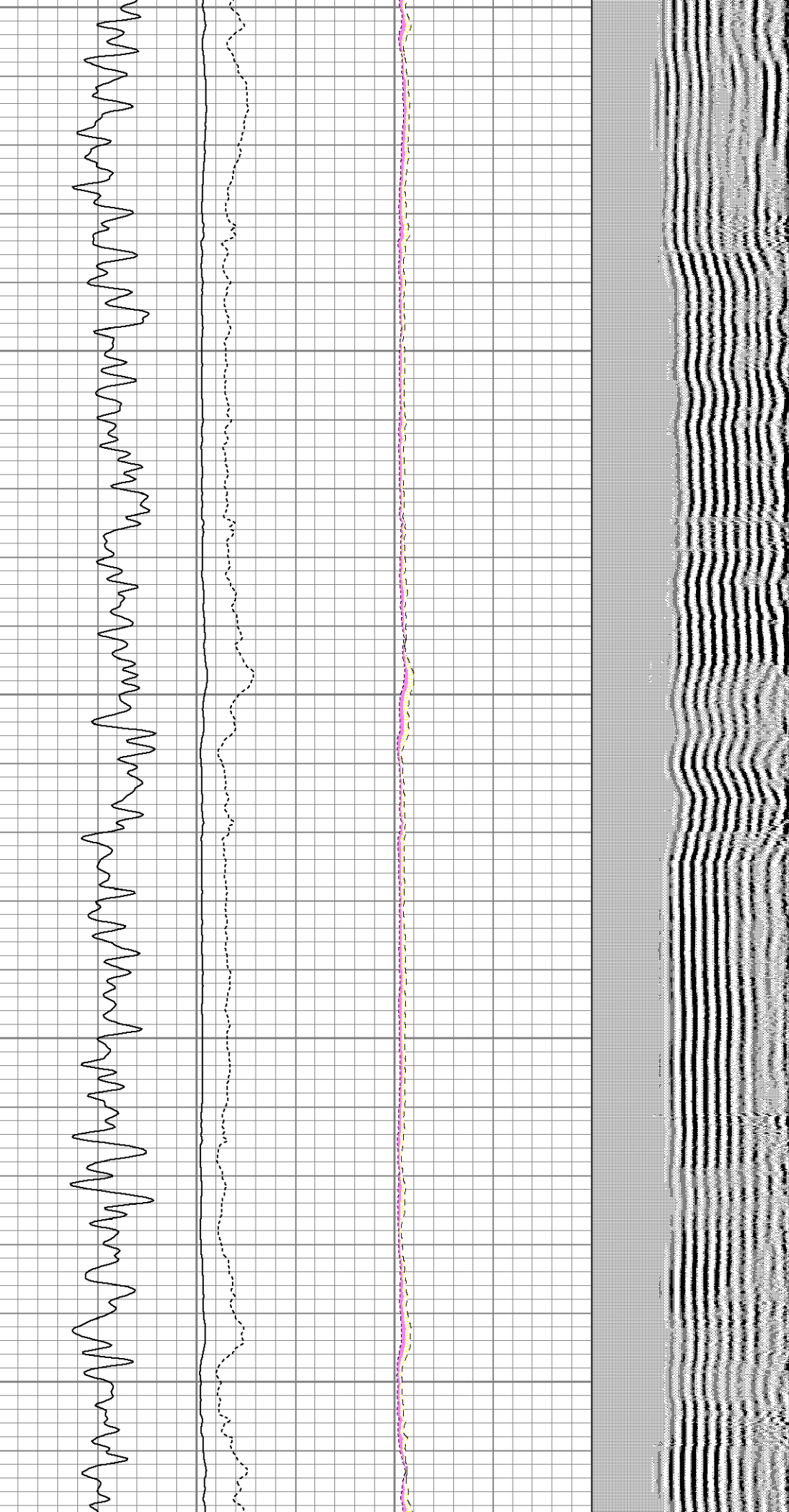
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6000

6050



6100  
6150  
6200  
6250  
6300

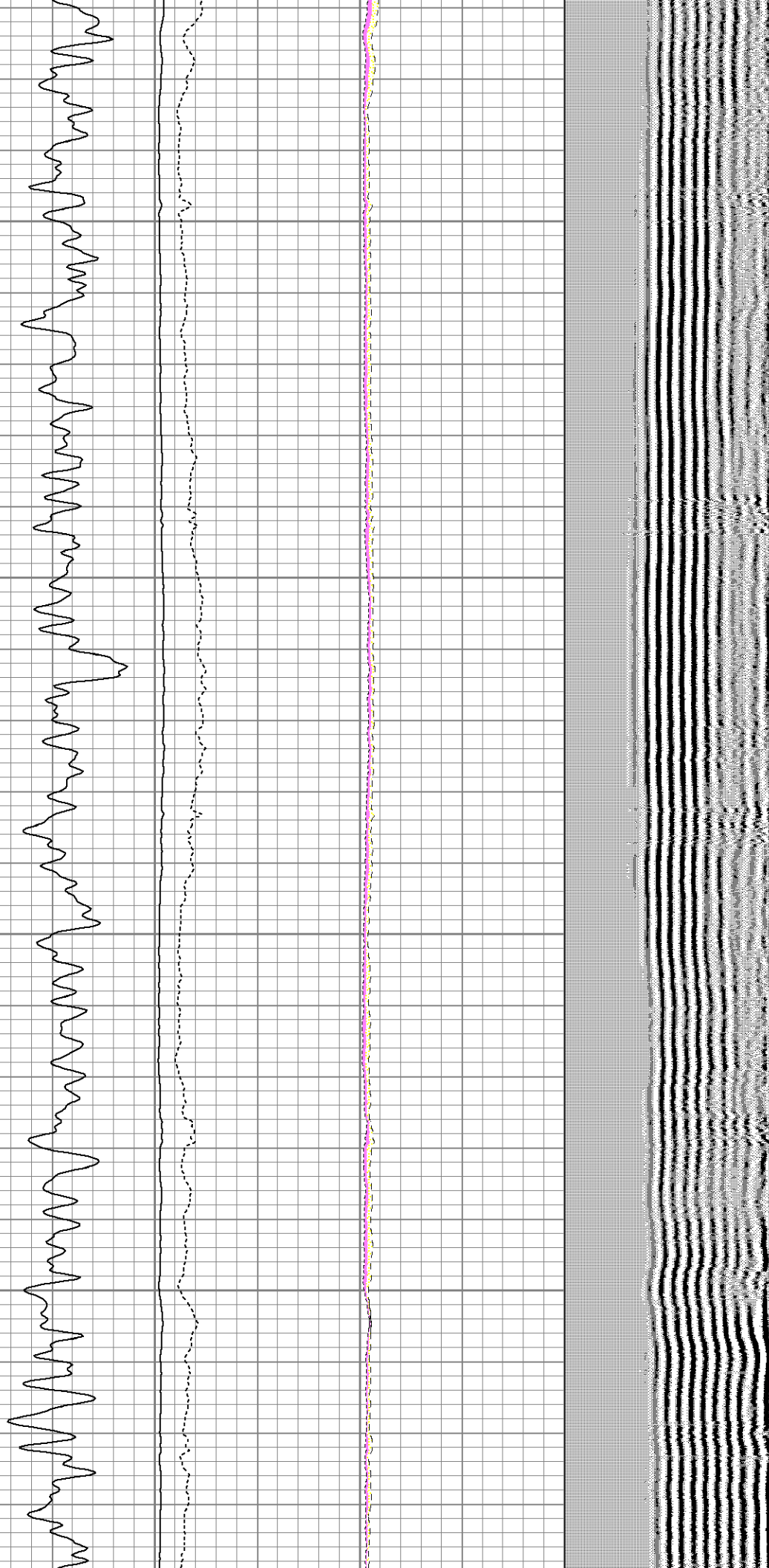


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6500





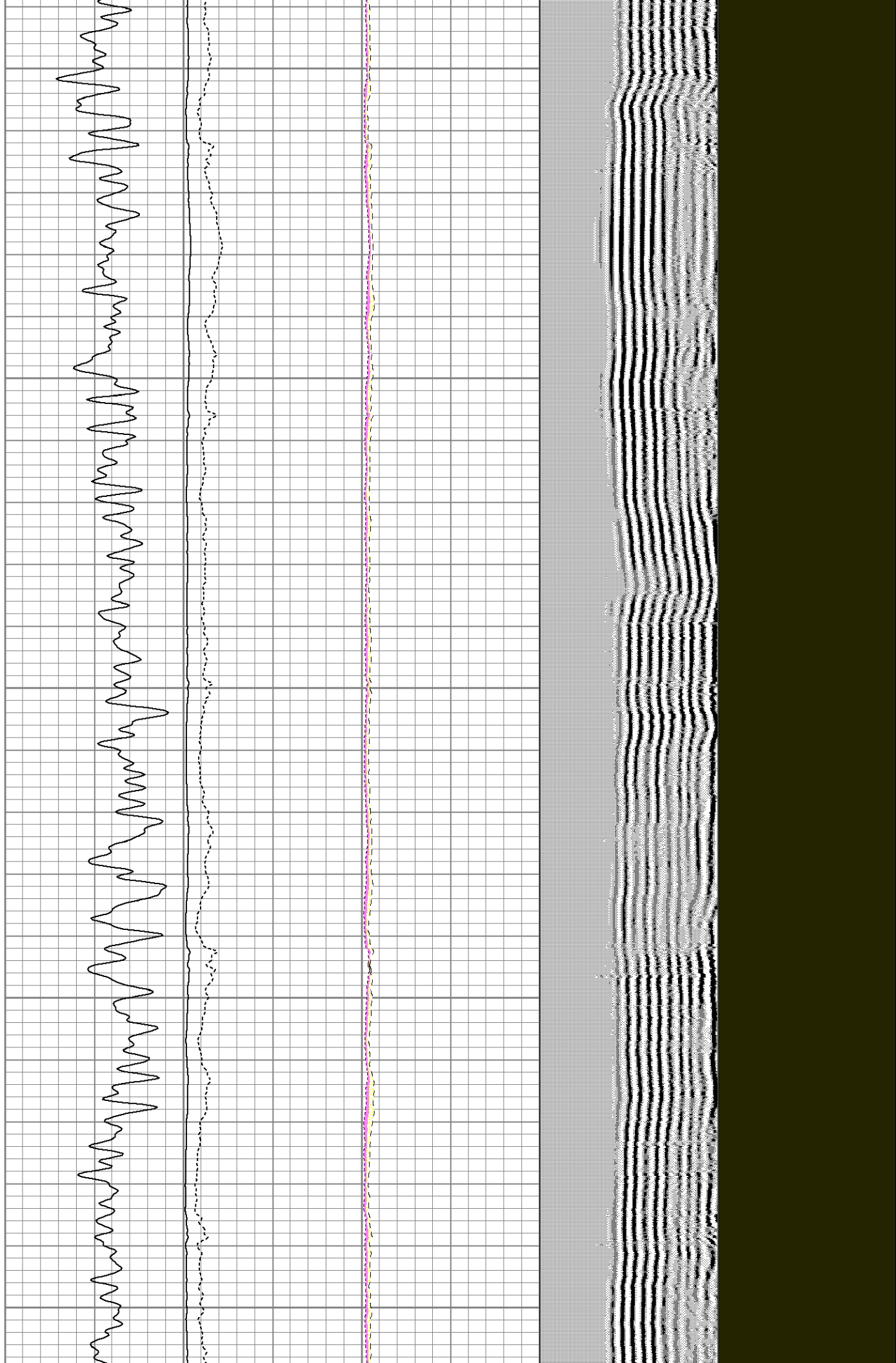
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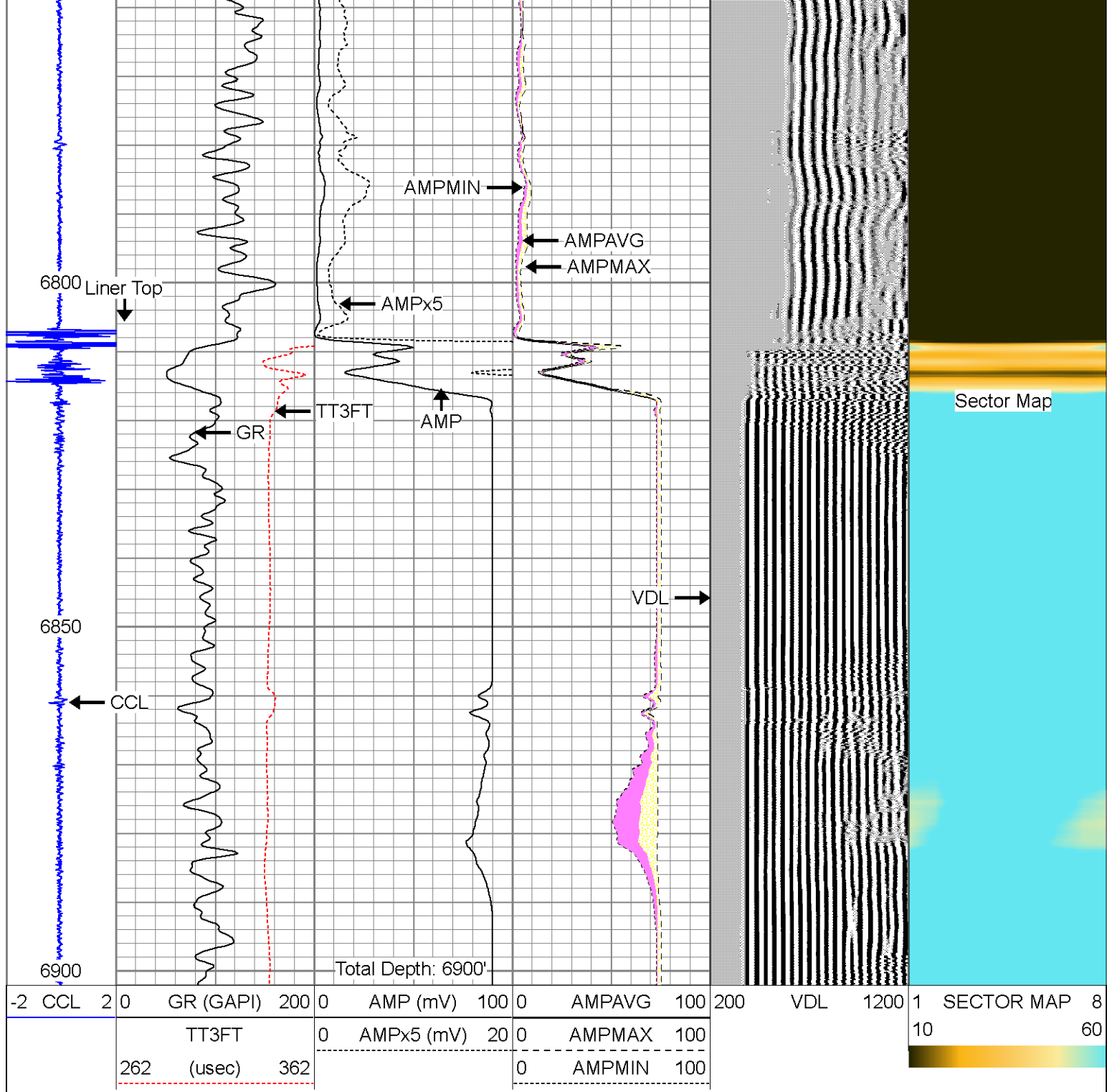
6600

6650

6700

6750





### Calibration Report

Database File: nrc29n-8hz\_RBL.db  
 Dataset Pathname: rbl/pass1  
 Dataset Creation: Sun Apr 27 08:11:45 2014 by Log 7.0 B1

### Gamma Ray Calibration Report

Serial Number:	111212
Tool Model:	Probe
Performed:	Sat Apr 26 08:27:22 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: \_\_\_\_\_ Base  
 Tool Model: \_\_\_\_\_ Probe  
 Calibration Casing Diameter: 4.500 in  
 Calibration Depth: 654.533 ft

Master Calibration, performed Thu Apr 17 14:11:55 2014:

	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3'	0.013	2.004	0.800	81.196	40.375	0.265
CAL	0.013	0.427				
5'	0.013	1.981	0.800	81.196	40.850	0.261
SUM						
S1	0.013	2.087	0.000	96.000	46.285	-0.618
S2	0.013	2.137	0.000	96.000	45.201	-0.600
S3	0.013	2.147	0.000	96.000	44.985	-0.575
S4	0.014	2.124	0.000	96.000	45.483	-0.628
S5	0.013	2.061	0.000	96.000	46.883	-0.630
S6	0.014	2.017	0.000	96.000	47.930	-0.651
S7	0.013	1.971	0.000	96.000	49.026	-0.652
S8	0.014	1.998	0.000	96.000	48.367	-0.661

Internal Reference Calibration, performed Thu Apr 10 10:48:26 2014:

	Raw (v)		Calibrated (v)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
CAL	0.000	0.000	0.013	0.427	1.000	0.000

Air Zero Calibration, performed Thu Apr 10 11:05:41 2014:

	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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