Patterson

COMPENSATED DENSITY NEUTRON LOG

Company	XTO Energy Inc.
Well	Hill Ranch 22-16
Field	Purgatoire River
County	Las Animas
State	Colorado

Company XTO Energy Inc.

Well Hill Ranch 22-16

Field Purgatoire River

County Las Animas State Colorado

Location: API # : 05 071 08792 00

423' FSL & 379' FEL

SEC 22 TWP 34S RGE 67W

Other Services: dil

Permanent Datum Ground Level Elevation 7820'

Log Measured From Ground Level

Drilling Measured From Ground Level

Elevation: K.B. ----- D.F. ----- G.L. 7820'

Date	09-19-06		
Run Number	One		
Depth Driller	2450'		
Depth Logger	2448'		
Bottom Logged Interval	2432'		
Top Log Interval	Surface Casing		
Casing Driller	8 5/8" @ 636'		
Casing Logger	636'		
Bit Size	7 7/8"		
Type Fluid in Hole	Water		
Density / Viscosity	///		
pH / Fluid Loss	///		
Source of Sample	///		
Rm @ Meas. Temp	///		
Rmf @ Meas. Temp	///		
Rmc @ Meas. Temp	///		
Source of Rmf / Rmc	///		
Rm @ BHT	///		
Time Circulation Stopped	12:00 p.m.		
Time Logger on Bottom	2:15 p.m.		
Maximum Recorded Temperature	114		
Equipment Number	T677		
Location	Trinidad		
Recorded By	L. Smith		
Witnessed By	Mr. Don Johnson		

<<< Fold Here >>>

Comments

Compensated Density Neutron Porosity Presented On Sandstone Matrix.
ABHV Calculated For 5 1/2" Casing.
Up Lorencito Canyon 5.4 miles, turn right on rd. to XTO,
stay on main rd. to white dumpster, turn right and stay on main rd.,
go past compressor station stay on main rd., drive thru
Hill Ranch 22-12 location, take next right to Y and go left then next left to location.

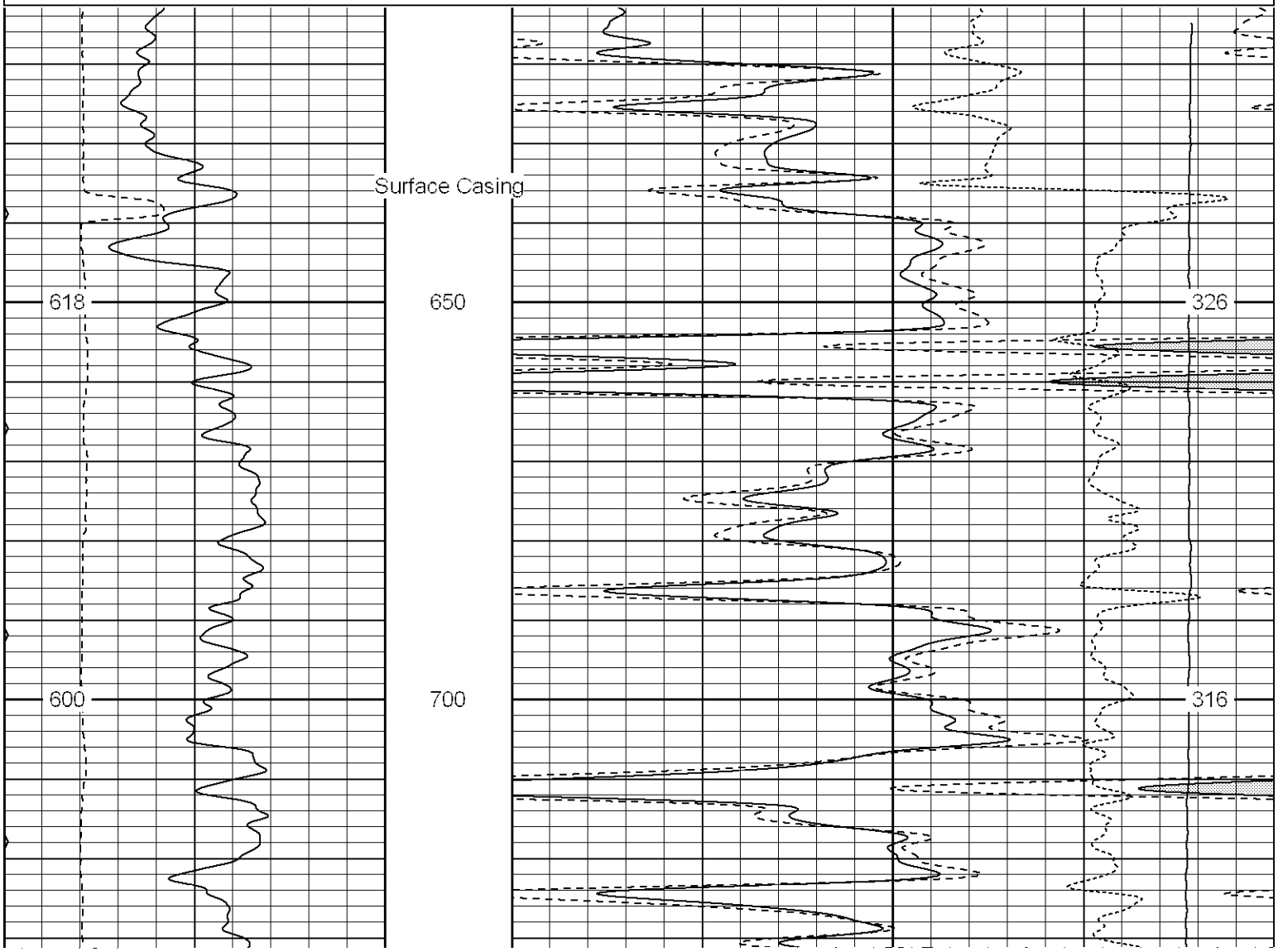
Patterson

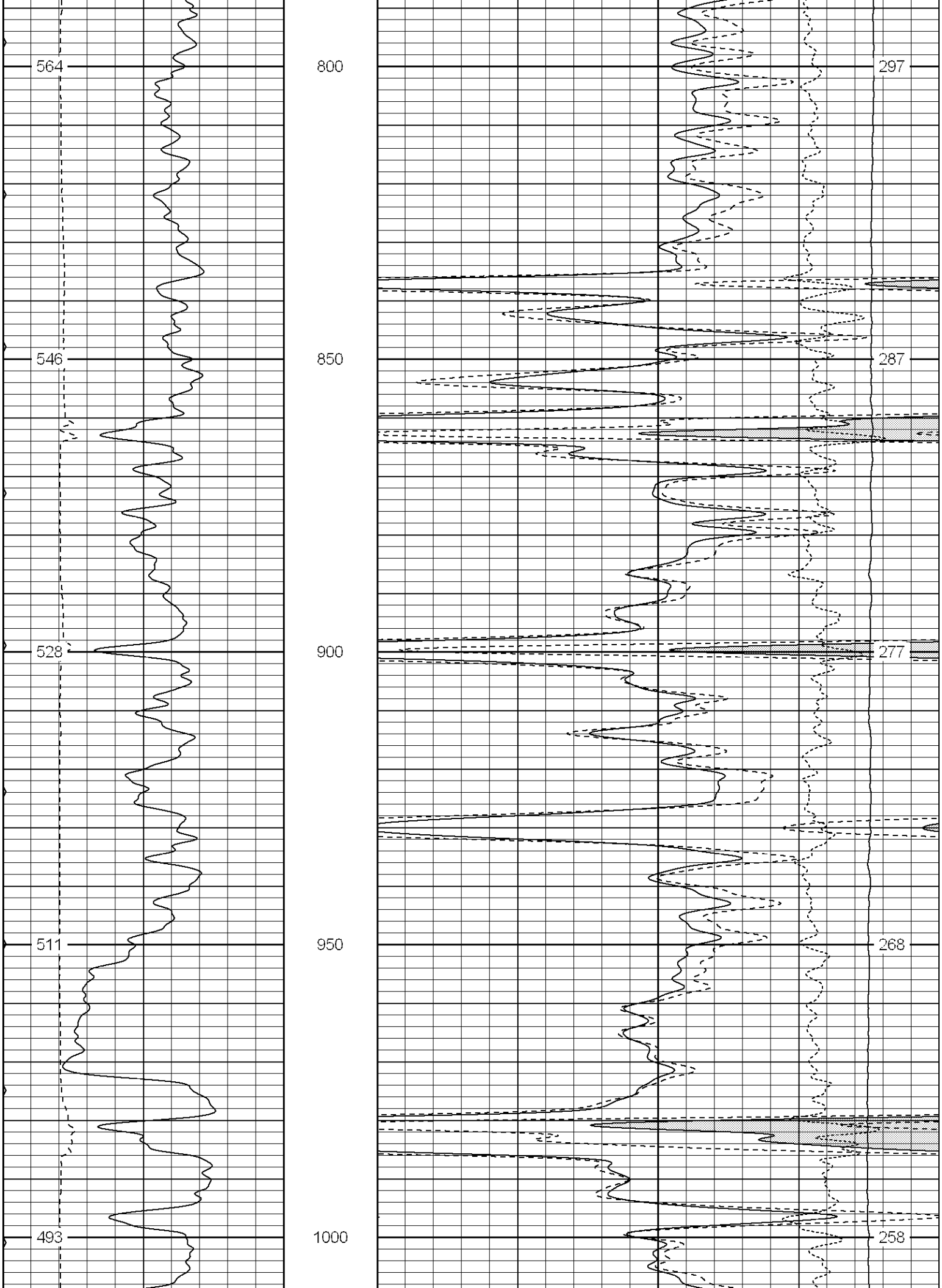
Main Pass

Database File:	xtohillranch2216.db
Dataset Pathname:	pass2.1
Presentation Format:	cdl
Dataset Creation:	Tue Sep 19 15:51:30 2006 by Calc Warrior 7.0 STD Ope
Charted by:	Depth in Feet scaled 1:240

0	GR (GAPI)	200
6	DCAL (in)	16
0	MINMK	80

2	RHOB (g/cc)	3
1	RHOB (g/cc)	2
30	DPOR (pu)	-10
-0.5	RHOC (g/cc)	0.5
4000	LTEN (lb)	0

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268
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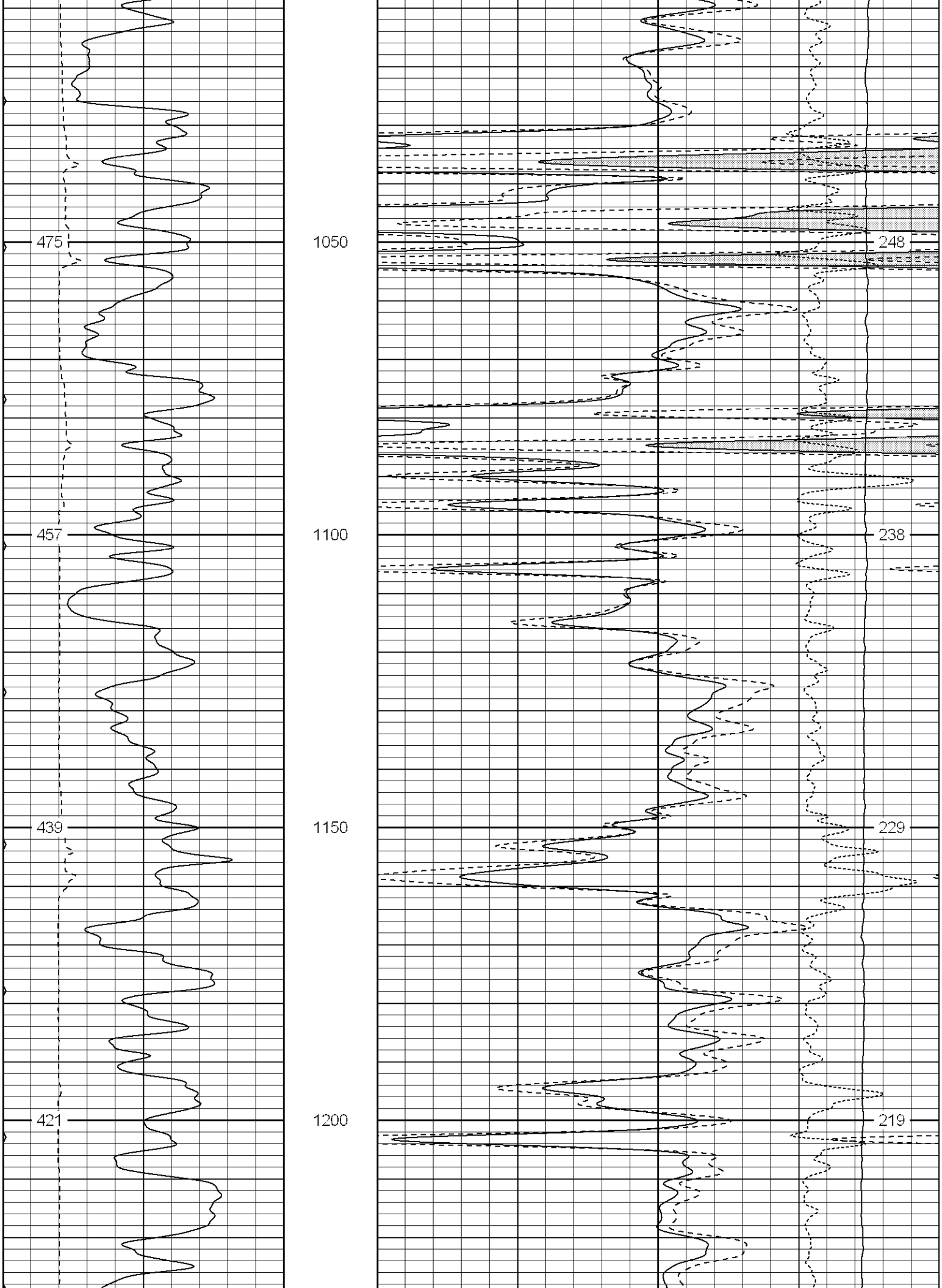
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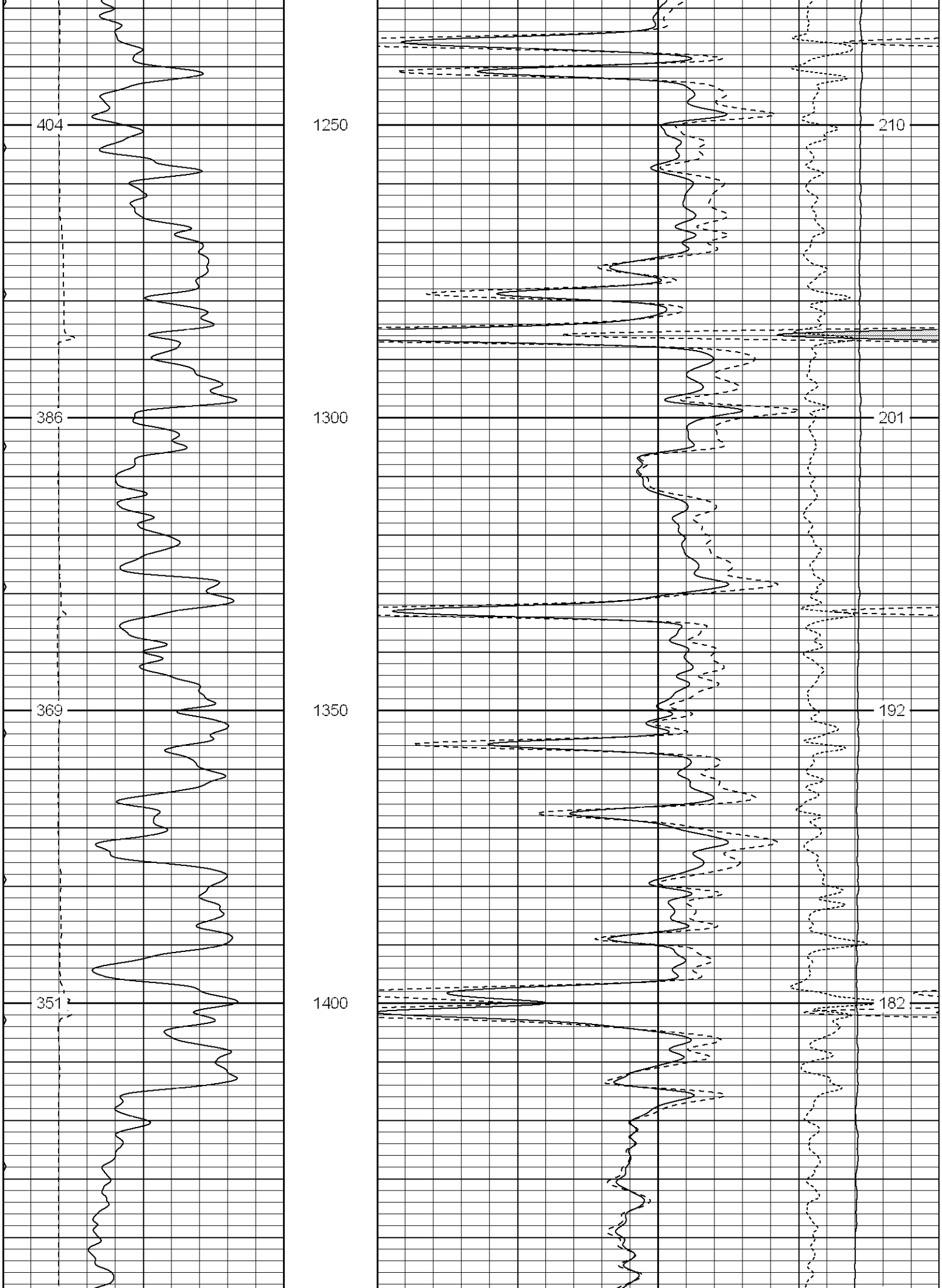
457
439
421
1050
1100
1150
1200
248
238
229
219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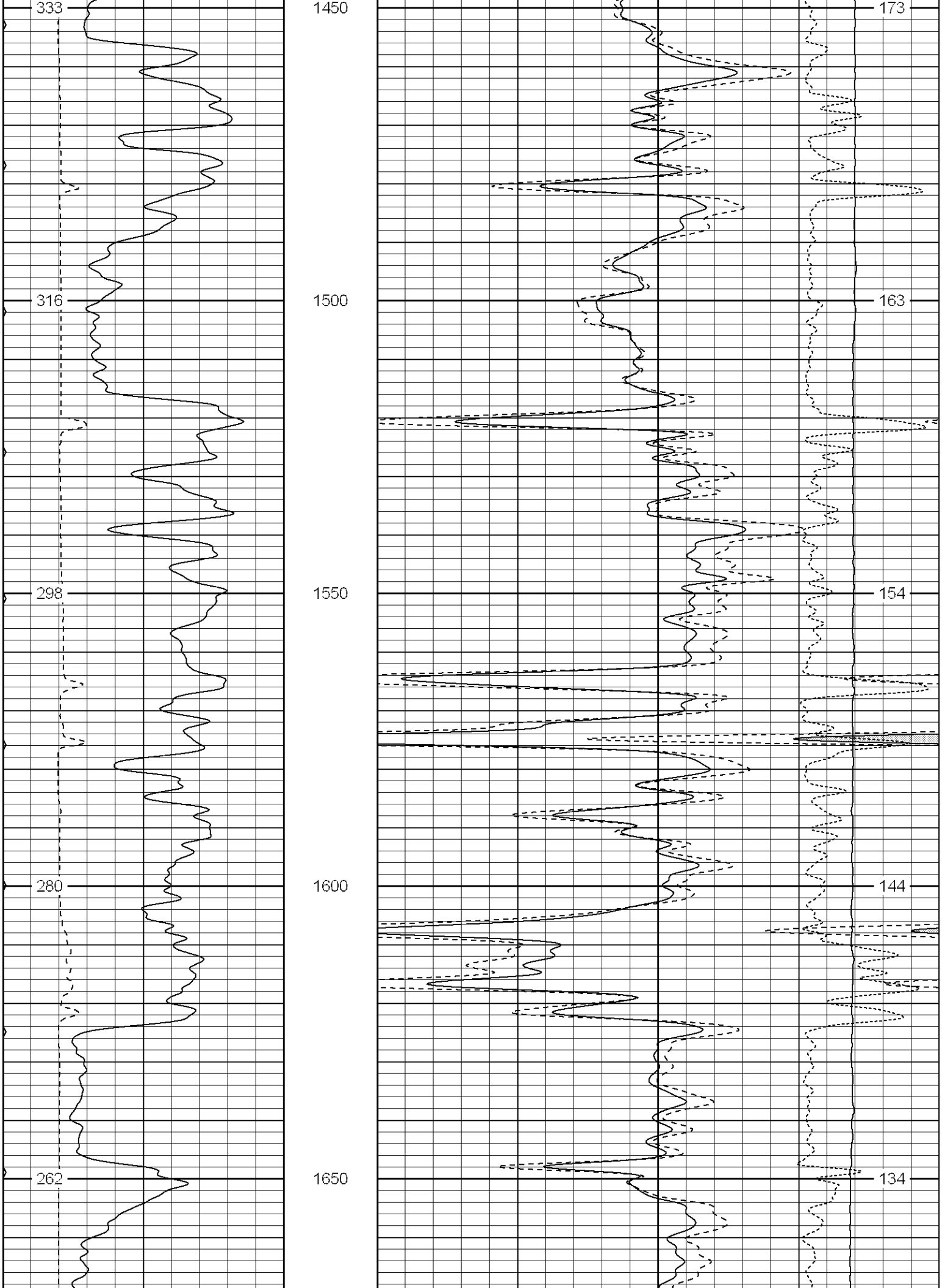
1250
210
386
1300
201
369
1350
192
351
1400
182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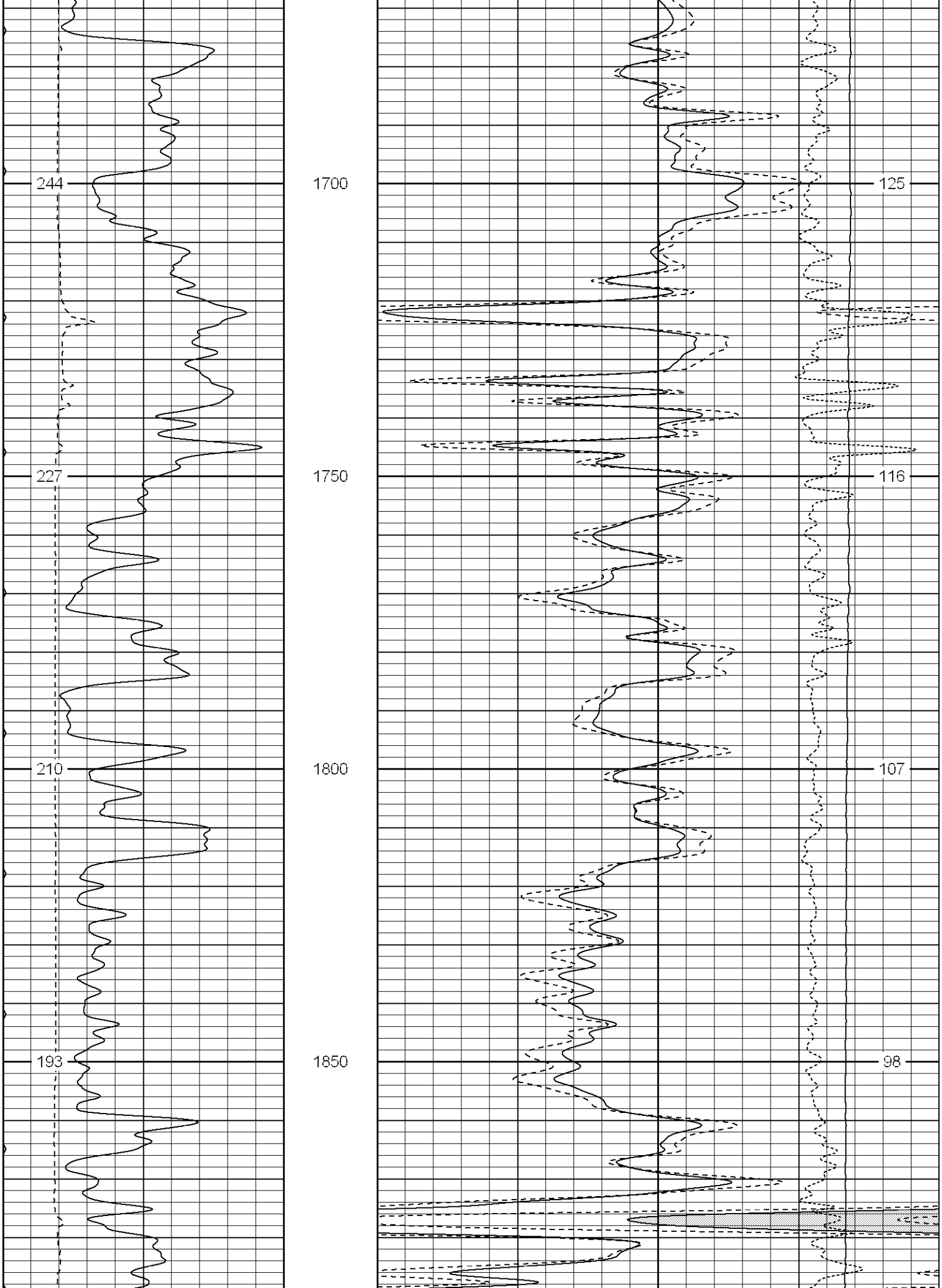
316
298
280
262
1450
1500
1550
1600
1650
173
163
154
144
134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227
210
193
1700
1750
1800
1850
125
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107
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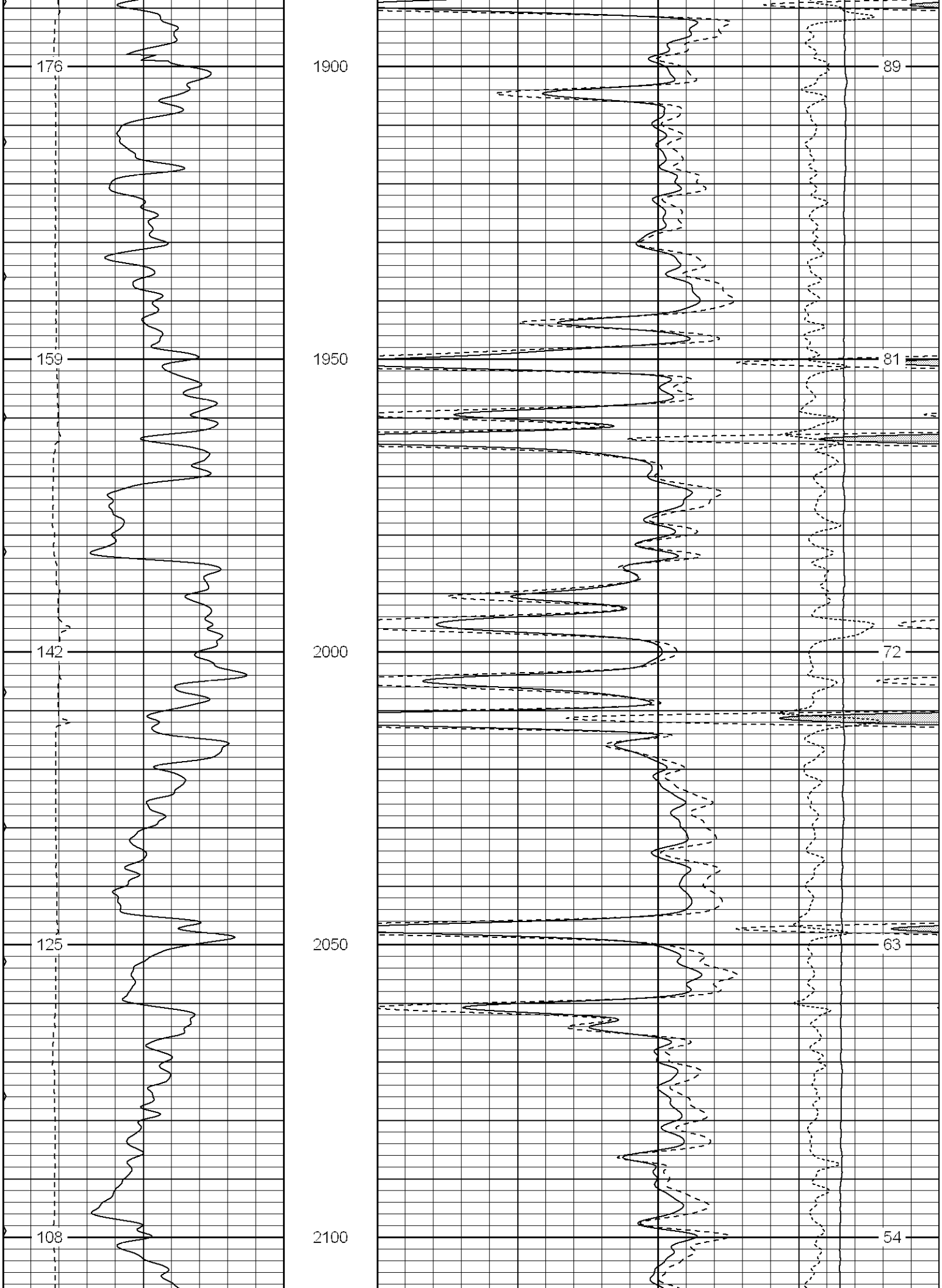
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159
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125
108
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2000
2050
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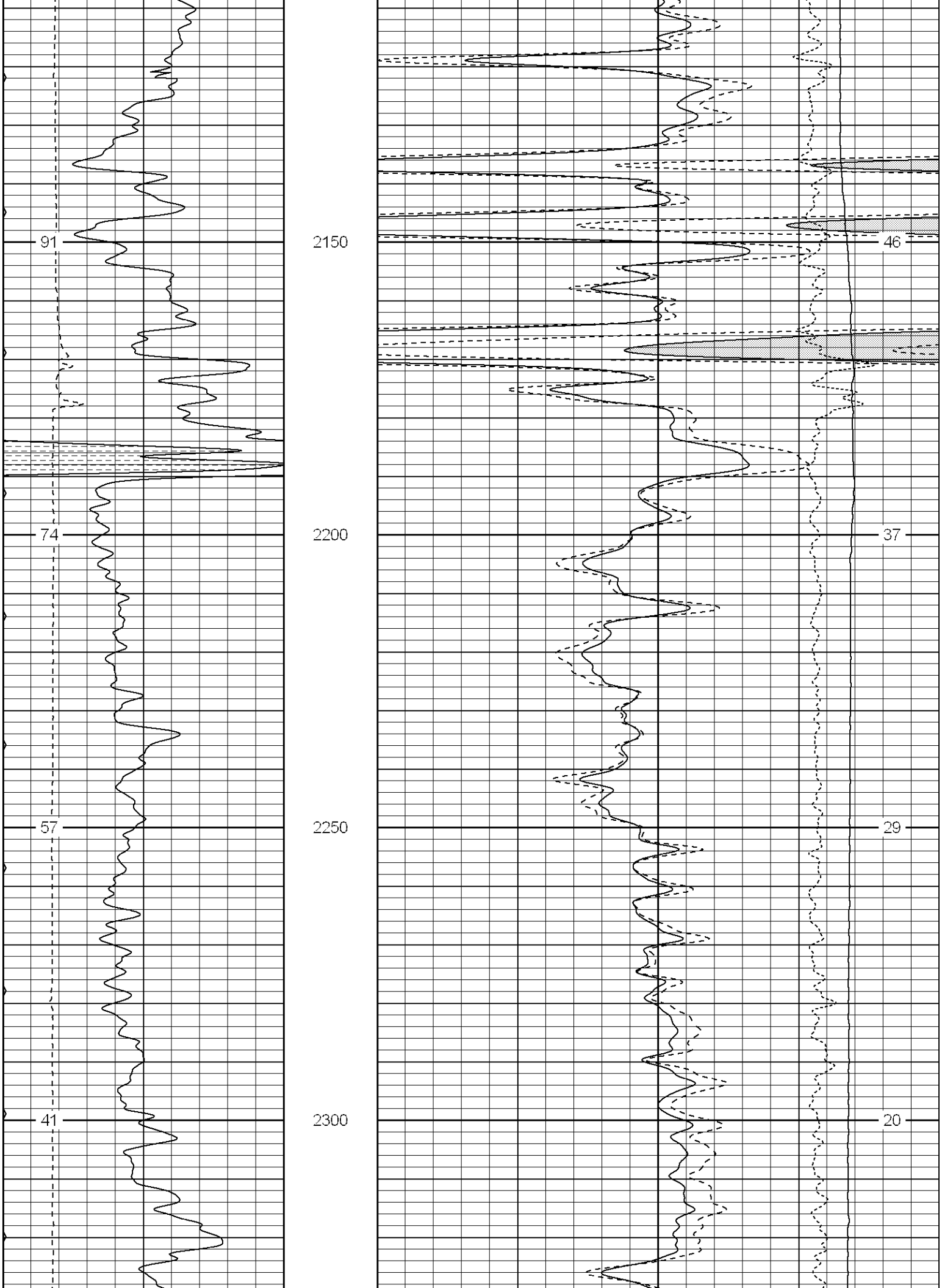
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74
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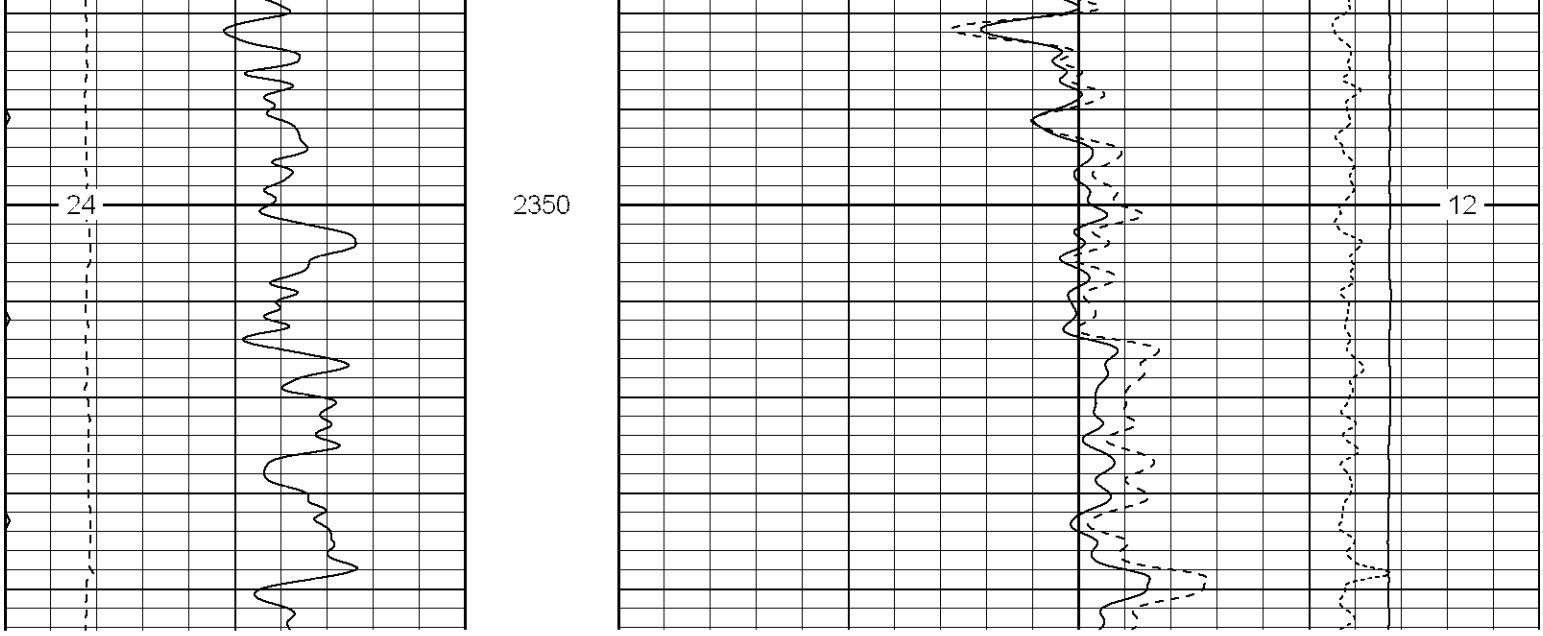
41
2150
2200
2250
2300
46
37
29
20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2350
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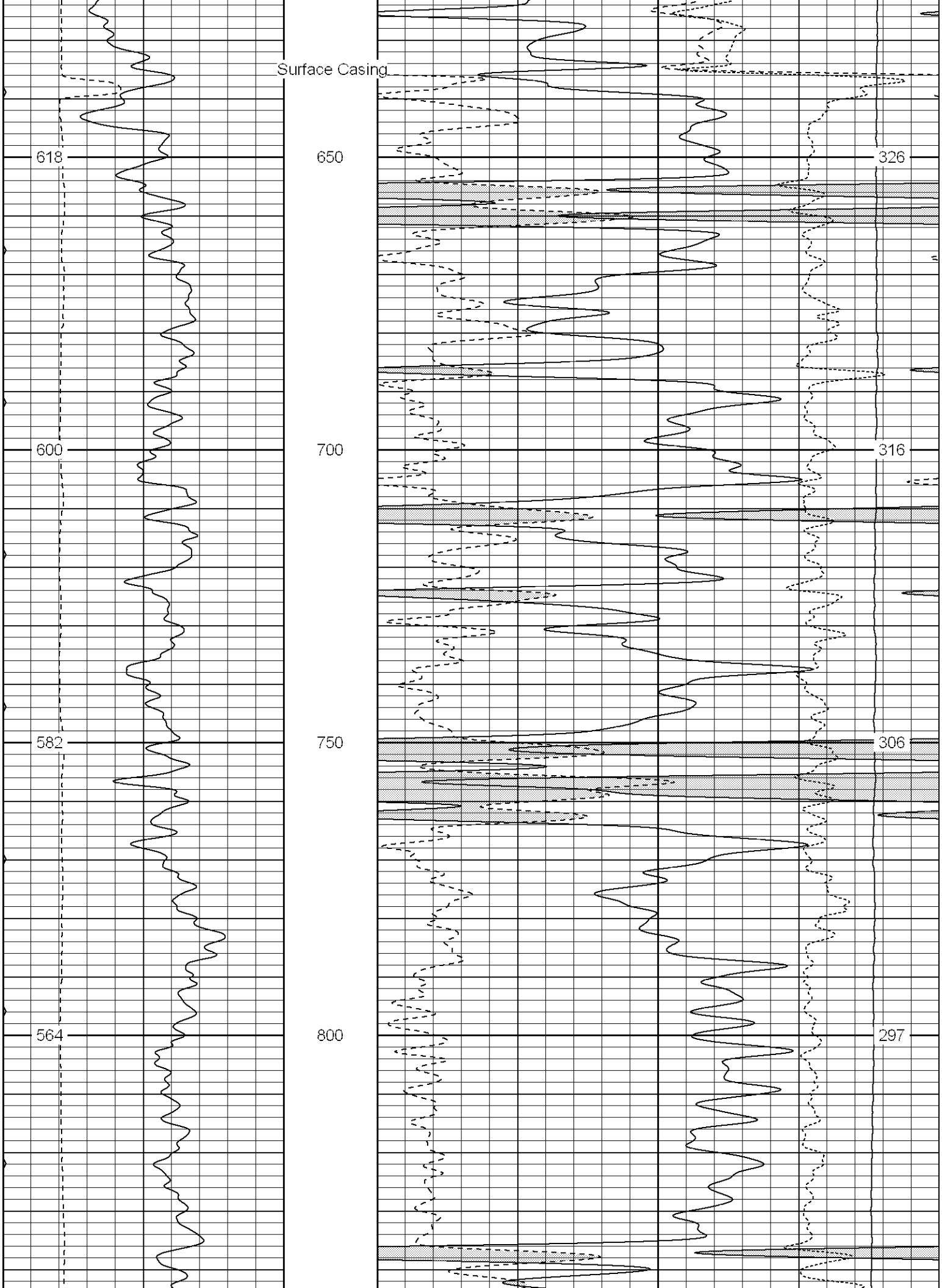
Surface Casing
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700
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306
564
800
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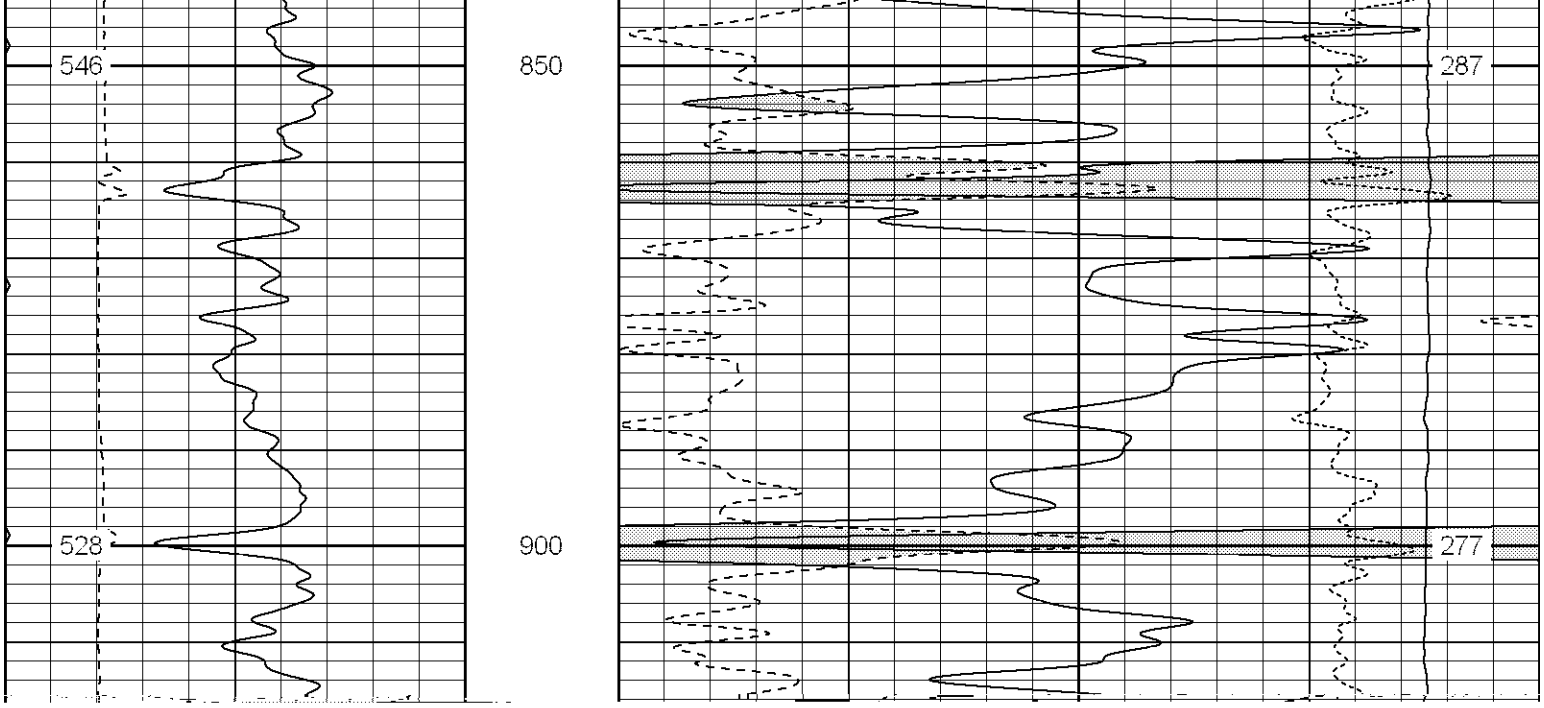
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900
287
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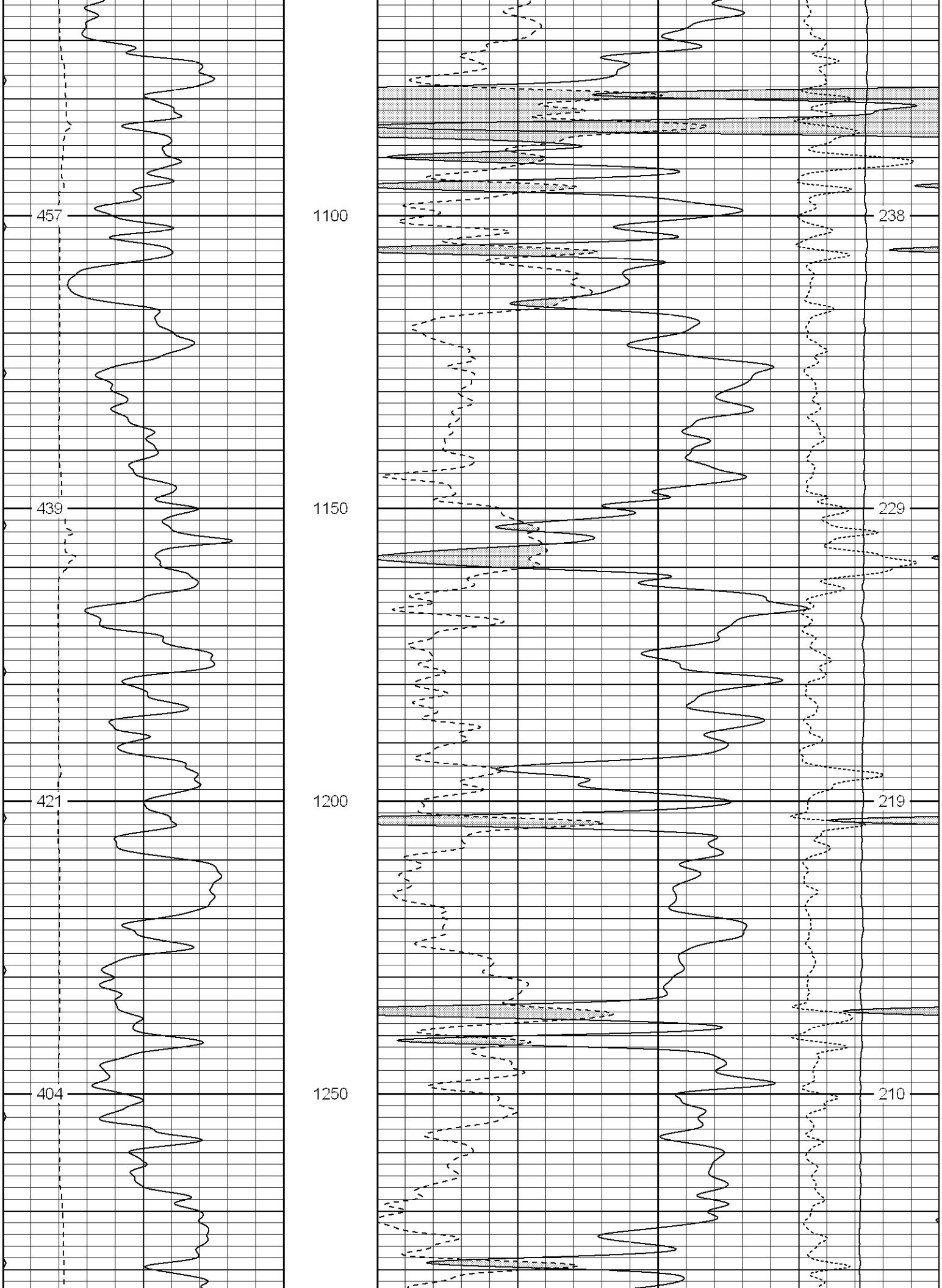
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421
404
1100
1150
1200
1250
238
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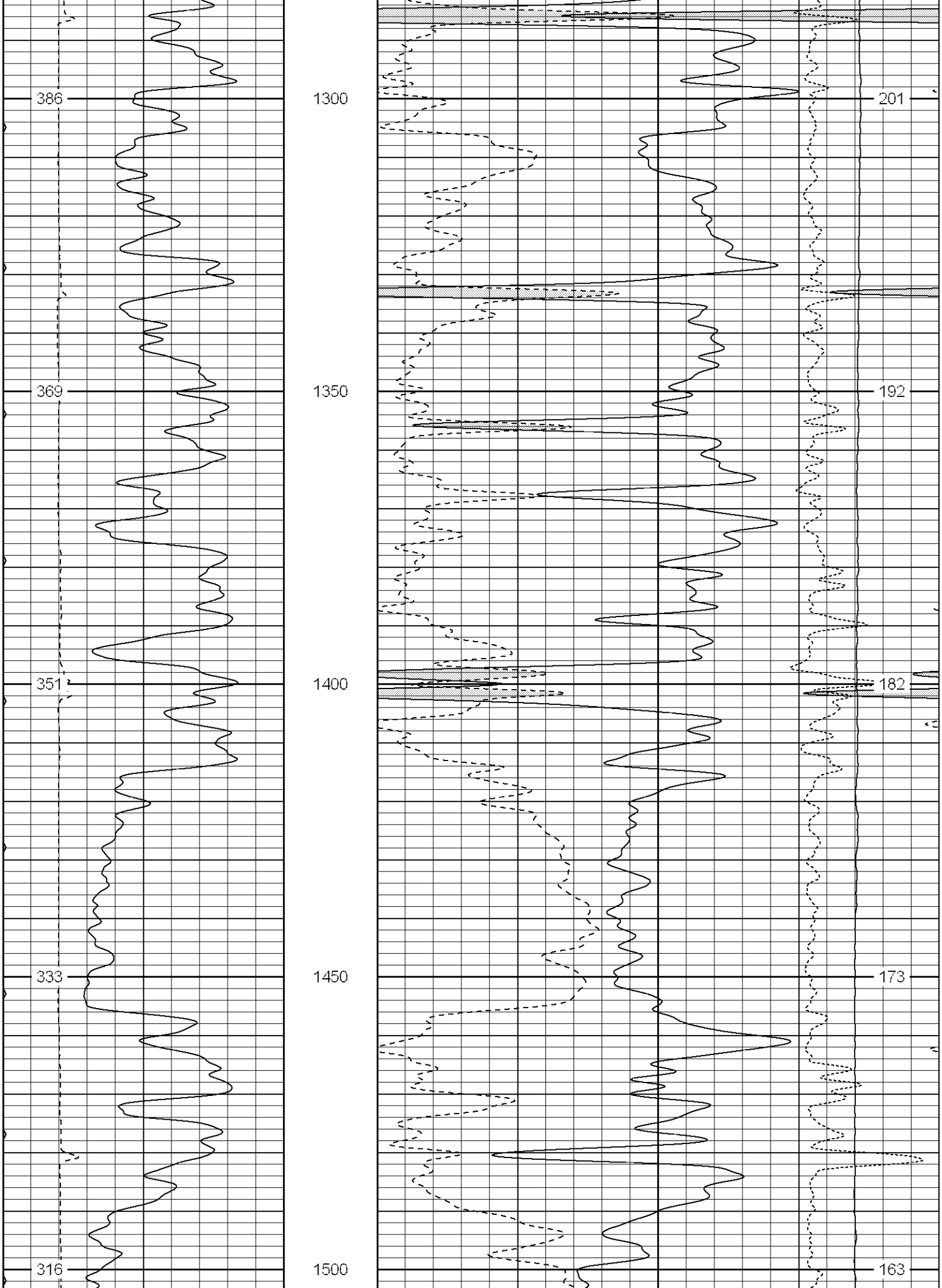
219
210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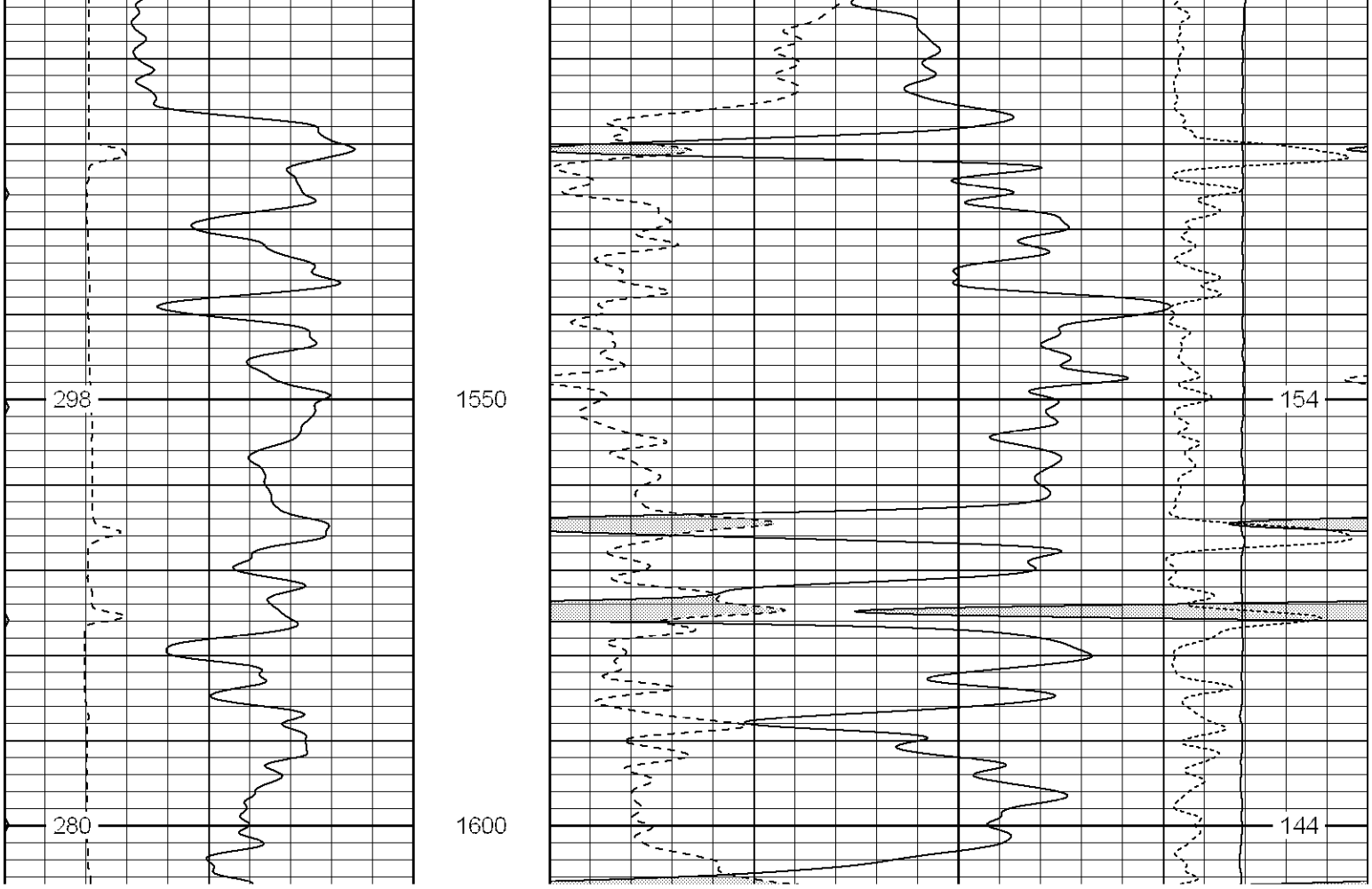
316
1300
1350
1400
1450
1500
201
192
182
173
163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1550
1600
154
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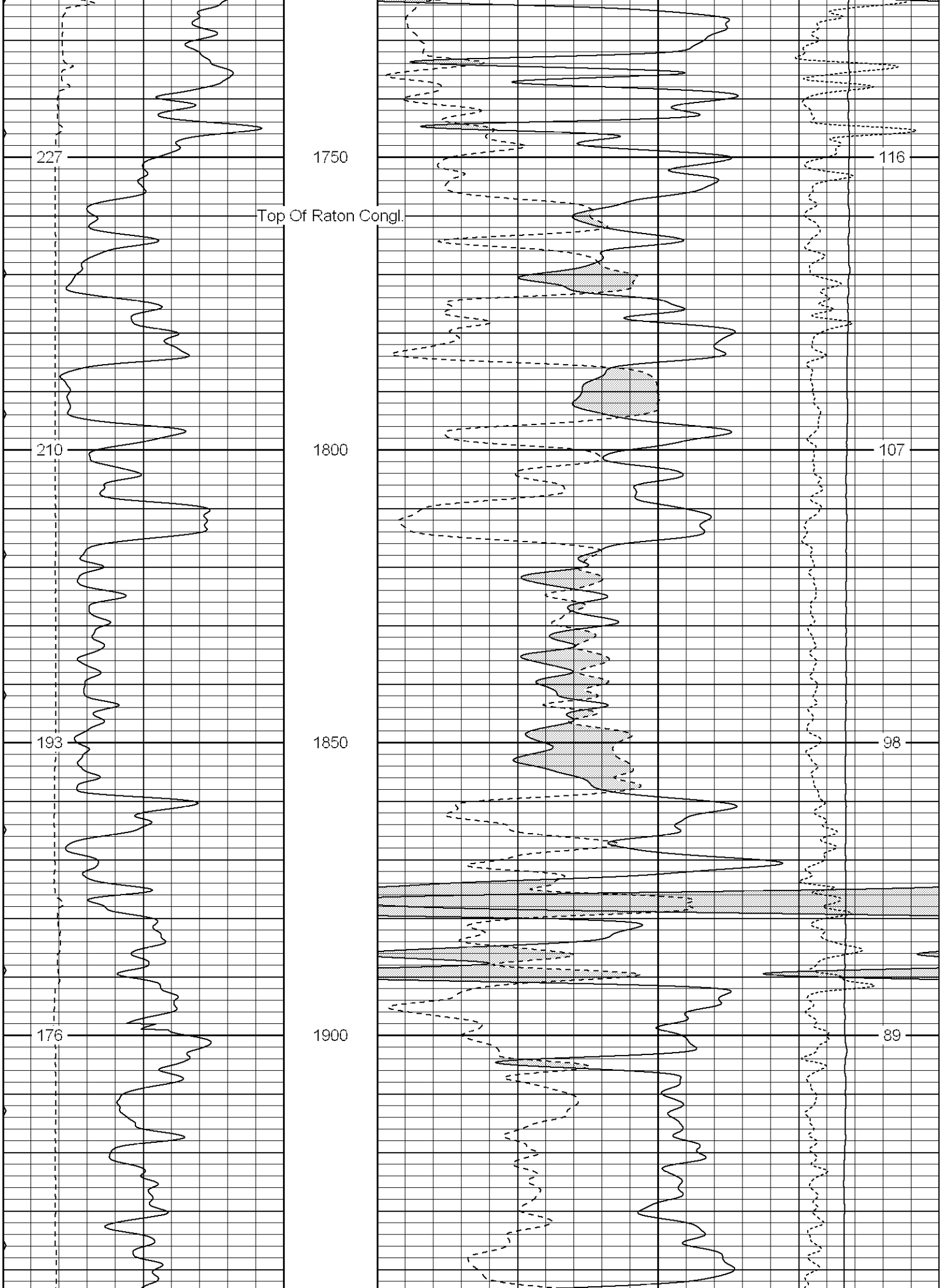
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1750
116
Top Of Raton Congl.
210
1800
107
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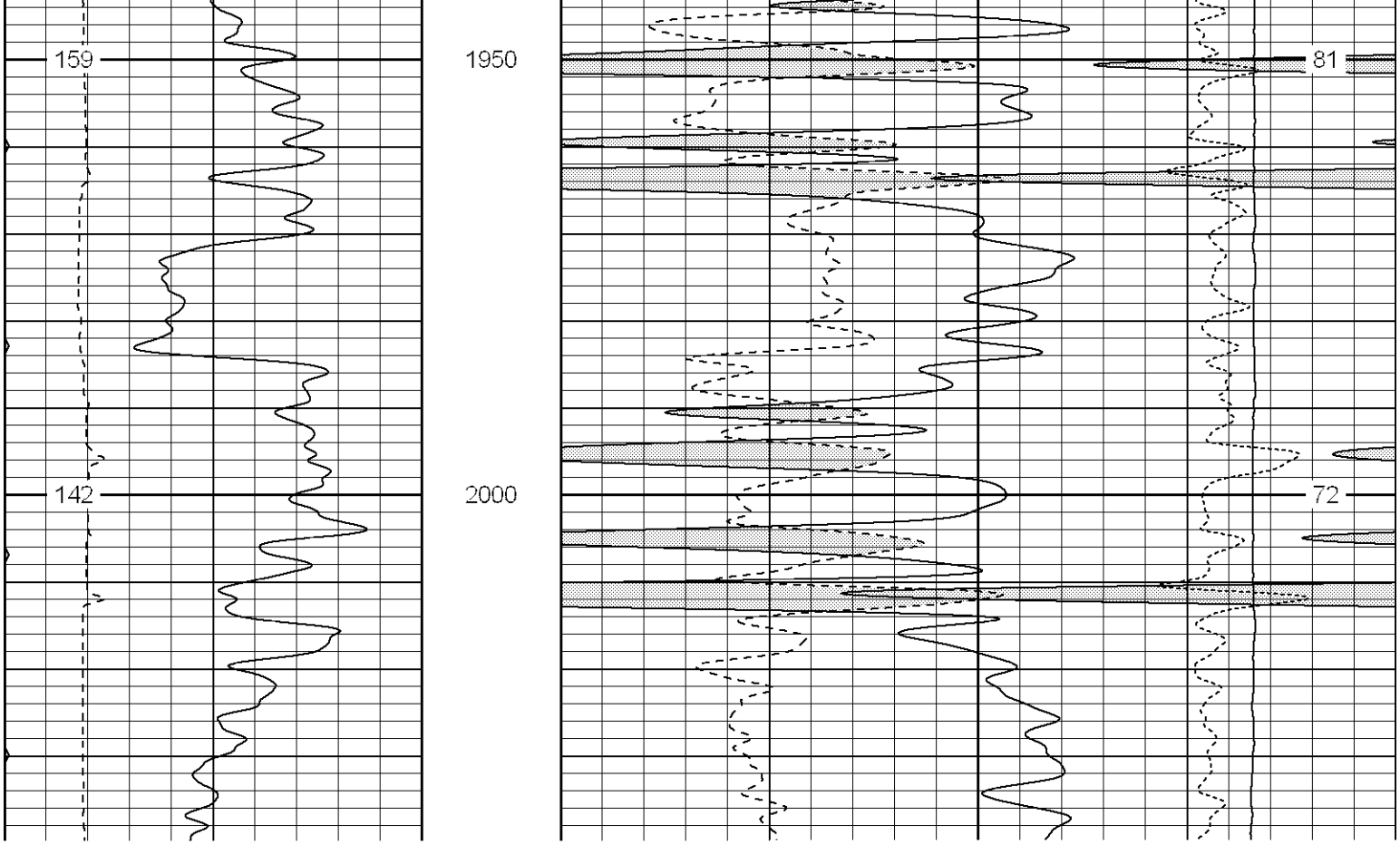
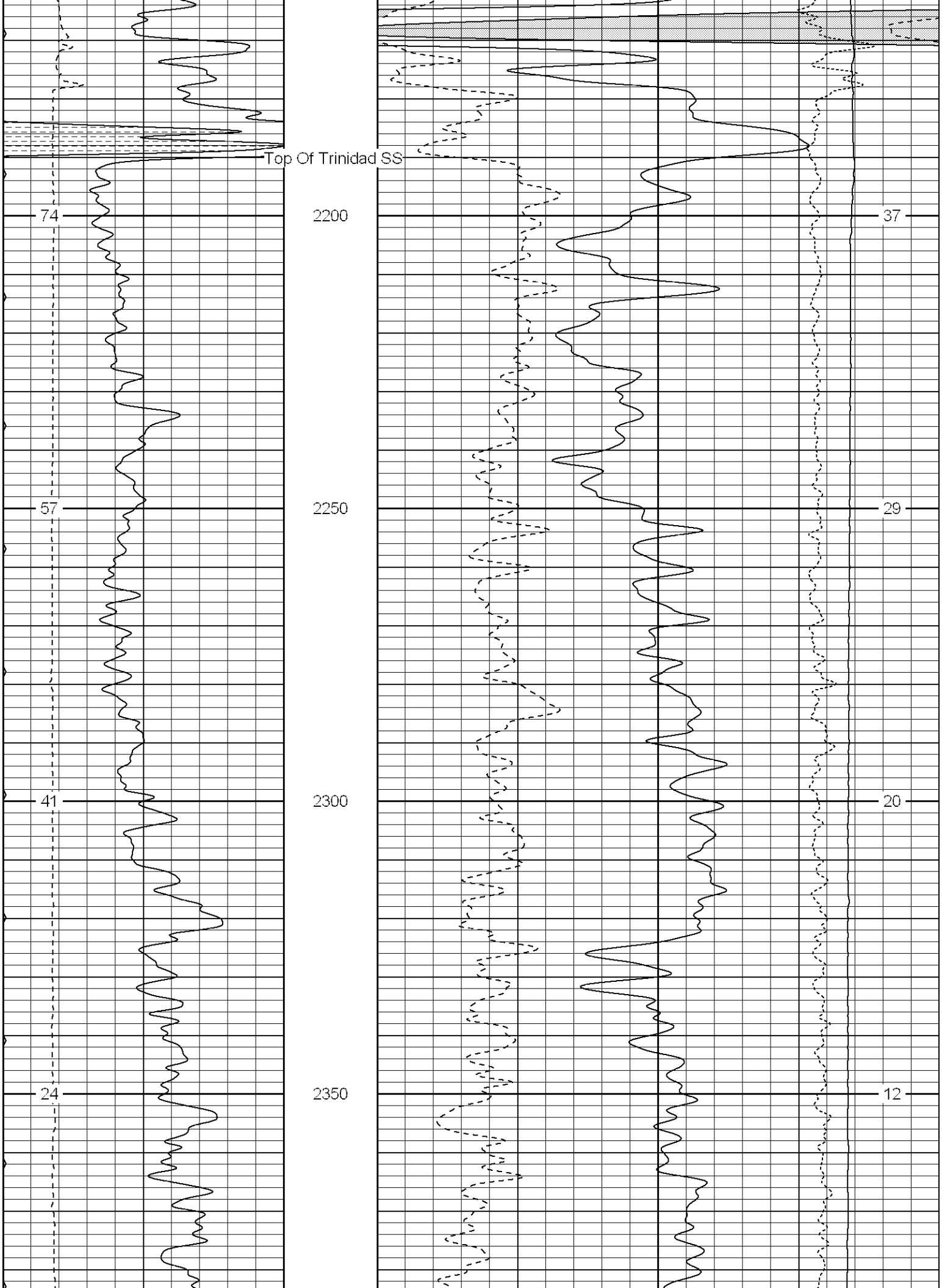
1850
98
176
1900
89


159
142
1950
2000
81
72


Top Of Trinidad SS
74
57
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24
2200
2250
2300
2350
37
29
20
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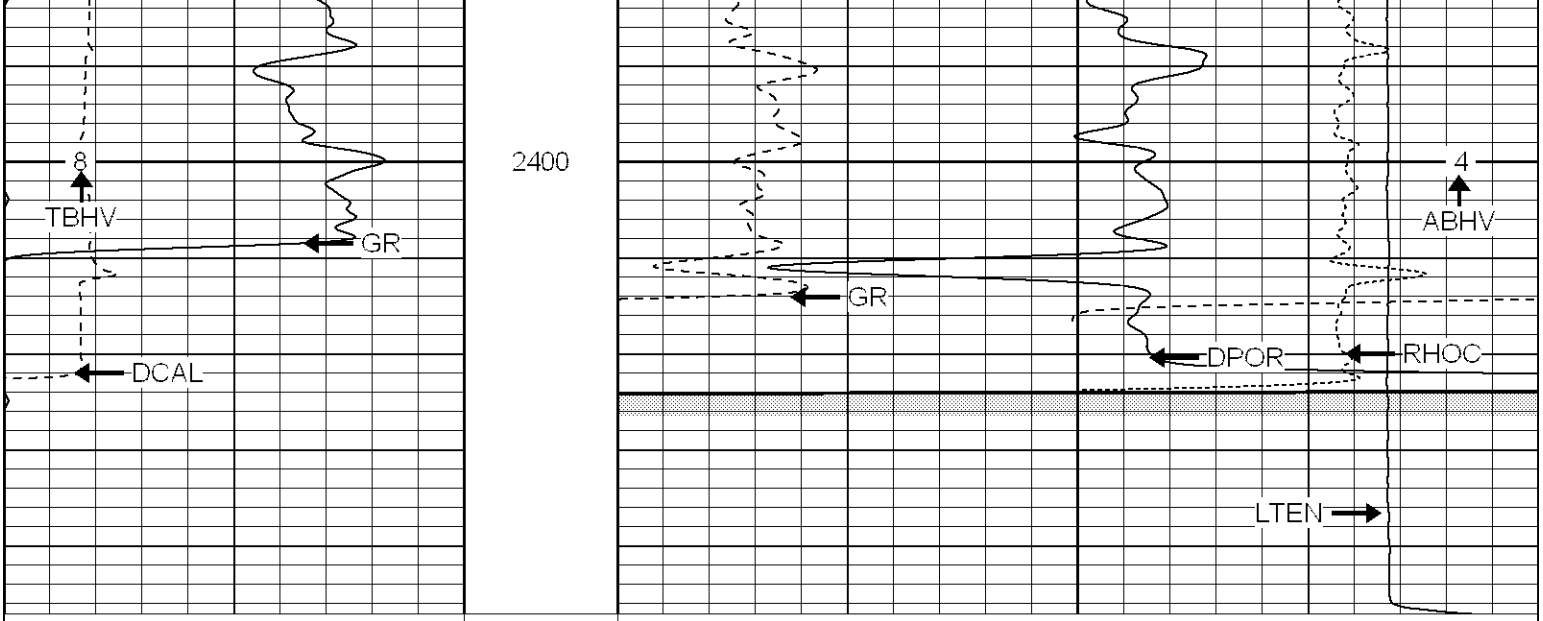


0	GR (GAPI)	200
6	DCAL (in)	16
0	MINMK	80

30	NPOR (pu)	-10
30	DPOR (pu)	-10
-0.5	RHOC (g/cc)	0.5
4000	LTEN (lb)	0

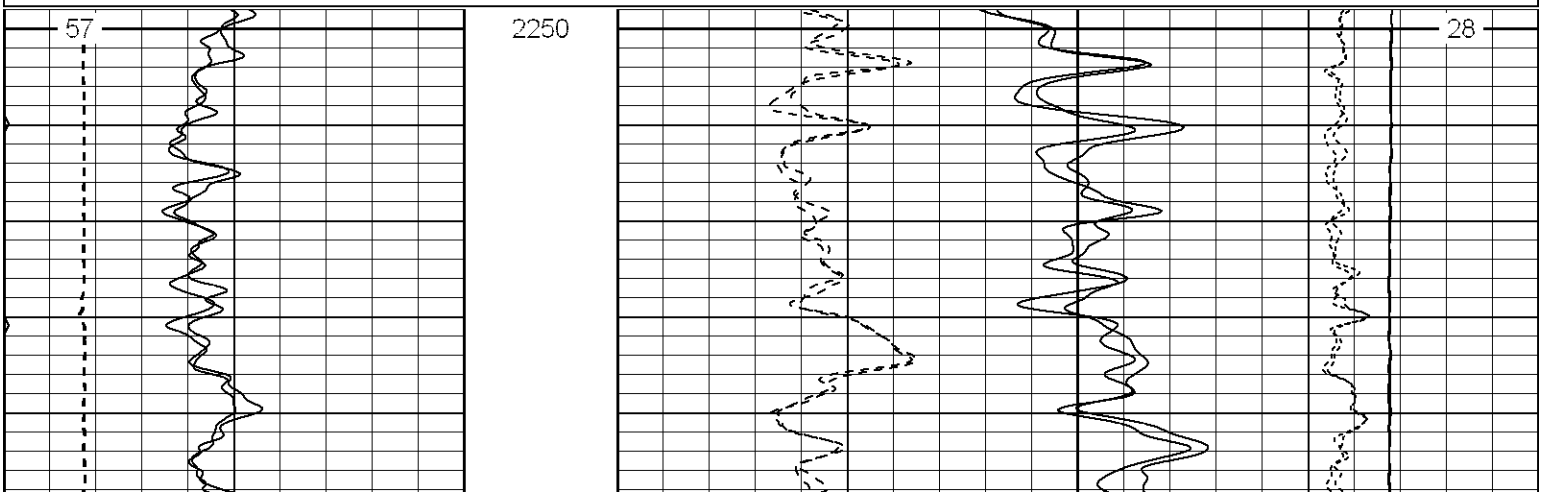
Patterson

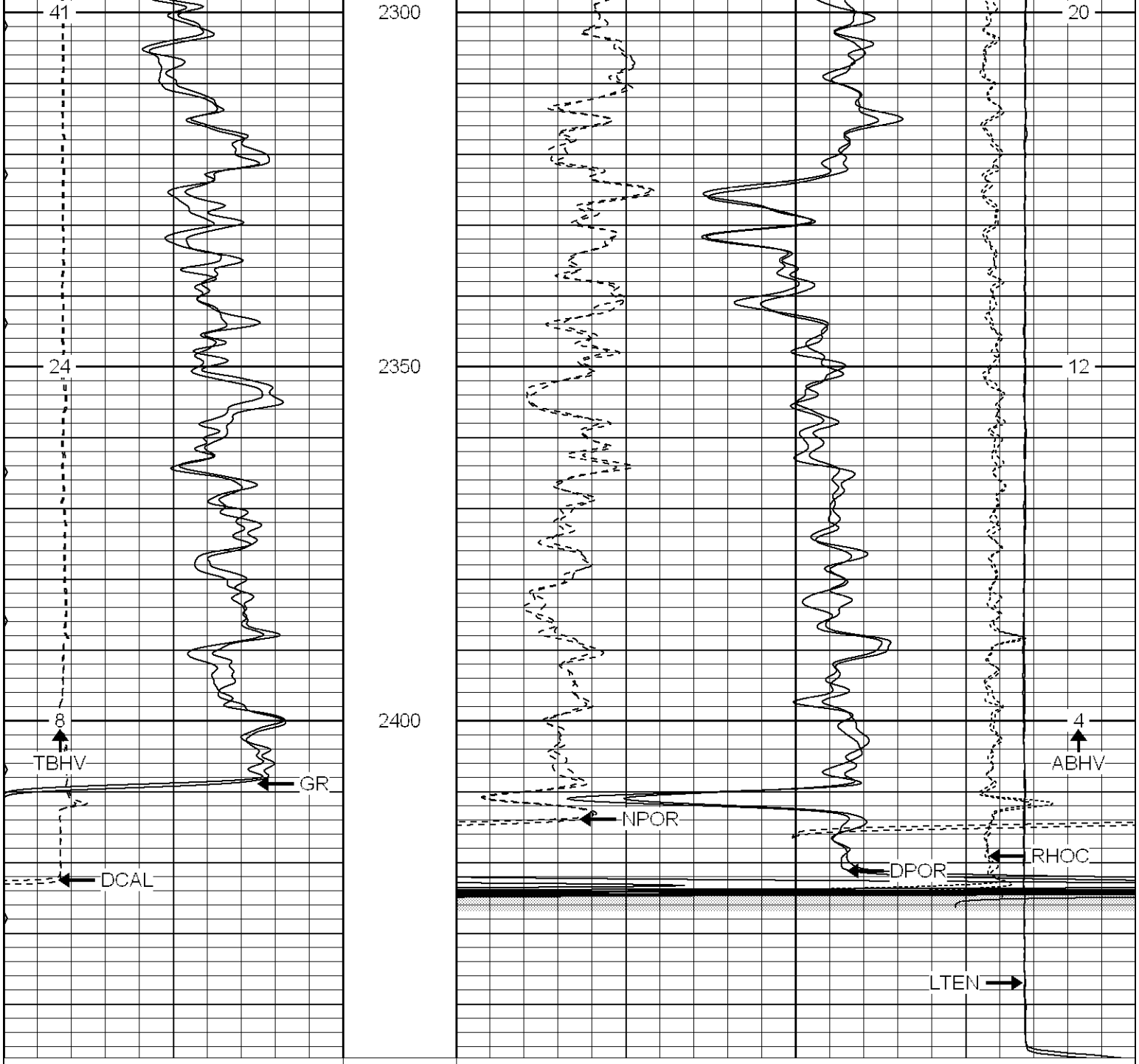
Repeat Pass

Database File: xtohillranch2216.db
Dataset Pathname: pass1.1
Presentation Format: cdnl
Dataset Creation: Tue Sep 19 15:11:23 2006 by Calc Warrior 7.0 STD Ope
Charted by: Depth in Feet scaled 1:240

0	GR (GAPI)	200
6	DCAL (in)	16
0	MINMK	80
0	GR-repeat (GAPI)	200
6	DCAL-repeat (in)	16

30	NPOR (pu)	-10
30	DPOR (pu)	-10
30	NPOR-repeat (pu)	-10
30	DPOR-repeat (pu)	-10
-0.5	RHOC (g/cc)	0.5
4000	LTEN (lb)	0
-0.5	RHOC-repeat (g/cc)	0.5
4000	LTEN-repeat (lb)	0





0	GR (GAPI)	200
6	DCAL (in)	16
0	MINMK	80
0	GR-repeat (GAPI)	200
6	DCAL-repeat (in)	16

30	NPOR (pu)	-10
30	DPOR (pu)	-10
30	NPOR-repeat (pu)	-10
30	DPOR-repeat (pu)	-10

-0.5	RHOC (g/cc)	0.5
4000	LTEN (lb)	0
-0.5	RHOC-repeat (g/cc)	0.5
4000	LTEN-repeat (lb)	0

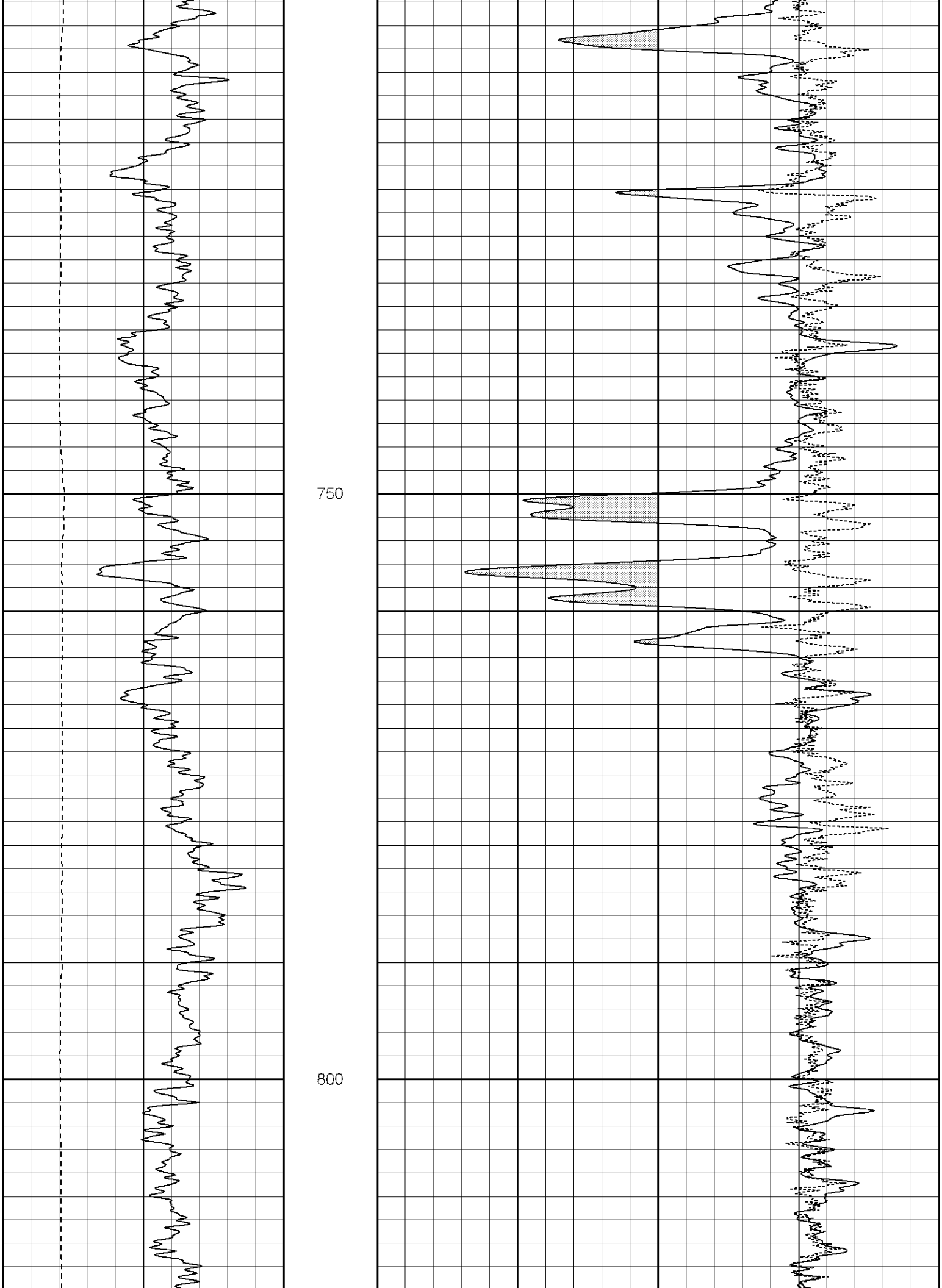
Patterson

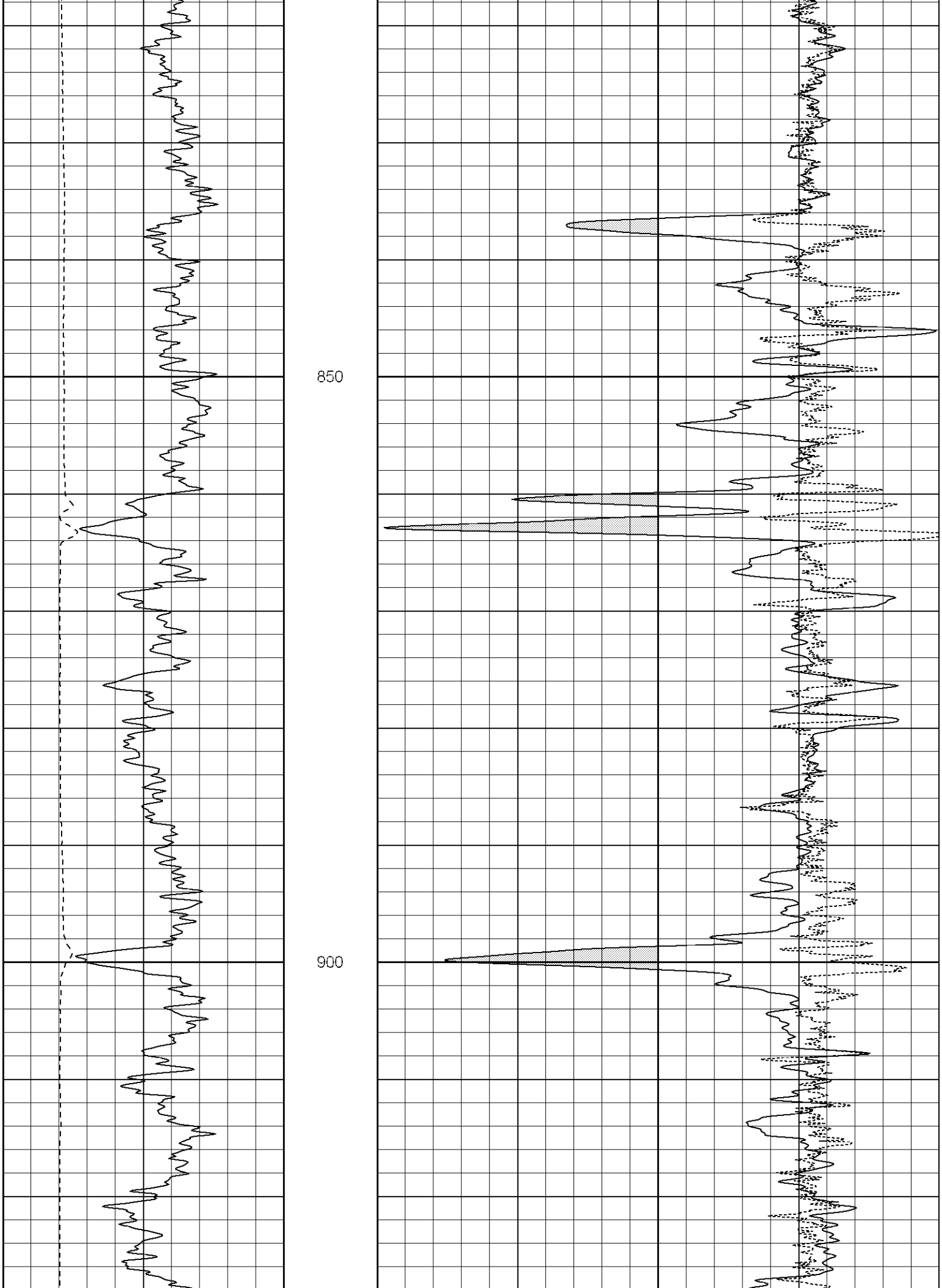
High Resolution Pass

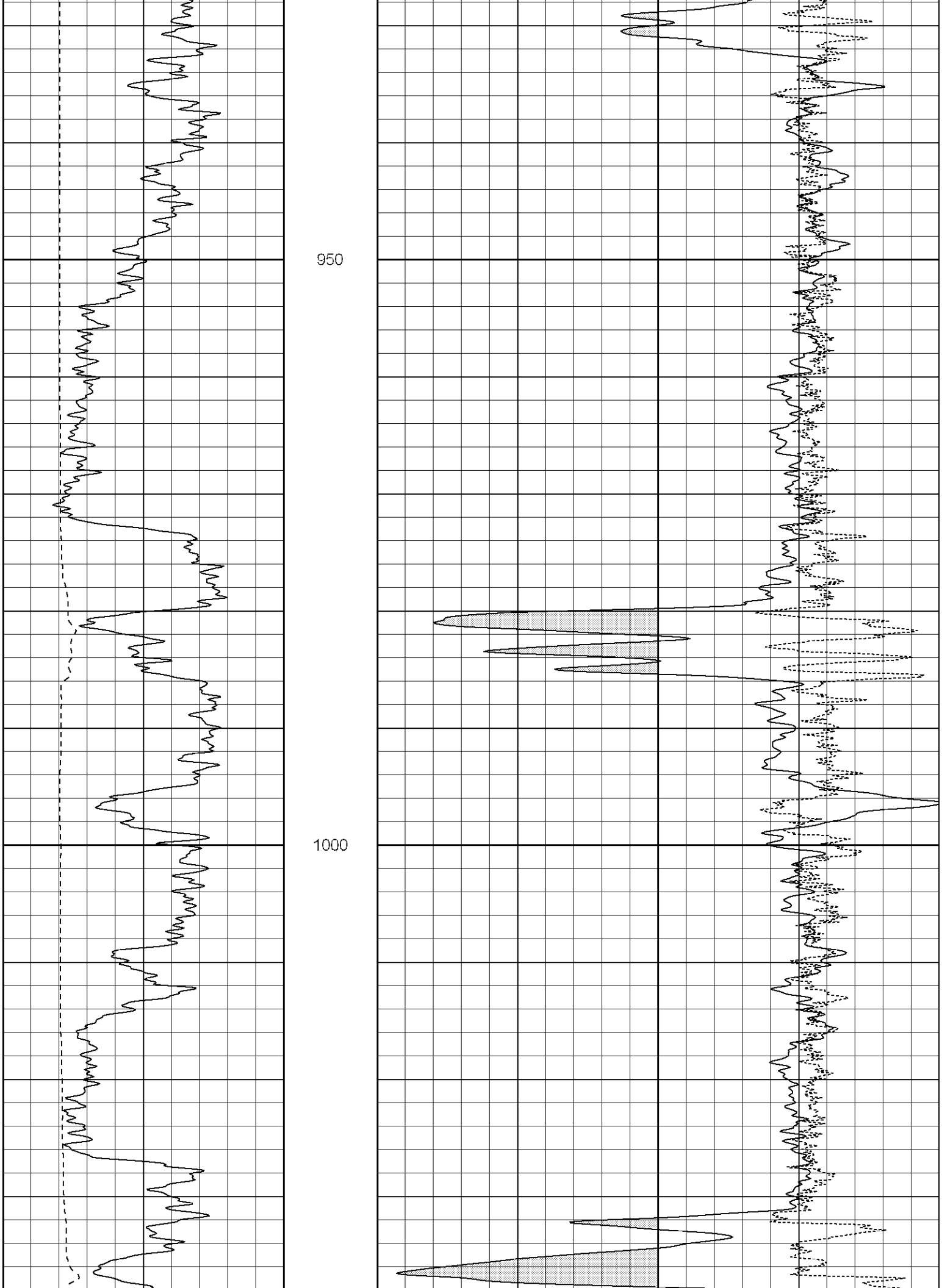
Database File: xtohillranch2216.db

Dataset Pathname:	pass2.2
Presentation Format:	cdlhr
Dataset Creation:	Wed Sep 20 08:27:58 2006 by Calc Warrior 7.0 STD Ope
Charted by:	Depth in Feet scaled 1:120

0	GR (GAPI)	200		1	RHOB (g/cc)		3
6	DCAL (in)	16				-0.5 RHOC (g/cc)	0.5


750
800


850
900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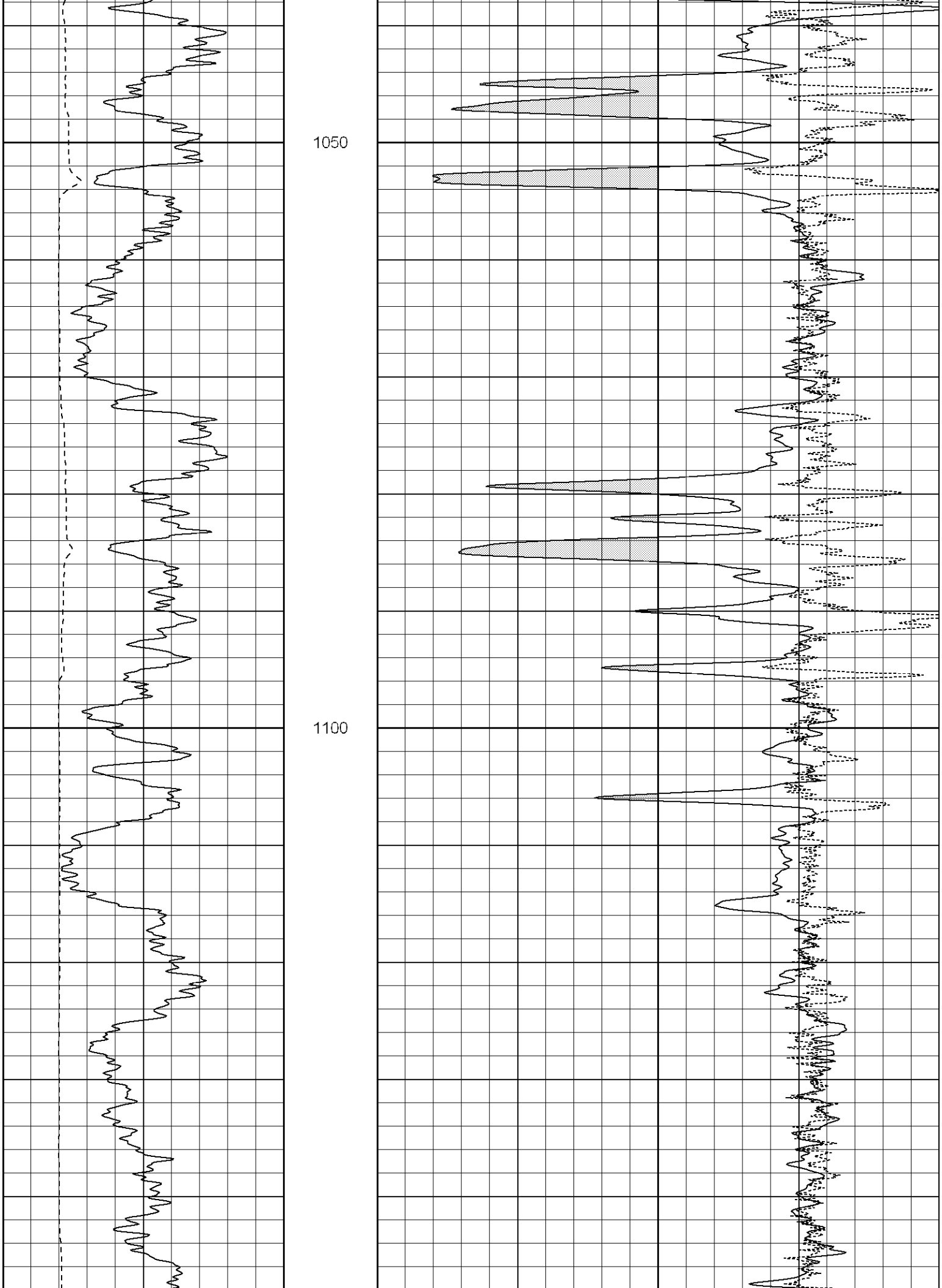
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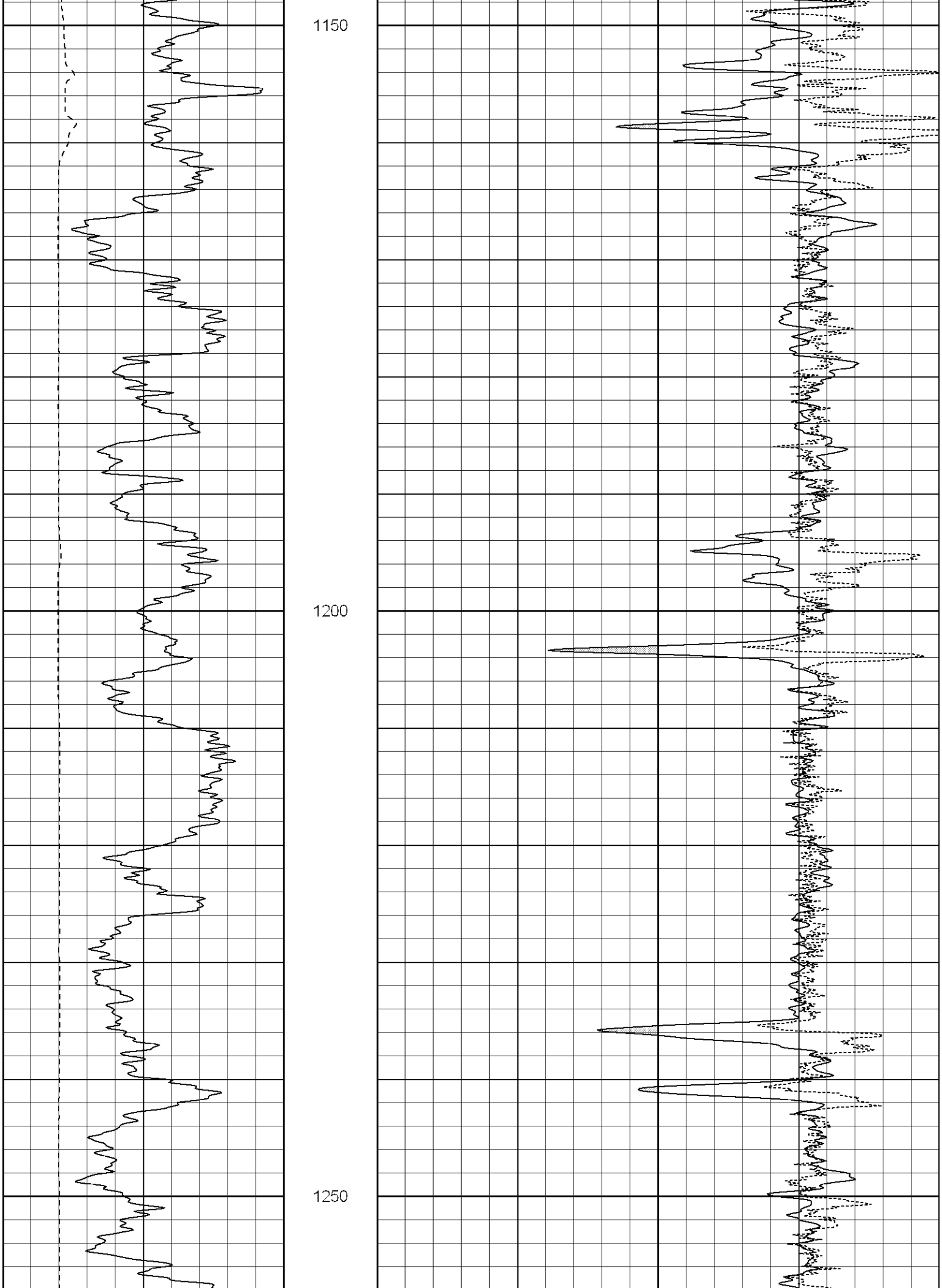
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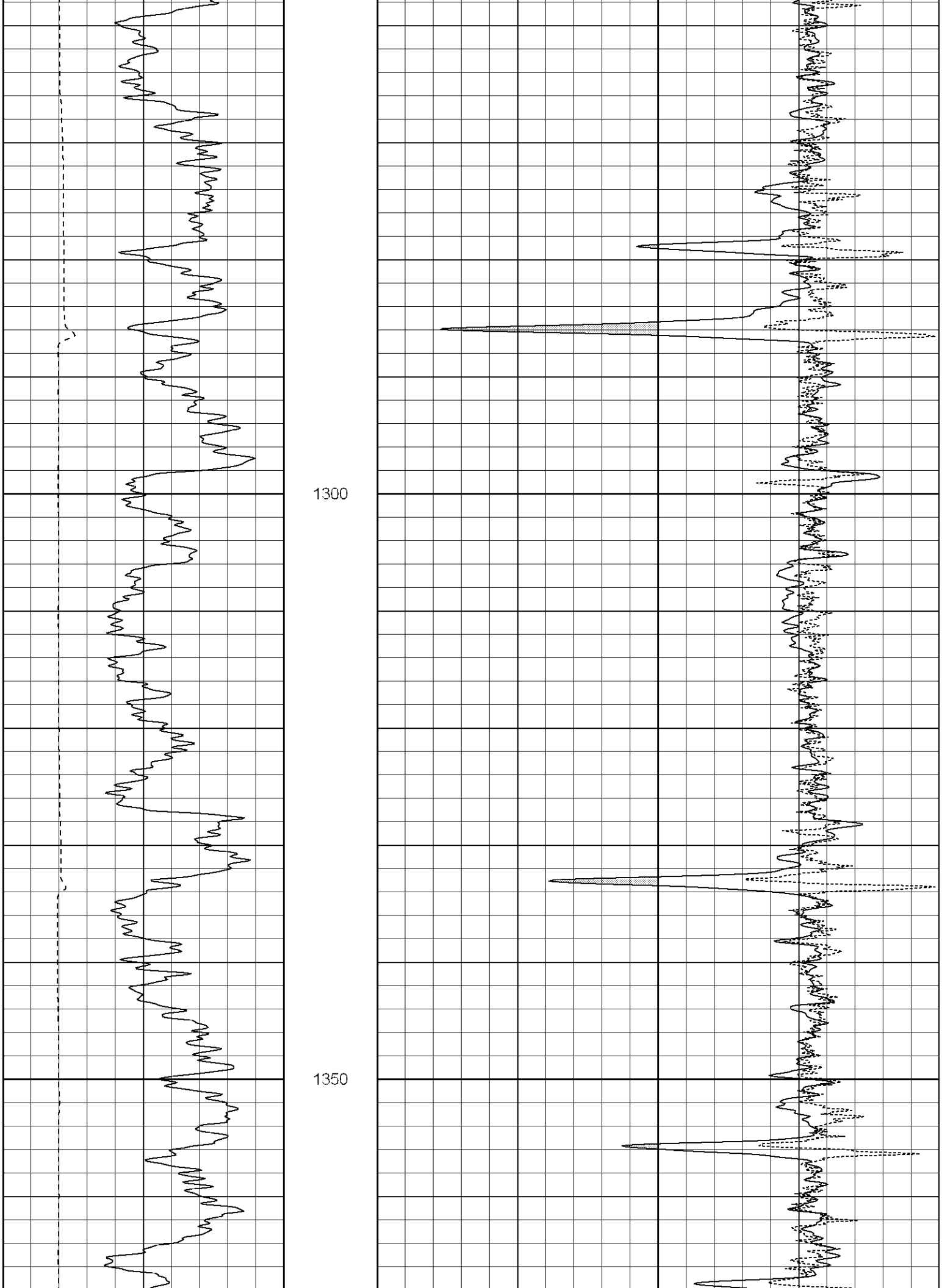
1200
1250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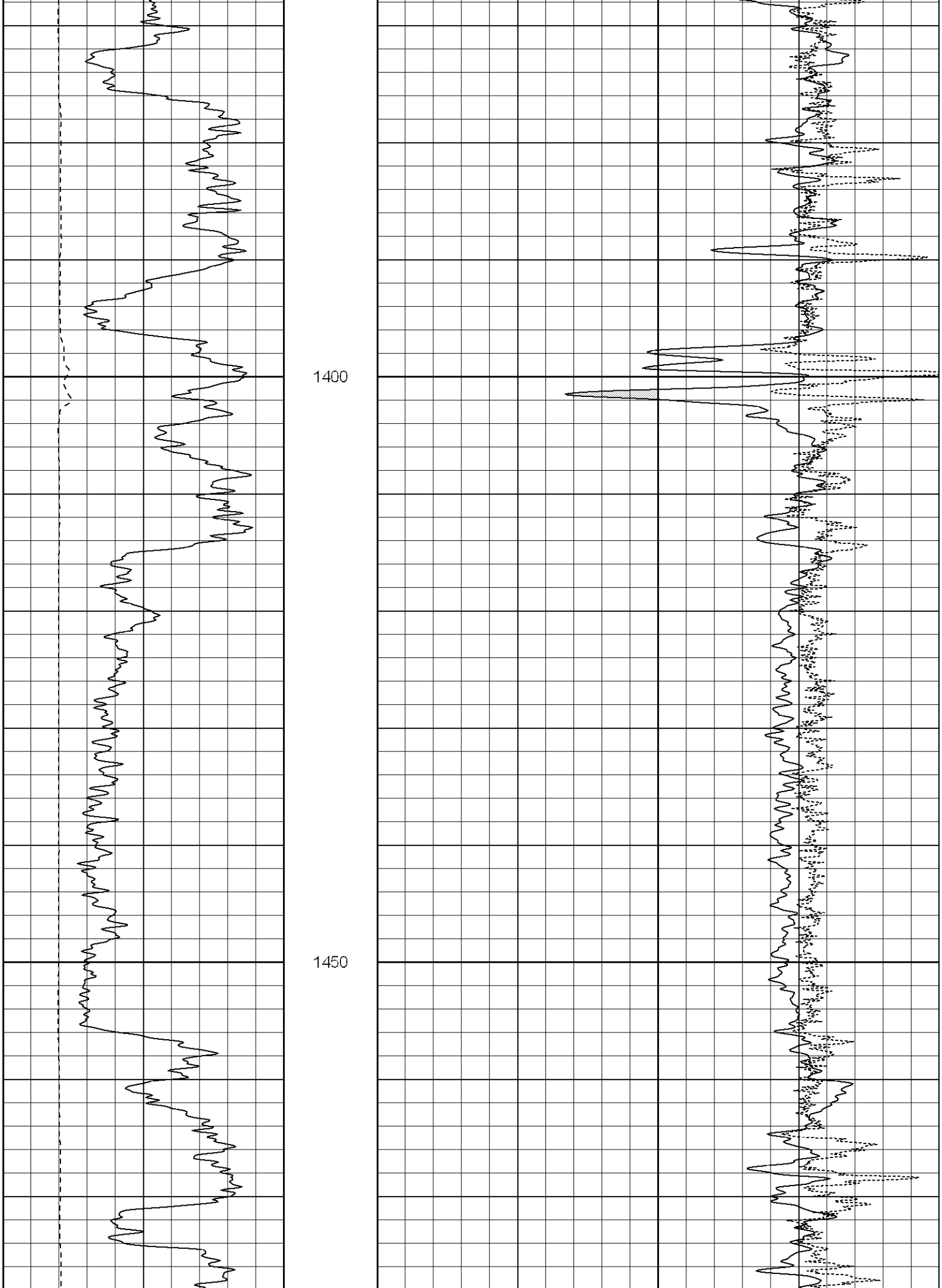
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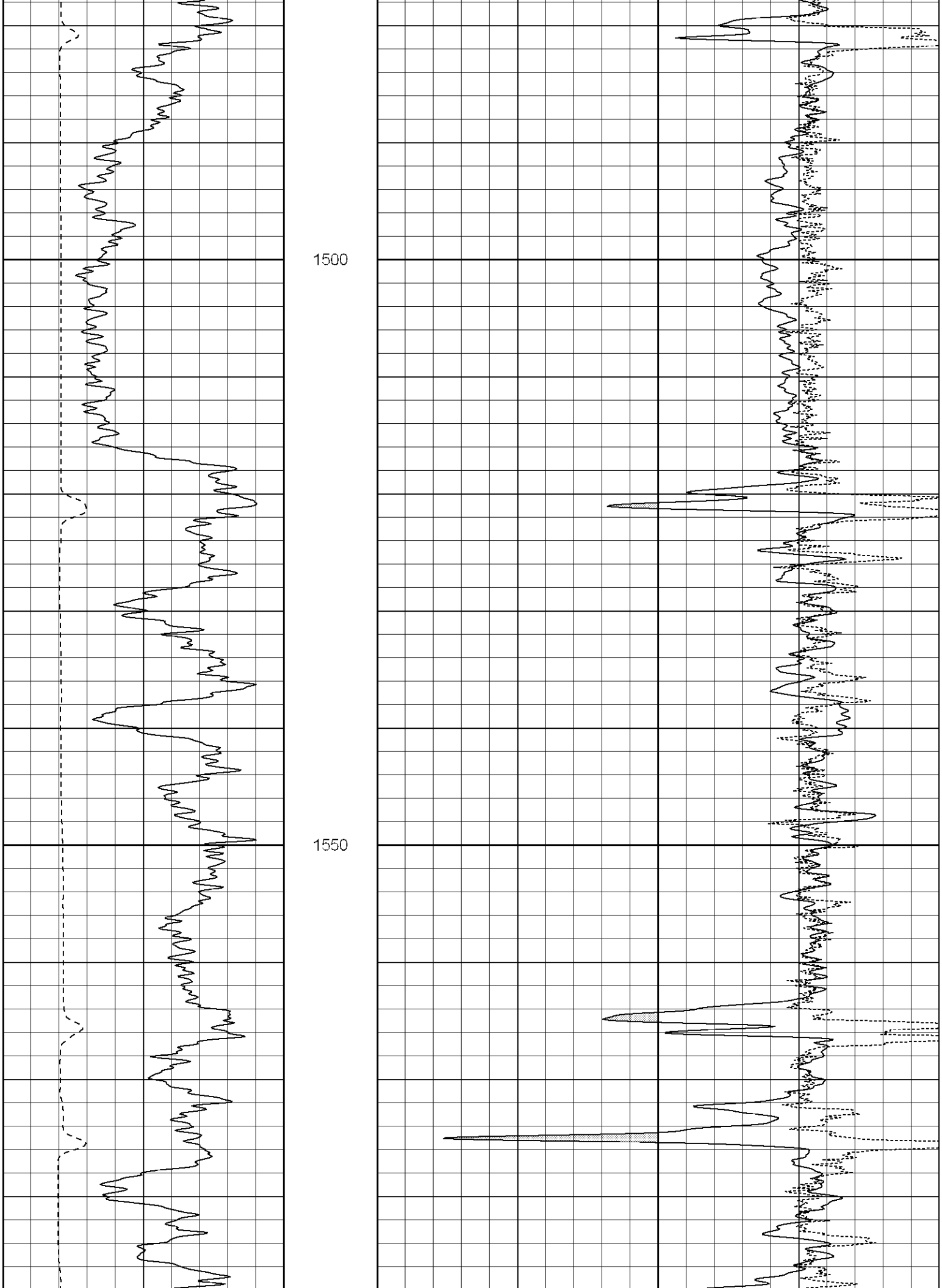
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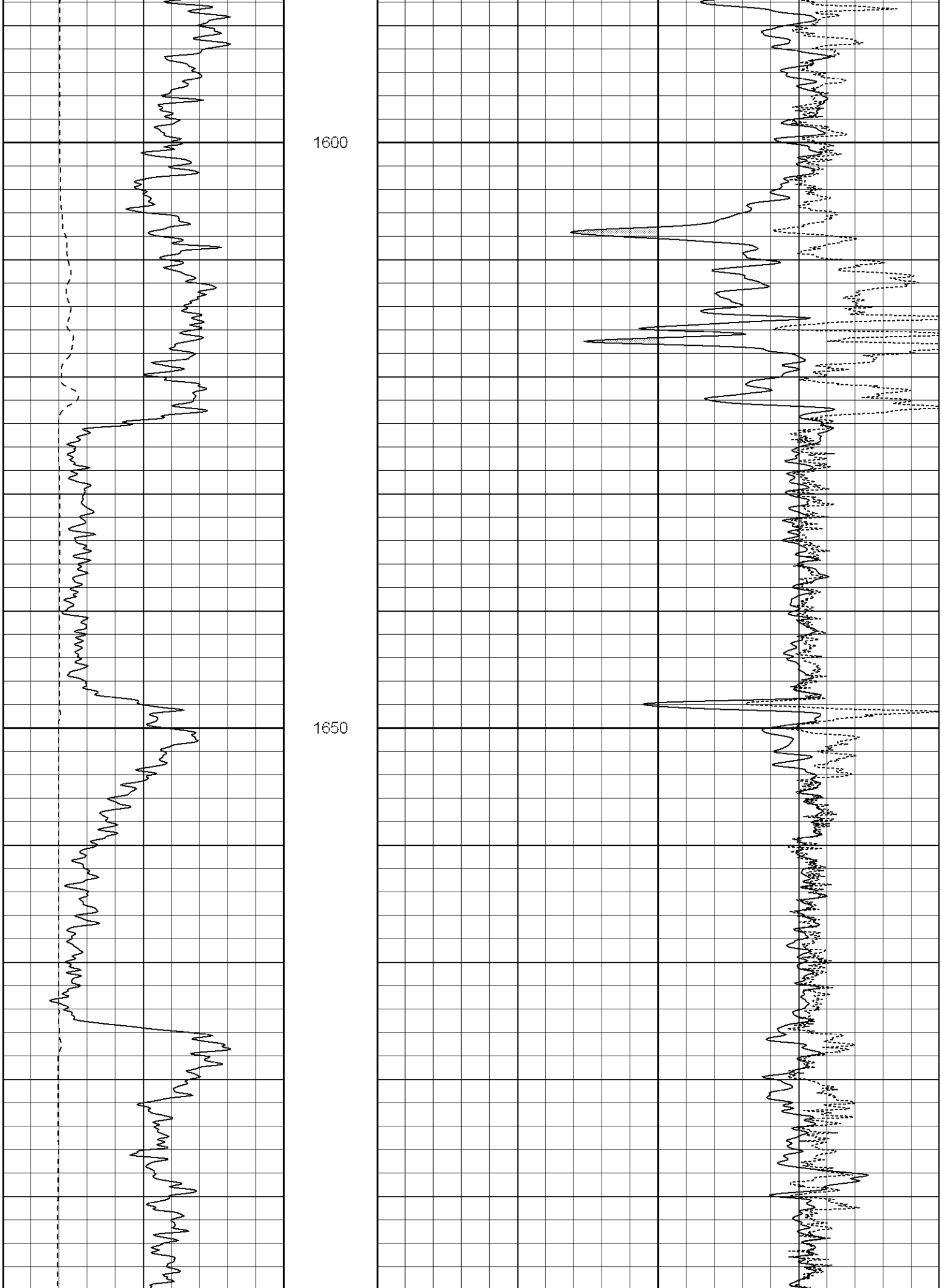
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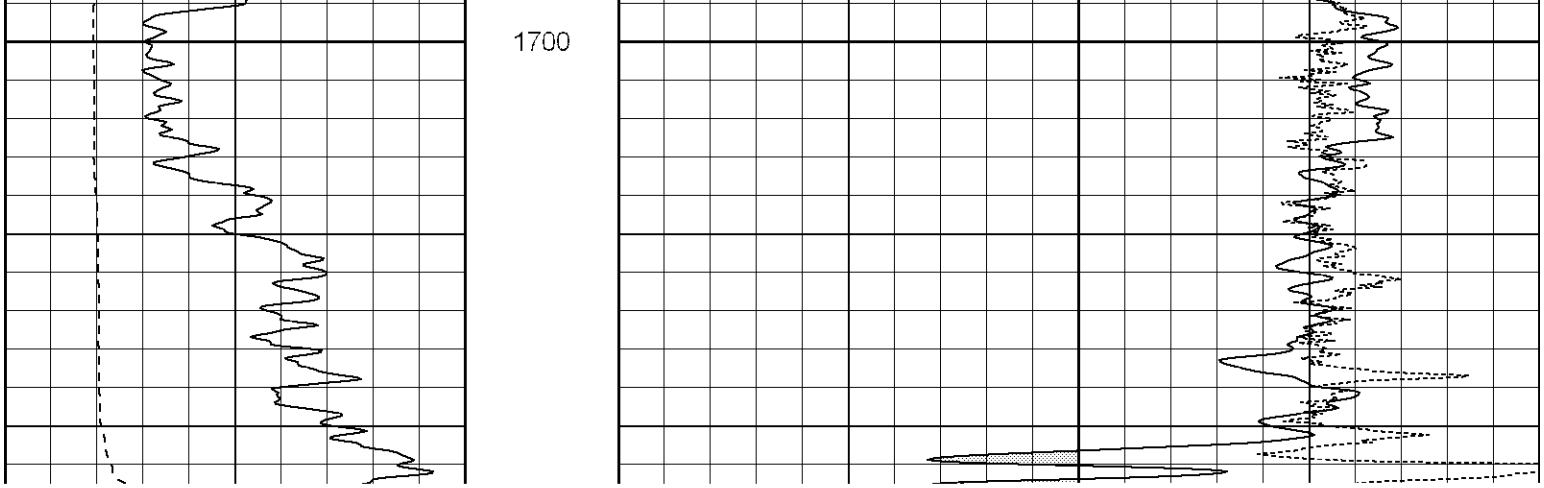
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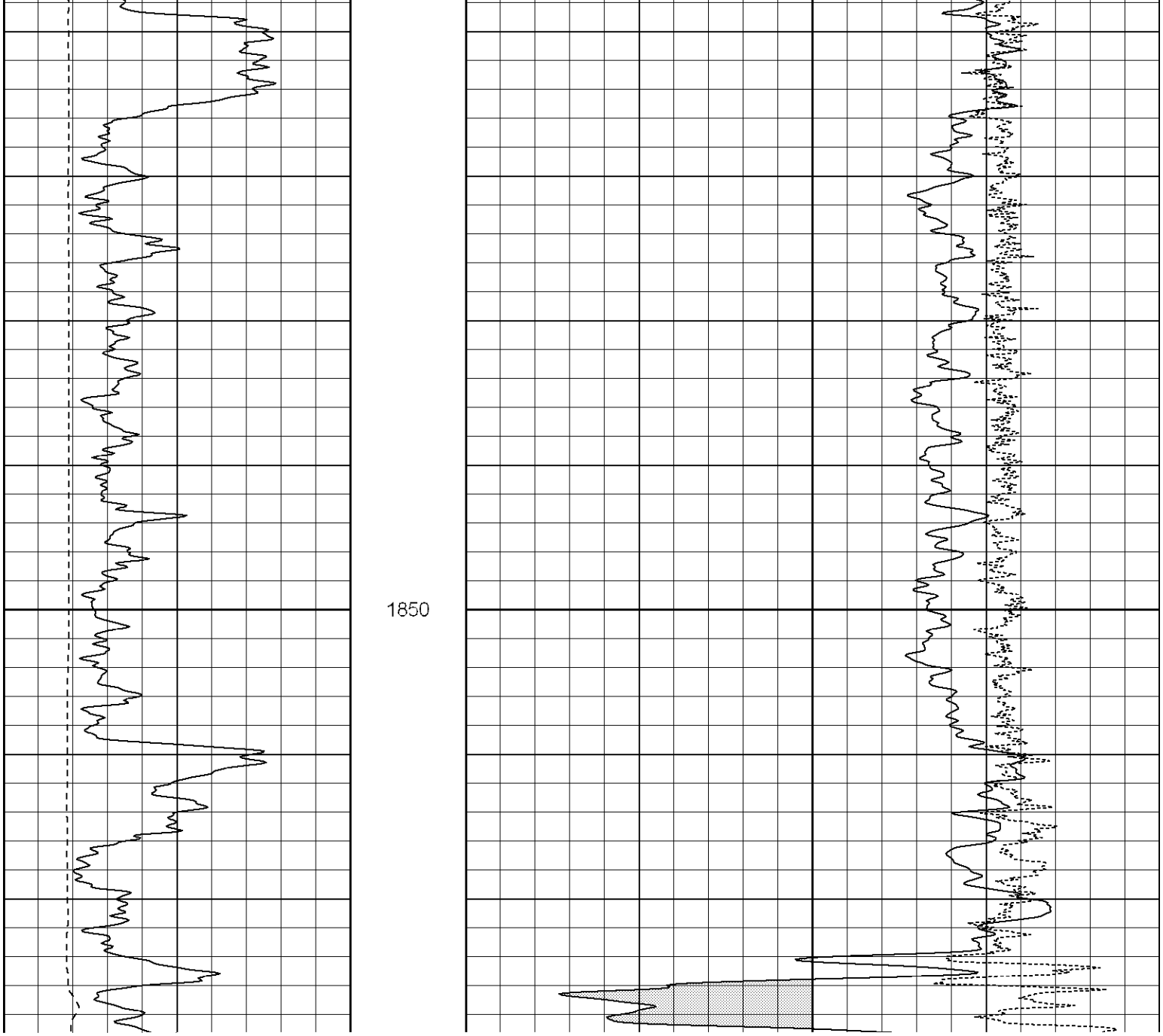
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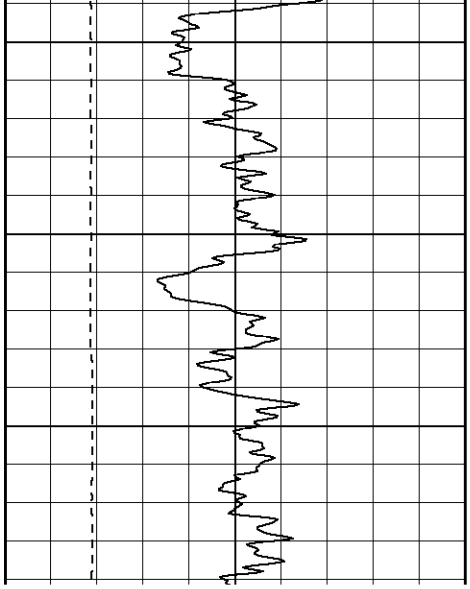

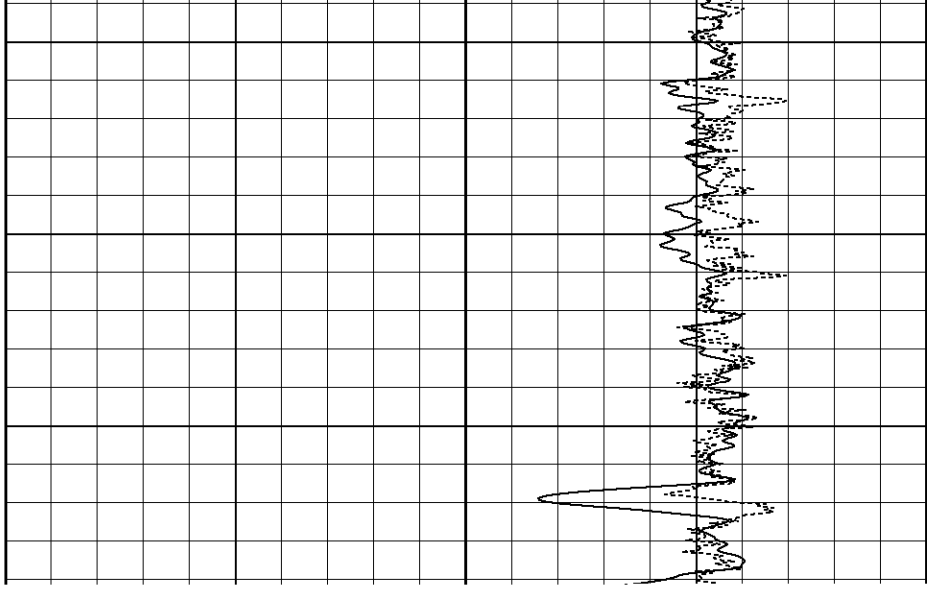

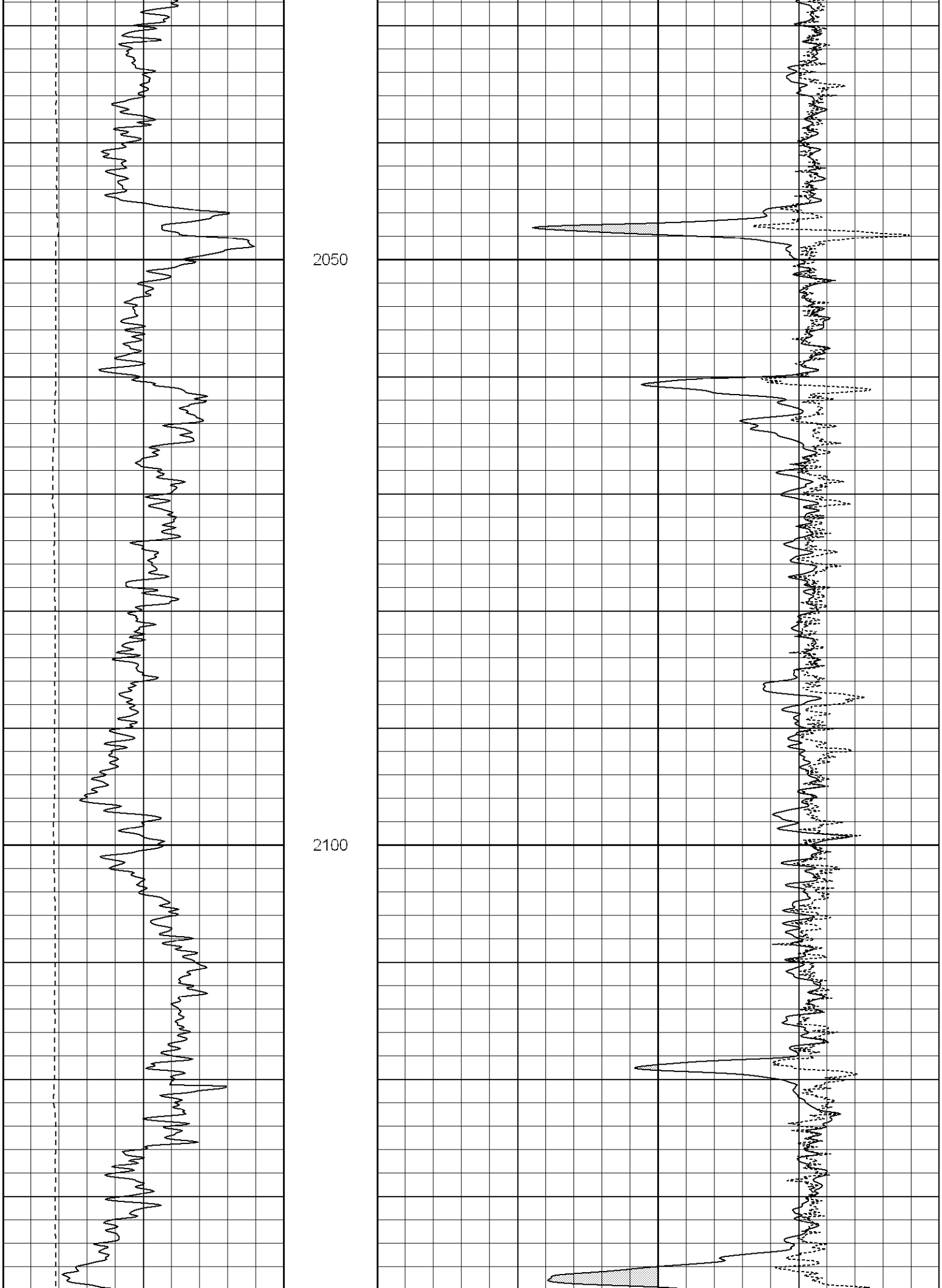
2050
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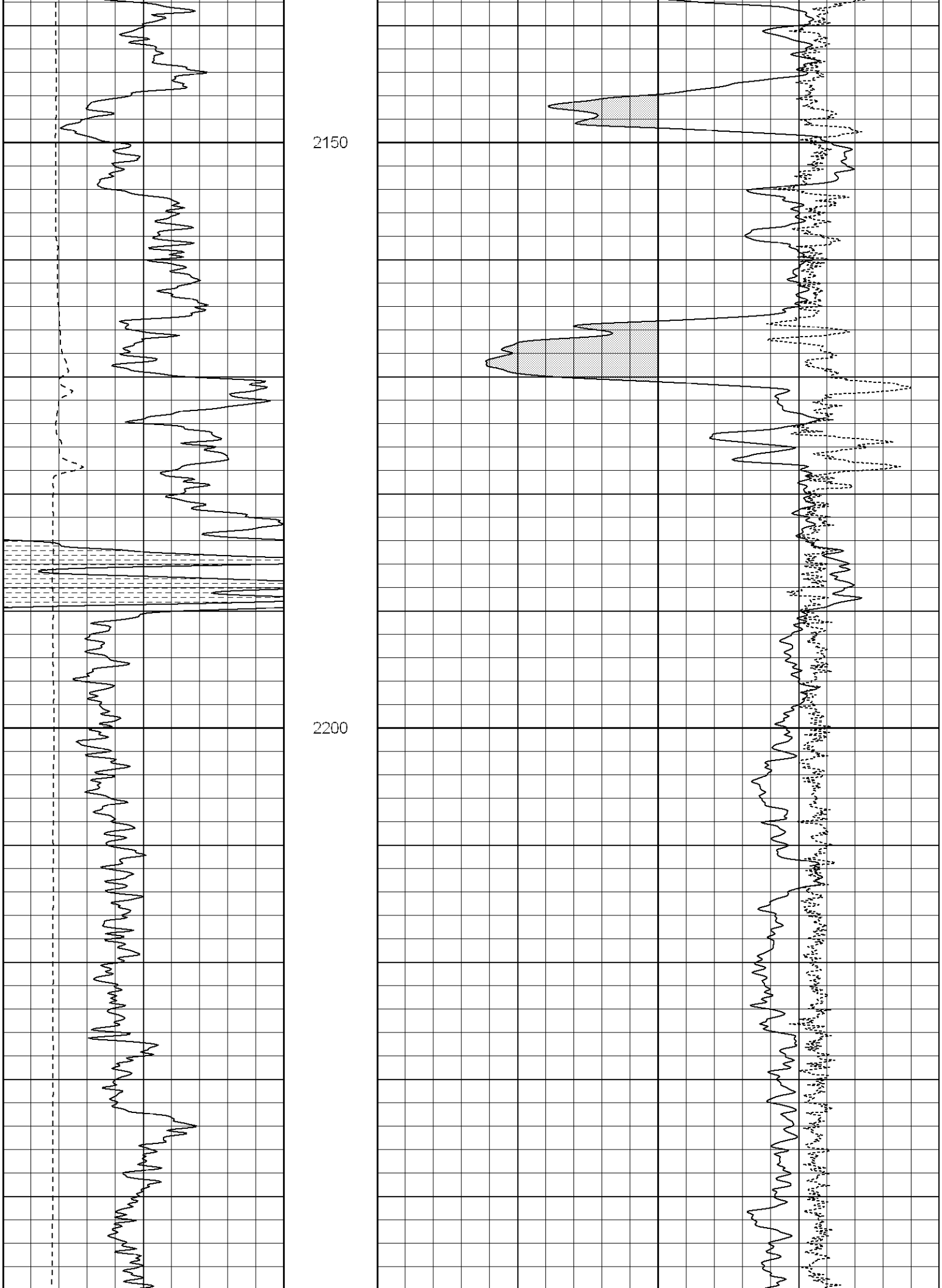
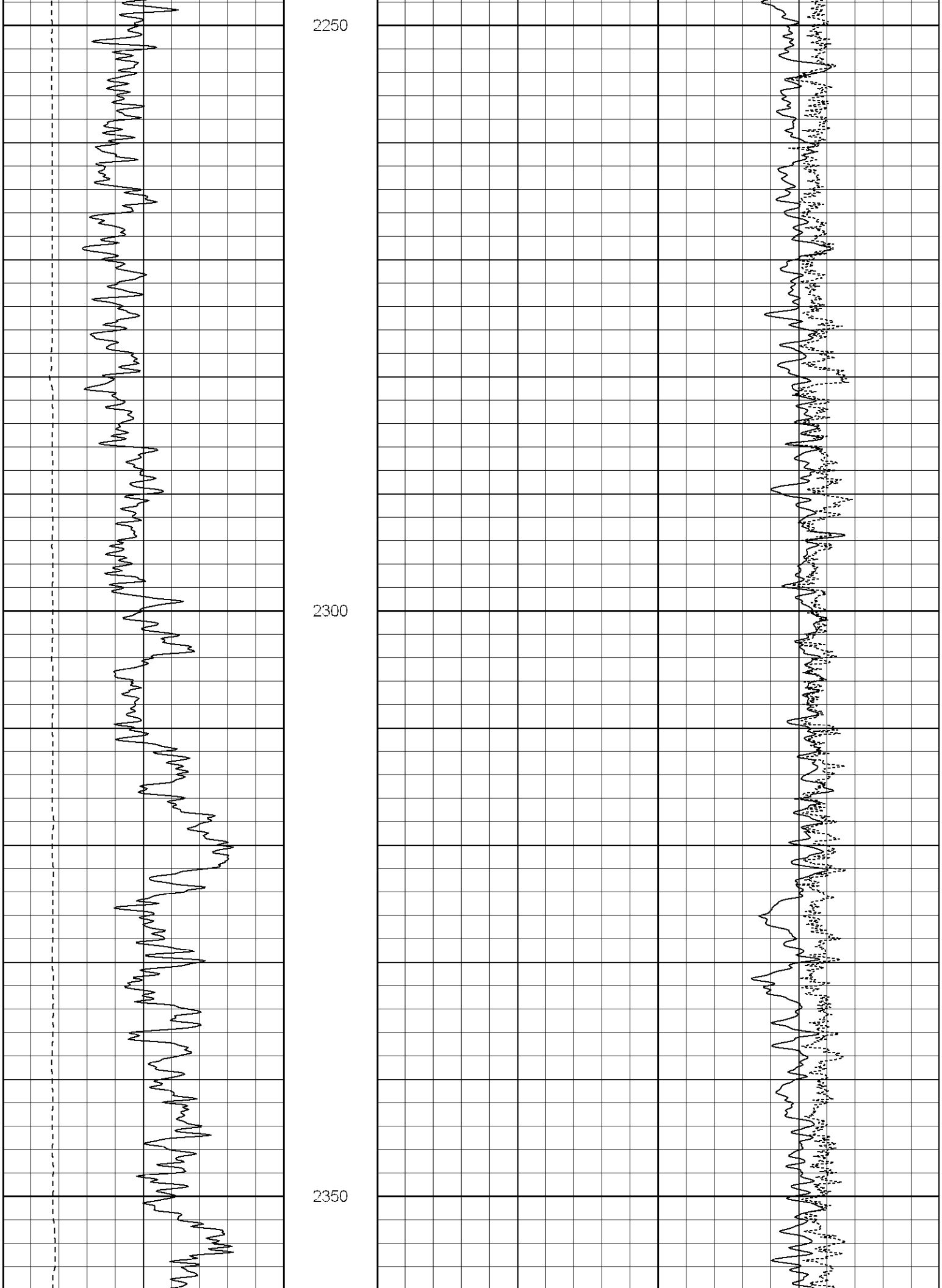
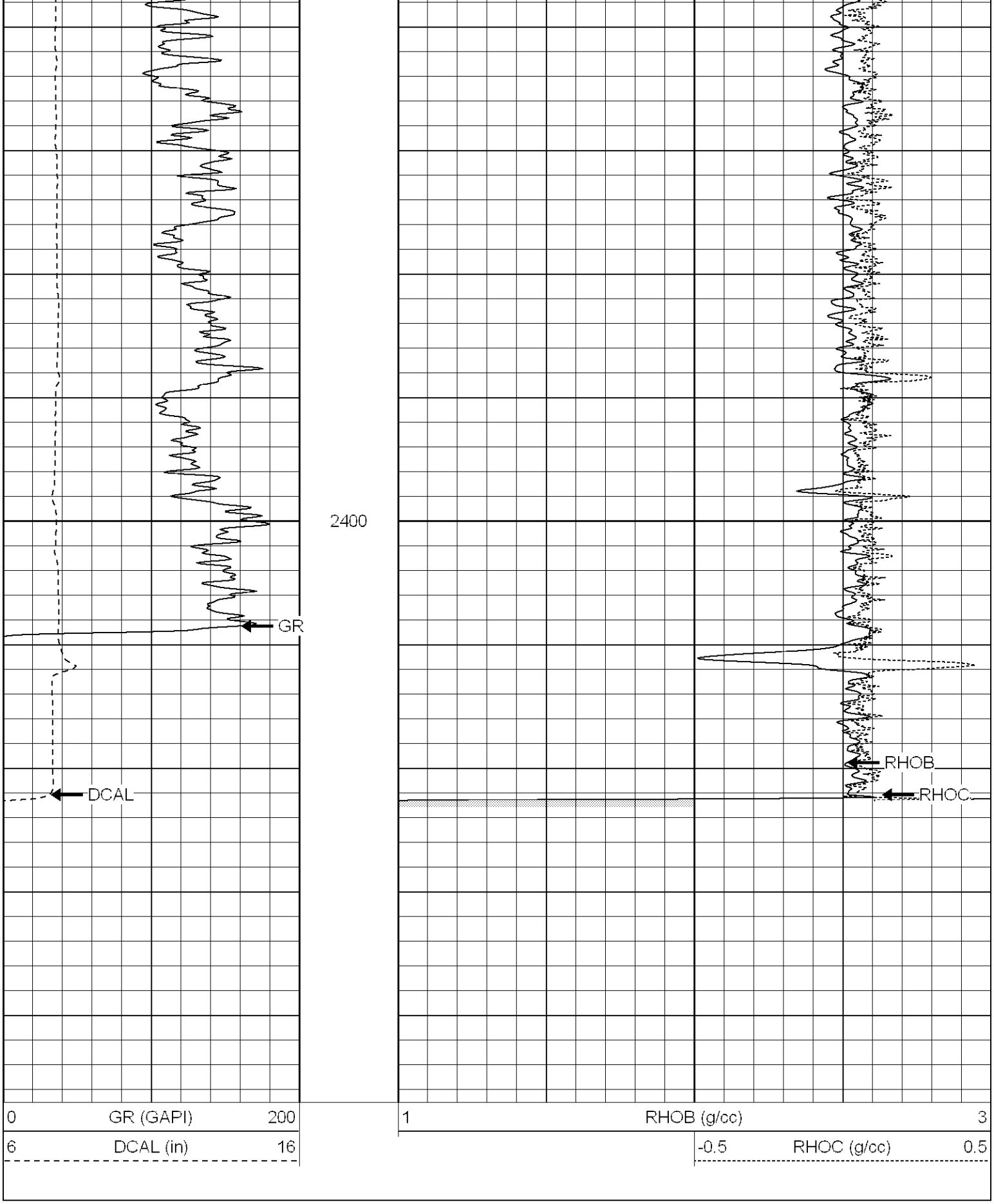

2150
2200


2250
2300
2350



Dual Induction Calibration Report	
Serial-Model:	5375-G
Surface Cal Performed:	Tue Sep 19 09:20:43 2006
Downhole Cal Performed:	Tue Sep 19 13:54:18 2006

Surface Calibration

	Readings			References			Results	
Loop:	Air	Loop		Air	Loop		m	b
Deep	0.009	0.627	V	0.000	500.000	mmho-m	807.874	-6.938
Medium	0.010	0.749	V	0.000	550.000	mmho-m	744.032	-7.579
Internal:	Zero	Cal		Zero	Cal		m	b
Deep	0.008	0.628	V	0.000	500.000	mmho-m	806.776	-6.574
Medium	0.010	0.750	V	0.000	550.000	mmho-m	743.719	-7.472

Downhole Calibration

	Readings			References			Results	
Internal:	Zero	Cal		Zero	Cal		m	b
Deep	-1.218	498.797	mmho-m	-0.355	500.325	mmho-m	1.001	0.865
Medium	-0.018	549.169	mmho-m	-0.104	550.127	mmho-m	1.002	-0.086
Shallow	2.506	0.017	V	500.000	2.000	Ohm-m	149.044	-1.382

Compensated Density Calibration Report

Serial-Model: 902-2.75POH
Source / Verifier: /
Master Calibration Performed: Mon Sep 18 13:21:20 2006

Master Calibration

	Density		Far Detector	Near Detector	
Magnesium	1.710	g/cc	1012.92	496.56	cps
Aluminum	2.570	g/cc	181.19	249.00	cps

Spine Angle = 68.15 Density/Spine Ratio = 0.464

	Size		Reading	
Small Ring	7.70	in	1.84	V
Large Ring	17.00	in	4.32	V

Neutron Calibration Report

Serial Number: 802
Tool Model: 2.75POH
Performed: Mon Sep 18 13:58:21 2006

Calibrator Value: 1 NAPI

Calibrator Reading: 1 cps

Sensitivity: 1 NAPI/cps

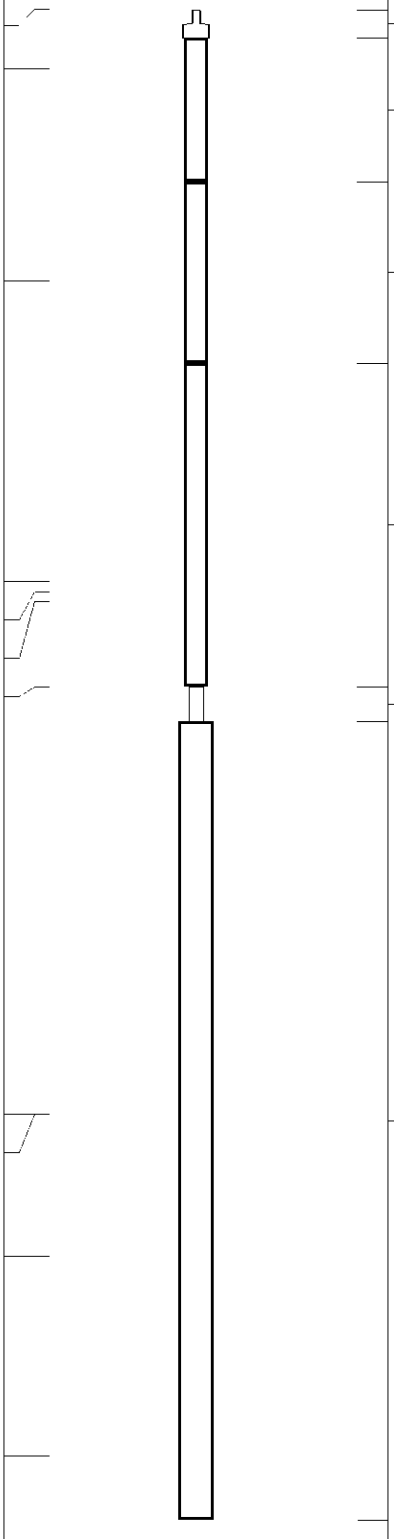
Gamma Ray Calibration Report

Serial Number: 804
Tool Model: 2.75POH
Performed: Mon Aug 21 14:48:38 2006

Calibrator Value: 1.0 GAPI

Background Reading: 0.0 cps

Calibrator Reading:	1.0	cps
Sensitivity:	0.8100	GAPI/cps

Sensor	Offset (ft)	Schematic	Description	Len (ft)	OD (in)	Wt (lb)
CHD	39.37		None	0.75	1.50	5.00
GR	37.84		GR-2.75POH (804) Probe	3.73	2.75	43.00
NEU	32.30		NEU-2.75POH (802) Probe Epithermal	4.75	2.75	58.00
			CDL-2.75POH (902) Probe	8.43	2.75	106.00
LSD	24.47					
DCAL	24.19					
SSD	23.95					
10pin	21.72		Probe	0.89	3.50	20.00
CILD	10.60		DIL-G (5375) Gearhart	20.83	4.00	345.00
SP	10.60					
CILM	6.89					
RLL3	1.70					

Dataset:	/field/well/run1/_plots_/_jobs_/cdnl
Total Length:	39.37 ft
Total Weight:	577.00 lb
O.D.	4.00 in