



NABORS

**COMPLETION
& PRODUCTION
SERVICES CO.**

**COMPENSATED
DENSITY / NEUTRON
PE LOG**

Company		WOOLSEY OPERATING CO. LLC.	
Well		TUCKER GU A-5	
Field		TRAFFAS	
County		BARBER	
State		KANSAS	
Company		WOOLSEY OPERATING COMPANY, LLC.	
Well		TUCKER GU A-5	
Field		TRAFFAS	
County		BARBER	
State		KANSAS	
Location:		API # : 15-007-24038-0000 2250' FNL & 1830' FWL NE - SW - SE - NW	
Permanent Datum		GROUND LEVEL	
Log Measured From		KELLY BUSHING 12' A.G.L.	
Drilling Measured From		KELLY BUSHING	
SEC 28 TWP 33S RGE 10W		Elevation	
		K.B. 1445	
		D.F. 1443	
		G.L. 1433	
Other Services		DIL	
Date	6/25/13		
Run Number	ONE		
Depth Driller	5080		
Depth Logger	5075		
Bottom Logged Interval	5051		
Top Log Interval	1700		
Casing Driller	10 3/4" @ 219'		
Casing Logger	220		
Bit Size	7 7/8"		
Type Fluid in Hole	CHEMICAL MUD		
Density / Viscosity	9.0/69		
pH / Fluid Loss	10.0/9.6		
Source of Sample	FLOWLINE		
Rim @ Meas. Temp	.600 @ 90F		
Rmf @ Meas. Temp	.450 @ 90F		
Rmc @ Meas. Temp	.720 @ 90F		
Source of Rmf / Rmc	MEASUREMENT		
Rim @ BHT	.429 @ 126F		
Time Circulation Stopped	3 HOURS		
Time Logger on Bottom	11:15 A.M.		
Maximum Recorded Temperature	126F		
Equipment Number	4854		
Location	HAYS, KANSAS		
Recorded By	JEFF LUEBBERS		
Witnessed By	SCOTT ALBERG		

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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

THANK YOU FOR USING "NABORS" HAYS, KANSAS (785) 628-6395
 DIRECTIONS
 SHARON, KS. 8S. ON TRI CITY BLKTOP TO "KOCHIA RD." , 3/4W., N. INTO

Database File:

011176pe.db

Dataset Pathname:

pass3.7

Presentation Format:

ldt_neu

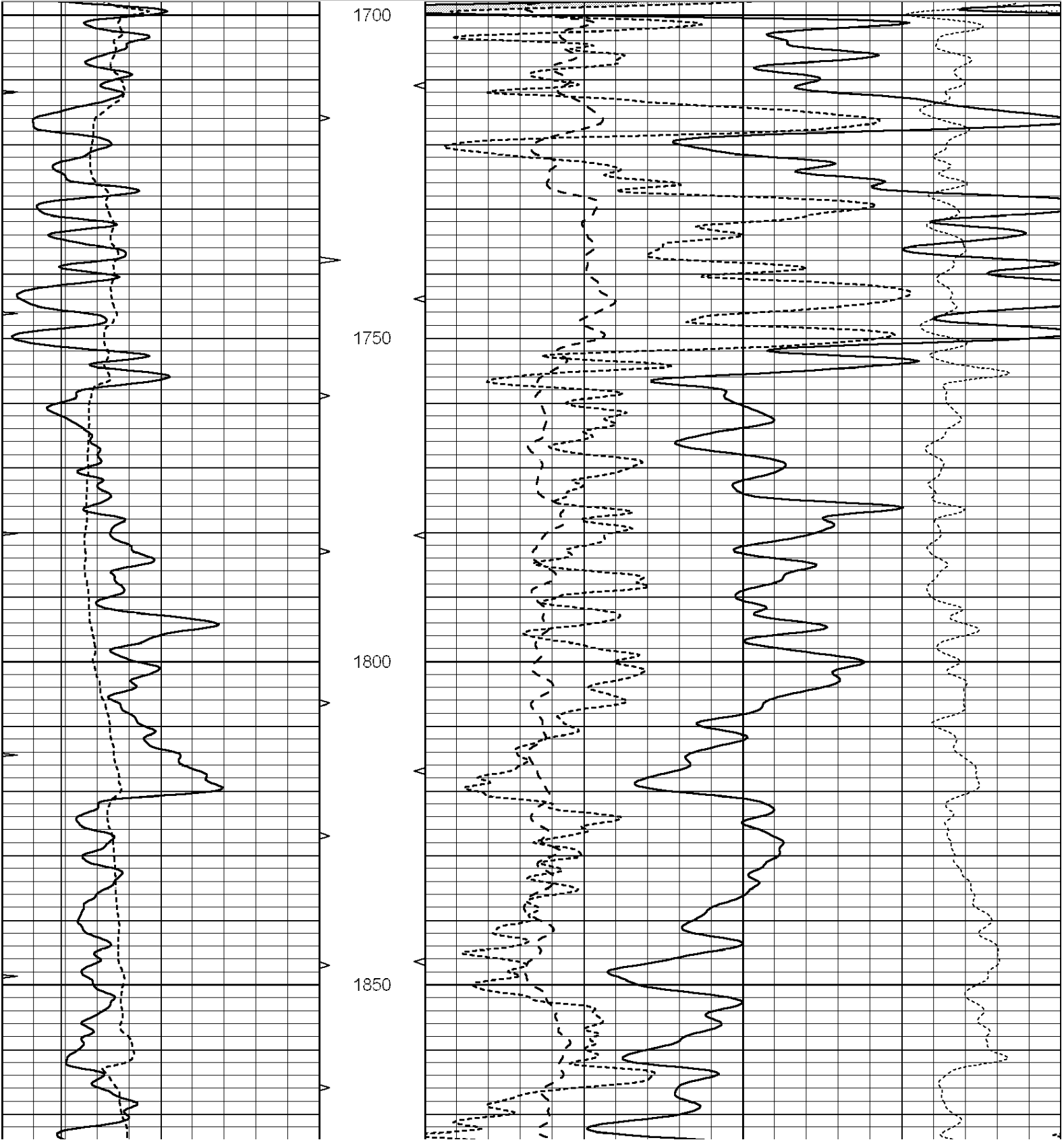
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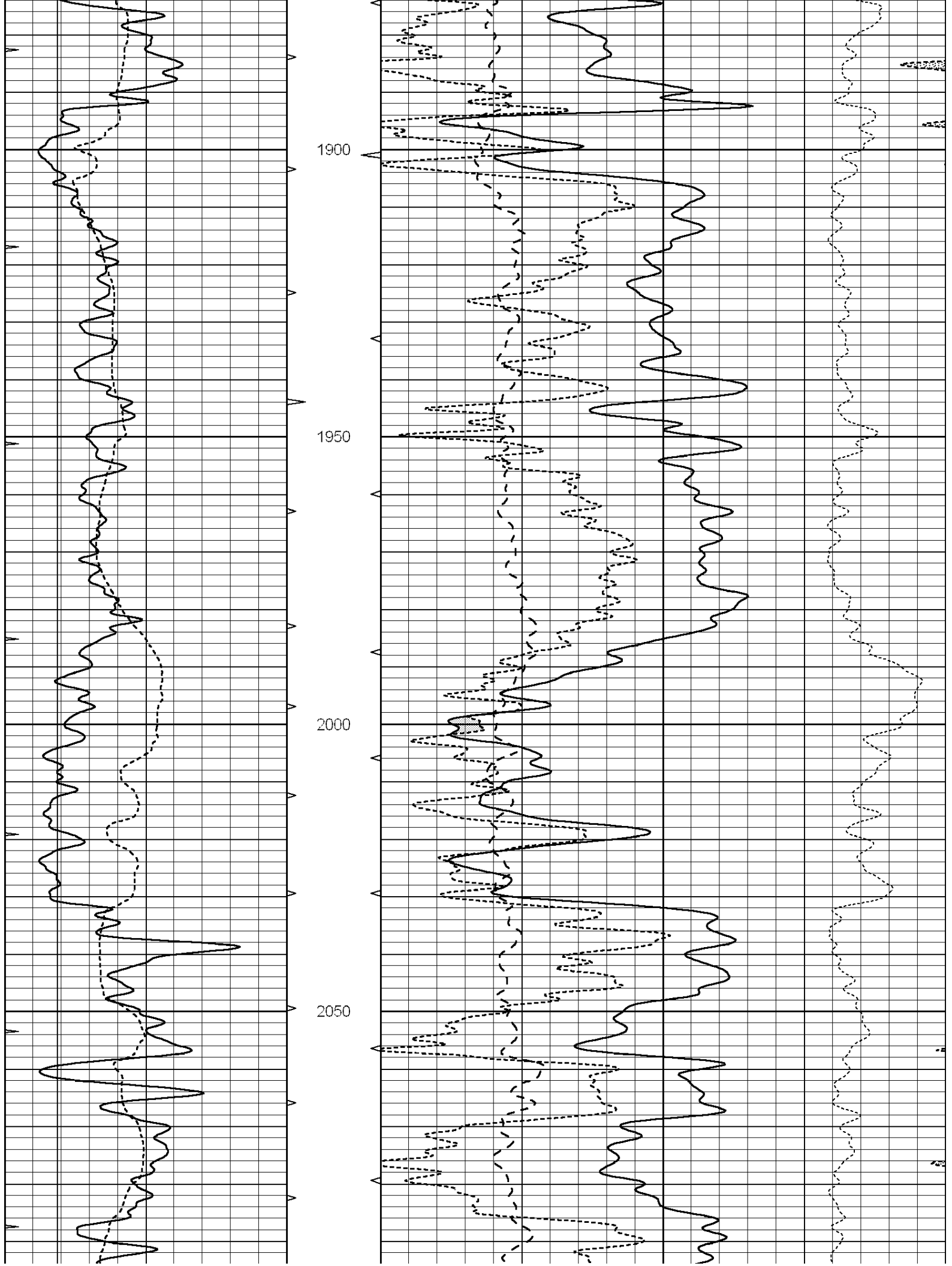
Tue Jun 25 13:28:22 2013 by Calc SOC 120430

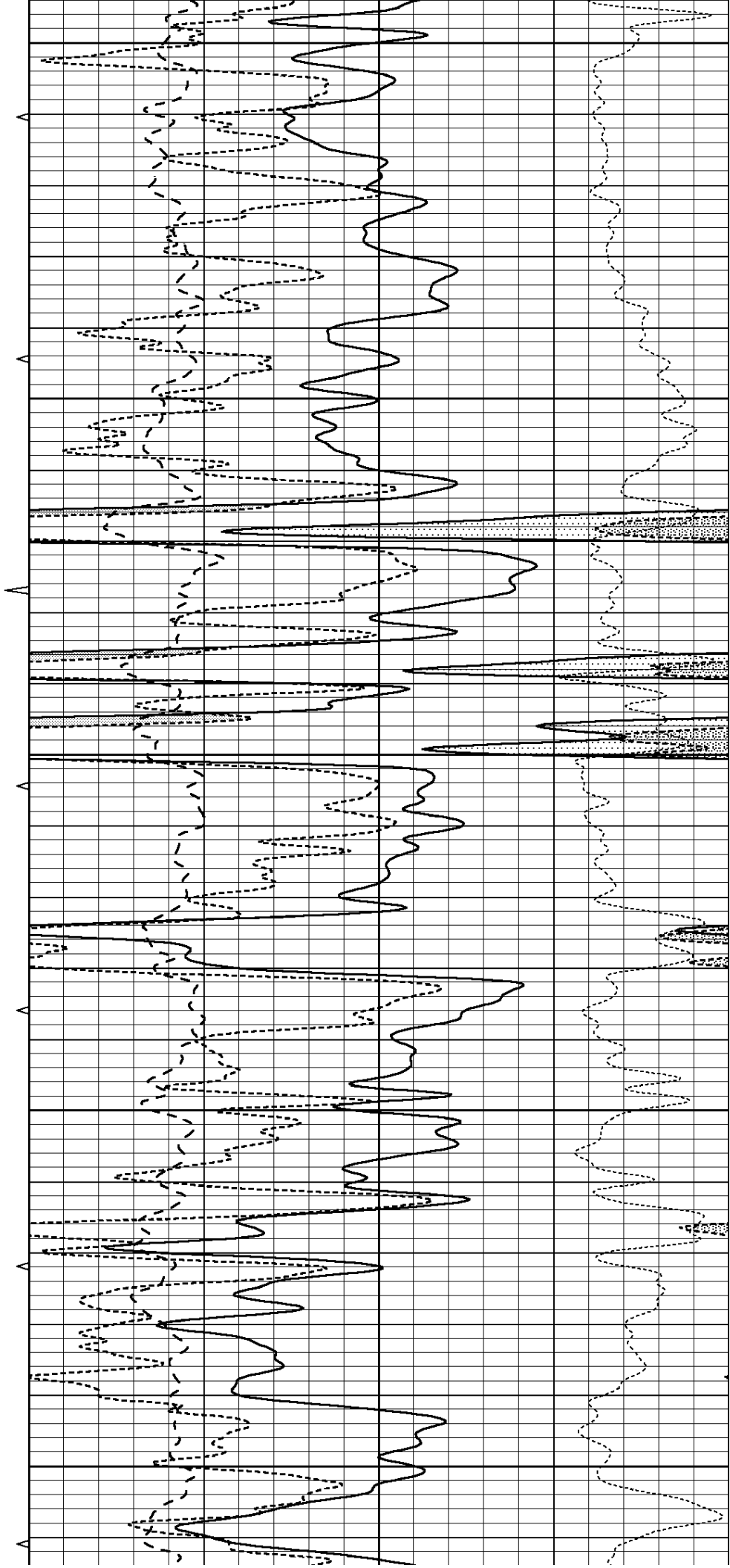
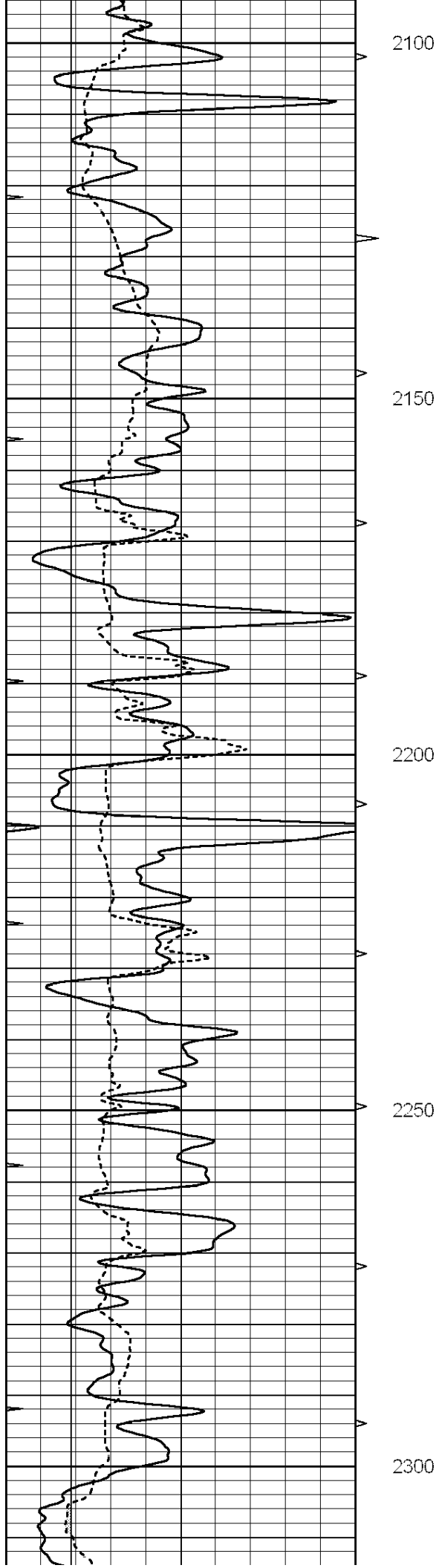
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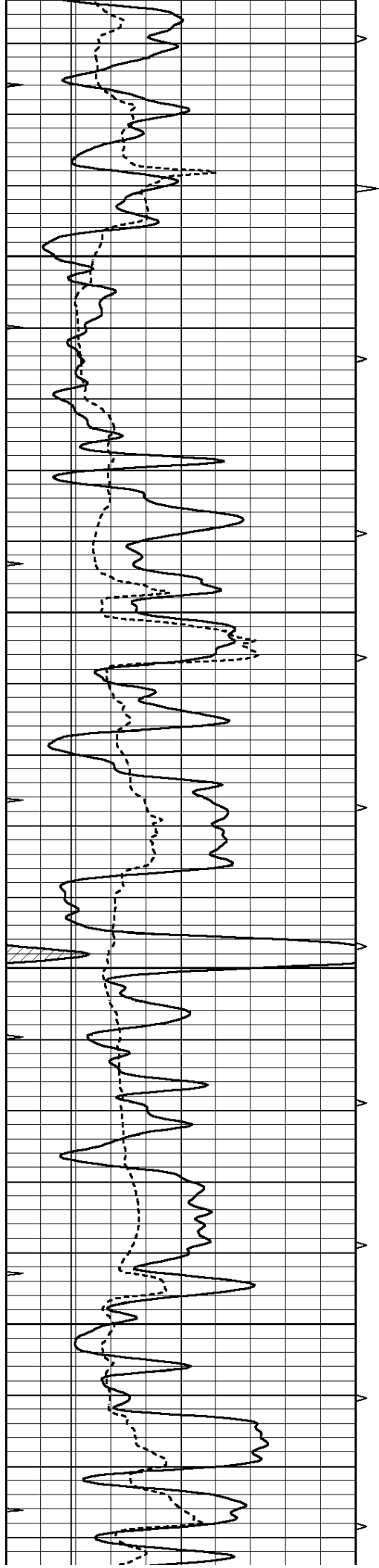
Depth in Feet scaled 1:240

0	GAMMA RAY (GAPI)	150	ABHV	30	COMPENSATED DENSITY (pu)				-10	
6	CALIPER (in)	16	10 (ft3)	0	30	COMPENSATED NEUTRON (pu)				-10
0	MINMK	20	TBHV	0	PE	10	-0.25	CORRECTION (g/cc)	0.25	
			0 (ft3)	10						







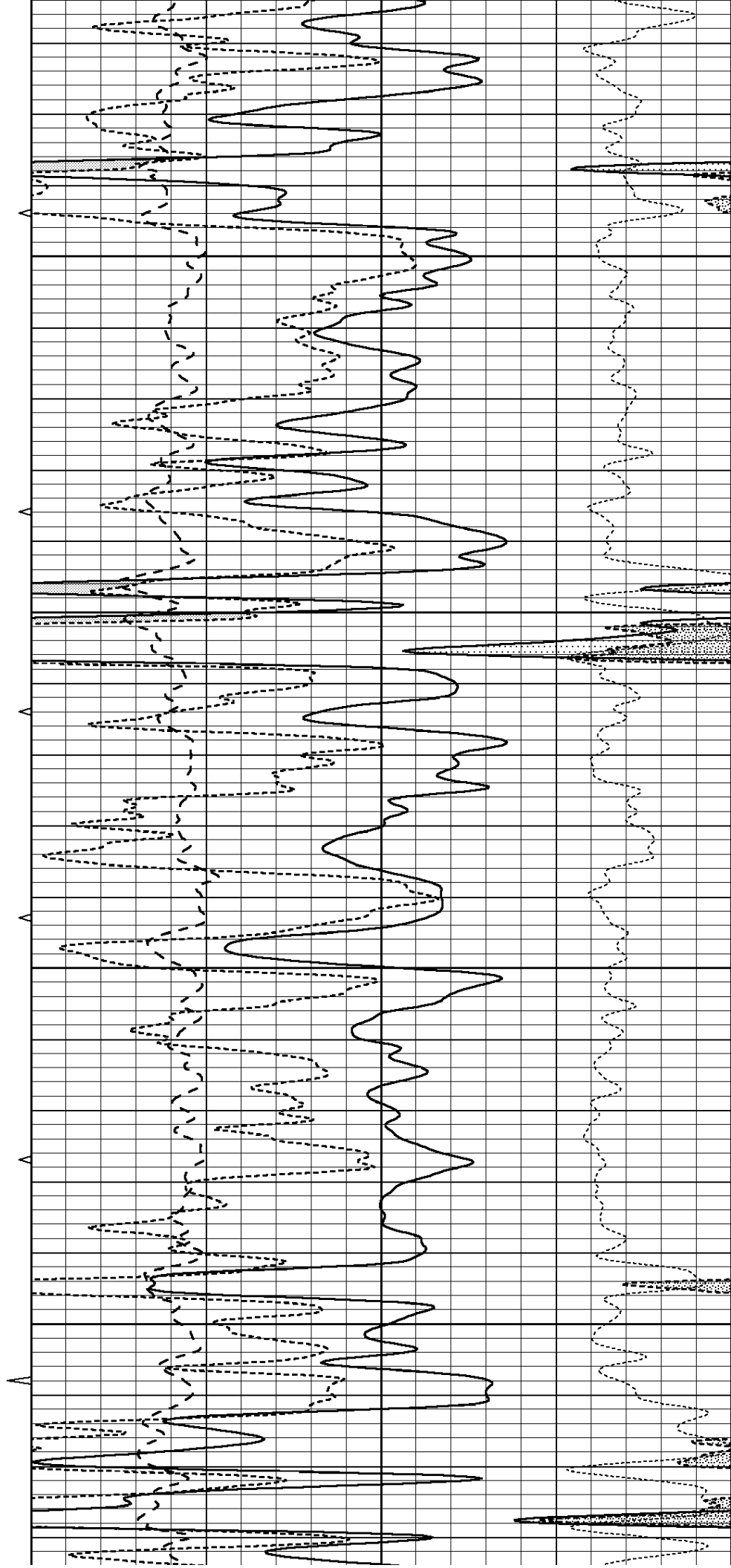


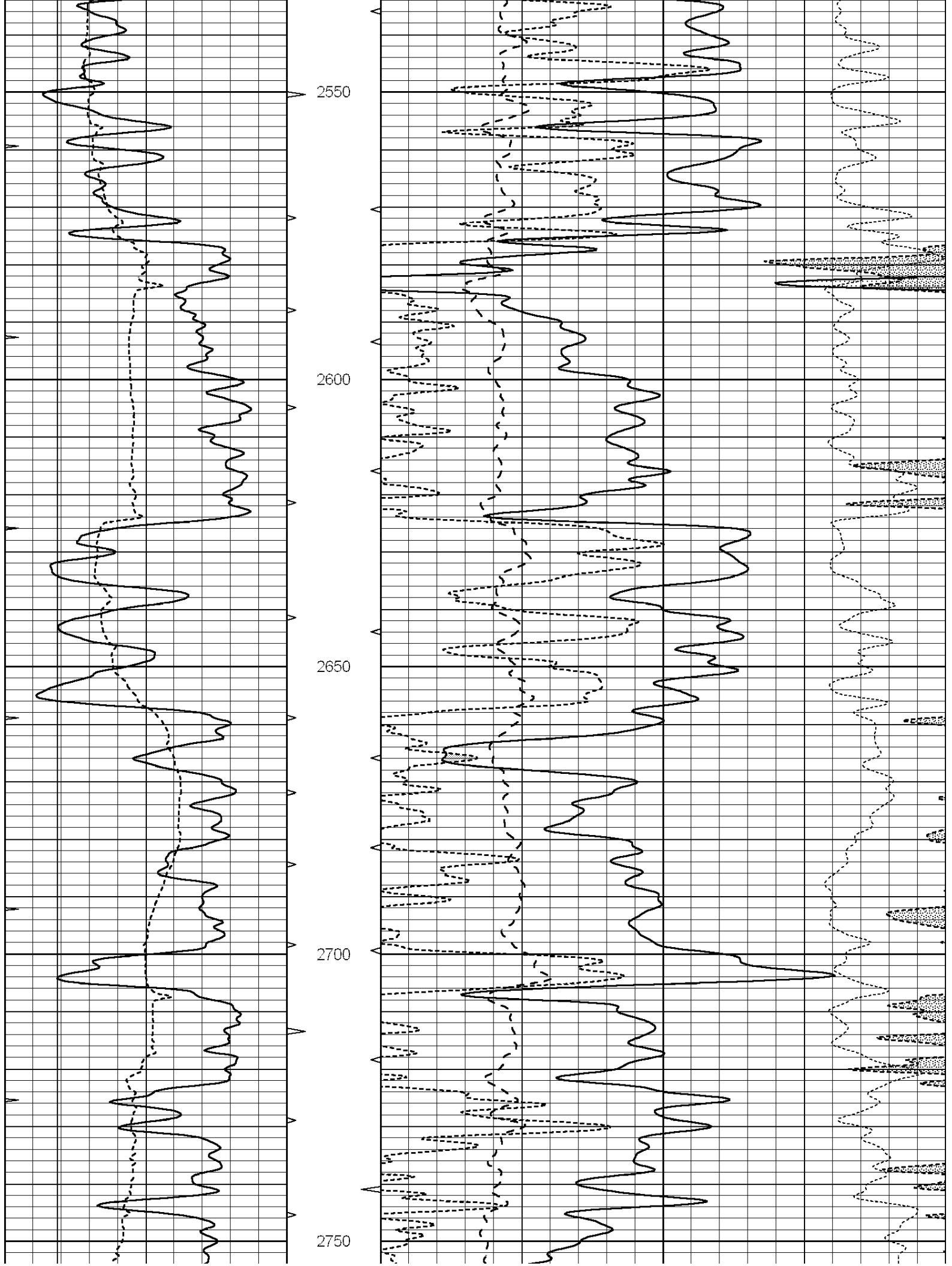
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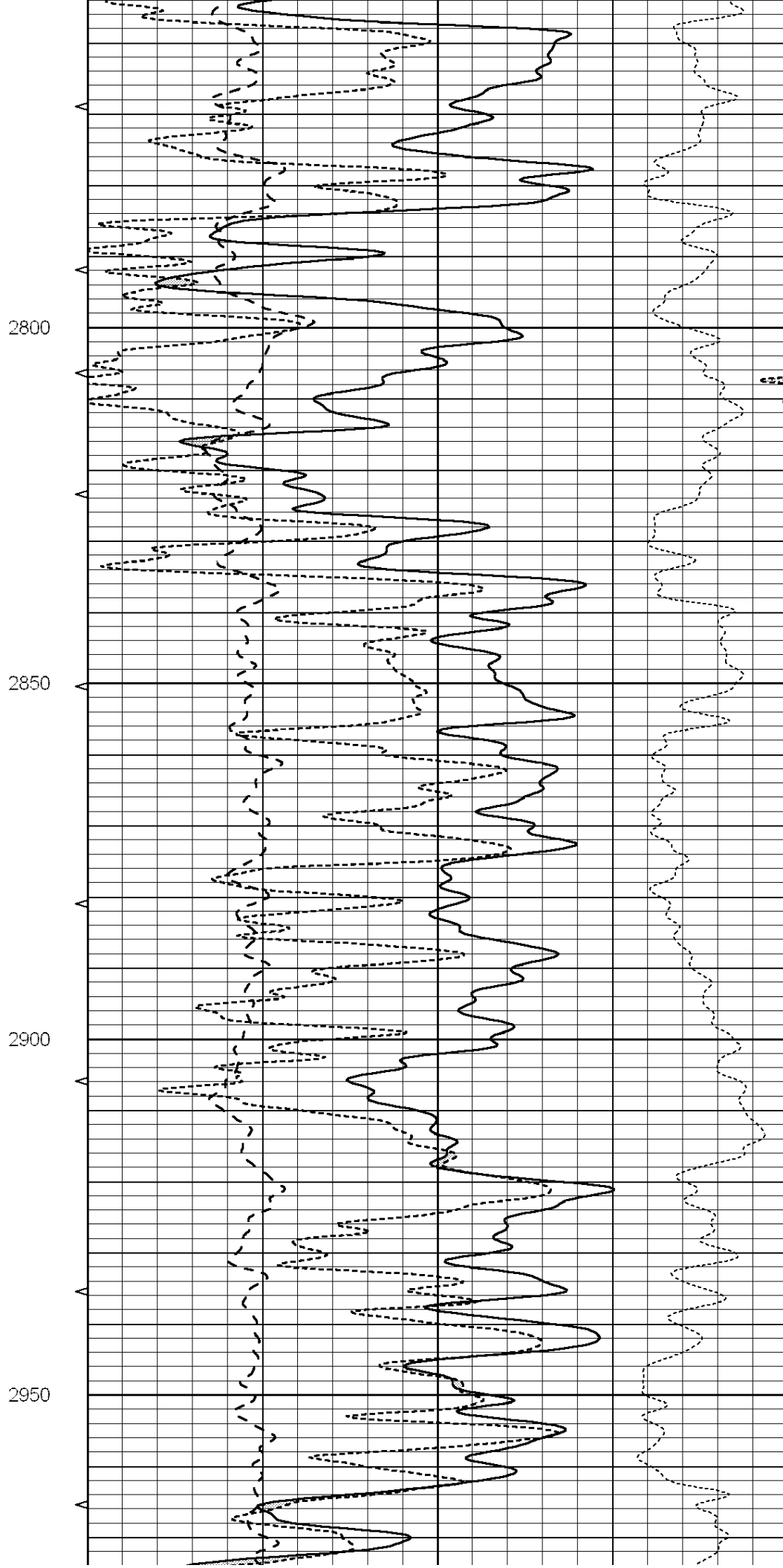
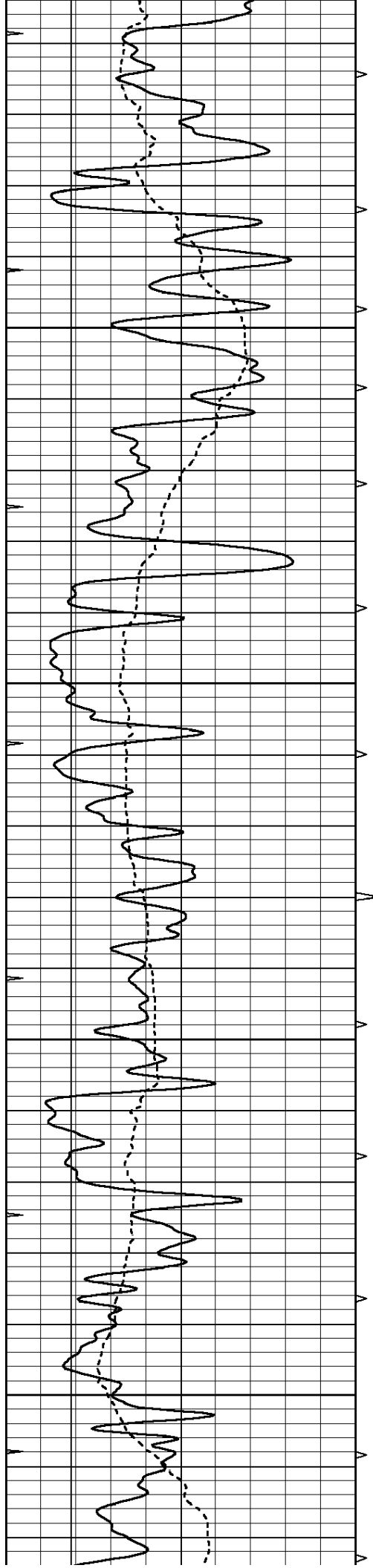
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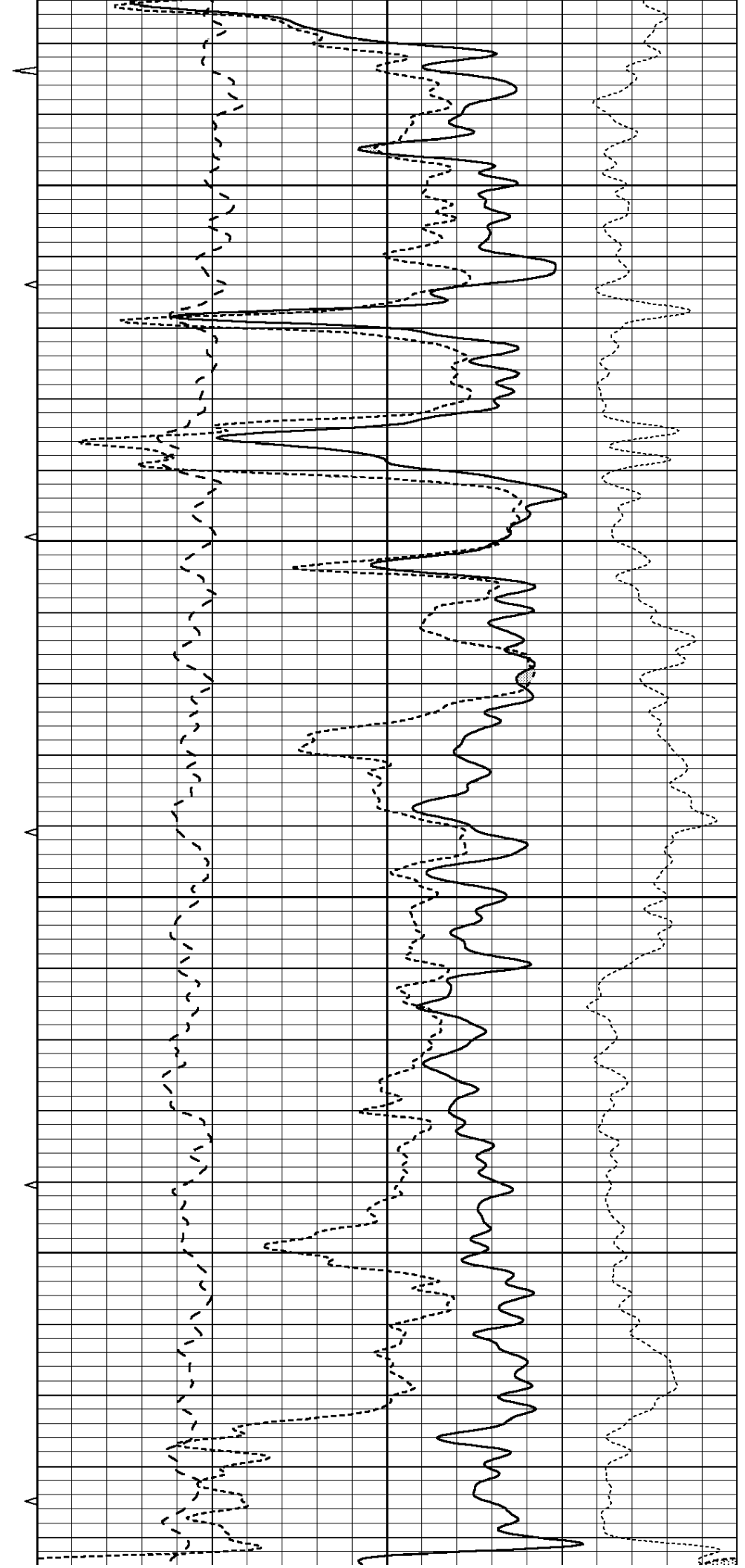
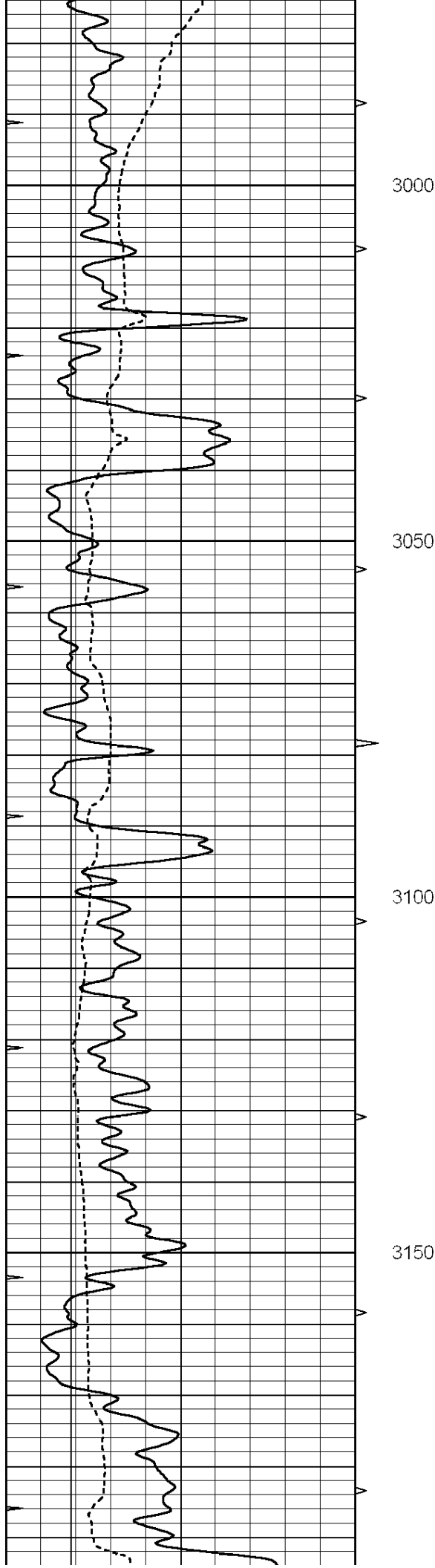
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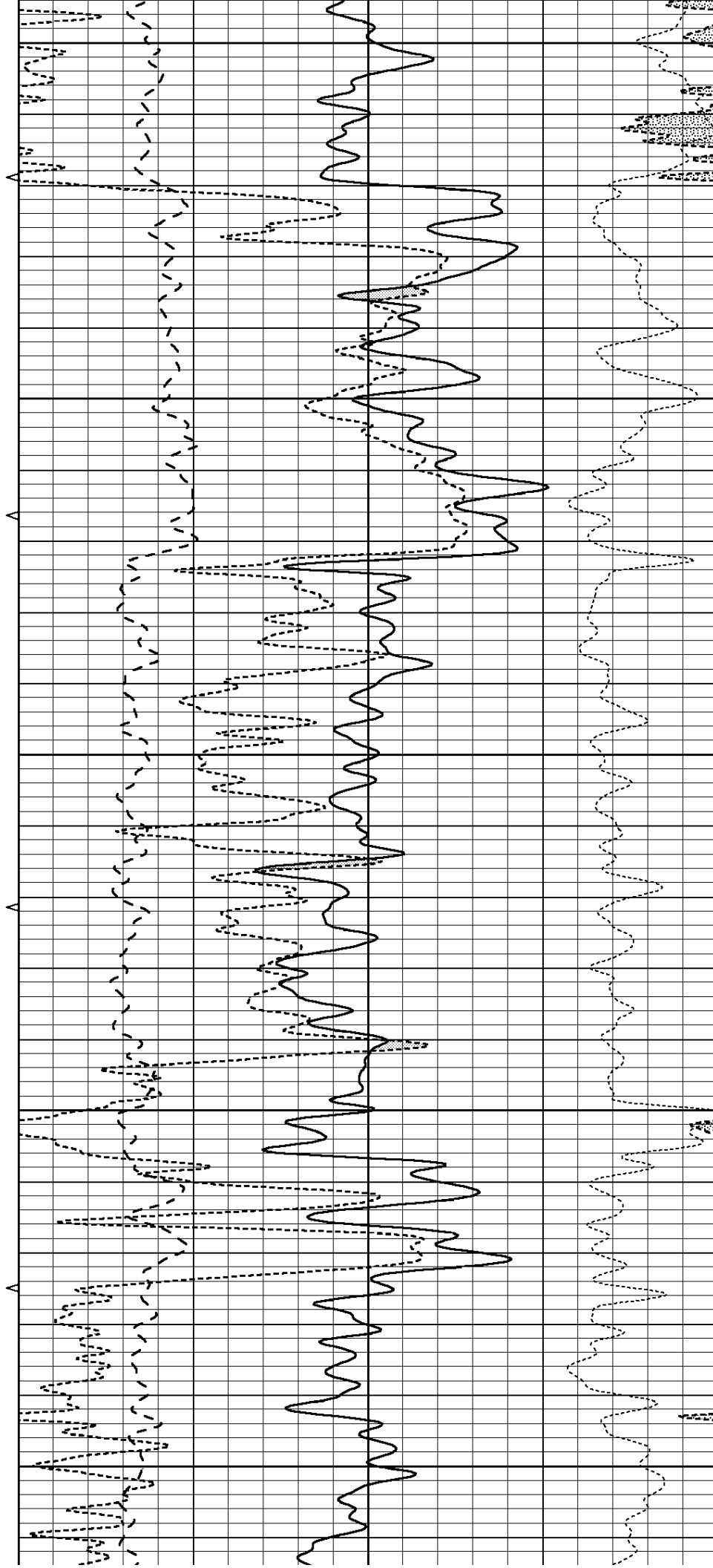
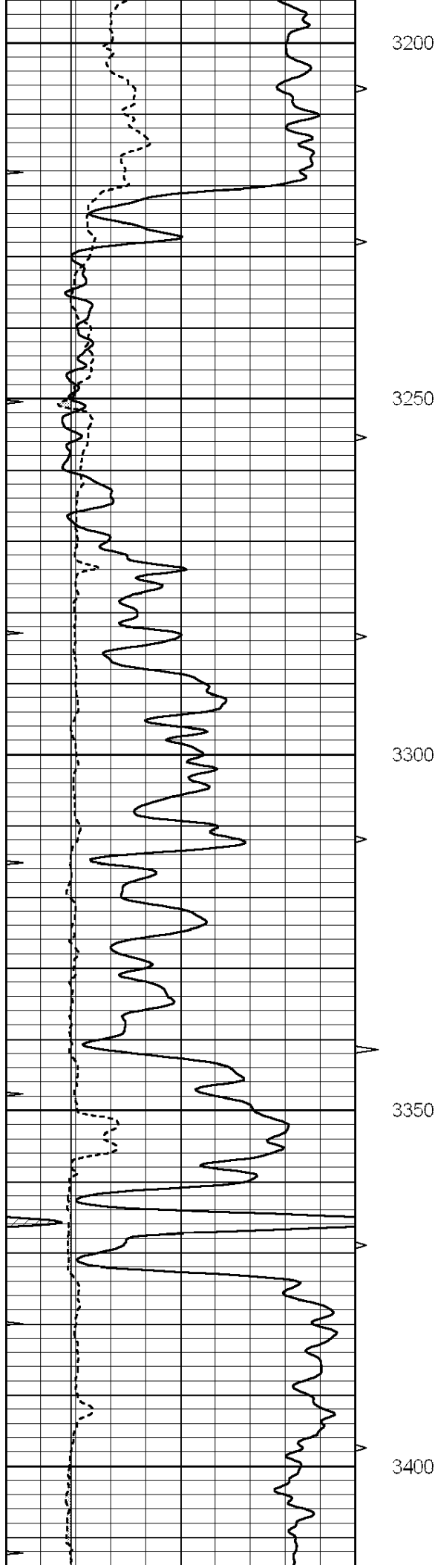
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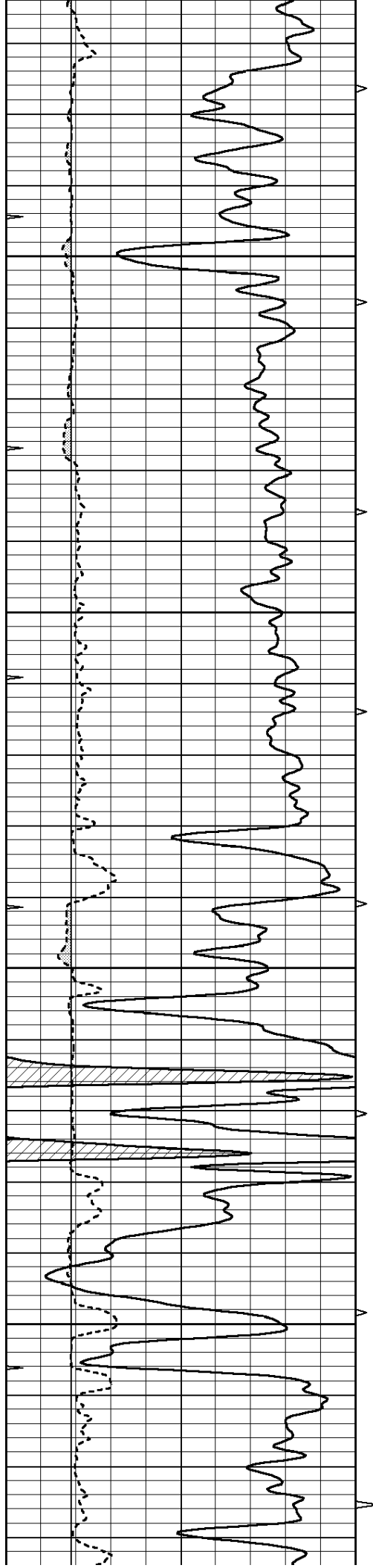










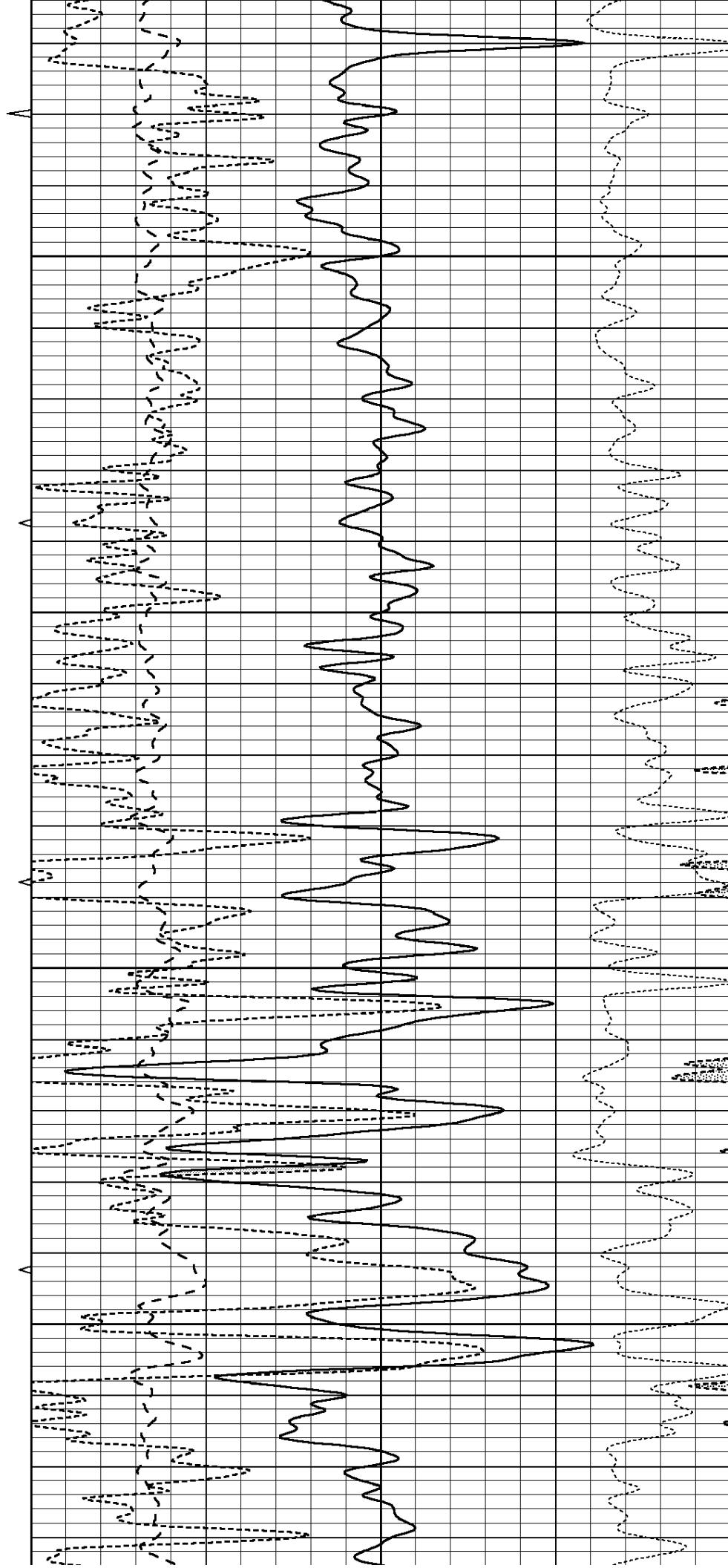


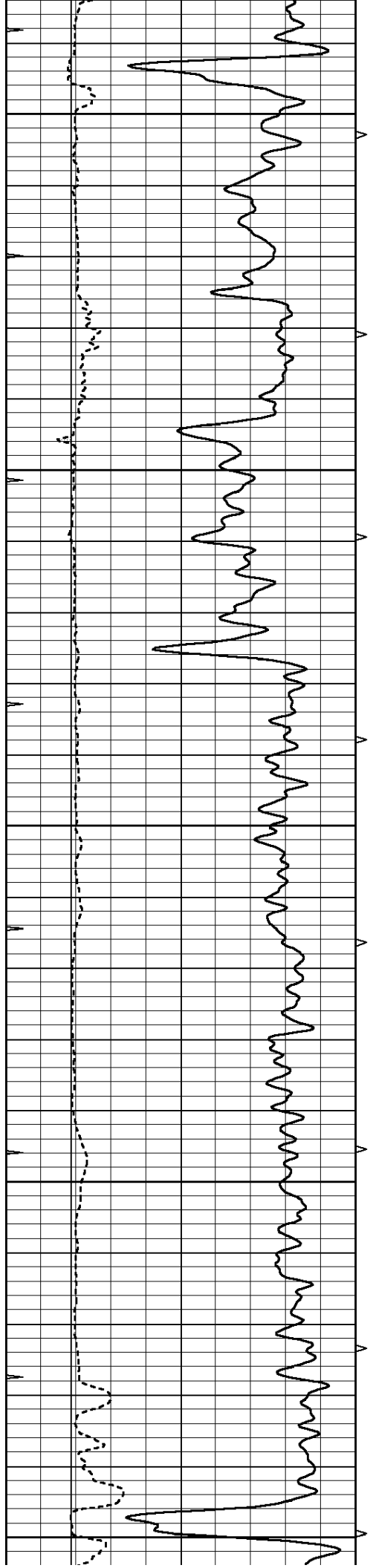
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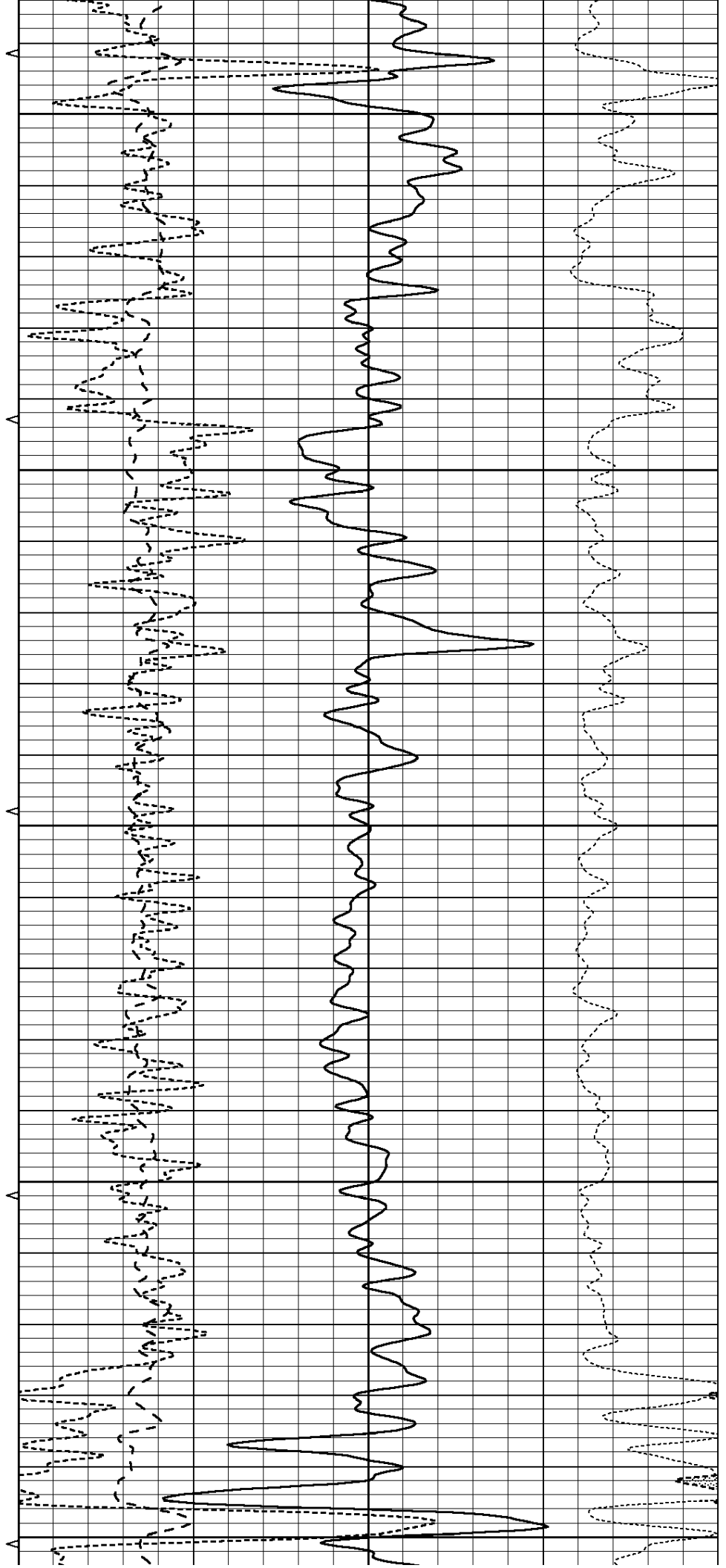
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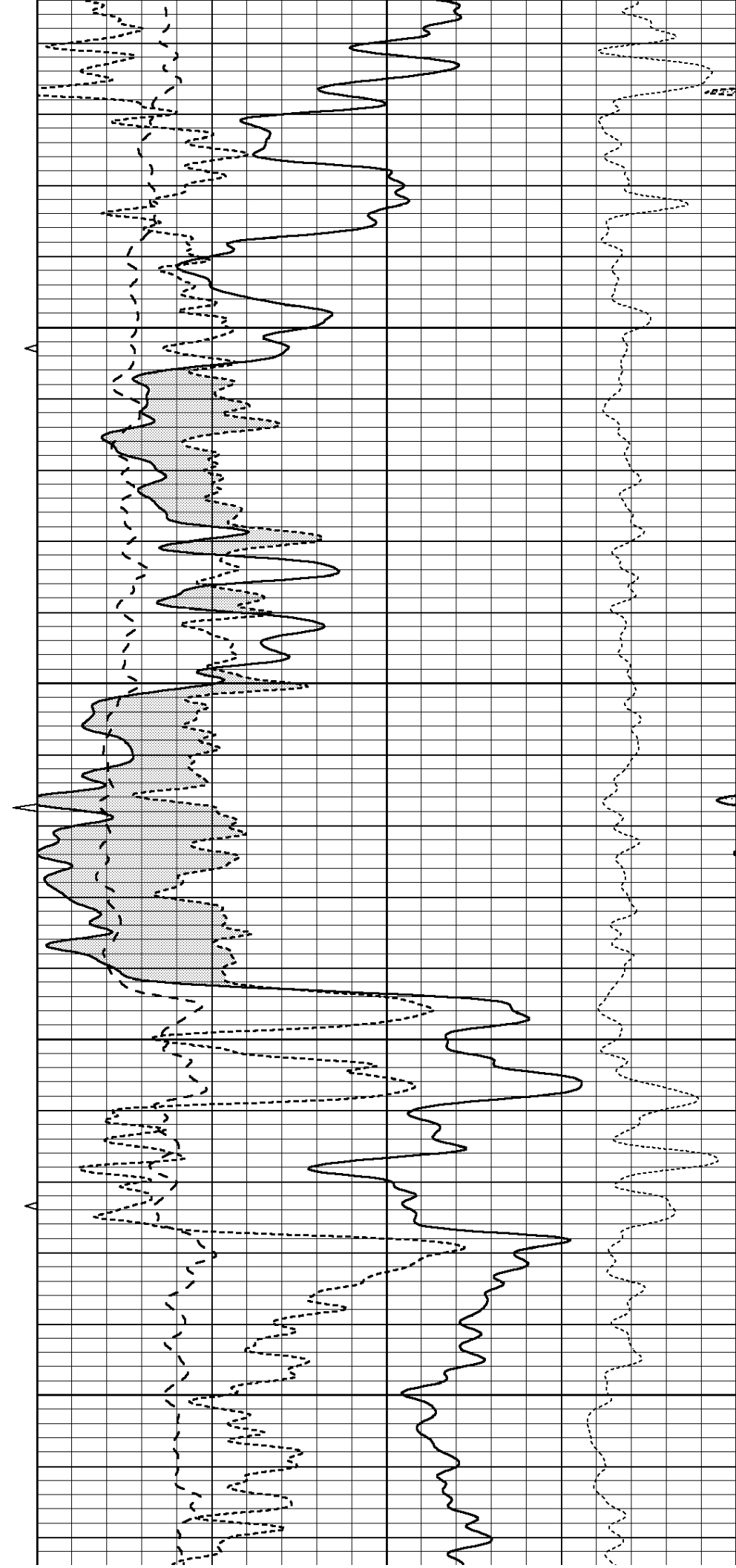
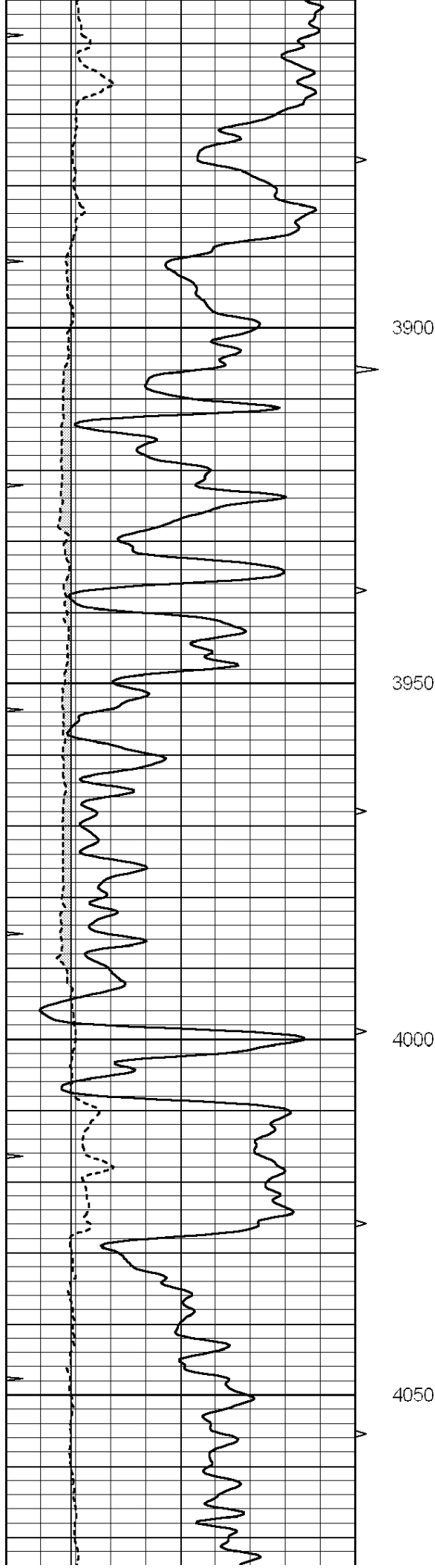
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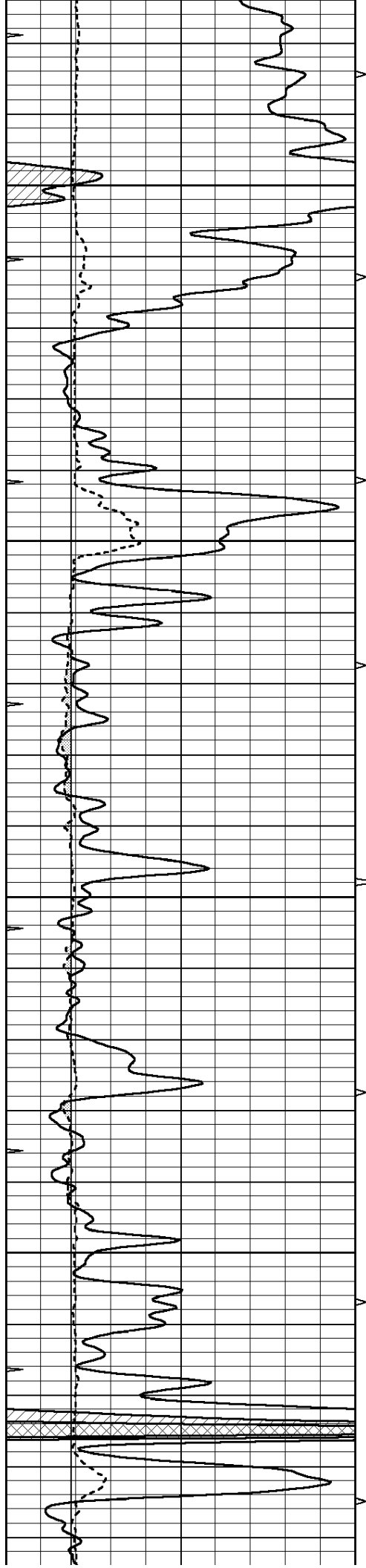




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3700
3750
3800
3850





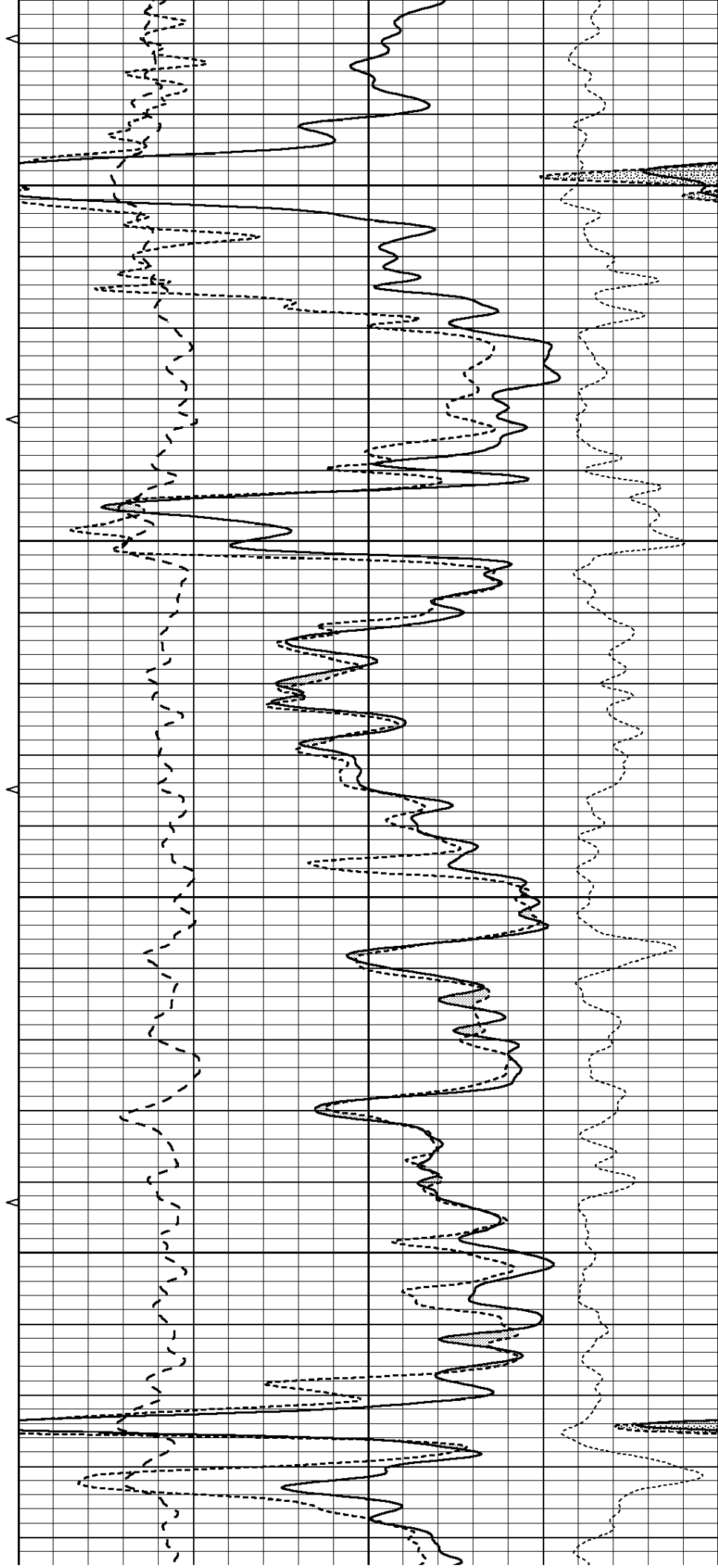


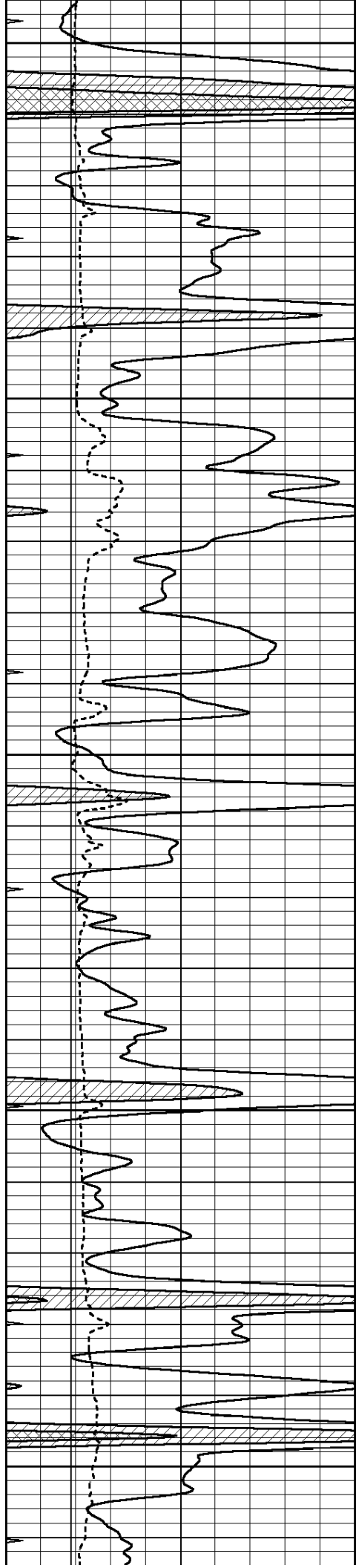
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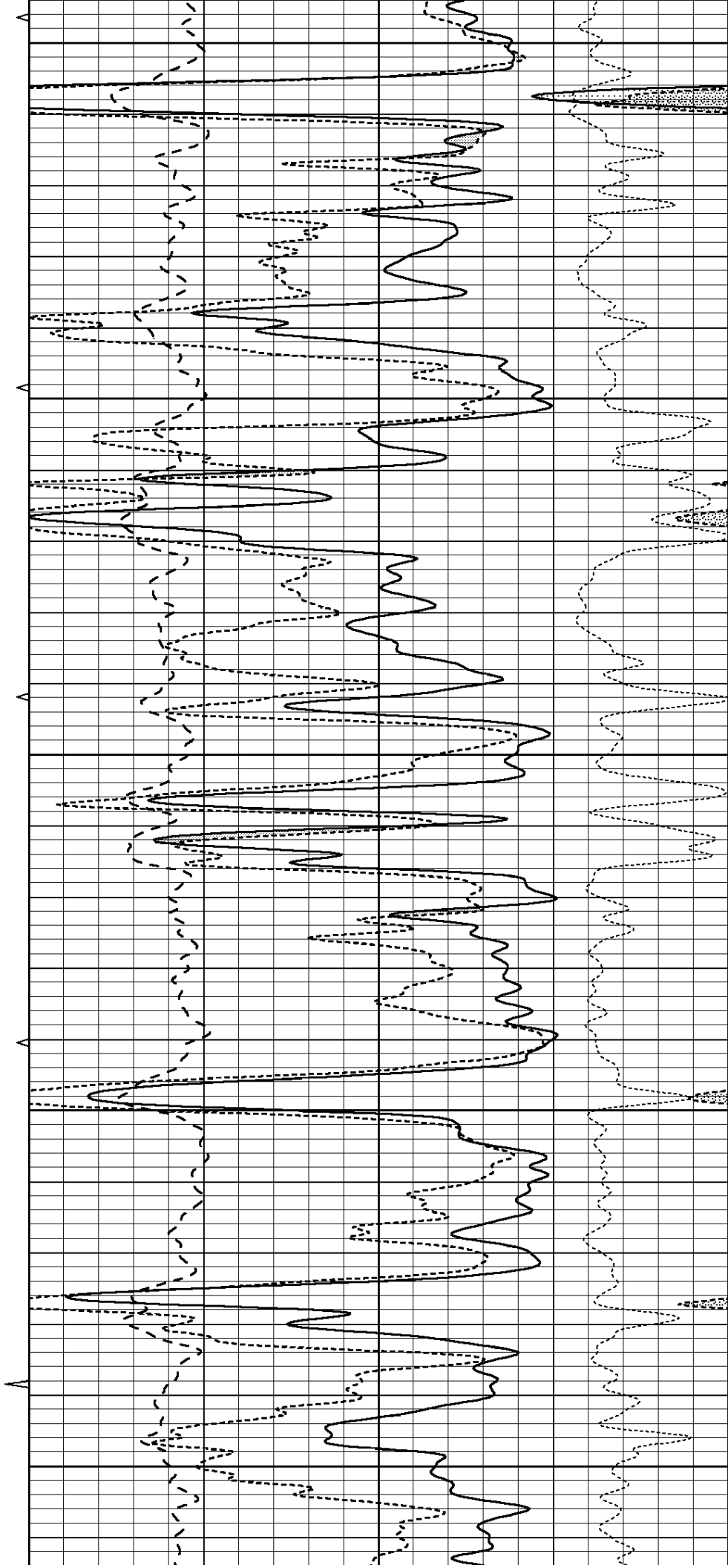
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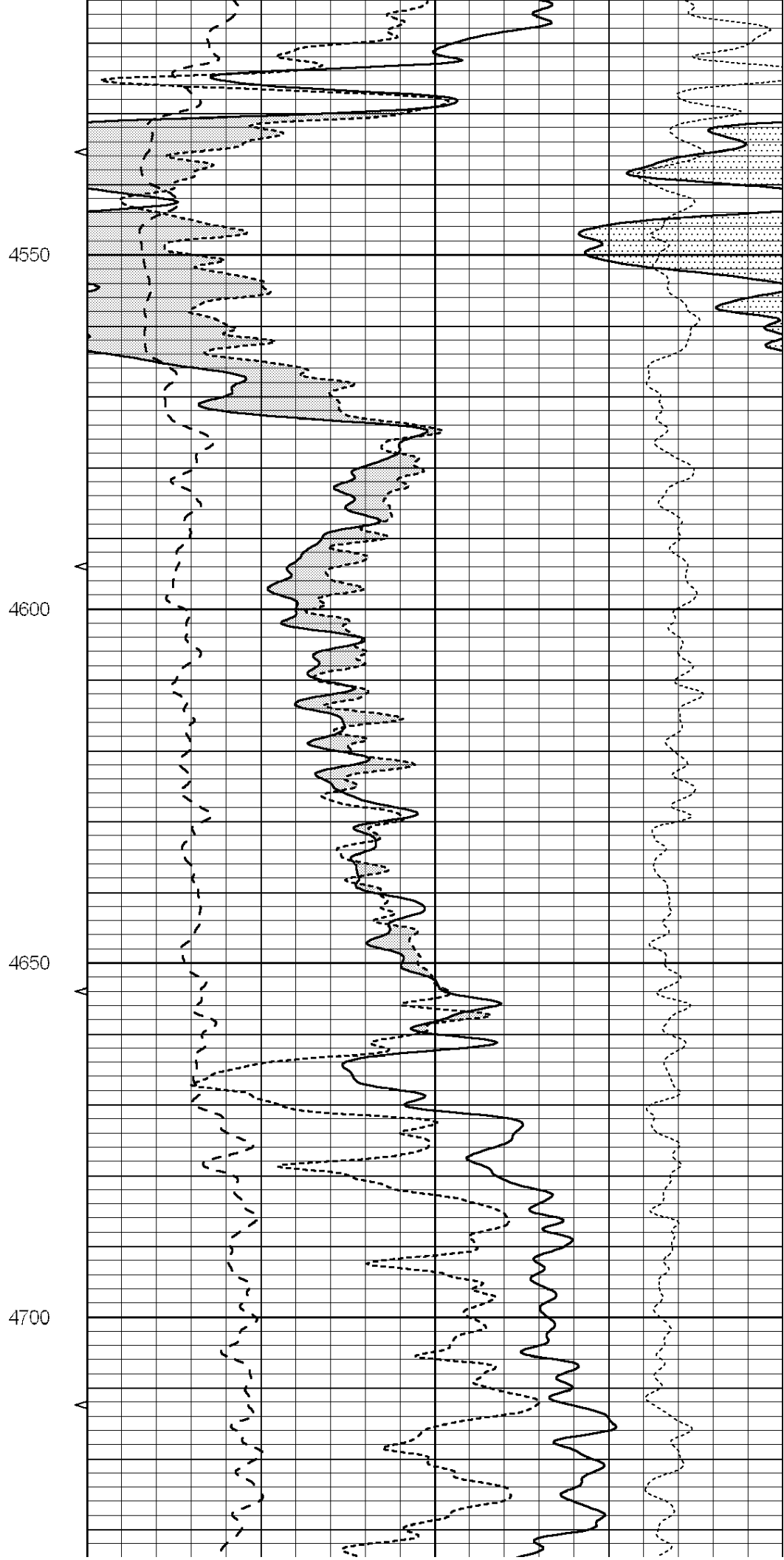
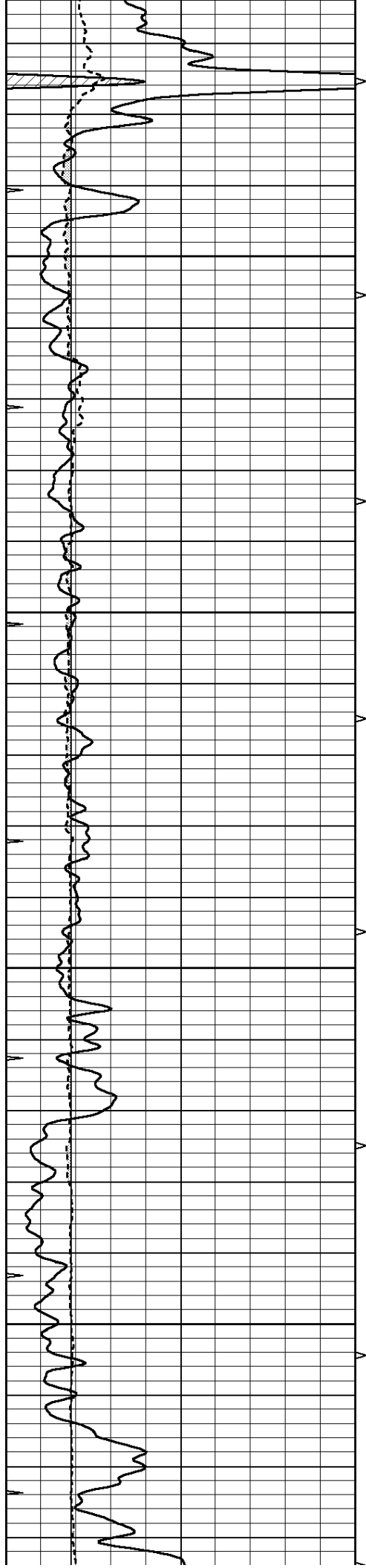
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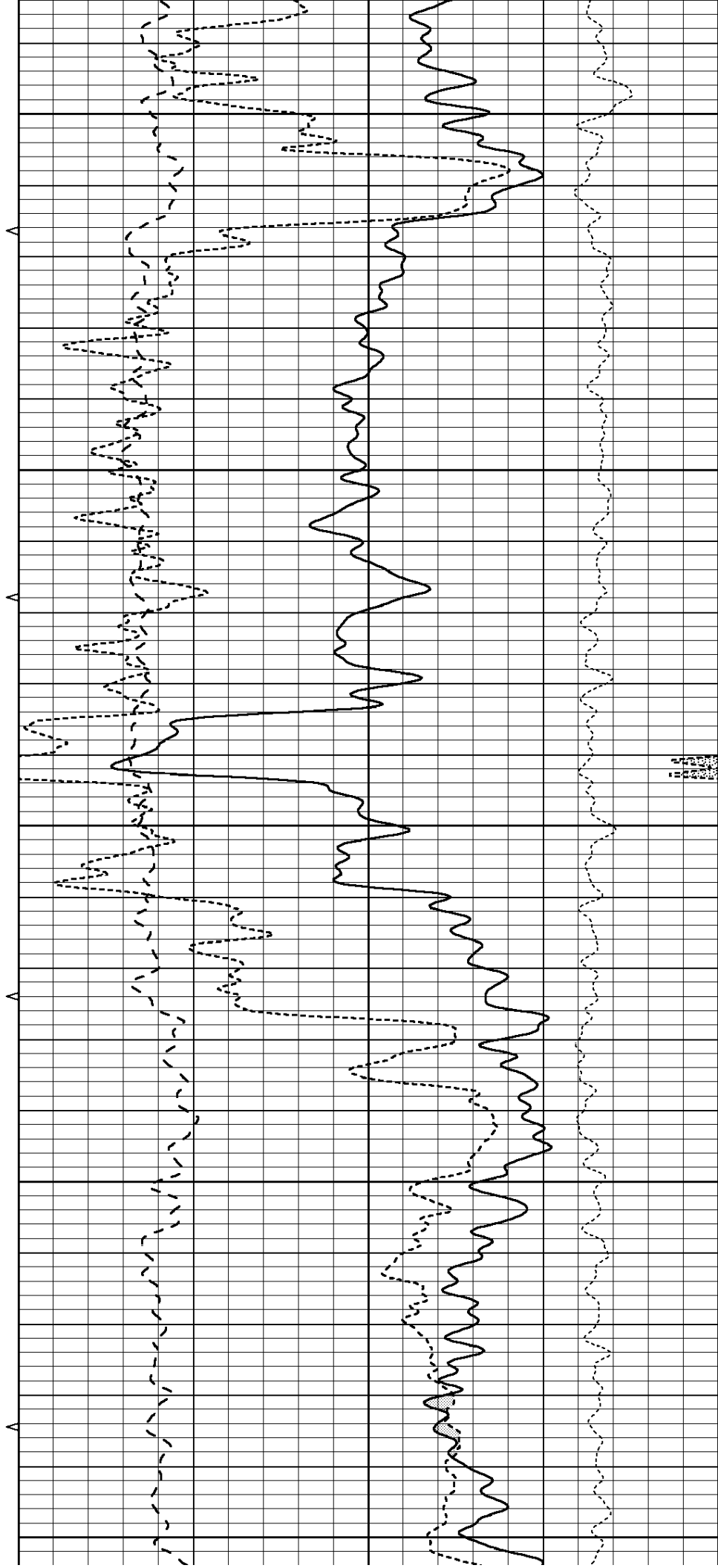
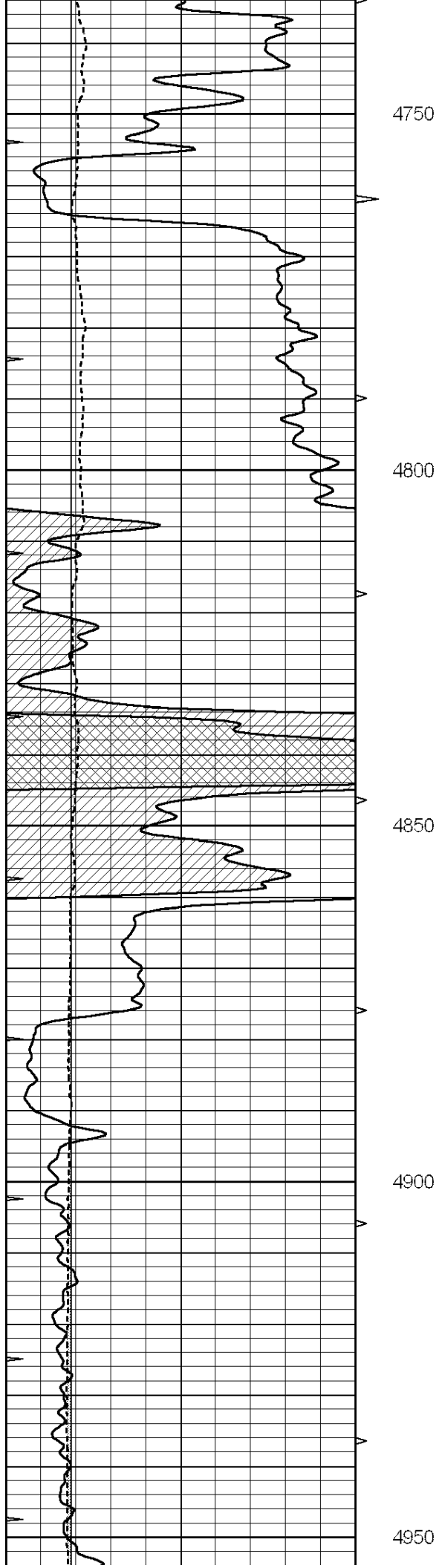
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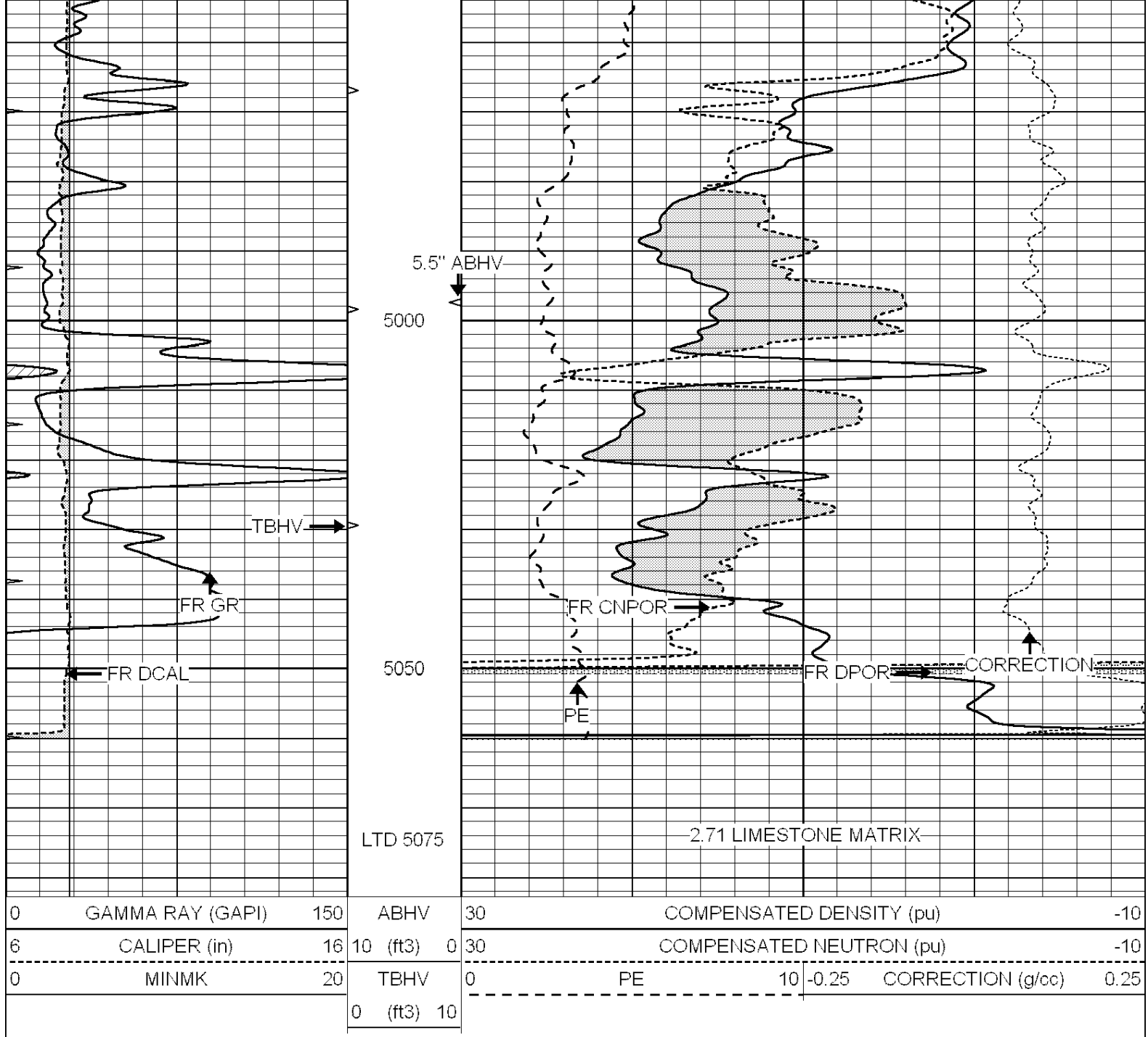
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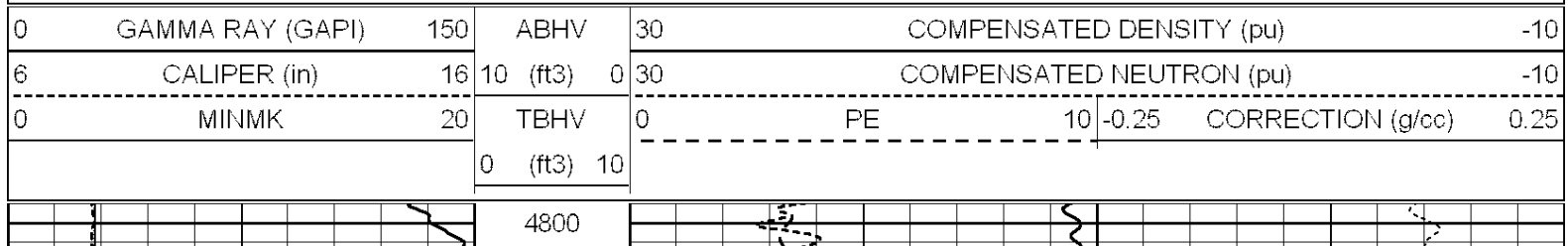


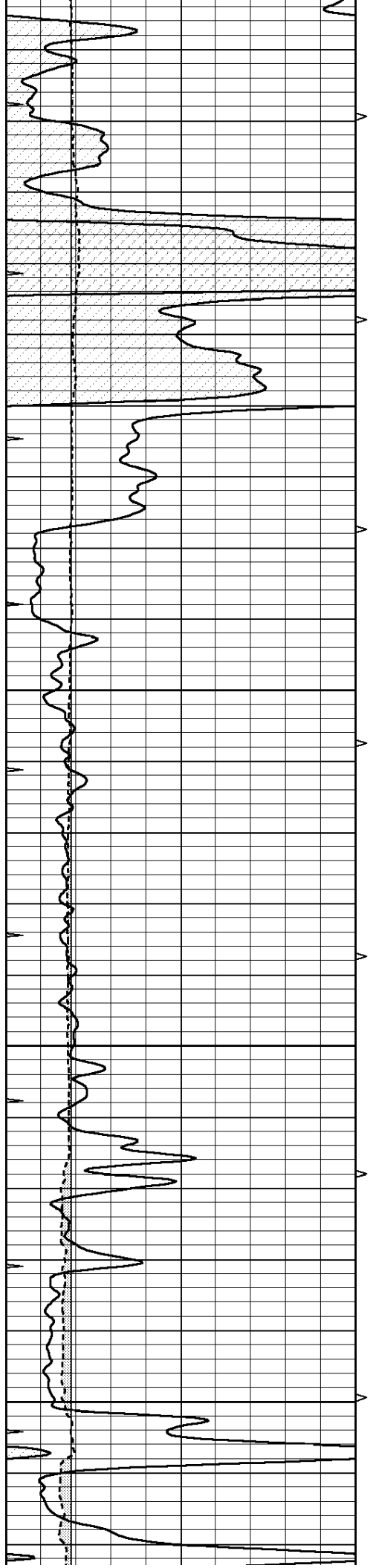


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REPEAT SECTION

Database File: 011176pe.db
Dataset Pathname: pass2.2
Presentation Format: ldt_neu
Dataset Creation: Tue Jun 25 11:19:54 2013 by Calc SOC 120430
Charted by: Depth in Feet scaled 1:240



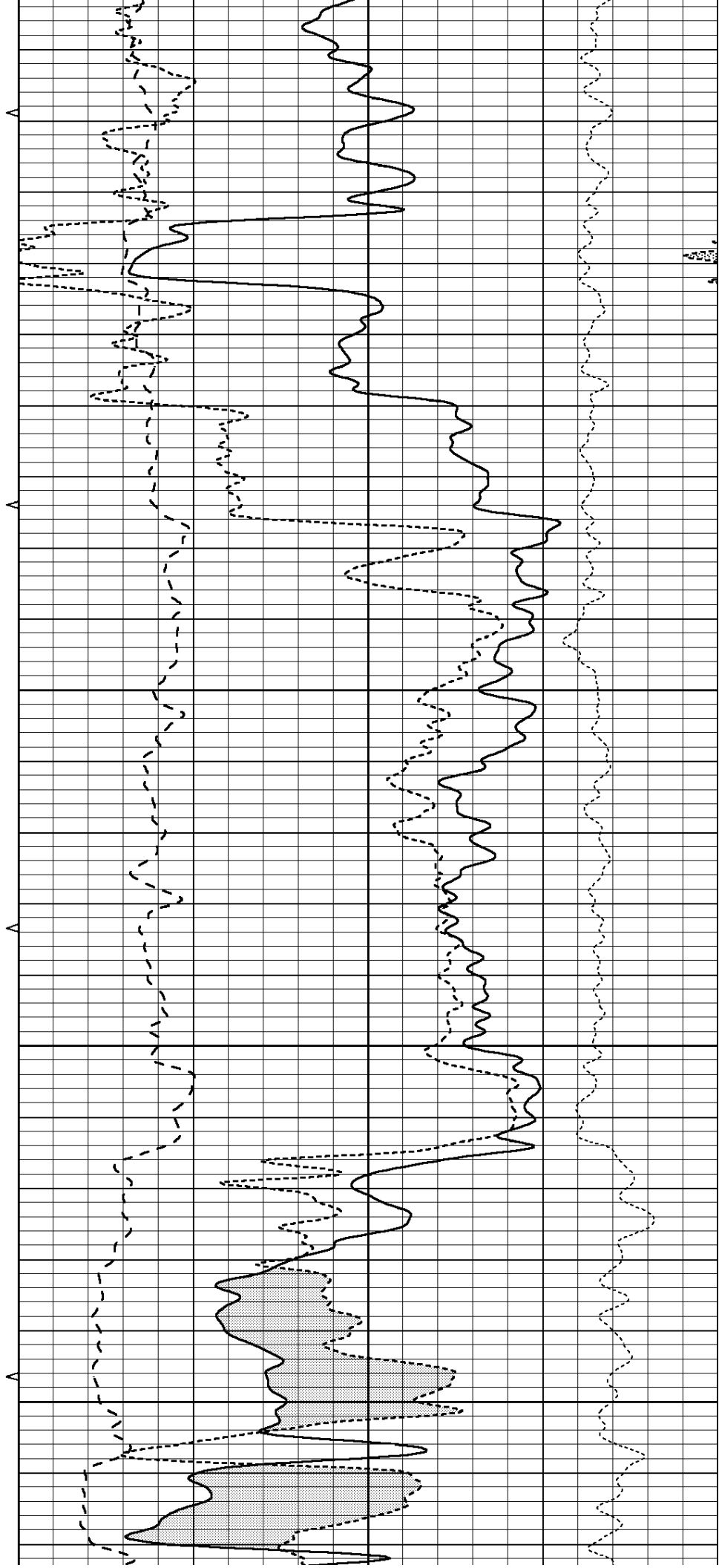


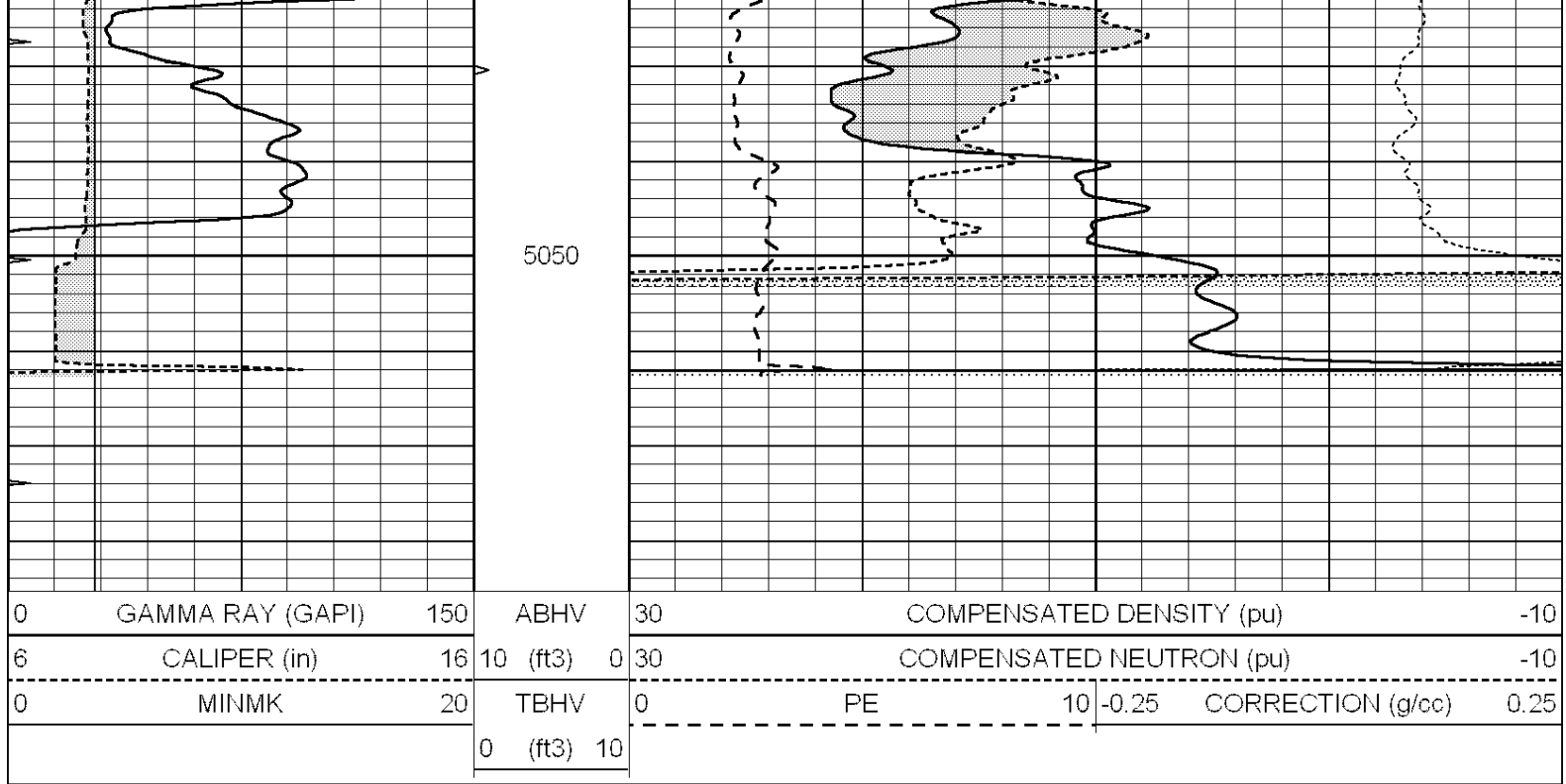
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4950

5000





Calibration Report

Database File: 011176pe.db
Dataset Pathname: pass3.7
Dataset Creation: Tue Jun 25 13:28:22 2013 by Calc SOC 120430

Dual Induction Calibration Report

Serial-Model: PROBE9-DILG
Surface Cal Performed: Tue Jun 25 11:17:47 2013
Downhole Cal Performed: Mon Jul 28 12:02:56 2008
After Survey Verification Performed: Mon Jul 28 12:02:56 2008

Surface Calibration

Readings				References			Results	
Loop:	Air	Loop		Air	Loop		m	b
Deep	-0.014	0.629	V	0.000	400.000	mmho/m	621.923	-10.000
Medium	0.039	0.728	V	0.000	464.000	mmho/m	640.000	-17.000
Internal:	Zero	Cal		Zero	Cal		m	b
Deep	0.011	0.610	V	0.000	400.000	mmho/m	667.135	-7.256
Medium	0.005	0.712	V	0.000	464.000	mmho/m	655.677	-3.102

Downhole Calibration

Readings				References			Results	
	Zero	Cal		Zero	Cal		m'	b'
Deep	0.000	0.000	mmho/m	14.508	388.384	mmho/m	1.000	0.000
Medium	0.000	0.000	mmho/m	166.367	504.400	mmho/m	1.000	0.000
LL3		7.500	V		1400.000	Ohm-m		
		0.000	V		20.000	Ohm-m		
		-7.200	V		4000.000	mmho-m		

After Survey Verification

Readings				Targets		Results	
	Zero	Cal		Zero	Cal	m'	b'
Deep	0.000	0.000	mmho/m	0.000	0.000	0.000	0.000
Medium	0.000	0.000	mmho/m	0.000	0.000	0.000	0.000
LL3		7.500	V		1400.000	Ohm-m	
		0.000	V		20.000	Ohm-m	
		-7.200	V		4000.000	mmho-m	

Deep	0.000	0.000	mmho/m	0.000	0.000	mmho/m	0.000	0.000
Medium	0.000	0.000	mmho/m	0.000	0.000	mmho/m	0.000	0.000
LL3		1.000	Ohm-m		1.000	Ohm-m		
		0.000	Ohm-m		0.000	Ohm-m		
		1.000	mmho-m		1.000	mmho-m		

Litho Density Calibration Report

Serial: 004N Model: PRB

Master Calibration			Performed Mon Jun 03 09:36:56 2013					
	Background		Magnesium		Aluminum		Sandstone	
Window 1	1417.6		10391.4		3464.6		11537.5	cps
Window 2	1295.0		8959.7		3050.1		9816.4	cps
Window 3	1105.1		5464.2		2051.0		5838.8	cps
Window 4	315.0		317.7		312.9		319.8	cps
Long Space	0.0		7664.6		1755.0		8521.3	cps
Short Space	1.8		1582.4		1040.8		1699.4	cps
Rho			1.7100		2.5900		1.3800	g/cc
Pe			0.0000		2.5700		1.5500	
Rib Angle	: 44.1		Rib Slope	: 0.970	Density/Spine Ratio		: 0.574	
Spine Angle	: 74.1		Spine Slope	: 3.519	Spine Intercept		: -17.0	

Before Survey Verification			Performed Wed Dec 31 18:00:00 1969					
Window 1	0.0		0.0		0.0		0.0	cps
Window 2	0.0		0.0		0.0		0.0	cps
Window 3	0.0		0.0		0.0		0.0	cps
Window 4	0.0		0.0		0.0		0.0	cps
Long Space	0.0		0.0		0.0		0.0	cps
Short Space	0.0		0.0		0.0		0.0	cps
Measured Rho			0.0000		0.0000		0.0000	g/cc
Measured Correction			0.0000		0.0000		0.0000	g/cc
Measured Pe					0.0000		0.0000	

After Survey Verification			Performed Wed Dec 31 18:00:00 1969					
Window 1	0.0		0.0		0.0		0.0	cps
Window 2	0.0		0.0		0.0		0.0	cps
Window 3	0.0		0.0		0.0		0.0	cps
Window 4	0.0		0.0		0.0		0.0	cps
Long Space	0.0		0.0		0.0		0.0	cps
Short Space	0.0		0.0		0.0		0.0	cps
Measured Rho			0.0000		0.0000		0.0000	g/cc
Measured Correction			0.0000		0.0000		0.0000	g/cc
Measured Pe					0.0000		0.0000	

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Compensated Neutron Calibration Report

Serial Number:	070808
Tool Model:	Probe

PRE-SURVEY VERIFICATION			
Detector	Readings	Measured	Target
Short Space	cps		
Long Space	cps	pu	pu

POST-SURVEY VERIFICATION			
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Detector		Readings	Measured	Target
Short Space		cps		
Long Space		cps	pu	pu
Gamma Ray Calibration Report				
Serial Number:		070559		
Tool Model:		OPEN_GR		
Performed:		Wed Jun 12 18:25:42 2013		
Calibrator Value:		1.0	GAPI	
Background Reading:		0.0	cps	
Calibrator Reading:		1.0	cps	
Sensitivity:		0.3500	GAPI/cps	