



SUPERIOR
Hays,
Kansas

COMPENSATED
DENSITY / NEUTRON
LOG

Company MULL DRILLING COMPANY, INC.
Well CHAMPLIN - ALDRICH #4
Field CHEYENNE WELLS
County CHEYENNE
State COLORADO

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Well CHAMPLIN - ALDRICH #4
Field CHEYENNE WELLS
County CHEYENNE State COLORADO

Location: API # : 05-017-07678-0000
1200' FNL & 1000' FEL
NE/4 - NE/4
SEC 33 TWP 13S RGE 44W
Permanent Datum GROUND LEVEL Elevation 4273
Log Measured From KELLY BUSHING 13' A.G.L.
Drilling Measured From KELLY BUSHING
Other Services
DIL/MEL
SONIC
Elevation
K.B. 4286
D.F. 4284
G.L. 4273

Date	10/3/09		
Run Number	CNE		
Depth Driller	5515		
Depth Logger	5516		
Bottom Logged Interval	5492		
Top Log Interval	3600		
Casing Driller	13 3/8"@445'		
Casing Logger	440		
Bit Size	7 7/8		
Type Fluid in Hole	CHEMICAL MUD	CHLORIDES 2,500 PPM	
Density / Viscosity	9.1/56		
pH / Fluid Loss	9.0/8.8		
Source of Sample	FLOWLINE		
Rm @ Meas. Temp	.800@92F		
Rmf @ Meas. Temp	.600@92F		
Rmc @ Meas. Temp	.960@92F		
Source of Rmf / Rmc	MEASUREMENT		
Rm @ BHT	.566@130F		
Time Circulation Stopped	3 HOURS		
Time Logger on Bottom	6:15 P.M.		
Maximum Recorded Temperature	130F		
Equipment Number	0836		
Location	HAYS, KANSAS		
Recorded By	JEFF LUEBBERS		
Witnessed By	PHIL ASKEY		

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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 SUPERIOR WELL SERVICE HAYS, KANSAS (785) 628-6395
DIRECTIONS
CHEYENNE WELLS, CO., 4 1/4 N. ON HWY TO RD. "V"., 1 E., 1/2 S., W. INTO

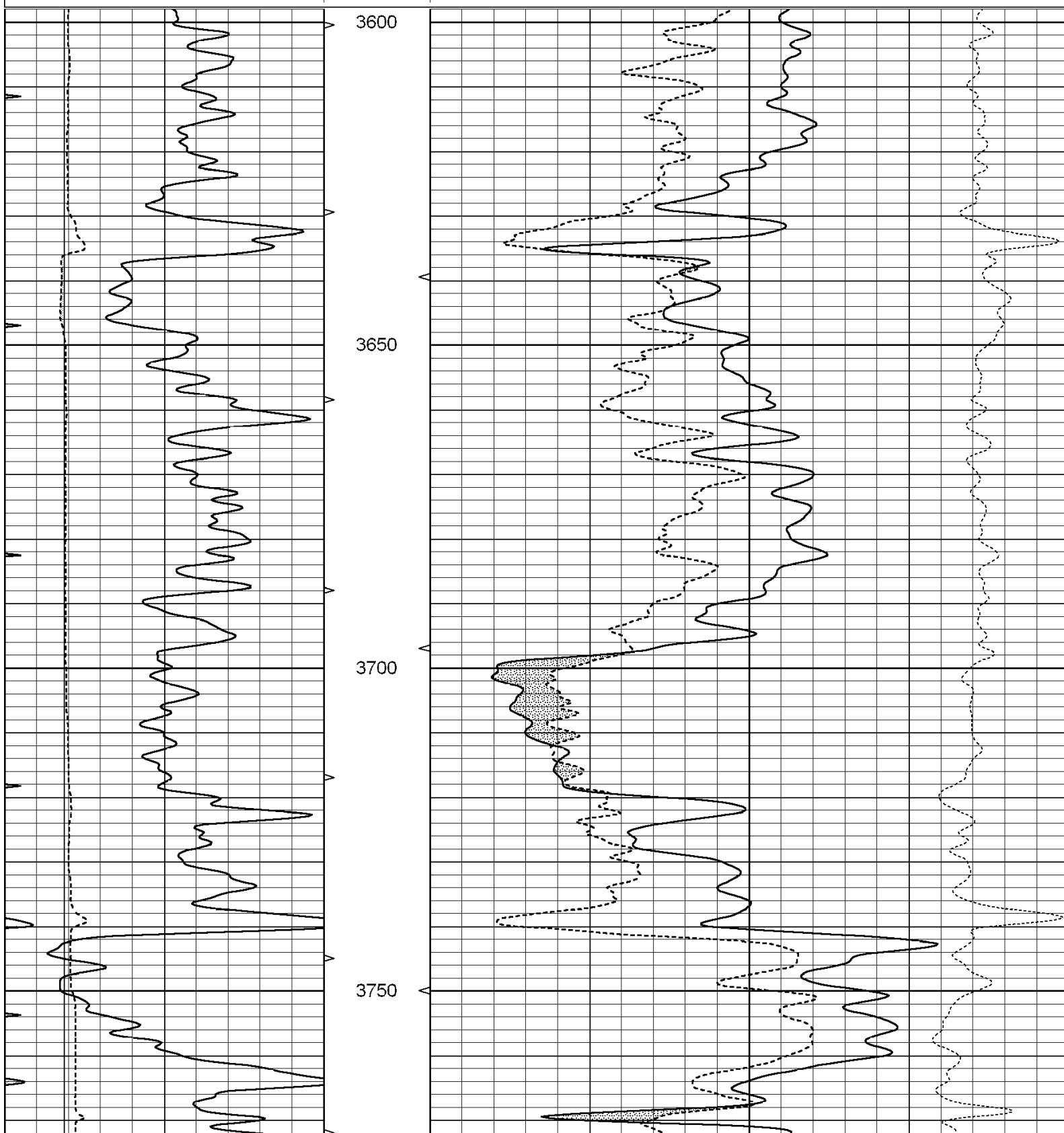


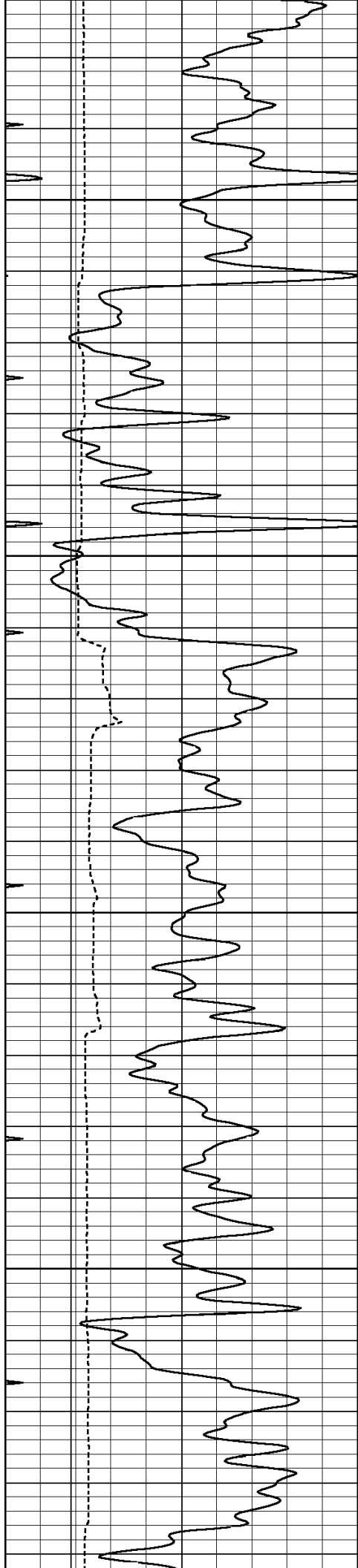
SUPERIOR
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MAIN SECTION

Database File: 004355ddn.db
Dataset Pathname: pass3.2
Presentation Format: den_neu
Dataset Creation: Sat Oct 03 19:27:48 2009 by Calc Open-Cased 060407
Charted by: 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		-0.25 CORRECTION (g/cc)	0.25
			0 (ft3) 10			



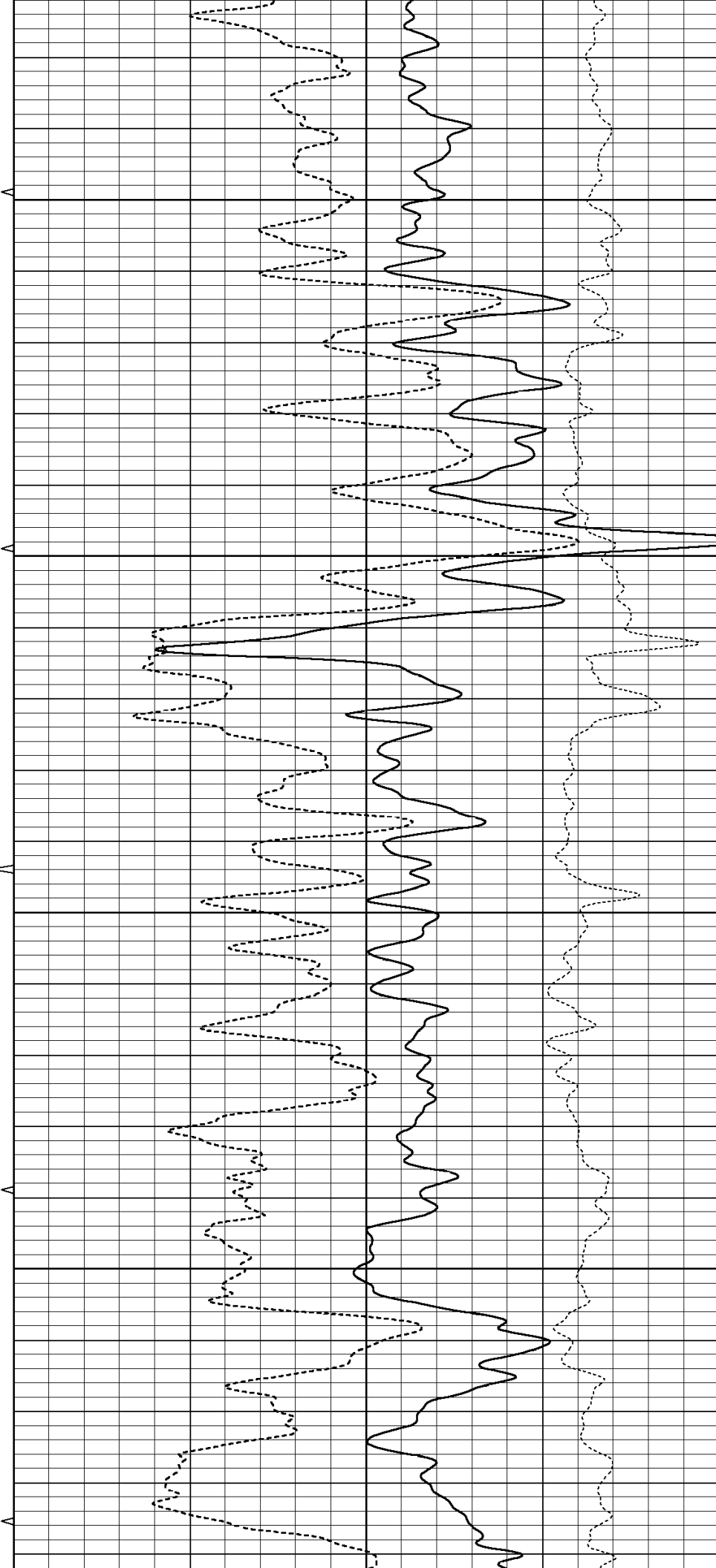


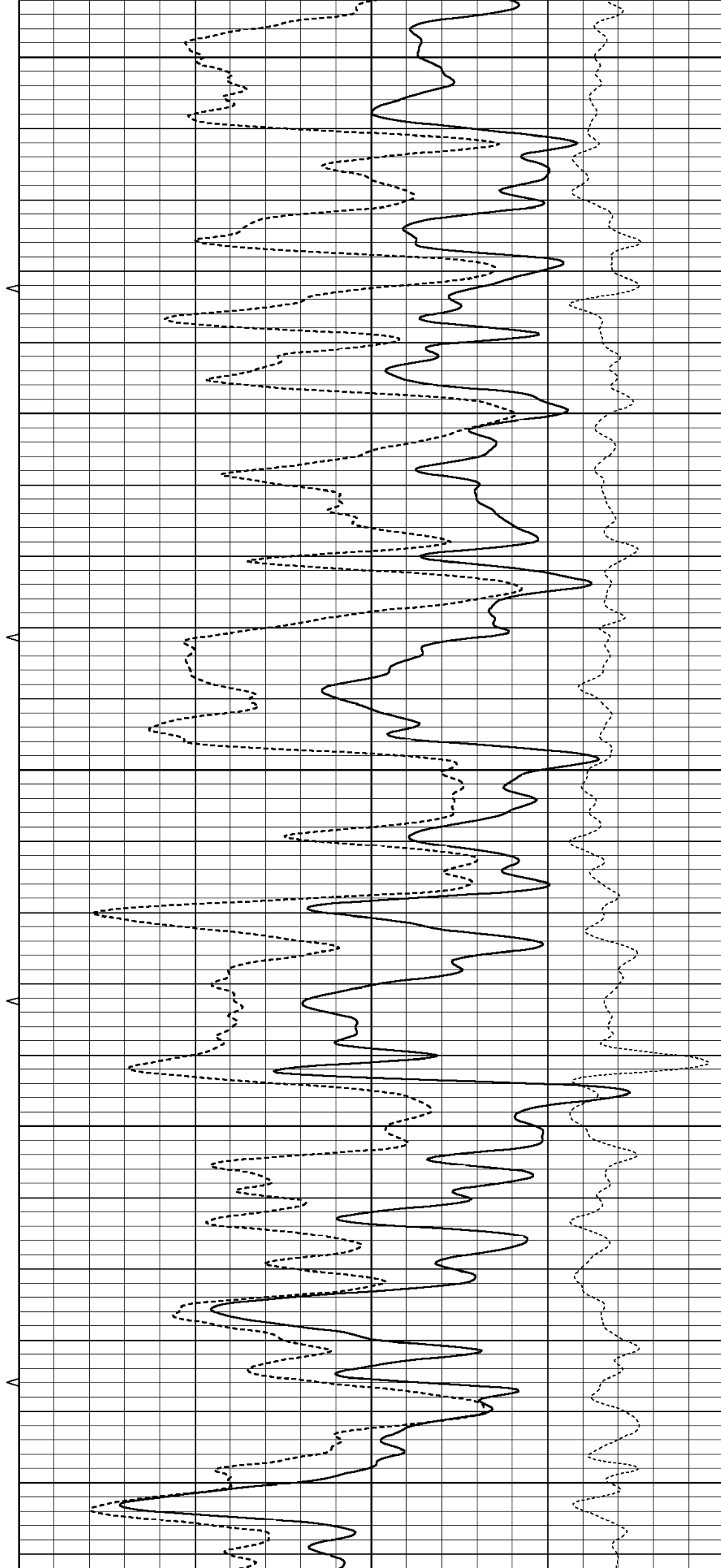
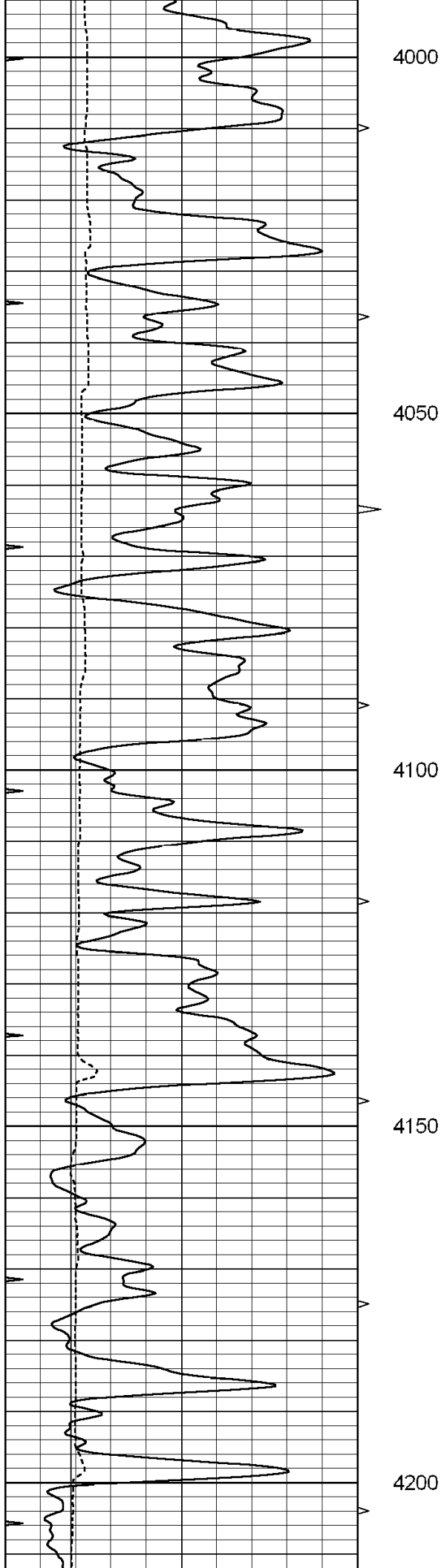
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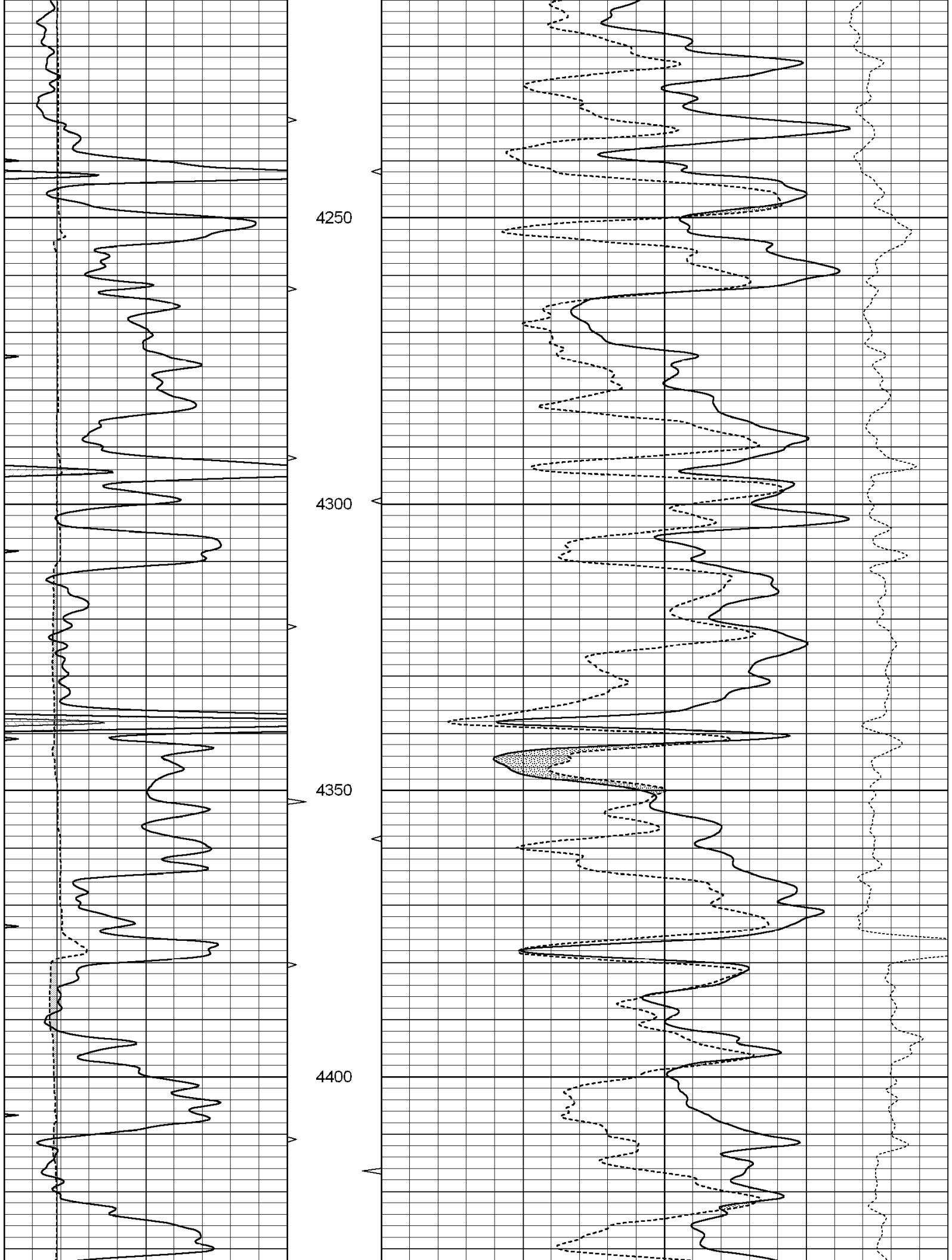
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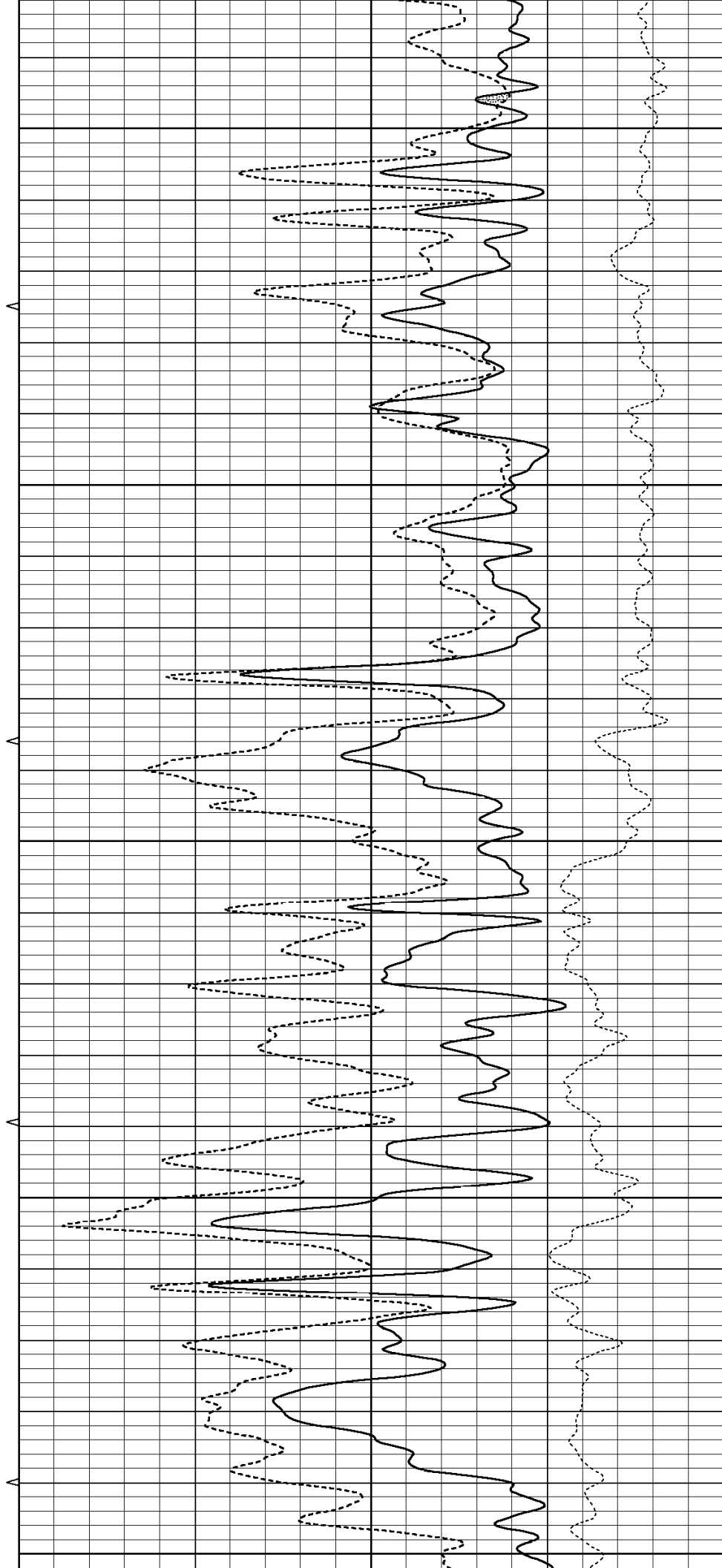
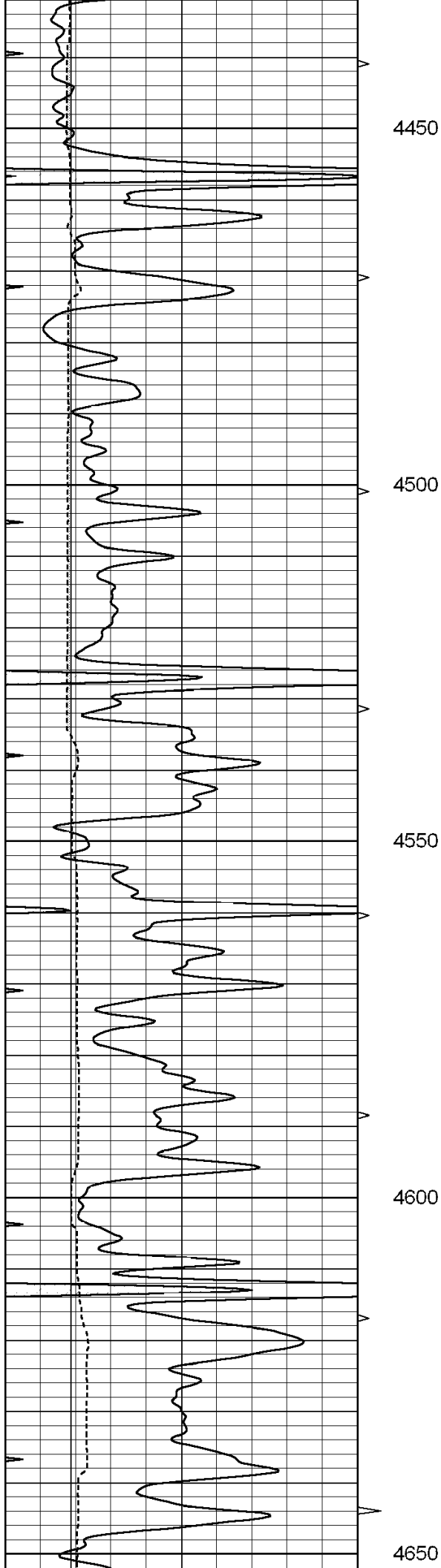
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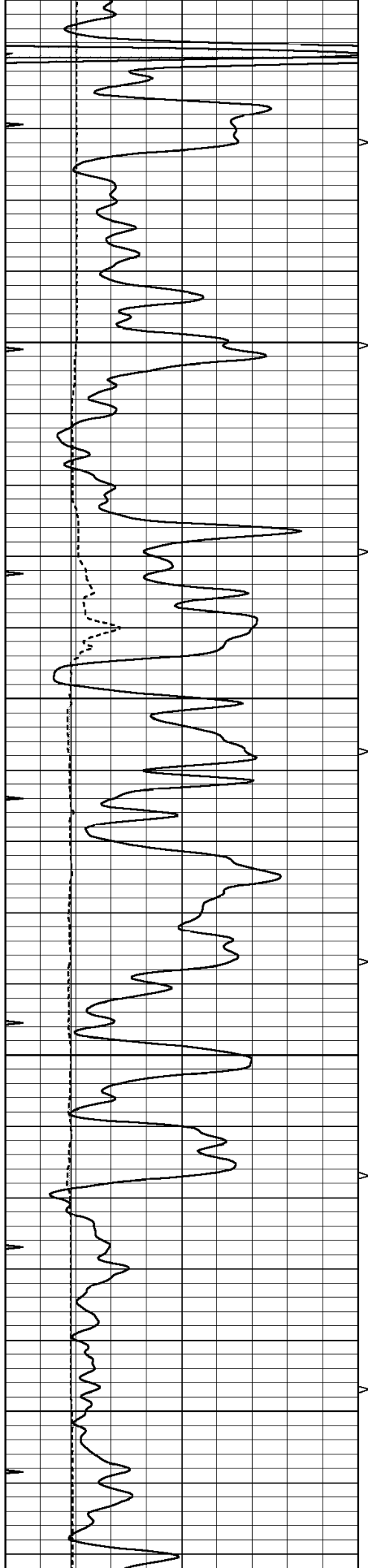
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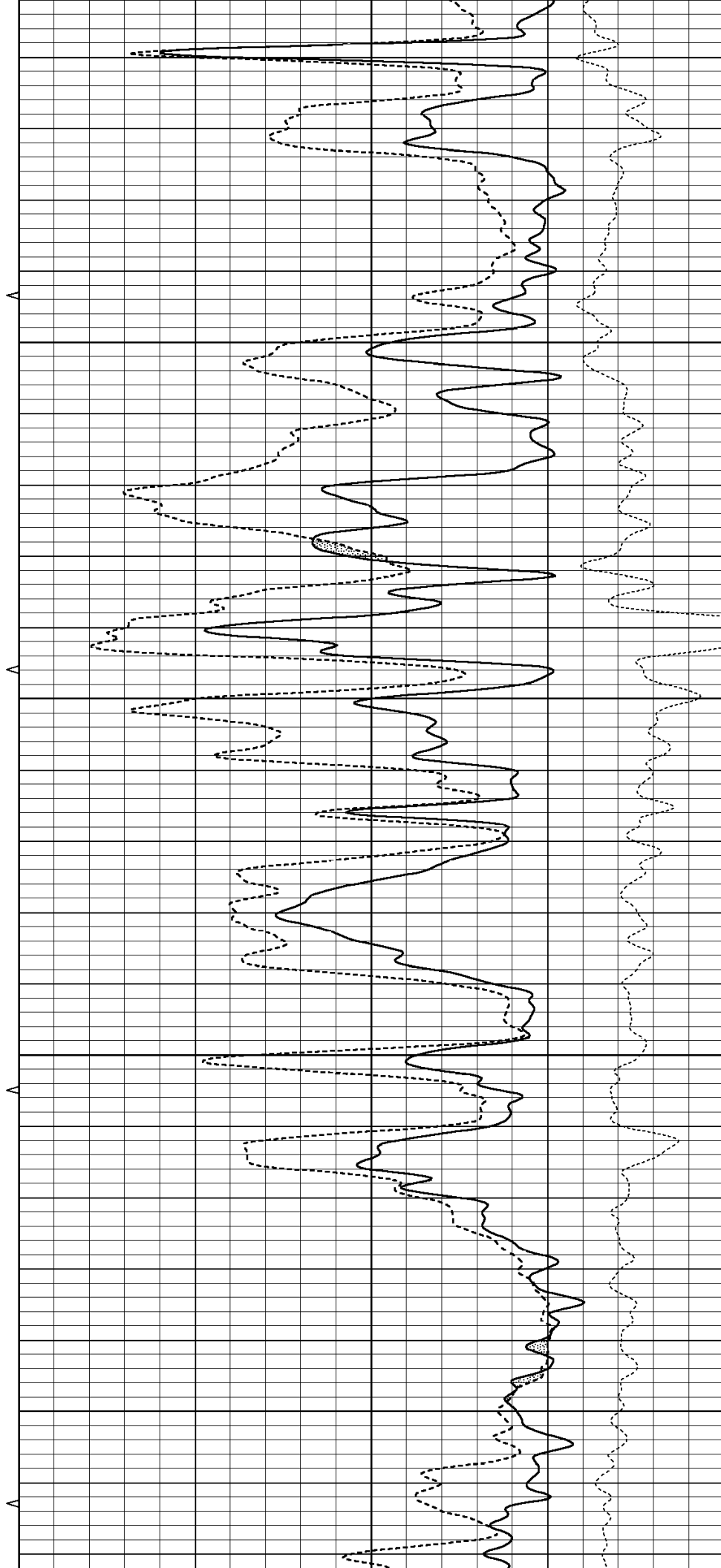


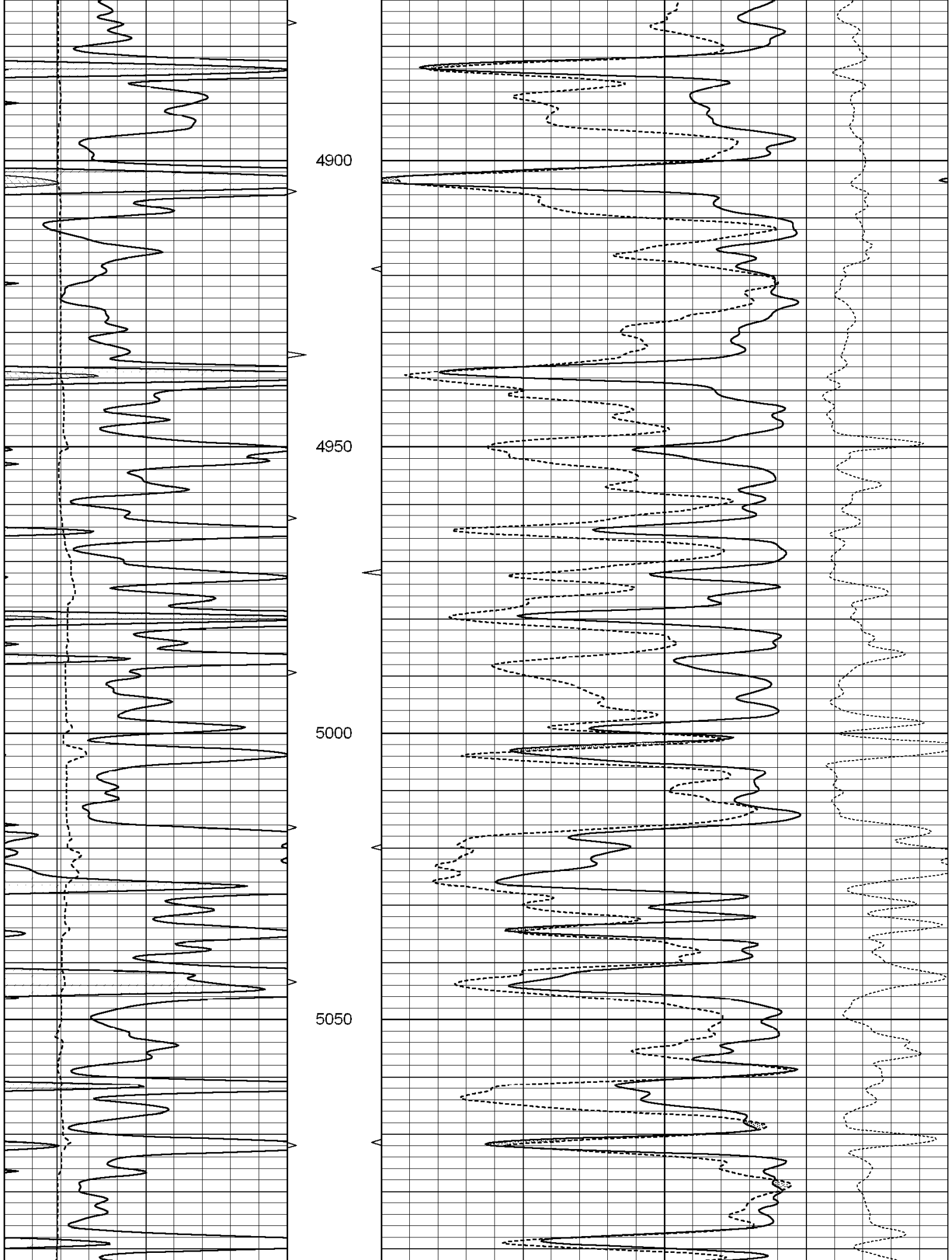
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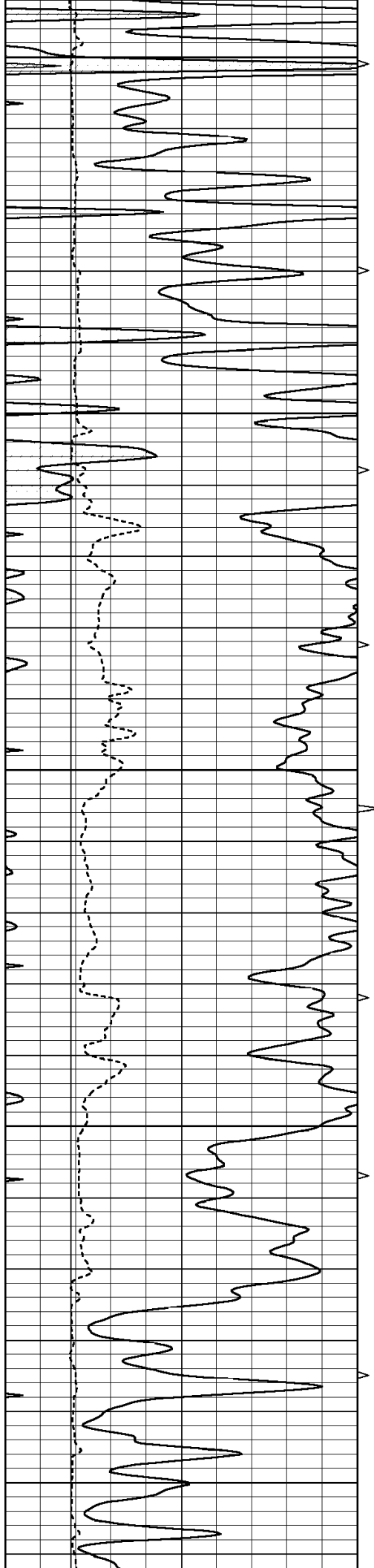
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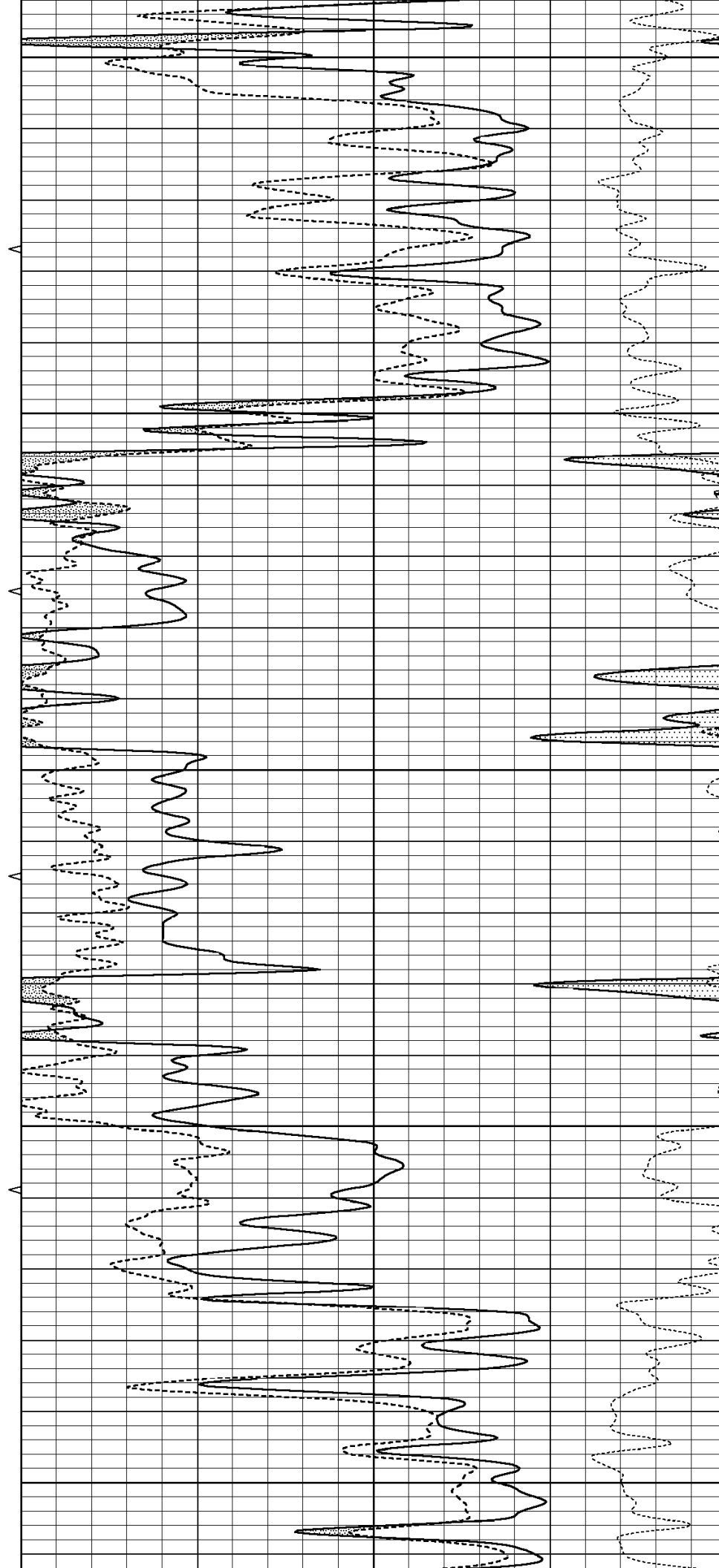
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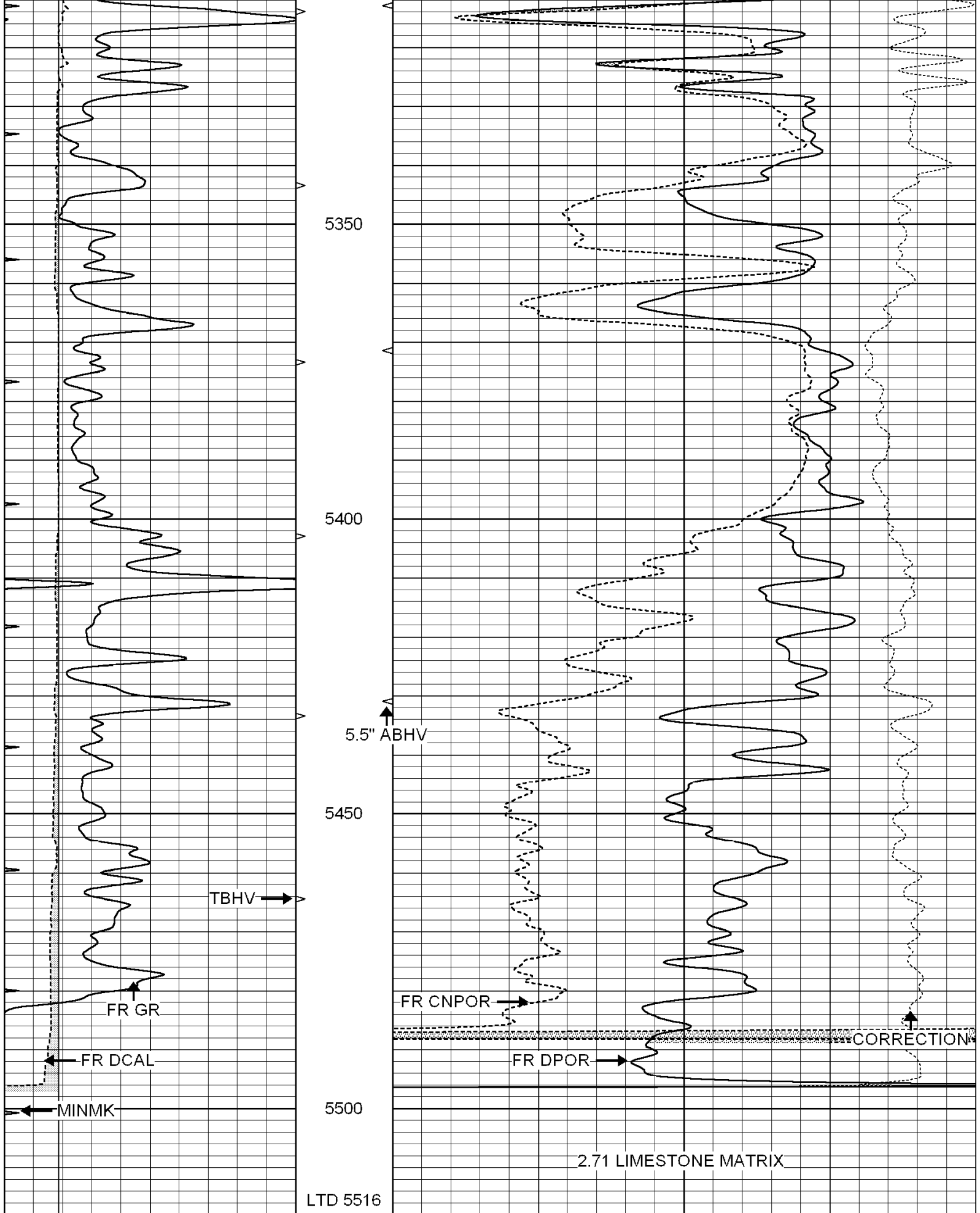
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5200

5250

5300





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		-0.25 CORRECTION (g/cc)	0.25

MINMK	20	TBHV	0 (ft3) 10	0.25	CORRECTION (g/cc)	0.25
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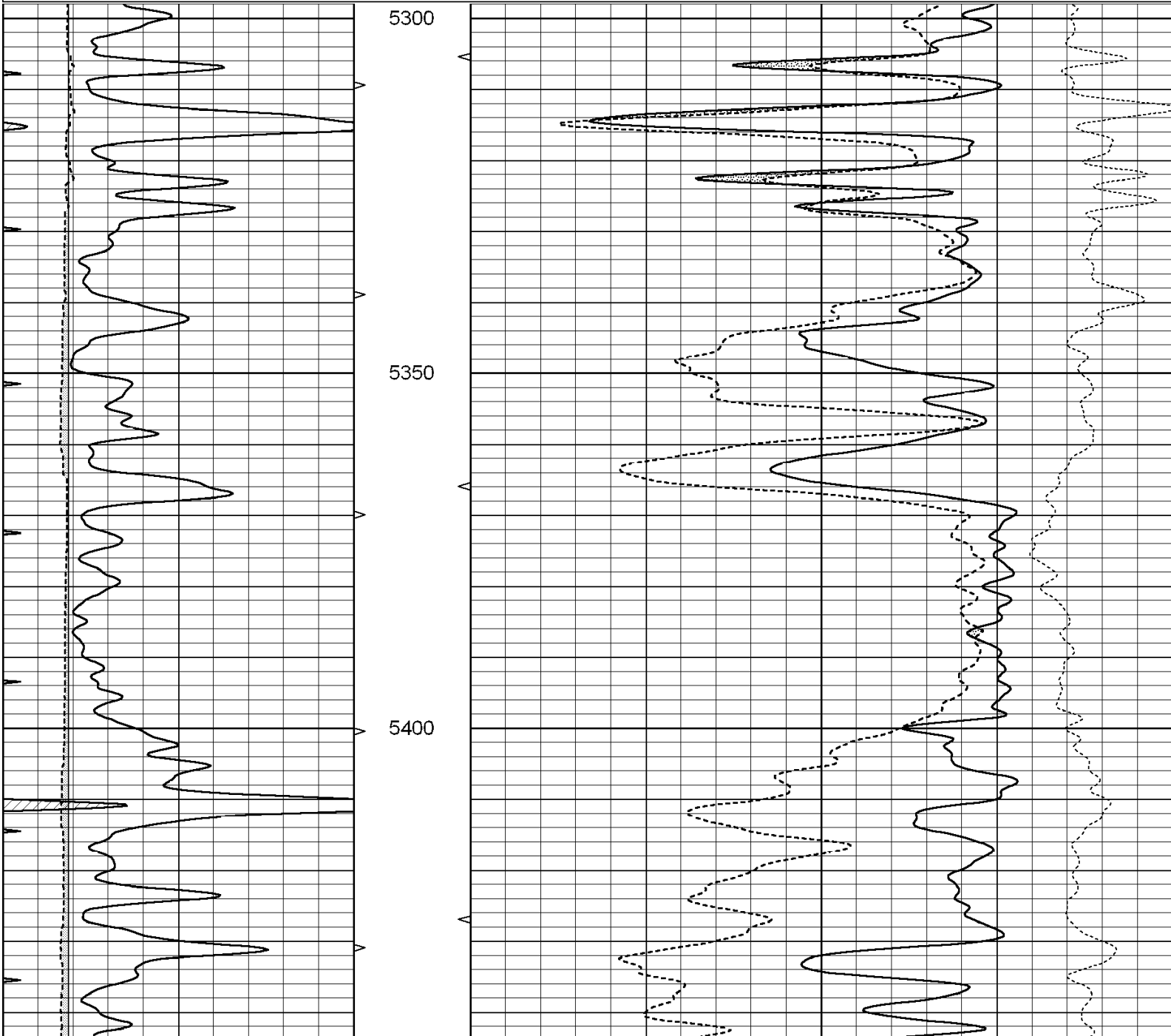
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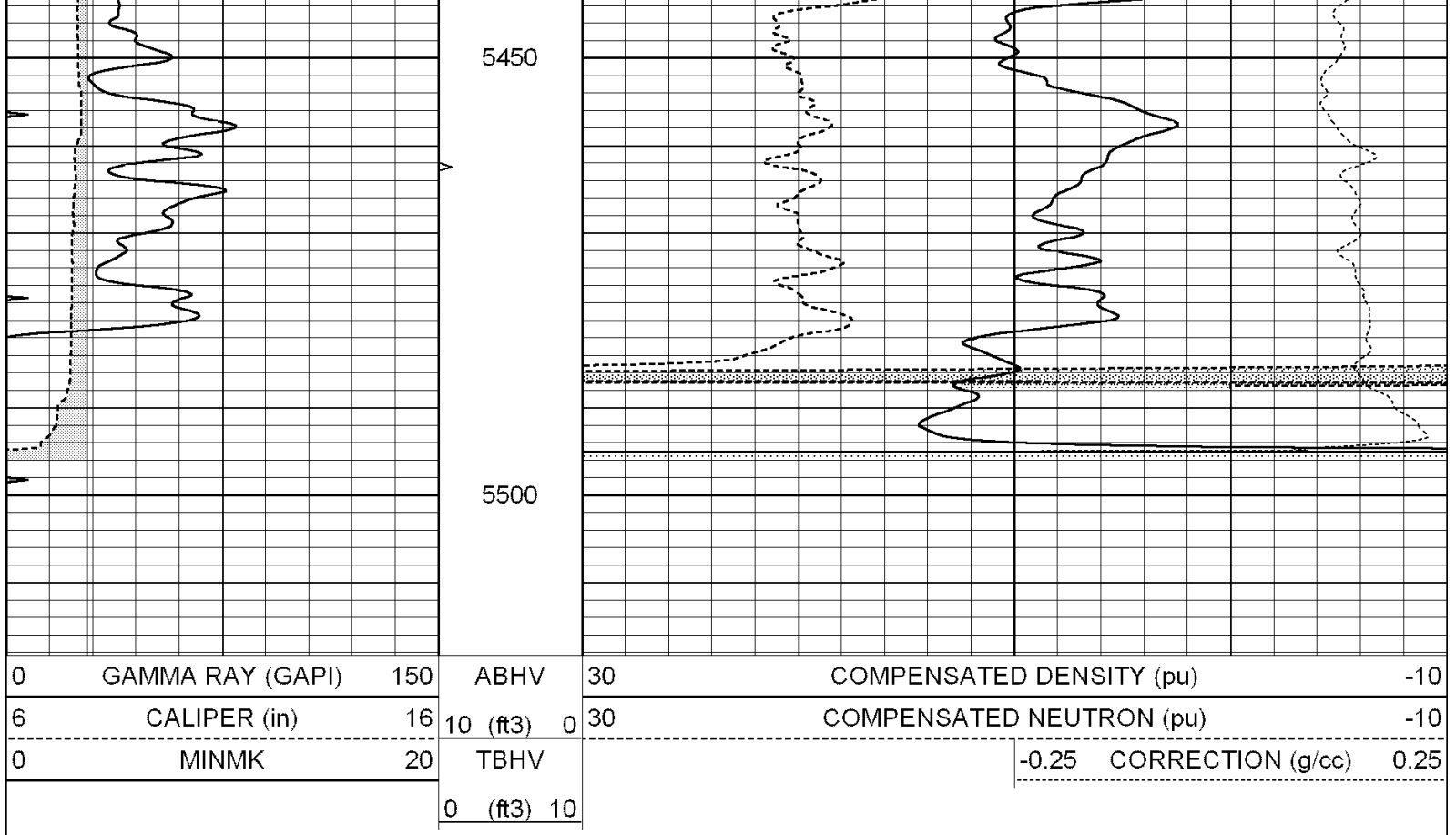
Hays,
Kansas

REPEAT SECTION

Database File: 004355ddn.db
Dataset Pathname: pass2.12
Presentation Format: den_neu
Dataset Creation: Sat Oct 03 19:19:25 2009 by Calc Open-Cased 060407
Charted by: 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		-0.25	CORRECTION (g/cc) 0.25
			0 (ft3) 10			





Calibration Report

Database File: 004355ddn.db
 Dataset Pathname: pass3.2
 Dataset Creation: Sat Oct 03 19:27:48 2009 by Calc Open-Cased 060407

Dual Induction Calibration Report

Serial-Model: DIL6-GEAR
 Performed: Sat Oct 03 18:20:50 2009

Readings				References			Results	
Loop:	Air	Loop		Air	Loop		m	b
Deep	0.001	0.644	V	0.000	400.000	mmho-m	680.000	3.000
Medium	0.020	0.738	V	0.000	462.500	mmho-m	720.000	-21.000
Internal:	Zero	Cal		Zero	Cal		m	b
Deep	0.000	1.000	V	0.000	1.000	mmho-m	1.000	0.000
Medium	0.000	1.000	V	0.000	1.000	mmho-m	1.000	0.000

Litho Density Calibration Report

Serial: 003N Model: PRB
 Performed Tue Sep 08 14:14:44 2009

Litho Density Calibration

	Background	Magnesium	Aluminum	Sandstone	
Window 1	2042.6	12312.8	4225.8	13758.4	cps
Window 2	1855.8	10134.7	3624.2	11113.1	cps
Window 3	1639.4	6760.2	2716.3	7260.3	cps
Window 4	466.4	469.2	466.1	476.5	cps
Long Space	0.0	8278.9	1768.4	9257.4	cps
Short Space	2.2	2377.3	1544.1	2574.2	cps
Rho		1.7100	2.5900	1.3800	g/cc

K110		1.7100		2.5900		1.5000		g/cc	
Pe				2.5700		1.5500			
Rib Angle		: 44.4		Rib Slope		: 0.979		Density/Spine Ratio	
Spine Angle		: 74.4		Spine Slope		: 3.577		Spine Intercept	
								: -18.8	
Caliper									
		Readings		Reference					
Low Ref		1.8		7.2					
High Ref		4.2		14.0					
		Gain: 2.9				Offset: 2.0			
Compensated Neutron Calibration Report									
				Serial Number:		NEU_3I			
				Tool Model:		G			
CALIBRATION									
Detector		Readings		Target		Normalization			
Short Space		997.00 cps		1000.00 cps		1.0000			
Long Space		986.00 cps		1000.00 cps		1.0000			
Gamma Ray Calibration Report									
Serial Number:		GR3							
Tool Model:		OPEN							
Performed:		Sat Oct 03 18:20:27 2009							
Calibrator Value:		200.0		GAPI					
Background Reading:		3.0		cps					
Calibrator Reading:		186.0		cps					
Sensitivity:		0.6500		GAPI/cps					