



**SUPERIOR
Hays,
Kansas**

**COMPENSATED
DENSITY / NEUTRON
PE LOG**

Company	MULL DRILLING CO., INC.	Company	MULL DRILLING COMPANY, INC.
Well	WF-MICHEL #1-30	Well	WF-MICHEL #1-30
Field		Field	
County	KIOWA	County	KIOWA
State	COLORADO	State	COLORADO
Location:	API # : 05-061-06848 1004' FSL & 2100' FEL	Other Services DIL SONIC/MEL	
Permanent Datum	GROUND LEVEL	Elevation	
Log Measured From	KELLY BUSHING 11' A.G.L.	K.B. 3933	
Drilling Measured From	KELLY BUSHING	D.F. G.L. 3922	
Date	11-9-10		
Run Number	ONE		
Depth Driller	4870		
Depth Logger	4872		
Bottom Logged Interval	4848		
Top Log Interval	3500		
Casing Driller	327		
Casing Logger	347		
Bit Size	7.875		
Type Fluid in Hole	CHEMICAL MUD		
Density / Viscosity	9.2 / 51		
pH / Fluid Loss	9.5 / 8.8		
Source of Sample	FLOWLINE		
Rm @ Meas. Temp	.90 @ 76F		
Rmf @ Meas. Temp	0.68 @ 76F		
Rmc @ Meas. Temp	1.08 @ 76F		
Source of Rmf / Rmc	MEASURED		
Rm @ BHT	.550 @ 124F		
Time Circulation Stopped	3 HOURS		
Time Logger on Bottom	2:20 P.M.		
Maximum Recorded Temperature	124F		
Equipment Number	860		
Location	HAYS, KS.		
Recorded By	RUPP		
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

SUPERIOR WELL SERVICES
785-628-6395
THANK YOU FOR YOUR BUSINESS
DIRECTIONS: BRANDON, CO., 4E TO CR #54, 1/10N, E INTO.

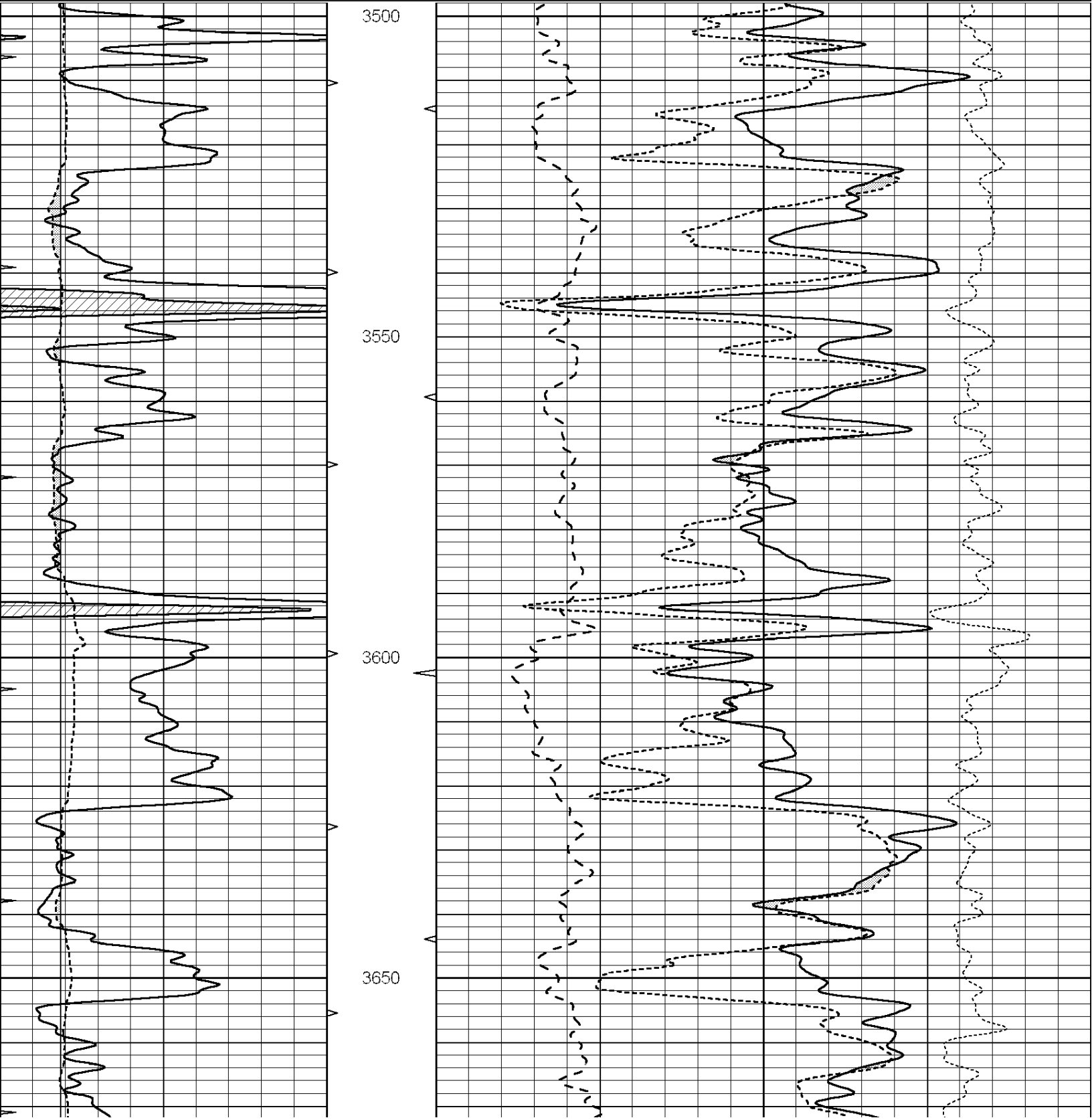


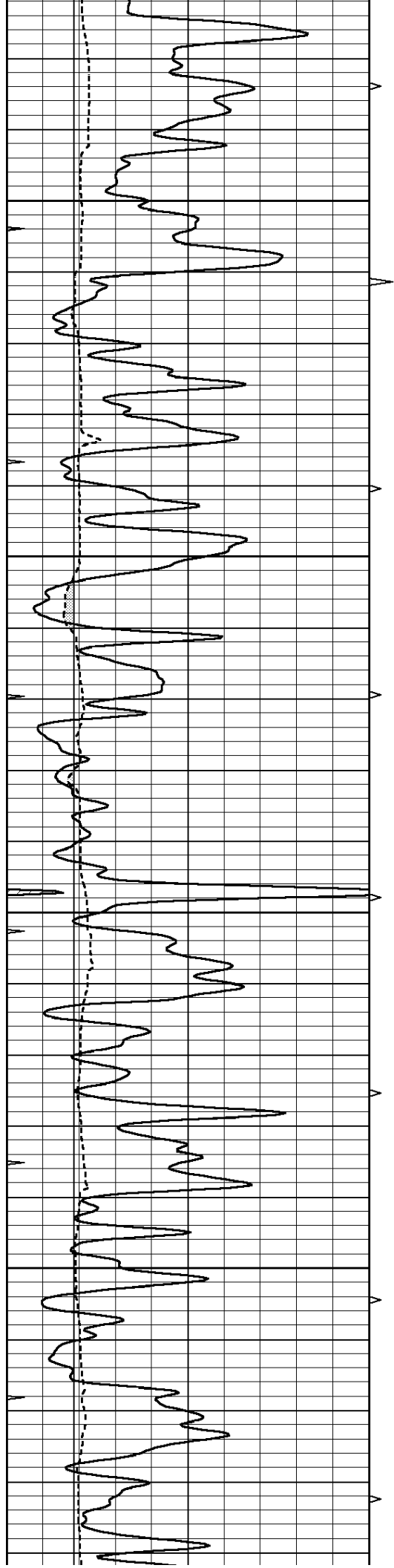
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MAIN SECTION

Database File: 005915pdm.db
Dataset Pathname: pass4A
Presentation Format: ldt_neu
Dataset Creation: Tue Nov 09 17:07:10 2010
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	COMPENSATED NEUTRON (pu)	-10
0	MINMK	20	TBHV	0	PE	10 -0.25 CORRECTION (g/cc) 0.25
			0 (ft3)	10		



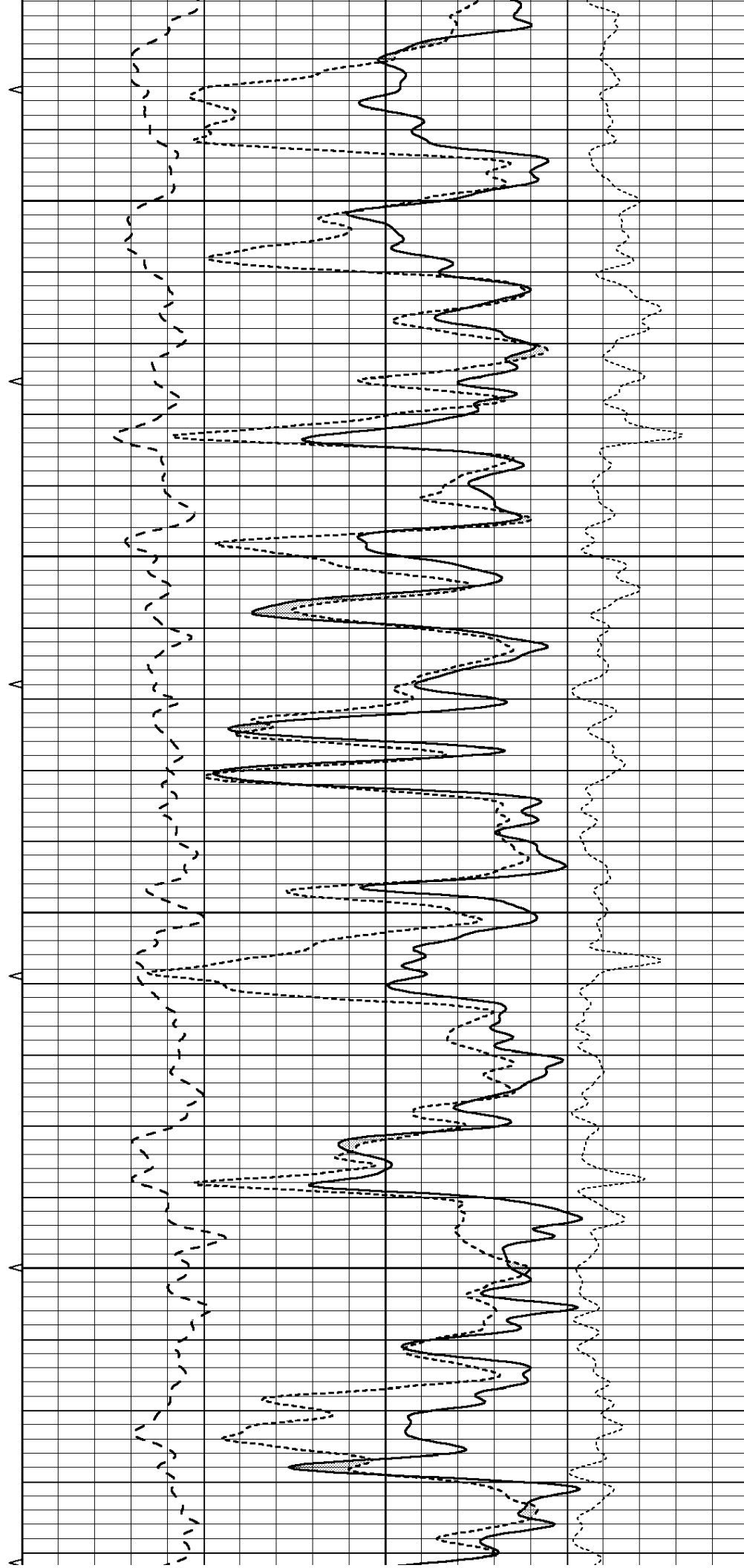


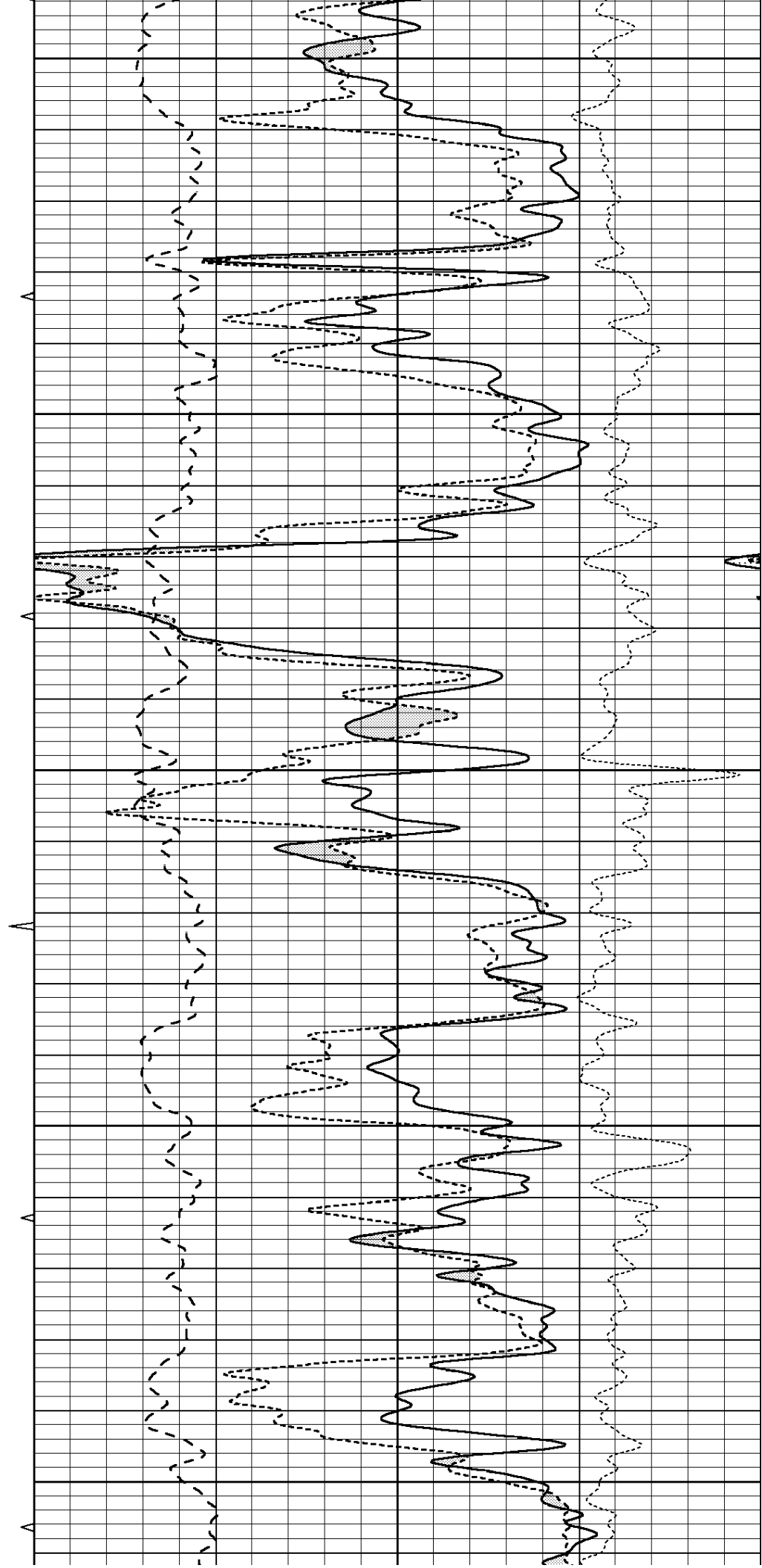
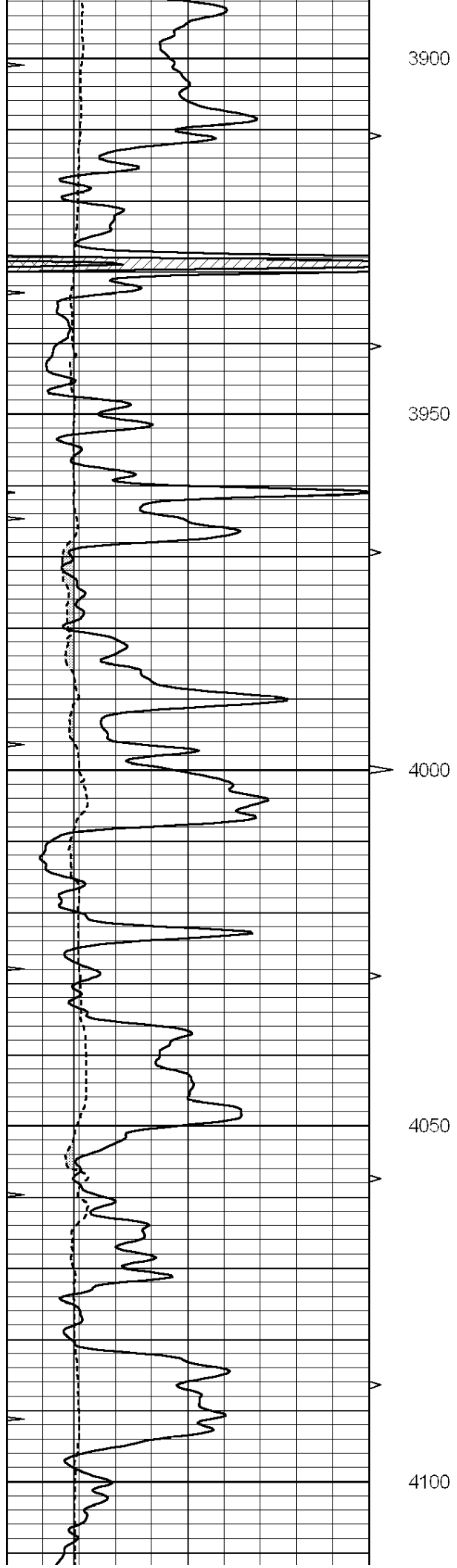
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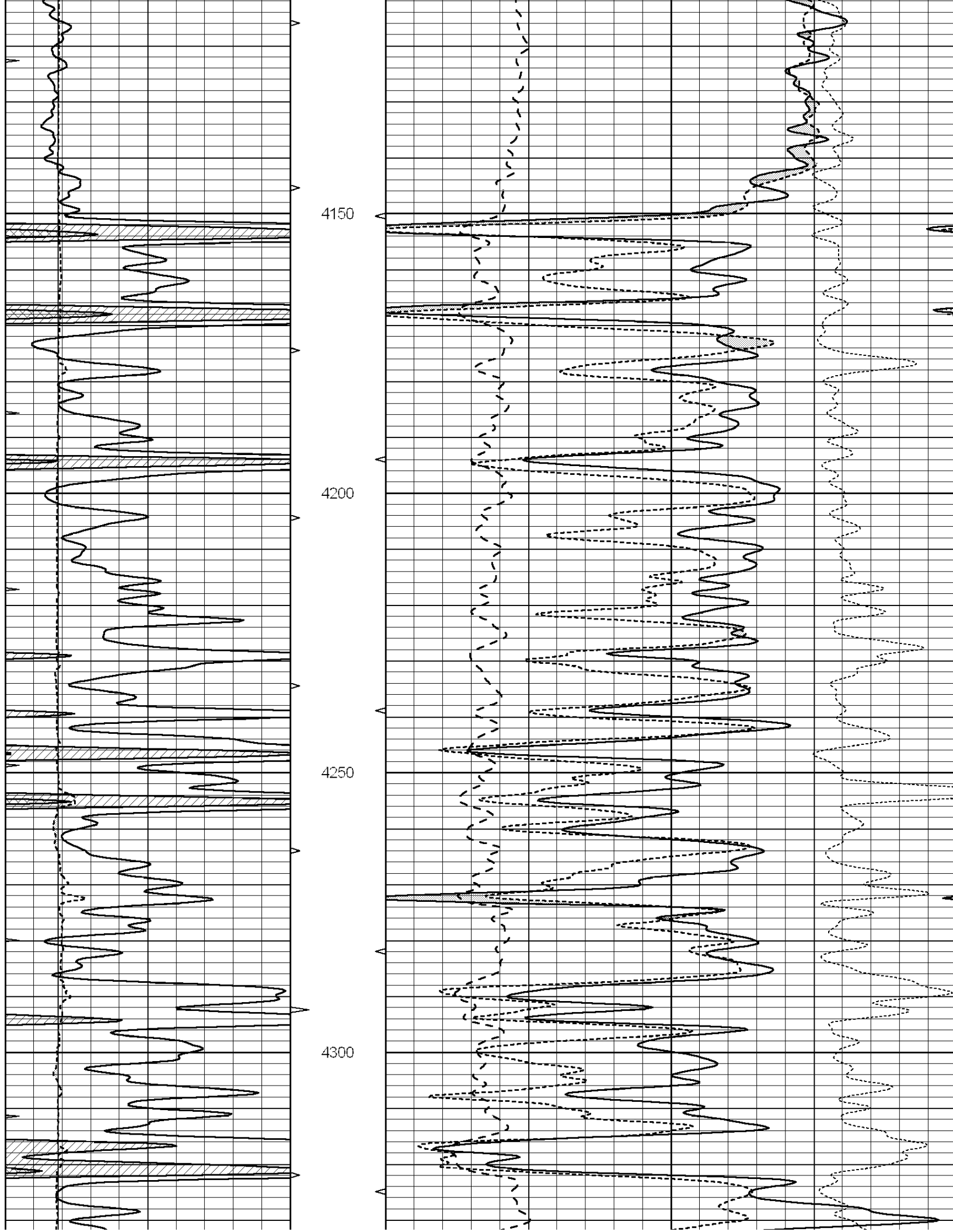
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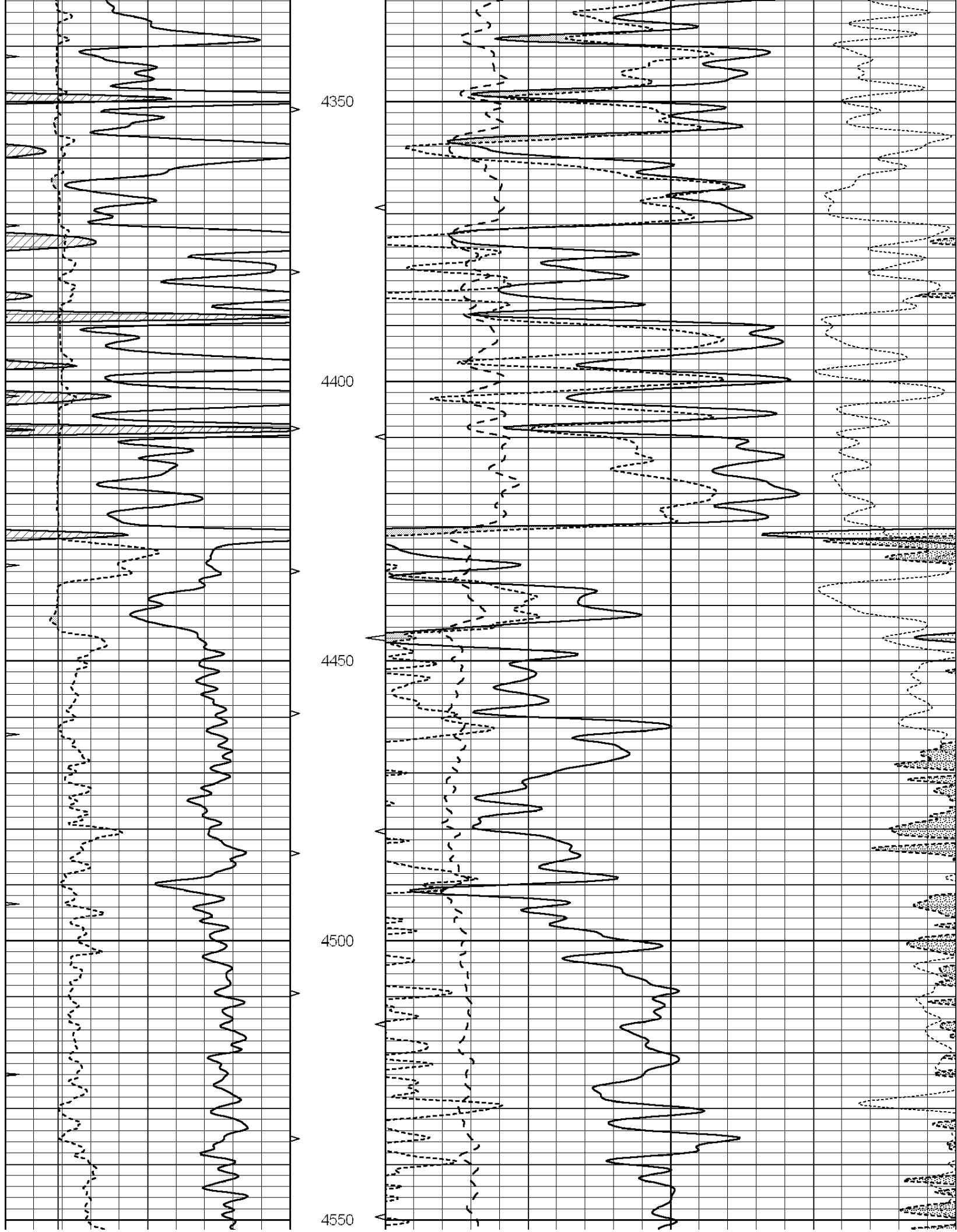
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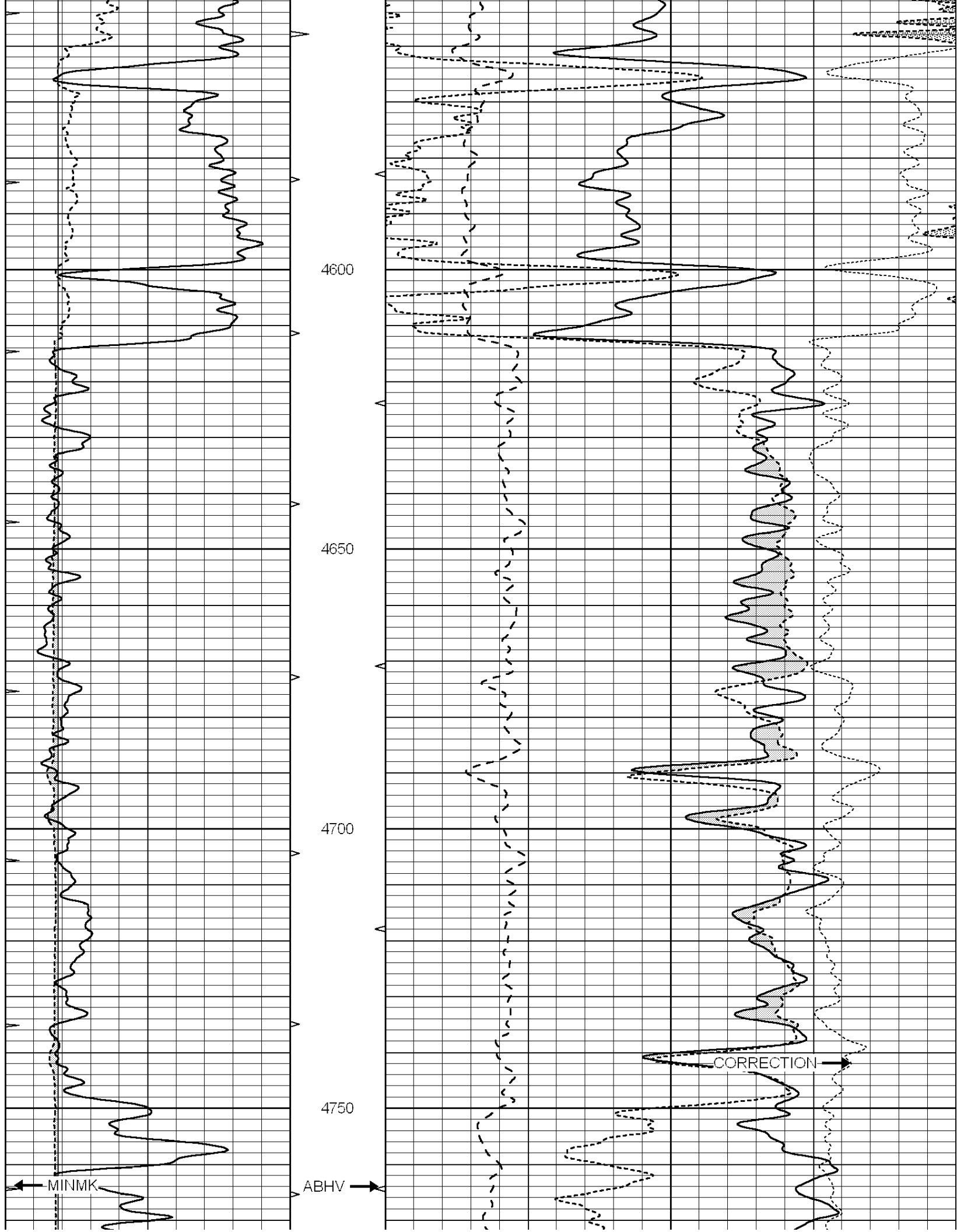
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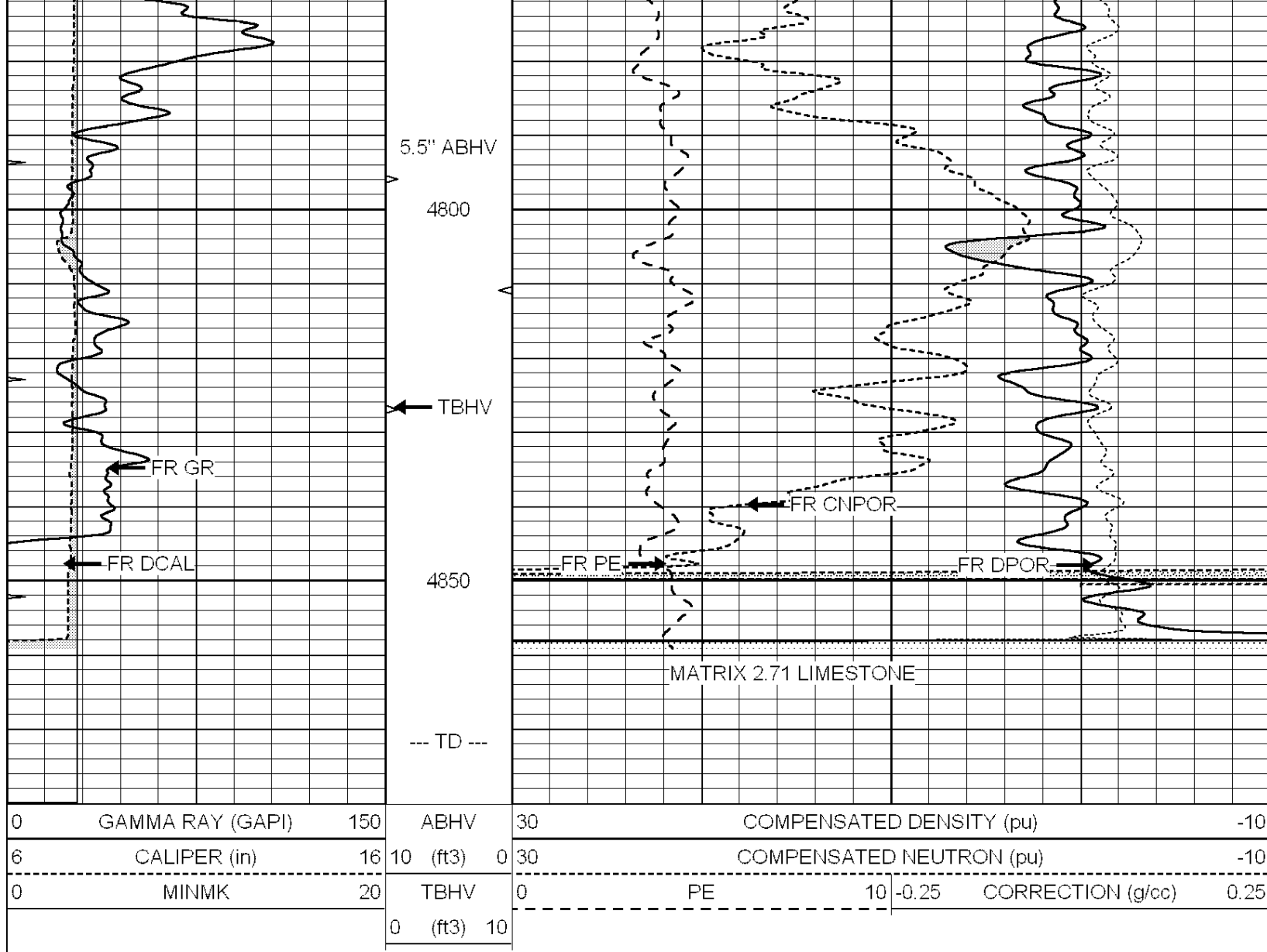










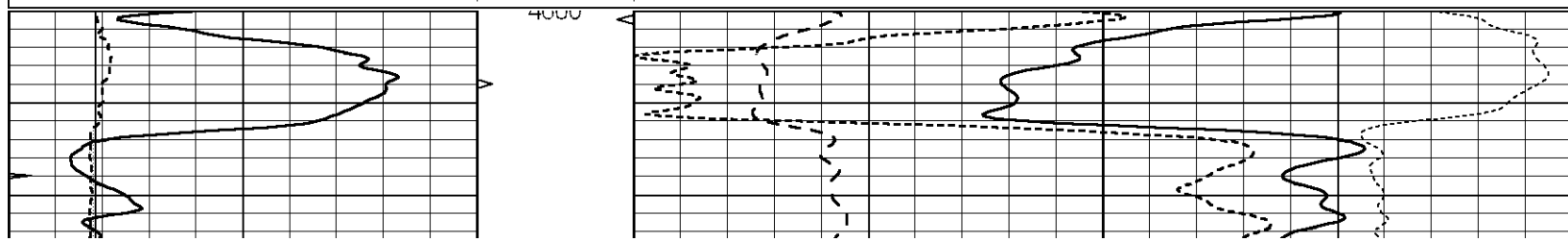


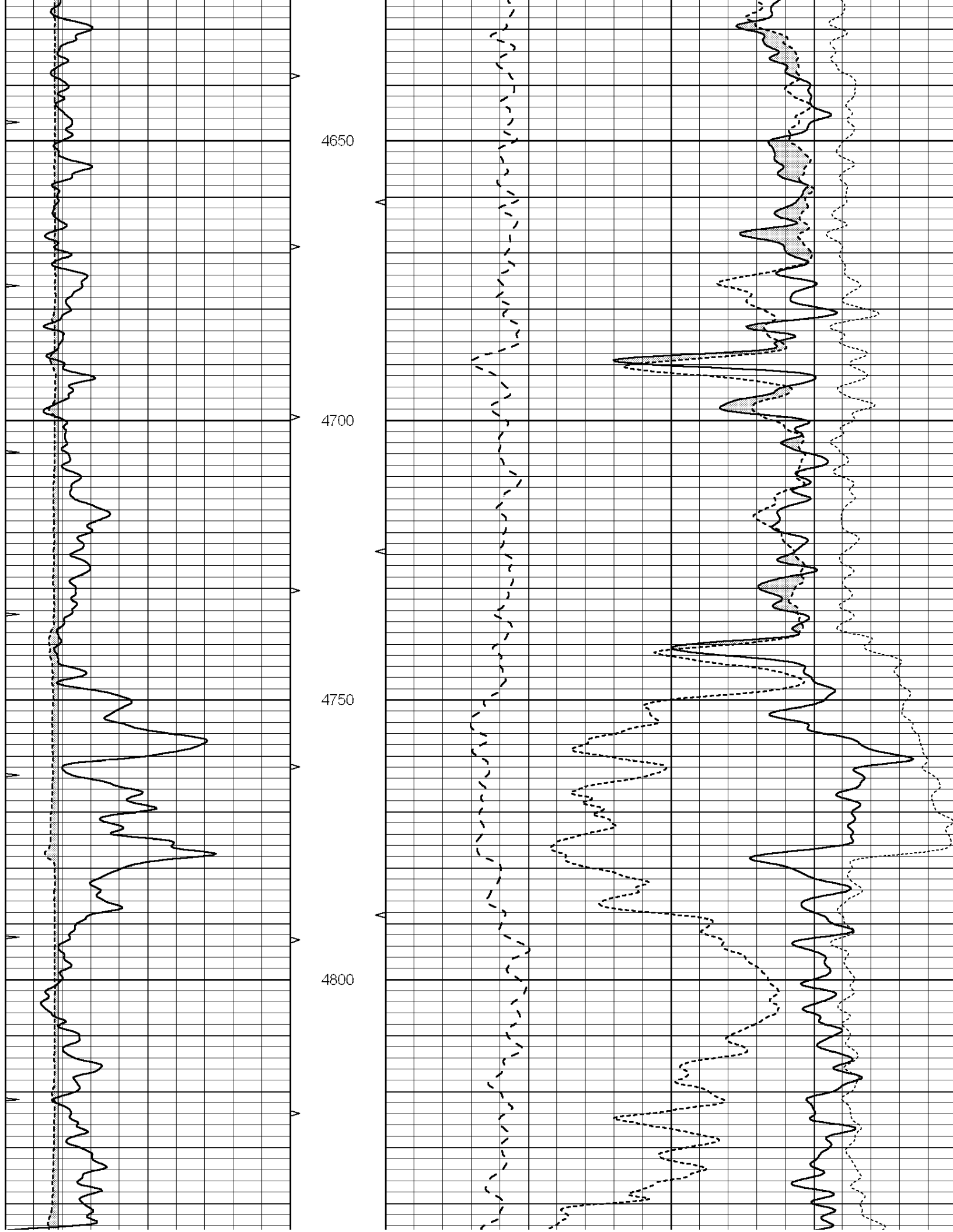
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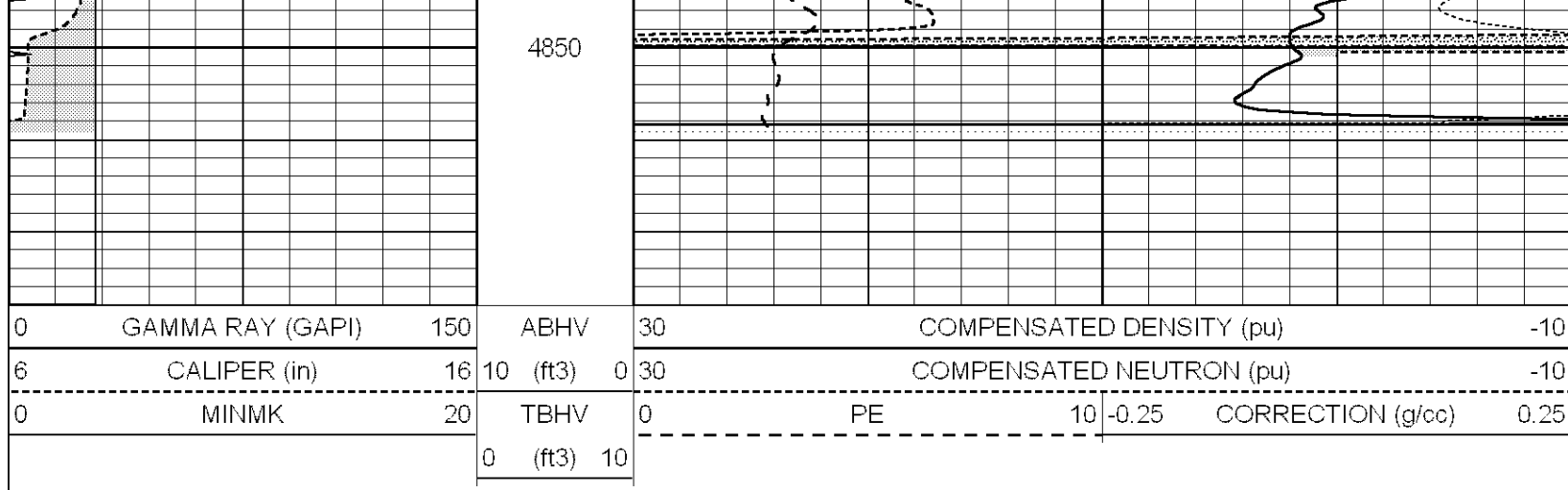
REPEAT SECTION

Database File: 005915pdn.db
 Dataset Pathname: pass2.A
 Presentation Format: ldt_neu
 Dataset Creation: Tue Nov 09 16:54:53 2010
 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	PE	10	-0.25 CORRECTION (g/cc) 0.25
			0 (ft3) 10				







Calibration Report

Database File: 005915pdn.db
 Dataset Pathname: pass4A
 Dataset Creation: Tue Nov 09 17:07:10 2010

Dual Induction Calibration Report

Serial-Model: DIL5-GEAR
 Performed: Tue Nov 09 15:27:58 2010

Readings				References			Results	
Loop:	Air	Loop		Air	Loop		m	b
Deep	0.004	0.654	V	0.000	400.000	mmho/m	540.000	-3.000
Medium	-0.005	0.737	V	0.000	462.500	mmho/m	520.000	-4.000
Internal:	Zero	Cal		Zero	Cal		m	b
Deep	0.006	0.655	V	0.000	400.000	mmho/m	615.668	-3.483
Medium	0.010	0.747	V	0.000	462.500	mmho/m	627.607	-6.064

Litho Density Calibration Report
 Serial: 002 Model: PRB
 Performed Tue Jul 03 11:12:28 2007

Litho Density Calibration					
	Background	Magnesium	Aluminum	Sandstone	
Window 1	1059.5	9172.0	2859.6	10210.6	cps
Window 2	976.0	7793.2	2486.1	8515.6	cps
Window 3	689.8	2930.5	1159.0	3096.2	cps
Window 4	231.9	237.2	231.1	234.0	cps
Long Space	0.0	6817.1	1510.1	7539.6	cps
Short Space	1.6	1758.1	1188.6	1898.8	cps
Rho		1.7100	2.5960	1.3800	g/cc
Pe			2.5700	1.5500	
Rib Angle	: 45.4	Rib Slope	: 1.015	Density/Spine Ratio	: 0.569
Spine Angle	: 75.4	Spine Slope	: 3.850	Spine Intercept	: -19.9

Caliper		
Low Ref	Readings	Reference
High Ref	2.8	7.9
	4.8	14.0
	Gain: 3.0	Offset: -0.5

Compensated Neutron Calibration Report

		Serial Number:		NEU_1I	
		Tool Model:		G	
CALIBRATION					
Detector		Readings		Target	
				Normalization	
Short Space		1.00	cps	1.00	cps
Long Space		1.00	cps	1.00	cps
Gamma Ray Calibration Report					
Serial Number:		GR5			
Tool Model:		OPEN			
Performed:		Tue Nov 09 14:42:17 2010			
Calibrator Value:		1.0	GAPI		
Background Reading:		0.0	cps		
Calibrator Reading:		1.0	cps		
Sensitivity:		0.6500	GAPI/cps		