



SUPERIOR
Hays,
Kansas

COMPENSATED
DENSITY / NEUTRON
PE LOG

Company		MULL DRILLING COMPANY, INC.	
Well		APC-TALLMAN #2-3	
Field			
County		KIOWA	
State		COLORADO	
Location:		API # : 05-061-06356-00	
Permanent Datum		GROUND LEVEL	
Log Measured From		KELLY BUSHING 11' A.G.L.	
Drilling Measured From		KELLY BUSHING	
SEC 3		TWP 18S	
		RGE 45W	
Other Services		DIL/MEL SONIC	
Elevation		K.B. 4002 D.F. 4000 G.L. 3991	
Date	3/18/11		
Run Number	ONE		
Depth Driller	5057		
Depth Logger	5057		
Bottom Logged Interval	5033		
Top Log Interval	3500		
Casing Driller	8 5/8" @ 326		
Casing Logger	322		
Bit Size	7 7/8"		
Type Fluid in Hole	CHEMICAL MUD	CHLORIDES 3200 PPM	
Density / Viscosity	9.2/56		
pH / Fluid Loss	10.5/8.0		
Source of Sample	FLOWLINE		
Rim @ Meas. Temp	.95 @ 78F		
Rmf @ Meas. Temp	.71 @ 78F		
Rmc @ Meas. Temp	1.13 @ 78F		
Source of Rmf / Rmc	MEASUREMENT		
Rim @ BHT	.59 @ 125F		
Time Circulation Stopped	2 HOURS		
Time Logger on Bottom			
Maximum Recorded Temperature	125F		
Equipment Number	0836		
Location	HAYS, KANSAS		
Recorded By	JASON CAPPELLUCCI		
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
BRANDON CO. - EAST EDGE (MM 186) 5 N. - W. INTO



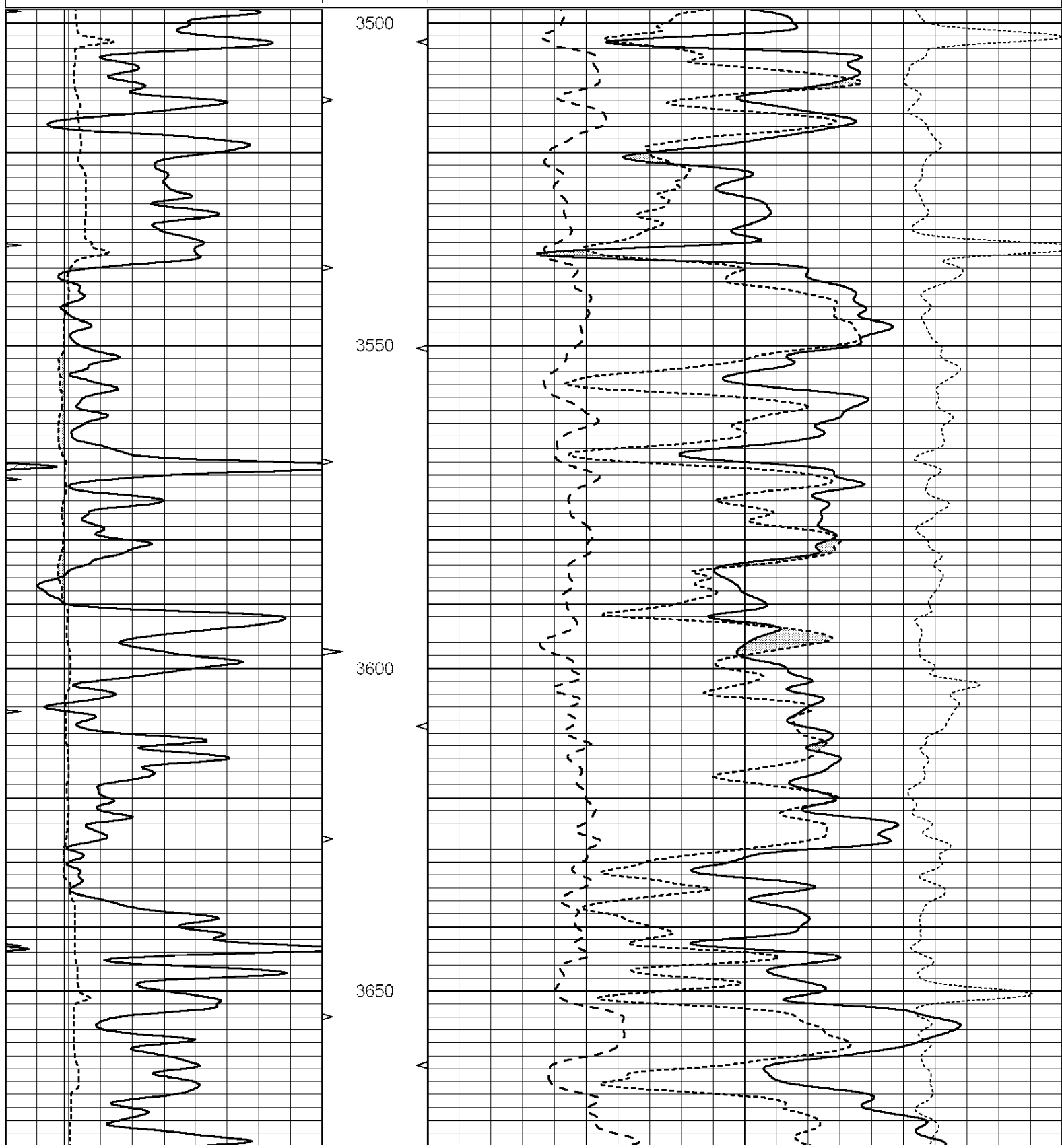
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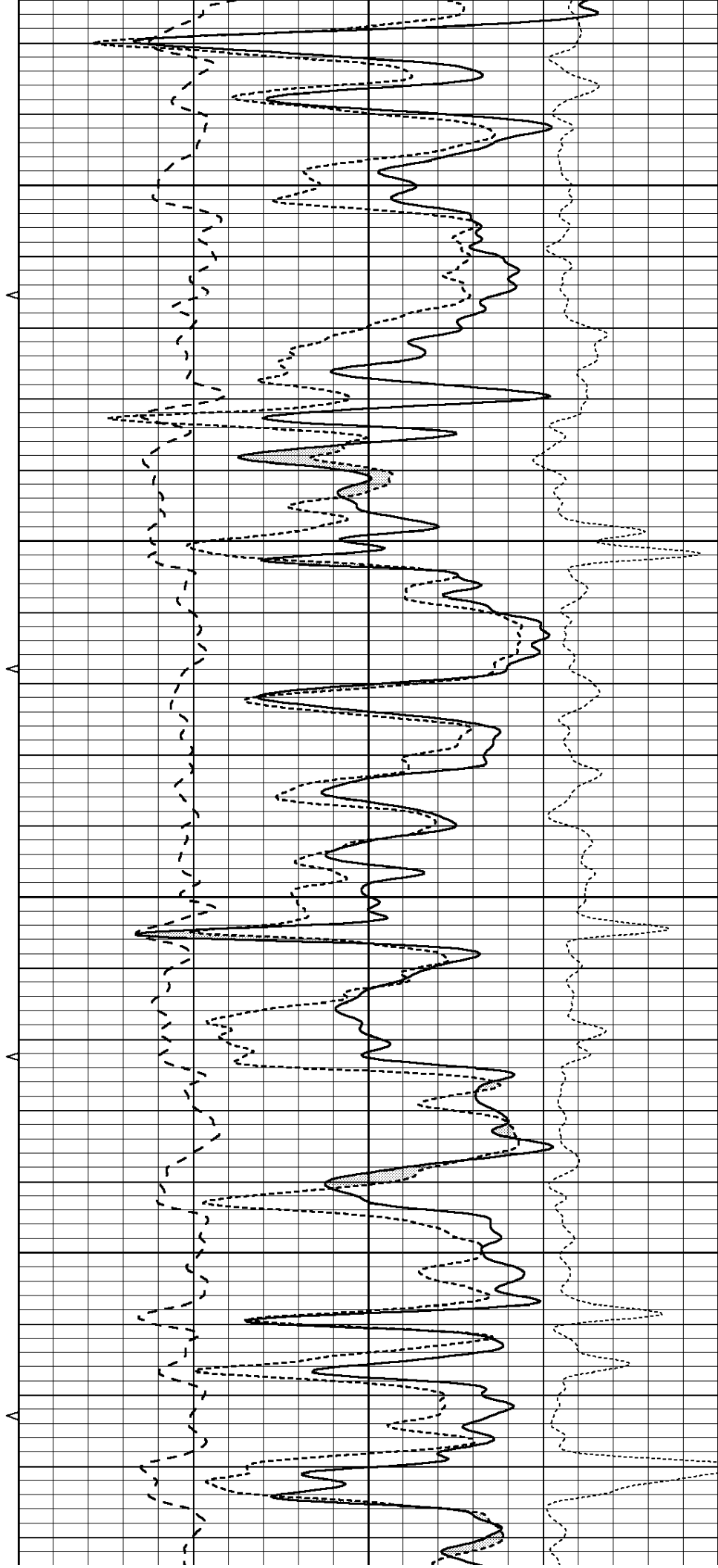
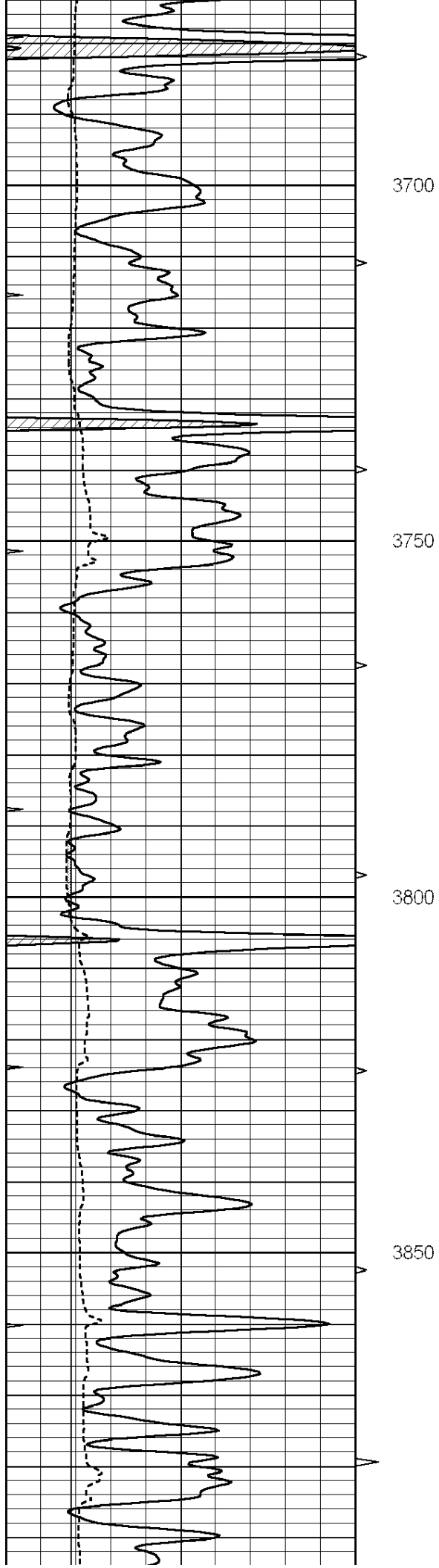
MAIN SECTION

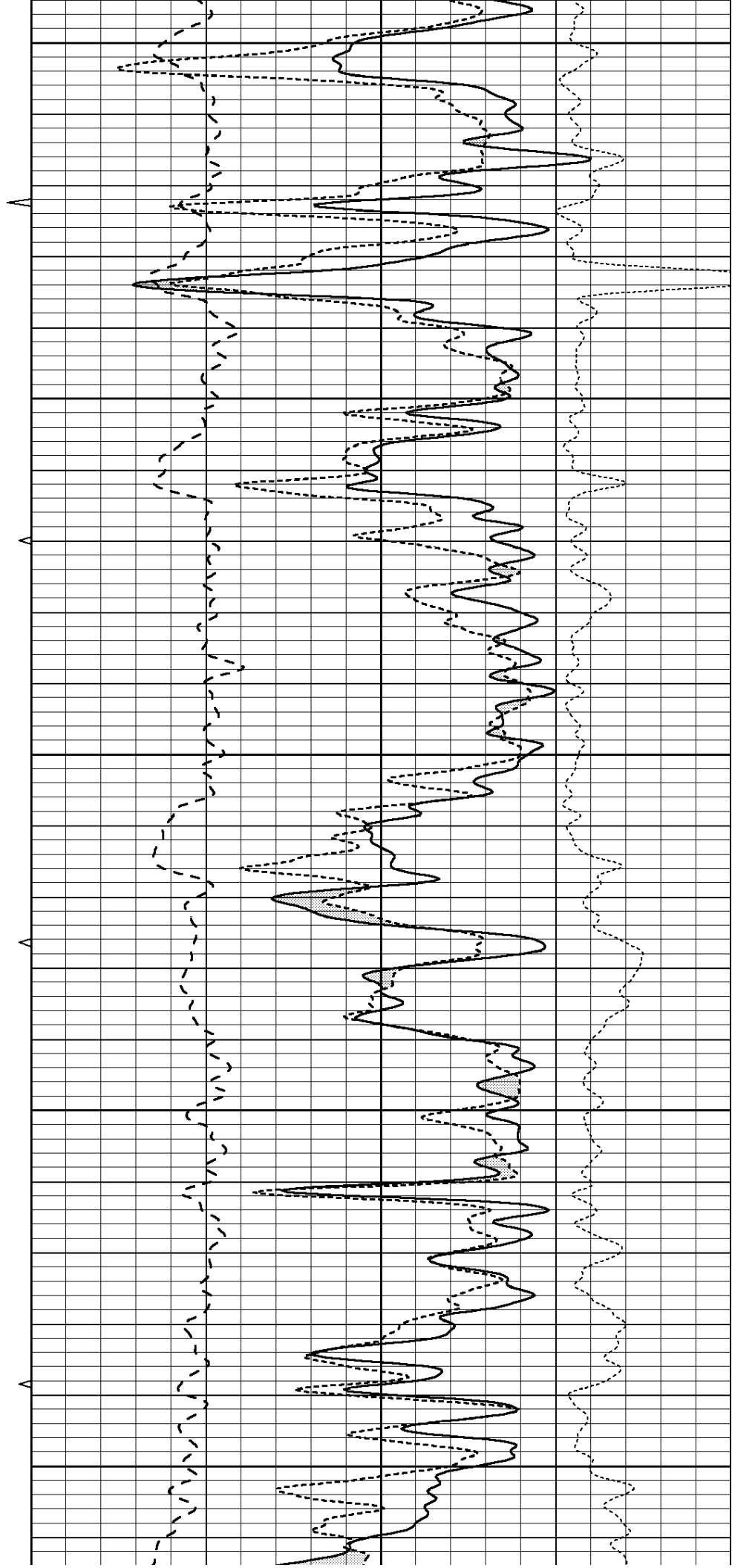
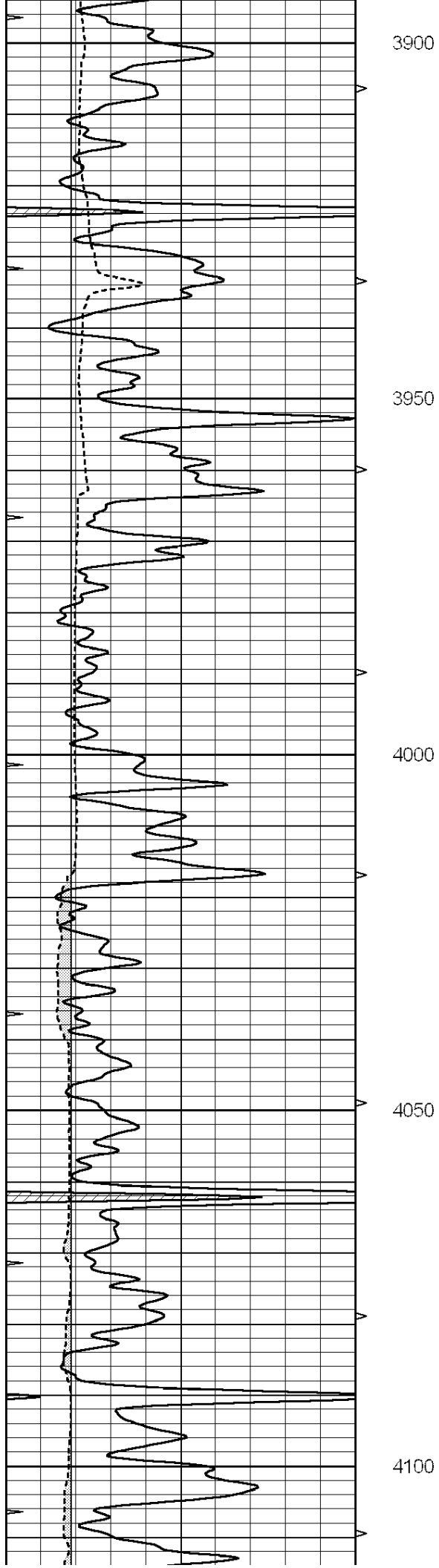
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 Dataset Creation: Fri Mar 18 18:17:13 2011 by Calc Open-Cased 090629
 Charted by: Depth in Feet scaled 1:240

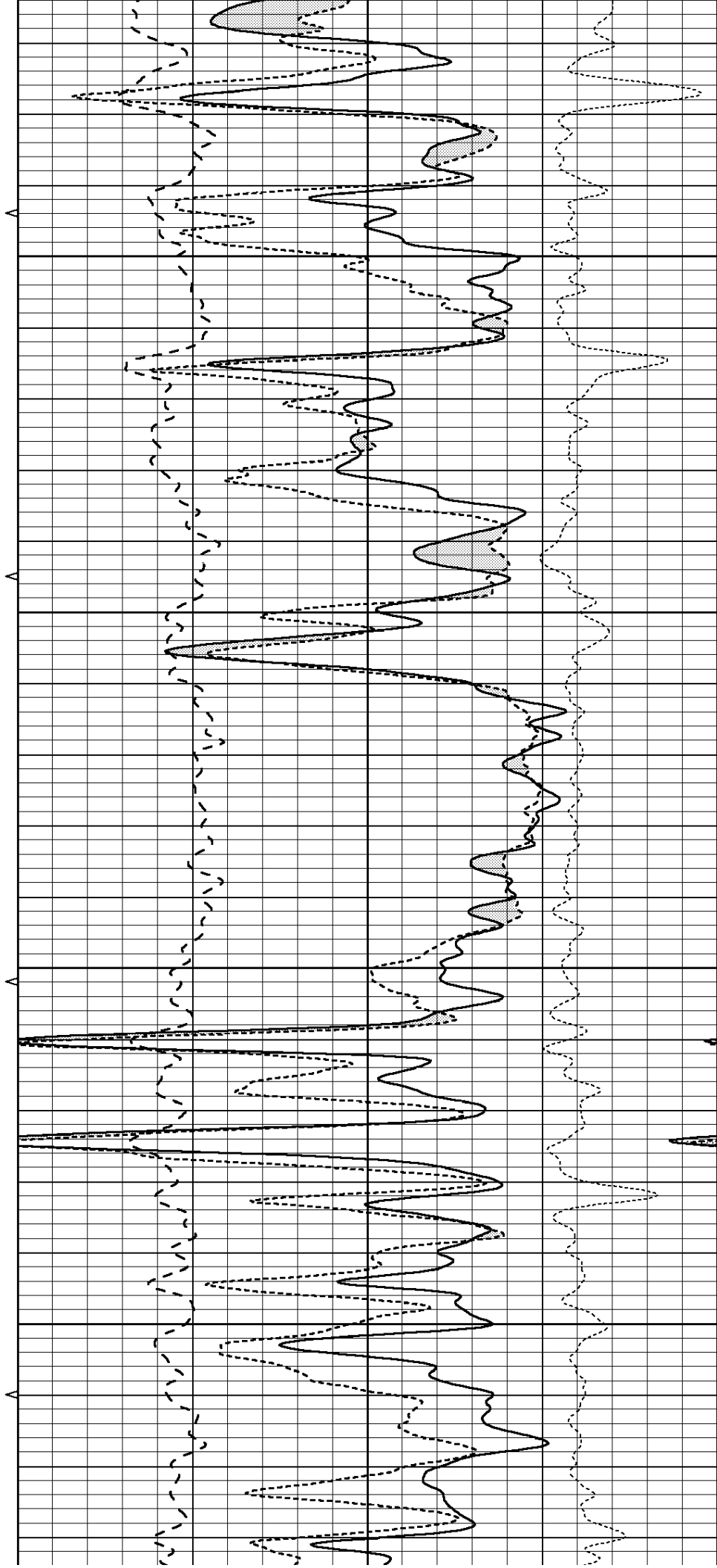
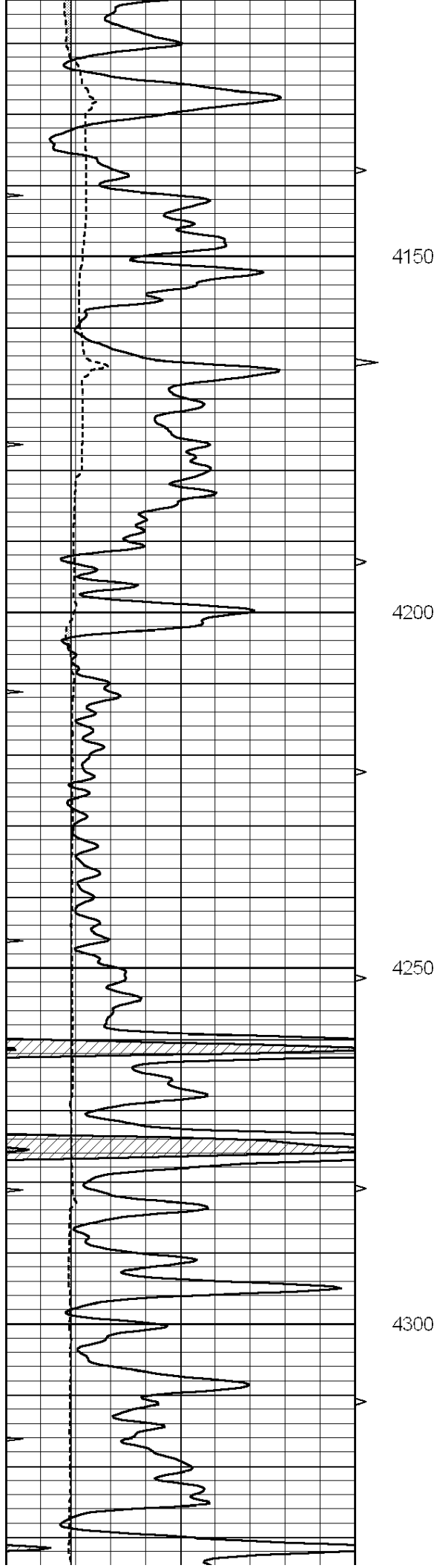
0	GAMMA RAY (GAPI)	150	ABHV	30	COMPENSATED DENSITY (pu)				-10	
6	CALIPER (in)	16	10 (ft3)	0	30	COMPENSATED NEUTRON (pu)				-10

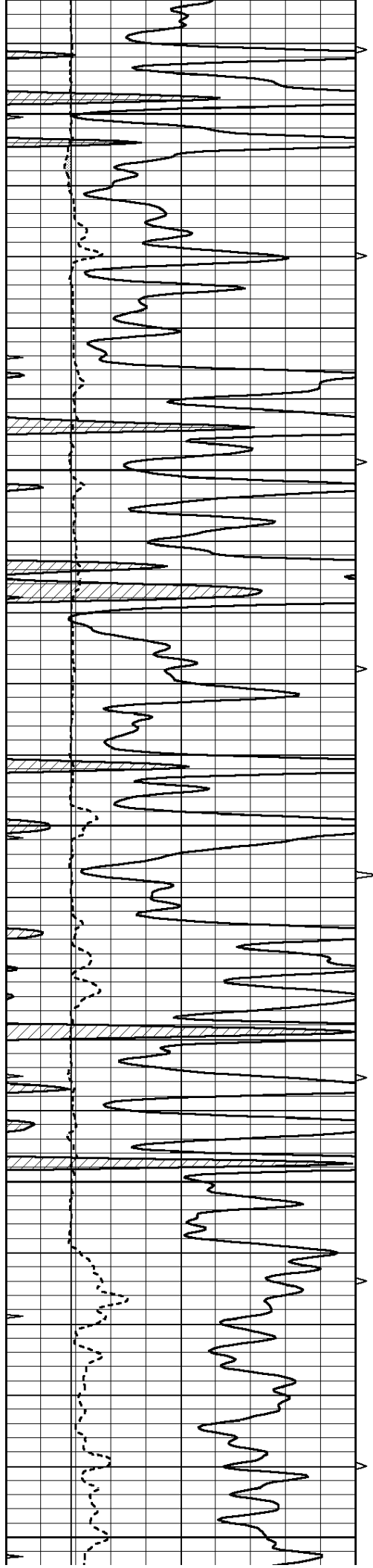
0	MINMK	20	TBHV	0	PE	10	-0.25	CORRECTION (g/cc)	0.25	
			0 (ft3)	10	-----					











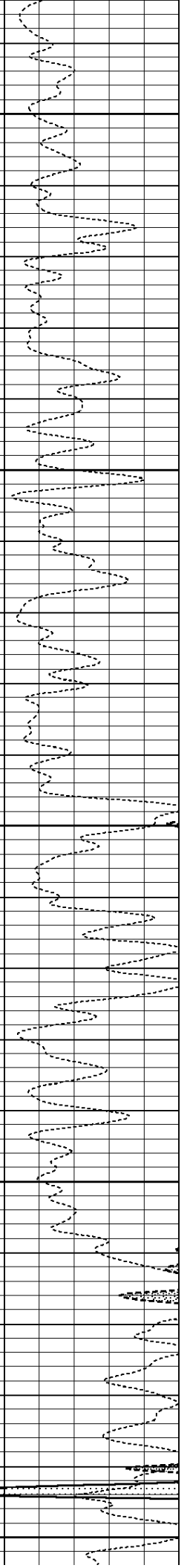
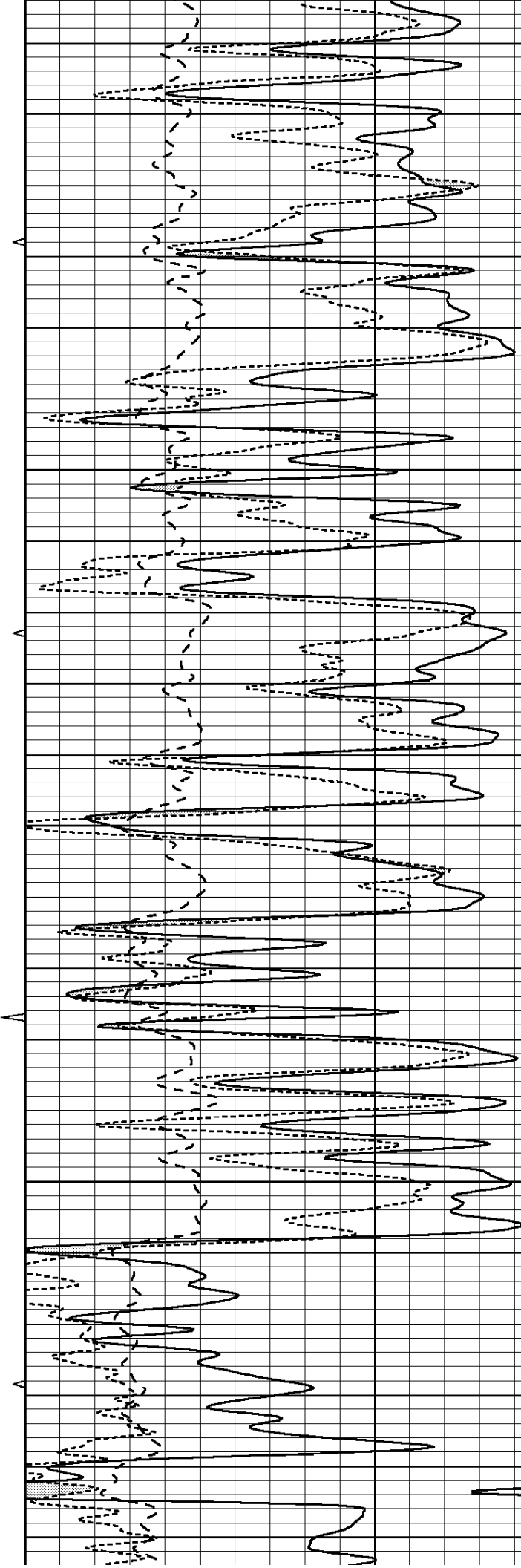
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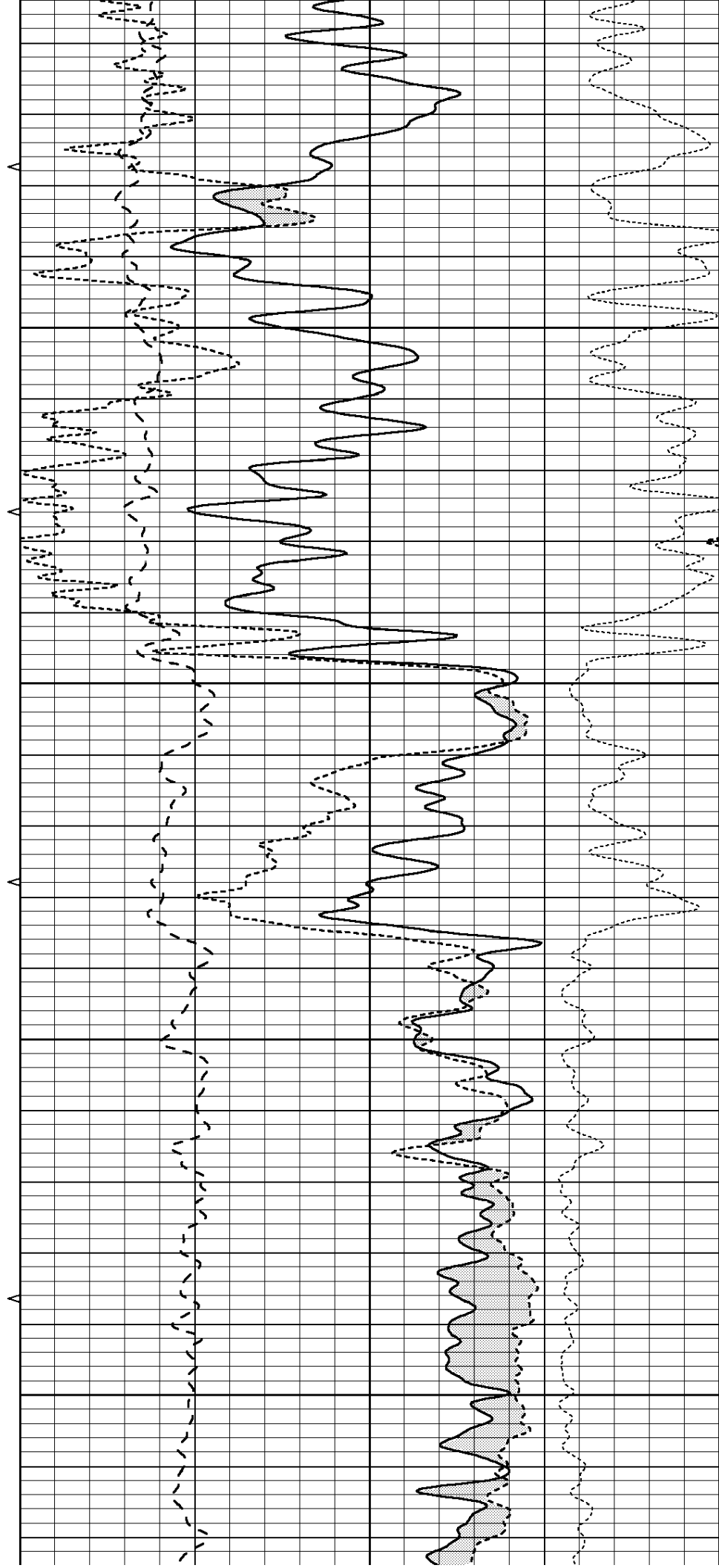
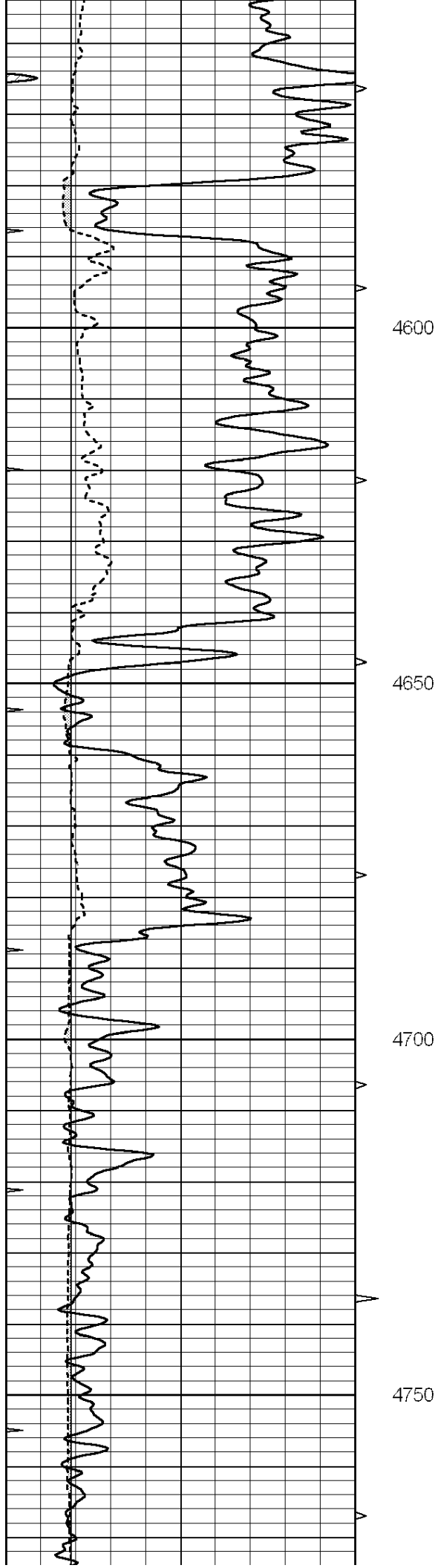
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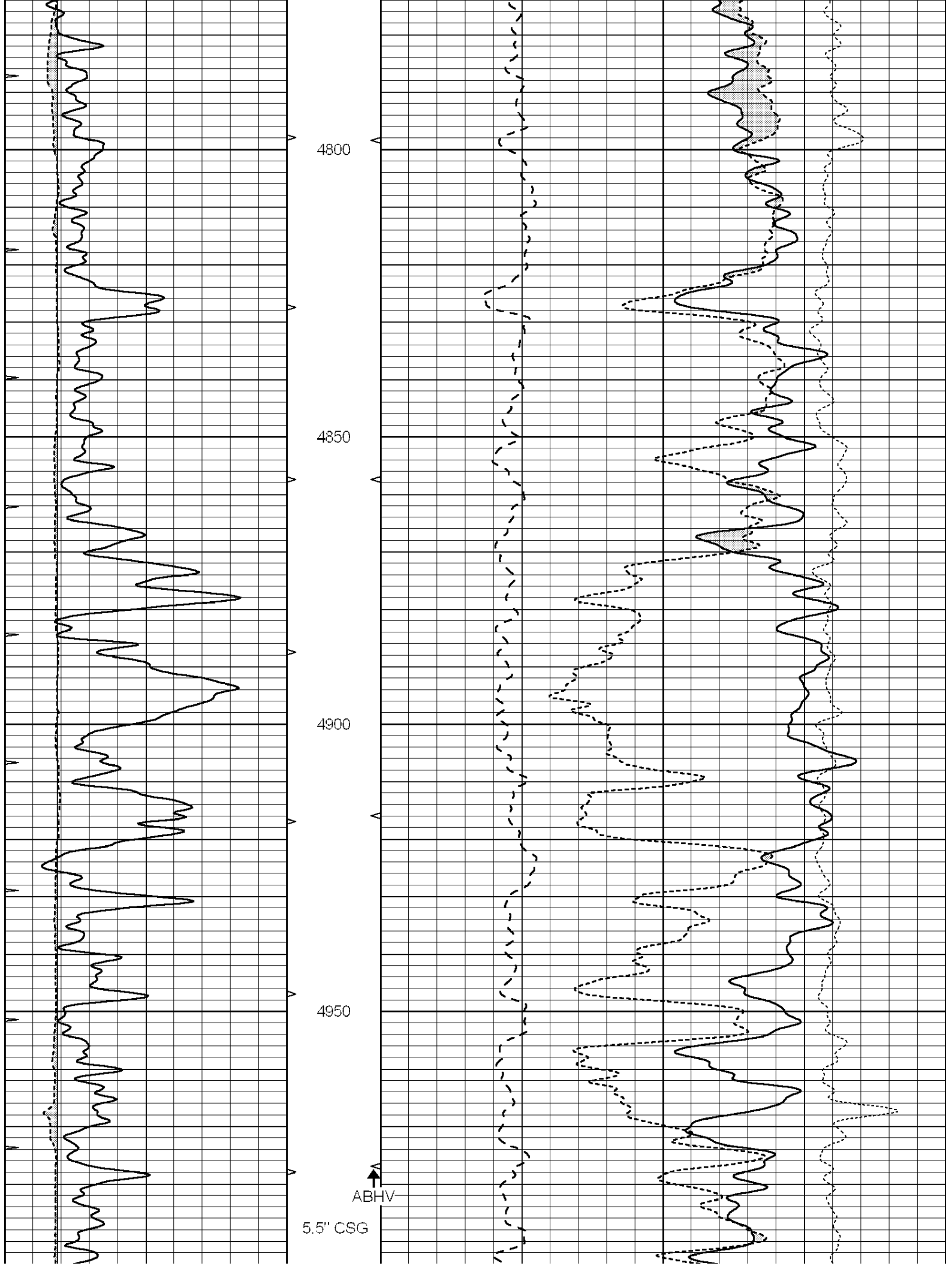
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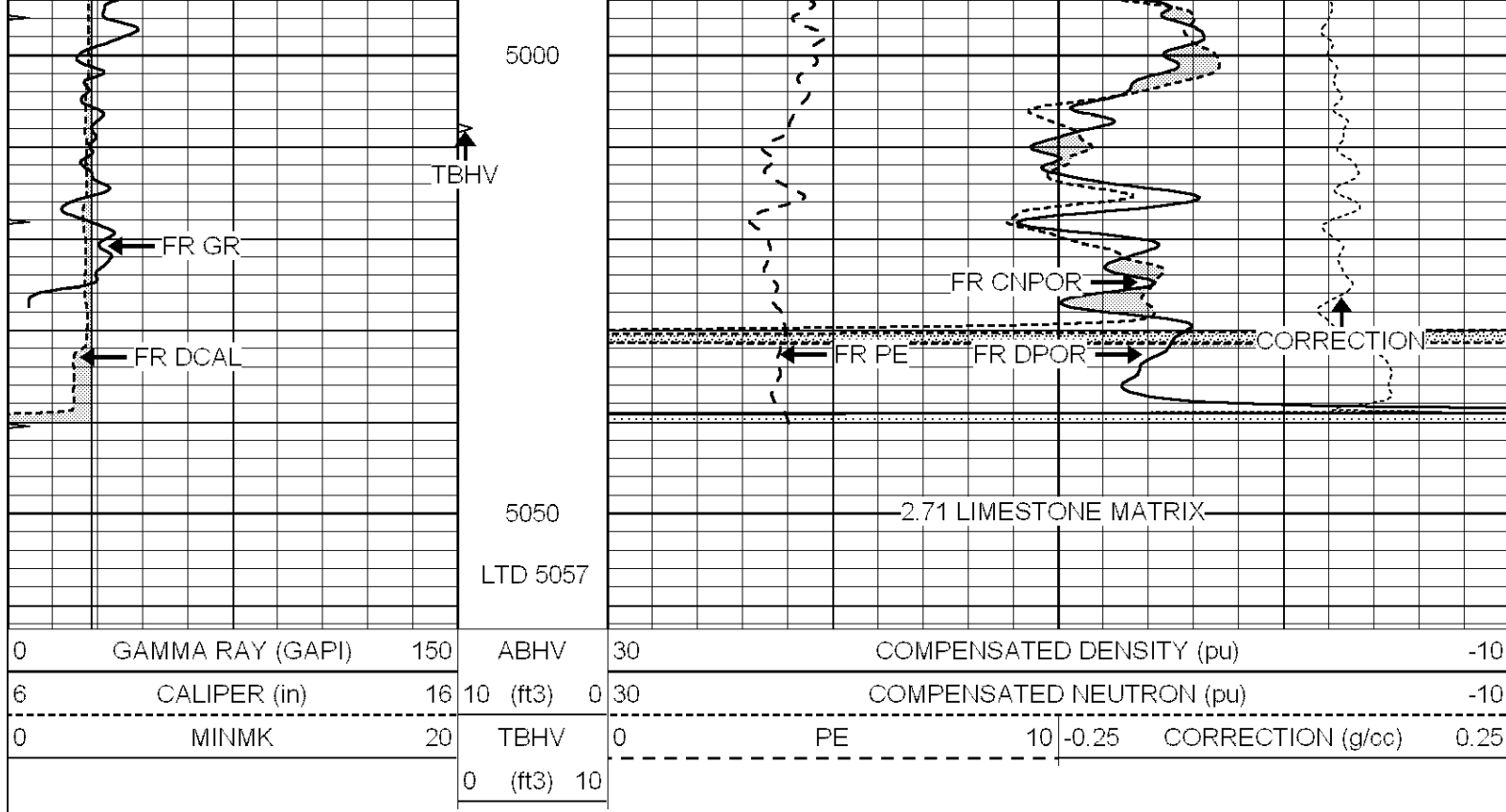
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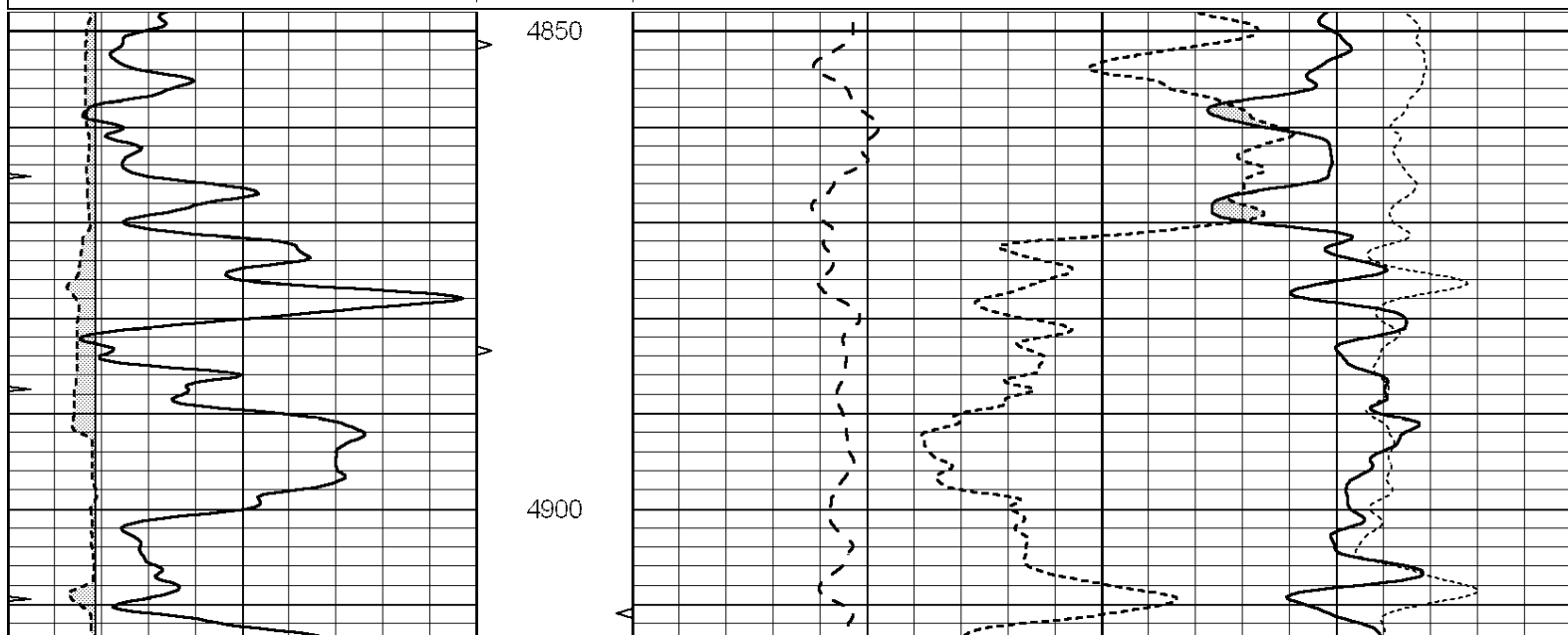


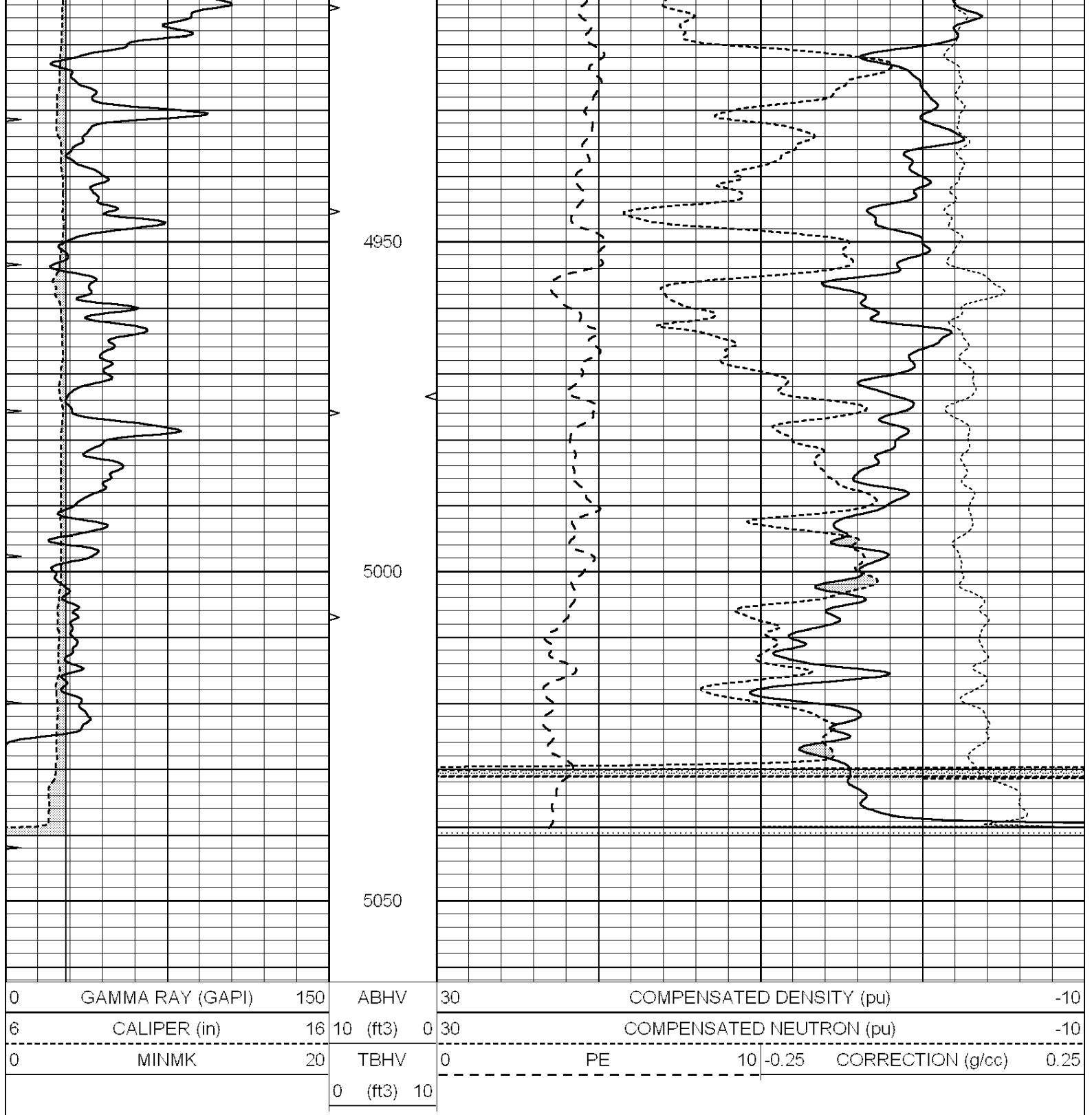
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REPEAT SECTION

Database File: 006616ddn.db
 Dataset Pathname: pass2.1
 Presentation Format: ldt_neu
 Dataset Creation: Fri Mar 18 17:49:02 2011 by Calc Open-Cased 090629
 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:		006616ddn.db				
Dataset Pathname:		pass2.1				
Dataset Creation:		Fri Mar 18 17:49:02 2011 by Calc Open-Cased 090629				
Dual Induction Calibration Report						
Serial-Model:		DIL3-GEAR				
Performed:		Mon Mar 14 21:45:37 2011				
Readings			References		Results	
Loop:	Air	Loop	Air	Loop	m	b

Deep	0.011	0.656	V	0.000	400.000	mmho/m	640.000	0.000
Medium	0.013	0.740	V	0.000	462.500	mmho/m	700.000	-13.000
Internal:	Zero	Cal		Zero	Cal		m	b
Deep	0.002	0.645	V	0.000	400.000	mmho/m	622.059	-1.071
Medium	0.007	0.740	V	0.000	462.500	mmho/m	631.393	-4.555

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
Pe			2.5700	1.5500	
Rib Angle	: 44.4	Rib Slope	: 0.979	Density/Spine Ratio	: 0.549
Spine Angle	: 74.4	Spine Slope	: 3.577	Spine Intercept	: -18.8

Caliper	Readings	Reference	
Low Ref	1.8	5.5	
High Ref	4.6	14.0	
	Gain: 3.0		Offset: 0.2

Compensated Neutron Calibration Report

Serial Number:	NEU_4I
Tool Model:	G

CALIBRATION						
	Detector	Readings	Target	Normalization		
	Short Space	996.00 cps	1000.00 cps	1.0000		
	Long Space	977.00 cps	1000.00 cps	1.0000		

Gamma Ray Calibration Report

Serial Number:	GR4
Tool Model:	OPEN
Performed:	Wed Mar 16 12:55:45 2011
Calibrator Value:	200.0 GAPI
Background Reading:	0.0 cps
Calibrator Reading:	189.0 cps
Sensitivity:	2.2000 GAPI/cps