

COMPENSATED
DENSITY / NEUTRON
PE LOG

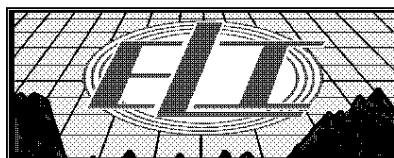
Company	MULL DRILLING COMPANY, INC.		
Well	#2-10 BOUZIDEN UNIT		
Field	BIG BEAR CREEK		
County	CLARK		
State	KANSAS		
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Well	#2-10 BOUZIDEN UNIT		
Field	BIG BEAR CREEK		
County	CLARK		
State	KANSAS		
Location:	API # : 15-025-21604-0000 702' FNL & 385' FEL NW - SE - NE - NE		
Permanent Datum	GROUND LEVEL	Elevation	2166
Log Measured From	KELLY BUSHING 12' A.G.L.		
Drilling Measured From	KELLY BUSHING		
	SEC 10 TWP 32S RGE 23W	Other Services DIL/MEL SONIC	Elevation K.B. 2178 D.F. 2176 G.L. 2166
Date	11/30/18		
Run Number	ONE		
Depth Driller	5400		
Depth Logger	5402		
Bottom Logged Interval	5378		
Top Log Interval	4200		
Casing Driller	8 5/8"@648'		
Casing Logger	648		
Bit Size	7 7/8"		
Type Fluid in Hole	CHEMICAL MUD	CHLORIDES 11,200 PPM	
Density / Viscosity	9.471		
pH / Fluid Loss	10.0/10.8		
Source of Sample	FLOWLINE		
Rim @ Meas. Temp	.380@80F		
Rmf @ Meas. Temp	.285@80F		
Rmc @ Meas. Temp	.456@80F		
Source of Rmf / Rmc	MEASUREMENT		
Rim @ BHT	.236@129F		
Time Circulation Stopped	3 HOURS		
Time Logger on Bottom	11:00 A.M.		
Maximum Recorded Temperature	129F		
Equipment Number	922339		
Location	HAYS, KANSAS		
Recorded By	JEFF LUEBBERS		
Witnessed By	KEVIN KESSLER		

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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

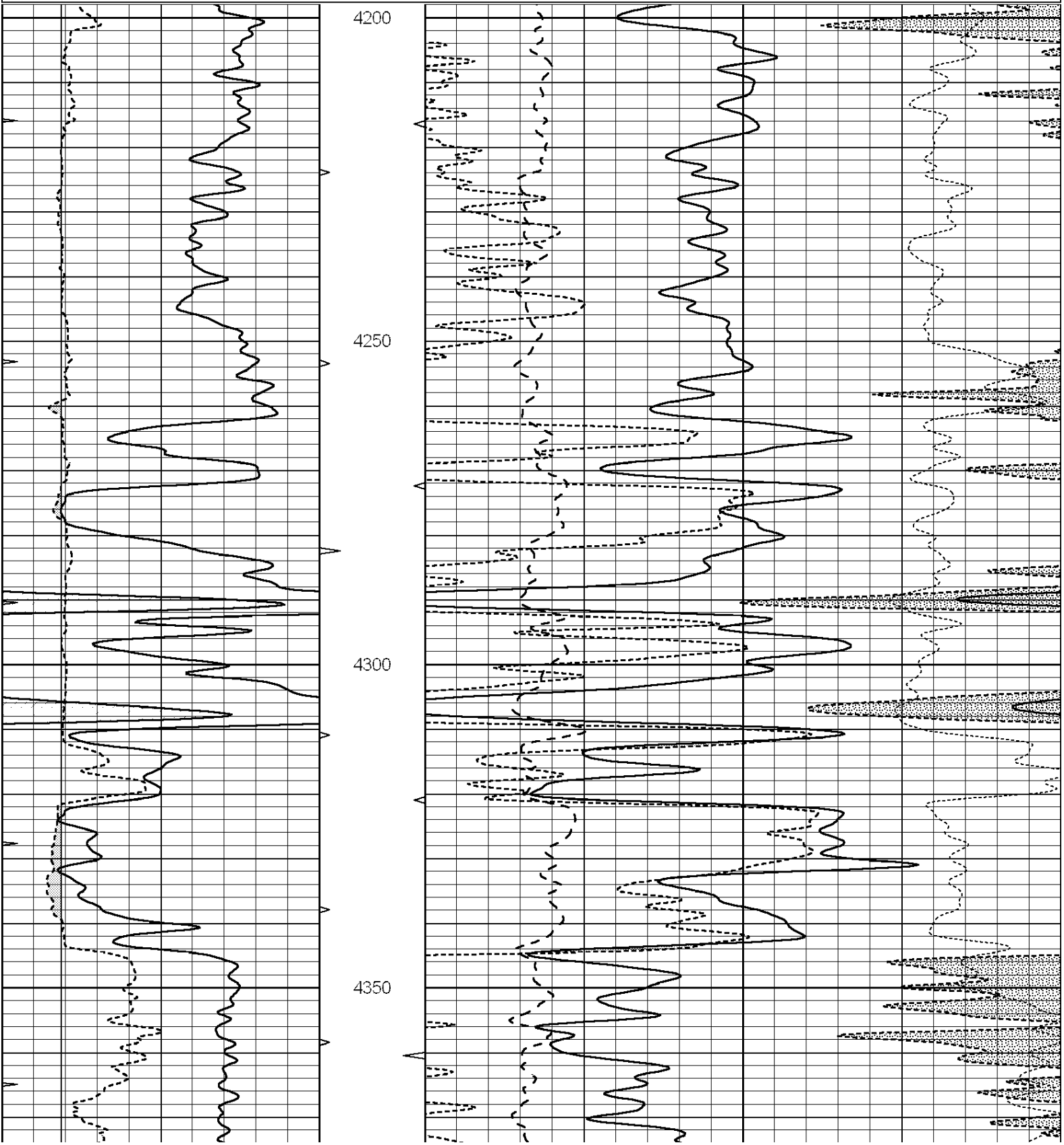
THANK YOU FOR USING ELI WIRELINE HAYS, KANSAS (785) 628-6395
DIRECTIONS
ASHLAND, KS., 1W. ON HWY 160 TO "RD. 16", 6N., 1E. INTO AT FENCELINE

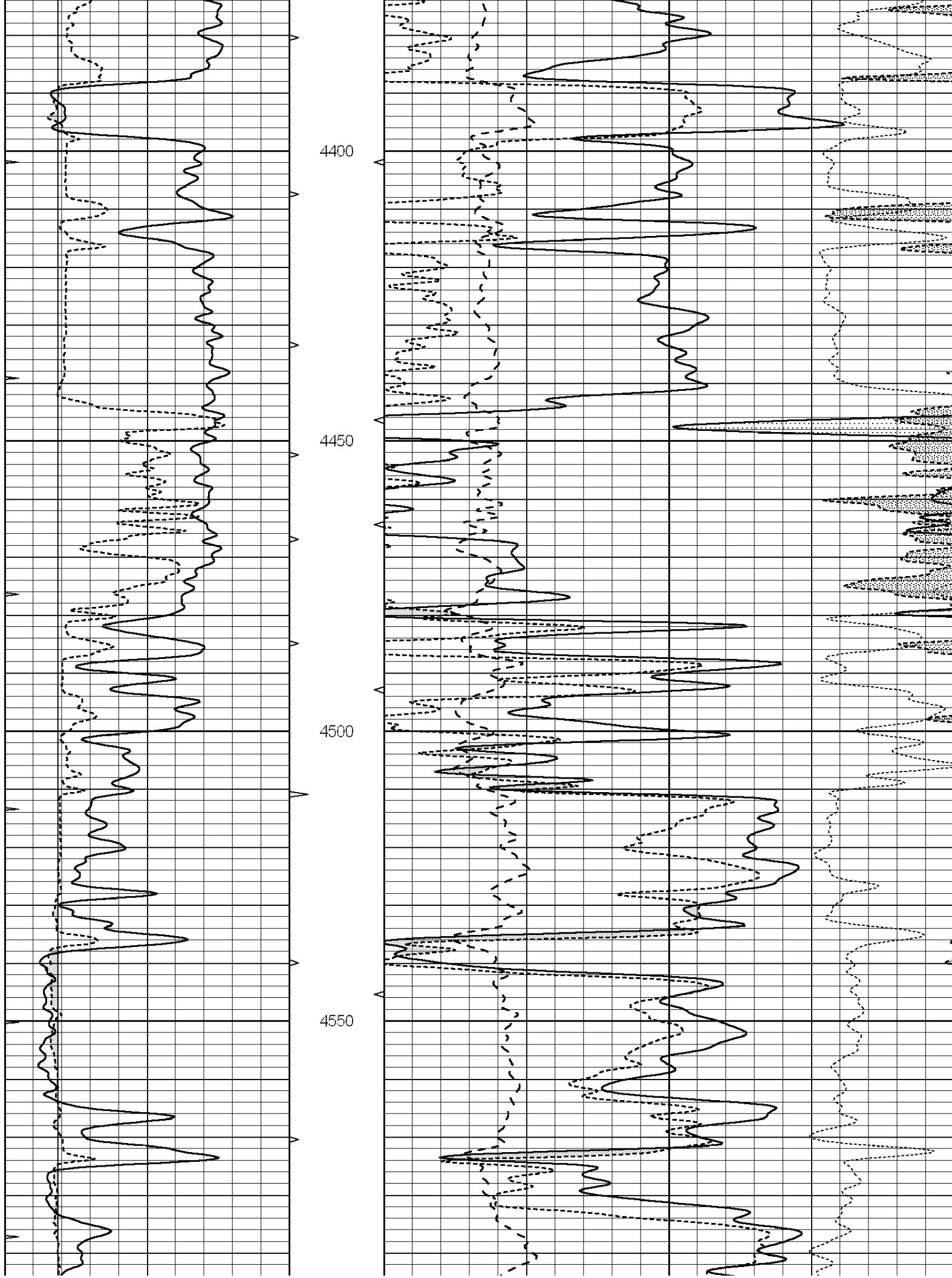


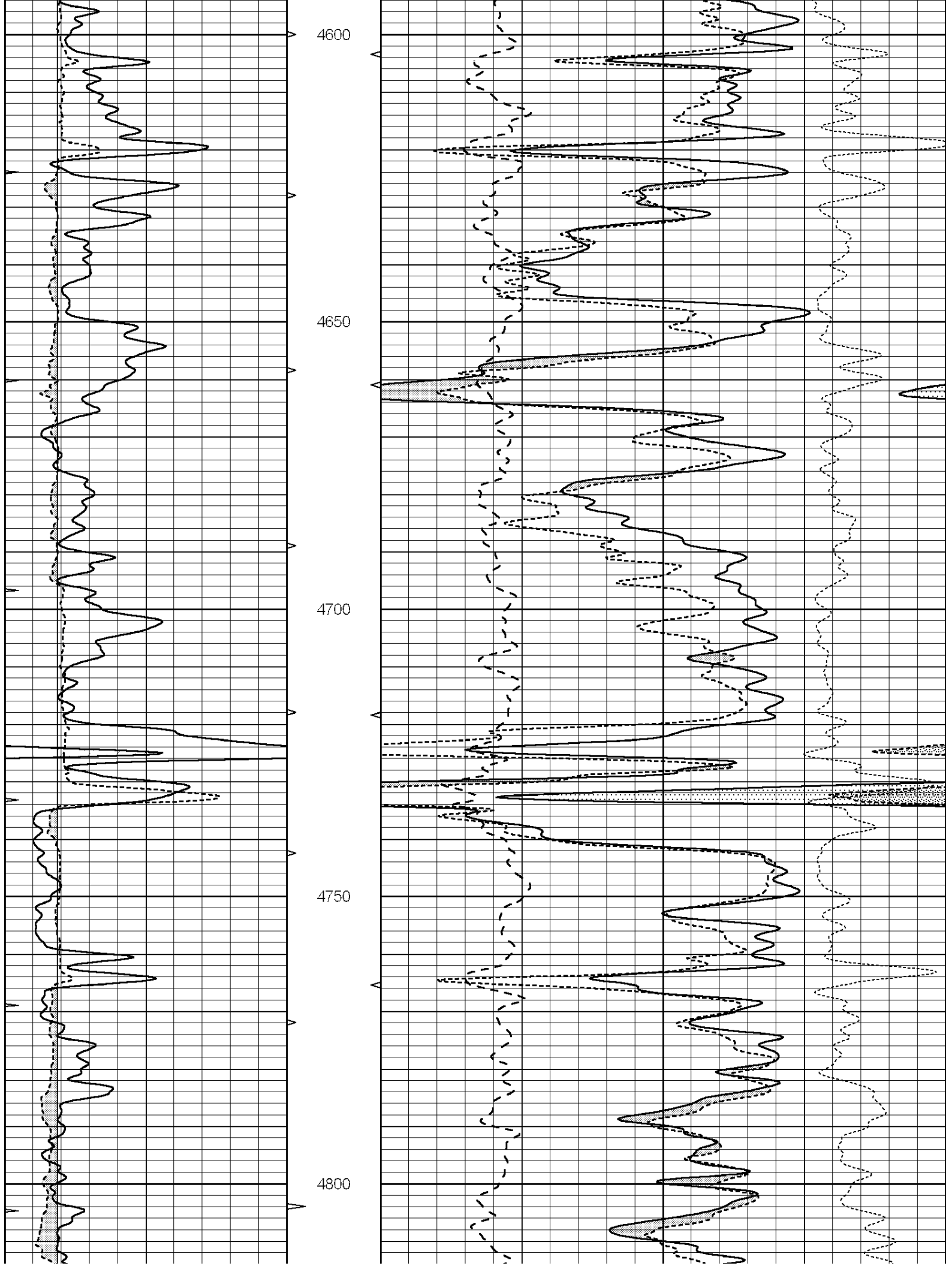
MAIN SECTION

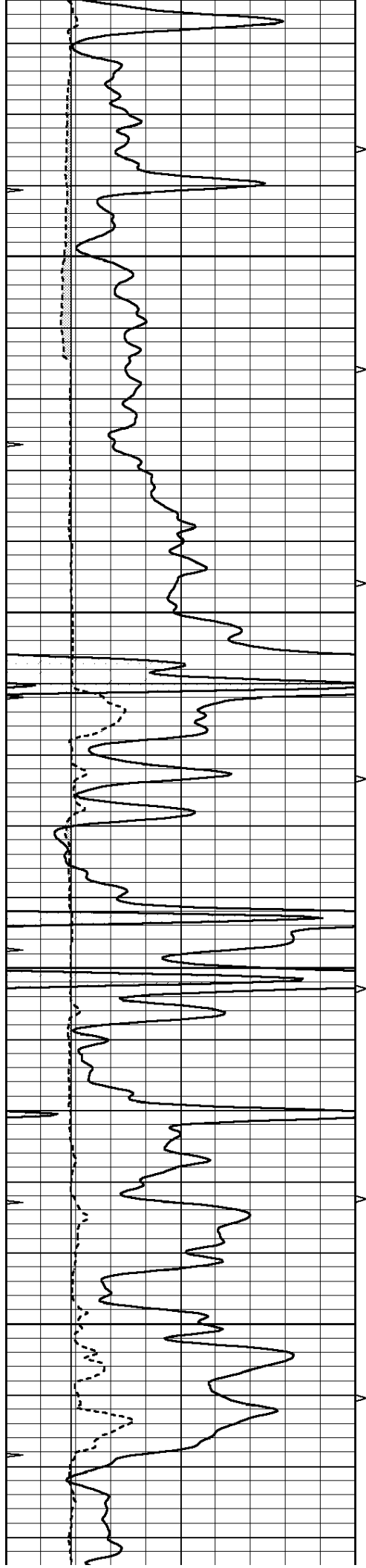
Database File: 3064pe.db
Dataset Pathname: pass3.7
Presentation Format: ldt_neu
Dataset Creation: Fri Nov 30 12:58:31 2018
Charted by: Depth in Feet scaled 1:240

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						







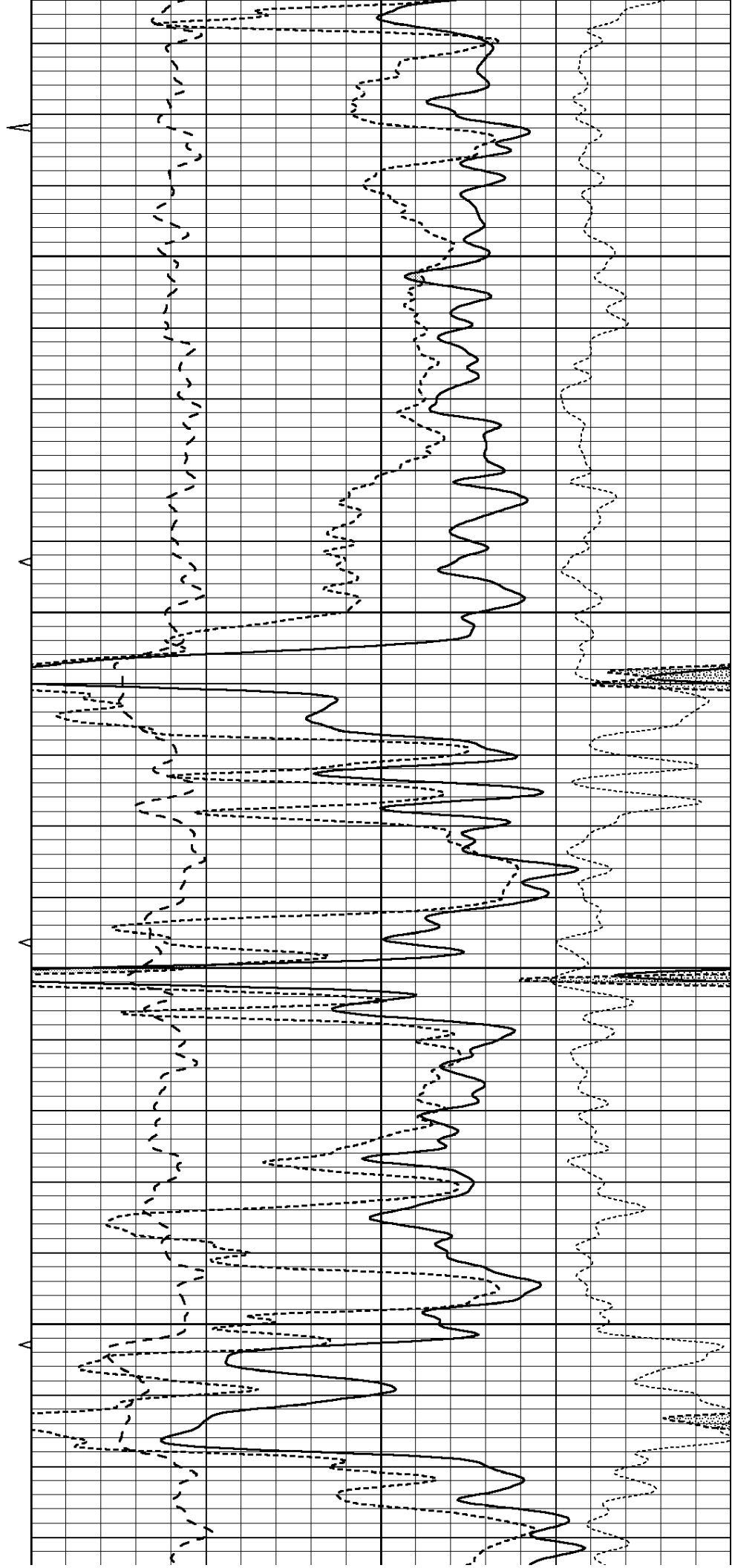


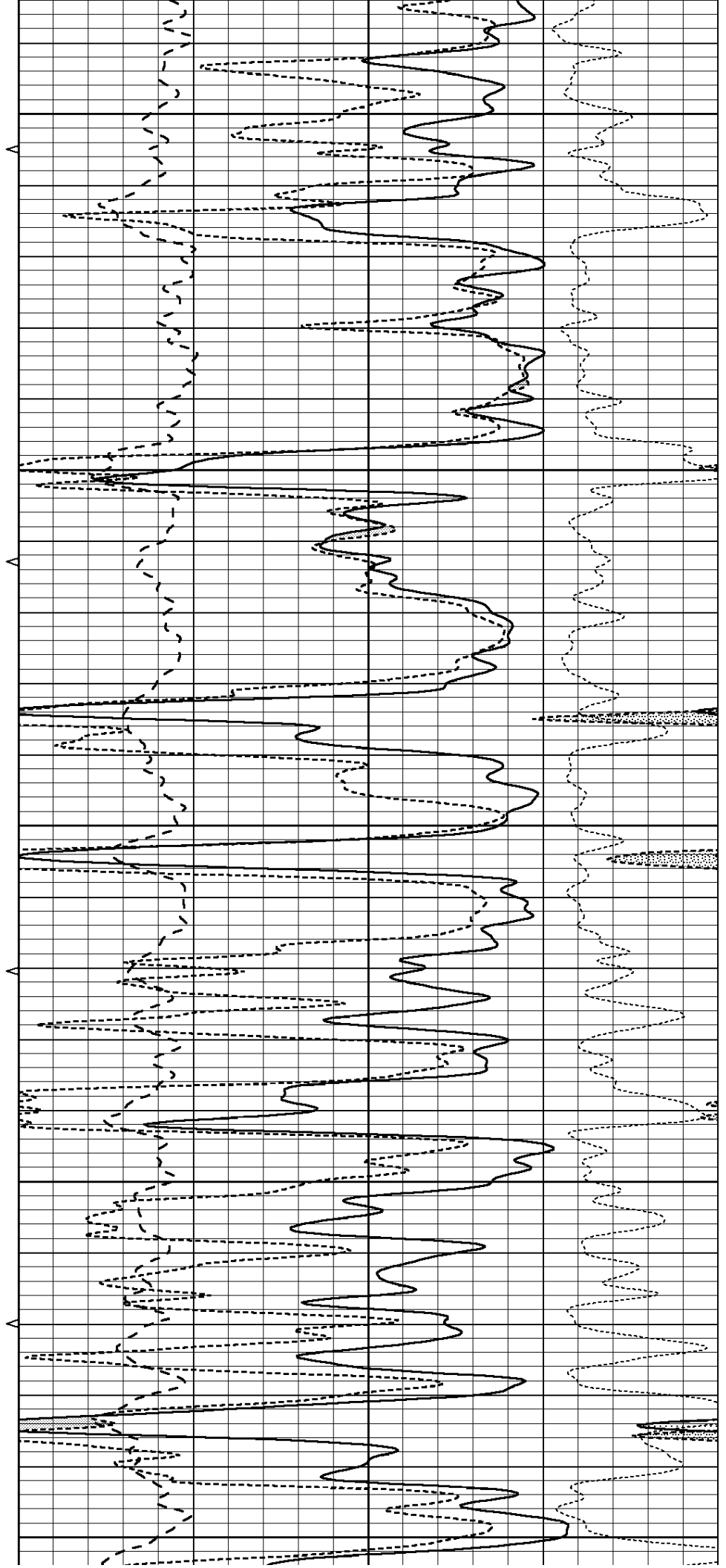
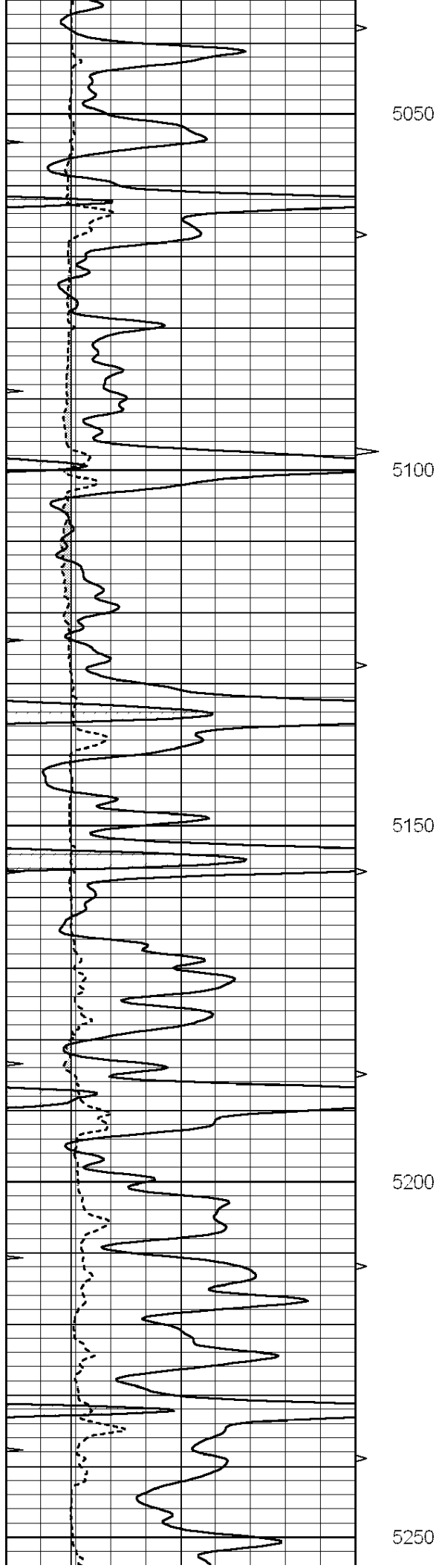
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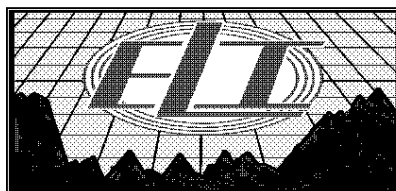
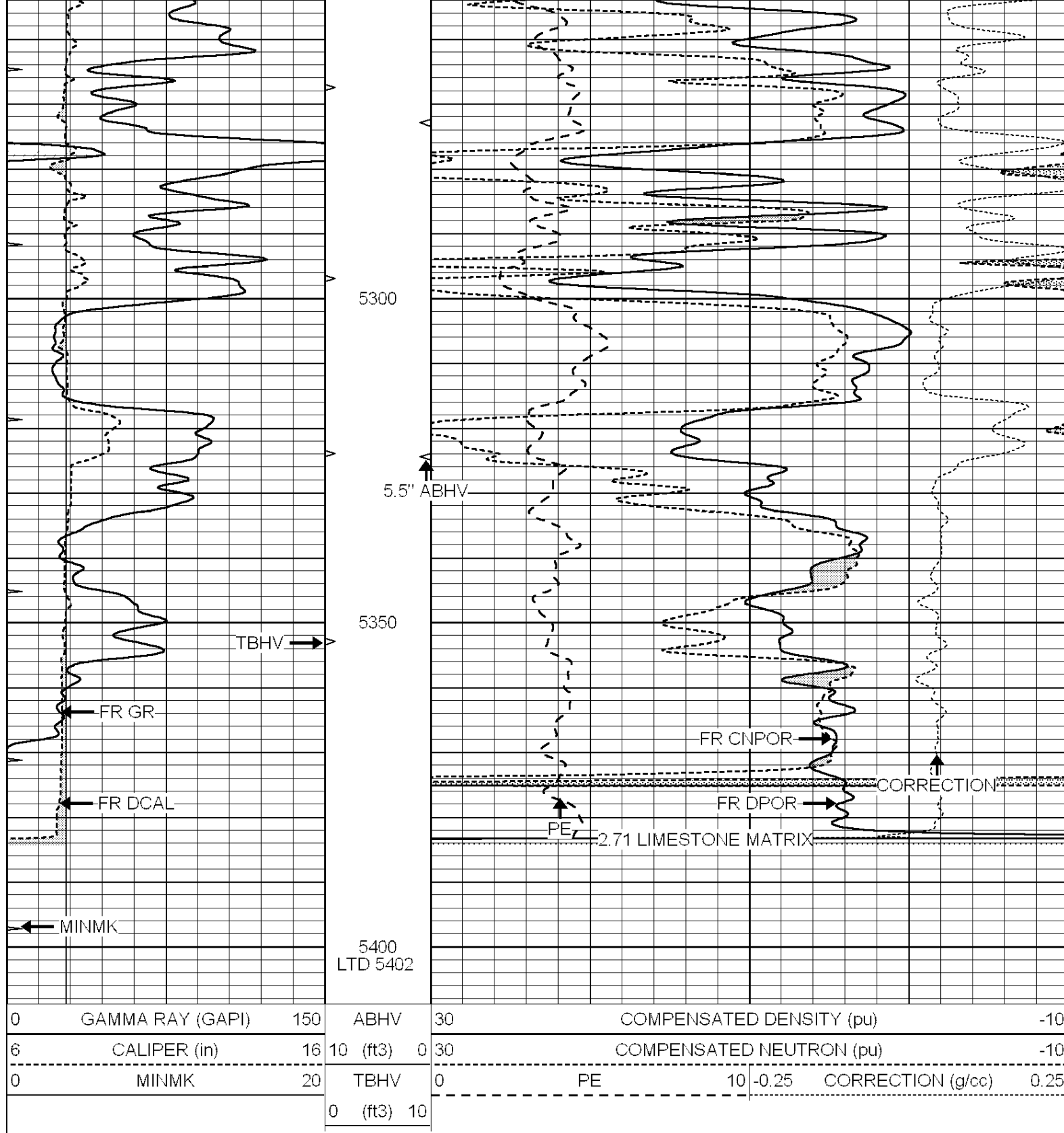
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4950

5000



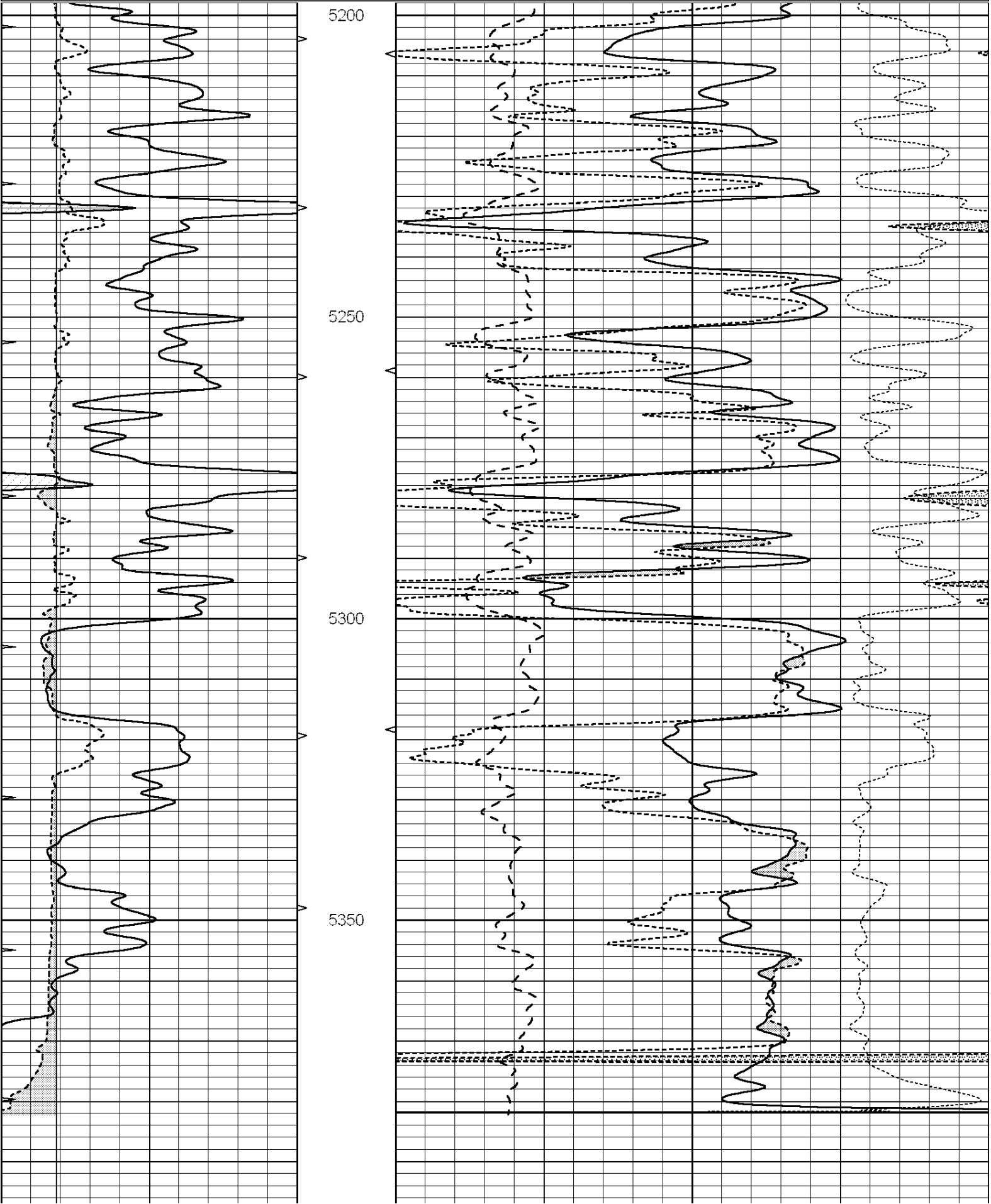




REPEAT SECTION

Database File: 3064pe.db
 Dataset Pathname: pass2.8
 Presentation Format: ldt_neu
 Dataset Creation: Fri Nov 30 12:33:09 2018
 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
			0 (ft3)	10	CORRECTION (g/cc)	0.25



Long Space	0.0	8345.4	1798.1	9425.3	cps
Short Space	1.1	1927.9	1285.9	2050.2	cps
Rho		1.7100	2.5960	1.3800	g/cc
Pe		0.0000	2.5700	1.5500	
Rib Angle	: 45.2	Rib Slope	: 1.008	Density/Spine Ratio	: 0.558
Spine Angle	: 75.2	Spine Slope	: 3.790	Spine Intercept	: -19.6

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			
Detector	Readings	Measured	Target
Short Space	cps		
Long Space	cps	pu	pu

Gamma Ray Calibration Report

Serial Number:	070558	
Tool Model:	OPEN_GR	
Performed:	Wed May 31 00:09:32 2017	
Calibrator Value:	1.0	GAPI
Background Reading:	0.0	cps
Calibrator Reading:	1.0	cps

Sensitivity:

0.2800

GAPI/cps