



SUPERIOR
Hays,
Kansas

COMPENSATED
DENSITY / NEUTRON
PE LOG

Company	MESSENGER PETROLEUM, INC.	Company	MESSENGER PETROLEUM, INC.
Well	HAYES #1	Well	HAYES #1
Field	CHITWOOD	Field	CHITWOOD
County	PRATT	County	PRATT
State	KANSAS	State	KANSAS
Location:	API # : 15-151-22387-0000	Other Services	DIL/MEL
	1980' FSL & 1650' FVL		
	C - W/2 - NE - SW		
	SEC 23 TWP 28S RGE 12W		
Permanent Datum	GROUND LEVEL	Elevation	1861
Log Measured From	KELLY BUSHING 9' A.G.L.	K.B. 1870	
Drilling Measured From	KELLY BUSHING	D.F. 1868	
		G.L. 1861	
Date	4/26/12		
Run Number	ONE		
Depth Driller	4575		
Depth Logger	4574		
Bottom Logged Interval	4550		
Top Log Interval	1800		
Casing Driller	8 5/8"@301		
Casing Logger	300		
Bit Size	7 7/8"		
Type Fluid in Hole	CHEMICAL MUD	CHLORIDES 8,500 PPM	
Density / Viscosity	9.3/49		
pH / Fluid Loss	10.0/12.4		
Source of Sample	FLOWLINE		
Rm @ Meas. Temp	.450@72F		
Rmt @ Meas. Temp	.336@72F		
Rmc @ Meas. Temp	.540@72F		
Source of Rmt / Rmc	MEASUREMENT		
Rm @ BHT	.268@121F		
Time Circulation Stopped	3 HOURS		
Time Logger on Bottom	8:15 A.M.		
Maximum Recorded Temperature	121F		
Equipment Number	4010		
Location	HAYS, KANSAS		
Recorded By	JEFF LUEBBERS		
Witnessed By	FRANK MIZE		

<<< Fold Here >>>

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
PRATT, KS.(EAST EDGE) 6E. ON HWY 54 TO "SE 70 RD.", 4S. TO "SE 40 RD.", 1/2E., N. INTO

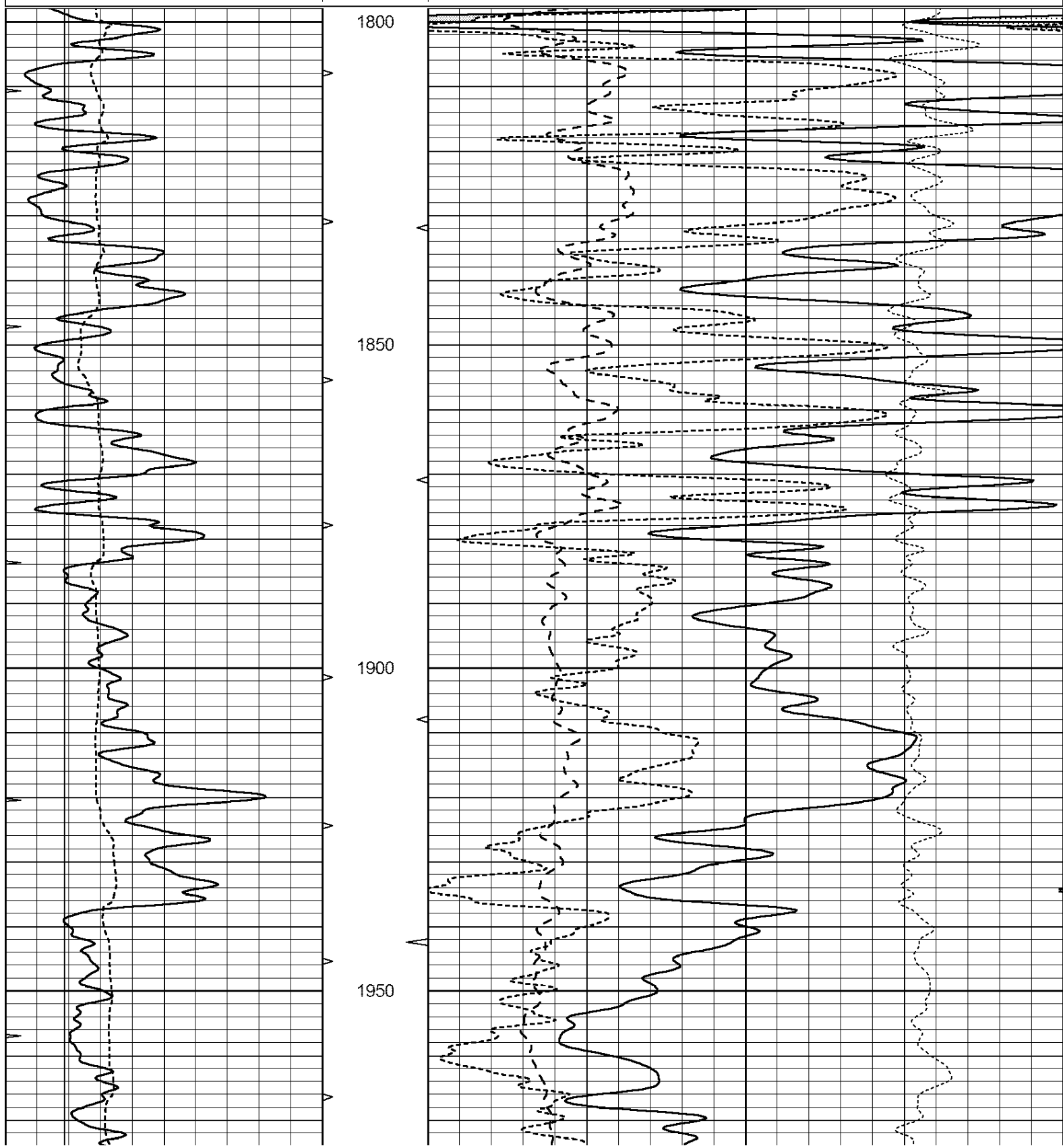


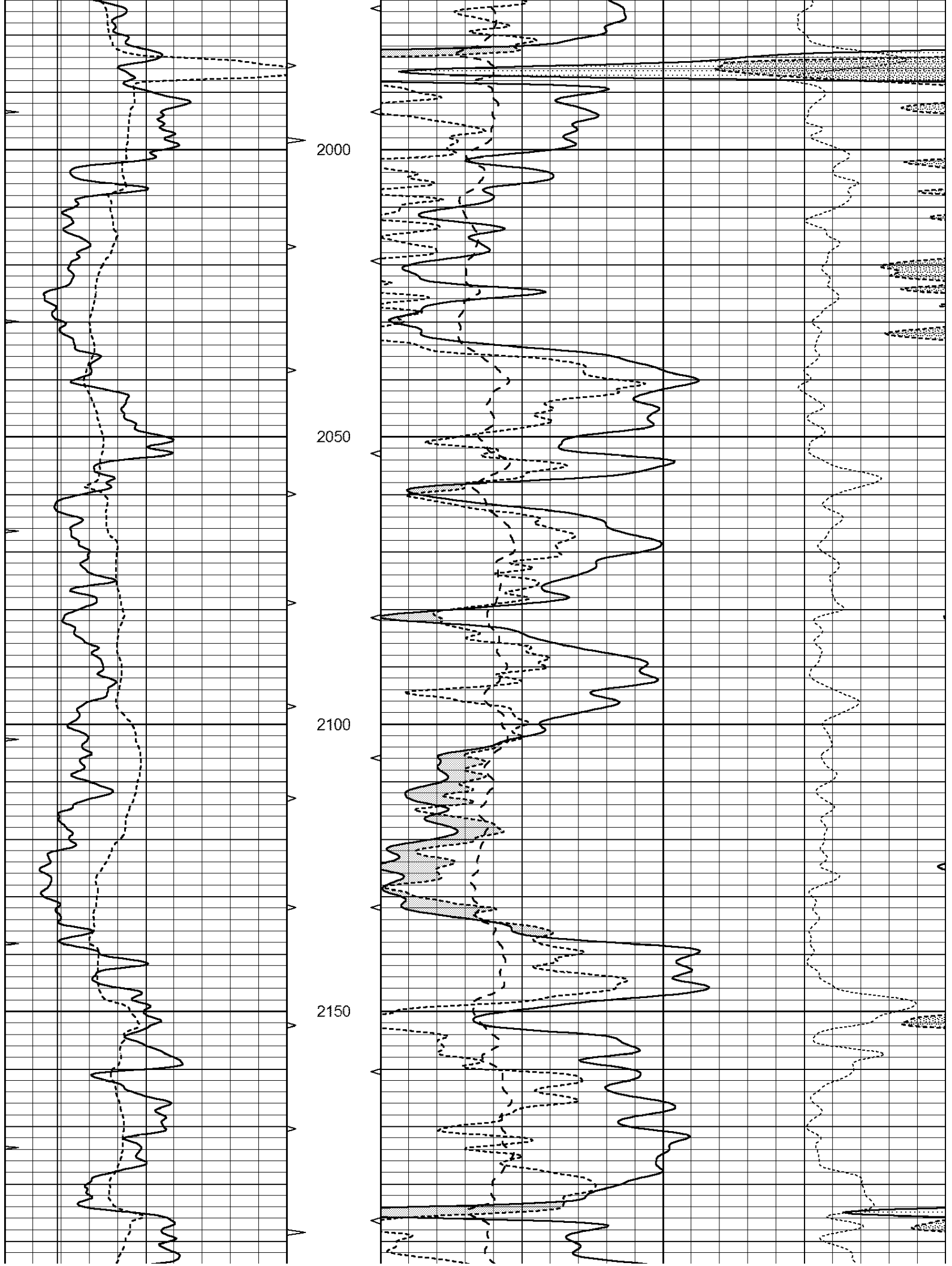
SUPERIOR
Hays,
Kansas

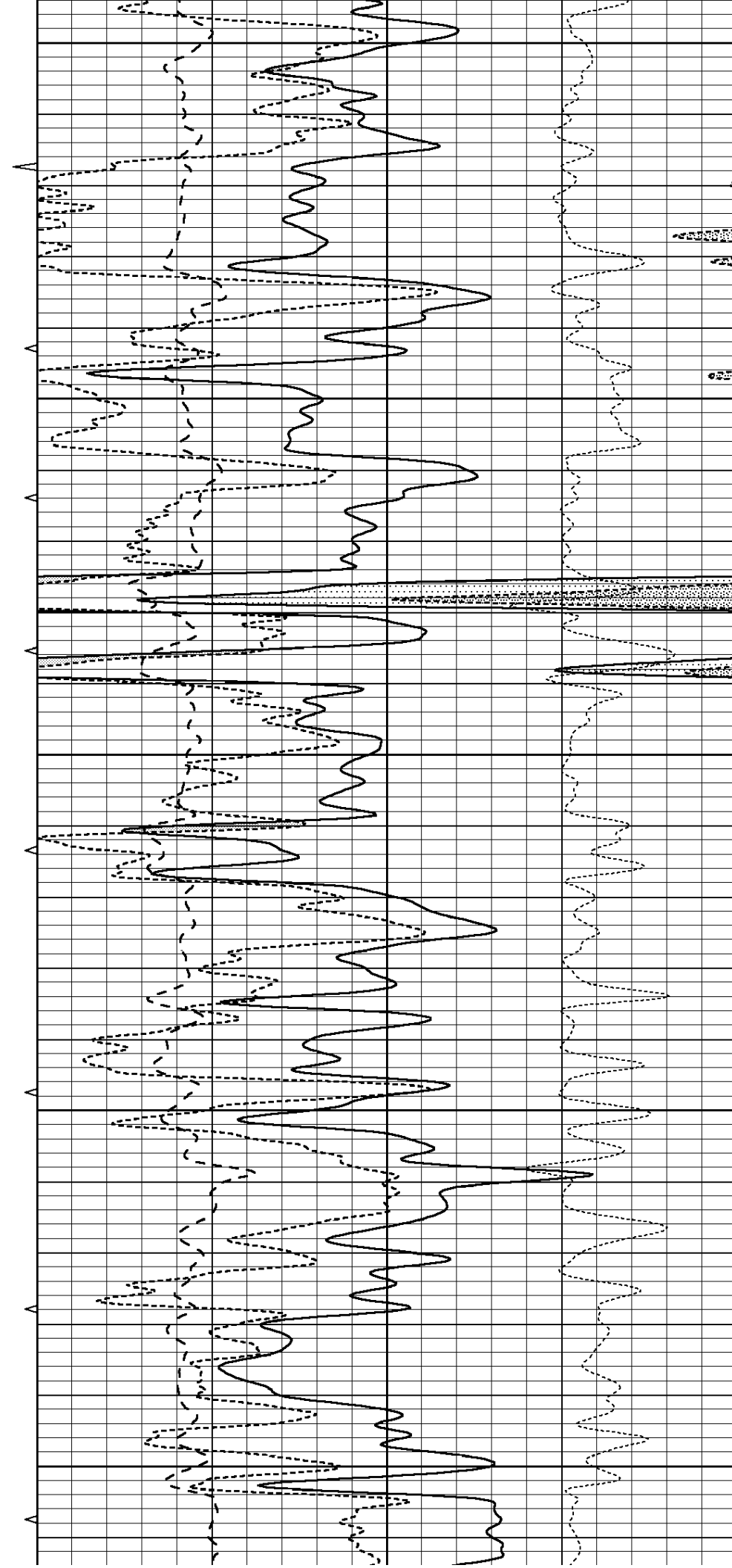
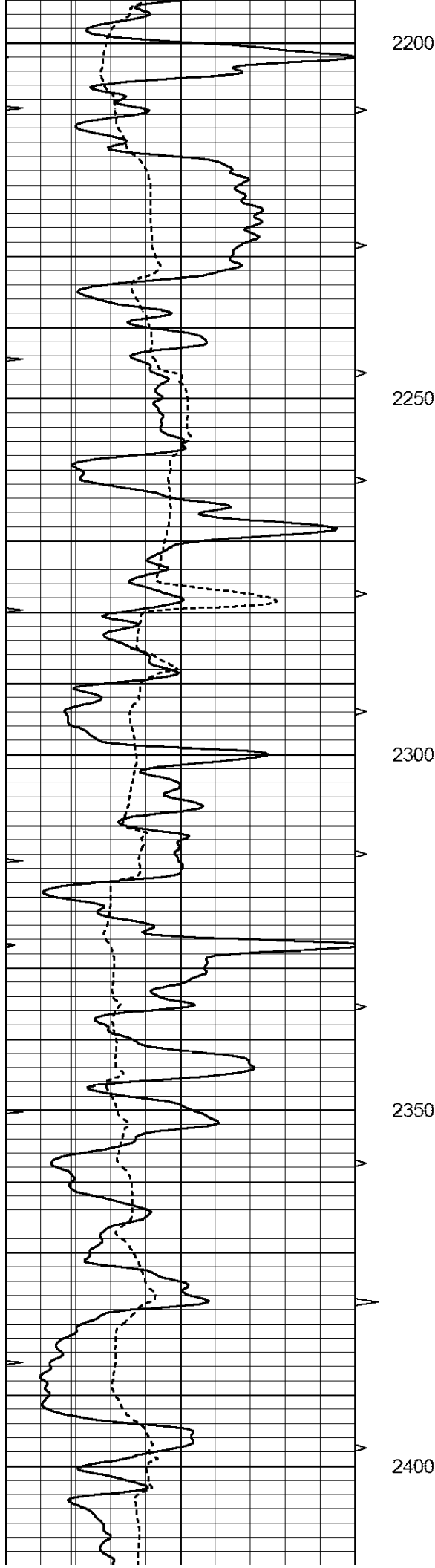
MAIN SECTION

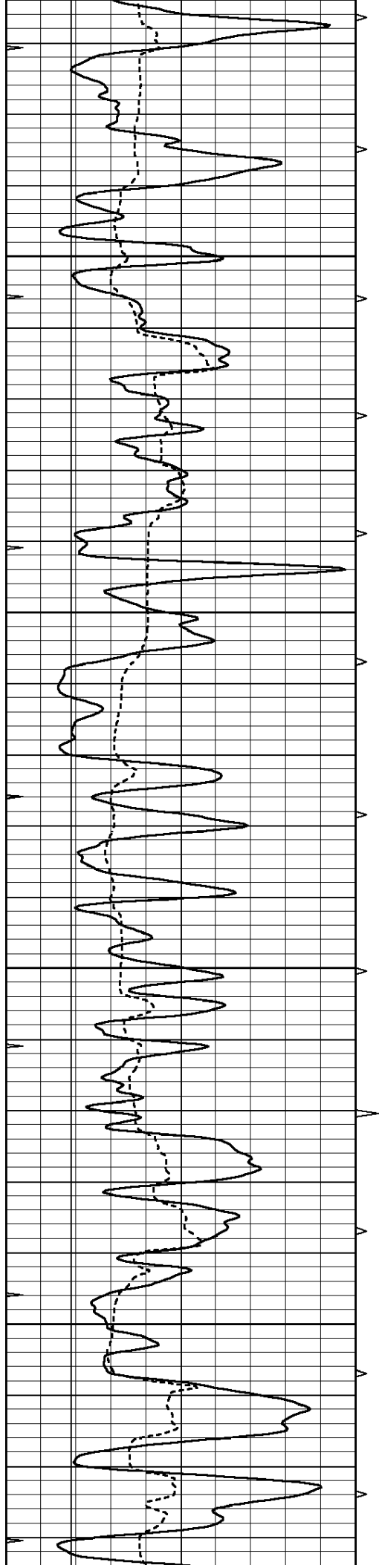
Database File: 408755pe.db
 Dataset Pathname: pass3.4
 Presentation Format: ldt_neu
 Dataset Creation: Thu Apr 26 10:33:57 2012 by Calc Open-Cased 110302
 Charted by: Depth in Feet scaled 1:240

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		







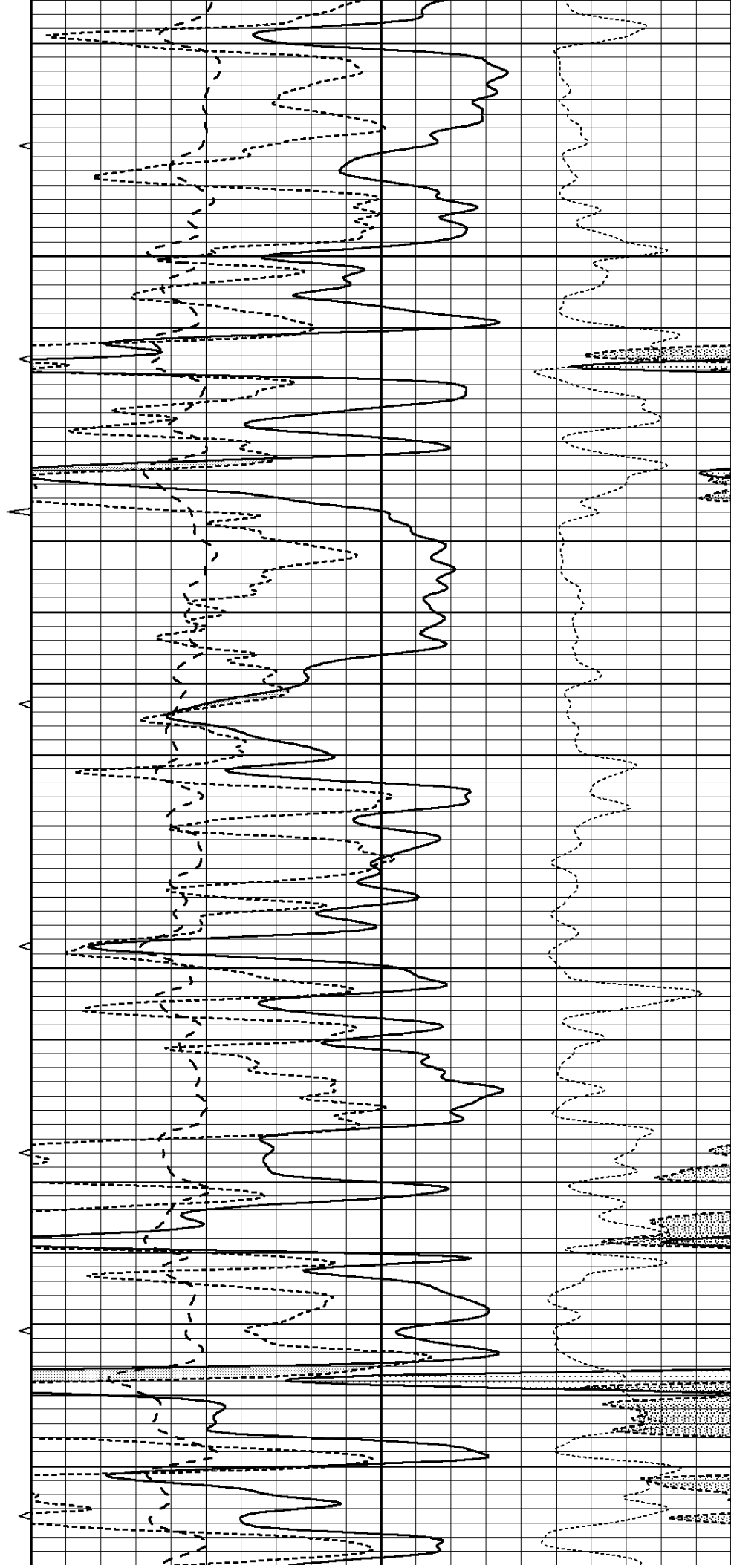


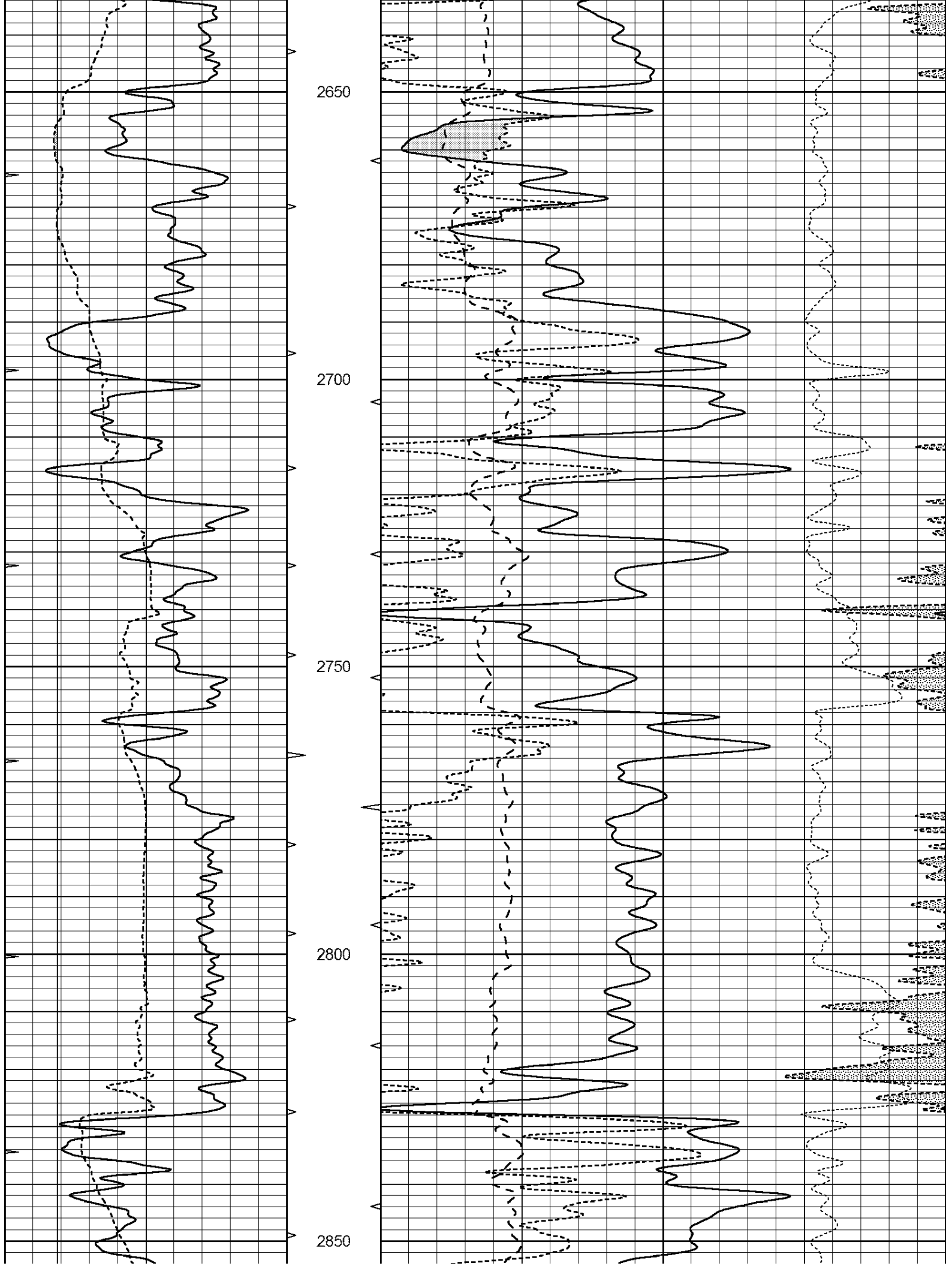
2450

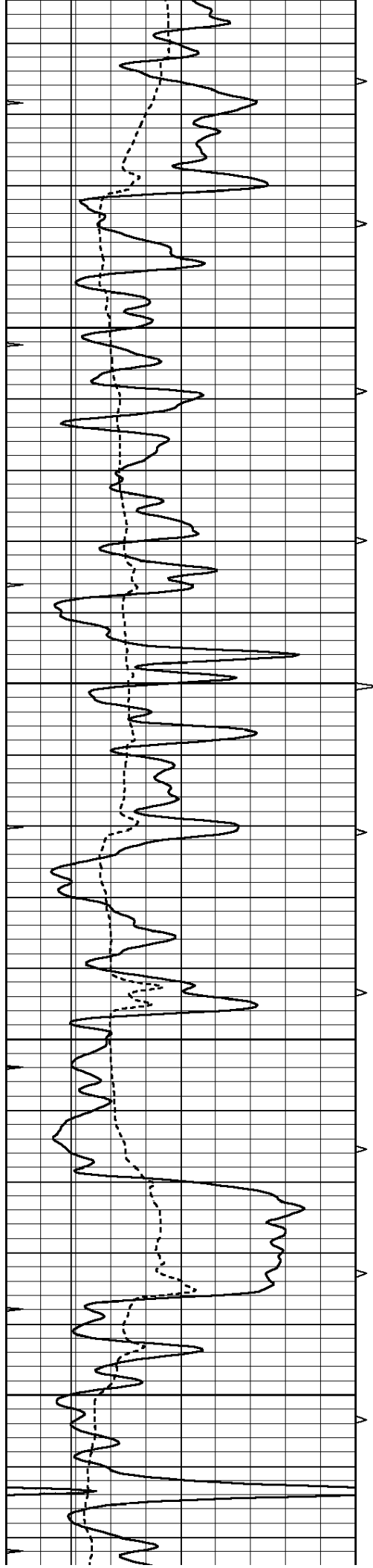
2500

2550

2600





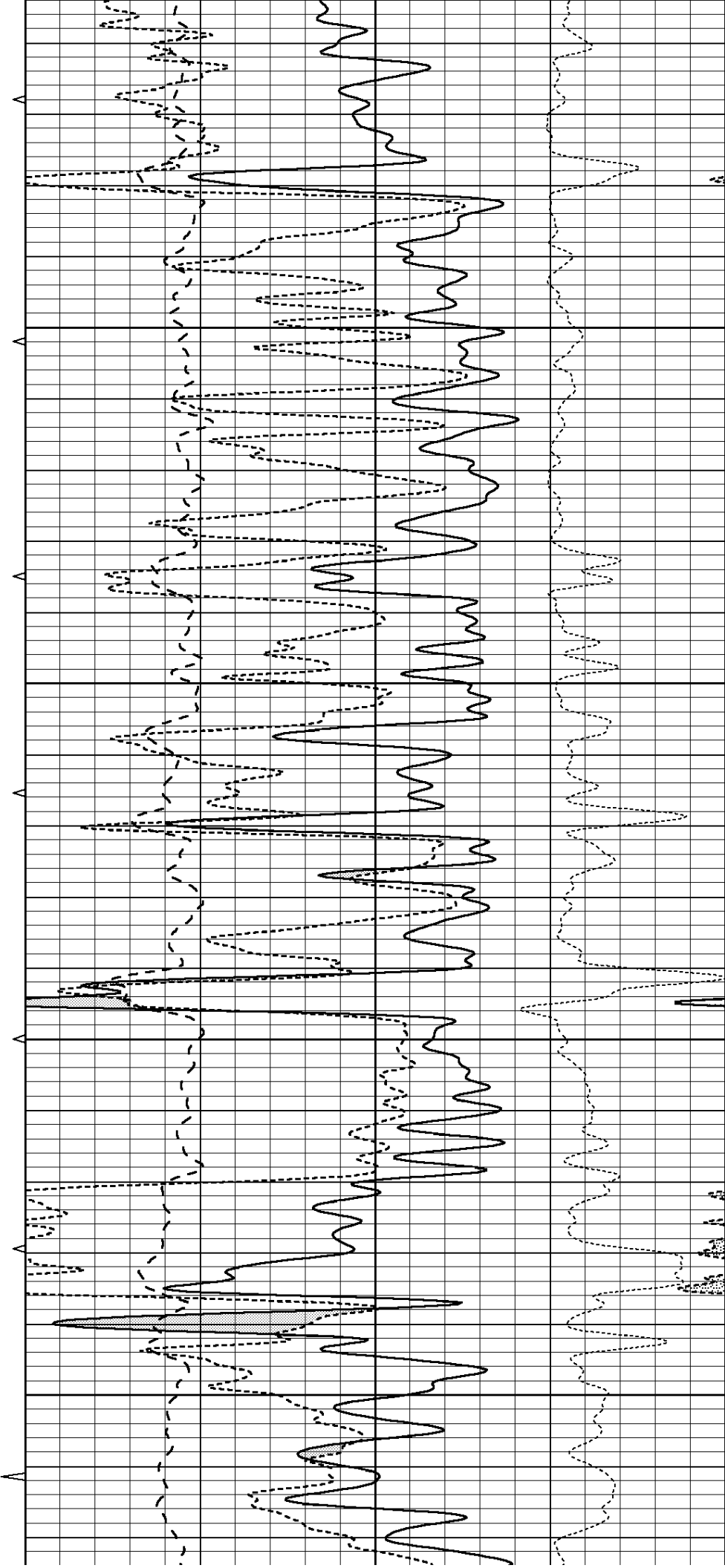


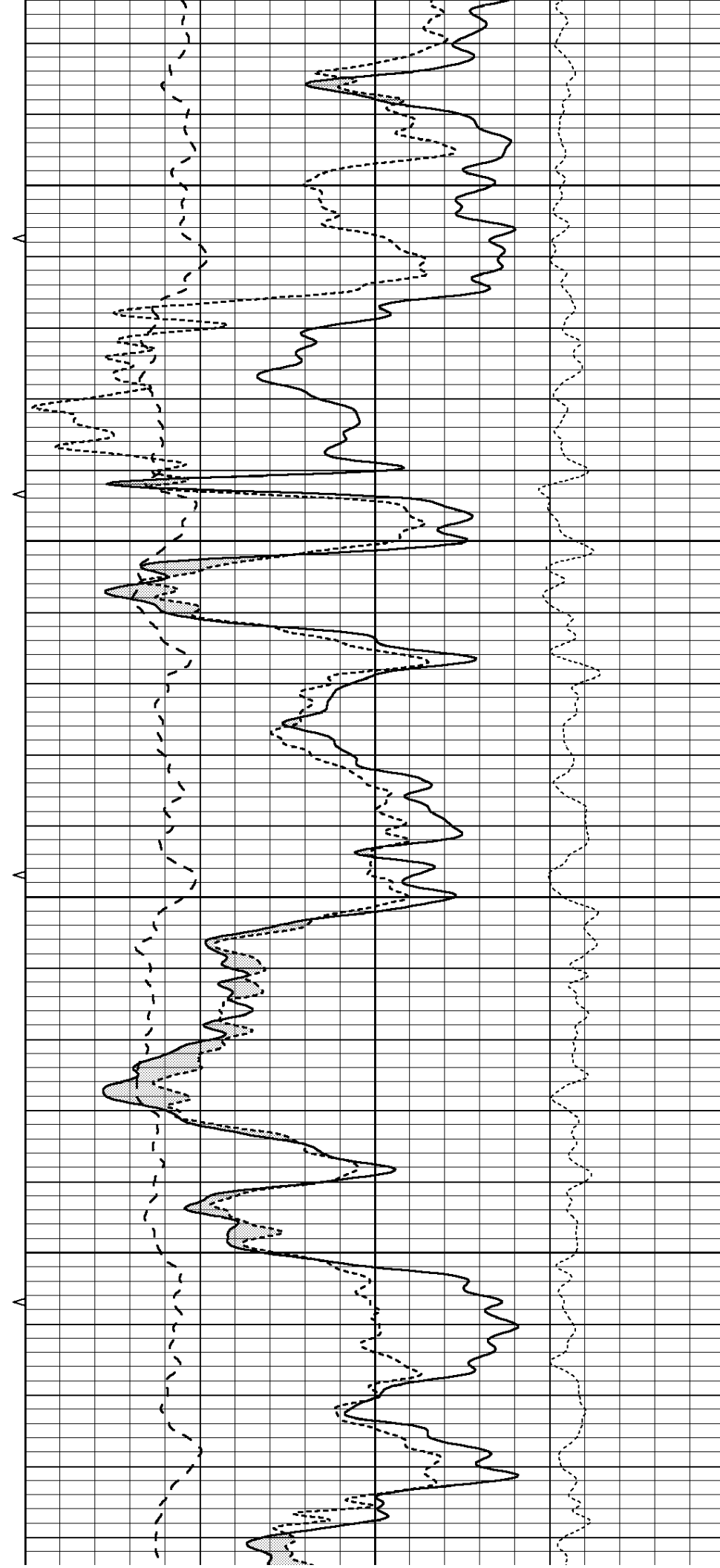
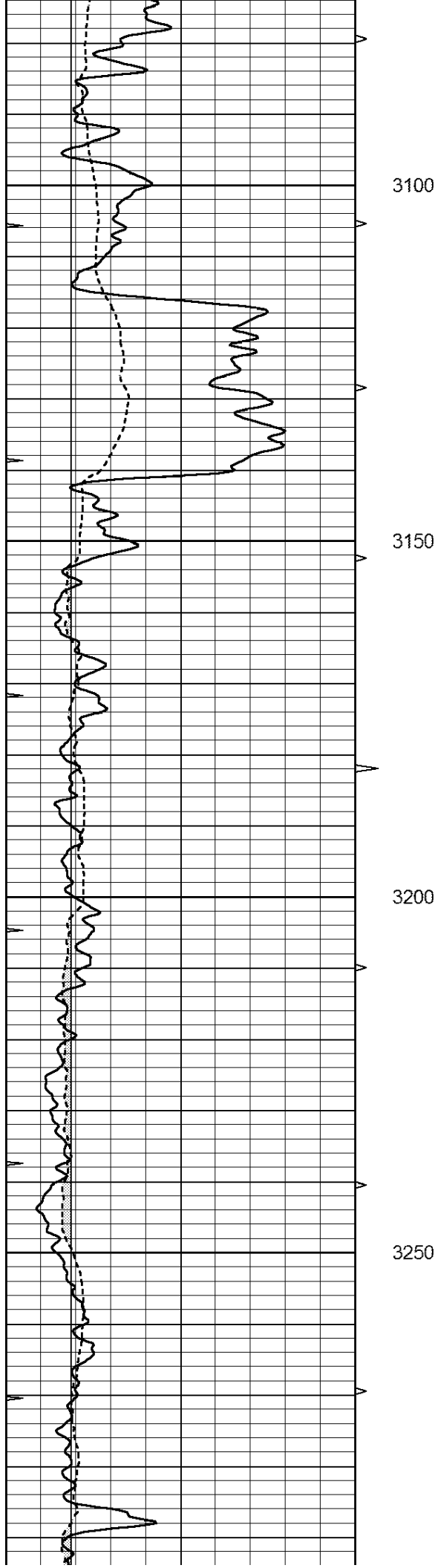
2900

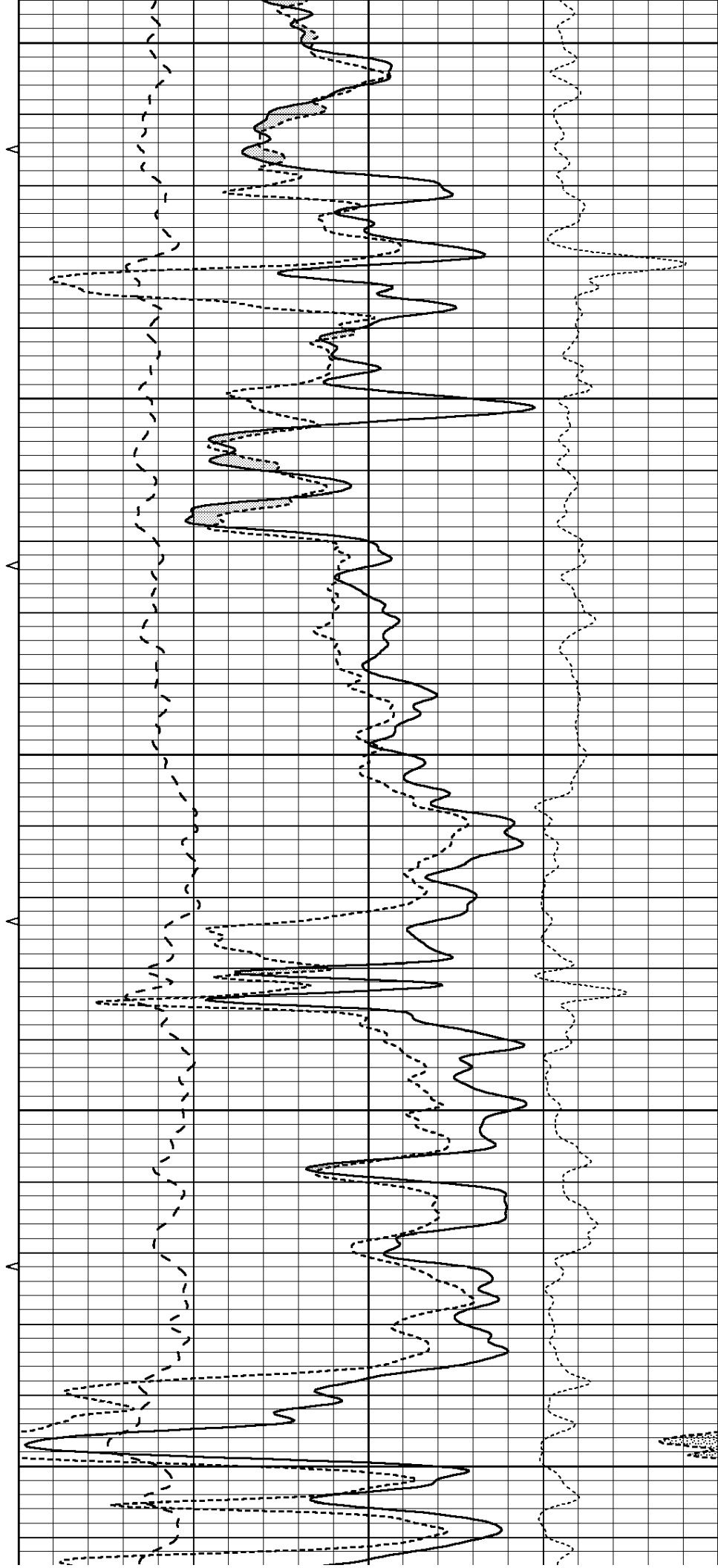
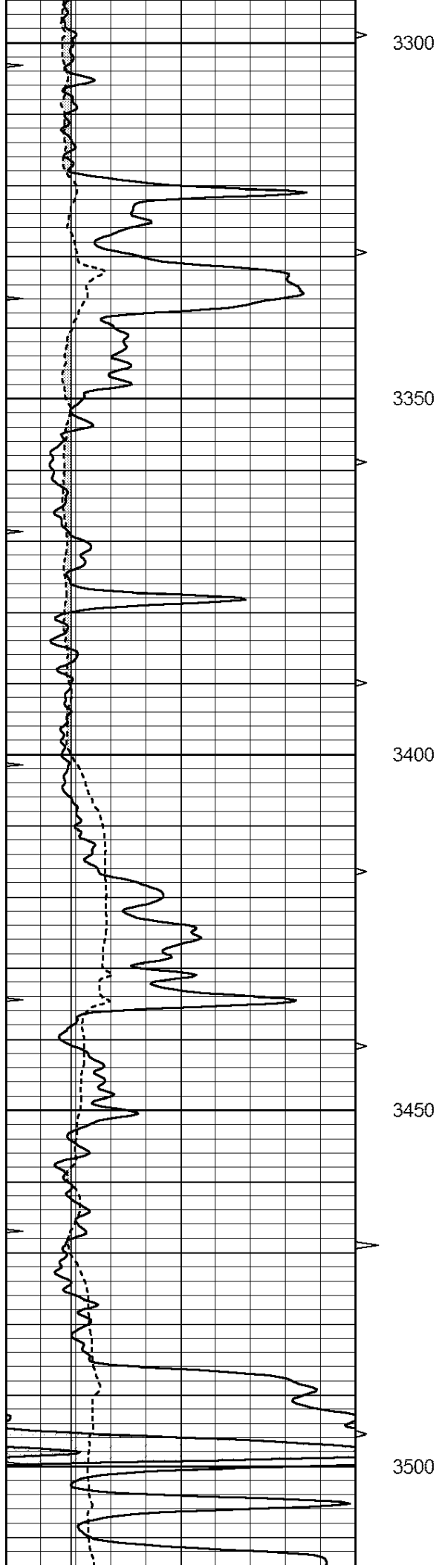
2950

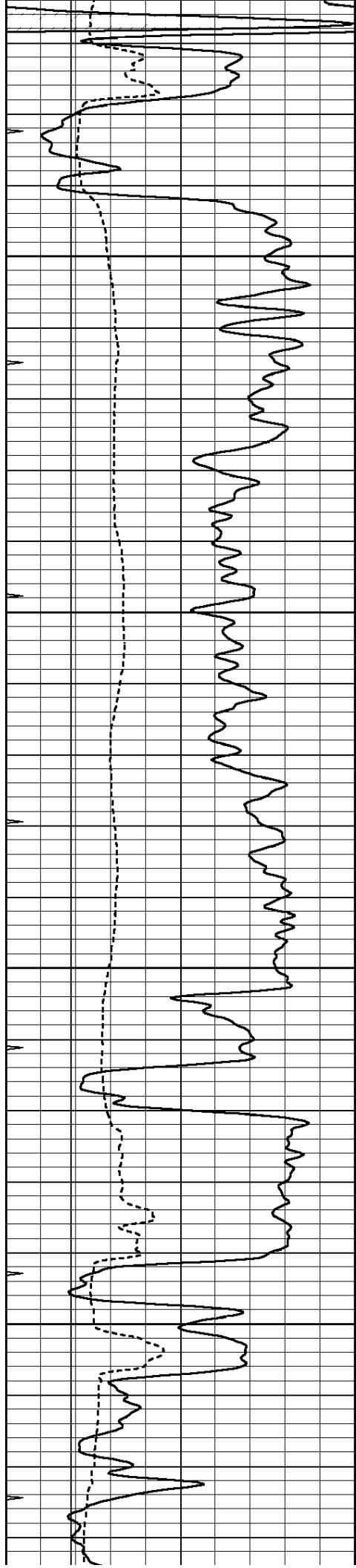
3000

3050







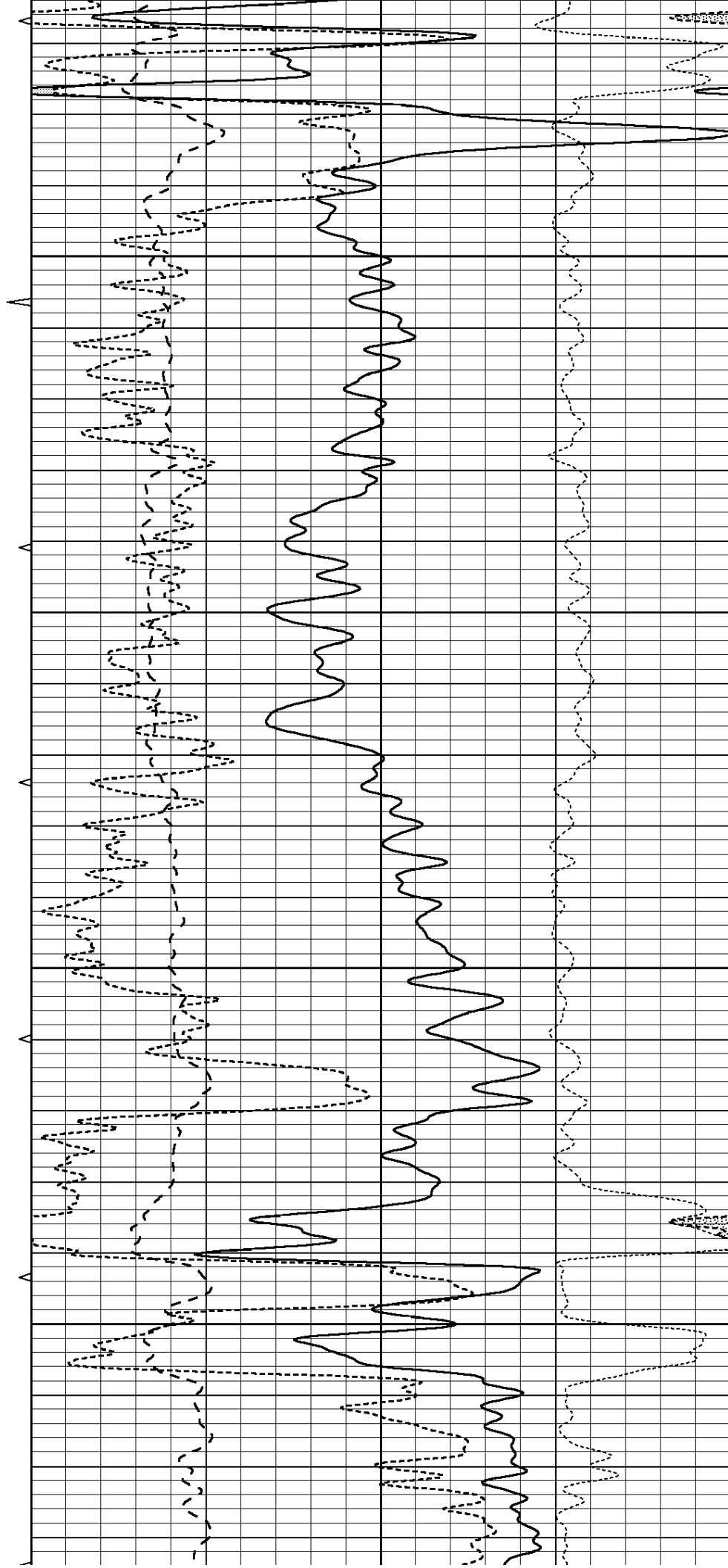


3550

3600

3650

3700



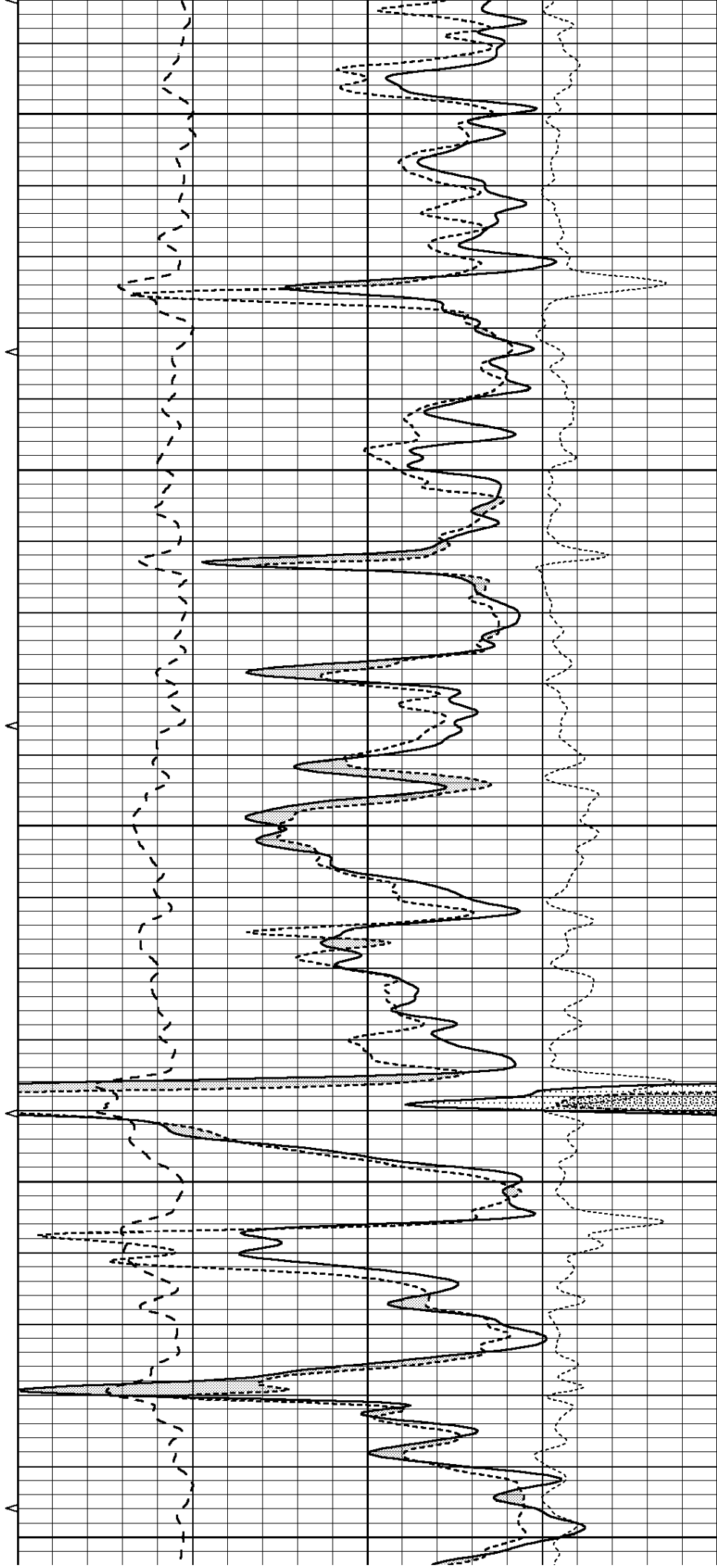
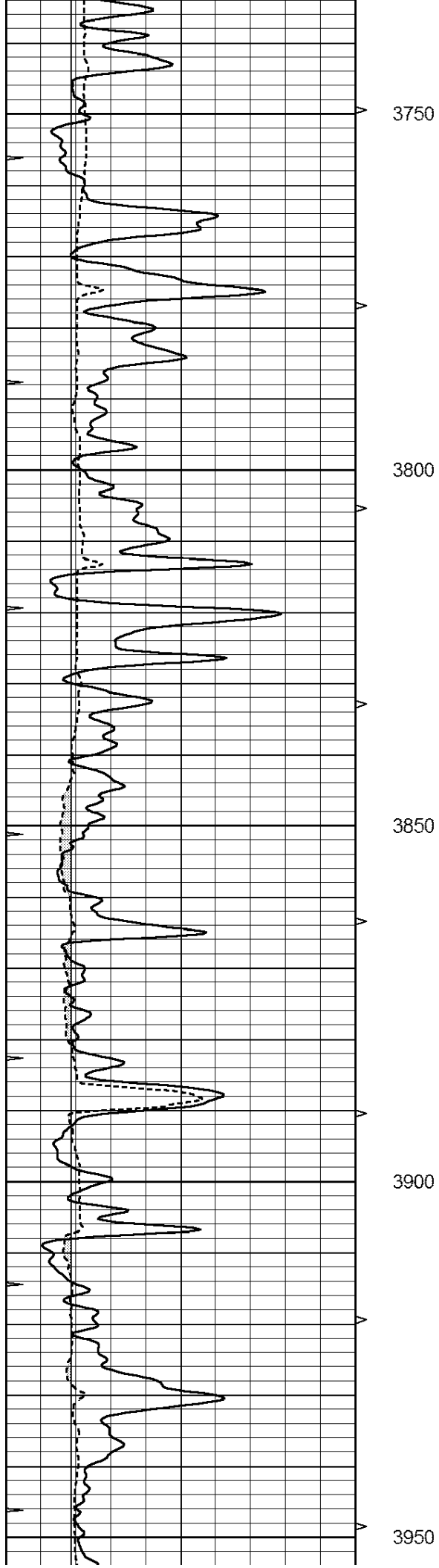
^

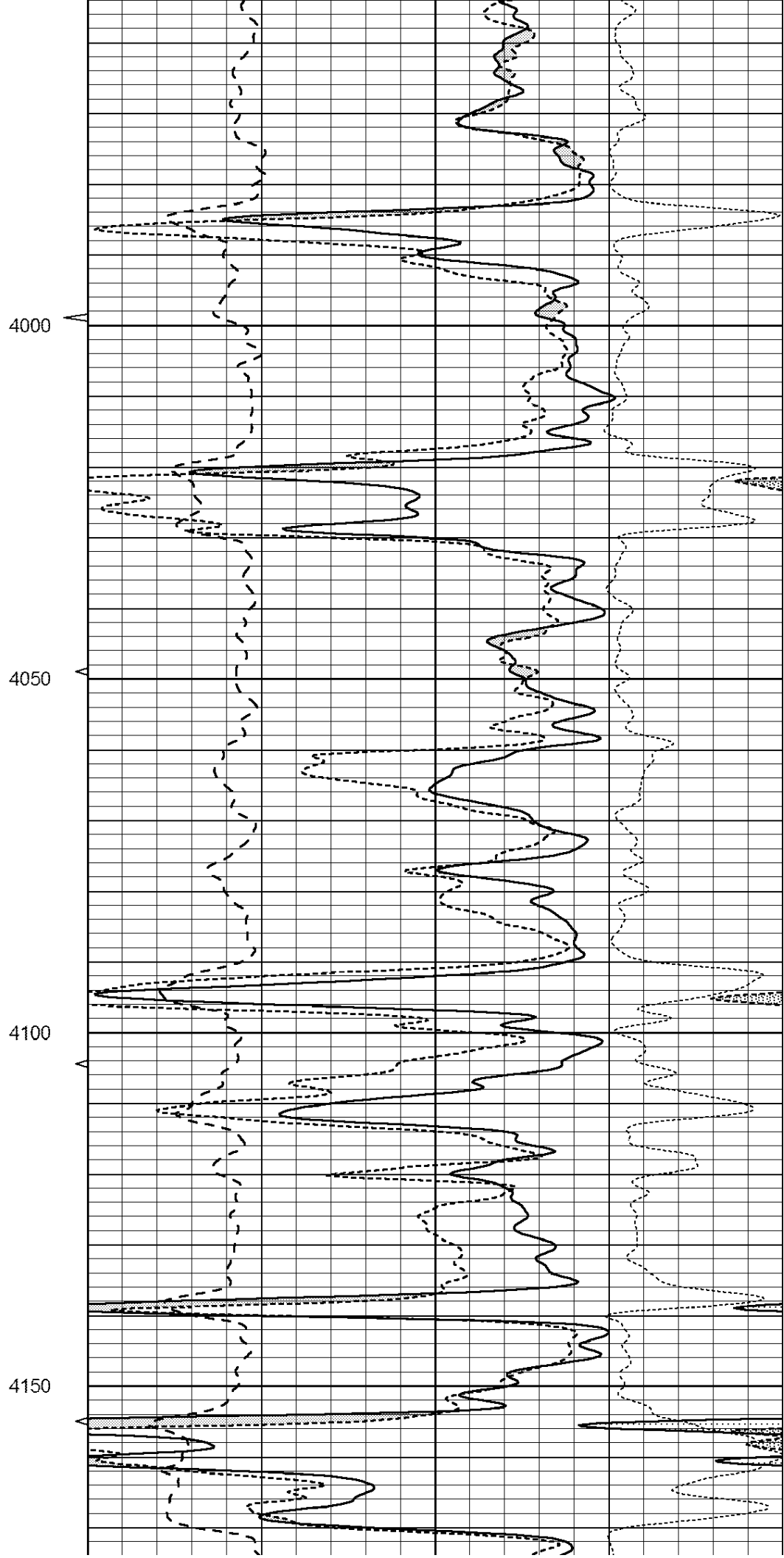
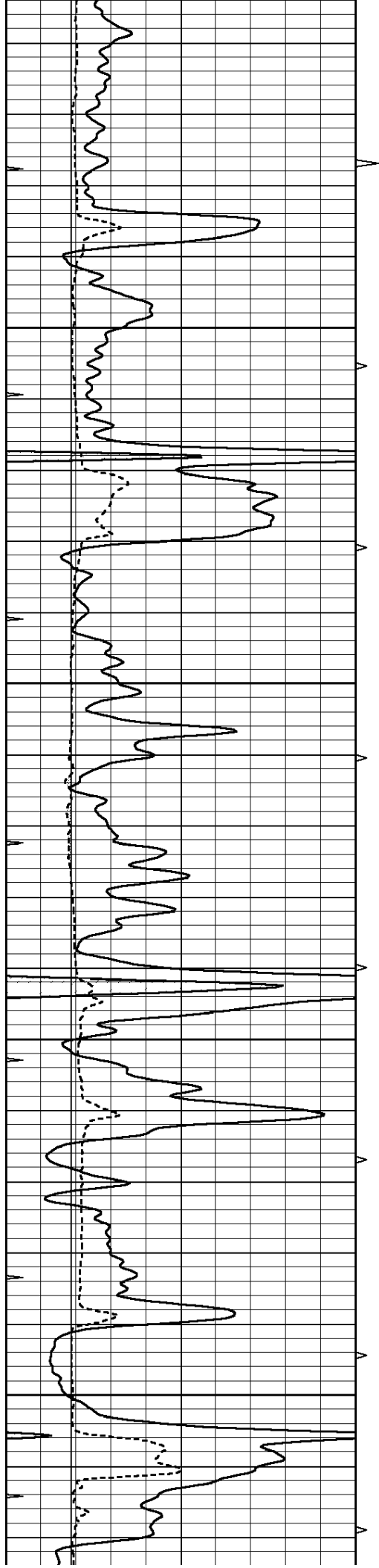
^

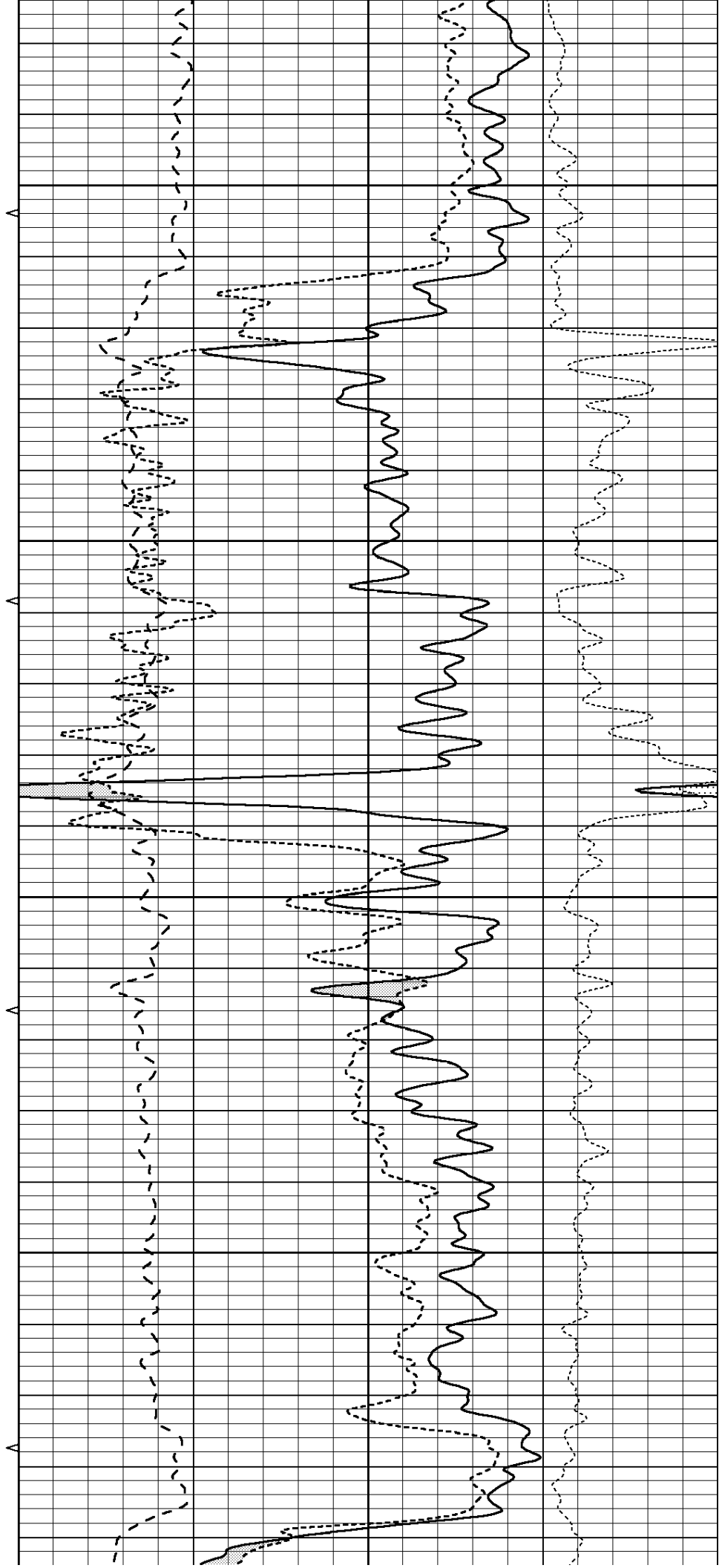
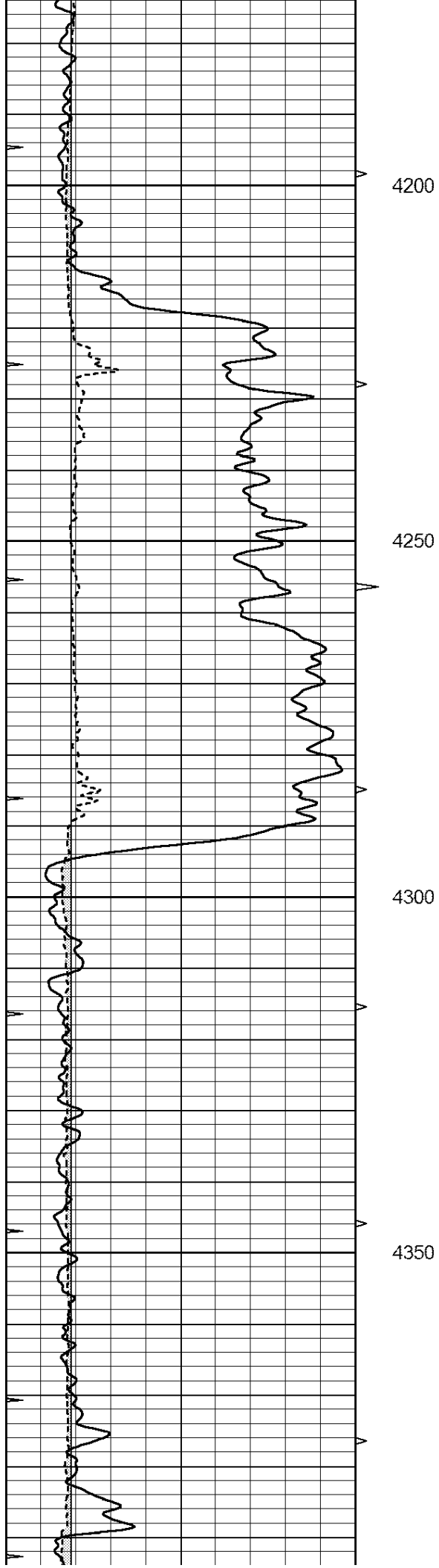
^

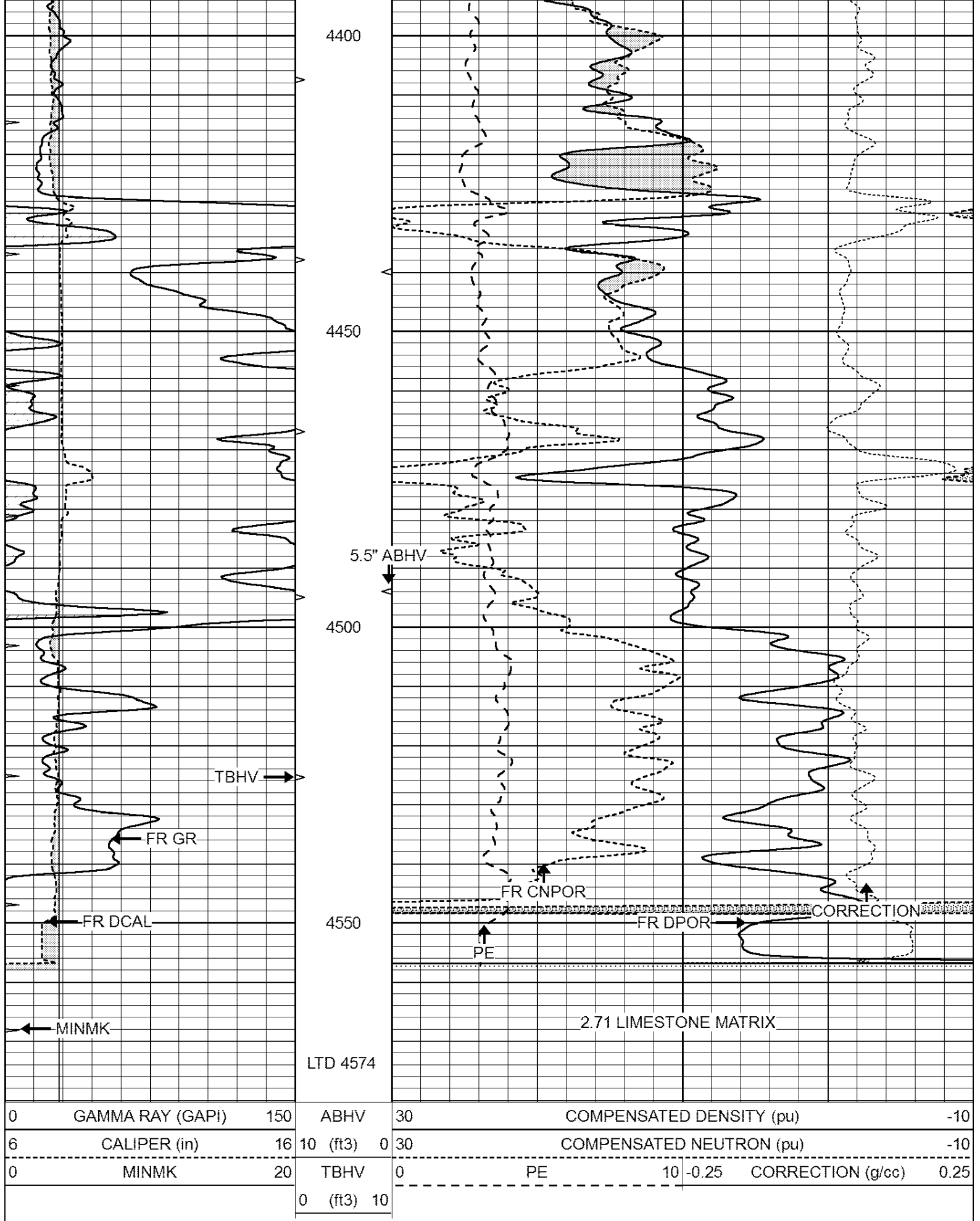
^

^









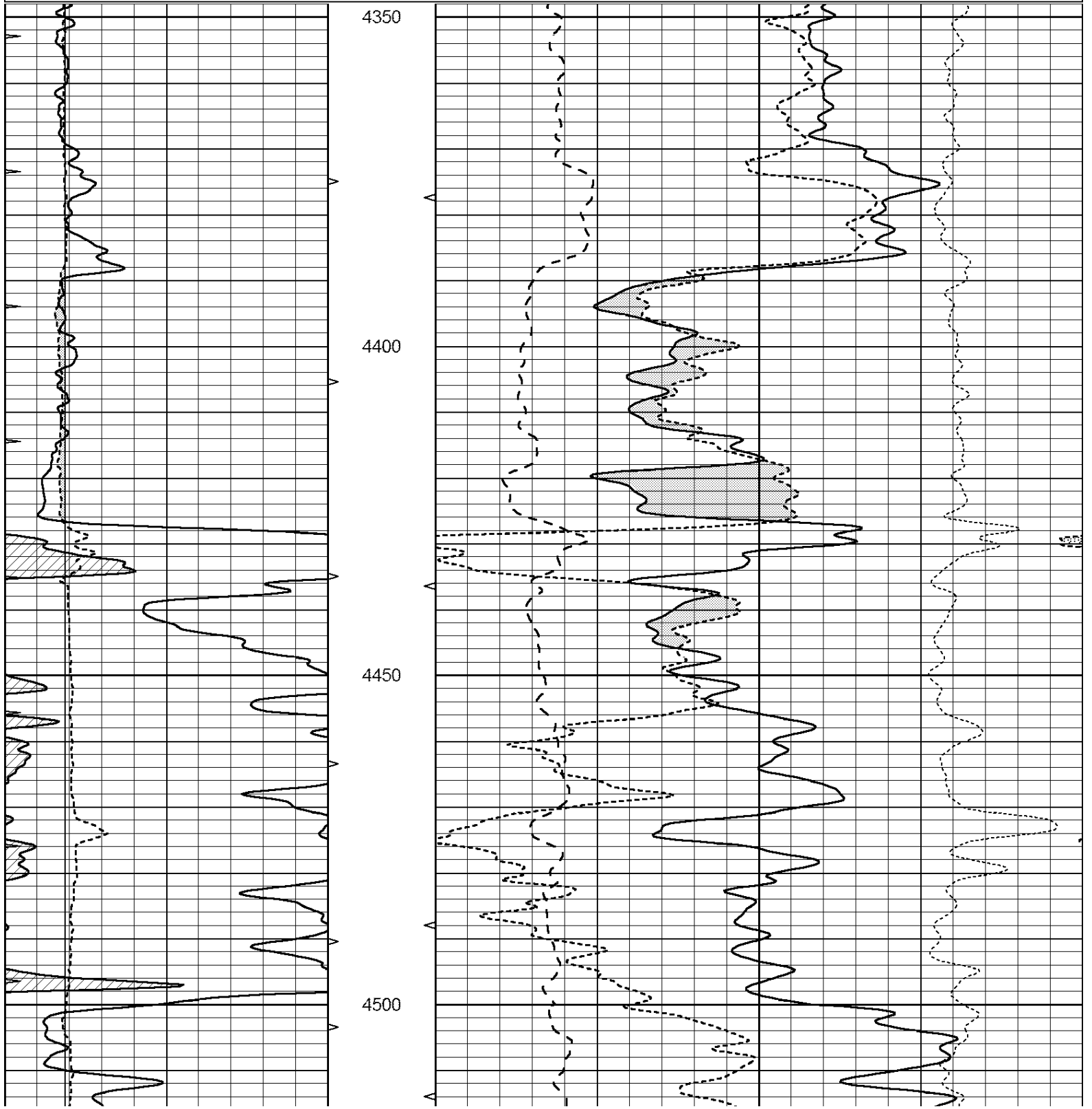


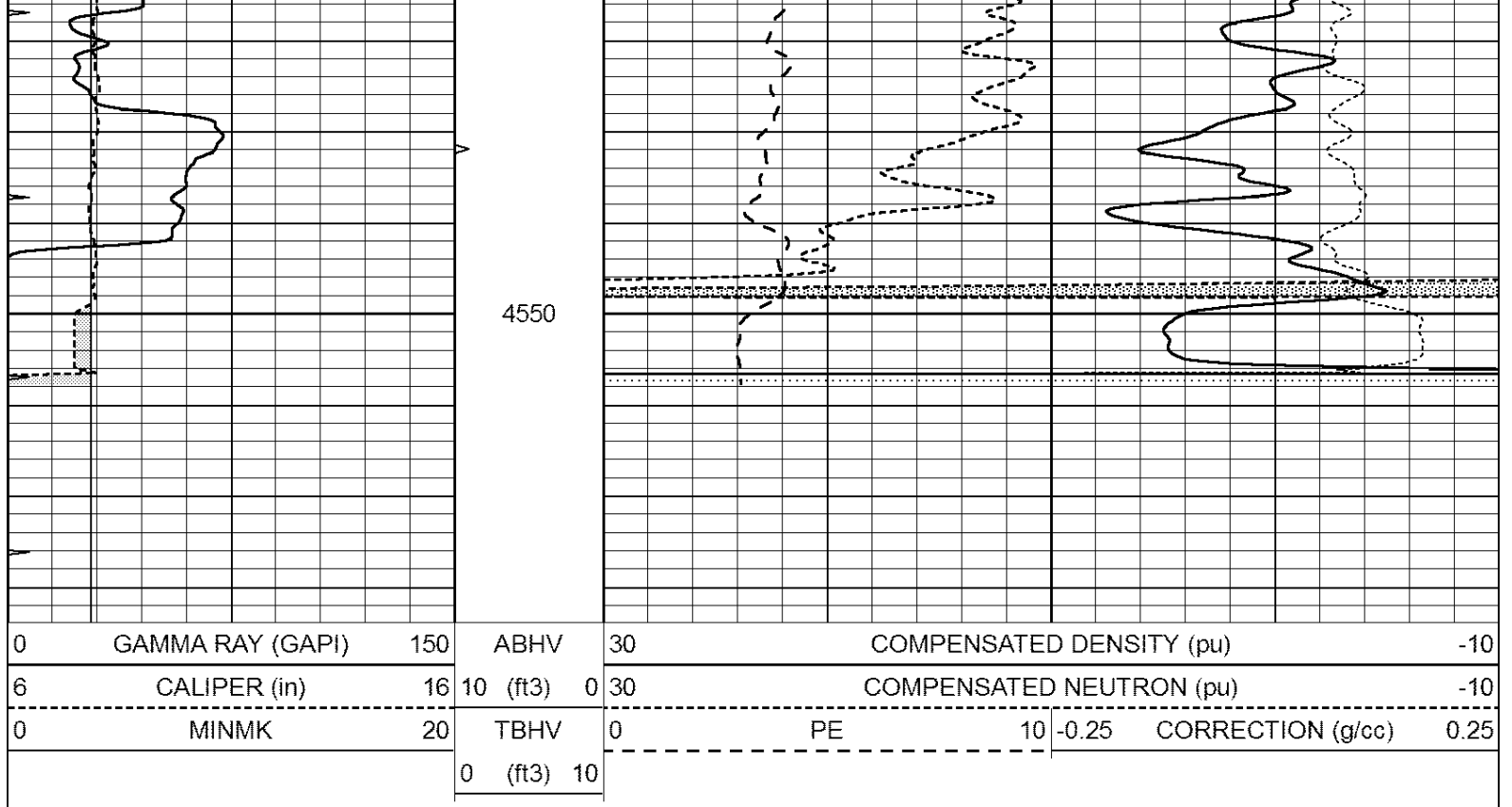
Hays,
Kansas

REPEAT SECTION

Database File: 408755pe.db
Dataset Pathname: pass2.6
Presentation Format: ldt_neu
Dataset Creation: Thu Apr 26 08:49:45 2012
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		





Calibration Report

Database File: 408755pe.db
 Dataset Pathname: pass3.4
 Dataset Creation: Thu Apr 26 10:33:57 2012 by Calc Open-Cased 110302

Dual Induction Calibration Report

Serial-Model: DIL3-GEAR
 Performed: Tue Apr 17 08:21:26 2012

Readings				References			Results	
Loop:	Air	Loop		Air	Loop		m	b
Deep	0.011	0.656	V	0.000	400.000	mmho/m	640.000	3.000
Medium	0.013	0.740	V	0.000	462.500	mmho/m	700.000	-8.000
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: 006 Model: PRB
 Performed Sun Aug 15 09:48:41 2010

Litho Density Calibration

	Background	Magnesium	Aluminum	Sandstone	
Window 1	1686.6	11612.8	3932.0	12718.8	cps
Window 2	1531.4	9204.7	3267.8	9851.9	cps
Window 3	1198.3	4733.6	1952.5	4920.6	cps
Window 4	317.3	321.2	325.9	303.6	cps
Long Space	0.0	7673.3	1736.4	8320.4	cps
Short Space	1.7	2548.5	1657.2	2628.8	cps
Rho		1.7100	2.5900	1.3800	g/cc
Pe			2.5700	1.5500	

Rib Angle	: 43.8	Rib Slope	: 0.961	Density/Spine Ratio	: 0.569
Spine Angle	: 73.8	Spine Slope	: 3.453	Spine Intercept	: -18.1
Caliper					
Low Ref	Readings 4.0	Reference 8.2			
High Ref	5.9	15.0			
	Gain: 3.5		Offset: -5.8		
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:		070559			
Tool Model:		OPEN_GR			
Performed:		Mon Apr 16 22:08:41 2012			
Calibrator Value:		1.0	GAPI		
Background Reading:		0.0	cps		
Calibrator Reading:		1.0	cps		
Sensitivity:		0.3000	GAPI/cps		