



**COMPLETION  
& PRODUCTION  
SERVICES CO.**

**COMPENSATED  
DENSITY / NEUTRON  
PE LOG**

Company SPECIAL ENERGY CORPORATION  
Well HXP #4  
Field CHURCHVIEW  
County EDWARDS  
State KANSAS

Company SPECIAL ENERGY CORPORATION  
Well HXP #4  
Field CHURCHVIEW  
County EDWARDS State KANSAS

Location: API # : 15-047-21649-0000  
3795' FSL & 2310' FWL  
N/2 - NE - SE - NW  
SEC 20 TWP 23S RGE 19W  
Permanent Datum GROUND LEVEL Elevation 2240  
Log Measured From KELLY BUSHING 11' A.G.L.  
Drilling Measured From KELLY BUSHING  
Other Services DIL/MEL  
Elevation K.B. 2251  
D.F. 2249  
G.L. 2240

Date	10/6/14		
Run Number	ONE		
Depth Driller	4775		
Depth Logger	4765		
Bottom Logged Interval	4741		
Top Log Interval	2200		
Casing Driller	8 5/8"@860'		
Casing Logger	856		
Bit Size	7 7/8"		
Type Fluid in Hole	CHEMICAL MUD	CHLORIDES 5,800 PPM	
Density / Viscosity	9.2/50		
pH / Fluid Loss	9.5/10.0		
Source of Sample	FLOWLINE		
Rim @ Meas. Temp	.650@86F		
Rmf @ Meas. Temp	.488@86F		
Rmc @ Meas. Temp	.780@86F		
Source of Rmf / Rmc	MEASUREMENT		
Rim @ BHT	.454@123F		
Time Circulation Stopped	3 HOURS		
Time Logger on Bottom	9:15 P.M.		
Maximum Recorded Temperature	123F		
Equipment Number	4854		
Location	HAYS, KANSAS		
Recorded By	JEFF LUEBBERS		
Witnessed By	ROD ANDERSEN	GEORGE UTLEY	

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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**

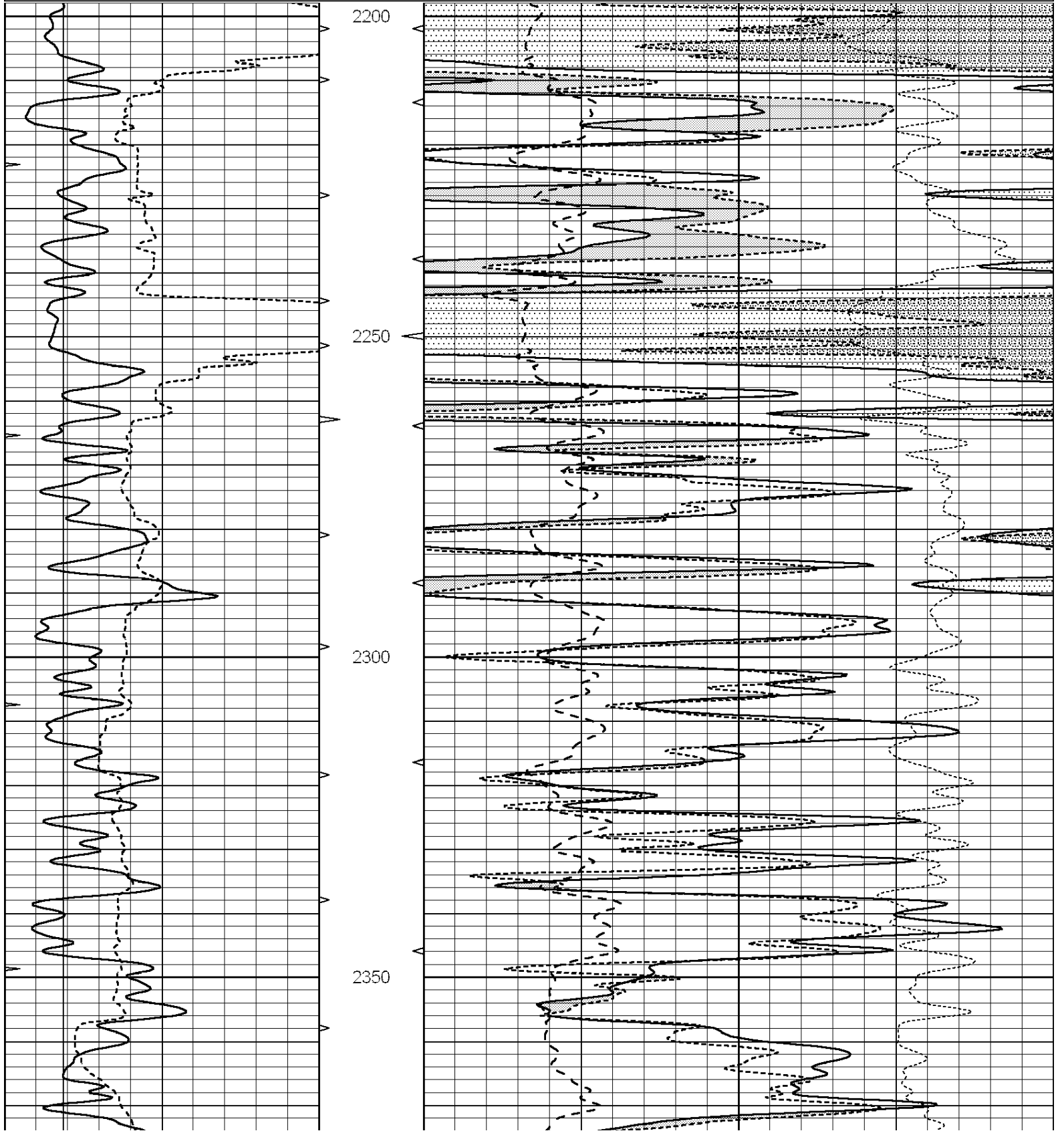
THANK YOU FOR USING "NABORS" HAYS, KANSAS (785) 628-6395  
DIRECTIONS  
ROZEL, KS. (156 & 280TH AVE.), 10S. TO "RD. D", 1 1/2W., S. INTO

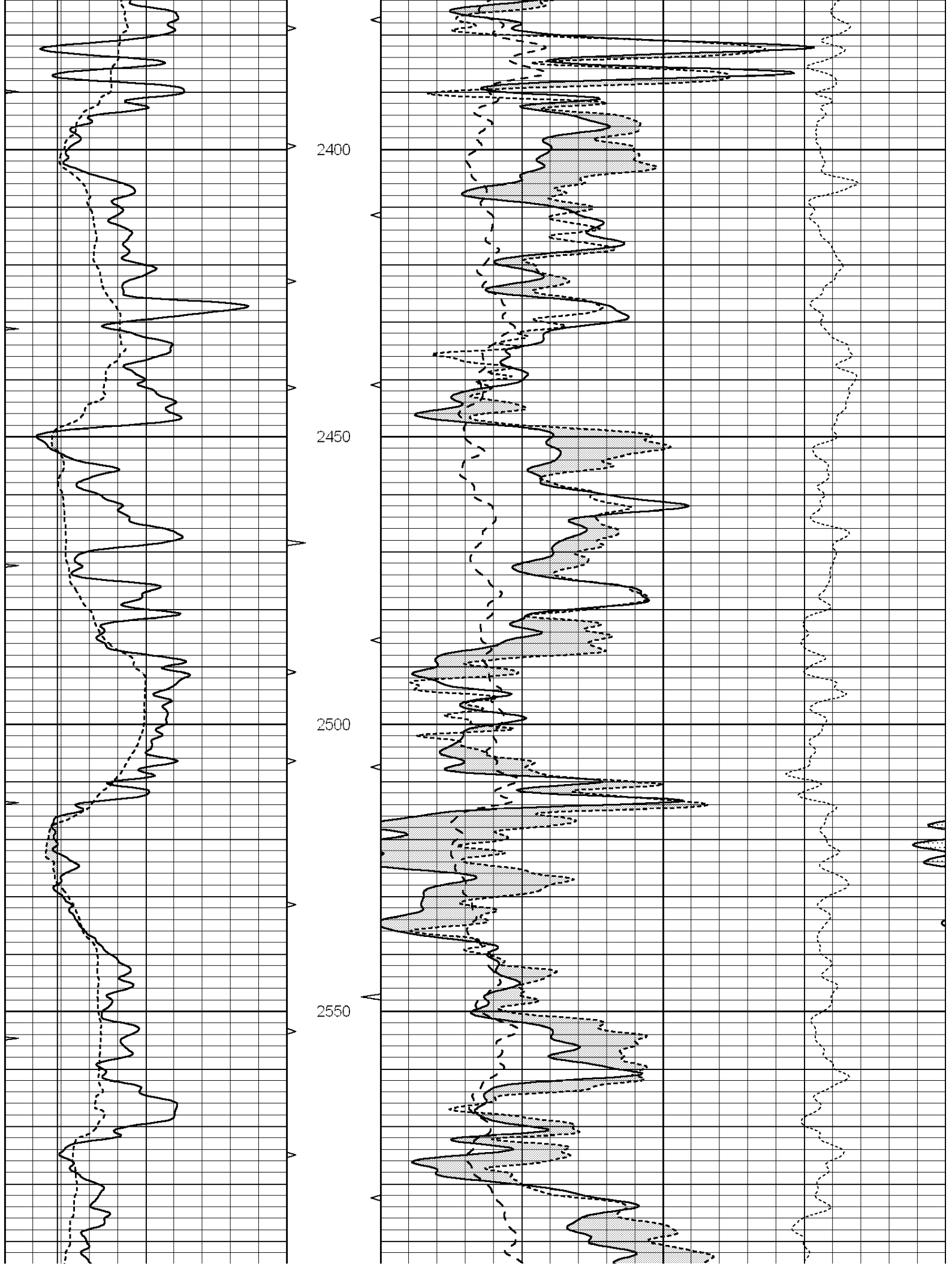


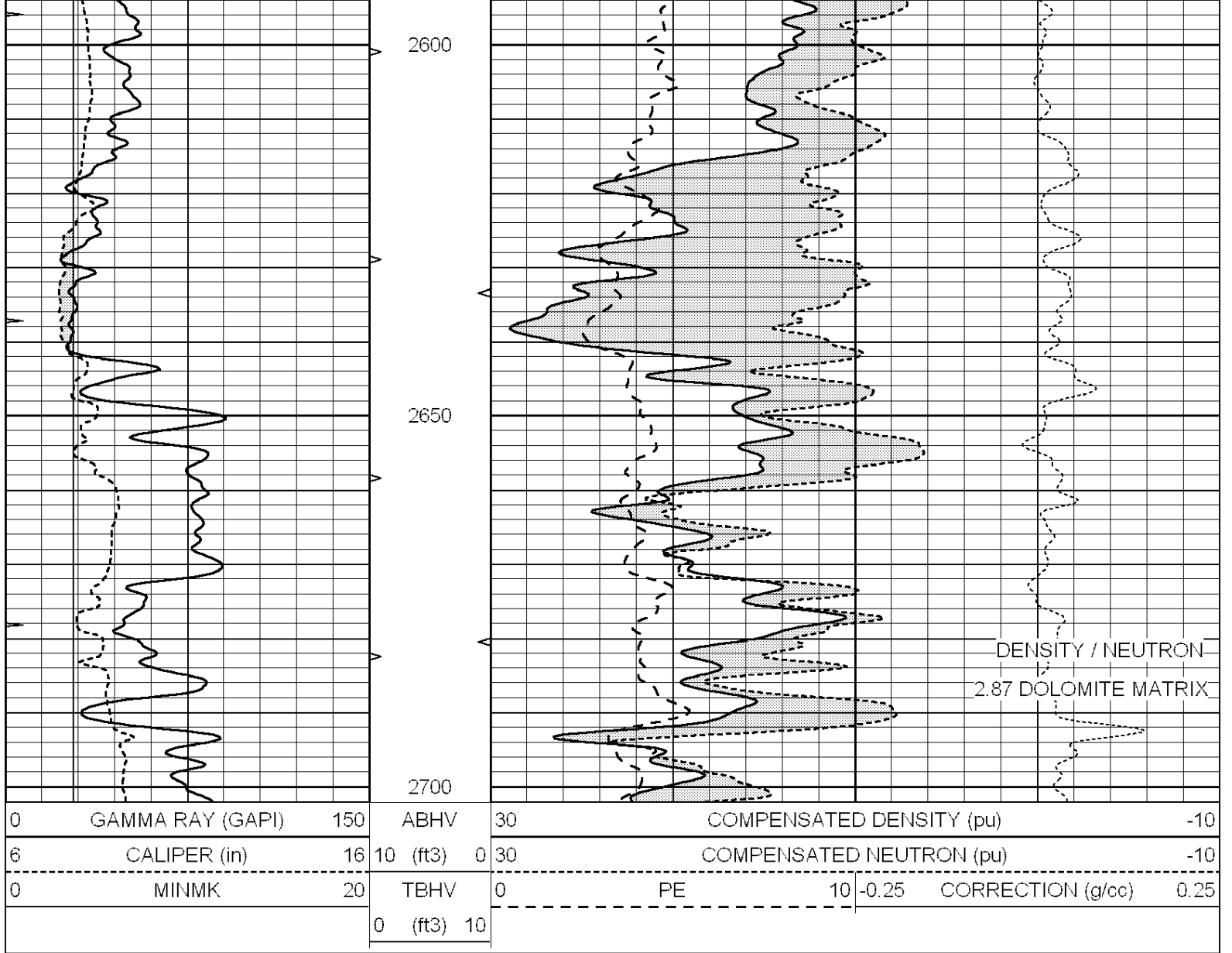
**DOLOMITE MATRIX**

Database File: 25891pe.db  
 Dataset Pathname: pass4.5  
 Presentation Format: ldt\_neu  
 Dataset Creation: Mon Oct 06 23:12:13 2014  
 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			





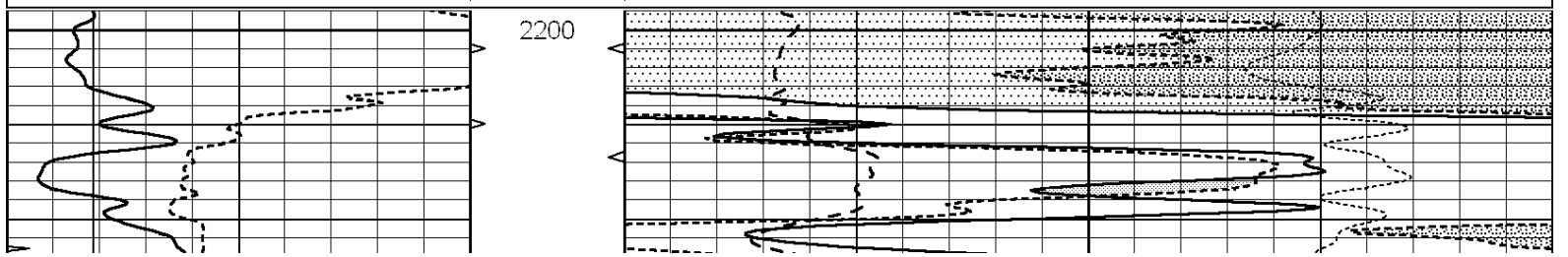


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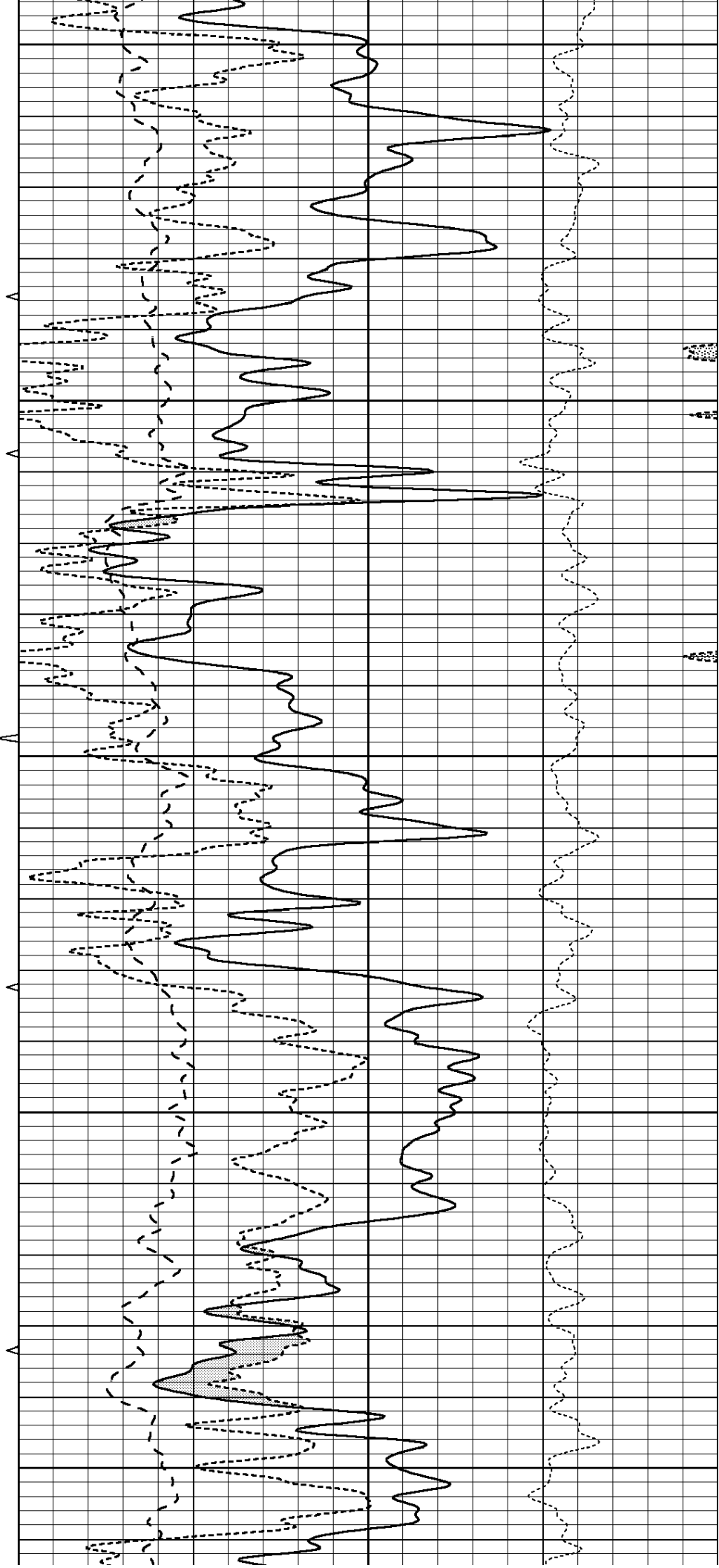
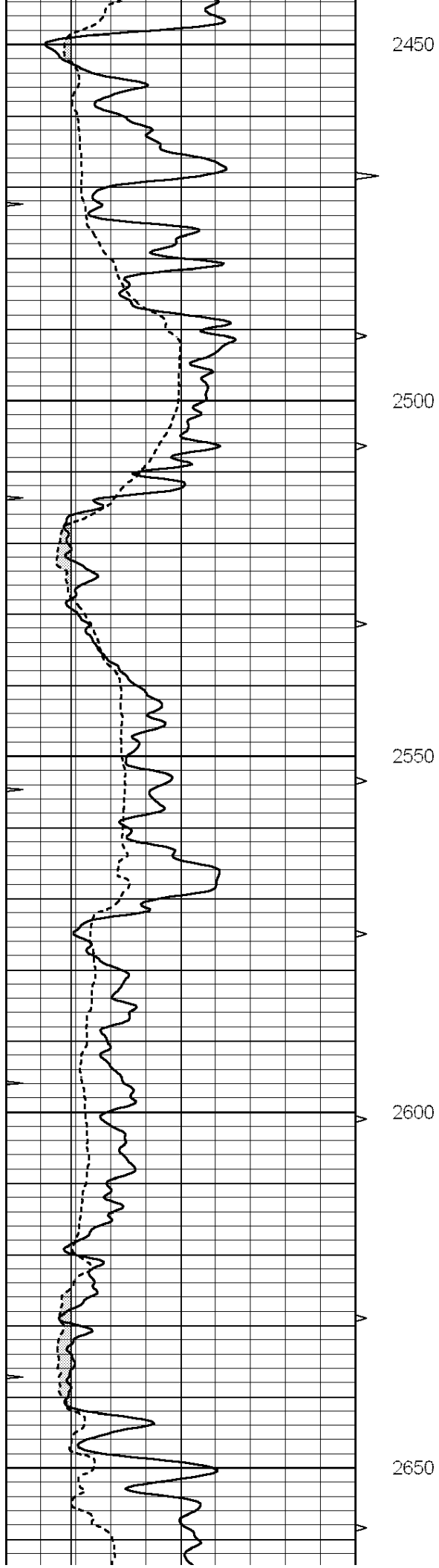
# MAIN SECTION

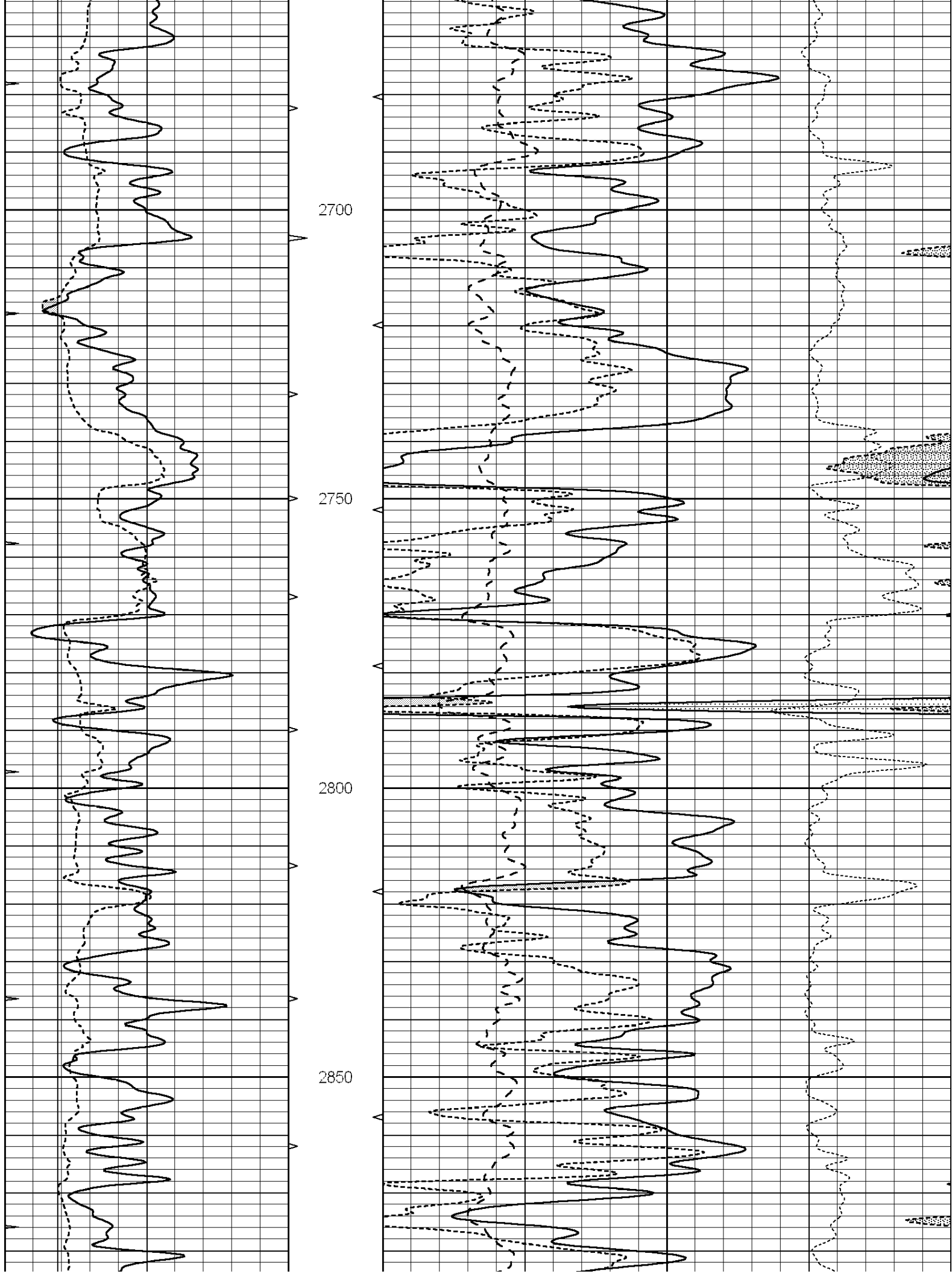
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 Dataset Pathname: pass4.7  
 Presentation Format: ldt\_neu  
 Dataset Creation: Mon Oct 06 23:23:19 2014 by Calc SOC 120430  
 Charted by: Depth in Feet scaled 1:240

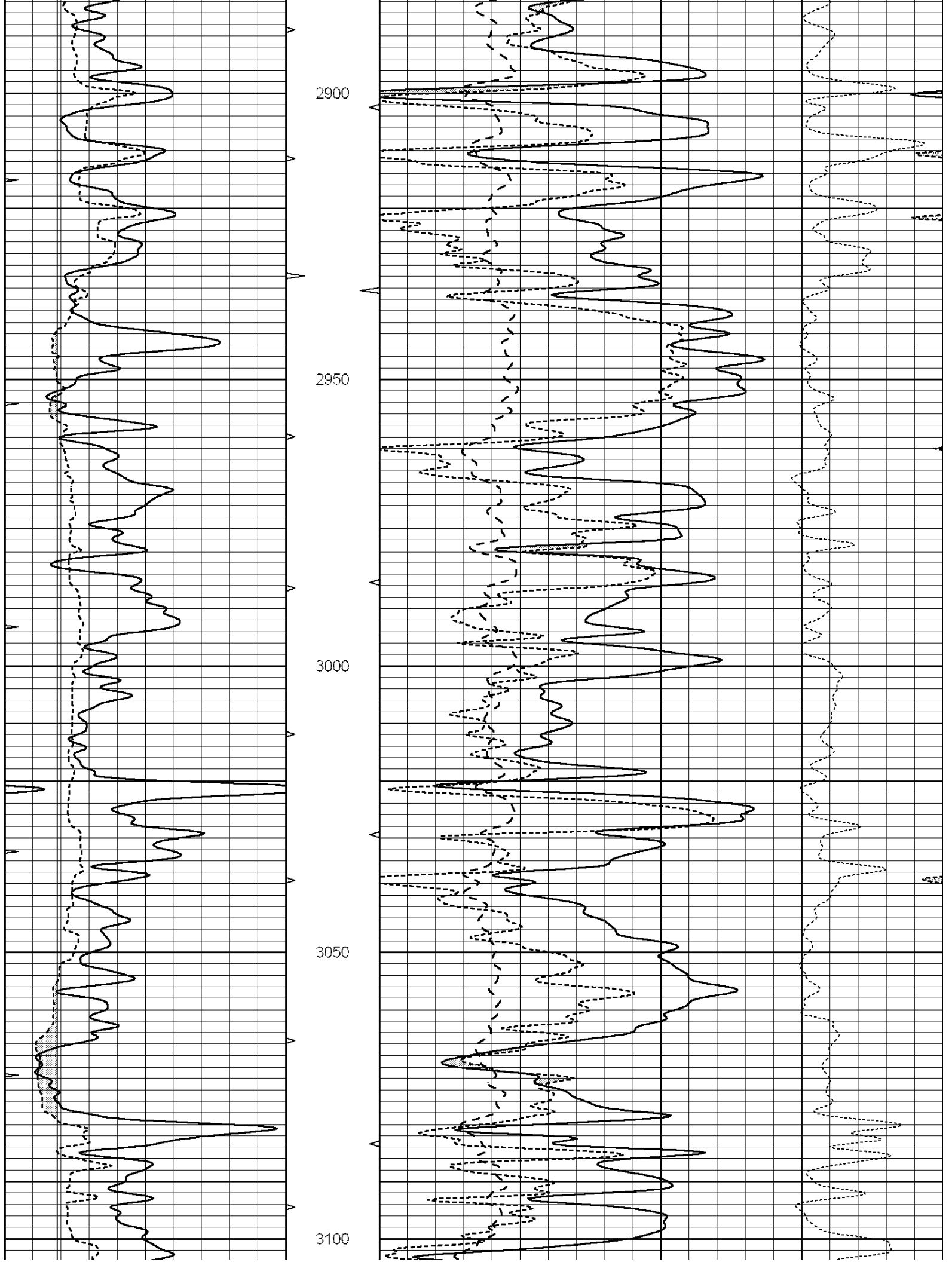
0	GAMMA RAY (GAPI)	150	ABHV	30	COMPENSATED DENSITY (pu)	-10
6	CALIPER (in)	16	10 (ft3)	0 30	COMPENSATED NEUTRON (pu)	-10
0	MINMK	20	TBHV	0	PE	10 -0.25
			0 (ft3)	10		CORRECTION (g/cc) 0.25

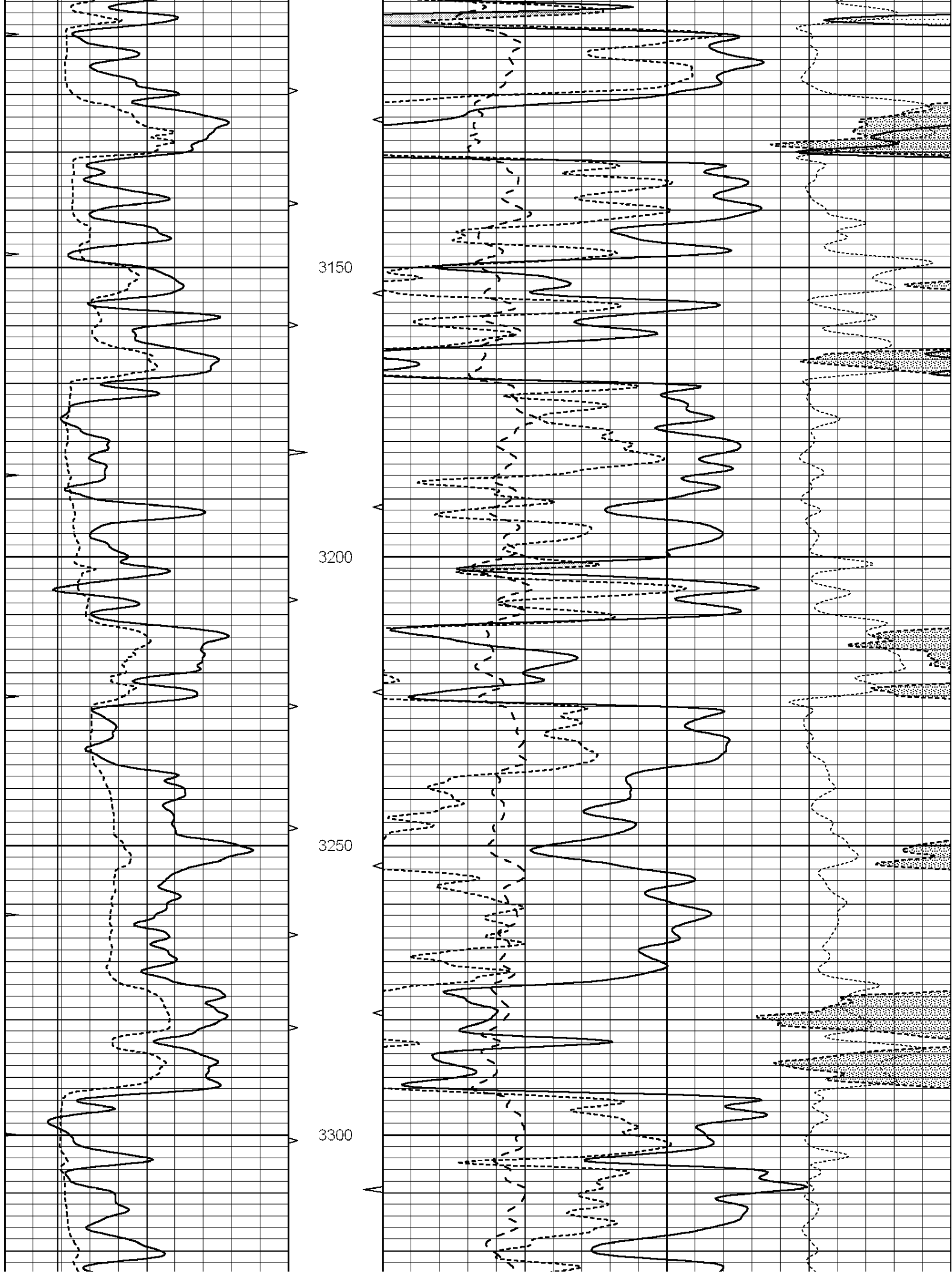


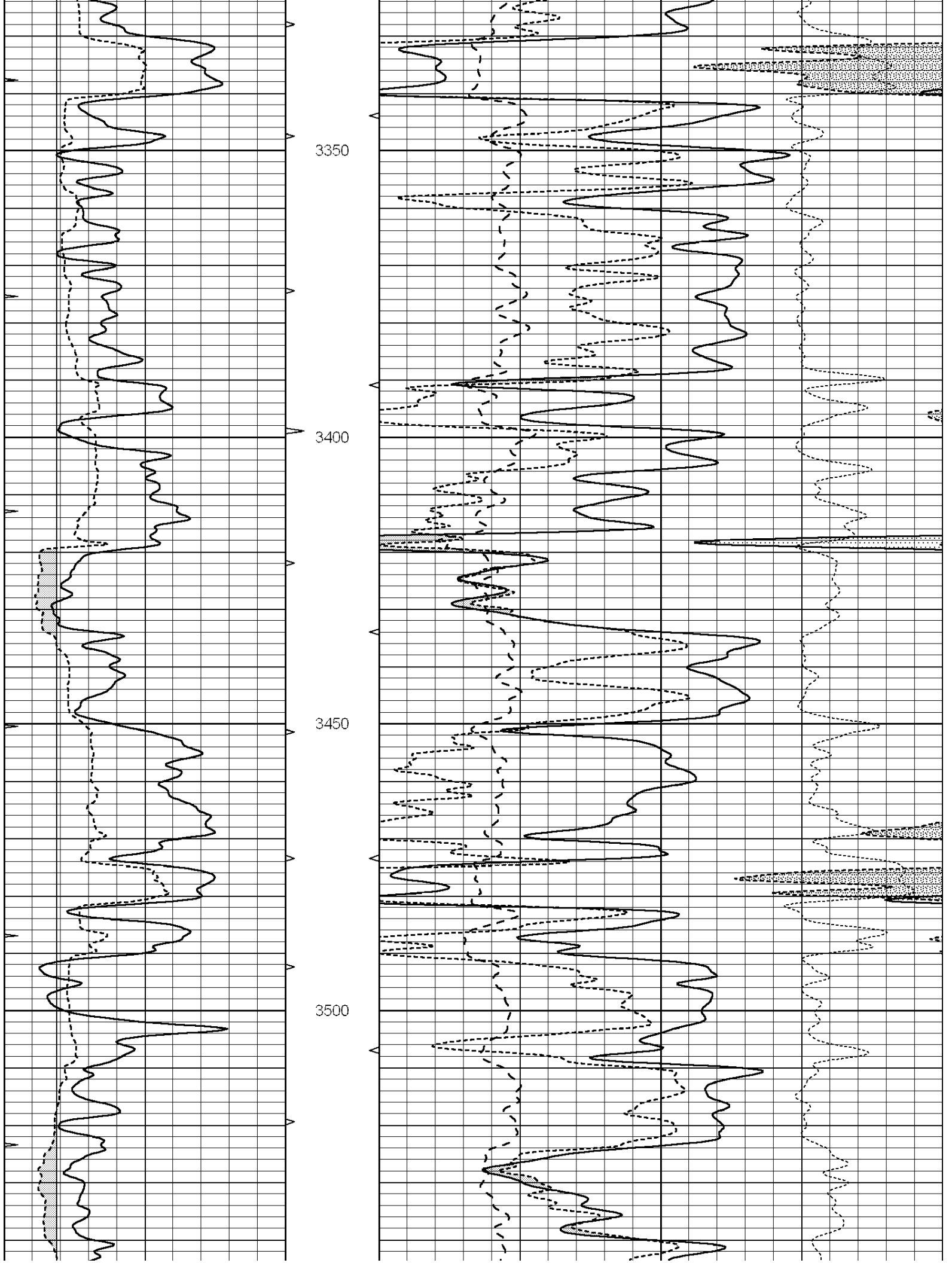


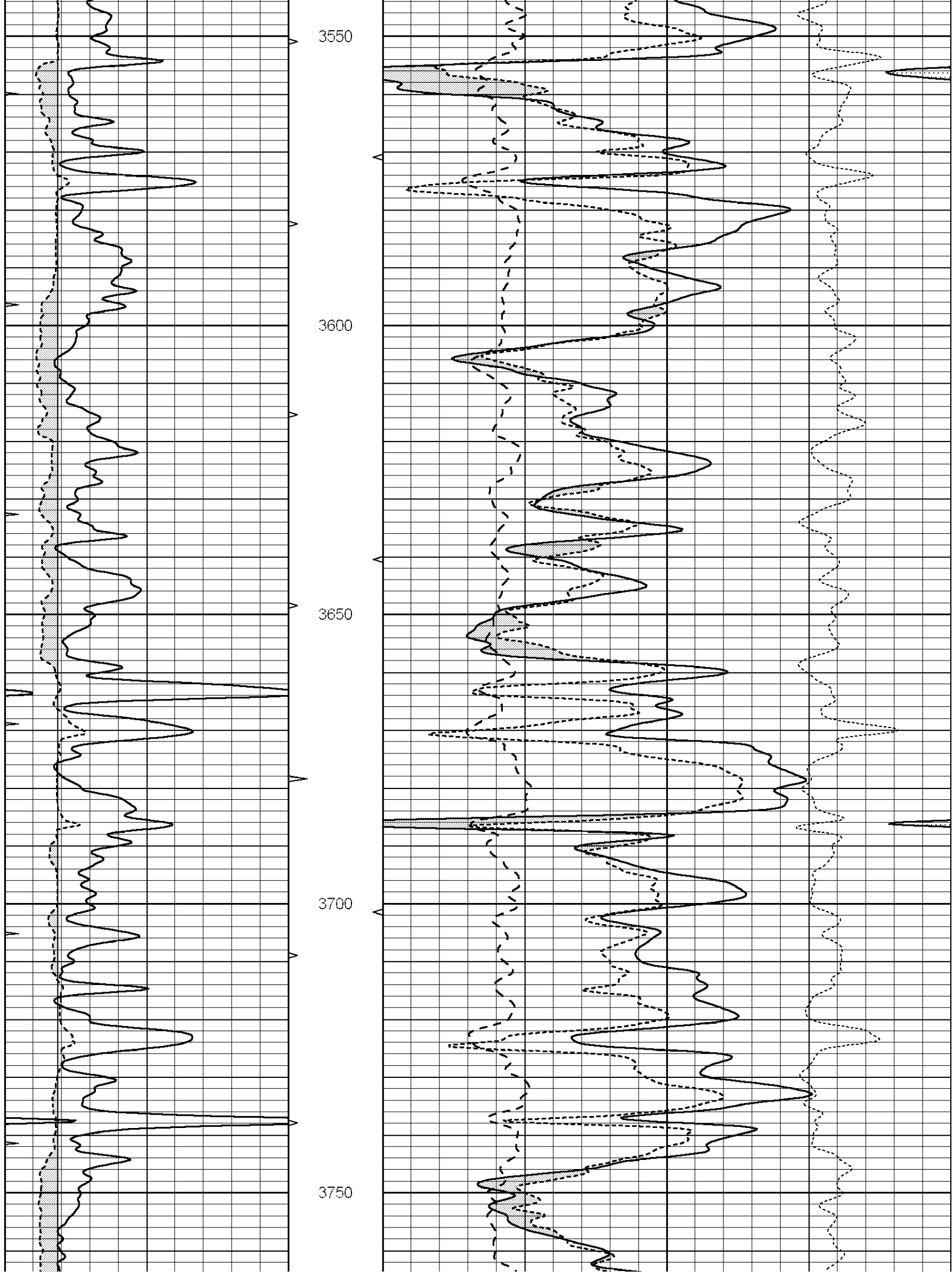


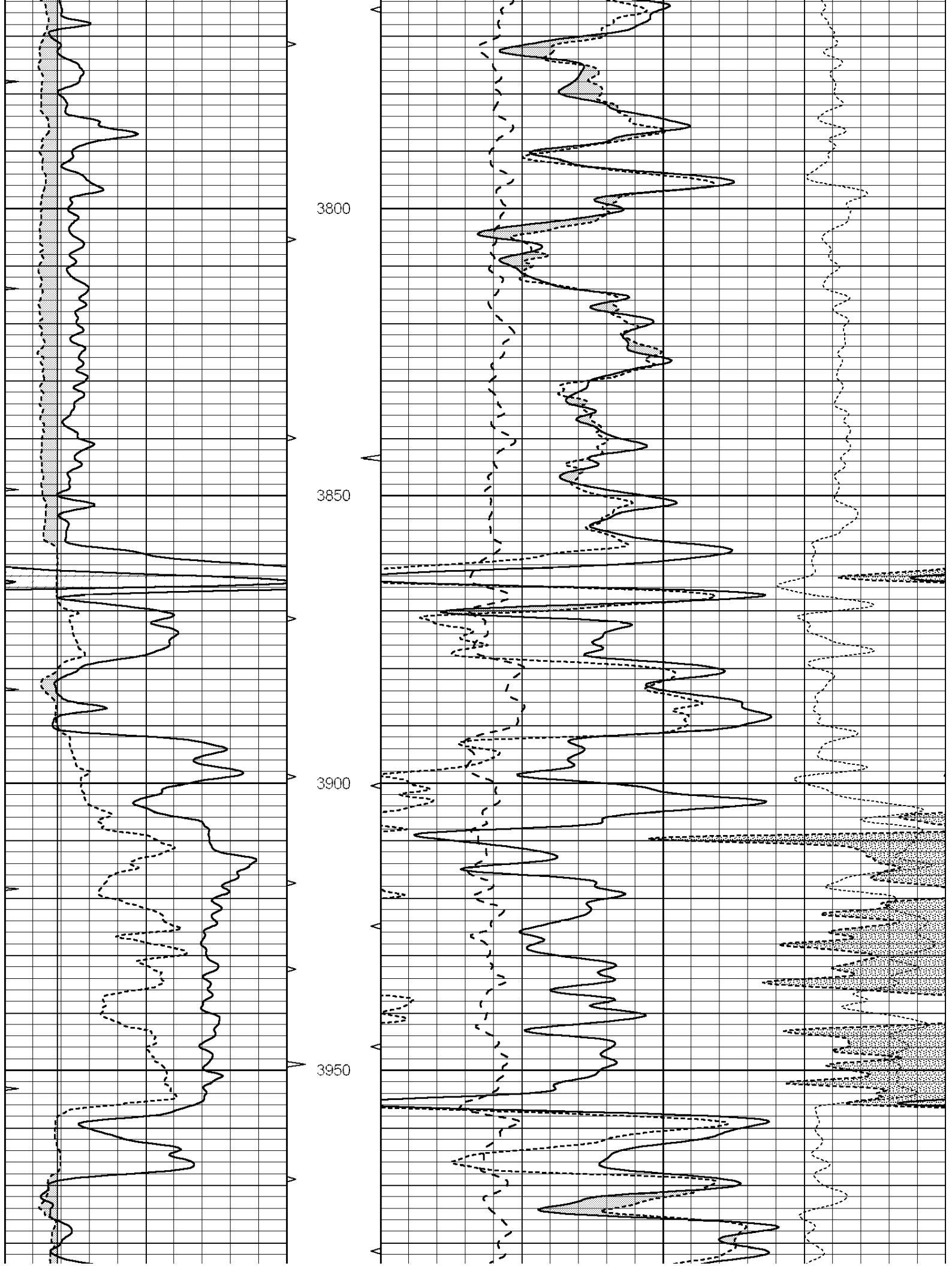


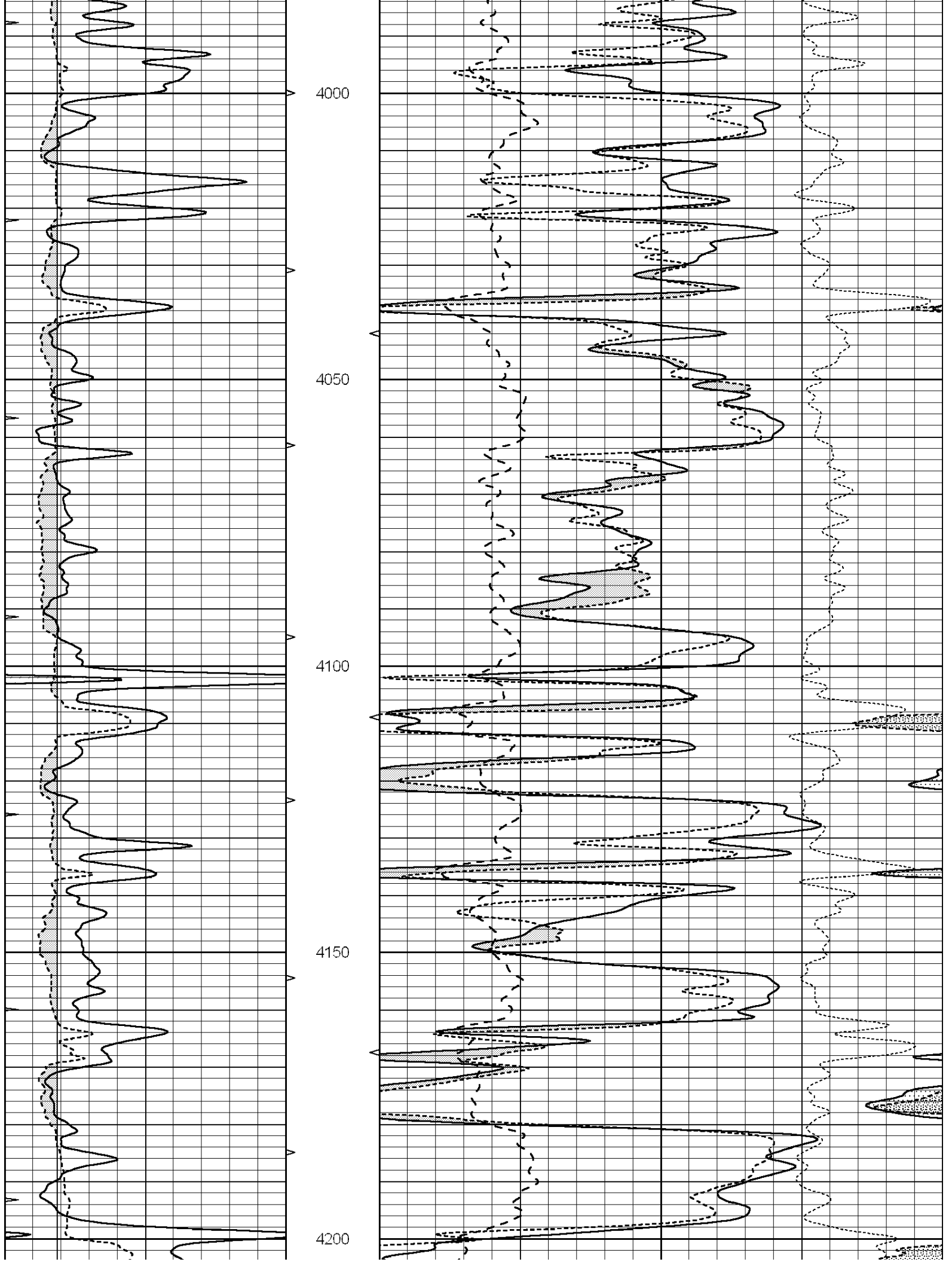


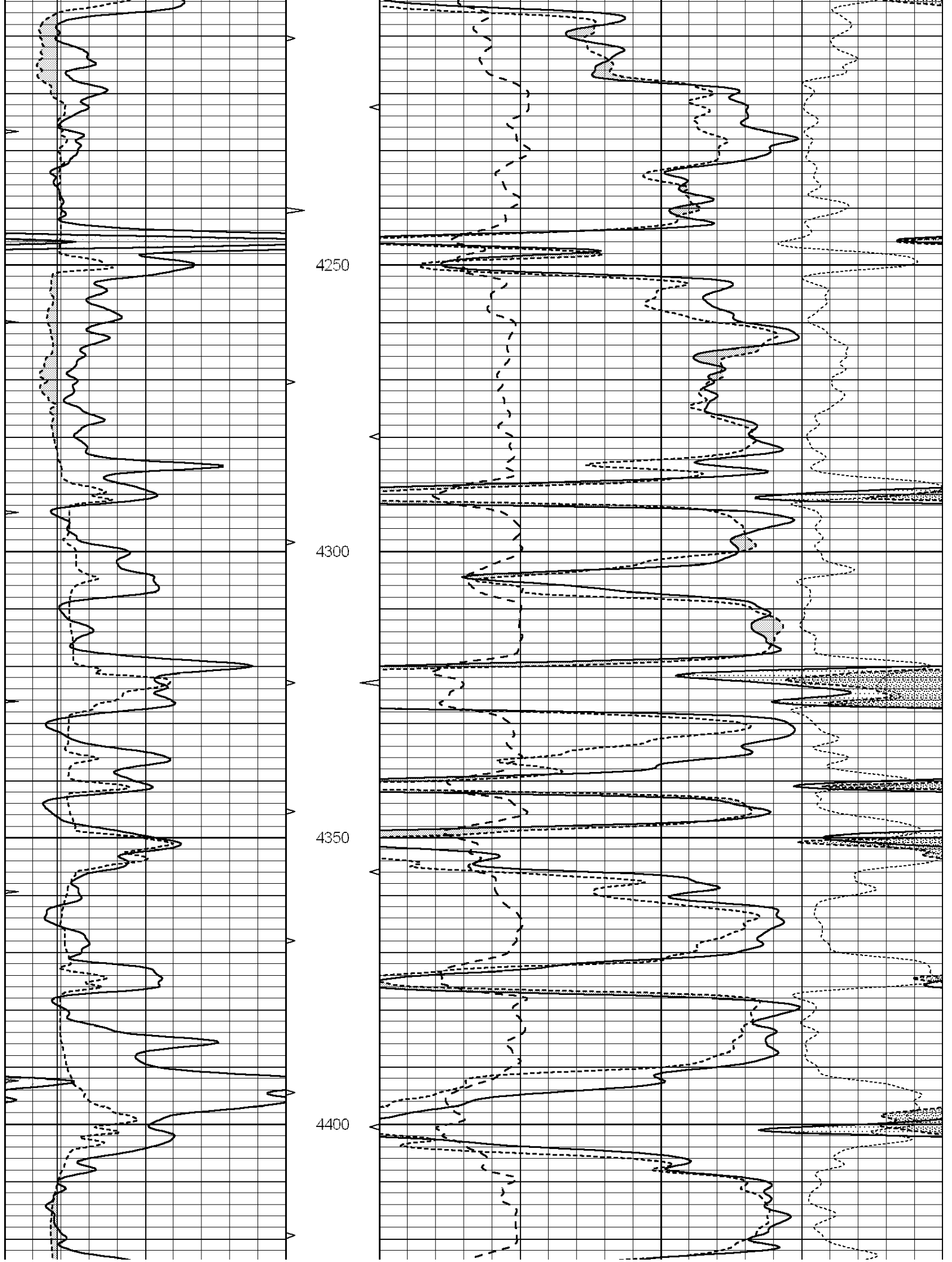


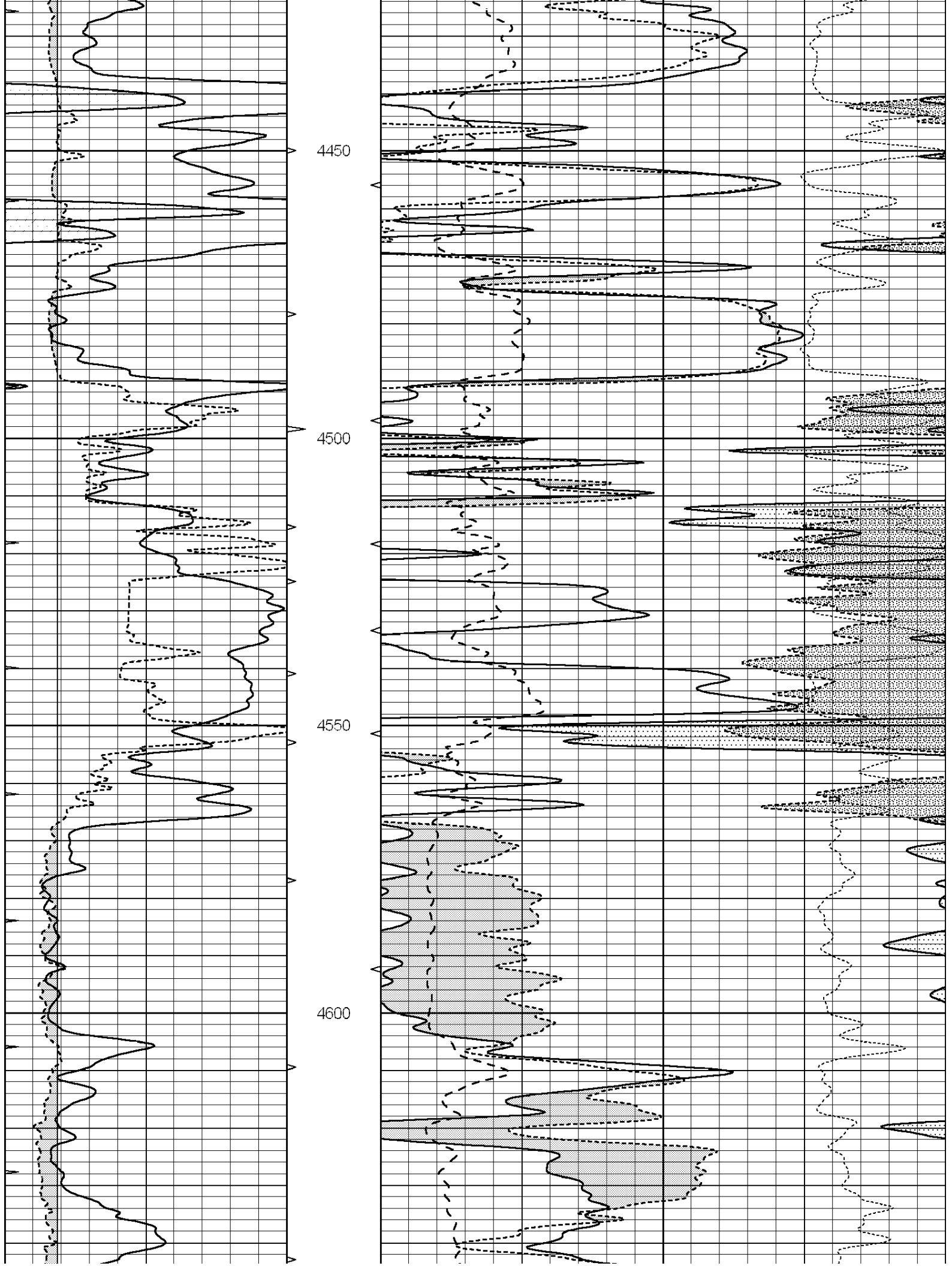


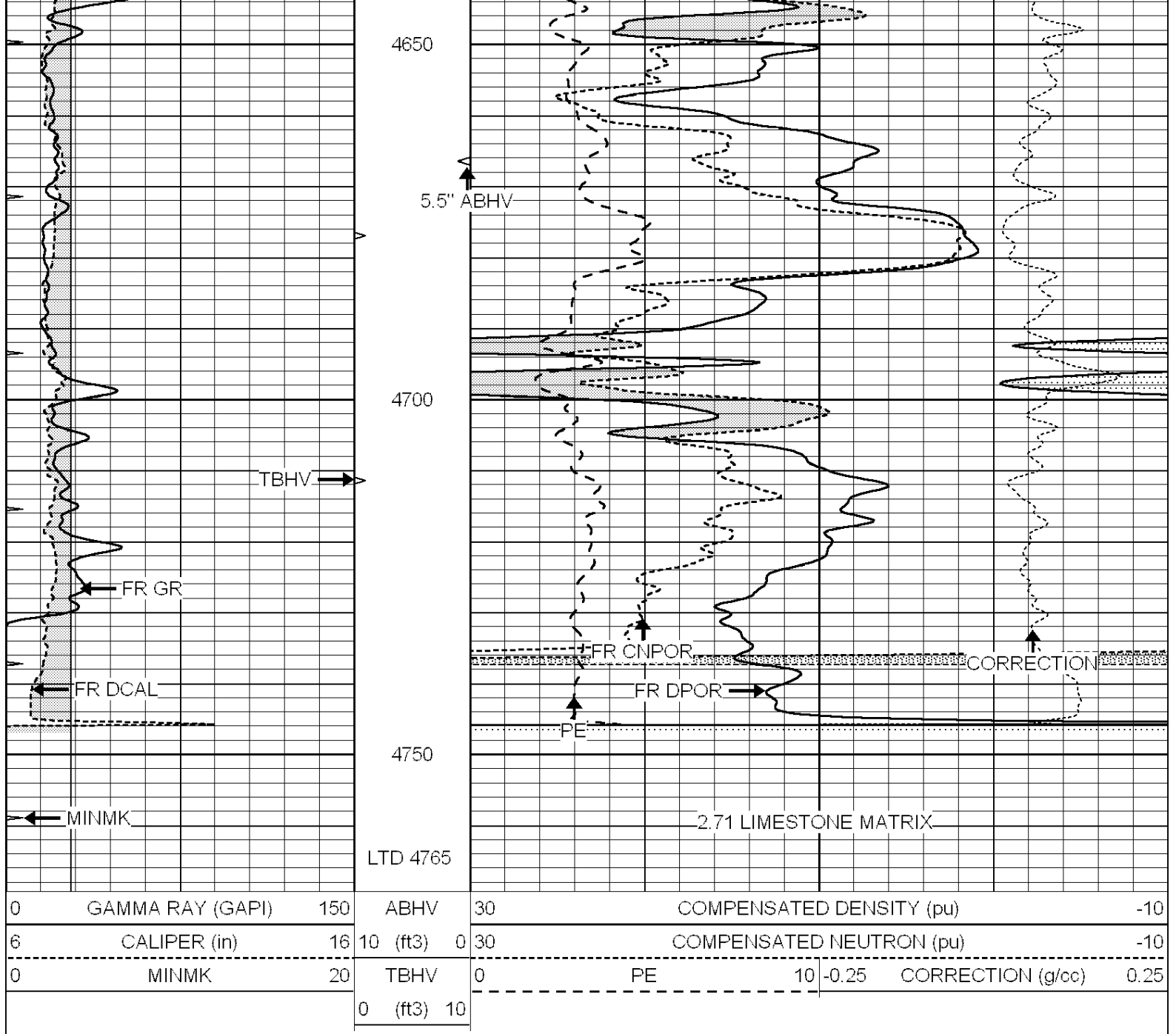






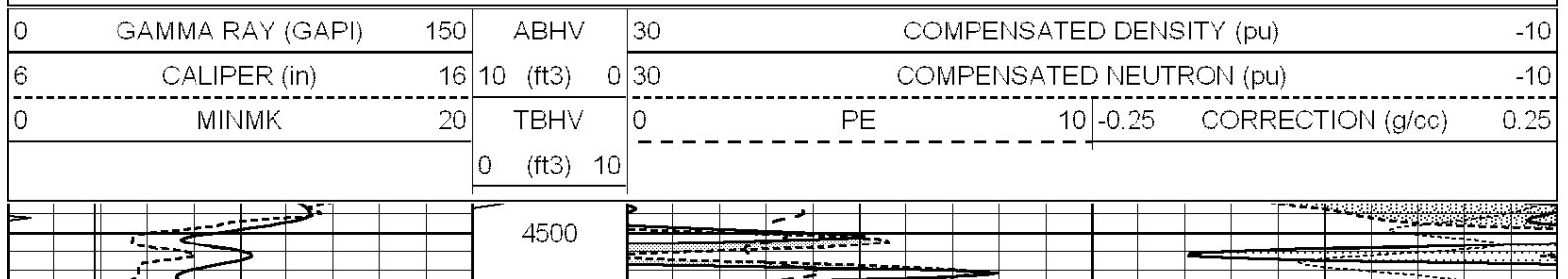


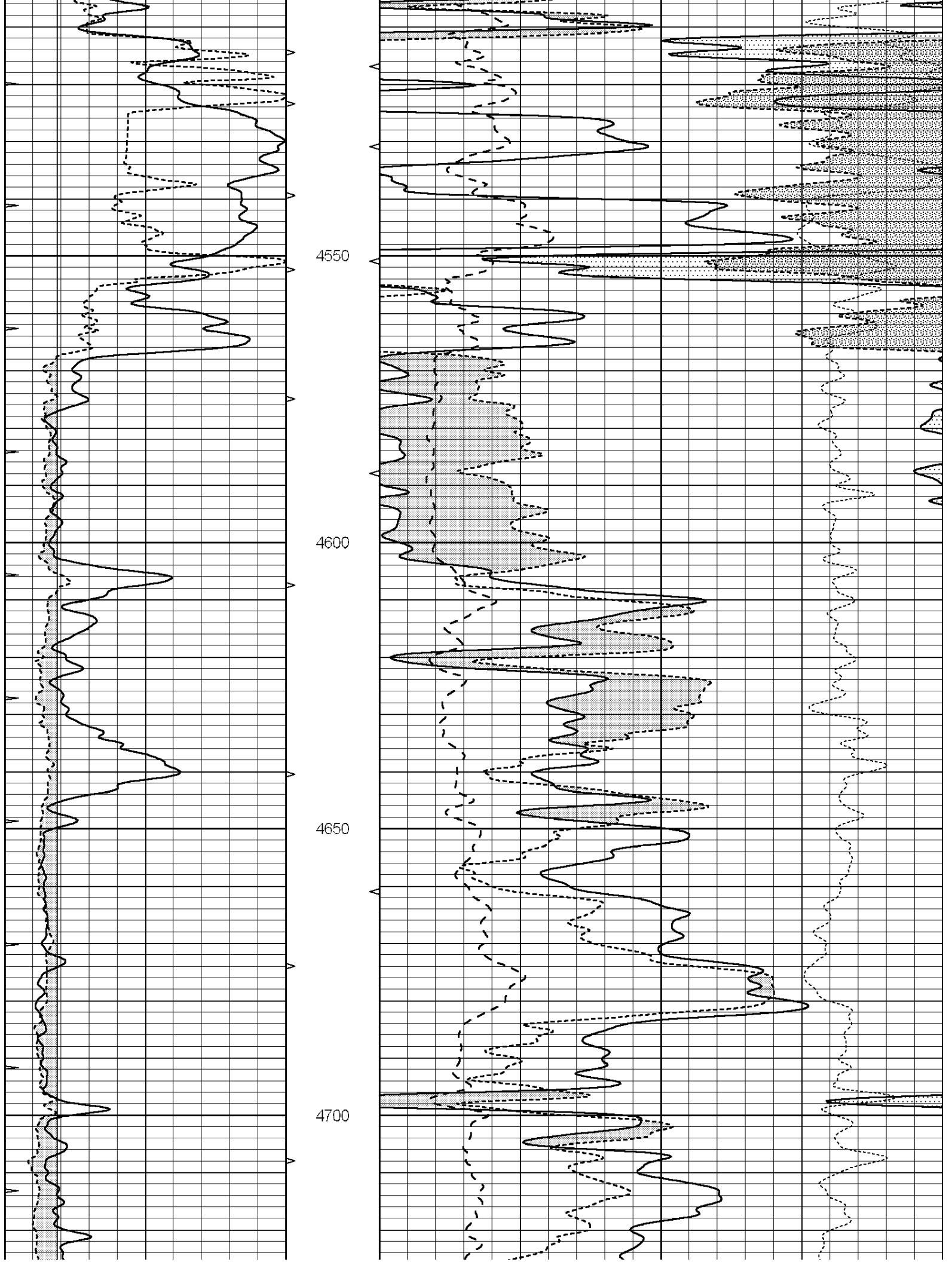


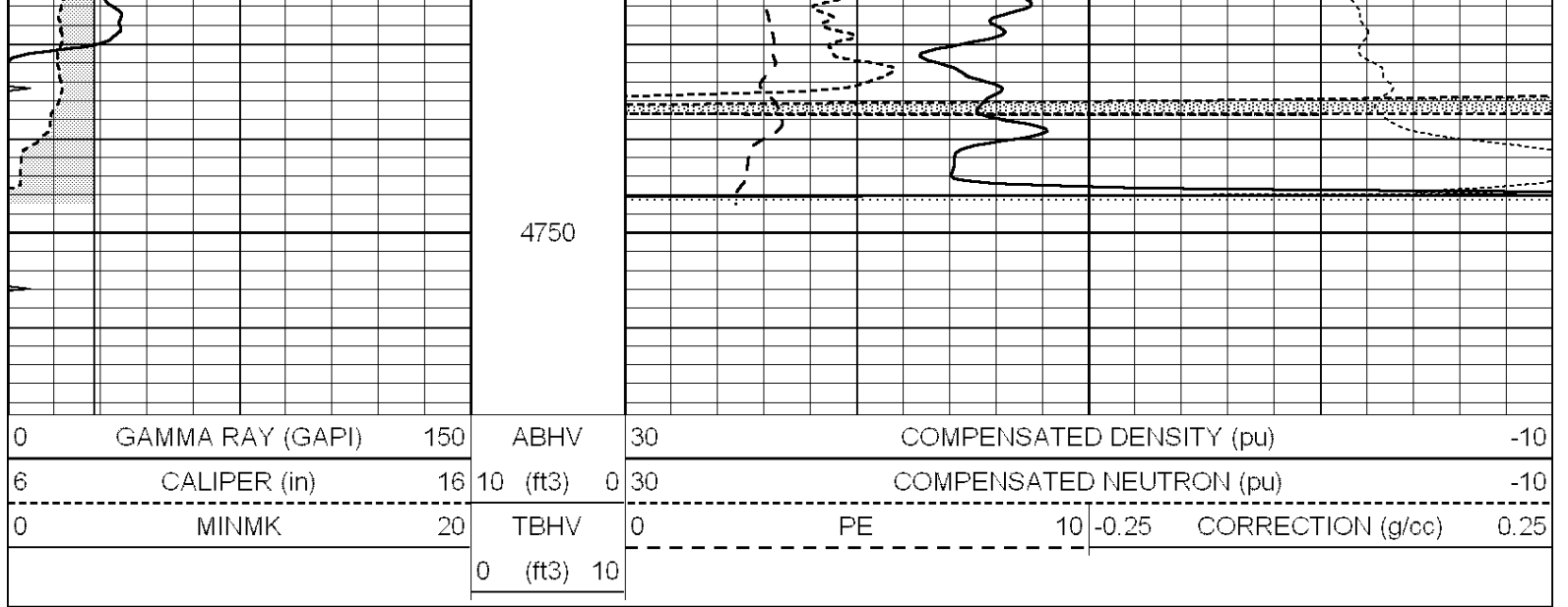


# REPEAT SECTION

Database File: 25891pe.db  
 Dataset Pathname: pass3.6  
 Presentation Format: ldt\_neu  
 Dataset Creation: Mon Oct 06 22:00:53 2014 by Calc SOC 120430  
 Charted by: Depth in Feet scaled 1:240







### Calibration Report

Database File: 25891pe.db  
 Dataset Pathname: pass4.7  
 Dataset Creation: Mon Oct 06 23:23:19 2014 by Calc SOC 120430

### Dual Induction Calibration Report

Serial-Model: PROBE9-DILG  
 Surface Cal Performed: Fri Sep 26 22:43:29 2014  
 Downhole Cal Performed: Mon Jul 28 12:02:56 2008  
 After Survey Verification Performed: Mon Jul 28 12:02:56 2008

#### Surface Calibration

Loop:	Readings			References			Results	
	Air	Loop		Air	Loop		m	b
Deep	-0.014	0.629	V	0.000	400.000	mmho/m	670.000	-14.000
Medium	0.039	0.728	V	0.000	464.000	mmho/m	670.000	-27.000
Internal:	Zero			Zero			m	
	Cal			Cal			b	
Deep	0.011	0.610	V	0.000	400.000	mmho/m	667.135	-7.256
Medium	0.005	0.712	V	0.000	464.000	mmho/m	655.677	-3.102

#### Downhole Calibration

	Readings			References			Results	
	Zero	Cal		Zero	Cal		m'	b'
Deep	0.000	0.000	mmho/m	14.508	388.384	mmho/m	1.000	0.000
Medium	0.000	0.000	mmho/m	166.367	504.400	mmho/m	1.000	0.000
LL3		7.500	V		1400.000	Ohm-m		
		0.000	V		20.000	Ohm-m		
		-7.200	V		4000.000	mmho-m		

#### After Survey Verification

	Readings			Targets			Results	
	Zero	Cal		Zero	Cal		m'	b'
Deep	0.000	0.000	mmho/m	0.000	0.000	mmho/m	0.000	0.000
Medium	0.000	0.000	mmho/m	0.000	0.000	mmho/m	0.000	0.000
LL3		1.000	Ohm-m		1.000	Ohm-m		
		0.000	Ohm-m		0.000	Ohm-m		
		1.000	mmho-m		1.000	mmho-m		

Master Calibration

Performed Tue Sep 08 14:14:44 2009

	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		0.0000	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

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	

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:	Mon Jun 30 21:53:39 2014	
Calibrator Value:	1.0	GAPI
Background Reading:	0.0	cps
Calibrator Reading:	1.0	cps
Sensitivity:	0.2800	GAPI/cps