

**NABORS****COMPLETION
& PRODUCTION
SERVICES CO.****COMPENSATED
DENSITY / NEUTRON
PE LOG**

Company	MULL DRILLING COMPANY, INC.	Company	MULL DRILLING COMPANY, INC.
Well	#1-16 HENDERSON	Well	#1-16 HENDERSON
Field	WILDCAT	Field	WILDCAT
County	NESS	County	NESS
State	KANSAS	State	KANSAS
Location:	API # : 15-135-25500-0000 413' FNL & 12972' FWL	Other Services DIL/MEL SONIC	
Permanent Datum	GROUND LEVEL	Elevation	2436
Log Measured From	KELLY BUSHING 8' A.G.L.		
Drilling Measured From	KELLY BUSHING		
SEC 16 TWP 16S RGE 23W			
Date	11/7/12		
Run Number	ONE		
Depth Driller	4500		
Depth Logger	4500		
Bottom Logged Interval	4476		
Top Log Interval	3700		
Casing Driller	8 5/8"@233'		
Casing Logger	234		
Bit Size	7 7/8"		
Type Fluid in Hole	CHEMICAL MUD	CHLORIDES 8,200 PPM	
Density / Viscosity	9.6/45		
pH / Fluid Loss	9.5/10.0		
Source of Sample	FLOWLINE		
Rim @ Meas. Temp	.55@80F		
Rmf @ Meas. Temp	.413@80F		
Rmc @ Meas. Temp	.660@80F		
Source of Rmf / Rmc	MEASUREMENT		
Rim @ BHT	.364@121F		
Time Circulation Stopped	2.5 HOURS		
Time Logger on Bottom	6:30 A.M.		
Maximum Recorded Temperature	121F		
Equipment Number	4854		
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 "NABORS" HAYS, KANSAS (785) 628-6395
DIRECTIONS
RANSOM, KS. (HWY 4 & 283) 2N. ON HWY 283 TO "RD. 280", 1E., S. INTO

**NABORS****COMPLETION
& PRODUCTION****MAIN SECTION**

Database File:

010007pe.db

Dataset Pathname:

pass3.5

Presentation Format:

ldt_neu

Dataset Creation:

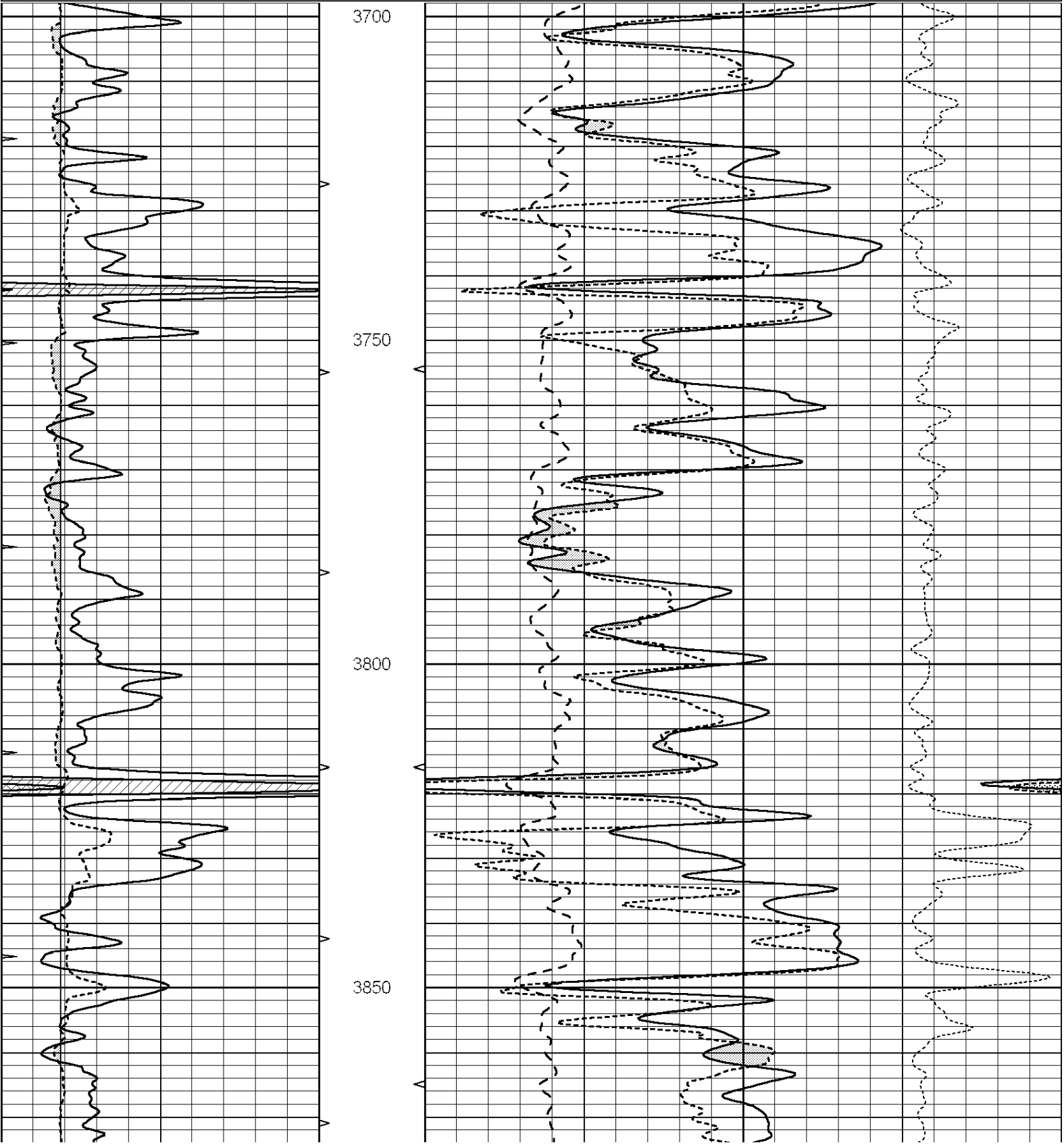
Wed Nov 07 08:06:55 2012 by Calc SOC 120430

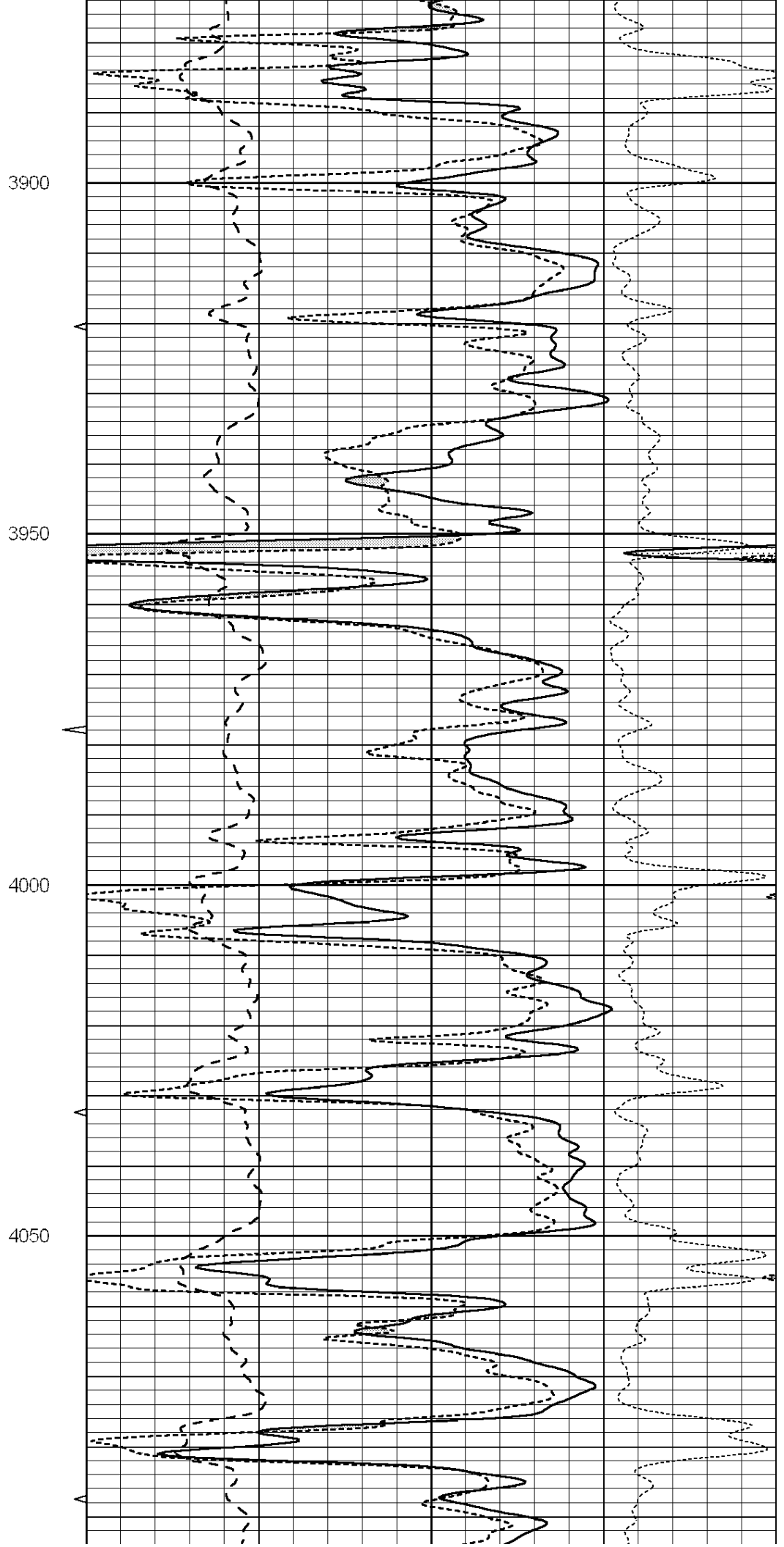
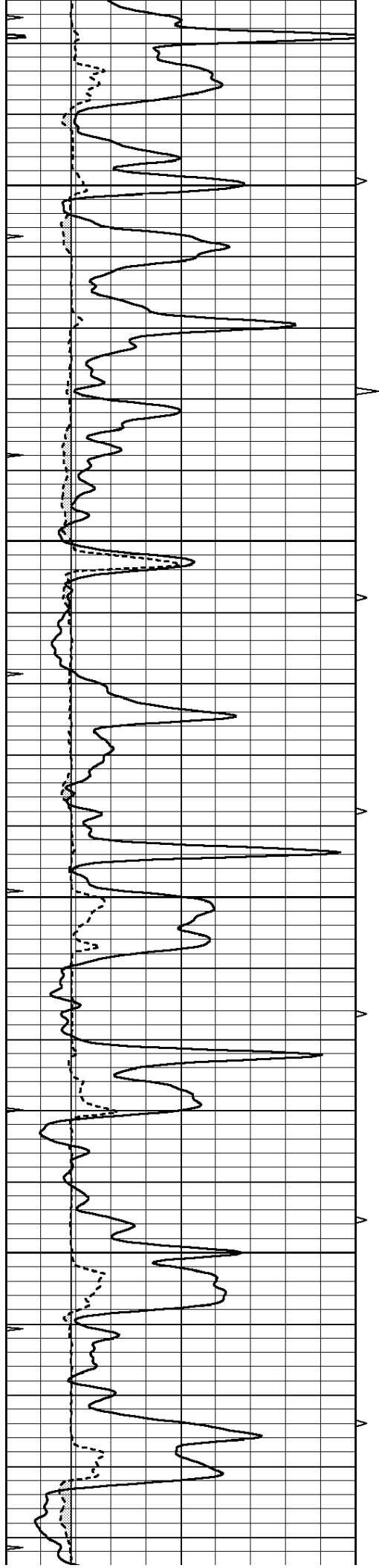
Charted by:

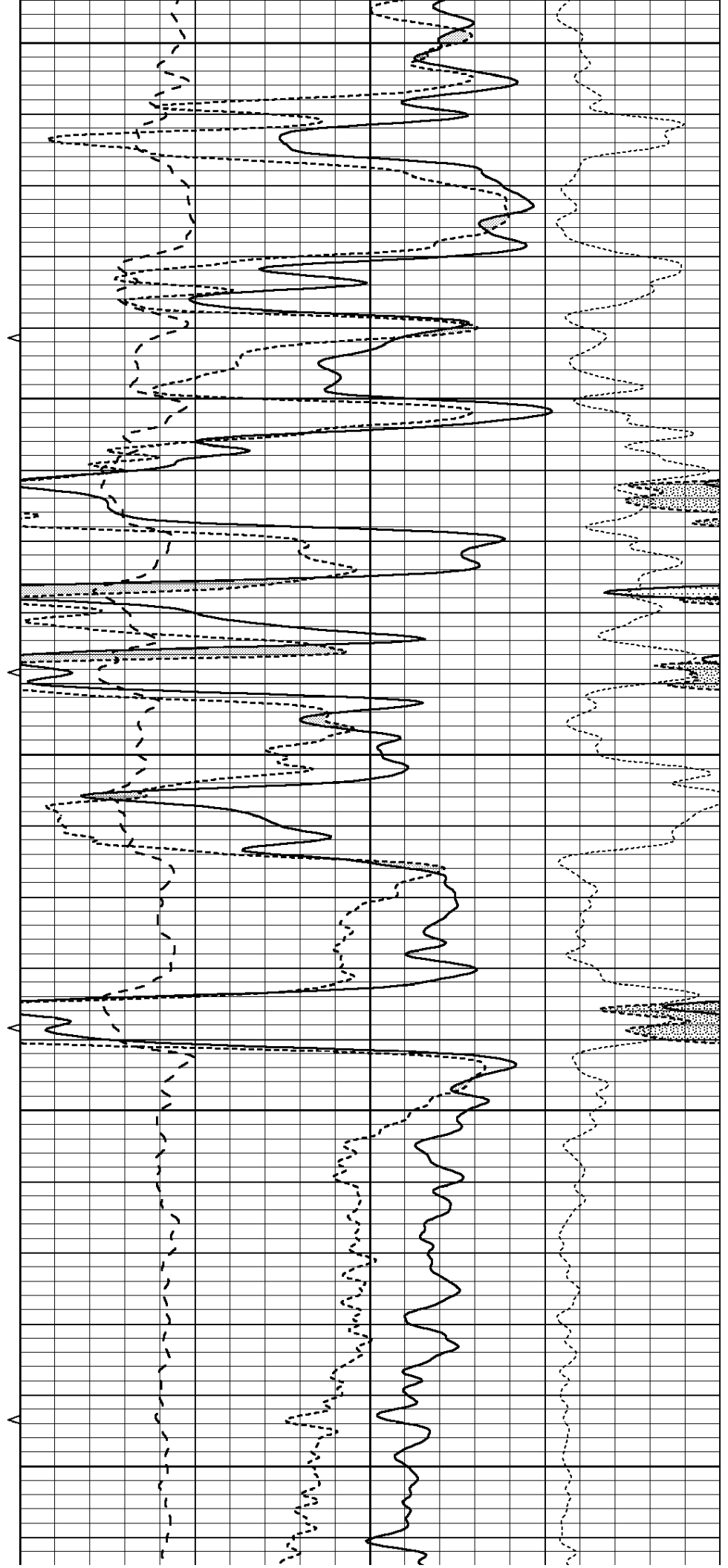
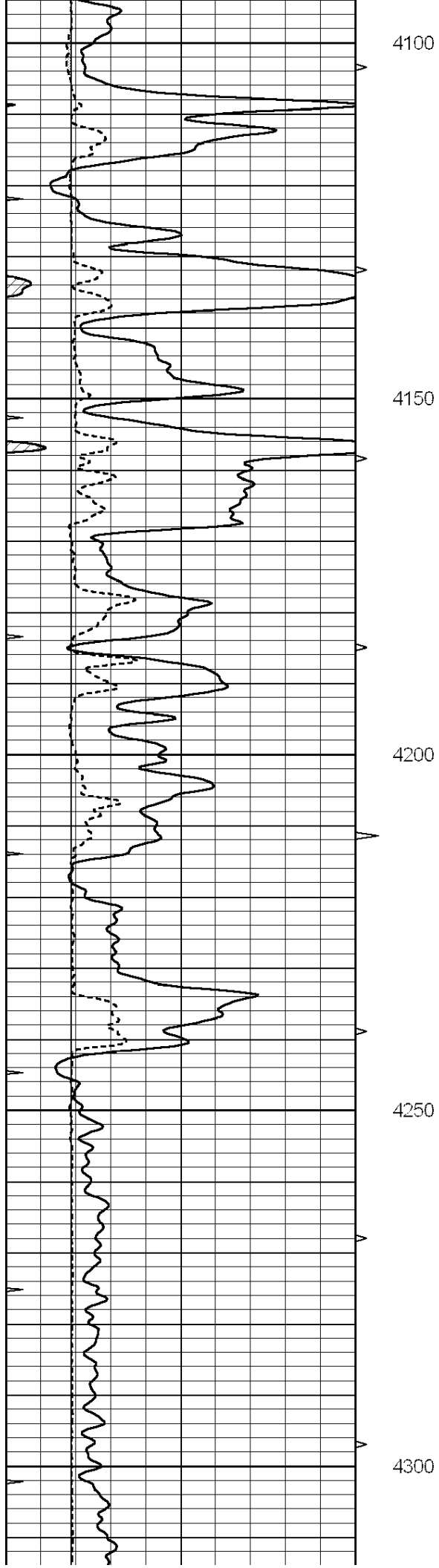
Depth in Feet scaled 1:240

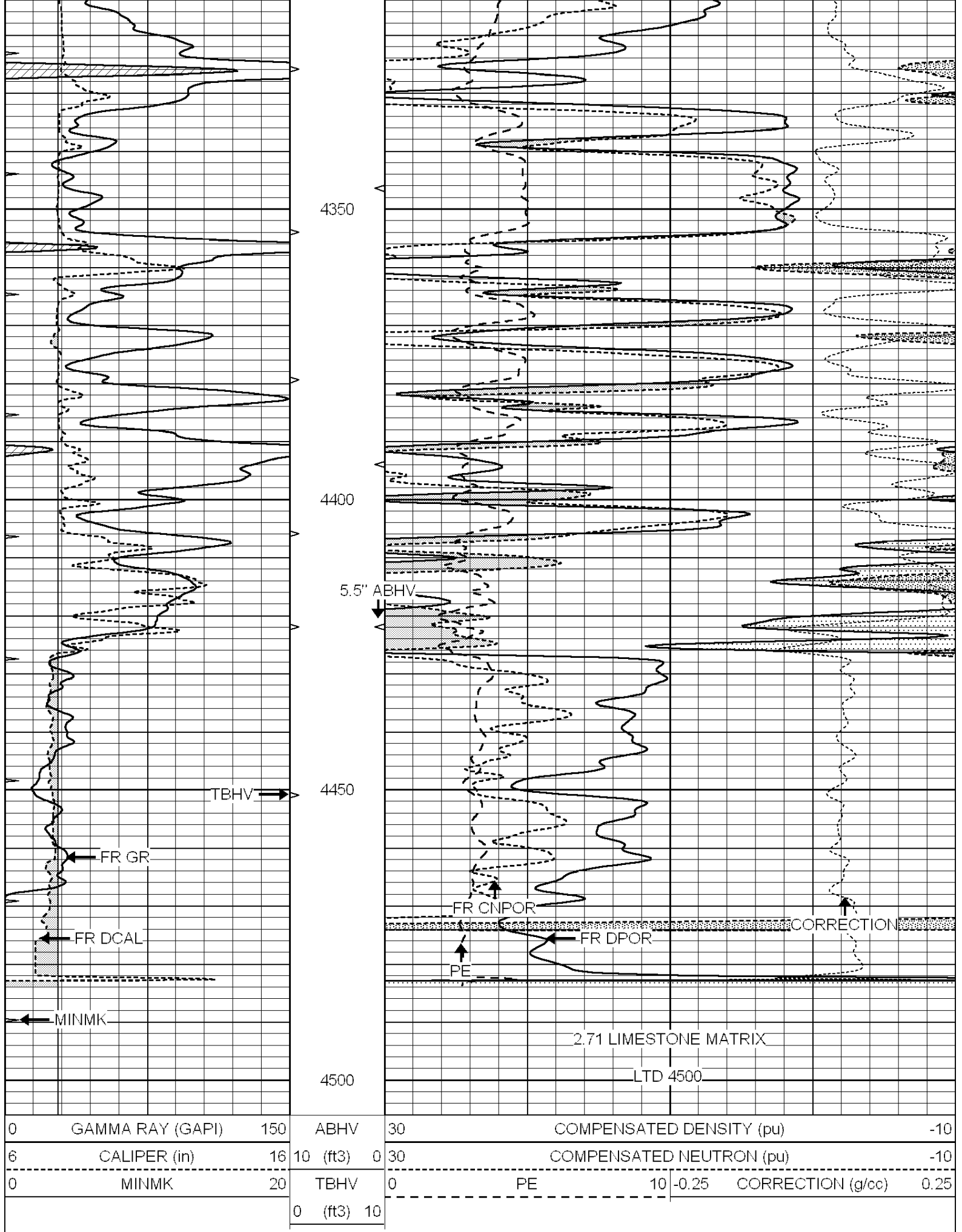
0	GAMMA RAY (GAPI)	150	ABHV	30	COMPENSATED DENSITY (pu)			-10	
6	CALIPER (in)	16	10 (ft3)	0	30	COMPENSATED NEUTRON (pu)			-10

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





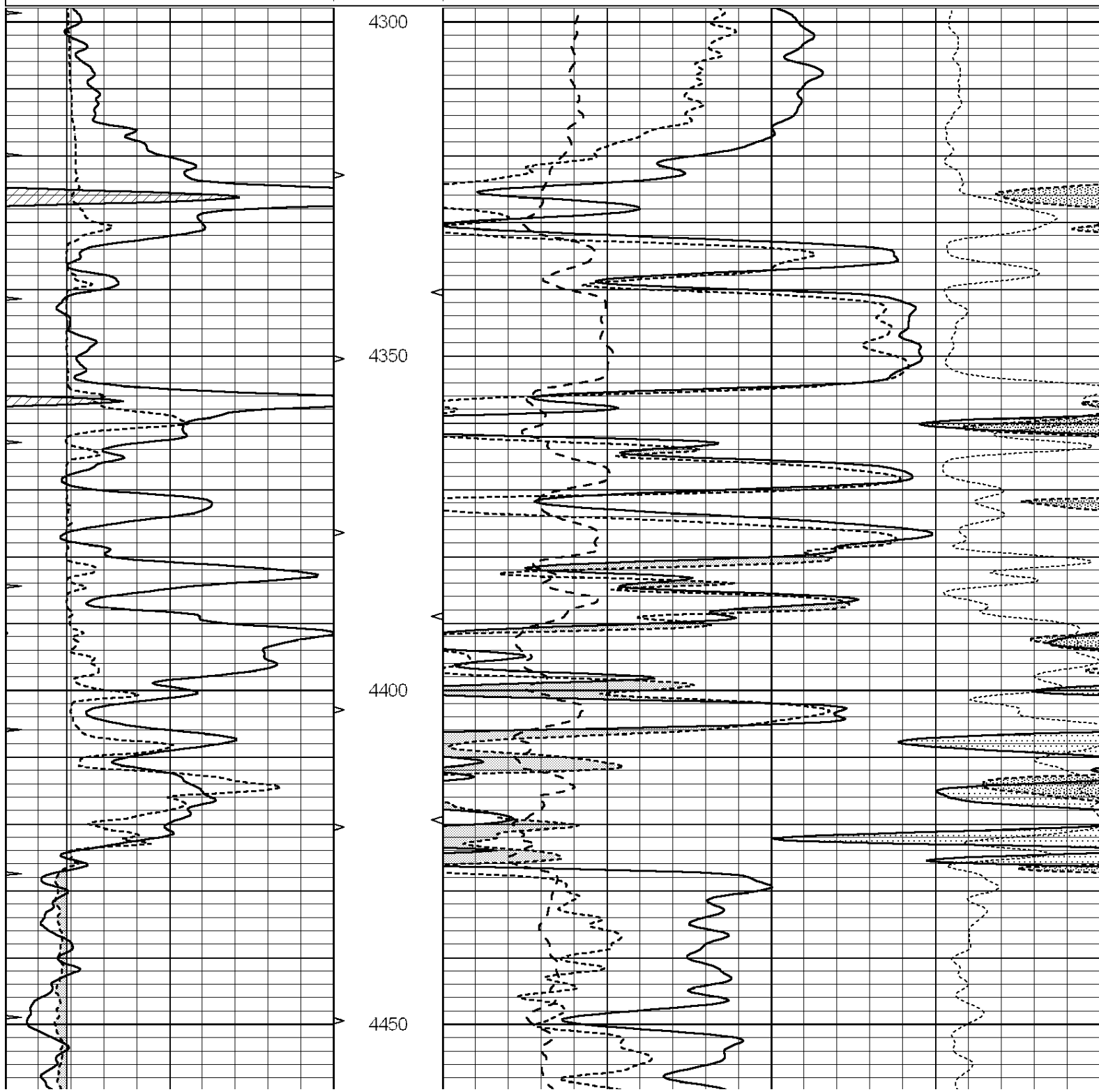


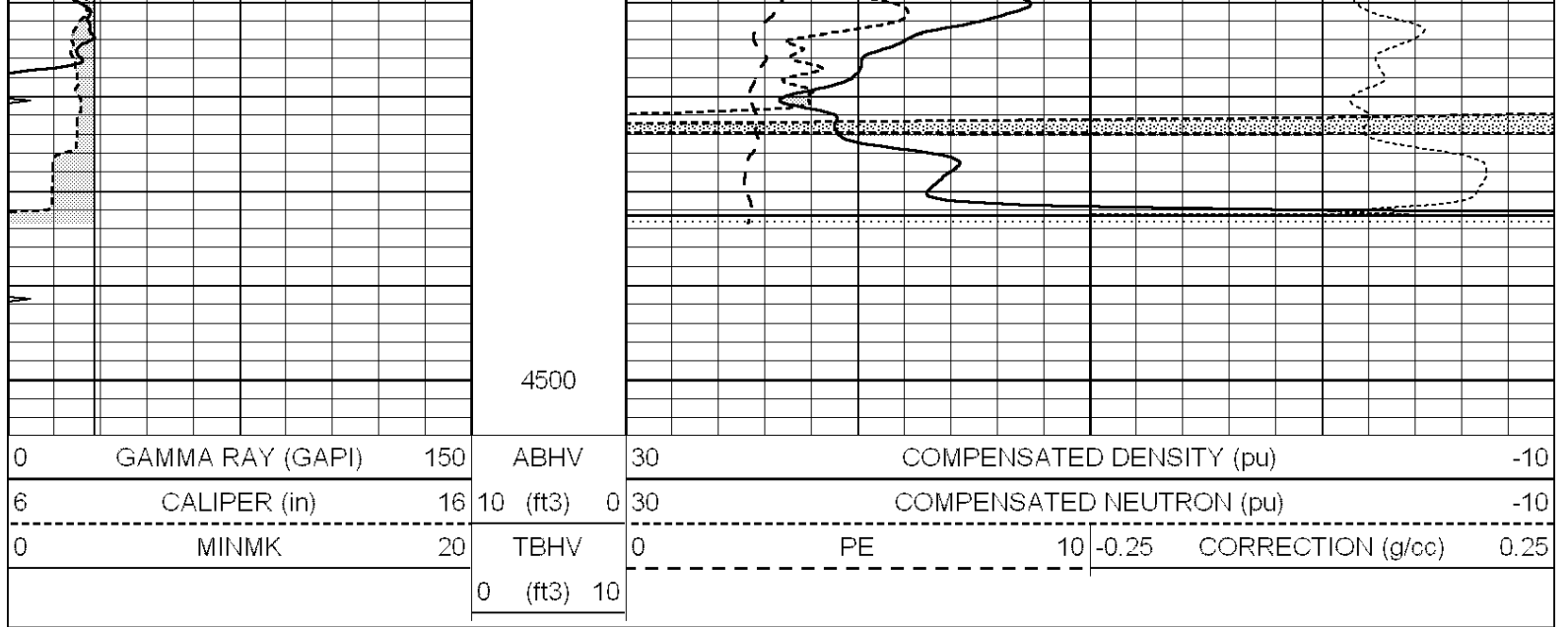


REPEAT SECTION

Database File: 010007pe.db
 Dataset Pathname: pass2.5
 Presentation Format: ldt_neu
 Dataset Creation: Wed Nov 07 08:08:50 2012 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	CORRECTION (g/cc)	0.25
			0 (ft3) 10						





Calibration Report									
Database File:		010007pe.db							
Dataset Pathname:		pass3.5							
Dataset Creation:		Wed Nov 07 08:06:55 2012 by Calc SOC 120430							
Dual Induction Calibration Report									
Serial-Model: Performed:					DIL3-GEAR Fri Nov 02 08:44:54 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	0.000	
Medium	0.013	0.740	V	0.000	462.500	mmho/m	700.000	-20.000	
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		
Window 2	1531.4		9204.7		3267.8		9851.9		
Window 3	1198.3		4733.6		1952.5		4920.6		
Window 4	317.3		321.2		325.9		303.6		
Long Space	0.0		7673.3		1736.4		8320.4		
Short Space	1.7		2548.5		1657.2		2628.8		
Rho			1.7100		2.5900		1.3800		
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									
	Readings		Reference						
Low Ref	3.5		6.5						
High Ref	5.5		15.0						

High Res	5.5 Gain: 4.4	15.0	Offset: -9.1
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:	Wed Sep 19 15:58:00 2012		
Calibrator Value:	1.0	GAPI	
Background Reading:	0.0	cps	
Calibrator Reading:	1.0	cps	
Sensitivity:	0.3000	GAPI/cps	