



NABORS

**COMPLETION
& PRODUCTION
SERVICES CO.**

**COMPENSATED
DENSITY / NEUTRON
PE LOG**

Company	MULL DRILLING COMPANY, INC.	Company	MULL DRILLING COMPANY, INC.
Well	#1-7 TILLITSON	Well	#1-7 TILLITSON
Field	WILDCAT	Field	WILDCAT
County	NESS	County	NESS
State	KANSAS	State	KANSAS
Location:	API # : 15-135-25519-0000 1208' FNL & 769' FEL	Other Services DIL/MEL SONIC	
Permanent Datum Log Measured From Drilling Measured From	GROUND LEVEL KELLY BUSHING 5' A.G.L. KELLY BUSHING	Elevation K.B. 2462 D.F. 2460 G.L. 2457	
Date	1/9/13		
Run Number	ONE		
Depth Driller	4550		
Depth Logger	4550		
Bottom Logged Interval	4526		
Top Log Interval	3700		
Casing Driller	8 5/8" @ 225'		
Casing Logger	226		
Bit Size	7 7/8"		
Type Fluid in Hole	CHEMICAL MUD	CHLORIDES 5,000 PPM	
Density / Viscosity	9.2/47		
pH / Fluid Loss	9.5/9.0		
Source of Sample	FLOWLINE		
Rim @ Meas. Temp	1.00 @ 90F		
Rmf @ Meas. Temp	.750 @ 90F		
Rmc @ Meas. Temp	1.20 @ 90F		
Source of Rmf / Rmc	MEASUREMENT		
Rim @ BHT	.744 @ 121F		
Time Circulation Stopped	2 HOURS		
Time Logger on Bottom	12:30 P.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. 3W. ON HWY 4 TO "RD. N", 3S. TO "RD. 230", 3/4W., S. INTO



NABORS
**COMPLETION
& PRODUCTION**

MAIN SECTION

Database File:

010042pe.db

Dataset Pathname:

pass3.9

Presentation Format:

ldt_neu

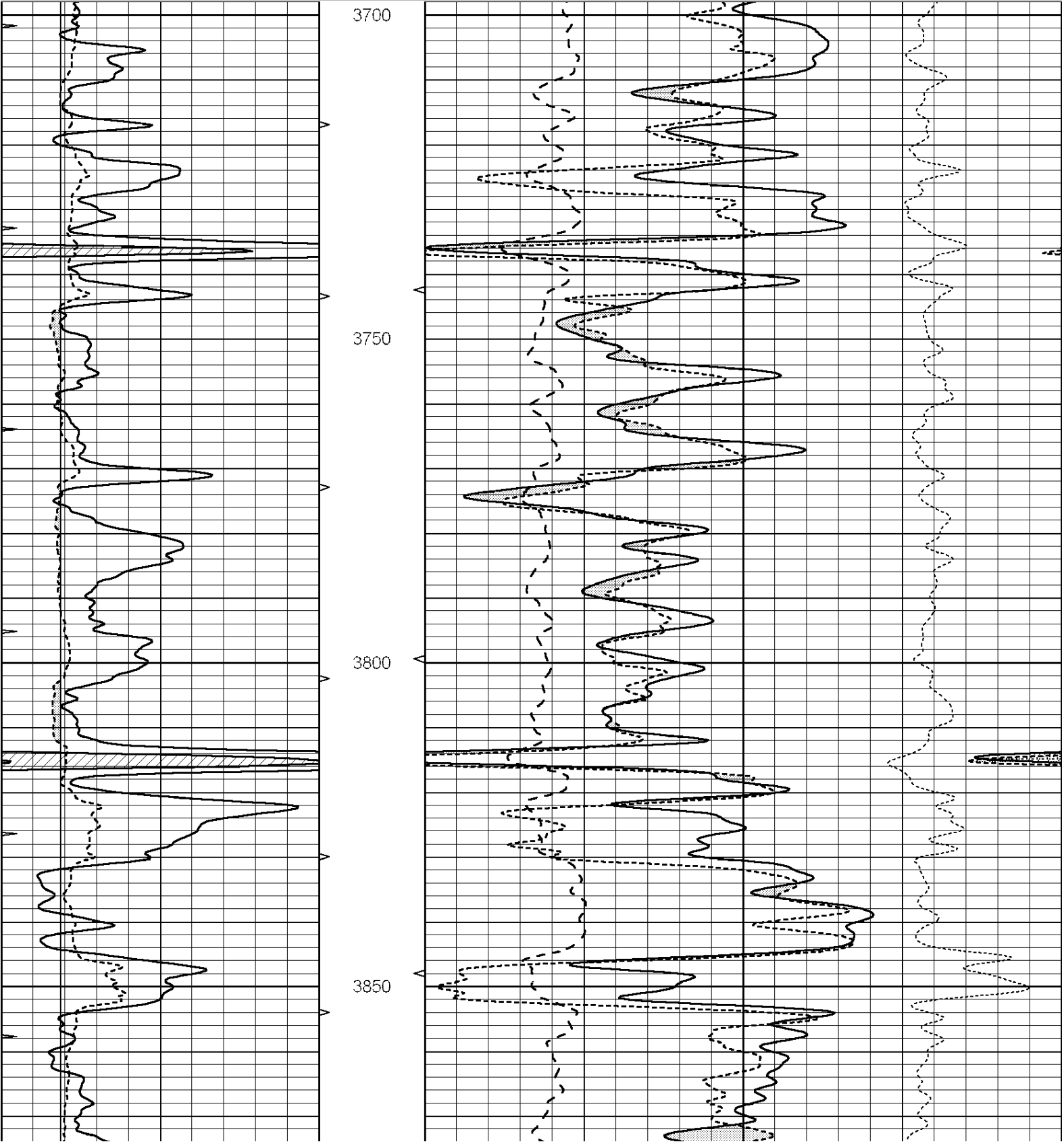
Dataset Creation:

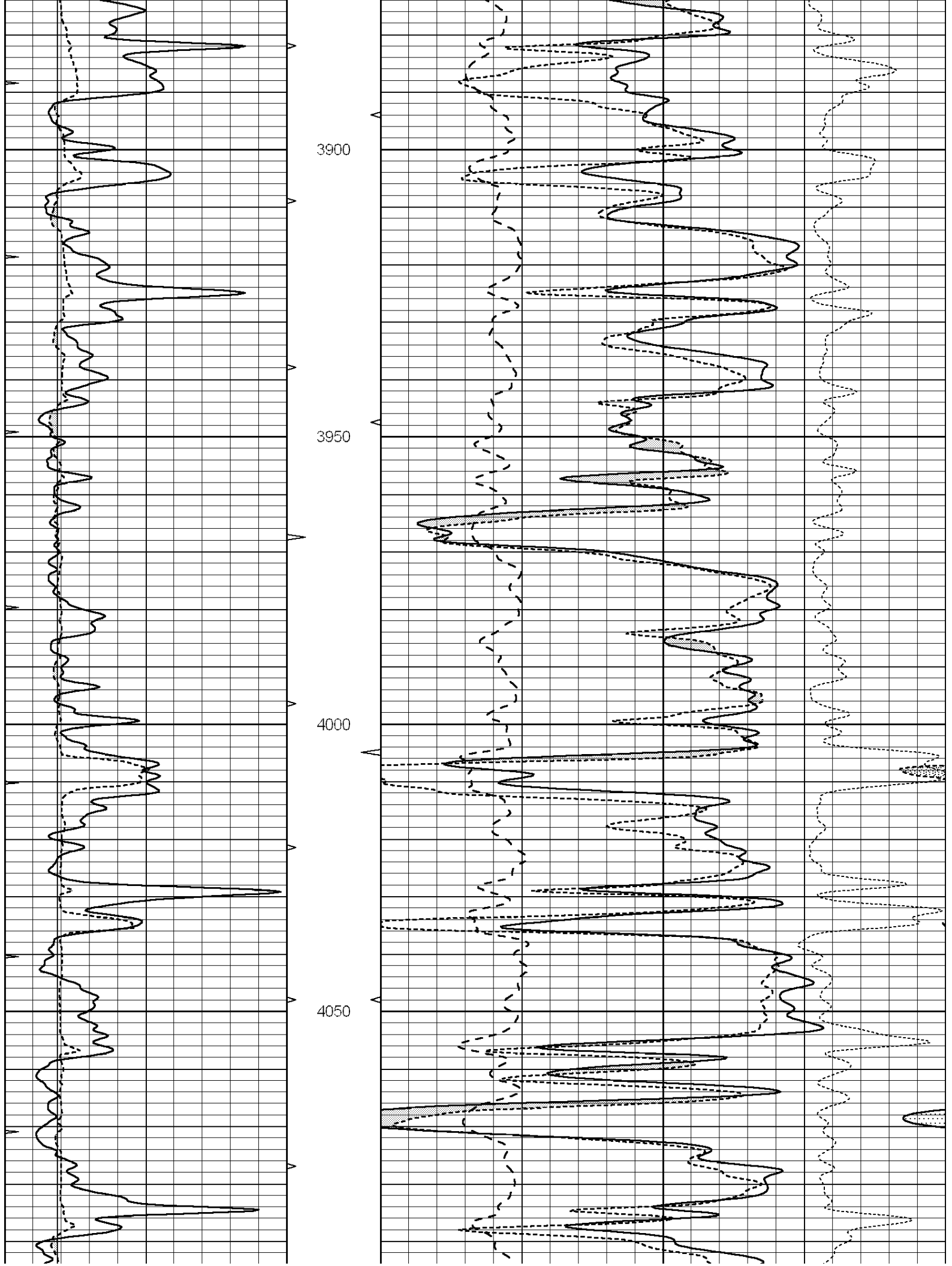
Wed Jan 09 13:45:01 2013

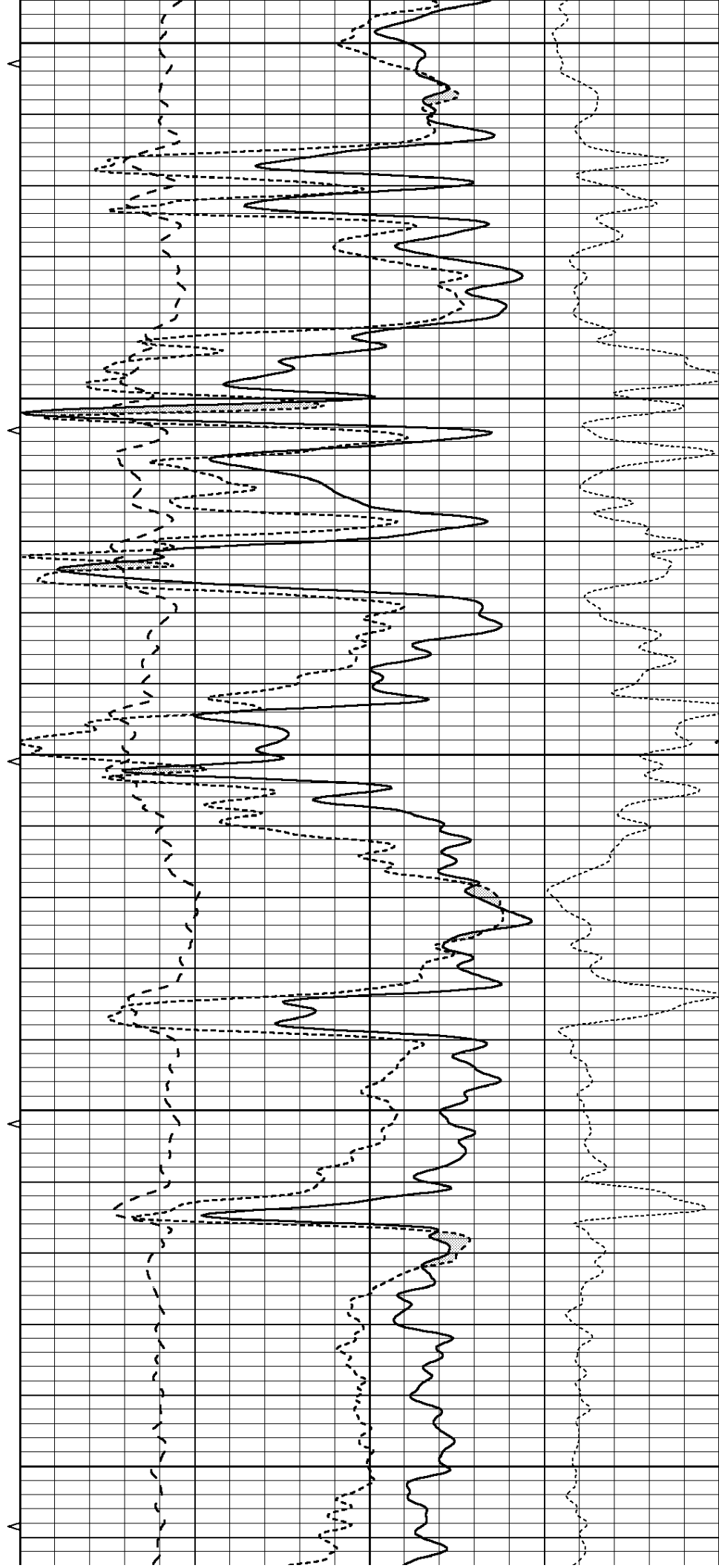
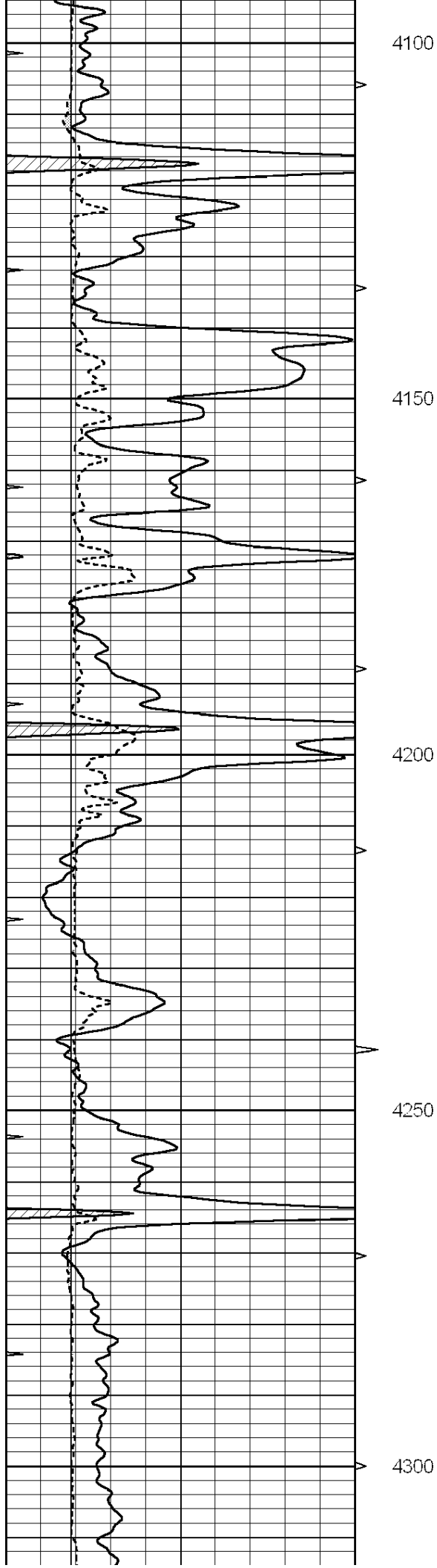
Charted by:

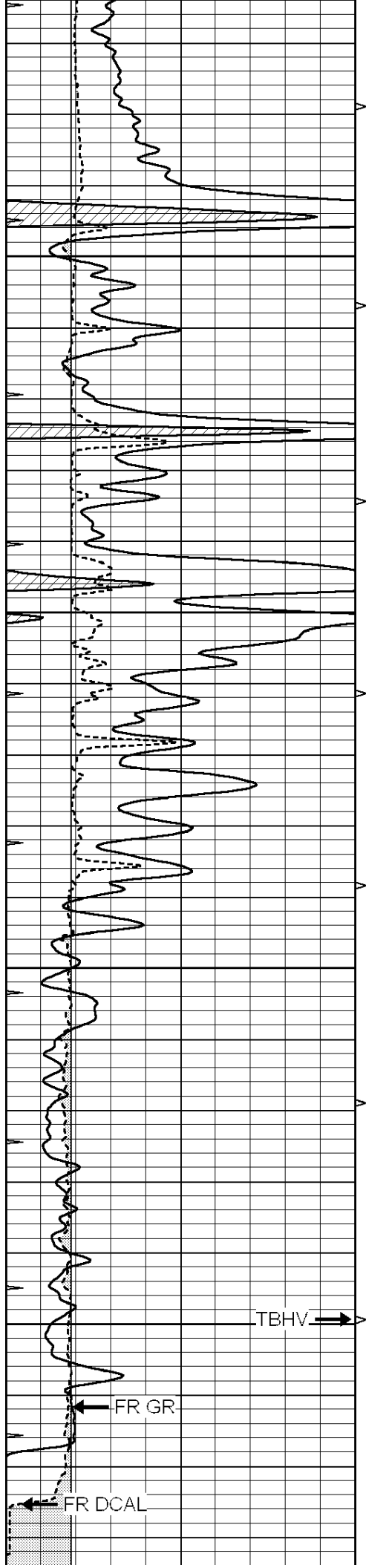
Depth in Feet scaled 1:240

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						









4350

4400

4450

4500

5.5" ABHV

PE

FR CNPOR

FR DPOR

CORRECTION

← MINMK			4550			2.71 LIMESTONE MATRIX		
						LTD 4550		
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

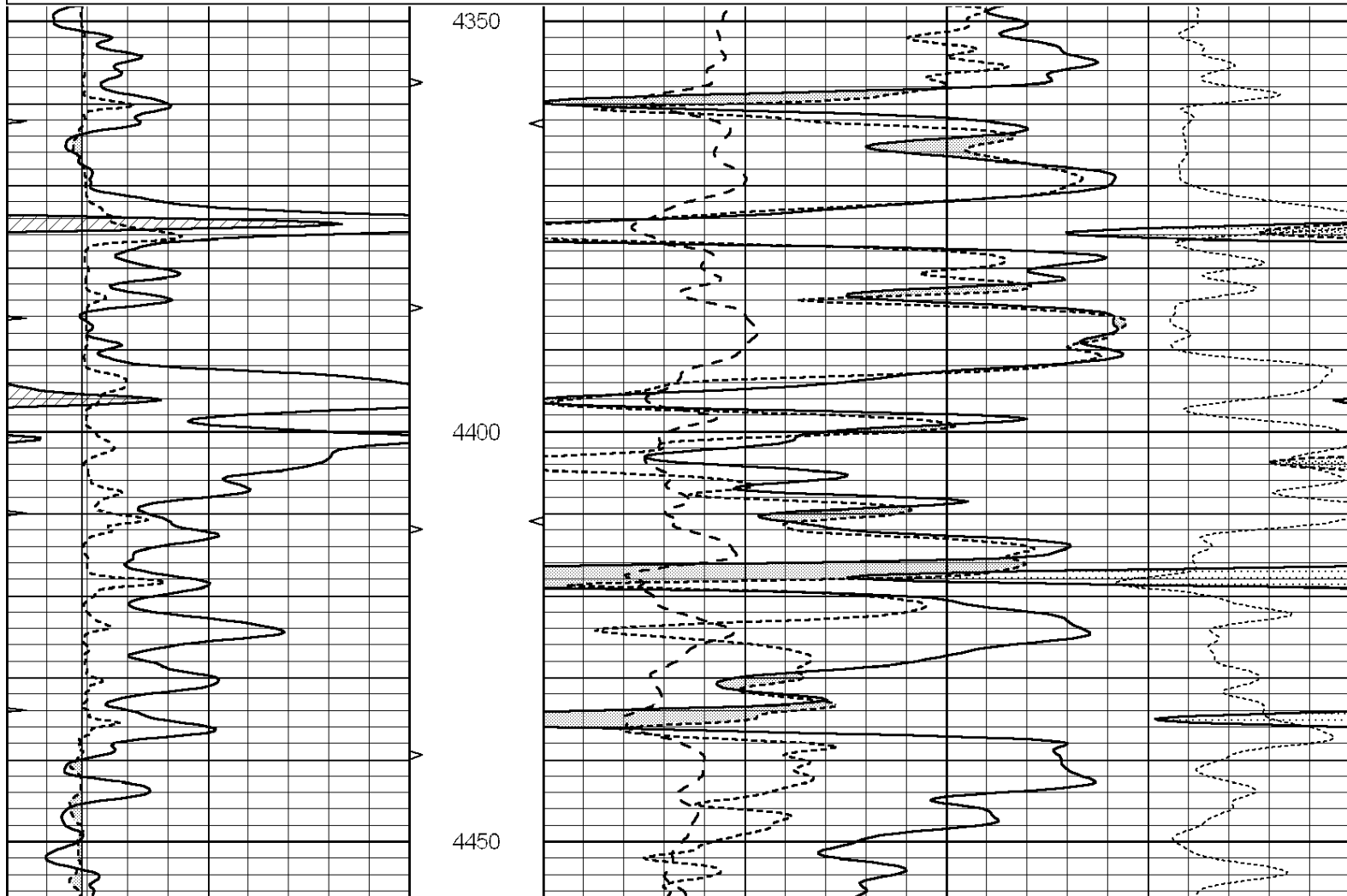
			0 (ft3) 10					

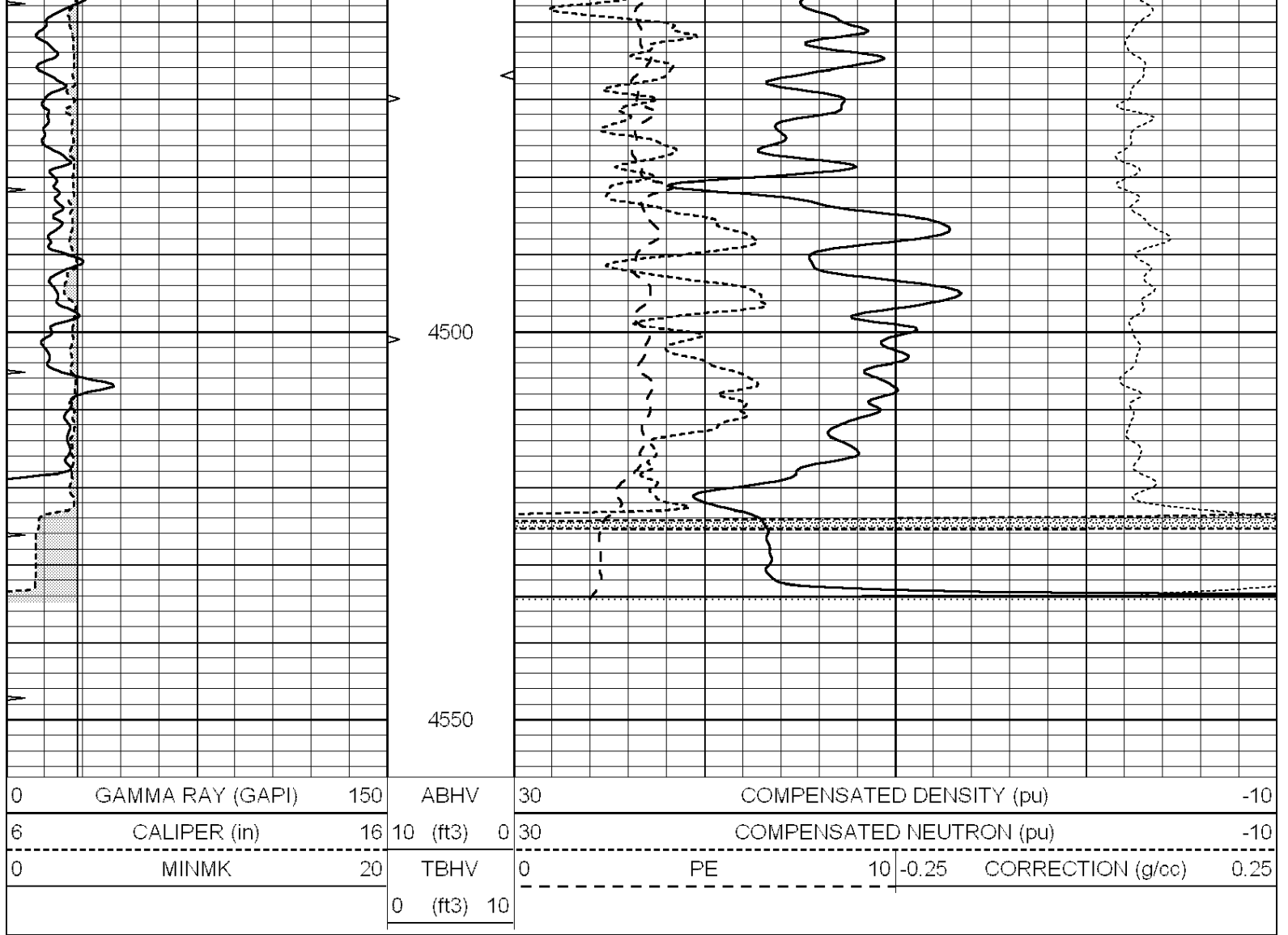


REPEAT SECTION

Database File: 010042pe.db
 Dataset Pathname: pass2.5
 Presentation Format: ldt_neu
 Dataset Creation: Wed Jan 09 13:55:33 2013 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: 010042pe.db
Dataset Pathname: pass3.9
Dataset Creation: Wed Jan 09 13:45:01 2013

Dual Induction Calibration Report

Serial-Model: DIL3-GEAR
Surface Cal Performed: Wed Jan 09 12:28:38 2013
Downhole Cal Performed: Fri Mar 21 02:34:00 2003
After Survey Verification Performed: Tue Apr 13 17:49:23 2010

Surface Calibration

Readings				References			Results	
Loop:	Air	Loop		Air	Loop		m	b
Deep	0.011	0.656	V	0.000	400.000	mmho/m	640.000	8.000
Medium	0.013	0.740	V	0.000	462.500	mmho/m	720.000	4.000
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

Downhole Calibration

Readings References Results

		Serial Number: Tool Model:	070808 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 Jan 09 12:24:50 2013	
Calibrator Value:		1.0	GAPI
Background Reading:		0.0	cps
Calibrator Reading:		1.0	cps
Sensitivity:		0.3000	GAPI/cps