



COMPENSATED
DENSITY/NEUTRON
PE LOG

Company DEUTSCH OIL COMPANY		Company DEUTSCH OIL COMPANY	
Well	ZINK "B" #1-4	Well ZINK "B" #1-4	
Field	BAUMAN	Field BAUMAN	
County	PRATT	County PRATT	
State	KANSAS	State KANSAS	
Location:		API # : 15-151-22460-0000	
2310' FSL & 990' FEL		Other Services DIL/MEL	
SEC 4 TWP 26S RGE 11W		Elevation	
Permanent Datum	GROUND LEVEL	Elevation	K.B. 1838
Log Measured From	KELLY BUSHING 7' A.G.L		D.F. 1836
Drilling Measured From	KELLY BUSHING		G.L. 1831
Date	4/18/17		
Run Number	ONE		
Depth Driller	4130		
Depth Logger	4133		
Bottom Logged Interval	4109		
Top Log Interval	3200		
Casing Driller	8 5/8" @ 297		
Casing Logger	296		
Bit Size	7 7/8		
Type Fluid in Hole	CHEMICAL MUD	CHLORIDES 5000 PPM	
Density / Viscosity	9.3/56		
pH / Fluid Loss	11.0/9.2		
Source of Sample	FLOWLINE		
Rm @ Meas. Temp	.52 @ 87F		
Rmf @ Meas. Temp	.39 @ 87F		
Rmc @ Meas. Temp	.62 @ 87F		
Source of Rmf / Rmc	MEASUREMENT		
Rm @ BHT	.38 @ 118F		
Time Circulation Stopped	2 HOURS		
Time Logger on Bottom			
Maximum Recorded Temperature	118F		
Equipment Number	3802		
Location	HAYS, KANSAS		
Recorded By	JASON CAPPELLUCCI		
Witnessed By	AARON YOUNG		

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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

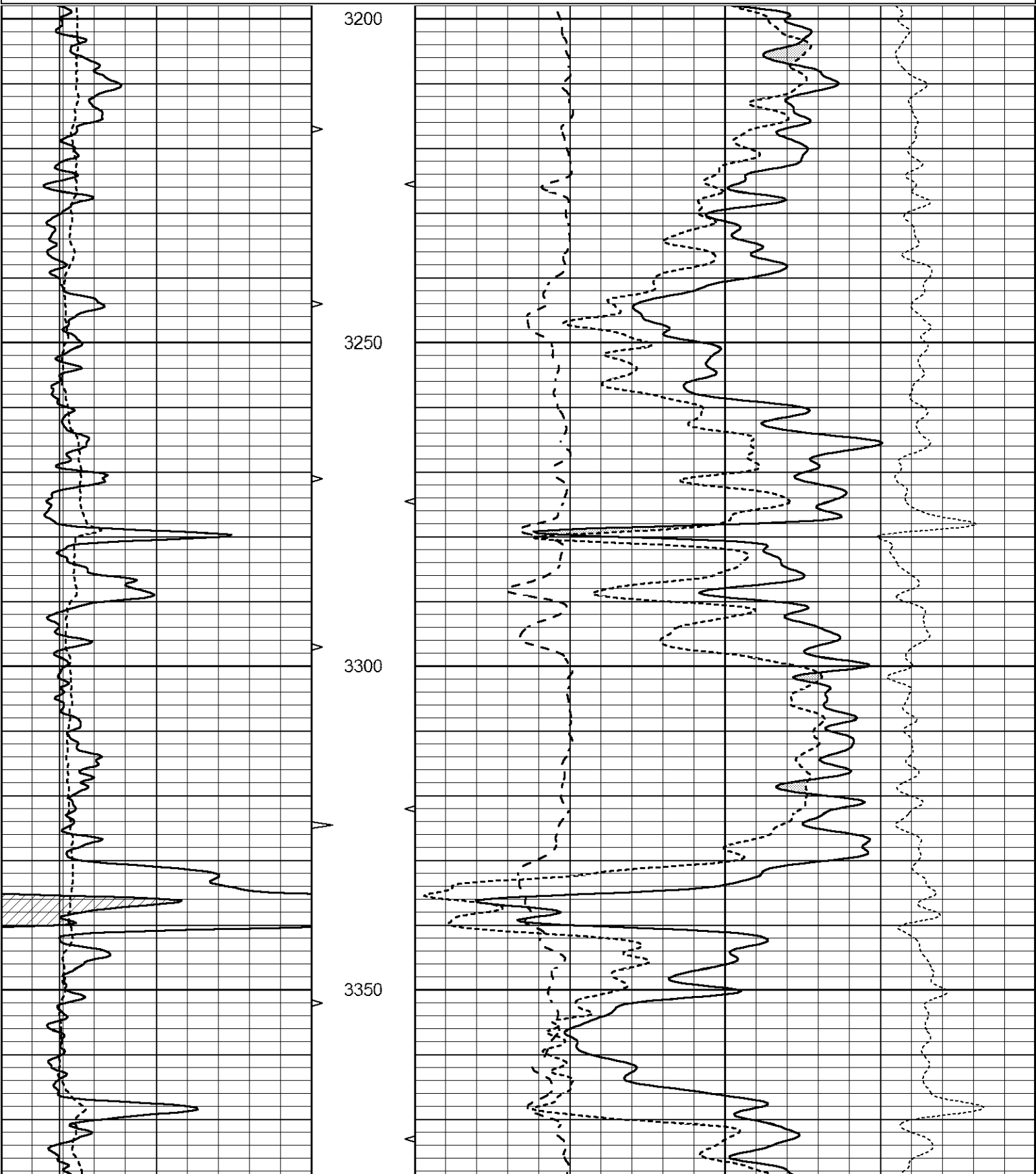
THANK YOU FOR USING ELI WIRELINE SERVICES, HAYS, KS. (785) 628-6395
DIRECTIONS
TURON, KS. - 4 WEST ON 110 RD. - 1/2 NORTH - WEST INTO

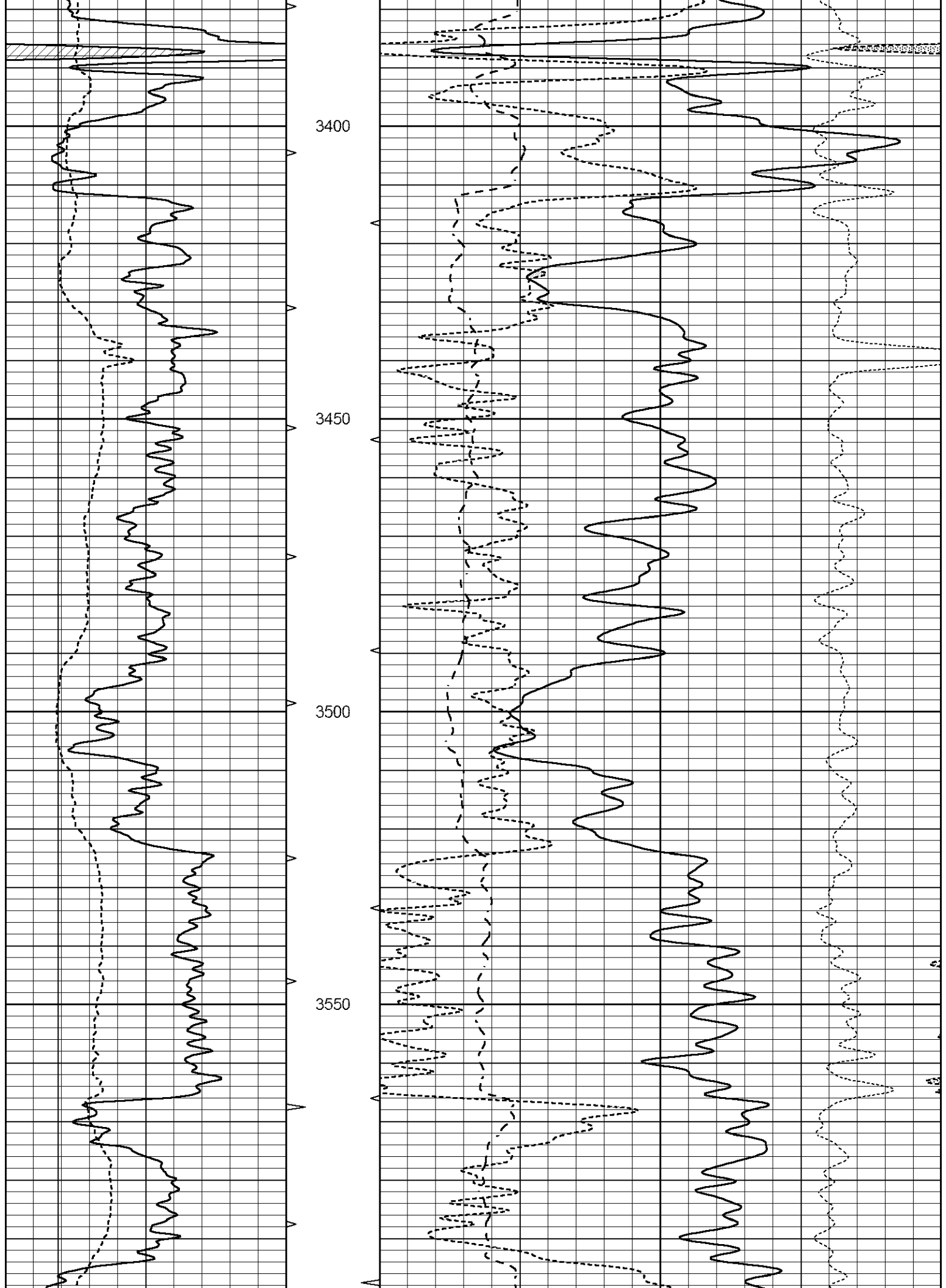


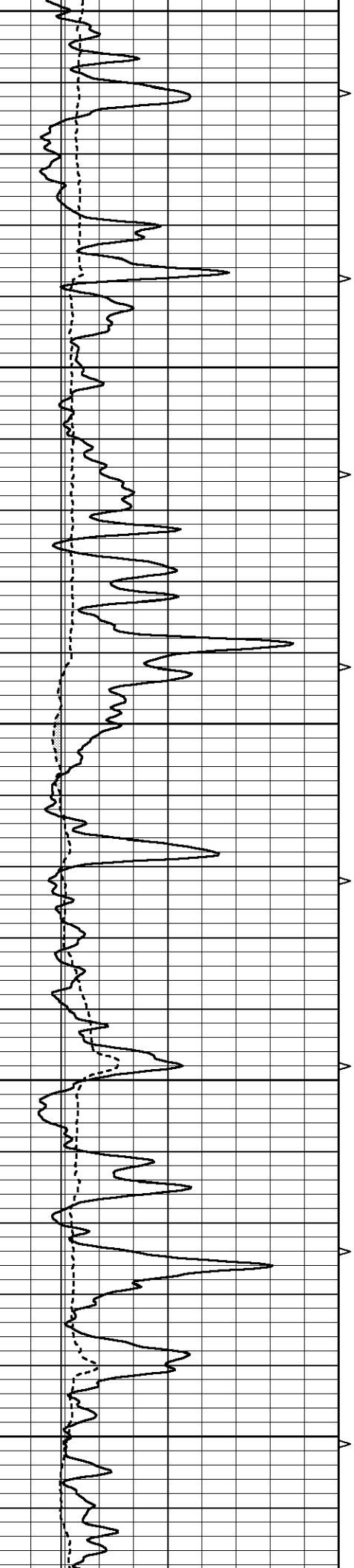
MAIN SECTION

Database File	1136pe8.db
Dataset Pathname	pass3.1
Presentation Format	_ldt_neu
Dataset Creation	Tue Apr 18 15:11:14 2017
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
			TBHV	0	PE	10 -0.25
			0 (ft3)	10	CORRECTION (g/cc)	0.25







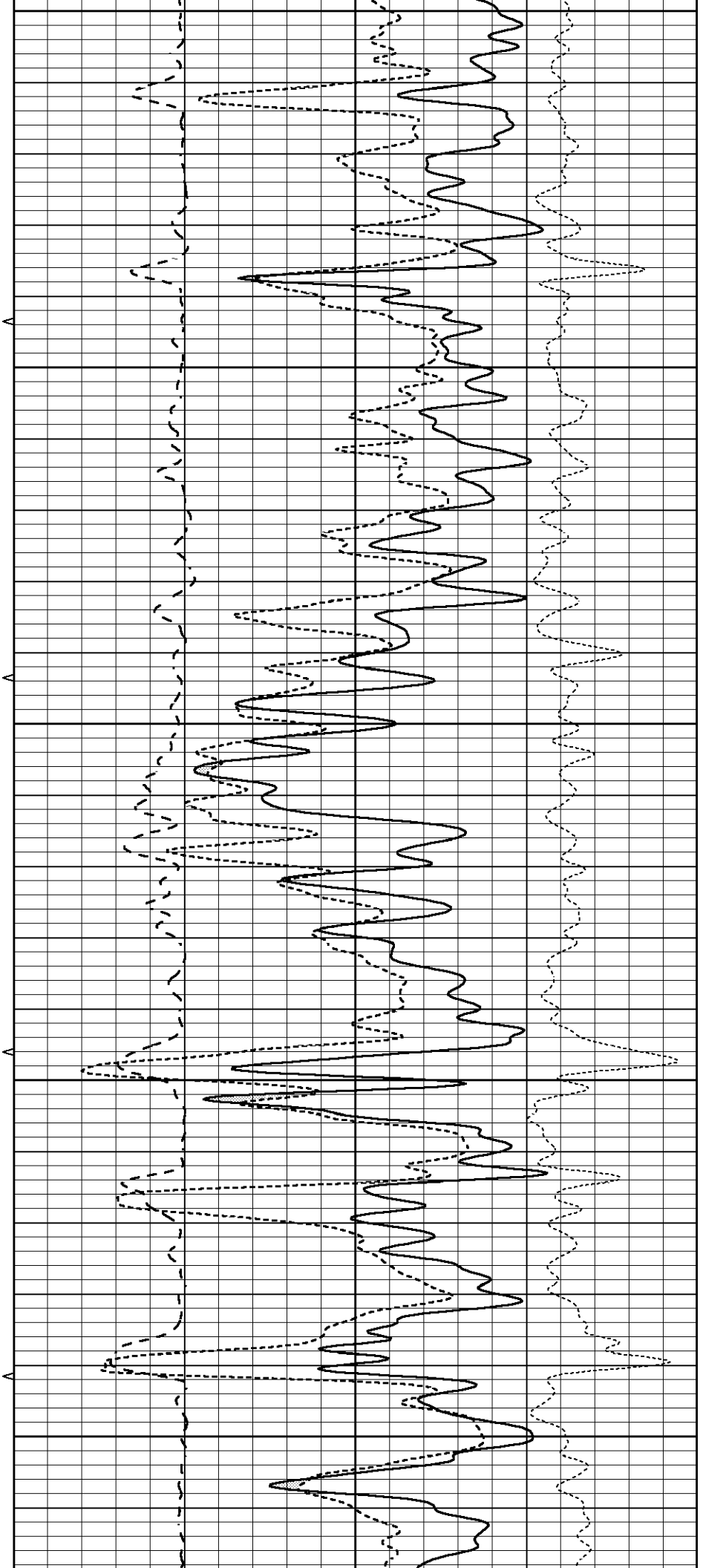
3600

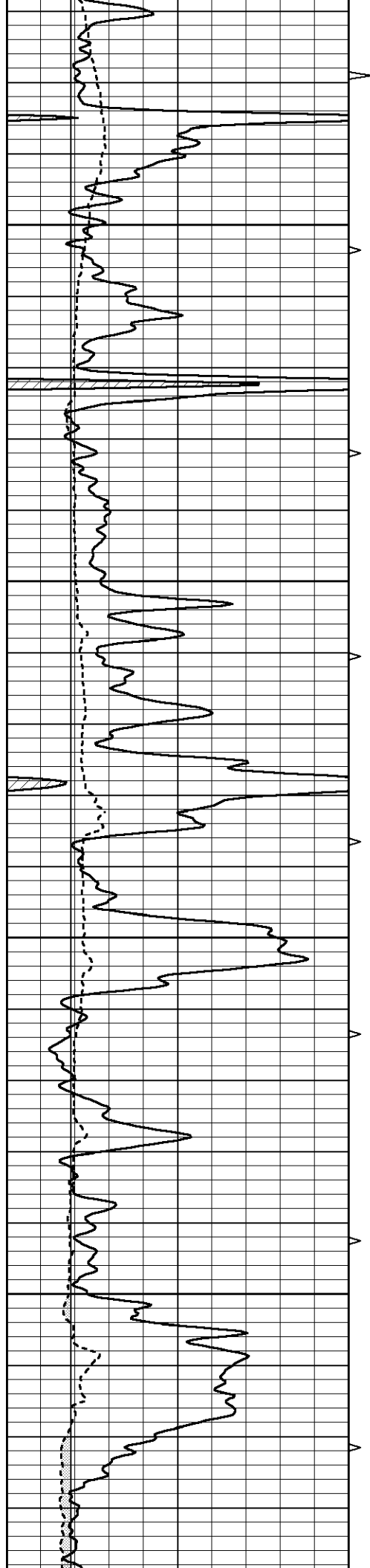
3650

3700

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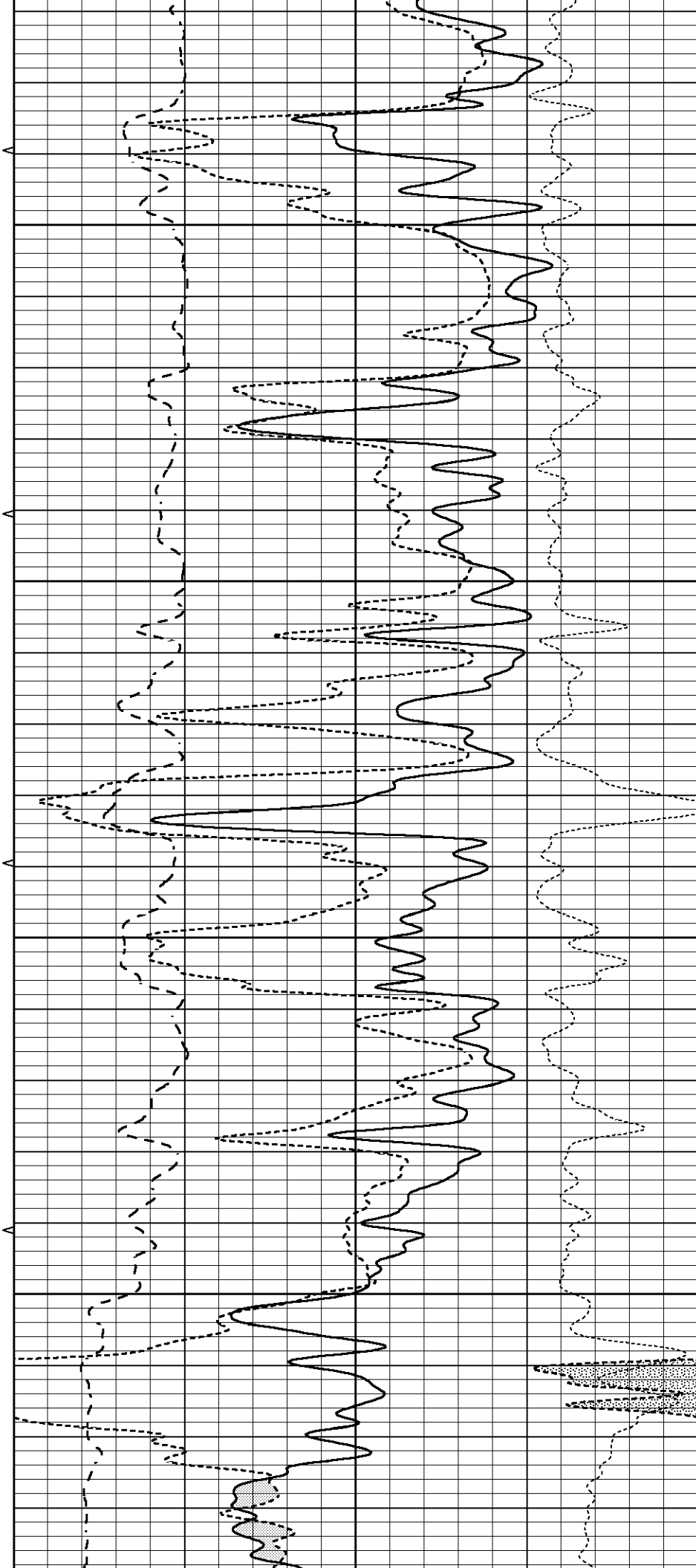


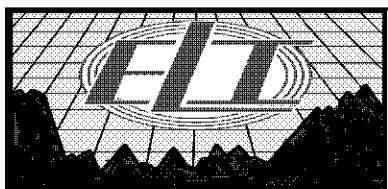
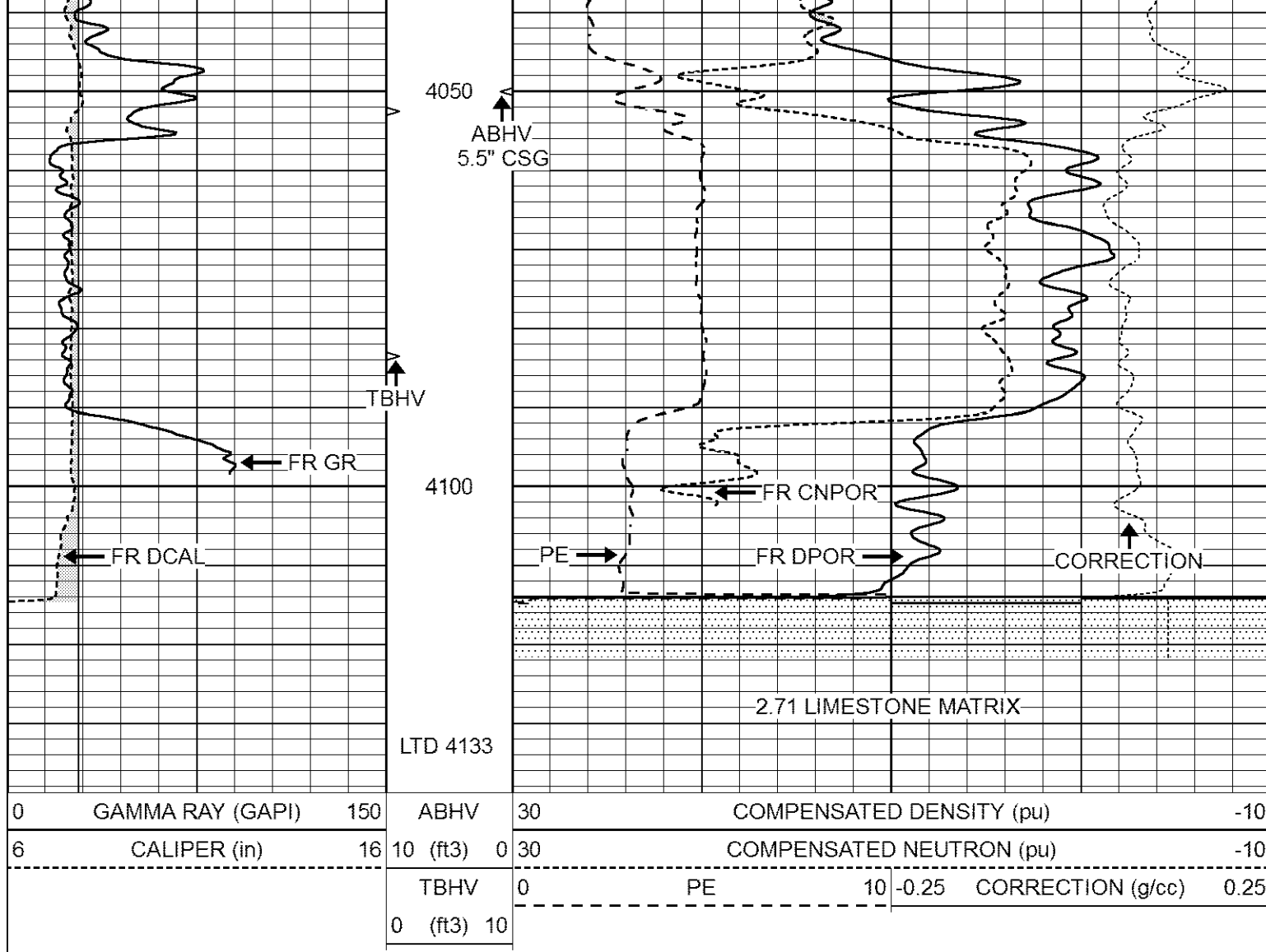
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3900

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4000

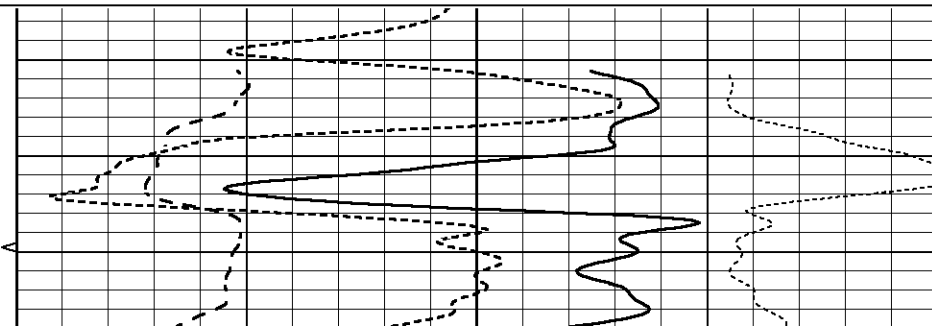


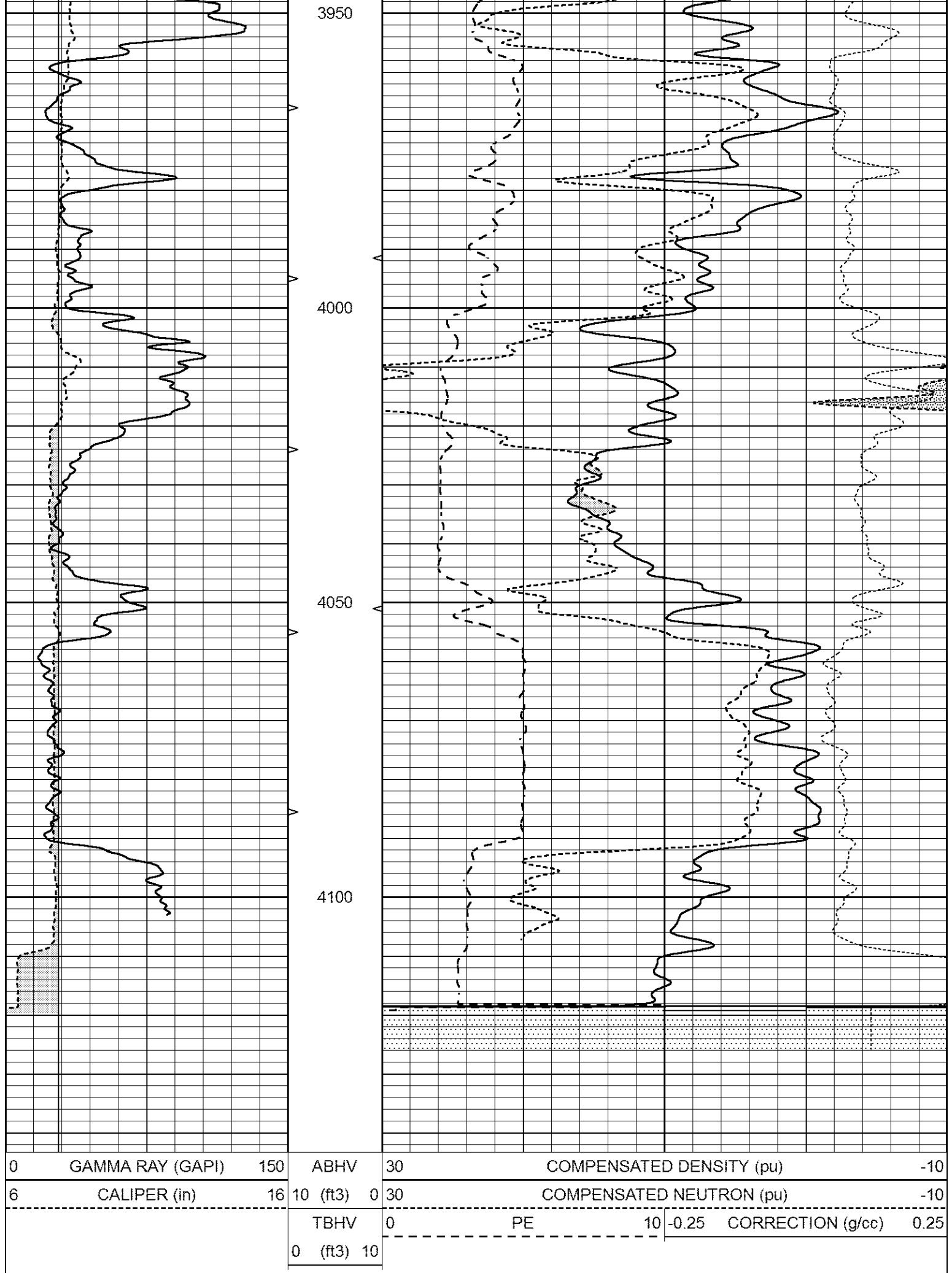


REPEAT SECTION

Database File 1136pe8.db
 Dataset Pathname pass2.1
 Presentation Format _ldt_neu
 Dataset Creation Tue Apr 18 14:50:25 2017
 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
			TBHV	0	PE	10 -0.25 CORRECTION (g/cc) 0.25
			0 (ft3) 10			





Calibration Report								
Database File		1136pe8.db						
Dataset Pathname		pass2.1						
Dataset Creation		Tue Apr 18 14:50:25 2017						
Dual Induction Calibration Report								
Serial-Model:			FW1410-55-Probe					
Surface Cal Performed:			Thu Mar 12 09:27:11 2015					
Downhole Cal Performed:			Thu Mar 12 09:29:20 2015					
After Survey Verification Performed:			Thu Mar 12 09:29:20 2015					
Surface Calibration								
		Readings		References			Results	
Loop:	Air	Loop		Air	Loop		m	b
Deep	0.011	0.656	V	1.000	400.000	mmho/m	618.595	-5.524
Medium	-0.000	0.731	V	1.000	464.000	mmho/m	632.856	1.197
Internal:	Zero	Cal		Zero	Cal		m	b
Deep	0.007	0.649	V	0.000	400.000	mmho/m	623.784	-4.595
Medium	0.004	0.743	V	0.000	464.000	mmho/m	627.284	-2.251
Downhole Calibration								
		Readings		References			Results	
	Zero	Cal		Zero	Cal		m'	b'
Deep	-0.824	395.917	mmho/m	-0.976	397.550	mmho/m	1.004	-0.149
Medium	3.565	471.327	mmho/m	3.468	471.590	mmho/m	1.001	-0.099
LL3		7.503	V		1500.000	Ohm-m		
		0.001	V		20.000	Ohm-m		
		-7.481	V		3745.000	mmho-m		
After Survey Verification								
		Readings		Targets			Results	
	Zero	Cal		Zero	Cal		m'	b'
Deep	0.000	0.000	mmho/m	-0.824	395.917	mmho/m	1.000	0.000
Medium	0.000	0.000	mmho/m	3.565	471.327	mmho/m	1.000	0.000
LL3		0.000	Ohm-m		1500.000	Ohm-m		
		0.000	Ohm-m		20.000	Ohm-m		
		0.000	mmho-m		3745.000	mmho-m		
Litho Density Calibration Report								
Serial: 140704								
Model: V4_10P								
Source Number: 74GBq-19								
Master Calibration					Performed: Wed Feb 11 18:53:41 2015			
	Background	Aluminum	Magnesium					
Window 1	613.01	6027.40	27508.60	cps				
Window 2	48.21	1424.77	7132.66	cps				
Window 4	266.48	1373.19	5767.15	cps				
Window 5	622.07	10090.30	18937.90	cps				
Window 6	49.07	1682.84	3271.18	cps				
Window 8	298.04	3248.38	5980.58	cps				
Bulk Density	-	2.6020	1.6830	g/cc				
Pe	-	3.0000	2.5070	b/e				
LS Alpha:	1.8451	SS Alpha:	0.7542	LS CRE:	1.0882			

LS Alpha: : 41.8431		SS Alpha: : 0.7542		LS CPE: : 1.0002	
LS Beta: : 138648.8473		SS Beta: : 21960.9250		SS CPE: : 1.5181	
Before Survey Background Counts Verification				Performed: Wed Dec 31 18:00:00 1969	
Window 1		0.00	cps		
Window 2		0.00	cps		
Window 4		0.00	cps		
Window 5		0.00	cps		
Window 6		0.00	cps		
Window 8		0.00	cps		
After Survey Background Counts Verification				Performed: Wed Dec 31 18:00:00 1969	
Window 1		0.00	cps		
Window 2		0.00	cps		
Window 4		0.00	cps		
Window 5		0.00	cps		
Window 6		0.00	cps		
Window 8		0.00	cps		
Lithodensity Caliper Calibration				Performed: Wed Feb 11 18:53:41 2015	
Results	Readings	References (in)			
Low	High	Low	High	Gain	Offset
5123.0	9461.6	8.5	14.0	0.0	1.4
Before Survey Caliper Verification				Performed:	
	Reference	Reading			
Caliper (in)					
After Survey Caliper Verification				Performed:	
	Reference	Reading			
Caliper (in)					
Compensated Neutron Calibration Report					
		Serial Number:		080621PMC	
		Tool Model:		NABORS	
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:	Probe1
Performed:	Wed Jun 29 08:29:10 2016

Calibrator Value:	1.0	GAPI
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Background Reading:	0.0	cps
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Calibrator Reading:	1.0	cps
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Sensitivity:	0.3000	GAPI/cps
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