

COMPENSATED
DENSITY/NEUTRON
PE LOG

Company	RED OAK ENERGY, INC.	Location:	API # : 15-023-21555-0000	Other Services DIL/MEL
Well	HILT - CUMMINS #1-11	2125' FSL & 584' FWL SE-NW-NW-SW		
Field		SEC 11 TWP 2S RGE 42W		
County	CHEYENNE	State	KANSAS	
Permanent Datum	GROUND LEVEL	Elevation	3717	K.B. 3722 D.F. 3720 G.L. 3717
Log Measured From	KELLY BUSHING 5' A.G.L			
Drilling Measured From	KELLY BUSHING			
Date	9/17/21			
Run Number	ONE			
Depth Driller	5210			
Depth Logger	5206			
Bottom Logged Interval	5182	1750-1550		
Top Log Interval	4200			
Casing Driller	8 5/8" @ 321			
Casing Logger	321			
Bit Size	7 7/8			
Type Fluid in Hole	CHEMICAL MUD	CHLORIDES 800 PPM		
Density / Viscosity	9.1/54			
pH / Fluid Loss	11.0/8.0			
Source of Sample	FLOWLINE			
Rm @ Meas. Temp	1.25 @ 65F			
Rmf @ Meas. Temp	.93 @ 65F			
Rmc @ Meas. Temp	1.5 @ 65F			
Source of Rmf / Rmc	MEASUREMENT			
Rm @ BHT	.63 @ 127F			
Time Circulation Stopped	2 HOURS			
Time Logger on Bottom	////			
Maximum Recorded Temperature	127F			
Equipment Number	3802			
Location	HAYS, KANSAS			
Recorded By	JASON CAPPELLUCCI			
Witnessed By	RYAN DAVIS			

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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

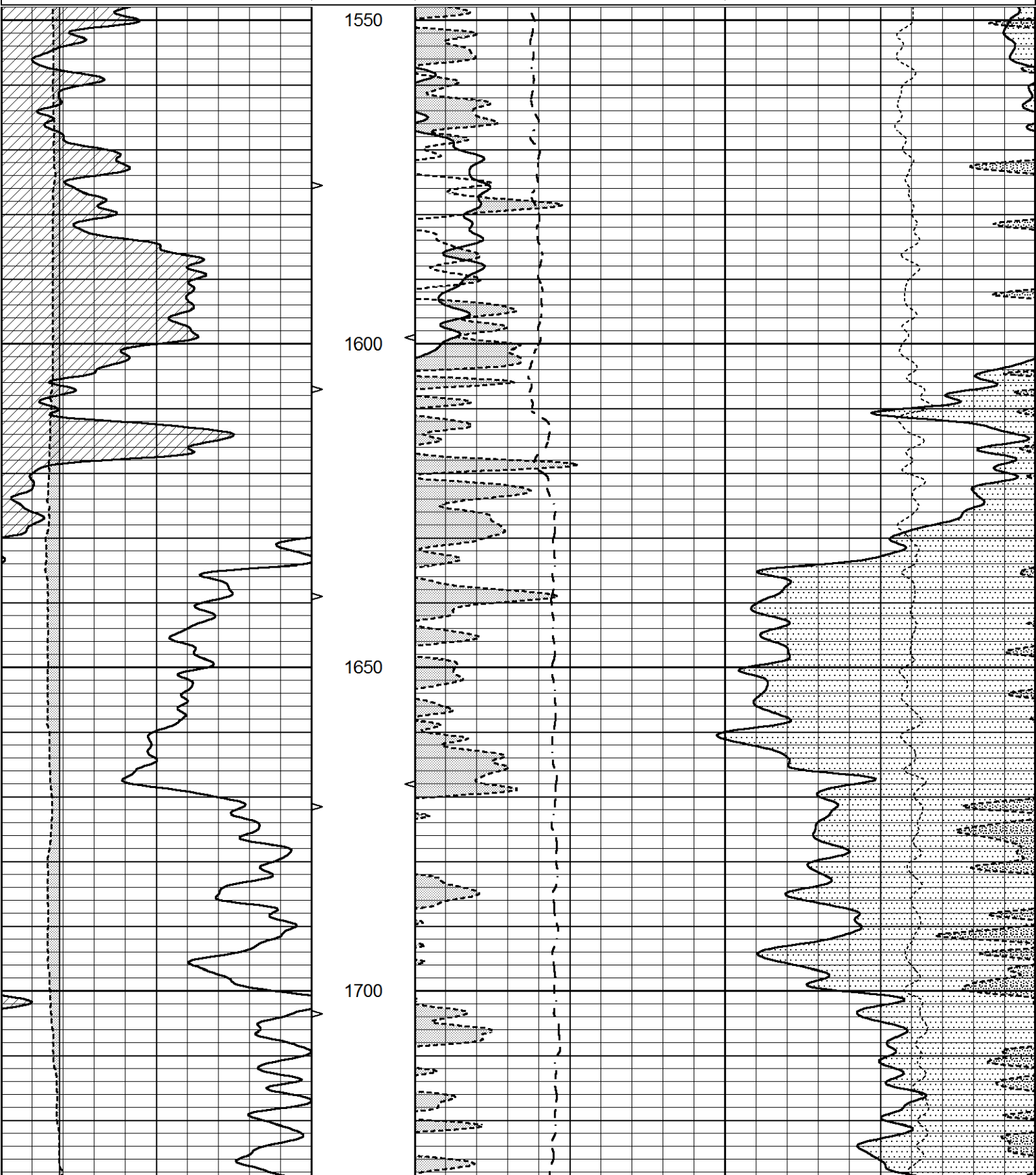
THANK YOU FOR USING ELI WIRELINE SERVICES, HAYS, KS. (785) 628-6395
DIRECTIONS
ST. FRANCIS, KS. - 13 NORTH ON HWY 27 TO W RD. - 4 WEST - 1/2 NORTH - EAST INTO

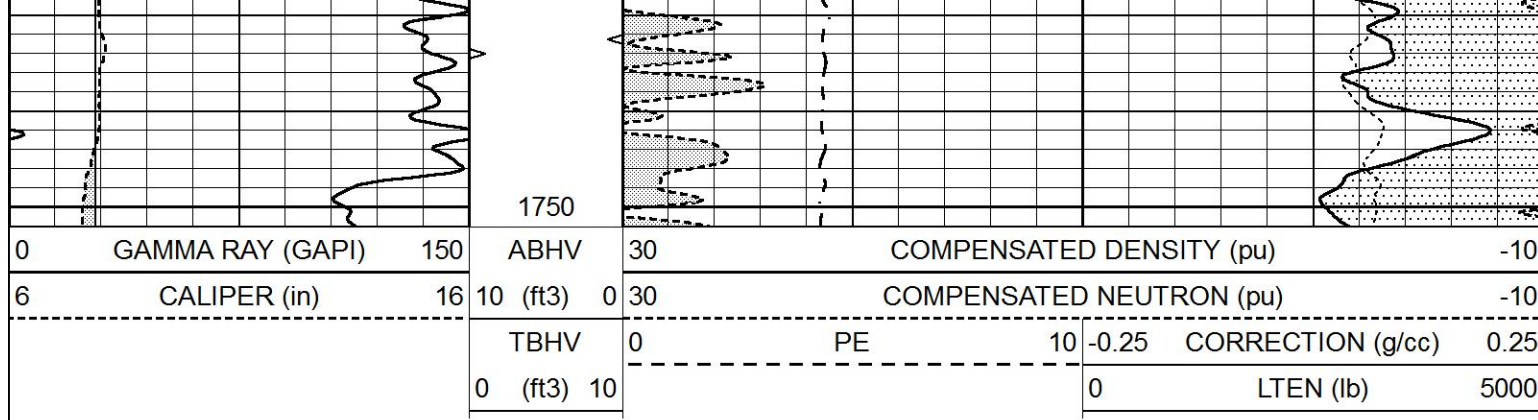


UPPER SECTION

Database File	5854pe.db
Dataset Pathname	pass4.1.1
Presentation Format	_ldt_neu
Dataset Creation	Fri Sep 17 11:29:34 2021
Charted by	Depth in Feet scaled 1:240

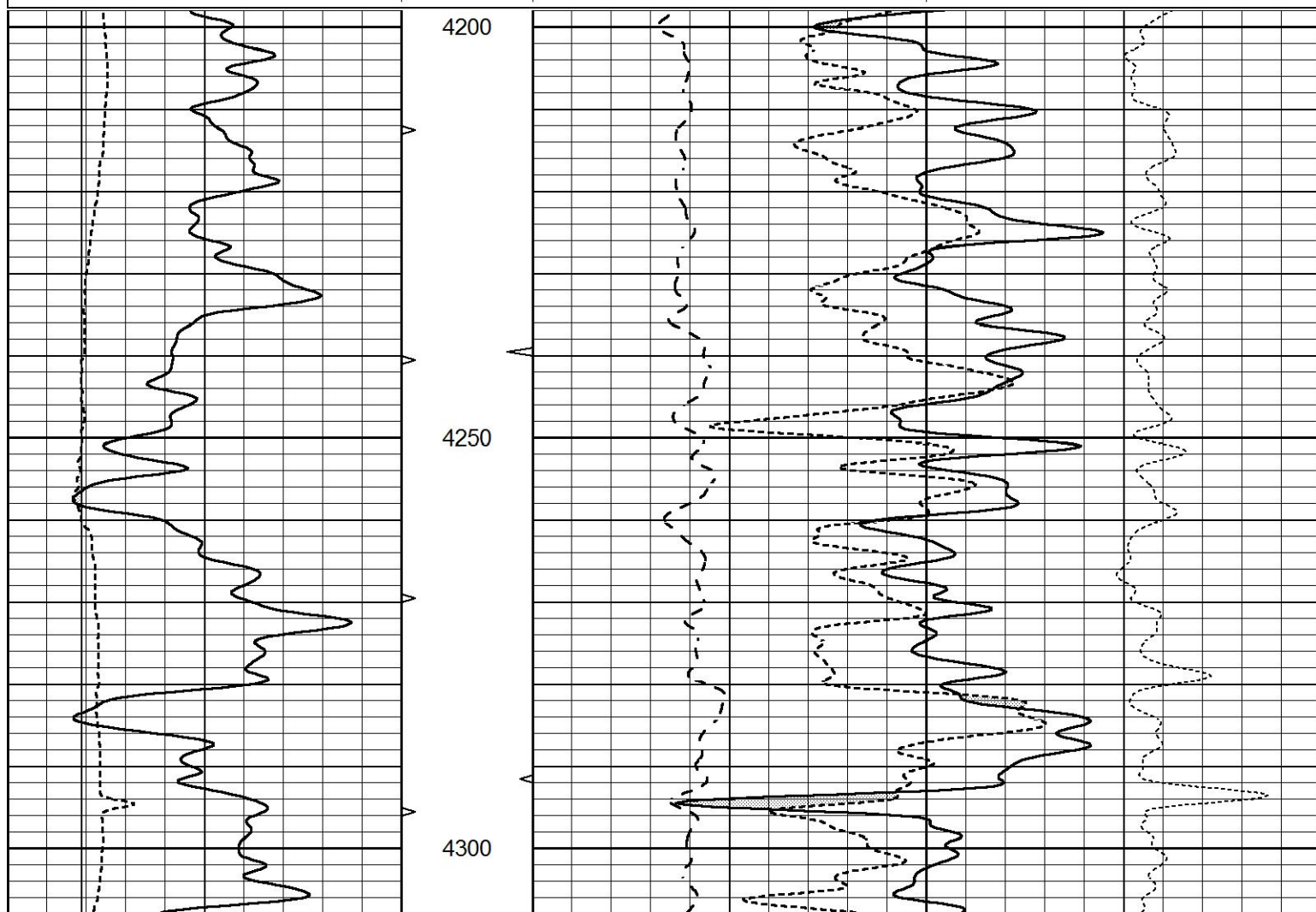
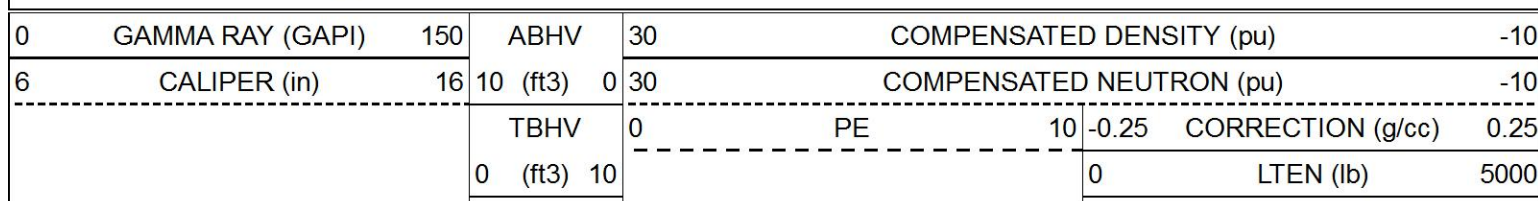
0	GAMMA RAY (GAPI)	150	ABHV	30	COMPENSATED DENSITY (pu)	-10
6	CALIPER (in)	16	10 (ft3)	0	COMPENSATED NEUTRON (pu)	-10
			TBHV	0	PE	10
			0 (ft3)	10	-0.25	CORRECTION (g/cc)
						0.25
						0
						LTEN (lb)
						5000

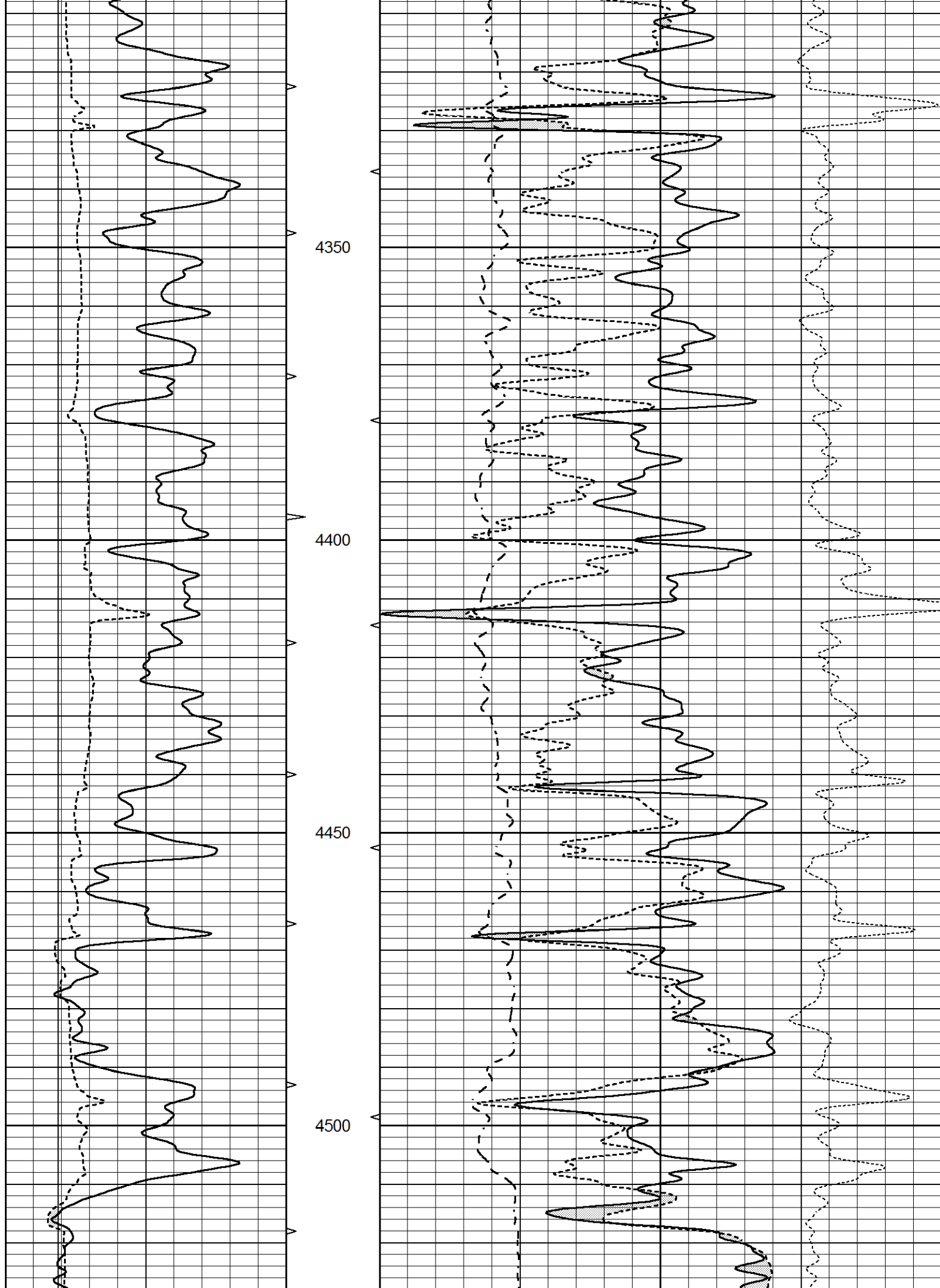


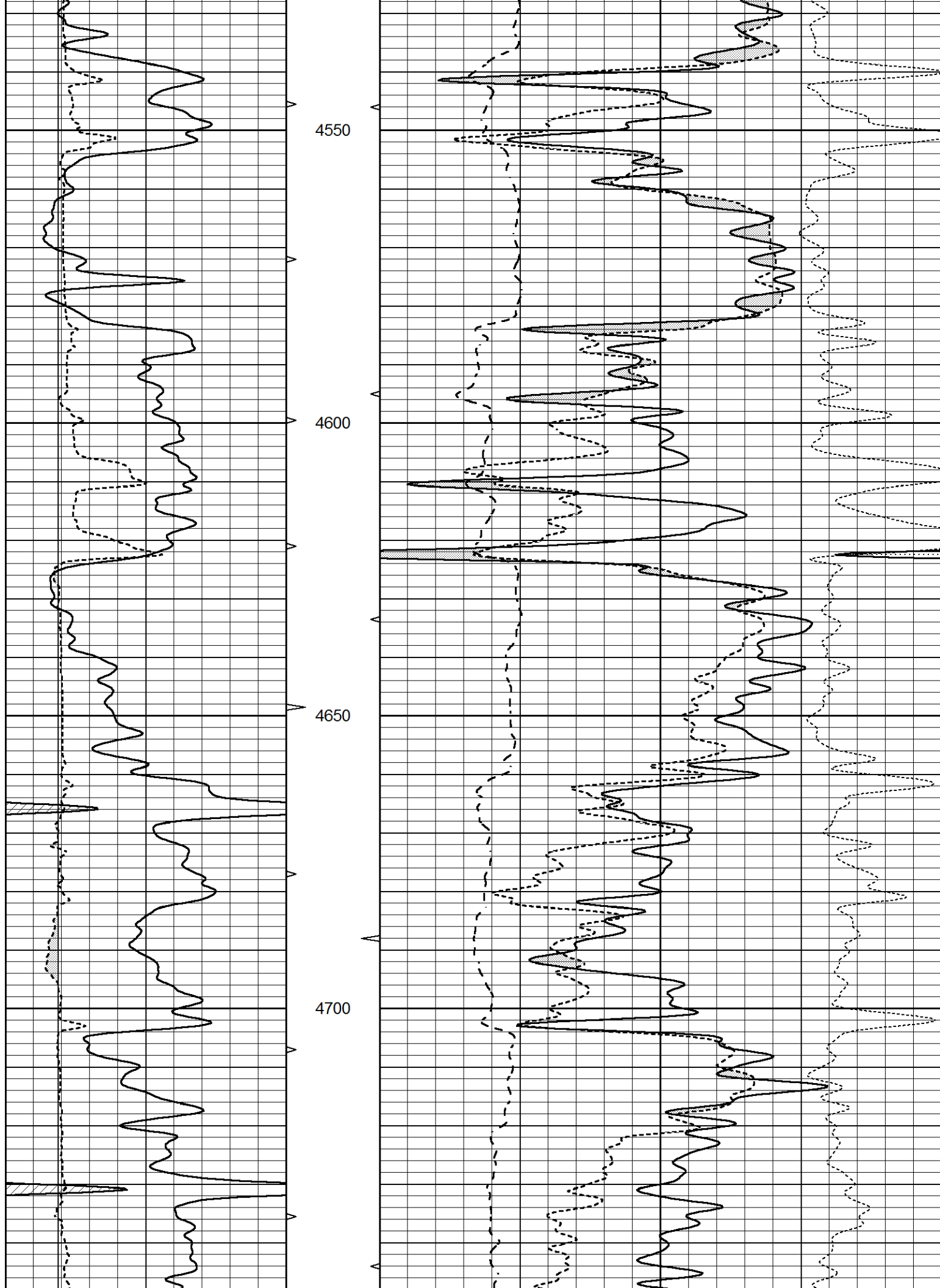


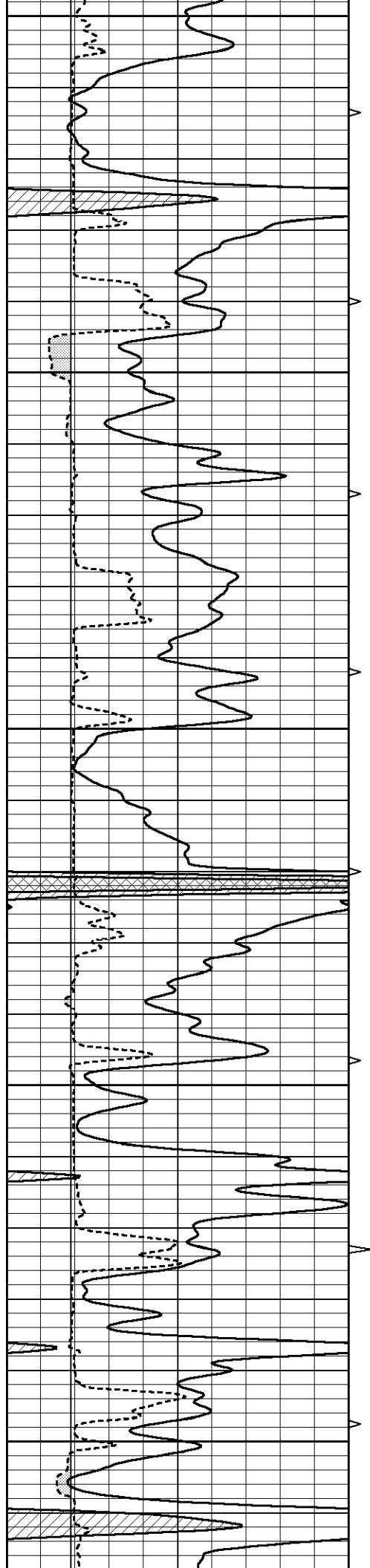
MAIN SECTION

Database File 5854pe.db
 Dataset Pathname pass4.1
 Presentation Format _ldt_neu
 Dataset Creation Fri Sep 17 11:00:10 2021
 Charted by Depth in Feet scaled 1:240









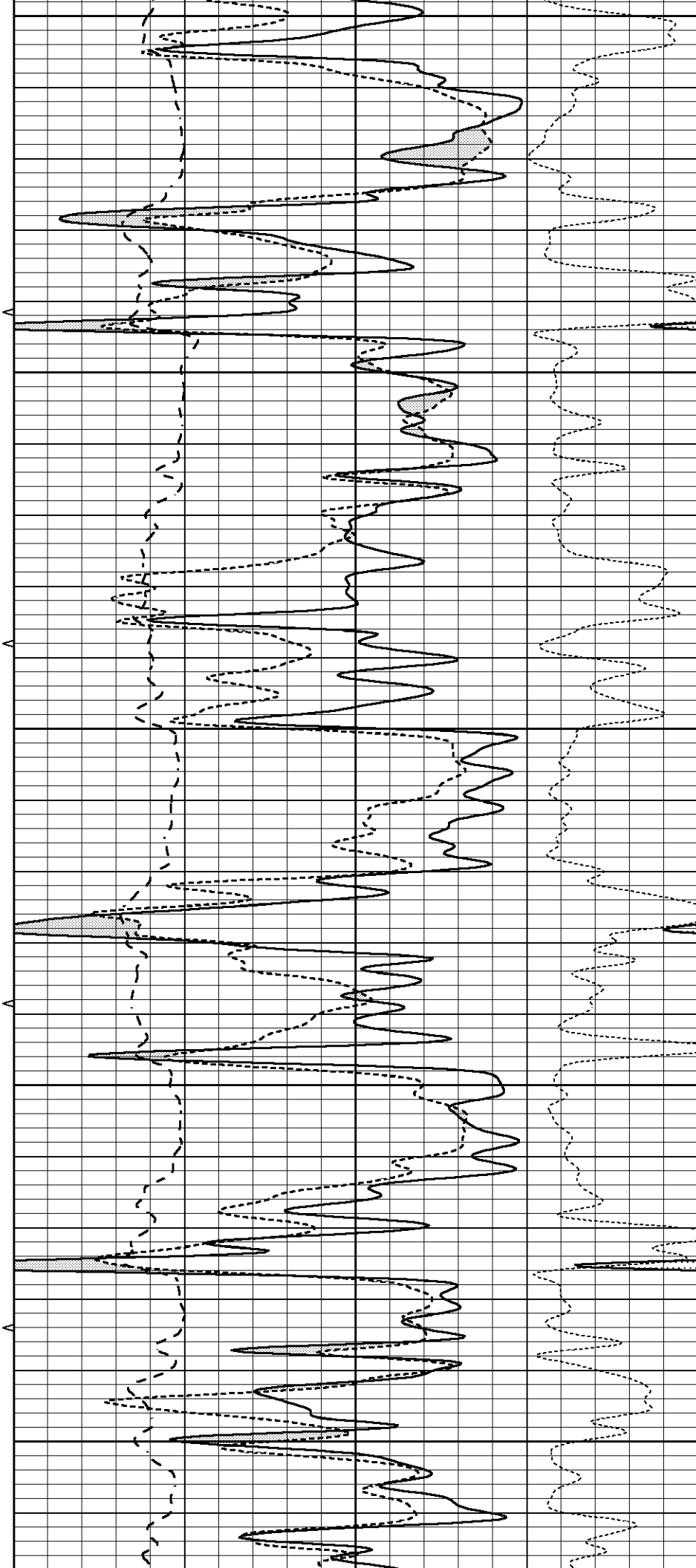
4750

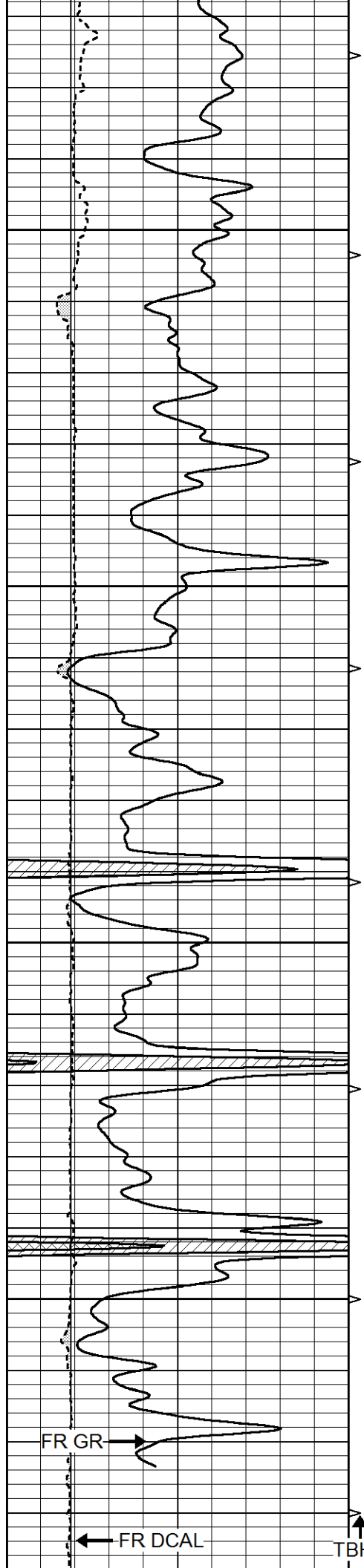
4800

4850

4900

4950





5000

5050

5100

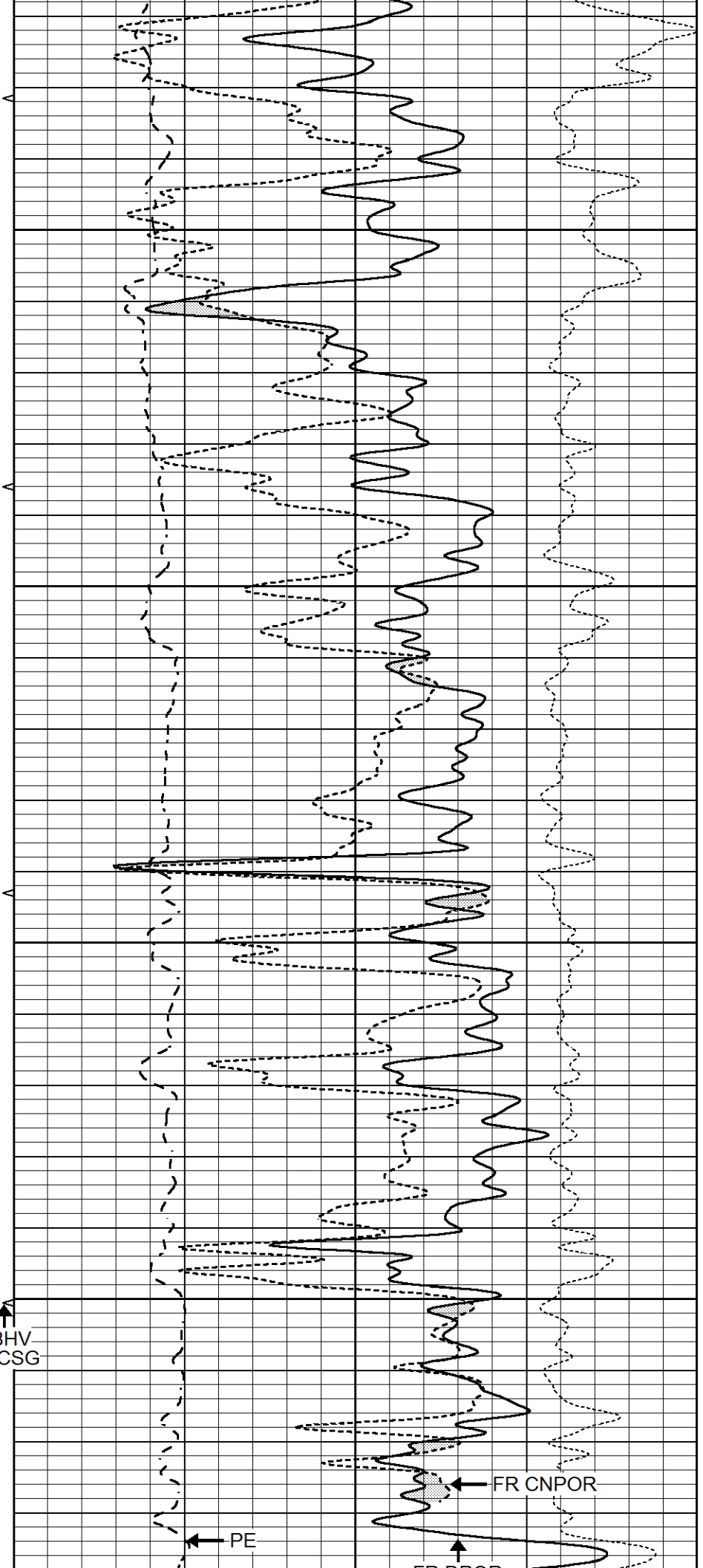
5150

ABHV
5.5" CSG

FR GR

FR DCAL

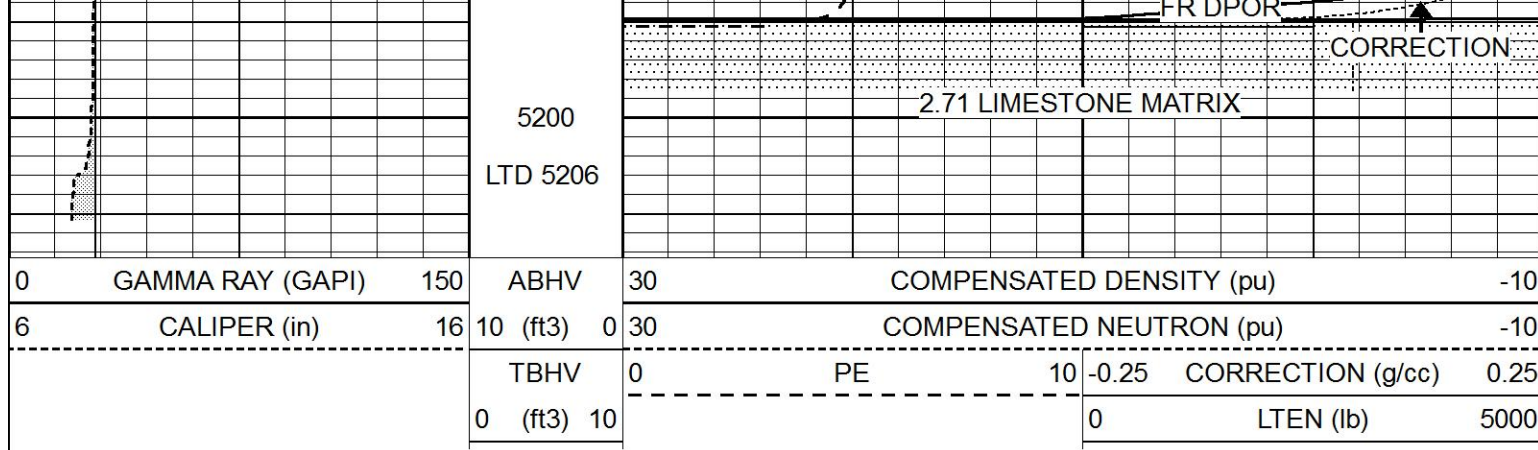
TBHV



PE

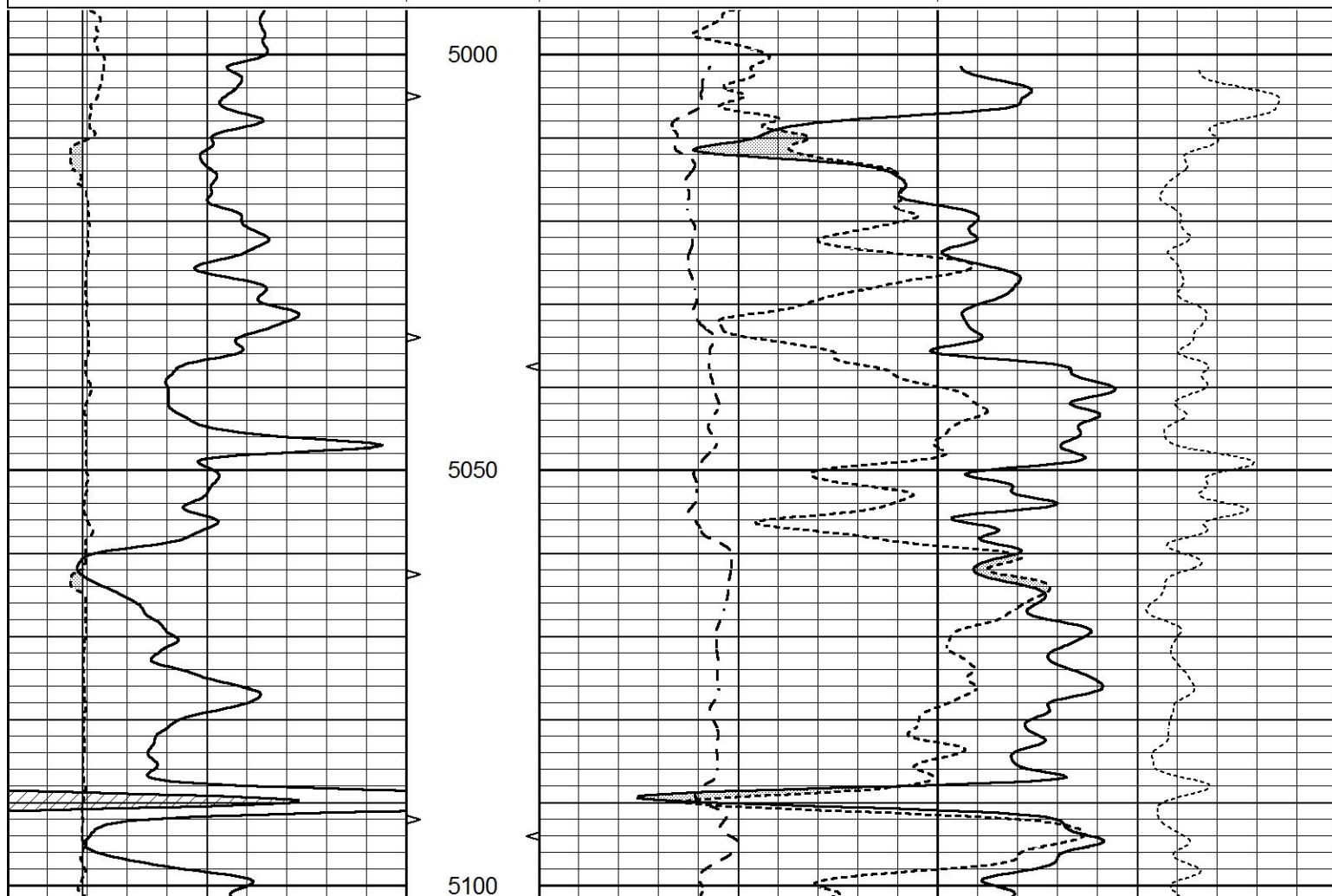
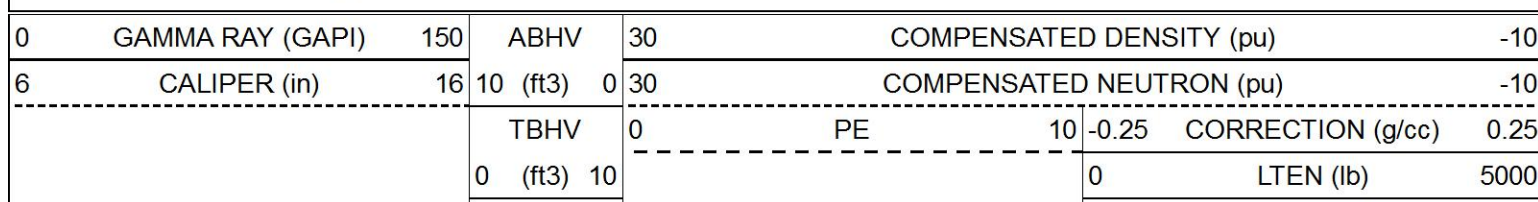
FR CNPOR

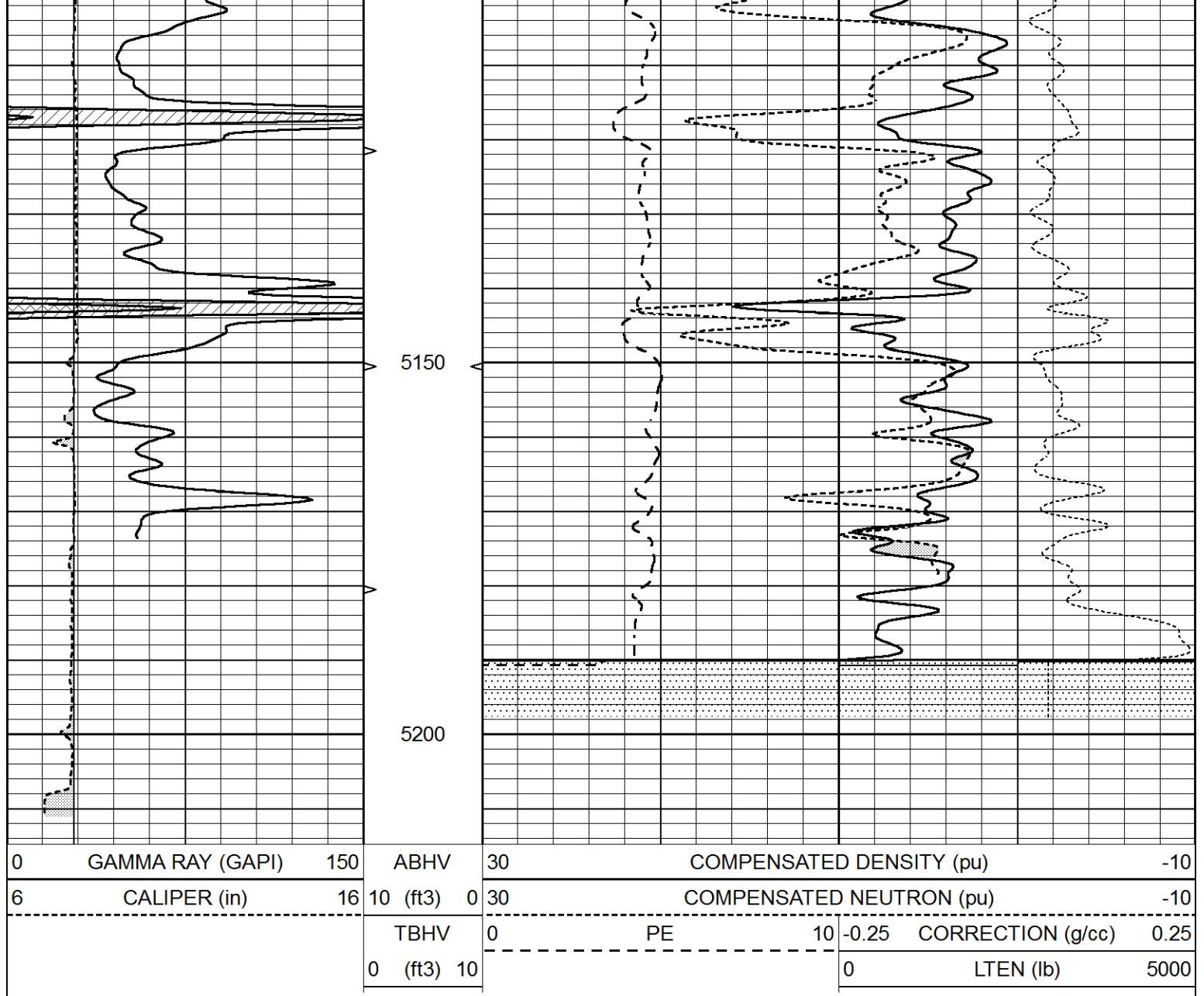
FR DCAL



REPEAT SECTION

Database File 5854pe.db
Dataset Pathname pass3.1
Presentation Format _ldt_neu
Dataset Creation Fri Sep 17 10:59:00 2021
Charted by Depth in Feet scaled 1:240





Calibration Report

Database File 5854pe.db
Dataset Pathname pass3.1
Dataset Creation Fri Sep 17 10:59:00 2021

Dual Induction Calibration Report

Serial-Model: FW1410-55-Probe
Surface Cal Performed: Tue Feb 19 11:44:18 2019
Downhole Cal Performed: Tue Feb 19 11:44:24 2019
After Survey Verification Performed: Tue Feb 19 11:44:27 2019

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: 140703 Model: V4_10P Source Number: 74GBq-19								
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Master Calibration			Performed: Wed Dec 02 12:04:44 2020		
	Background	Aluminum	Magnesium		
Window 1	595.38	5386.50	23898.92	cps	
Window 2	52.78	1248.21	5993.75	cps	
Window 4	251.36	1200.30	5155.55	cps	
Window 5	545.15	9066.30	17240.12	cps	
Window 6	43.35	1491.73	2929.24	cps	
Window 8	258.76	2917.82	5450.26	cps	
Bulk Density	-	2.6020	1.6830	g/cc	
Pe	-	3.0000	2.5070	b/e	
LS Alpha:	: -1.8726	SS Alpha:	: -0.7656	LS CPE:	: 1.0742
LS Beta:	: 127345.0723	SS Beta:	: 20293.3834	SS CPE:	: 1.5427

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 Dec 02 12:04:44 2020					
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Results	Readings	References (in)			
Low	High	Low	High	Gain	Offset
8005.3	11087.2	8.0	14.0	0.0	-8.5
Before Survey Caliper Verification		Performed:			
	Reference	Reading			
Caliper (in)					
After Survey Caliper Verification		Performed:			
	Reference	Reading			
Caliper (in)					
Compensated Neutron Calibration Report					
		Serial Number: Tool Model:		080621PMC 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:		7			
Tool Model:		Probe1			
Performed:		Tue Jan 19 17:50:08 2021			
Calibrator Value:		1.0	GAPI		
Background Reading:		0.0	cps		
Calibrator Reading:		1.0	cps		
Sensitivity:		0.5300	GAPI/cps		