



**COMPENSATED  
DENSITY/NEUTRON  
PE LOG**

**Company** MULL DRILLING COMPANY, INC.  
**Well** FUNK #1-7  
**Field** LANGER  
**County** NESS  
**State** KANSAS

**Location:** API #: 15-135-26173-0000  
 307' FSL & 1606' FWL  
 SW - SE - SW  
 SEC 7 TWP 18S RGE 22W  
**Permanent Datum** GROUND LEVEL Elevation 2227  
**Log Measured From** KELLY BUSHING 8' A.G.L.  
**Drilling Measured From** KELLY BUSHING  
**Other Services** DILMEL SONIC  
**Elevation** K.B. 2235  
 D.F. 2233  
 G.L. 2227

Date	5/25/22
Run Number	ONE
Depth Driller	4330
Depth Logger	4326
Bottom Logged Interval	4302
Top Log Interval	3500
Casing Driller	8 5/8"@266'
Casing Logger	266
Bit Size	7 7/8"
Type Fluid in Hole	CHEMICAL MUD
Density / Viscosity	9.3/51
pH / Fluid Loss	11.0/6.0
Source of Sample	FLOWLINE
Rm @ Meas. Temp	1.20@70F
Rmf @ Meas. Temp	.900@70F
Rmc @ Meas. Temp	1.44@70F
Source of Rmf / Rmc	MEASURED
Rm @ BHT	.706@119F
Time Circulation Stopped	2.5 HOURS
Time Logger on Bottom	2:00 P.M.
Maximum Recorded Temperature	119F
Equipment Number	8916
Location	HAYS, KANSAS
Recorded By	JEFF LUEBBERS
Witnessed By	PHIL ASKEY

<<< Fold Here >>>

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**

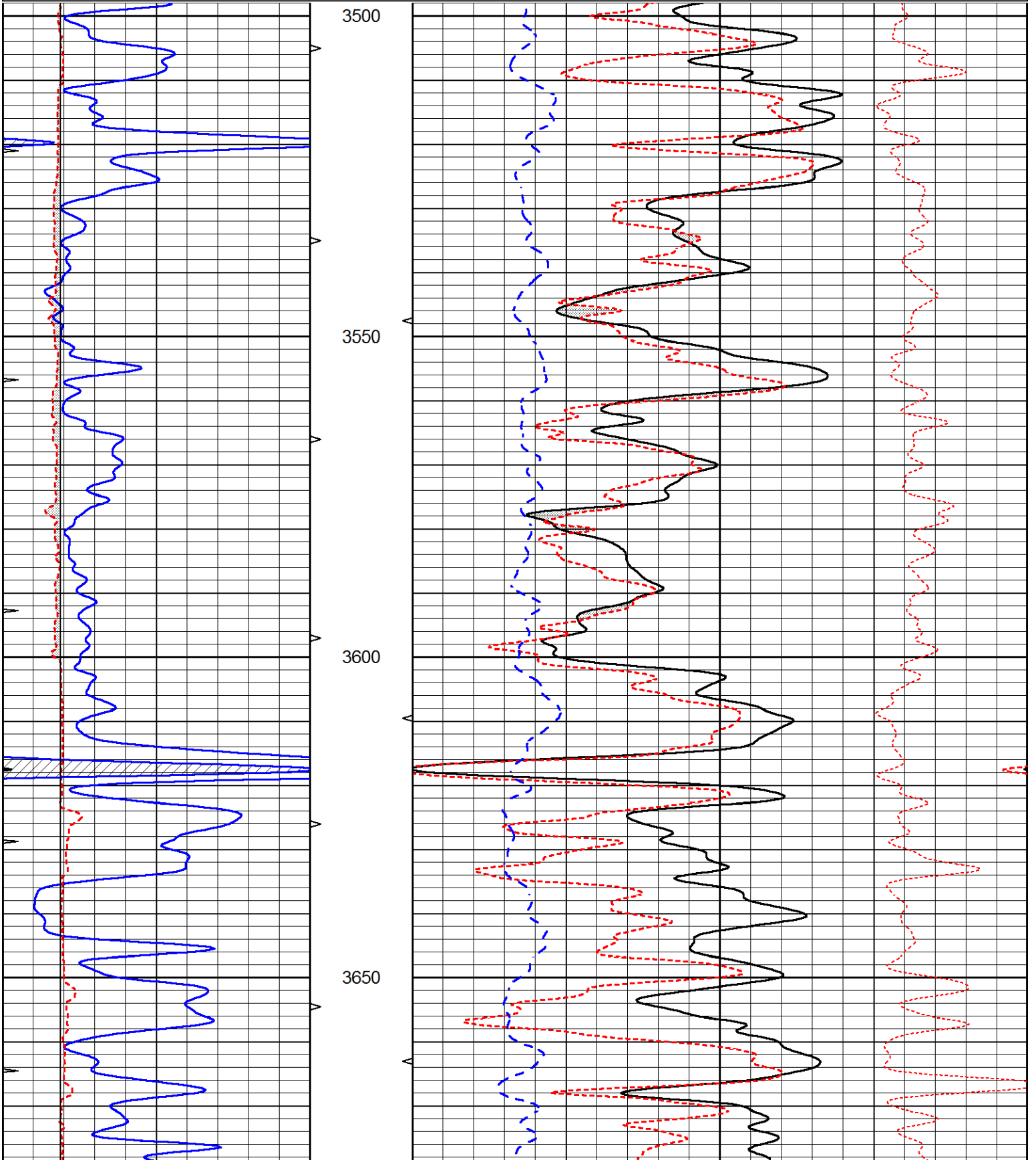
THANK YOU FOR USING ELI WIRELINE, HAYS, KS. (785) 628-6395  
 DIRECTIONS:  
 BAZINE, KS., 6W. ON HWY 96 TO "RD. X", 3 1/2N. TO TANK BATTERY, 1/2E. ON LEASE RD., THEN  
 BACK S. PAST PUMPING UNIT

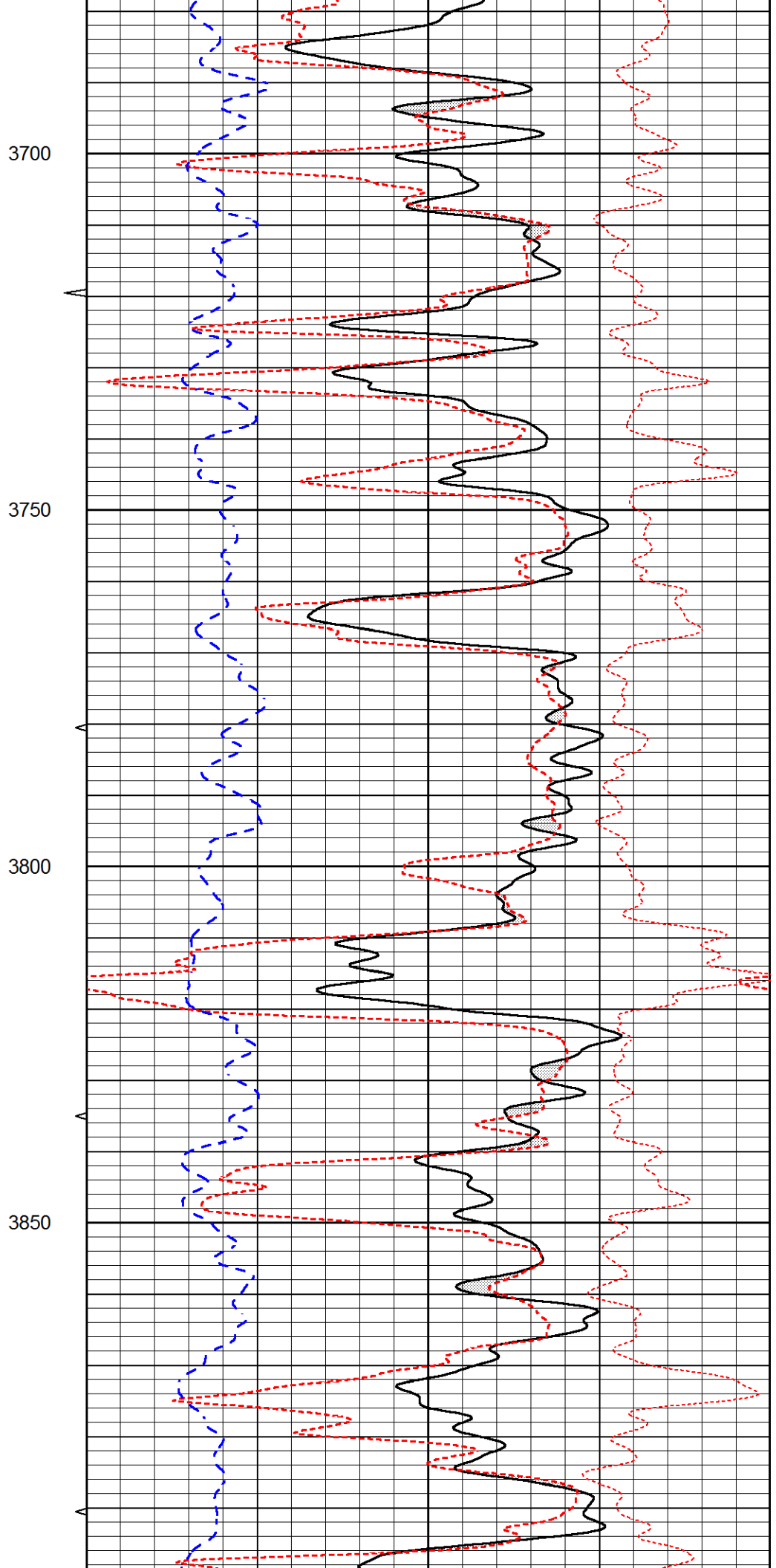
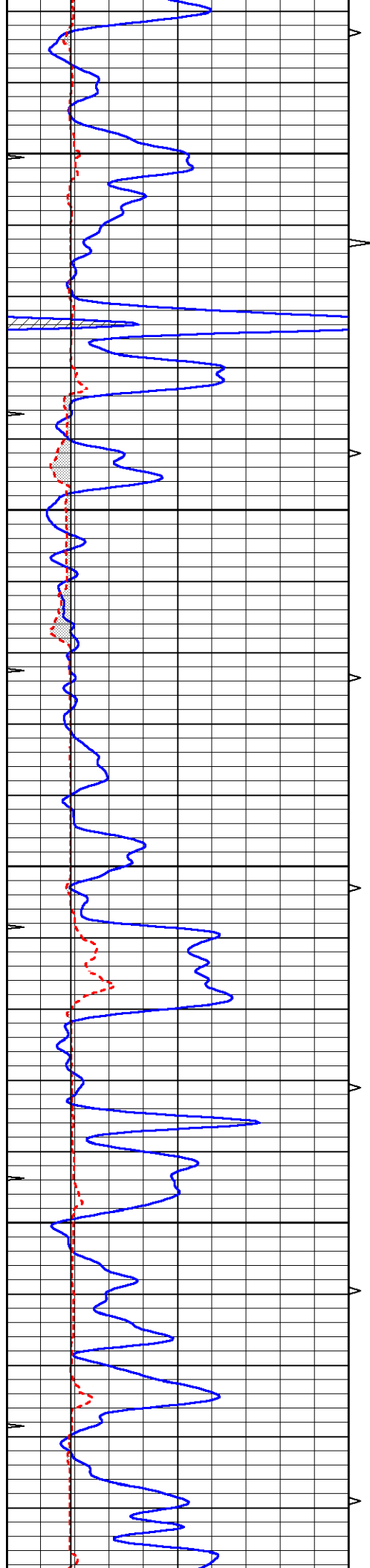


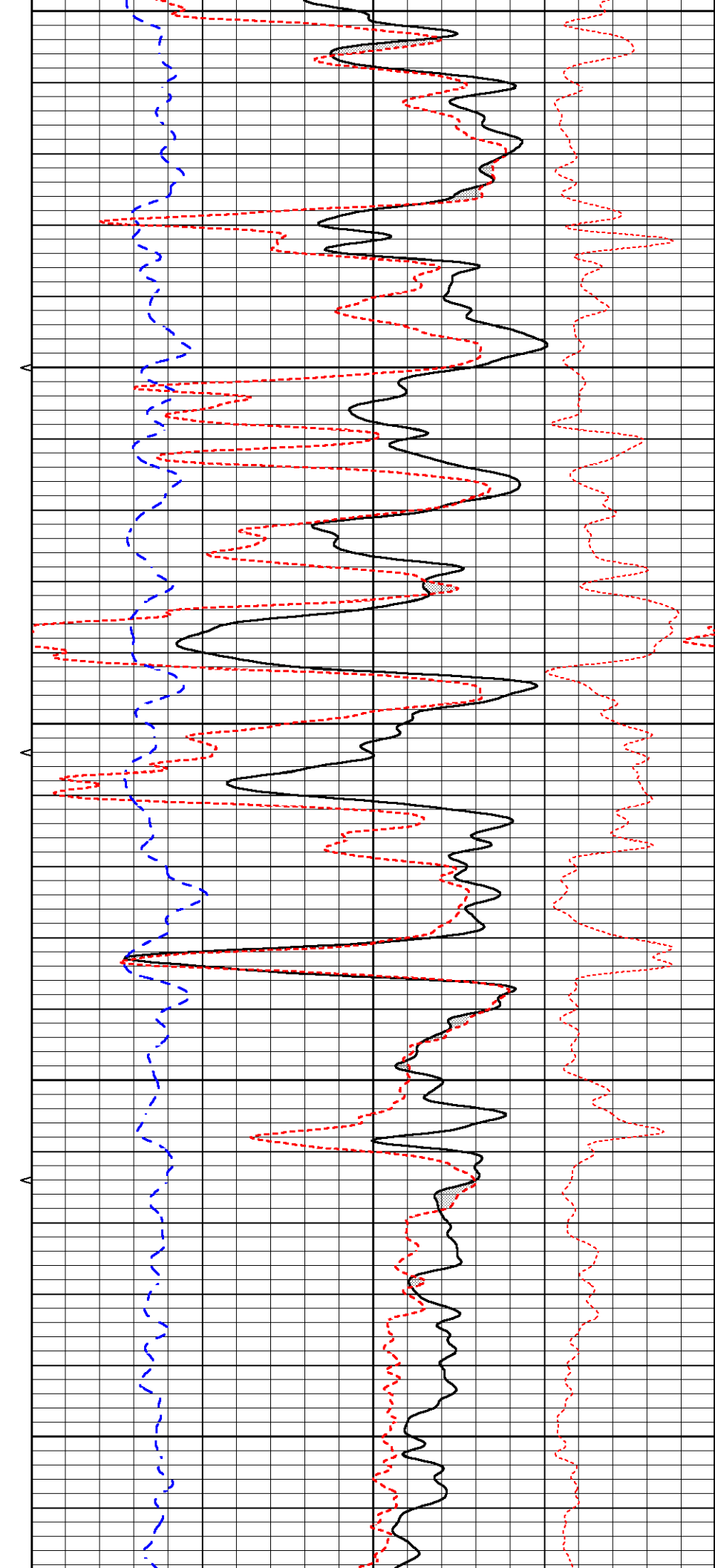
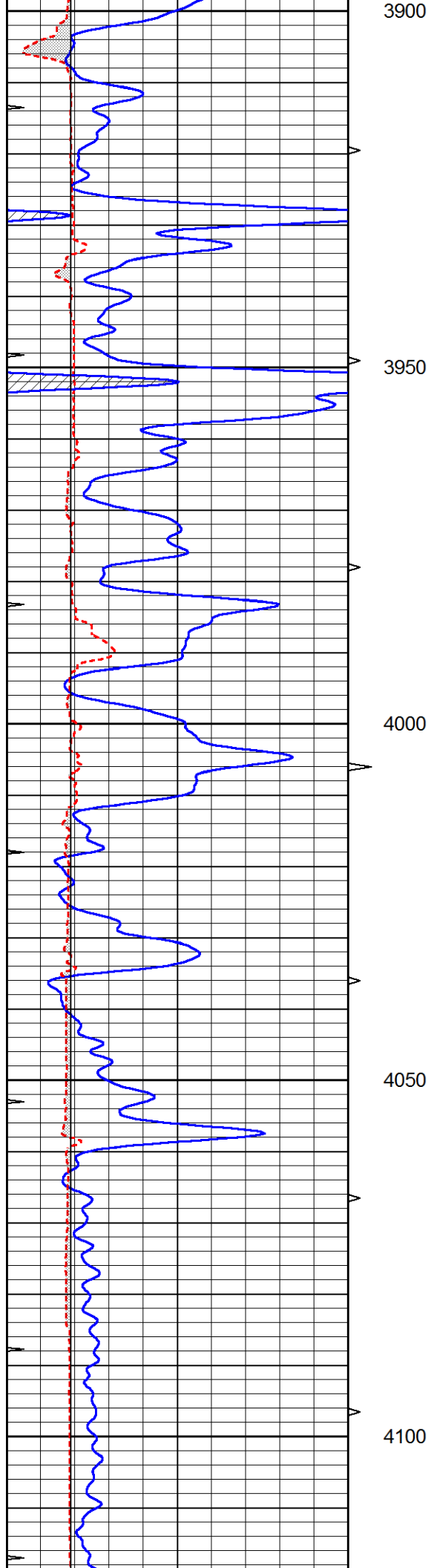
**MAIN SECTION**

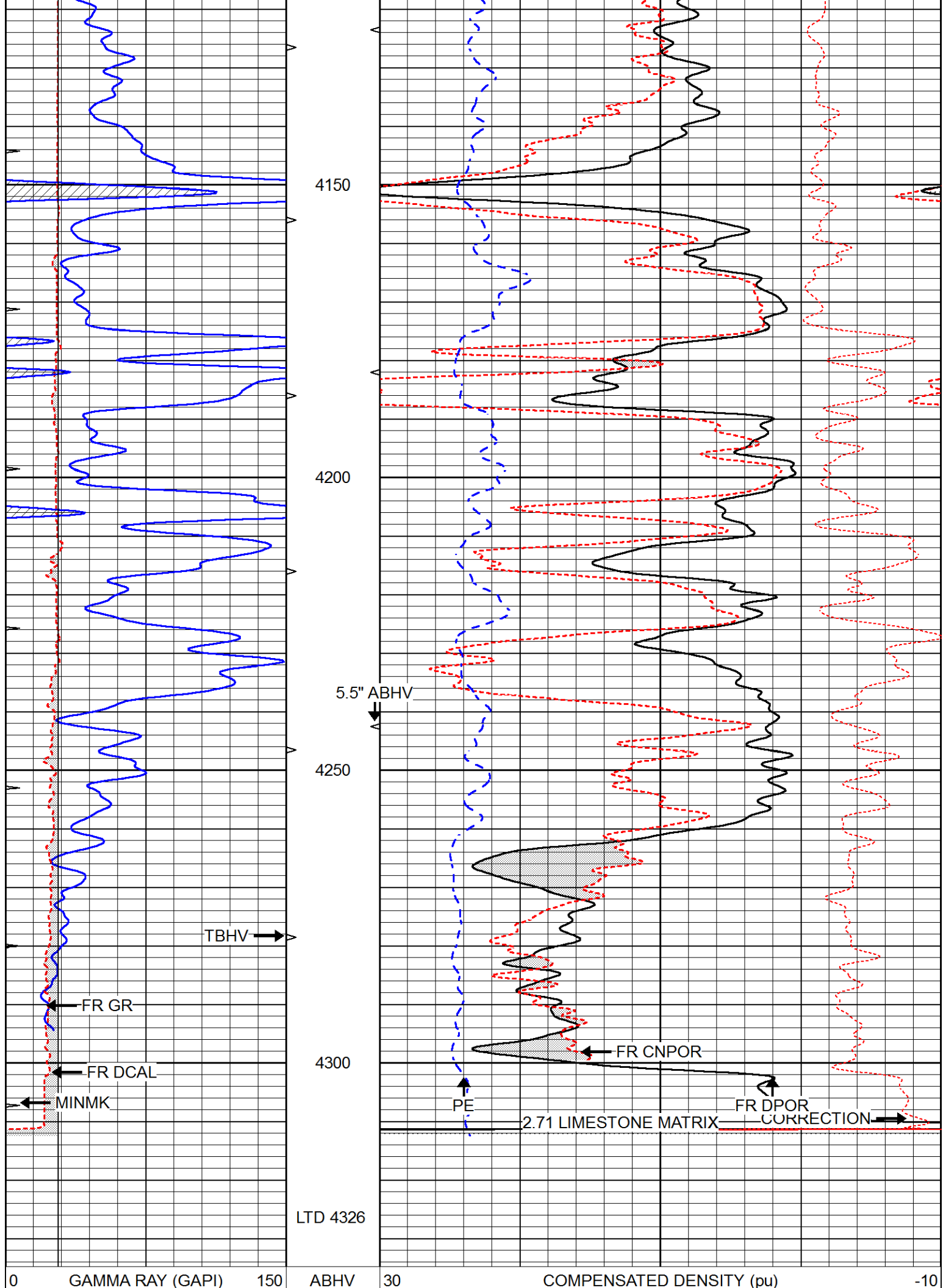
Database File 6556pe.db  
 Dataset Pathname pass4.1M  
 Presentation Format \_ldt\_neu  
 Dataset Creation Wed May 25 15:55:26 2022  
 Charted by Depth in Feet scaled 1:240

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
			0 (ft3)	10	CORRECTION (g/cc)		0.25









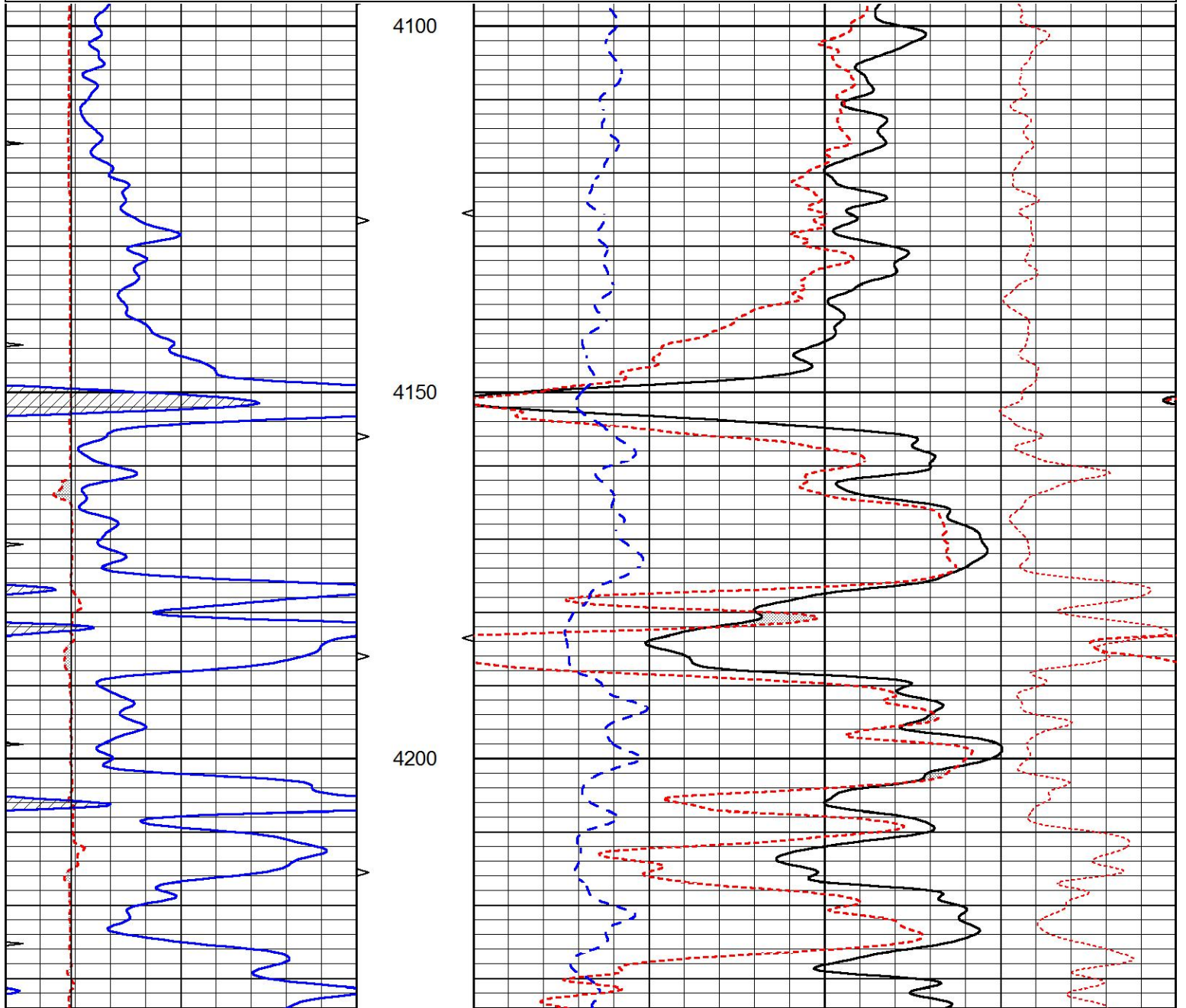
6	CALIPER (in)	16	10 (ft3)	0	30	COMPENSATED NEUTRON (pu)			-10
0	MINMK	20	TBHV	0	0	PE	10	-0.25	CORRECTION (g/cc) 0.25
			0 (ft3)	10					

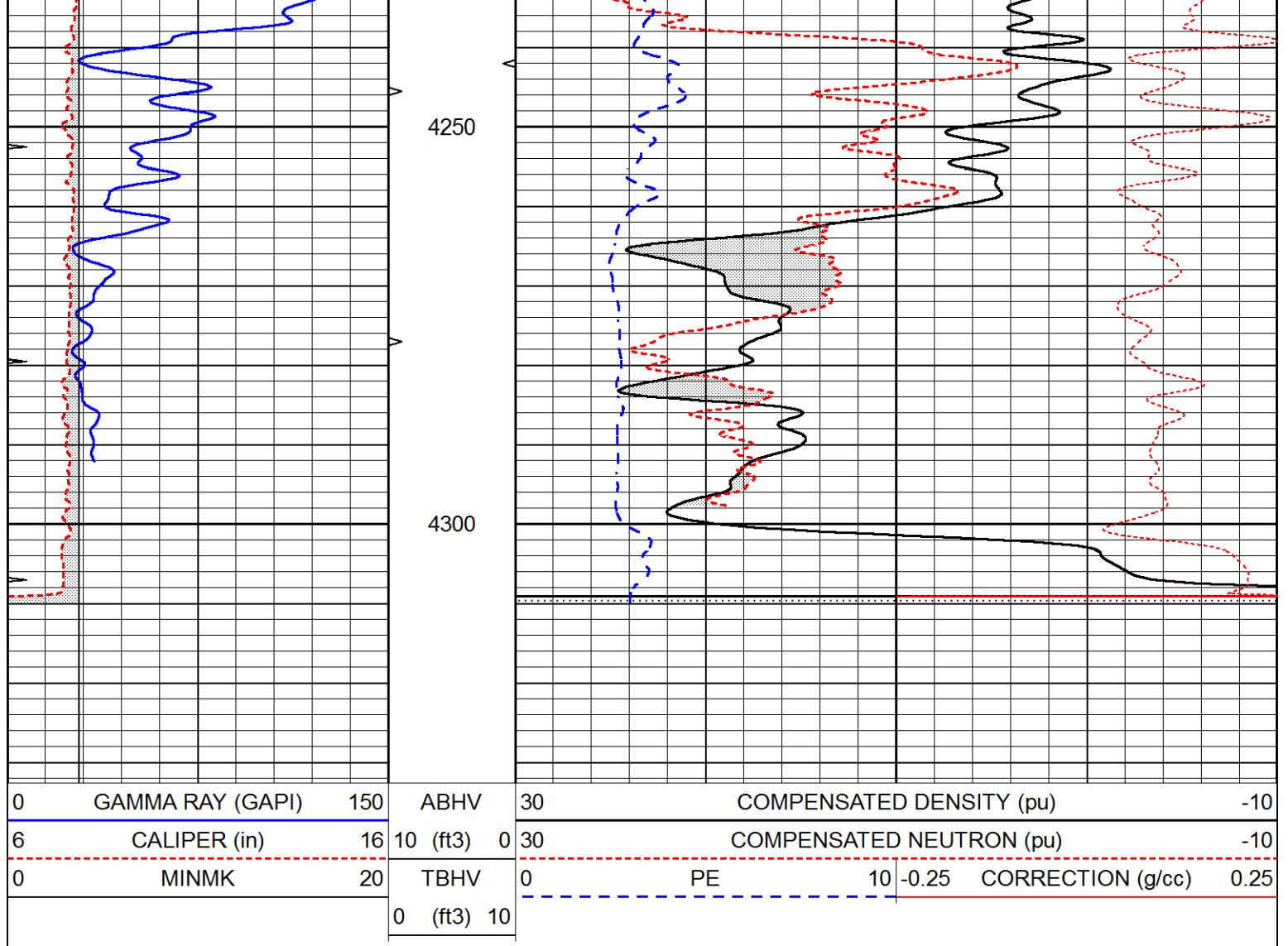


# REPEAT SECTION

Database File 6556pe.db  
 Dataset Pathname pass3.1R  
 Presentation Format \_ldt\_neu  
 Dataset Creation Wed May 25 15:26:29 2022  
 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	0	PE	10	-0.25	CORRECTION (g/cc) 0.25
			0 (ft3)	10					





### Calibration Report

Database File 6556pe.db  
 Dataset Pathname pass4.1M  
 Dataset Creation Wed May 25 15:55:26 2022

### Dual Induction Calibration Report

Serial-Model: PROBE8-DILG  
 Surface Cal Performed: Tue May 24 16:04:16 2022  
 Downhole Cal Performed: Mon Sep 10 14:28:38 2018  
 After Survey Verification Performed: Mon Sep 10 14:28:40 2018

#### Surface Calibration

Loop:	Readings				References			Results	
	Air	Loop			Air	Loop		m	b
Deep	0.015	0.648	V	0.000	400.000	mmho/m	600.000	0.000	
Medium	0.029	0.796	V	0.000	464.000	mmho/m	590.000	-14.000	
Internal:	Zero	Cal		Zero	Cal		m	b	
Deep	0.017	0.657	V	0.000	400.000	mmho/m	625.153	-10.619	
Medium	0.016	0.757	V	0.000	464.000	mmho/m	625.992	-9.739	

#### Downhole Calibration

Readings		References		Results	
Zero	Cal	Zero	Cal	m'	b'

Deep	0.000	0.000	mmho/m	2.011	405.777	mmho/m	1.000	0.000
Medium	0.000	0.000	mmho/m	7.590	503.393	mmho/m	1.000	0.000
LL3		7.500	V		1500.000	Ohm-m		
		0.000	V		20.000	Ohm-m		
		-7.200	V		3800.000	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		

Litho Density Calibration Report  
Serial: 004      Model: PRB

Master Calibration		Performed Mon May 23 11:44:16 2022				
	Background	Magnesium	Aluminum	Aluminum+Fe		
Window 1	1148.7	7216.0	2498.2	2291.5	cps	
Window 2	1052.1	6193.6	2181.7	2034.2	cps	
Window 3	896.0	3827.3	1530.0	1472.6	cps	
Window 4	252.1	258.7	255.1	254.3	cps	
Long Space	0.0	5141.5	1129.6	982.1	cps	
Short Space	3.4	1390.2	903.9	792.3	cps	
Rho		1.7100	2.5900	0.0000	g/cc	
Pe		2.0000	2.7500	5.7900		
Rib Angle	: 44.1	Rib Slope	: 0.970	Density/Spine Ratio	: 0.559	
Spine Angle	: 74.1	Spine Slope	: 3.520	Spine Intercept	: -16.9	

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: 6I  
 Tool Model: G

CALIBRATION

Detector	Readings	Target	Normalization
Short Space	1.00 cps	1.00 cps	1.0000
Long Space	1.00 cps	1.00 cps	1.0000

PRE-SURVEY VERIFICATION

	Detector	Readings	Measured	Target
1)	Short Space	cps		
	Long Space	cps	pu	pu
2)	Short Space	cps		
	Long Space	cps	pu	
3)	Short Space	cps		
	Long Space	cps	pu	

POST-SURVEY VERIFICATION

	Detector	Readings	Measured	Target
1)	Short Space	cps		
	Long Space	cps	pu	pu
2)	Short Space	cps		
	Long Space	cps	pu	pu
3)	Short Space	cps		
	Long Space	cps	pu	pu

Gamma Ray Calibration Report

Serial Number:	GR6	
Tool Model:	OPEN	
Performed:	Wed May 25 15:13:08 2022	
Calibrator Value:	150.0	GAPI
Background Reading:	0.0	cps
Calibrator Reading:	276.0	cps
Sensitivity:	0.8000	GAPI/cps