



COMPENSATED DENSITY/NEUTRON LOG

Company L.D. DRILLING. INC.

Well KAUK #3-17

Field MORGAN

County THOMAS State KANSAS

Location: API # : 15-193-21081-0000

1915' FNL & 1650' FWL

SEC 17 TWP 8S RGE 34W

Permanent Datum GROUND LEVEL Elevation 3216
Log Measured From KELLY BUSHING 5' A.G.L.
Drilling Measured From KELLY BUSHING

Other Services
DIL
ML
Elevation
K.B. 3221
D.F. 3219
G.L. 3216

Date 1/27/21

Run Number ONE

Depth Driller 5324

Depth Logger 5325

Bottom Logged Interval 5305

Top Log Interval 3500

Casing Driller 8 5/8" @ 326

Casing Logger 326

Bit Size 7 7/8"

Type Fluid in Hole CHEMICAL MUD

Density / Viscosity 8.9/63

pH / Fluid Loss 10.5/6.4

Source of Sample FLOWLINE

Rm @ Meas. Temp 1.4 @ 60F

Rmf @ Meas. Temp 1.05 @ 60F

Rmc @ Meas. Temp 1.68 @ 60F

Source of Rmf / Rmc MEASURED

Rm @ BHT .65 @ 128F

Time Circulation Stopped 2 HOURS

Time Logger on Bottom 1111

Maximum Recorded Temperature 128F

Equipment Number 1523

Location HAYS, KANSAS

Recorded By GUS PFANENSTIEL

Witnessed By KIM SHOEMAKER

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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, HAYS, KS. (785) 628-6395

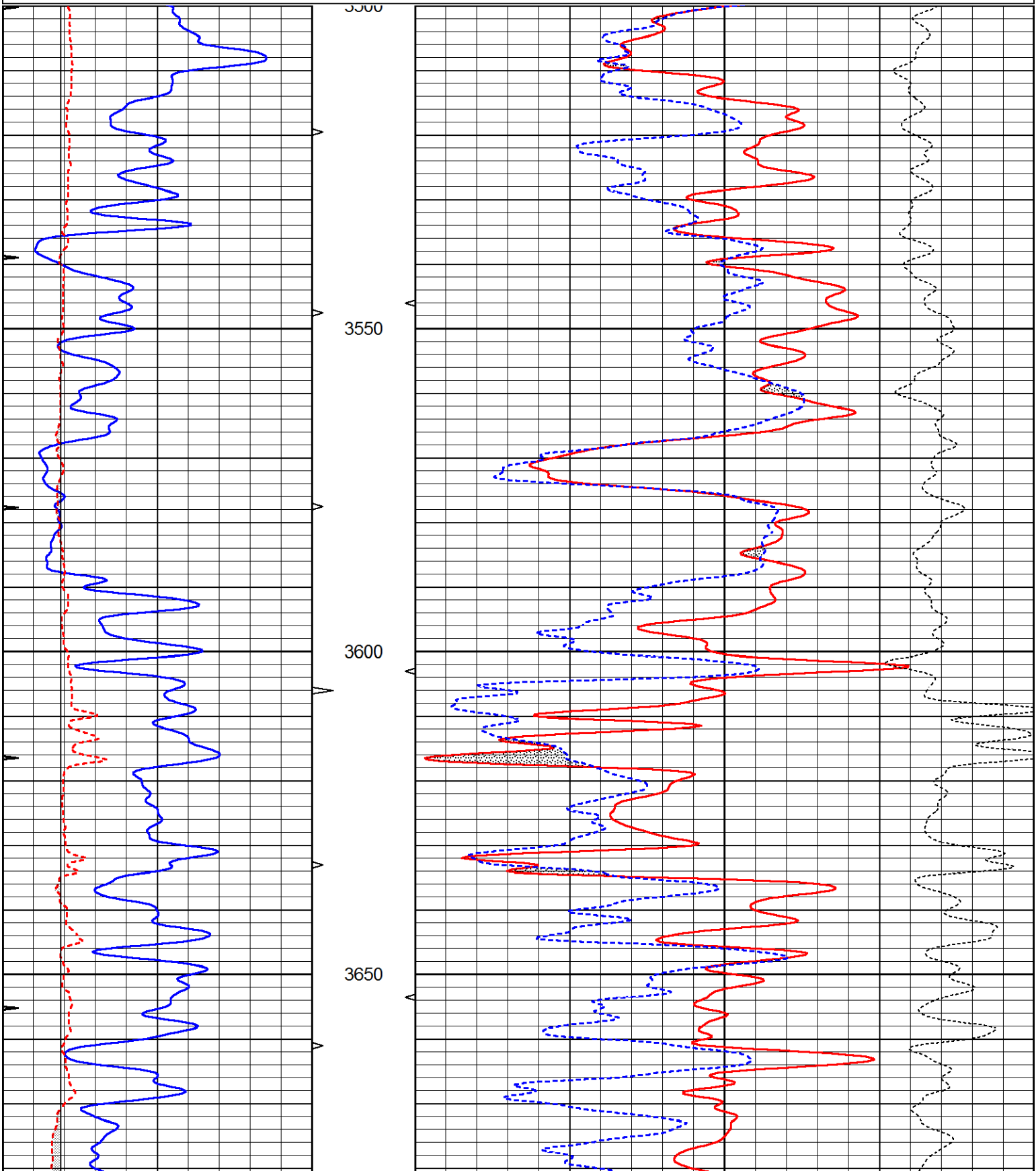
DIRECTIONS: LEVANT 3 EAST TO ROAD 15, SOUTH OVER INTERSTATE,
WEST INTO.

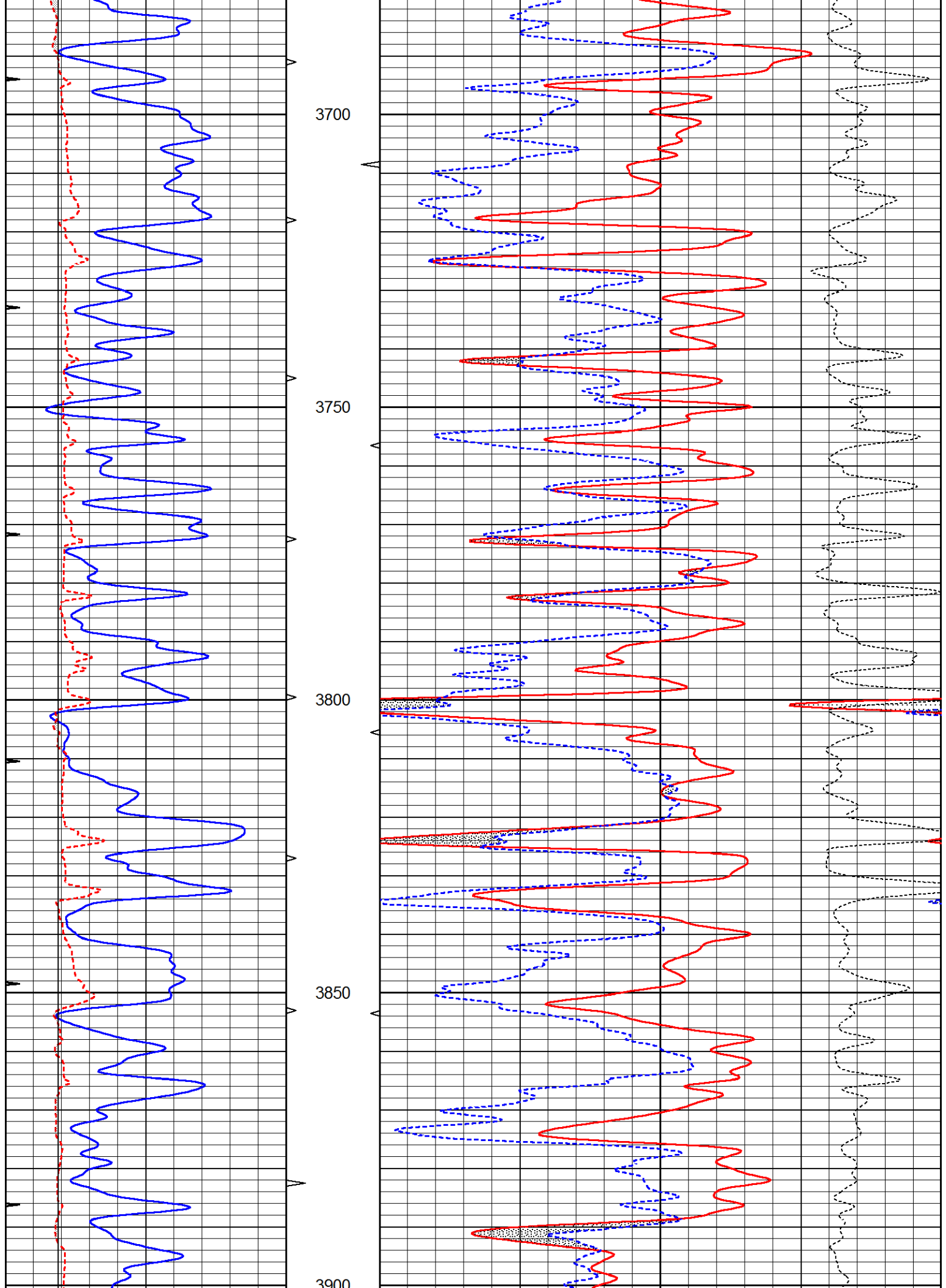


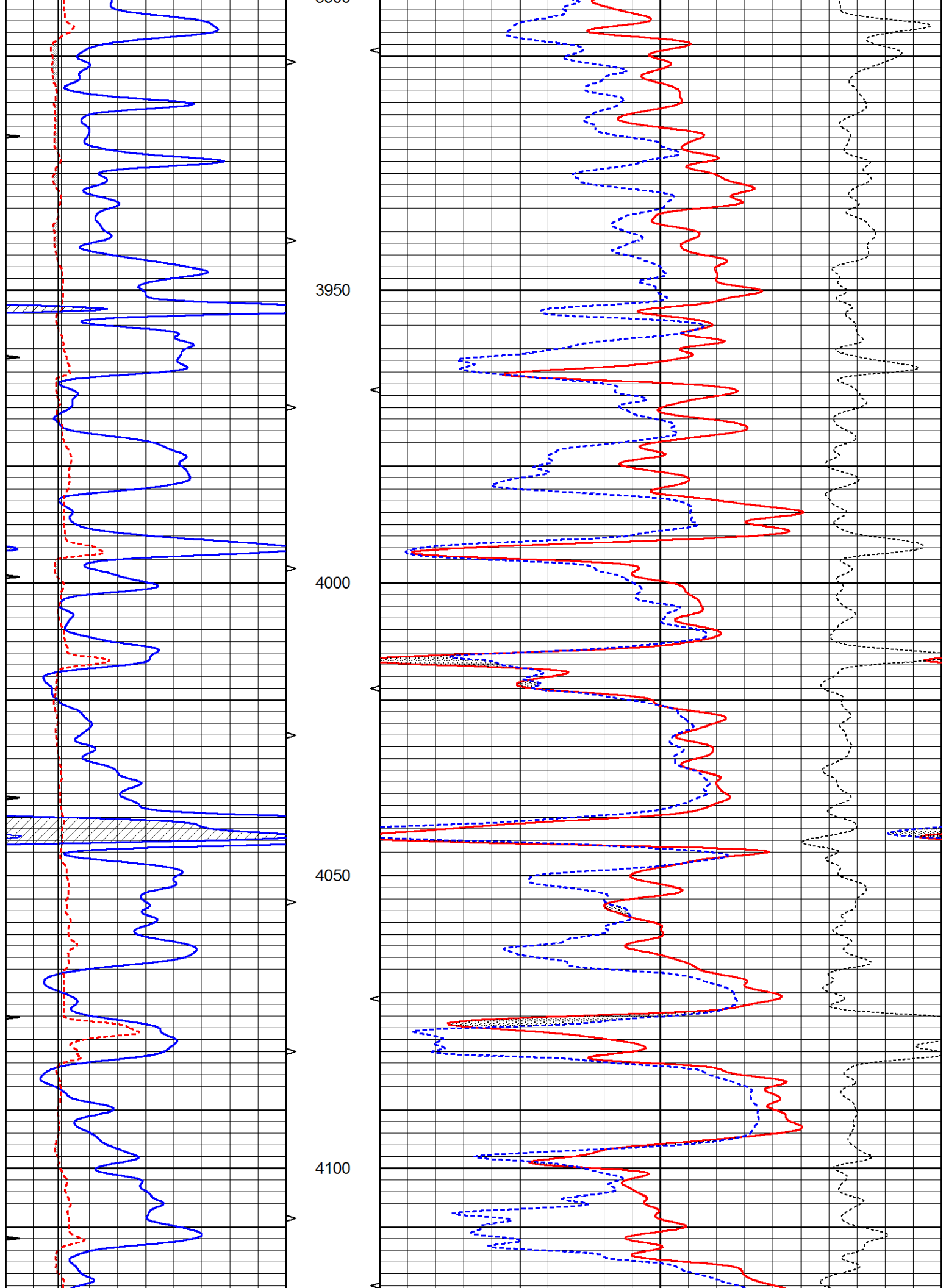
MAIN PASS

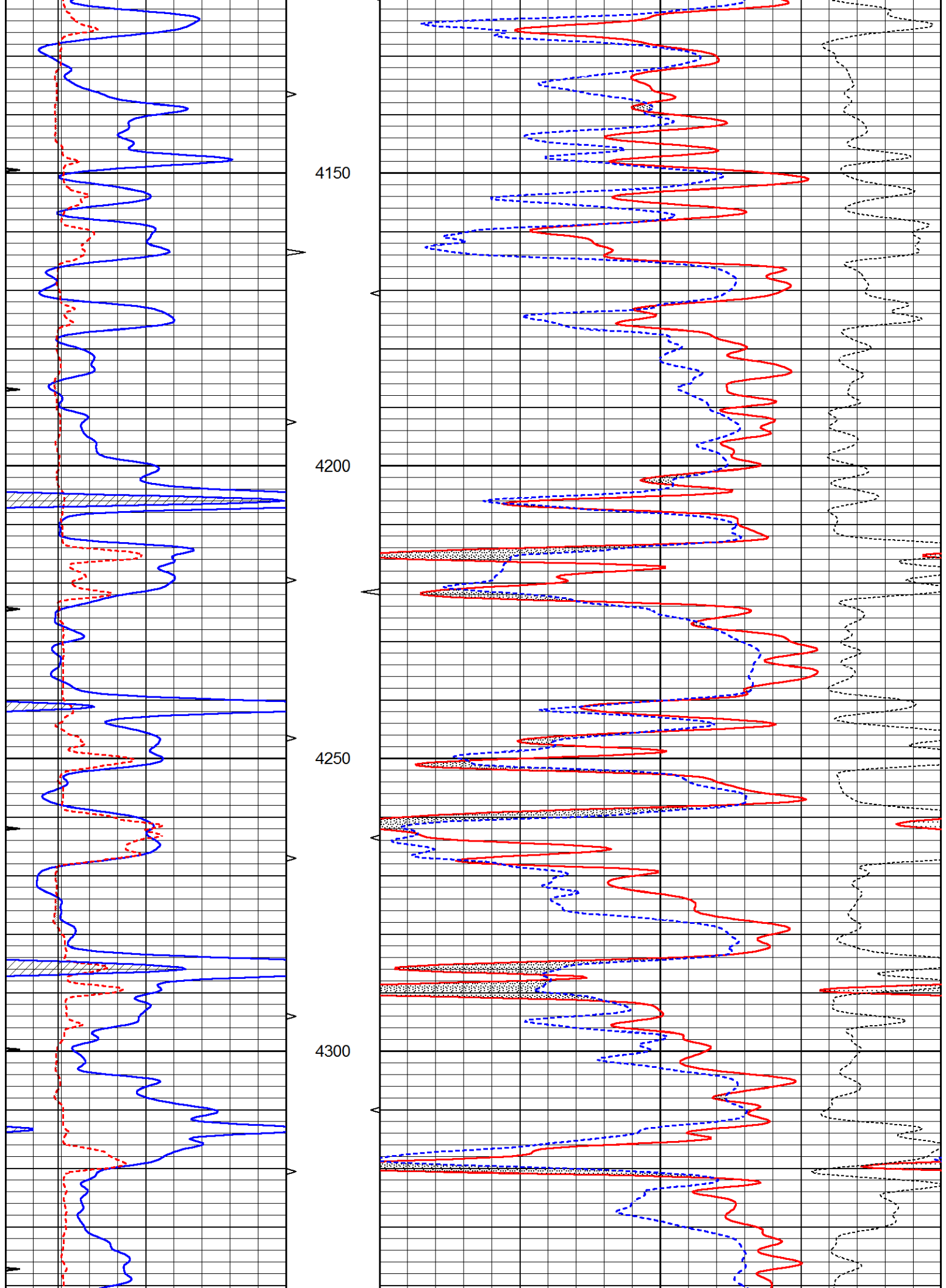
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Dataset Pathname	pass3.1
Presentation Format	den_neu
Dataset Creation	Wed Jan 27 17:11:41 2021
Charted by	Depth in Feet scaled 1:240

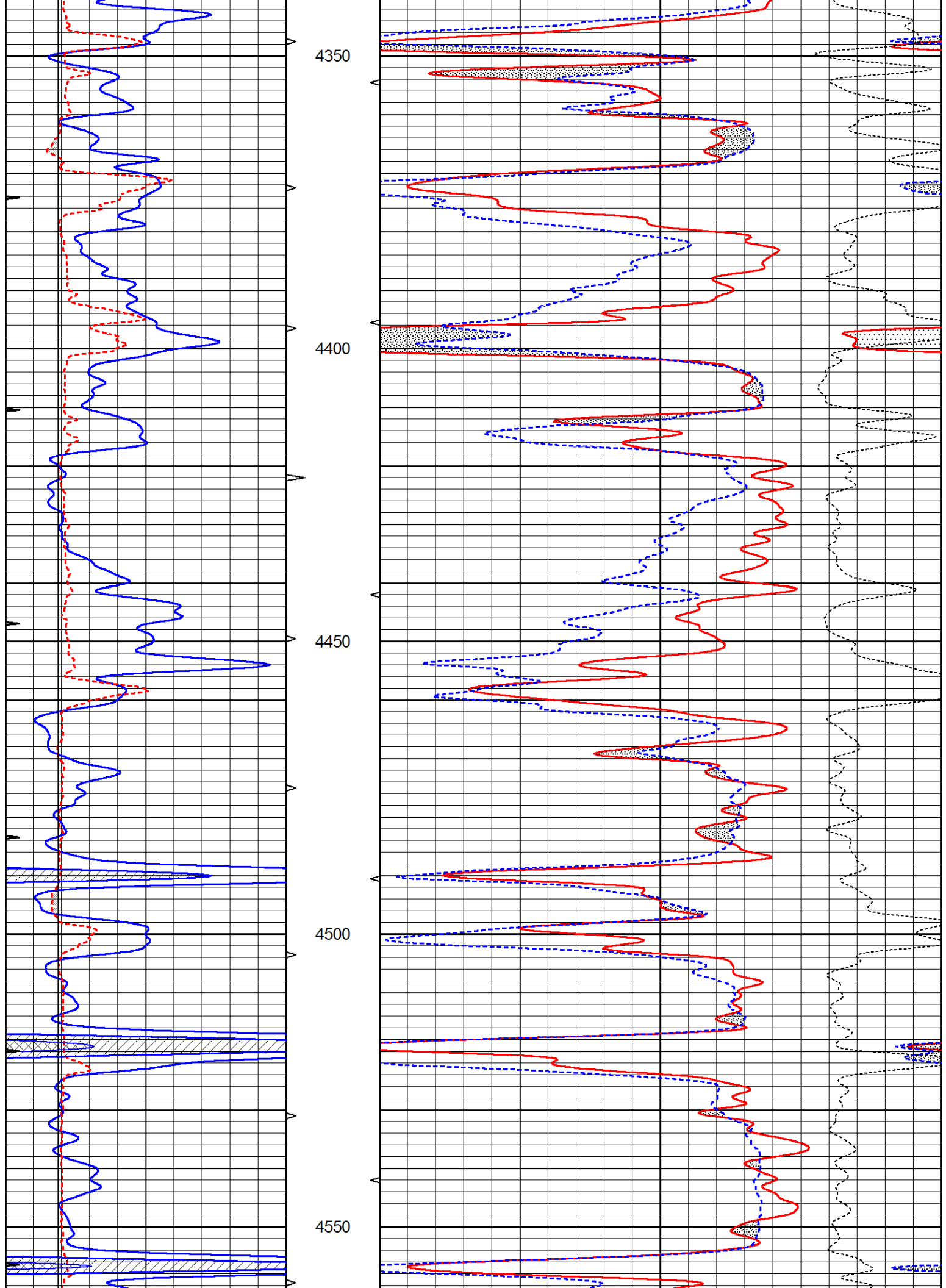
0	GAMMA RAY (GAPI)	150	ABHV	30	COMPENSATED DENSITY (pu)	-10
6	CALIPER (in)	16	10 (ft3) 0	30	COMPENSATED NEUTRON (pu)	-10
0	MINMK	20	TBHV		-0.25 CORRECTION (g/cc)	0.25
			0 (ft3) 10			

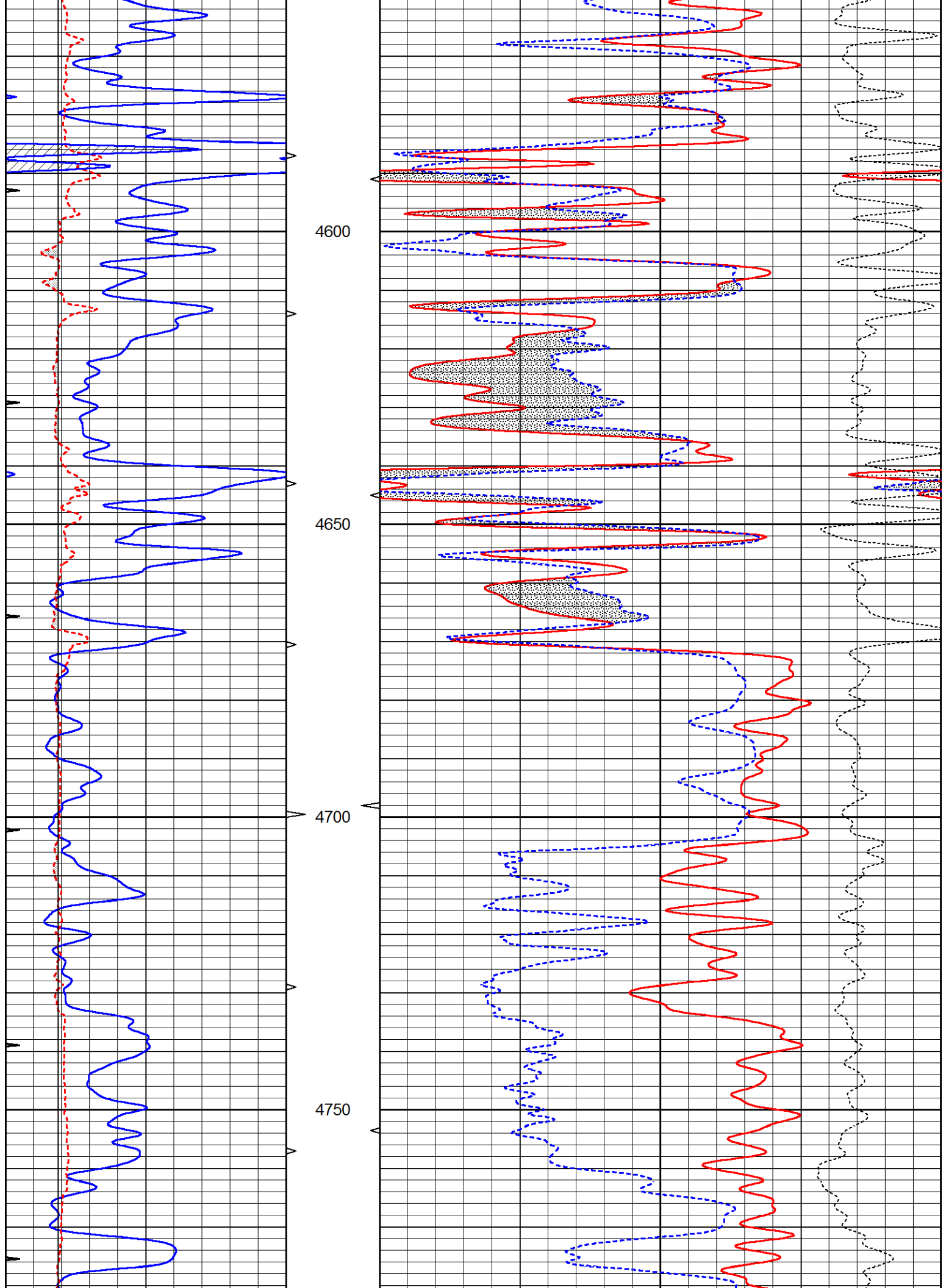


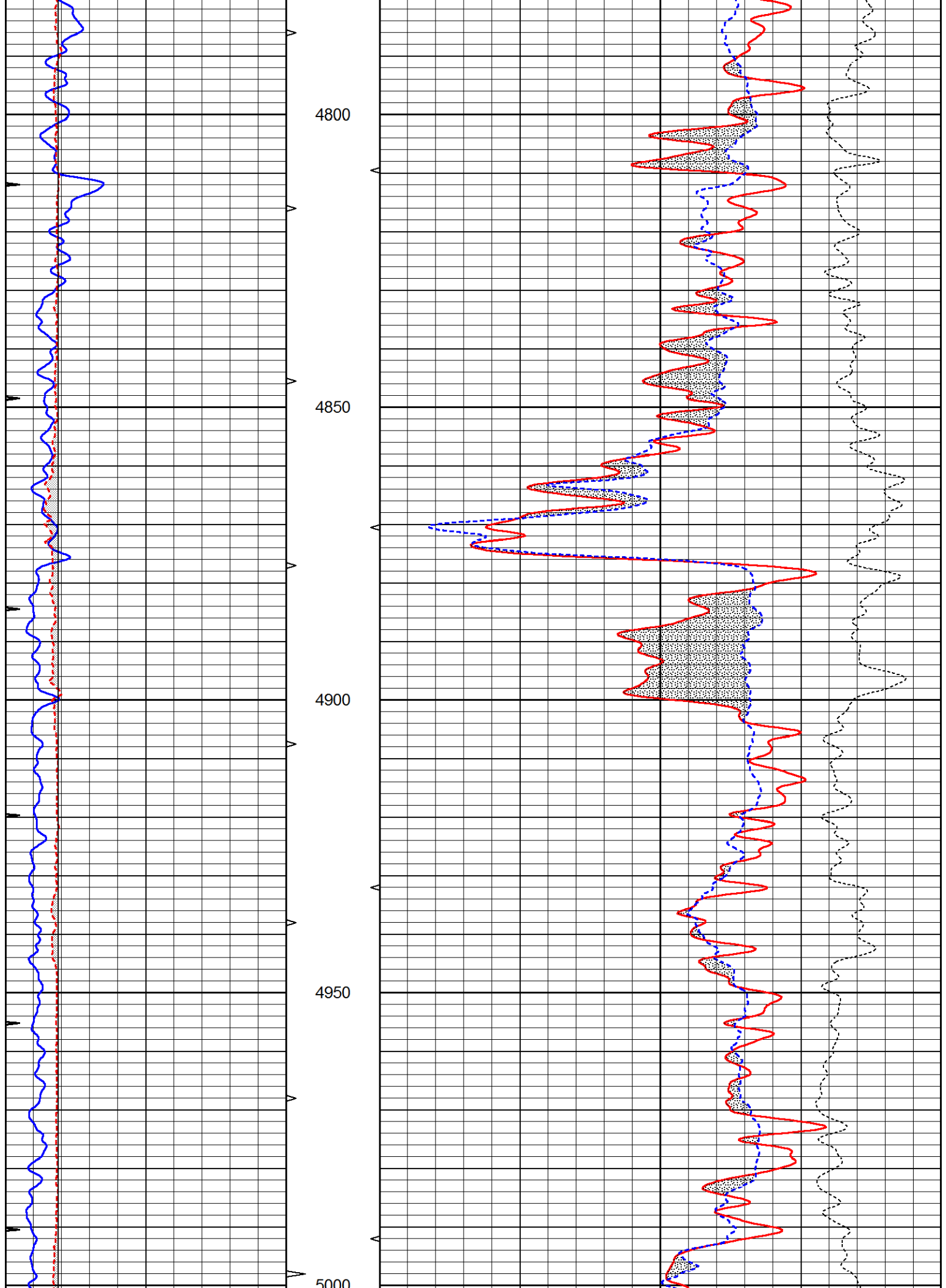


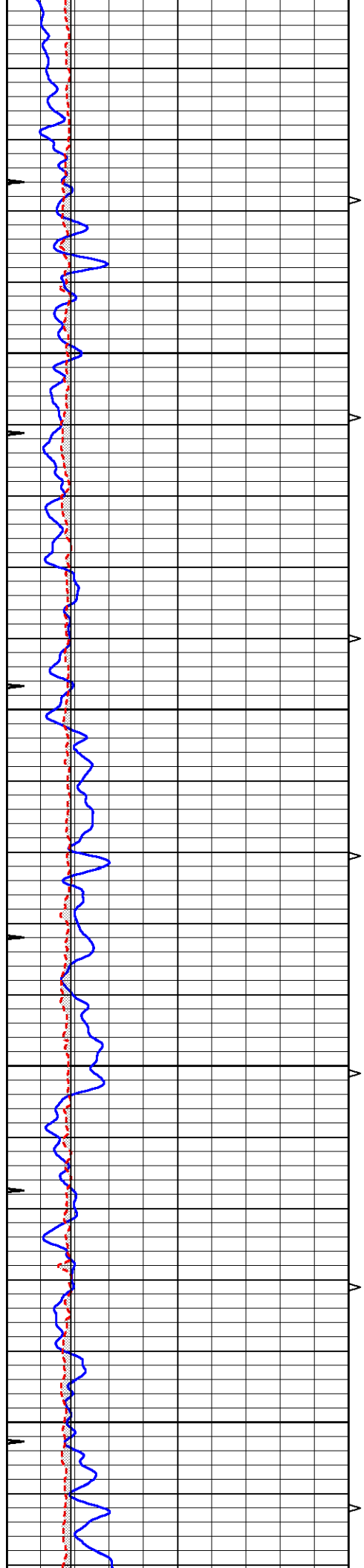




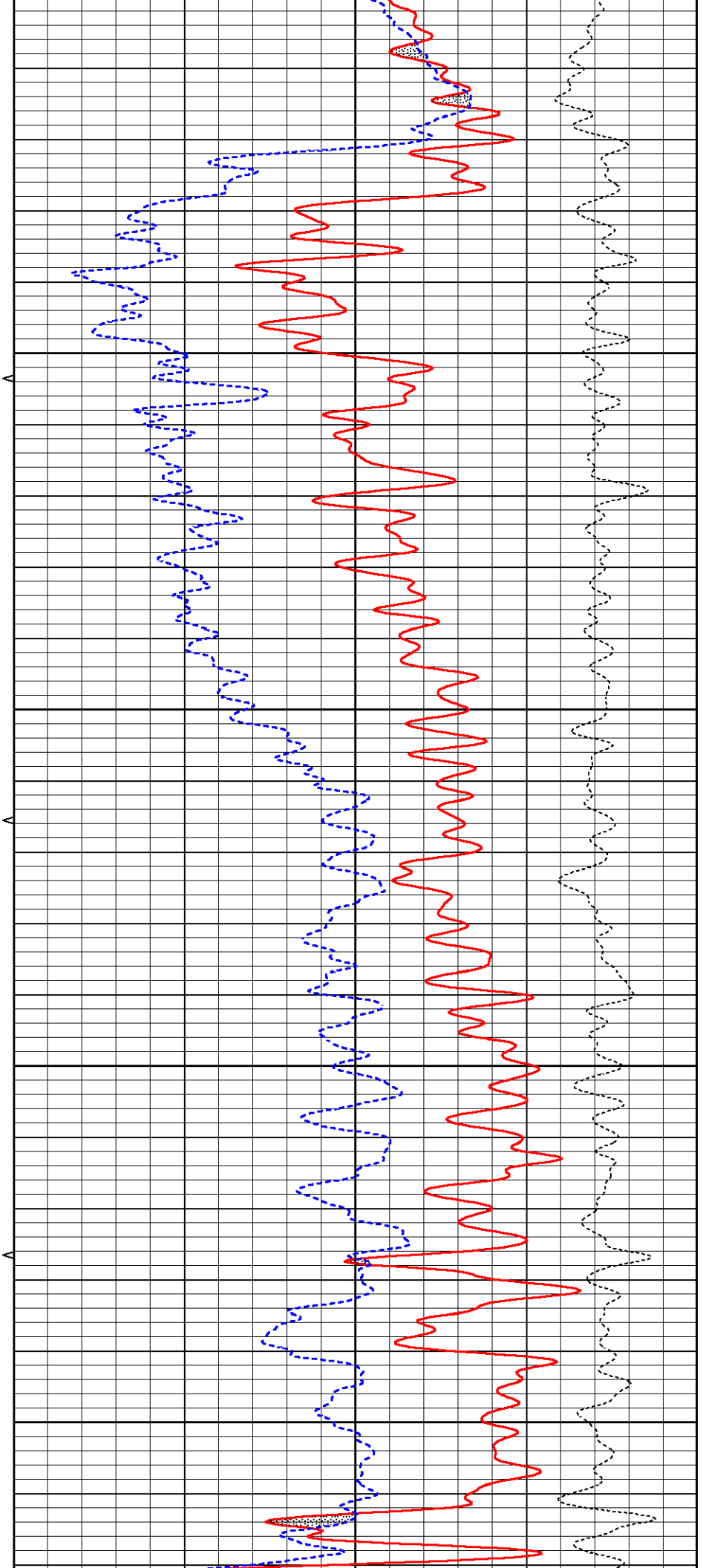


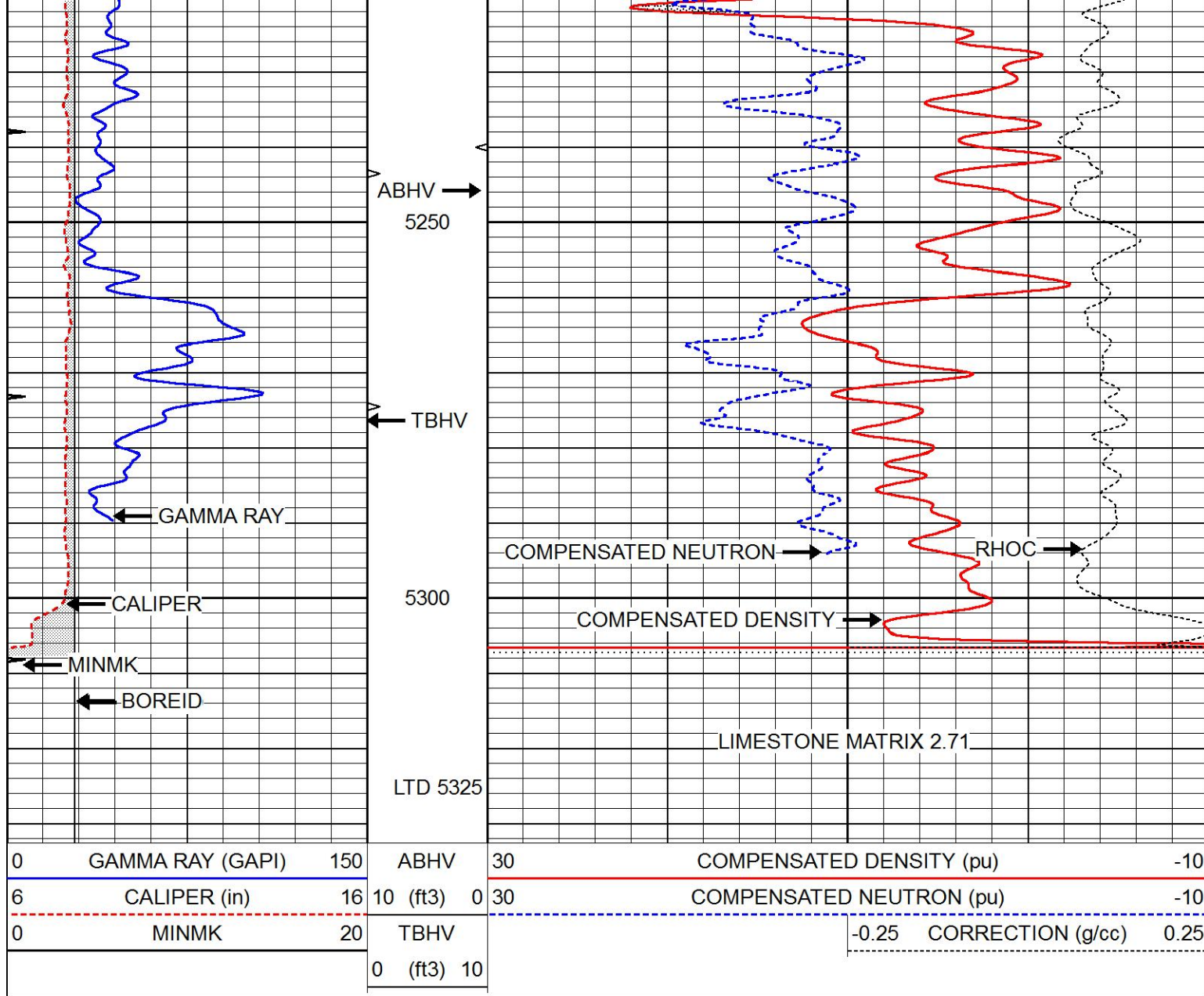






5000
5050
5100
5150
5200

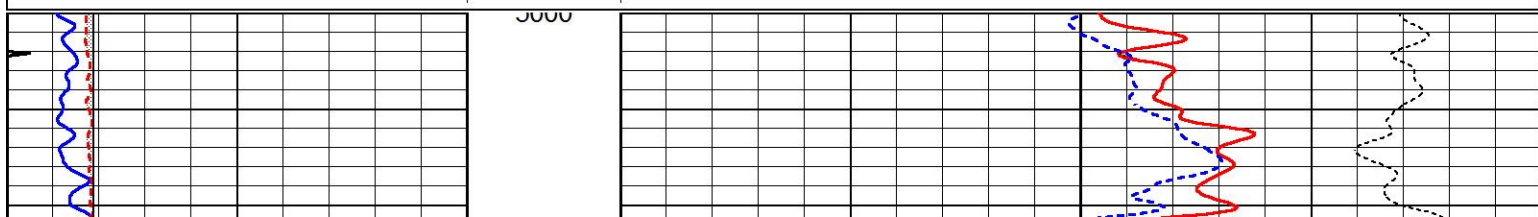


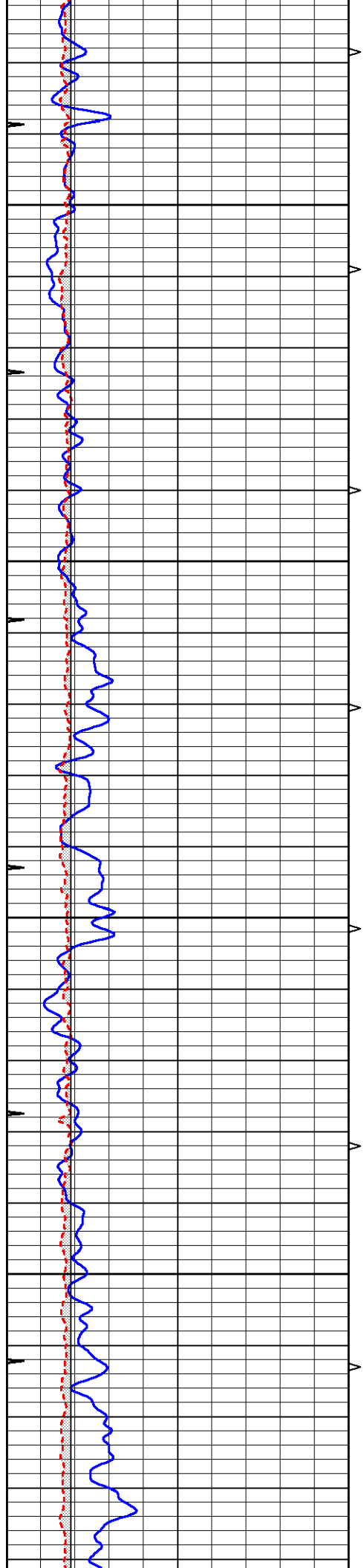


REPEAT SECTION

Database File 5043ddn.db
 Dataset Pathname pass2.1
 Presentation Format den_neu
 Dataset Creation Wed Jan 27 17:32:08 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
0	MINMK	20	TBHV		-0.25 CORRECTION (g/cc)	0.25
			0 (ft³)	10		



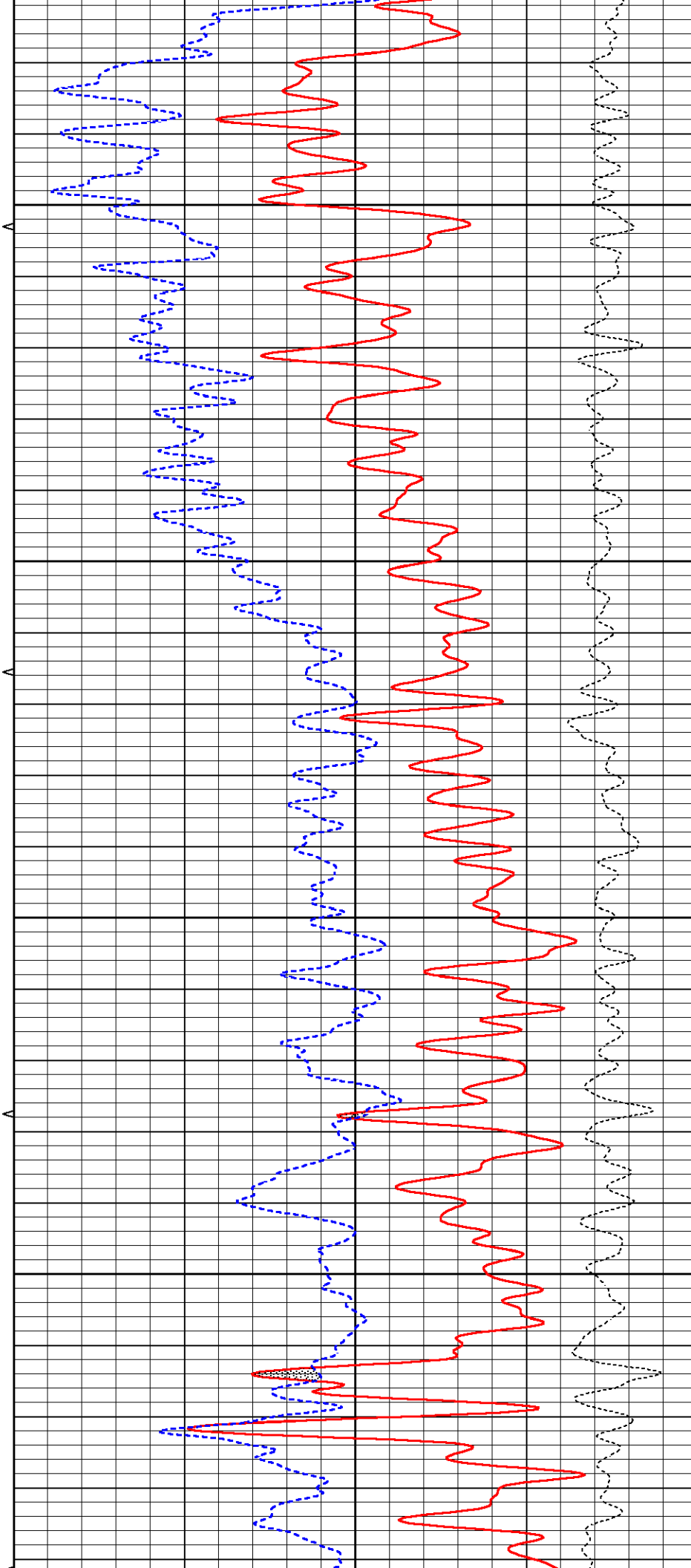


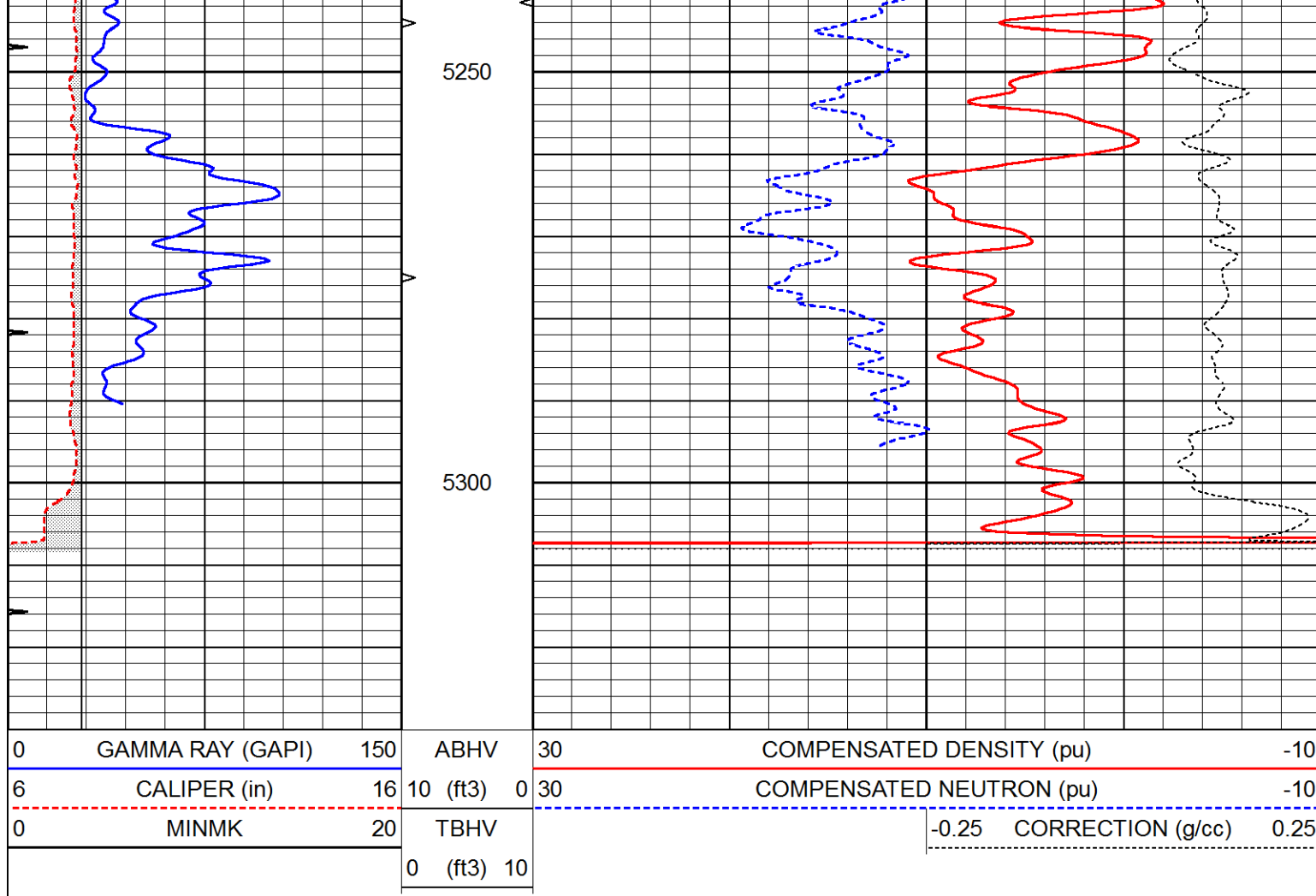
5050

5100

5150

5200





Calibration Report									
Database File	5043ddn.db								
Dataset Pathname	pass2.1								
Dataset Creation	Wed Jan 27 17:32:08 2021								
Dual Induction Calibration Report									
Serial-Model:					PROBE8-DILG				
Surface Cal Performed:					Mon Sep 10 14:28:35 2018				
Downhole Cal Performed:					Mon Sep 10 14:28:38 2018				
After Survey Verification Performed:					Mon Sep 10 14:28:40 2018				
Surface Calibration									
Readings				References			Results		
Loop:	Air	Loop		Air	Loop		m	b	
Deep	0.015	0.648	V	0.000	400.000	mmho/m	620.000	0.000	
Medium	0.029	0.796	V	0.000	464.000	mmho/m	590.000	-12.000	
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: 001N			Model: PRB					

Master Calibration						Performed Thu Mar 19 11:30:16 2020		
	Background	Magnesium	Aluminum	Aluminum+Fe				
Window 1	1572.2	7510.8	2837.3	2643.1			cps	
Window 2	1446.2	6523.9	2552.8	2409.9			cps	
Window 3	1060.9	3611.4	1731.5	1684.8			cps	
Window 4	145.5	363.4	363.2	368.1			cps	
Long Space	0.0	5077.7	1106.6	963.7			cps	
Short Space	3.1	1709.3	1103.4	916.9			cps	
Rho		1.7100	2.5900	0.0000			g/cc	
Pe		2.0000	2.7500	5.7900				
Rib Angle	: 44.0	Rib Slope	: 0.965	Density/Spine Ratio			: 0.555	
Spine Angle	: 74.0	Spine Slope	: 3.481	Spine Intercept			: -17.4	

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								
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Serial Number:			61					
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Tool Model:			G		
CALIBRATION					
	Detector	Readings		Target	
	Short Space	1.00	cps	1.00	cps
	Long Space	1.00	cps	1.00	cps
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:	Thu Jul 30 20:04:35 2020			
	Calibrator Value:	150.0	GAPI		
	Background Reading:	0.0	cps		
	Calibrator Reading:	276.0	cps		
	Sensitivity:	0.7500	GAPI/cps		