



MIDWEST WIRELINE

**DUAL COMPENSATED
POROSITY /
MICRO LOG**

Company Murfin Drilling Company, Inc.
Well Armbrister #1-36
Field Nicholson
County Trego
State Kansas

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Well Armbrister #1-36
Field Nicholson
County Trego State Kansas

Location: API #: 15-195-23150-00-00
330 FNL & 1700 FWL
SEC 36 TWP 11S RGE 21W
Permanent Datum Ground Level Elevation 2296
Log Measured From Kelly Bushing
Drilling Measured From Kelly Bushing
Other Services
DIL/BHCS
K.B. 2301
D.F.
G.L. 2296

Date	11/19/2022						
Run Number	One						
Type Log	CNL / CDL / ML						
Depth Driller	4000						
Depth Logger	3998						
Bottom Logged Interval	3969						
Top Logged Interval	2700						
Type Fluid In Hole	Chemical						
Salinity, PPM CL	3500						
Density	9.0						
Level	Full						
Max. Rec. Temp. F	116						
Operating Rig Time	5 Hours						
Equipment -- Location	P-24 Hays						
Recorded By	D. Schmidt						
Witnessed By	Rod Anderson						
Borehole Record							
Run No.	Bit	From	To	Size	Wgt.	From	To
One	12.25	0	220	8.625	23	0	220
Two	7.875	220	TD				
Casing Record							

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All interpretations are opinions based on inferences from electrical or other measurements and Midwest Wireline LLC cannot and does not guarantee the accuracy or correctness of any interpretation, and Midwest Wireline LLC will not 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.

Comments

N/A DENOTES NOT AVAILABLE OR NON-APPLICABLE.

Ellis,
North to Sleepy Hollow, 3 West,
South into

Log Measured From: Kelly Bushing 5 Ft. Above Permanent Datum

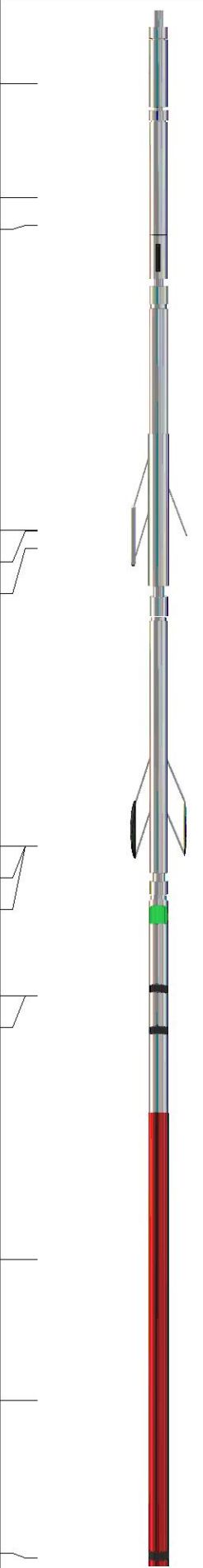
THANK YOU FOR USING Midwest Wireline LLC
785-625-3858

Your Midwest Wireline Crew

Engineer: D. Schmidt
Operator:
Operator:
Operator:

This Log Record Was Witnessed By

Primary Witness: Rod Anderson
Secondary Witness:
Secondary Witness:
Secondary Witness:

Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb)
GR	40.33		GR-M&W (106)	3.00	3.50	50.00
CNLSC CNSSC	37.23 36.48		CNT-M&W (207-MW)	5.00	3.50	100.00
LSD DCAL SSD	28.18 28.17 27.68		CDL-M&W (305-24)	8.50	4.00	250.00
MCAL MI MN	19.58 19.58 19.58		ML-PSIML (401)	7.58	4.00	65.00
RLL3F RLL3	15.50 15.50					
CILD	8.33		DIL-M&W (502 HT)	18.25	3.50	220.00
CILM	4.50					
SP	0.20					

Dataset: murfin_arbrister 1-36.db: field/well/stkml/pass3.15
 Total length: 42.33 ft
 Total weight: 685.00 lb
 O.D.: 4.00 in

Log Variables

DatabaseC:\ProgramData\Warrior\Data\murfin_arbrister 1-36.db
 Dataset field/well/stkml/pass3.15/_vars_

Top - Bottom

A	BOREID in	BOTTEMP degF	CASEOD in	CASETHCK in	FLUIDDEN g/cc	M	MATRXDEN g/cc
1	7.875	116	4.5	0	1	2	2.71
NPORSEL	PERFS	SNDERR mmho/m	SNDERRM mmho/m	SPSHIFT mV	SRFTEMP degF	SZCOR	TDEPTH ft
Limestone	0	0	0	33	40	Off	3998

Variable Description

A : Cement Factor (a)
 BOREID : Borehole I.D.
 BOTTEMP : Bottom Hole Temperature
 CASEOD : Casing O.D.
 CASETHCK : Casing Thickness
 FLUIDDEN : Fluid Density
 M : Cement Exp (m)
 MATRXDEN : Matrix Density

NPORSEL : Neutron Porosity Curve Select
 PERFS : Perforation Flag
 SNDERR : Deep Sonde Error Correction
 SNDERRM : Medium Sonde Error Correction
 SPSHIFT : S.P. Baseline Offset
 SRFTEMP : Surface Temperature
 SZCOR : CN Size Cor. ?
 TDEPTH : Total Depth



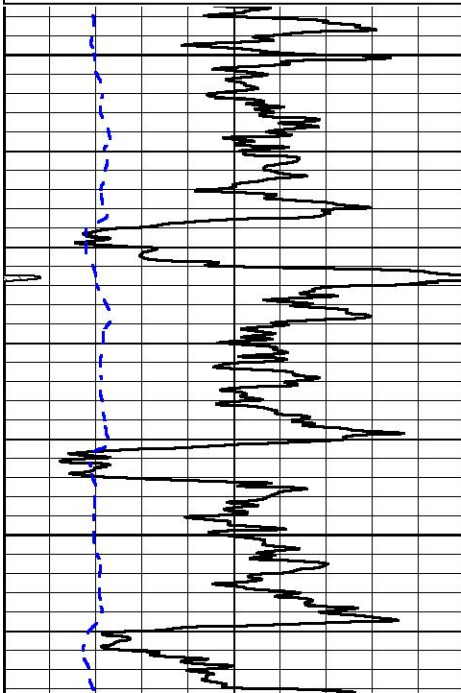
5" SCALE BULK DENSITY

MAIN PASS

Database File murfin_arbrister 1-36.db
 Dataset Pathname stkml/pass3.2
 Presentation Format _cdl
 Dataset Creation Sat Nov 19 15:27:30 2022
 Charted by Depth in Feet scaled 1:240

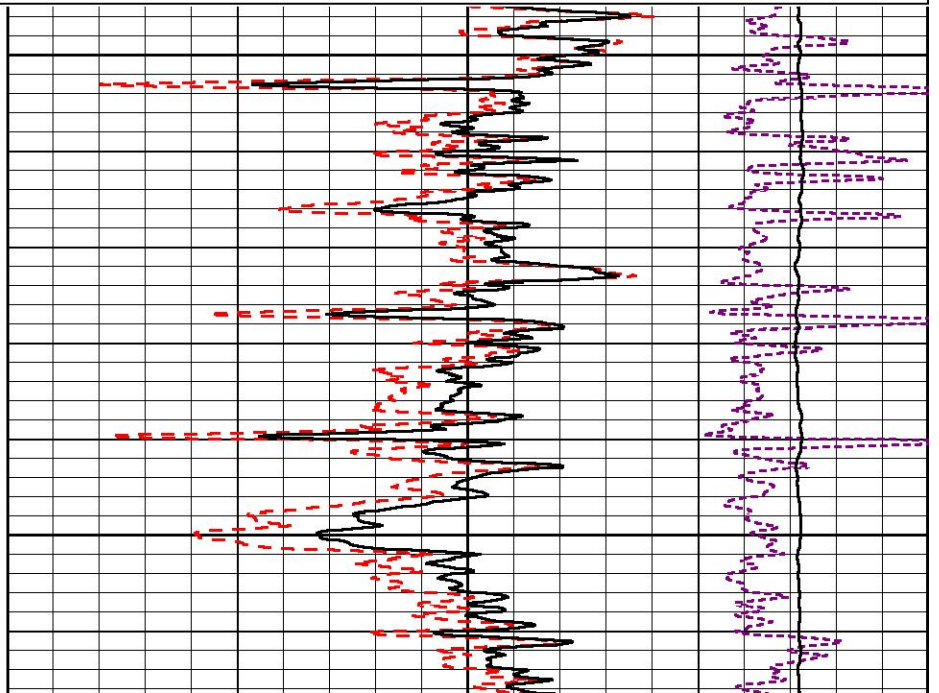
0	Gamma Ray (GAPI)	150
6	Caliper (in)	16

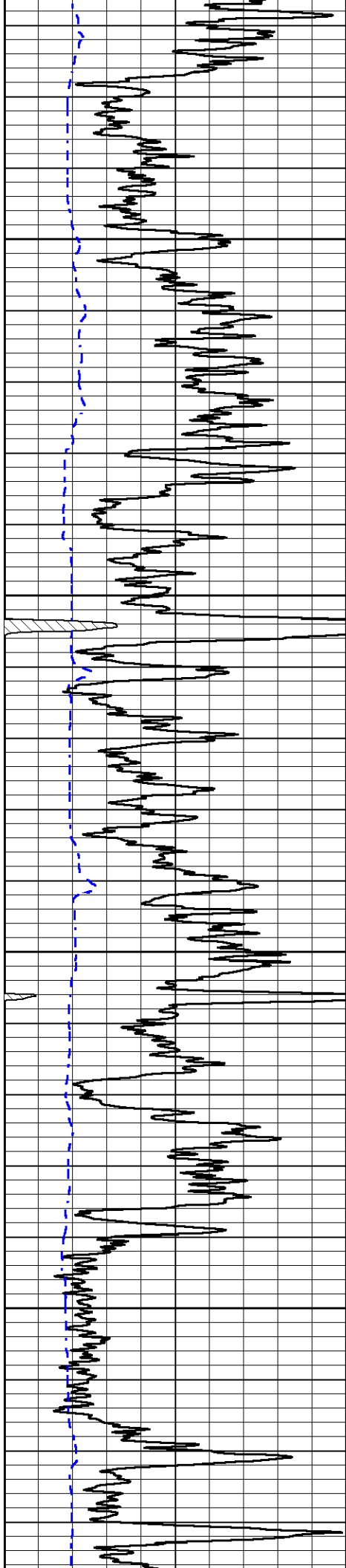
30	Compensated Density (pu)	-10
2	Bulk Density (g/cc)	3
10000	Line Tension (lb)	0
-0.25	Correction (g/cc)	0.25



2700

2750



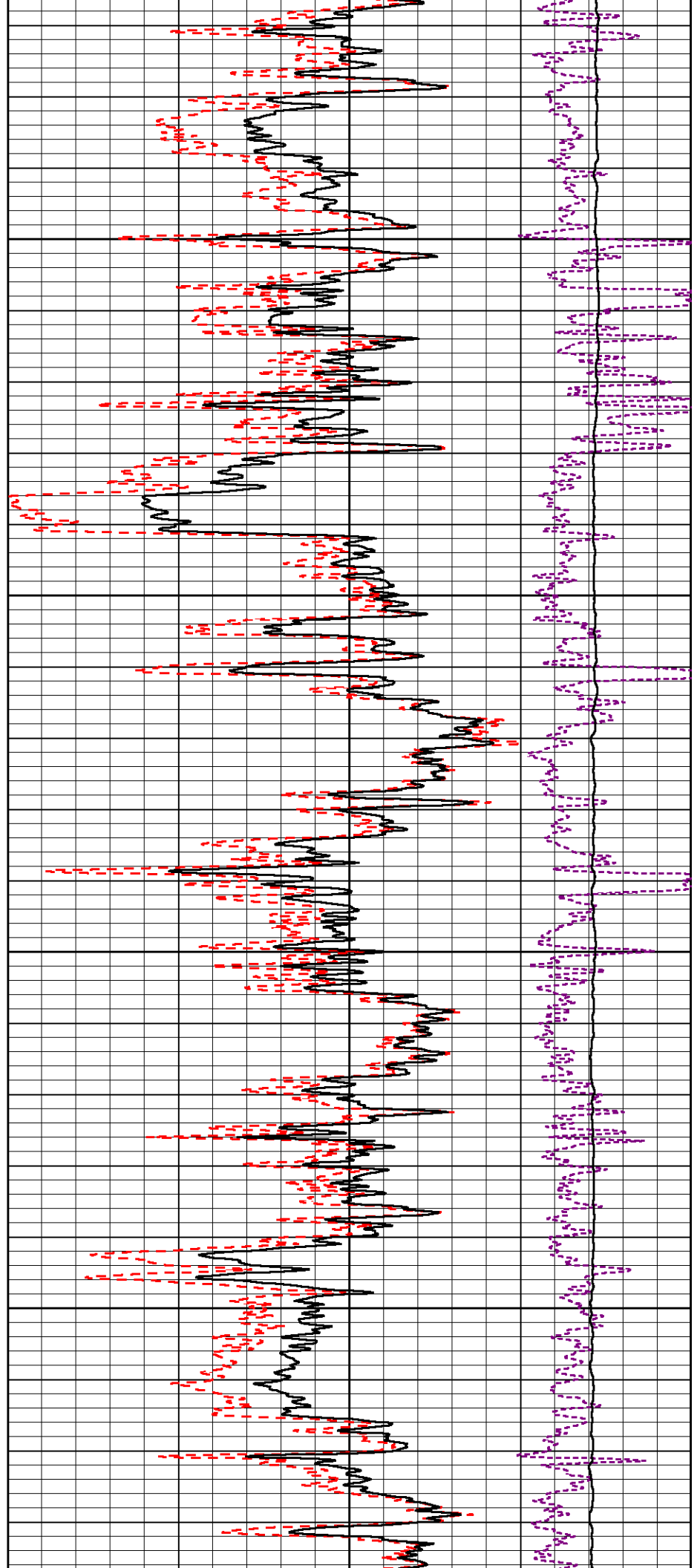


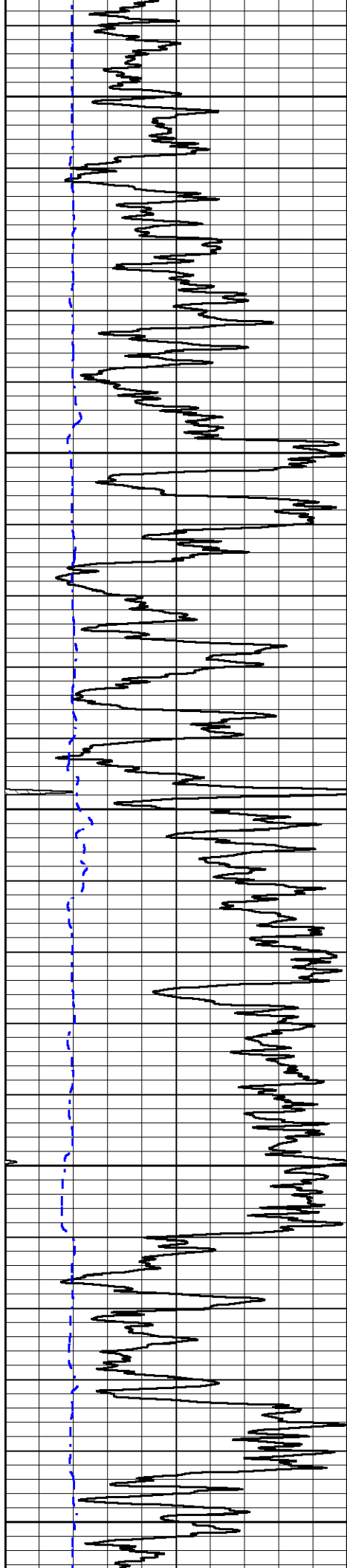
2800

2850

2900

2950





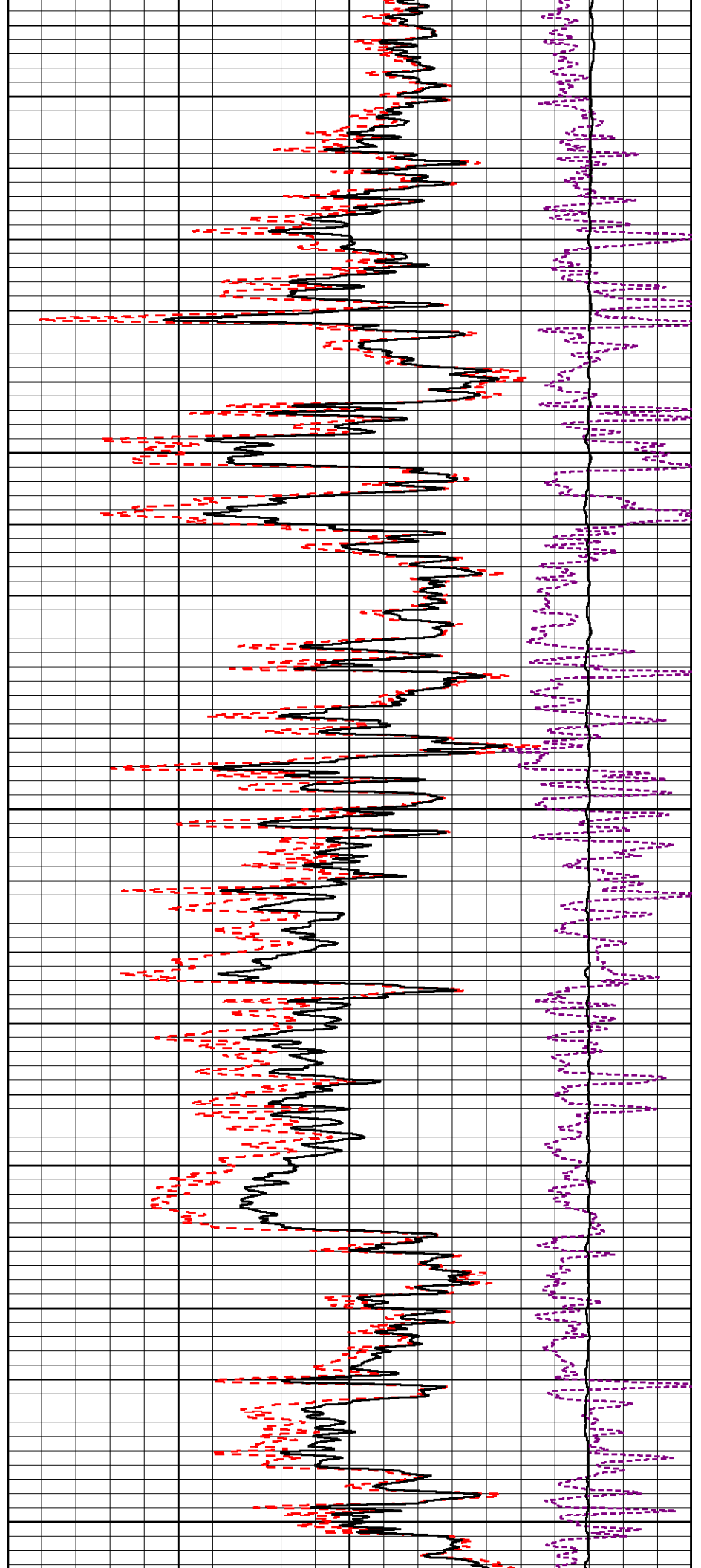
3000

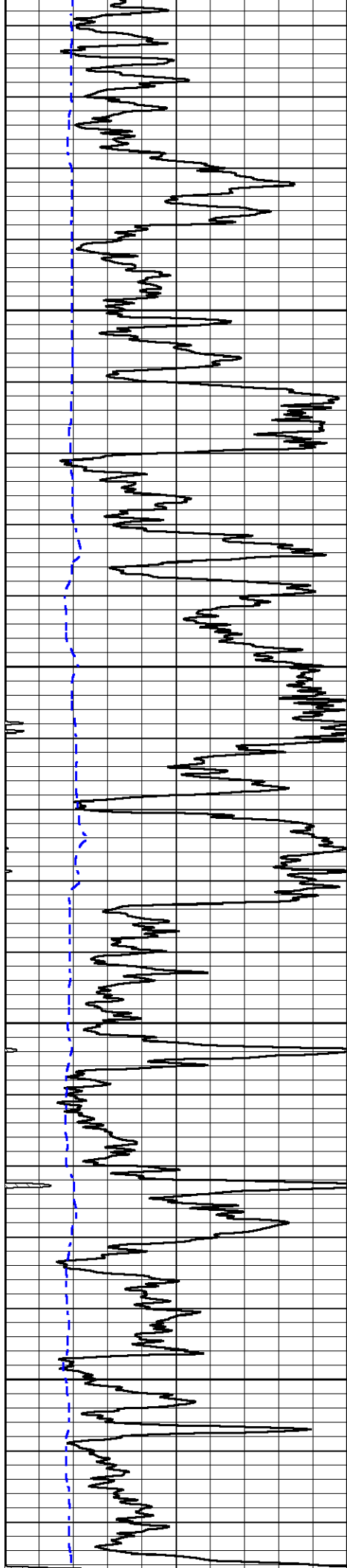
3050

3100

3150

3200



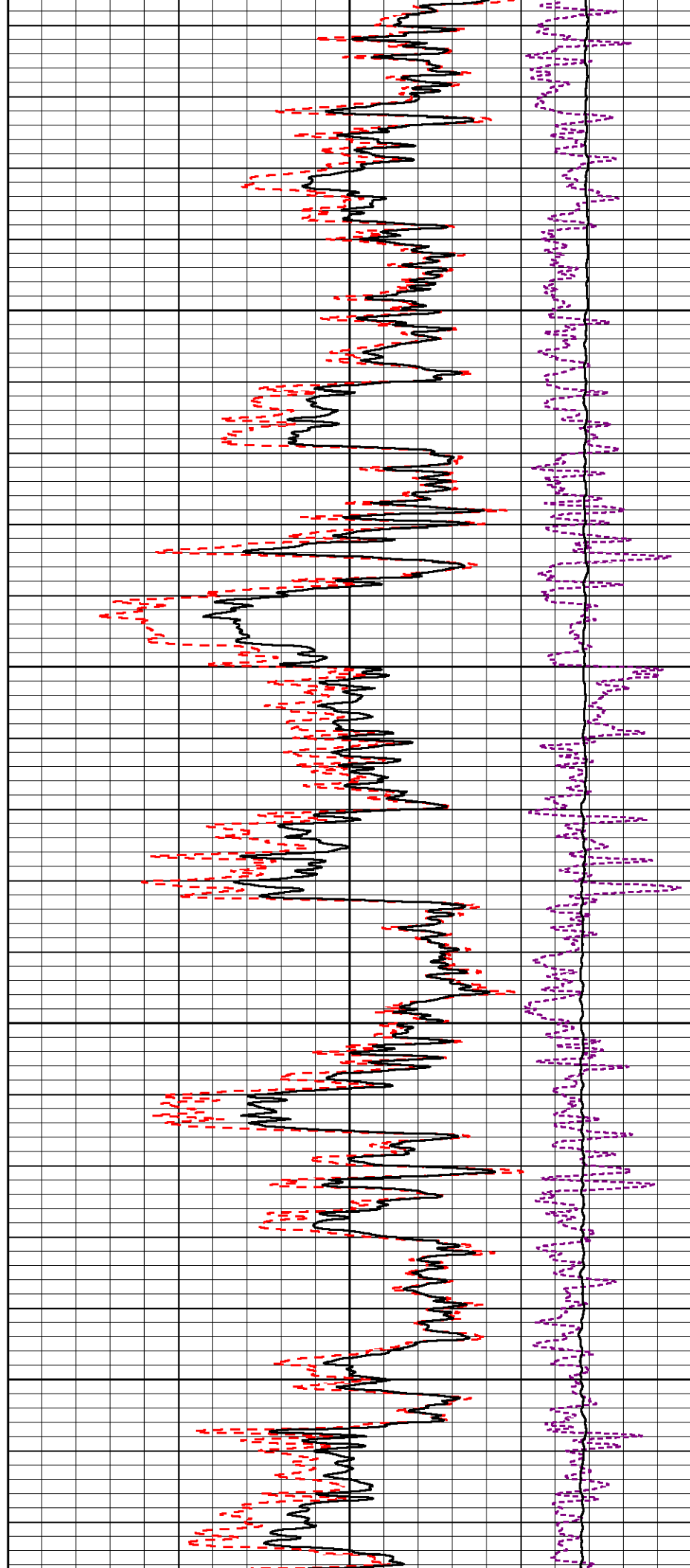


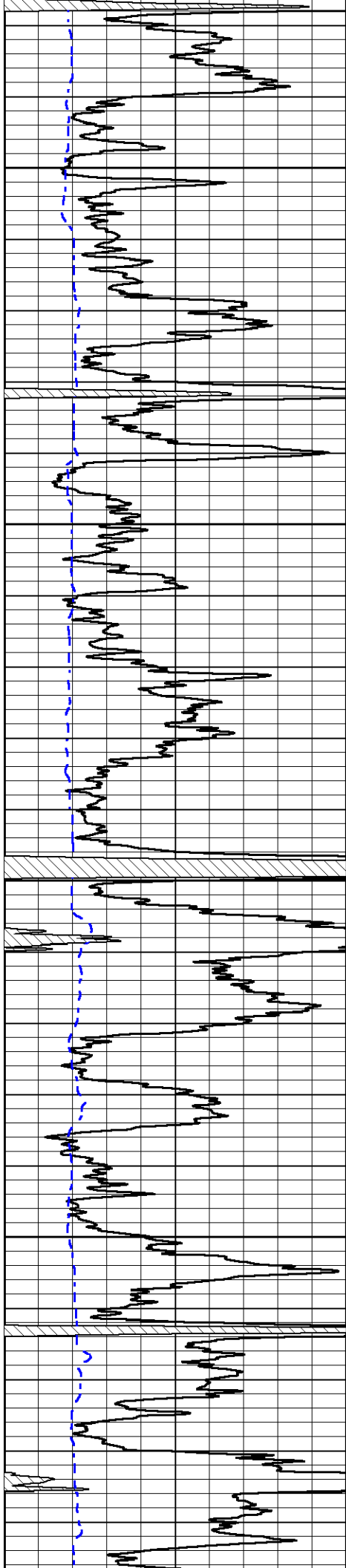
3250

3300

3350

3400



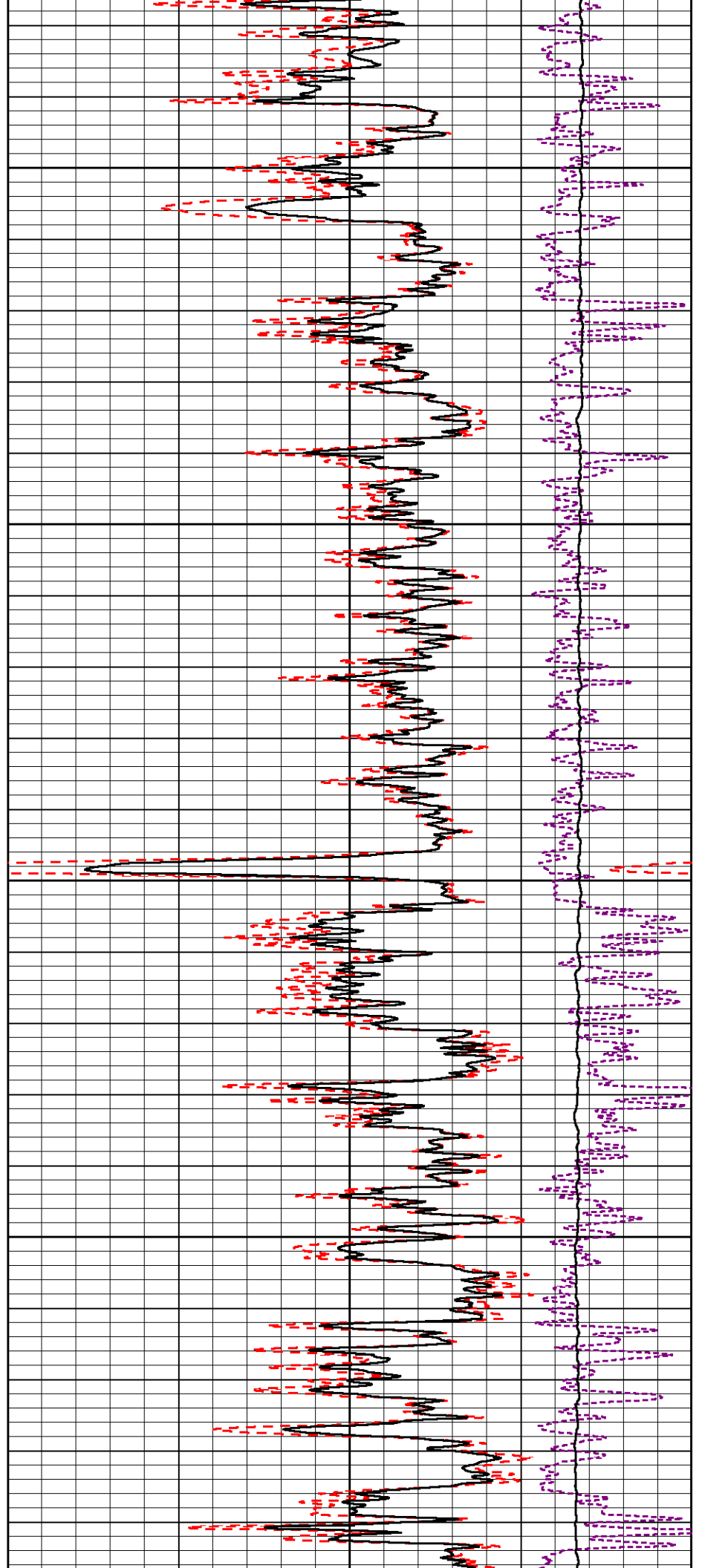


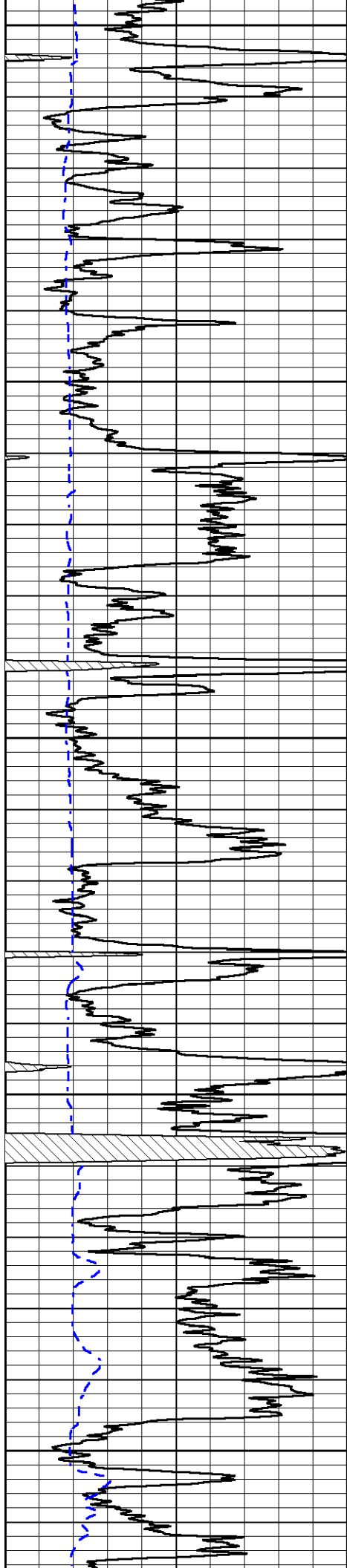
3450

3500

3550

3600





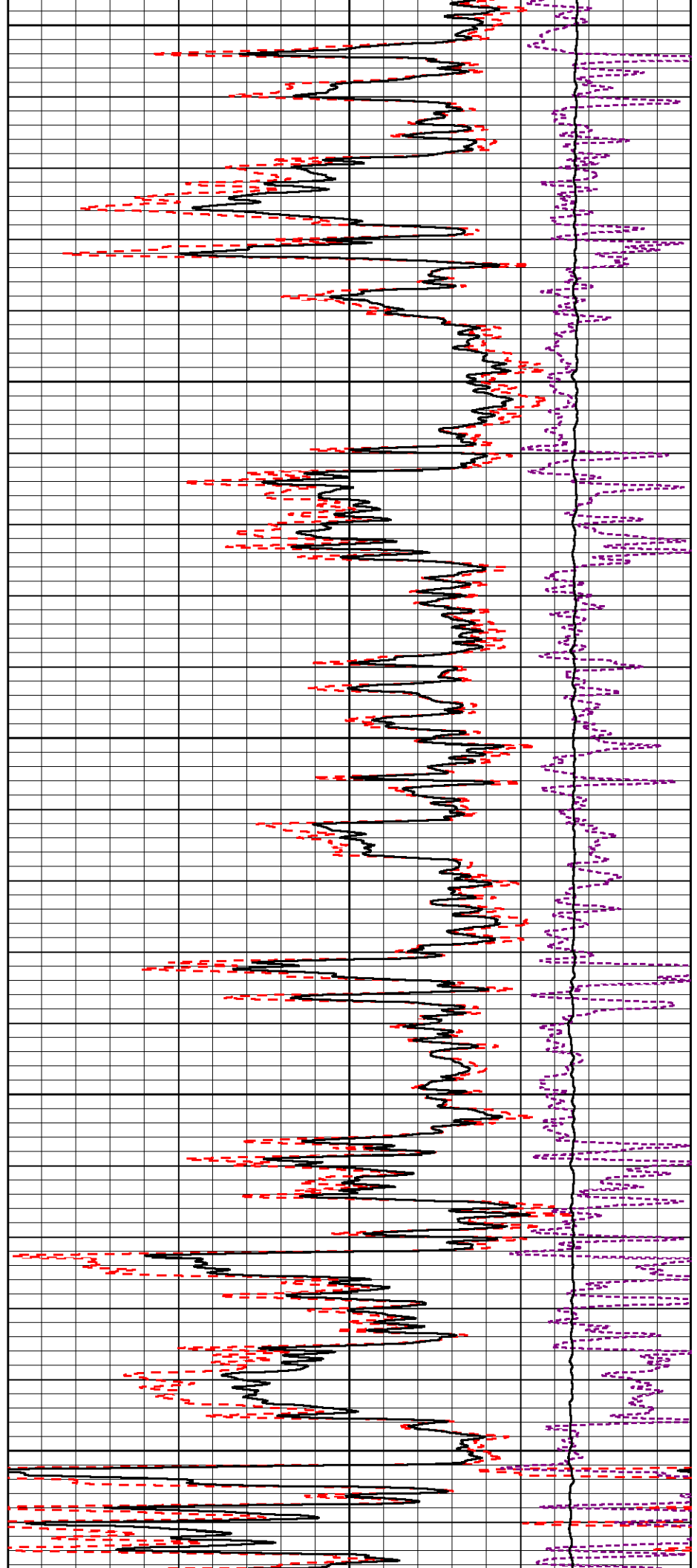
3650

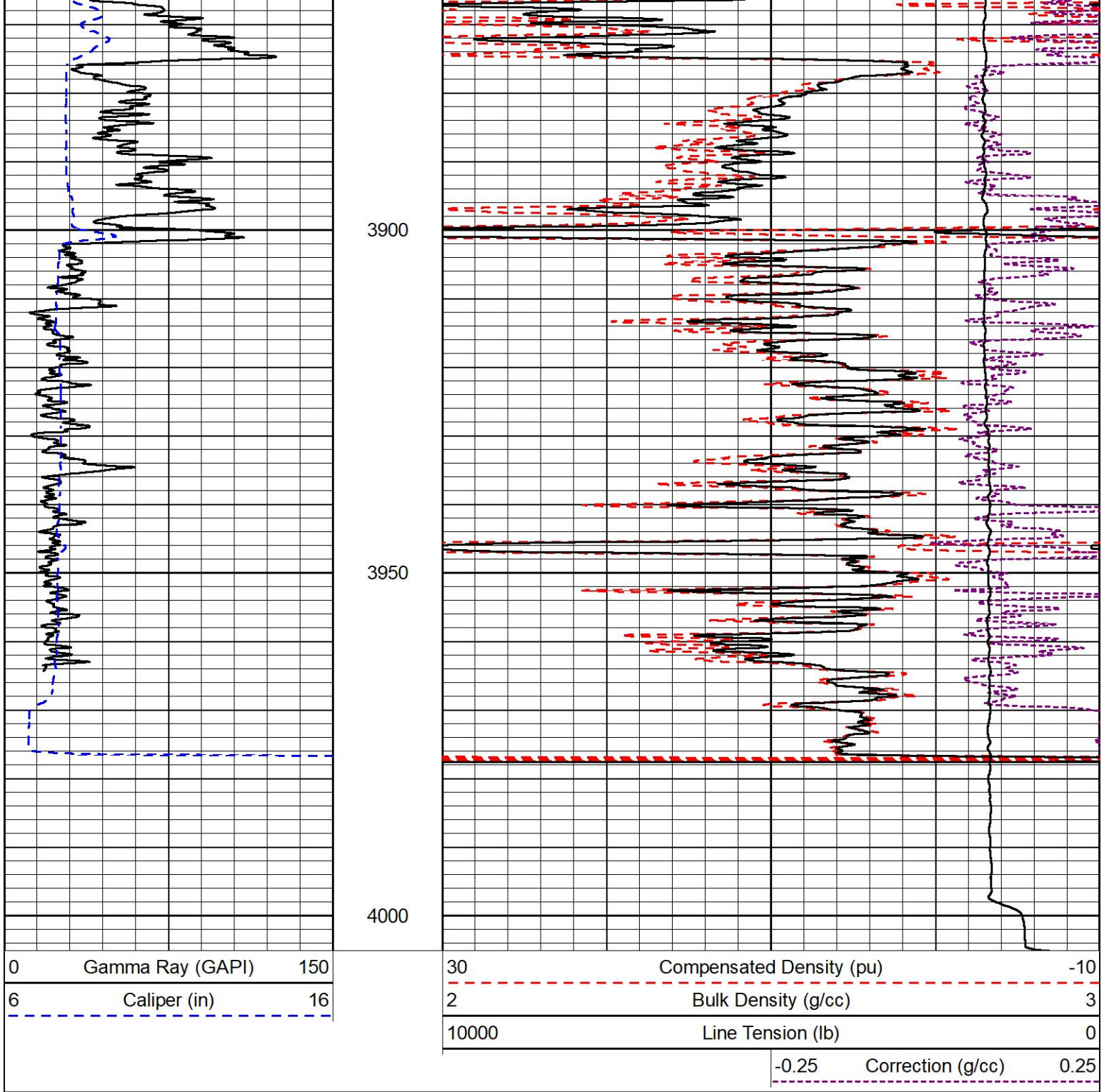
3700

3750

3800

3850





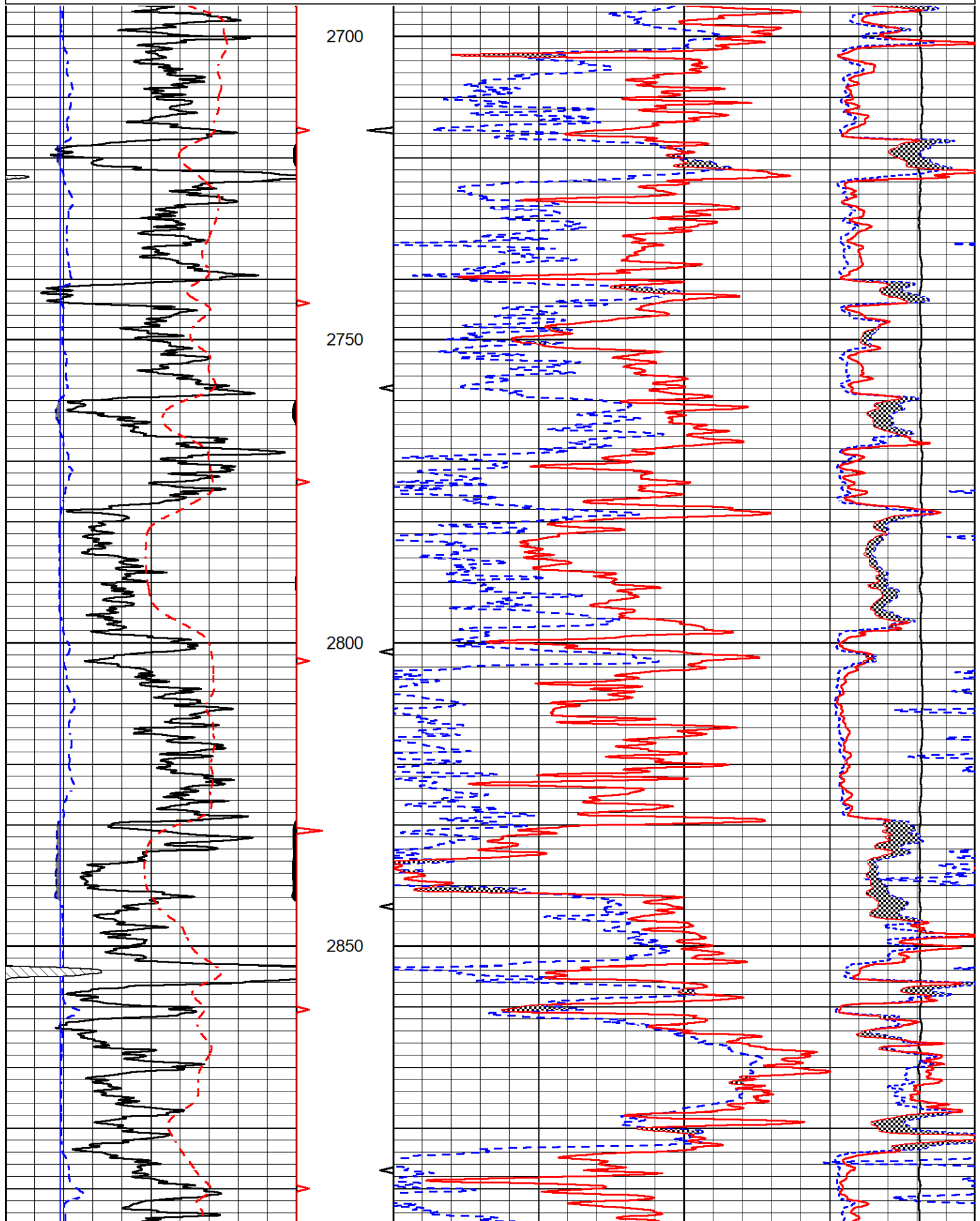
DETAIL SECTION

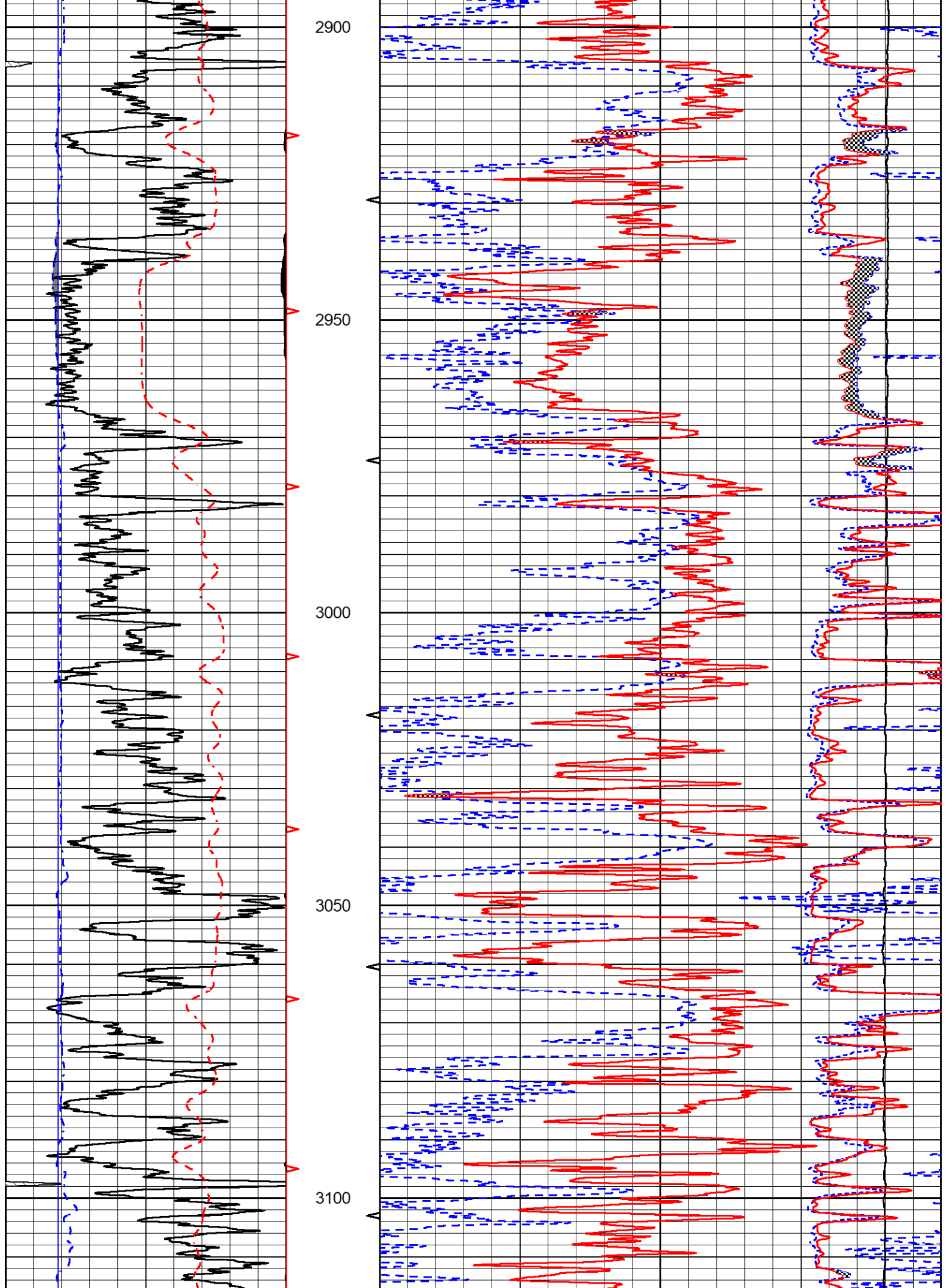
MAIN PASS

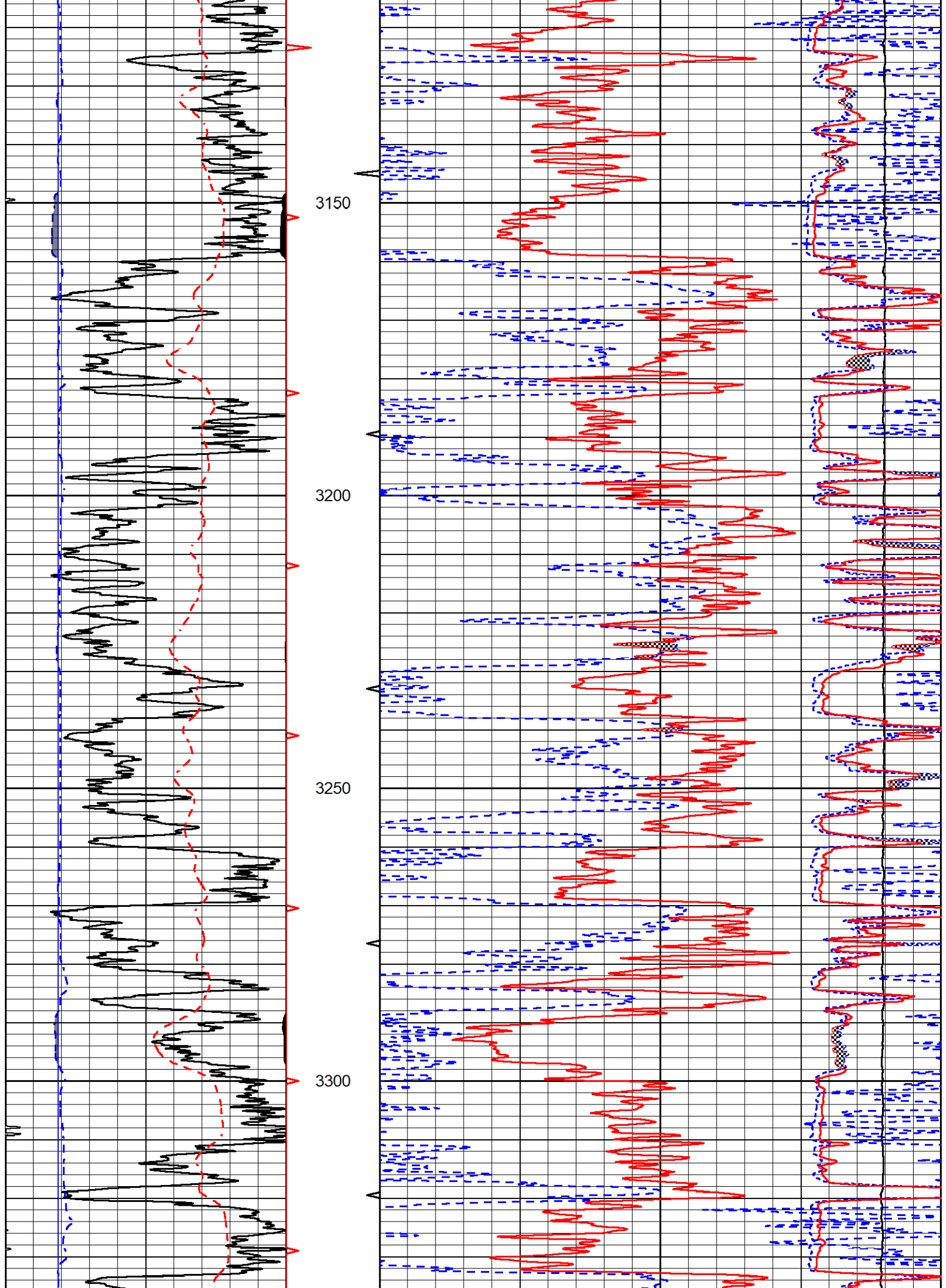
Database File murfin_arbrister 1-36.db
 Dataset Pathname stkml/pass3.15
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 Dataset Creation Sat Nov 19 15:43:23 2022
 Charted by Depth in Feet scaled 1:240

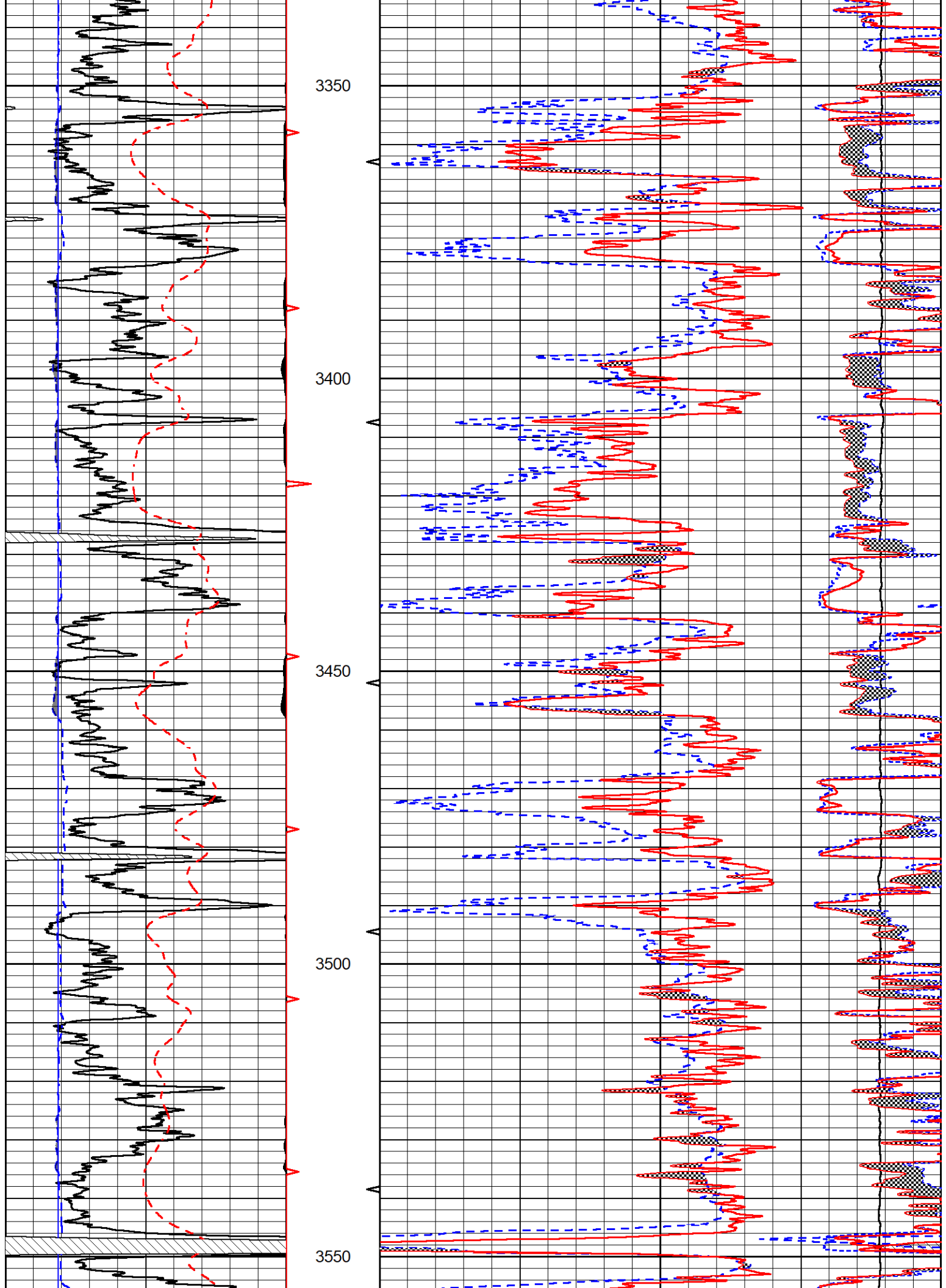


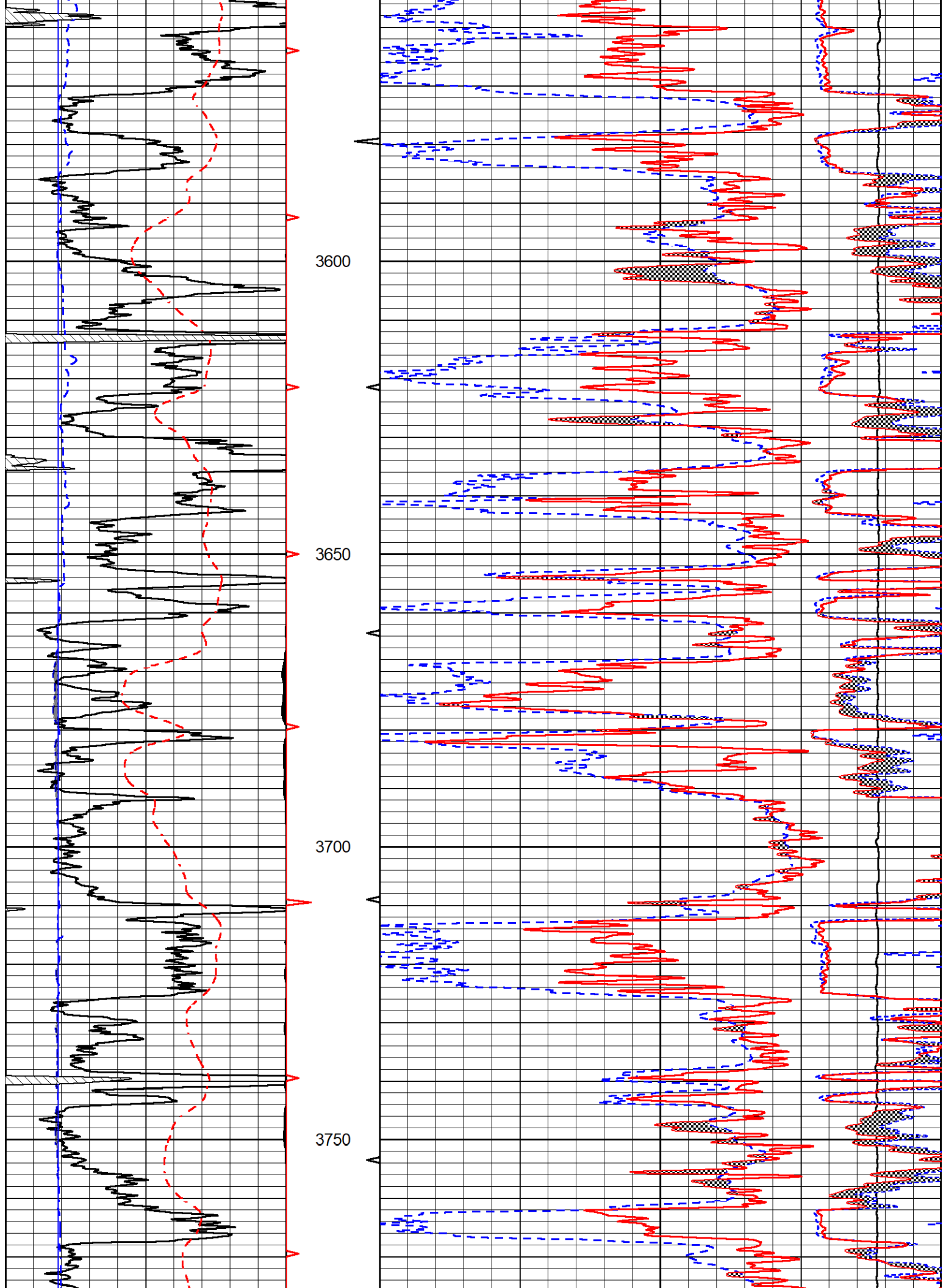
Micro Normal
0 (Ohm-m) 20
Micro Inverse
0 (Ohm-m) 20

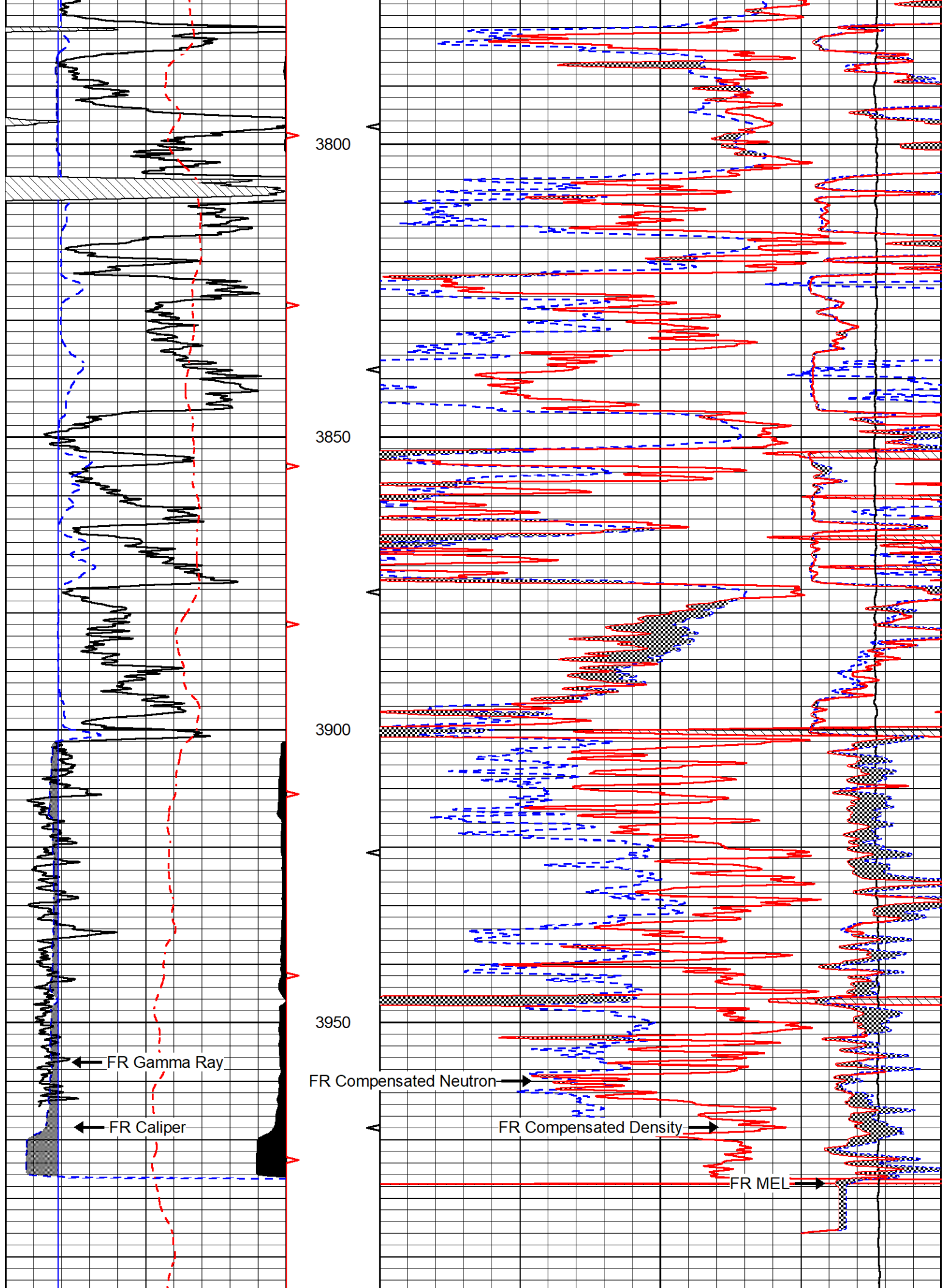


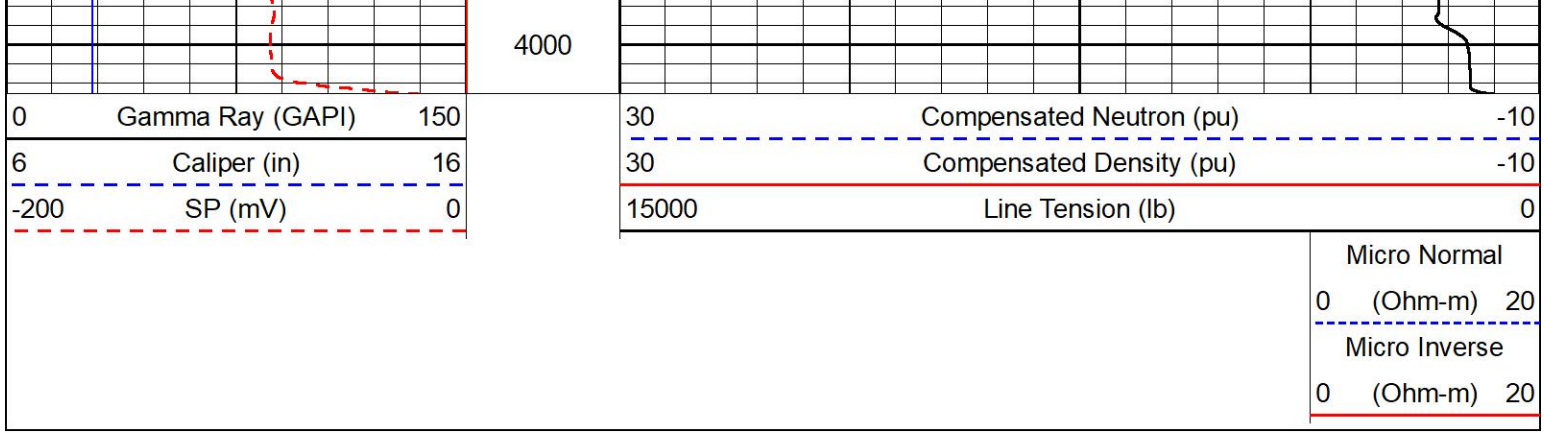








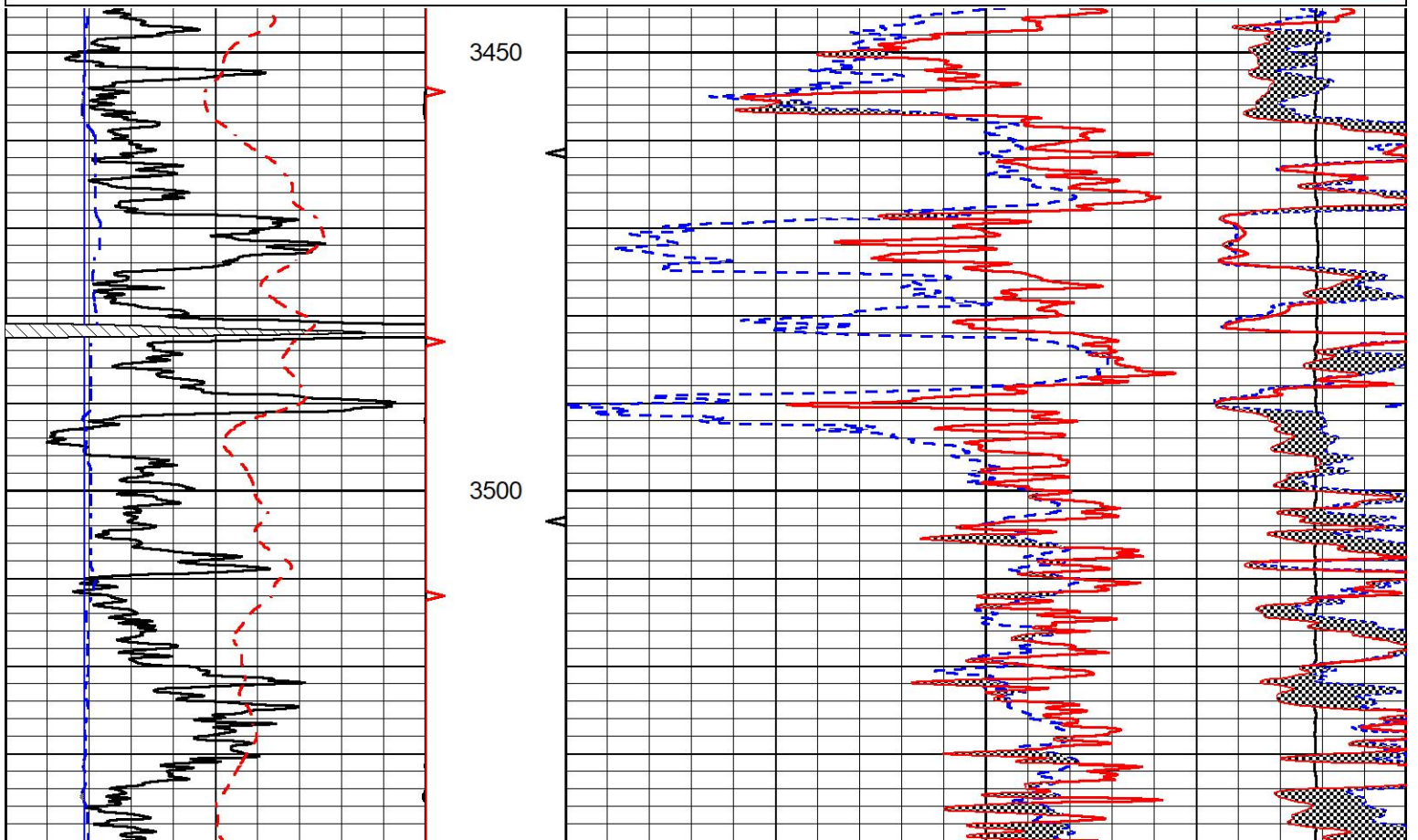
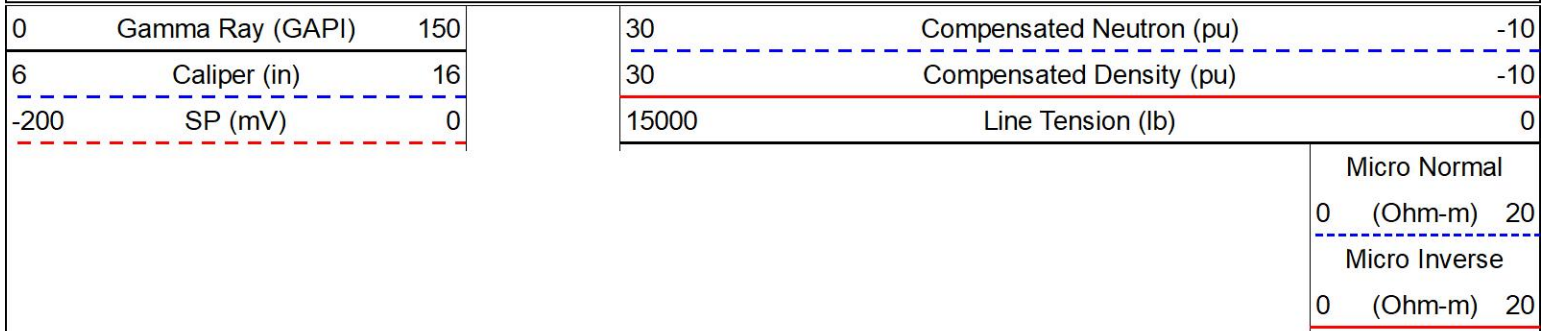


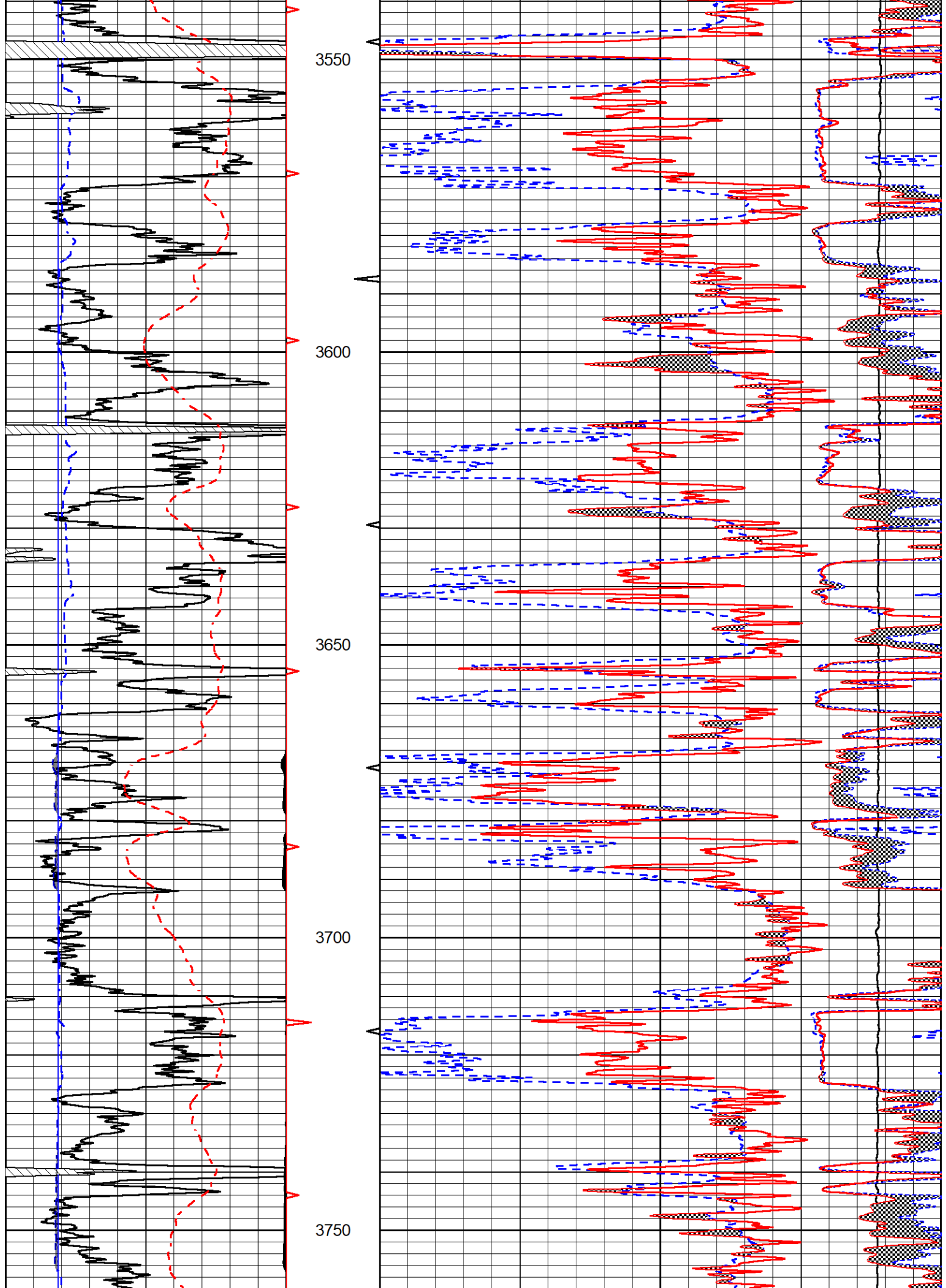


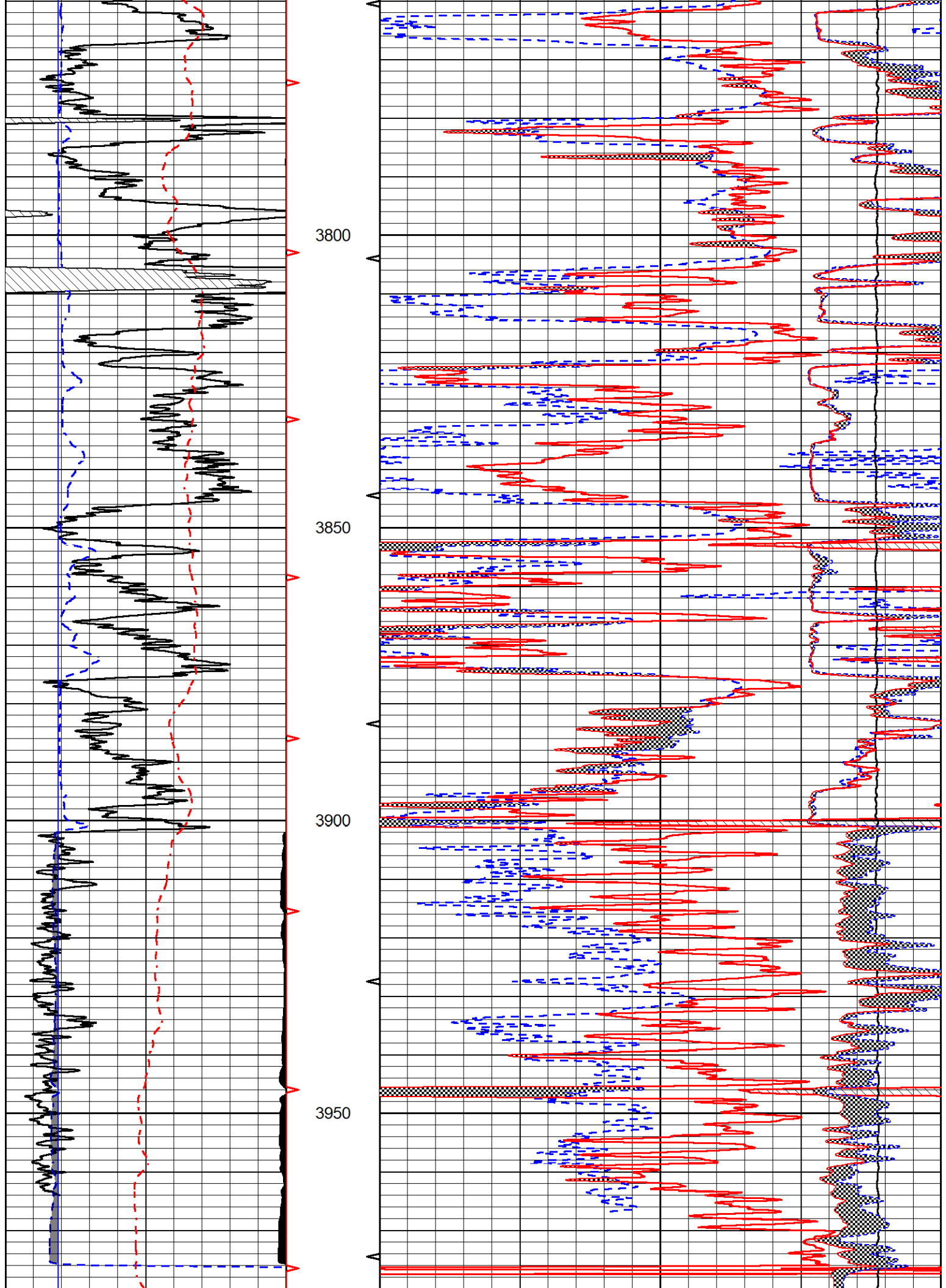
REPEAT SECTION

REPEAT PASS

Database File murfin_arbrister 1-36.db
 Dataset Pathname stkml/pass2.16
 Presentation Format _CNDLS~2
 Dataset Creation Sat Nov 19 15:44:43 2022
 Charted by Depth in Feet scaled 1:240







	Size		Reading
Small Ring	4.00	in	1.74
Large Ring	14.00	in	1.38

Compensated Neutron Calibration Report

Serial Number: 207-MW
Tool Model: M&W

CALIBRATION

Detector	Readings	Target	Normalization
Short Space	6240.00 cps	1000.00 cps	1.6025
Long Space	460.00 cps	1000.00 cps	1.9500

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: 106
Tool Model: M&W
Performed: Fri Dec 3 15:10:46 2021

Calibrator Value: 500.0 GAPI

Background Reading: 24.0 cps
Calibrator Reading: 637.0 cps

Sensitivity: 0.5500 GAPI/cps



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Field Nicholson
County Trego
State Kansas

