

MIDWEST WIRELINE

DUAL COMP POROSITY LOG

Company American Warrior, Inc.
Well Langhofer #1-23
Field Novinger
County Meade State Kansas

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County Meade
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Location: API #: 15-119-21459-00-00
1849' FSL & 1382' FWL
SEC 23 TWP 33S RGE 30W
Permanent Datum Ground Level Elevation 2709'
Log Measured From Kelly Bushing
Drilling Measured From Kelly Bushing
Other Services
DIL/MEL
BHCS
K.B. 2720'
D.F. N/A
G.L. 2709'

Date 8/23/2021

Run Number One

Type Log CNL/CDL

Depth Driller 6300'

Depth Logger 6296'

Bottom Logged Interval 6275'

Top Logged Interval 4200'

Type Fluid In Hole Chemical

Salinity, PPM CL 1500

Density 9.1

Level Full

Max. Rec. Temp. F 139

Operating Rig Time 5 Hours

Equipment -- Location P-24 HAYS

Recorded By D. Schmidt

Witnessed By Kevin Timson

Borehole Record

Run No. Bit From To Size Wgt. From To

One 12.25" 0' 1748' 8.625" 23# 0' 1748'

Two 7.875" 1748' TD

<<< Fold Here >>>

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

Plains,
6 South to V Rd, 1 East, 1 South,
East into

Log Measured From: Kelly Bushing 11 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: Kevin Timson
Secondary Witness:
Secondary Witness:
Secondary Witness:

Sensor	Offset (ft)	Schematic		Description	Length (ft)	O.D. (in)	Weight (lb)						
GR	33.00			GR-M&W (233-M&W)	3.00	3.50	50.00						
CNLSC	29.90			CNT-M&W (207-MW)	5.50	3.50	100.00						
CNSSC	29.15												
LSD DCAL SSD	20.85			CDL-M&W (934-226)	8.50	4.00	250.00						
	20.83												
	20.35												
RLL3F RLL3	15.80 15.80			DIL-PSI HIGH TEMP (952-828)	18.50	3.50	220.00						
CILD	8.00												
CILM	4.70												
SP	0.20												
Dataset: aw_langhofer 1-23.db: field/well/stack/pass3.1													
Total length: 35.50 ft													
Total weight: 620.00 lb													
O.D.: 4.00 in													

Log Variables

DatabaseC:\ProgramData\Warrior\Data\aw_langhofer 1-23.db
Dataset field/well/stack/pass3.1/_vars_

Top - Bottom

A	BOREID	BOTTEMP	CASEOD	CASETHCK	FLUIDDEN	M	MATRXDEN
1	in	degF	in	in	g/cc	2	g/cc
	7.875	139	5.5	0	1		2.71
NPORSEL	PERFS	SNDERR	SNDERRM	SPSHIFT	SRFTEMP	SZCOR	TDEPTH
Limestone	0	mmho/m	mmho/m	mV	degF	Off	ft
		0	0	158	80		6296

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

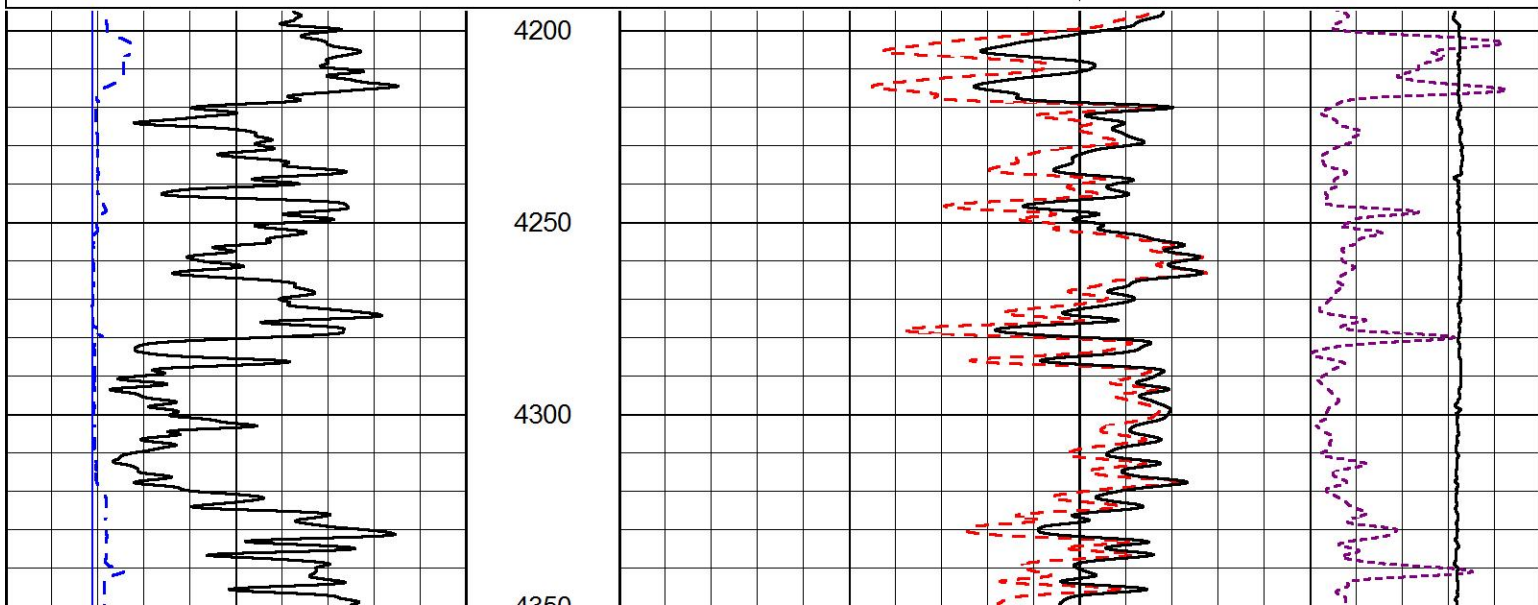


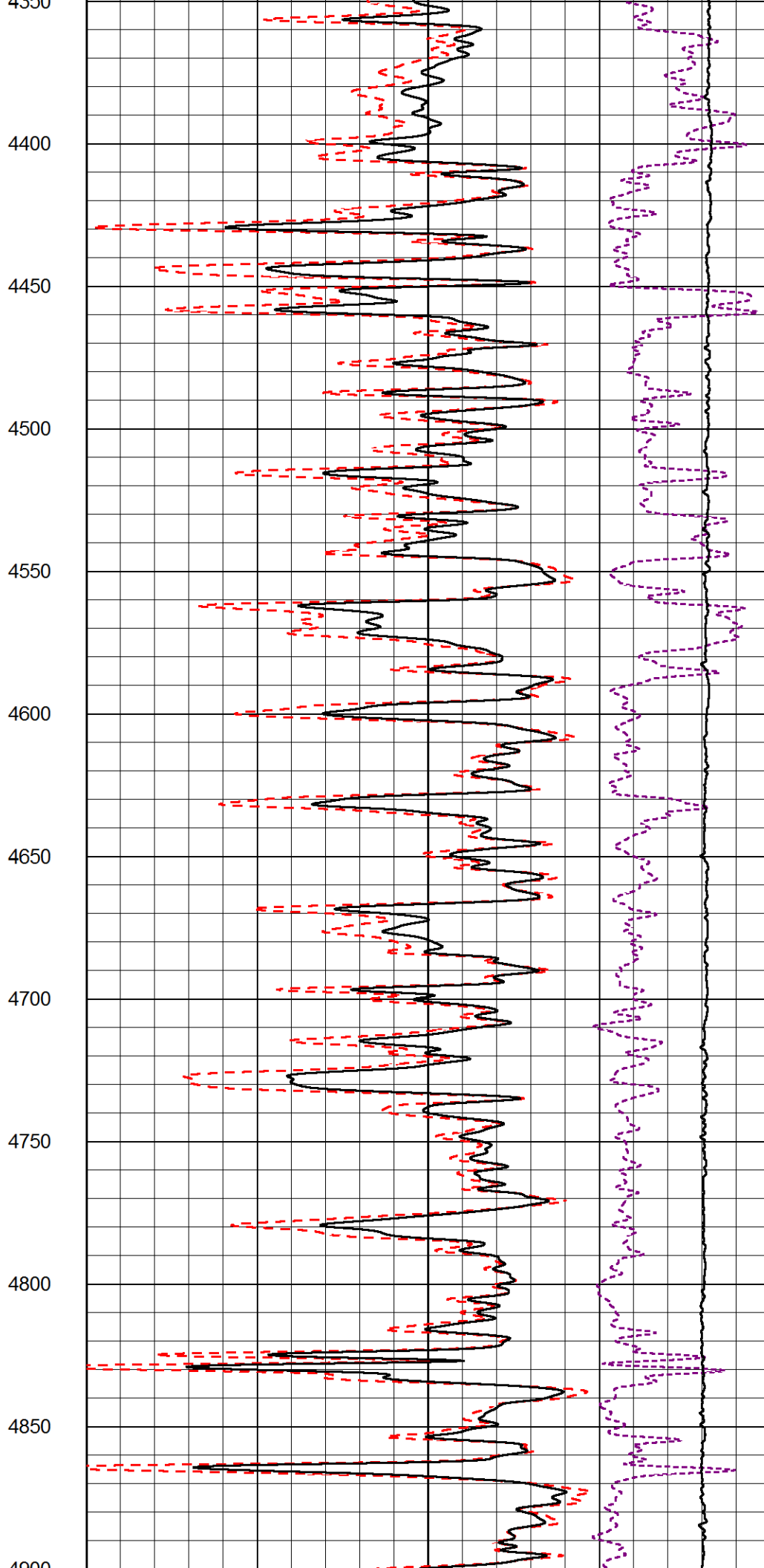
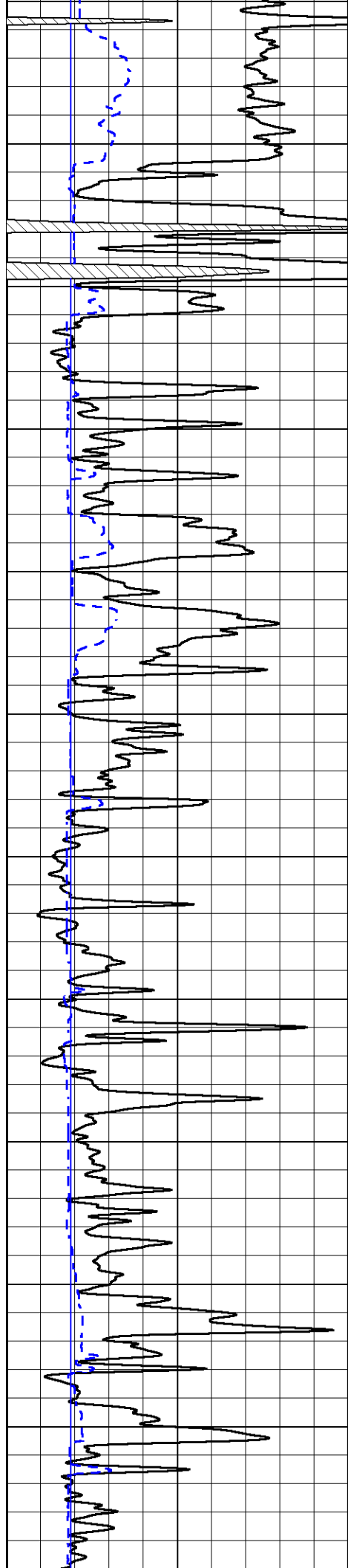
2" SCALE BULK DENSITY

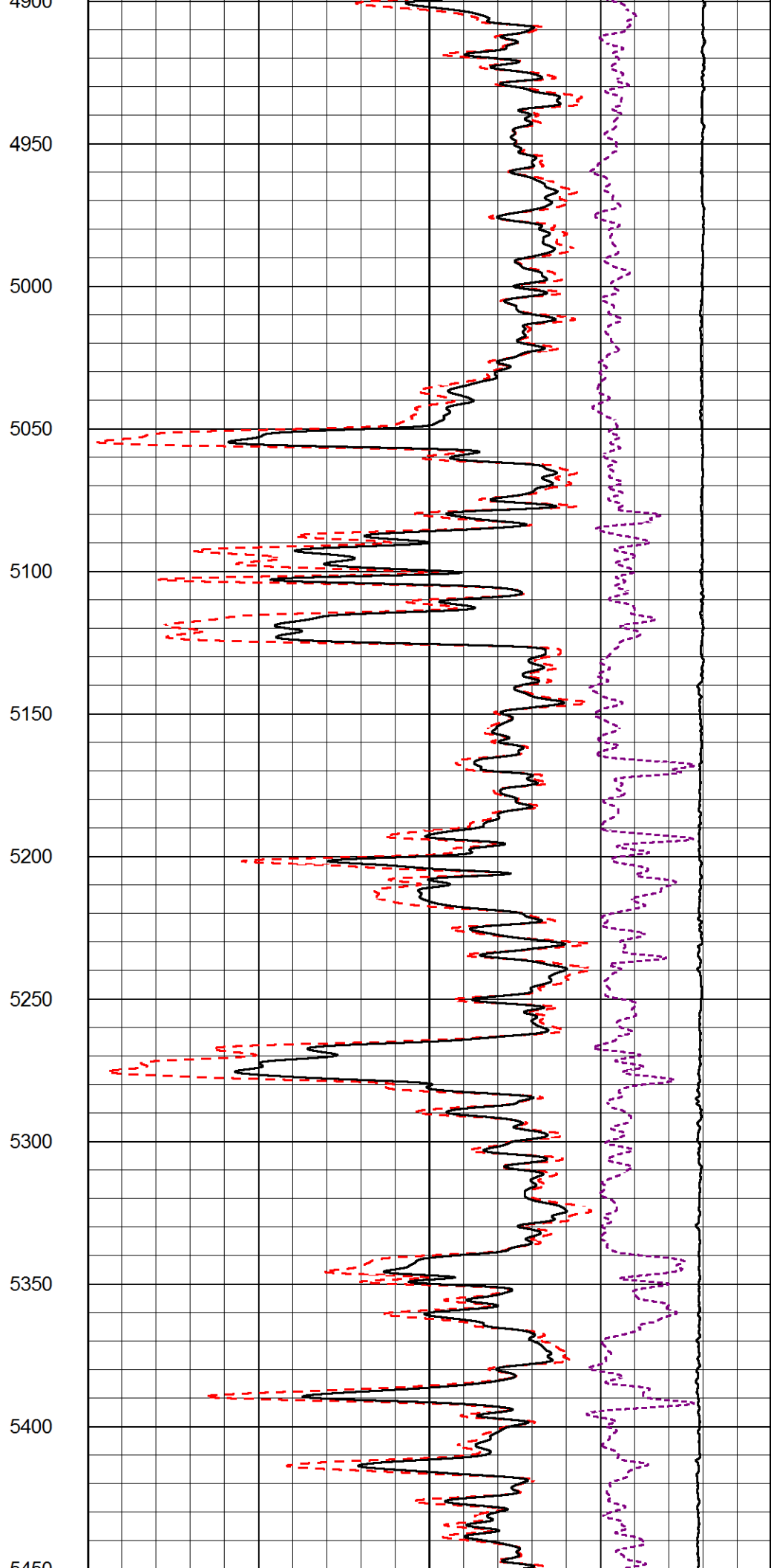
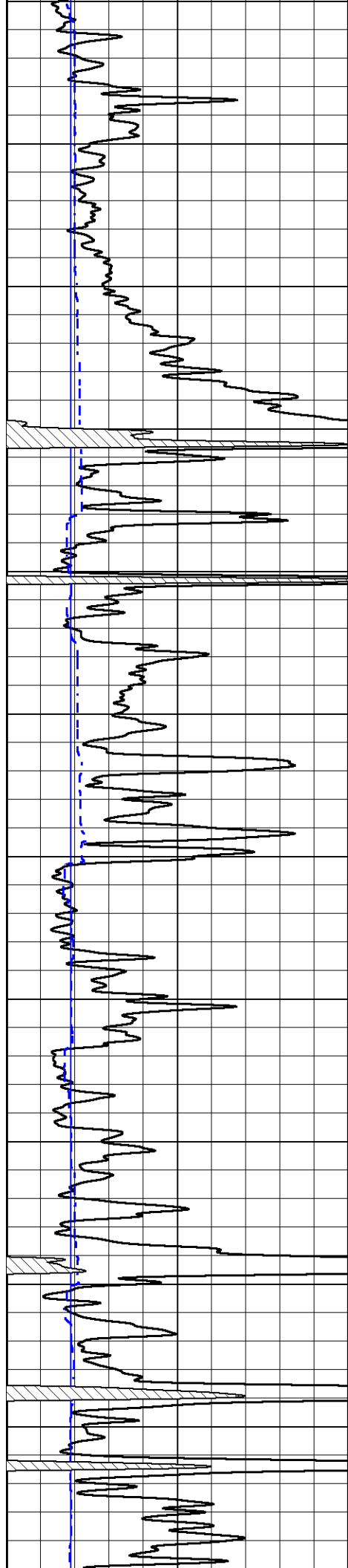
MAIN PASS

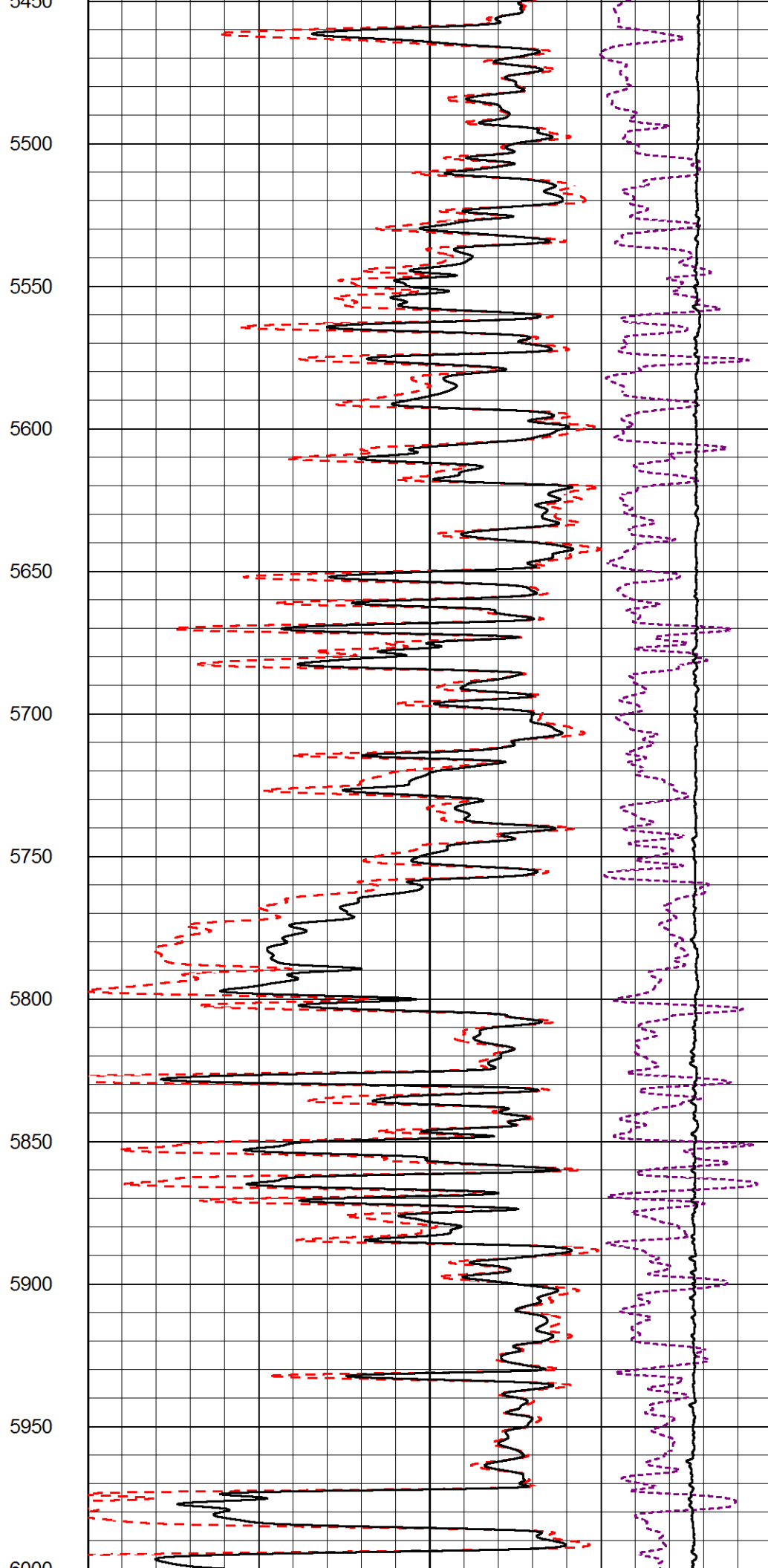
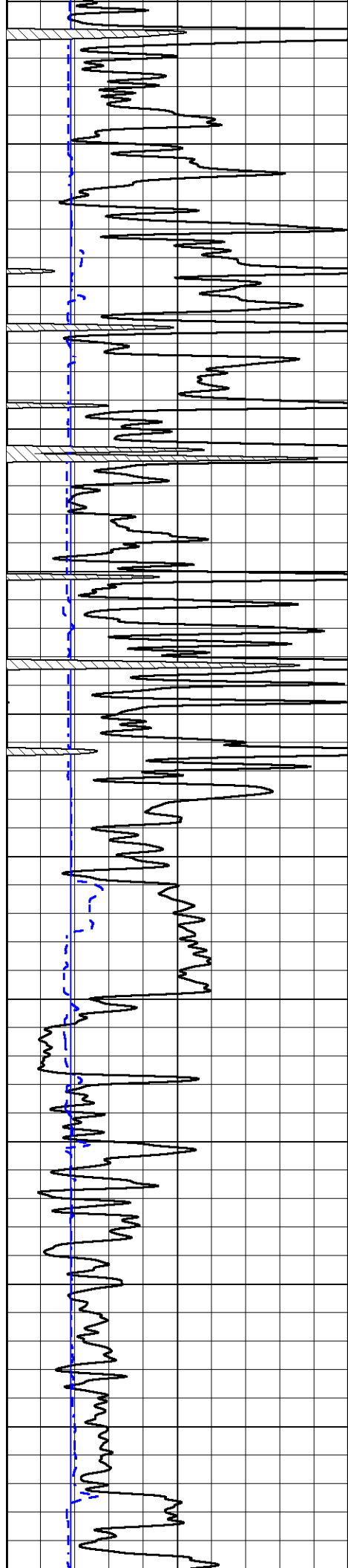
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Dataset Pathname stack/pass4.1
Presentation Format _cdl
Dataset Creation Mon Aug 23 03:20:14 2021
Charted by Depth in Feet scaled 1:600

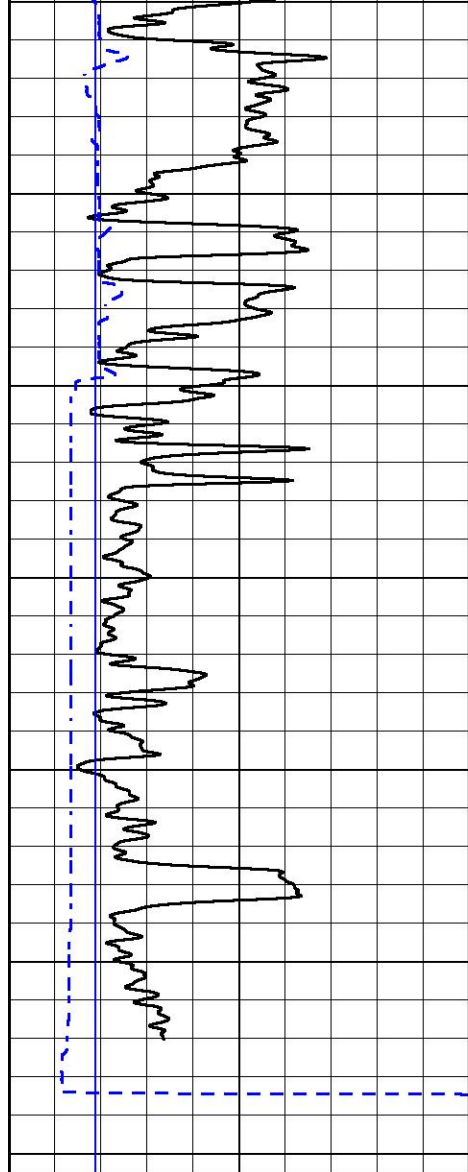
0	GAMMA RAY (GAPI)	150	COMPENSATED DENSITY (2.65 MA)	
6	DCAL (in)	16		
			30	(pu) -10
			2	BULK DENSITY (g/cc) 3
			15000	LINE TENSION (lb) 0
			-0.25	CORRECTION (g/cc) 0.25



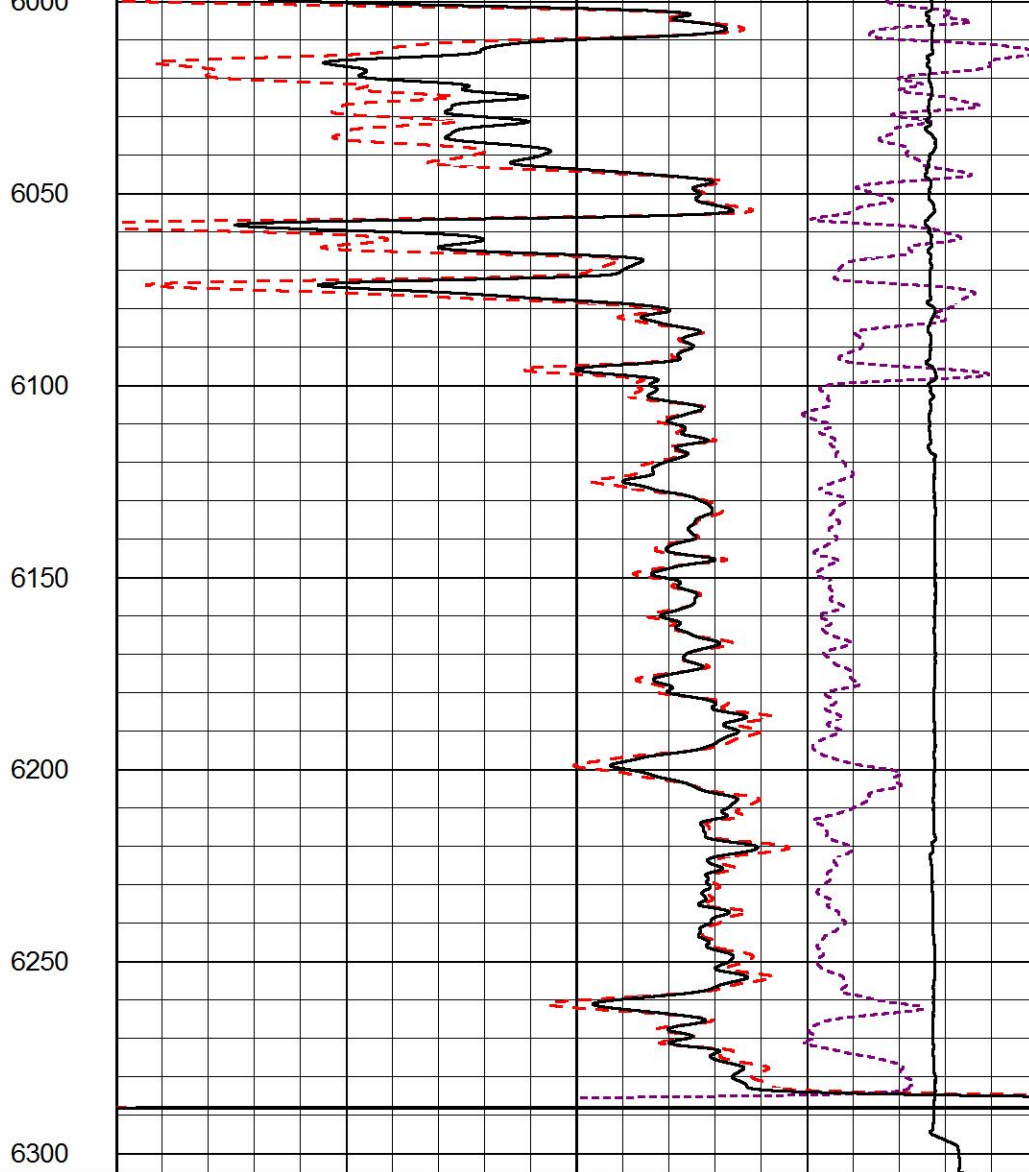








0	GAMMA RAY (GAPI)	150
6	DCAL (in)	16



COMPENSATED DENSITY (2.65 MA)		
30	(pu)	-10
2	BULK DENSITY (g/cc)	3
15000	LINE TENSION (lb)	0
-0.25	CORRECTION (g/cc)	0.25



MIDWEST WIRELINE

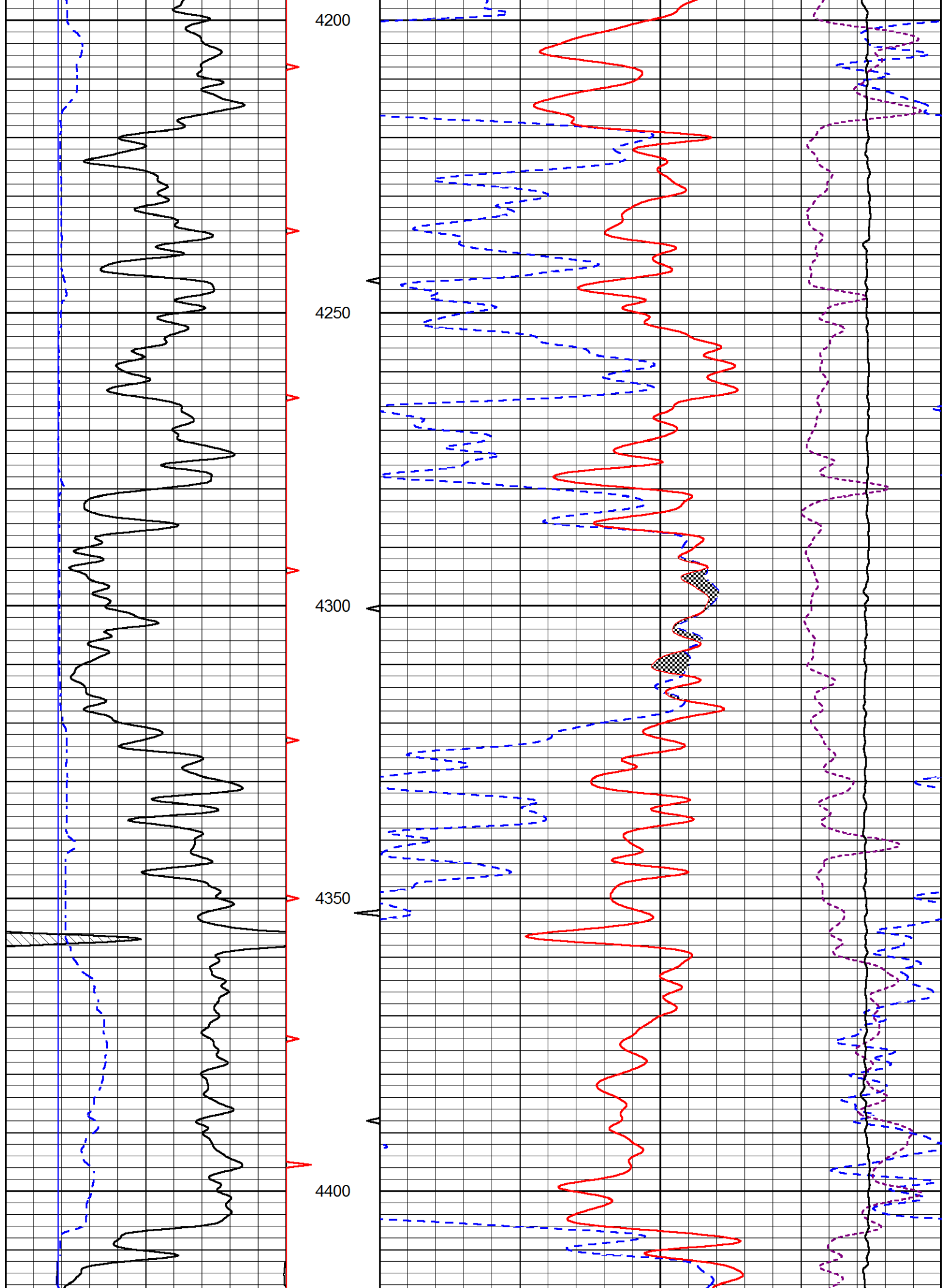
DETAIL SECTION

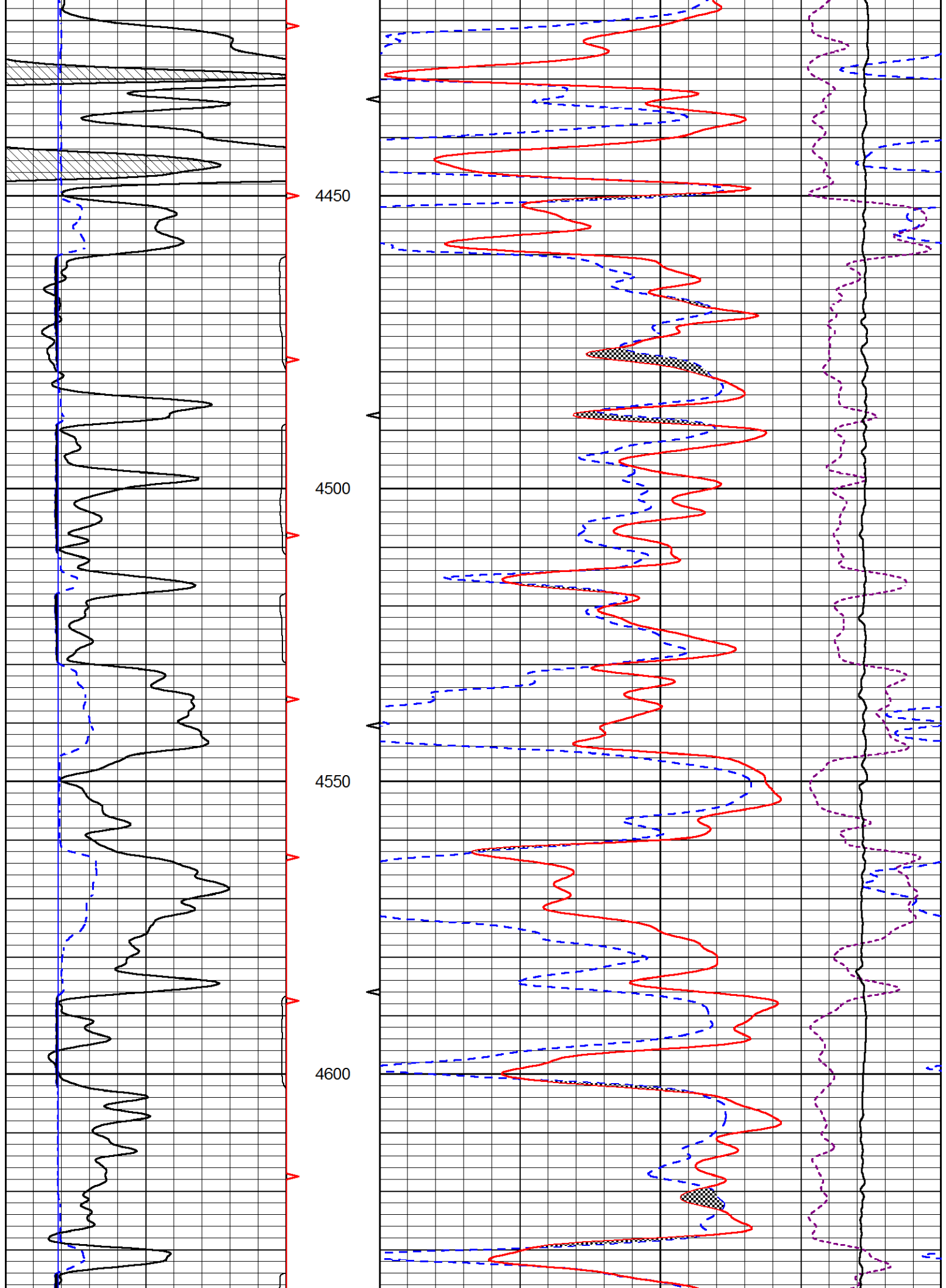
MAIN PASS

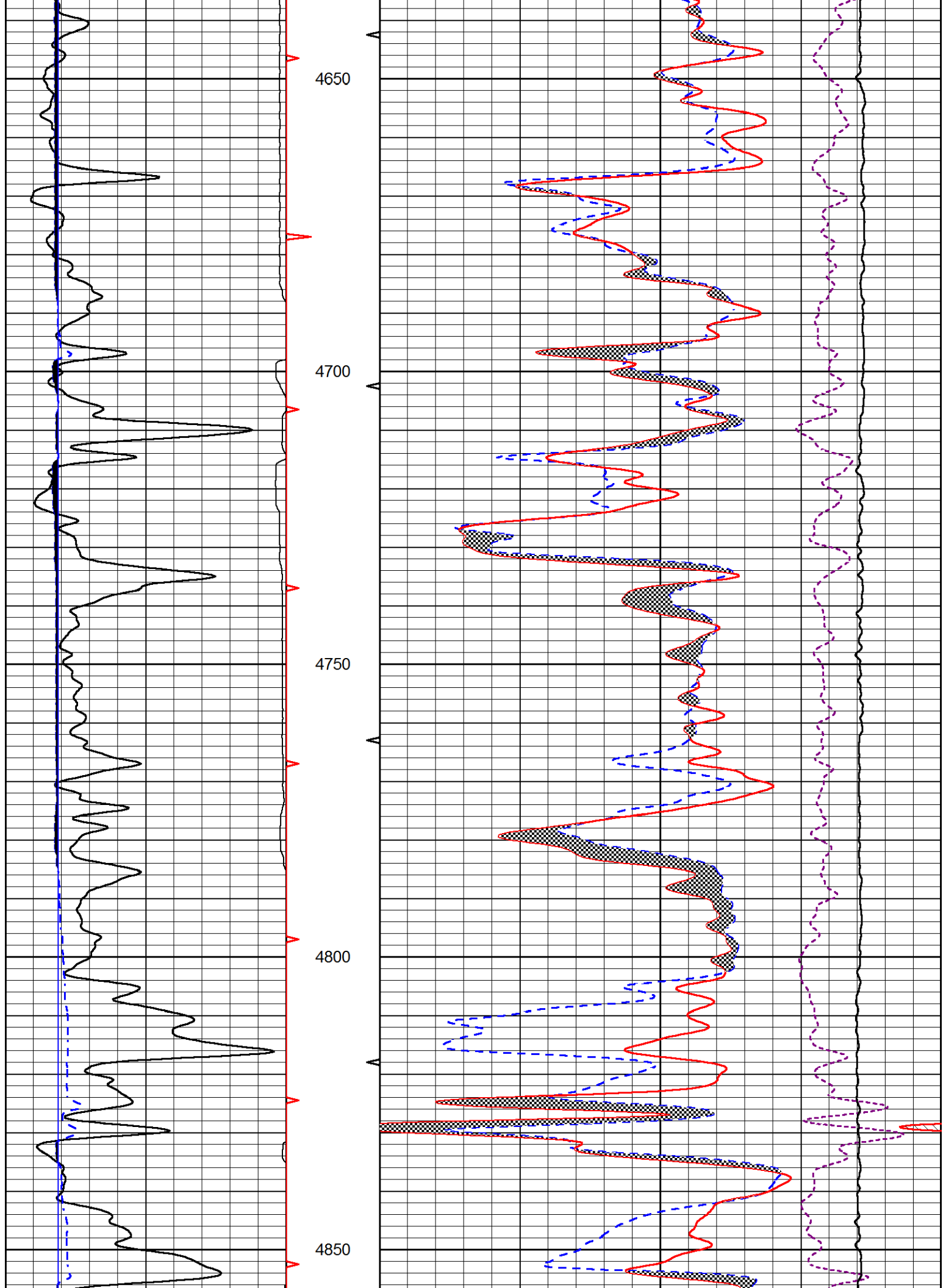
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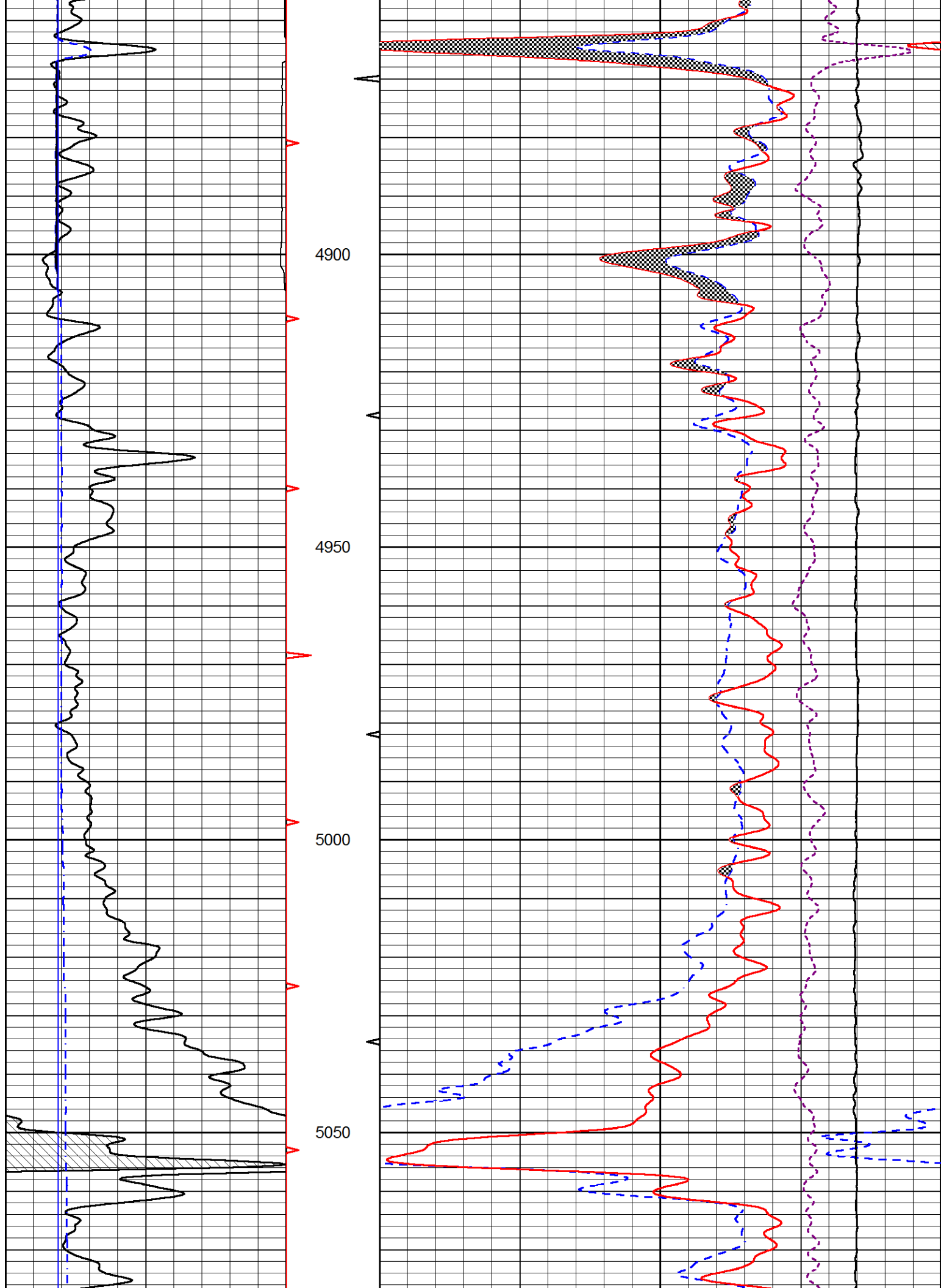
0	GAMMA RAY (GAPI)	150
6	DCAL (in)	16

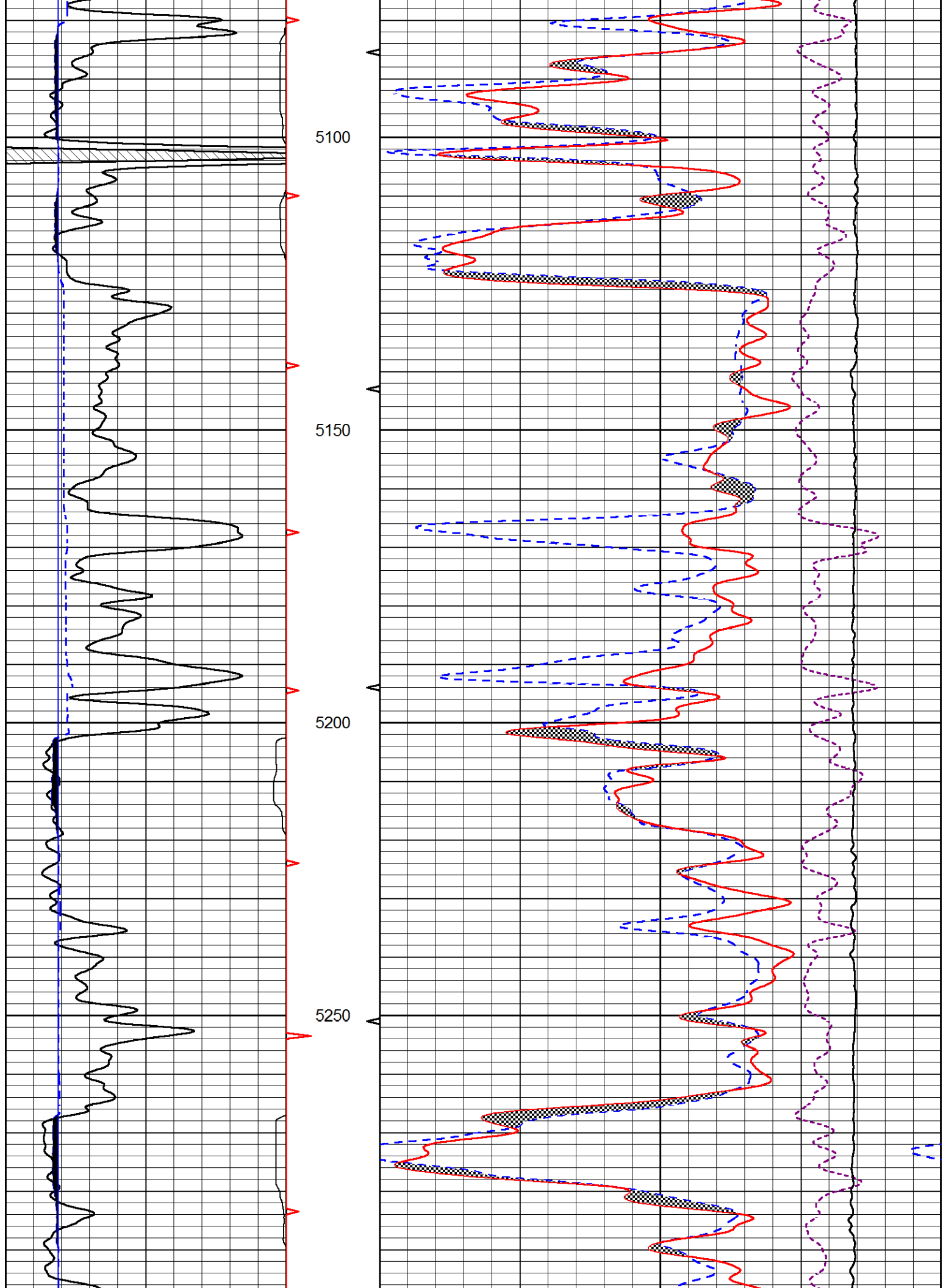
30	CNPOR (pu)	-10
30	DPOR (pu)	-10
10000	LINE TENSION (lb)	0
-0.25	CORRECTION (g/cc)	0.25

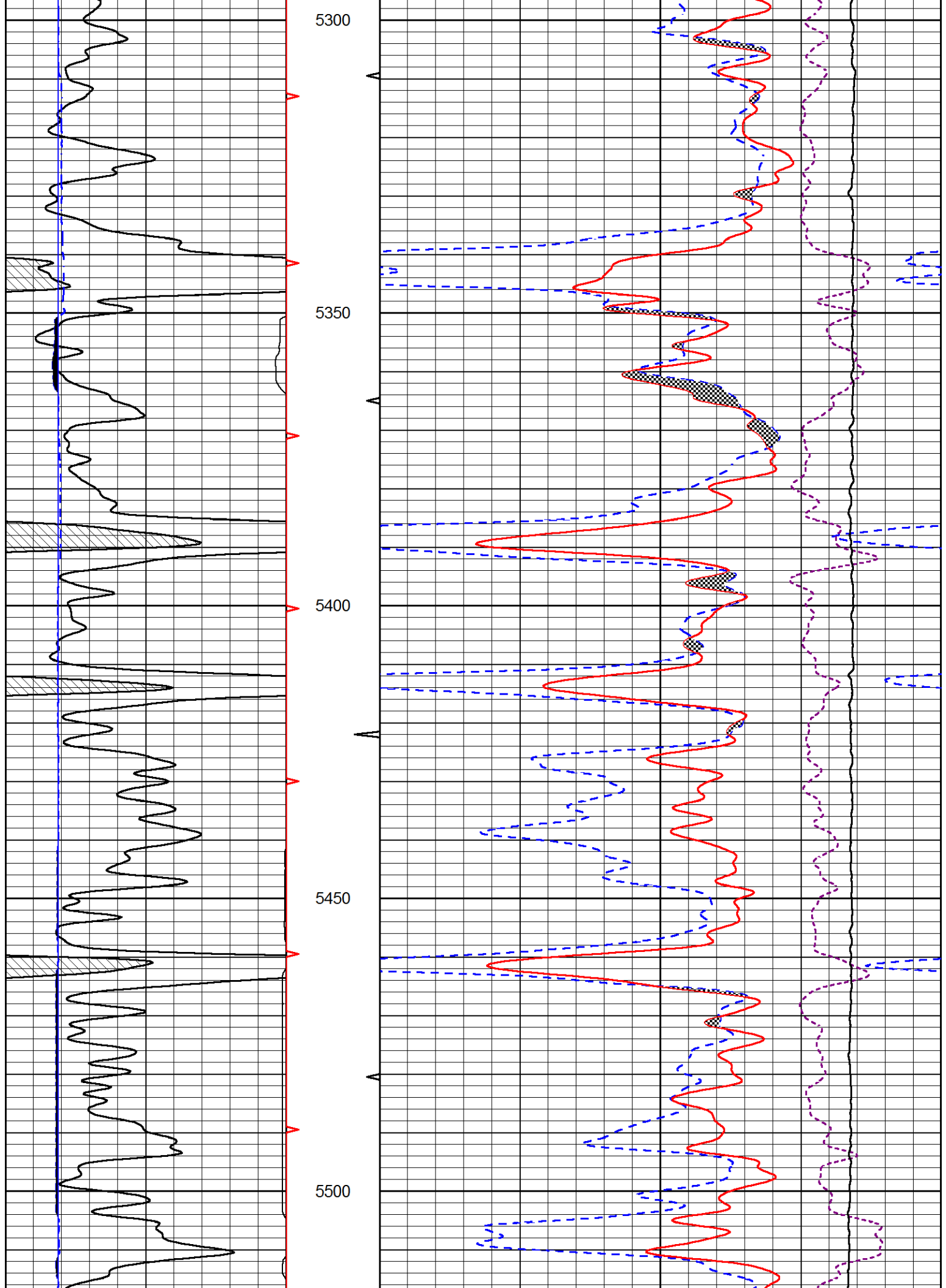


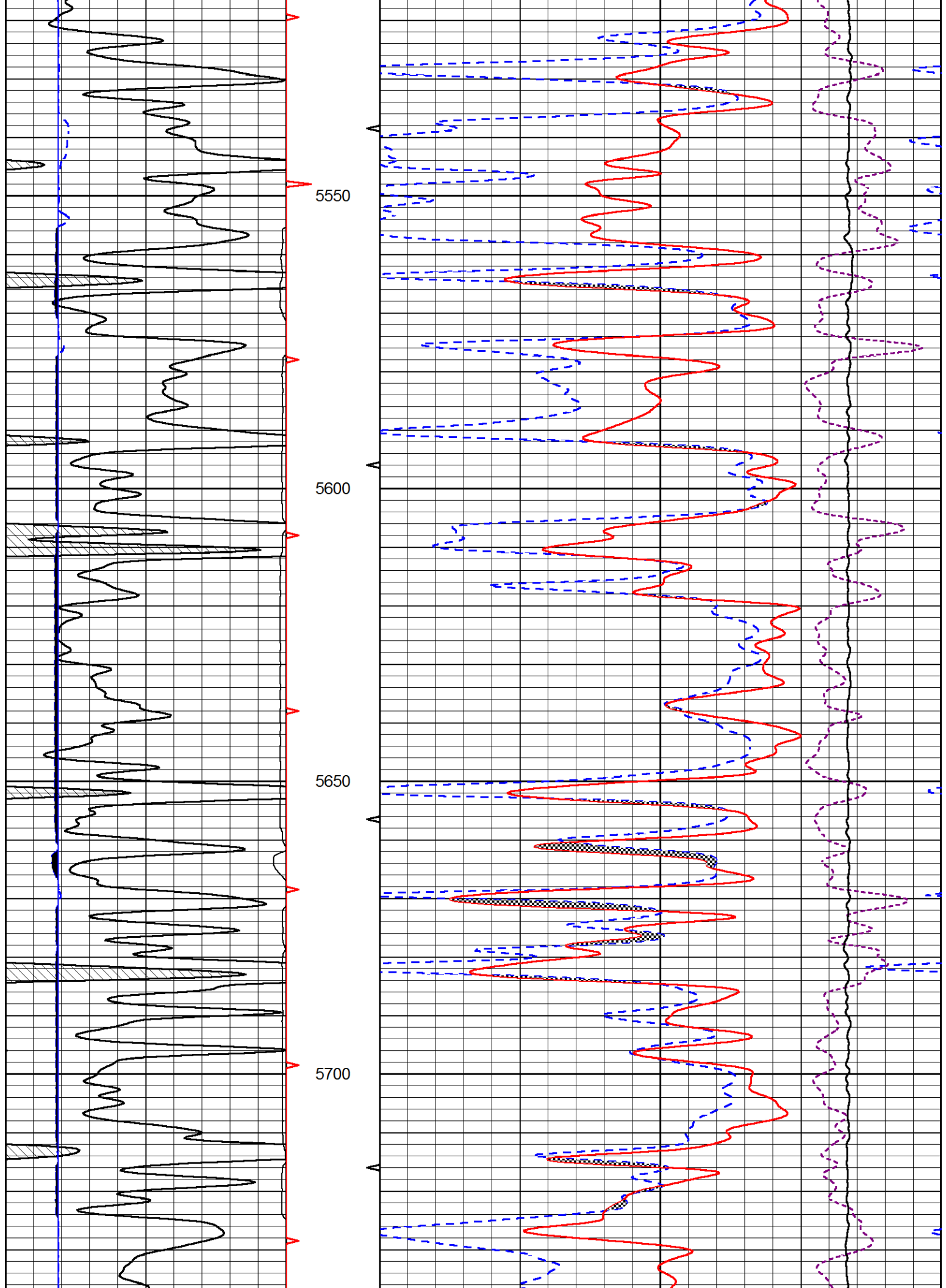


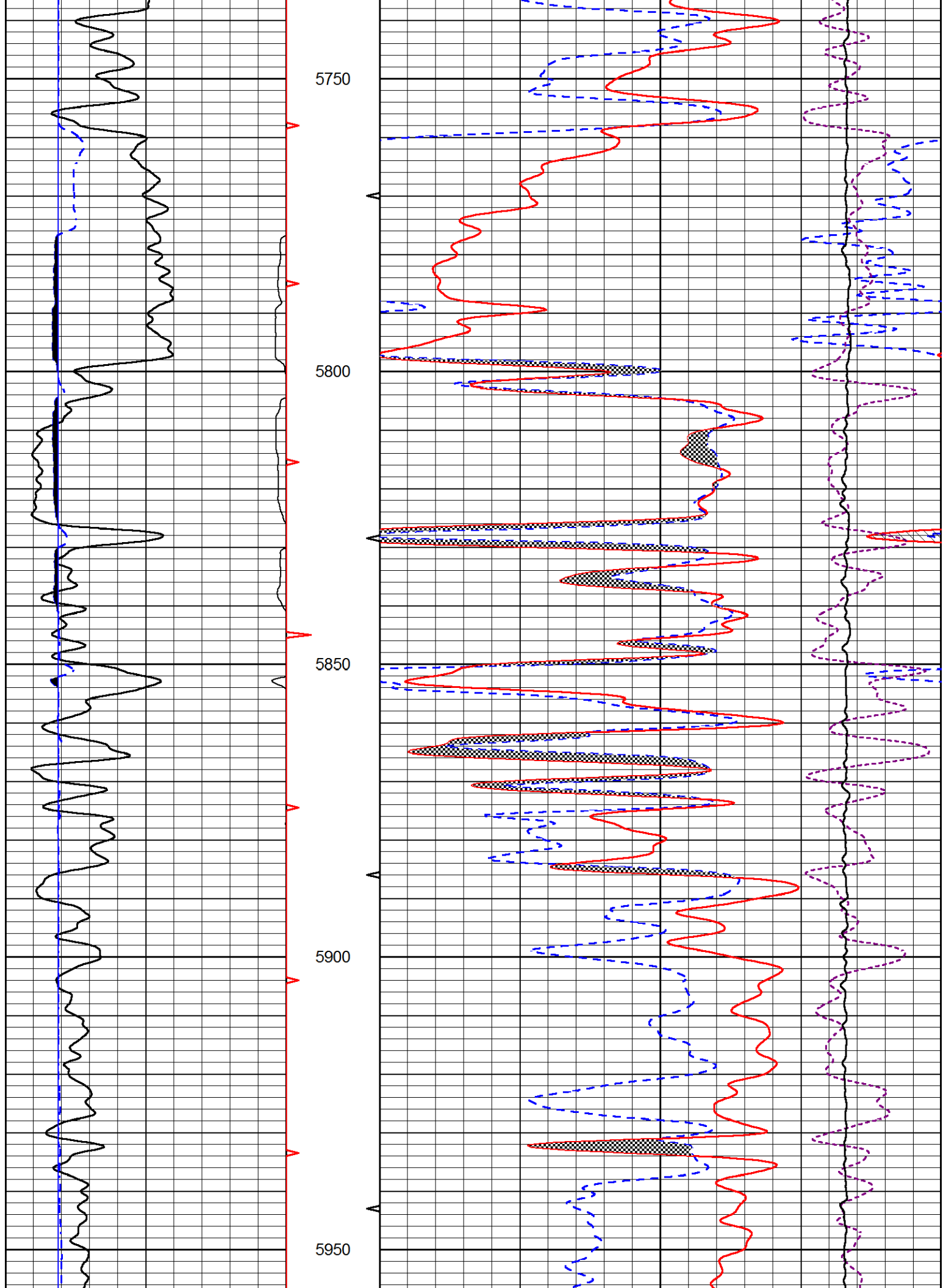


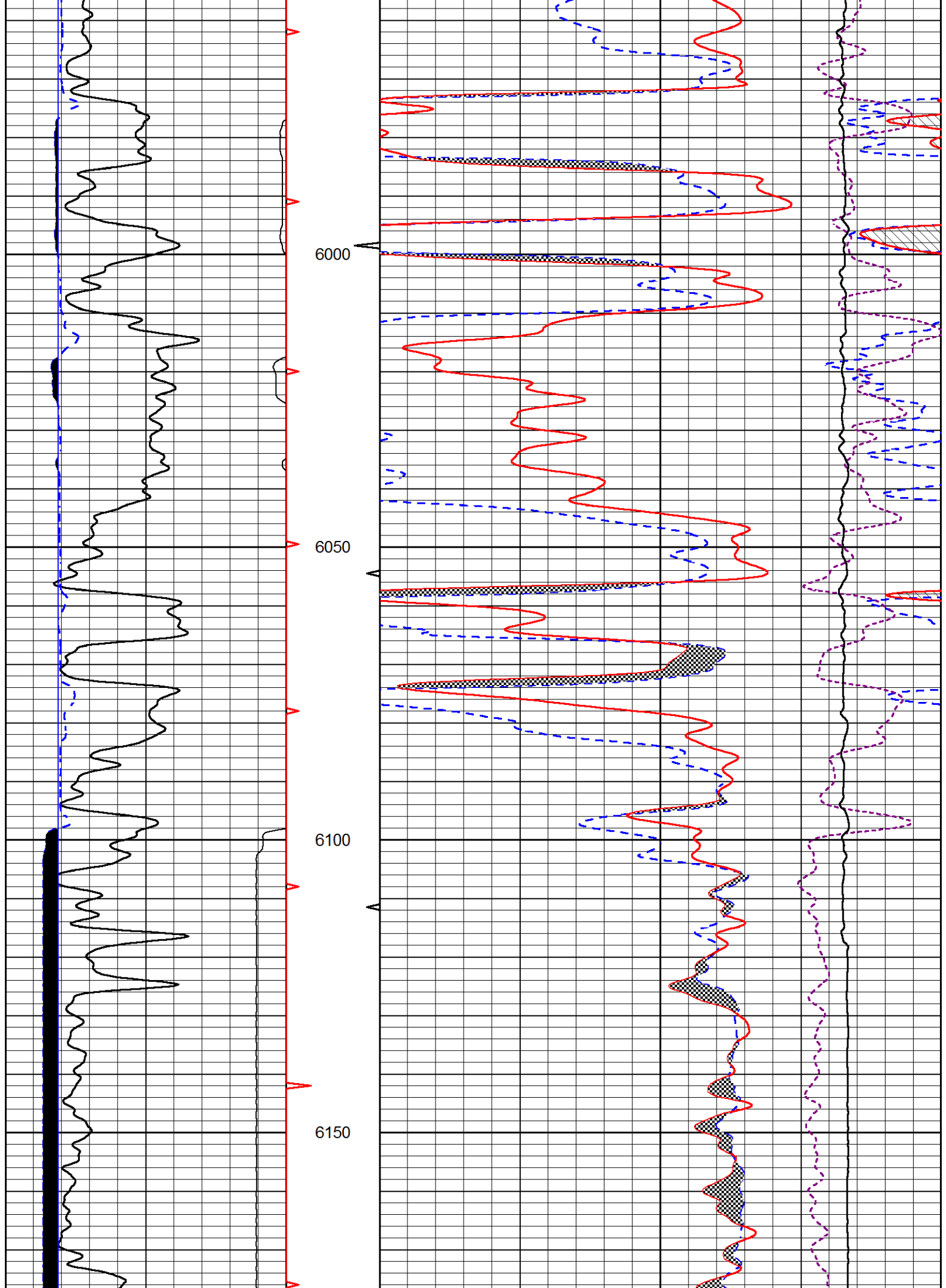


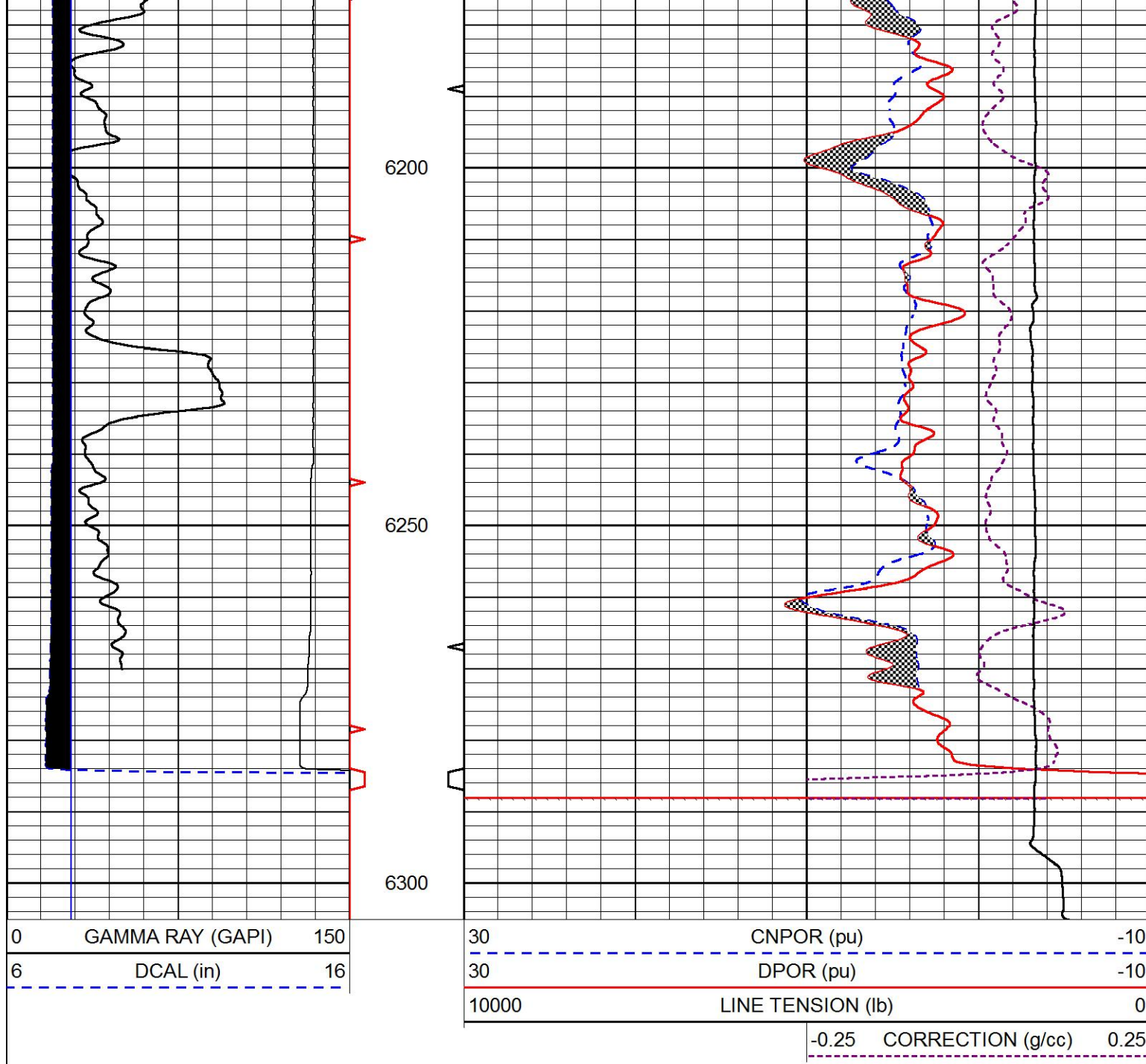










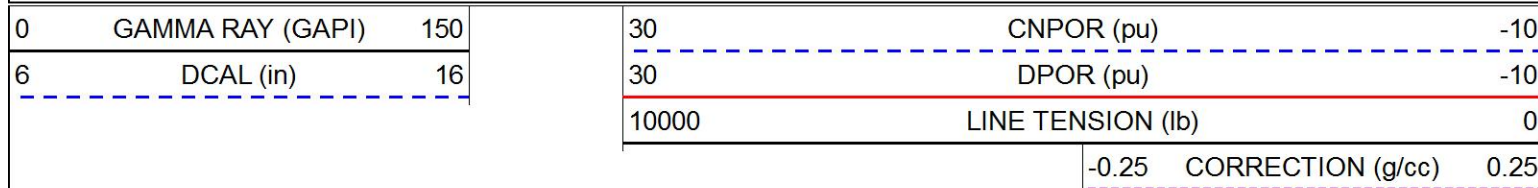


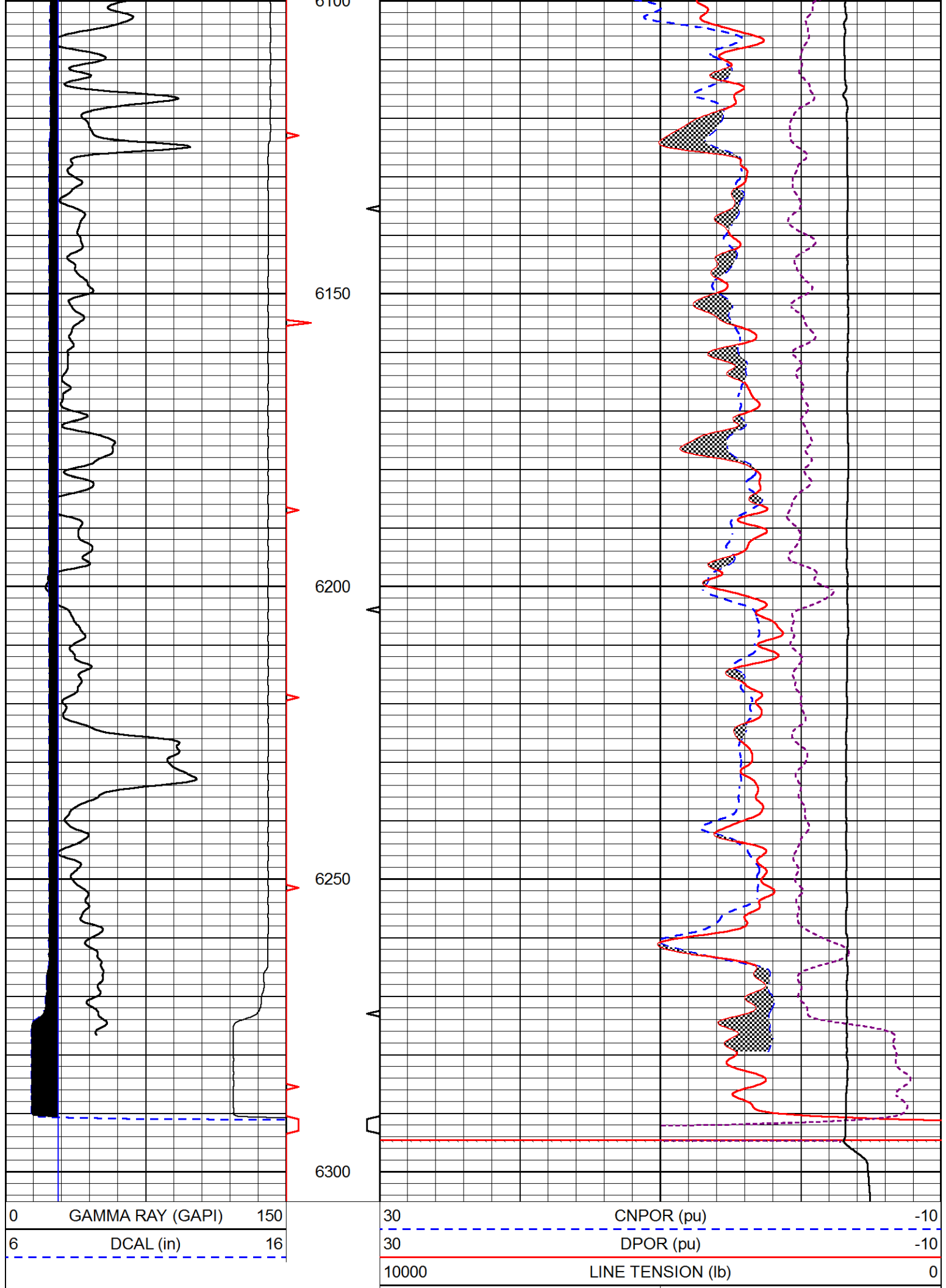
MIDWEST WIRELINE

REPEAT SECTION

REPEAT PASS

Database File aw_langhofer 1-23.db
 Dataset Pathname stack/pass2.1
 Presentation Format _CNDLS~1
 Dataset Creation Mon Aug 23 02:52:17 2021
 Charted by Depth in Feet scaled 1:240







Company	American Warrior, Inc.
Well	Langhofer #1-23
Field	Novinger
County	Meade
State	Kansas