



MIDWEST WIRELINE

DUAL COMP POROSITY LOG

Company		EPOC, LLC					
Well	Eck 'A' SWD #1						
Field	Hazlett						
County	Butler	State	Kanas				
Location:		API # : 15-015-24167-00-00	Other Services				
SEC 32 TWP 23S RGE 5E		DIL/MEL					
Permanent Datum	Ground Level	Elevation	1475				
Log Measured From	Kelly Bushing	K.B.	1481				
Drilling Measured From	Kelly Bushing	D.F.	1475				
Date		8/11/2022					
Run Number	One						
Type Log	CNL/CDL						
Depth Driller	3048						
Depth Logger	3046						
Bottom Logged Interval	3017						
Top Logged Interval	1400						
Type Fluid In Hole	Chemical						
Salinity, PPM CL							
Density							
Level	Full						
Max. Rec. Temp. F	106						
Operating Rig Time	3 Hours						
Equipment -- Location	P-108 HAYS						
Recorded By	D. Schmidt						
Witnessed By	Ray Gilbert						
Borehole Record		Casing Record					
Run No.	Bit	From	To	Size	Wgt.	From	To
One	12.25	0	205	8.625	23	0	205
Two	7.875	205	TD				

<<< Fold Here >>>

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.

Newton,
East to Purity Springs Rd, 2 South, 1/4 East,
South into

Log Measured From: Kelly Bushing 6 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: Ray Gilbert
Secondary Witness: Bill Stout
Secondary Witness:
Secondary Witness:

Sensor	Offset (ft)	Schematic		Description	Length (ft)	O.D. (in)	Weight (lb)
GR	40.33			GR-M&W (103)	3.00	3.50	50.00
CNLSC CNSSC	37.23 36.48			CNT-M&W (210)	5.00	3.50	100.00
LSD DCAL SSD	28.18			CDL-M&W (303-03)	8.50	4.00	250.00
	28.17			ML-PSI STKBL ML (401)	7.58	4.00	65.00
	27.68						
MCAL MI MN	19.58						
	19.58						
	19.58						
RLL3F RLL3	15.50			DIL-M&W (505 HT)	18.25	3.50	220.00
	15.50						
CILD	8.33						
	4.50						
SP	0.20						
Dataset: epoc_eck a swd 1.db: field/well/stkml/pass3.11 Total length: 42.33 ft Total weight: 685.00 lb O.D.: 4.00 in							

Log Variables

DatabaseC:\ProgramData\Warrior\Data\epoc_eck a swd 1.db
Dataset field/well/stkml/pass3.11/_vars_

Top - Bottom

A	BOREID	BOTTEMP	CASEOD	CASETHCK	FLUIDDEN	M	MATRXDEN
1	in 7.875	degF 106	in 5.5	in 0	g/cc 1	2	g/cc 2.71
NPORSEL	PERFS	SNDERR	SNDERRM	SPSHIFT	SRFTEMP	SZCOR	TDEPTH
Limestone	0	mmho/m 0	mmho/m 0	mV 112	degF 70	Off	ft 3046

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



MIDWEST WIRELINE

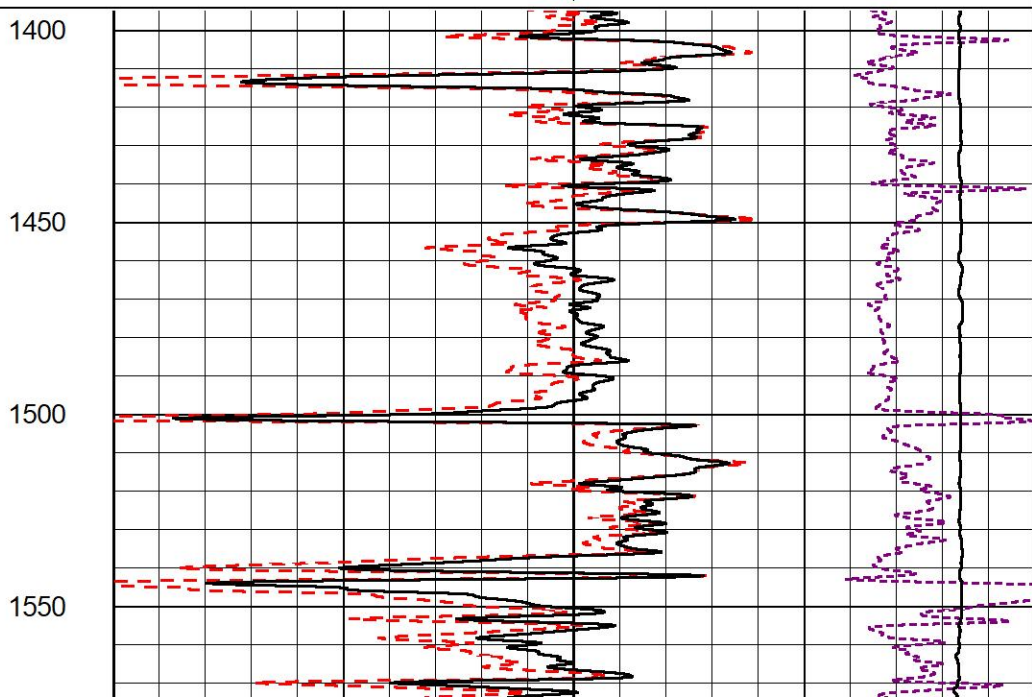
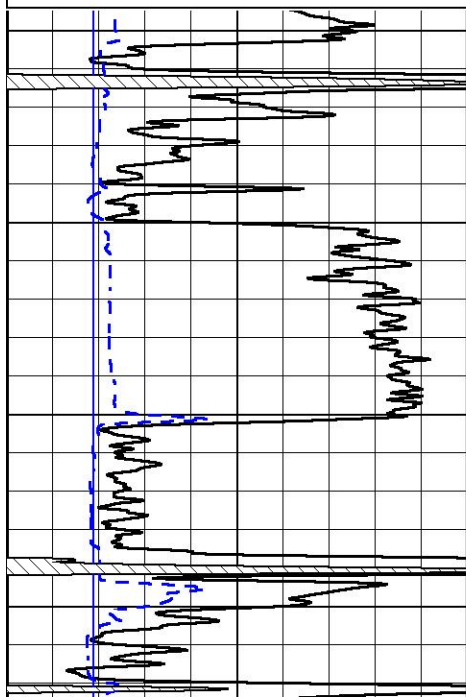
2" SCALE BULK DENSITY

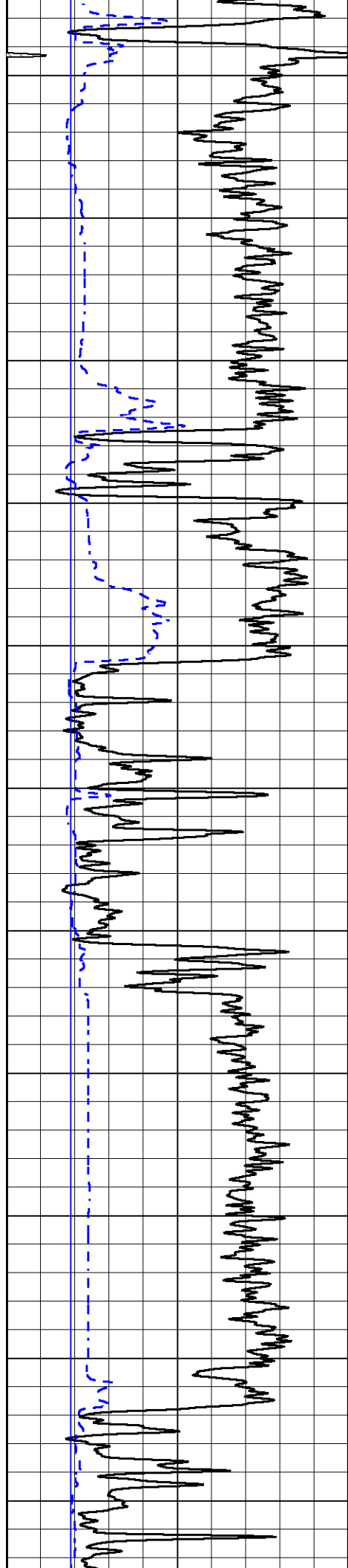
MAIN PASS

Database File epoc_eck a swd 1.db
Dataset Pathname stkml/pass3.2
Presentation Format _cdl
Dataset Creation Thu Aug 11 06:50:34 2022
Charted by Depth in Feet scaled 1:600

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

30	Compensated Density (pu)	-10
2	Bulk Density (g/cc)	3
15000	Line Tension (lb)	0
-0.25	Correction (g/cc)	0.25





1600

1650

1700

1750

1800

1850

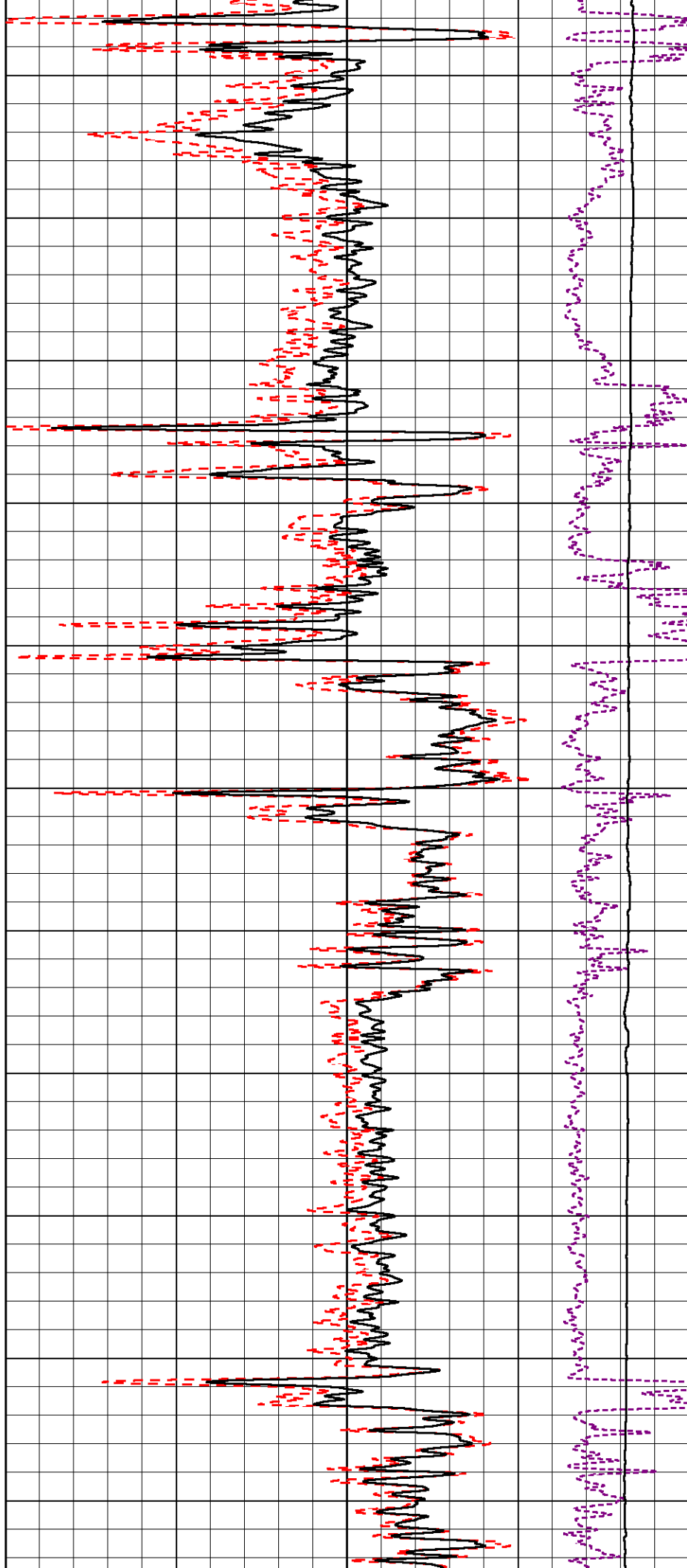
1900

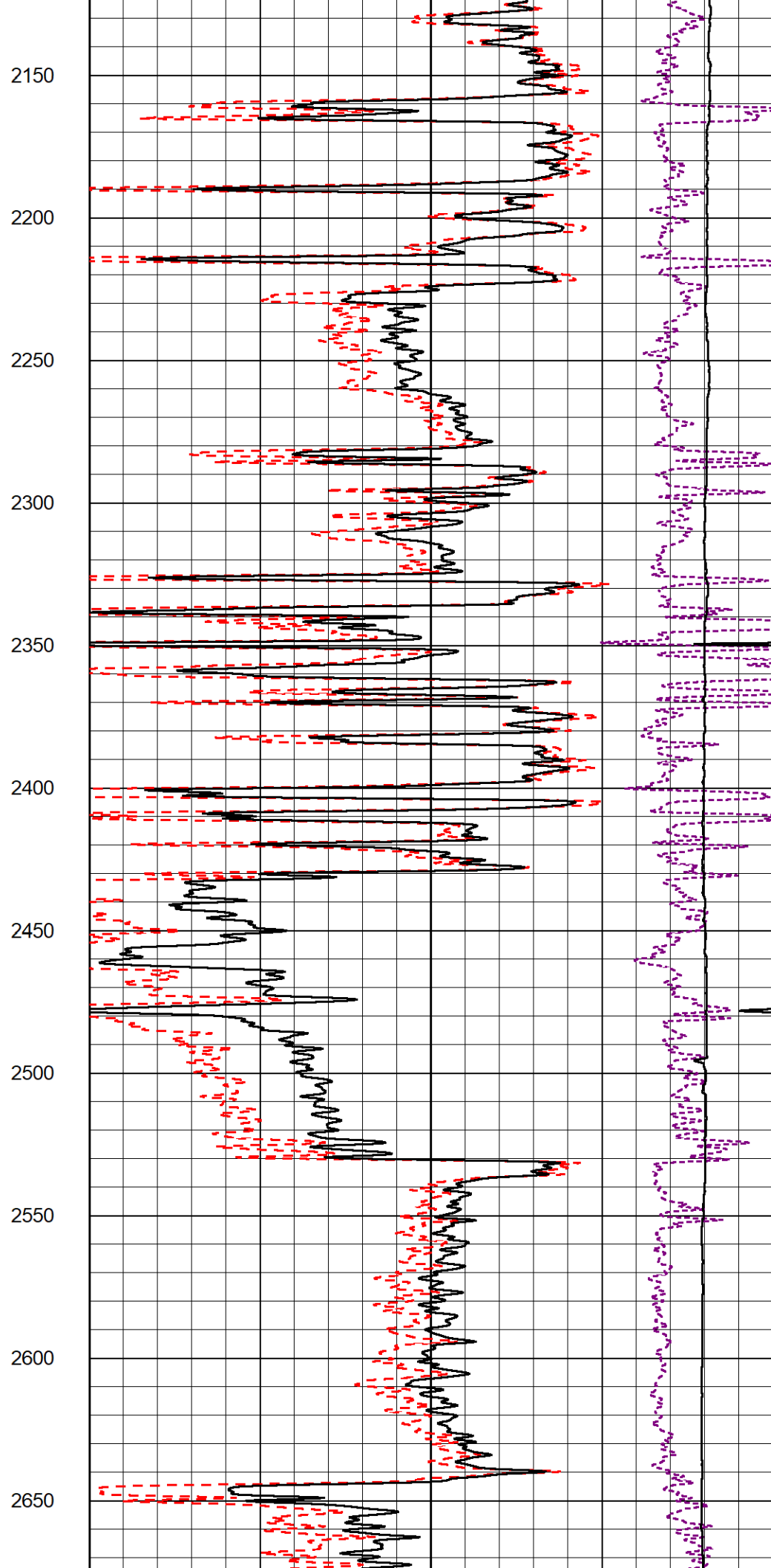
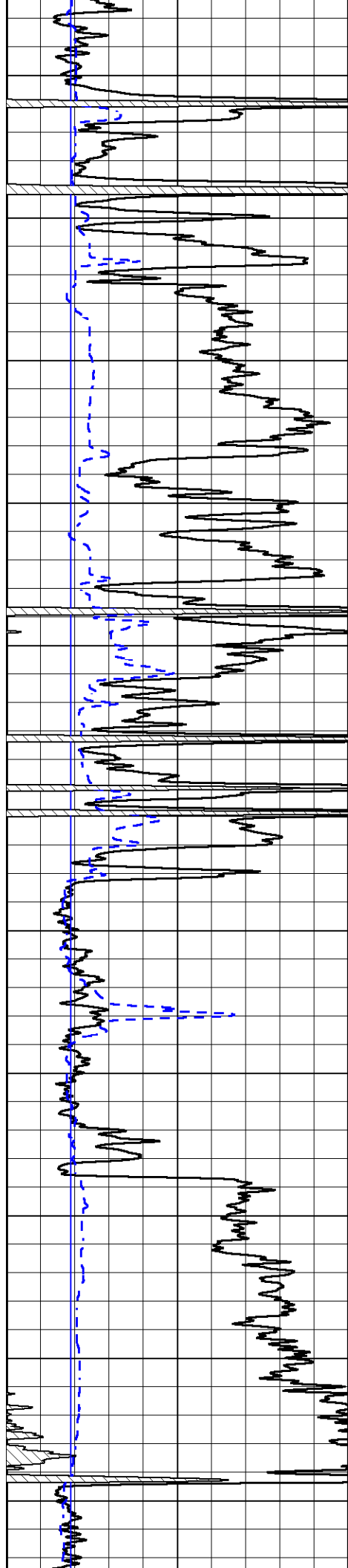
1950

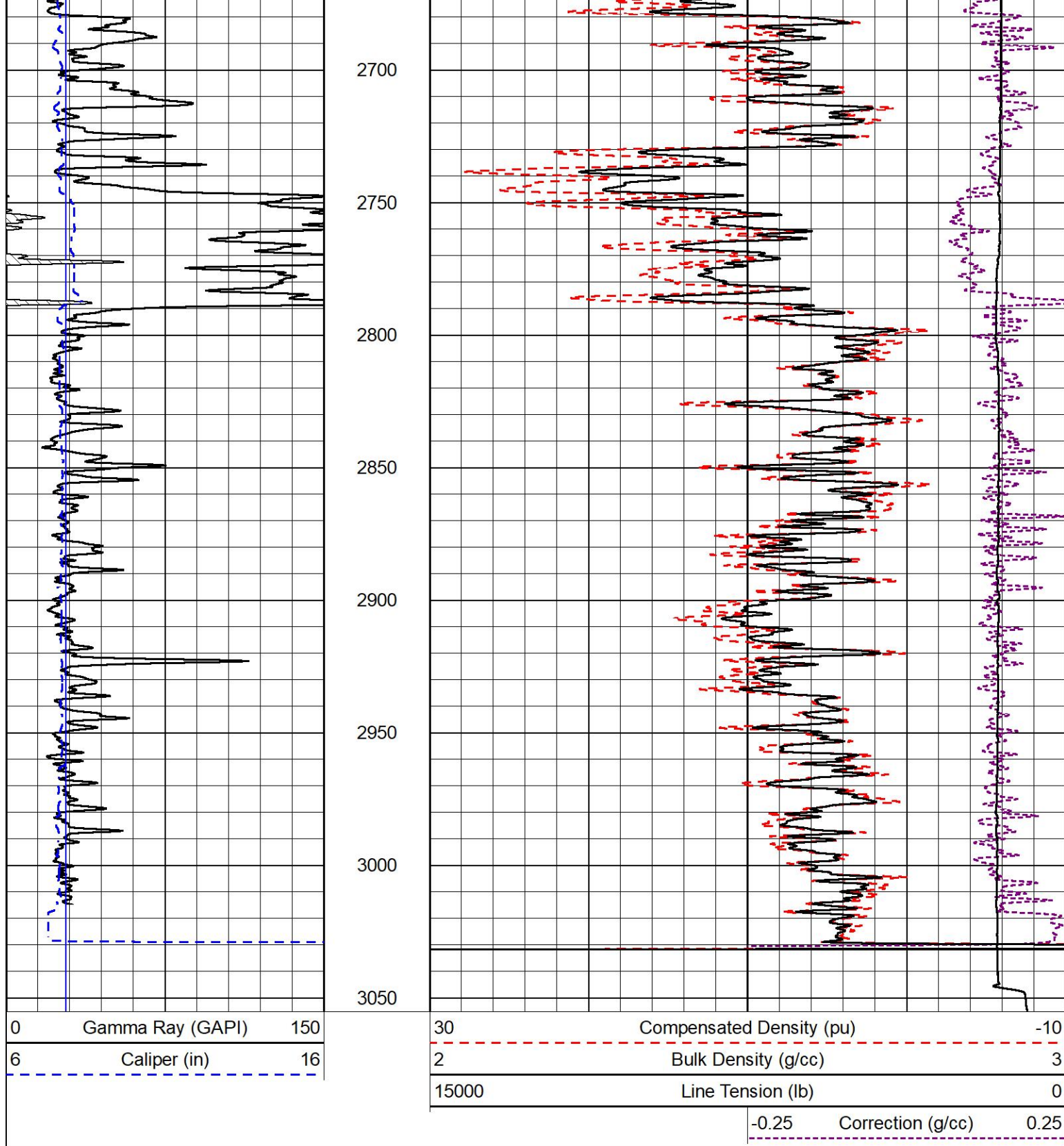
2000

2050

2100







MIDWEST WIRELINE

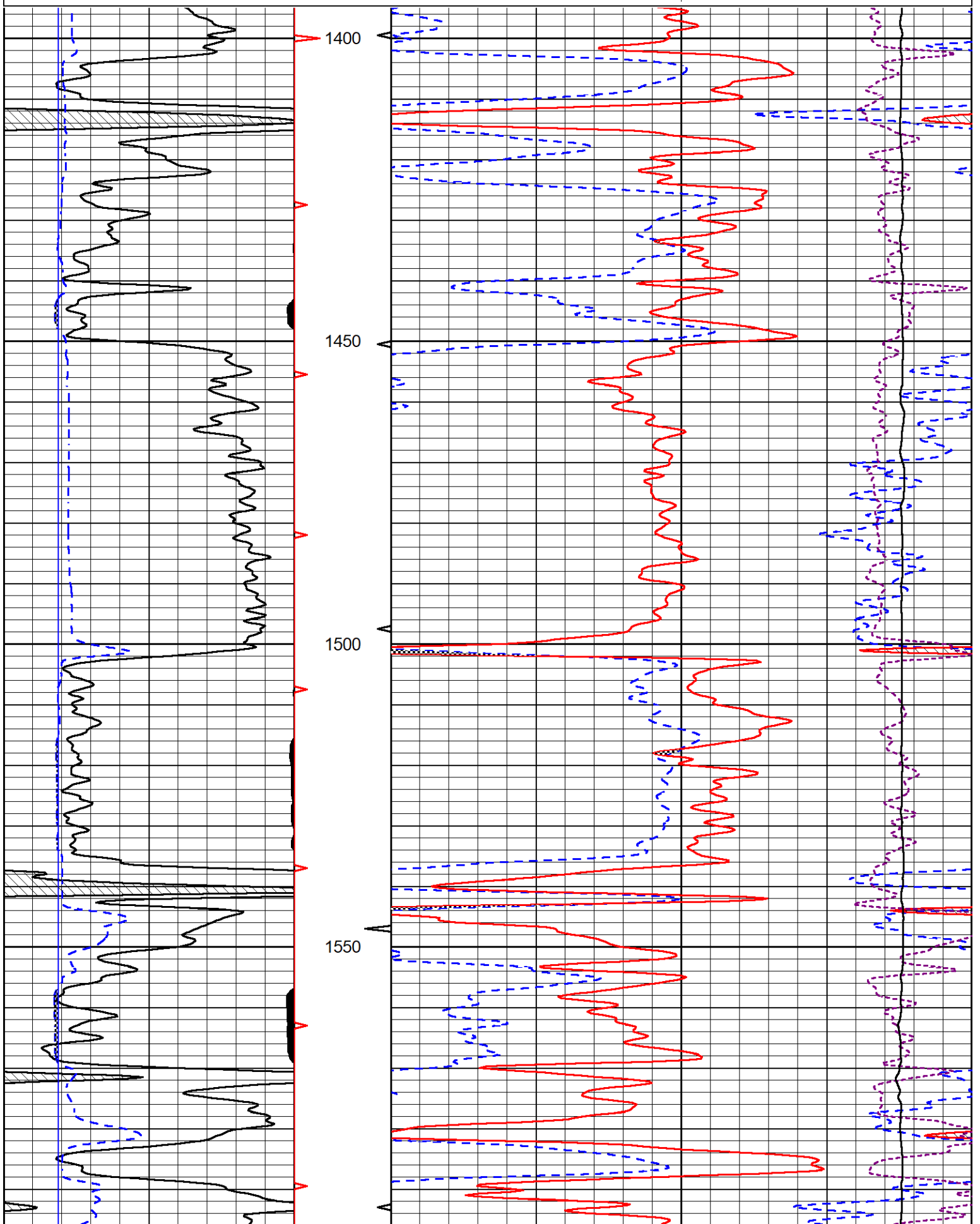
DETAIL SECTION

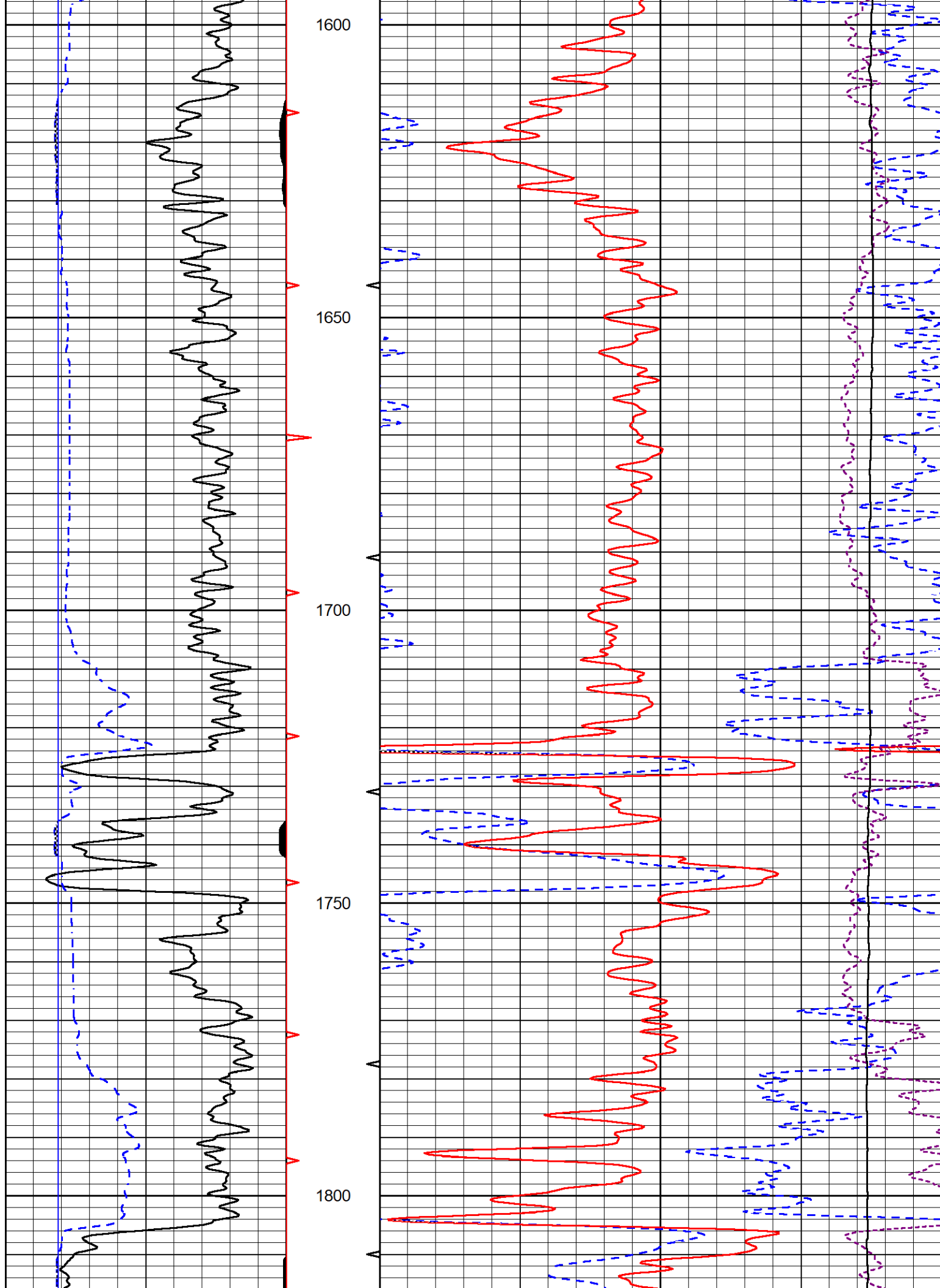
MAIN PASS

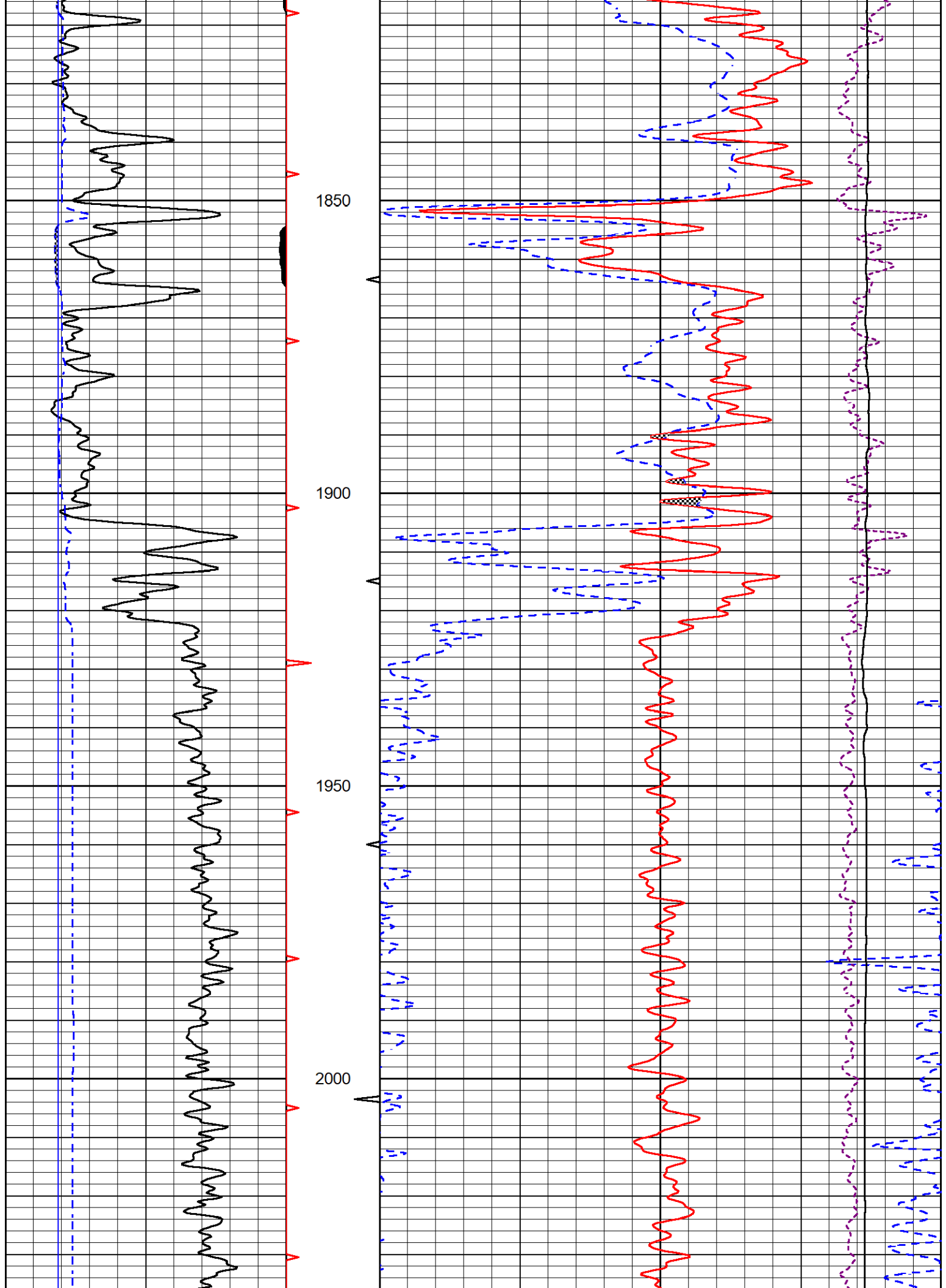
Database File epoc_eck a swd 1.db
Dataset Pathname stkml/pass3.1
Presentation Format _CNDLS~1
Dataset Creation Thu Aug 11 06:50:23 2022
Charted by Depth in Feet scaled 1:240

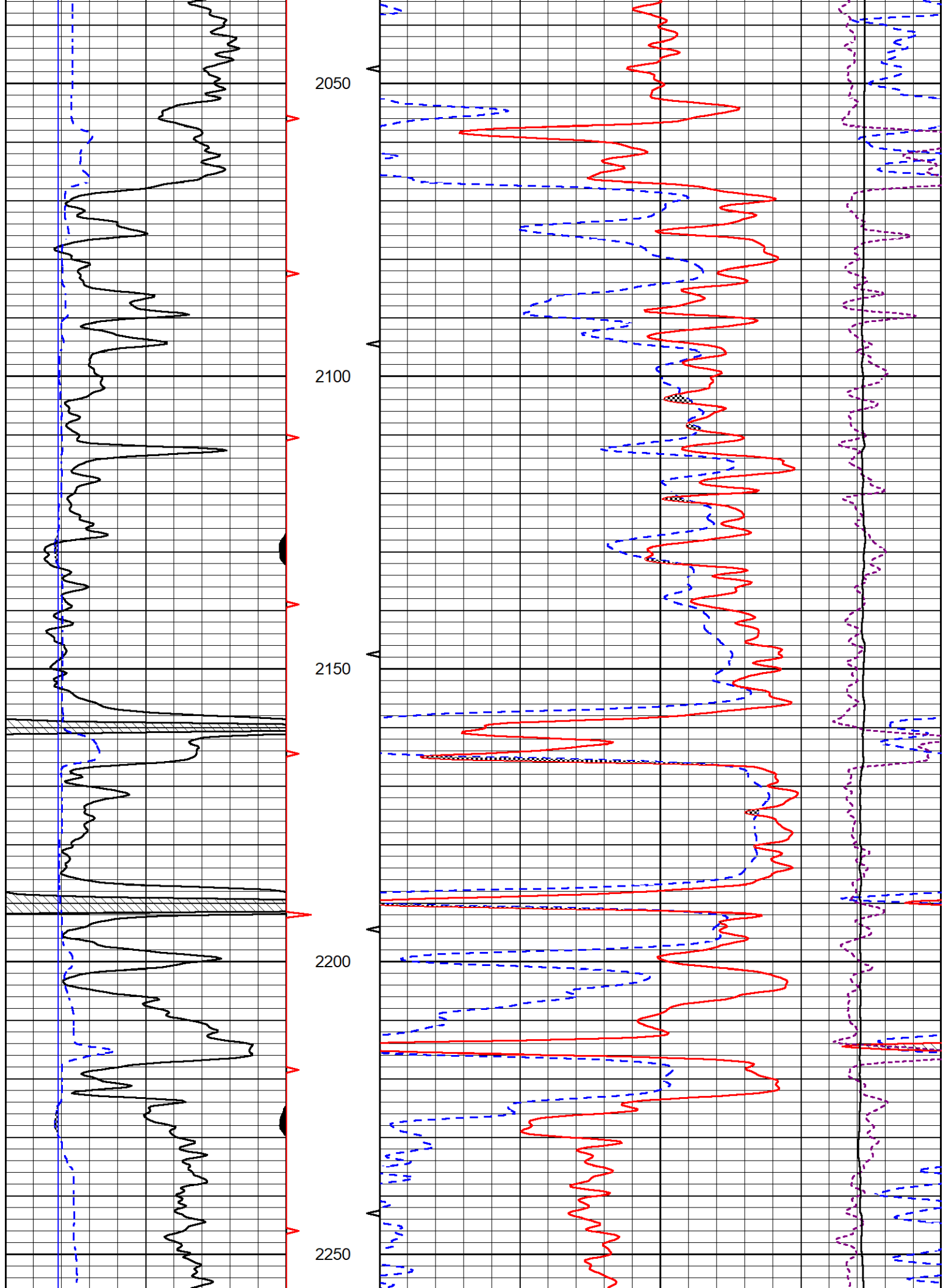
0	GR (GAPI)	150
6	DCAL (in)	16

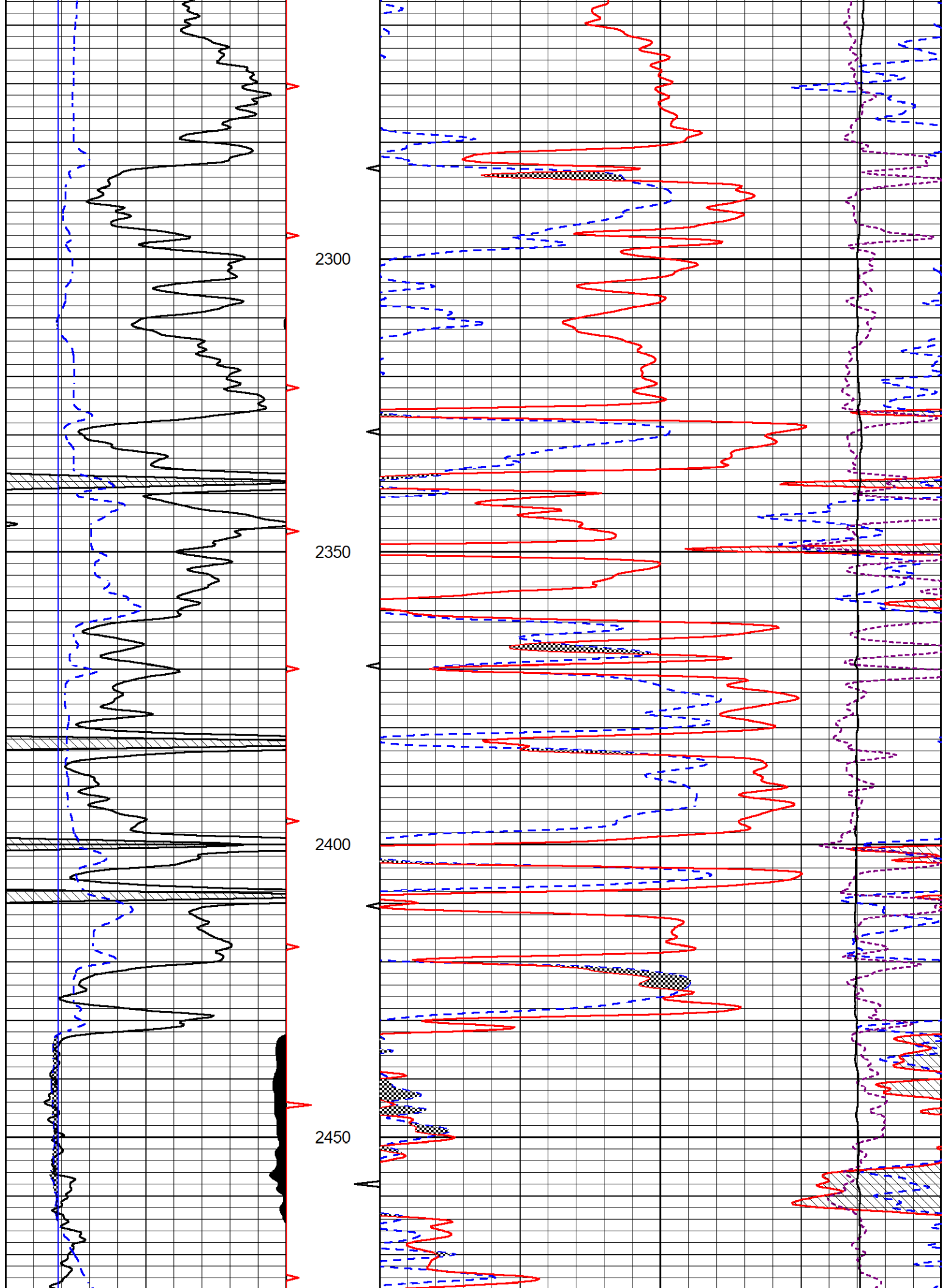
30	Compensated Neutron (pu)	-10
30	Compensated Density (pu)	-10
10000	Line Tension (lb)	0
-0.25	Correction (g/cc)	0.25

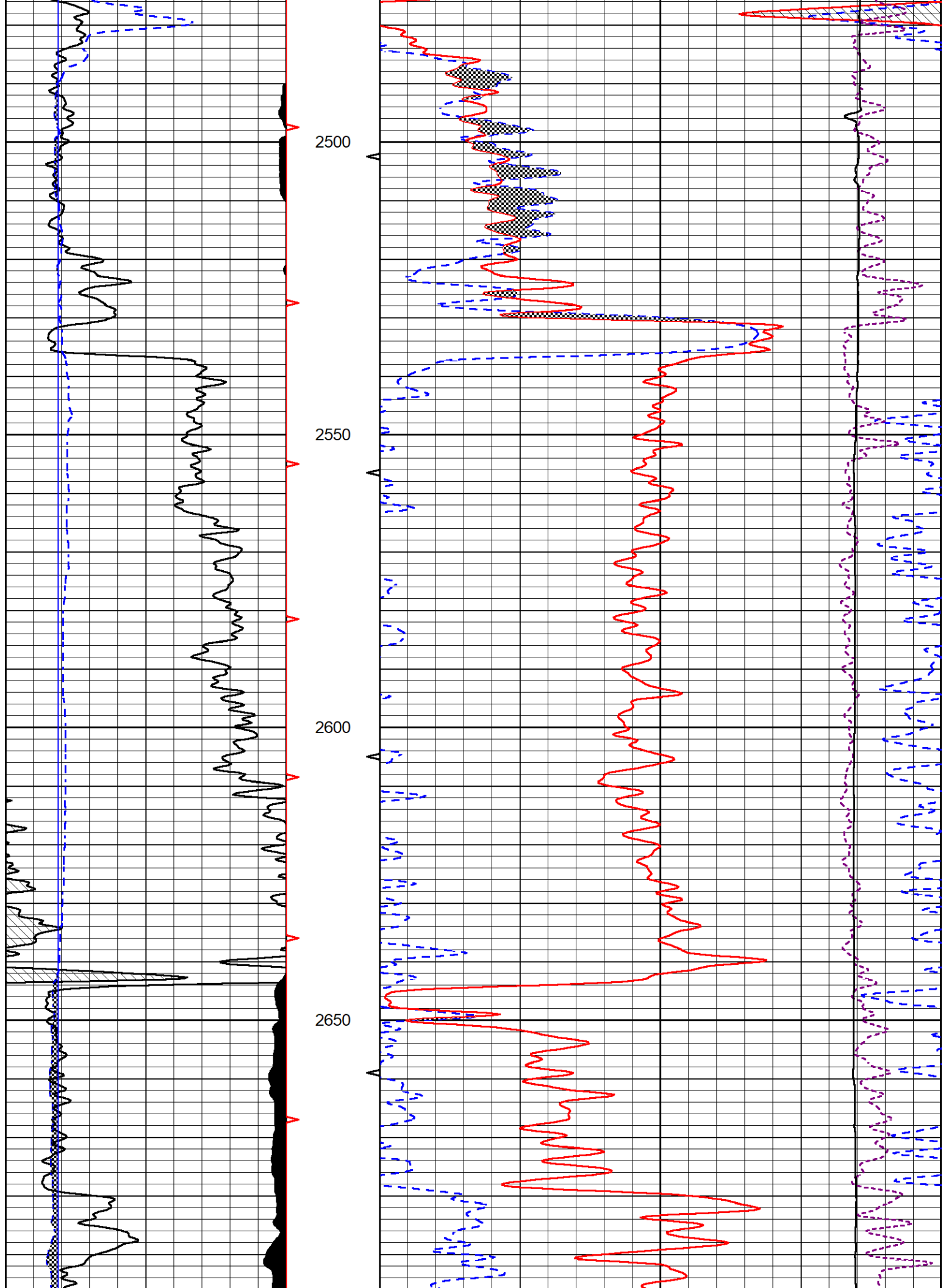


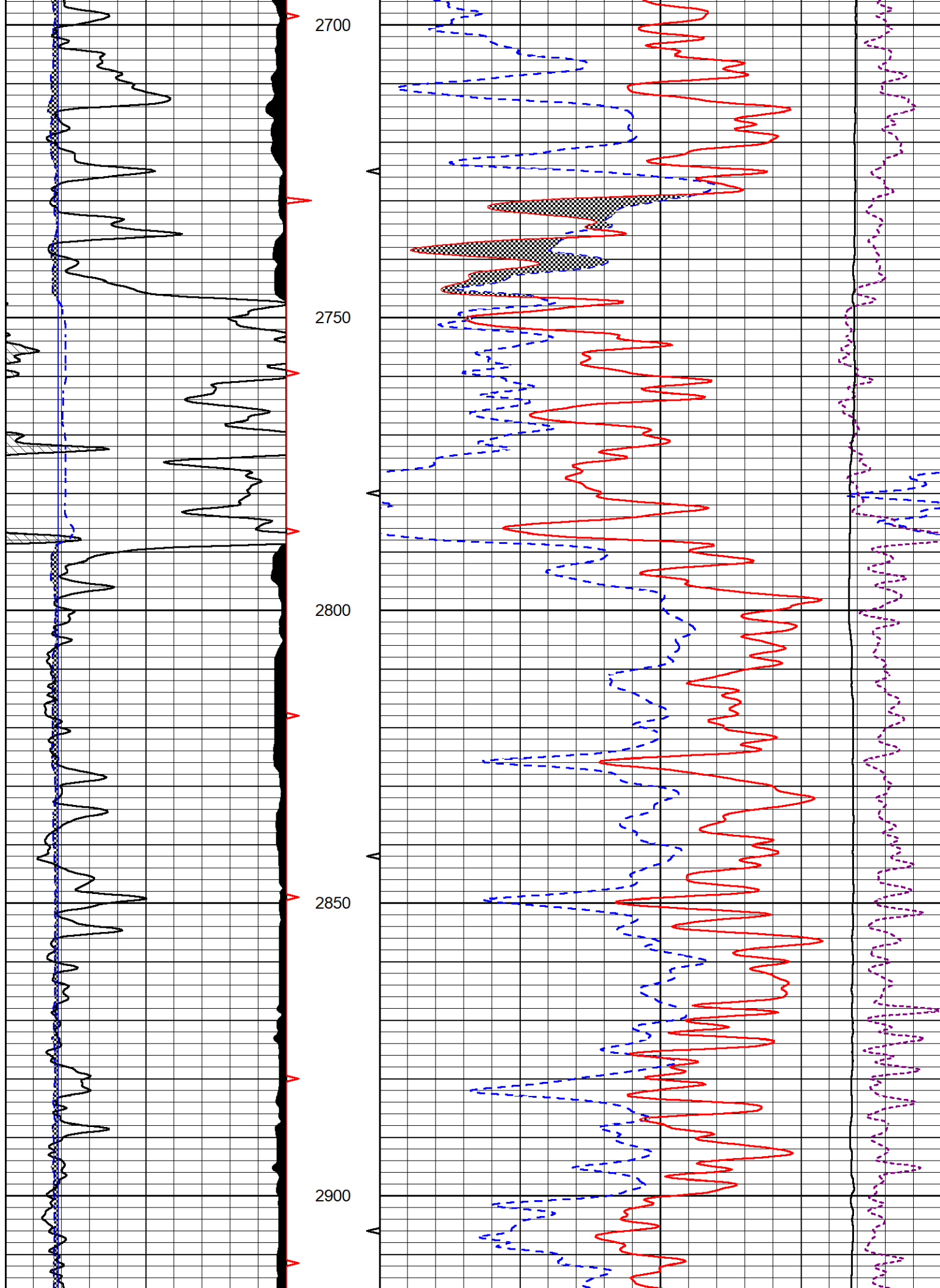


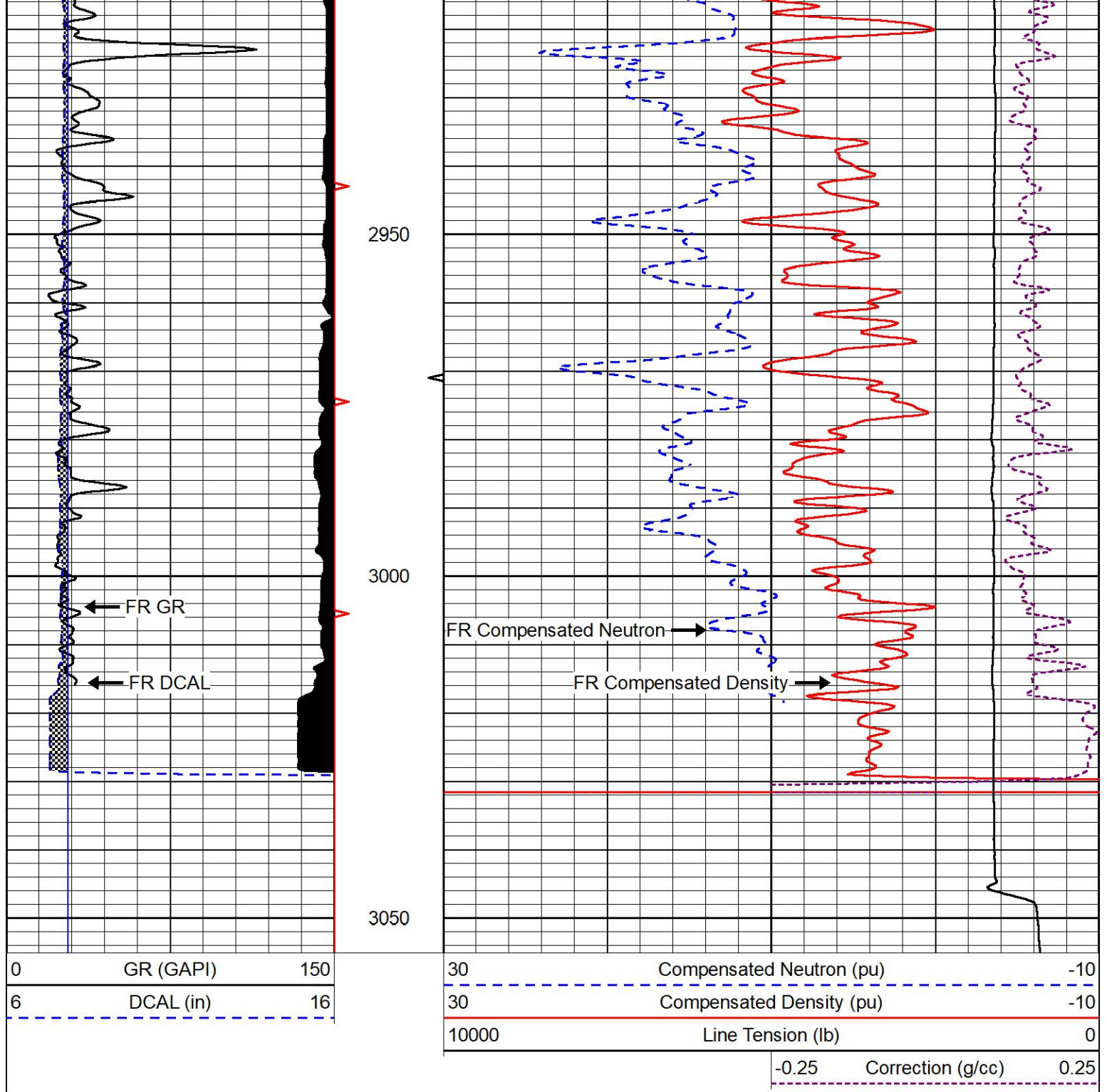












MIDWEST WIRELINE

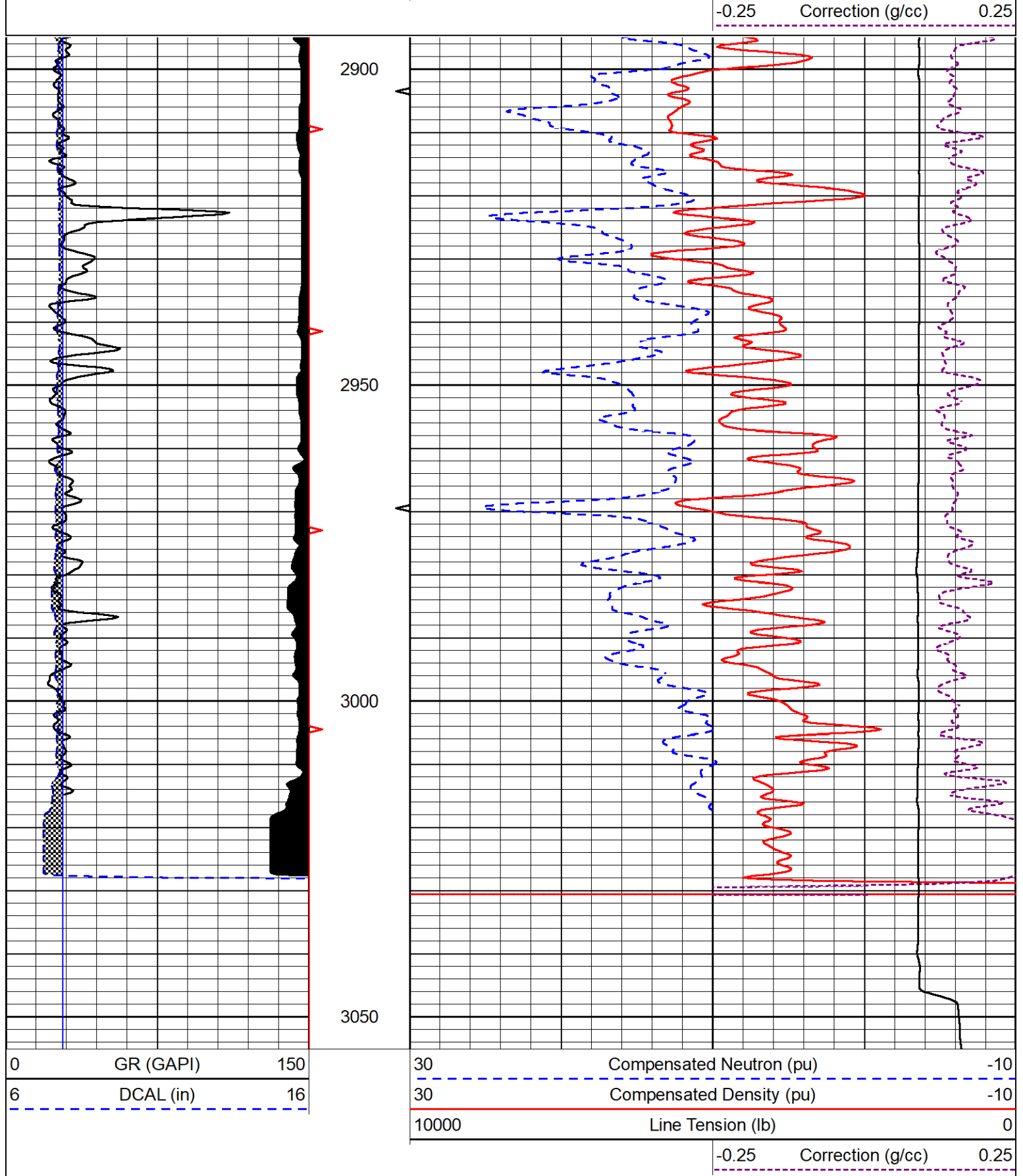
REPEAT SECTION

REPEAT PASS

Database File epoc_eck a swd 1.db
 Dataset Pathname stkml/pass2.1
 Presentation Format _CNDLS~1
 Dataset Creation Thu Aug 11 06:16:20 2022
 Charted by Depth in Feet scaled 1:240

0	GR (GAPI)	150
6	DCAL (in)	16

30	Compensated Neutron (pu)	-10
30	Compensated Density (pu)	-10
10000	Line Tension (lb)	0



Calibration Report

Database File epoc_eck a swd 1.db
Dataset Pathname stkml/pass3.11
Dataset Creation Thu Aug 11 06:13:52 2022

Dual Induction Calibration Report

Serial-Model: 505 HT-M&W

		Readings		References			Results	
Loop:	Air	Loop		Air	Loop		m	b
Deep	167.000	835.000		0.000	255.800	mmho/m	0.480	-55.000
Medium	1348.000	1348.000		0.000	255.800	mmho/m	0.390	-45.000

Microlog Calibration Report

Serial-Model: 401-PSI STKBL ML
 Performed: Mon Aug 1 06:22:24 2022

		Readings		References			Results	
	Zero	Cal		Zero	Cal		m	b
Normal	0.0037	0.0043		0.0000	10.0000	Ohm-m	11000.0000	-2.0000
Inverse	0.1208	0.0013		0.0000	10.0000	Ohm-m	10700.0000	-1.2000
Caliper	1.0049	1.0846		5.5000	20.0000	in	135.0000	-131.1000

Compensated Density Calibration Report

Serial-Model: 303-03-M&W
 Source #: 21170B
 Master Calibration Performed: Thu Aug 11 05:43:18 2022

Master Calibration

	Density			Far Detector	Near Detector	
Magnesium	1.755	g/cc		3841.78	5151.73	cps
Aluminum	2.655	g/cc		700.98	3068.49	cps
Spine Angle = 73.06				Density/Spine Ratio = 0.506		
	Size			Reading		
Small Ring	4.00	in		1.17		
Large Ring	14.00	in		1.04		

Compensated Neutron Calibration Report

Serial-Model: 210-M&W
 Source #: N-1238
 Master Calibration Performed: Fri Dec 3 09:16:24 2021

Master 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

Gamma Ray Calibration Report

Serial Number: 103
 Tool Model: M&W
 Performed: Fri Dec 3 12:13:24 2021

Calibrator Value: 500.0 GAPI

Background Reading:
Calibrator Reading:

28.0
986.0

cps
cps

Sensitivity:

0.5700

GAPI/cps



Company	EPOC, LLC
Well	Eck 'A' SWD #1
Field	Hazlett
County	Butler
State	Kanas