



MIDWEST WIRELINE

# DUAL COMP POROSITY LOG

Company Griffin Management LLC  
 Well Mary #4B  
 Field N/A  
 County Pratt  
 State Kansas

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 Well Mary #4B  
 Field N/A  
 County Pratt  
 State Kansas

Location: API #: 15-151-22517-00-00  
 NE - SE - SE - NW  
 2257' FNL & 2263' FWL  
 SEC 33 TWP 29S RGE 15W  
 Permanent Datum Ground Level Elevation 1960'  
 Log Measured From Kelly Bushing  
 Drilling Measured From Kelly Bushing  
 Other Services  
 DIL / MEL  
 K.B. 1971'  
 D.F.  
 G.L. 1960'

Date	8/26/2020	
Run Number	One	
Type Log	CNL/CDL	
Depth Driller	4800'	
Depth Logger	4796'	
Bottom Logged Interval	4768'	
Top Logged Interval	3600'	
Type Fluid In Hole	Chemical	
Salinity, PPM CL	6000	
Density	9.6	
Level	250'	
Max. Rec. Temp. F	148 Deg F	
Operating Rig Time	2.5 Hours	
Equipment -- Location	P-24 HAYS	
Recorded By	T. Martin	
Witnessed By	Eli J. Felts	

Run No.	Bit	Borehole Record		Casing Record	
		From	To	Size	Wgt. 23#
One	12.25"	00'	265'	8.625"	00'
Two	7.875"	265'	TD		265'

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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.

Pratt, KS, appx 15 W to SW 140th Ave, 9.5 S to SW 110th St,  
 1 E, S & E 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		This Log Record Was Witnessed By	
Engineer: T. Martin	Operator:	Primary Witness: Eli J. Felts	Secondary Witness:
Operator:	Operator: M. Hiss	Secondary Witness:	Secondary Witness:

Company	Offset (ft)	Schematic	Description	Length (ft)	C.D. (in)	Weight (lb)
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Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb)
GR	40.58		GR-M&W (233-M&W)	3.00	3.50	50.00
CNLSC CNSSC	37.48 36.73		CNT-M&W (207-MW)	5.50	3.50	100.00
LSD DCAL SSD	28.43 28.42 27.93		CDL-M&W (817-947)	8.50	4.00	250.00
MCAL MI MN	19.83 19.83 19.83		ML-PSIML (PSI-01) GO Micro log tools converted to Simplec electronics	7.58	4.00	65.00
RLL3F RLL3	15.80 15.80					
CILD	8.00		DIL-PSI HIGH TEMP (952-828)	18.50	3.50	220.00
CILM	4.70					
SP	0.20					

Dataset: griffin management\_mary 4b\_20200826.db: field/well/StkMI/pass3.1  
 Total length: 43.08 ft  
 Total weight: 685.00 lb  
 O.D.: 4.00 in

# Log Variables

DatabaseC:\ProgramData\Warrior\Data\griffin management\_mary 4b\_20200826.db  
 Dataset field/well/StkMI/pass3.1/\_vars\_

## Top - Bottom

A	BOREID in	BOTTEMP degF	CASEOD in	CASETHCK in	FLUIDDEN g/cc	M	MATRXDEN g/cc
1	7.875	100	5.5	0	1	2	2.71
NPORSEL	PERFS	SNDERR mmho/m	SNDERRM mmho/m	SPSHIFT mV	SRFTEMP degF	SZCOR	TDEPTH ft
Limestone	0	0	0	155	0	Off	0

## 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



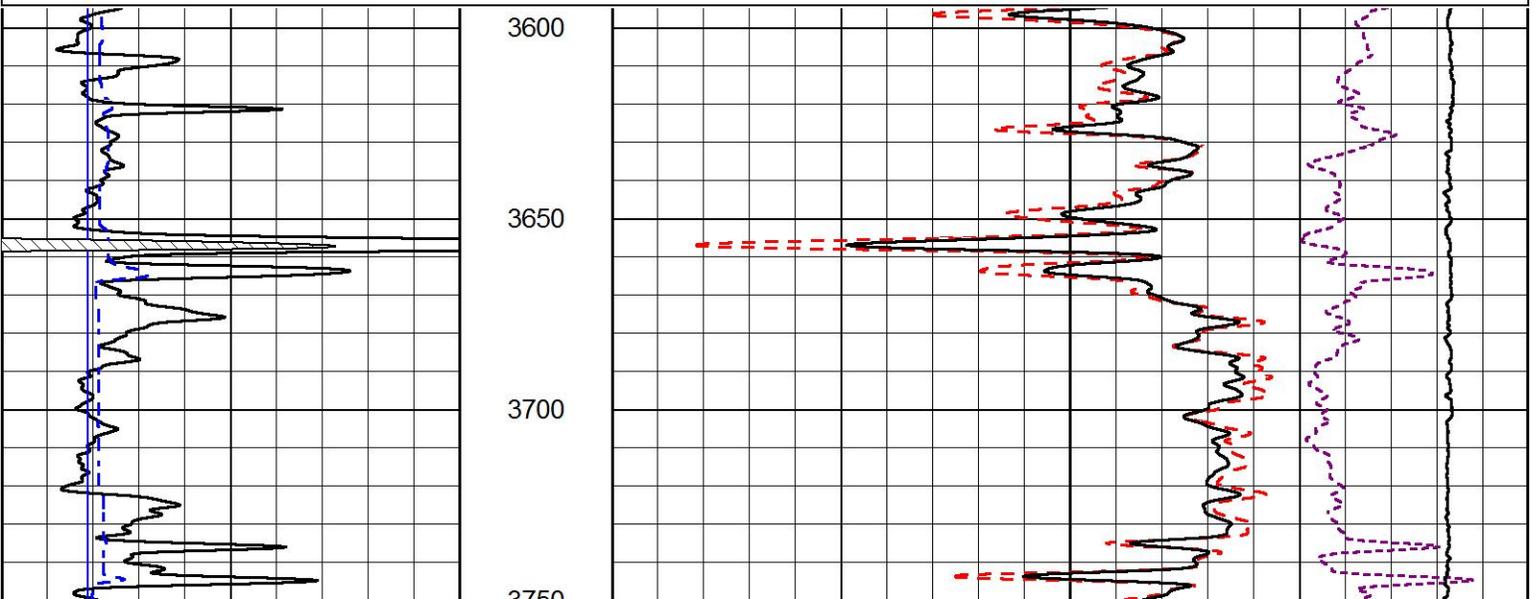
## 2" SCALE BULK DENSITY

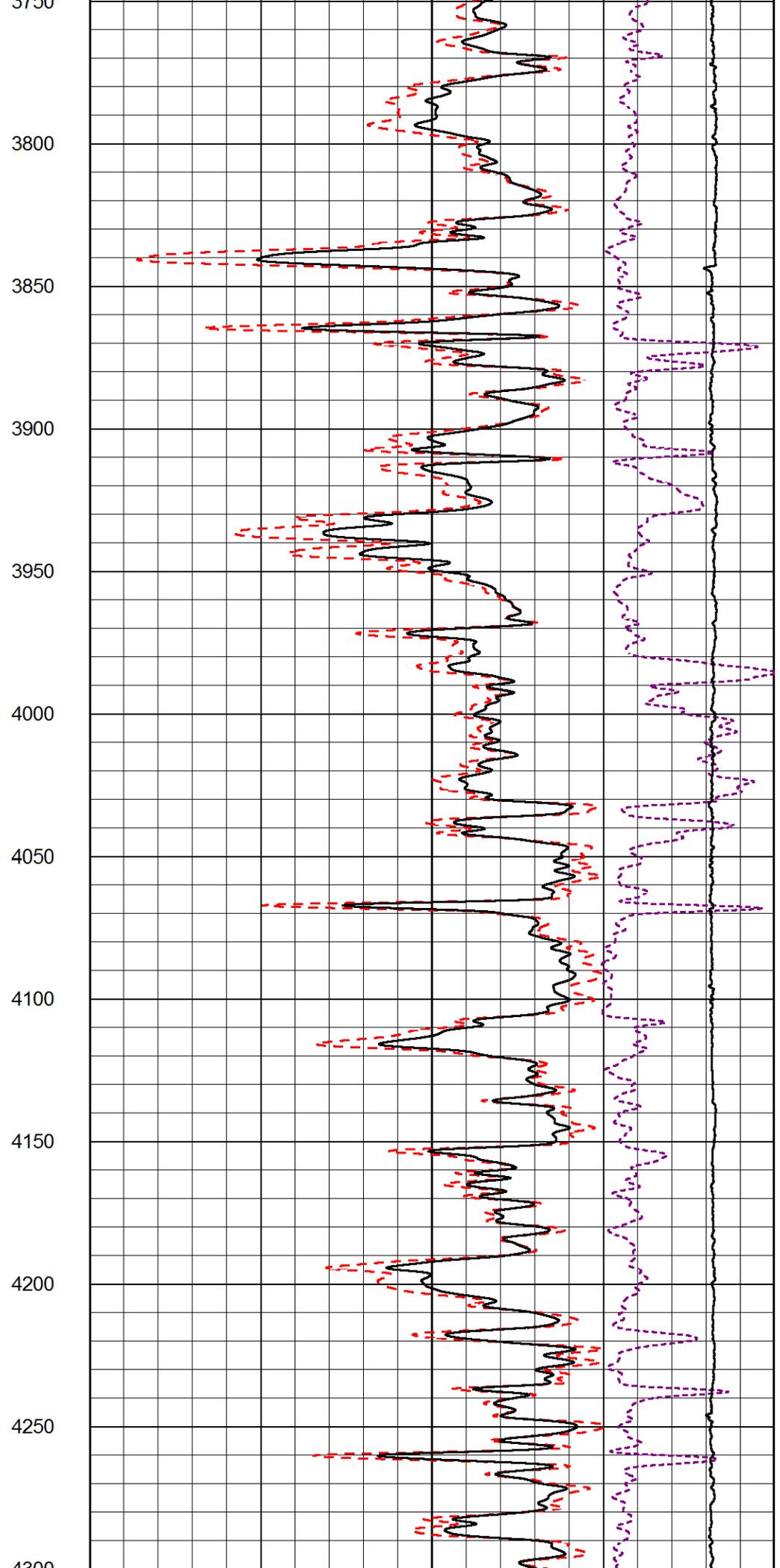
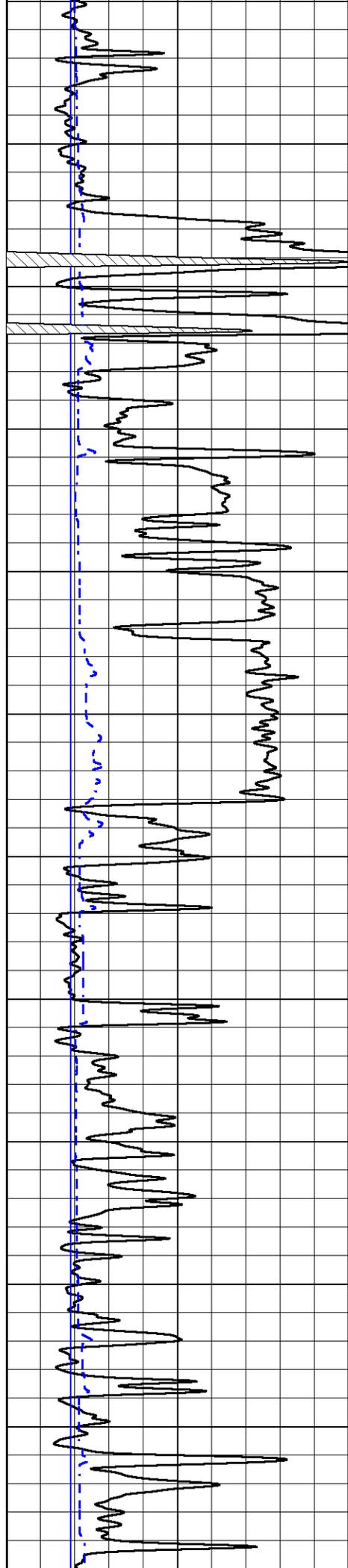
### MAIN PASS

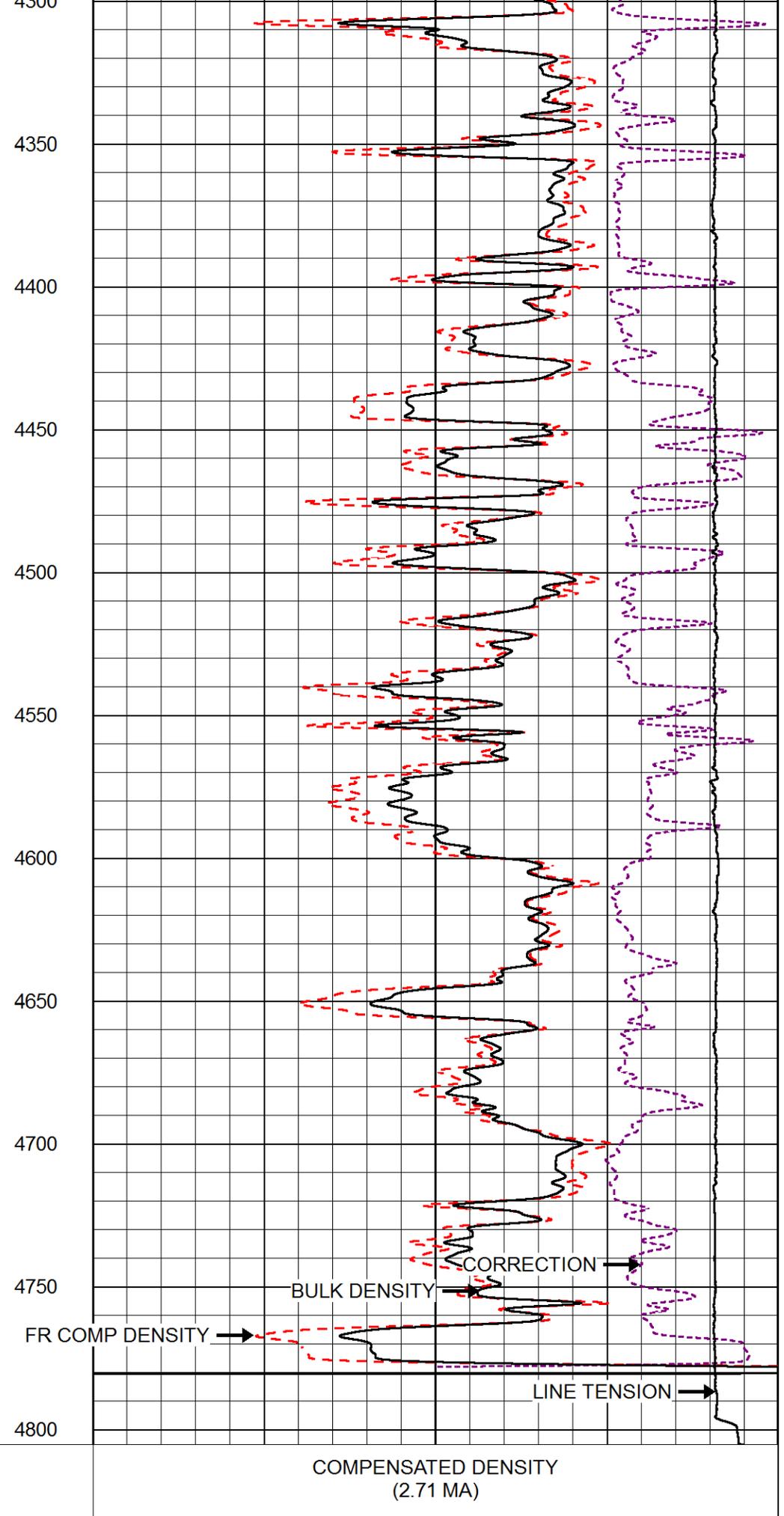
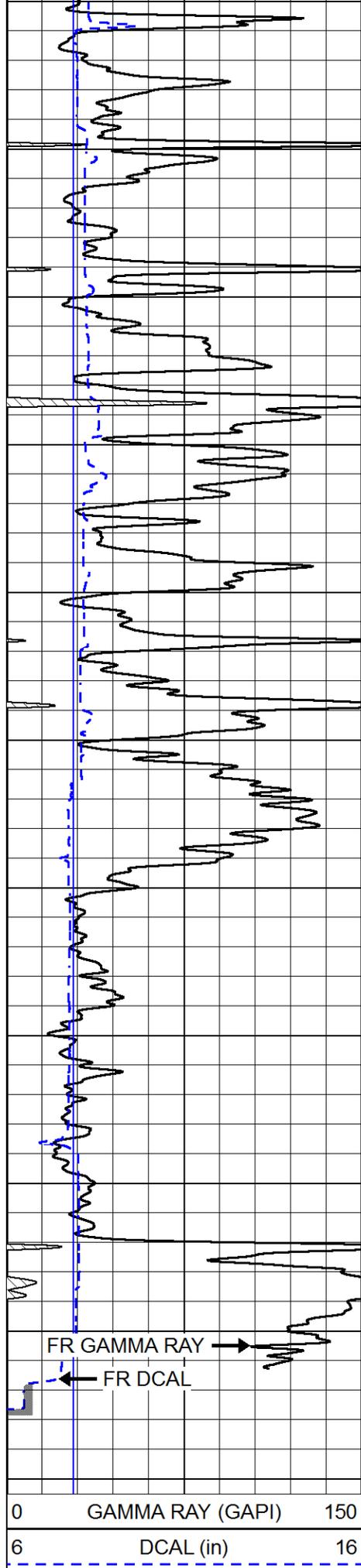
Database File griffin management\_mary 4b\_20200826.db  
 Dataset Pathname StkMI/pass3.3  
 Presentation Format \_cdl  
 Dataset Creation Wed Aug 26 23:45:25 2020  
 Charted by Depth in Feet scaled 1:600

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

COMPENSATED DENSITY (2.71 MA)	
30	(pu) -10
2	BULK DENSITY (g/cc) 3
15000	LINE TENSION (lb) 0
-0.25	CORRECTION (g/cc) 0.25







15000

LINE TENSION (lb)

0

-0.25 CORRECTION (g/cc)

0.25

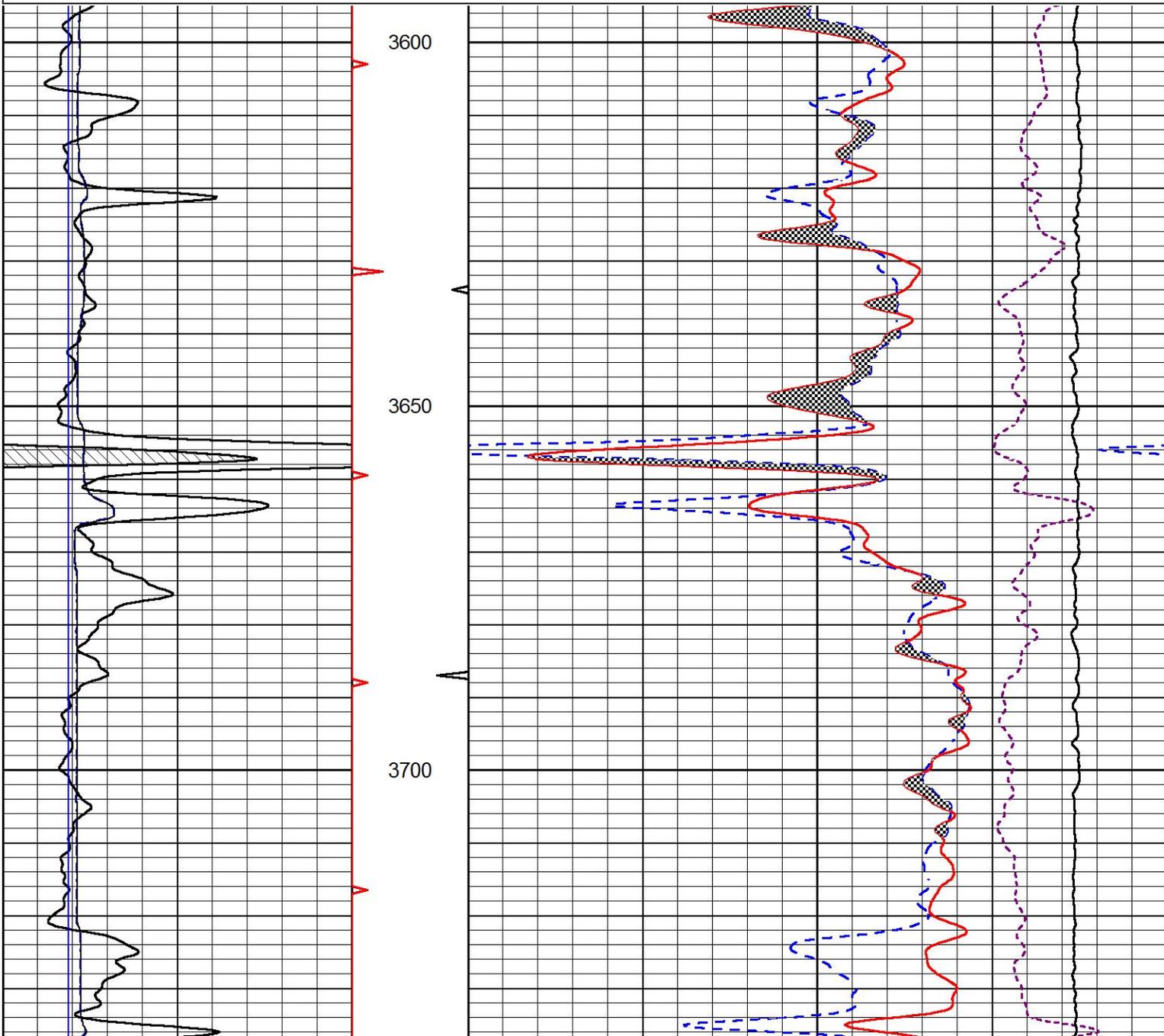


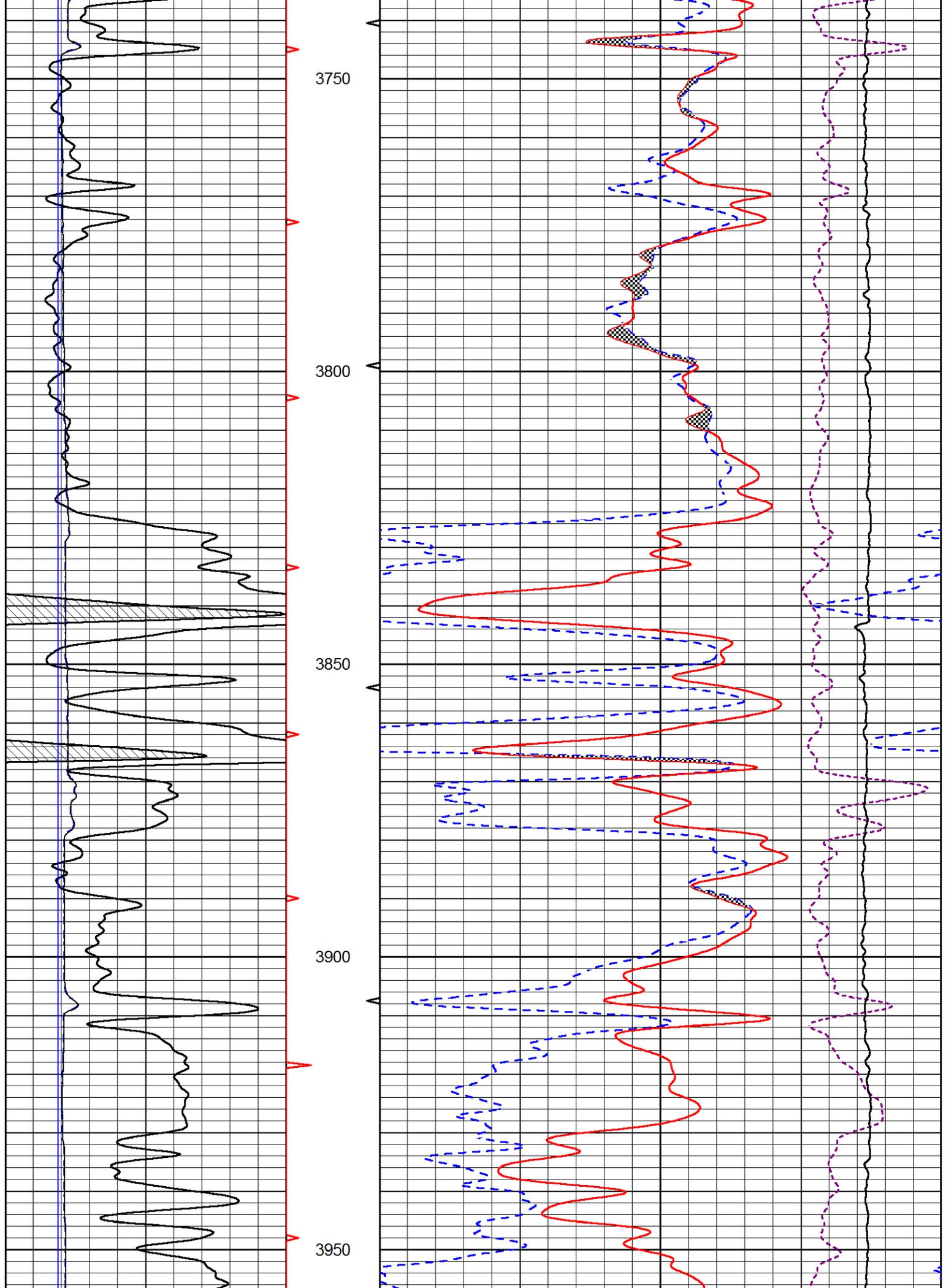
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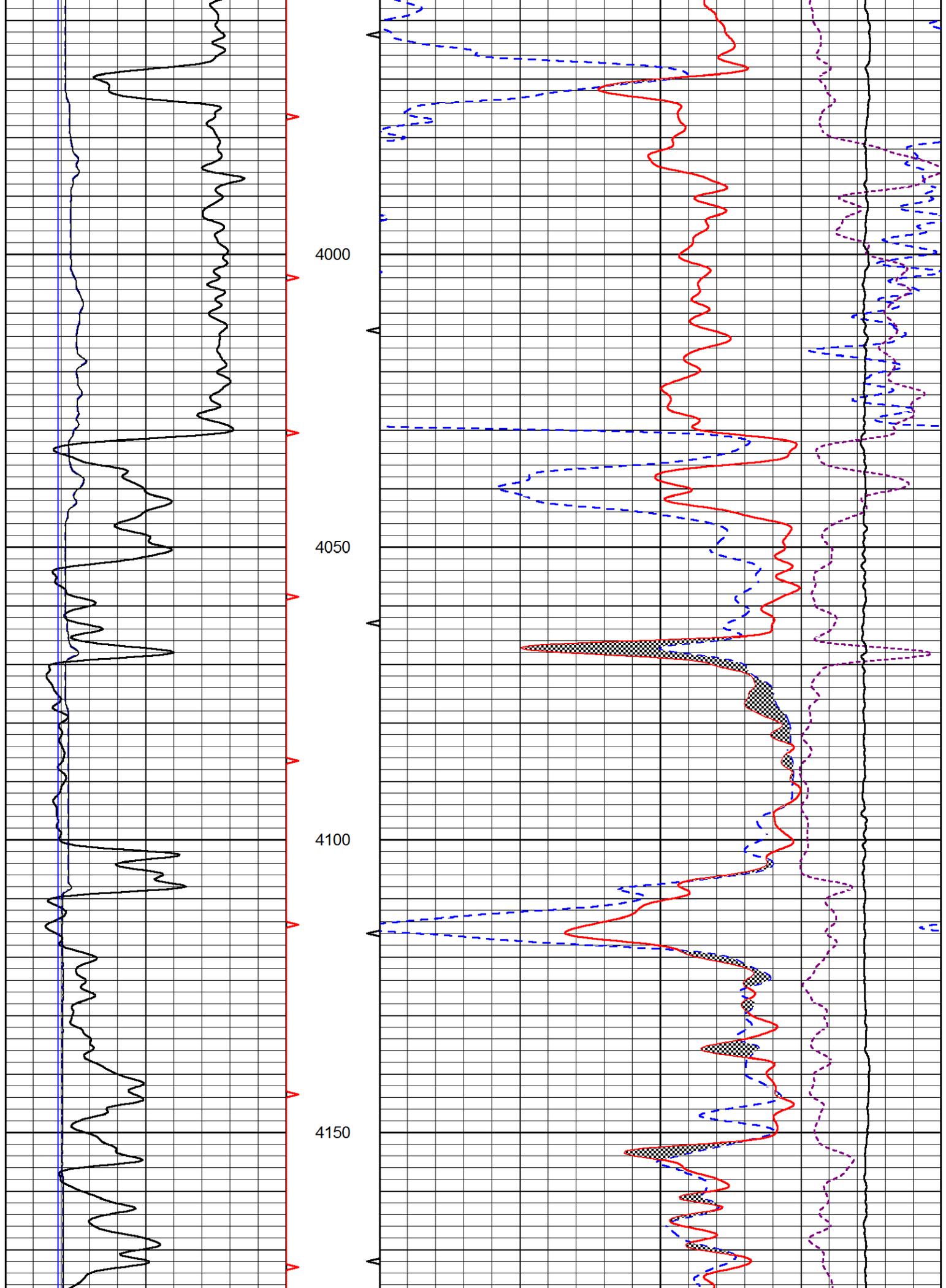
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 Presentation Format \_CNDLS~1  
 Dataset Creation Thu Aug 27 00:26:35 2020  
 Charted by Depth in Feet scaled 1:240

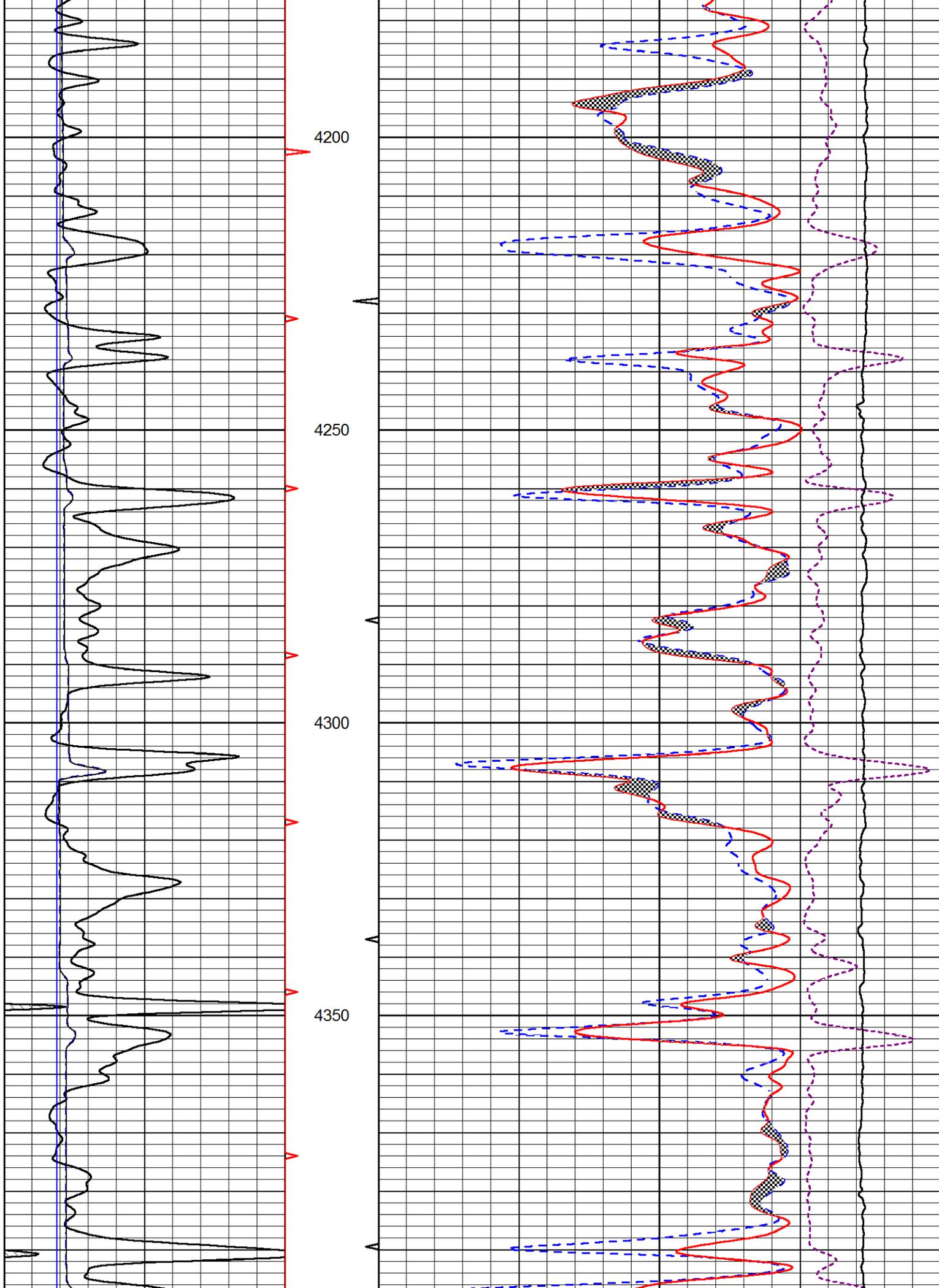
0	GAMMA RAY (GAPI)	150
6	DCAL (in)	16

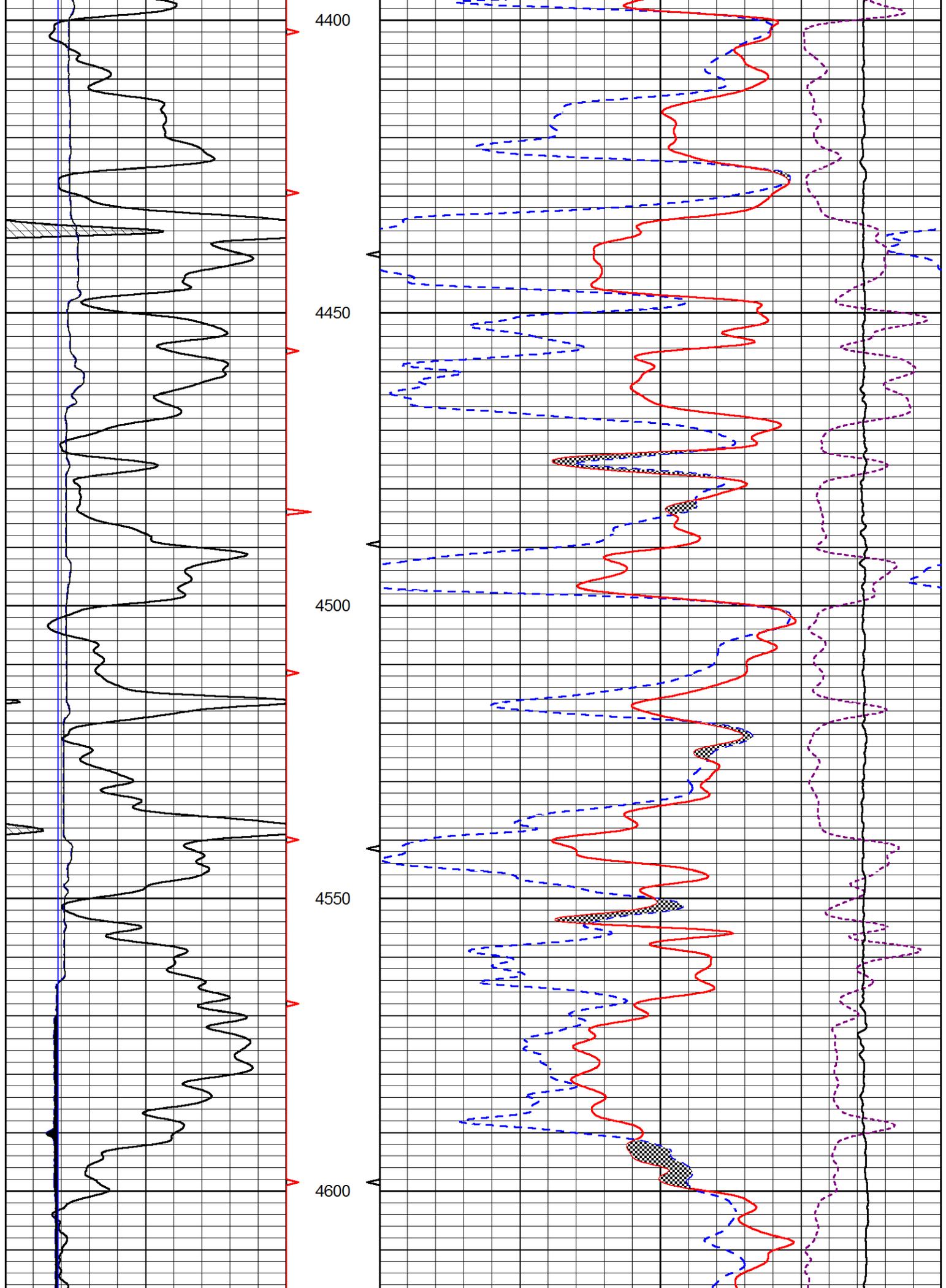
30	CNLS (pu)	-10
30	DPOR (pu)	-10
10000	LINE TENSION (lb)	0
-0.25	CORRECTION (g/cc)	0.25

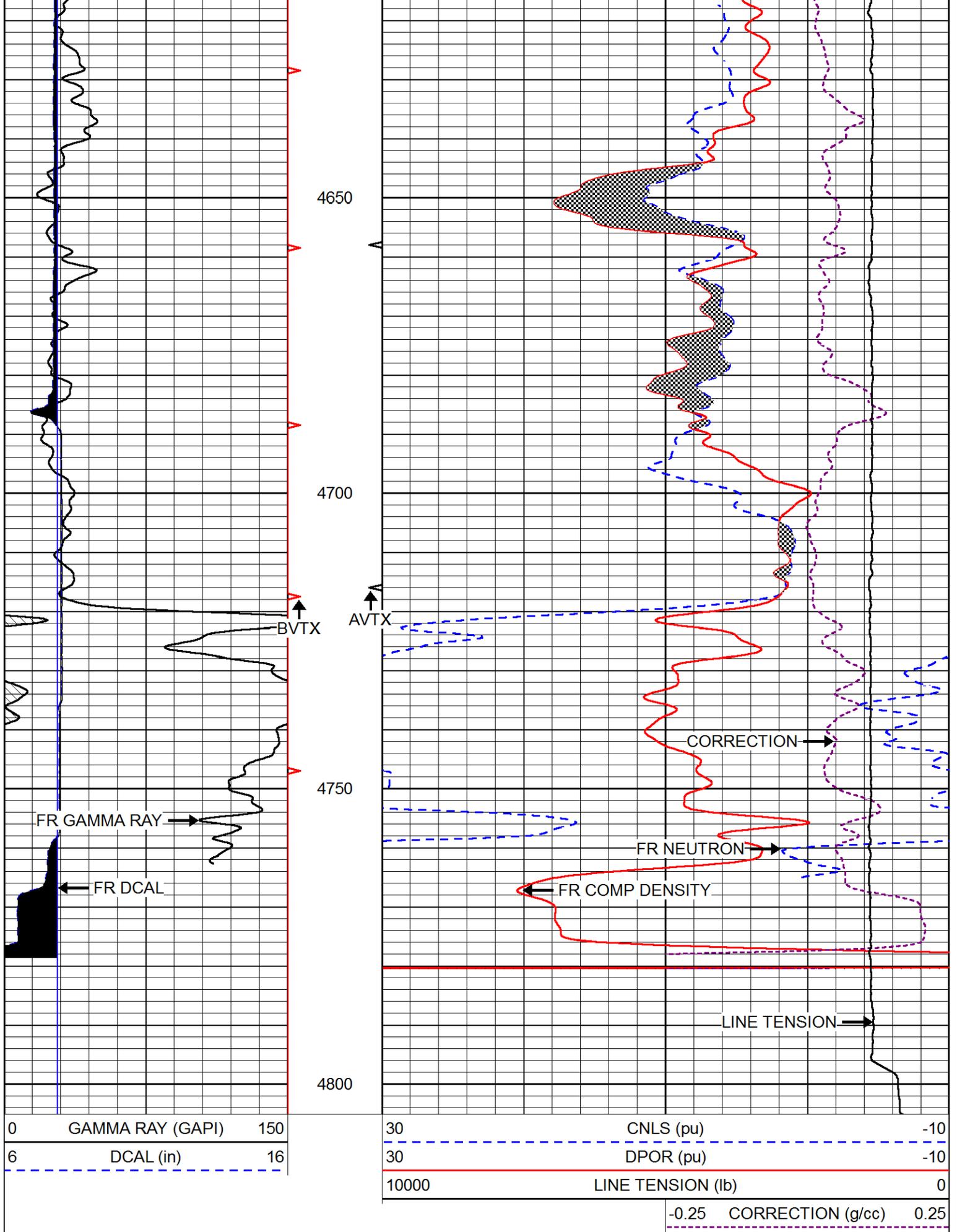












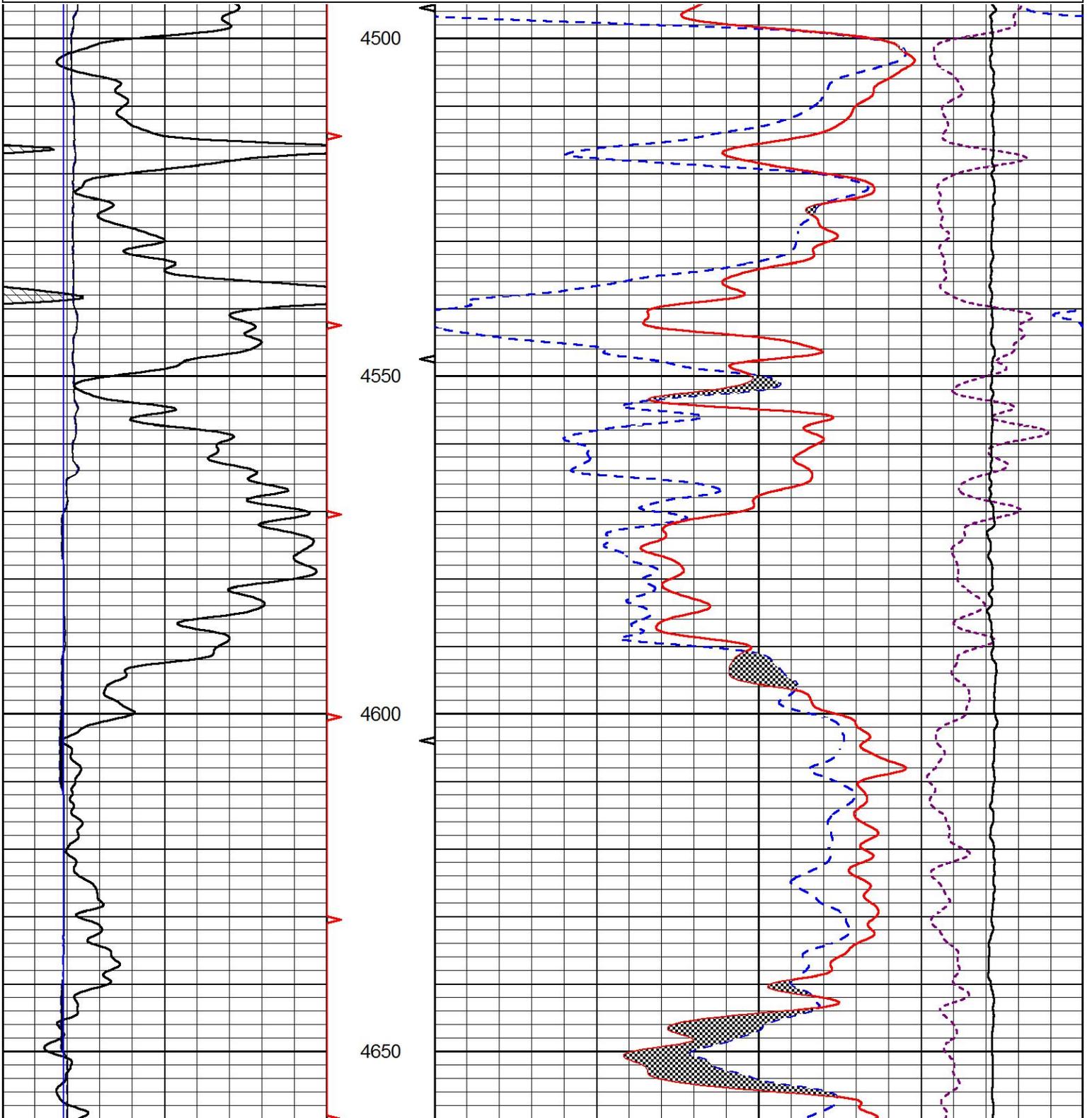


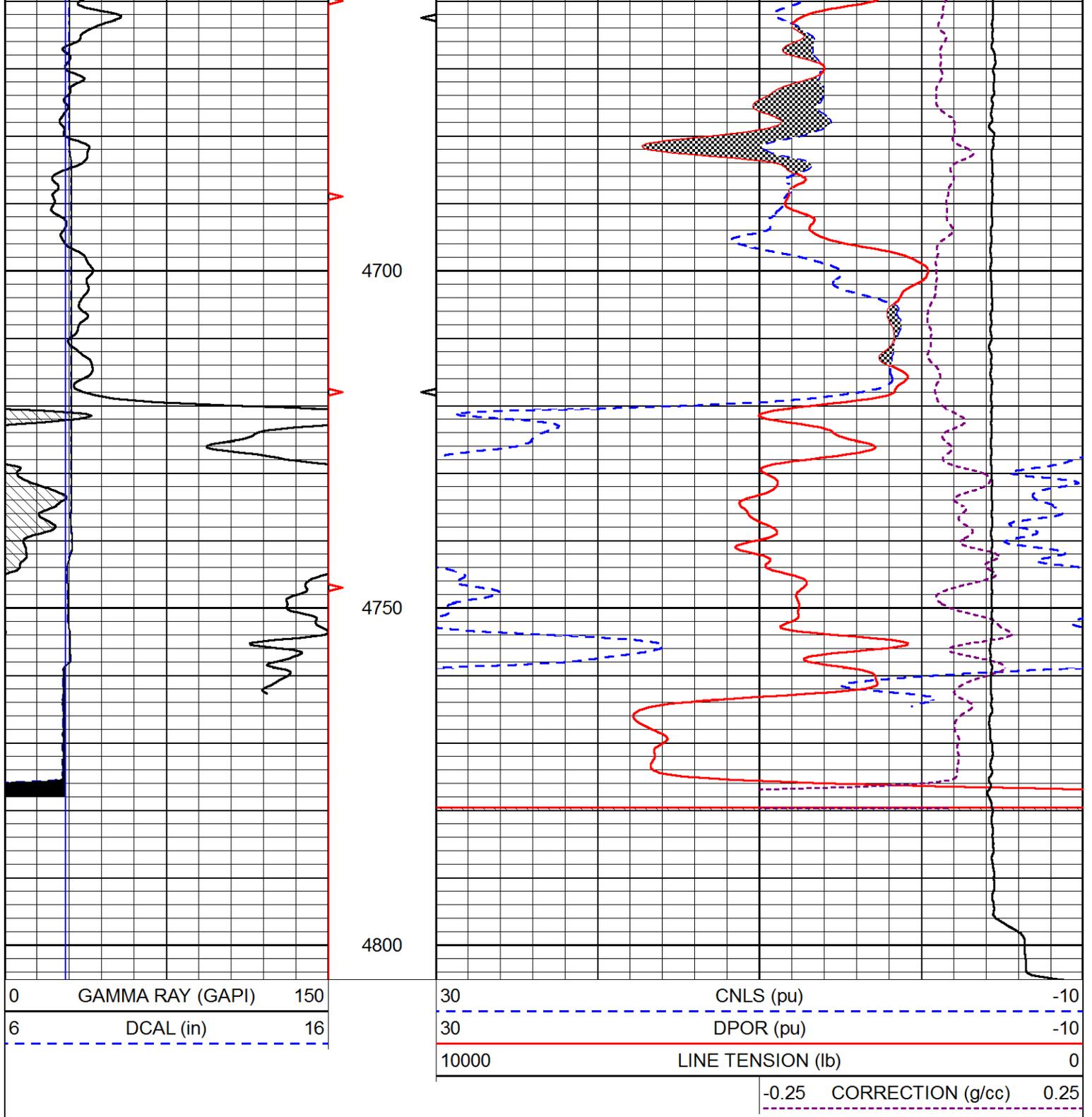
# REPEAT SECTION

Database File griffin management\_mary 4b\_20200826.db  
 Dataset Pathname StkMI/pass2.1  
 Presentation Format \_CNDLS~1  
 Dataset Creation Thu Aug 27 00:04:20 2020  
 Charted by Depth in Feet scaled 1:240

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

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





Calibration Report

Database File      griffin management\_mary 4b\_20200826.db  
 Dataset Pathname    StkMI/pass2.1  
 Dataset Creation    Thu Aug 27 00:04:20 2020

Dual Induction Calibration Report

Serial-Model:                      952-828-PSI HIGH TEMP  
 Calibration Performed:            Sun Jun 28 08:39:24 2020

	Readings		References		Results	
Loop:	Air	Loop	Air	Loop	Gain	Offset

Deep	167.000	835.000	0.000	255.000	mmho/m	0.455	-30.000
Medium	0.000	1348.000	142.000	255.000	mmho/m	0.325	-28.000

### Microlog Calibration Report

Serial-Model:	PSI-01-PSIML
Performed:	Tue Jun 16 01:32:04 2020

	Readings		References			Results	
	Zero	Cal	Zero	Cal		m	b
Normal	0.0000	1.0000	0.0000	1.0000	Ohm-m	18500.0000	-1.7500
Inverse	0.0000	1.0000	0.0000	1.0000	Ohm-m	20000.0000	-1.3000
Caliper	1.0033	1.0841	5.0000	16.5000	in	142.3500	-138.5300

### Compensated Density Calibration Report

Serial-Model:	817-947-M&W
Source / Verifier:	16955B / 2ci
Master Calibration Performed:	Tue Sep 24 21:18:50 2019

#### Master Calibration

	Density		Far Detector	Near Detector	
Magnesium	1.755	g/cc	6127.15	5922.31	cps
Aluminum	2.680	g/cc	1141.85	3762.09	cps
Spine Angle = 74.89			Density/Spine Ratio = 0.532		
	Size		Reading		
Small Ring	4.50	in	1.02		
Large Ring	14.50	in	1.23		

### Compensated Neutron Calibration Report

Serial Number:	207-MW
Tool Model:	M&W
Calibration Performed:	WED FEB 13 10:30:30 2019

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:	233-M&W
Tool Model:	M&W
Calibration Performed:	Fri Feb 07 01:42:40 2014
Calibrator Value:	1.0 GAPI
Background Reading:	0.0 cps
Calibrator Reading:	1.0 cps
Sensitivity:	0.4500 GAPI/cps



MIDWEST WIRELINE

Company	Griffin Management LLC
Well	Mary #4B
Field	N/A
County	Pratt
State	Kansas