



MIDWEST WIRELINE

# DUAL COMP POROSITY LOG

Company Carmen Schmitt, Inc.

Well Dairy #1-13

Field

County Thomas

State Kansas

Location: API #: 15-193-21105-00-00

Other Services

NE NW NW SE  
2475 FSL & 2050 FEL

DIL/MEL

SEC 13 TWP 7S RGE 32W

Company Carmen Schmitt, Inc.  
Well Dairy #1-13  
Field  
County Thomas  
State Kansas

Permanent Datum Ground Level Elevation 3025  
Log Measured From Kelly Bushing  
Drilling Measured From Kelly Bushing

K.B. 3030  
D.F.  
G.L. 3025

Date 8/6/2022

Run Number One

Type Log CNL/CDL

Depth Driller 4705

Depth Logger 4705

Bottom Logged Interval 4677

Top Logged Interval 3600

Type Fluid In Hole Chemical

Salinity, PPM CL 2800

Density 9.4

Level Full

Max. Rec. Temp. F 123

Operating Rig Time 2.5 Hours

Equipment -- Location P-24 Hays

Recorded By T. Martin

Witnessed By Sean Deenihan

**Borehole Record**

**Casing Record**

Run No.	Bit	From	To	Size	Wgt.	From	To
One	12.25	00	264	8.625	23	00	264
Two	7.875	264	TD				

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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.

Rexford, KS, W on Hwy 24 to Rd 31,  
N over tracks, W to location

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

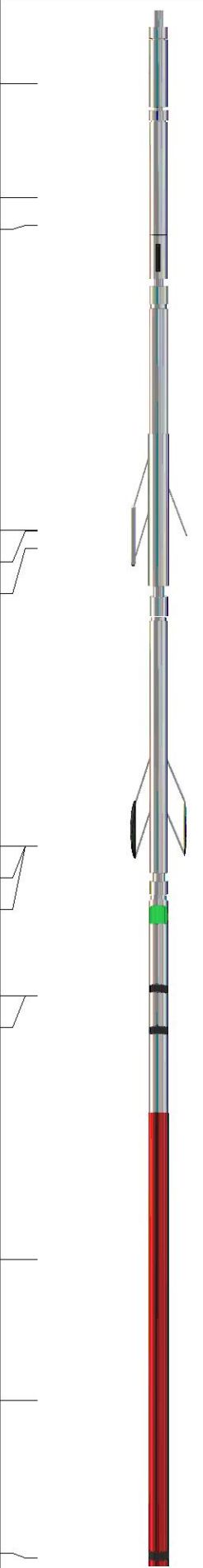
THANK YOU FOR USING MIDWEST WIRELINE LLC  
785-625-3858

**Your Midwest Wireline Crew**

**This Log Record Was Witnessed By**

Engineer: T. Martin  
Operator:  
Operator:  
Operator:

Primary Witness: Sean Deenihan  
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 (301-01)	8.50	4.00	250.00
MCAL MI MN	19.58 19.58 19.58		ML-PSIML (402)	7.58	4.00	65.00
RLL3F RLL3	15.50 15.50					
CILD	8.33		DIL-M&W (507)	18.25	3.50	220.00
CILM	4.50					
SP	0.20					

Dataset: carmen\_dairy #1-13.db: field/well/StkMI/pass3.1  
 Total length: 42.33 ft  
 Total weight: 685.00 lb  
 O.D.: 4.00 in

# Log Variables

DatabaseC:\ProgramData\Warrior\Data\carmen\_dairy #1-13.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	123	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	205	80	Off	4705

## 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



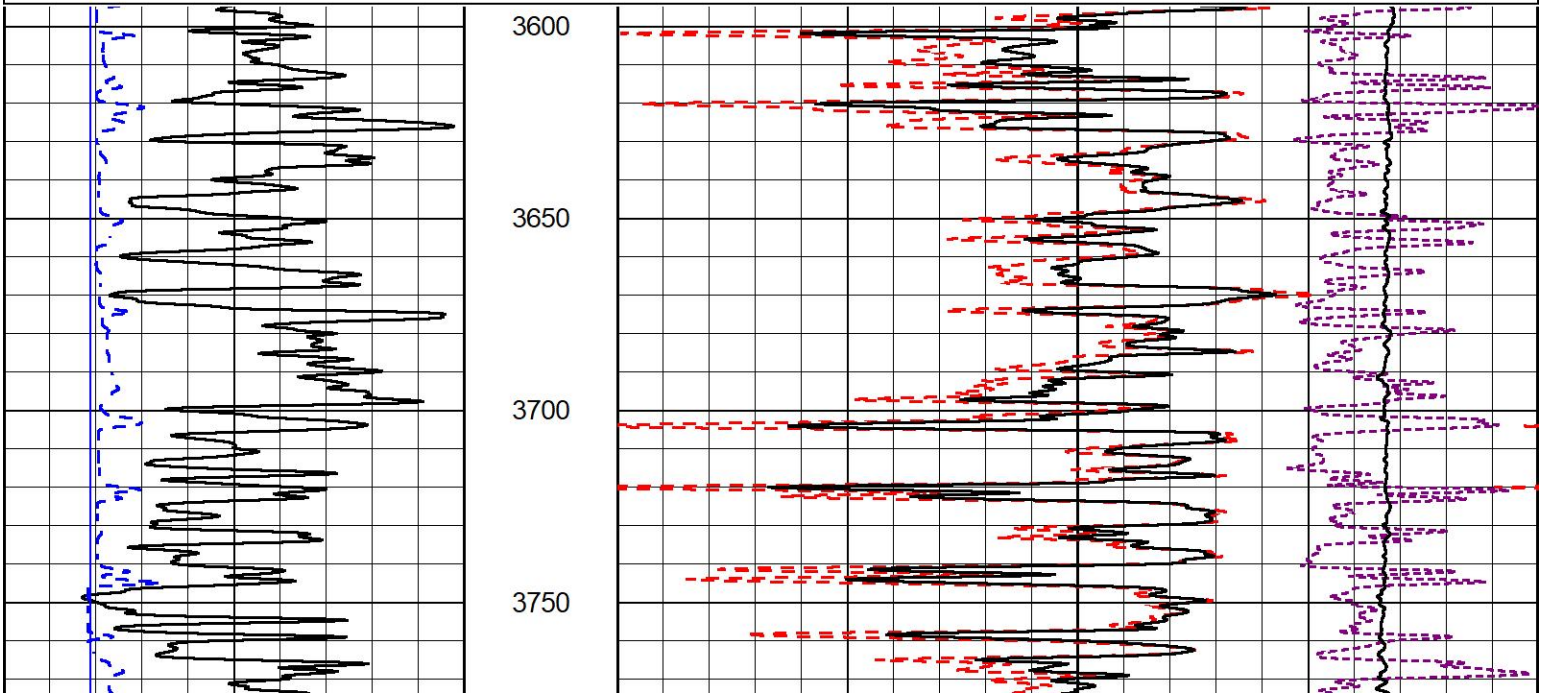
## 2" SCALE BULK DENSITY

### MAIN PASS

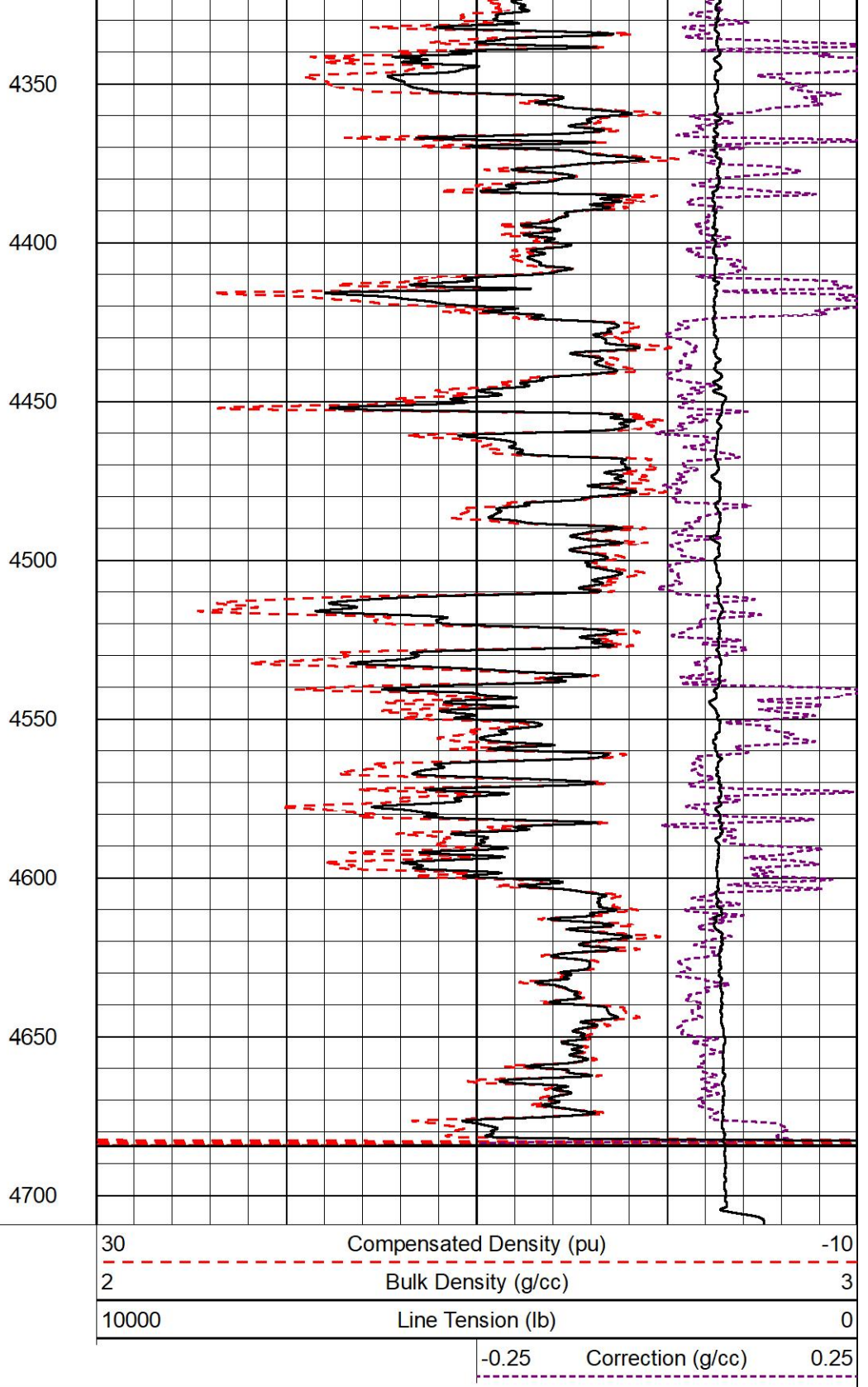
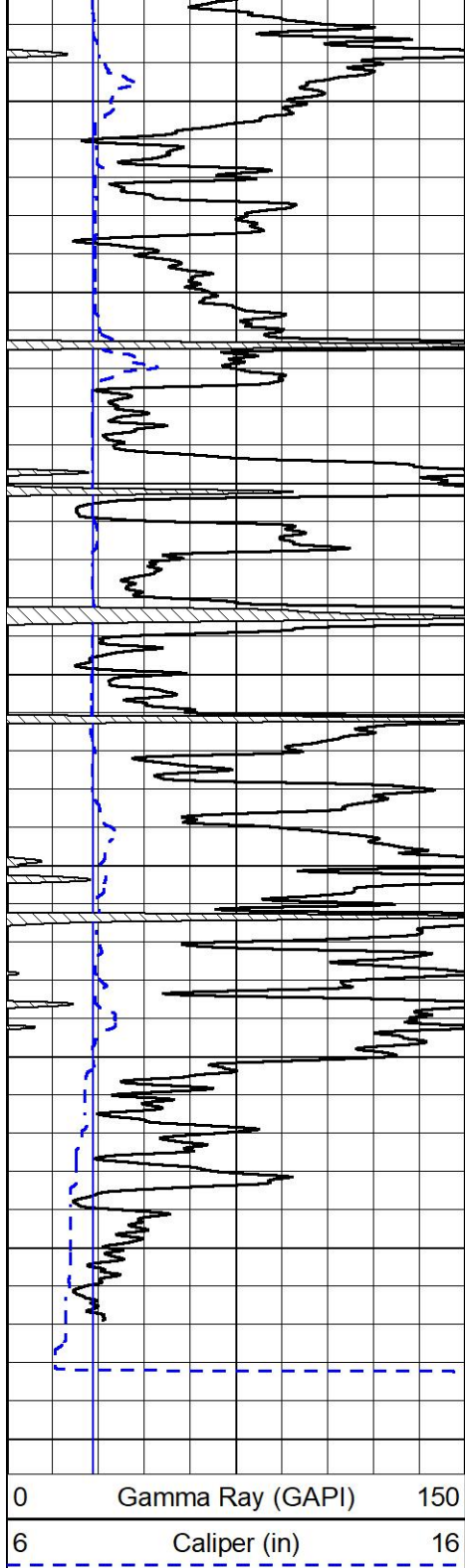
Database File carmen\_dairy #1-13.db  
 Dataset Pathname StkMI/pass3.3  
 Presentation Format \_cdl  
 Dataset Creation Sat Aug 06 11:28:13 2022  
 Charted by Depth in Feet scaled 1:600

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

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







MIDWEST WIRELINE

## DETAIL SECTION

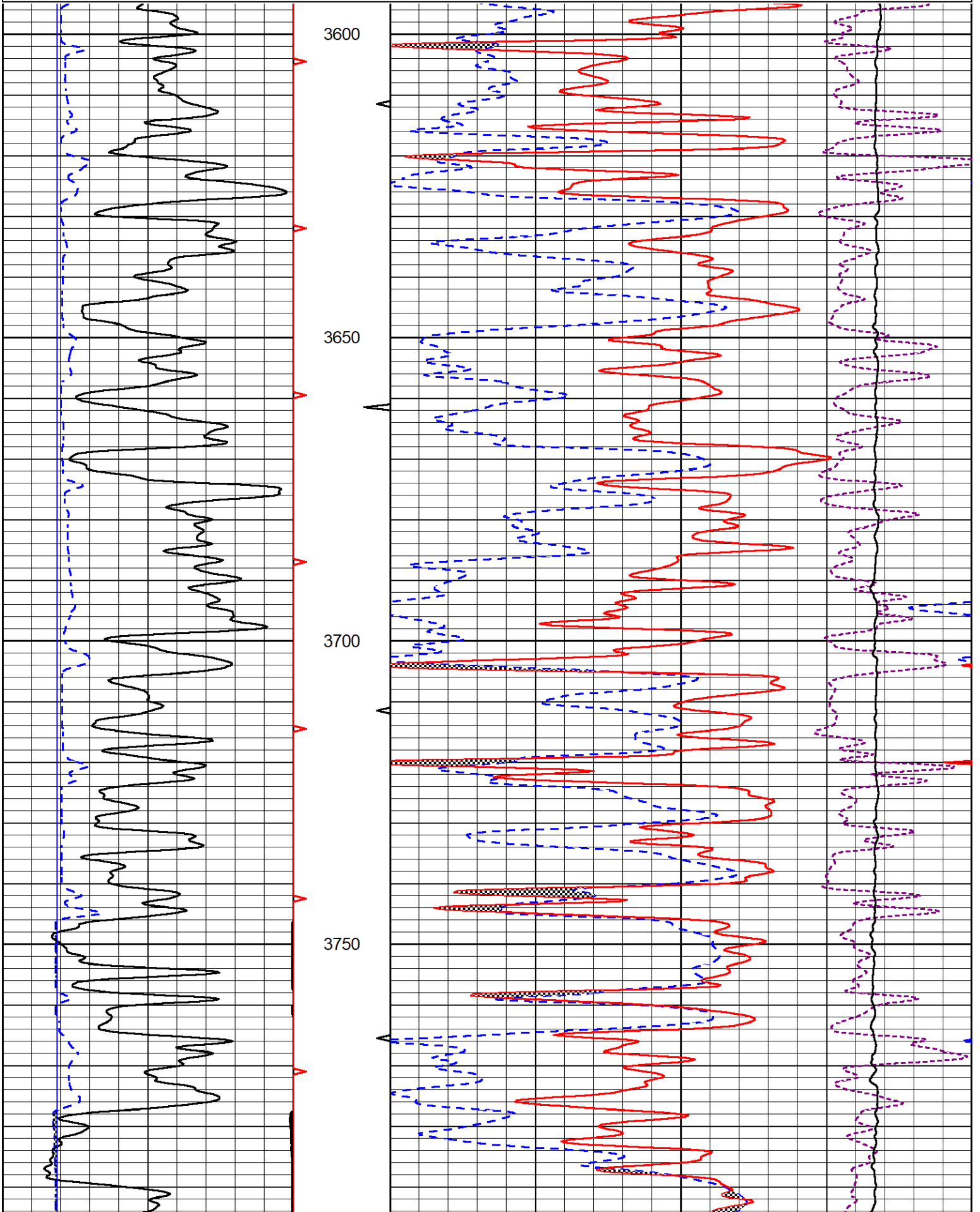
### MAIN PASS

Database File carmen\_dairy #1-13.db  
 Dataset Pathname StkMI/pass3.1  
 Presentation Format \_cndlspec  
 Dataset Creation Sat Aug 06 12:04:53 2022  
 Charted by Depth in Feet scaled 1:240

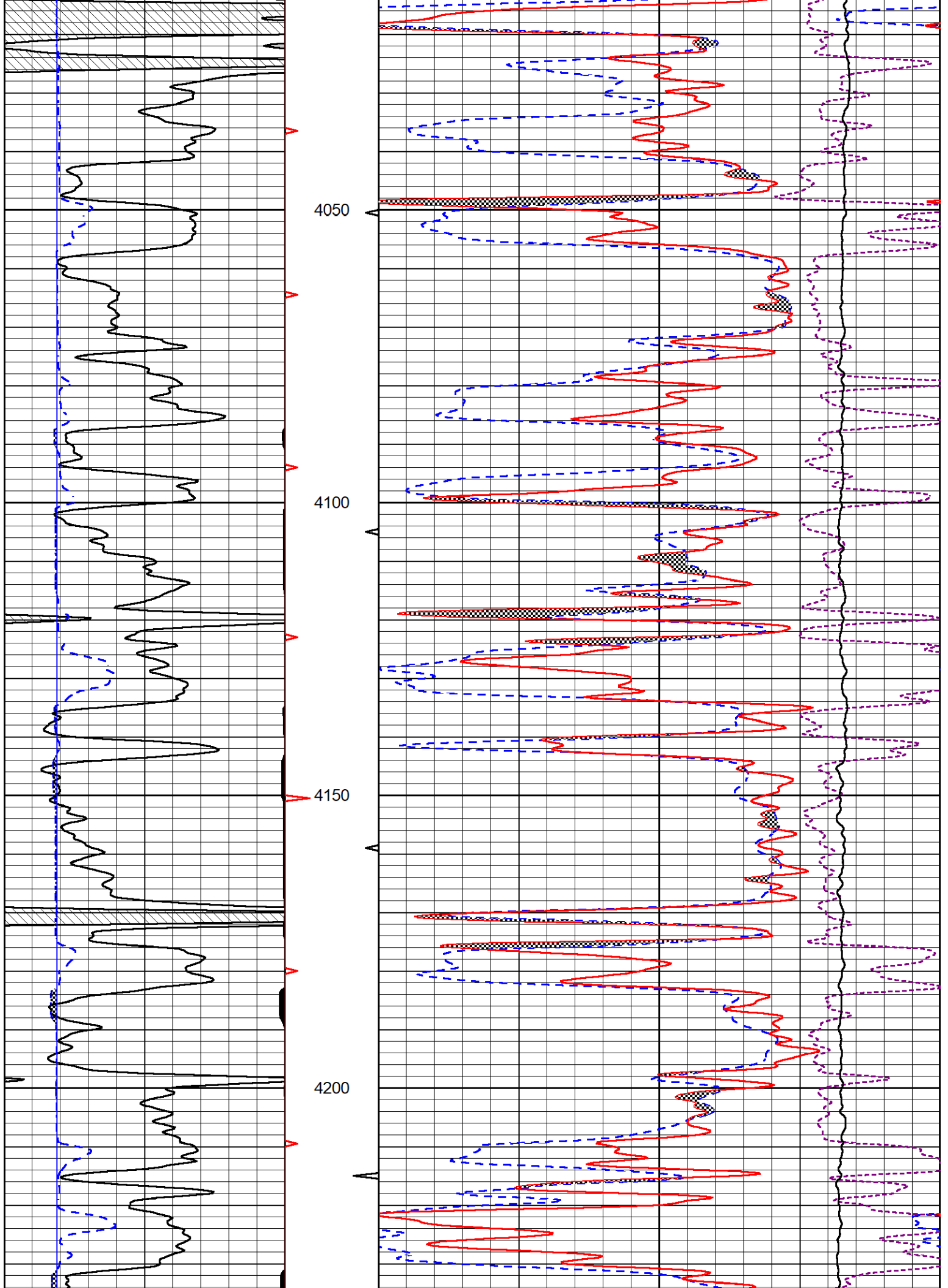
0	Gamma Ray (GAPI)	150
6	Caliper (in)	16

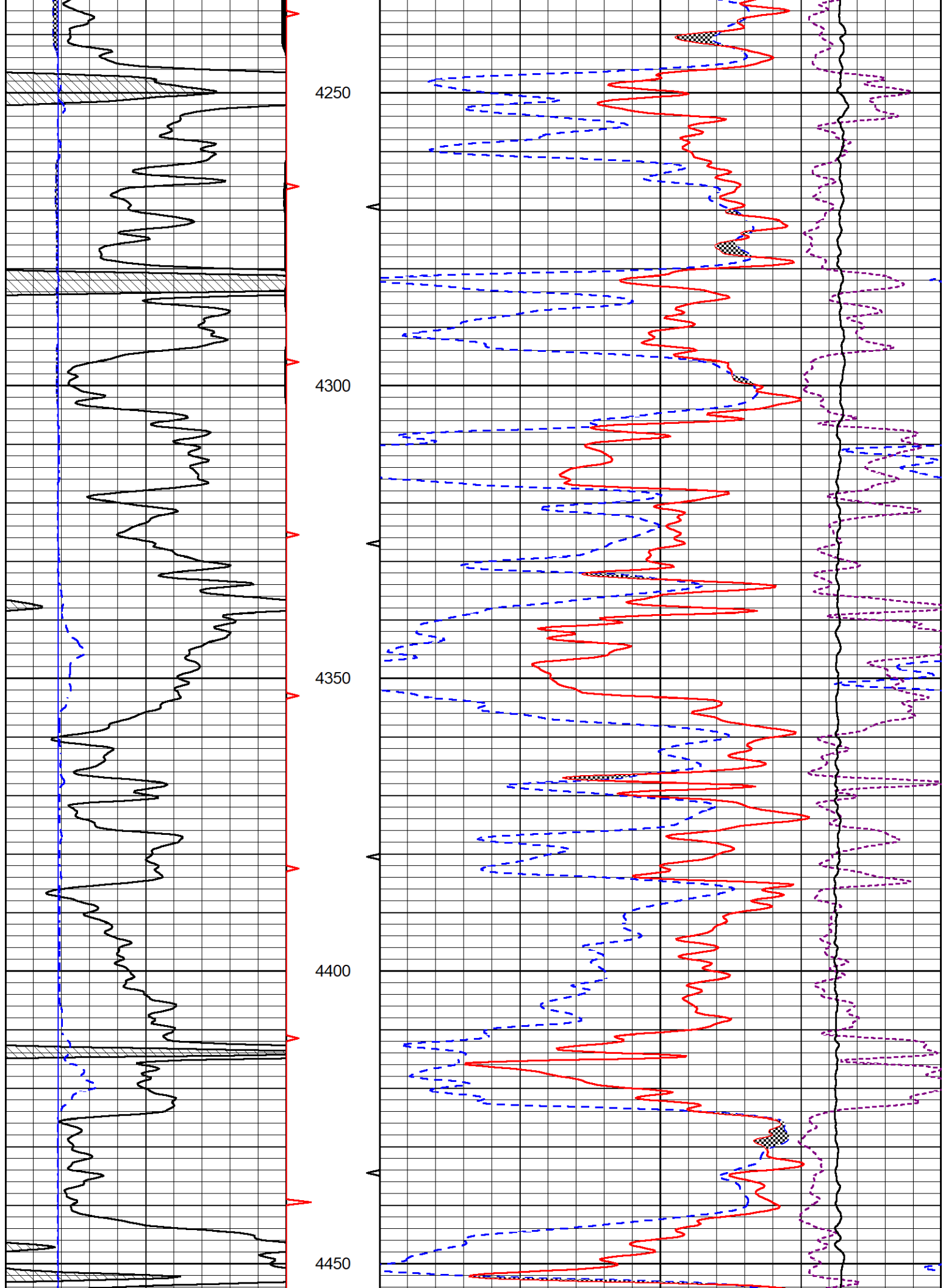
30	Compensated Neutron (pu)	-10
30	Compensated Density (pu)	-10
10000	Line Tension (lb)	0

-0.25	Correction (g/cc)	0.25
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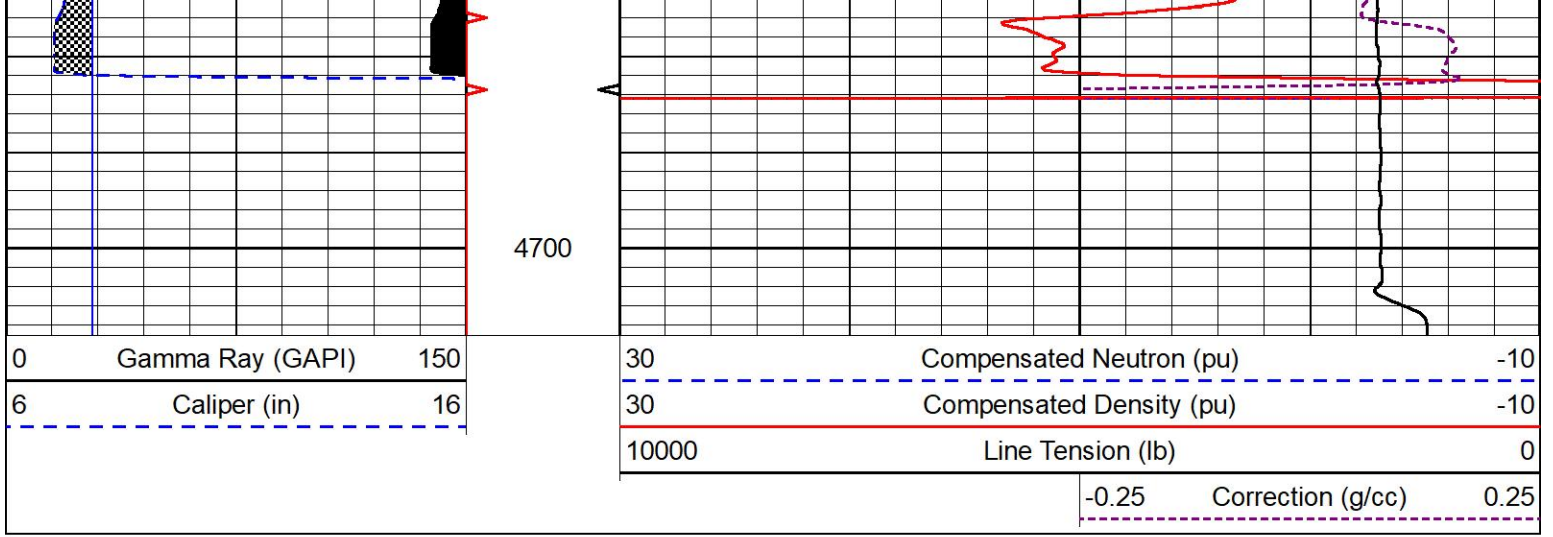










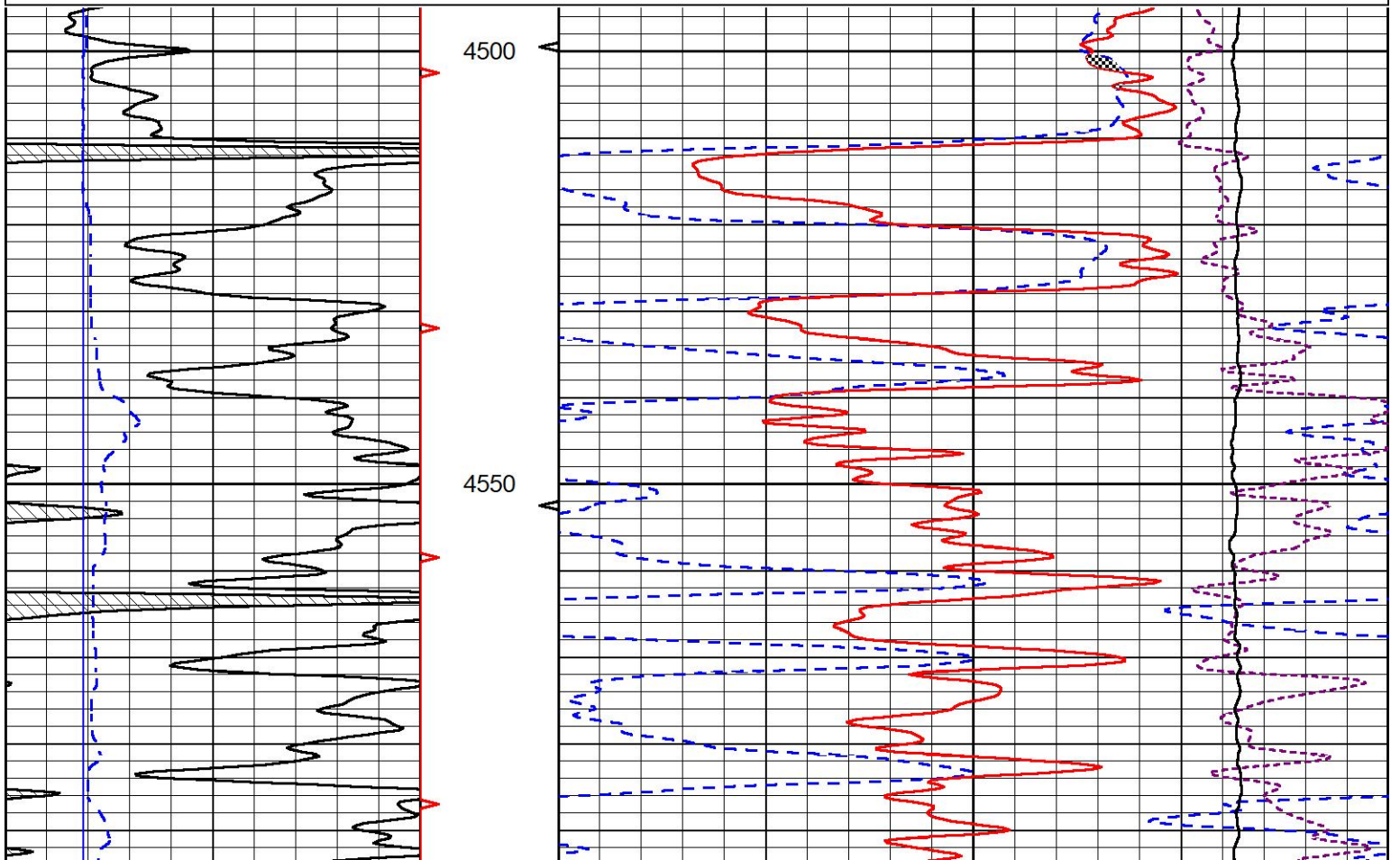
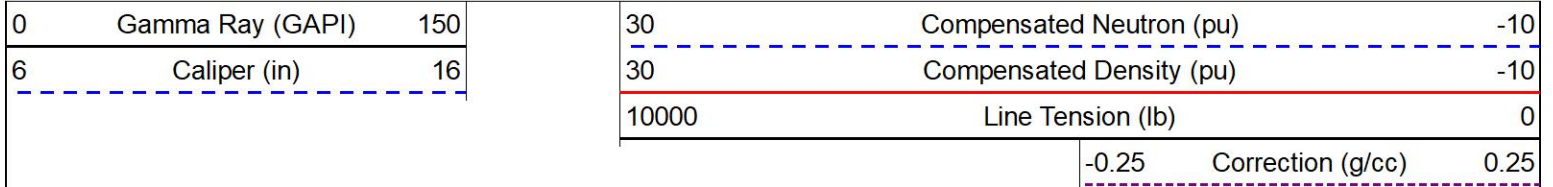


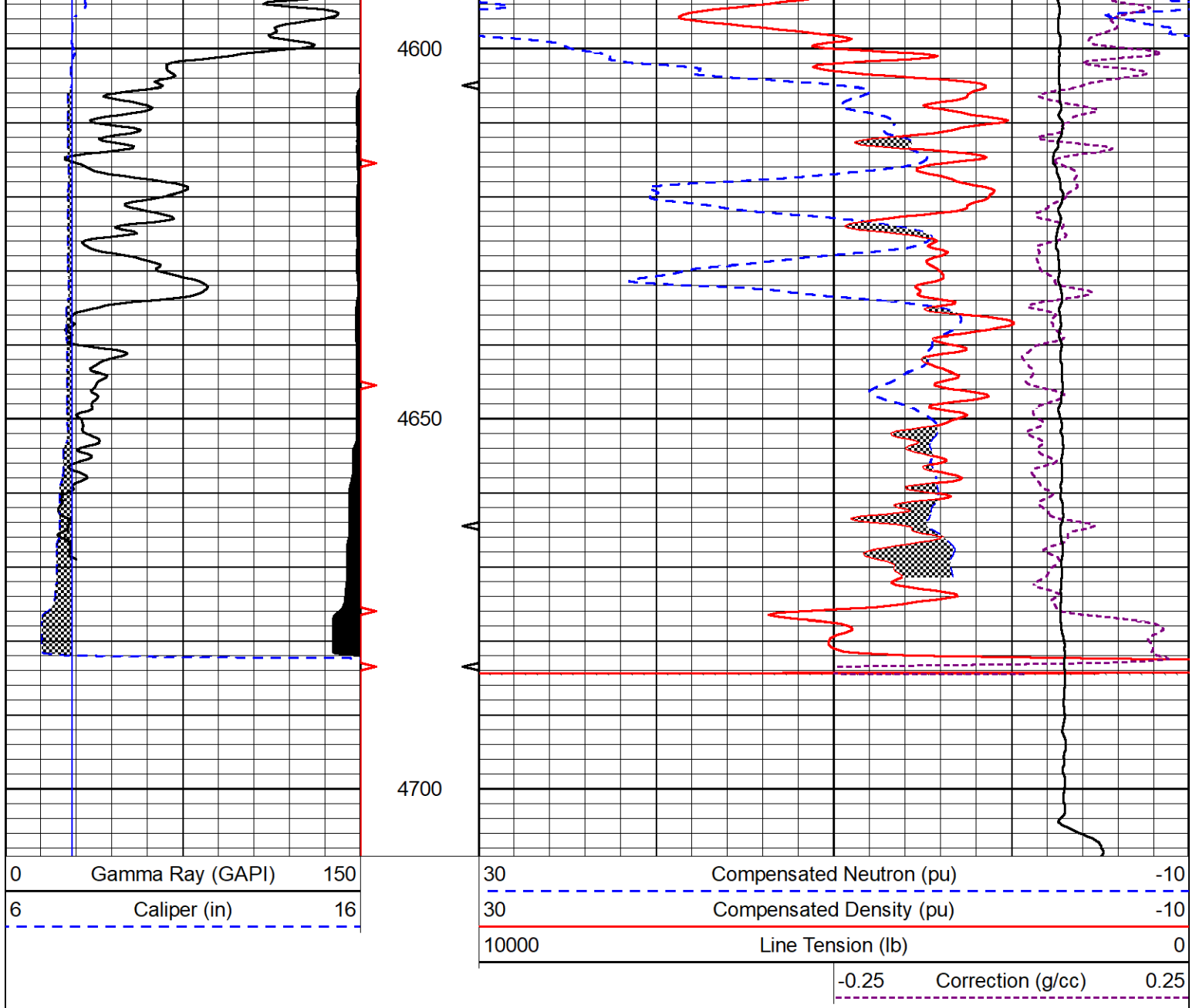
MIDWEST WIRELINE

# REPEAT SECTION

## REPEAT PASS

Database File carmen\_dairy #1-13.db  
 Dataset Pathname StkMI/pass2.1  
 Presentation Format \_CNDLS~1  
 Dataset Creation Sat Aug 06 11:21:43 2022  
 Charted by Depth in Feet scaled 1:240





### Calibration Report

Database File carmen\_dairy #1-13.db  
 Dataset Pathname StkMI/pass3.1  
 Dataset Creation Sat Aug 06 12:04:53 2022

### Dual Induction Calibration Report

Serial-Model: 507-M&W  
 Surface Cal Performed: Wed Aug 3 13:14:16 2022

Loop:	Readings		References			Results	
	Air	Loop	Air	Loop		m	b
Deep	82.972	482.449	0.000	255.800	mmho/m	0.590	-32.000
Medium	120.285	668.174	0.000	255.800	mmho/m	0.517	-59.000

### Microlog Calibration Report

Serial-Model: 402-PSIML  
 Performed: Sun Jul 17 13:11:21 2022

	Readings		References		Results		
	Zero	Cal	Zero	Cal		m	b
Normal	0.0000	1.0000	0.0000	1.0000	Ohm-m	19000.0000	-1.0000
Inverse	0.0000	1.0000	0.0000	1.0000	Ohm-m	24000.0000	-0.8000
Caliper	1.0052	1.0858	5.0000	16.5000	in	65.0000	-59.8500

Compensated Density Calibration Report

Serial-Model: 301-01-M&W  
Source #: 20762B  
Master Calibration Performed: Thu Feb 3 00:43:14 2022

Master Calibration

	Density		Far Detector	Near Detector	
Magnesium	1.755	g/cc	3559.05	2566.81	cps
Aluminum	2.675	g/cc	664.63	1636.12	cps
Spine Angle = 74.98			Density/Spine Ratio = 0.530		
	Size		Reading		
Small Ring	8.00	in	1.16		
Large Ring	13.00	in	1.02		

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



MIDWEST WIRELINE

Company	Carmen Schmitt, Inc.
Well	Dairy #1-13
Field	
County	Thomas
State	Kansas