



PIONEER

Pioneer Energy Services

DUAL COMP POROSITY LOG

Company **AMERICAN WARRIOR, INC.**

Well **KT NO. 1-25**

Field **WILDCAT**

County **NESS** State **KANSAS**

Location: API #: 15-135-25978-00-00

1800' FNL & 1200' FEL

SEC 25 TWP 20S RGE 22W

DIL

Permanent Datum GROUND LEVEL Elevation 2181'

Log Measured From KELLY BUSHING

Drilling Measured From KELLY BUSHING

Elevation
K.B. 2189'
D.F. N/A
G.L. 2181'

Company **AMERICAN WARRIOR, INC.**

Well **KT NO. 1-25**

Field **WILDCAT**

County **NESS**

State **KANSAS**

Date **11/17/2017**

Run Number **ONE**

Type Log **CNL/CDL**

Depth Driller **4336'**

Depth Logger **4333'**

Bottom Logged Interval **4312'**

Top Logged Interval **3650'**

Type Fluid In Hole **CHEMICAL**

Salinity, PPM CL **8000**

Density **9.3**

Level **FULL**

Max. Rec. Temp. F **119 DEG/F**

Operating Rig Time **2 HOURS**

Equipment -- Location **108 HAYS**

Recorded By **J. HENRICKSON**

Witnessed By **JASON ALM**

Borehole Record

Casing Record

Run No.	Bit	From	To	Size	Wgt.	From	To
ONE	12.25"	0	217'	8.625"	23#	0	217'
TWO	7.875"	217'	TD				

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

BAZINE KANSAS

WEST END OF TOWN, 11 SOUTH TO CURVE

1/8 WEST, SOUTH INTO

Log Measured From: KELLY BUSHING 8 Ft. Above Permanent Datum

THANK YOU FOR USING PIONEER ENERGY SERVICES

www.pioneerenergy.com

785-625-3858

Your Pioneer Energy Services Crew

Engineer: J. HENRICKSON

Operator:

Operator:

Operator:

This Log Record Was Witnessed By

Primary Witness: JASON ALM

Secondary Witness:

Secondary Witness:

Secondary Witness:

Top - Bottom

A	BOREID	BOTTEMP	CASEOD	CASETHCK	FLUIDDEN	M	MATRXDEN
1	in 7.875	degF 119	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 -150	degF 0	Off	ft 4333

Sensor	Offset (ft)	Schematic		Description	Length (ft)	O.D. (in)	Weight (lb)
GR	33.00			GR-M&W (89-M&W)	3.00	3.50	50.00
CNLSC CNSSC	29.90			CNT-M&W (tk10-MW)	5.50	3.50	100.00
	29.15						
LSD DCAL SSD	20.85			CDL-M&W (168-986)	8.50	4.00	250.00
	20.83						
	20.35						
RLL3 RLL3F	15.80						
	15.79						
CILD	8.00			DIL-M&W (1987)	18.50	3.50	220.00

CILM 4.70

SP 0.20

Dataset: american_warrior_kt_1_25.db: field/well/stack/pass3.1
Total length: 35.50 ft
Total weight: 620.00 lb
O.D.: 4.00 in

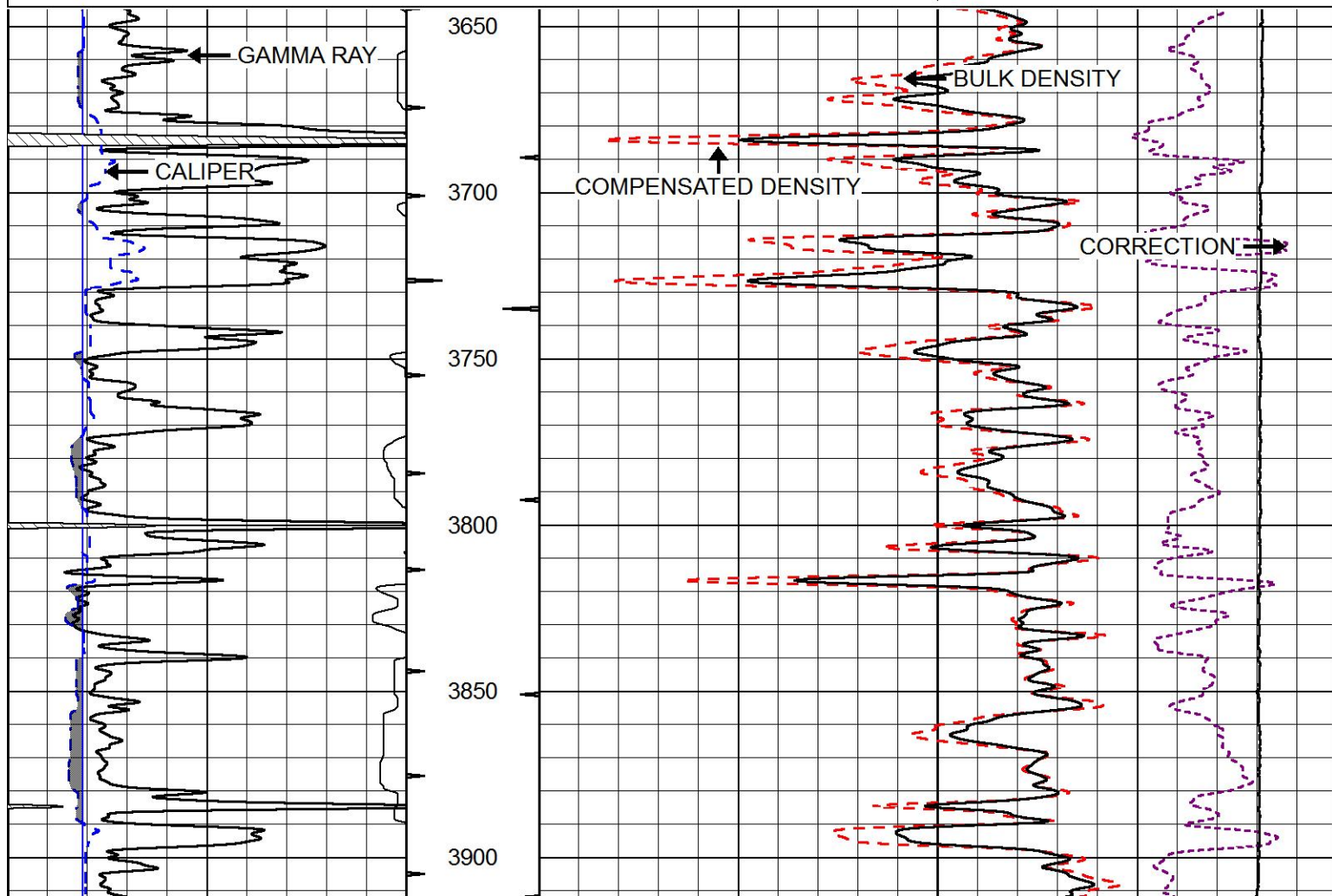


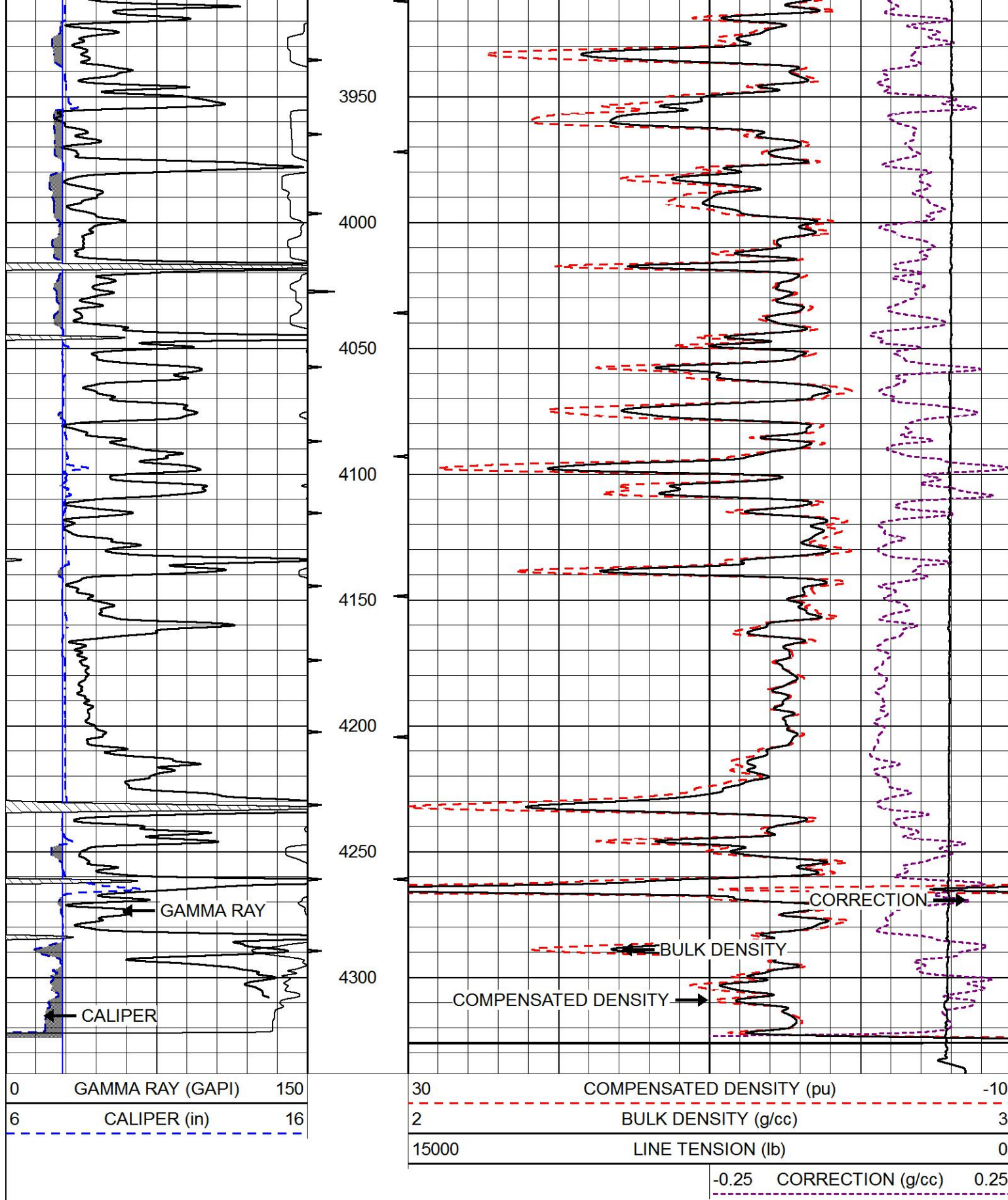
MAIN PASS

Database File american_warrior_kt_1_25.db
Dataset Pathname stack/pass3.1
Presentation Format cdl
Dataset Creation Fri Nov 17 05:07:02 2017
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

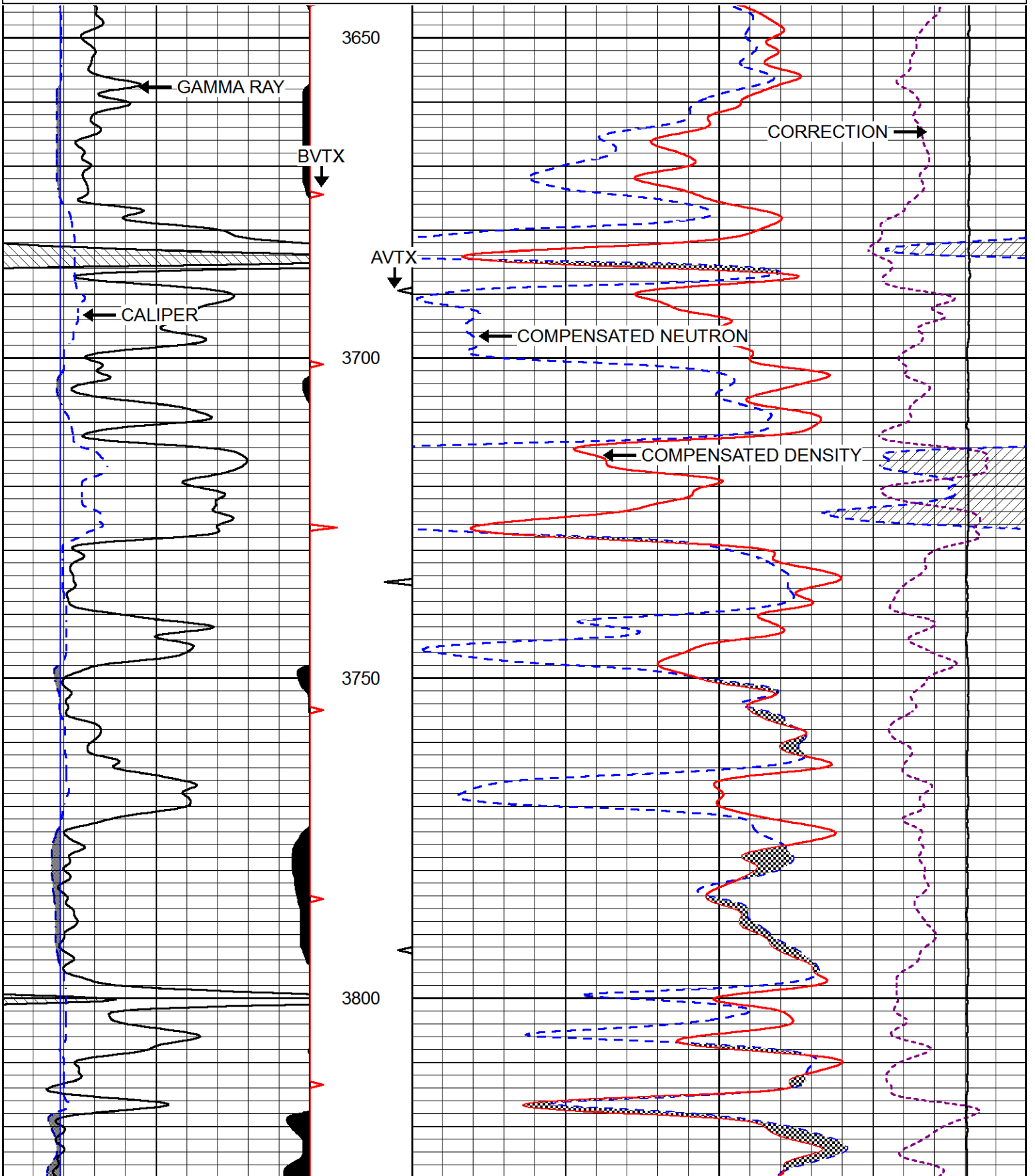


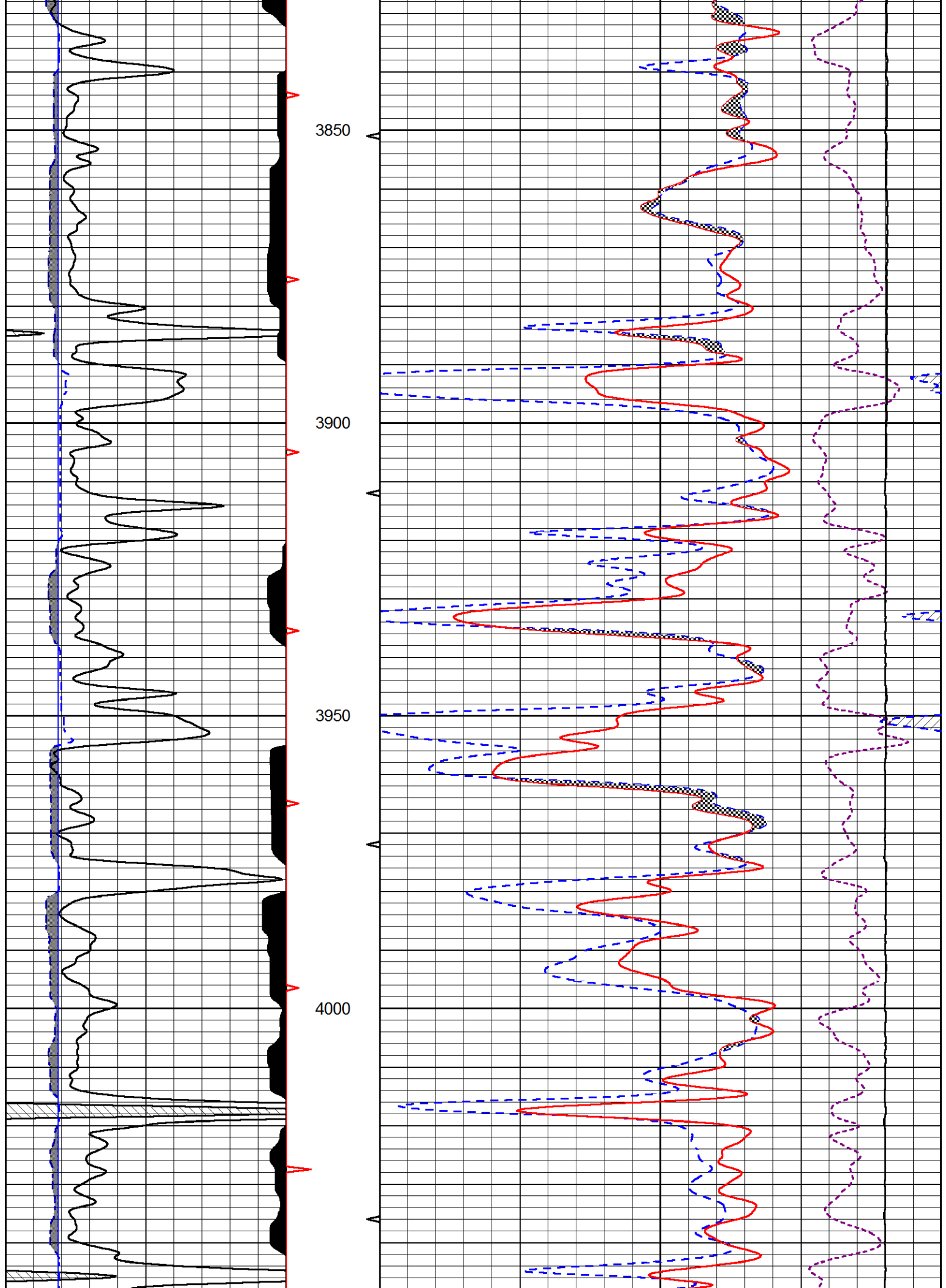


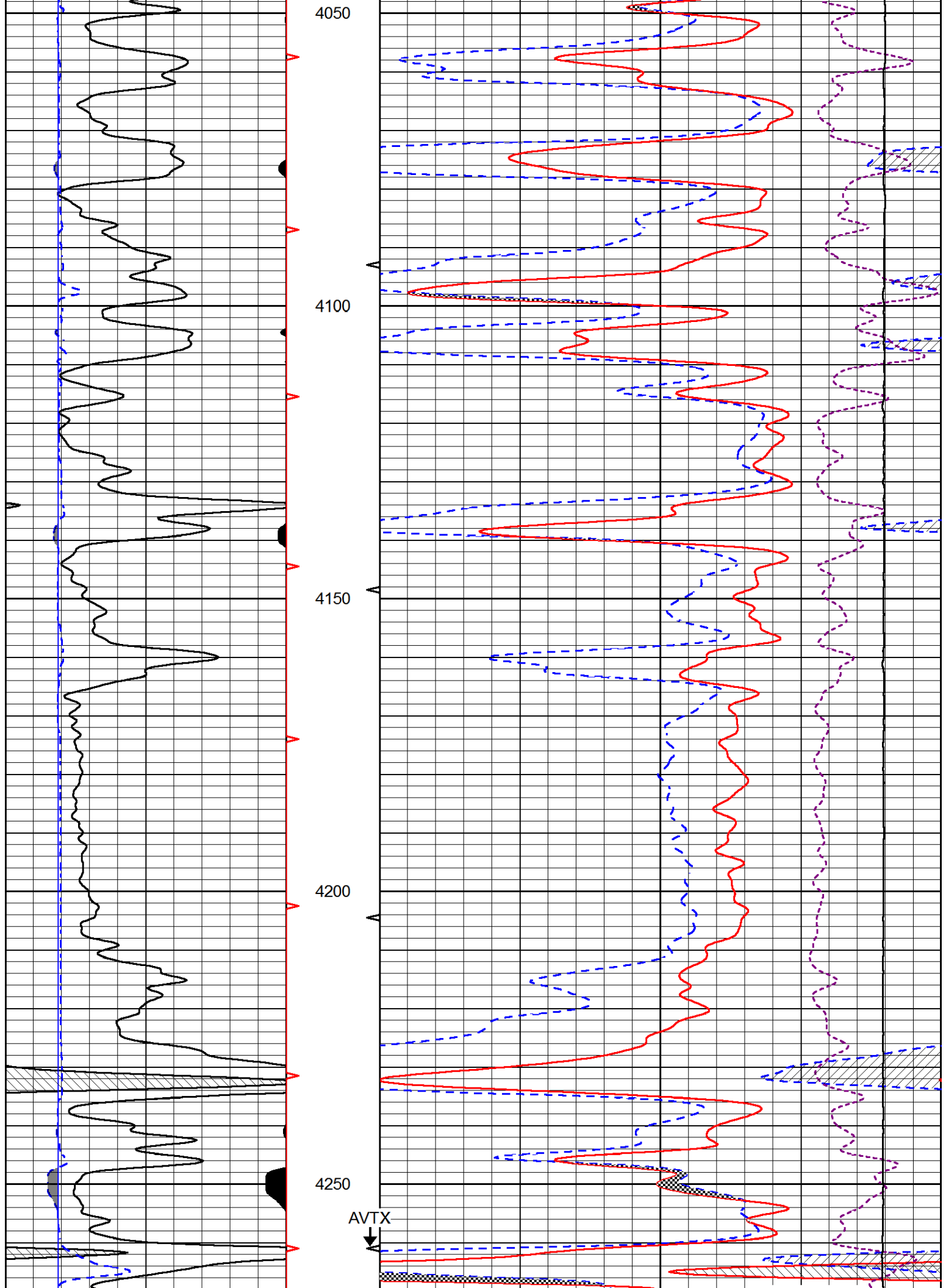
0	GAMMA RAY (GAPI)	150
6	dcal (in)	16
6	BIT SIZE (in)	16

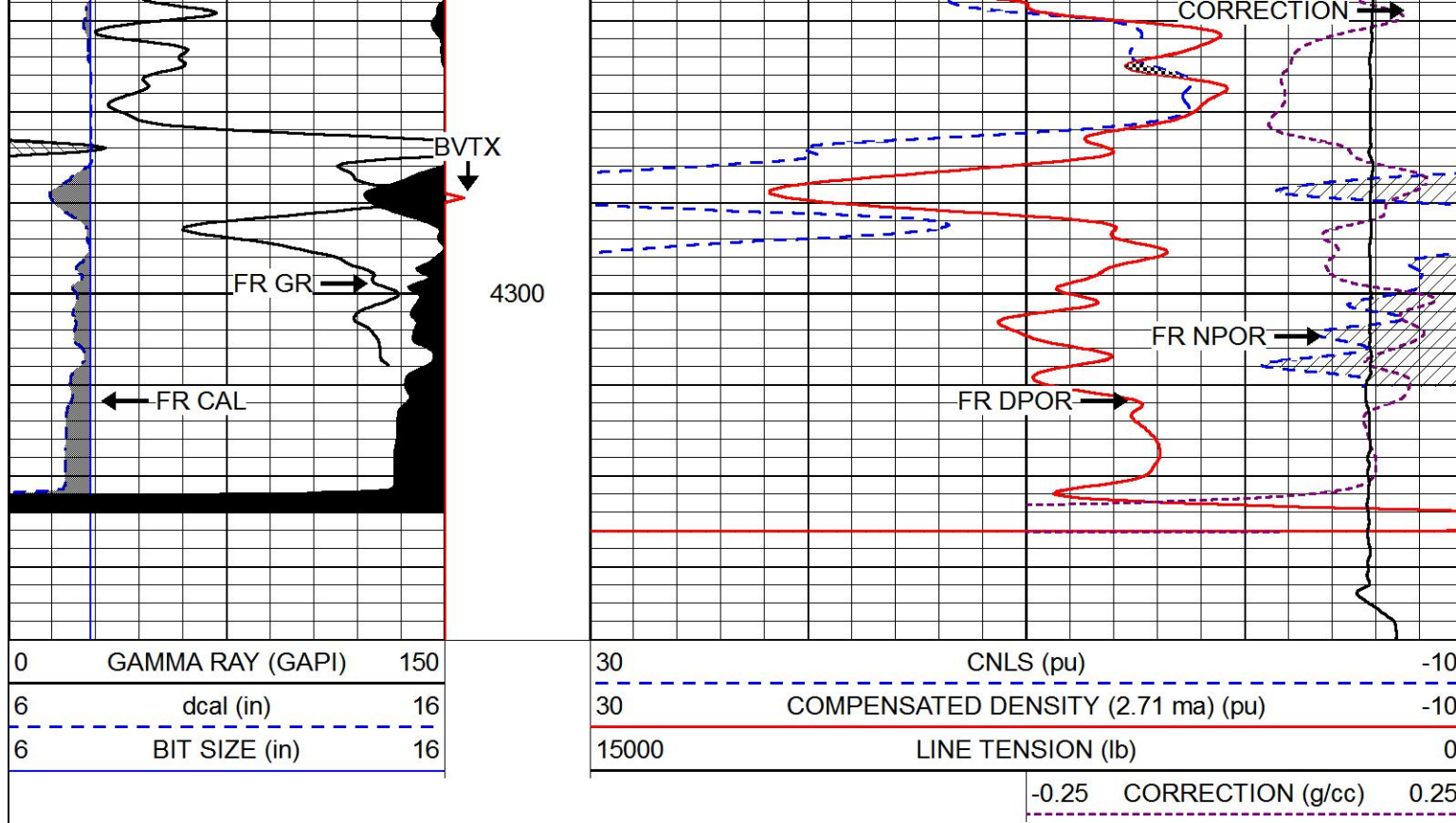
30	CNLS (pu)	-10
30	COMPENSATED DENSITY (2.71 ma) (pu)	-10
15000	LINE TENSION (lb)	0

-0.25 CORRECTION (g/cc) 0.25







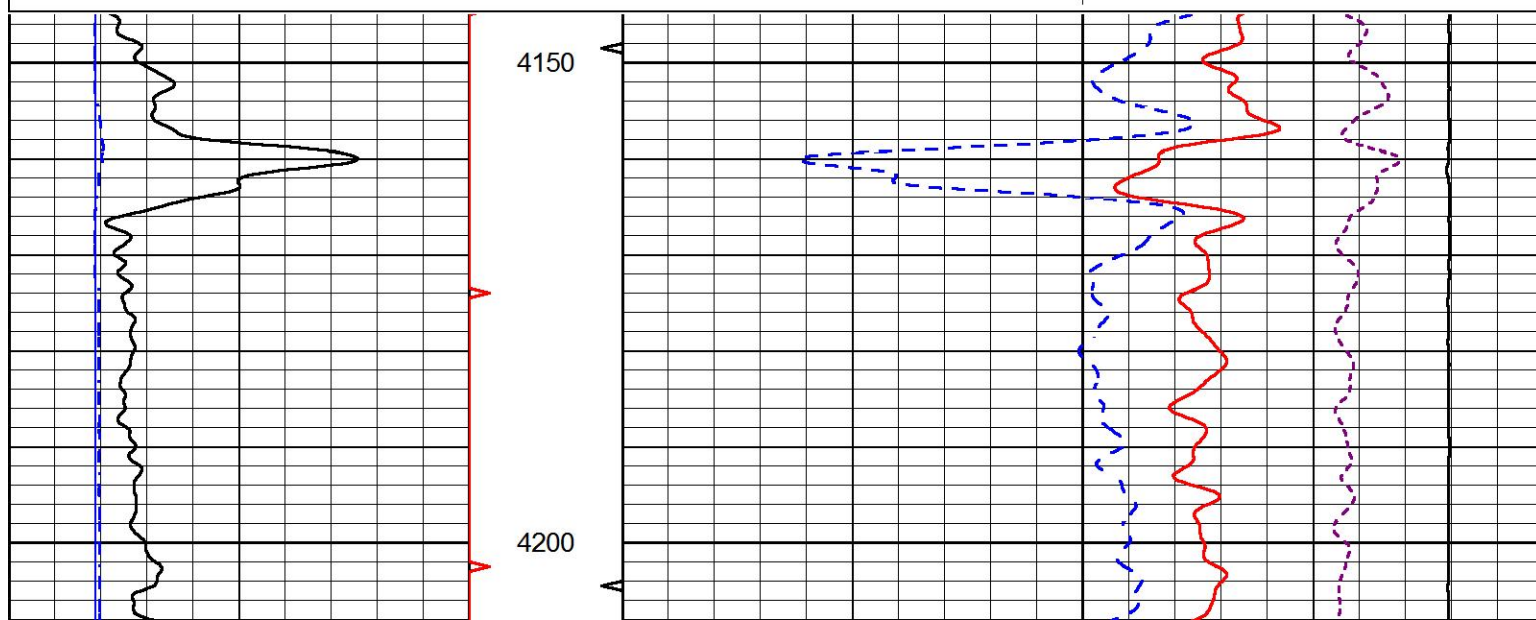


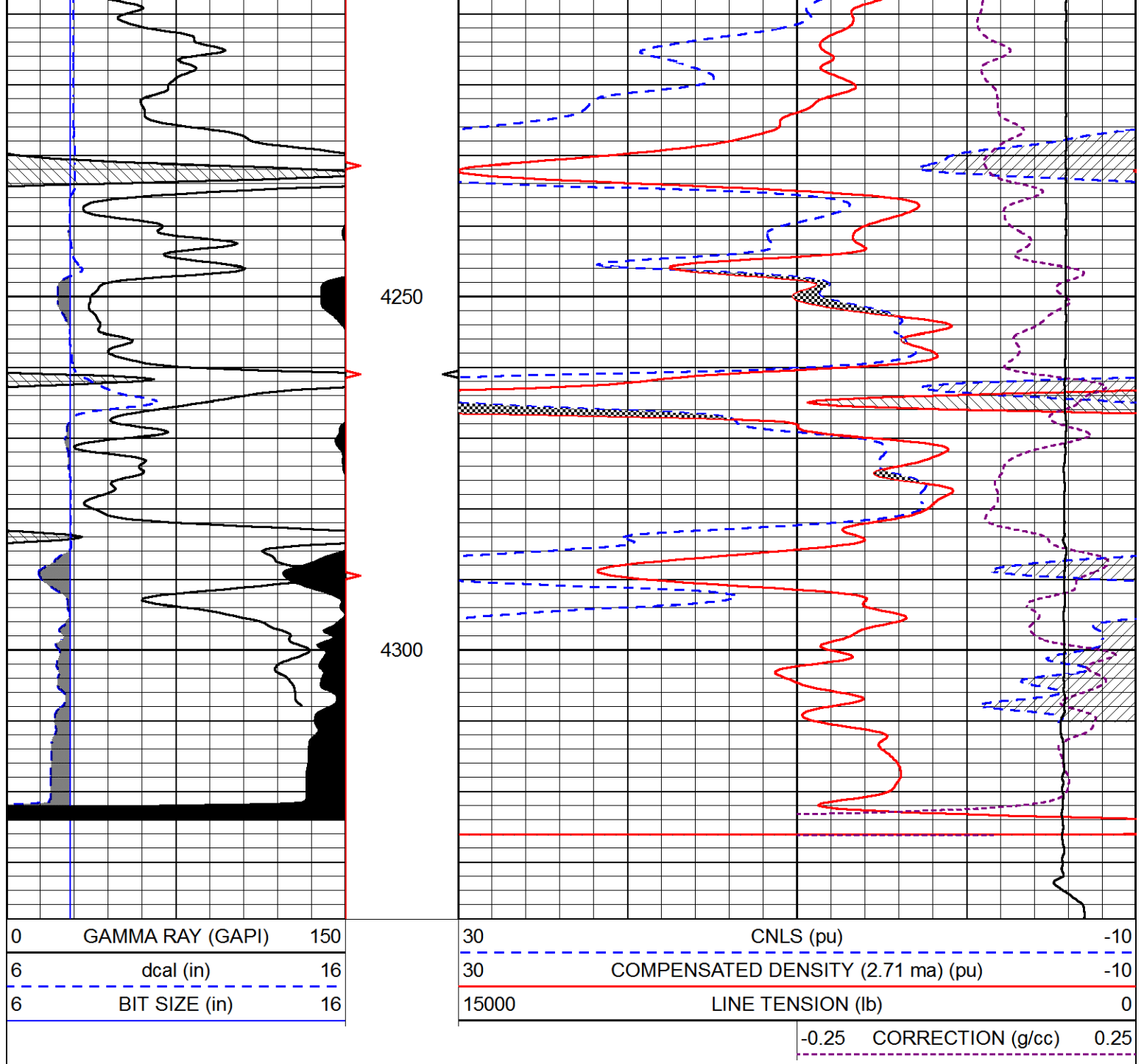
REPEAT SECTION

PIONEER
Pioneer Energy Services

Database File: american_warrior_kt_1_25.db
 Dataset Pathname: stack/pass2.1
 Presentation Format: cndlspec
 Dataset Creation: Fri Nov 17 05:07:23 2017
 Charted by: Depth in Feet scaled 1:240

0	GAMMA RAY (GAPI)	150	30	CNLS (pu)	-10
6	dcal (in)	16	30	COMPENSATED DENSITY (2.71 ma) (pu)	-10
6	BIT SIZE (in)	16	15000	LINE TENSION (lb)	0
			-0.25	CORRECTION (g/cc)	0.25





Calibration Report							
Database File	american_warrior_kt_1_25.db						
Dataset Pathname	stack/pass3.1						
Dataset Creation	Fri Nov 17 05:07:02 2017						
Dual Induction Calibration Report							
Serial-Model:				1987-M&W			
Calibration Performed:				Tue Apr 11 17:07:38 2017			
		Readings		References		Results	
Loop:	Air	Loop		Air	Loop	Gain	Offset
Deep	178.615	710.235		0.000	255.800 mmho/m	0.560	-36.500
Medium	161.982	1441.110		0.000	255.800 mmho/m	0.440	-110.500

Compensated Density Calibration Report

Serial-Model: 168-986-M&W
 Source / Verifier: /
 Master Calibration Performed: Tue Apr 11 17:07:47 2017

Master Calibration

	Density		Far Detector	Near Detector	
Magnesium	1.755	g/cc	4691.86	4818.19	cps
Aluminum	2.675	g/cc	859.57	3020.22	cps
Spine Angle = 74.61			Density/Spine Ratio = 0.523		
	Size		Reading		
Small Ring	4.00	in	1.03		
Large Ring	14.00	in	1.23		

Compensated Neutron Calibration Report

Serial Number: tk10-MW
 Tool Model: M&W
 Calibration Performed: Wed Nov 16 11:21:36 2016

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: 89-M&W
 Tool Model: M&W
 Calibration Performed: Tue Apr 11 17:08:01 2017

Calibrator Value: 1000.0 GAPI

Background Reading: 0.0 cps
 Calibrator Reading: 6.2 cps

Sensitivity: 0.5200 GAPI/cps



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 Well KT NO. 1-25
 Field WILDCAT
 County NESS
 State KANSAS