

DUAL COMP POROSITY LOG

MIDWEST WIRELINE

Company American Warrior, Inc.
Well Sinclair #1-16
Field Lippoldt East
County Hodgeman
State Kansas

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County Hodgeman State Kansas

Location: API #: 15-083-22013-00-00

Other Services

NW SW SE NW
221 FNL & 1401 FWL
SEC 16 TWP 23S RGE 22W

DIL
MEL/BHCS

Permanent Datum Ground Level Elevation 2257
Log Measured From Kelly Bushing
Drilling Measured From Kelly Bushing

K.B. 2270
D.F.
G.L. 2257

Date 7/24/2022

Run Number One

Type Log CNL/CDL

Depth Driller 4528

Depth Logger 4536

Bottom Logged Interval 4515

Top Logged Interval 3700

Type Fluid In Hole Chemical

Salinity, PPM CL 11800

Density 9.3

Level Full

Max. Rec. Temp. F 121

Operating Rig Time 4 Hours

Equipment -- Location P-24 Hays

Recorded By T. Martin

Witnessed By Kevin Timson

Borehole Record

Casing Record

Run No.	Bit	From	To	Size	Wgt.	From	To
One	12.25	00	313	8.625	23	00	313
Two	7.875	313	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.

Hanston, S on Rd 228 to L Rd,
1 W to 227, 1.2 S, W into at red gate

Log Measured From: Kelly Bushing 13 Ft. Above Permanent Datum

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

Your Midwest Wireline Crew

Engineer: T. Martin
Operator:
Operator:
Operator:

This Log Record Was Witnessed By

Primary Witness: Kevin Timson
Secondary Witness:
Secondary Witness:
Secondary Witness:

Log Variables

DatabaseC:\ProgramData\Warrior\Data\amwar_sinclair #1-16.db
Dataset field/well/Stack/pass3.1/_vars_

Top - Bottom

A	BOREID in	BOTTEMP degF	CASEOD in	CASETHCK in	FLUIDDEN g/cc	M	MATRXDEN g/cc
1	7.875	121	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	100	80	Off	4536

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



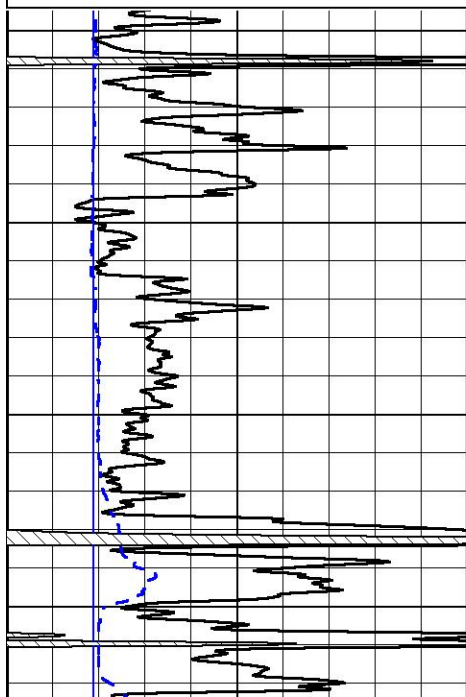
2" SCALE BULK DENSITY

MAIN PASS

Database File amwar_sinclair #1-16.db
Dataset Pathname Stack/pass3.3
Presentation Format _cdl
Dataset Creation Sun Jul 24 09:32:36 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

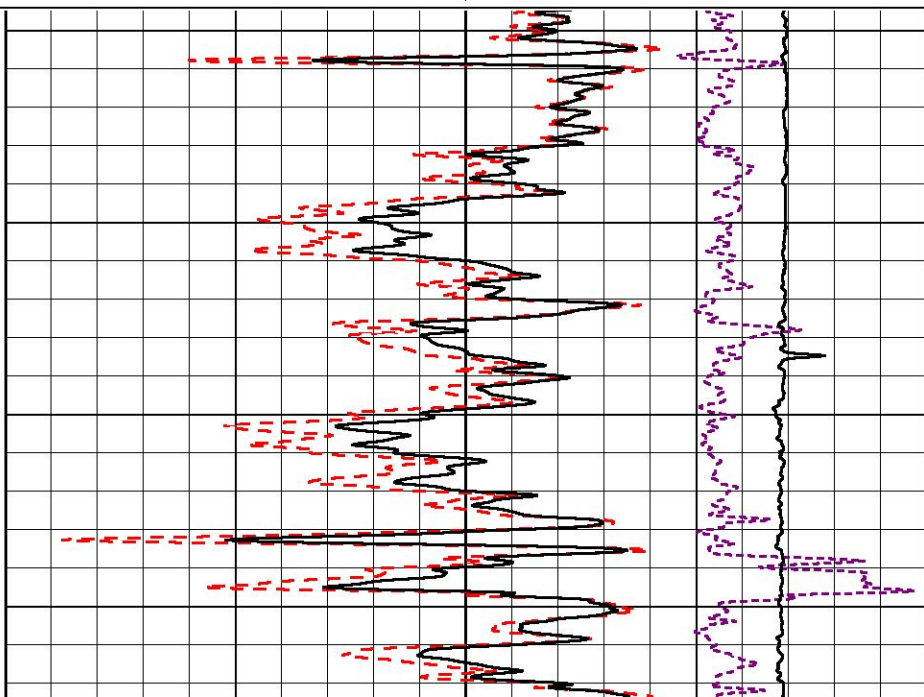


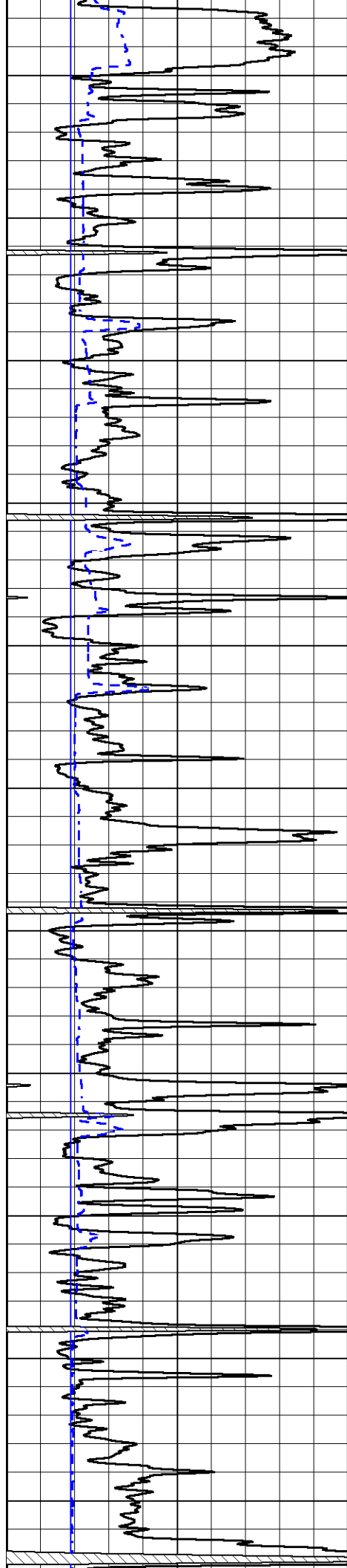
3700

3750

3800

3850





3900

3950

4000

4050

4100

4150

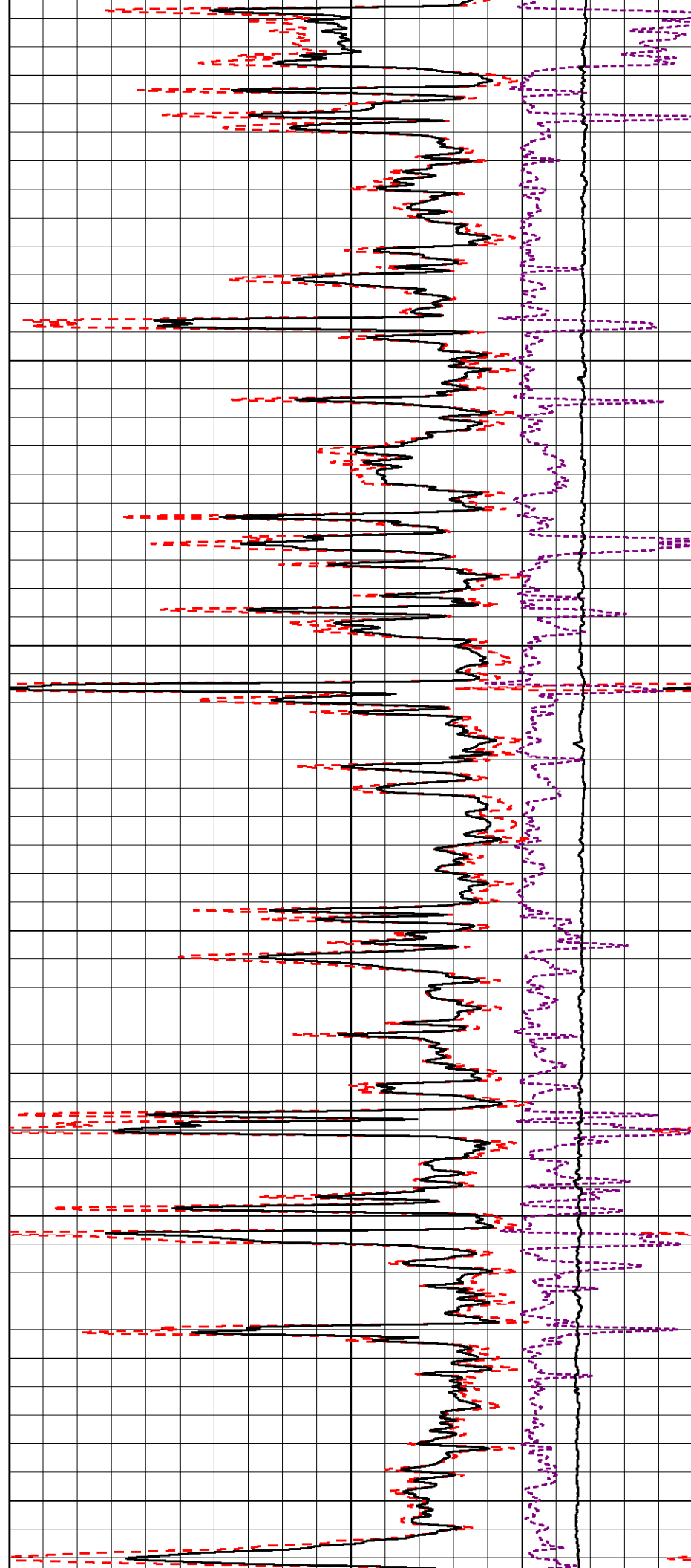
4200

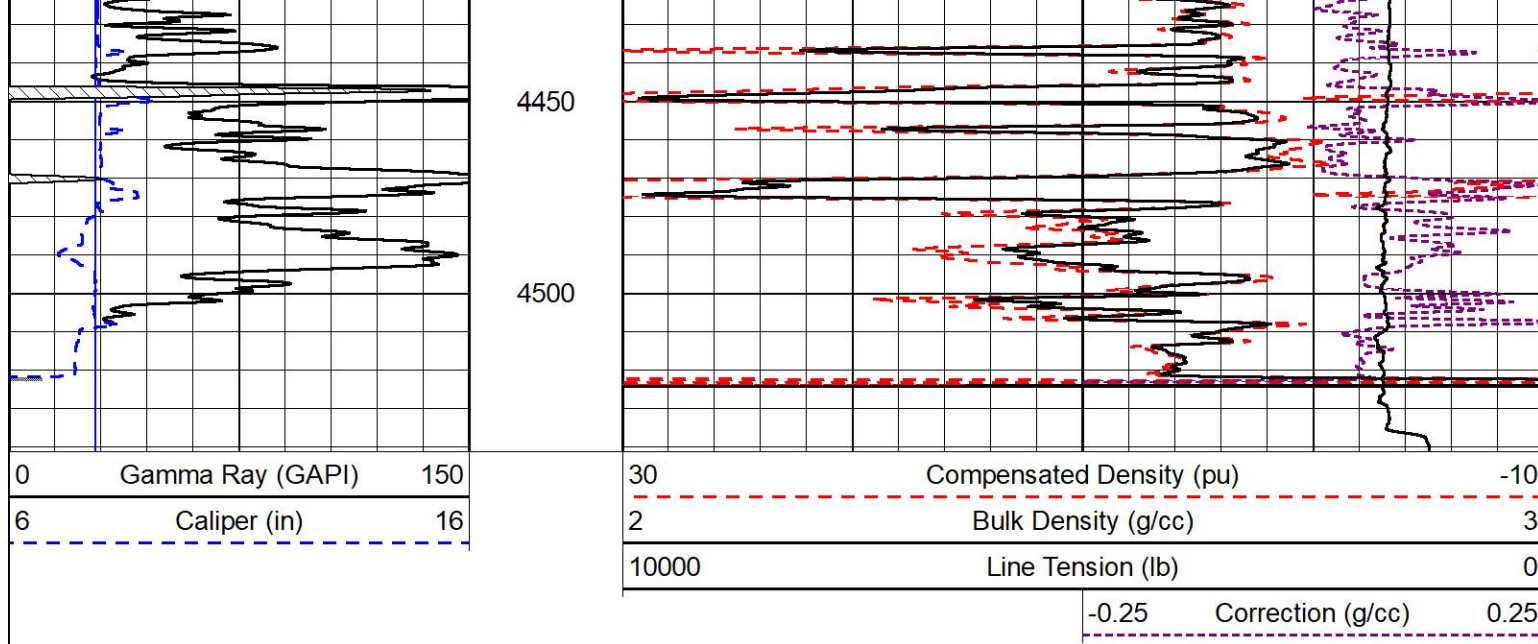
4250

4300

4350

4400



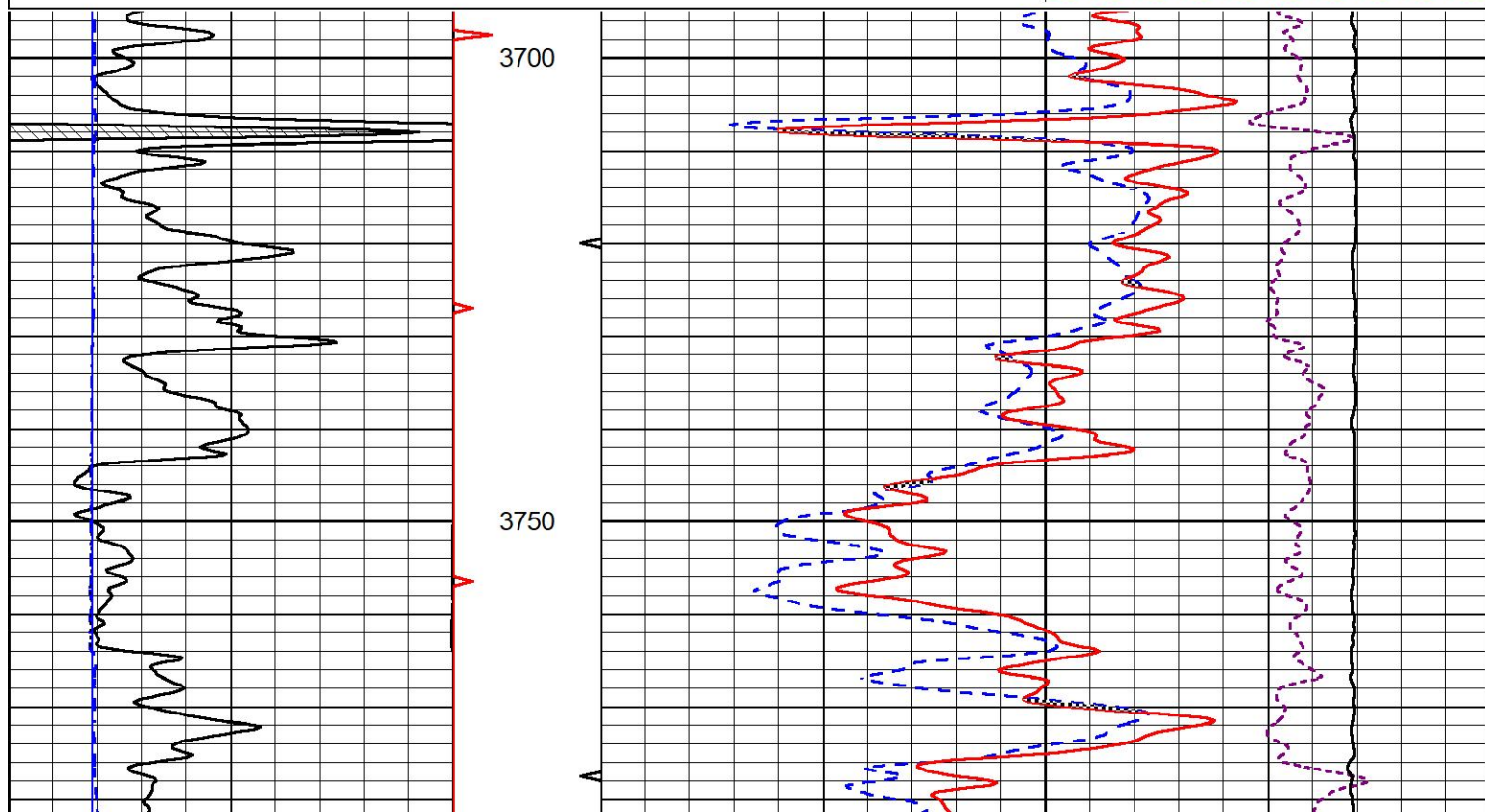
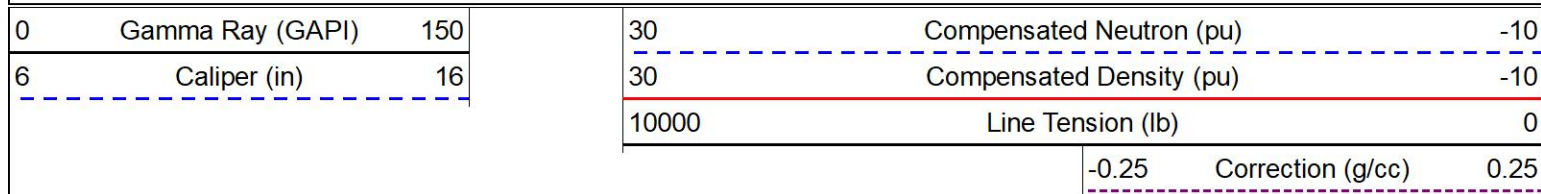


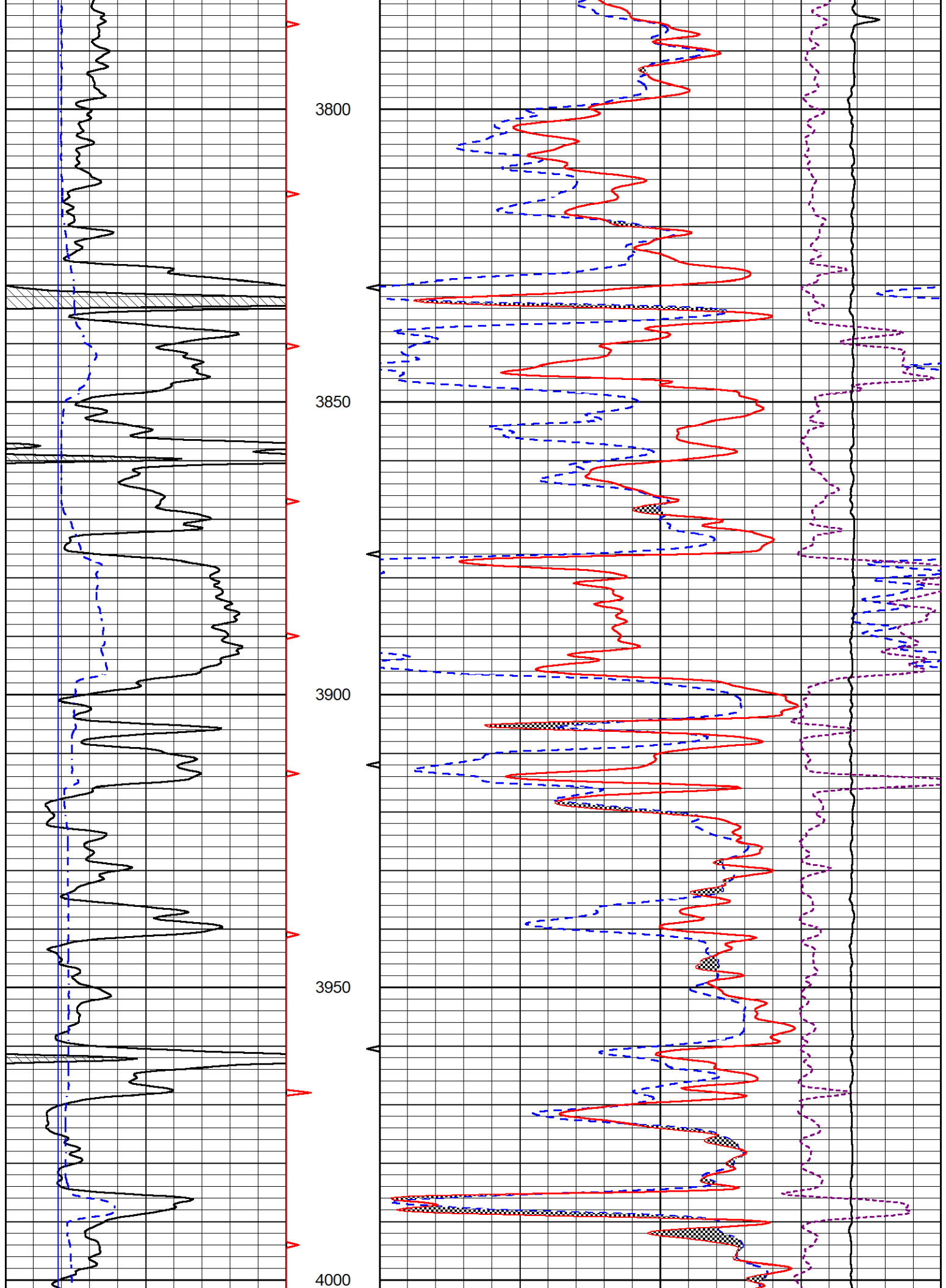
MIDWEST WIRELINE

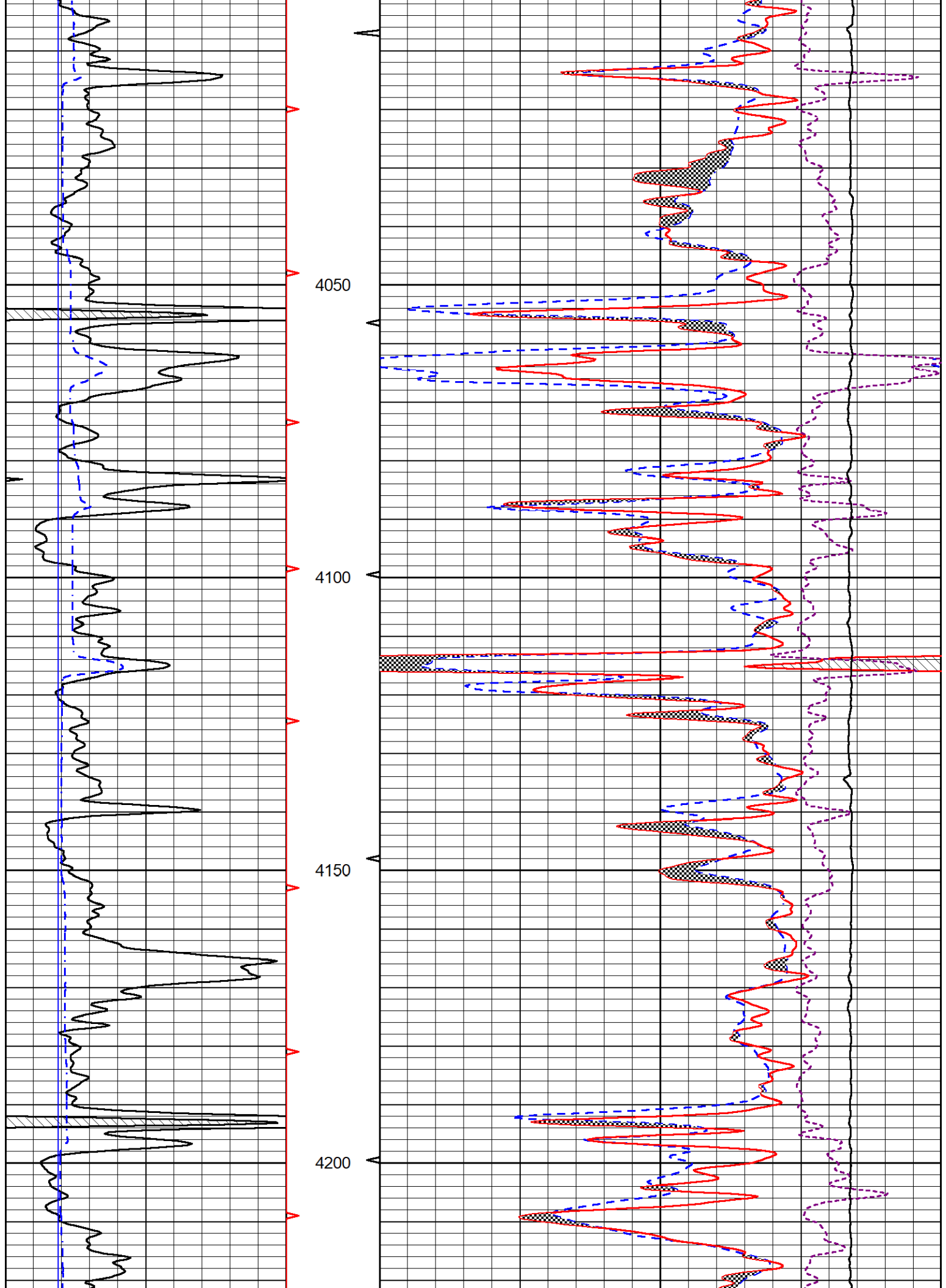
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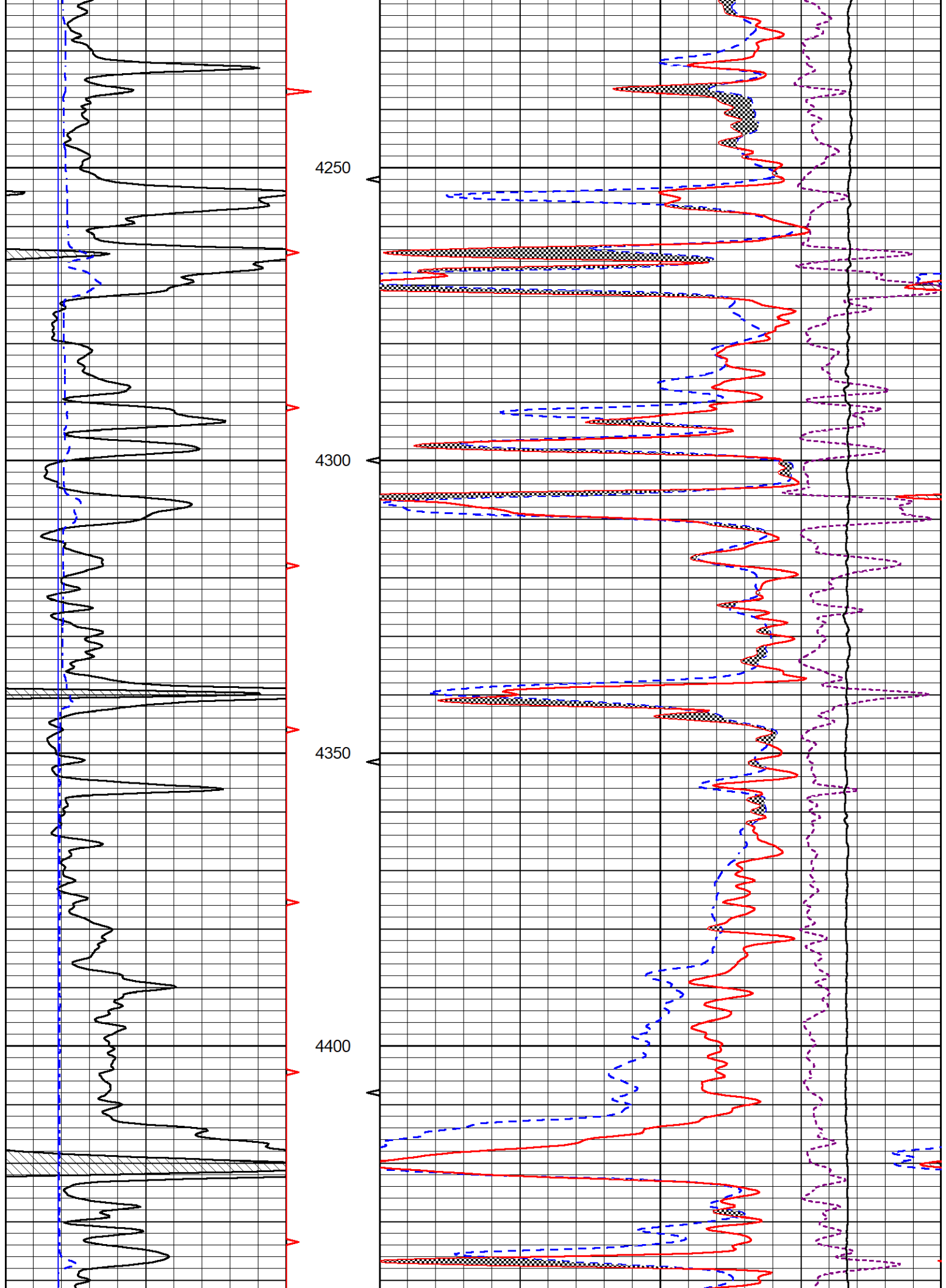
MAIN PASS

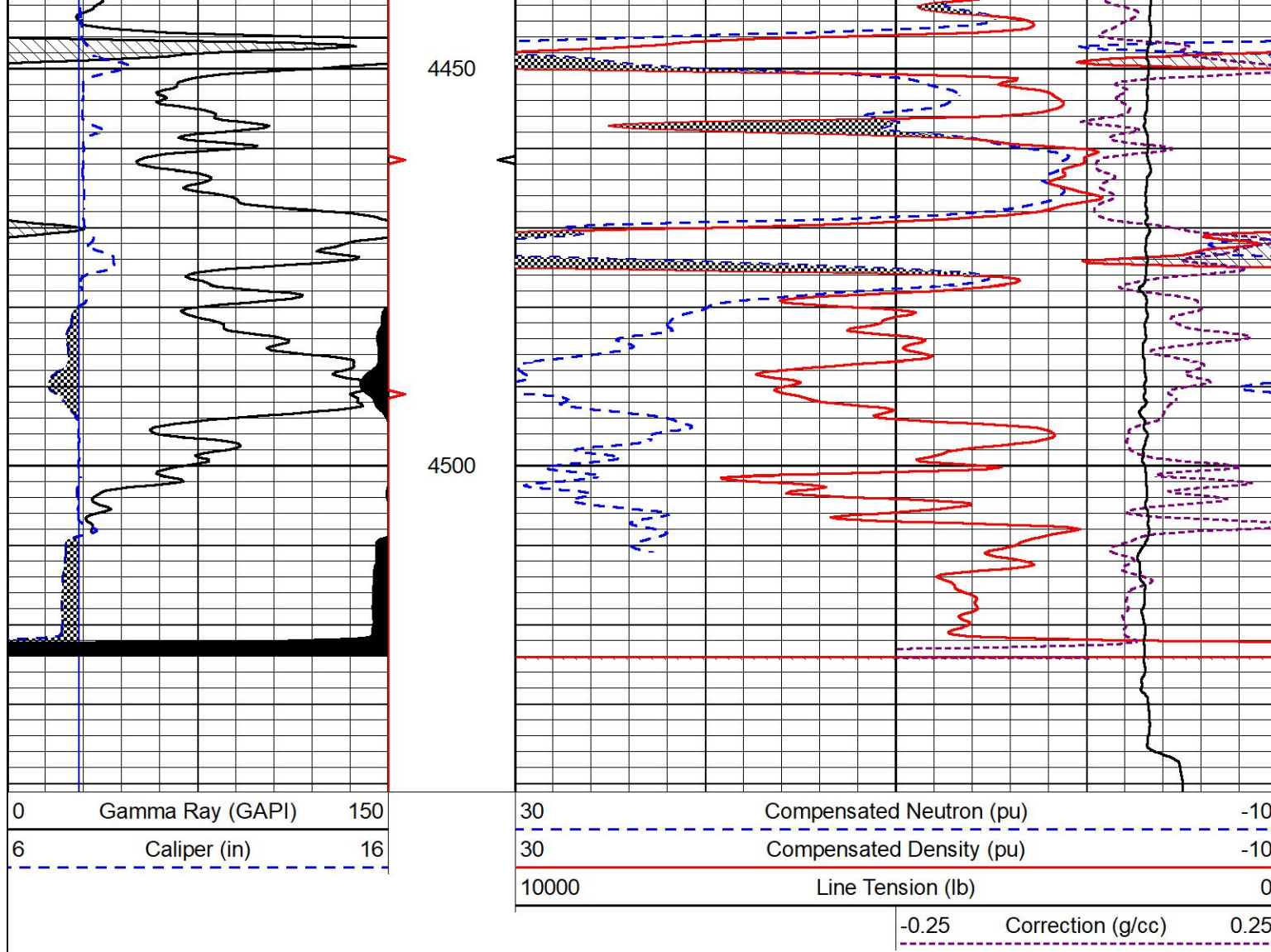
Database File amwar_sinclair #1-16.db
 Dataset Pathname Stack/pass3.1
 Presentation Format _CNDLS~1
 Dataset Creation Sun Jul 24 10:18:46 2022
 Charted by Depth in Feet scaled 1:240









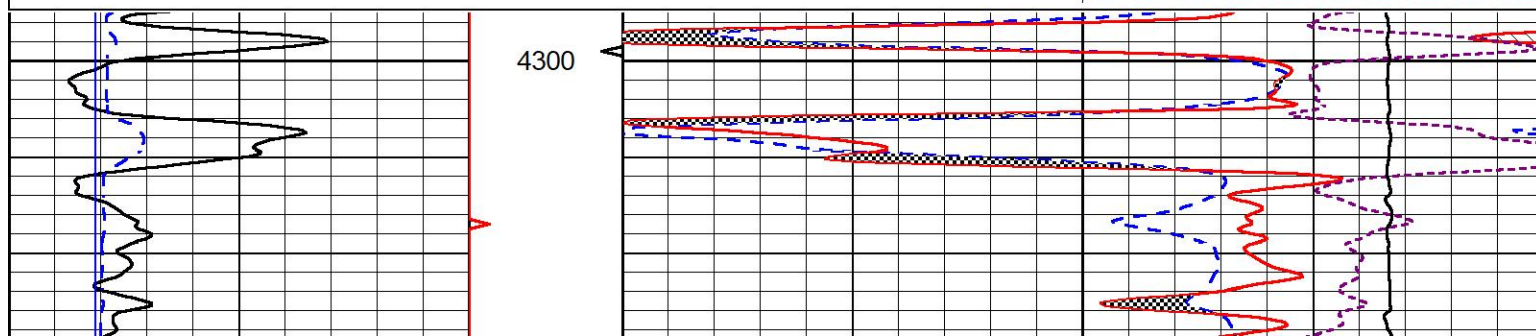
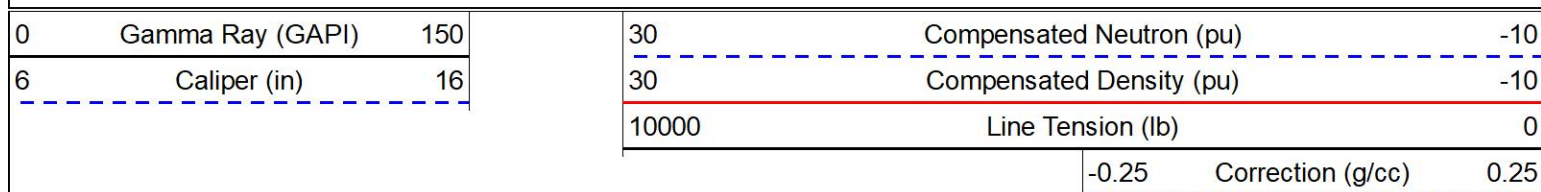


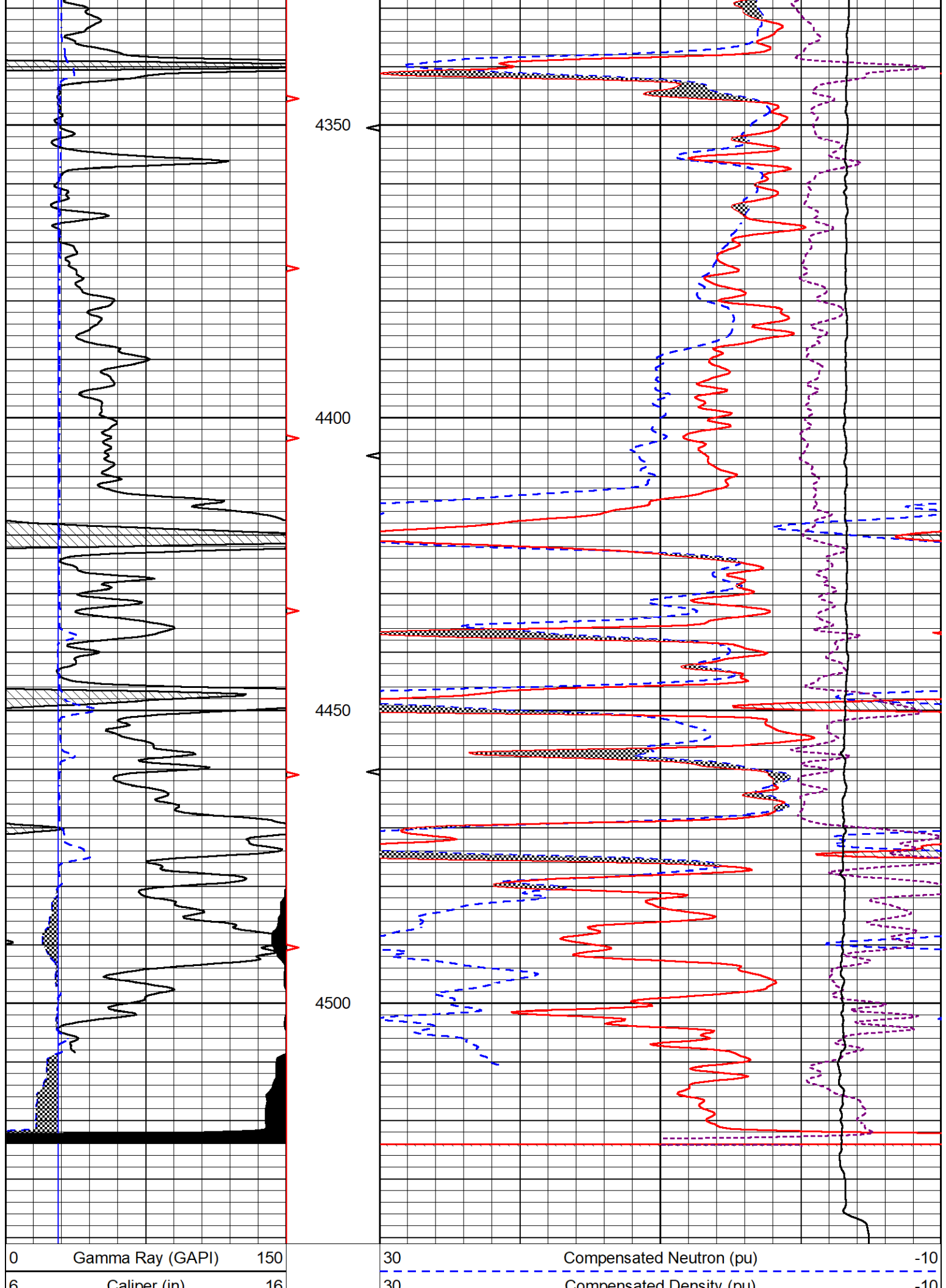
MIDWEST WIRELINE

REPEAT SECTION

REPEAT PASS

Database File amwar_sinclair #1-16.db
 Dataset Pathname Stack/pass2.1
 Presentation Format _CNDLS~1
 Dataset Creation Sun Jul 24 09:37:33 2022
 Charted by Depth in Feet scaled 1:240





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

Calibration Report	
Database File	amwar_sinclair #1-16.db
Dataset Pathname	Stack/pass3.1
Dataset Creation	Sun Jul 24 10:18:46 2022

Dual Induction Calibration Report	
Serial-Model:	501 HT-M&W
Surface Cal Performed:	Sat Apr 30 02:12:10 2022

		Readings		References		Results	
Loop:	Air	Loop		Air	Loop	m	b
Deep	83.639	487.104		0.000	183.000	mmho/m	0.455
Medium	113.335	1585.690		0.000	442.000	mmho/m	-28.000
							-29.500

Compensated Density Calibration Report	
Serial-Model:	302-02-M&W
Source #:	20762B
Master Calibration Performed:	Wed Jun 22 01:19:51 2022

Master Calibration					
Density			Far Detector	Near Detector	
Magnesium	1.755	g/cc	4422.04	6163.44	cps
Aluminum	2.665	g/cc	835.14	3912.91	cps
Spine Angle = 74.75			Density/Spine Ratio = 0.527		
Size			Reading		
Small Ring	8.00	in	0.53		
Large Ring	30.00	in	0.60		

Compensated Neutron Calibration Report	
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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
2)	Short Space	cps	
	Long Space	cps	pu
3)	Short Space	cps	
	Long Space	cps	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	

	Company	American Warrior, Inc.
	Well	Sinclair #1-16
	Field	Lippoldt East
	County	Hodgeman
	State	Kansas