

MIDWEST WIRELINE

# DUAL COMP POROSITY LOG

Company American Warrior, Inc.

Well Wark #1-21

Field

County Thomas

State Kansas

Location: API #: 15-193-21130-00-00

1218 FSL & 349 FEL

SEC 21 TWP 6S RGE 31W

Permanent Datum Ground Level Elevation 2951  
Log Measured From Kelly Bushing  
Drilling Measured From Kelly Bushing

Other Services  
DIL/MEL  
BHCS  
Elevation  
K.B. 2962  
D.F.  
G.L. 2951

Date 8/29/2024

Run Number One

Type Log CNL/CDL

Depth Driller 4563

Depth Logger 4562

Bottom Logged Interval 4541

Top Logged Interval 3650

Type Fluid In Hole Chemical

Salinity, PPM CL 3000

Density 9.4

Level Full

Max. Rec. Temp. F 118

Operating Rig Time 4 Hours

Equipment -- Location 110 HAYS

Recorded By D. Schmidt

Witnessed By Marc Downing

Borehole Record

Casing Record

| Run No. | Bit   | From | To  | Size  | Wgt. | From | To  |
|---------|-------|------|-----|-------|------|------|-----|
| One     | 12.25 | 0    | 352 | 8.625 | 23   | 0    | 352 |
| Two     | 7.875 | 352  | TD  |       |      |      |     |
|         |       |      |     |       |      |      |     |
|         |       |      |     |       |      |      |     |
|         |       |      |     |       |      |      |     |
|         |       |      |     |       |      |      |     |
|         |       |      |     |       |      |      |     |
|         |       |      |     |       |      |      |     |
|         |       |      |     |       |      |      |     |

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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.

Rexford,  
North to Y Rd, 1 West, 1North, 1 West, 1 1/4 North,  
West 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

Engineer: D. Schmidt  
Operator:  
Operator:  
Operator:

## This Log Record Was Witnessed By

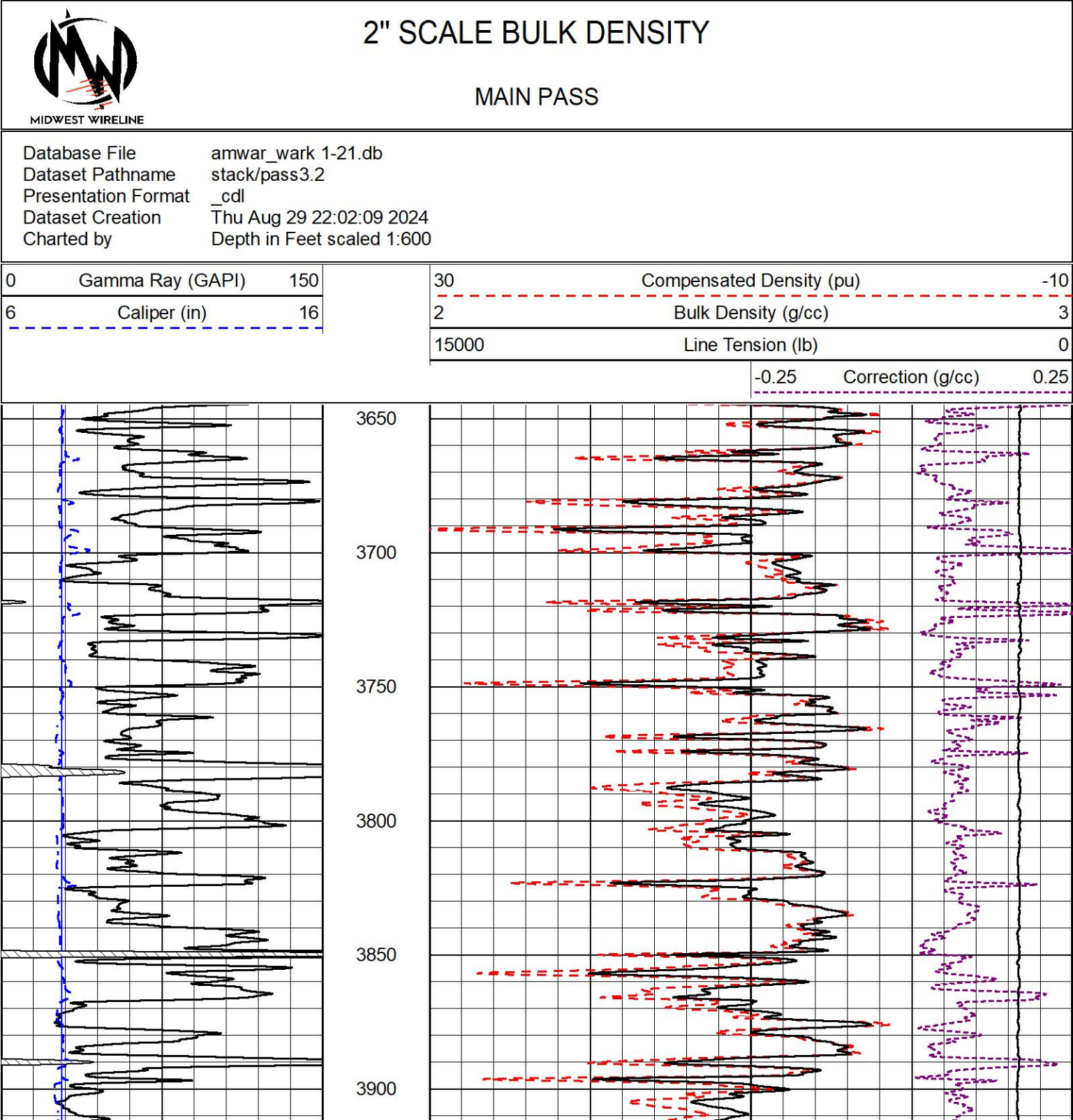
Primary Witness: Marc Downing  
Secondary Witness:  
Secondary Witness:  
Secondary Witness:

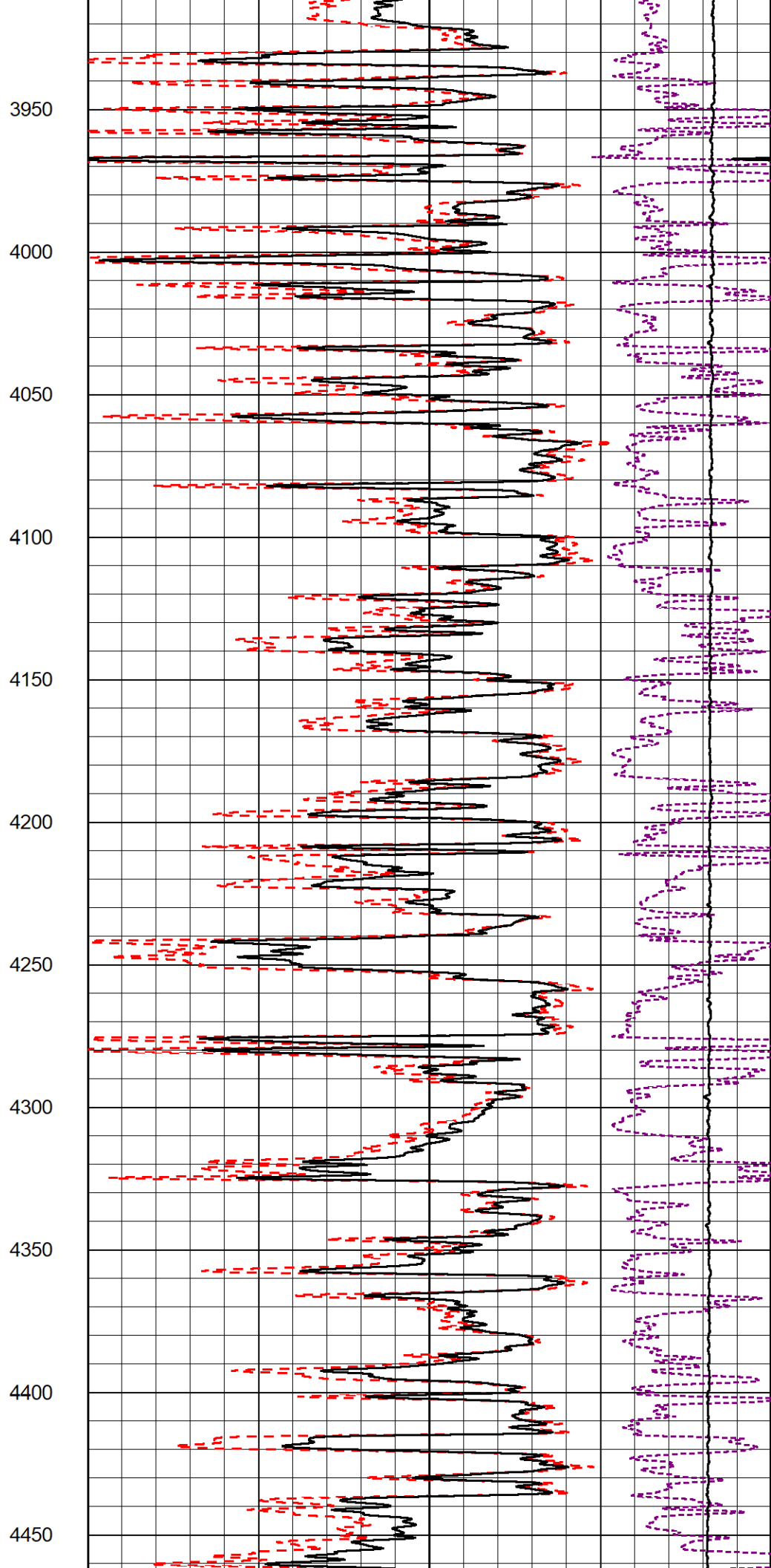
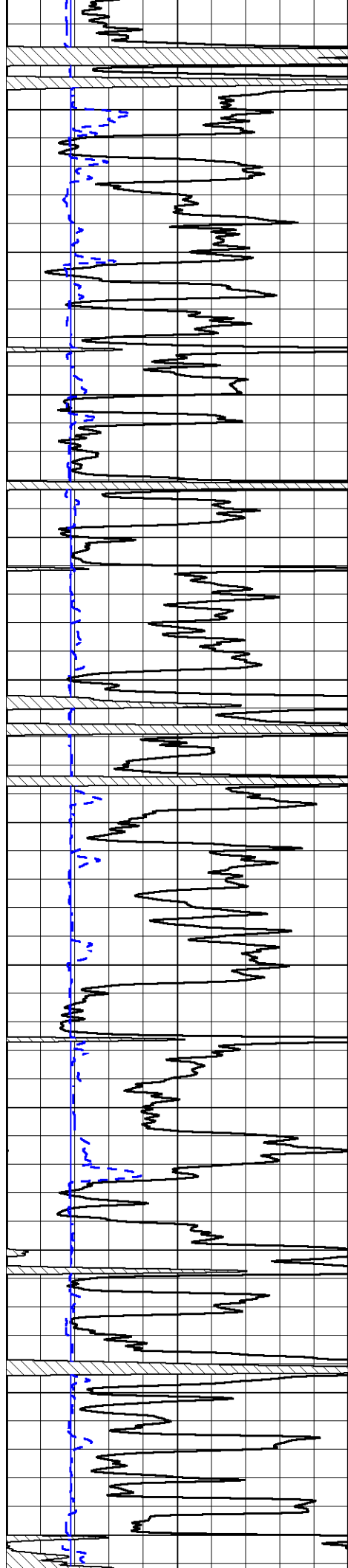


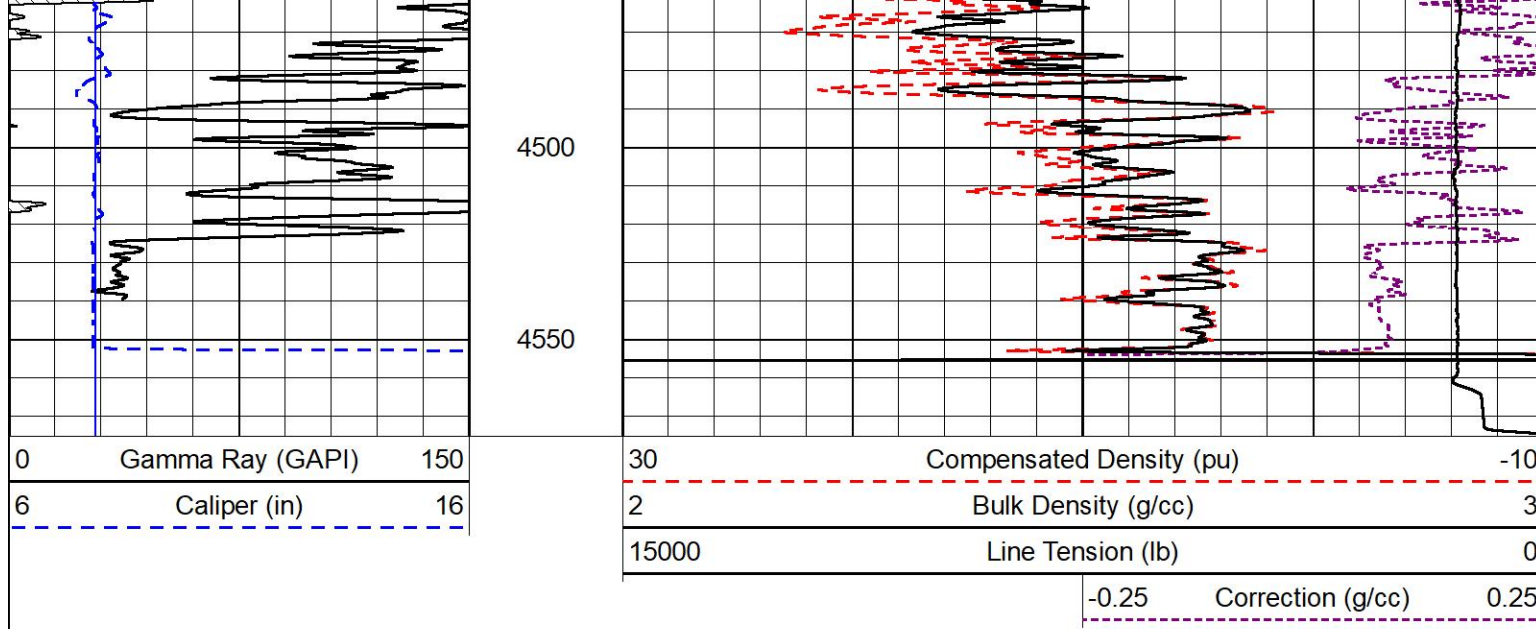
Log Variables

DatabaseC:\ProgramData\Warrior\Data\amwar\_wark 1-21.db  
Dataset field/well/stack/pass3.5/\_vars\_

| Top - Bottom |        |         |         |          |          |       |          |
|--------------|--------|---------|---------|----------|----------|-------|----------|
| A            | BOREID | BOTTEMP | CASEOD  | CASETHCK | FLUIDDEN | M     | MATRXDEN |
| 1            | in     | degF    | in      | in       | g/cc     | 2     | g/cc     |
|              | 7.875  | 118     | 5.5     | 0        | 1        |       | 2.71     |
| NPORSEL      | PERFS  | SNDERR  | SNDERRM | SPSHIFT  | SRFTEMP  | SZCOR | TDEPTH   |
| Limestone    | No     | mmho/m  | mmho/m  | mV       | degF     | Off   | ft       |
|              |        | 0       | 0       | 175      | 85       |       | 4562     |





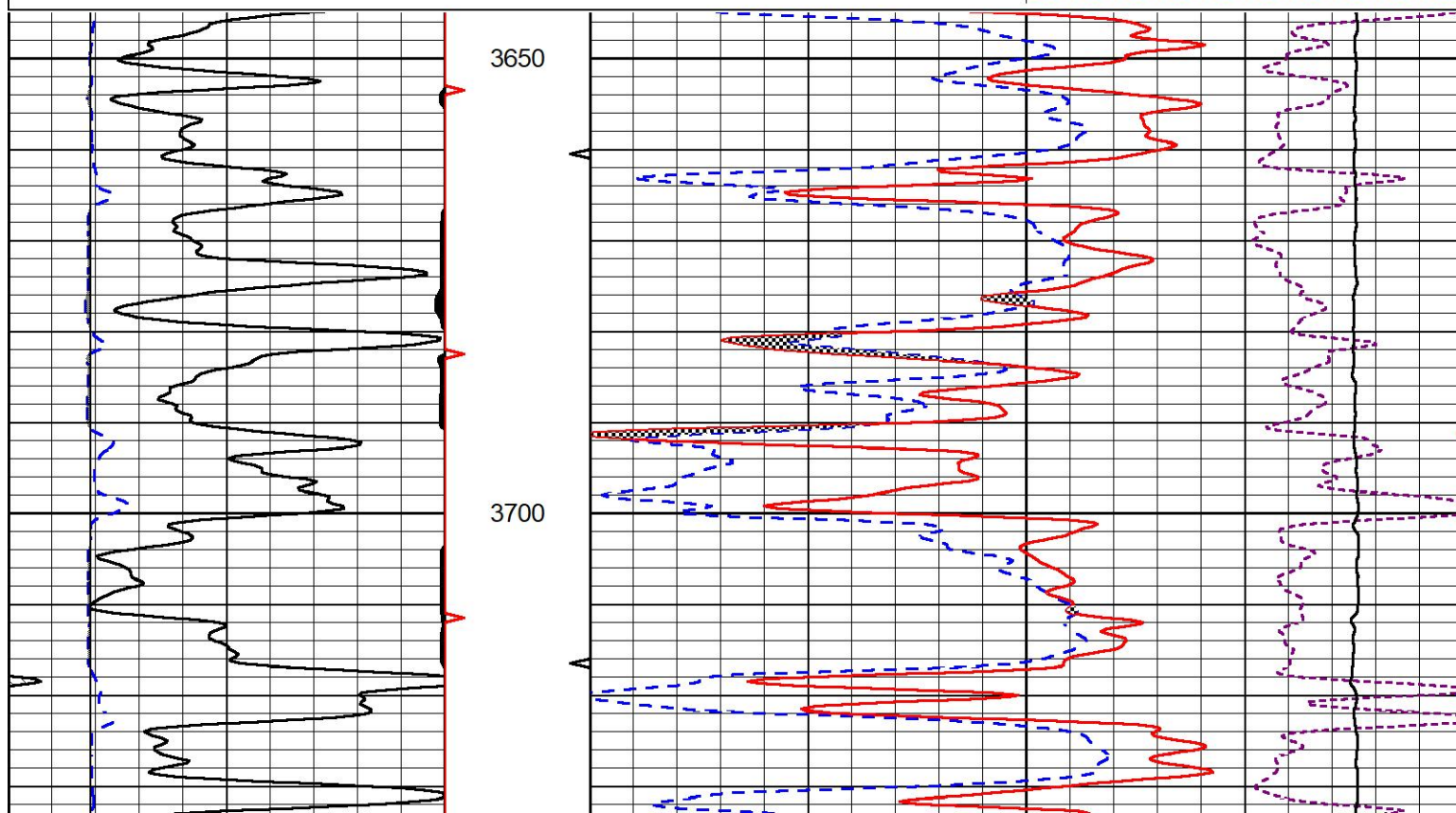
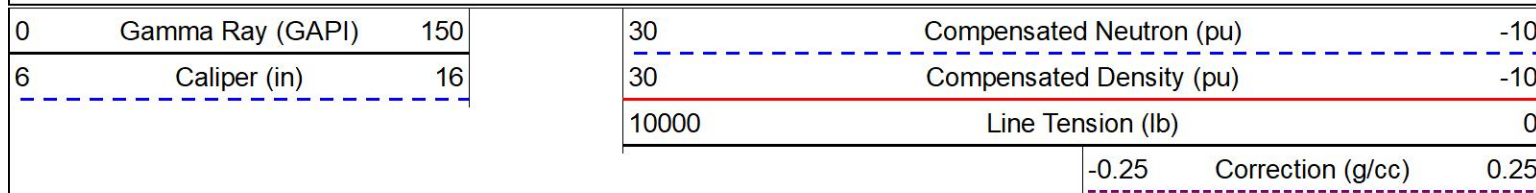


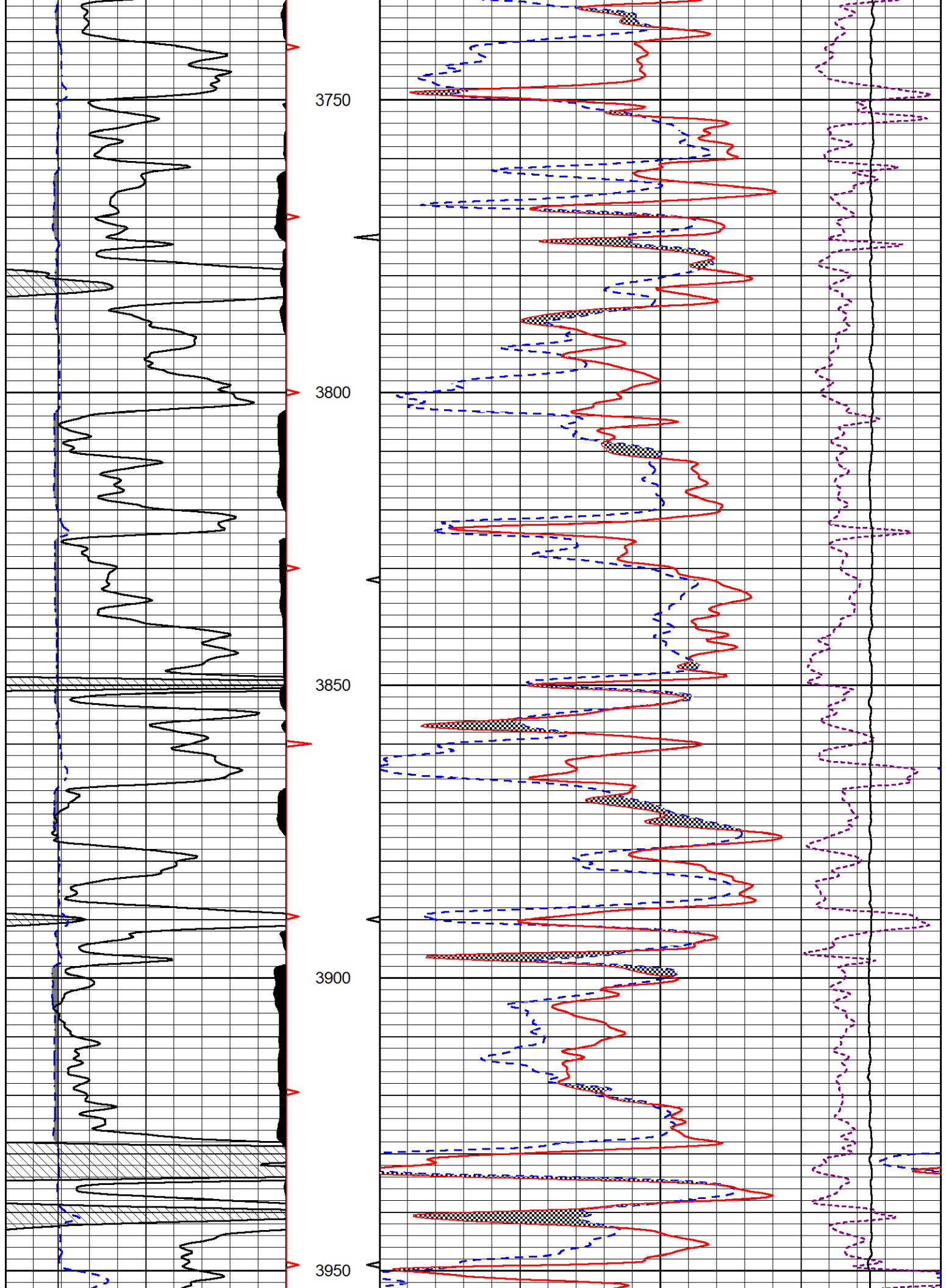
MIDWEST WIRELINE

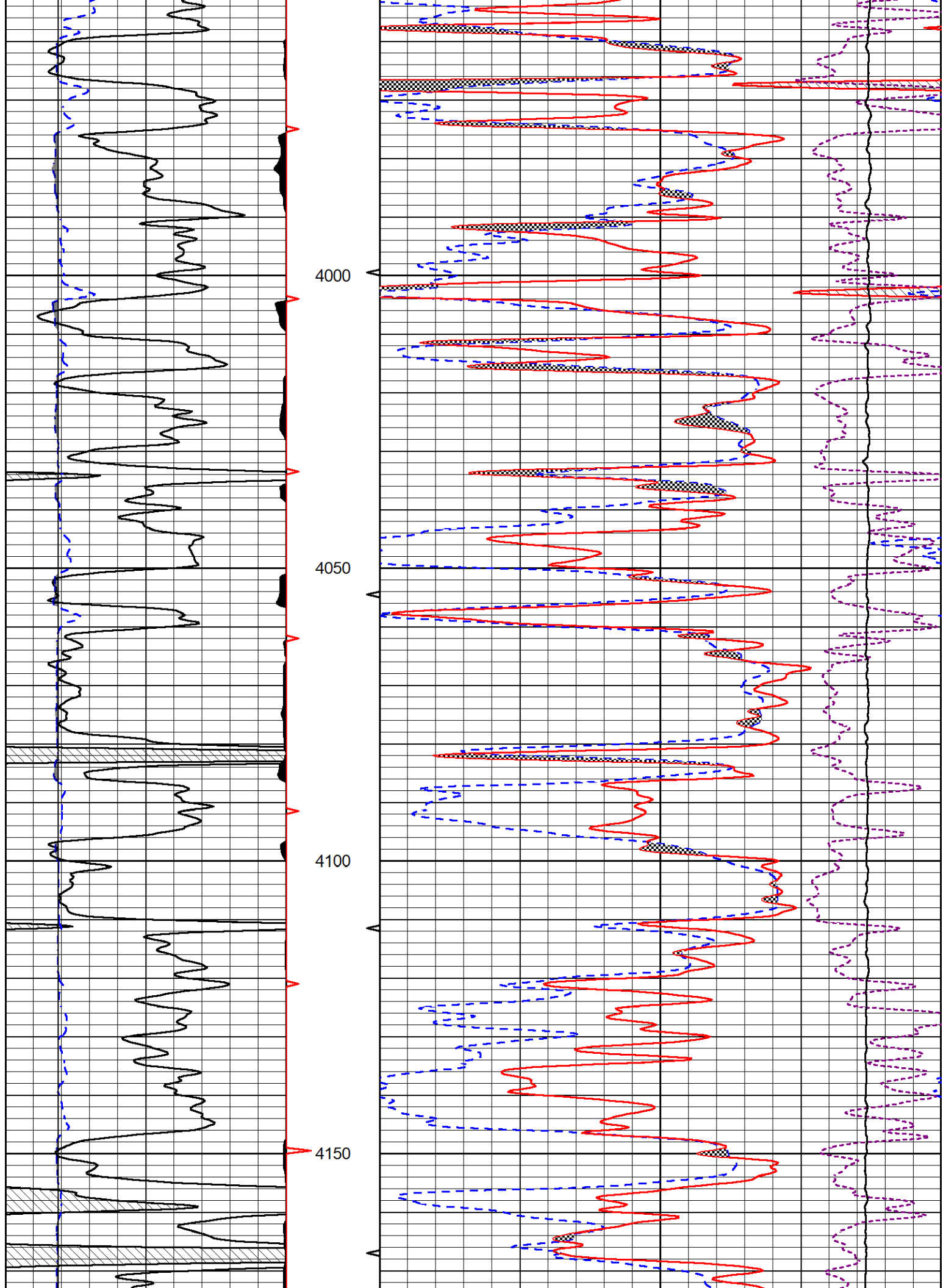
## DETAIL SECTION

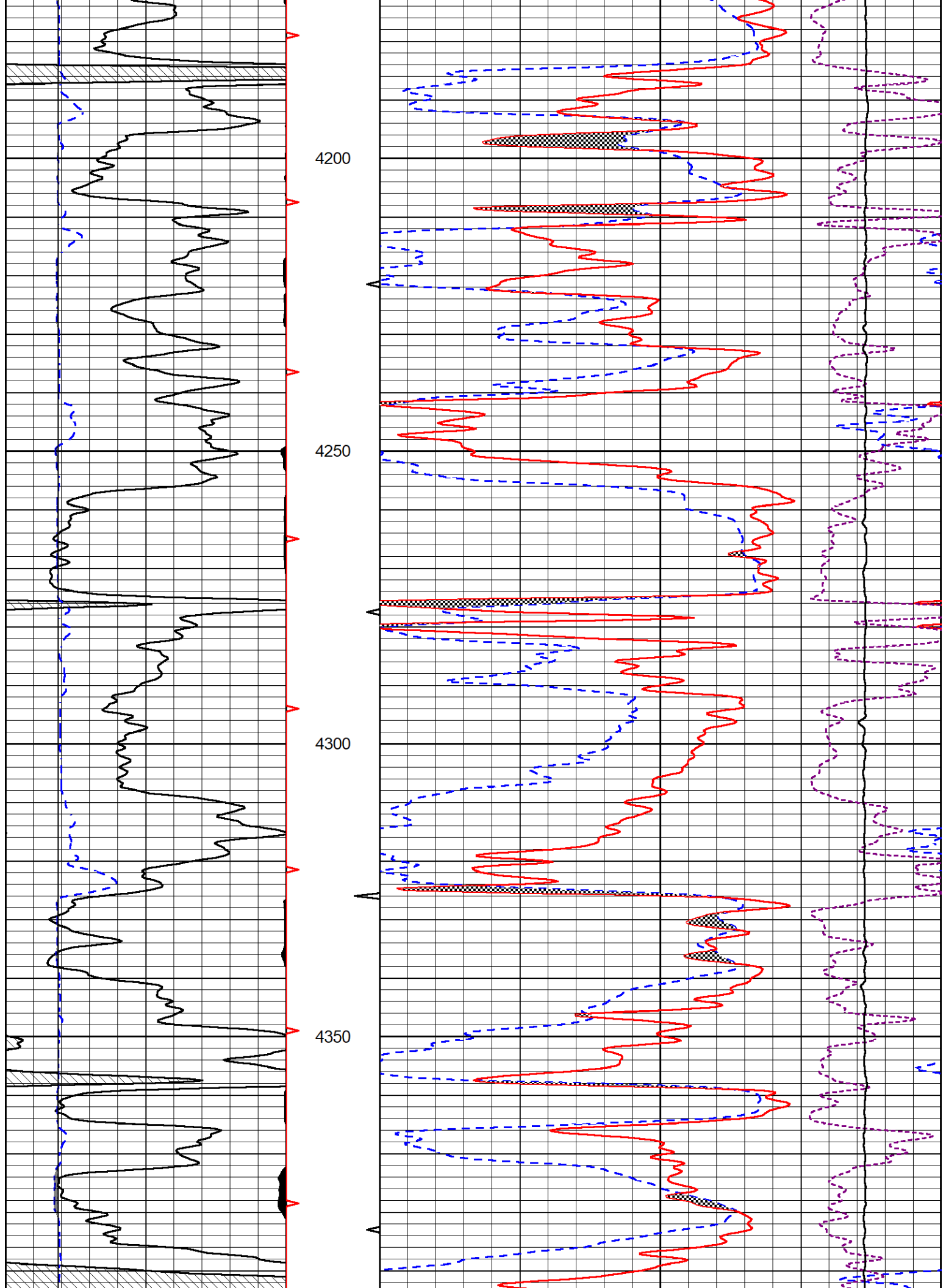
### MAIN PASS

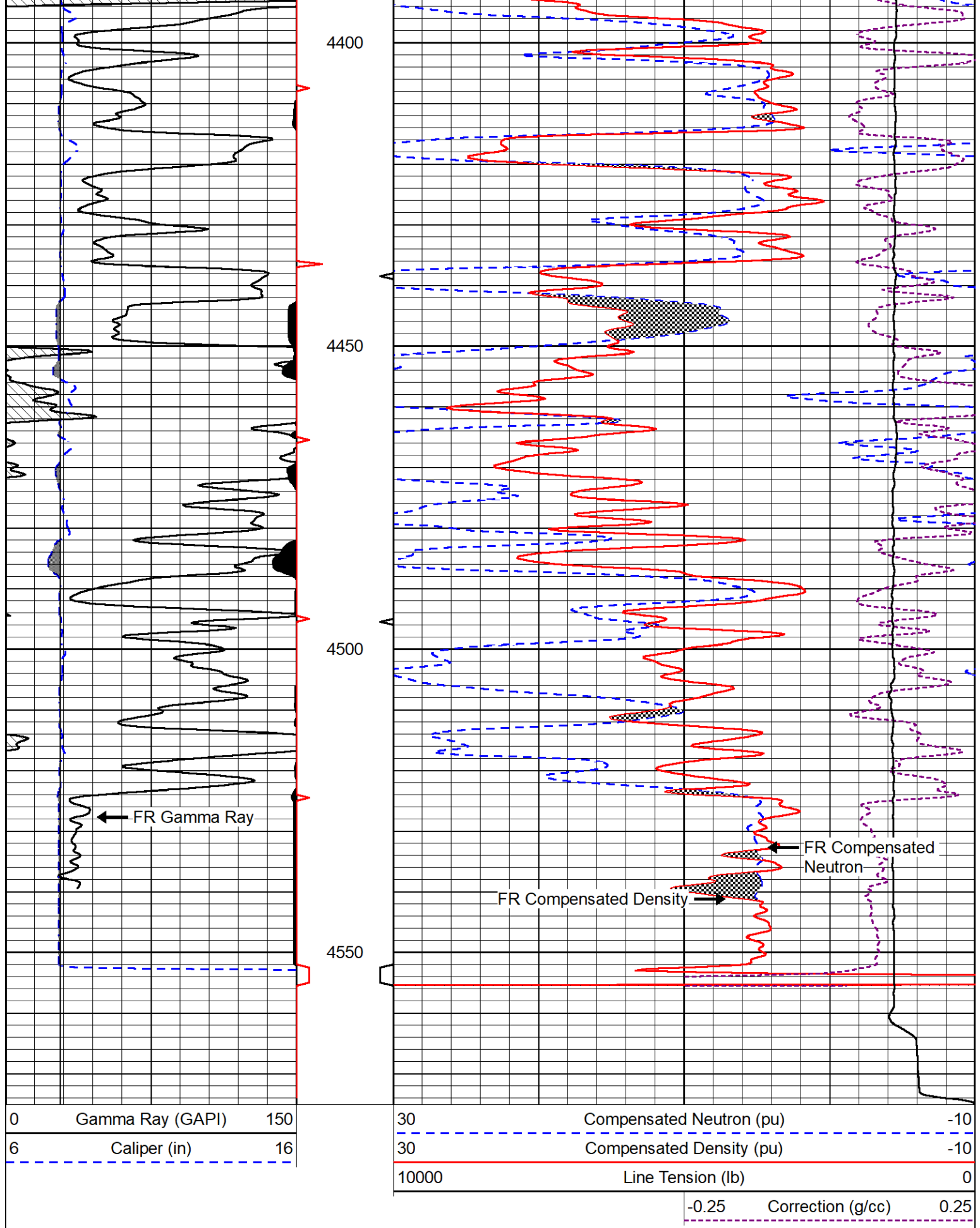
Database File amwar\_wark 1-21.db  
 Dataset Pathname stack/pass3.5  
 Presentation Format \_CNDLS~1  
 Dataset Creation Thu Aug 29 22:01:27 2024  
 Charted by Depth in Feet scaled 1:240











REPEAT SECTION

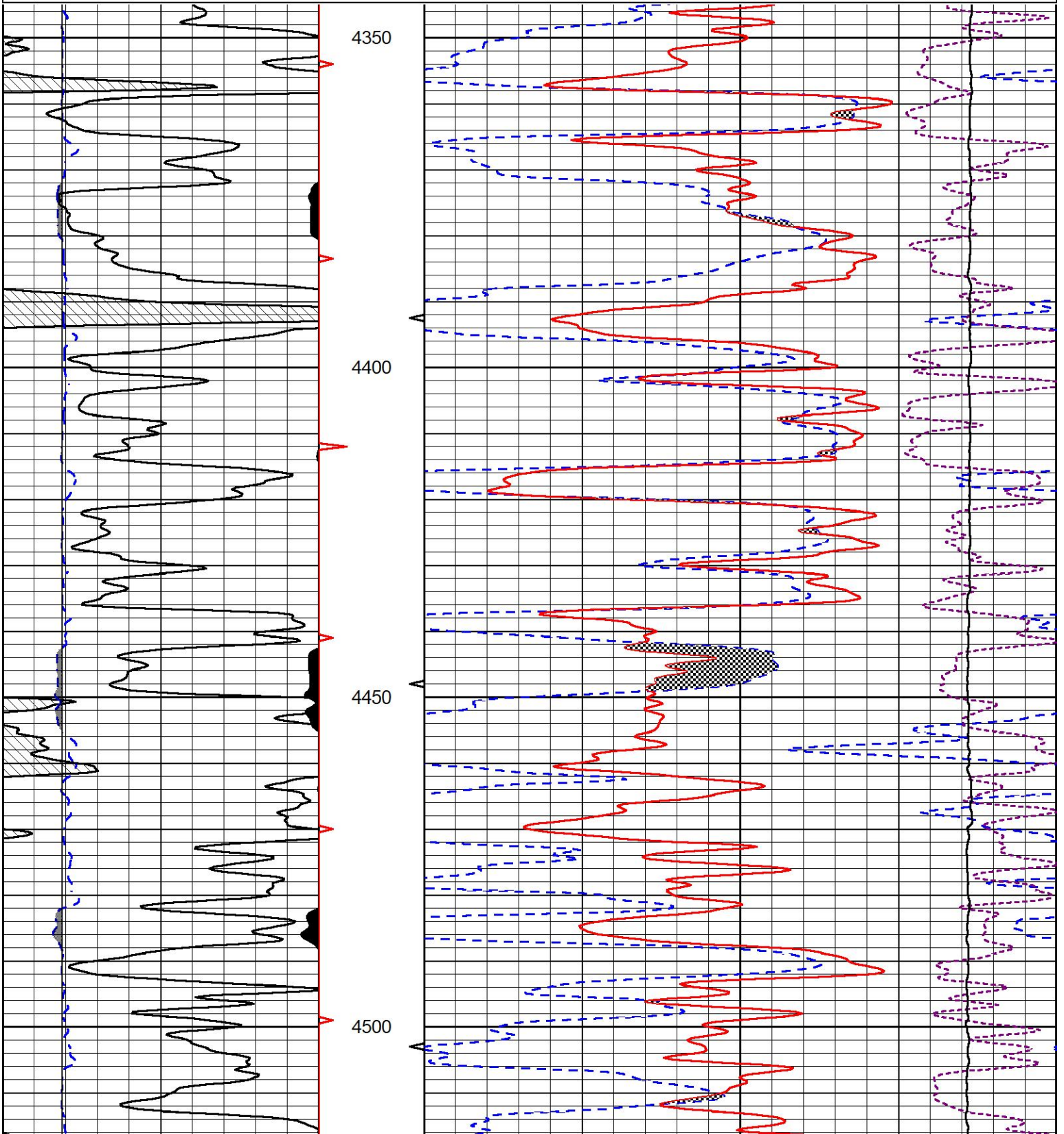


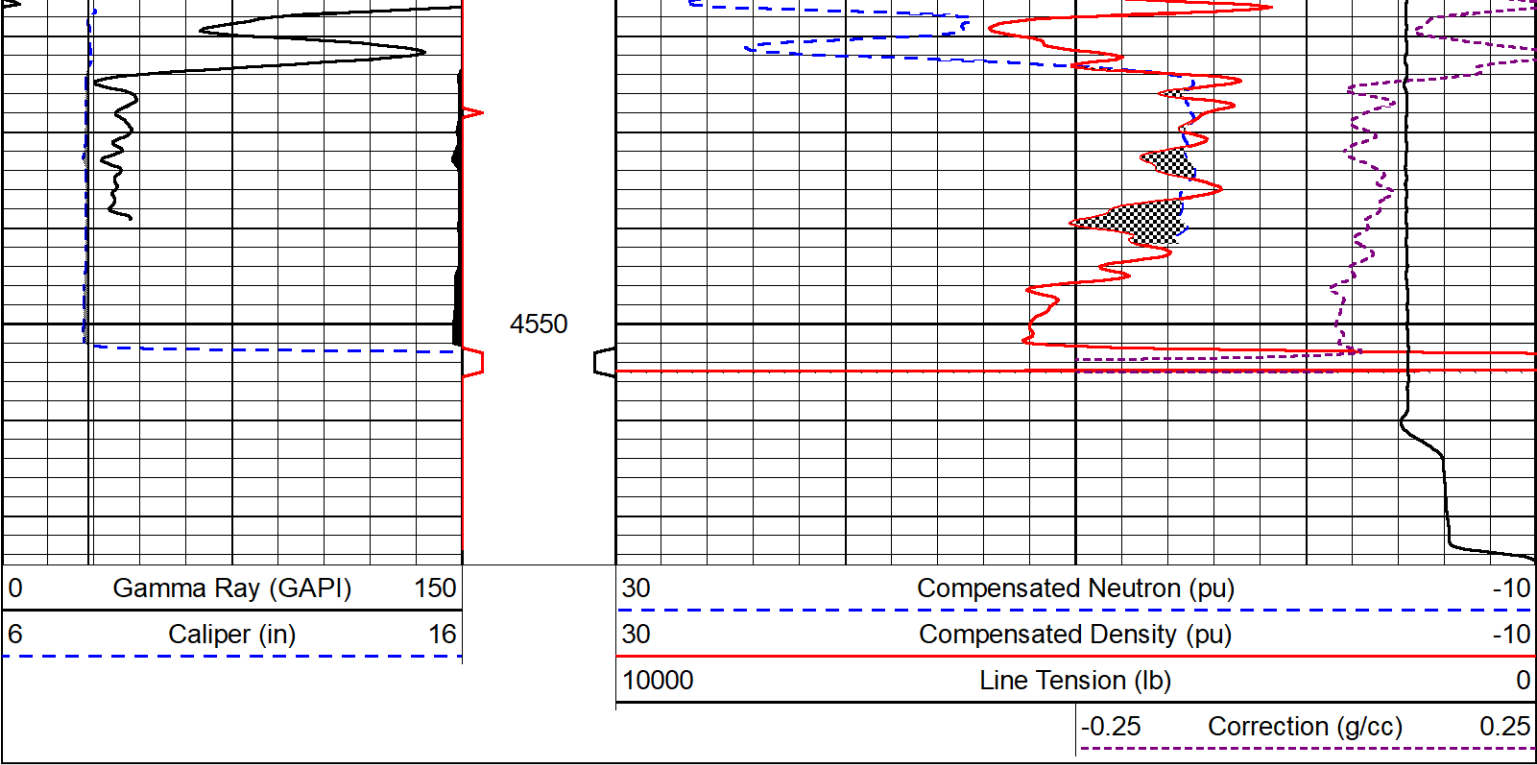
## REPEAT PASS

Database File amwar\_wark 1-21.db  
Dataset Pathname stack/pass2.1  
Presentation Format \_CNDLS~1  
Dataset Creation Thu Aug 29 21:59:46 2024  
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





|                    |                          |  |
|--------------------|--------------------------|--|
| Calibration Report |                          |  |
| Database File      | amwar_wark 1-21.db       |  |
| Dataset Pathname   | stack/pass3.5            |  |
| Dataset Creation   | Thu Aug 29 22:01:27 2024 |  |

Dual Induction Calibration Report

|                        |                          |
|------------------------|--------------------------|
| Serial-Model:          | 508A-M&W                 |
| Surface Cal Performed: | Thu Aug 29 21:13:42 2024 |

| Loop:  | Readings |         | References |         |        | Results |         |
|--------|----------|---------|------------|---------|--------|---------|---------|
|        | Air      | Loop    | Air        | Loop    |        | m       | b       |
| Deep   | 84.200   | 428.150 | 0.000      | 255.800 | mmho/m | 0.485   | -50.000 |
| Medium | 141.000  | 670.654 | 0.000      | 255.800 | mmho/m | 0.410   | -42.000 |

Compensated Density Calibration Report

|                               |                          |
|-------------------------------|--------------------------|
| Serial-Model:                 | 303-03-M&W               |
| Source #:                     | 21170B                   |
| Master Calibration Performed: | Fri Mar 22 13:26:25 2024 |

|                     |            |            |                             |         |               |  |
|---------------------|------------|------------|-----------------------------|---------|---------------|--|
| Master Calibration  |            |            |                             |         |               |  |
|                     | Density    |            | Far Detector                |         | Near Detector |  |
|                     | Magnesium  | 1.680 g/cc | 5466.68                     | 7555.42 | cps           |  |
|                     | Aluminum   | 2.580 g/cc | 1173.67                     | 5050.86 | cps           |  |
| Spine Angle = 75.33 |            |            | Density/Spine Ratio = 0.566 |         |               |  |
|                     | Size       |            | Reading                     |         |               |  |
|                     | Small Ring | 4.00 in    | 1.17                        |         |               |  |
|                     | Large Ring | 14.00 in   | 1.07                        |         |               |  |

## Compensated Neutron Calibration Report

Serial Number: 210  
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        |

## Gamma Ray Calibration Report

Serial Number: 105  
Tool Model: M&W  
Performed: Sat Oct 21 23:48:19 2023

Calibrator Value: 500.0 GAPI

Background Reading: 24.0 cps  
Calibrator Reading: 637.0 cps

Sensitivity: 0.6000 GAPI/cps



Company American Warrior, Inc.  
Well Wark #1-21  
Field  
County Thomas  
State Kansas