



MIDWEST WIRELINE

# DUAL COMP POROSITY LOG

Company Charles N. Griffin  
Well Riley #1X  
Field Moffett  
County Barber State Kansas

Location: API #: 15-007-24425-00-00  
NW NW NW SE  
2445 FSL & 2555 FEL  
SEC 9 TWP 30S RGE 15W  
Permanent Datum Ground Level Elevation 1982  
Log Measured From Kelly Bushing  
Drilling Measured From Kelly Bushing  
Other Services  
DIL/MEL  
K.B. 1987  
D.F.  
G.L. 1982

Company Charles N. Griffin  
Well Riley #1X  
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State Kansas

Date 5/26/2022

Run Number One

Type Log CNL/CDL

Depth Driller 4834

Depth Logger 4834

Bottom Logged Interval 4806

Top Logged Interval 2800

Type Fluid In Hole Chemical

Salinity, PPM CL 7000

Density 9.4

Level Full

Max. Rec. Temp. F 124

Operating Rig Time 3 Hours

Equipment -- Location P-24 Hays

Recorded By T. Martin

Witnessed By Eli Felts

Run No. Bit From To Size Wgt. From To

One 12.25 00 263 8.625 23# 00 263

Two 7.875 263 TD

<<< Fold Here >>>

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.

Croft Blktp, S to 110, 1 E, S 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

Engineer: T. Martin  
Operator:  
Operator:  
Operator:

## This Log Record Was Witnessed By

Primary Witness: Eli Felts  
Secondary Witness:  
Secondary Witness:  
Secondary Witness:



# Log Variables

DatabaseC:\ProgramData\Warrior\Data\griffin\_riley #1x.db  
Dataset field/well/StkMI/pass4.1/\_vars\_

## Top - Bottom

|           |        |         |         |          |          |       |          |
|-----------|--------|---------|---------|----------|----------|-------|----------|
| A         | BOREID | BOTTEMP | CASEOD  | CASETHCK | FLUIDDEN | M     | MATRXDEN |
| 1         | in     | degF    | in      | in       | g/cc     | 2     | g/cc     |
|           | 7.875  | 124     | 5.5     | 0        | 1        |       | 2.71     |
| NPORSEL   | PERFS  | SNDERR  | SNDERRM | SPSHIFT  | SRFTEMP  | SZCOR | TDEPTH   |
| Limestone | 0      | mmho/m  | mmho/m  | mV       | degF     | Off   | ft       |
|           |        | 0       | 0       | 10       | 80       |       | 4834     |

## 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



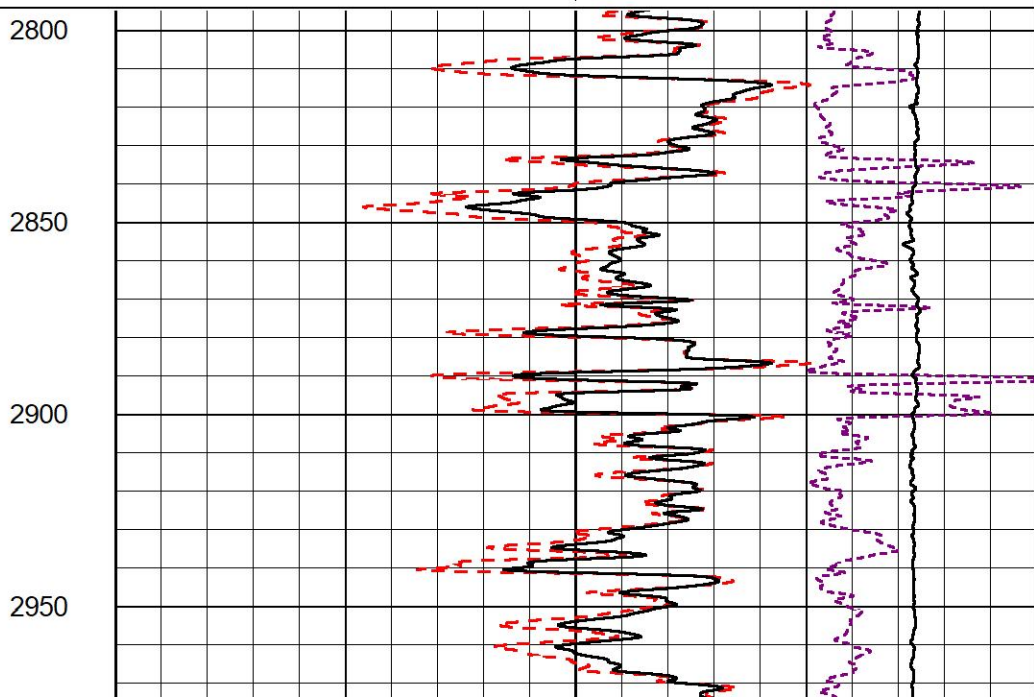
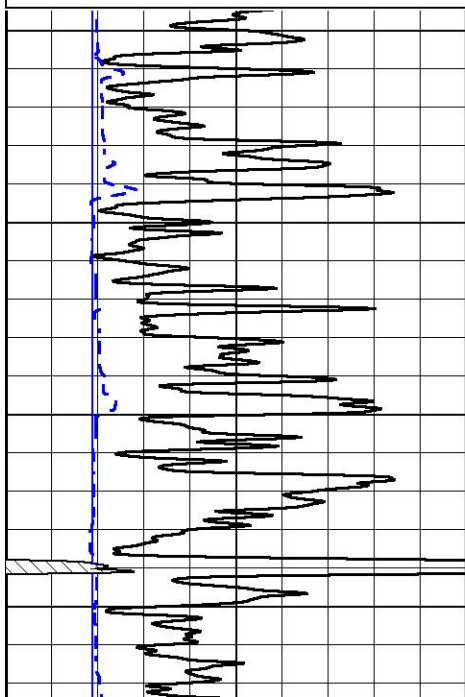
## 2" SCALE BULK DENSITY

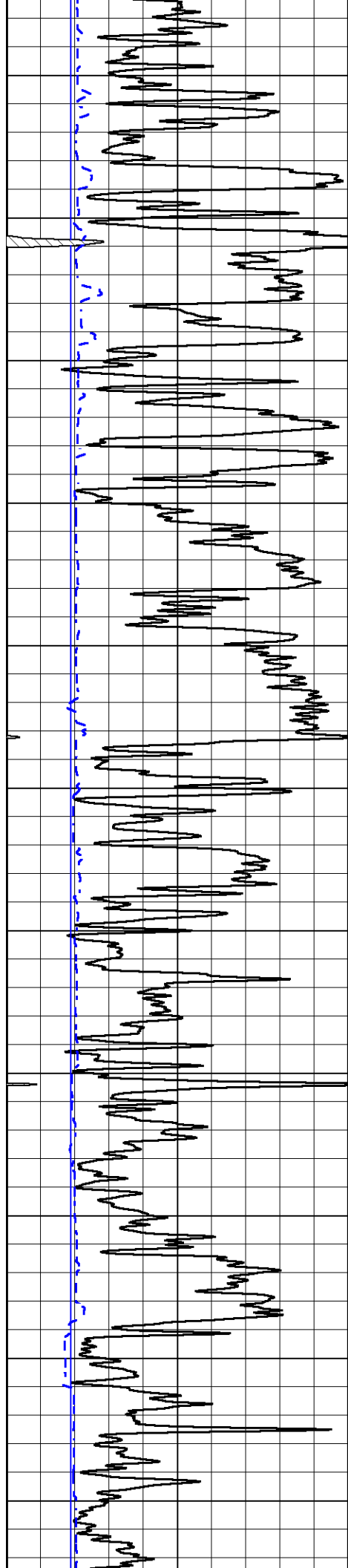
### MAIN PASS

Database File griffin\_riley #1x.db  
Dataset Pathname StkMI/pass4.3  
Presentation Format \_cdl  
Dataset Creation Thu May 26 13:43:45 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 |





3000

3050

3100

3150

3200

3250

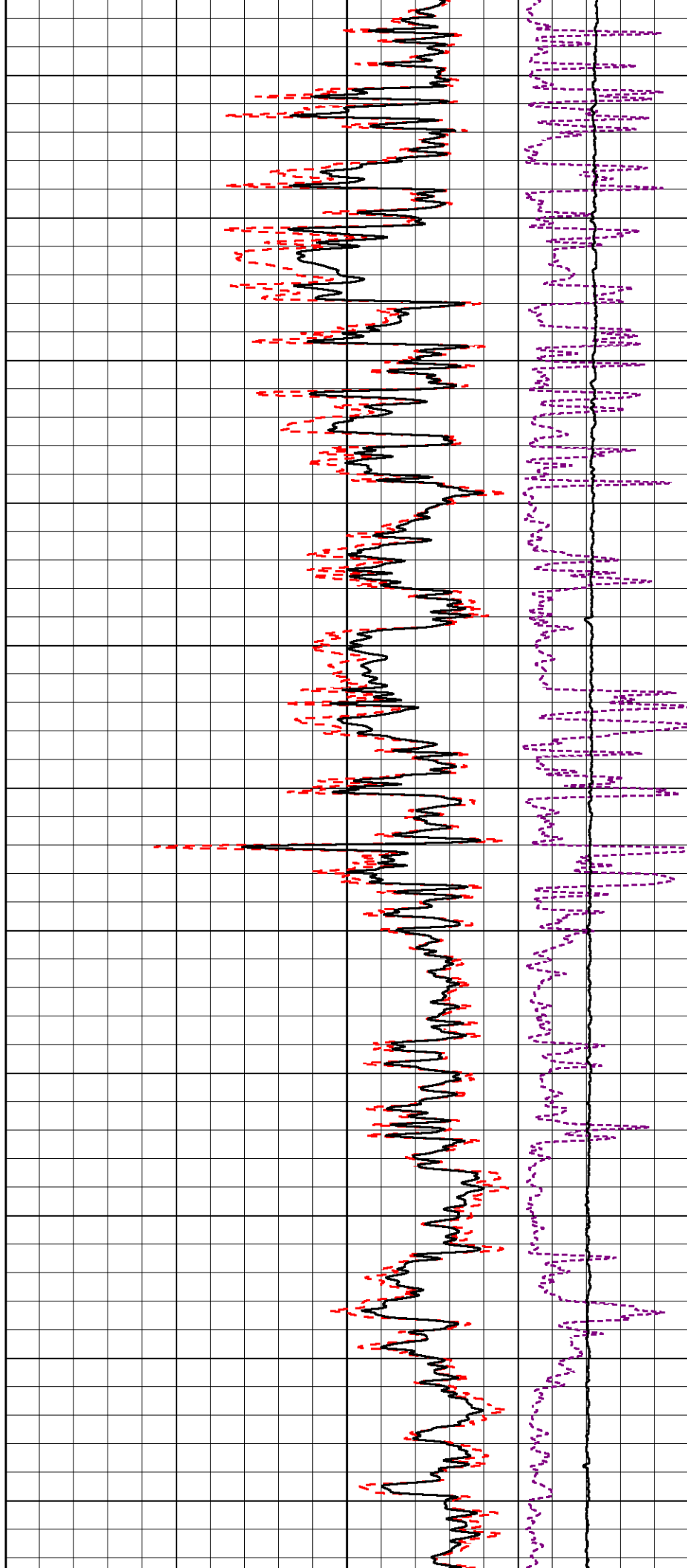
3300

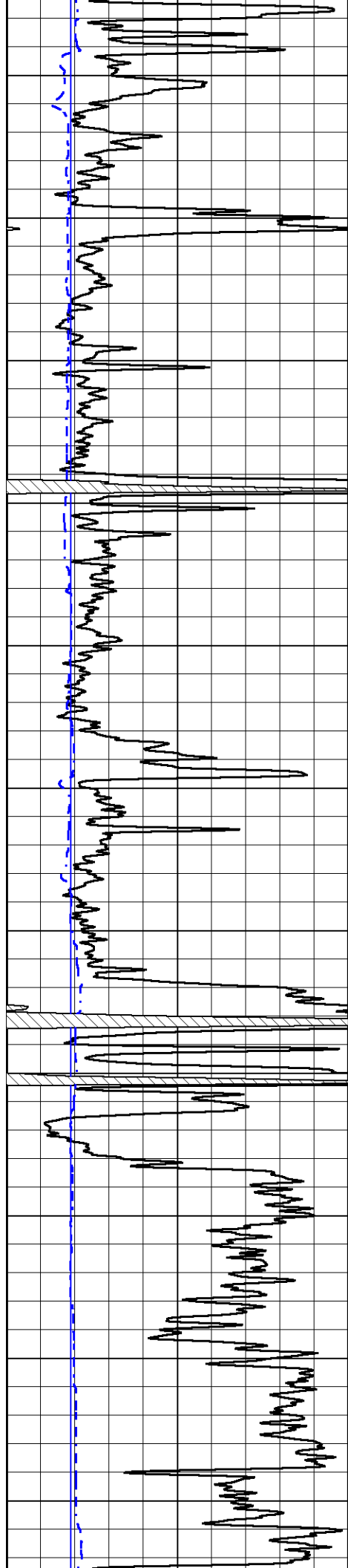
3350

3400

3450

3500





3550

3600

3650

3700

3750

3800

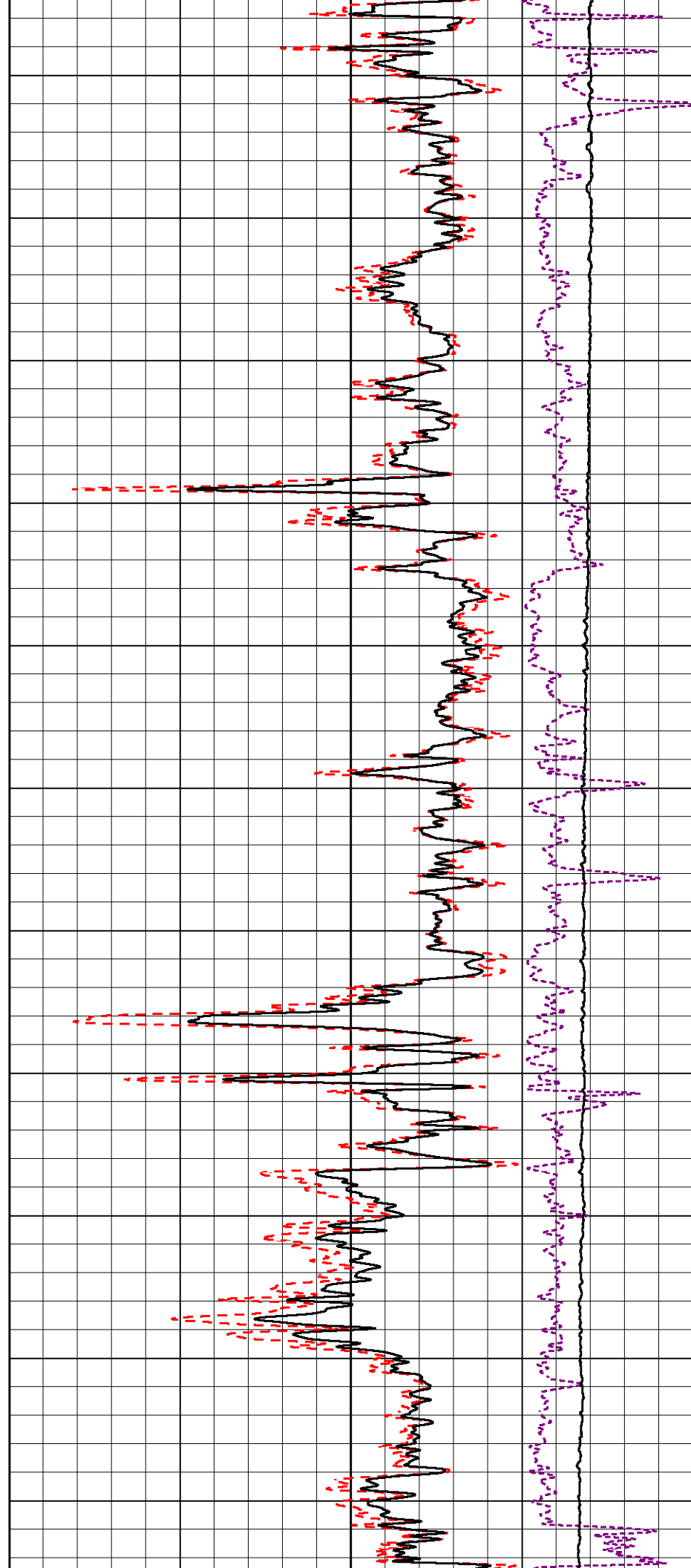
3850

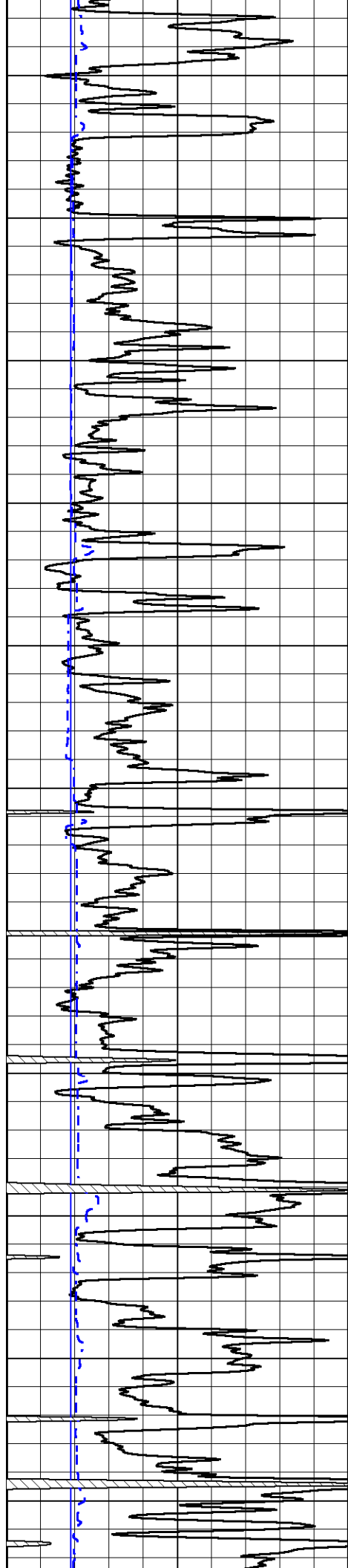
3900

3950

4000

4050





4100

4150

4200

4250

4300

4350

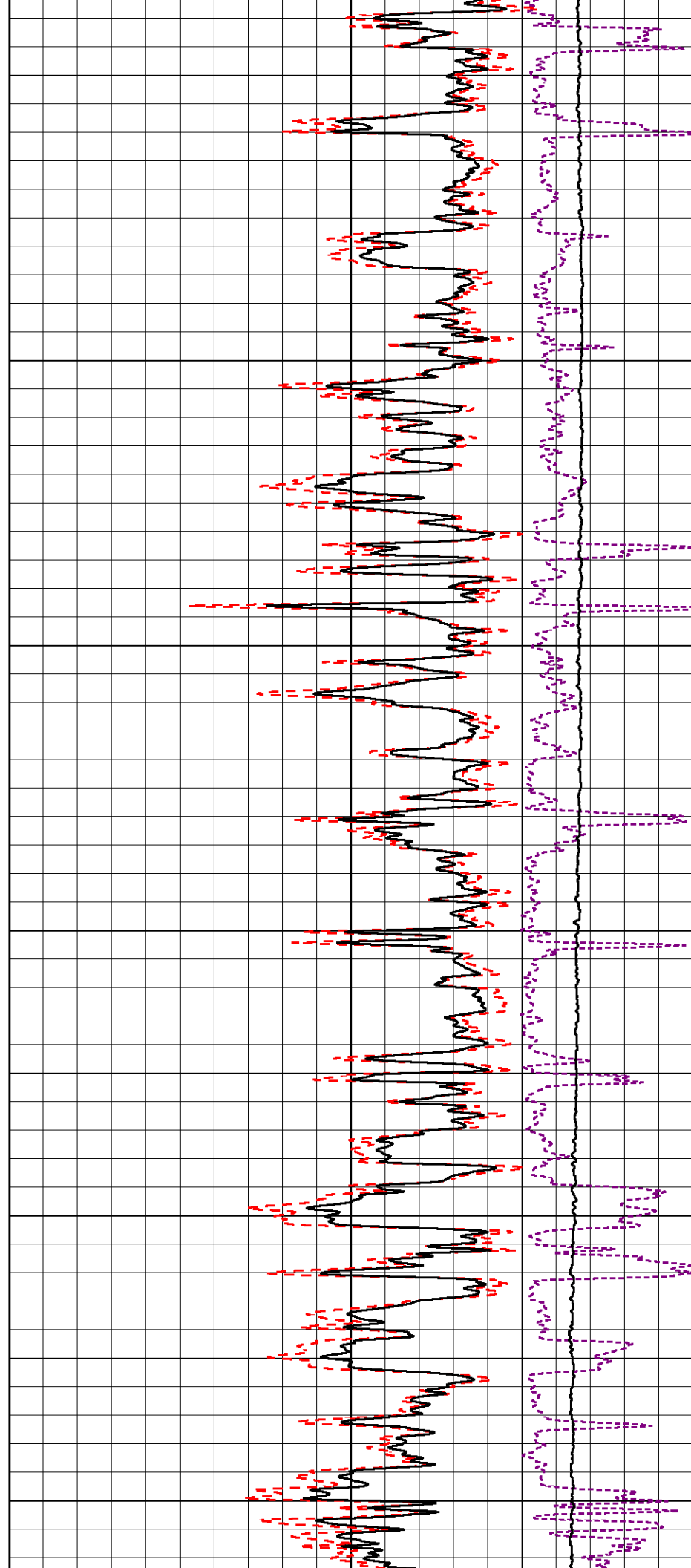
4400

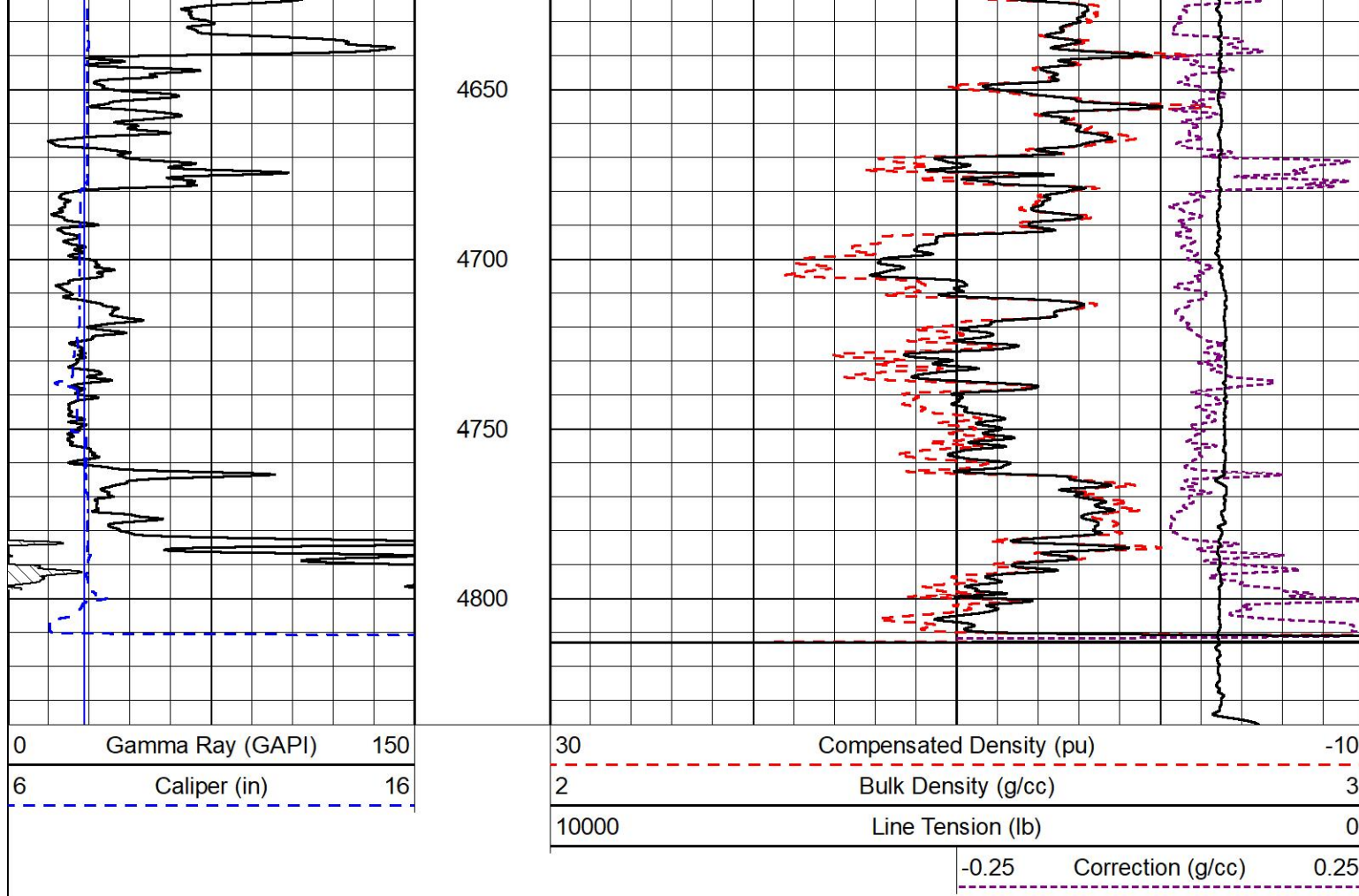
4450

4500

4550

4600

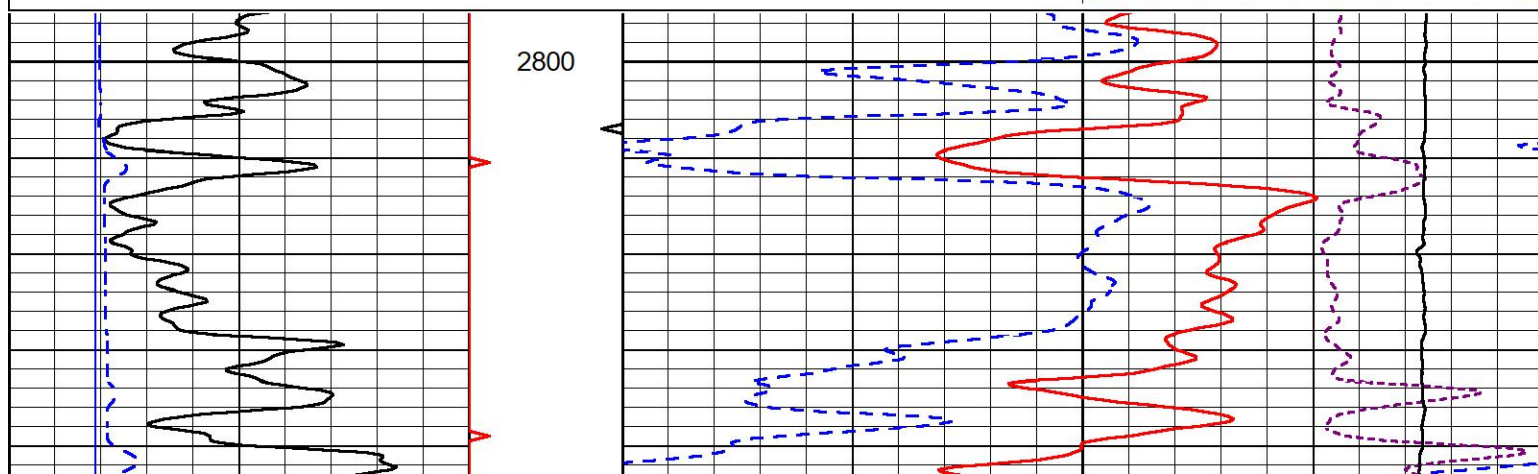
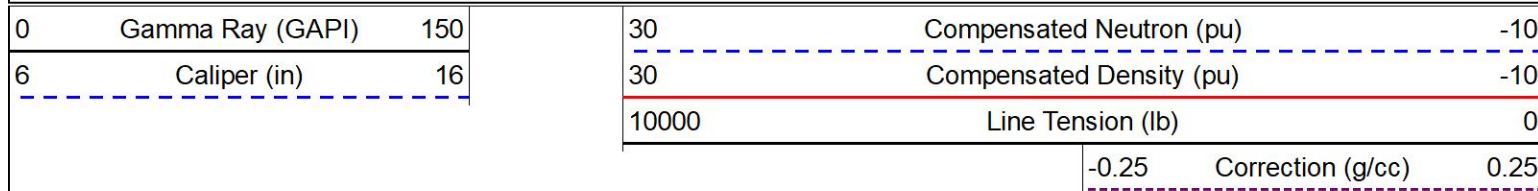


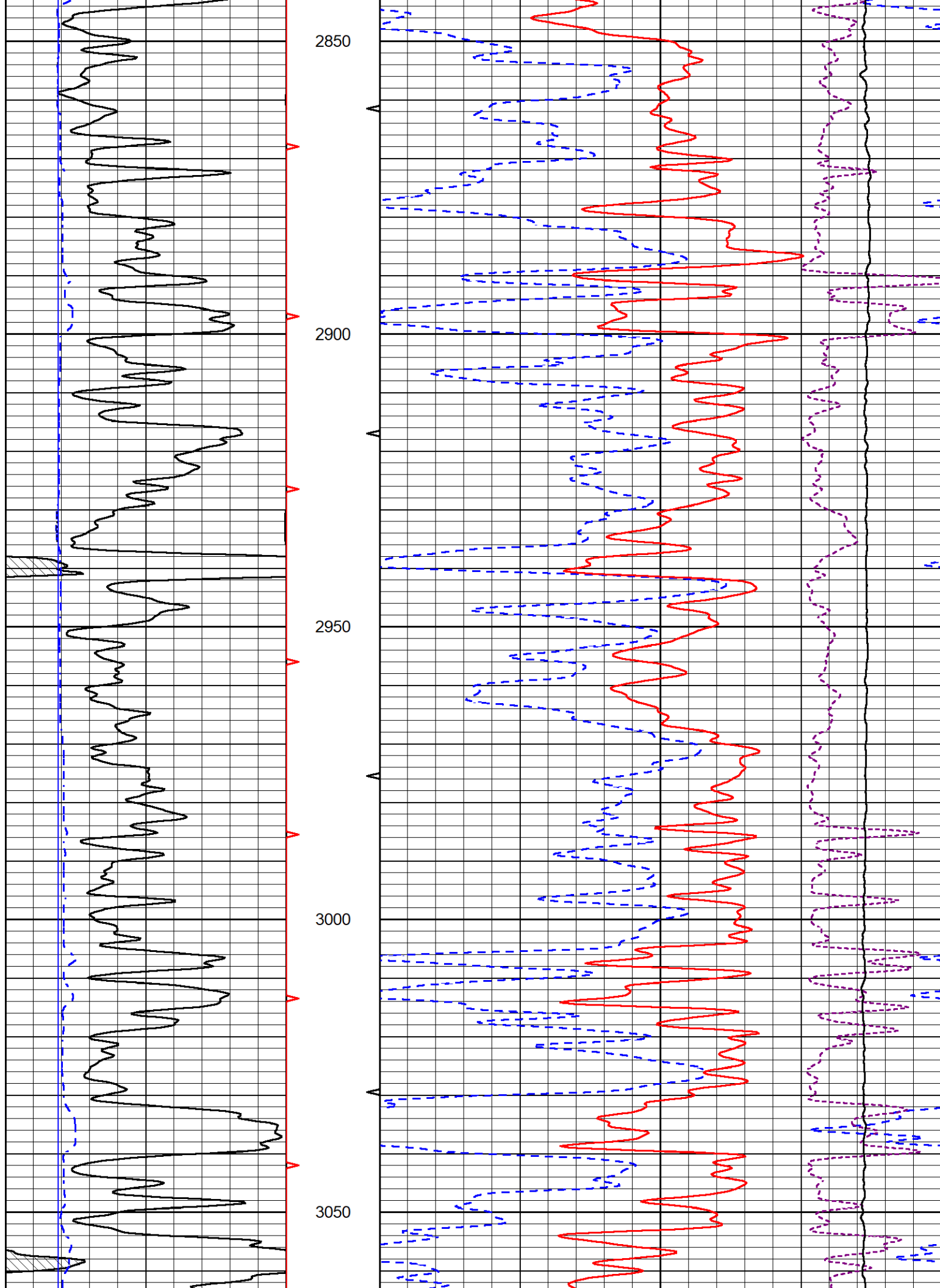


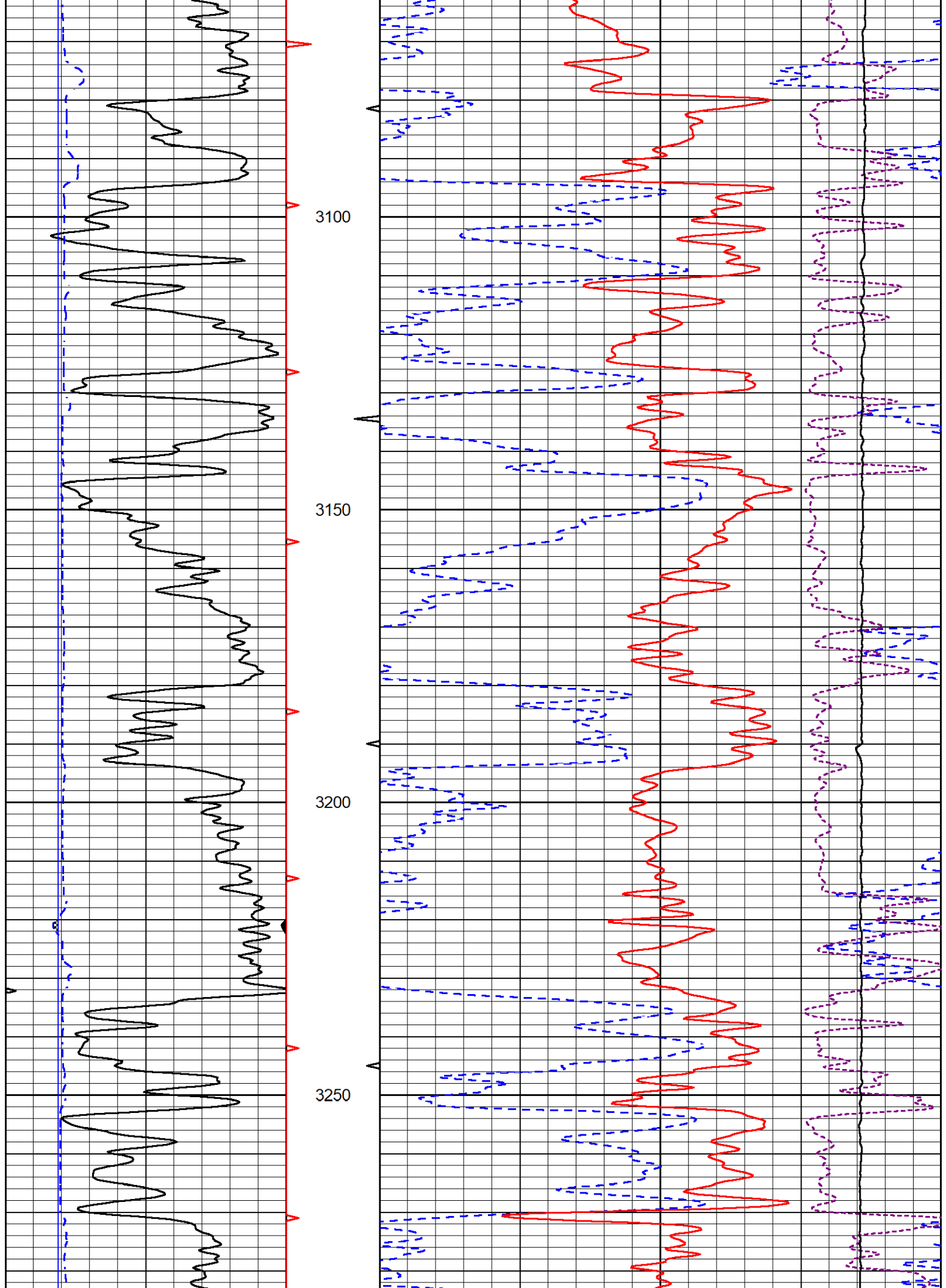
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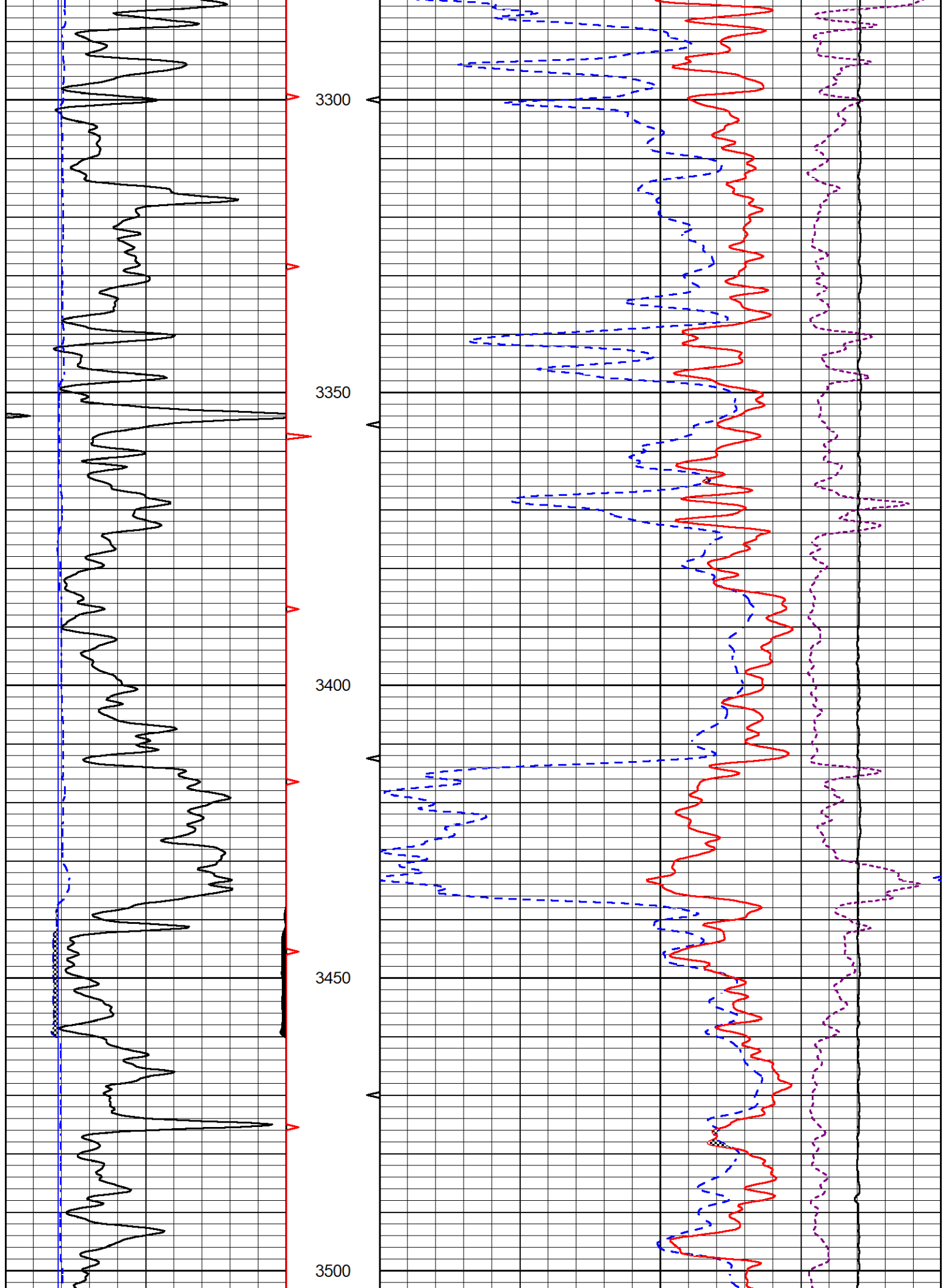
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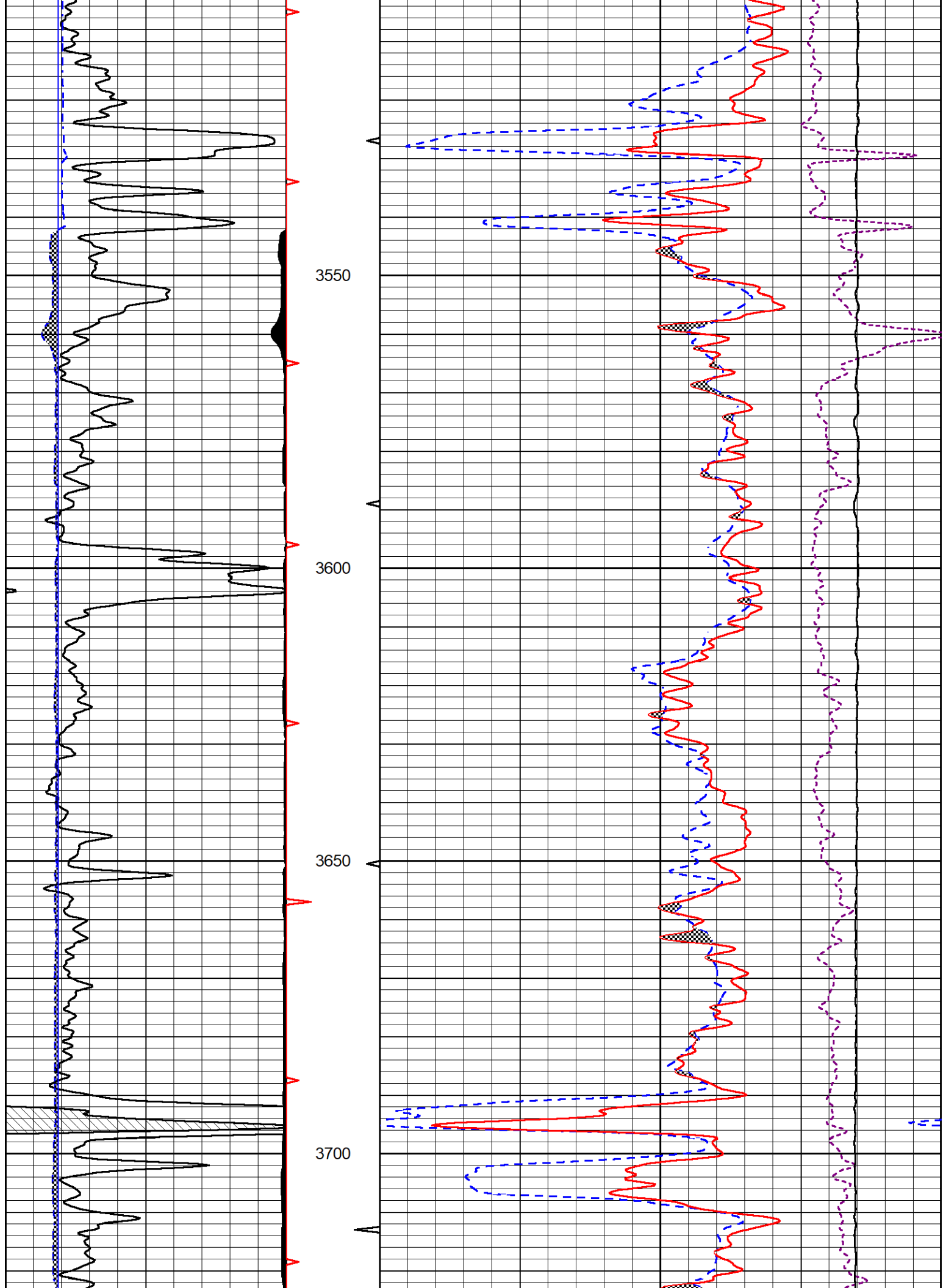
Database File griffin\_riley #1x.db  
 Dataset Pathname StkMI/pass4.1  
 Presentation Format \_CNDLS~1  
 Dataset Creation Thu May 26 14:12:27 2022  
 Charted by Depth in Feet scaled 1:240

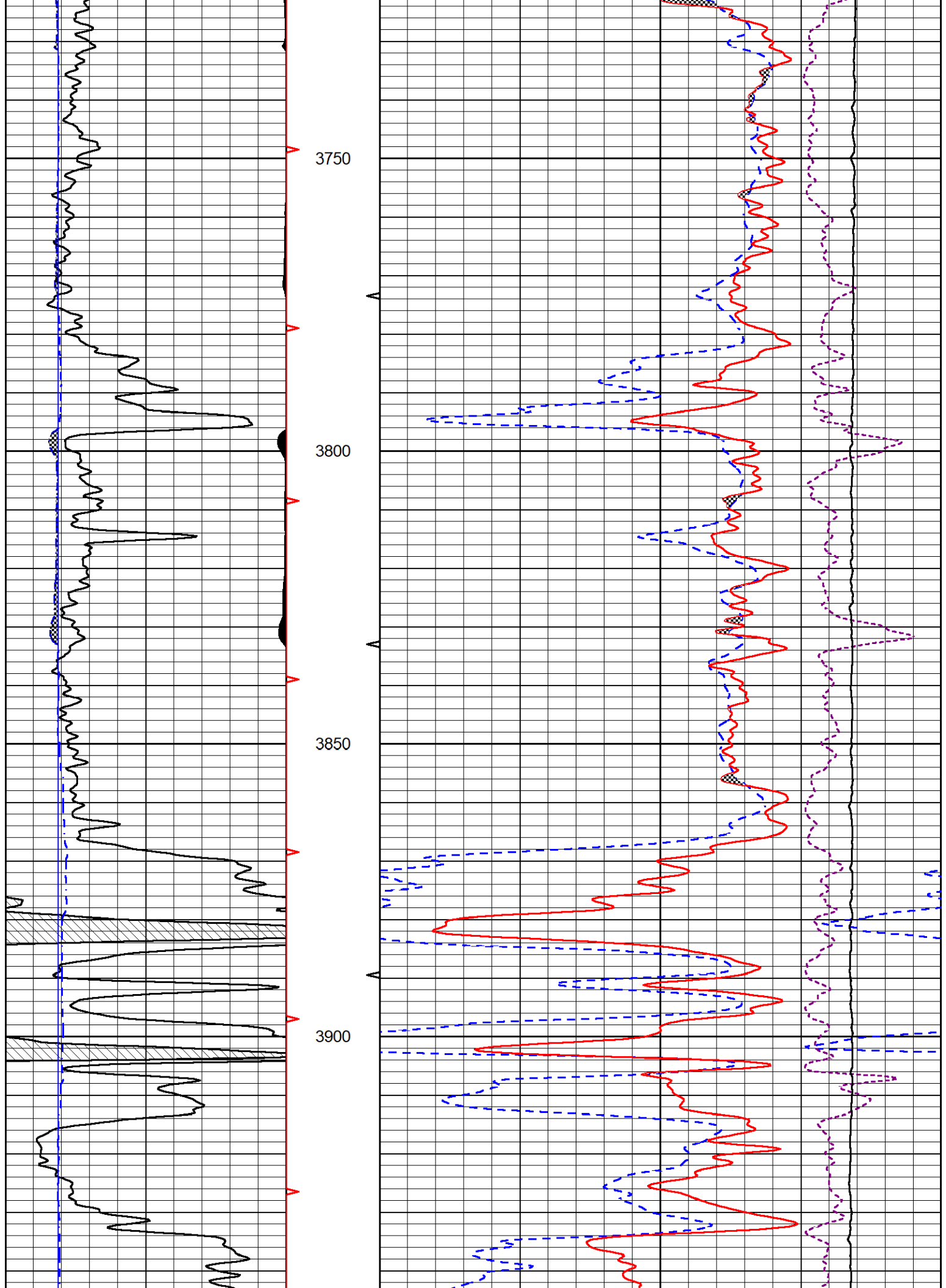


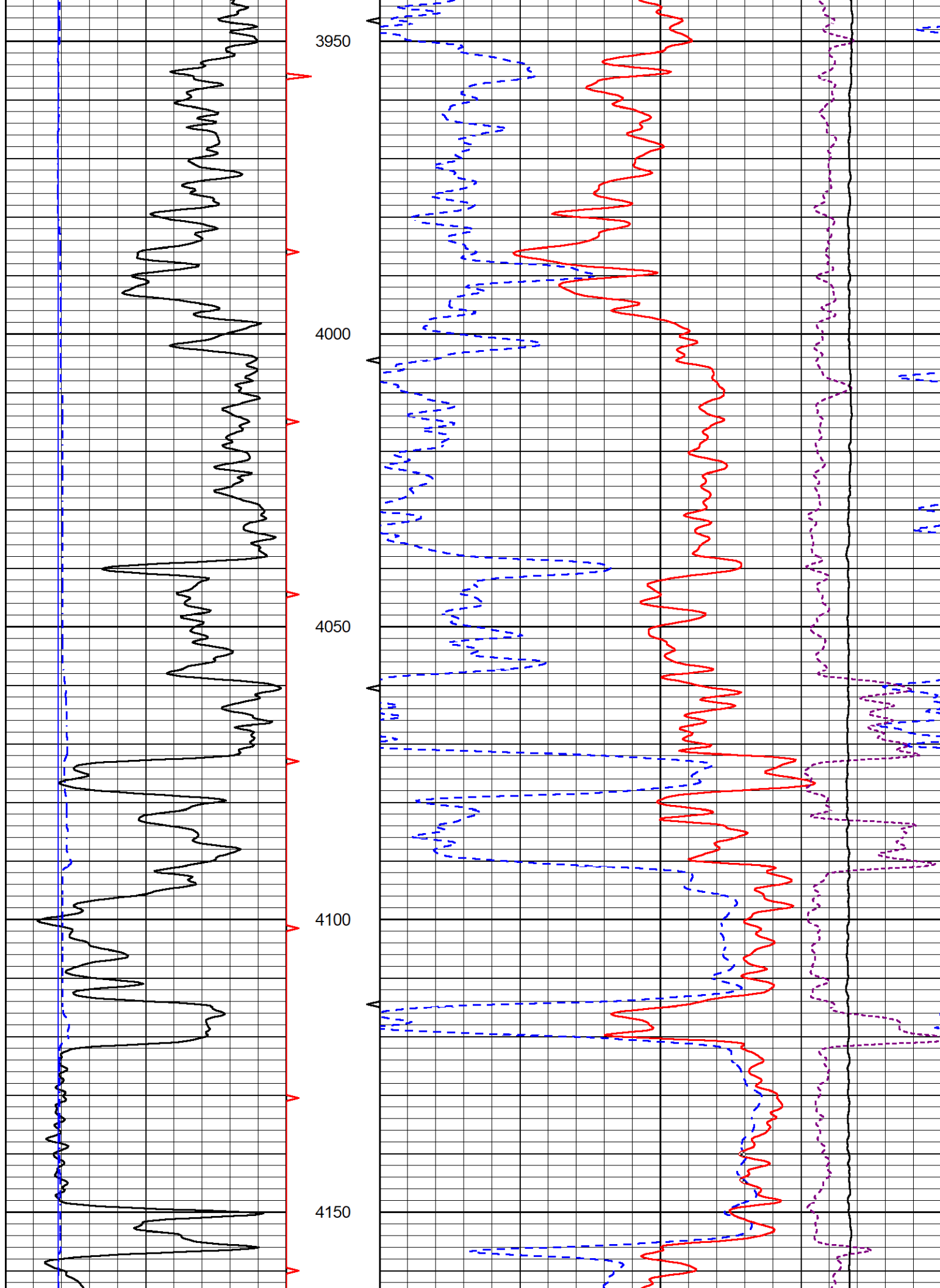


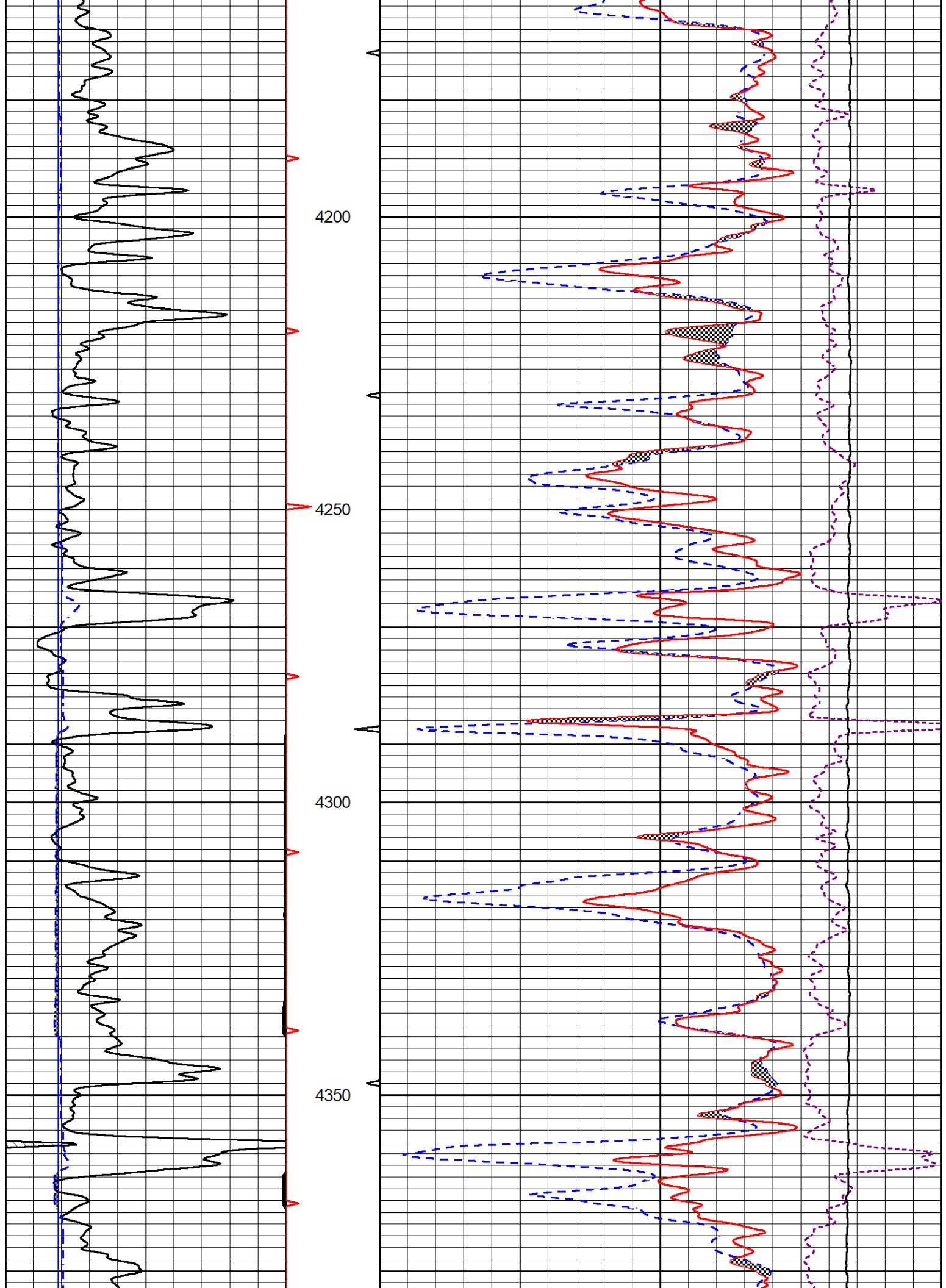


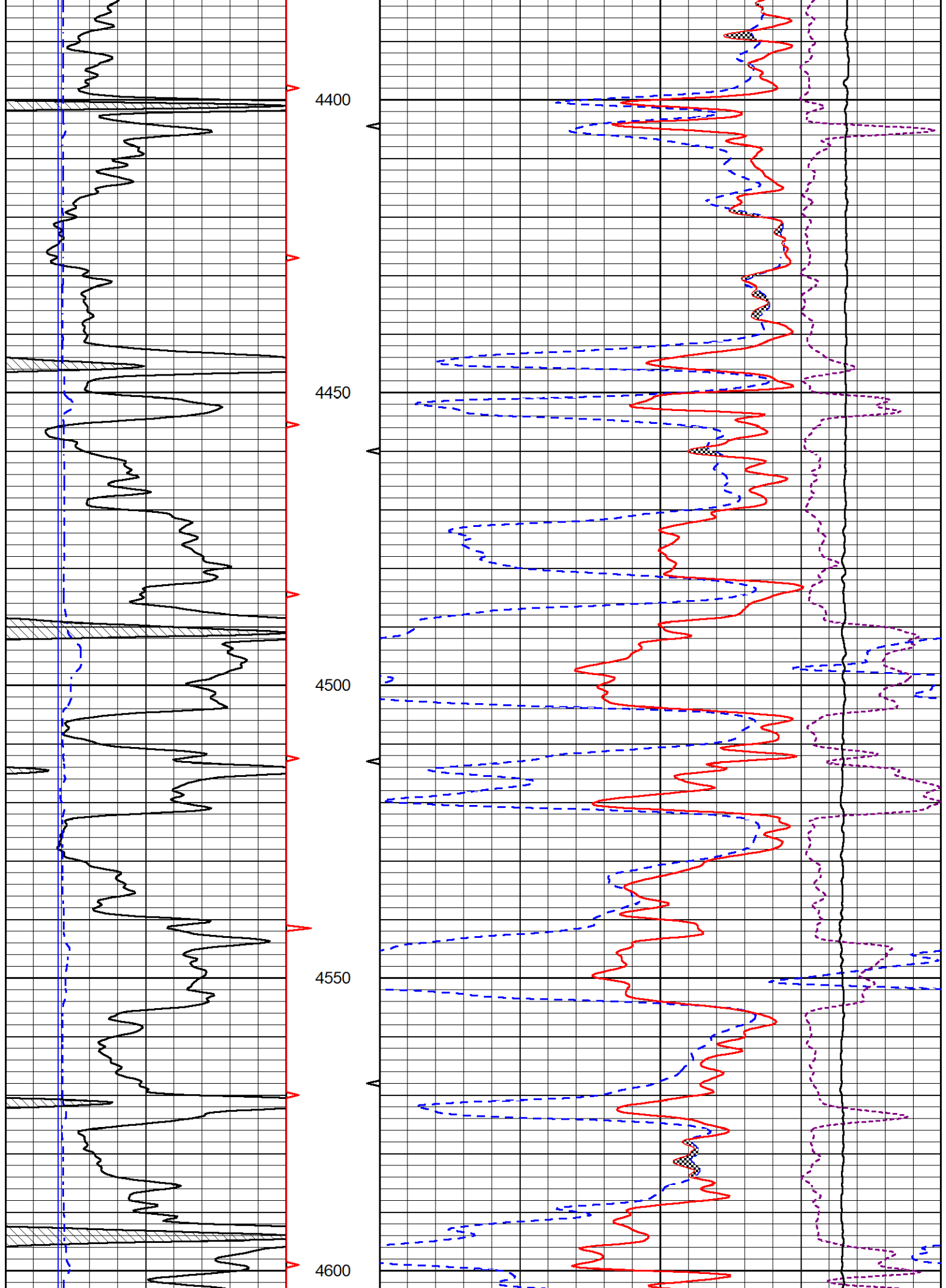


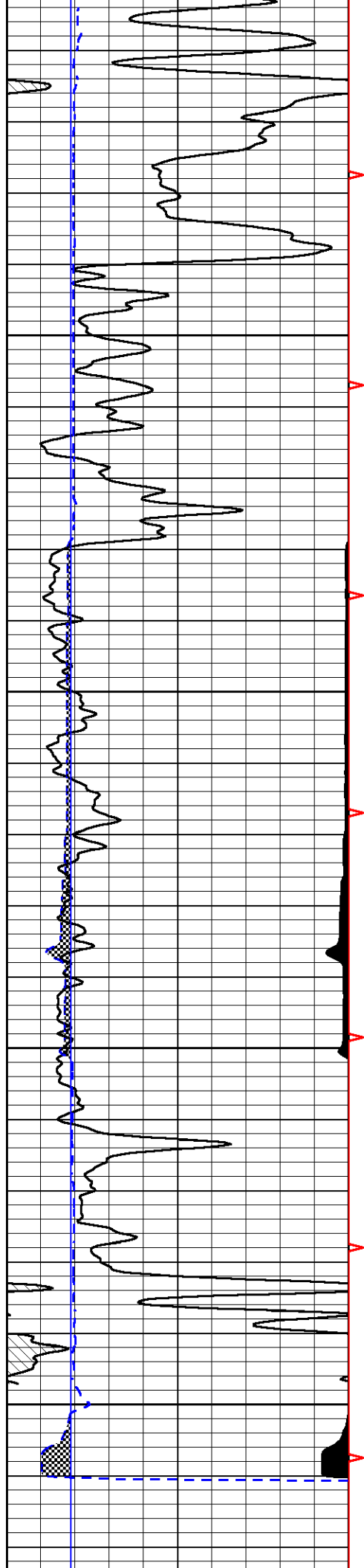










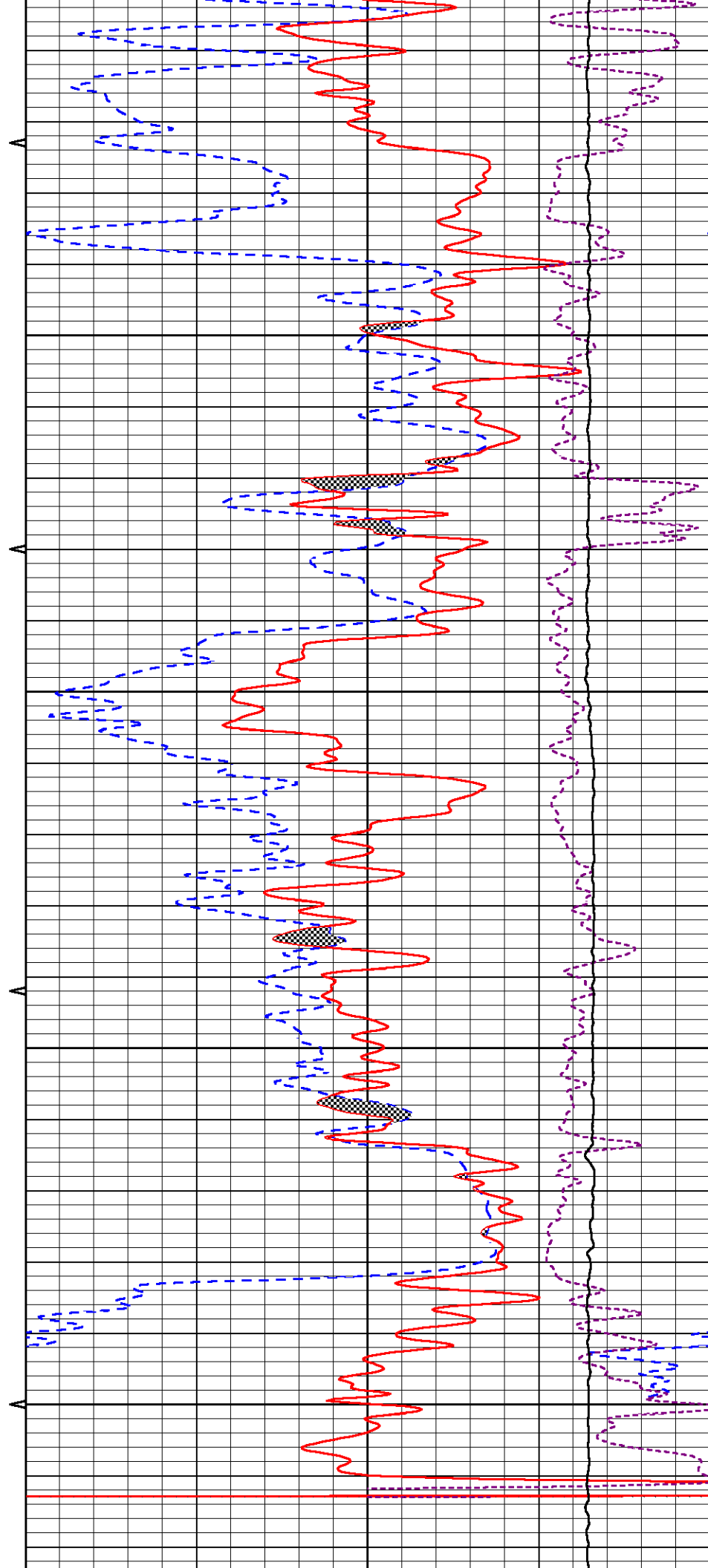


4650

4700

4750

4800



|   |                  |     |       |                          |      |
|---|------------------|-----|-------|--------------------------|------|
| 0 | Gamma Ray (GAPI) | 150 | 30    | Compensated Neutron (pu) | -10  |
| 6 | Caliper (in)     | 16  | 30    | Compensated Density (pu) | -10  |
|   |                  |     | 10000 | Line Tension (lb)        | 0    |
|   |                  |     | -0.25 | Correction (g/cc)        | 0.25 |



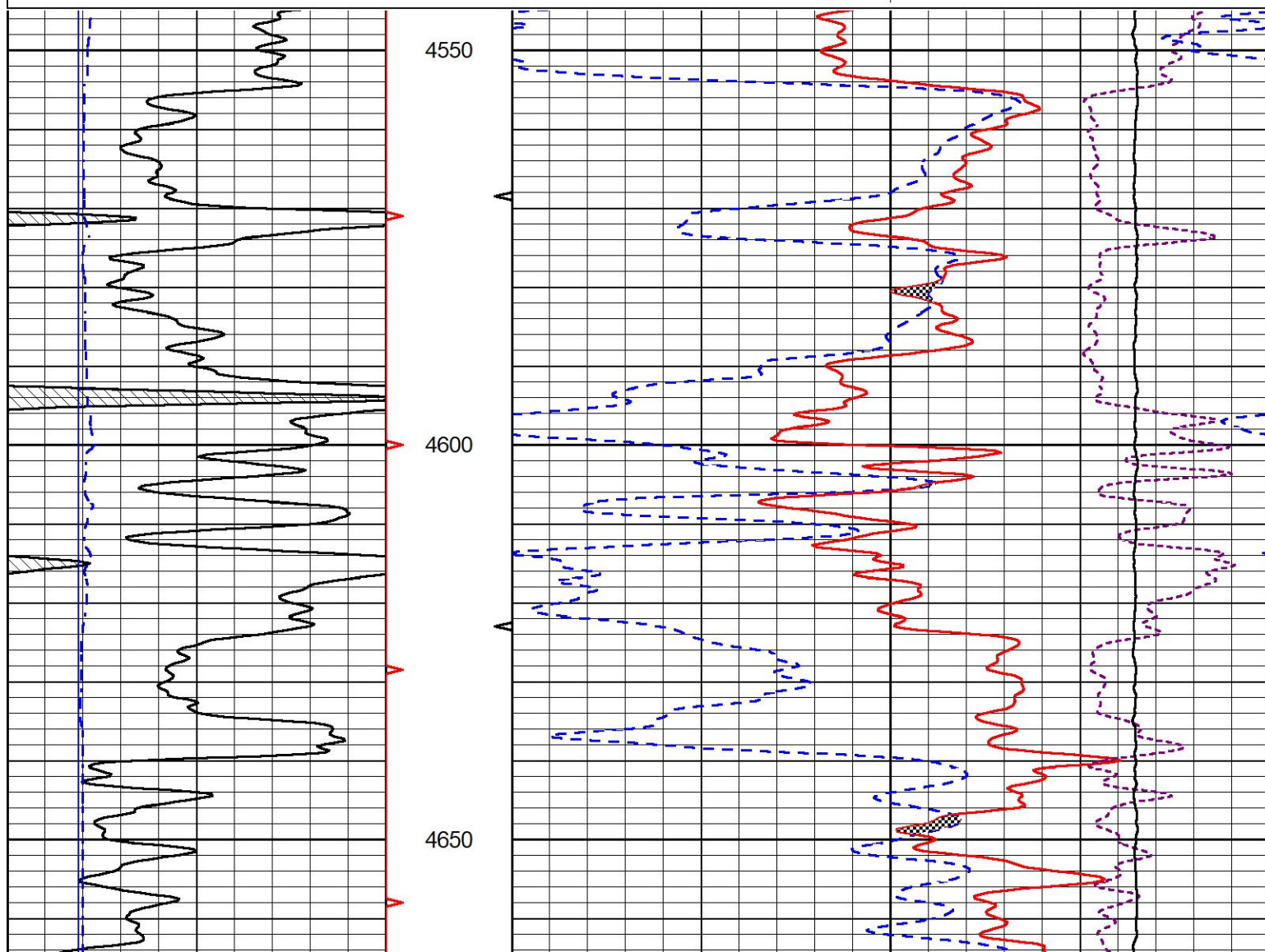
MIDWEST WIRELINE

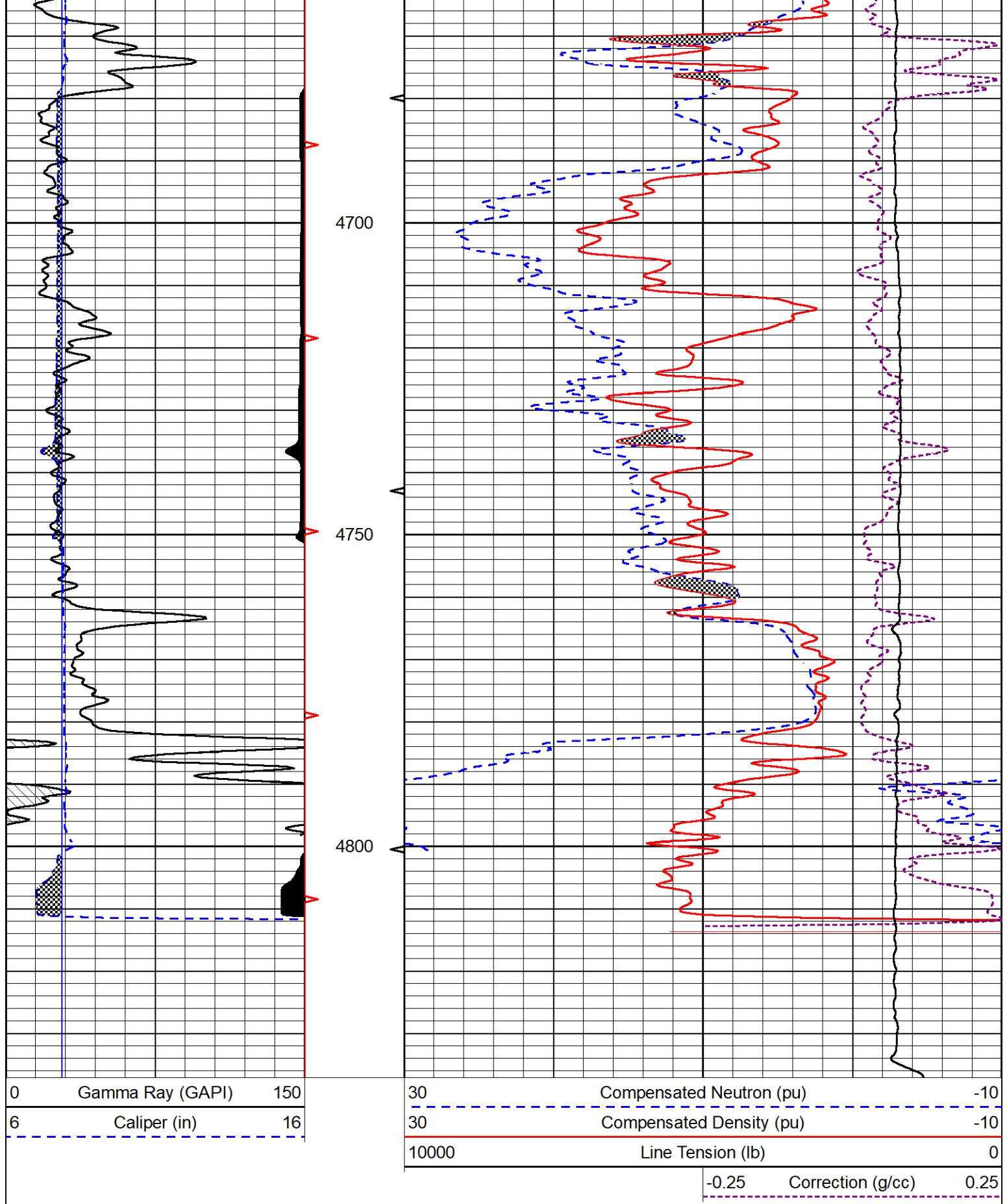
## REPEAT SECTION

### REPEAT PASS

Database File griffin\_riley #1x.db  
Dataset Pathname StkMI/pass3.1  
Presentation Format \_CNDLS~1  
Dataset Creation Thu May 26 13:31:13 2022  
Charted by Depth in Feet scaled 1:240

|   |                  |     |       |                          |      |
|---|------------------|-----|-------|--------------------------|------|
| 0 | Gamma Ray (GAPI) | 150 | 30    | Compensated Neutron (pu) | -10  |
| 6 | Caliper (in)     | 16  | 30    | Compensated Density (pu) | -10  |
|   |                  |     | 10000 | Line Tension (lb)        | 0    |
|   |                  |     | -0.25 | Correction (g/cc)        | 0.25 |





### Calibration Report

Database File griffin\_riley #1x.db  
Dataset Pathname StkMI/pass4.1  
Dataset Creation Thu May 26 14:12:27 2022

Serial-Model: 502 HT-M&W  
Surface Cal Performed: Wed Feb 9 17:39:00 2022

| Loop:  | Readings |          | References |         |        | Results |         |
|--------|----------|----------|------------|---------|--------|---------|---------|
|        | Air      | Loop     | Air        | Loop    |        | m       | b       |
| Deep   | 83.639   | 487.104  | 0.000      | 183.000 | mmho/m | 0.454   | -35.000 |
| Medium | 113.335  | 1585.690 | 0.000      | 442.000 | mmho/m | 0.350   | -11.000 |

#### Microlog Calibration Report

Serial-Model: 402-PSIML  
Performed: Mon Jan 24 20:31:16 2022

|         | Readings |        | References |         |       | Results    |          |
|---------|----------|--------|------------|---------|-------|------------|----------|
|         | Zero     | Cal    | Zero       | Cal     |       | m          | b        |
| Normal  | 0.0000   | 1.0000 | 0.0000     | 1.0000  | Ohm-m | 24000.0000 | -0.1000  |
| Inverse | 0.0000   | 1.0000 | 0.0000     | 1.0000  | Ohm-m | 20000.0000 | 0.5000   |
| Caliper | 1.0052   | 1.0858 | 5.0000     | 16.5000 | in    | 65.0000    | -59.8000 |

#### Compensated Density Calibration Report

Serial-Model: 305-05-M&W  
Source #: 20762B  
Master Calibration Performed: Fri Apr 22 07:18:08 2022

#### Master Calibration

|                     | Density |      | Far Detector                | Near Detector |     |
|---------------------|---------|------|-----------------------------|---------------|-----|
|                     |         |      |                             |               |     |
| Magnesium           | 1.755   | g/cc | 8862.47                     | 9339.96       | cps |
| Aluminum            | 2.600   | g/cc | 1556.73                     | 5707.29       | cps |
| Spine Angle = 74.19 |         |      | Density/Spine Ratio = 0.467 |               |     |
|                     | Size    |      | Reading                     |               |     |
|                     |         |      |                             |               |     |
| Small Ring          | 4.00    | in   | 1.74                        |               |     |
| Large Ring          | 14.00   | in   | 1.38                        |               |     |

#### Compensated Neutron Calibration Report

Serial-Model: 207-MW-M&W  
Source #: 100046B  
Master Calibration Performed: Mon Nov 29 15:06:24 2021

#### Master 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: 101  
Tool Model: M&W  
Performed: Mon Jan 24 19:14:46 2022

|                     |        |          |
|---------------------|--------|----------|
| Calibrator Value:   | 500.0  | GAPI     |
| Background Reading: | 24.0   | cps      |
| Calibrator Reading: | 637.0  | cps      |
| Sensitivity:        | 0.5500 | GAPI/cps |



|         |                    |
|---------|--------------------|
| Company | Charles N. Griffin |
| Well    | Riley #1X          |
| Field   | Moffett            |
| County  | Barber             |
| State   | Kansas             |