



# MICRORESISTIVITY LOG

MIDWEST WIRELINE

Company Griffin Management LLC  
Well Madelyn 1  
Field Turkey Creek East  
County Barber  
State Kansas

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Well Madelyn 1  
Field Turkey Creek East  
County Barber State Kansas

Location: API #: 15-007-24499-00-00  
990 FSL & 330 FEL  
SEC 16 TWP 30S RGE 15W  
Permanent Datum Ground Level Elevation 1897  
Log Measured From Kelly Bushing K.B. 1902  
Drilling Measured From Kelly Bushing G.L. 1897  
Other Services  
CNL/CDL  
DIL

|                        |               |  |  |
|------------------------|---------------|--|--|
| Date                   | 7/12/2024     |  |  |
| Run Number             | One           |  |  |
| Depth Driller          | 4867          |  |  |
| Depth Logger           | 4867          |  |  |
| Bottom Logged Interval | 4866          |  |  |
| Top Log Interval       | 2800          |  |  |
| Casing Driller         | 8.625 @ 1019  |  |  |
| Casing Logger          | 1014          |  |  |
| Bit Size               | 7.875         |  |  |
| Type Fluid in Hole     | Chemical      |  |  |
| Salinity, ppm CL       | 5000          |  |  |
| Density / Viscosity    | 9.6 55        |  |  |
| pH / Fluid Loss        | 9.0 9.6       |  |  |
| Source of Sample       | FLOWLINE      |  |  |
| Rm @ Meas. Temp        | .7 @ 76       |  |  |
| Rmt @ Meas. Temp       | .53 @ 76      |  |  |
| Rmc @ Meas. Temp       | .95 @ 76      |  |  |
| Source of Rmt / Rmc    | CHARTS        |  |  |
| Rm @ BHT               | .43 @ 125     |  |  |
| Operating Rig Time     | 3 Hours       |  |  |
| Max Rec. Temp. F       | 125           |  |  |
| Equipment Number       | 110           |  |  |
| Location               | HAYS          |  |  |
| Recorded By            | J. Henrickson |  |  |
| Witnessed By           | Eli Felts     |  |  |

<<< Fold Here >>>

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.

Croft Kansas  
S to Y, East Into

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: J. Henrickson  
Operator:  
Operator:  
Operator:

## This Log Record Was Witnessed By

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

Top - Bottom

|           |             |             |             |           |            |       |              |
|-----------|-------------|-------------|-------------|-----------|------------|-------|--------------|
| A         | BOREID      | BOTTEMP     | CASEOD      | CASETHCK  | FLUIDDEN   | M     | MATRXDEN     |
| 1         | in<br>7.875 | degF<br>125 | in<br>5.5   | in<br>0   | g/cc<br>1  | 2     | g/cc<br>2.71 |
| NPORSEL   | PERFS       | SNDERR      | SNDERRM     | SPSHIFT   | SRFTEMP    | SZCOR | TDEPTH       |
| Limestone | No          | mmho/m<br>0 | mmho/m<br>0 | mV<br>120 | degF<br>77 | Off   | ft<br>4867   |

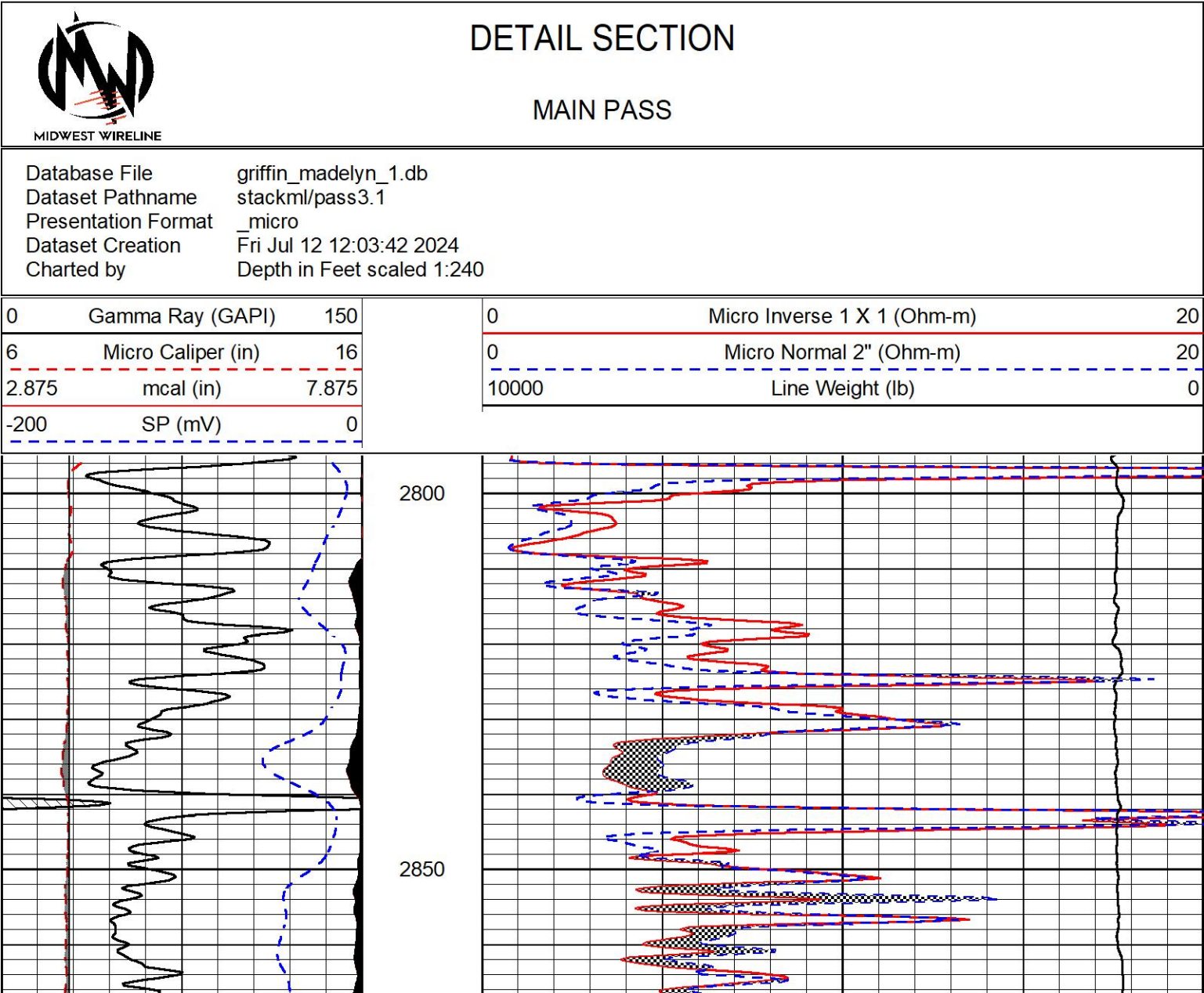
Variable Description

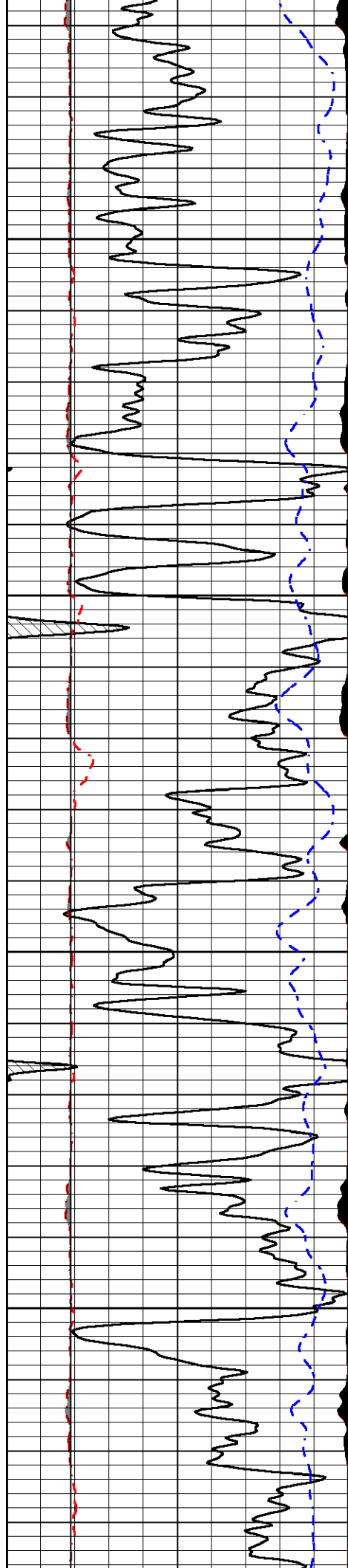
A : Cement Factor (a)  
BOREID : Borehole I.D.  
BOTTEMP : Bottom Hole Temperature  
CASEOD : Casing O.D.  
CASETHCK : Casing Thickness  
FLUIDDEN : Fluid Density  
M : Cement Exp (m)  
MATRXDEN : Matrix Density

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

| Sensor         | Offset (ft)    | Schematic | Description                      | Length (ft) | O.D. (in) | Weight (lb) |
|----------------|----------------|-----------|----------------------------------|-------------|-----------|-------------|
| GR             | 40.23          |           | GR-M&W (105)                     | 3.00        | 3.50      | 50.00       |
| CNLSC<br>CNSSC | 37.13<br>36.38 |           | CNT-M&W (210)                    | 5.00        | 3.50      | 100.00      |
|                |                |           | MWLith-STEP LITHO Short (703-03) | 8.40        | 5.00      | 250.00      |
| LCAL           | 28.21          |           |                                  |             |           |             |
| LLW8N          | 28.21          |           |                                  |             |           |             |
| LLW7N          | 28.21          |           |                                  |             |           |             |
| LLW6N          | 28.21          |           |                                  |             |           |             |
| LLW5N          | 28.21          |           |                                  |             |           |             |
| LLW4N          | 28.21          |           |                                  |             |           |             |
| LLW3N          | 28.21          |           |                                  |             |           |             |
| LLW2N          | 28.21          |           | ML-PSI STKBL ML (402)            | 7.58        | 4.00      | 65.00       |
| LLW1N          | 28.21          |           |                                  |             |           |             |
| LSLOCK         | 27.96          |           |                                  |             |           |             |
| LLLOCK         | 27.96          |           |                                  |             |           |             |
| PELTMPR        | 27.96          |           |                                  |             |           |             |
| LSHVNG         | 27.96          |           |                                  |             |           |             |
| LLHVNG         | 27.96          |           |                                  |             |           |             |
| LSW8N          | 27.71          |           |                                  |             |           |             |
| LSW7N          | 27.71          |           |                                  |             |           |             |
| LSW6N          | 27.71          |           |                                  |             |           |             |

|                                                                                                                                 |       |  |               |       |      |        |  |  |  |  |
|---------------------------------------------------------------------------------------------------------------------------------|-------|--|---------------|-------|------|--------|--|--|--|--|
| LSW5N                                                                                                                           | 27.71 |  | DIL-M&W (506) | 18.25 | 3.50 | 220.00 |  |  |  |  |
| LSW4N                                                                                                                           | 27.71 |  |               |       |      |        |  |  |  |  |
| LSW3N                                                                                                                           | 27.71 |  |               |       |      |        |  |  |  |  |
| LSW2N                                                                                                                           | 27.71 |  |               |       |      |        |  |  |  |  |
| LSW1N                                                                                                                           | 27.71 |  |               |       |      |        |  |  |  |  |
| MCAL                                                                                                                            | 19.58 |  |               |       |      |        |  |  |  |  |
| MI                                                                                                                              | 19.58 |  |               |       |      |        |  |  |  |  |
| MN                                                                                                                              | 19.58 |  |               |       |      |        |  |  |  |  |
| RLL3F                                                                                                                           | 15.50 |  |               |       |      |        |  |  |  |  |
| RLL3                                                                                                                            | 15.50 |  |               |       |      |        |  |  |  |  |
| CILD                                                                                                                            | 8.33  |  |               |       |      |        |  |  |  |  |
| CILM                                                                                                                            | 4.50  |  |               |       |      |        |  |  |  |  |
| SP                                                                                                                              | 0.20  |  |               |       |      |        |  |  |  |  |
| Dataset: griffin_madelyn_1.db: field/well/stackml/pass3.1<br>Total length: 42.23 ft<br>Total weight: 685.00 lb<br>O.D.: 5.00 in |       |  |               |       |      |        |  |  |  |  |



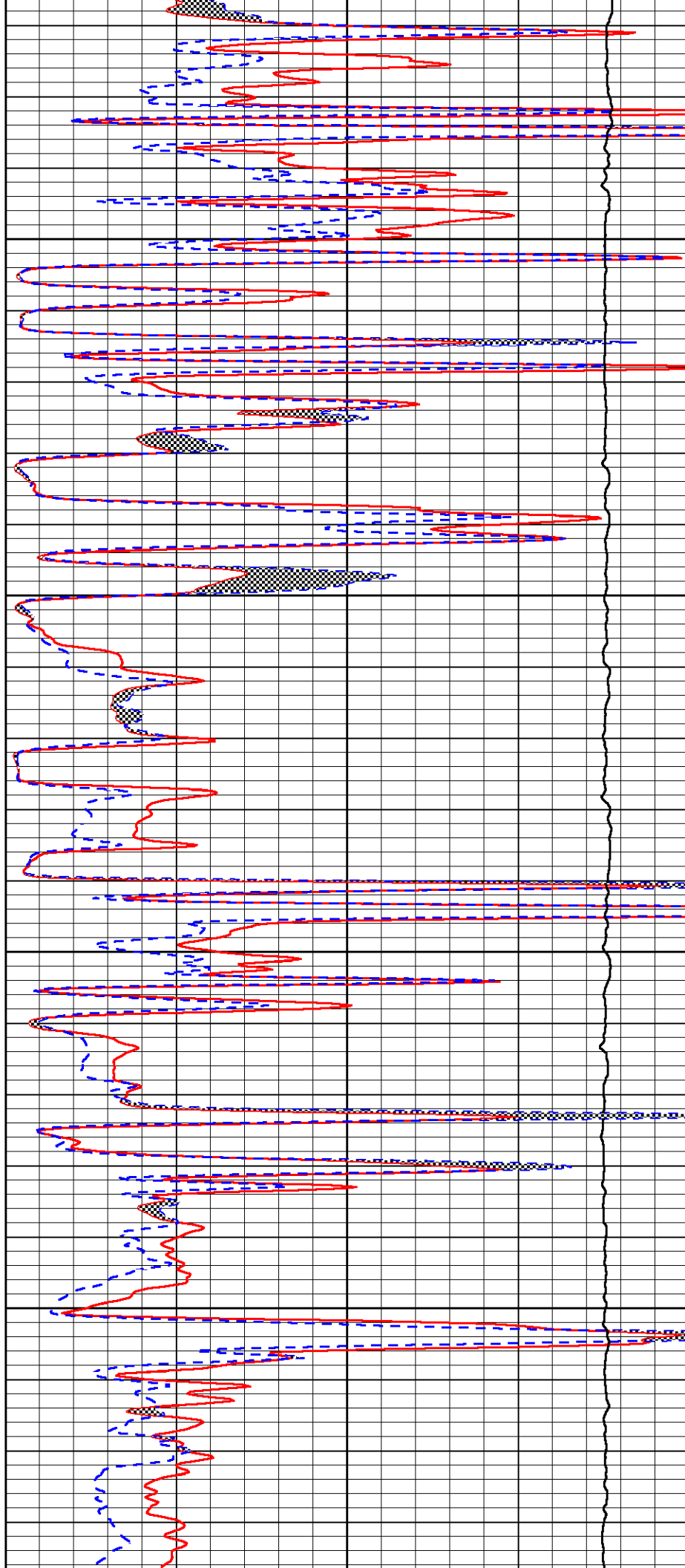


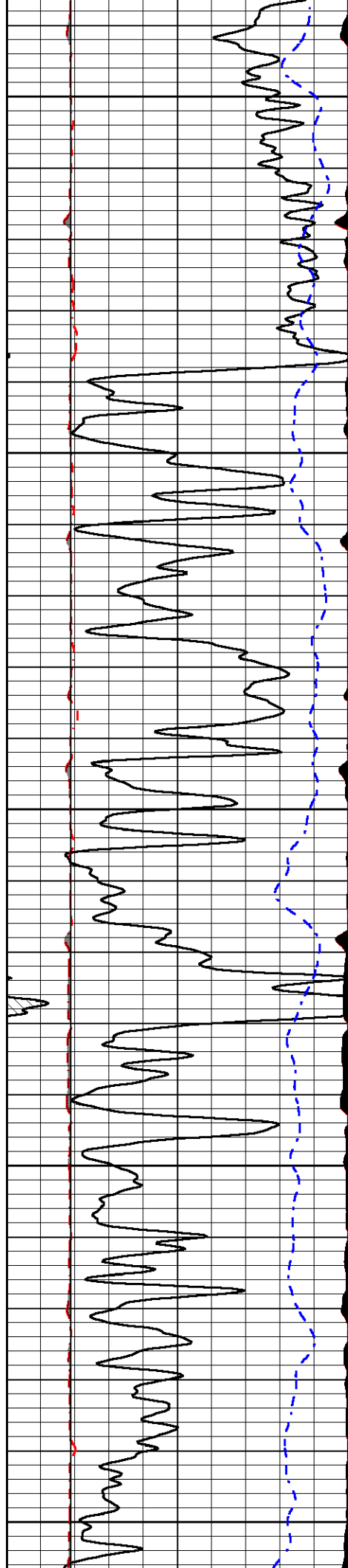
2900

2950

3000

3050





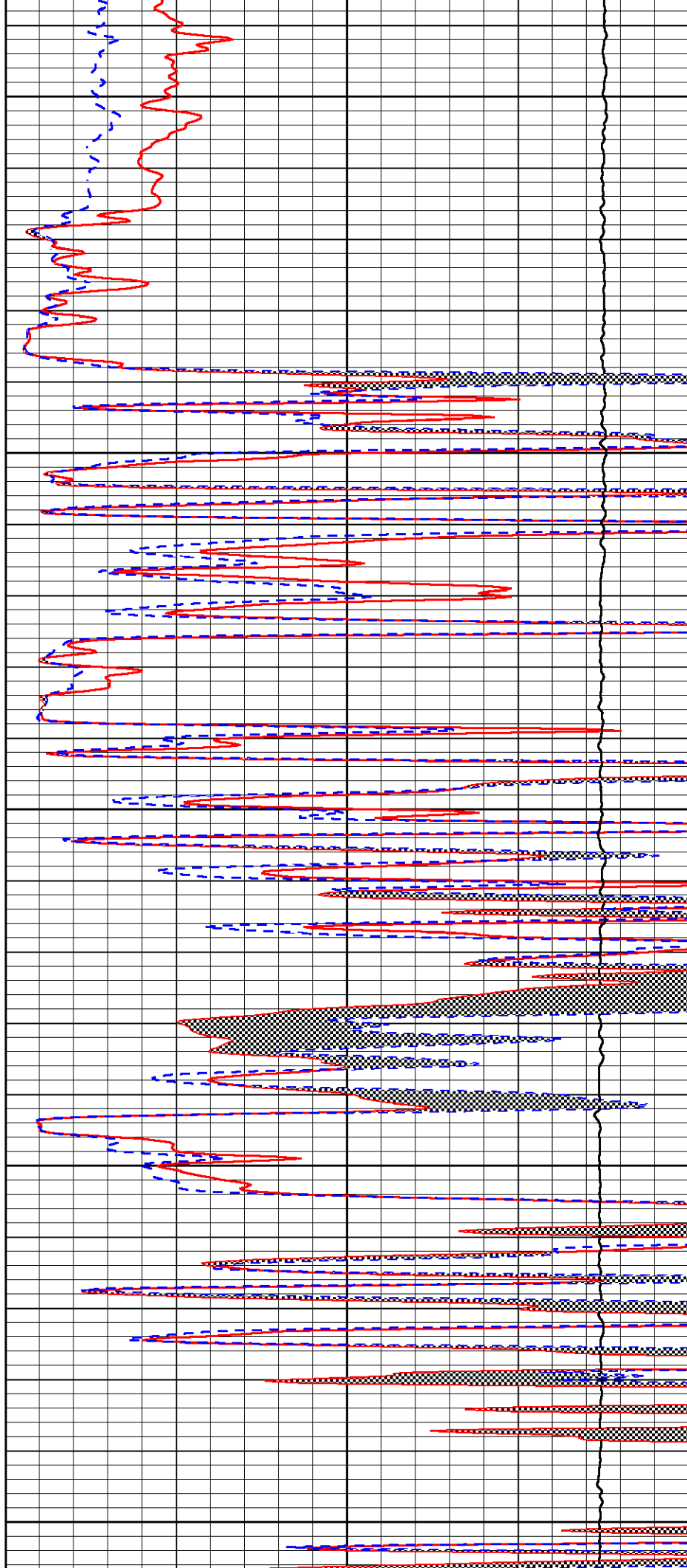
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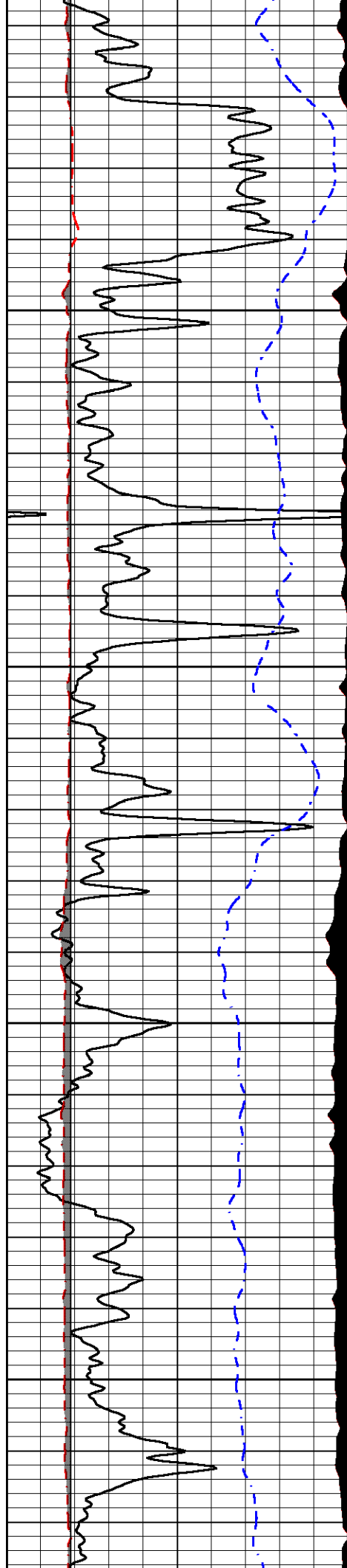
3150

3200

3250

3300



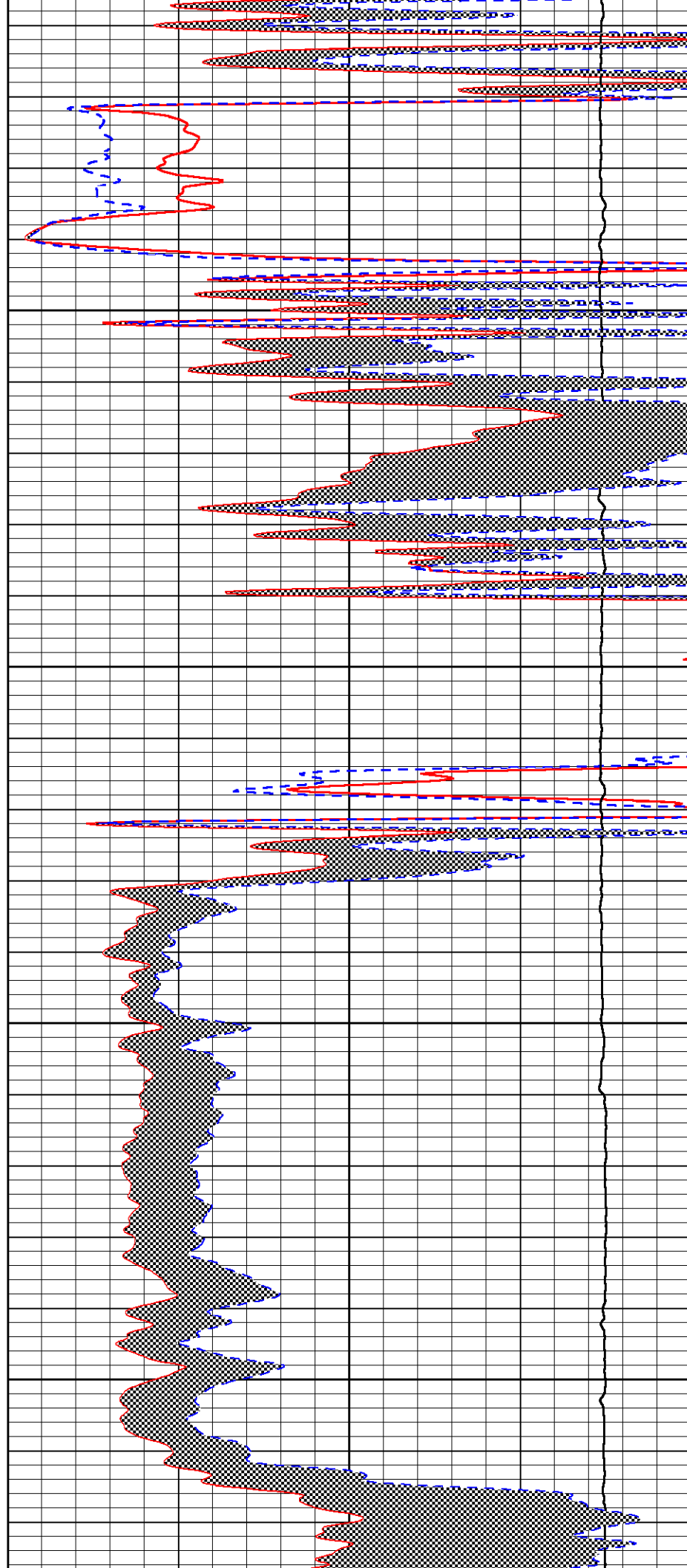


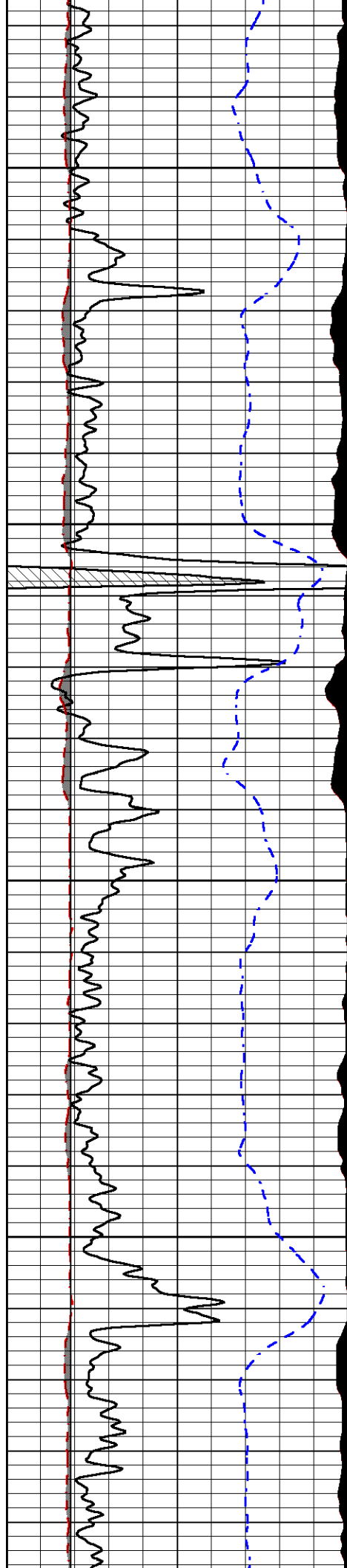
3350

3400

3450

3500



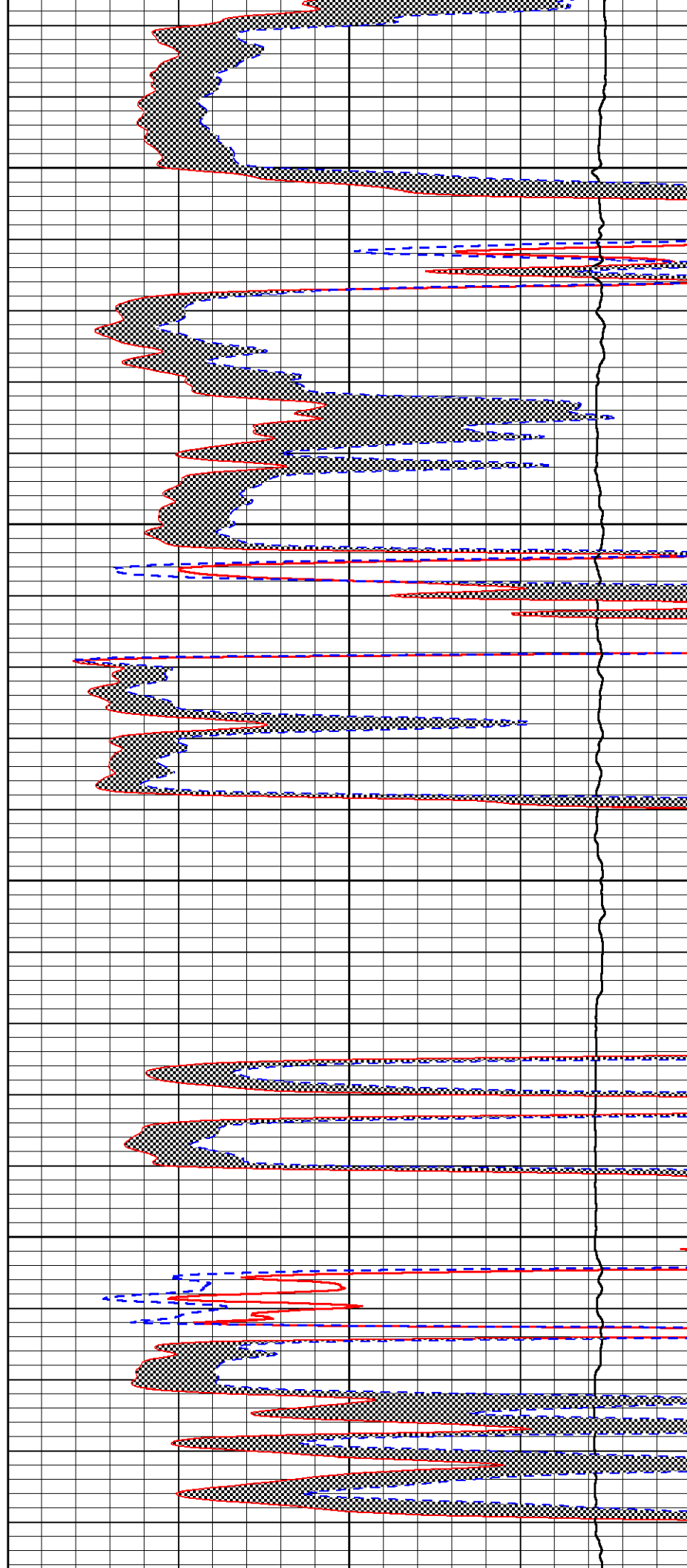


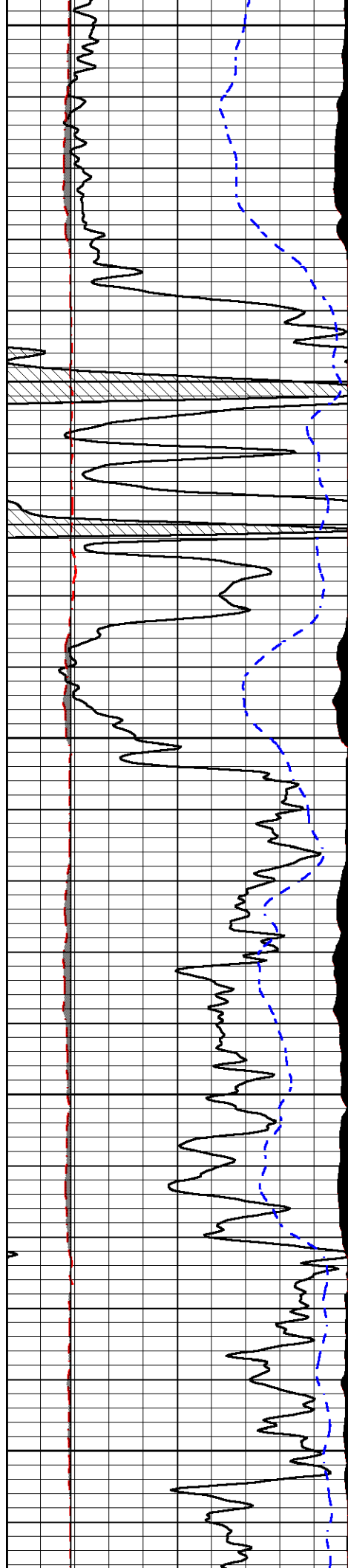
3550

3600

3650

3700





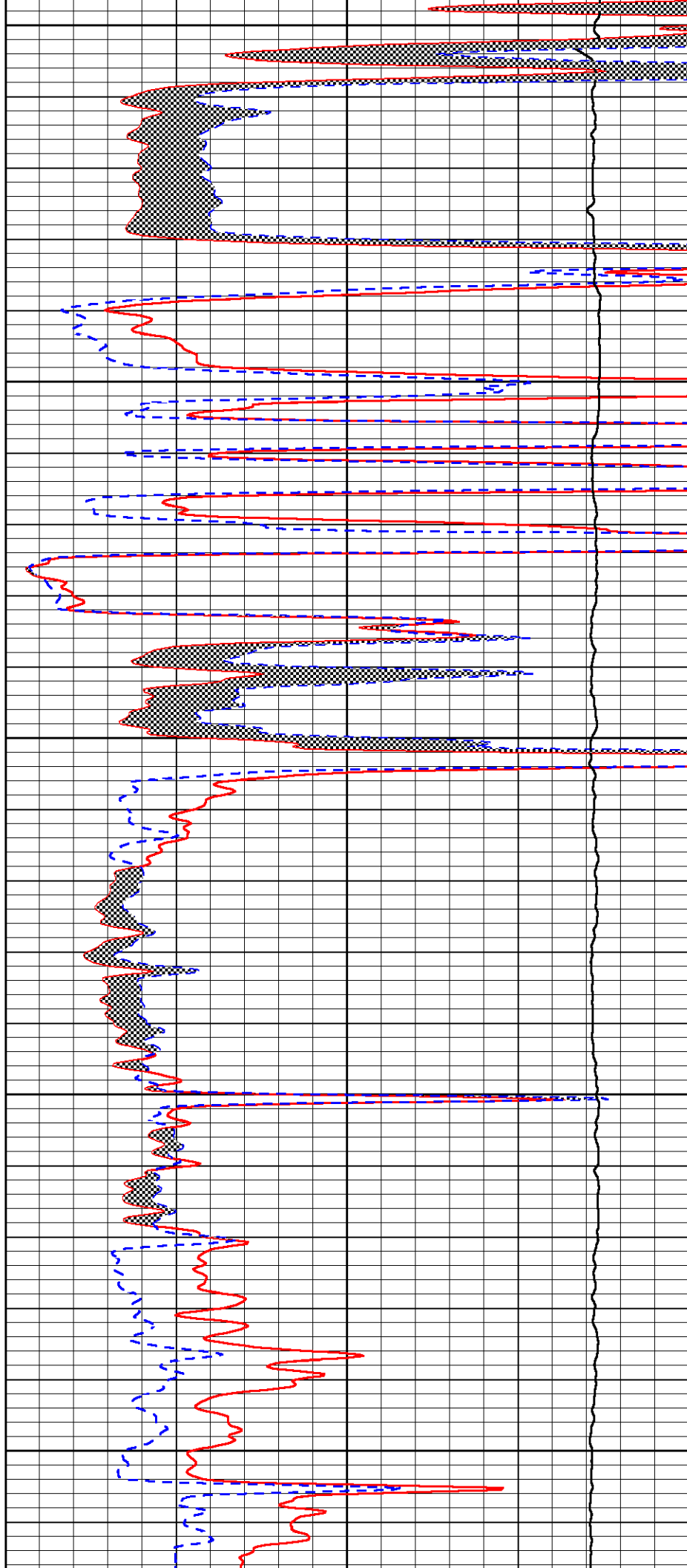
3750

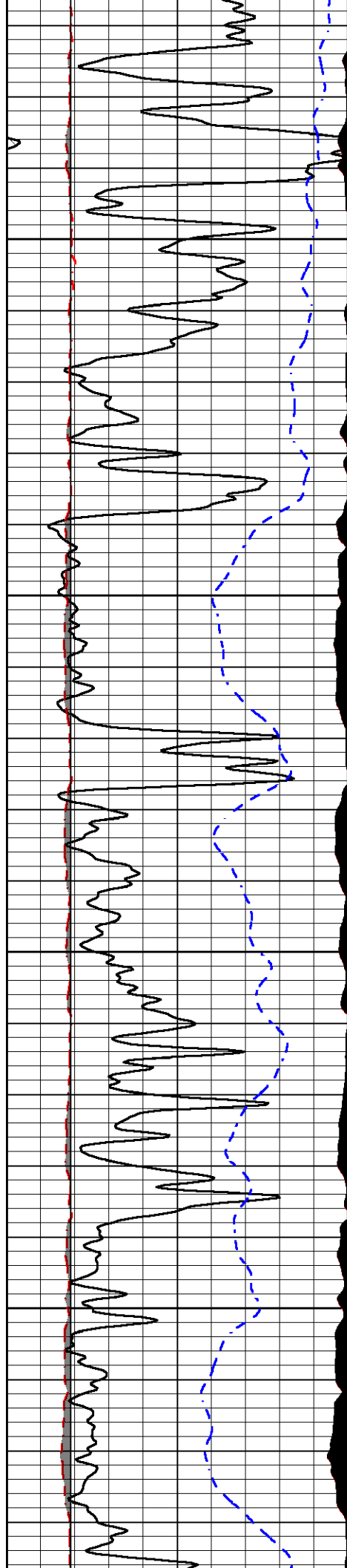
3800

3850

3900

3950



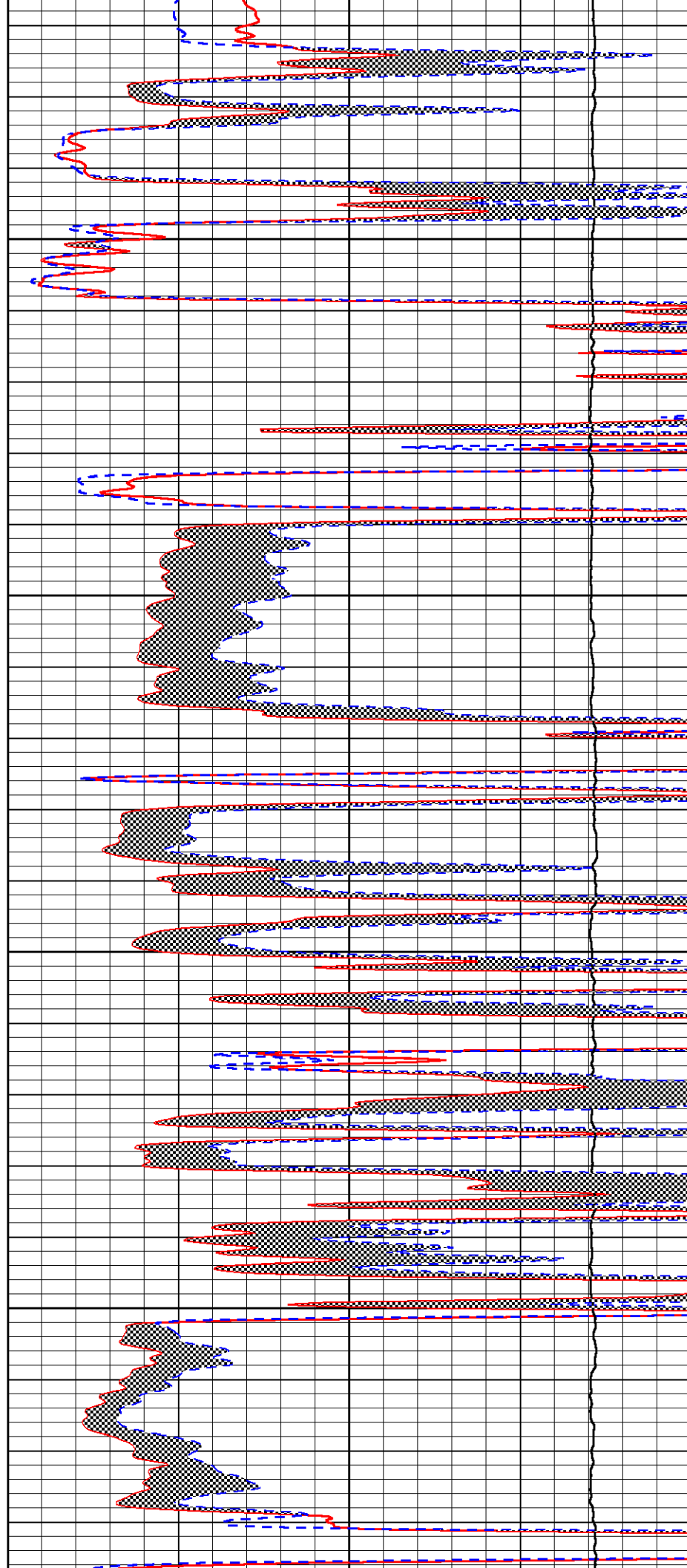


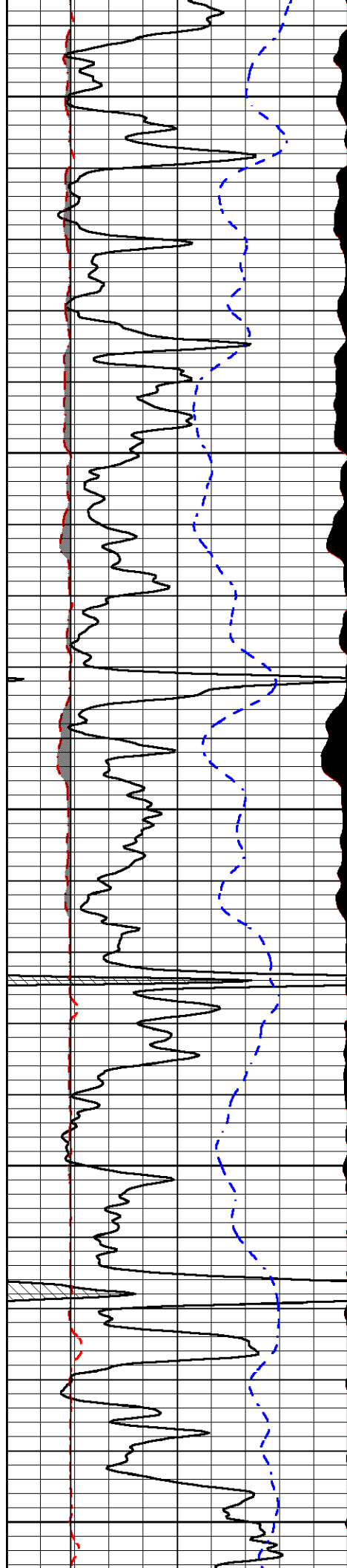
4000

4050

4100

4150





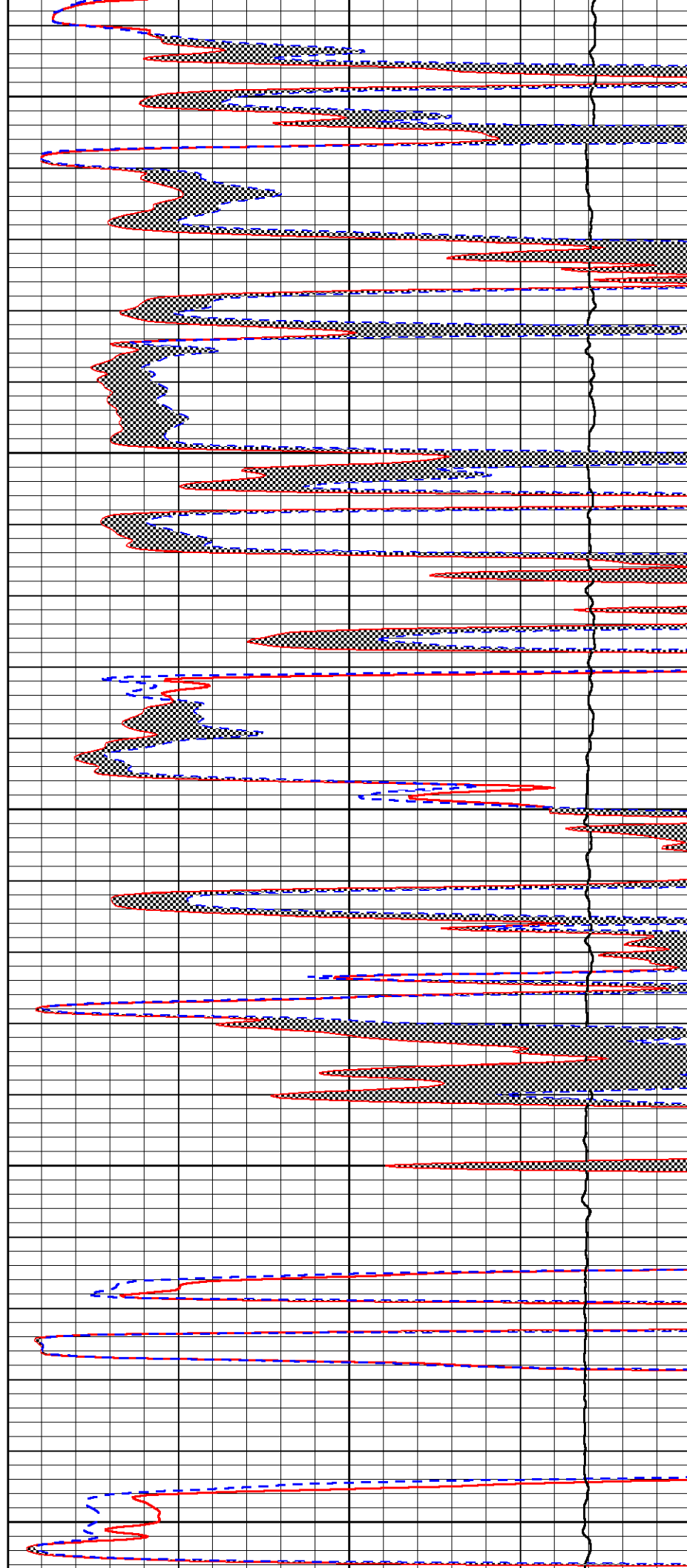
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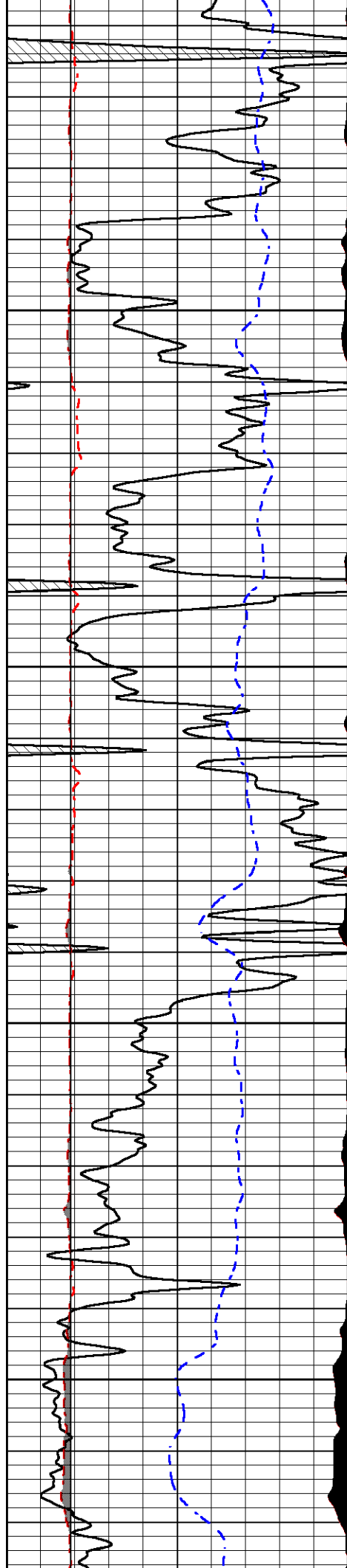
4250

4300

4350

4400



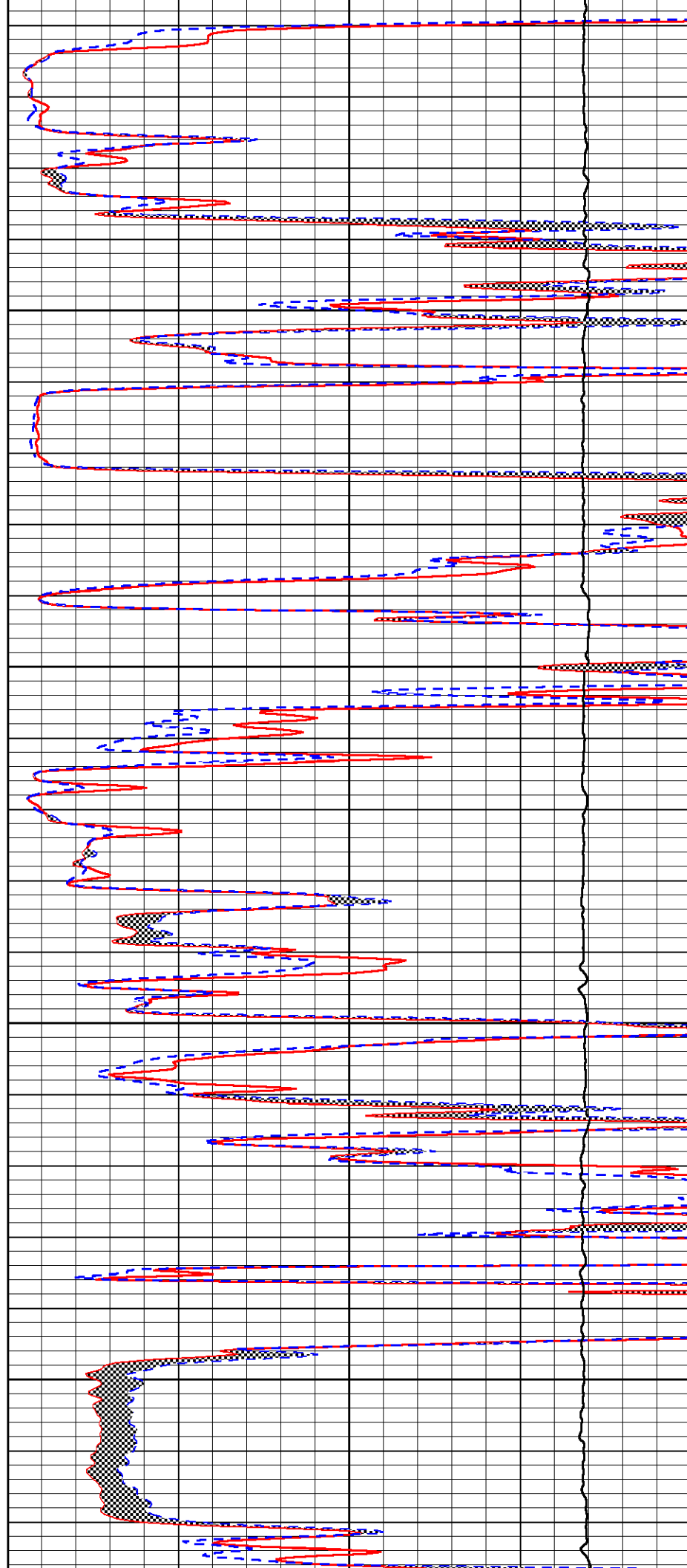


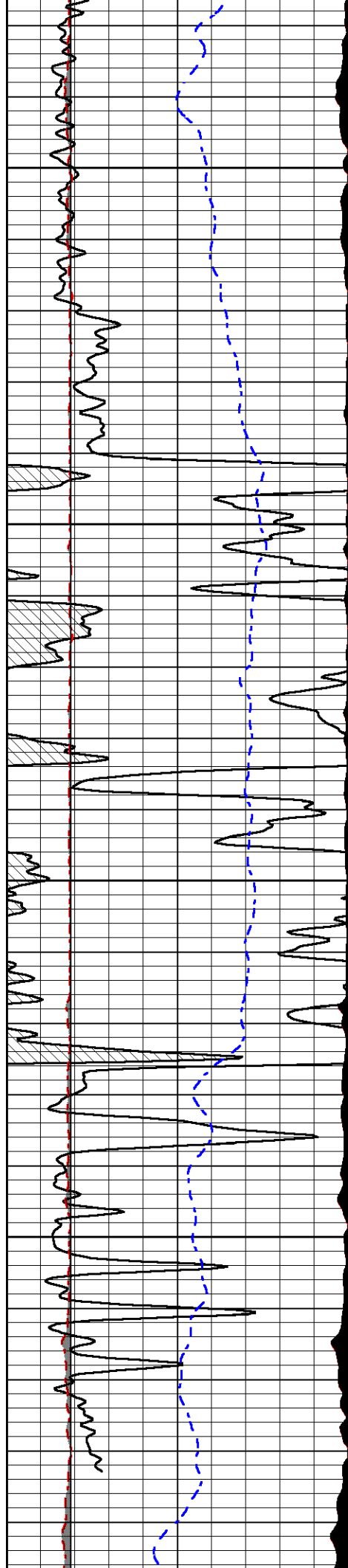
4450

4500

4550

4600



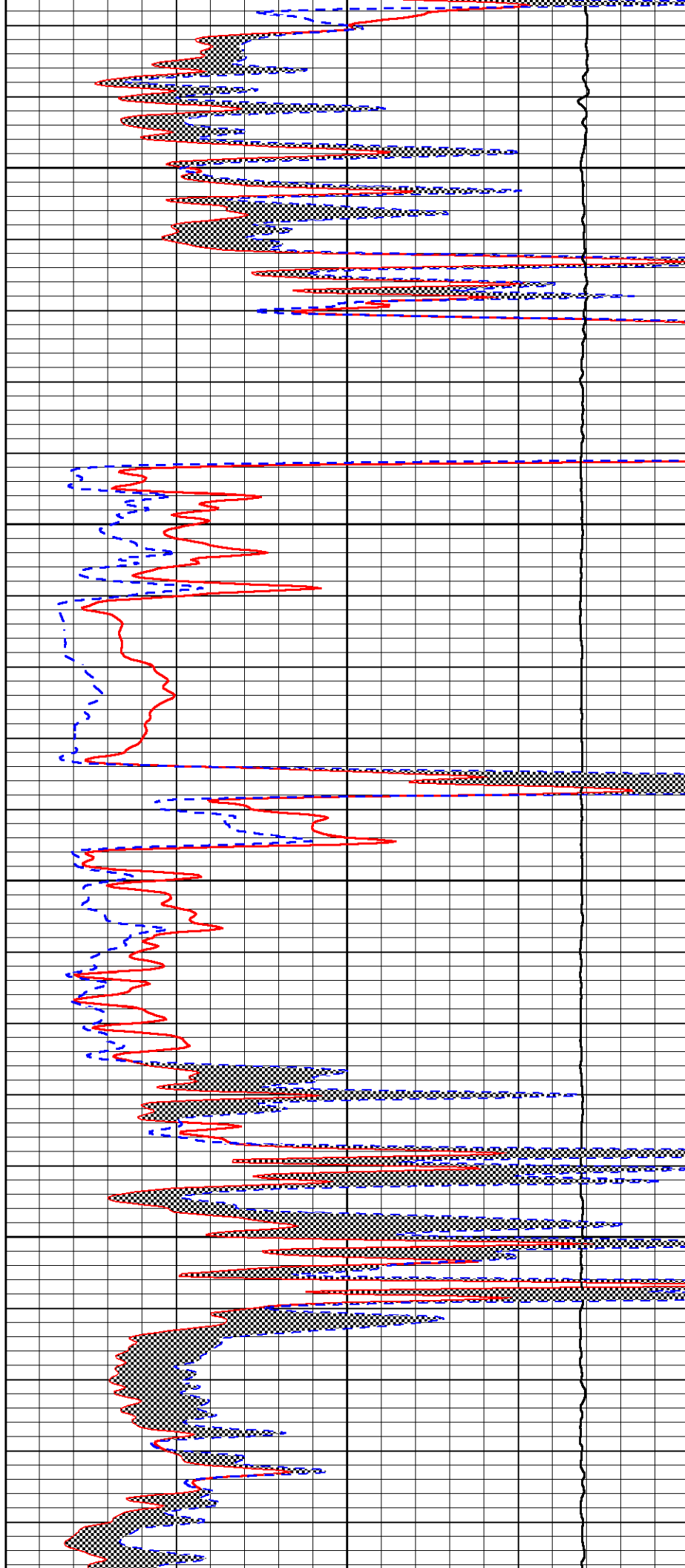


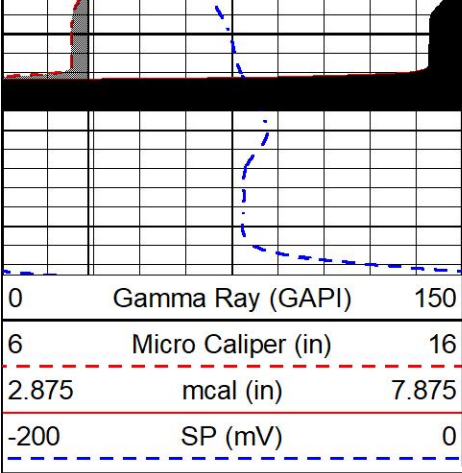
4650

4700

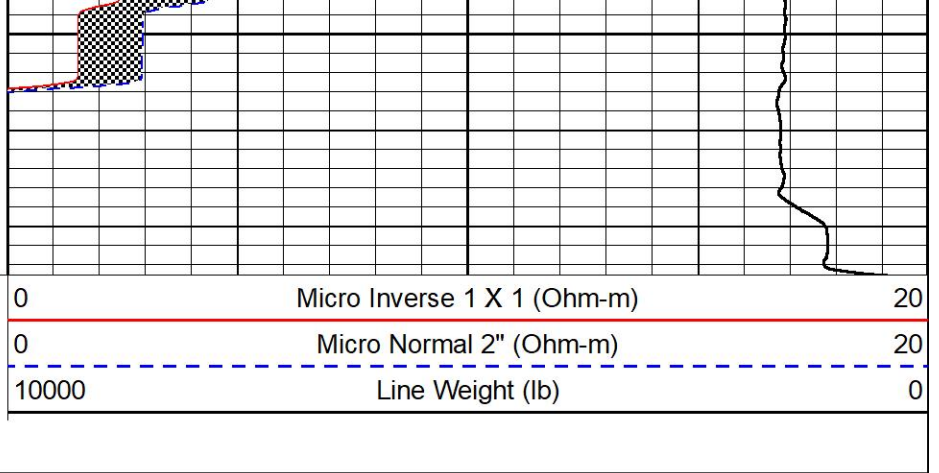
4750

4800





4850

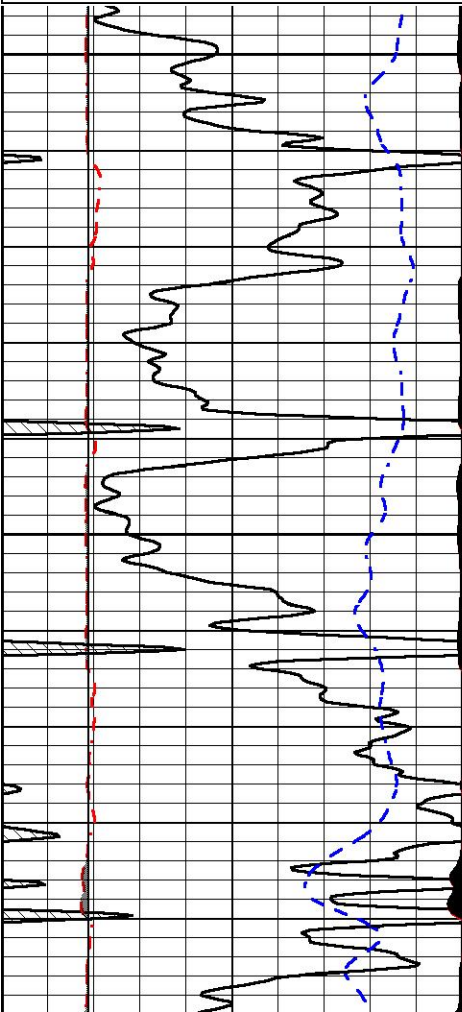
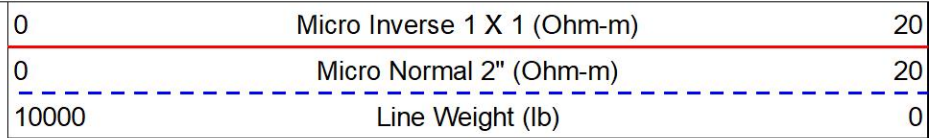
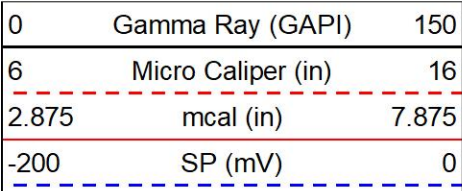


MIDWEST WIRELINE

## REPEAT SECTION

### REPEAT PASS

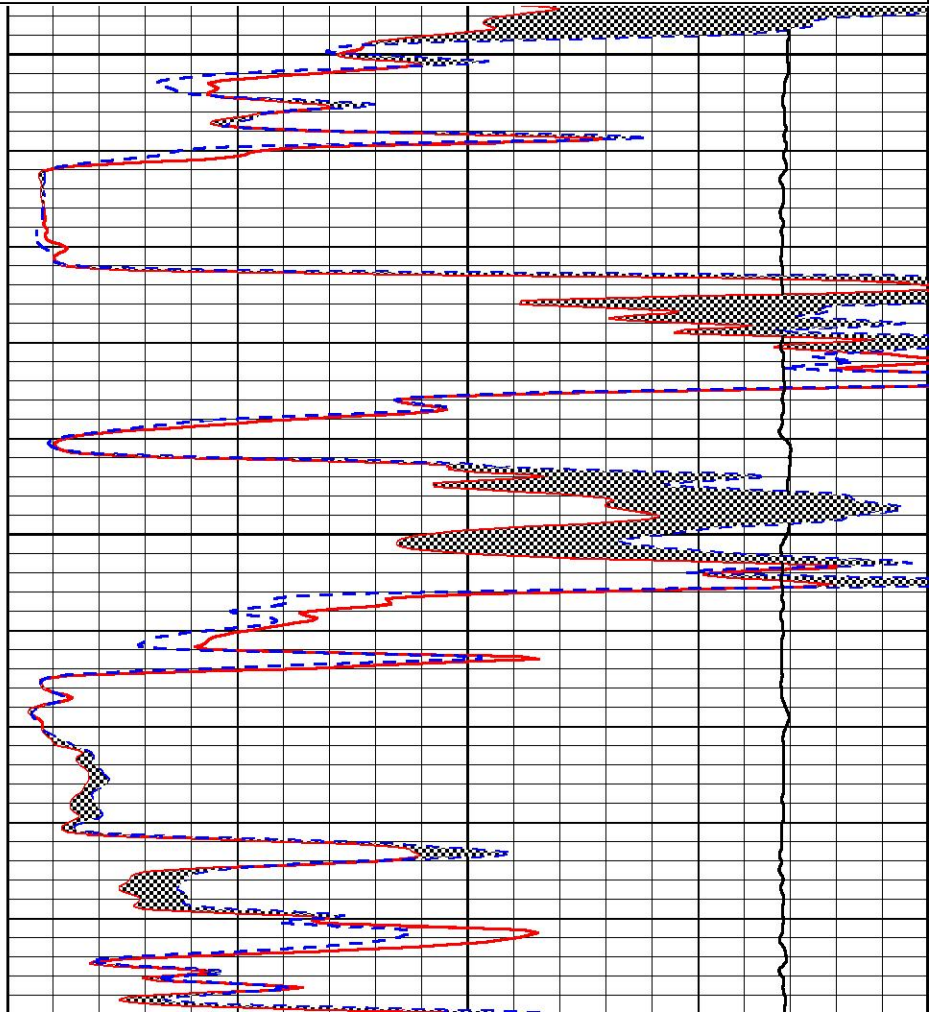
Database File griffin\_madelyn\_1.db  
Dataset Pathname stackml/pass2.1  
Presentation Format \_micro  
Dataset Creation Fri Jul 12 11:22:08 2024  
Charted by Depth in Feet scaled 1:240

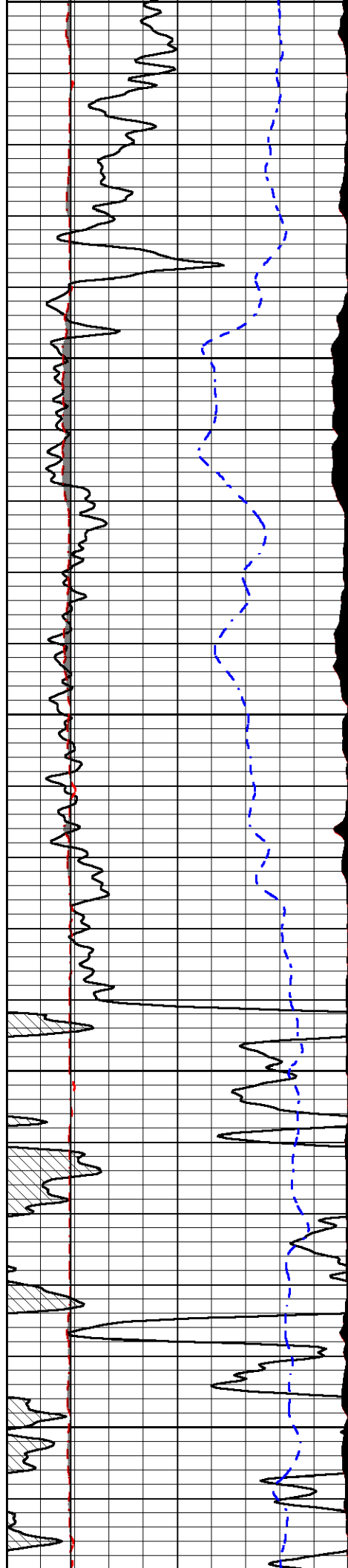


4450

4500

4550





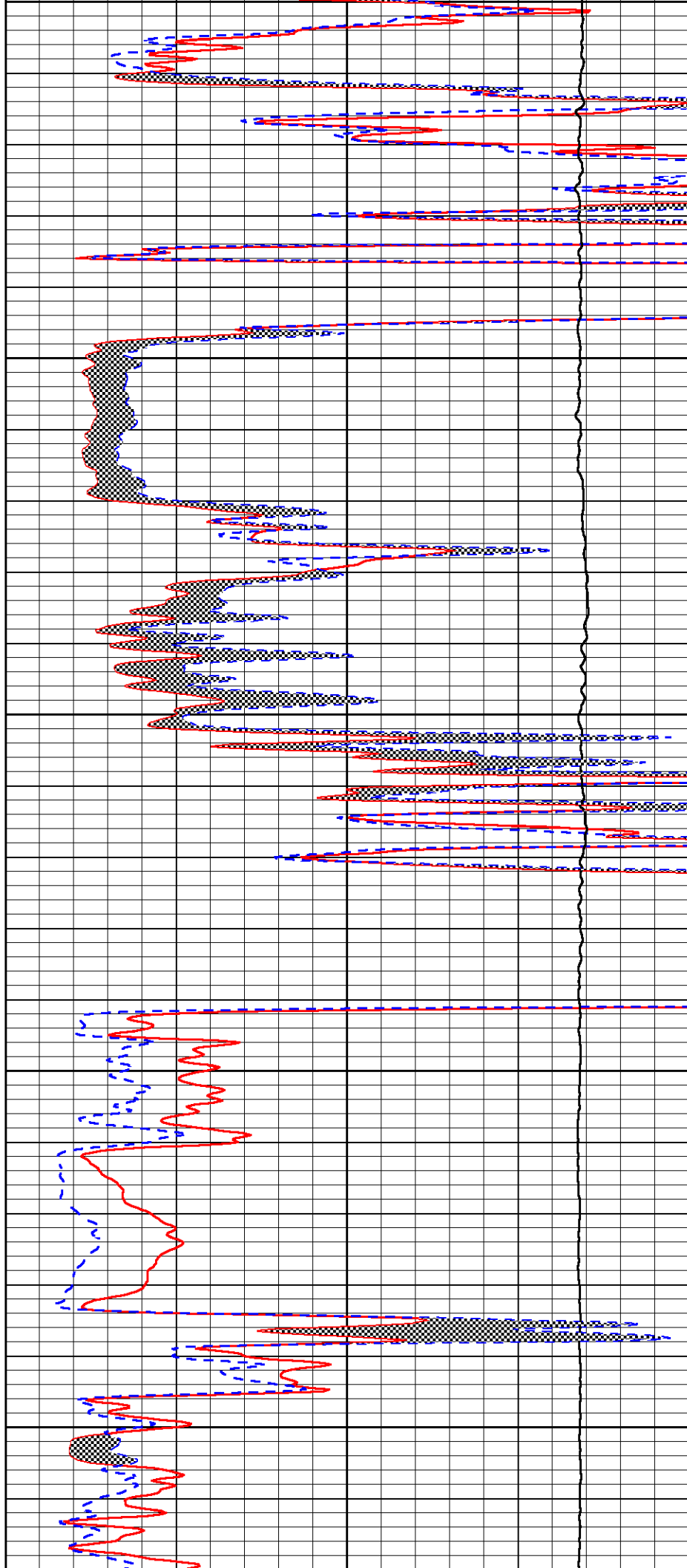
4550

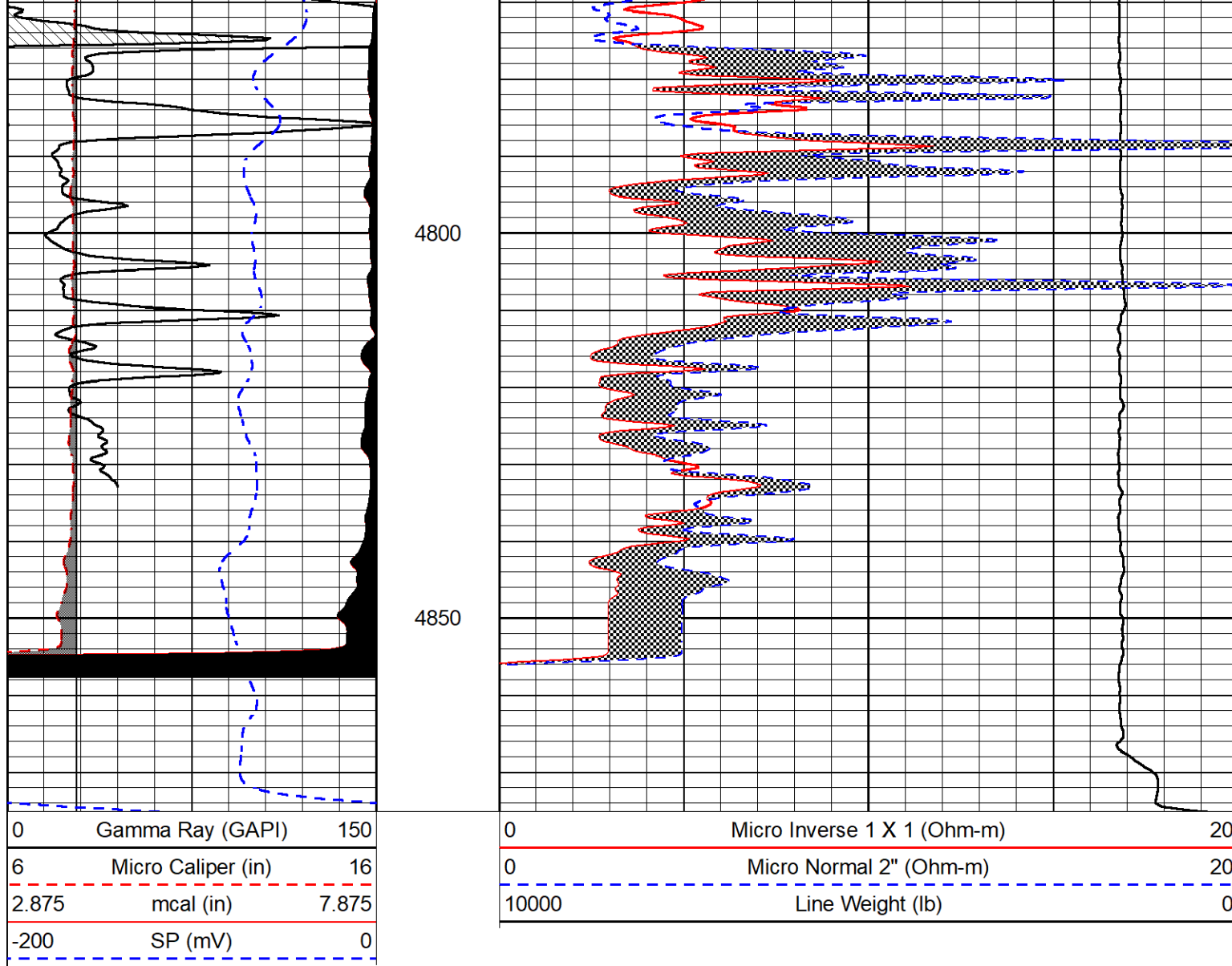
4600

4650

4700

4750





### Calibration Report

Database File griffin\_madelyn\_1.db  
Dataset Pathname stackml/pass3.1  
Dataset Creation Fri Jul 12 12:03:42 2024

### Dual Induction Calibration Report

Serial-Model: 506-M&W  
Surface Cal Performed: Sun Jun 30 20:32:27 2024

| Loop:  | Readings |         | References |         |        | Results |         |
|--------|----------|---------|------------|---------|--------|---------|---------|
|        | Air      | Loop    | Air        | Loop    |        | m       | b       |
| Deep   | 84.211   | 428.152 | 0.000      | 255.800 | mmho/m | 0.465   | -32.000 |
| Medium | 141.000  | 670.654 | 0.000      | 255.800 | mmho/m | 0.390   | -10.000 |

### Microlog Calibration Report

Serial-Model: 402-PSI STKBL ML  
Performed: Thu May 30 05:58:00 2024

| Readings |     | References |     | Results |   |
|----------|-----|------------|-----|---------|---|
| Zero     | Cal | Zero       | Cal | m       | b |

|                                 |                          |         |            |        |         |            |            |          |
|---------------------------------|--------------------------|---------|------------|--------|---------|------------|------------|----------|
| Normal                          | 0.0037                   | 0.0043  |            | 0.0000 | 10.0000 | Ohm-m      | 16000.0000 | -0.5000  |
| Inverse                         | 0.1208                   | 0.0013  |            | 0.0000 | 10.0000 | Ohm-m      | 22500.0000 | -0.7000  |
| Caliper                         | 1.0046                   | 1.1419  |            | 5.5000 | 20.0000 | in         | 50.0000    | -44.6250 |
| LITHODENSITY Calibration Report |                          |         |            |        |         |            |            |          |
| Serial Number:                  | 703-03                   |         |            |        |         |            |            |          |
| Tool Model:                     | STEP LITHO Short         |         |            |        |         |            |            |          |
| Performed:                      | Fri May 31 13:59:15 2024 |         |            |        |         |            |            |          |
| Source:                         |                          |         |            |        |         |            |            |          |
|                                 | Win1                     | Win2    | Win3       | Win4   | Win5    | Win6       | Win7       | Win8     |
| Background:                     |                          |         |            |        |         |            |            |          |
| SS:                             | 56                       | 59      | 223        | 276    | 25      | 75         | 46         | 1 cps    |
| LS:                             | 83                       | 90      | 344        | 441    | 51      | 132        | 90         | 3 cps    |
| Aluminum:                       |                          |         |            |        |         |            |            |          |
| SS:                             | 1063                     | 1260    | 2893       | 2631   | 48      | 80         | 48         | 3 cps    |
| LS:                             | 1179                     | 2084    | 3854       | 1823   | 62      | 133        | 86         | 5 cps    |
| Magnesium:                      |                          |         |            |        |         |            |            |          |
| SS:                             | 1756                     | 2035    | 4740       | 3894   | 55      | 79         | 49         | 4 cps    |
| LS:                             | 4981                     | 8390    | 15059      | 6054   | 115     | 127        | 85         | 14 cps   |
| Aluminum+Iron:                  |                          |         |            |        |         |            |            |          |
| SS:                             | 676                      | 887     | 2426       | 2310   | 45      | 79         | 52         | 2 cps    |
| LS:                             | 700                      | 1495    | 3280       | 1630   | 60      | 131        | 90         | 5 cps    |
|                                 |                          | Density |            |        | PE      |            |            |          |
|                                 |                          | Actual  | Calibrated |        | Actual  | Calibrated | Quality    |          |
| Background:                     |                          |         |            |        |         |            |            |          |
| SS:                             |                          |         |            |        |         |            | 0.236      |          |
| LS:                             |                          |         |            |        |         |            | 0.189      |          |
| Aluminum:                       |                          |         |            |        |         |            |            |          |
| SS:                             |                          | 2.6000  | 2.6000     | g/cc   |         |            | 0.249      |          |
| LS:                             |                          | 2.6000  | 2.6000     | g/cc   |         |            | 0.216      |          |
| Magnesium:                      |                          |         |            |        |         |            |            |          |
| SS:                             |                          | 1.6800  | 1.6800     | g/cc   | 2.5700  | 2.5700     | 0.232      |          |
| LS:                             |                          | 1.6800  | 1.6800     | g/cc   | 2.5700  | 2.5700     | 0.198      |          |
| Aluminum+Iron:                  |                          |         |            |        |         |            |            |          |
| SS:                             |                          |         |            |        |         | 6.1800     | 0.208      |          |
| LS:                             |                          |         |            |        |         | 6.1800     | 0.188      |          |

|             |            |    |          |
|-------------|------------|----|----------|
| Caliper:    | Reference: |    | Reading: |
| Small Ring: | 6.0        | in | 1.0      |
| Large Ring: | 14.0       | in | 1.0      |
| Gain:       | 12.765     |    |          |
| Offset:     | 1.900      |    |          |

| 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 |  |  |

Tool Model:  
Performed:

M&V  
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

Griffin Management LLC

Well

Madelyn 1

Field

Turkey Creek East

County

Barber

State

Kansas