# LITHO DENSITY NEUTRON LOG

Company SAGE NR OK, LLC
Well MUSSON # 3-A
Field VESTAL
County COWLEY
State KANSAS

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Well MUSSON # 3-A
Field VESTAL
County COWLEY
State KANSAS

Location: API # : 15-035-24755-0000

SW NW NE SE
2092' FSL & 1077' FEL

SEC 19 TWP 34S RGE 3E

Other Services
ILD

Permanent Datum GL Elevation 1150
Log Measured From KB
Drilling Measured From KB 9

Elevation
K.B. 1159
D.F. 1158
G.L. 1150

| | | | |
|---|---|---|---|
| Date | 9-8-2022 | | |
| Run Number | ONE | | |
| Depth Driller | 3911 | | |
| Depth Logger | 3908 | | |
| Bottom Logged Interval | 3907 | | |
| Top Log Interval | 1900 | | |
| Casing Driller | 8.625" @ 334 | | |
| Casing Logger | 8.625" @ 334' | | |
| Bit Size | 7.875" | | |
| Type Fluid in Hole | MUD | | |
| Density / Viscosity | 9.0 / 62 | | |
| pH / Fluid Loss | 9.5 / 8.0 | | |
| Source of Sample | PIT | | |
| Rm @ Meas. Temp | 2.2 @ 72 | | |
| Rmf @ Meas. Temp | 1.76 @ 72 | | |
| Rmc @ Meas. Temp | 2.64 @ 72 | | |
| Source of Rmf / Rmc | CALC | | |
| Rm @ BHT | 1.32 @ 115 | | |
| Time Circulation Stopped | 10:00 AM | | |
| Time Logger on Bottom | 2:00 PM | | |
| Maximum Recorded Temperature | 115 | | |
| Equipment Number | OW1 | | |
| Location | HOMINY, OK | | |
| Recorded By | SHELDON TYLER | MR. MACKEY | |
| Witnessed By | MR. WOLFE | MR. ADCOX | |

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All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on our part, 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. These interpretations are also subject to our general terms and conditions set out in our current Price Schedule.

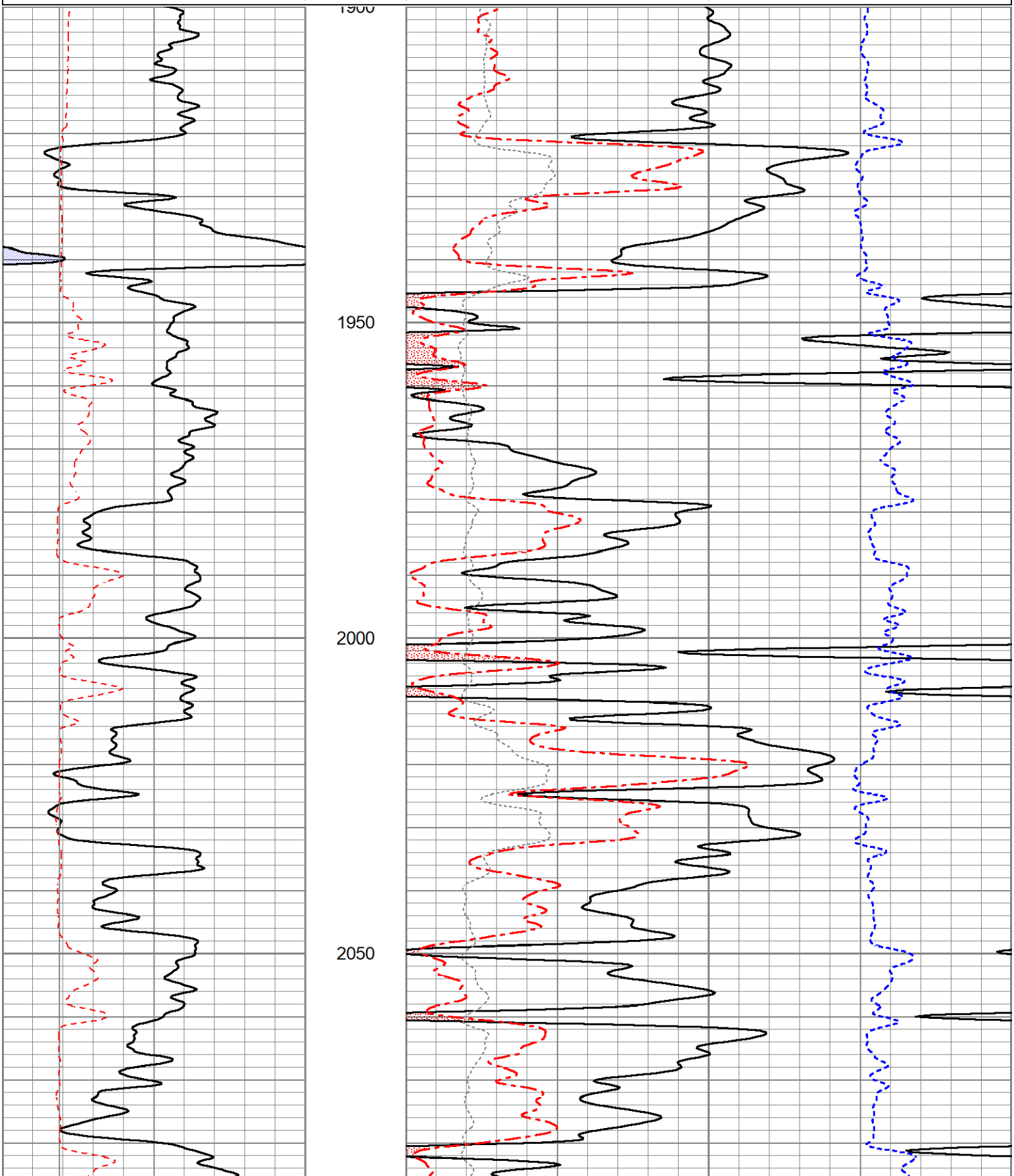
Comments

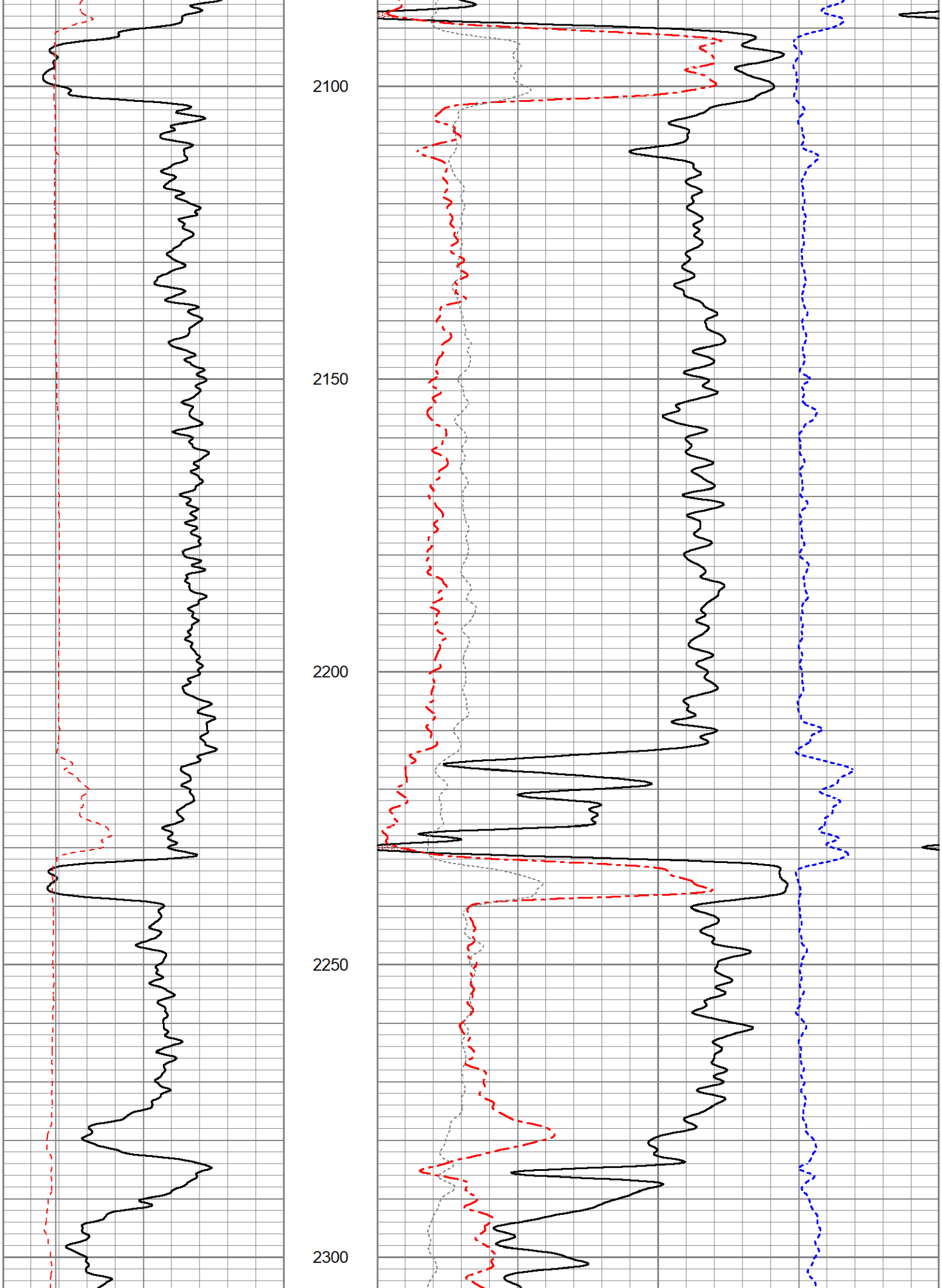
FILE # OW1-9109 SAGE
CREW TODAY IS KIDD, TAFT
THANK YOU FOR USING OSAGE WIRELINE

# 5" DENSITY NEUTRON LOG

| | |
|---|---|
| Database File | ow1-9109 sage.db |
| Dataset Pathname | pass4.1 |
| Presentation Format | stcdln-6-16_5 |
| Dataset Creation | Thu Sep 08 18:57:33 2022 |
| Charted by | Depth in Feet scaled 1:240 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 0 | Gamma Ray (GAPI) | 150 | 30 | Density Porosity (pu) | -10 | | |
| 6 | Bit size (in) | 16 | 30 | Neutron Porosity (pu) | -10 | | |
| 6 | DCAL (in) | 16 | 0 | PE (barn) | 10 | -0.5 | Correction (g/cc) 0.5 |

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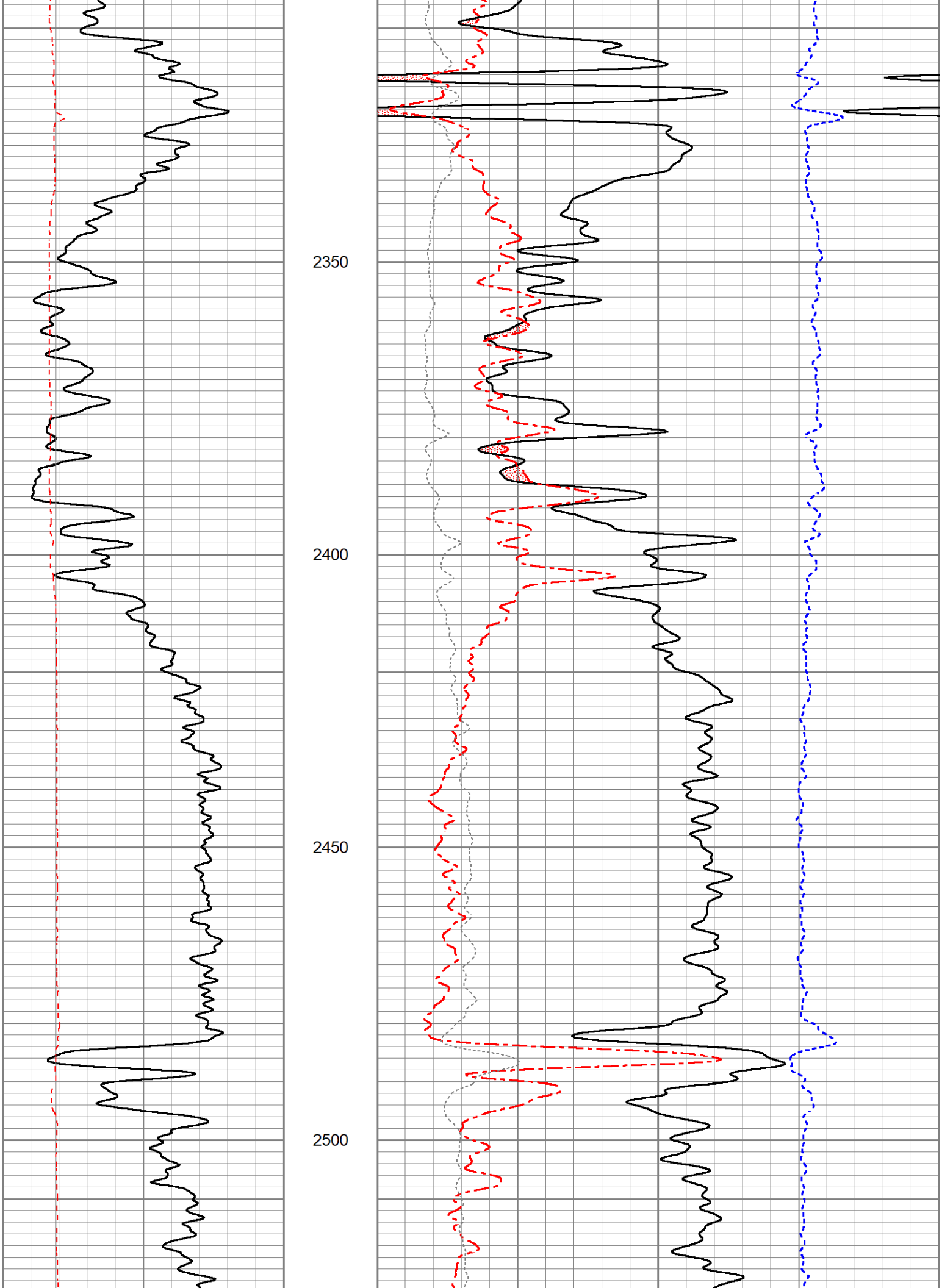
2200
2250
2300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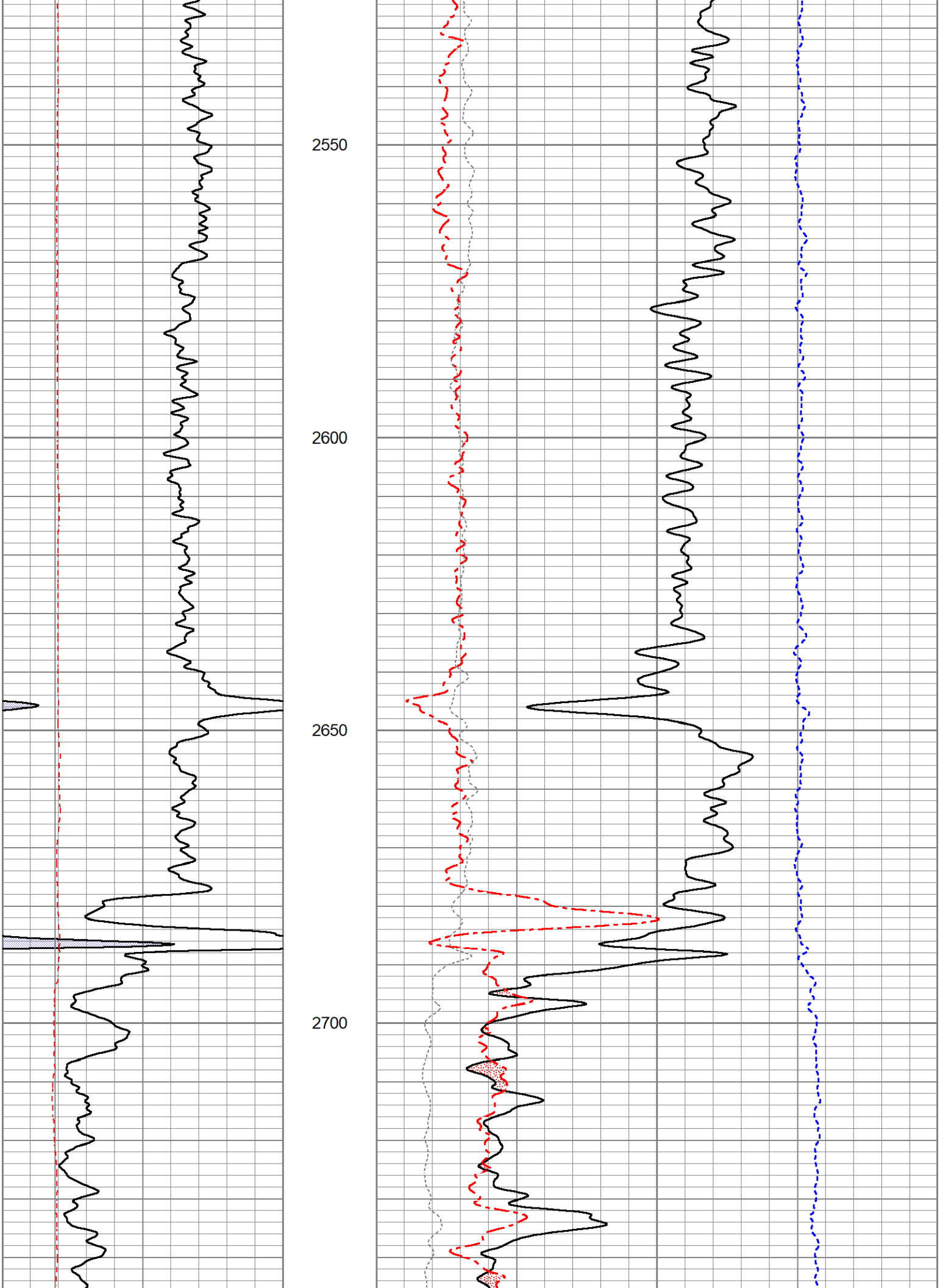
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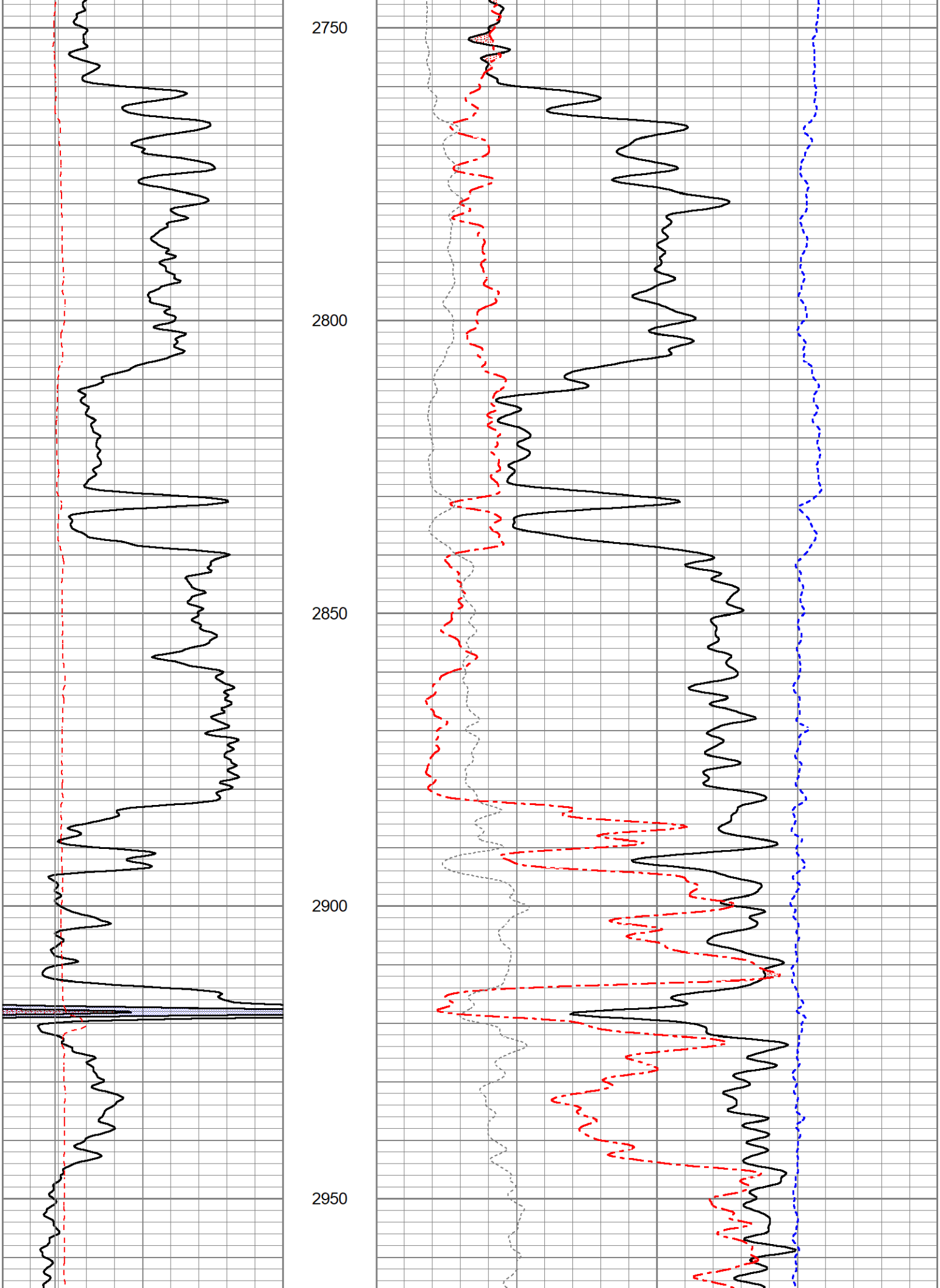
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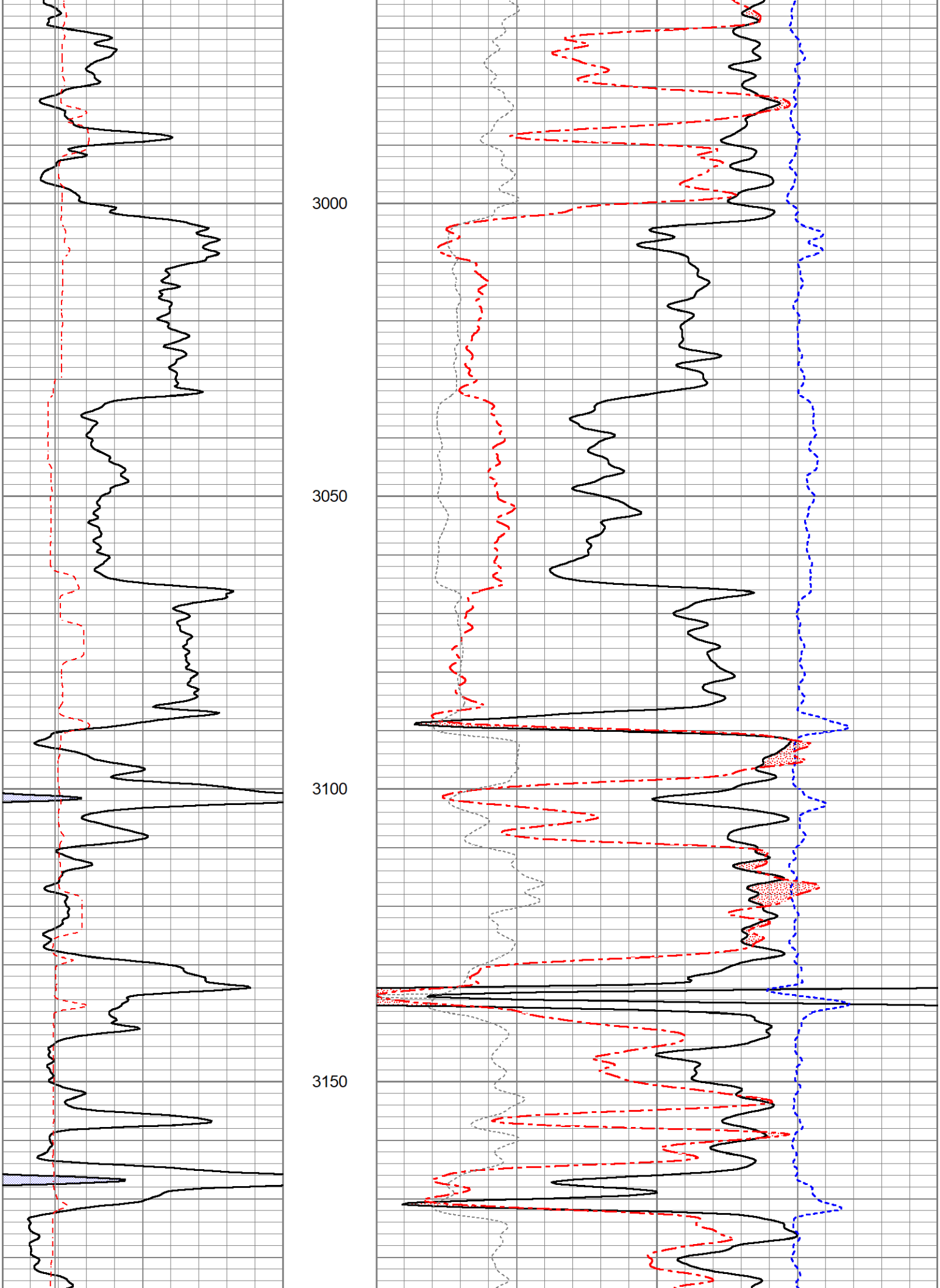
2950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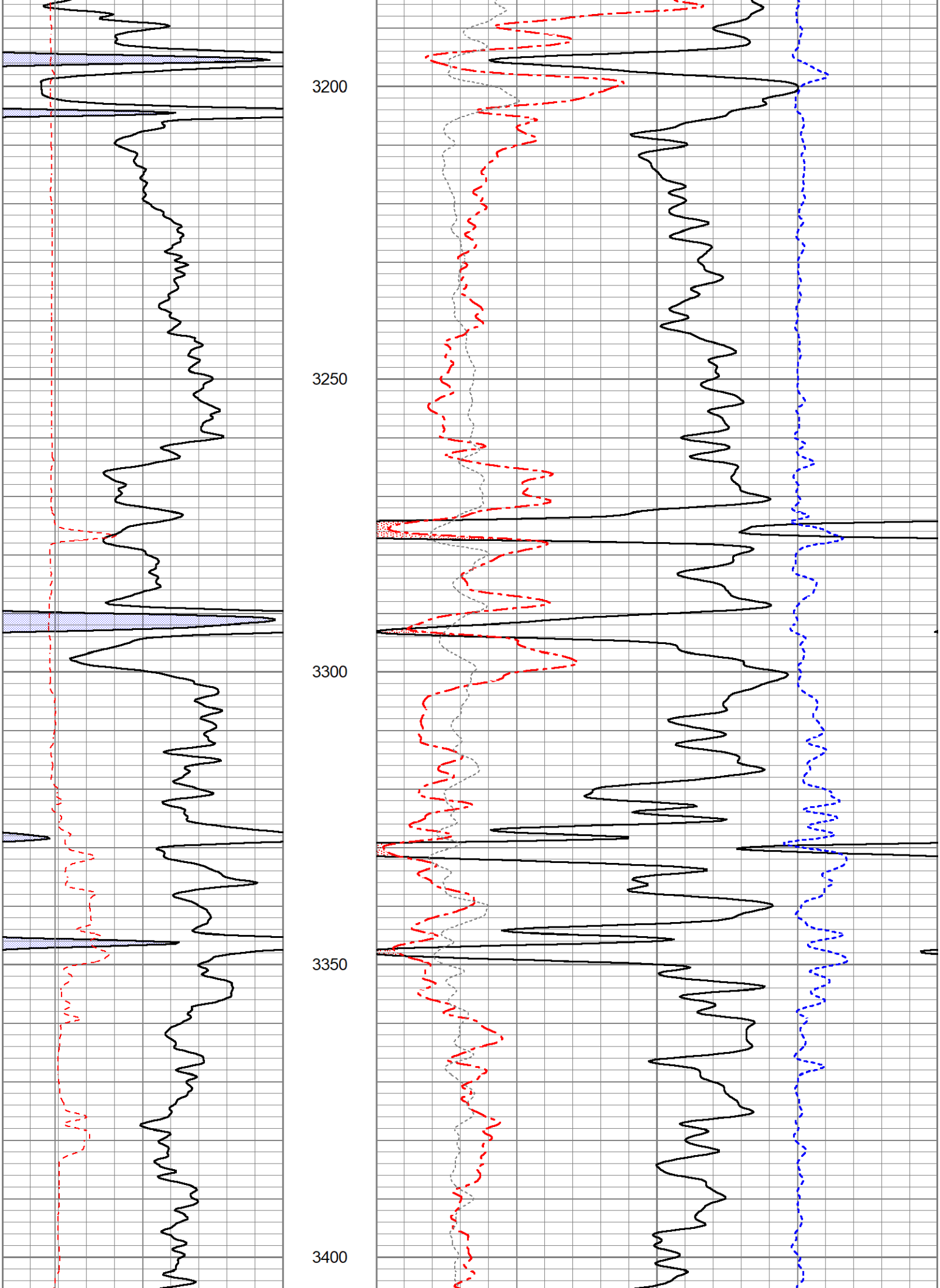
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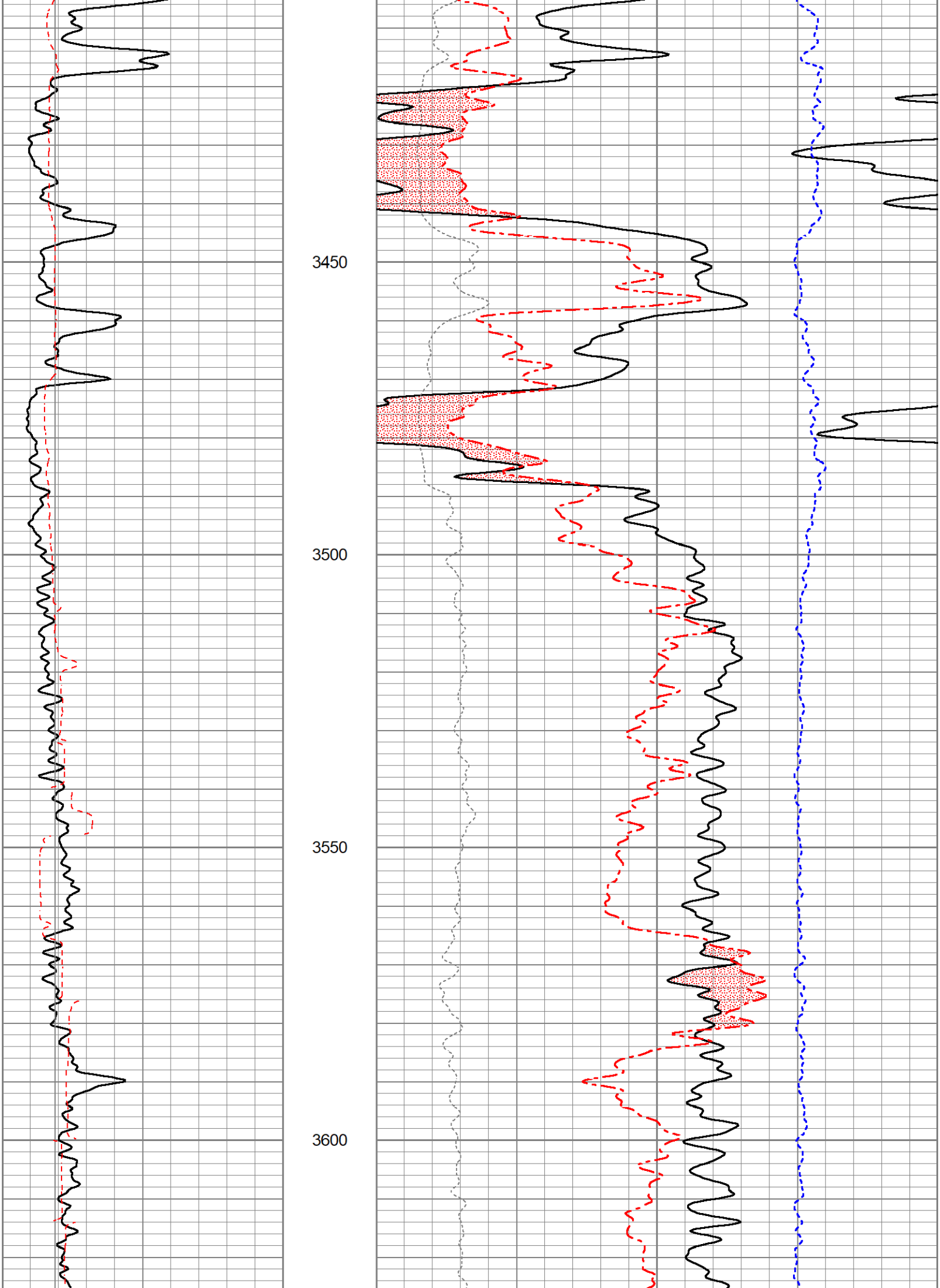
3250
3300
3350
3400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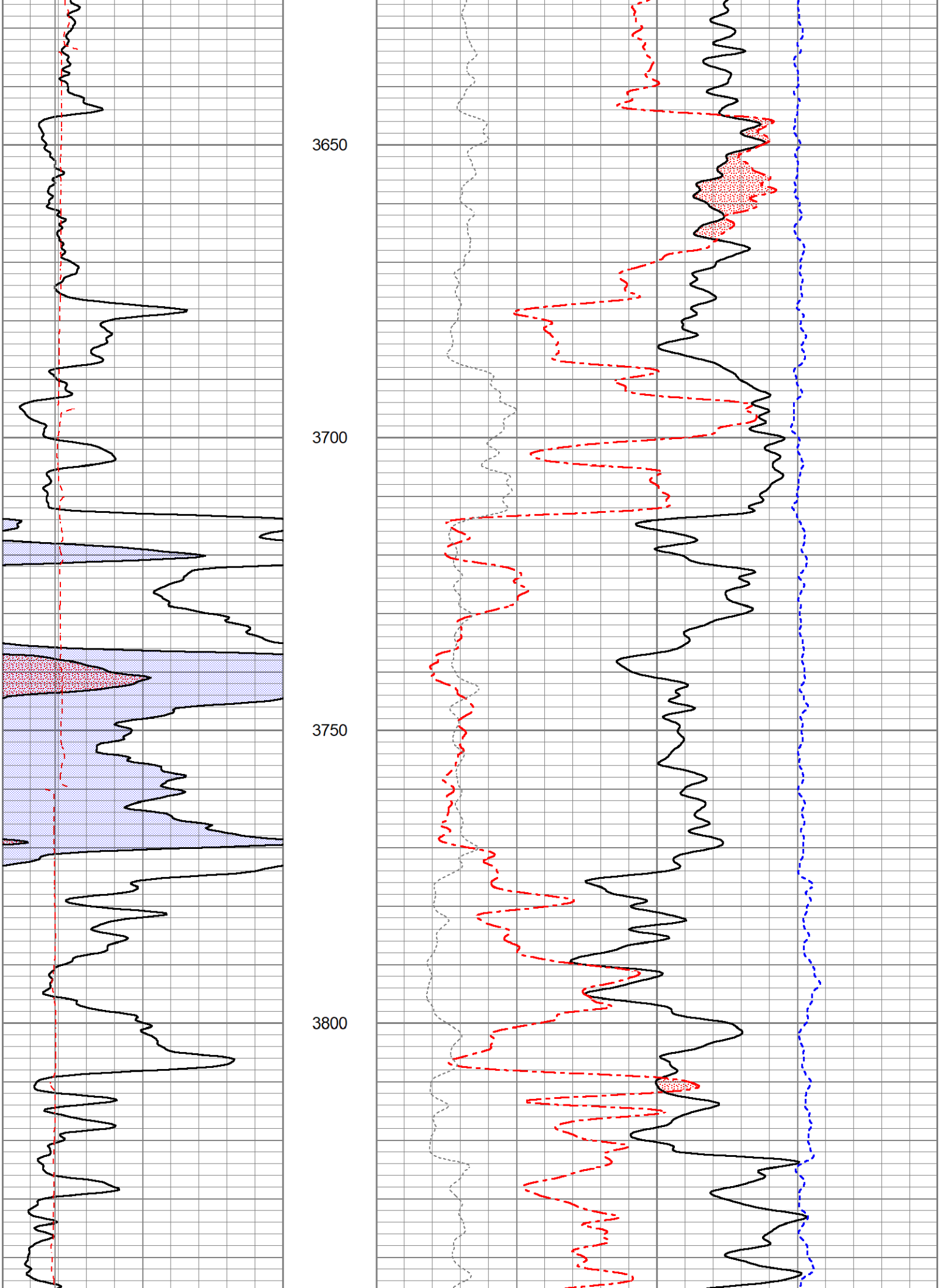
3600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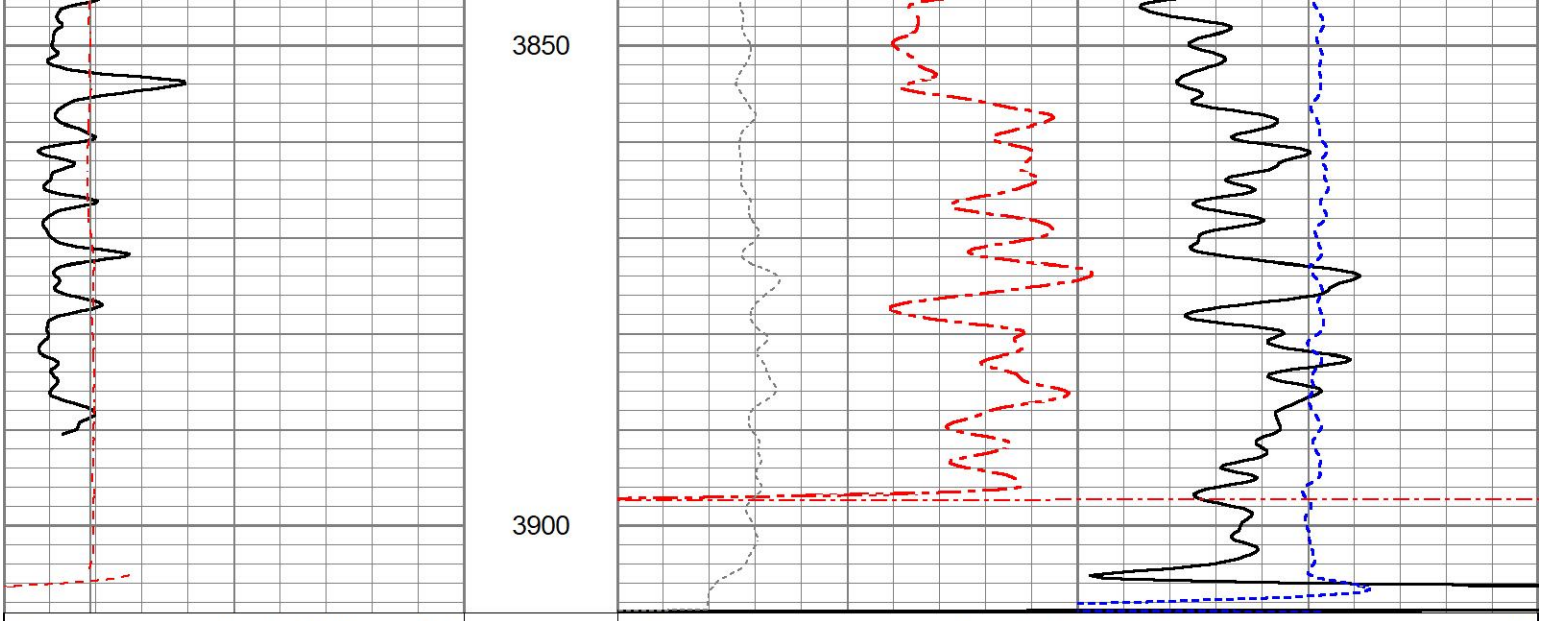
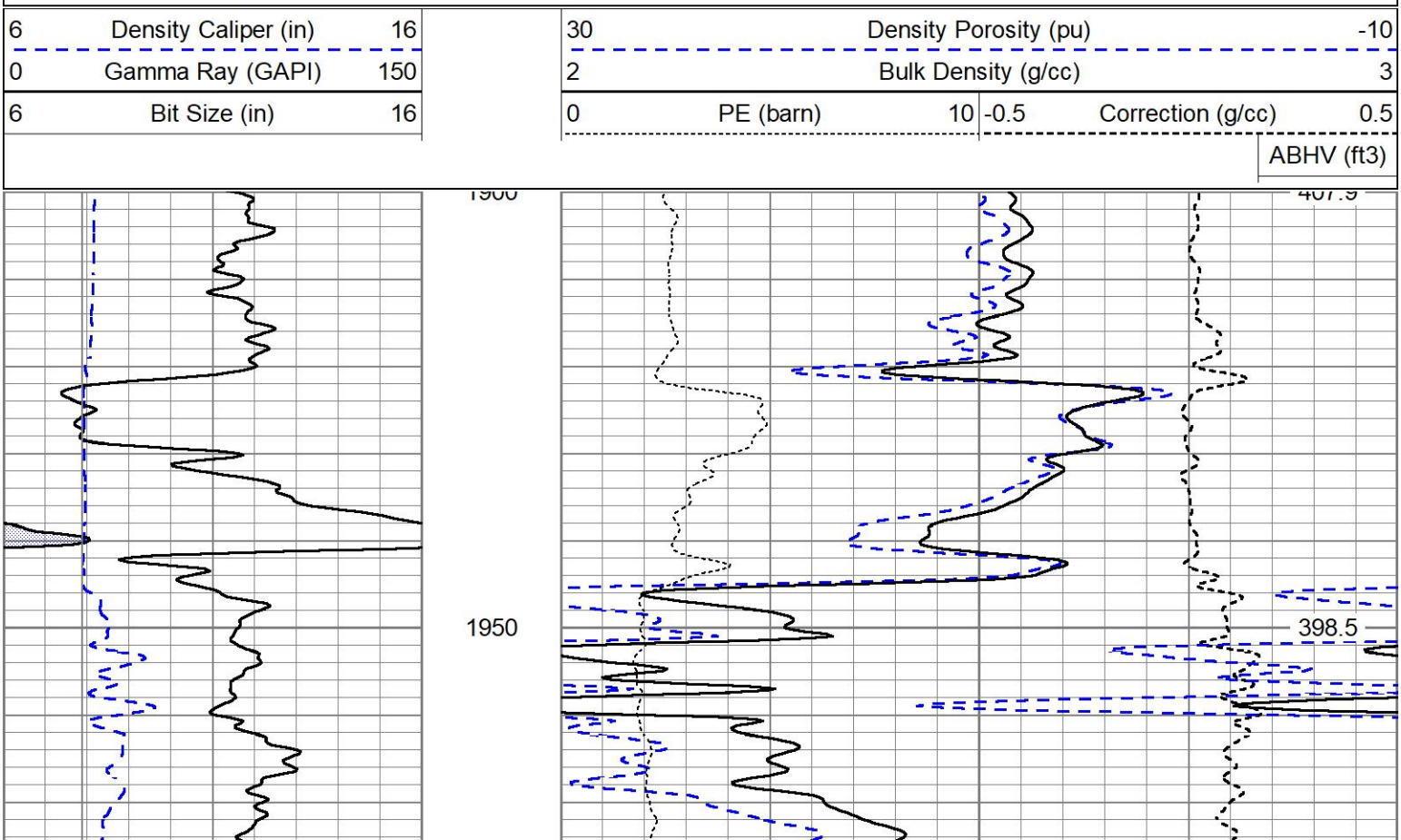
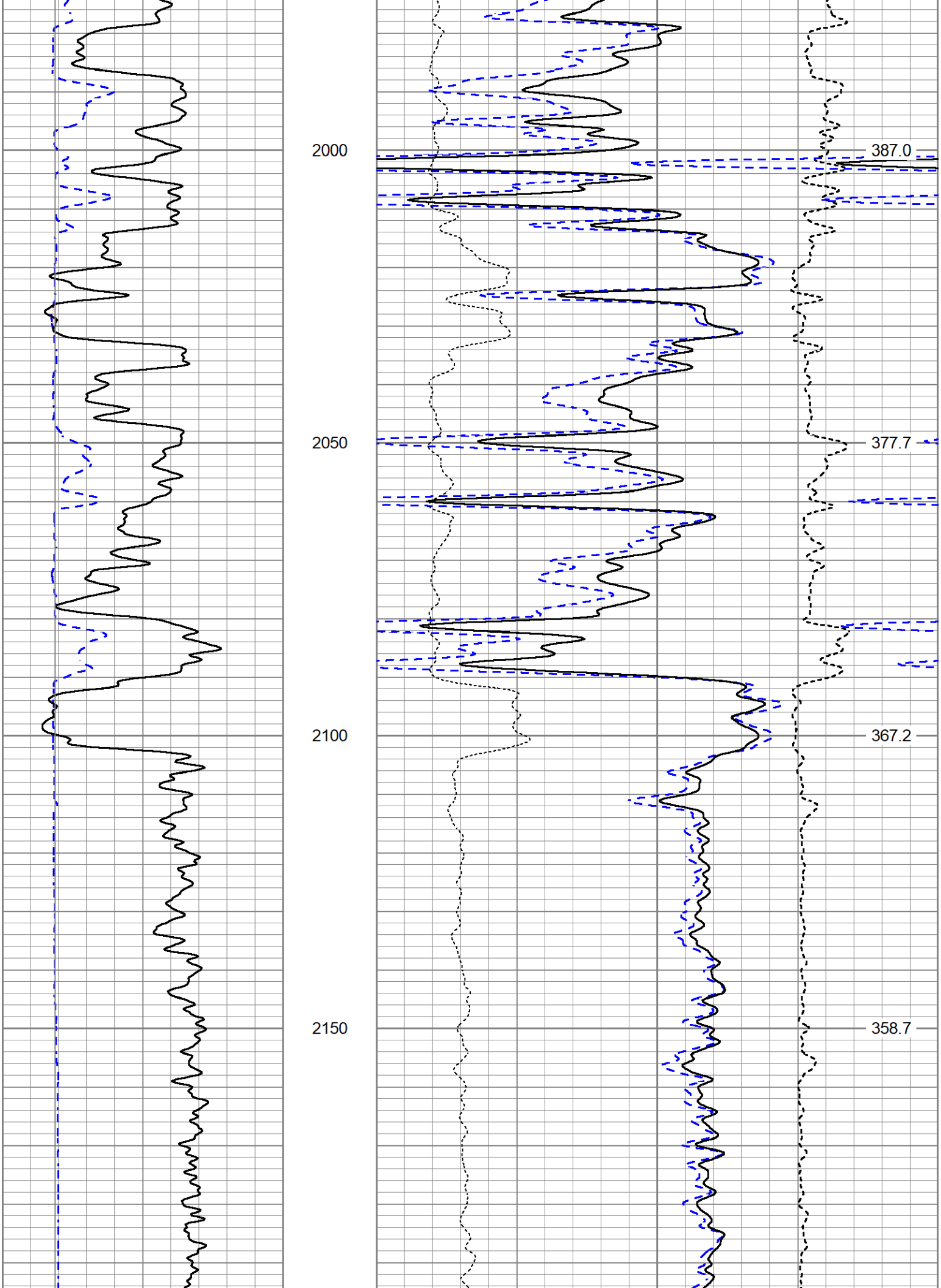
3700
3750
3800




# 5" LITHO DENSITY LOG

| | |
|---|---|
| Database File | ow1-9109 sage.db |
| Dataset Pathname | pass4.2 |
| Presentation Format | stcdl-6-16_5 |
| Dataset Creation | Thu Sep 08 21:20:51 2022 |
| Charted by | Depth in Feet scaled 1:240 |

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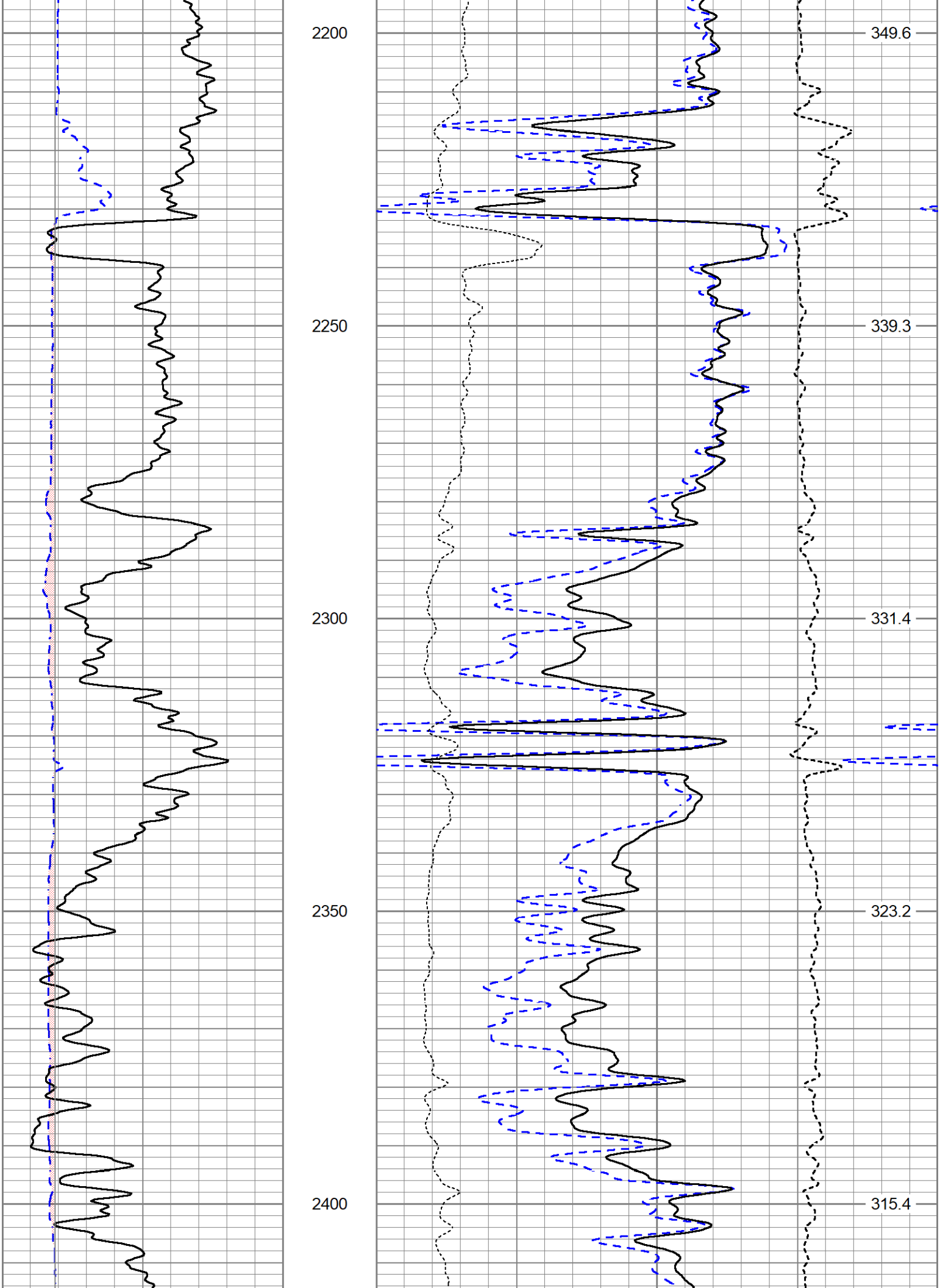
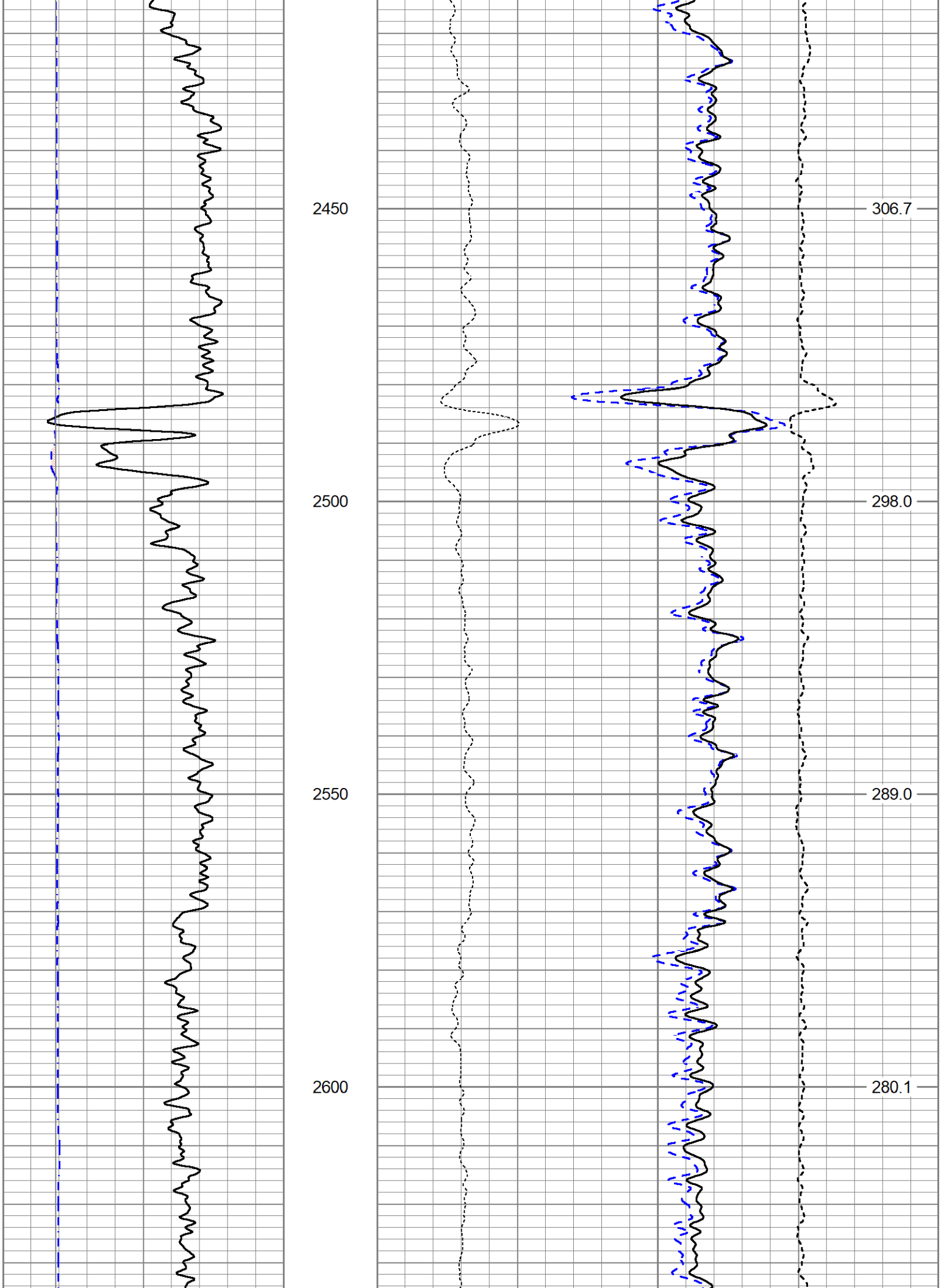
2050
2100
2150
387.0
377.7
367.2
358.7


2200
2250
2300
2350
2400
349.6
339.3
331.4
323.2
315.4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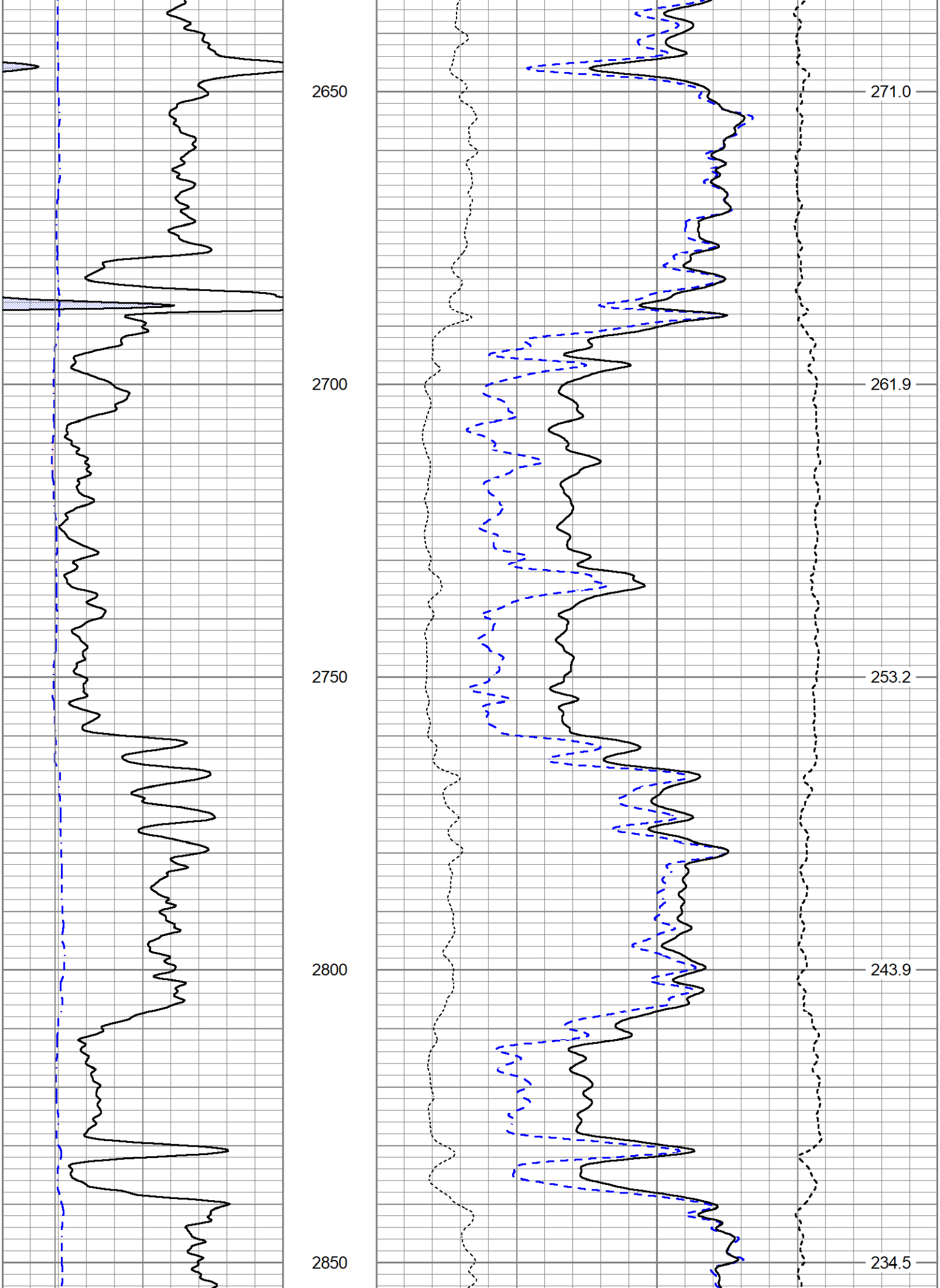
2600
306.7
298.0
289.0
280.1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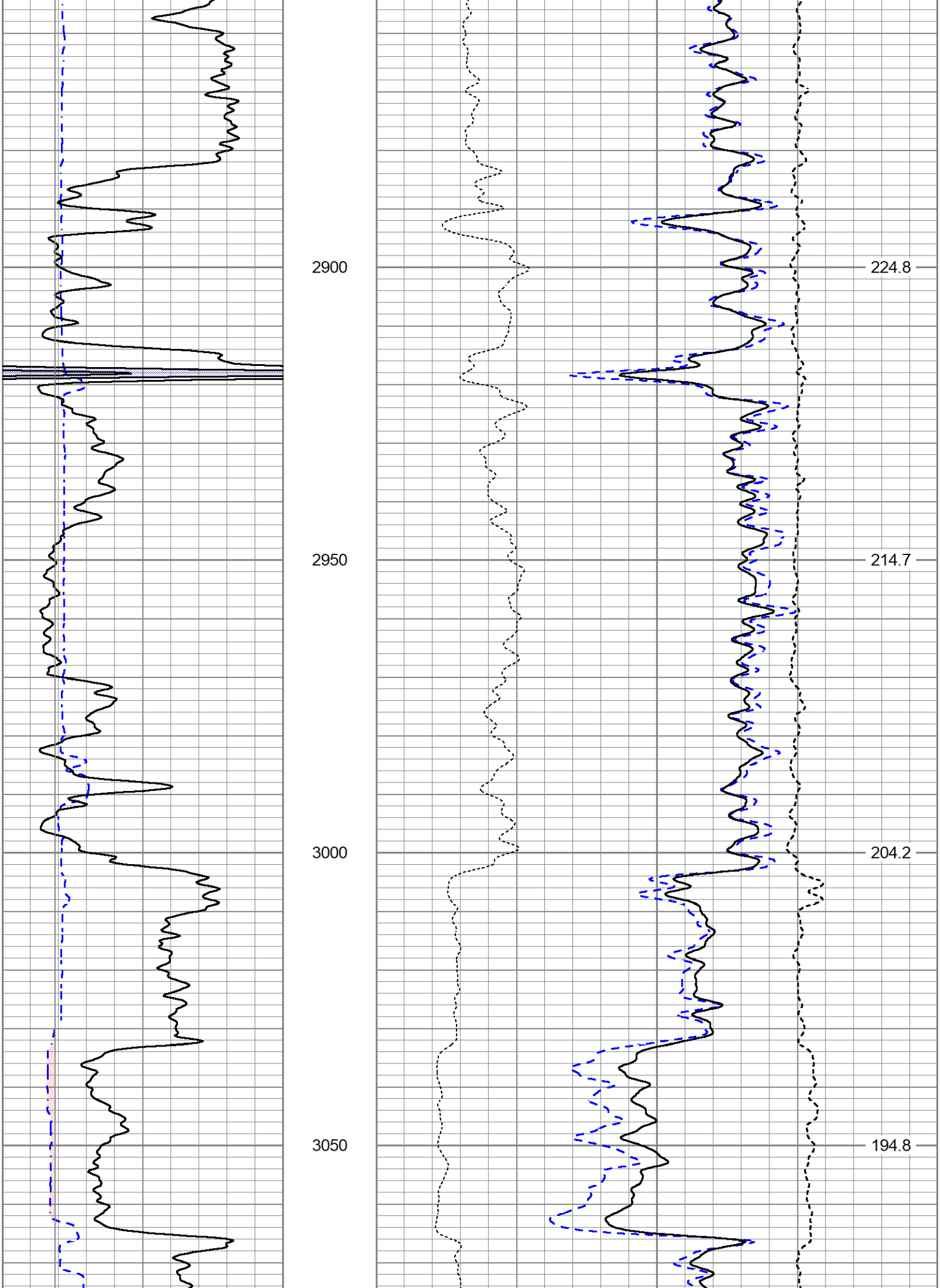
253.2
243.9
234.5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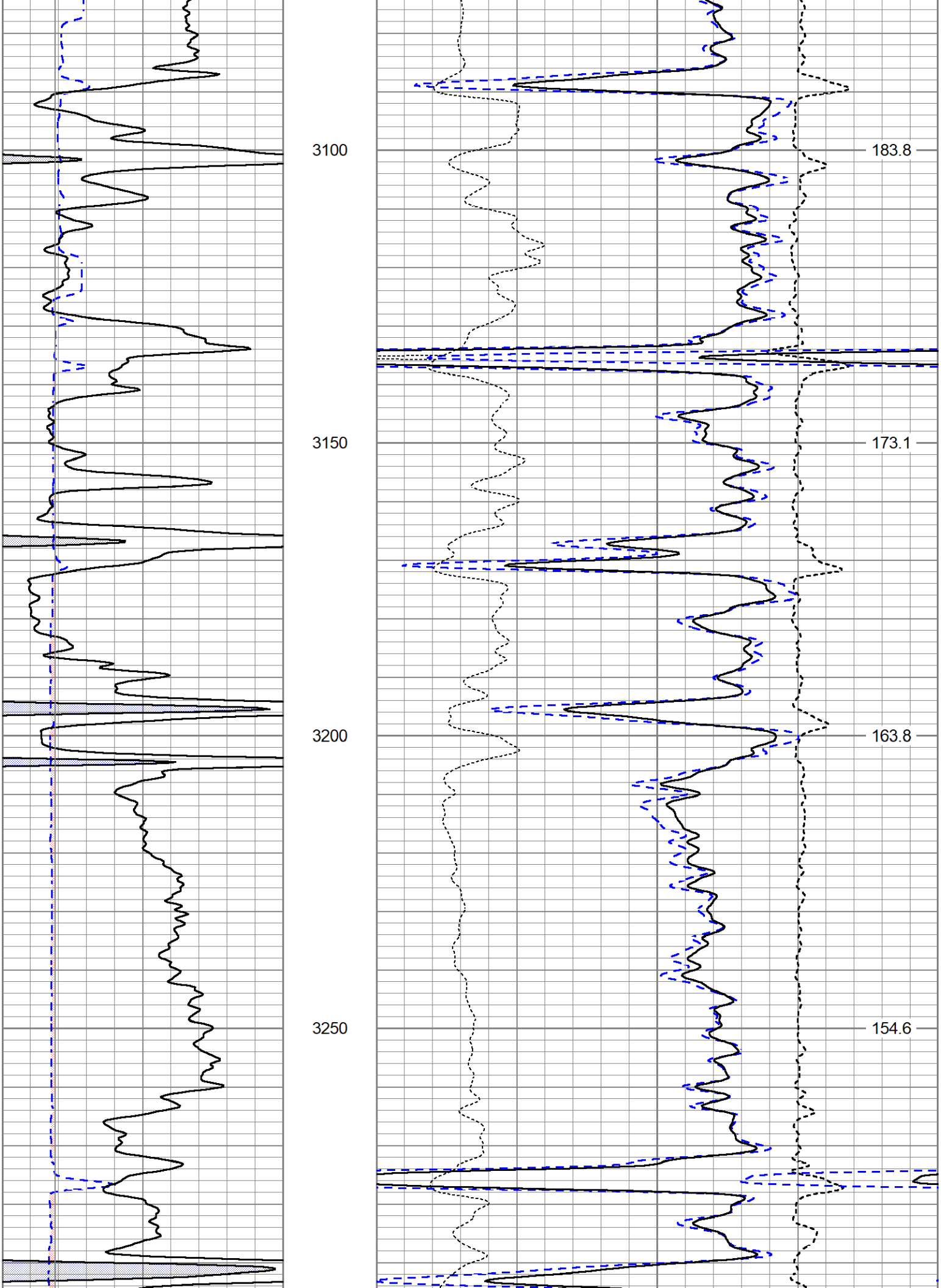
194.8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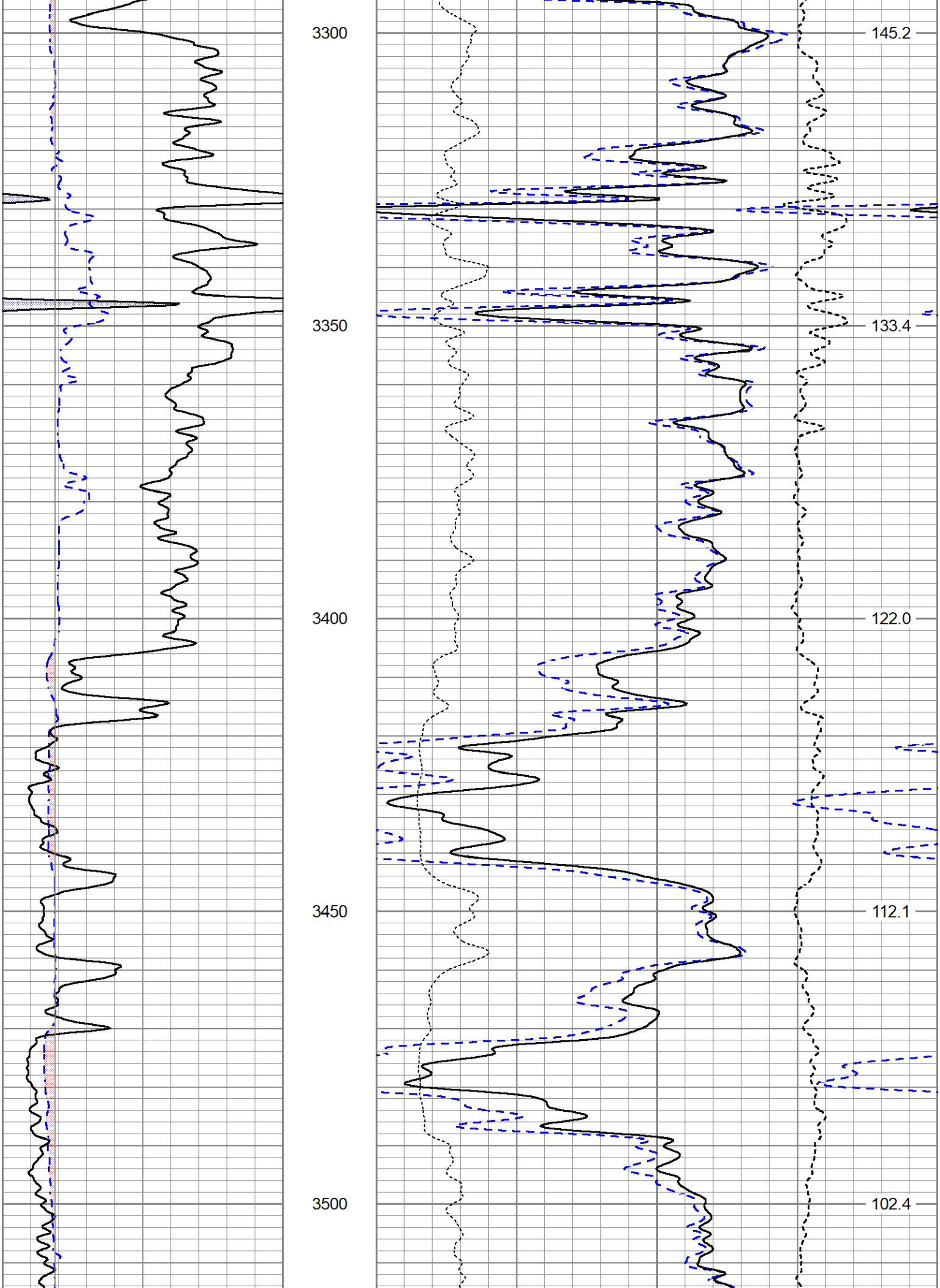
3250
183.8
173.1
163.8
154.6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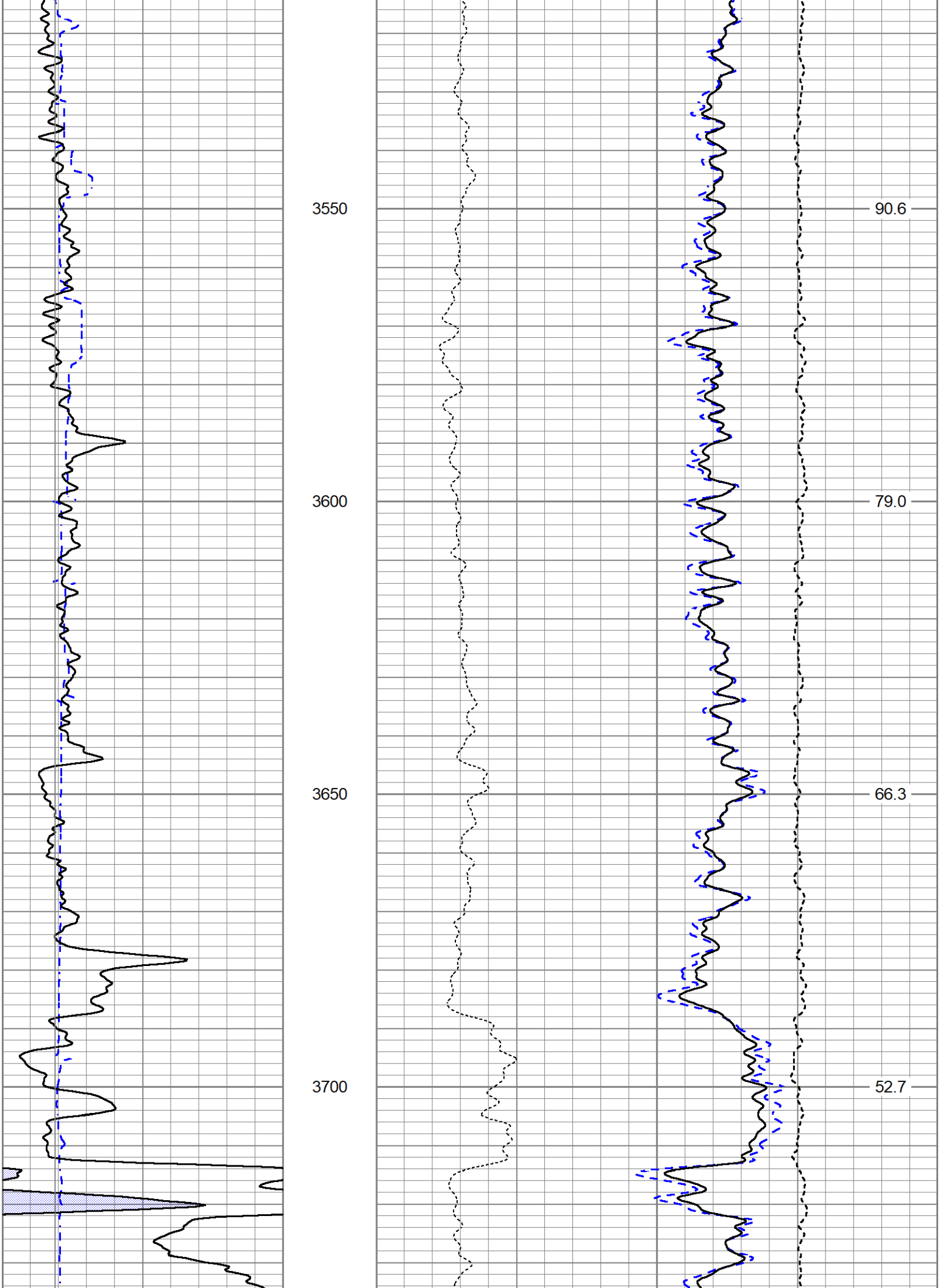
122.0
112.1
102.4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3700
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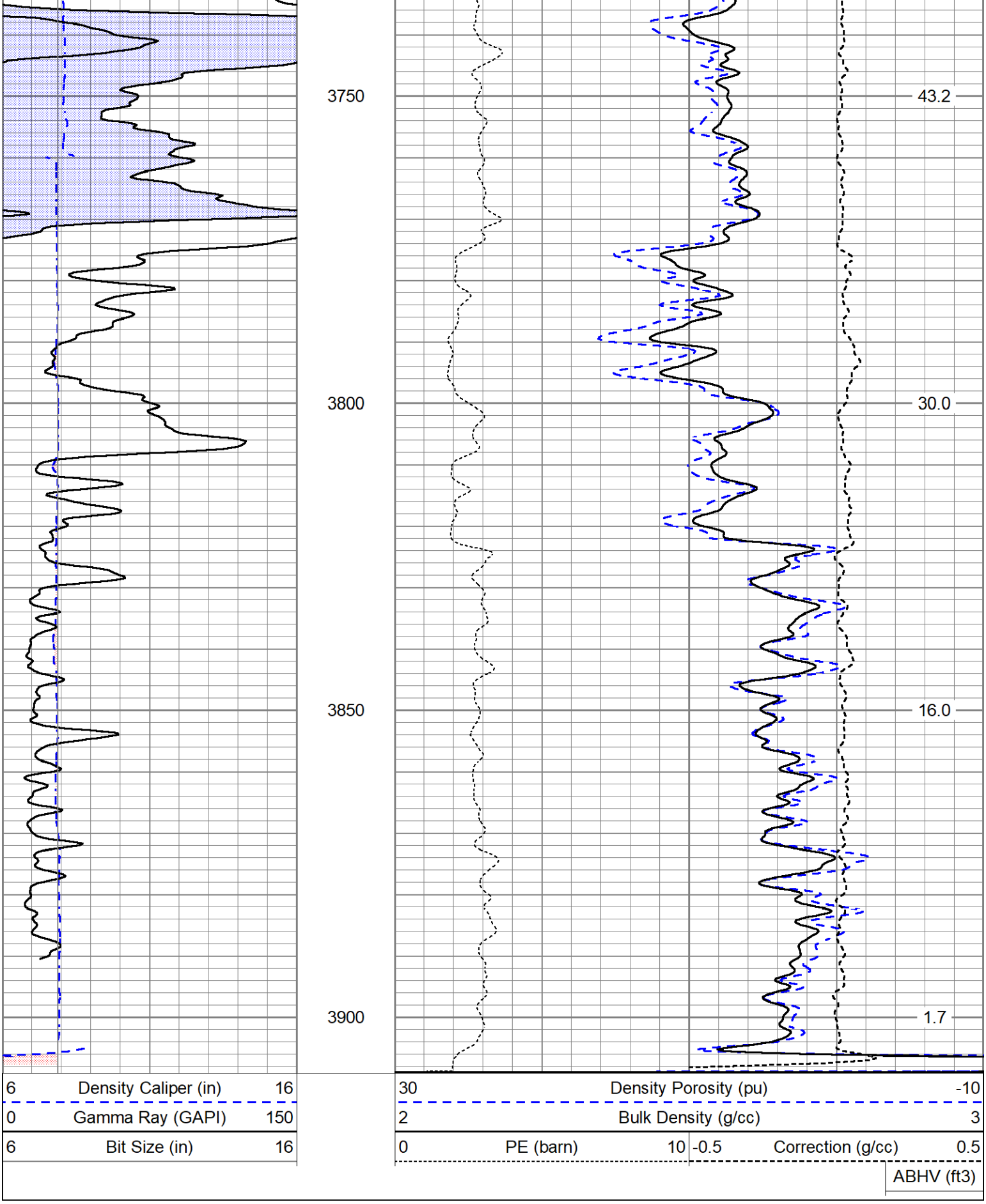
66.3
52.7




Calibration Report

| | |
|---|---|
| Database File | ow1-9109 sage.db |
| Dataset Pathname | pass4 |
| Dataset Creation | Thu Sep 08 18:09:41 2022 |

Admvr Lithodensity Calibration Report

## Admyr Lithodensity Calibration Report

| | |
|---|---|
| Serial-Model: | 1B-B |
| Source: | LITHO OW2 63566B |
| Master Calibration Performed: | Fri Aug 26 08:39:09 2022 |

### Master Calibration

| | Density | | Far Detector | Near Detector | |
|---|---|---|---|---|---|
| Magnesium | 1.710 | g/cc | 6728.80 | 8082.36 | cps |
| Aluminium | 2.590 | g/cc | 1665.32 | 4147.01 | cps |
| Aluminium+Sleeve | 2.584 | g/cc | 1617.89 | 3937.72 | cps |

Spine Angle = 64.46 Density/Spine Ratio = 0.569

| | PE | | NLITH | NHARD | |
|---|---|---|---|---|---|
| Magnesium | 1.658 | barn | 4887.87 | 4584.42 | cps |
| Aluminium | 2.228 | barn | 1126.08 | 1273.79 | cps |
| Aluminium+Sleeve | 3.107 | barn | 911.78 | 1255.45 | cps |

M = 0.828 B = -0.281 R = 1.000

| | Size | | Reading | |
|---|---|---|---|---|
| Small Ring | 5.75 | in | 2.82 | V |
| Large Ring | 11.25 | in | 5.60 | V |

## Neutron Calibration Report

| | | | |
|---|---|---|---|
| Serial Number: | ADMYR1 | | |
| Tool Model: | ADDON | | |
| Performed: | Sat Jul 23 18:24:33 2022 | | |
| Calibrator Values: | 0 | 30 | |
| Calibrator Readings: | 920 | 280 | cps |
| Sensitivity: | -0.046875 | /cps | |

## Inclinometer Calibration Report

Performed: Thu Oct 8 13:57:38 2020

| | Low Read. | High Read. | Low Ref. | High Ref. | |
|---|---|---|---|---|---|
| X Accelerometer | 205.00 | 1843.00 | -1.00 | 1.00 | gee |
| Y Accelerometer | 205.00 | 1843.00 | -1.00 | 1.00 | gee |
| Z Accelerometer | | | | | gee |

## Gamma Ray Calibration Report

| | | |
|---|---|---|
| Serial Number: | Refurb01 | |
| Tool Model: | OSAGE_01 | |
| Performed: | Mon Jan 18 09:02:16 2021 | |
| Calibrator Value: | 150.0 | GAPI |
| Background Reading: | 125.0 | cps |
| Calibrator Reading: | 875.0 | cps |
| Sensitivity: | 0.2000 | GAPI/cps |

| Sensor | Offset (ft) | Schematic | Description | Length (ft) | O.D. (in) | Weight (lb |
|---|---|---|---|---|---|---|
| ACCY | 17.83 | | ADMYR_TELEMETRY-OSAGE_01 (Refurb01)<br>Admyr Telemetry With Gr, Deviation, ADC board and Pulses Board in it. | 3.69 | 3.25 | 53.00 |
| ACCX | 17.83 | | | | | |
| GR | 16.65 | | | | | |
| FRAMES | 15.33 | | | | | |
| SSTAT | 15.33 | | NEU-ADDON (ADMYR1)<br>Inline Neutron | 5.65 | 3.38 | 84.00 |
| PSTAT | 15.33 | | | | | |
| ASTAT | 15.33 | | | | | |
| NEU | 11.66 | | | | | |
| DCAL | 2.79 | | | | | |
| LS_HV | 2.63 | | | | | |
| LS8 | 2.63 | | ADT1LITH-B (1B) | 9.69 | 4.25 | 238.00 |
| LS7 | 2.63 | | | | | |
| LS6 | 2.63 | | | | | |
| LS5 | 2.63 | | | | | |
| NHARD | 2.63 | | | | | |
| LSD | 2.63 | | | | | |
| LS2 | 2.63 | | | | | |
| NLITH | 2.63 | | | | | |
| LSTAT | 2.17 | | | | | |
| LSV | 2.17 | | | | | |

Dataset: ow1-9109 sage.db: field/well/run1/pass4
Total length: 19.02 ft
Total weight: 375.00 lb
O.D.: 4.25 in