



**COMPENSATED
DENSITY / NEUTRON
PE LOG**

Company NEC OPERATING - KANSAS, LLC.

Well ELLIE #1

Field STRATTON

County TREGO **State** KANSAS

Company NEC OPERATING - KANSAS, LLC.
Well ELLIE #1
Field STRATTON
County TREGO
State KANSAS

Location: API #: 15-195-23144-0000
 2310' FSL & 1700' FWL
 E/2 - NW - NE - SW

Permanent Datum GROUND LEVEL **Elevation** 2231
Log Measured From KELLY BUSHING 7' A.G.L.
Drilling Measured From KELLY BUSHING

SEC 18 TWP 11S RGE 21W

Other Services
 DILMEL
 SONIC

Elevation
 K.B. 2238
 D.F. 2236
 G.L. 2231

| | | |
|------------------------------|---------------|---------------------|
| Date | 9/23/22 | |
| Run Number | ONE | |
| Depth Driller | 4100 | |
| Depth Logger | 4163 | |
| Bottom Logged Interval | 4139 | |
| Top Log Interval | 1700 | |
| Casing Driller | 8 5/8"@254' | |
| Casing Logger | 264 | |
| Bit Size | 7 7/8" | |
| Type Fluid in Hole | CHEMICAL MUD | CHLORIDES 4.800 PPM |
| Density / Viscosity | 9.3/58 | |
| pH / Fluid Loss | 10.0/6.0 | |
| Source of Sample | FLOWLINE | |
| Rm @ Meas. Temp | .850@76F | |
| Rmf @ Meas. Temp | .638@76F | |
| Rmc @ Meas. Temp | 1.02@76F | |
| Source of Rmf / Rmc | MEASUREMENT | |
| Rm @ BHT | .552@117F | |
| Time Circulation Stopped | 2.5 HOURS | |
| Time Logger on Bottom | 6:00 P.M. | |
| Maximum Recorded Temperature | 117F | |
| Equipment Number | 922339 | |
| Location | HAYS, KANSAS | |
| Recorded By | JEFF LUEBBERS | |
| Witnessed By | SEAN DEENIHAN | |

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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.

15-195-23144-0000

Comments

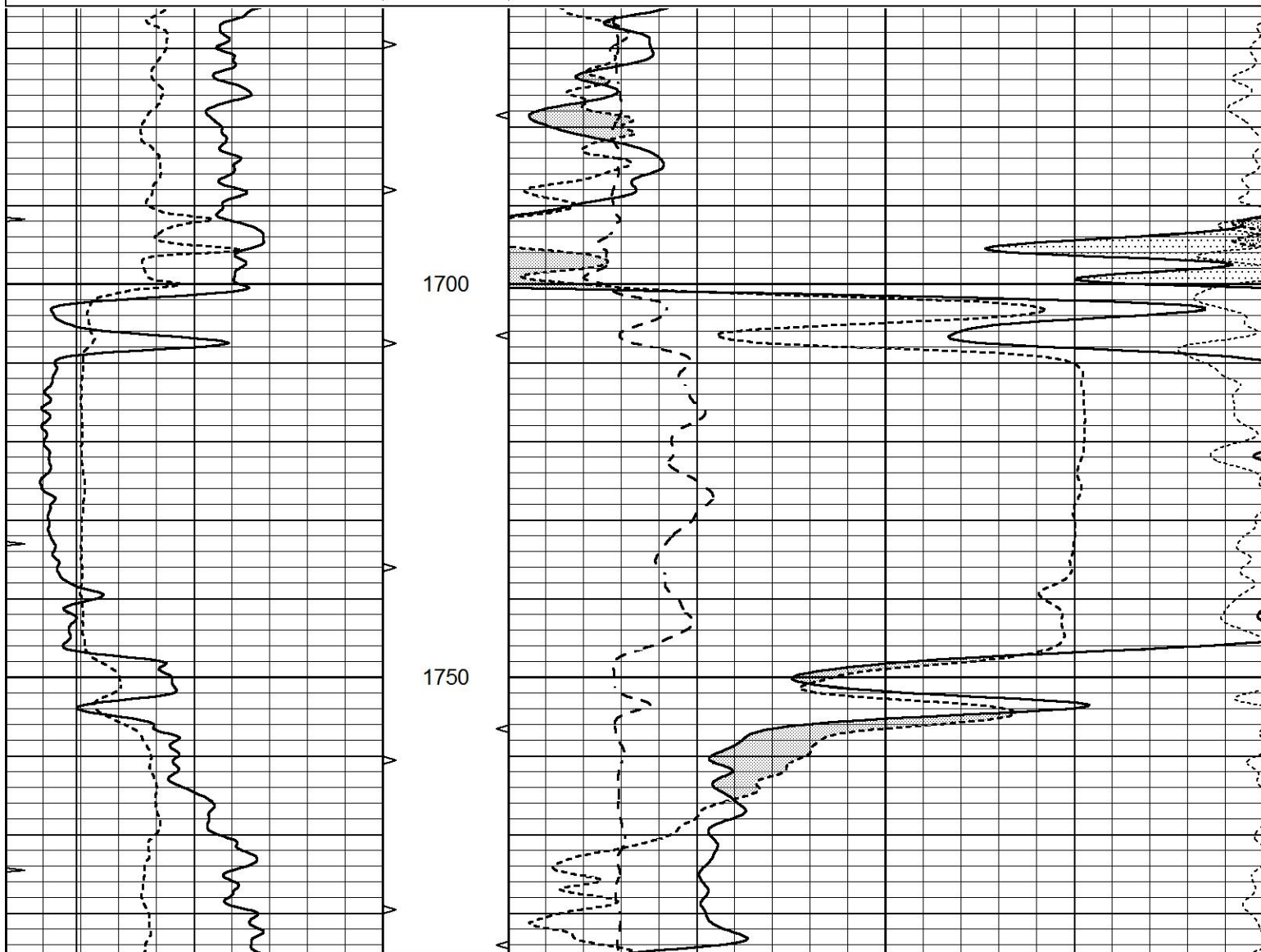
THANK YOU FOR USING ELI WIRELINE HAYS, KANSAS (785) 628-6395
 DIRECTIONS
 OGALLAH, KS. & I-70 EXIT, 7 1/2 N. TO "RD. D", 2E., ON EAST ACROSS FENCELINE, 1N. TO NEXT
 FENCELINE & E. INTO



ANHYDRITE REPEAT

Database File 7081pe.db
 Dataset Pathname pass2.1A
 Presentation Format _ldt_neu
 Dataset Creation Fri Sep 23 18:23:27 2022
 Charted by Depth in Feet scaled 1:240

| | | | | | | | |
|---|------------------|-----|----------|----|--------------------------|----|------------------------------|
| 0 | GAMMA RAY (GAPI) | 150 | ABHV | 30 | COMPENSATED DENSITY (pu) | | -10 |
| 6 | CALIPER (in) | 16 | 10 (ft3) | 0 | COMPENSATED NEUTRON (pu) | | -10 |
| 0 | MINMK | 20 | TBHV | 0 | PE | 10 | -0.25 CORRECTION (g/cc) 0.25 |
| | | | 0 (ft3) | 10 | | | |



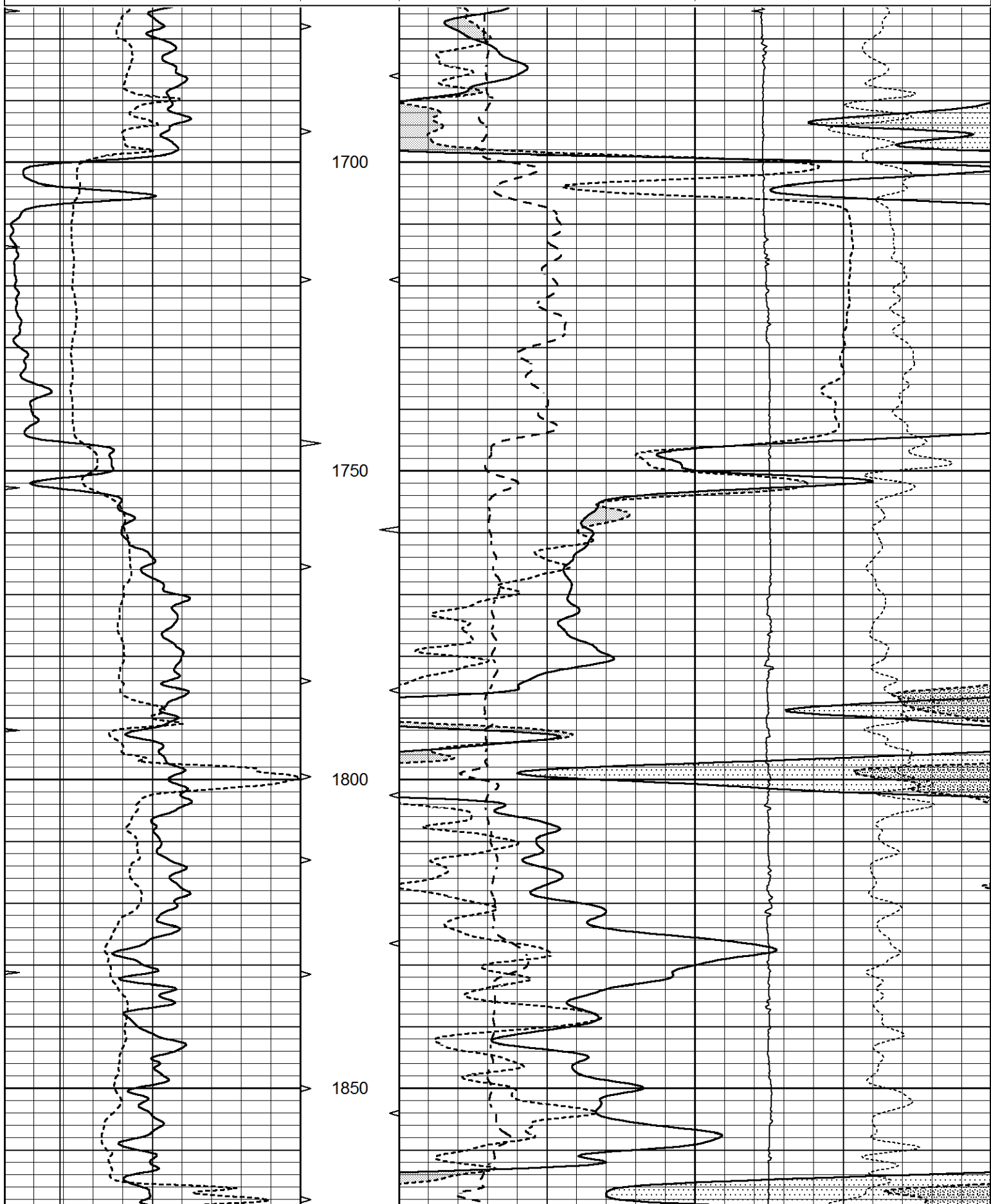
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|---|------------------|-----|----------|----|--------------------------|----|------------------------------|
| 0 | GAMMA RAY (GAPI) | 150 | ABHV | 30 | COMPENSATED DENSITY (pu) | | -10 |
| 6 | CALIPER (in) | 16 | 10 (ft3) | 0 | COMPENSATED NEUTRON (pu) | | -10 |
| 0 | MINMK | 20 | TBHV | 0 | PE | 10 | -0.25 CORRECTION (g/cc) 0.25 |
| | | | 0 (ft3) | 10 | | | |

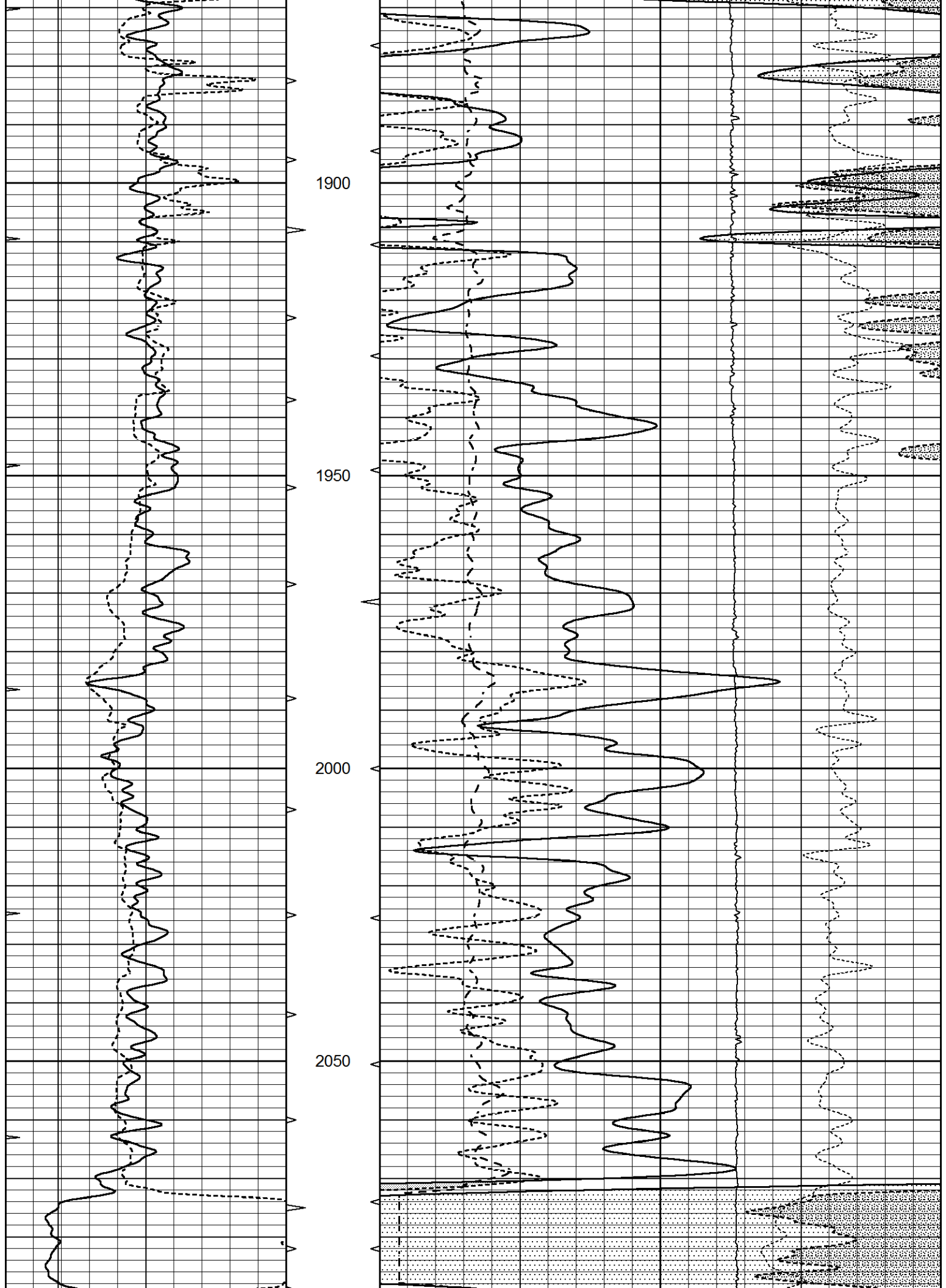


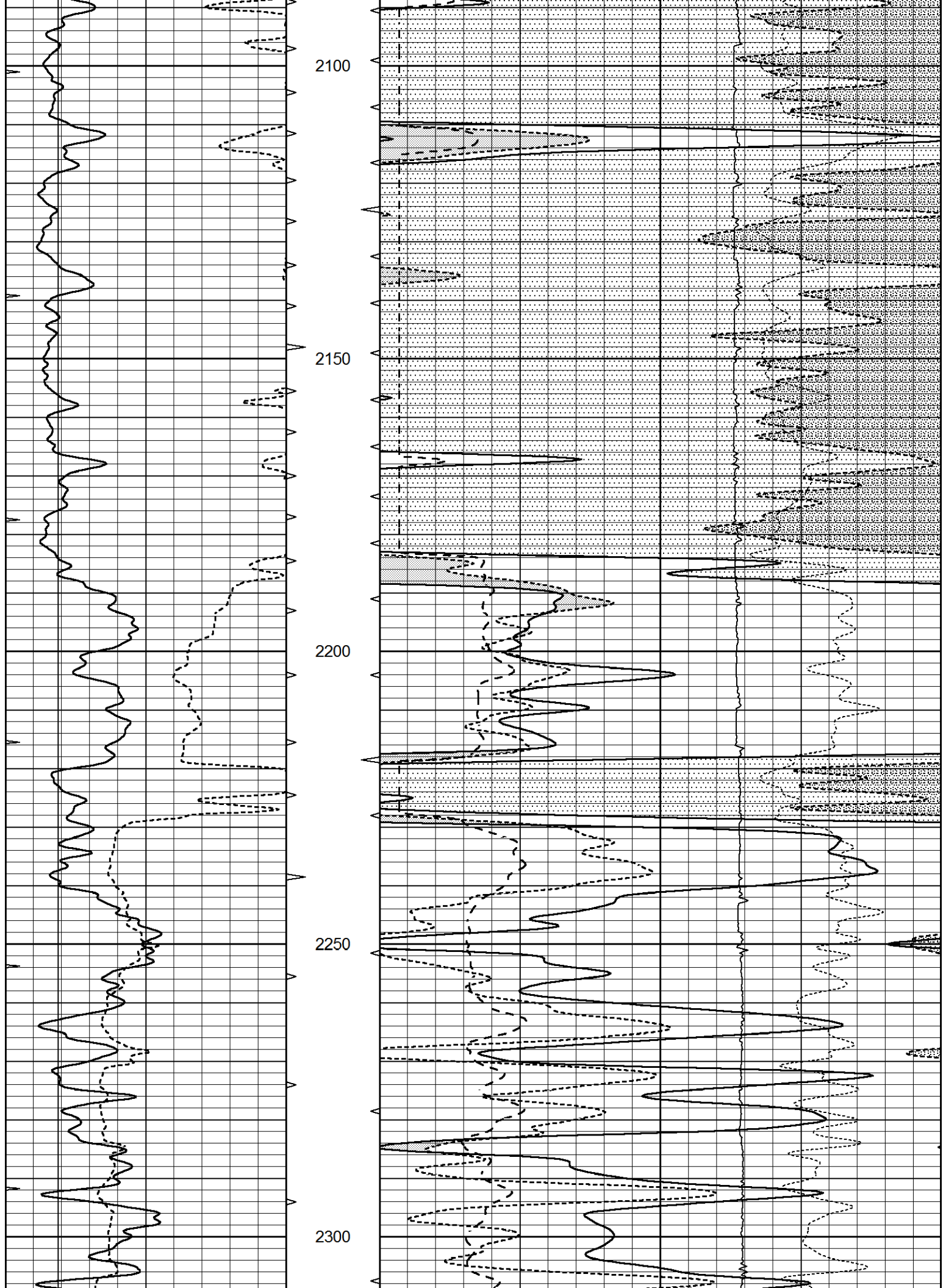
MAIN SECTION

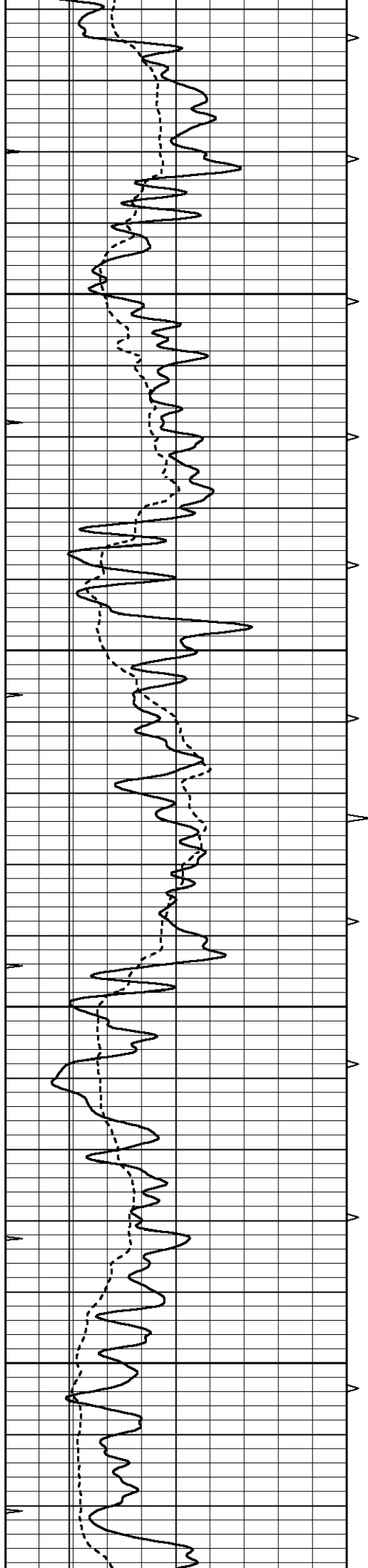
Database File 7081pe.db
 Dataset Pathname pass4.1M
 Presentation Format ldt_neu
 Dataset Creation Fri Sep 23 20:08:10 2022

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|---|------------------|-----|------------|----|--------------------------|----|-------|-------------------|------|
| 0 | GAMMA RAY (GAPI) | 150 | ABHV | 30 | COMPENSATED DENSITY (pu) | | | -10 | |
| 6 | CALIPER (in) | 16 | 10 (ft3) 0 | 30 | COMPENSATED NEUTRON (pu) | | | -10 | |
| 0 | MINMK | 20 | TBHV | 0 | PE | 10 | -0.25 | CORRECTION (g/cc) | 0.25 |
| | | | 0 (ft3) 10 | | | | 0 | LTEN (lb) | 5000 |







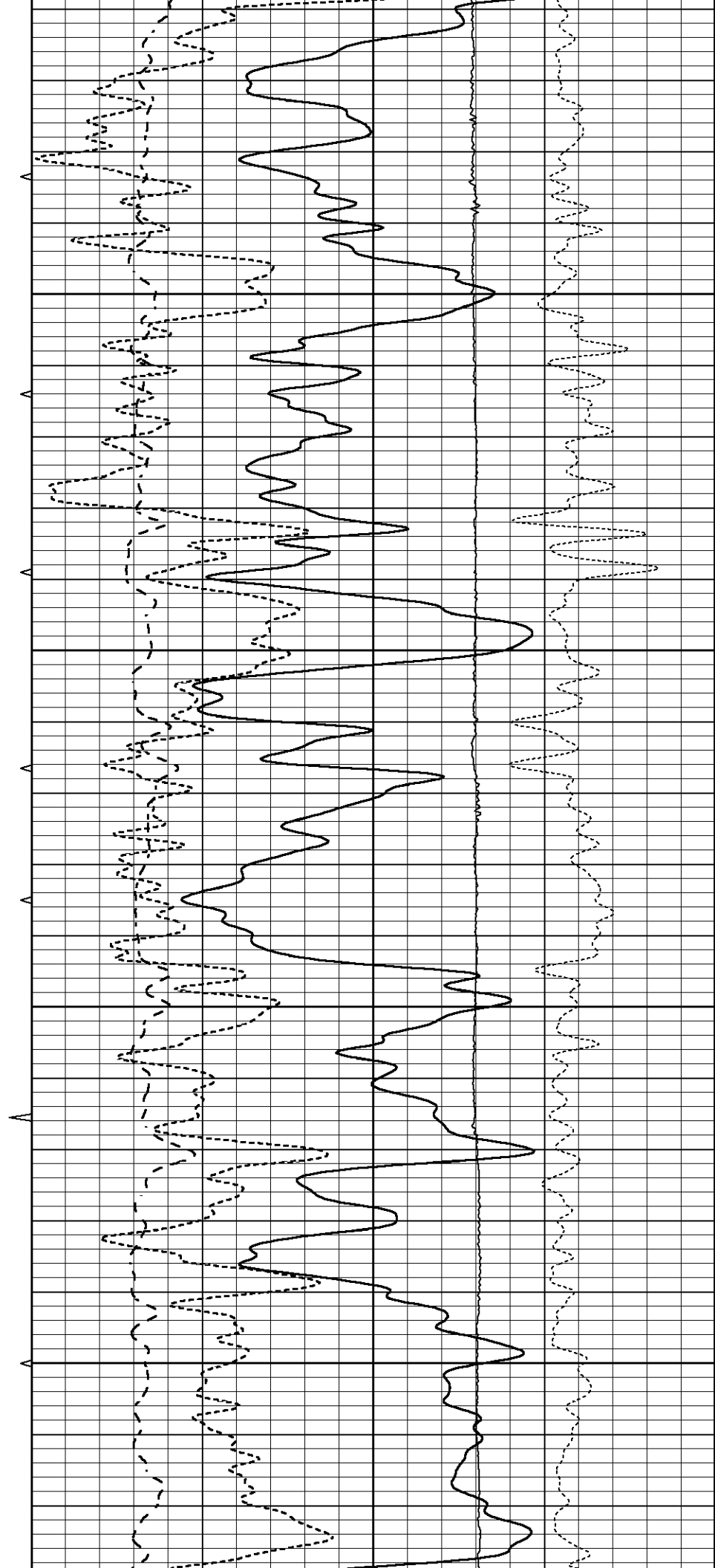


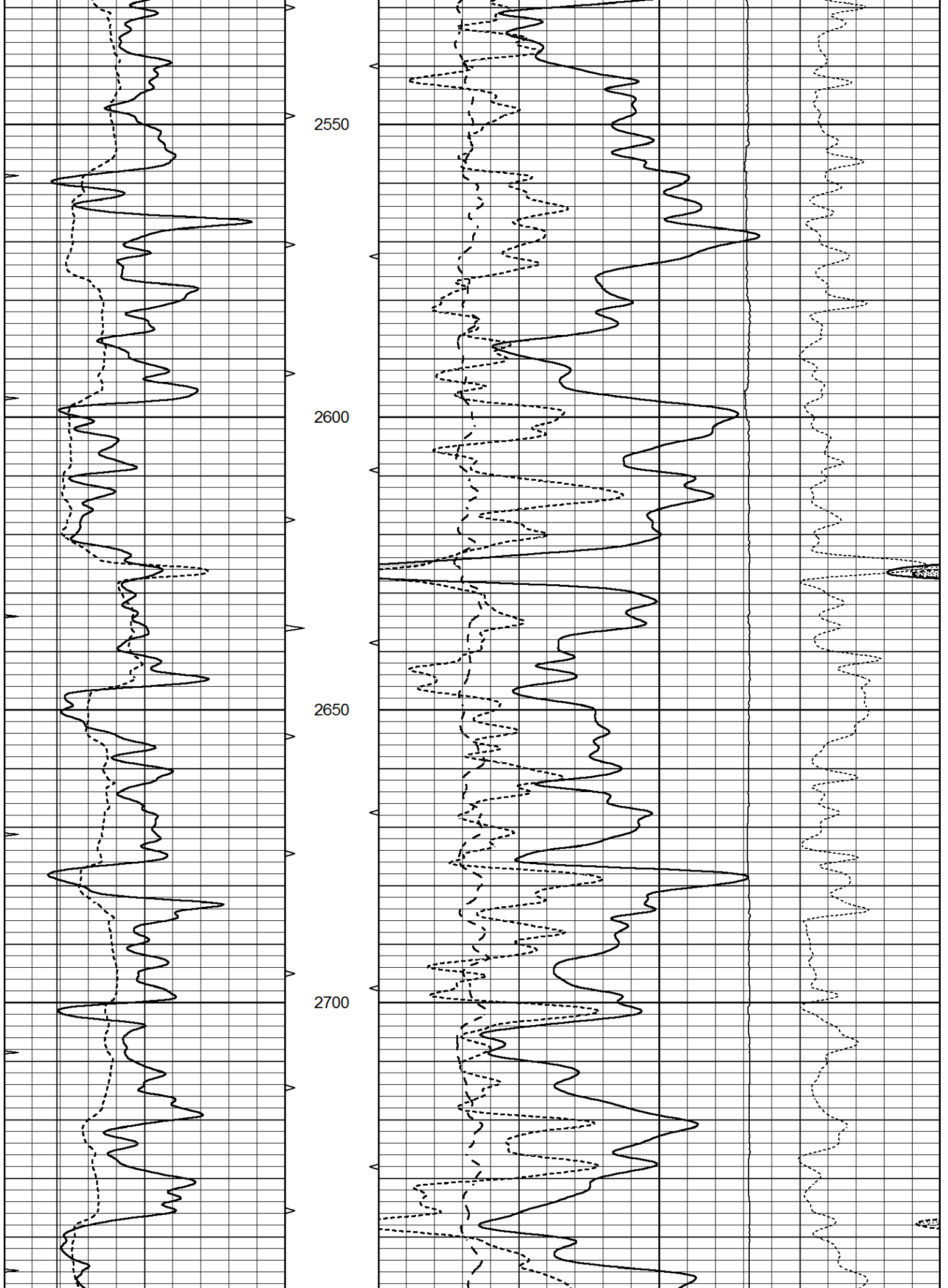
2350

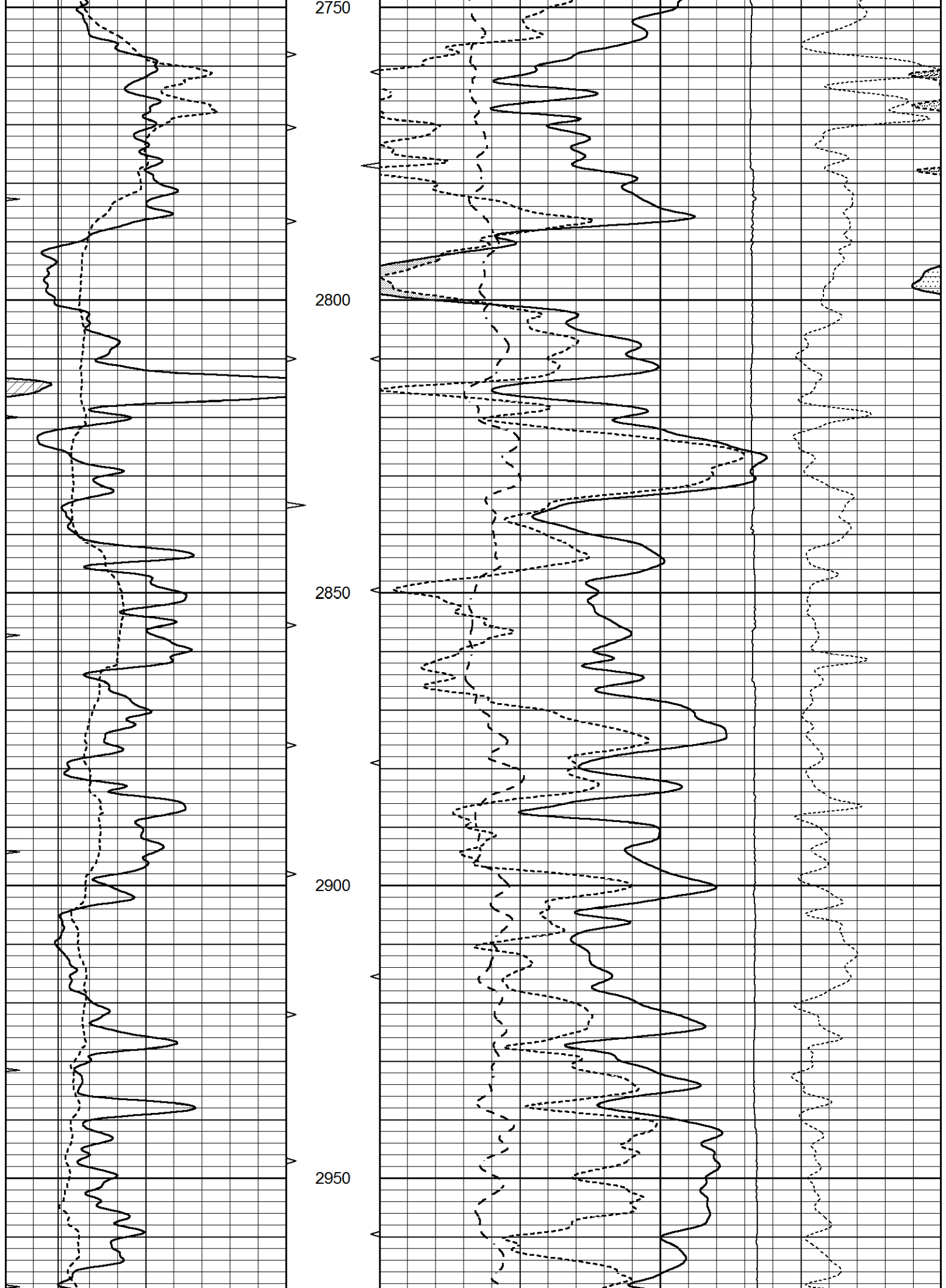
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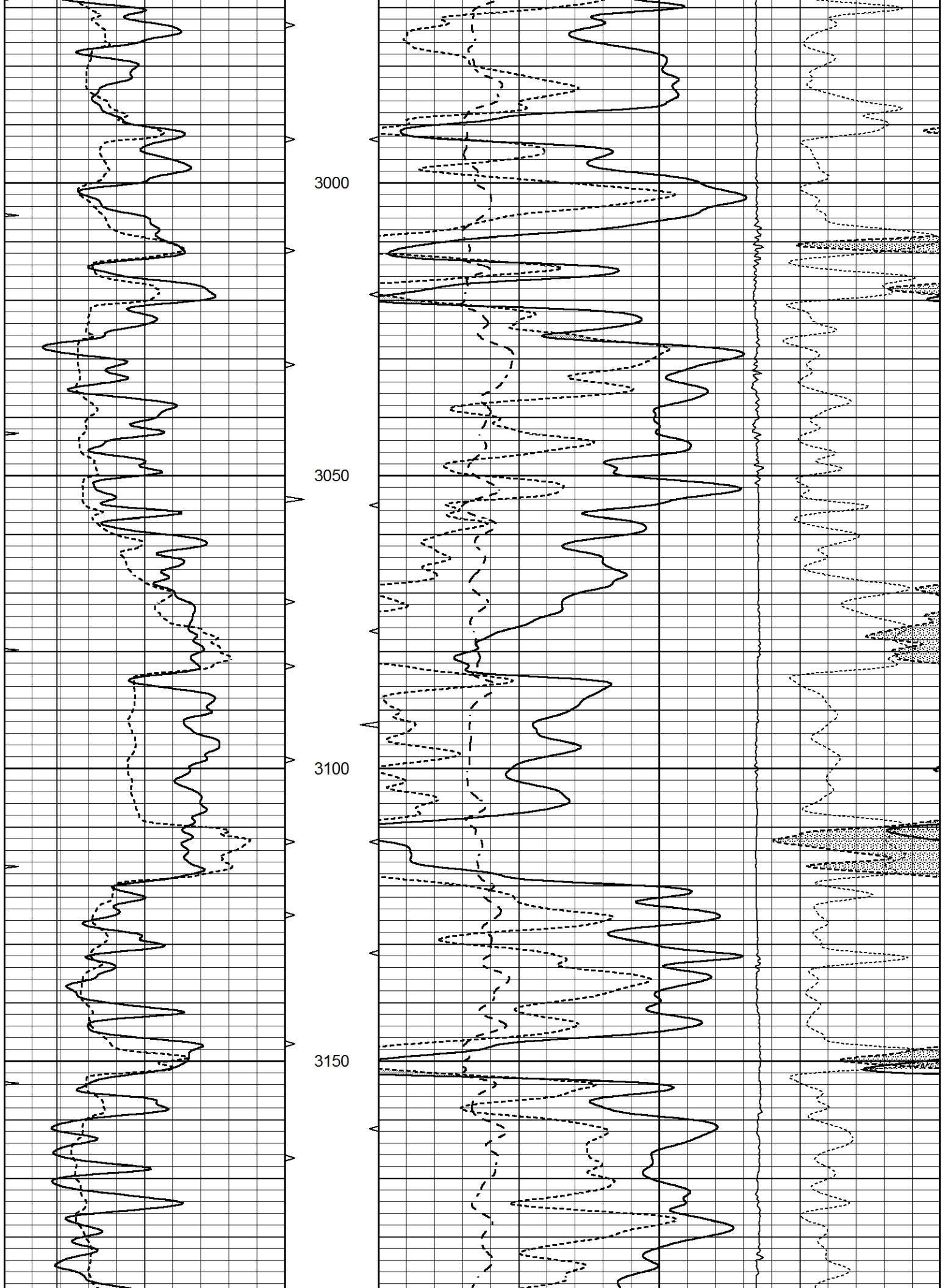
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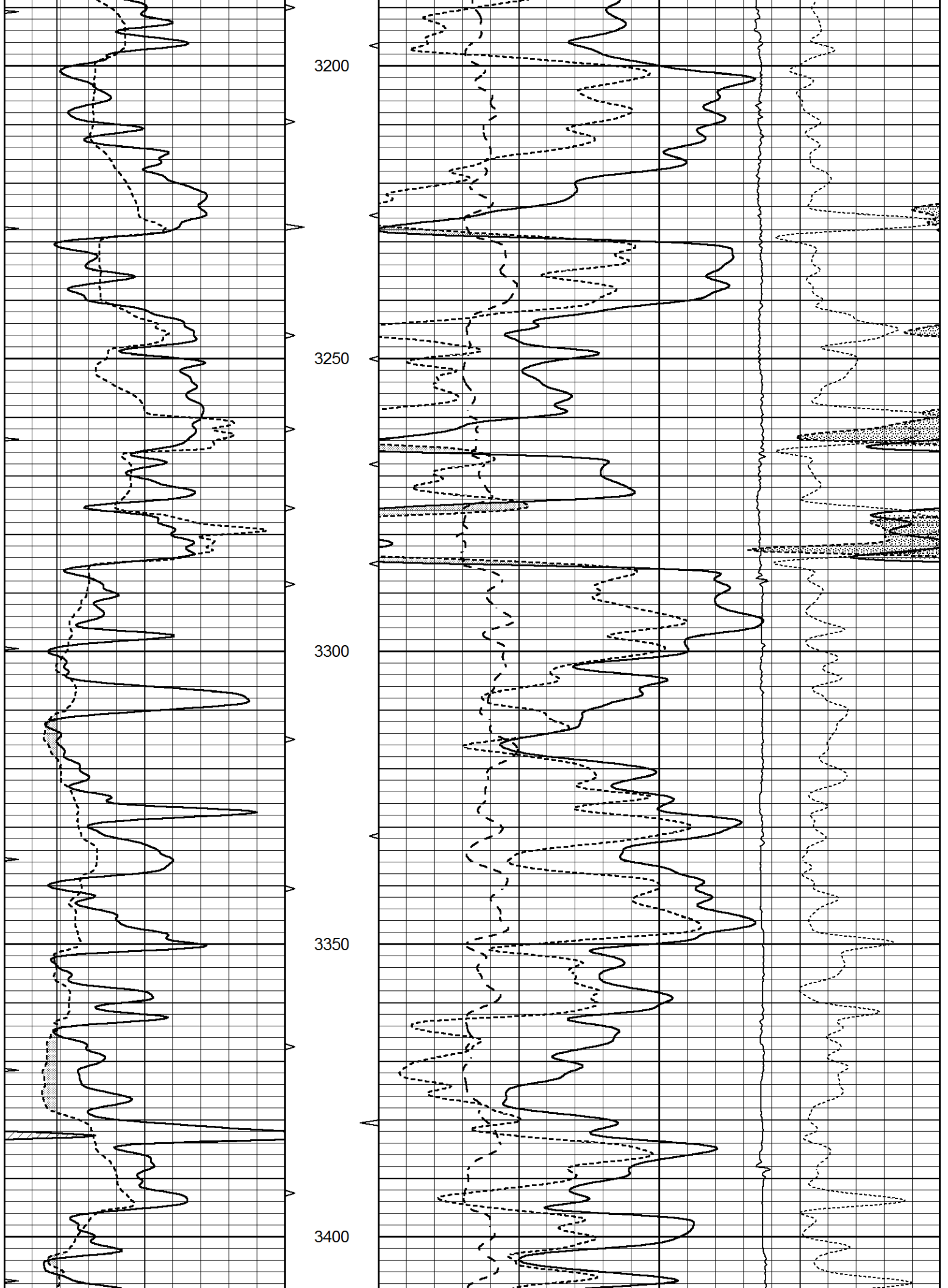
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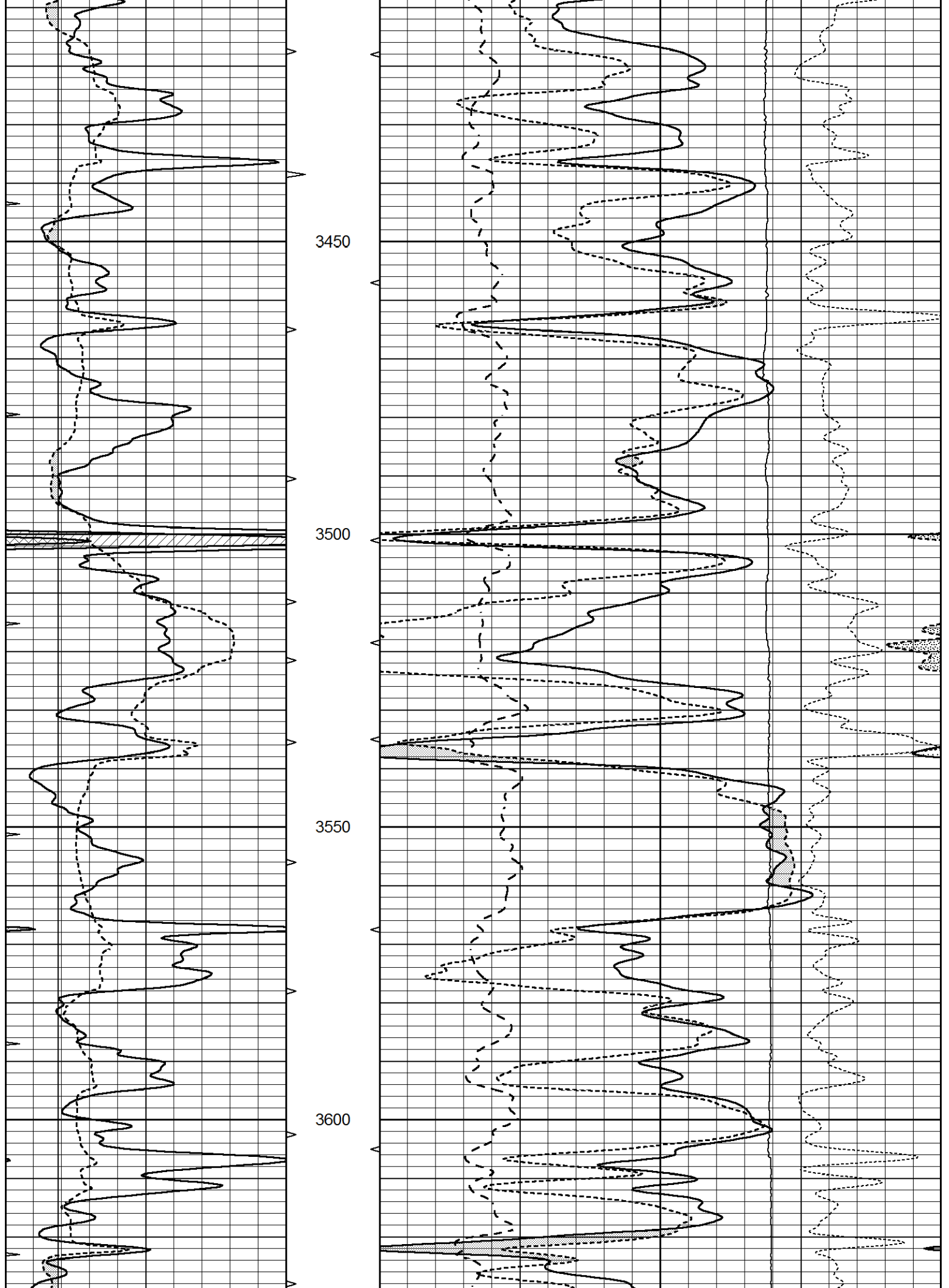


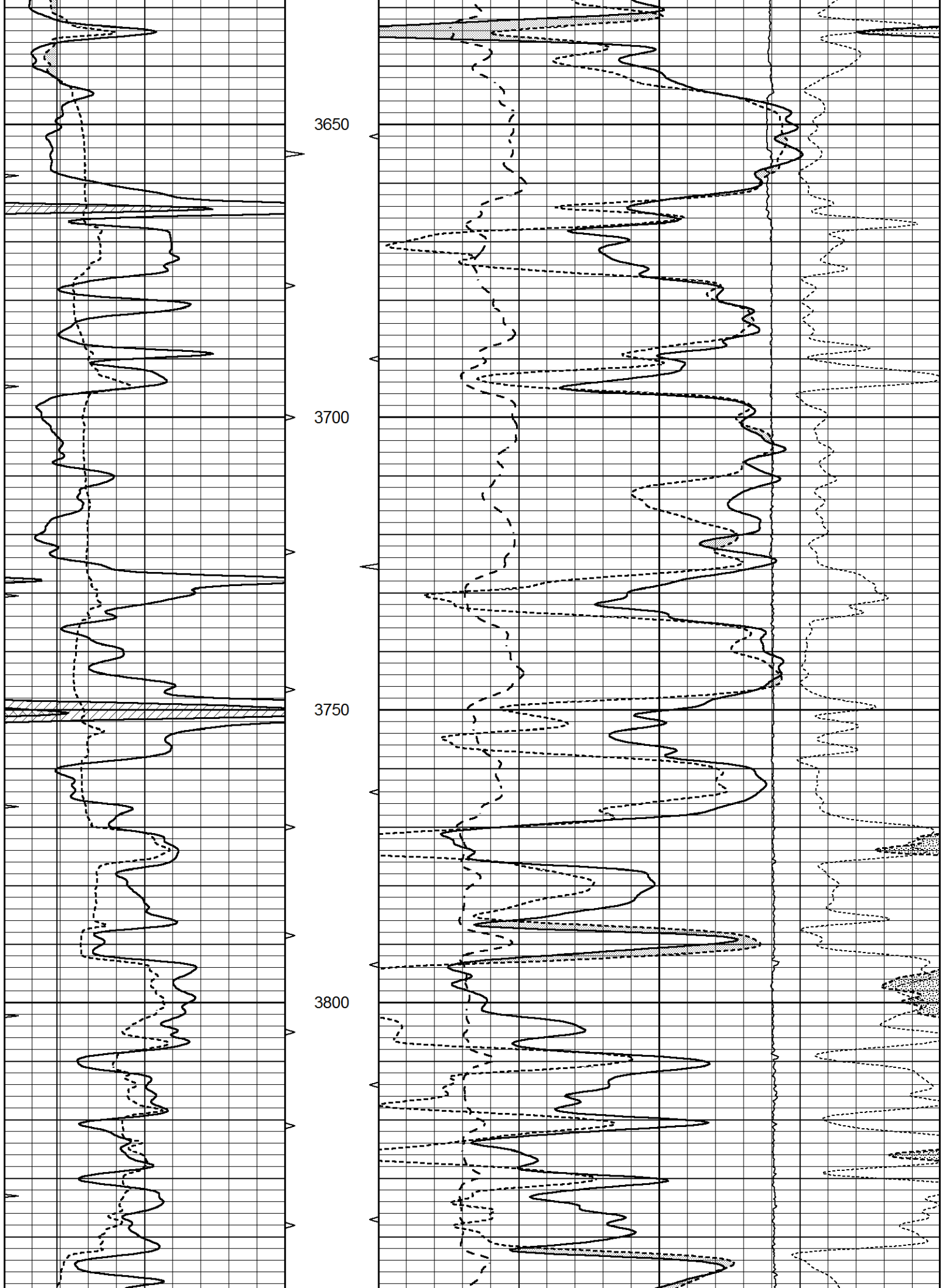


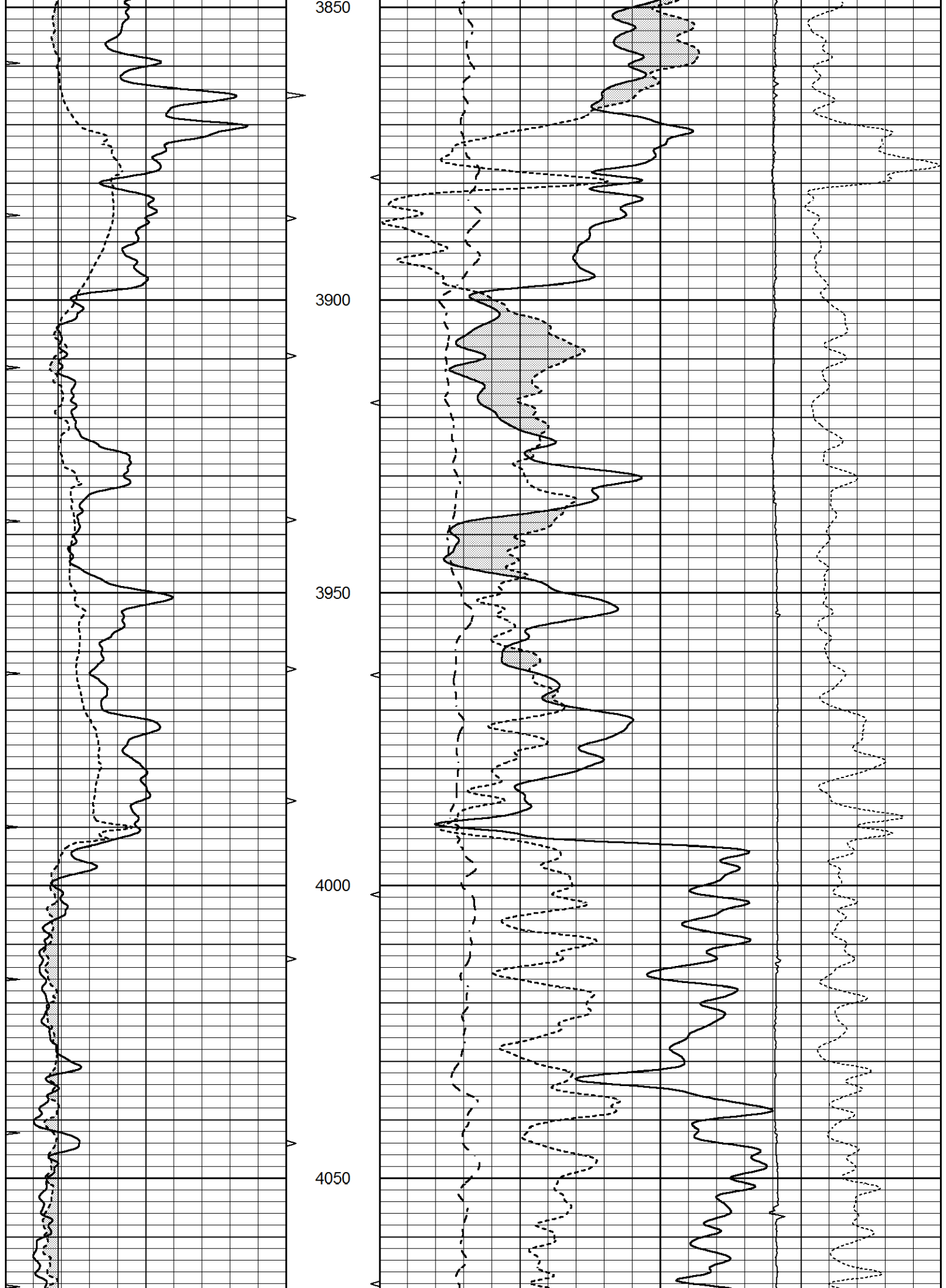


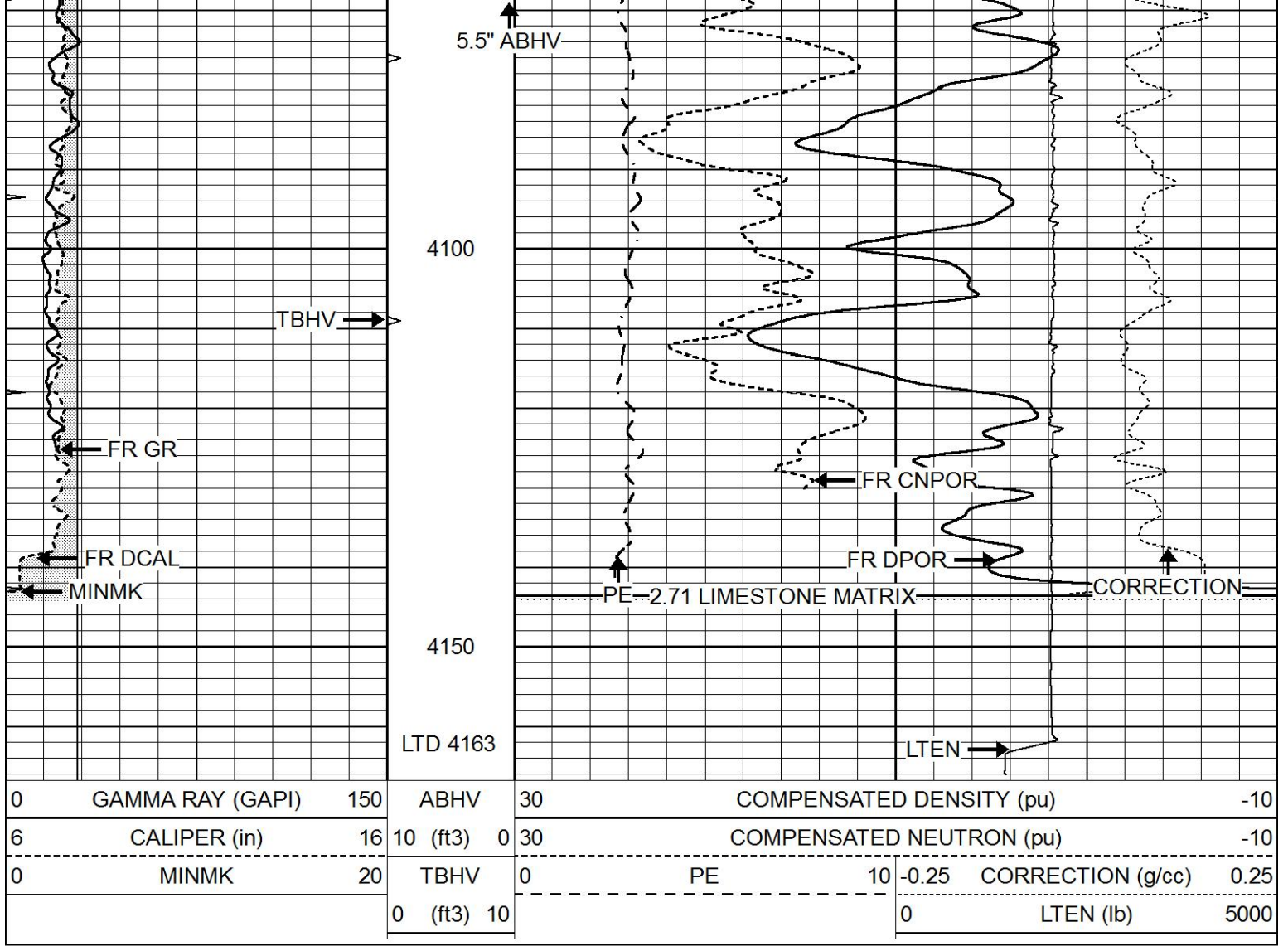








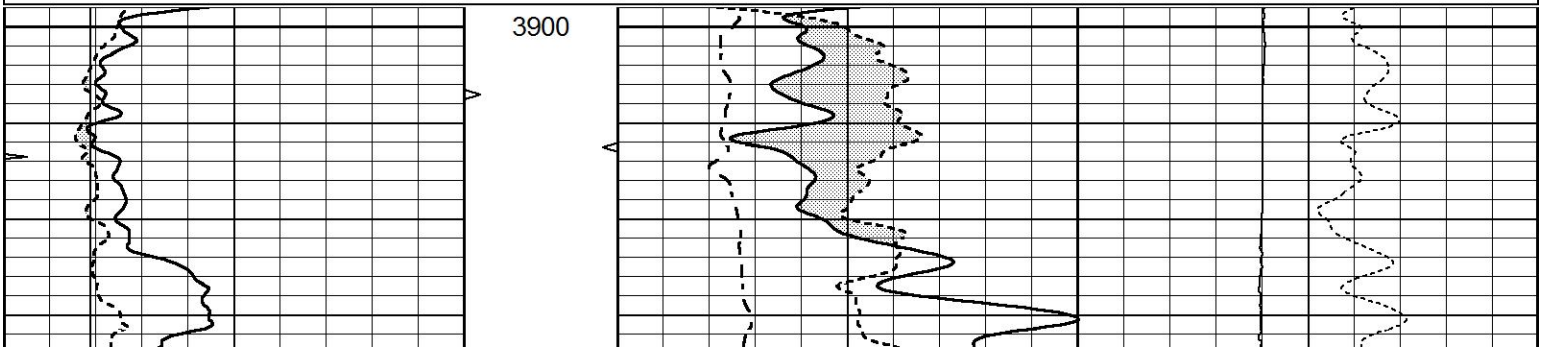


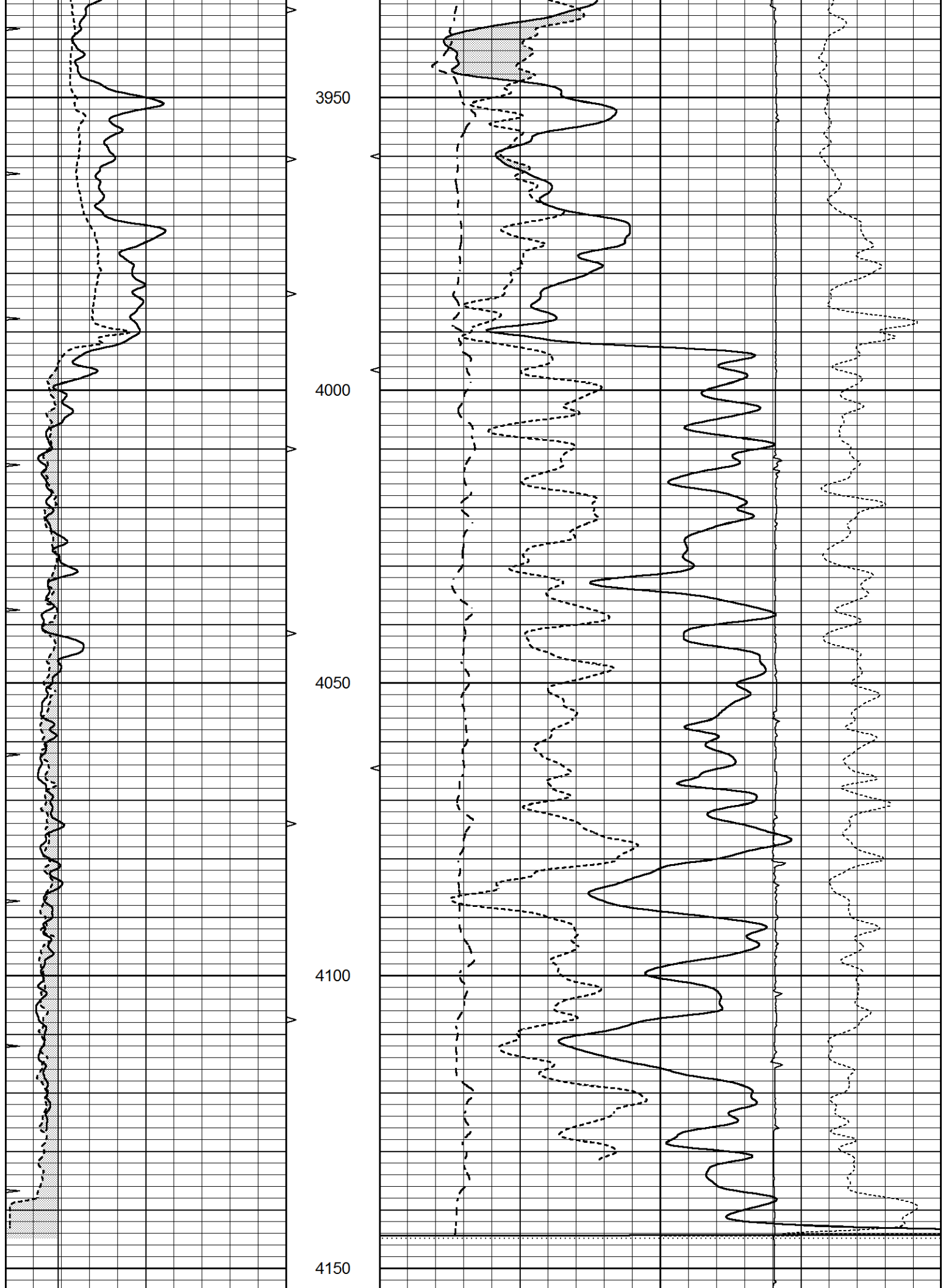


REPEAT SECTION

Database File 7081pe.db
 Dataset Pathname pass3.2R
 Presentation Format ldt_neu
 Dataset Creation Fri Sep 23 18:57:33 2022
 Charted by Depth in Feet scaled 1:240

| | | | | | | |
|---|------------------|-----|----------|------|--------------------------|---------------------------------|
| 0 | GAMMA RAY (GAPI) | 150 | ABHV | 30 | COMPENSATED DENSITY (pu) | -10 |
| 6 | CALIPER (in) | 16 | 10 (ft3) | 0 30 | COMPENSATED NEUTRON (pu) | -10 |
| 0 | MINMK | 20 | TBHV | 0 | PE | 10 -0.25 CORRECTION (g/cc) 0.25 |
| | | | 0 (ft3) | 10 | | 0 LTEN (lb) 5000 |





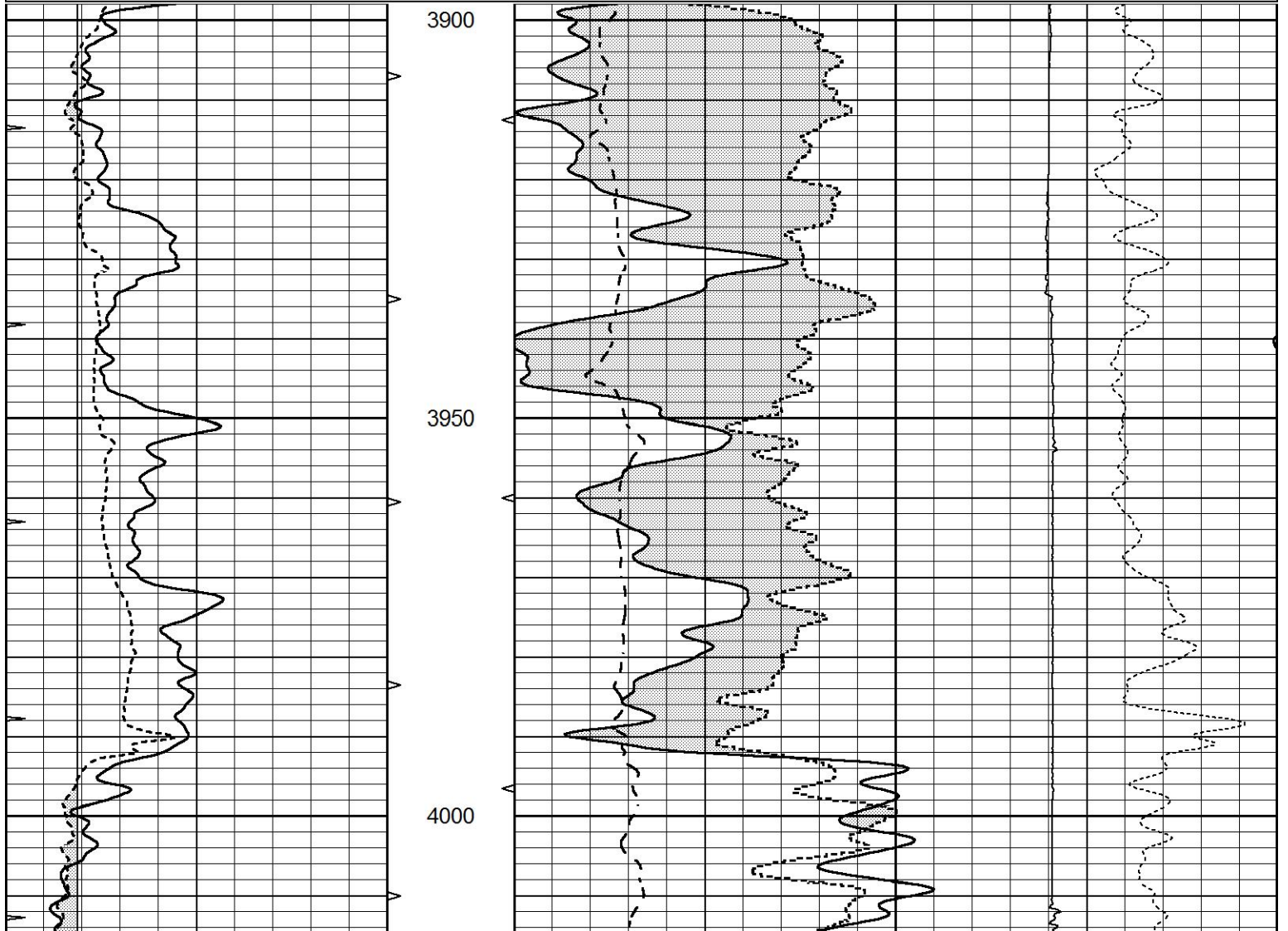
| | | | | | | |
|---|------------------|-----|------------|------|--------------------------|---------------------------------|
| 0 | GAMMA RAY (GAPI) | 150 | ABHV | 30 | COMPENSATED DENSITY (pu) | -10 |
| 6 | CALIPER (in) | 16 | 10 (ft3) | 0 30 | COMPENSATED NEUTRON (pu) | -10 |
| 0 | MINMK | 20 | TBHV | 0 | PE | 10 -0.25 CORRECTION (g/cc) 0.25 |
| | | | 0 (ft3) 10 | | | 0 LTEN (lb) 5000 |

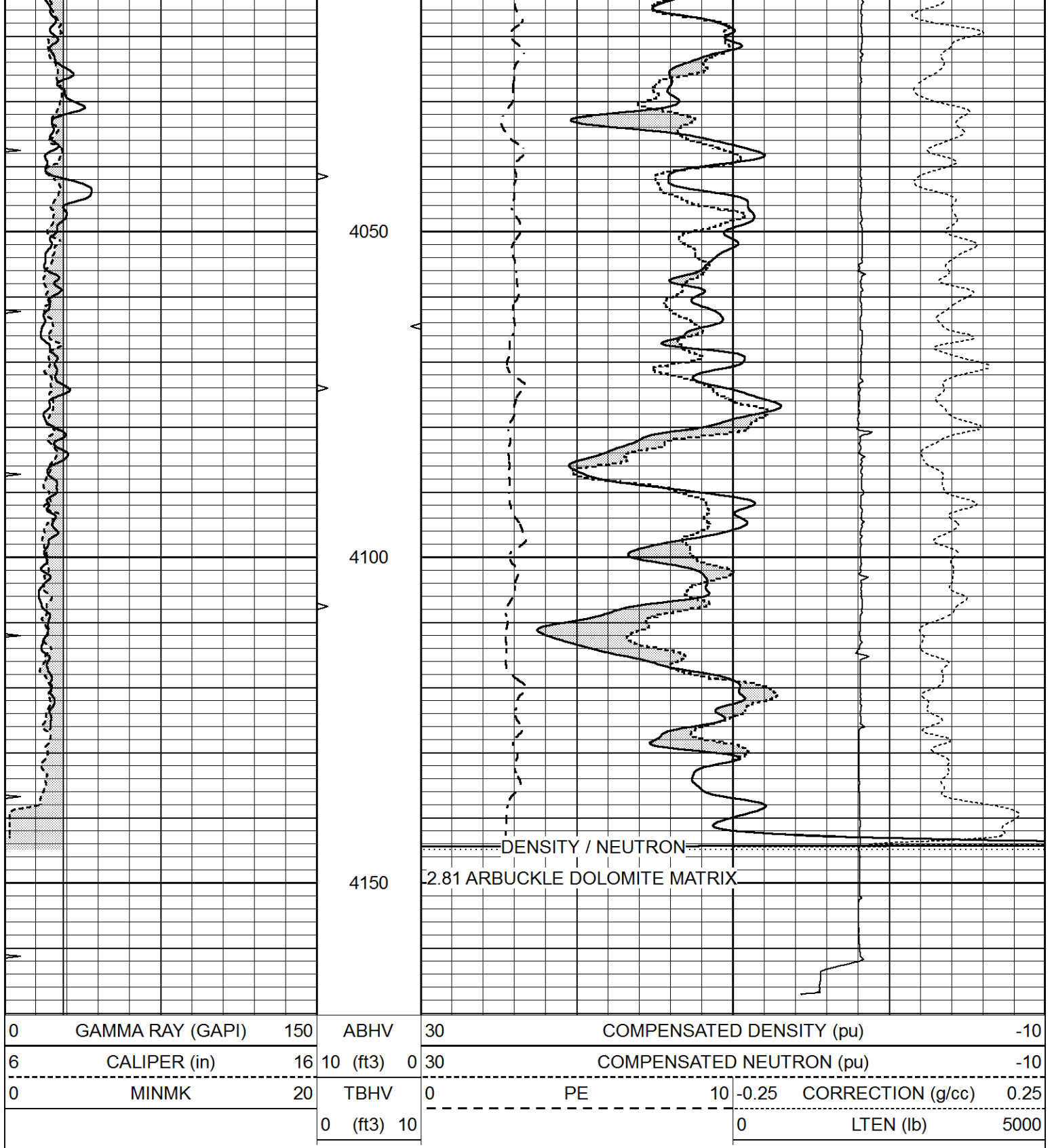


DOLOMITE MATRIX

Database File 7081pe.db
 Dataset Pathname pass3.3D
 Presentation Format ldt_neu
 Dataset Creation Fri Sep 23 19:04:22 2022
 Charted by Depth in Feet scaled 1:240

| | | | | | | |
|---|------------------|-----|------------|------|--------------------------|---------------------------------|
| 0 | GAMMA RAY (GAPI) | 150 | ABHV | 30 | COMPENSATED DENSITY (pu) | -10 |
| 6 | CALIPER (in) | 16 | 10 (ft3) | 0 30 | COMPENSATED NEUTRON (pu) | -10 |
| 0 | MINMK | 20 | TBHV | 0 | PE | 10 -0.25 CORRECTION (g/cc) 0.25 |
| | | | 0 (ft3) 10 | | | 0 LTEN (lb) 5000 |





Calibration Report

Database File 7081pe.db
 Dataset Pathname pass4.1M
 Dataset Creation Fri Sep 23 20:08:10 2022

Dual Induction Calibration Report

Serial-Model: PROBE8-DILG
 Surface Cal Performed: Fri Sep 23 19:15:27 2022
 Downhole Cal Performed: Mon Jul 28 11:08:27 2008
 After Survey Verification Performed: Mon Jul 28 11:08:27 2008

| Surface Calibration | | | | | | | | |
|---------------------|----------|-------|---|------------|---------|--------|---------|---------|
| Loop: | Readings | | | References | | | Results | |
| | Air | Loop | | Air | Loop | | m | b |
| Deep | 0.015 | 0.648 | V | 0.000 | 400.000 | mmho/m | 640.000 | 12.000 |
| Medium | 0.029 | 0.796 | V | 0.000 | 464.000 | mmho/m | 630.000 | 0.000 |
| Internal: | Zero | Cal | | Zero | Cal | | m | b |
| Deep | 0.017 | 0.657 | V | 0.000 | 400.000 | mmho/m | 625.153 | -10.619 |
| Medium | 0.016 | 0.757 | V | 0.000 | 464.000 | mmho/m | 625.992 | -9.739 |

| Downhole Calibration | | | | | | | | |
|----------------------|----------|--------|--------|------------|----------|--------|---------|-------|
| | Readings | | | References | | | Results | |
| | Zero | Cal | | Zero | Cal | | m' | b' |
| Deep | 0.000 | 0.000 | mmho/m | 2.011 | 405.777 | mmho/m | 1.000 | 0.000 |
| Medium | 0.000 | 0.000 | mmho/m | 7.590 | 503.393 | mmho/m | 1.000 | 0.000 |
| LL3 | | 7.500 | V | | 1500.000 | Ohm-m | | |
| | | 0.000 | V | | 20.000 | Ohm-m | | |
| | | -7.200 | V | | 3800.000 | mmho-m | | |

| After Survey Verification | | | | | | | | |
|---------------------------|----------|-------|--------|---------|-------|--------|---------|-------|
| | Readings | | | Targets | | | Results | |
| | Zero | Cal | | Zero | Cal | | m' | b' |
| Deep | 0.000 | 0.000 | mmho/m | 0.000 | 0.000 | mmho/m | 0.000 | 0.000 |
| Medium | 0.000 | 0.000 | mmho/m | 0.000 | 0.000 | mmho/m | 0.000 | 0.000 |
| LL3 | | 1.000 | Ohm-m | | 1.000 | Ohm-m | | |
| | | 0.000 | Ohm-m | | 0.000 | Ohm-m | | |
| | | 1.000 | mmho-m | | 1.000 | mmho-m | | |

Litho Density Calibration Report
Serial: 004 Model: PRB

| Master Calibration | | | | | Performed Tue Aug 02 11:29:35 2022 | | | |
|--------------------|------------|-------------|----------|---------------------|------------------------------------|--|--|---------|
| | Background | Magnesium | Aluminum | Aluminum+Fe | | | | |
| Window 1 | 1154.2 | 10019.5 | 3137.9 | 2795.6 | | | | cps |
| Window 2 | 1054.4 | 8597.6 | 2733.4 | 2469.5 | | | | cps |
| Window 3 | 902.3 | 5241.4 | 1832.1 | 1719.3 | | | | cps |
| Window 4 | 251.9 | 261.1 | 255.8 | 252.9 | | | | cps |
| Long Space | 0.0 | 7543.2 | 1679.0 | 1415.0 | | | | cps |
| Short Space | 4.4 | 2049.3 | 1321.7 | 1116.8 | | | | cps |
| Rho | | 1.7100 | 2.5900 | 0.0000 | | | | g/cc |
| Pe | | 2.0000 | 2.7500 | 5.7900 | | | | |
| Rib Angle | : 43.7 | Rib Slope | : 0.957 | Density/Spine Ratio | | | | : 0.562 |
| Spine Angle | : 73.7 | Spine Slope | : 3.426 | Spine Intercept | | | | : -17.2 |

| Before Survey Verification | | | | | Performed Wed Dec 31 18:00:00 1969 | | | |
|----------------------------|-----|--------|--------|--------|------------------------------------|--|--|------|
| | | | | | | | | |
| Window 1 | 0.0 | 0.0 | 0.0 | 0.0 | | | | cps |
| Window 2 | 0.0 | 0.0 | 0.0 | 0.0 | | | | cps |
| Window 3 | 0.0 | 0.0 | 0.0 | 0.0 | | | | cps |
| Window 4 | 0.0 | 0.0 | 0.0 | 0.0 | | | | cps |
| Long Space | 0.0 | 0.0 | 0.0 | 0.0 | | | | cps |
| Short Space | 0.0 | 0.0 | 0.0 | 0.0 | | | | cps |
| Measured Rho | | 0.0000 | 0.0000 | 0.0000 | | | | g/cc |
| Measured Correction | | 0.0000 | 0.0000 | 0.0000 | | | | g/cc |
| Measured Pe | | | 0.0000 | 0.0000 | | | | |

After Survey Verification

Performed Wed Dec 31 18:00:00 1969

| | | | | | |
|---------------------|-----|--------|--------|--------|------|
| Window 1 | 0.0 | 0.0 | 0.0 | 0.0 | cps |
| Window 2 | 0.0 | 0.0 | 0.0 | 0.0 | cps |
| Window 3 | 0.0 | 0.0 | 0.0 | 0.0 | cps |
| Window 4 | 0.0 | 0.0 | 0.0 | 0.0 | cps |
| Long Space | 0.0 | 0.0 | 0.0 | 0.0 | cps |
| Short Space | 0.0 | 0.0 | 0.0 | 0.0 | cps |
| Measured Rho | | 0.0000 | 0.0000 | 0.0000 | g/cc |
| Measured Correction | | 0.0000 | 0.0000 | 0.0000 | g/cc |
| Measured Pe | | | 0.0000 | 0.0000 | |

Compensated Neutron Calibration Report

Serial Number: 070808PMC
Tool Model: NABORS

PRE-SURVEY VERIFICATION

| Detector | Readings | Measured | Target |
|-------------|----------|----------|--------|
| Short Space | cps | | |
| Long Space | cps | pu | pu |

POST-SURVEY VERIFICATION

| Detector | Readings | Measured | Target |
|-------------|----------|----------|--------|
| Short Space | cps | | |
| Long Space | cps | pu | pu |

Gamma Ray Calibration Report

Serial Number: 070558
Tool Model: OPEN_GR
Performed: Wed Sep 21 20:51:29 2022

Calibrator Value: 1.0 GAPI

Background Reading: 0.0 cps
Calibrator Reading: 1.0 cps

Sensitivity: 0.3000 GAPI/cps