



**COMPLETION
& PRODUCTION
SERVICES CO.**

**COMPENSATED
DENSITY / NEUTRON
PE LOG**

Company WOOLSEY OPERATING CO. LLC.
Well MYERS A #1
Field WILDCAT
County BARBER
State KANSAS

Company WOOLSEY OPERATING COMPANY, LLC.
Well MYERS A #1
Field WILDCAT
County BARBER State KANSAS

Location: API # : 15-007-24132-00-00
330' FNL & 330' FEL
NE - NE - NE
SEC 13 TWP 35S RGE 13W
Permanent Datum GROUND LEVEL Elevation 1436
Log Measured From KELLY BUSHING 12' A.G.L.
Drilling Measured From KELLY BUSHING
Other Services
DIL
Elevation
K.B. 1448
D.F. 1446
G.L. 1436

| | |
|------------------------------|----------------|
| Date | 3/16/14 |
| Run Number | ONE |
| Depth Driller | 5600 |
| Depth Logger | 5600 |
| Bottom Logged Interval | 5576 |
| Top Log Interval | 1700 |
| Casing Driller | 13 3/8" @ 220' |
| Casing Logger | 219' |
| Bit Size | 7 7/8" |
| Type Fluid in Hole | CHEMICAL MUD |
| Density / Viscosity | 9.1/53 |
| pH / Fluid Loss | 10.5/8.8 |
| Source of Sample | FLOWLINE |
| Rin @ Meas. Temp | .750 @ 75F |
| Rmf @ Meas. Temp | .563 @ 75F |
| Rmc @ Meas. Temp | .900 @ 75F |
| Source of Rmf / Rmc | MEASUREMENT |
| Rin @ BHT | .430 @ 130F |
| Time Circulation Stopped | 3 HOURS |
| Time Logger on Bottom | |
| Maximum Recorded Temperature | 130F |
| Equipment Number | 4854 |
| Location | HAYS, KANSAS |
| Recorded By | IAN MABB |
| Witnessed By | BILL KLAVER |

<<< Fold Here >>>

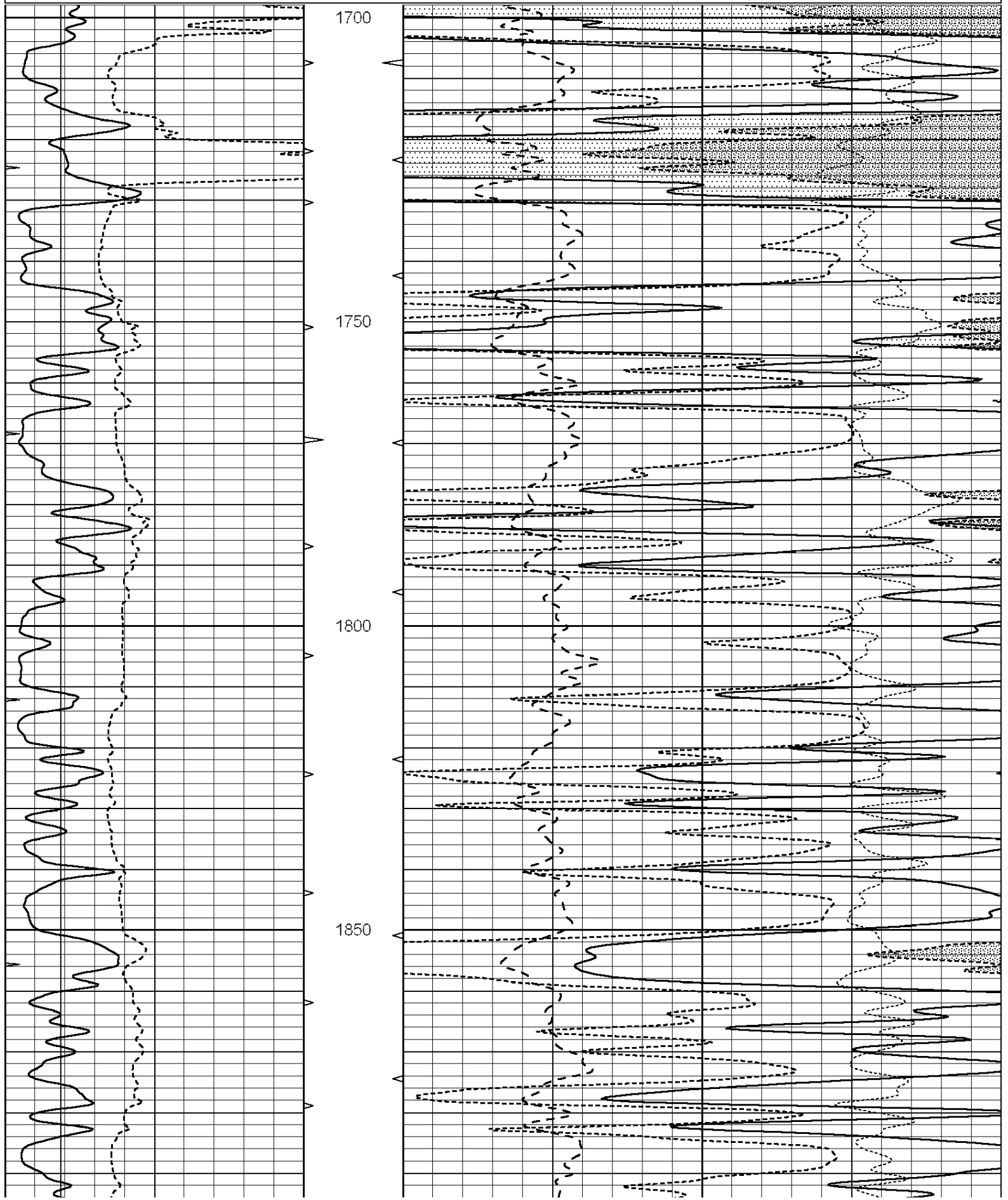
All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs, 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.

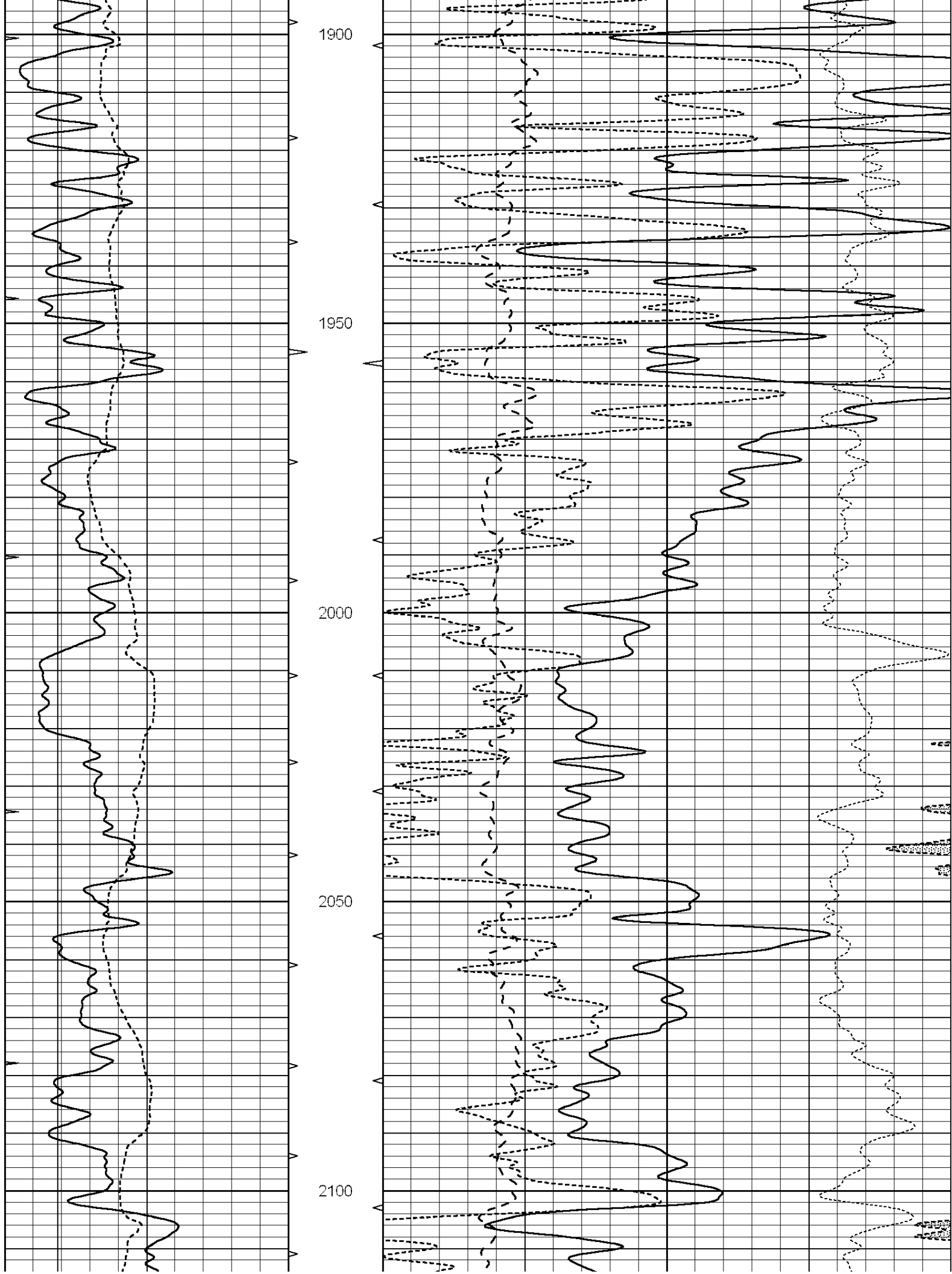
Comments

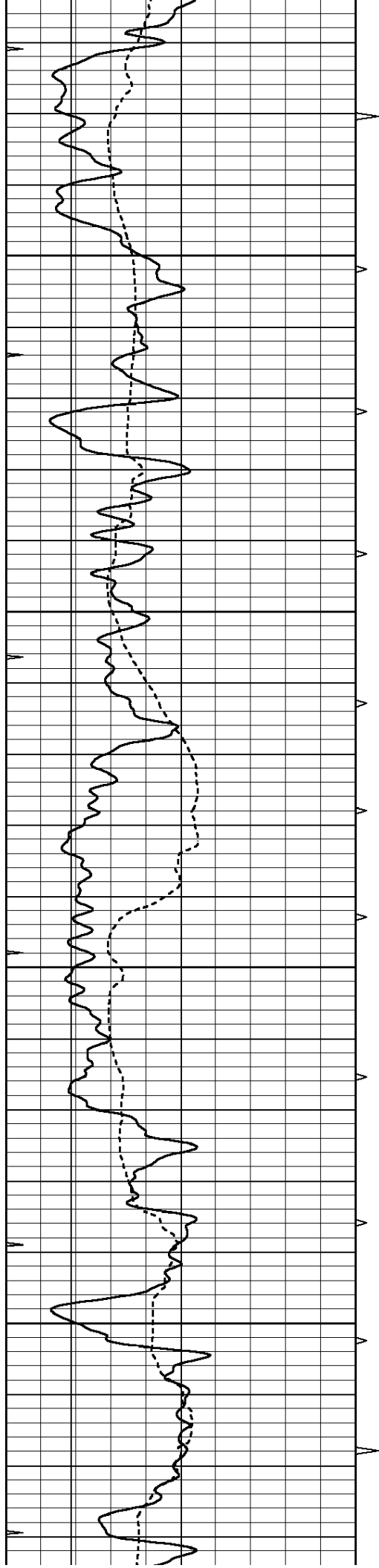
THANK YOU FOR USING "NABORS" HAYS, KANSAS (785) 628-6395
DIRECTIONS
HARDTNER, KS., 1S. ON HWY 281 TO (STATE LINE), 1 1/2W., N. INTO

Database File: 22269pe.db
Dataset Pathname: pass3.4
Presentation Format: _ldt_neu
Dataset Creation: Sun Mar 16 09:51:23 2014 by Calc SOC 120430
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 | | | | | |





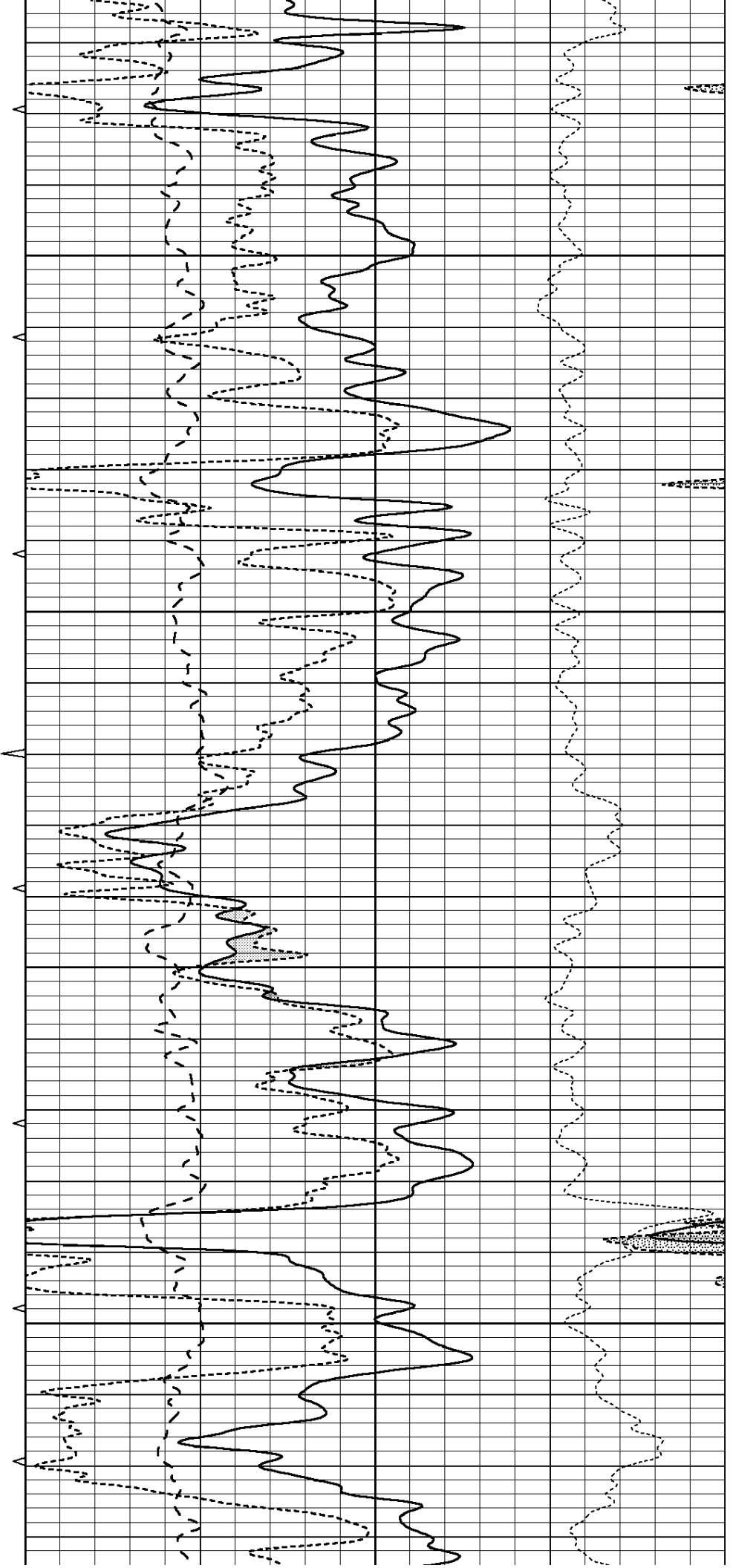


2150

2200

2250

2300

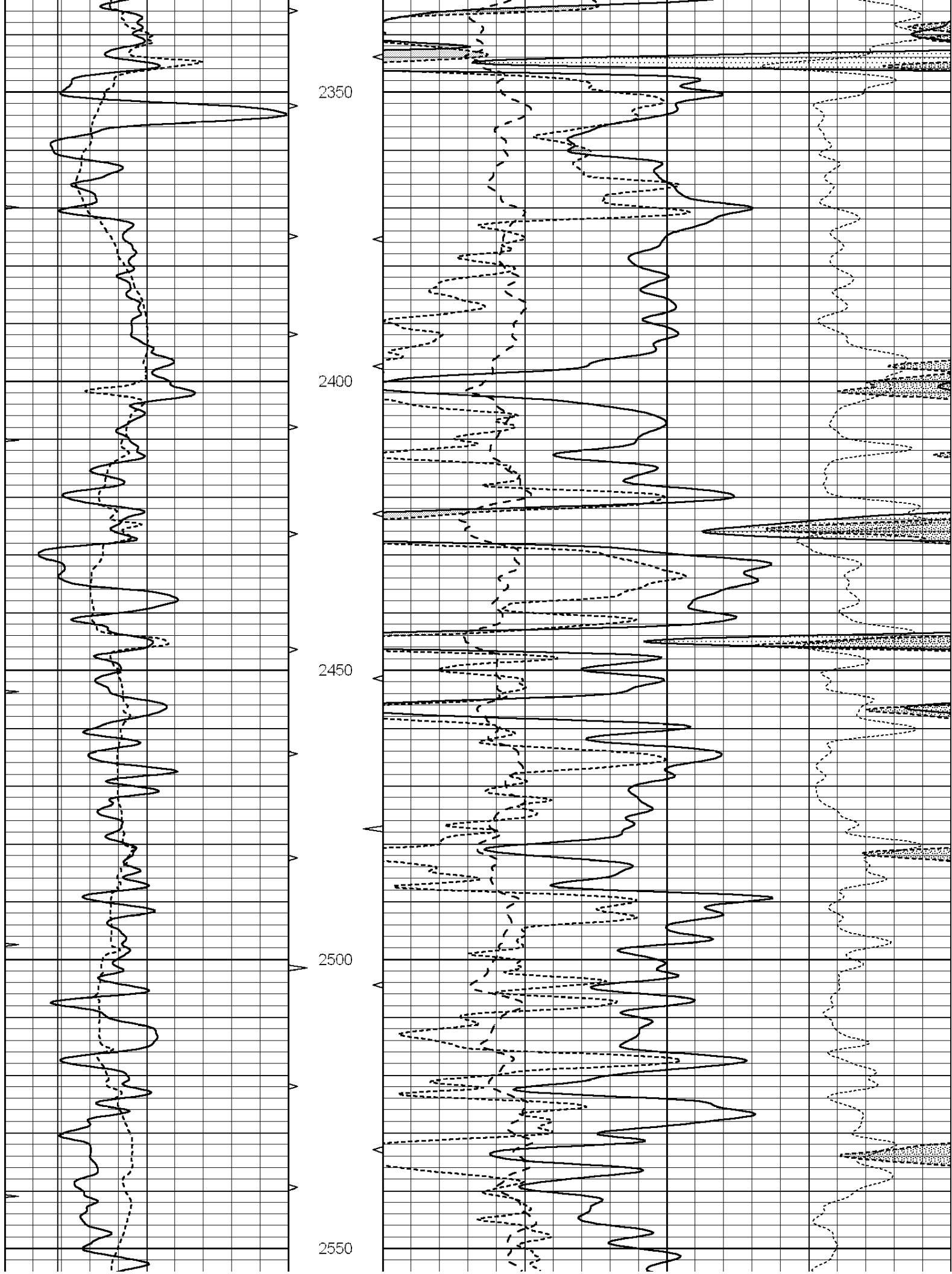


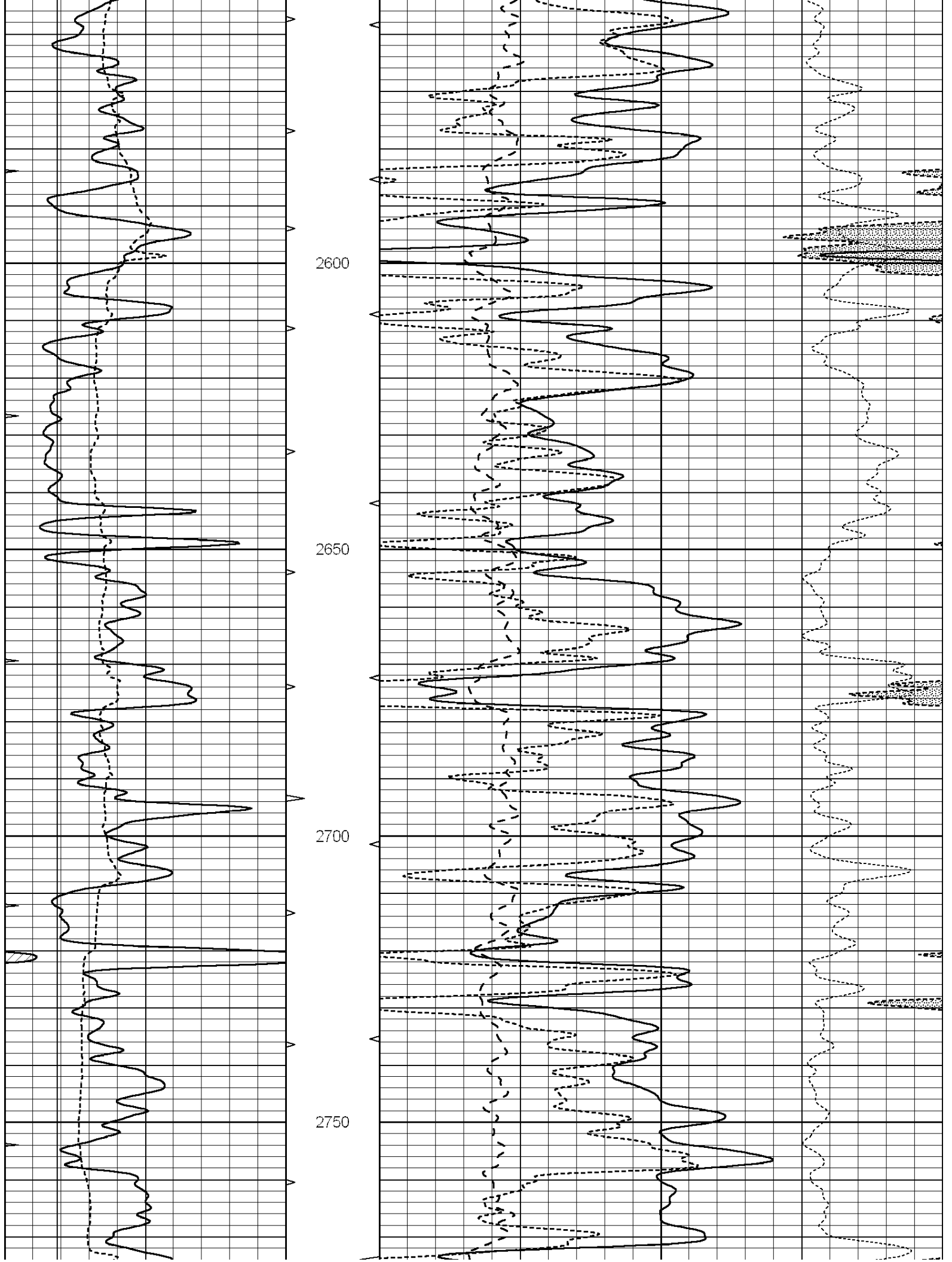
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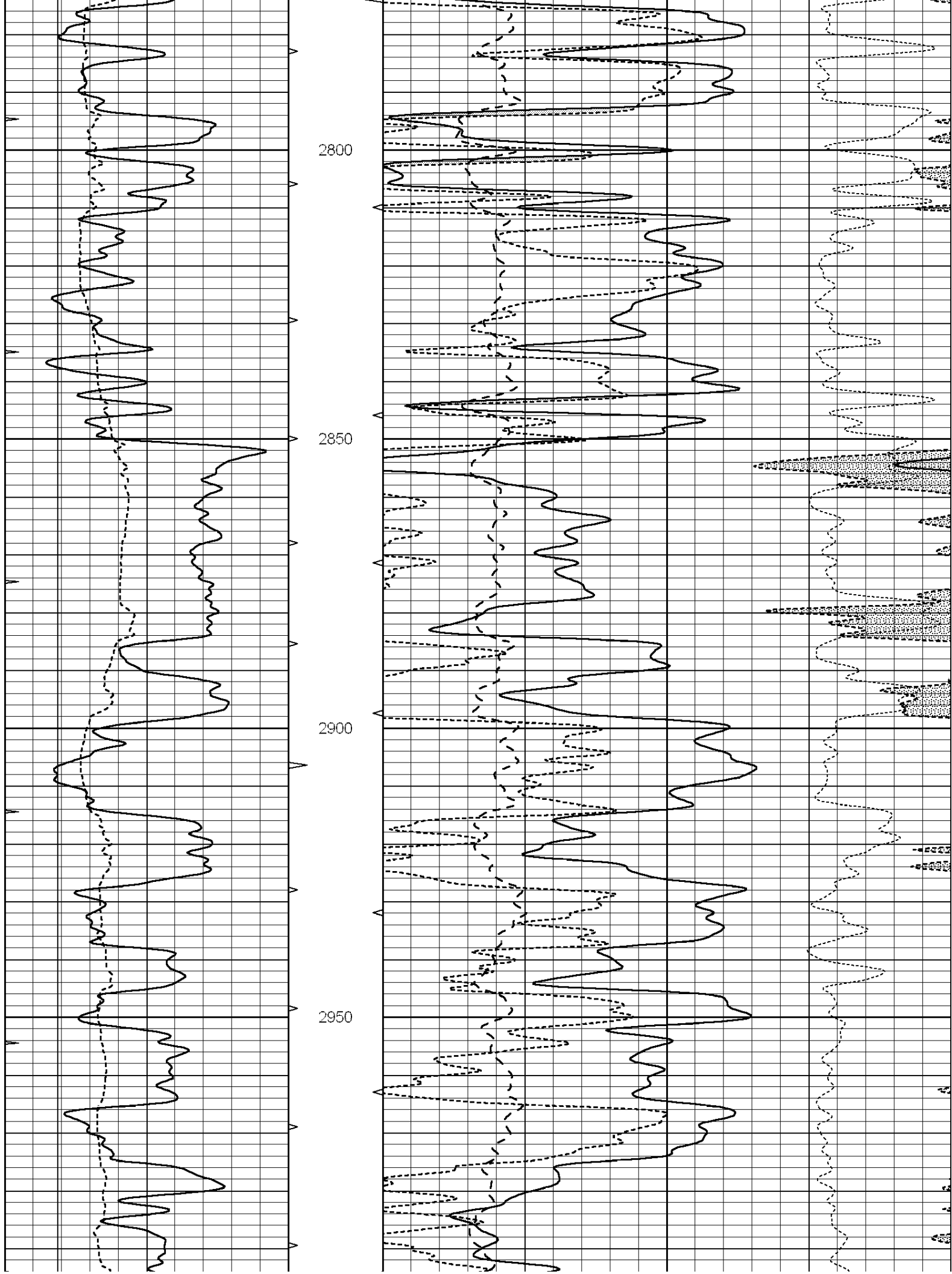
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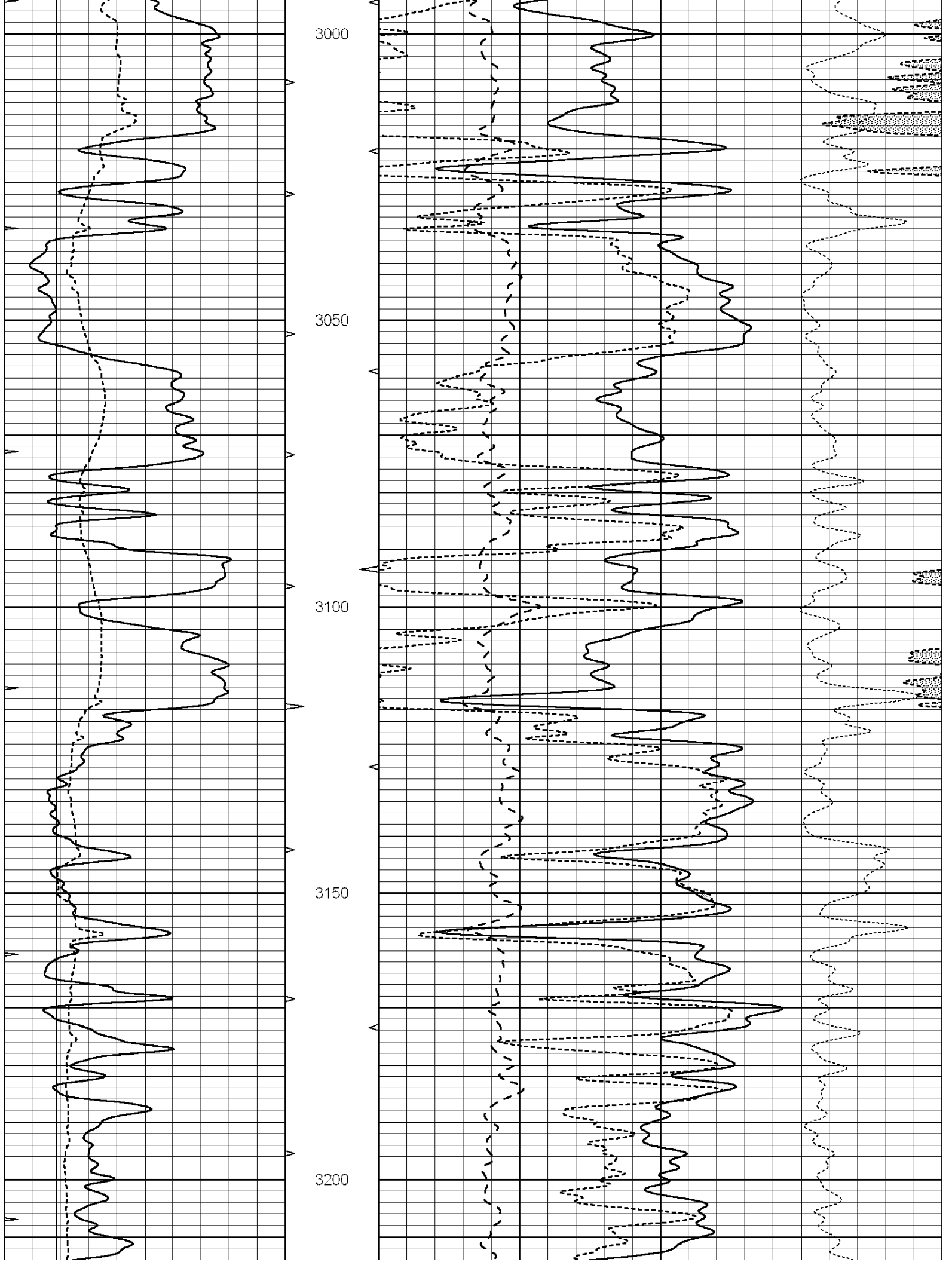
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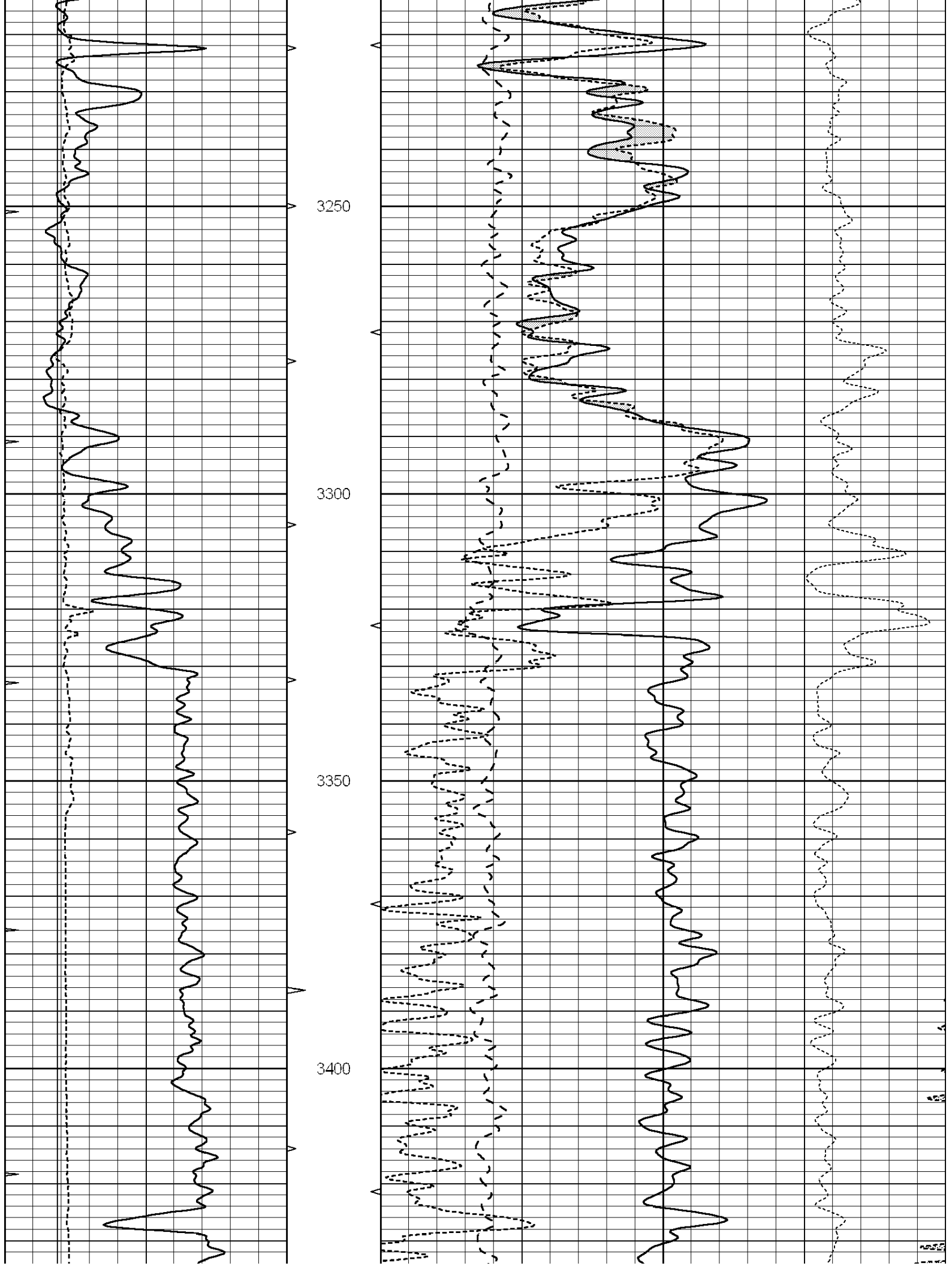
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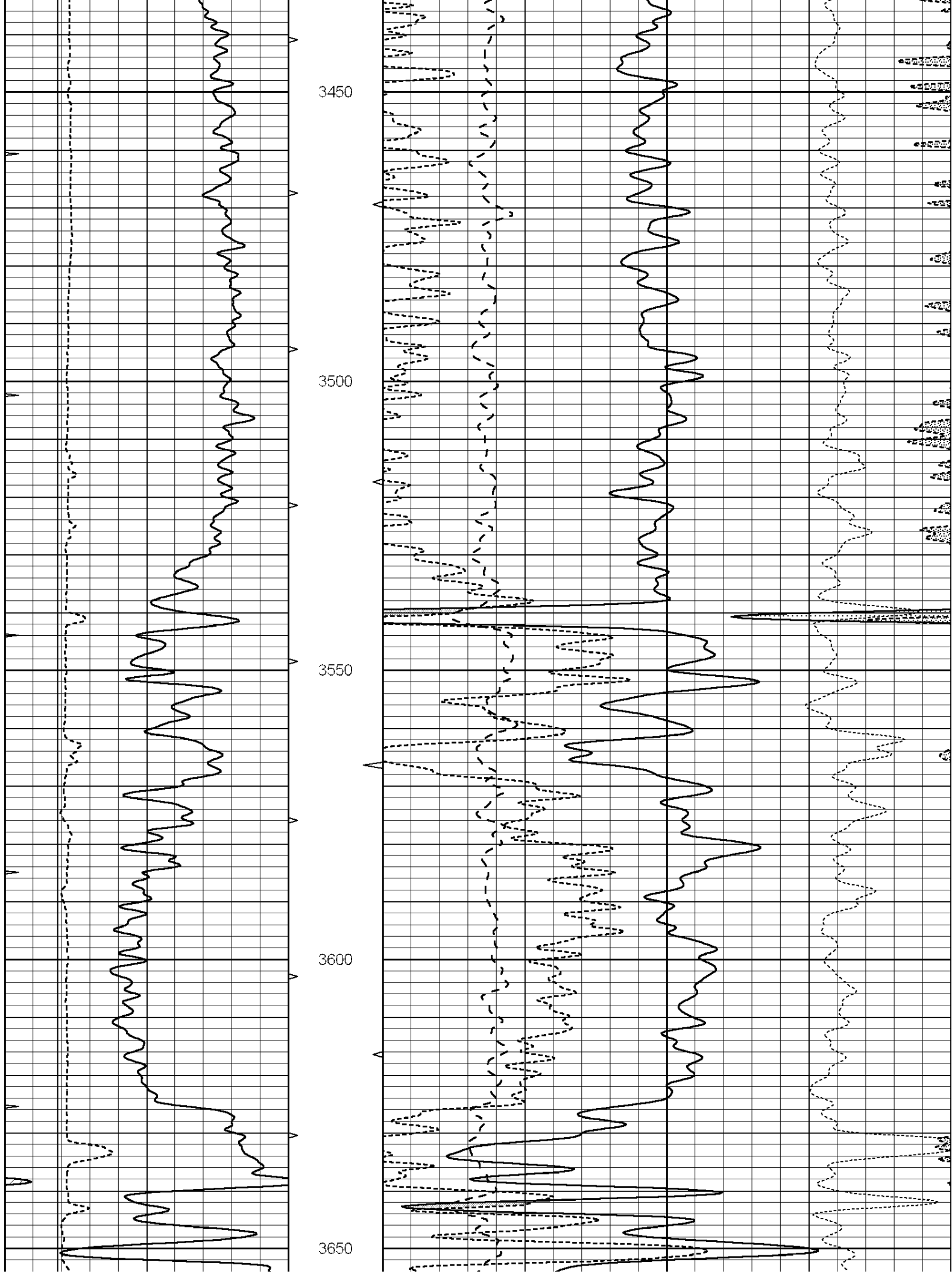


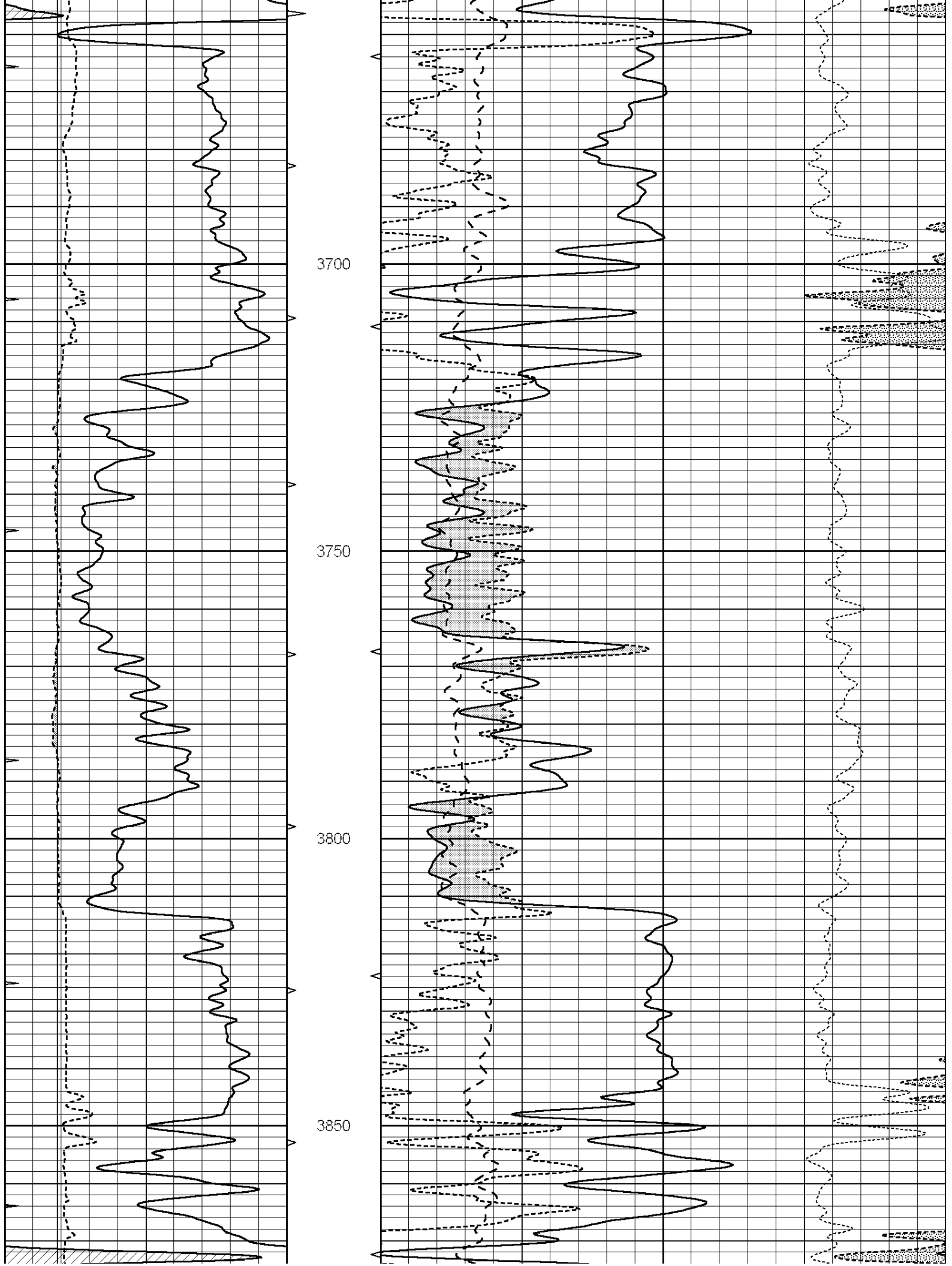


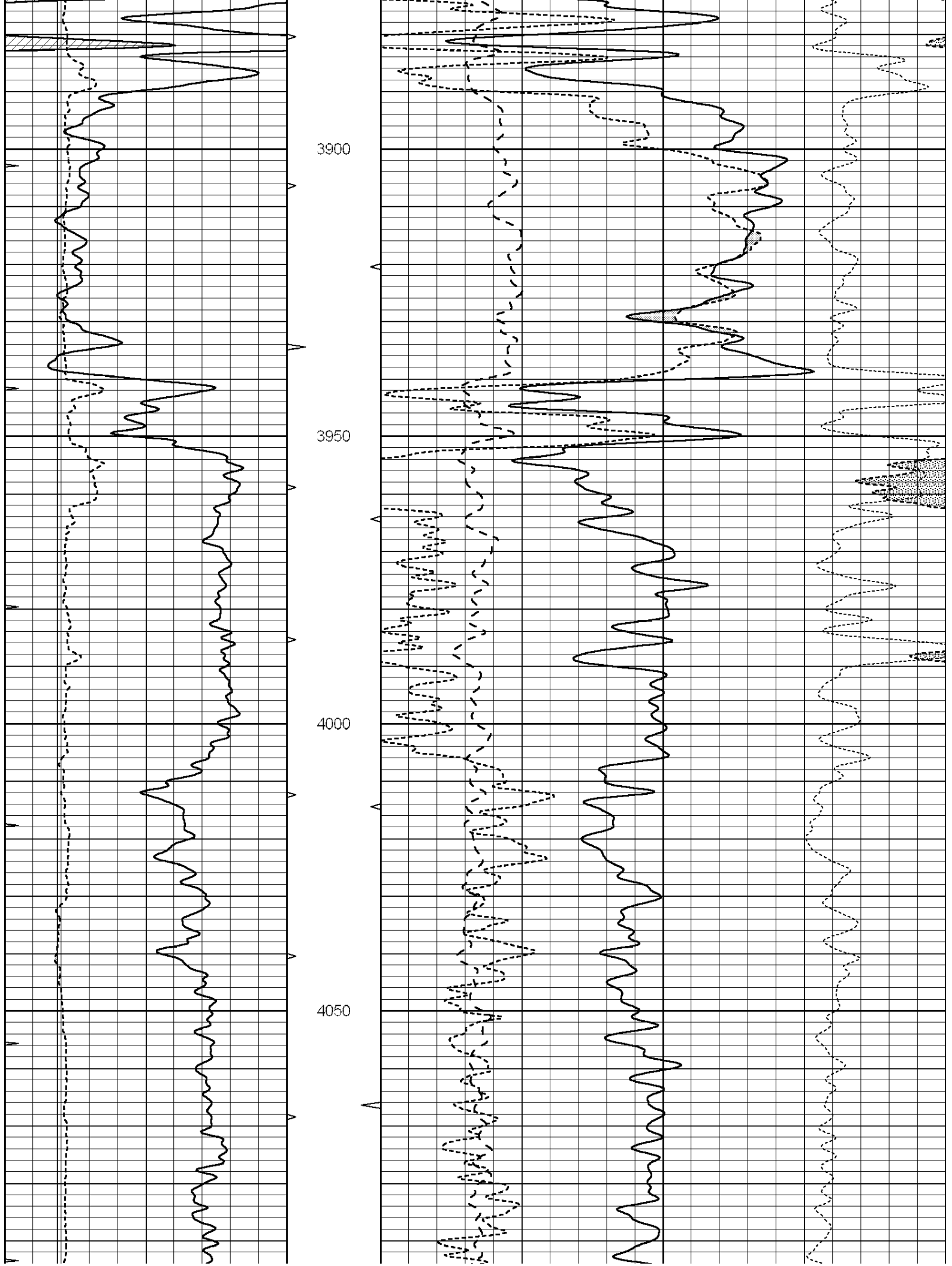


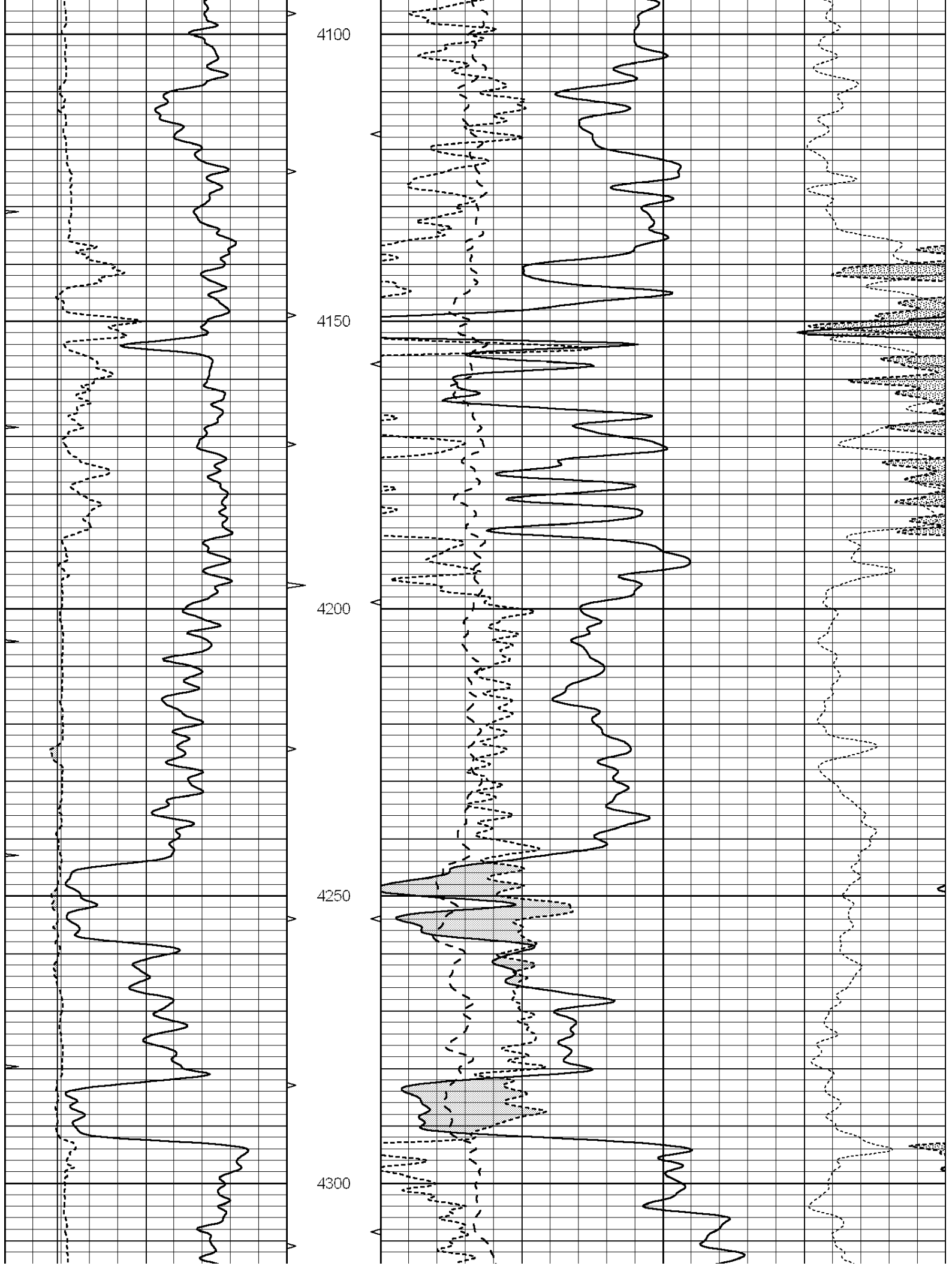


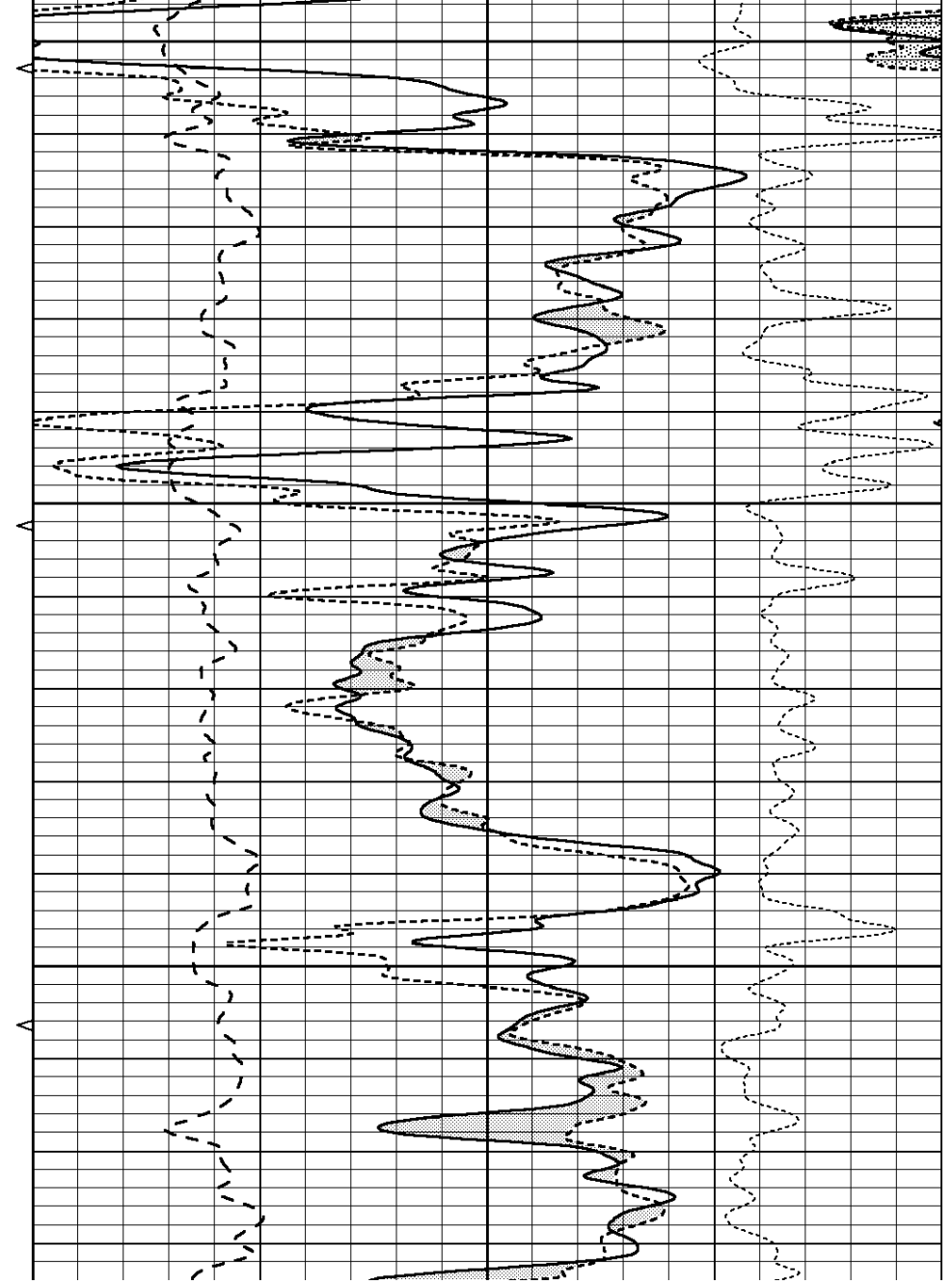
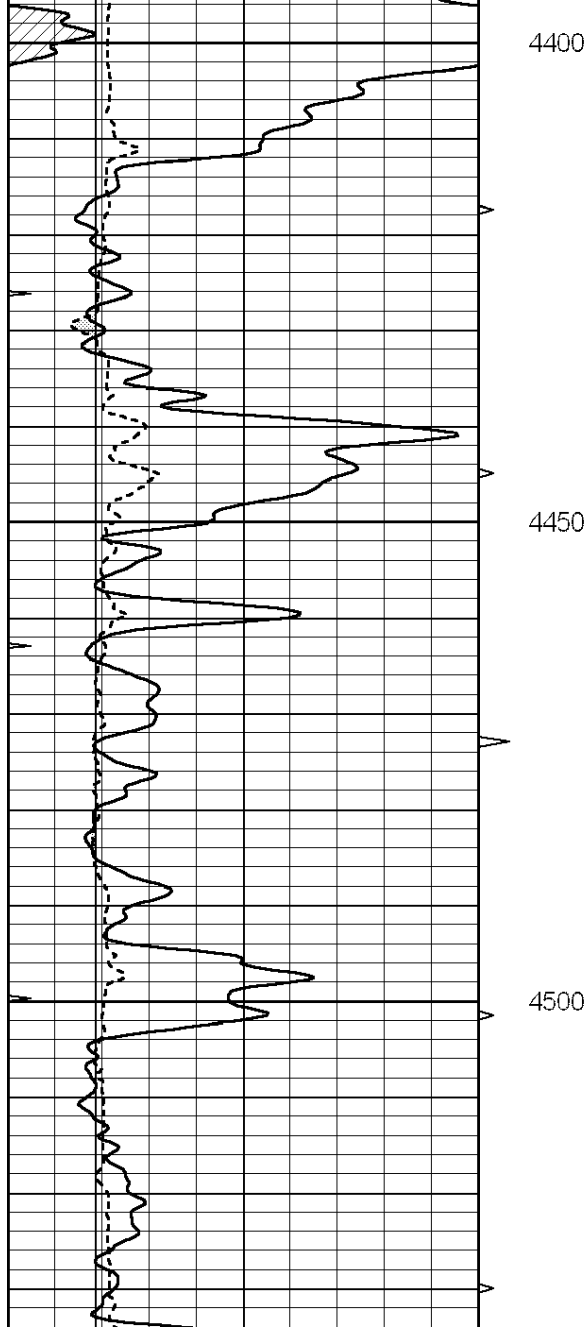
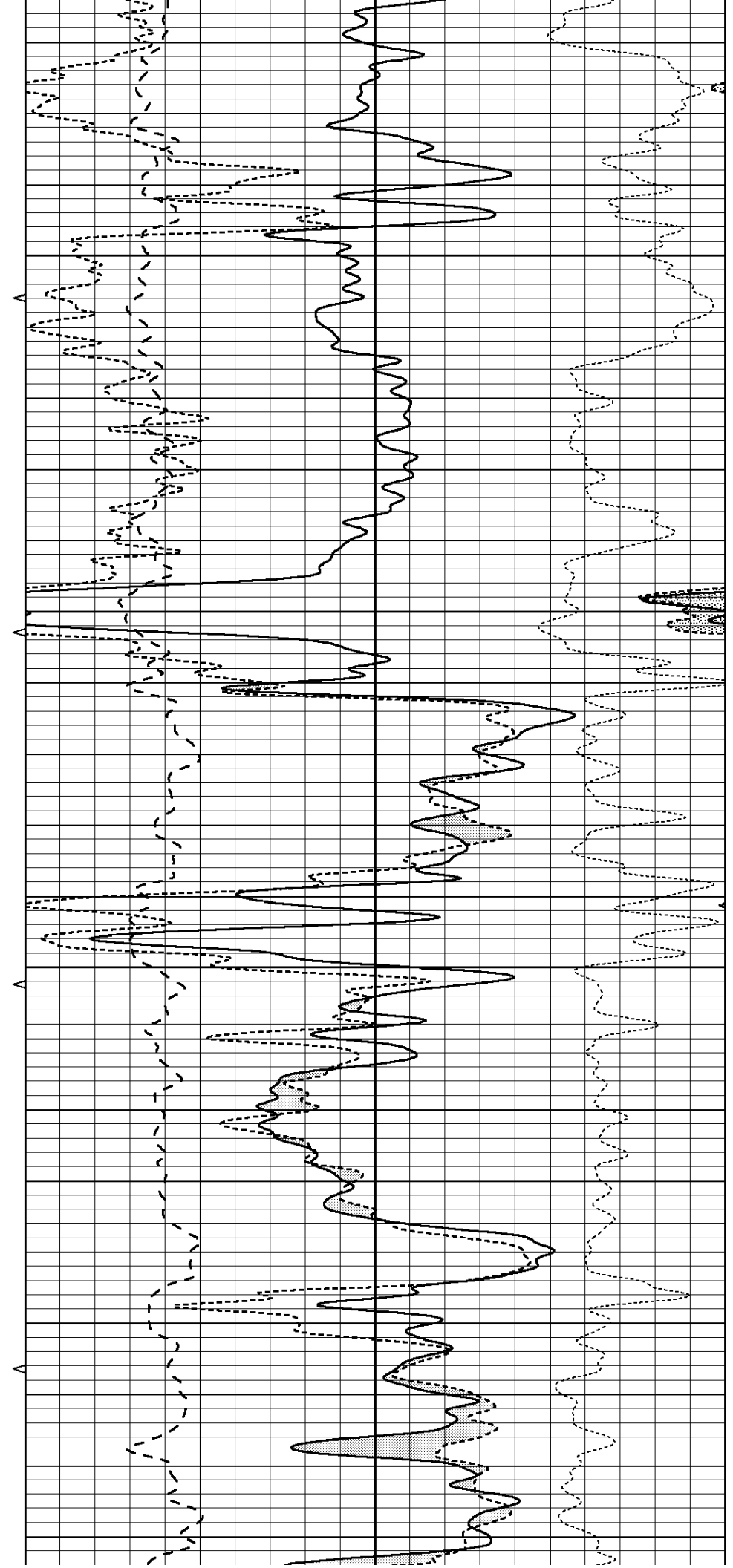
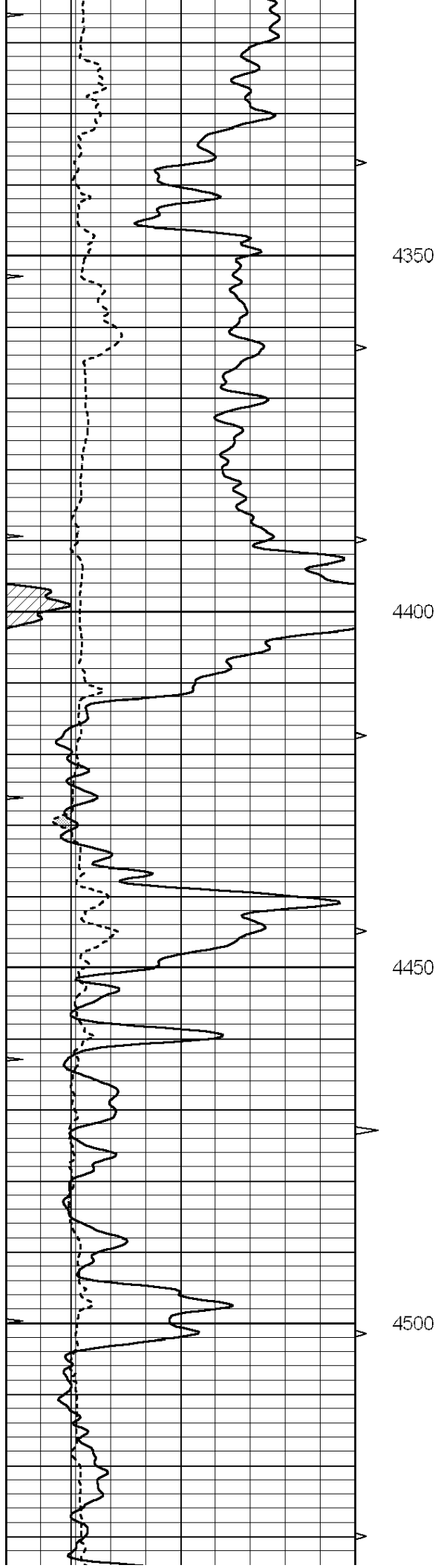


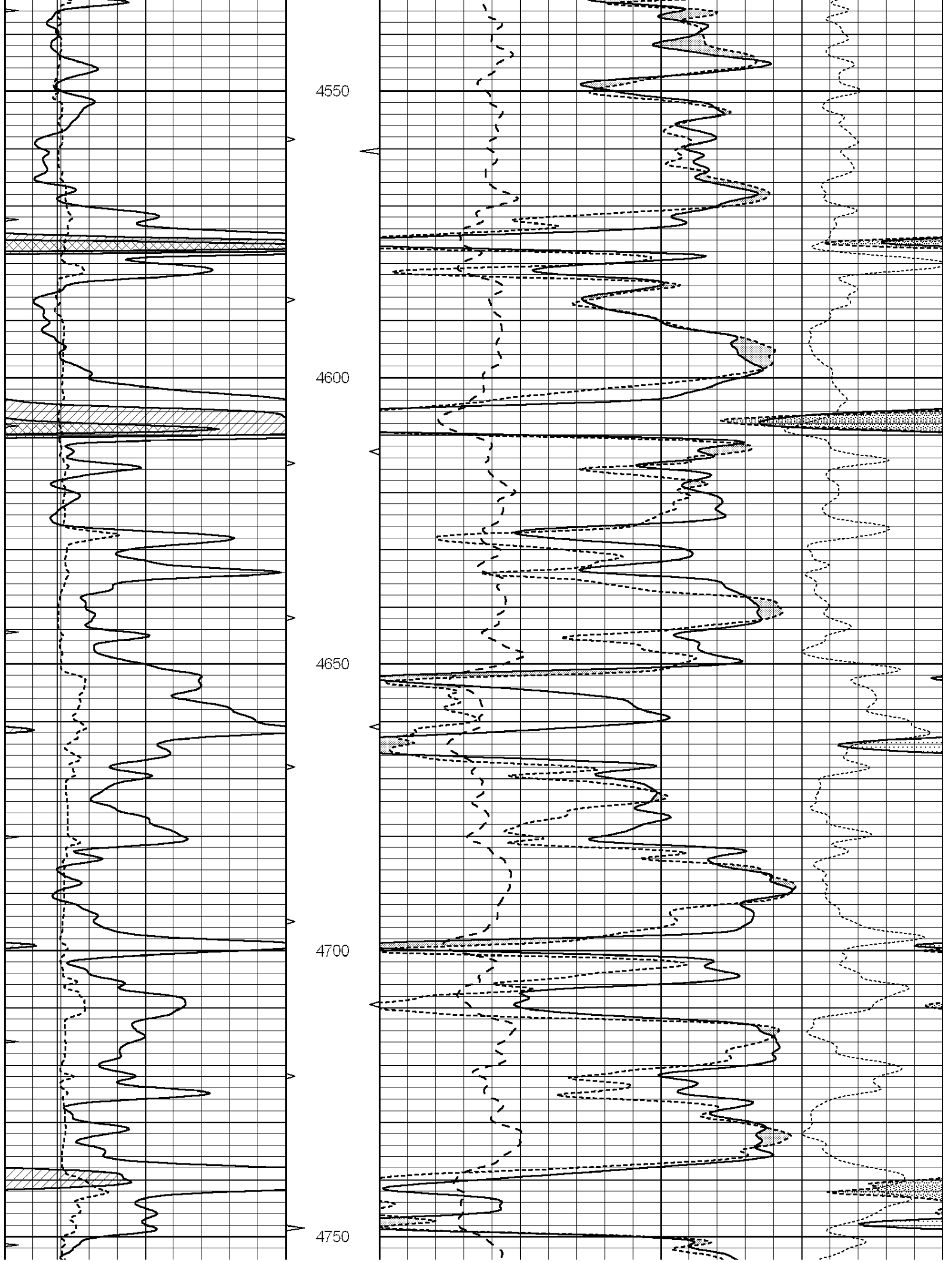


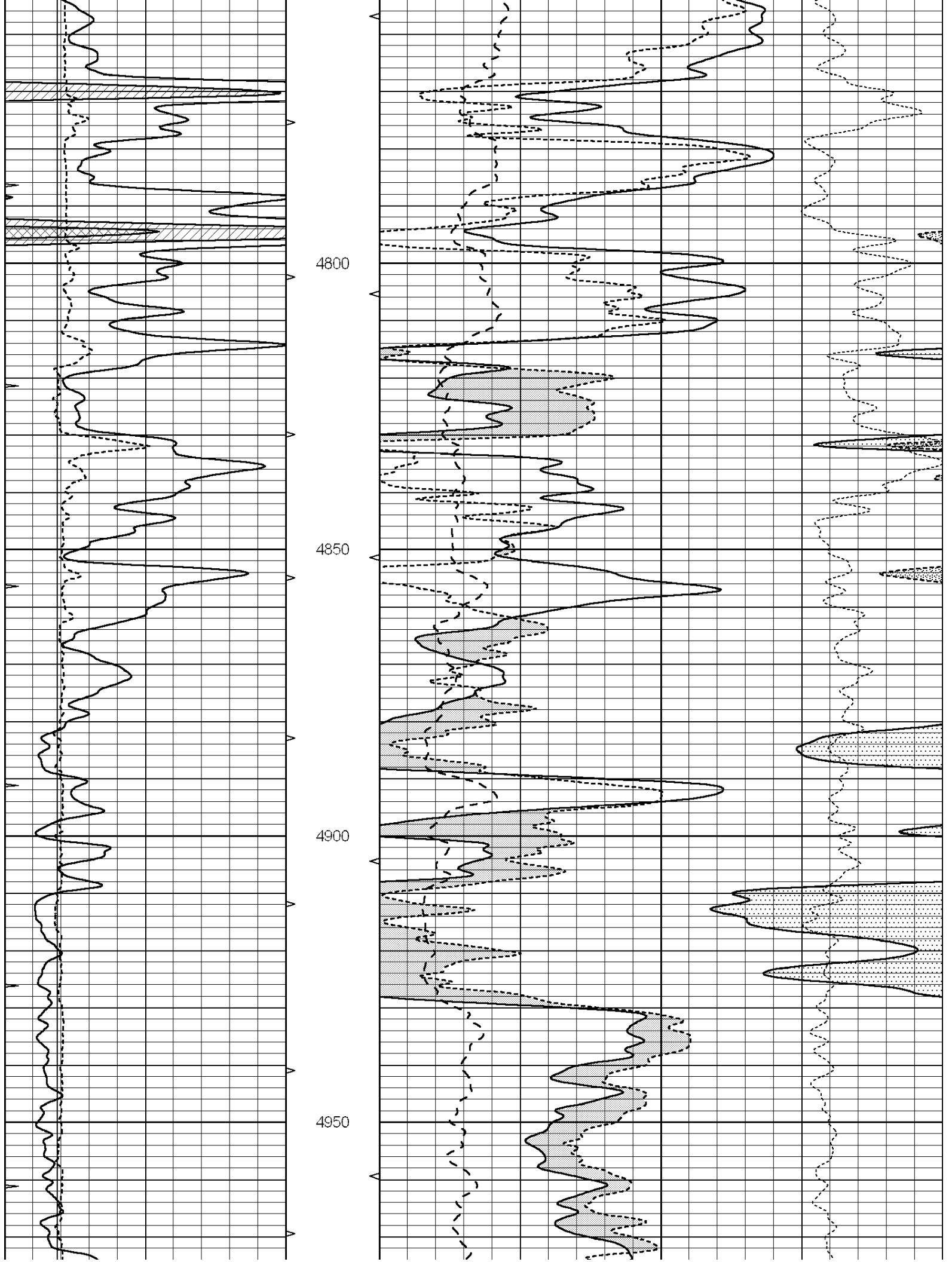


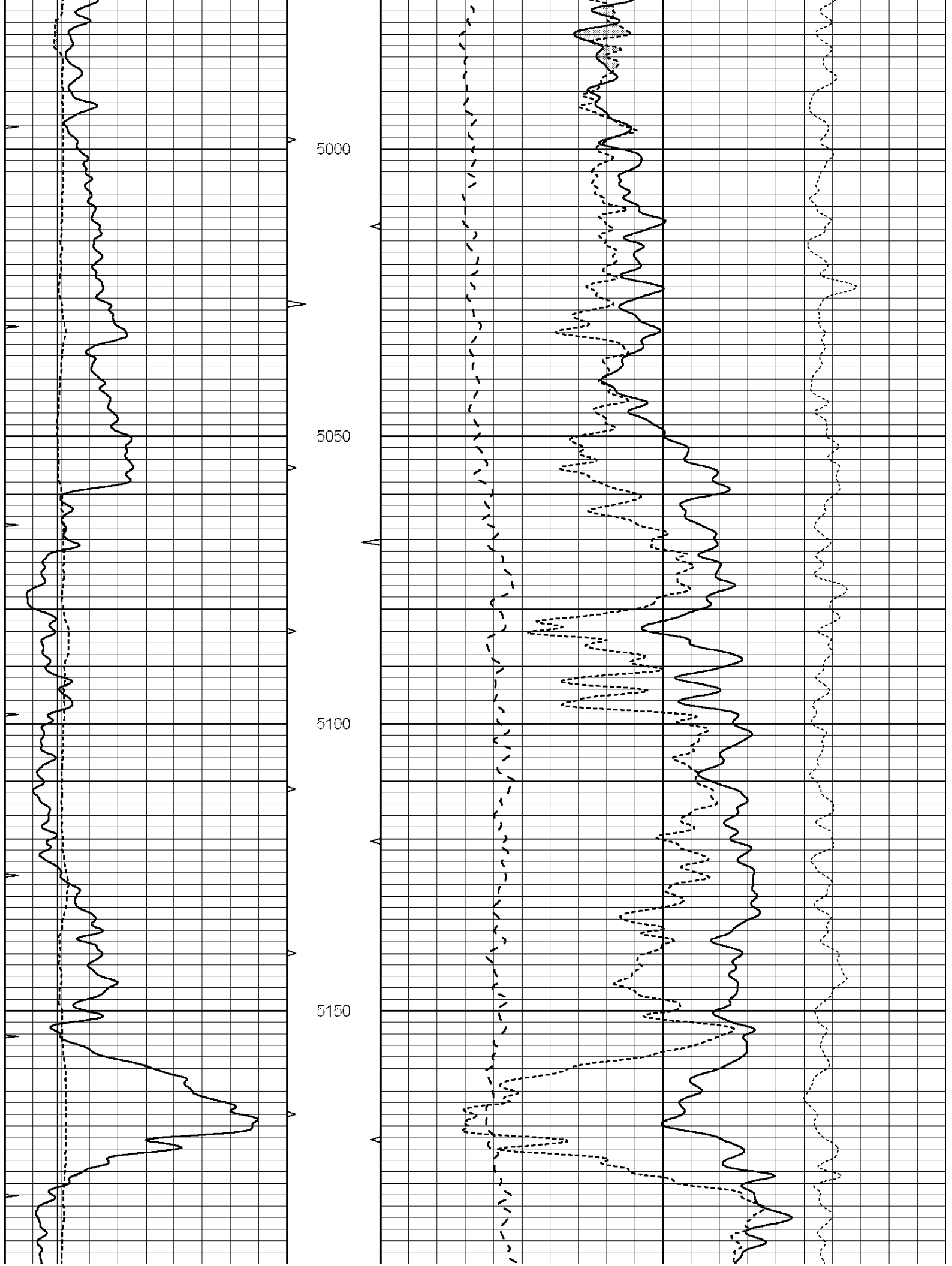


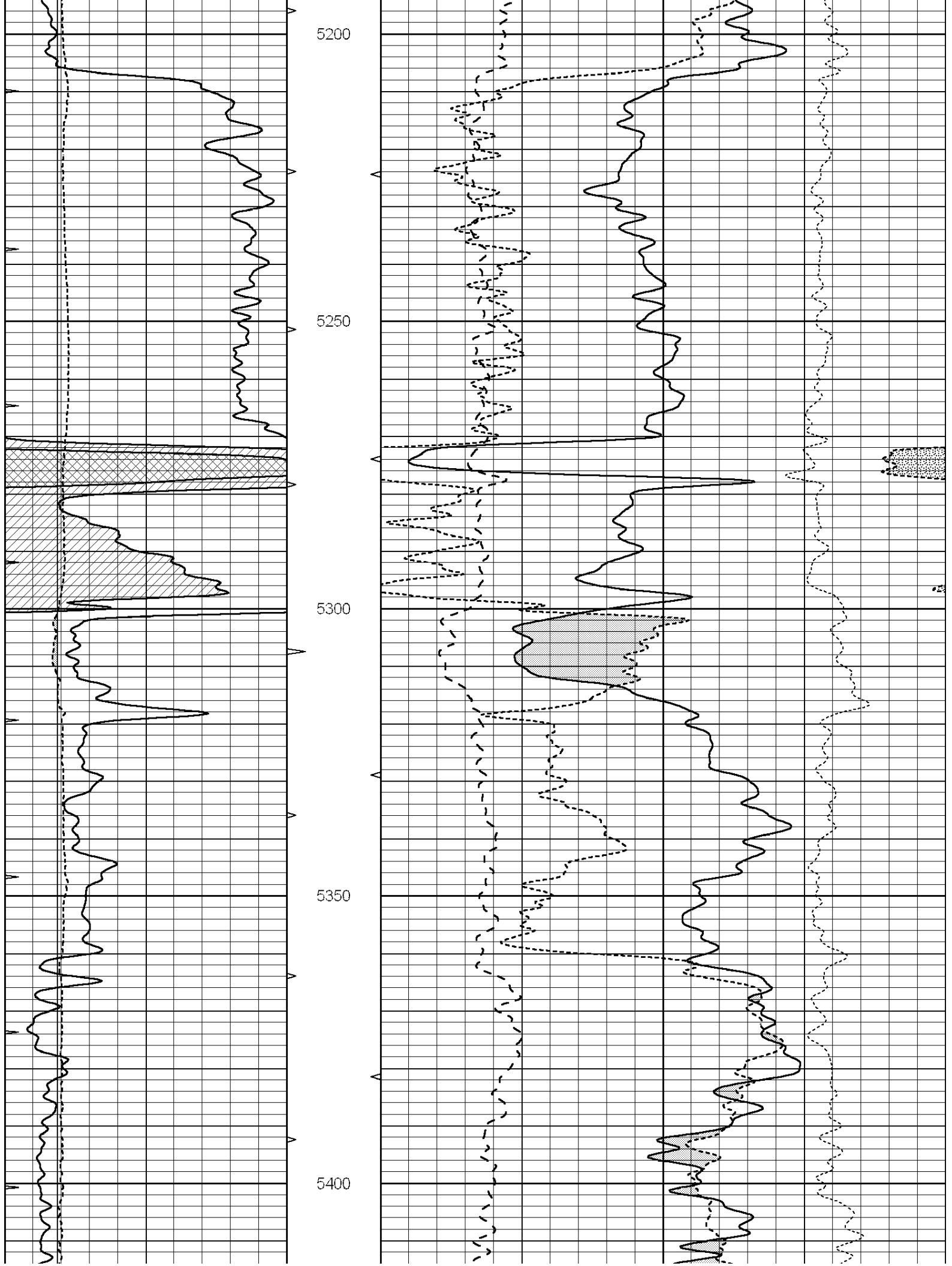


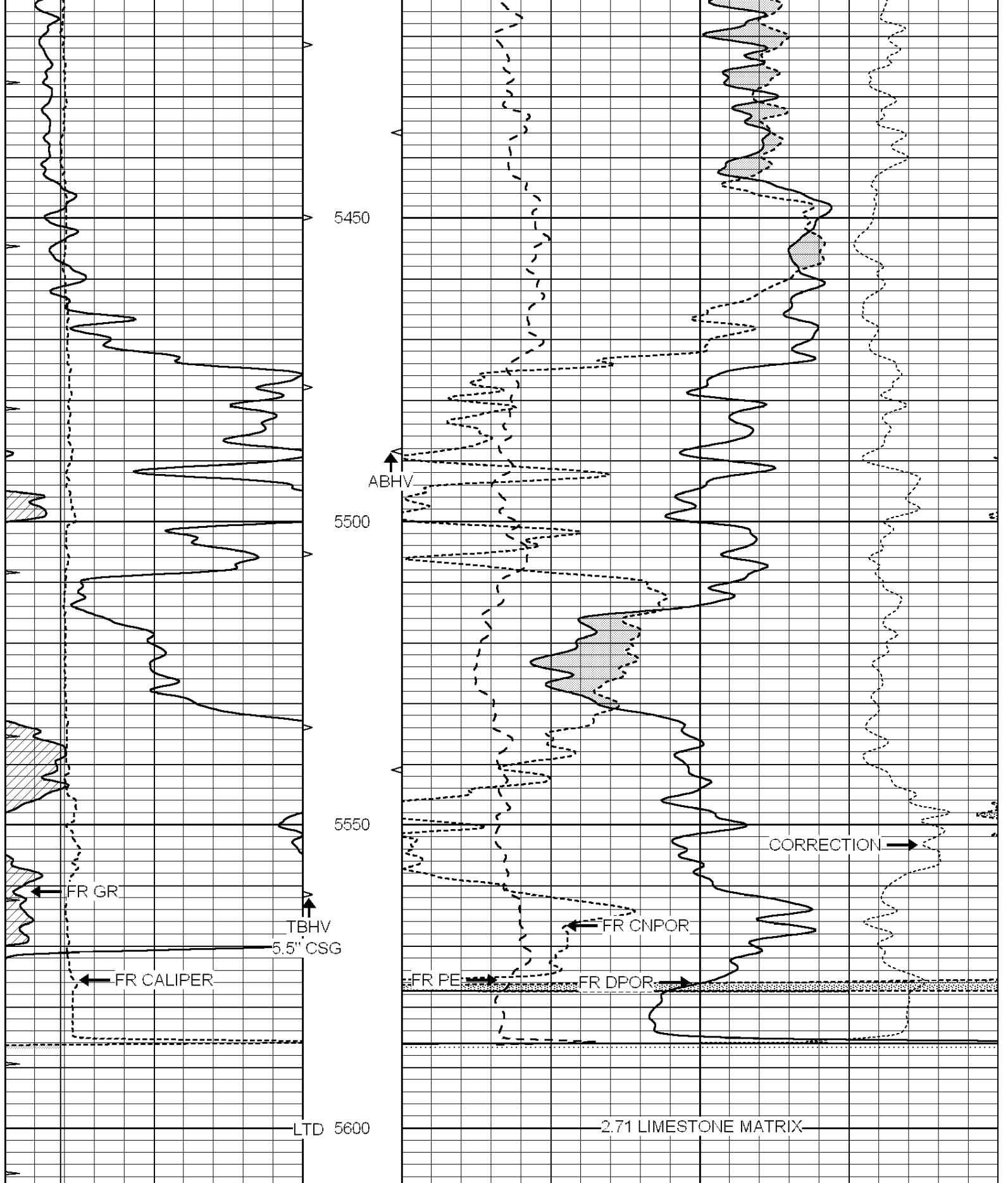










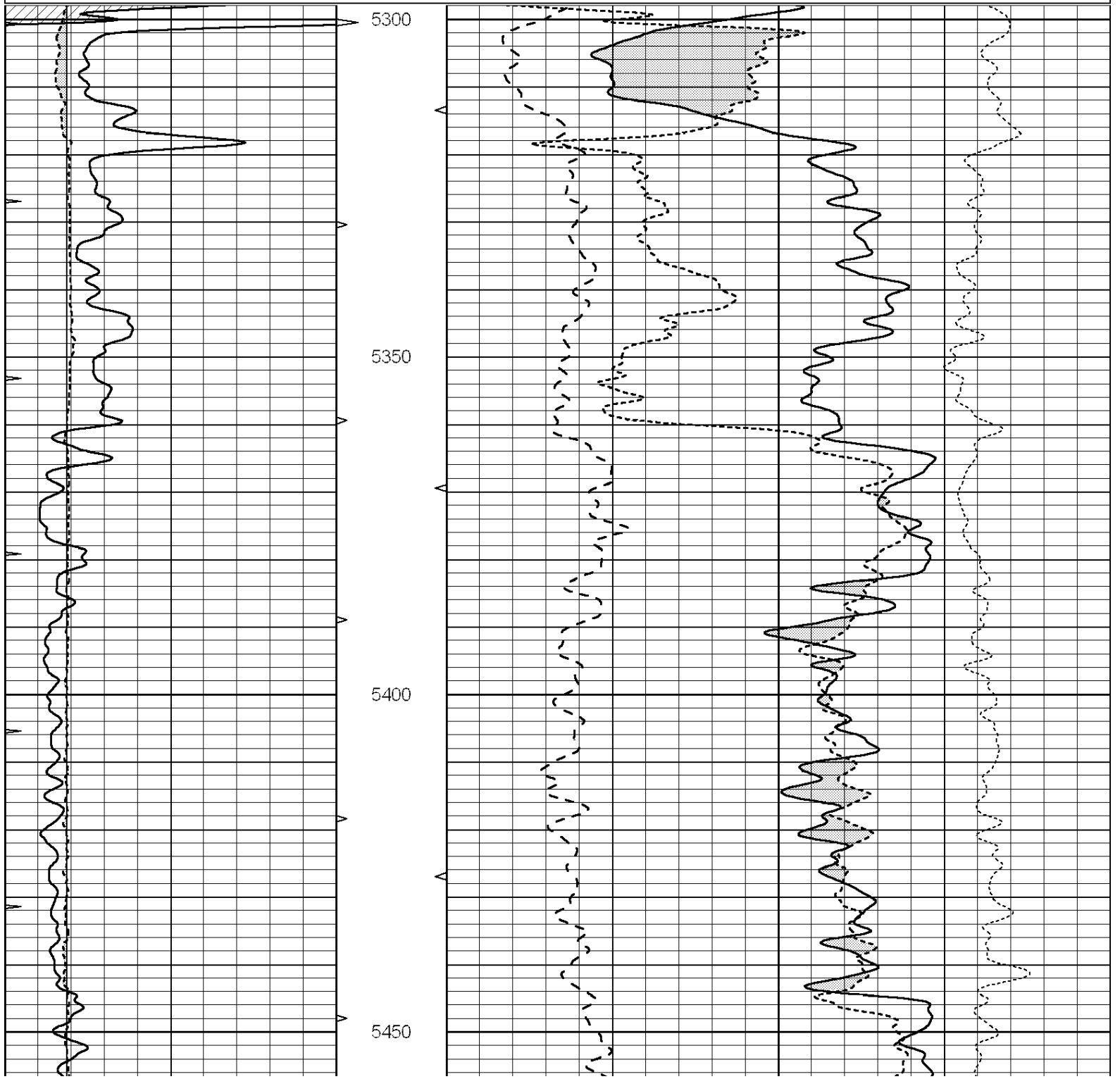


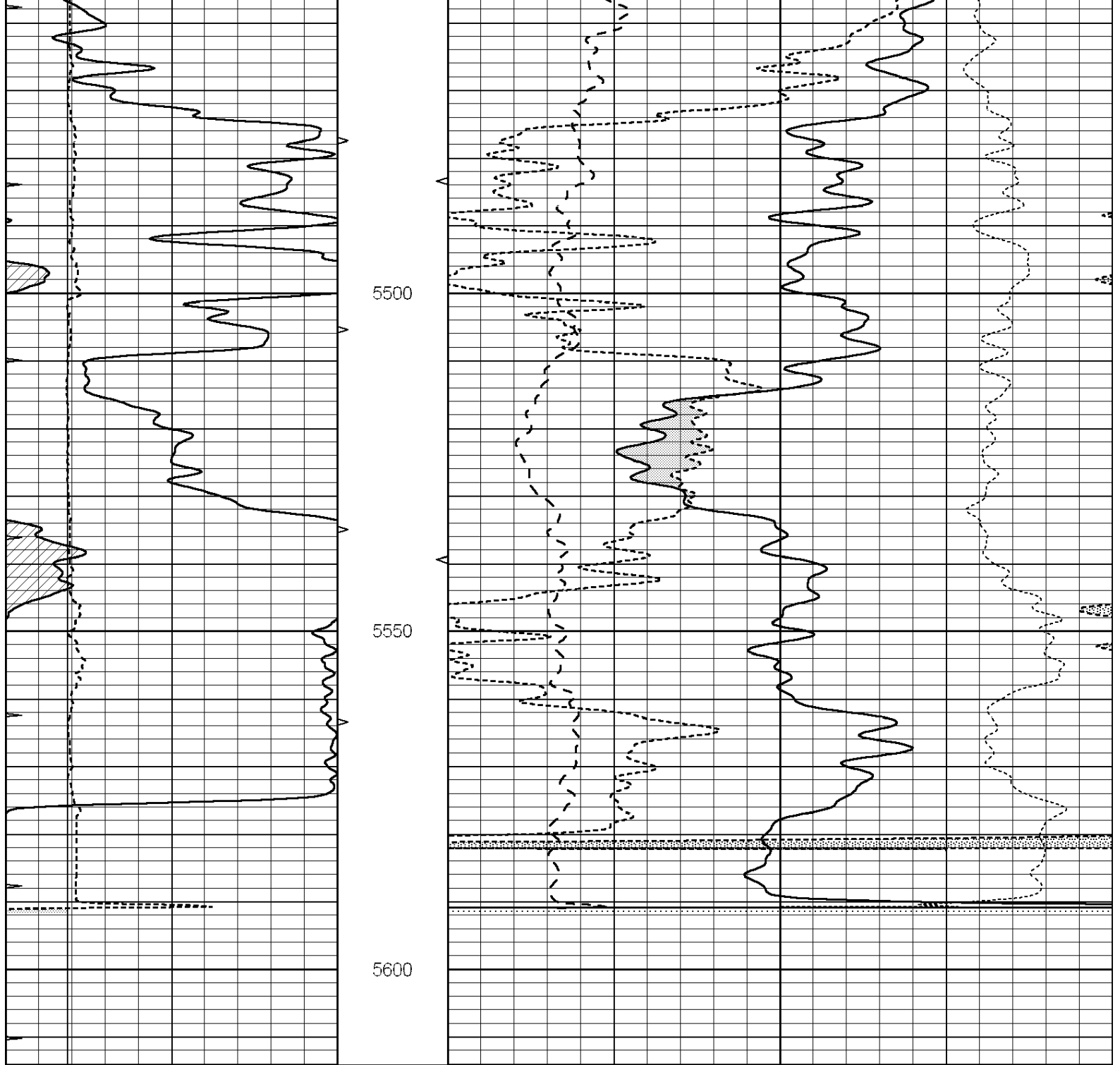
| | | | | | | | |
|---|------------------|-----|----------|------|--------------------------|-------------------|------|
| 0 | GAMMA RAY (GAPI) | 150 | ABHV | 30 | COMPENSATED DENSITY (pu) | -10 | |
| 6 | CALIPER (in) | 16 | 10 (ft3) | 0 30 | COMPENSATED NEUTRON (pu) | -10 | |
| 0 | MINMK | 20 | TBHV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

REPEAT SECTION

Database File: 22269pe.db
 Dataset Pathname: pass2.3.2
 Presentation Format: _ldt_neu
 Dataset Creation: Sun Mar 16 08:05:27 2014 by Calc SOC 120430
 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 | 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 |
| | | | 0 (ft3) | 10 | CORRECTION (g/cc) | 0.25 |

Calibration Report

Database File: 22269pe.db
 Dataset Pathname: pass3.4
 Dataset Creation: Sun Mar 16 09:51:23 2014 by Calc SOC 120430

Dual Induction Calibration Report

Serial-Model: PROBE9-DILG
 Surface Cal Performed: Sat Mar 08 04:15:46 2014
 Downhole Cal Performed: Mon Jul 28 12:02:56 2008
 After Survey Verification Performed: Mon Jul 28 12:02:56 2008

| Surface Calibration | | | | | | | | |
|---------------------|----------|-------|---|------------|---------|--------|---------|---------|
| Loop: | Readings | | | References | | | Results | |
| | Air | Loop | | Air | Loop | | m | b |
| Deep | -0.014 | 0.629 | V | 0.000 | 400.000 | mmho/m | 650.000 | -14.000 |
| Medium | 0.039 | 0.728 | V | 0.000 | 464.000 | mmho/m | 660.000 | -17.000 |
| Internal: | Zero | Cal | | Zero | Cal | | m | b |
| Deep | 0.011 | 0.610 | V | 0.000 | 400.000 | mmho/m | 667.135 | -7.256 |
| Medium | 0.005 | 0.712 | V | 0.000 | 464.000 | mmho/m | 655.677 | -3.102 |

| Downhole Calibration | | | | | | | | |
|----------------------|----------|--------|--------|------------|----------|--------|---------|-------|
| | Readings | | | References | | | Results | |
| | Zero | Cal | | Zero | Cal | | m' | b' |
| Deep | 0.000 | 0.000 | mmho/m | 14.508 | 388.384 | mmho/m | 1.000 | 0.000 |
| Medium | 0.000 | 0.000 | mmho/m | 166.367 | 504.400 | mmho/m | 1.000 | 0.000 |
| LL3 | | 7.500 | V | | 1400.000 | Ohm-m | | |
| | | 0.000 | V | | 20.000 | Ohm-m | | |
| | | -7.200 | V | | 4000.000 | 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: 004N Model: PRB

| Master Calibration | | | | | Performed Mon Jun 03 09:36:56 2013 | | | |
|--------------------|------------|-------------|----------|---------------------|------------------------------------|--|---------|------|
| | Background | Magnesium | Aluminum | Sandstone | | | | |
| Window 1 | 1417.6 | 10391.4 | 3464.6 | 11537.5 | | | | cps |
| Window 2 | 1295.0 | 8959.7 | 3050.1 | 9816.4 | | | | cps |
| Window 3 | 1105.1 | 5464.2 | 2051.0 | 5838.8 | | | | cps |
| Window 4 | 315.0 | 317.7 | 312.9 | 319.8 | | | | cps |
| Long Space | 0.0 | 7664.6 | 1755.0 | 8521.3 | | | | cps |
| Short Space | 1.8 | 1582.4 | 1040.8 | 1699.4 | | | | cps |
| Rho | | 1.7100 | 2.5900 | 1.3800 | | | | g/cc |
| Pe | | 0.0000 | 2.5700 | 1.5500 | | | | |
| Rib Angle | : 44.1 | Rib Slope | : 0.970 | Density/Spine Ratio | | | : 0.574 | |
| Spine Angle | : 74.1 | Spine Slope | : 3.519 | Spine Intercept | | | : -17.0 | |

| Before Survey Verification | | | | | Performed Wed Dec 31 18:00:00 1969 | | | |
|----------------------------|------------|-----------|----------|-----------|------------------------------------|--|--|------|
| | Background | Magnesium | Aluminum | Sandstone | | | | |
| 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 | | | | |

| | | | | | |
|---------------------|-----|--------|--------|--------|------|
| 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: 070808
 Tool Model: Probe

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: Mon Mar 03 06:21:24 2014

Calibrator Value: 1.0 GAPI

Background Reading: 0.0 cps
 Calibrator Reading: 1.0 cps

Sensitivity: 0.2500 GAPI/cps