SUPERIOR
Hays,
Kansas

# COMPENSATED DENSITY / NEUTRON LOG

Company RITCHIE EXPLORATION, INC.

Well REBEIN #1

Field WILDCAT

County HODGEMAN State KANSAS

Location: API # : 15-083-21846

SEC 32 TWP 24S RGE 24W

Other Services

DIL

Elevation

K.B. 2495
D.F.
G.L. 2483

Permanent Datum GROUND LEVEL Elevation 2483
Log Measured From KELLY BUSHING 12' A.G.L.
Drilling Measured From KELLY BUSHING

| | | | |
|---|---|---|---|
| Date | 9-30-12 | | |
| Run Number | ONE | | |
| Depth Driller | 5070 | | |
| Depth Logger | 5070 | | |
| Bottom Logged Interval | 5046 | | |
| Top Log Interval | 3300 | | |
| Casing Driller | 356 | | |
| Casing Logger | 356 | | |
| Bit Size | 7.875 | | |
| Type Fluid in Hole | CHEMICAL MUD | | |
| Density / Viscosity | 9.1 / 52 | | |
| pH / Fluid Loss | 10.5 / 9.2 | | |
| Source of Sample | FLOWLINE | | |
| Rm @ Meas. Temp | 0.70 @ 75F | | |
| Rmf @ Meas. Temp | 0.53 @ 75F | | |
| Rmc @ Meas. Temp | 0.84 @ 75F | | |
| Source of Rmf / Rmc | MEASURED | | |
| Rm @ BHT | .420 @ 125F | | |
| Time Circulation Stopped | 3 HOURS | | |
| Time Logger on Bottom | 8:30 P.M. | | |
| Maximum Recorded Temperature | 125F | | |
| Equipment Number | 860 | | |
| Location | HAYS, KS. | | |
| Recorded By | RUPP | | |
| Witnessed By | MACK ARMSTRONG | | |

Company RITCHIE EXPLORATION, INC.
Well REBEIN #1
Field WILDCAT
County HODGEMAN
State KANSAS


<<< 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

SUPERIOR WELL SERVICES
THANK YOU FOR YOUR BUSINESS

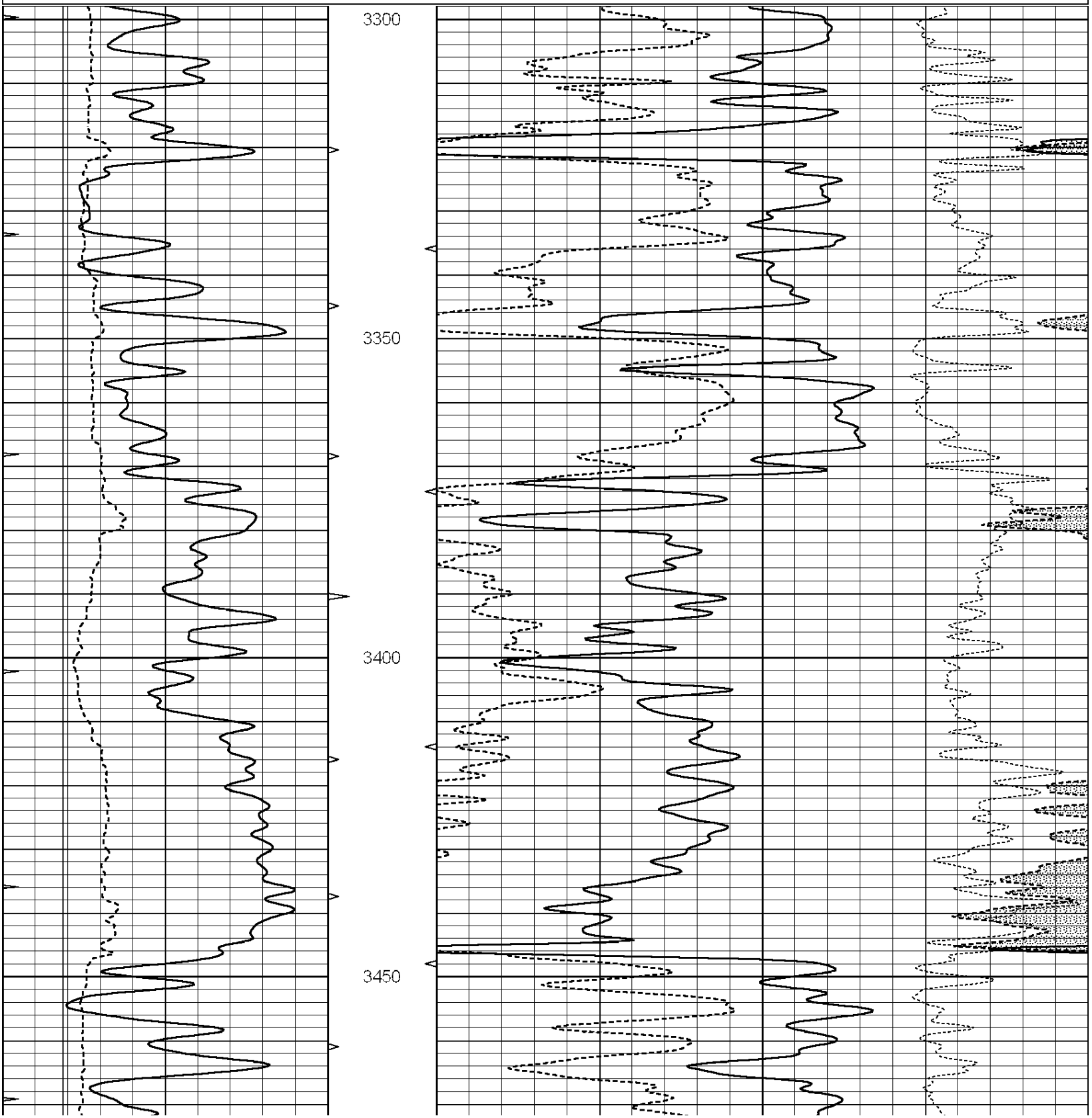
MAIN SECTION

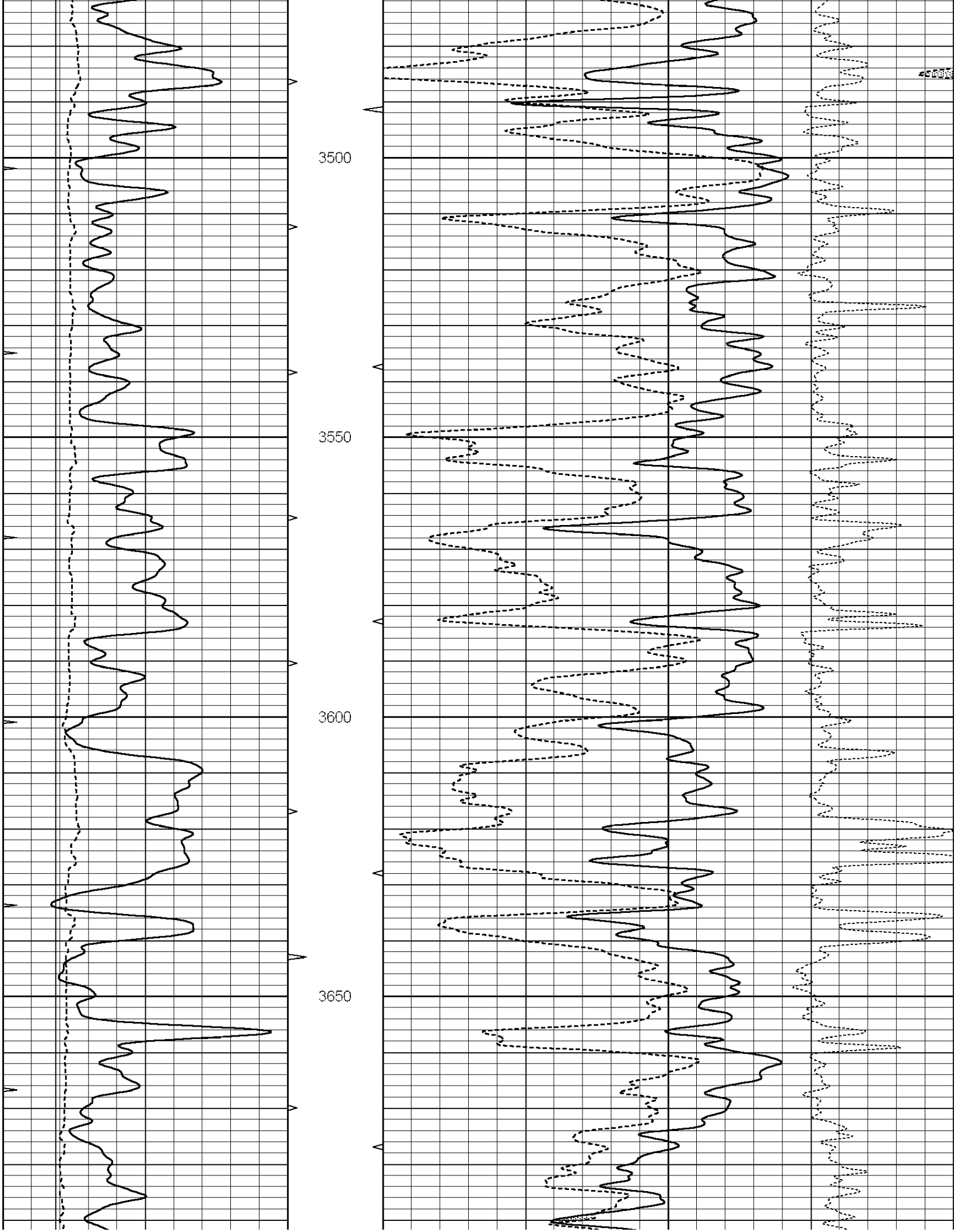
SUPERIOR
Hays,

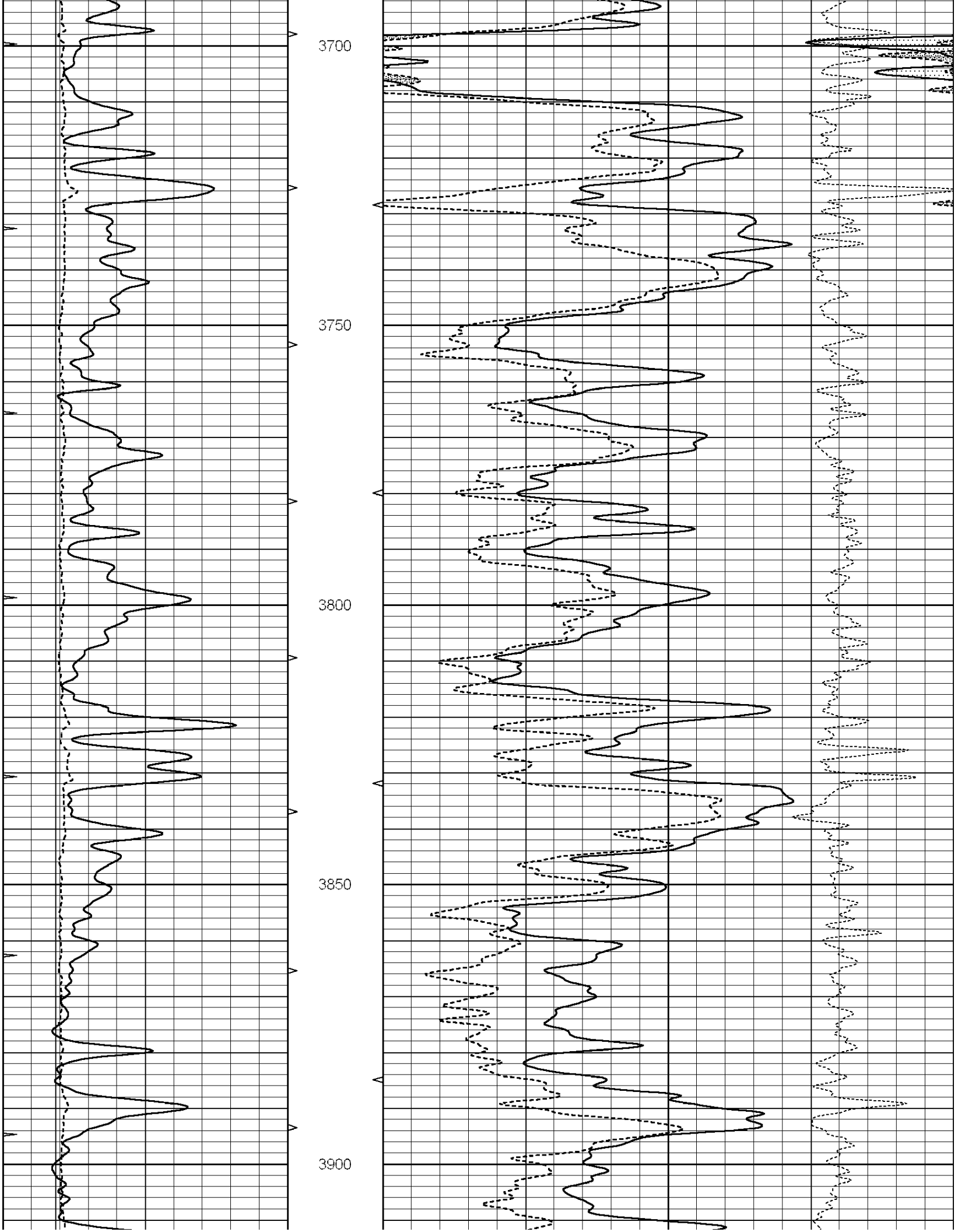
Kansas

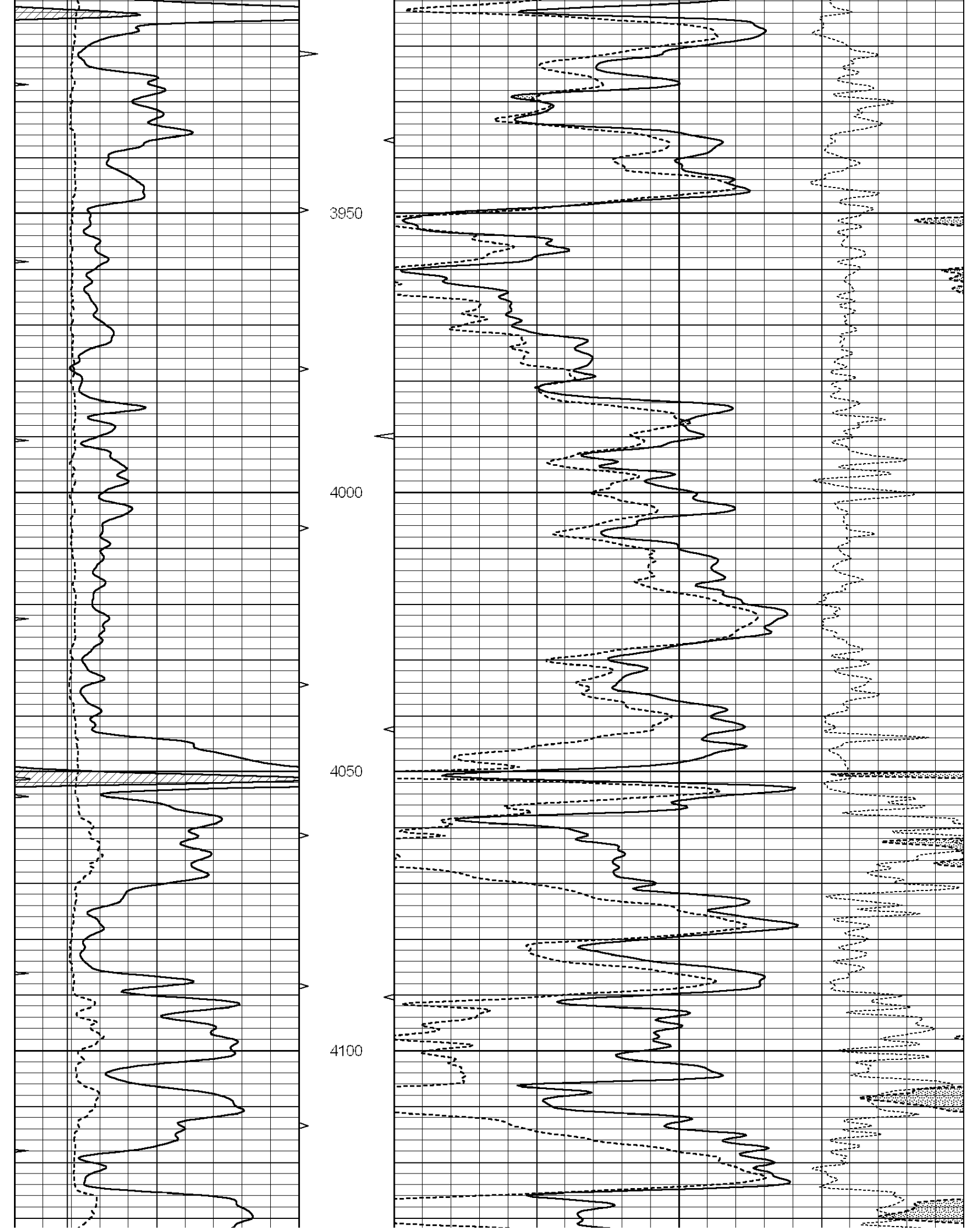
| | |
|---|---|
| Database File: | 009674ddn.db |
| Dataset Pathname: | pass3.1A |
| Presentation Format: | den_neu |
| Dataset Creation: | Sun Sep 30 23:25:54 2012 |
| Charted by: | Depth in Feet scaled 1:240 |

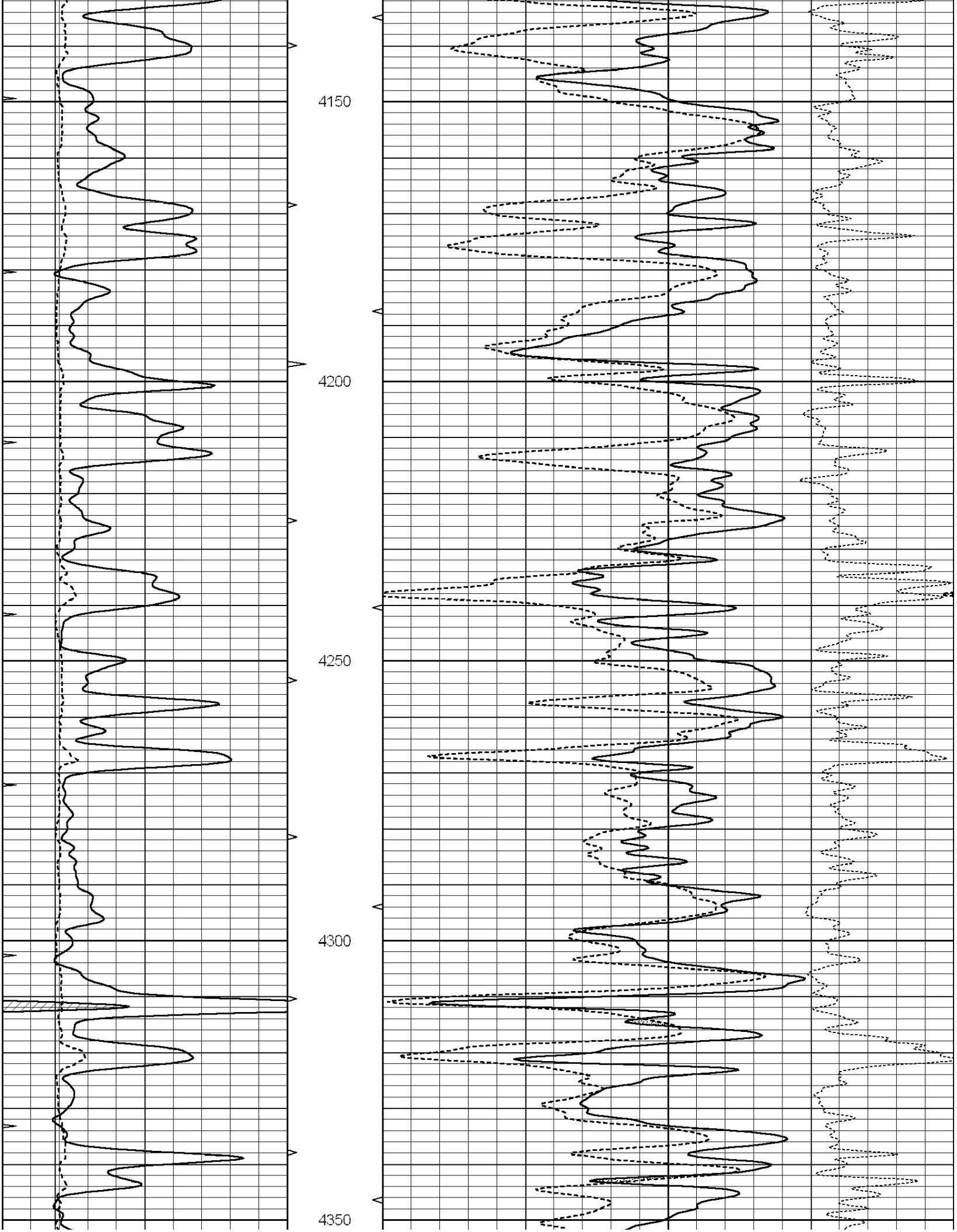
| | | | | | |
|---|---|---|---|---|---|
| 0 | GAMMA RAY (GAPI) 150 | ABHV | 30 | COMPENSATED DENSITY (pu) | -10 |
| 6 | CALIPER (in) 16 | 10 (ft3) 0 | 30 | COMPENSATED NEUTRON (pu) | -10 |
| 0 | MINMK 20 | TBHV | | -0.25 CORRECTION (g/cc) | 0.25 |
| | | 0 (ft3) 10 | | | |

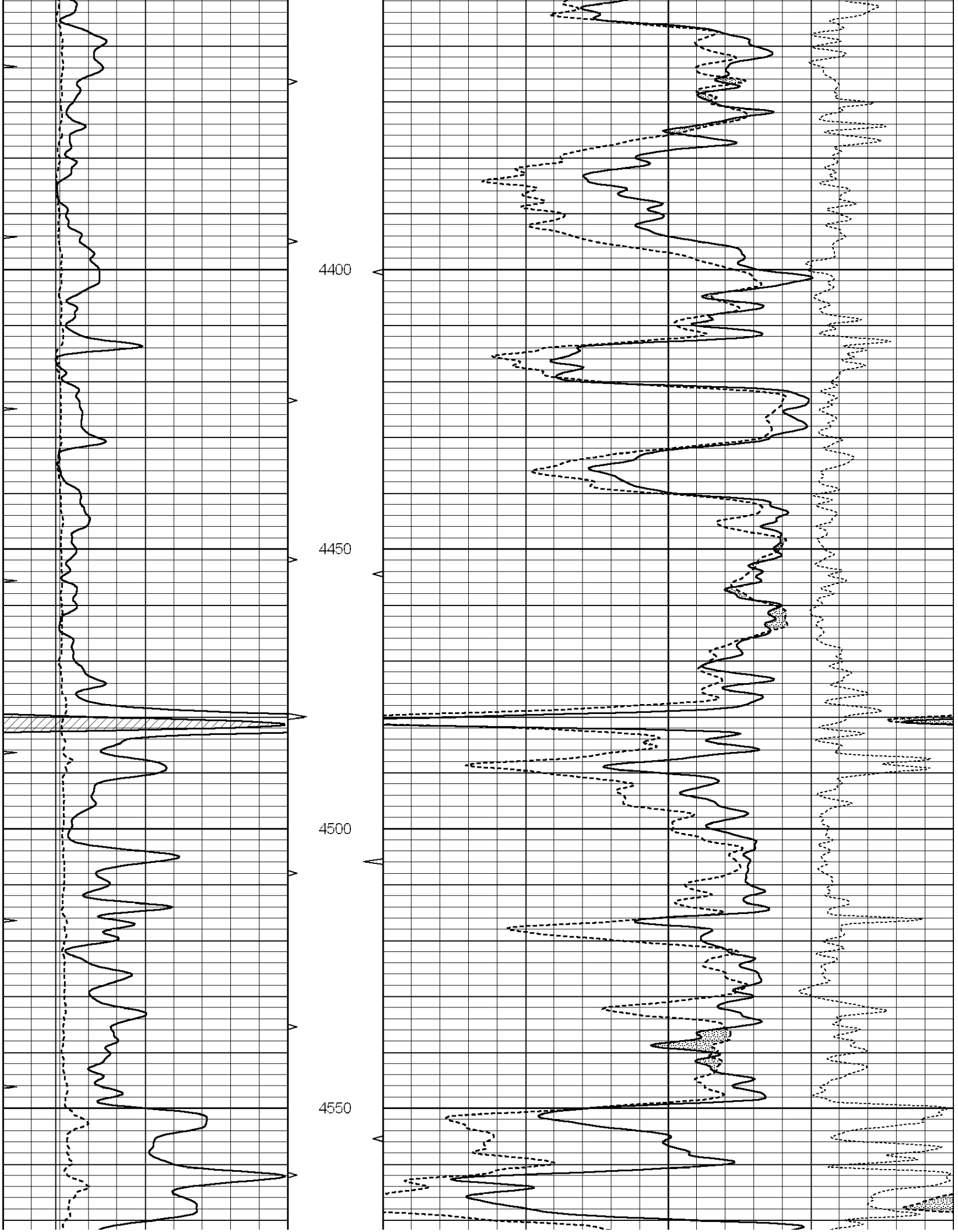


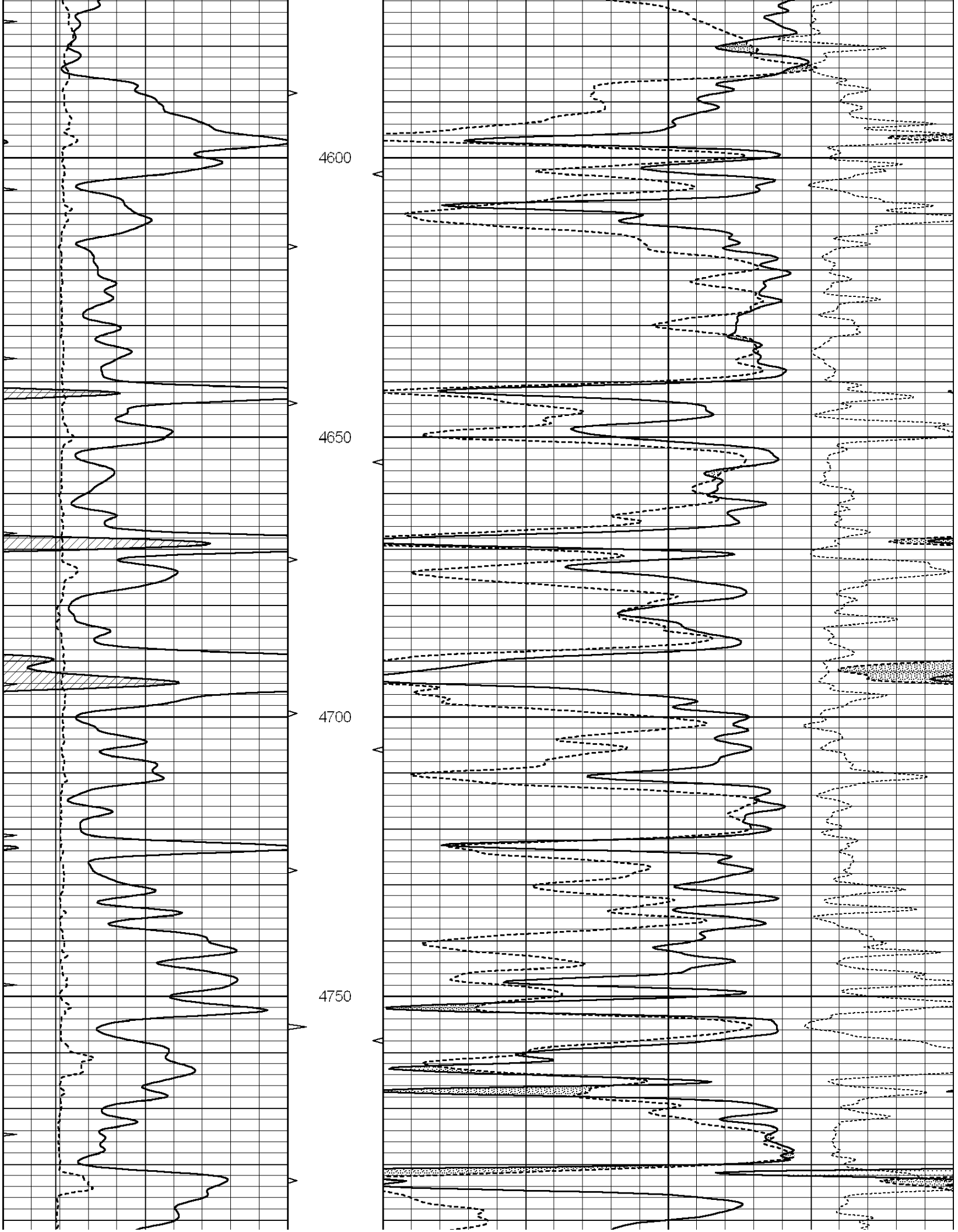

3500
3550
3600
3650

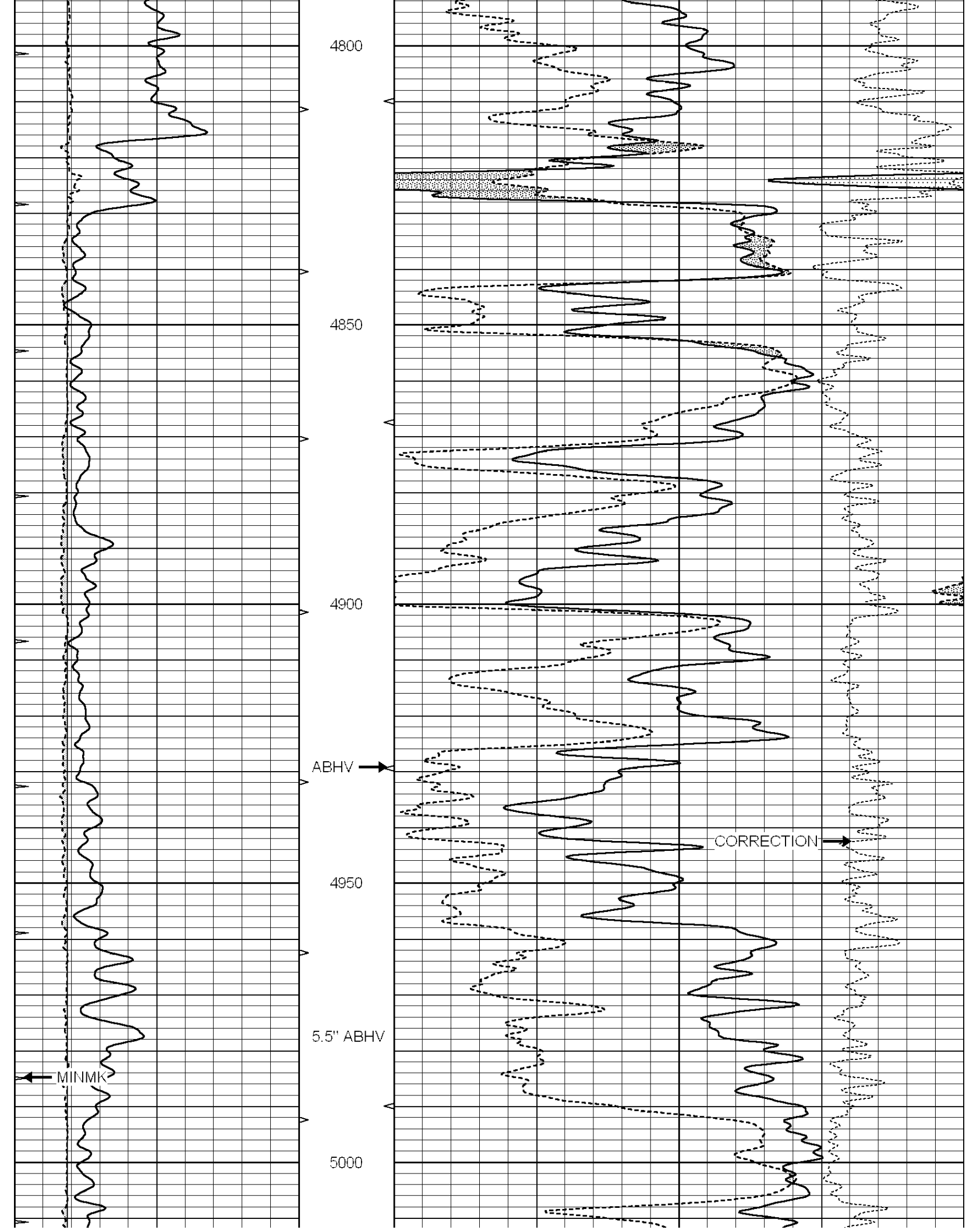

3700
3750
3800
3850
3900

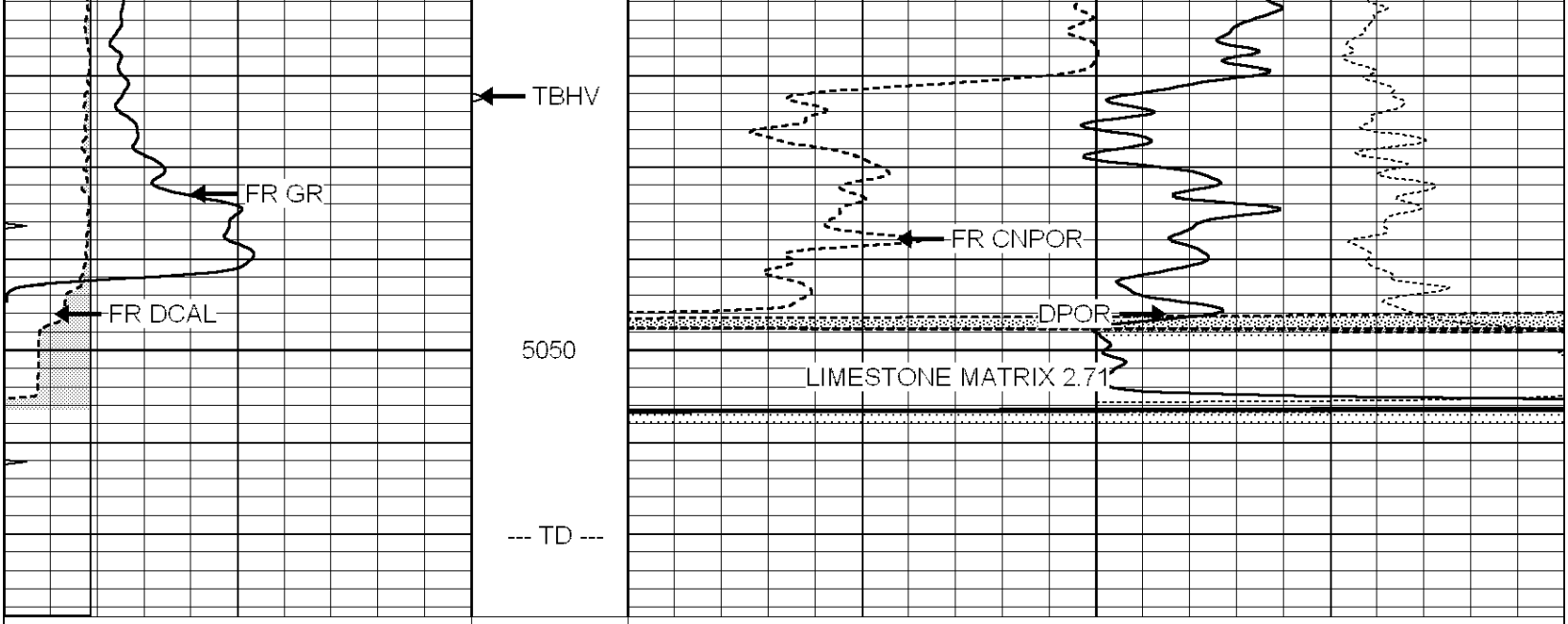

3950
4000
4050
4100


4150
4200
4250
4300
4350


4400
4450
4500
4550


4600
4650
4700
4750


4800
4850
4900
ABHV
CORRECTION
4950
5.5" ABHV
MINMK
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 | | -0.25 CORRECTION (g/cc) | 0.25 |
| | | 0 (ft3) 10 | | | |

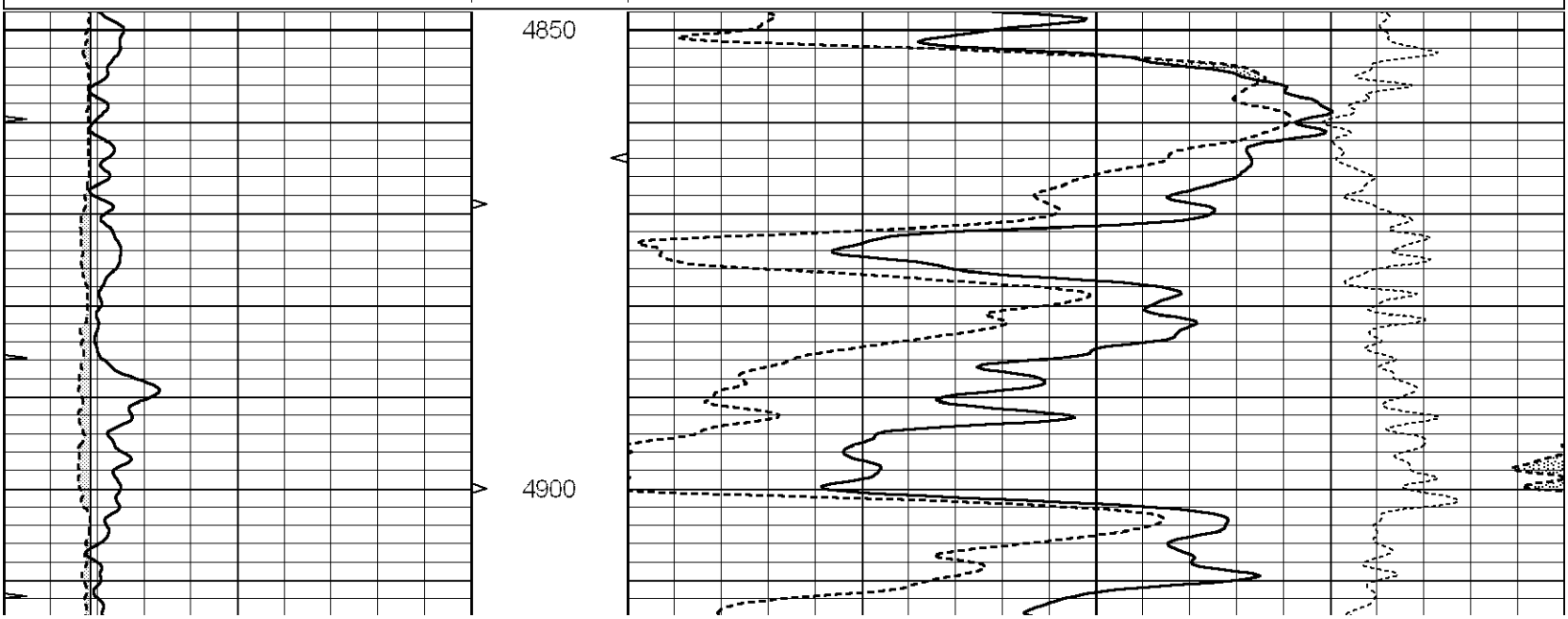
SUPERIOR WELL SERVICES

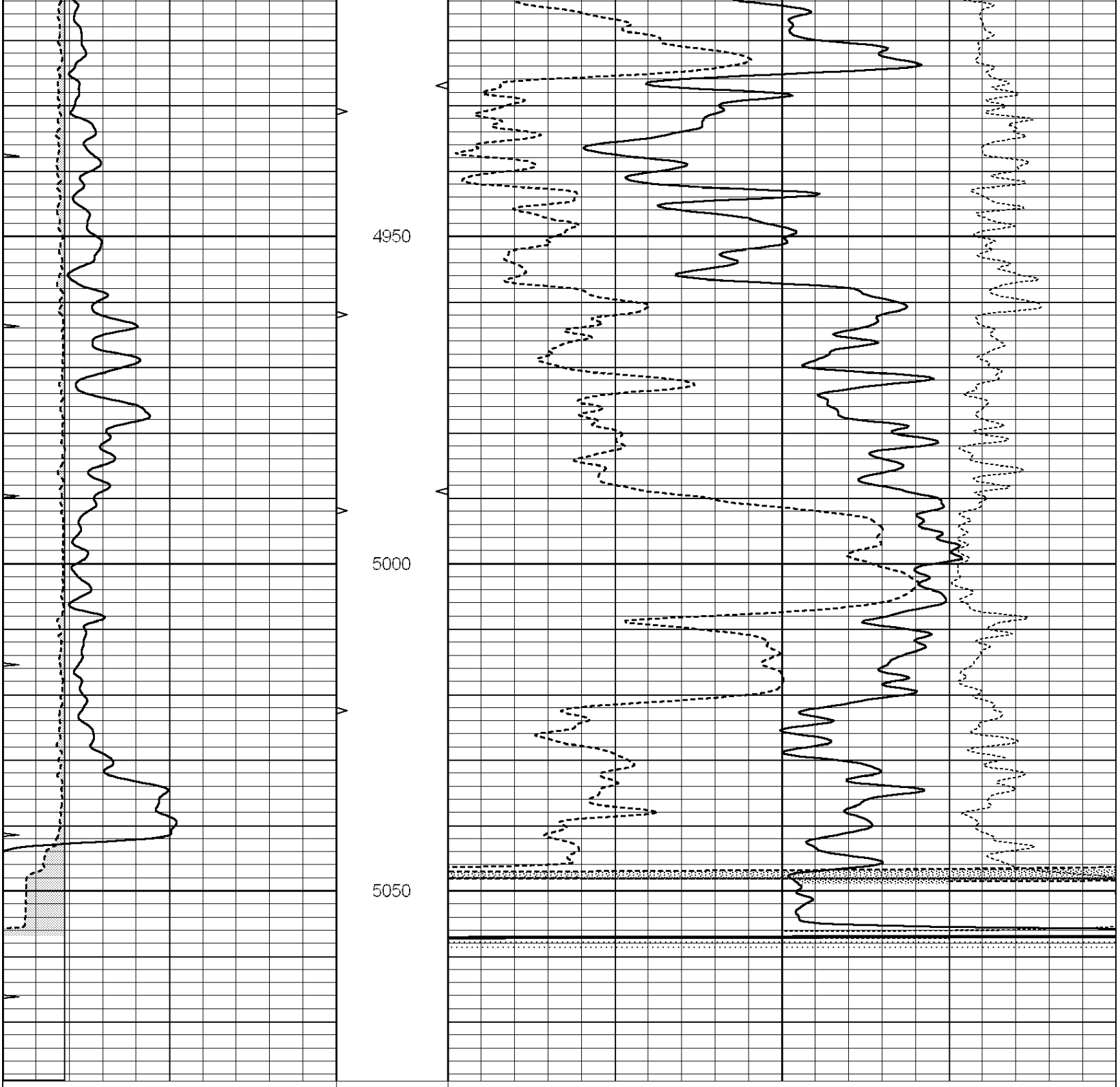
SUPERIOR
Hays,
Kansas

# REPEAT SECTION

| | |
|---|---|
| Database File: | 009674ddn.db |
| Dataset Pathname: | pass2.A |
| Presentation Format: | den_neu |
| Dataset Creation: | Sun Sep 30 23:18:11 2012 |
| 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 | | -0.25 CORRECTION (g/cc) | 0.25 |
| | | 0 (ft3) 10 | | | |






Calibration Report

Database File: 009674ddn.db
Dataset Pathname: pass3.1A
Dataset Creation: Sun Sep 30 23:25:54 2012

Dual Induction Calibration Report

| | |
|---|---|
| Serial-Model: | DIL5-GEAR |
| Performed: | Sun Sep 30 21:12:49 2012 |

| | Readings | | | References | | | Results | |
|---|---|---|---|---|---|---|---|---|
| Loop: | Air | Loop | | Air | Loop | | m | b |
| Deep | 0.004 | 0.654 | V | 0.000 | 400.000 | mmho/m | 490.000 | -13.000 |
| Medium | -0.005 | 0.737 | V | 0.000 | 462.500 | mmho/m | 520.000 | -12.000 |
| Internal: | Zero | Cal | | Zero | Cal | | m | b |
| Deep | 0.006 | 0.655 | V | 0.000 | 400.000 | mmho/m | 615.668 | -3.483 |
| Medium | 0.010 | 0.747 | V | 0.000 | 462.500 | mmho/m | 627.607 | -6.064 |

## Compensated Density Calibration Report

| | |
|---|---|
| Serial-Model: | GEAR1-GEARHART |
| Source / Verifier: | 147 / 147 |
| Master Calibration Performed: | Mon Sep 17 09:35:35 2012 |

Master Calibration

| | Density | | Far Detector | Near Detector | |
|---|---|---|---|---|---|
| Magnesium | 1.710 | g/cc | 1205.67 | 613.10 | cps |
| Aluminum | 2.580 | g/cc | 277.64 | 430.46 | cps |

Spine Angle = 76.46 Density/Spine Ratio = 0.576

| | Size | | Reading | |
|---|---|---|---|---|
| Small Ring | 9.50 | in | 4.69 | V |
| Large Ring | 14.00 | in | 6.52 | V |

## Compensated Neutron Calibration Report

| | |
|---|---|
| Serial Number: | NUE_2I |
| Tool Model: | G |

CALIBRATION

| Detector | Readings | | Target | | Normalization |
|---|---|---|---|---|---|
| Short Space | 1.00 | cps | 1.00 | cps | 1.0000 |
| Long Space | 1.00 | cps | 1.00 | cps | 1.0000 |

## Gamma Ray Calibration Report

| | | |
|---|---|---|
| Serial Number: | GR5 | |
| Tool Model: | OPEN | |
| Performed: | Sat Sep 29 23:38:36 2012 | |
| Calibrator Value: | 1.0 | GAPI |
| Background Reading: | 0.0 | cps |
| Calibrator Reading: | 1.0 | cps |
| Sensitivity: | 0.7500 | GAPI/cps |