# COMPENSATED DENSITY / NEUTRON PE LOG

Company SHELBY RESOURCES, LLC.
Well SEWING #1-31
Field SATTERLEE
County STAFFORD State KANSAS

Location: API # : 15-185-24095-0000
1914' FNL & 927' FWL
SW - NE - SW - NW

SEC 31 TWP 24S RGE 14W

Other Services
DIL/MEL
SONIC

Elevation
K.B. 2006
D.F. 2004
G.L. 1998

Permanent Datum GROUND LEVEL Elevation 1998
Log Measured From KELLY BUSHING 8' A.G.L.
Drilling Measured From KELLY BUSHING

Company SHELBY RESOURCES, LLC.
Well SEWING #1-31
Field SATTERLEE
County STAFFORD
State KANSAS

| | | | |
|---|---|---|---|
| Date | 11/15/21 | | |
| Run Number | ONE | | |
| Depth Driller | 4437 | | |
| Depth Logger | 4436 | | |
| Bottom Logged Interval | 4412 | | |
| Top Log Interval | 3200 | | |
| Casing Driller | 8 5/8"@963' | | |
| Casing Logger | 963 | | |
| Bit Size | 7 7/8" | | |
| Type Fluid in Hole | CHEMICAL MUD | CHLORIDES 6,900 PPM | |
| Density / Viscosity | 9.1/48 | | |
| pH / Fluid Loss | 10.0/9.2 | | |
| Source of Sample | FLOWLINE | | |
| Rm @ Meas. Temp | .500@80F | | |
| Rmf @ Meas. Temp | .375@80F | | |
| Rmc @ Meas. Temp | .600@80F | | |
| Source of Rmf / Rmc | MEASUREMENT | | |
| Rm @ BHT | .333@120F | | |
| Time Circulation Stopped | 2.5 HOURS | | |
| Time Logger on Bottom | 7:15 P.M. | | |
| Maximum Recorded Temperature | 120F | | |
| Equipment Number | 922339 | | |
| Location | HAYS, KANSAS | | |
| Recorded By | JEFF LUEBBERS | | |
| Witnessed By | JEREMY SCHWARTZ | | |

<<< 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

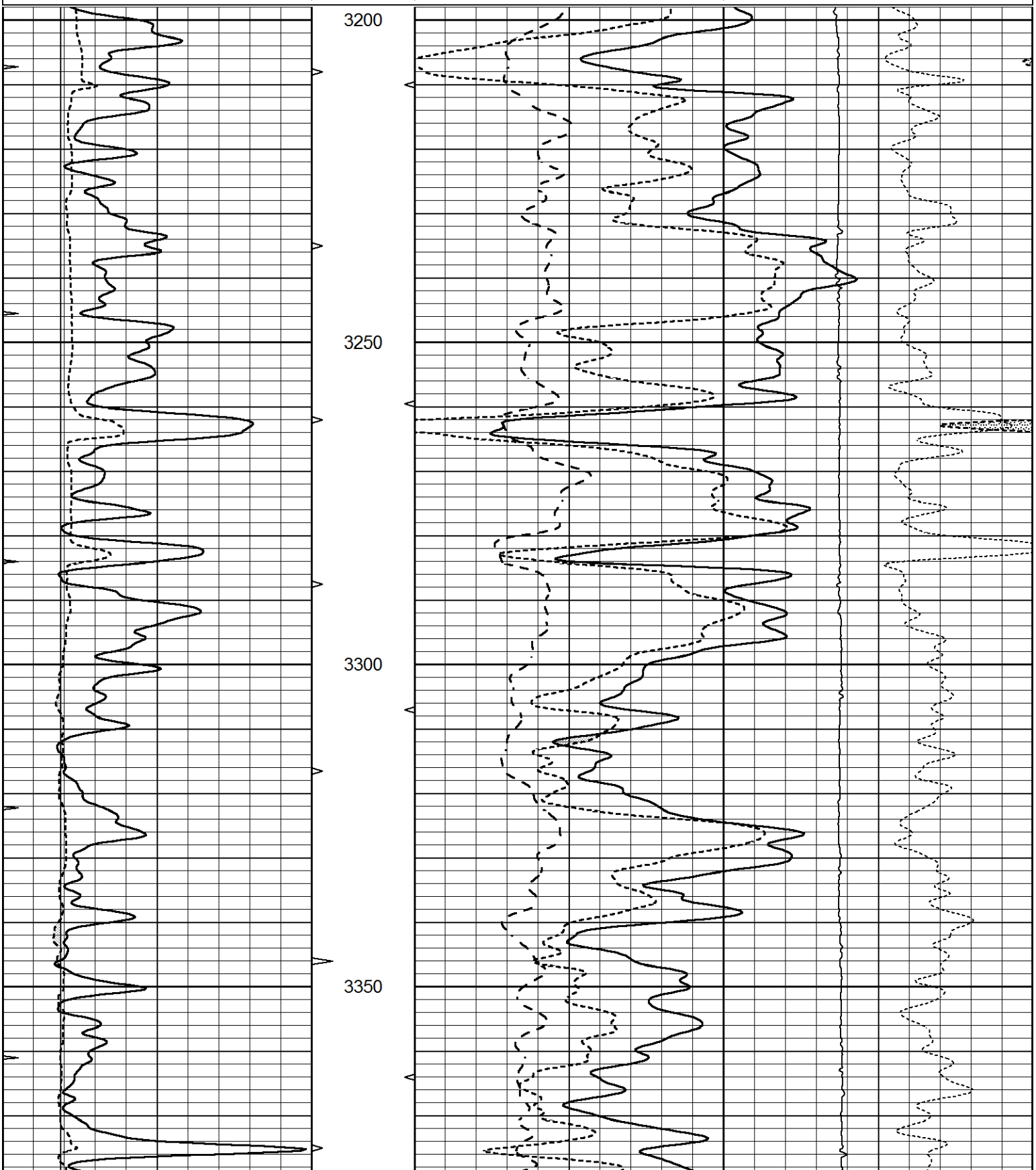
15-185-24095-0000

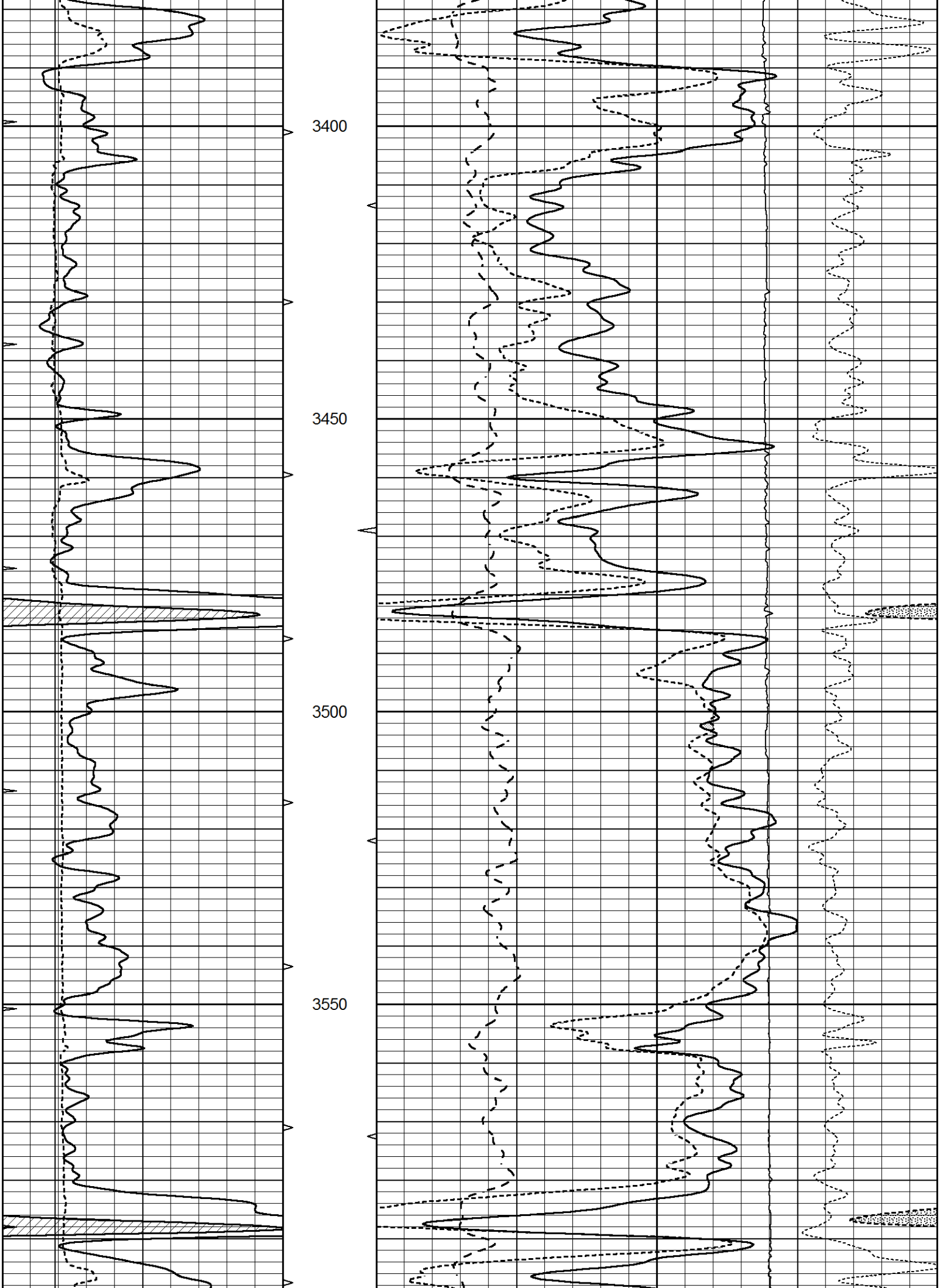
THANK YOU FOR USING ELI WIRELINE HAYS, KANSAS (785) 628-6395
DIRECTIONS
MACKSVILLE, KS., 2E. ON HWY 50 TO "RD. 90", 2 1/2S., E. INTO

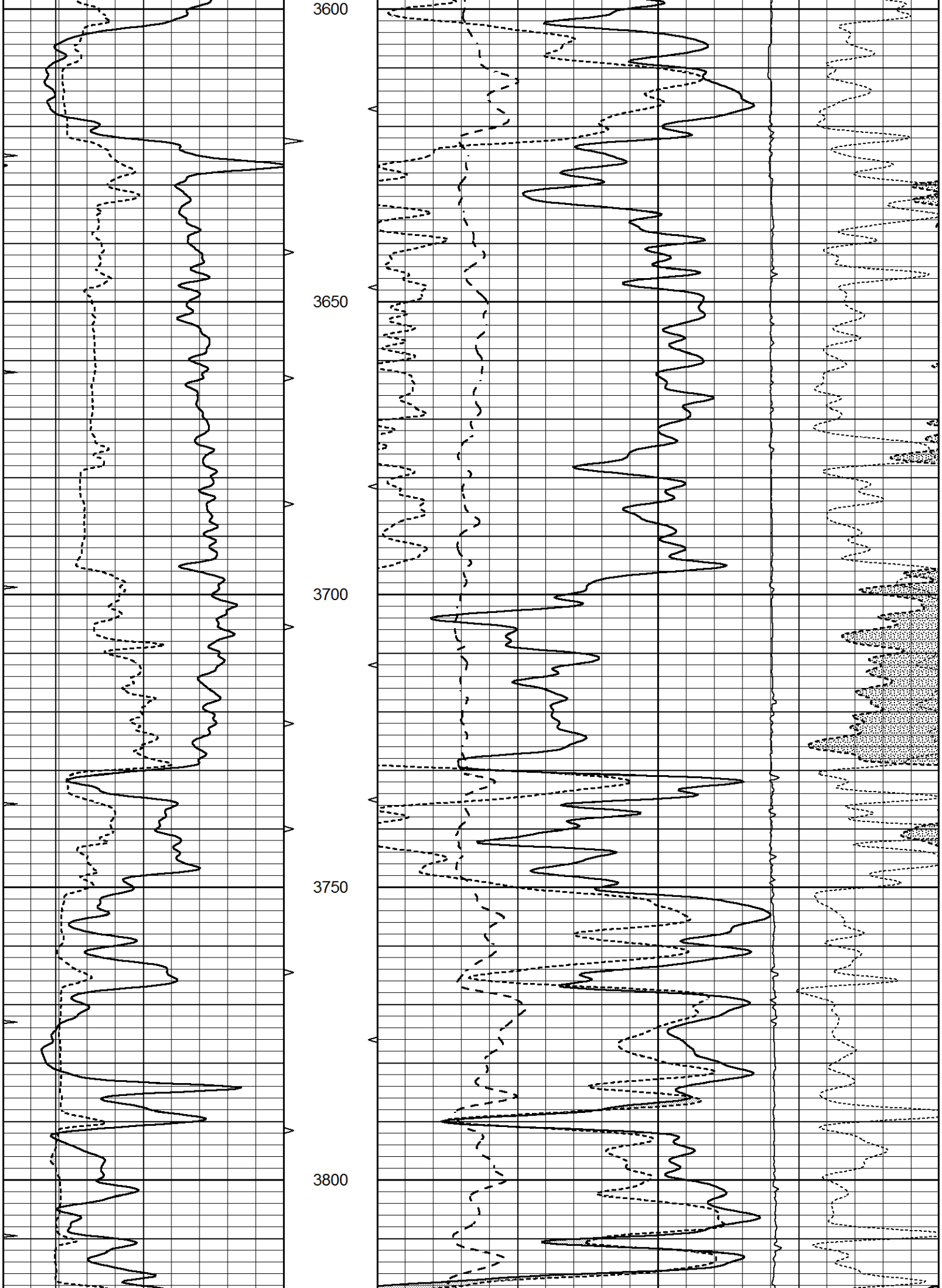
MAIN SECTION

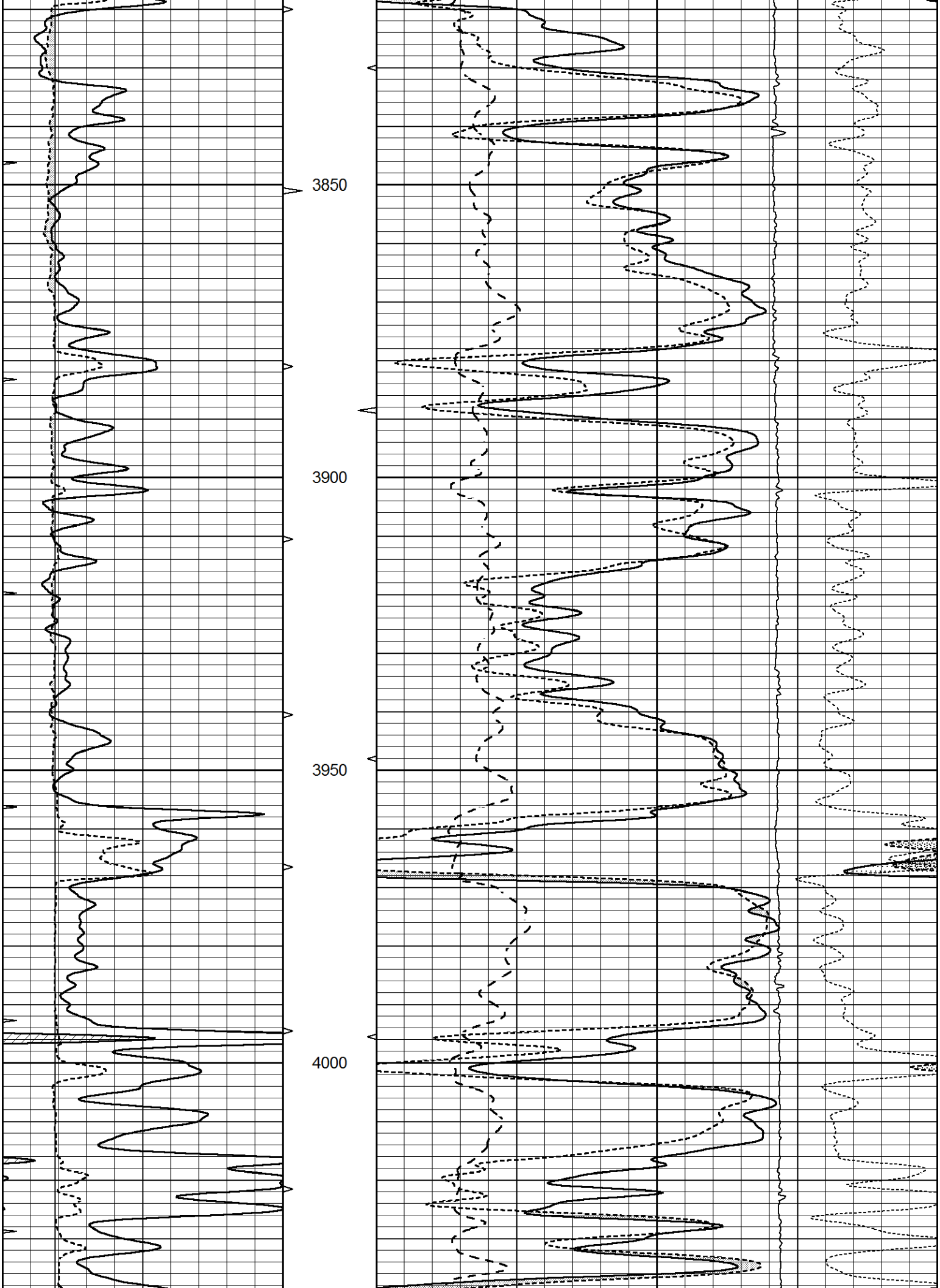
| | |
|---|---|
| Database File | 5834pe.db |
| Dataset Pathname | pass3.1M |
| Presentation Format | ldt_neu |
| Dataset Creation | Mon Nov 15 20:33:50 2021 |
| Charted by | Depth in Feet scaled 1:240 |

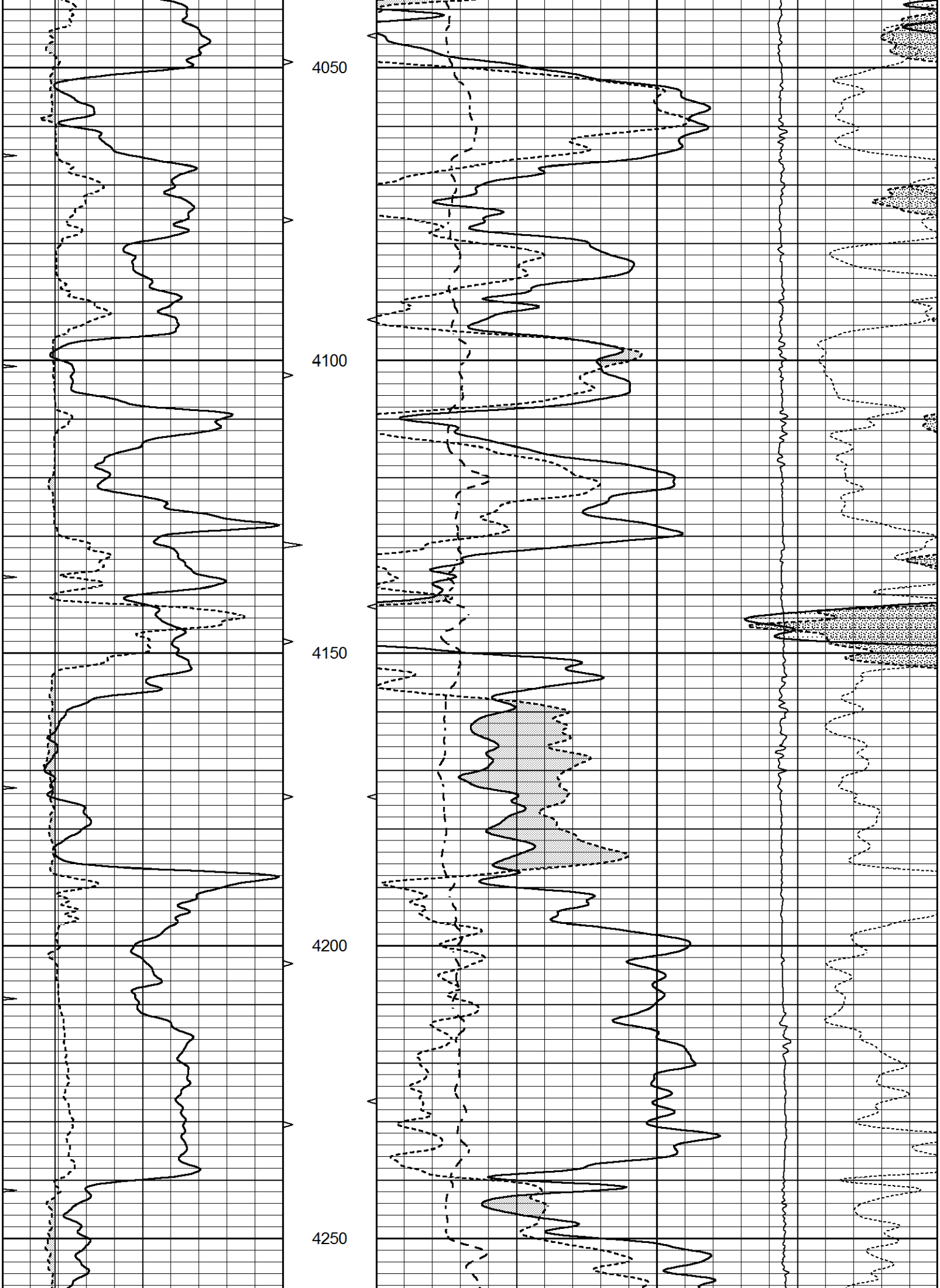
| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 0 | GAMMA RAY (GAPI) | 150 | ABHV | 30 | COMPENSATED DENSITY (pu) | | -10 |
| 6 | CALIPER (in) | 16 | 10 (ft3) 0 | 30 | COMPENSATED NEUTRON (pu) | | -10 |
| 0 | MINMK | 20 | TBHV | 0 | PE | 10 | -0.25 CORRECTION (g/cc) 0.25 |
| | | | 0 (ft3) 10 |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

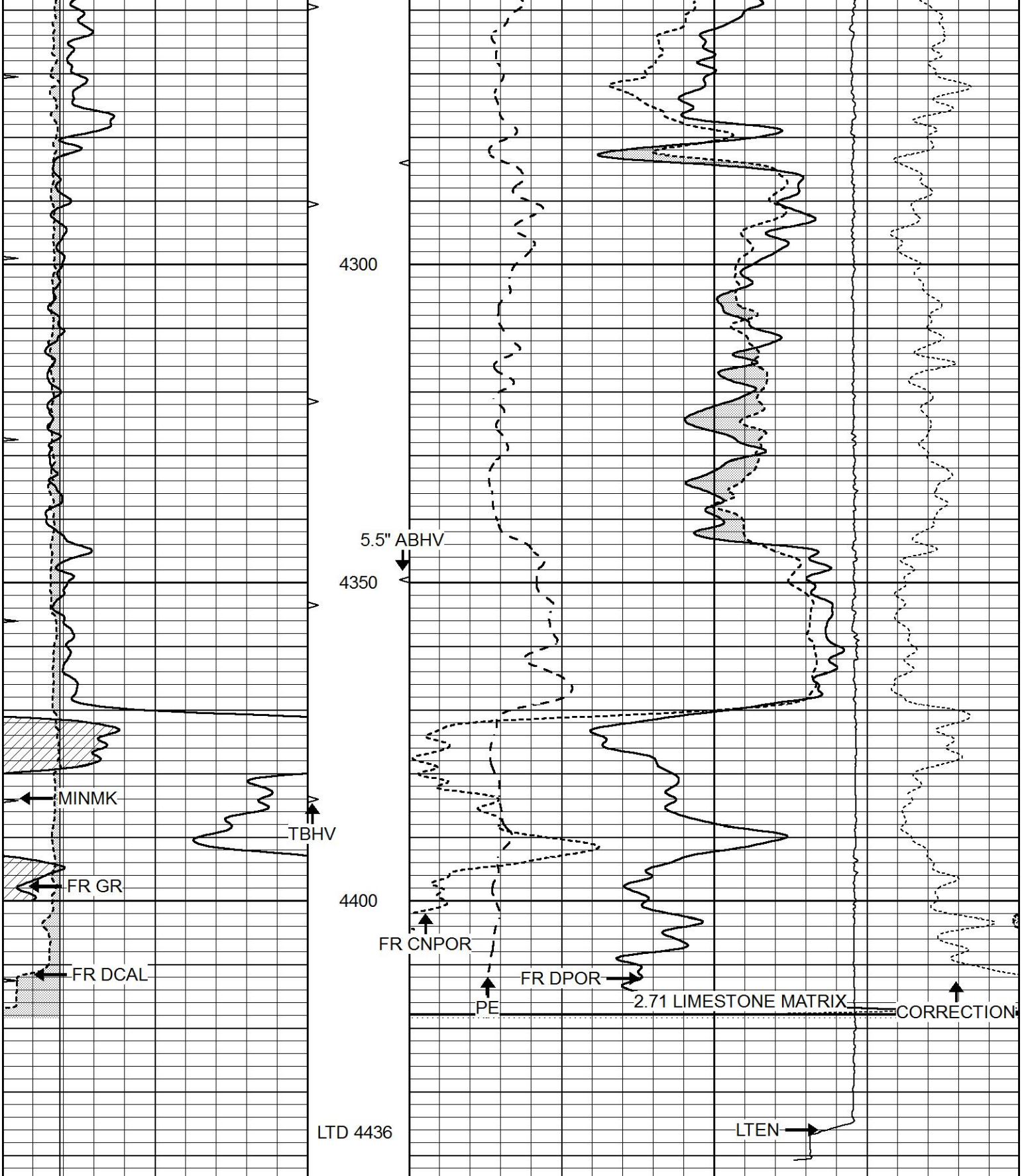



3400
3450
3500
3550


3600
3650
3700
3750
3800


3850
3900
3950
4000


4050
4100
4150
4200
4250

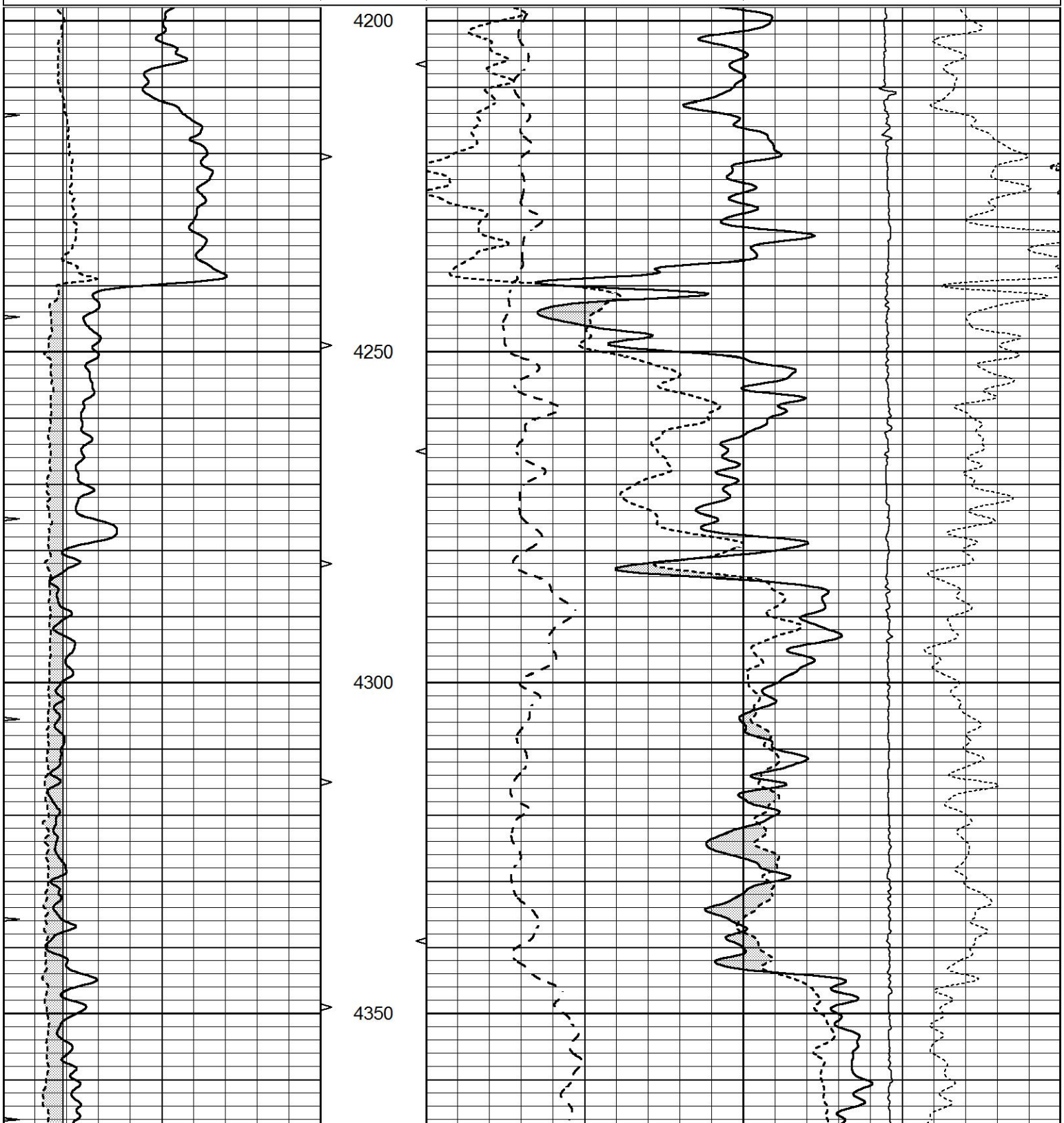


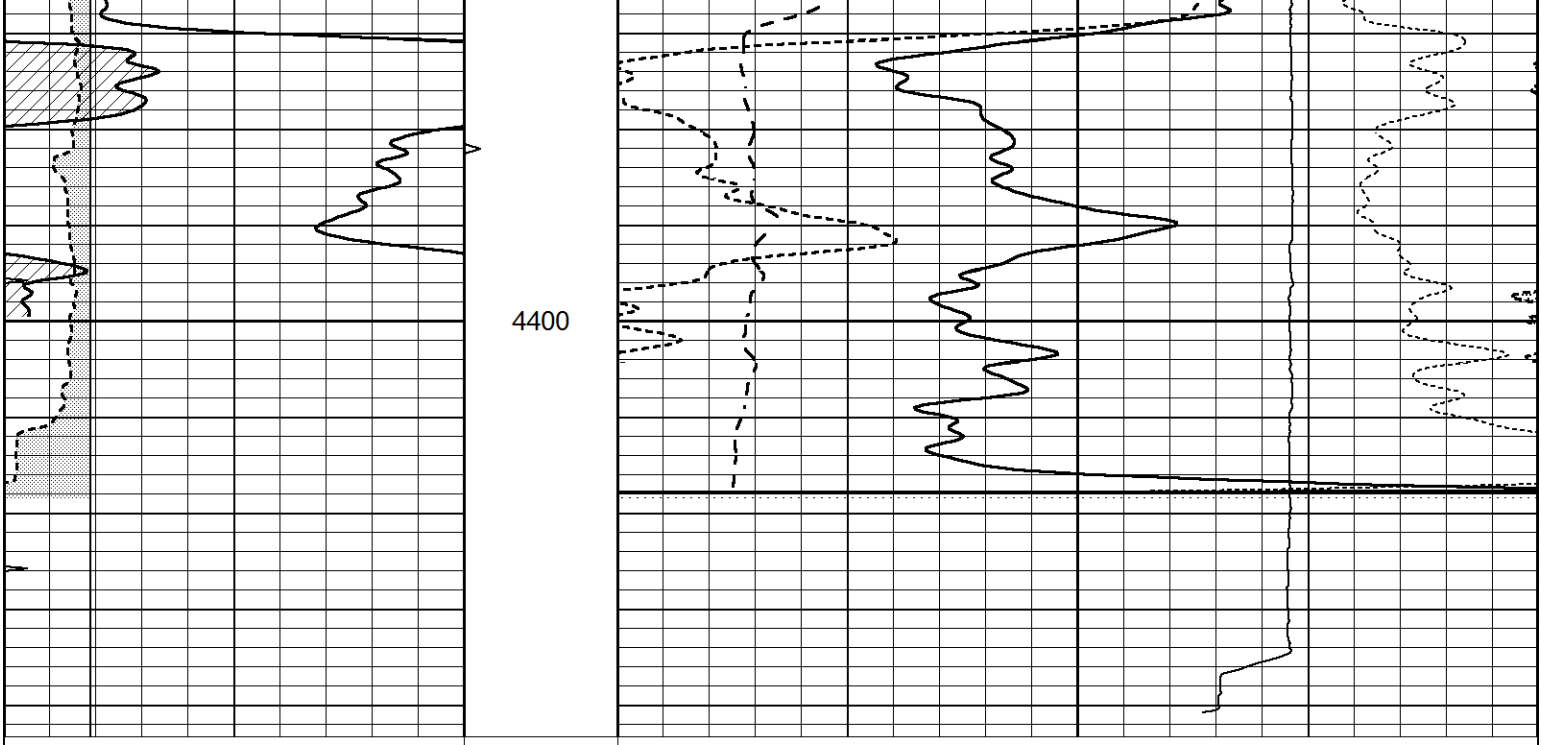

# REPEAT SECTION

# REPEAT SECTION

| | |
|---|---|
| Database File | 5834pe.db |
| Dataset Pathname | pass2.1R |
| Presentation Format | ldt_neu |
| Dataset Creation | Mon Nov 15 20:44:40 2021 |
| 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 | 5834pe.db |
| Dataset Pathname | pass3.1M |
| Dataset Creation | Mon Nov 15 20:33:50 2021 |

## Dual Induction Calibration Report

| | |
|---|---|
| Serial-Model: | PROBE9-DILG |
| Surface Cal Performed: | Mon Nov 15 19:57:47 2021 |
| Downhole Cal Performed: | Wed Mar 11 11:31:19 2020 |
| After Survey Verification Performed: | Wed Mar 11 11:31:22 2020 |

### Surface Calibration

| | Readings | | | References | | | Results | |
|---|---|---|---|---|---|---|---|---|
| Loop: | Air | Loop | | Air | Loop | | m | b |
| Deep | -0.014 | 0.629 | V | 0.000 | 400.000 | mmho/m | 720.000 | -10.000 |
| Medium | 0.039 | 0.728 | V | 0.000 | 464.000 | mmho/m | 720.000 | -30.000 |
| 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: 004 Model: PRB

Master Calibration — Performed Tue May 18 11:02:48 2021

| | Background | Magnesium | Aluminum | Aluminum+Fe | |
|---|---|---|---|---|---|
| Window 1 | 1187.1 | 10004.0 | 3142.5 | 2810.8 | cps |
| Window 2 | 1084.9 | 8556.6 | 2749.3 | 2502.4 | cps |
| Window 3 | 923.1 | 5129.8 | 1819.8 | 1719.3 | cps |
| Window 4 | 263.5 | 263.6 | 259.7 | 262.8 | cps |
| Long Space | 0.0 | 7471.7 | 1664.4 | 1417.5 | cps |
| Short Space | 1.5 | 984.9 | 645.6 | 561.2 | cps |
| Rho | | 1.7100 | 2.5900 | 0.0000 | g/cc |
| Pe | | 2.0000 | 2.7500 | 5.7900 | |

| | | | | | |
|---|---|---|---|---|---|
| Rib Angle | : 44.3 | Rib Slope | : 0.976 | Density/Spine Ratio | : 0.564 |
| Spine Angle | : 74.3 | Spine Slope | : 3.555 | Spine Intercept | : -15.6 |

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: | Fri Sep 03 05:25:49 2021 | |
| Calibrator Value: | 1.0 | GAPI |
| Background Reading: | 0.0 | cps |
| Calibrator Reading: | 1.0 | cps |
| Sensitivity: | 0.2800 | GAPI/cps |