

COMPENSATED  
DENSITY/NEUTRON  
PE LOG

|                              |                          |                     |                                    |
|------------------------------|--------------------------|---------------------|------------------------------------|
| Company                      | DIXON OPERATING COMPANY  |                     |                                    |
| Well                         | #6 KIRKBRIDE OWWO        |                     |                                    |
| Field                        | MEDICINE LODGE NORTH     |                     |                                    |
| County                       | BARBER                   | State               | KANSAS                             |
| Location:                    | SEC 20 TWP 32S RGE 12W   |                     | Other Services<br>DIL/MEL<br>SONIC |
| Permanent Datum              | GROUND LEVEL             | Elevation           | 1603                               |
| Log Measured From            | KELLY BUSHING 11' A.G.L. |                     |                                    |
| Drilling Measured From       | KELLY BUSHING            |                     |                                    |
| Date                         | 4/22/18                  |                     |                                    |
| Run Number                   | ONE                      |                     |                                    |
| Depth Driller                | 4818                     |                     |                                    |
| Depth Logger                 | 4818                     |                     |                                    |
| Bottom Logged Interval       | 4794                     |                     |                                    |
| Top Log Interval             | 3600                     |                     |                                    |
| Casing Driller               | 8 5/8"@247'              |                     |                                    |
| Casing Logger                | 248                      |                     |                                    |
| Bit Size                     | 7 7/8"                   |                     |                                    |
| Type Fluid in Hole           | CHEMICAL MUD             | CHLORIDES 42000 PPM |                                    |
| Density / Viscosity          | 9.7/52                   |                     |                                    |
| pH / Fluid Loss              | 7.0/NC                   |                     |                                    |
| Source of Sample             | FLOWLINE                 |                     |                                    |
| Rm @ Meas. Temp              | .20 @ 55F                |                     |                                    |
| Rmf @ Meas. Temp             | .15 @ 55F                |                     |                                    |
| Rmc @ Meas. Temp             | .24 @ 55F                |                     |                                    |
| Source of Rmf / Rmc          | MEASUREMENT              |                     |                                    |
| Rm @ BHT                     | .08 @ 123F               |                     |                                    |
| Time Circulation Stopped     | 2 HOURS                  |                     |                                    |
| Time Logger on Bottom        |                          |                     |                                    |
| Maximum Recorded Temperature | 123F                     |                     |                                    |
| Equipment Number             | 922339                   |                     |                                    |
| Location                     | HAYS, KANSAS             |                     |                                    |
| Recorded By                  | JASON CAPPELLUCCI        |                     |                                    |
| Witnessed By                 | BRUCE REED               |                     |                                    |

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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

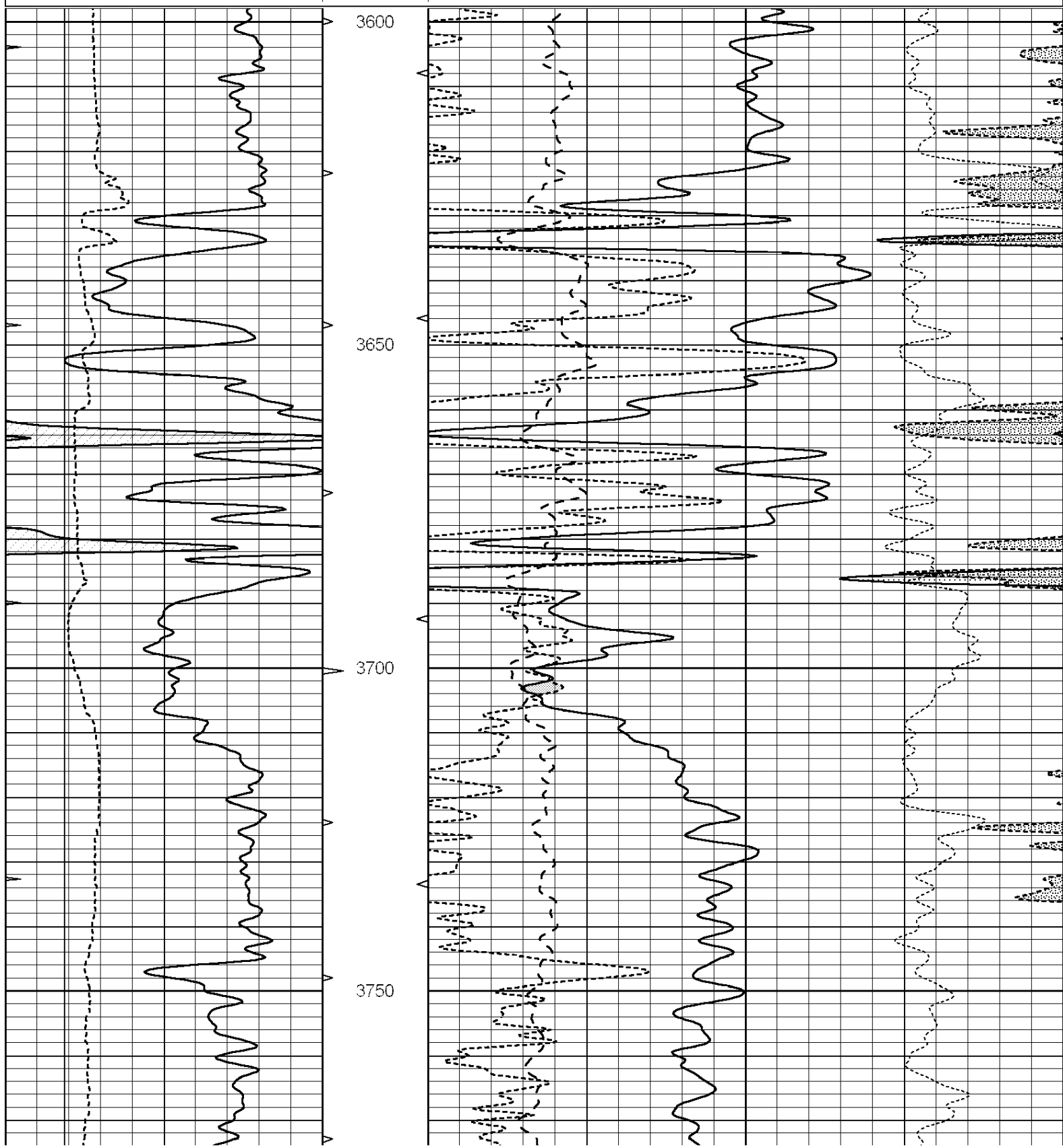
THANK YOU FOR USING ELI WIRELINE HAYS, KANSAS (785) 628-6395  
DIRECTIONS  
MEDICINE LODGE, KS. - 3 WEST TO GYP HILL RD. - 2 SOUTH TO RED ROCK RD. - 1/2 EAST  
SOUTH BEFORE THE CATTLE GUARD - FOLLOW ROAD SOUTH & WEST INTO

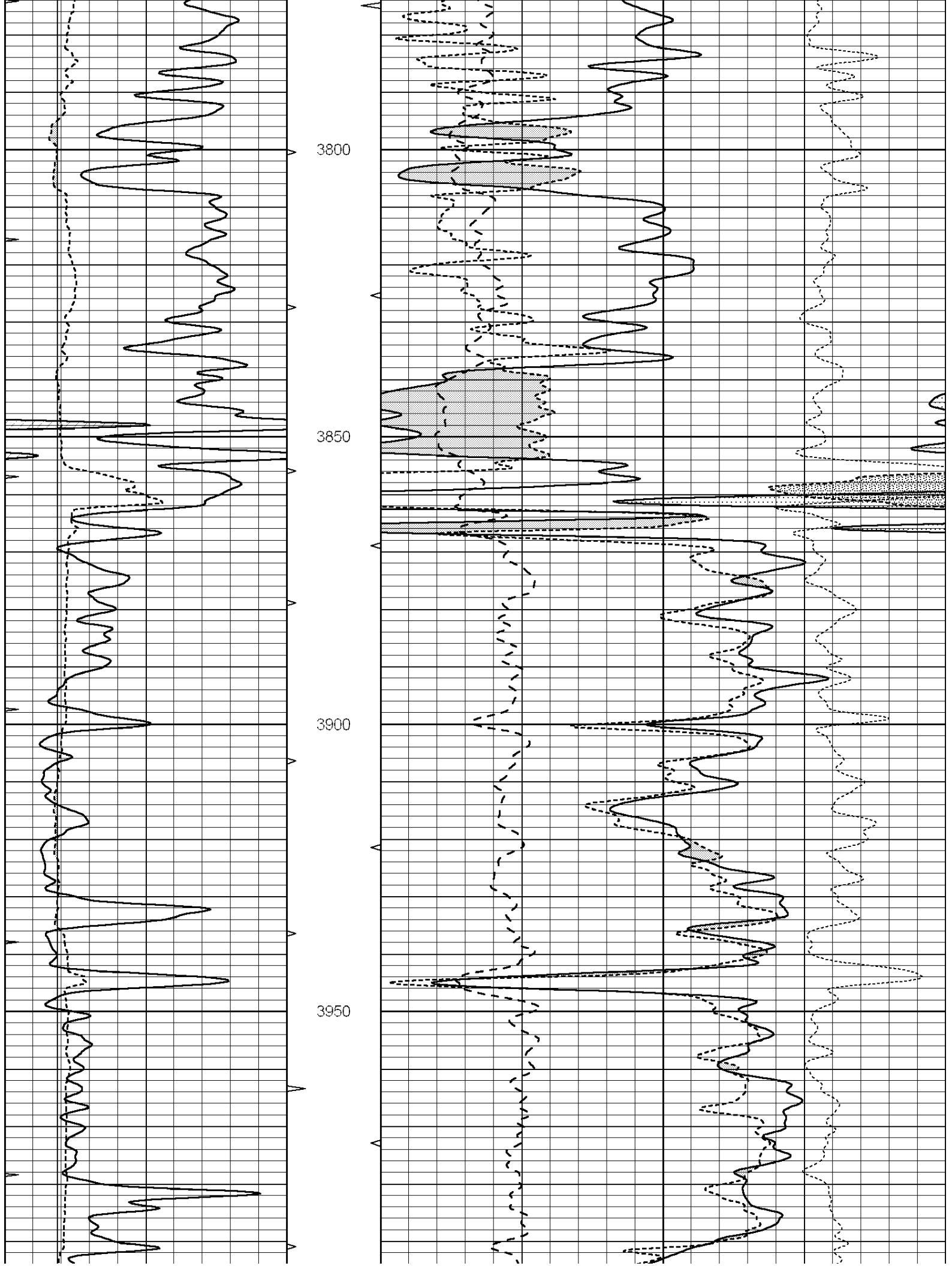


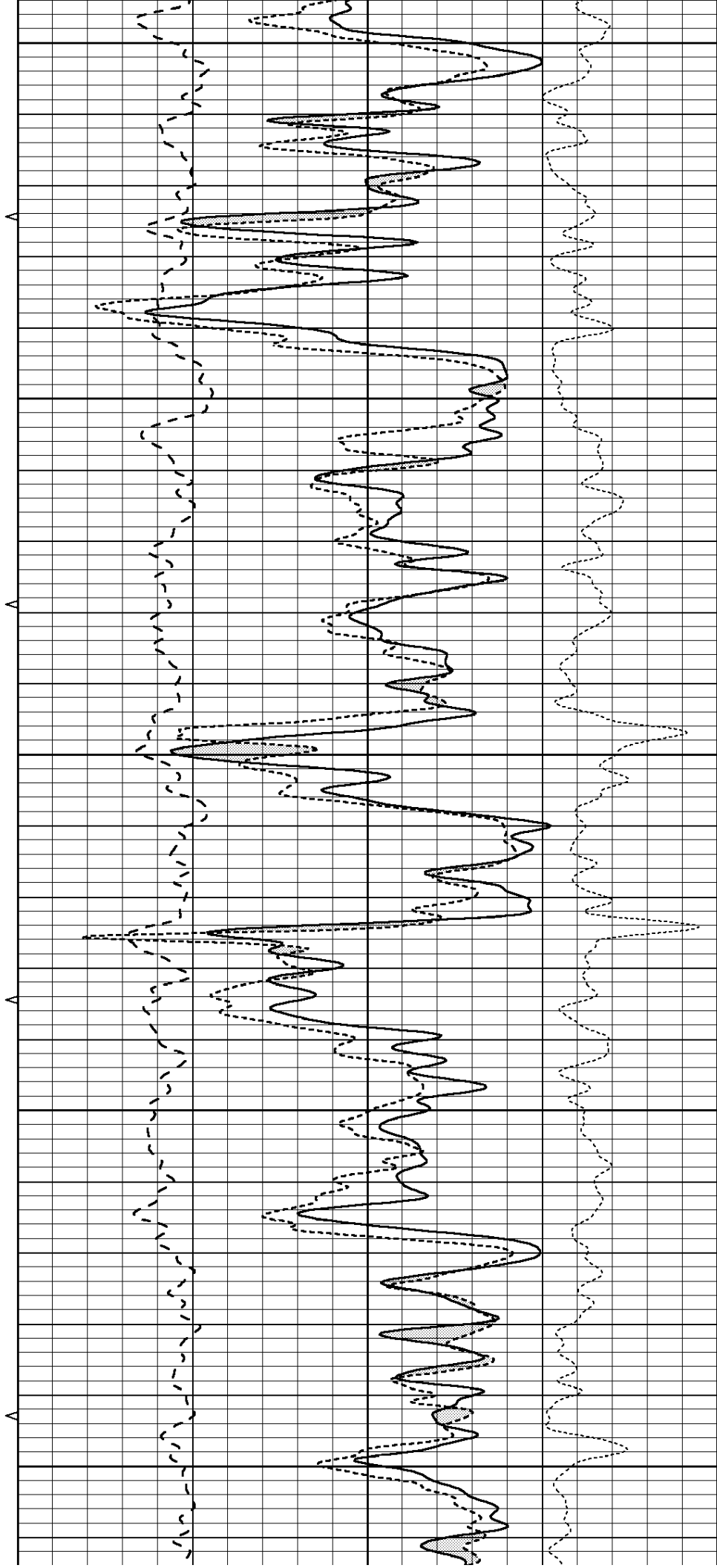
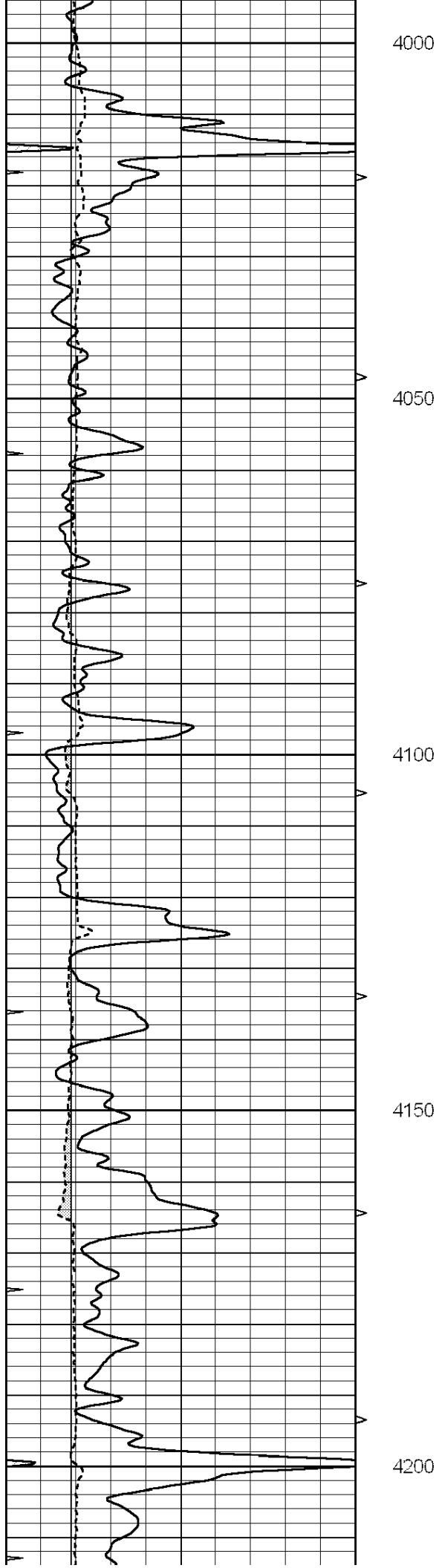
MAIN SECTION

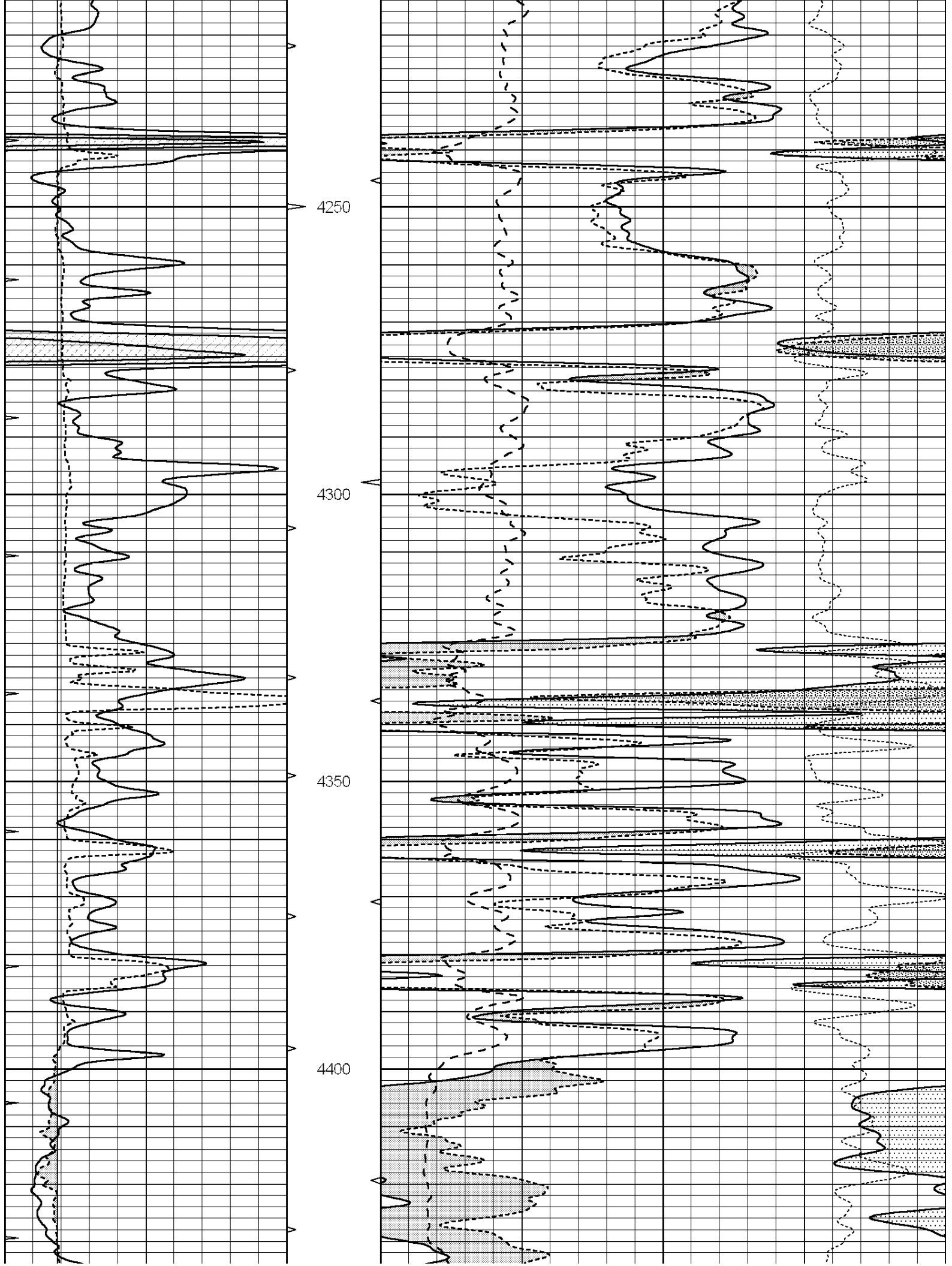
Database File: 2484pe.db  
Dataset Pathname: pass4.1  
Presentation Format: \_ldt\_neu  
Dataset Creation: Sun Apr 22 20:32:18 2018 by Calc SOC 120430  
Charted by: Depth in Feet scaled 1:240

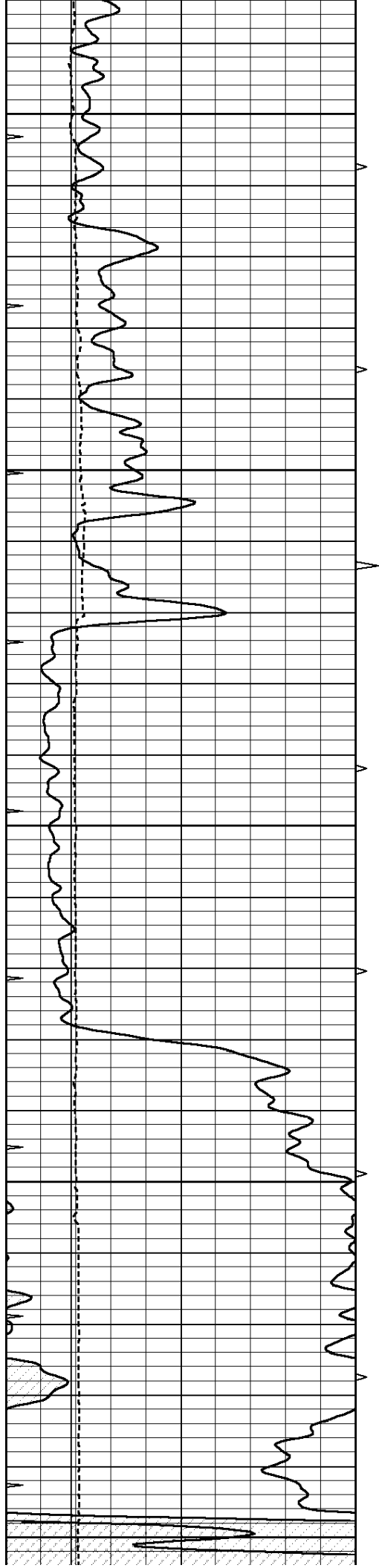
|   |                  |     |          |    |                          |                          |       |                   |      |
|---|------------------|-----|----------|----|--------------------------|--------------------------|-------|-------------------|------|
| 0 | GAMMA RAY (GAPI) | 150 | 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 |                          |                          |       |                   |      |











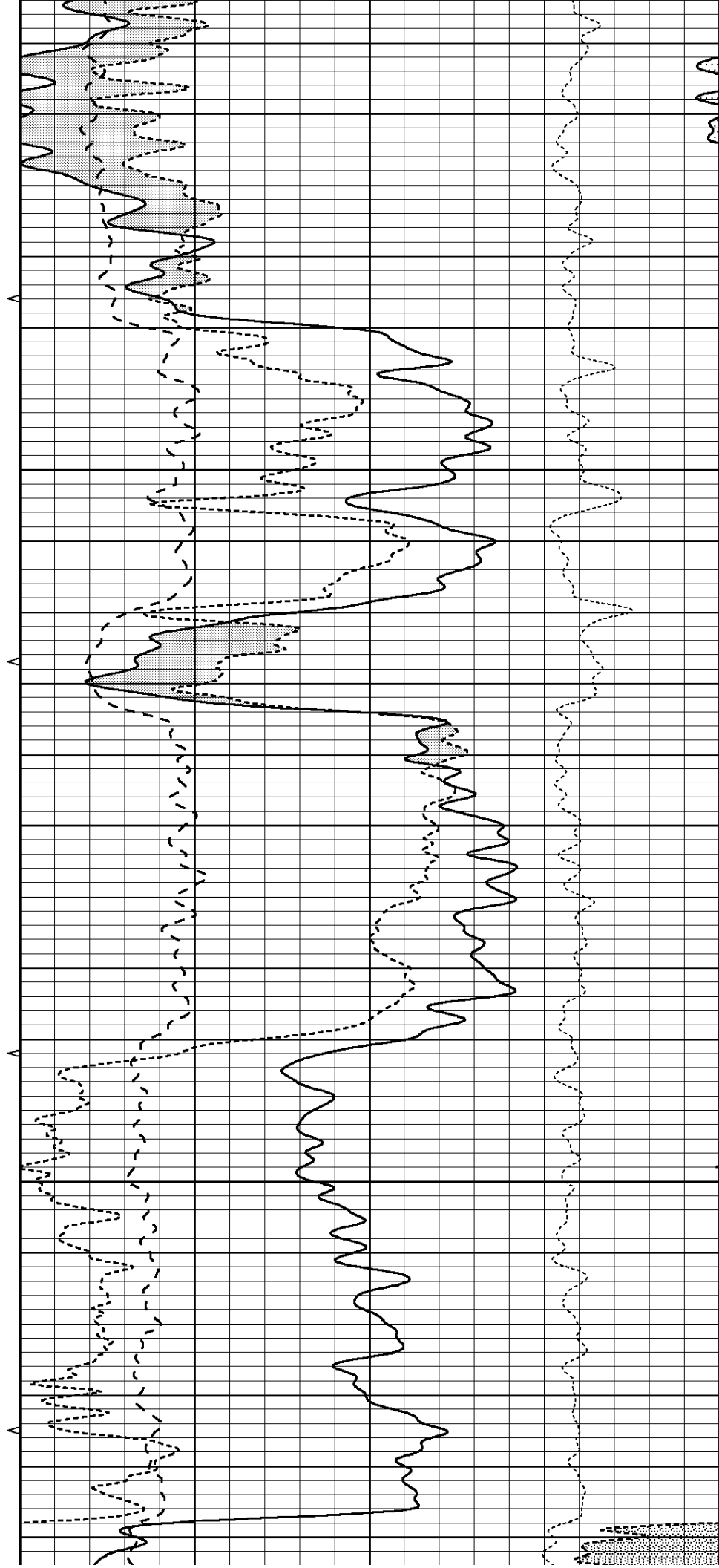
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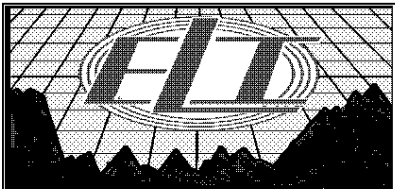
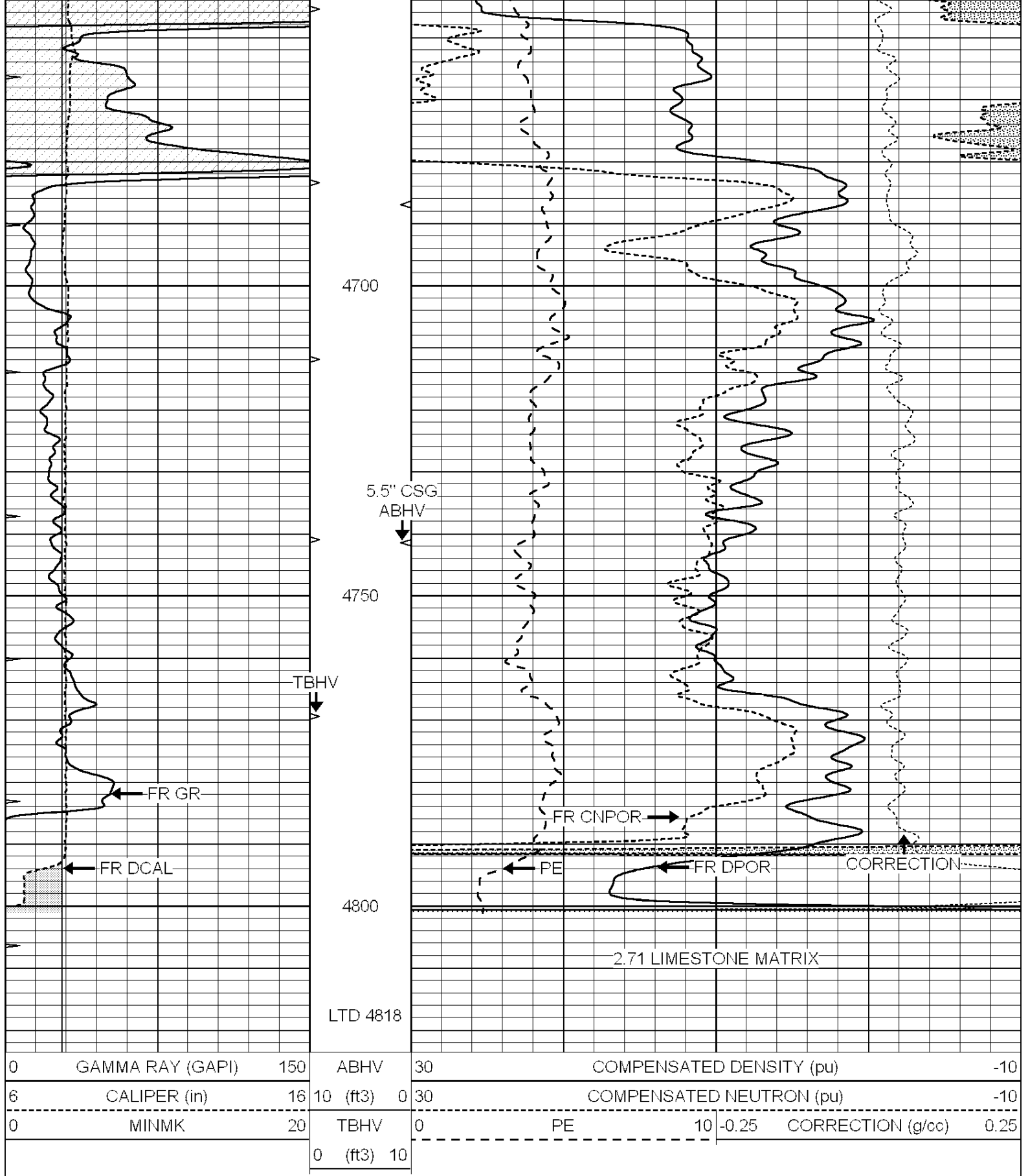
4500

4550

4600

4650

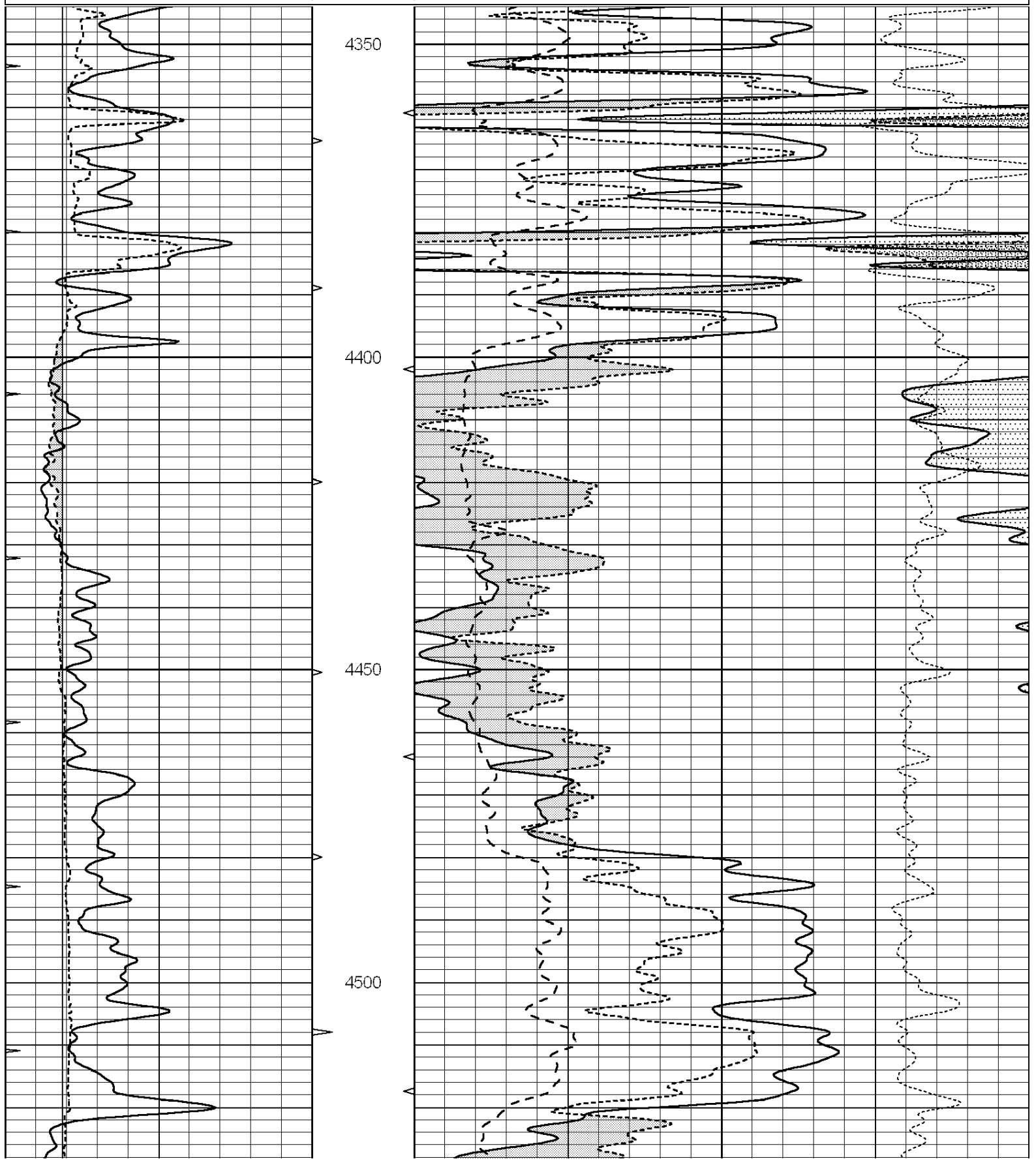


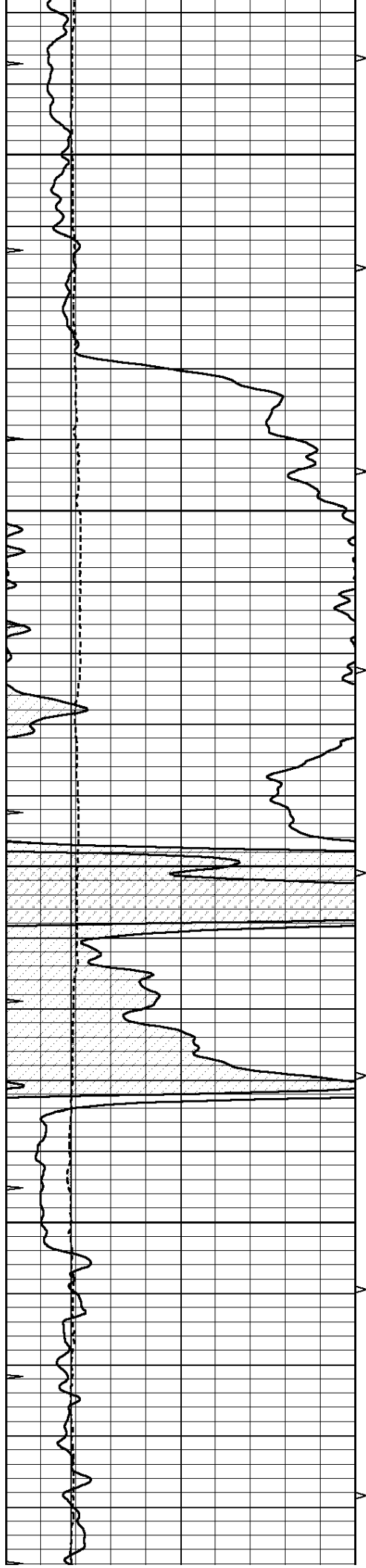


# REPEAT SECTION

Dataset Pathname: pass3.1  
Presentation Format: \_ldt\_neu  
Dataset Creation: Sun Apr 22 20:23:16 2018 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 |                          |                          |       |                   |      |     |



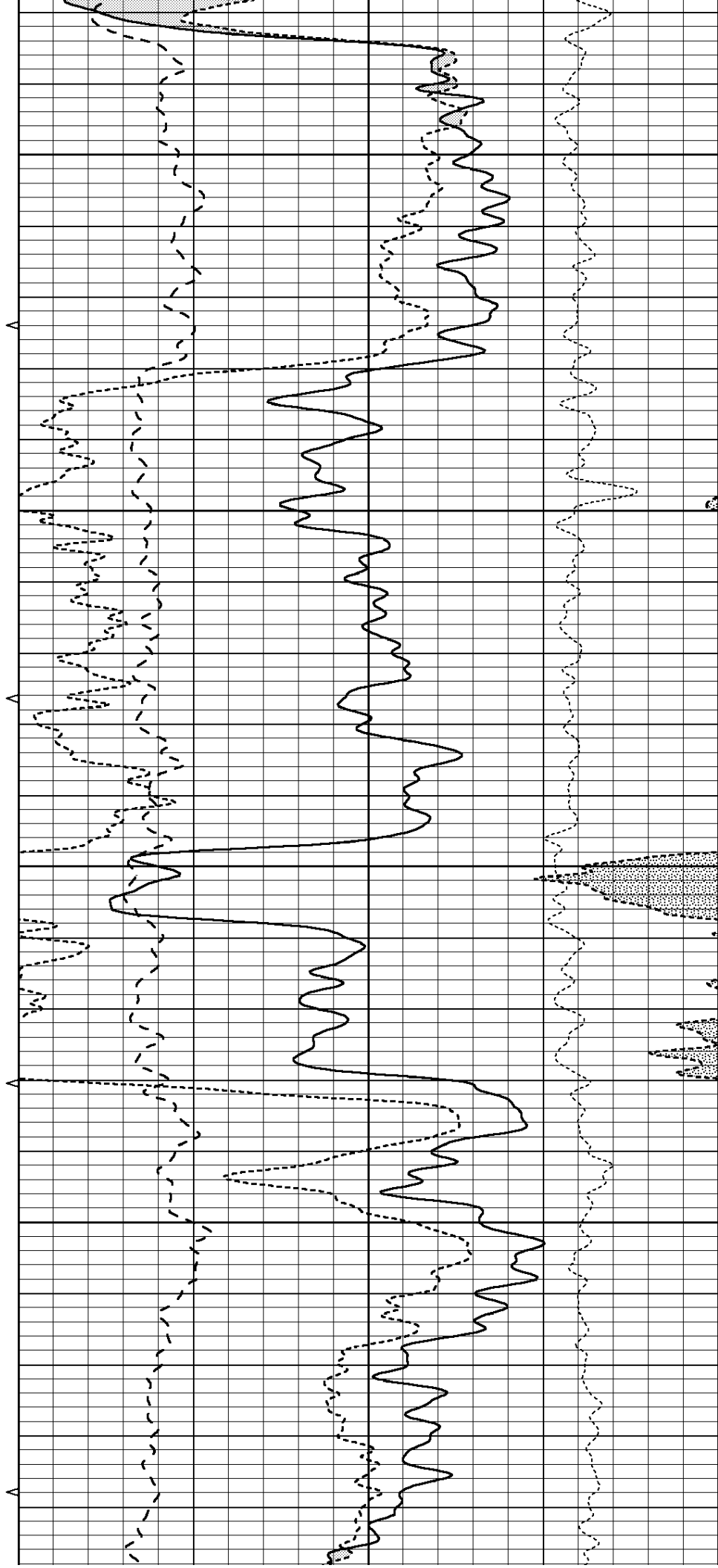


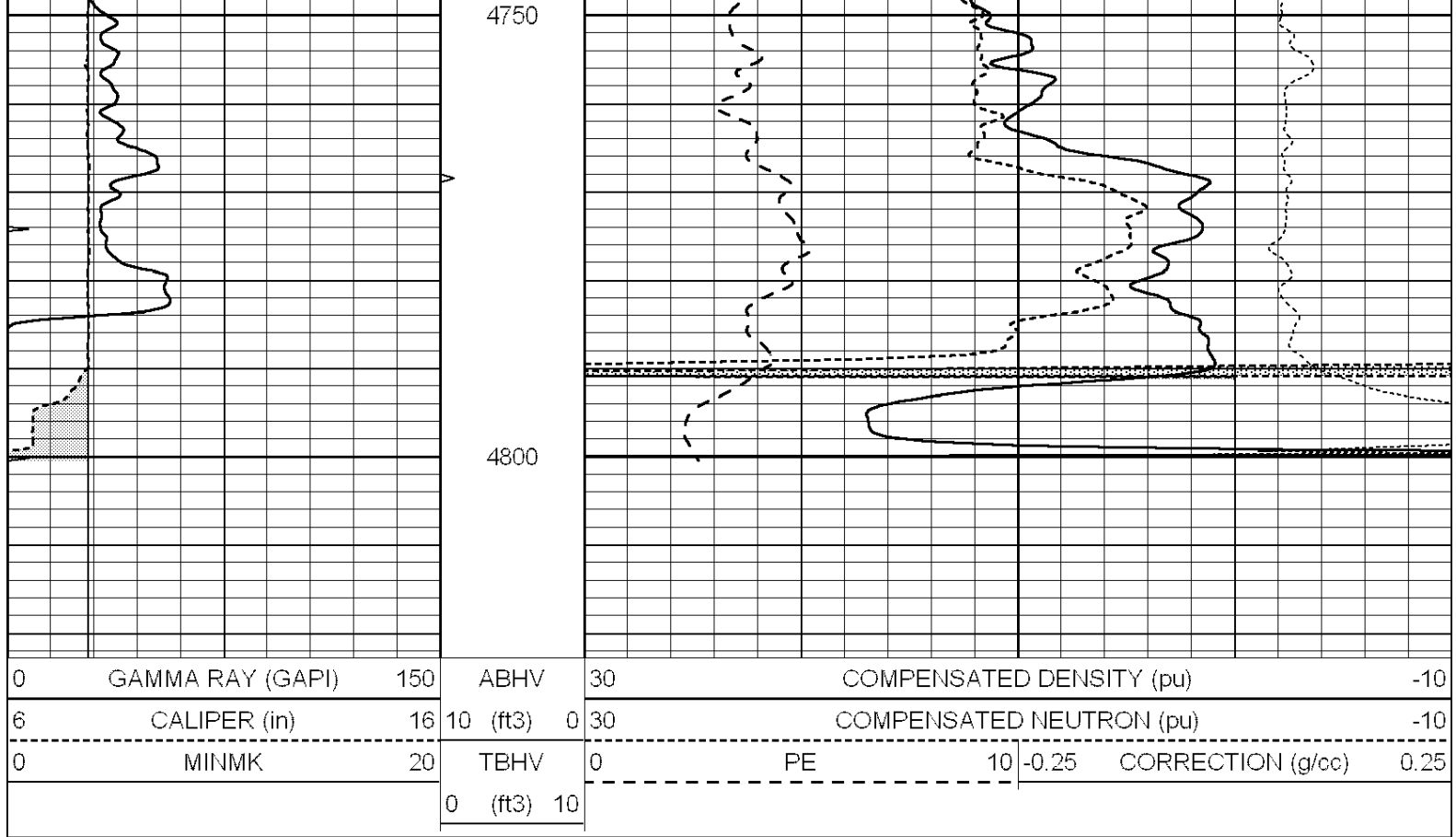
4550

4600

4650

4700





### Calibration Report

Database File: 2484pe.db  
 Dataset Pathname: pass3.1  
 Dataset Creation: Sun Apr 22 20:23:16 2018 by Calc SOC 120430

### Dual Induction Calibration Report

Serial-Model: PROBE7-DILG  
 Surface Cal Performed: Tue Apr 03 21:52:19 2018  
 Downhole Cal Performed: Mon Jul 28 12:02:56 2008  
 After Survey Verification Performed: Mon Jul 28 12:02:56 2008

#### Surface Calibration

| Readings  |        |       |   | References |         |        | Results |         |
|-----------|--------|-------|---|------------|---------|--------|---------|---------|
| Loop:     | Air    | Loop  |   | Air        | Loop    |        | m       | b       |
| Deep      | -0.014 | 0.629 | V | 0.000      | 400.000 | mmho/m | 620.000 | -10.000 |
| Medium    | 0.039  | 0.728 | V | 0.000      | 464.000 | mmho/m | 675.000 | -55.000 |
| 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 Fri May 30 11:01:00 2014

|             | Background | Magnesium   | Aluminum | Sandstone           |         |
|-------------|------------|-------------|----------|---------------------|---------|
| Window 1    | 1378.8     | 10804.6     | 3492.0   | 12453.4             | cps     |
| Window 2    | 1262.4     | 9313.5      | 3076.7   | 10594.7             | cps     |
| Window 3    | 1077.6     | 5668.7      | 2076.0   | 6314.8              | cps     |
| Window 4    | 306.4      | 313.0       | 306.4    | 315.6               | cps     |
| Long Space  | 0.0        | 8051.0      | 1814.3   | 9332.3              | cps     |
| Short Space | 1.9        | 1706.1      | 1146.0   | 1707.6              | cps     |
| Rho         |            | 1.7100      | 2.5900   | 1.3800              | g/cc    |
| Pe          |            | 0.0000      | 2.5700   | 1.5500              |         |
| Rib Angle   | : 45.0     | Rib Slope   | : 1.002  | Density/Spine Ratio | : 0.571 |
| Spine Angle | : 75.0     | Spine Slope | : 3.745  | Spine Intercept     | : -18.9 |

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: 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:                   |  | Fri Dec 22 13:36:24 2017 |          |        |
| Calibrator Value:            |  | 1.0                      | GAPI     |        |
| Background Reading:          |  | 0.0                      | cps      |        |
| Calibrator Reading:          |  | 1.0                      | cps      |        |
| Sensitivity:                 |  | 0.2800                   | GAPI/cps |        |