



**COMPLETION  
& PRODUCTION  
SERVICES CO.**

**COMPENSATED  
DENSITY / NEUTRON  
PE LOG**

|                              |                                              |                |                             |
|------------------------------|----------------------------------------------|----------------|-----------------------------|
| Company                      | WOOLSEY OPERATING CO., LLC.                  | Company        | WOOLSEY OPERATING CO., LLC. |
| Well                         | NUSSER #4                                    | Well           | NUSSER #4                   |
| Field                        | HARDTNER                                     | Field          | HARDTNER                    |
| County                       | BARBER                                       | County         | BARBER                      |
| State                        | KANSAS                                       | State          | KANSAS                      |
| Location:                    | API # : 15-007-24067<br>1320' FSL & 330' FWL | Other Services | DIL                         |
| SEC 11 TWP 35S RGE 12W       |                                              | Elevation      |                             |
| Permanent Datum              | GROUND LEVEL                                 | Elevation      | 1387                        |
| Log Measured From            | KELLY BUSHING 13' A.G.L.                     | K.B. 1400      |                             |
| Drilling Measured From       | KELLY BUSHING                                | D.F. 1387      |                             |
| Date                         | 10-9-13                                      |                |                             |
| Run Number                   | ONE                                          |                |                             |
| Depth Driller                | 5490                                         |                |                             |
| Depth Logger                 | 5491                                         |                |                             |
| Bottom Logged Interval       | 5467                                         |                |                             |
| Top Log Interval             | 1850                                         |                |                             |
| Casing Driller               | 217                                          |                |                             |
| Casing Logger                | 217                                          |                |                             |
| Bit Size                     | 7.875                                        |                |                             |
| Type Fluid in Hole           | CHEMICAL MUD                                 |                |                             |
| Density / Viscosity          | 9.2 / 53                                     |                |                             |
| pH / Fluid Loss              | 9.5 / 9.6                                    |                |                             |
| Source of Sample             | FLOWLINE                                     |                |                             |
| Rim @ Meas. Temp             | 0.90 @ 88F                                   |                |                             |
| Rmf @ Meas. Temp             | 0.68 @ 88F                                   |                |                             |
| Rmc @ Meas. Temp             | 1.08 @ 88F                                   |                |                             |
| Source of Rmf / Rmc          | MEASURED                                     |                |                             |
| Rim @ BHT                    | .610 @ 130F                                  |                |                             |
| Time Circulation Stopped     | 3 HOURS                                      |                |                             |
| Time Logger on Bottom        | 12:00P M.                                    |                |                             |
| Maximum Recorded Temperature | 130F                                         |                |                             |
| Equipment Number             | 860                                          |                |                             |
| Location                     | HAYS, KS.                                    |                |                             |
| Recorded By                  | RUPP                                         |                |                             |
| Witnessed By                 | BILL KLAVER                                  |                |                             |

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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

NABORS COMPLETION & PRODUCTION SERVICES  
785-628-6395  
THANK YOU FOR YOUR BUSINESS  
DIRECTIONS: HARDTNER, 2E, 1/2S.

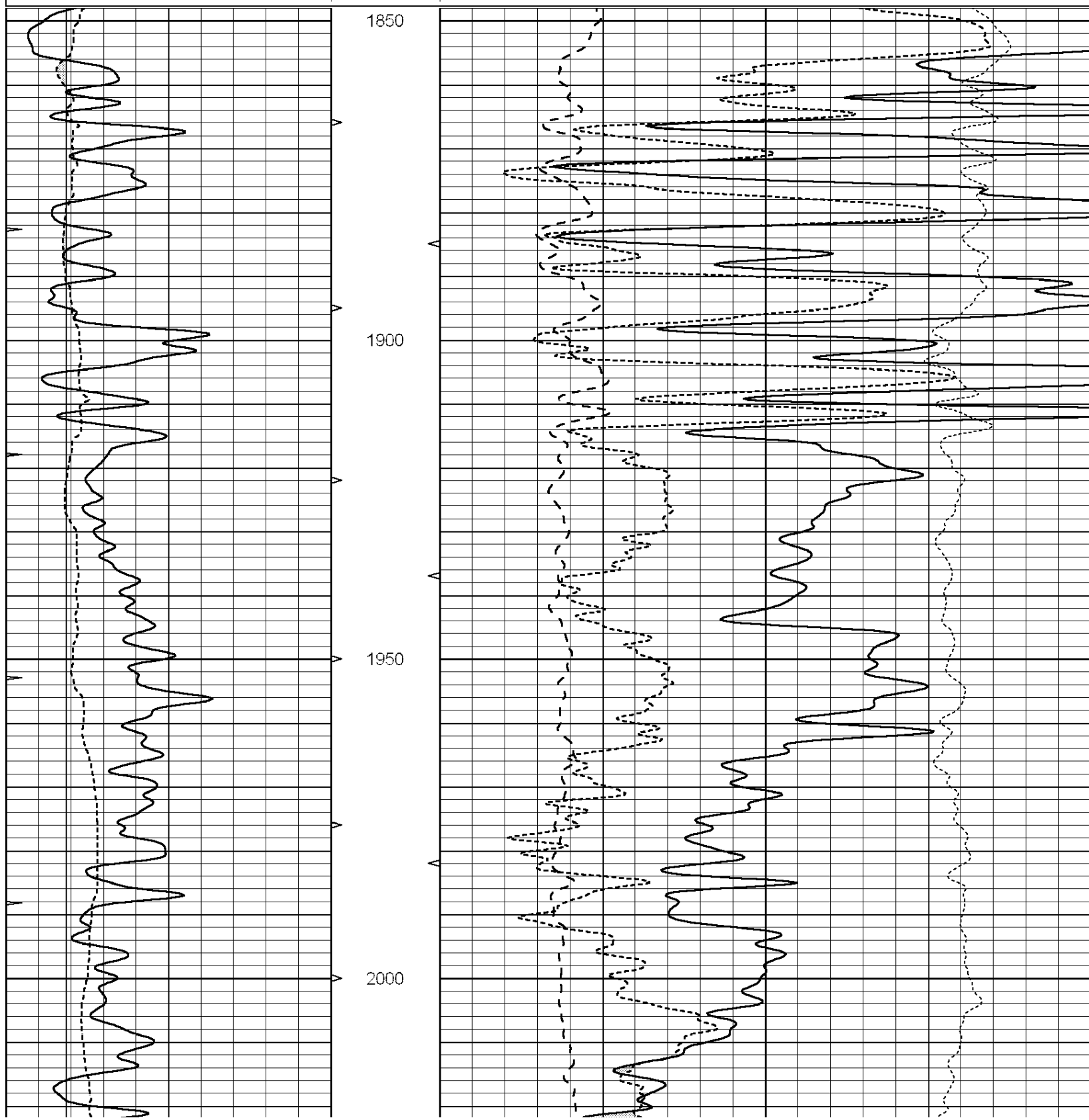


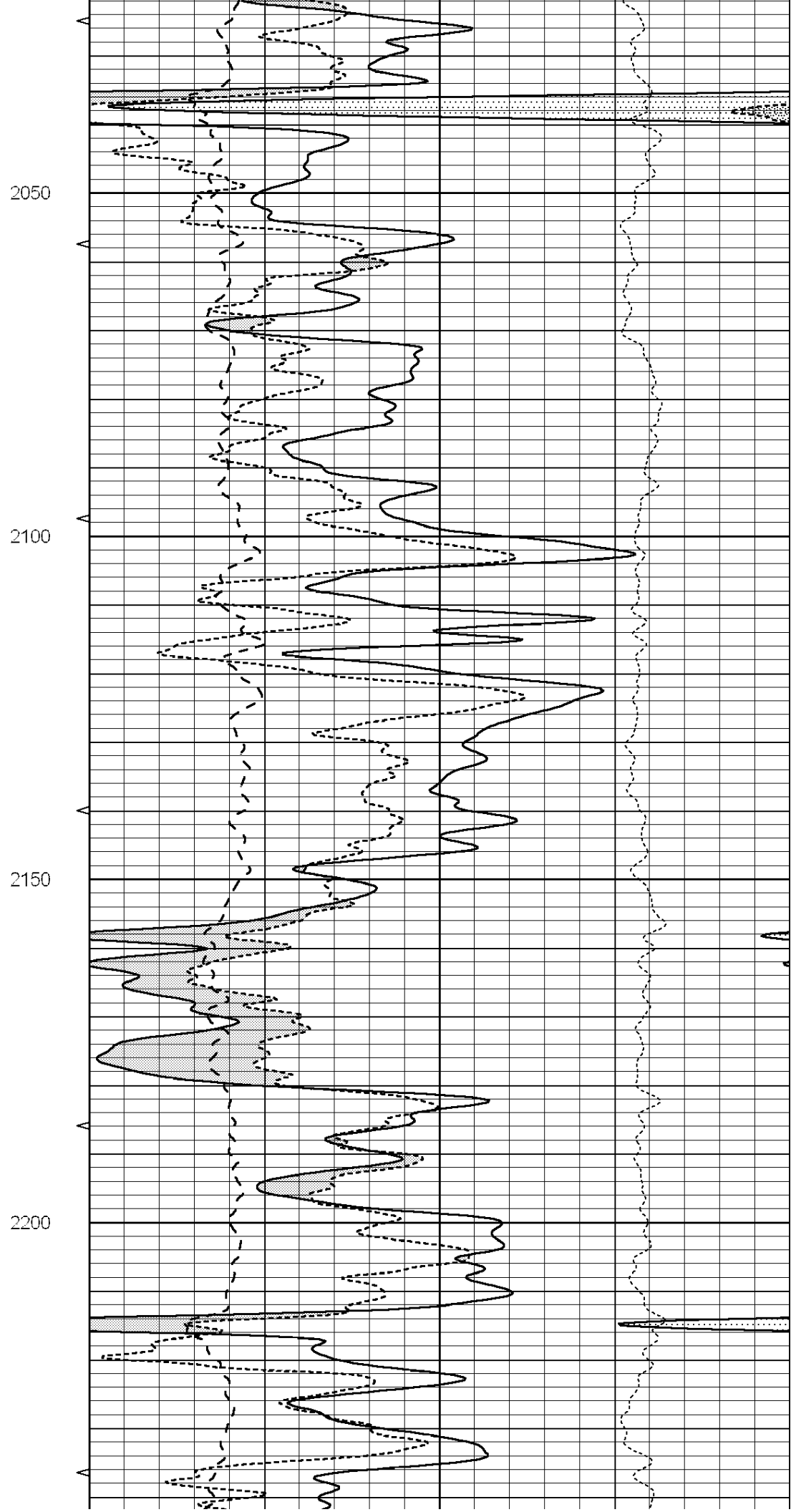
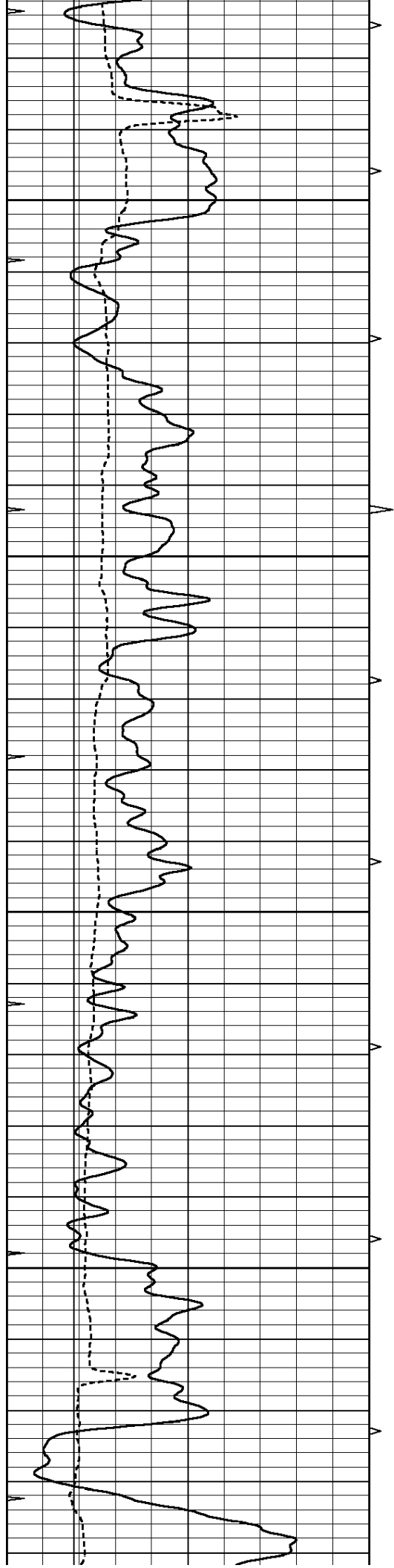
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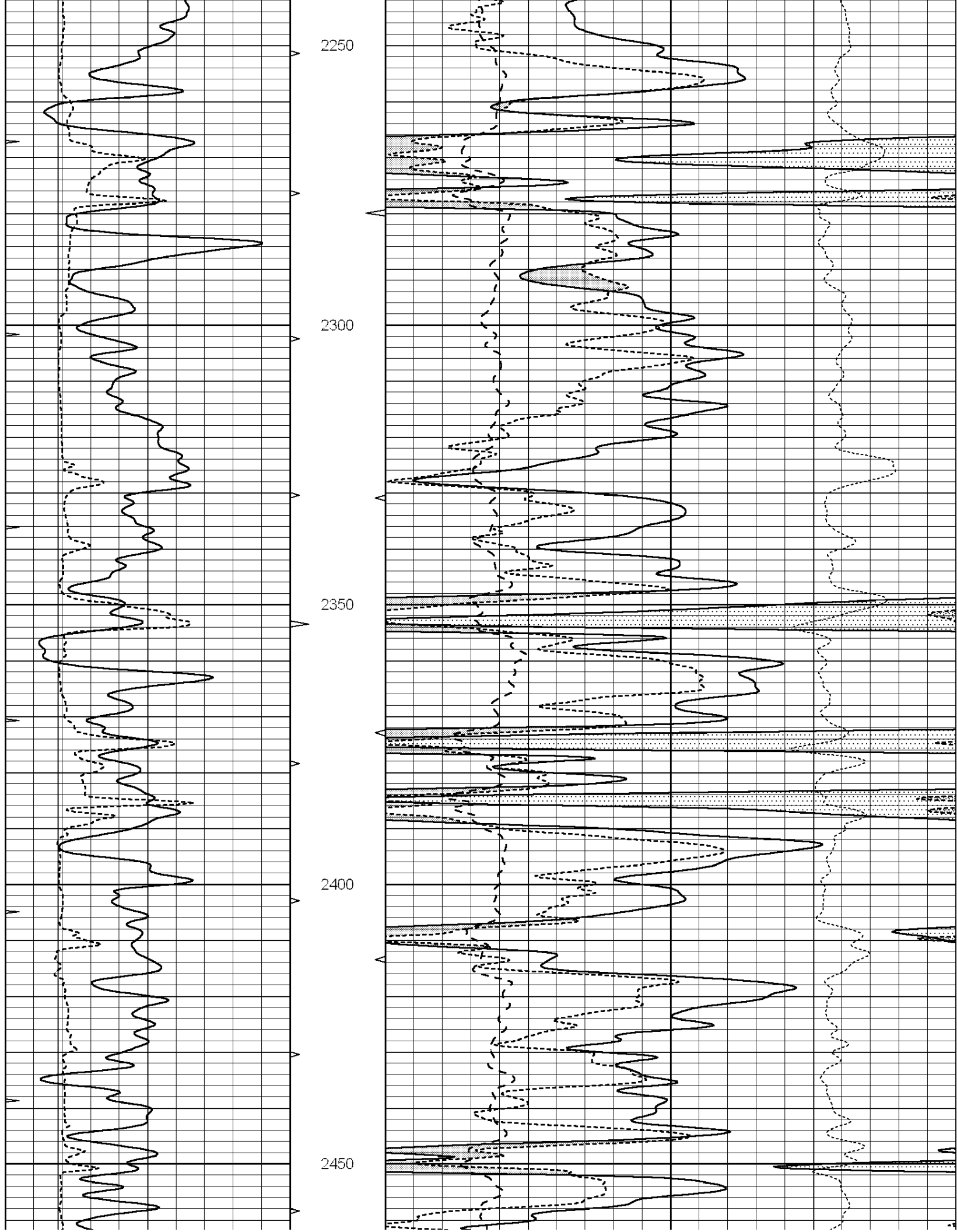
**MAIN SECTION**

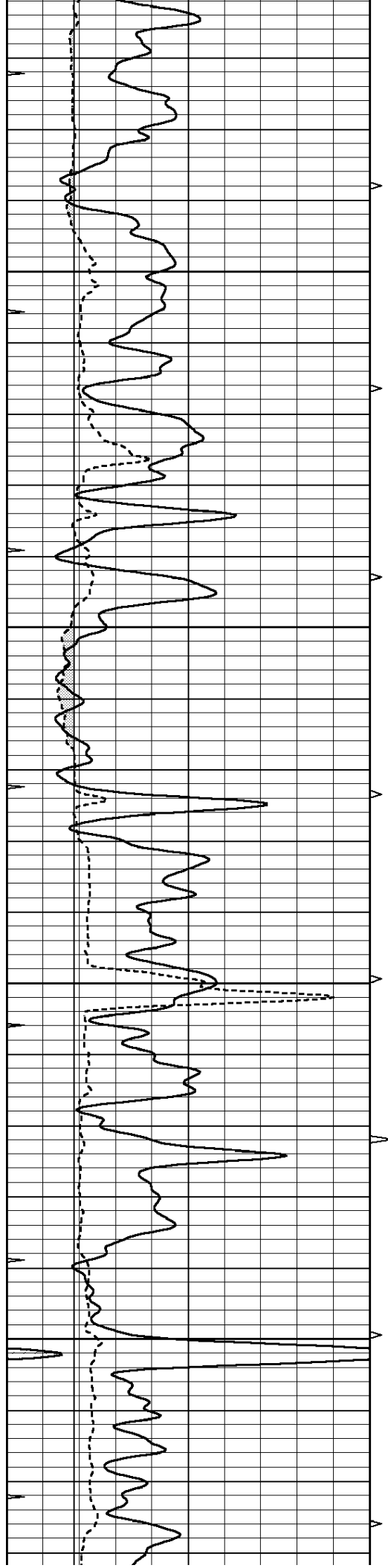
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 Dataset Pathname: pass3.B  
 Presentation Format: \_ldt\_neu  
 Dataset Creation: Wed Oct 09 15:06:00 2013  
 Charted by: Depth in Feet scaled 1:240

|   |                  |     |            |    |                          |                                 |
|---|------------------|-----|------------|----|--------------------------|---------------------------------|
| 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 |    |                          |                                 |







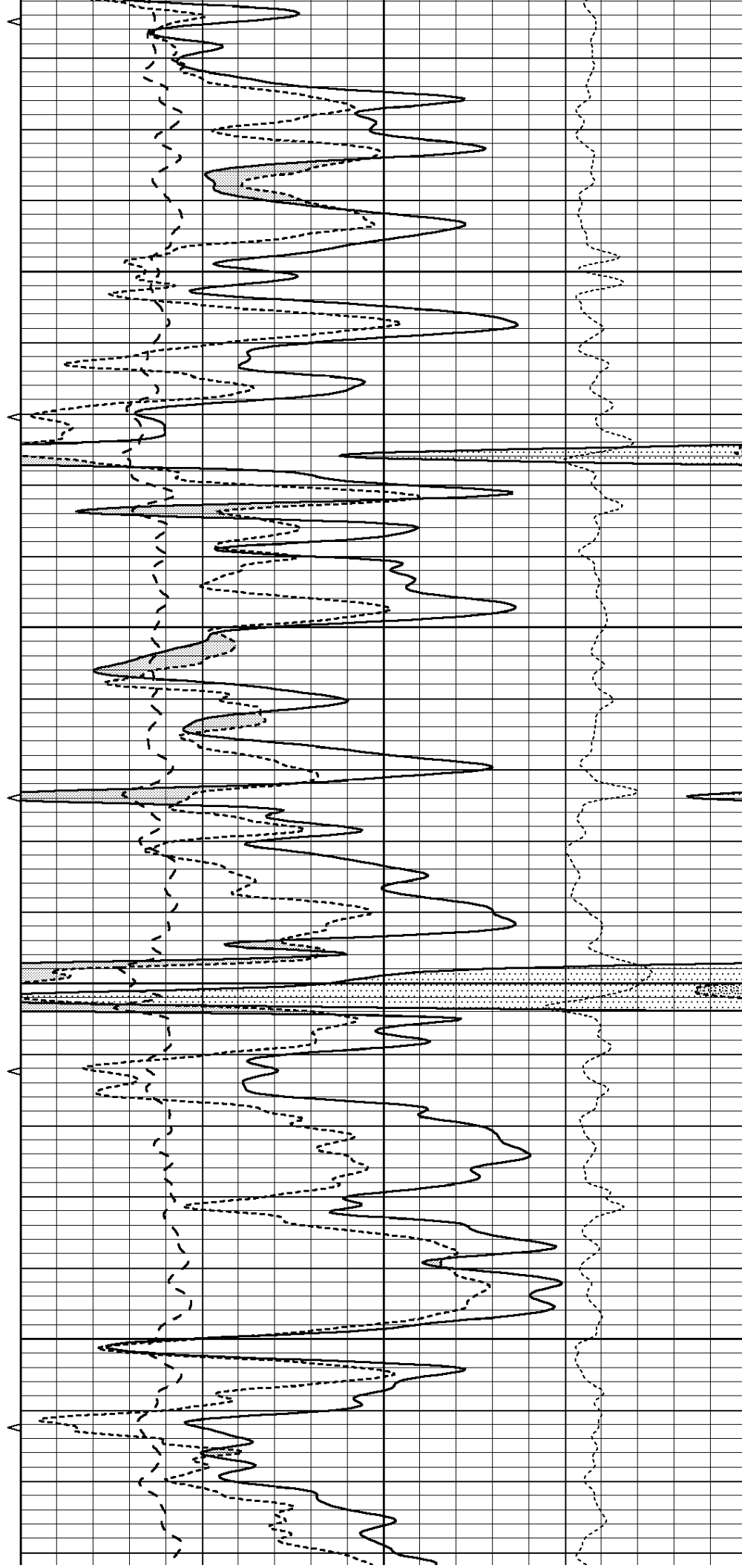


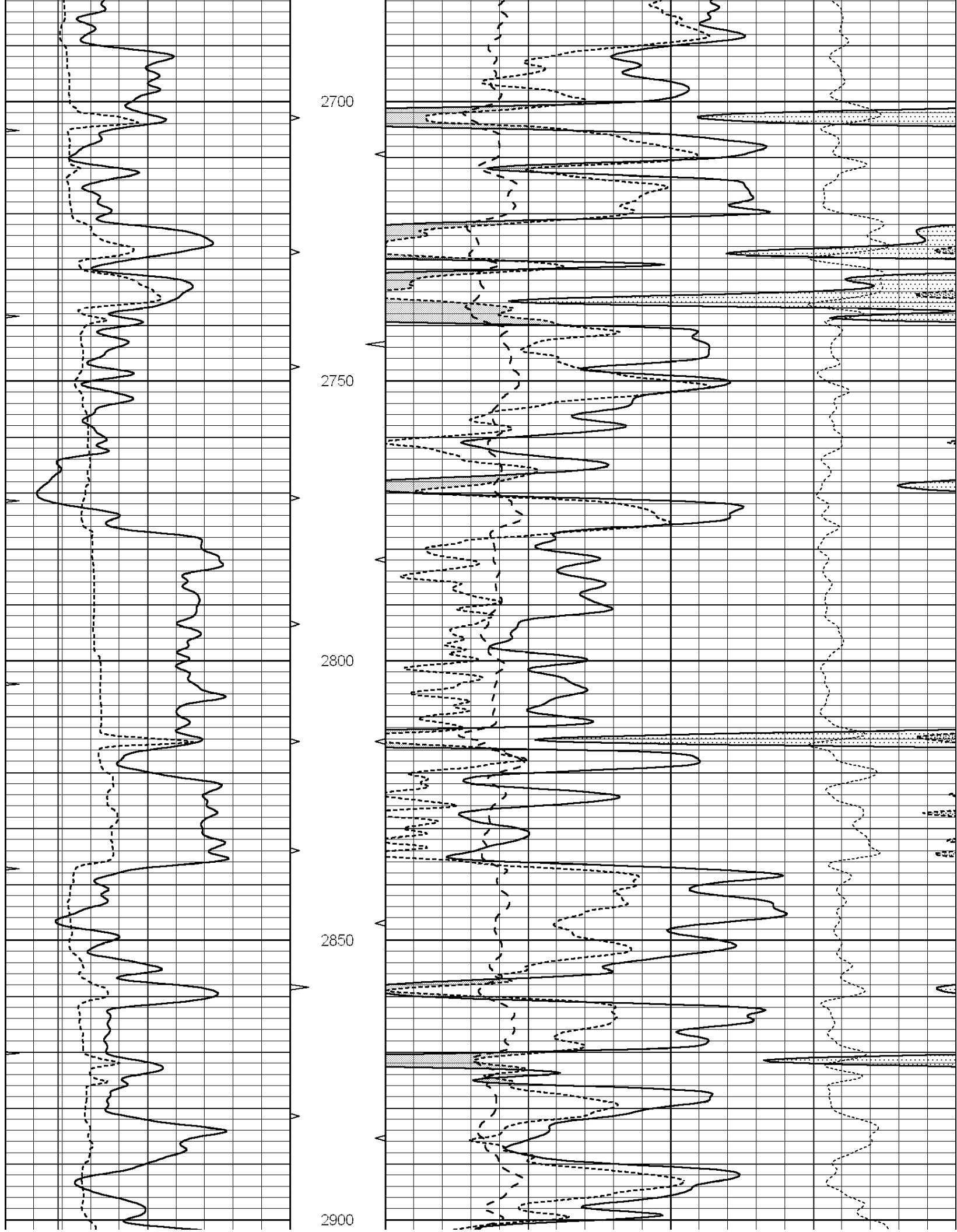
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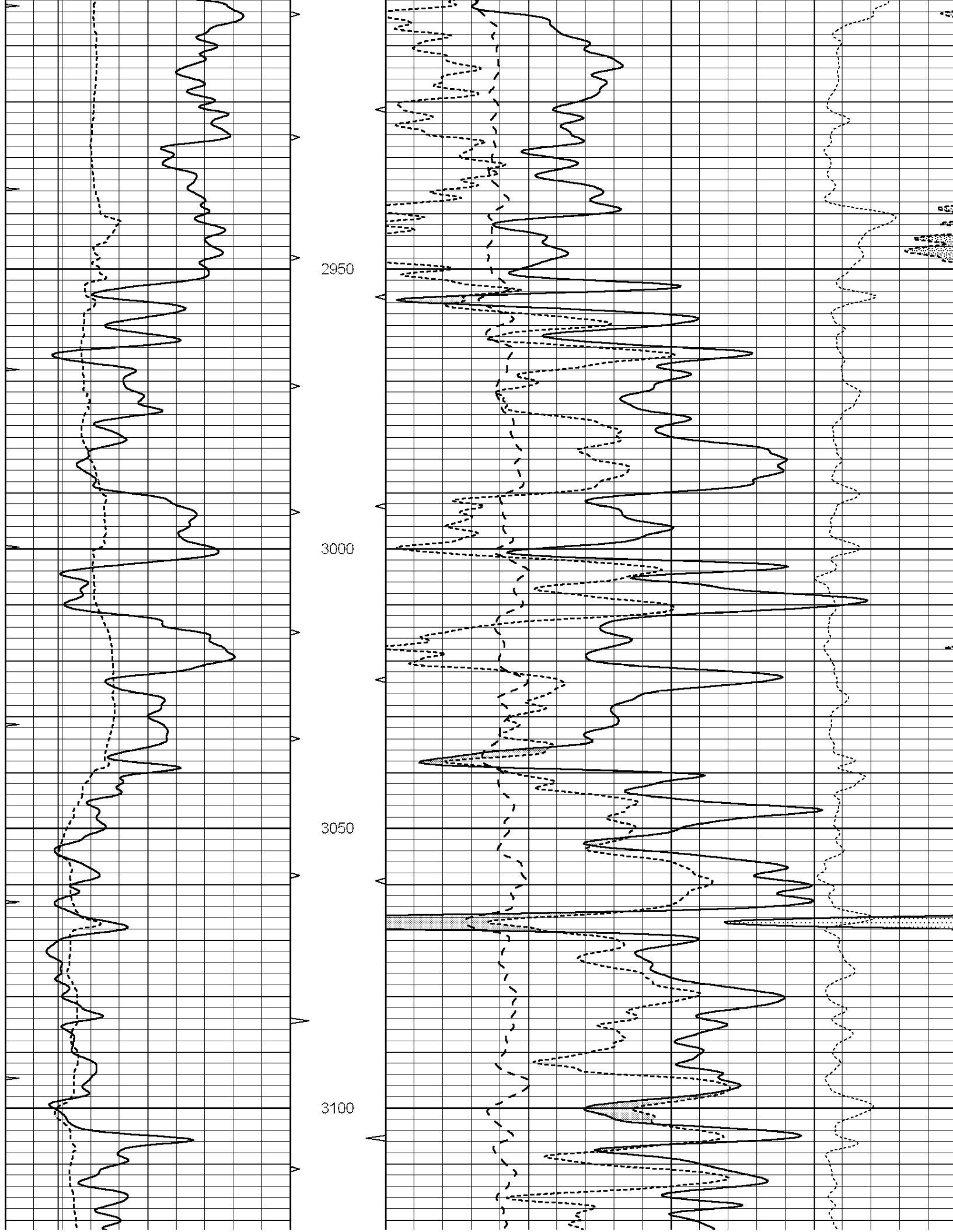
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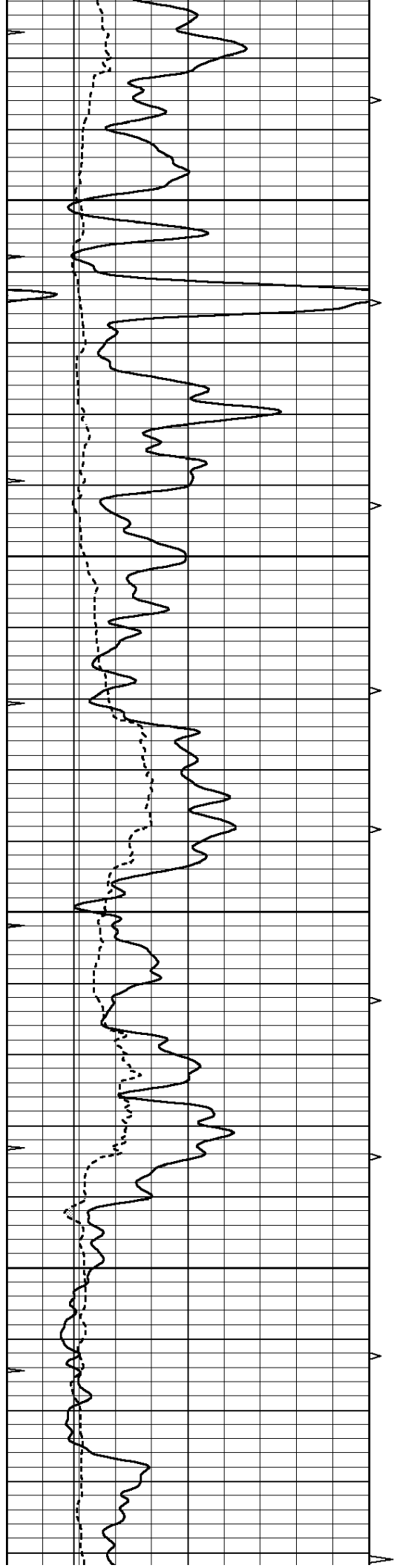
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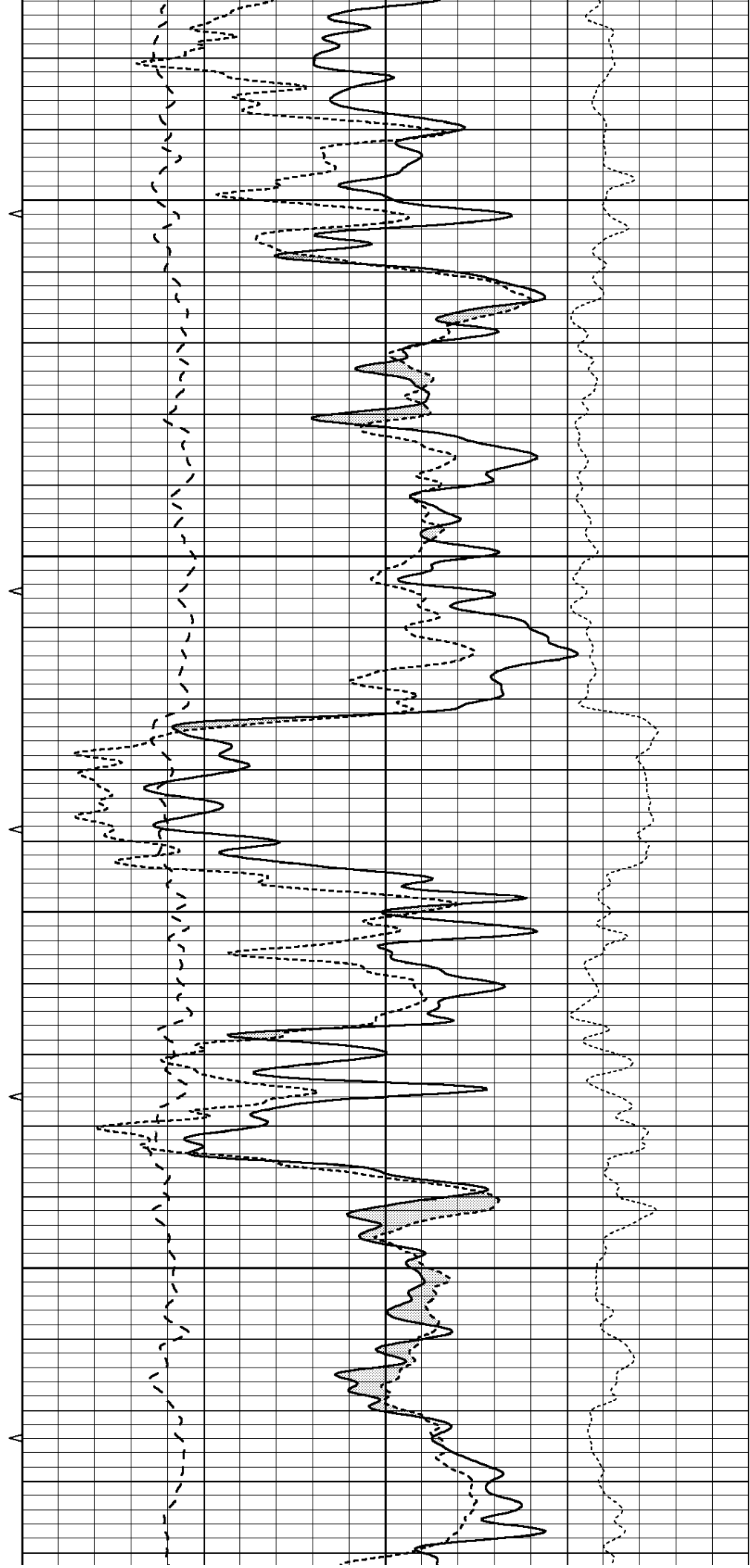


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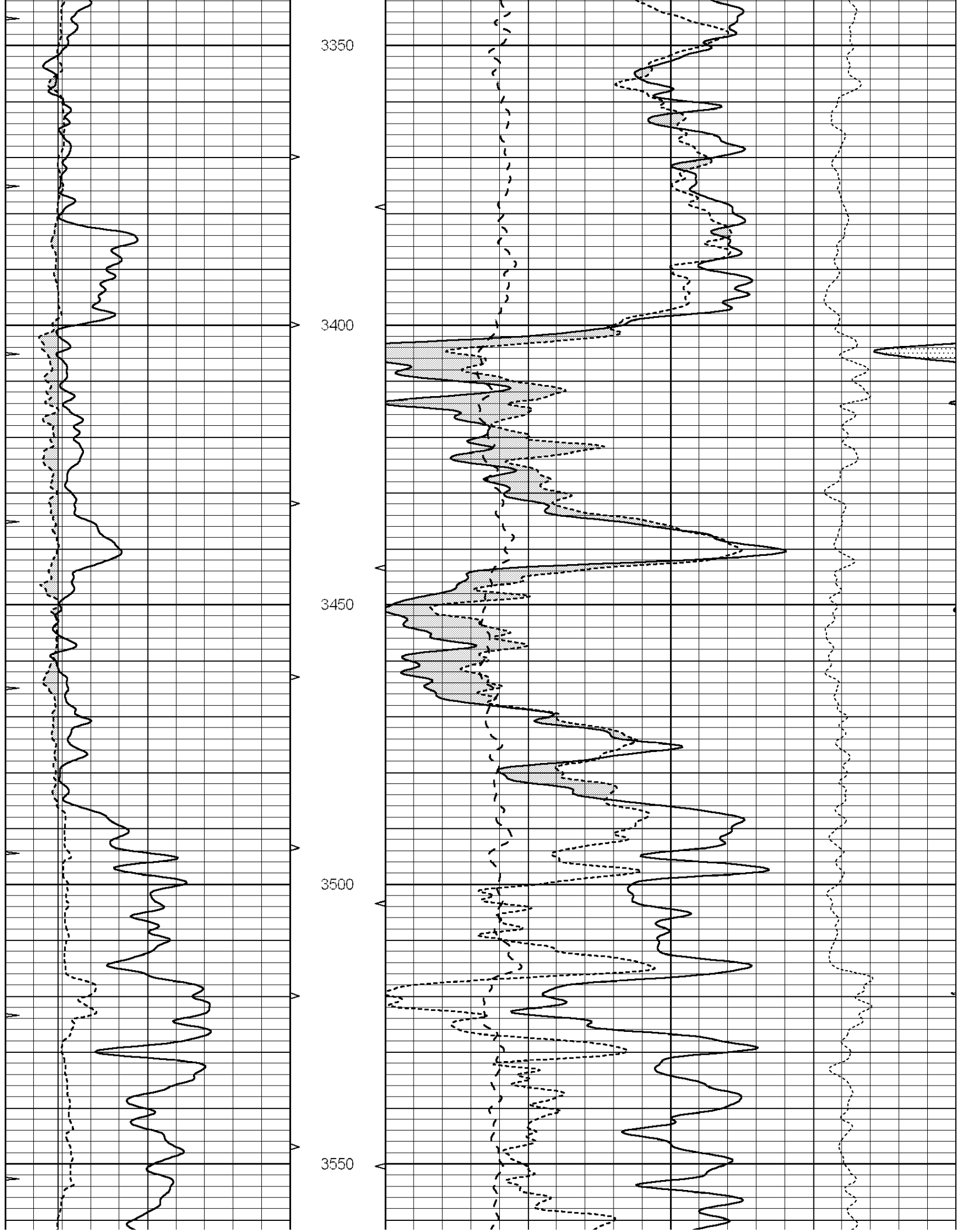
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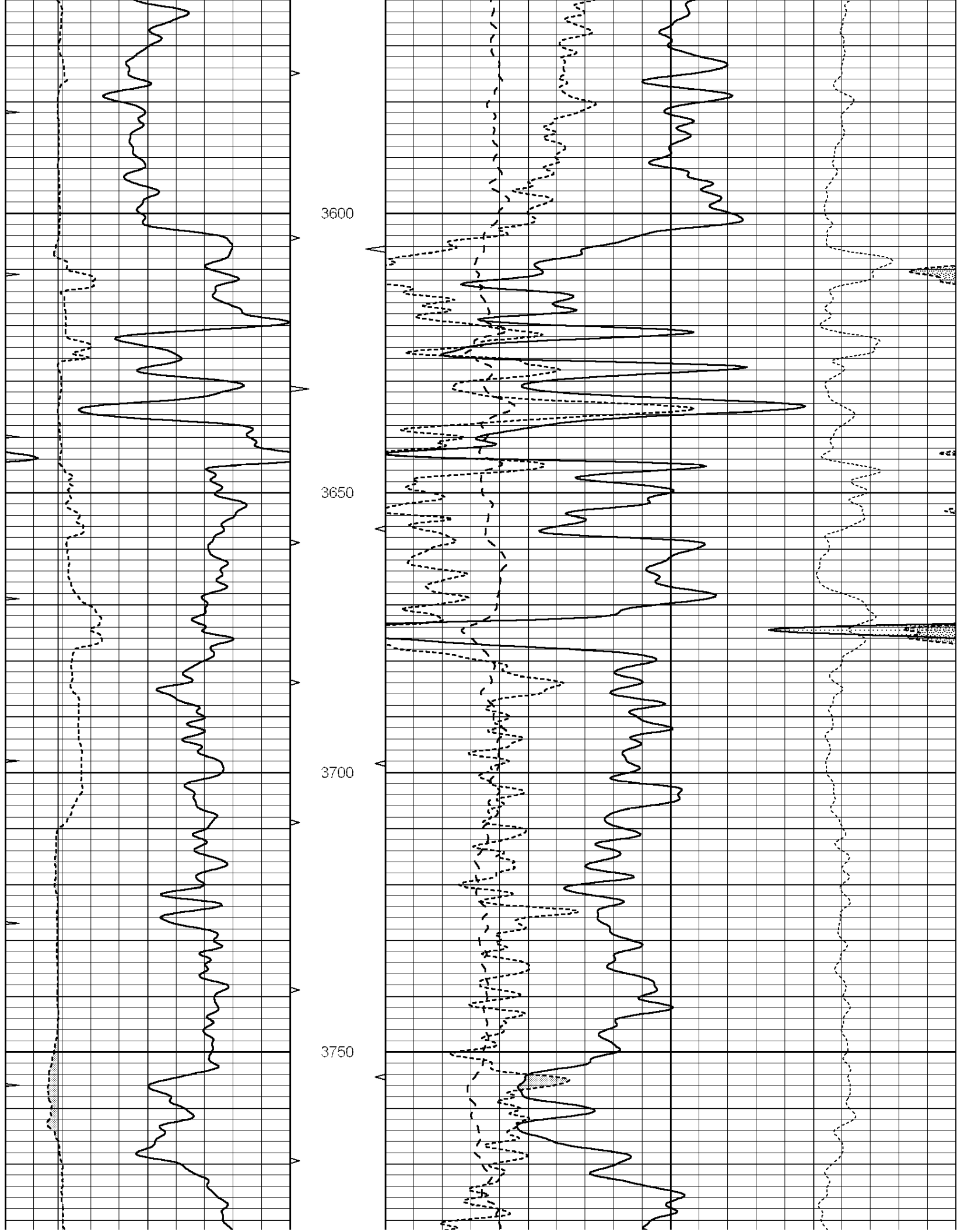
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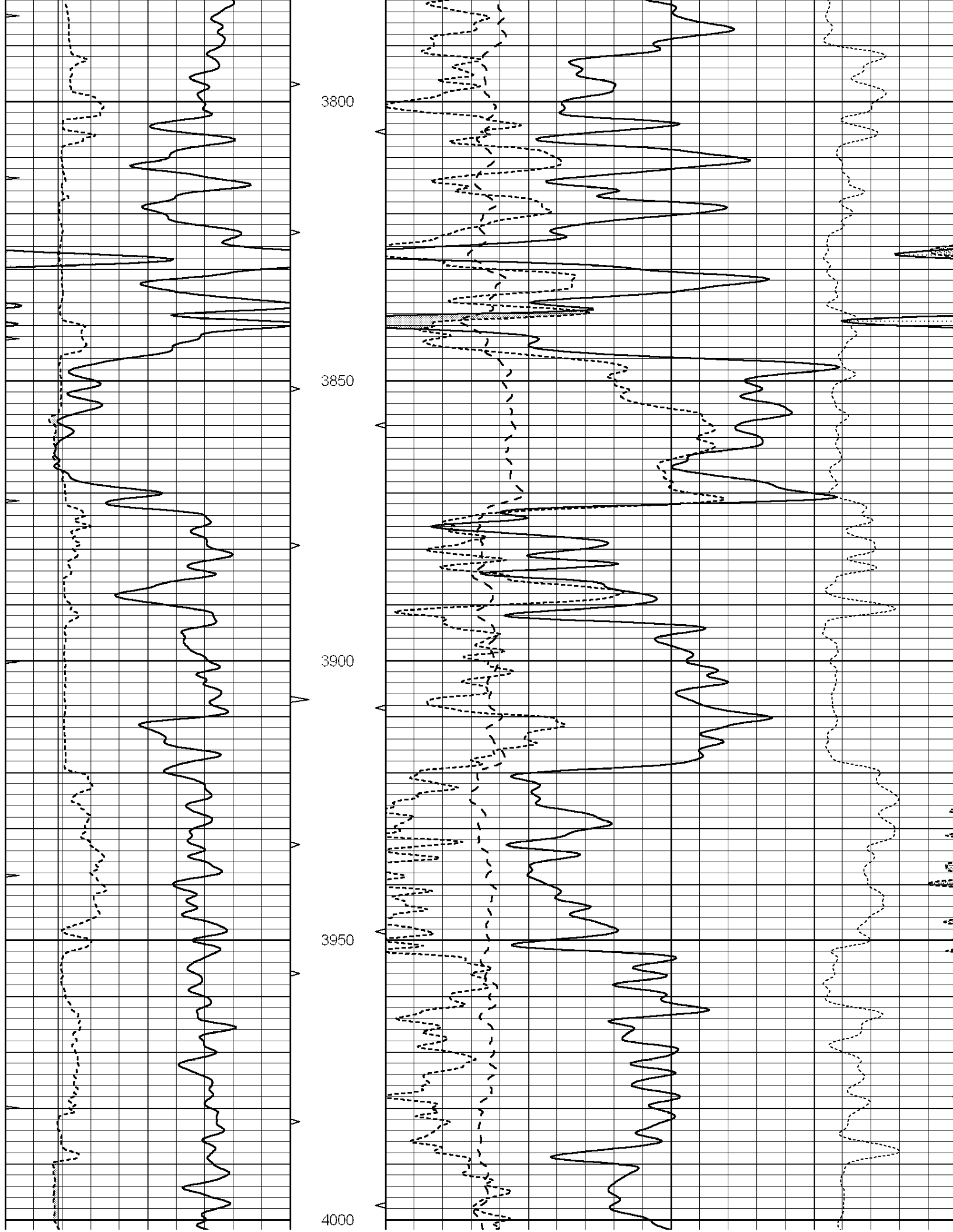
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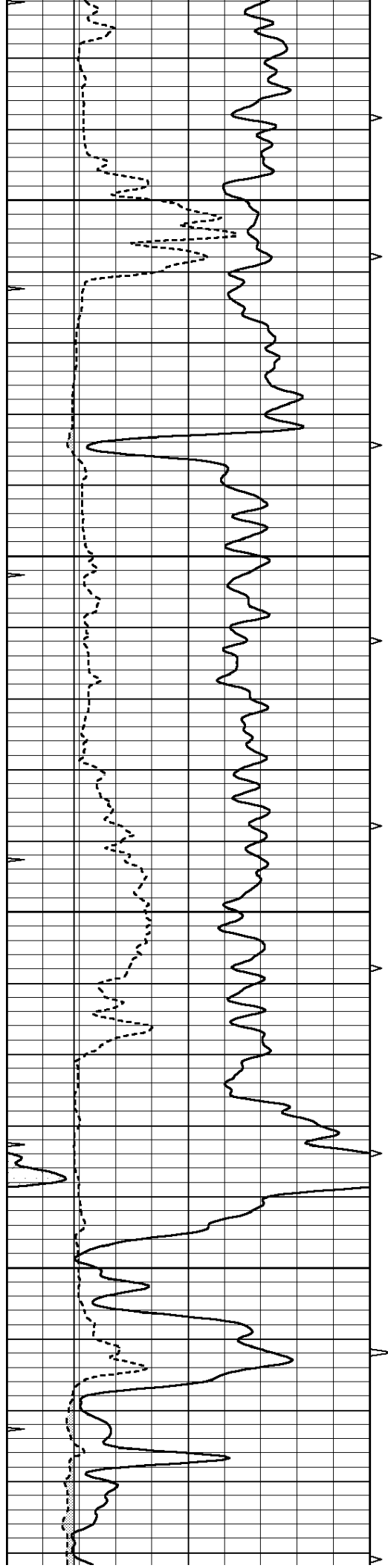










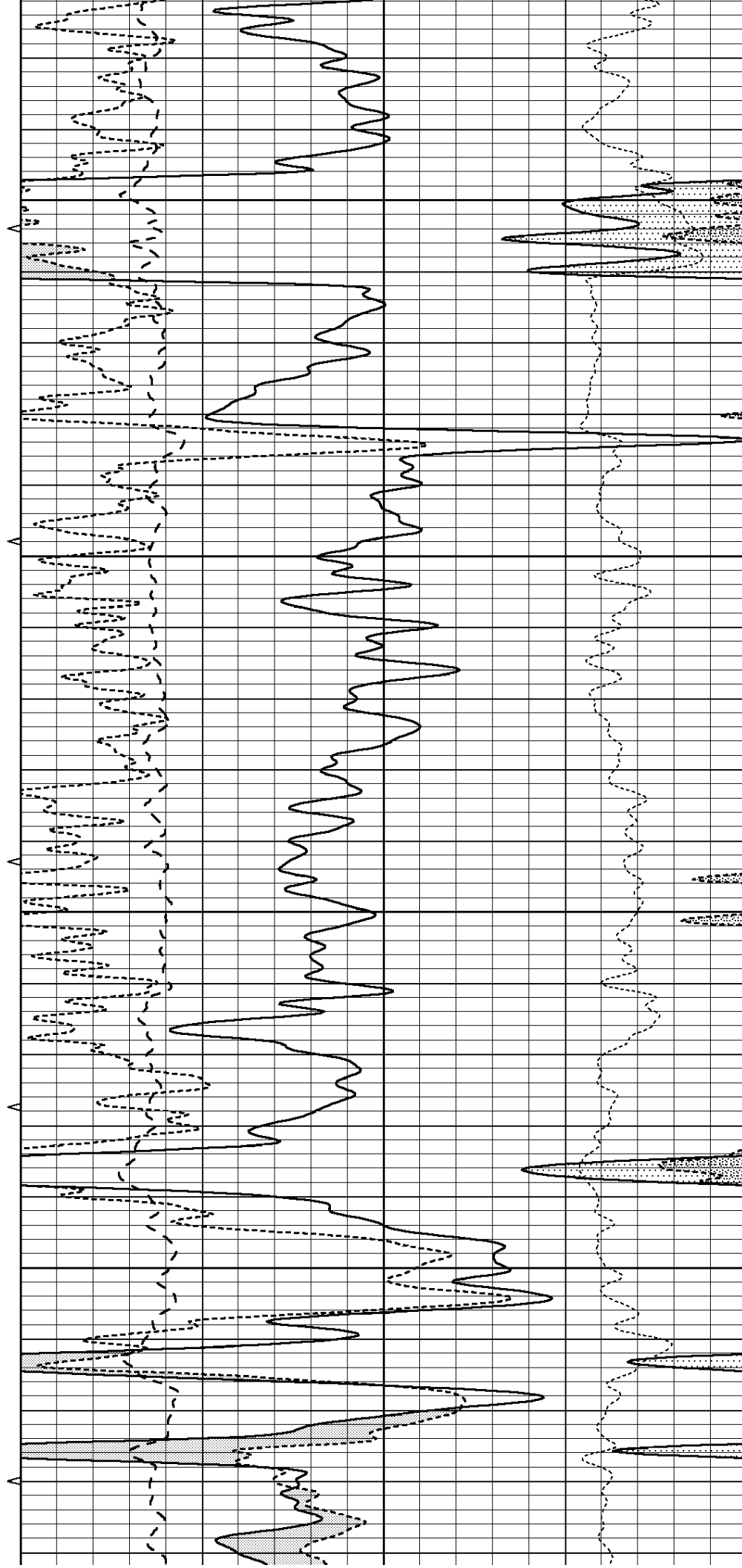


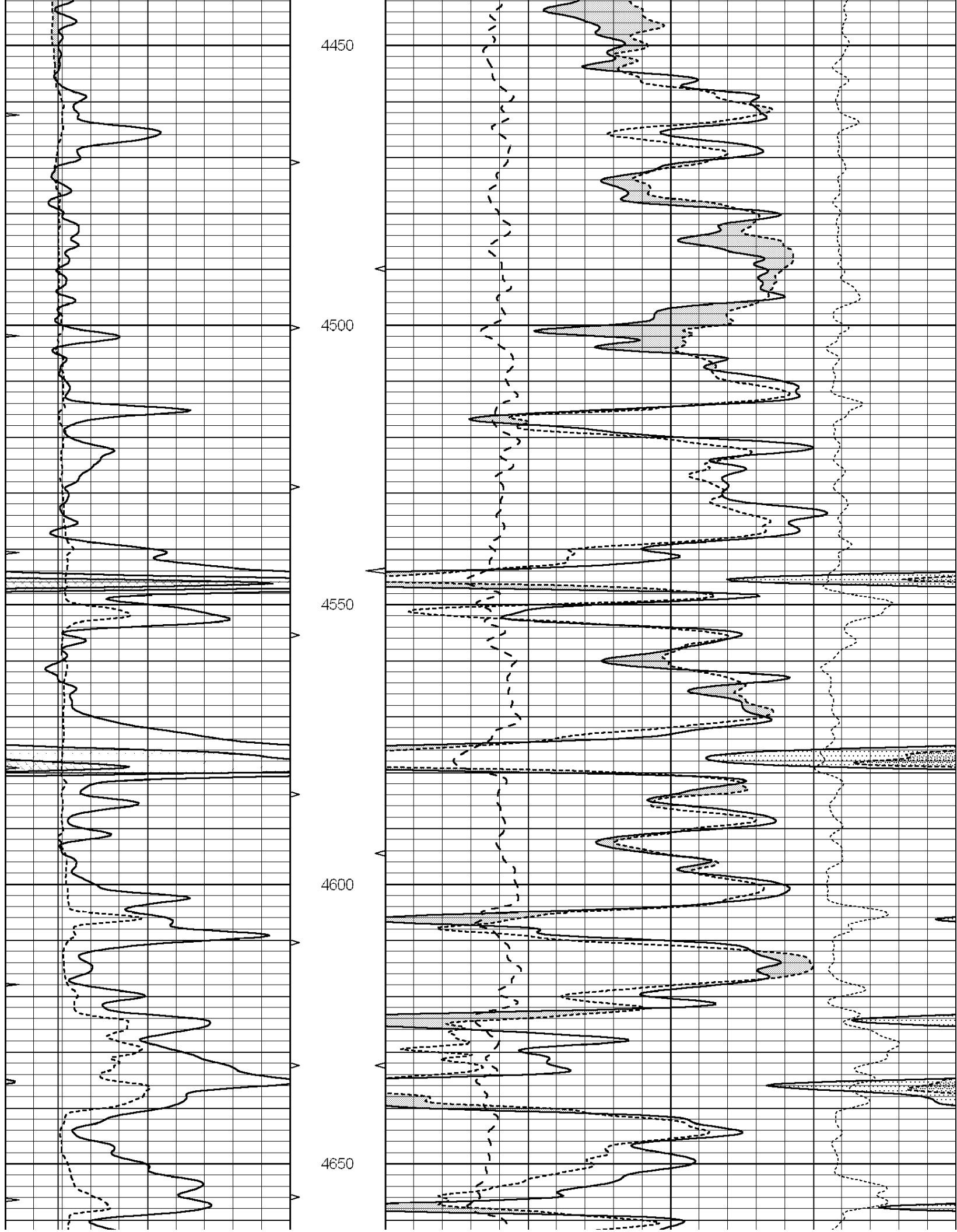
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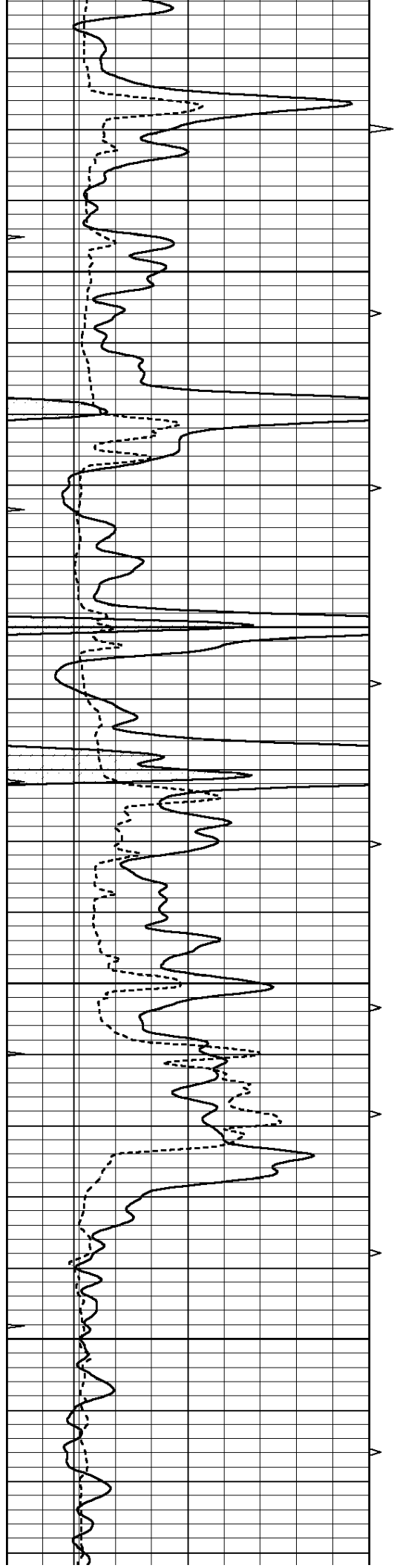
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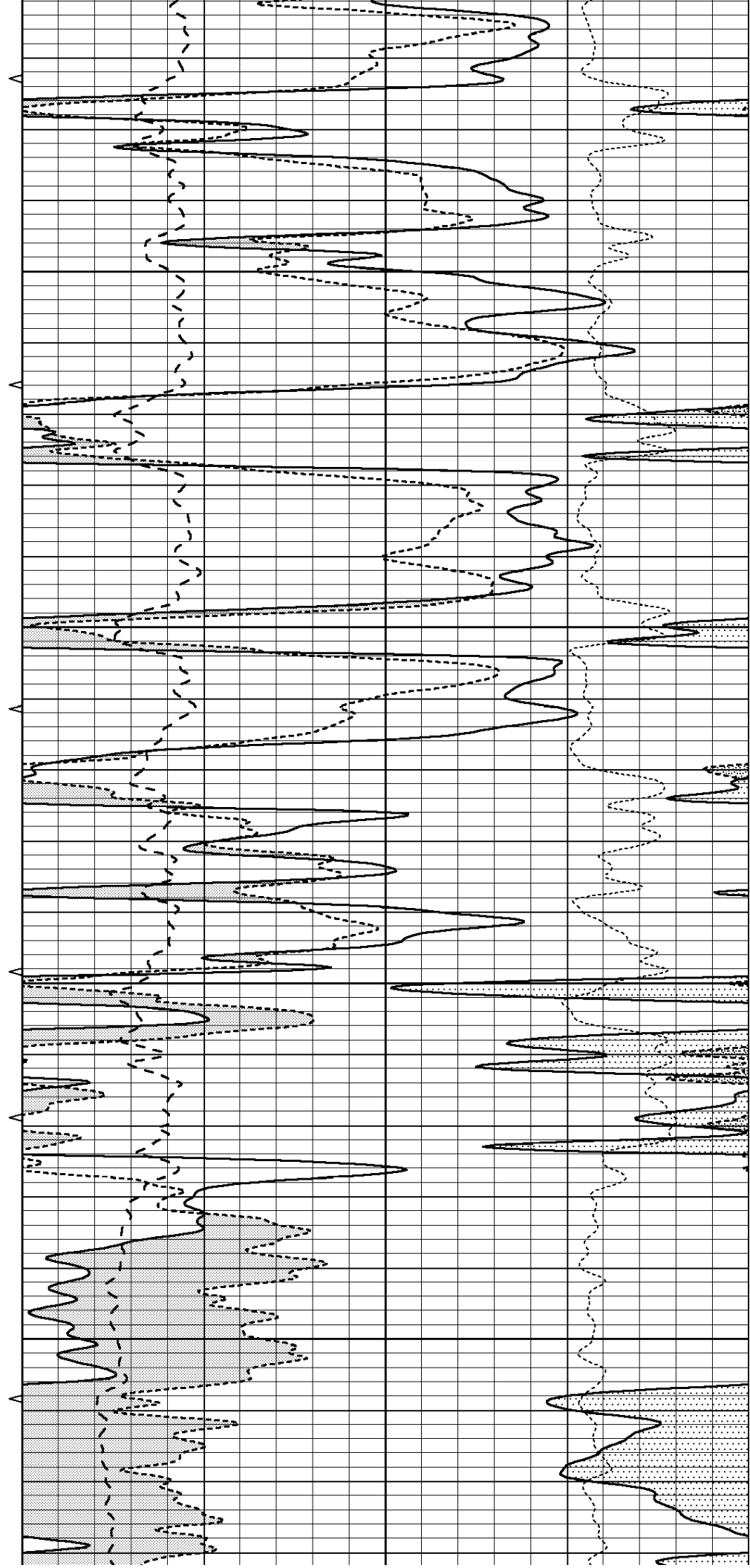


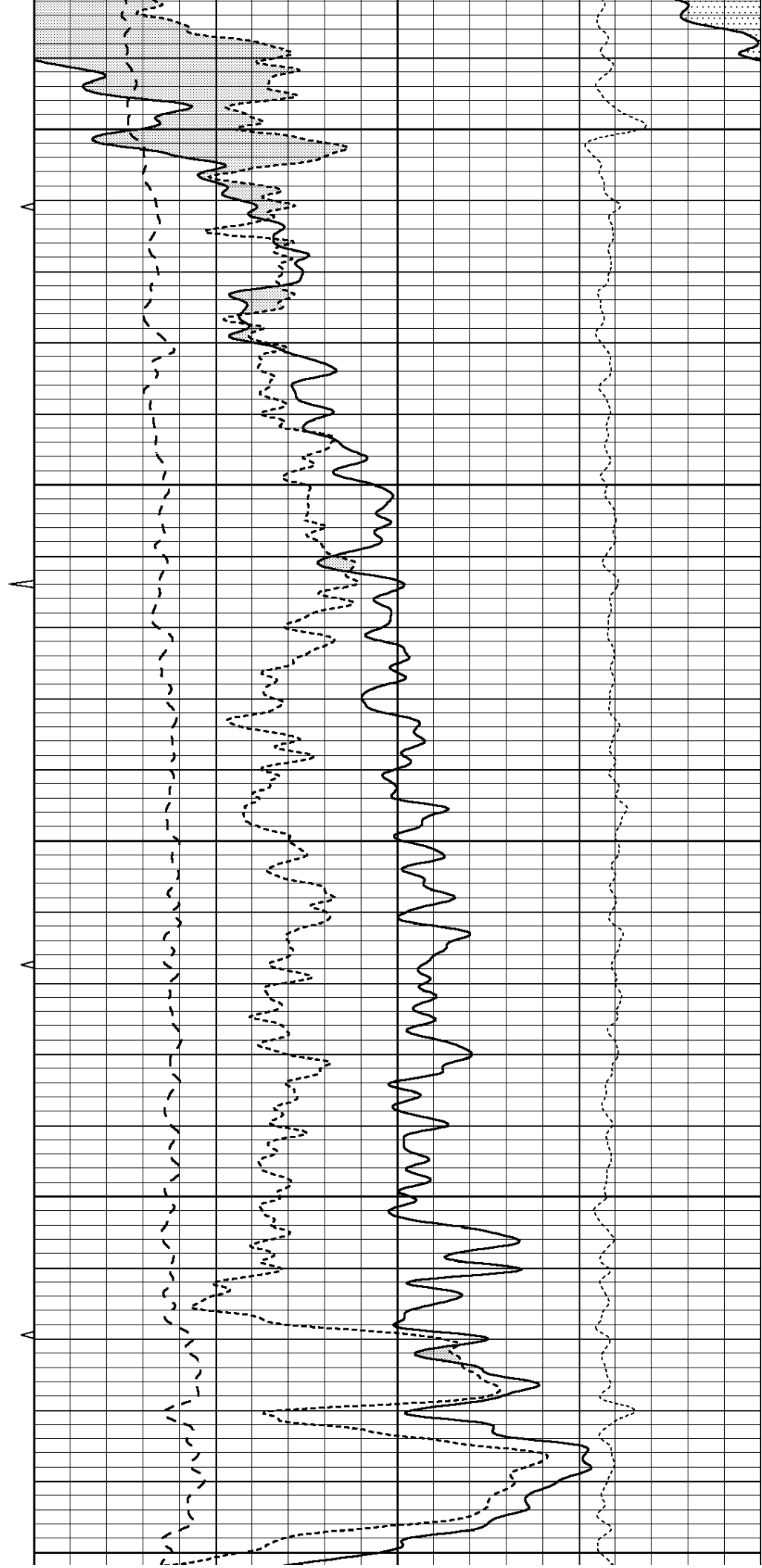
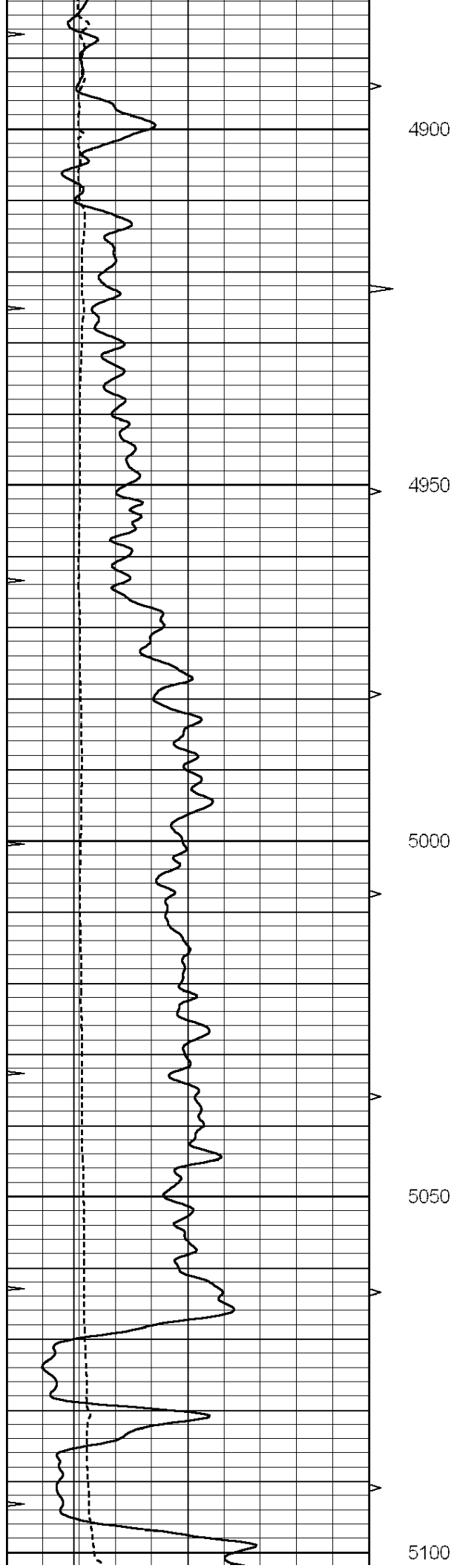
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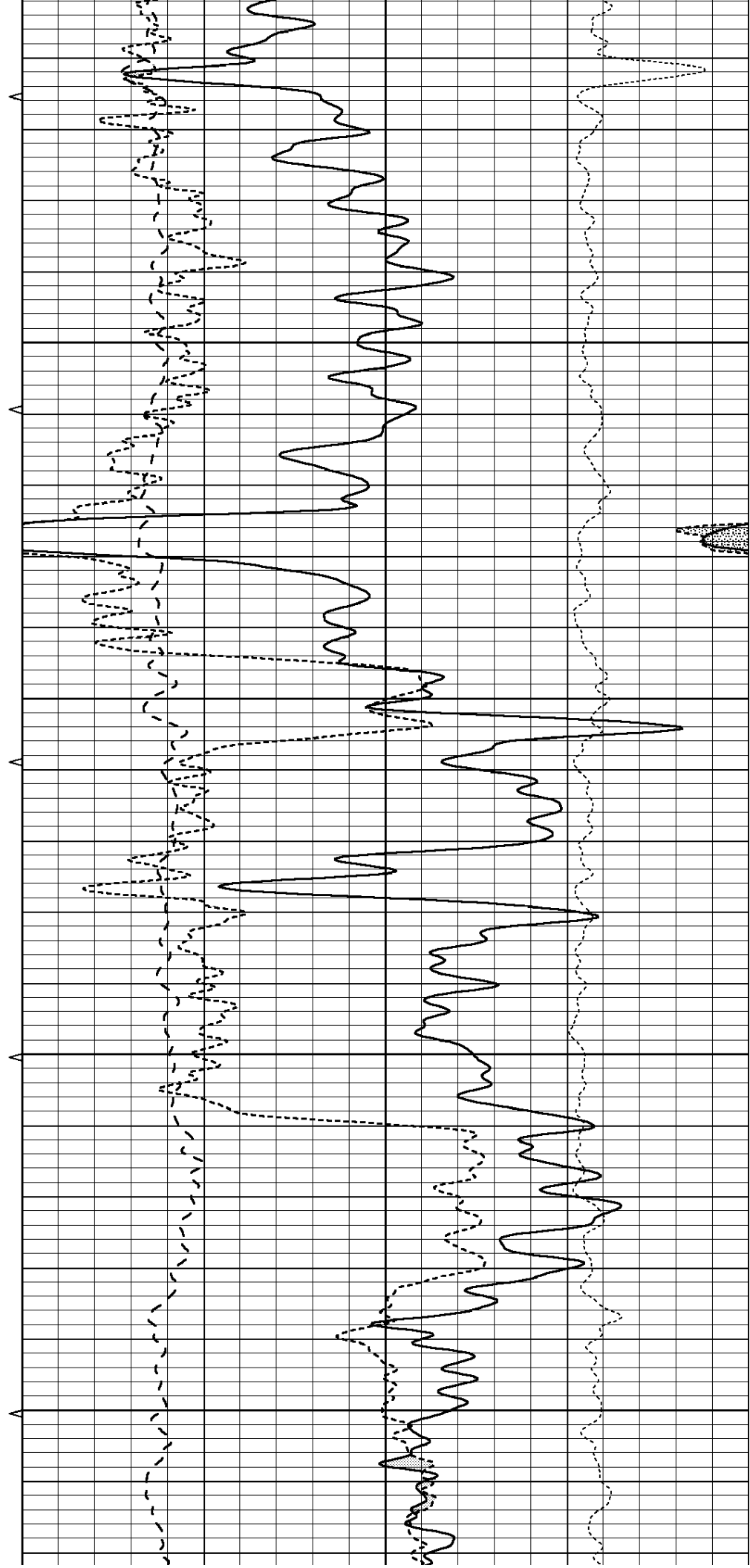
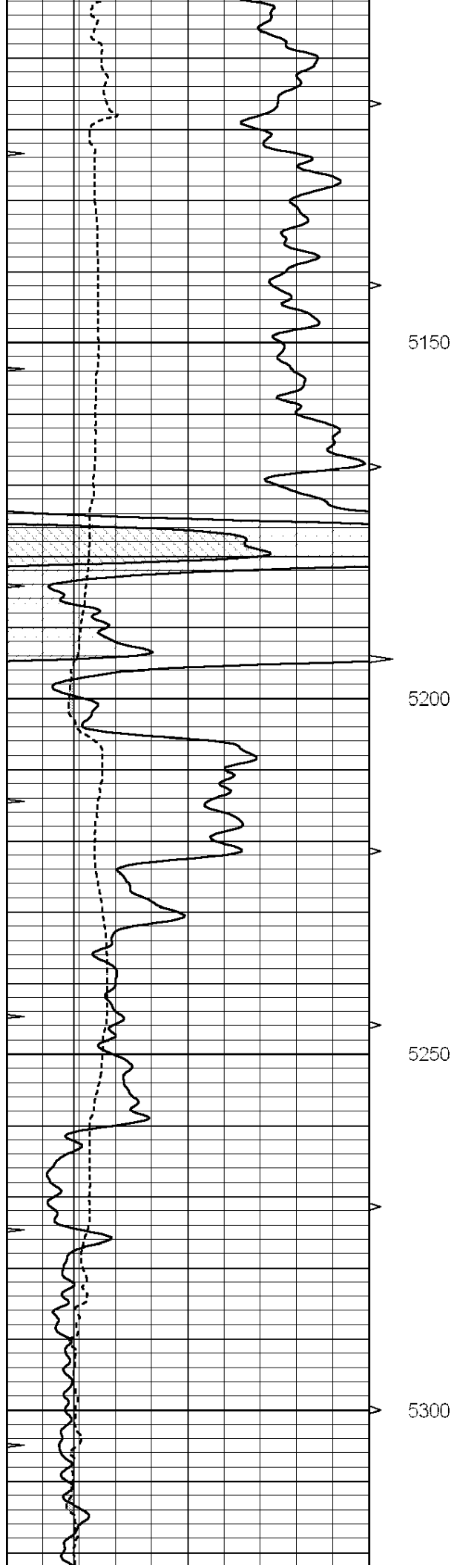
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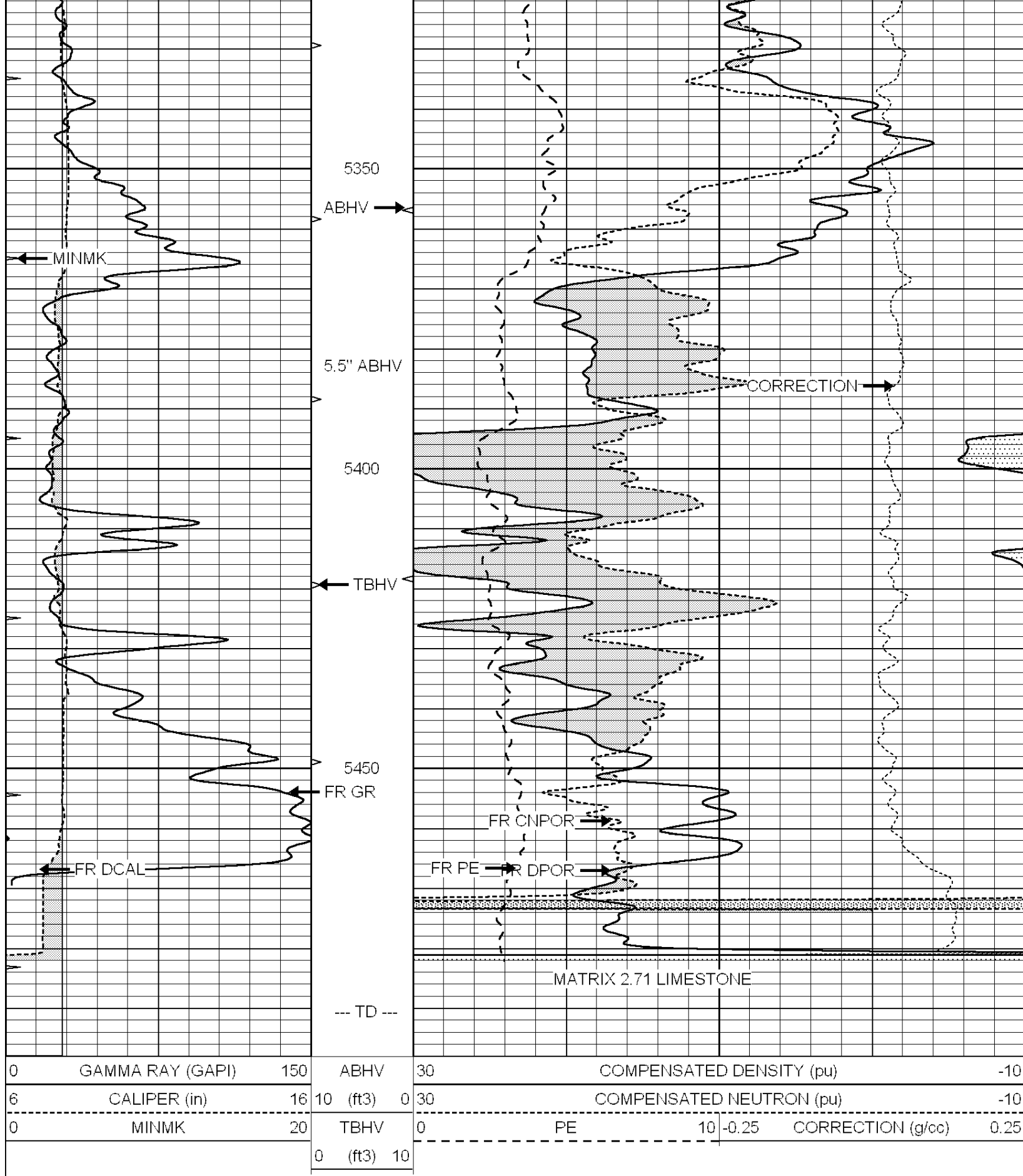
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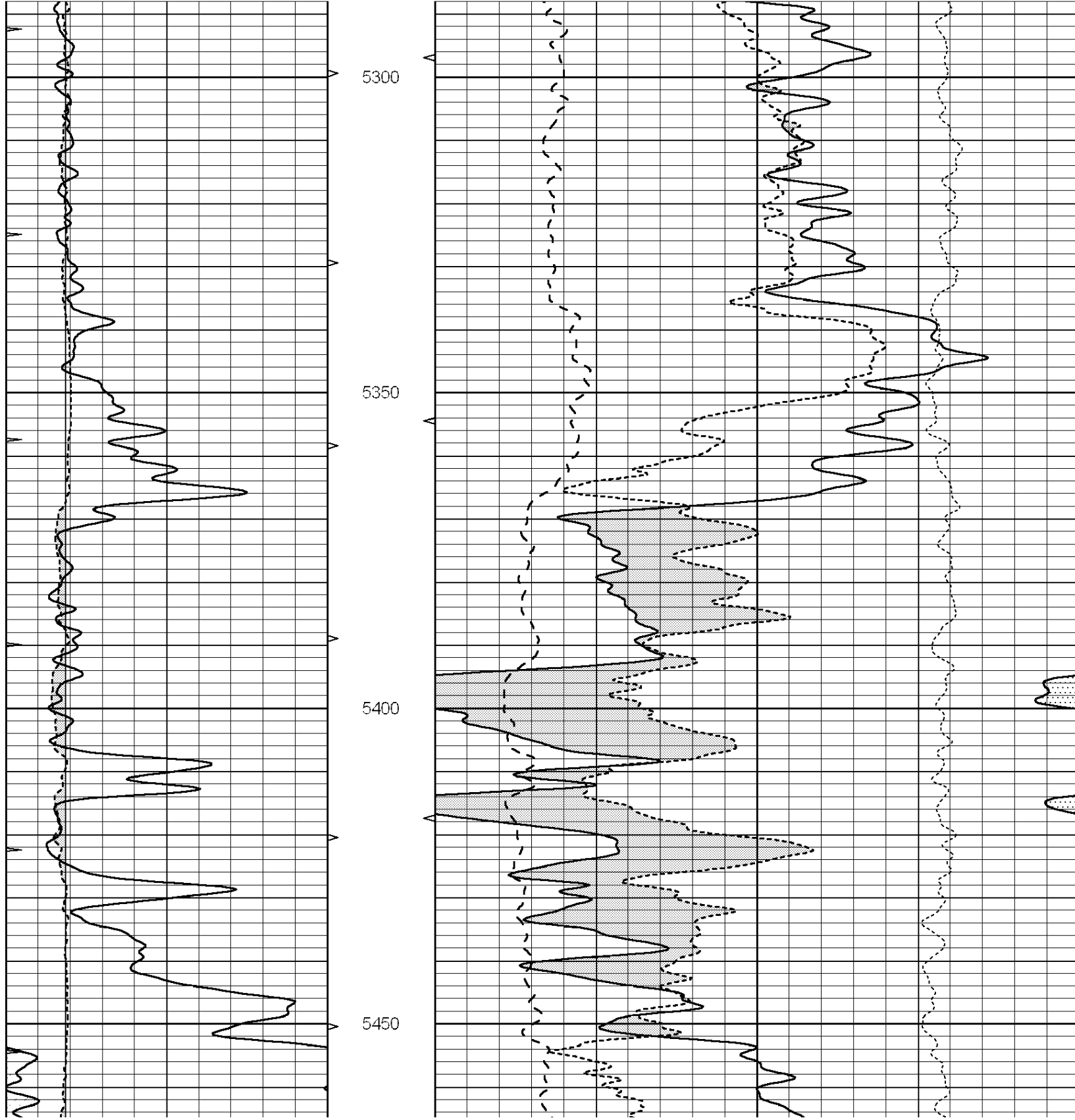


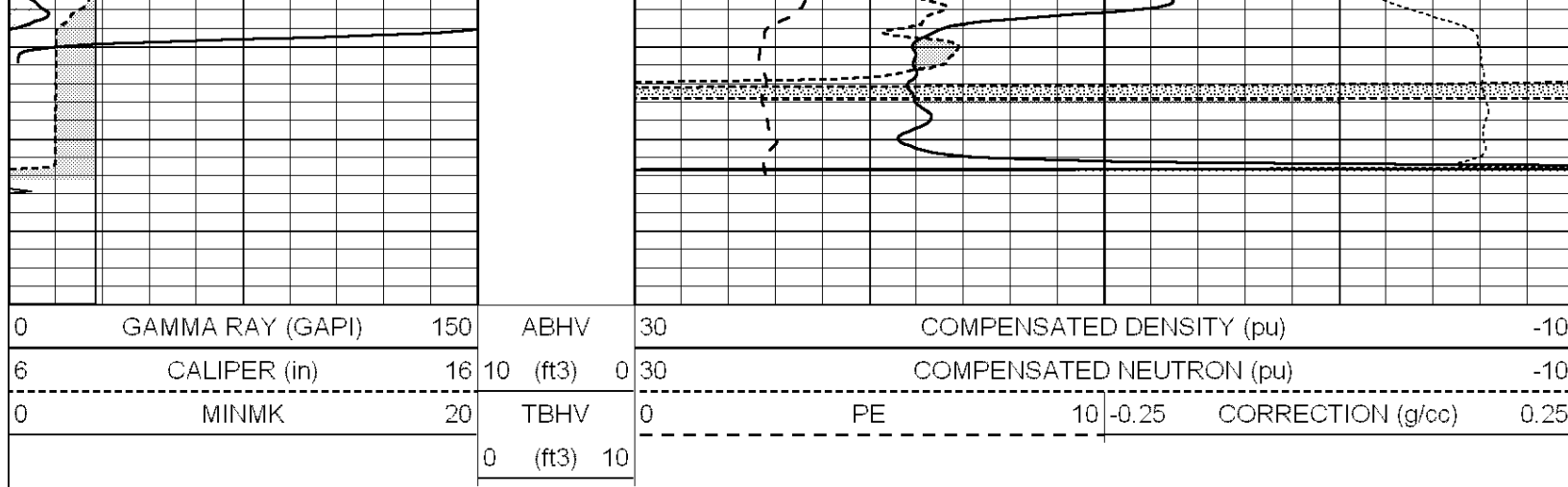
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# REPEAT SECTION

|                      |                            |
|----------------------|----------------------------|
| Database File:       | 010213pdn.db               |
| Dataset Pathname:    | pass2.B                    |
| Presentation Format: | _ldt_neu                   |
| Dataset Creation:    | Wed Oct 09 15:01:50 2013   |
| 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 |    |                          |                                 |





Calibration Report

Database File: 010213pdn.db  
Dataset Pathname: pass3.B  
Dataset Creation: Wed Oct 09 15:06:00 2013

| Dual Induction Calibration Report |       |       |                                       |       |         |         |         |        |
|-----------------------------------|-------|-------|---------------------------------------|-------|---------|---------|---------|--------|
| Serial-Model:<br>Performed:       |       |       | DIL3-GEAR<br>Wed Oct 09 14:06:14 2013 |       |         |         |         |        |
| Readings                          |       |       | References                            |       |         | Results |         |        |
| Loop:                             | Air   | Loop  |                                       | Air   | Loop    |         | m       | b      |
| Deep                              | 0.011 | 0.656 | V                                     | 0.000 | 400.000 | mmho/m  | 480.000 | 6.000  |
| Medium                            | 0.013 | 0.740 | V                                     | 0.000 | 462.500 | mmho/m  | 580.000 | -1.000 |
| Internal:                         | Zero  | Cal   |                                       | Zero  | Cal     |         | m       | b      |
| Deep                              | 0.002 | 0.645 | V                                     | 0.000 | 400.000 | mmho/m  | 560.000 | -1.071 |
| Medium                            | 0.007 | 0.740 | V                                     | 0.000 | 462.500 | mmho/m  | 540.000 | -4.000 |

Litho Density Calibration Report  
Serial: 003 Model: PRB  
Performed Wed Jul 04 10:22:38 2007

| Litho Density Calibration |            |             |          |                     |         |
|---------------------------|------------|-------------|----------|---------------------|---------|
|                           | Background | Magnesium   | Aluminum | Sandstone           |         |
| Window 1                  | 2144.3     | 13444.8     | 4620.5   | 14880.2             | cps     |
| Window 2                  | 1924.8     | 10385.3     | 3771.1   | 11195.2             | cps     |
| Window 3                  | 1678.5     | 6720.2      | 2754.2   | 7127.5              | cps     |
| Window 4                  | 493.4      | 500.3       | 495.4    | 500.6               | cps     |
| Long Space                | 0.0        | 8460.5      | 1846.3   | 9270.4              | cps     |
| Short Space               | 3.8        | 3471.0      | 2267.7   | 3697.5              | cps     |
| Rho                       |            | 1.7100      | 2.5960   | 1.3800              | g/cc    |
| Pe                        |            |             | 2.5700   | 1.5500              |         |
| Rib Angle                 | : 44.4     | Rib Slope   | : 0.979  | Density/Spine Ratio | : 0.561 |
| Spine Angle               | : 74.4     | Spine Slope | : 3.576  | Spine Intercept     | : -20.1 |

| Caliper  |           |             |
|----------|-----------|-------------|
| Low Ref  | Readings  | Reference   |
| High Ref | 2.4       | 8.6         |
|          | 4.4       | 13.8        |
|          | Gain: 2.7 | Offset: 0.0 |

Compensated Neutron Calibration Report

|                              |  |                               |          |               |     |
|------------------------------|--|-------------------------------|----------|---------------|-----|
|                              |  | Serial Number:<br>Tool Model: |          | NEU_4I<br>G   |     |
| CALIBRATION                  |  |                               |          |               |     |
| Detector                     |  | Readings                      |          | Target        |     |
|                              |  |                               |          | Normalization |     |
| Short Space                  |  | 1.00                          | cps      | 1.00          | cps |
| Long Space                   |  | 1.00                          | cps      | 1.00          | cps |
|                              |  |                               |          |               |     |
| Gamma Ray Calibration Report |  |                               |          |               |     |
| Serial Number:               |  | GR5                           |          |               |     |
| Tool Model:                  |  | OPEN                          |          |               |     |
| Performed:                   |  | Wed Oct 09 14:03:16 2013      |          |               |     |
| Calibrator Value:            |  | 1.0                           | GAPI     |               |     |
| Background Reading:          |  | 0.0                           | cps      |               |     |
| Calibrator Reading:          |  | 1.0                           | cps      |               |     |
| Sensitivity:                 |  | 1.0000                        | GAPI/cps |               |     |