



SUPERIOR
Hays,
Kansas

**DUAL INDUCTION
LOG**

Company OIL PRODUCERS INC. OF KS.
Well EPLER #3-23
Field EPLER
County SHERIDAN
State KANSAS

Company OIL PRODUCERS, INC. OF KANSAS
Well EPLER #3-23
Field EPLER
County SHERIDAN State KANSAS

Location: API #: 15-179-21202-0000
2400' FSL & 1000' FEL
NW - NW - NE - SE
SEC 23 TWP 9S RGE 26W
Permanent Datum GROUND LEVEL Elevation 2648
Log Measured From KELLY BUSHING 5' A.G.L.
Drilling Measured From KELLY BUSHING
Other Services
CDL/CNL/PE
MEL/SONIC
Elevation
K.B. 2653
D.F. 2651
G.L. 2648

| | |
|------------------------------|----------------|
| Date | 2/27/09 |
| Run Number | ONE |
| Depth Driller | 4200 |
| Depth Logger | 4197 |
| Bottom Logged Interval | 4195 |
| Top Log Interval | 00 |
| Casing Driller | 8 5/8" @ 297' |
| Casing Logger | 296 |
| Bit Size | 7 7/8 |
| Type Fluid In Hole | CHEMICAL MUD |
| Density / Viscosity | 9.3/47 |
| pH / Fluid Loss | 10.0/8.4 |
| Source of Sample | FLOWLINE |
| Rm @ Meas. Temp | 1.20 @ 80F |
| Rmf @ Meas. Temp | .900 @ 80F |
| Rmc @ Meas. Temp | 1.44 @ 90F |
| Source of Rmf / Rmc | MEASUREMENT |
| Rm @ BHT | .814 @ 118F |
| Time Circulation Stopped | 2 HOURS |
| Time Logger on Bottom | 9:45 P.M. |
| Maximum Recorded Temperature | 118F |
| Equipment Number | 0836 |
| Location | HAYS, KANSAS |
| Recorded By | JEFF LUEBBERS |
| Witnessed By | JEFF CHRISTIAN |

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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 SUPERIOR WELL SERVICE HAYS, KANSAS (785)628-6395
DIRECTIONS
QUINTER, KS. & I-70, 13N. TO RD. "80S", 3E. TO "T", 1/2N., W. INTO



SUPERIOR
Hays,
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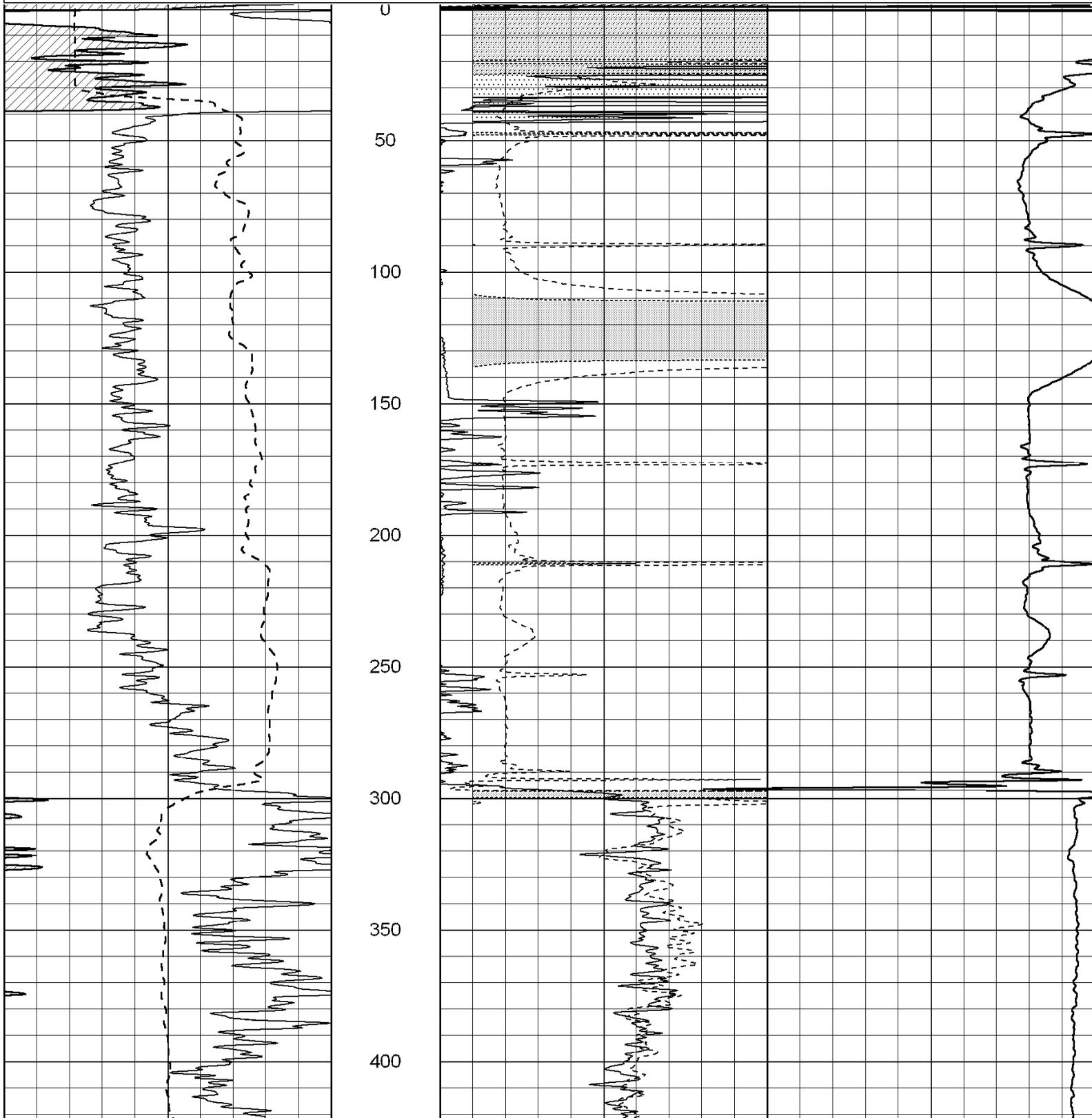
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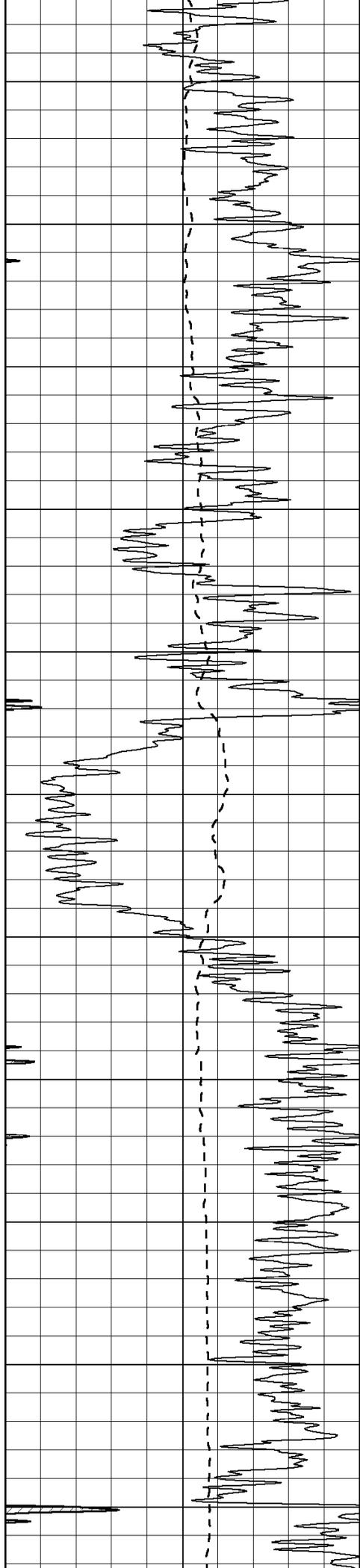
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 Charted by: Depth in Feet scaled 1:600

| | | |
|------|------------------|-----|
| 0 | Gamma Ray (GAPI) | 150 |
| -100 | SP (mV) | 100 |

| | | |
|---|--------------|----|
| 0 | RLL3 (Ohm-m) | 50 |
| 0 | RILD (Ohm-m) | 50 |

| | | | |
|------|------------------|-----|---|
| 1000 | CILD (mmho-m) | | 0 |
| 50 | RILD X10 (Ohm-m) | 500 | |
| 50 | RLL3 X10 (Ohm-m) | 500 | |





450

500

550

600

650

700

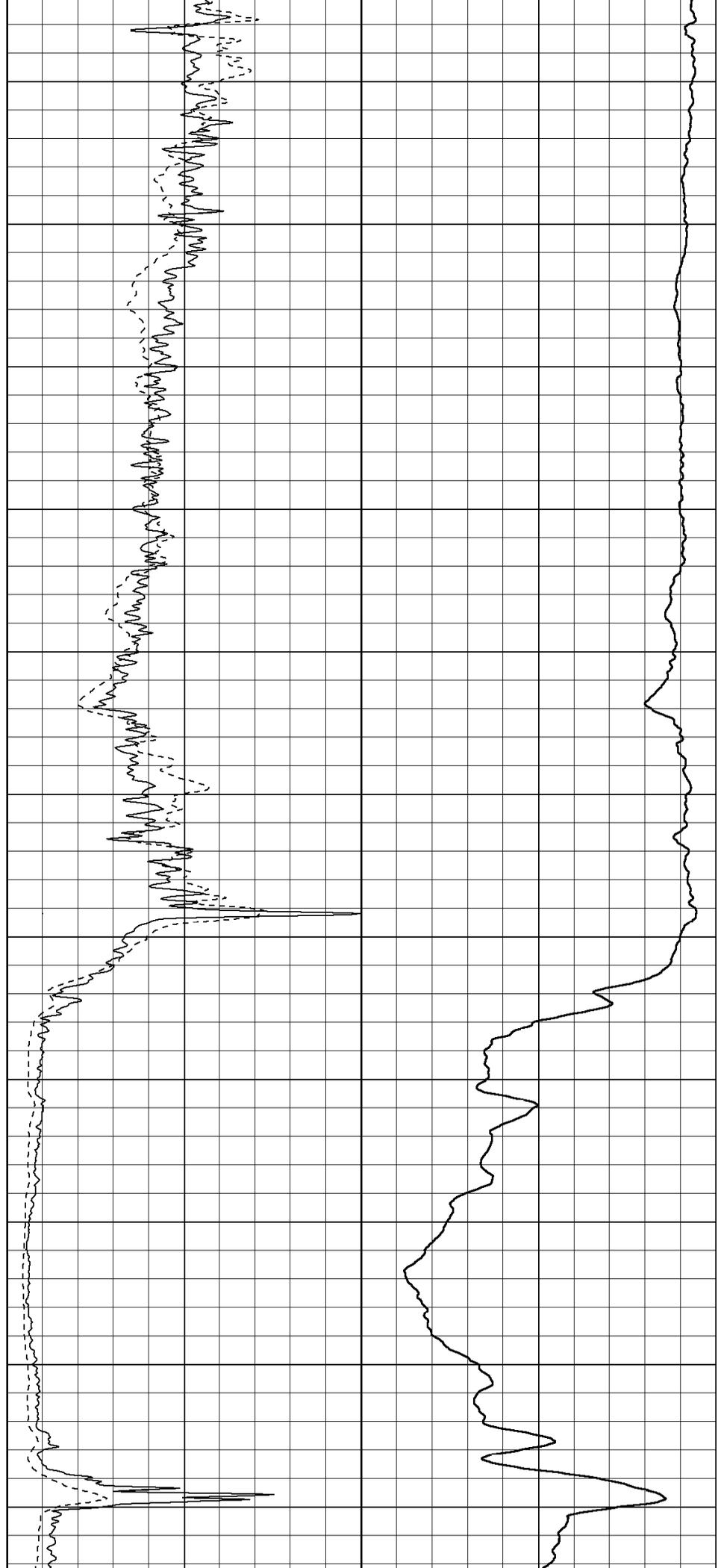
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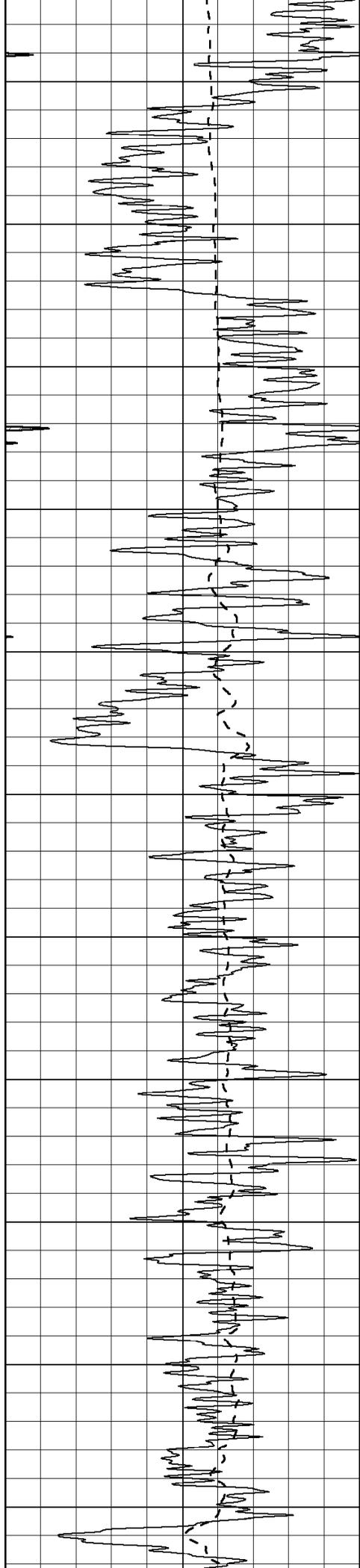
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850

900

950





1000

1050

1100

1150

1200

1250

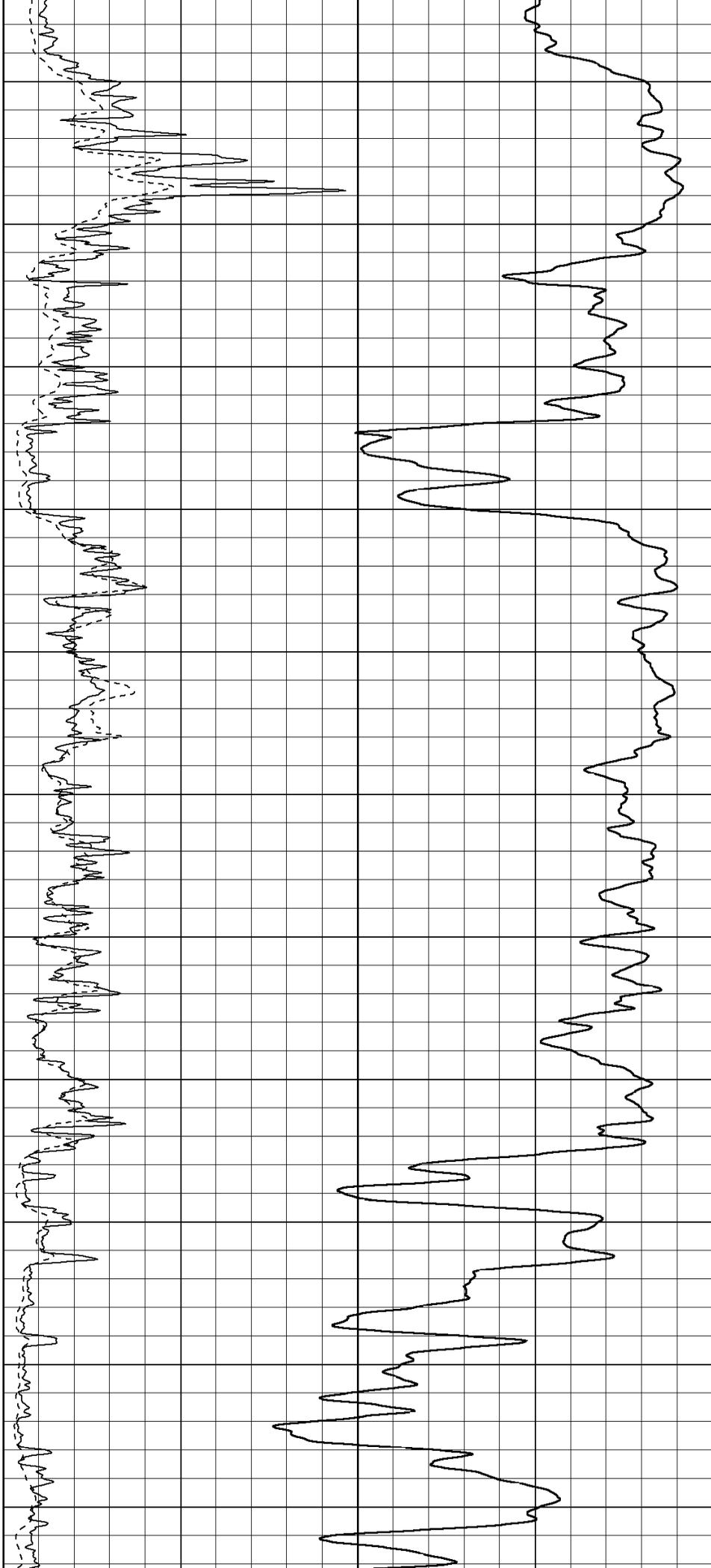
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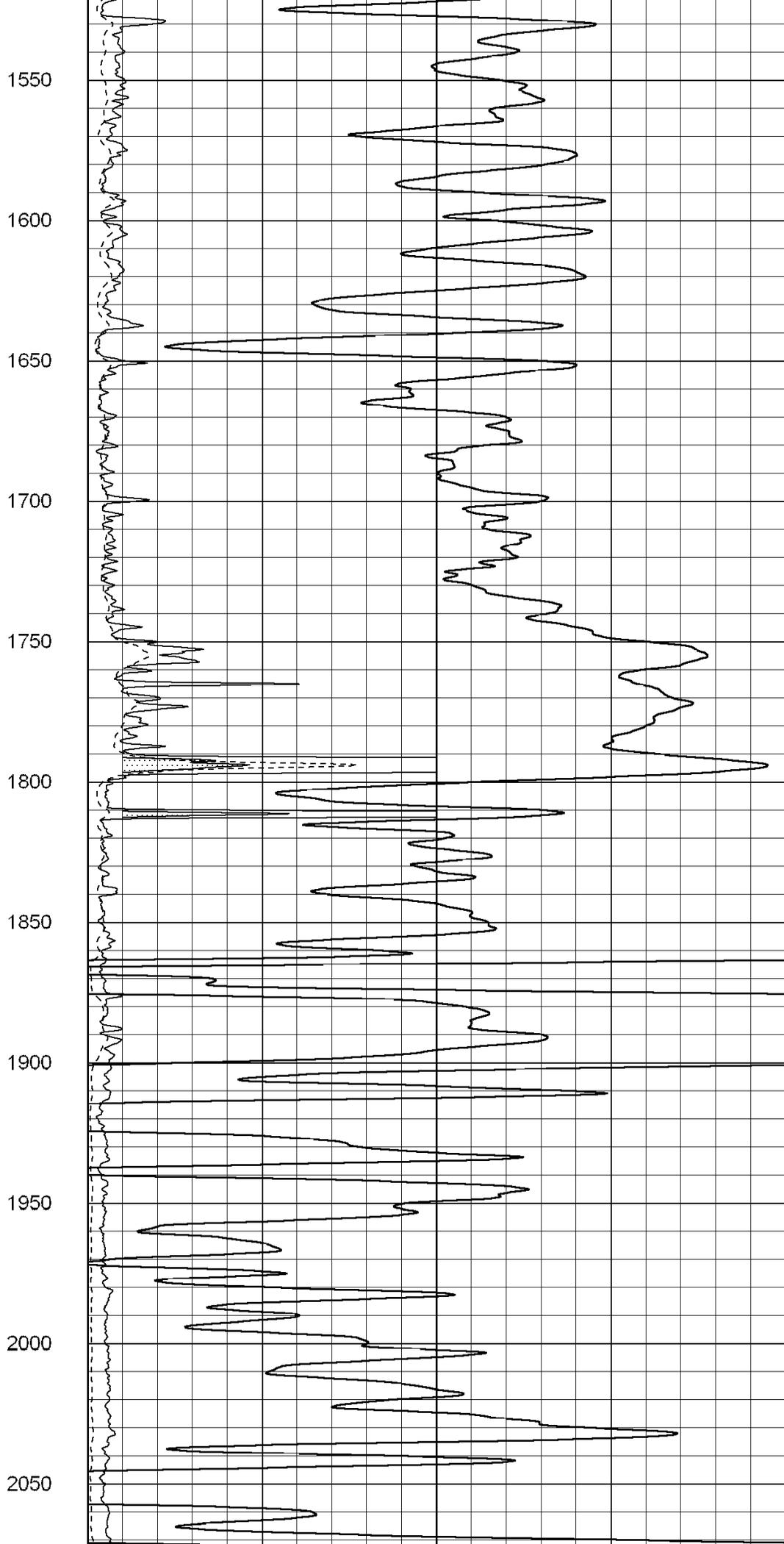
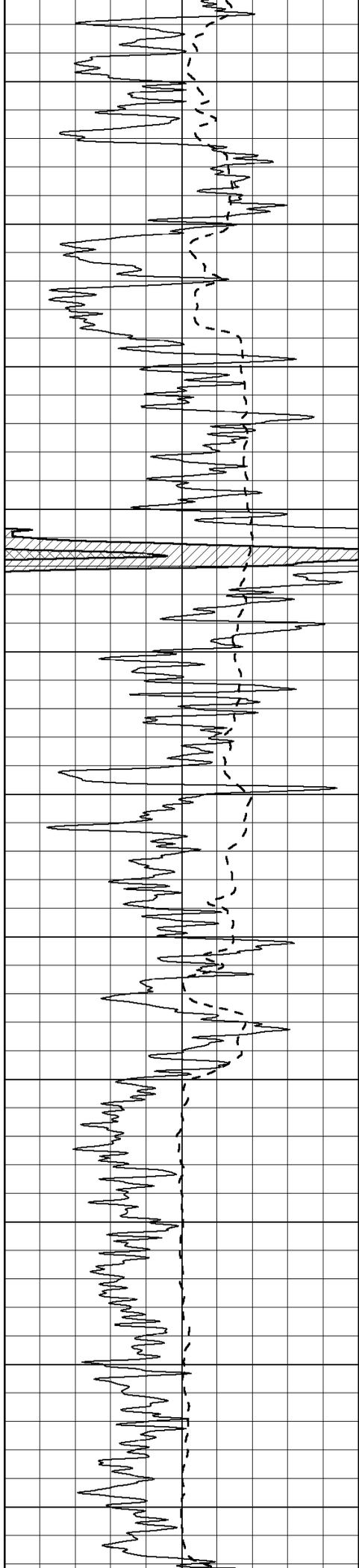
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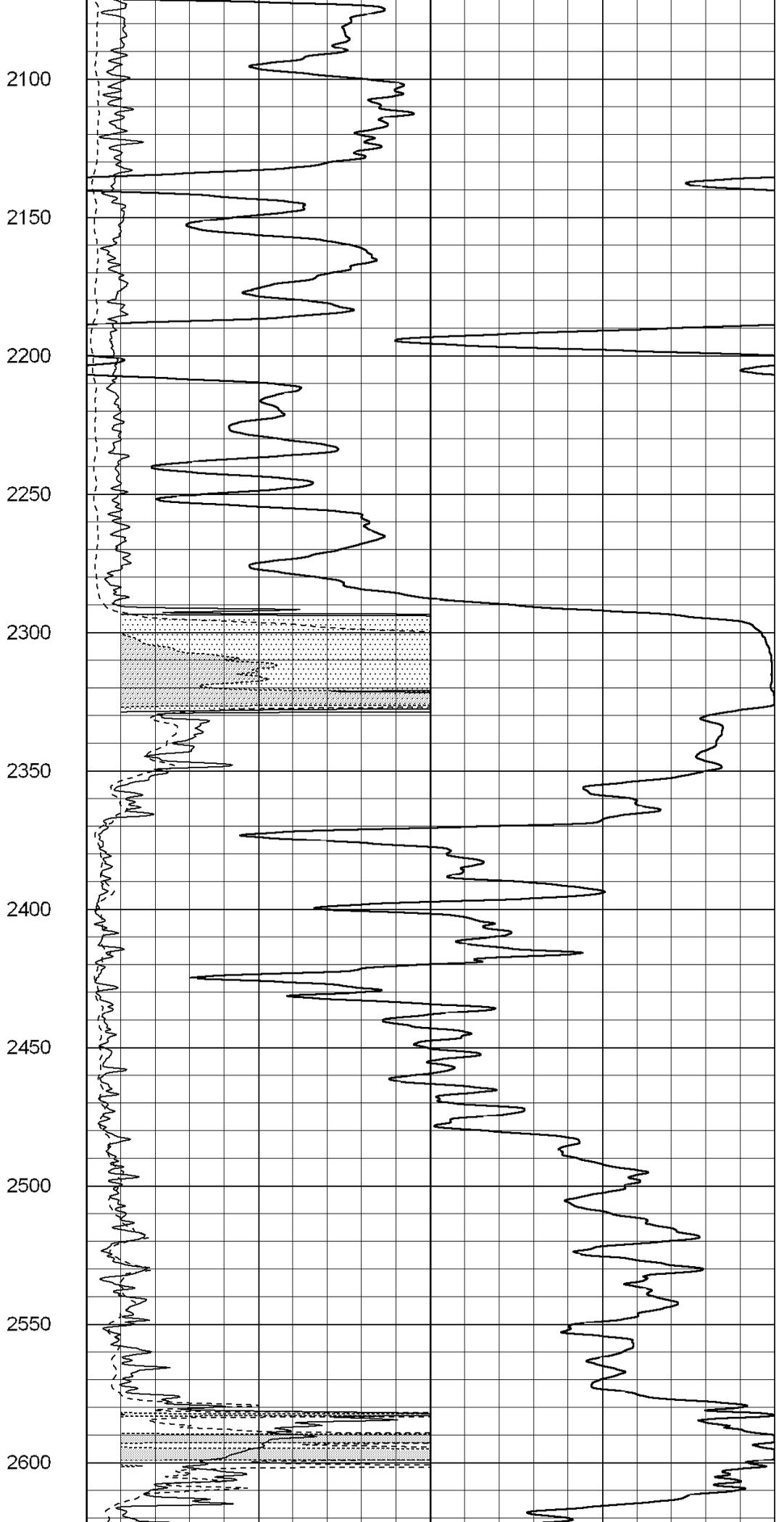
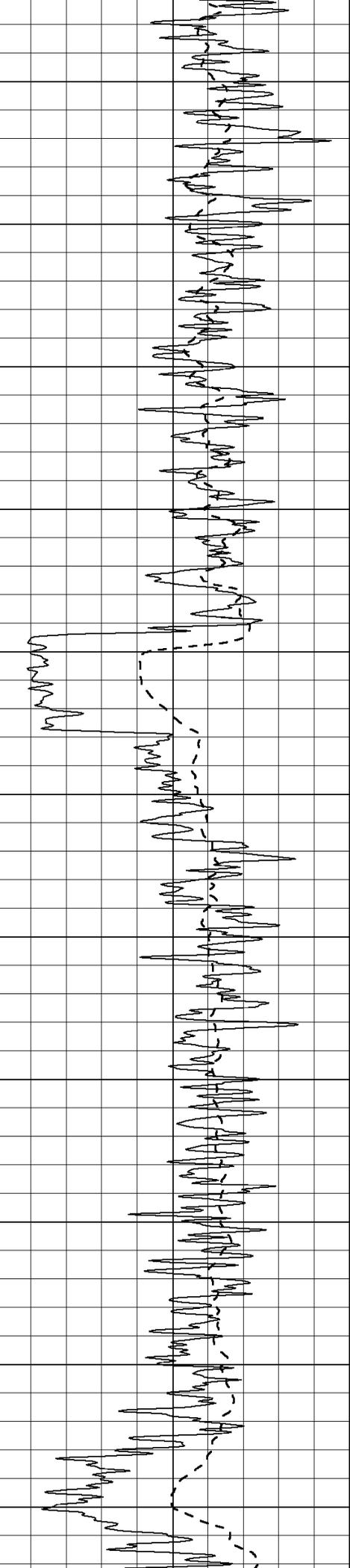
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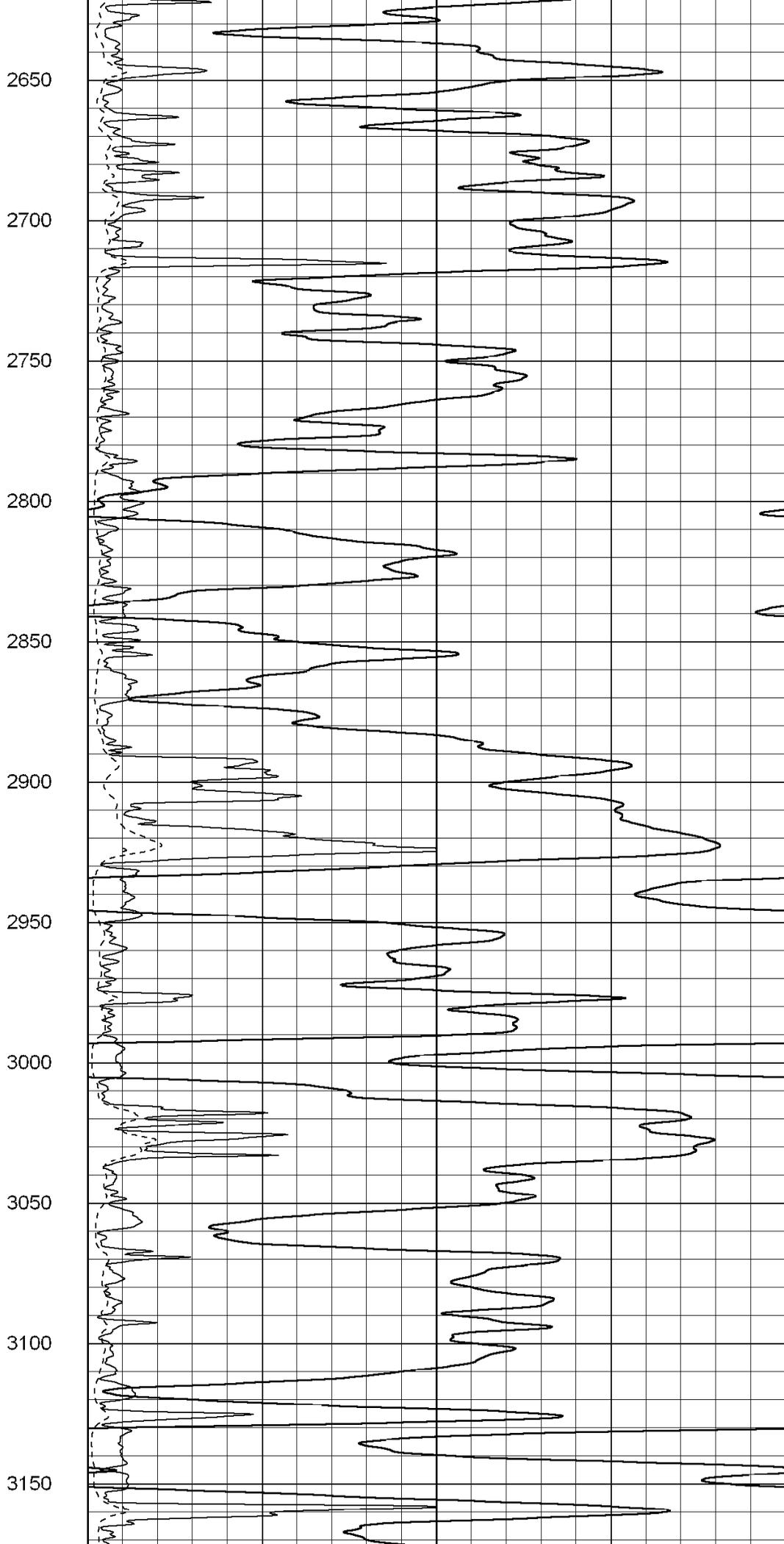
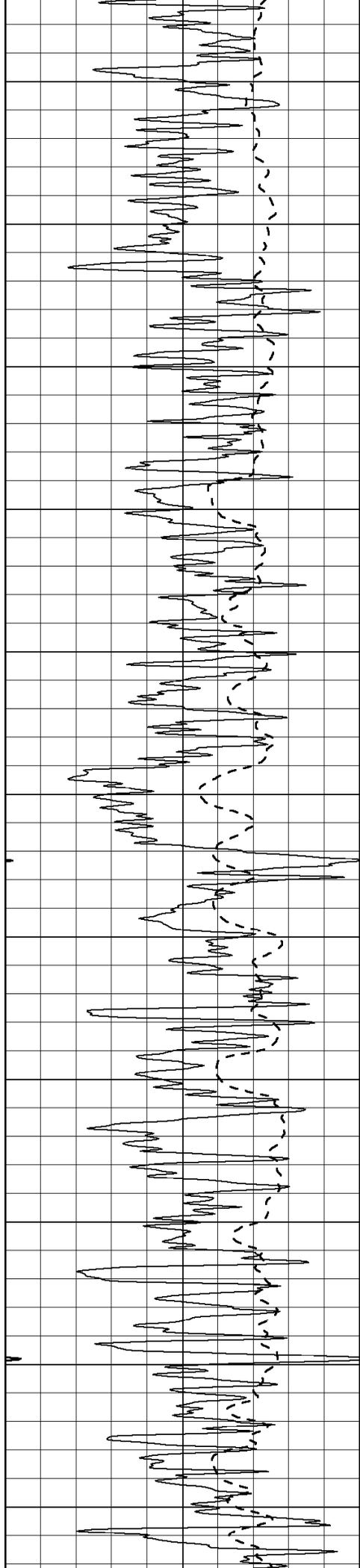
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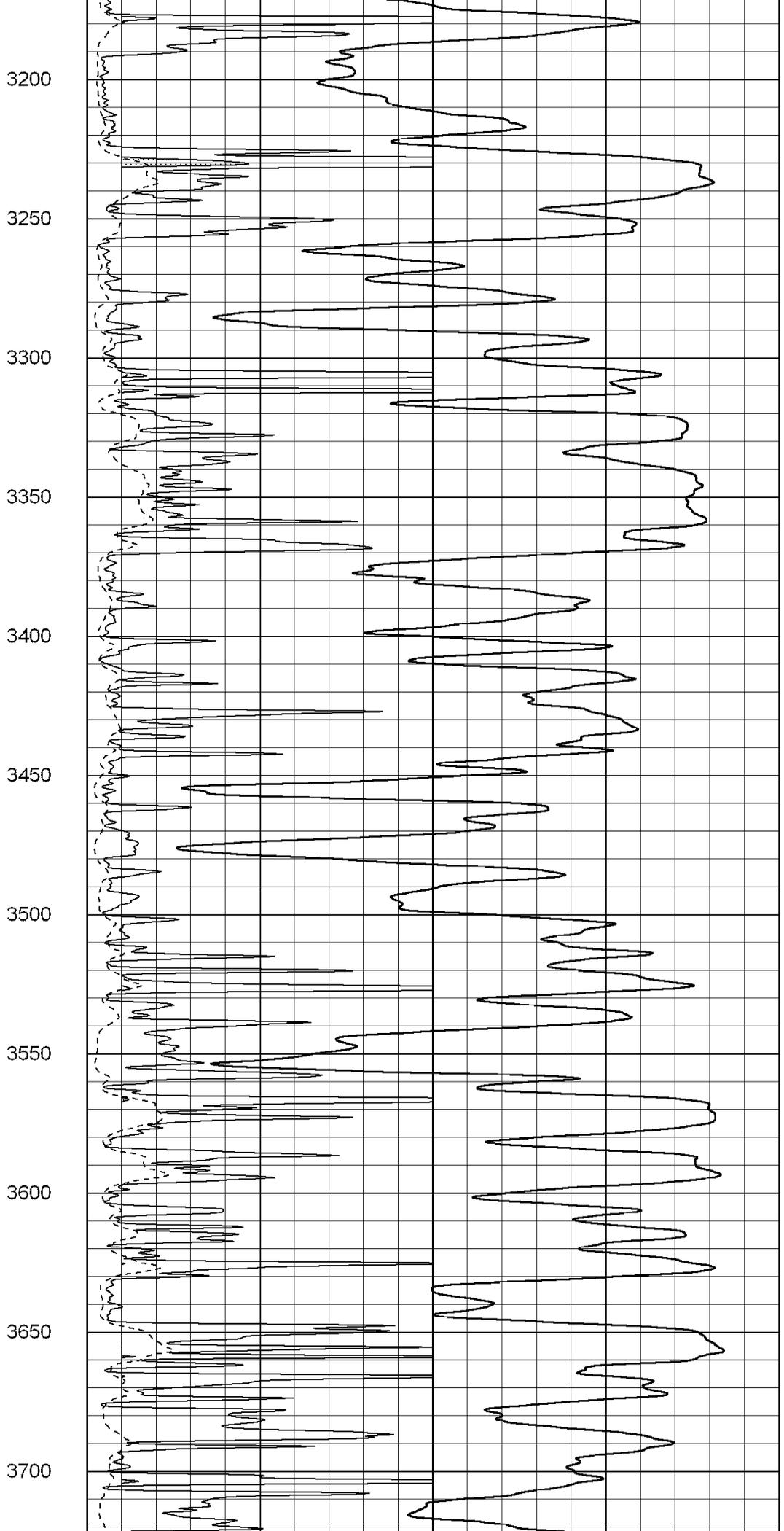
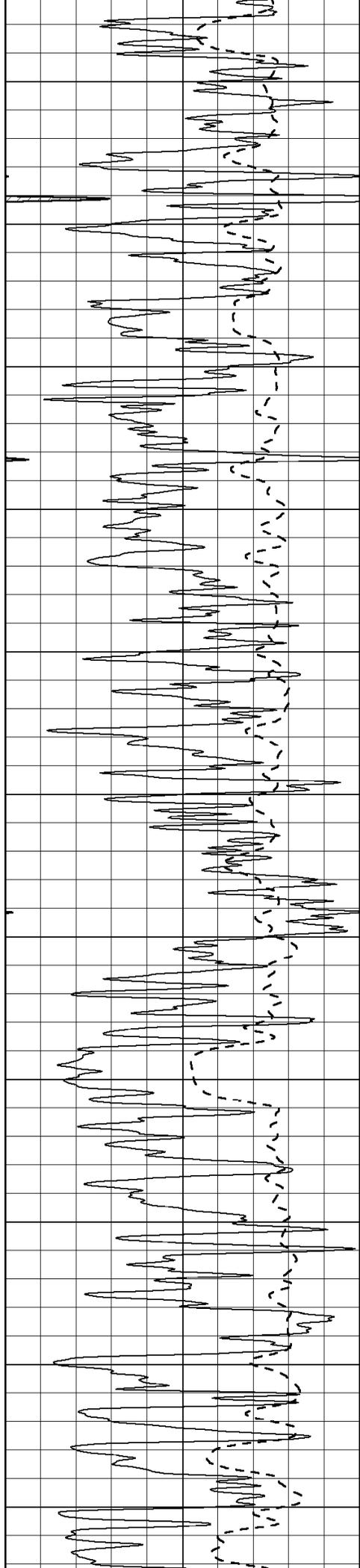
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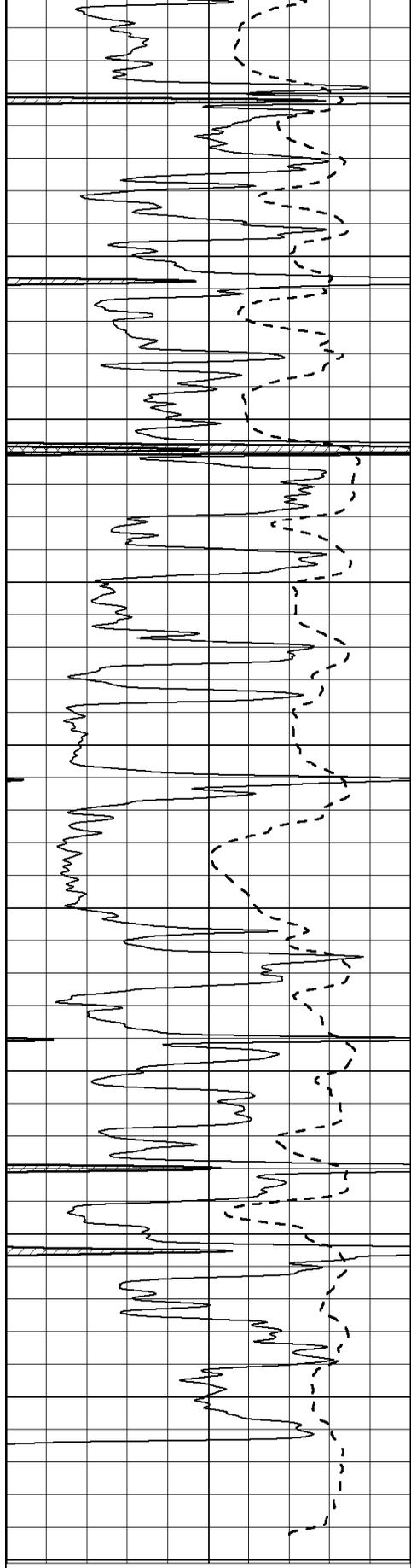




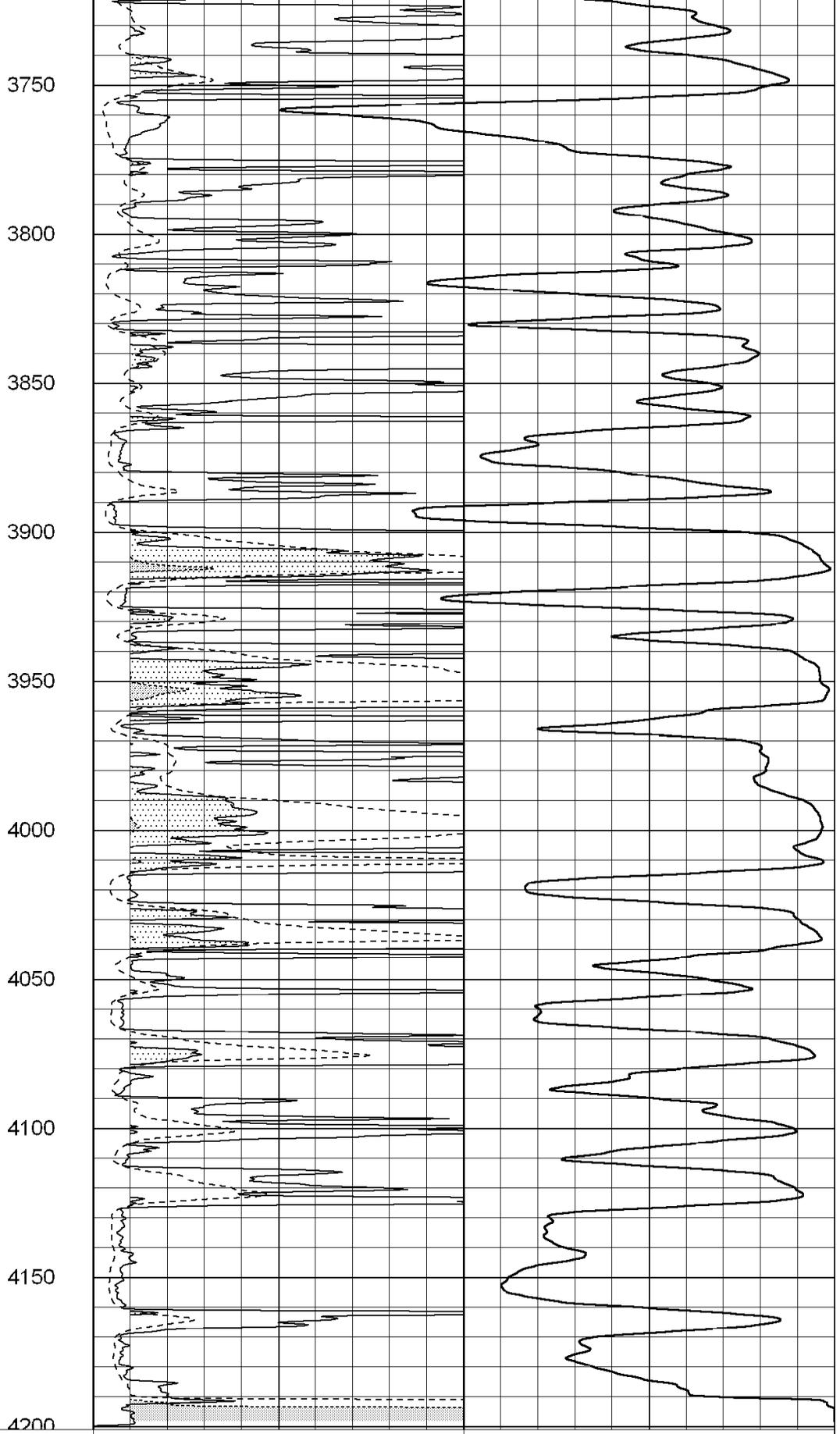








| | | |
|------|------------------|-----|
| 0 | Gamma Ray (GAPI) | 150 |
| -100 | SP (mV) | 100 |



| | | |
|------|------------------|-----|
| 0 | RLL3 (Ohm-m) | 50 |
| 0 | RILD (Ohm-m) | 50 |
| 1000 | CILD (mmho-m) | 0 |
| 50 | RILD X10 (Ohm-m) | 500 |
| 50 | RLL3 X10 (Ohm-m) | 500 |



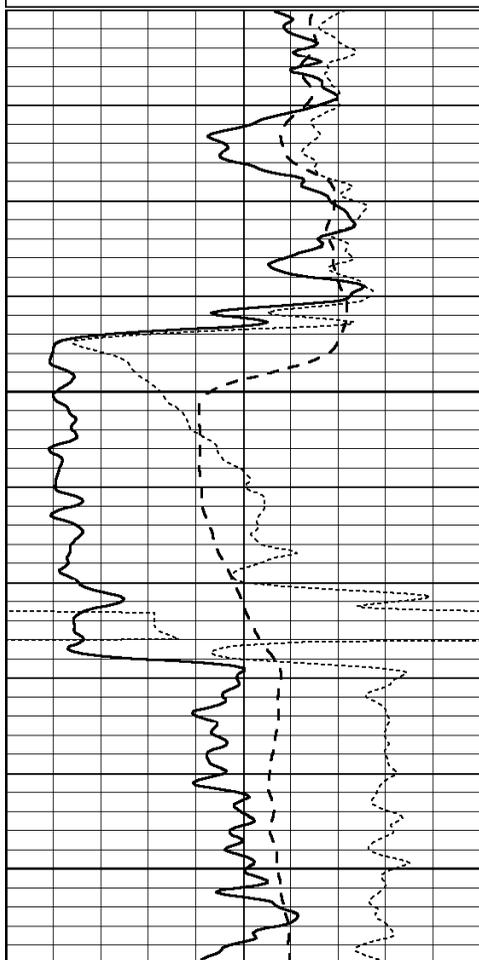
SUPERIOR
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ANHYDRITE

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 Charted by: Depth in Feet scaled 1:240

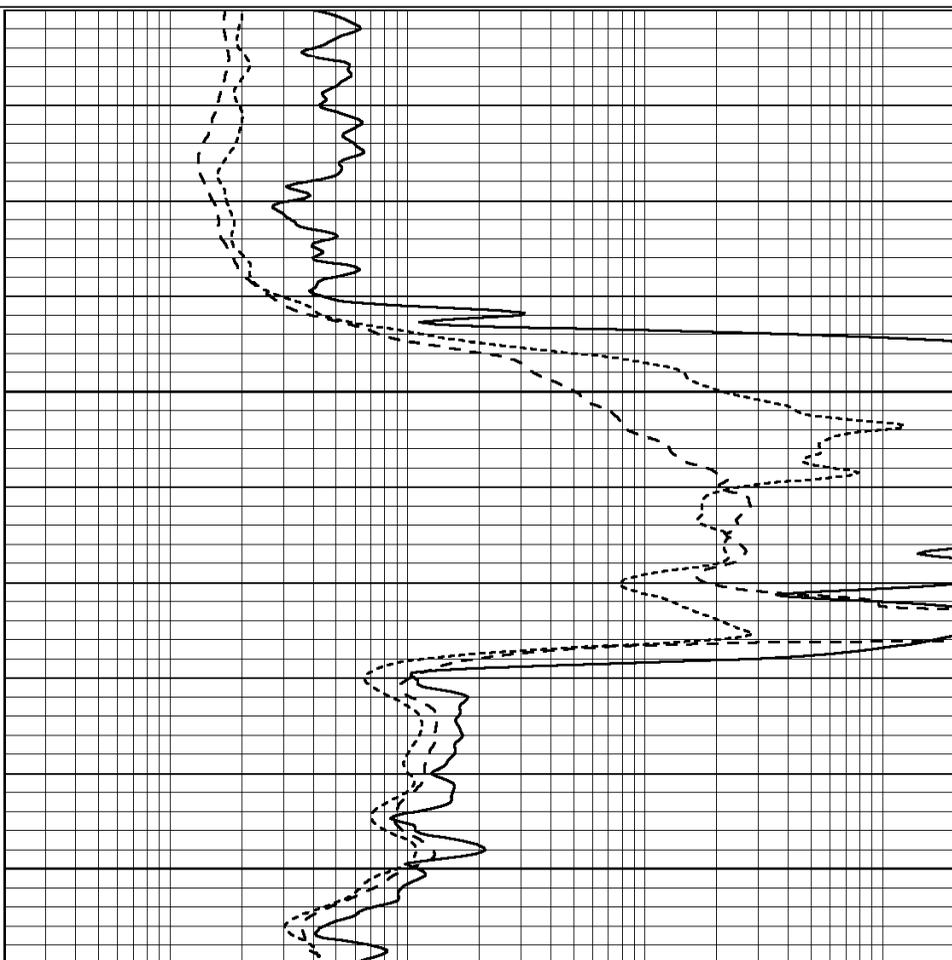
| | | |
|------|------------------|-----|
| 0 | GAMMA RAY (GAPI) | 150 |
| -100 | SP (mV) | 100 |
| -250 | Rxo/Rt | 50 |

| | | |
|-----|--------------------------|------|
| 0.2 | SHALLOW GUARD (Ohm-m) | 2000 |
| 0.2 | DEEP INDUCTION (Ohm-m) | 2000 |
| 0.2 | MEDIUM INDUCTION (Ohm-m) | 2000 |



2300

2350



| | | |
|------|------------------|-----|
| 0 | GAMMA RAY (GAPI) | 150 |
| -100 | SP (mV) | 100 |
| -250 | Rxo/Rt | 50 |

| | | |
|-----|--------------------------|------|
| 0.2 | SHALLOW GUARD (Ohm-m) | 2000 |
| 0.2 | DEEP INDUCTION (Ohm-m) | 2000 |
| 0.2 | MEDIUM INDUCTION (Ohm-m) | 2000 |



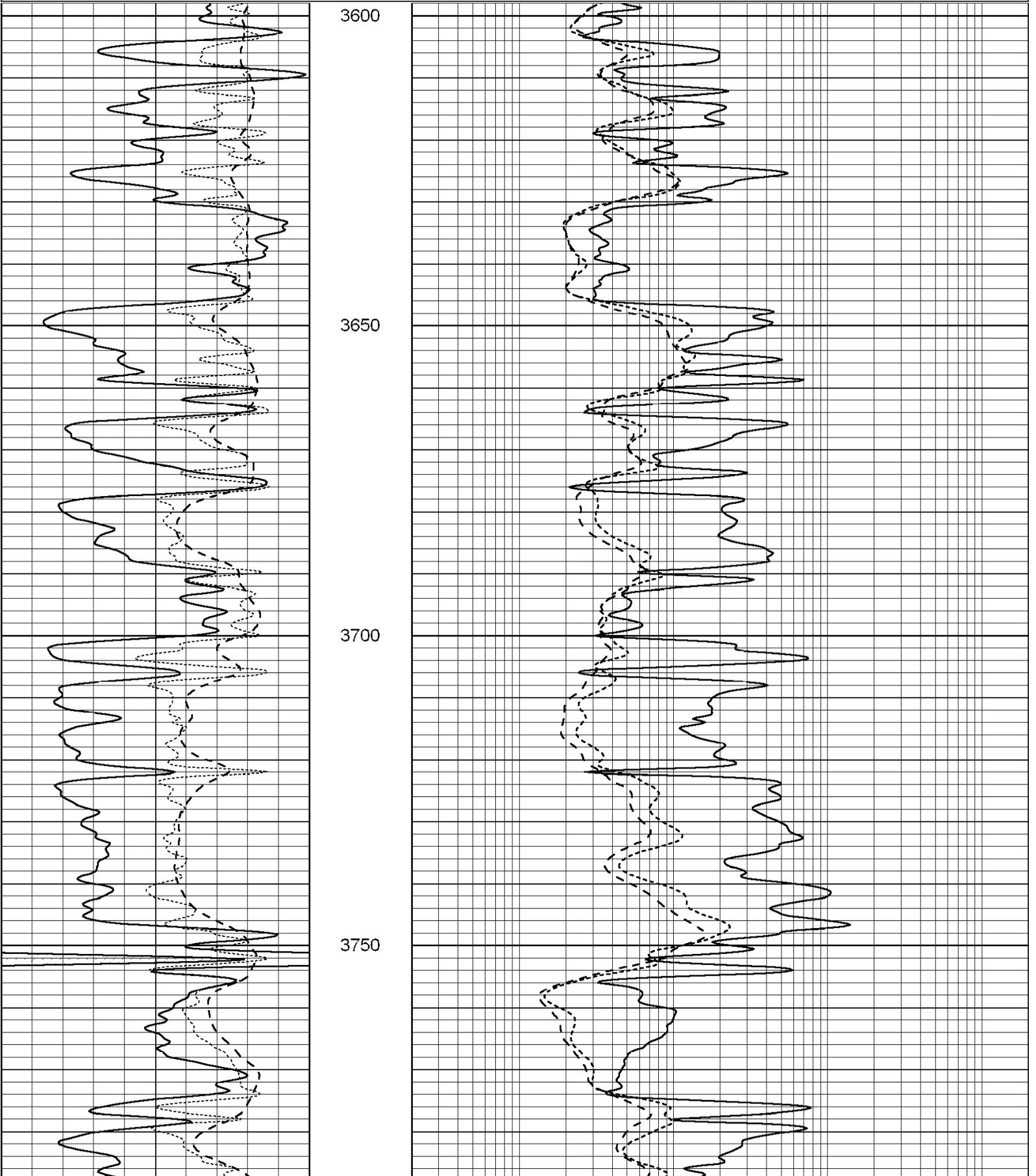
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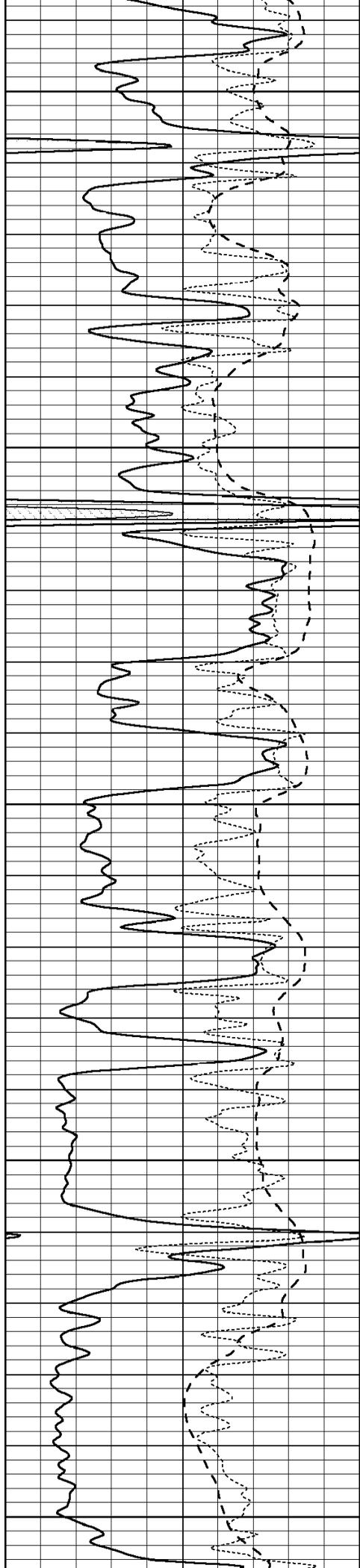
MAIN SECTION

Database File: 003098pe.db
 Dataset Pathname: pass3.4
 Presentation Format: dil

| | | |
|------|------------------|-----|
| 0 | GAMMA RAY (GAPI) | 150 |
| -100 | SP (mV) | 100 |
| -250 | Rxo/Rt | 50 |

| | | |
|-----|--------------------------|------|
| 0.2 | SHALLOW GUARD (Ohm-m) | 2000 |
| 0.2 | DEEP INDUCTION (Ohm-m) | 2000 |
| 0.2 | MEDIUM INDUCTION (Ohm-m) | 2000 |





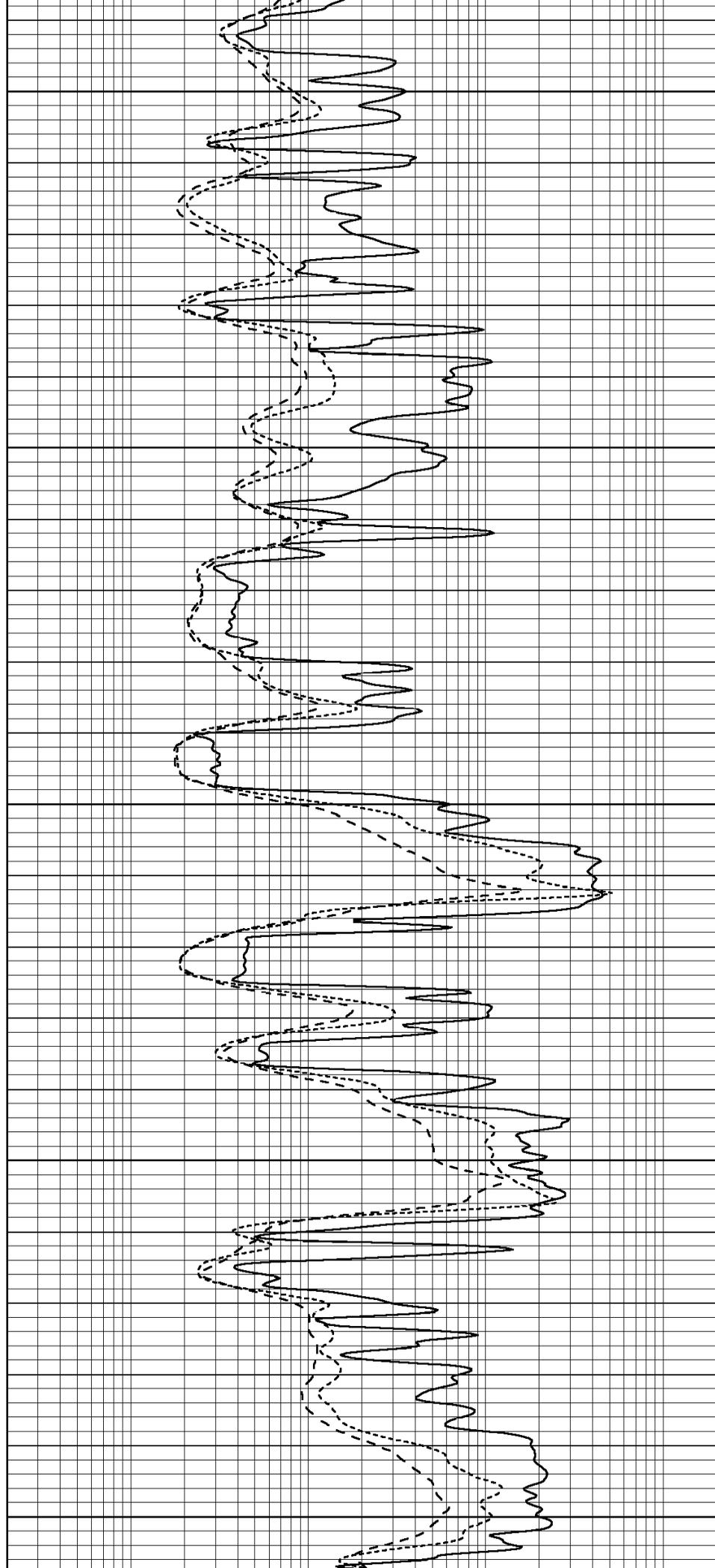
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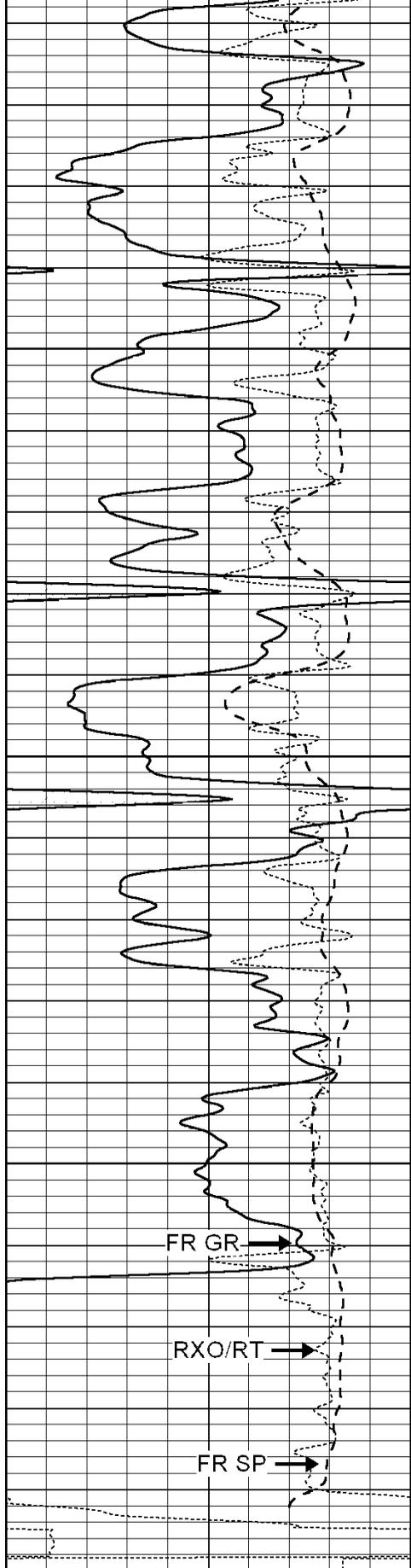
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3950

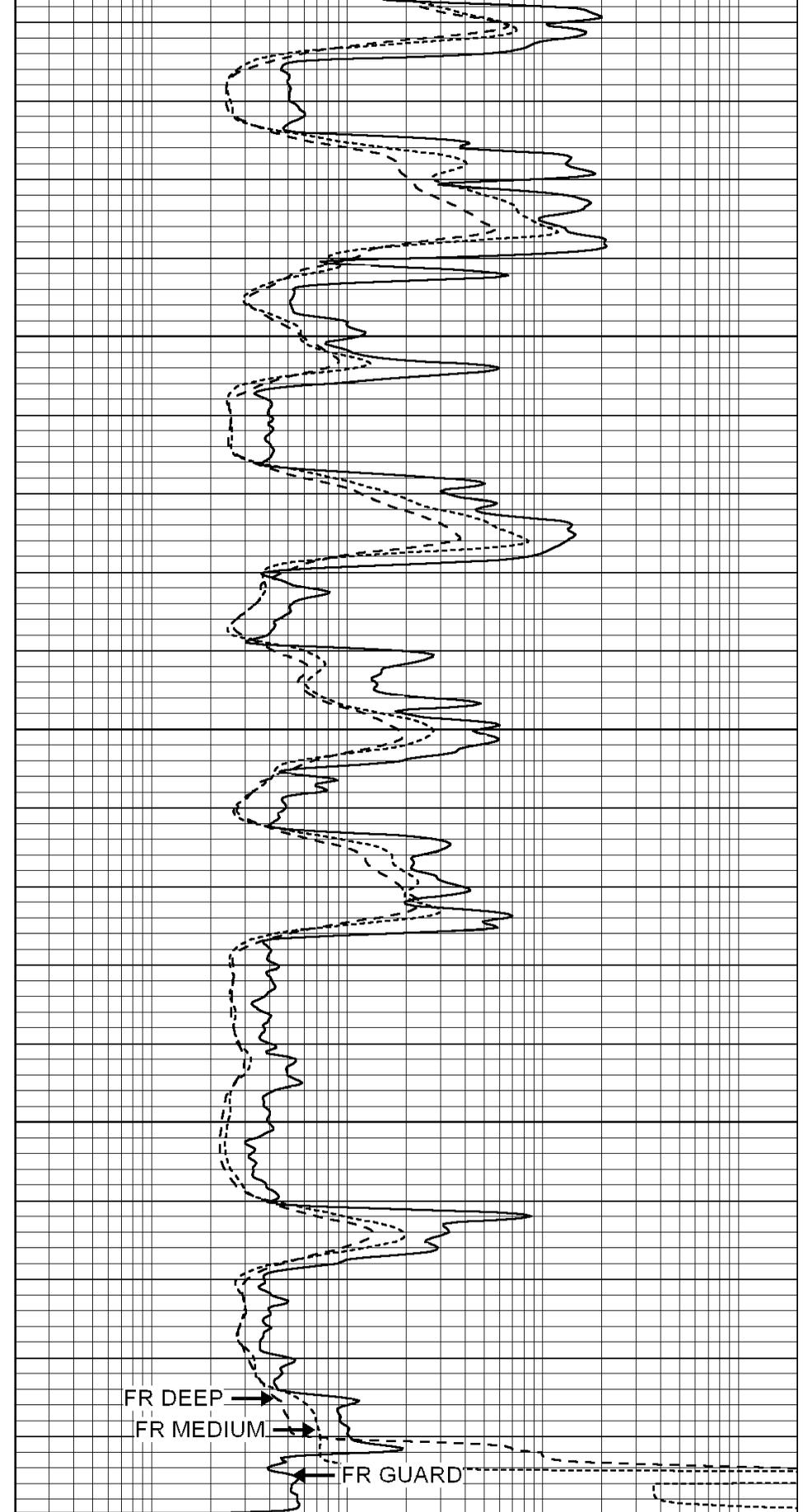
4000





LTD 4197
4200

| | | |
|------|------------------|-----|
| 0 | GAMMA RAY (GAPI) | 150 |
| -100 | SP (mV) | 100 |
| -250 | Rxo/Rt | 50 |



| | | |
|-----|--------------------------|------|
| 0.2 | SHALLOW GUARD (Ohm-m) | 2000 |
| 0.2 | DEEP INDUCTION (Ohm-m) | 2000 |
| 0.2 | MEDIUM INDUCTION (Ohm-m) | 2000 |



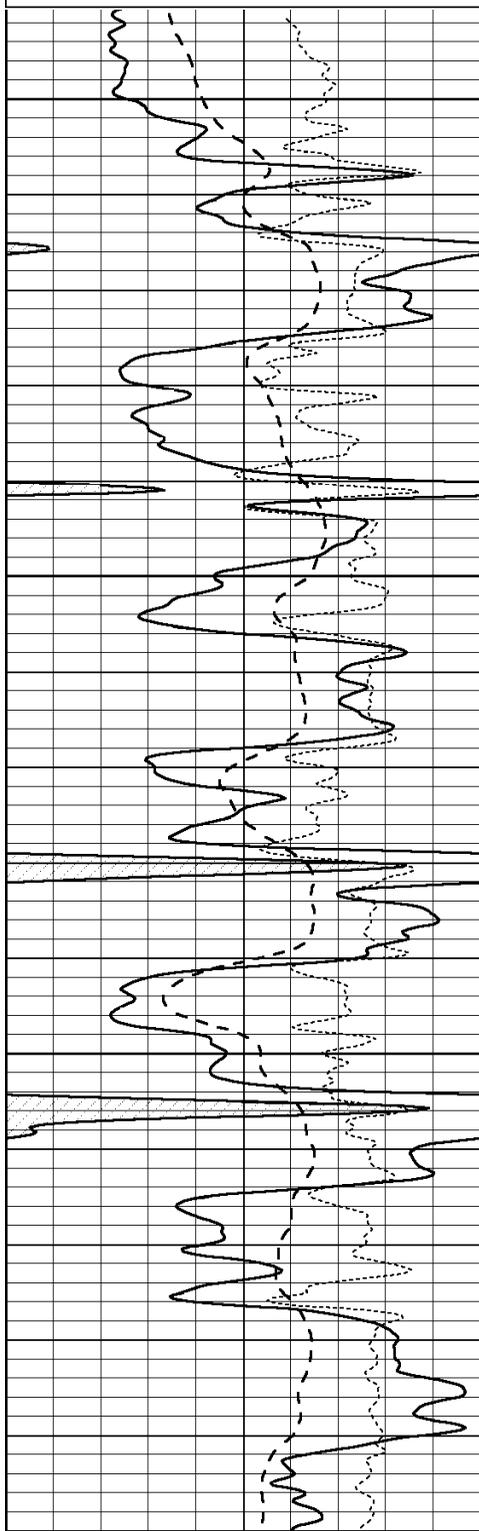
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REPEAT SECTION

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 Presentation Format: dil
 Dataset Creation: Fri Feb 27 22:53:51 2009 by Calc Open-Cased 060407
 Charted by: Depth in Feet scaled 1:240

| | | |
|------|------------------|-----|
| 0 | GAMMA RAY (GAPI) | 150 |
| -100 | SP (mV) | 100 |
| -250 | Rxo/Rt | 50 |

| | | |
|-----|--------------------------|------|
| 0.2 | SHALLOW GUARD (Ohm-m) | 2000 |
| 0.2 | DEEP INDUCTION (Ohm-m) | 2000 |
| 0.2 | MEDIUM INDUCTION (Ohm-m) | 2000 |

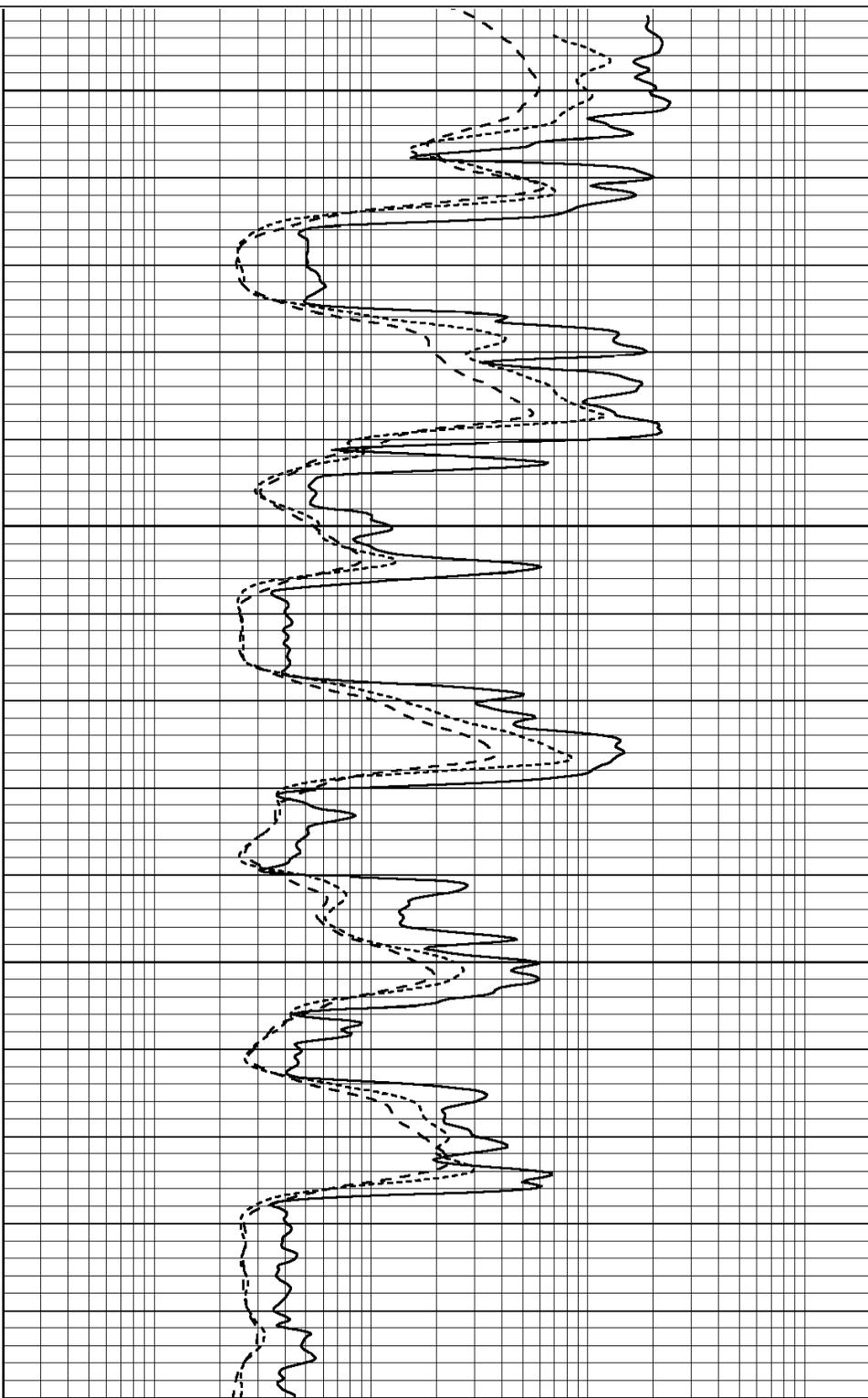


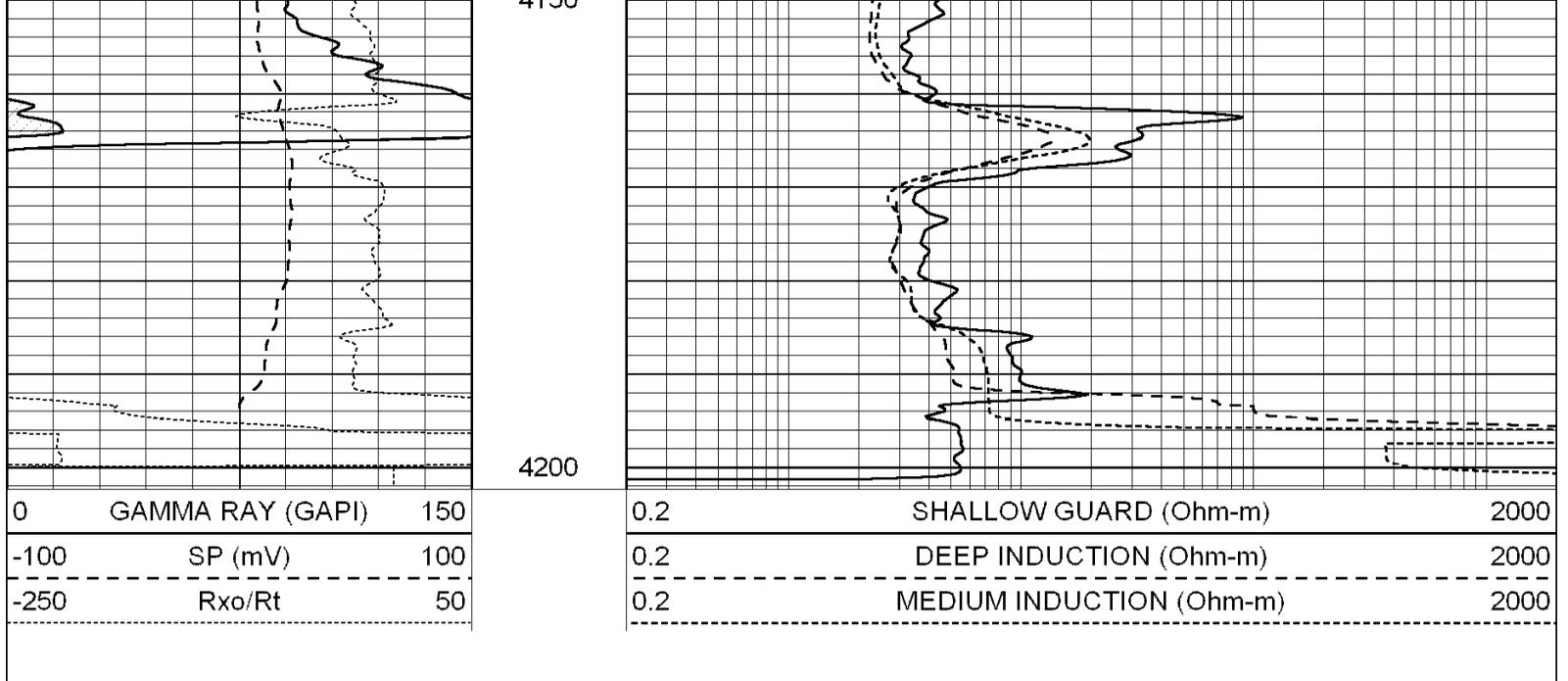
4000

4050

4100

4150





Calibration Report

Database File: 003098pe.db
 Dataset Pathname: pass3.4
 Dataset Creation: Fri Feb 27 22:52:55 2009 by Calc Open-Cased 060407

Dual Induction Calibration Report

Serial-Model: DIL2-GEAR
 Performed: Fri Feb 27 21:47:45 2009

| Loop: | Readings | | | References | | | Results | |
|-----------|----------|-------|---|------------|---------|--------|---------|---------|
| | Air | Loop | | Air | Loop | | m | b |
| Deep | 0.002 | 0.667 | V | 0.000 | 400.000 | mmho-m | 650.000 | 4.000 |
| Medium | -0.003 | 0.739 | V | 0.000 | 462.500 | mmho-m | 750.000 | -18.000 |
| Internal: | Zero | Cal | | Zero | Cal | | m | b |
| Deep | 0.001 | 0.658 | V | 0.000 | 400.000 | mmho-m | 609.010 | -0.700 |
| Medium | 0.015 | 0.761 | V | 0.000 | 462.500 | mmho-m | 620.392 | -9.326 |

Litho Density Calibration Report

Serial: 003N Model: PRB
 Performed Wed Feb 18 13:47:54 2009

Litho Density Calibration

| | Background | Magnesium | Aluminum | Sandstone | |
|-------------|------------|-------------|----------|---------------------|---------|
| Window 1 | 2040.8 | 12807.7 | 4363.1 | 13737.9 | cps |
| Window 2 | 1833.5 | 9910.0 | 3570.0 | 10363.1 | cps |
| Window 3 | 1572.8 | 6142.6 | 2530.0 | 6298.3 | cps |
| Window 4 | 471.2 | 473.7 | 466.8 | 470.3 | cps |
| Long Space | 0.0 | 8076.4 | 1736.5 | 8529.6 | cps |
| Short Space | 2.2 | 3464.4 | 2249.4 | 3602.7 | cps |
| Rho | | 1.7100 | 2.5900 | 1.3800 | g/cc |
| Pe | | | 2.5700 | 1.5500 | |
| Rib Angle | : 44.3 | Rib Slope | : 0.976 | Density/Spine Ratio | : 0.551 |
| Spine Angle | : 74.3 | Spine Slope | : 3.559 | Spine Intercept | : -20.0 |

Caliper

Output
Low Ref
High Ref

Readings
2.1
4.4
Gain: 3.1

Reference
6.6
14.0

Offset: 0.1

Compensated Neutron Calibration Report

Serial Number: NEU_3I
Tool Model: G

CALIBRATION

| Detector | Readings | Target | Normalization |
|-------------|------------|-------------|---------------|
| Short Space | 997.00 cps | 1000.00 cps | 1.0000 |
| Long Space | 986.00 cps | 1000.00 cps | 1.0000 |

Gamma Ray Calibration Report

Serial Number: GR3
Tool Model: OPEN
Performed: Fri Feb 27 21:47:29 2009

Calibrator Value: 200.0 GAPI

Background Reading: 3.0 cps
Calibrator Reading: 186.0 cps

Sensitivity: 0.3500 GAPI/cps