



DUAL INDUCTION LOG

Company KNIGHTON OIL COMPANY, INC.
Well SELLS-BORNEMAN #A-1
Field UNNAMED
County TREGO **State** KANSAS

Location: API #: 15-195-23142-0000
 1495' FNL & 2175' FWL
 NW-NE-SE-NW
 SEC 29 TWP 15S RGE 23W
Permanent Datum GROUND LEVEL Elevation 2438
Log Measured From KELLY BUSHING 8' A.G.L.
Drilling Measured From KELLY BUSHING
Other Services CDL/CNL/PE
Elevation MEL/SO
 K.B. 2446
 D.F. 2444
 G.L. 2438

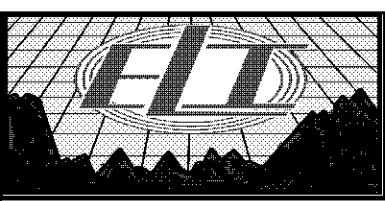
| | | | |
|------------------------------|--------------|--------------------|--|
| Date | 7/9/22 | | |
| Run Number | ONE | | |
| Depth Driller | 4485 | | |
| Depth Logger | 4487 | | |
| Bottom Logged Interval | 4485 | | |
| Top Log Interval | 00 | | |
| Casing Driller | 8 5/8" @ 232 | | |
| Casing Logger | 232 | | |
| Bit Size | 7 7/8 | | |
| Type Fluid in Hole | CHEMICAL MUD | CHLORIDES 3500 PPM | |
| Density / Viscosity | 8.9/61 | | |
| pH / Fluid Loss | 10.5/8.0 | | |
| Source of Sample | FLOWLINE | | |
| Rim @ Meas. Temp | 1.20 @ 80F | | |
| Rmt @ Meas. Temp | .900 @ 80F | | |
| Rmc @ Meas. Temp | 1.44 @ 80F | | |
| Source of Rmf / Rmc | MEASUREMENT | | |
| Rim @ BHT | .900 @ 120F | | |
| Time Circulation Stopped | 2 HOURS | | |
| Time Logger on Bottom | 11:00 A.M. | | |
| Maximum Recorded Temperature | 120F | | |
| Equipment Number | 3802 | | |
| Location | HAYS, KANSAS | | |
| Recorded By | COLE ROBBEN | | |
| Witnessed By | CHRIS TOY | | |

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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 SERVICES, HAYS, KS. (785) 628-6395
 DIRECTIONS
 FROM WAKEENEY, KANSAS GO 19 MILES SOUTH ON HIGHWAY 283 TO ROAD CC,
 THEN 3/4 MILE WEST, 1/8 MILE SOUTH AND EAST INTO

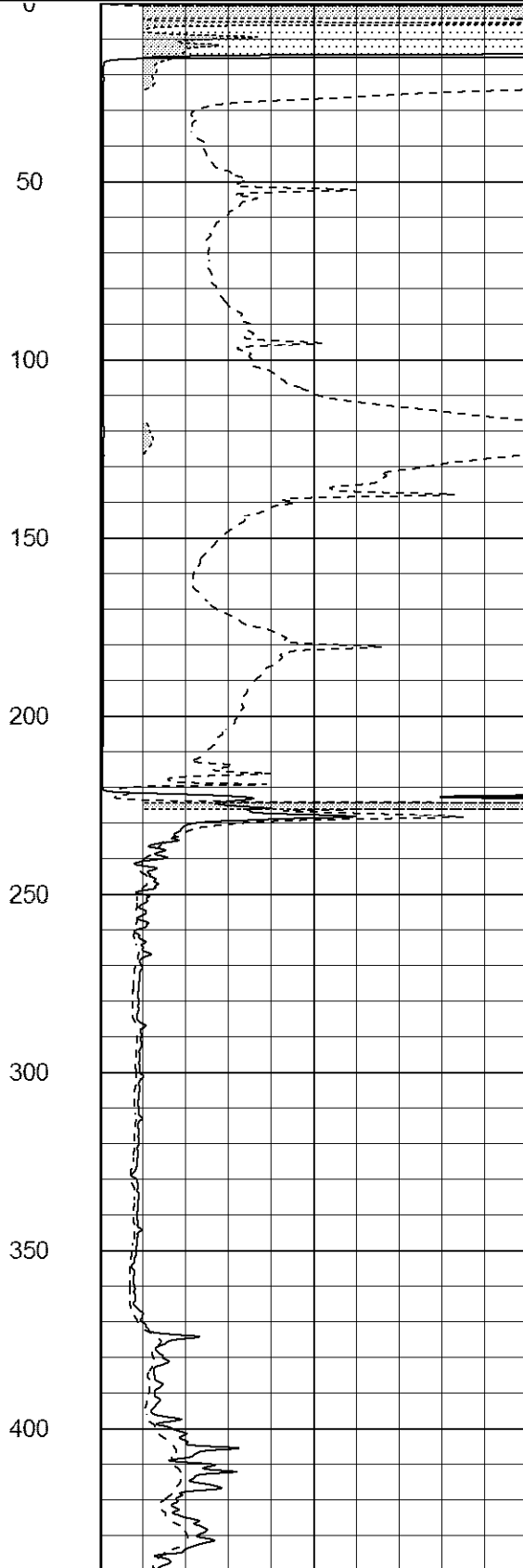
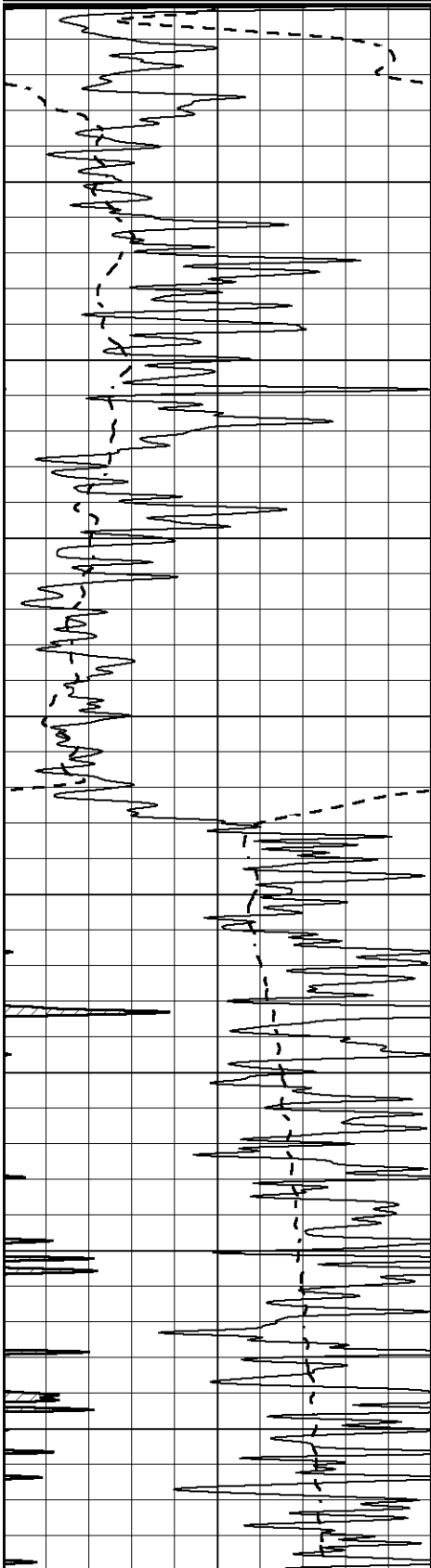


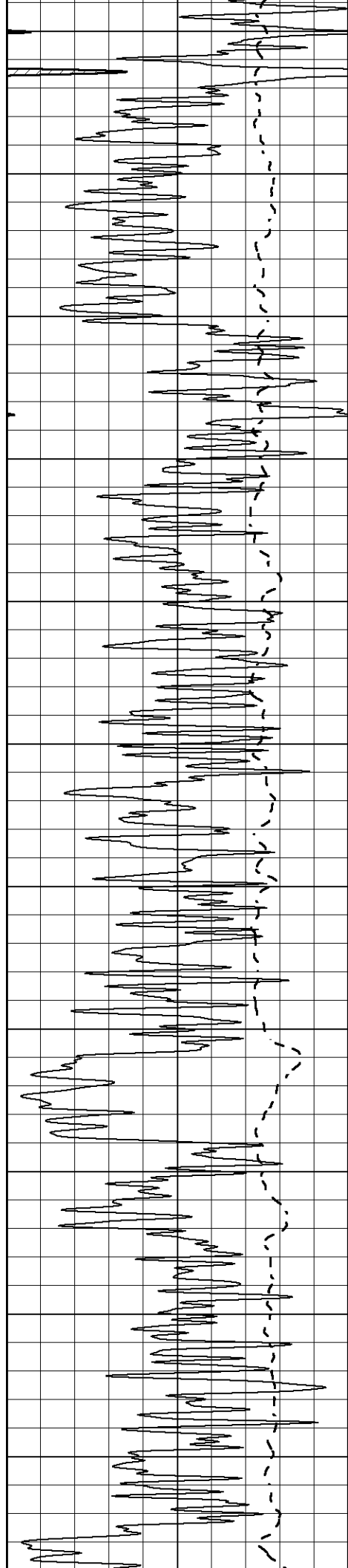
MAIN SECTION

Database File 6754pe.db
 Dataset Pathname pass4M
 Presentation Format _dil2
 Dataset Creation Sat Jul 09 13:03:28 2022
 Charted by Depth in Feet scaled 1:600

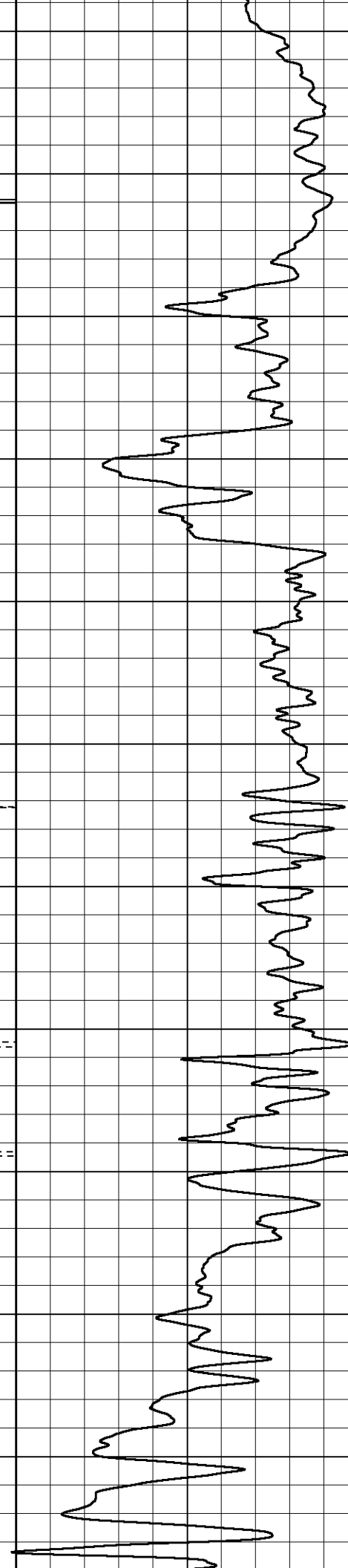
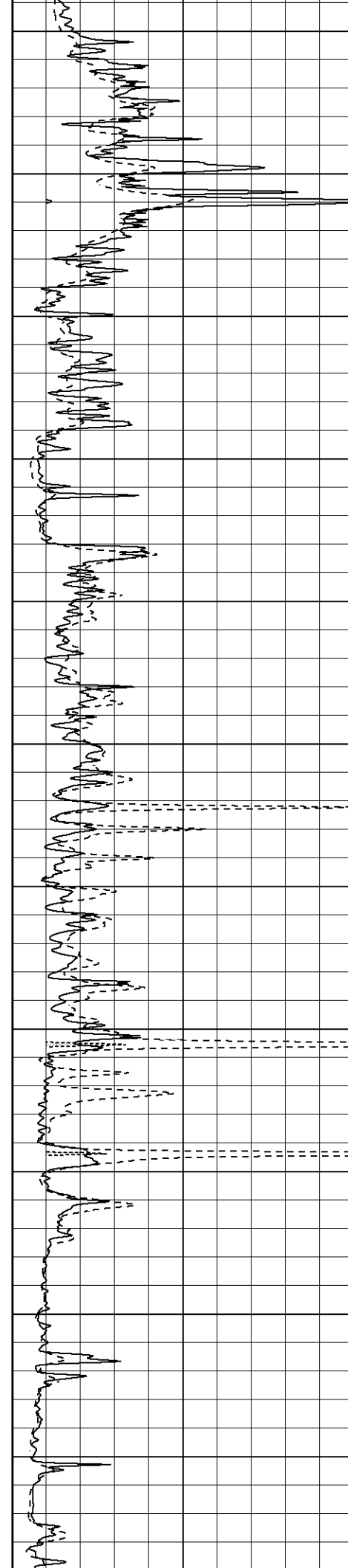
0 Gamma Ray (GAPI) 150
 -100 SP (mV) 100

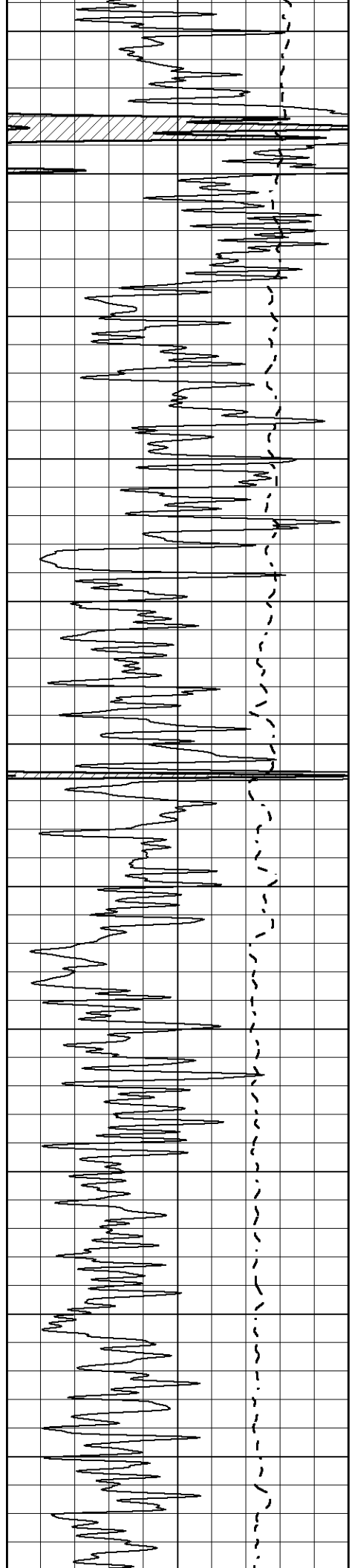
1000 CILD (mmho/m) 0
 0 RLL3 (Ohm-m) 50
 0 Deep Induction (Ohm-m) 50
 50 RILD X10 (Ohm-m) 500
 50 RLL3 X10 (Ohm-m) 500



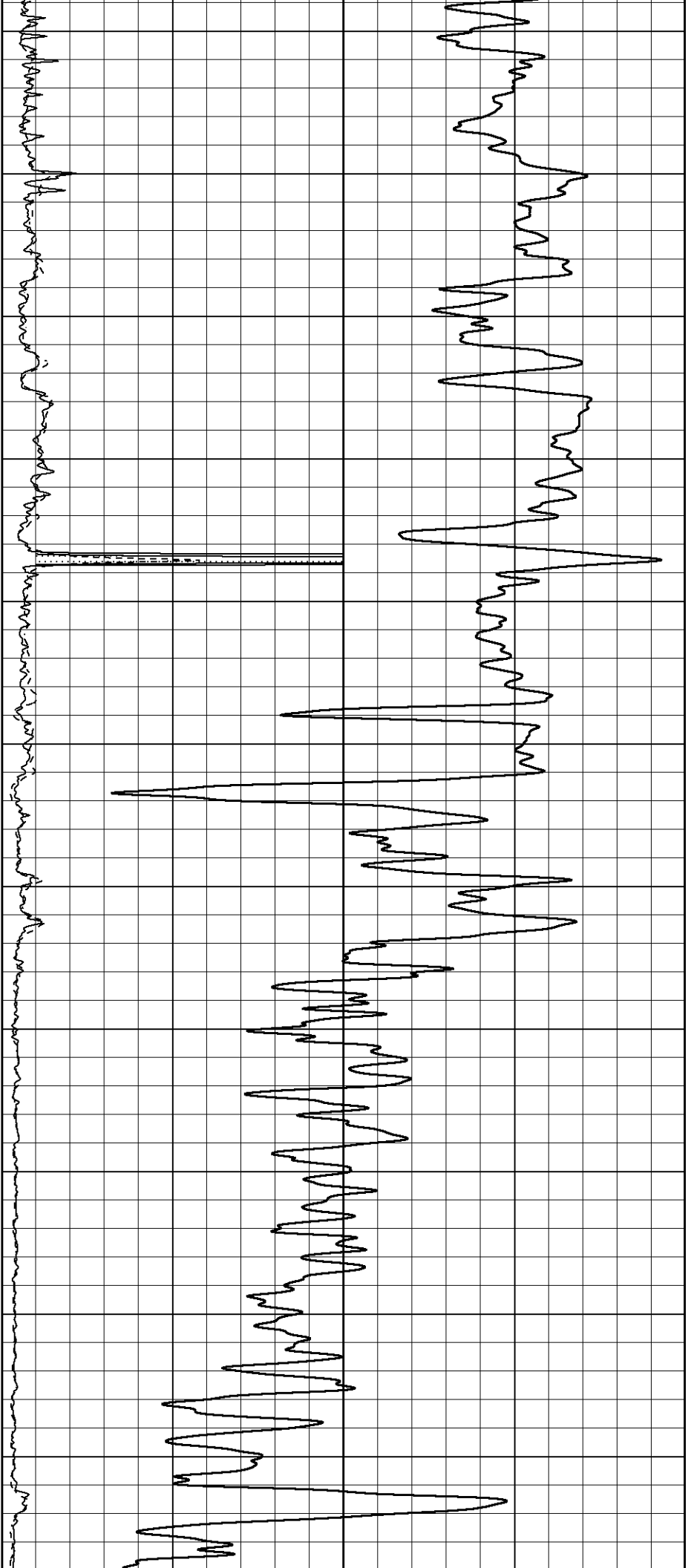


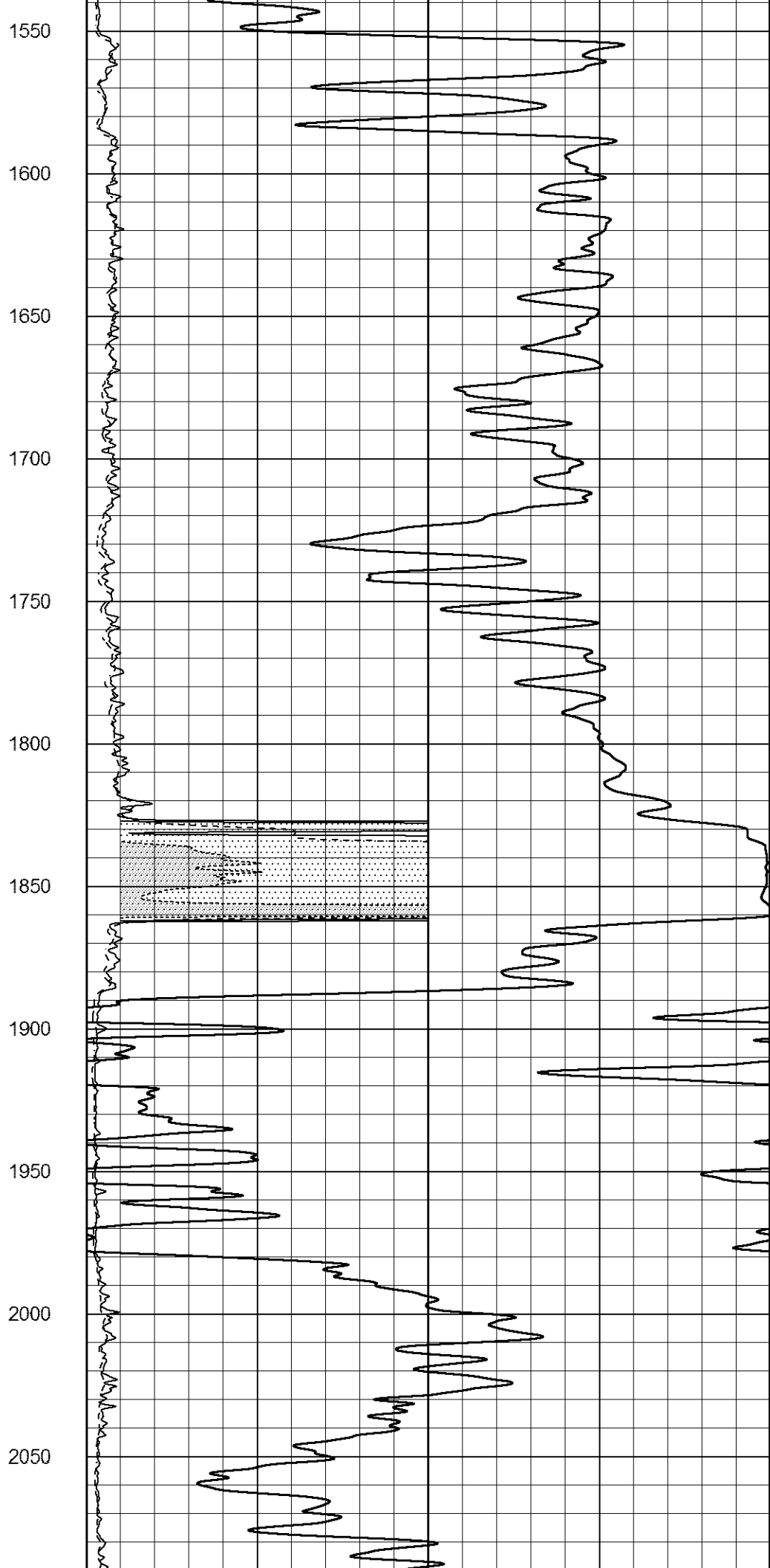
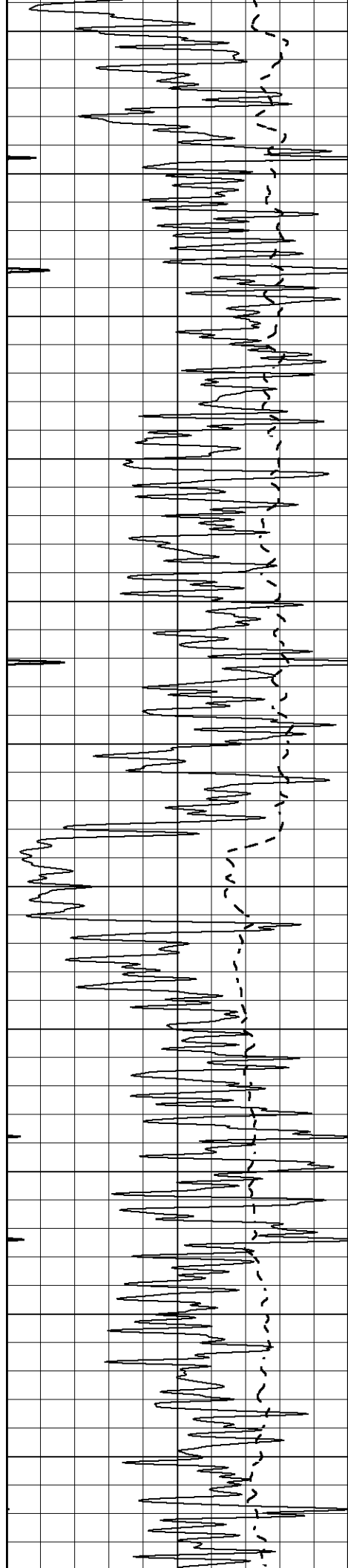
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550
600
650
700
750
800
850
900
950

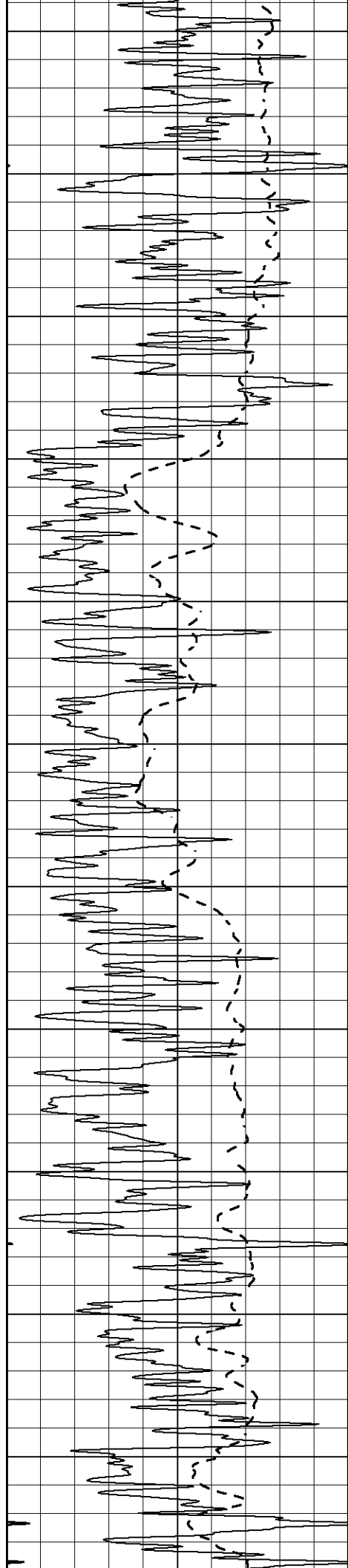




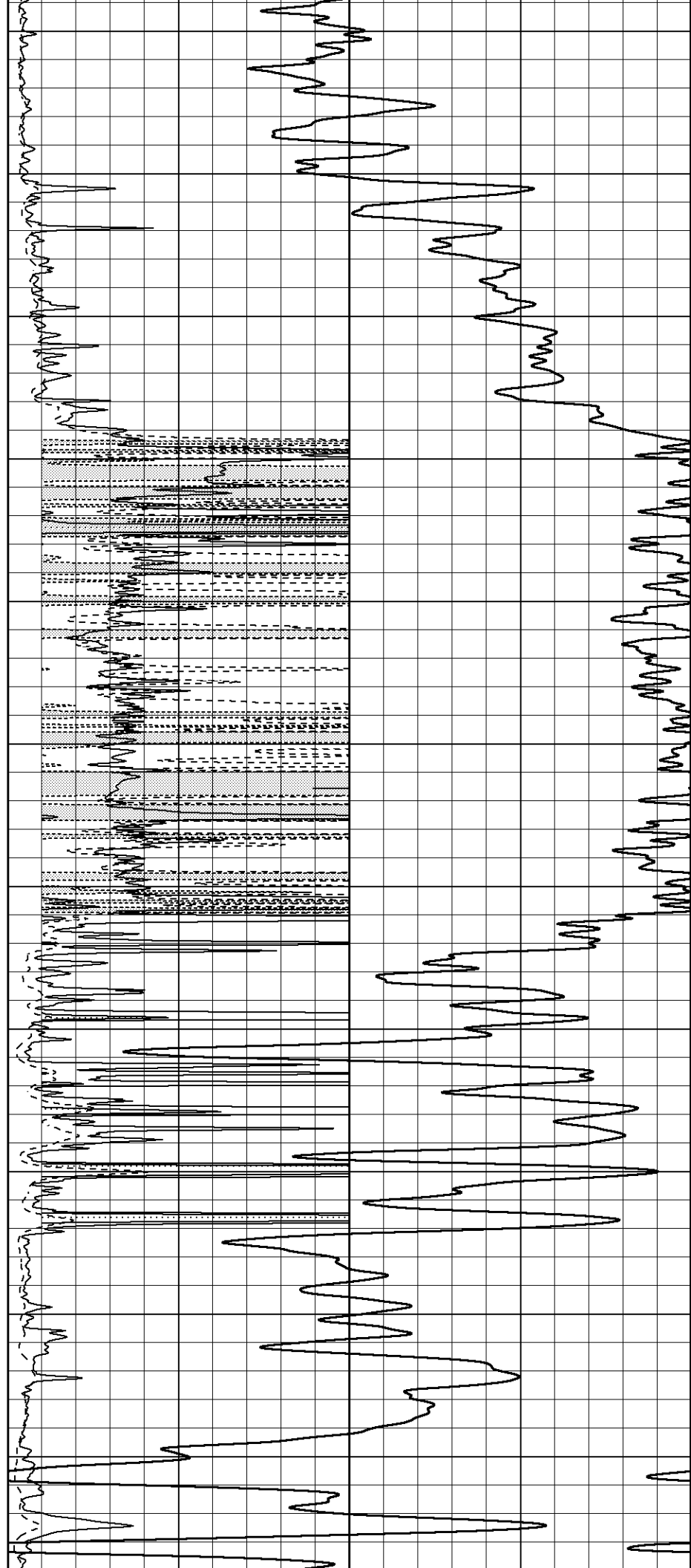
1000
1050
1100
1150
1200
1250
1300
1350
1400
1450
1500

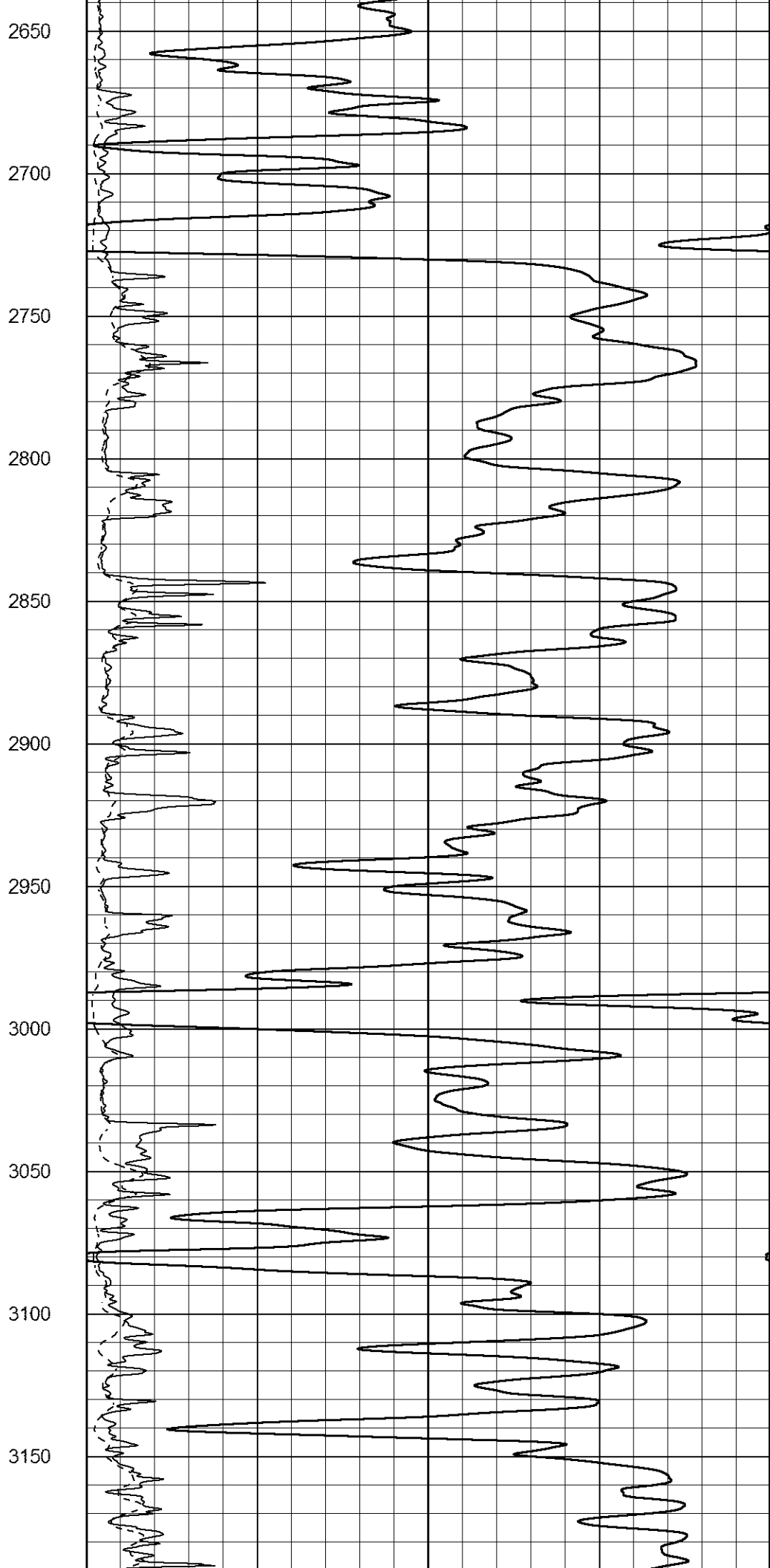
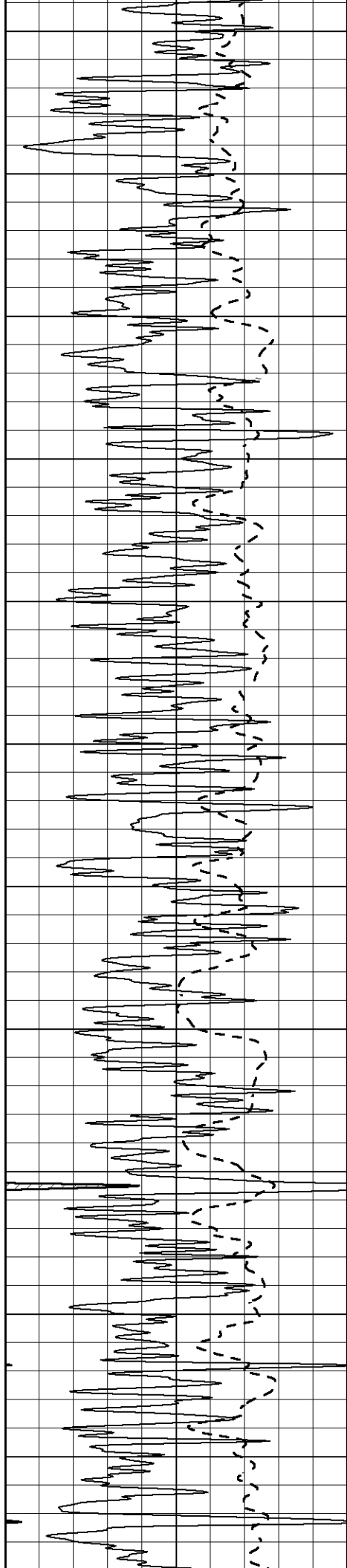


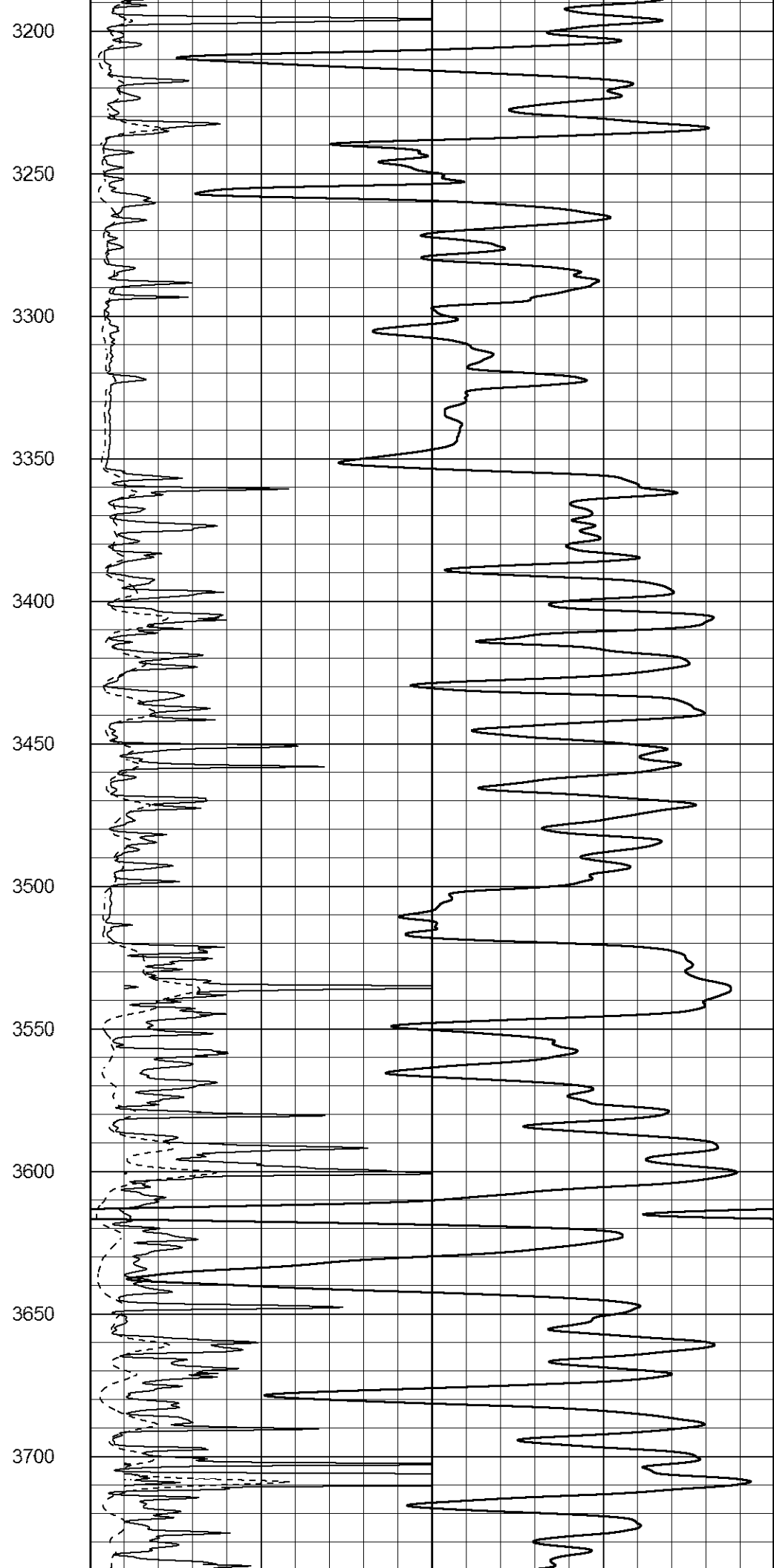
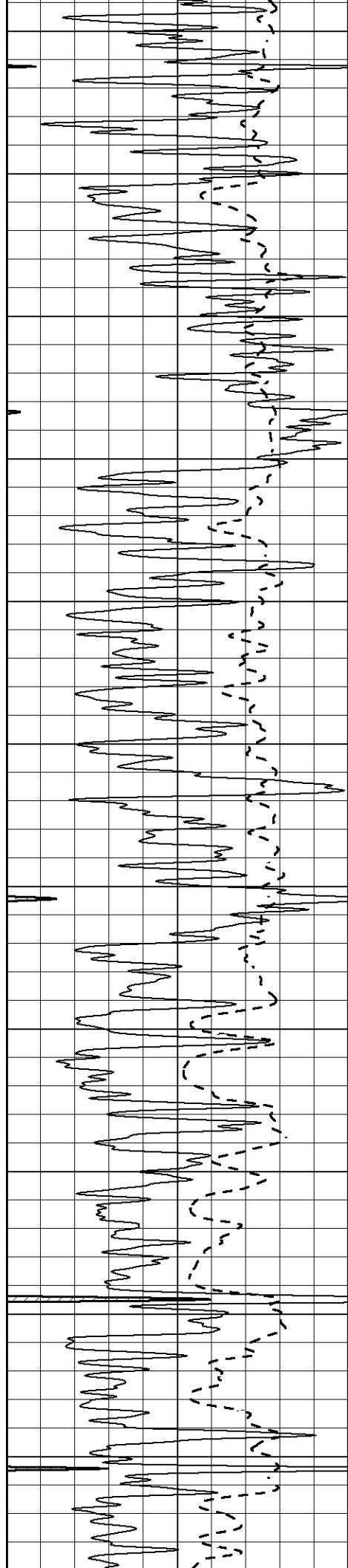


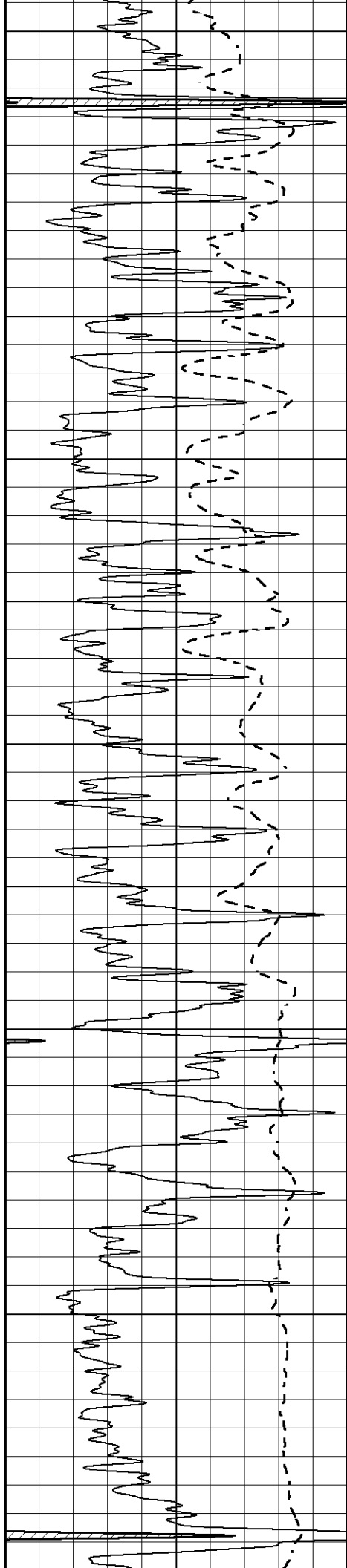


2100
2150
2200
2250
2300
2350
2400
2450
2500
2550
2600

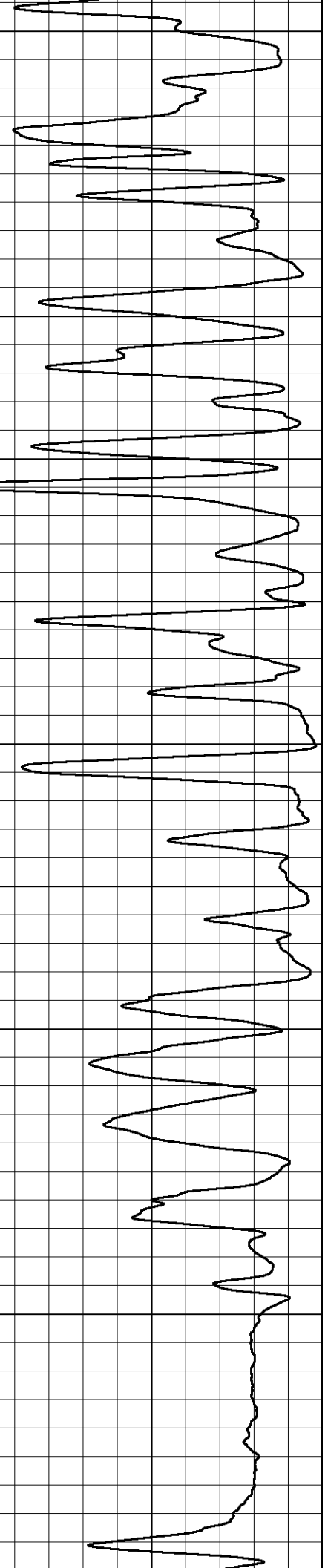
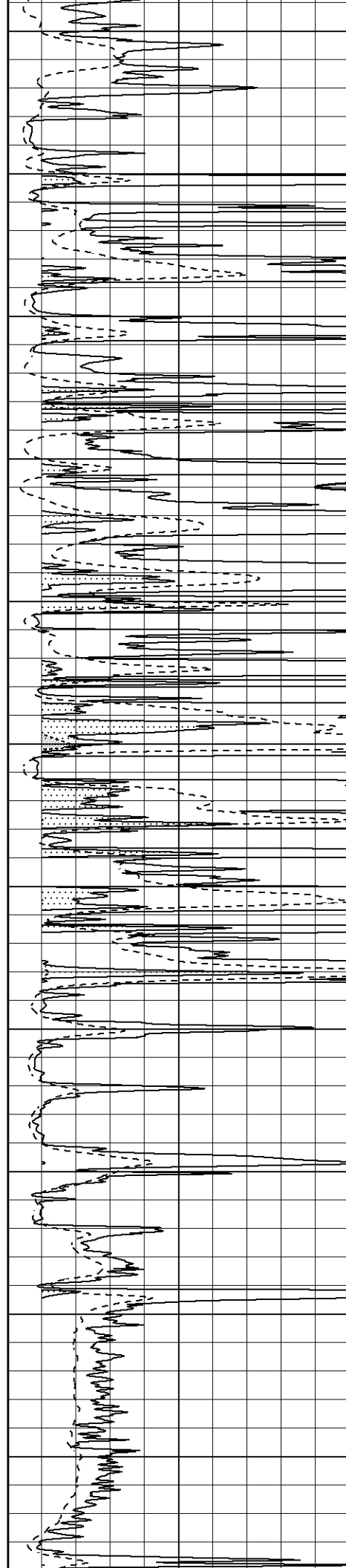


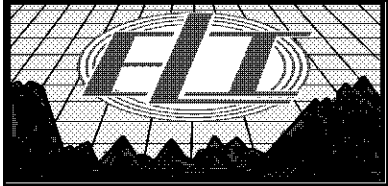
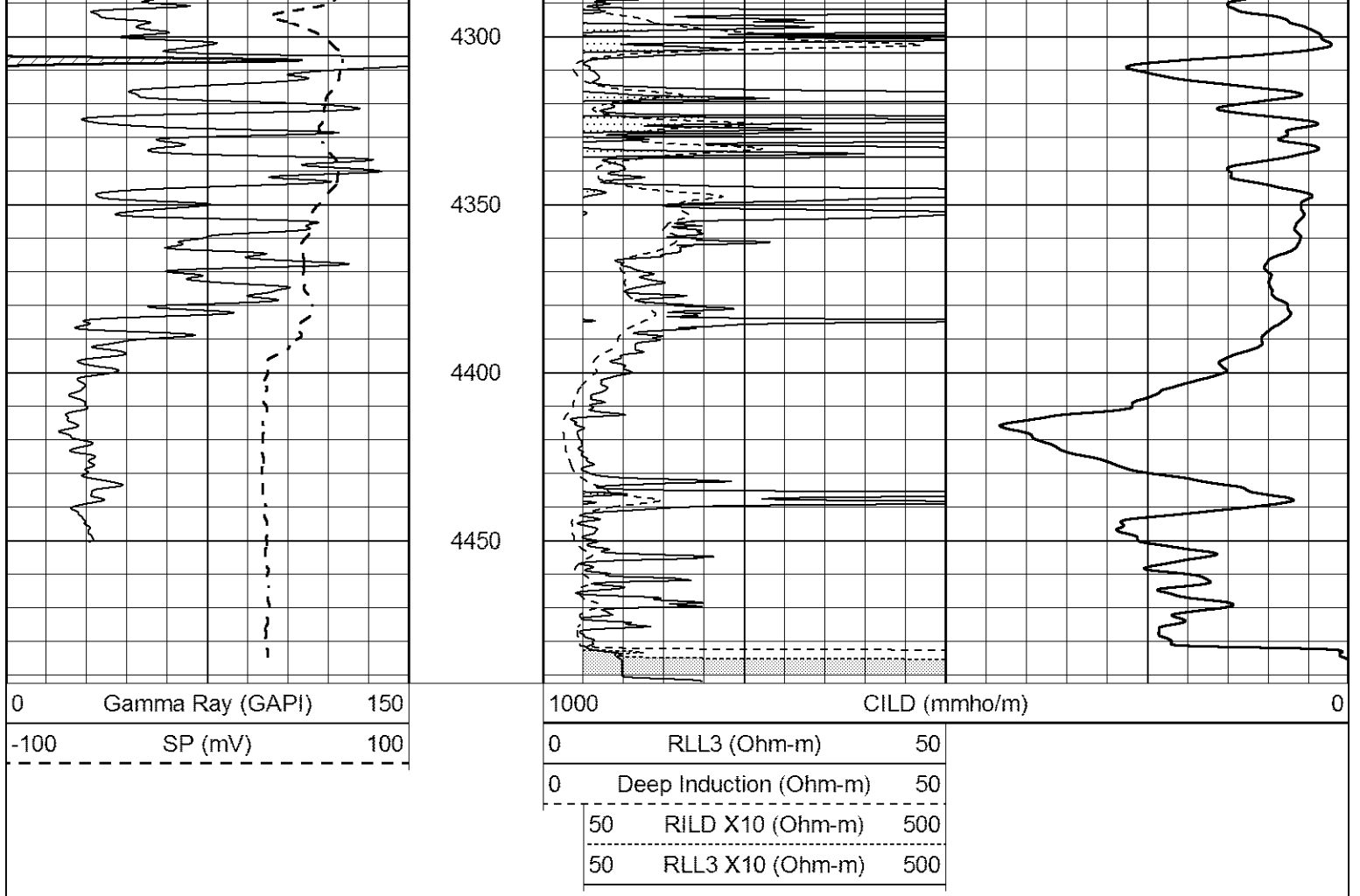






3750
3800
3850
3900
3950
4000
4050
4100
4150
4200
4250

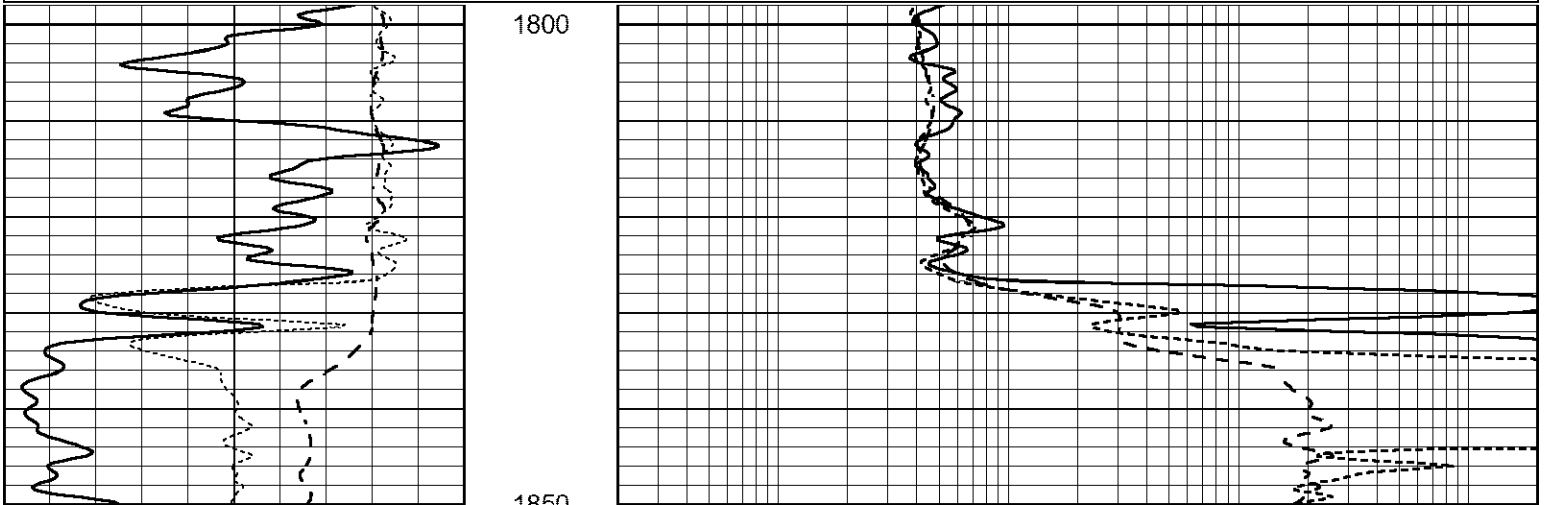


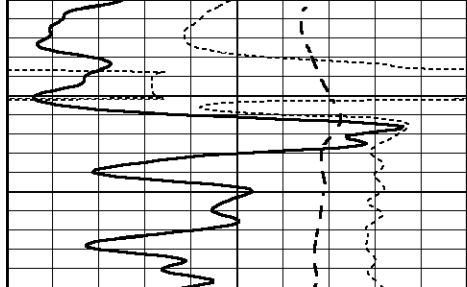


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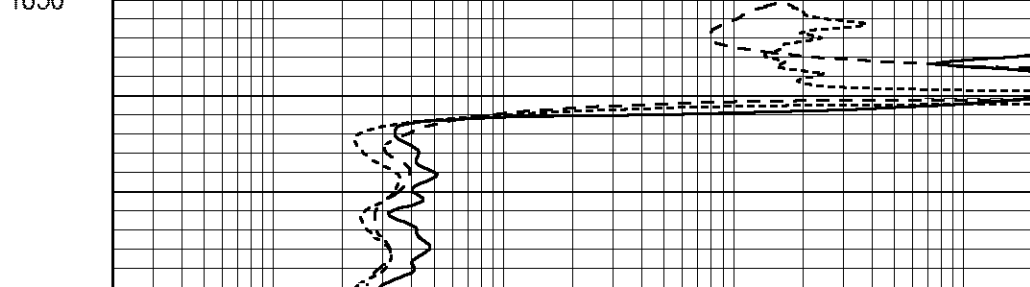
Database File 6754pe.db
 Dataset Pathname pass4A
 Presentation Format _dil
 Dataset Creation Sat Jul 09 13:04:15 2022
 Charted by Depth in Feet scaled 1:240

| | | | | | |
|------|------------------|-----|-----|--------------------------|------|
| 0 | GAMMA RAY (GAPI) | 150 | 0.2 | SHALLOW GUARD (Ohm-m) | 2000 |
| -100 | SP (mV) | 100 | 0.2 | MEDIUM INDUCTION (Ohm-m) | 2000 |
| -250 | Rxo/Rt | 50 | 0.2 | DEEP INDUCTION (Ohm-m) | 2000 |

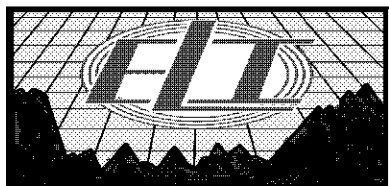




| | | |
|------|------------------|-----|
| 0 | GAMMA RAY (GAPI) | 150 |
| -100 | SP (mV) | 100 |
| -250 | Rxo/Rt | 50 |



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

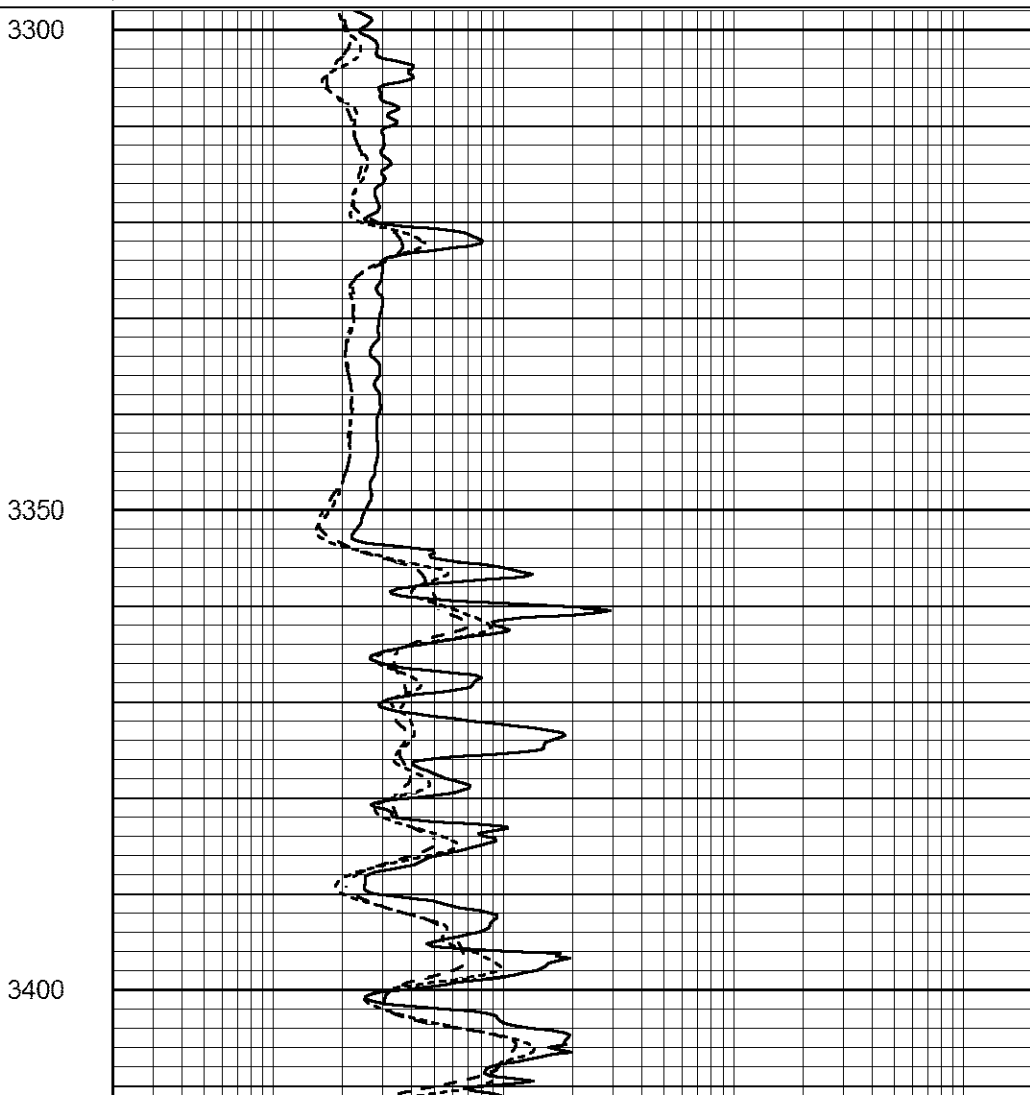
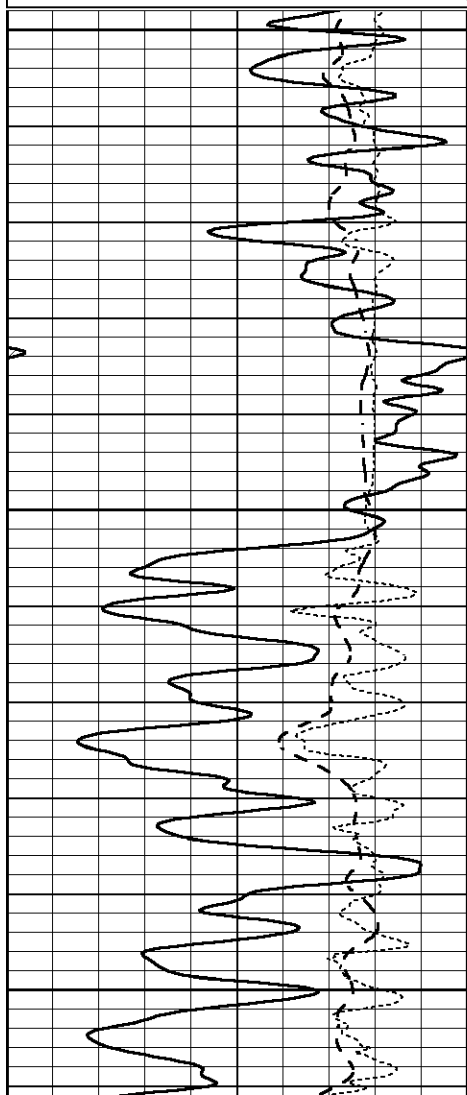


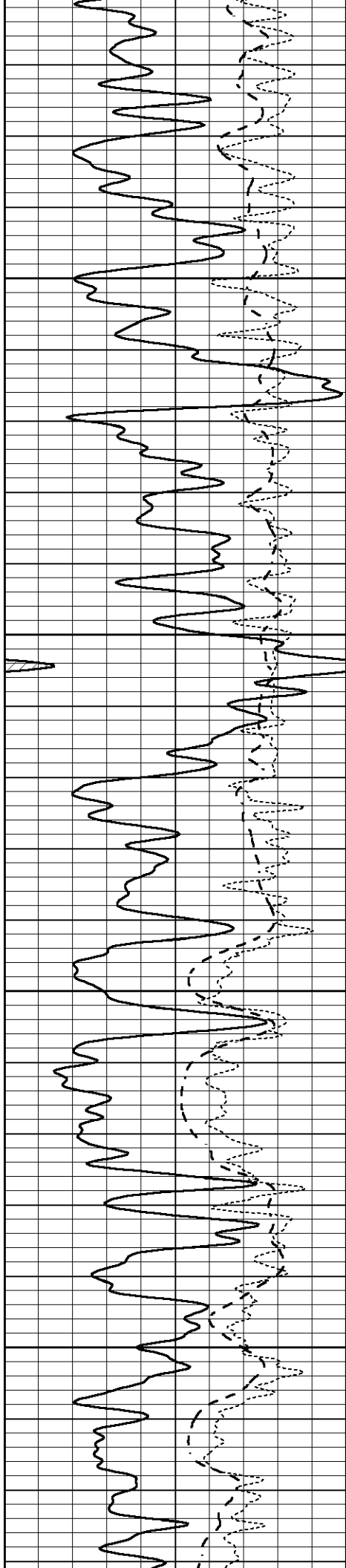
MAIN SECTION

Database File 6754pe.db
 Dataset Pathname pass4M
 Presentation Format _dil
 Dataset Creation Sat Jul 09 13:03:28 2022
 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 | MEDIUM INDUCTION (Ohm-m) | 2000 |
| 0.2 | DEEP INDUCTION (Ohm-m) | 2000 |



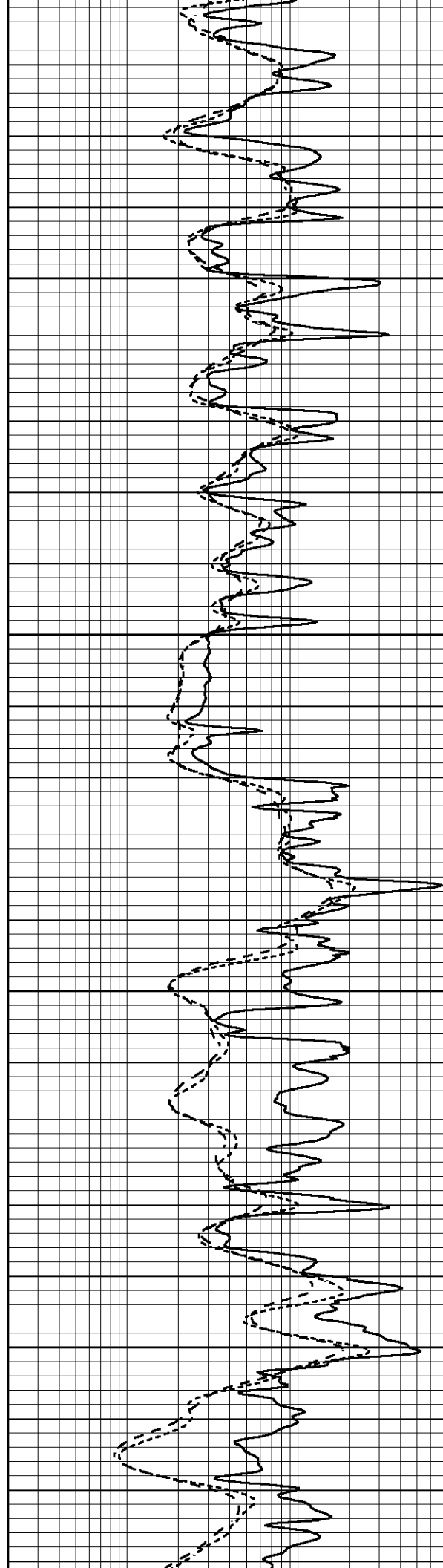


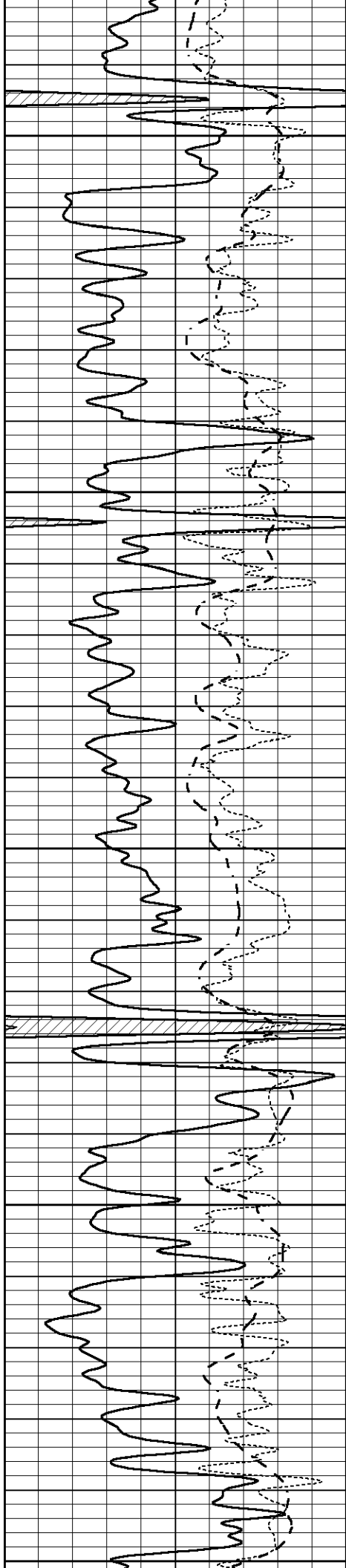
3450

3500

3550

3600





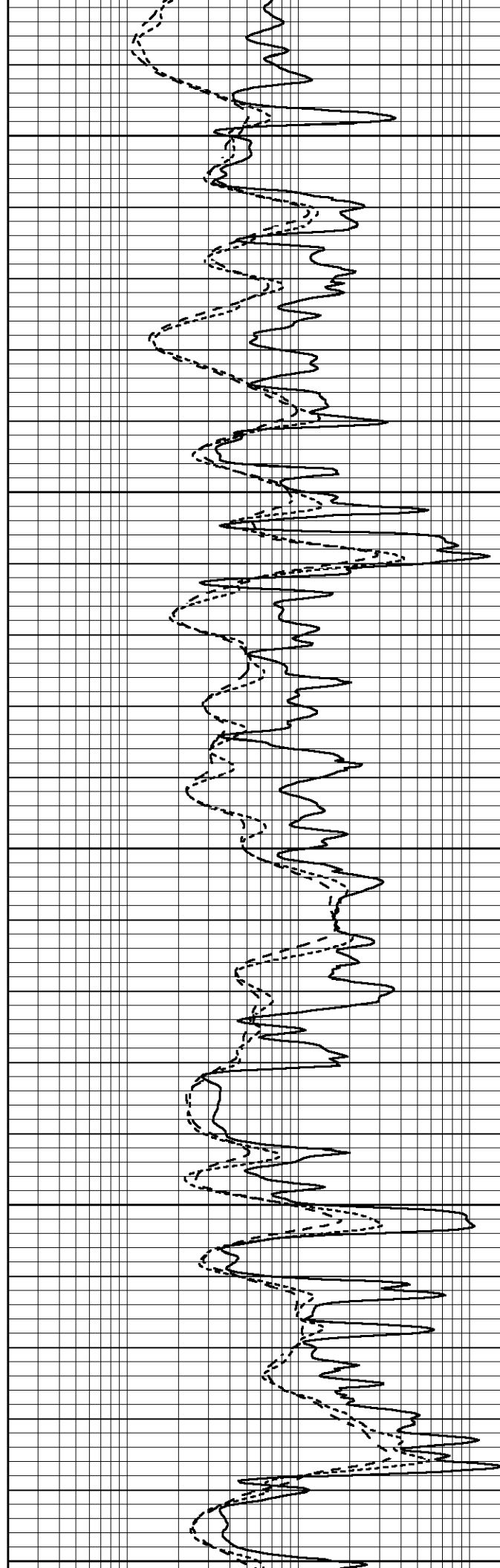
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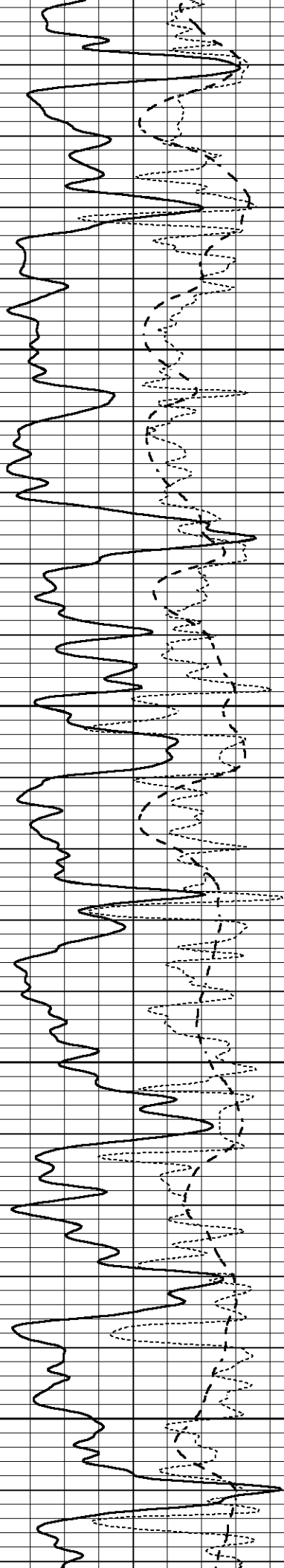
3700

3750

3800

3850



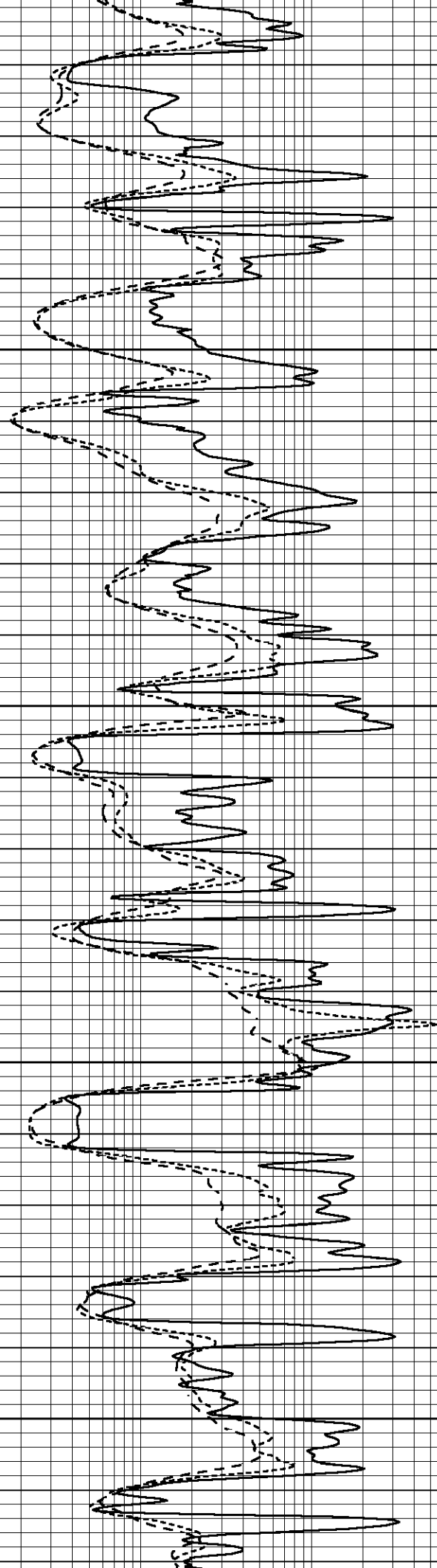


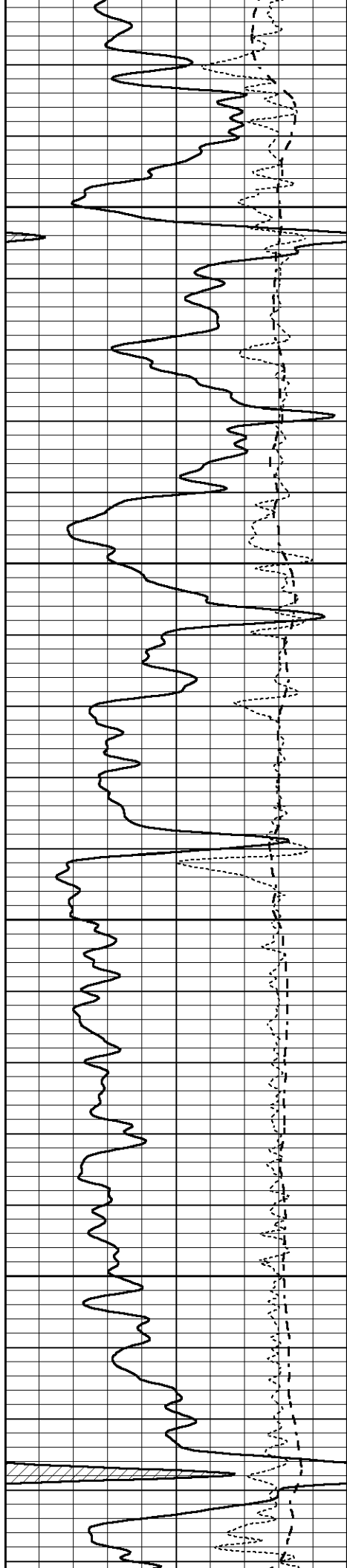
3900

3950

4000

4050



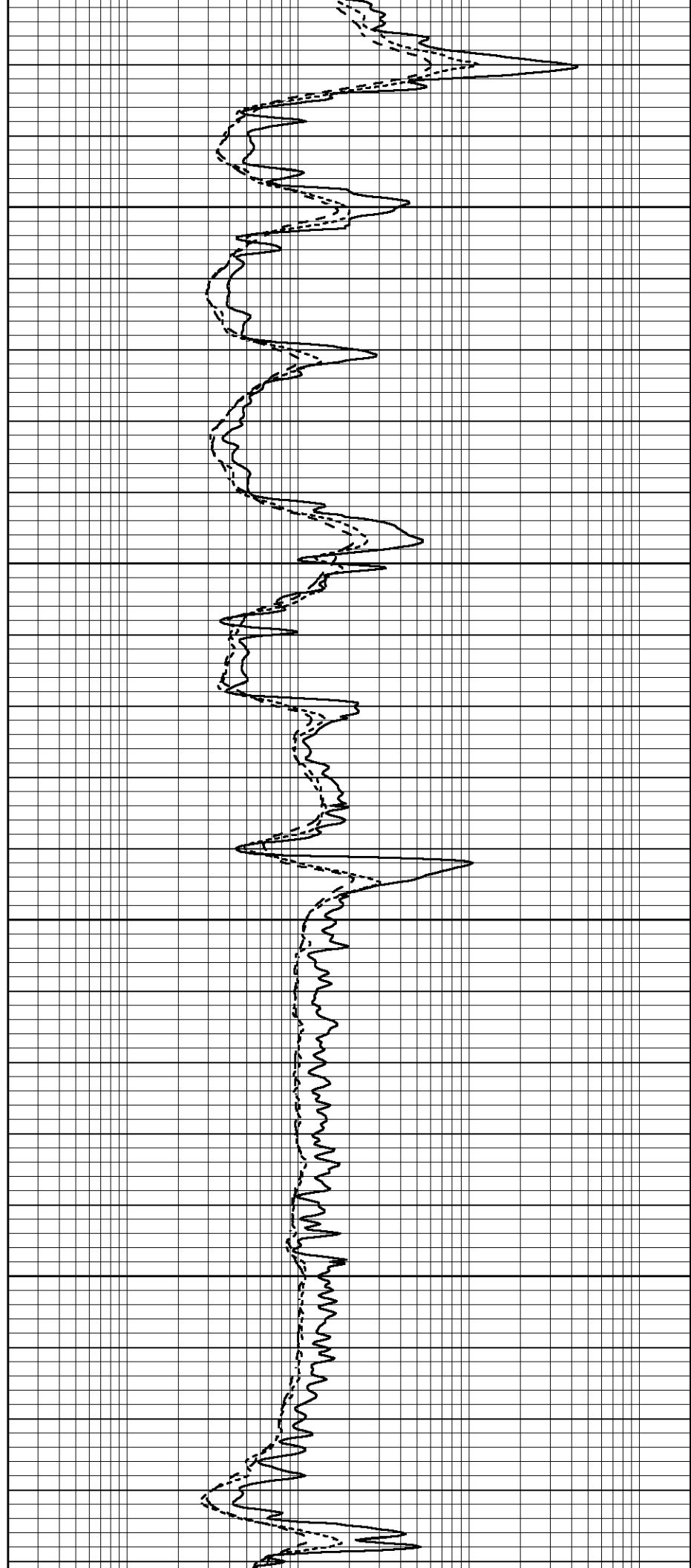


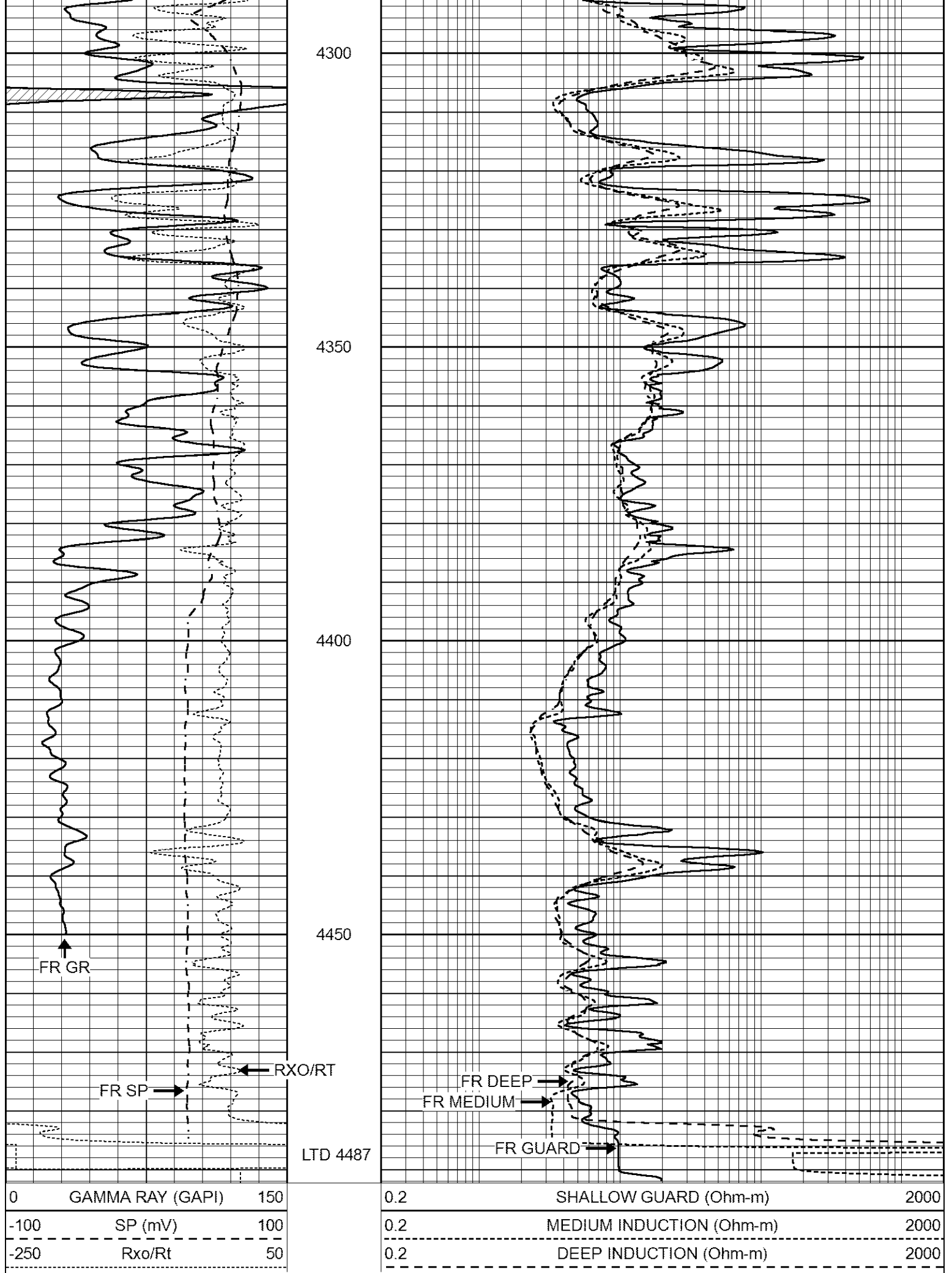
4100

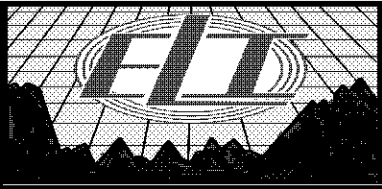
4150

4200

4250





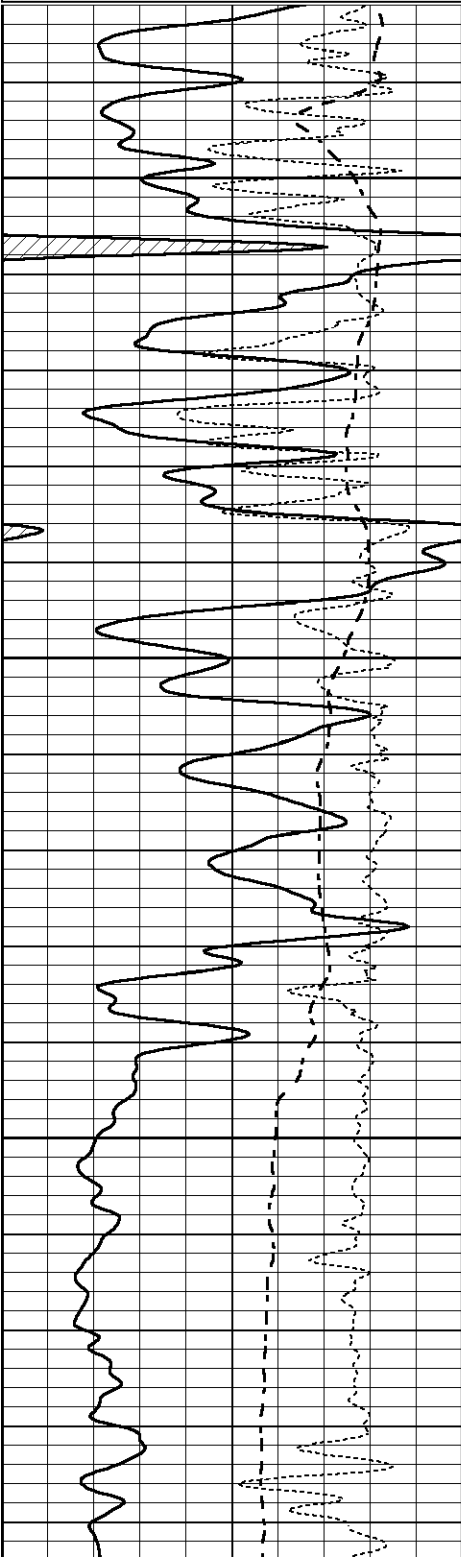


REPEAT SECTION

Database File 6754pe.db
Dataset Pathname pass2R
Presentation Format _dil
Dataset Creation Sat Jul 09 12:49:42 2022
Charted by Depth in Feet scaled 1:240

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

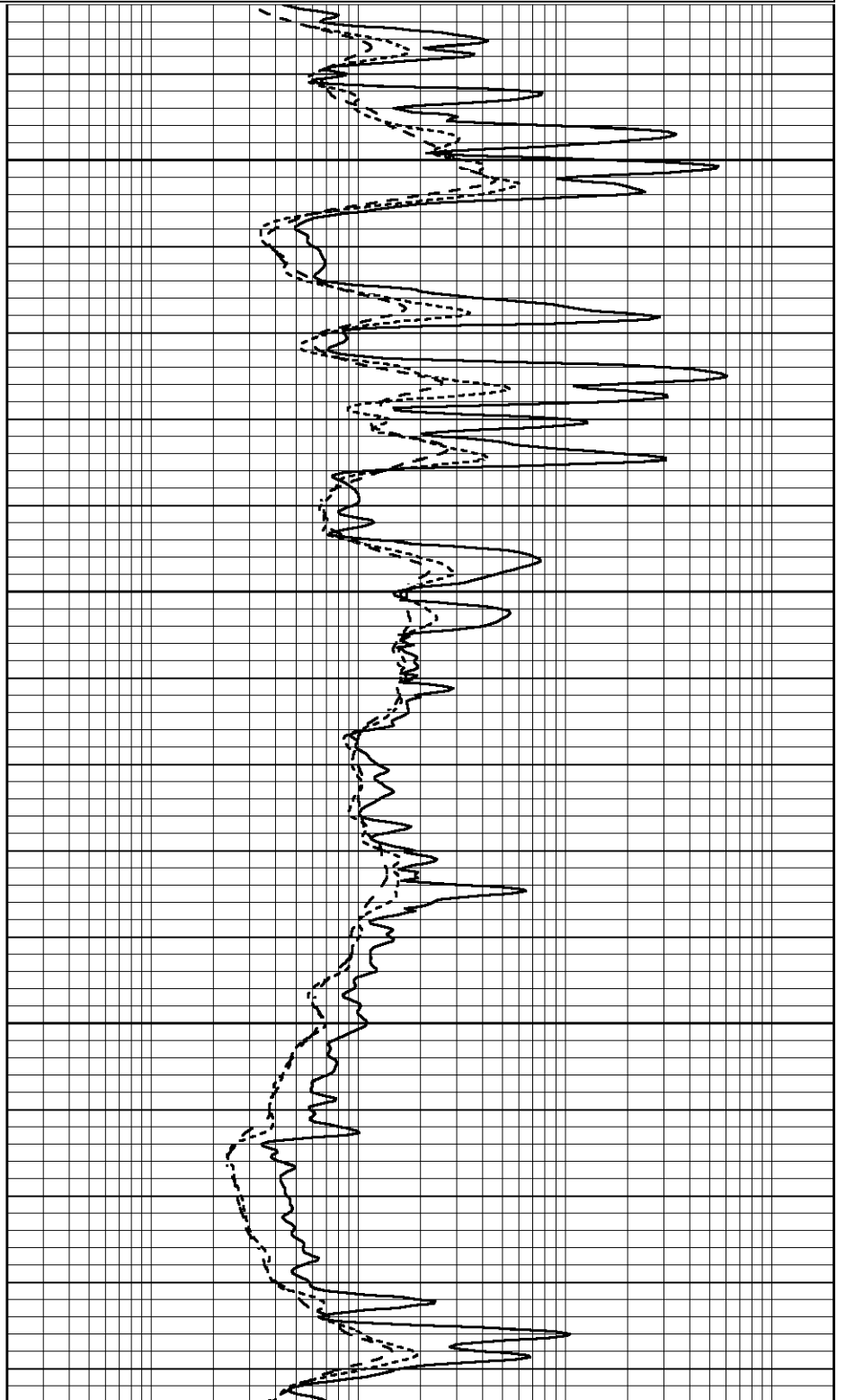
| | | |
|-----|--------------------------|------|
| 0.2 | SHALLOW GUARD (Ohm-m) | 2000 |
| 0.2 | MEDIUM INDUCTION (Ohm-m) | 2000 |
| 0.2 | DEEP INDUCTION (Ohm-m) | 2000 |

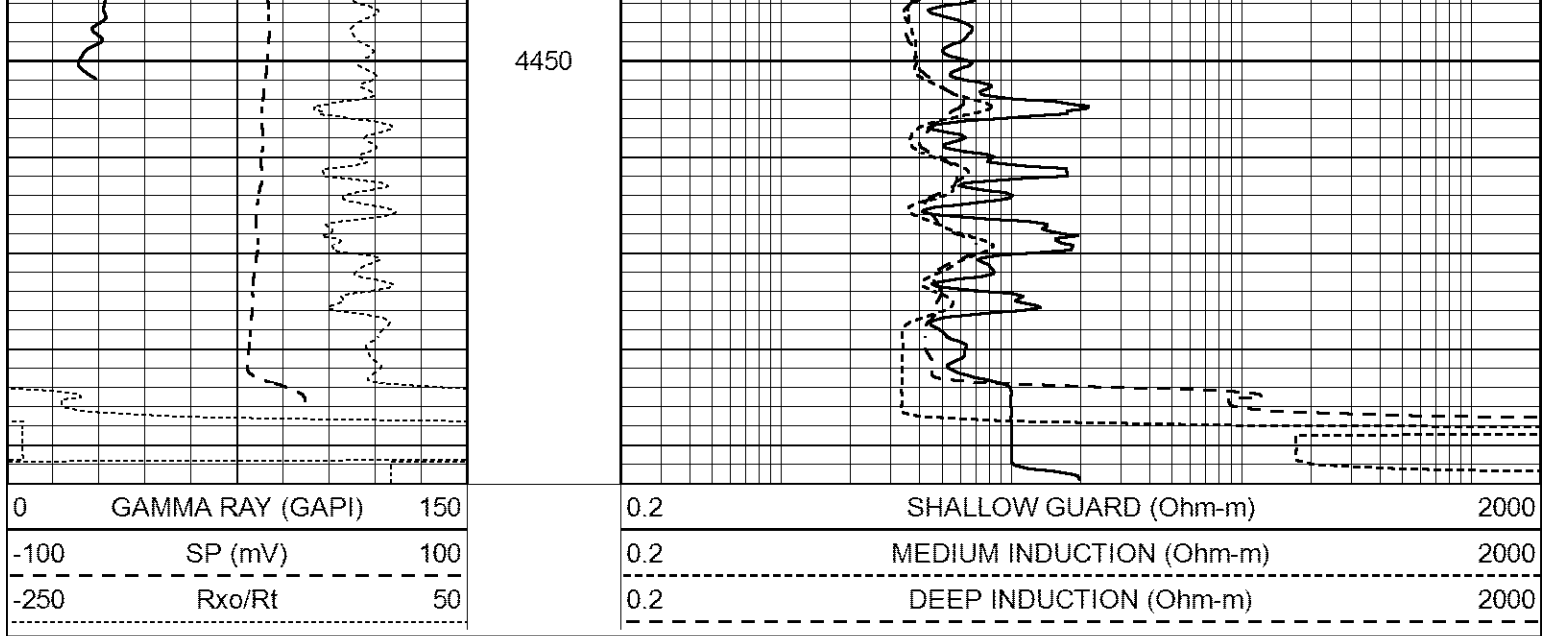


4300

4350

4400





Calibration Report

Database File 6754pe.db
 Dataset Pathname pass4M
 Dataset Creation Sat Jul 09 13:03:28 2022

Dual Induction Calibration Report

Serial-Model: FW1410-55-Probe
 Surface Cal Performed: Thu Jun 30 01:48:00 2022
 Downhole Cal Performed: Tue Feb 19 11:44:24 2019
 After Survey Verification Performed: Tue Feb 19 11:44:27 2019

Surface Calibration

| Loop: | Readings | | | References | | | Results | |
|-----------|----------|-------|-----|------------|---------|--------|---------|---------|
| | Air | Loop | | Air | Loop | | m | b |
| Deep | 0.011 | 0.656 | V | 1.000 | 400.000 | mmho/m | 650.000 | -3.000 |
| Medium | -0.000 | 0.731 | V | 1.000 | 464.000 | mmho/m | 632.856 | -10.500 |
| Internal: | Zero | | Cal | Zero | | Cal | | |
| Deep | 0.007 | 0.649 | V | 0.000 | 400.000 | mmho/m | 623.784 | -4.595 |
| Medium | 0.004 | 0.743 | V | 0.000 | 464.000 | mmho/m | 627.284 | -2.251 |

Downhole Calibration

| | Readings | | | References | | | Results | |
|--------|----------|---------|--------|------------|----------|--------|---------|--------|
| | Zero | Cal | | Zero | Cal | | m' | b' |
| Deep | -0.824 | 395.917 | mmho/m | -0.976 | 397.550 | mmho/m | 1.004 | -0.149 |
| Medium | 3.565 | 471.327 | mmho/m | 3.468 | 471.590 | mmho/m | 1.001 | -0.099 |
| LL3 | | 7.503 | V | | 1500.000 | Ohm-m | | |
| | | 0.001 | V | | 20.000 | Ohm-m | | |
| | | -7.481 | V | | 3745.000 | mmho-m | | |

After Survey Verification

| | Readings | | | Targets | | | Results | |
|--------|----------|-------|--------|---------|----------|--------|---------|-------|
| | Zero | Cal | | Zero | Cal | | m' | b' |
| Deep | 0.000 | 0.000 | mmho/m | -0.824 | 395.917 | mmho/m | 1.000 | 0.000 |
| Medium | 0.000 | 0.000 | mmho/m | 3.565 | 471.327 | mmho/m | 1.000 | 0.000 |
| LL3 | | 0.000 | Ohm-m | | 1500.000 | Ohm-m | | |
| | | 0.000 | Ohm-m | | 20.000 | Ohm-m | | |
| | | 0.000 | mmho-m | | 3745.000 | mmho-m | | |

Litho Density Calibration Report
 Serial: 005 Model: Litho_Ver3

Master Calibration

Performed Fri May 13 13:54:56 2022

| | Background | Magnesium | Aluminum | Aluminum+Fe | |
|-------------|------------|-------------|----------|---------------------|---------|
| Window 1 | 1363.1 | 46477.8 | 11515.9 | 9589.9 | cps |
| Window 2 | 1239.4 | 36488.4 | 9270.1 | 7998.9 | cps |
| Window 3 | 1044.3 | 20488.1 | 5500.7 | 4913.3 | cps |
| Window 4 | 315.7 | 358.7 | 321.5 | 319.5 | cps |
| Long Space | 0.0 | 35249.0 | 8030.7 | 6759.4 | cps |
| Short Space | 1.4 | 9675.7 | 6523.4 | 5391.9 | cps |
| Rho | | 1.7100 | 2.5900 | 0.0000 | g/cc |
| Pe | | 2.0000 | 2.7500 | 5.7900 | |
| Rib Angle | : 45.1 | Rib Slope | : 1.003 | Density/Spine Ratio | : 0.575 |
| Spine Angle | : 75.1 | Spine Slope | : 3.752 | Spine Intercept | : -24.0 |

Before Survey Verification

Performed Wed Dec 31 18:00:00 1969

| | Background | Magnesium | Aluminum | Aluminum+Fe | |
|---------------------|------------|-----------|----------|-------------|------|
| 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

| | Background | Magnesium | Aluminum | Aluminum+Fe | |
|---------------------|------------|-----------|----------|-------------|------|
| 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: 080621PMC
 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
Long Space

cps
cps

pu

pu

Gamma Ray Calibration Report

| | | |
|---------------------|--------------------------|----------|
| Serial Number: | 7 | |
| Tool Model: | Probe1 | |
| Performed: | Thu May 26 08:56:46 2022 | |
| Calibrator Value: | 1.0 | GAPI |
| Background Reading: | 0.0 | cps |
| Calibrator Reading: | 1.0 | cps |
| Sensitivity: | 0.5500 | GAPI/cps |