



# NABORS

**COMPLETION  
& PRODUCTION  
SERVICES CO.**

**DUAL  
INDUCTION  
LOG**

|                                                                                          |                 |                                                                         |  |
|------------------------------------------------------------------------------------------|-----------------|-------------------------------------------------------------------------|--|
| Company                                                                                  |                 | HABIT PETROLEUM, LLC.                                                   |  |
| Well                                                                                     |                 | LEIKER #1                                                               |  |
| Field                                                                                    |                 |                                                                         |  |
| County                                                                                   |                 | ELLIS                                                                   |  |
| State                                                                                    |                 | KANSAS                                                                  |  |
| Location:                                                                                |                 | API # : 15-051-26403-00-00<br>1085' FNL & 970' FEL<br>SE - SW - NE - NE |  |
| SEC 10 TWP 15S RGE 18W<br>Permanent Datum<br>Log Measured From<br>Drilling Measured From |                 | GROUND LEVEL<br>KELLY BUSHING 5' A.G.L.<br>KELLY BUSHING                |  |
|                                                                                          |                 | Other Services<br>CDL/CNL<br>MEL                                        |  |
| Elevation                                                                                |                 | 2019                                                                    |  |
| K.B. 2024                                                                                |                 |                                                                         |  |
| D.F. 2022                                                                                |                 |                                                                         |  |
| G.L. 2019                                                                                |                 |                                                                         |  |
| Date                                                                                     | 10/22/12        |                                                                         |  |
| Run Number                                                                               | ONE             |                                                                         |  |
| Depth Driller                                                                            | 3700            |                                                                         |  |
| Depth Logger                                                                             | 3699            |                                                                         |  |
| Bottom Logged Interval                                                                   | 3997            |                                                                         |  |
| Top Log Interval                                                                         | 00              |                                                                         |  |
| Casing Driller                                                                           | 8 5/8" @ 230    |                                                                         |  |
| Casing Logger                                                                            | 230             |                                                                         |  |
| Bit Size                                                                                 | 7 7/8           |                                                                         |  |
| Type Fluid in Hole                                                                       | CHEMICAL MUD    |                                                                         |  |
| Density / Viscosity                                                                      | 9.4/51          |                                                                         |  |
| pH / Fluid Loss                                                                          | 10.5/7.8        |                                                                         |  |
| Source of Sample                                                                         | FLOWLINE        |                                                                         |  |
| Rim @ Meas. Temp                                                                         | 0.85 @ 73F      |                                                                         |  |
| Rmf @ Meas. Temp                                                                         | 0.64 @ 73F      |                                                                         |  |
| Rmc @ Meas. Temp                                                                         | 1.02 @ 73F      |                                                                         |  |
| Source of Rmf / Rmc                                                                      | MEASURED        |                                                                         |  |
| Rim @ BHT                                                                                | 0.55 @ 113F     |                                                                         |  |
| Time Circulation Stopped                                                                 | 2 HOURS         |                                                                         |  |
| Time Logger on Bottom                                                                    |                 |                                                                         |  |
| Maximum Recorded Temperature                                                             | 125F            |                                                                         |  |
| Equipment Number                                                                         | 680             |                                                                         |  |
| Location                                                                                 | HAYS, KS.       |                                                                         |  |
| Recorded By                                                                              | IAN MABB        |                                                                         |  |
| Witnessed By                                                                             | DUANE STECKLEIN |                                                                         |  |
|                                                                                          | JEFF GRONEMEG   |                                                                         |  |

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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.

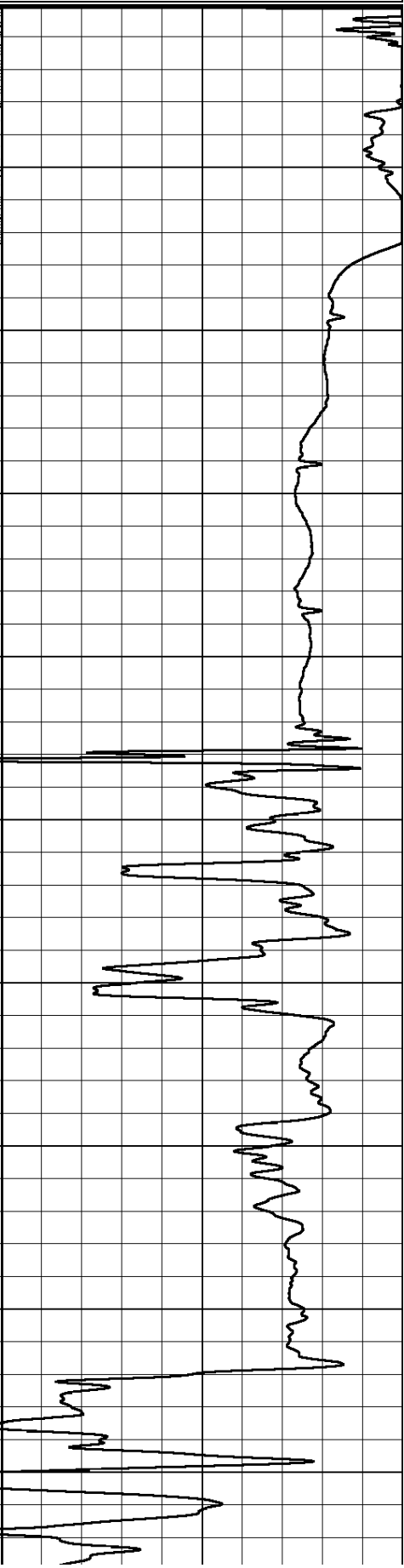
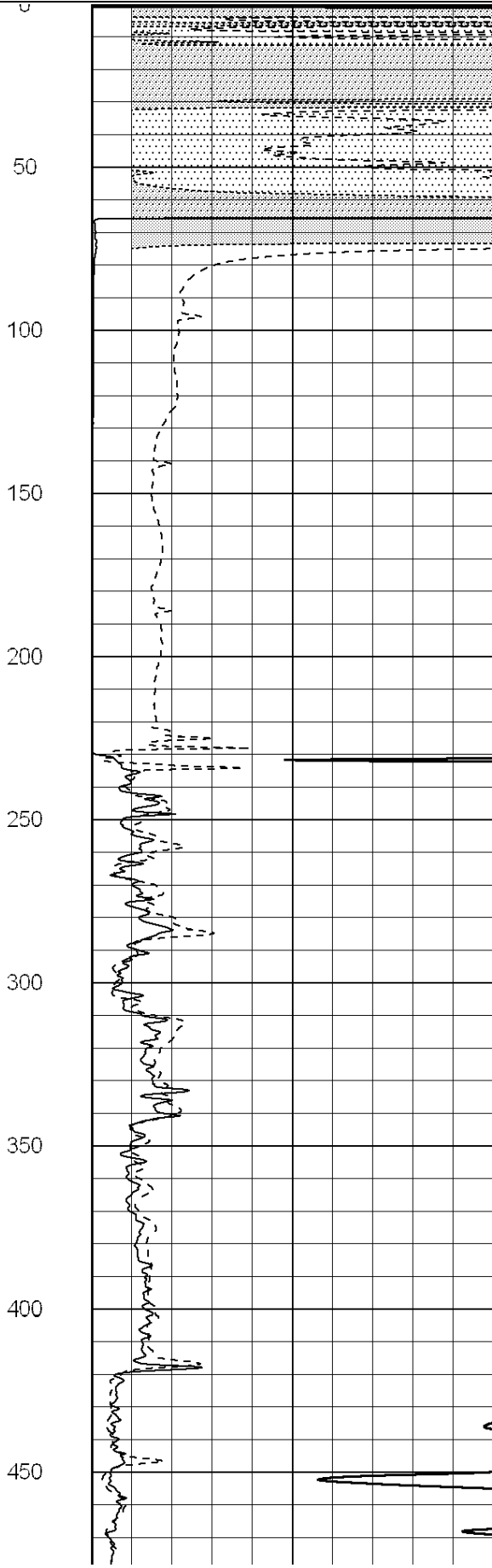
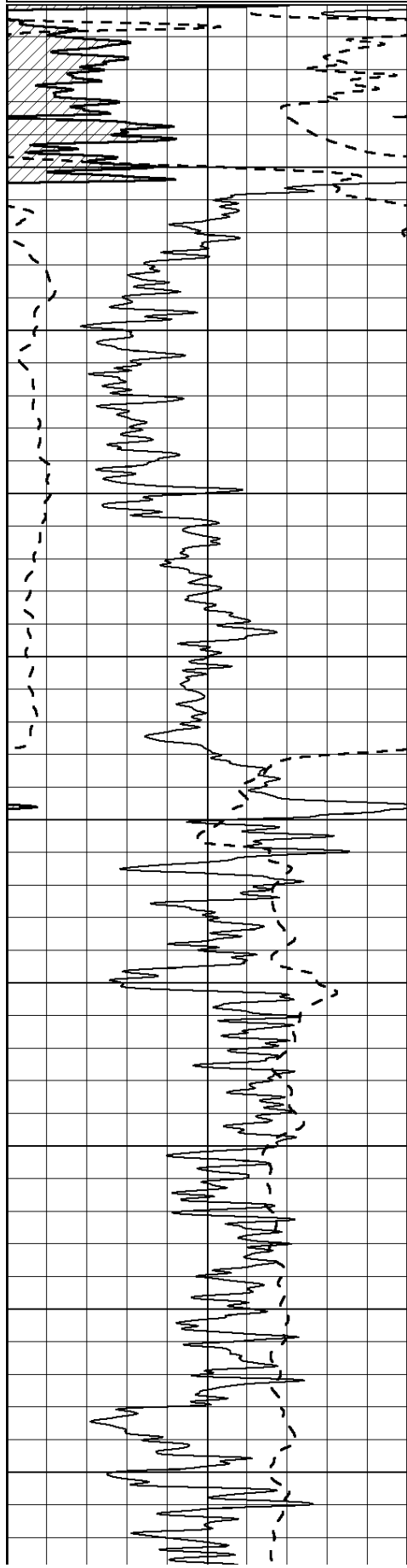
## Comments

THANK YOU FOR USING SUPERIOR WELL SERVICE (785) 628-6395  
 DIRECTIONS  
 HAYS, KS. 6 MILES SOUTH ON 183, 1 MILE EAST, 1/4 SOUTH WEST INTO

|                                         |                  |     |
|-----------------------------------------|------------------|-----|
| Charted by: Depth in feet scaled 1:1000 |                  |     |
| 0                                       | Gamma Ray (GAPI) | 150 |
| -100                                    | SP (mV)          | 100 |
| -----                                   |                  |     |

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

0



500

550

600

650

700

750

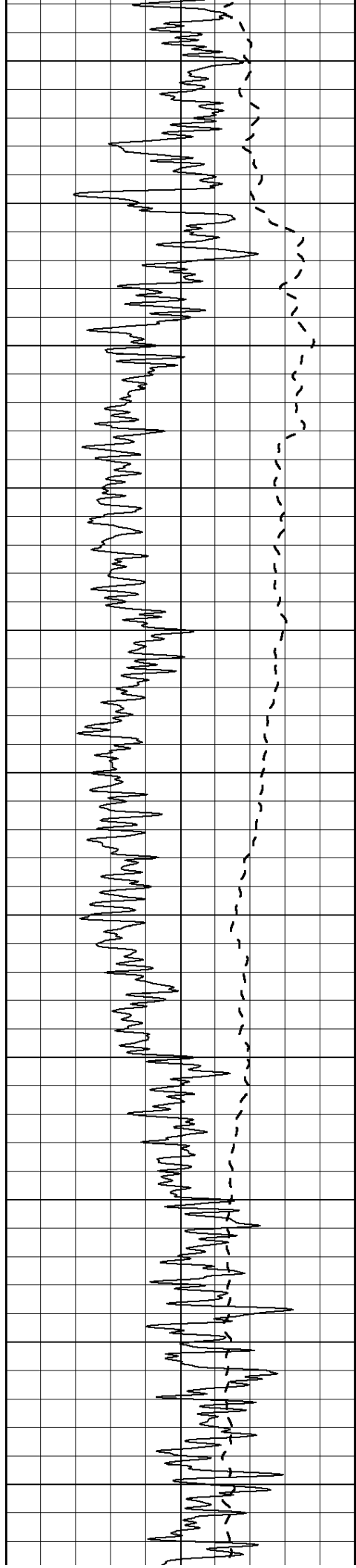
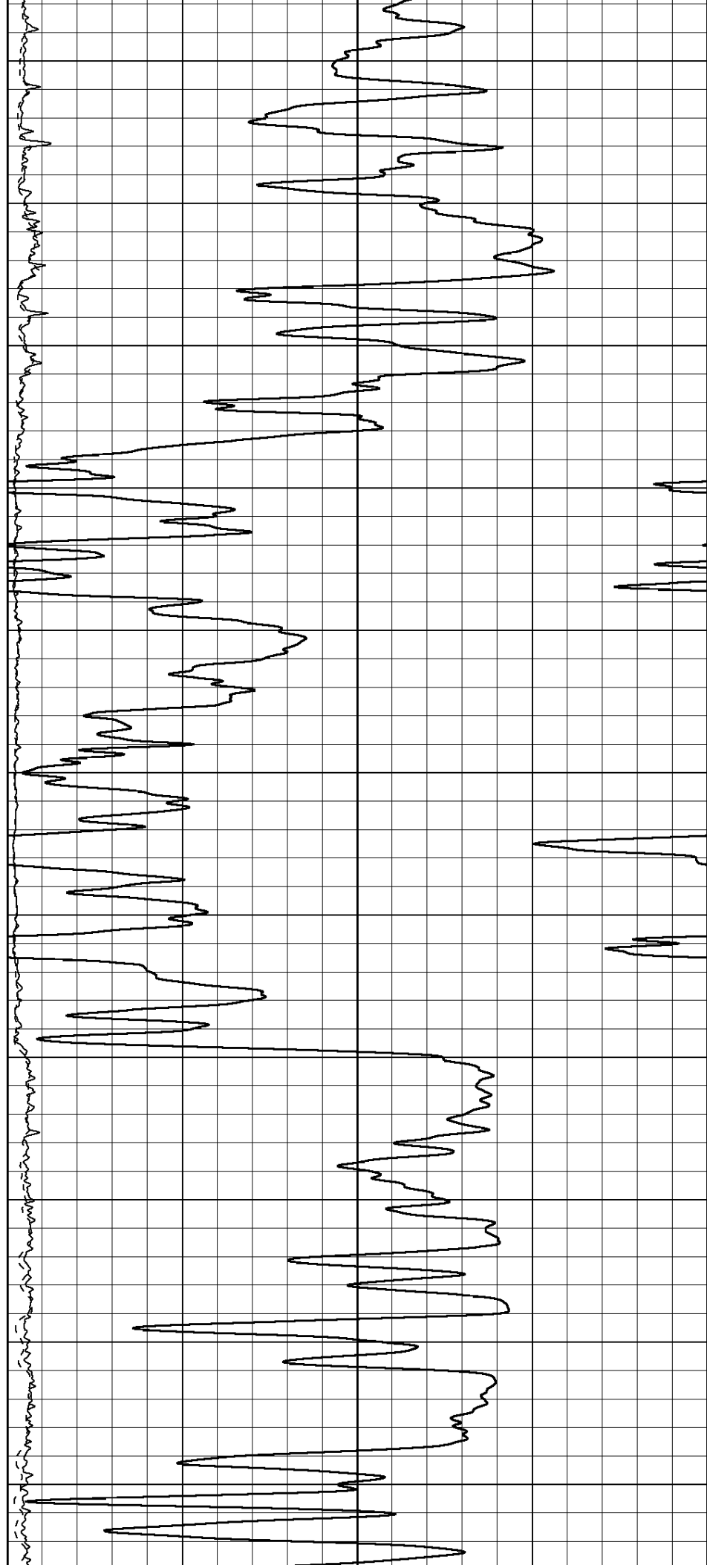
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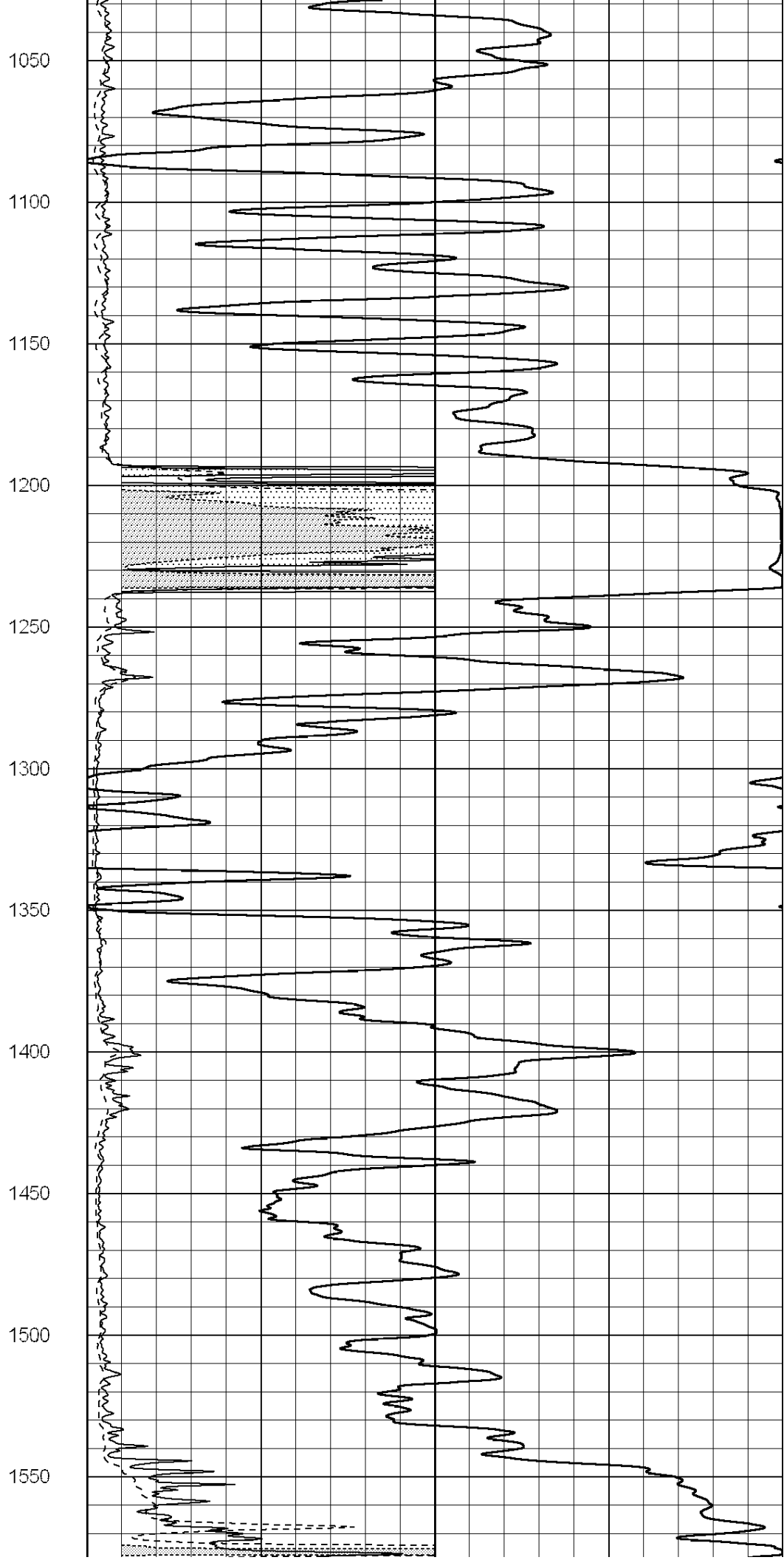
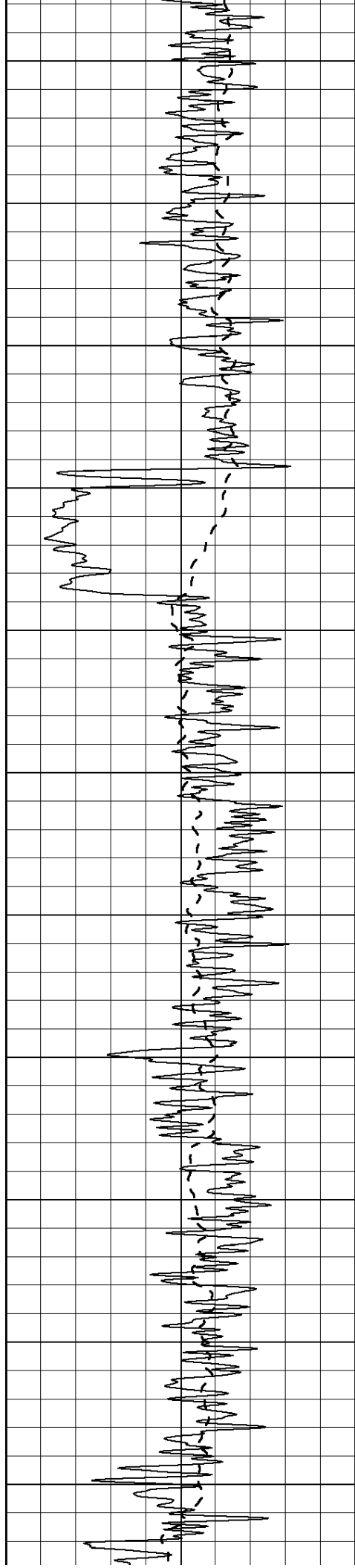
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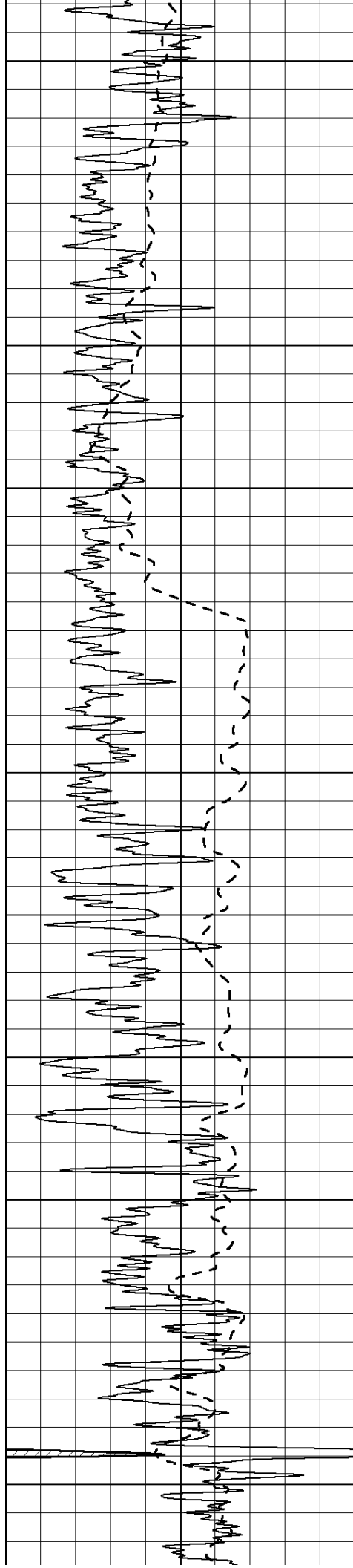
900

950

1000







1600

1650

1700

1750

1800

1850

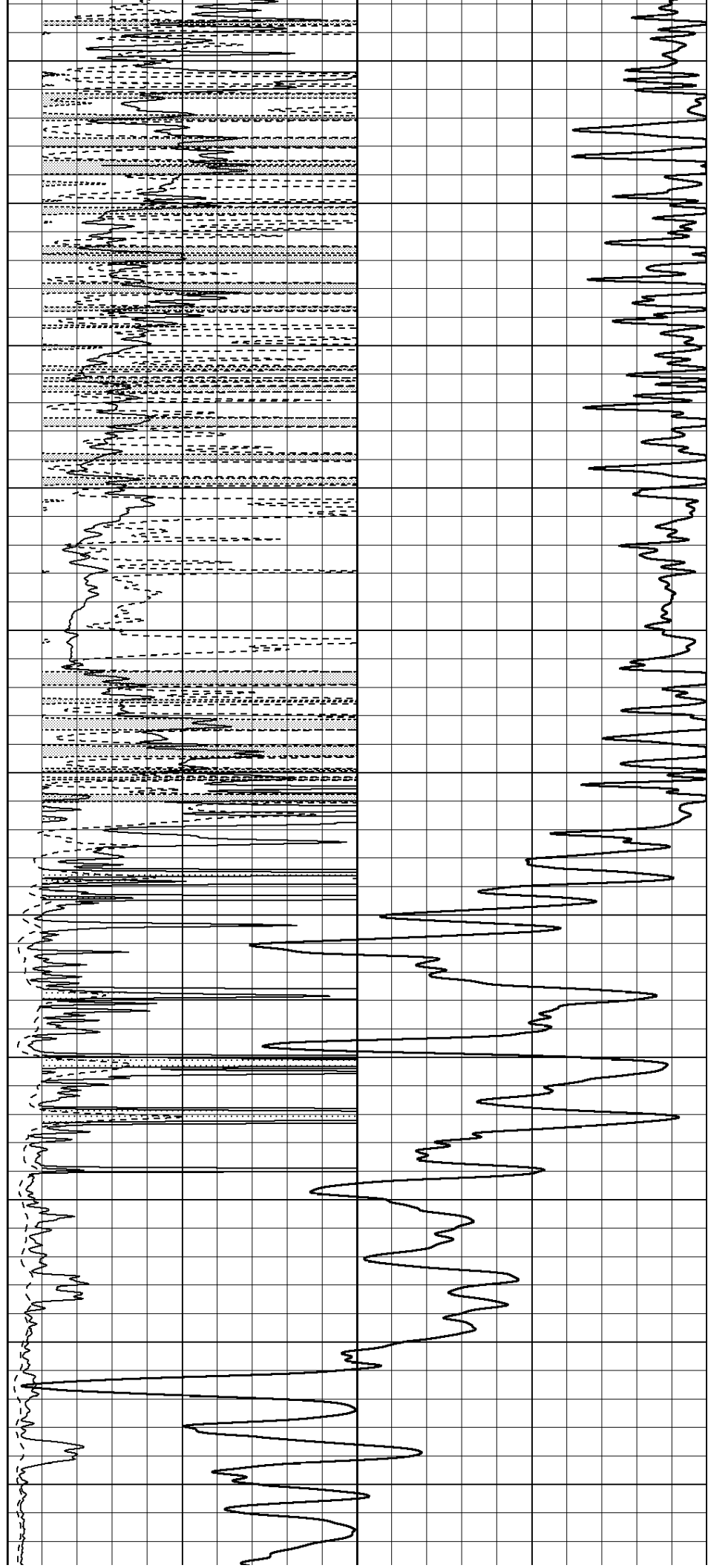
1900

1950

2000

2050

2100



2150

2200

2250

2300

2350

2400

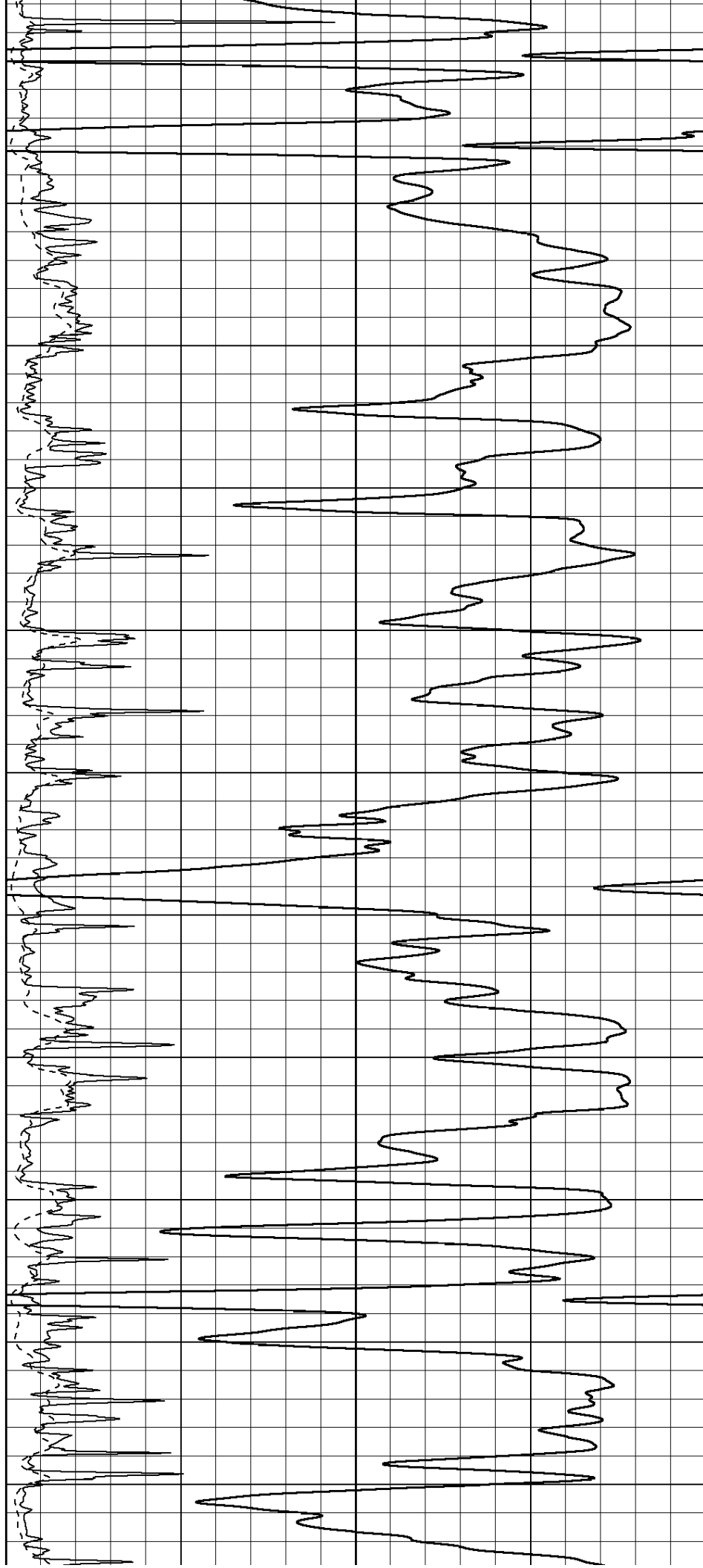
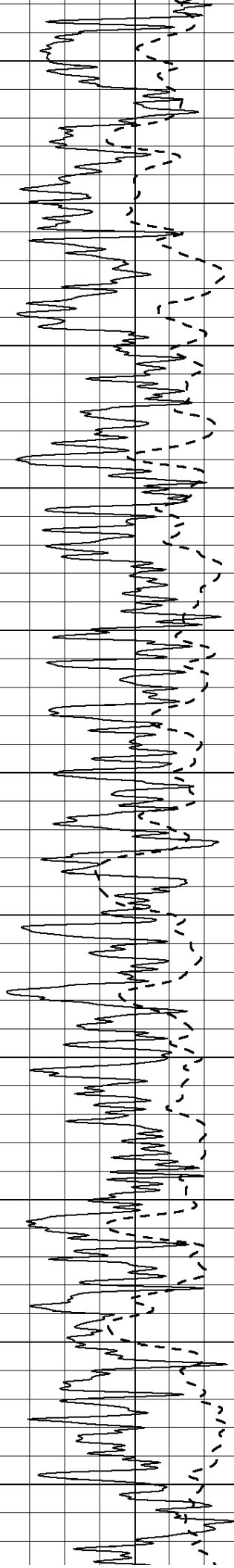
2450

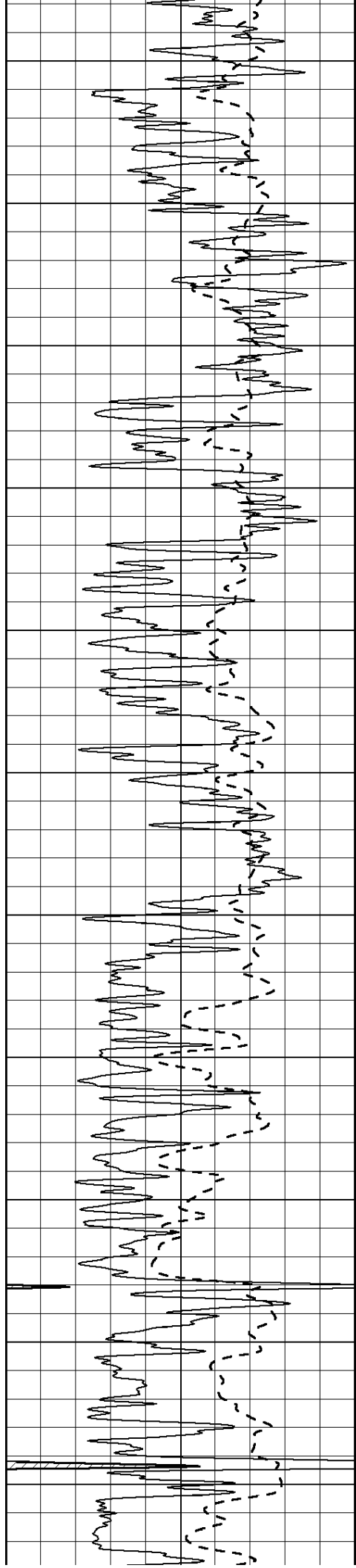
2500

2550

2600

2650





2700

2750

2800

2850

2900

2950

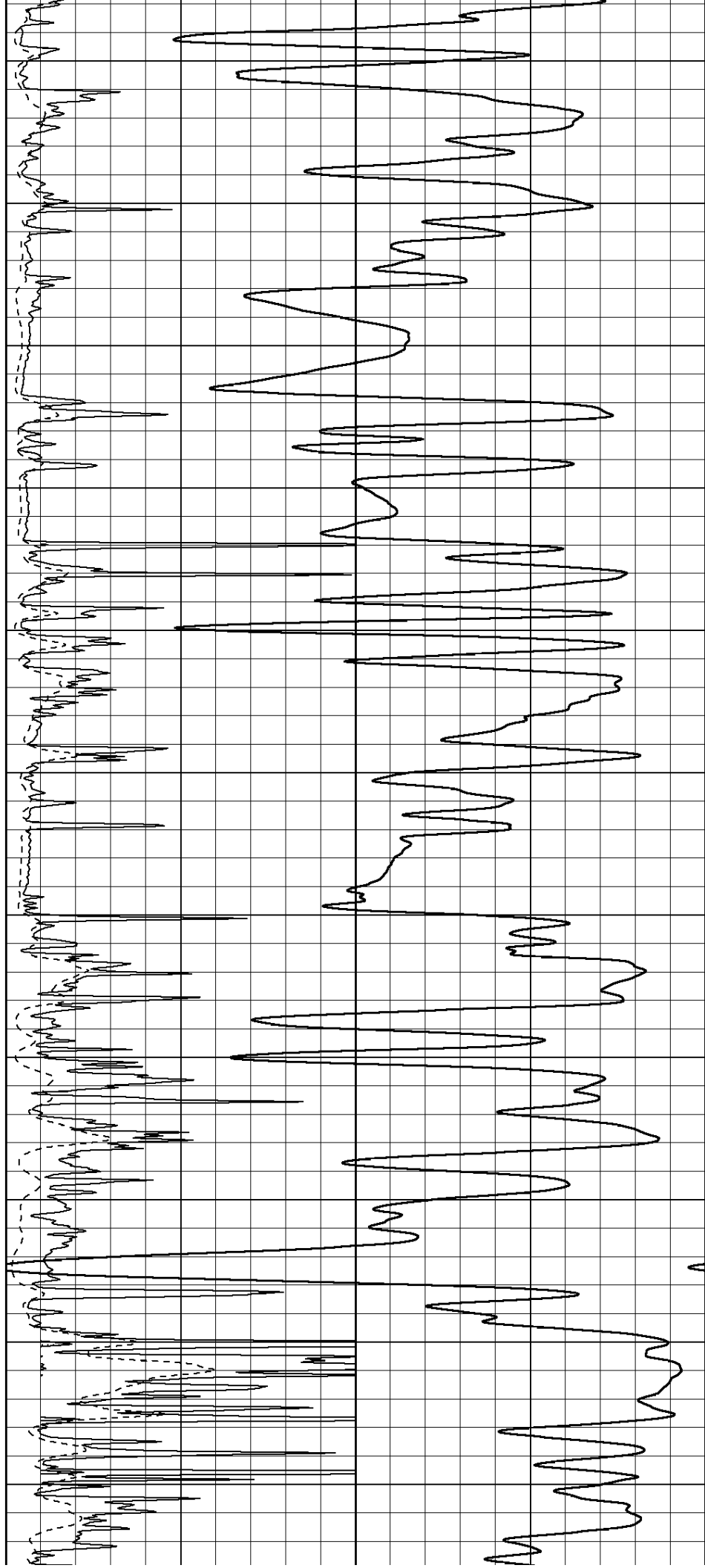
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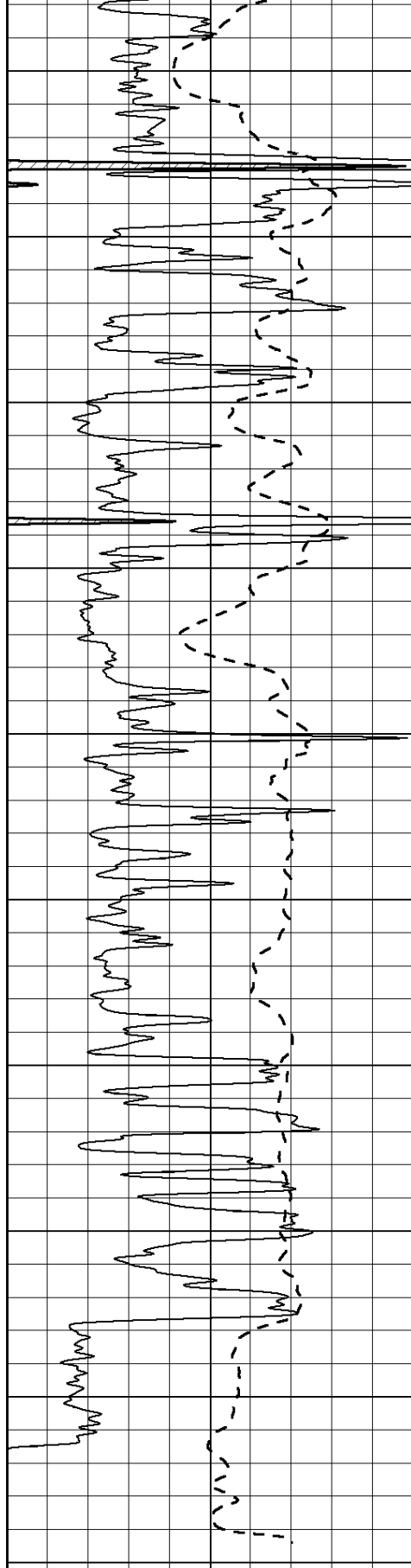
3050

3100

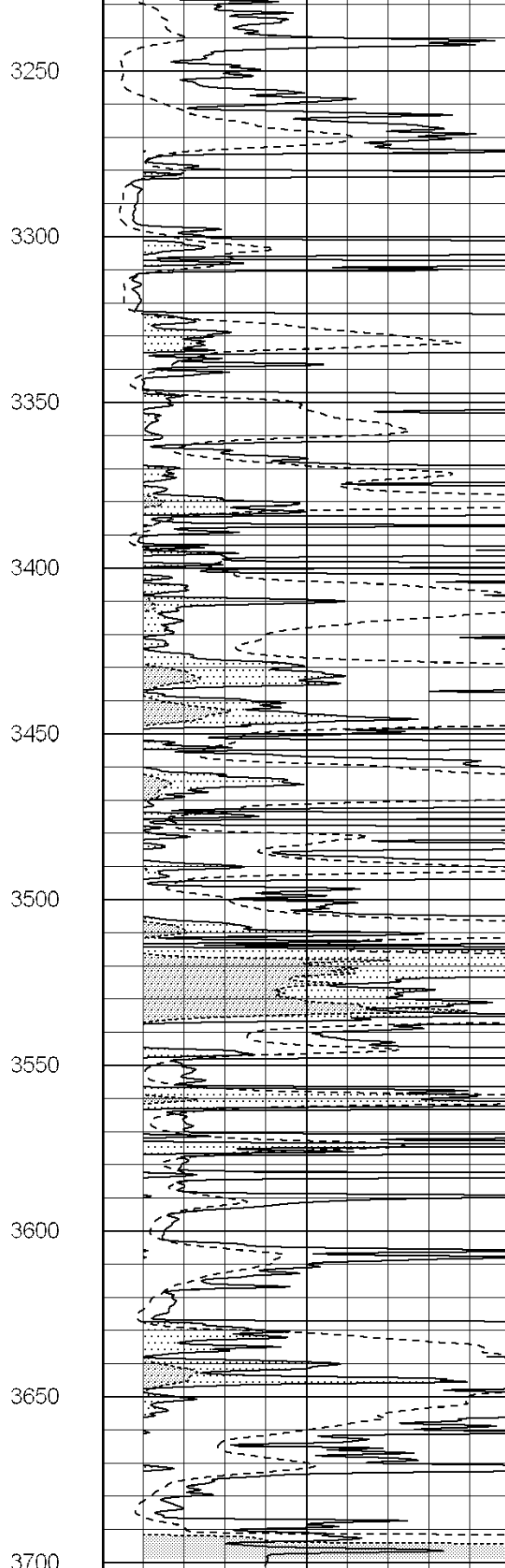
3150

3200





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

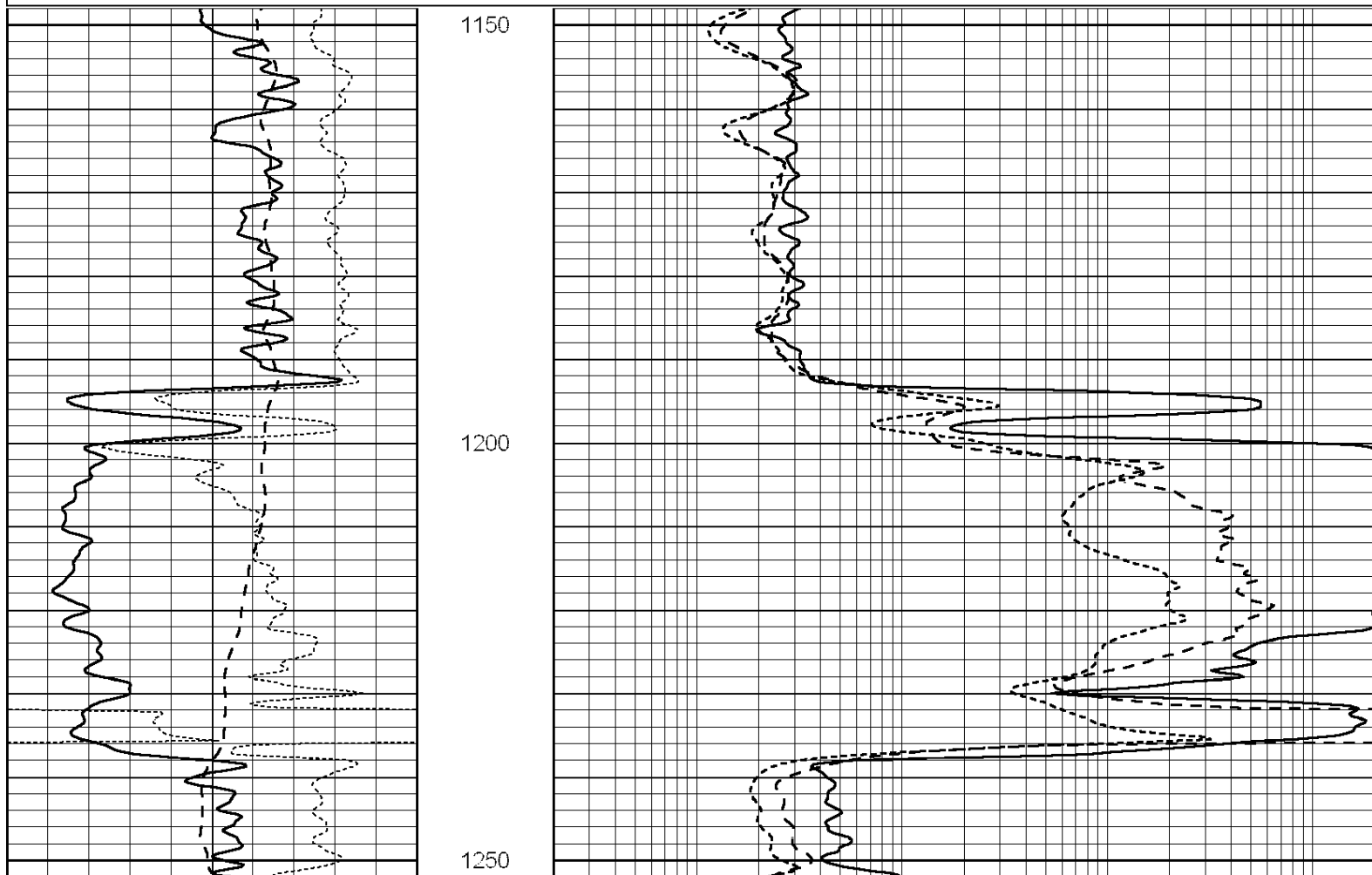


0 RLL3 (Ohm-m) 50  
0 Deep Induction (Ohm-m) 50

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

Database File: 009980ddn.db  
Dataset Pathname: pass3.2  
Presentation Format: \_dil  
Dataset Creation: Mon Oct 22 12:43:34 2012 by Calc Open-Cased 090629  
Charted by: Depth in Feet scaled 1:240

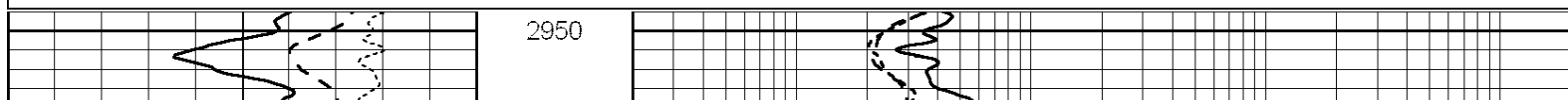
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|------|------------------|-----|-----|--------------------------|------|
| 0    | GAMMA RAY (GAPI) | 150 | 0.2 | SHALLOW GUARD (Ohm-m)    | 2000 |
| -100 | SP (mV)          | 100 | 0.2 | MEDIUM INDUCTION (Ohm-m) | 2000 |
| -250 | Rxo/Rt          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

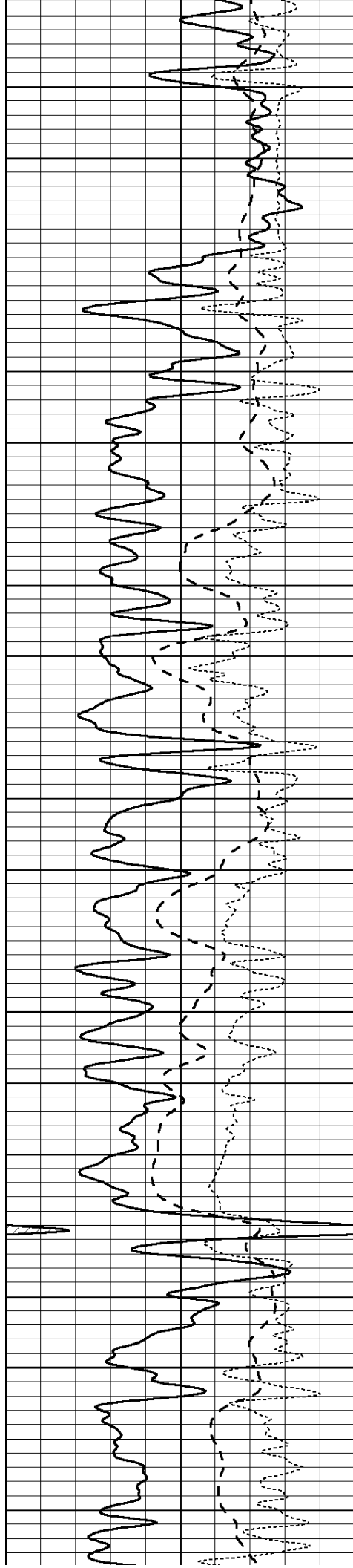


|      |                  |     |     |                          |      |
|------|------------------|-----|-----|--------------------------|------|
| 0    | GAMMA RAY (GAPI) | 150 | 0.2 | SHALLOW GUARD (Ohm-m)    | 2000 |
| -100 | SP (mV)          | 100 | 0.2 | MEDIUM INDUCTION (Ohm-m) | 2000 |
| -250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

Database File: 009980ddn.db  
Dataset Pathname: pass3.1  
Presentation Format: \_dil  
Dataset Creation: Mon Oct 22 12:14:57 2012 by Calc Open-Cased 090629  
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 |



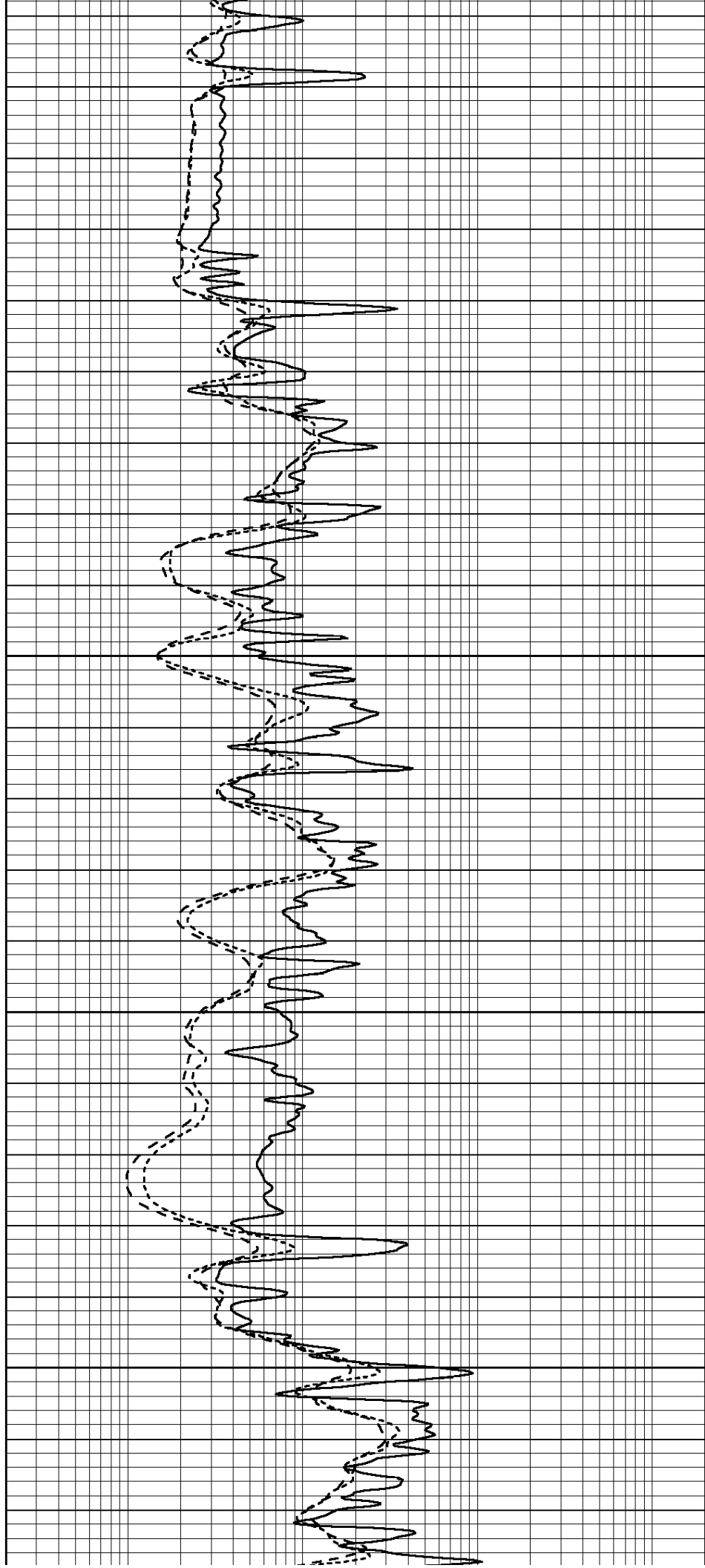


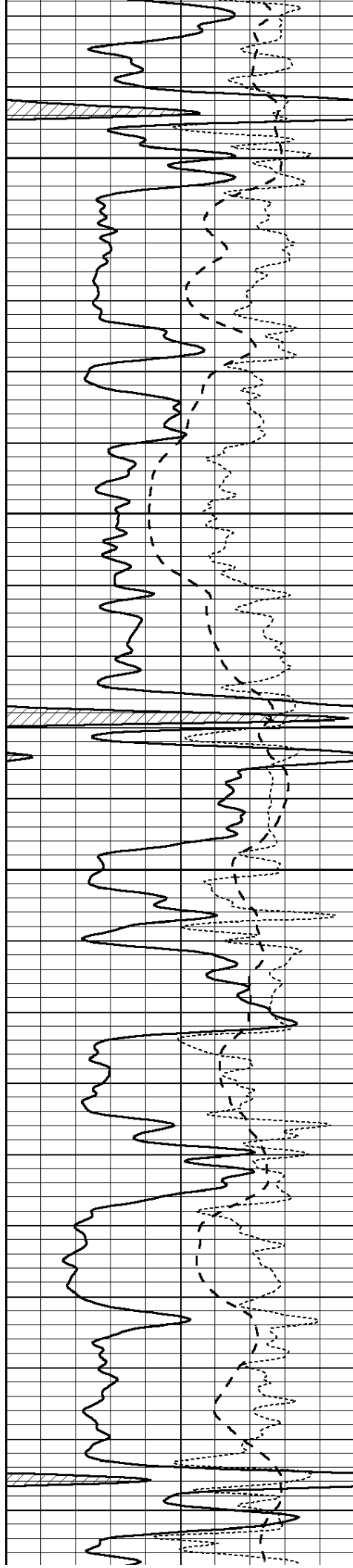
3000

3050

3100

3150



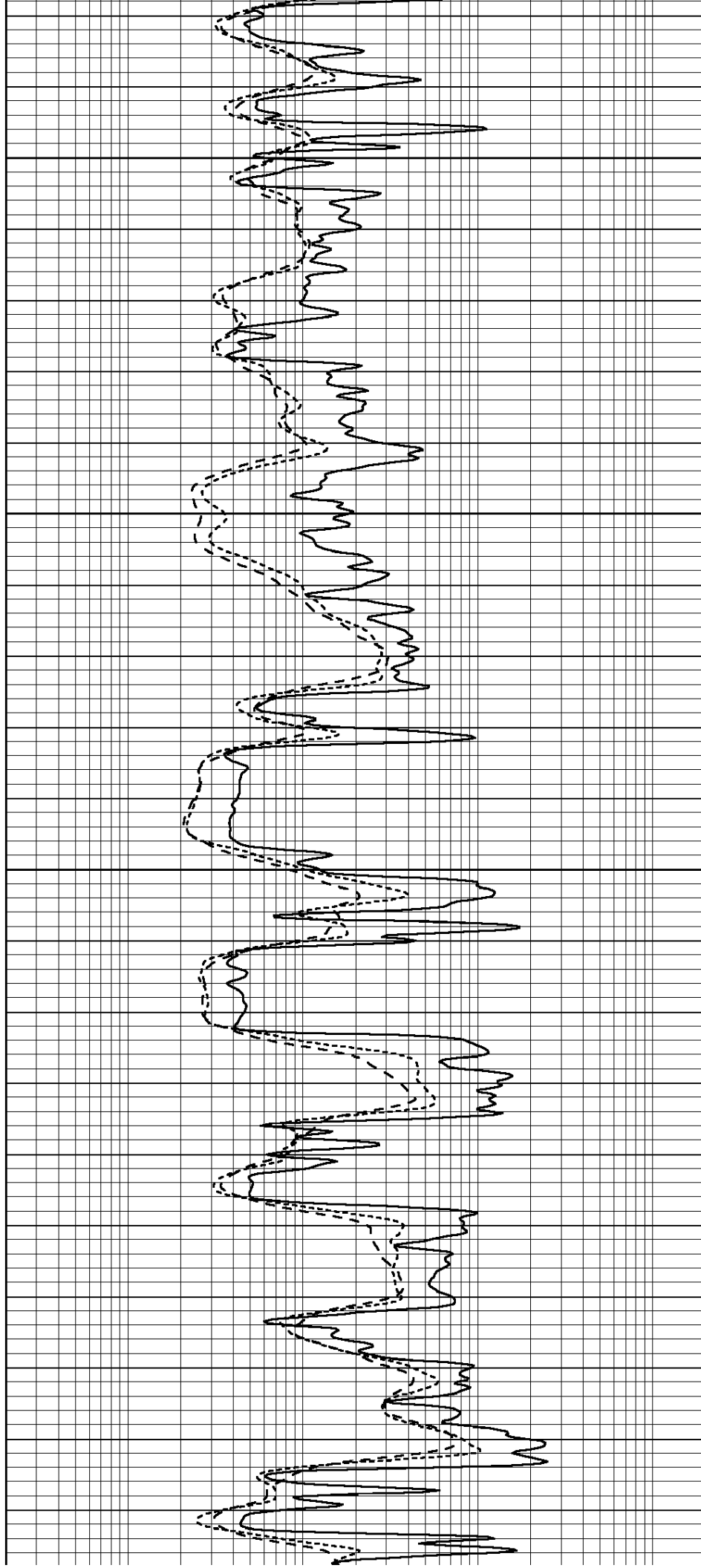


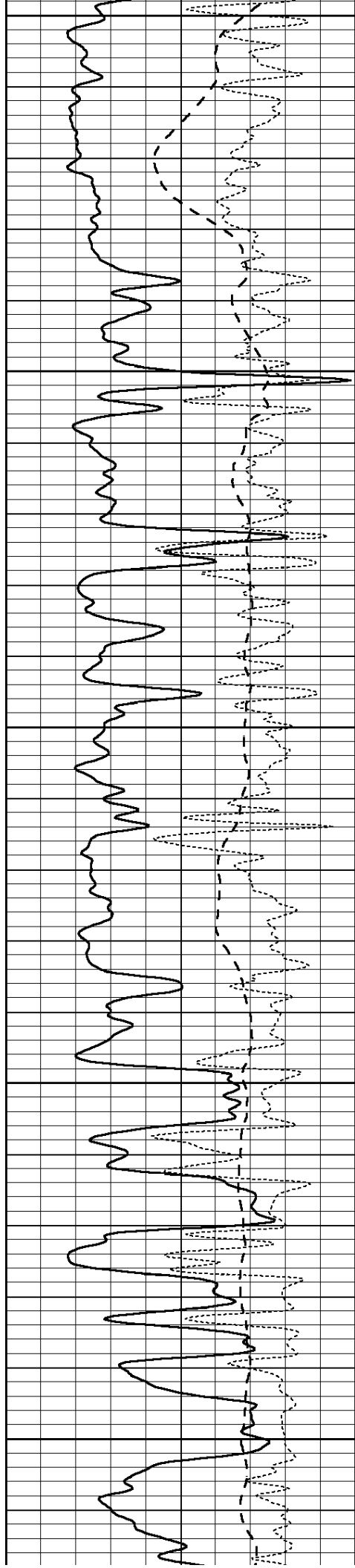
3200

3250

3300

3350





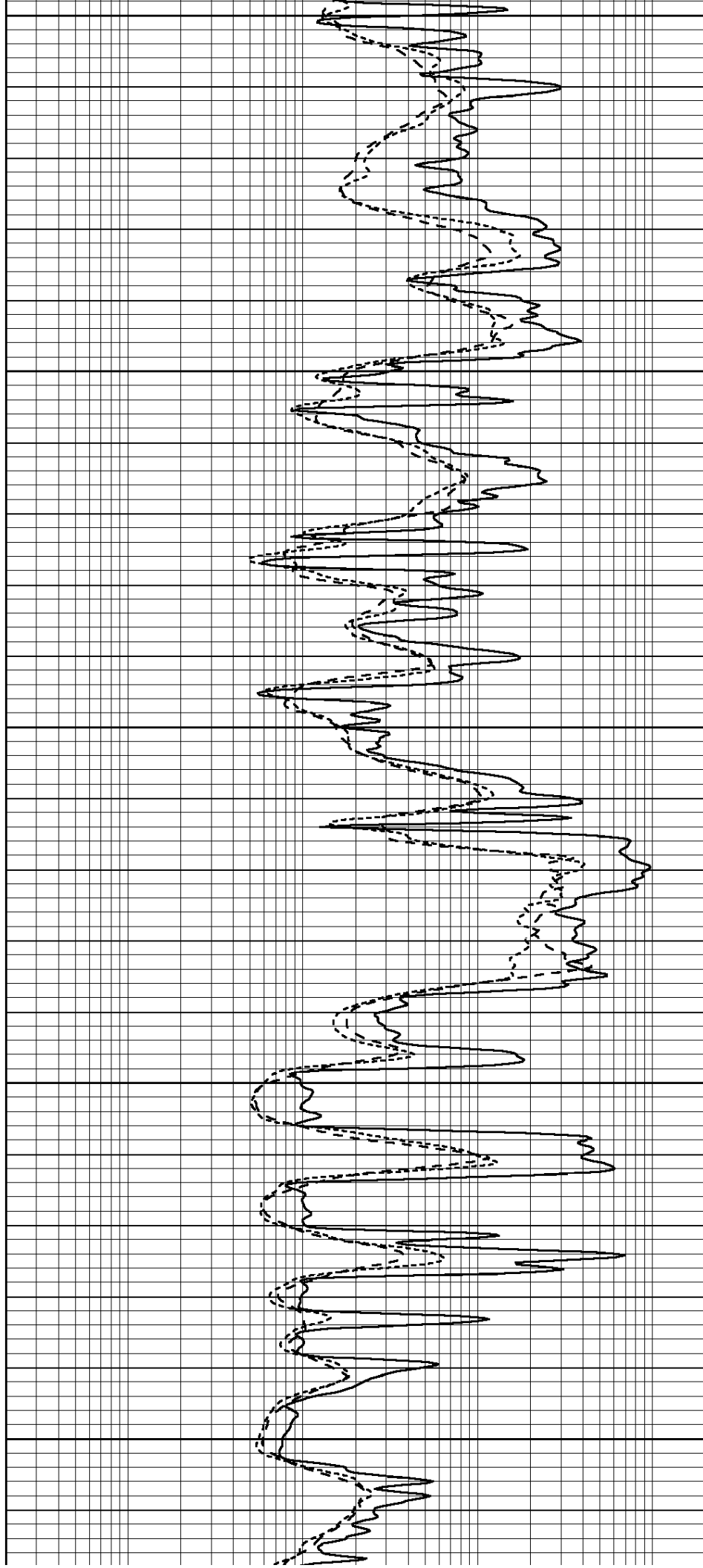
3400

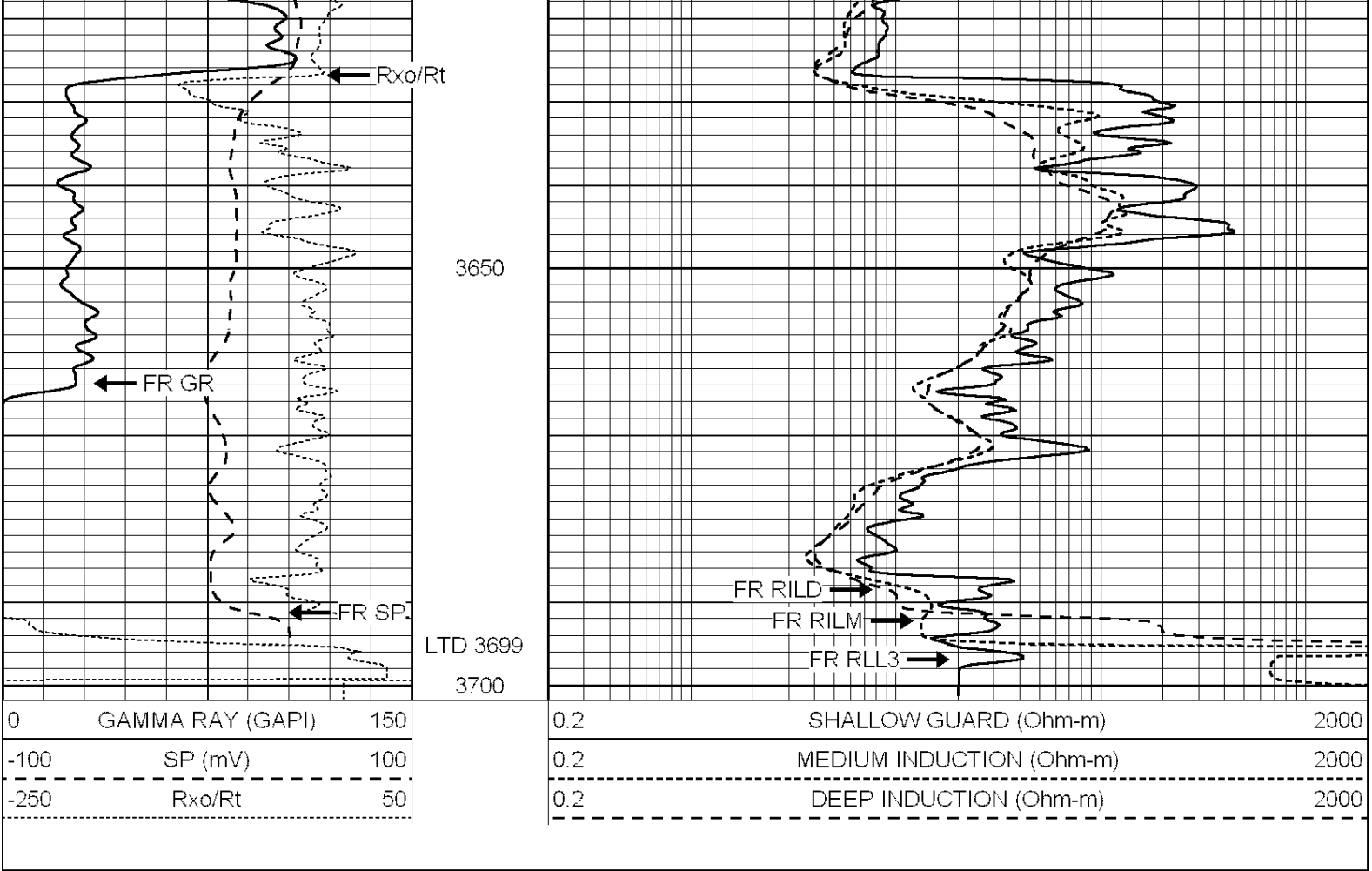
3450

3500

3550

3600

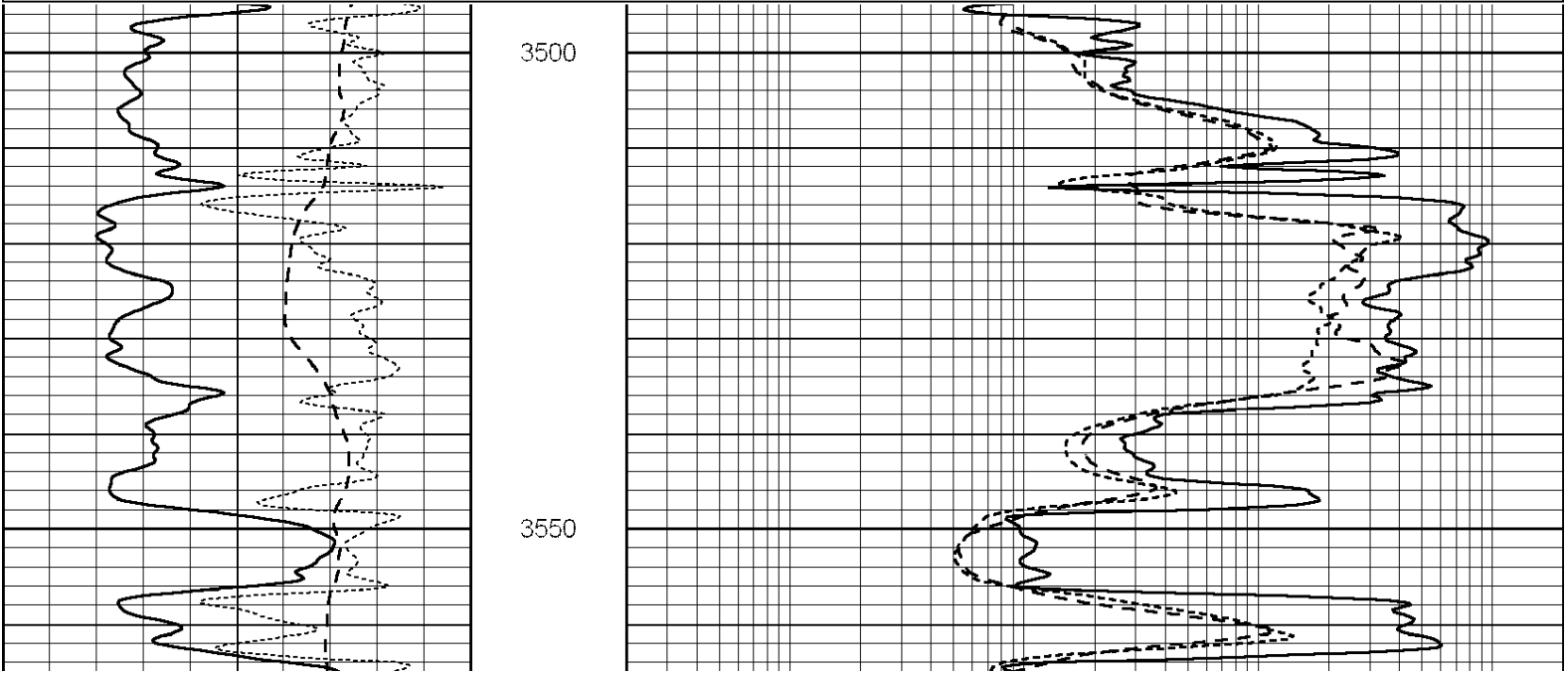


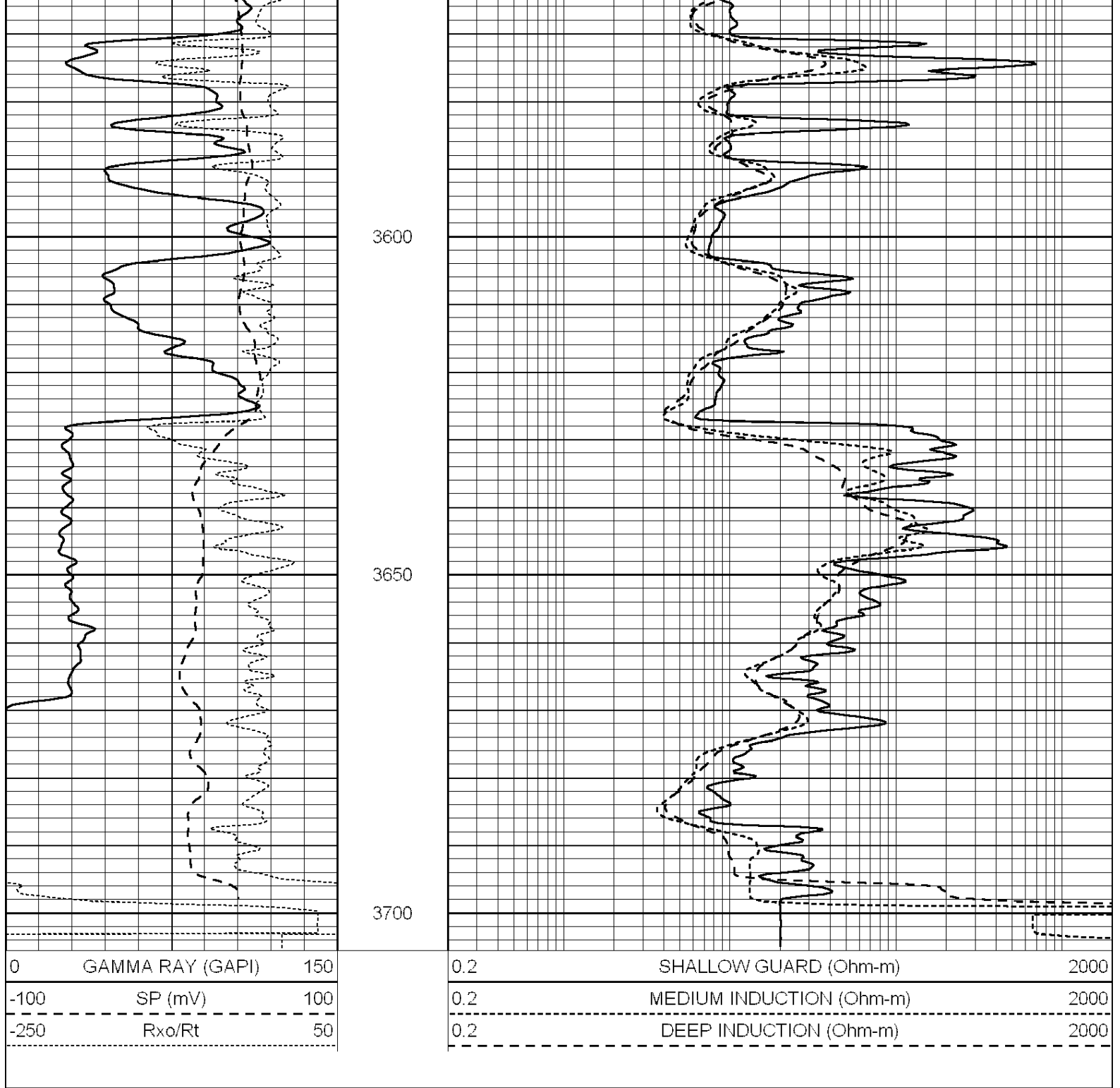


|                      |                                                    |
|----------------------|----------------------------------------------------|
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| Dataset Pathname:    | pass2.6                                            |
| Presentation Format: | _dil                                               |
| Dataset Creation:    | Mon Oct 22 12:13:30 2012 by Calc Open-Cased 090629 |
| 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 |





|                                      |     |                                                    |     |            |   |         |
|--------------------------------------|-----|----------------------------------------------------|-----|------------|---|---------|
| Calibration Report                   |     |                                                    |     |            |   |         |
| Database File:                       |     | 009980ddn.db                                       |     |            |   |         |
| Dataset Pathname:                    |     | pass3.2                                            |     |            |   |         |
| Dataset Creation:                    |     | Mon Oct 22 12:43:34 2012 by Calc Open-Cased 090629 |     |            |   |         |
| Dual Induction Calibration Report    |     |                                                    |     |            |   |         |
| Serial-Model:                        |     | PROBE8-DILG                                        |     |            |   |         |
| Surface Cal Performed:               |     | Fri Aug 01 06:33:19 2008                           |     |            |   |         |
| Downhole Cal Performed:              |     | Mon Jul 28 11:08:27 2008                           |     |            |   |         |
| After Survey Verification Performed: |     | Mon Jul 28 11:08:27 2008                           |     |            |   |         |
| Surface Calibration                  |     |                                                    |     |            |   |         |
|                                      |     | Readings                                           |     | References |   | Results |
| Loop:                                | Air | Loop                                               | Air | Loop       | m | b       |

|           |       |       |   |       |         |        |         |         |
|-----------|-------|-------|---|-------|---------|--------|---------|---------|
| Deep      | 0.015 | 0.648 | V | 0.000 | 400.000 | mmho/m | 632.616 | -9.730  |
| Medium    | 0.029 | 0.796 | V | 0.000 | 464.000 | mmho/m | 605.049 | -17.680 |
| Internal: | Zero  | Cal   |   | Zero  | Cal     |        | m       | b       |
| Deep      | 0.017 | 0.657 | V | 0.000 | 400.000 | mmho/m | 625.153 | -10.619 |
| Medium    | 0.016 | 0.757 | V | 0.000 | 464.000 | mmho/m | 625.992 | -9.739  |

|                      |          |        |        |            |          |        |         |       |
|----------------------|----------|--------|--------|------------|----------|--------|---------|-------|
| Downhole Calibration |          |        |        |            |          |        |         |       |
|                      | Readings |        |        | References |          |        | Results |       |
|                      | Zero     | Cal    |        | Zero       | Cal      |        | m'      | b'    |
| Deep                 | 0.000    | 0.000  | mmho/m | 2.011      | 405.777  | mmho/m | 1.000   | 0.000 |
| Medium               | 0.000    | 0.000  | mmho/m | 7.590      | 503.393  | mmho/m | 1.000   | 0.000 |
| LL3                  |          | 7.500  | V      |            | 1500.000 | Ohm-m  |         |       |
|                      |          | 0.000  | V      |            | 20.000   | Ohm-m  |         |       |
|                      |          | -7.200 | V      |            | 3800.000 | 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 |         |       |

Compensated Density Calibration Report

|                               |                          |
|-------------------------------|--------------------------|
| Serial-Model:                 | GEAR4-GEARHART           |
| Source / Verifier:            | 143 / 143                |
| Master Calibration Performed: | Mon Mar 19 19:07:19 2012 |

|                    |                     |      |  |                             |               |     |
|--------------------|---------------------|------|--|-----------------------------|---------------|-----|
| Master Calibration |                     |      |  |                             |               |     |
|                    | Density             |      |  | Far Detector                | Near Detector |     |
| Magnesium          | 1.710               | g/cc |  | 1015.91                     | 497.51        | cps |
| Aluminum           | 2.600               | g/cc |  | 227.67                      | 350.20        | cps |
|                    | Spine Angle = 76.79 |      |  | Density/Spine Ratio = 0.579 |               |     |
|                    | Size                |      |  | Reading                     |               |     |
| Small Ring         | 8.00                | in   |  | 3.21                        | V             |     |
| Large Ring         | 14.00               | in   |  | 5.46                        | V             |     |

Compensated Neutron Calibration Report

|                |    |
|----------------|----|
| Serial Number: | 6I |
| Tool Model:    | G  |

|             |          |     |        |     |               |  |
|-------------|----------|-----|--------|-----|---------------|--|
| CALIBRATION |          |     |        |     |               |  |
| Detector    | Readings |     | Target |     | Normalization |  |
| Short Space | 1.00     | cps | 1.00   | cps | 1.0000        |  |
| Long Space  | 1.00     | cps | 1.00   | cps | 1.0000        |  |

Gamma Ray Calibration Report

|                   |                          |
|-------------------|--------------------------|
| Serial Number:    | #8                       |
| Tool Model:       | OPEN                     |
| Performed:        | Mon Jun 13 16:56:43 2011 |
| Calibrator Value: | 150.0                    |
|                   | GAPI                     |

Background Reading:

0.0

cps

Calibrator Reading:

175.0

cps

Sensitivity:

0.8371

GAPI/cps