



## DUAL INDUCTION LOG

|                                                                |                                                                           |                                                  |               |
|----------------------------------------------------------------|---------------------------------------------------------------------------|--------------------------------------------------|---------------|
| Company                                                        | C G OIL, INC.                                                             | Company                                          | C G OIL, INC. |
| Well                                                           | WALKER #2                                                                 | Well                                             | WALKER #2     |
| Field                                                          | AIR BASE                                                                  | Field                                            | AIR BASE      |
| County                                                         | ELLIS                                                                     | County                                           | ELLIS         |
| State                                                          | KANSAS                                                                    | State                                            | KANSAS        |
| Location:                                                      | API # : 15-051-26881-0000<br>1750' FNL & 1980' FEL<br>S/2 - N/2 - SW - NE | Other Services<br>CDL/CNL<br>MEL                 |               |
| Permanent Datum<br>Log Measured From<br>Drilling Measured From | GROUND LEVEL<br>KELLY BUSHING 8' A.G.L.<br>KELLY BUSHING                  | Elevation<br>K.B. 1956<br>D.F. 1954<br>G.L. 1948 |               |
| SEC 34 TWP 13S RGE 16W                                         |                                                                           |                                                  |               |
| Date                                                           | 6/7/17                                                                    |                                                  |               |
| Run Number                                                     | ONE                                                                       |                                                  |               |
| Depth Driller                                                  | 3520                                                                      |                                                  |               |
| Depth Logger                                                   | 3520                                                                      |                                                  |               |
| Bottom Logged Interval                                         | 3518                                                                      |                                                  |               |
| Top Log Interval                                               | 00                                                                        |                                                  |               |
| Casing Driller                                                 | 8 5/8" @ 1042'                                                            |                                                  |               |
| Casing Logger                                                  | 1042                                                                      |                                                  |               |
| Bit Size                                                       | 7 7/8"                                                                    |                                                  |               |
| Type Fluid in Hole                                             | CHEMICAL MUD                                                              | CHLORIDES 7,100 PPM                              |               |
| Density / Viscosity                                            | 9.4/50                                                                    |                                                  |               |
| pH / Fluid Loss                                                | 10.5/6.8                                                                  |                                                  |               |
| Source of Sample                                               | FLOWLINE                                                                  |                                                  |               |
| Rim @ Meas. Temp                                               | .600 @ 90F                                                                |                                                  |               |
| Rmf @ Meas. Temp                                               | .450 @ 90F                                                                |                                                  |               |
| Rmc @ Meas. Temp                                               | .720 @ 90F                                                                |                                                  |               |
| Source of Rmf / Rmc                                            | MEASUREMENT                                                               |                                                  |               |
| Rim @ BHT                                                      | .482 @ 112F                                                               |                                                  |               |
| Time Circulation Stopped                                       | 2 HOURS                                                                   |                                                  |               |
| Time Logger on Bottom                                          | 12:00 P.M.                                                                |                                                  |               |
| Maximum Recorded Temperature                                   | 112F                                                                      |                                                  |               |
| Equipment Number                                               | 922339                                                                    |                                                  |               |
| Location                                                       | HAYS, KANSAS                                                              |                                                  |               |
| Recorded By                                                    | JEFF LUEBBERS                                                             |                                                  |               |
| Witnessed By                                                   | ROGER FISHER                                                              | RON SCHMIDTBERGER                                | TERRY PLESKER |

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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  
WALKER, KS. & OLD 40, 3/4N., W. INTO @TANK BATTERY



# MAIN SECTION

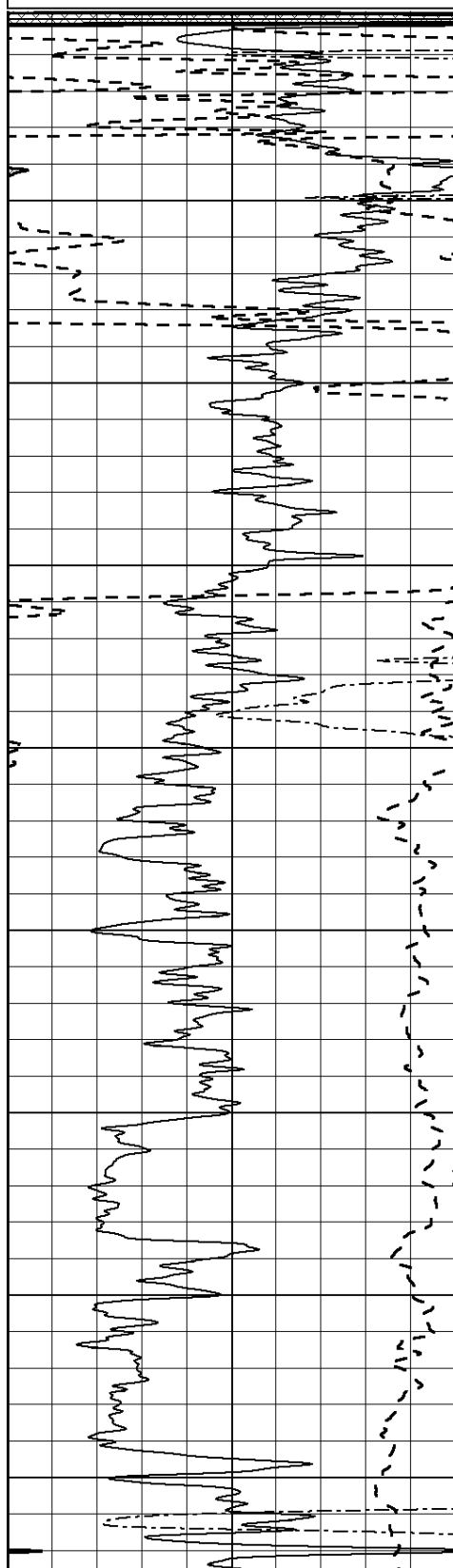
Database File: 1576ddn.db  
Dataset Pathname: pass3.7  
Presentation Format: dil2  
Dataset Creation: Wed Jun 07 13:34:41 2017  
Charted by: Depth in Feet scaled 1:600

|      |                  |     |
|------|------------------|-----|
| 0    | Gamma Ray (GAPI) | 150 |
| -100 | SP (mV)          | 100 |
| 0    | RWA (Ohm-m)      | 1   |

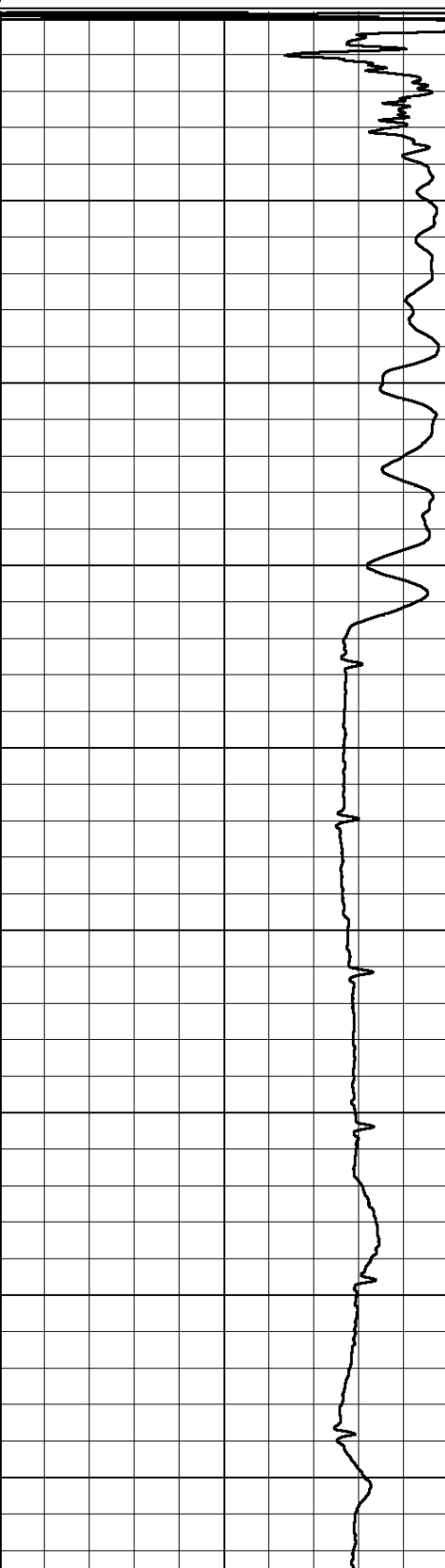
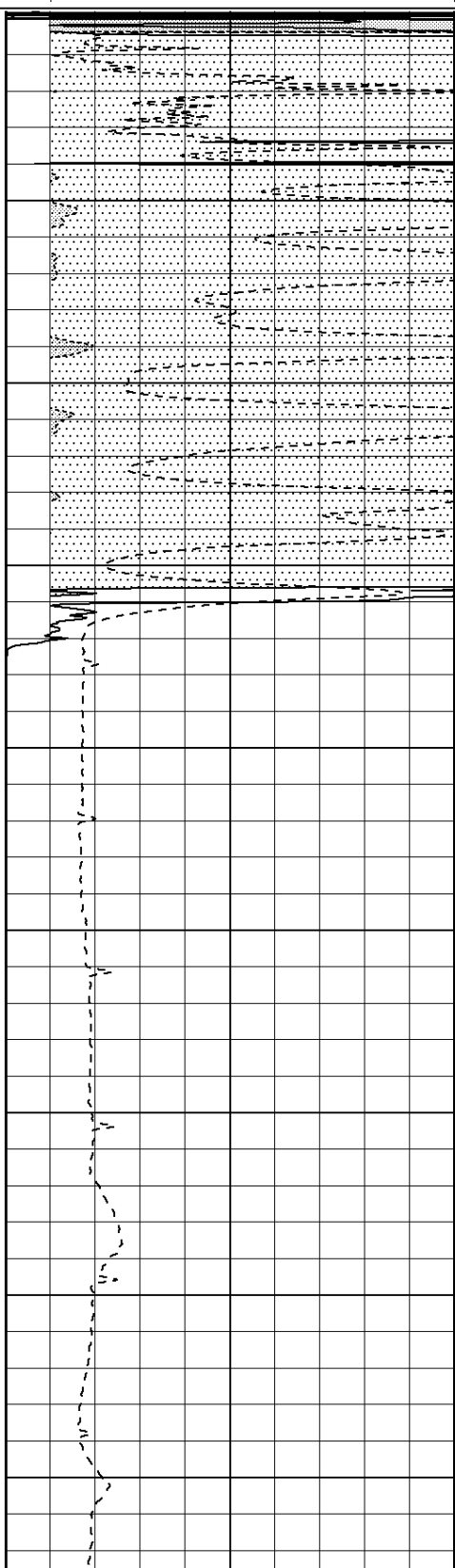
|   |              |    |
|---|--------------|----|
| 0 | RLL3 (Ohm-m) | 50 |
| 0 | RILD (Ohm-m) | 50 |

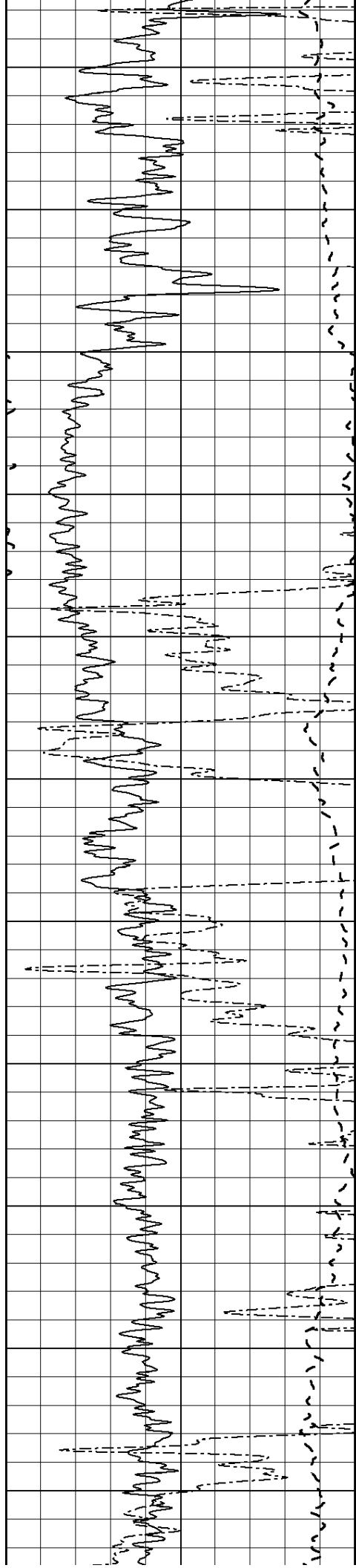
|      |               |   |
|------|---------------|---|
| 1000 | CILD (mmho/m) | 0 |
|------|---------------|---|

|    |                  |     |
|----|------------------|-----|
| 50 | RILD X10 (Ohm-m) | 500 |
| 50 | RLL3 X10 (Ohm-m) | 500 |



0  
50  
100  
150  
200  
250  
300  
350  
400





450

500

550

600

650

700

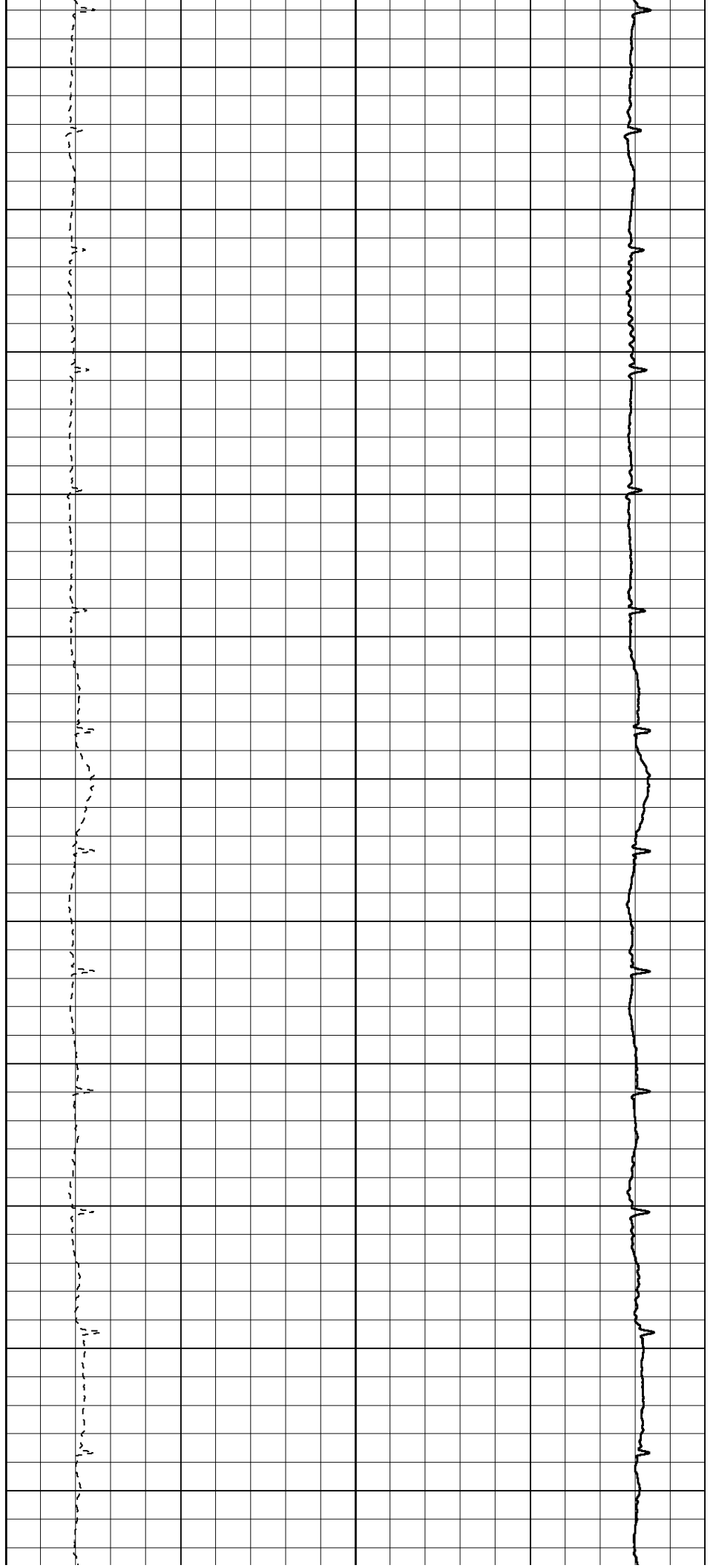
750

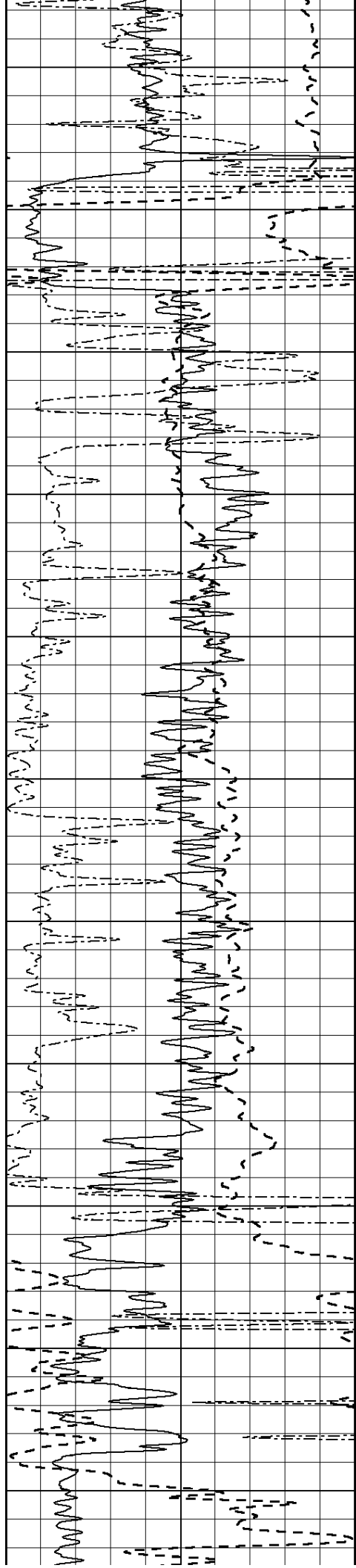
800

850

900

950





1000

1050

1100

1150

1200

1250

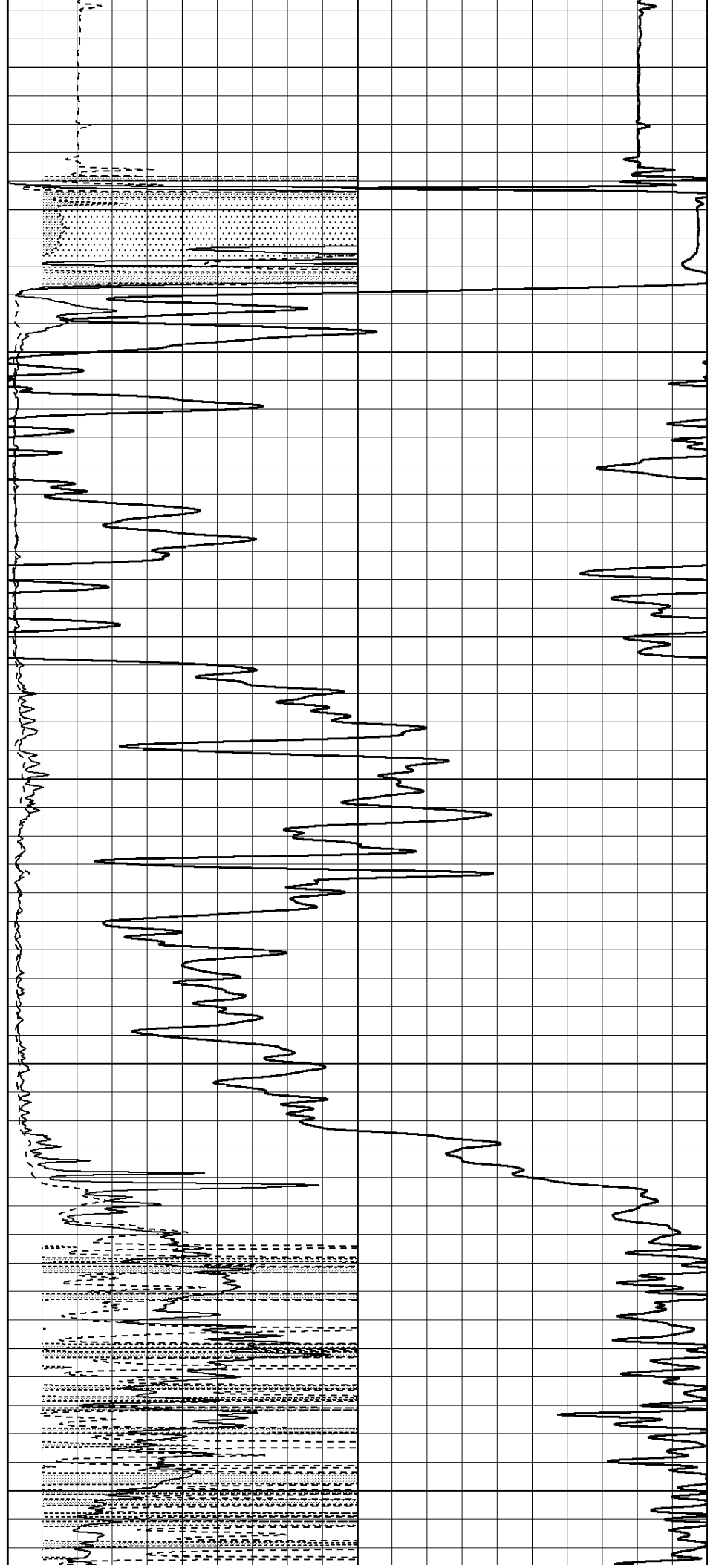
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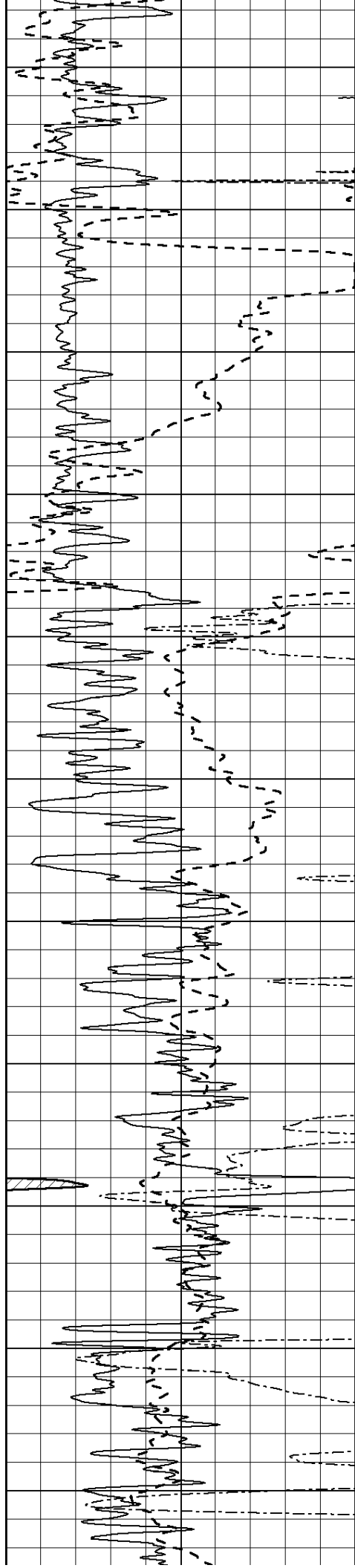
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1400

1450

1500





1550

1600

1650

1700

1750

1800

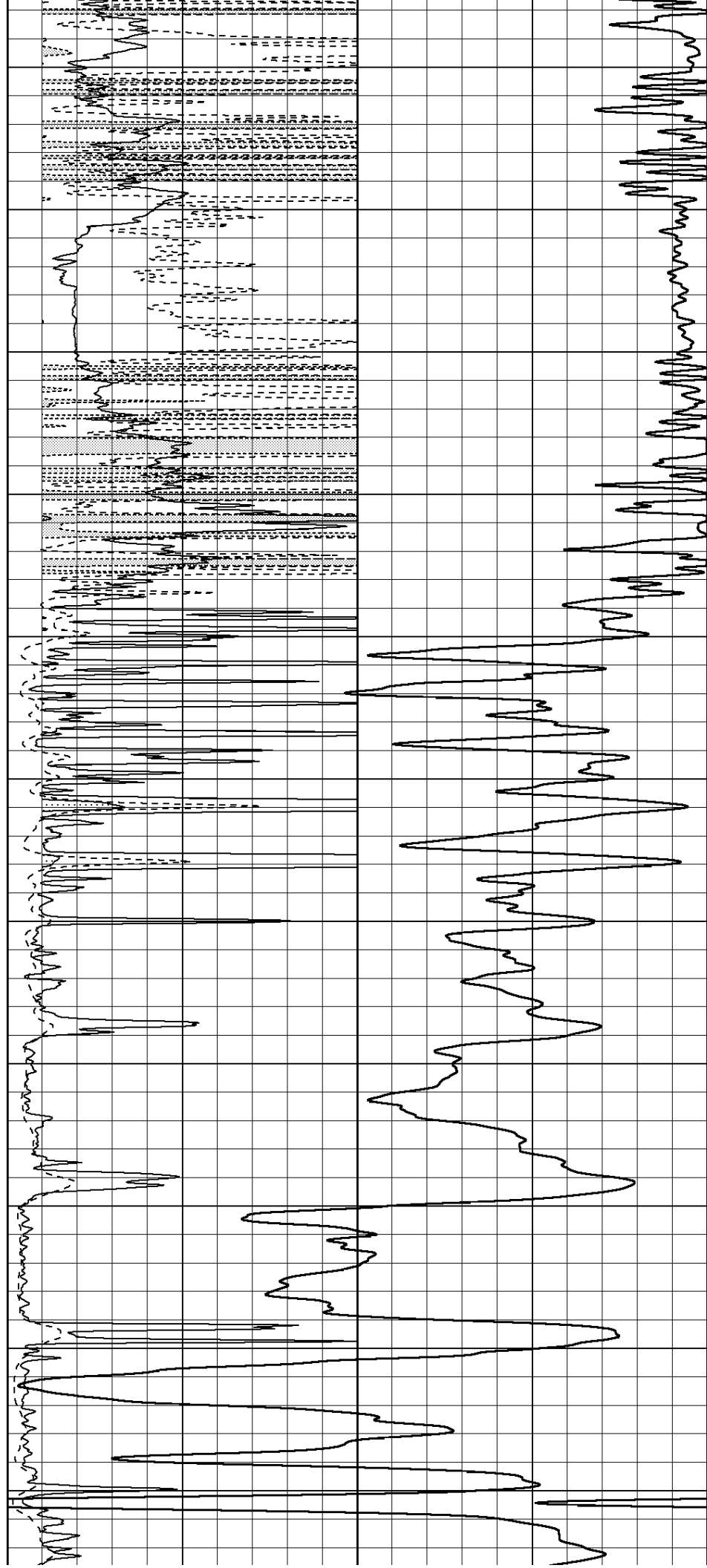
1850

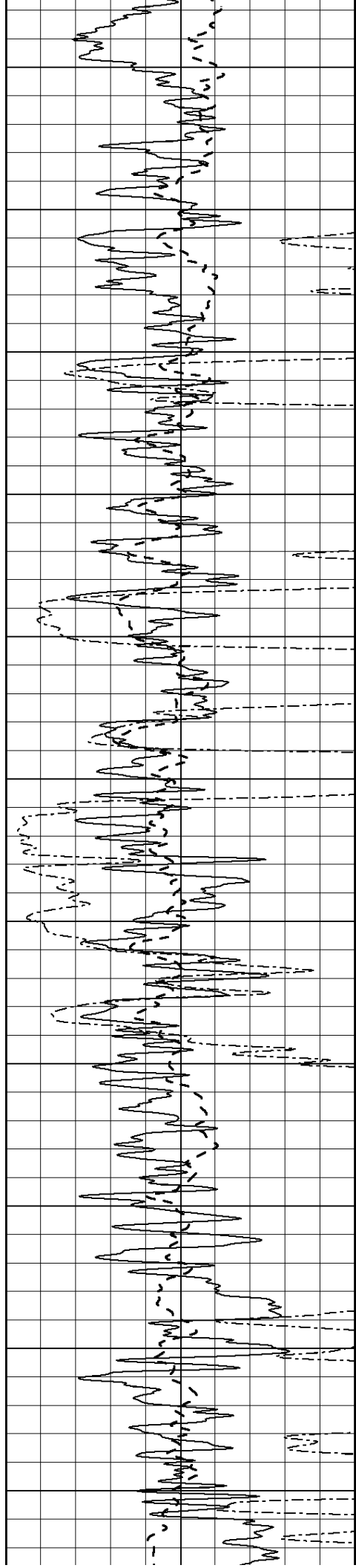
1900

1950

2000

2050





2100

2150

2200

2250

2300

2350

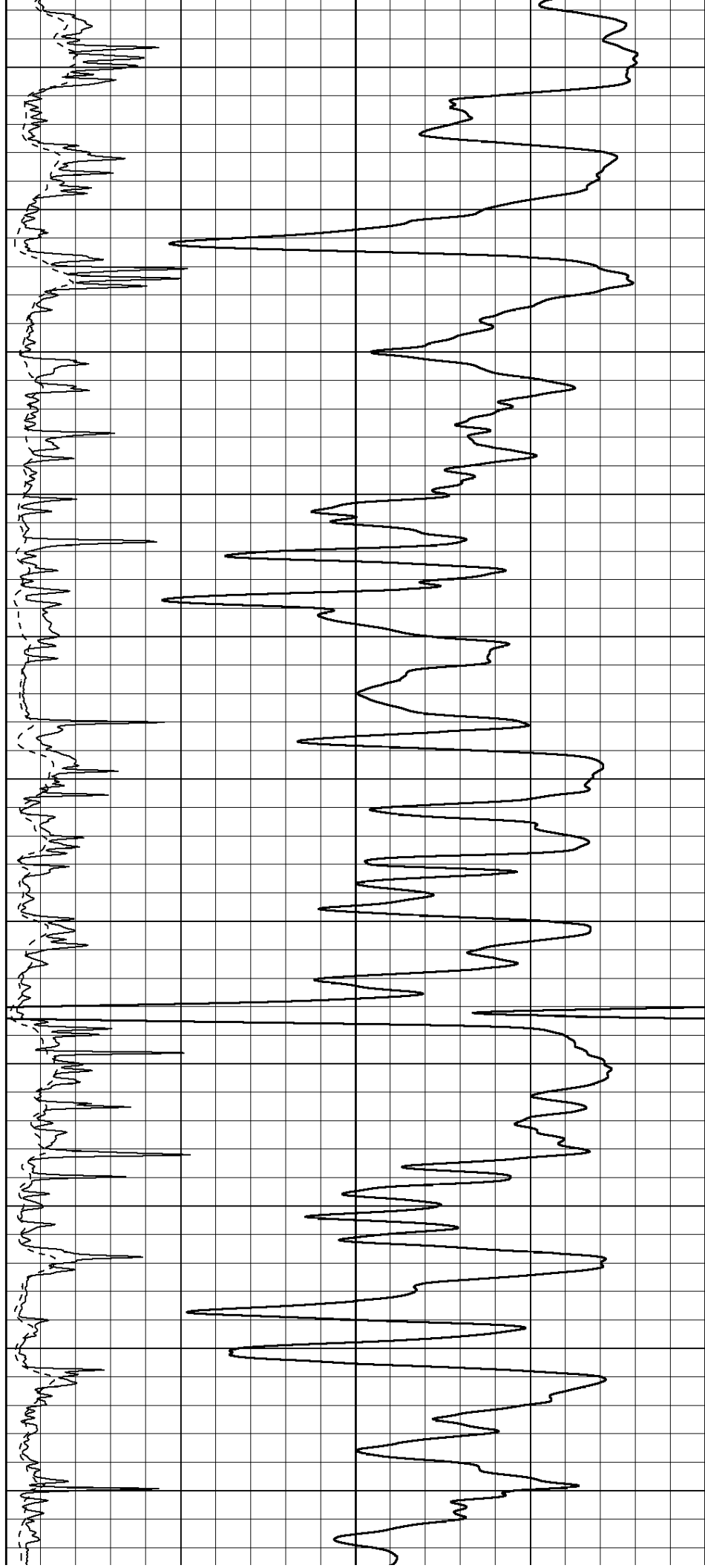
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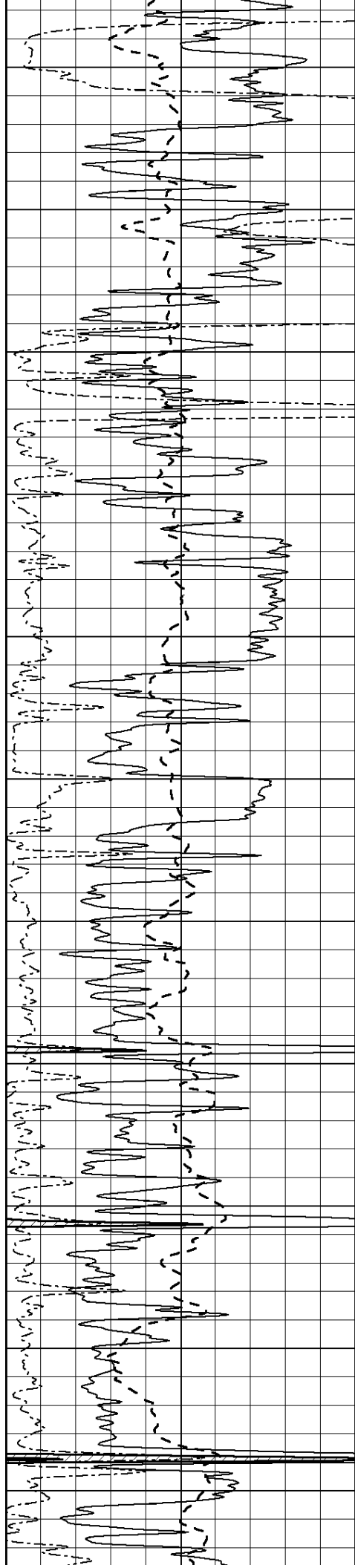
2450

2500

2550

2600





2650

2700

2750

2800

2850

2900

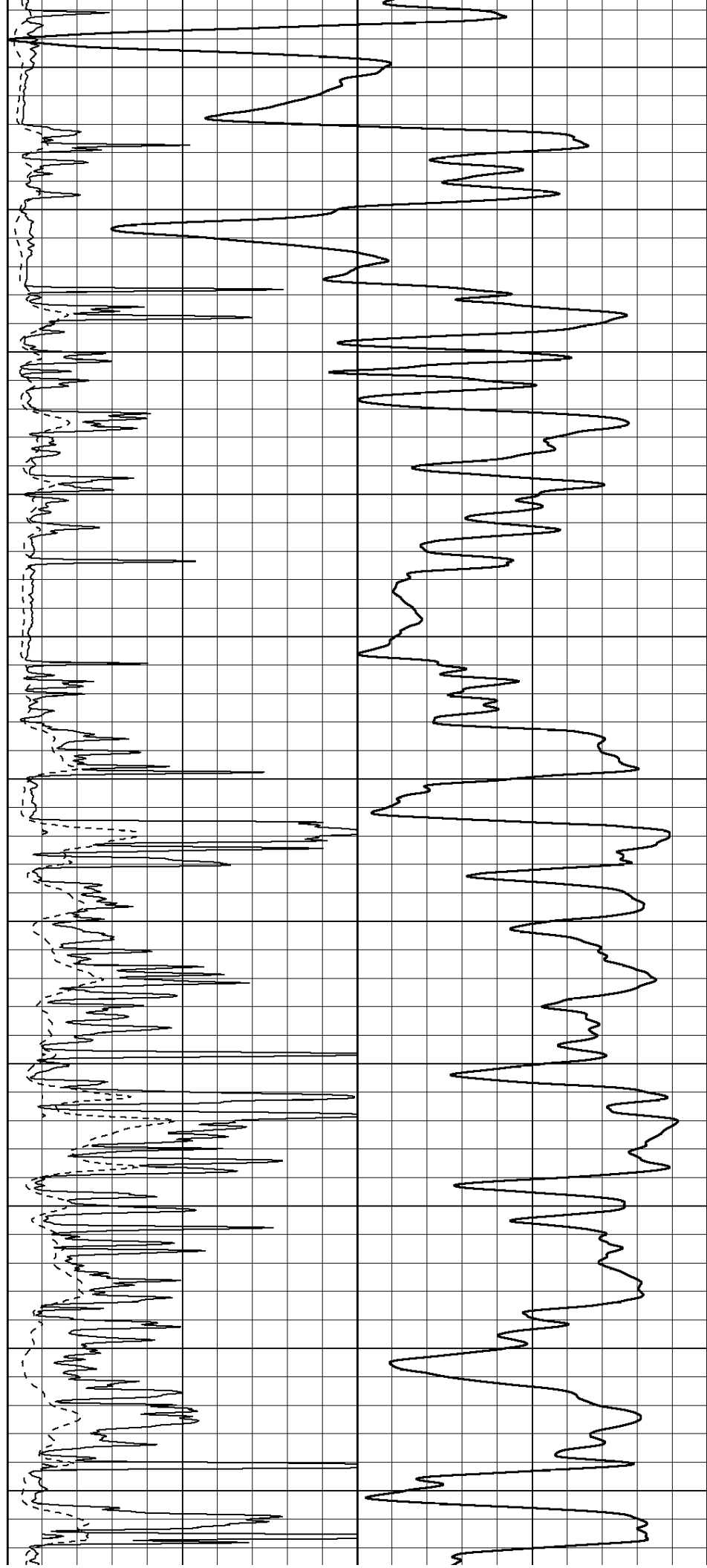
2950

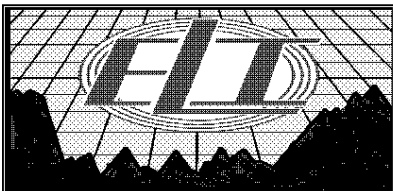
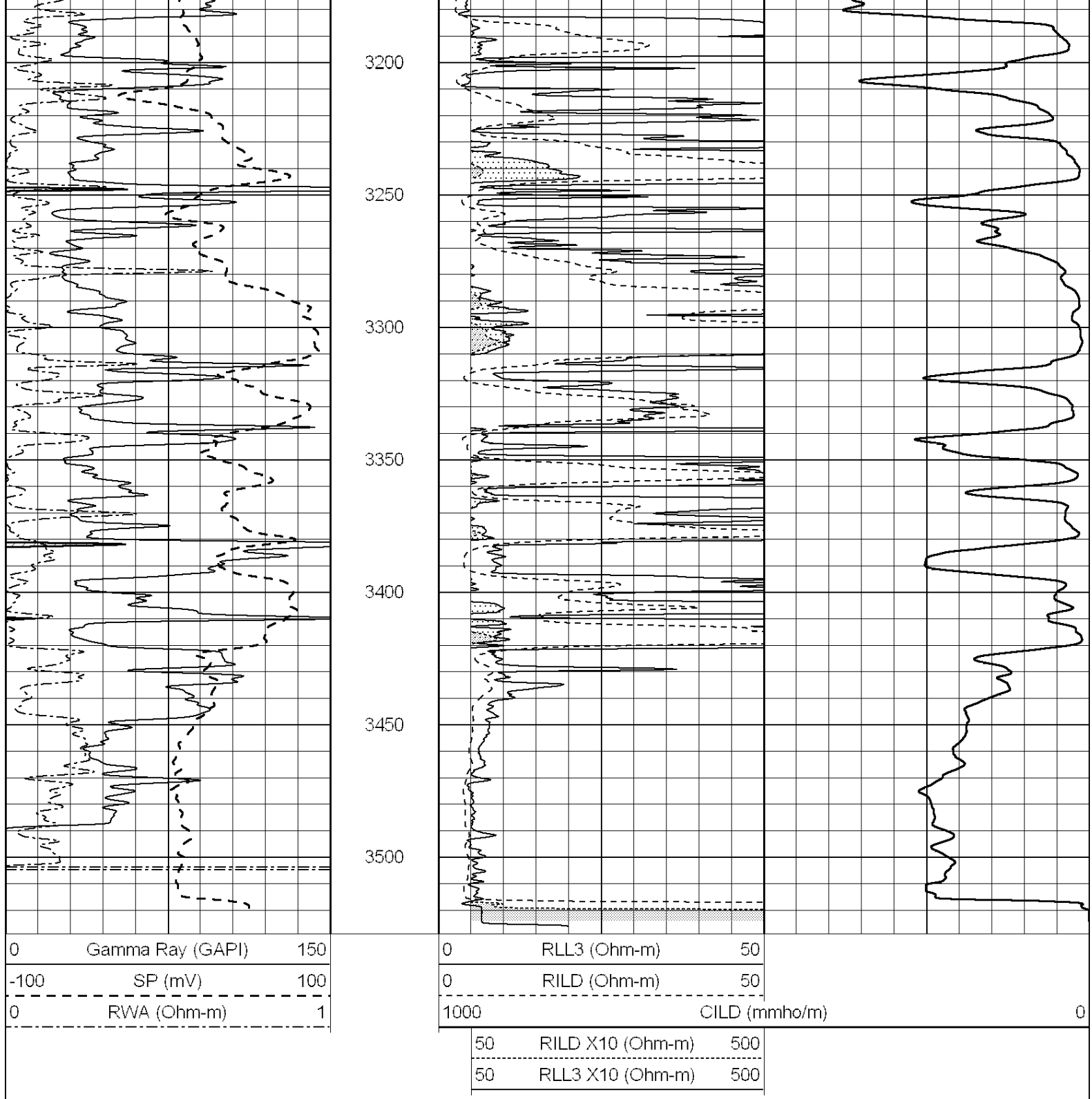
3000

3050

3100

3150





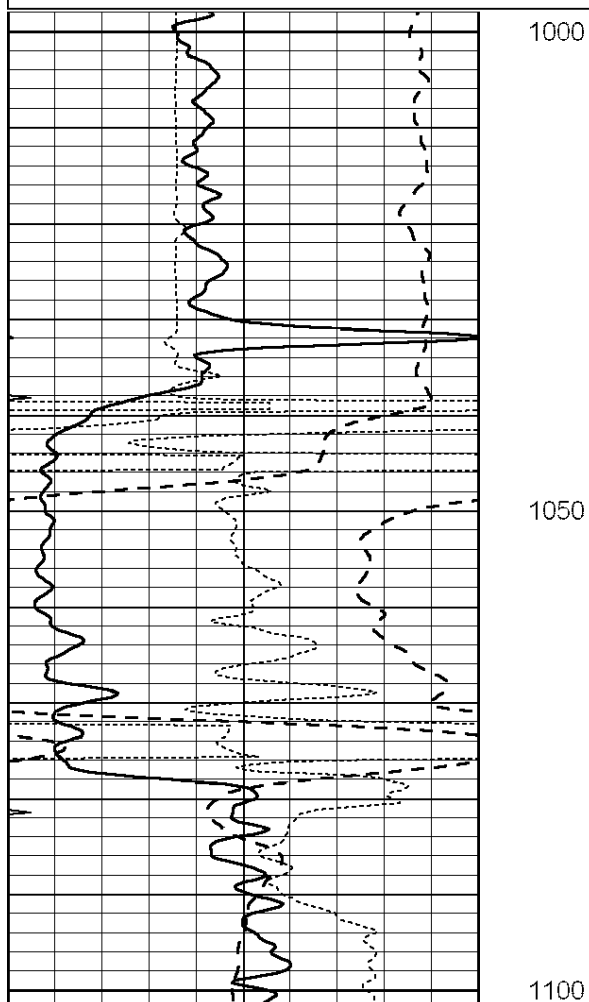
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Database File: 1576ddn.db  
 Dataset Pathname: pass3.8  
 Presentation Format: \_dil  
 Dataset Creation: Wed Jun 07 13:34:57 2017  
 Charted by: Depth in Feet scaled 1:240

|      |                  |     |     |                        |      |
|------|------------------|-----|-----|------------------------|------|
| 0    | GAMMA RAY (GAPI) | 150 | 0.2 | SHALLOW GUARD (Ohm-m)  | 2000 |
| -100 | SP (mV)          | 100 | 0.2 | DEEP INDUCTION (Ohm-m) | 2000 |

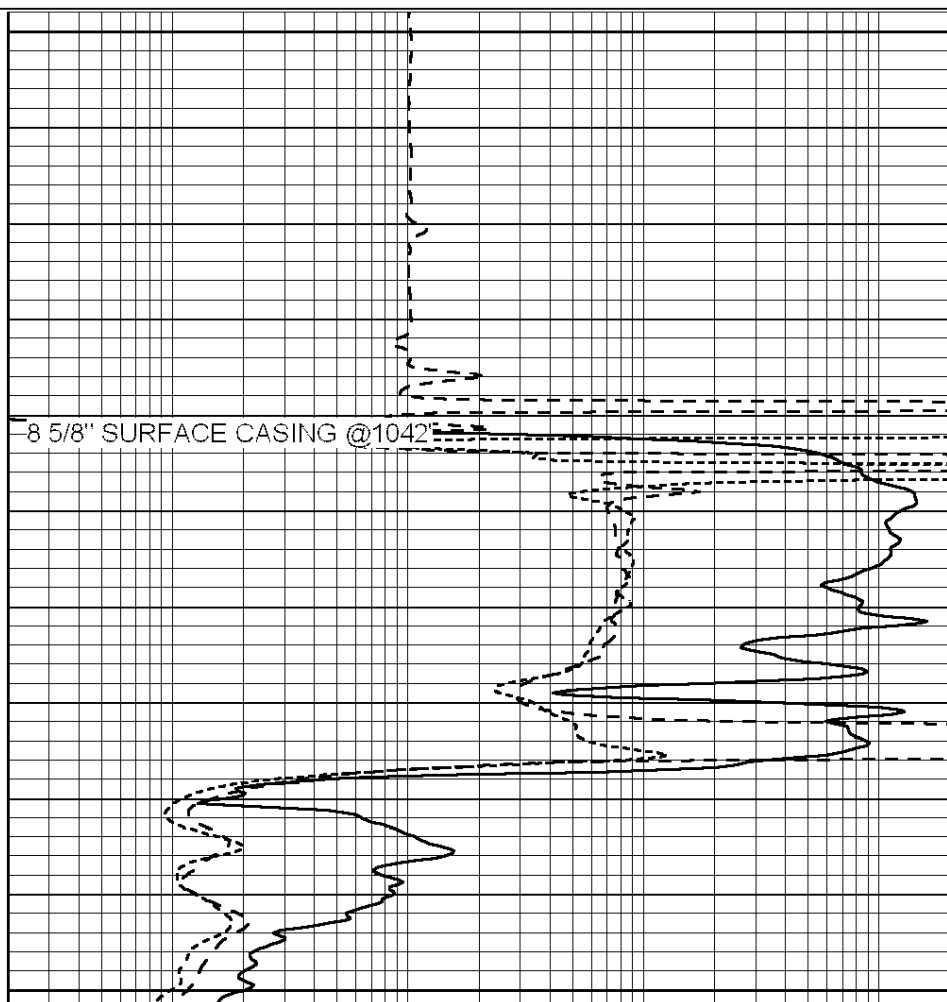
|      |        |    |
|------|--------|----|
| -250 | Rxo/Rt | 50 |
| 0    | MINMK  | 20 |

|     |                          |      |
|-----|--------------------------|------|
| 0.2 | MEDIUM INDUCTION (Ohm-m) | 2000 |
|-----|--------------------------|------|

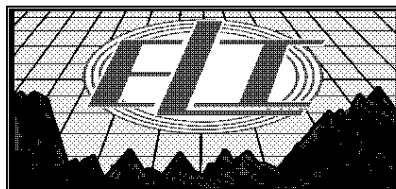


|      |                  |     |
|------|------------------|-----|
| 0    | GAMMA RAY (GAPI) | 150 |
| -100 | SP (mV)          | 100 |
| -250 | Rxo/Rt           | 50  |
| 0    | MINMK            | 20  |

1000  
1050  
1100



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

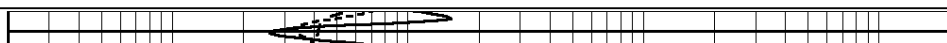
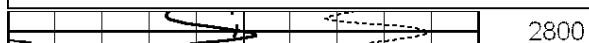


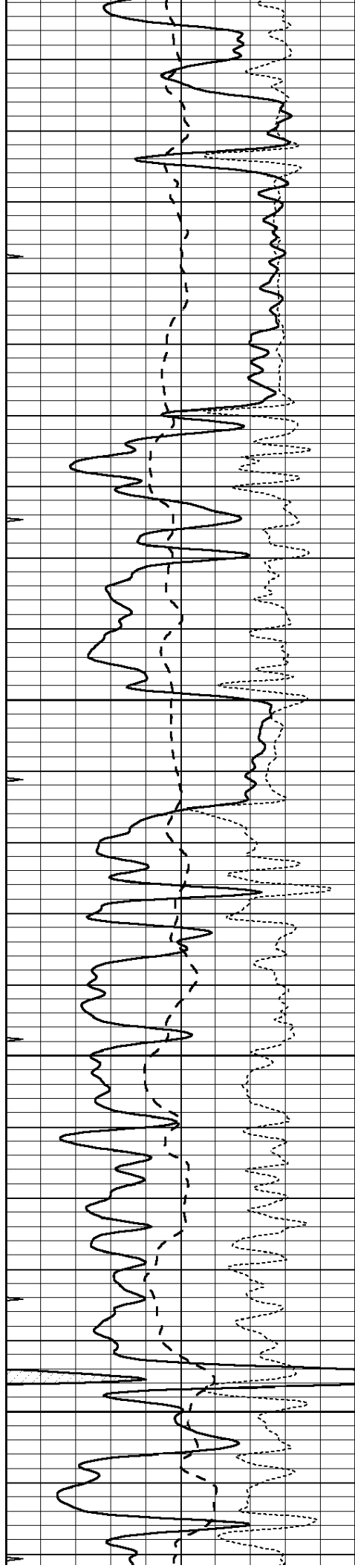
# MAIN SECTION

Database File: 1576ddn.db  
Dataset Pathname: pass3.7  
Presentation Format: dil  
Dataset Creation: Wed Jun 07 13:34:41 2017  
Charted by: Depth in Feet scaled 1:240

|      |                  |     |
|------|------------------|-----|
| 0    | GAMMA RAY (GAPI) | 150 |
| -100 | SP (mV)          | 100 |
| -250 | Rxo/Rt           | 50  |
| 0    | MINMK            | 20  |

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



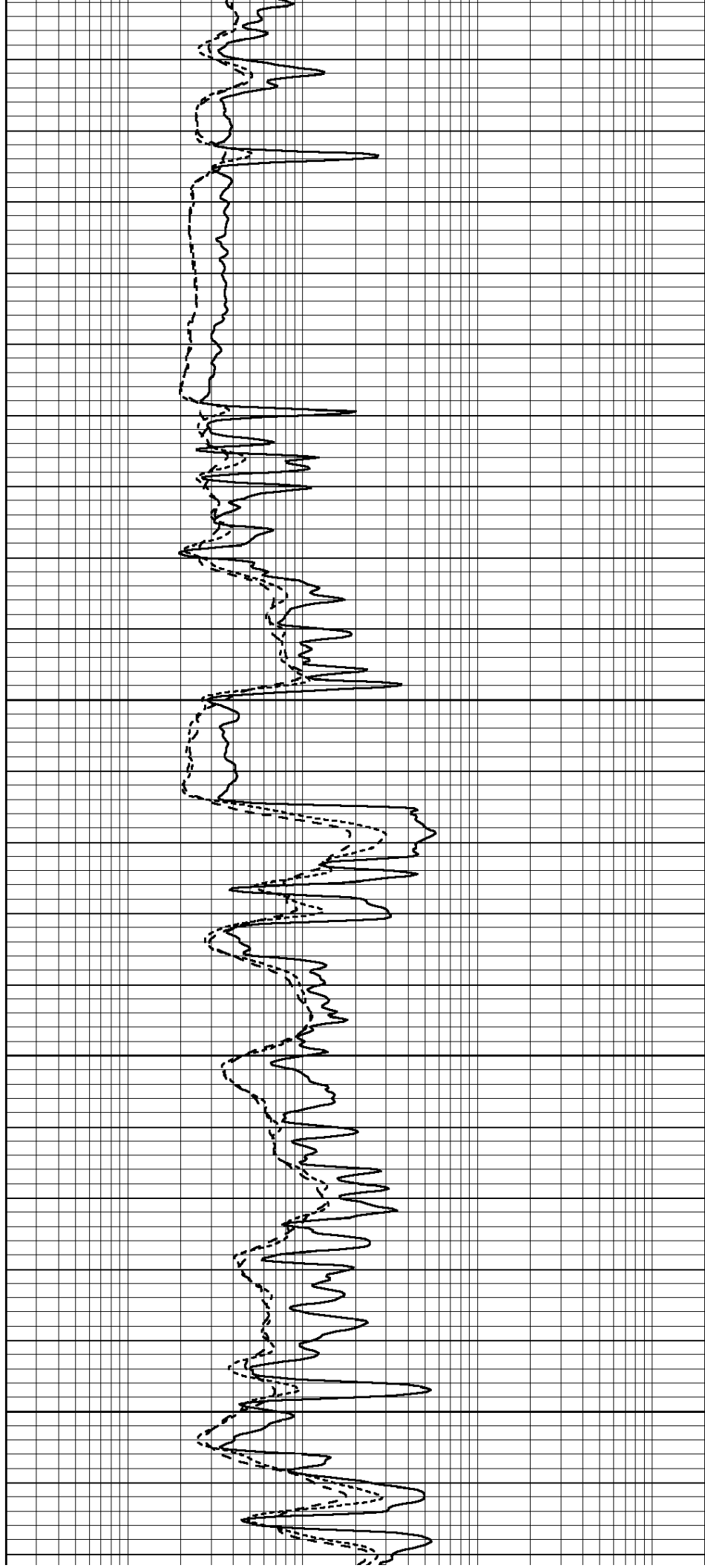


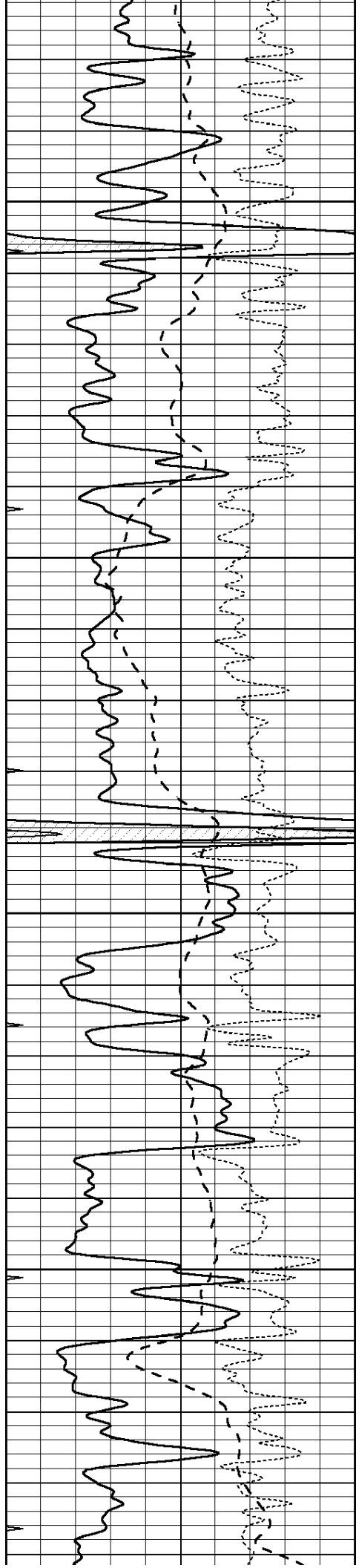
2850

2900

2950

3000



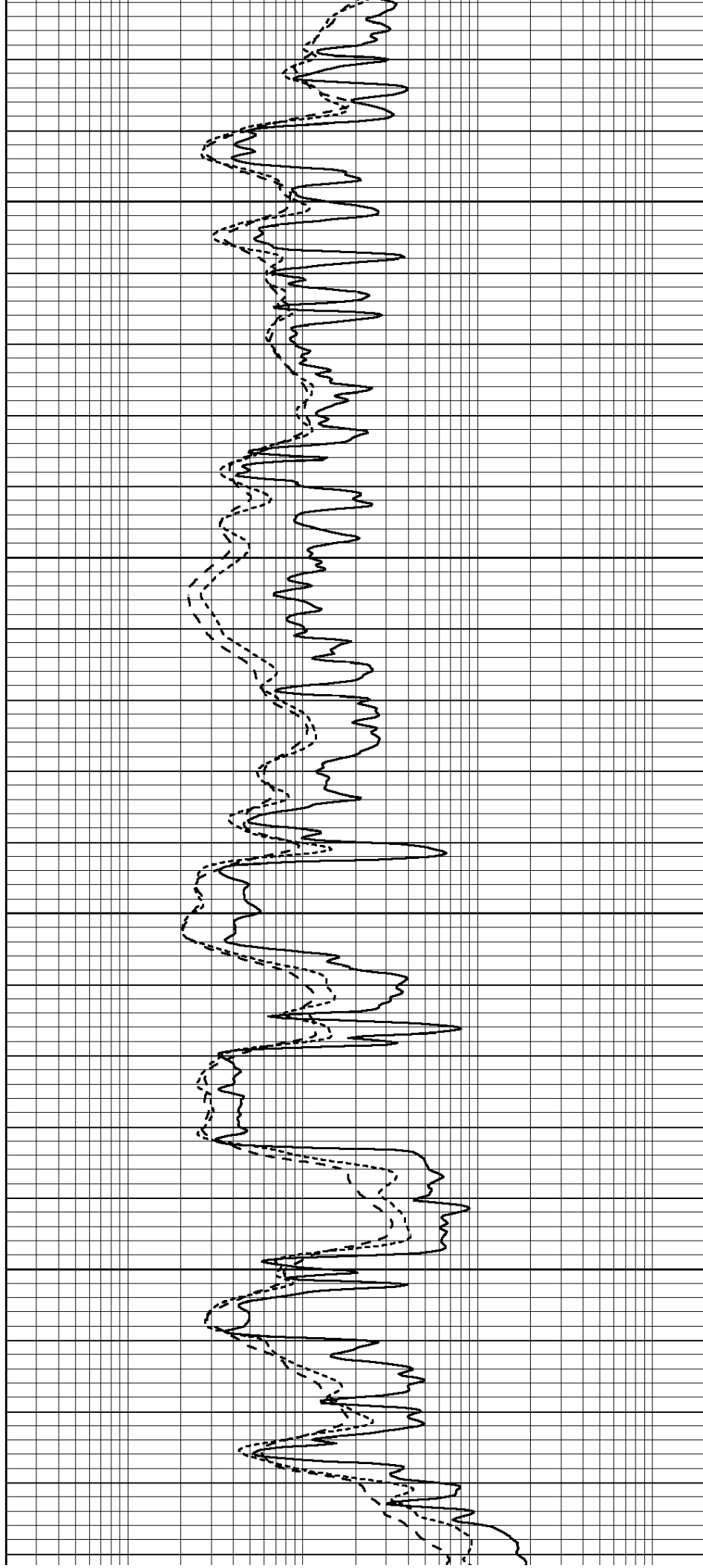


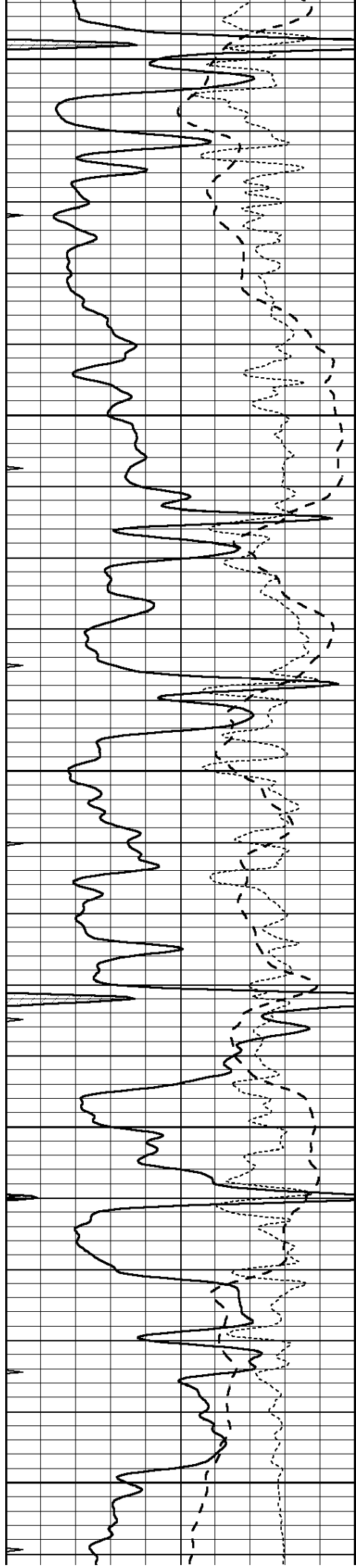
3050

3100

3150

3200





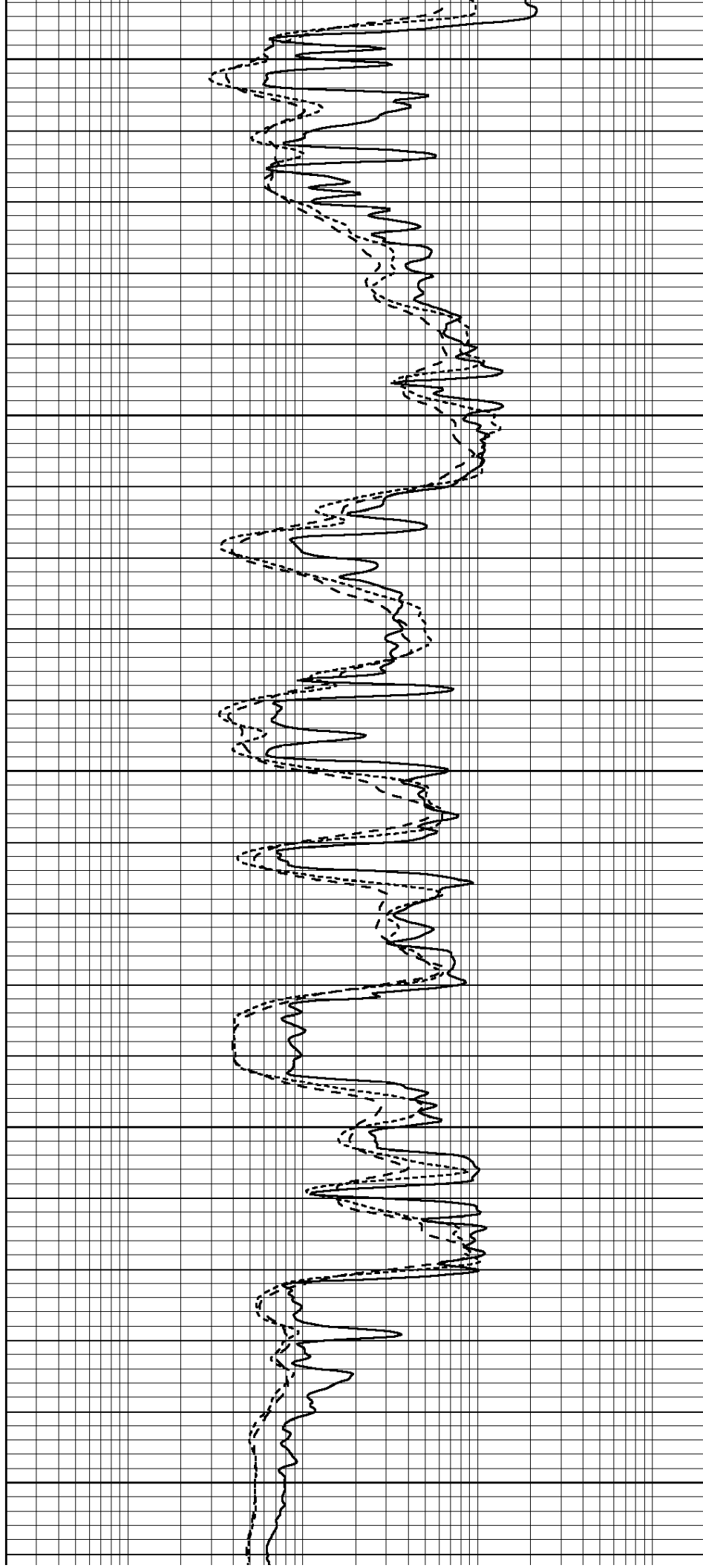
3250

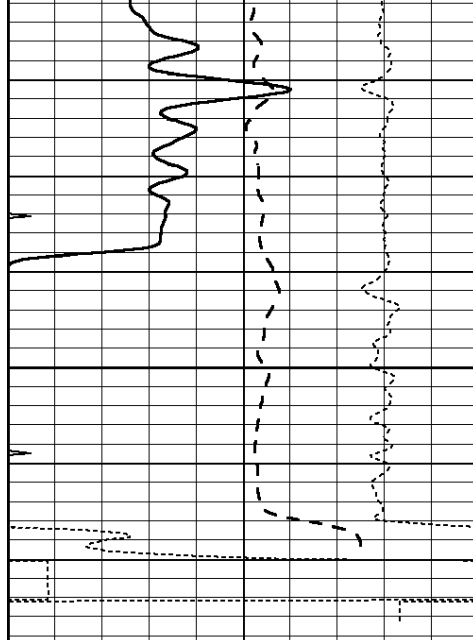
3300

3350

3400

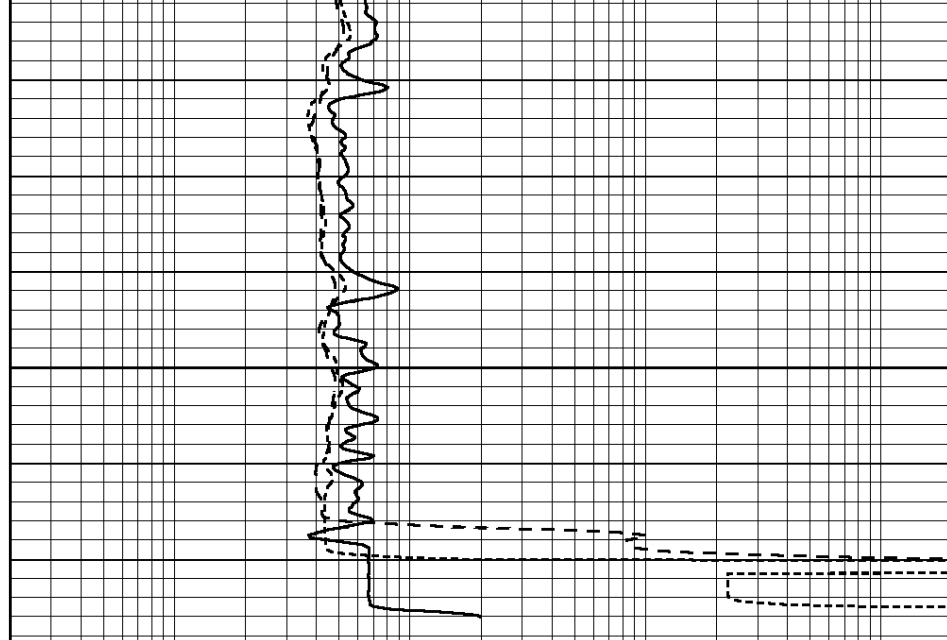
3450



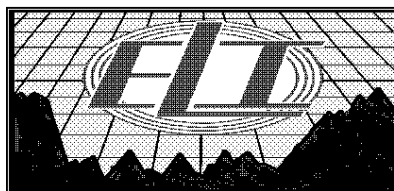


|      |                  |     |
|------|------------------|-----|
| 0    | GAMMA RAY (GAPI) | 150 |
| -100 | SP (mV)          | 100 |
| -250 | Rxo/Rt           | 50  |
| 0    | MINMK            | 20  |

3500



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

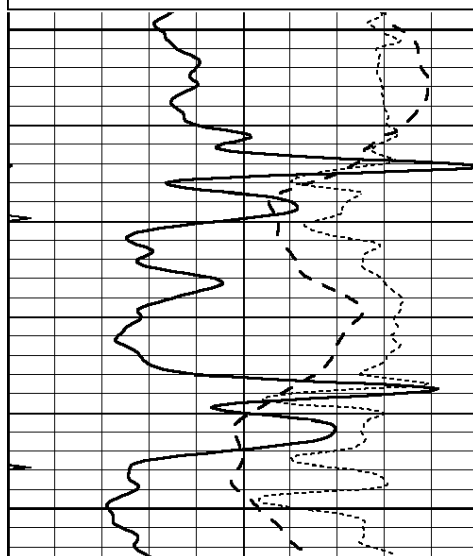


# REPEAT SECTION

Database File: 1576ddn.db  
 Dataset Pathname: pass2.9  
 Presentation Format: \_dil  
 Dataset Creation: Wed Jun 07 12:41:54 2017  
 Charted by: Depth in Feet scaled 1:240

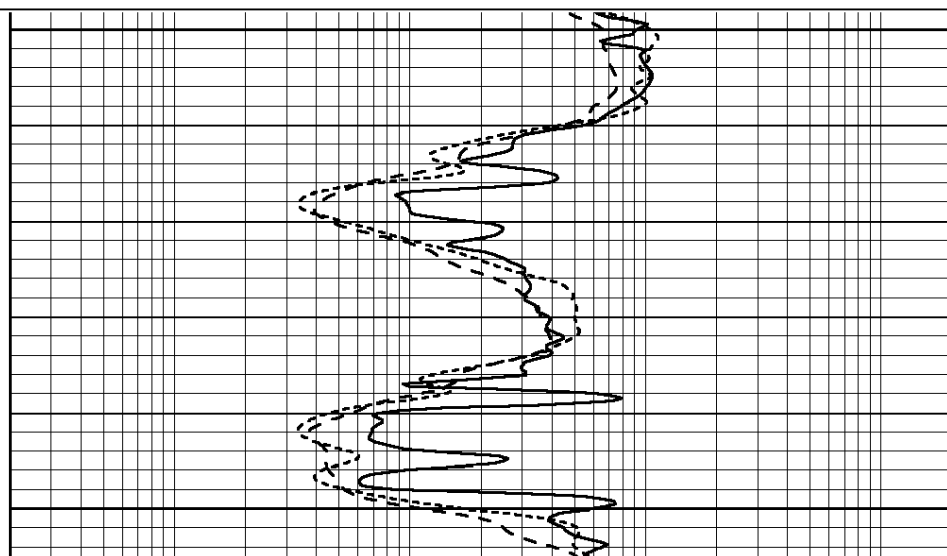
|      |                  |     |
|------|------------------|-----|
| 0    | GAMMA RAY (GAPI) | 150 |
| -100 | SP (mV)          | 100 |
| -250 | Rxo/Rt           | 50  |
| 0    | MINMK            | 20  |

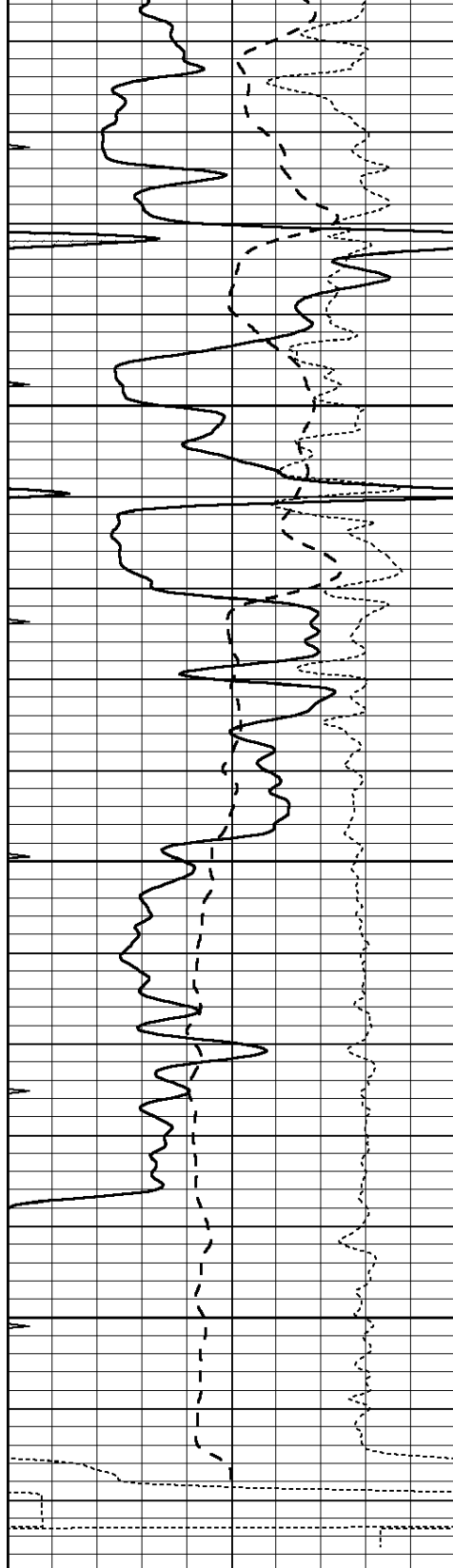
|     |                          |      |
|-----|--------------------------|------|
| 0.2 | SHALLOW GUARD (Ohm-m)    | 2000 |
| 0.2 | DEEP INDUCTION (Ohm-m)   | 2000 |
| 0.2 | MEDIUM INDUCTION (Ohm-m) | 2000 |



3300

3350



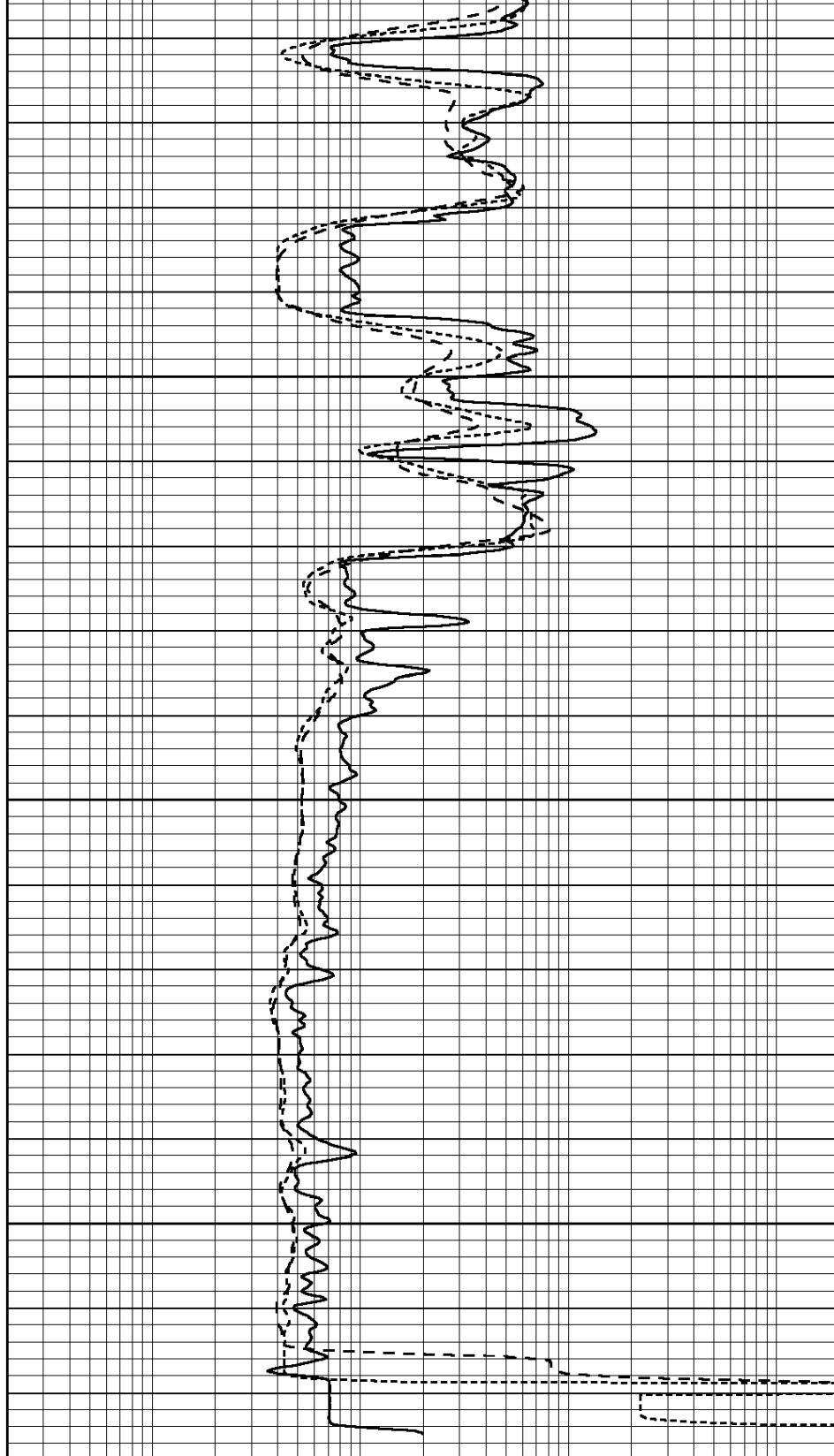


|      |                  |     |
|------|------------------|-----|
| 0    | GAMMA RAY (GAPI) | 150 |
| -100 | SP (mV)          | 100 |
| -250 | Rxo/Rt           | 50  |
| 0    | MINMK            | 20  |

3400

3450

3500



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

# Calibration Report

Database File: 1576ddn.db  
 Dataset Pathname: pass3.7  
 Dataset Creation: Wed Jun 07 13:34:41 2017

## Dual Induction Calibration Report

Serial-Model: PROBE7-DILG  
 Surface Cal Performed: Mon May 15 11:30:04 2017  
 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 | -2.000  |
| Medium    | 0.039  | 0.728 | V | 0.000      | 464.000 | mmho/m | 675.000 | -48.000 |
| 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 |

|                     |     |        |        |        |      |
|---------------------|-----|--------|--------|--------|------|
| Window 1            | 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:                   |  | Wed May 31 00:09:32 2017 |          |  |  |
| Calibrator Value:            |  | 1.0                      | GAPI     |  |  |
| Background Reading:          |  | 0.0                      | cps      |  |  |
| Calibrator Reading:          |  | 1.0                      | cps      |  |  |
| Sensitivity:                 |  | 0.2800                   | GAPI/cps |  |  |