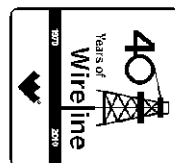




**Weatherford**

**COMPACT PHOTO DENSITY  
COMPENSATED NEUTRON  
LOG**

COMPANY SANDRIDGE  
WELL STEPHANIE 1-3 SWD  
FIELD WOLDRON-WEST  
PROVINCE/COUNTY BARBER  
COUNTRY/STATE USA / KANSAS  
LOCATION 2135' FSL 178' FEL



|                                         |                |               |                |                        |
|-----------------------------------------|----------------|---------------|----------------|------------------------|
| SEC                                     | TWP            | RGE           | Other Services | MMI                    |
| 3                                       | 355            | 10W           | MAI/MFE        |                        |
| API Number                              | 15-007-23799   | MMML          | MSS            |                        |
| Permit Number                           |                |               |                |                        |
| Permanent Datum GL, Elevation 1317 feet |                |               |                |                        |
| Log Measured From KB                    |                |               |                | Elevations: KB 1328.00 |
| Drilling Measured From KB               |                |               |                | DF 1326.00             |
|                                         |                |               |                | GL 1317.00             |
| Date                                    | 11-NOV-2011    |               |                |                        |
| Run Number                              | ONE            |               |                |                        |
| Depth Driller                           | 5594.00        | feet          |                |                        |
| Depth Logger                            | 5589.00        | feet          |                |                        |
| First Reading                           | 5557.00        | feet          |                |                        |
| Last Reading                            | 1580.00        | feet          |                |                        |
| Casing Driller                          | 1008.00        | feet          |                |                        |
| Casing Logger                           | 1005.00        | feet          |                |                        |
| Bit Size                                | 8.750          | inches        |                |                        |
| Hole Fluid Type                         | WBM            |               |                |                        |
| Density / Viscosity                     | 9.10 lb/USg    | 55.00 CP      |                |                        |
| PH / Fluid Loss                         | 10.00          | 7.40 ml/30Min |                |                        |
| Sample Source                           | FLOW LINE      |               |                |                        |
| Rm @ Measured Temp                      | 1.50 @ 70.0    | ohm-m         |                |                        |
| Rmf @ Measured Temp                     | 1.20 @ 70.0    | ohm-m         |                |                        |
| Rmc @ Measured Temp                     | 1.80 @ 70.0    | ohm-m         |                |                        |
| Source Rmf / Rmc                        | CALC.          | CALC.         |                |                        |
| Rm @ BHT                                | 0.85 @ 127.0   | ohm-m         |                |                        |
| Time Since Circulation                  | 6 HOURS        |               |                |                        |
| Max Recorded Temp                       | 127.00         | deg F         |                |                        |
| Equipment Name                          | COMPACT        |               |                |                        |
| Equipment / Base                        | 13039          | OKC           |                |                        |
| Recorded By                             | T. GUTHMUELLER |               |                |                        |
| Witnessed By                            | T. ALCORN      |               |                | C. MCAULIFF            |
| AFE#DC11577                             | SO#3534234     |               |                |                        |

**BOREHOLE RECORD**

Last Edited: 11-NOV-2011 12:14

| Bit Size<br>inches | Depth From<br>feet | Depth To<br>feet |
|--------------------|--------------------|------------------|
| 12.250             | 0.00               | 1008.00          |
| 8.750              | 1008.00            | 5594.00          |

**CASING RECORD**

| Type | Size<br>inches | Depth From<br>feet | Shoe Depth<br>feet | Weight<br>pounds/ft |
|------|----------------|--------------------|--------------------|---------------------|
| SURF | 9.625          | 0.00               | 1008.00            | 36.00               |

**REMARKS**

TOOLS RAN: SHA-205,MCG-093,MML-007,MDN-031,MPD-021,MFE-054,MSS-040,MAI-390 RAN IN COMBINATION

HARDWARE: MAI: TWO 0.5 INCH STANDOFFS USED.

I MDN: DUAL NEUTRON BOW SPRINGS USED.

I MPD: 8 INCH PROFILE PLATE USED.

MSS: THREE 0.5 INCH STANDOFFS USED.

2.71 G/CC DENSITY MATRIX USED TO CALCULATE POROSITY

ALL INTERVALS LOGGED AND SCALED PER CUSTOMER'S REQUEST.

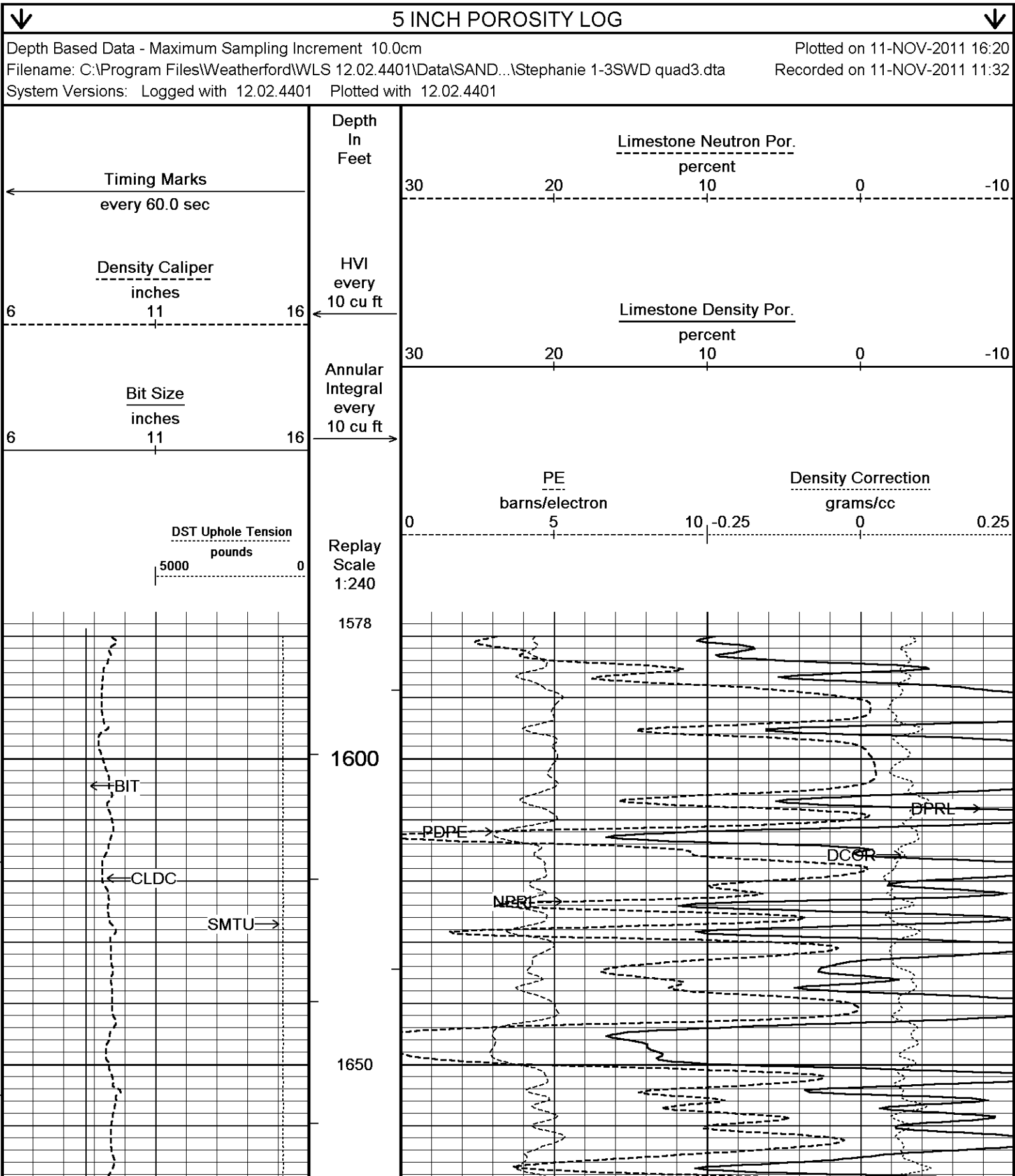
TOTAL HOLE VOLUME FROM TD TO 1600 = 1740 CU.FT.

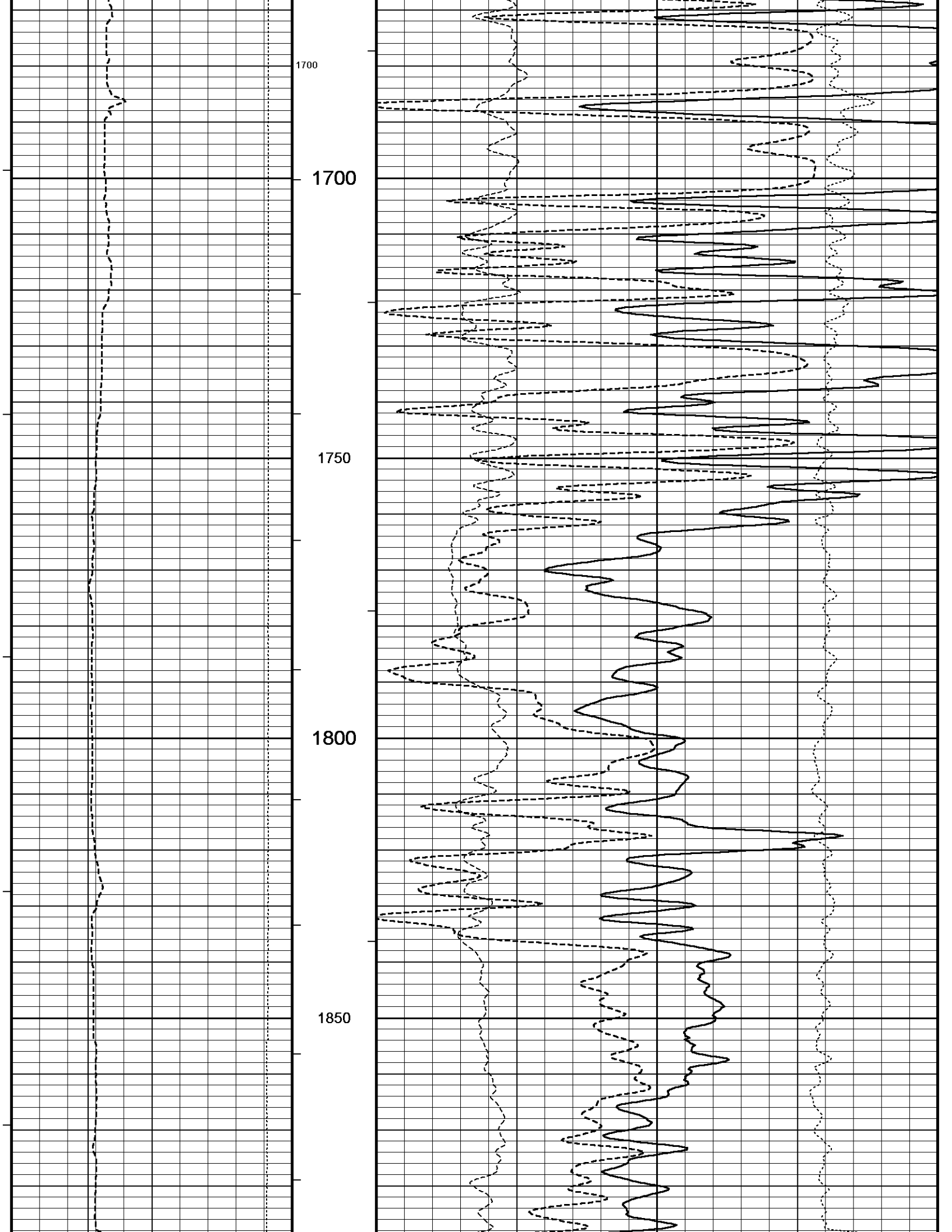
ANNULAR HOLE VOLUME WITH 7 INCH PRODUCTION CASING FROM TD TO 1600 = 680 CU.FT.

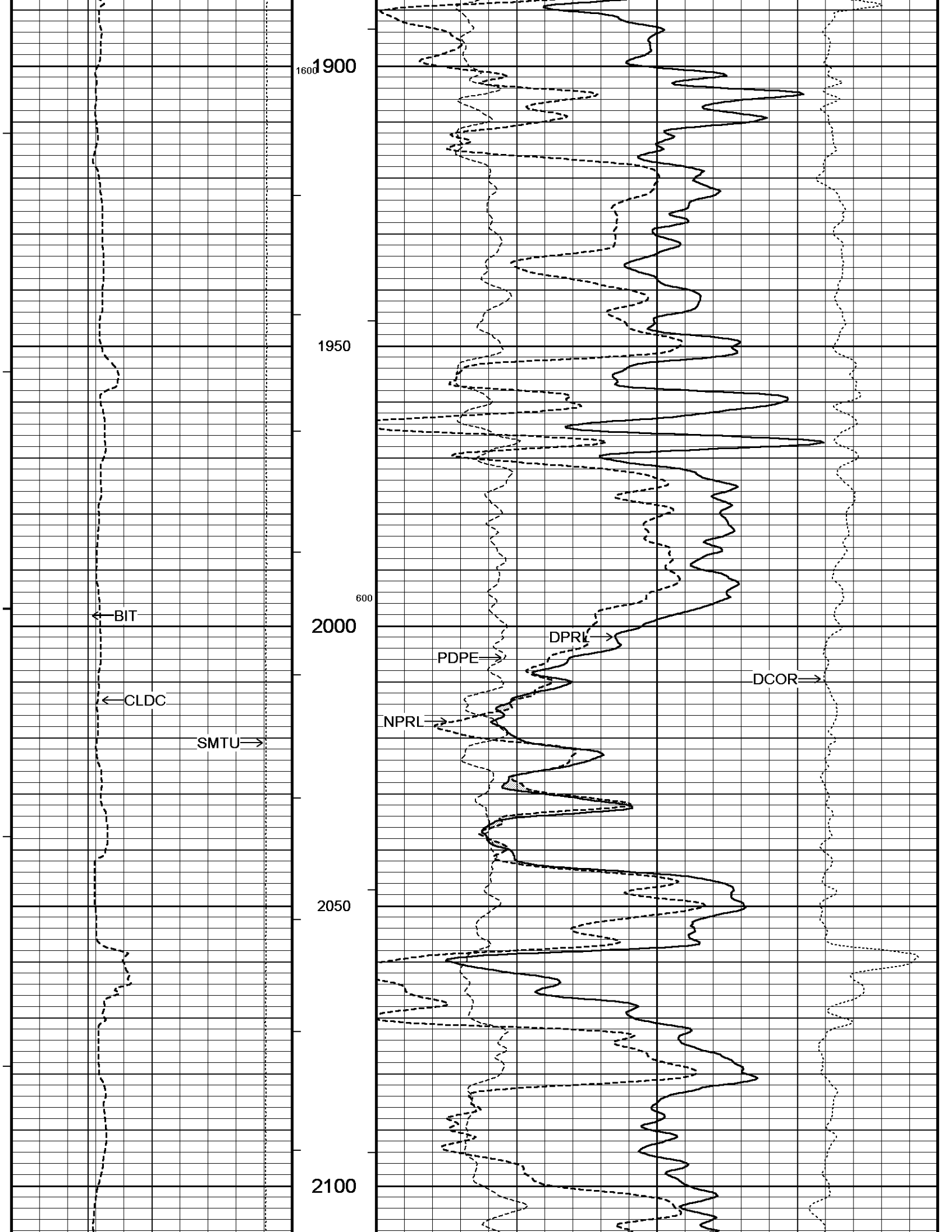
SERVICE ORDER # 3534234

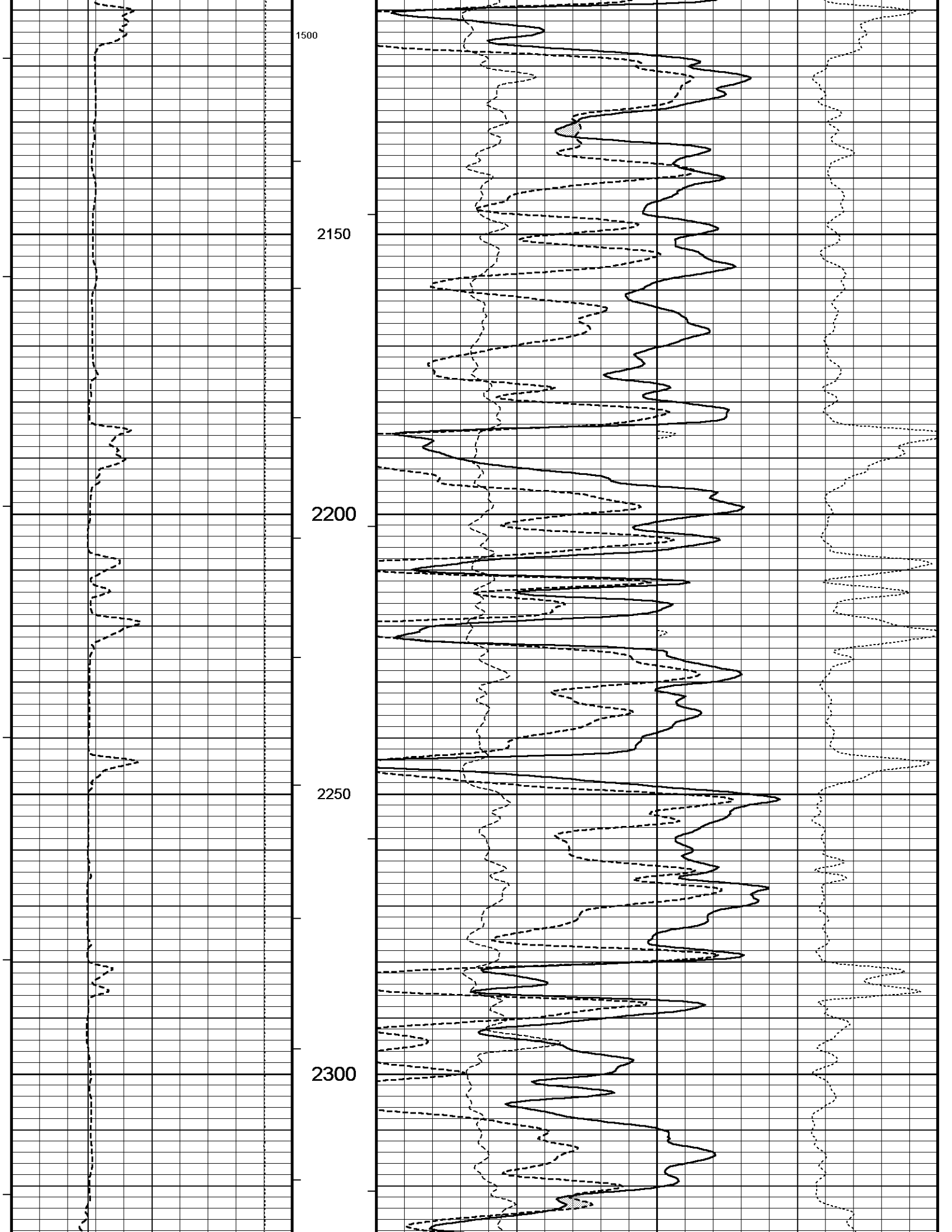
RIG: TOMCAT #3

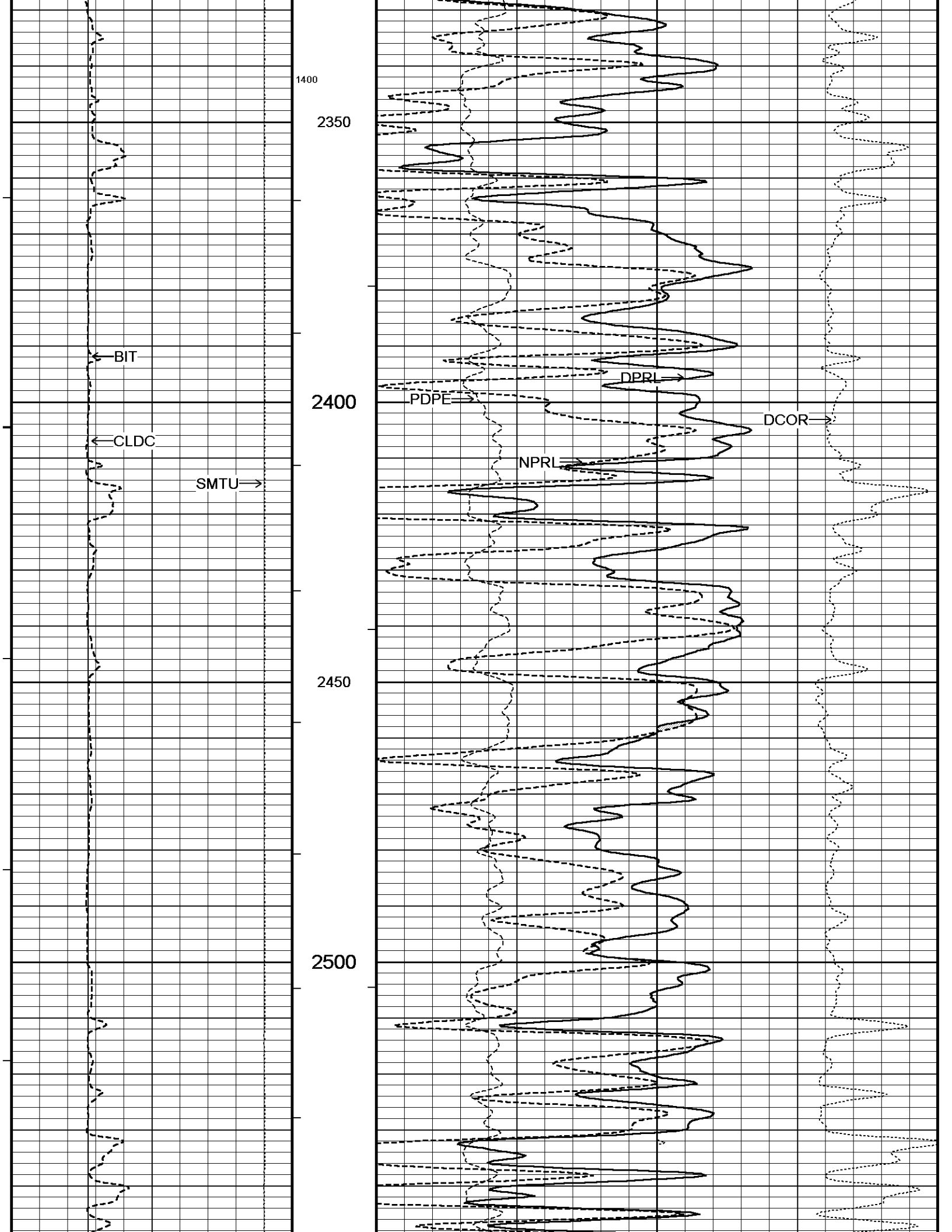
All interpretations are opinions based on inferences from electrical or other measurements and we cannot, and do not, guarantee the accuracy or correctness of any interpretations, and we shall not, except in the case of gross or wilful negligence on our part, be liable or responsible for any loss, costs, 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 in our price schedule.

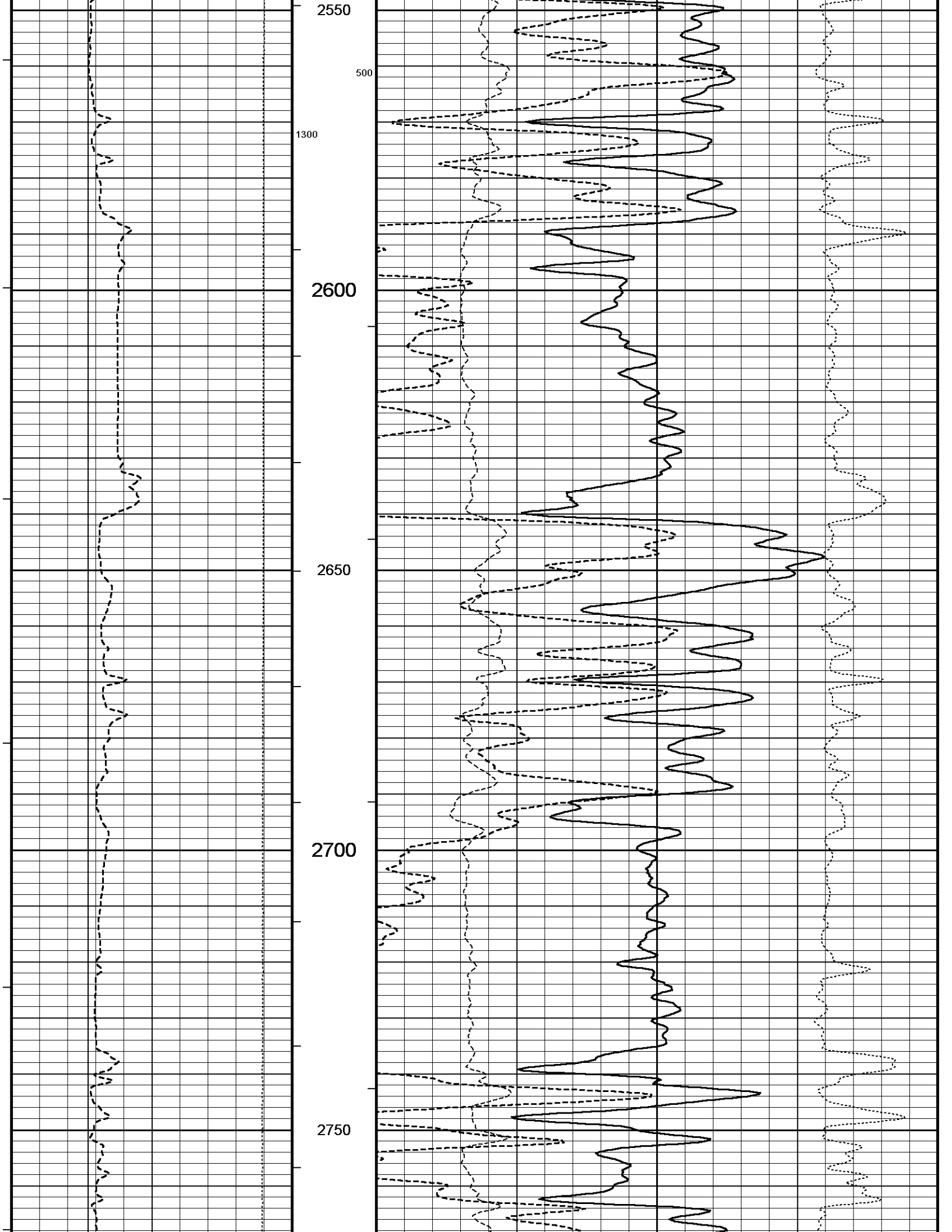


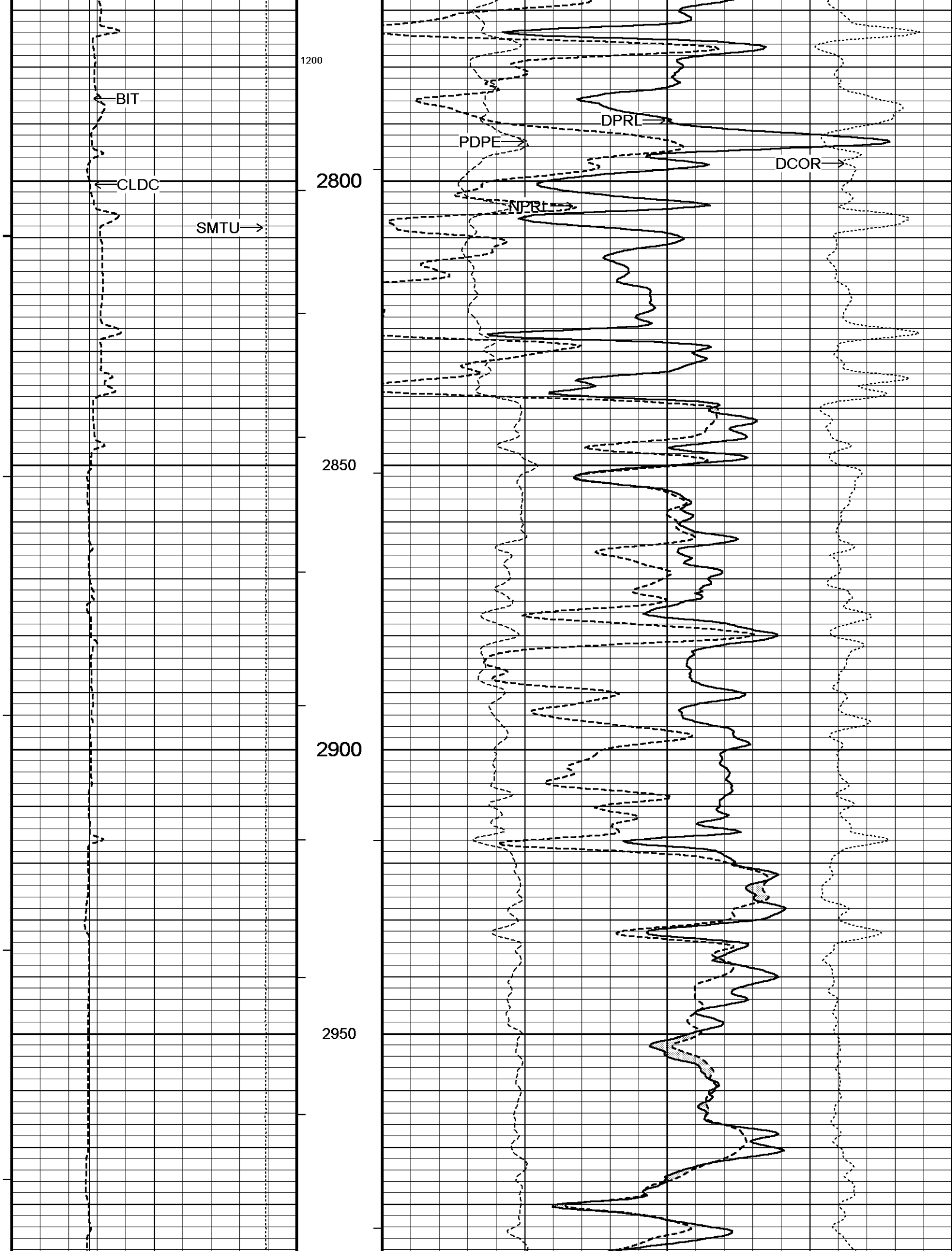




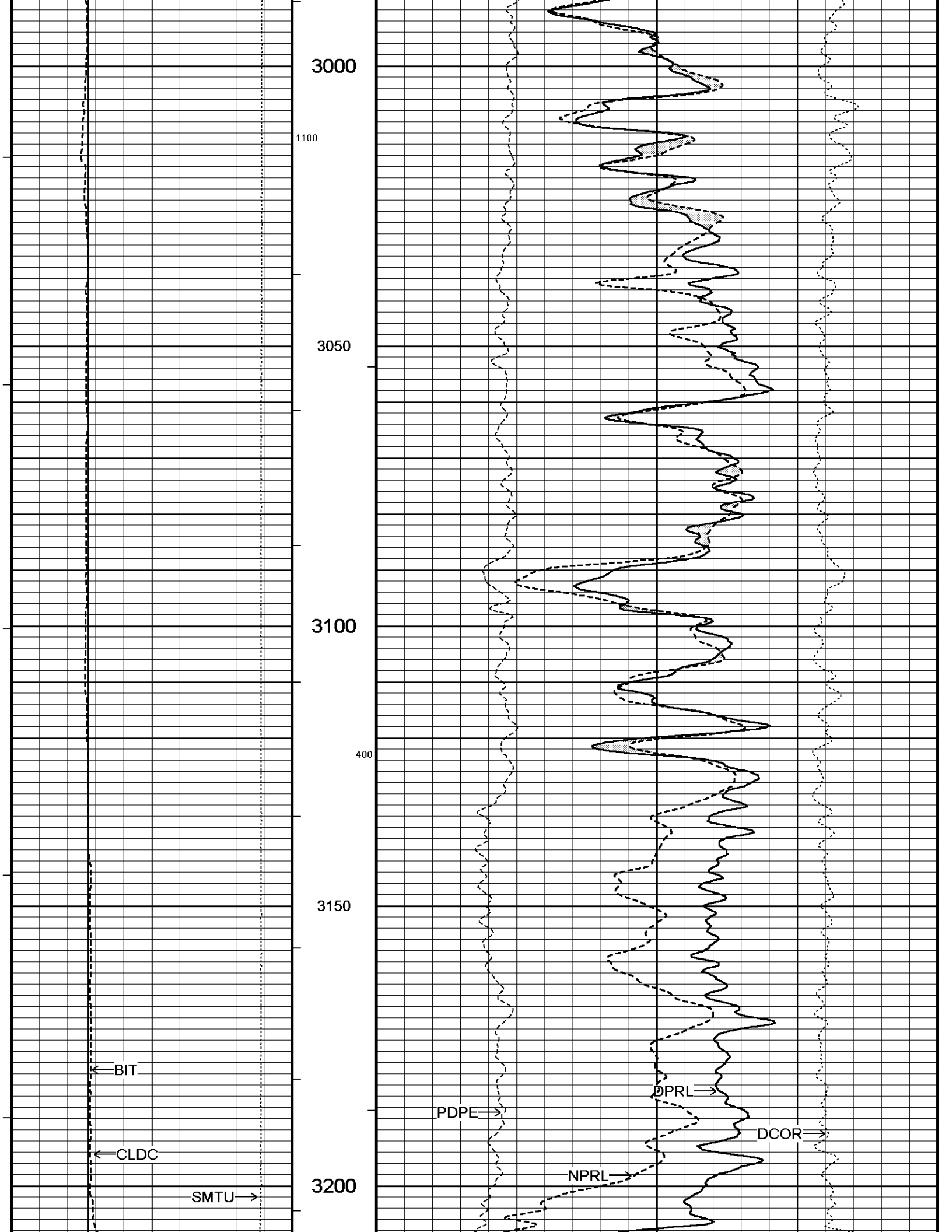


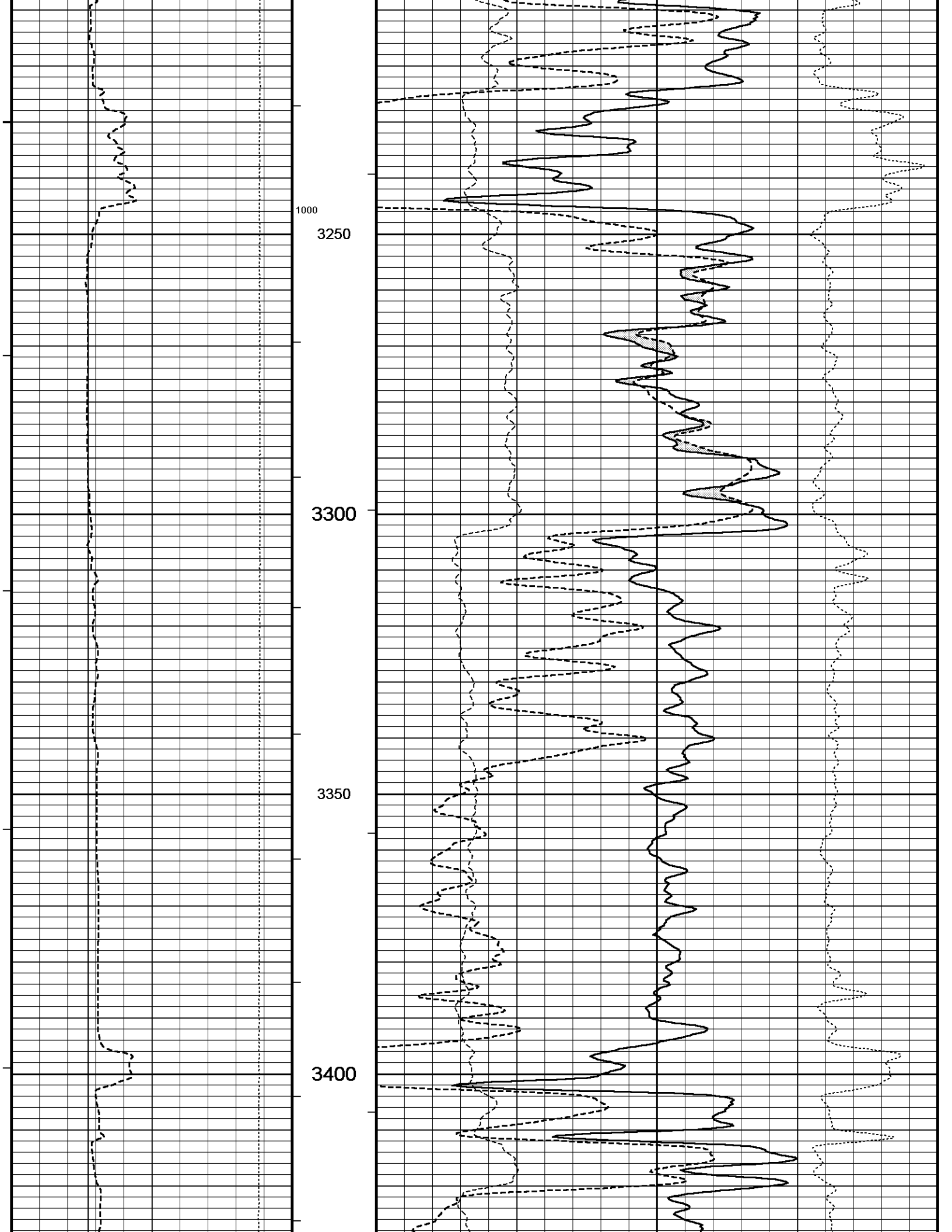


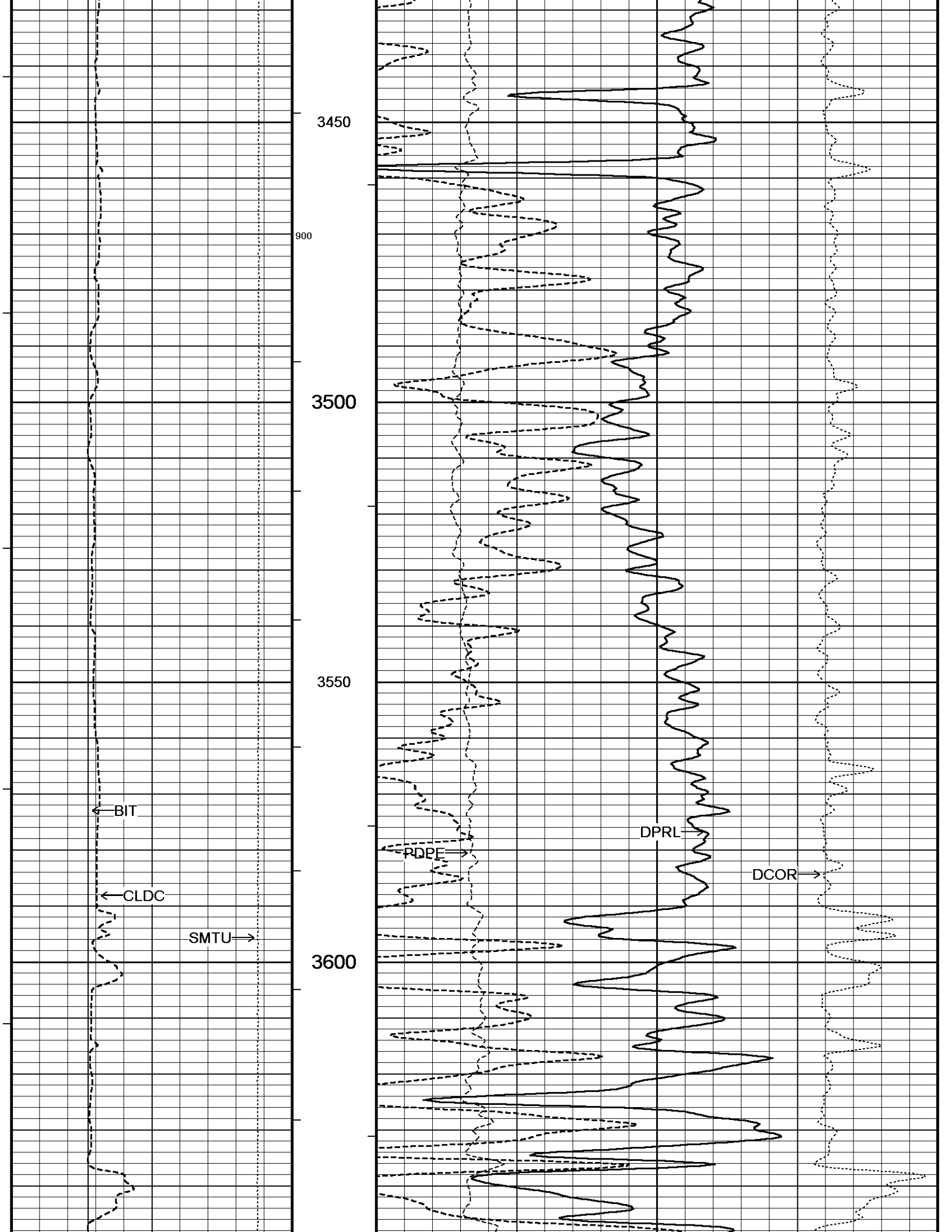


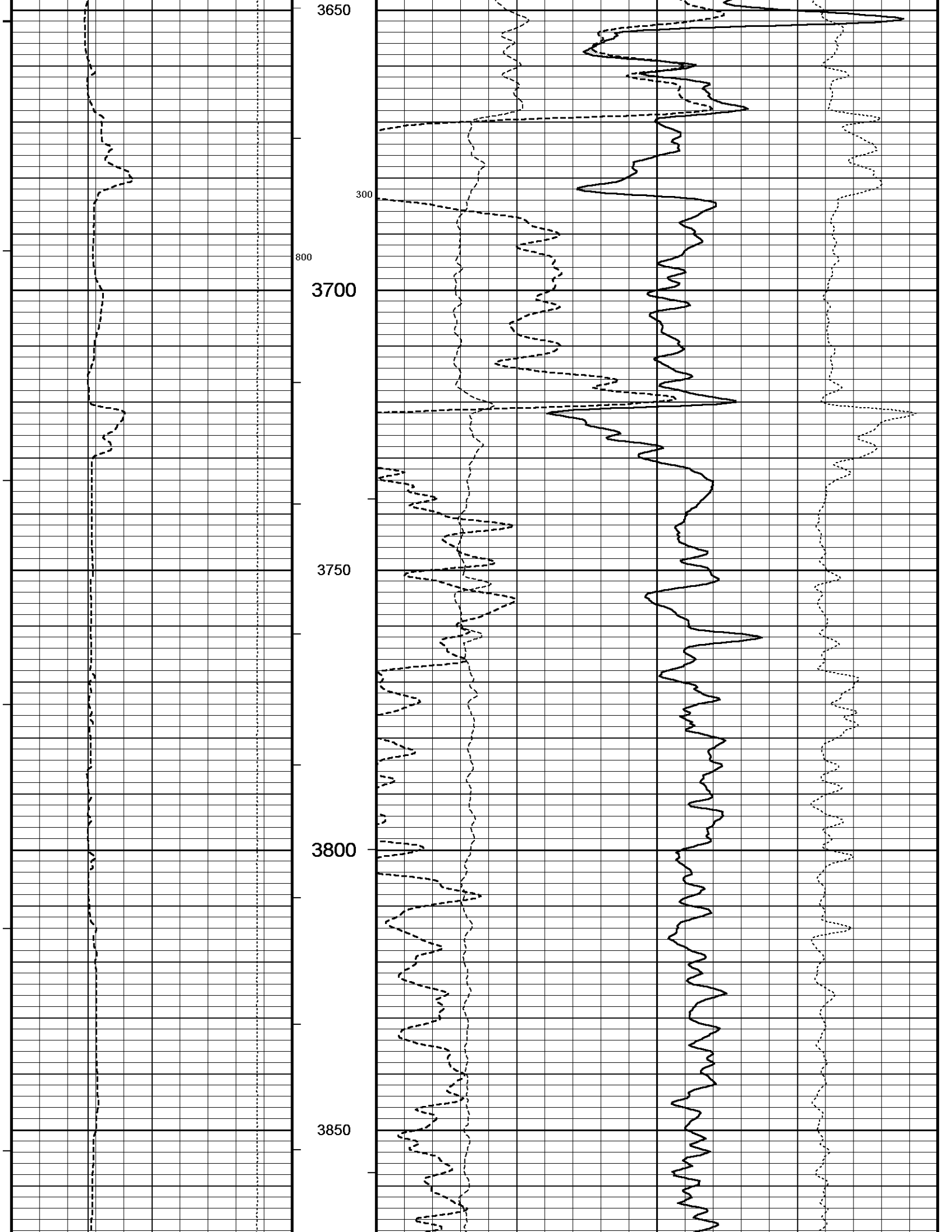


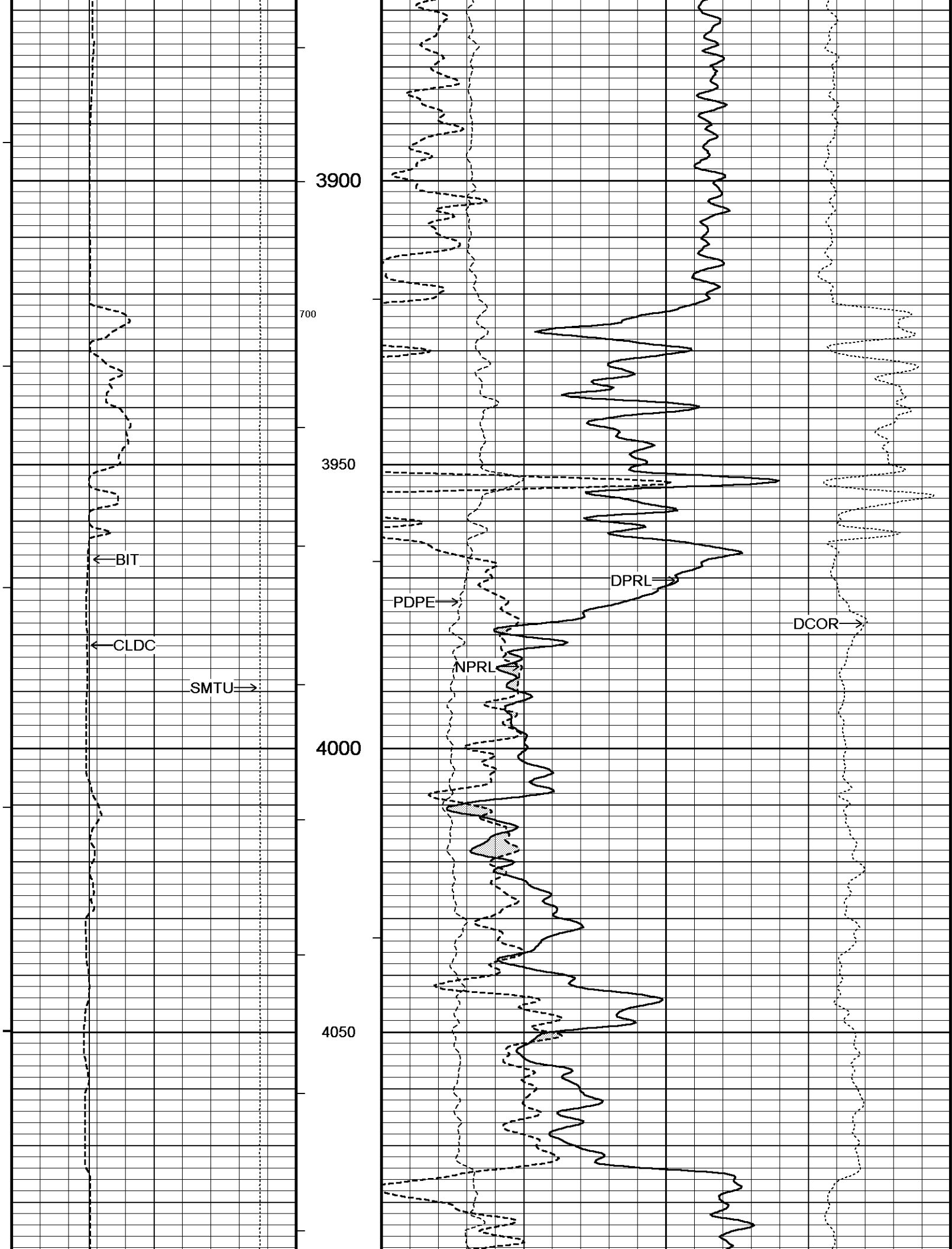


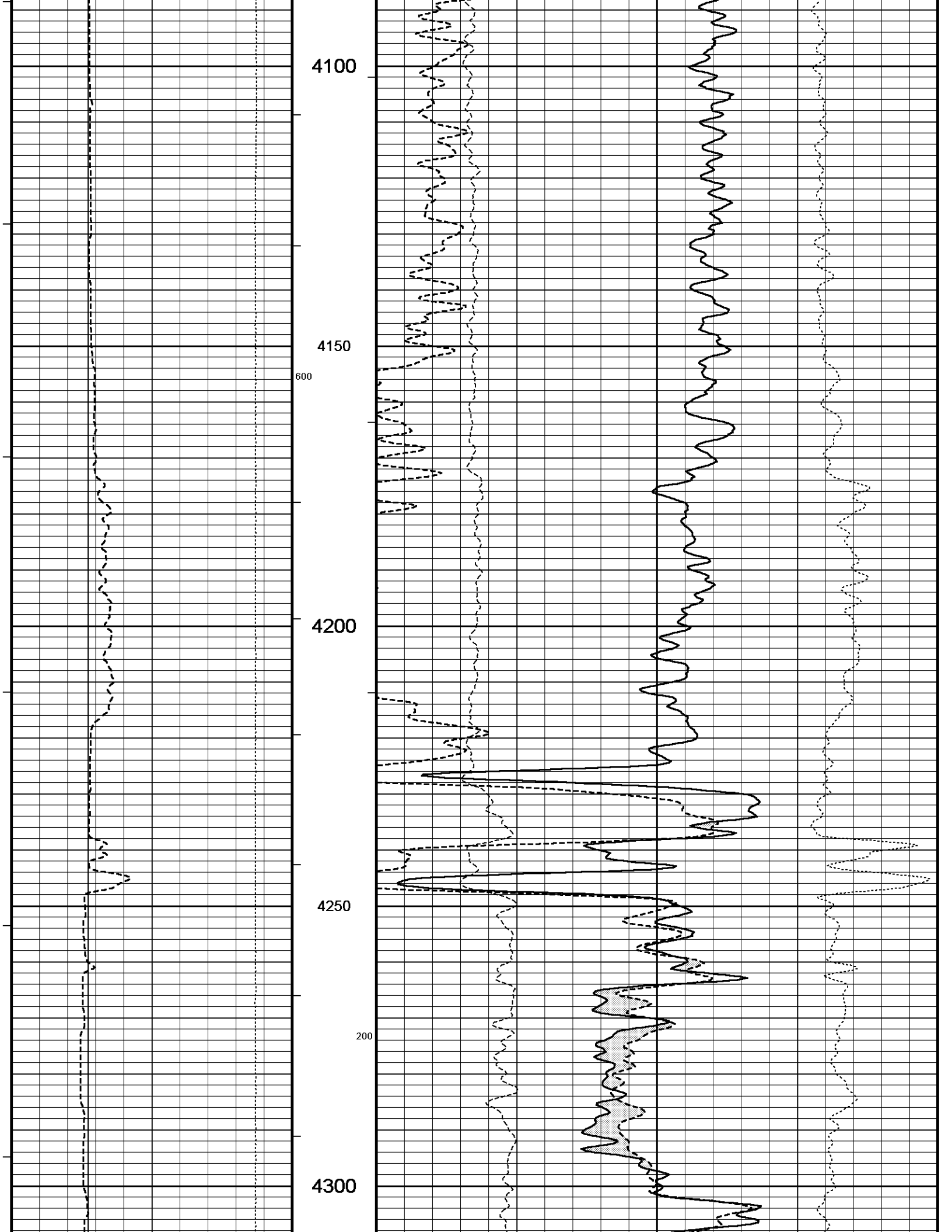


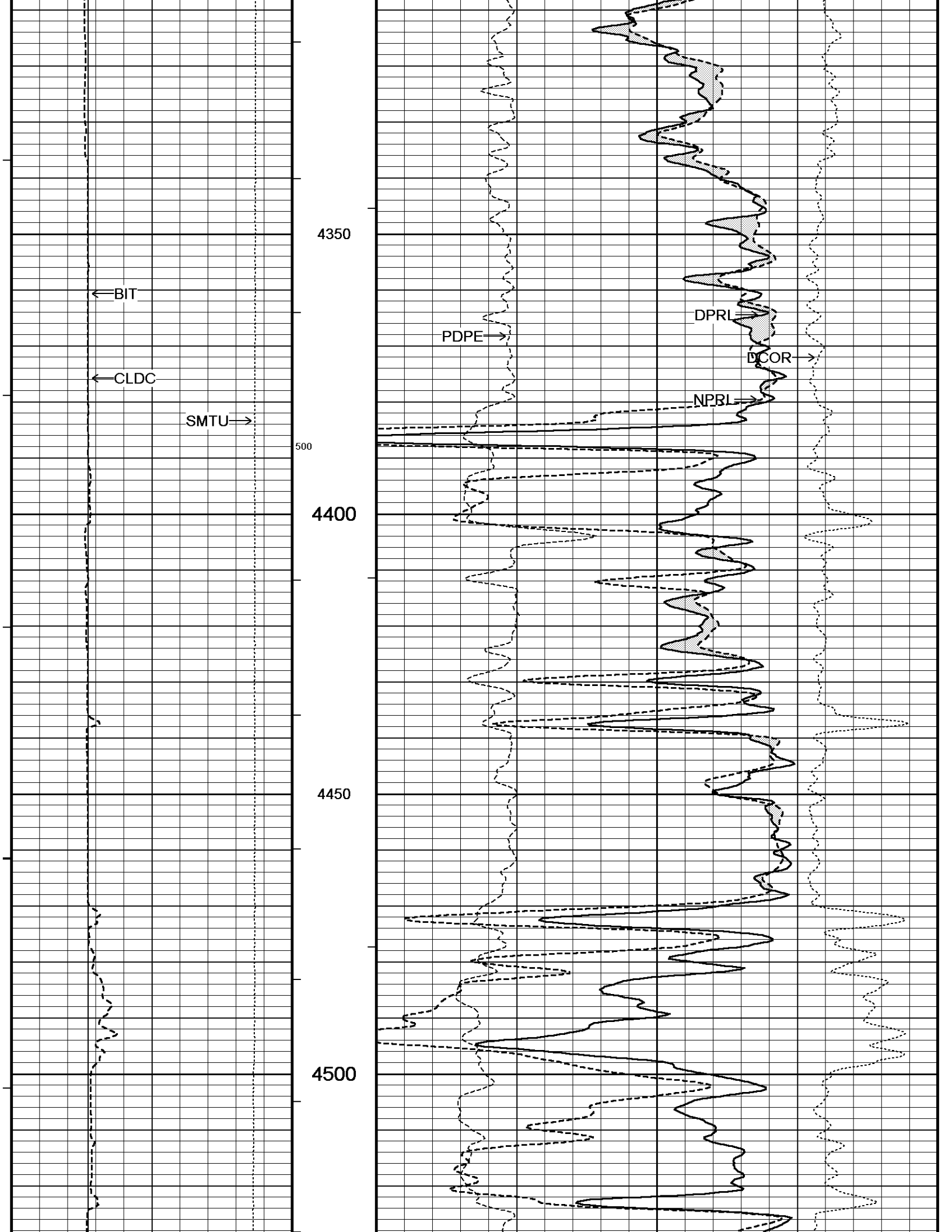


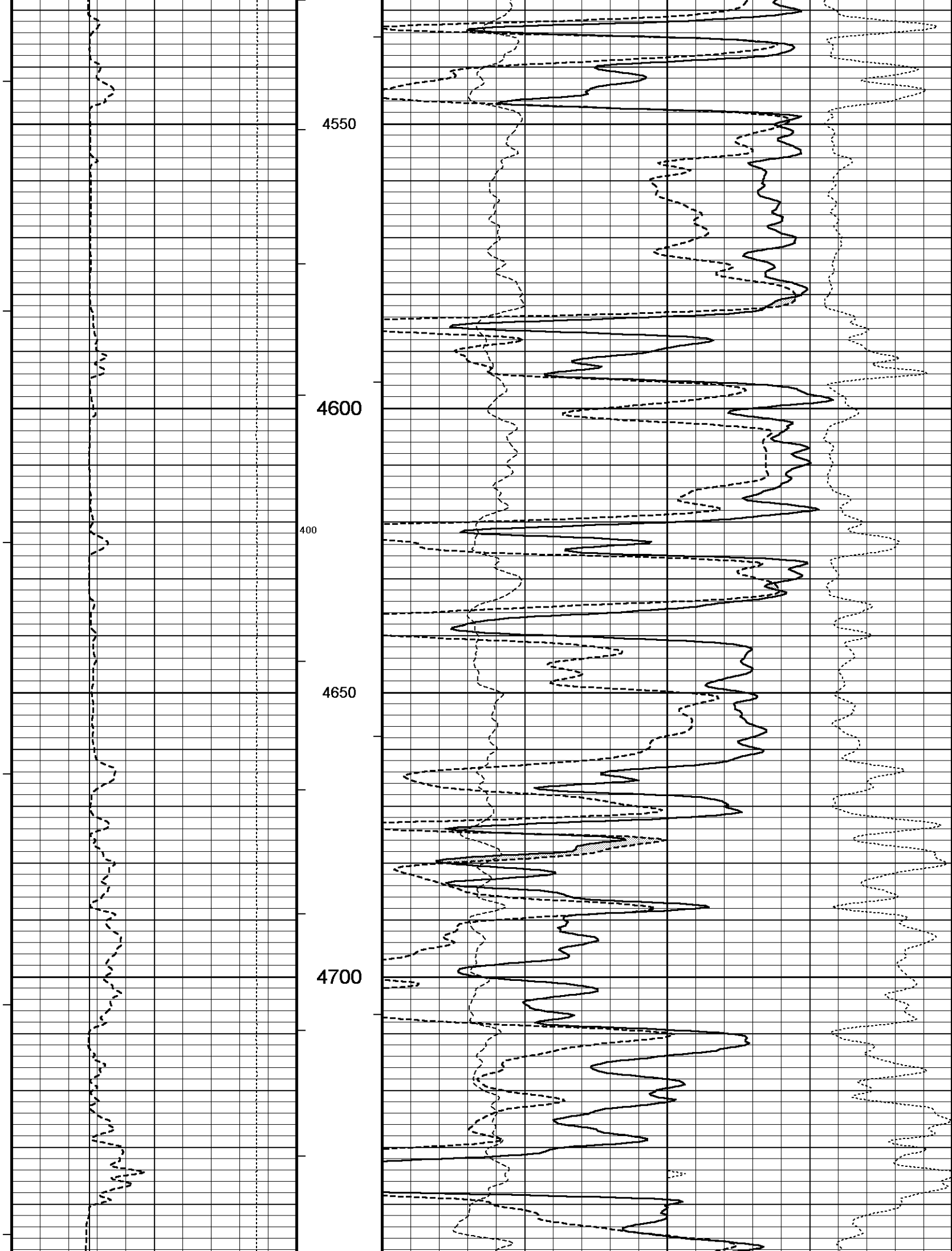




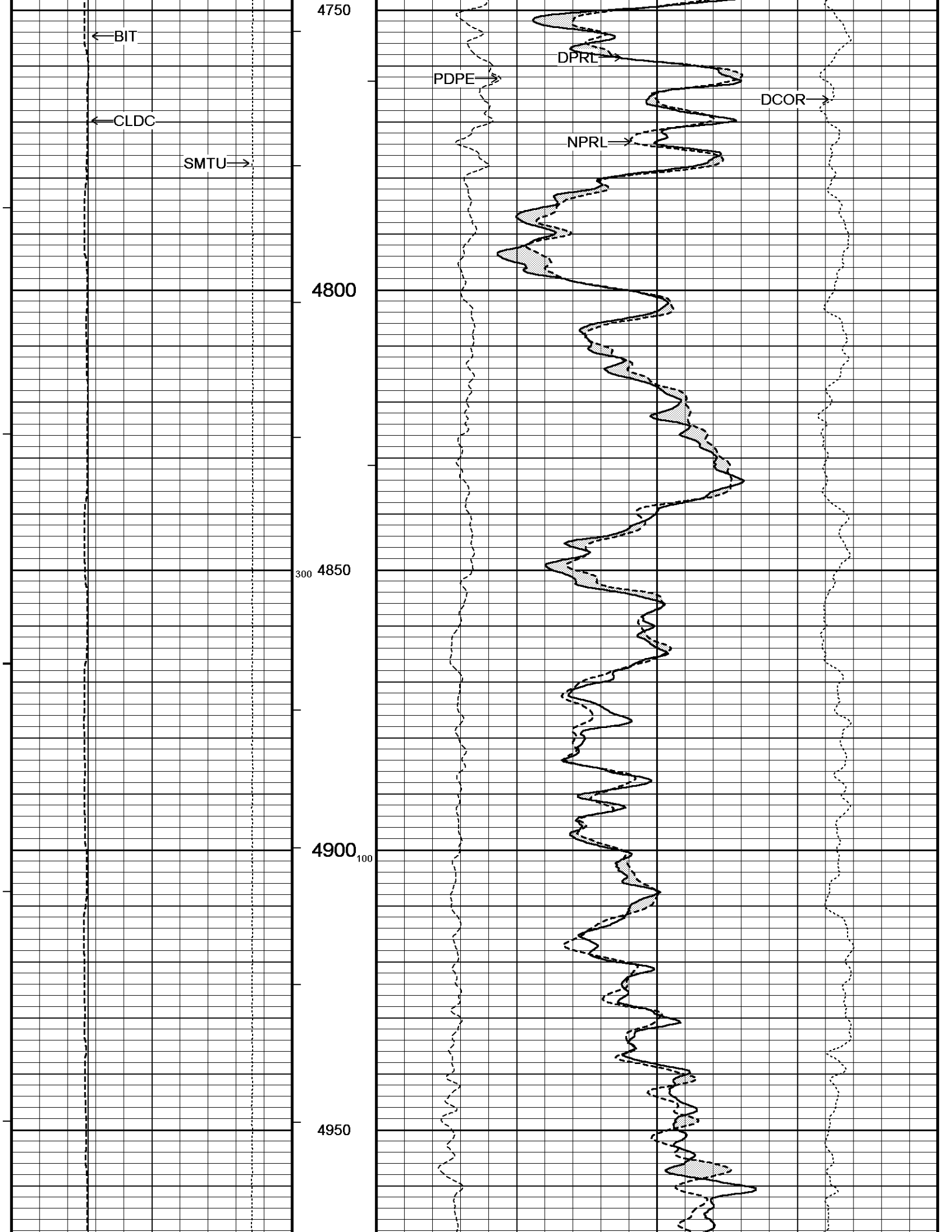


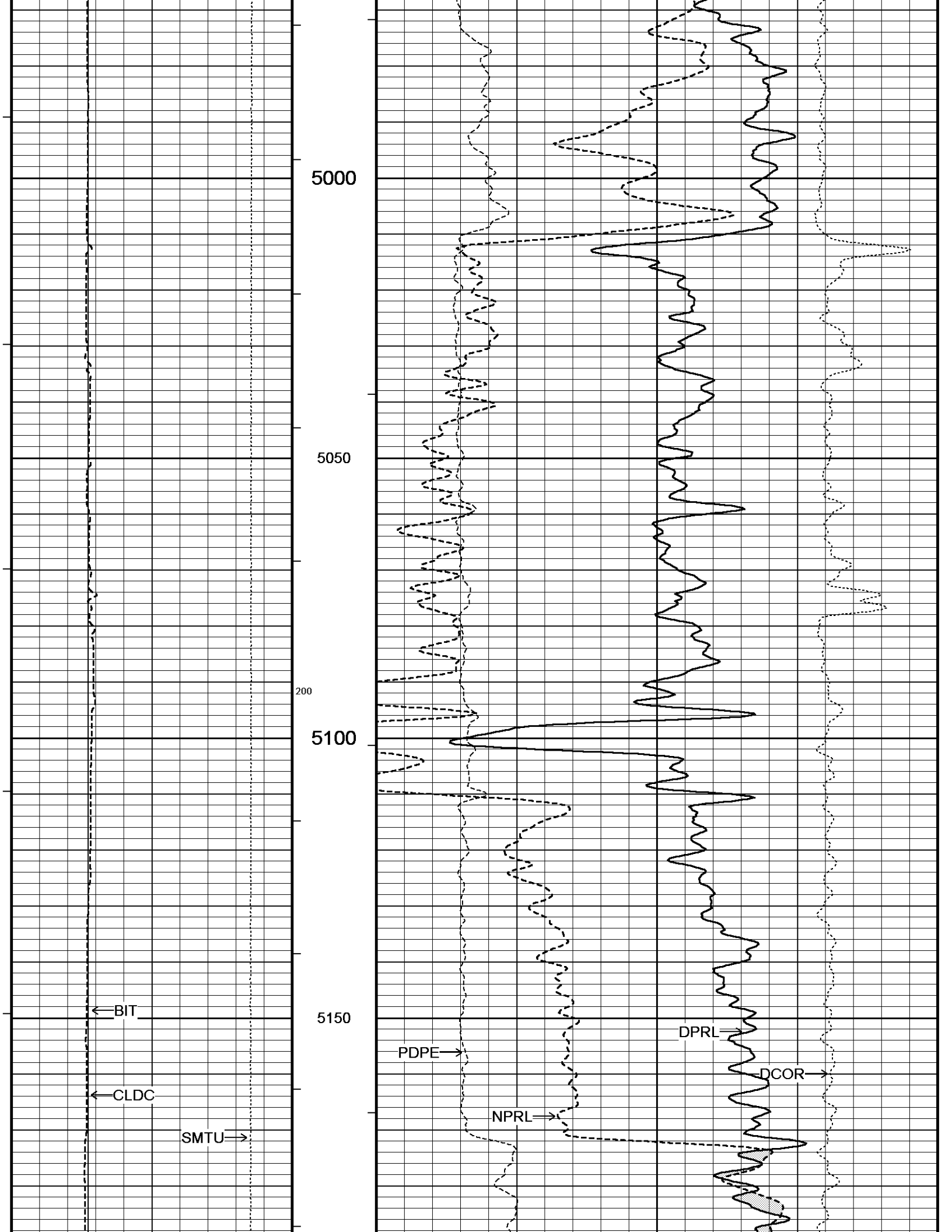


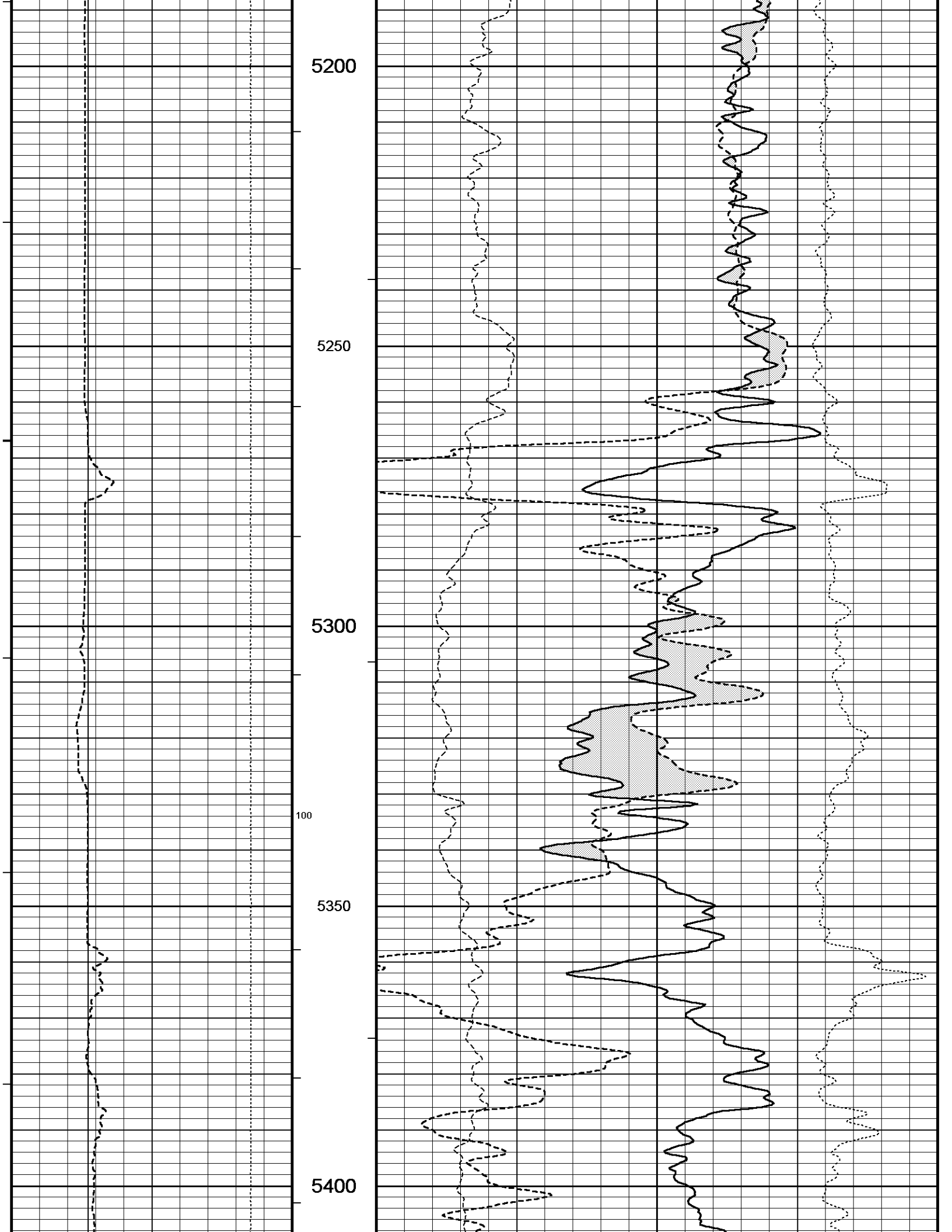


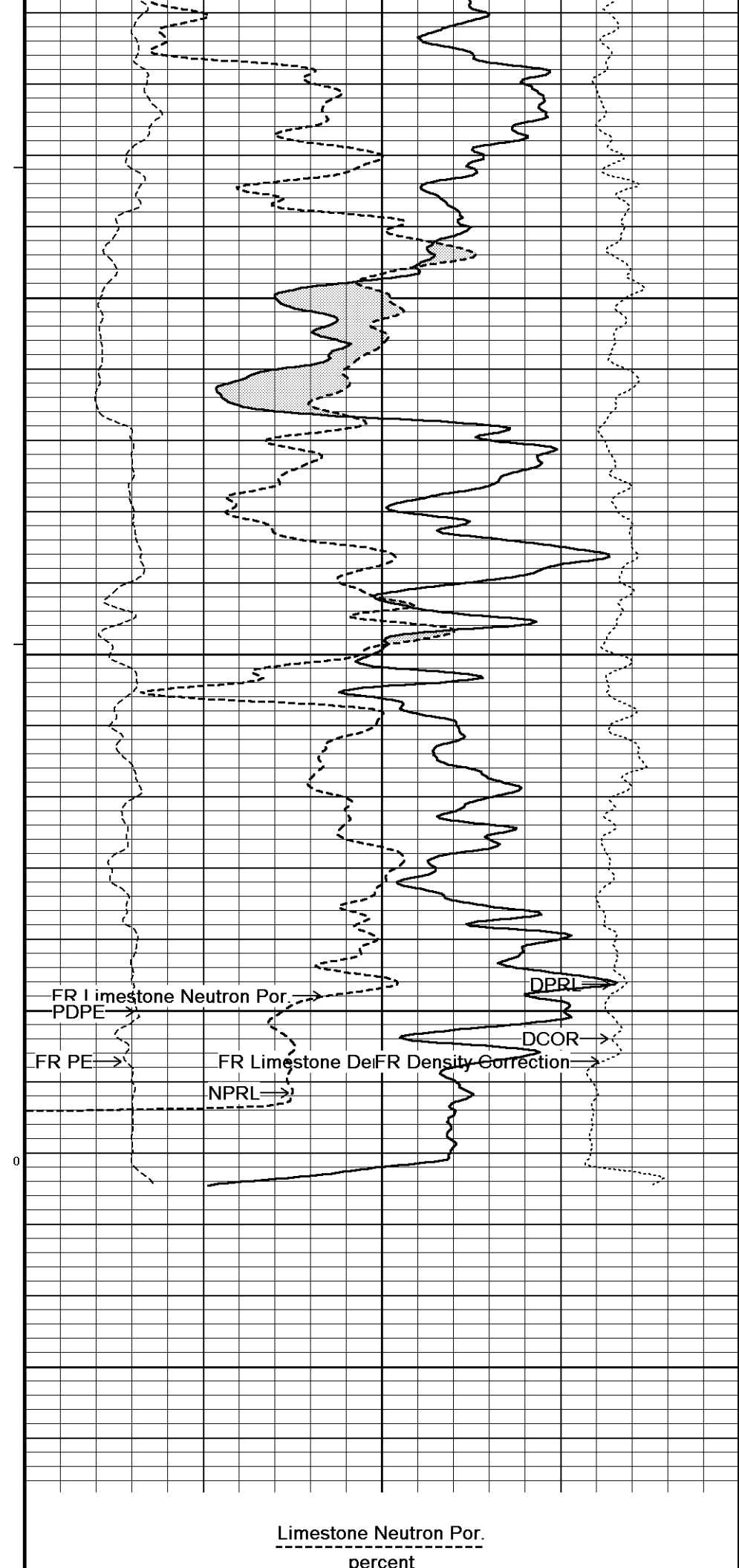
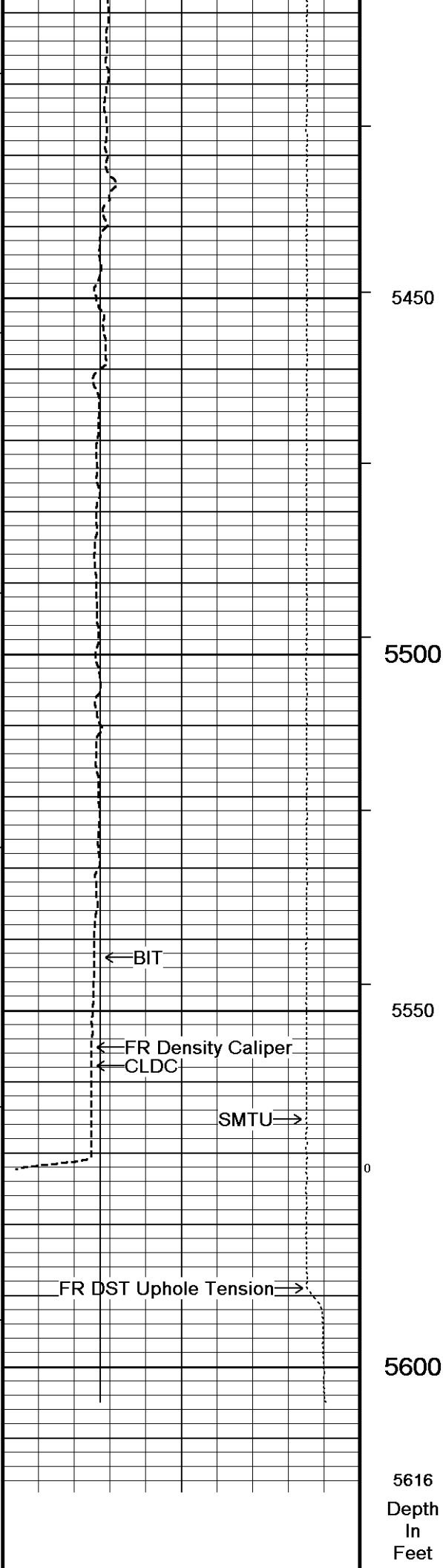


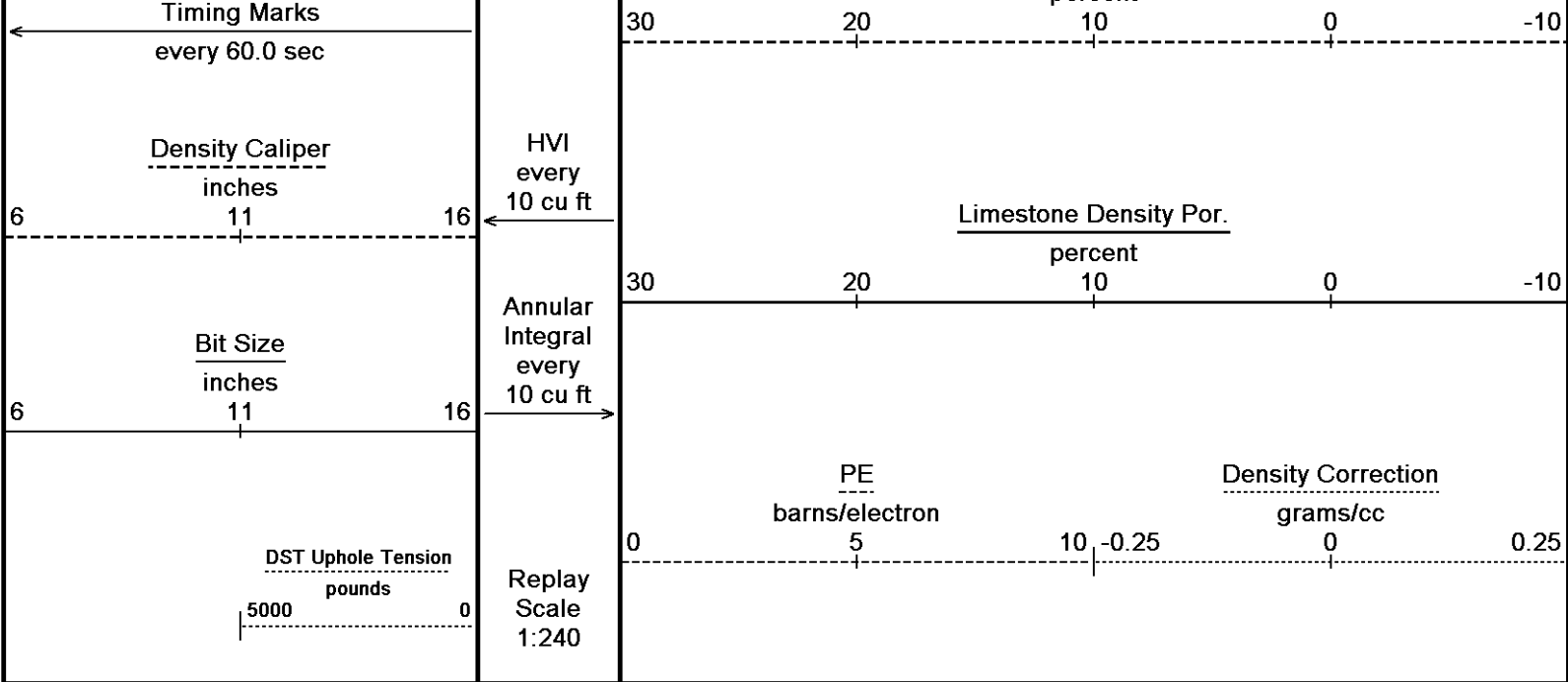












Depth Based Data - Maximum Sampling Increment 10.0cmPlotted on 11-NOV-2011 16:20

Filename: C:\Program Files\Weatherford\WLS 12.02.4401\Data\SAND...\Stephanie 1-3SWD quad3.dtaRecorded on 11-NOV-2011 11:32

System Versions: Logged with 12.02.4401Plotted with 12.02.4401

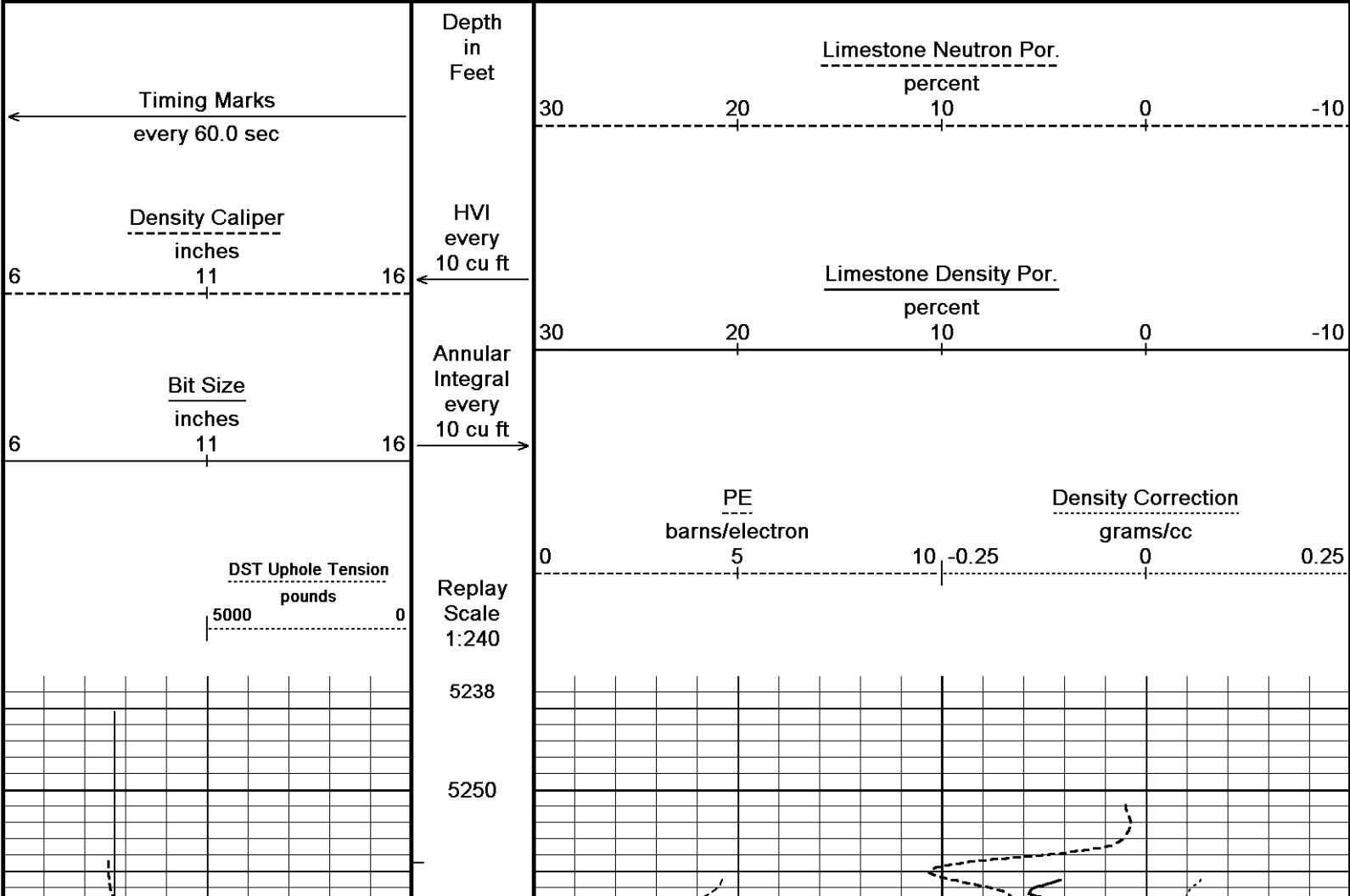
↑5 INCH POROSITY LOG↑

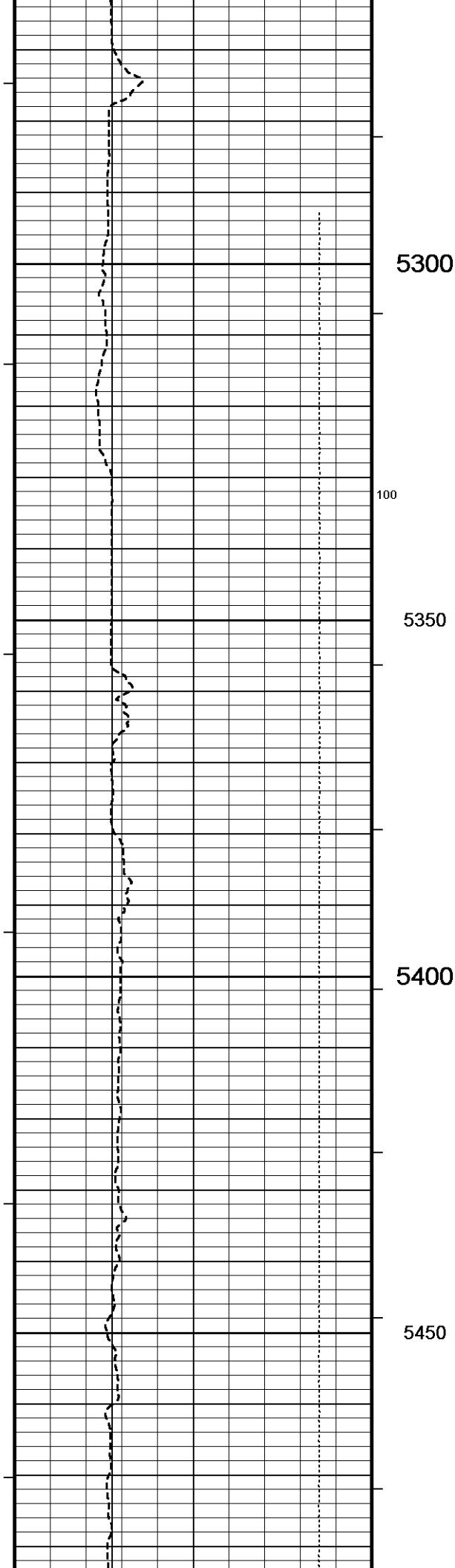
↓REPEAT SECTION↓

Depth Based Data - Maximum Sampling Increment 10.0cmPlotted on 11-NOV-2011 16:20

Filename: C:\Program Files\Weatherford\WLS 12.02.4401\Data\SAND...\Stephanie 1-3SWD quad2.dtaRecorded on 11-NOV-2011 11:17

System Versions: Logged with 12.02.4401Plotted with 12.02.4401





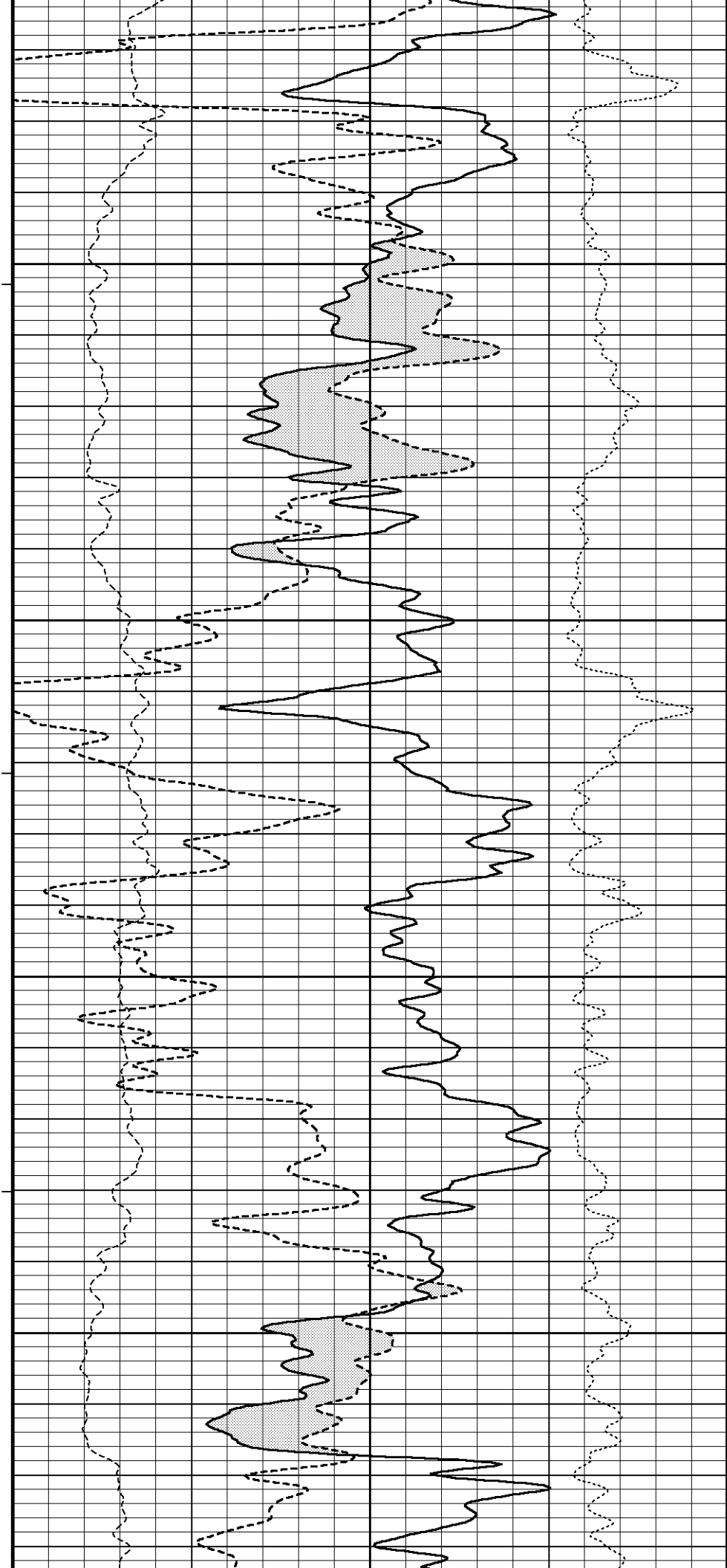
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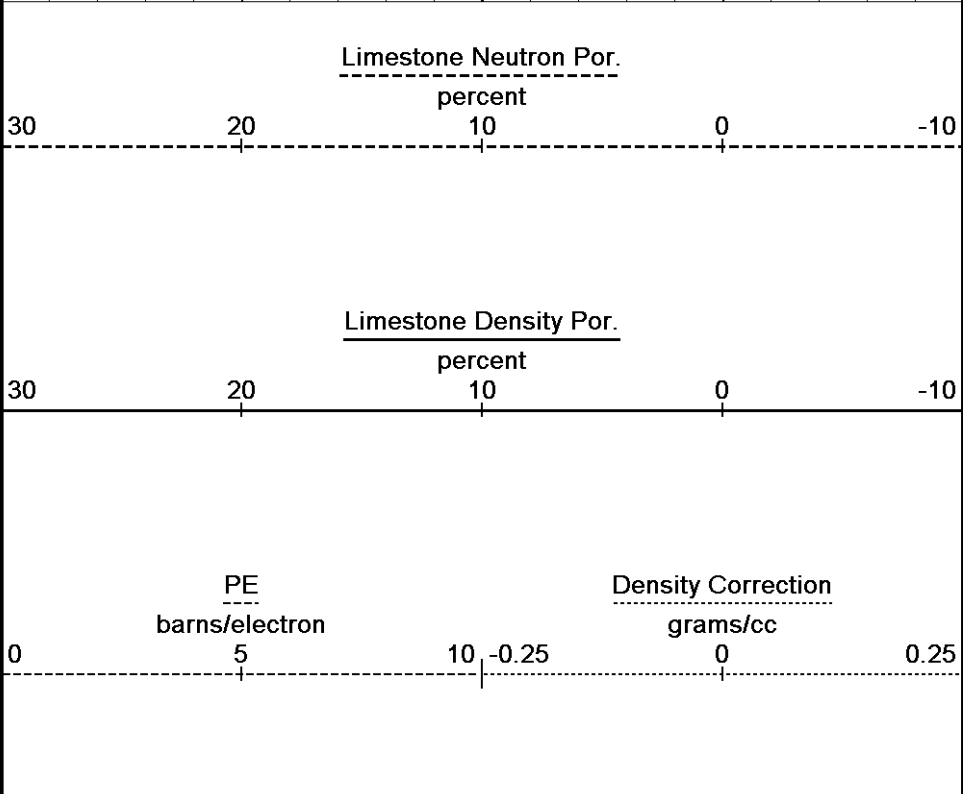
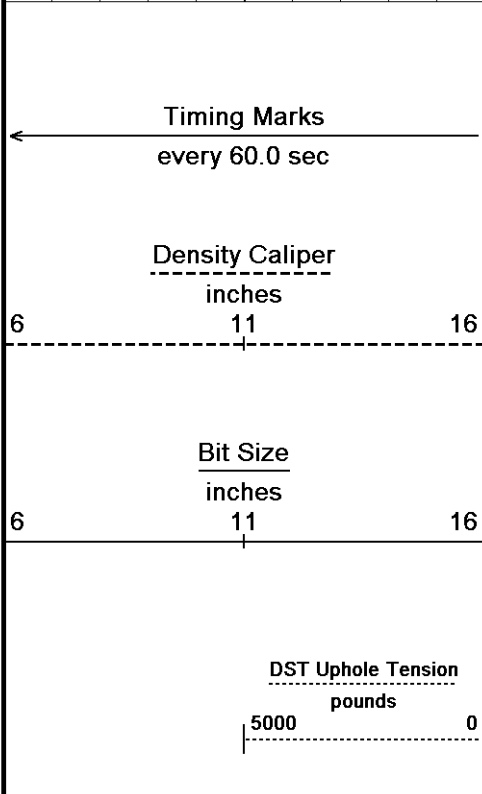
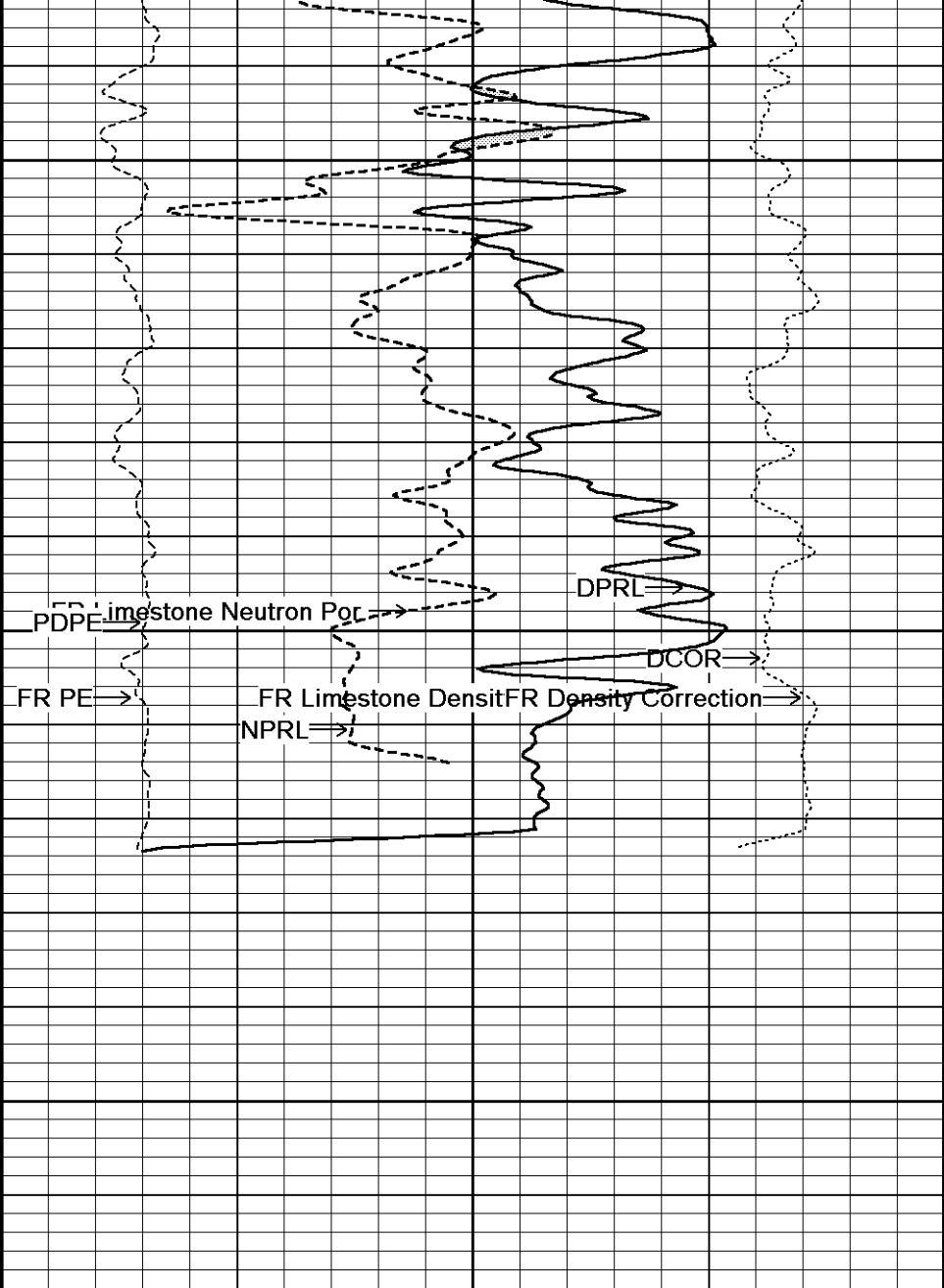
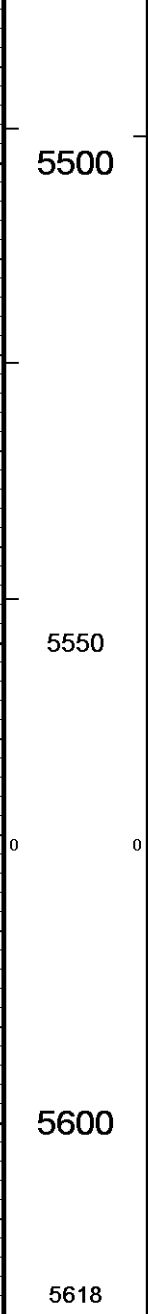
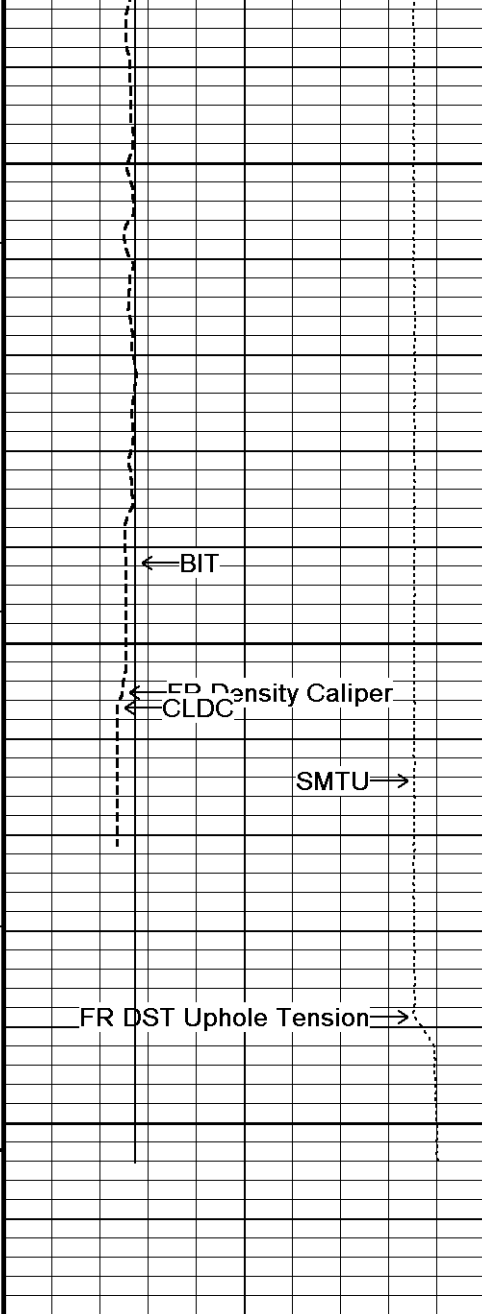
100

5350

5400

5450





↑

REPEAT SECTION

↑

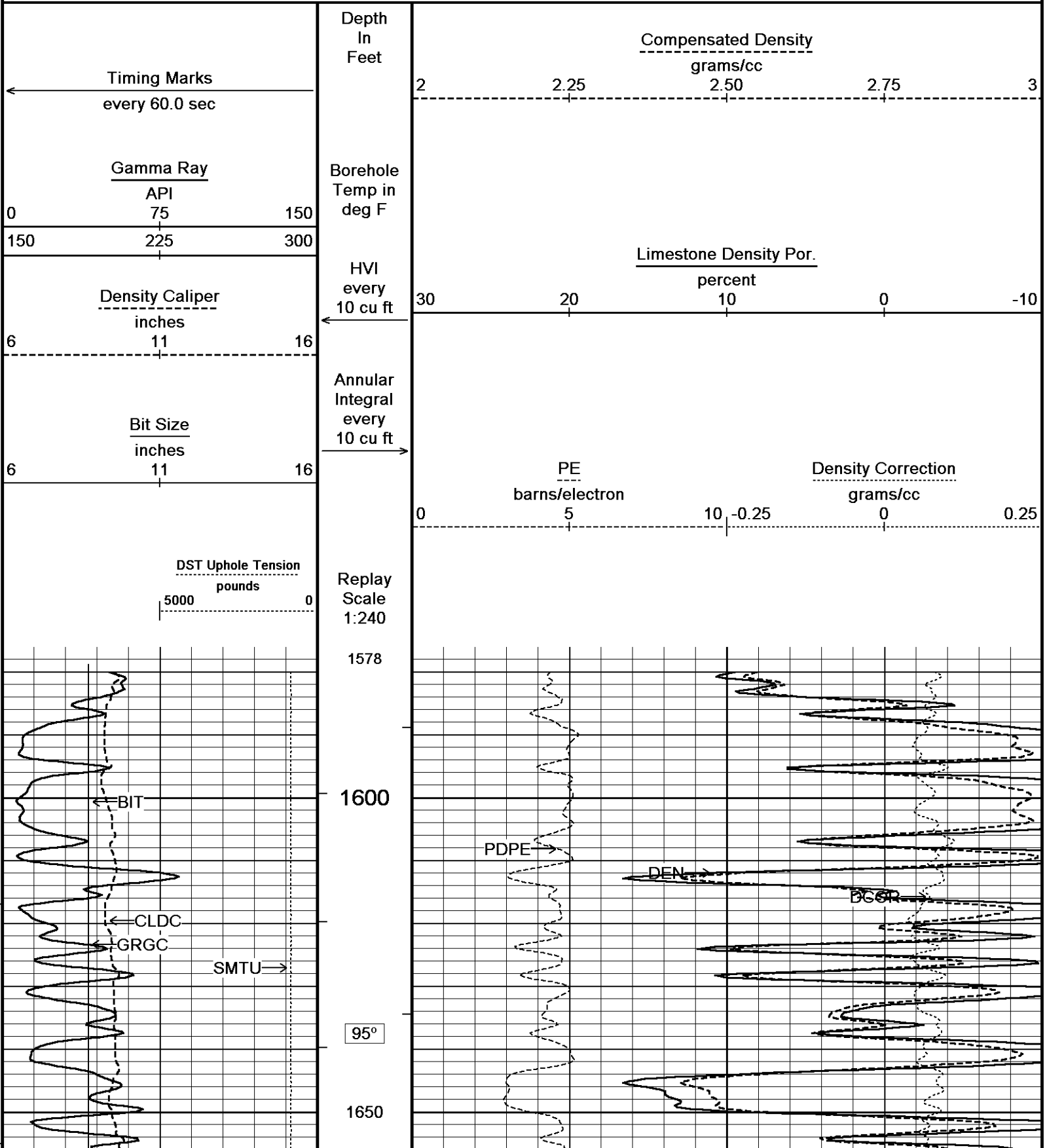
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5 INCH BULK DENSITY

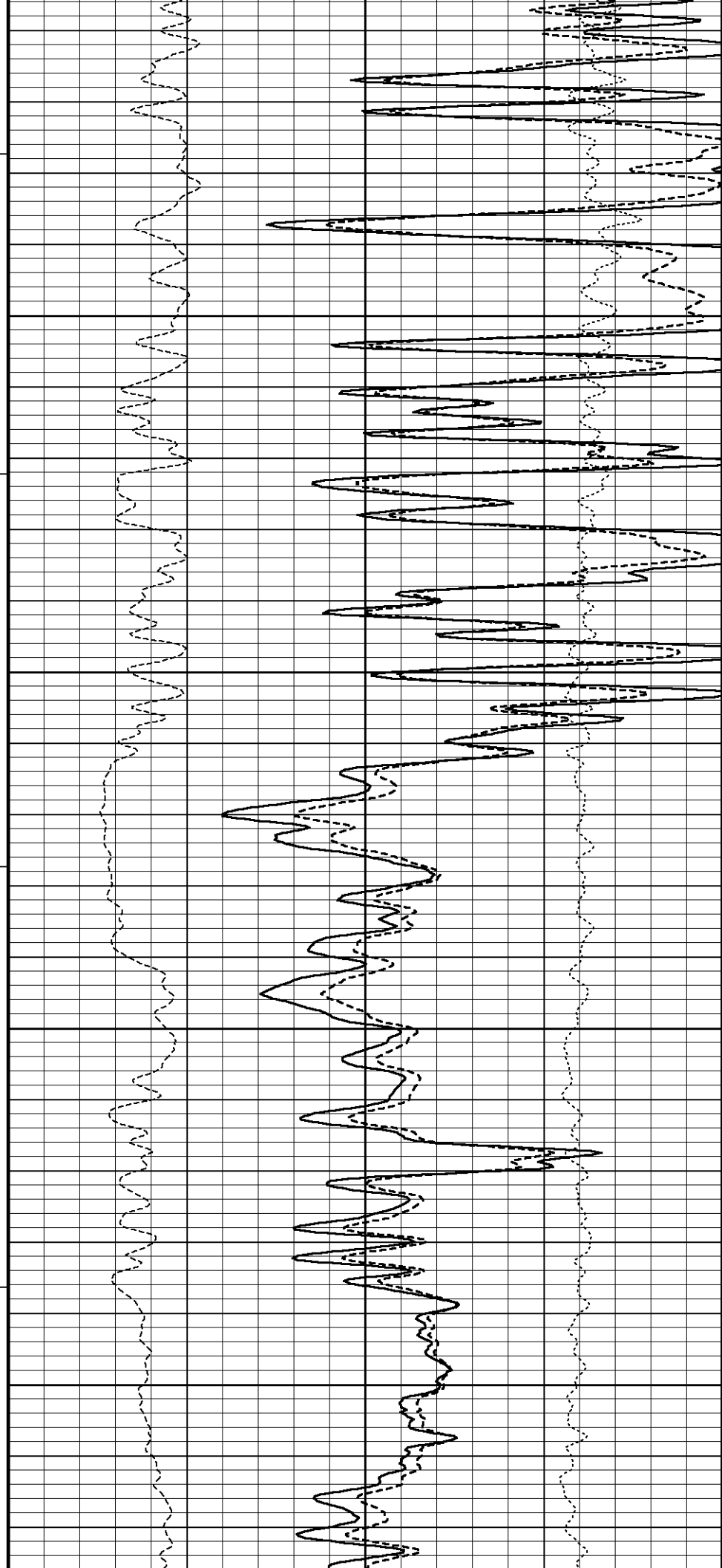
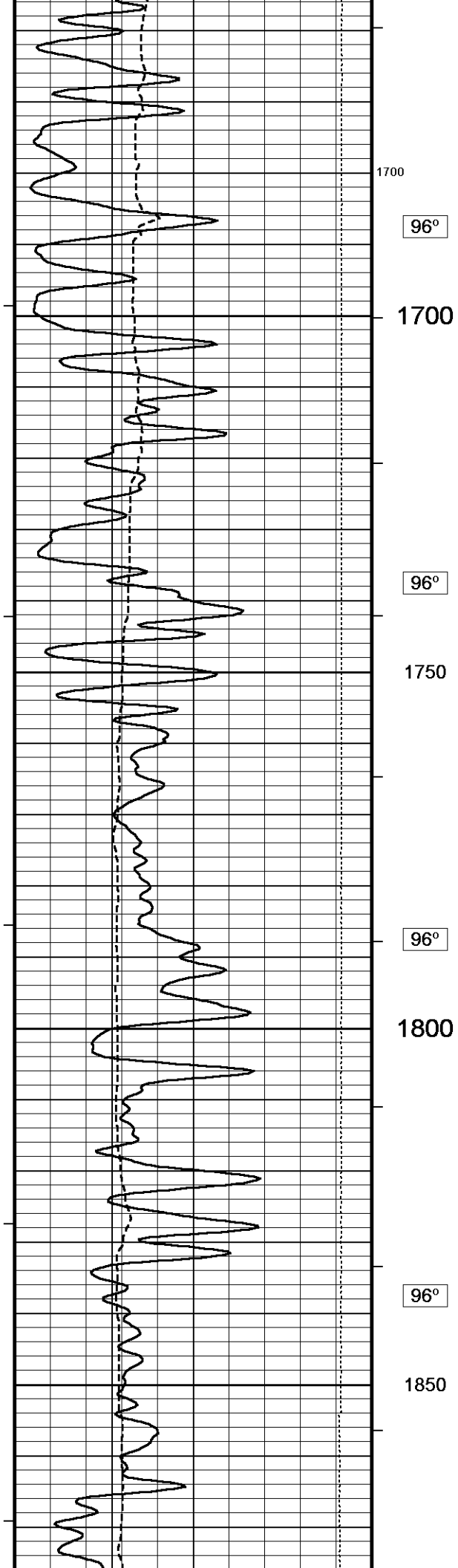
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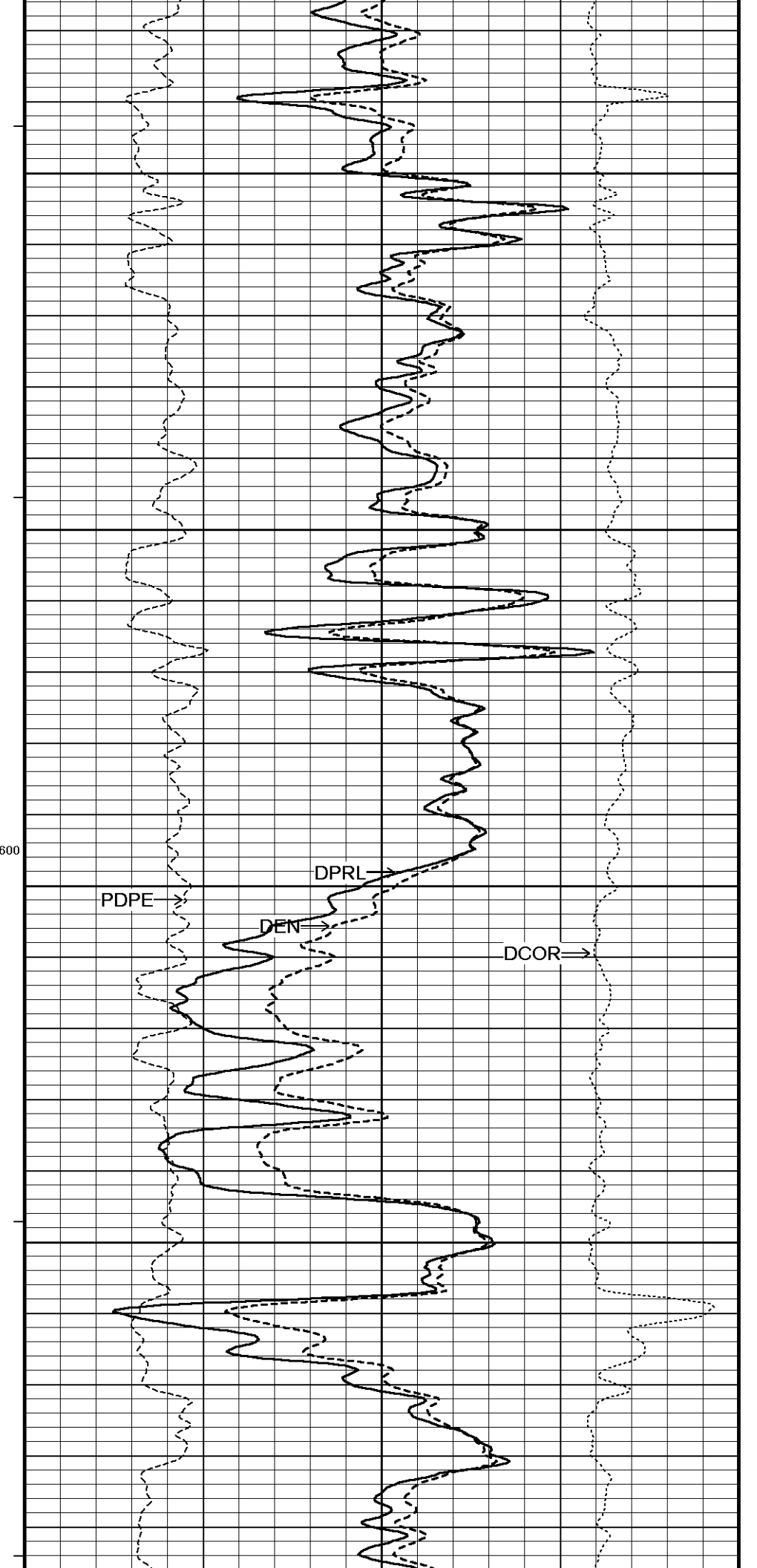
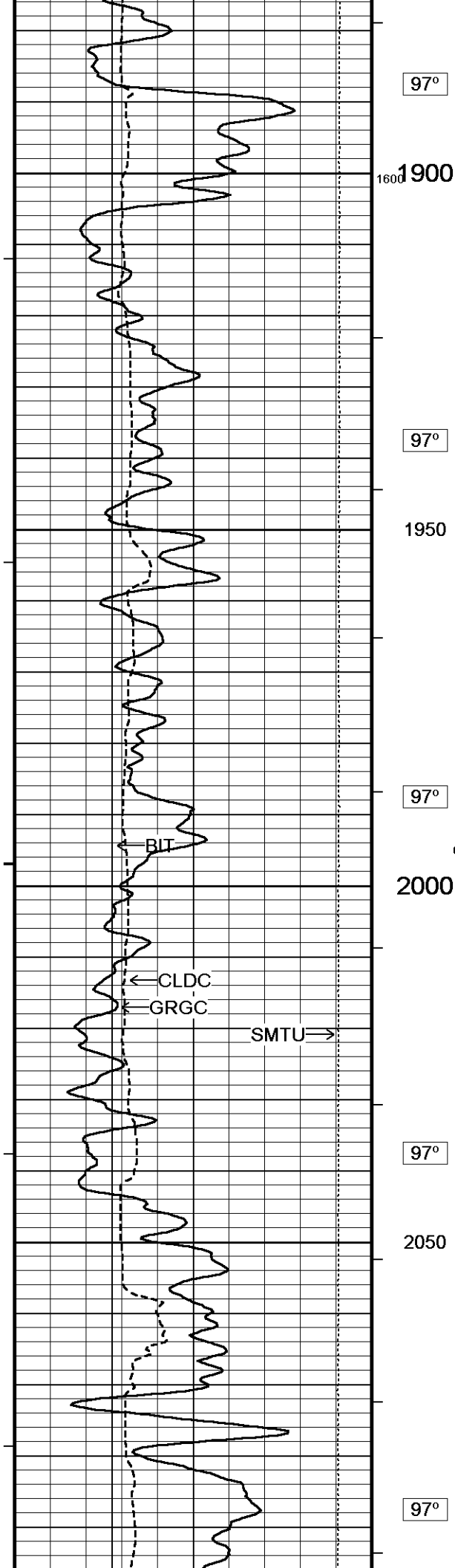
Depth Based Data - Maximum Sampling Increment 10.0cm  
Filename: C:\Program Files\Weatherford\WLS 12.02.4401\Data\SAND...\Stephanie 1-3SWD quad3.dta  
System Versions: Logged with 12.02.4401 Plotted with 12.02.4401

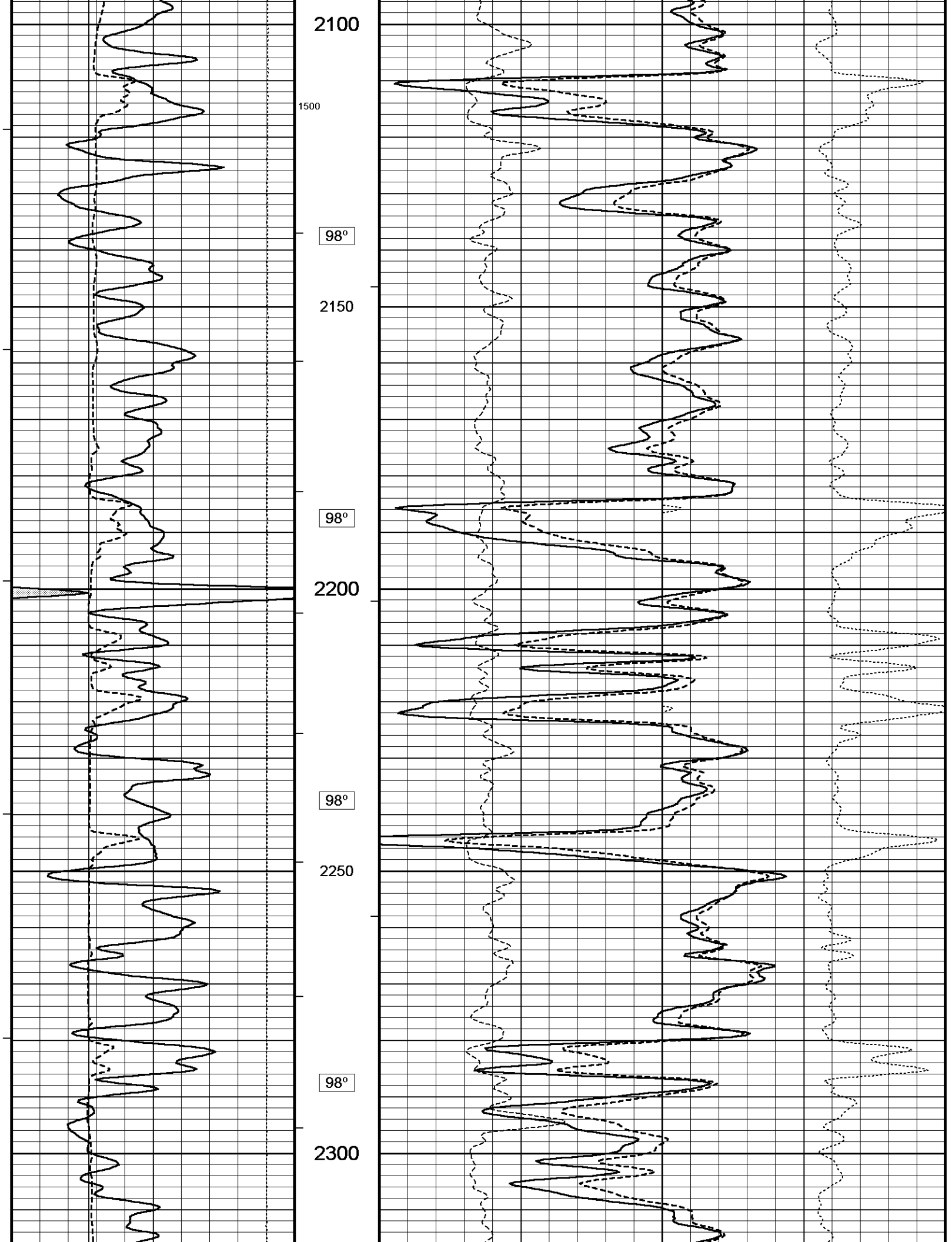
Plotted on 11-NOV-2011 16:20  
Recorded on 11-NOV-2011 11:32

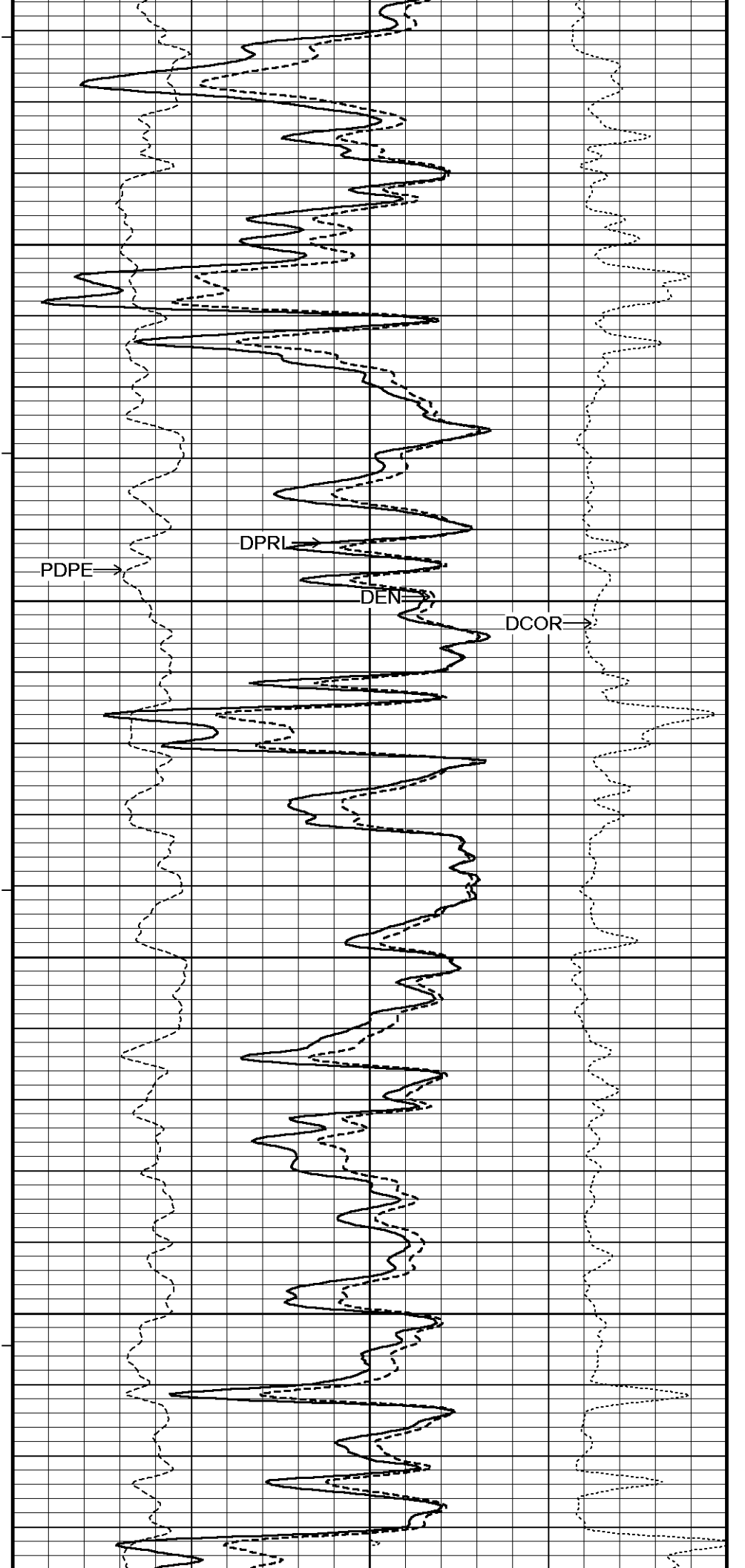
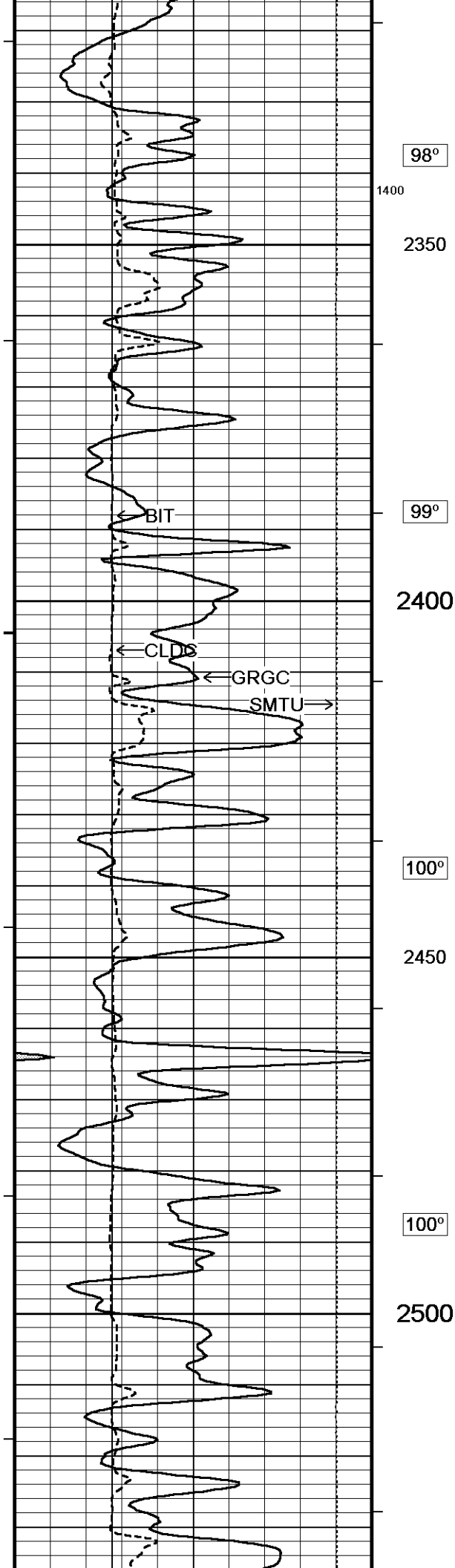


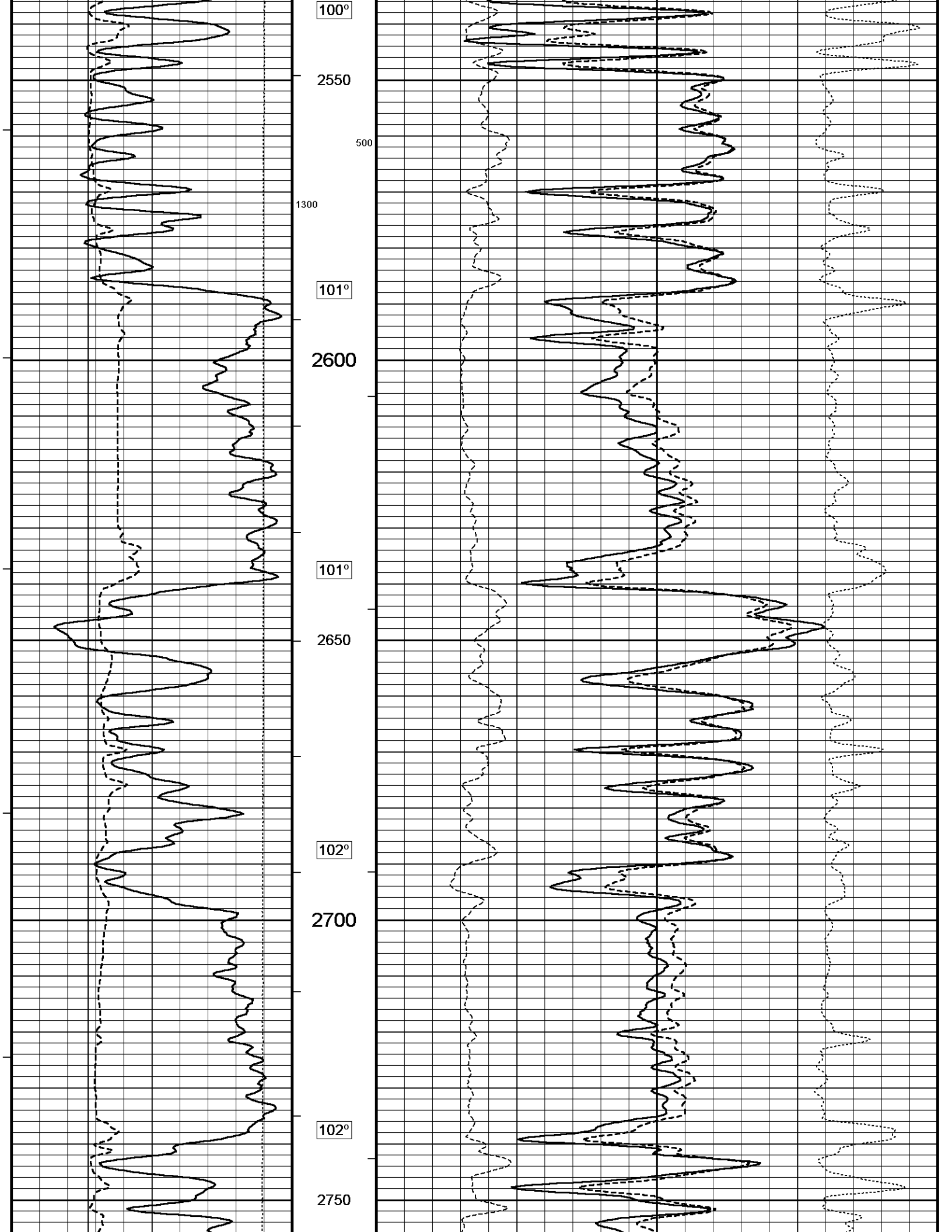


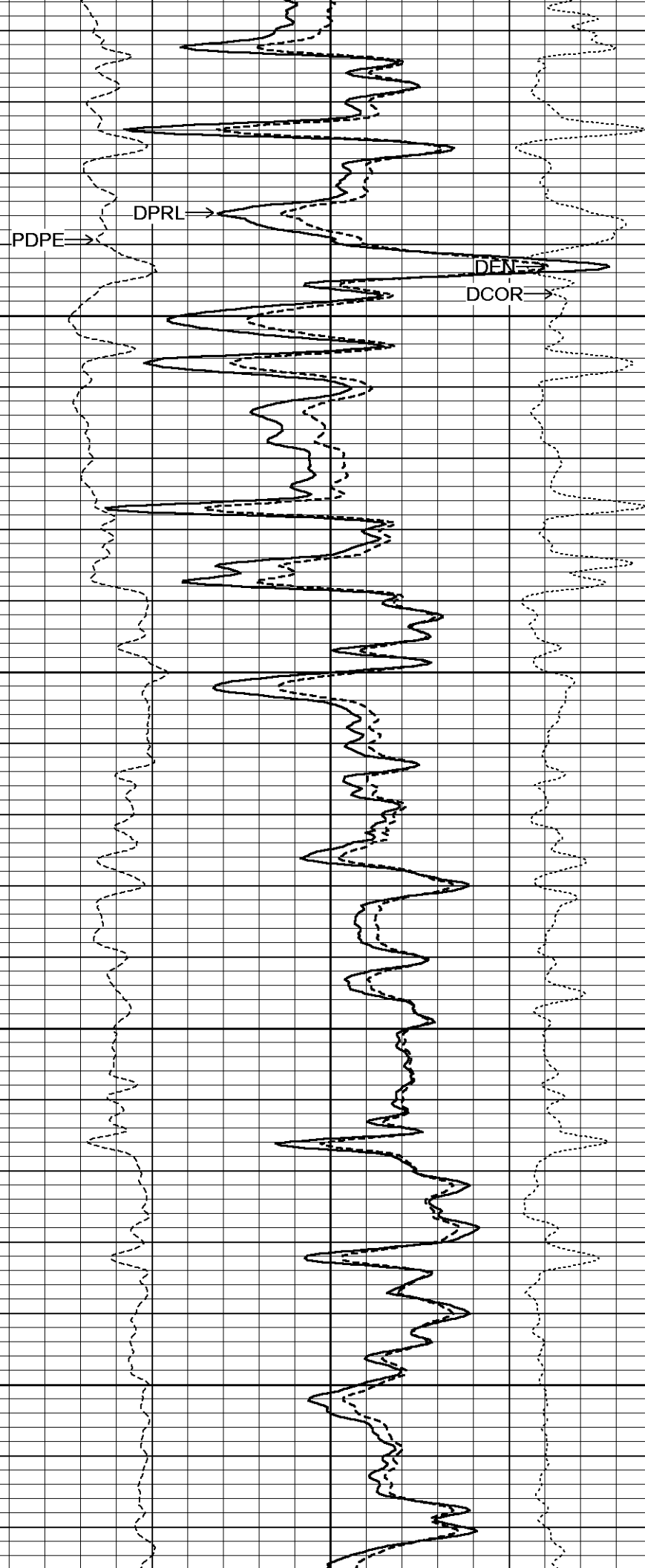
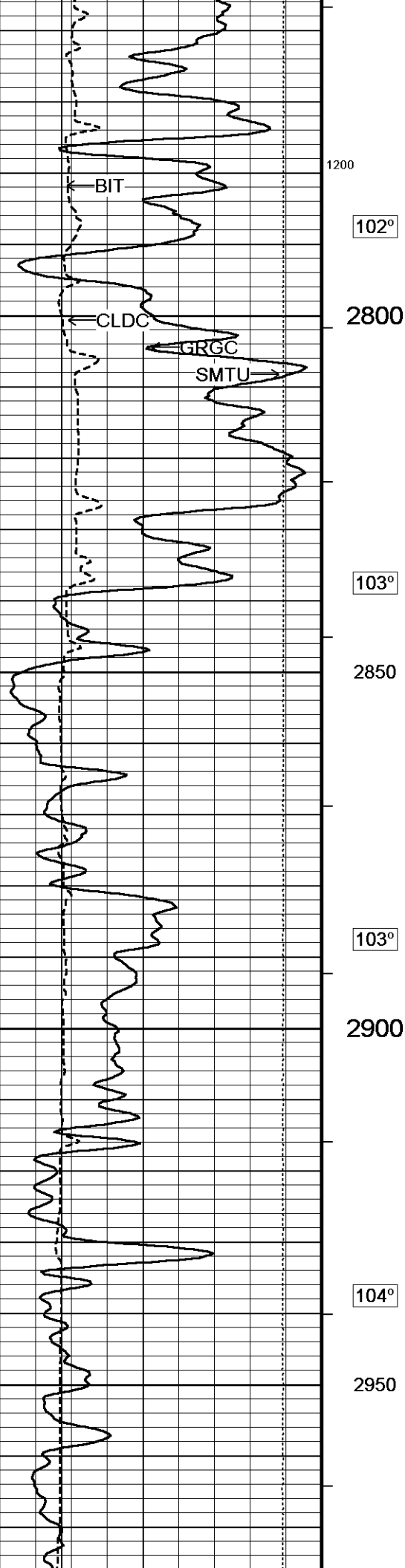


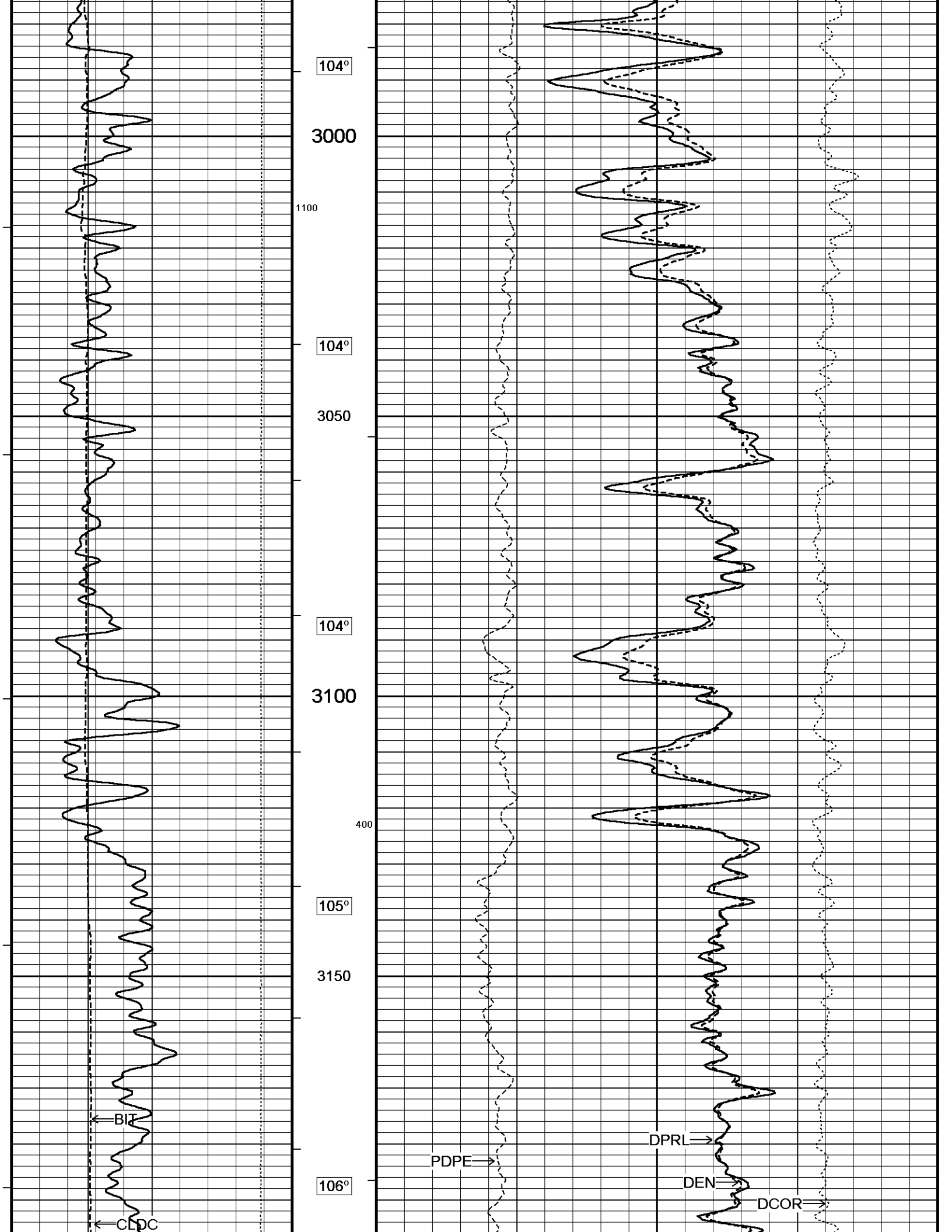


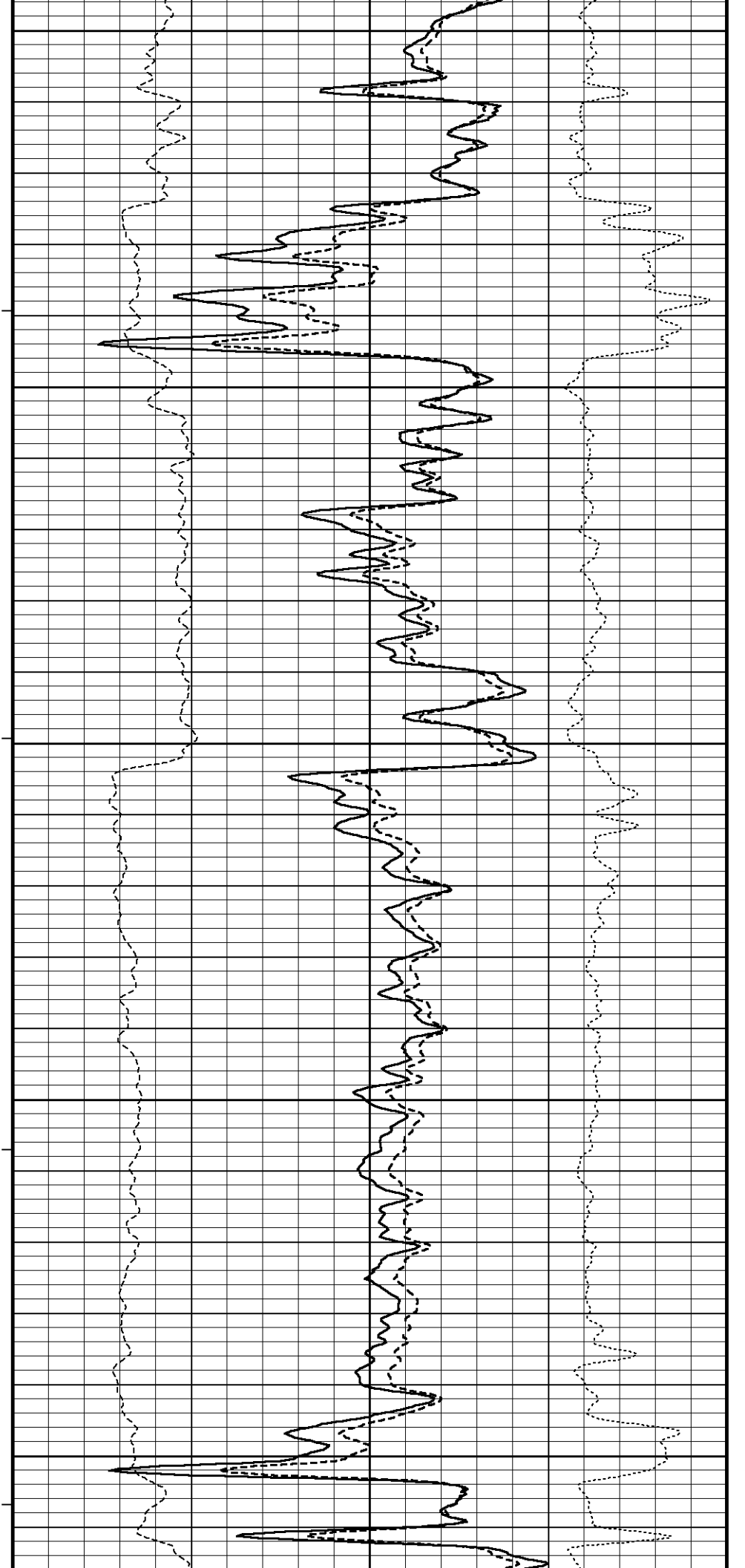
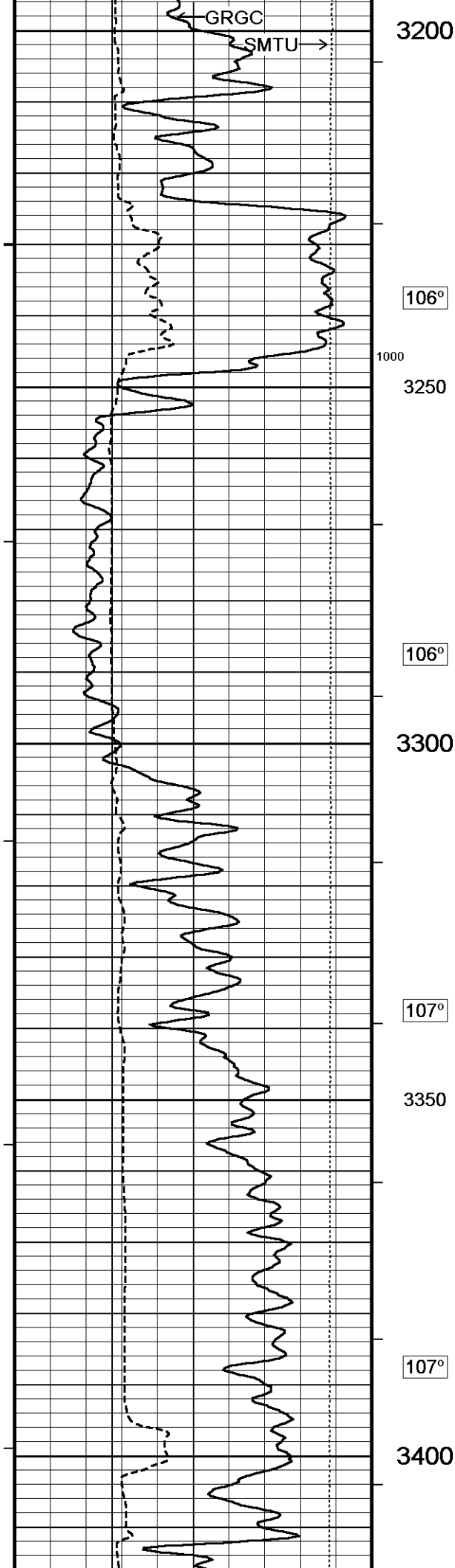




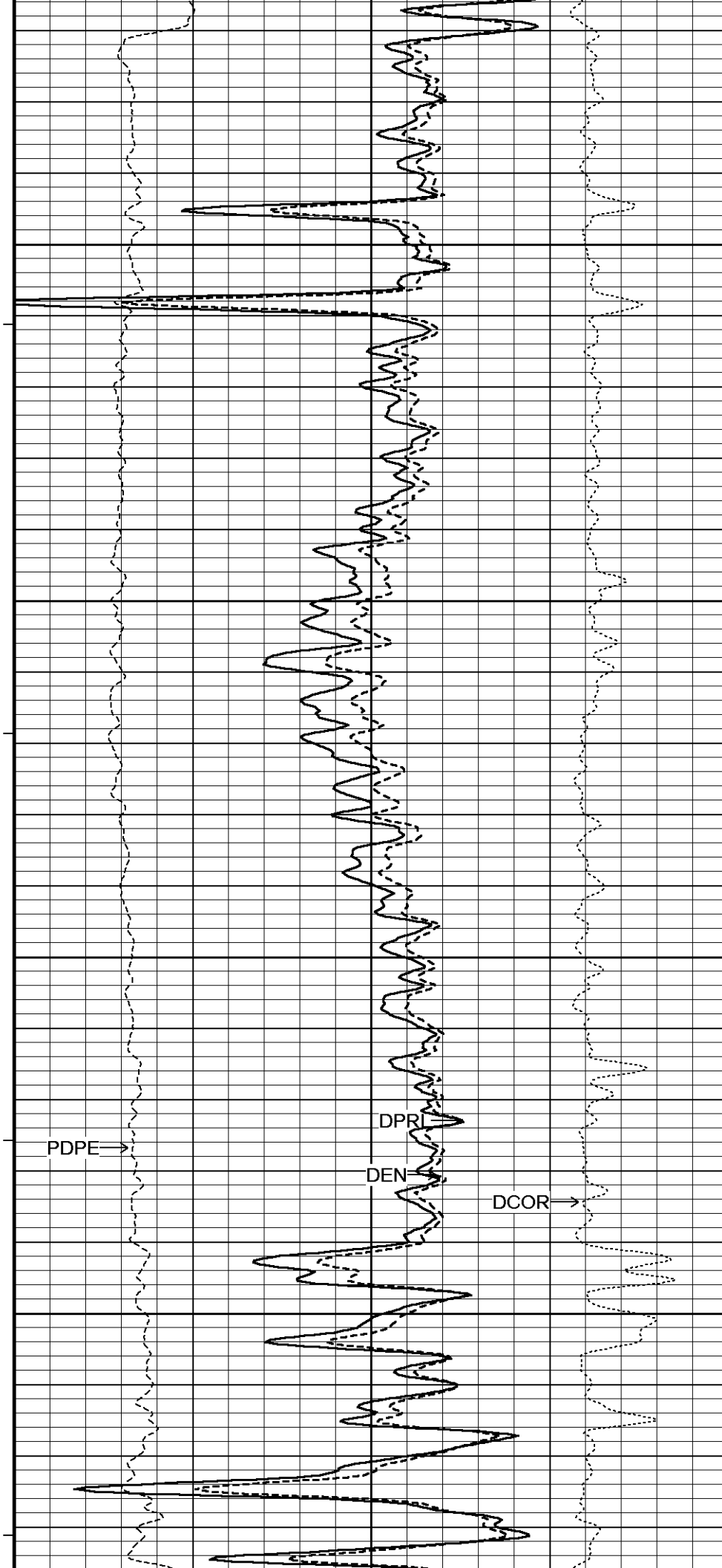
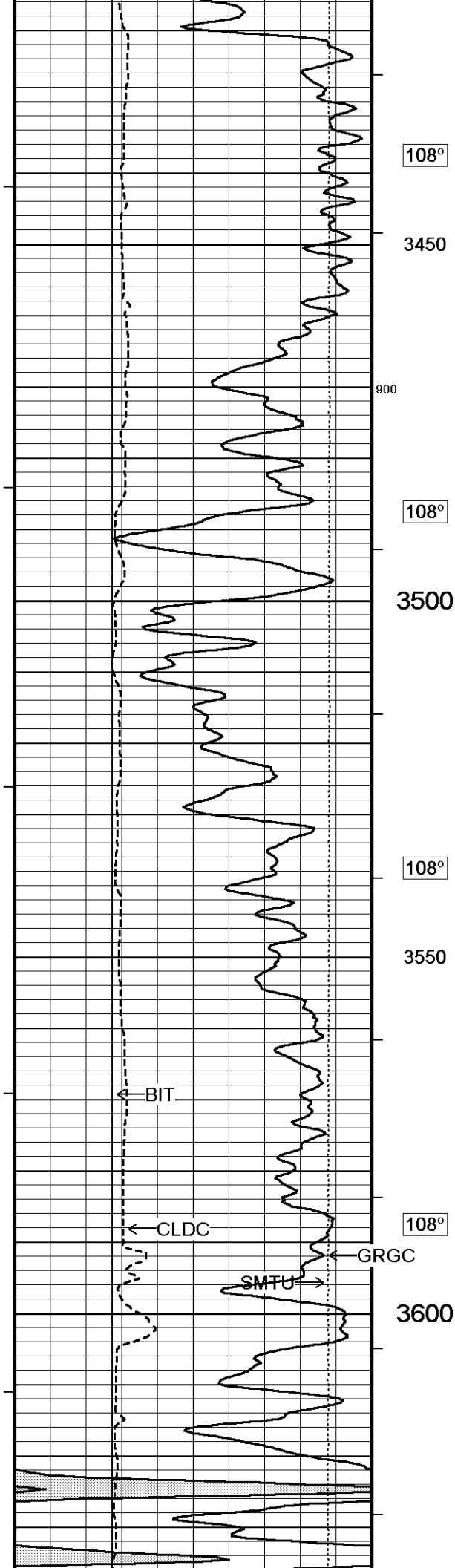


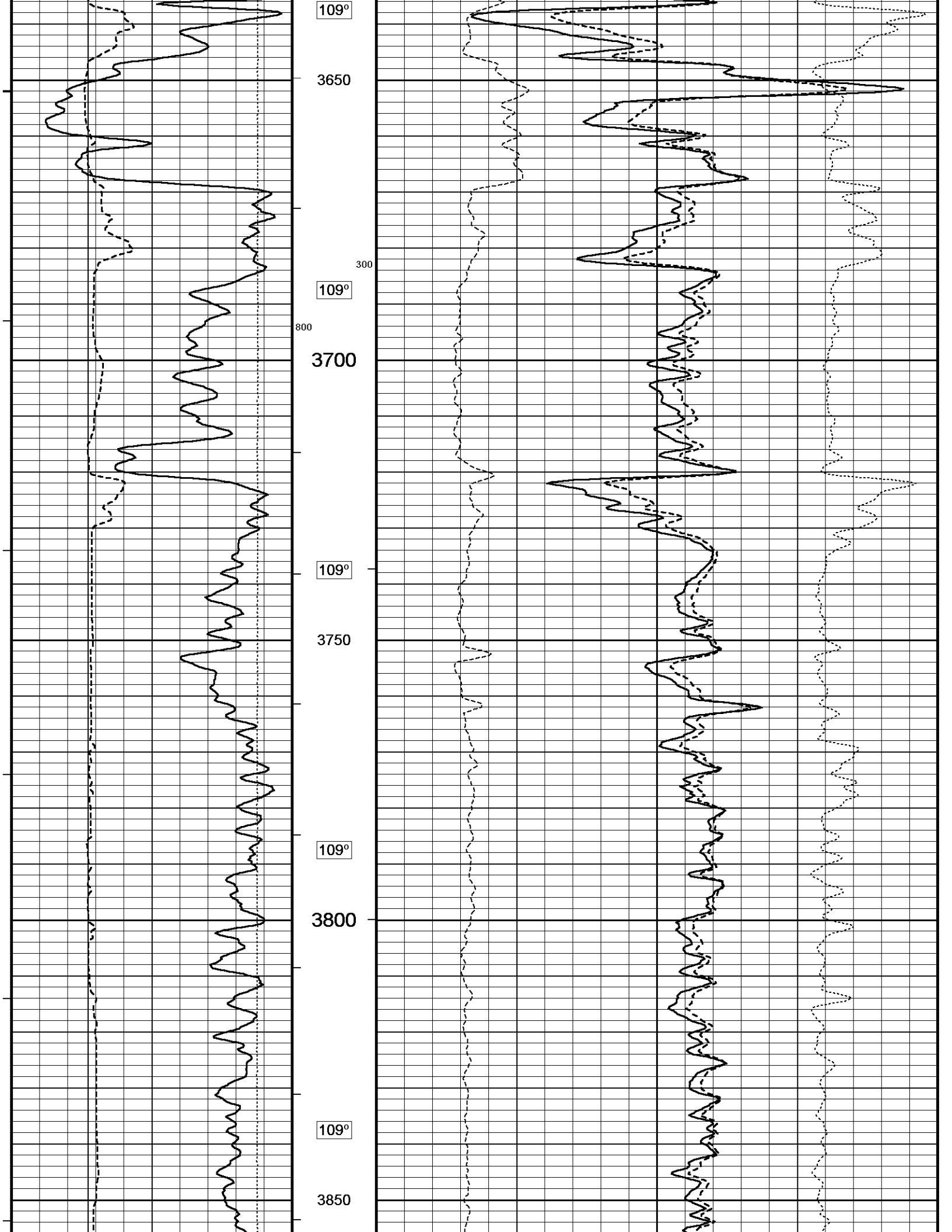


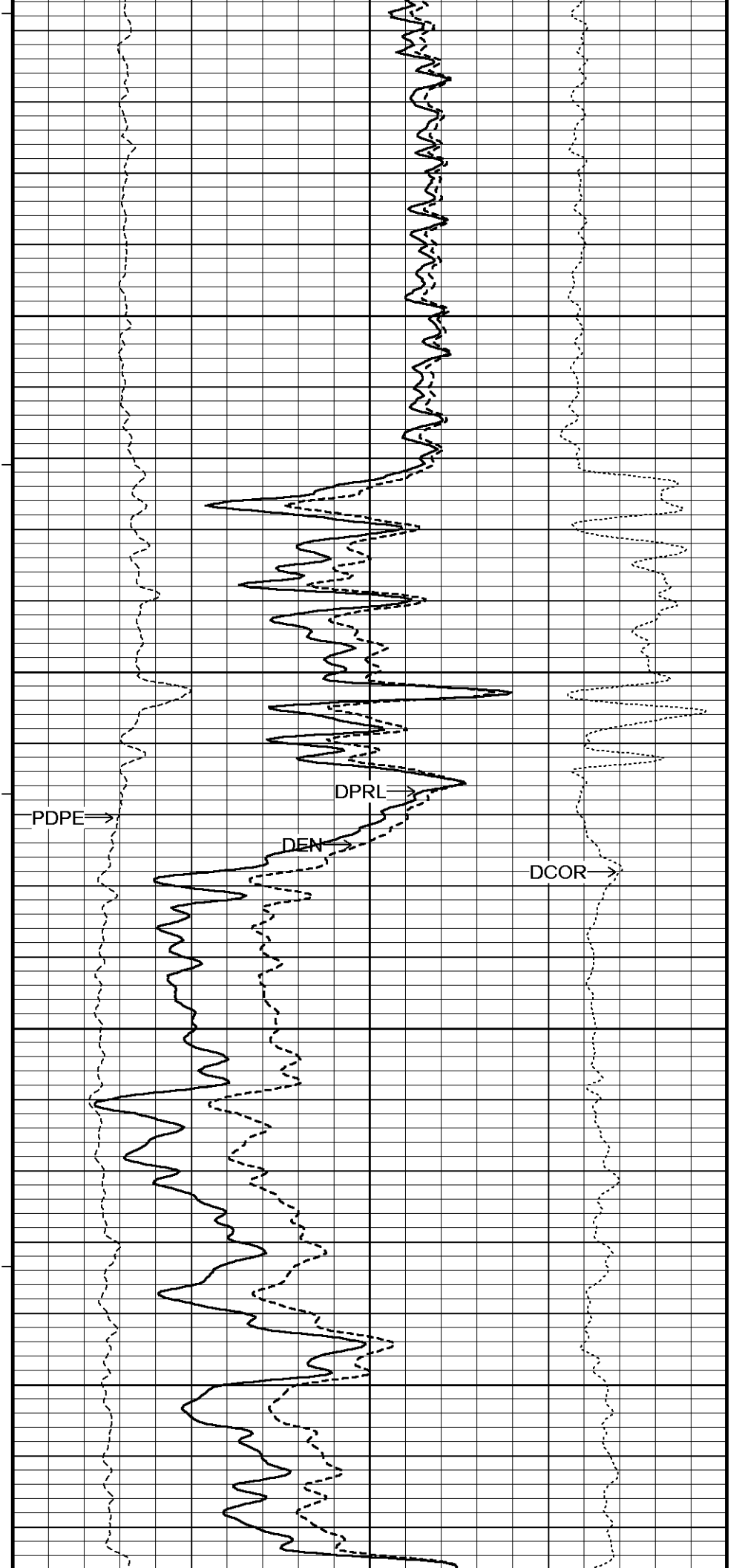
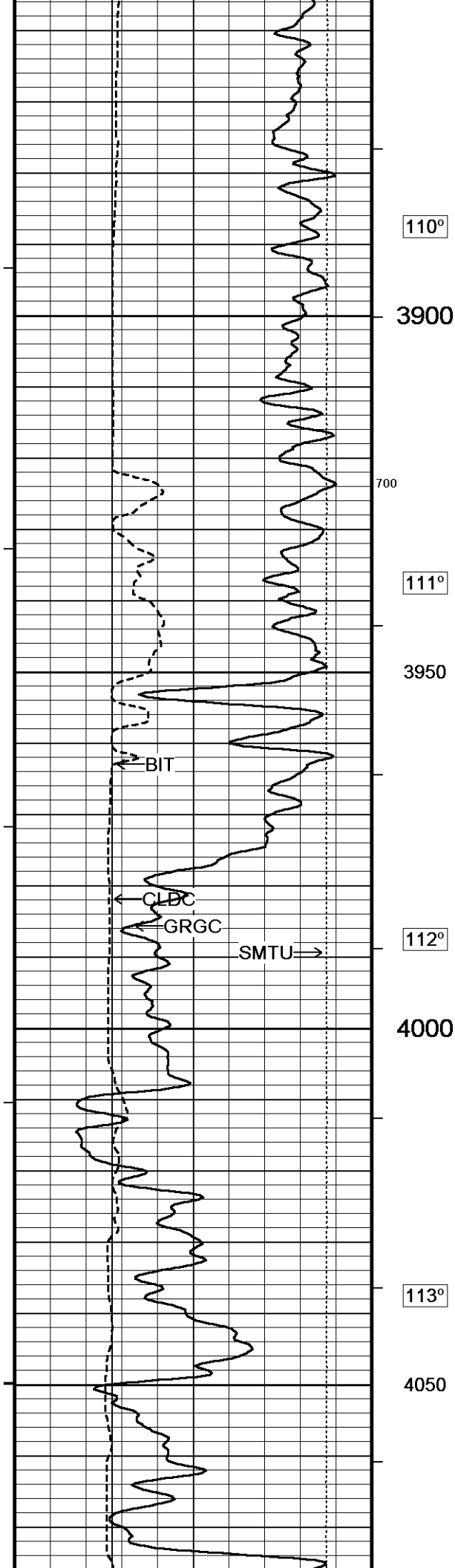


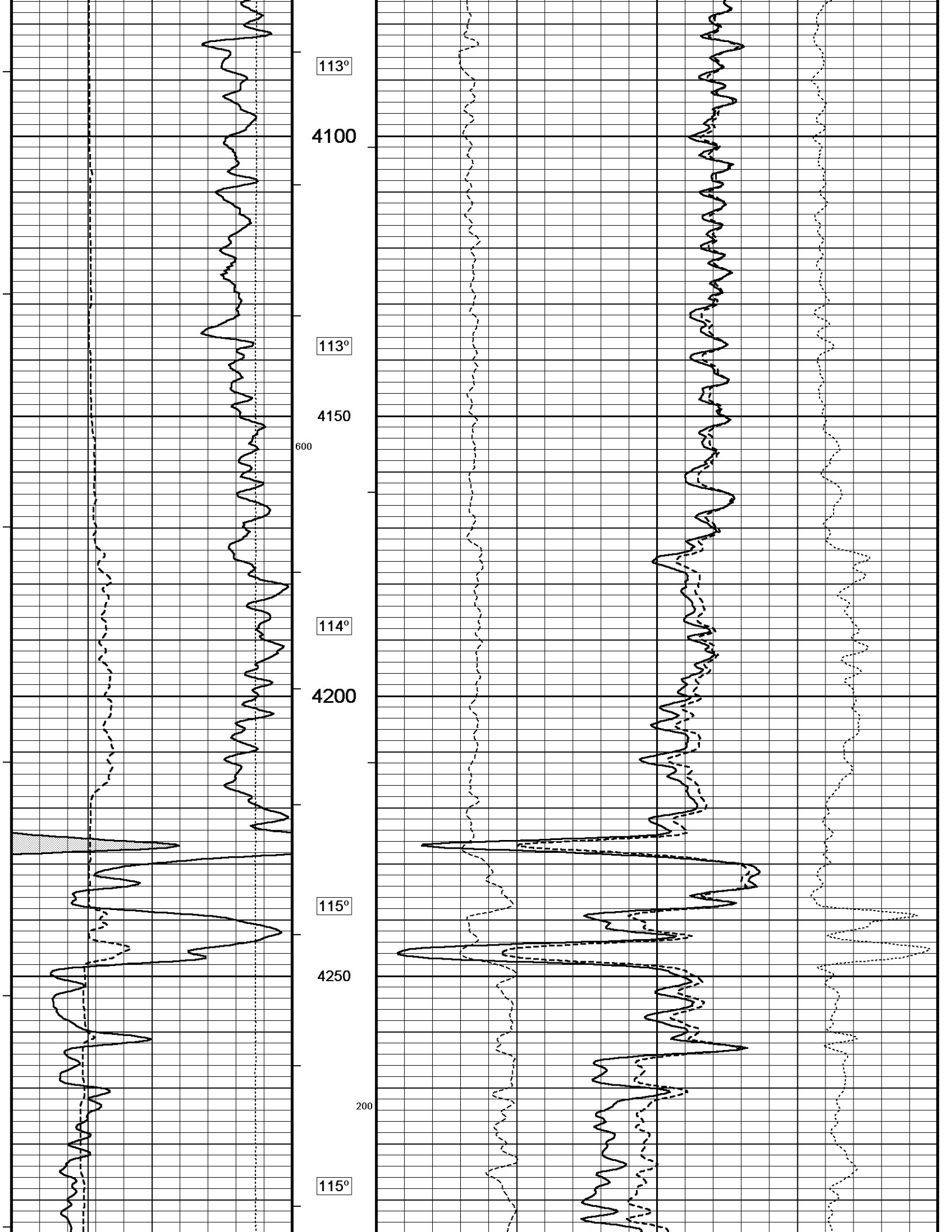


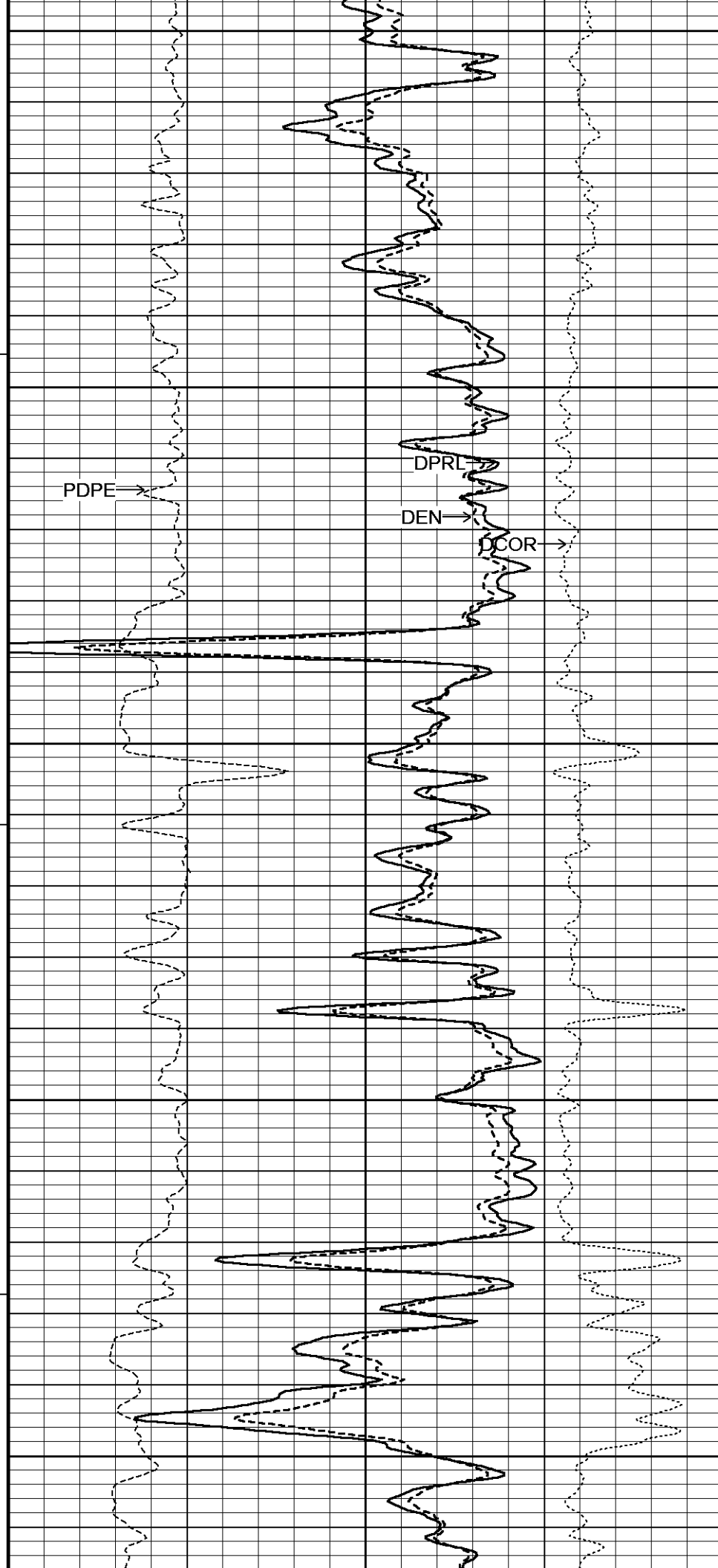
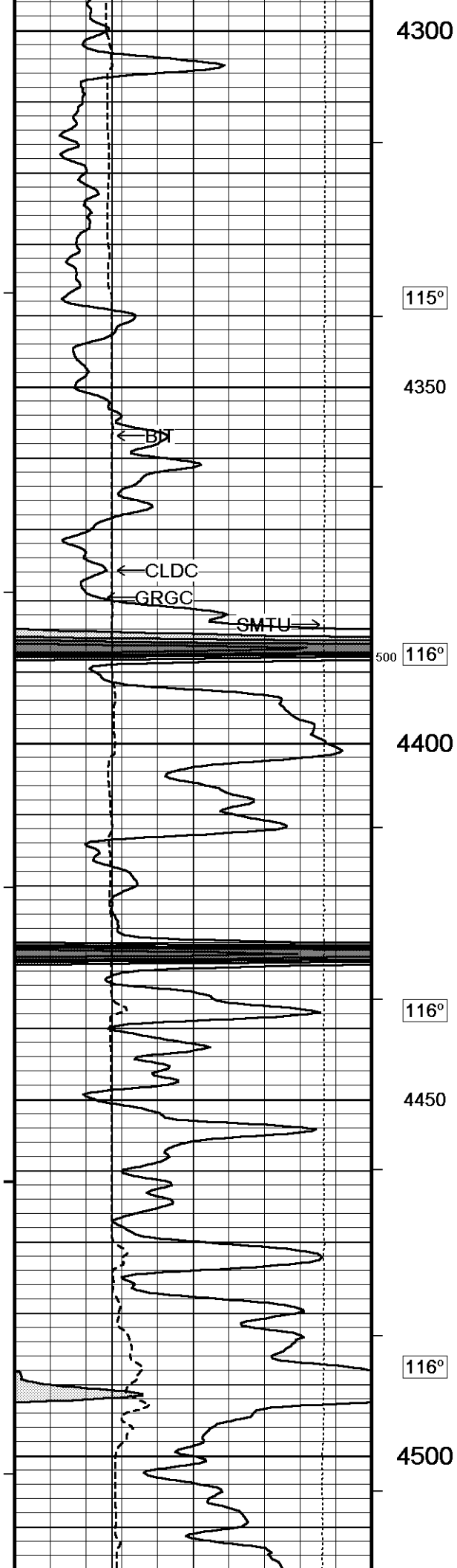


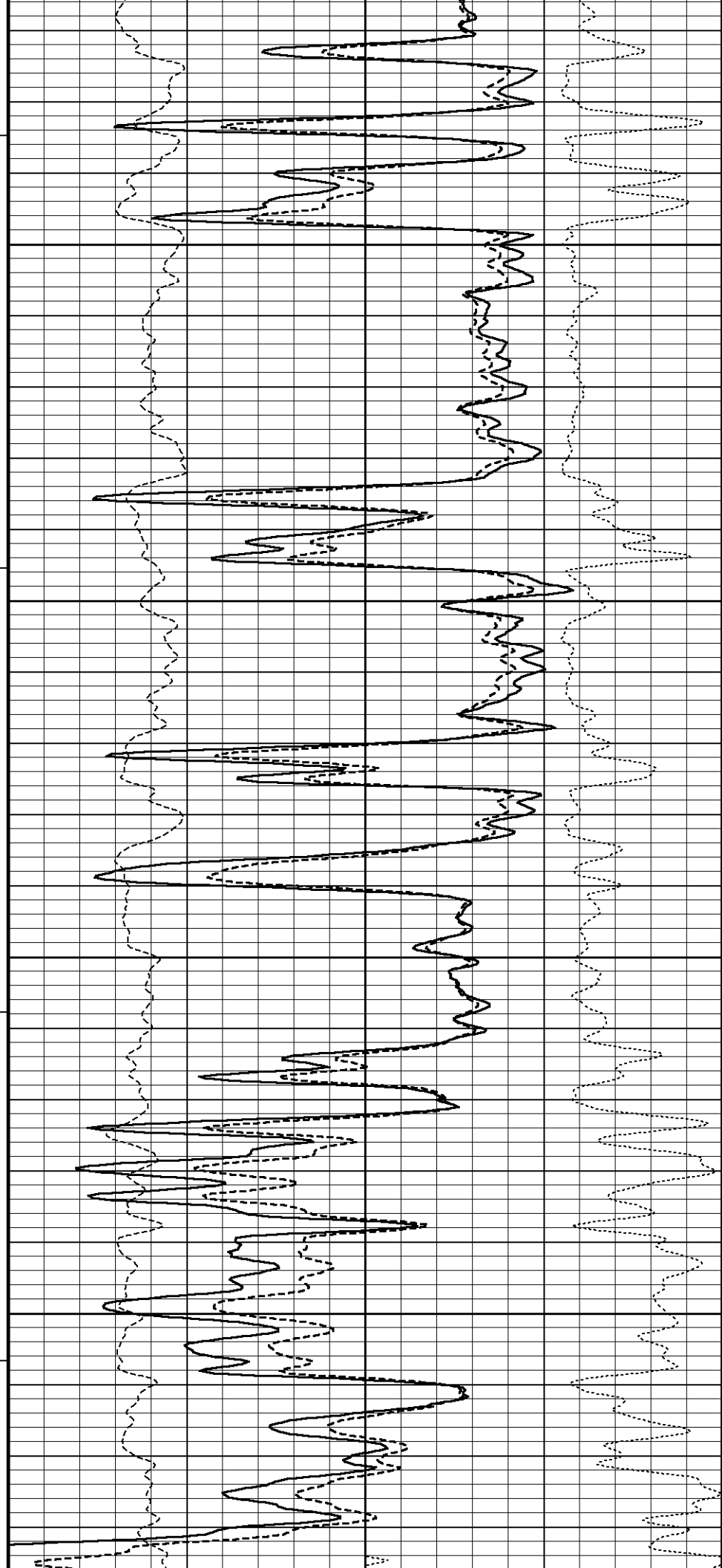
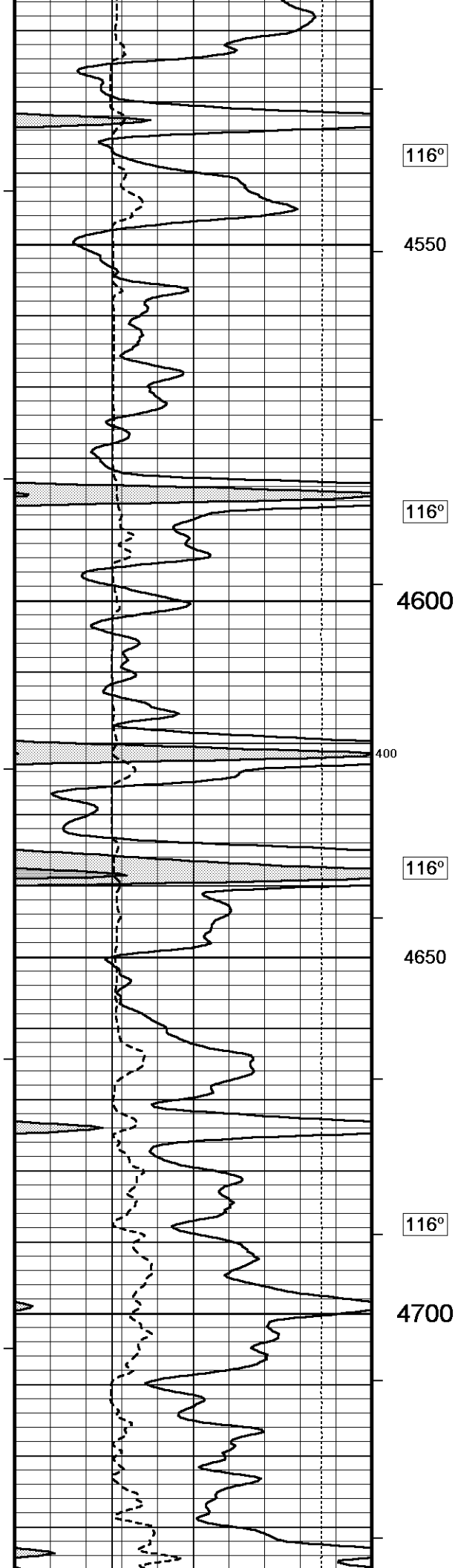


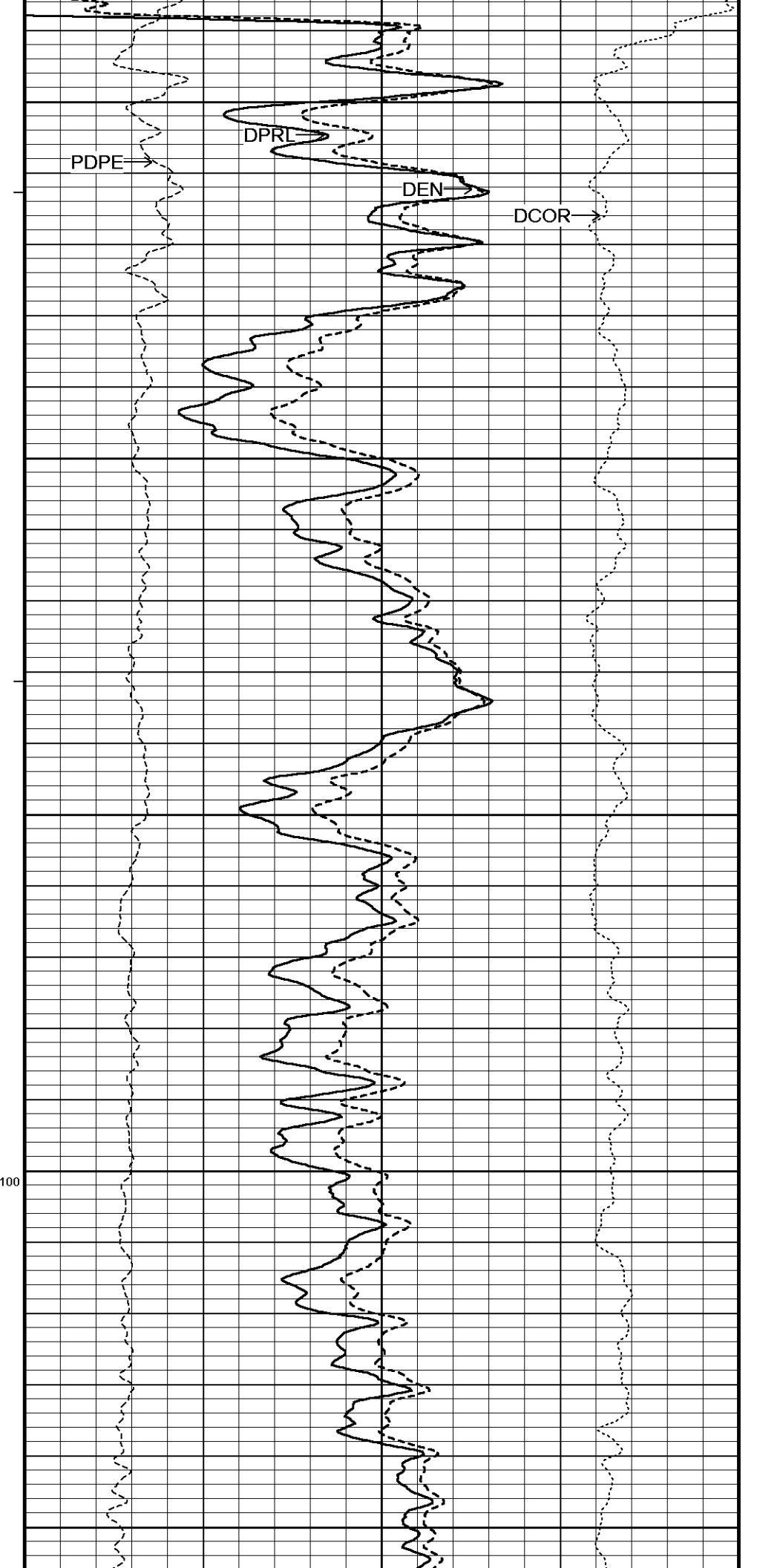
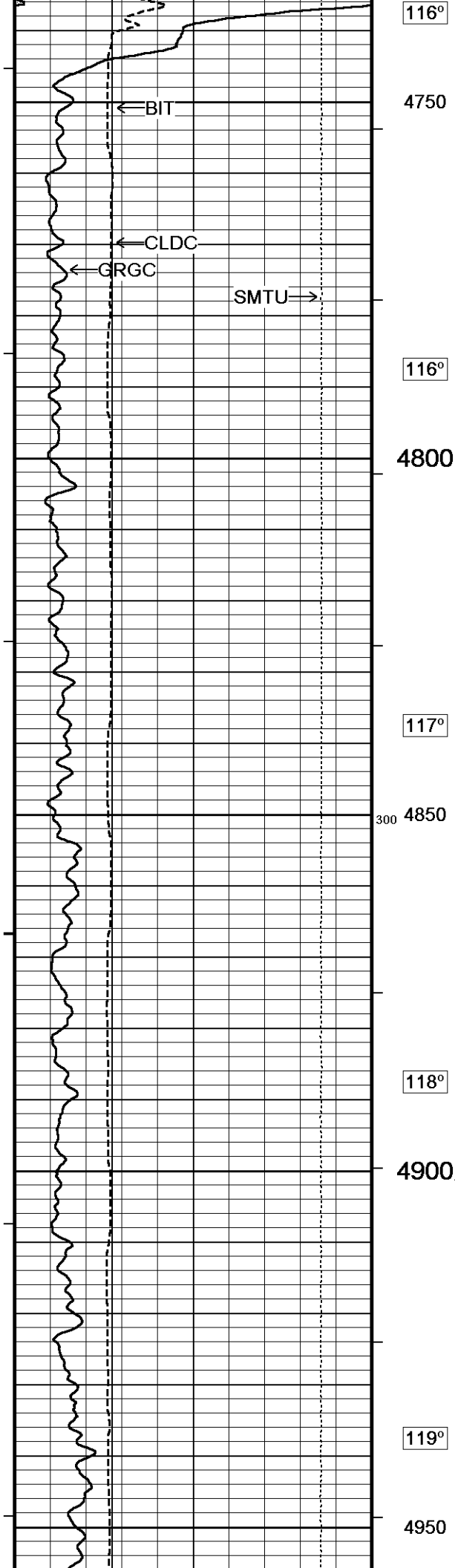


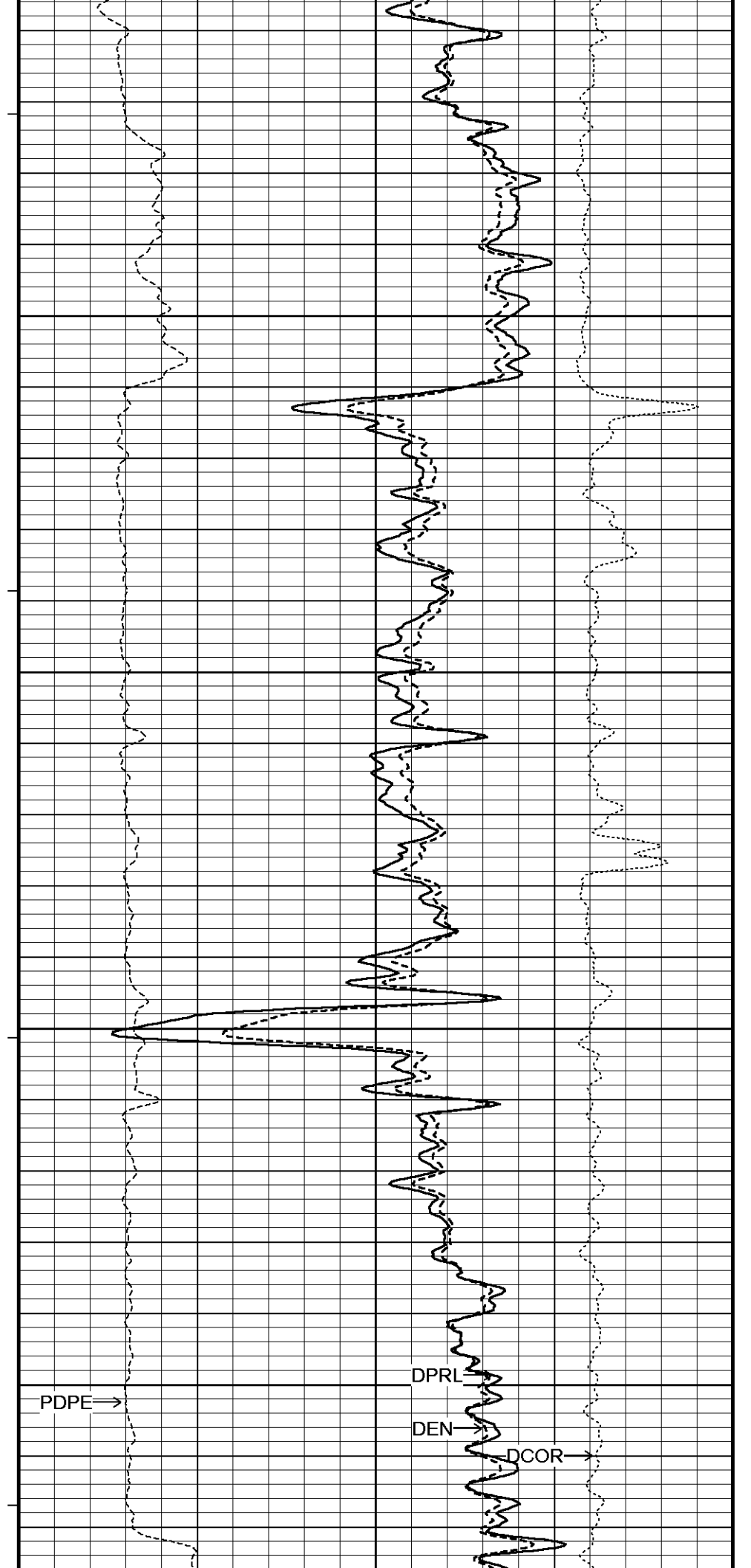
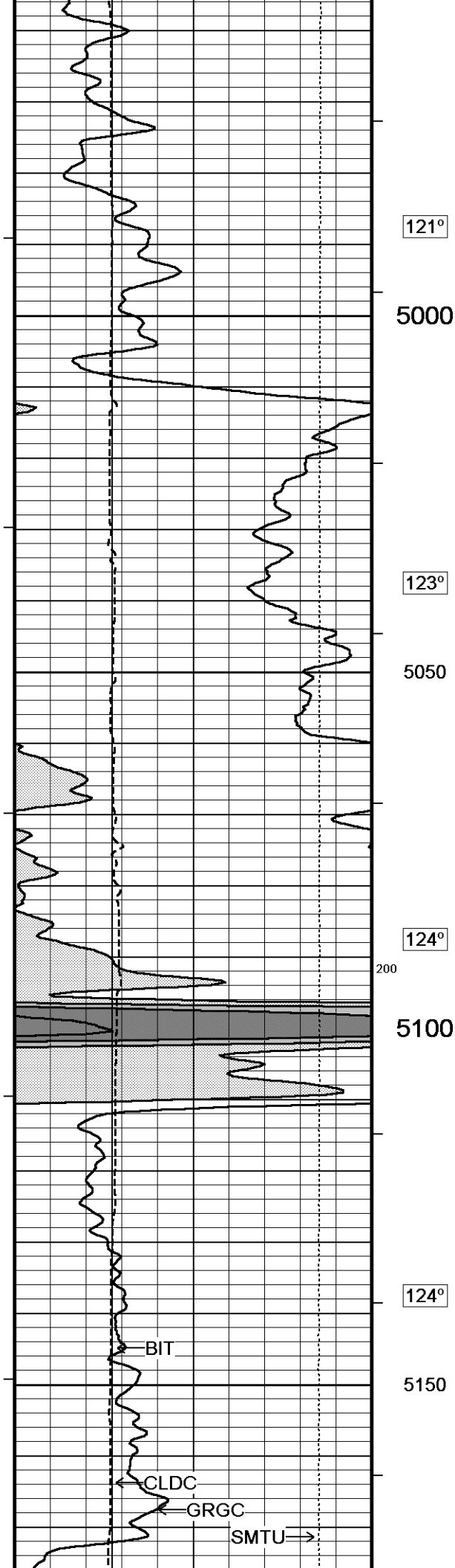




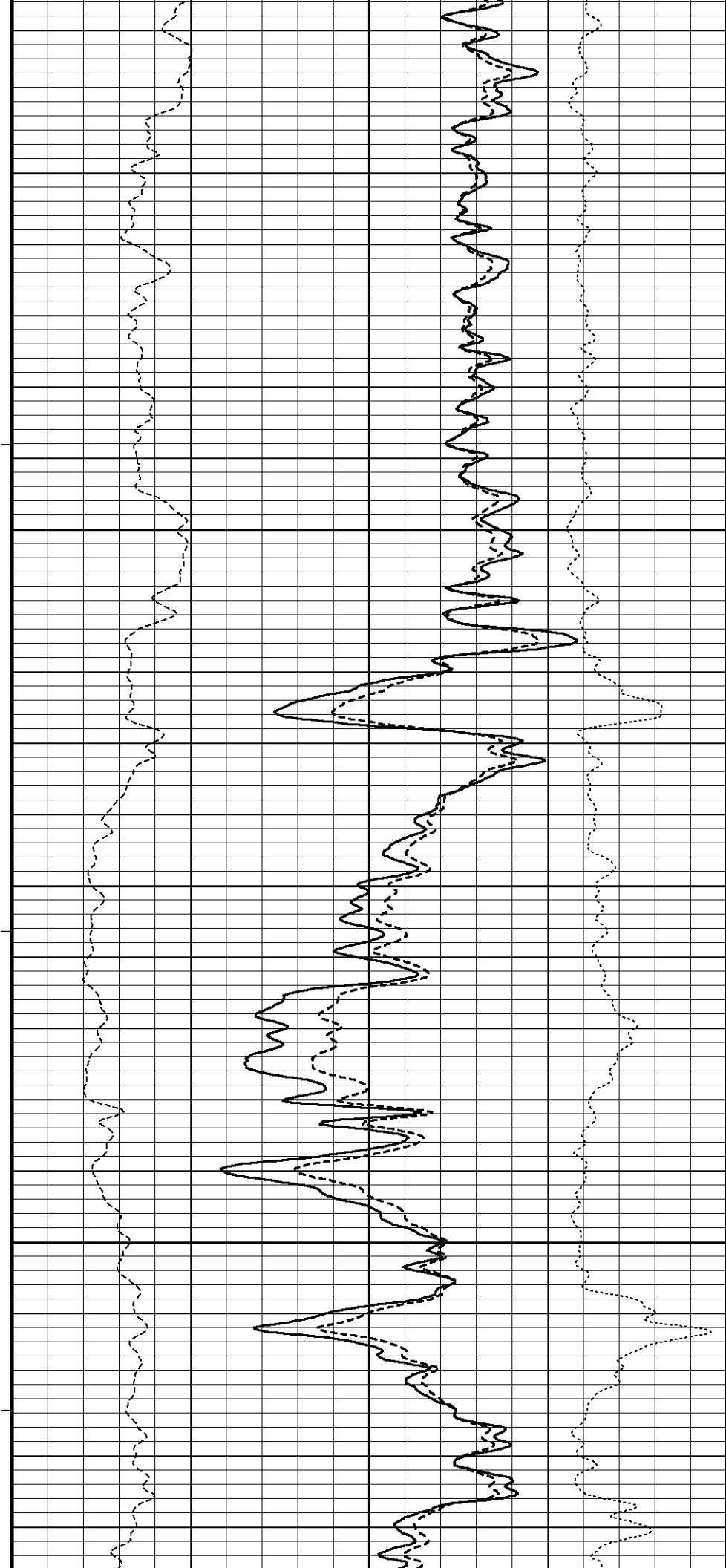
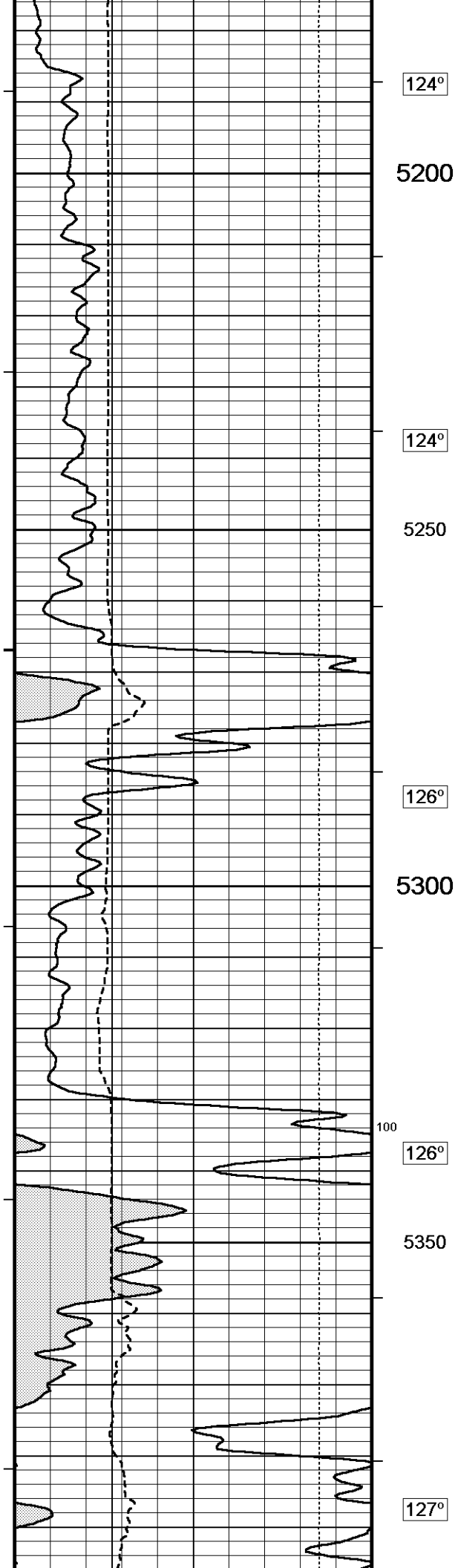


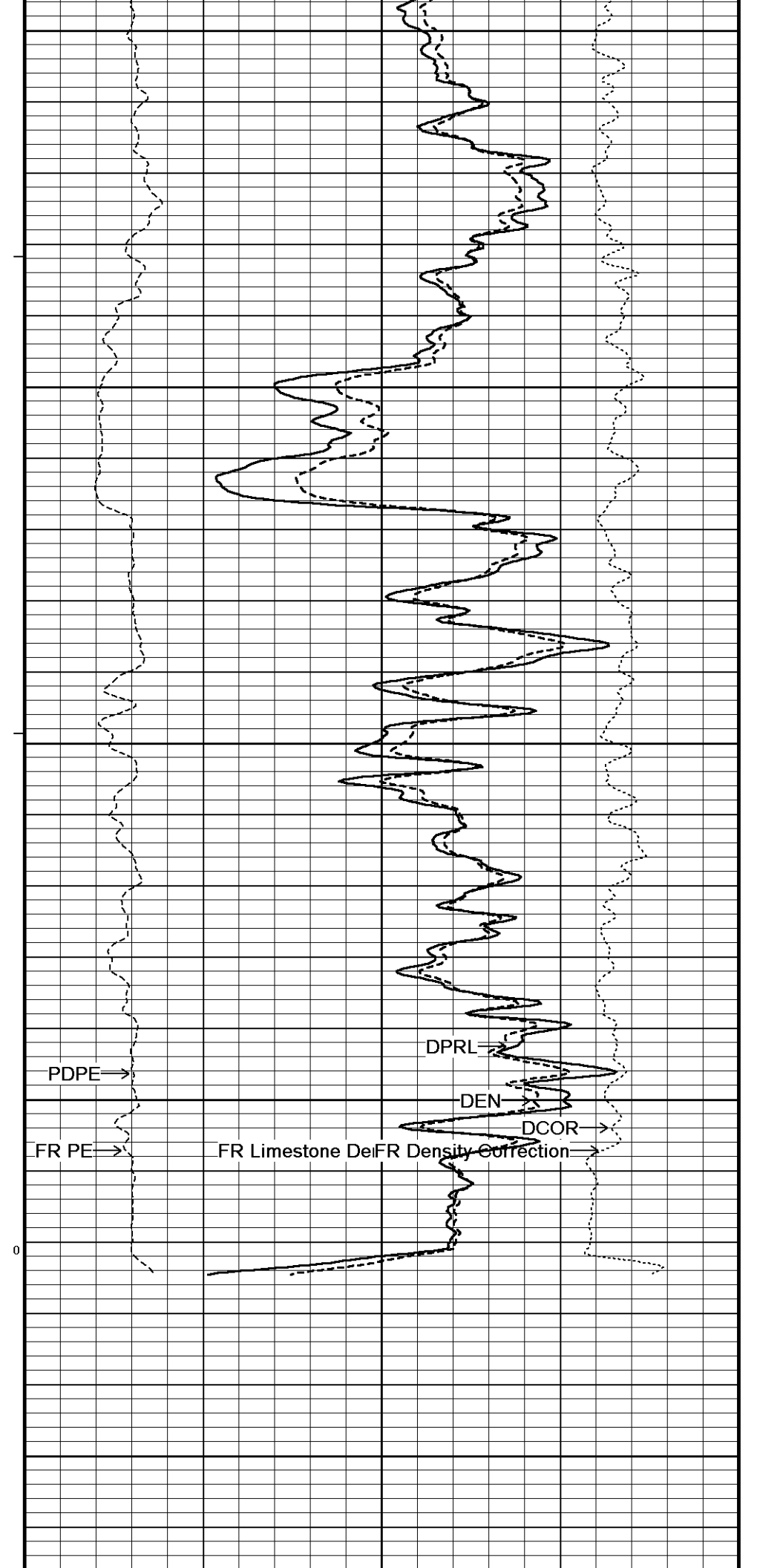
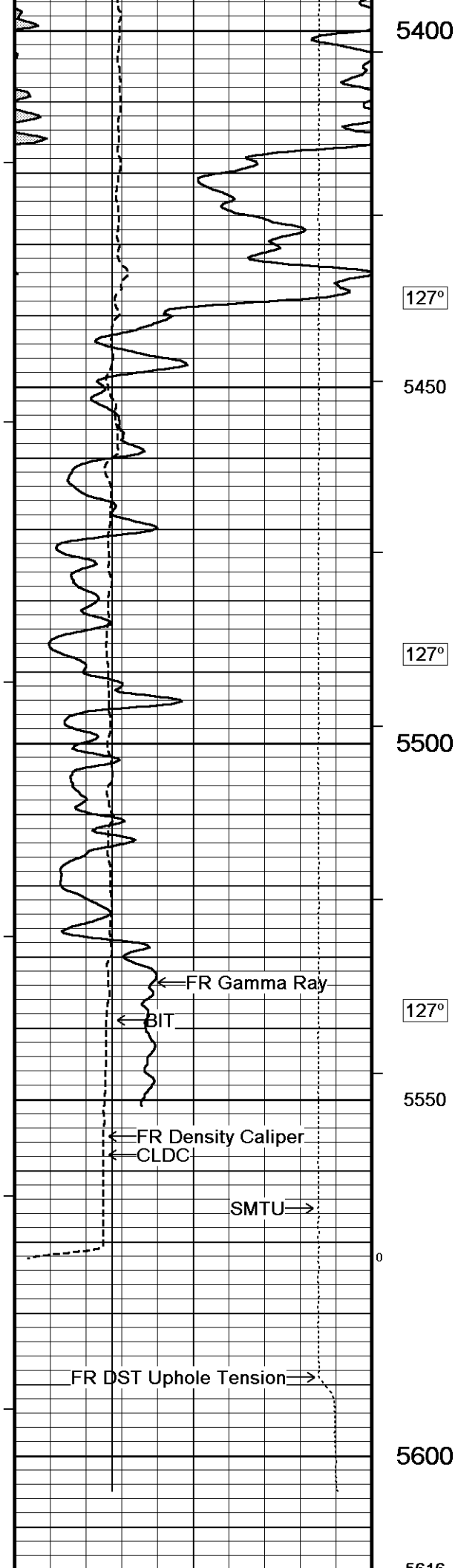


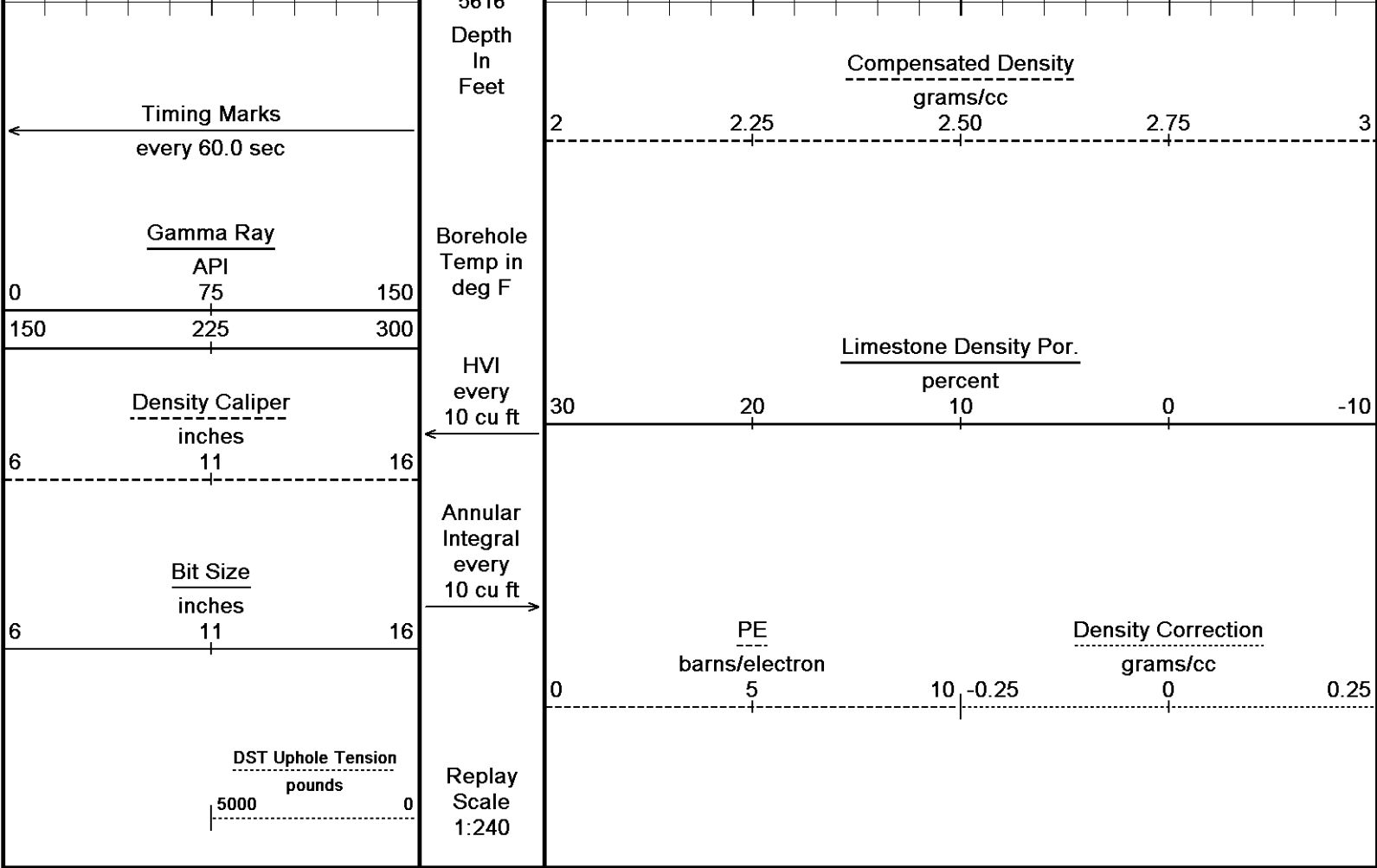












Depth Based Data - Maximum Sampling Increment 10.0cm

Plotted on 11-NOV-2011 16:20

Filename: C:\Program Files\Weatherford\WLS 12.02.4401\Data\SAND...\Stephanie 1-3SWD quad3.dta

Recorded on 11-NOV-2011 11:32

System Versions: Logged with 12.02.4401 Plotted with 12.02.4401

↑

5 INCH BULK DENSITY

↑

↓

REPEAT SECTION

↓

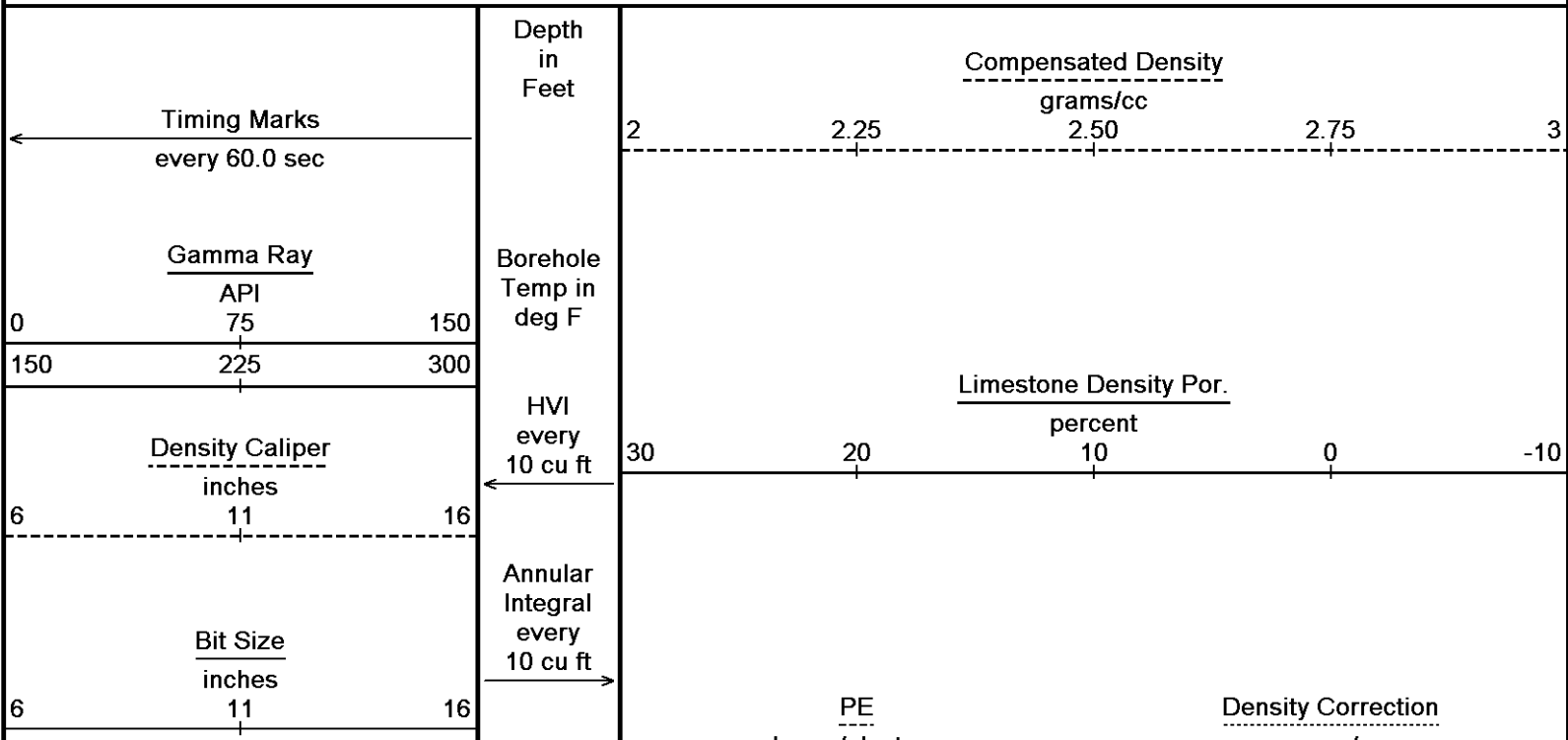
Depth Based Data - Maximum Sampling Increment 10.0cm

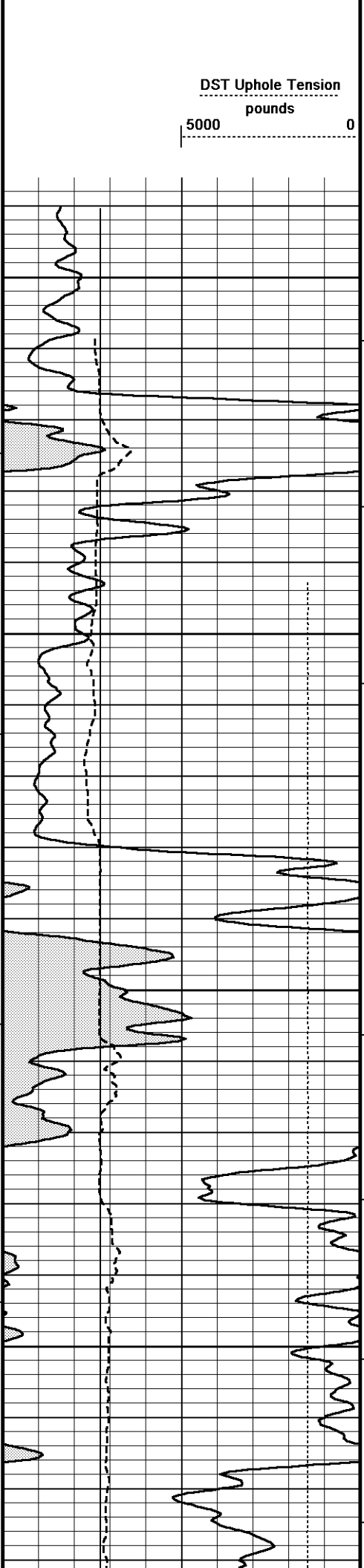
Plotted on 11-NOV-2011 16:20

Filename: C:\Program Files\Weatherford\WLS 12.02.4401\Data\SAND...\Stephanie 1-3SWD quad2.dta

Recorded on 11-NOV-2011 11:17

System Versions: Logged with 12.02.4401 Plotted with 12.02.4401





Replay  
Scale  
1:240

5238

5250

125°

5300

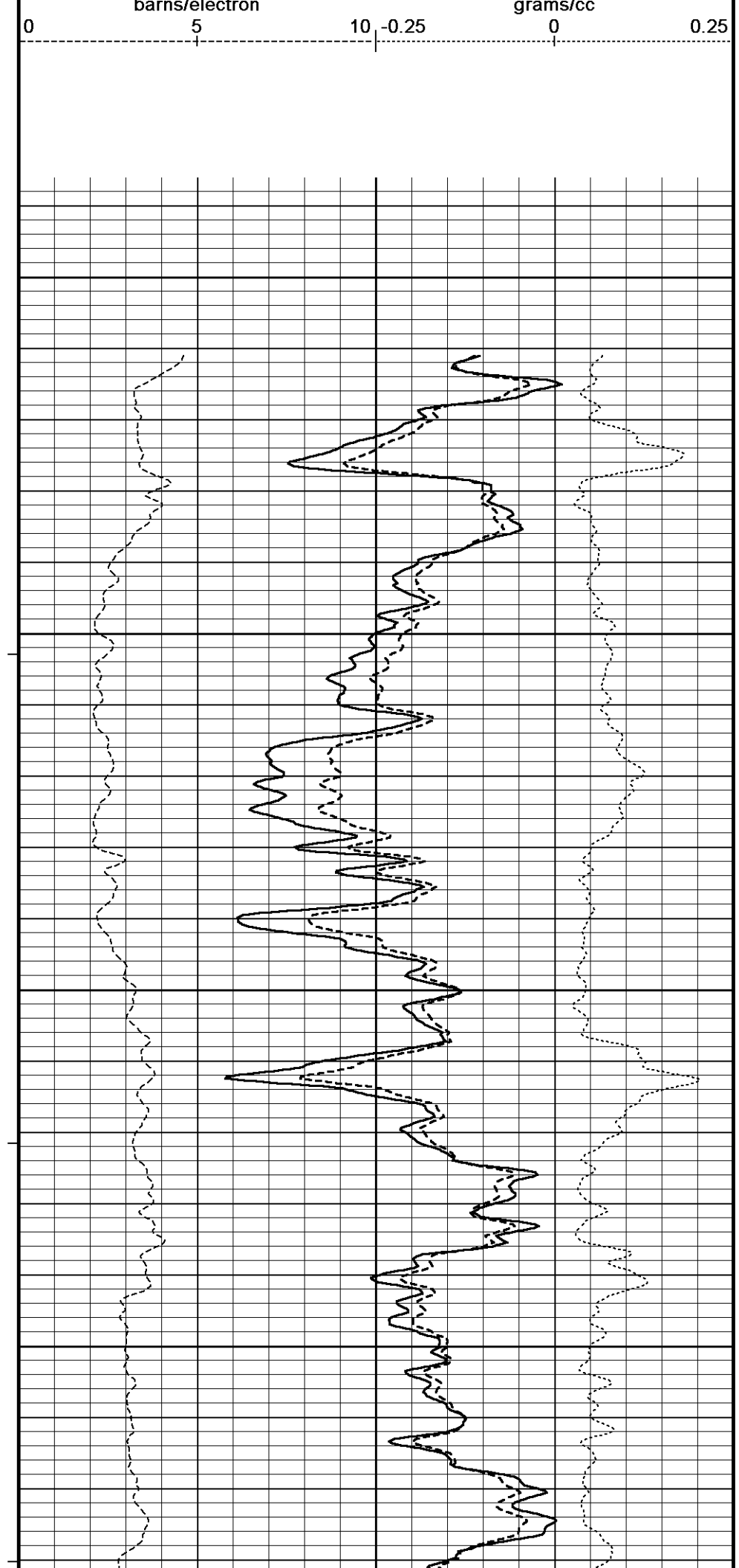
100

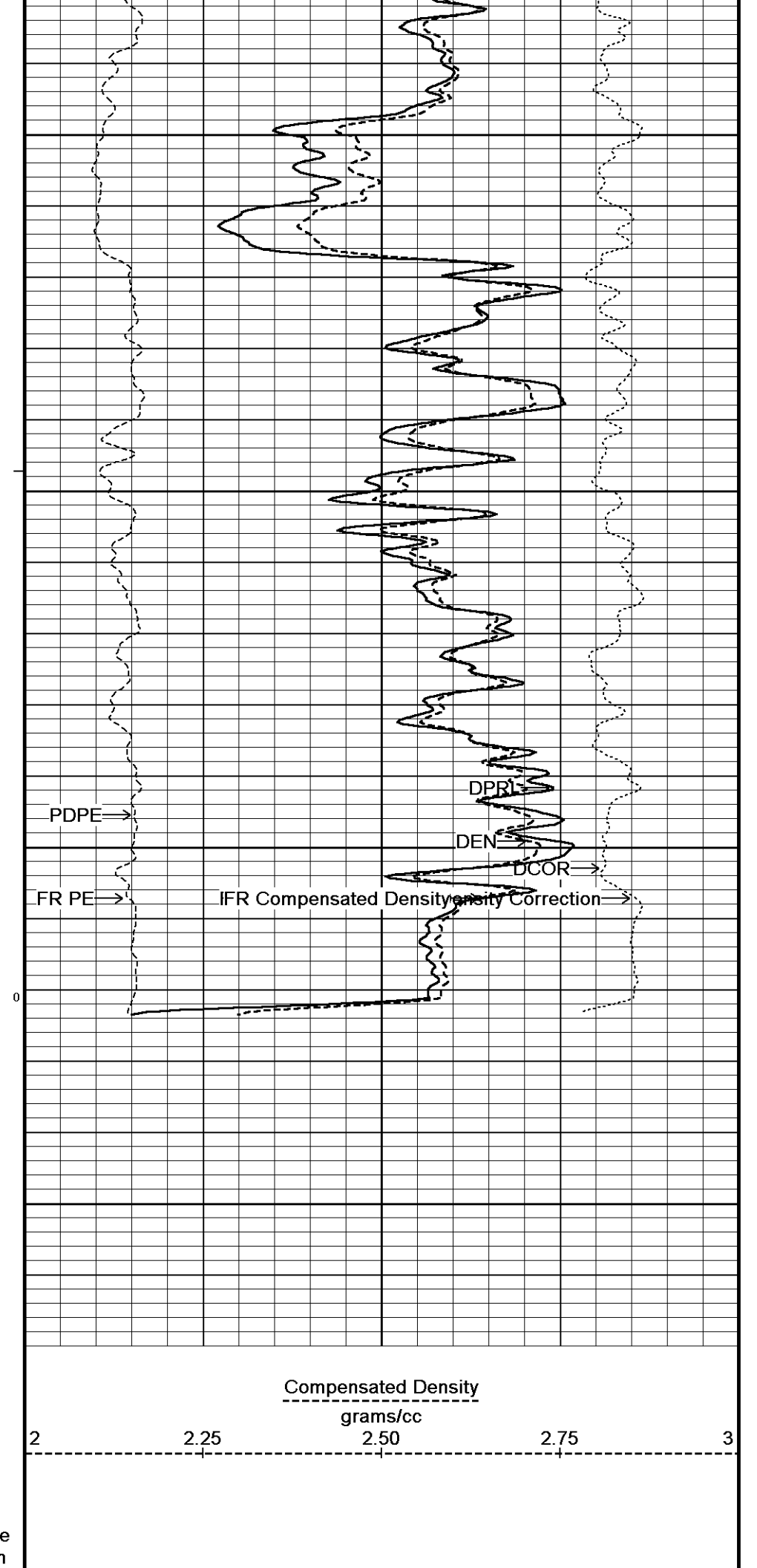
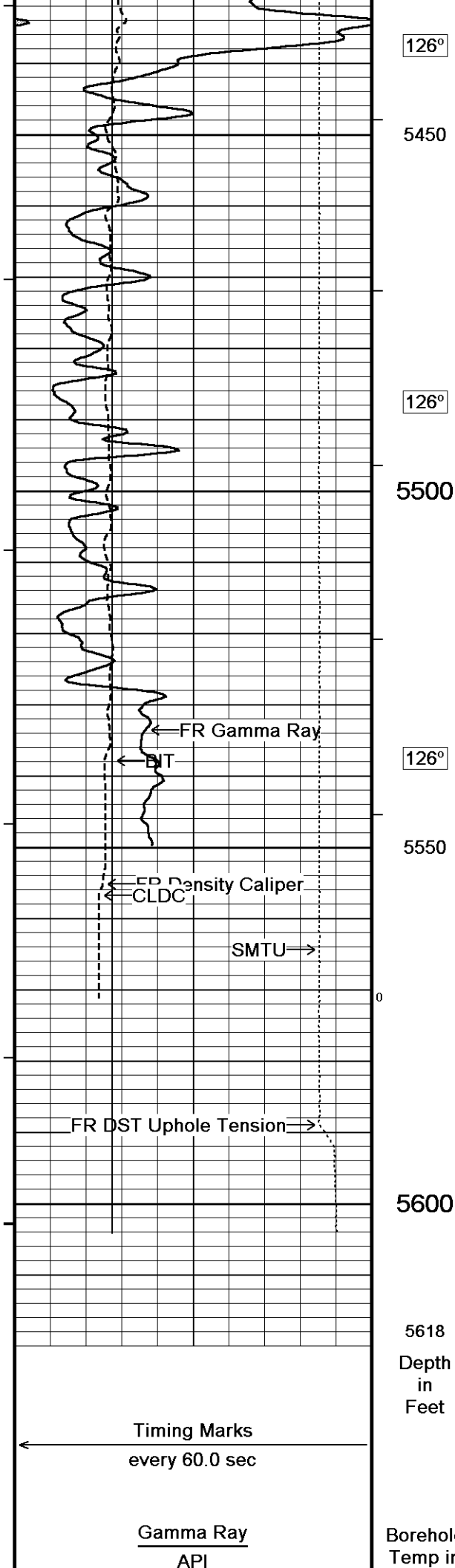
125°

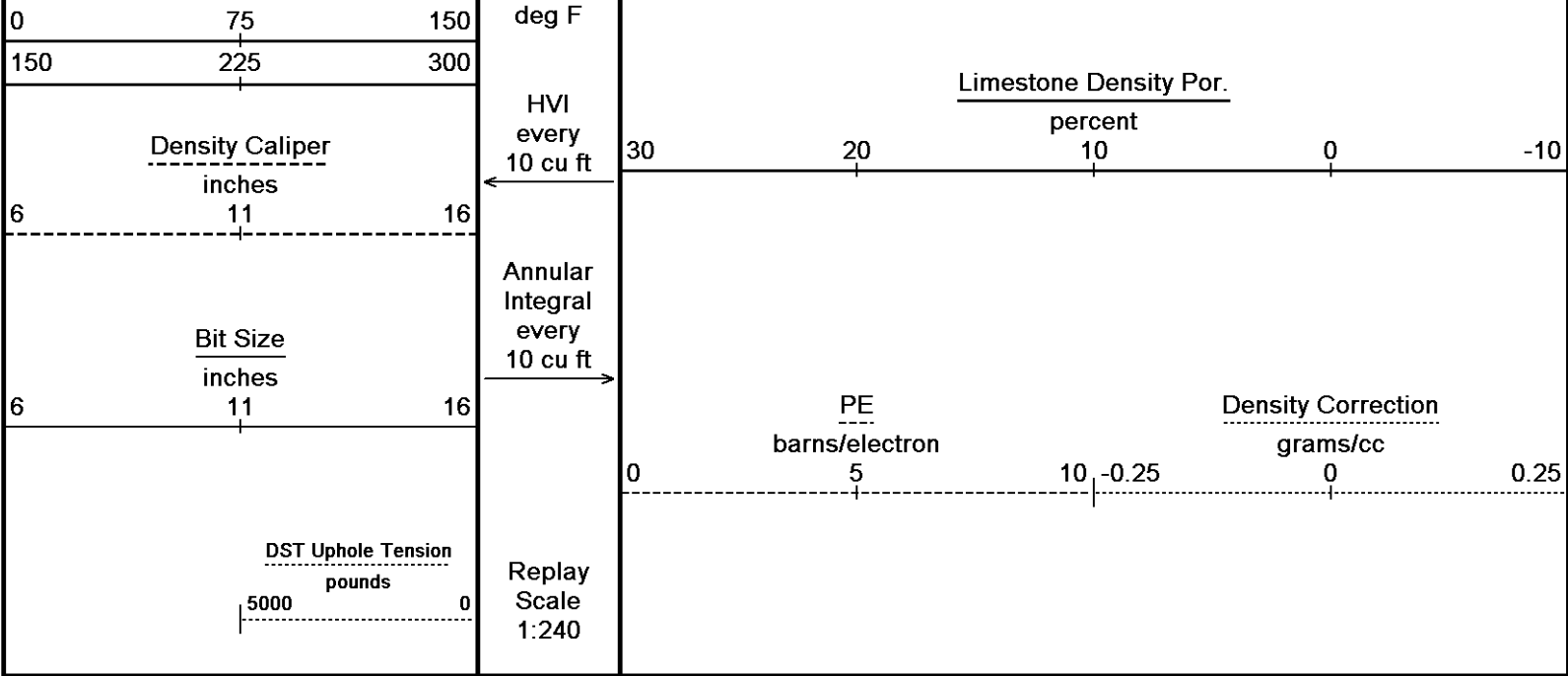
5350

126°

5400







Depth Based Data - Maximum Sampling Increment 10.0cm Plotted on 11-NOV-2011 16:20  
Filename: C:\Program Files\Weatherford\WLS 12.02.4401\Data\SAND...\Stephanie 1-3SWD quad2.dta Recorded on 11-NOV-2011 11:17  
System Versions: Logged with 12.02.4401 Plotted with 12.02.4401

↑ REPEAT SECTION ↑

BEFORE SURVEY CALIBRATION  
C:\Program Files\Weatherford\WLS 12.02.4401\Data\SANDRIDGE (Stephanie 1-3 SWD)\Stephanie 1-3SWD quad3.dta

|                                                         |                        |            |                                  |  |
|---------------------------------------------------------|------------------------|------------|----------------------------------|--|
| General Constants All 000                               |                        |            | Last Edited on 11-NOV-2011 10:24 |  |
| General Parameters                                      |                        |            |                                  |  |
| Mud Resistivity                                         | 1.500                  | ohm-metres |                                  |  |
| Mud Resistivity Temperature                             | 70.000                 | degrees F  |                                  |  |
| Water Level                                             | 0.000                  | feet       |                                  |  |
| Density/Neutron Processing                              | Wet Hole               |            |                                  |  |
| Hole/Annular Volume and Differential Caliper Parameters |                        |            |                                  |  |
| HVOL Method                                             | Single Caliper         |            |                                  |  |
| HVOL Caliper 1                                          | Density Caliper        |            |                                  |  |
| HVOL Caliper 2                                          | N/A                    |            |                                  |  |
| Annular Volume Diameter                                 | 7.000                  | inches     |                                  |  |
| Caliper for Differential Caliper                        | Density Caliper        |            |                                  |  |
| Rwa Parameters                                          |                        |            |                                  |  |
| Porosity used                                           | Limestone Density Por. |            |                                  |  |
| Resistivity used                                        | Array Ind. One Res Rt  |            |                                  |  |
| RWA Constant A                                          | 0.610                  |            |                                  |  |
| RWA Constant M                                          | 2.150                  |            |                                  |  |

|                                     |          |                  |                                        |
|-------------------------------------|----------|------------------|----------------------------------------|
| Down-hole Tension Calibration SMS 0 |          |                  | Field Calibration on 03-NOV-2011 00:00 |
| Reading No                          | Measured | Calibrated (lbs) |                                        |
| 1                                   | 14363.30 | 0.00             |                                        |
| 2                                   | 14882.20 | 420.00           |                                        |

|                         |          |                 |                                        |
|-------------------------|----------|-----------------|----------------------------------------|
| SP Calibration MCG-C 93 |          |                 | Field Calibration on 10-NOV-2011 10:18 |
|                         | Measured | Calibrated (mV) |                                        |
| Reference 1             | 100.0    | 100.0           |                                        |
| Reference 2             | -100.0   | -100.0          |                                        |

|                                                  |          |                   |                                        |
|--------------------------------------------------|----------|-------------------|----------------------------------------|
| High Resolution Temperature Calibration MCG-C 93 |          |                   | Field Calibration on 10-NOV-2011 10:18 |
|                                                  | Measured | Calibrated(Deg F) |                                        |
| Lower                                            | 50.00    | 50.00             |                                        |
| Upper                                            | 100.00   | 100.00            |                                        |

Pre-filter Length 11

## Gamma Calibration MCG-C 93

Field Calibration on 10-NOV-2011 10:29

|                    |          |                  |
|--------------------|----------|------------------|
|                    | Measured | Calibrated (API) |
| Background         | 39       | 28               |
| Calibrator (Gross) | 1031     | 724              |
| Calibrator (Net)   | 992      | 696              |

## Gamma Constants MCG-C 93

Last Edited on 11-NOV-2011 09:46

|                               |                 |       |
|-------------------------------|-----------------|-------|
| Gamma Calibrator Number       | 036             |       |
| Mud Density                   | 1.09            | gm/cc |
| Caliper Source for Processing | Density Caliper |       |
| Tool Position                 | Eccentred       |       |
| Concentration of KCl          | 0.00            | kppm  |

## Caliper Calibration MML-A 7

Base Calibration on 28-OCT-2011 12:29

Field Calibration on 11-NOV-2011 10:26

|                  |          |                      |
|------------------|----------|----------------------|
| Base Calibration |          |                      |
| Reading No       | Measured | Calibrator Size (in) |
| 1                | 15410    | 5.96                 |
| 2                | 18697    | 7.98                 |
| 3                | 22057    | 9.94                 |
| 4                | 25813    | 11.90                |
| 5                | 0        | 0.00                 |
| 6                | N/A      | N/A                  |

Field Calibration

|                       |                     |
|-----------------------|---------------------|
| Measured Caliper (in) | Actual Caliper (in) |
| 8.91                  | 8.92                |

## Micro Normal and Micro Inverse Calibration MML-A 7

Base Calibration on 28-OCT-2011 12:20

Field Check on 11-NOV-2011 10:14

|                  |                    |            |                     |            |
|------------------|--------------------|------------|---------------------|------------|
| Base Calibration |                    |            |                     |            |
|                  |                    | Measured   | Calibrated (ohm-m)  |            |
| Channel          | Resistor 1         | Resistor 2 | Resistor 1          | Resistor 2 |
| Micro Normal     | 11.9               | 60.3       | 2.6                 | 12.8       |
| Micro Inverse    | 15.6               | 77.9       | 1.7                 | 8.4        |
| Channel          | Base Check (ohm-m) |            | Field Check (ohm-m) |            |
| Micro Normal     | 32.0               |            | 32.0                |            |
| Micro Inverse    | 16.4               |            | 16.4                |            |

## Micro Normal and Micro Inverse Constants MML-A 7

Last Edited on 30-SEP-2011 11:02

|                        |                                             |        |  |
|------------------------|---------------------------------------------|--------|--|
| Pad Type               | 8-12 in Soft Rubber Inflatable 006-9011-159 |        |  |
| Micro Normal K Factor  | 0.5110                                      |        |  |
| Micro Inverse K Factor | 0.3380                                      |        |  |
| Standoff Offset        | N/A                                         | inches |  |

## Neutron Calibration MDN-A.B 31

Base Calibration on 10-NOV-2011 10:00

Field Check on 10-NOV-2011 10:18

|                          |        |          |                  |      |
|--------------------------|--------|----------|------------------|------|
| Base Calibration         |        |          |                  |      |
|                          |        | Measured | Calibrated (cps) |      |
|                          | Near   | Far      | Near             | Far  |
|                          | 3307   | 102      | 3714             | 110  |
| Ratio                    | 32.458 |          | 33.764           |      |
| Field Calibrator at Base |        |          | Calibrated (cps) |      |
|                          |        |          | 2195             | 3229 |
| Ratio                    |        |          | 0.680            |      |
| Field Check              |        |          | Calibrated (cps) |      |
|                          |        |          | 2253             | 3270 |
| Ratio                    |        |          | 0.689            |      |

## Neutron Constants MDN-A.B 31

Last Edited on 11-NOV-2011 09:46

|                    |       |
|--------------------|-------|
| Neutron Source Id  | N1054 |
| Neutron Jig Number | N639  |

|                                 |                          |           |
|---------------------------------|--------------------------|-----------|
| Epithermal Neutron              | No                       |           |
| Caliper Source for Processing   | Density Caliper          |           |
| Stand-off                       | 0.00                     | inches    |
| Mud Density                     | 1.00                     | gm/cc     |
| Limestone Sigma                 | 7.10                     | cu        |
| Sandstone Sigma                 | 4.26                     | cu        |
| Dolomite Sigma                  | 4.70                     | cu        |
| Formation Pressure Source       | Constant Value           |           |
| Formation Pressure              | 0.00                     | kpsi      |
| Temperature Source              | MCG External Temperature |           |
| Temperature                     | N/A                      | degrees F |
| Mud Salinity                    | 0.00                     | kppm      |
| Formation Fluid Salinity Source | Constant Value           |           |
| Formation Fluid Salinity        | 0.00                     | kppm      |
| Barite Mud Correction           | Not Applied              |           |
| Salinity Correction             | Not Applied              |           |

|                           |          |                                                                           |  |
|---------------------------|----------|---------------------------------------------------------------------------|--|
| FE Calibration MFE-A.A 54 |          | Base Calibration on 28-OCT-2011 12:41<br>Field Check on 11-NOV-2011 10:13 |  |
| Base Calibration          |          |                                                                           |  |
|                           | Measured | Calibrated (ohm-m)                                                        |  |
| Reference 1               | 0.0      | 0.0                                                                       |  |
| Reference 2               | 969.1    | 126.8                                                                     |  |
| Base Check                |          | 282.1                                                                     |  |
| Field Check               |          | 282.1                                                                     |  |

|                                  |                          |                                  |  |
|----------------------------------|--------------------------|----------------------------------|--|
| FE Constants MFE-A.A 54          |                          | Last Edited on 11-NOV-2011 09:47 |  |
| Running Mode                     | No Sleeve                |                                  |  |
| MFE K Factor                     | 0.1268                   |                                  |  |
| Caliper Source for FE correction | Density Caliper          |                                  |  |
| Caliper Value for FE correction  | N/A                      | inches                           |  |
| Rm Source for FE correction      | Temperature Corr         |                                  |  |
| Temp. for Rm Corr.               | MCG External Temperature |                                  |  |
| Stand-off                        | 0.5                      | inches                           |  |

|                                 |                        |                    |                                  |            |                    |
|---------------------------------|------------------------|--------------------|----------------------------------|------------|--------------------|
| Sonic Constants MSS-A.A 40      |                        |                    | Last Edited on 11-NOV-2011 10:17 |            |                    |
| Maximum Boundary Contrast       | 328.08                 | micro-sec/m        |                                  |            |                    |
| Fluid Transit Time              | 620.08                 | micro-sec/m        |                                  |            |                    |
| Limestone Transit Time          | 155.84                 | micro-sec/m        |                                  |            |                    |
| Sandstone Transit Time          | 182.09                 | micro-sec/m        |                                  |            |                    |
| Dolomite Transit Time           | 142.72                 | micro-sec/m        |                                  |            |                    |
| Sonic used for Porosities       | 3-5' Compensated Sonic |                    |                                  |            |                    |
| Correction for Sonde Skew       | Applied                |                    |                                  |            |                    |
| Cycle Stretch Algorithm         | Applied                |                    |                                  |            |                    |
| MN3FT                           | N/A                    | micro-sec          |                                  |            |                    |
| MX3FT                           | N/A                    | micro-sec          |                                  |            |                    |
| Hunt-Raymer Constant            | 272.72                 | micro-sec/m        |                                  |            |                    |
|                                 |                        |                    |                                  |            |                    |
| Sonde Mode                      | Compensated            |                    |                                  |            |                    |
| Hole Type                       | Open Hole              |                    |                                  |            |                    |
| Sonde Parameters                |                        |                    |                                  |            |                    |
|                                 | Measured               | Calibrated         |                                  |            |                    |
| Offset                          | N/A                    | 0.0000             |                                  |            |                    |
| Free Pipe                       | N/A                    | N/A                |                                  |            |                    |
| Peak Amplitude Source           | N/A                    |                    |                                  |            |                    |
| Waveform                        | Start Time (micro-sec) | Width (micro-sec)  | Pre Gain                         | Start Gain | Discriminator (mV) |
| 3'                              | N/A                    | N/A                | N/A                              | N/A        | N/A                |
| 4'                              | N/A                    | N/A                | N/A                              | N/A        | N/A                |
| 5'                              | N/A                    | N/A                | N/A                              | N/A        | N/A                |
| 6'                              | N/A                    | N/A                | N/A                              | N/A        | N/A                |
| Processed Fixed Gate Parameters |                        |                    |                                  |            |                    |
| Waveform Used For Processing    | N/A                    |                    |                                  |            |                    |
| Start Time (micro-sec)          | End Time (micro-sec)   | Discriminator (mV) | Depth (ft)                       |            |                    |
| N/A                             | N/A                    | N/A                | N/A                              |            |                    |



|     |     |     |      |
|-----|-----|-----|------|
| N/A | N/A | N/A | 0.00 |
| N/A | N/A | N/A | 0.00 |
| N/A | N/A | N/A | 0.00 |
| N/A | N/A | N/A | 0.00 |

#### Full Waveform Parameters

|                                 |     |           |
|---------------------------------|-----|-----------|
| Use 3' Waveform to derive TR    | N/A |           |
| Use 4' Waveform to derive TR    | N/A |           |
| Use 5' Waveform to derive TR    | N/A |           |
| Use 6' Waveform to derive TR    | N/A |           |
| 3' Waveform Discriminator Level | N/A | mV        |
| 4' Waveform Discriminator Level | N/A | mV        |
| 5' Waveform Discriminator Level | N/A | mV        |
| 6' Waveform Discriminator Level | N/A | mV        |
| 3' Waveform Filter              | N/A |           |
| 4' Waveform Filter              | N/A |           |
| 5' Waveform Filter              | N/A |           |
| 6' Waveform Filter              | N/A |           |
| Semblance Level                 | N/A |           |
| Semblance Window Width          | N/A | micro-sec |
| Sonic 1 Despiker                | N/A | N/A       |
| Sonic 2 Despiker                | N/A | N/A       |

#### High Resolution Temperature Calibration MAI-B.J 390

Field Calibration on 07-NOV-2011 02:31

|       | Measured | Calibrated(Deg F) |
|-------|----------|-------------------|
| Lower | 50.00    | 50.00             |
| Upper | 100.00   | 100.00            |

#### High Resolution Temperature Constants MAI-B.J 390

Last Edited on

|                   |    |
|-------------------|----|
| Pre-filter Length | 11 |
|-------------------|----|

#### Induction Calibration MAI-B.J 390

Base Calibration on 16-AUG-2010 14:24

Field Check on 11-NOV-2011 10:16

##### Base Calibration

##### Test Loop Calibration

| Channel | Measured |       | Calibrated (mmho/m) |       |
|---------|----------|-------|---------------------|-------|
|         | Low      | High  | Low                 | High  |
| 1       | 16.8     | 458.6 | 9.3                 | 966.2 |
| 2       | 6.3      | 377.7 | 7.6                 | 821.4 |
| 3       | 3.8      | 258.6 | 5.2                 | 566.0 |
| 4       | 1.9      | 132.3 | 2.6                 | 279.2 |

|                   |      |       |
|-------------------|------|-------|
| Array Temperature | 77.9 | Deg F |
|-------------------|------|-------|

| Channel | Base Check (mmho/m) |      | Field Check (mmho/m) |        |
|---------|---------------------|------|----------------------|--------|
|         | Low                 | High | Low                  | High   |
| 1       | 0.0                 | 0.0  | 16.2                 | 3953.7 |
| 2       | 0.0                 | 0.0  | 32.6                 | 3558.1 |
| 3       | 0.0                 | 0.0  | 30.2                 | 3056.9 |
| 4       | 0.0                 | 0.0  | 21.2                 | 2085.0 |
| Deep    | 0.0                 | 0.0  | 18.6                 | 2003.2 |
| Medium  | 0.0                 | 0.0  | 43.4                 | 4006.6 |
| Shallow | 0.0                 | 0.0  | 48.7                 | 5252.9 |

|                   |     |      |       |
|-------------------|-----|------|-------|
| Array Temperature | 0.0 | 63.7 | Deg F |
|-------------------|-----|------|-------|

#### Induction Constants MAI-B.J 390

Last Edited on 11-NOV-2011 09:47

|                                   |                          |         |
|-----------------------------------|--------------------------|---------|
| Induction Model                   | RtAP-WBM                 |         |
| Caliper for Borehole Corr.        | Density Caliper          |         |
| Hole Size for Borehole Correction | N/A                      | inches  |
| Tool Centred                      | No                       |         |
| Stand-off Type                    | Fins                     |         |
| Stand-off                         | 0.50                     | inches  |
| Number of Fins on Stand-off       | 6.0000                   |         |
| Stand-off Fin Angle               | 60.00                    | degrees |
| Stand-off Fin Width               | 0.5000                   | inches  |
| Borehole Corr. Rm Source          | Temperature Corr         |         |
| Temp. for Rm Corr.                | MCG External Temperature |         |

|                                                  |        |        |             |
|--------------------------------------------------|--------|--------|-------------|
| Squasher Start                                   |        | 0.0060 |             |
| Squasher Offset                                  |        | N/A    | mhos/metre  |
| Borehole Normalisation                           |        |        |             |
| DRM1                                             | 0.0000 | DRC1   | 0.0000      |
| DRM2                                             | 0.0000 | DRC2   | 0.0000      |
| MRM1                                             | 0.0000 | MRC1   | 0.0000      |
| MRM2                                             | 0.0000 | MRC2   | 0.0000      |
| SRM1                                             | 0.0000 | SRC1   | 0.0000      |
| SRM2                                             | 0.0000 | SRC2   | 0.0000      |
| Calibration Site Corrections                     |        |        |             |
| Channel 1                                        |        | 0.00   | mmhos/metre |
| Channel 2                                        |        | 0.00   | mmhos/metre |
| Channel 3                                        |        | 0.00   | mmhos/metre |
| Channel 4                                        |        | 0.00   | mmhos/metre |
| Apparent Porosity and Water Saturation Constants |        |        |             |
| Archie Constant (A)                              |        | 1.00   |             |
| Cementation Exponent (M)                         |        | 2.00   |             |
| Saturation Exponent (N)                          |        | 2.00   |             |
| Saturation of Water for Apor                     |        | 100.00 | percent     |
| Resistivity of Water for Apor and Sw             |        | 0.05   | ohm-m       |
| Resistivity of Mud Filtrate for Sw               |        | 0.00   | ohm-m       |
| Source for Rt                                    |        | 0.00   |             |
| Source for Rxo                                   |        | 0.00   |             |

#### Caliper Calibration MPD-A.A 11

Base Calibration on 10-NOV-2011 15:41  
Field Calibration on 10-NOV-2011 15:43

|                   |                       |                      |
|-------------------|-----------------------|----------------------|
| Base Calibration  |                       |                      |
| Reading No        | Measured              | Calibrator Size (in) |
| 1                 | 15968                 | 4.01                 |
| 2                 | 24277                 | 5.96                 |
| 3                 | 32864                 | 7.98                 |
| 4                 | 41441                 | 9.94                 |
| 5                 | 50192                 | 11.90                |
| 6                 | N/A                   | N/A                  |
| Field Calibration |                       |                      |
|                   | Measured Caliper (in) | Actual Caliper (in)  |
|                   | 7.96                  | 7.98                 |

#### Photo Density Calibration MPD-A.A 11

Base Calibration on 10-NOV-2011 15:28  
Field Check on 10-NOV-2011 15:37

|                     |        |          |                  |       |
|---------------------|--------|----------|------------------|-------|
| Density Calibration |        |          |                  |       |
| Base Calibration    |        | Measured | Calibrated (sdu) |       |
|                     | Near   | Far      | Near             | Far   |
| Reference 1         | 59597  | 31577    | 60364            | 31946 |
| Reference 2         | 24527  | 2746     | 25079            | 2547  |
| Field Check at Base |        |          |                  |       |
|                     | 1227.3 | 1318.8   |                  |       |
| Field Check         |        |          |                  |       |
|                     | 1224.0 | 1329.2   |                  |       |
| PE Calibration      |        |          |                  |       |
| Base Calibration    |        | Measured | Calibrated       |       |
|                     | WS     | WH       | Ratio            | Ratio |
| Background          | 223    | 1078     |                  |       |
| Reference 1         | 22974  | 59374    | 0.390            | 0.399 |
| Reference 2         | 6432   | 24363    | 0.267            | 0.273 |
| Field Check at Base |        |          |                  |       |
|                     | 222.6  | 1078.4   |                  |       |
| Field Check         |        |          |                  |       |
|                     | 219.5  | 1073.2   |                  |       |

#### Density Constants MPD-A.A 11

Last Edited on 11-NOV-2011 09:35

|                               |                 |       |
|-------------------------------|-----------------|-------|
| Density Source Id             | P56135B         |       |
| Nylon Calibrator Number       | 603             |       |
| Aluminium Calibrator Number   | 509             |       |
| Density Shoe Profile          | 8 inch          |       |
| Caliper Source for Processing | Density Caliper |       |
| PE Correction to Density      | Not Applied     |       |
| Mud Density                   | 1.09            | gm/cc |
| Mud Density Z/A Multiplier    | 1.11            |       |
| Mud Filtrate Density          | 1.00            | gm/cc |
| Dry Hole Mud Filtrate Density | 1.00            | gm/cc |
| DNCT                          | 0.00            | gm/cc |
| CRCT                          | 0.00            | gm/cc |
| Density Z/A Correction        | Hybrid          |       |

| Matrix Density (gm/cc) | Depth (ft) |
|------------------------|------------|
| 2.71                   |            |
| 0.00                   | 0.00       |
| 0.00                   | 0.00       |
| 0.00                   | 0.00       |
| 0.00                   | 0.00       |
| 0.00                   | 0.00       |
| 0.00                   | 0.00       |
| 0.00                   | 0.00       |
| 0.00                   | 0.00       |

## DOWNHOLE EQUIPMENT

C:\Program Files\Weatherford\WLS 12.02.4401\Data\SANDRIDGE (Stephanie 1-3 SWD)\Stephanie 1-3SWD quad3.dta

MCB-A 11B Tension Cablehead  
MCB-A 1 LG: 2.18 ft WT: 19.8 lb OD: 2.24 in

SHA-J.A Compact Swivel Head Adaptor  
SHA-J.A 205 LG: 2.30 ft WT: 22.0 lb OD: 2.24 in

Compact Comms Gamma  
MCG-C 93 LG: 8.70 ft WT: 63.9 lb OD: 2.24 in

Compact Micro-log  
MML-A 7 LG: 7.97 ft WT: 81.6 lb OD: 2.24 in

Compact Neutron  
MDN-A.B 31 LG: 5.04 ft WT: 50.7 lb OD: 2.24 in

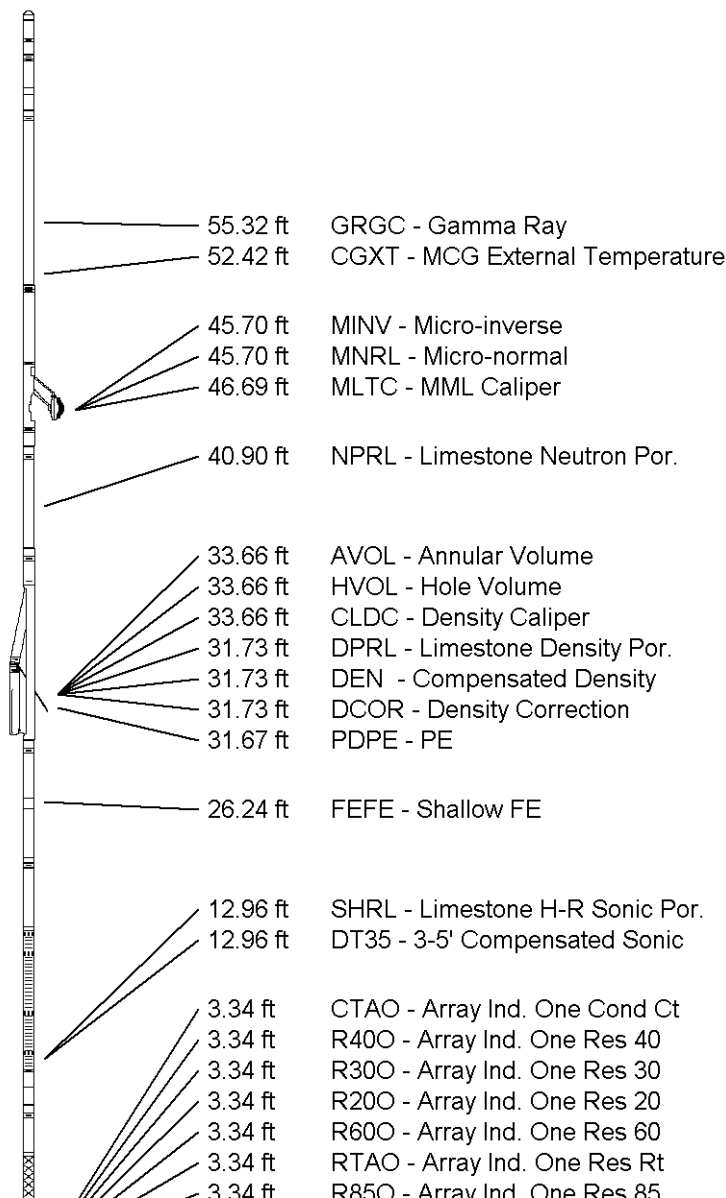
Compact Density/Caliper  
MPD-A.A 11 LG: 9.53 ft WT: 90.4 lb OD: 2.45 in

Compact Focussed Electric  
MFE-A.A 54 LG: 6.05 ft WT: 48.5 lb OD: 2.24 in

Compact Sonic  
MSS-A.A 40 LG: 12.52 ft WT: 72.8 lb OD: 2.24 in

Compact Induction  
MAI-B.J 390 LG: 10.81 ft WT: 48.5 lb OD: 2.24 in

Total Length: 65.09 ft Weight: 498.2 lb



0.01 ft  
 0.23 ft  
 Tool Zero  
 -0.13 ft  
 All measurements relative to tool zero.

RSCG - Array Ind. One RSCG  
 SPCG - Spontaneous Potential  
 (0.13ft from bottom)  
 SMTU - DST Uphole Tension

**COMPANY** SANDRIDGE  
**WELL** STEPHANIE 1-3 SWD  
**FIELD** WOLDRON-WEST  
**PROVINCE/COUNTY** BARBER  
**COUNTRY/STATE** USA / KANSAS

|                         |         |      |               |         |      |
|-------------------------|---------|------|---------------|---------|------|
| Elevation Kelly Bushing | 1328.00 | feet | First Reading | 5557.00 | feet |
| Elevation Drill Floor   | 1326.00 | feet | Depth Driller | 5594.00 | feet |
| Elevation Ground Level  | 1317.00 | feet | Depth Logger  | 5589.00 | feet |



**Weatherford®**

**COMPACT PHOTO DENSITY**  
**COMPENSATED NEUTRON**  
**LOG**

