



**Weatherford**

**COMPACT PHOTO DENSITY  
COMPENSATED NEUTRON  
MICRORESISTIVITY LOG**

|                                         |                |                                |                  |
|-----------------------------------------|----------------|--------------------------------|------------------|
| COMPANY                                 |                | O'BRIEN ENERGY RESOURCES CORP. |                  |
| WELL                                    |                | ANGELL 1-18                    |                  |
| FIELD                                   |                | ANGELL                         |                  |
| PROVINCE/COUNTY                         |                | MEADE                          |                  |
| COUNTRY/STATE                           |                | U.S.A. / KANSAS                |                  |
| LOCATION                                |                | 2308' FNL & 335' FEL           |                  |
| SEC 18                                  | TWP 32S        | RGE 29W                        | Other Services   |
| Latitude                                | 37.265008232   | MAI/MFE                        |                  |
| Longitude                               | -100.508511657 |                                |                  |
| API Number                              | 15-119-21381   |                                |                  |
| Permanent Datum GL, Elevation 2715 feet |                |                                | Elevations: feet |
| Log Measured From KB                    |                |                                | KB 2727.00       |
| Drilling Measured From KB @ 12 FEET     |                |                                | DF 2725.00       |
|                                         |                |                                | GL 2715.00       |
| Date                                    | 02-JAN-2015    |                                |                  |
| Run Number                              | ONE            |                                |                  |
| Service Order                           | 7036-107375855 |                                |                  |
| Depth Driller                           | 6402.00        | feet                           |                  |
| Depth Logger                            | 6396.00        | feet                           |                  |
| First Reading                           | 6376.78        | feet                           |                  |
| Last Reading                            | 4000.00        | feet                           |                  |
| Casing Driller                          | 1487.00        | feet                           |                  |
| Casing Logger                           | 1487.00        | feet                           |                  |
| Bit Size                                | 7.875          | inches                         |                  |
| Hole Fluid Type                         | WBM            |                                |                  |
| Density / Viscosity                     | 9.30 lb/USg    | 52.00 CP                       |                  |
| PH / Fluid Loss                         | 11.00          | 5.60 ml/30Min                  |                  |
| Sample Source                           | MUDPIT         |                                |                  |
| Rm @ Measured Temp                      | 1.50 @ 75.0    | ohm-m                          |                  |
| Rmf @ Measured Temp                     | 1.20 @ 75.0    | ohm-m                          |                  |
| Rmc @ Measured Temp                     | 1.80 @ 75.0    | ohm-m                          |                  |
| Source Rmf / Rmc                        | CALC           | CALC                           |                  |
| Rm @ BHT                                | 0.91 @126.0    | ohm-m                          |                  |
| Time Since Circulation                  | 5 HOURS        |                                |                  |
| Max Recorded Temp                       | 126.00         | deg F                          |                  |
| Equipment / Base                        | 13096          | LIB                            |                  |
| Recorded By                             | DEREK CARTER   |                                |                  |
| Witnessed By                            | ROGER PEARSON  | JAKE HINES                     |                  |
| JOB #                                   | LB15-001       |                                |                  |

| BOREHOLE RECORD    |                    |                  | Last Edited: 02-JAN-2015 04:43 |
|--------------------|--------------------|------------------|--------------------------------|
| Bit Size<br>inches | Depth From<br>feet | Depth To<br>feet |                                |
| 12.250             | 0.00               | 1505.00          |                                |
| 7.875              | 1505.00            | 6402.00          |                                |

| CASING RECORD |                |                    |                    |                     |
|---------------|----------------|--------------------|--------------------|---------------------|
| Type          | Size<br>inches | Depth From<br>feet | Shoe Depth<br>feet | Weight<br>pounds/ft |
| SURFACE       | 8.625          | 0.00               | 1487.00            | 24.00               |

| REMARKS                                                                                                      |
|--------------------------------------------------------------------------------------------------------------|
| - SOFTWARE ISSUE: WLS 14.05.5280                                                                             |
| - TOOL STRING: MCG, MML, MDN, MPD, MFE, MAI RUN IN COMBINATION                                               |
| - HARDWARE:<br>MDN: DUAL BOWSPRING ECCENTRALIZER<br>MFE: 1 X 0.5 INCH STANDOFF<br>MAI: 2 X 0.5 INCH STANDOFF |
| - 2.71 G/CC LIMESTONE DENSITY MATRIX USED TO CALCULATE POROSITY                                              |
| - REPEAT AND HIGH RESOLUTION SECTIONS PLOTTED ON SANDSTONE MATRIX PER CUSTOMER REQUEST                       |
| - BOREHOLE RUGOSITY, TIGHT PULLS, AND WASHOUTS WILL AFFECT DATA QUALITY                                      |
| - ALL INTERVALS LOGGED AND SCALED PER CUSTOMER'S REQUEST                                                     |

- HIGH RESOLUTION LOGS REQUESTED FROM TD TO 5500 FT.

- TOTAL HOLE VOLUME FROM TD TO 4000 FT.: 800 CU. FT.

- ANNULAR HOLE VOLUME WITH 4.5 INCH CASING FROM TD TO 4000 FT.: 540 CU. FT.

- SERVICE ORDER # 7036-107375855

- RIG: DUKE DRILLING #9

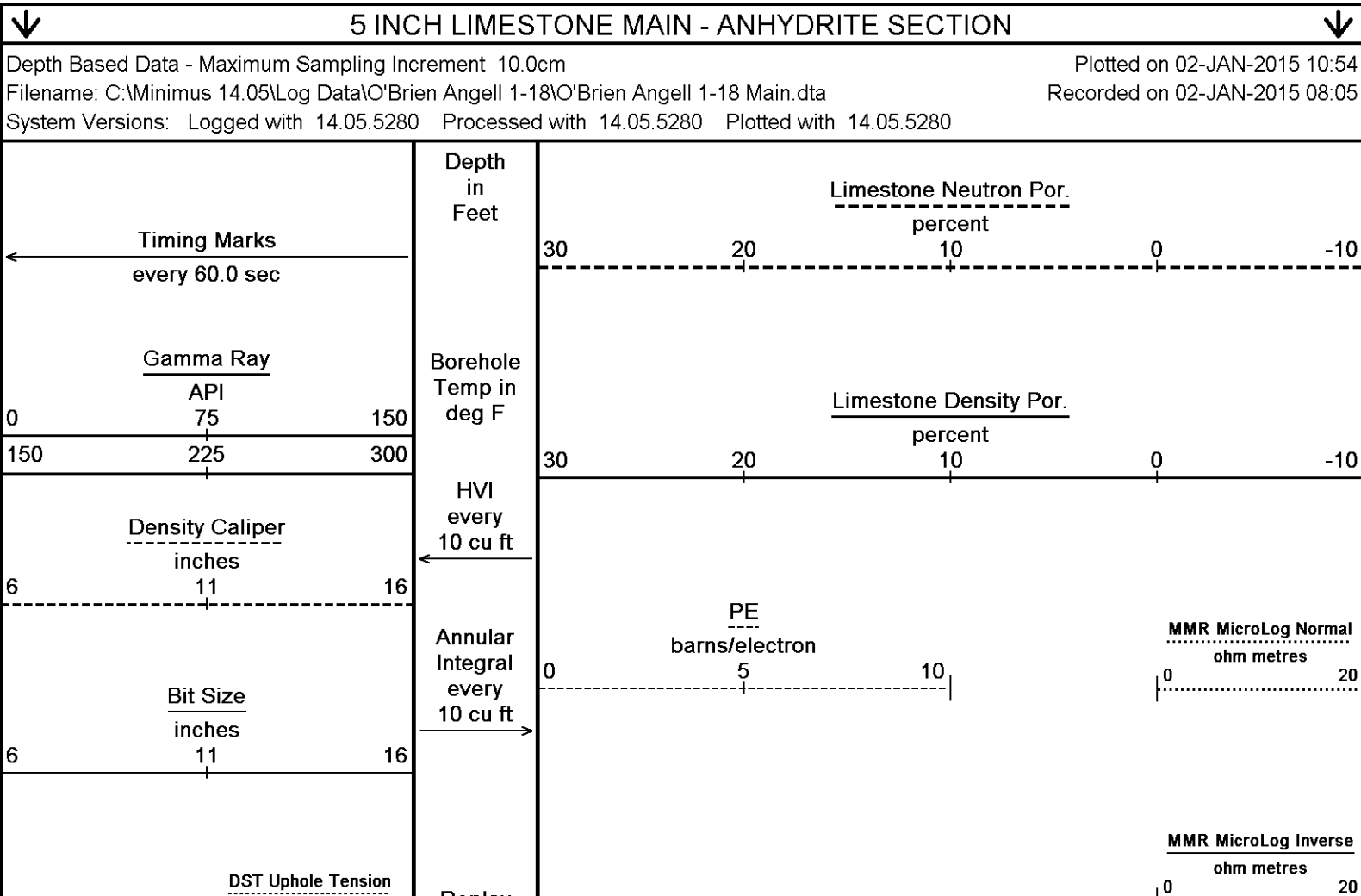
- ENGINEER: DEREK CARTER

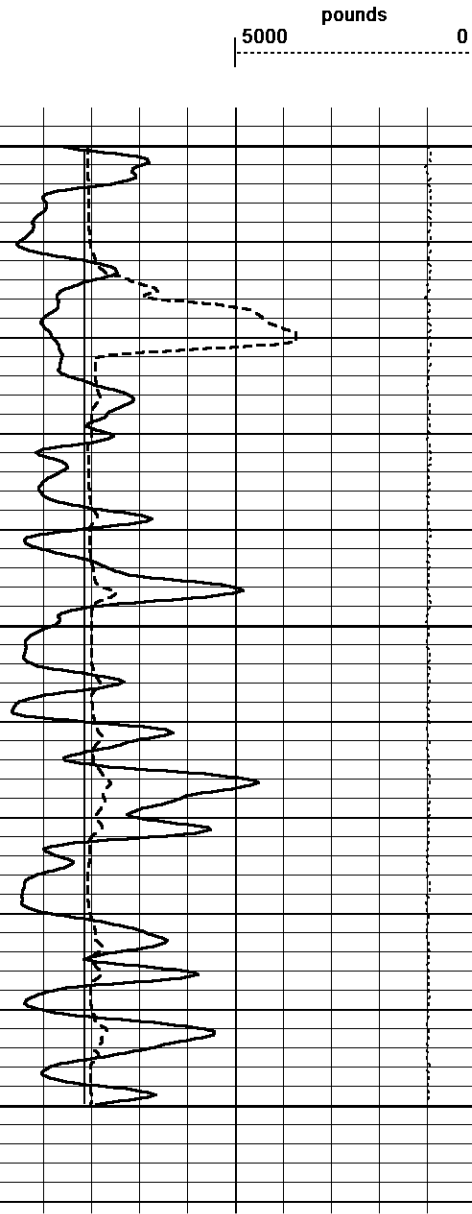
- JUNIOR FIELD ENGINEER: JAKE HINES

- OPERATOR: SAM LARES

- TENSION PICKUP ON THE REPEAT PASS WAS AT 6396 FT.; HOWEVER, THE TENSION PICKUP ON THE SUBSEQUENT MAIN PASS WAS 6398 FT.; TENSION DROPPED OFF VERY GRADUALLY WHEN TAGGING TD PRIOR TO THE REPEAT PASS; THIS MIGHT INDICATE THAT THERE WAS MATERIAL IN THE HOLE THAT CAUSED THE DIFFERENCE IN TENSION PICKUP BETWEEN THE TWO PASSES

In interpreting, communicating or providing information and/or making recommendations, either written or oral, as to logs or test or other data, type or amount of material, or Work or other service to be furnished, or manner of performance, or in predicting results to be obtained, the Contractor will give the Company the benefit of the Contractor's best judgment based on its experience and will perform all such Work in a good and workmanlike manner. Any interpretation of test or other data, and any recommendation or reservoir description based upon such interpretations, are opinions based upon inferences from measurements and empirical relationships and assumptions, which inferences and assumptions are not infallible, and with respect to which professional engineers and analysts may differ. ACCORDINGLY ANY INTERPRETATION OR RECOMMENDATION RESULTING FROM THE SERVICES WILL BE AT THE SOLE RISK OF THE COMPANY, AND THE CONTRACTOR CANNOT AND DOES NOT WARRANT THE ACCURACY, CORRECTNESS OR COMPLETENESS OF ANY SUCH INTERPRETATION OR RECOMMENDATION, WHICH INTERPRETATIONS AND RECOMMENDATIONS SHOULD NOT, THEREFORE, UNDER ANY CIRCUMSTANCES BE RELIED UPON AS THE SOLE OR MAIN BASIS FOR ANY DRILLING, COMPLETION, WELL TREATMENT, PRODUCTION OR FINANCIAL DECISION, OR ANY PROCEDURE INVOLVING ANY RISK TO THE SAFETY OF ANY DRILLING ACTIVITY, DRILLING RIG OR ITS CREW OR ANY OTHER INDIVIDUAL. THE COMPANY HAS FULL RESPONSIBILITY FOR ALL DECISIONS CONCERNING THE SERVICES.





Replay  
Scale  
1:240

2500

93°

2550

93°

2600

Timing Marks  
every 60.0 sec

Gamma Ray

API  
75

0 150  
150 225 300

Density Caliper  
inches

6 11 16

Bit Size  
inches

6 11 16

DST Uphole Tension  
pounds

Depth  
in  
Feet

Borehole  
Temp in  
deg F

HVI  
every  
10 cu ft

Annular  
Integral  
every  
10 cu ft

Replay

Limestone Neutron Por.  
percent

30 20 10 0 -10

Limestone Density Por.  
percent

30 20 10 0 -10

PE  
barns/electron

0 5 10

MMR MicroLog Normal  
ohm metres

0 20

MMR MicroLog Inverse  
ohm metres

0 20

↑

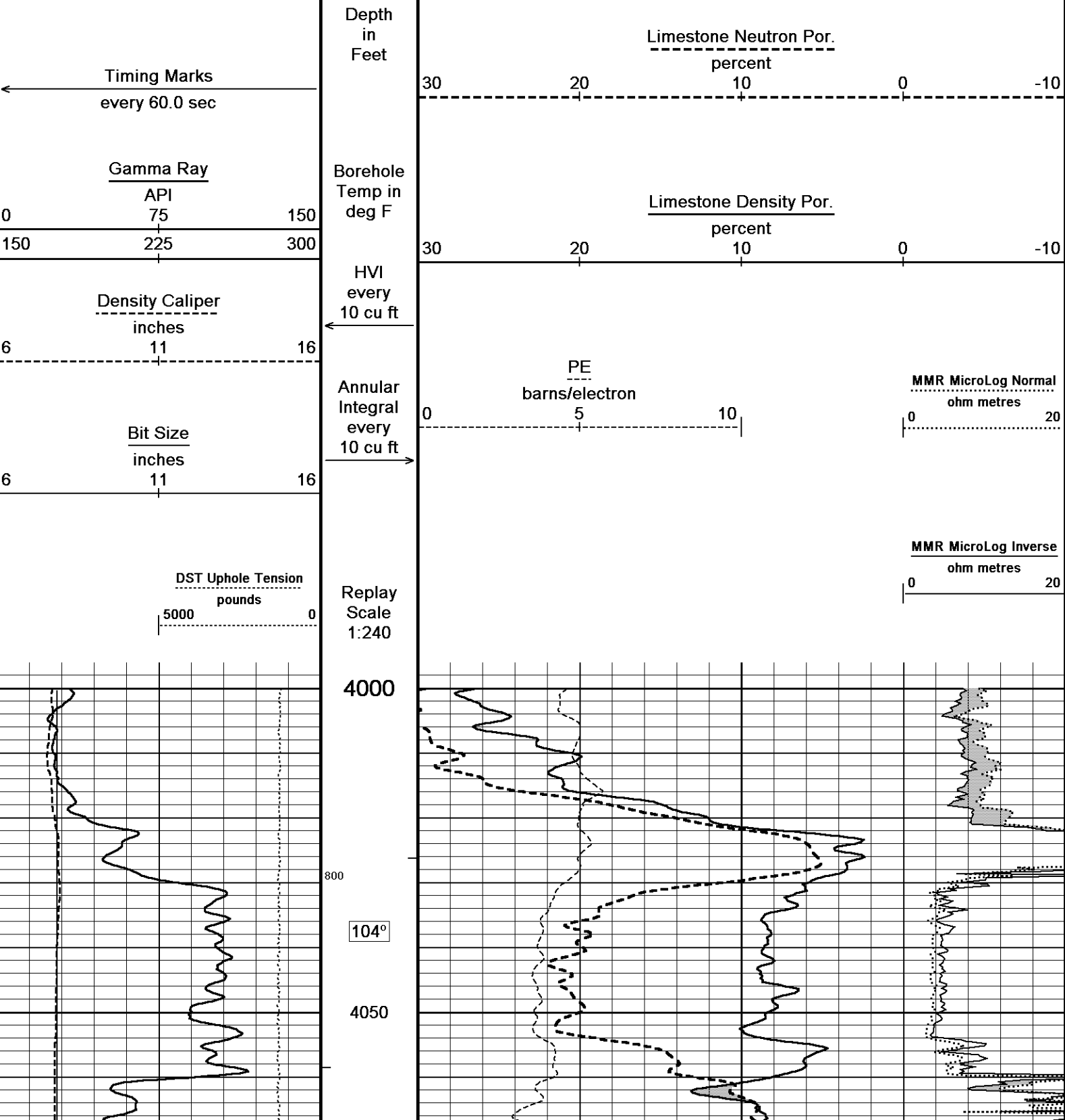
5 INCH LIMESTONE MAIN - ANHYDRITE SECTION

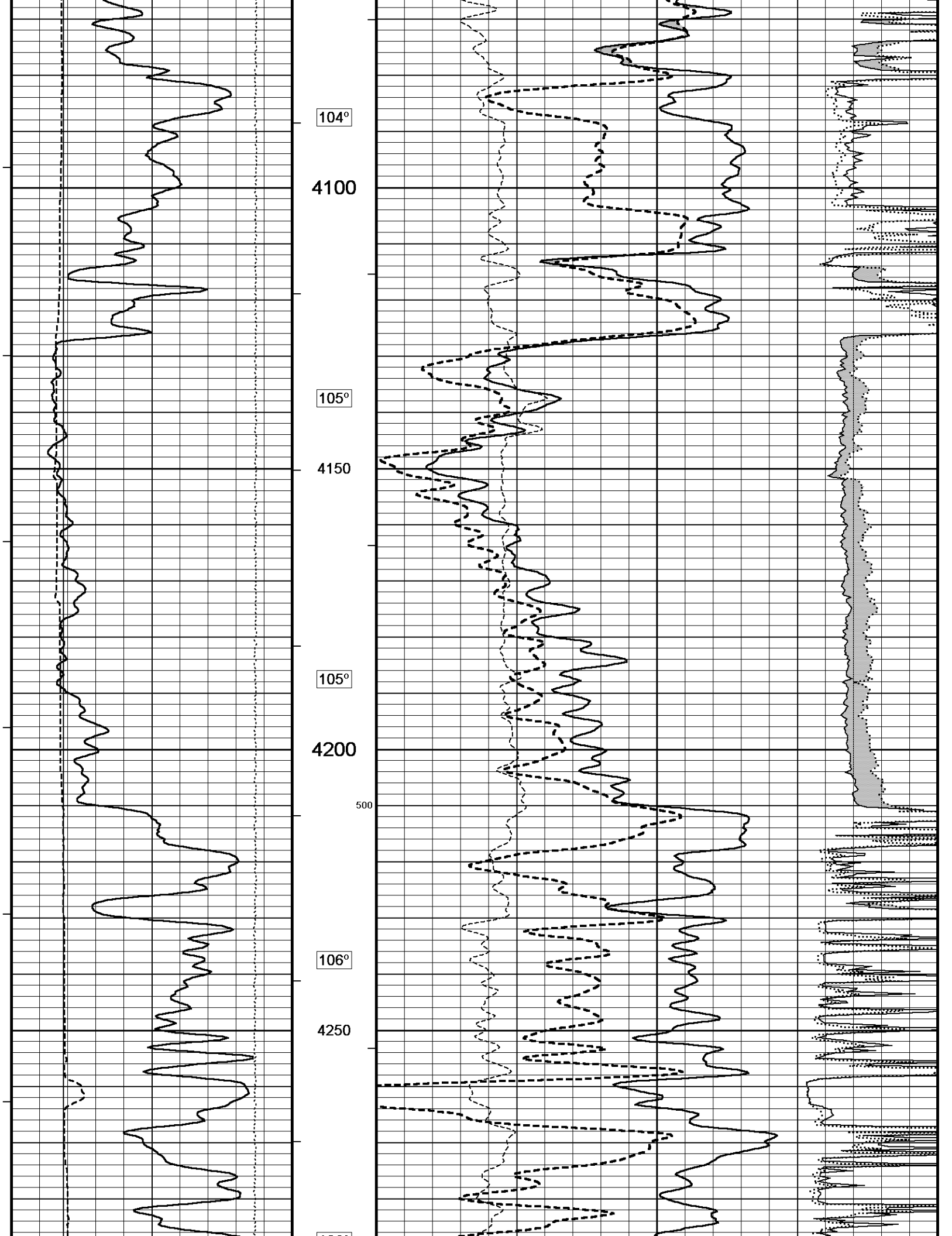
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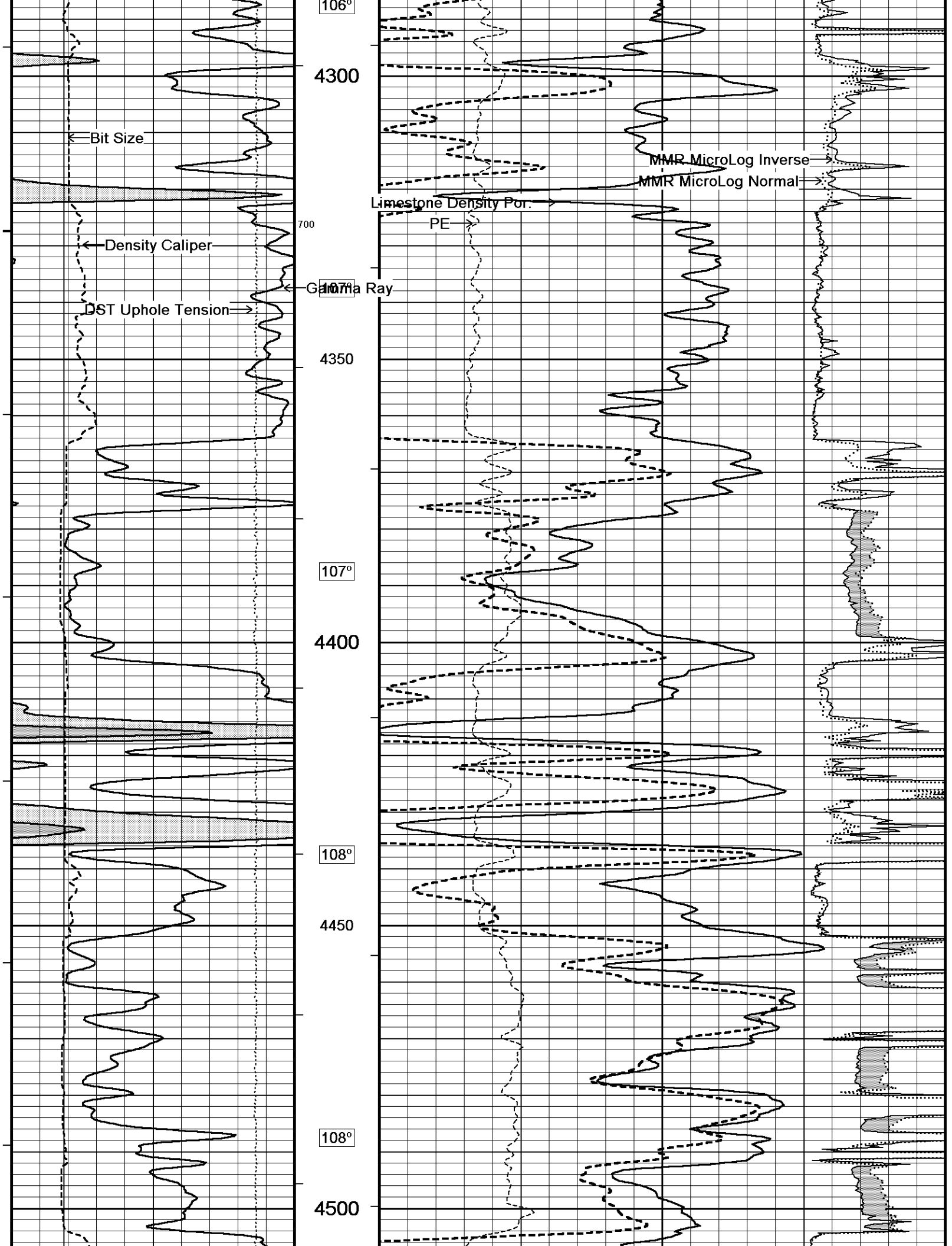
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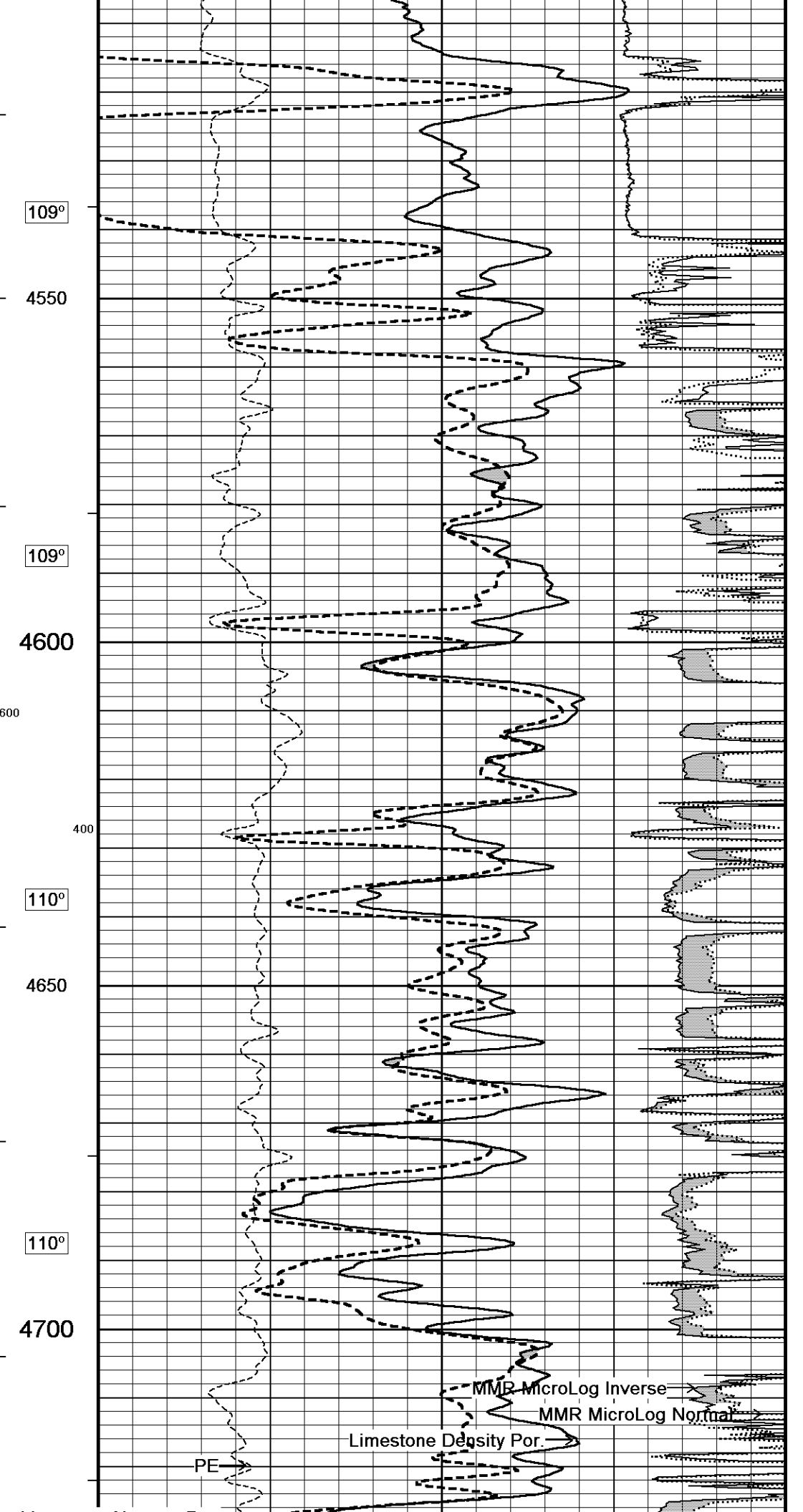
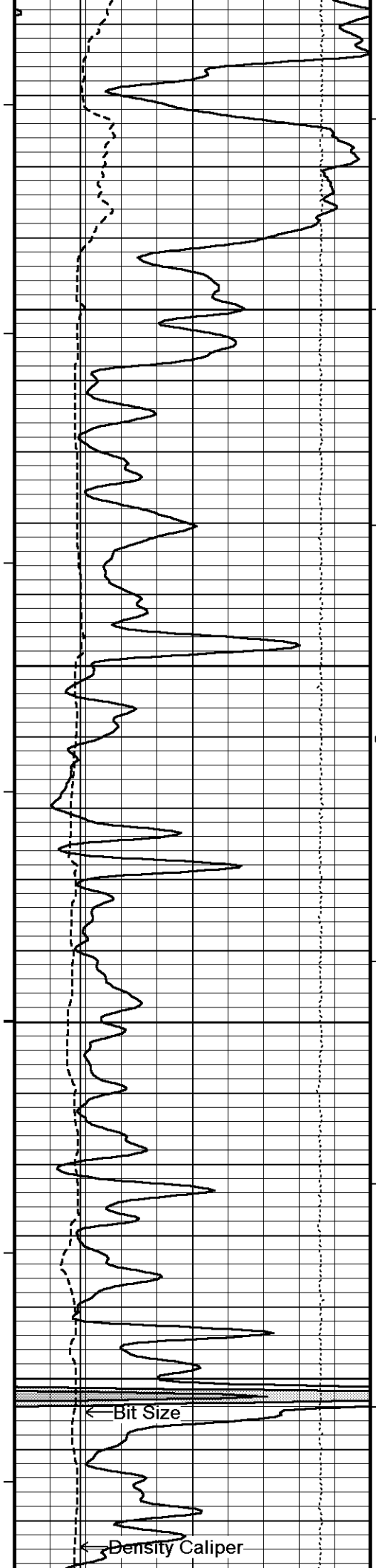
5 INCH LIMESTONE MAIN

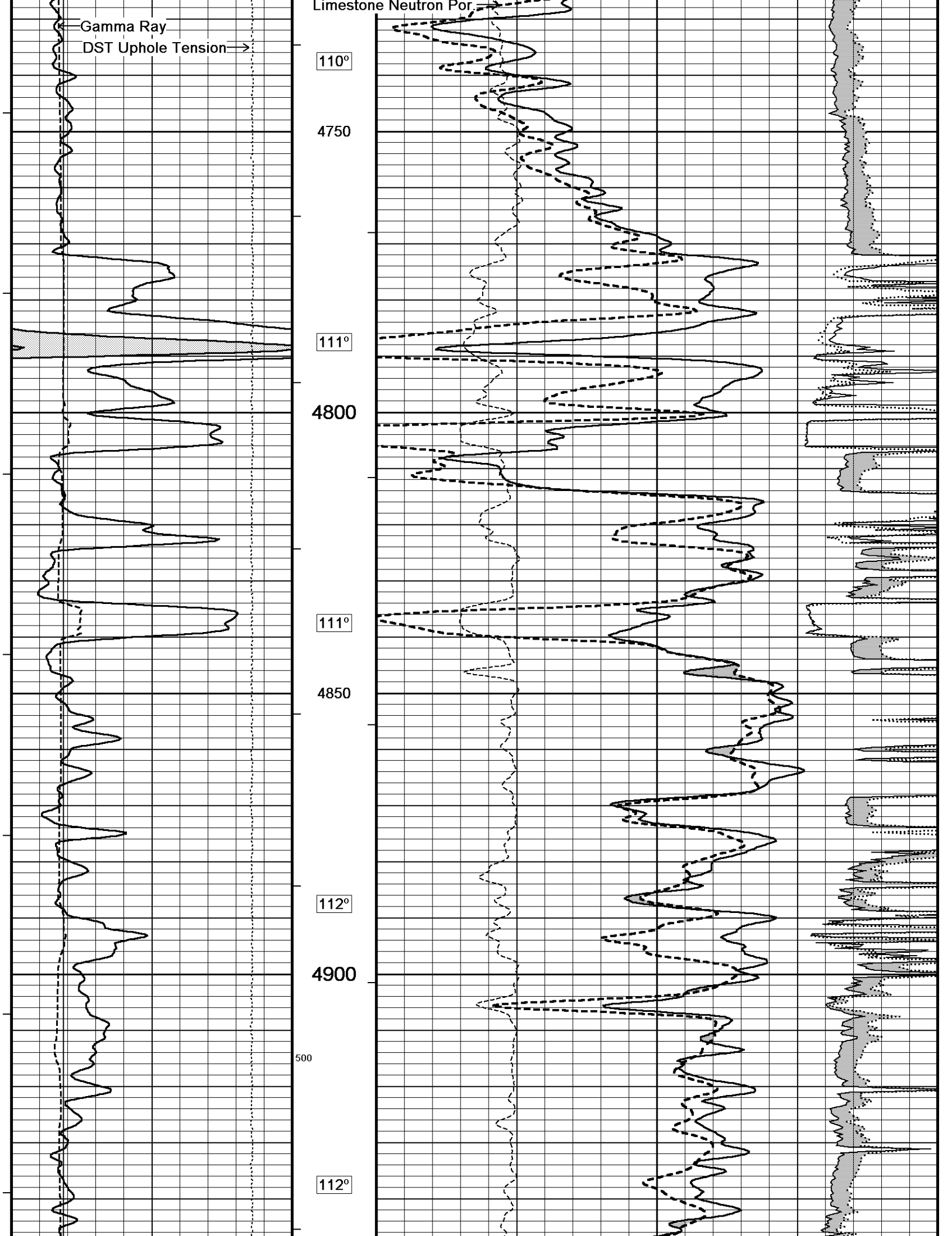
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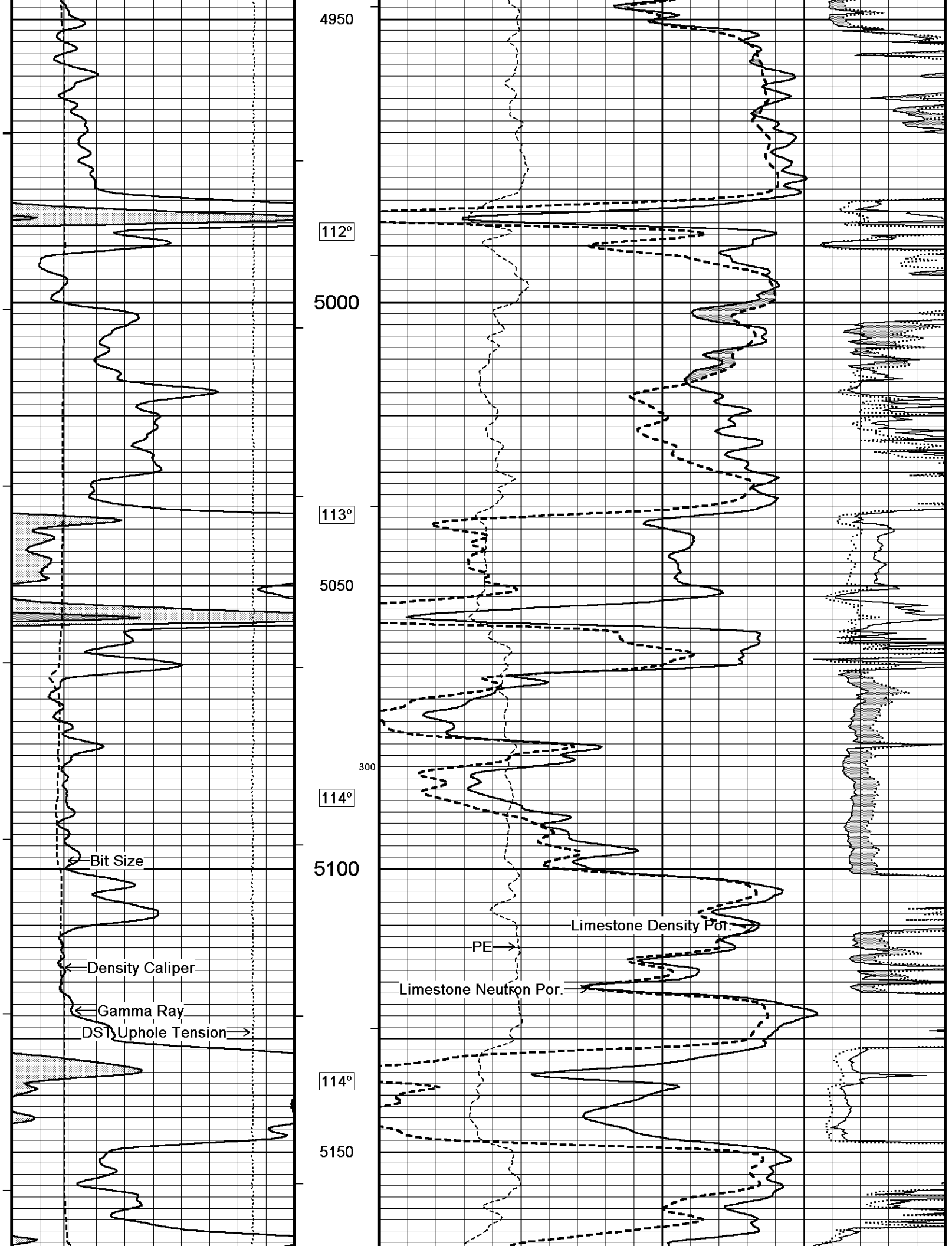


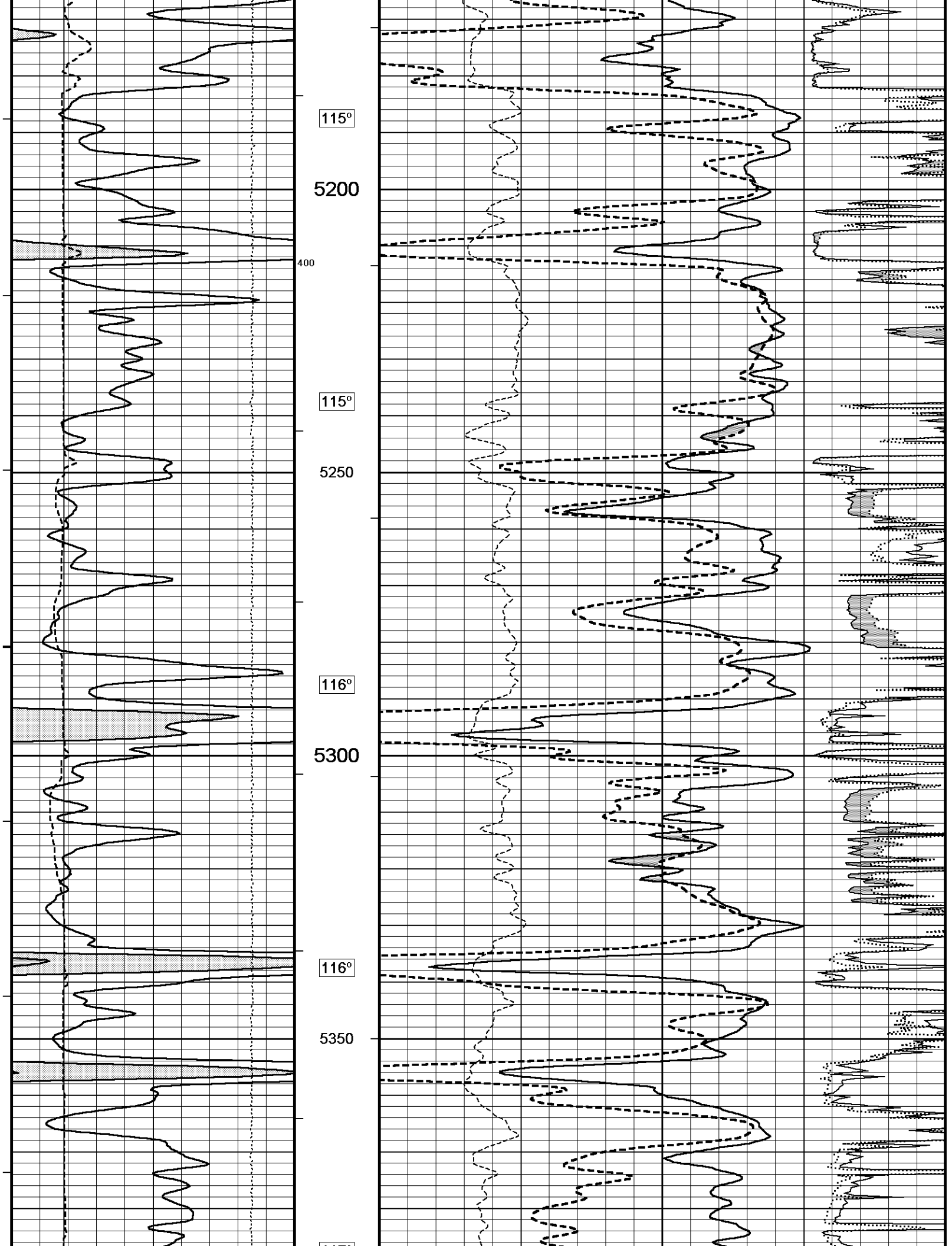


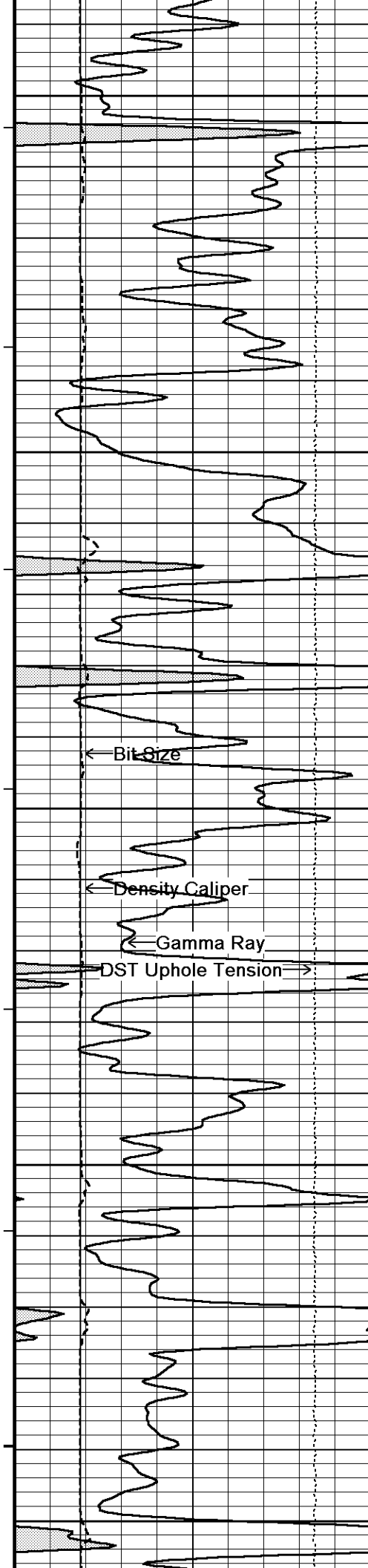




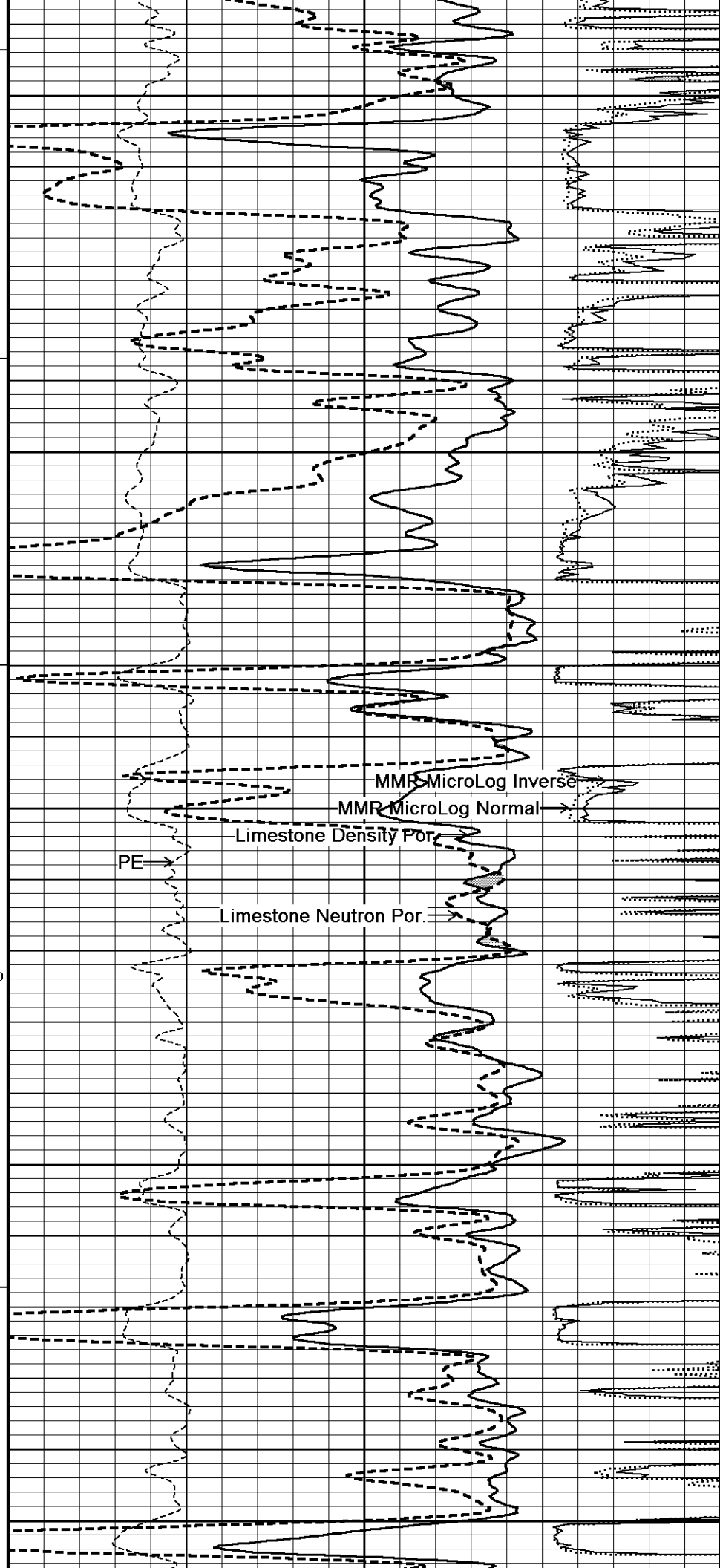




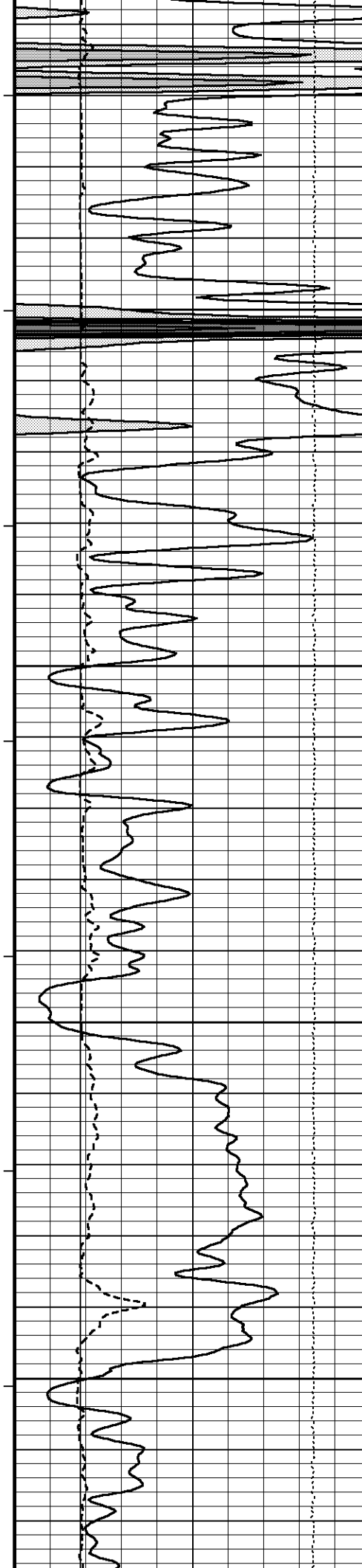




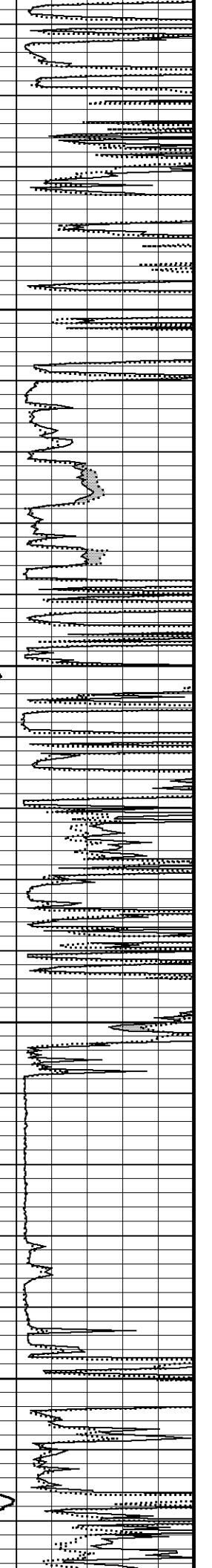
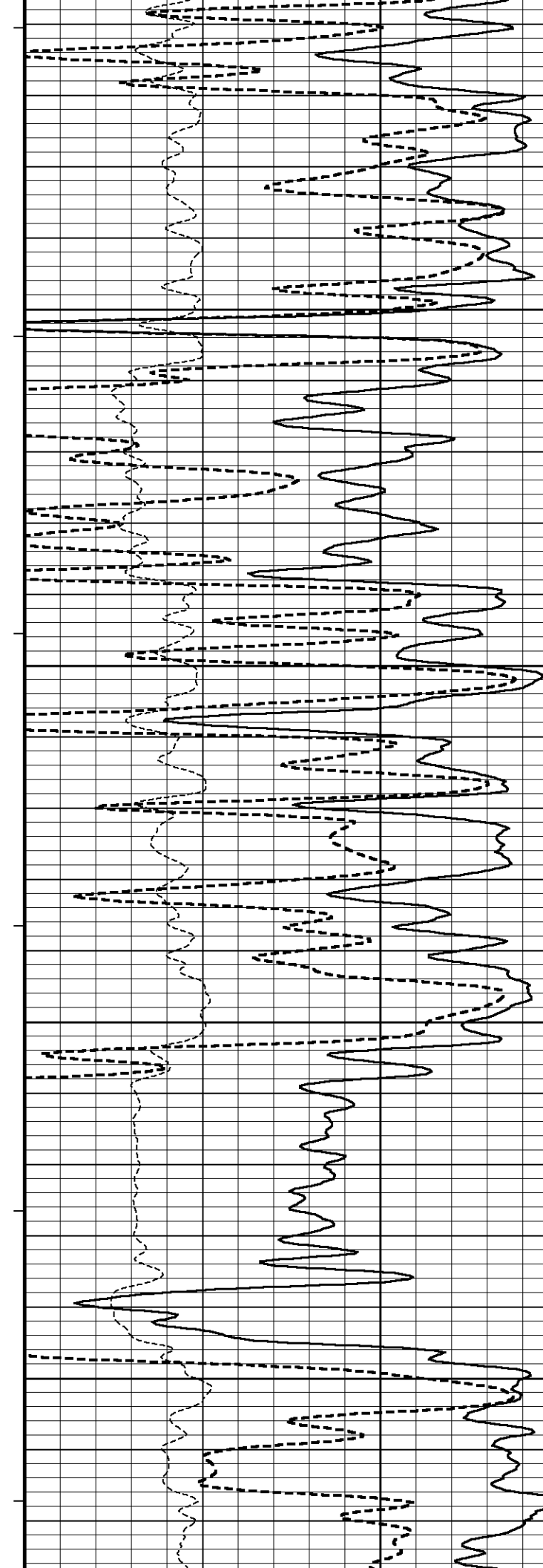
117°  
5400  
117°  
5450  
118°  
5500  
300  
200  
118°  
5550  
118°  
5600

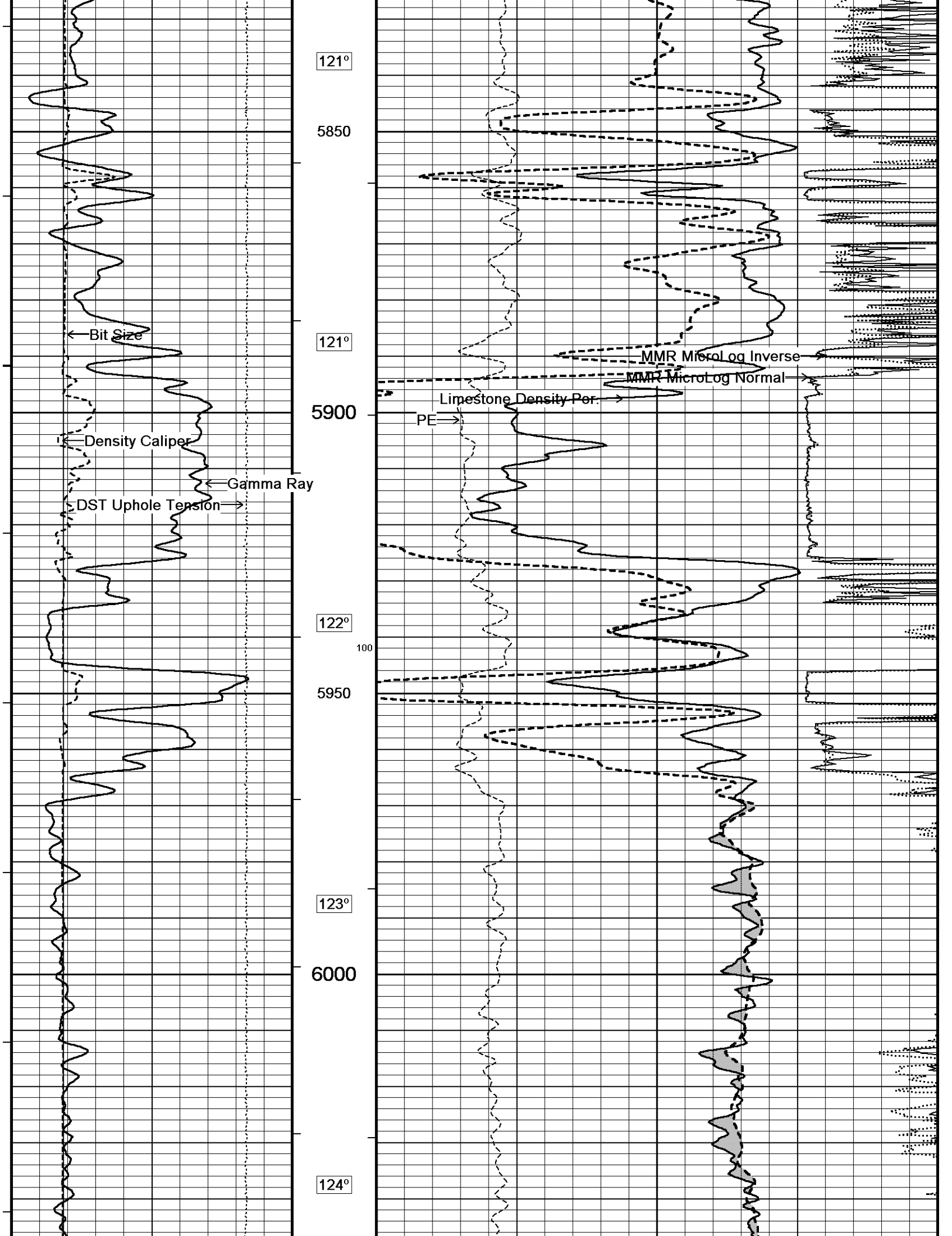


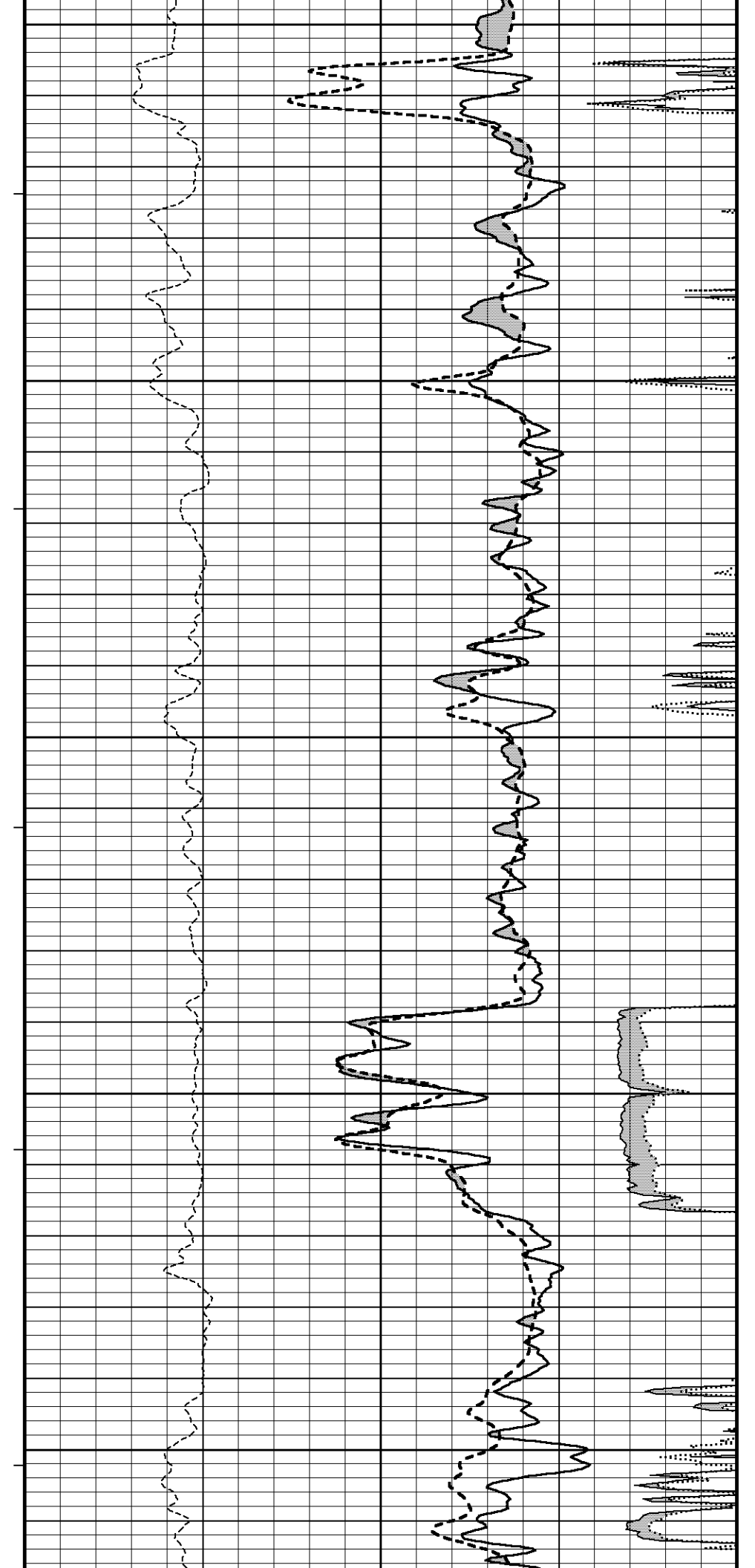
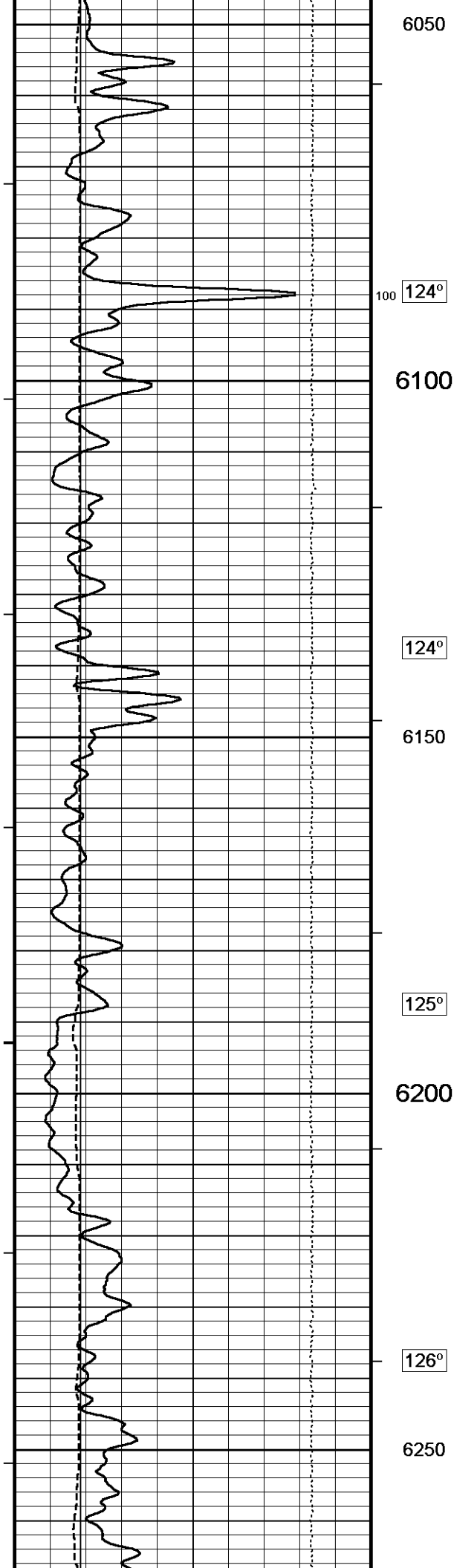
MMR MicroLog Inverse  
MMR MicroLog Normal  
Limestone Density Por.  
PE  
Limestone Neutron Por.

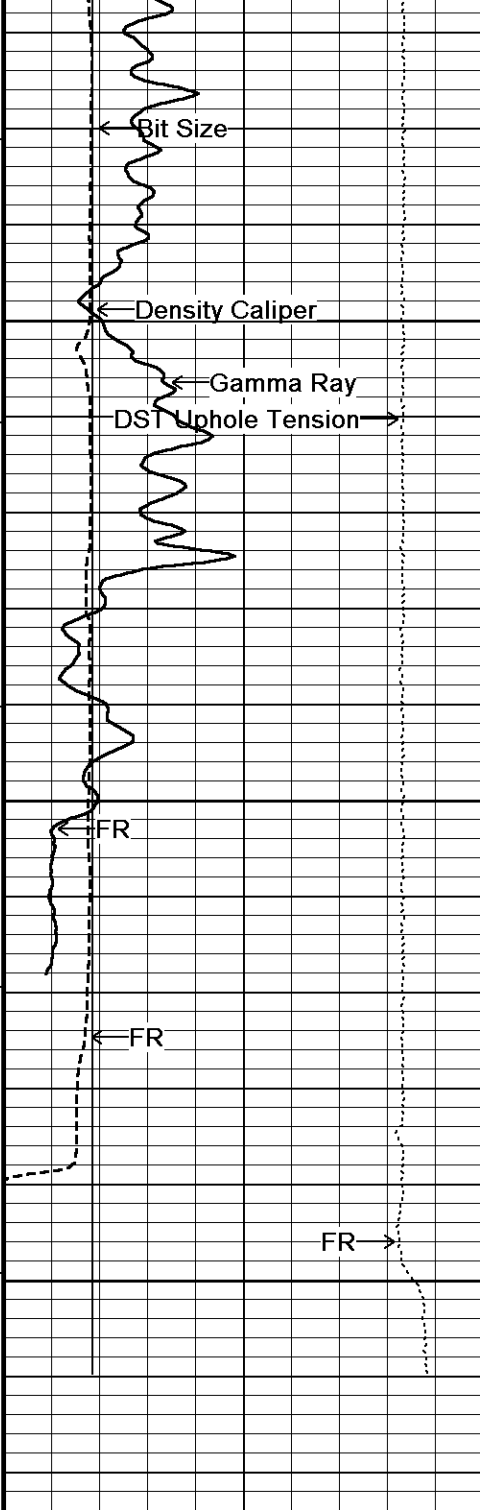


119°  
5650  
119°  
5700  
120°  
5750  
120°  
200  
5800









126°

6300

126°

6350

TD

6400

Depth  
in  
Feet

Timing Marks  
every 60.0 sec

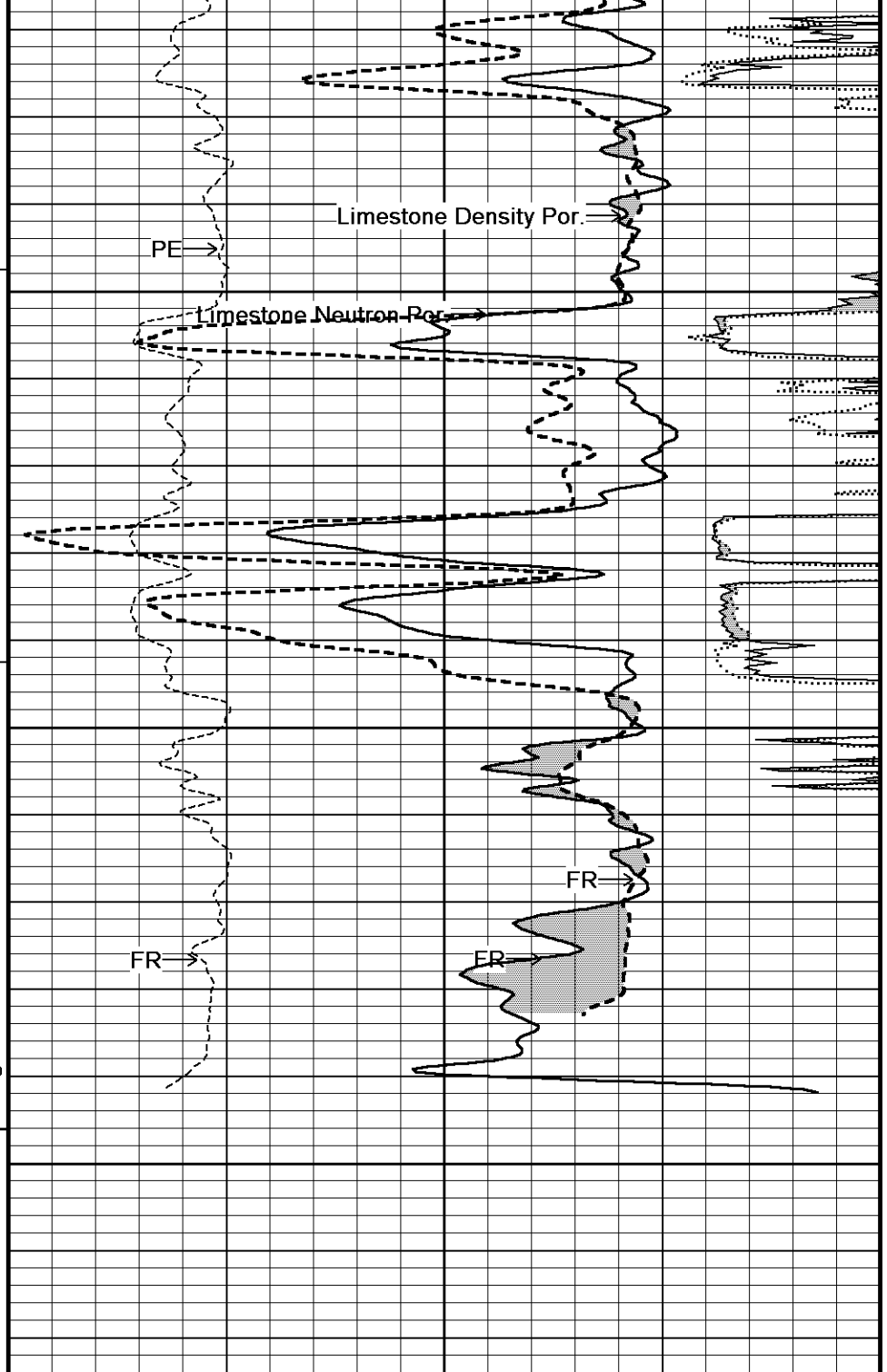
Gamma Ray  
API  
0 75 150  
150 225 300

Density Caliper  
inches  
6 11 16

Borehole  
Temp in  
deg F

HVI  
every  
10 cu ft

Annular

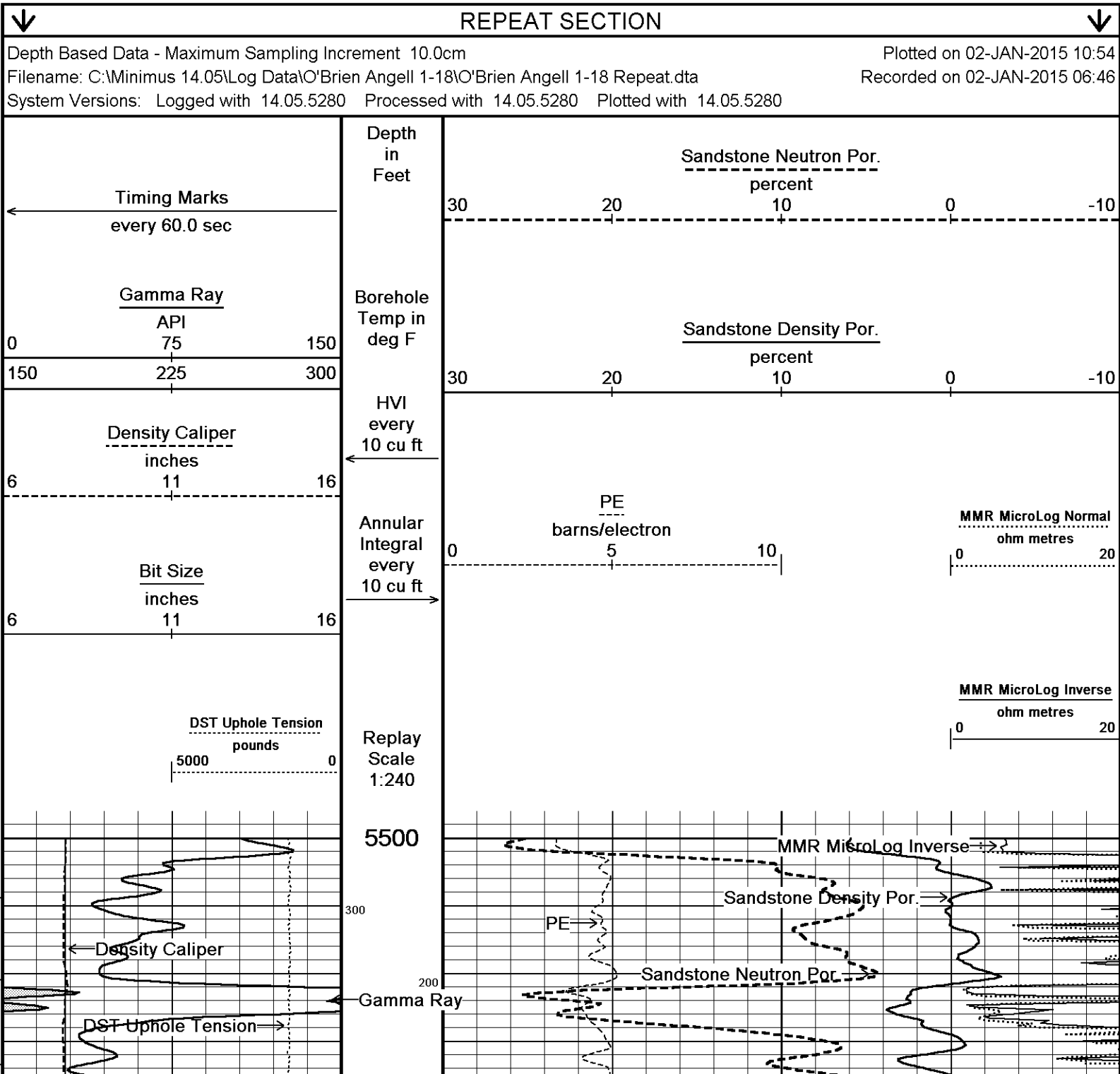
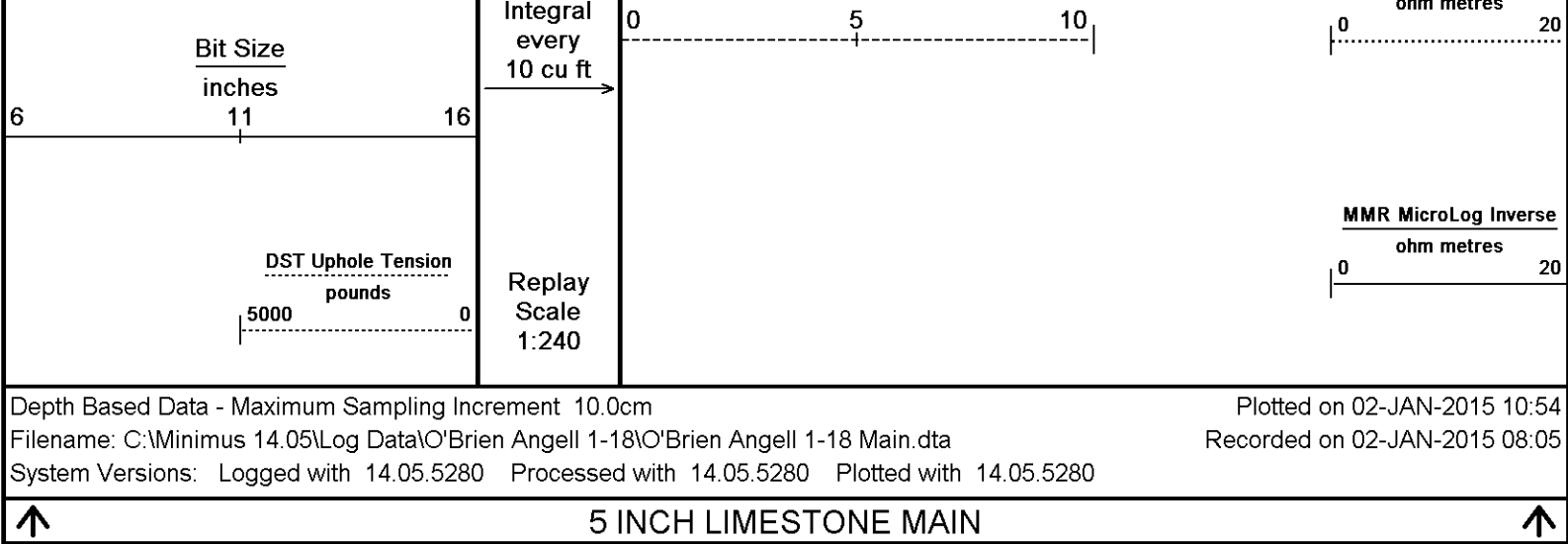


Limestone Neutron Por.  
percent  
30 20 10 0 -10

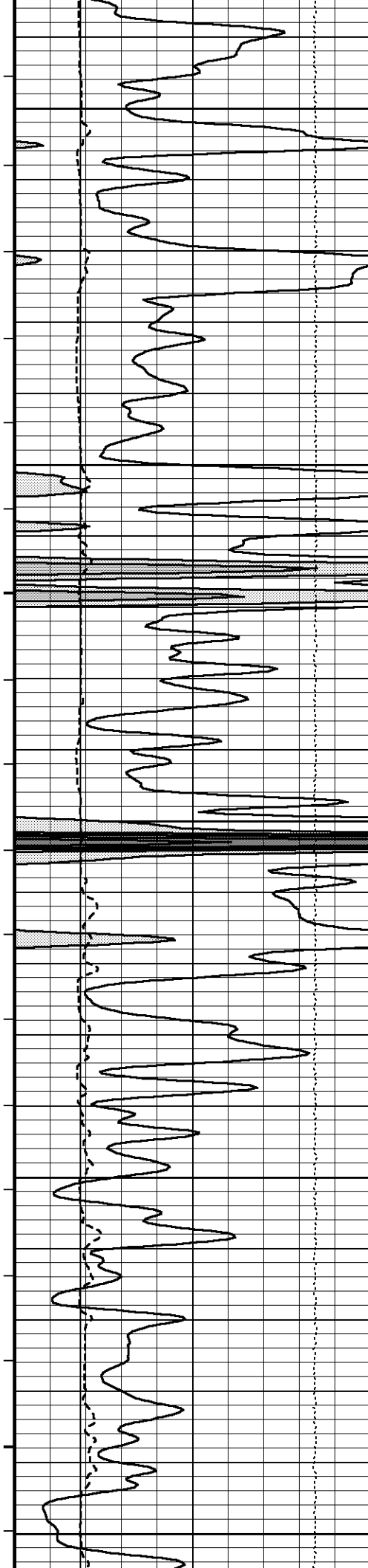
Limestone Density Por.  
percent  
30 20 10 0 -10

PE  
barns/electron

MMR MicroLog Normal







117°

5550

117°

5600

118°

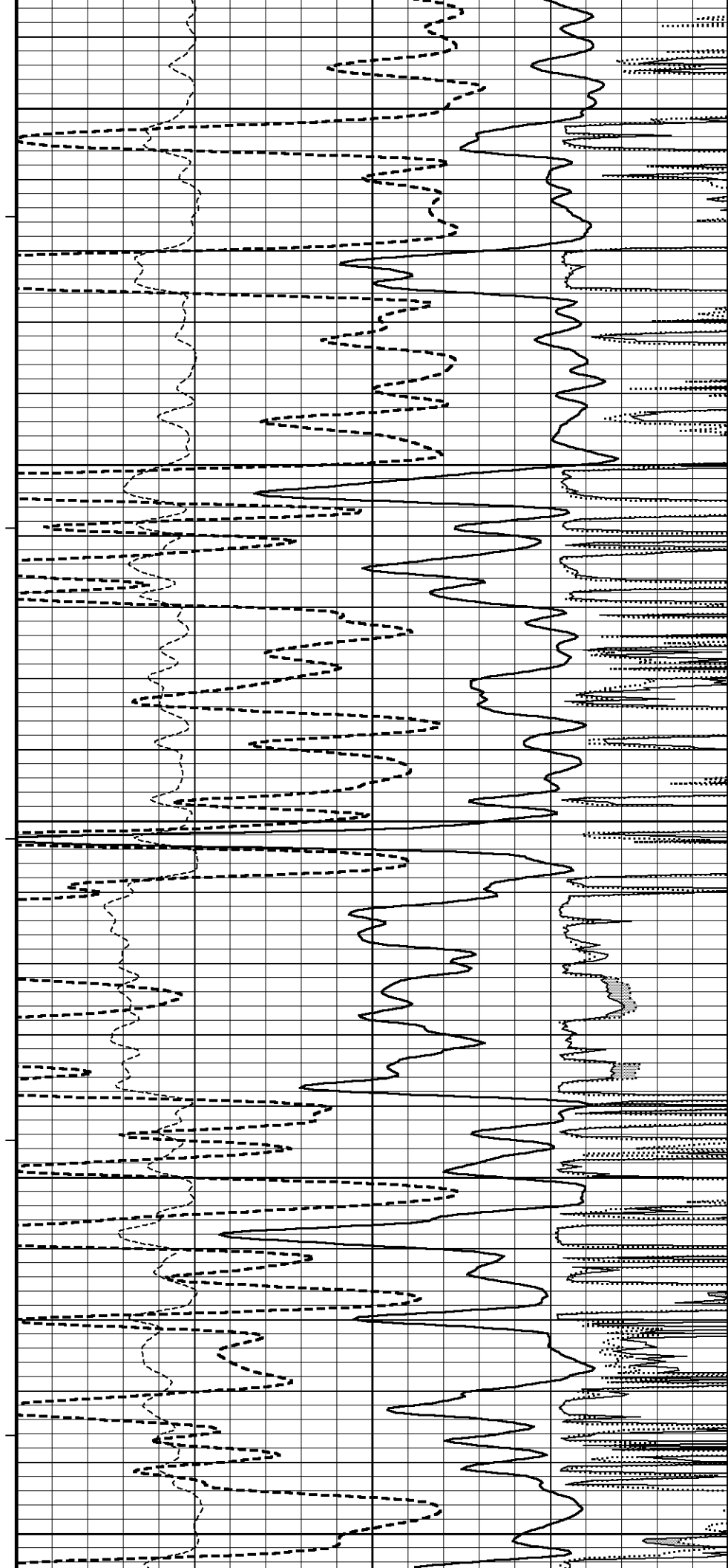
5650

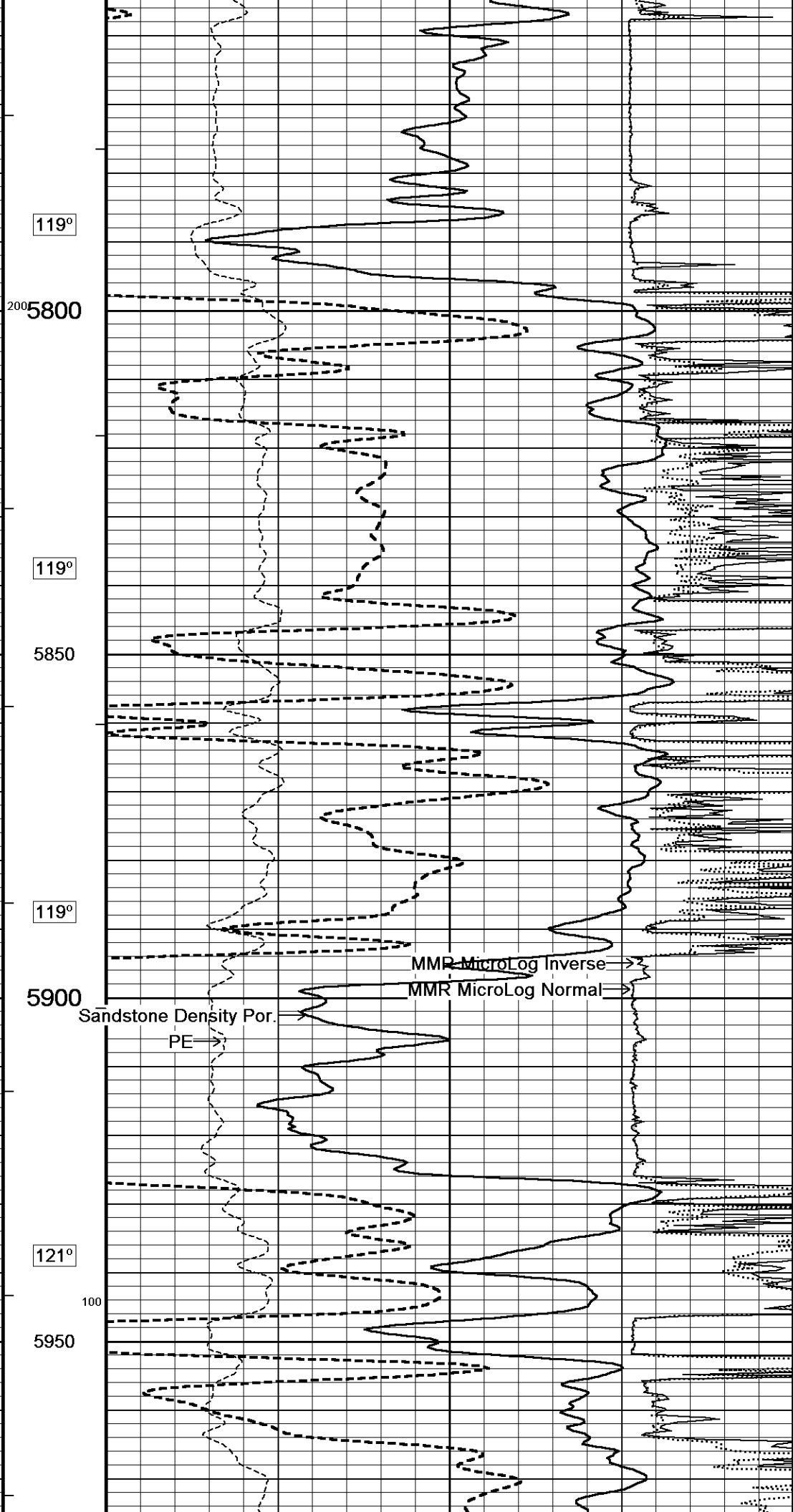
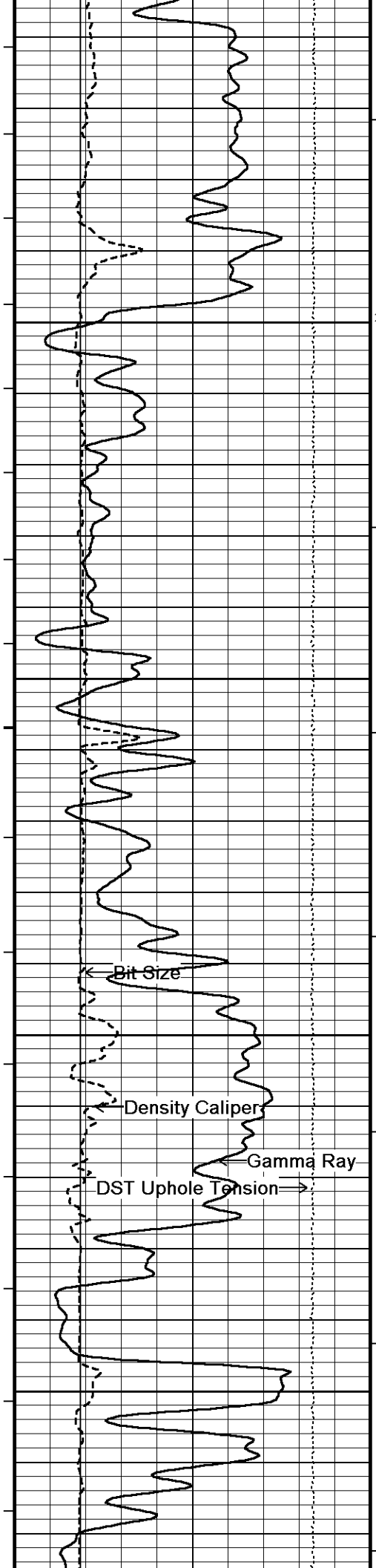
118°

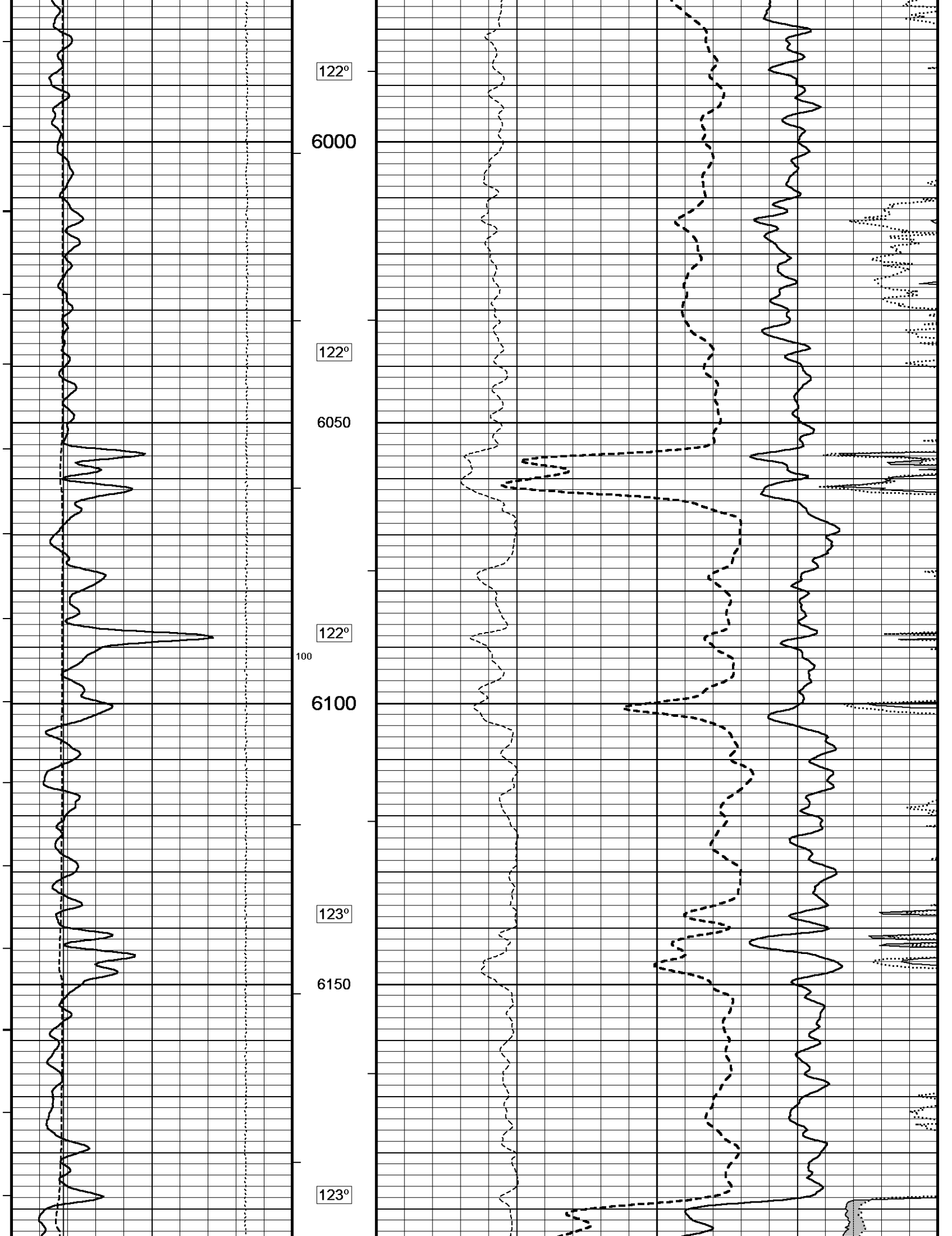
5700

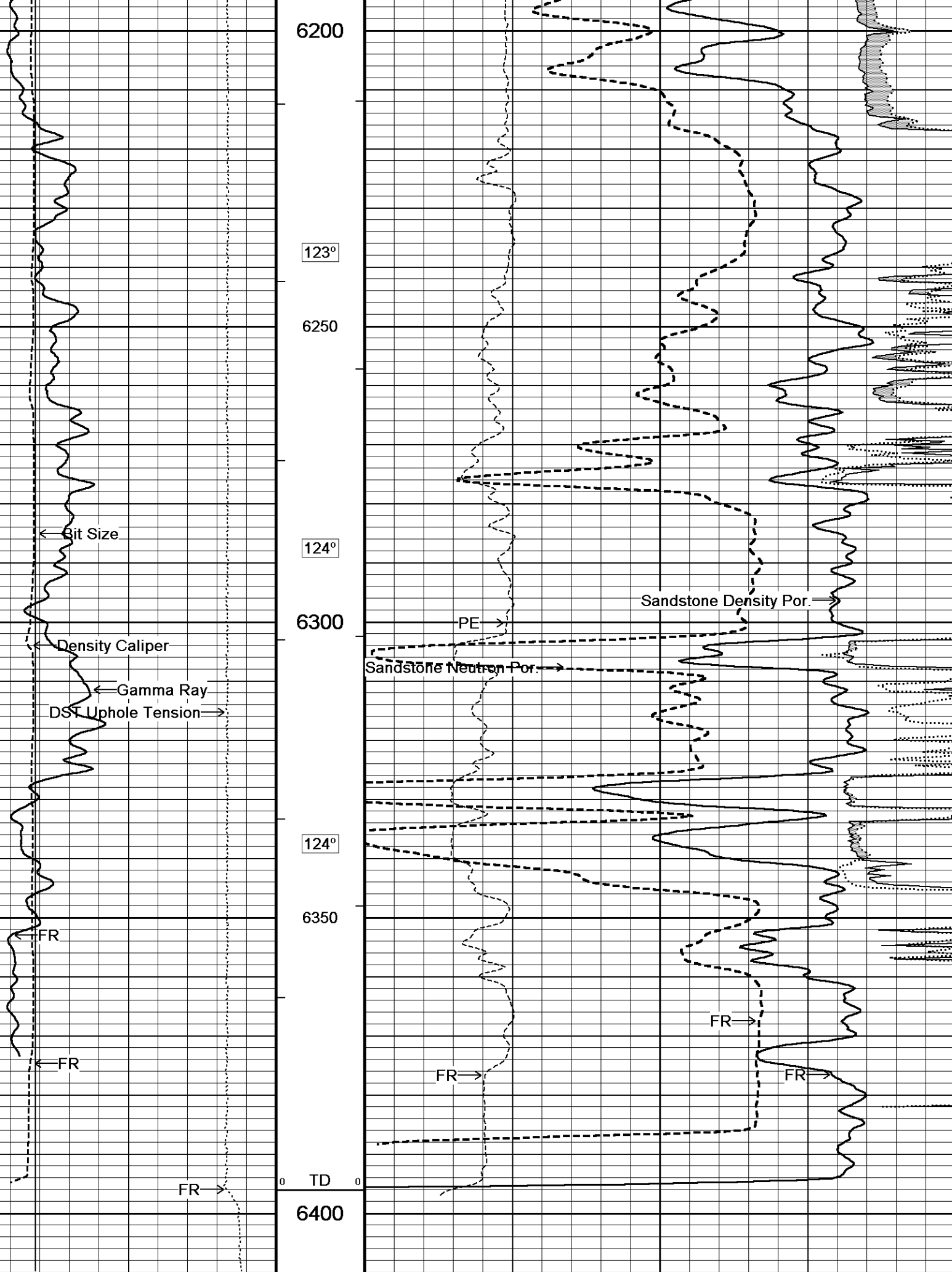
118°

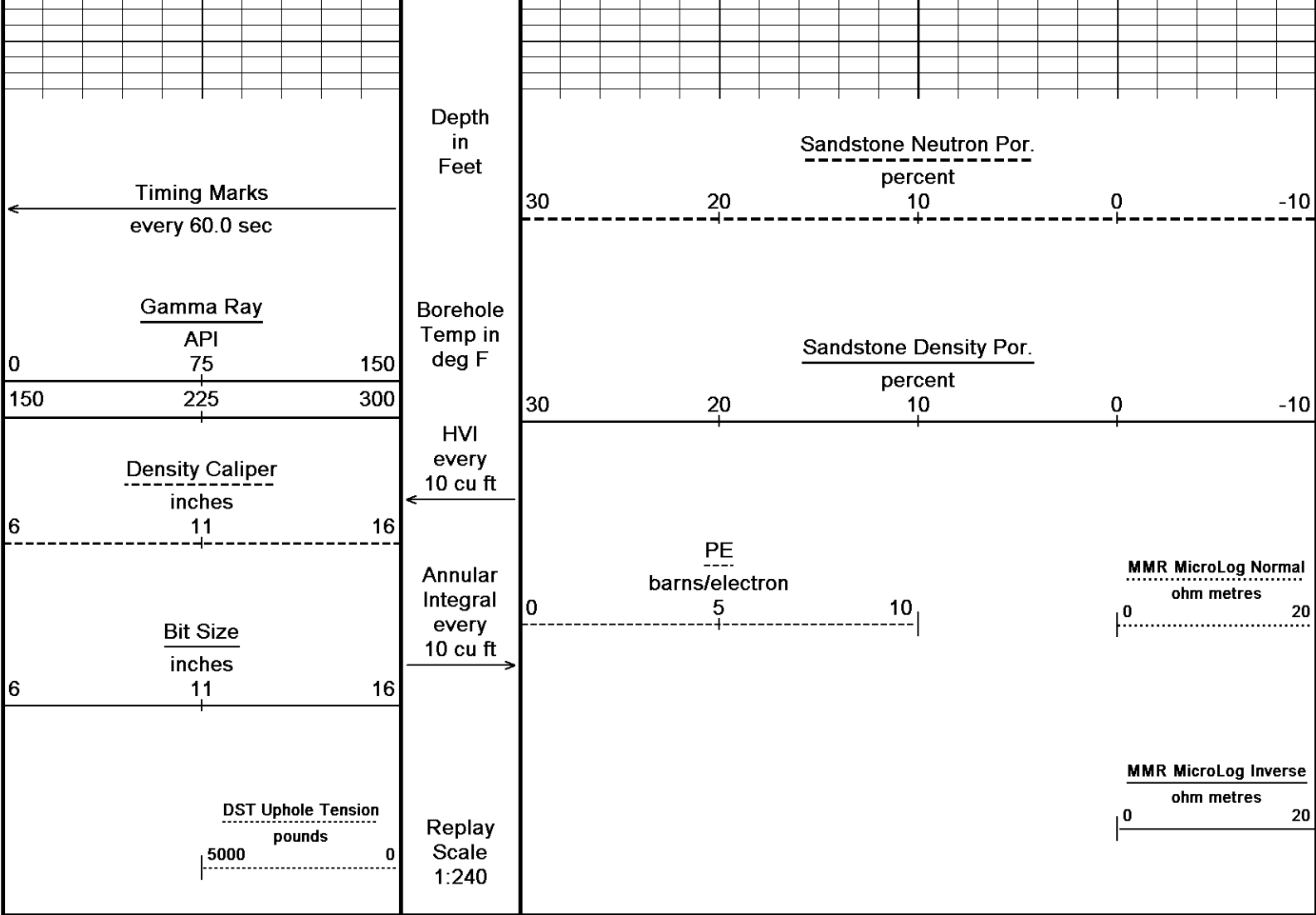
5750











Depth Based Data - Maximum Sampling Increment 10.0cm

Plotted on 02-JAN-2015 10:54

Filename: C:\Minimus 14.05\Log Data\O'Brien Angell 1-18\O'Brien Angell 1-18 Repeat.dta

Recorded on 02-JAN-2015 06:46

System Versions: Logged with 14.05.5280 Processed with 14.05.5280 Plotted with 14.05.5280

↑

REPEAT SECTION

↑

↓

10 INCH HIGH RESOLUTION

↓

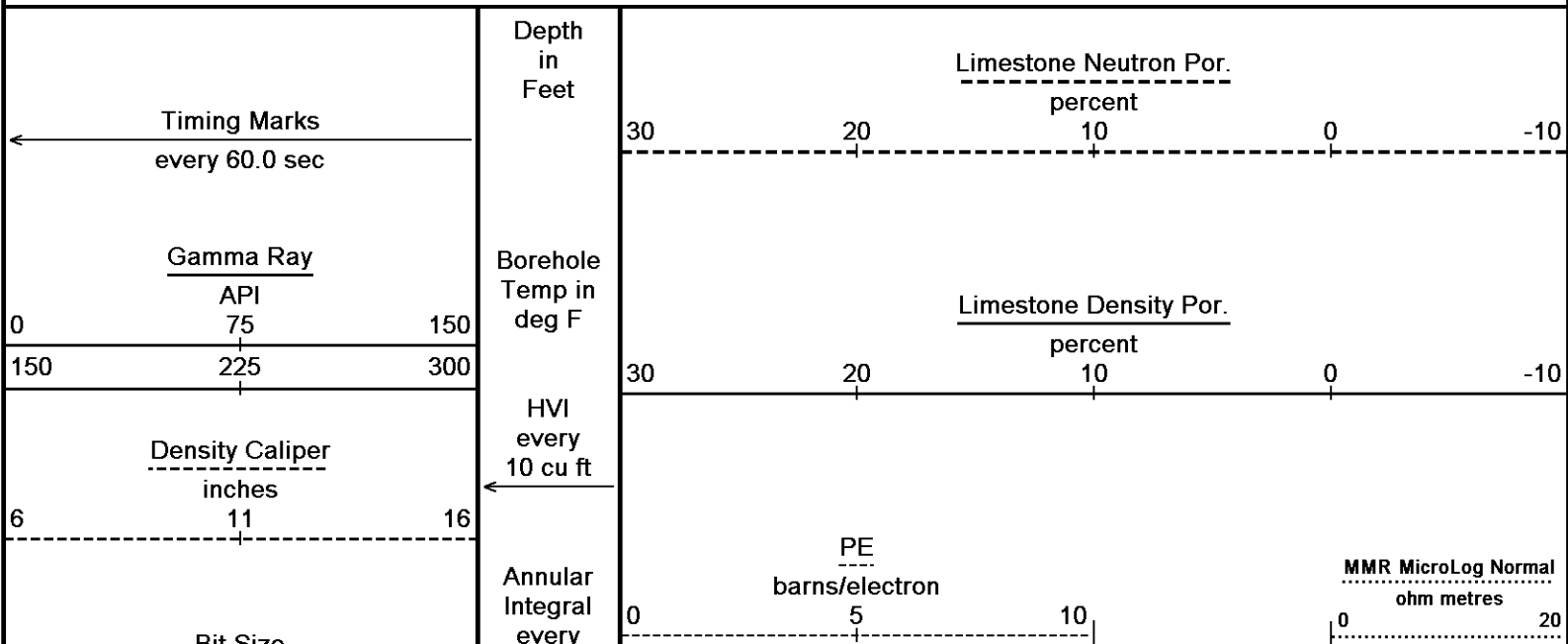
Depth Based Data - Maximum Sampling Increment 2.5cm

Plotted on 02-JAN-2015 10:54

Filename: C:\Minimus 14.05\Log Data\O'Brien Angell 1-18\O'Brien Angell 1-18 High Resolution.dta

Recorded on 02-JAN-2015 06:46

System Versions: Logged with 14.05.5280 Plotted with 14.05.5280



Bit Size  
inches

6 11 16

DST Uphole Tension  
pounds  
5000 0

10 cu ft

Replay  
Scale  
1:120

MMR MicroLog Inverse  
ohm metres

0 20

5500

300

200

117°

5550

Bit Size

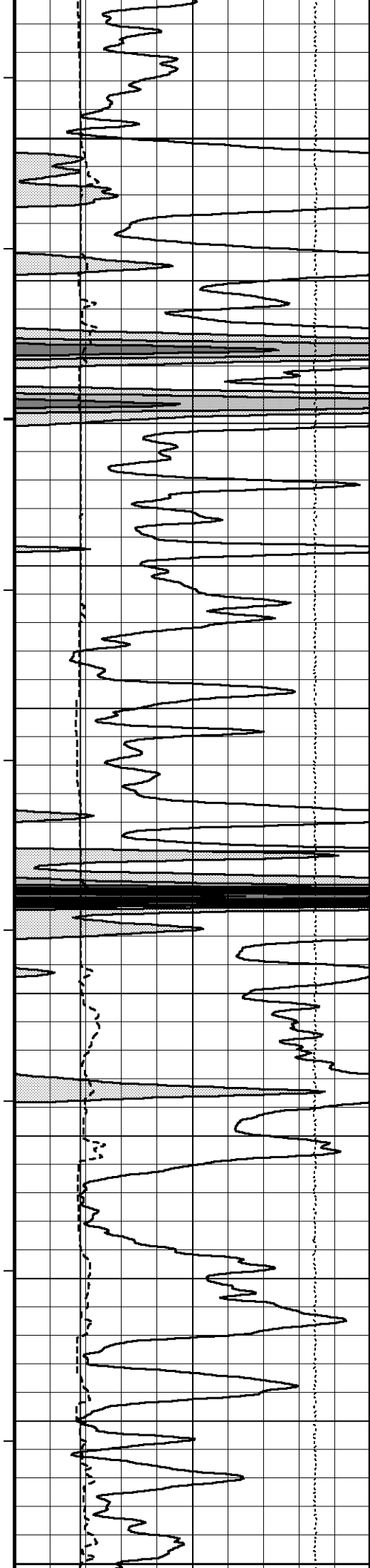
Density Caliper

Gamma Ray  
DST Uphole Tension

117°

Limestone Density Por

PE



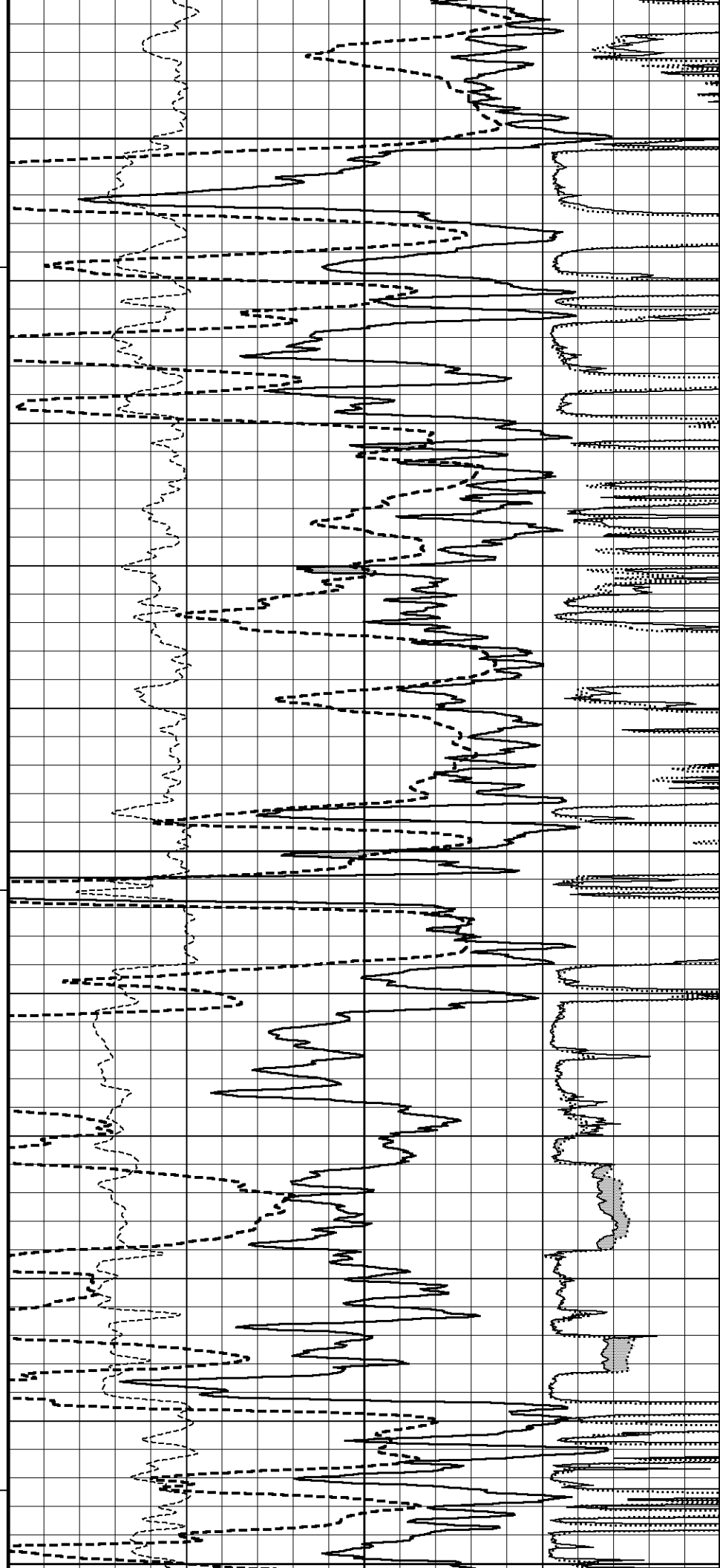
5600

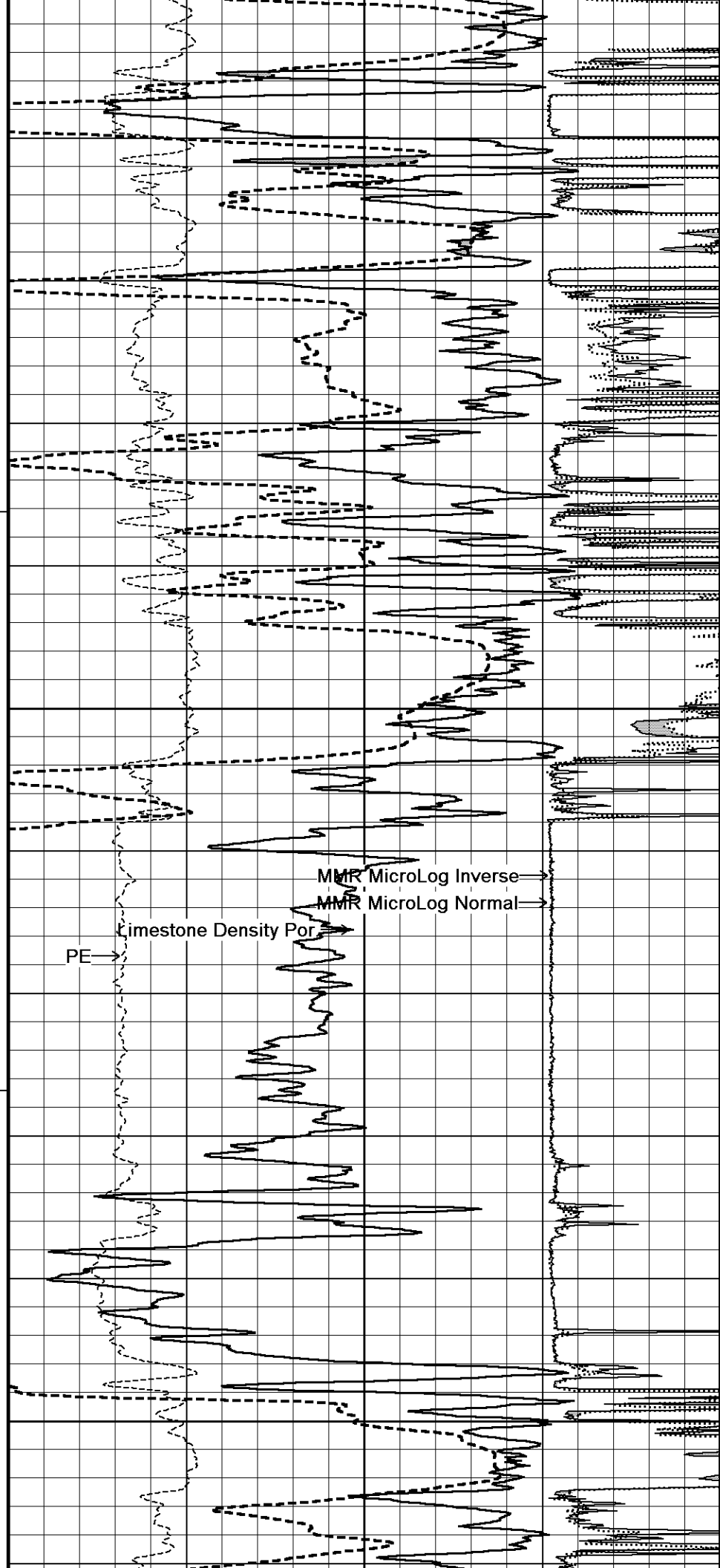
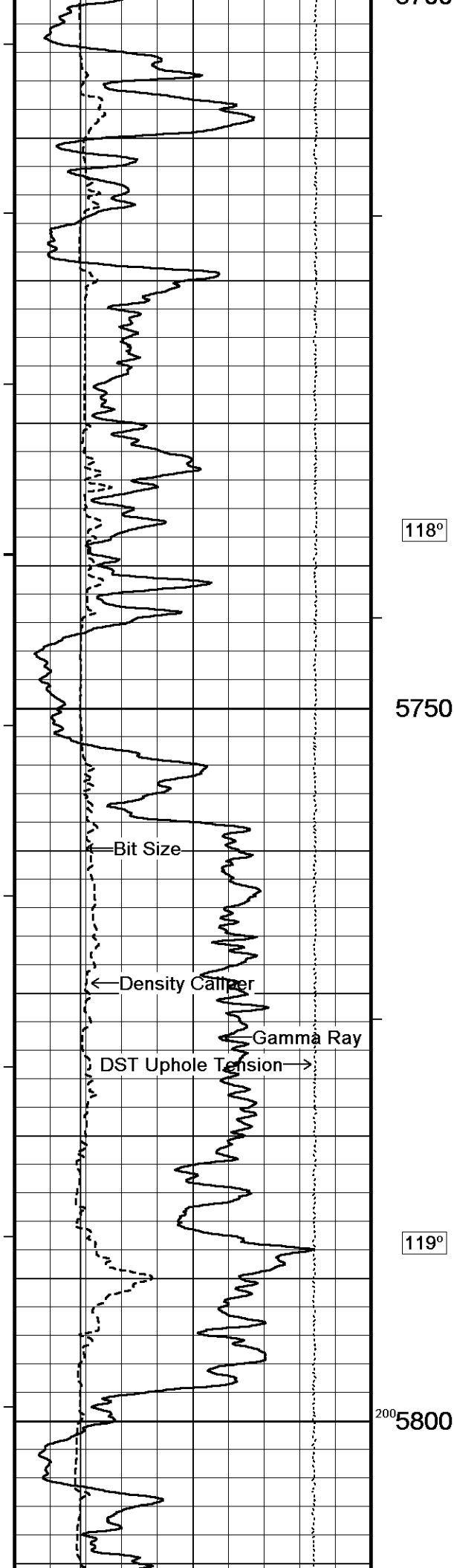
118°

5650

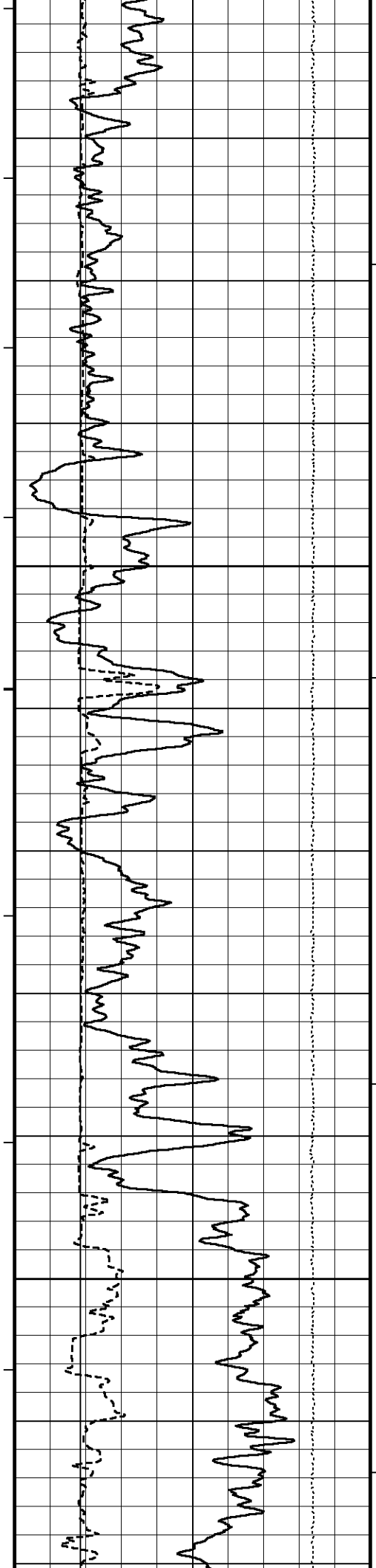
118°

5700







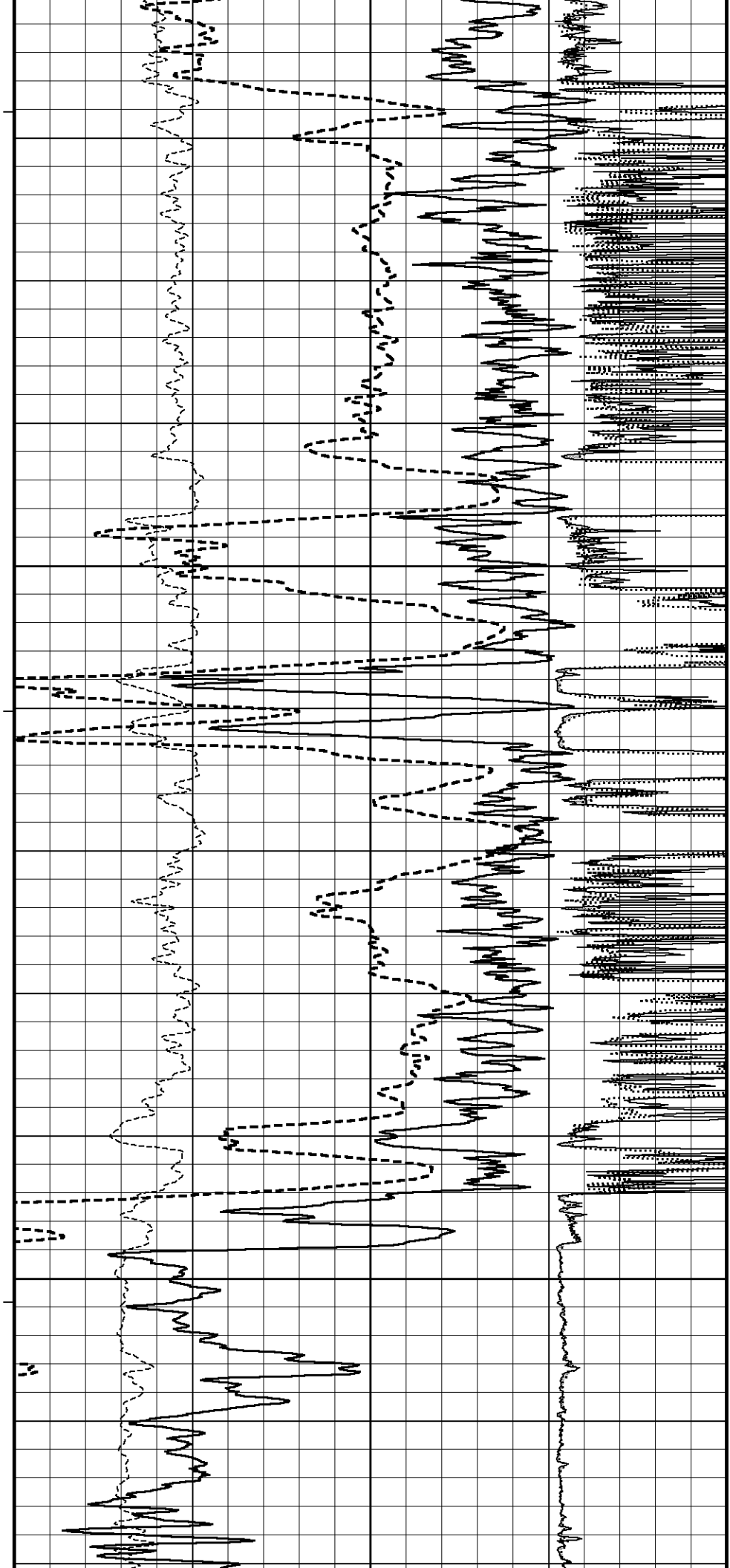


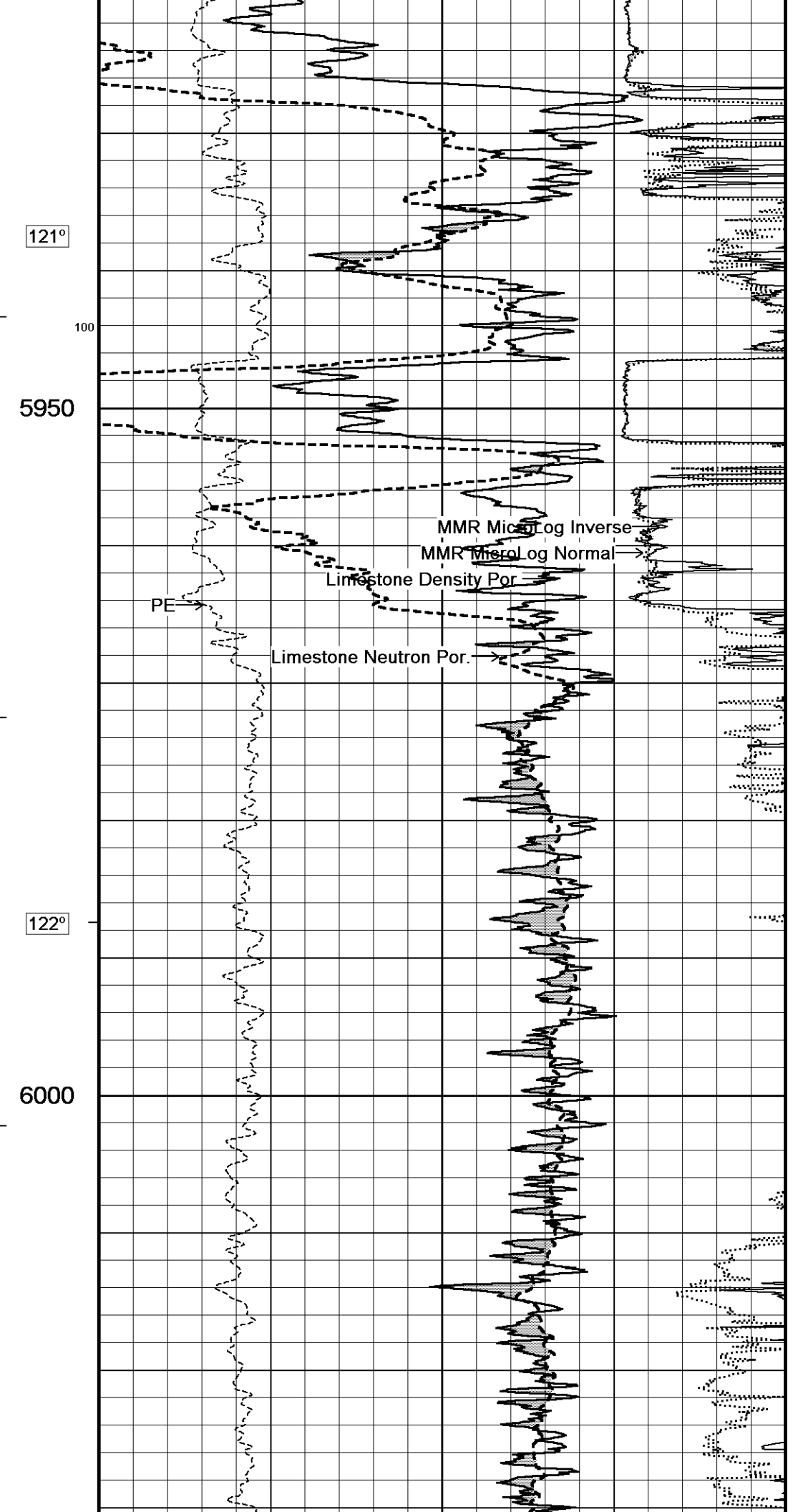
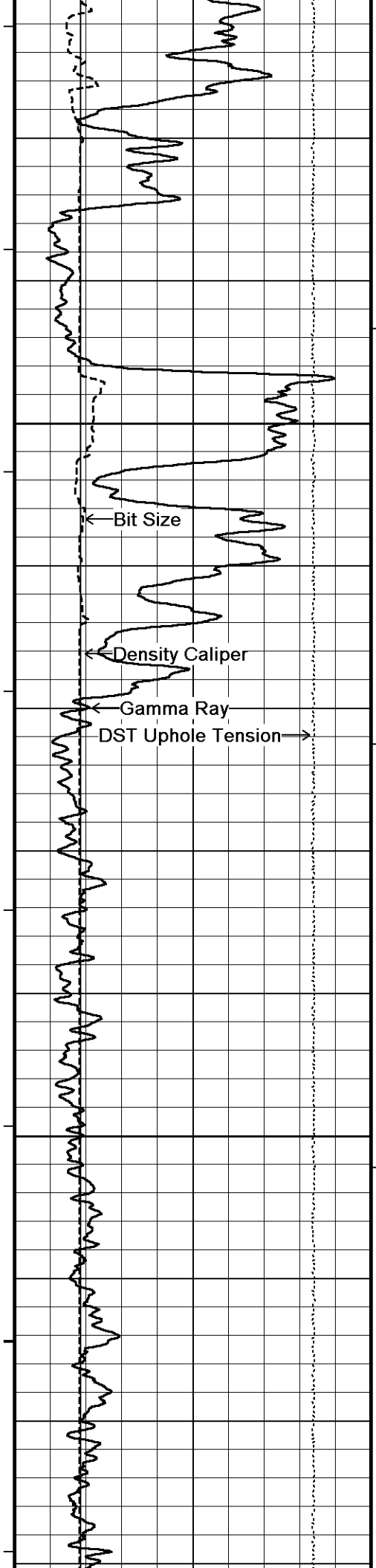
119°

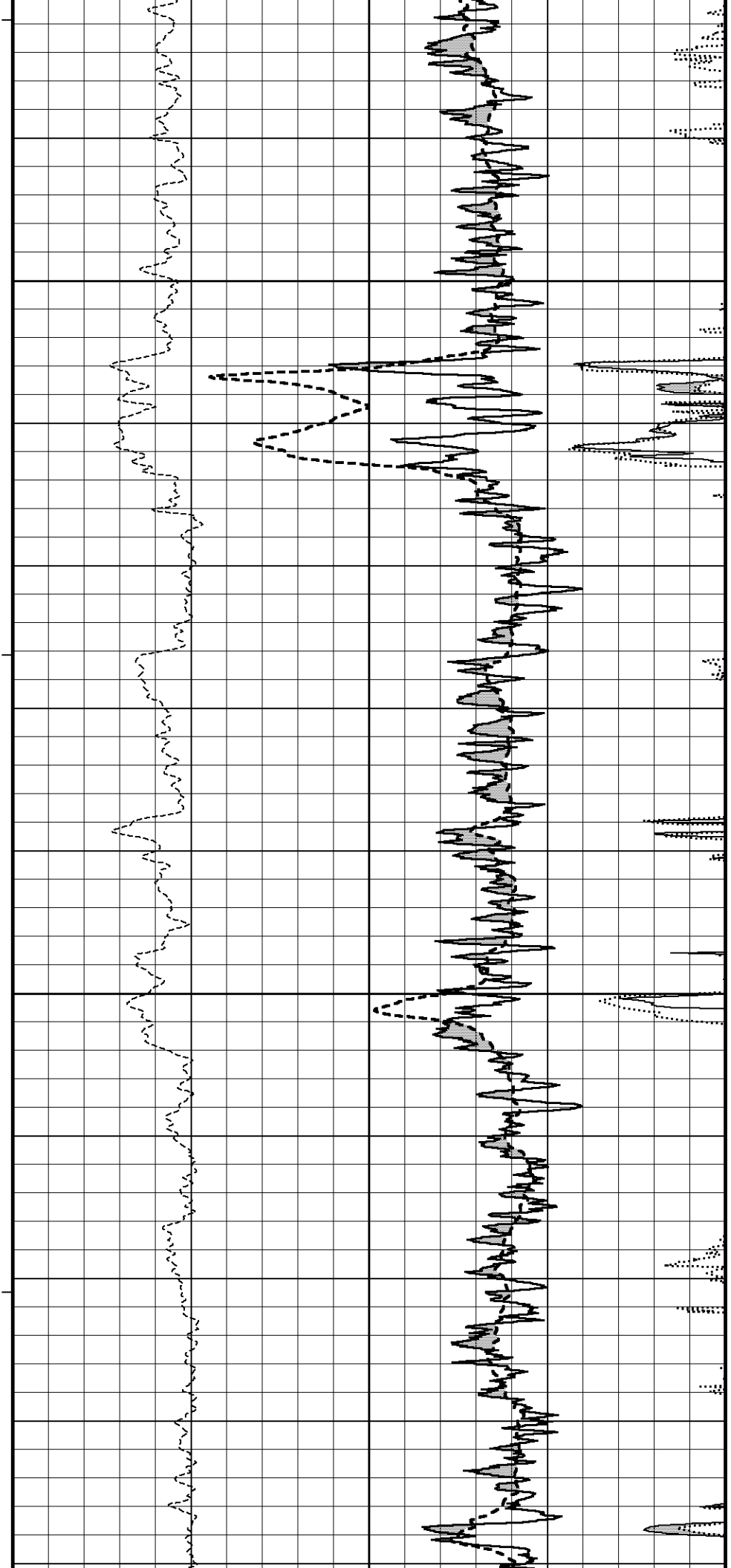
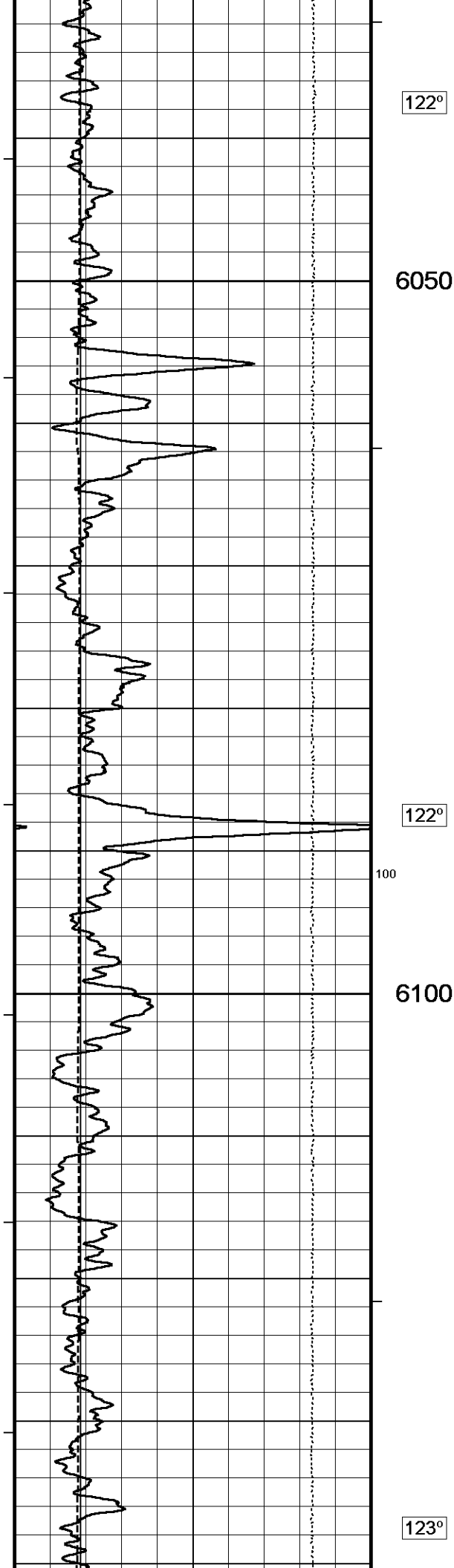
5850

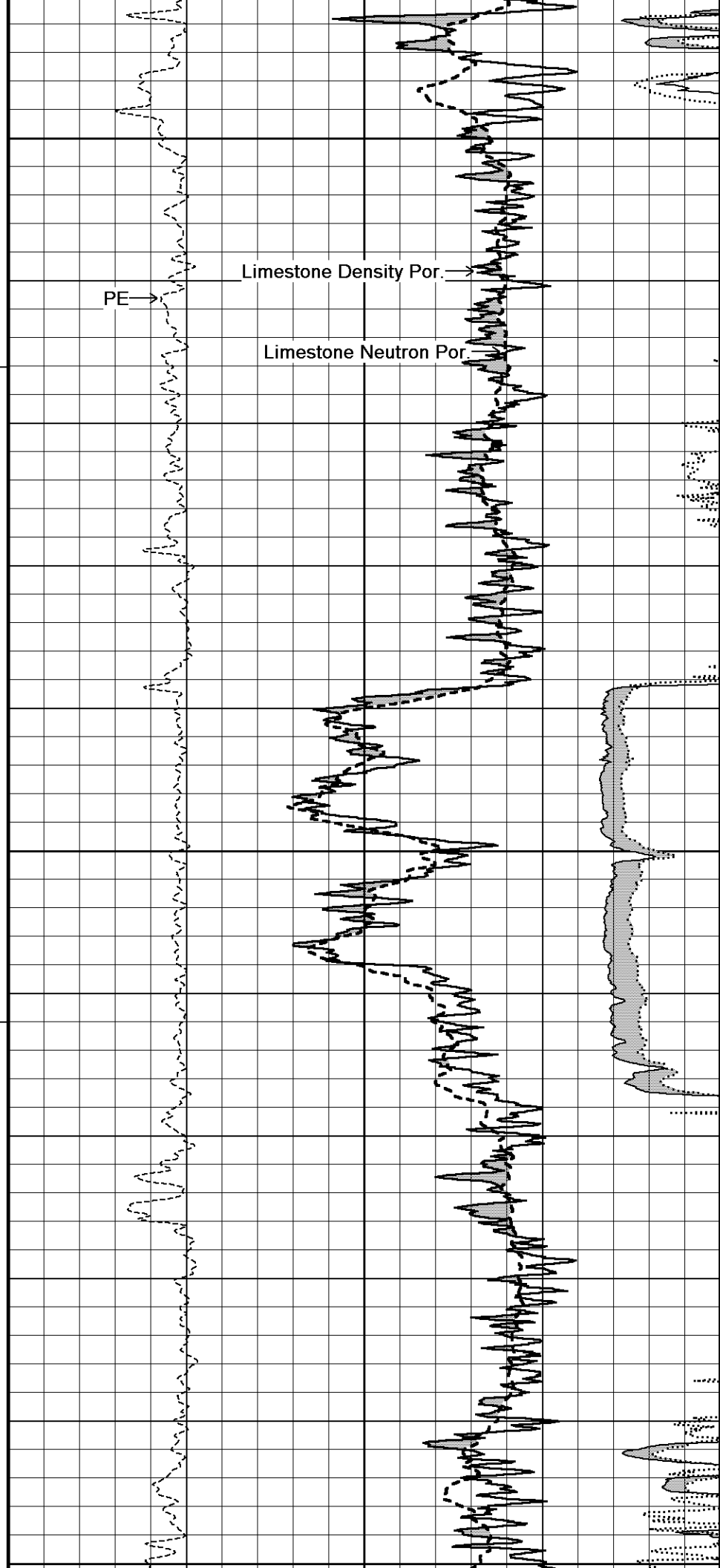
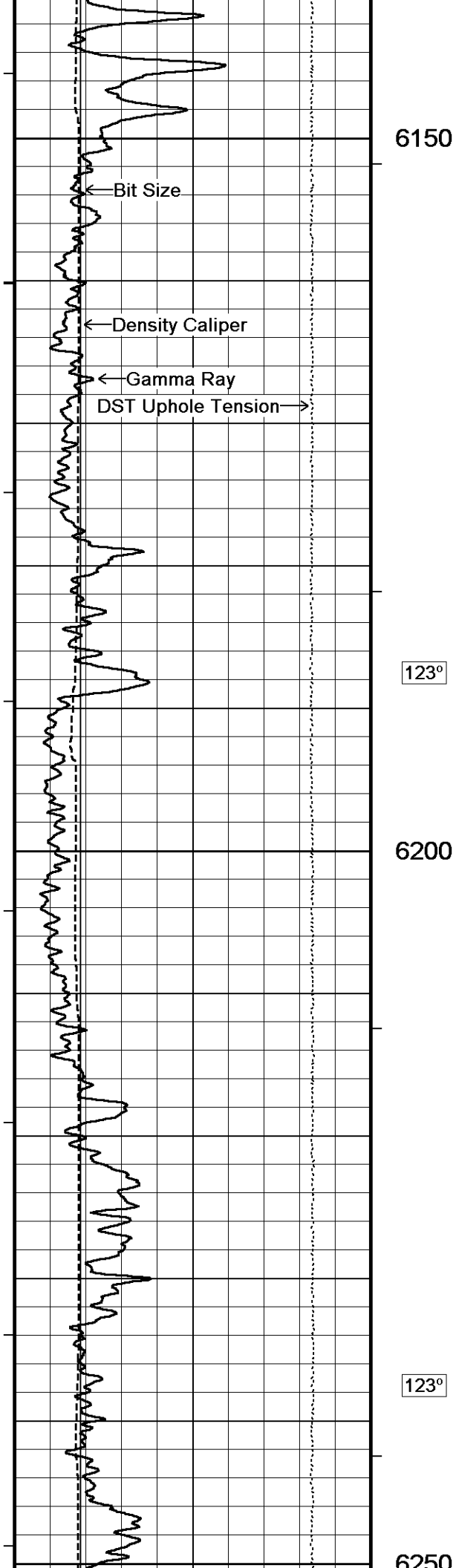
119°

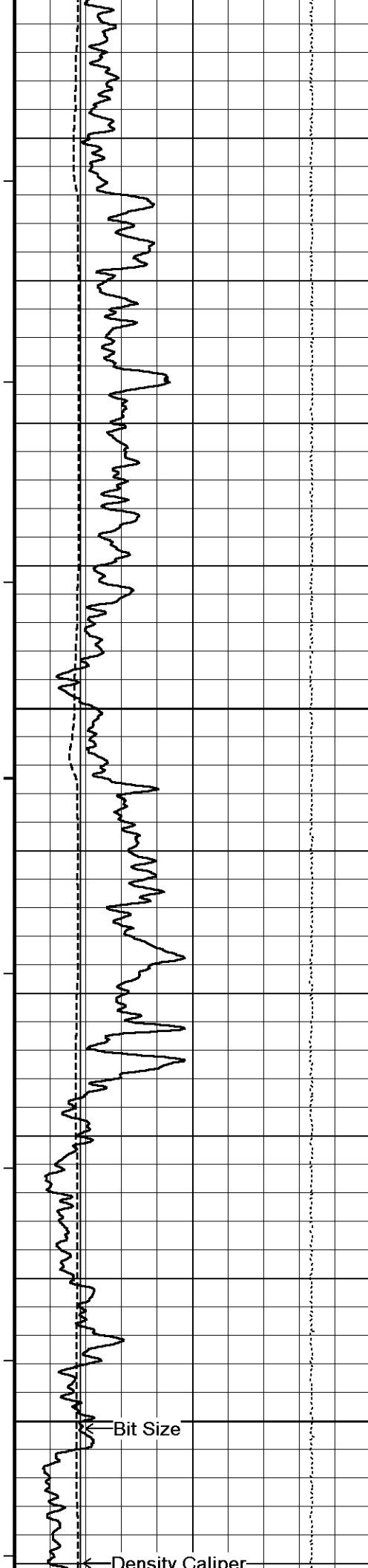
5900



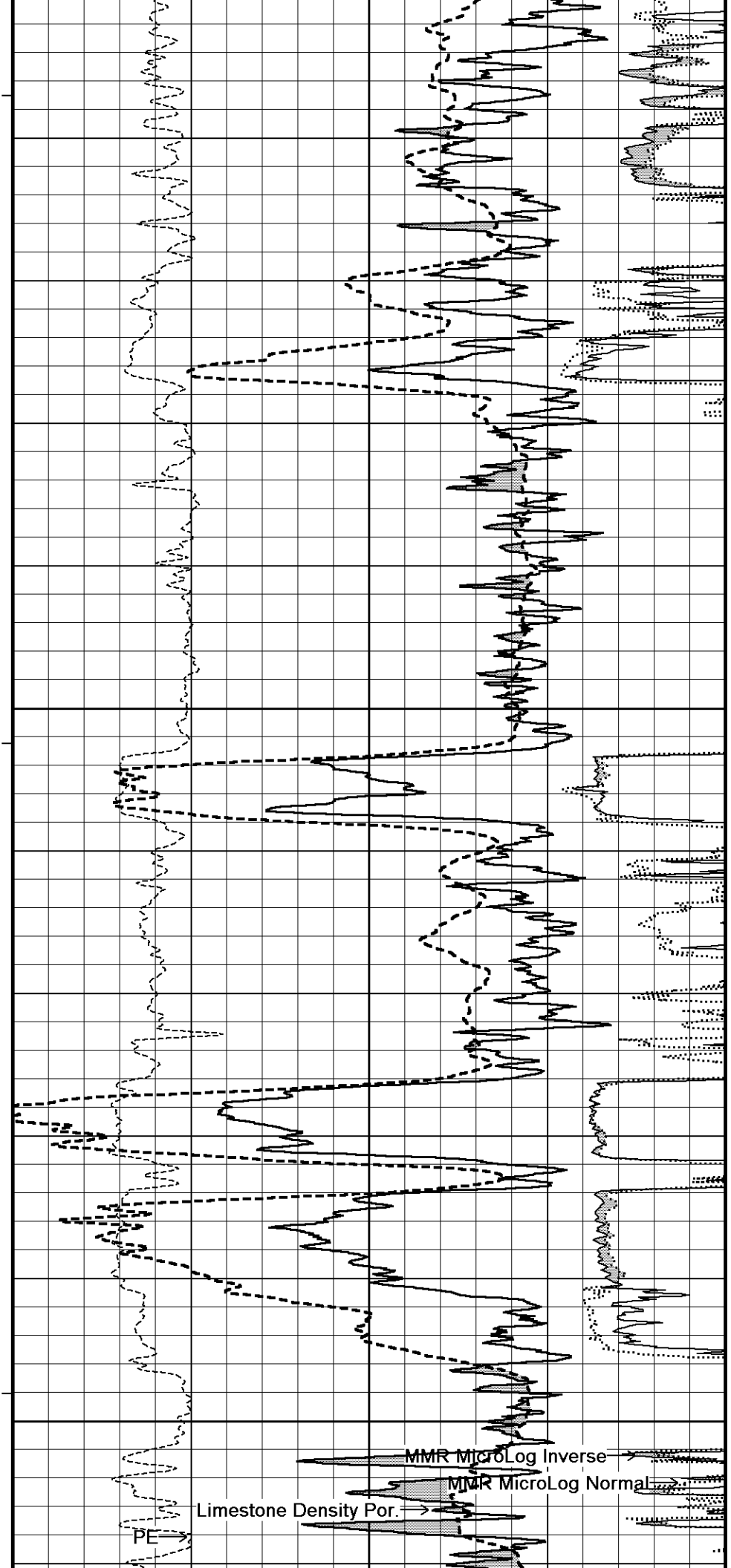








6200  
124°  
6300  
124°  
6350



Bit Size

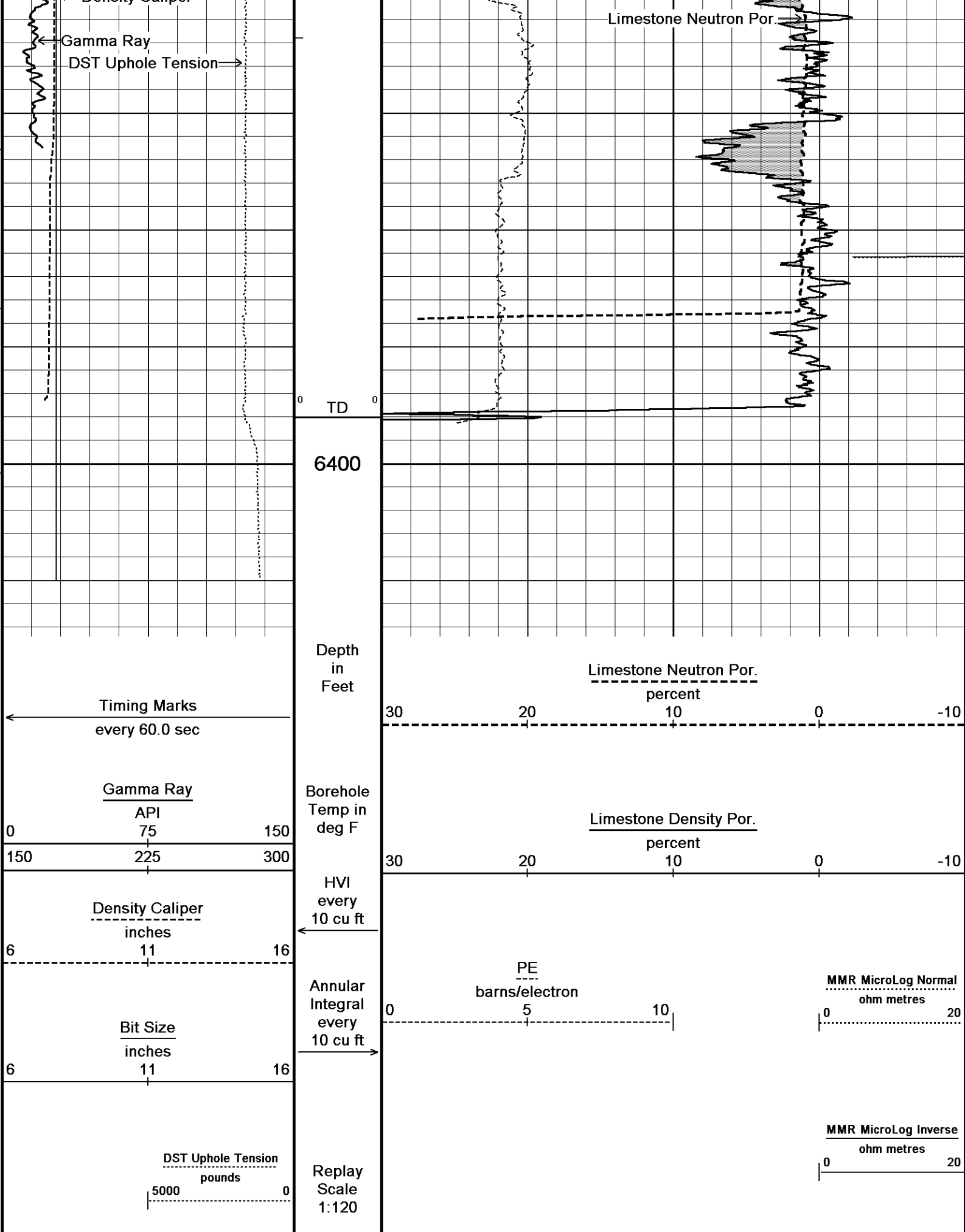
Density Caliper

PE

Limestone Density Por.

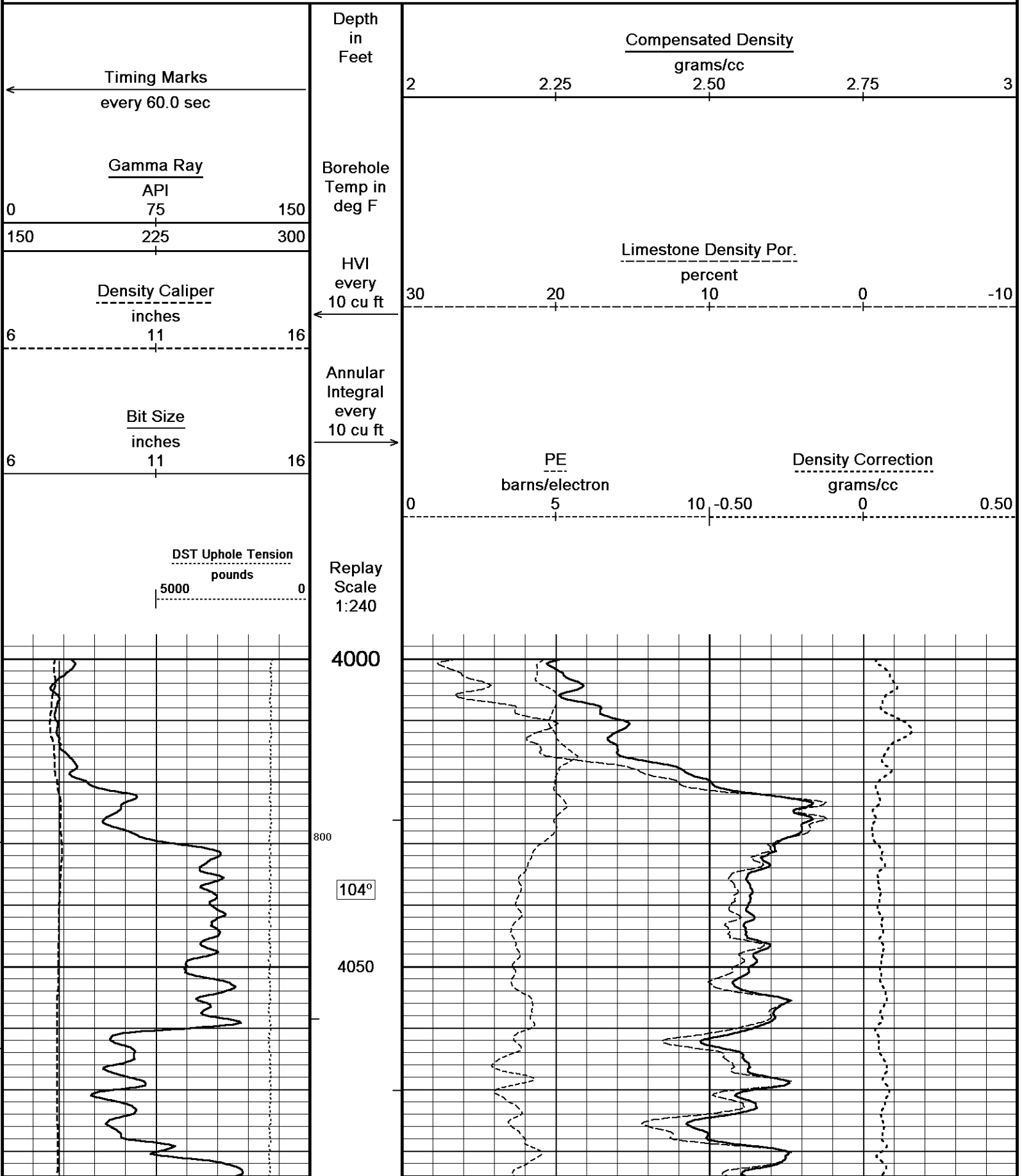
MMR MicroLog Inverse

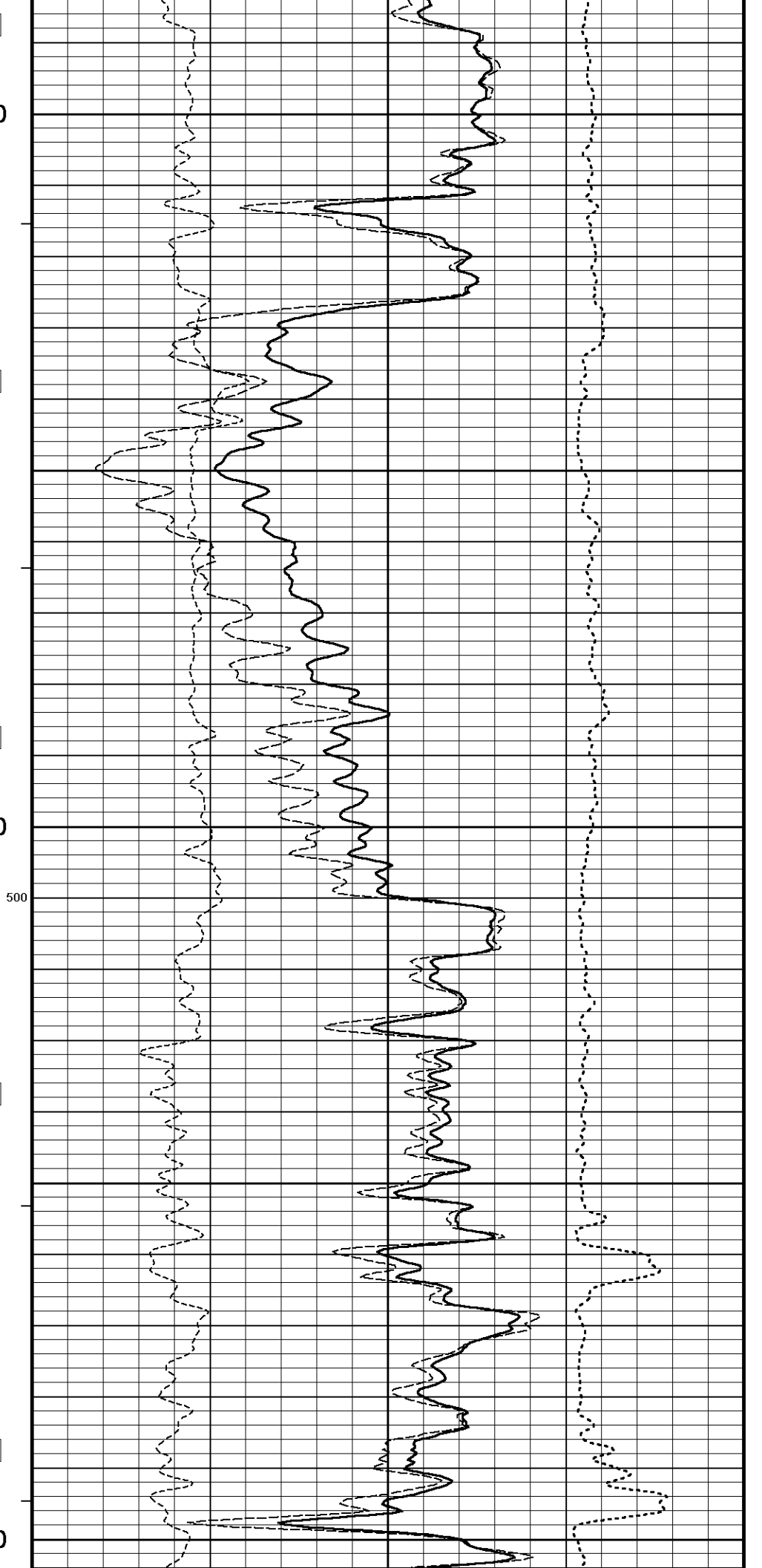
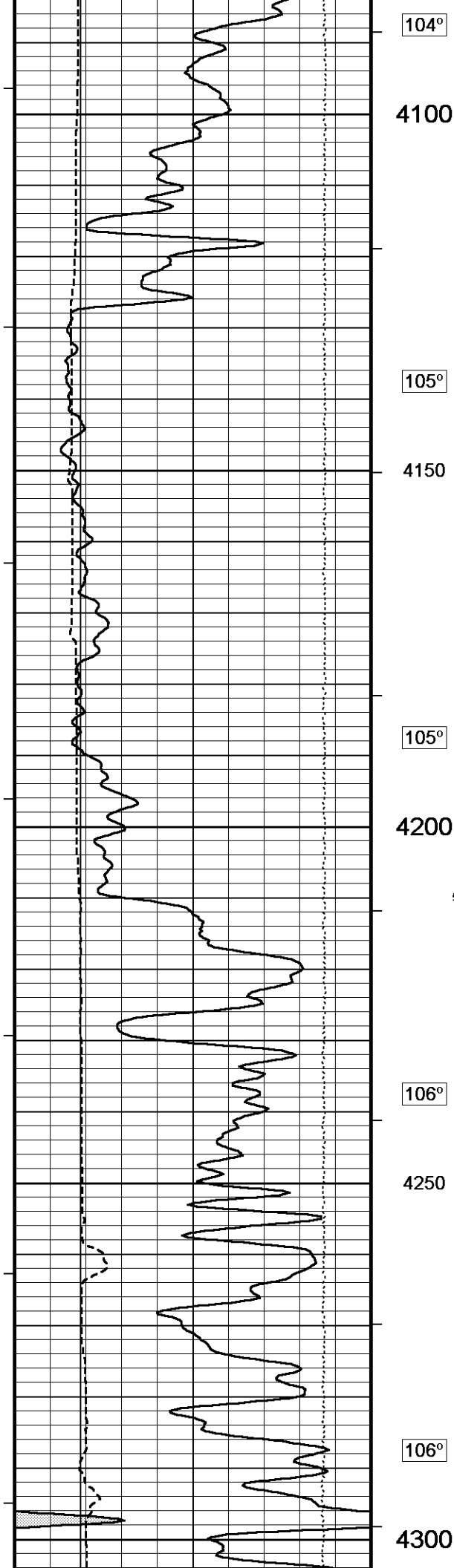
MMR MicroLog Normal



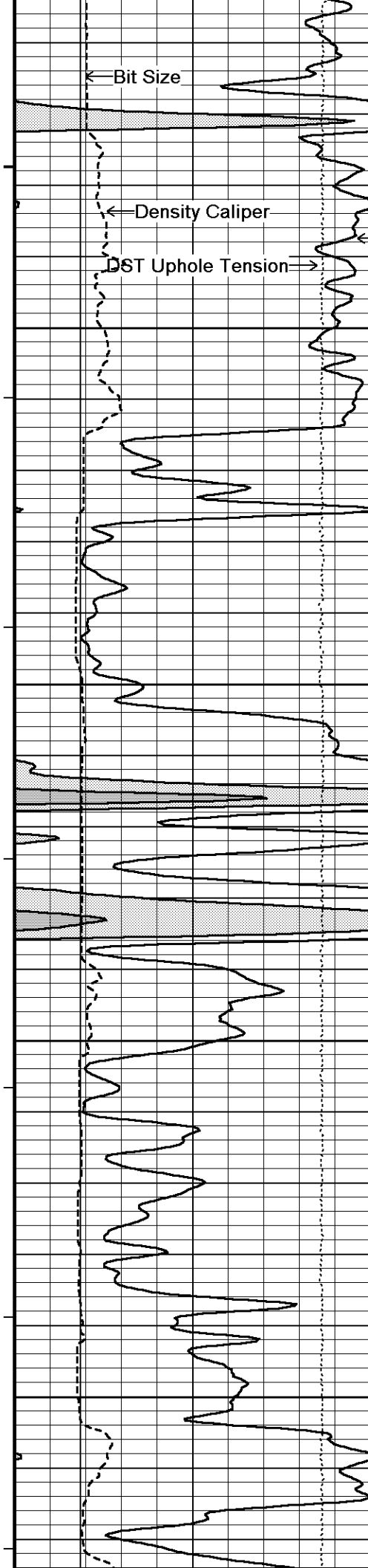
5 INCH BULK DENSITY MAIN

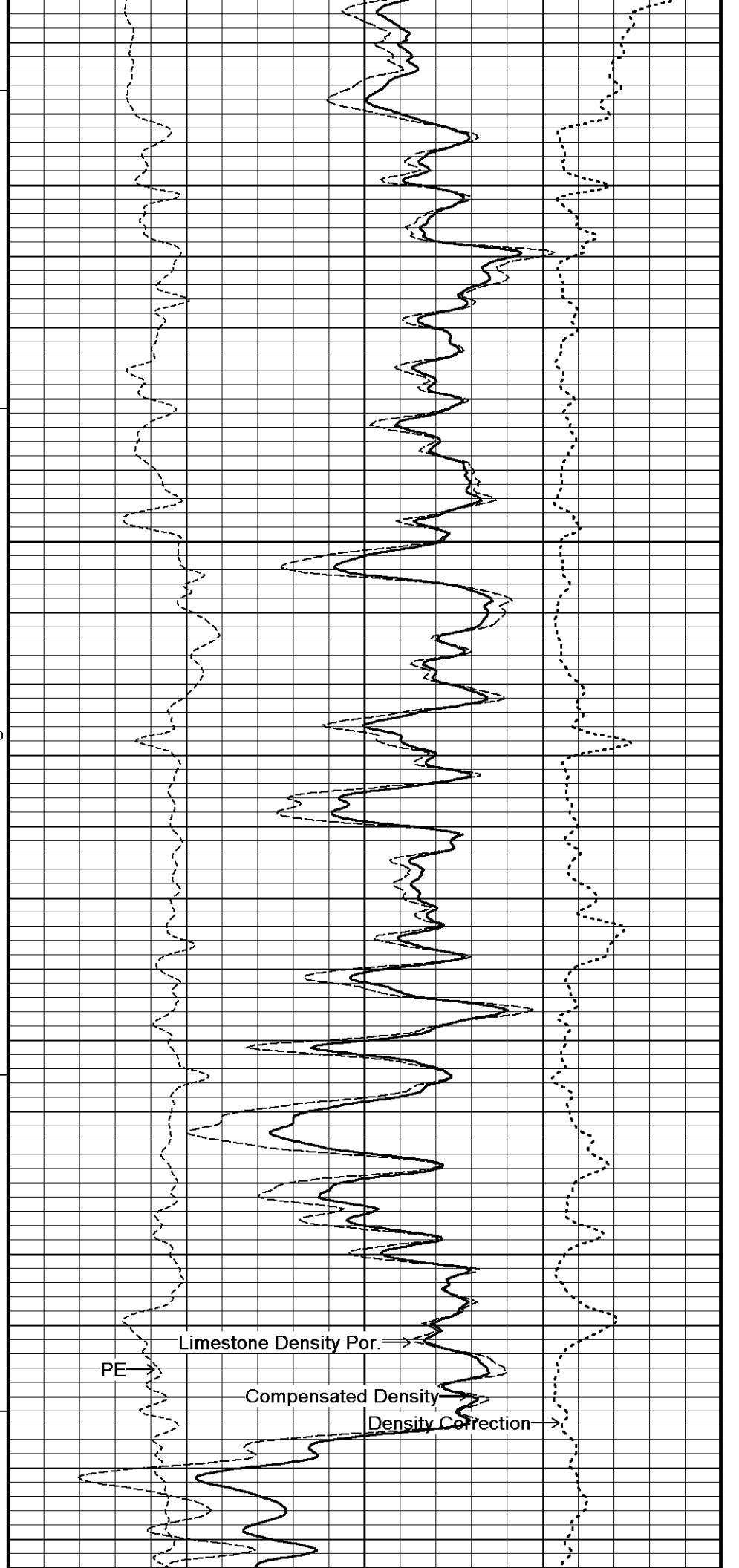
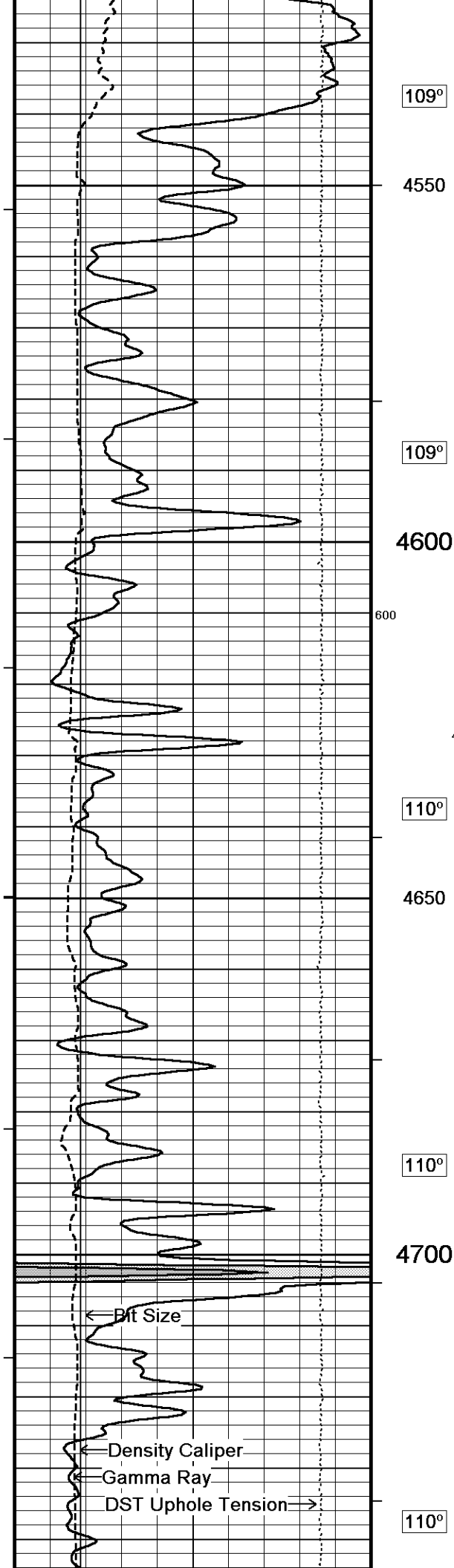
Depth Based Data - Maximum Sampling Increment 10.0cm  
Plotted on 02-JAN-2015 10:54  
Filename: C:\Minimus 14.05\Log Data\O'Brien Angell 1-18\O'Brien Angell 1-18 Main.dta  
Recorded on 02-JAN-2015 08:05  
System Versions: Logged with 14.05.5280 Processed with 14.05.5280 Plotted with 14.05.5280

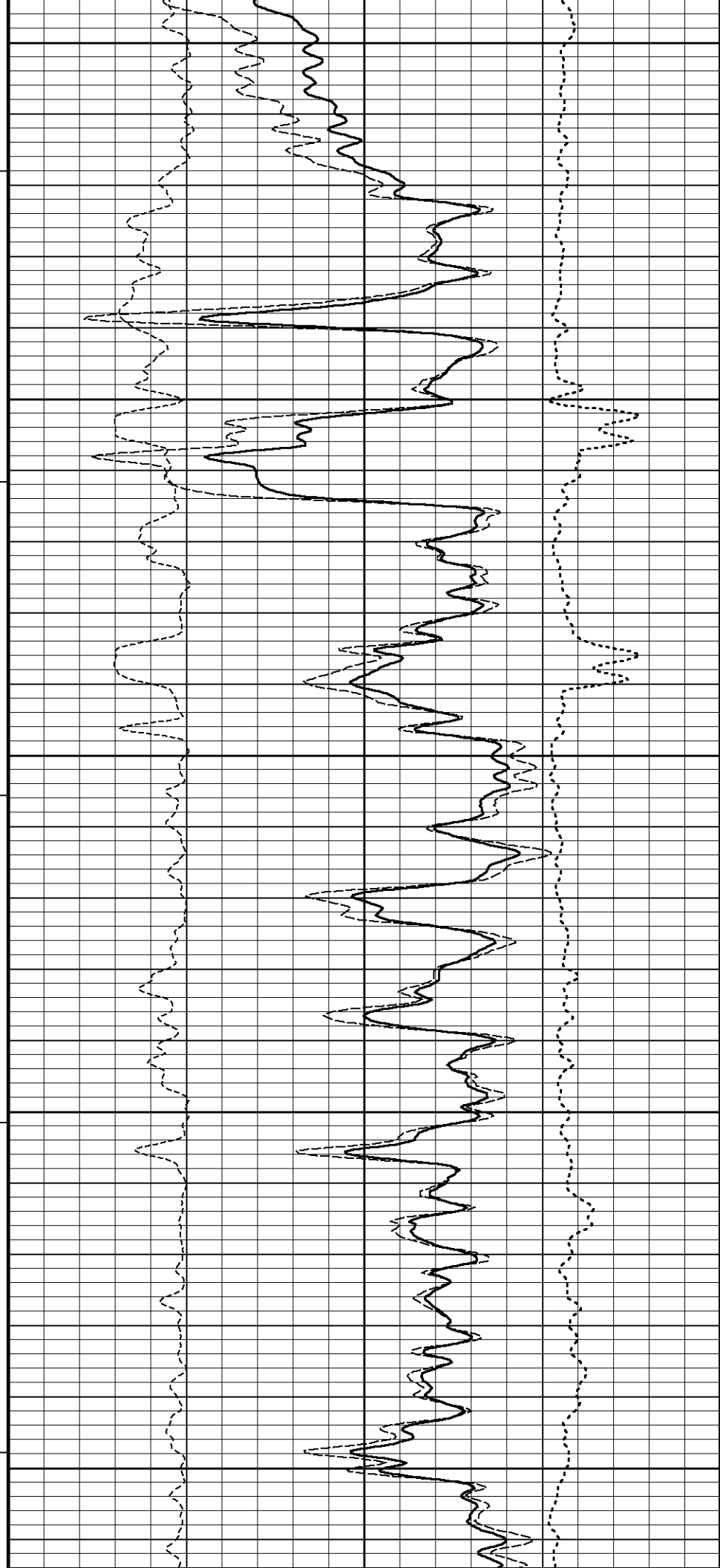
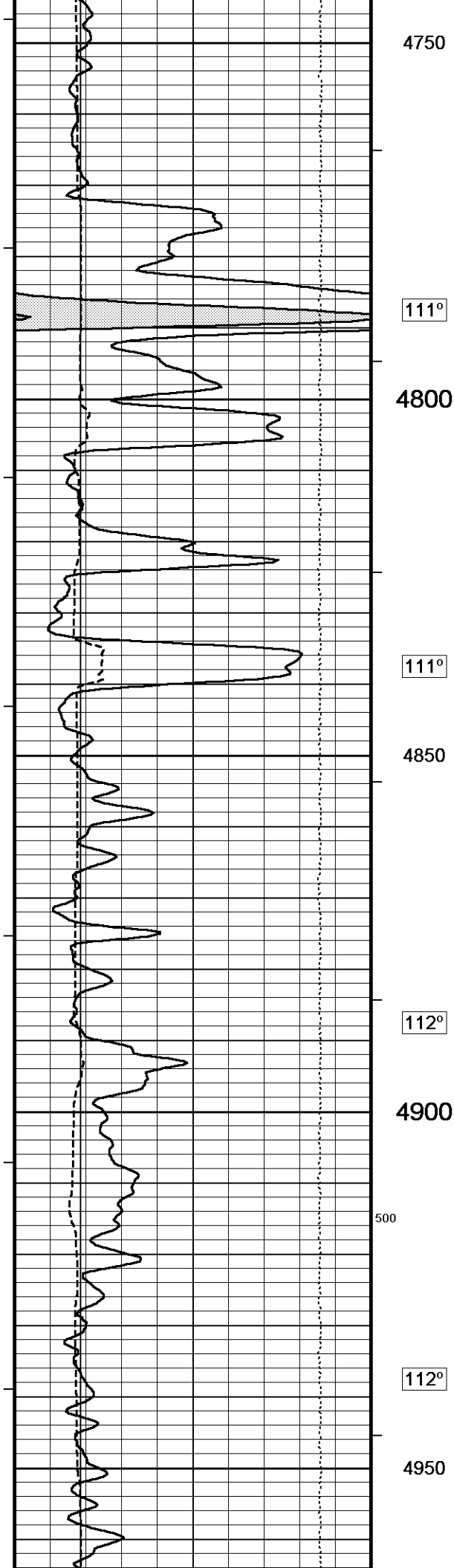


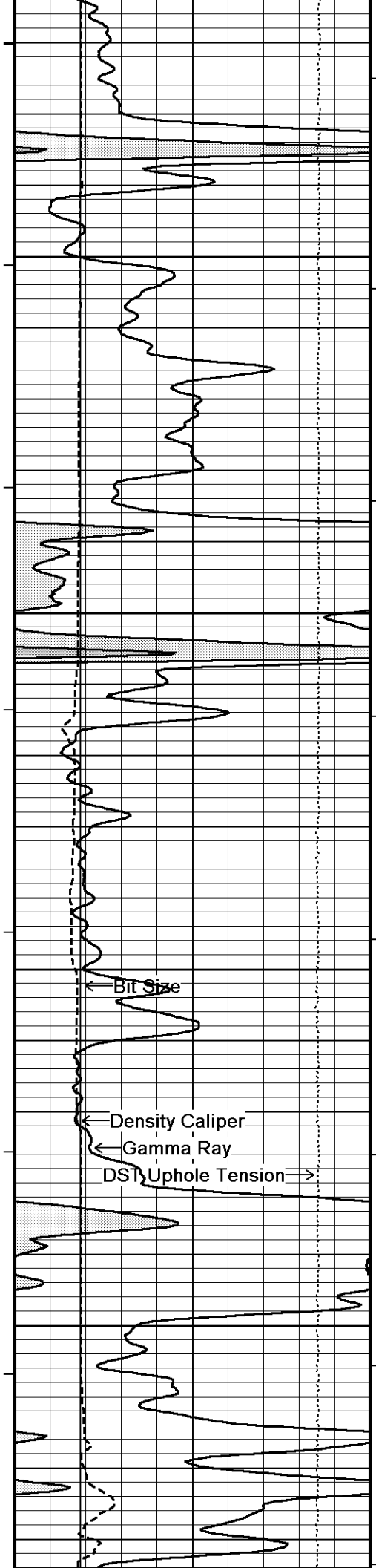












112°

5000

113°

5050

114°

5100

114°

5150

← Bit Size

← Density Caliper

← Gamma Ray

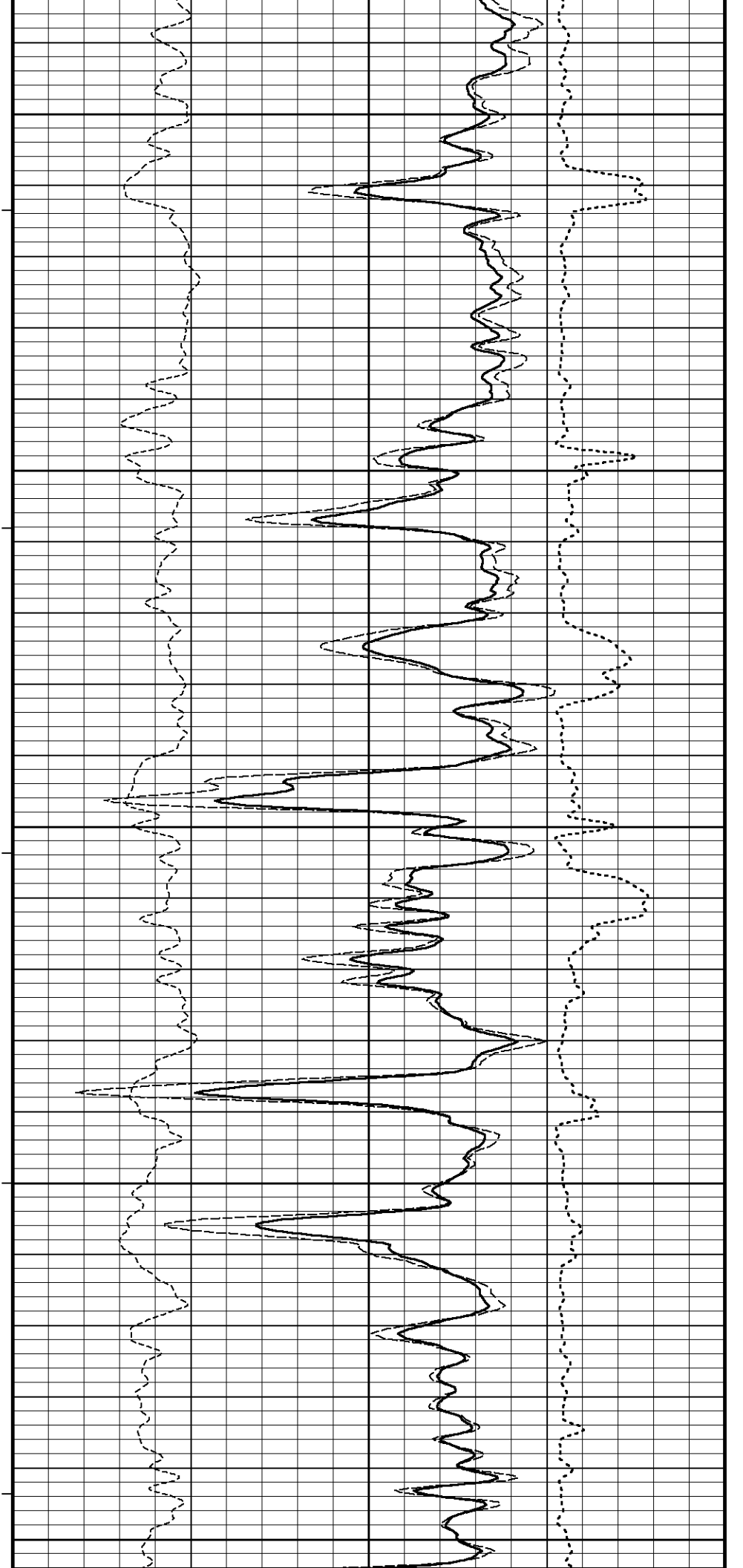
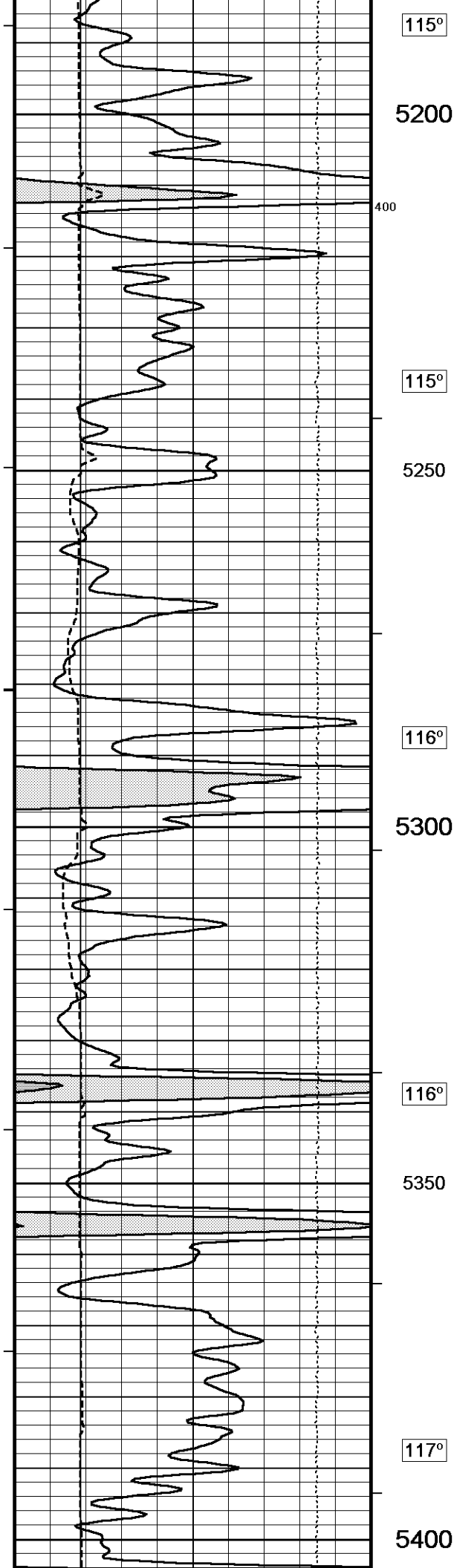
DST/Uphole Tension →

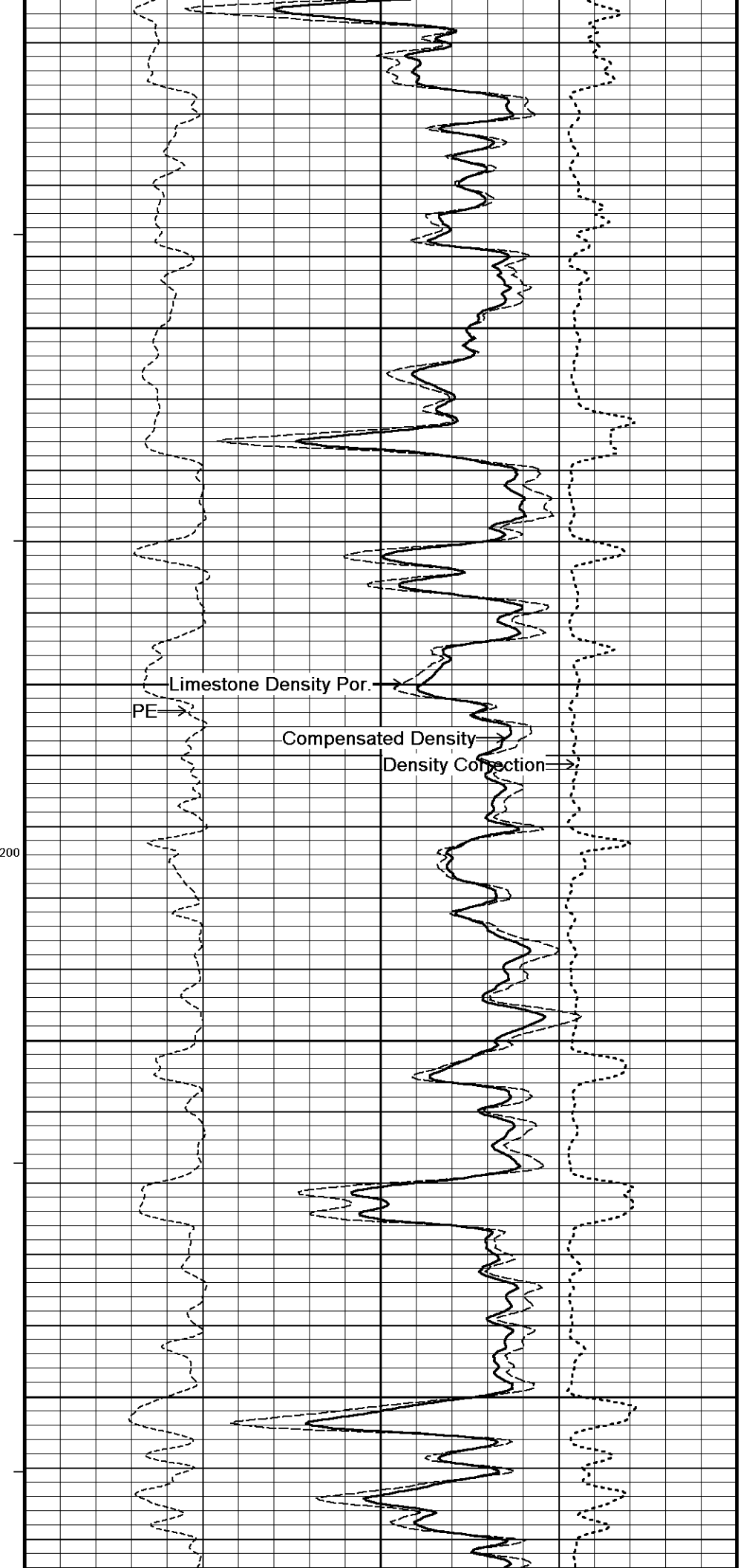
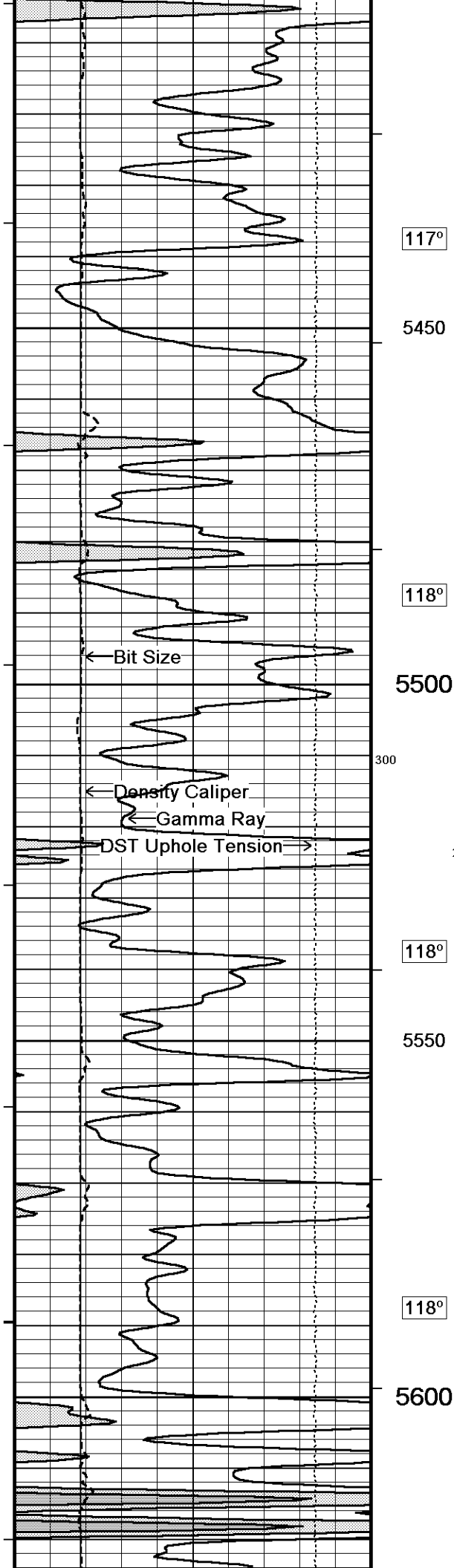
PE →

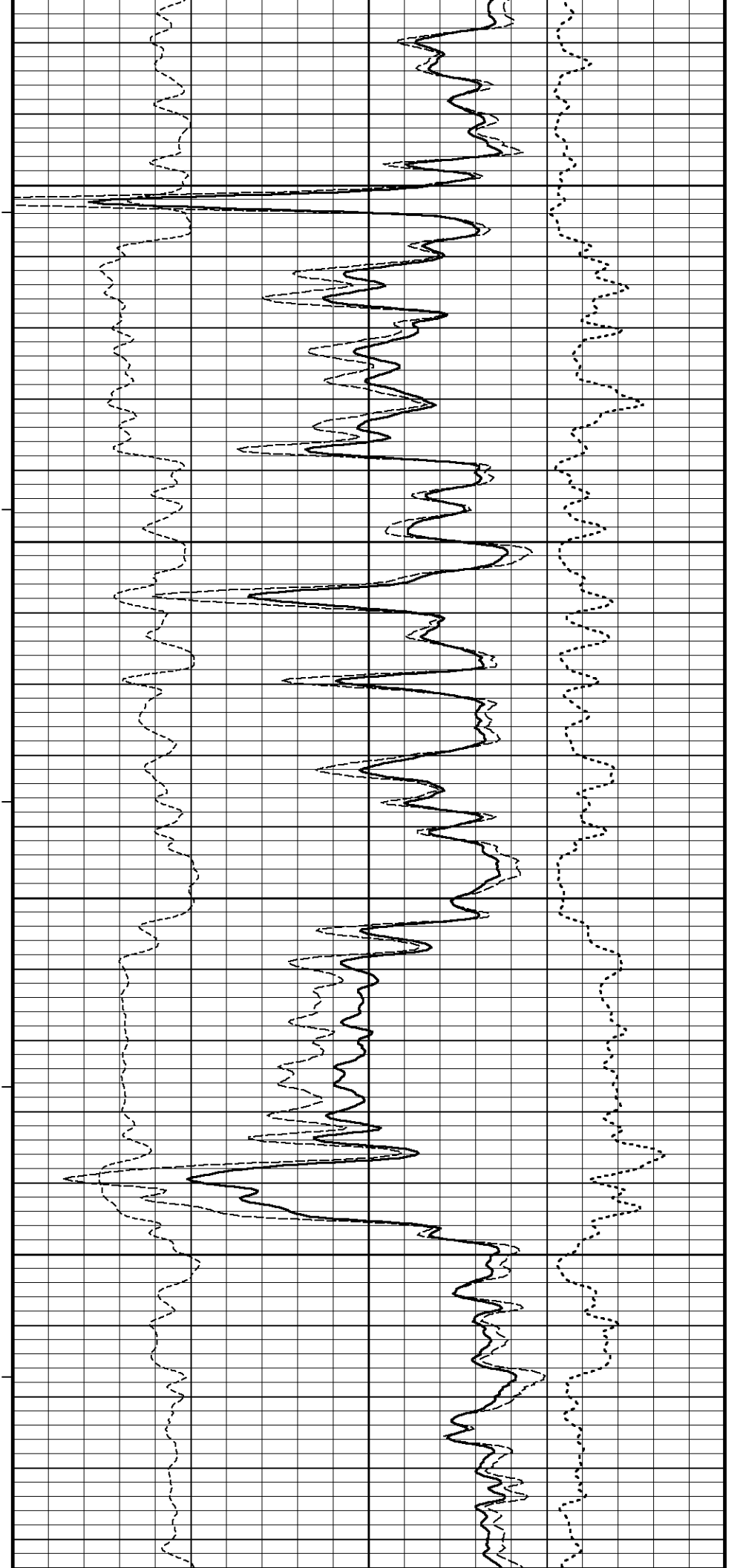
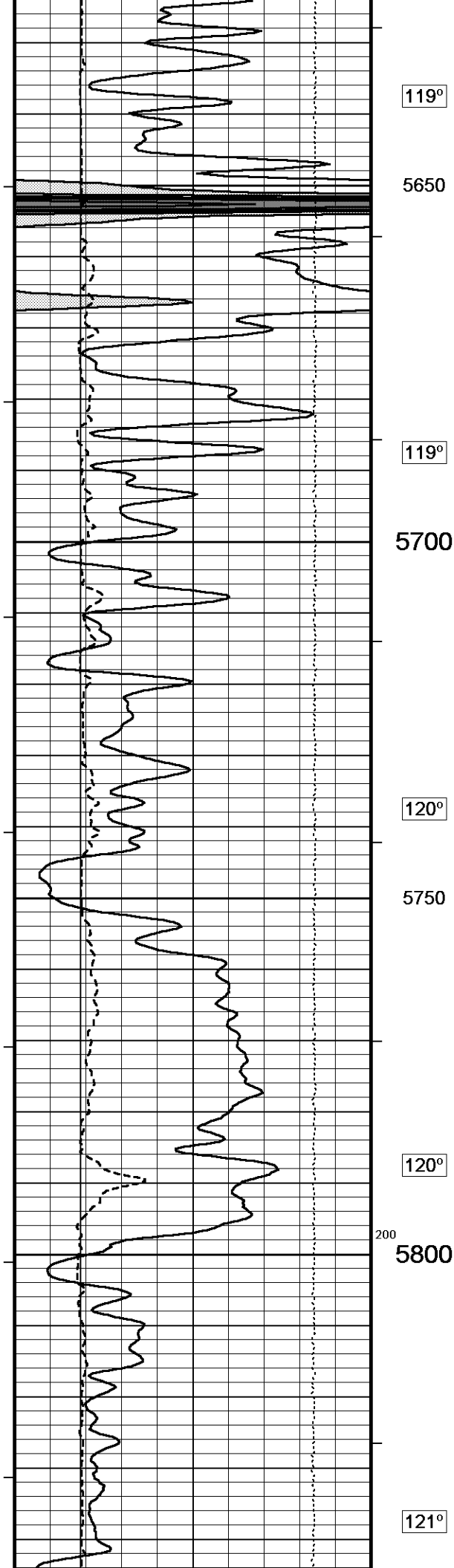
Limestone Density Por

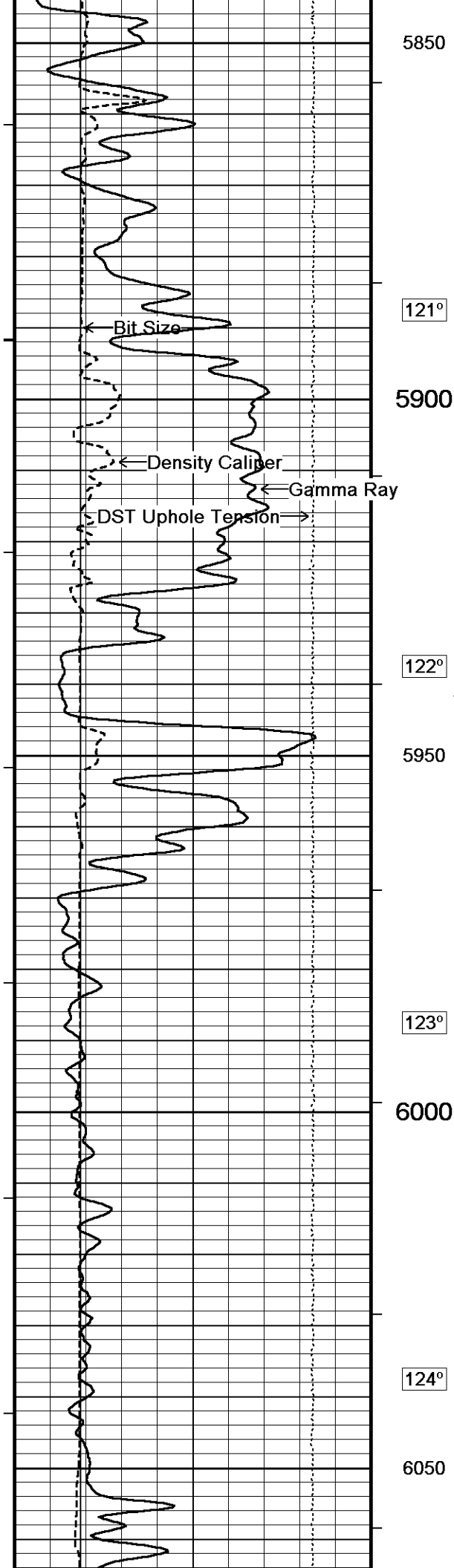
Compensated Density

Density Correction →









5850

121°

5900

122°

5950

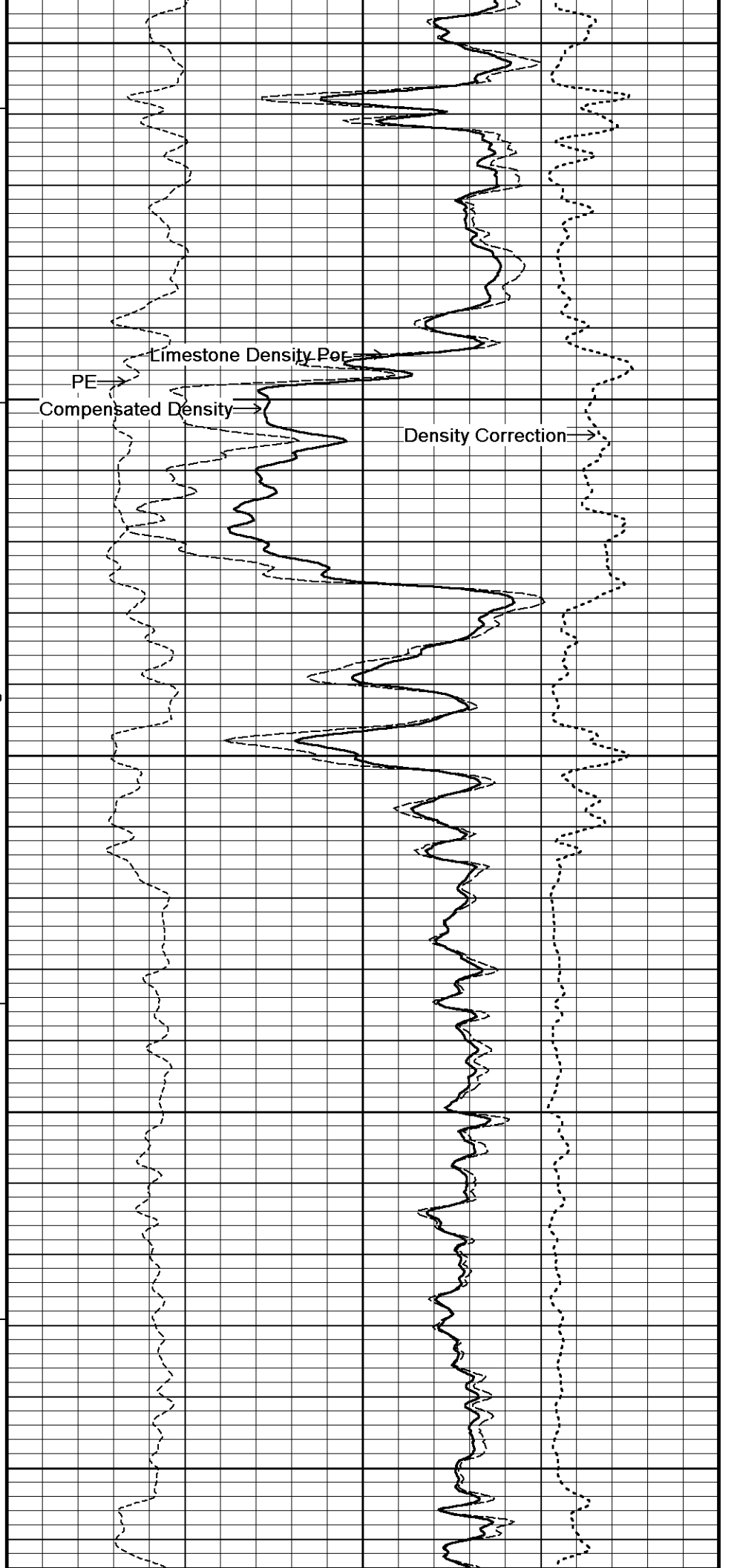
123°

6000

124°

6050

100

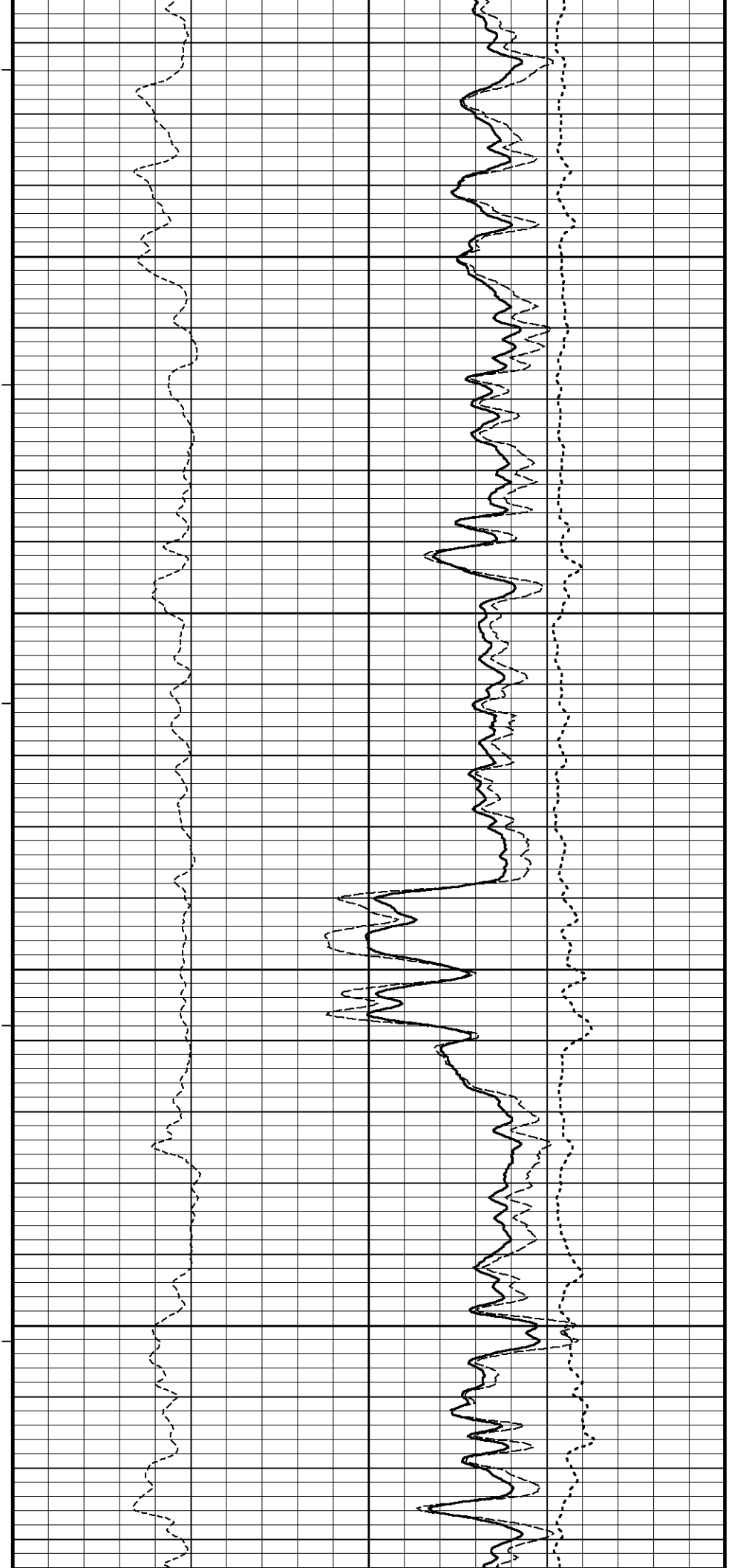
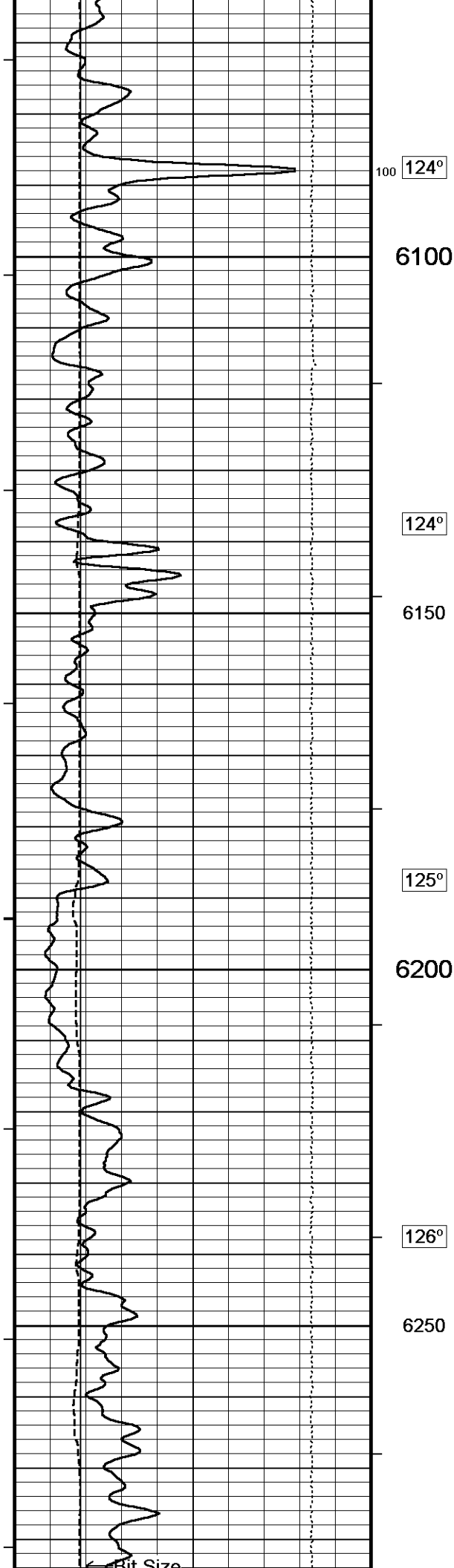


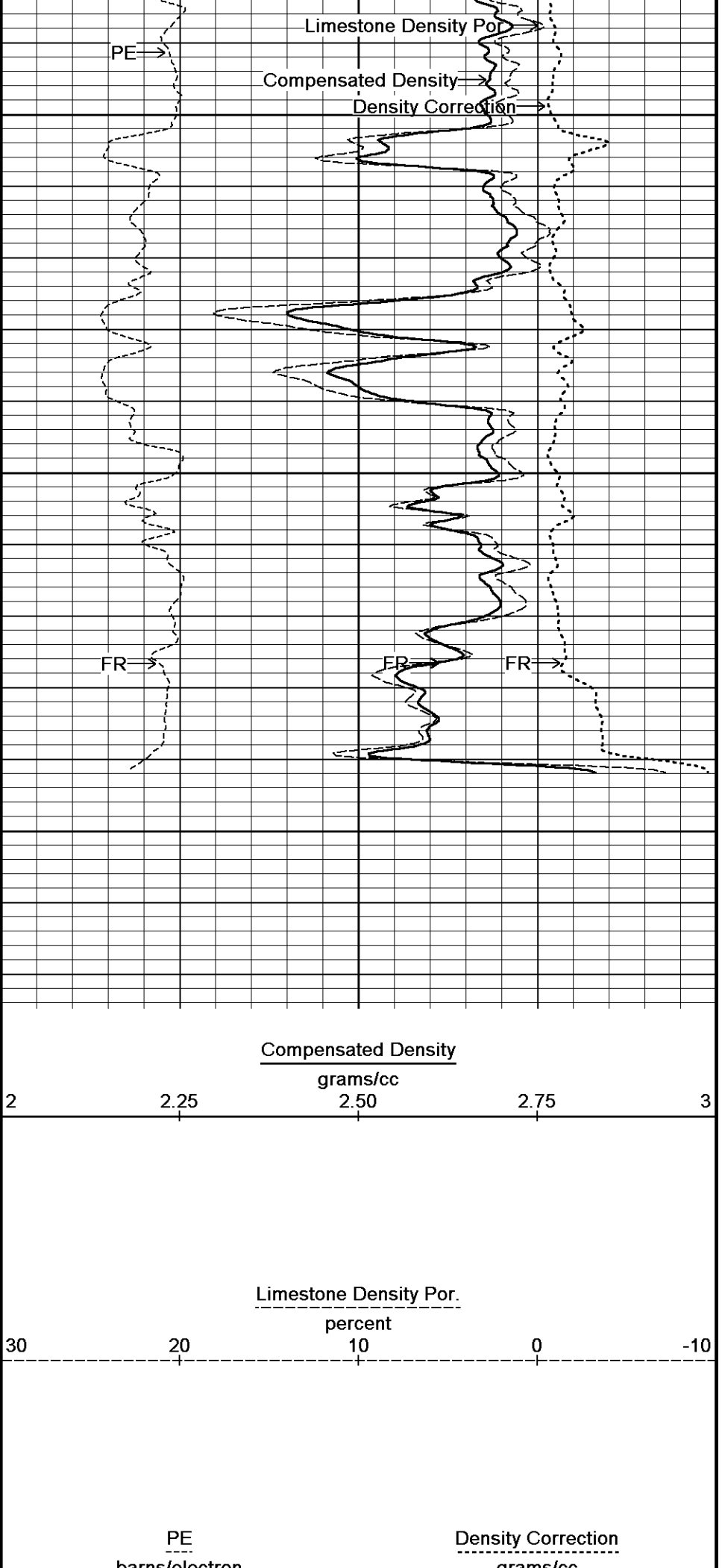
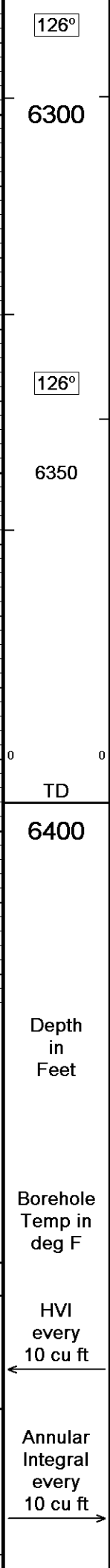
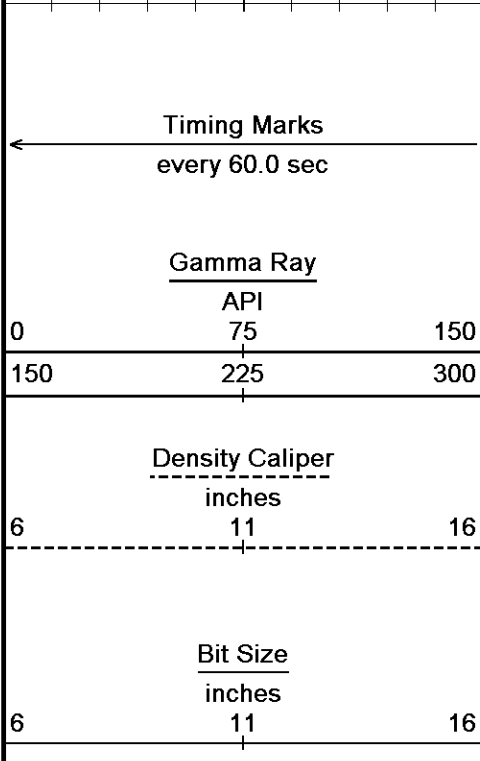
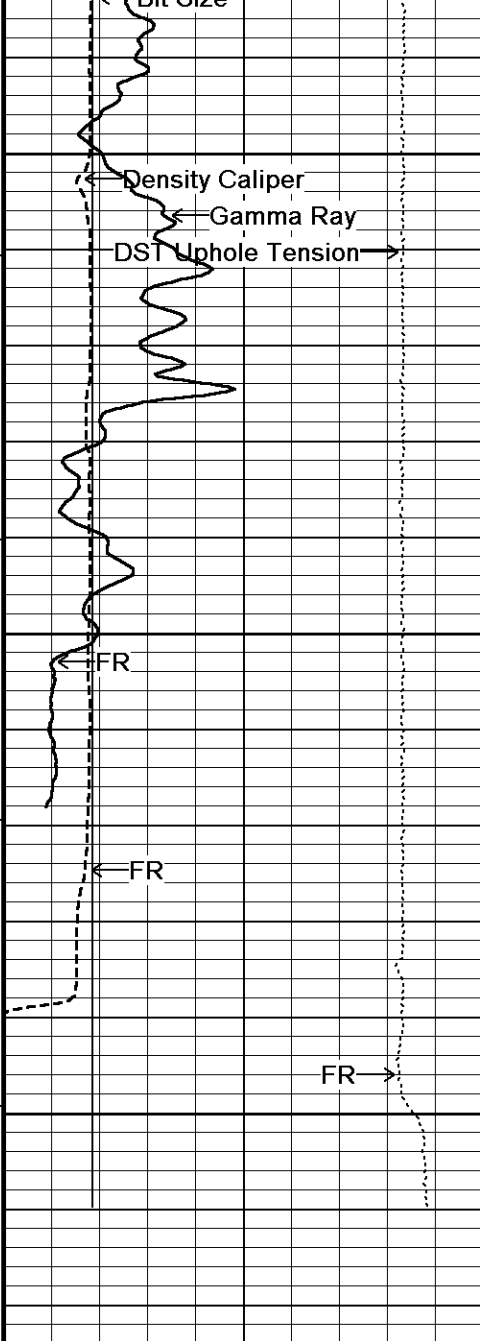
PE  
Compensated Density

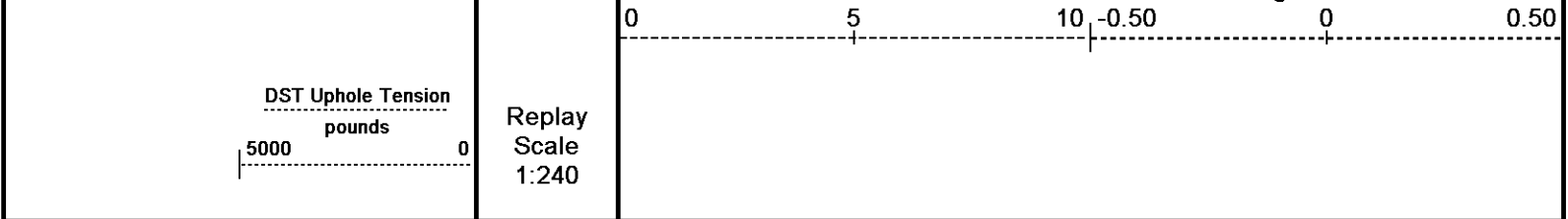
Limestone Density Por

Density Correction









Depth Based Data - Maximum Sampling Increment 10.0cm

Plotted on 02-JAN-2015 10:54

Filename: C:\Minimus 14.05\Log Data\O'Brien Angell 1-18\O'Brien Angell 1-18 Main.dta

Recorded on 02-JAN-2015 08:05

System Versions: Logged with 14.05.5280 Processed with 14.05.5280 Plotted with 14.05.5280

5 INCH BULK DENSITY MAIN

REPEAT SECTION

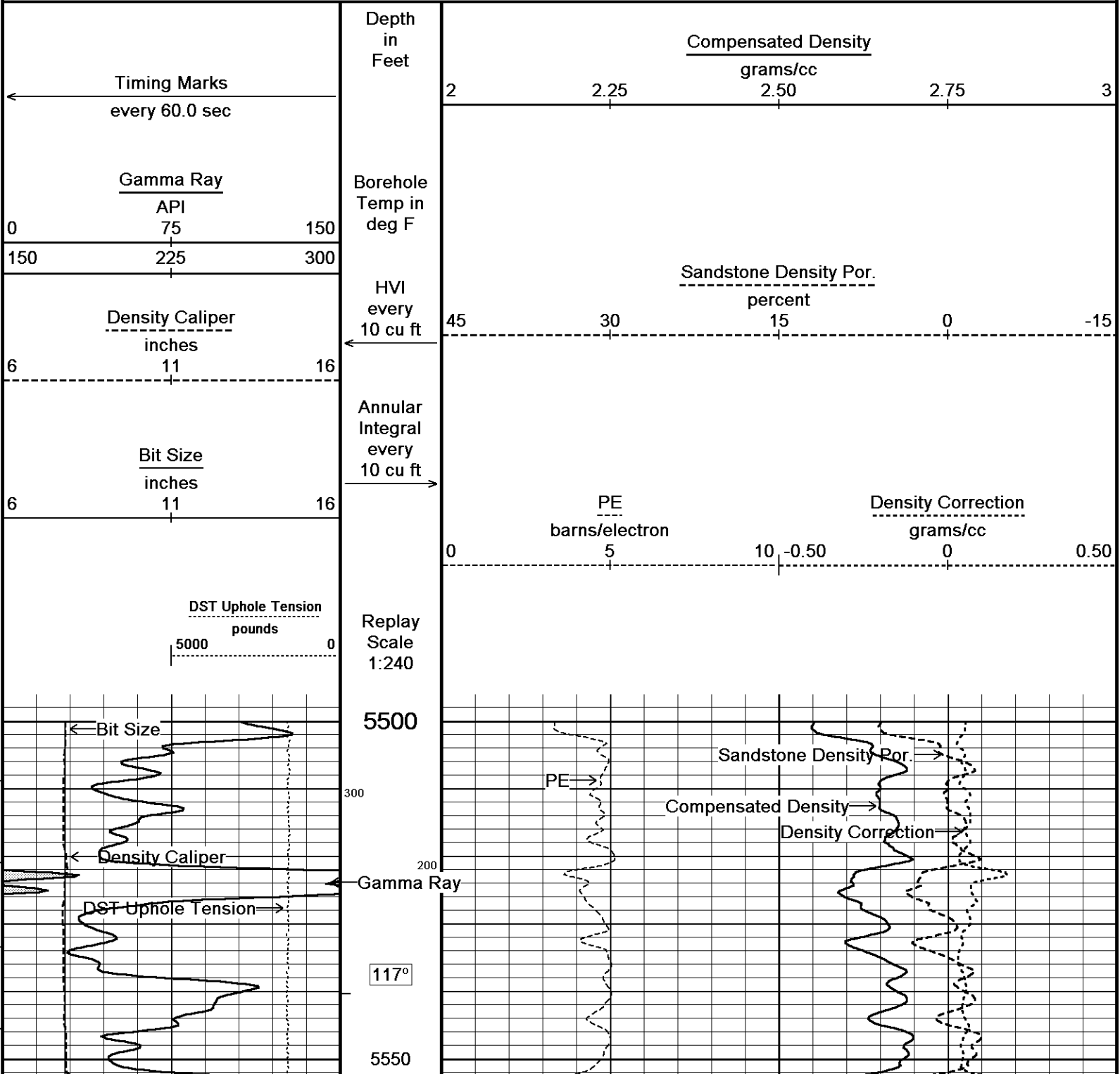
Depth Based Data - Maximum Sampling Increment 10.0cm

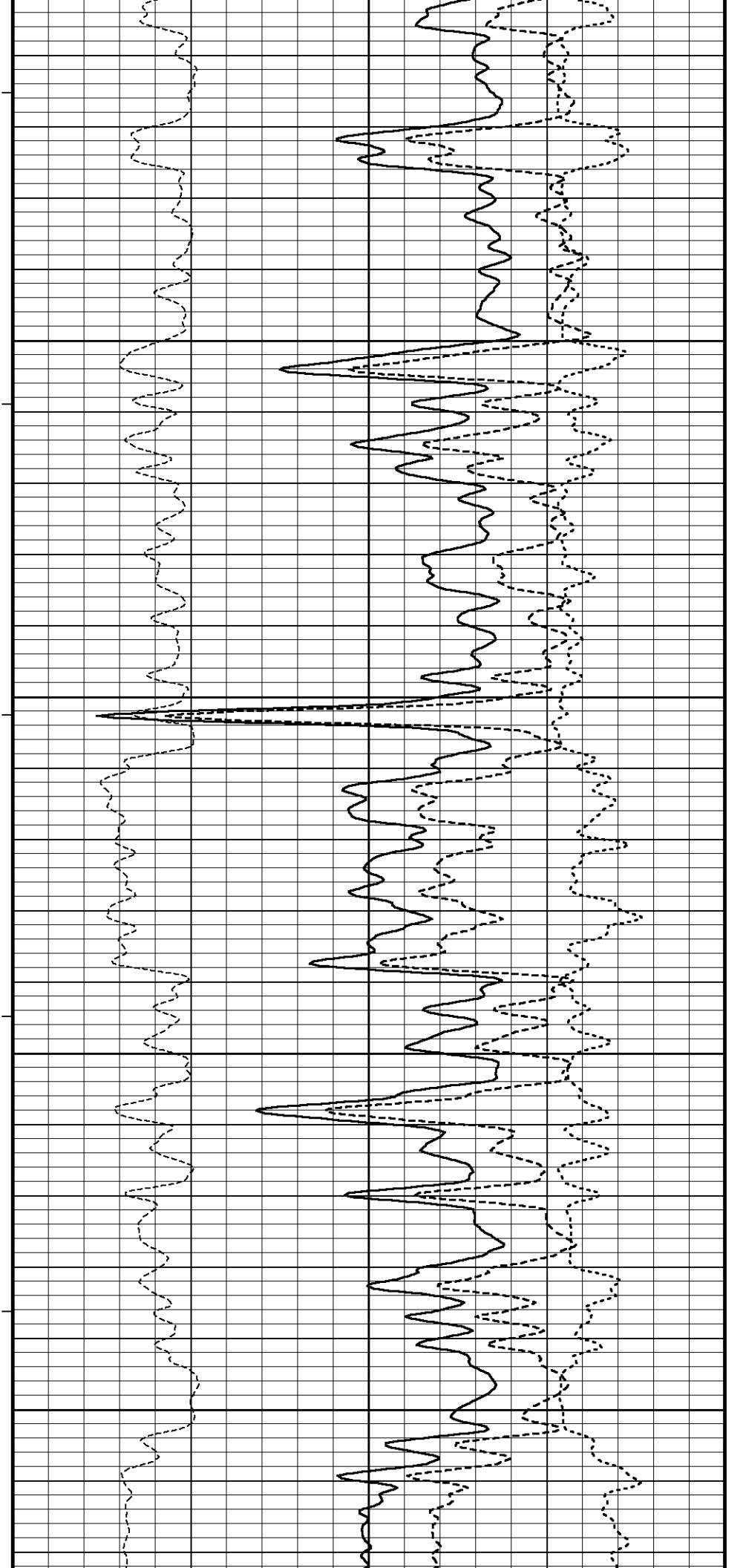
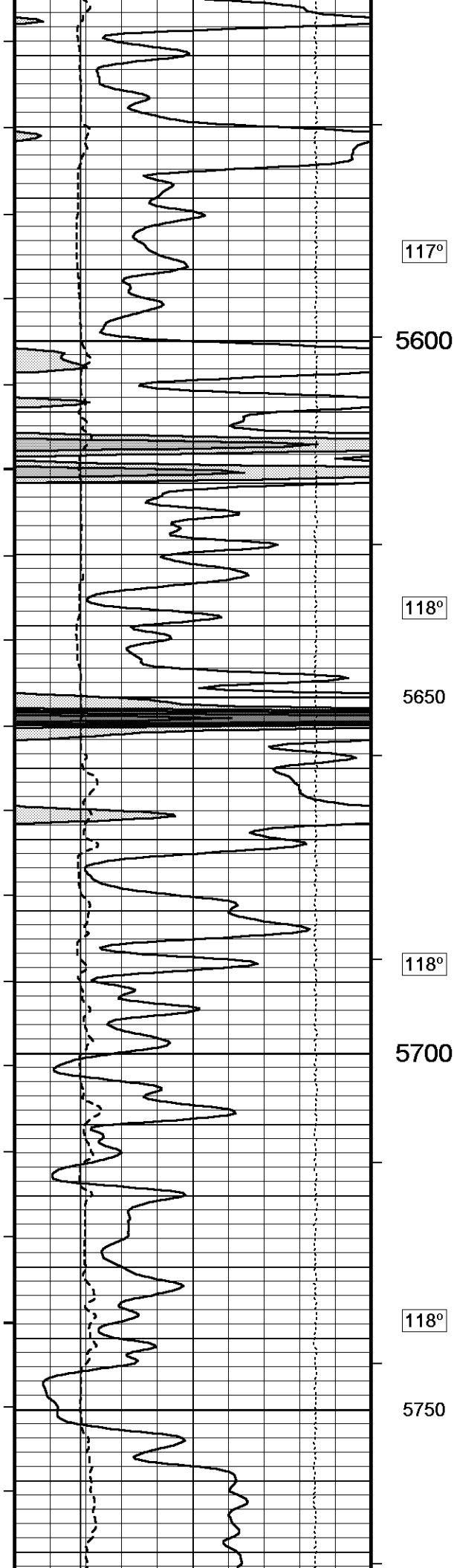
Plotted on 02-JAN-2015 10:54

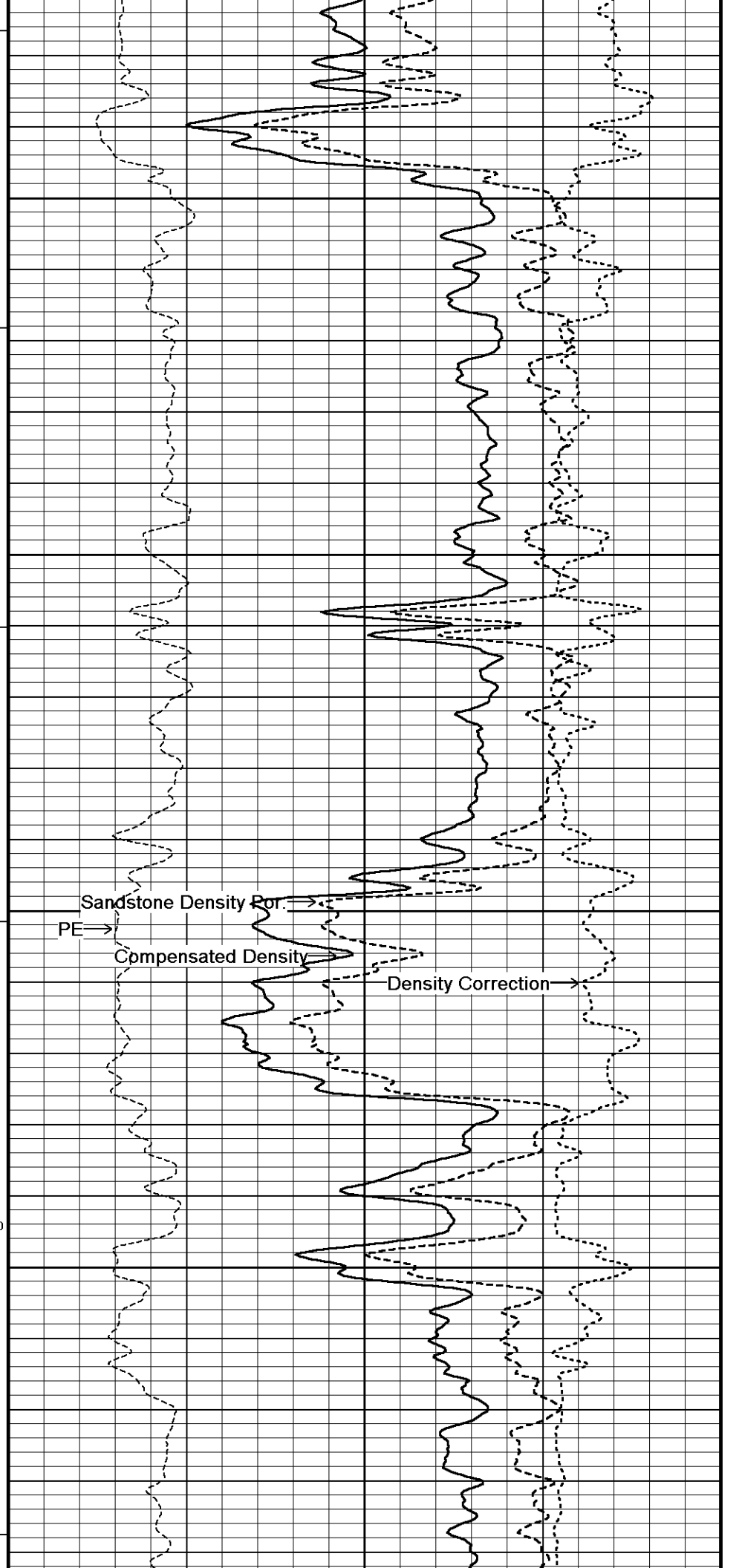
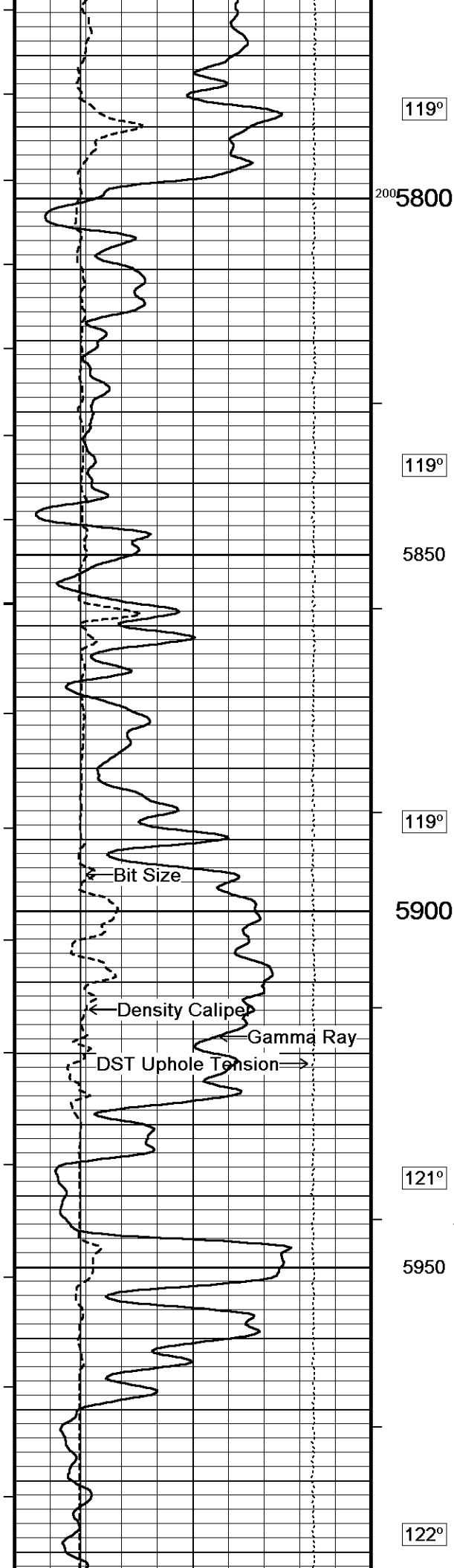
Filename: C:\Minimus 14.05\Log Data\O'Brien Angell 1-18\O'Brien Angell 1-18 Repeat.dta

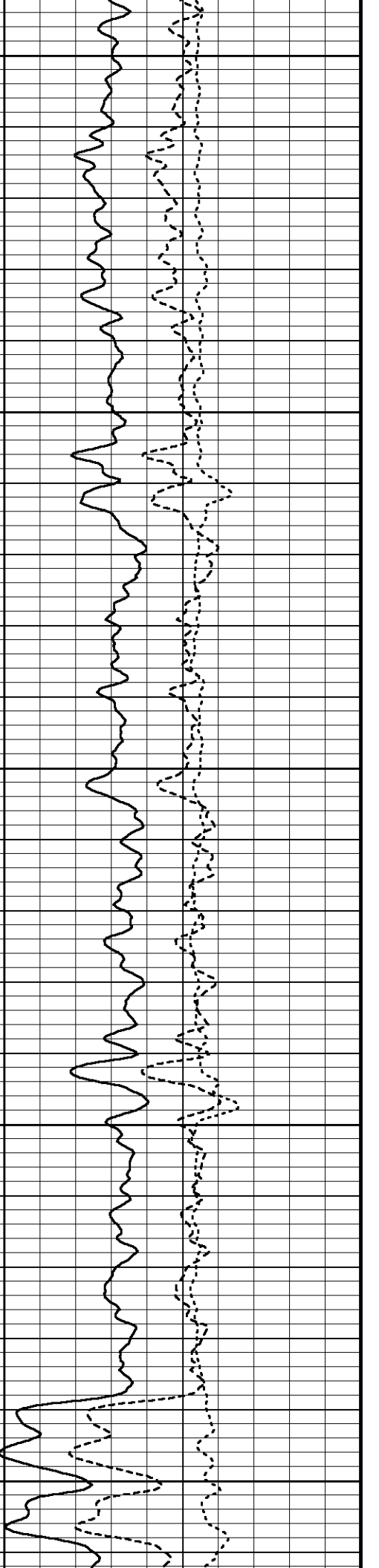
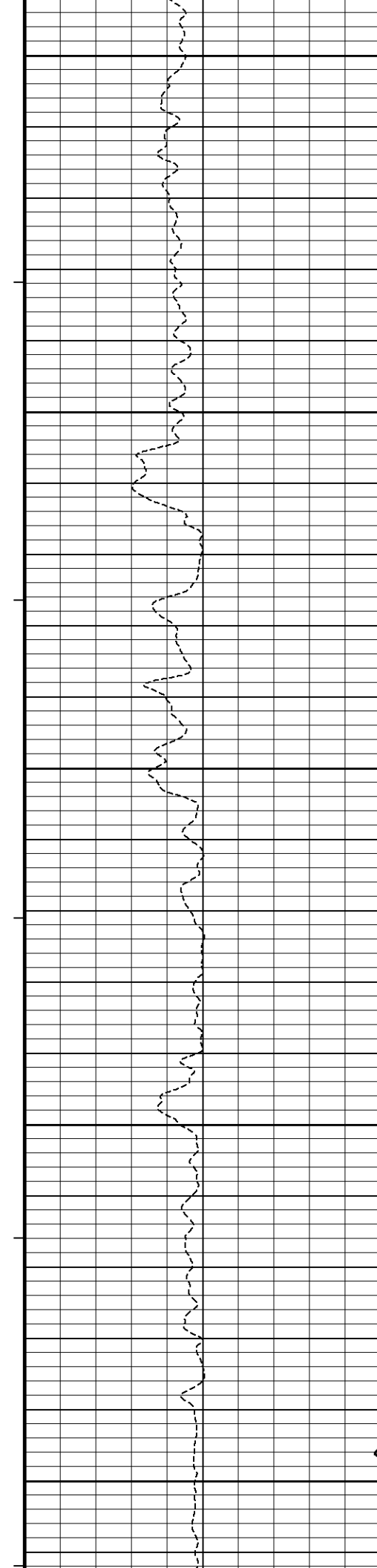
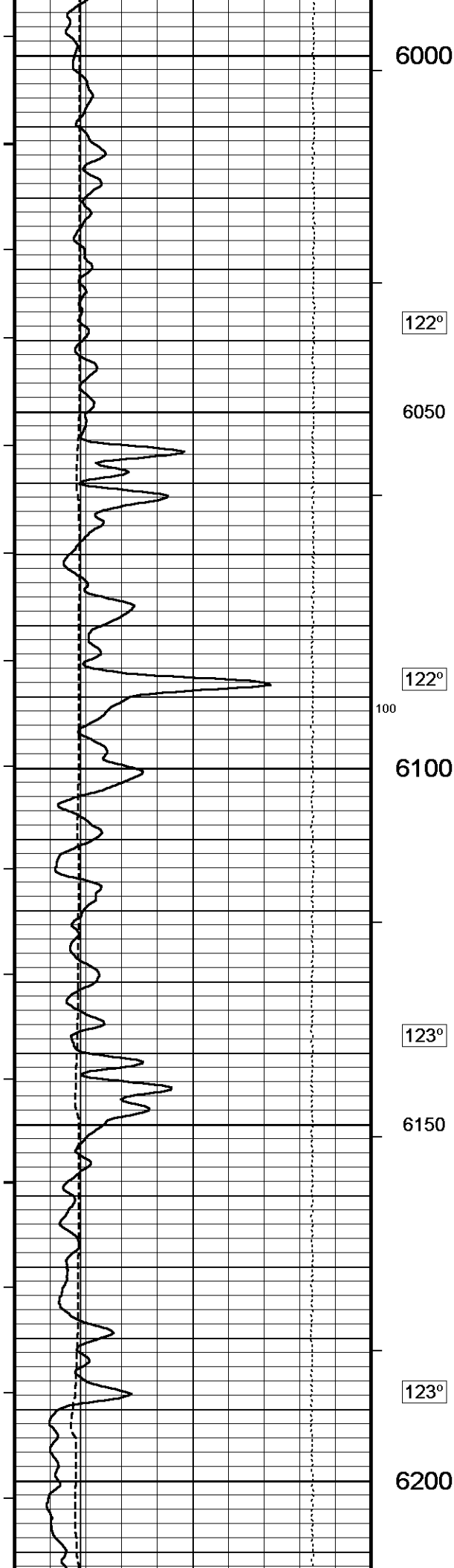
Recorded on 02-JAN-2015 06:46

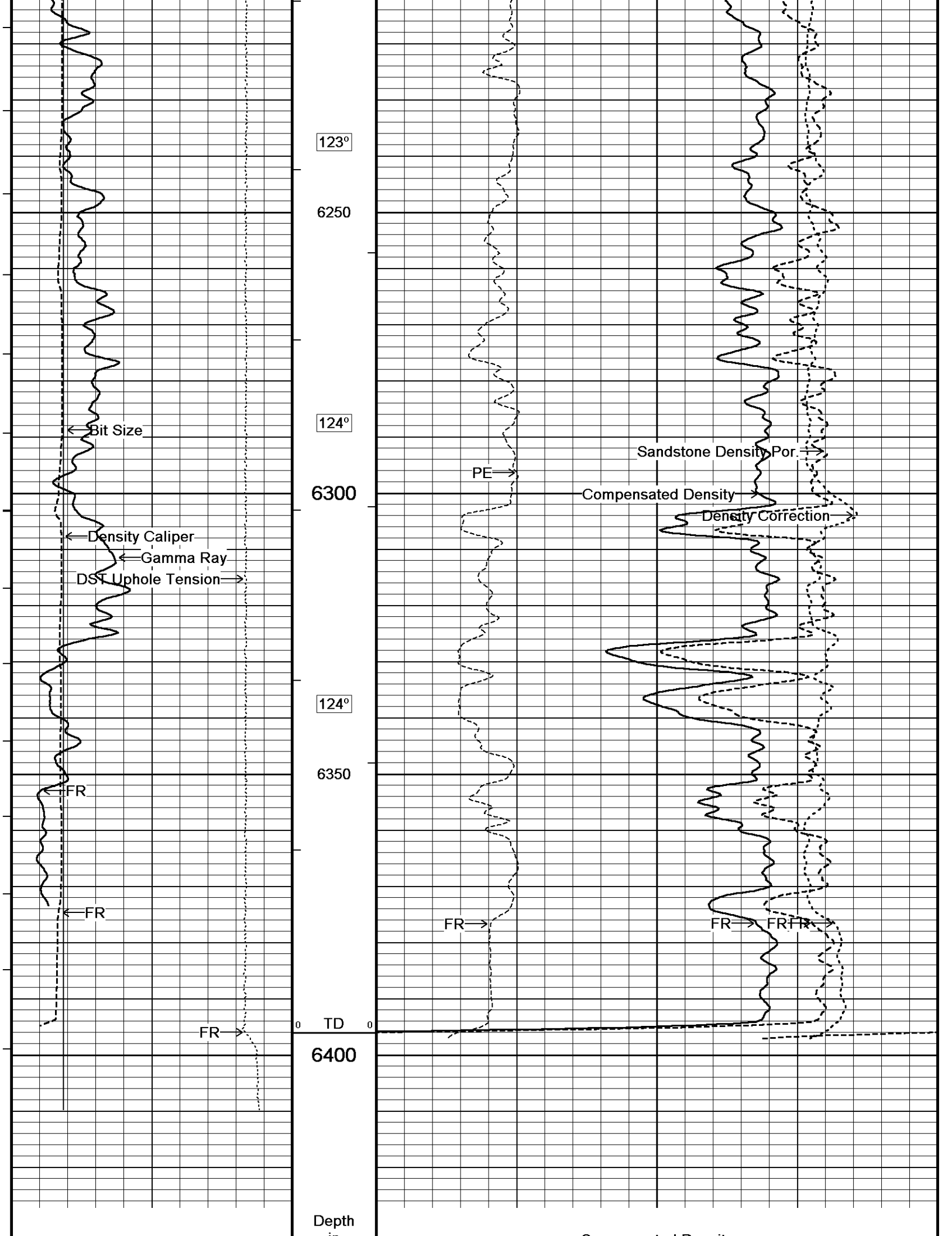
System Versions: Logged with 14.05.5280 Processed with 14.05.5280 Plotted with 14.05.5280

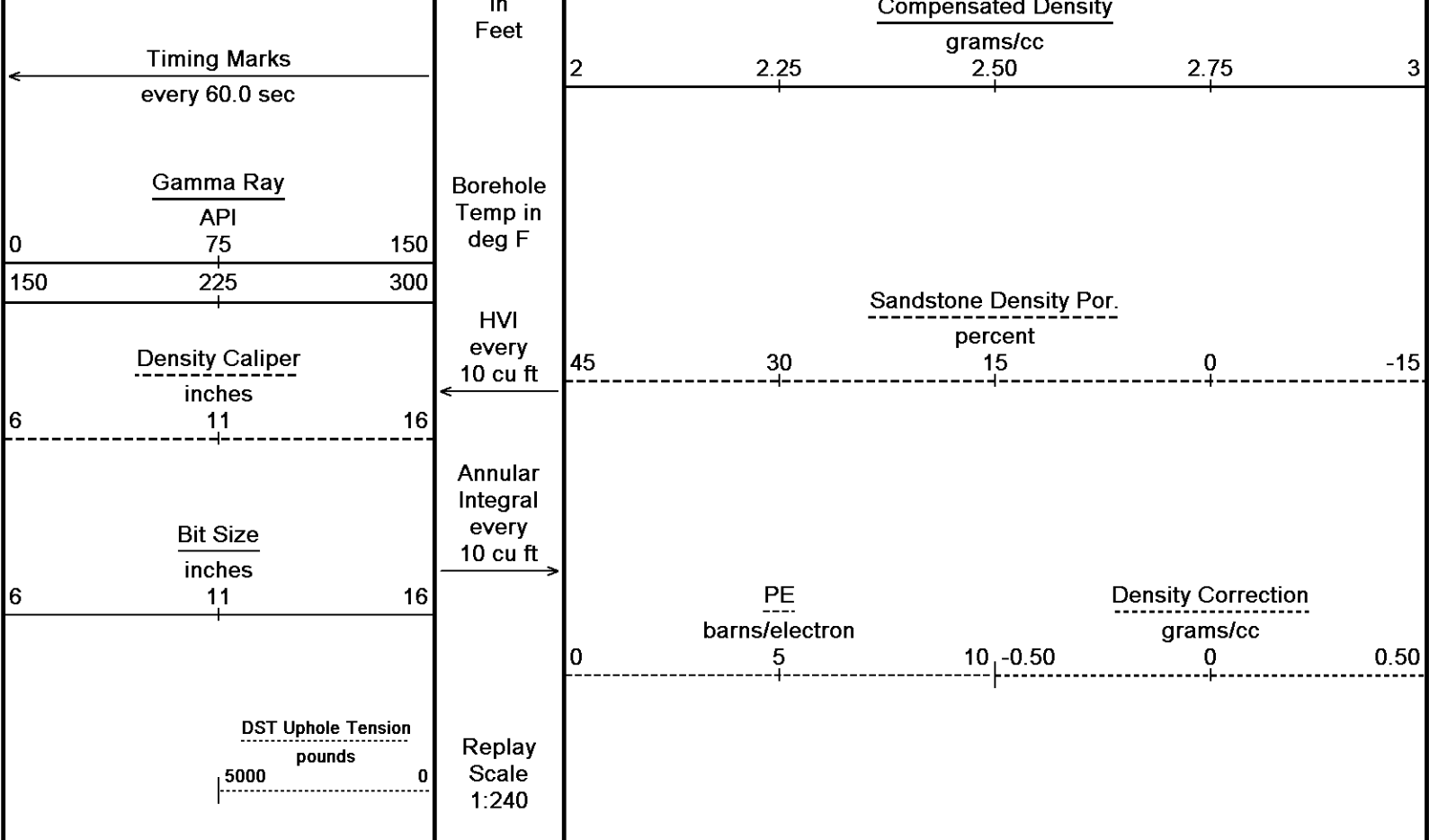












Depth Based Data - Maximum Sampling Increment 10.0cm

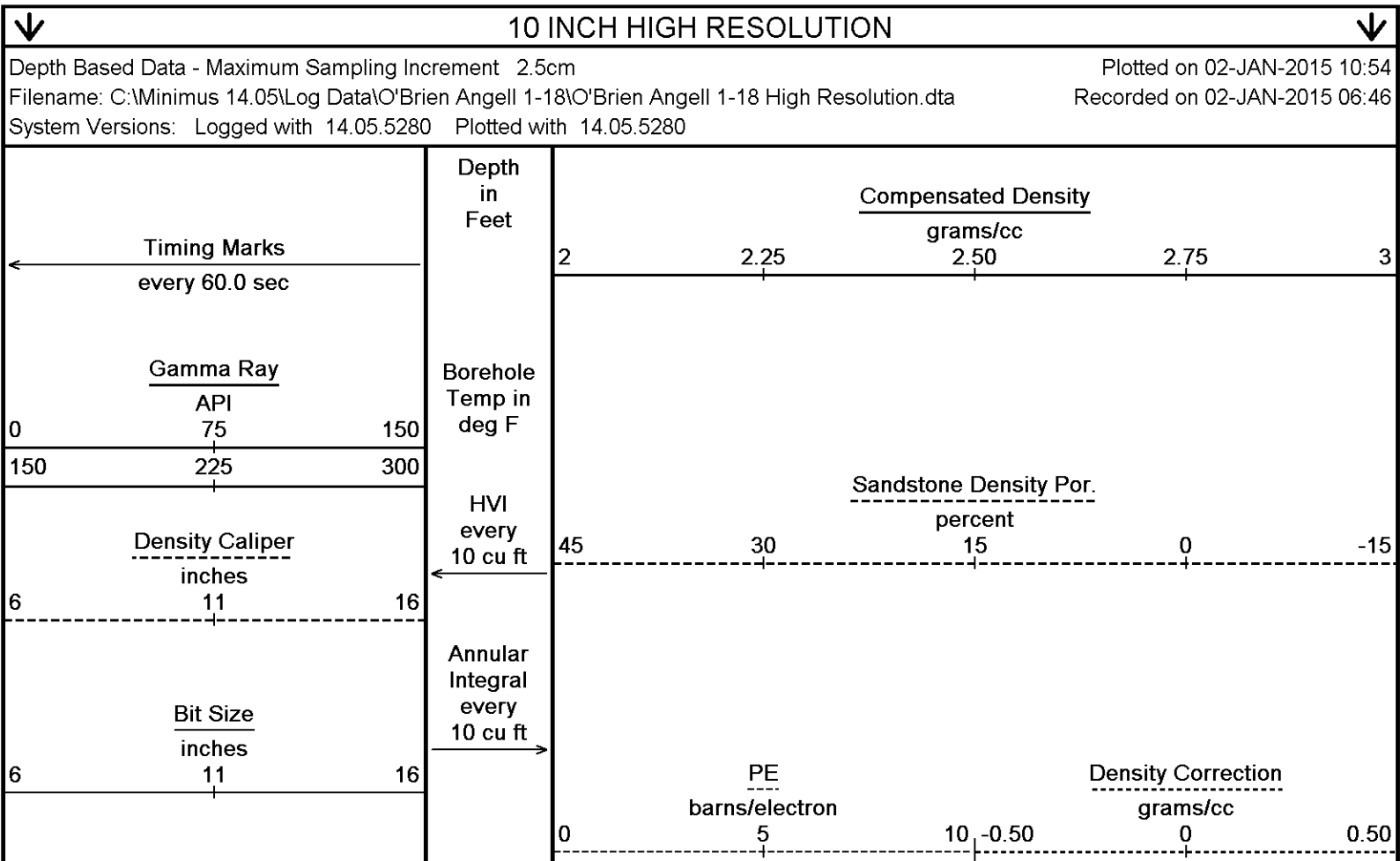
Plotted on 02-JAN-2015 10:54

Filename: C:\Minimus 14.05\Log Data\O'Brien Angell 1-18\O'Brien Angell 1-18 Repeat.dta

Recorded on 02-JAN-2015 06:46

System Versions: Logged with 14.05.5280 Processed with 14.05.5280 Plotted with 14.05.5280

↑ REPEAT SECTION ↑





DST Uphole Tension  
pounds  
5000 0

Replay  
Scale  
1:120

5500

300

200

117°

5550

Bit Size

Density Caliper

Gamma Ray

DST Uphole Tension

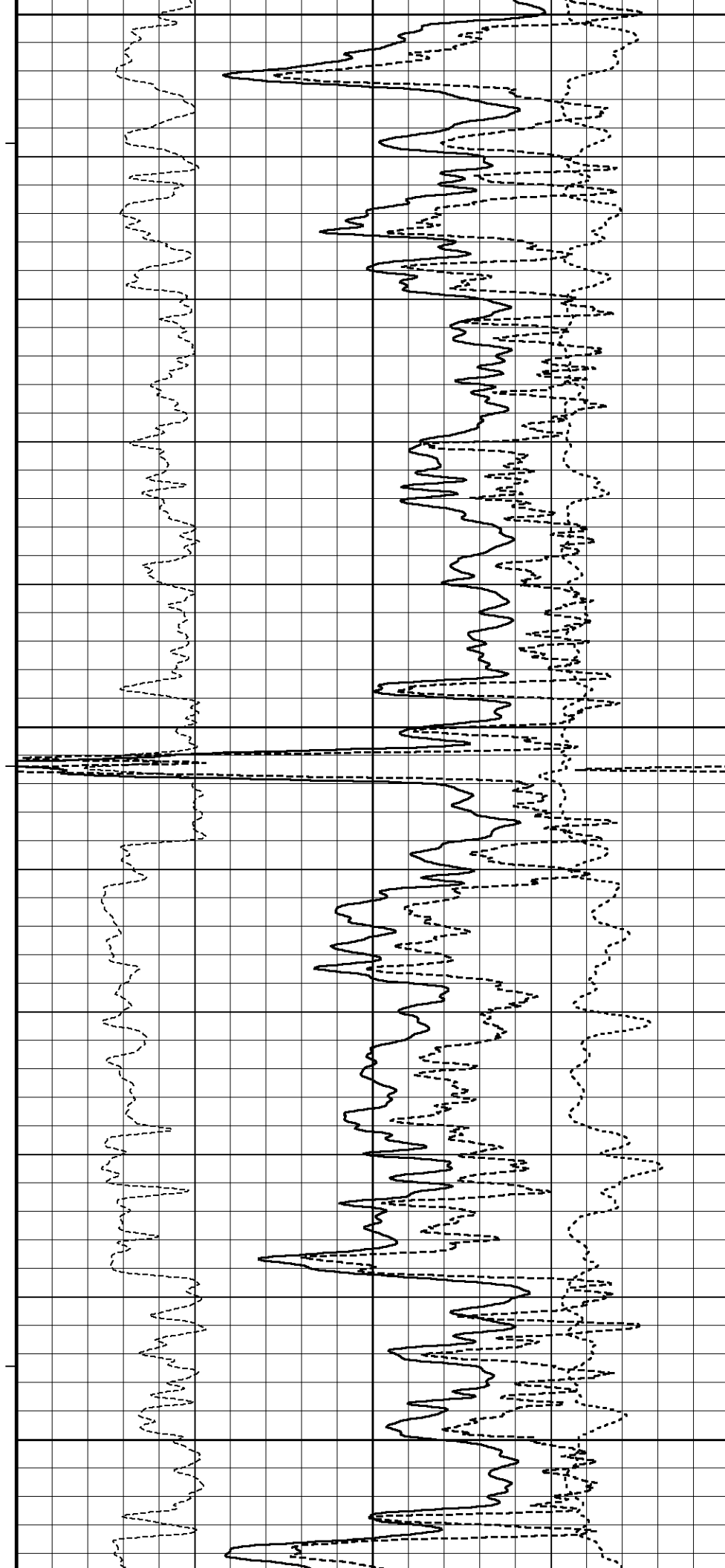
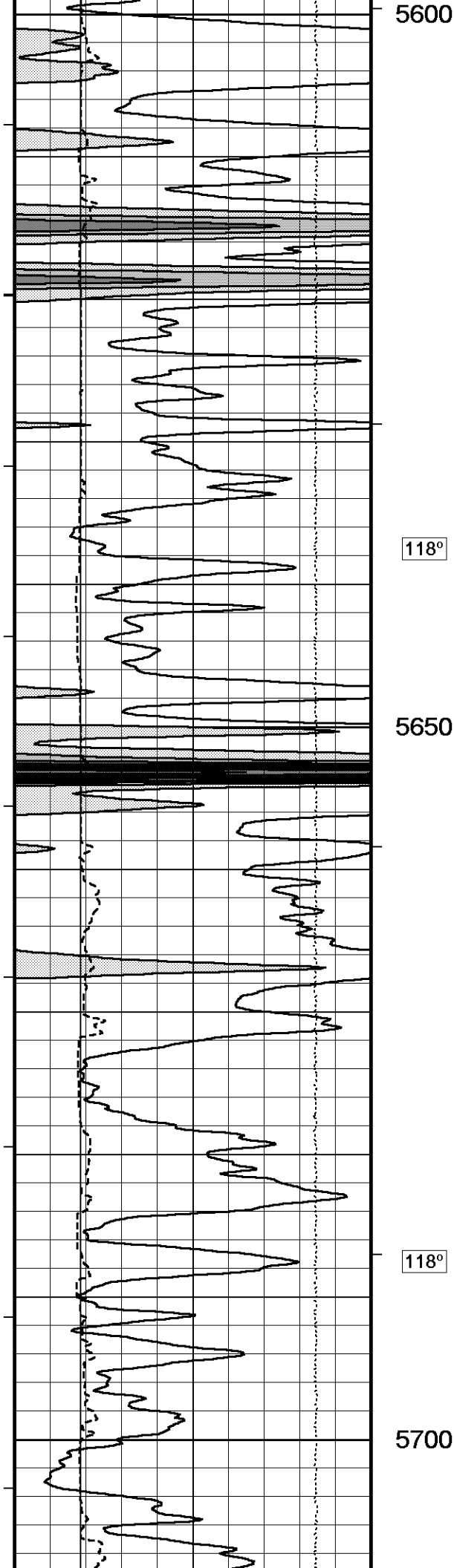
PE

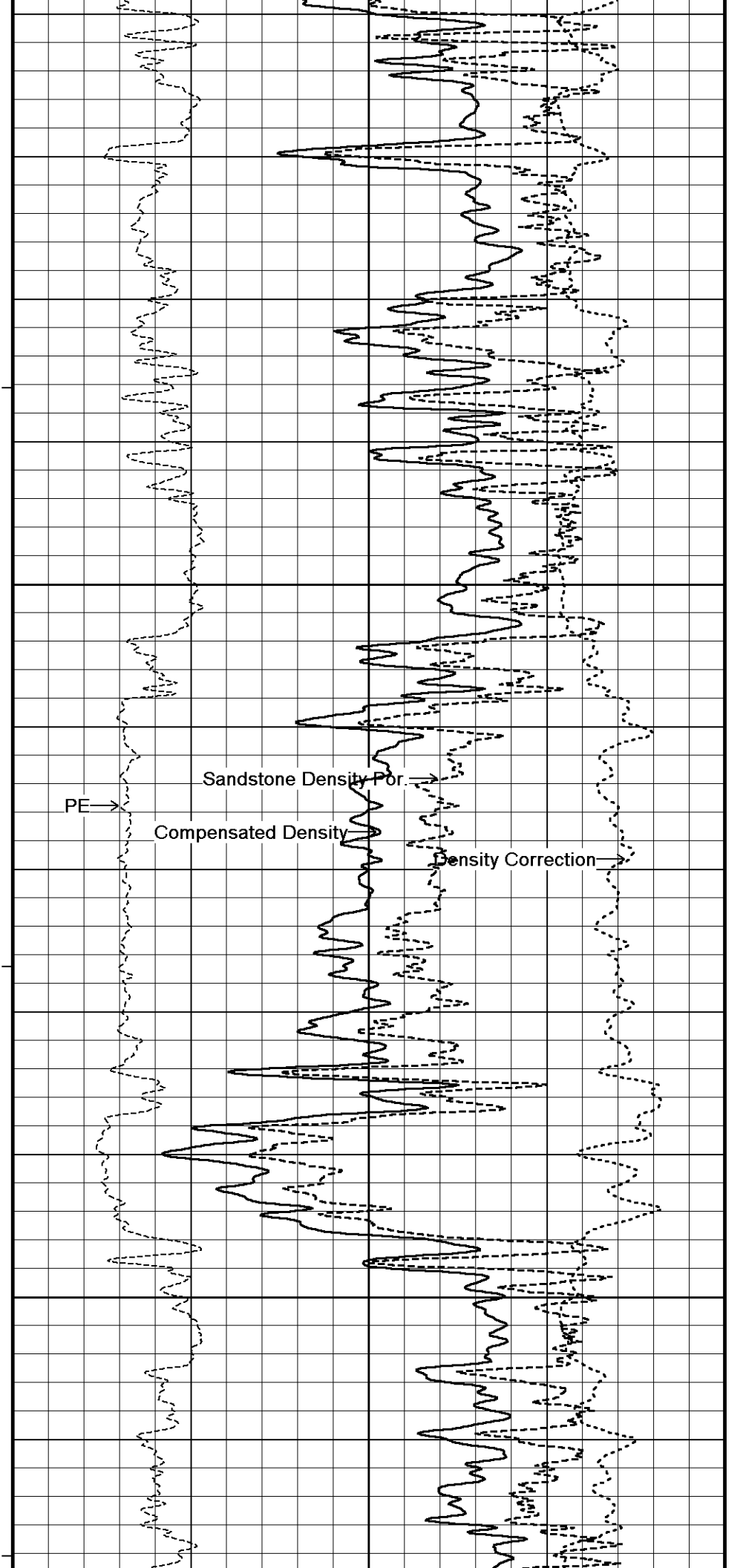
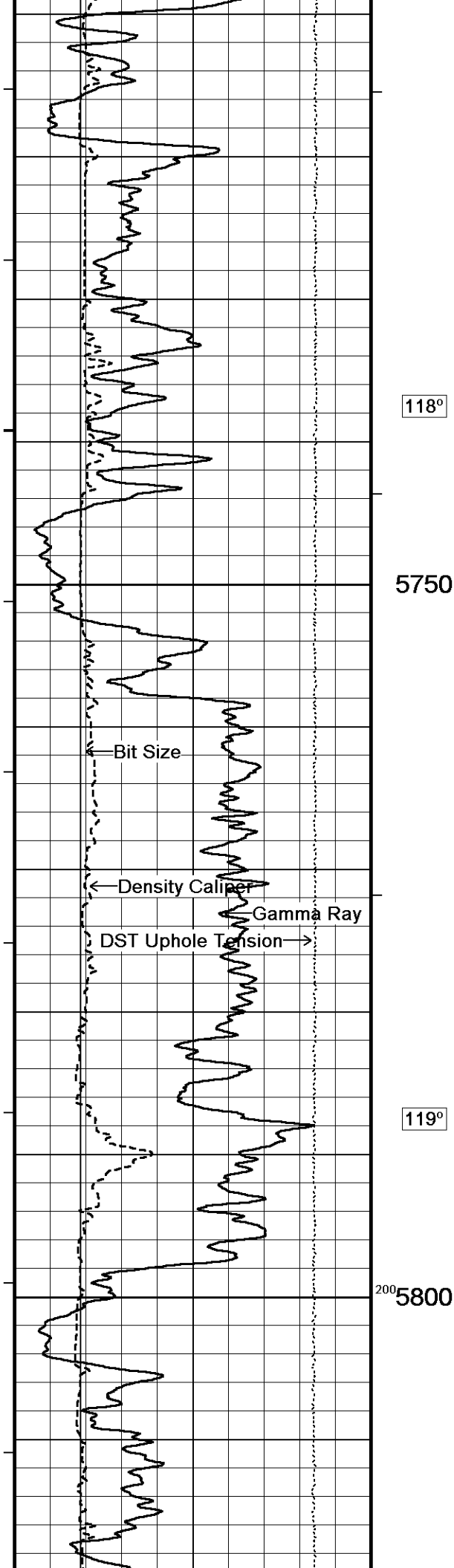
Compensated Density

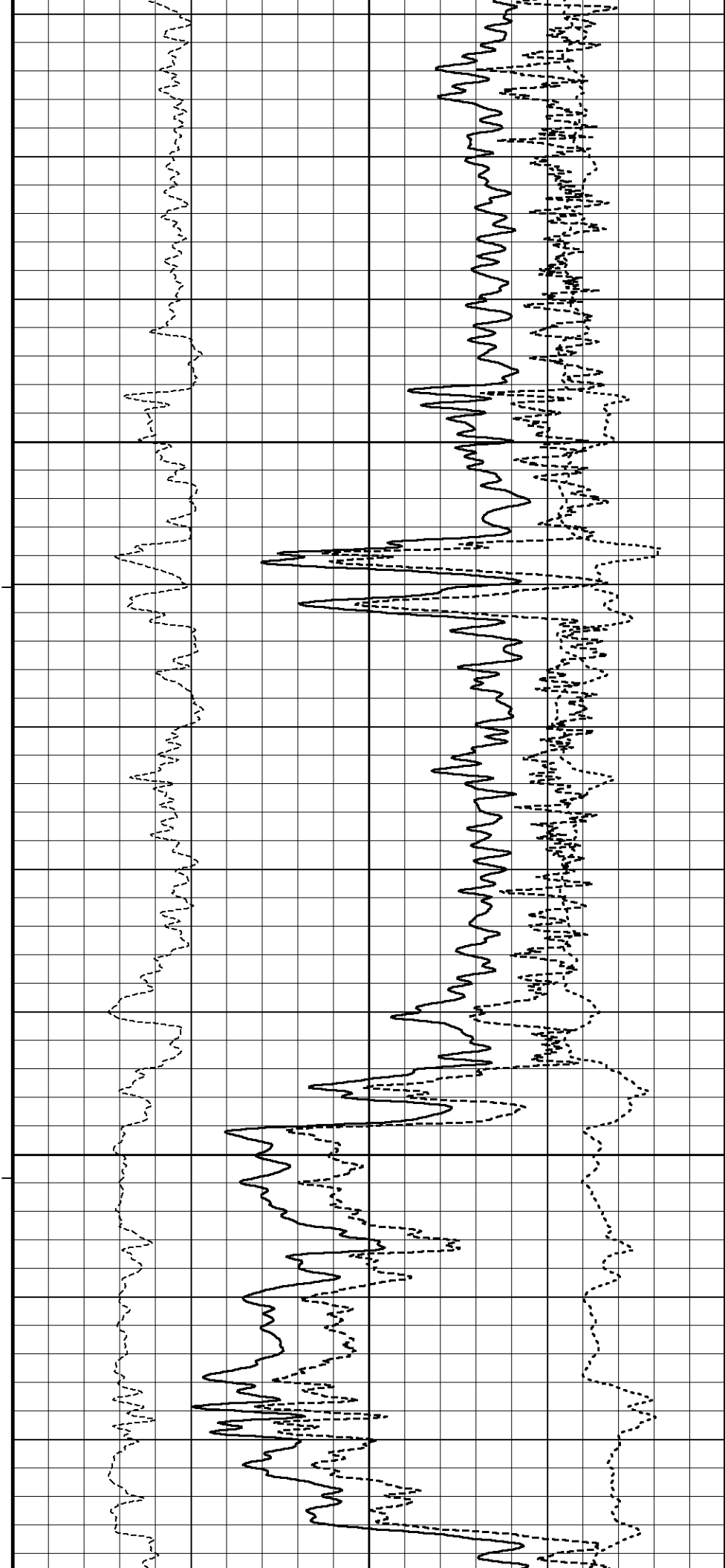
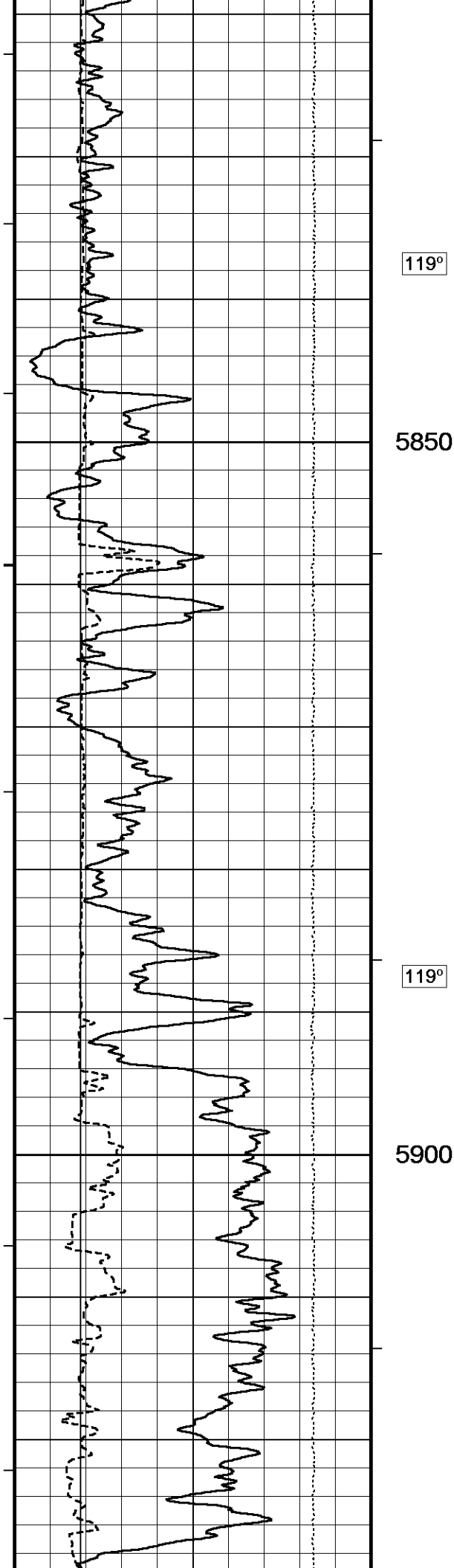
Sandstone Density Por.

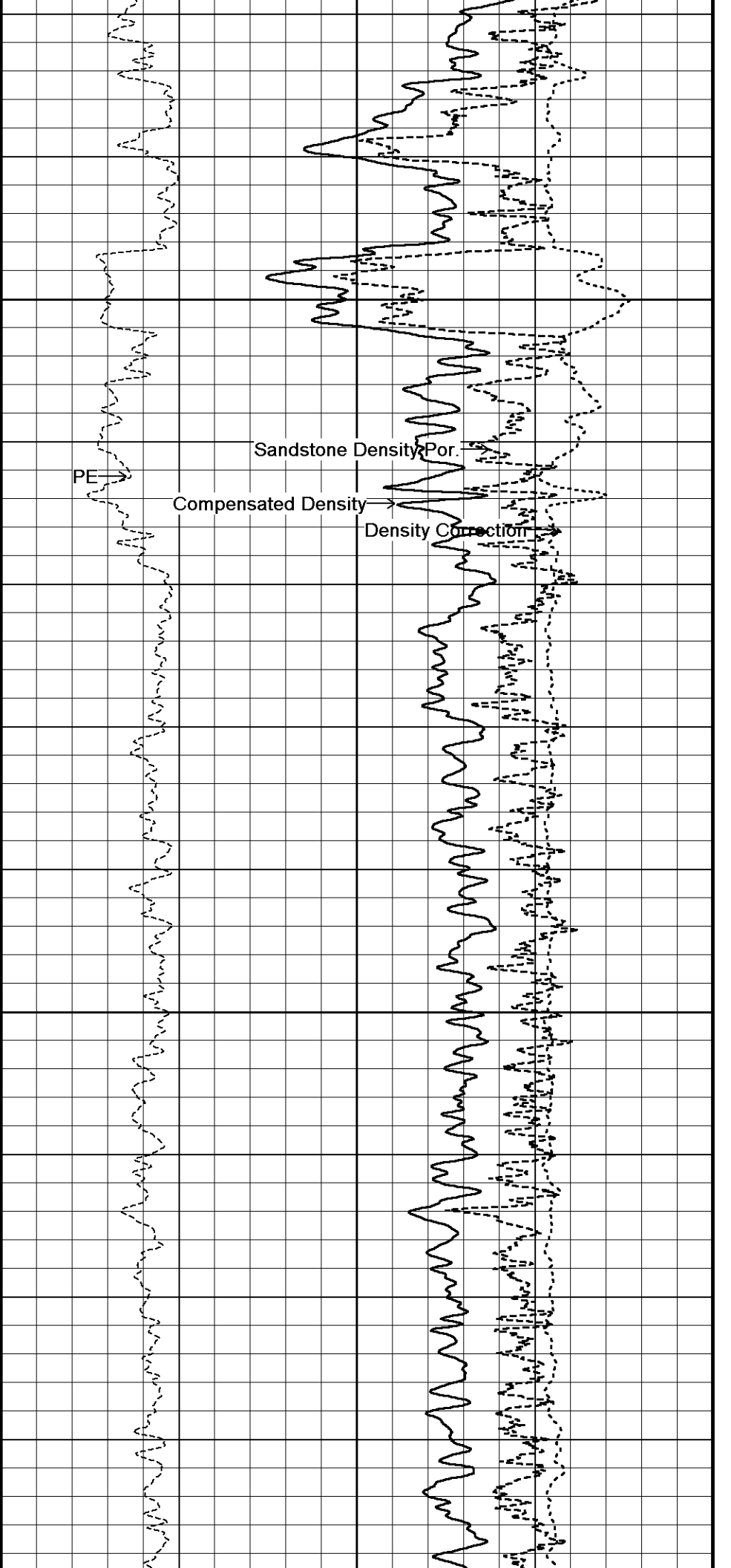
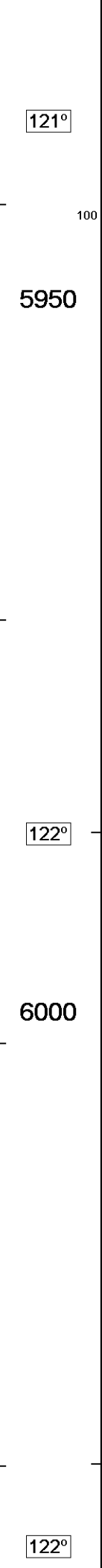
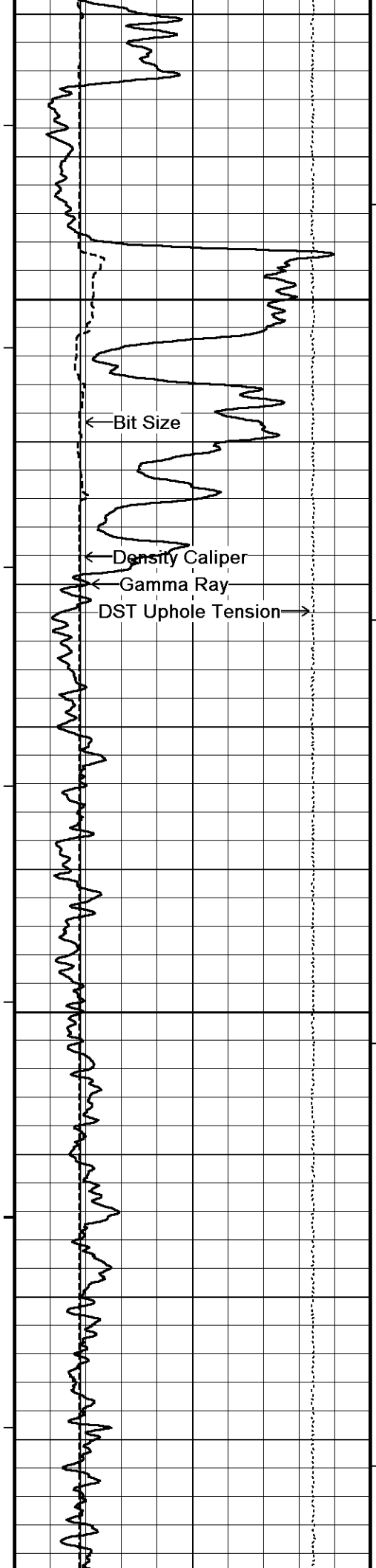
Density Correction

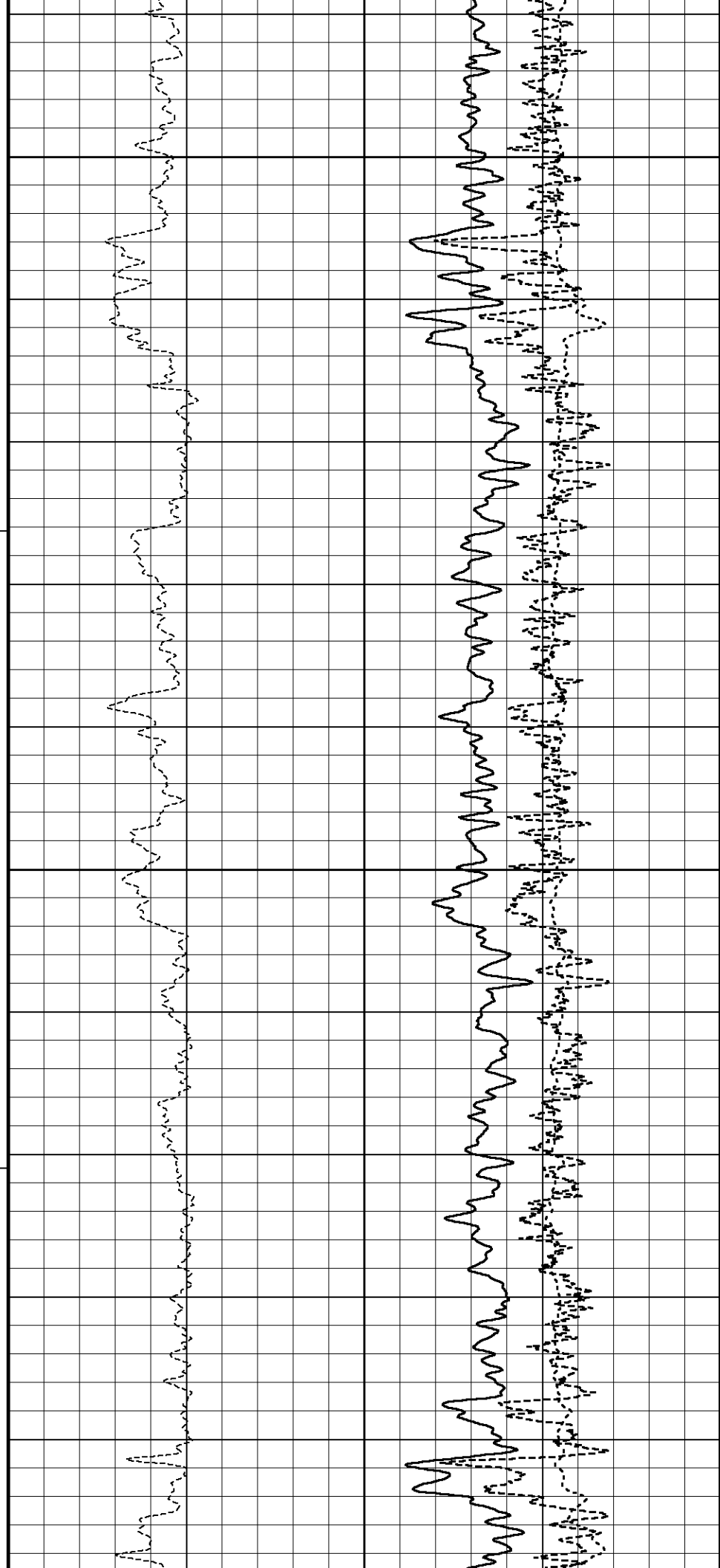
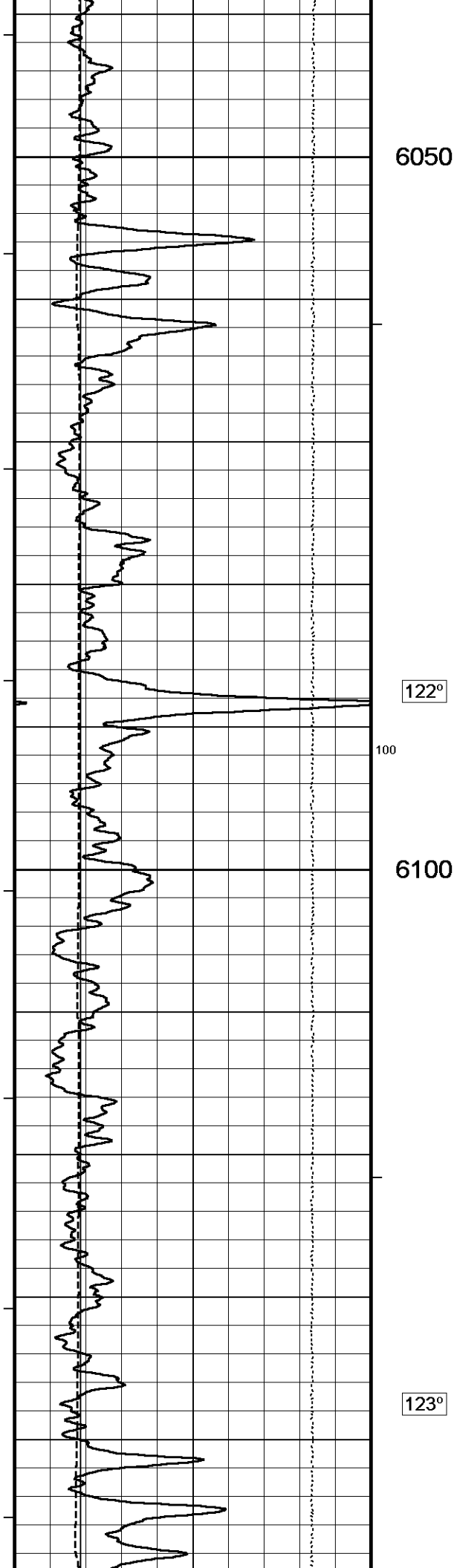
117°

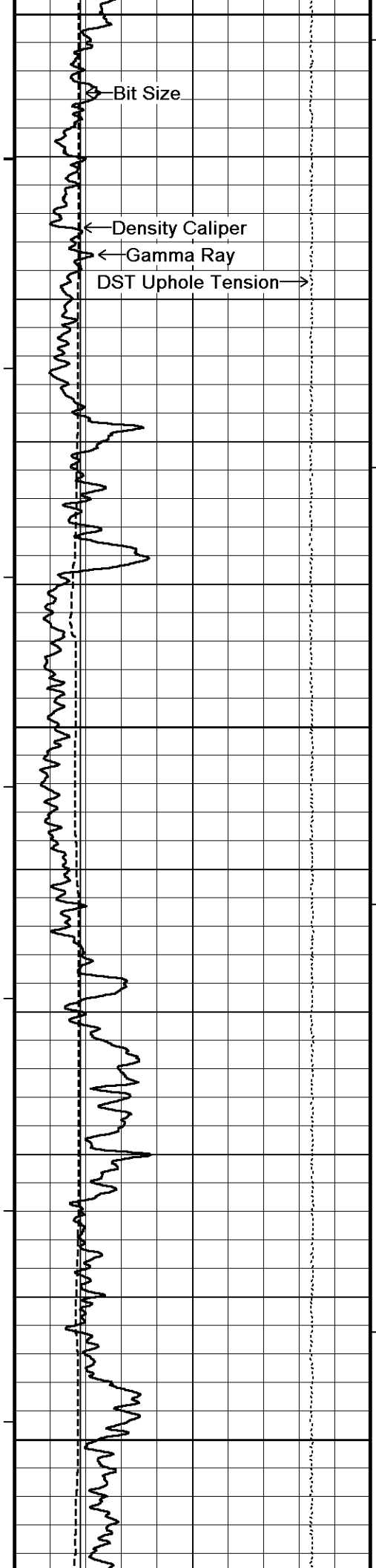












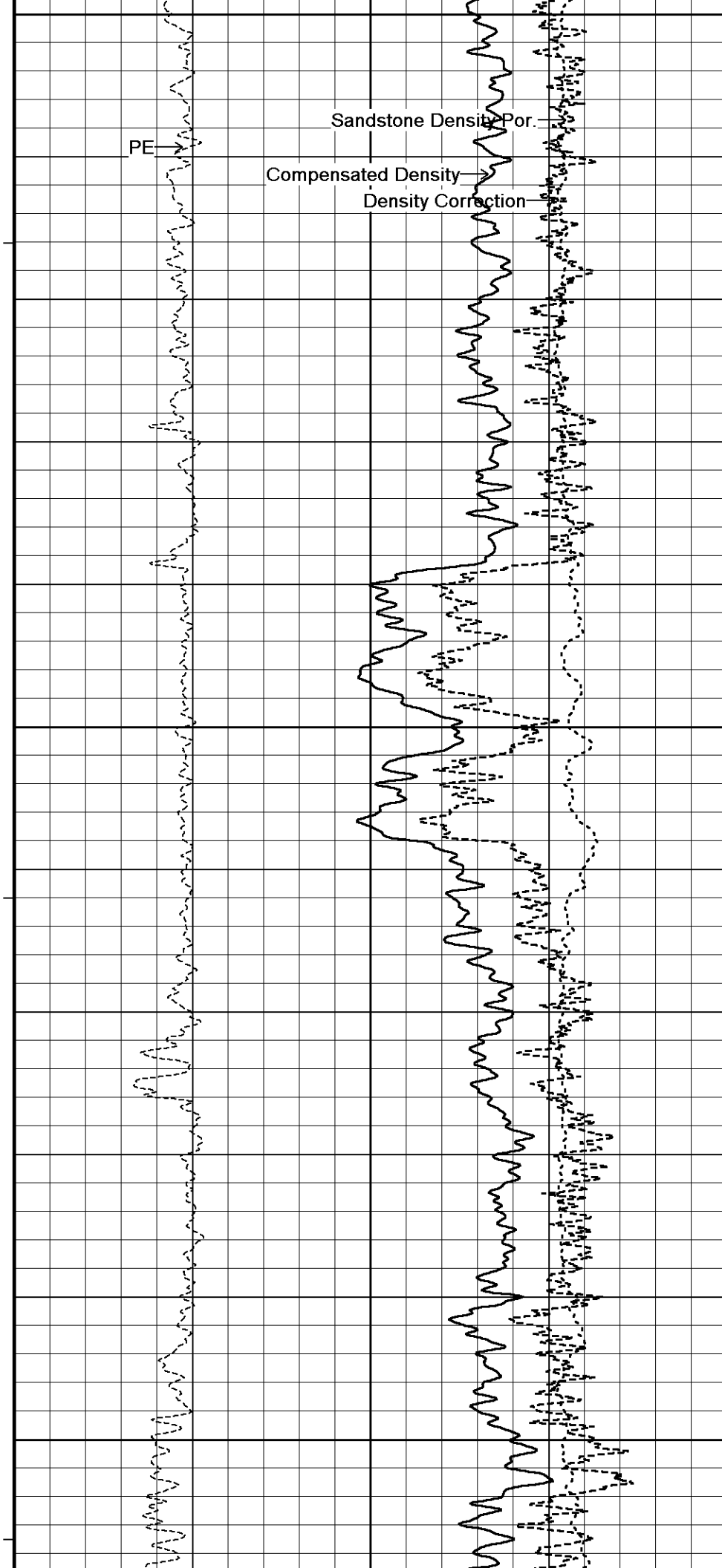
6150

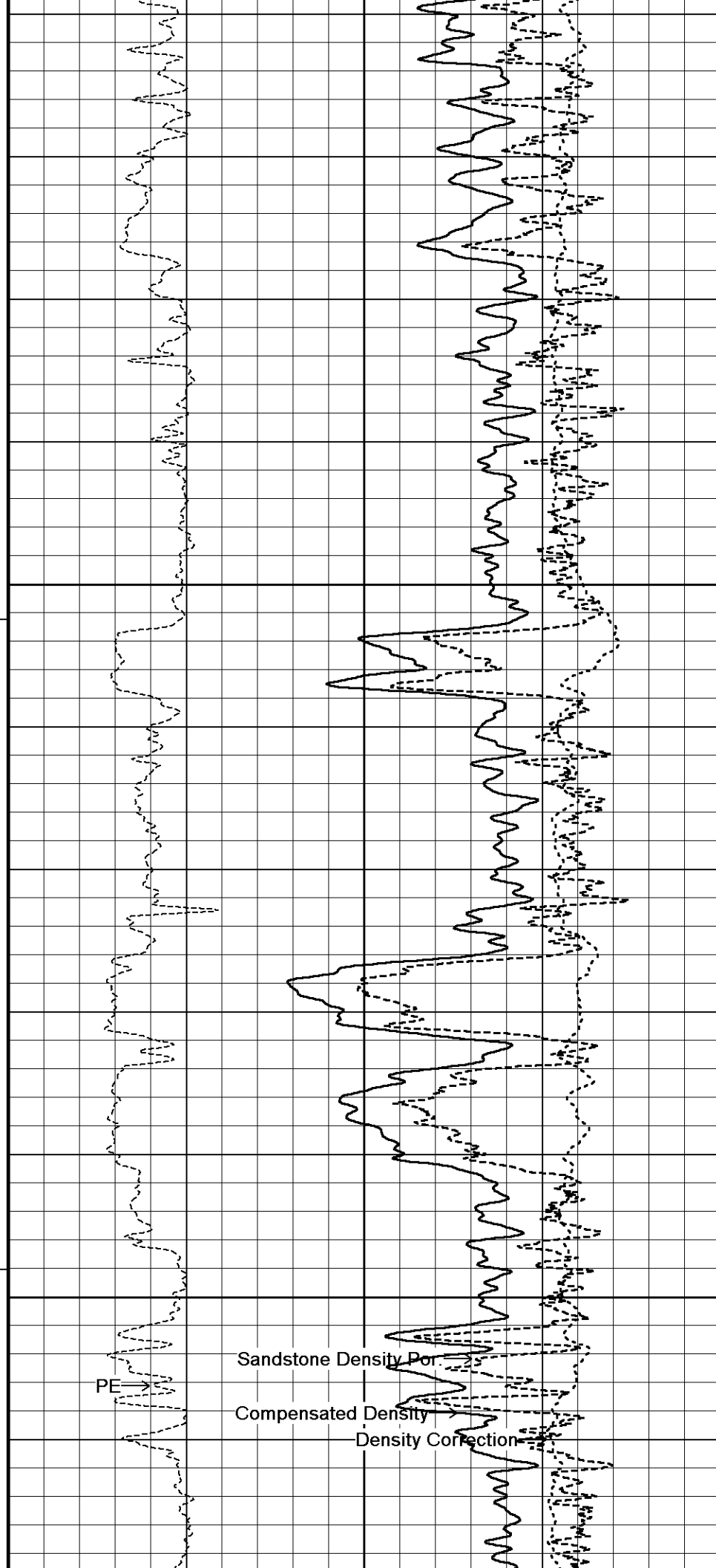
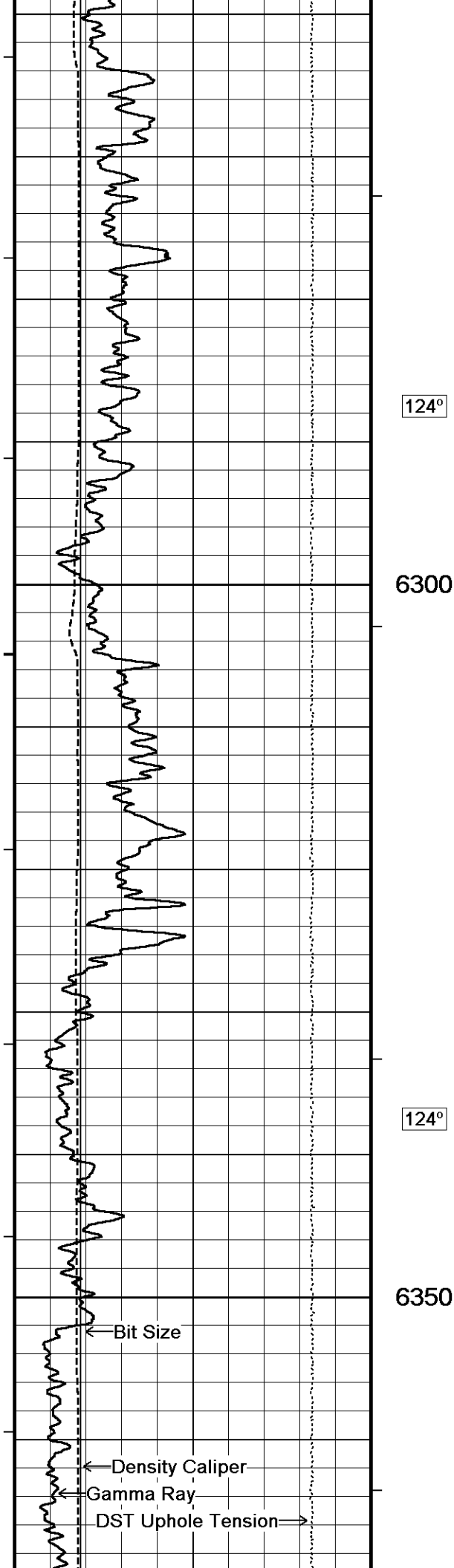
123°

6200

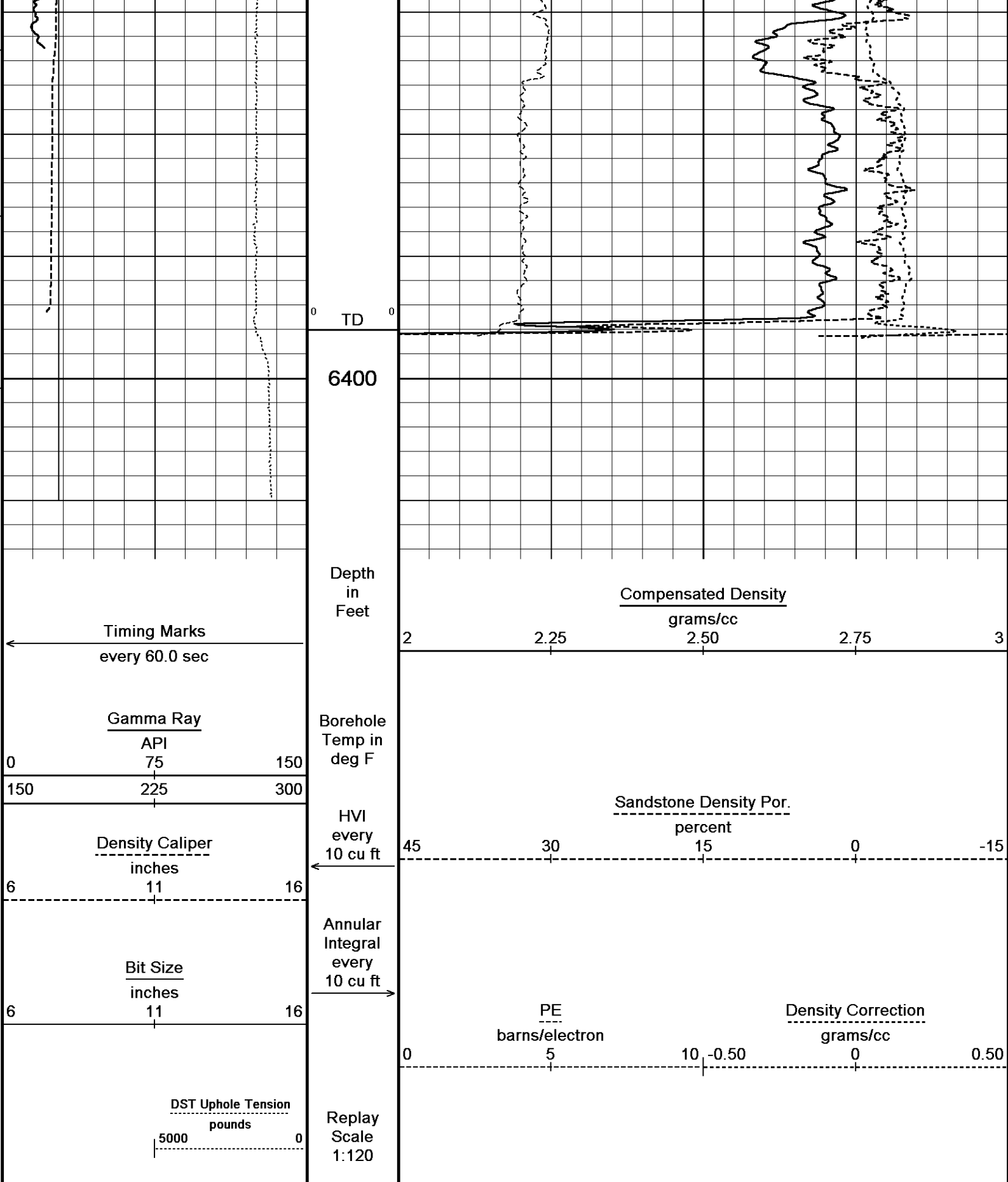
123°

6250









Depth Based Data - Maximum Sampling Increment 2.5cm  
Filename: C:\Minimus 14.05\Log Data\O'Brien Angell 1-18\O'Brien Angell 1-18 High Resolution.dta  
System Versions: Logged with 14.05.5280 Plotted with 14.05.5280

## General Constants All 000

Last Edited on 02-JAN-2015,06:07

## General Parameters

|                             |          |            |
|-----------------------------|----------|------------|
| Mud Resistivity             | 1.500    | ohm-metres |
| Mud Resistivity Temperature | 75.000   | degrees F  |
| Water Level                 | 0.000    | feet       |
| Borehole Fluid 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          | 4.500           | inches |
| Caliper for Differential Caliper | None            |        |

## Rwa Parameters

|                     |                       |  |
|---------------------|-----------------------|--|
| Porosity used       | Crossplot Porosity    |  |
| Resistivity used    | Array Ind. One Res Rt |  |
| RWA Constant A      | 0.610                 |  |
| RWA Constant M      | 2.150                 |  |
| SW/APOR Tool Source | 0.000                 |  |

## High Resolution Temperature Calibration MCG-B 39

Field Calibration on 21-DEC-2014,10:31

|       | Measured | Calibrated(Deg F) |
|-------|----------|-------------------|
| Lower | 10.00    | 10.00             |
| Upper | 100.00   | 100.00            |

## High Resolution Temperature Constants MCG-B 39

Last Edited on 28-AUG-2014,01:02

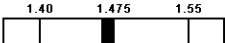
|                   |    |
|-------------------|----|
| Pre-filter Length | 11 |
|-------------------|----|

## Gamma Calibration MCG-B 39

Field Calibration on 02-JAN-2015 02:38

|                    | Measured | Calibrated (API) |
|--------------------|----------|------------------|
| Background         | 76       | 52               |
| Calibrator (Gross) | 1136     | 777              |
| Calibrator (Net)   | 1060     | 725              |

## Gamma Calibration Tolerances MCG-B 39

|       |       |                                                                                     |            |
|-------|-------|-------------------------------------------------------------------------------------|------------|
| Ratio | 1.462 |  | Counts/API |
|-------|-------|-------------------------------------------------------------------------------------|------------|

## Gamma Constants MCG-B 39

Last Edited on 02-JAN-2015,04:48

|                                 |                 |       |
|---------------------------------|-----------------|-------|
| Gamma Calibrator Number         | GRC038          |       |
| GRC-M Calibrator Jig in Use?    | NO              |       |
| Inactive Background Jig in Use? | NO              |       |
| Mud Density                     | 1.12            | gm/cc |
| Caliper Source for Processing   | Density Caliper |       |
| Tool Position                   | Eccentred       |       |
| Concentration of KCl            |                 | kppm  |
| K Mud Type                      | Chloride        |       |
| K Mud Concentration             | 0.00            | %     |

## Caliper Calibration MPD-C.A 216

Base Calibration on 09-DEC-2014 13:29

Field Calibration on 02-JAN-2015 02:03

## Base Calibration

| Reading No | Measured | Calibrator Size (in) |
|------------|----------|----------------------|
| 1          | 19120    | 3.99                 |
| 2          | 29184    | 5.98                 |
| 3          | 39328    | 7.97                 |
| 4          | 49072    | 9.86                 |
| 5          | 60273    | 11.92                |
| 6          | N/A      | N/A                  |

## Field Calibration

| Measured Caliper (in) | Actual Caliper (in) |
|-----------------------|---------------------|
| 7.92                  | 7.97                |

## Caliper Calibration Tolerances MPD-C.A 216

Caliper Calibration Tolerances MPD-C.A 216

|      |      |      |
|------|------|------|
| 7.77 | 7.97 | 8.17 |
|------|------|------|

Short Arm Field Cal. 7.92 in

Photo Density Calibration MPD-C.A 216

Base Calibration on 09-DEC-2014 13:48  
Field Check on 02-JAN-2015 02:08

| Density Calibration<br>Base Calibration | Measured |       | Calibrated (sdu) |       |
|-----------------------------------------|----------|-------|------------------|-------|
|                                         | Near     | Far   | Near             | Far   |
| Background                              | 1092     | 1289  |                  |       |
| Reference 1                             | 58913    | 30669 | 59556            | 30836 |
| Reference 2                             | 24800    | 2733  | 24941            | 2541  |

Field Check at Base

1091.9 1288.6

Field Check

1092.3 1284.5

PE Calibration

| Base Calibration | Measured |       |       | Calibrated |
|------------------|----------|-------|-------|------------|
|                  | WS       | WH    | Ratio | Ratio      |
| Background       | 200      | 972   |       |            |
| Reference 1      | 24229    | 58725 | 0.416 | 0.371      |
| Reference 2      | 6999     | 24668 | 0.287 | 0.272      |

Field Check at Base

200.5 971.7

Field Check

198.5 972.7

Photo Density Calibration Tolerances MPD-C.A 216

Near Density Ratio 2.44

|       |       |       |
|-------|-------|-------|
| -5%   | 2.52  | +5%   |
| 0.089 | 0.110 | 0.131 |

Far Density Ratio 20.34

|     |       |     |
|-----|-------|-----|
| -5% | 21.00 | +5% |
|-----|-------|-----|

PE Calibration 0.120

|       |       |       |
|-------|-------|-------|
| 0.089 | 0.110 | 0.131 |
|-------|-------|-------|

Near Den. Field Check 1092.3

|     |        |     |
|-----|--------|-----|
| -3% | 1091.9 | +3% |
|-----|--------|-----|

Far Den. Field Check 1284.5

|     |        |     |
|-----|--------|-----|
| -3% | 1288.6 | +3% |
|-----|--------|-----|

PE WS Field Check 198.5

|     |       |     |
|-----|-------|-----|
| -6% | 200.5 | +6% |
|-----|-------|-----|

PE WH Field Check 972.7

|     |       |     |
|-----|-------|-----|
| -6% | 971.7 | +6% |
|-----|-------|-----|

Density Constants MPD-C.A 216

Last Edited on 02-JAN-2015,04:48

|                               |                 |       |
|-------------------------------|-----------------|-------|
| Density Source Id             | 18235B          |       |
| Nylon Calibrator Number       | DNCE695         |       |
| Aluminium Calibrator Number   | DACD698         |       |
| Density Shoe Profile          | 8 inch          |       |
| Caliper Source for Processing | Density Caliper |       |
| PE Correction to Density      | Not Applied     |       |
| Mud Density                   | 1.12            | 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:\Minimus 14.05\Log Data\O'Brien Angell 1-18\O'Brien Angell 1-18 Main.dta

3/8" Triple Cone Cable Head (MCB C A)  
MCB-C.A 233 LG: 1.58 ft WT: 15.4 lb OD: 2.240 in

Compact Comms Gamma  
MCG-B 39 LG: 8.70 ft WT: 63.9 lb OD: 2.244 in

Compact Micro-log  
MML-A 3 LG: 7.97 ft WT: 81.6 lb OD: 2.240 in

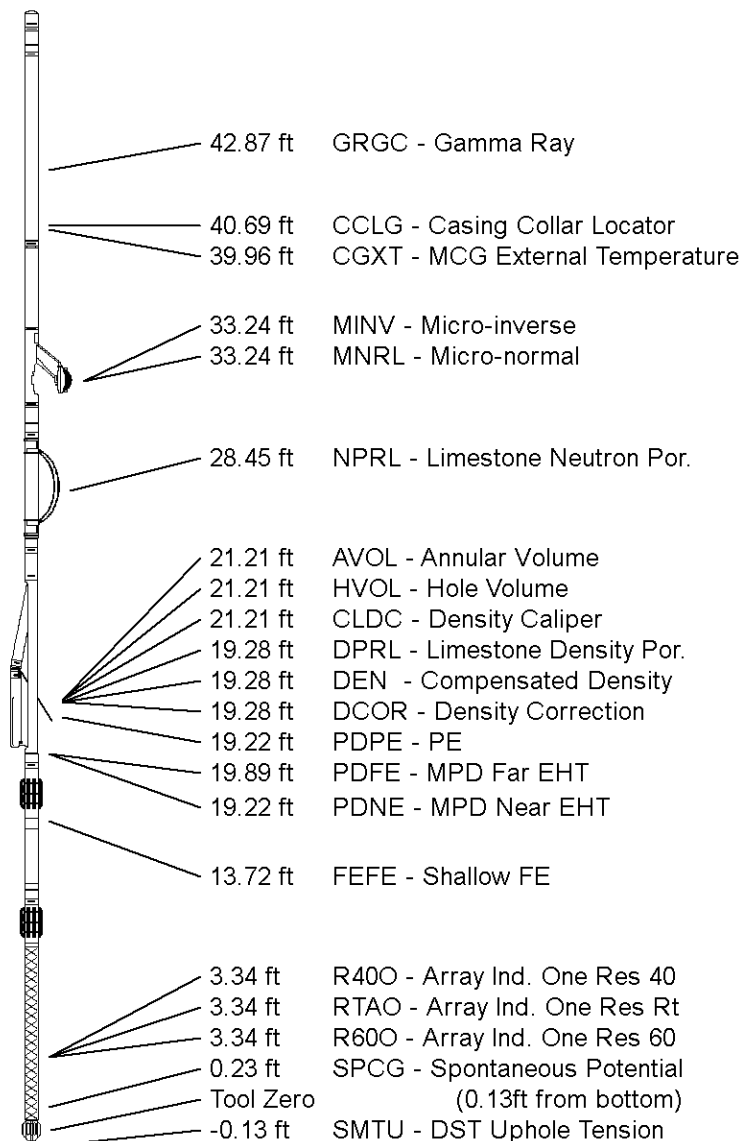
Compact Neutron  
MDN-A.B 66 LG: 5.04 ft WT: 50.7 lb OD: 2.244 in

Compact Density/Caliper  
MPD-C.A 216 LG: 9.59 ft WT: 90.4 lb OD: 2.449 in

Compact Focussed Electric  
MFE-B.J 353 LG: 6.05 ft WT: 48.5 lb OD: 2.244 in

Compact Induction  
MAI-A.A 111 LG: 10.81 ft WT: 48.5 lb OD: 2.244 in

Total Length: 49.73 ft Weight: 399.0 lb



|                 |                                |
|-----------------|--------------------------------|
| COMPANY         | O'BRIEN ENERGY RESOURCES CORP. |
| WELL            | ANGELL 1-18                    |
| FIELD           | ANGELL                         |
| PROVINCE/COUNTY | MEADE                          |
| COUNTRY/STATE   | U.S.A. / KANSAS                |

|                         |         |      |               |         |      |
|-------------------------|---------|------|---------------|---------|------|
| Elevation Kelly Bushing | 2727.00 | feet | First Reading | 6376.78 | feet |
| Elevation Drill Floor   | 2725.00 | feet | Depth Driller | 6402.00 | feet |
| Elevation Ground Level  | 2715.00 | feet | Depth Logger  | 6396.00 | feet |



**Weatherford®**

COMPACT PHOTO DENSITY  
COMPENSATED NEUTRON  
MICRORESISTIVITY LOG