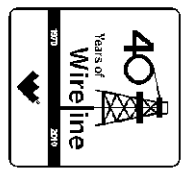




Weatherford[®]

**COMPACT PHOTO DENSITY
COMPENSATED NEUTRON
MICRORESISTIVITY LOG**

COMPANY OXY USA, INC.
WELL ELIZABETH A. COX #6
FIELD VICTORY
PROVINCE/COUNTY HASKELL
COUNTRY/STATE U.S.A. / KANSAS
LOCATION 2080' FSL & 1230' FEL



SEC 8 TWP 30S RGE 33W Other Services MAI/MFE MSS
API Number 15-081-21943 Permit Number MSS

Permanent Datum G.L., Elevation 2968 feet
Log Measured From K.B. @ 11 FEET above Permanent Datum
Drilling Measured From K.B.

Elevations: KB 2979.00 DF 2977.00 GL 2968.00

Date	05-JUL-2011
Run Number	ONE
Depth Driller	5560.00 feet
Depth Logger	5566.00 feet
First Reading	553.00 feet
Last Reading	3900.00 feet
Casing Driller	1815.00 feet
Casing Logger	1818.00 feet
Bit Size	8.750 inches
Hole Fluid Type	CHEMICAL
Density / Viscosity	9.10 lb/USg 41.00 CP
PH / Fluid Loss	10.40 7.60 ml/30Min
Sample Source	FLOWLINE
Rm @ Measured Temp	1.37 @ 84.0 ohm-m
Rmf @ Measured Temp	1.10 @ 84.0 ohm-m
Rmc @ Measured Temp	1.64 @ 84.0 ohm-m
Source Rmf / Rmc	CALC CALC
Rm @ BHT	0.84 @139.0 ohm-m
Time Since Circulation	5 HOURS
Max Recorded Temp	140.00 deg F
Equipment Name	COMPACT
Equipment / Base	13057 LIB
Recorded By	A. GIAMBALVO
Witnessed By	AUSTIN GARNER
S.O. / JOB #	3531101 LB11-154

BOREHOLE RECORD			Last Edited: 05-JUL-2011 19:05	
Bit Size inches	Depth From feet	Depth To feet		
8.750	1818.00	5566.00		
CASING RECORD				
Type	Size inches	Depth From feet	Shoe Depth feet	Weight pounds/ft
SURFACE	9.625	0.00	1818.00	36.00

REMARKS

Tools Ran: MCG, MML, MDN, MPD, SKJ, MFE, MAI, MSS.
Hardware Used: MDN Dual Eccentralizer used. MPD 8 inch profile plate used. MFE MSS and MAI 0.5 inch standoffs used.
2.71 g/cc Limestone Density Matrix used to calculate porosity.
Sonic porosity calculated using a Limestone scale (47.5 usec/ft).
All intervals logged and scaled per customer's request.
Annular volume with 7 inch production casing from TD to 3500 = 305 cu. ft.
Service order #3531101
Rig: Trinidad Drilling #202
Engineer: A. Giambalvo
Operator(s): B. Reeves

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.

5 INCH MAIN PASS

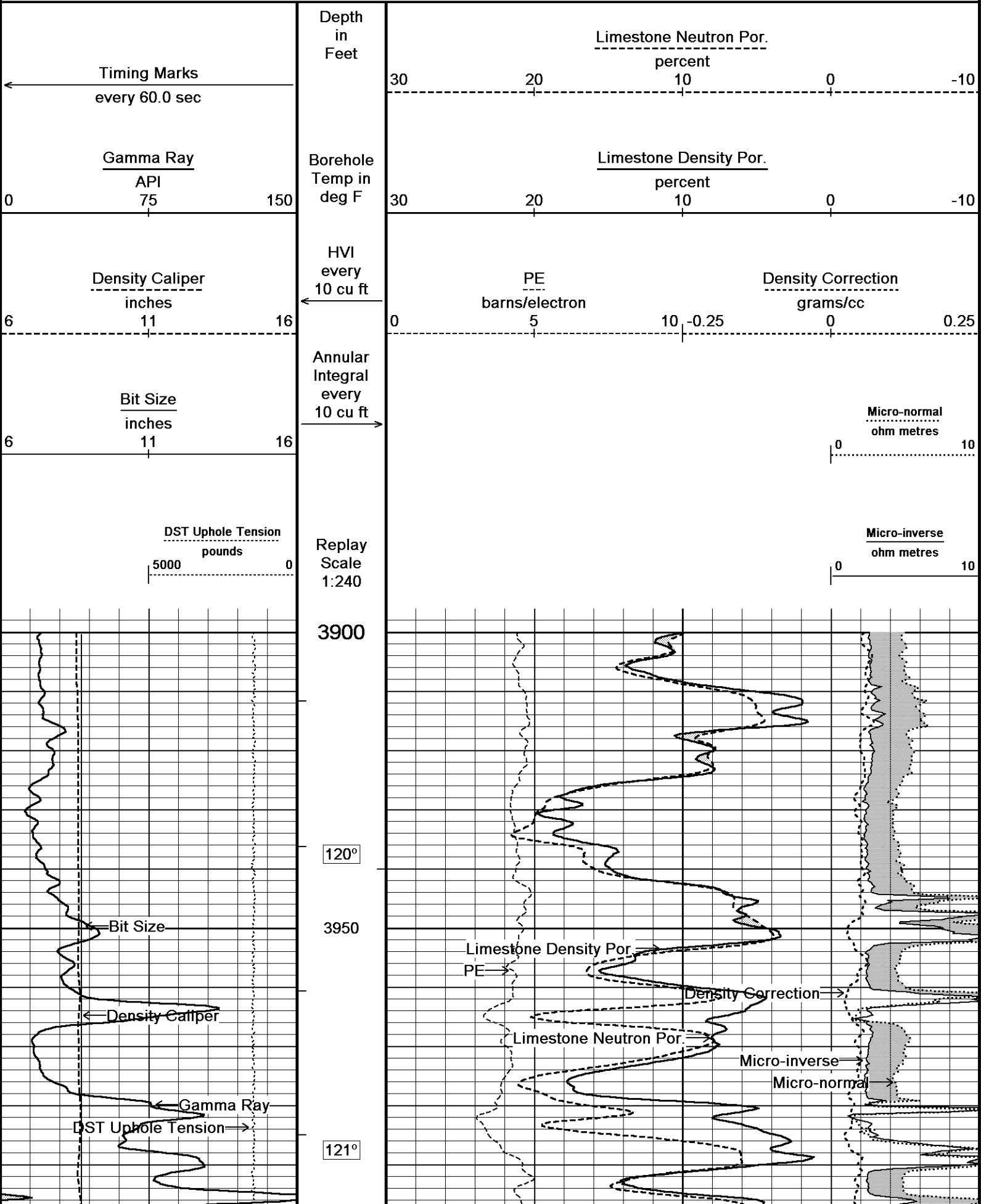
Depth Based Data - Maximum Sampling Increment 10.0cm

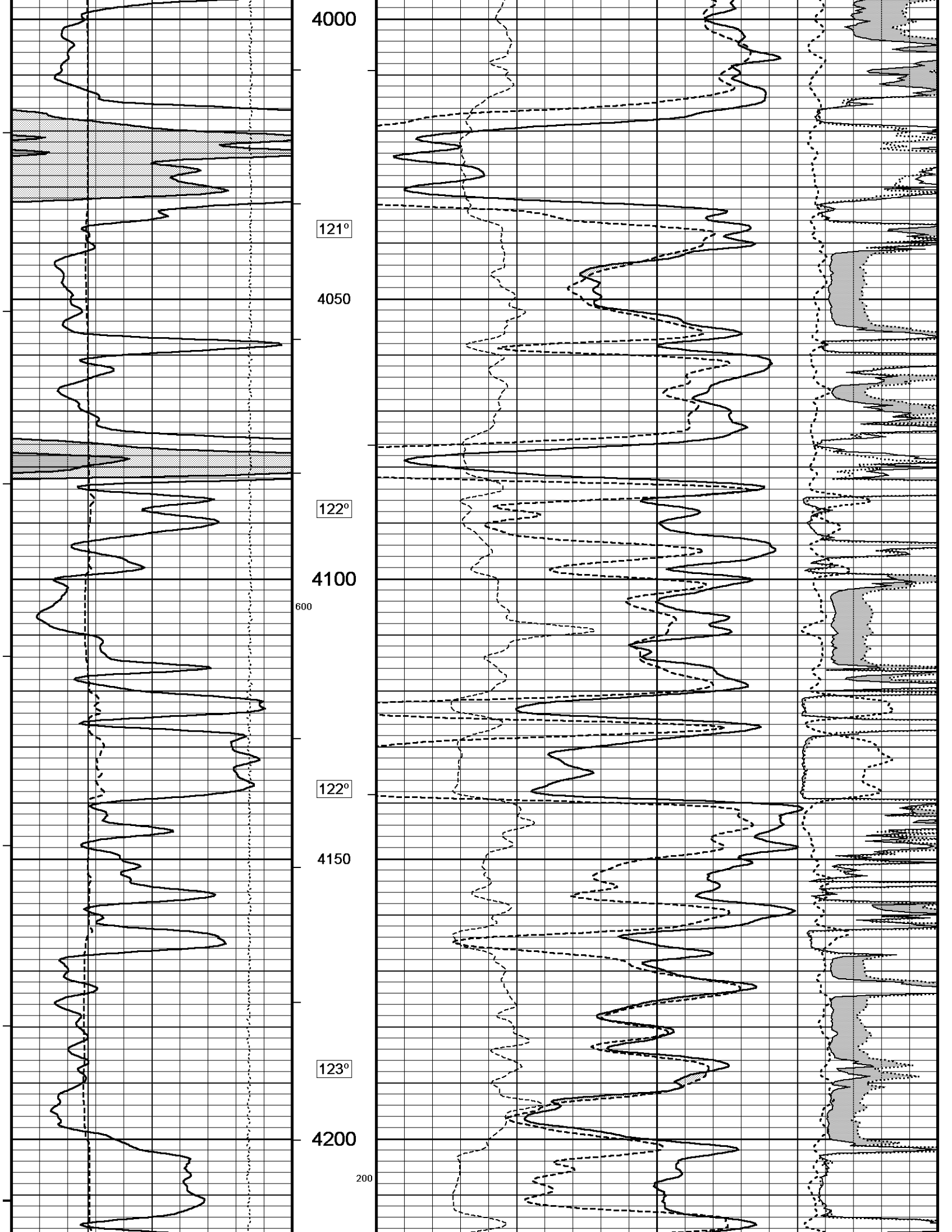
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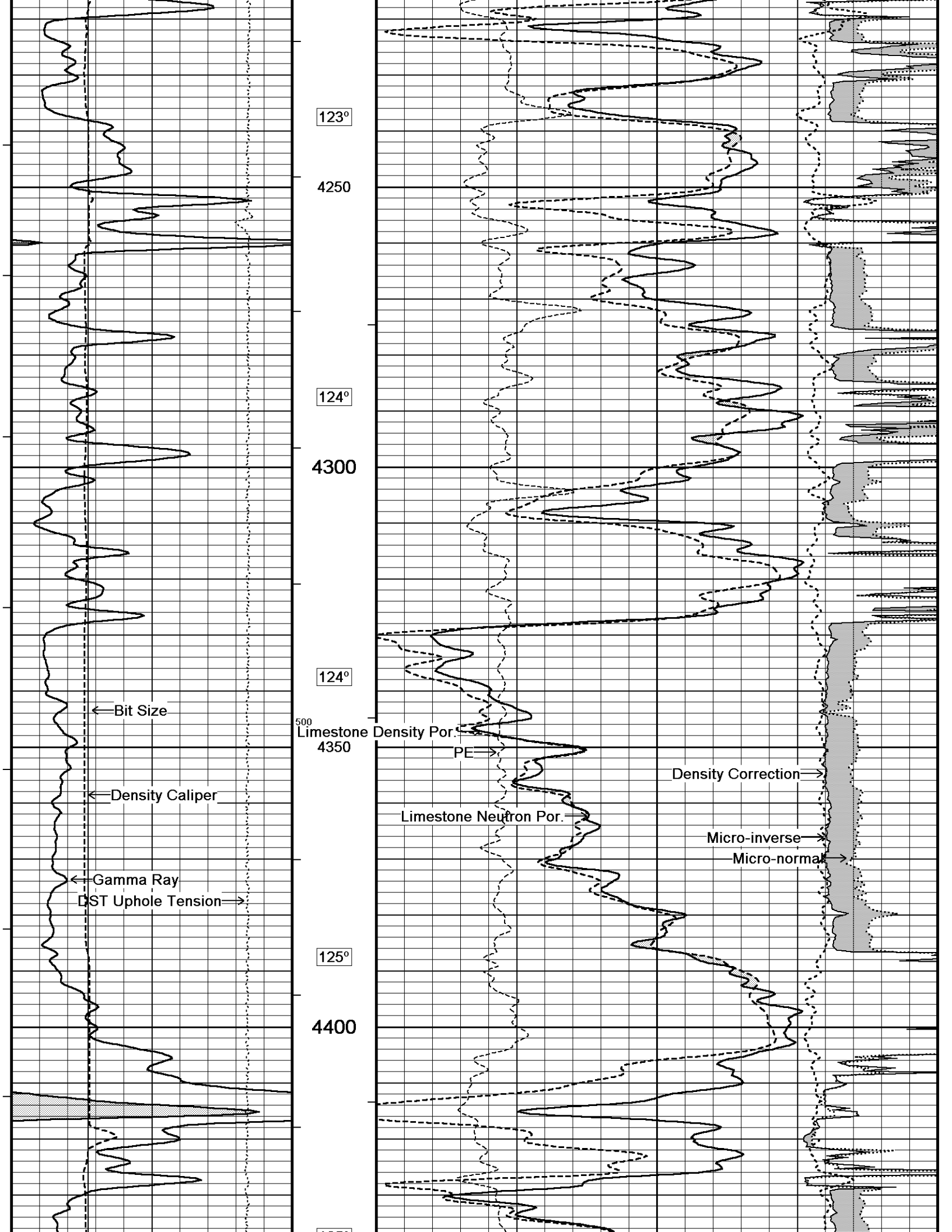
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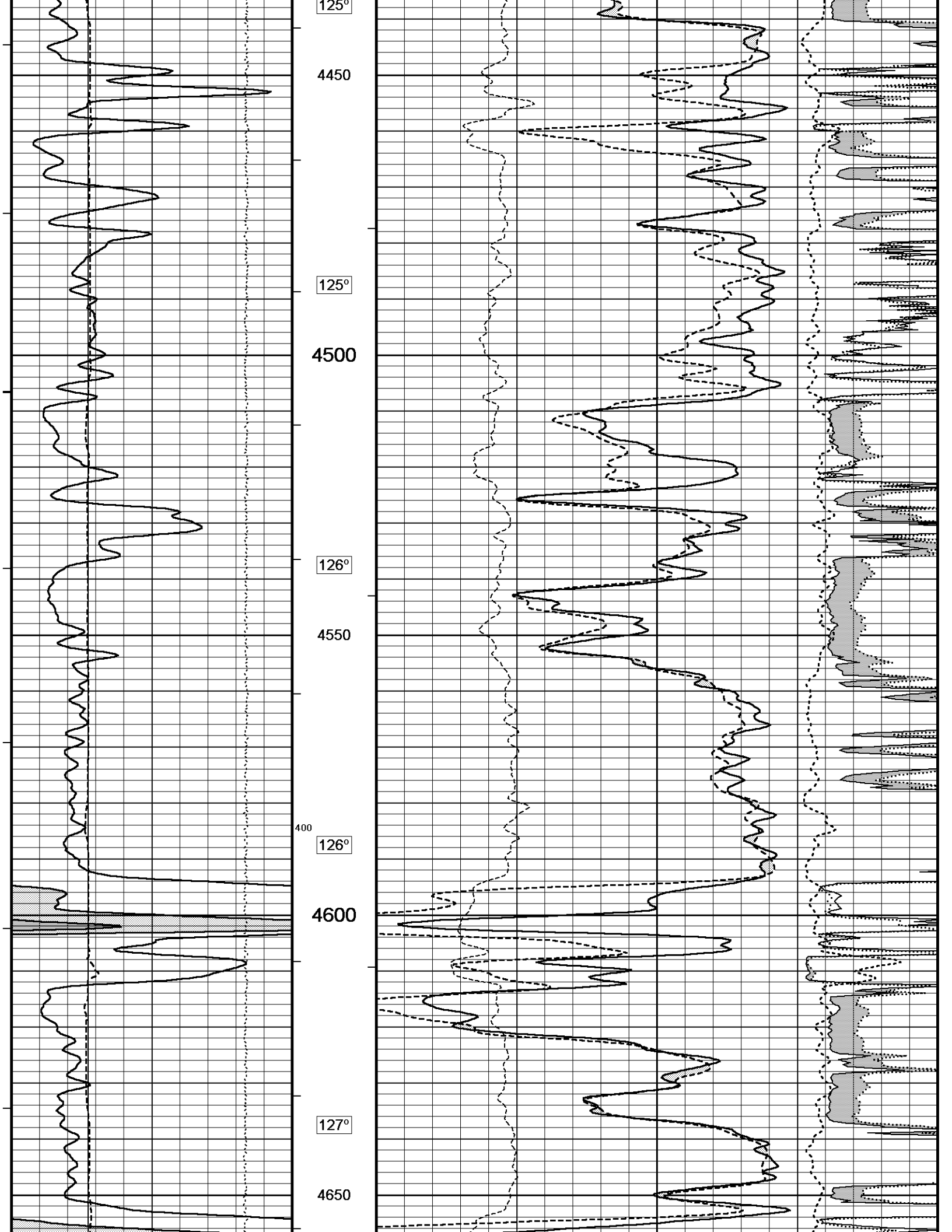
Recorded on 05-JUL-2011 16:55

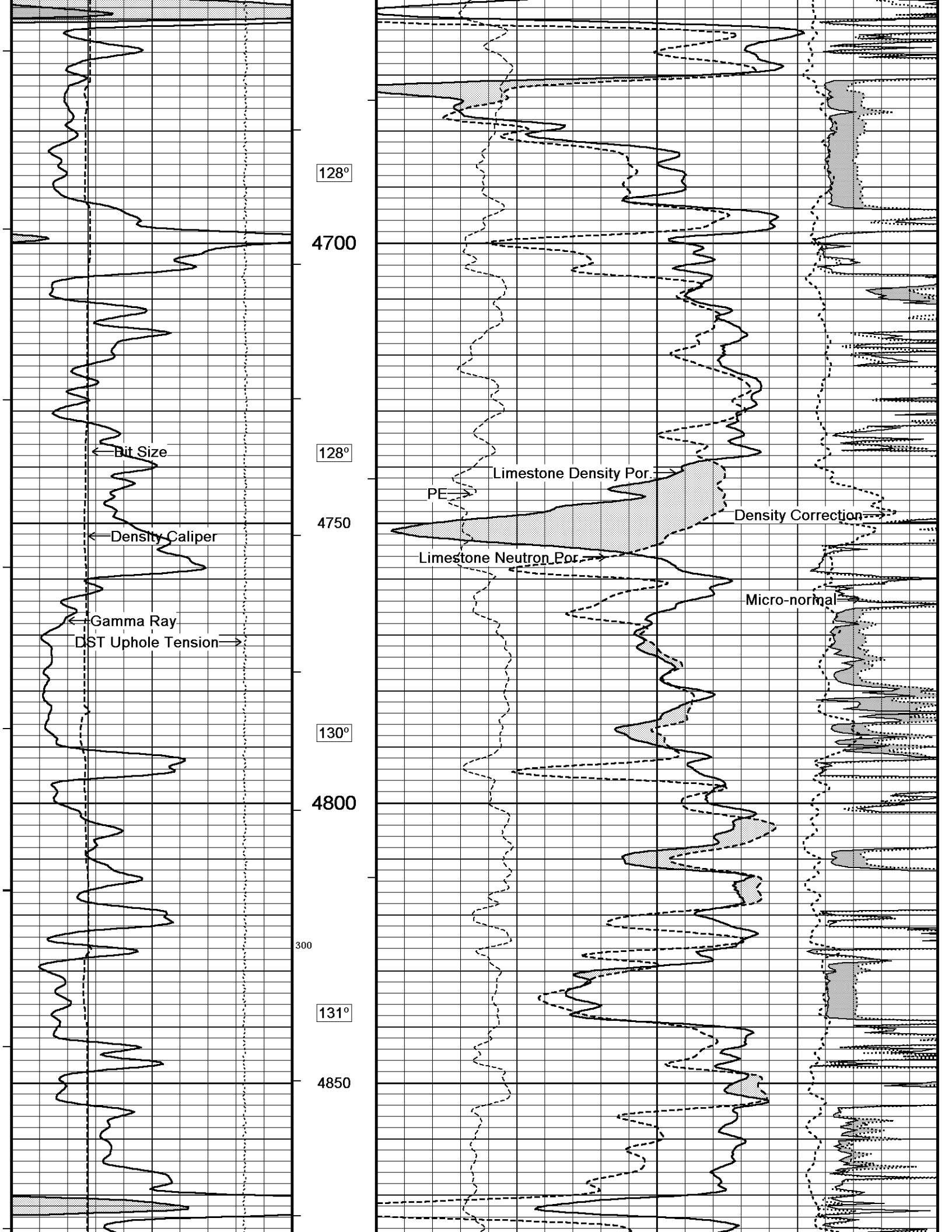
System Versions: Logged with 11.02.3186 Plotted with 11.02.3186

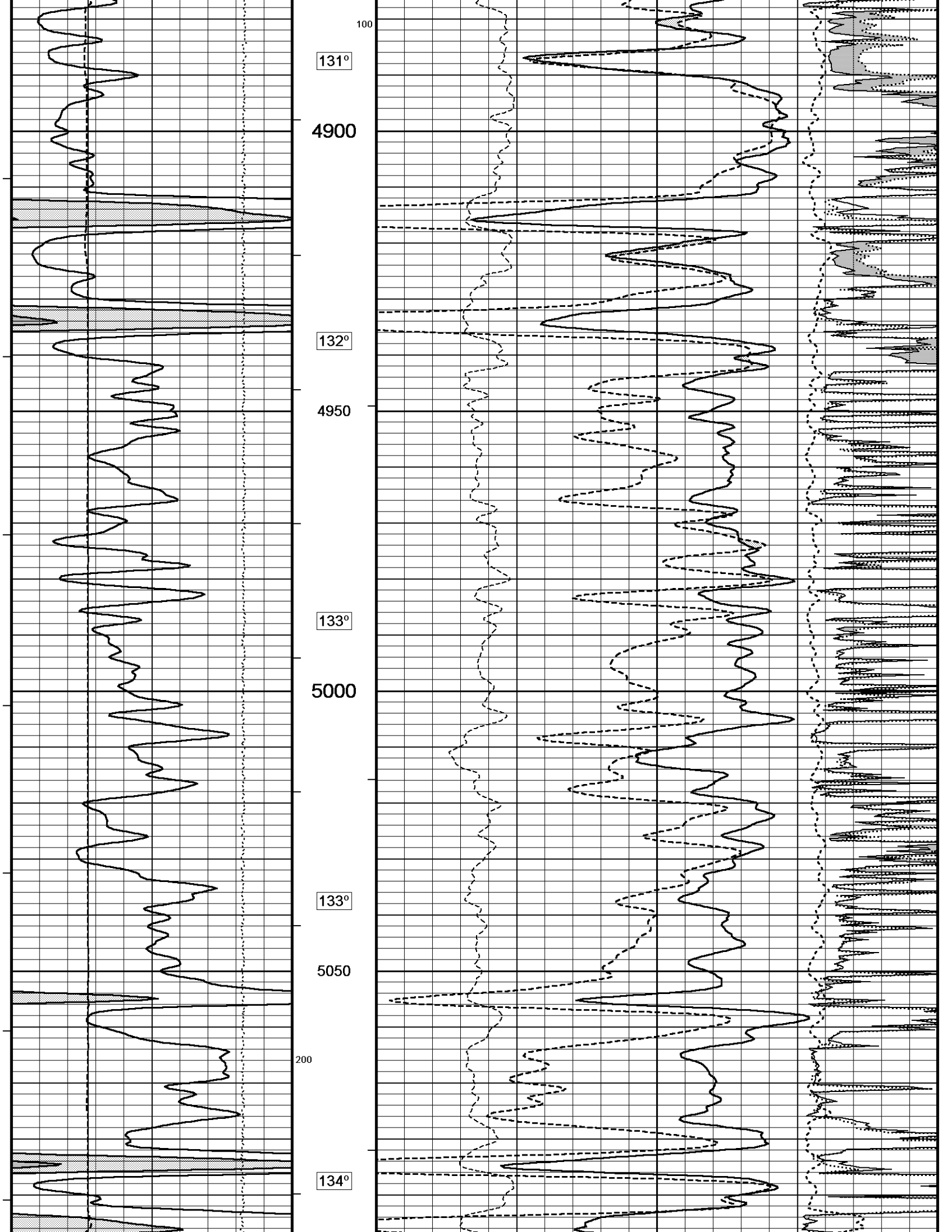


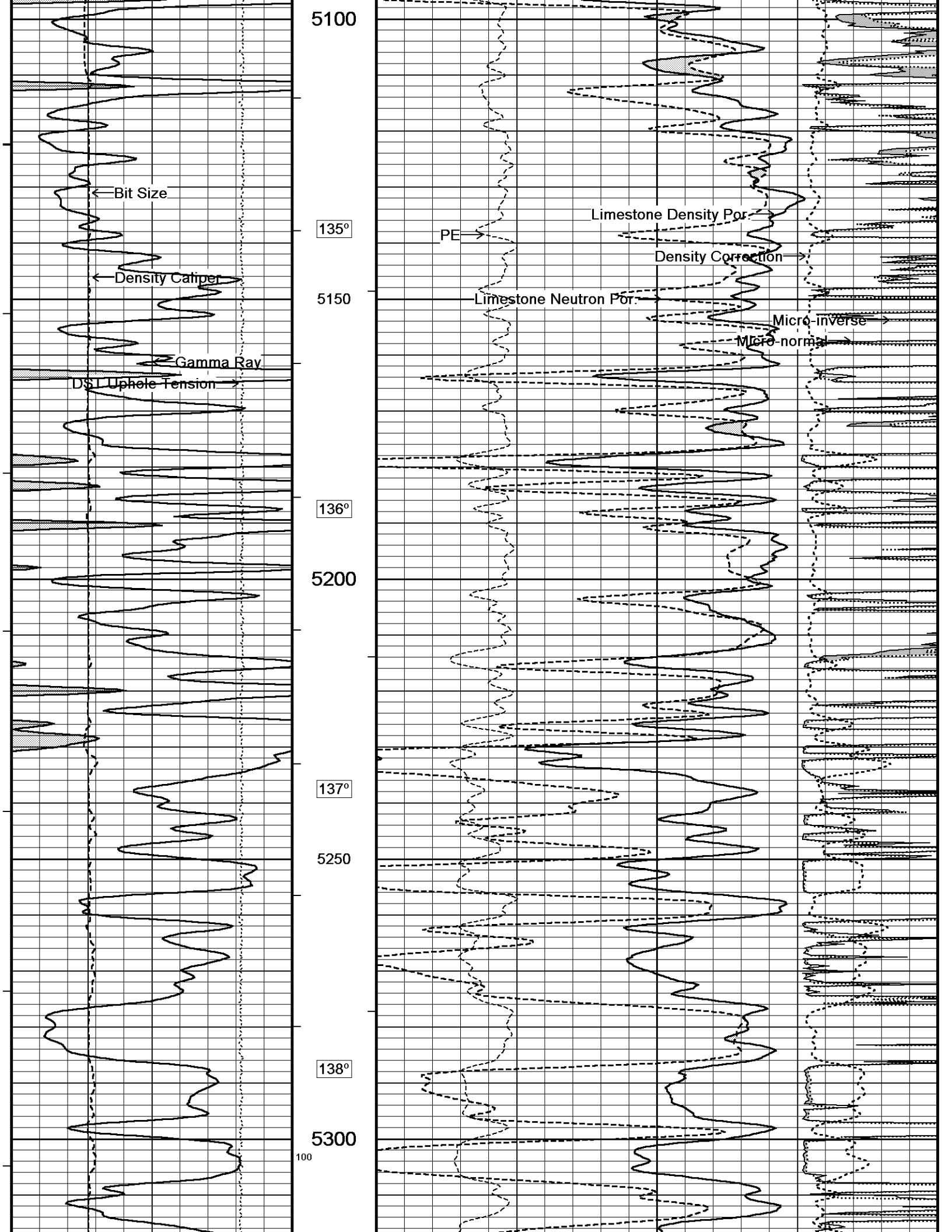


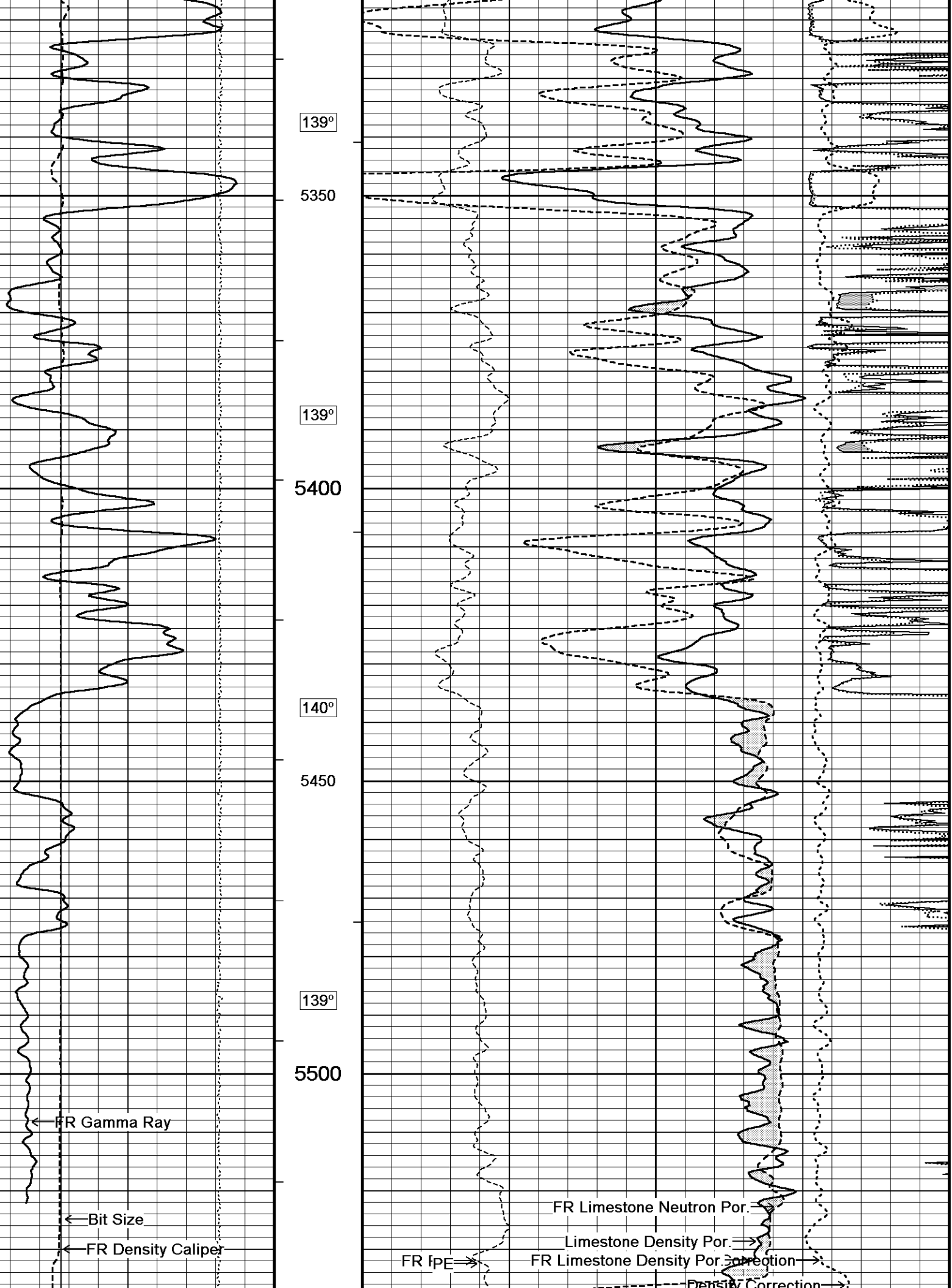


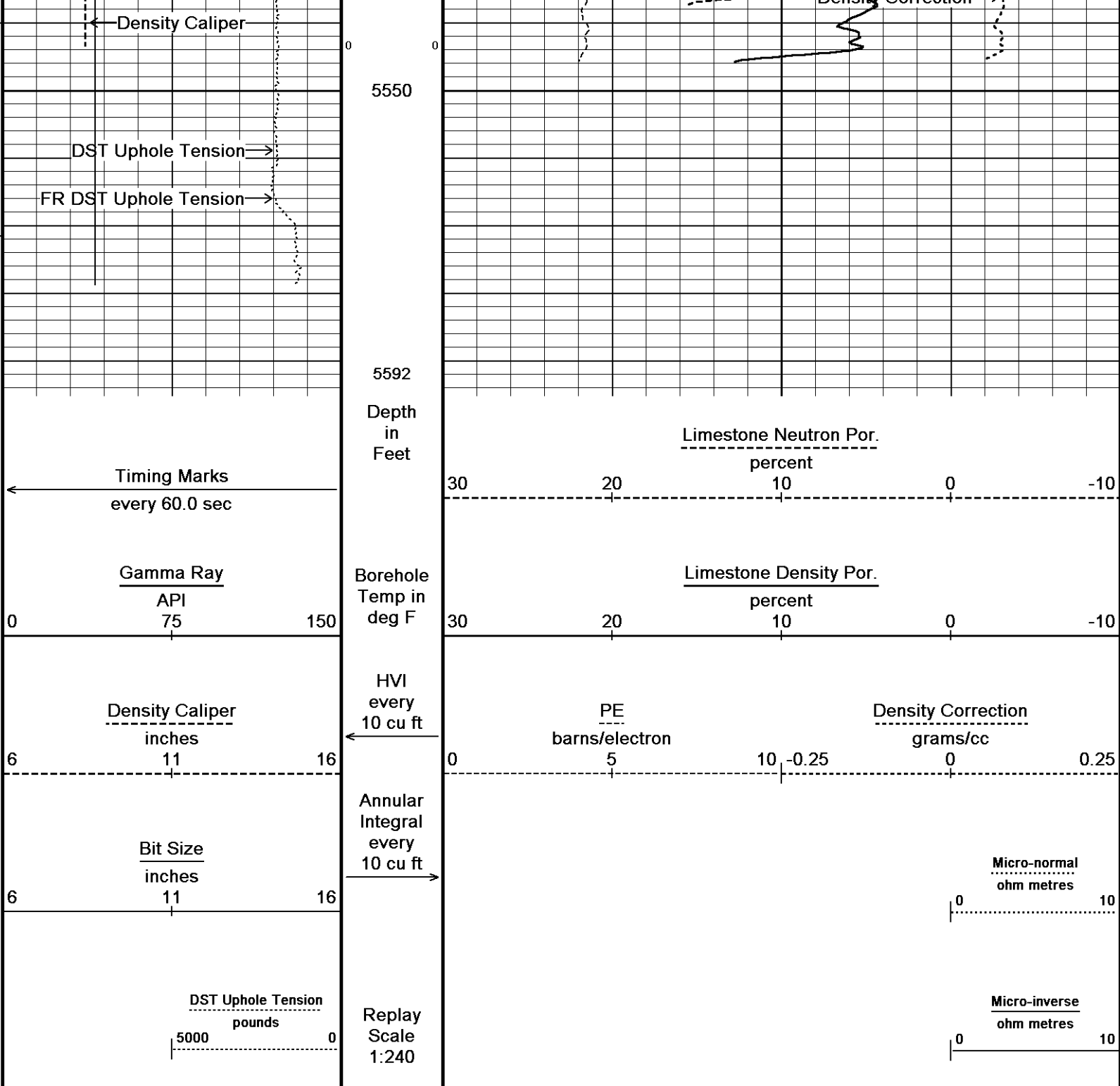








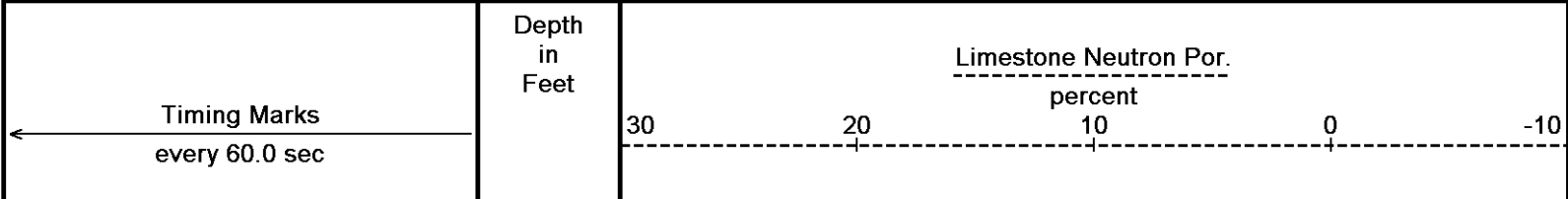


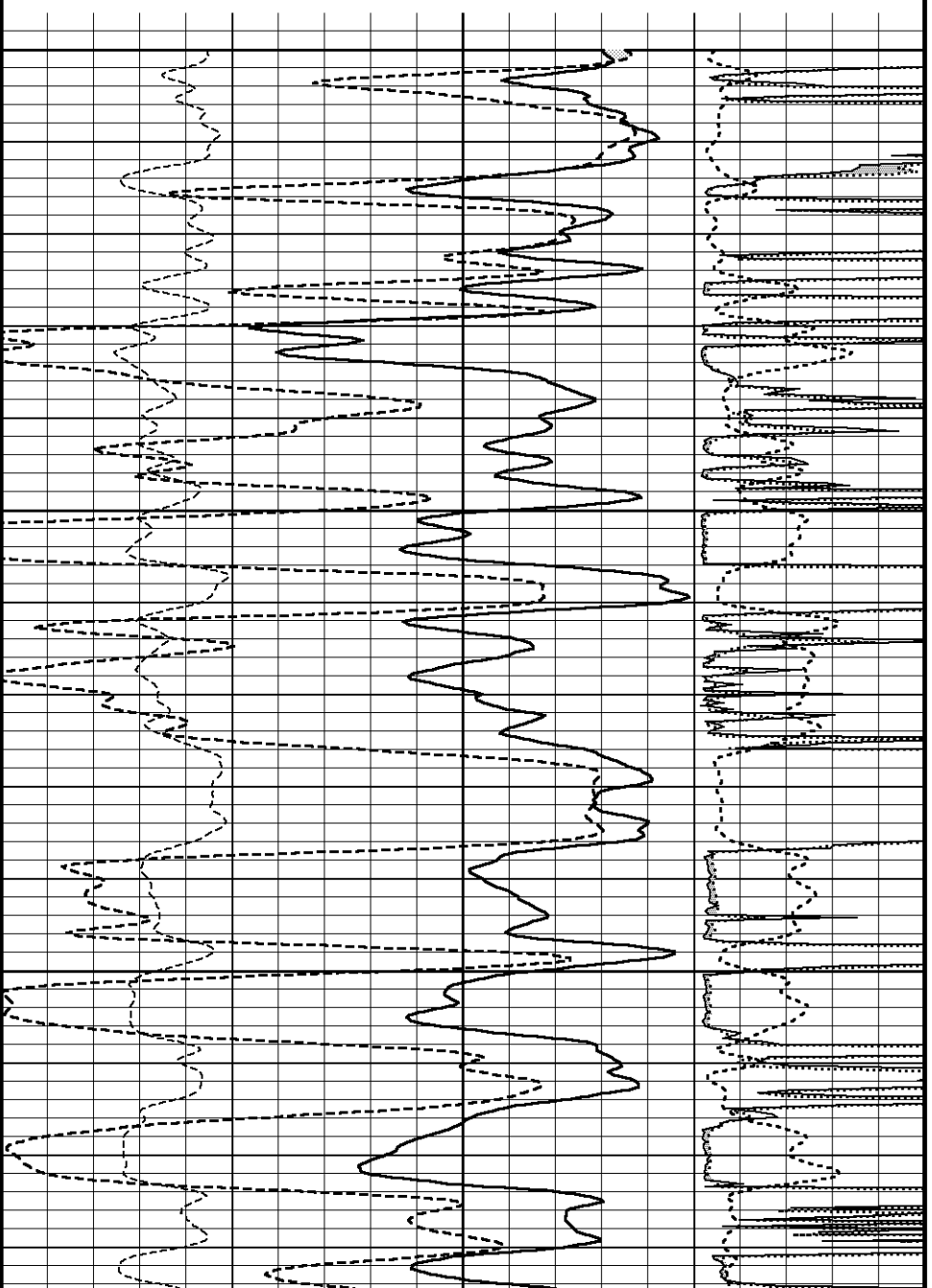
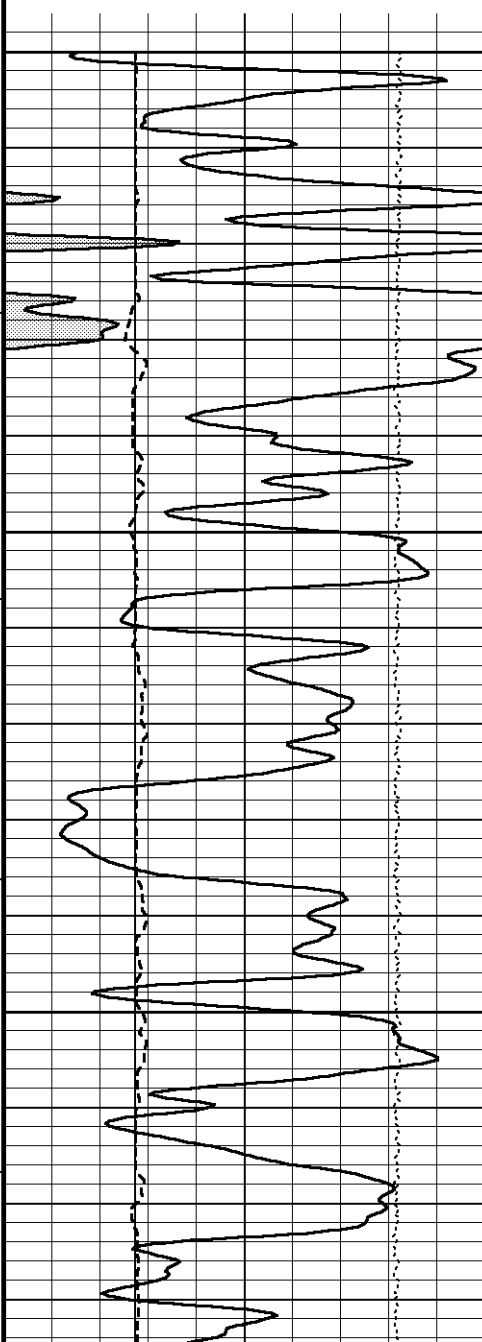
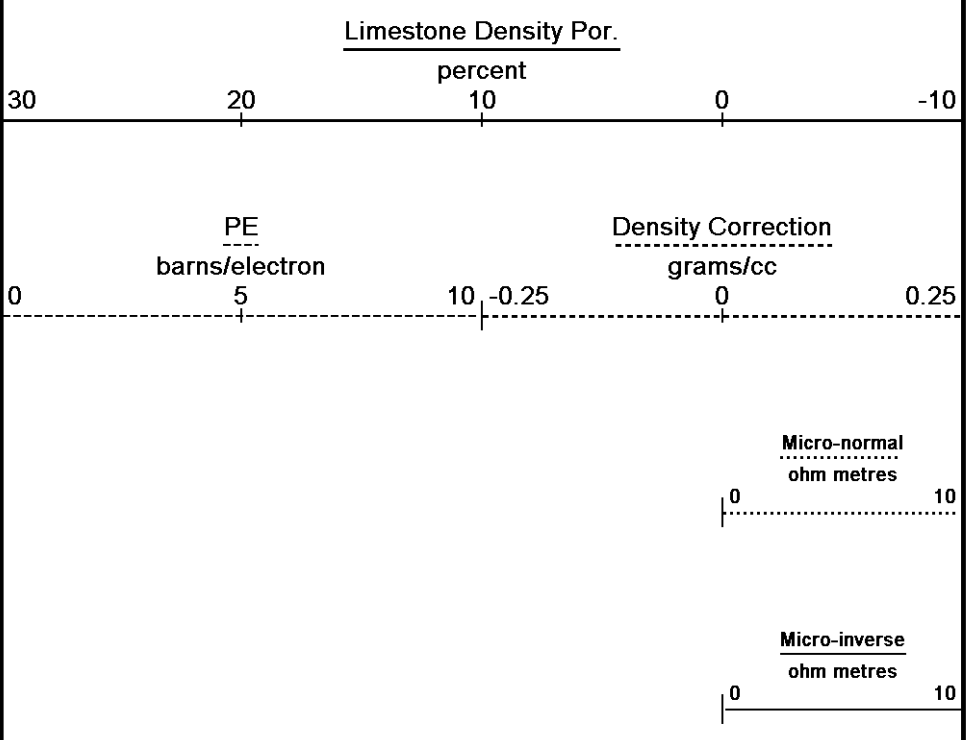
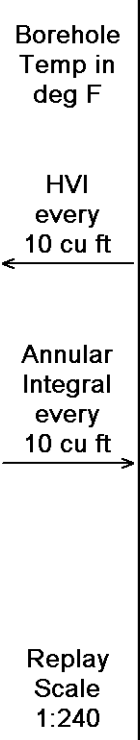
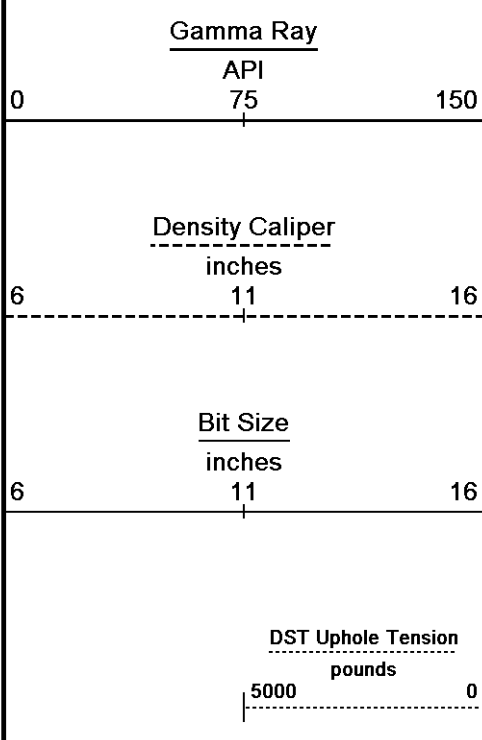


5 INCH MAIN PASS

5 INCH REPEAT PASS

Depth Based Data - Maximum Sampling Increment 10.0cm
 Plotted on 05-JUL-2011 19:07
 Filename: C:\Minimus 11.02.3186\Data\Oxy Elizabeth A. Cox #6\Oxy Elizabeth A. Cox #6_003.dta
 Recorded on 05-JUL-2011 16:18
 System Versions: Logged with 11.02.3186 Plotted with 11.02.3186





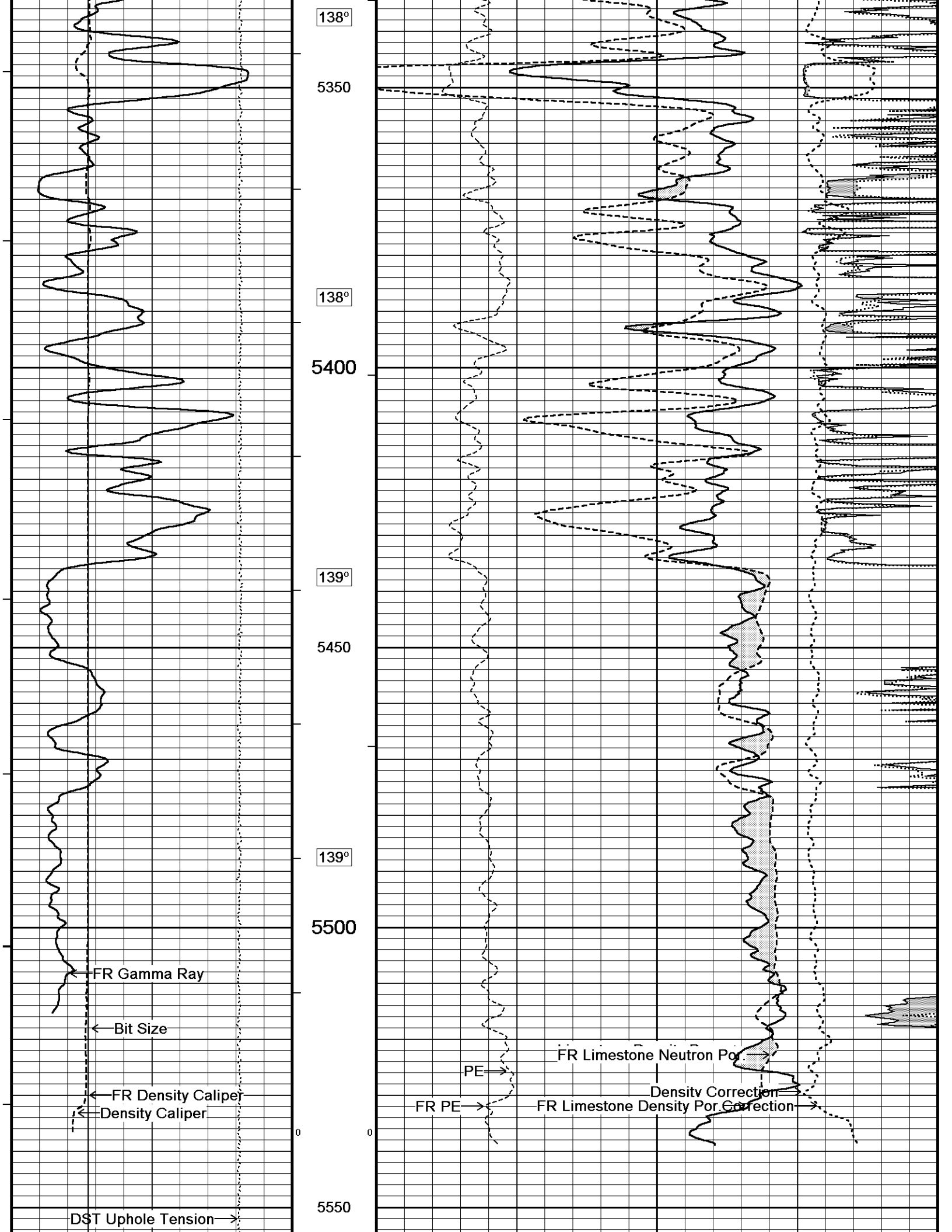
5200

136°

5250

137°

100
5300



FR DST Uphole Tension →

5588
Depth
in
Feet

Timing Marks
every 60.0 sec

Gamma Ray

API

75

0 150

Borehole
Temp in
deg F

HVI
every
10 cu ft

Density Caliper
inches

11

6 16

Bit Size
inches

11

6 16

DST Uphole Tension
pounds

5000

0

Replay
Scale
1:240

Limestone Neutron Por.
percent

30 20 10 0 -10

Limestone Density Por.
percent

30 20 10 0 -10

PE
barns/electron

5

0 10 -0.25

Density Correction
grams/cc

0

0.25

Micro-normal
ohm metres

0 10

Micro-inverse
ohm metres

0 10

Depth Based Data - Maximum Sampling Increment 10.0cm

Plotted on 05-JUL-2011 19:07

Filename: C:\Minimus 11.02.3186\Data\Oxy Elizabeth A. Cox #6\Oxy Elizabeth A. Cox #6_003.dta

Recorded on 05-JUL-2011 16:18

System Versions: Logged with 11.02.3186 Plotted with 11.02.3186



5 INCH REPEAT PASS



5 INCH MAIN PASS



Depth Based Data - Maximum Sampling Increment 10.0cm

Plotted on 05-JUL-2011 19:07

Filename: C:\Minimus 11.02.3186\Data\Oxy Elizabeth A. Cox #6\Oxy Elizabeth A. Cox #6_004.dta

Recorded on 05-JUL-2011 16:55

System Versions: Logged with 11.02.3186 Plotted with 11.02.3186

Depth
in
Feet

Timing Marks
every 60.0 sec

Gamma Ray

API

75

0 150

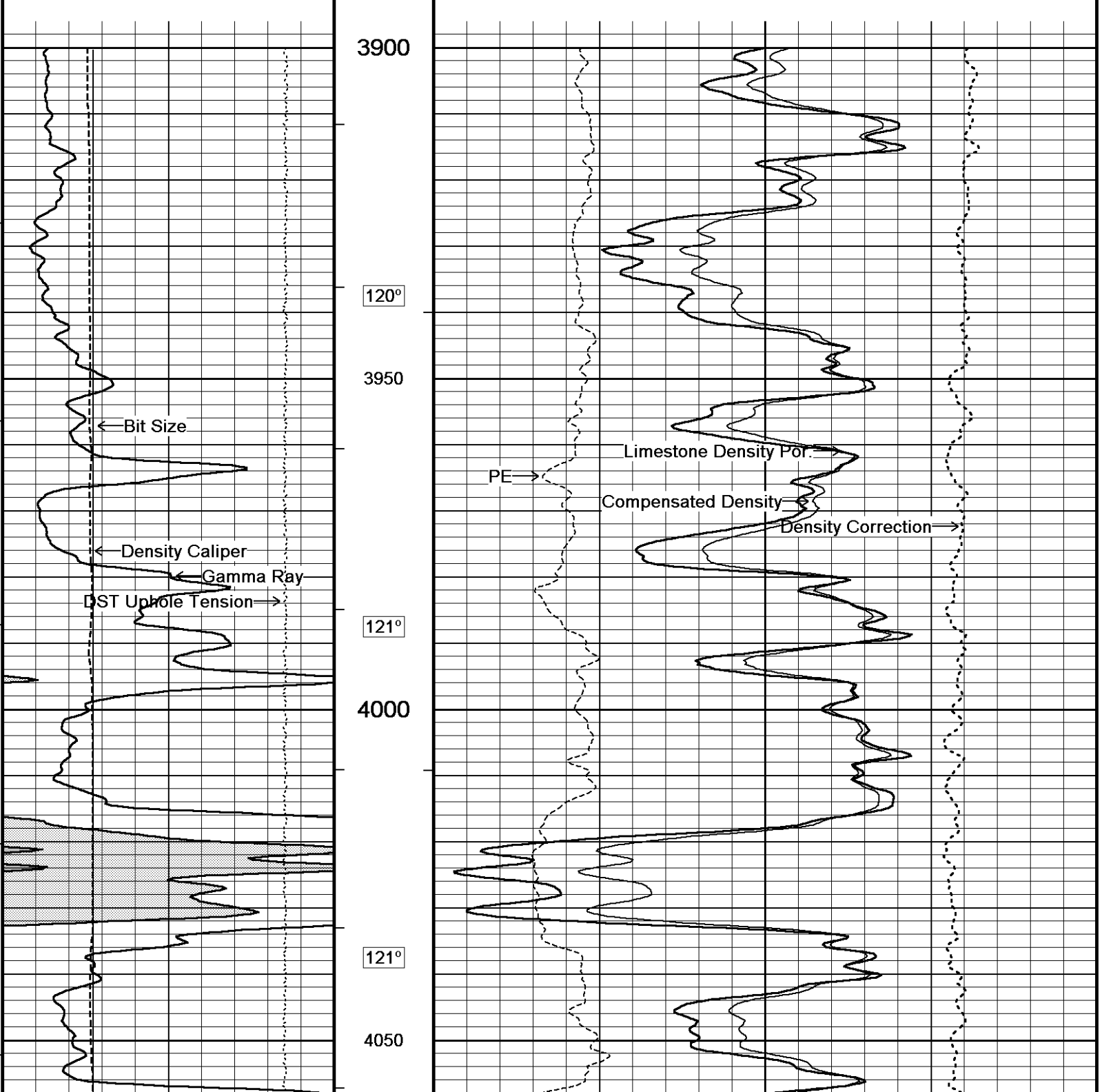
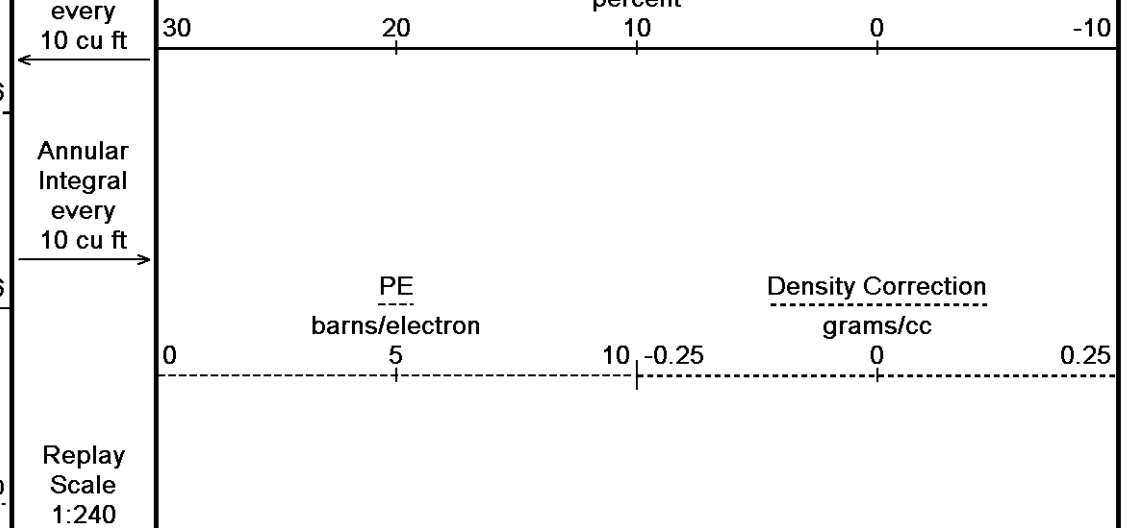
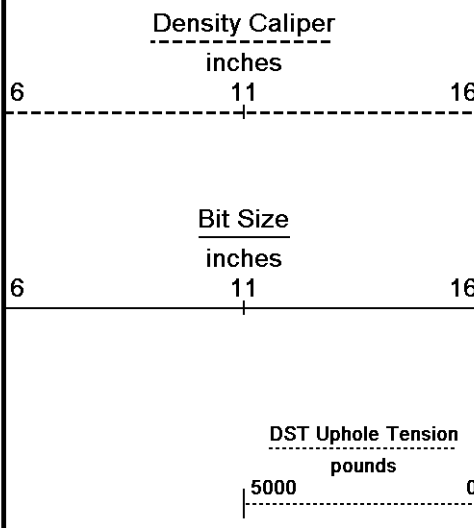
Borehole
Temp in
deg F

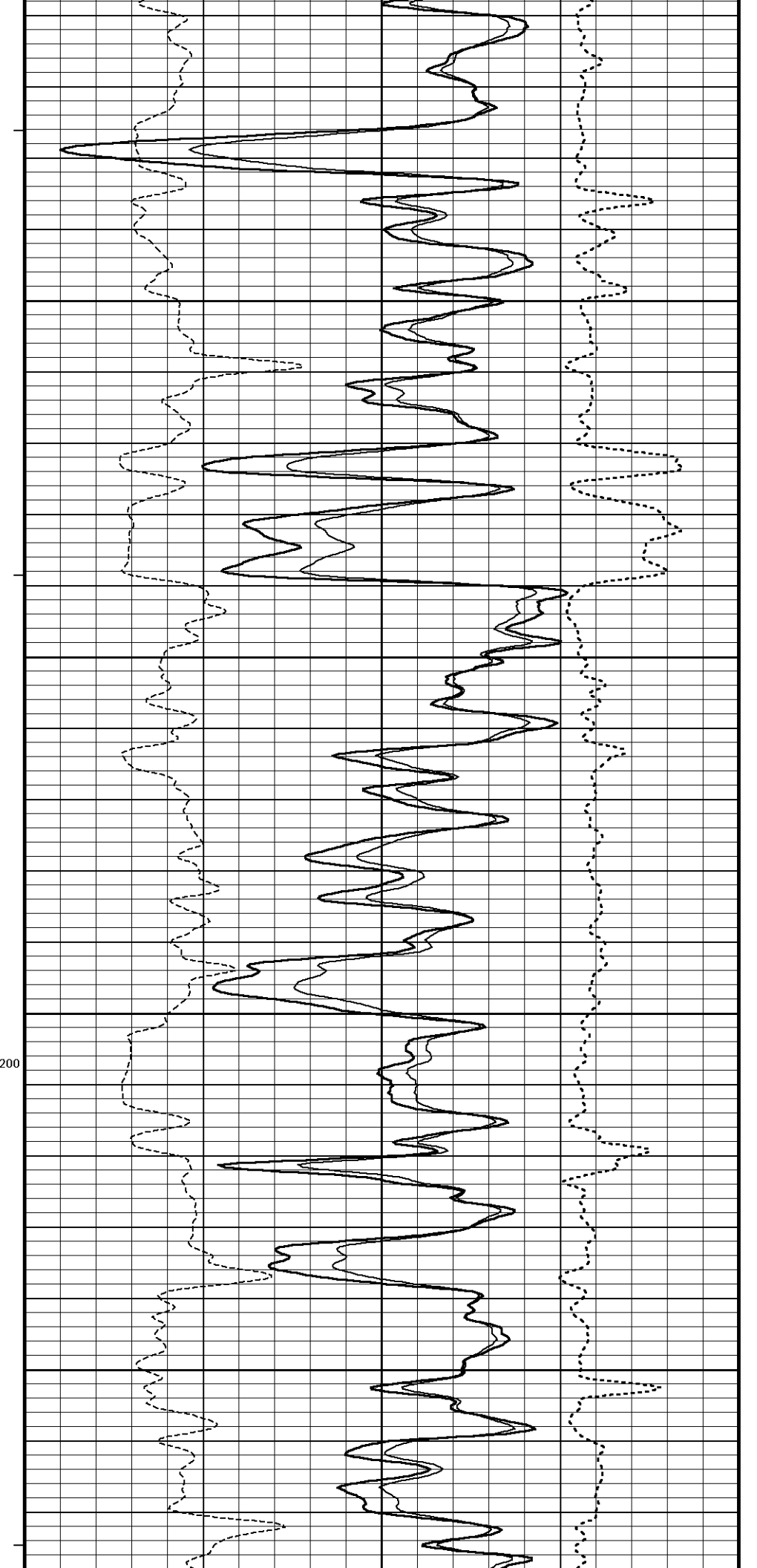
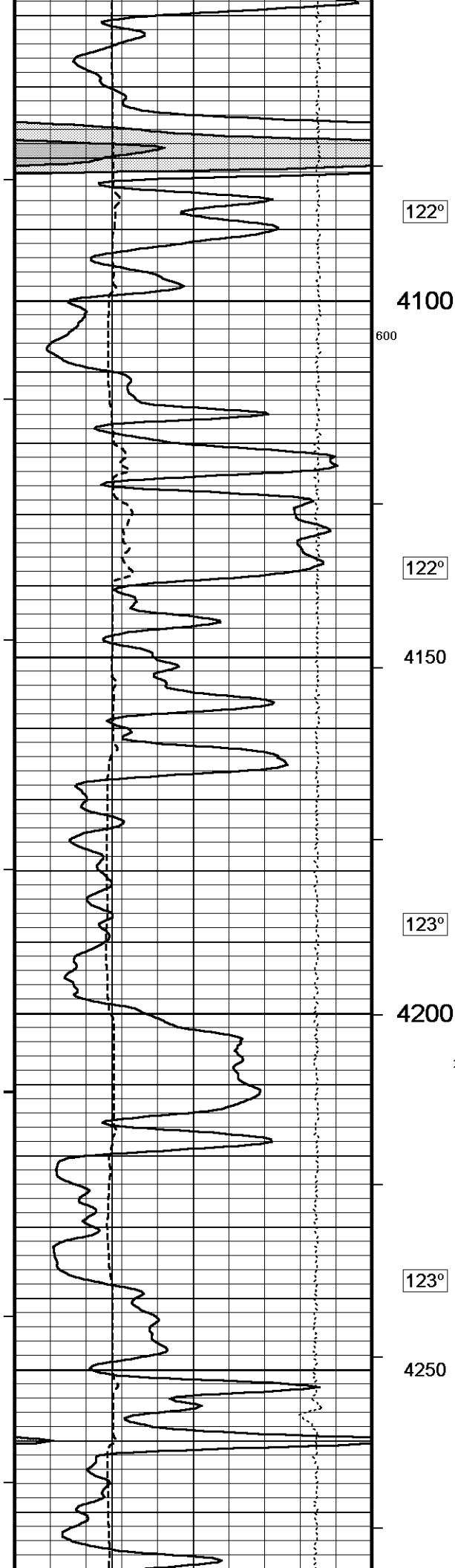
HVI

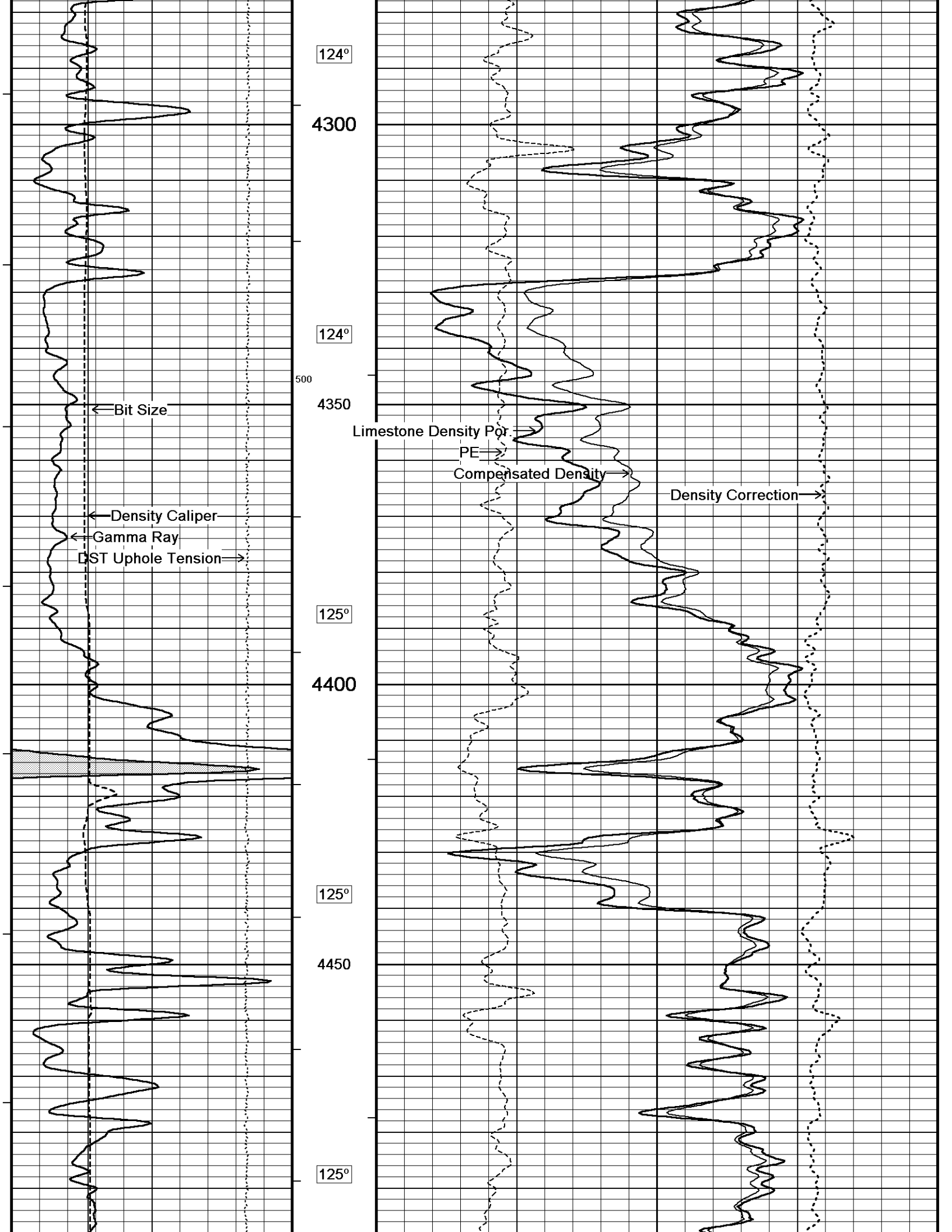
Compensated Density
grams/cc

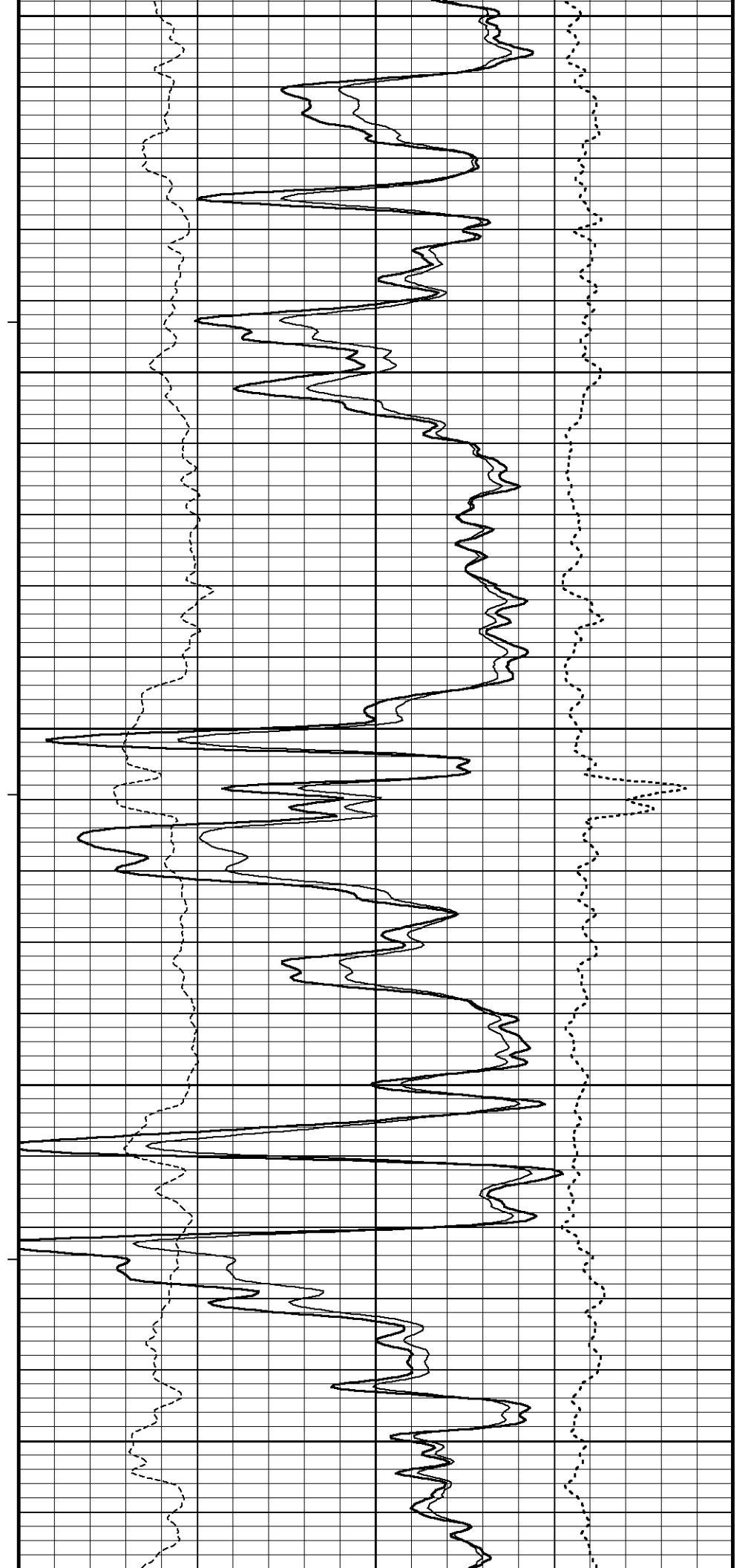
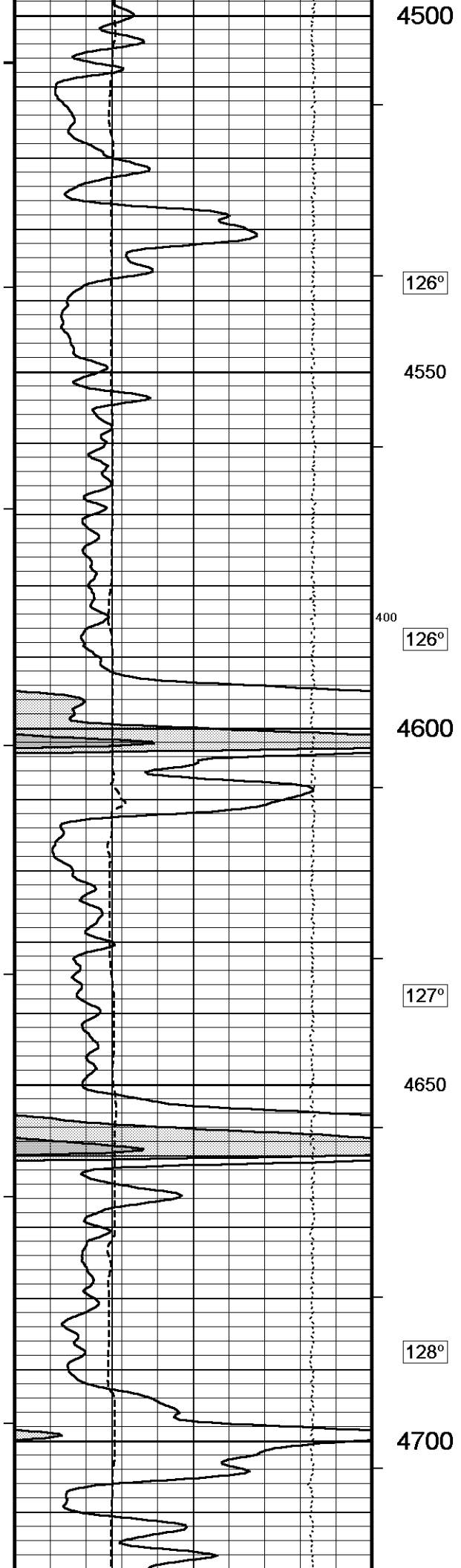
2 2.25 2.50 2.75 3

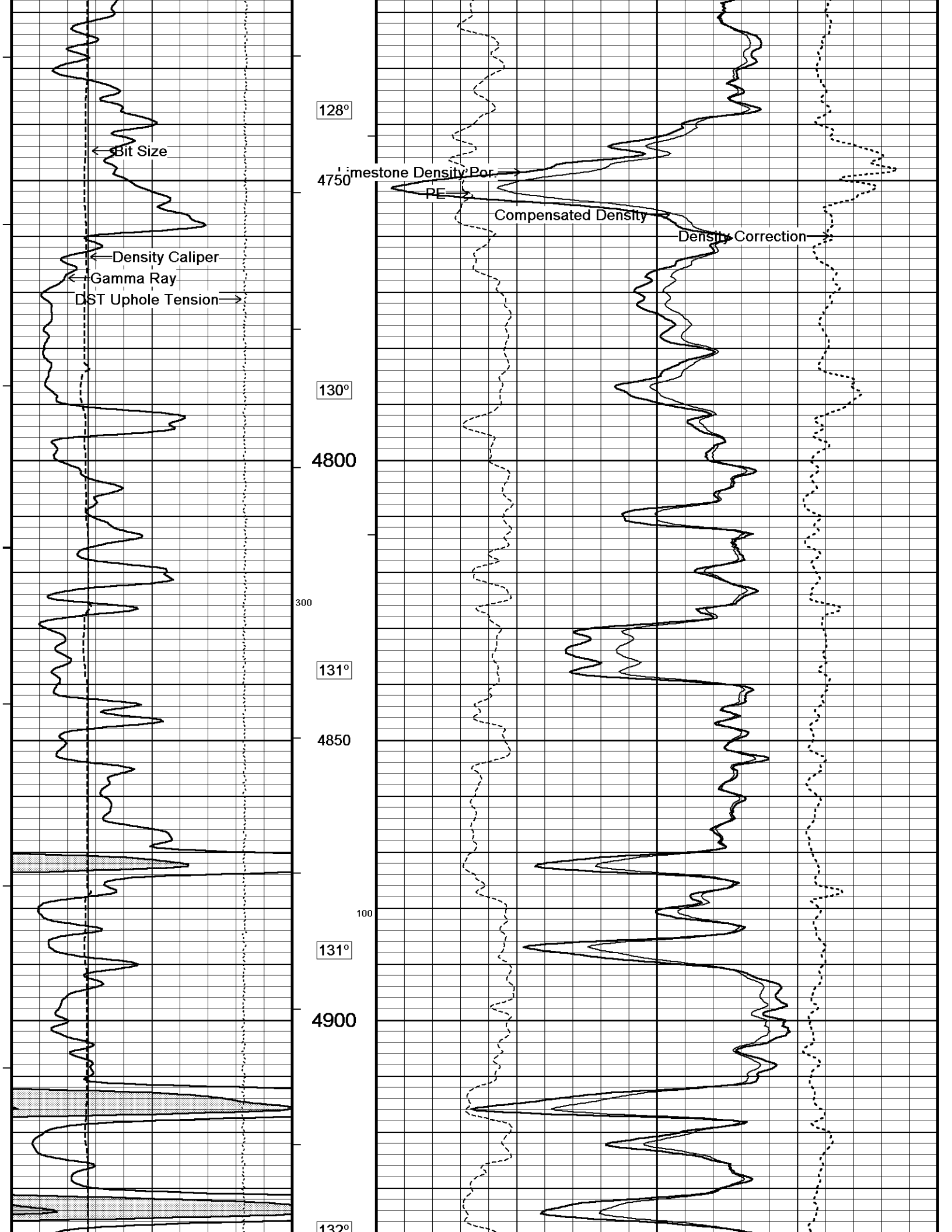
Limestone Density Por.
percent

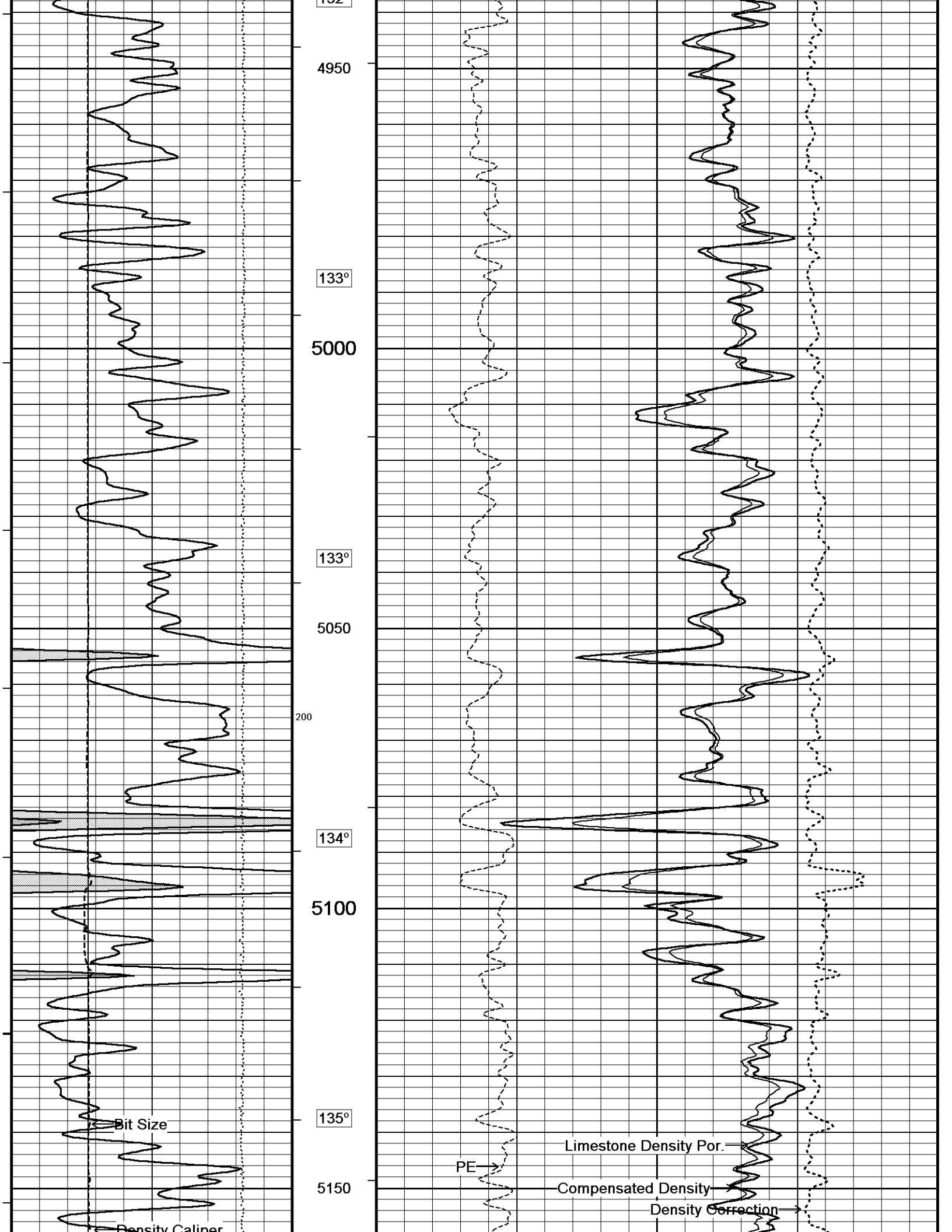


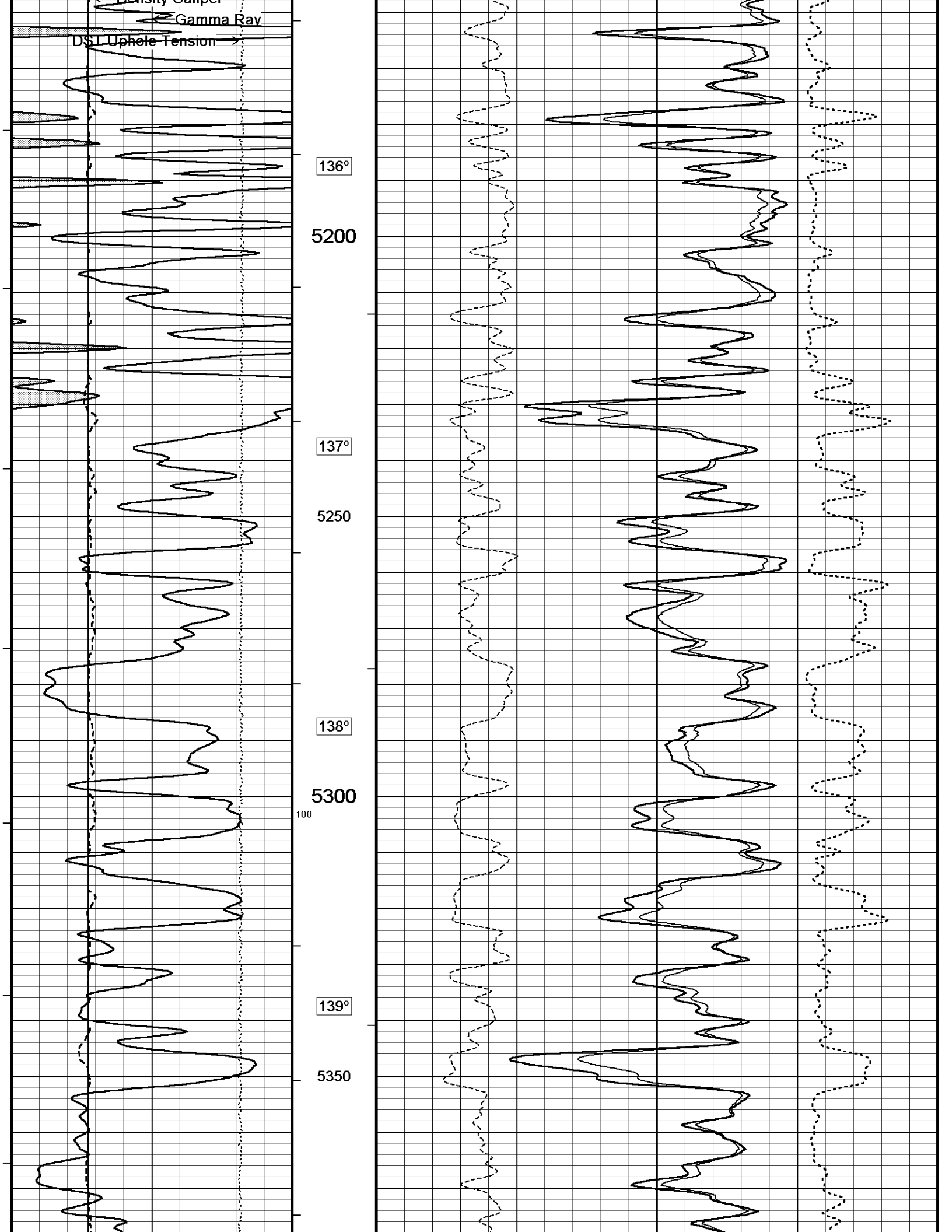


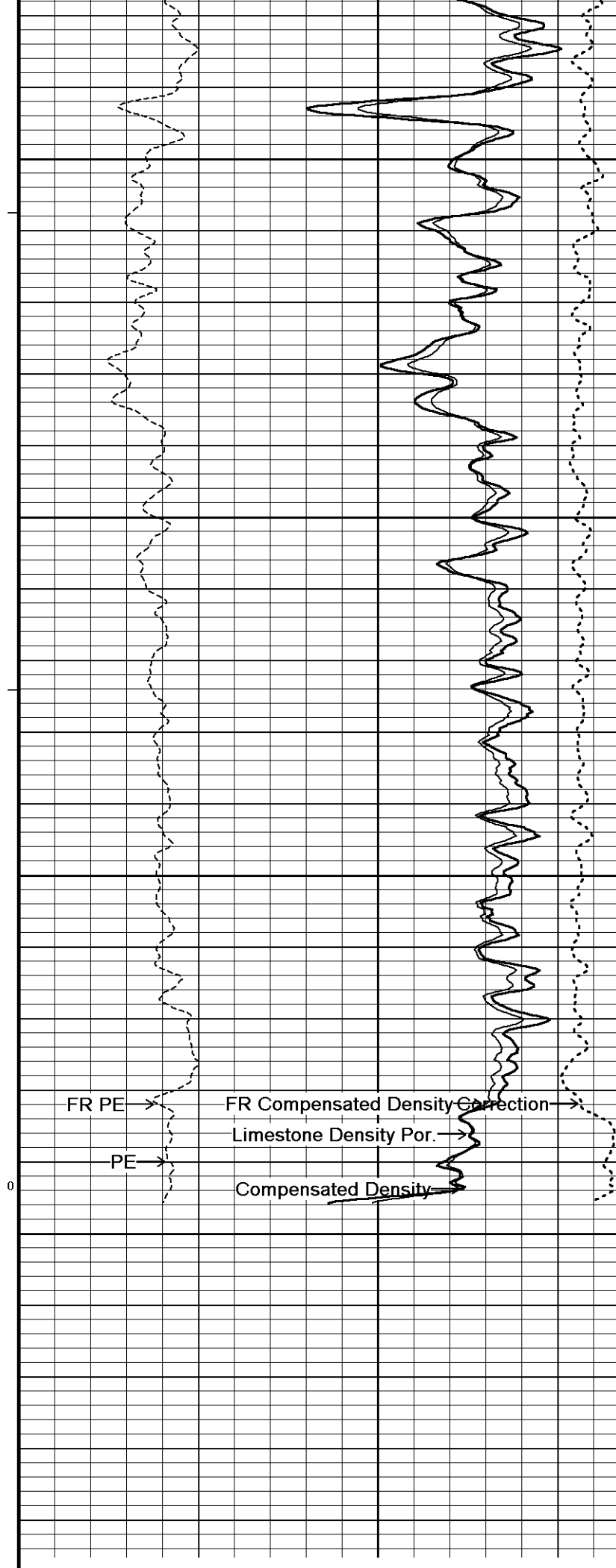
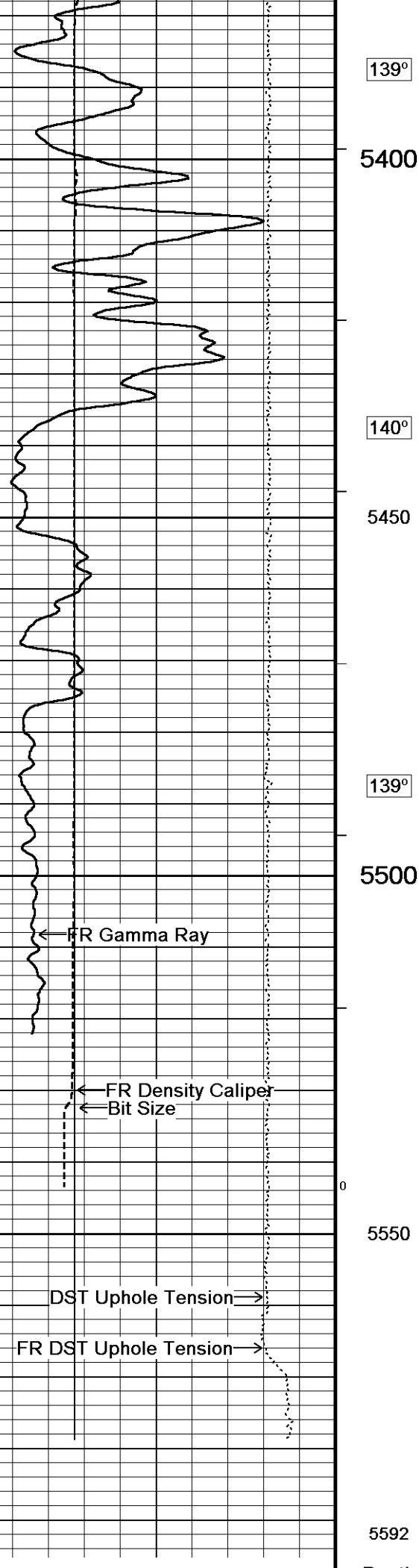


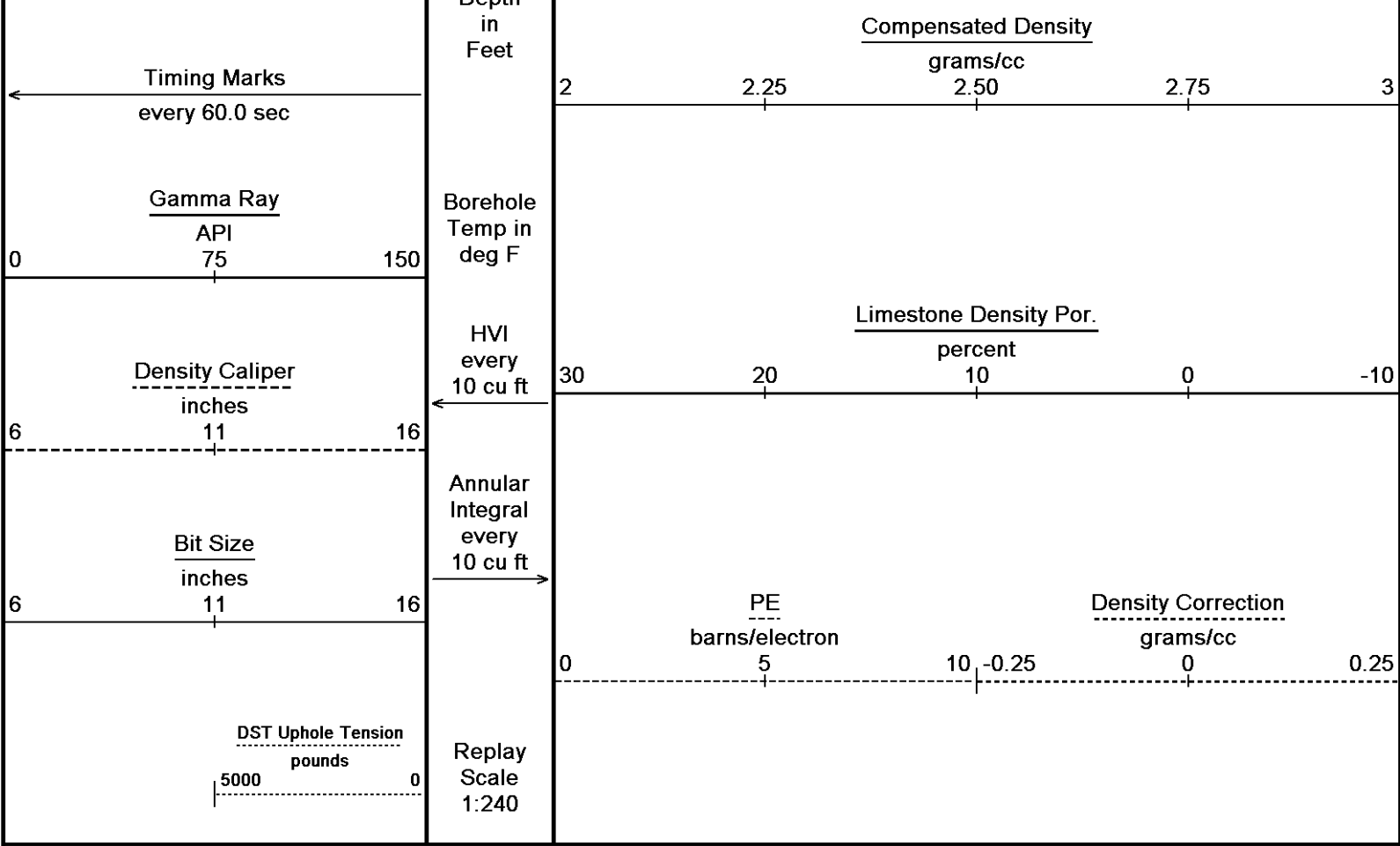










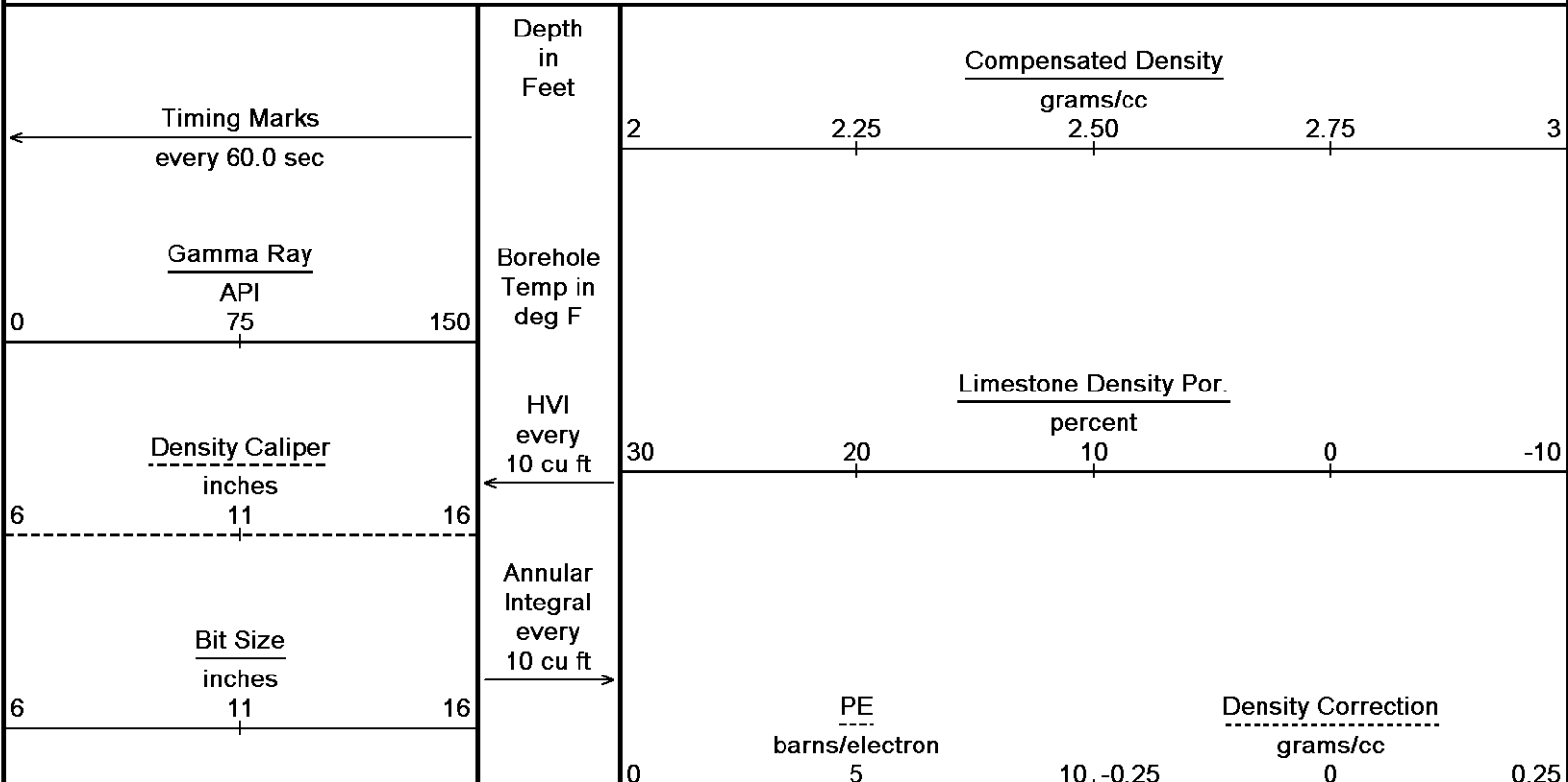


Depth Based Data - Maximum Sampling Increment 10.0cm
 Plotted on 05-JUL-2011 19:07
 Filename: C:\Minimus 11.02.3186\Data\Oxy Elizabeth A. Cox #6\Oxy Elizabeth A. Cox #6_004.dta
 Recorded on 05-JUL-2011 16:55
 System Versions: Logged with 11.02.3186 Plotted with 11.02.3186

5 INCH MAIN PASS

5 INCH REPEAT PASS

Depth Based Data - Maximum Sampling Increment 10.0cm
 Plotted on 05-JUL-2011 19:07
 Filename: C:\Minimus 11.02.3186\Data\Oxy Elizabeth A. Cox #6\Oxy Elizabeth A. Cox #6_003.dta
 Recorded on 05-JUL-2011 16:18
 System Versions: Logged with 11.02.3186 Plotted with 11.02.3186



DST Uphole Tension
pounds
5000 0

Replay
Scale
1:240

5200

136°

5250

137°

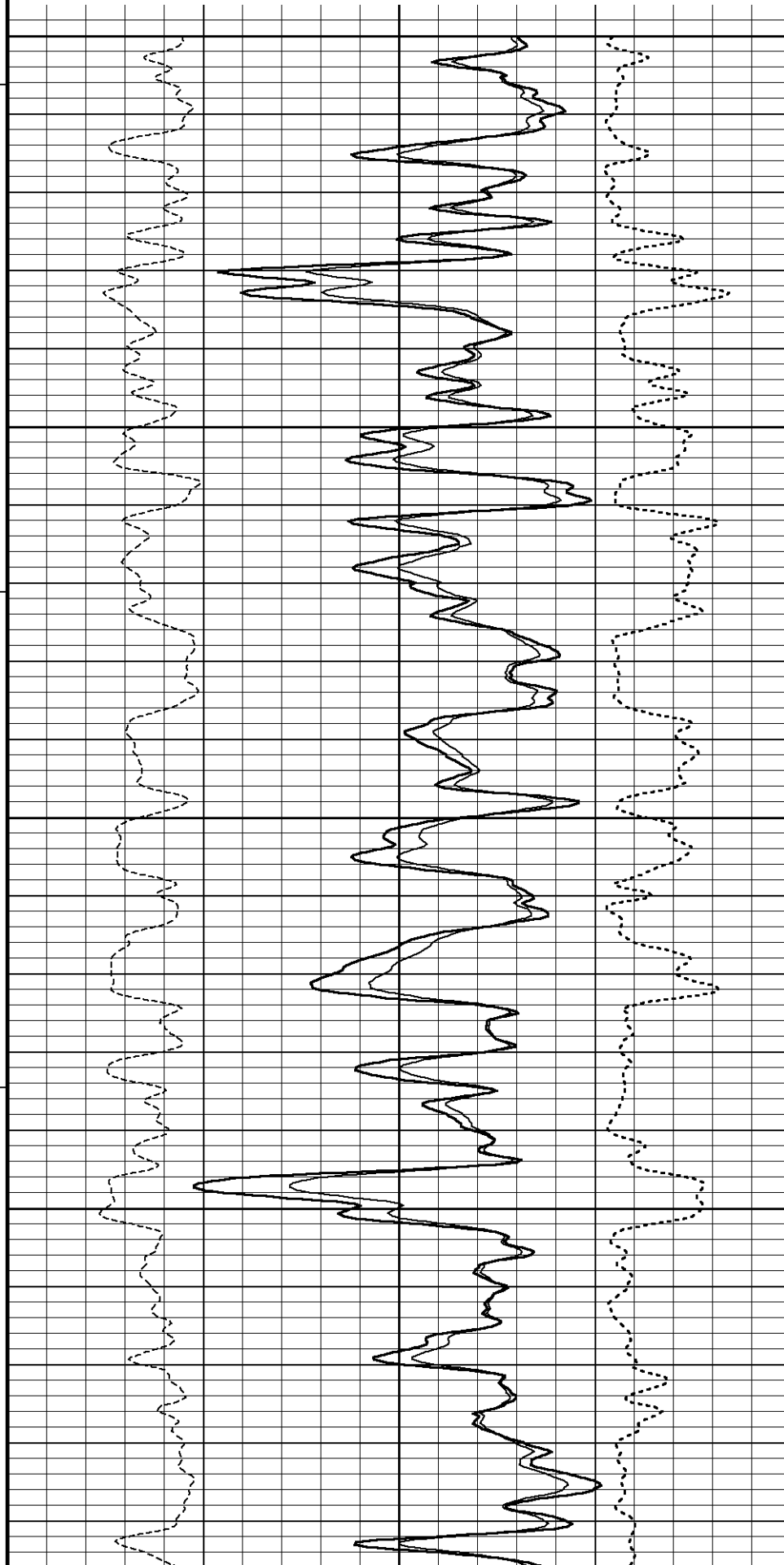
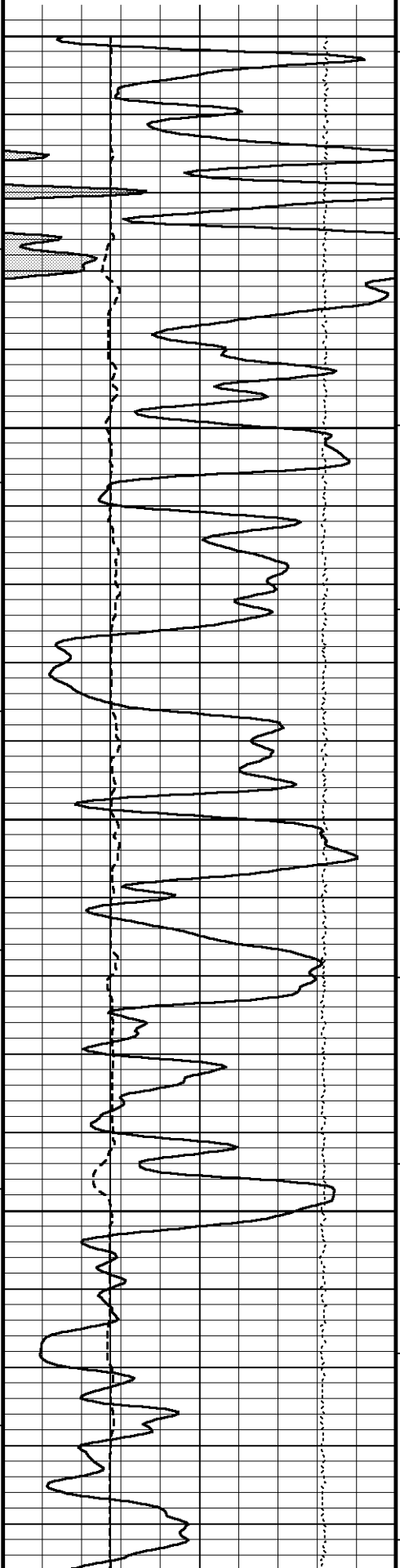
100

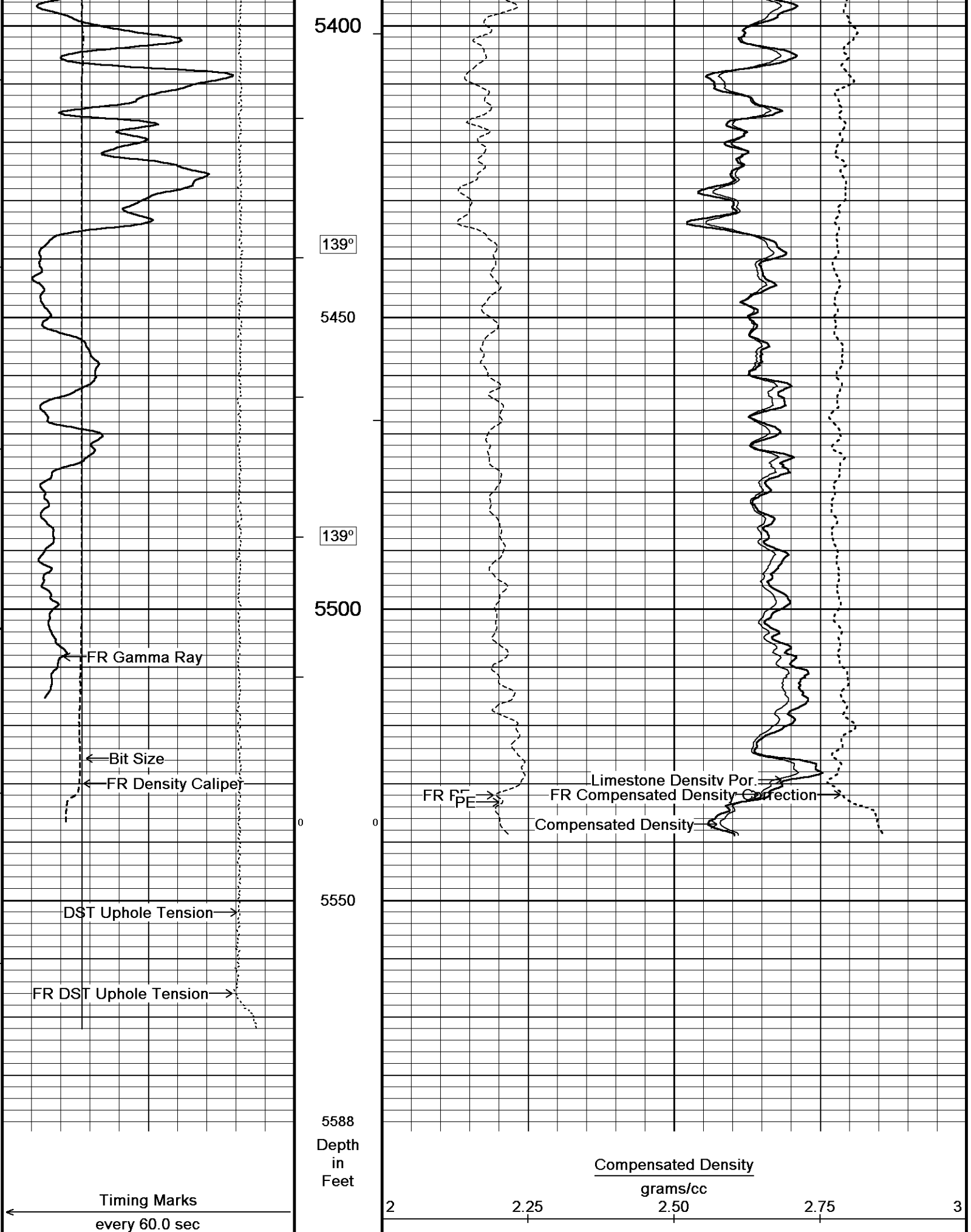
5300

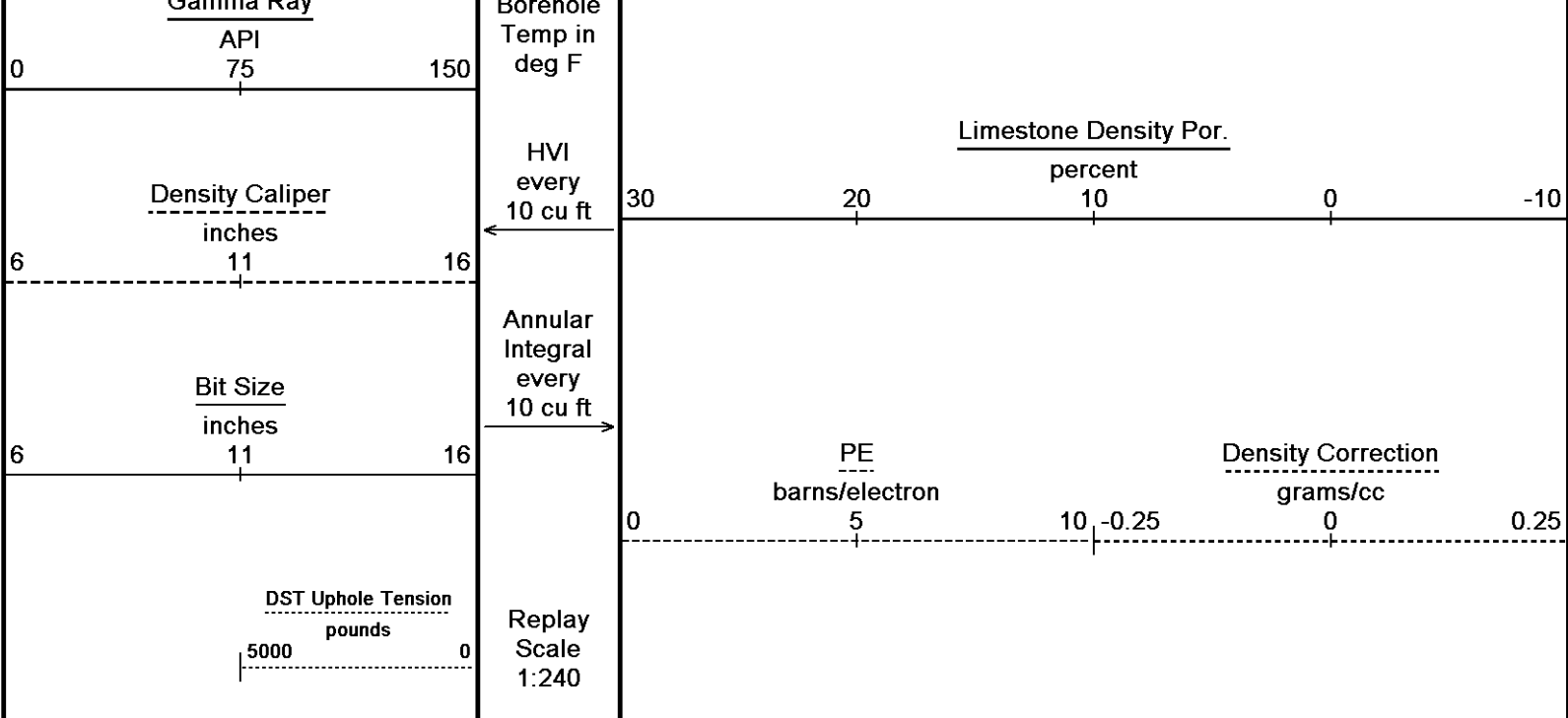
138°

5350

138°







Depth Based Data - Maximum Sampling Increment 10.0cm
 Plotted on 05-JUL-2011 19:07
 Filename: C:\Minimus 11.02.3186\Data\Oxy Elizabeth A. Cox #6\Oxy Elizabeth A. Cox #6_003.dta
 Recorded on 05-JUL-2011 16:18
 System Versions: Logged with 11.02.3186 Plotted with 11.02.3186

↑ 5 INCH REPEAT PASS ↑

BEFORE SURVEY CALIBRATION
 C:\Minimus 11.02.3186\Data\Oxy Elizabeth A. Cox #6\Oxy Elizabeth A. Cox #6_004.dta

General Constants All 000 Last Edited on 05-JUL-2011,10:26

General Parameters		
Mud Resistivity	1.370	ohm-metres
Mud Resistivity Temperature	84.000	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	Base Density Porosity	
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 05-JUN-2011 04:37

Reading No	Measured	Calibrated (lbs)
1	13499.89	0.00
2	14983.70	496.00

High Resolution Temperature Calibration MCG-B 34 Field Calibration on 05-MAR-2011,23:56

	Measured	Calibrated(Deg F)
Lower	50.00	50.00
Upper	75.00	75.00

High Resolution Temperature Constants MCG-B 34 Last Edited on

Pre-filter Length 11

SP Calibration MCG-B 34

Field Calibration on 20-APR-2011 14:53

	Measured	Calibrated (mV)
Reference 1	106.7	100.0
Reference 2	-95.0	-100.0

Gamma Calibration MCG-B 34

Field Calibration on 04-JUL-2011 17:52

	Measured	Calibrated (API)
Background	68	48
Calibrator (Gross)	1100	773
Calibrator (Net)	1033	725

Gamma Constants MCG-B 34

Last Edited on 05-JUL-2011,10:27

Gamma Calibrator Number	grc38	
Mud Density	1.09	gm/cc
Caliper Source for Processing	Density Caliper	
Tool Position	Eccentred	
Concentration of KCl	0.00	kppm

Micro Normal and Micro Inverse Calibration MML-A 4

Base Calibration on 16-MAY-2011 09:23

Field Check on 04-JUL-2011 17:17

Base Calibration					
Channel	Measured		Calibrated (ohm-m)		
	Resistor 1	Resistor 2	Resistor 1	Resistor 2	
Micro Normal	12.1	60.1	2.6	12.8	
Micro Inverse	15.6	78.3	1.7	8.4	
Channel	Base Check (ohm-m)		Field Check (ohm-m)		
	Micro Normal		32.2		32.2
	Micro Inverse		16.3		16.3

Micro Normal and Micro Inverse Constants MML-A 4

Last Edited on 05-JUL-2011,10:27

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

Caliper Calibration MML-A 4

Base Calibration on 16-MAY-2011 09:38

Field Calibration on 04-JUL-2011 17:54

Base Calibration		
Reading No	Measured	Calibrator Size (in)
1	14953	5.98
2	18280	7.97
3	21656	9.86
4	25588	11.92
5	0	0.00
6	N/A	N/A
Field Calibration		
	Measured Caliper (in)	Actual Caliper (in)
	6.10	5.98

Neutron Calibration MDN-A.B 65

Base Calibration on 02-JUL-2011 23:27

Field Check on 04-JUL-2011 18:14

Base Calibration					
Ratio	Measured		Calibrated (cps)		
	Near	Far	Near	Far	
	3269	103	3714	110	
	31.795		33.764		
Field Calibrator at Base					
			Calibrated (cps)		
			1562	2227	
			0.701		
Field Check					
			Calibrated (cps)		
			1585	2221	
			0.714		

Neutron Constants MDN-A.B 65

Last Edited on 05-JUL-2011,10:28

Neutron Source Id	757
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Neutron Source ID	757	
Neutron Jig Number	5824NE	
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	None	
Formation Pressure	N/A	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	

FE Calibration MFE-A.A 55

Base Calibration on 21-JUN-2011 10:19
Field Check on 04-JUL-2011 17:15

Base Calibration			
	Measured	Calibrated (ohm-m)	
Reference 1	0.0	0.0	
Reference 2	953.6	126.8	
Base Check		281.3	
Field Check		281.3	

FE Constants MFE-A.A 55

Last Edited on 05-JUL-2011,10:28

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 126

Last Edited on 05-JUL-2011,10:29

Maximum Boundary Contrast	100.00	micro-sec/ft
Fluid Transit Time	189.00	micro-sec/ft
Limestone Transit Time	47.50	micro-sec/ft
Sandstone Transit Time	55.50	micro-sec/ft
Dolomite Transit Time	43.50	micro-sec/ft
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	83.13	micro-sec/ft

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)	N/A	

N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A

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-A.A 45			Field Calibration on 13-AUG-2010,13:31
	Measured	Calibrated(Deg F)	
Lower	50.00	50.00	
Upper	100.00	100.00	

High Resolution Temperature Constants MAI-A.A 45		Last Edited on
Pre-filter Length	11	

Induction Calibration MAI-A.A 45				Base Calibration on 13-AUG-2010,13:32	
				Field Check on 04-JUL-2011 17:13	
Base Calibration					
Test Loop Calibration		Measured		Calibrated (mmho/m)	
Channel	Low	High	Low	High	
1	14.5	473.5	9.3	966.2	
2	5.2	373.4	7.6	821.4	
3	2.8	260.6	5.2	566.0	
4	1.6	132.2	2.6	279.2	
Array Temperature		86.2	Deg F		
Channel		Base Check (mmho/m)		Field Check (mmho/m)	
	Low	High	Low	High	
1	0.0	0.0	20.2	3846.1	
2	0.0	0.0	33.4	3631.8	
3	0.0	0.0	30.3	3050.4	
4	0.0	0.0	20.6	2093.8	
Deep	0.0	0.0	18.2	1920.5	
Medium	0.0	0.0	43.5	4051.0	
Shallow	0.0	0.0	50.7	5475.8	
Array Temperature		0.0	92.2	Deg F	

Induction Constants MAI-A.A 45			Last Edited on 05-JUL-2011,10:29
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		8.0000	
Stand-off Fin Angle		45.00	degrees
Stand-off Fin Width		0.5000	inches
Borehole Corr. Rm Source		Temperature Corr	
Temp. for Rm Corr		MCG External Temperature	

Temp. for Rm Corr. WGS External Temperature
 Squasher Start 0.0020 mhos/metre
 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-B 65

Base Calibration on 01-JUL-2011 18:46
 Field Calibration on 04-JUL-2011 18:03

Base Calibration

Reading No	Measured	Calibrator Size (in)
1	13710	3.99
2	22224	5.98
3	30784	7.97
4	39184	9.86
5	48352	11.92
6	N/A	N/A

Field Calibration

Measured Caliper (in)	Actual Caliper (in)
5.97	5.98

Photo Density Calibration MPD-B 65

Base Calibration on 02-JUL-2011 22:55
 Field Check on 04-JUL-2011 18:02

Density Calibration

Base Calibration	Measured		Calibrated (sdu)	
	Near	Far	Near	Far
Reference 1	50829	24574	59556	30836
Reference 2	20710	2286	24941	2541

Field Check at Base

1245.3	1199.3
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Field Check

1247.3	1189.8
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PE Calibration

Base Calibration	WS	Measured		Calibrated Ratio
		WH	Ratio	
Background	226	1107		
Reference 1	19076	50633	0.381	0.371
Reference 2	5565	20564	0.274	0.272

Field Check at Base

225.7	1107.0
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Field Check

226.2	1113.9
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Density Constants MPD-B 65

Last Edited on 05-JUL-2011,10:28

Density Source Id	254	
Nylon Calibrator Number	695	
Aluminium Calibrator Number	698	
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	0.00	

DOWNHOLE EQUIPMENT

C:\Minimus 11.02.3186\Data\Oxy Elizabeth A. Cox #6\Oxy Elizabeth A. Cox #6_004.dta

3/8" Triple Cone Cable Head (MCB C A)
MCB-C.A 5 LG: 1.58 ft WT: 15.4 lb OD: 2.24 in

Compact Comms Gamma
MCG-B 34 LG: 8.70 ft WT: 63.9 lb OD: 2.24 in

Compact Micro-log
MML-A 4 LG: 7.97 ft WT: 81.6 lb OD: 2.24 in

Compact Neutron
MDN-A.B 65 LG: 5.04 ft WT: 50.7 lb OD: 2.24 in

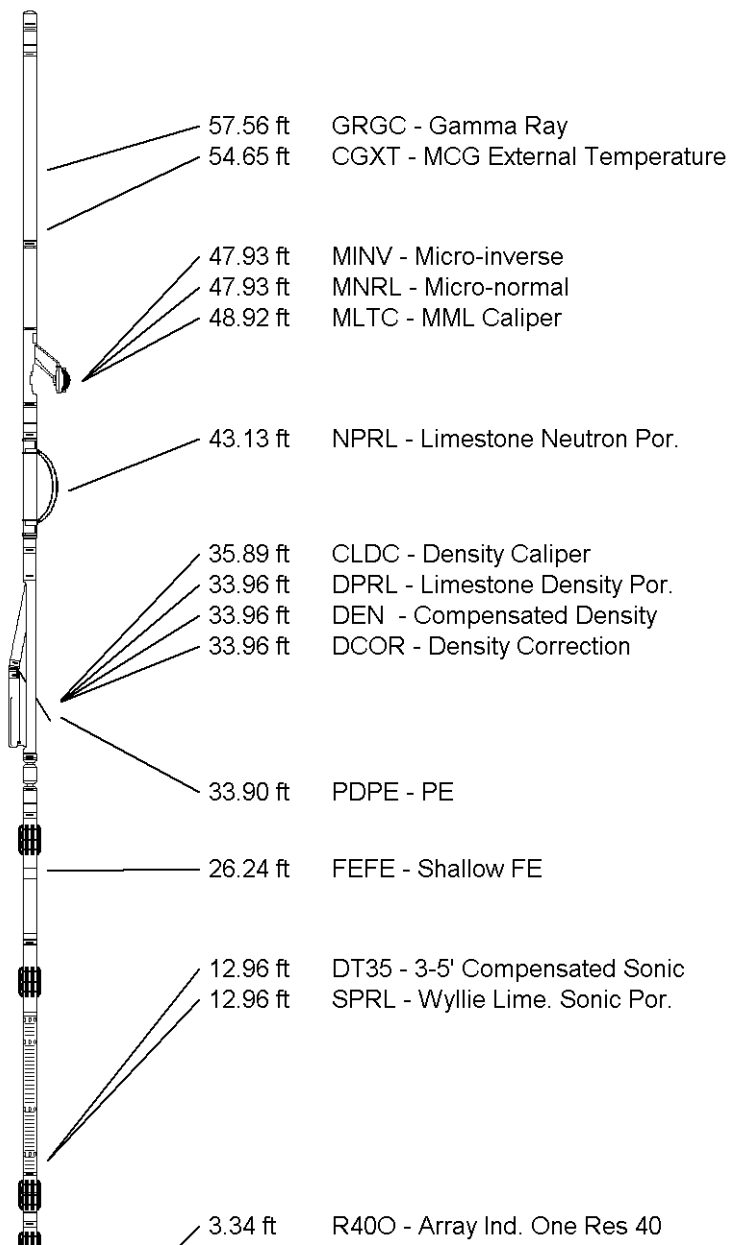
Compact Density/Caliper
MPD-B 65 LG: 9.59 ft WT: 90.4 lb OD: 2.45 in

SKJ-D.A Compact Knuckle Joint
SKJ-D.A 37 LG: 2.17 ft WT: 24.3 lb OD: 2.24 in

Compact Focussed Electric
MFE-A.A 55 LG: 6.05 ft WT: 48.5 lb OD: 2.24 in

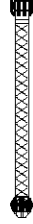
Compact Sonic
MSS-A.A 126 LG: 12.52 ft WT: 72.8 lb OD: 2.24 in

Compact Induction



MAI-A.A 45 LG: 10.81 ft WT: 48.5 lb OD: 2.24 in

Total Length: 64.42 ft Weight: 496.0 lb



3.34 ft RTAO - Array Ind. One Res Rt
 3.34 ft R600 - Array Ind. One Res 60
 0.23 ft SPCG - Spontaneous Potential
 Tool Zero (0.13ft from bottom)
 -0.13 ft SMTU - DST Uphole Tension
 All measurements relative to tool zero.

COMPANY OXY USA, INC.
 WELL ELIZABETH A. COX #6
 FIELD VICTORY
 PROVINCE/COUNTY HASKELL
 COUNTRY/STATE U.S.A. / KANSAS

Elevation Kelly Bushing	2979.00	feet	First Reading	553.00	feet
Elevation Drill Floor	2977.00	feet	Depth Driller	5560.00	feet
Elevation Ground Level	2968.00	feet	Depth Logger	5566.00	feet



Weatherford[®]

COMPACT PHOTO DENSITY
 COMPENSATED NEUTRON
 MICRORESISTIVITY LOG

