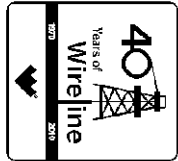




Weatherford

COMPACT PHOTO DENSITY COMPENSATED NEUTRON MICRORESISTIVITY LOG

COMPANY: REDLAND RESOURCES INC.
 WELL: BRYNN # 9-15
 FIELD: HARDTNER
 PROVINCE/COUNTY: BARBER
 COUNTRY/STATE: U.S.A. / KANSAS
 LOCATION: 660' FSL & 1980' FEL SW/4



SEC: 9 TWP: 35 RGE: 12W
 Other Services: MAI/MFE

Permanant Datum G.L., Elevation 1396 feet
 Log Measured From KB
 Drilling Measured From K.B. @ 13 FEET

Elevations:
 KB 1409.00
 DF 1407.00
 GL 1396.00

Date	03-SEP-2011	
Run Number	ONE	
Depth Driller	5076.00	feet
Depth Logger	5070.00	feet
First Reading	5047.00	feet
Last Reading	3800.00	feet
Casing Driller	262.00	feet
Casing Logger	262.00	feet
Bit Size	7.875	inches
Hole Fluid Type	CHEMICAL	
Density / Viscosity	9.40 lb/USg	
PH / Fluid Loss	10.50	10.00 ml/30Min
Sample Source	FLOWLINE	
Rm @ Measured Temp	0.45 @ 90.0	ohm-m
Rmf @ Measured Temp	0.36 @ 90.0	ohm-m
Rmc @ Measured Temp	0.54 @ 90.0	ohm-m
Source Rmf / Rmc	CALC	CALC
Rm @ BHT	0.33 @ 123.0	ohm-m
Time Since Circulation	5 HOURS	
Max Recorded Temp	123.00	deg F
Equipment Name	COMPACT	
Equipment / Base	13096	LIB
Recorded By	A. GIAMBALVO	
Witnessed By	BETH BROCK	W. STAMBAUGH
S.O. / JOB #	3531151	LB11-225

BOREHOLE RECORD

Last Edited: 03-SEP-2011 02:20

Bit Size inches	Depth From feet	Depth To feet
7.875	262.00	5070.00

CASING RECORD

Type	Size inches	Depth From feet	Shoe Depth feet	Weight pounds/ft
SURFACE	13.375	0.00	262.00	48.00

REMARKS

Tools Used: MPD, MCG, MDN, MFE, MAI, MML.
 Hardware: MPD: 8 inch profile plate used. MAI, MSS and MFE: 0.5 Inch standoffs used. MDN: Dual Bowspring used.
 2.71 G/CC Limestone density matrix used to calculate porosity.
 Borehole rugosity, tight pulls, and washouts will affect data quality.
 All intervals logged and scaled per customer's request.
 Annular volume with 4.5 inch production casing = 285 cu. ft
 Service order #3531151
 Rig: Duke #7
 Engineer: A. Giambalvo
 Operator(s): N. Adame, C. Veatch

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

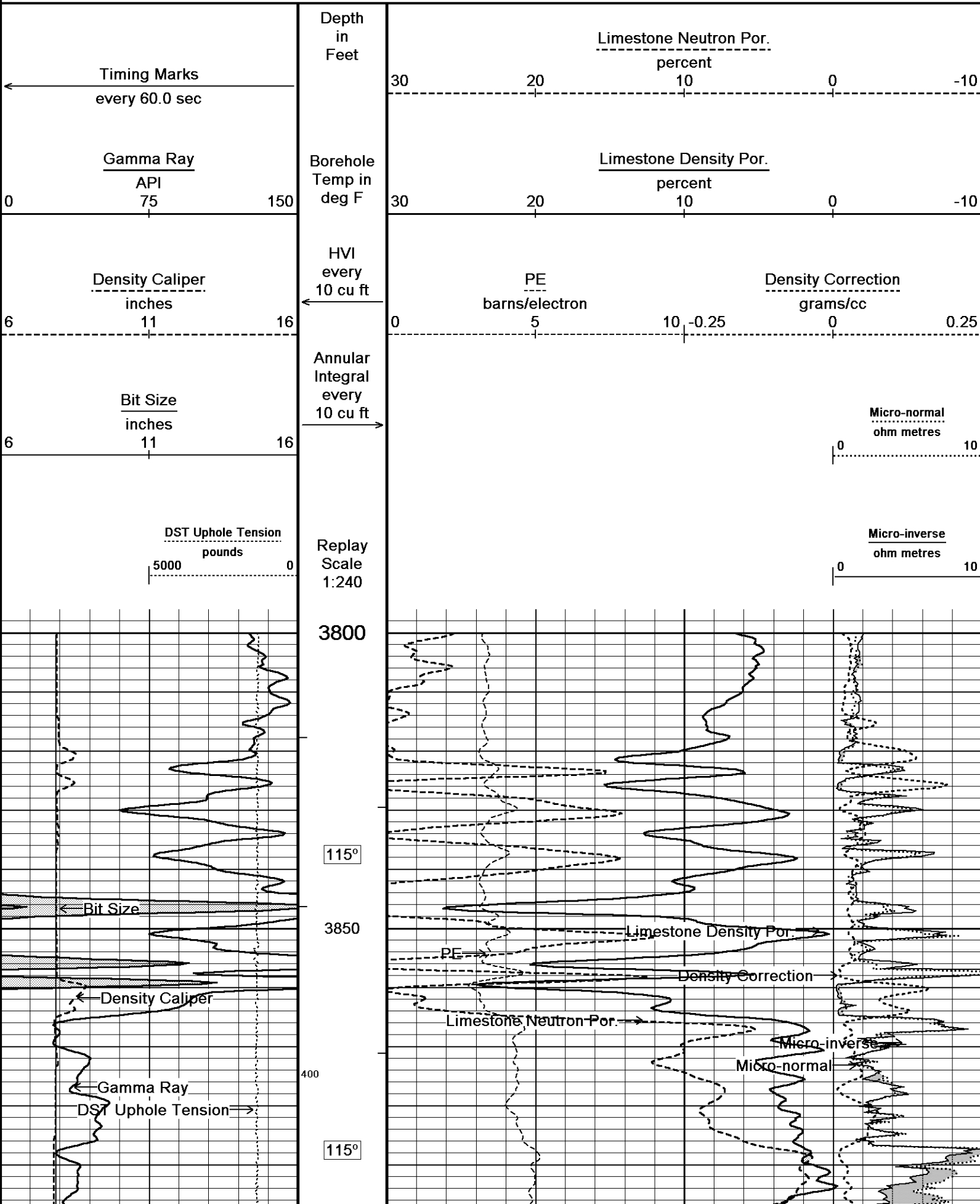
Depth Based Data - Maximum Sampling Increment 10.0cm

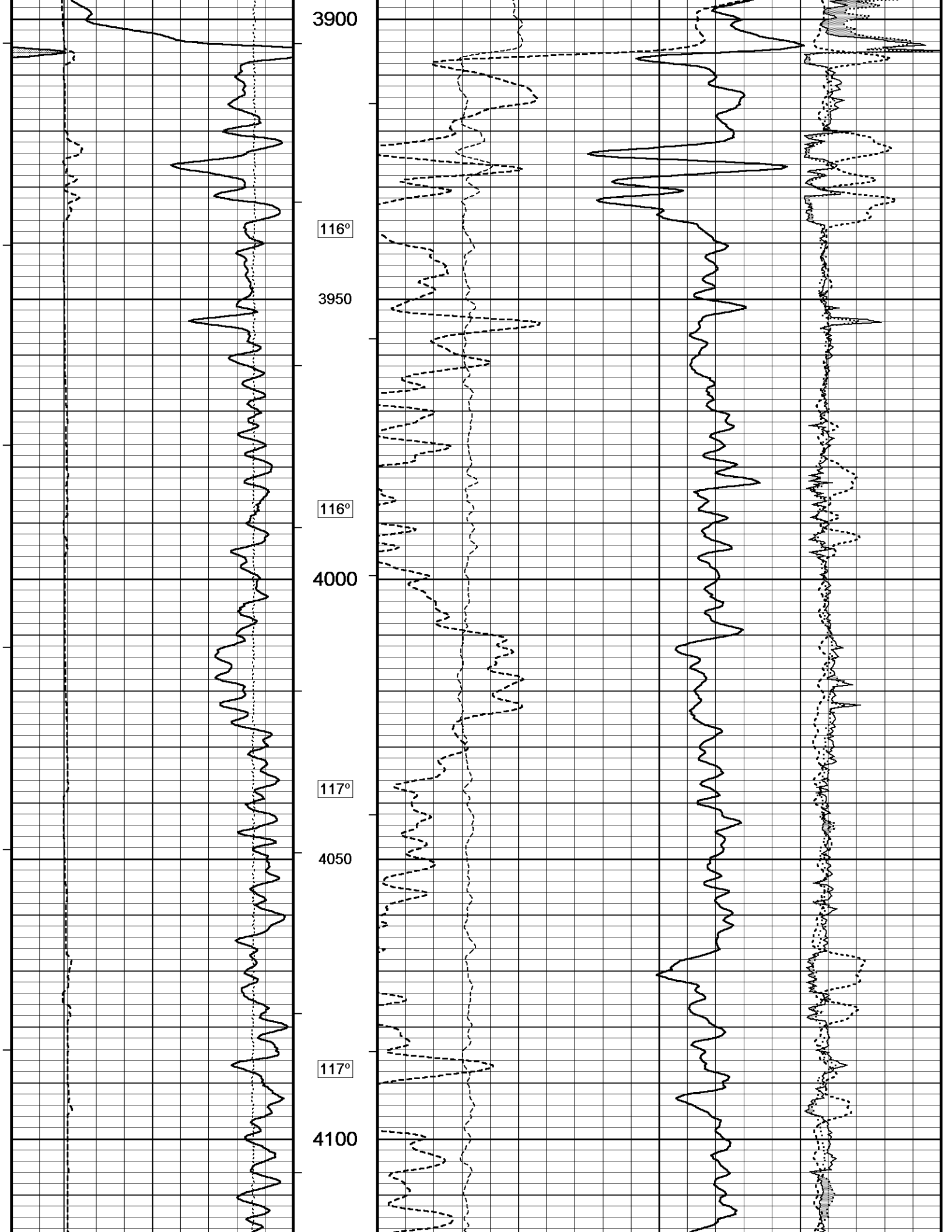
Plotted on 18-JAN-2012 14:48

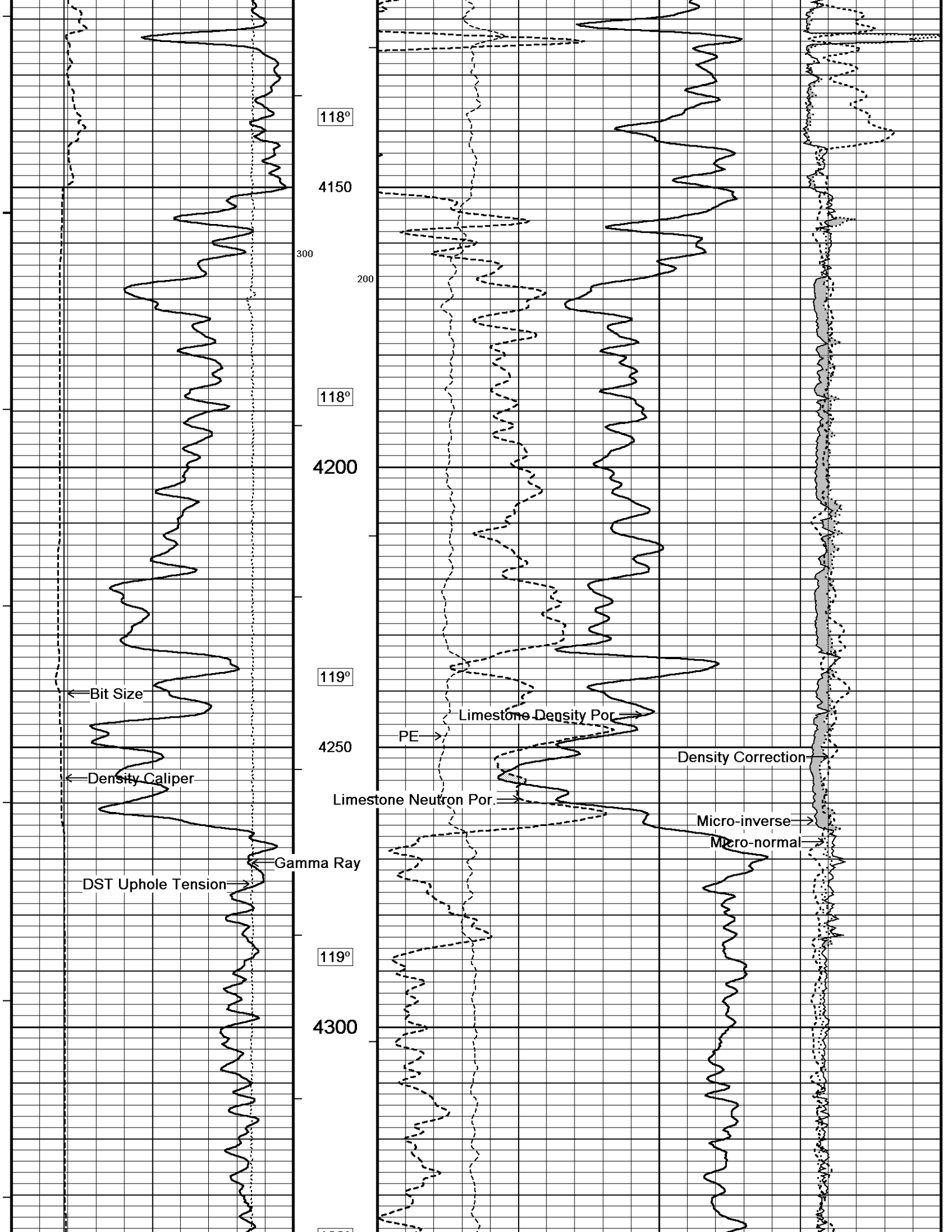
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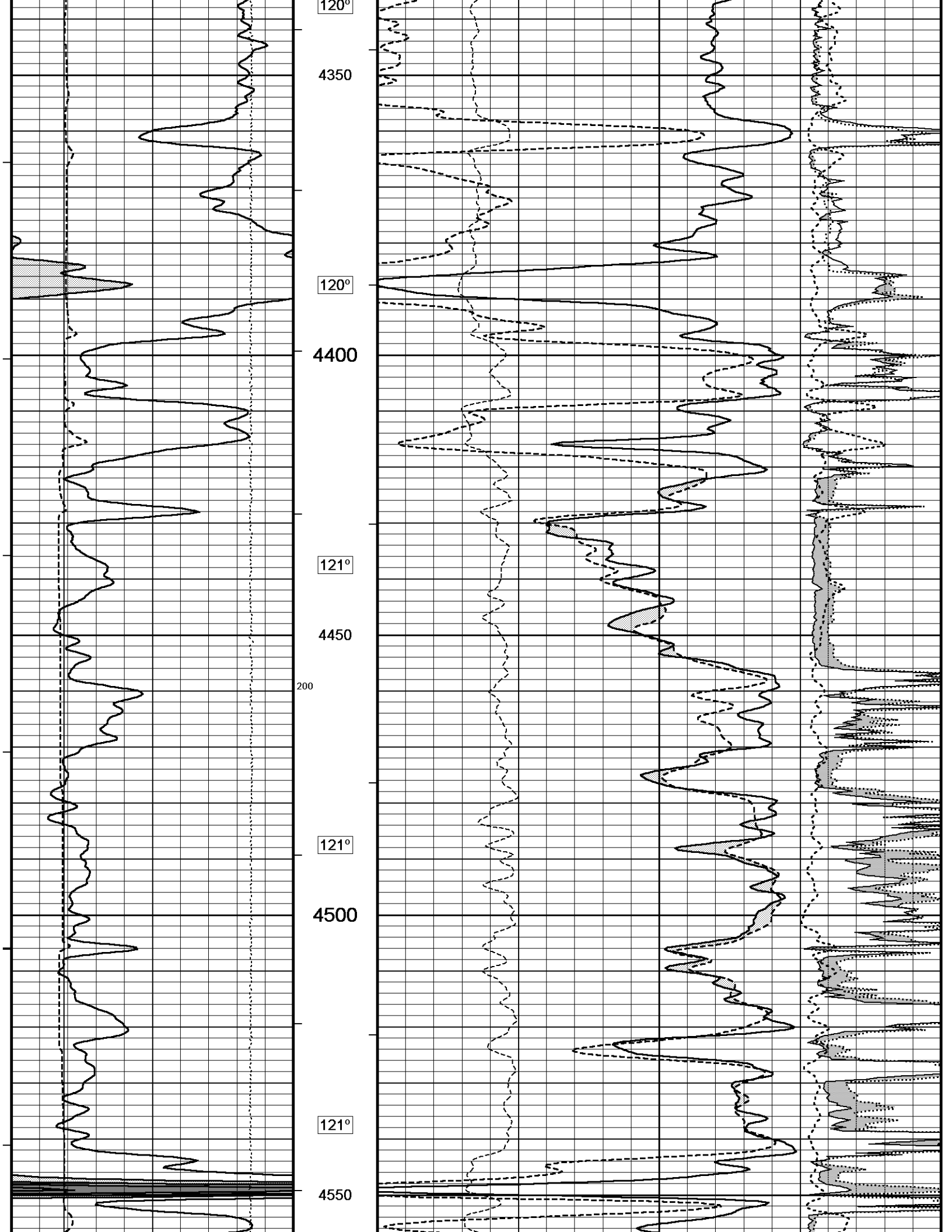
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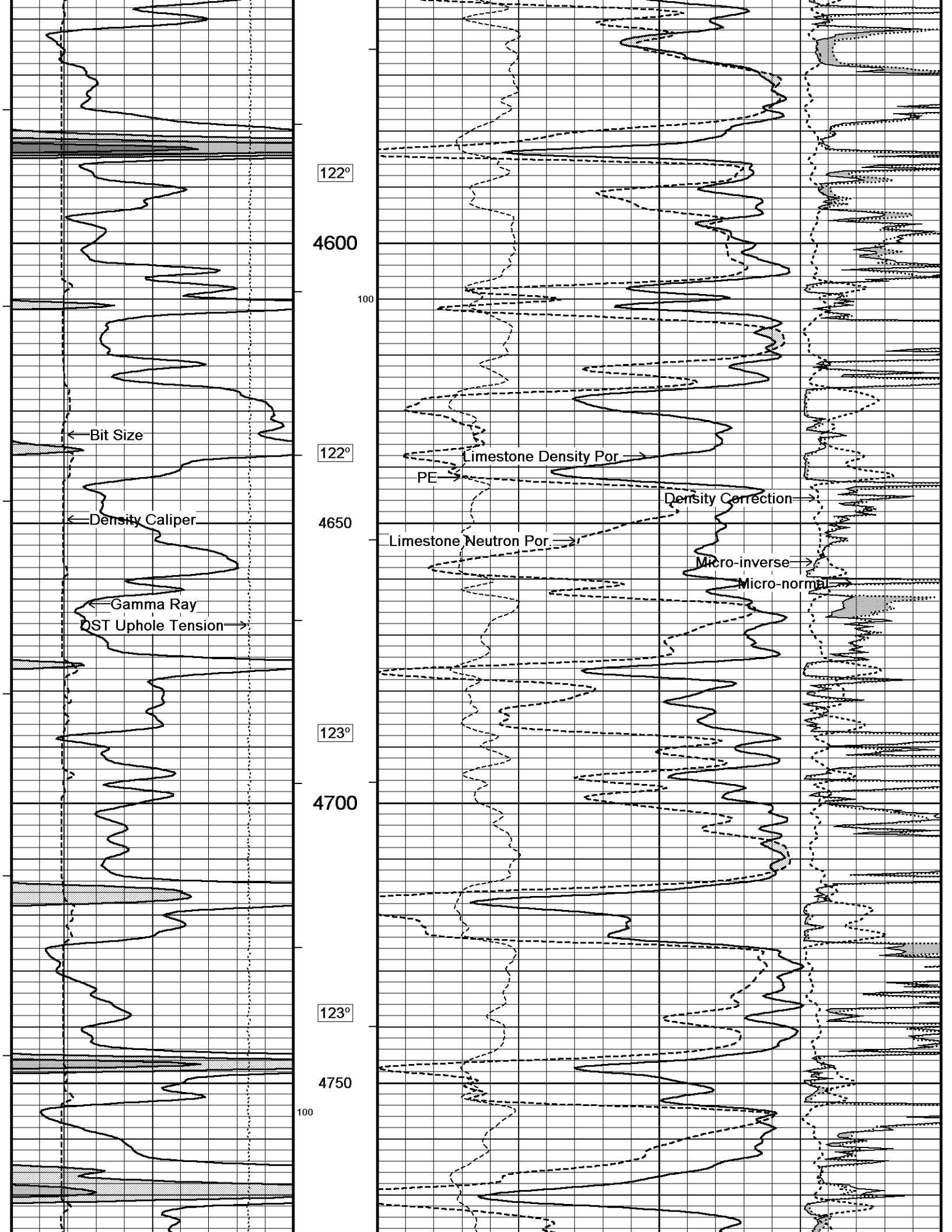
System Versions: Logged with 11.03.4044 Plotted with 12.01.3513

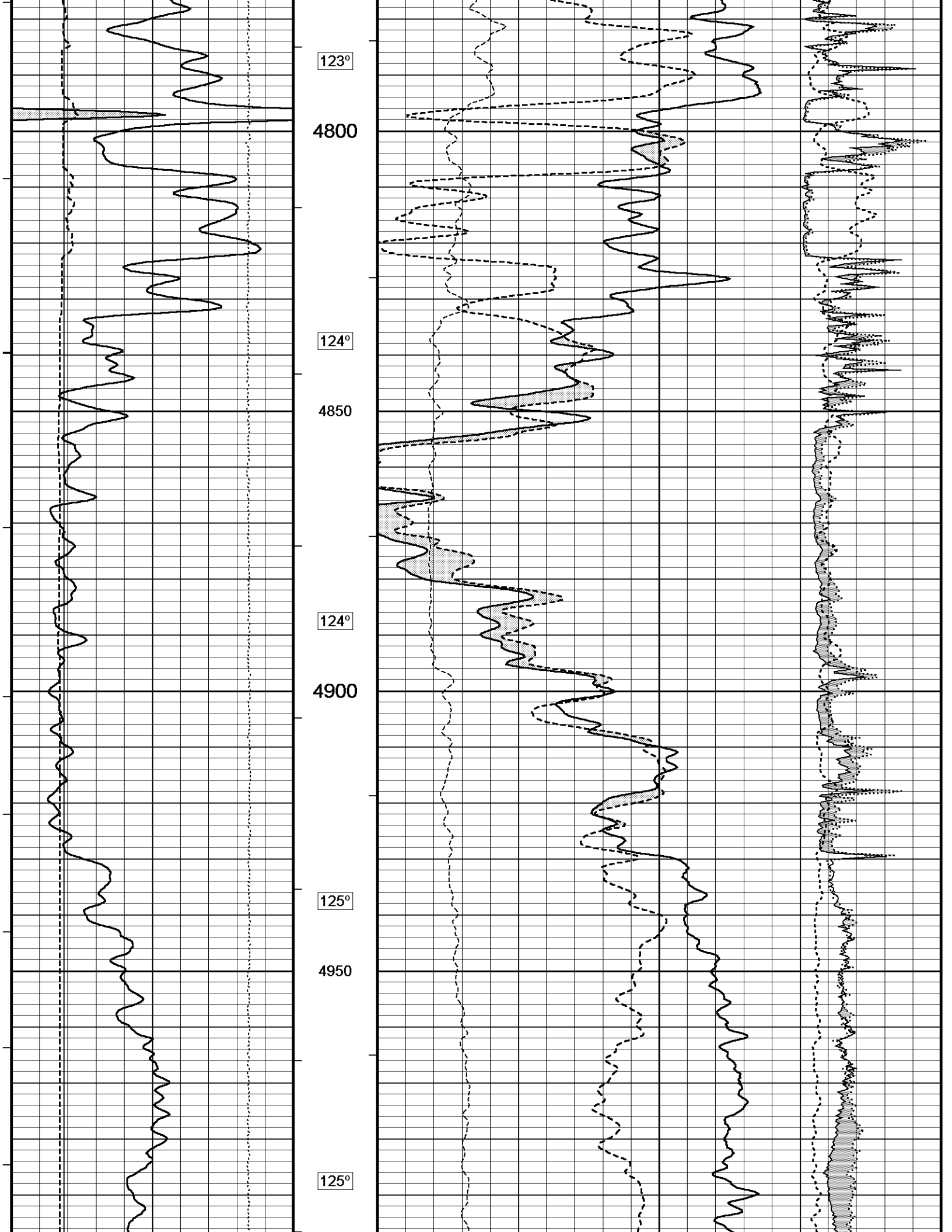


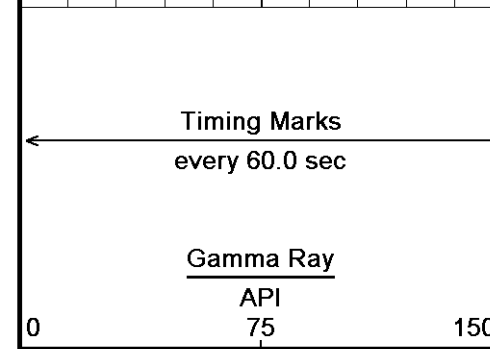
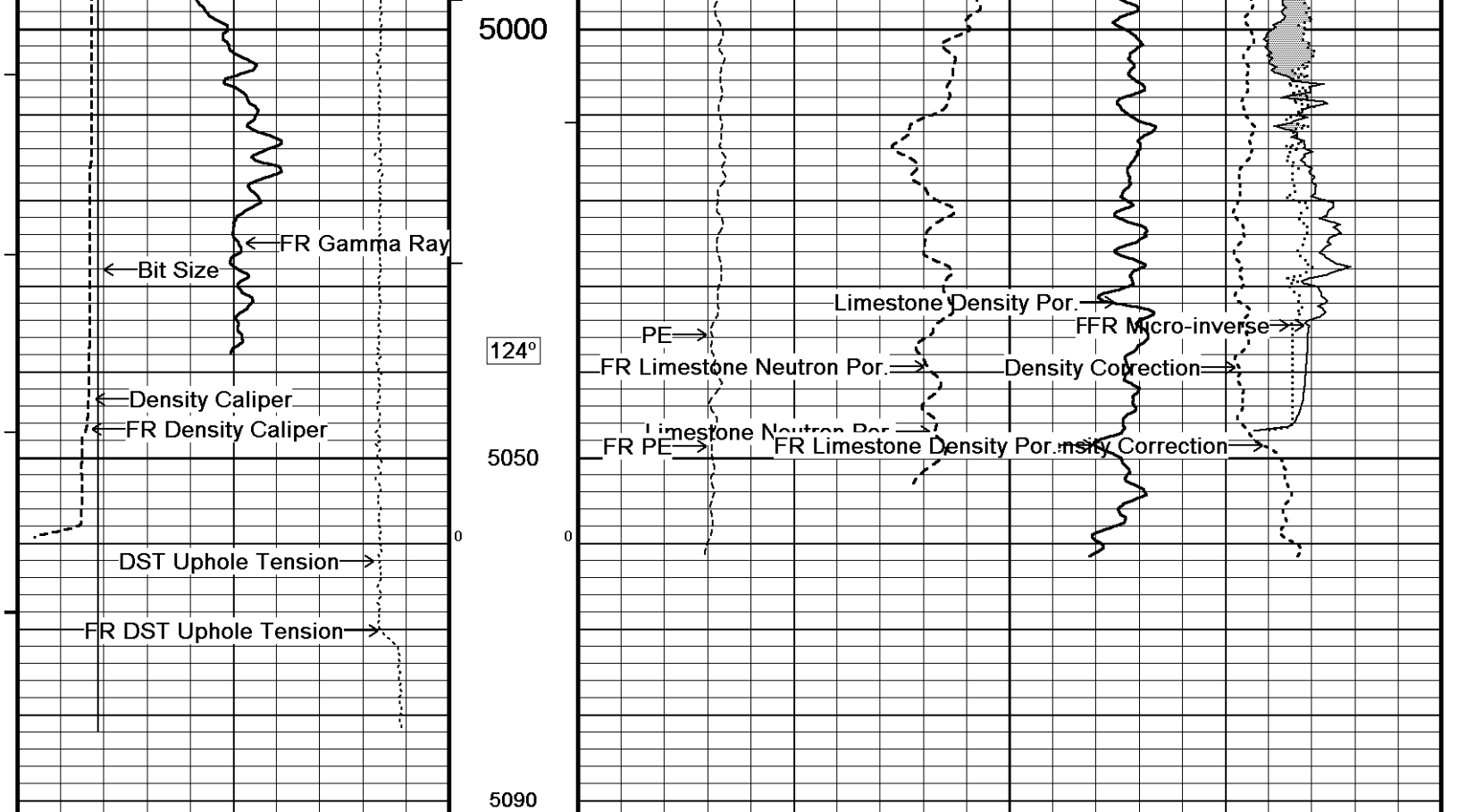






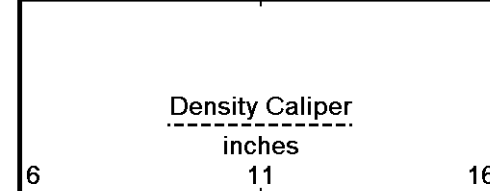
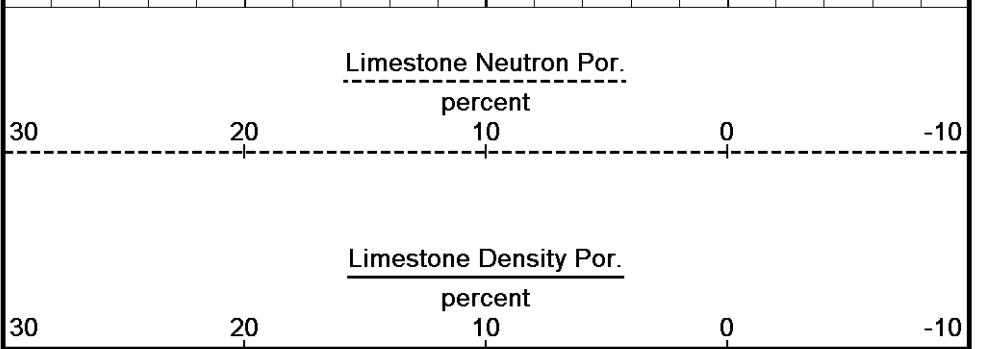




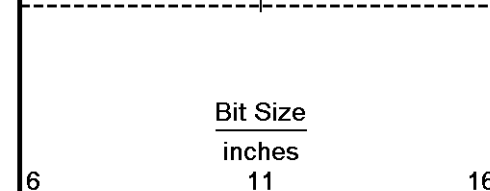
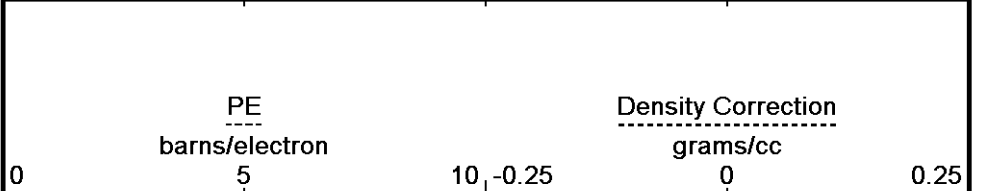


5090
Depth in Feet

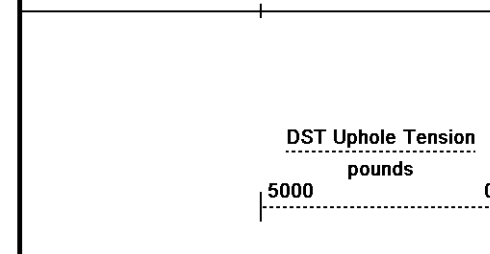
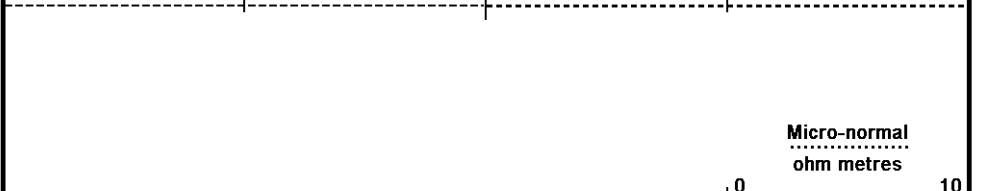
Borehole Temp in deg F



HVI every 10 cu ft



Annular Integral every 10 cu ft



Replay Scale 1:240



REPEAT SECTION

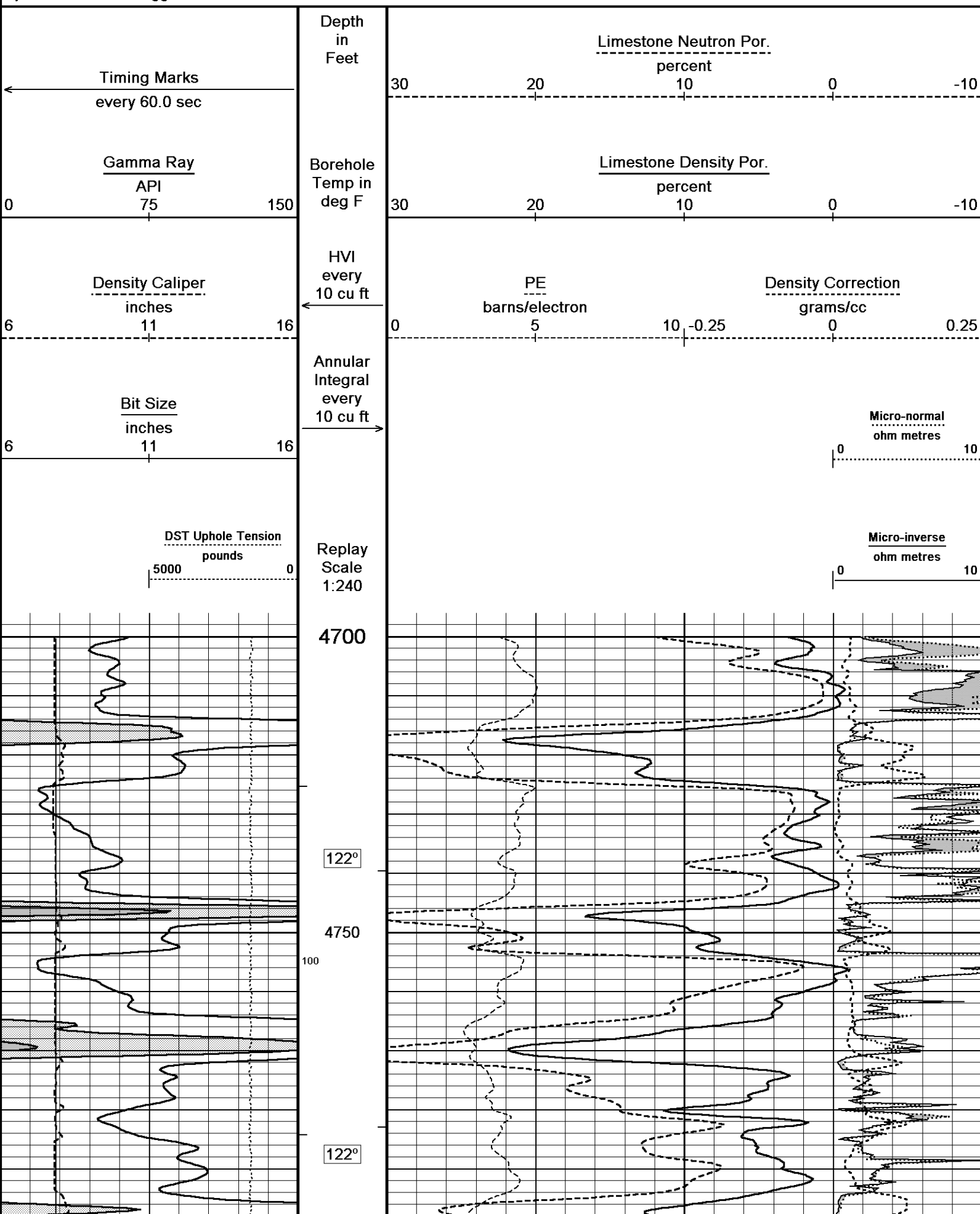
Depth Based Data - Maximum Sampling Increment 10.0cm

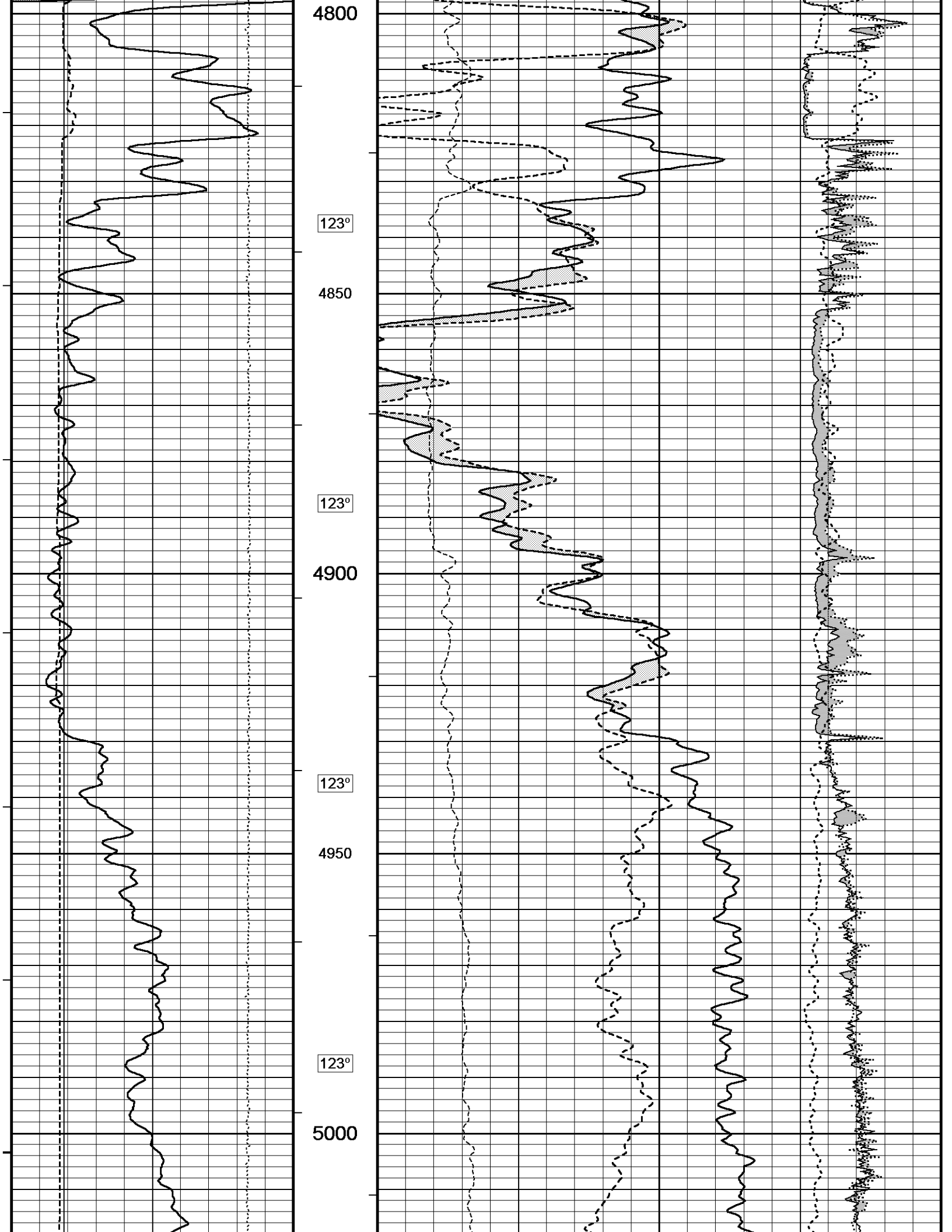
Plotted on 18-JAN-2012 14:48

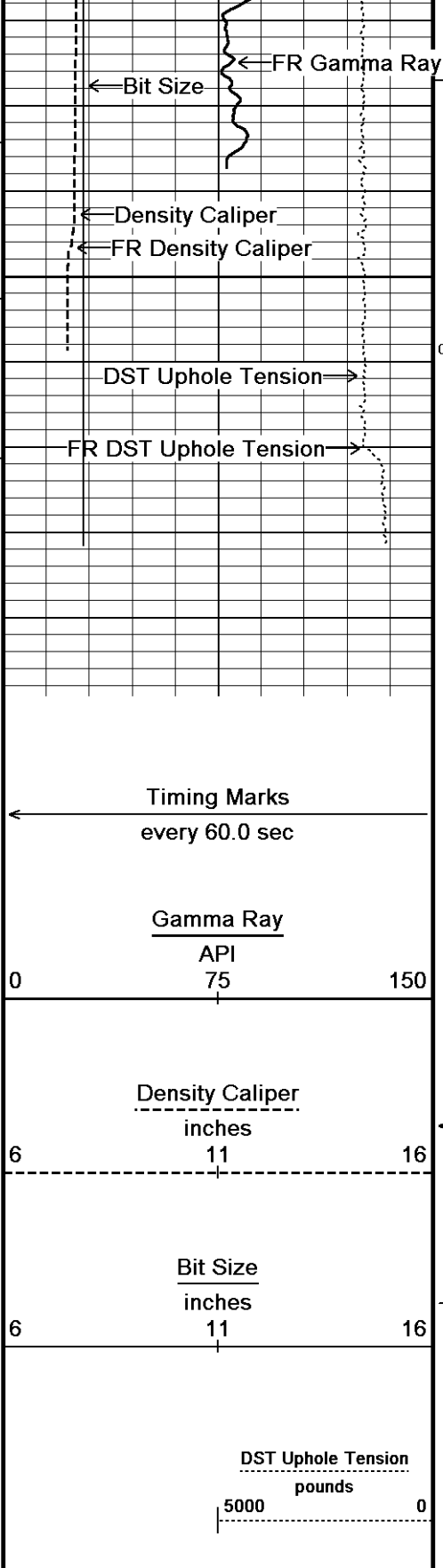
Filename: C:\DOCUME~1\ScheffJL\LOCALS~1\Temp\Weatherford Pr...\Redland Brynn # 9-15_001.dta

Recorded on 03-SEP-2011 01:53

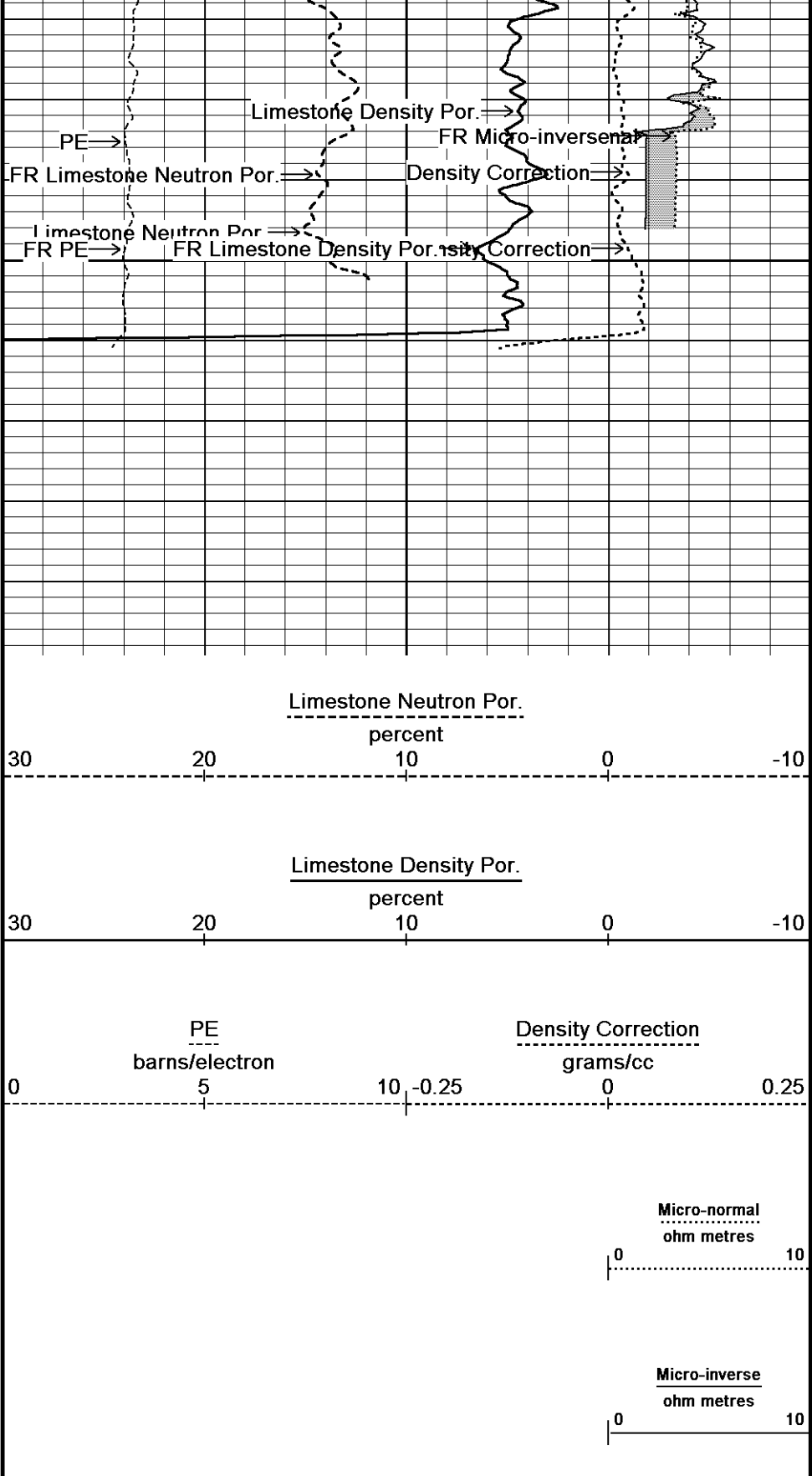
System Versions: Logged with 11.03.4044 Plotted with 12.01.3513







123°
 5050
 0
 5096
 Depth in Feet
 Borehole Temp in deg F
 HVI every 10 cu ft
 Annular Integral every 10 cu ft
 Replay Scale 1:240

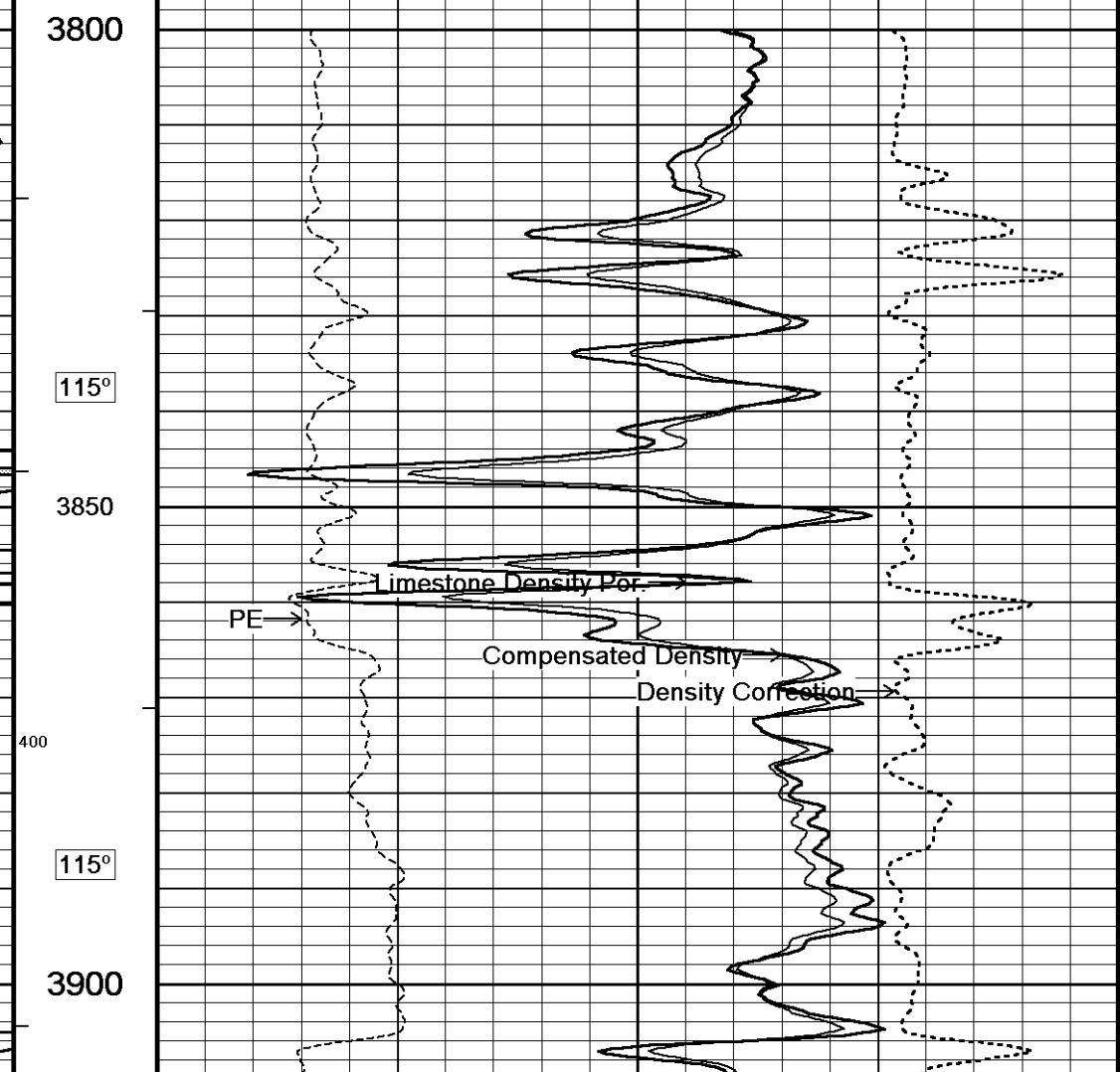
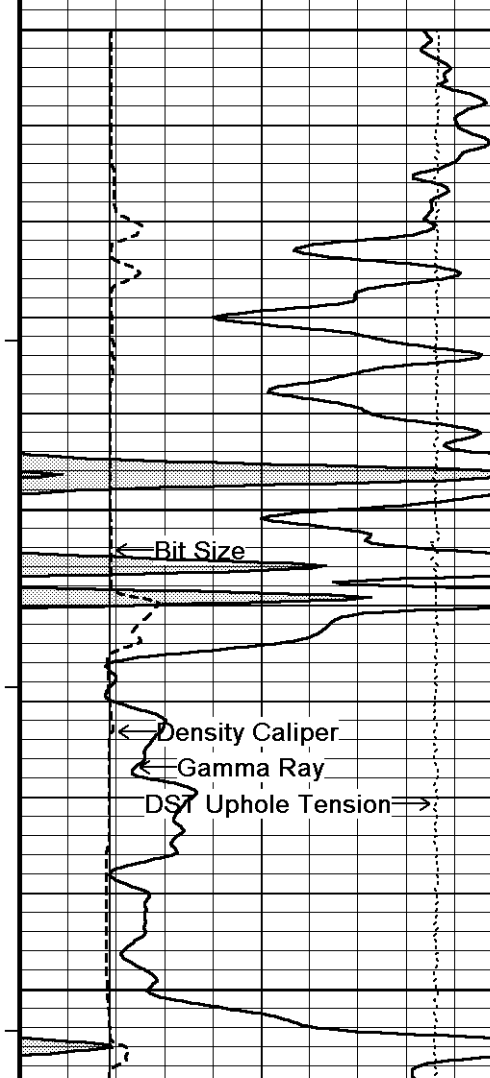
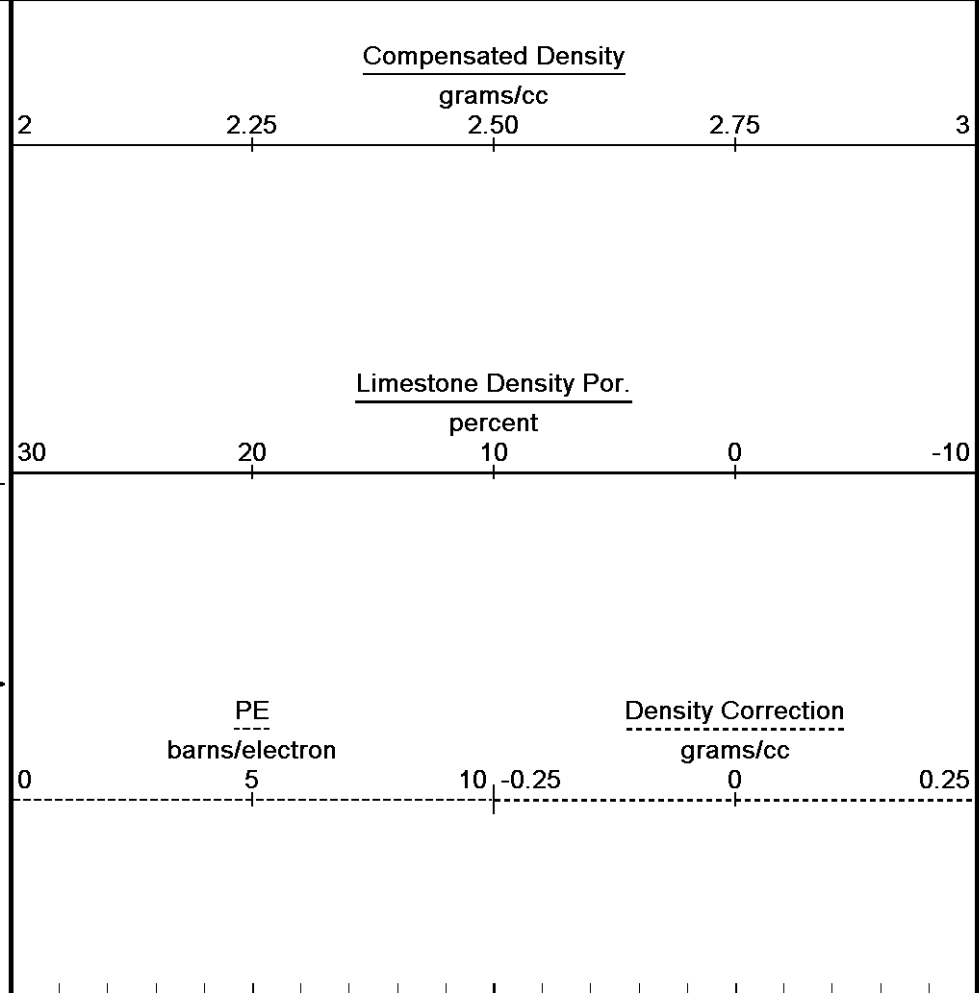
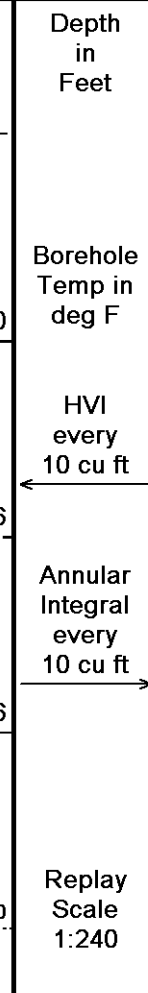
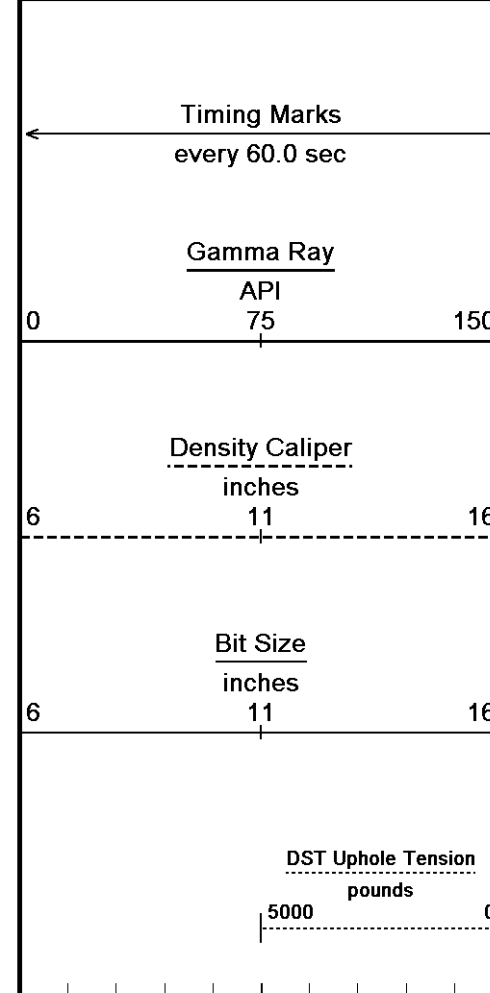


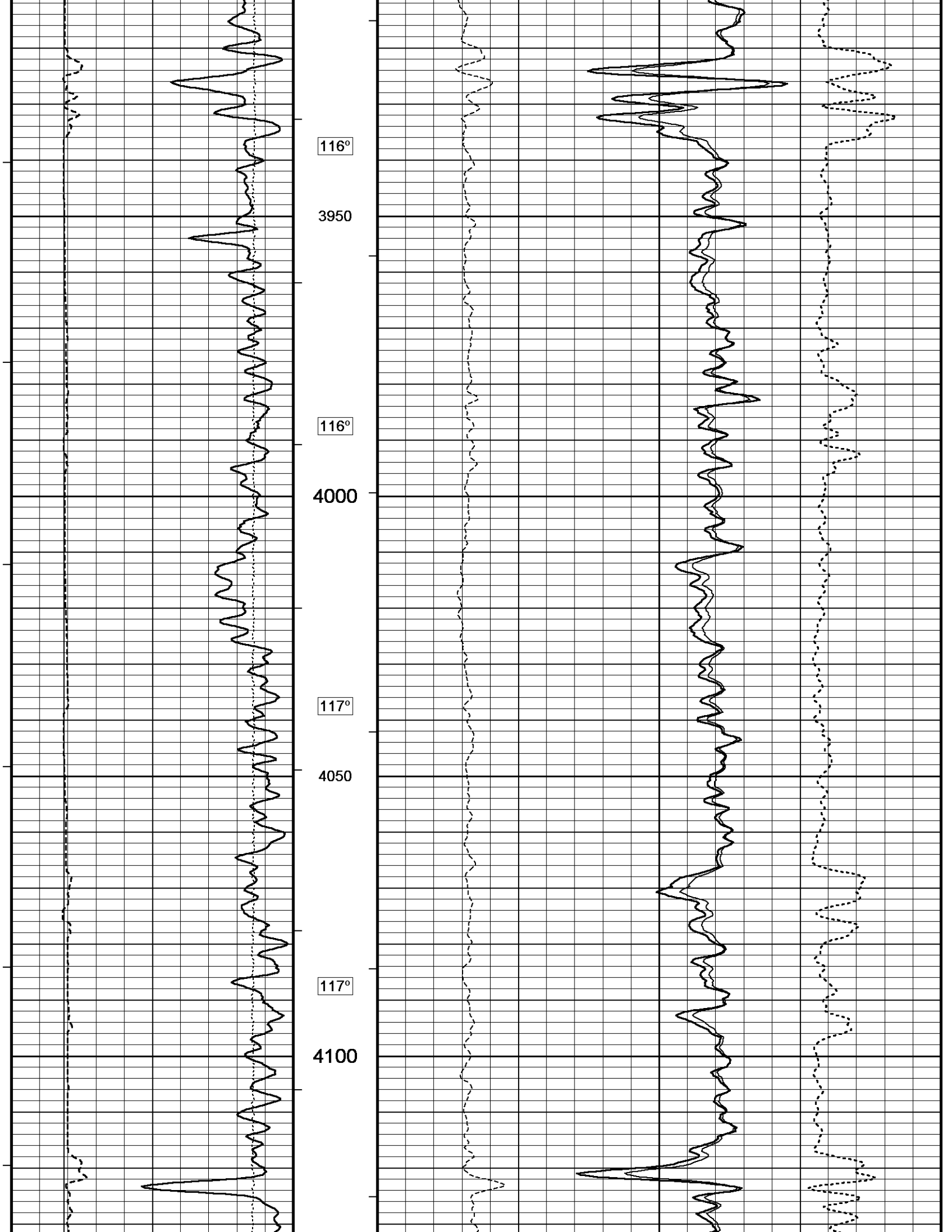
Depth Based Data - Maximum Sampling Increment 10.0cm
 Plotted on 18-JAN-2012 14:48
 Filename: C:\DOCUME~1\ScheffJL\LOCALS~1\Temp\Weatherford Pr...\Redland Brynn # 9-15_001.dta
 Recorded on 03-SEP-2011 01:53
 System Versions: Logged with 11.03.4044 Plotted with 12.01.3513

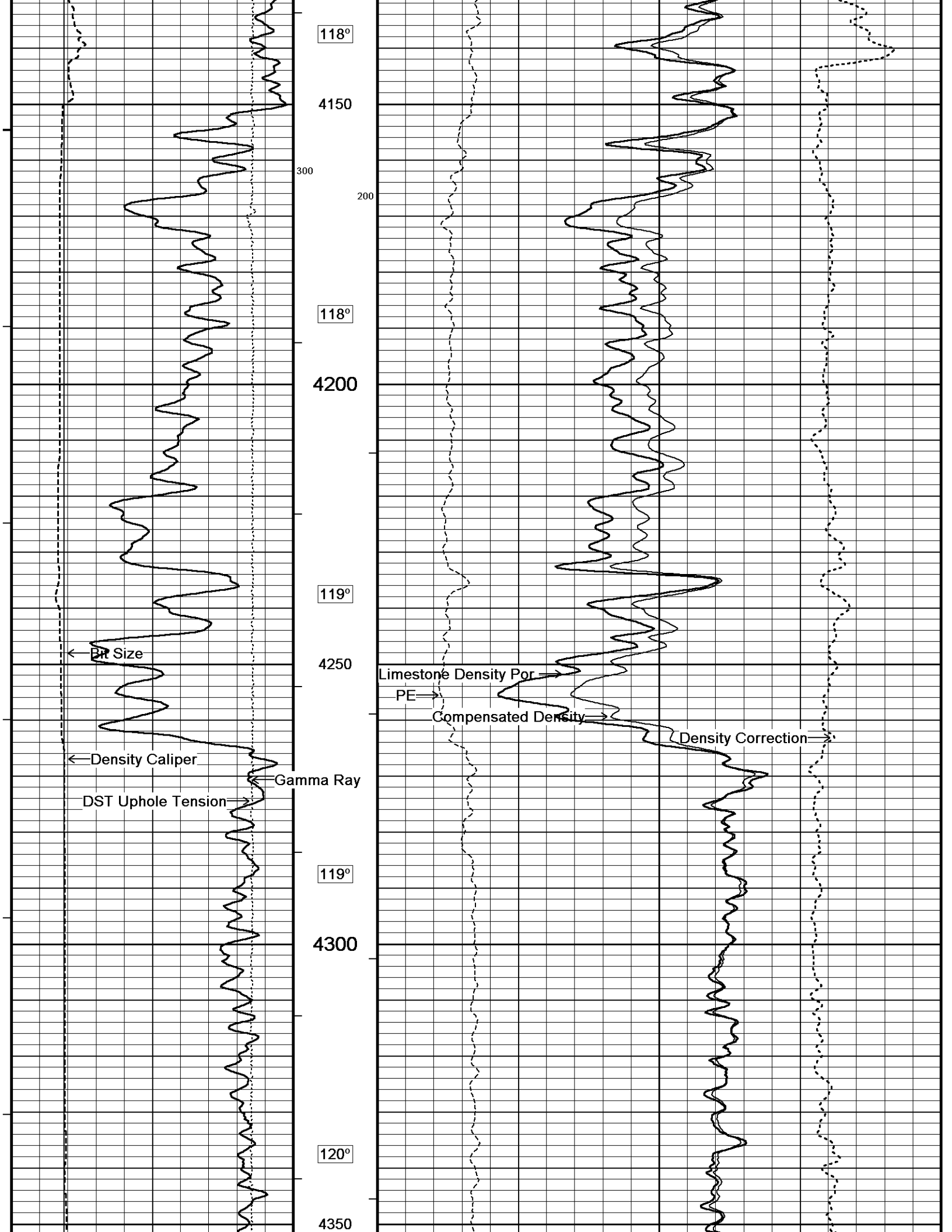
REPEAT SECTION

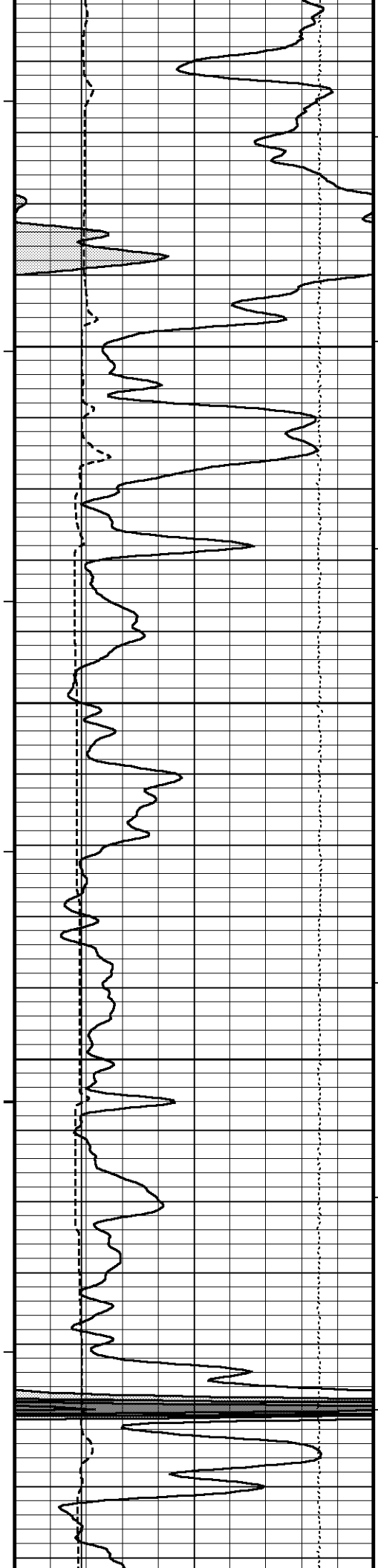
5 INCH MAIN

Depth Based Data - Maximum Sampling Increment 10.0cm
 Plotted on 18-JAN-2012 14:48
 Filename: C:\DOCUME~1\ScheffJL\LOCALS~1\Temp\Weatherford Pr...\Redland Brynn # 9-15_002.dta
 Recorded on 03-SEP-2011 02:21
 System Versions: Logged with 11.03.4044 Plotted with 12.01.3513









120°

4400

121°

4450

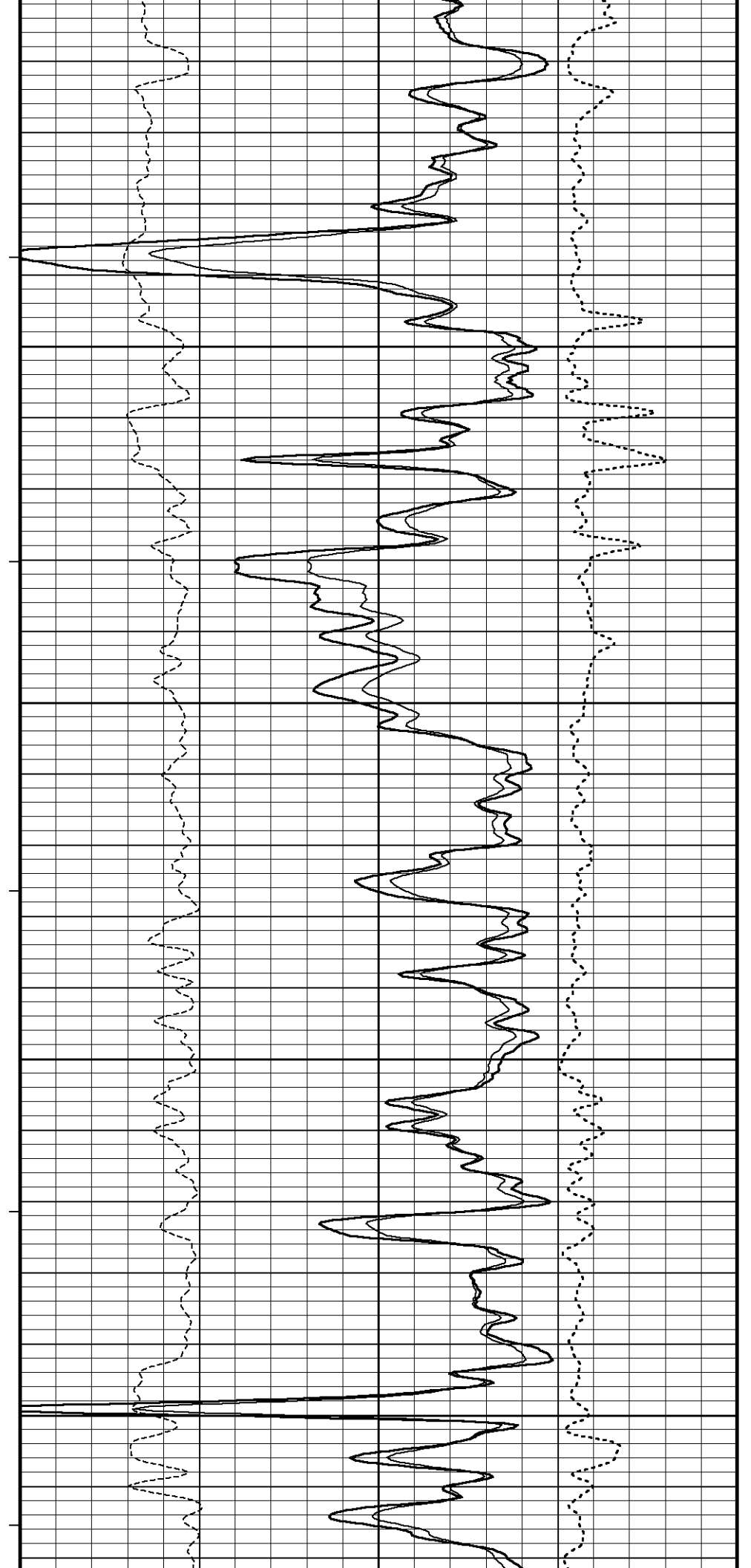
200

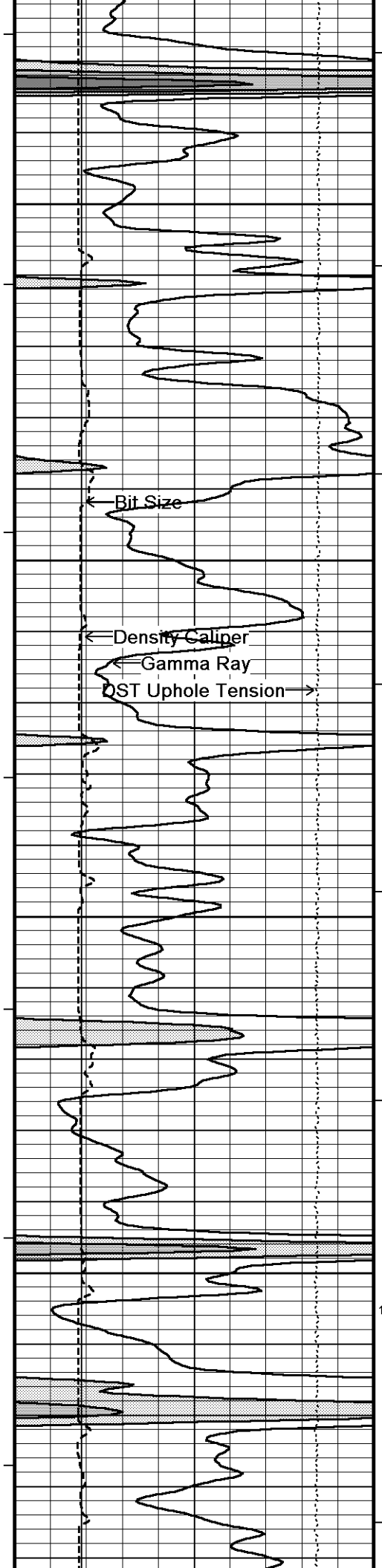
121°

4500

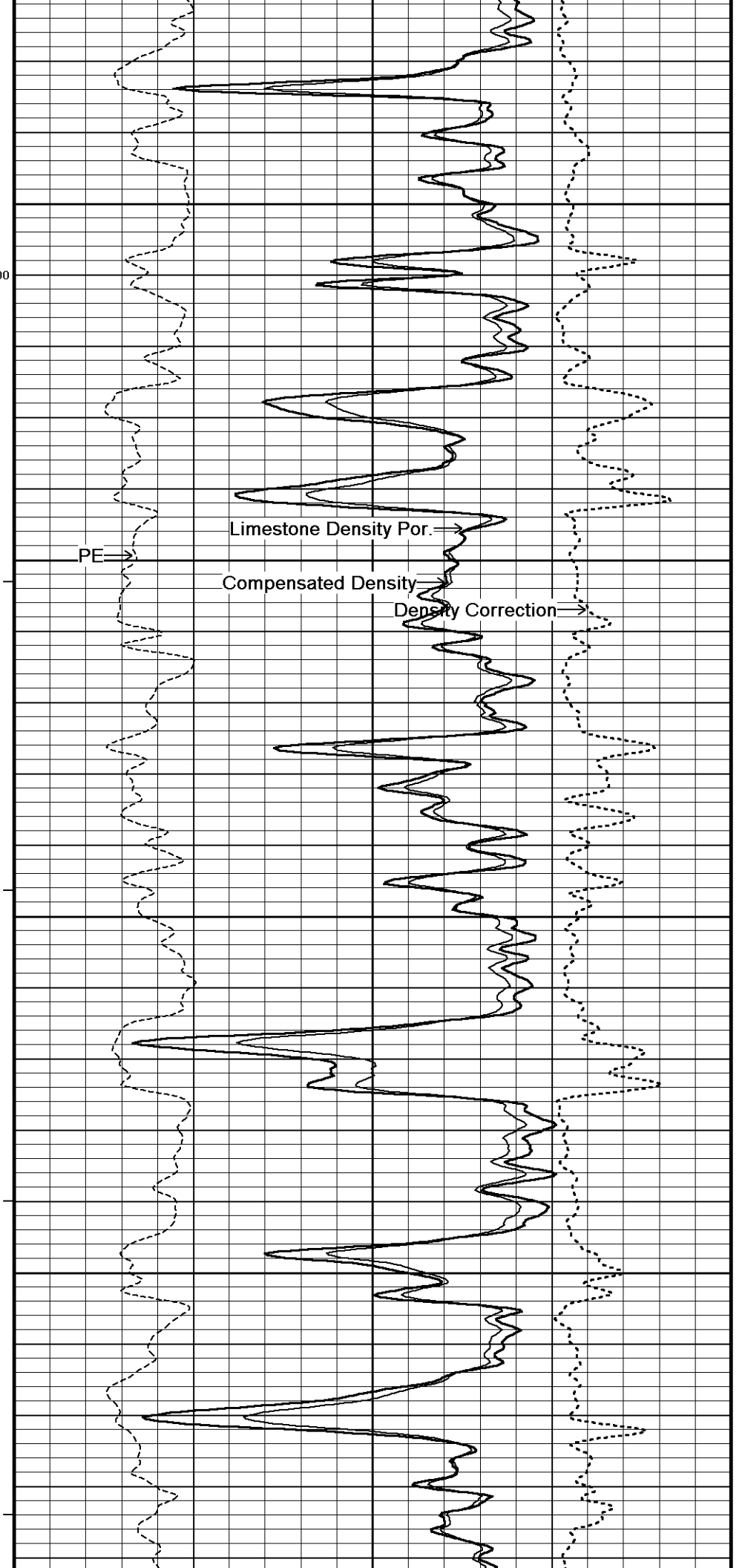
121°

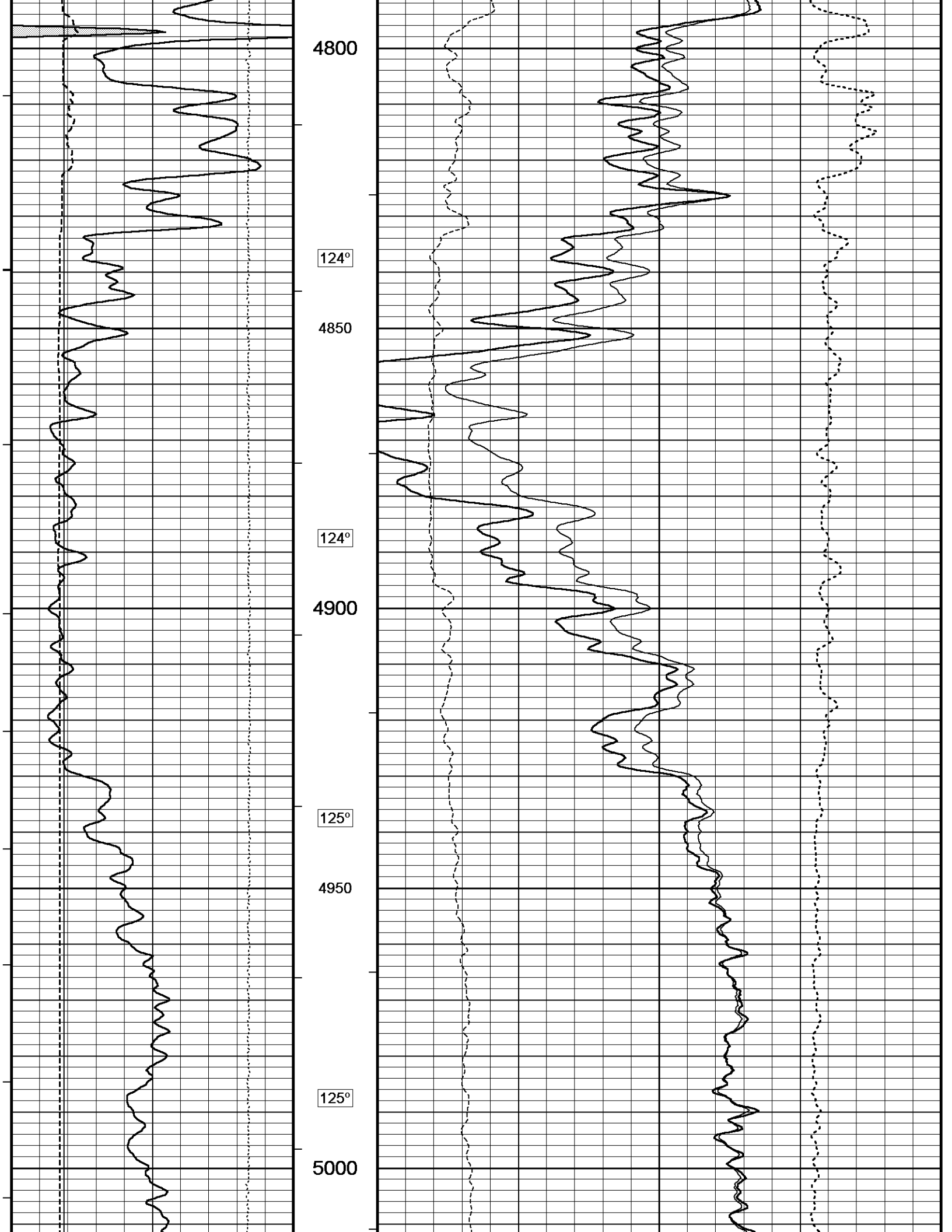
4550

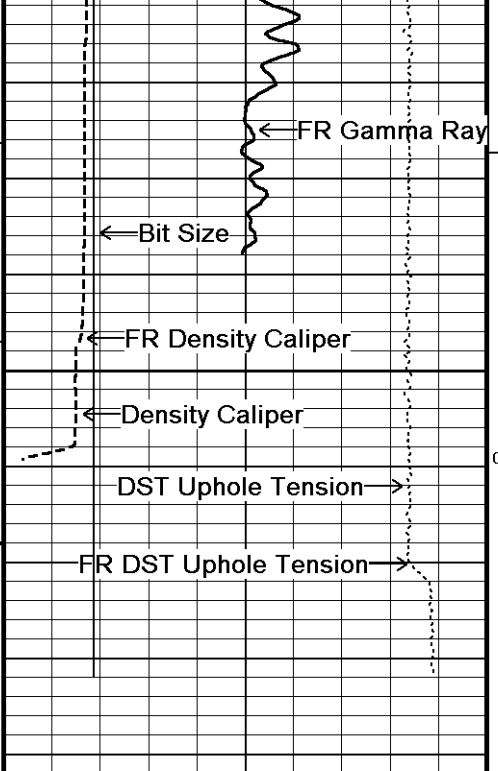




122°
4600
100
122°
4650
123°
4700
123°
4750
100
123°







124°

5050

5090

Depth in Feet

Timing Marks every 60.0 sec

Gamma Ray API 0 75 150

Density Caliper inches 6 11 16

Bit Size inches 6 11 16

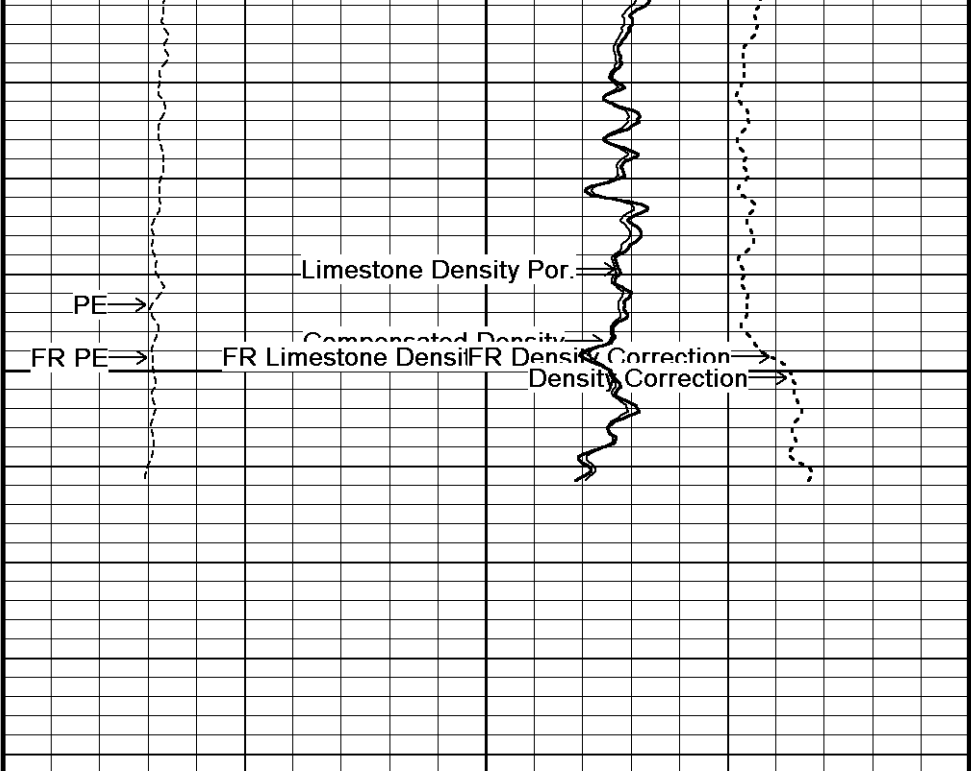
DST Uphole Tension pounds 5000 0

Borehole Temp in deg F

HVI every 10 cu ft

Annular Integral every 10 cu ft

Replay Scale 1:240



Compensated Density grams/cc 2 2.25 2.50 2.75 3

Limestone Density Por. percent 30 20 10 0 -10

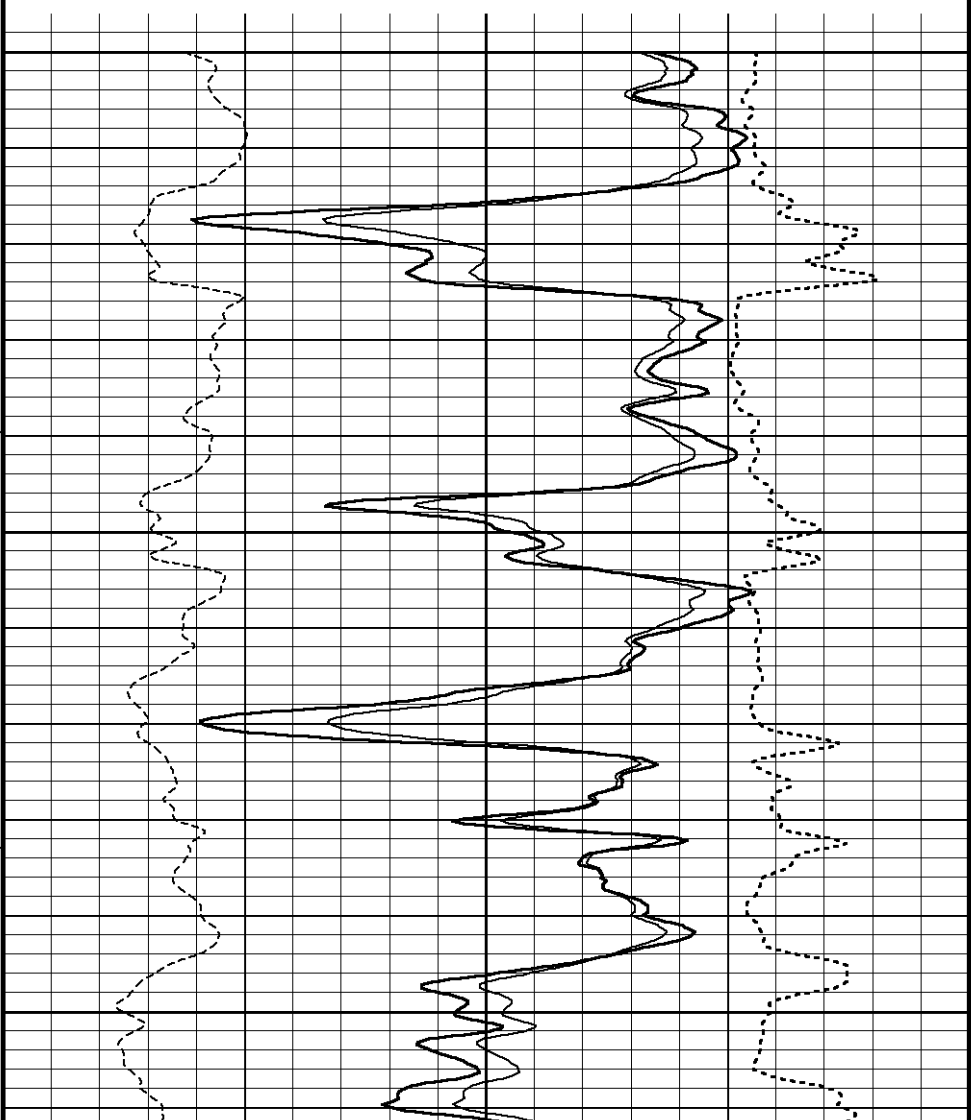
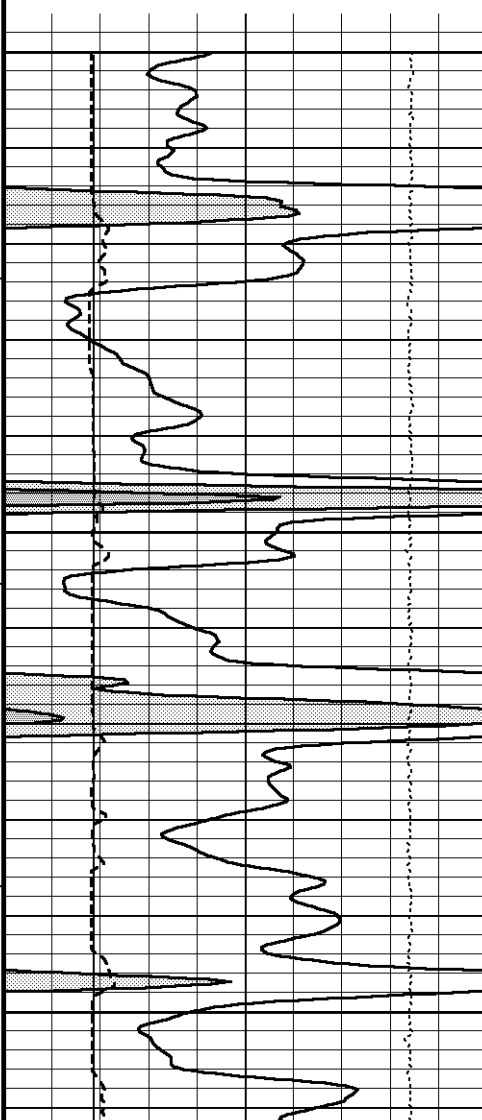
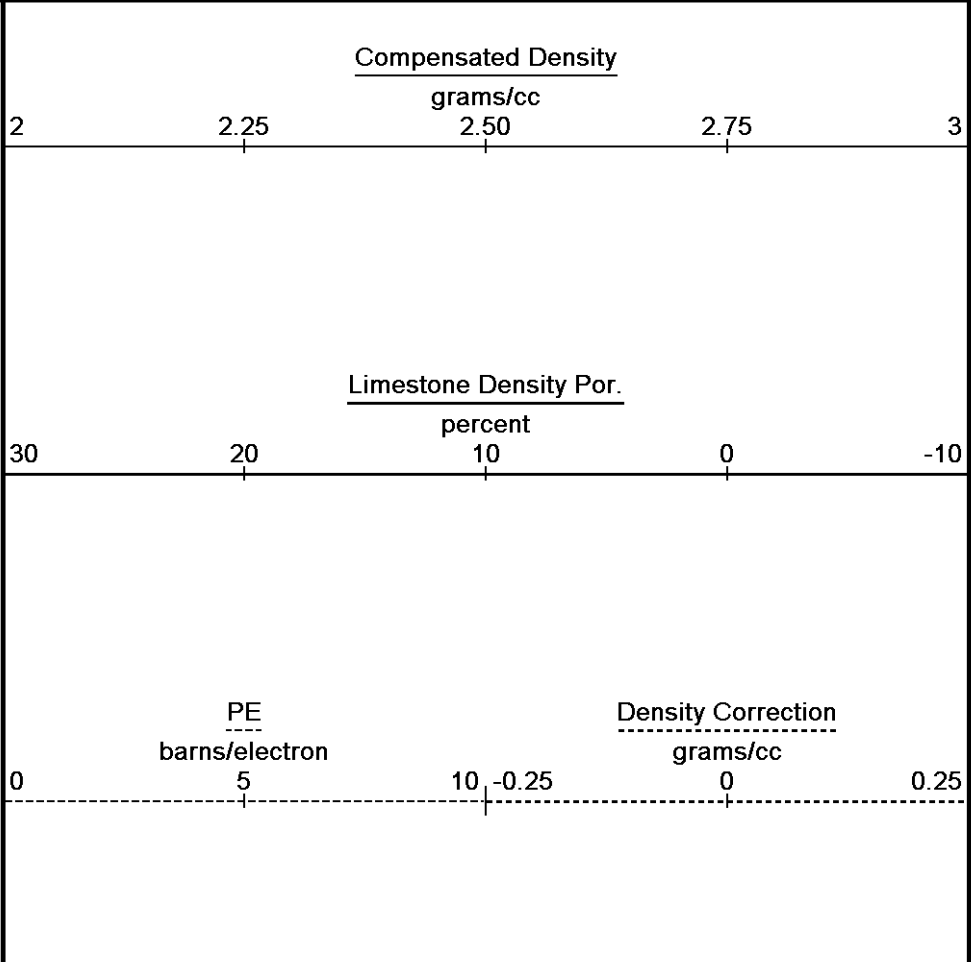
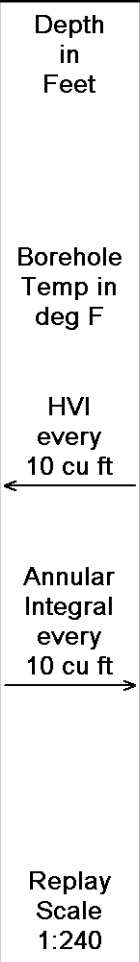
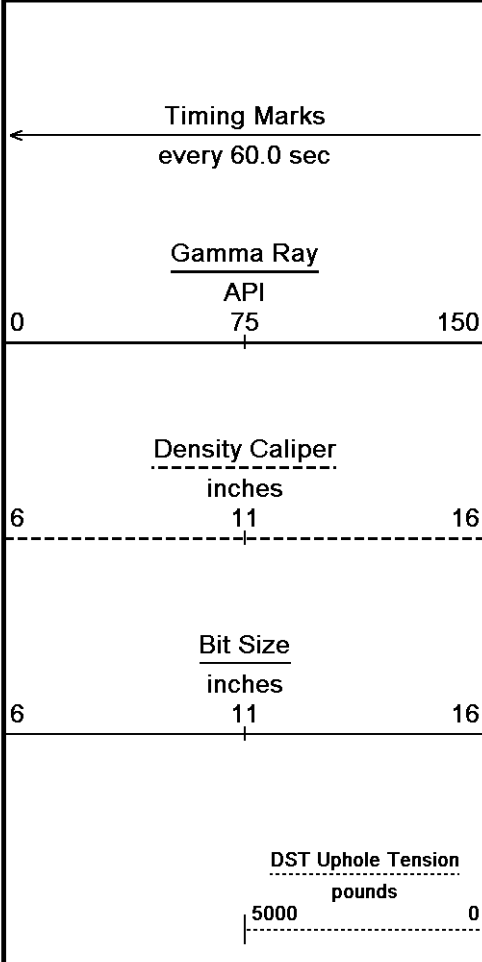
PE barns/electron 0 5 10 -0.25 Density Correction grams/cc 0 0.25

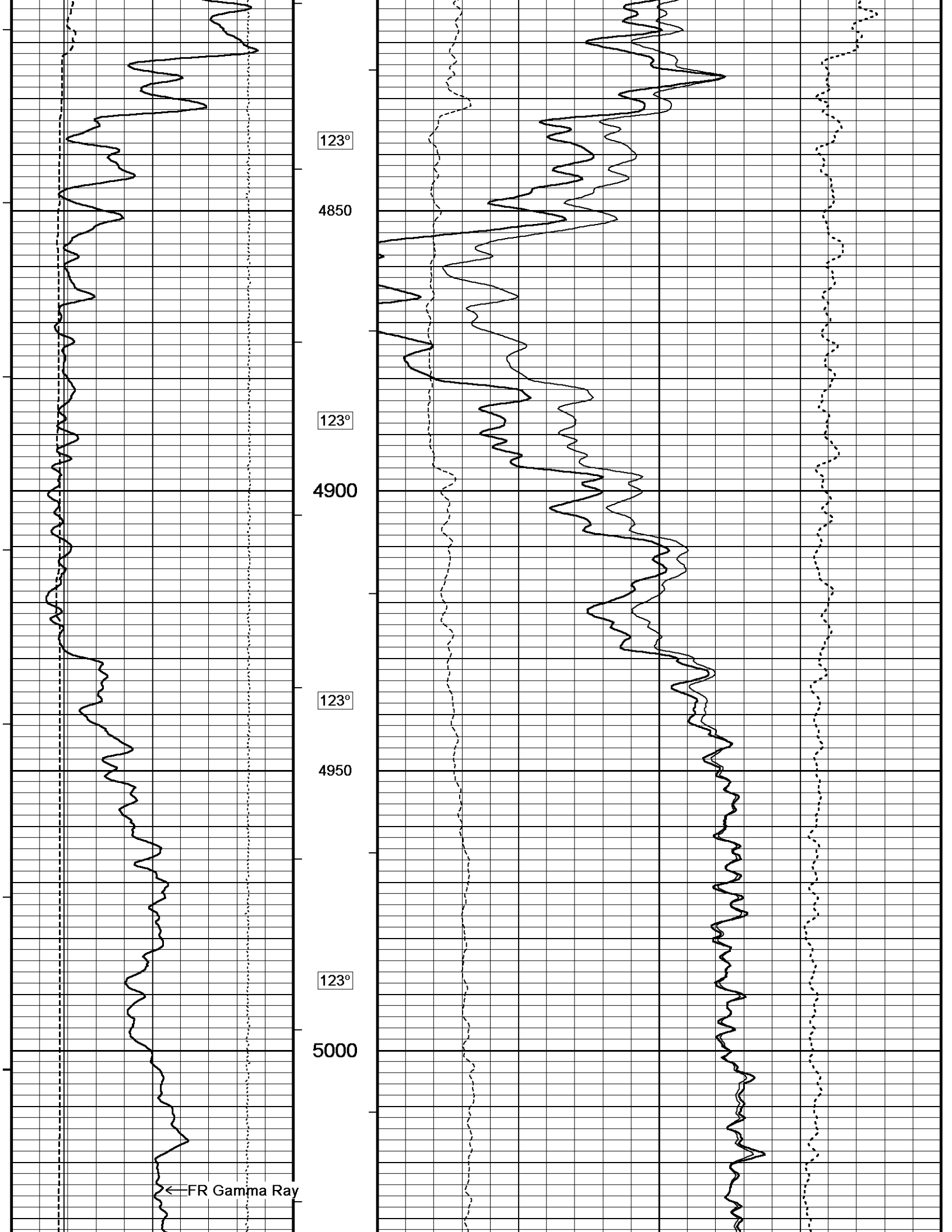
Depth Based Data - Maximum Sampling Increment 10.0cm Plotted on 18-JAN-2012 14:48
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 System Versions: Logged with 11.03.4044 Plotted with 12.01.3513

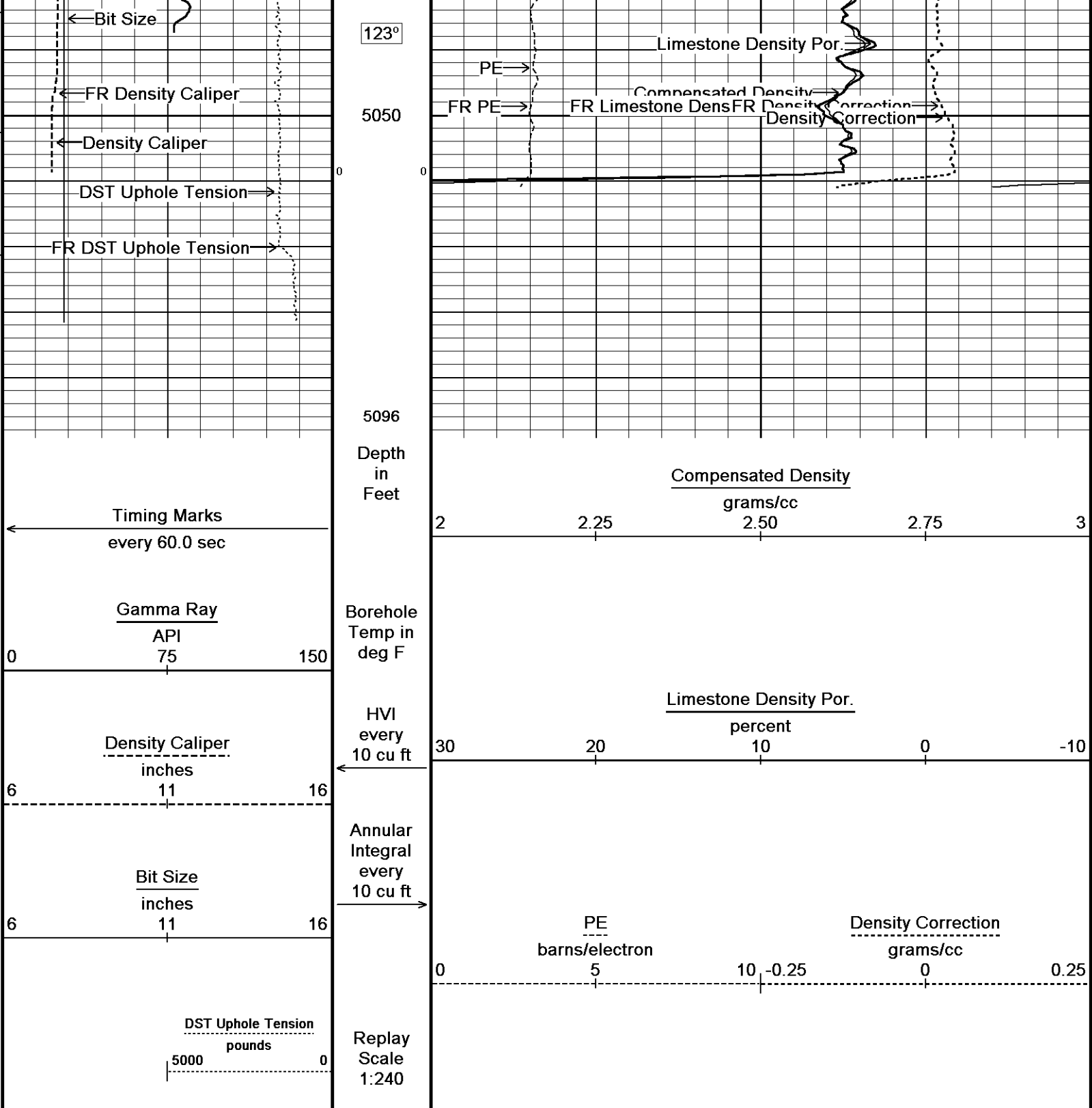
↑ 5 INCH MAIN ↑

↓ REPEAT SECTION ↓

Depth Based Data - Maximum Sampling Increment 10.0cm Plotted on 18-JAN-2012 14:48
 Filename: C:\DOCUME~1\ScheffJL\LOCALS~1\Temp\Weatherford Pr...Redland Brynn # 9-15_001.dta Recorded on 03-SEP-2011 01:53
 System Versions: Logged with 11.03.4044 Plotted with 12.01.3513







BEFORE SURVEY CALIBRATION

C:\DOCUME~1\SchefFJL\LOCALS~1\Temp\Weatherford PreView\0\Redland Brynn # 9-15_002.dta

General Constants All 000

Last Edited on 03-SEP-2011 02:17

General Parameters		
Mud Resistivity	0.450	ohm-metres
Mud Resistivity Temperature	90.000	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	4.500	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 28-JUL-2011 17:55

Reading No	Measured	Calibrated (lbs)
1	12257.67	0.00
2	13806.99	650.00

Gamma Calibration MCG-B 39 Field Calibration on 30-AUG-2011 15:55

	Measured	Calibrated (API)
Background	69	46
Calibrator (Gross)	751	502
Calibrator (Net)	682	456

Gamma Constants MCG-B 39 Last Edited on 02-SEP-2011 13:07

Gamma Calibrator Number	grc141	
Mud Density	1.13	gm/cc
Caliper Source for Processing	Density Caliper	
Tool Position	Eccentred	
Concentration of KCl	0.00	kppm

SP Calibration MCG-B 39 Field Calibration on 12-AUG-2011 22:38

	Measured	Calibrated (mV)
Reference 1	106.3	100.0
Reference 2	-96.0	-100.0

High Resolution Temperature Calibration MCG-B 39 Field Calibration on 12-AUG-2011 22:38

	Measured	Calibrated(Deg F)
Lower	0.00	0.00
Upper	0.00	0.00

High Resolution Temperature Constants MCG-B 39 Last Edited on 25-JUL-2011 15:38

Pre-filter Length 11

Micro Normal and Micro Inverse Calibration MML-A 9 Base Calibration on 25-JUL-2011 15:19
Field Check on 30-AUG-2011 15:50

Base Calibration					
		Measured		Calibrated (ohm-m)	
Channel	Resistor 1	Resistor 2	Resistor 1	Resistor 2	
Micro Normal	12.1	59.7	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	32.4		32.4		
Micro Inverse	16.4		16.4		

Micro Normal and Micro Inverse Constants MML-A 9 Last Edited on 03-SEP-2011 02:17

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 9 Base Calibration on 25-JUL-2011 15:15
Field Calibration on 30-AUG-2011 15:48

Base Calibration

Reading No	Measured	Calibrator Size (in)
1	14873	5.98
2	18342	7.97
3	21621	9.86
4	25326	11.92
5	0	0.00
6	N/A	N/A

Field Calibration

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

Neutron Calibration MDN-A.B 39

Base Calibration on 25-JUL-2011 16:27
Field Check on 30-AUG-2011 16:09

Base Calibration

	Measured		Calibrated (cps)	
	Near	Far	Near	Far
Ratio	2945	93	3714	110
	31.807		33.764	

Field Calibrator at Base

	Calibrated (cps)
Ratio	2258 3233
	0.698

Field Check

	Calibrated (cps)
Ratio	2073 3255
	0.637

Neutron Constants MDN-A.B 39

Last Edited on 03-SEP-2011 02:18

Neutron Source Id	N1095	
Neutron Jig Number	NECD117	
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	Constant Value	
Temperature	68.00	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 67

Base Calibration on 25-JUL-2011 15:26
Field Check on 30-AUG-2011 15:39

Base Calibration

	Measured	Calibrated (ohm-m)
Reference 1	0.0	0.0
Reference 2	960.8	126.8

Base Check 280.7

Field Check 280.7

FE Constants MFE-A.A 67

Last Edited on 03-SEP-2011 02:18

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

High Resolution Temperature Calibration MAI-A.A 188

Field Calibration on 12-AUG-2011 22:41

Measured	Calibrated (Deg F)
68.00	68.00

Lower 32.00 32.00
 Upper 68.00 68.00

High Resolution Temperature Constants MAI-A.A 188

Last Edited on 21-JUN-2011 20:05

Pre-filter Length 11

Induction Calibration MAI-A.A 188

Base Calibration on 25-JUL-2011 15:59
 Field Check on 30-AUG-2011 15:37

Base Calibration

Test Loop Calibration

Channel	Measured		Calibrated (mmho/m)	
	Low	High	Low	High
1	16.5	472.3	9.3	966.2
2	6.0	378.3	7.6	821.4
3	3.5	260.7	5.2	566.0
4	1.1	135.1	2.6	279.2

Array Temperature 82.2 Deg F

Channel	Base Check (mmho/m)		Field Check (mmho/m)	
	Low	High	Low	High
1	0.0	0.0	15.6	3846.3
2	0.0	0.0	31.1	3566.9
3	0.0	0.0	28.5	3038.2
4	0.0	0.0	20.9	2036.9
Deep	0.0	0.0	18.1	1921.8
Medium	0.0	0.0	40.3	4051.8
Shallow	0.0	0.0	45.8	5358.2

Array Temperature 0.0 88.2 Deg F

Induction Constants MAI-A.A 188

Last Edited on 03-SEP-2011 02:21

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
 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 64

Base Calibration on 17-AUG-2011 11:32
 Field Calibration on 30-AUG-2011 15:41

Base Calibration

Reading No	Measured	Calibrator Size (in)
1	12448	3.99
2	20960	5.98
3	29519	7.97
4	37920	9.86
5	47152	11.92
6	N/A	N/A

Field Calibration

Measured Caliper (in)	Actual Caliper (in)
5.96	5.98

Photo Density Calibration MPD-B 64

Base Calibration on 17-AUG-2011 11:49
Field Check on 30-AUG-2011 15:47

Density Calibration

Base Calibration	Measured		Calibrated (sdu)	
	Near	Far	Near	Far
Reference 1	59462	30873	59556	30836
Reference 2	23795	2766	24941	2541

Field Check at Base

1214.8	1407.4
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Field Check

1209.6	1414.0
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PE Calibration

Base Calibration	WS	Measured		Calibrated Ratio
		WH	Ratio	
Background	220	1086		
Reference 1	22916	59258	0.390	0.371
Reference 2	6604	23658	0.283	0.272

Field Check at Base

220.4	1086.2
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Field Check

220.4	1080.4
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Density Constants MPD-B 64

Last Edited on 02-SEP-2011 13:08

Density Source Id	P57072B
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	1.13 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

Compact Comms Gamma
MCG-B 39 LG: 8.70 ft WT: 63.9 lb OD: 2.24 in

Compact Comms Gamma
MCG-B 39 LG: 8.70 ft WT: 63.9 lb OD: 2.24 in

Compact Micro-log
MML-A 9 LG: 7.97 ft WT: 81.6 lb OD: 2.24 in

Compact Micro-log
MML-A 9 LG: 7.97 ft WT: 81.6 lb OD: 2.24 in

Compact Neutron
MDN-A.B 39 LG: 5.04 ft WT: 50.7 lb OD: 2.24 in

Compact Neutron
MDN-A.B 39 LG: 5.04 ft WT: 50.7 lb OD: 2.24 in

Compact Density/Caliper
MPD-B 64 LG: 9.59 ft WT: 90.4 lb OD: 2.45 in

Compact Density/Caliper
MPD-B 64 LG: 9.59 ft WT: 90.4 lb OD: 2.45 in

SKJ-D.A Compact Knuckle Joint
SKJ-D.A 91 LG: 2.17 ft WT: 24.3 lb OD: 2.24 in

SKJ-D.A Compact Knuckle Joint
SKJ-D.A 91 LG: 2.17 ft WT: 24.3 lb OD: 2.24 in

Compact Focussed Electric
MFE-A.A 67 LG: 6.05 ft WT: 48.5 lb OD: 2.24 in

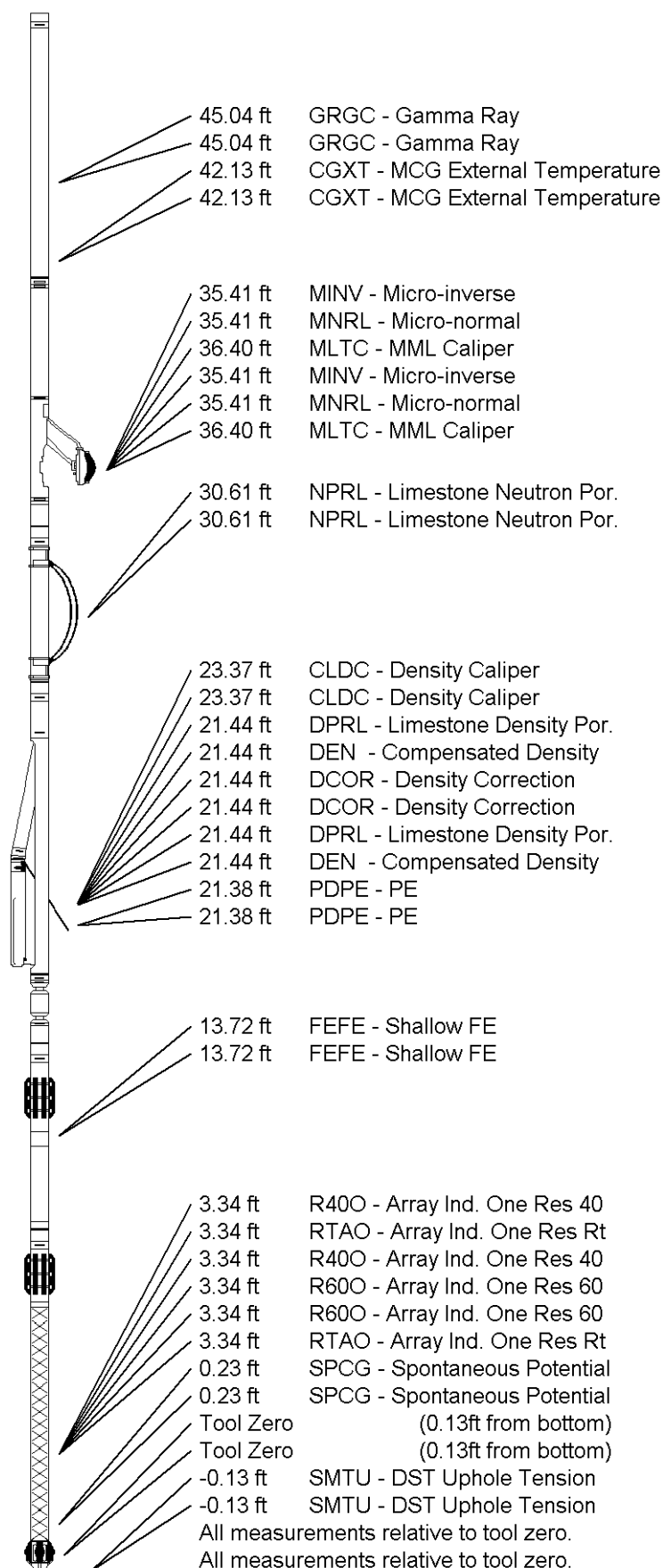
Compact Focussed Electric
MFE-A.A 67 LG: 6.05 ft WT: 48.5 lb OD: 2.24 in

Compact Induction
MAI-A.A 188 LG: 10.81 ft WT: 48.5 lb OD: 2.24 in

Compact Induction
MAI-A.A 188 LG: 10.81 ft WT: 48.5 lb OD: 2.24 in

Total Length: 50.32 ft Weight: 407.9 lb

Total Length: 50.32 ft Weight: 407.9 lb



COMPANY REDLAND RESOURCES INC.

WELL BRYNN # 9-15

FIELD HARDTNER

PROVINCE/COUNTY BARBER

COUNTRY/STATE U.S.A. / KANSAS

Elevation Kelly Bushing	1409.00	feet
Elevation Drill Floor	1407.00	feet
Elevation Ground Level	1396.00	feet

First Reading	5047.00	feet
Depth Driller	5076.00	feet
Depth Logger	5070.00	feet



Weatherford[®]

COMPACT PHOTO DENSITY
COMPENSATED NEUTRON
MICRORESISTIVITY LOG

