

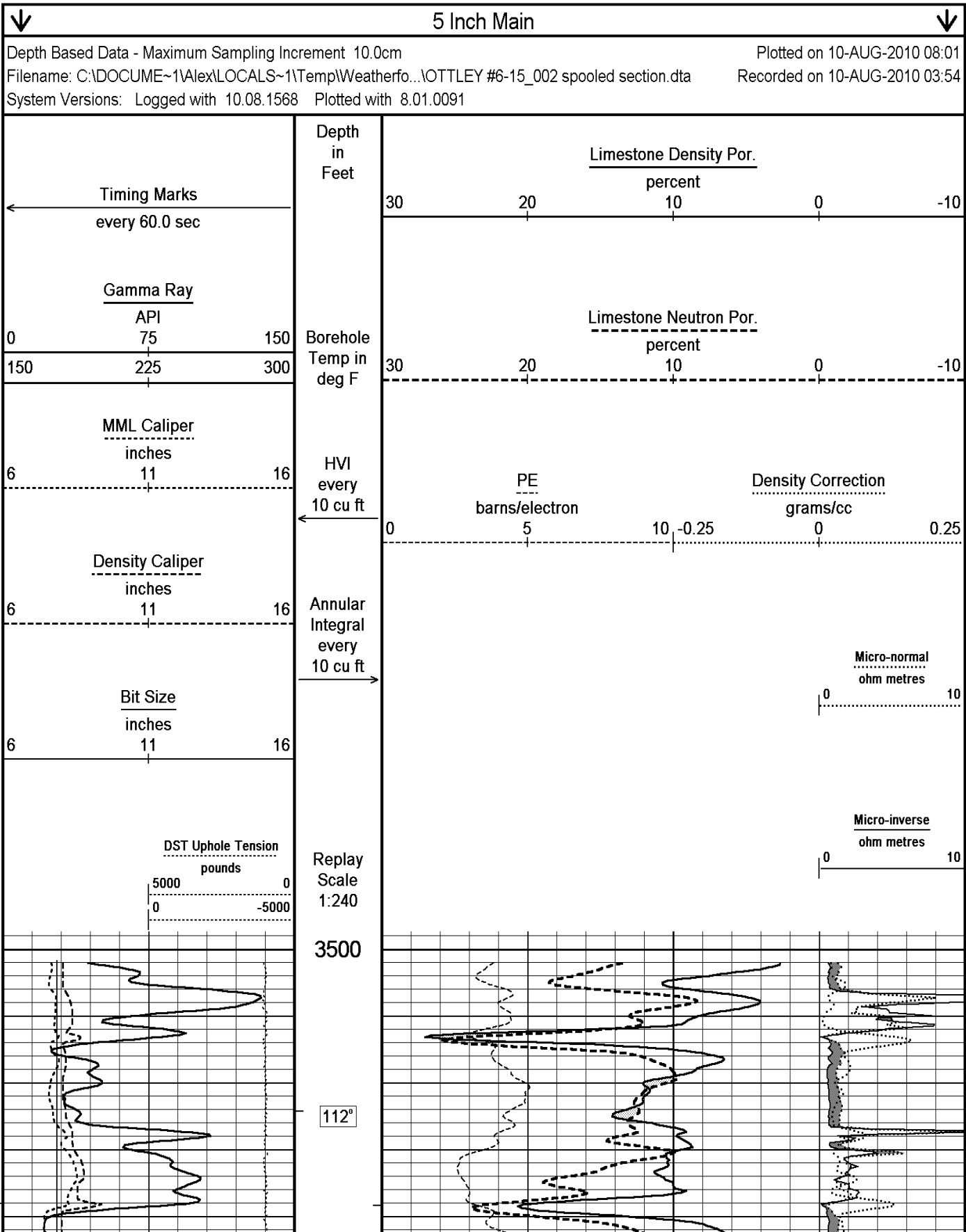
COMPACT PHOTO DENSITY COMPENSATED NEUTRON MICRO-RESISTIVITY LOG

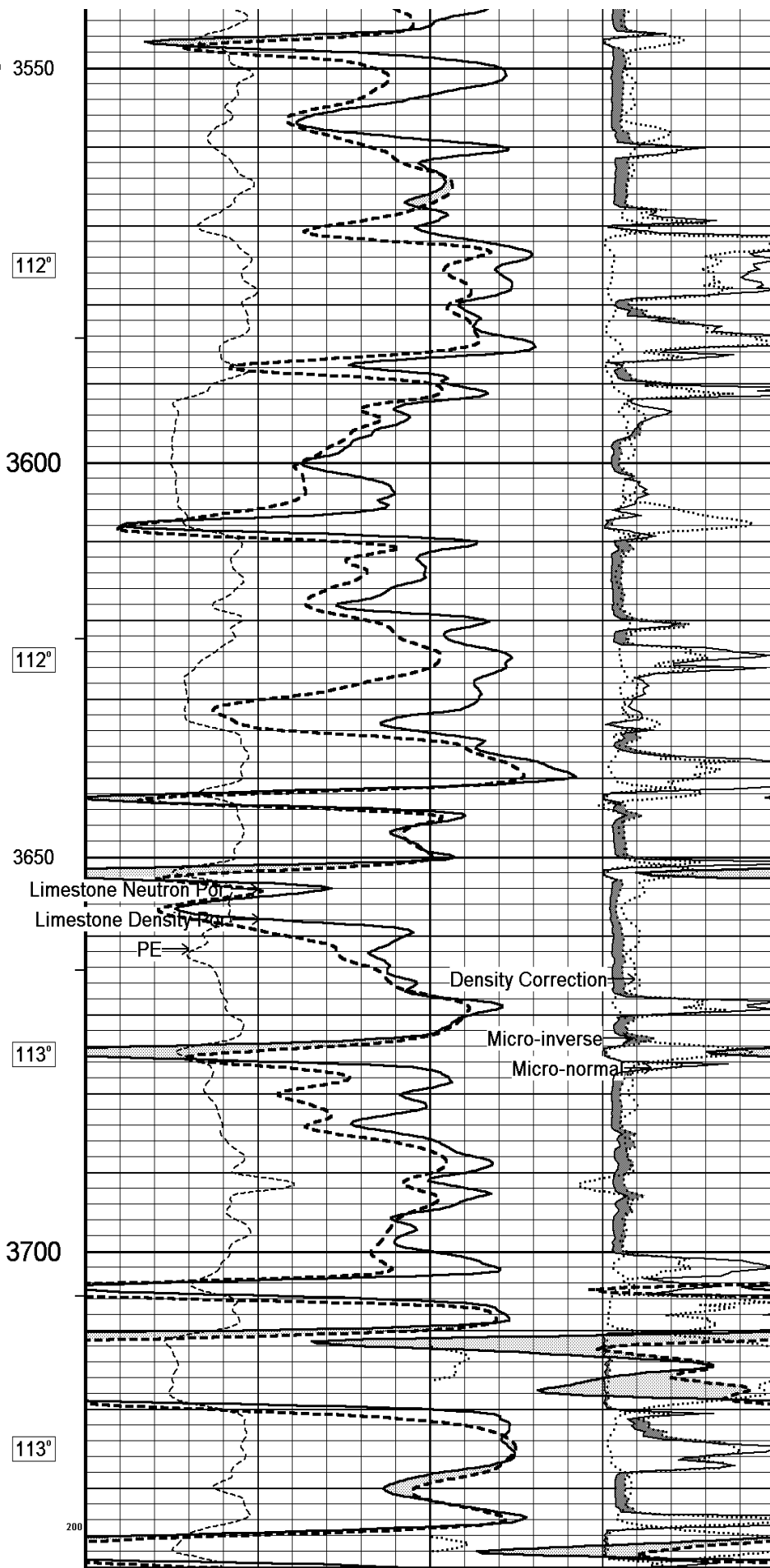
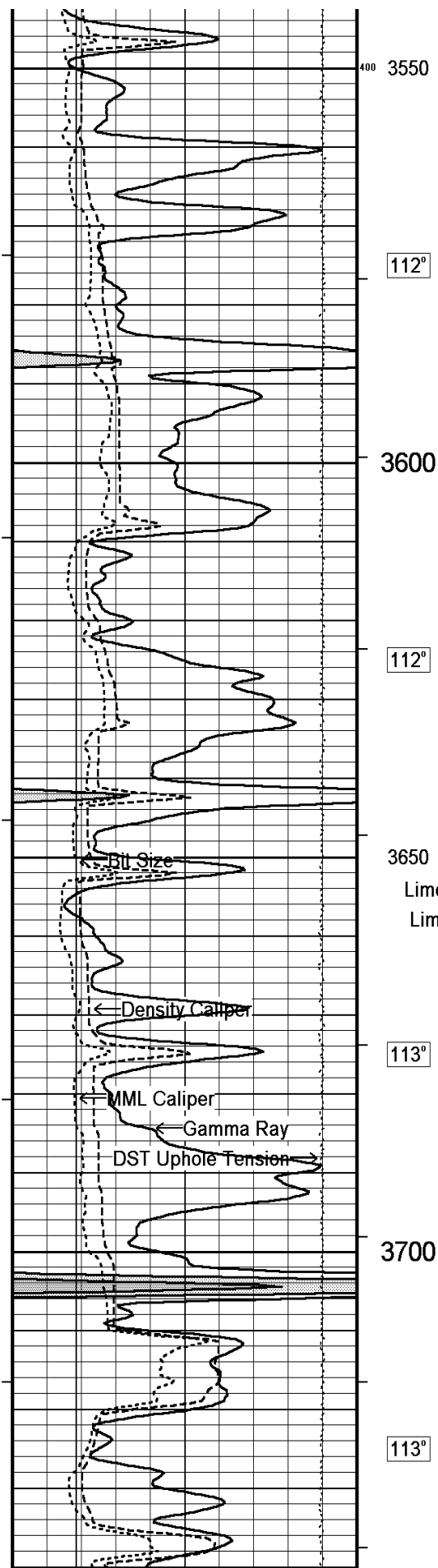
COMPANY		SHAKESPEARE	
WELL		OTTLEY #6-15	
FIELD		WILDCAT	
PROVINCE/COUNTY		LOGAN	
COUNTRY/STATE		U.S.A./KANSAS	
LOCATION		1335' FNL & 1585' FEL	
		COMPACT	
SEC	TWP	RGE	Other Services
15	4S	32W	MAI/MFE
API Number		15-109-20933	
Permit Number			
Permanent Datum G.L., Elevation 2729 feet			
Log Measured From K.B. @ 10 FEET above Permanent Datum			
Drilling Measured From K.B.			
Date	10-AUG-2010		Elevations: KB DF GL
Run Number	ONE		feet
Depth Driller	4490.00		feet
Depth Logger	4488.00		feet
First Reading	4466.00		feet
Last Reading	3500.00		feet
Casing Driller	222.00		feet
Casing Logger	222.00		feet
Bit Size	7.880		inches
Hole Fluid Type	CHEMICAL		
Density / Viscosity	9.30 lb/USg		49.00 CP
PH / Fluid Loss	11.00		7.20 ml/30Min
Sample Source	FLOWLINE		
Rm @ Measured Temp	0.71 @ 88.0		ohm-m
Rmf @ Measured Temp	0.57 @ 88.0		ohm-m
Rmc @ Measured Temp	0.85 @ 88.0		ohm-m
Source Rmf / Rmc	CALC		CALC
Rm @ BHT	0.53 @ 117.0		ohm-m
Time Since Circulation	5 HOURS		
Max Recorded Temp	117.00		deg F
Equipment Name	COMPACT		
Equipment / Base	13057		LIB
Recorded By	SHAWN NUTT		
Witnessed By	STEVE DAVIS		
S.O.#/JOB#	3524515		LB10-199

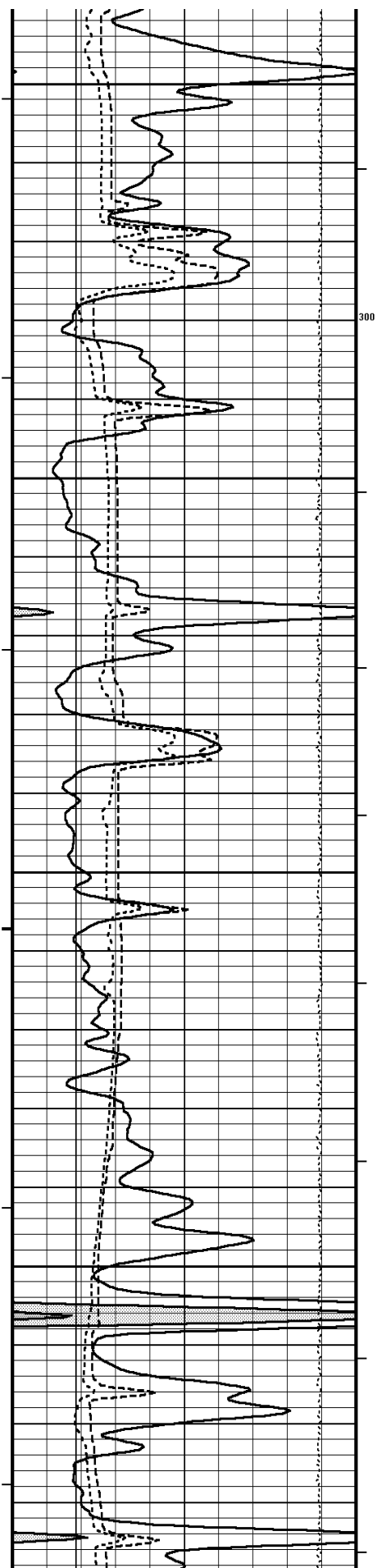
BOREHOLE RECORD			Last Edited: 10-AUG-2010 03:08	
Bit Size inches	Depth From feet	Depth To feet		
7.880	200.00	4488.00		
CASING RECORD				
Type	Size inches	Depth From feet	Shoe Depth feet	Weight pounds/ft
SURFACE	8.625	0.00	200.00	24.00

REMARKS	
Tools Used: MAI, MPD, MCG, MDN, MML, MFE, SKJ, Hardware: MPD: 8 inch profile plate used. MAI 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 5.5 inch production casing= 296 cu. ft. Service order #3518969 Rig: HD #2 Engineer: L. Scott 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.







3750

113°

300

3800

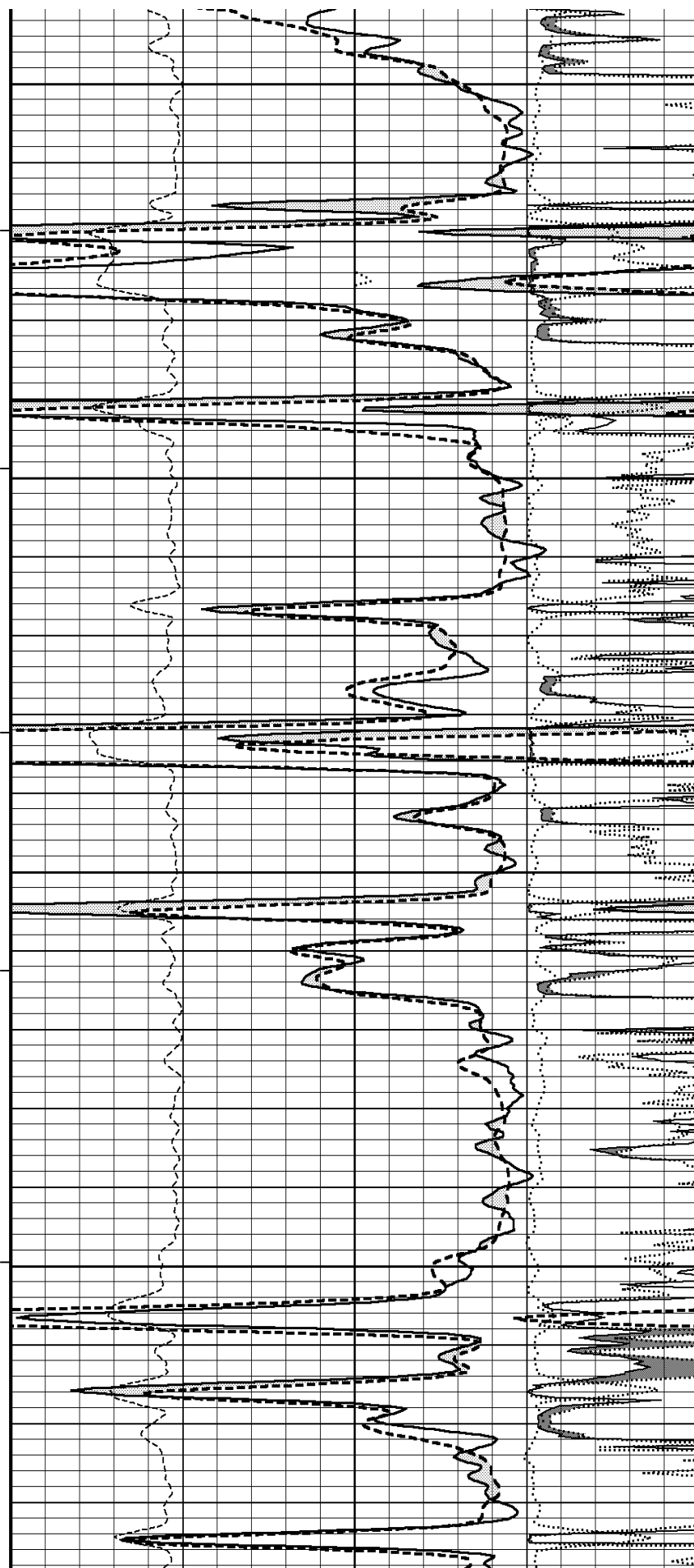
114°

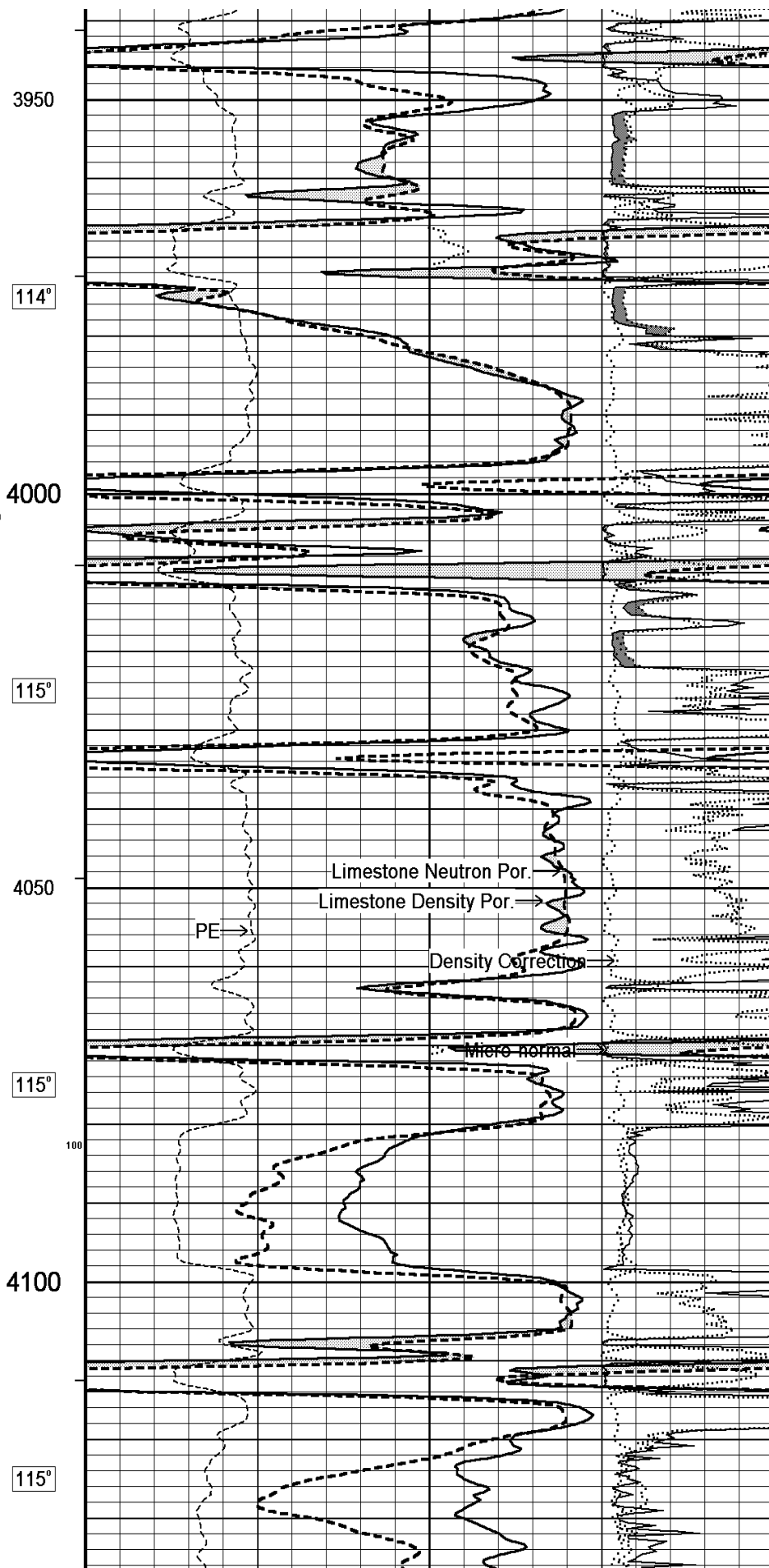
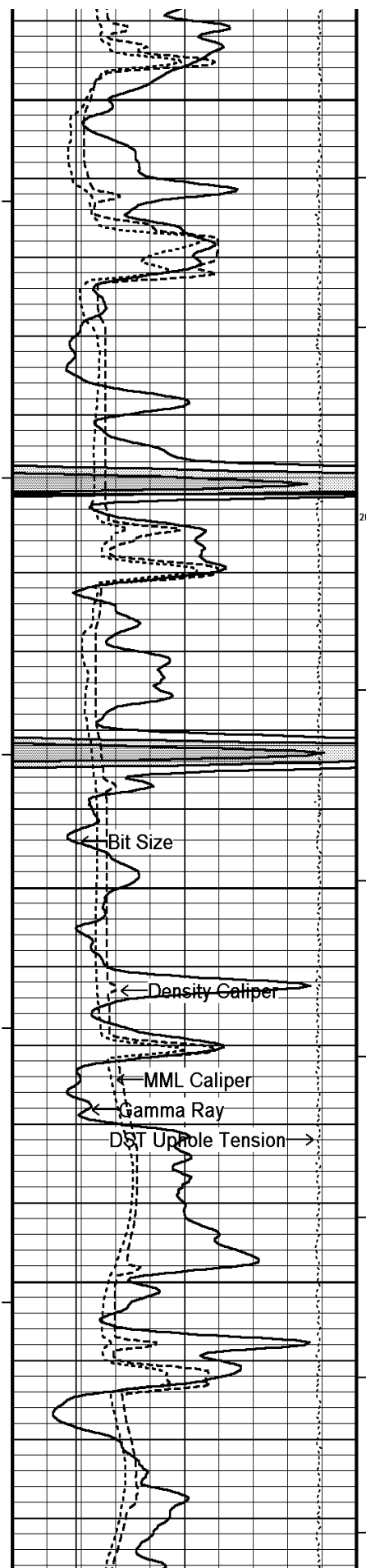
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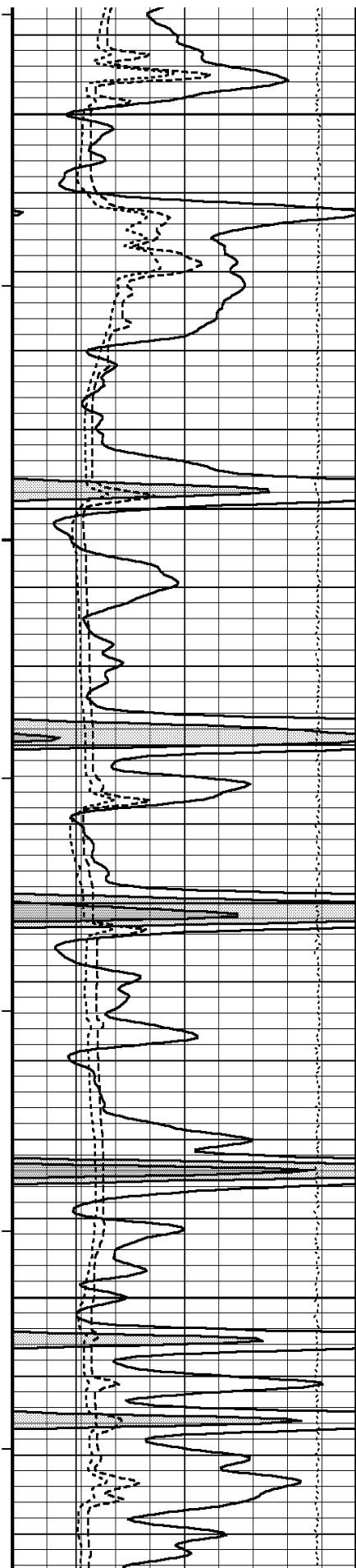
114°

3900

114°







4150

116°

4200

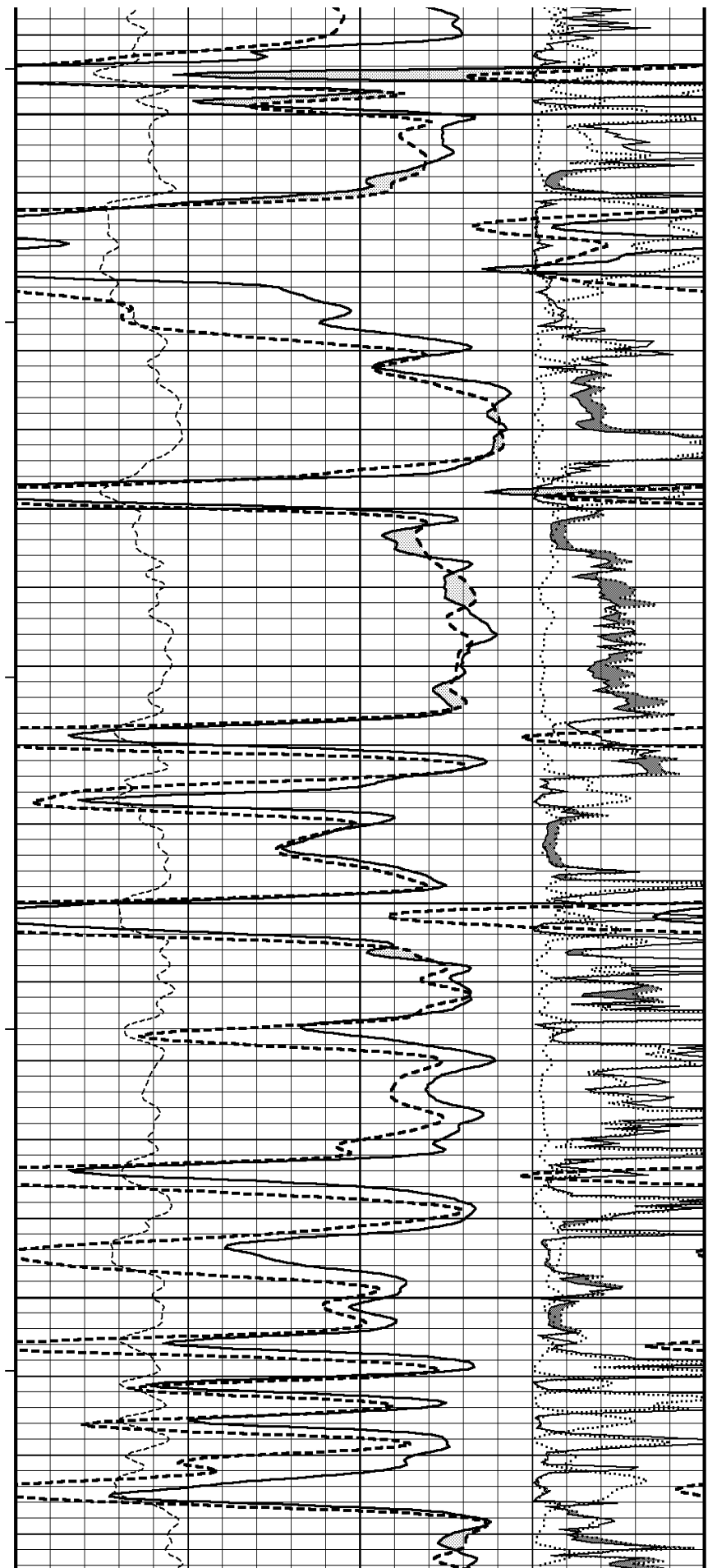
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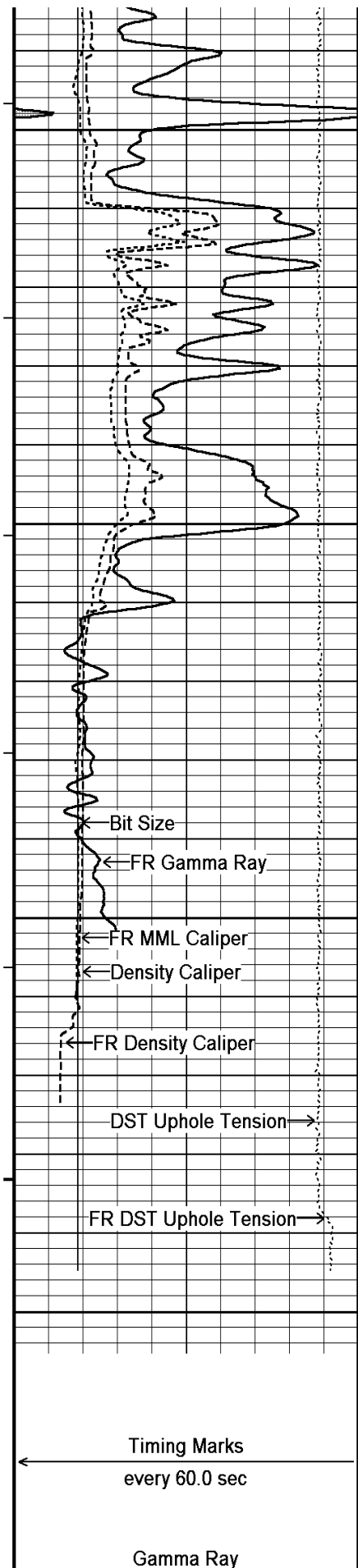
4250

117°

4300

118°





4350

118°

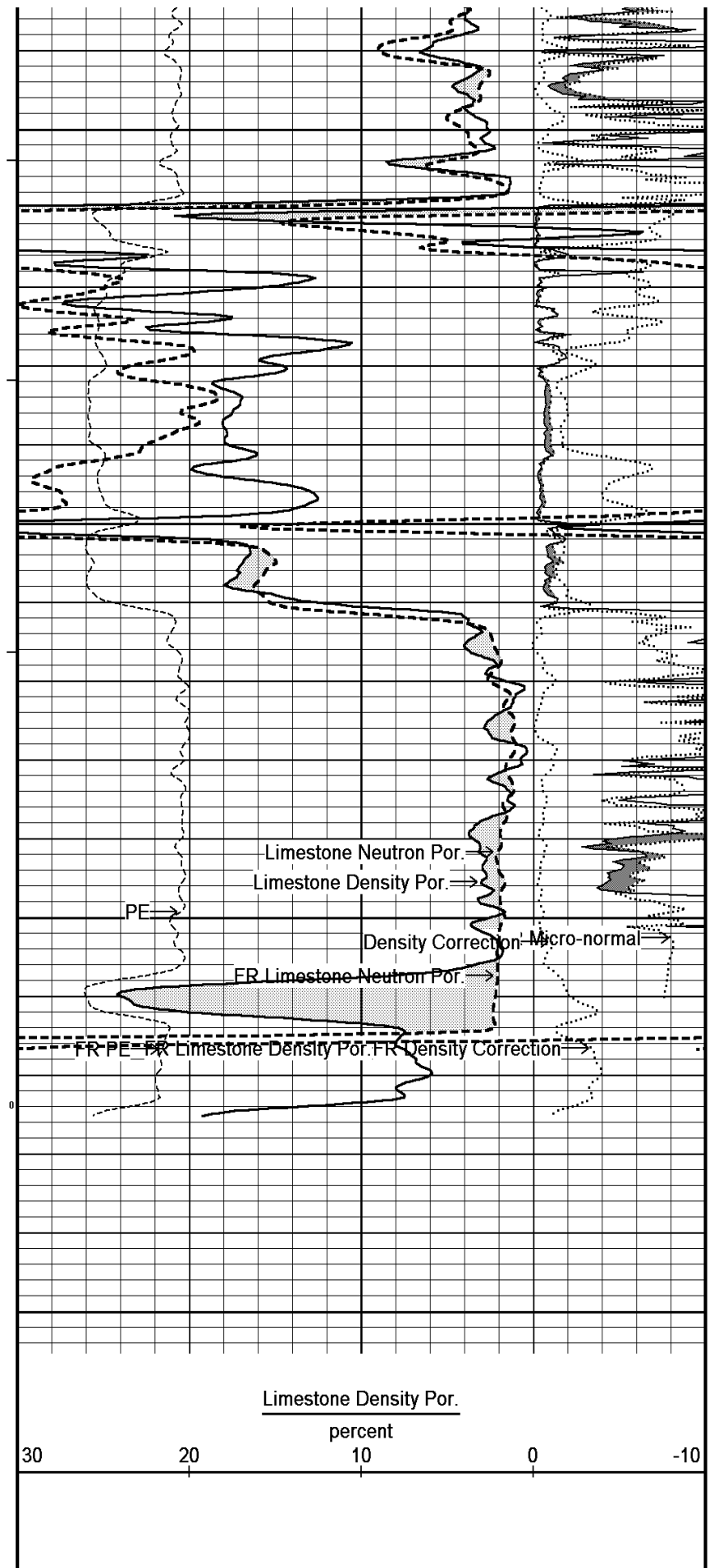
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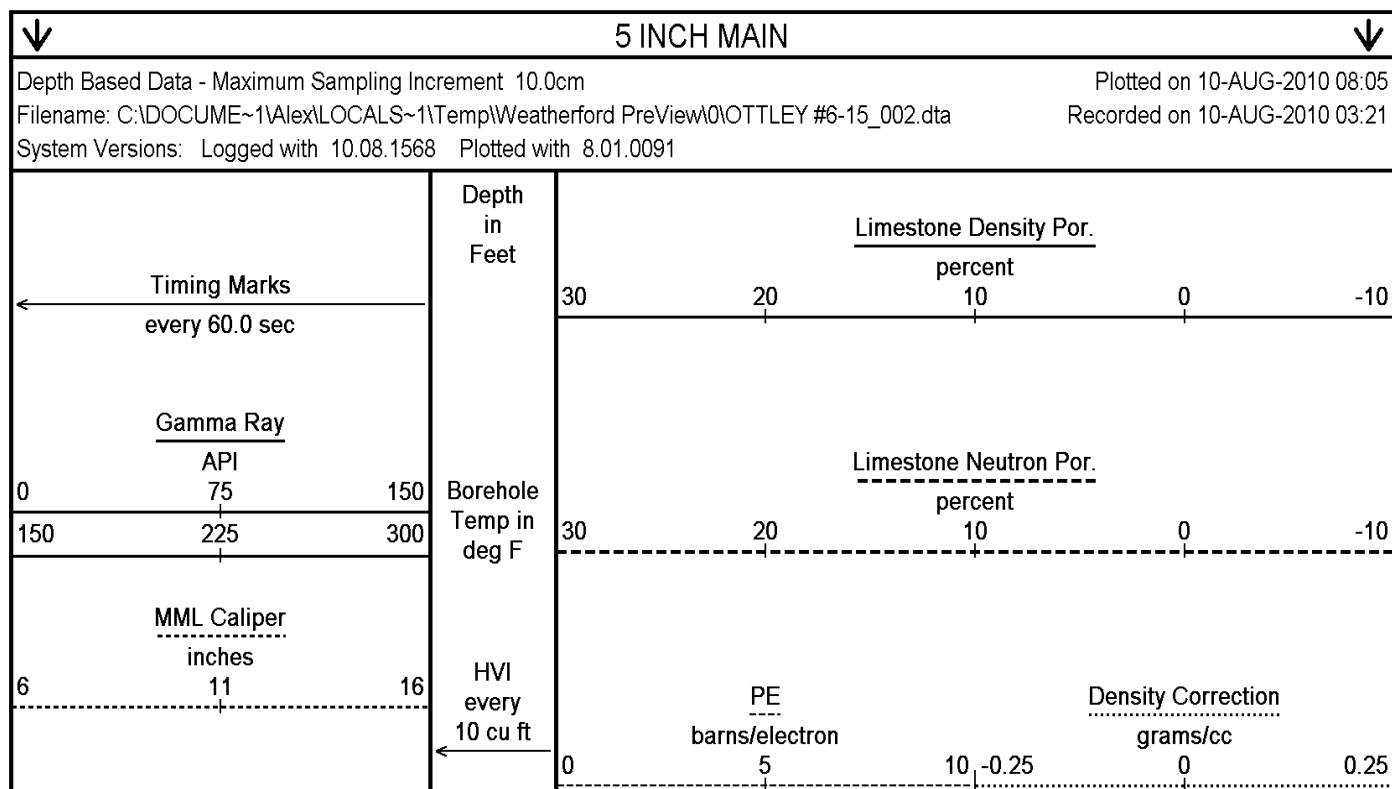
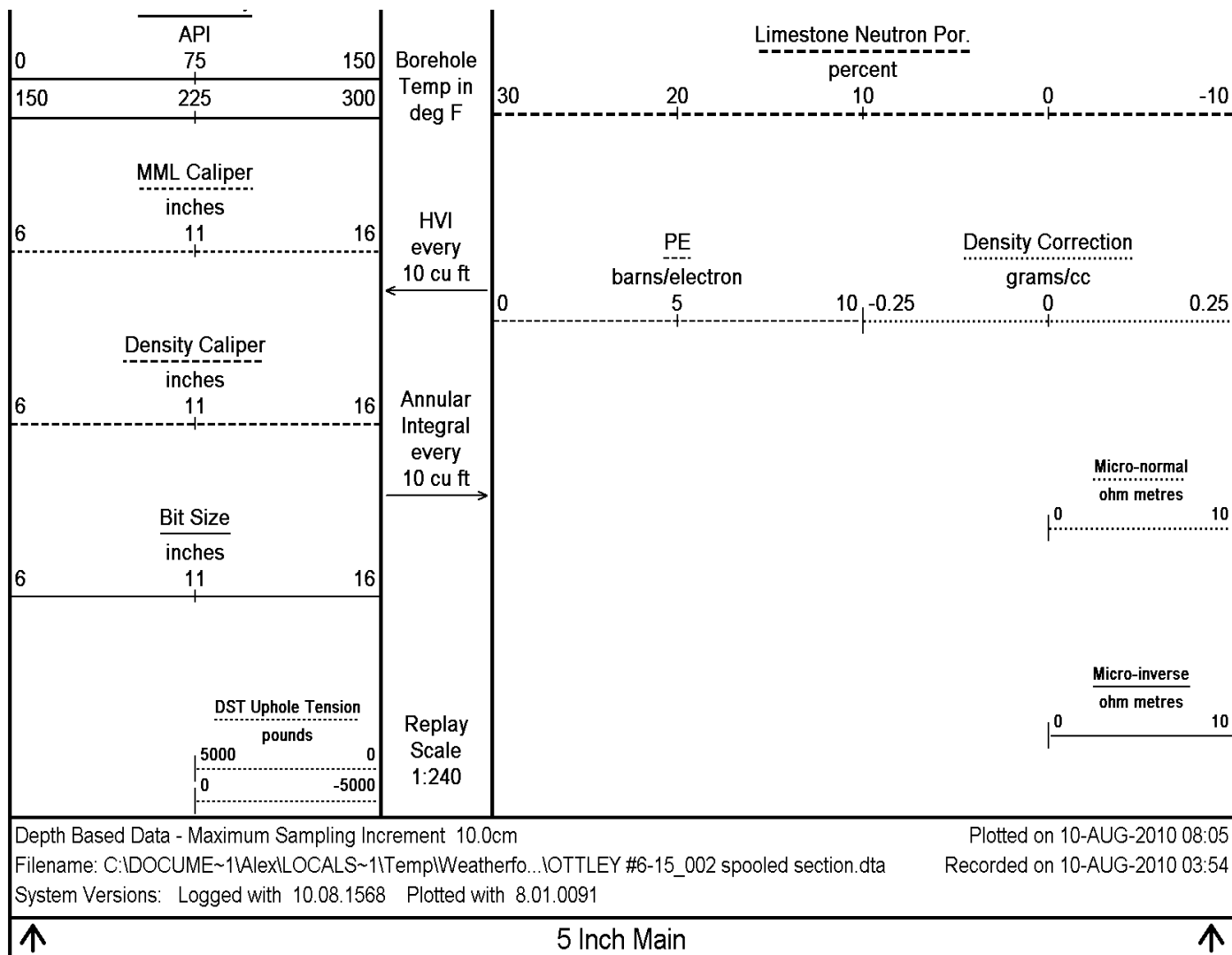
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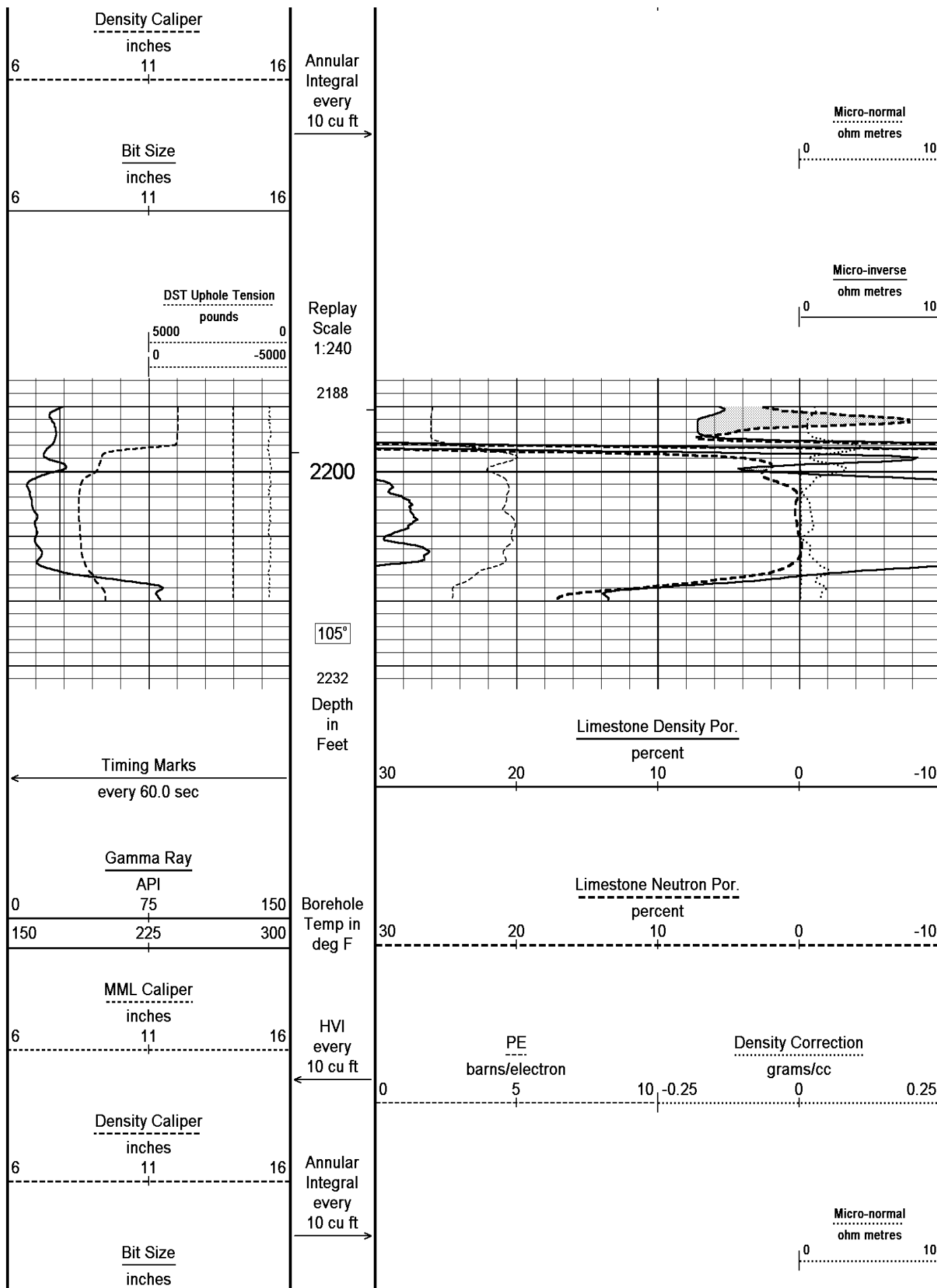
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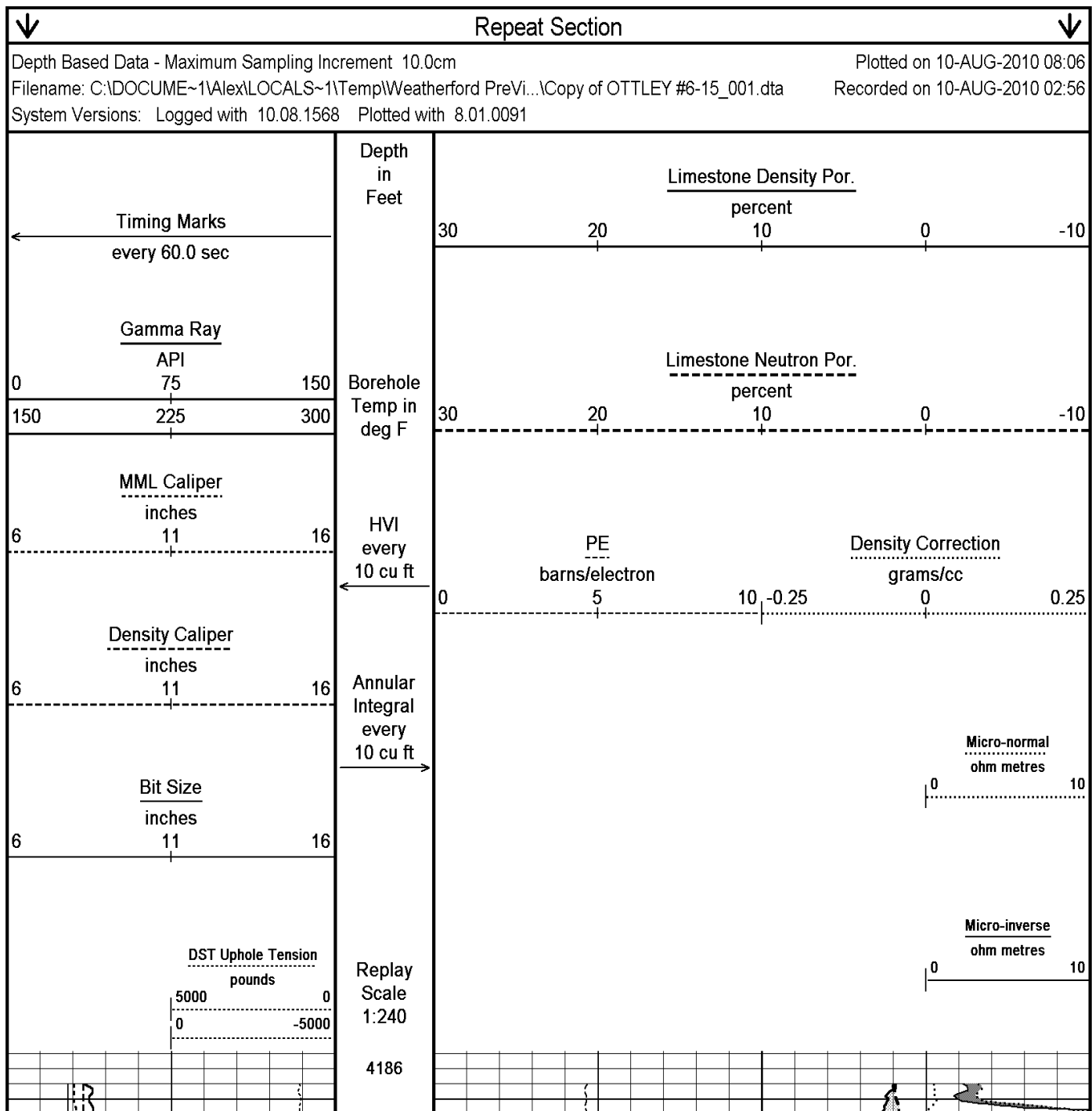
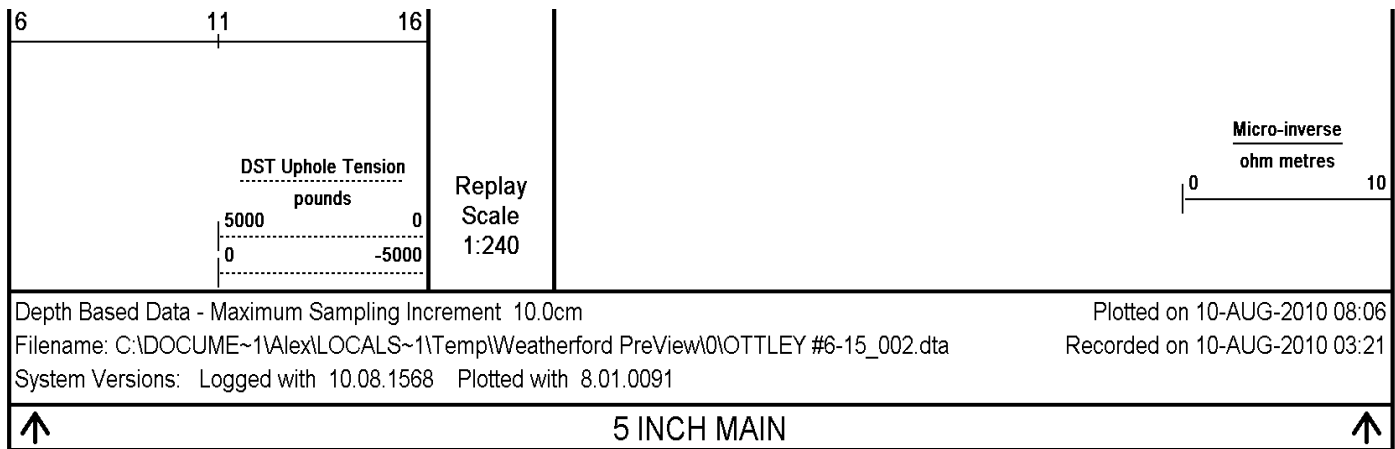
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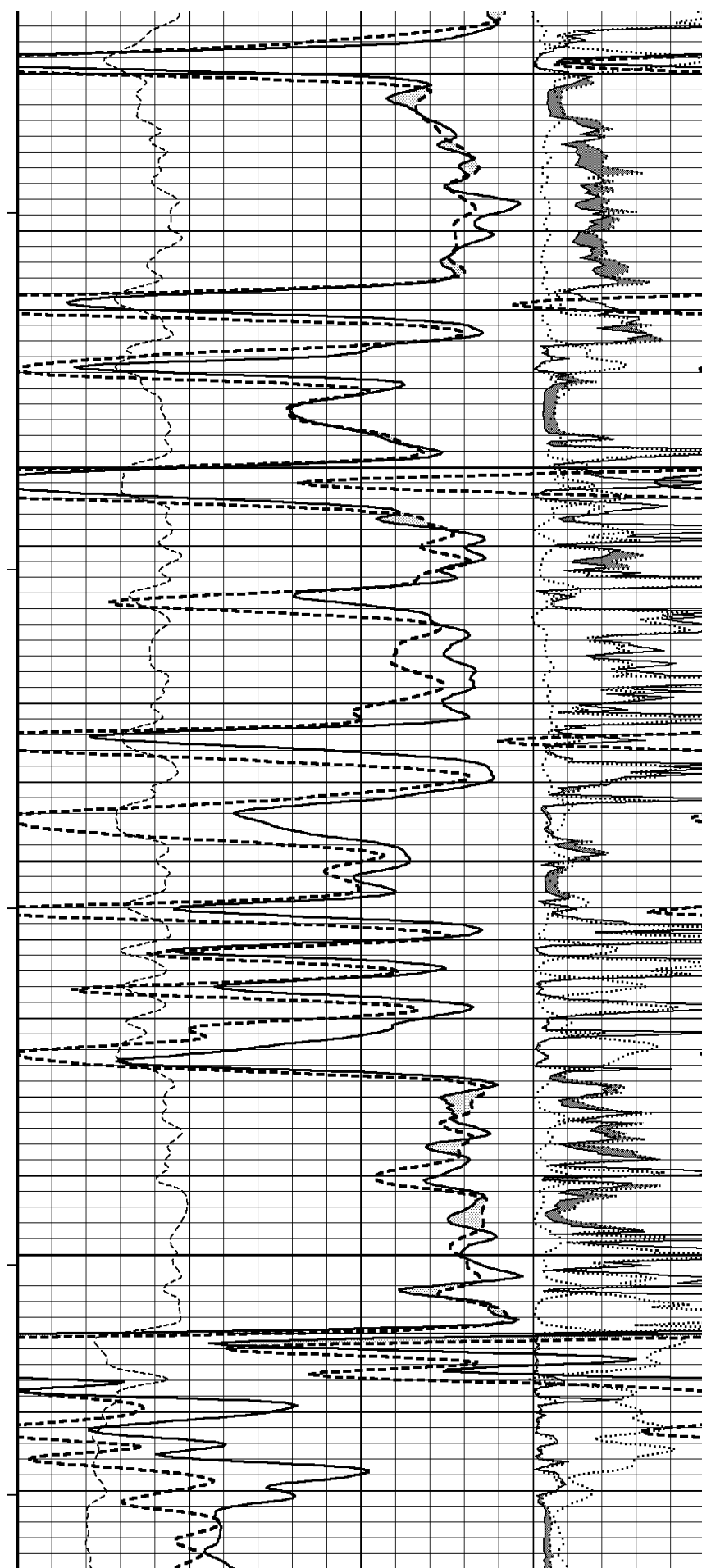
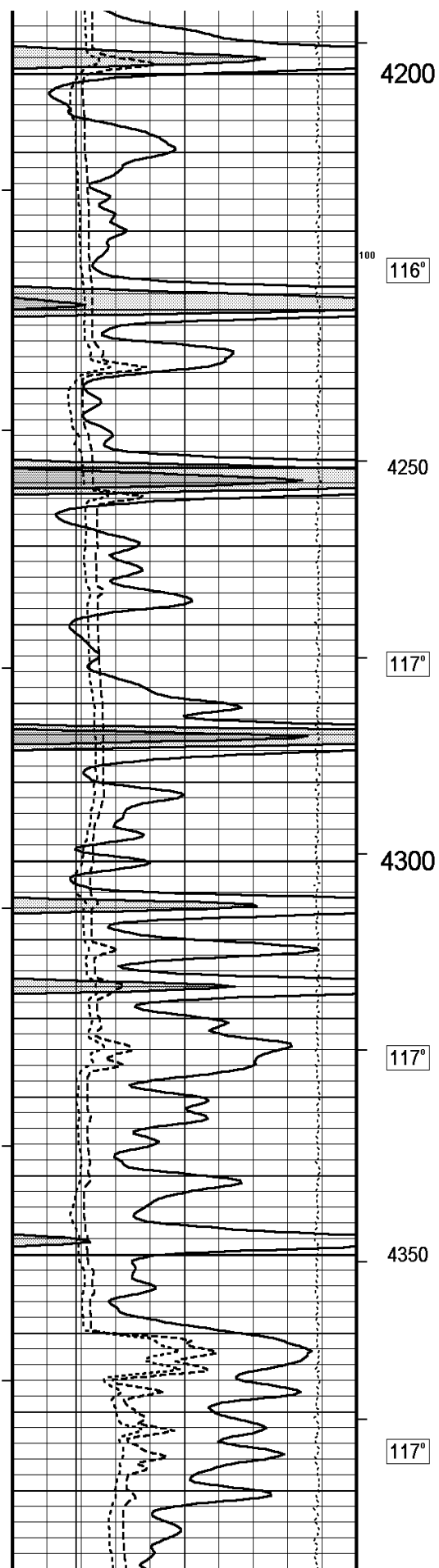
Depth
in
Feet

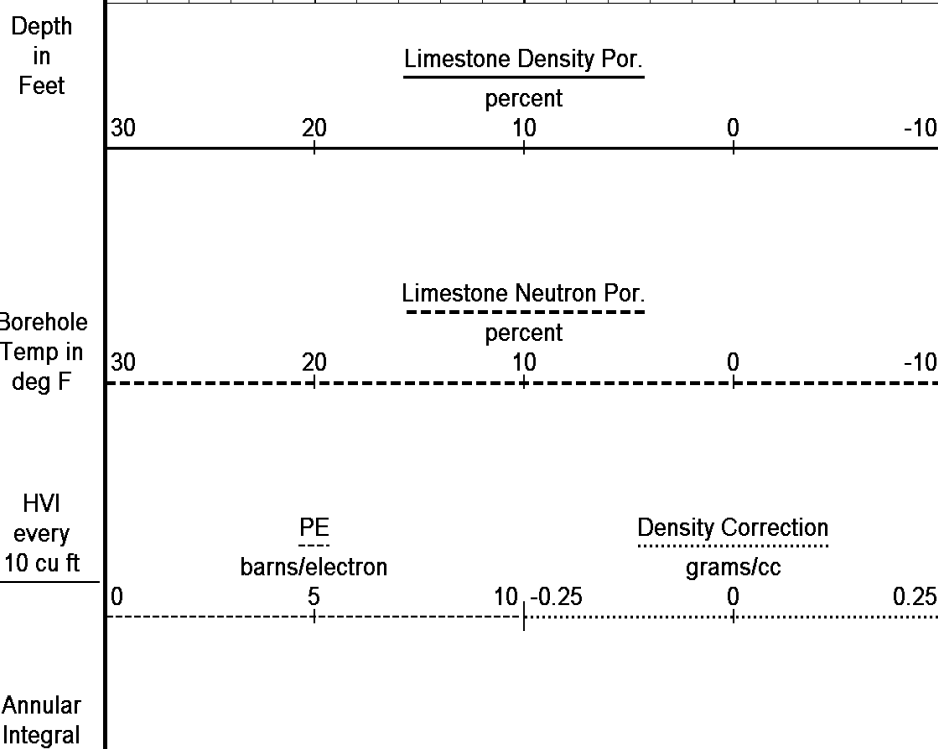
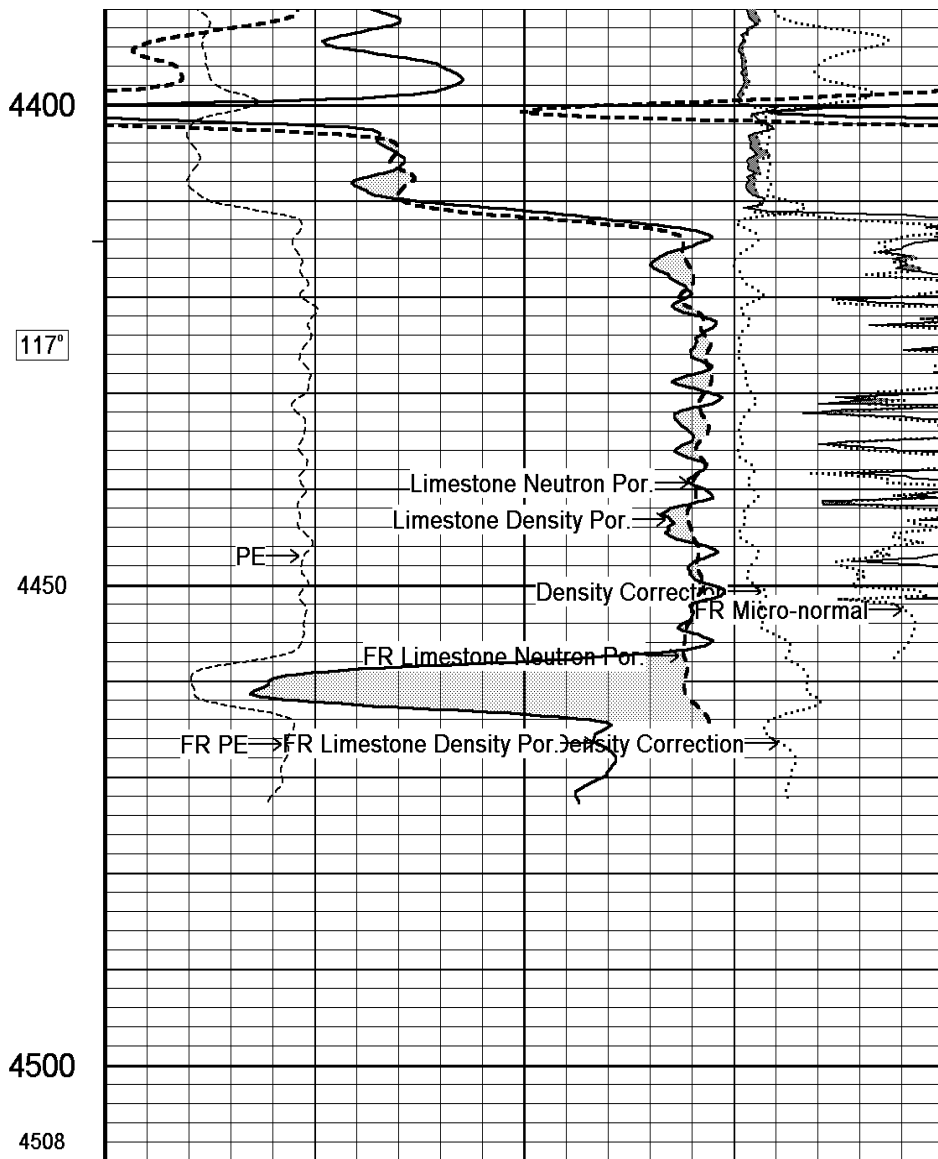
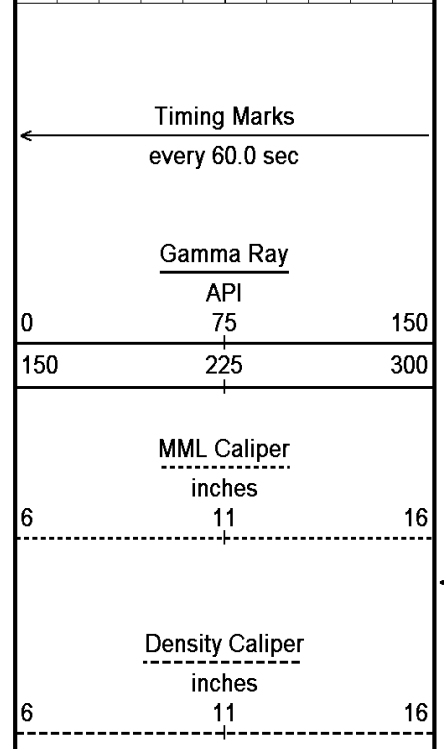
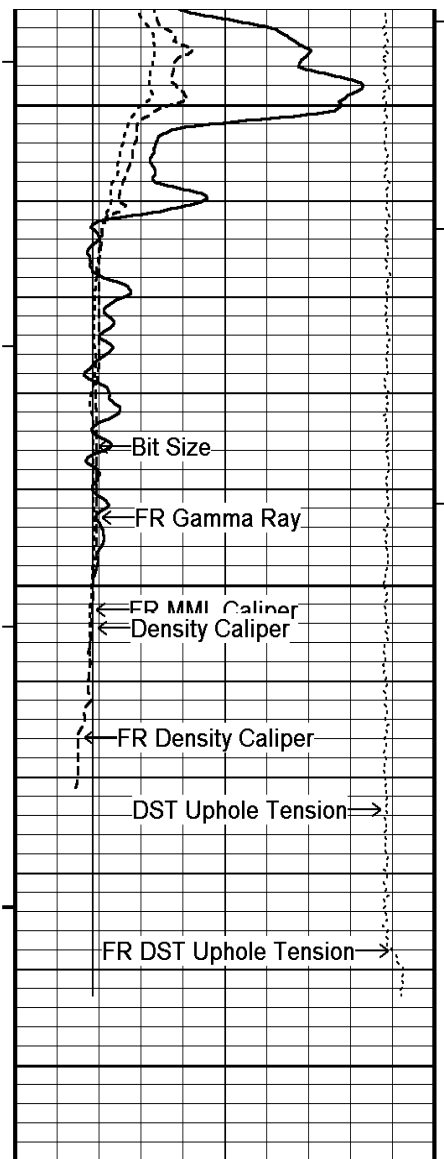


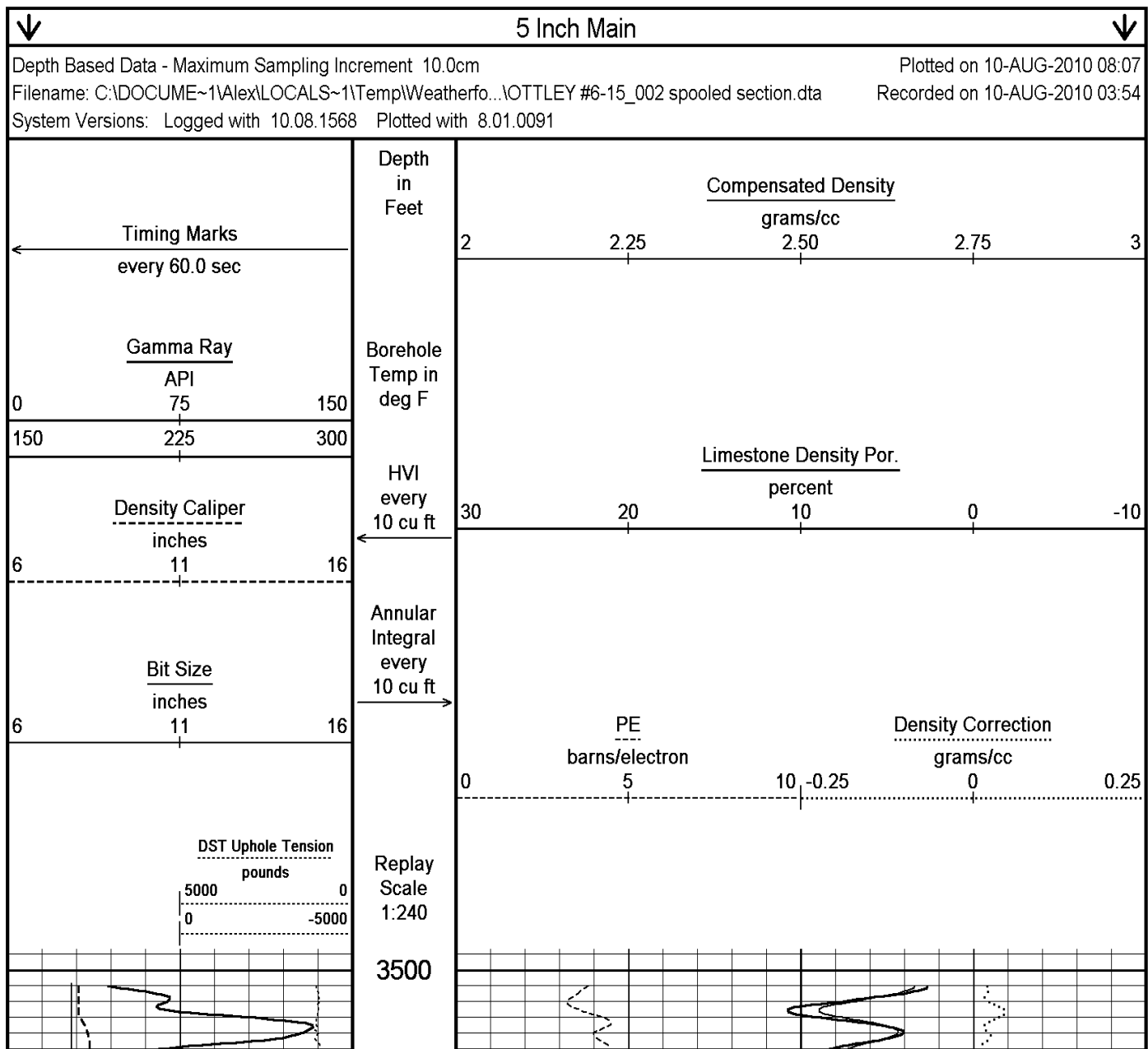
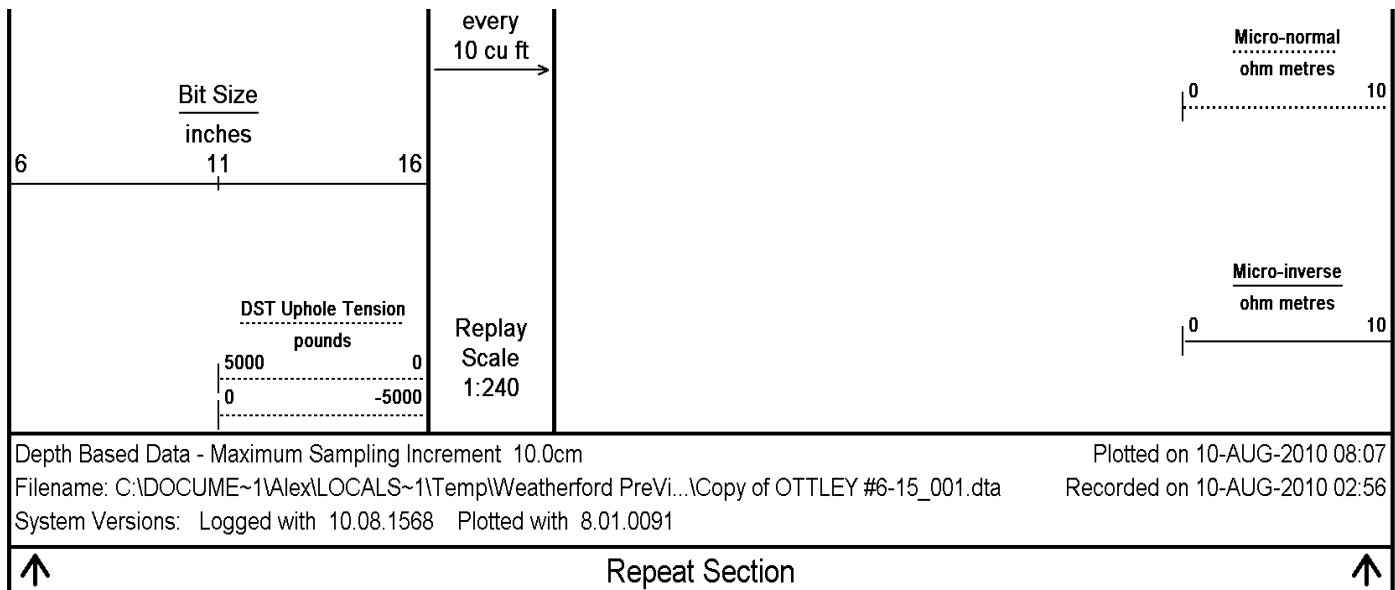


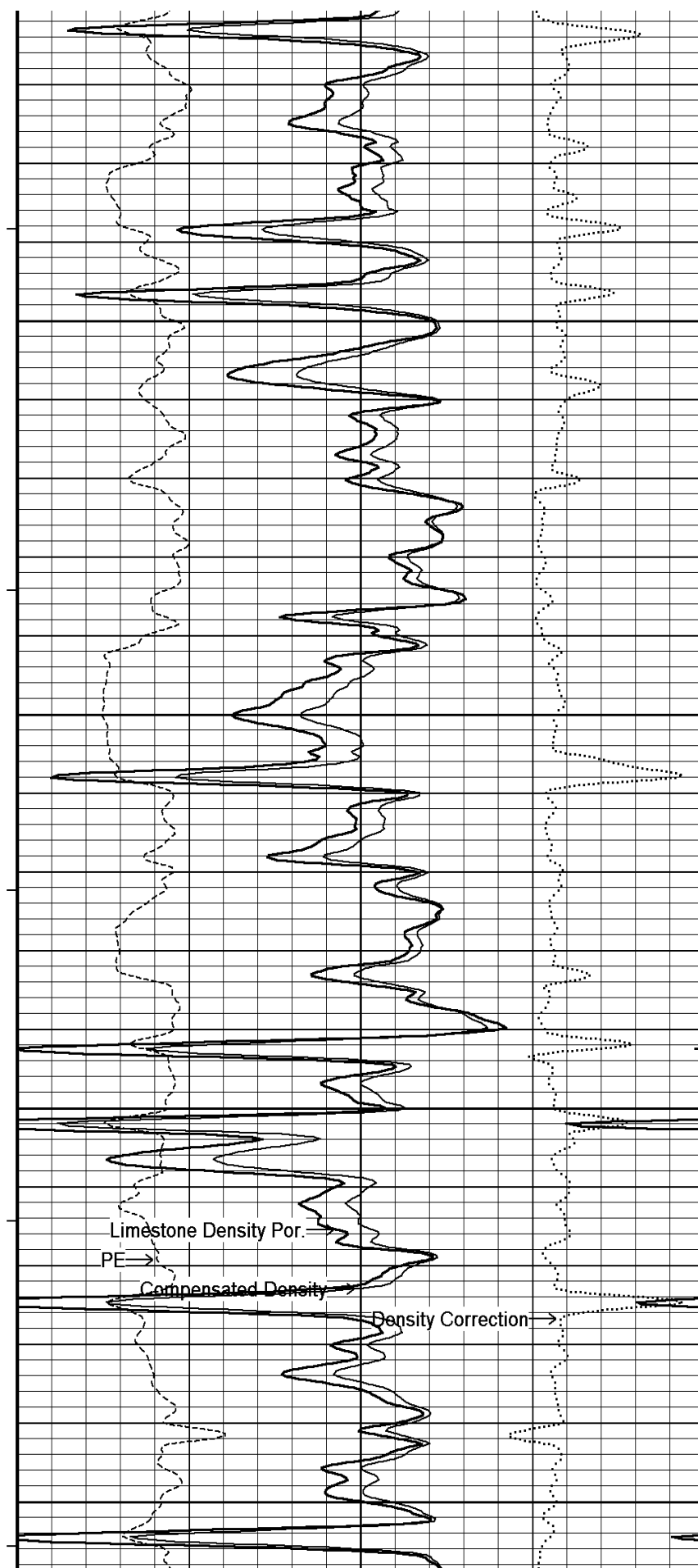
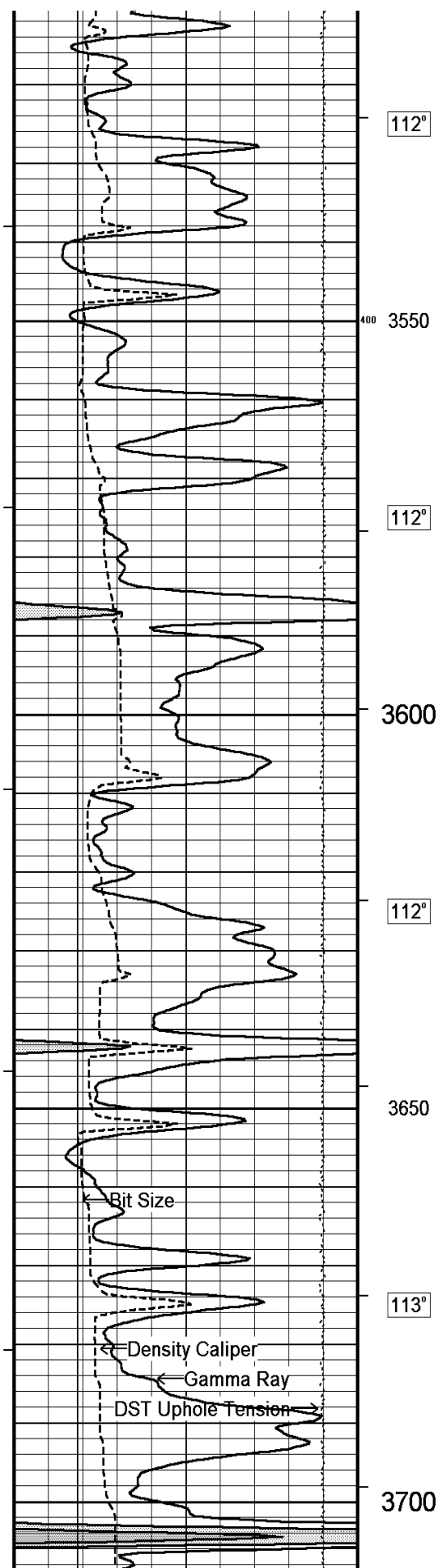


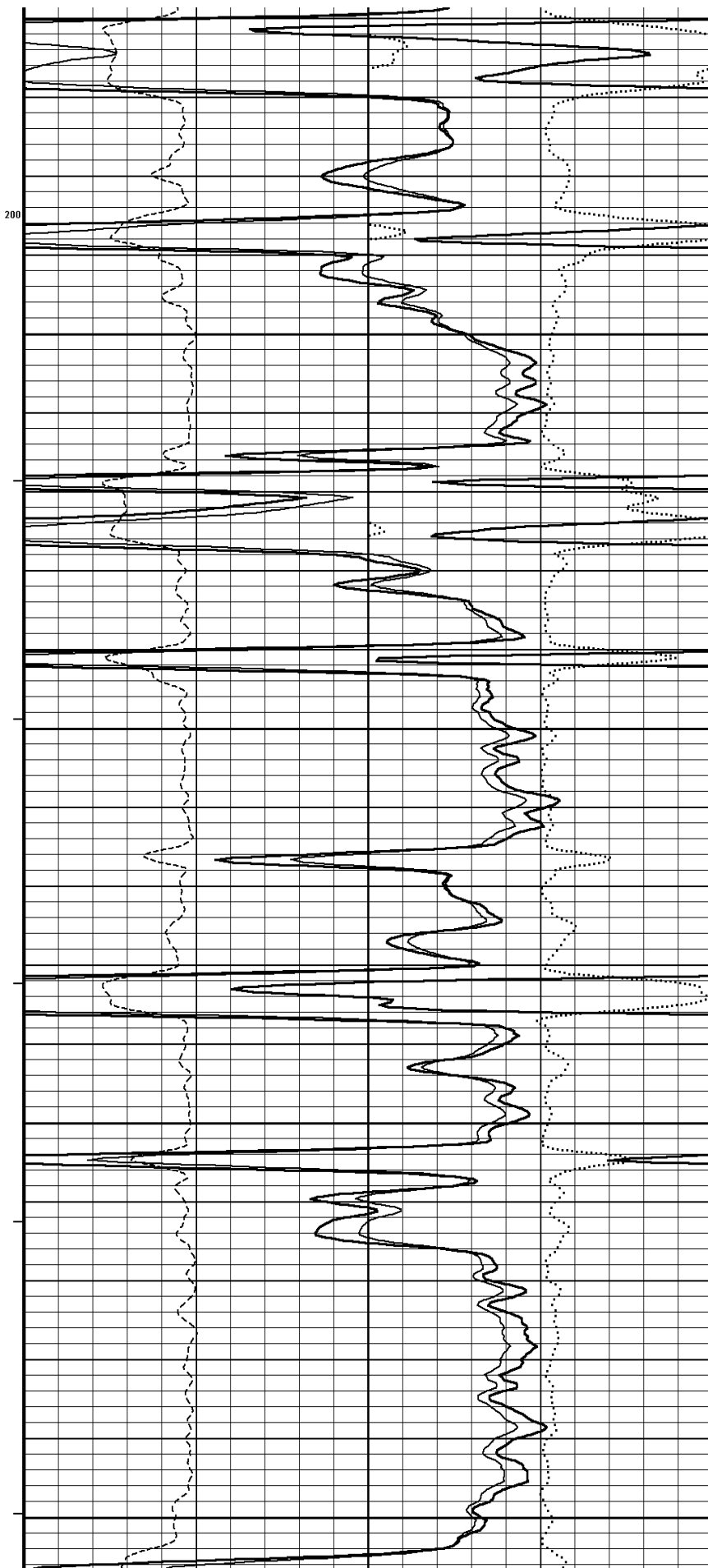
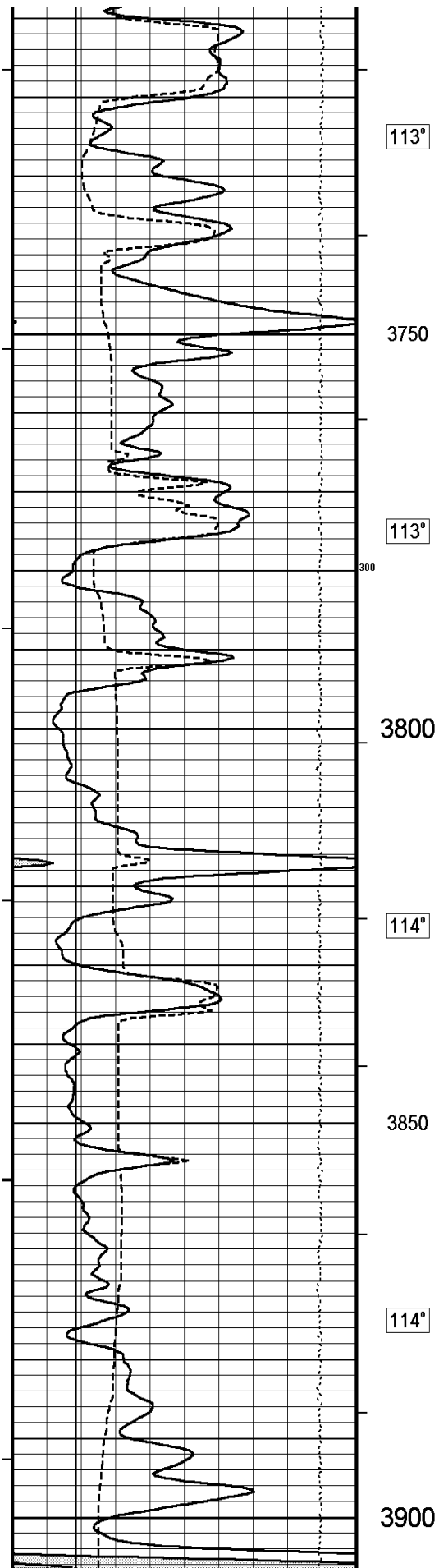


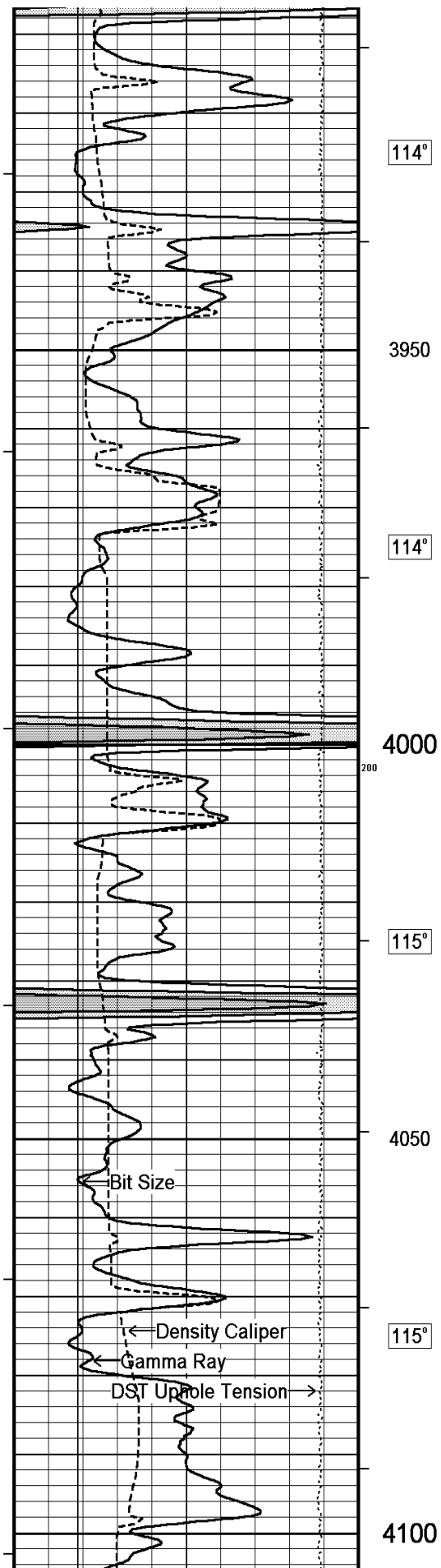












114°

3950

114°

4000

115°

4050

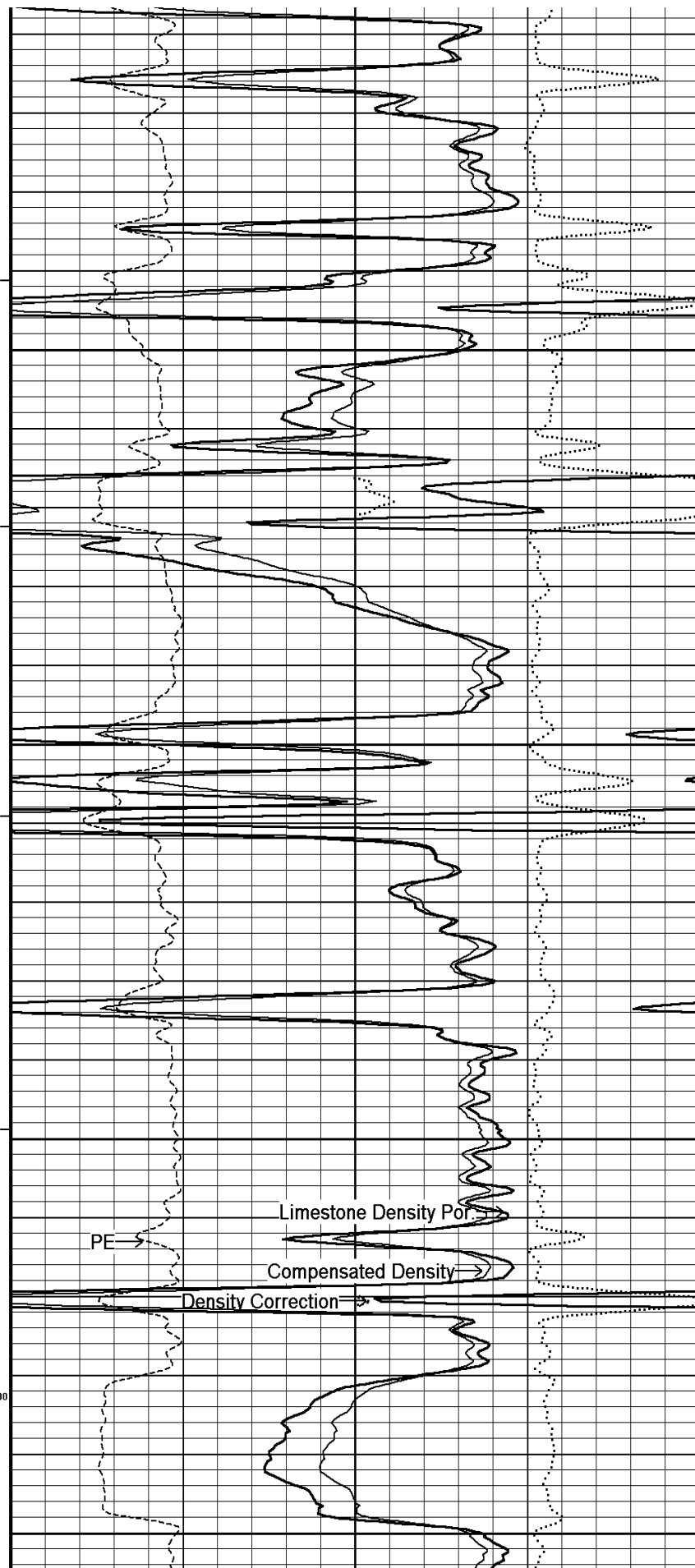
Bit Size

Density Caliper

Gamma Ray

DST Up-hole Tension

4100



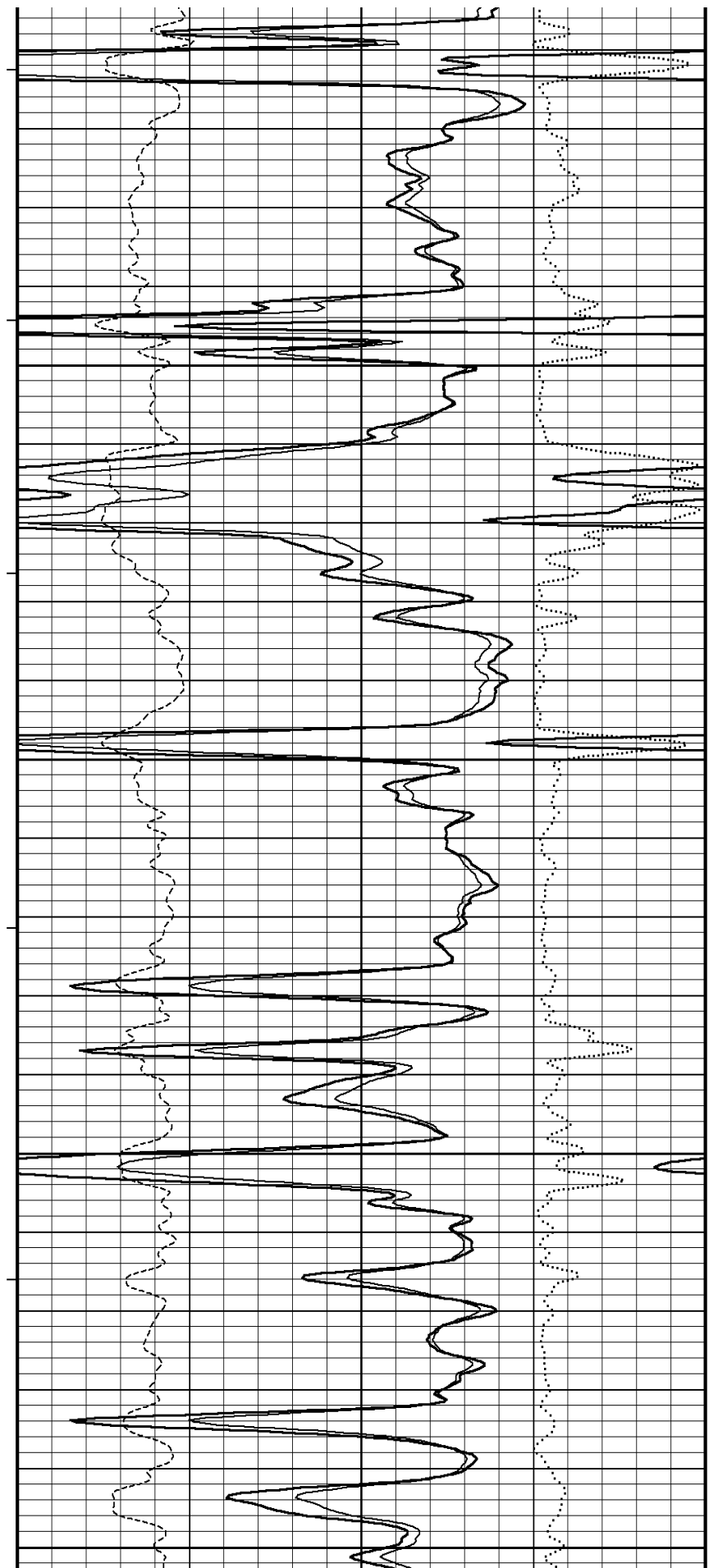
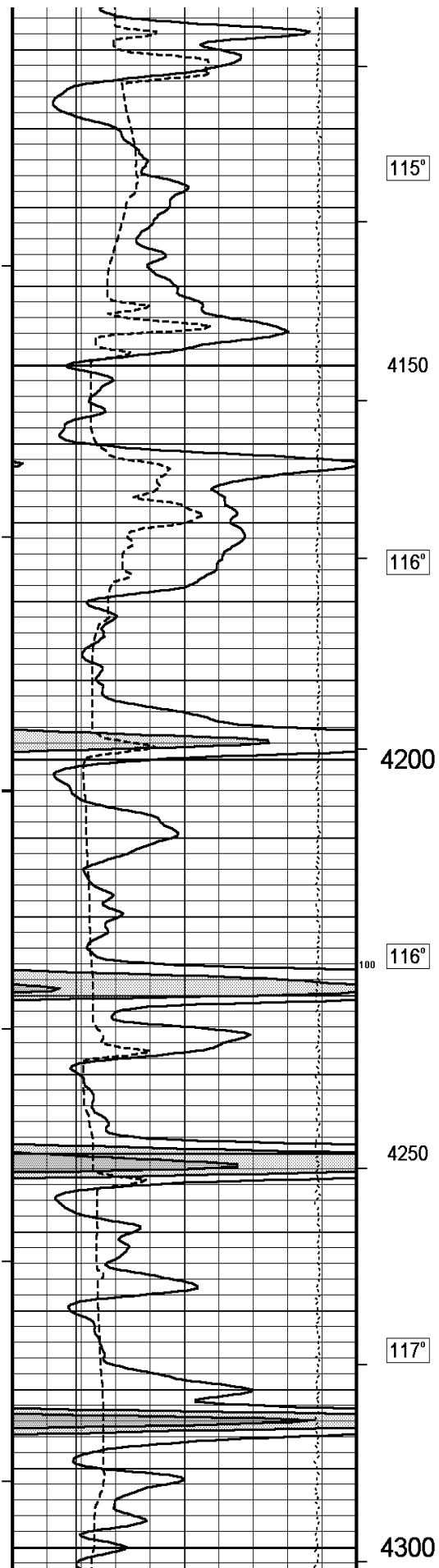
PE

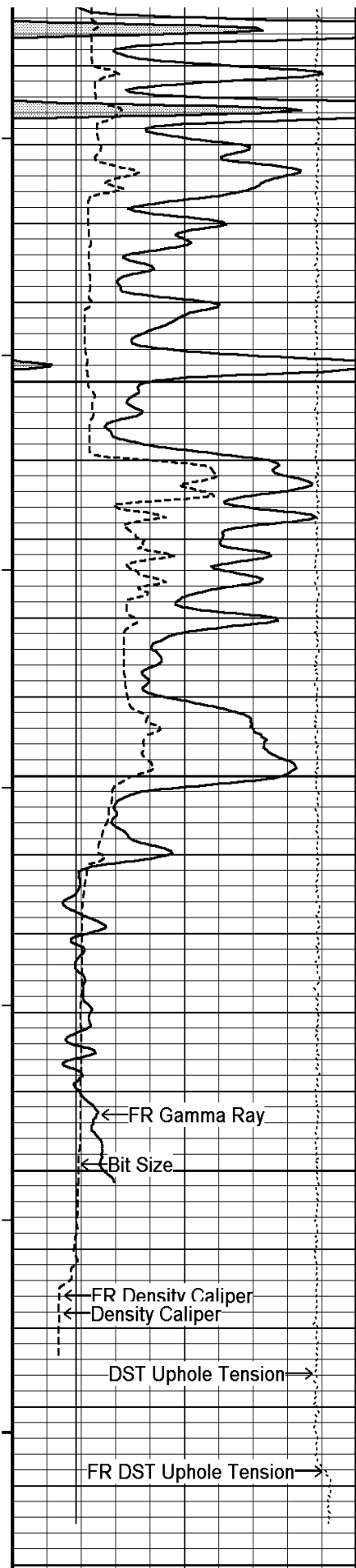
Limestone Density Por

Compensated Density

Density Correction

100





118°

4350

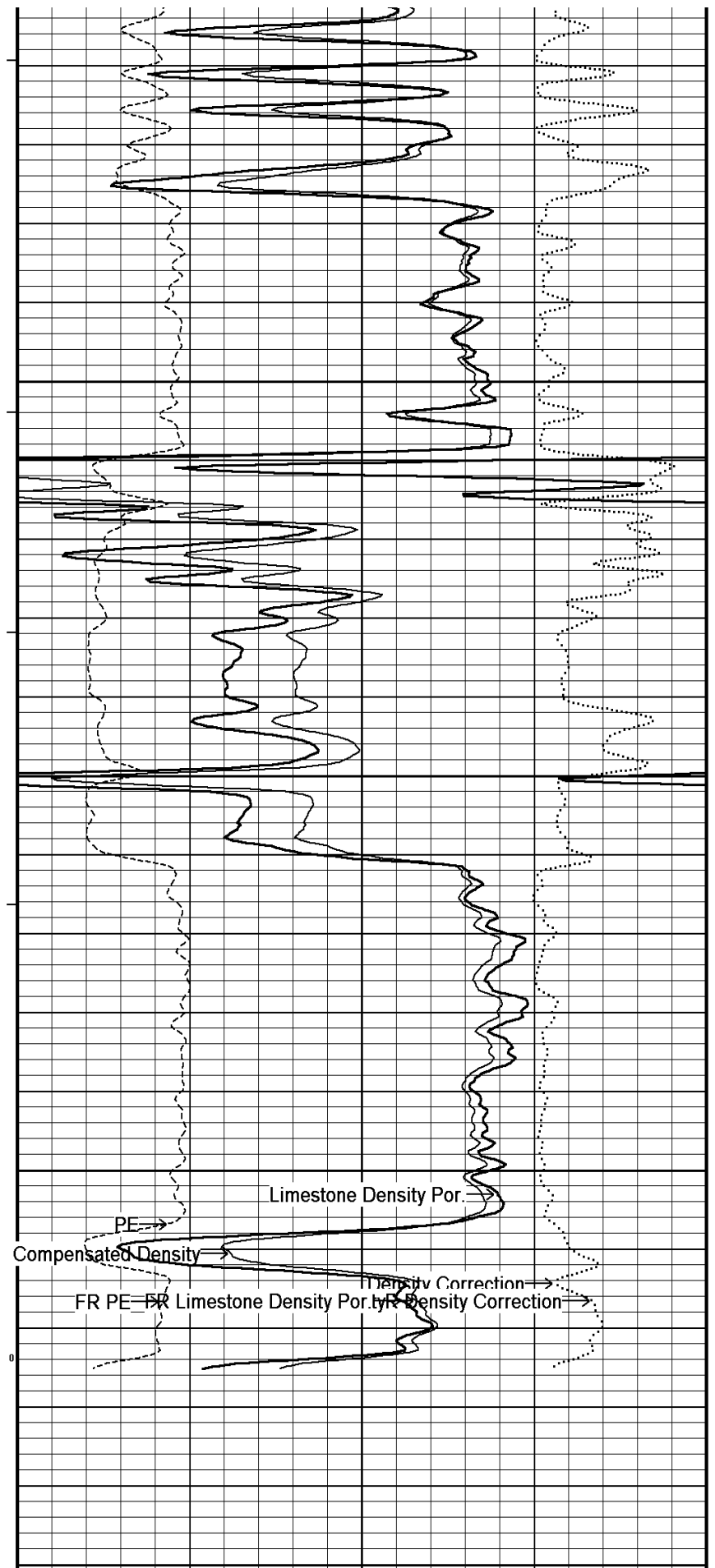
118°

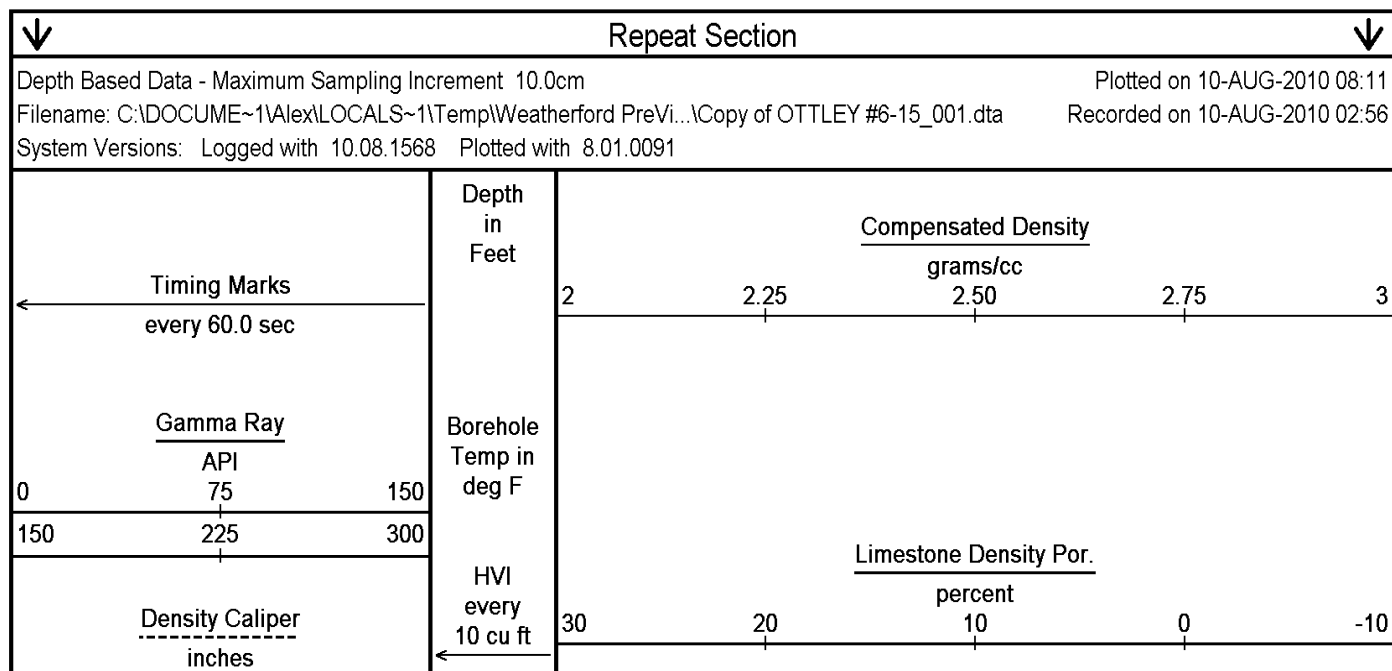
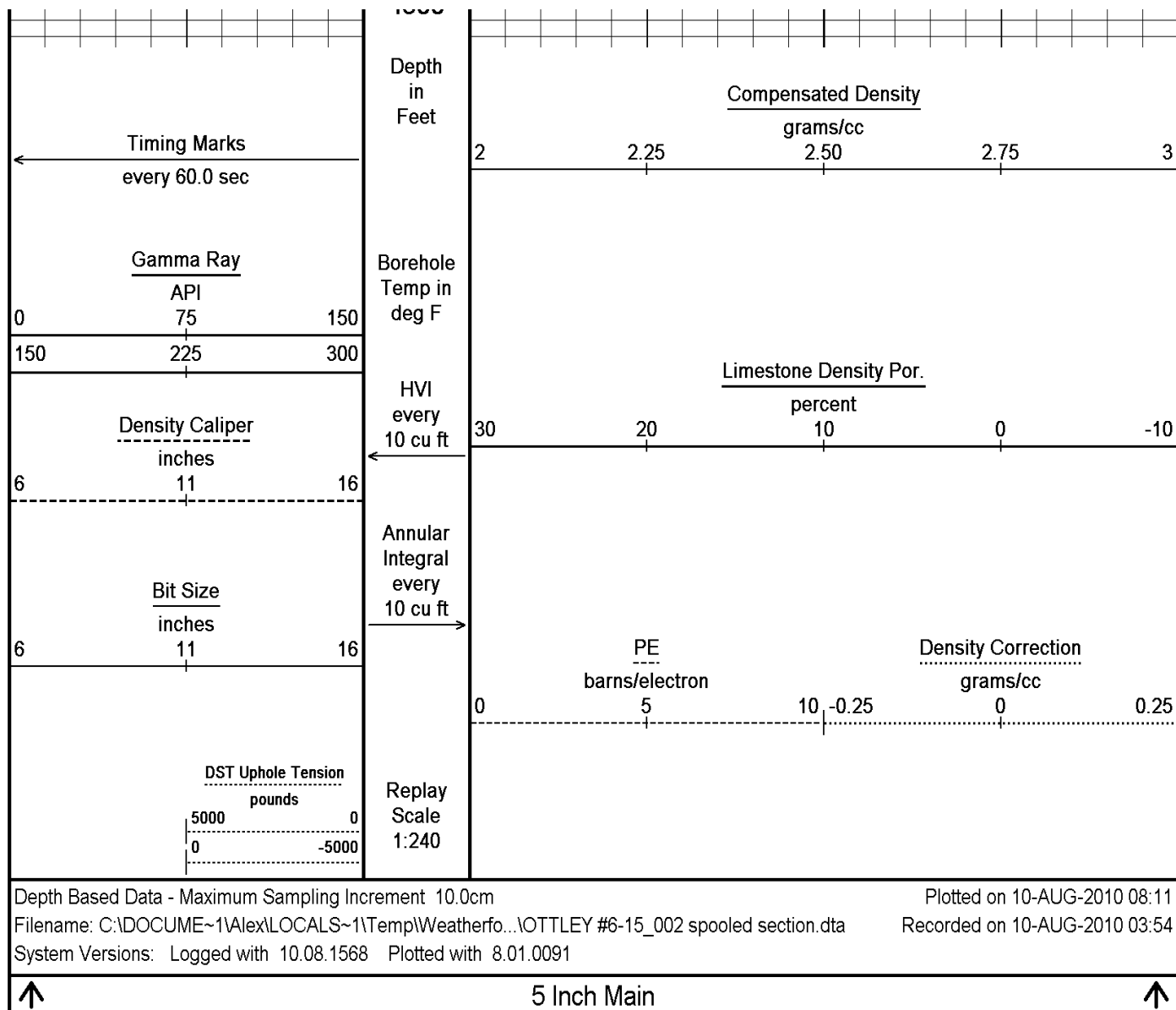
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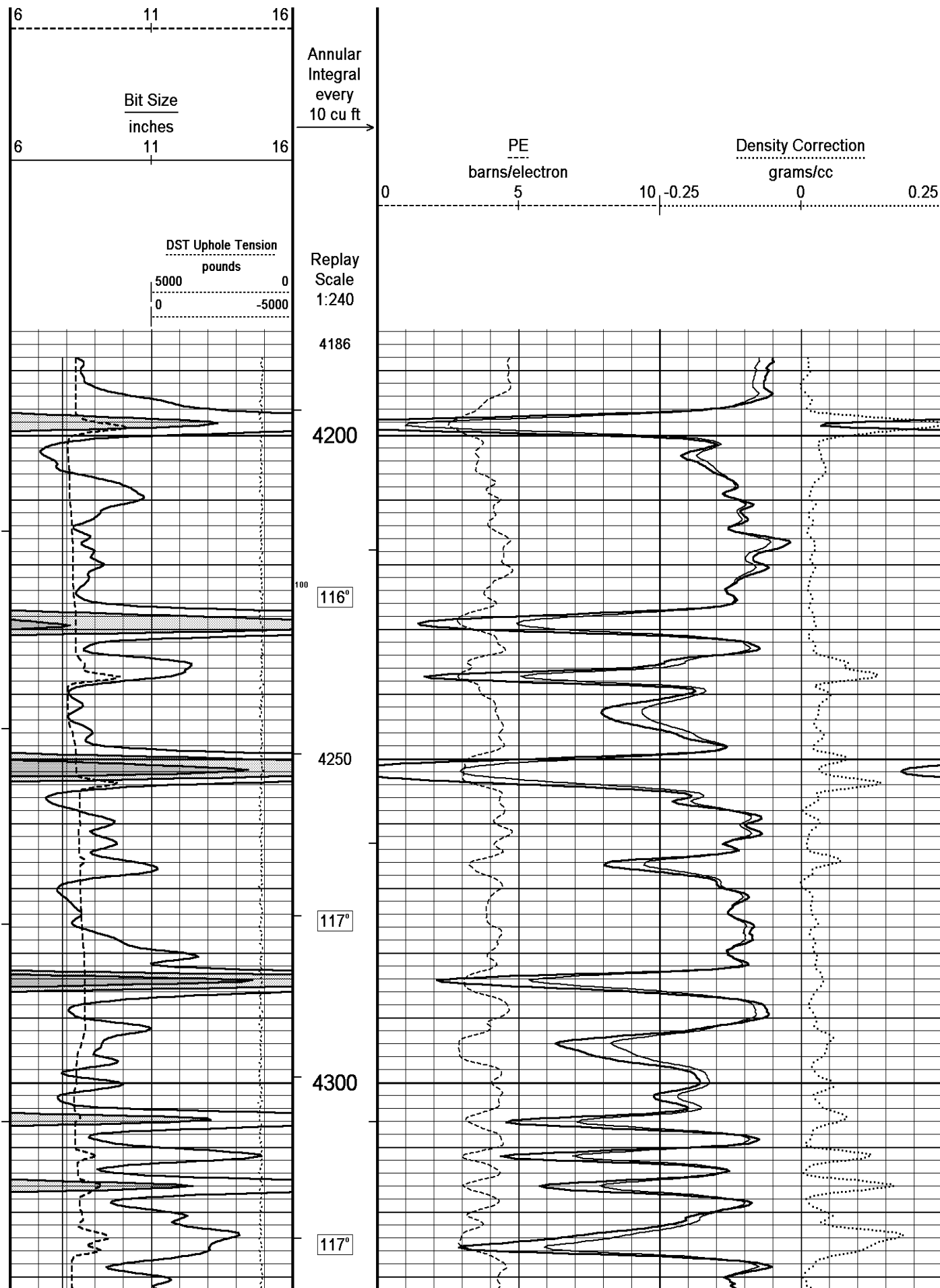
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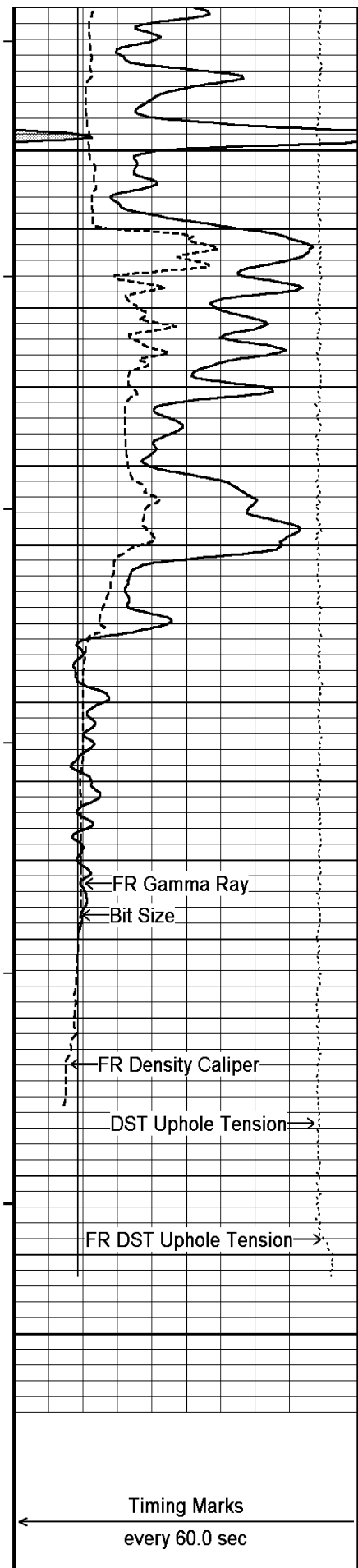
4450

4500









4350

117°

4400

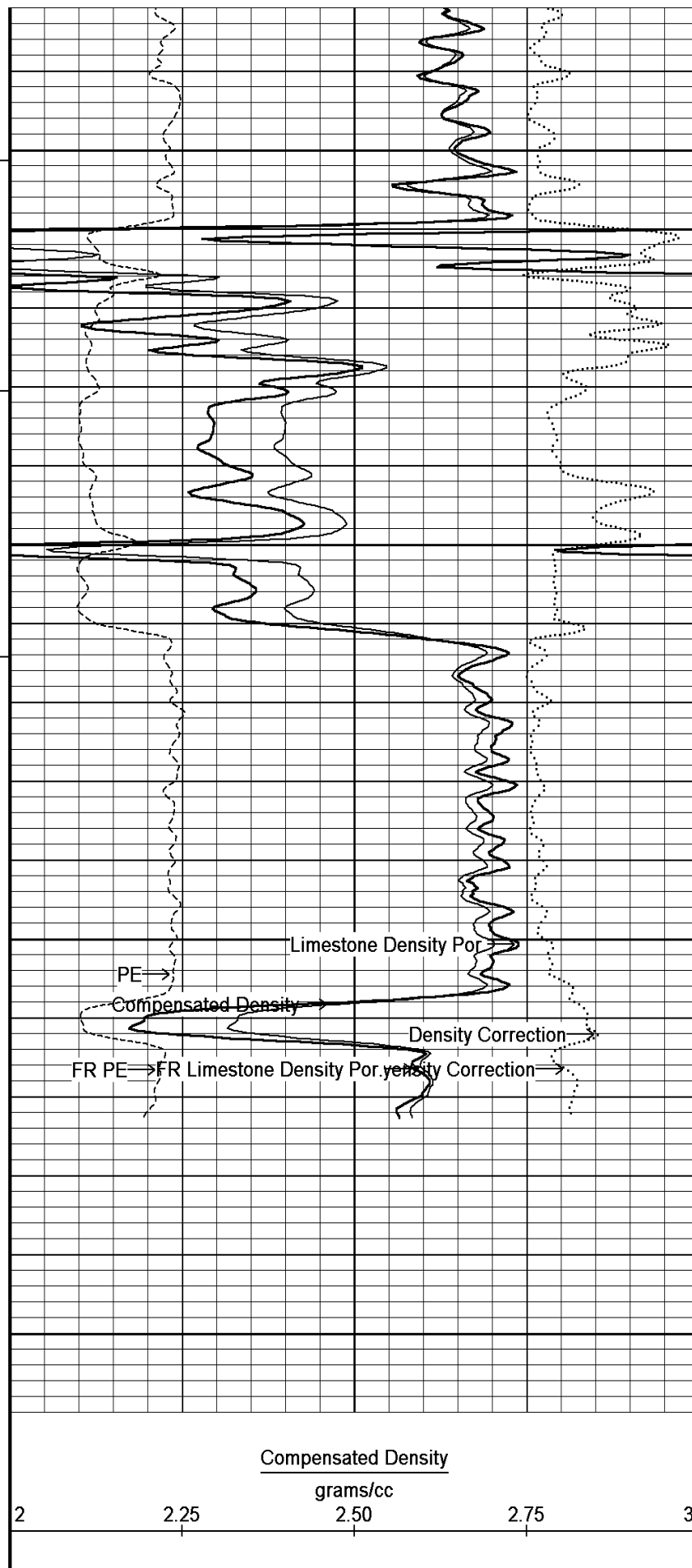
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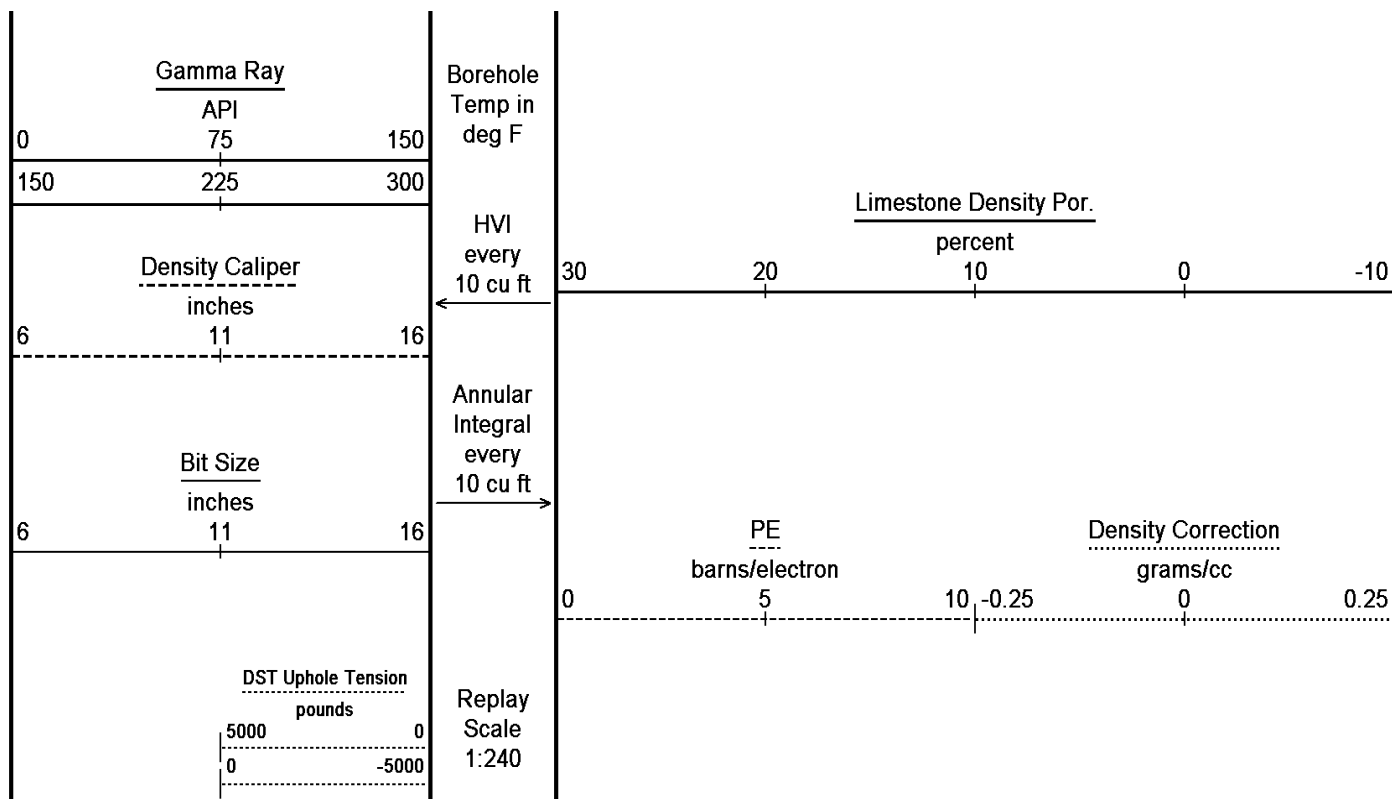
4450

4500

4508

Depth
in
Feet





Depth Based Data - Maximum Sampling Increment 10.0cm

Plotted on 10-AUG-2010 08:12

Filename: C:\DOCUME~1\Alex\LOCALS~1\Temp\Weatherford PreVi... \Copy of OTTLEY #6-15_001.dta

Recorded on 10-AUG-2010 02:56

System Versions: Logged with 10.08.1568 Plotted with 8.01.0091

↑ Repeat Section ↑

BEFORE SURVEY CALIBRATION

C:\DOCUME~1\Alex\LOCALS~1\Temp\Weatherford PreView\0\Copy of OTTLEY #6-15_001.dta

General Constants All 000

Last Edited on 10-AUG-2010,02:17

General Parameters

Mud Resistivity	0.710	ohm-metres
Mud Resistivity Temperature	88.000	degrees F
Water Level	0.000	feet
Density/Neutron Processing	Wet Hole	

Hole/Annular Volume and Differential Caliper Parameters

HVOL Caliper 1	Density Caliper	
HVOL Caliper 2	N/A	
Annular Volume Diameter	5.500	inches
Caliper for Differential Caliper	None	

Rwa Parameters

Porosity used	Limestone Density Por.
Resistivity used	Array Ind. One Res Rt
RWA Constant A	1.000
RWA Constant M	2.000

High Resolution Temperature Calibration MCG 034

Field Calibration on 19-OCT-2009,11:45

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

High Resolution Temperature Constants MCG 034

High Resolution Temperature Constants MCG 034

Pre-filter Length 11

Gamma Calibration MCG 034

Field Calibration on 09-AUG-2010 11:47

	Measured	Calibrated (API)
Background	54	38
Calibrator (Gross)	1101	763
Calibrator (Net)	1047	725

Gamma Constants MCG 034

Last Edited on 09-AUG-2010,15:15

Gamma Calibrator Number	grc38	
Mud Density	1.12	gm/cc
Caliper Source for Processing	Density Caliper	
Tool Position	Eccentred	
Concentration of KCl	0.00	kppm

Caliper Calibration MPD 035

Base Calibration on 08-JUL-2010 15:01

Field Calibration on 09-AUG-2010 11:19

Base Calibration

Reading No	Measured	Calibrator Size (in)
1	20128	4.01
2	30012	5.96
3	40480	7.98
4	50399	9.95
5	60832	11.91
6	N/A	N/A

Field Calibration

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

Photo Density Calibration MPD 035

Base Calibration on 07-AUG-2010 00:43

Field Check on 09-AUG-2010 11:33

Density Calibration

Base Calibration	Measured		Calibrated (sdu)	
	Near	Far	Near	Far
Reference 1	60959	29645	59556	30836
Reference 2	25012	2722	24941	2541

Field Check at Base

1186.5	1413.5
--------	--------

Field Check

1189.4	1416.0
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PE Calibration

Base Calibration	WS	Measured WH	Ratio	Calibrated Ratio
Background	214	1052		
Reference 1	22655	60754	0.376	0.371
Reference 2	6653	24862	0.270	0.272

Field Check at Base

213.8	1052.1
-------	--------

Field Check

213.9	1054.2
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Density Constants MPD 035

Last Edited on 09-AUG-2010,15:16

Density Source Id	p50557b
Nylon Calibrator Number	dnce695
Aluminium/Fe Calibrator Number	dacd698

Density Shoe Profile	4 inch	
Caliper Source for Processing	Density Caliper	
PE Correction to Density	Not Applied	
Mud Density	1.12	gm/cc
Mud Density Z/A Correction	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:\DOCUME~1\Alex\LOCALS~1\Temp\Weatherford PreView\0\Copy of OTTLEY #6-15_001.dta

3/8" Triple Cone Cable Head (MCB C A)

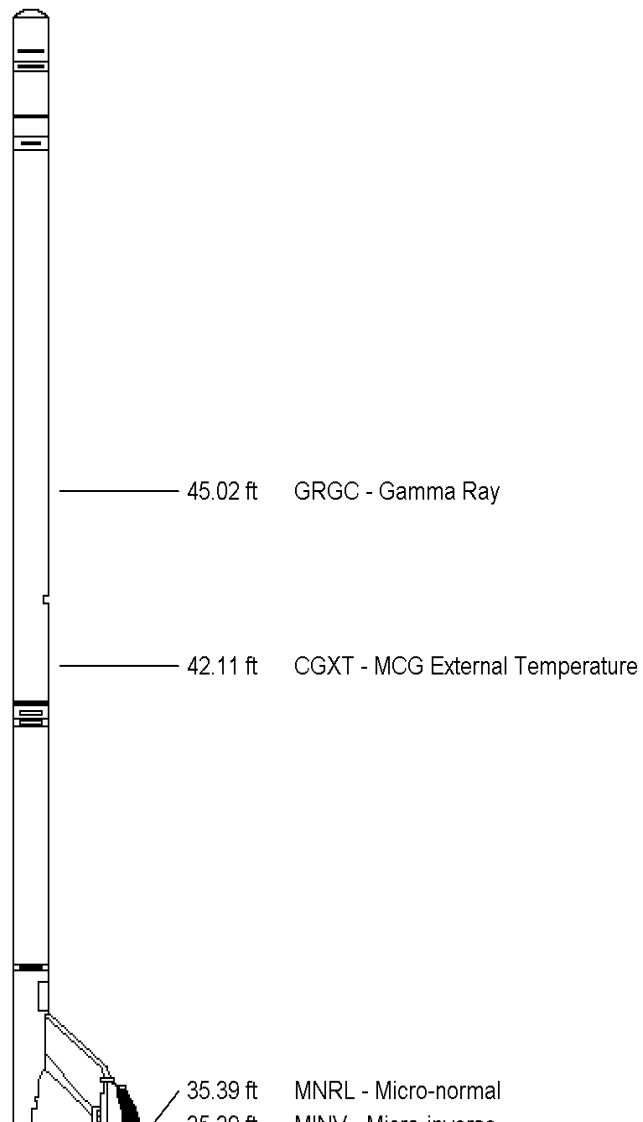
MCB 5 Length: 1.58 ft Weight: 15.4 lb

Compact Gamma

MCG 34 Length: 8.70 ft Weight: 63.9 lb

Compact Micro-log

MML 9 Length: 7.97 ft Weight: 81.6 lb



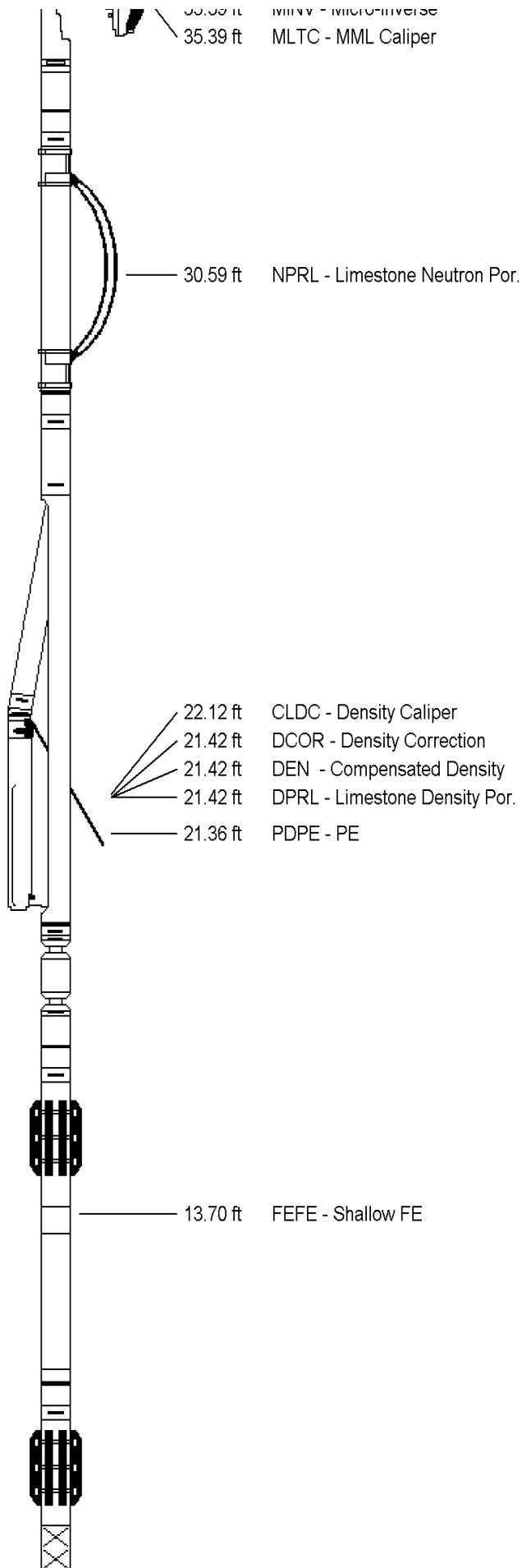
Compact Neutron
MDN 65 Length: 5.04 ft Weight: 50.7 lb

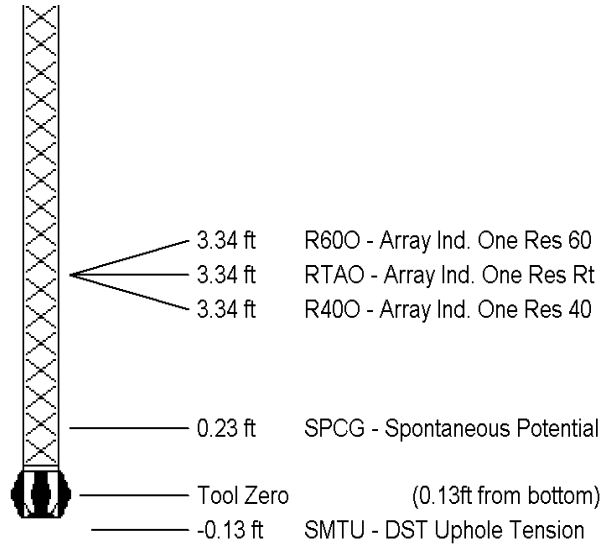
Compact Density/Caliper
MPD 35 Length: 9.59 ft Weight: 90.4 lb

SKJ-D.A Compact Knuckle Joint
SKJ 37 Length: 2.17 ft Weight: 24.3 lb

Compact Focussed Electric
MFE 55 Length: 6.03 ft Weight: 48.5 lb

Compact Induction
MAI 178 Length: 10.81 ft Weight: 48.5 lb





Total Length: 51.88 ft Weight: 423.3 lb

All measurements relative to tool zero.

COMPANY	SHAKESPEARE
WELL	OTTLEY #6-15
FIELD	WILDCAT
PROVINCE/COUNTY	LOGAN
COUNTRY/STATE	U.S.A./KANSAS

Elevation Kelly Bushing	2739.00	feet	First Reading	4466.00	feet
Elevation Drill Floor	2738.00	feet	Depth Driller	4490.00	feet
Elevation Ground Level	2729.00	feet	Depth Logger	4488.00	feet



Weatherford®

COMPACT PHOTO DENSITY
COMPENSATED NEUTRON
MICRO-RESISTIVITY LOG