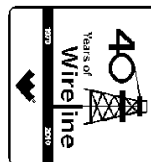




Weatherford

**COMPACT TRIPLE COMBO
QUICKLOOK
LOG**

COMPANY **BILL BARRETT CORPORATION**
WELL **KAUFMAN 22B-25-692**
FIELD **MAMM CREEK**
PROVINCE/COUNTY **GARFIELD**
COUNTRY/STATE **U.S.A. / COLORADO**
LOCATION **SHL: 2181' FSL & 1641' FWL**
BHL: 2135' FNL & 1980' FWL



SEC **25** TWP **6S** RGE **92W** Other Services
API Number **05-045-19658**
Permit Number

Permanent Datum G.L., Elevation 5922 feet
Log Measured From KB above Permanent Datum
Drilling Measured From K.B. @ 23 FT.

Elevations: feet
KB 5945.00
DF 5944.00
GL 5922.00

Date	17-JULY-2011	
Run Number	ONE	
Depth Driller	7619.00	feet
Depth Logger	7614.00	feet
First Reading	7611.00	
Last Reading	810.00	
Casing Driller	806.00	feet
Casing Logger	810.00	feet
Bit Size	7.875	inches
Hole Fluid Type	LSND	
Density / Viscosity	10.60 lb/USg	52.00 CP
PH / Fluid Loss	9.50	6.60 ml/30Min
Sample Source	FLOW LINE	
Rm @ Measured Temp	2.32 @100.5	ohm-m
Rmf @ Measured Temp	1.86 @100.5	ohm-m
Rmc @ Measured Temp	2.78 @100.5	ohm-m
Source Rmf / Rmc	CALC	CALC
Rm @ BHT	1.239 @191.0	ohm-m
Time Since Circulation	5 HOURS	
Max Recorded Temp	191.00	deg F
Equipment Name	COMPACT	
Equipment / Base	13045	GD JCT
Recorded By	D. KUNTZ	
Witnessed By	C. CROW	

BOREHOLE RECORD

Last Edited: 17-JUL-2011 11:08

Bit Size inches	Depth From feet	Depth To feet
8.750	810.00	5710.00
7.880	5710.00	7619.00

CASING RECORD

Type	Size inches	Depth From feet	Shoe Depth feet	Weight pounds/ft
SURFACE	9.625	0.00	810.00	36.00

REMARKS

LOGGING SOFTWARE USED: 11.03.3186

TOOLS: SHA, MCG, MDN, MPD, SKJ, MFE AND MAI RAN IN COMBINATION.

HARDWARE: MPD: 8 INCH PROFILE PLATE USED.
TWO 0.5 INCH STANDOFFS USED ON INDUCTION.
ONE 0.5 INCH STANDOFF USED ON MFE.
DUAL BOWSPRING USED ON NEUTRON.

2.68 G/CC DENSITY MATRIX USED TO CALCULATE POROSITY

2.00 G/CC DENSITY MATRIX USED TO CALCULATE POROSITY.

ALL INTERVALS LOGGED AND SCALED PER CUSTOMER'S REQUEST.

TIGHT PULLS, BOREHOLE SIZE, AND RUGOSITY WILL AFFECT REPEATABILITY AND DATA QUALITY.

UNDERGAUGE CALIPER READINGS OVER FOLLOWING DEPTHS WERE REPEATED WITH NO CHANGE IN LOG RESPONSE:
BETWEEN 7140 FT AND 7260 FT, 7060-7100 FT.

CLIENT REQUESTED TO START THE MAIN PASS AT 7590 FT DUE TO A TIGHT PULL AT 7595 FT ON THE REPEAT PASS.

TIGHT PULL ENCOUNTERED AT 6720 FT.

CALIPER CHECK IN CASING PRESENTED, REFERENCE I.D. = 8.95" (9 5/8", 36 LB/FT CASING).

8.75 INCH BIT CHANGE AT 5710 FT.

TOTAL HOLE VOLUME FROM TD TO SURFACE CASING = 3125 CU.FT.

ANNULAR VOLUME WITH 4.5 INCH PRODUCTION CASING = 2380 CU.FT.

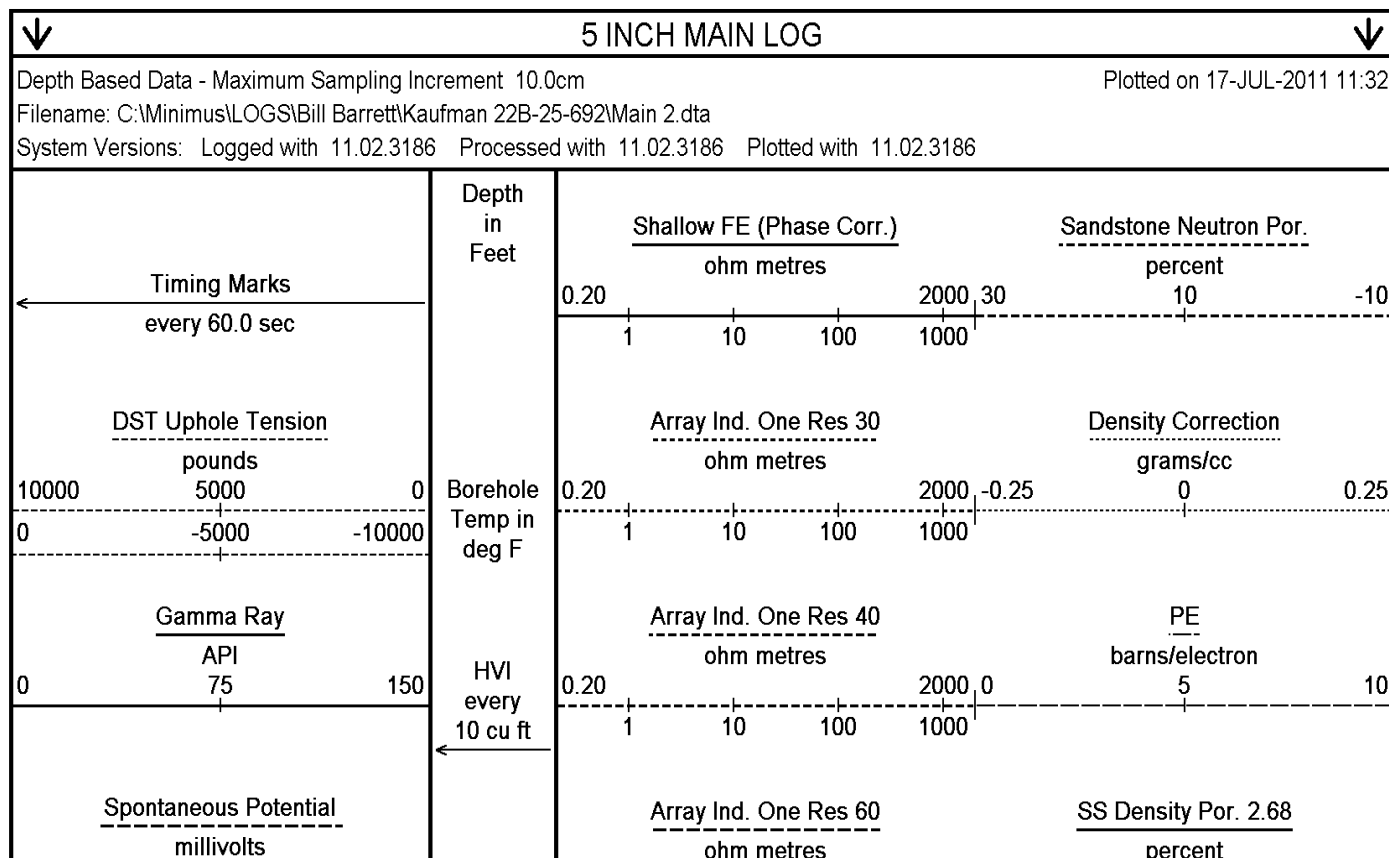
ENGINEER(S): D. KUNTZ

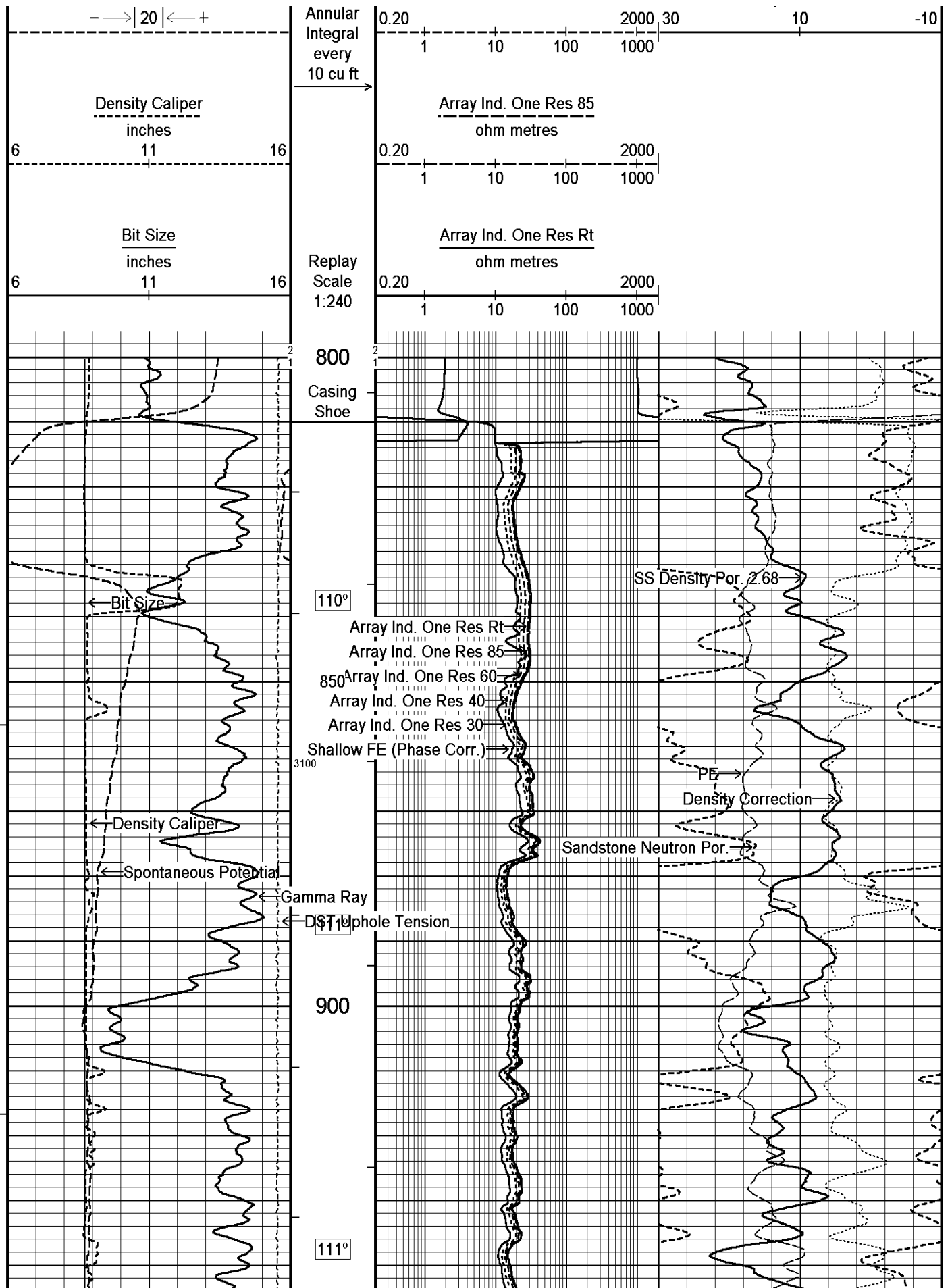
OPERATOR(S): D. DALEY

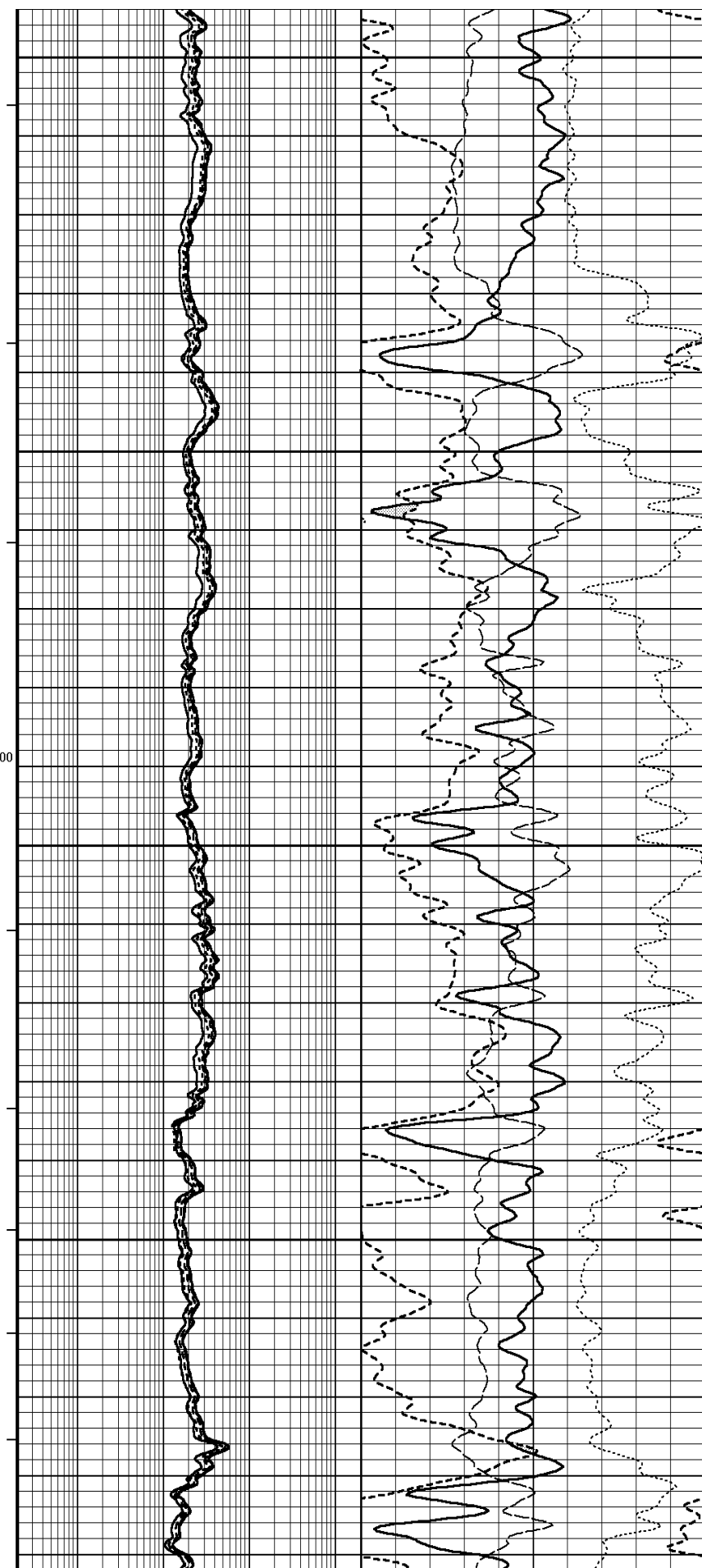
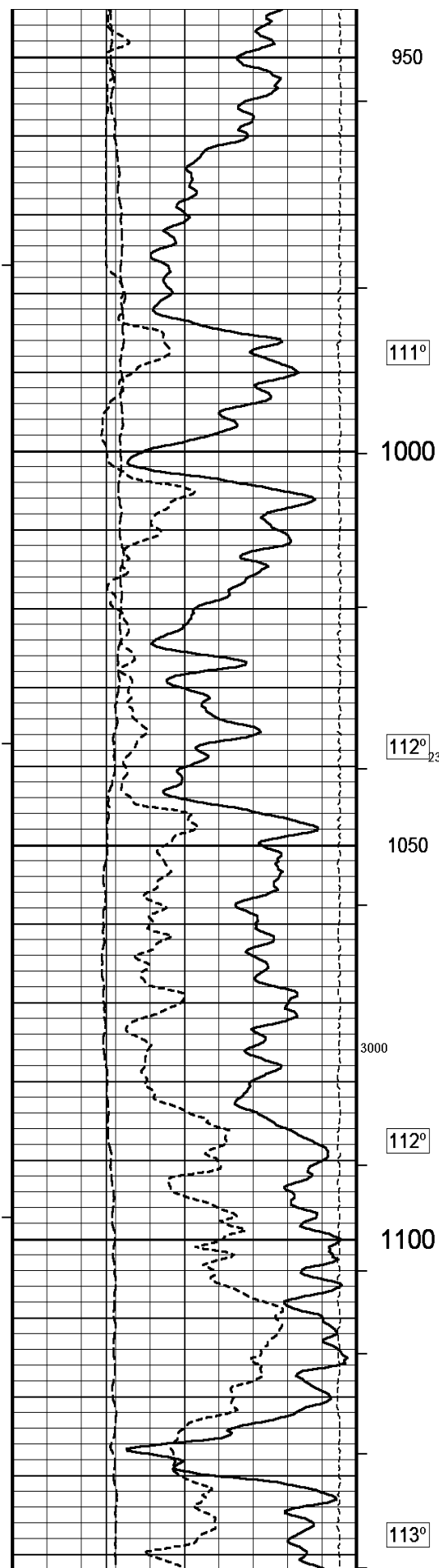
SERVICE ORDER: # 3524788

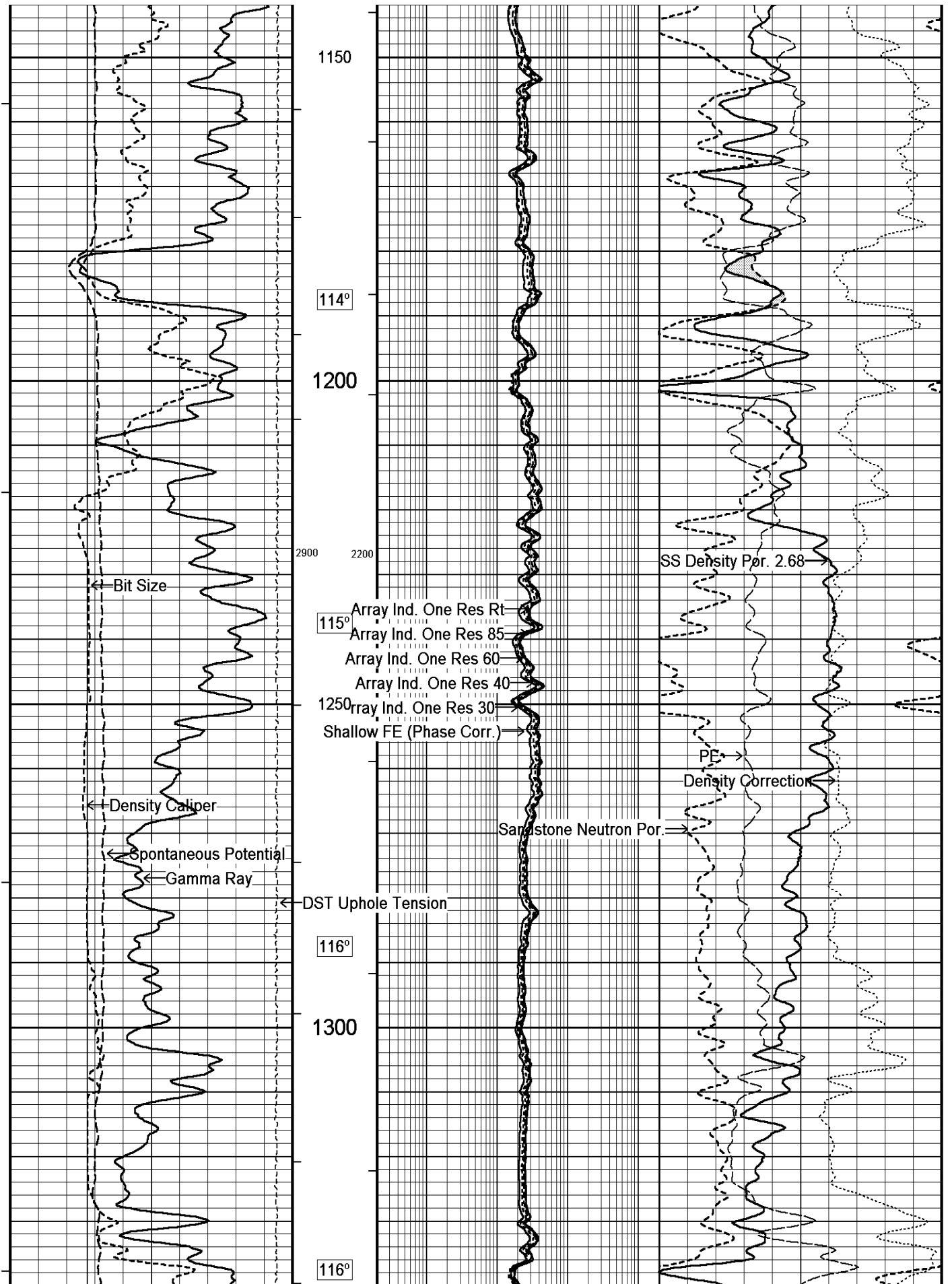
RIG: PATTERSON #307

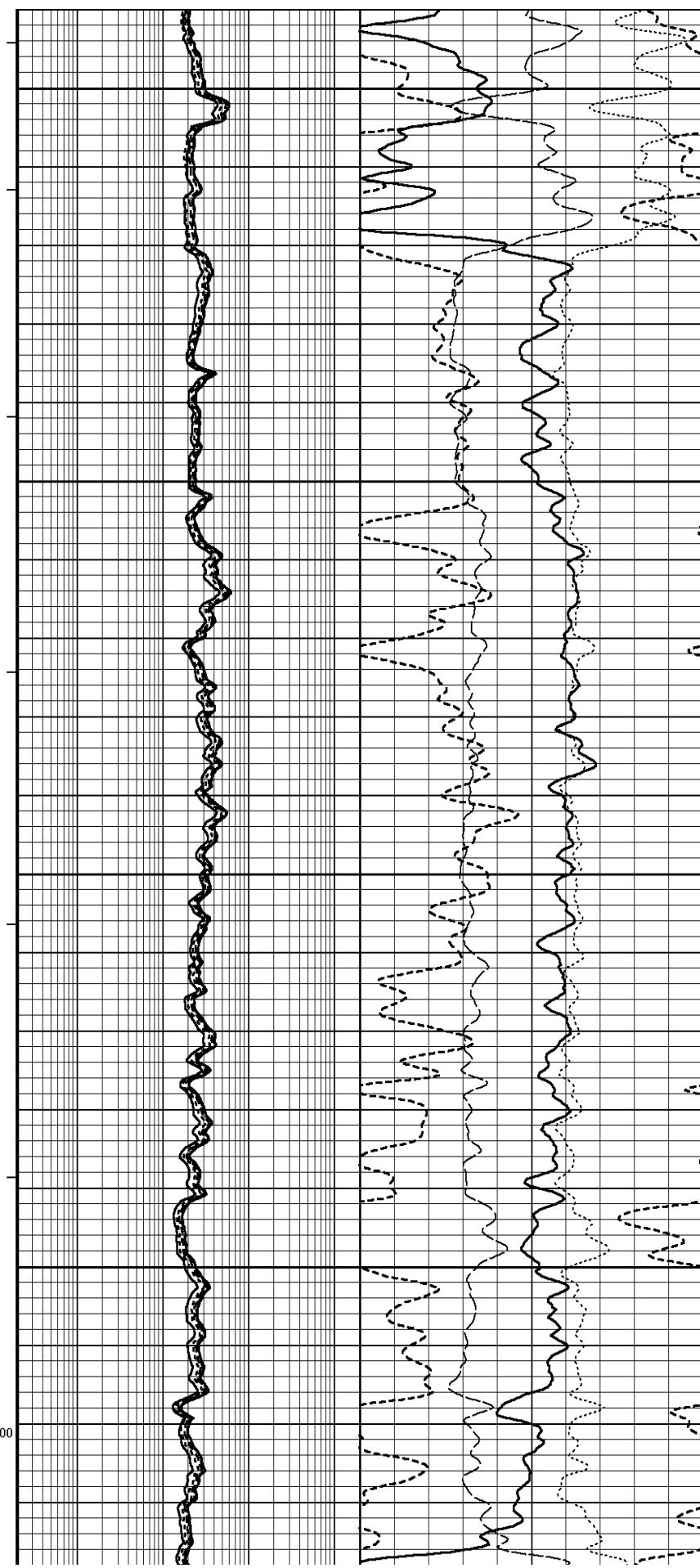
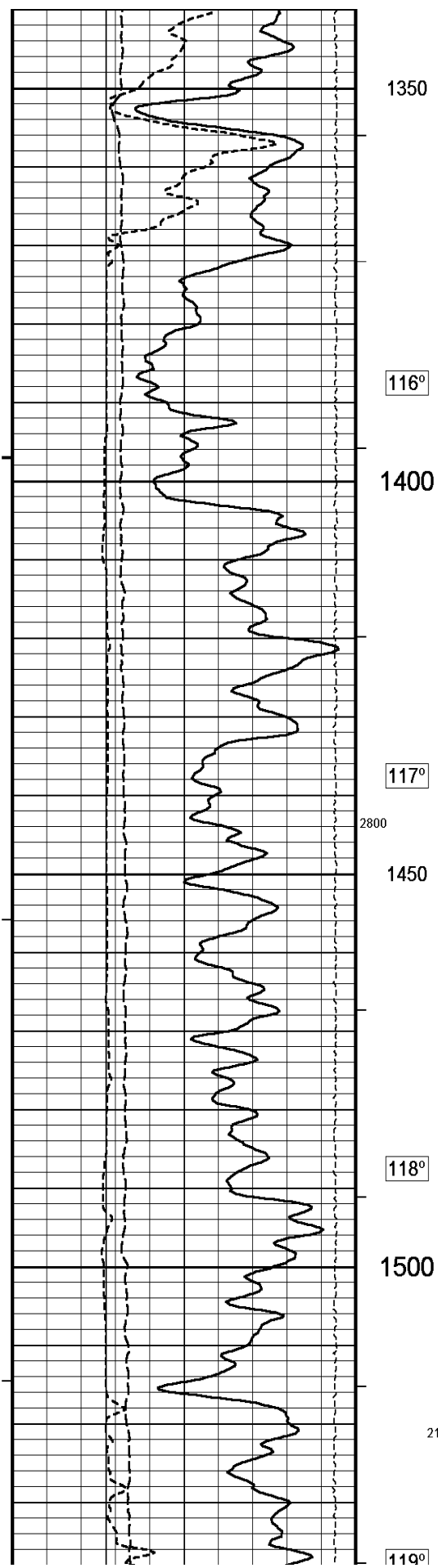
All interpretations are opinions based on inferences from electrical or other measurements and we cannot, and do not, guarantee the accuracy or correctness of any interpretations, and we shall not, except in the case of gross or wilful negligence on our part, be liable or responsible for any loss, costs,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

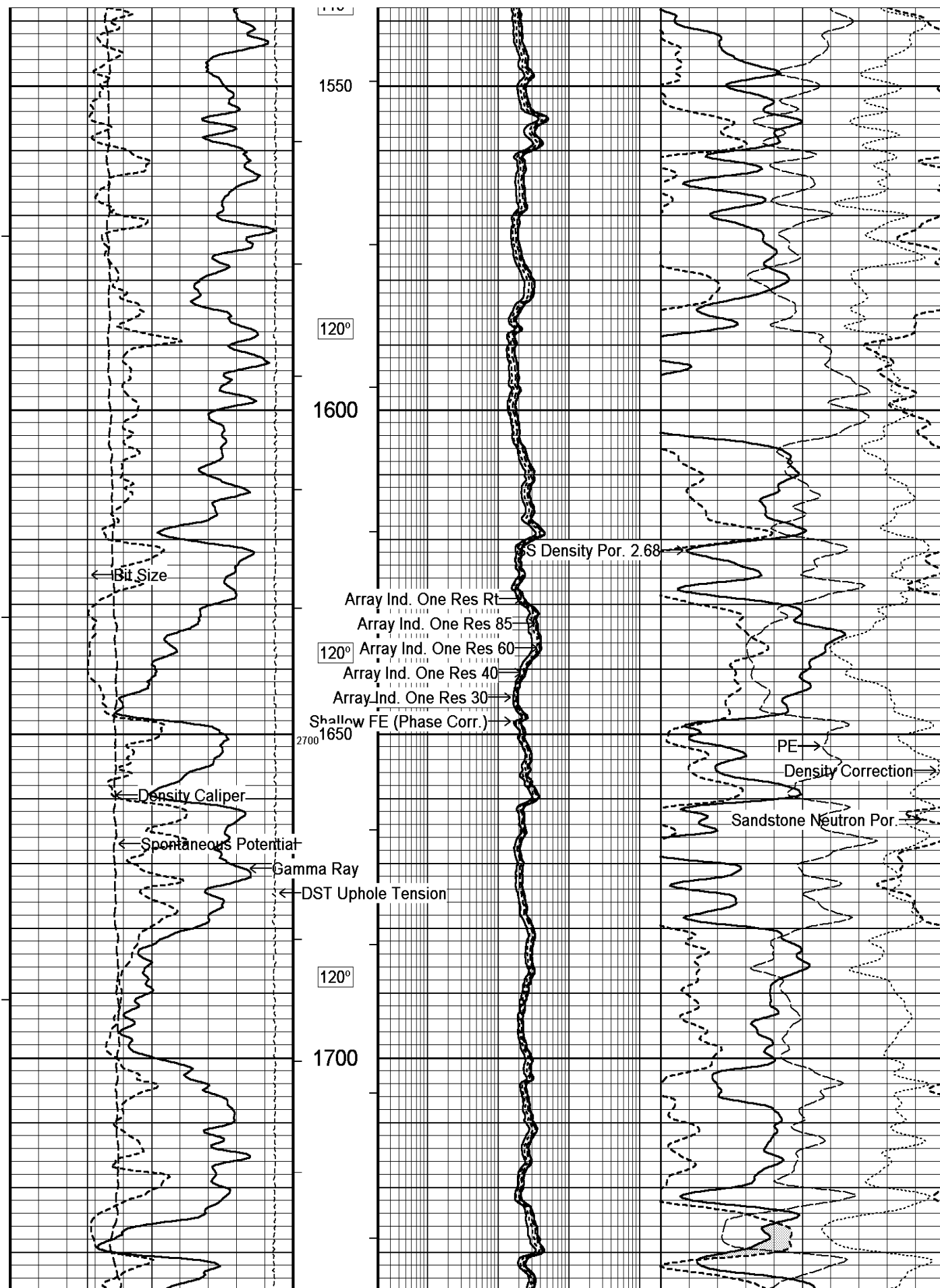


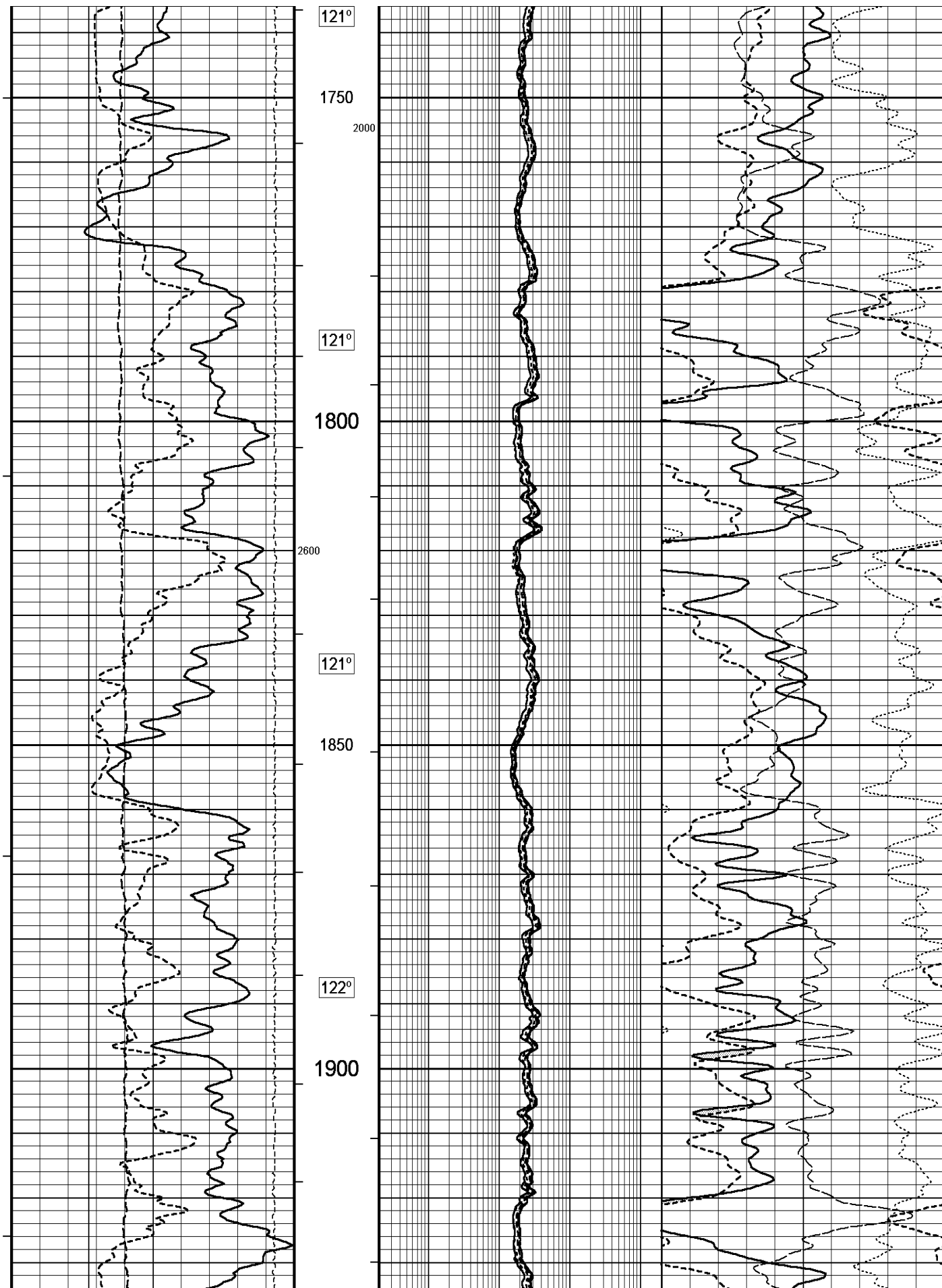


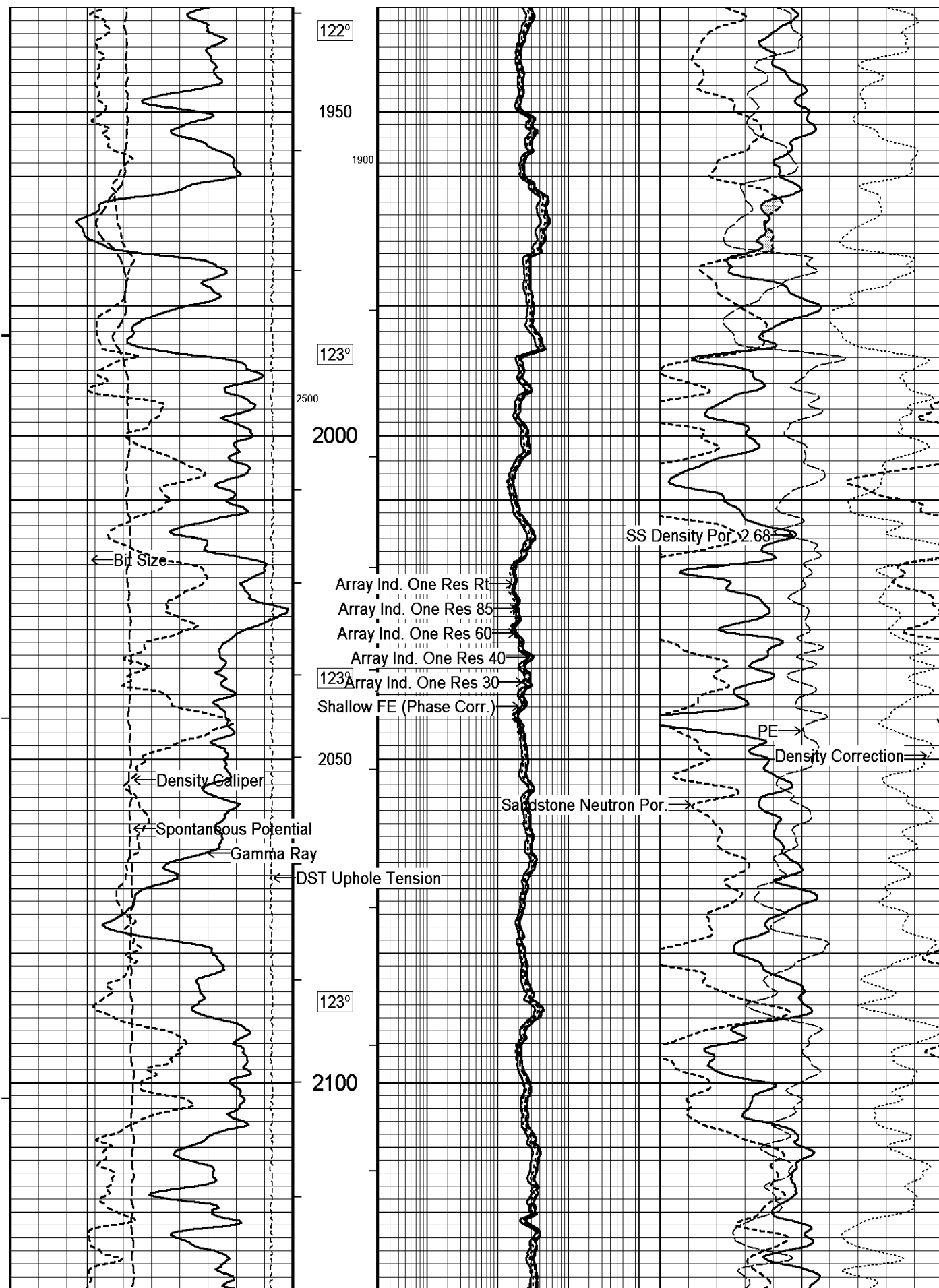


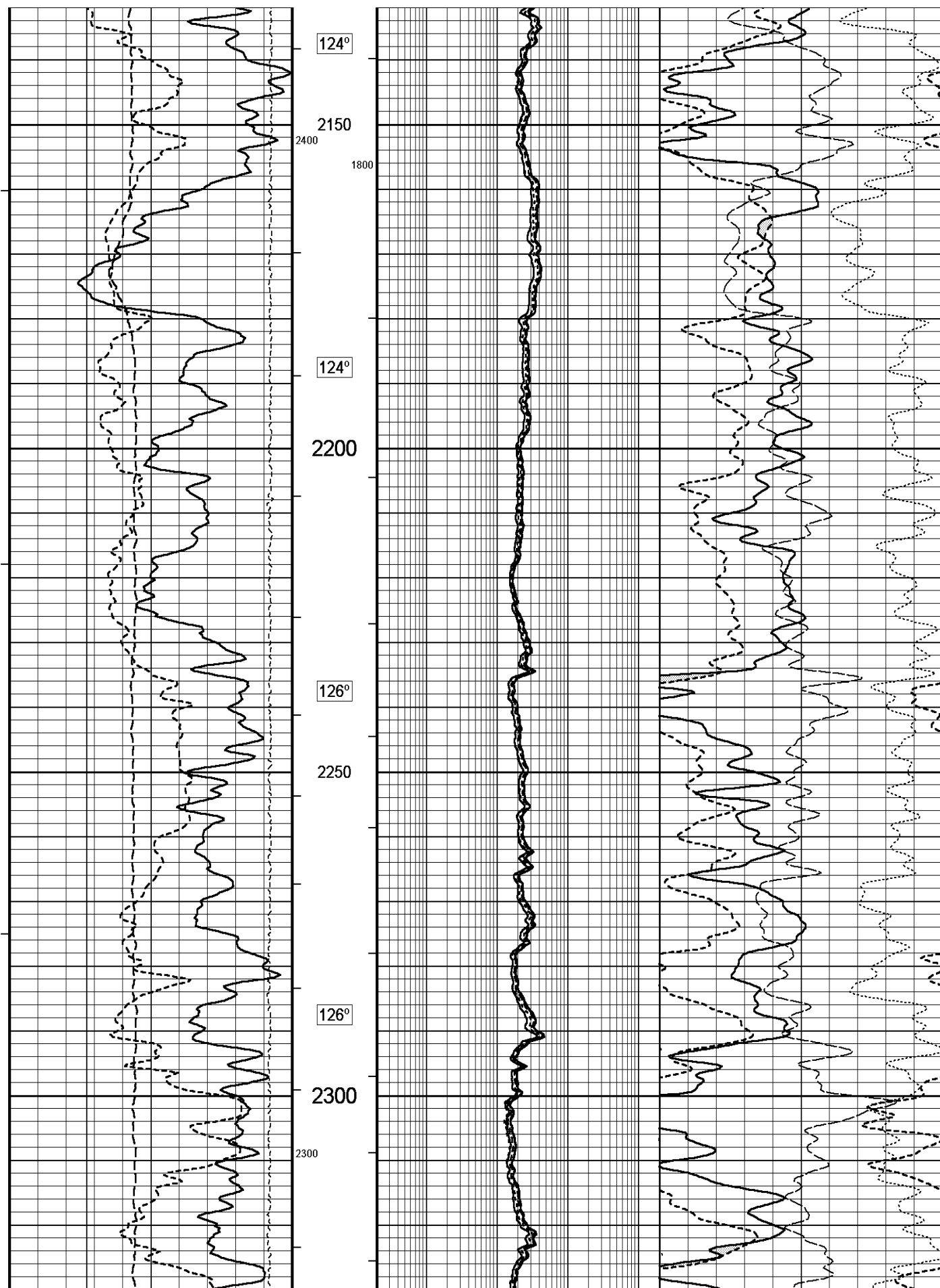


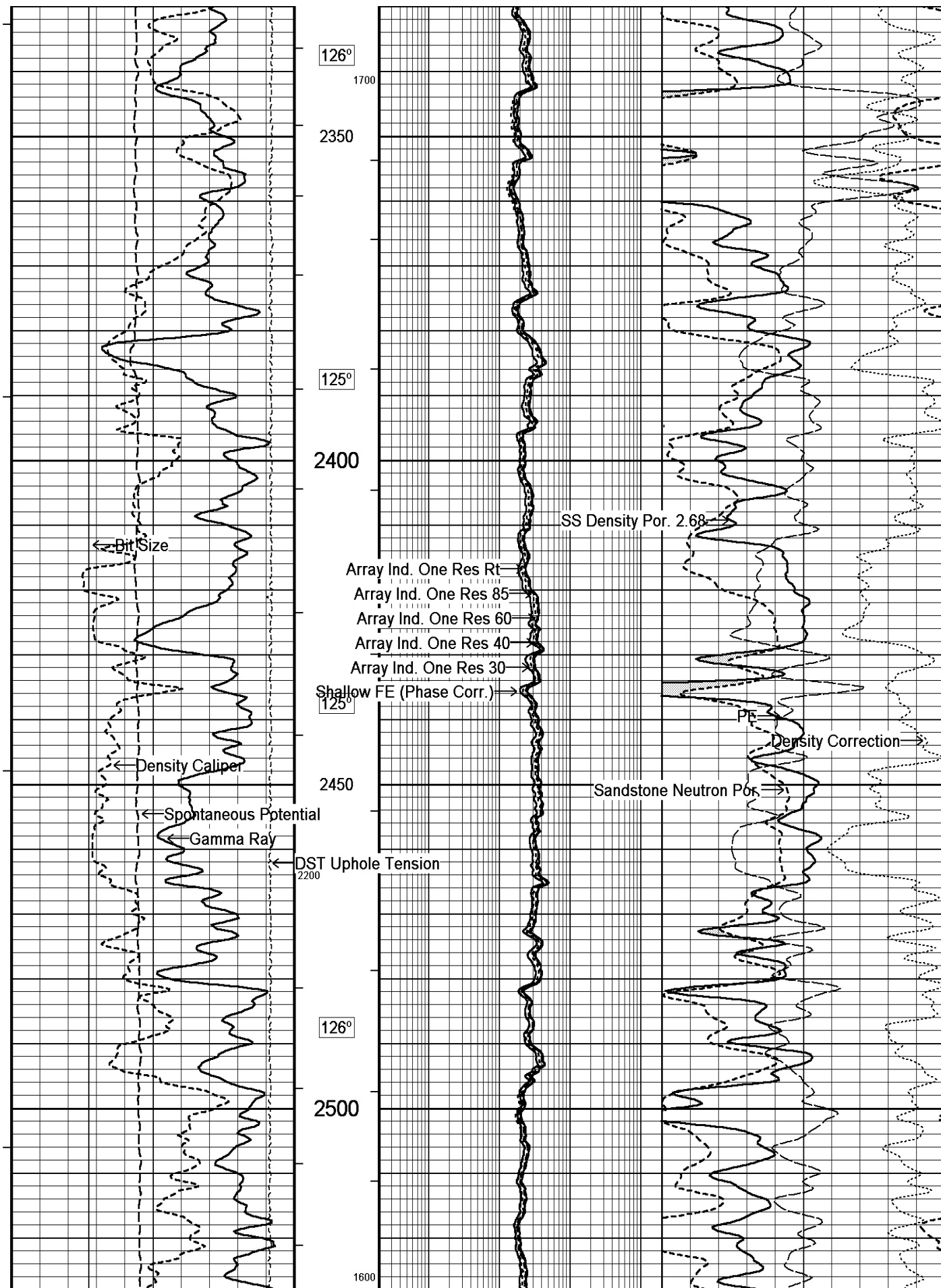


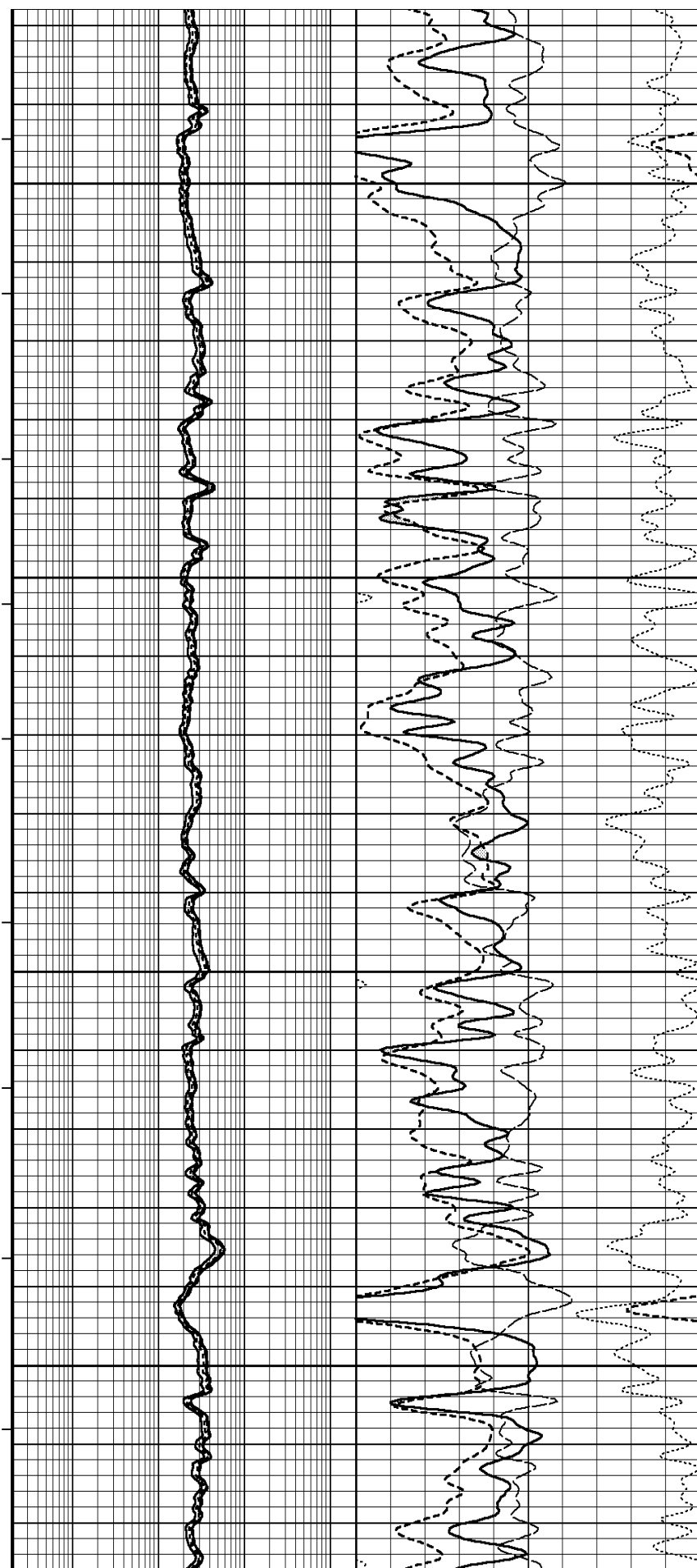
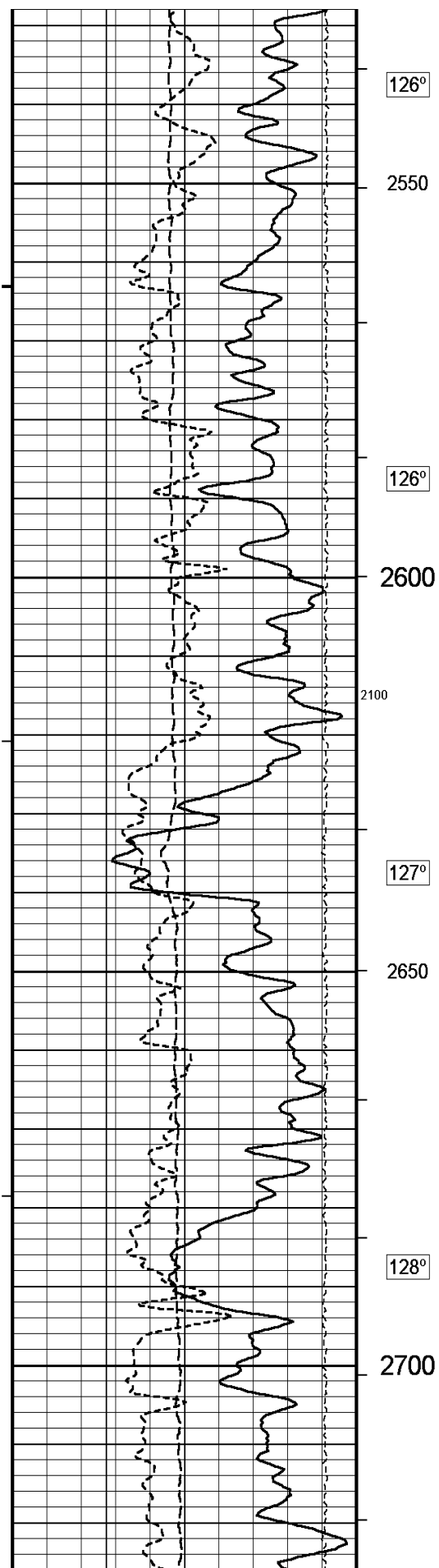


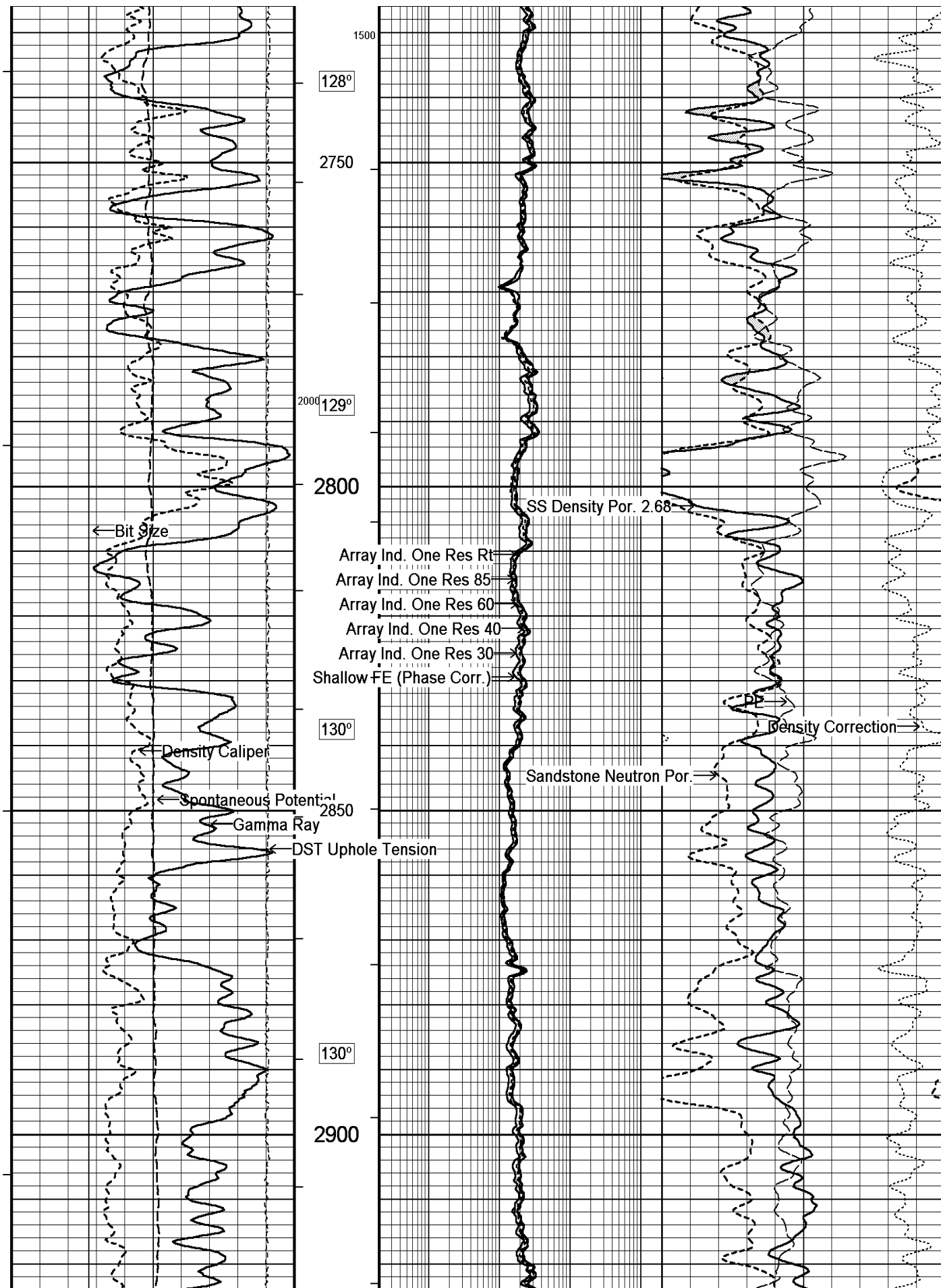


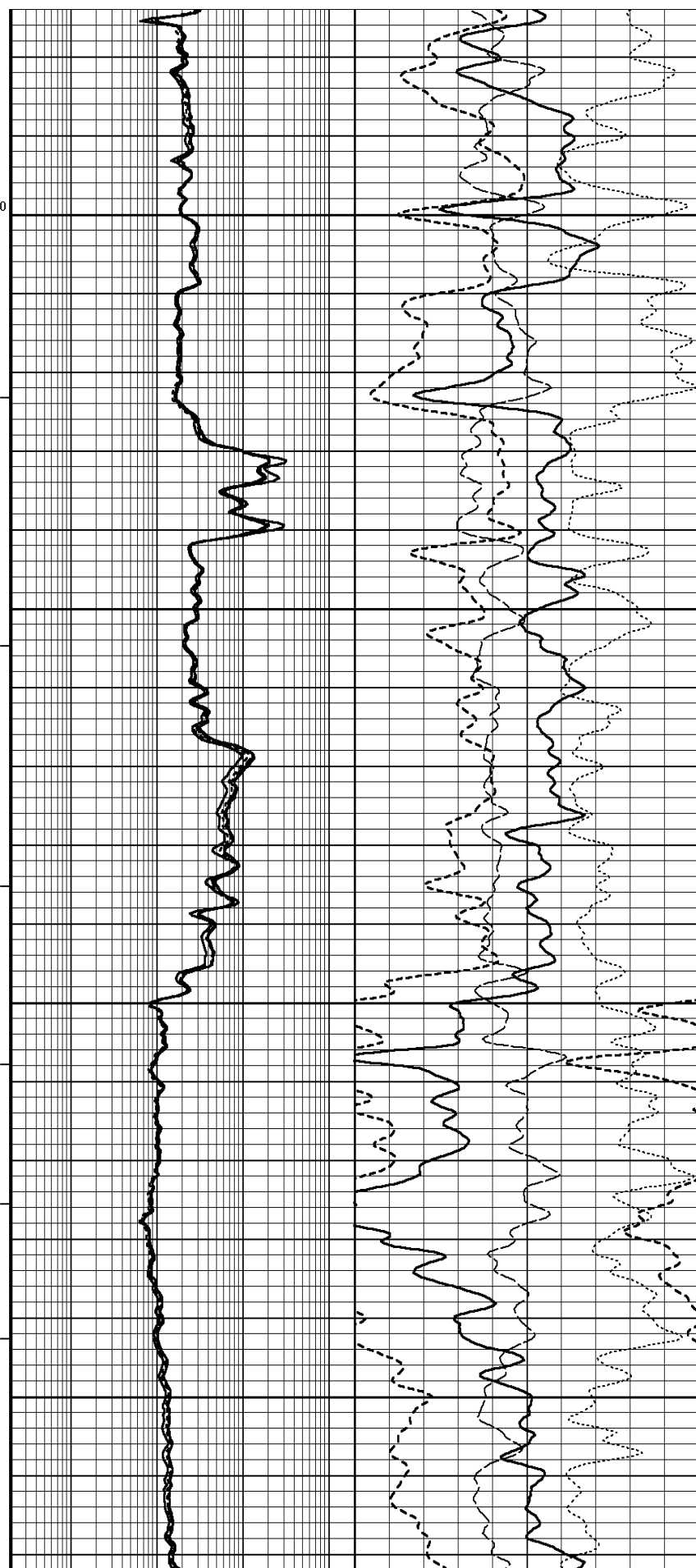
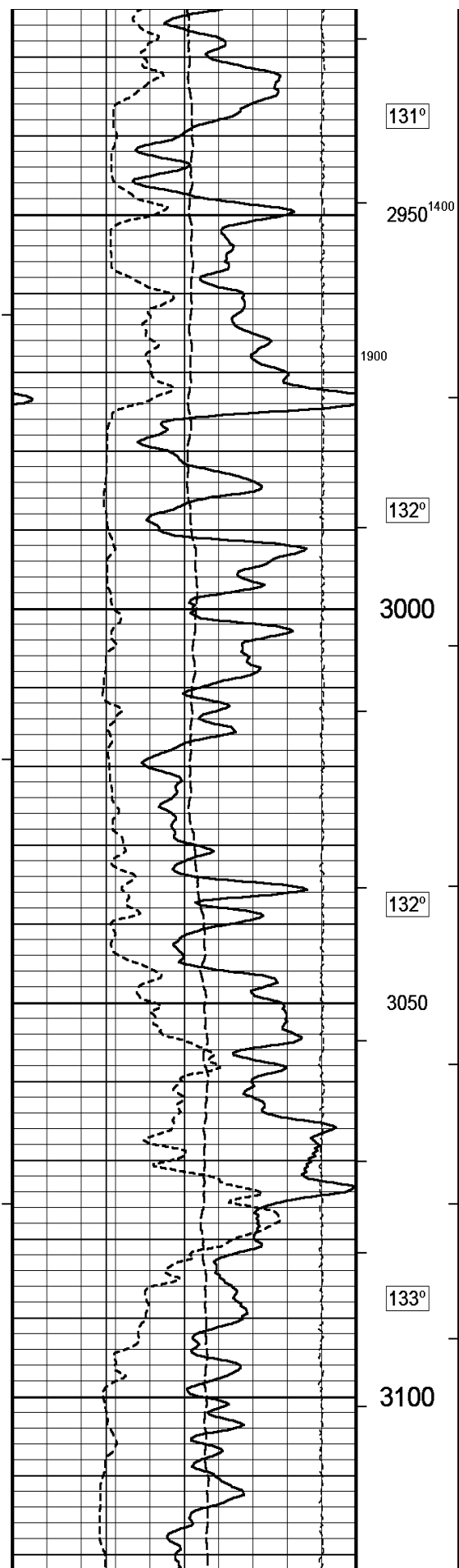


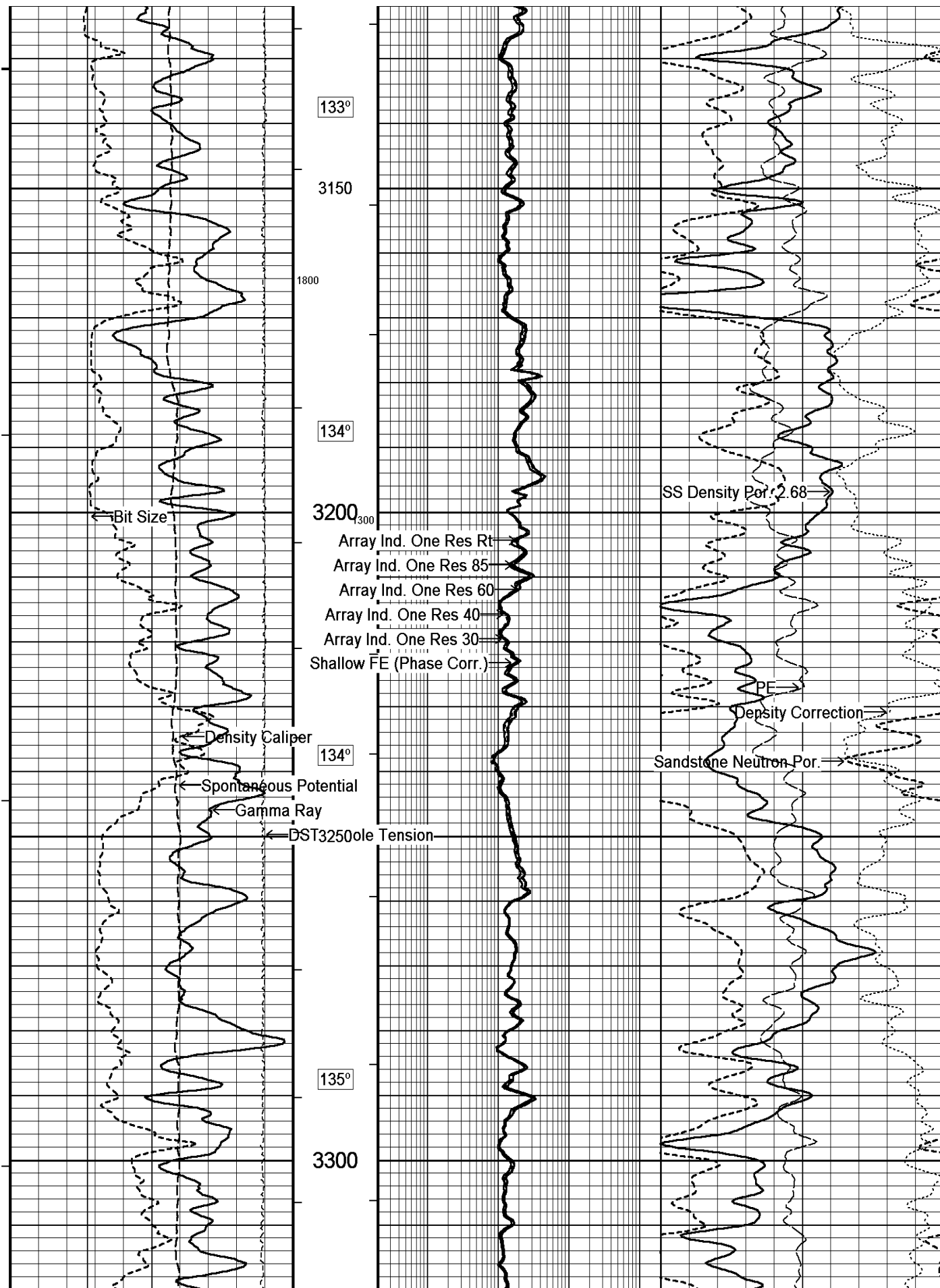


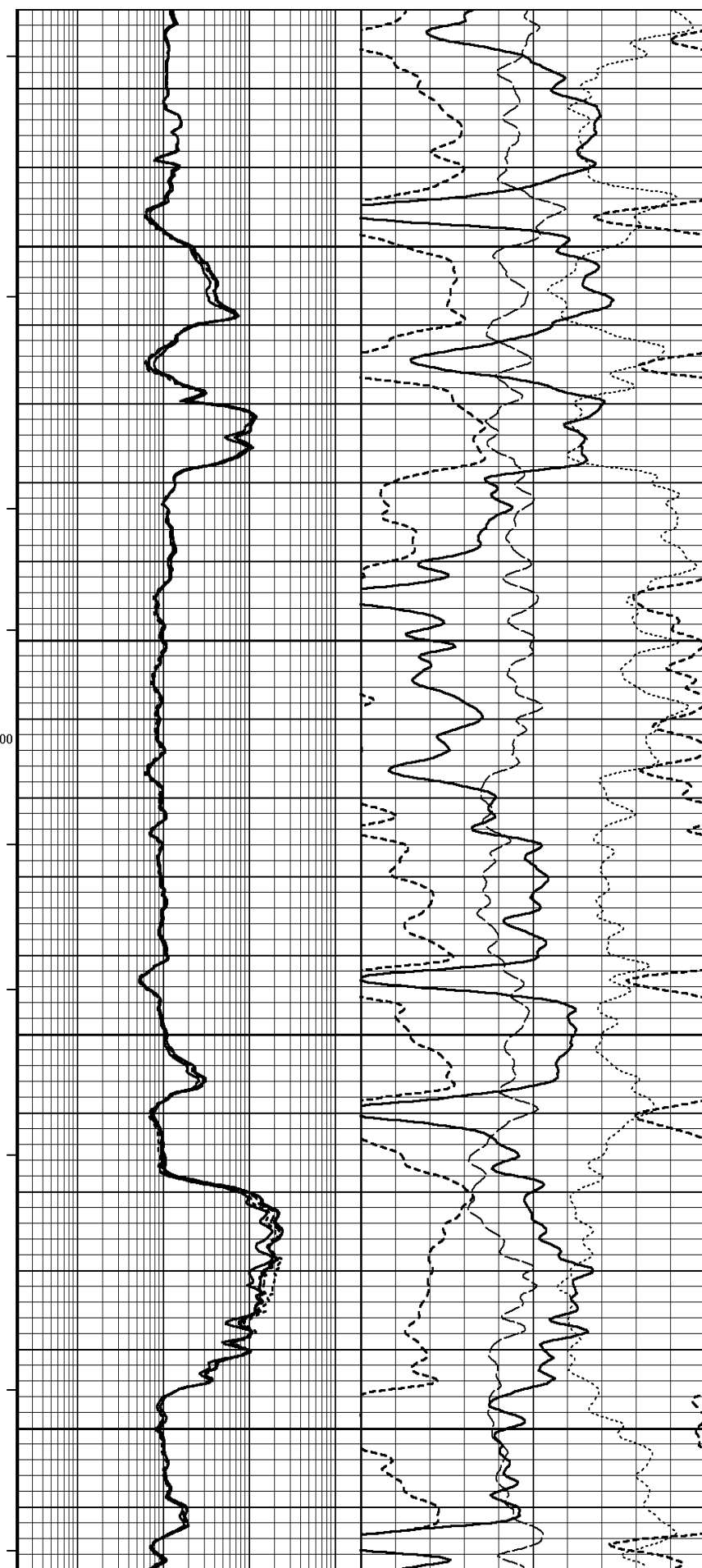
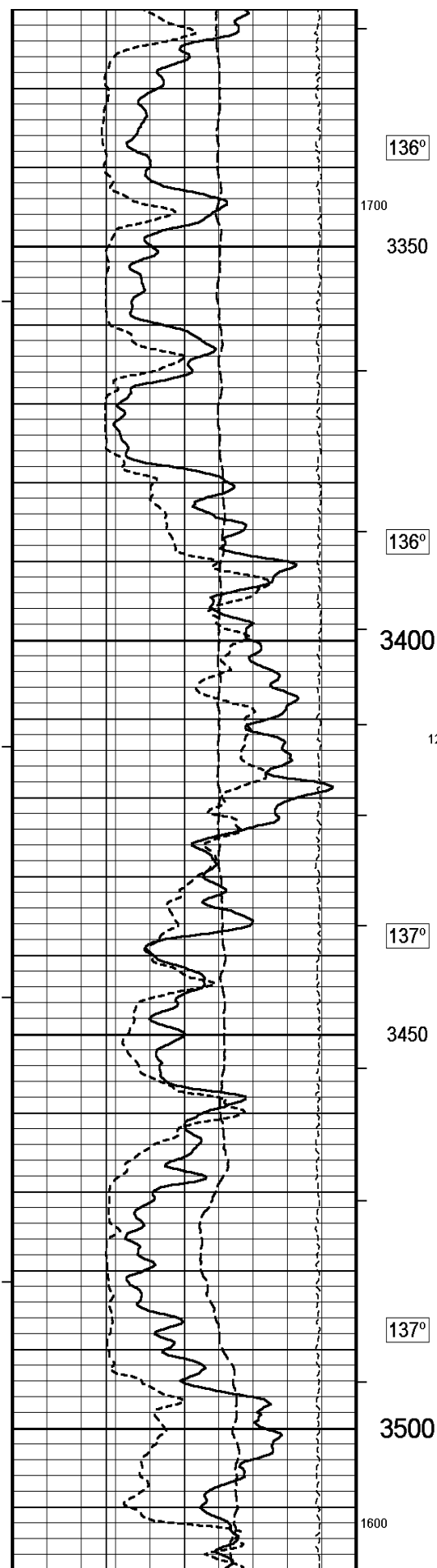


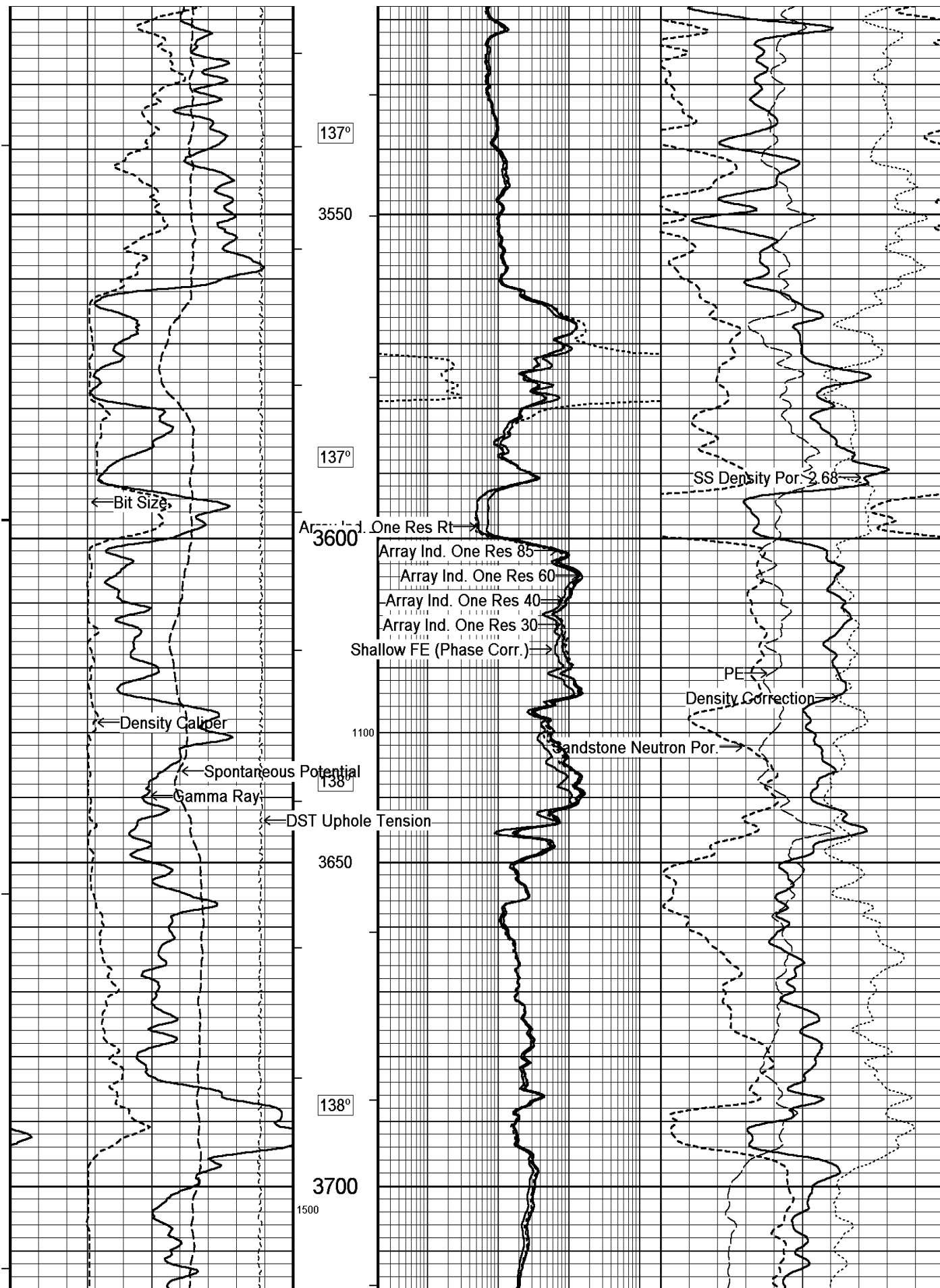


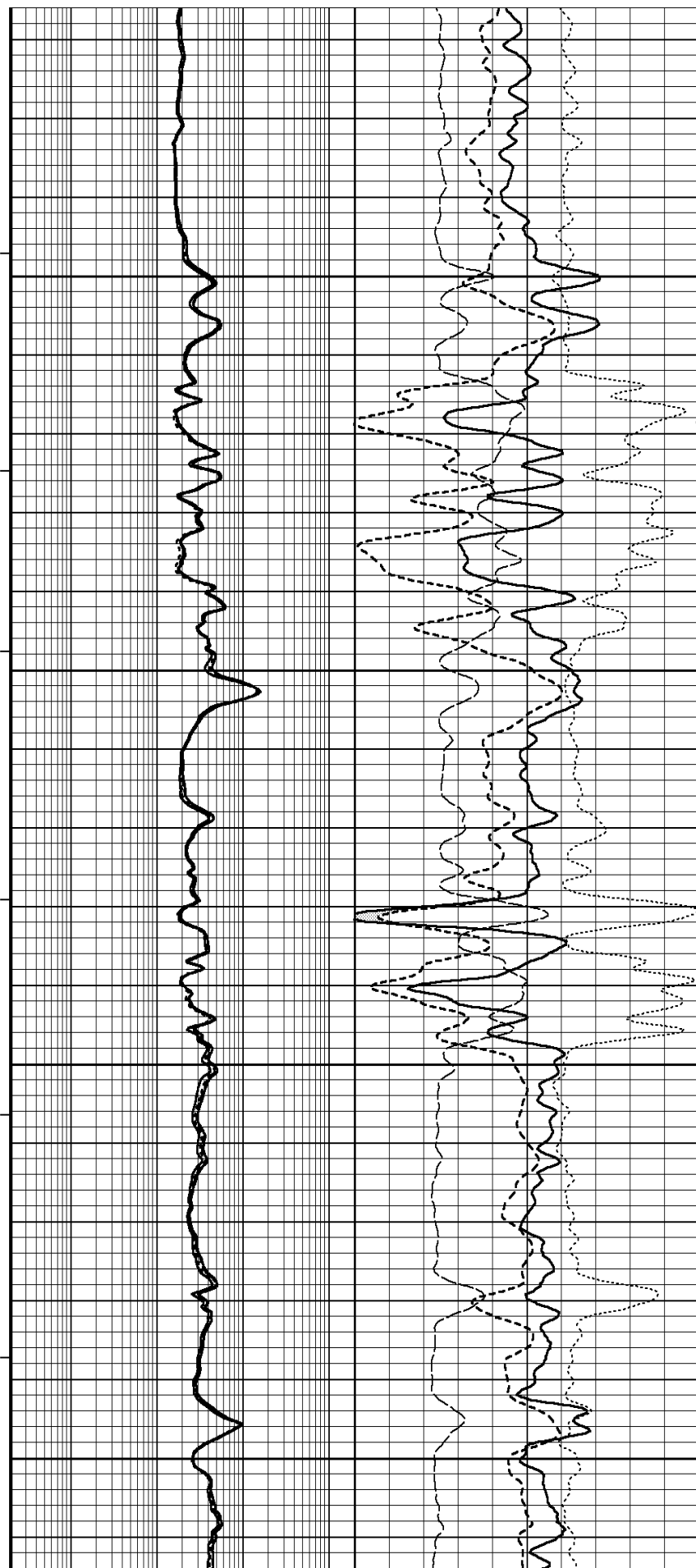
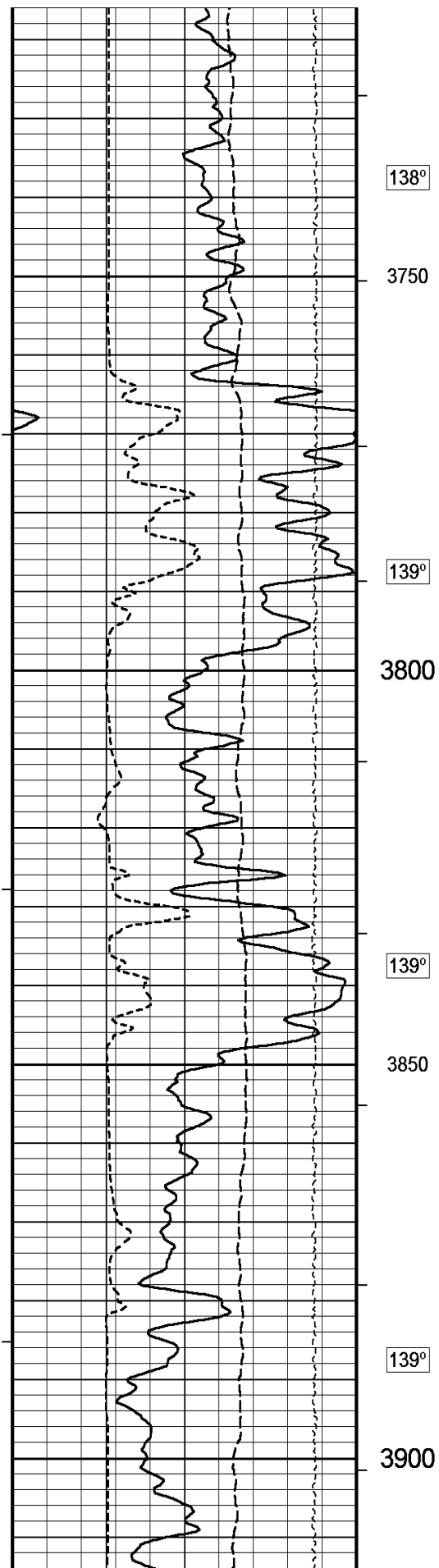


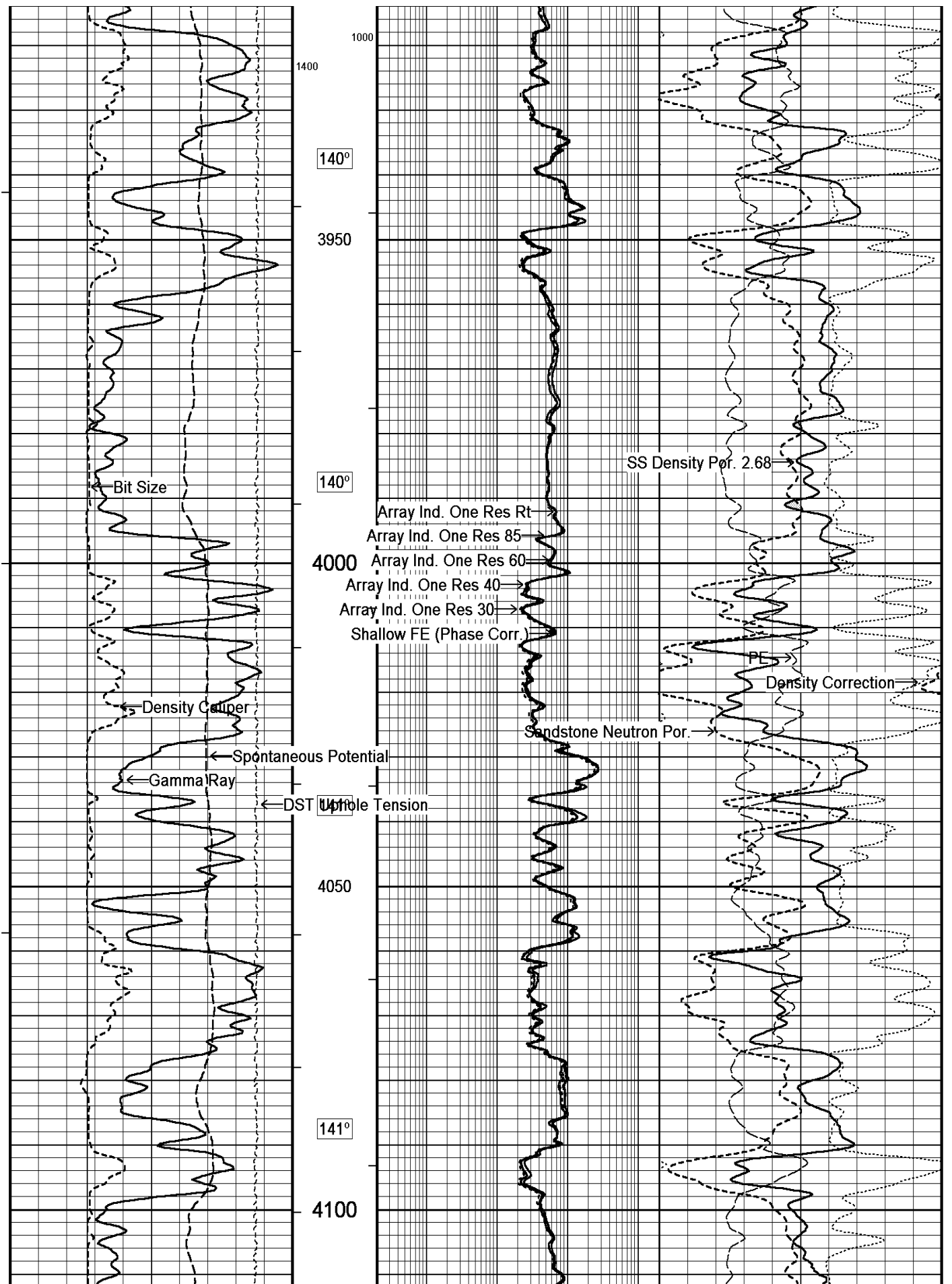


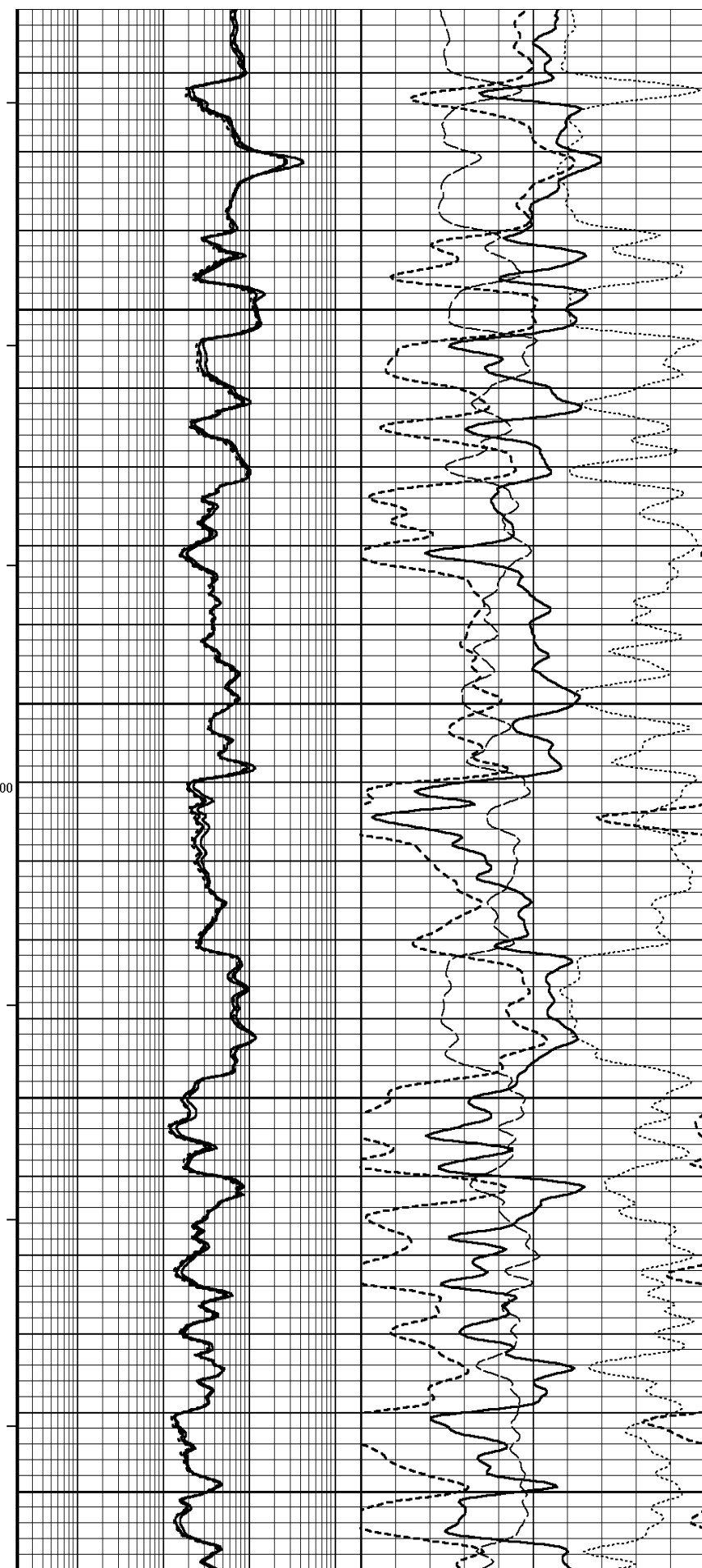
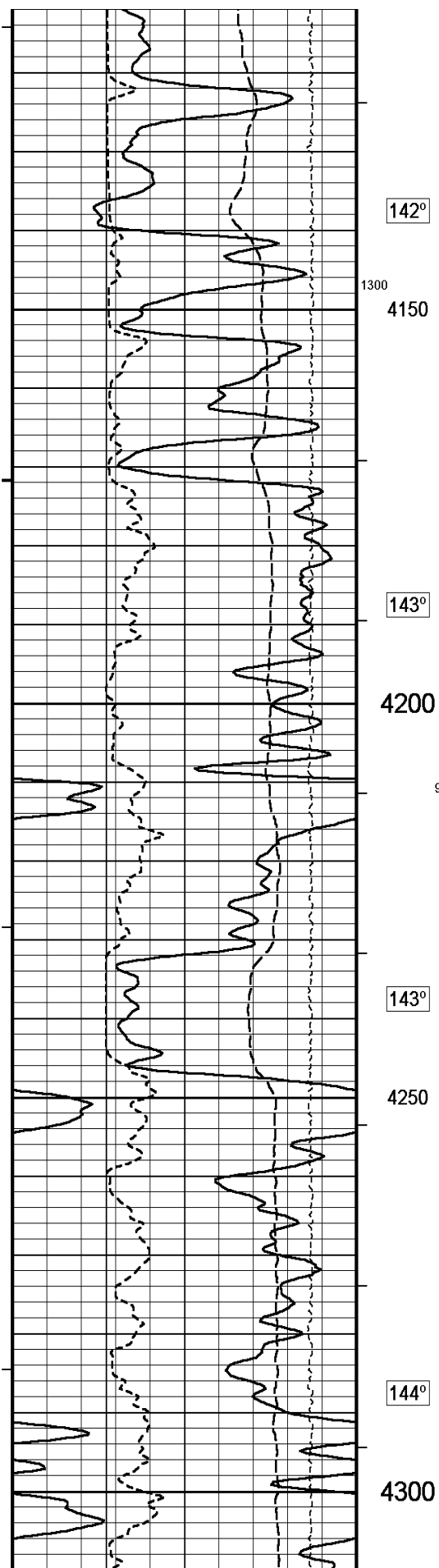


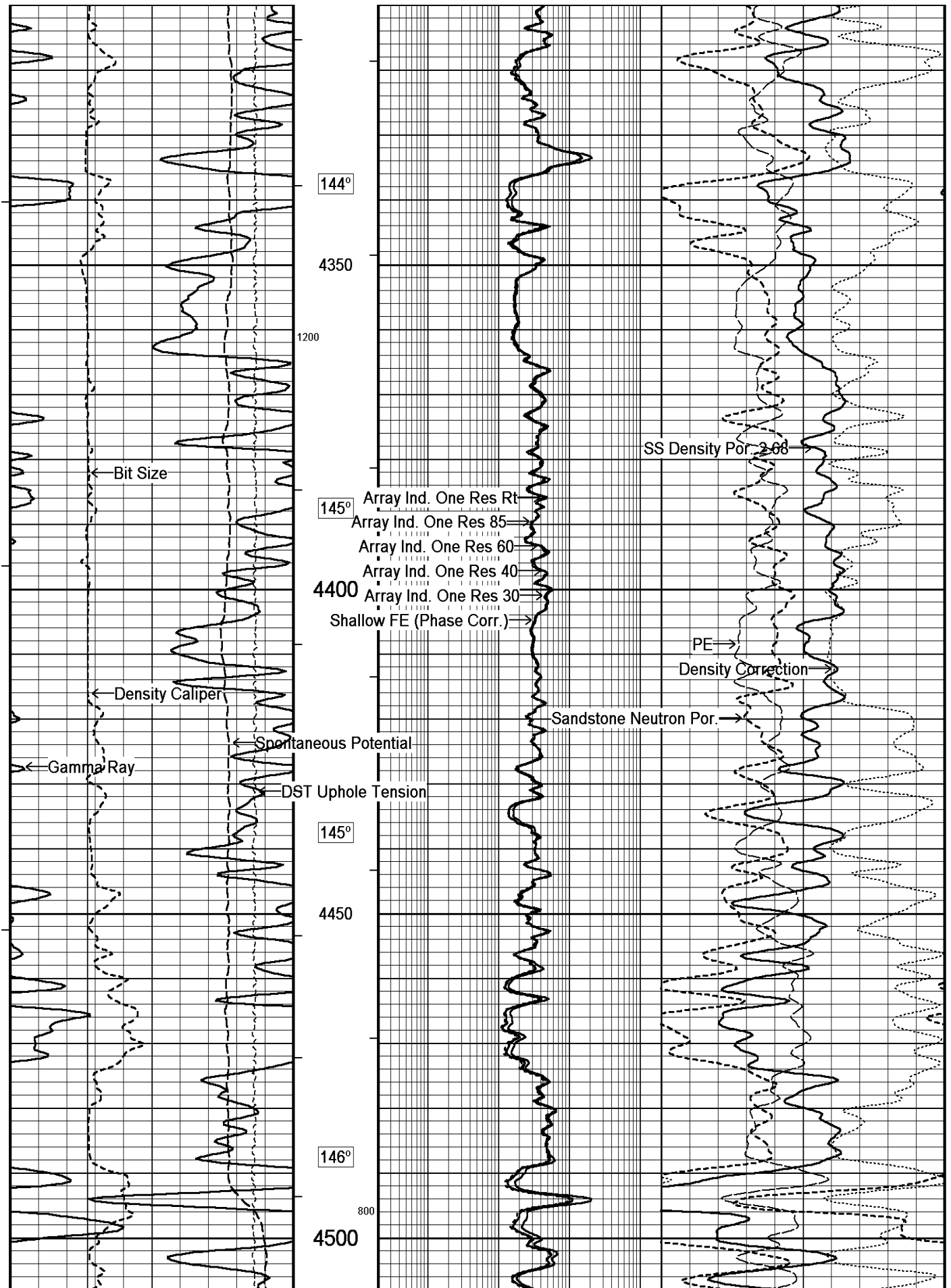


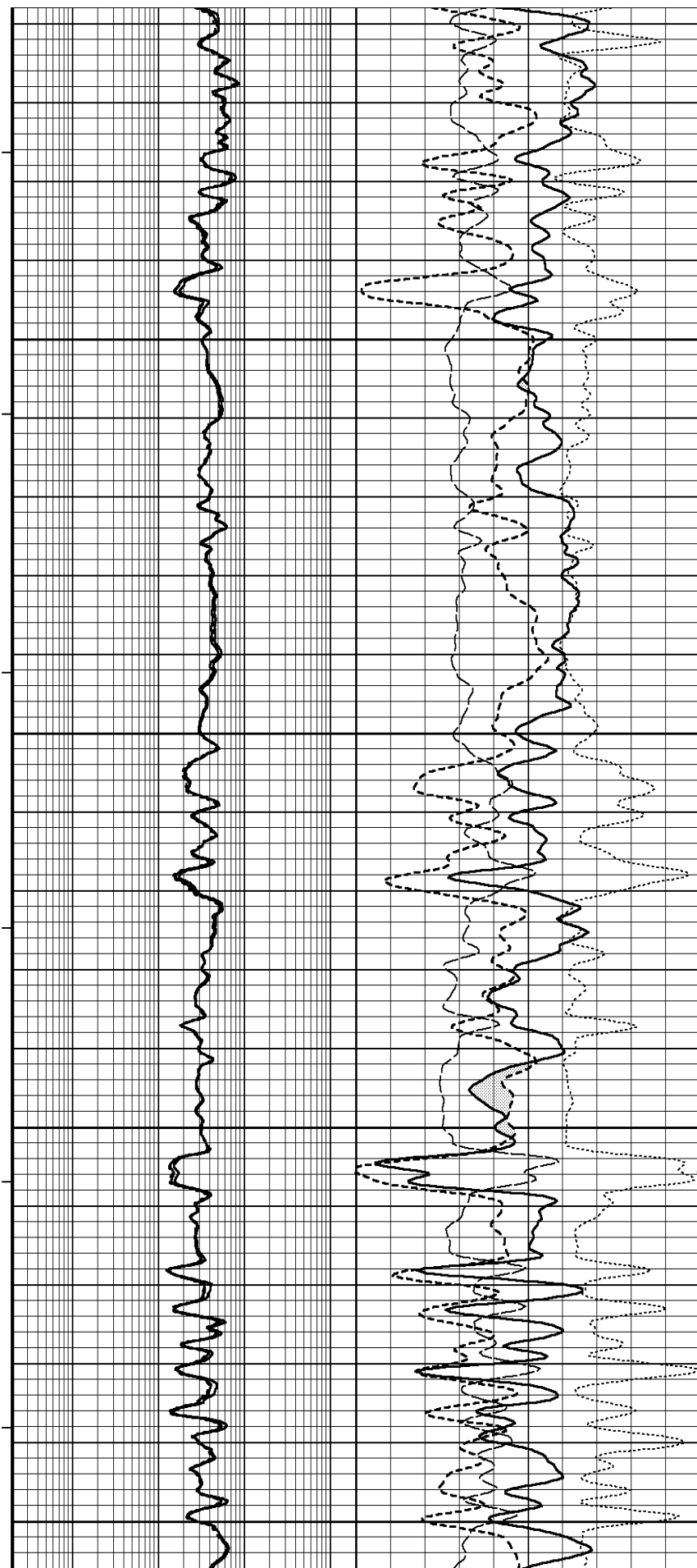
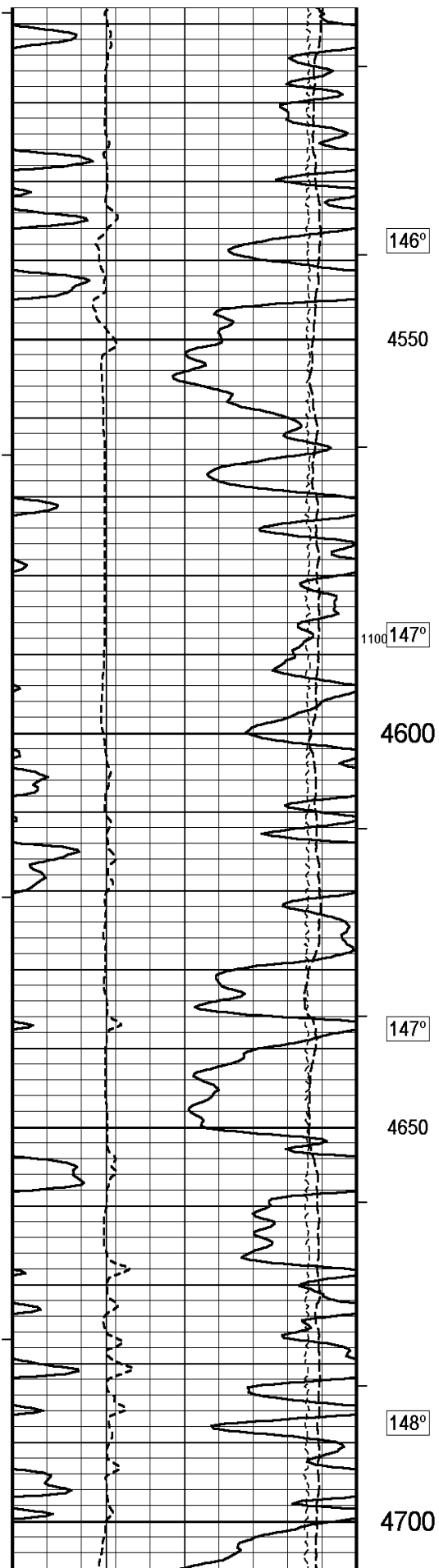


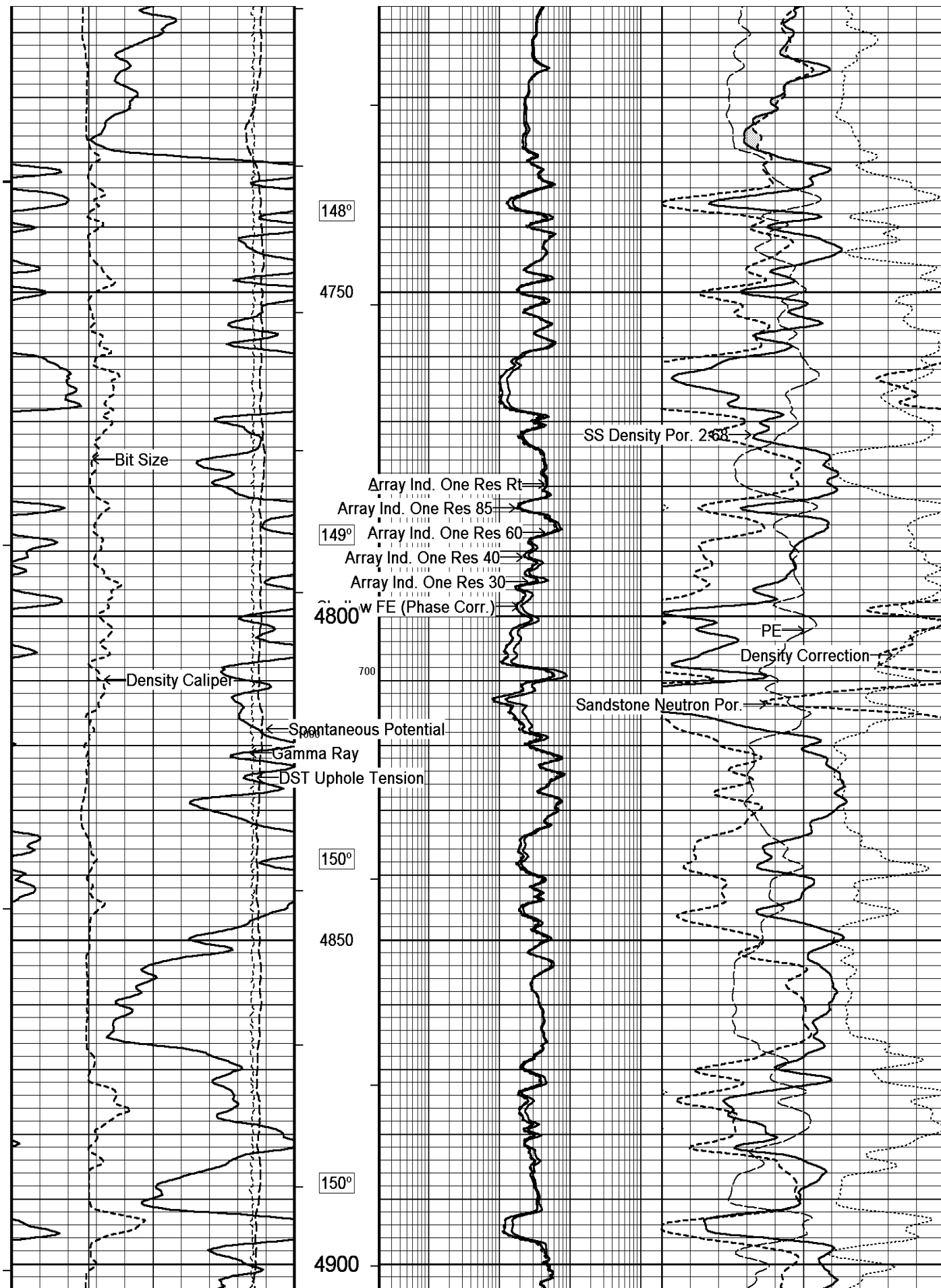


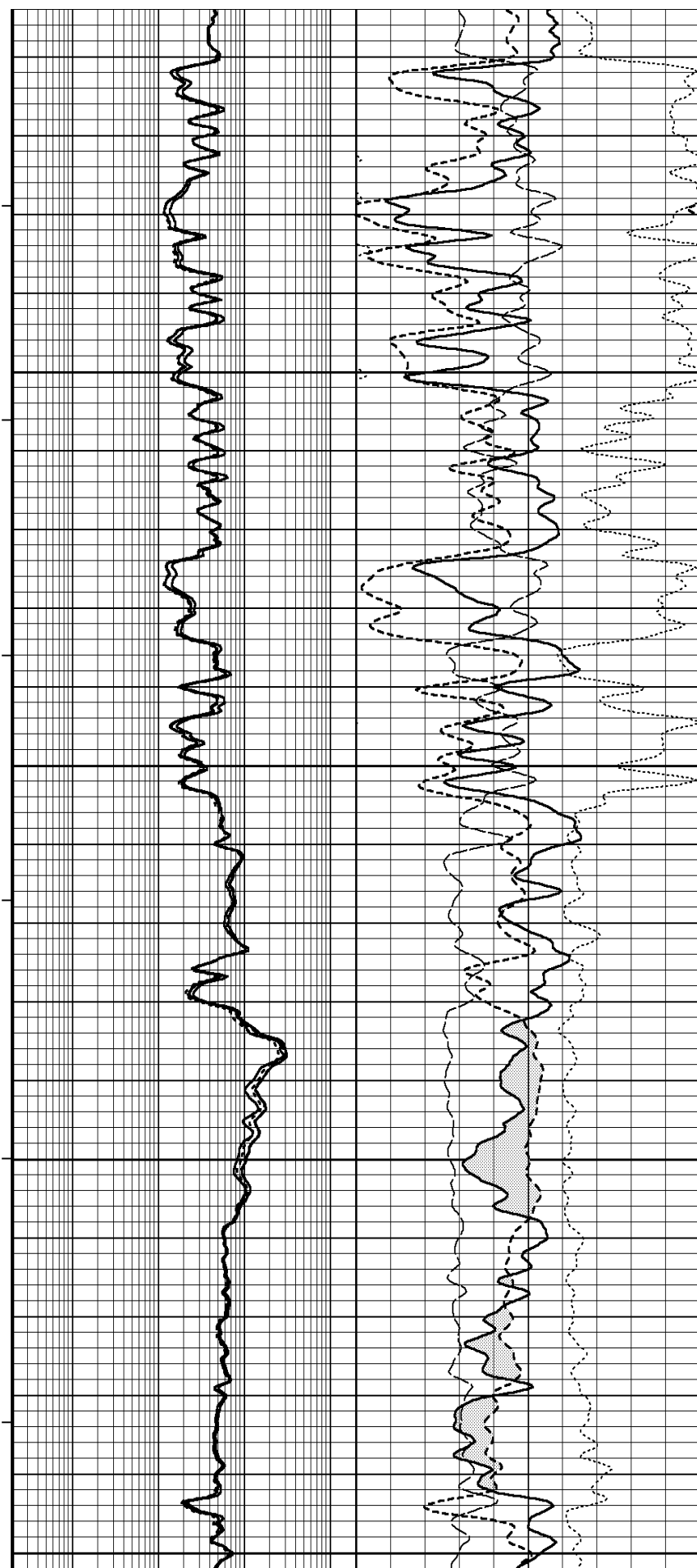
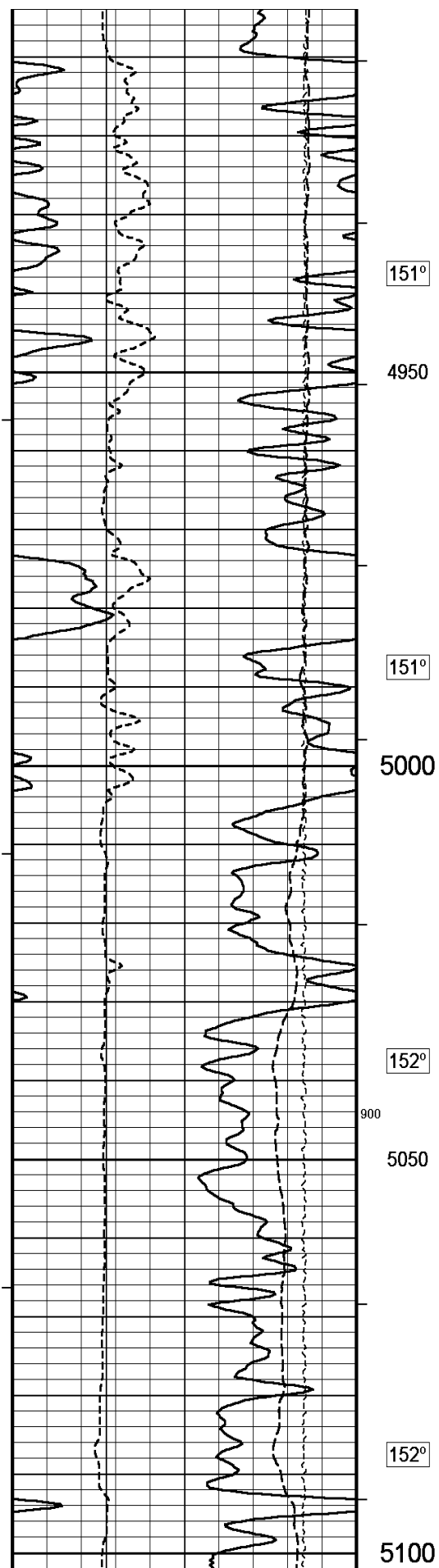


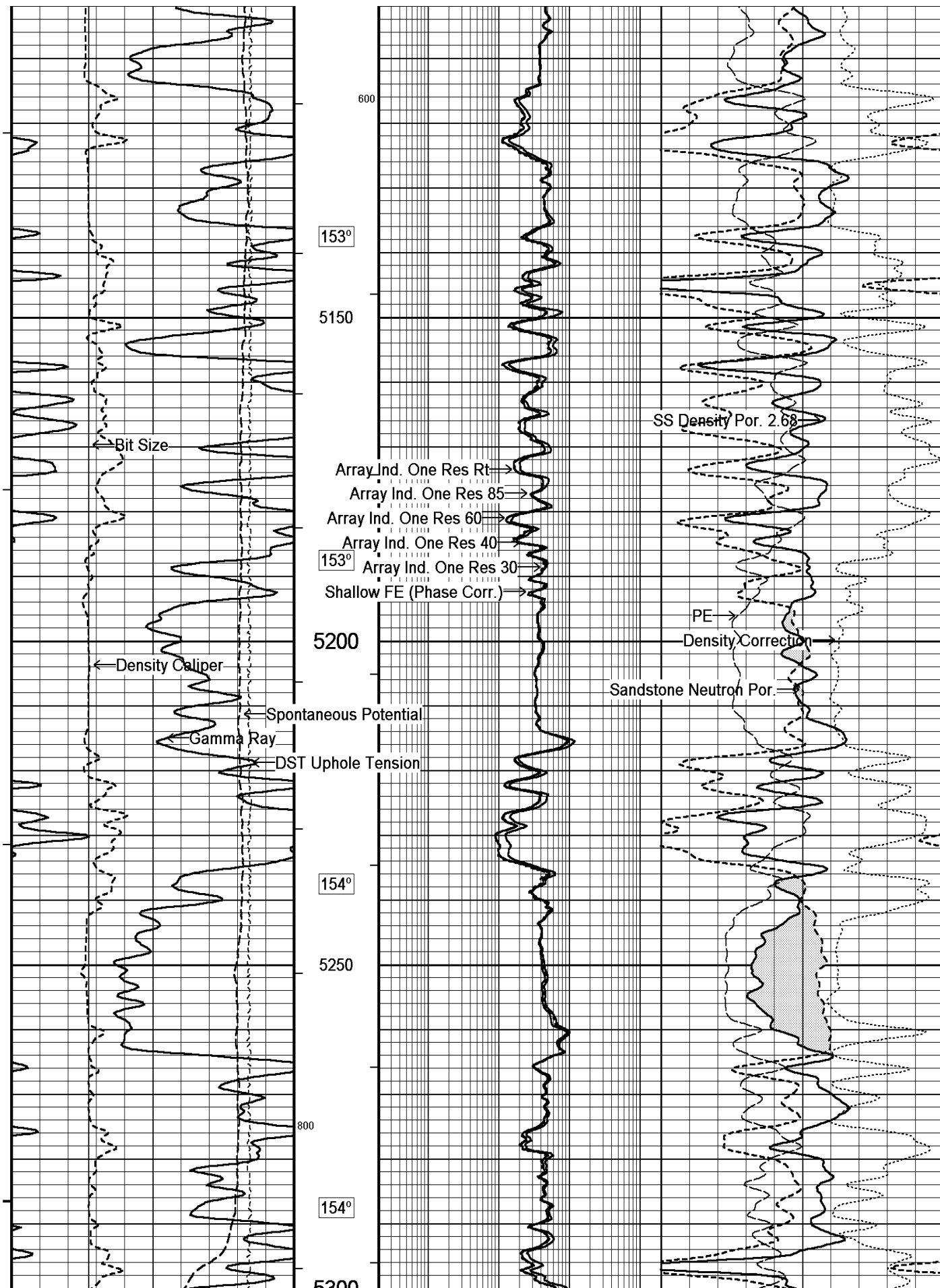


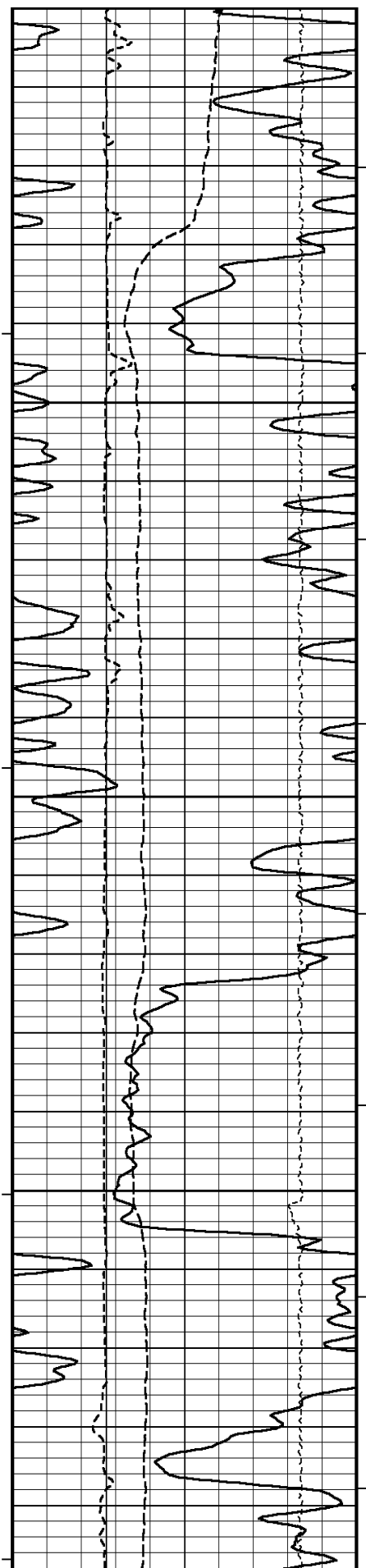












5350

155°

5350

155°

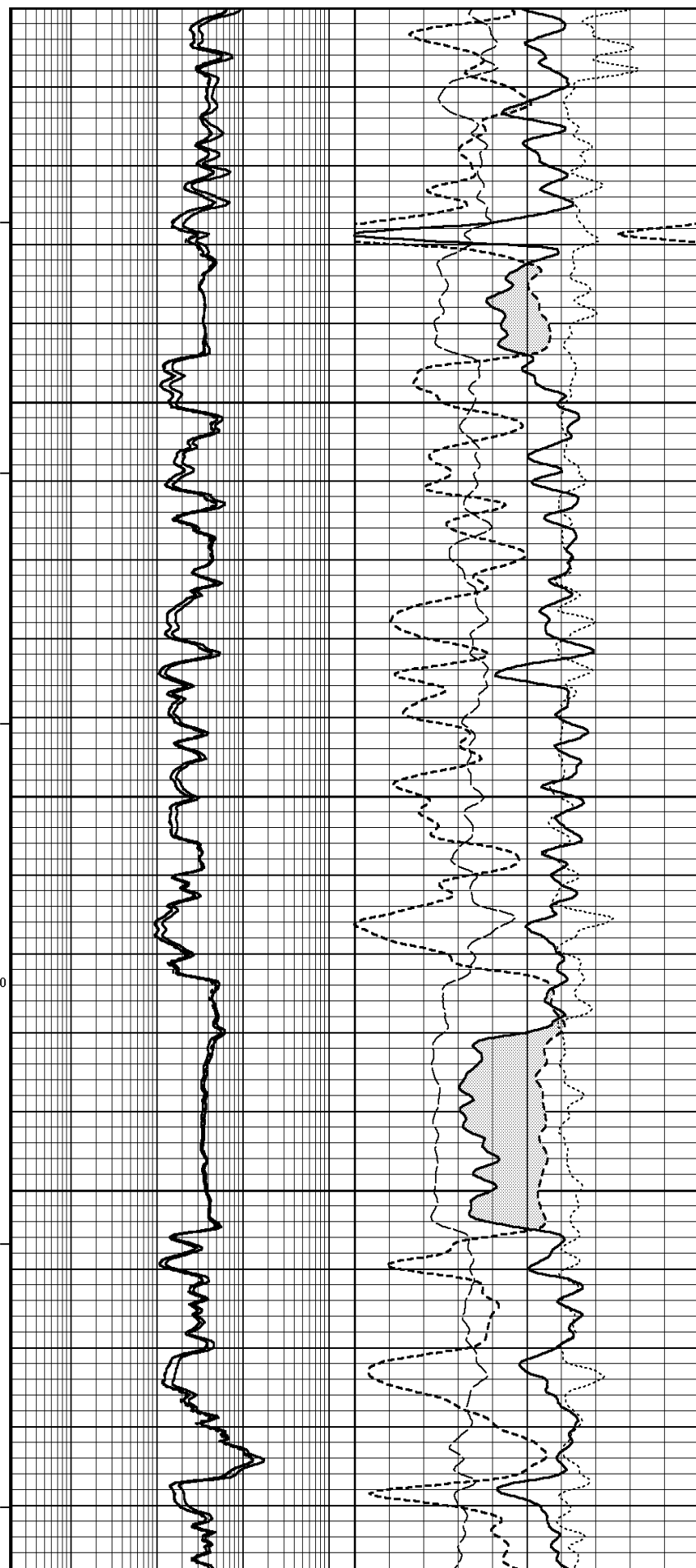
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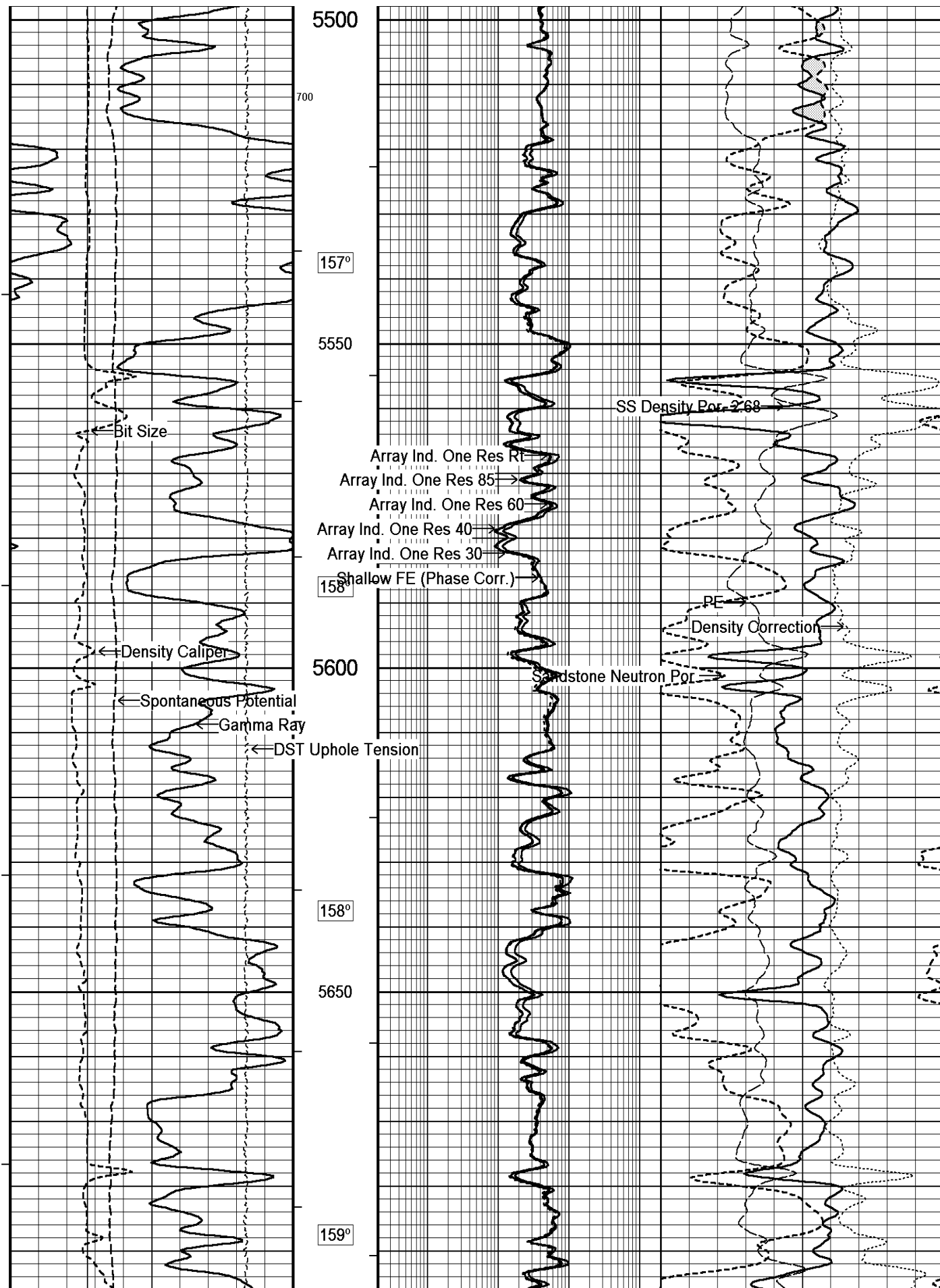
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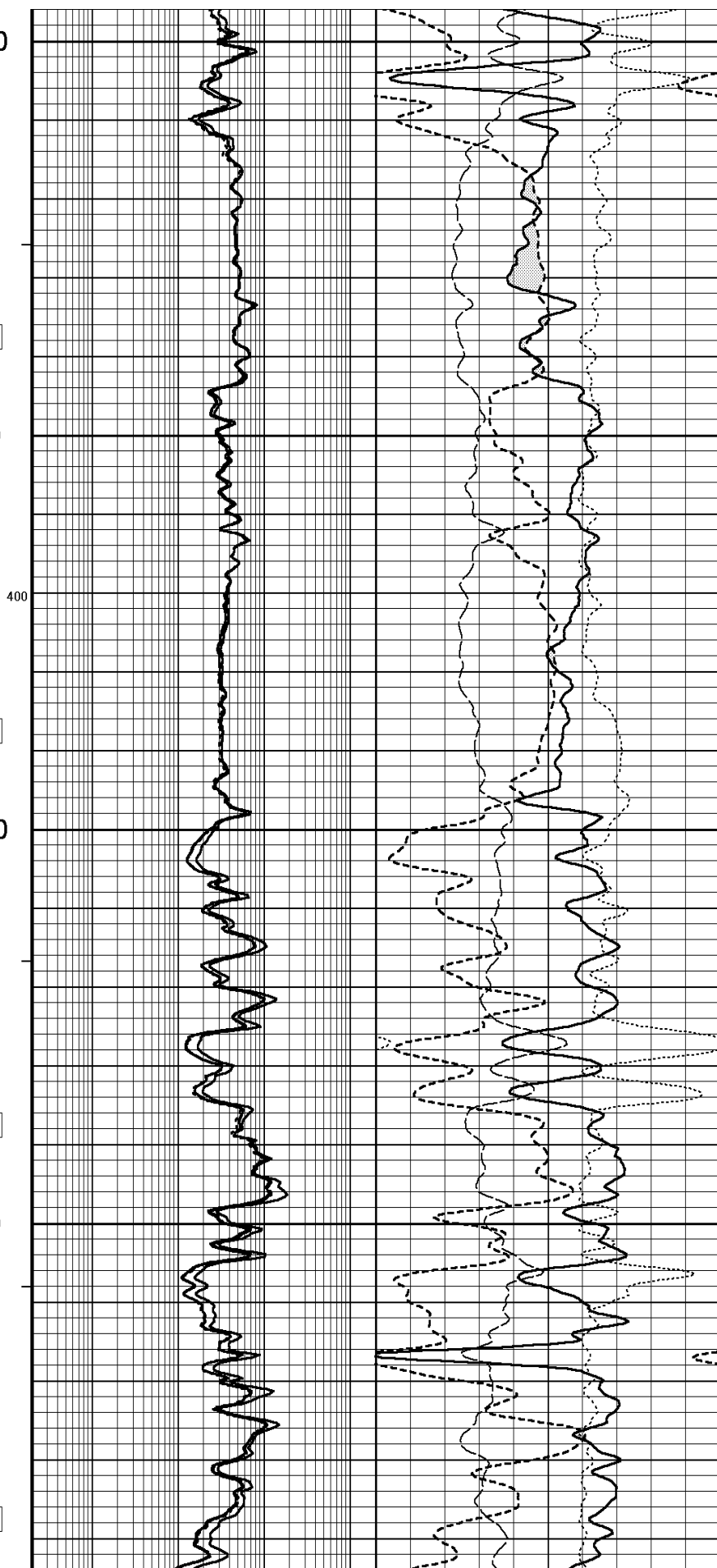
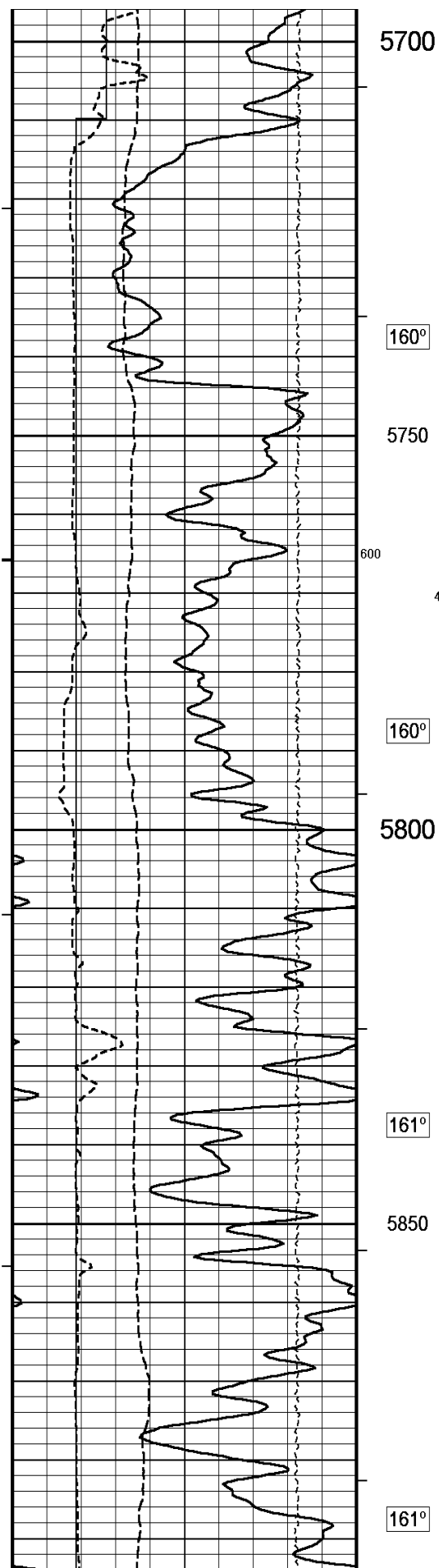
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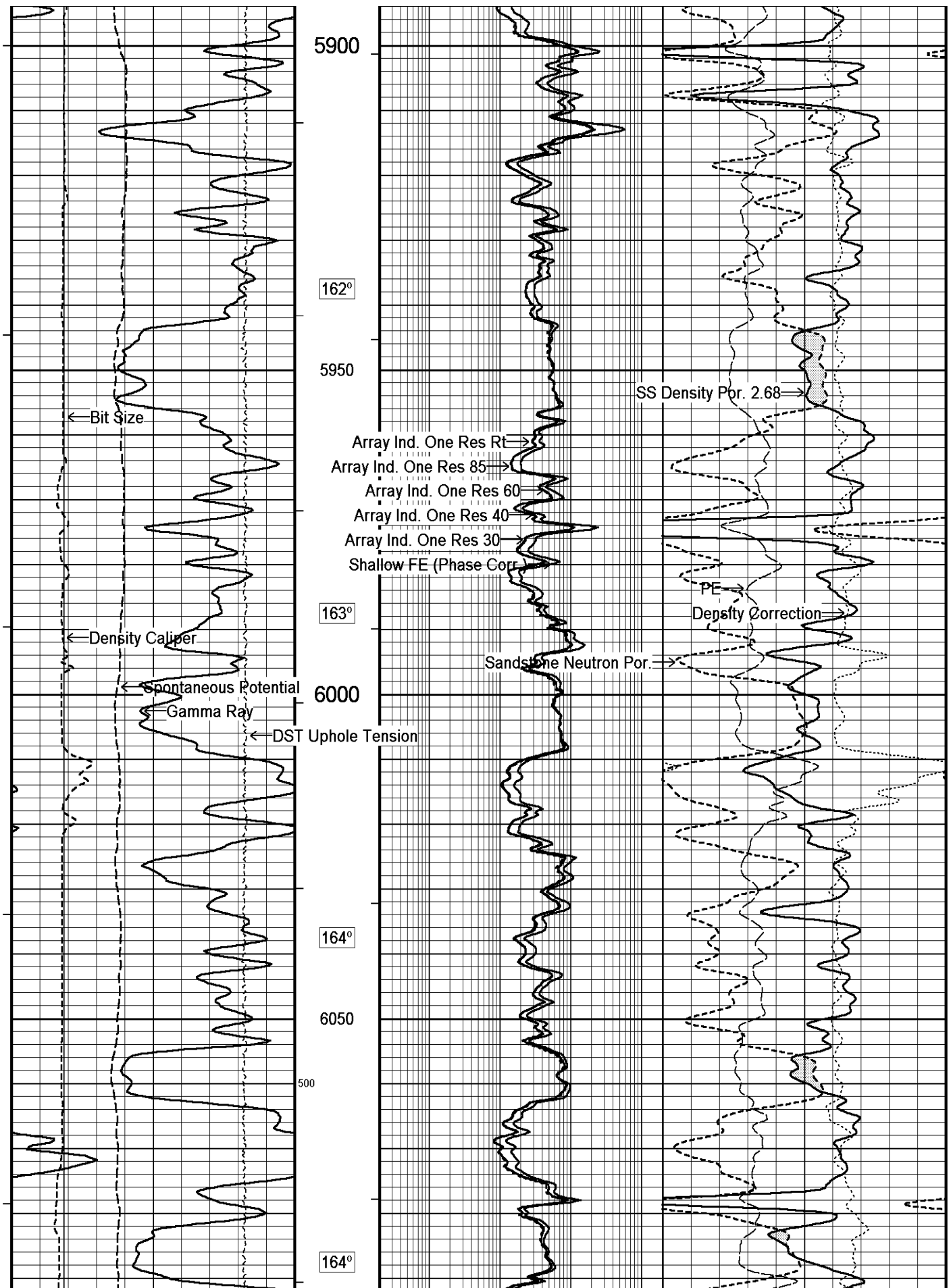
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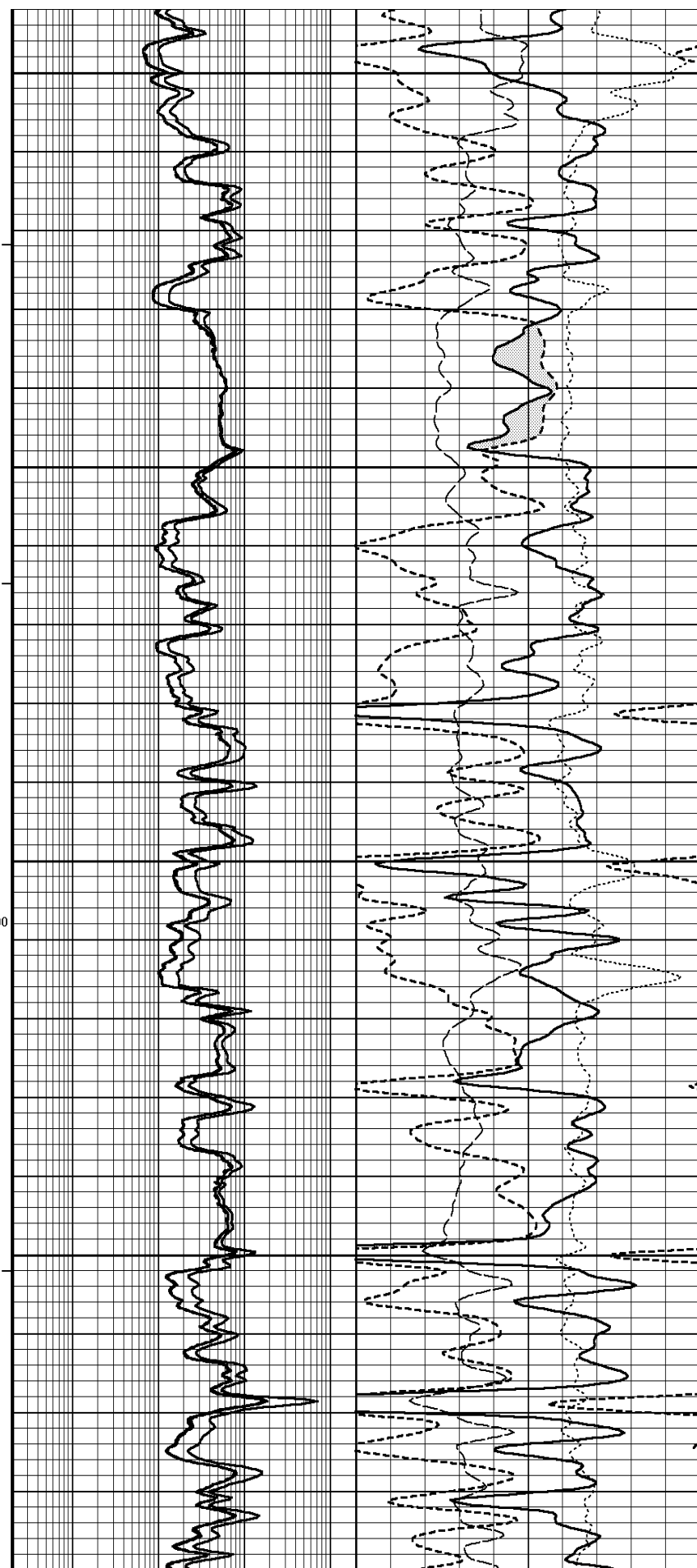
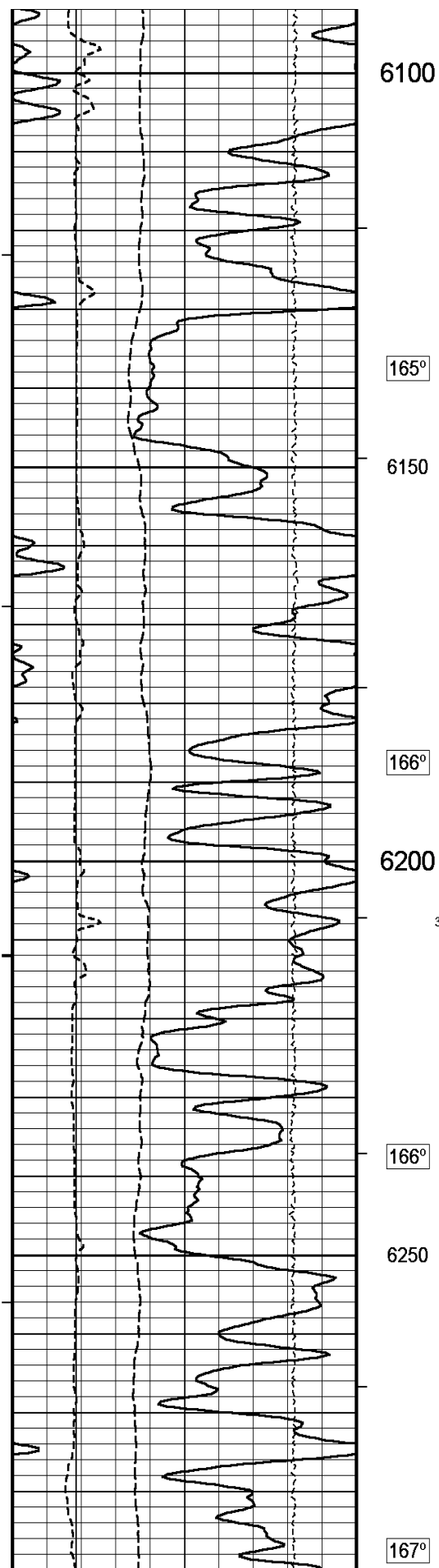
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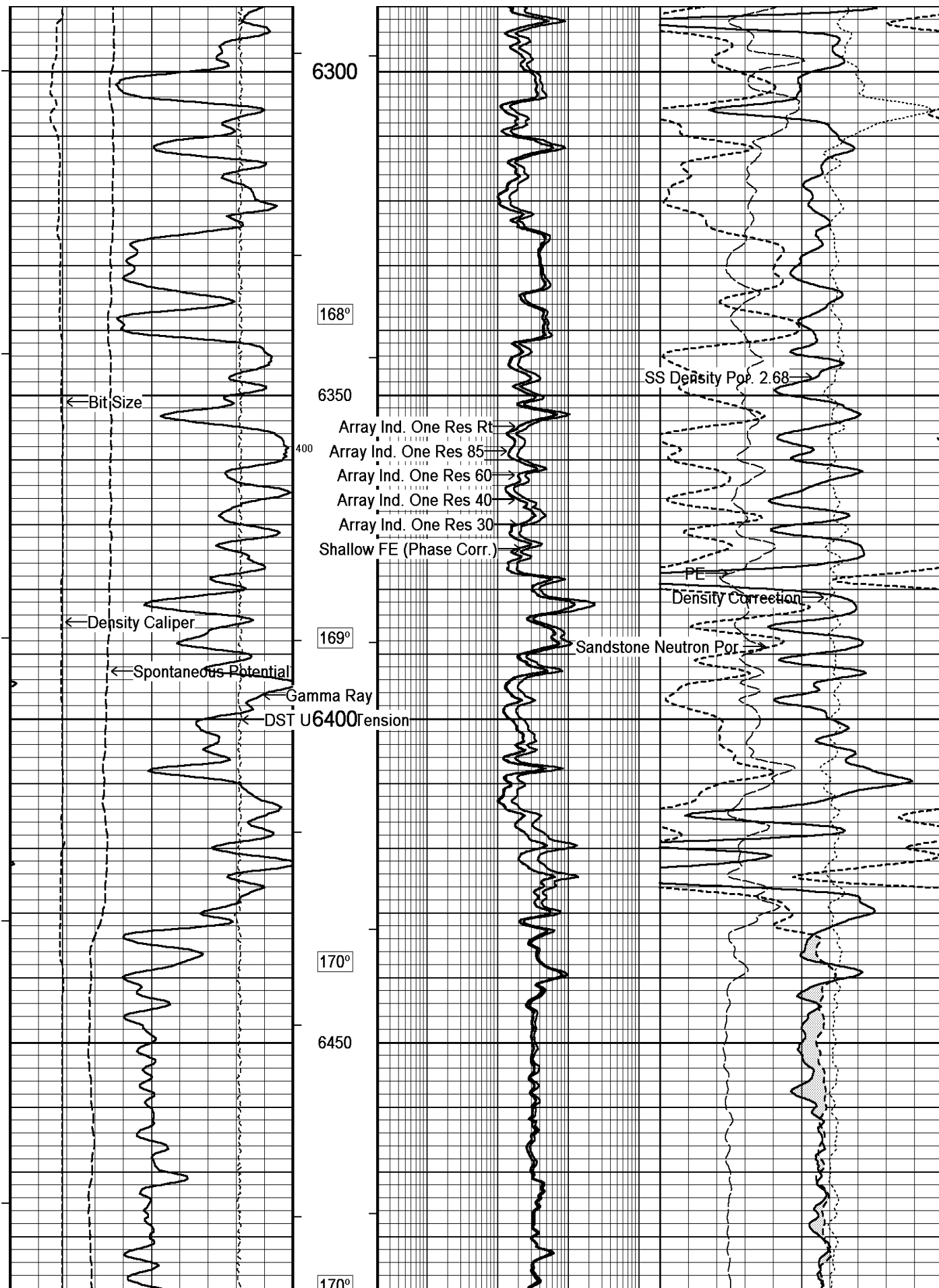


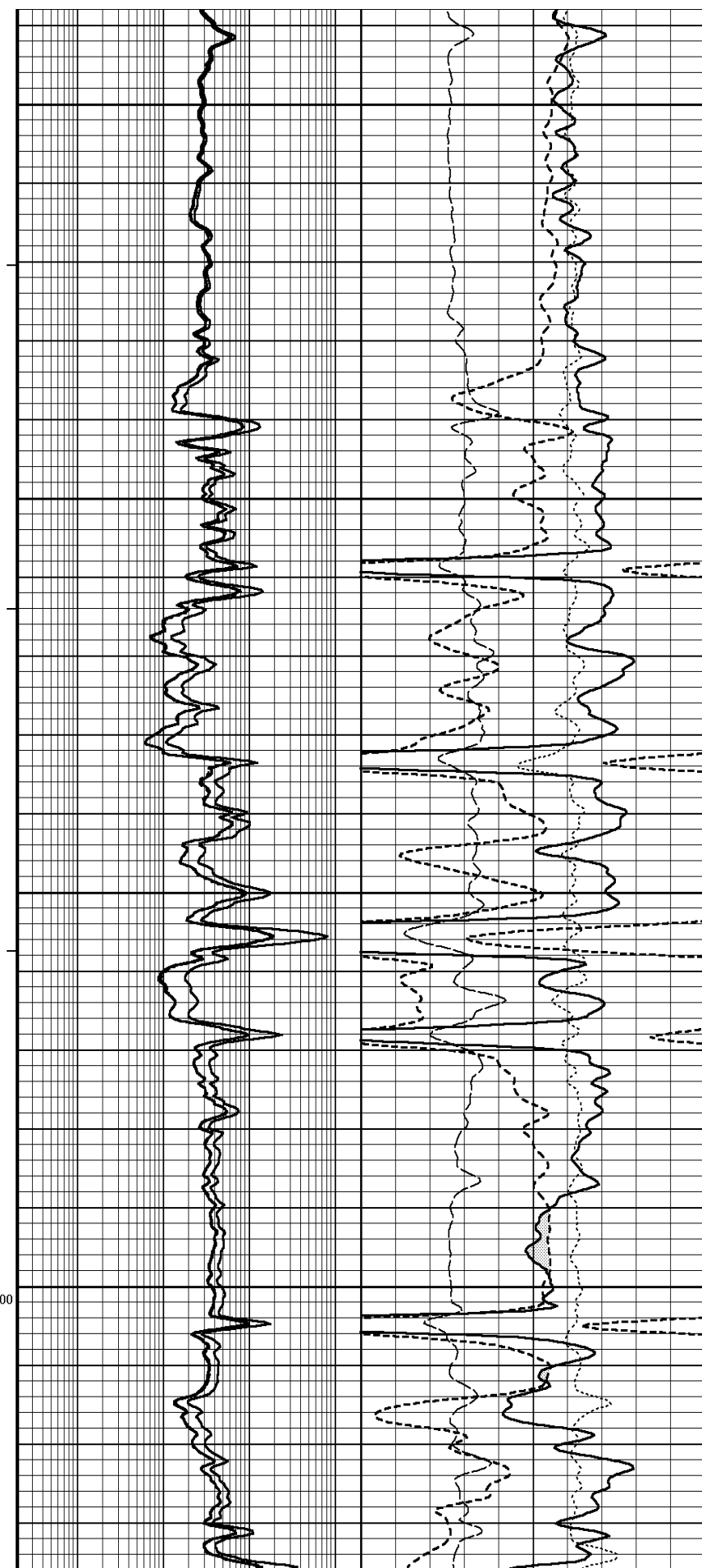
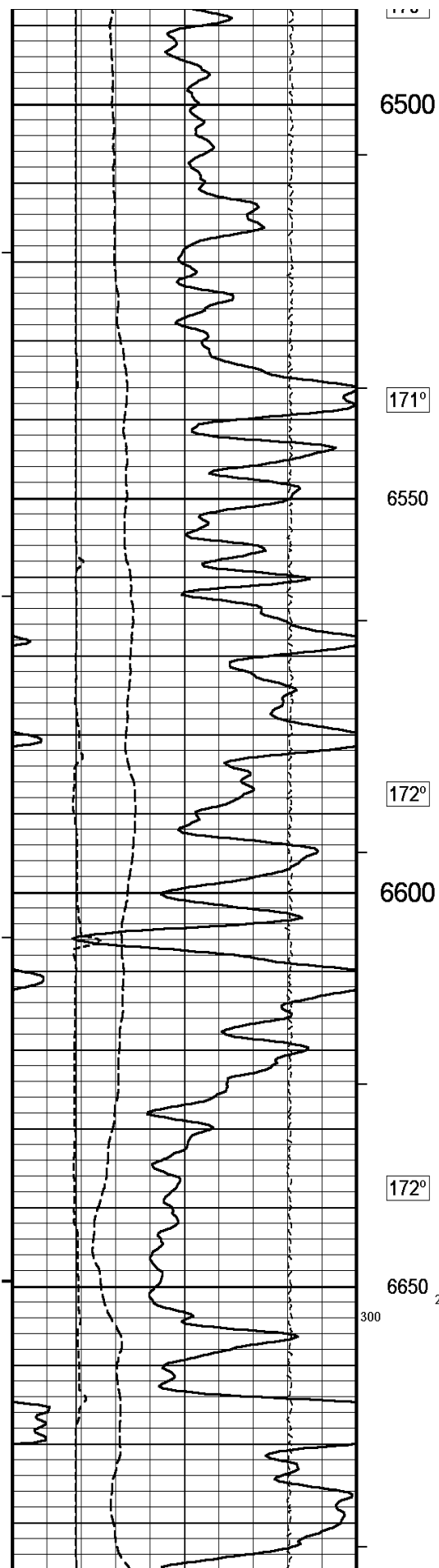


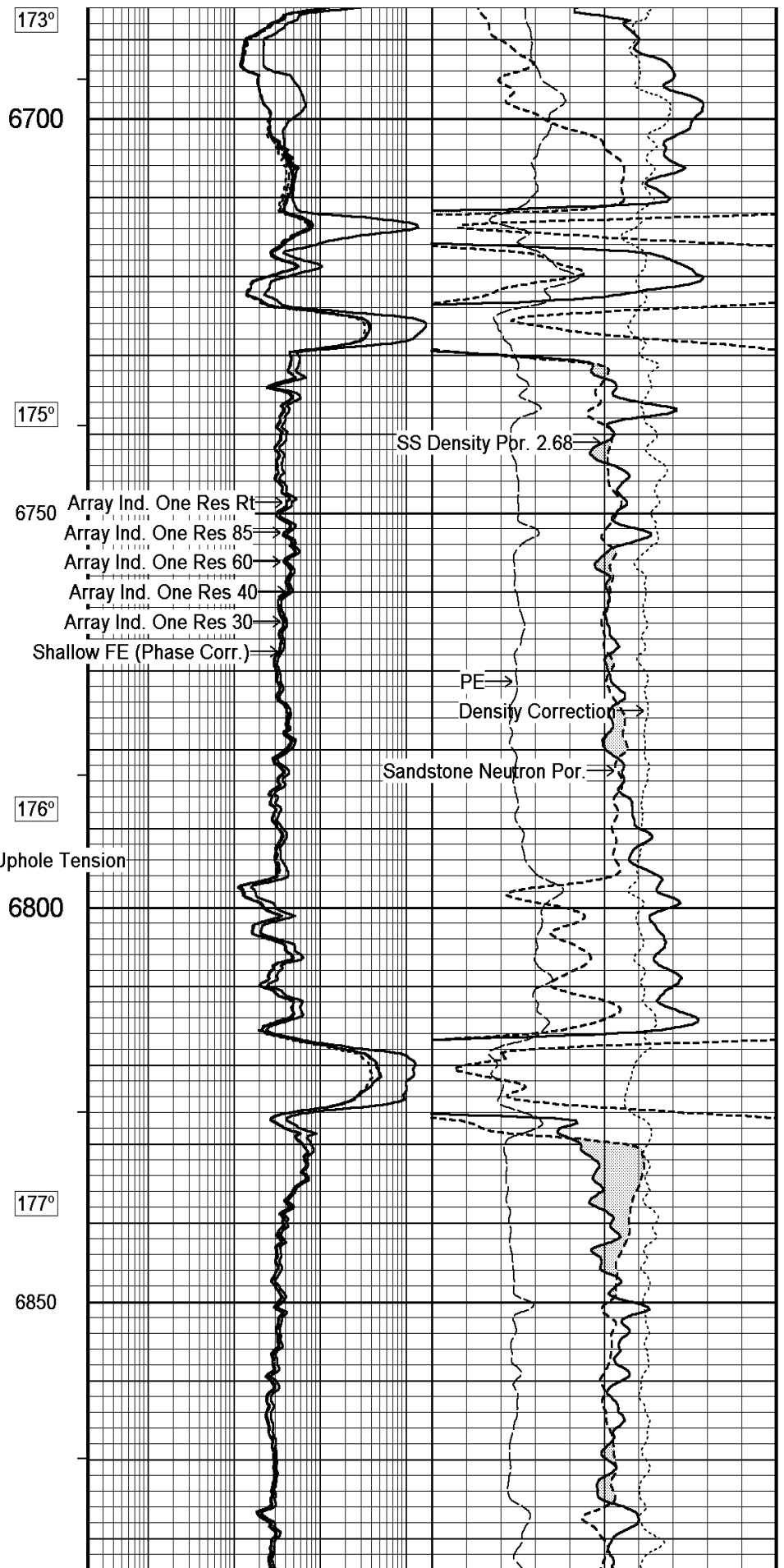
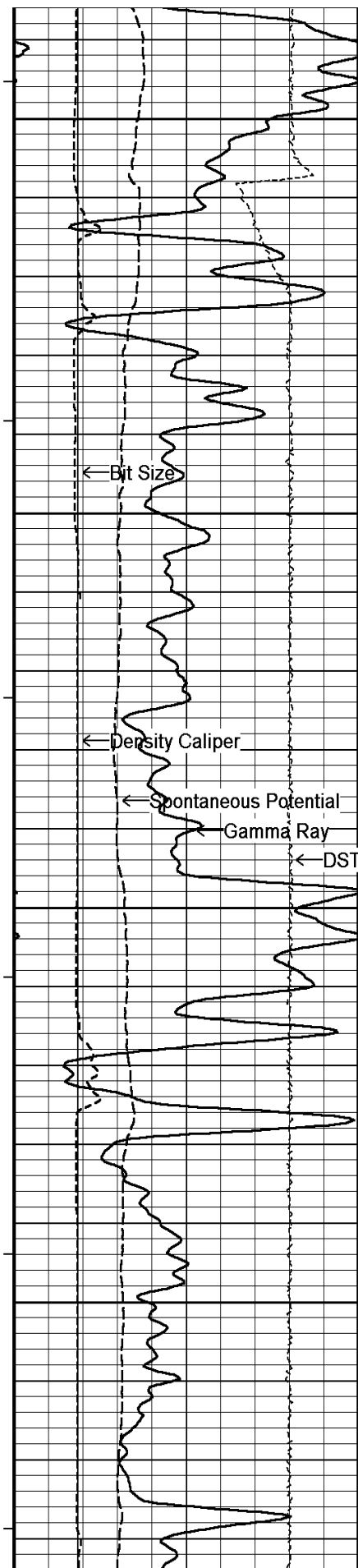


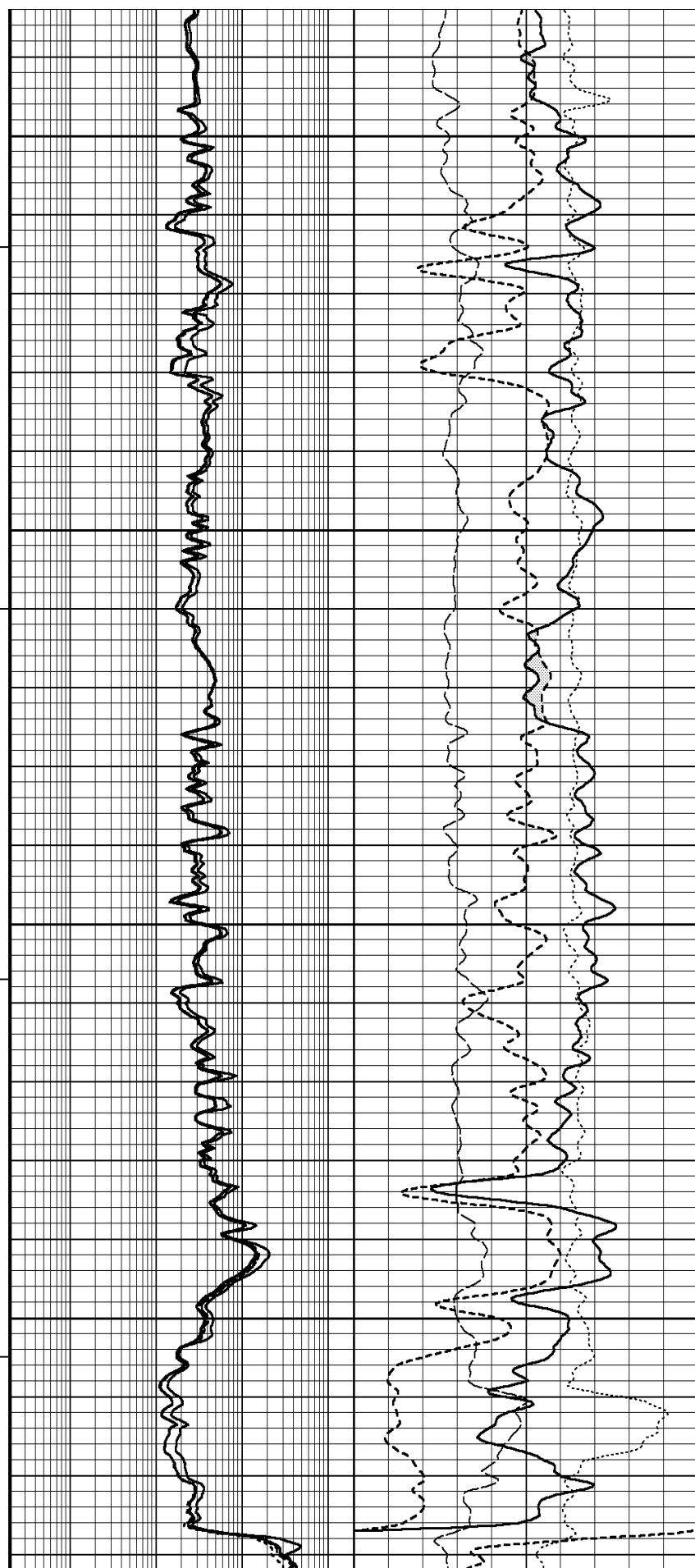
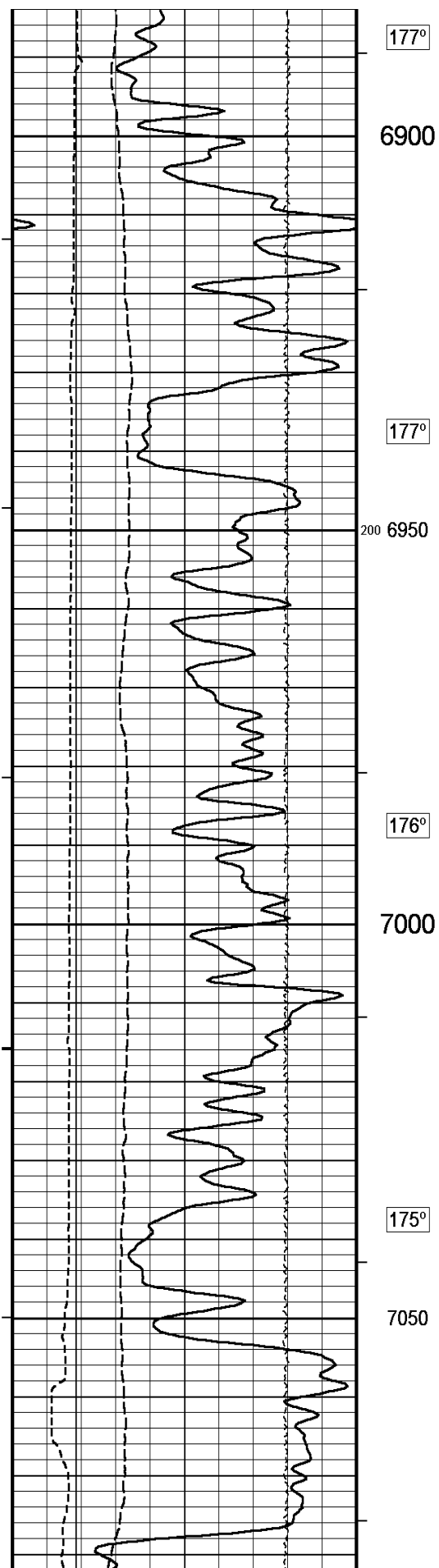


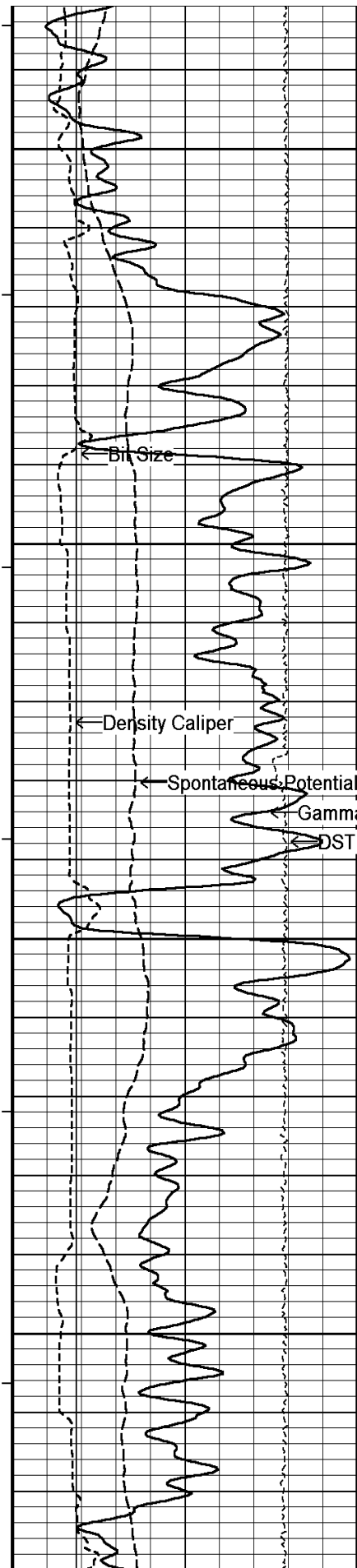












179°

7100

100

182°

Array Ind. One Res Rt
Array Ind. One Res 85
7150array Ind. One Res 60
Array Ind. One Res 40
Array Ind. One Res 30
Shallow FE (Phase Corr.)

SS Density Por. 268

PE

Density Correction

Sandstone Neutron Por.

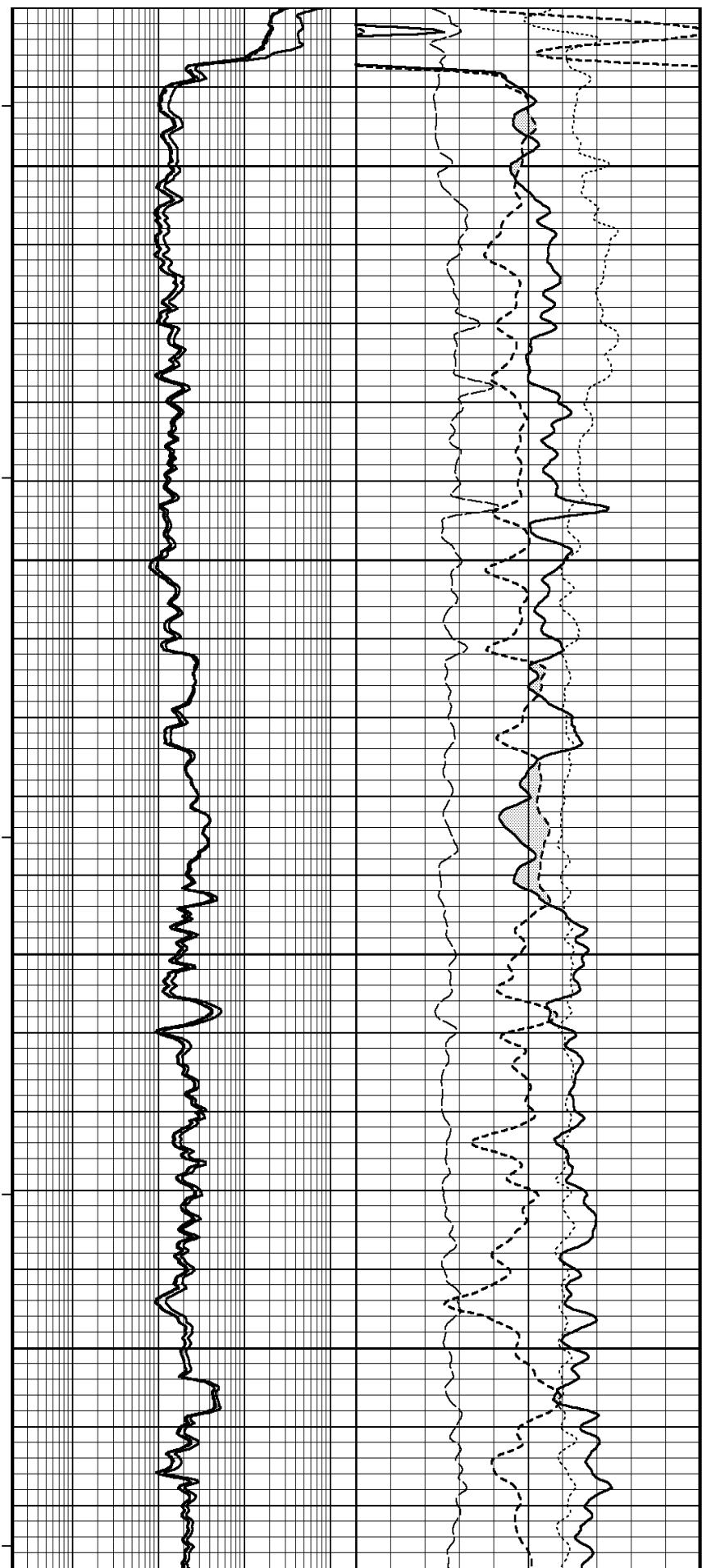
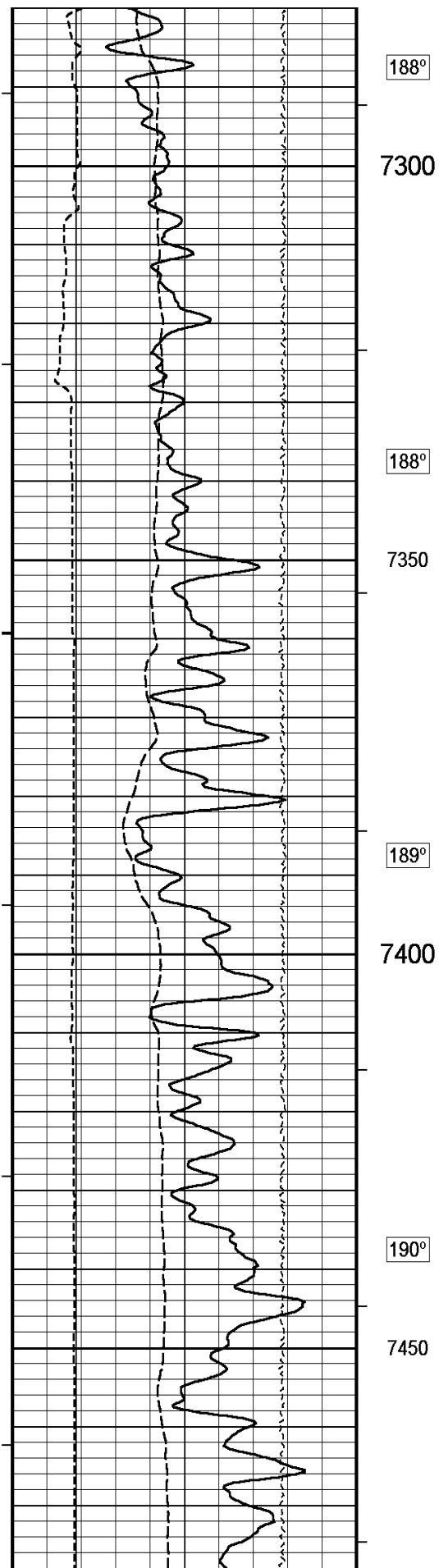
183°

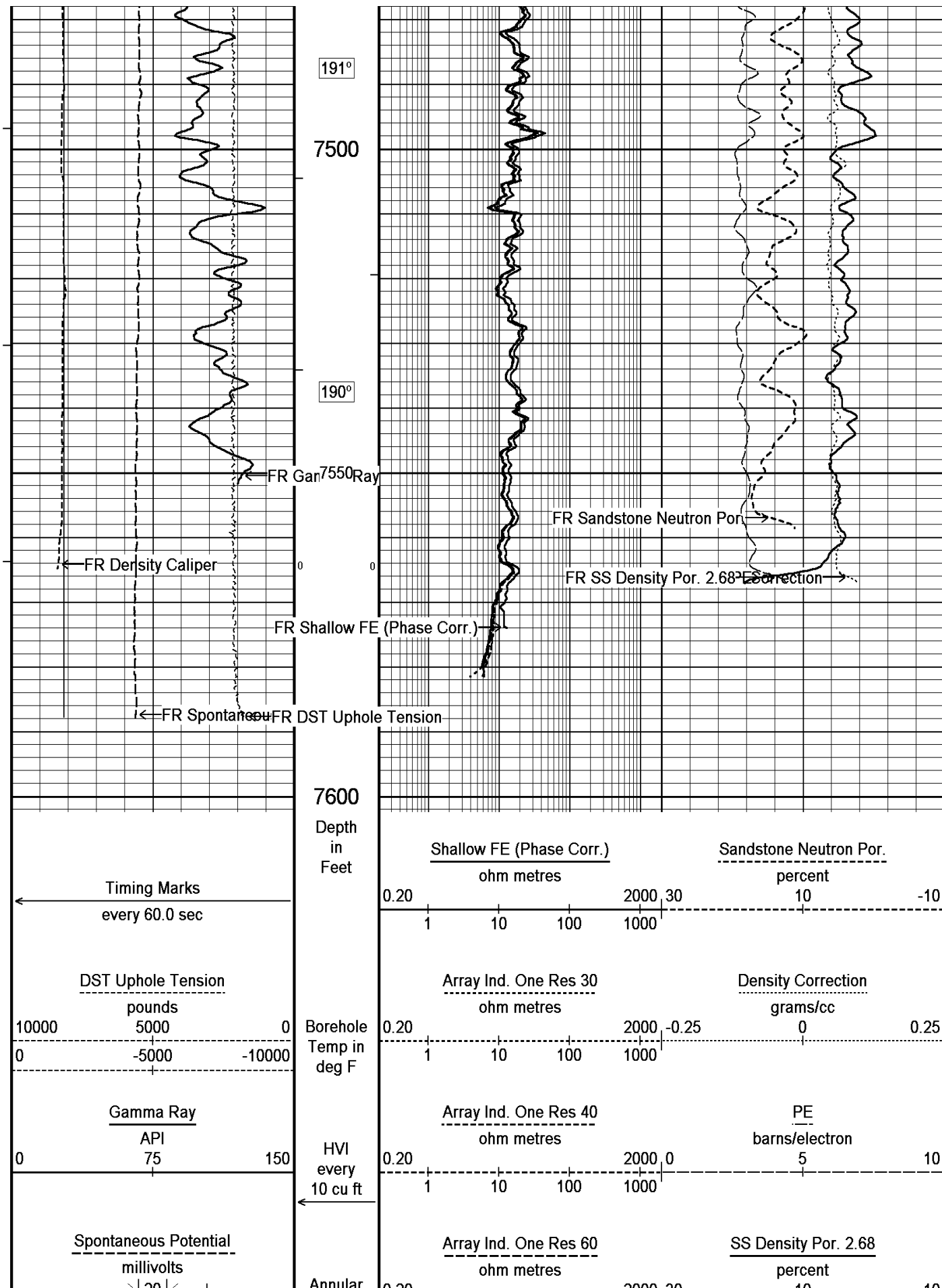
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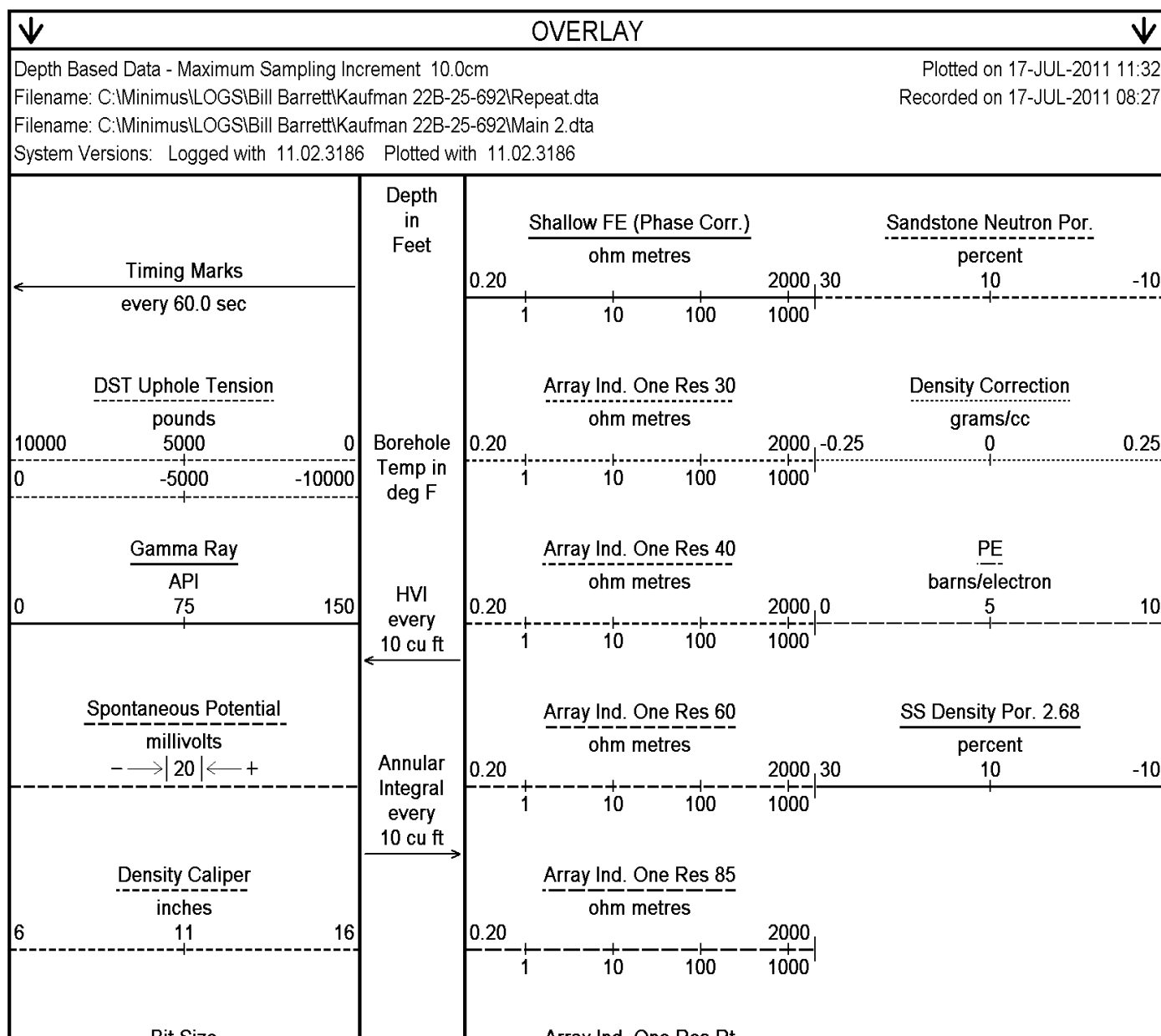
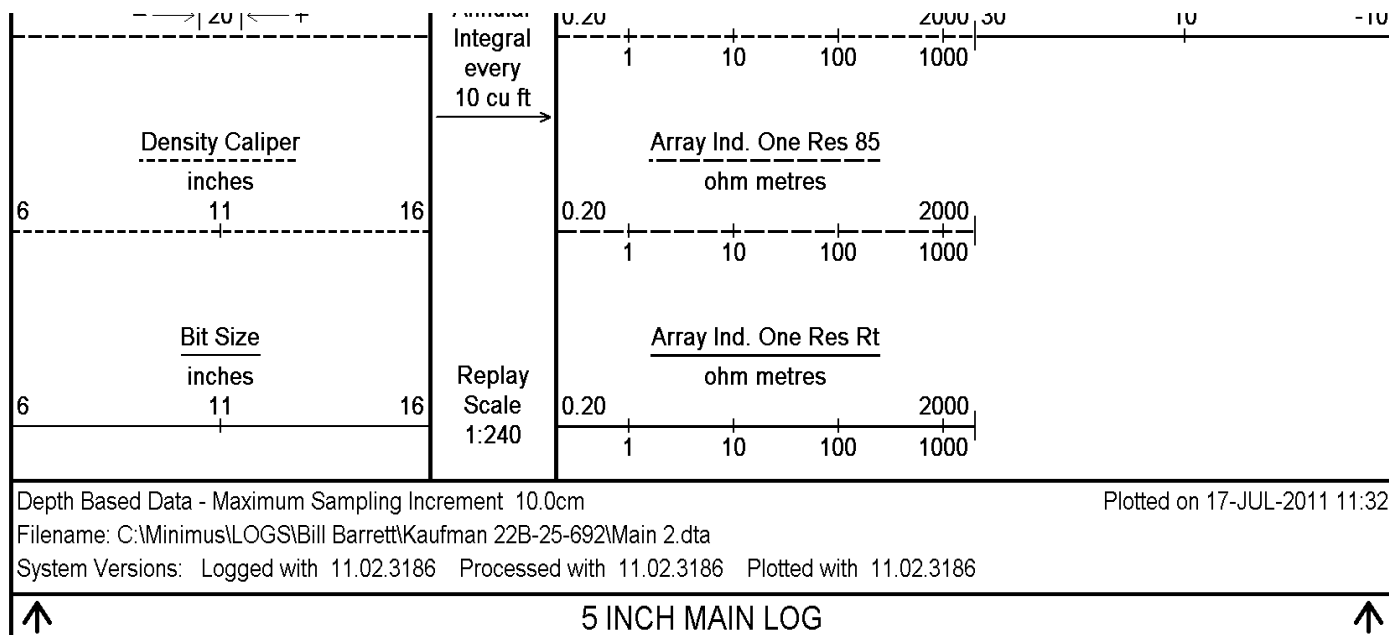
185°

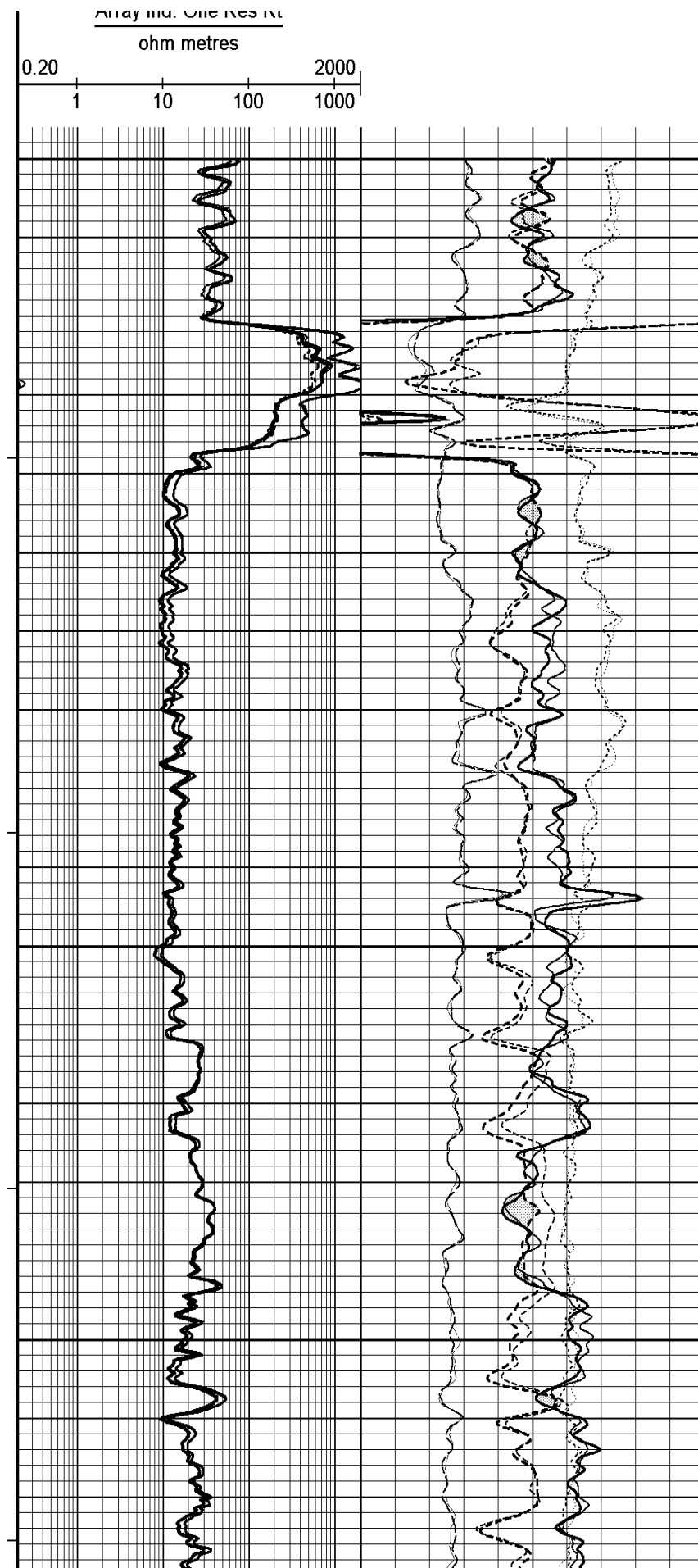
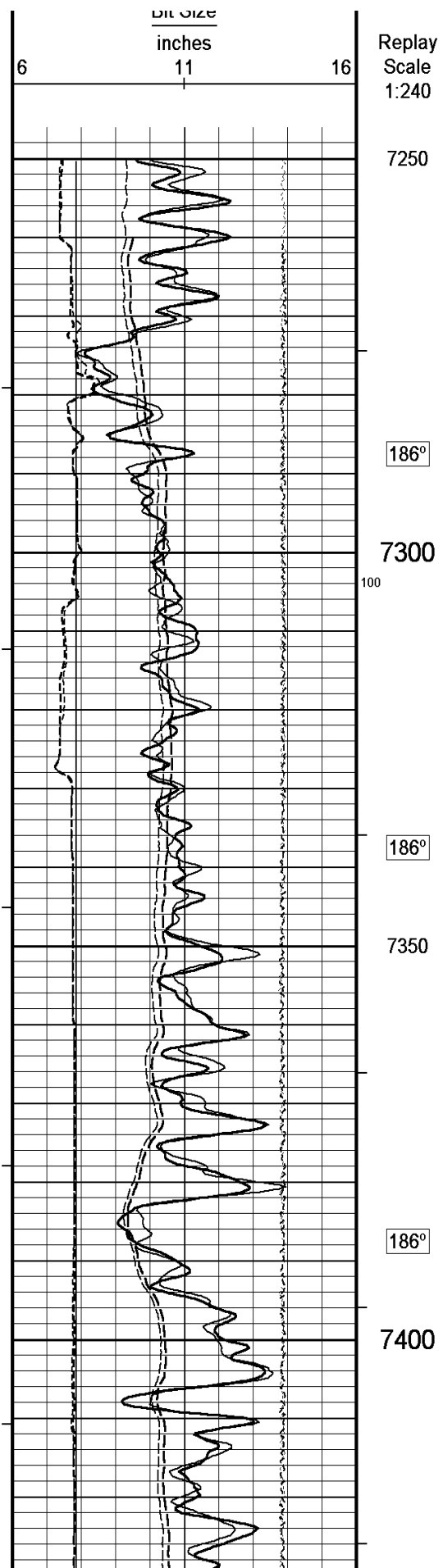
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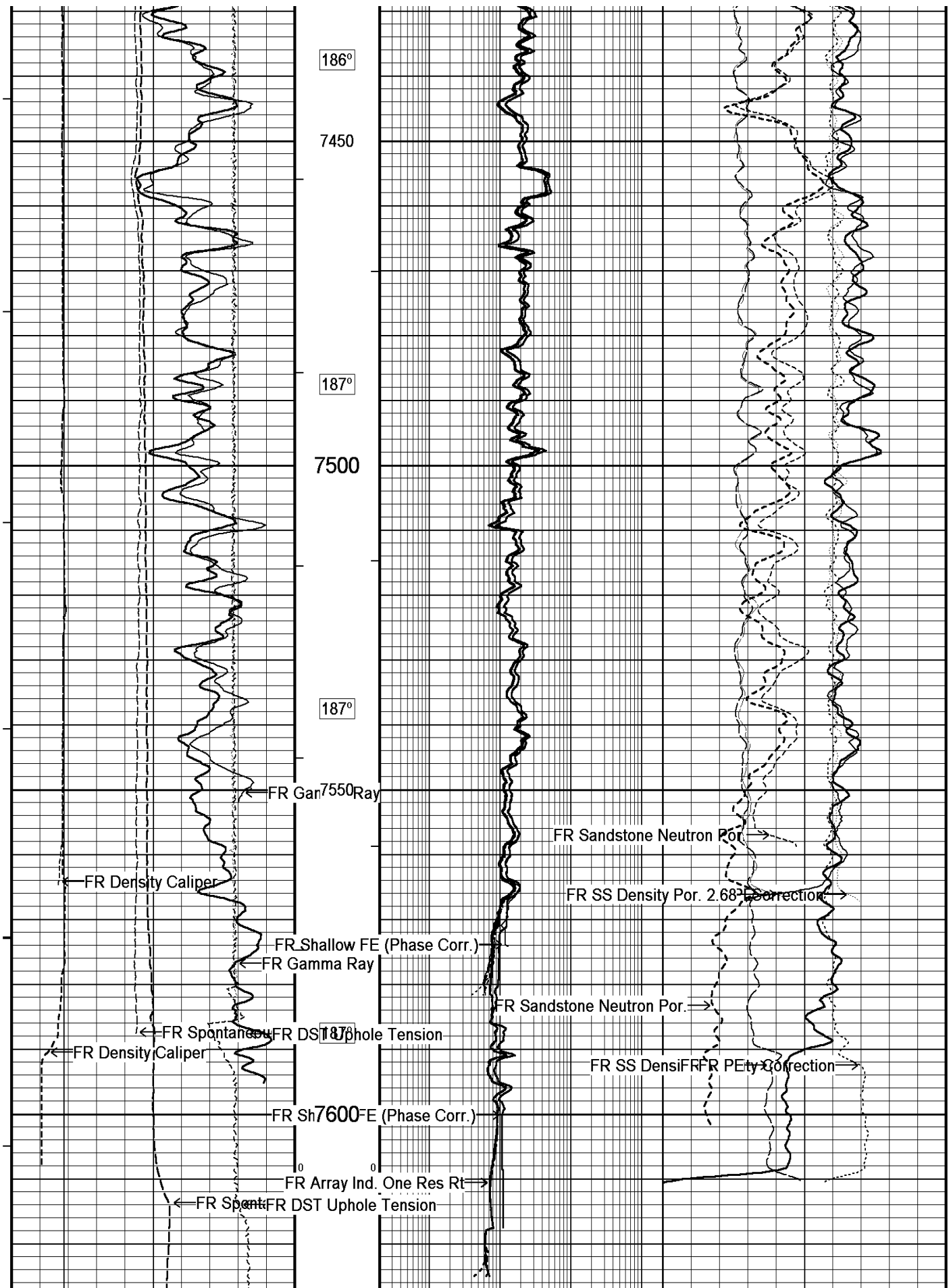
100

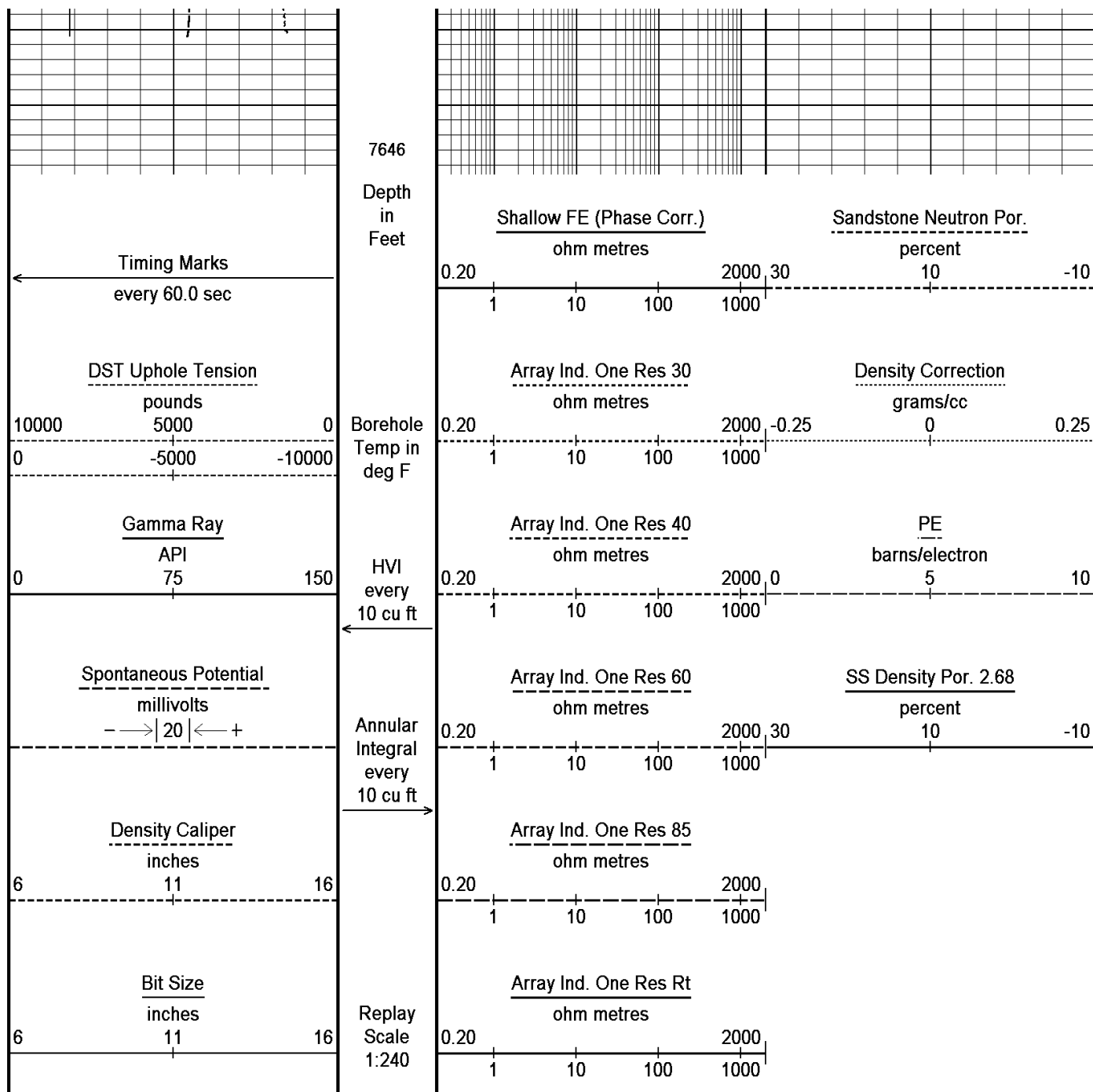












Depth Based Data - Maximum Sampling Increment 10.0cm

Filename: C:\Minimus\LOGS\Bill Barrett\Kaufman 22B-25-692\Repeat.dta

Filename: C:\Minimus\LOGS\Bill Barrett\Kaufman 22B-25-692\Main 2.dta

System Versions: Logged with 11.02.3186 Plotted with 11.02.3186

Plotted on 17-JUL-2011 11:32

Recorded on 17-JUL-2011 08:27

↑ OVERLAY ↑

BEFORE SURVEY CALIBRATION

C:\Minimus\LOGS\Bill Barrett\Kaufman 22B-25-692\Kaufman 22B-25-692.dta

General Constants All 000

Last Edited on 17-JUL-2011,07:26

General Parameters

Mud Resistivity
Mud Resistivity Temperature
Water Level

2.320
100.500
0.000

ohm-metres
degrees F
feet

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	None	
Rwa Parameters		
Porosity used	Base Density Porosity	
Resistivity used	Array Ind. One Res Rt	
RWA Constant A	0.610	
RWA Constant M	2.150	
High Resolution Temperature Calibration MCG-D.A 342		
	Measured	Calibrated(Deg F)
Lower	10.00	10.00
Upper	100.00	100.00
High Resolution Temperature Constants MCG-D.A 342		
Pre-filter Length	11	
Gamma Calibration MCG-D.A 342		
	Measured	Calibrated (API)
Background	142	95
Calibrator (Gross)	932	622
Calibrator (Net)	790	527
Gamma Constants MCG-D.A 342		
Gamma Calibrator Number	GRC-174	
Mud Density	1.00	gm/cc
Caliper Source for Processing	Density Caliper	
Tool Position	Eccentred	
Concentration of KCl	0.00	kppm
Neutron Calibration MDN-B.A 306		
Base Calibration		
	Measured	Calibrated (cps)
	Near Far	Near Far
	2904 91	3714 110
Ratio	32.005	33.764
Field Calibrator at Base		
		Calibrated (cps)
		2292 3382
Ratio		0.678
Field Check		
		Calibrated (cps)
		2386 3466
Ratio		0.689
Neutron Constants MDN-B.A 306		
Neutron Source Id	P44384B	
Neutron Jig Number	6584	
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	1.00	cu
Dolomite Sigma	4.70	cu
Formation Pressure Source	None	
Formation Pressure	N/A	kpsi
Temperature Source	None	
Temperature	N/A	degrees F
Mud Salinity	0.00	kppm
Formation Fluid Salinity Source	None	
Formation Fluid Salinity	N/A	kppm
Barite Mud Correction	Not Applied	

FE Calibration MFE-B.A 179			Base Calibration on 09-JUN-2011 13:34	
			Field Check on 17-JUL-2011 07:13	
Base Calibration				
	Measured	Calibrated (ohm-m)		
Reference 1	0.0	0.0		
Reference 2	961.3	126.8		
Base Check		280.4		
Field Check		280.7		

FE Constants MFE-B.A 179			Last Edited on 17-JUL-2011,06:57	
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				

Induction Calibration MAI-B.A 301			Base Calibration on 09-JUN-2010,11:38		
			Field Check on 17-JUL-2011 07:12		
Base Calibration					
Test Loop Calibration		Measured	Calibrated (mmho/m)		
Channel	Low	High	Low	High	
1	17.5	487.4	9.3	966.2	
2	5.9	392.1	7.6	821.4	
3	3.8	259.5	5.2	566.0	
4	2.0	137.2	2.6	279.2	
Array Temperature		71.1	Deg F		
Channel		Base Check (mmho/m)		Field Check (mmho/m)	
		Low	High	Low	High
1		12.4	3733.5	14.4	3734.9
2		30.3	3444.6	30.8	3443.9
3		28.3	3059.1	28.6	3058.2
4		19.1	2020.7	19.3	2019.8
Deep		16.6	2016.9	16.9	2016.2
Medium		41.9	4069.8	42.1	4068.3
Shallow		46.1	5042.1	47.0	5041.3
Array Temperature		67.8		96.2	Deg F

Induction Constants MAI-B.A 301			Last Edited on 17-JUL-2011,06:58	
Induction Model RtAP-WBM				
Caliper for Borehole Corr. Density Caliper				
Hole Size for Borehole Correction N/A inches				
Tool Centred No				
Stand-off Type Fins				
Stand-off 0.50 inches				
Number of Fins on Stand-off 6.0000				
Stand-off Fin Angle 60.00 degrees				

Stand-off Fin Angle	00.00	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	

Photo Density Calibration MPD-C.A 298

Base Calibration on 12-JUN-2011 14:53

Field Check on 17-JUL-2011 07:18

Density Calibration

Base Calibration	Measured		Calibrated (sdu)	
	Near	Far	Near	Far
Reference 1	50099	16826	53237	19445
Reference 2	23038	2568	25135	2545

Field Check at Base

1239.2 1382.1

Field Check

1240.1 1377.9

PE Calibration

Base Calibration	WS	Measured		Calibrated Ratio
		WH	Ratio	
Background	225	1107		
Reference 1	17368	49908	0.351	0.320
Reference 2	6575	22894	0.291	0.274

Field Check at Base

225.4 1107.1

Field Check

225.1 1107.2

Density Constants MPD-C.A 298

Last Edited on 17-JUL-2011,06:47

Density Source Id	P44263B
Nylon Calibrator Number	532
Aluminium Calibrator Number	532
Density Shoe Profile	8 inch
Caliper Source for Processing	Density Caliper

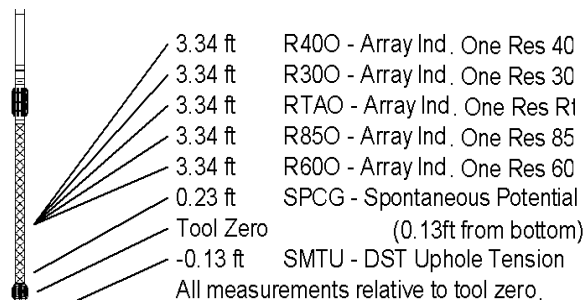
Caliper Source for Processing	Density Caliper	
PE Correction to Density	Not Applied	
Mud Density	1.27	gm/cc
Mud Density Z/A Multiplier	1.11	
Mud Filtrate Density	1.00	gm/cc
Dry Hole Mud Filtrate Density	1.00	gm/cc
DNCT	0.00	gm/cc
CRCT	0.00	gm/cc
Density Z/A Correction	Hybrid	
Matrix Density (gm/cc)	Depth (ft)	
2.68	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	

Caliper Calibration MPD-C.A 298		Base Calibration on 12-JUN-2011 15:04
		Field Calibration on 17-JUL-2011,06:48
Base Calibration		
Reading No	Measured	Calibrator Size (in)
1	17760	3.98
2	26044	5.96
3	33840	7.96
4	42001	9.86
5	51232	11.88
6	N/A	N/A
Field Calibration		
	Measured Caliper (in)	Actual Caliper (in)
	7.95	7.96

DOWNHOLE EQUIPMENT		
C:\Minimus\LOGS\Bill Barrett\Kaufman 22B-25-692\Kaufman 22B-25-692.dta		
MCB-A 11B Tension Cablehead		
MCB-A 95 LG: 2.18 ft WT: 19.8 lb OD: 2.24 in		
SHA-J.A Compact Swivel Head Adaptor		
SHA-J.A 213 LG: 2.30 ft WT: 22.0 lb OD: 2.24 in		
Compact Comms Gamma		
MCG-D.A 342 LG: 8.70 ft WT: 63.9 lb OD: 2.24 in	37.07 ft	GRGC - Gamma Ray
	34.16 ft	CGXT - MCG External Temperature
Compact Neutron		
MDN-B.A 306 LG: 5.04 ft WT: 50.7 lb OD: 2.24 in	30.61 ft	NPRS - Sandstone Neutron Por.
Compact Density/Caliper		
MPD-C.A 298 LG: 9.59 ft WT: 90.4 lb OD: 2.45 in	23.37 ft	AVOL - Annular Volume
	23.37 ft	HVOL - Hole Volume
	23.37 ft	CLDC - Density Caliper
SKJ-D.A Compact Knuckle Joint		
SKJ-D.A 115 LG: 2.17 ft WT: 24.3 lb OD: 2.24 in	21.44 ft	DPOR - Base Density Porosity
	21.44 ft	DCOR - Density Correction
	21.38 ft	PDPE - PE
Compact Focussed Electric		
MFE-B.A 179 LG: 6.05 ft WT: 48.5 lb OD: 2.24 in	13.72 ft	FEFC - Shallow FE (Phase Corr.)

Compact Induction
 MAI-B.A 301 LG: 10.81 ft WT: 48.5 lb OD: 2.24 in

Total Length: 46.83 ft Weight 368.2 lb



COMPANY	BILL BARRETT CORPORATION
WELL	KAUFMAN 22B-25-692
FIELD	MAMM CREEK
PROVINCE/COUNTY	GARFIELD
COUNTRY/STATE	U.S.A. / COLORADO

Elevation Kelly Bushing	5945.00	feet	First Reading	7611.00	
Elevation Drill Floor	5944.00	feet	Depth Driller	7619.00	feet
Elevation Ground Level	5922.00	feet	Depth Logger	7614.00	feet



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