



Weatherford

**COMPACT TRIPLE COMBO
QUICKLOOK
LOG**

COMPANY

BILL BARRETT CORPORATION

WELL

MILLER FEDERAL 24B-31-691

FIELD

GIBSON GULCH

PROVINCE/COUNTY

GARFIELD

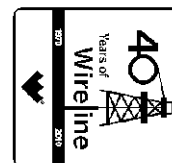
COUNTRY/STATE

U.S.A. / COLORADO

LOCATION

SHL: 8' FNL & 2444' FEL

BHL: 490' FSL & 1998' FWL



SEC

TWP

RGE

Other Services

31

6S

91W

API Number

05-045-18658

Permit Number

Permanent Datum G.L., Elevation 6266 feet

Log Measured From K.B. @ 22 FEET above Permanent Datum

Drilling Measured From K.B.

Elevations:

feet

KB

DF

GL

6288.00
6287.00
6266.00

Date

18-DEC-2010

Run Number

ONE

Depth Driller

7340.00

feet

Depth Logger

7349.00

feet

First Reading

7349.00

Last Reading

793.00

feet

Casing Driller

793.00

feet

Casing Logger

793.00

feet

Bit Size

7.875

inches

Hole Fluid Type

LSND

Density / Viscosity

10.30 lb/USg

48.00 CP

PH / Fluid Loss

10.10

7.20 ml/30Min

Sample Source

FLOW LINE

Rm @ Measured Temp

2.25 @ 91.5

ohm-m

Rmf @ Measured Temp

1.80 @ 91.5

ohm-m

Rmc @ Measured Temp

2.70 @ 91.5

ohm-m

Source Rmf / Rmc

CALC

CALC

Rm @ BHT

1.22 @ 171.0

ohm-m

Time Since Circulation

4 HOURS

Max Recorded Temp

171.00

deg F

Equipment Name

COMPACT

Equipment / Base

13045

GD JCT

Recorded By

J.GARCIA

SLACKEY

Witnessed By

R.SCHULTZ

BOREHOLE RECORD

Last Edited: 18-DEC-2010 16:26

Bit Size
inches

8.750

7.880

Depth From
feet

793.00

4956.00

Depth To
feet

4956.00

7349.00

CASING RECORD

Type

Size
inches

9.625

Depth From
feet

0.00

Shoe Depth
feet

793.00

Weight
pounds/ft

36.00

REMARKS

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

HARDWARE: MPD: (1) 8 INCH PROFILE PLATE
MAI: (1) 0.5 INCH STANDOFF
MDN: (1) DUAL BOWSPRING

2.68 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.

8.75 INCH BIT USED FROM SURFACE CASING TO 4936 FEET.

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

TOTAL HOLE VOLUME FROM TD TO SURFACE CASING = 2650 CU FT

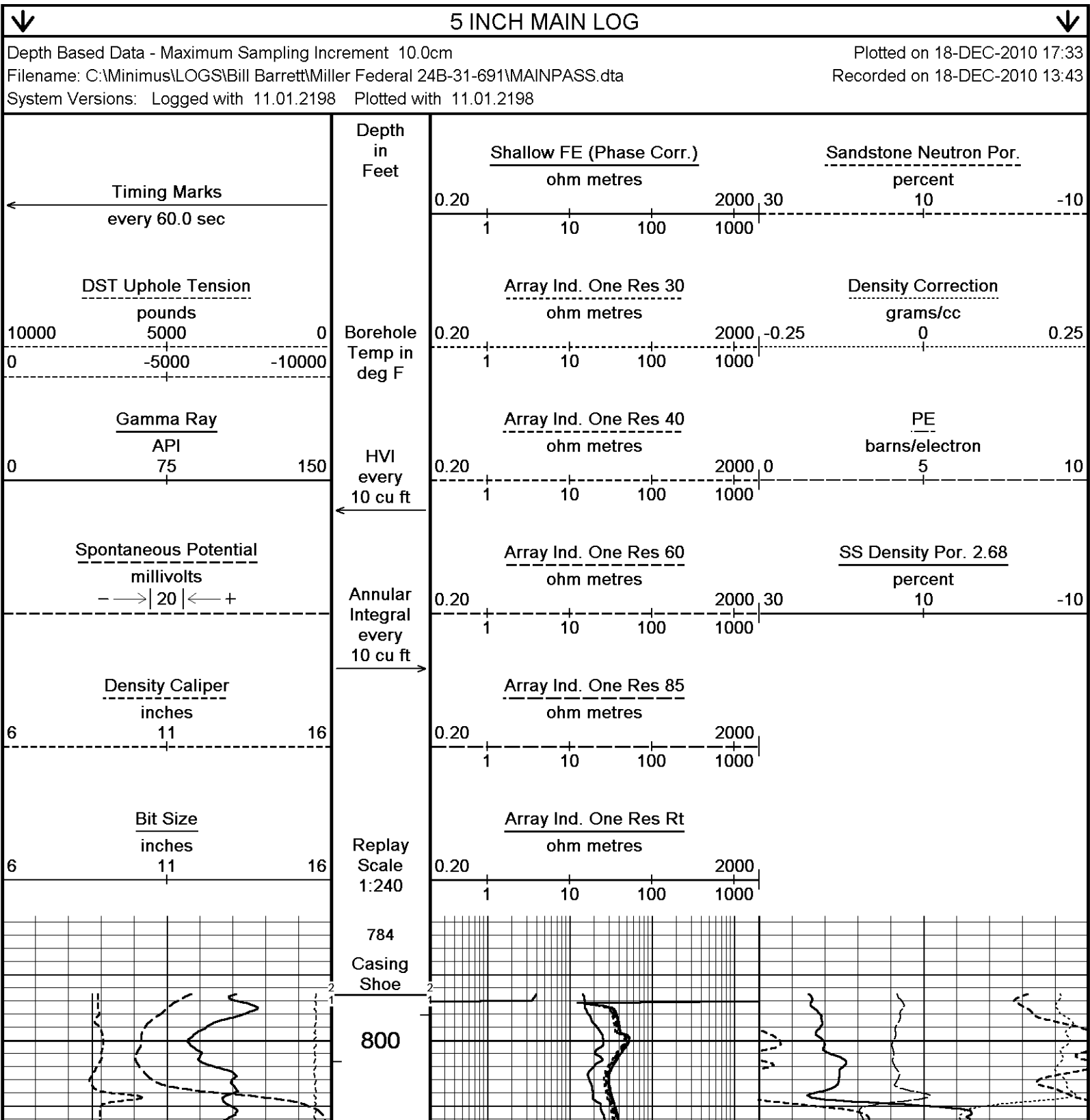
STRAIGHT HOLE VOLUME FROM TD TO SURFACE CASING = 2030 CU.FT.

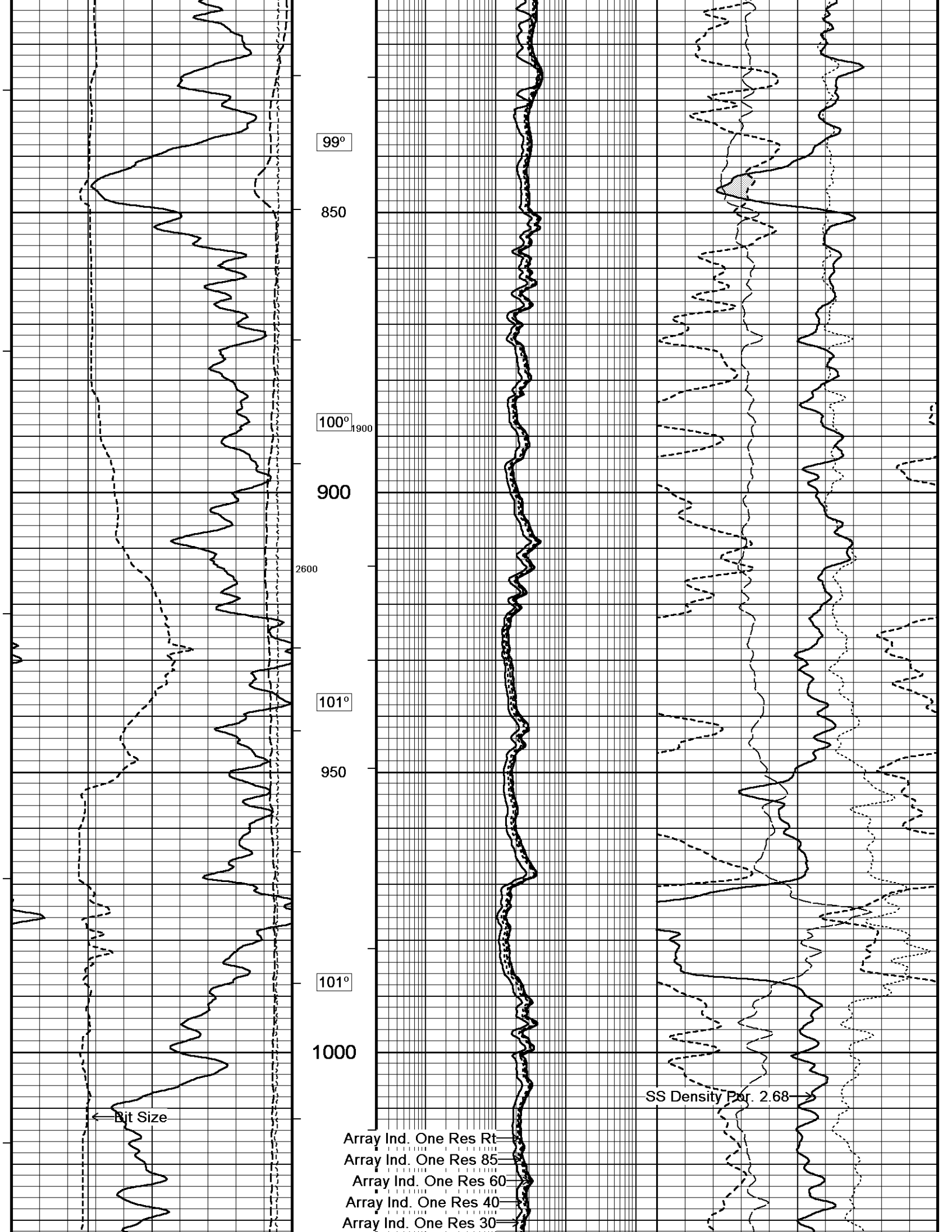
ANNULAR VOLUME WITH 4.5 INCH PRODUCTION CASING = 1930 CU.FT.

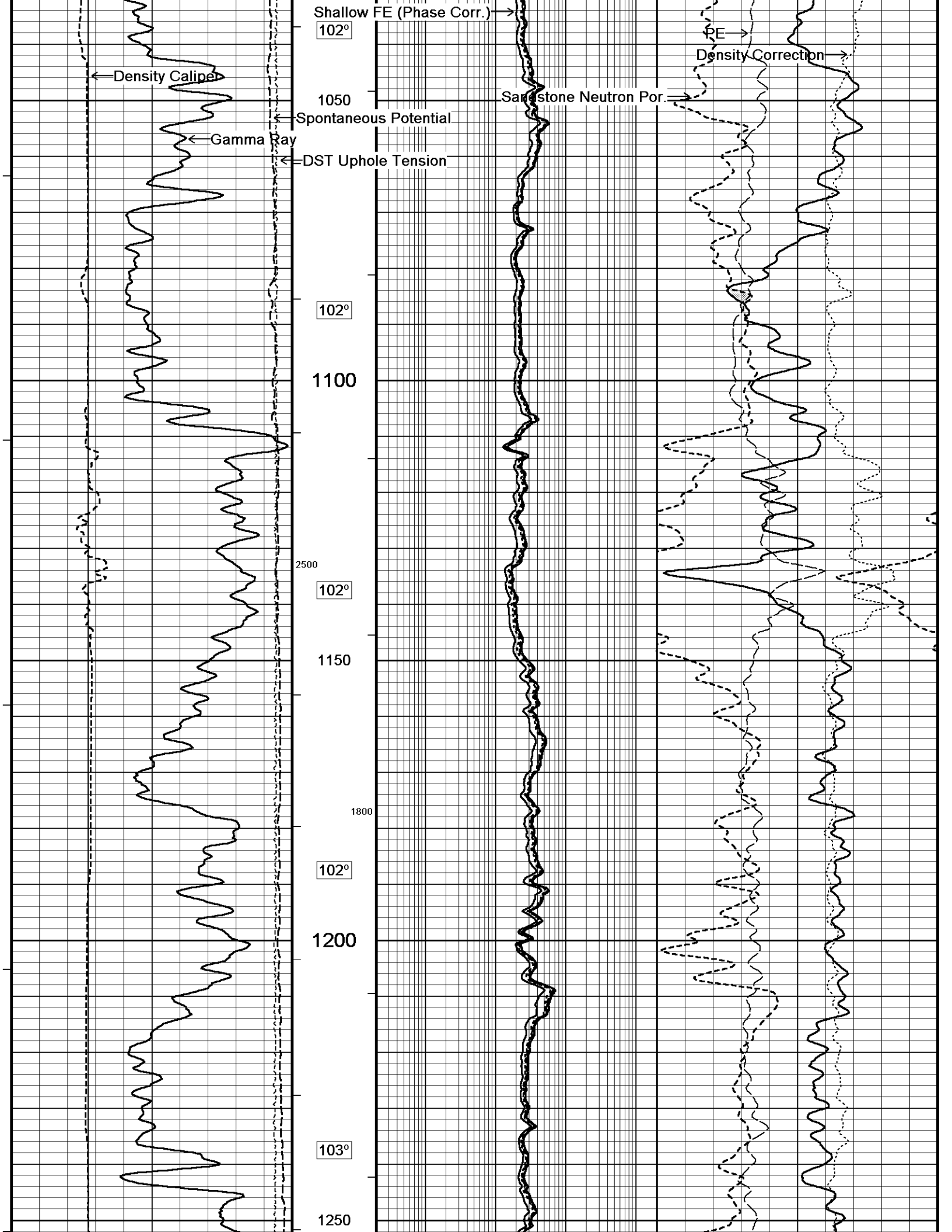
SERVICE ORDER: #3526209

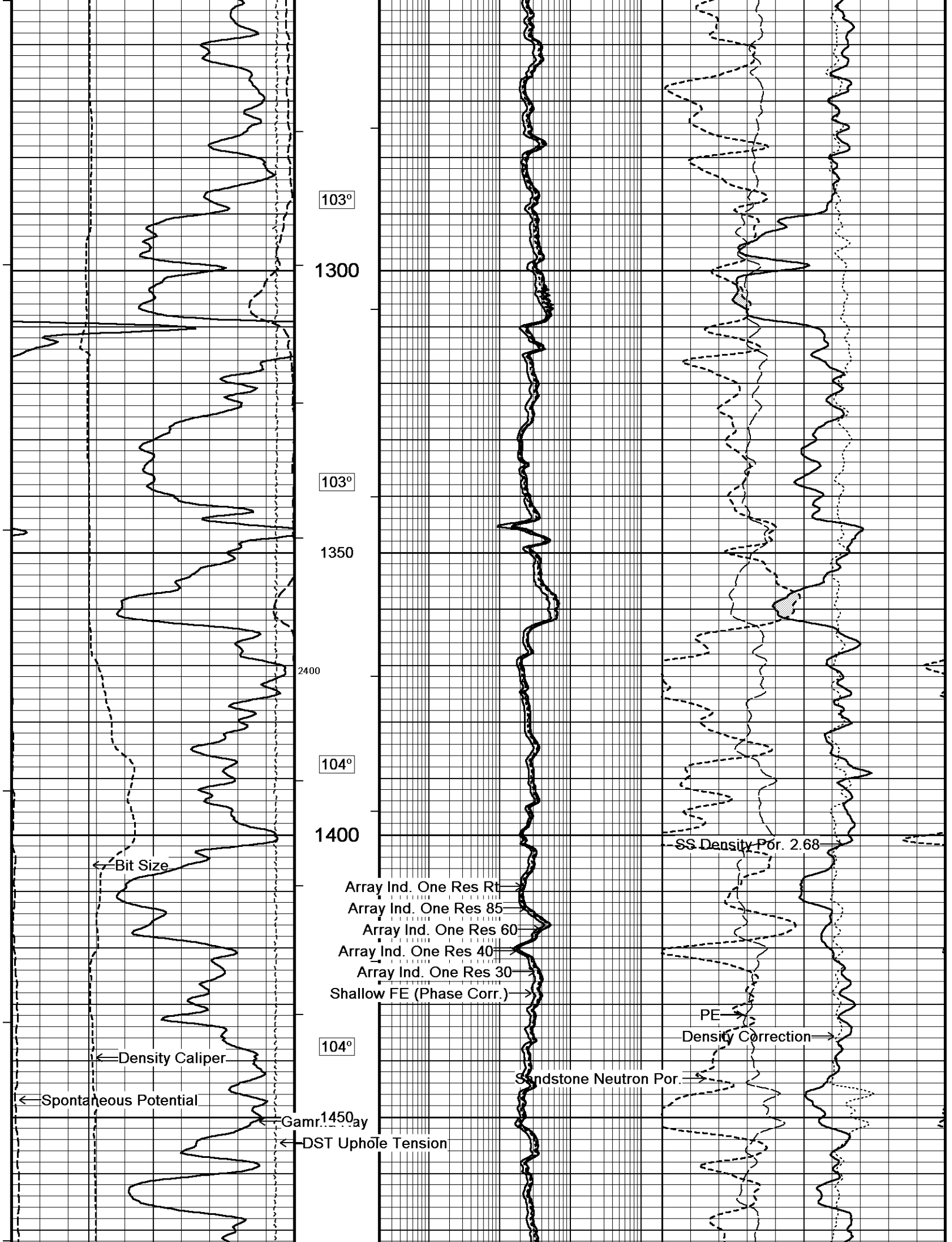
RIG: PATTERSON #313

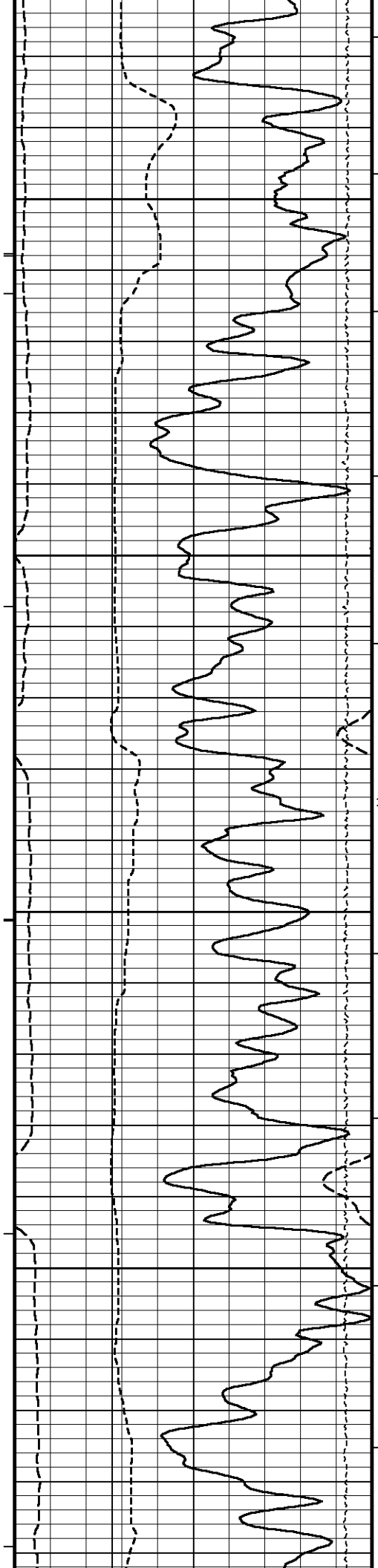
All interpretations are opinions based on inferences from electrical or other measurements and we cannot, and do not, guarantee the accuracy or correctness of any interpretations, and we shall not, except in the case of gross or wilful negligence on our part, be liable or responsible for any loss, costs,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





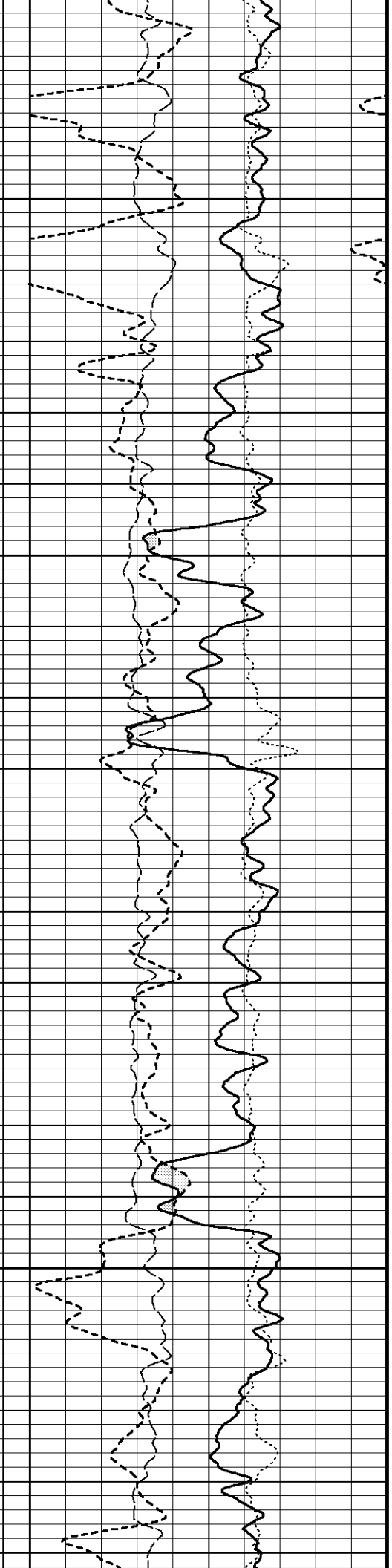
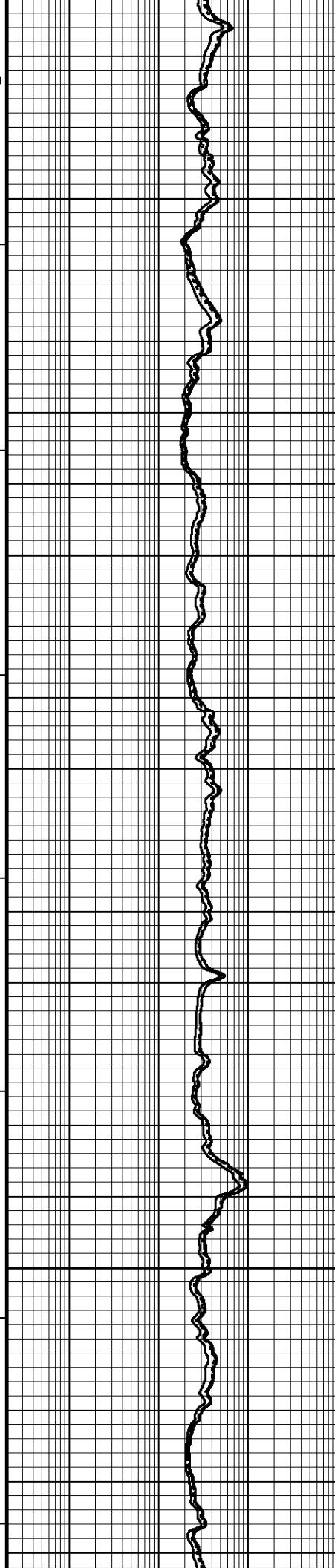


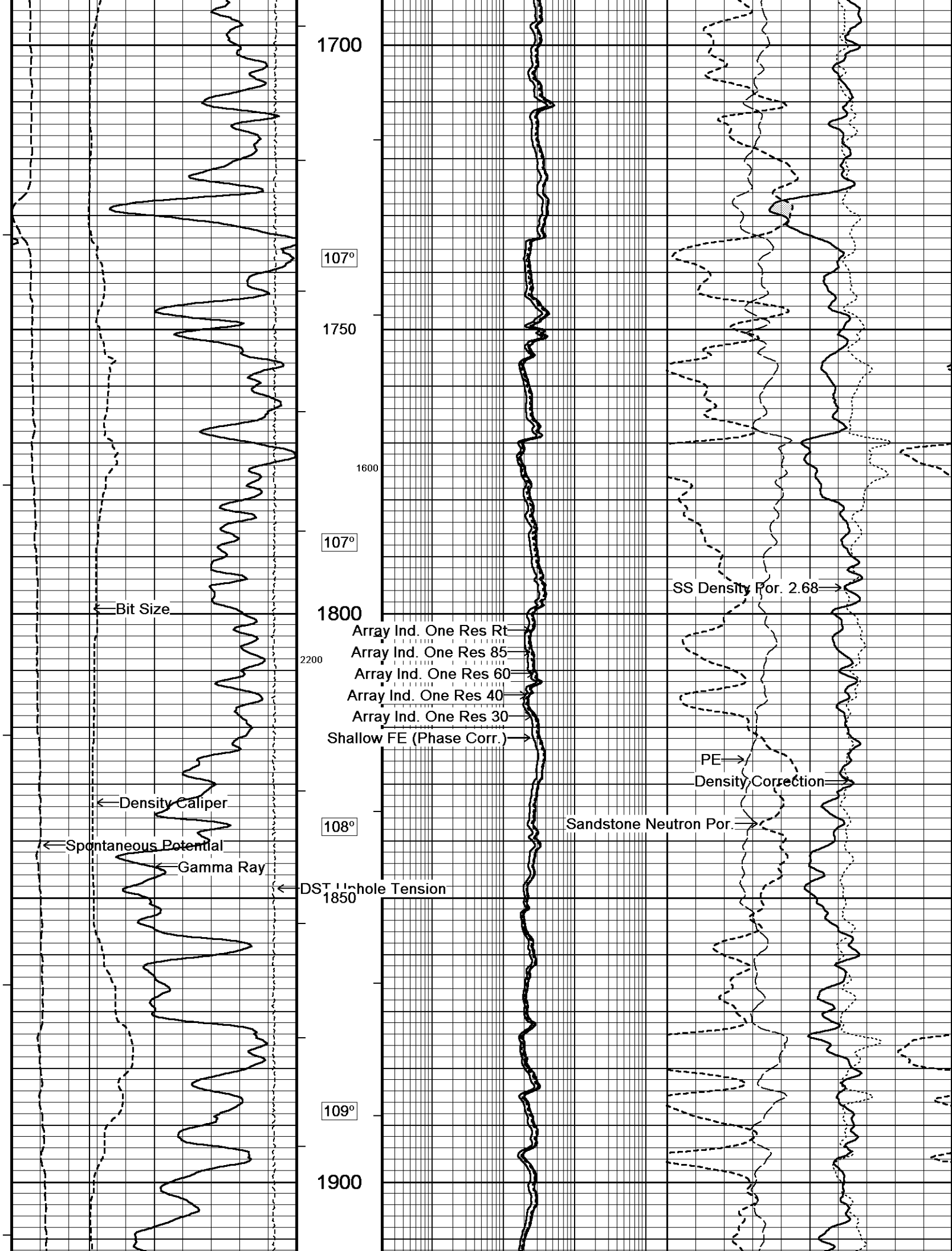


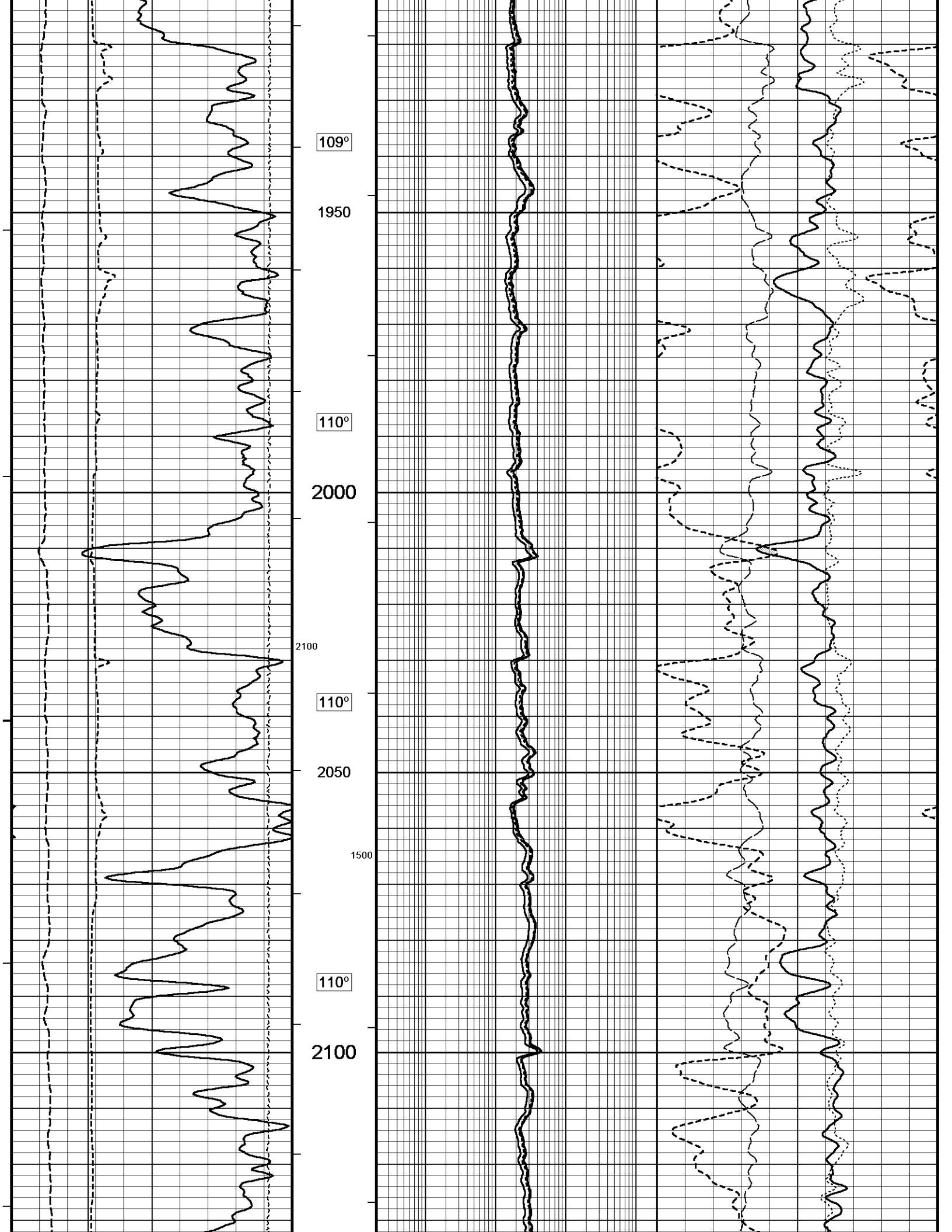


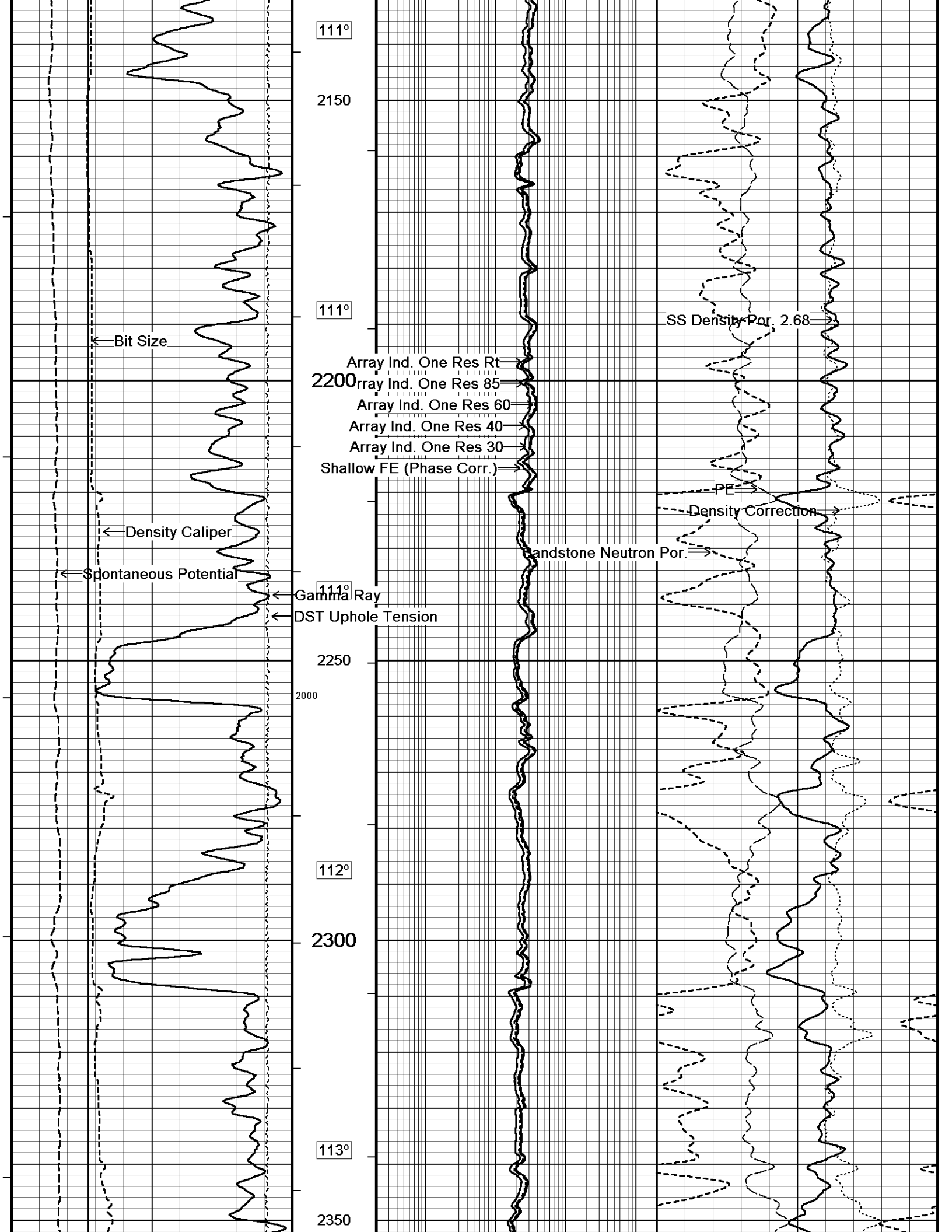
1700
105°
1500
105°
1550
2300
105°
1600

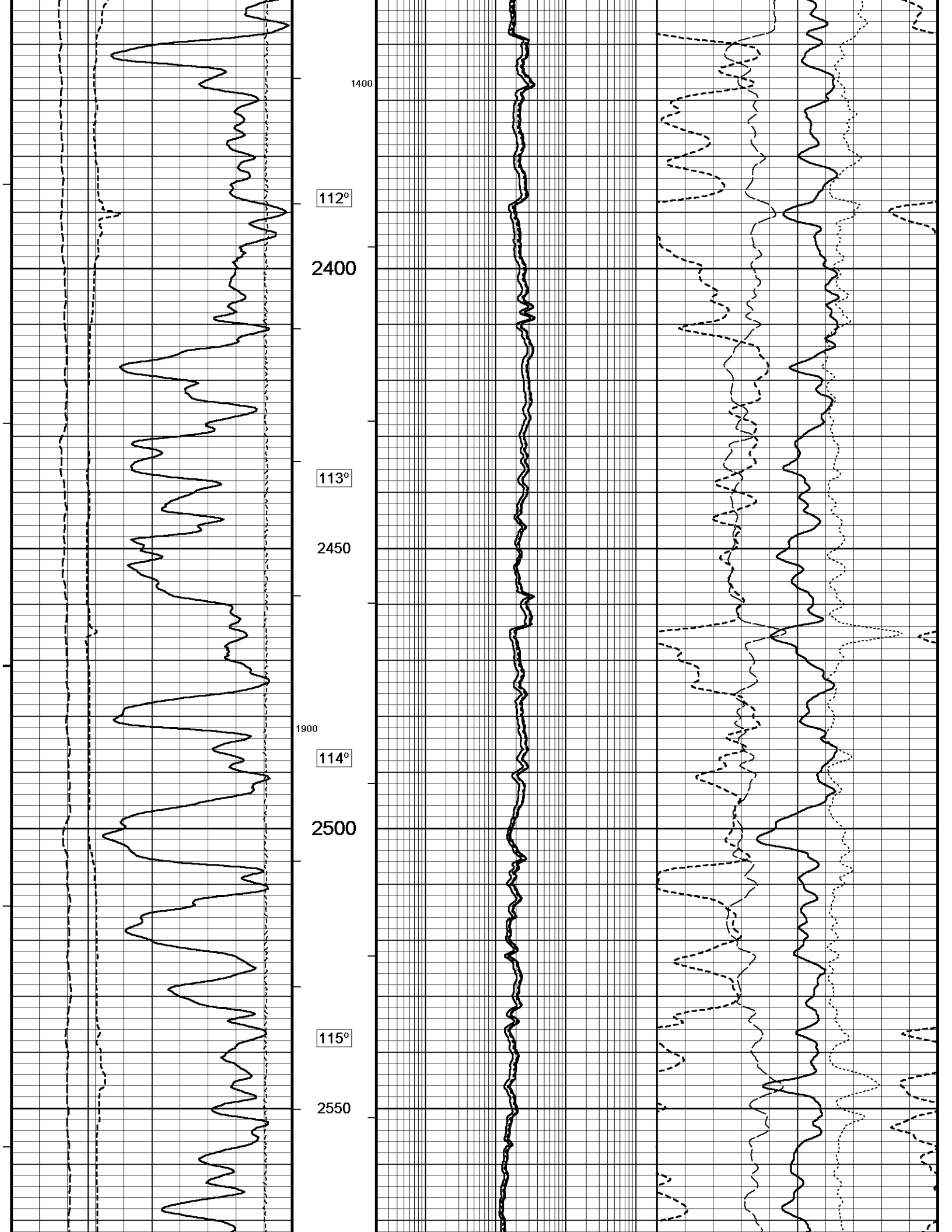
106°
1650
106°

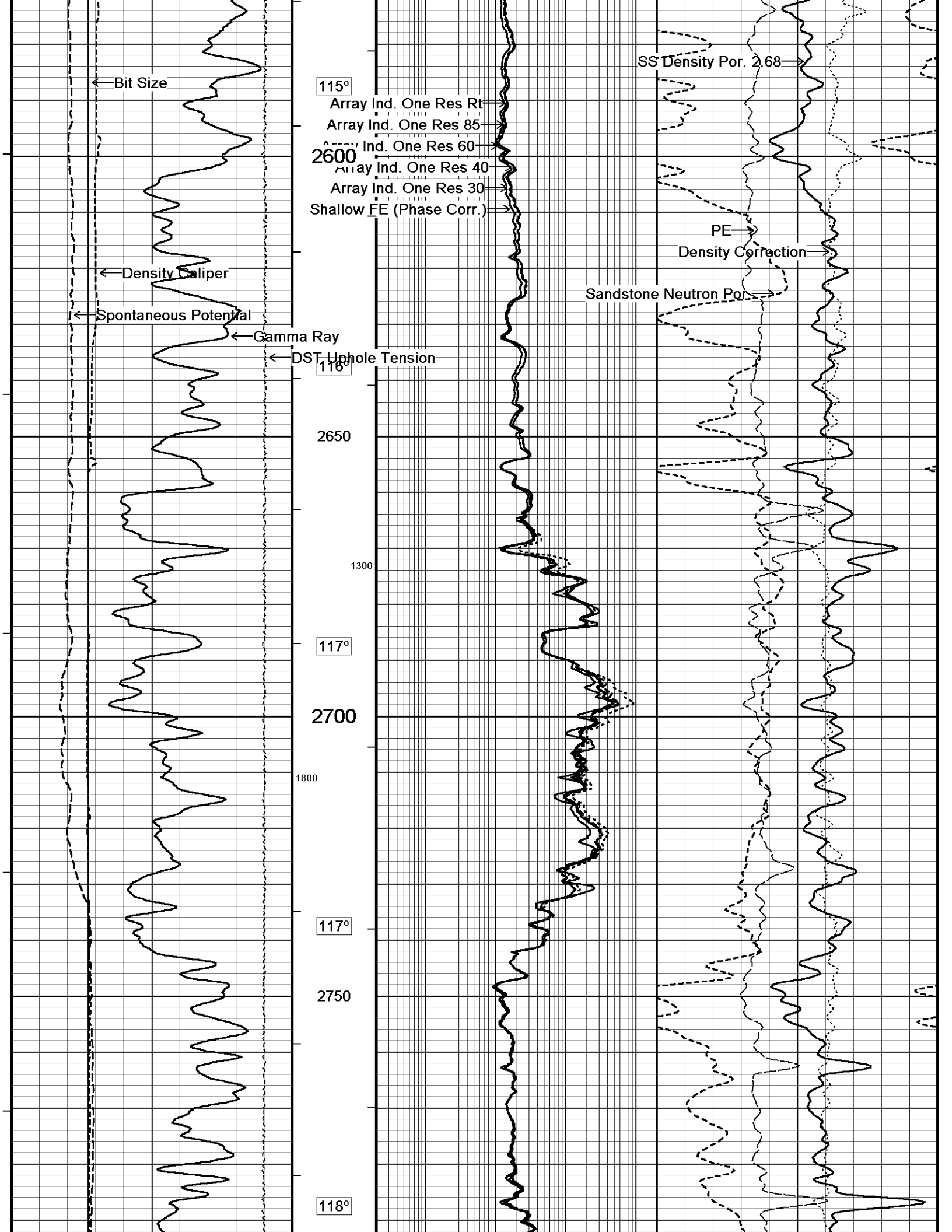


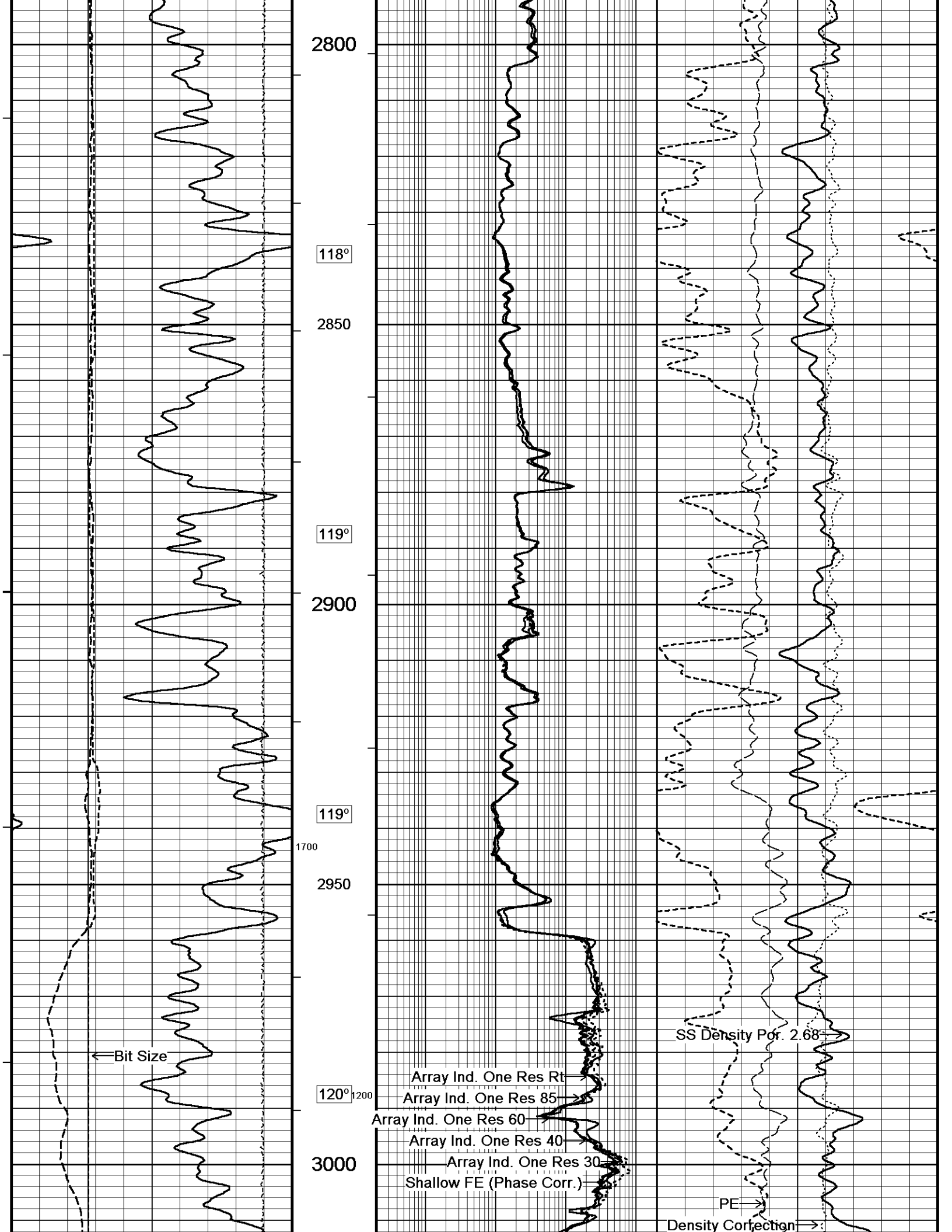


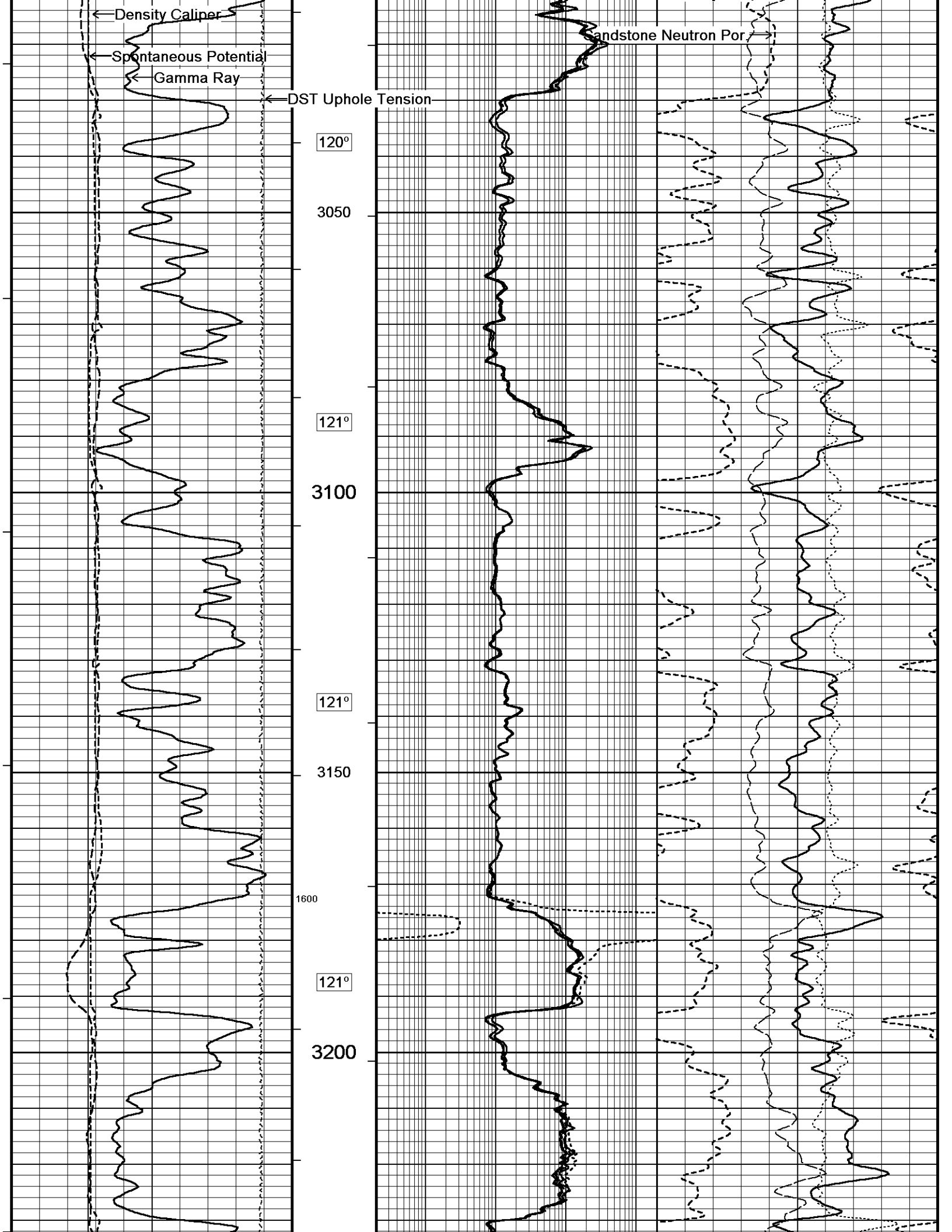


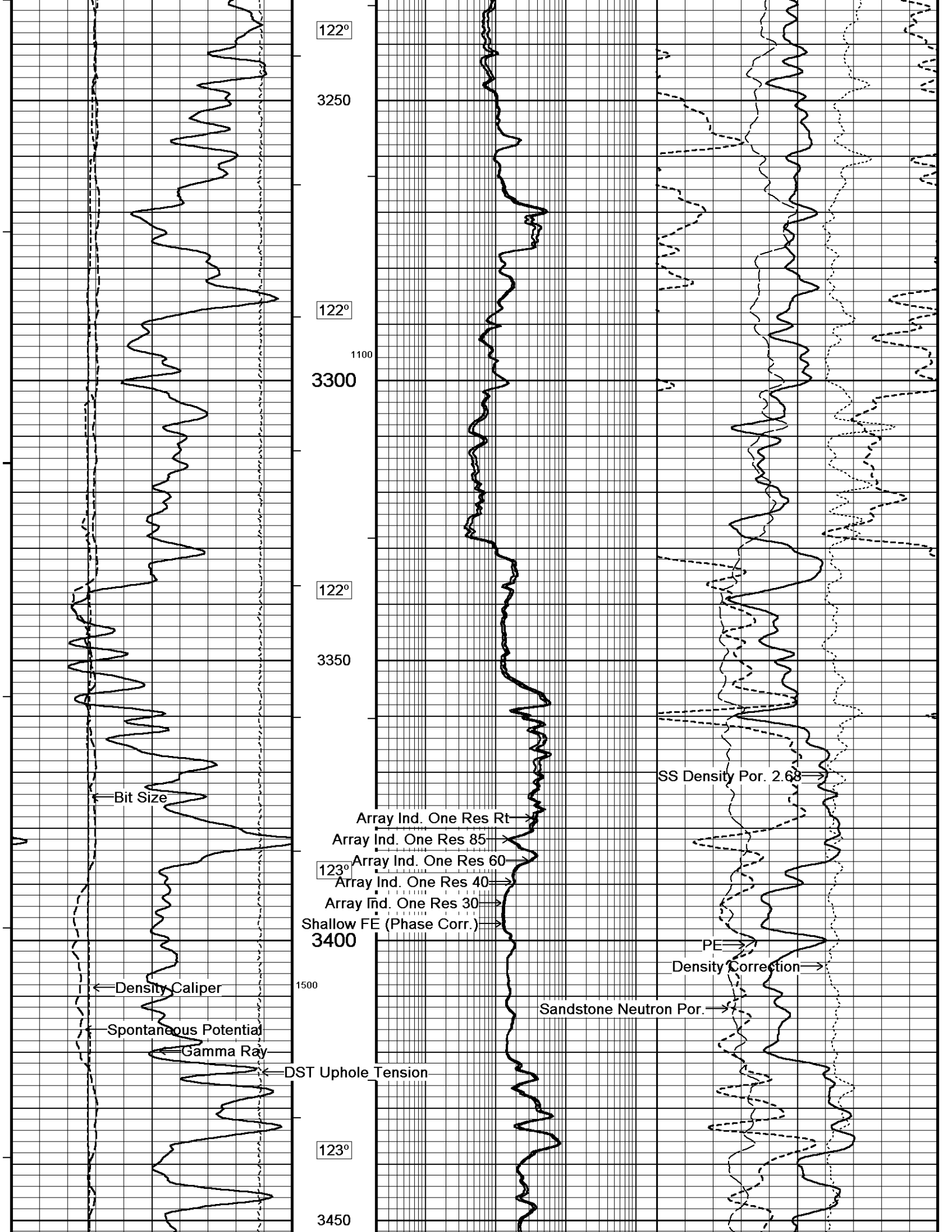


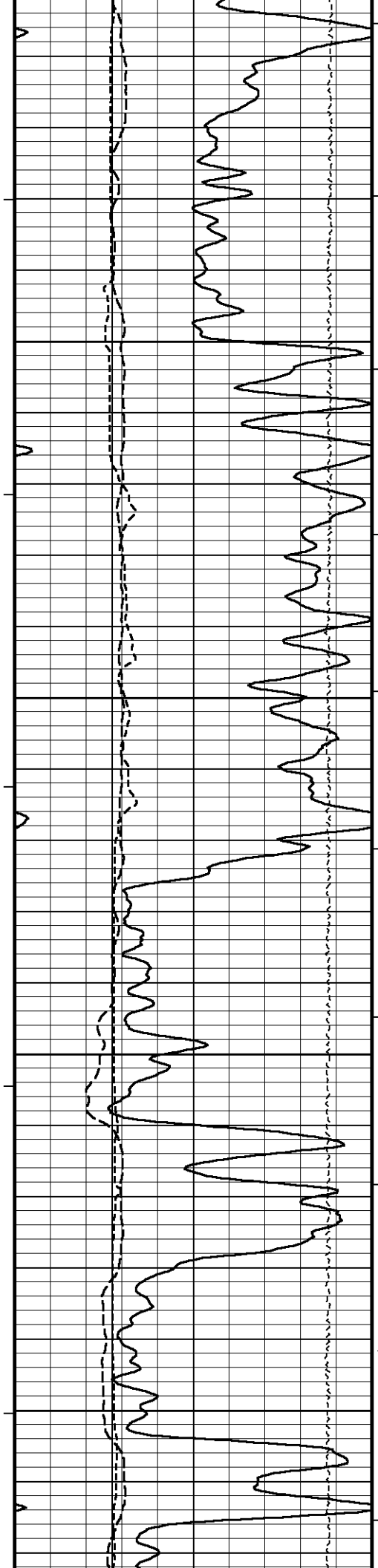












124°

3500

124°

3550

125°

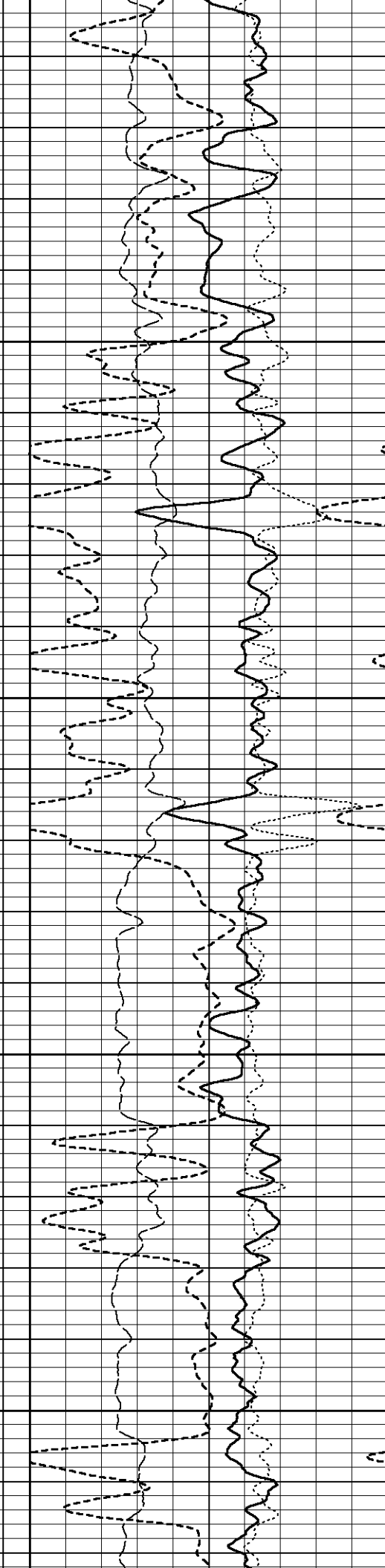
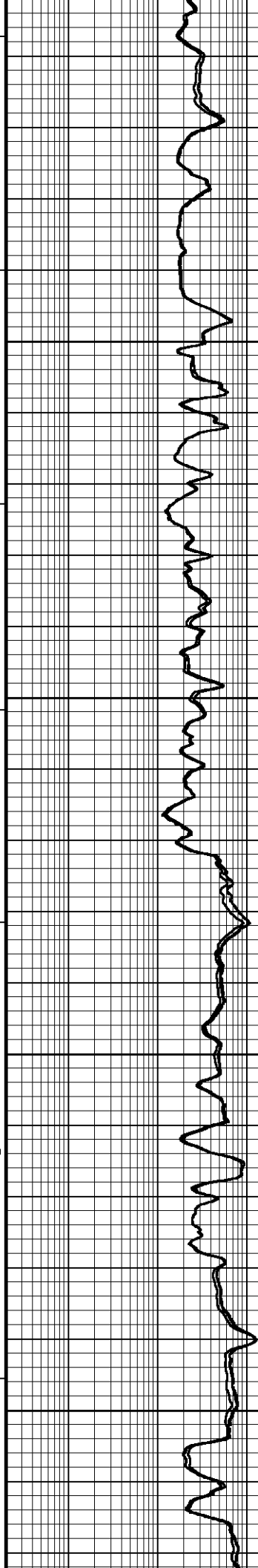
3600

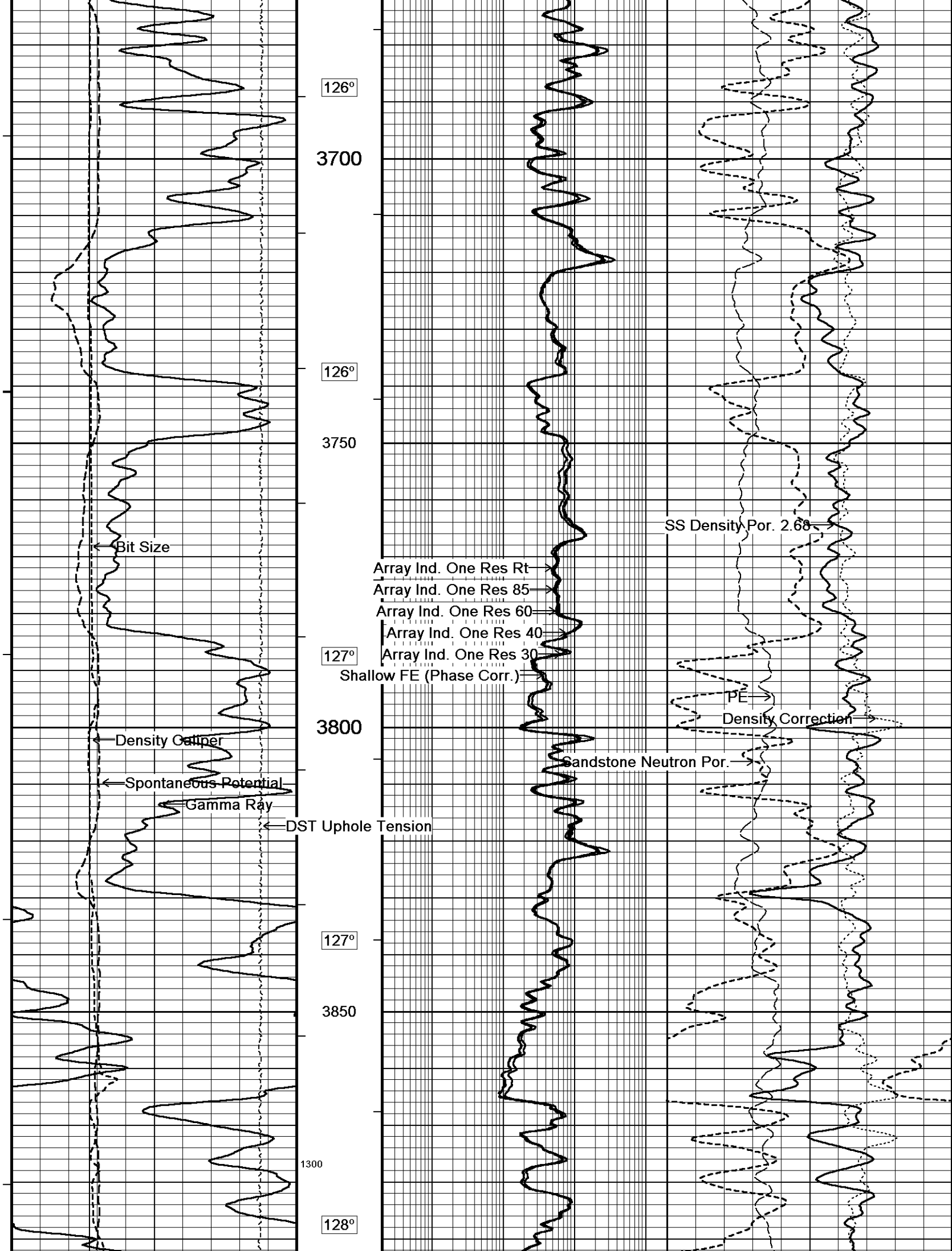
1000

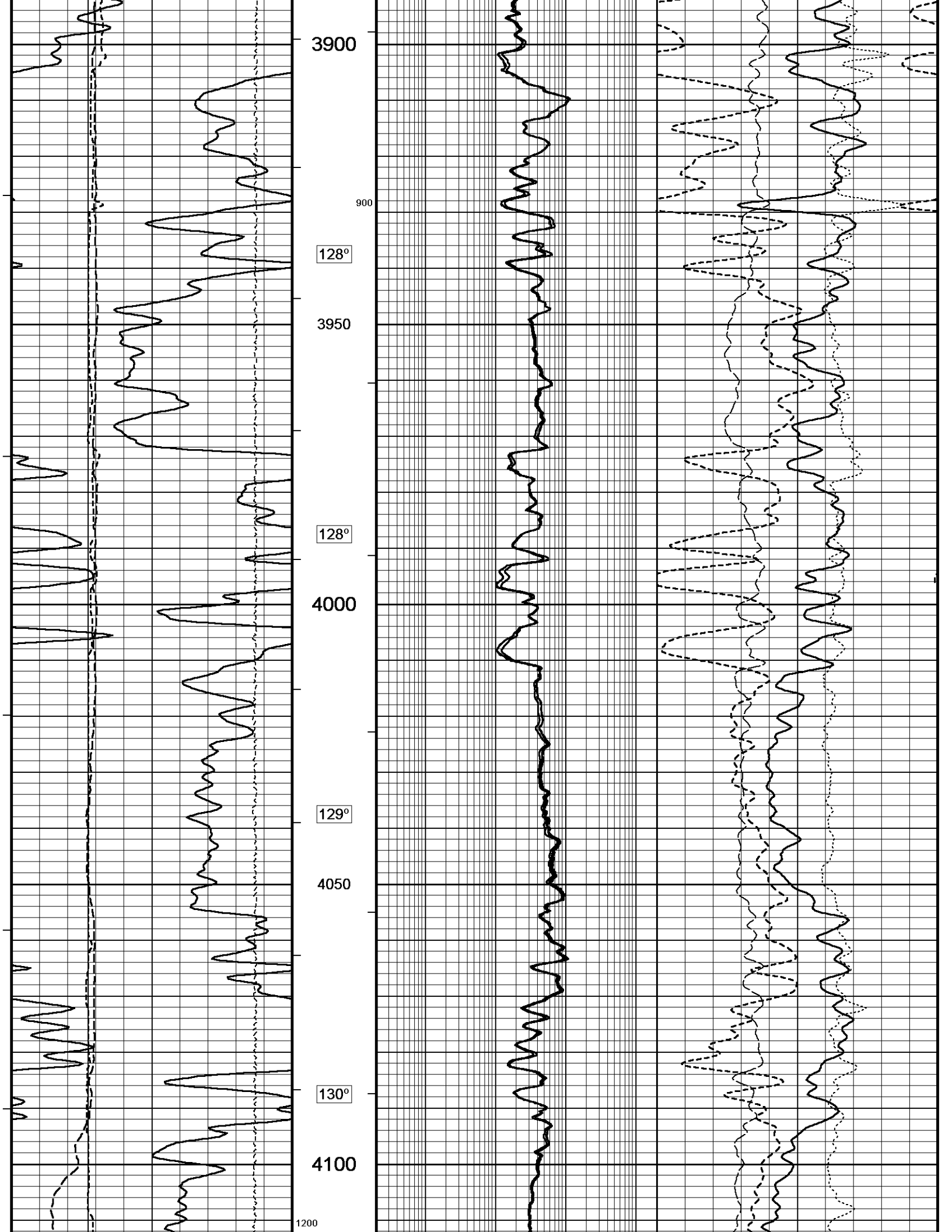
125°

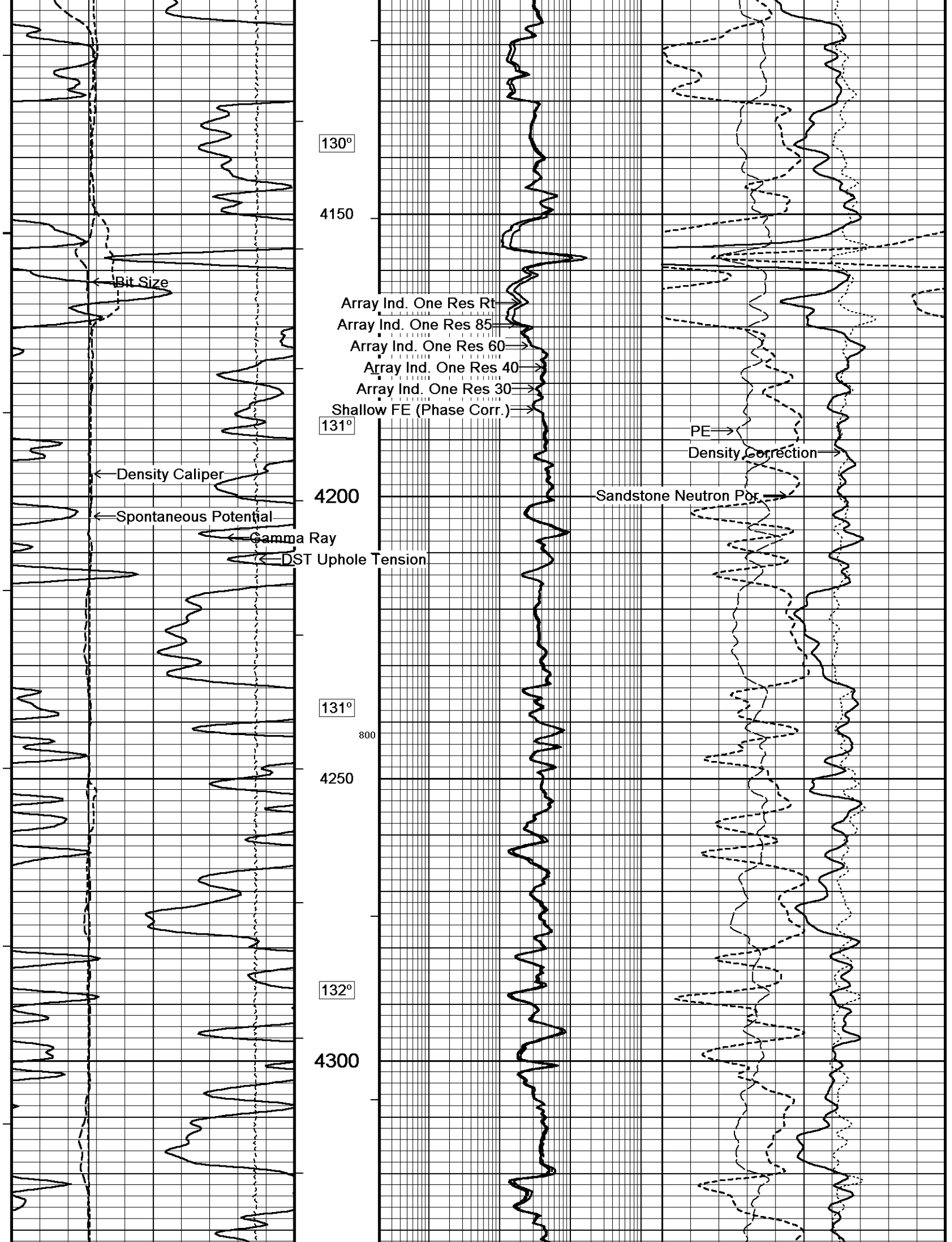
1400

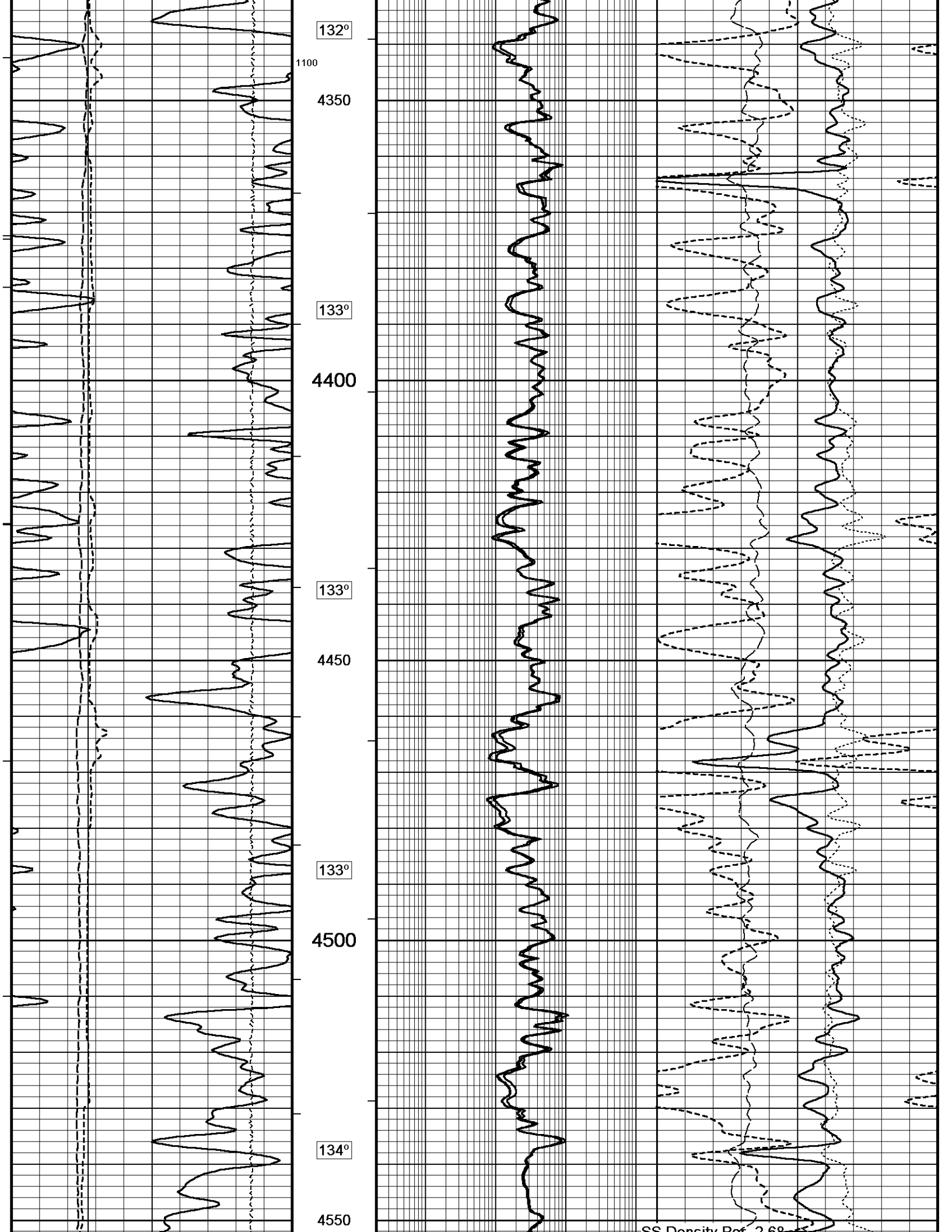
3650

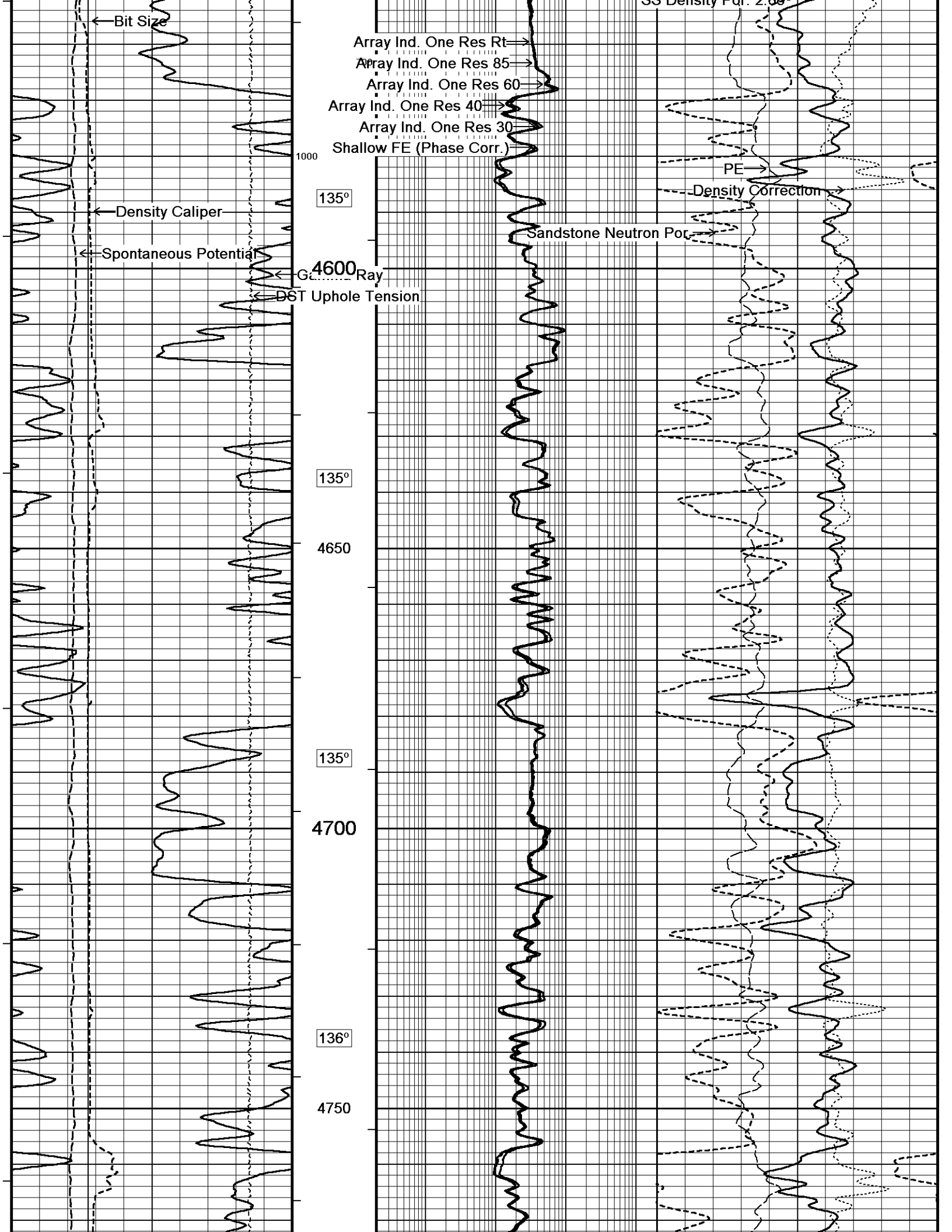


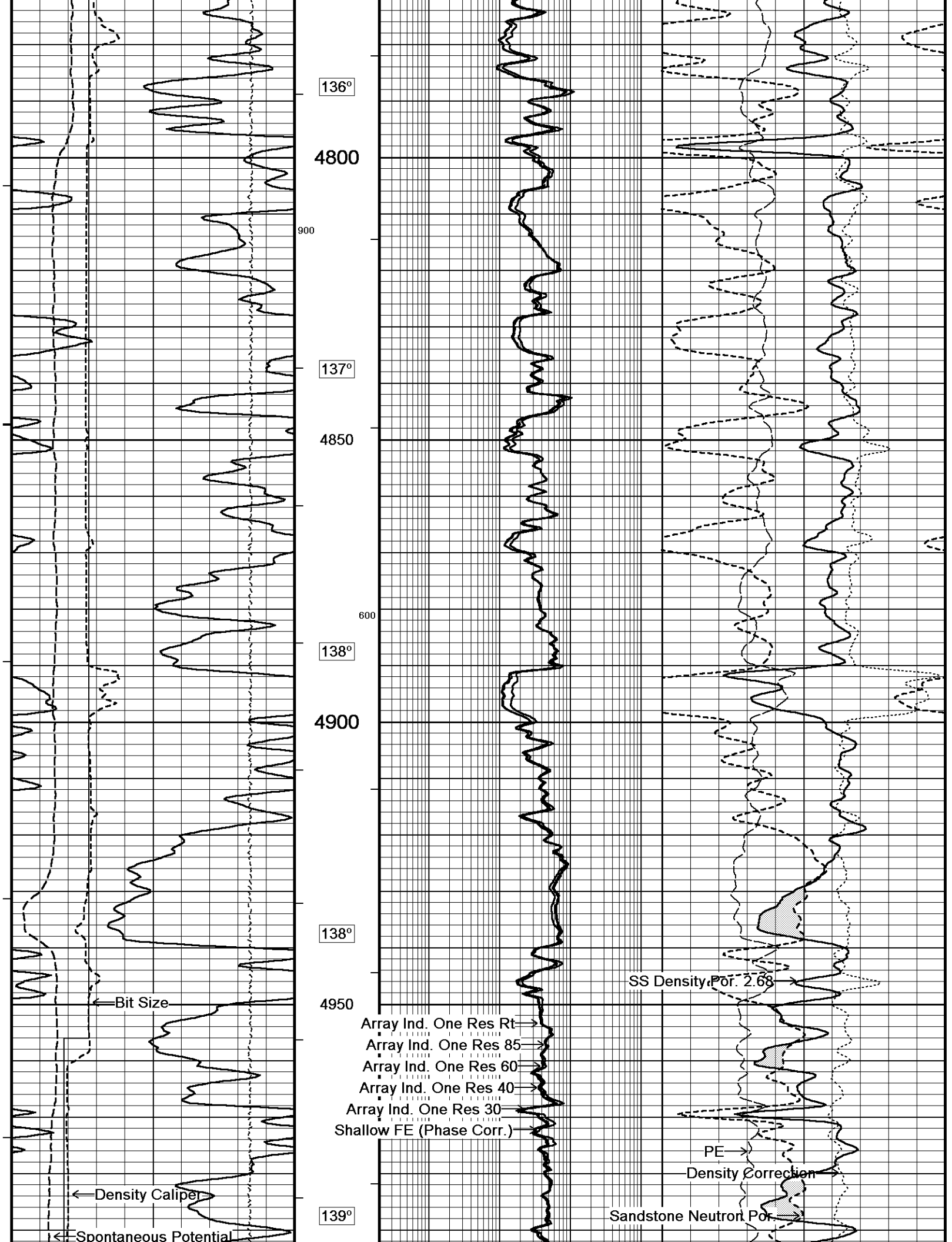


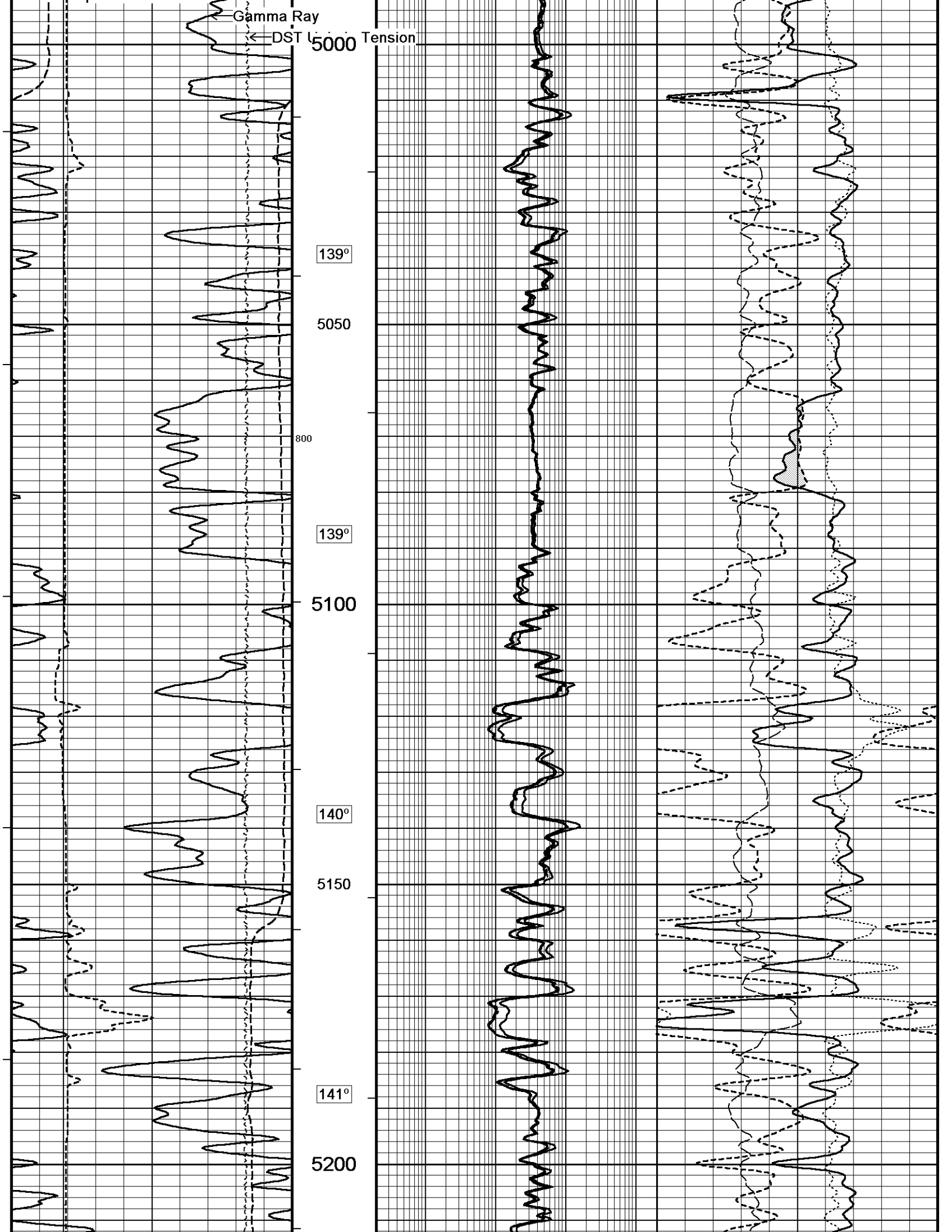


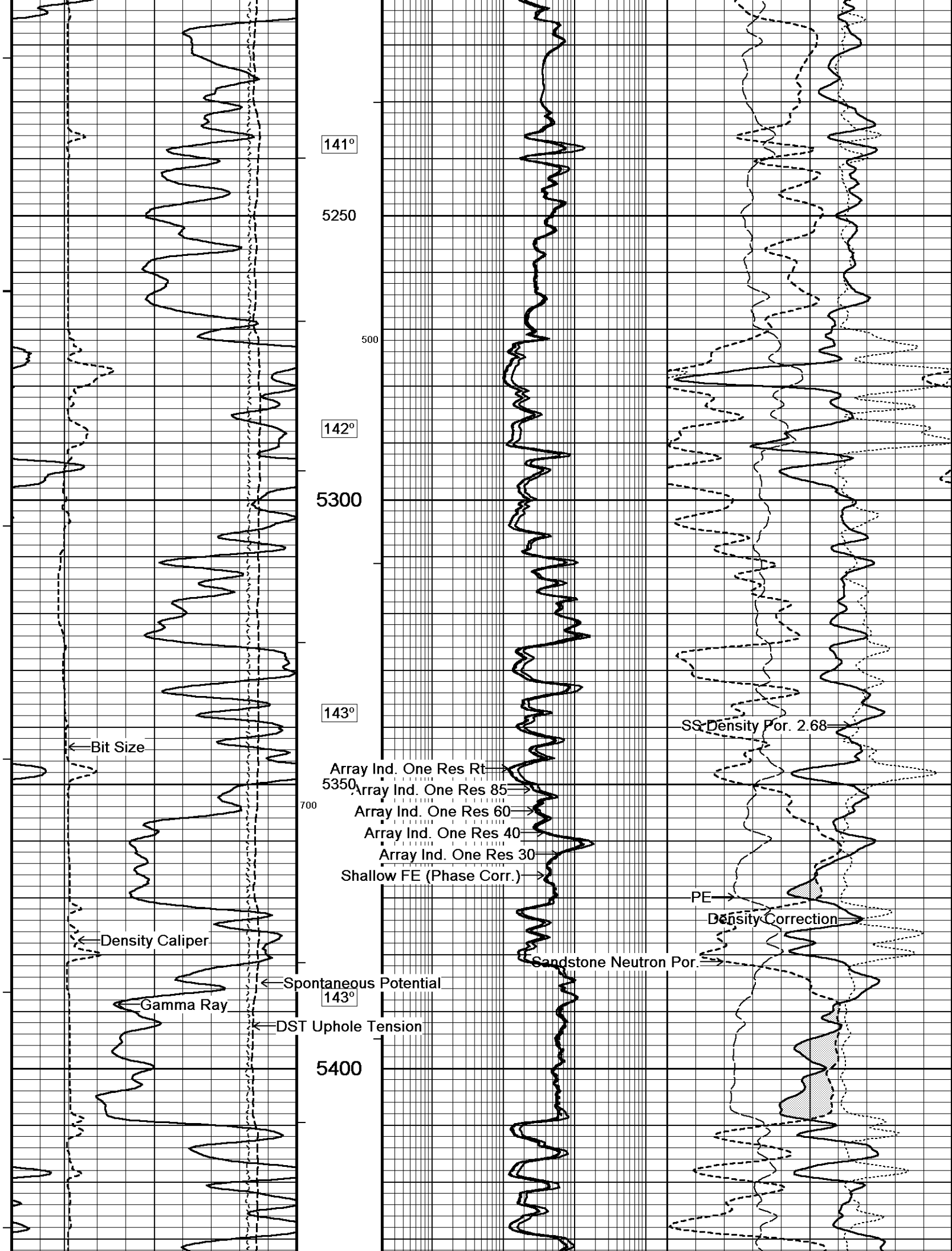


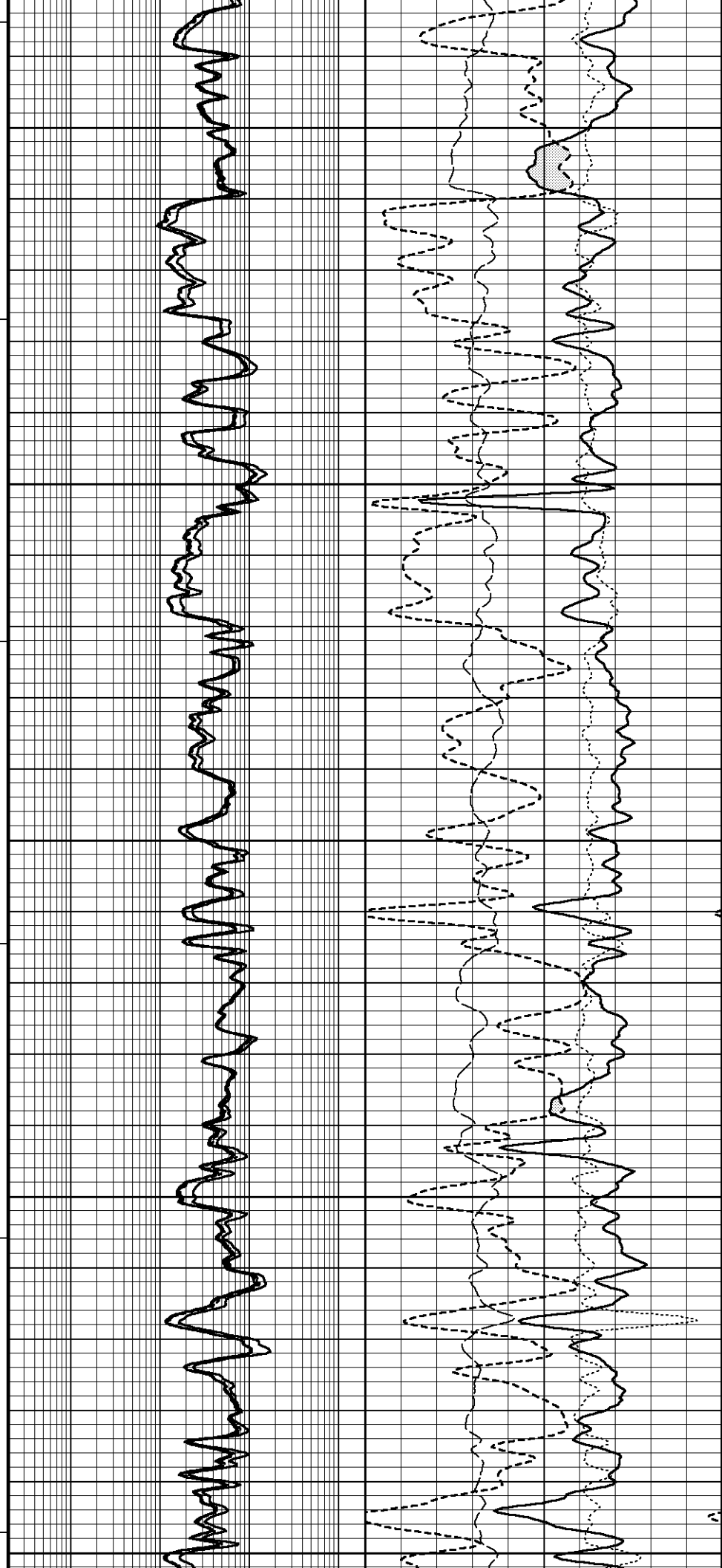
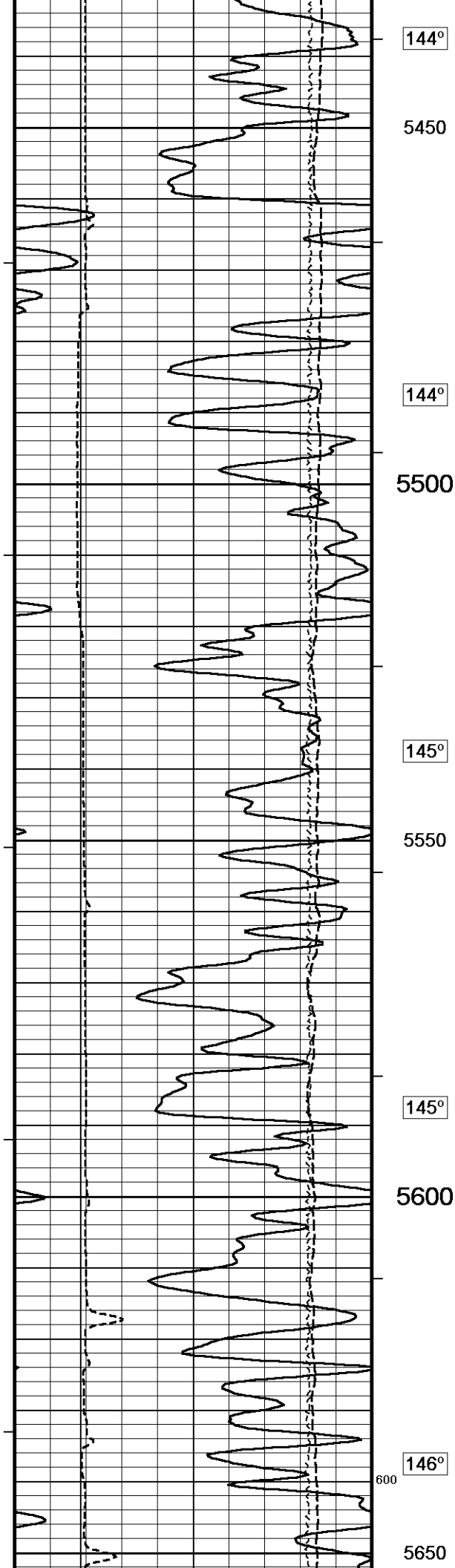


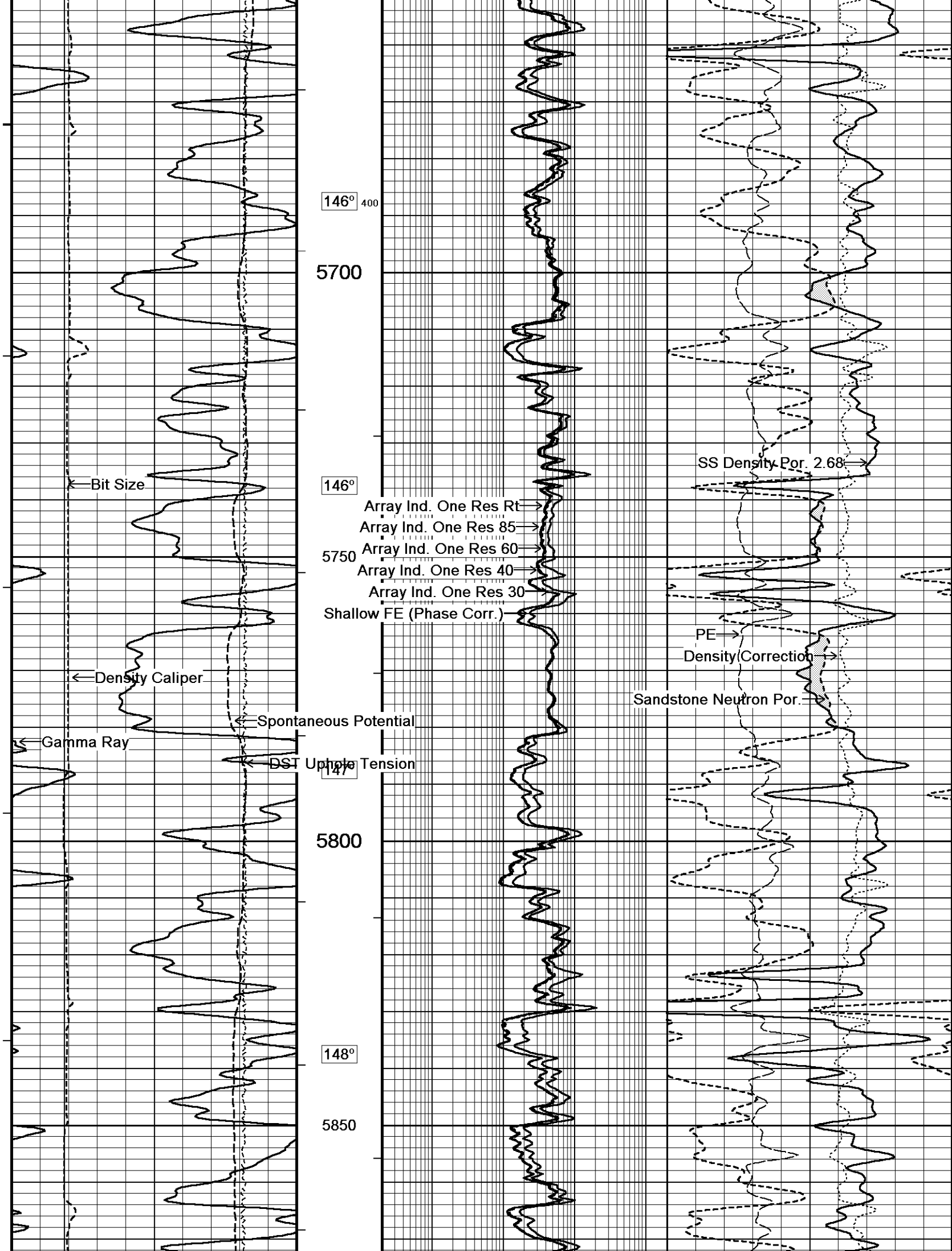


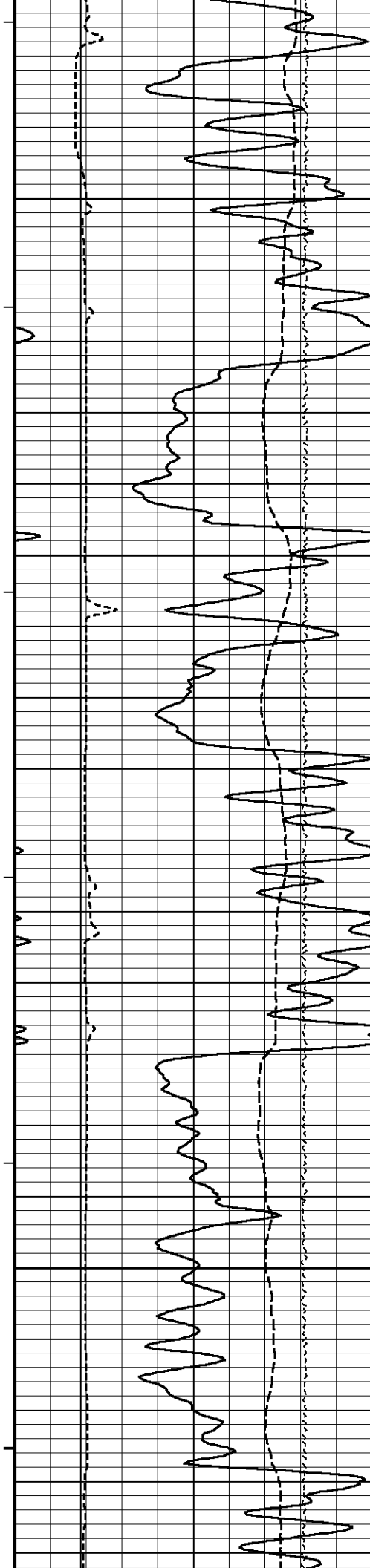




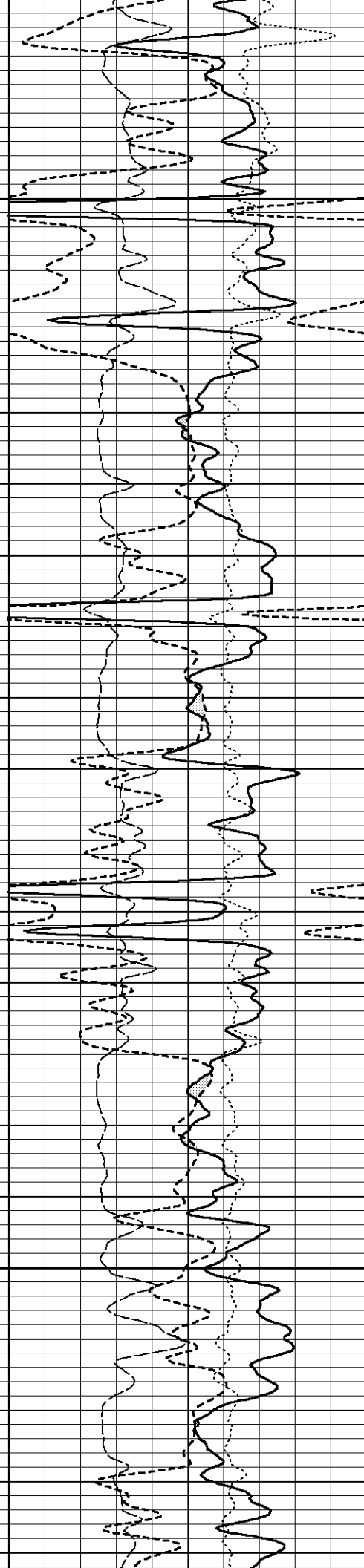
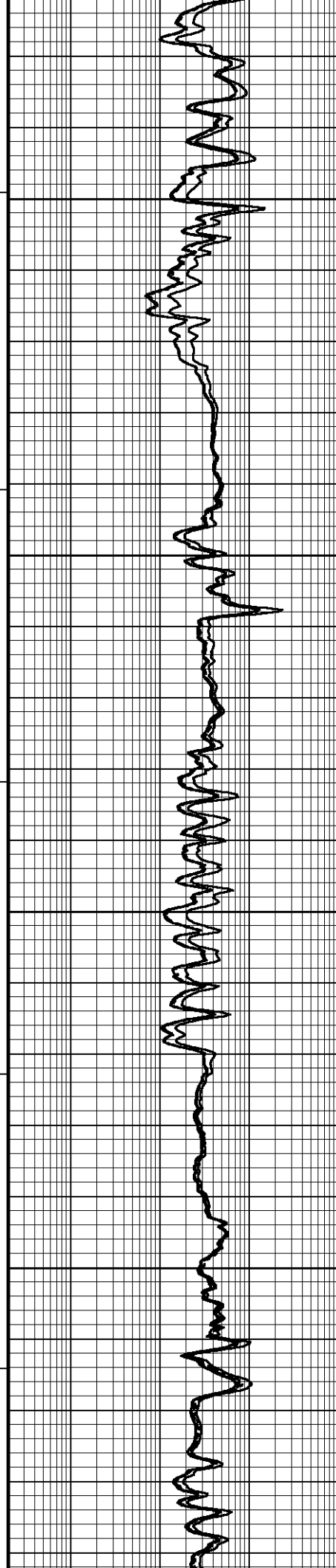


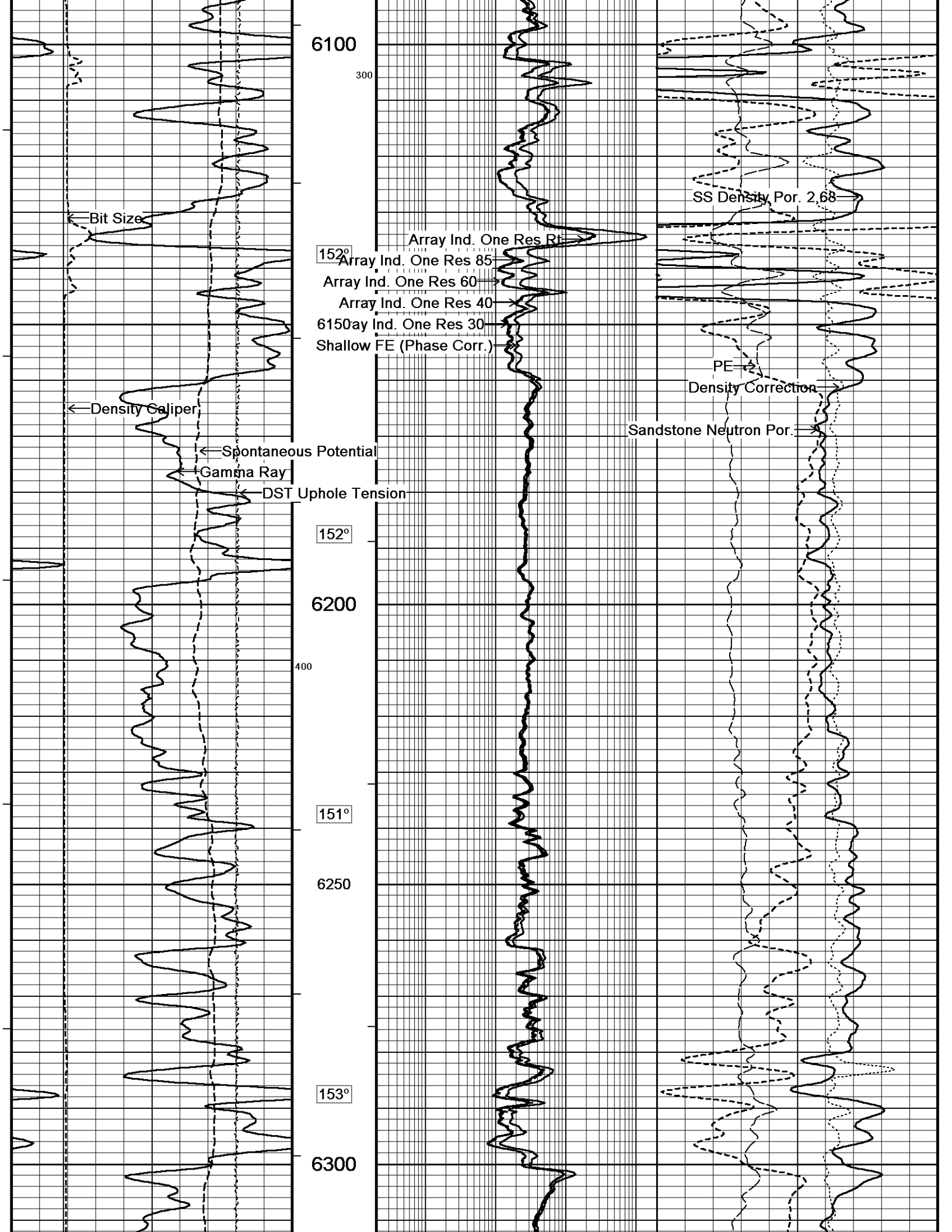


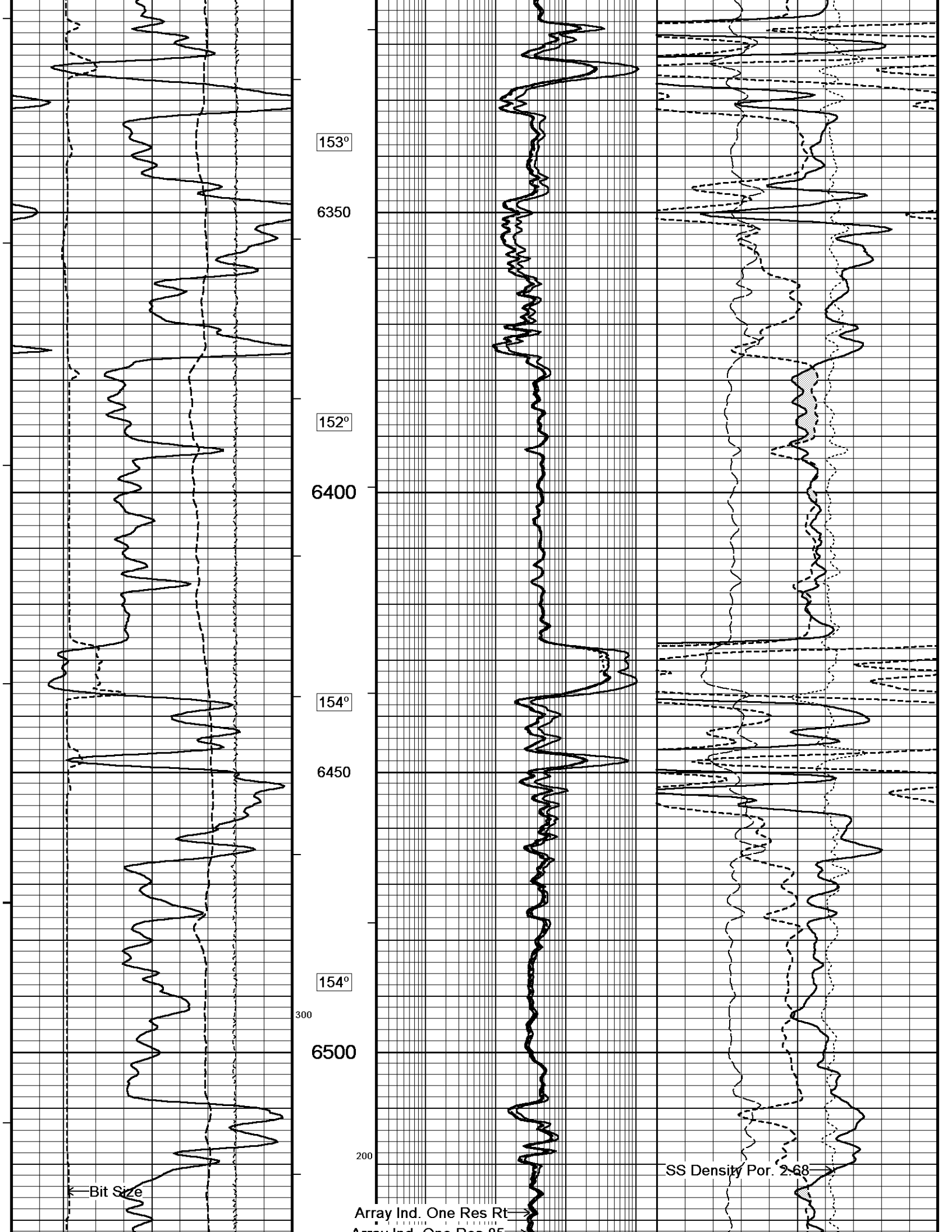


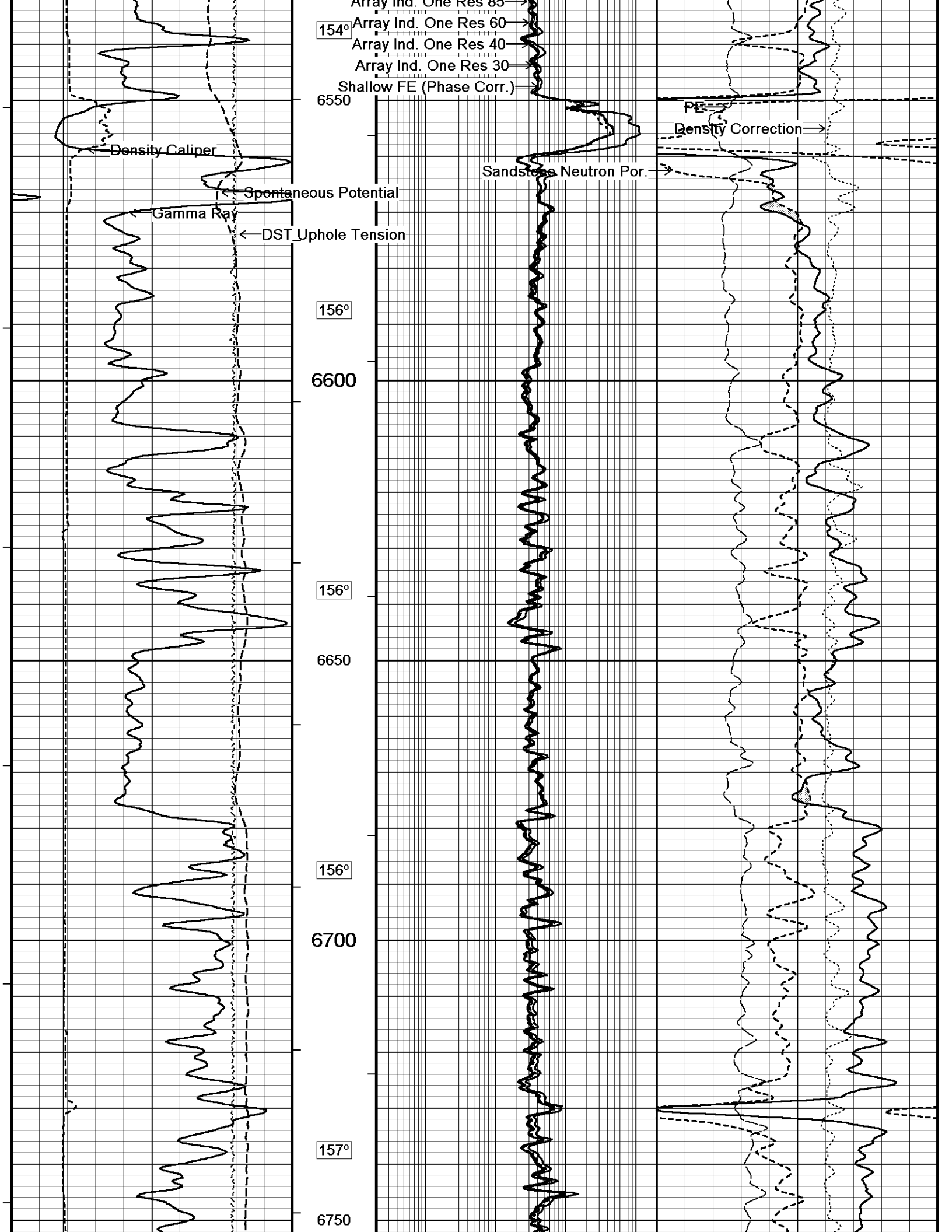


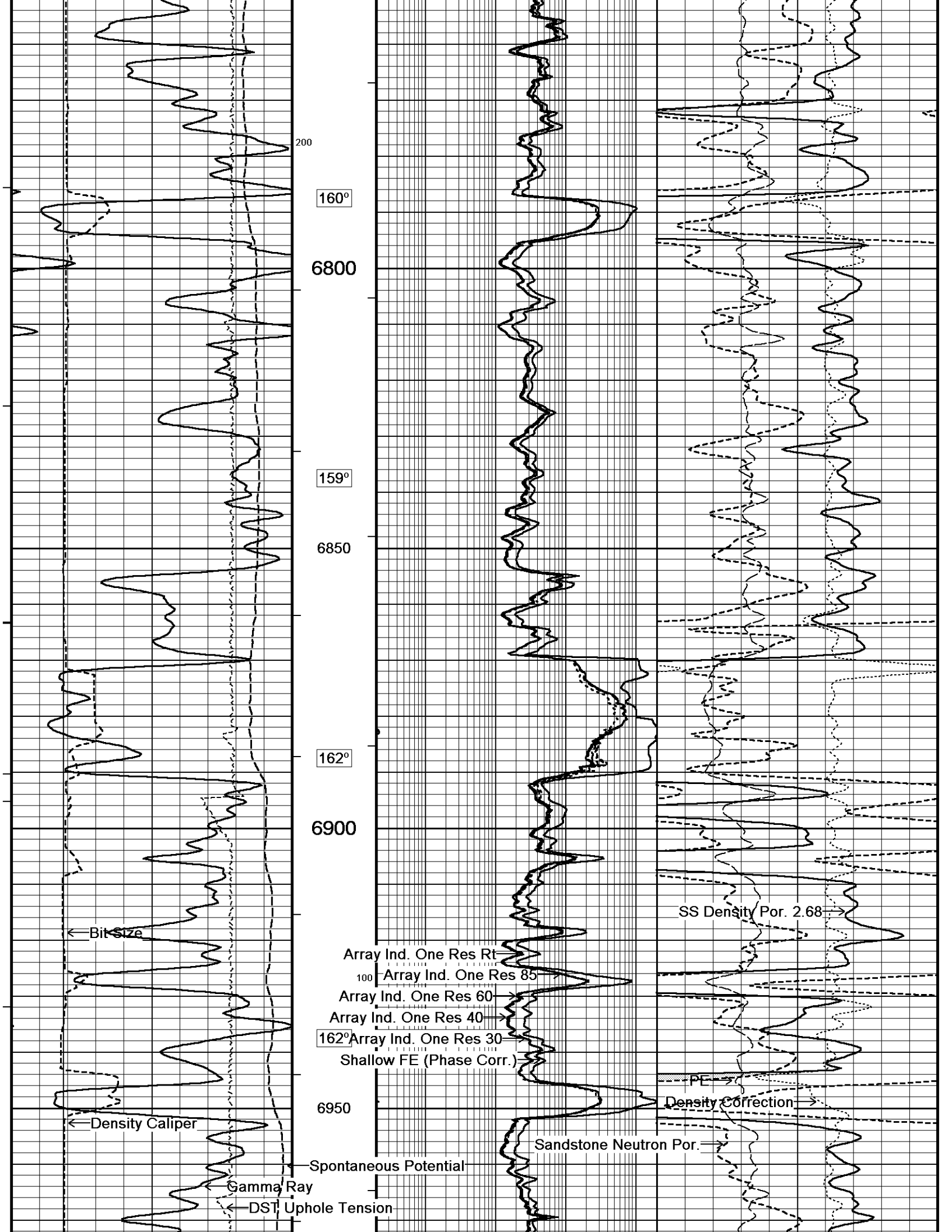
149°
5900
500
150°
5950
151°
6000
151°
6050
151°

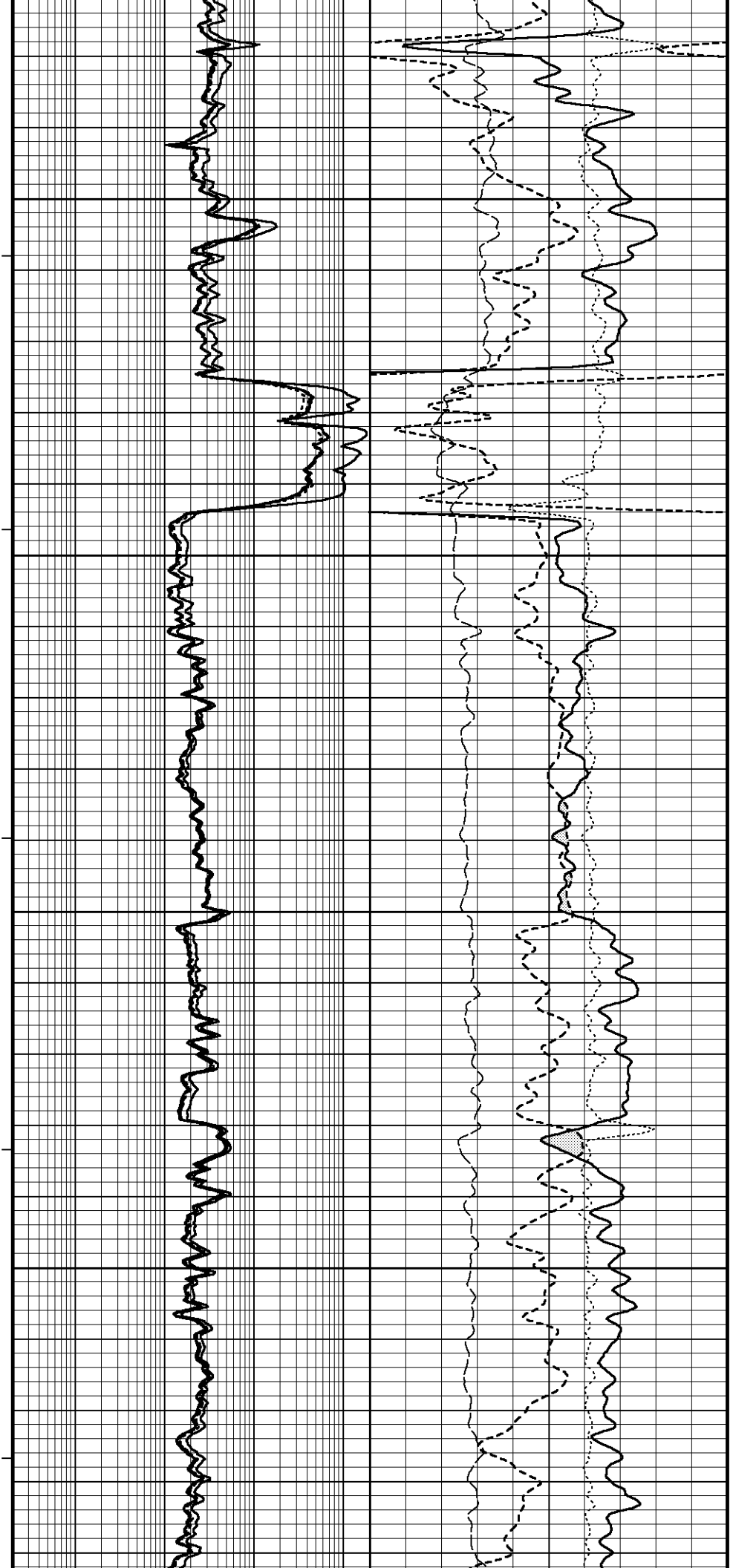
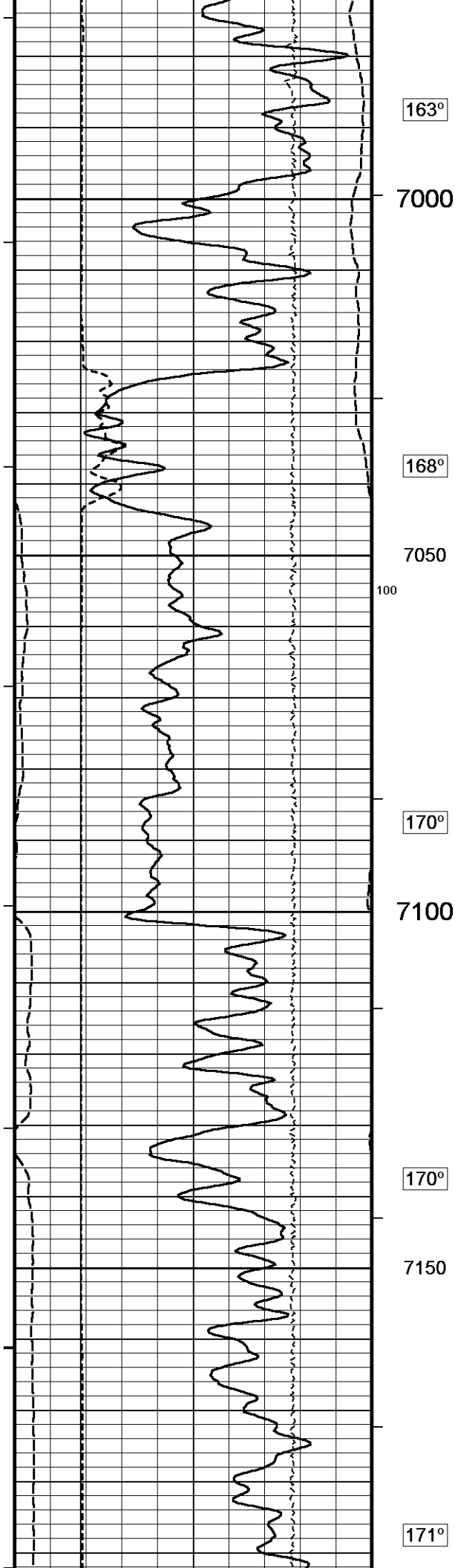


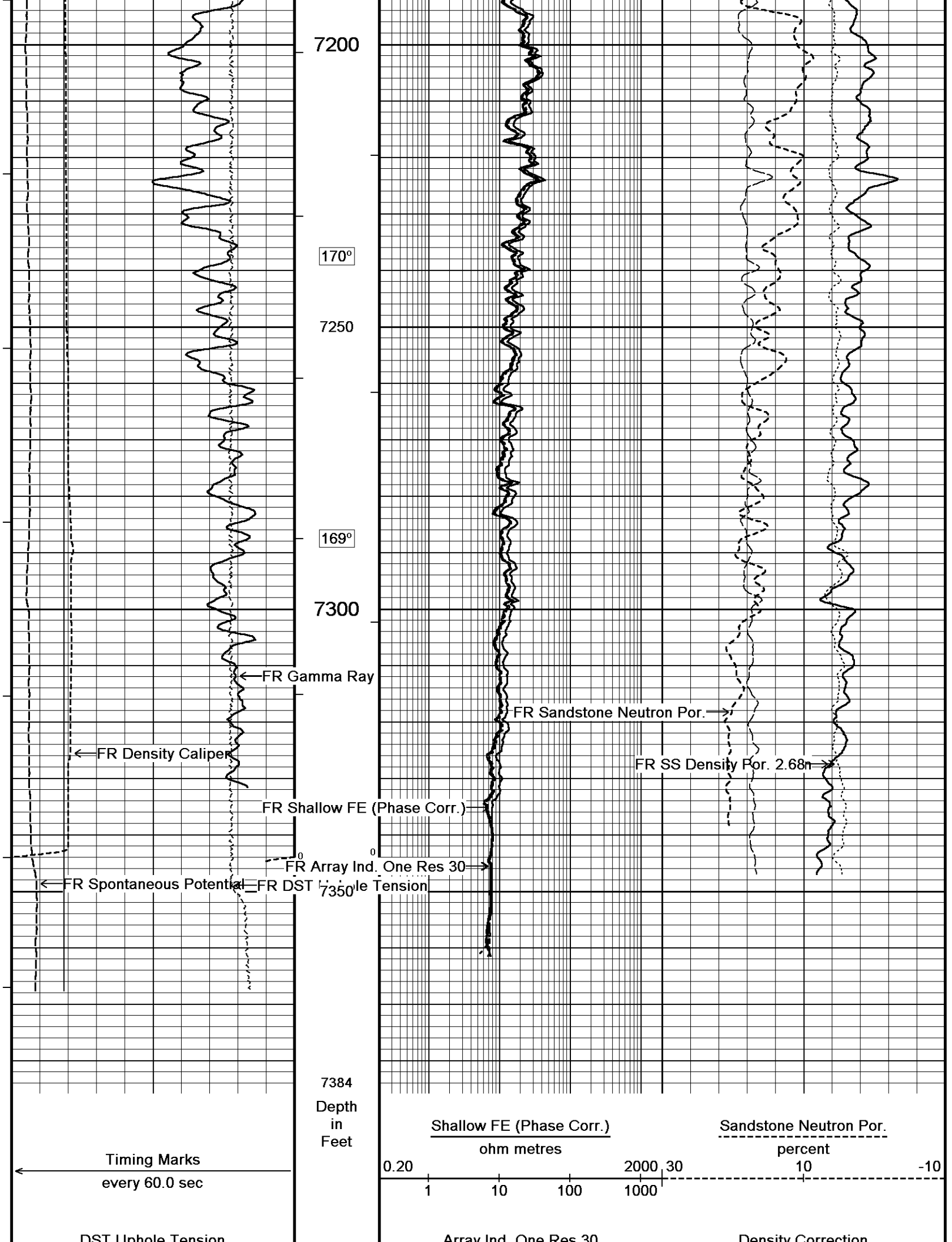


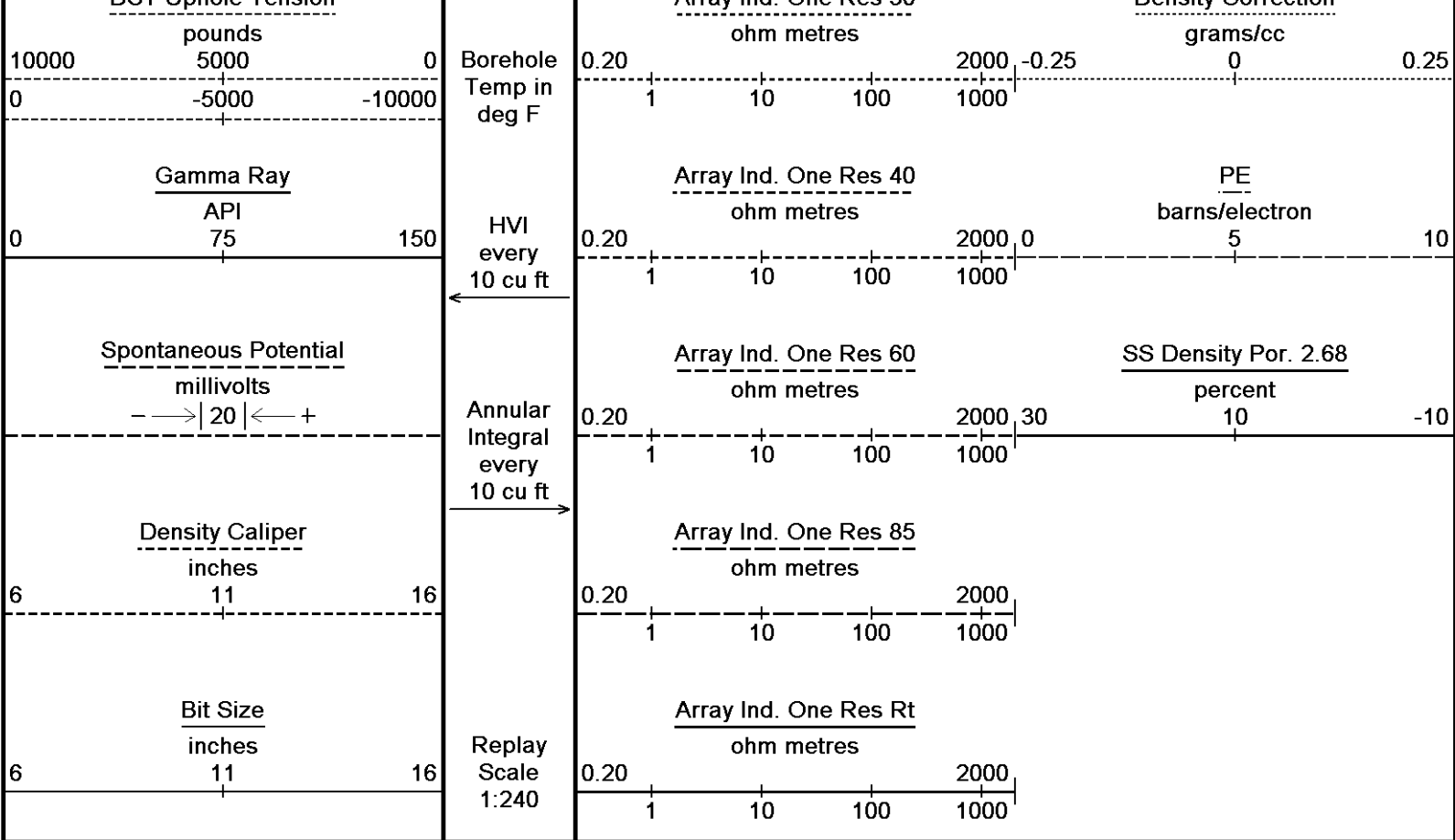












Depth Based Data - Maximum Sampling Increment 10.0cm

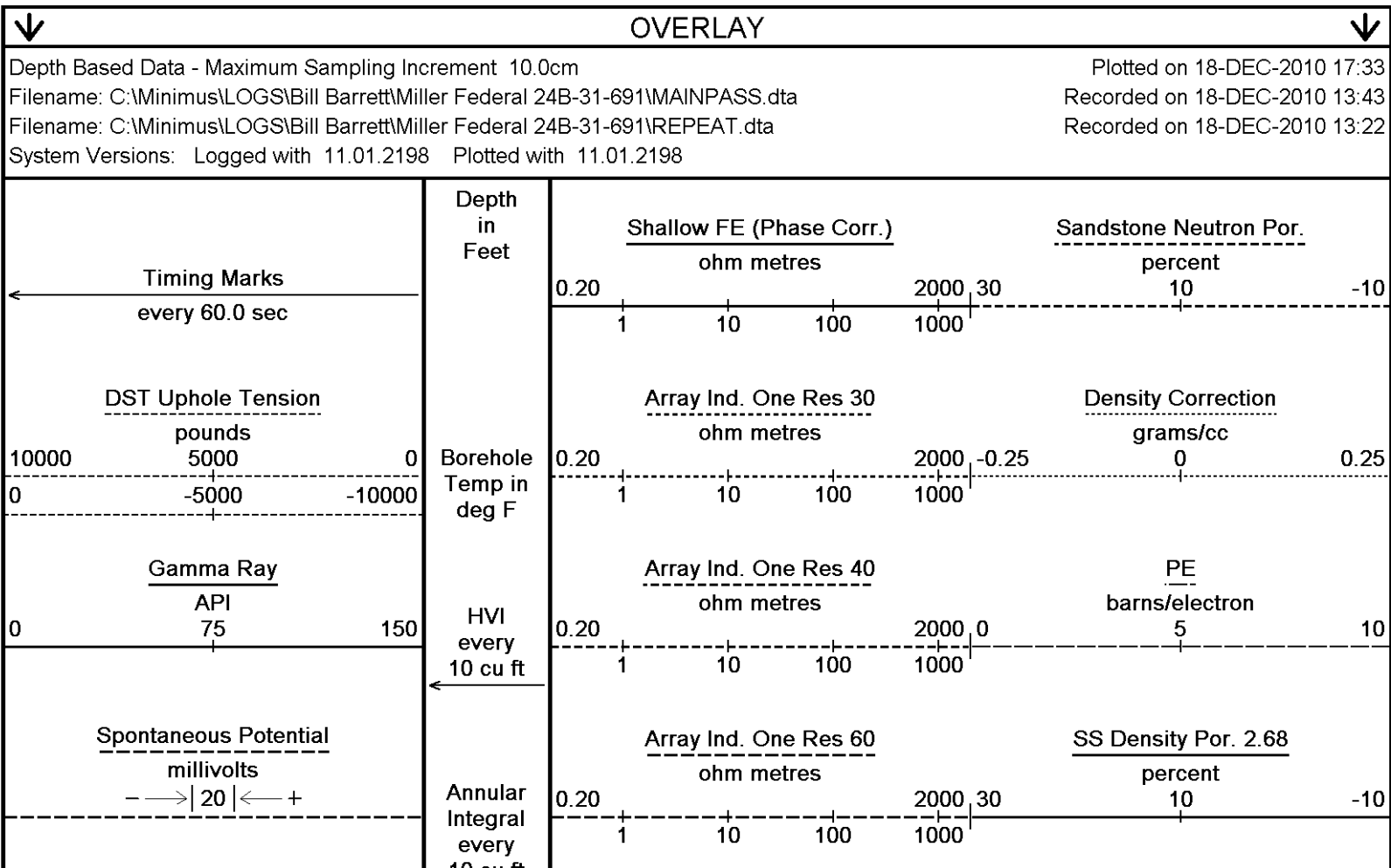
Plotted on 18-DEC-2010 17:33

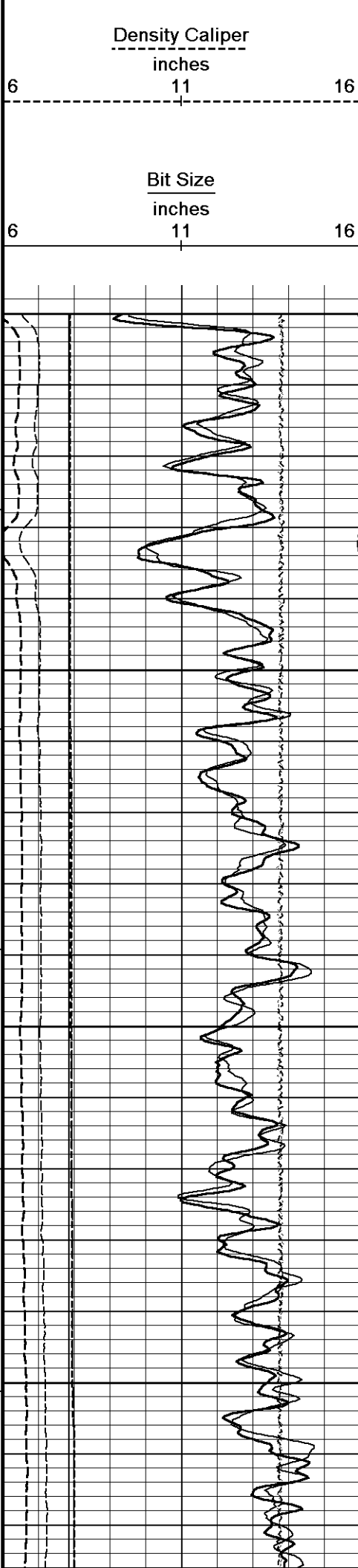
Filename: C:\Minimus\LOGS\Bill Barrett\Miller Federal 24B-31-691\MAINPASS.dta

Recorded on 18-DEC-2010 13:43

System Versions: Logged with 11.01.2198 Plotted with 11.01.2198

5 INCH MAIN LOG





10 cu ft

Replay
Scale
1:240

7100

170°

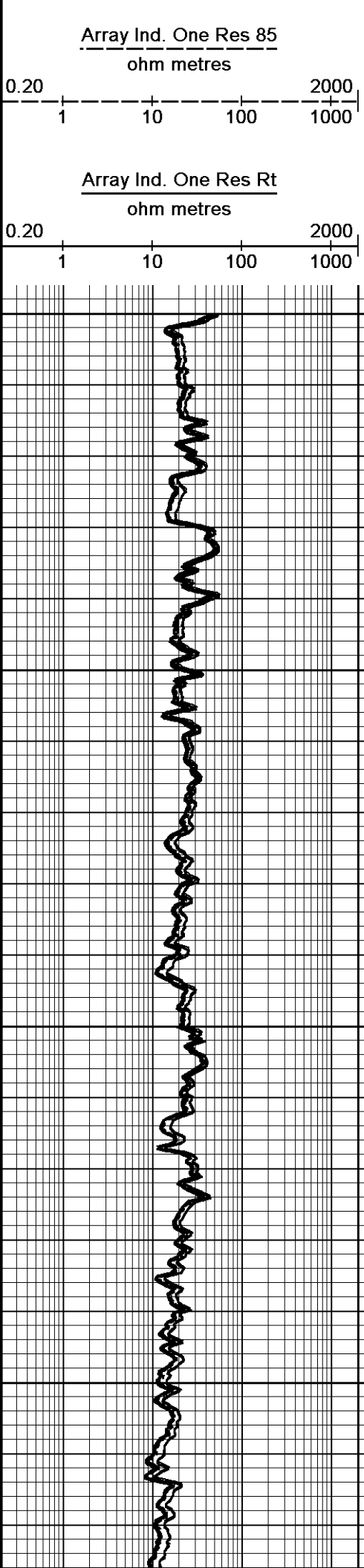
7150

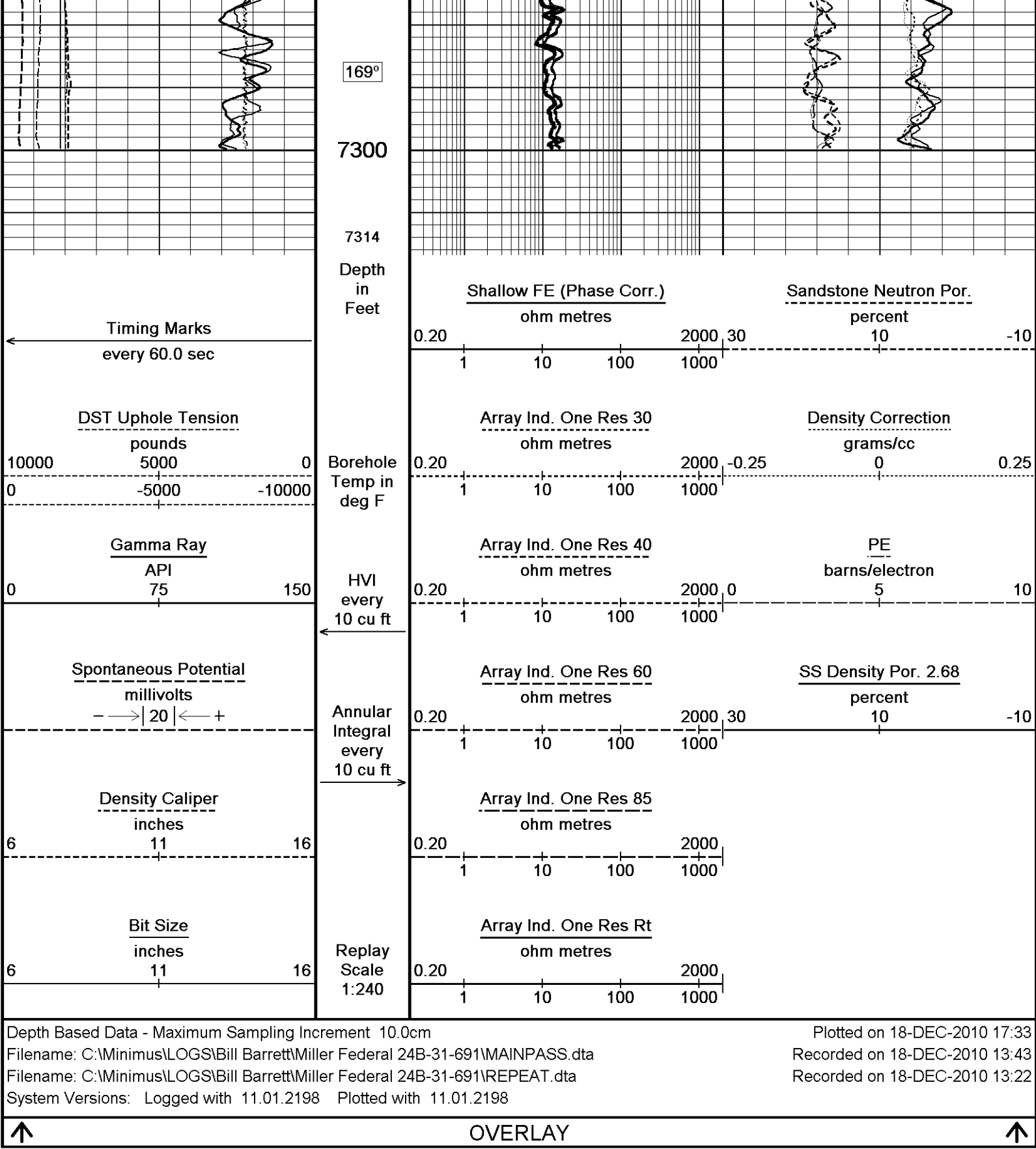
171°

7200

170°

7250





BEFORE SURVEY CALIBRATION		
C:\Minimus\LOGS\Bill Barrett\Miller Federal 24B-31-691\MAINPASS.dta		
General Constants All 000		Last Edited on 18-DEC-2010,12:33
General Parameters		
Mud Resistivity	2.230	ohm-metres
Mud Resistivity Temperature	91.500	degrees F
Water Level	0.000	feet
Density/Neutron Processing	Wet Hole	

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			
Down-hole Tension Calibration SMS 0					
Field Calibration on 18-DEC-2010 12:27					
Reading No		Measured	Calibrated (lbs)		
1		14950.78	0.00		
2		17031.22	350.00		
High Resolution Temperature Calibration MCG-D.A 287					
Field Calibration on 18-DEC-2010,12:08					
		Measured	Calibrated(Deg F)		
Lower		10.00	10.00		
Upper		100.00	100.00		
High Resolution Temperature Constants MCG-D.A 287					
Last Edited on 27-OCT-2010,11:54					
Pre-filter Length		11			
SP Calibration MCG-D.A 287					
Field Calibration on 18-DEC-2010,12:08					
		Measured	Calibrated (mV)		
Reference 1		103.8	100.2		
Reference 2		-96.9	-100.2		
Gamma Calibration MCG-D.A 287					
Field Calibration on 18-DEC-2010,12:08					
		Measured	Calibrated (API)		
Background		95	65		
Calibrator (Gross)		872	592		
Calibrator (Net)		776	527		
Gamma Constants MCG-D.A 287					
Last Edited on 17-DEC-2010,09:29					
Gamma Calibrator Number		GRC-174			
Mud Density		1.00	gm/cc		
Caliper Source for Processing		Bit Size			
Tool Position		Eccentred			
Concentration of KCl		0.00	kppm		
Neutron Calibration MDN-B.A 306					
Base Calibration on 02-DEC-2010 15:15					
Field Check on 18-DEC-2010,12:08					
Base Calibration					
		Measured		Calibrated (cps)	
		Near	Far	Near	Far
		2827	88	3714	110
Ratio		32.020		33.764	
Field Calibrator at Base		Calibrated (cps)			
				2427	3514
Ratio		0.691			
Field Check		Calibrated (cps)			
				2343	3391
Ratio		0.691			
Neutron Constants MDN-B.A 306					
Last Edited on 18-DEC-2010,12:08					
Neutron Source Id		P44384B			
Neutron Jig Number		NJ6584			
Epithermal Neutron		No			
Caliper Source for Processing		Bit Size			

Stand-off	0.00	inches
Mud Density	1.00	gm/cc
Limestone Sigma	7.10	cu
Sandstone Sigma	7.00	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 02-DEC-2010 11:09 Field Check on 18-DEC-2010,12:09	
Base Calibration			
	Measured	Calibrated (ohm-m)	
Reference 1	0.0	0.0	
Reference 2	962.5	126.8	
Base Check		280.6	
Field Check		280.7	

FE Constants MFE-B.A 179			Last Edited on 17-DEC-2010,21:56		
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-B.A 301		Field Calibration on 07-DEC-2010,21:27	
	Measured	Calibrated(Deg F)	
Lower	10.00	50.00	
Upper	100.00	212.00	

High Resolution Temperature Constants MAI-B.A 301		Last Edited on 22-JUN-2010,22:59	
Pre-filter Length	11		

Induction Calibration MAI-B.A 301				Base Calibration on 09-JUN-2010,11:38	
				Field Check on	
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	0.0	0.0	0.0	0.0	
2	0.0	0.0	0.0	0.0	
3	0.0	0.0	0.0	0.0	
4	0.0	0.0	0.0	0.0	
Deep	0.0	0.0	0.0	0.0	
Medium	0.0	0.0	0.0	0.0	
Shallow	0.0	0.0	0.0	0.0	
Array Temperature		0.0	0.0		Deg F

Induction Constants MAI-B.A 301		Last Edited on 17-DEC-2010,21:56	
Induction Model	RtAP-WBM		
Caliper for Borehole Corr.	Bit Size		
Hole Size for Borehole Correction	N/A	inches	

Tool 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 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-C.A 220

Base Calibration on 18-DEC-2010,12:09

Field Calibration on

Base Calibration		
Reading No	Measured	Calibrator Size (in)
1	14544	4.00
2	23056	5.96
3	30704	7.98
4	38811	9.86
5	47936	11.88
6	N/A	N/A

Field Calibration		
	Measured Caliper (in)	Actual Caliper (in)
	0.00	0.00

Photo Density Calibration MPD-C.A 220

Base Calibration on 02-DEC-2010 13:43

Field Check on 18-DEC-2010,12:09

Density Calibration				
Base Calibration		Measured	Calibrated (sdu)	
	Near	Far	Near	Far
Reference 1	52968	16941	53237	19445
Reference 2	24124	2408	25135	2545

Field Check at Base		
	1190.6	1206.3

Field Check		
	1188.0	1210.2

PE Calibration				
Base Calibration		Measured	Calibrated	
	WS	WH	Ratio	Ratio
Background	214	1053		
Reference 1	17948	52776	0.343	0.320
Reference 2	6642	23976	0.280	0.274

Field Check at Base
214.4 1052.8

Field Check
215.2 1049.3

Density Constants MPD-C.A 220

Last Edited on 18-DEC-2010,12:07

Density Source Id	P44263B	
Nylon Calibrator Number	532	
Aluminium Calibrator Number	532	
Density Shoe Profile	8 inch	
Caliper Source for Processing	Density Caliper	
PE Correction to Density	Not Applied	
Mud Density	1.23	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	0.00	

AFTER SURVEY CALIBRATION

C:\Minimus\LOGS\Bill Barrett\Miller Federal 24B-31-691\MAINPASS.dta

FE Check MFE-B.A 179

Before Survey Check 18-DEC-2010,12:09
After Survey Check on 18-DEC-2010 16:58

Before (ohm-m)	After (ohm-m)
280.7	280.7

Induction Check MAI-B.A 301

Before Survey Check on
After Survey Check on 18-DEC-2010 17:00

Channel	Before Survey (mmho/m)		After Survey (mmho/m)		
	Low	High	Low	High	
1	0.0	0.0	13.1	3733.2	
2	0.0	0.0	30.6	3443.4	
3	0.0	0.0	28.5	3057.7	
4	0.0	0.0	19.3	2019.6	
Deep	0.0	0.0	16.8	2015.8	
Medium	0.0	0.0	42.1	4067.8	
Shallow	0.0	0.0	46.6	5040.6	
Array Temperature		0.0		75.0	Deg F

Photo Density Check MPD-C.A 220

Before Survey Check on 18-DEC-2010,12:09
After Survey Check on 18-DEC-2010 16:56

Density Check

	Near		Far	
	Before	After	Before	After
	1188.0	1187.8	1210.2	1210.0

PE Check

	Before	After
WS	215.2	212.7
WH	1049.3	1051.5

DOWNHOLE EQUIPMENT

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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

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 287 LG: 8.70 ft WT: 63.9 lb OD: 2.24 in

Compact Neutron

MDN-B.A 306 LG: 5.04 ft WT: 50.7 lb OD: 2.24 in

Compact Density/Caliper

MPD-C.A 220 LG: 9.59 ft WT: 90.4 lb OD: 2.45 in

SKJ-D.A Compact Knuckle Joint

SKJ-D.A 154 LG: 2.17 ft WT: 24.3 lb OD: 2.24 in

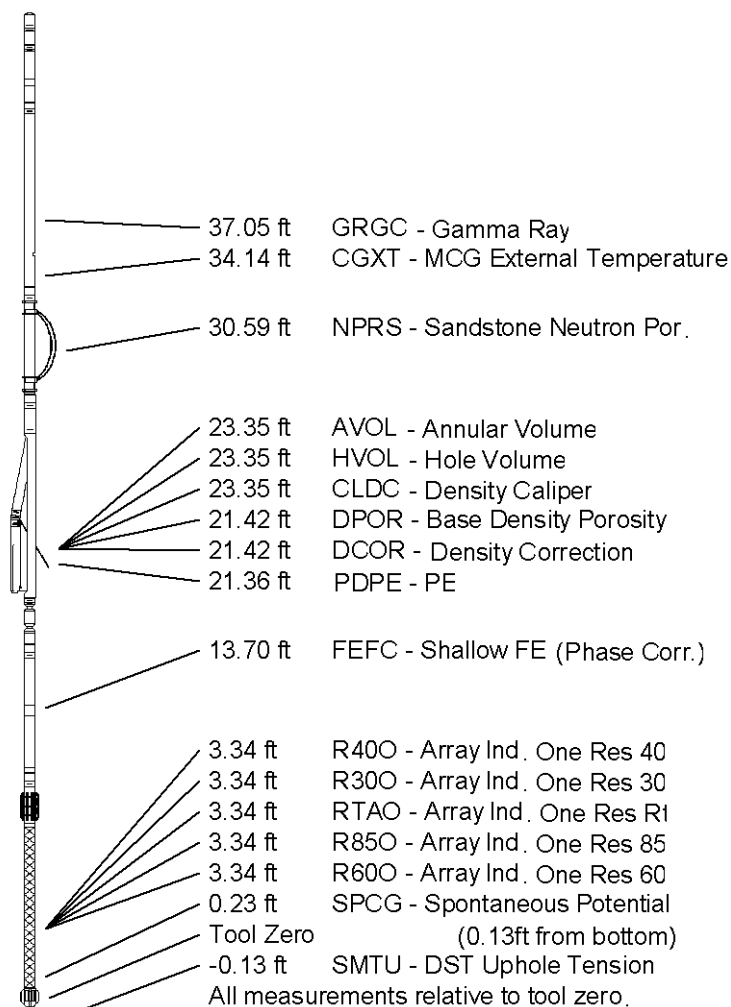
Compact Focussed Electric

MFE-B.A 179 LG: 6.03 ft WT: 48.5 lb OD: 2.24 in

Compact Induction

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

Total Length: 46.21 ft Weight: 363.8 lb



COMPANY

BILL BARRETT CORPORATION

WELL

MILLER FEDERAL 24B-31-691

FIELD

GIBSON GULCH

PROVINCE/COUNTY

GARFIELD

COUNTRY/STATE

U.S.A. / COLORADO

Elevation Kelly Bushing	6288.00	feet
Elevation Drill Floor	6287.00	feet
Elevation Ground Level	6266.00	feet

First Reading	7349.00
Depth Driller	7340.00 feet
Depth Logger	7349.00 feet



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