



COMPACT TRIPLE COMBO QUICKLOOK LOG

COMPANY			BILL BARRETT CORPORATION		
WELL			GGU FEDERAL 31B-29-691		
FIELD			GIBSON GULCH		
PROVINCE/COUNTY			GARFIELD		
COUNTRY/STATE			U.S.A. / COLORADO		
LOCATION			SHL: 1209' FNL & 1371' FWL BHL: 819' FNL & 1990' FEL		
SEC	TWP	RGE	Other Services		
29	6S	91W			
API Number		05-045-19804			
Permit Number					
Permanent Datum G.L., Elevation 6104 feet					
Log Measured From K.B. @ 23 FEET above Permanent Datum					
Drilling Measured From K.B.					
Date	18-MAR-2011				Elevations: KB DF GL
Run Number	ONE				feet 6127.00 6104.00
Depth Driller	7453.00		feet		
Depth Logger	7450.00		feet		
First Reading	7447.00				
Last Reading	840.00				
Casing Driller	844.00		feet		
Casing Logger	846.00		feet		
Bit Size	7.875		inches		
Hole Fluid Type	LSND				
Density / Viscosity	10.60 lb/USg		52.00 CP		
PH / Fluid Loss	9.10		7.60 ml/30Min		
Sample Source	FLOW LINE				
Rm @ Measured Temp	2.35 @ 76.8		ohm-m		
Rmf @ Measured Temp	2.08 @ 76.8		ohm-m		
Rmc @ Measured Temp	2.62 @ 76.8		ohm-m		
Source Rmf / Rmc	CALC		CALC		
Rm @ BHT	1.12 @ 165.0		ohm-m		
Time Since Circulation	4.5 HOURS				
Max Recorded Temp	165.00		deg F		
Equipment Name	COMPACT				
Equipment / Base	13038		GD JCT		
Recorded By	S. LACKEY				
Witnessed By	C.CROW				

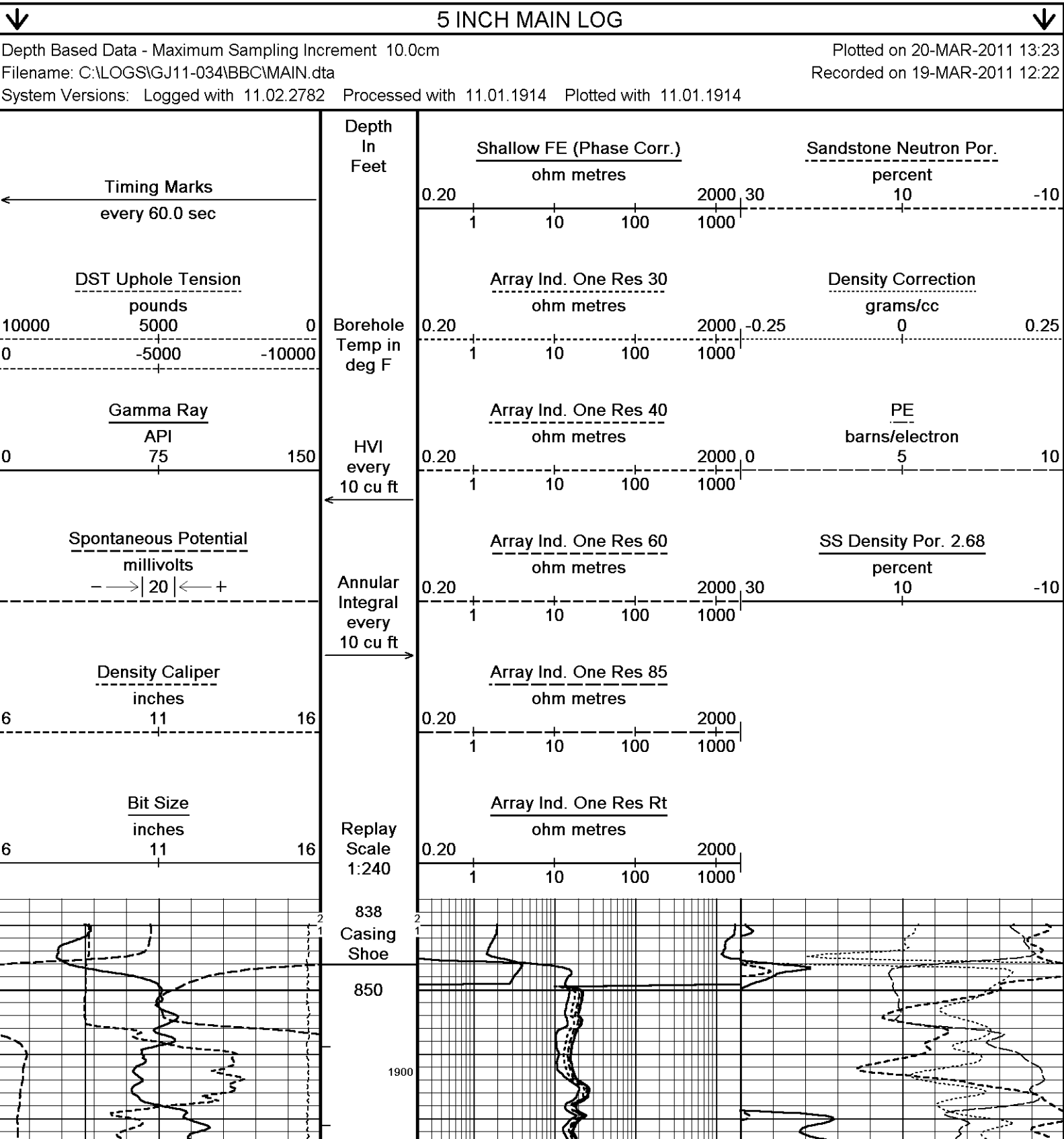
BOREHOLE RECORD			Last Edited: 19-MAR-2011 14:53
Bit Size inches	Depth From feet	Depth To feet	
8.750	844.00	5493.00	
7.875	5493.00	7453.00	
CASING RECORD			
Type	Size inches	Depth From feet	Shoe Depth feet
SURFACE	9.625	0.00	844.00
Weight pounds/ft			
36.00			

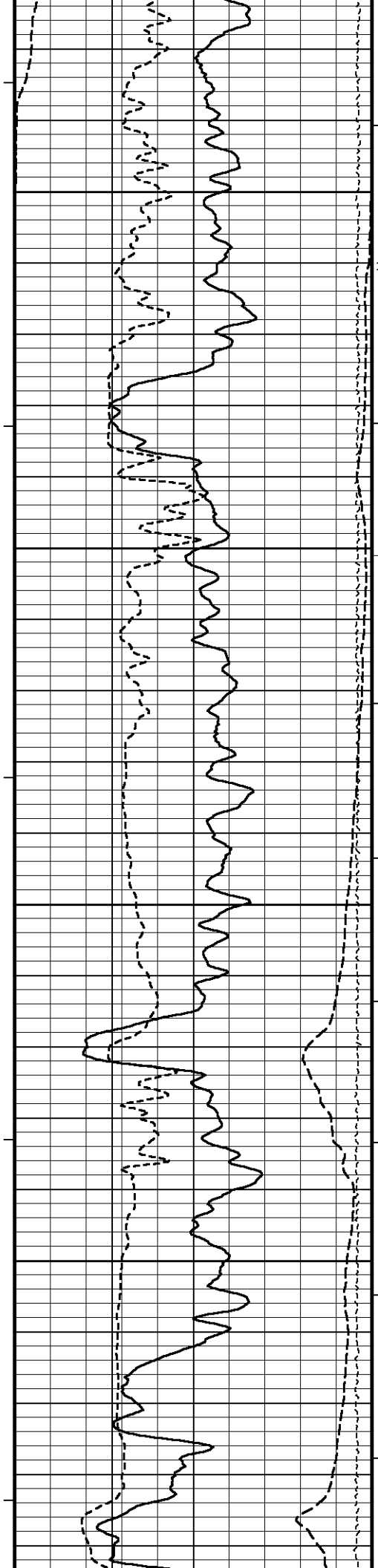
REMARKS	
TOOLS: SHA, MCG, MDN, MPD, SKJ, MFE, AND MAI RAN IN COMBINATION	
HARDWARE: MPD: (1) 8 INCH PROFILE PLATE MAI: (1) 0.5 INCH STANDOFF MDN: (1) DUAL BOWSPRING	
2.68 G/CC DENSITY MATRIX USED TO CALCULATE POROSITY.	
ALL INTERVALS LOGGED AND SCALED PER CUSTOMER'S REQUEST.	
TIGHT PULLS, BOREHOLE SIZE, AND RUGOSITY WILL AFFECT REPEATABILITY AND DATA QUALITY.	
CALIPER CHECK IN CASING PRESENTED, REFERENCE I.D. = 8.94" (9 5/8", 36 LB/FT CASING)	
TOTAL HOLE VOLUME FROM TD TO SURFACE CASING = 2605 CU.FT.	
ANNULAR VOLUME WITH 4.5 INCH PRODUCTION CASING = 1903 CU.FT.	

SERVICE ORDER: #3516171

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.





94°

900

2600

95°

950

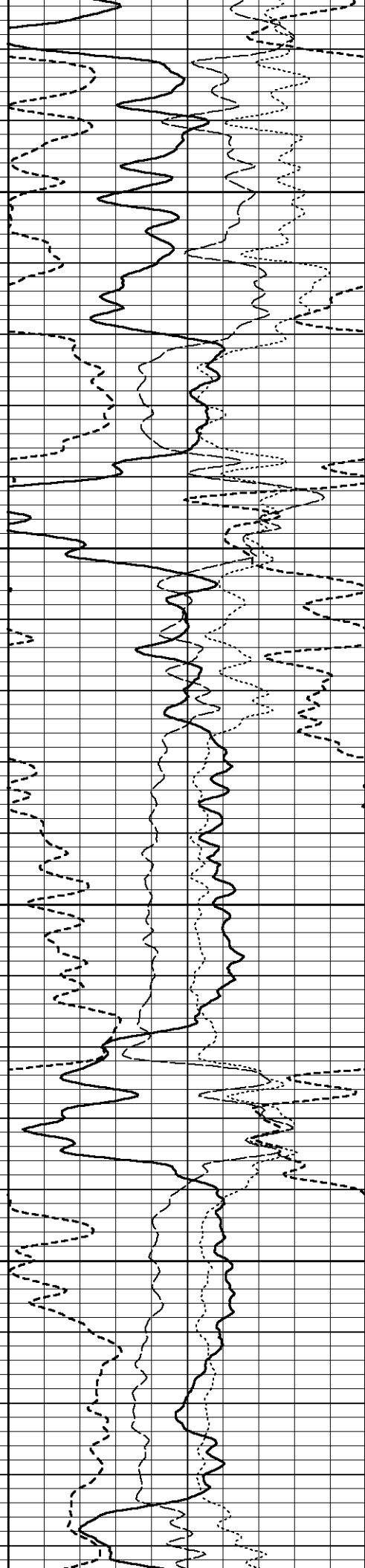
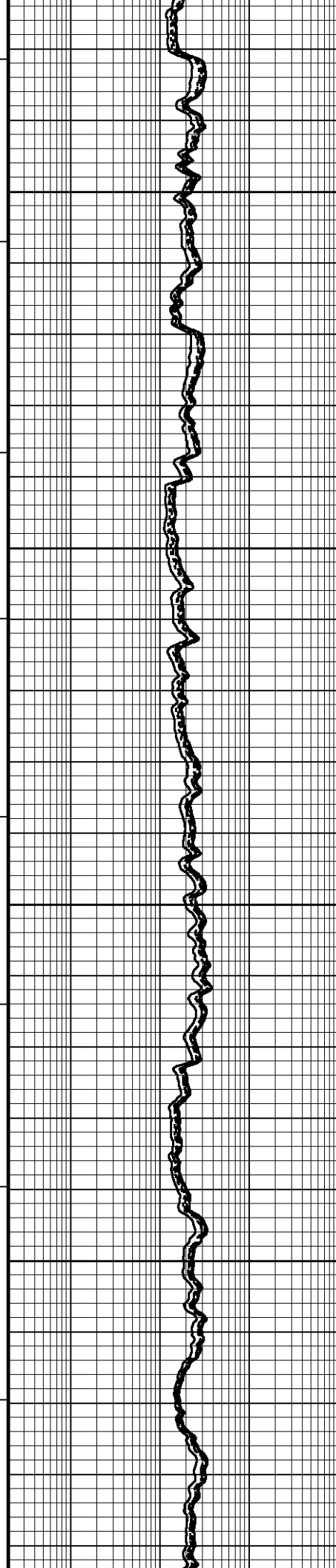
95°

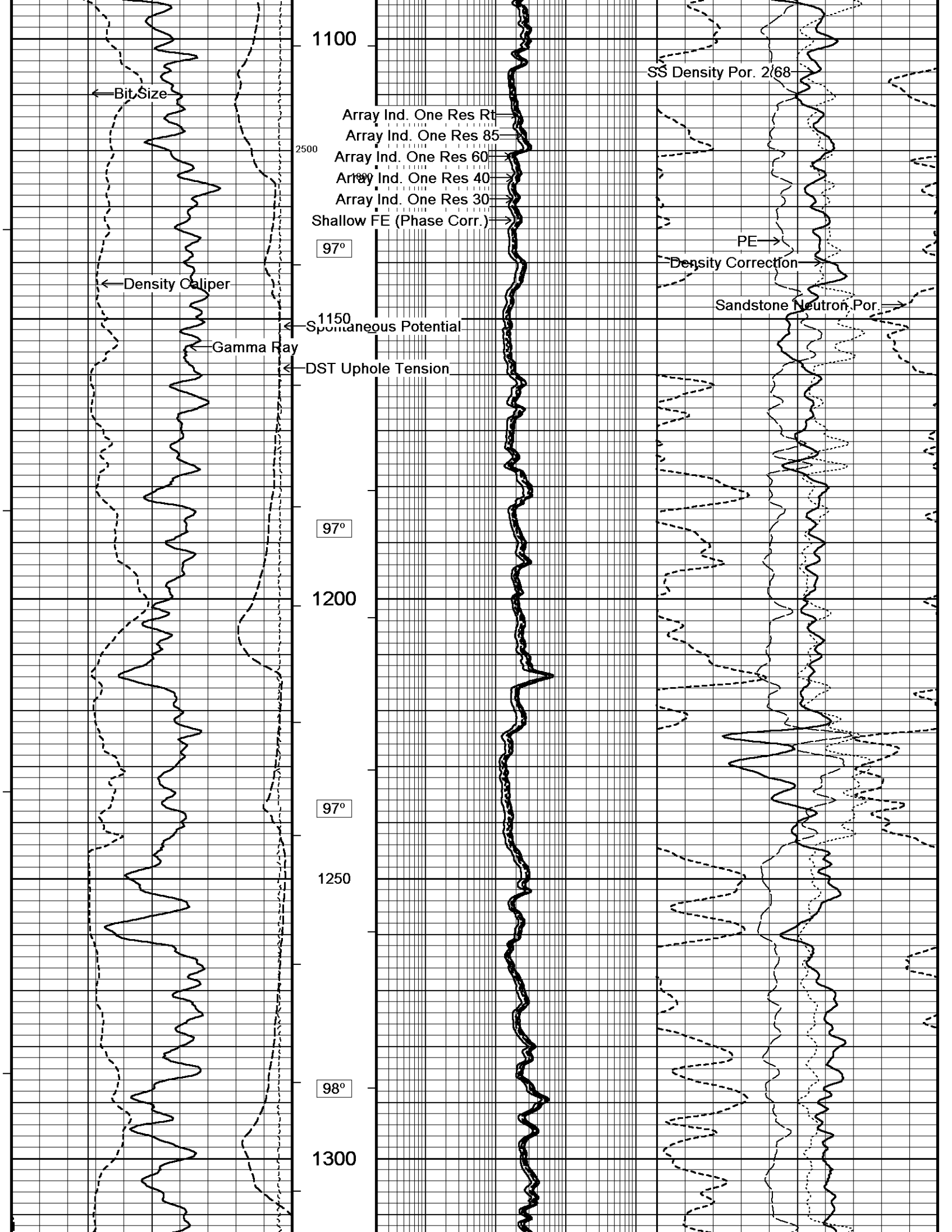
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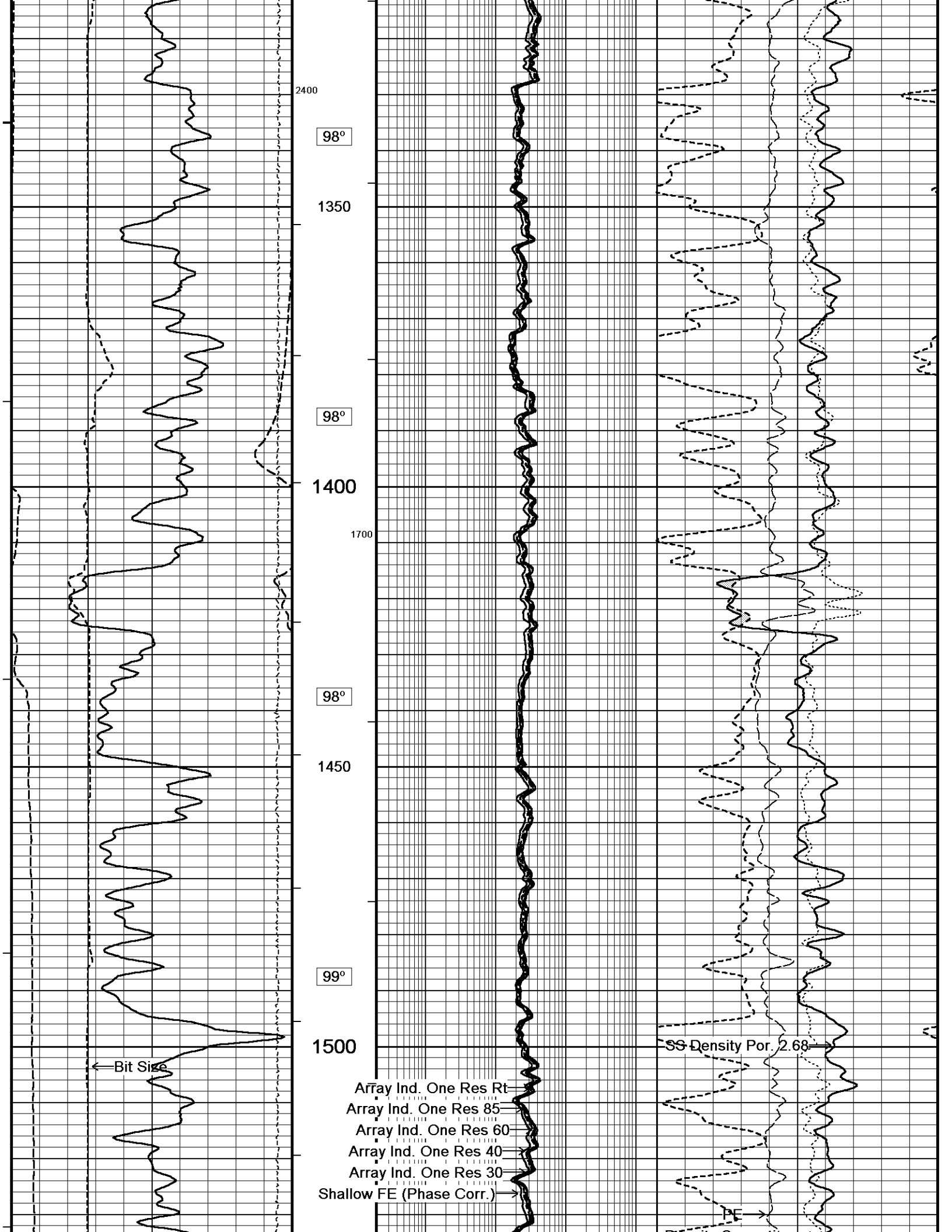
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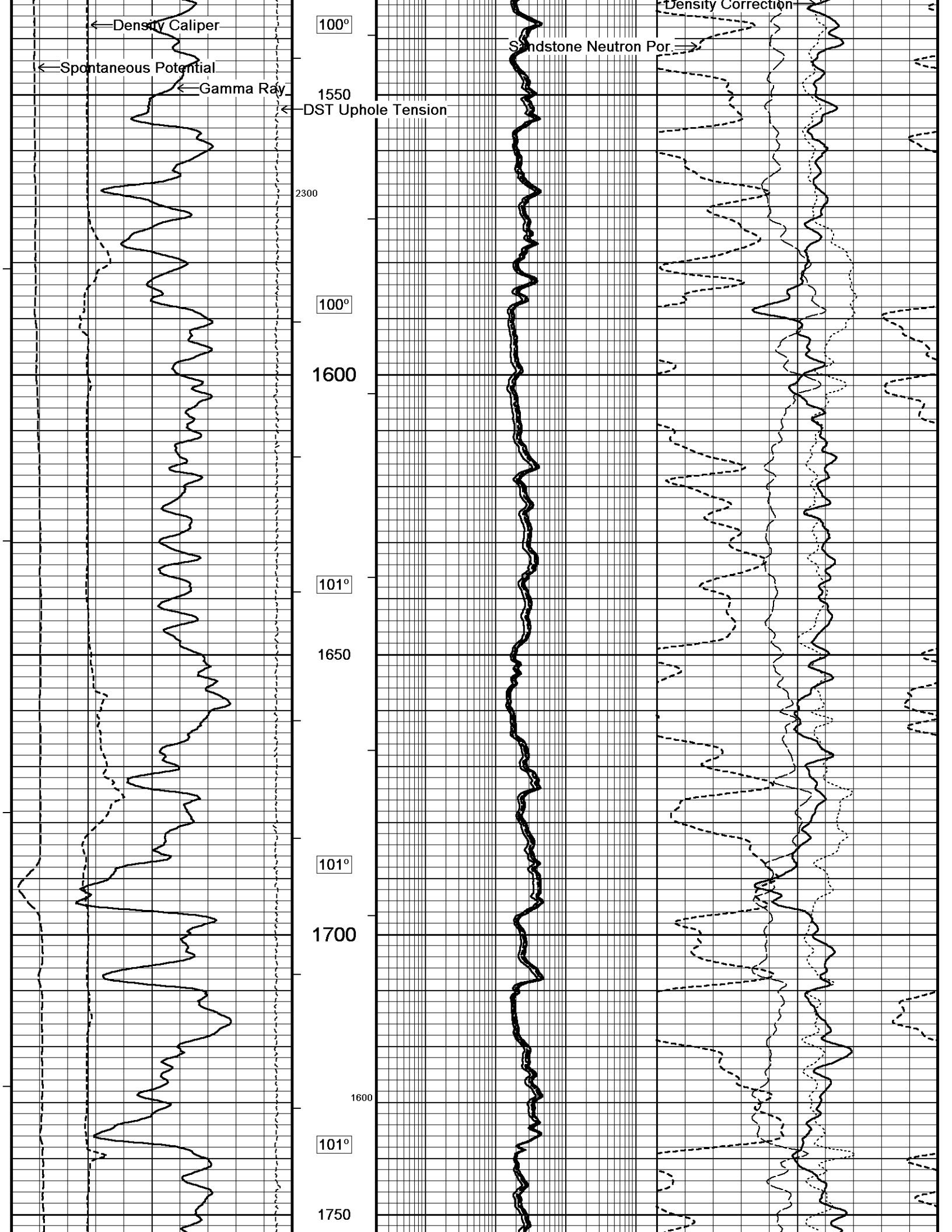
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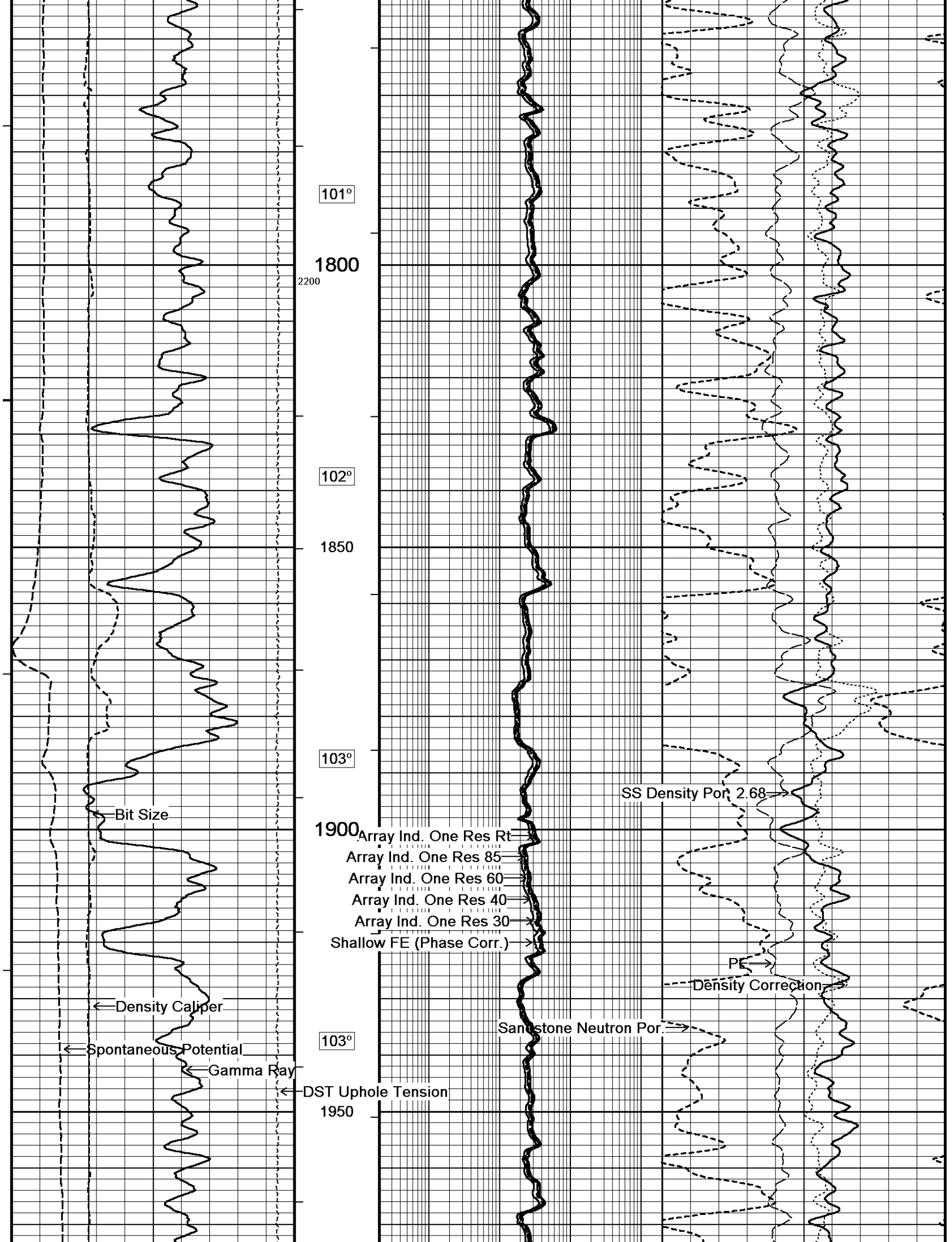
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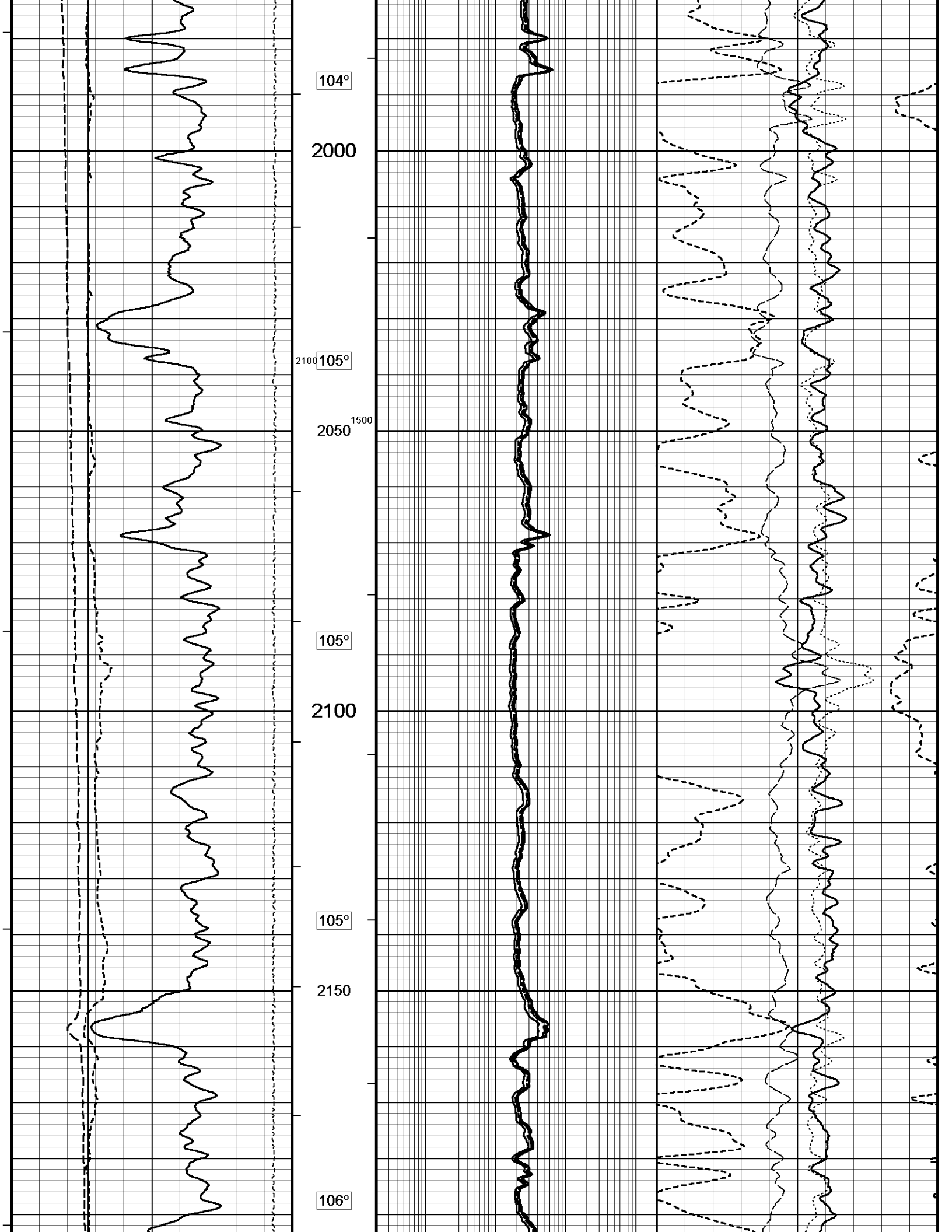


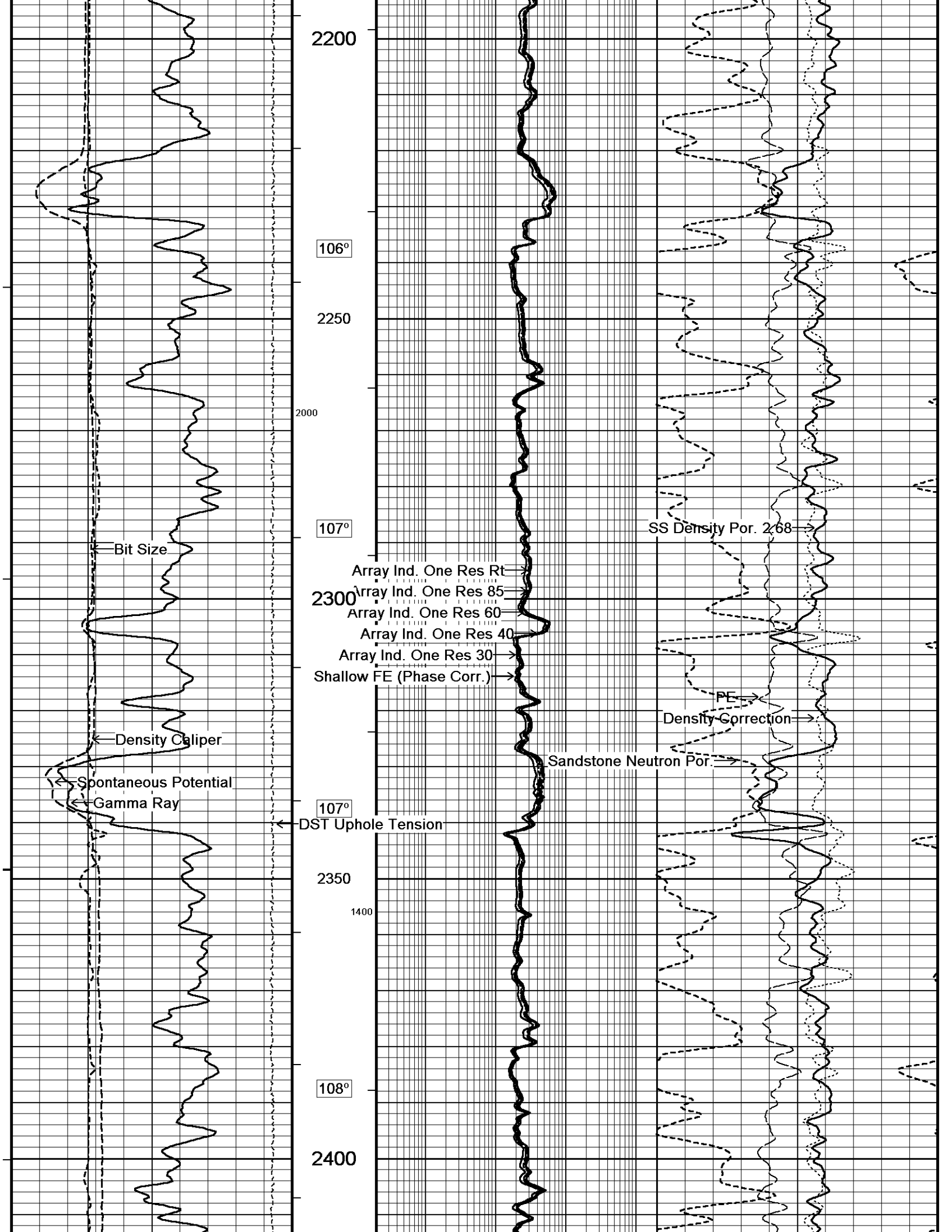


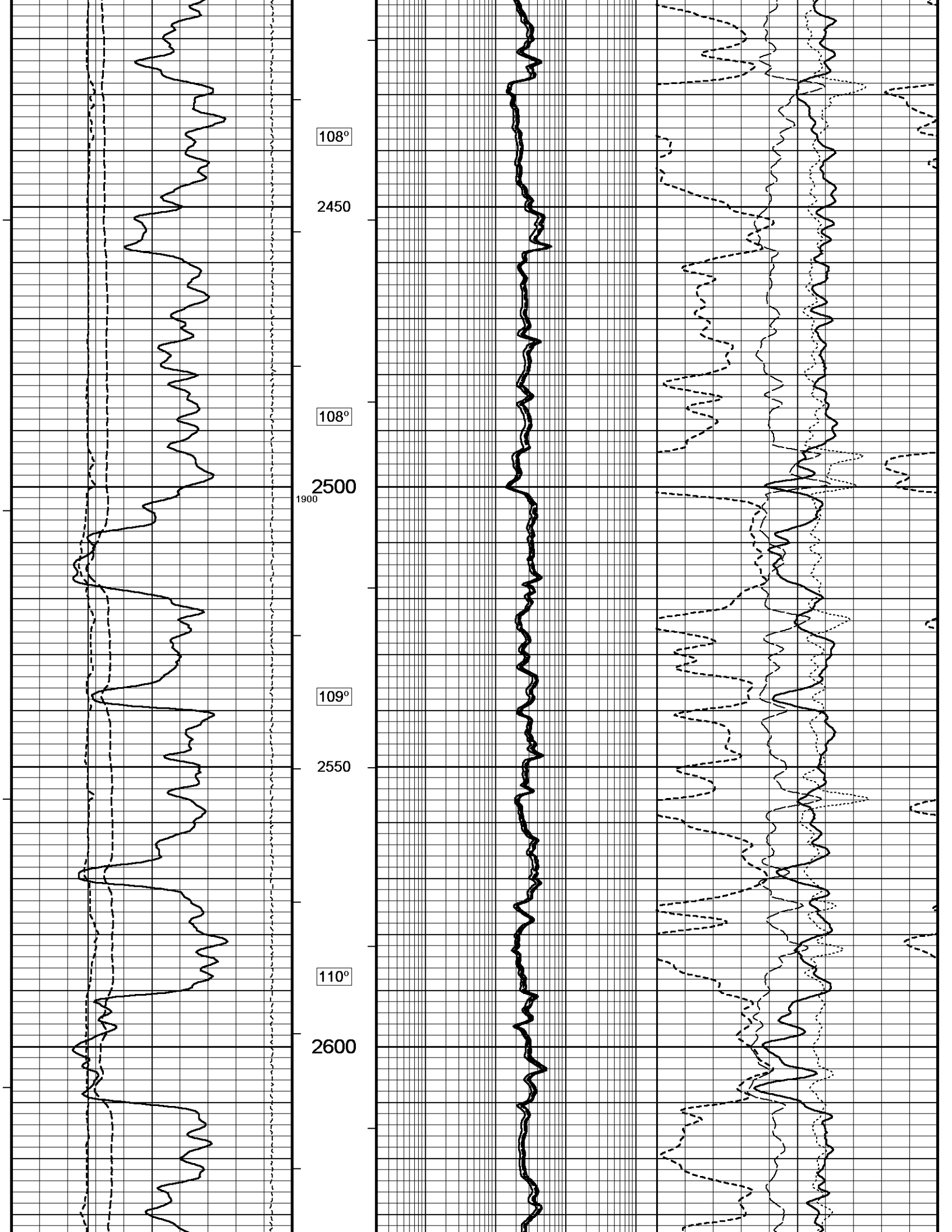


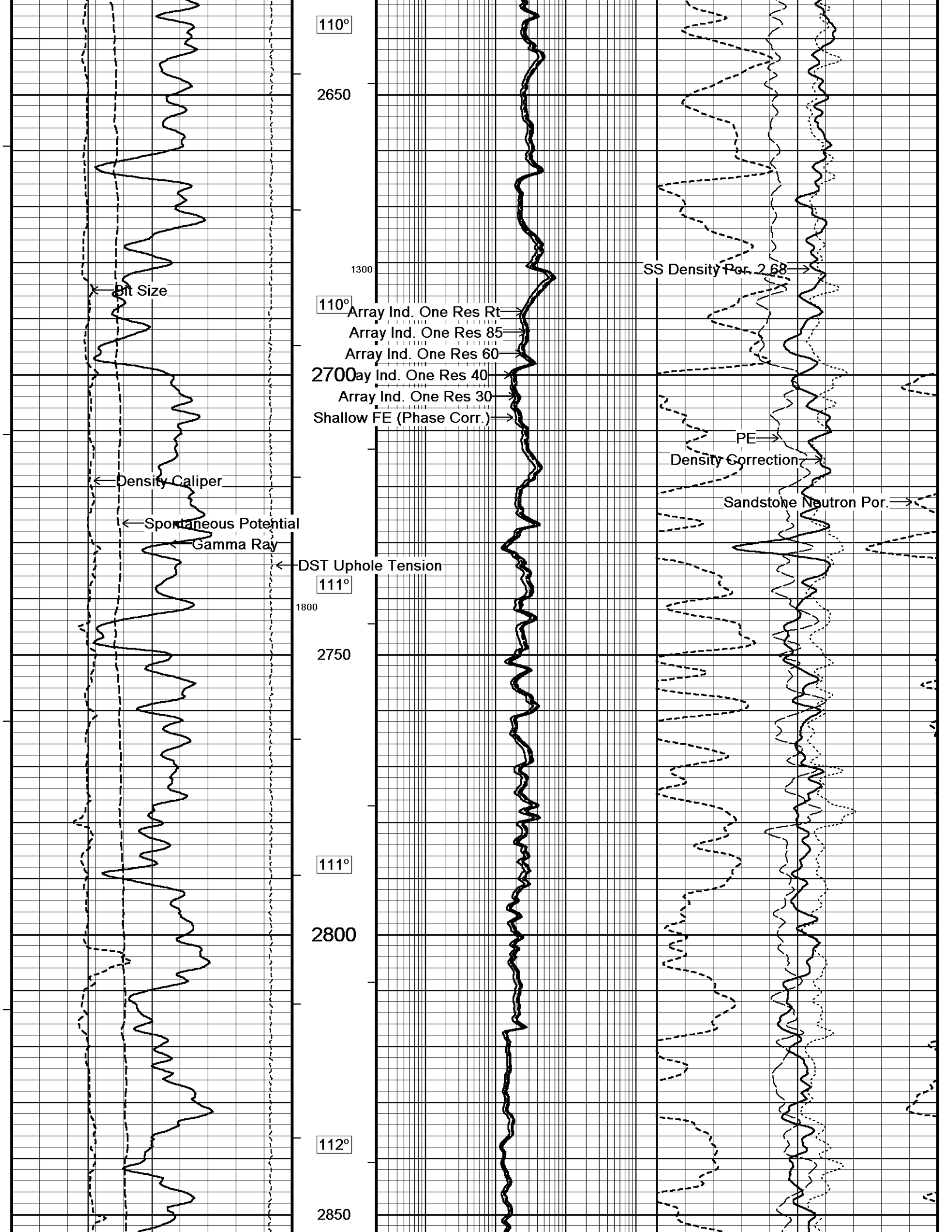


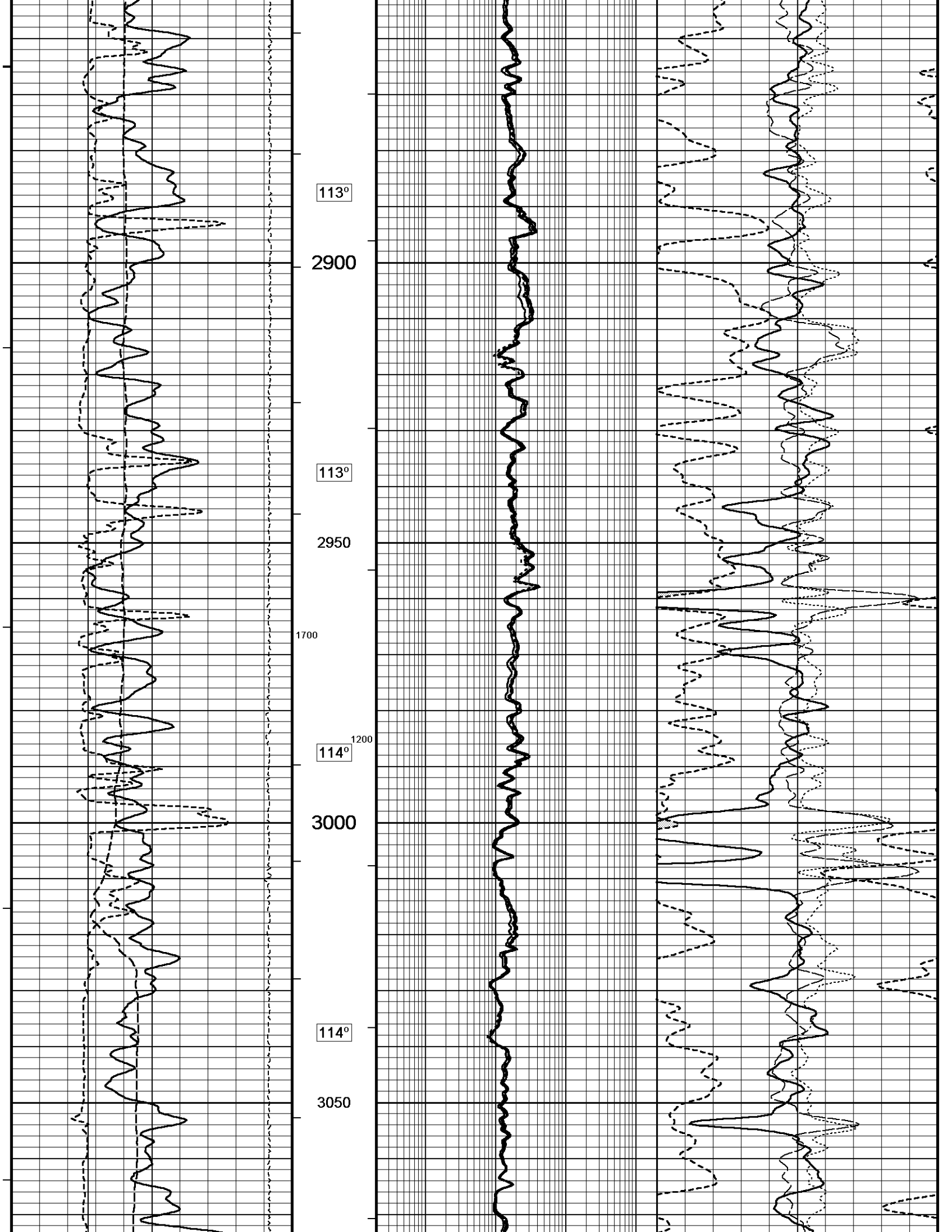


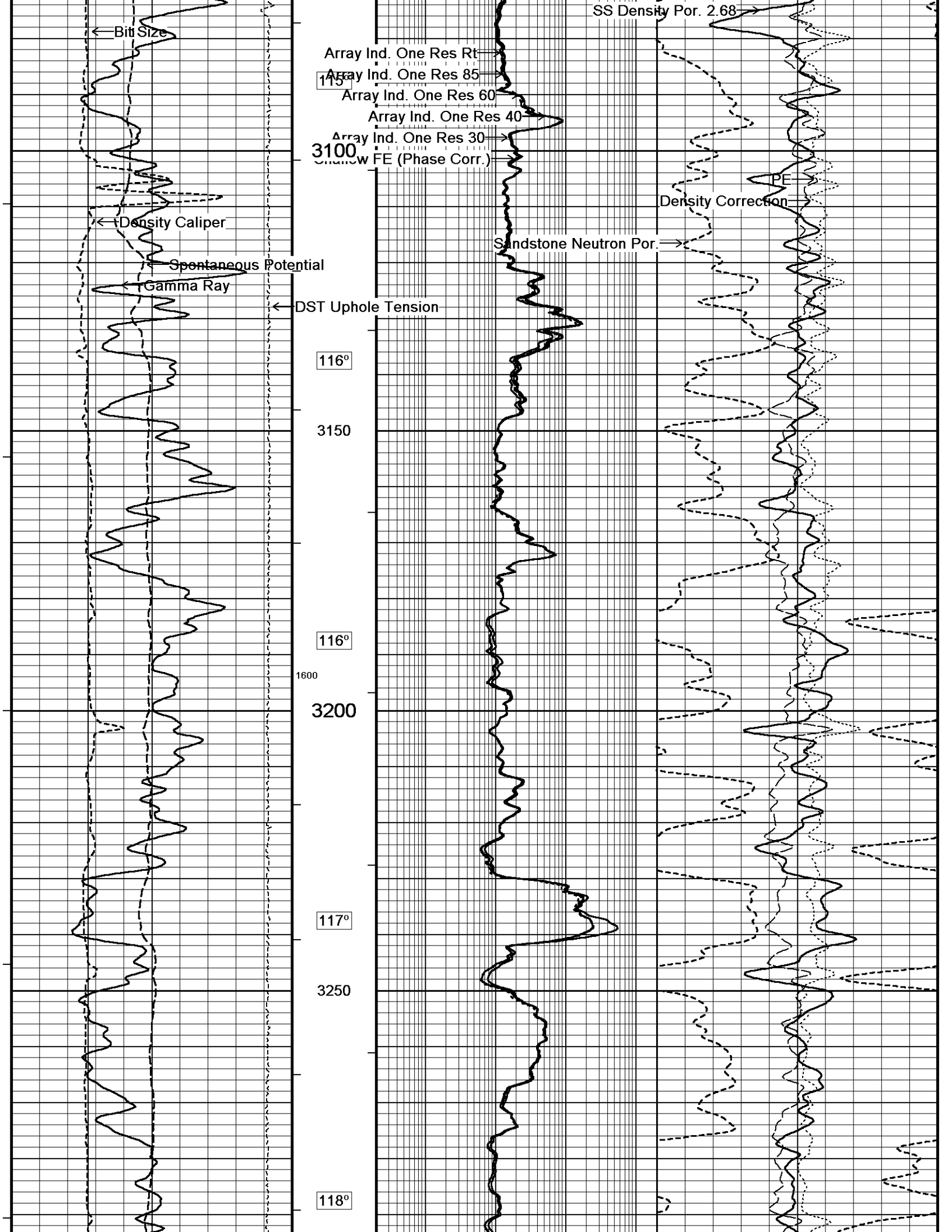


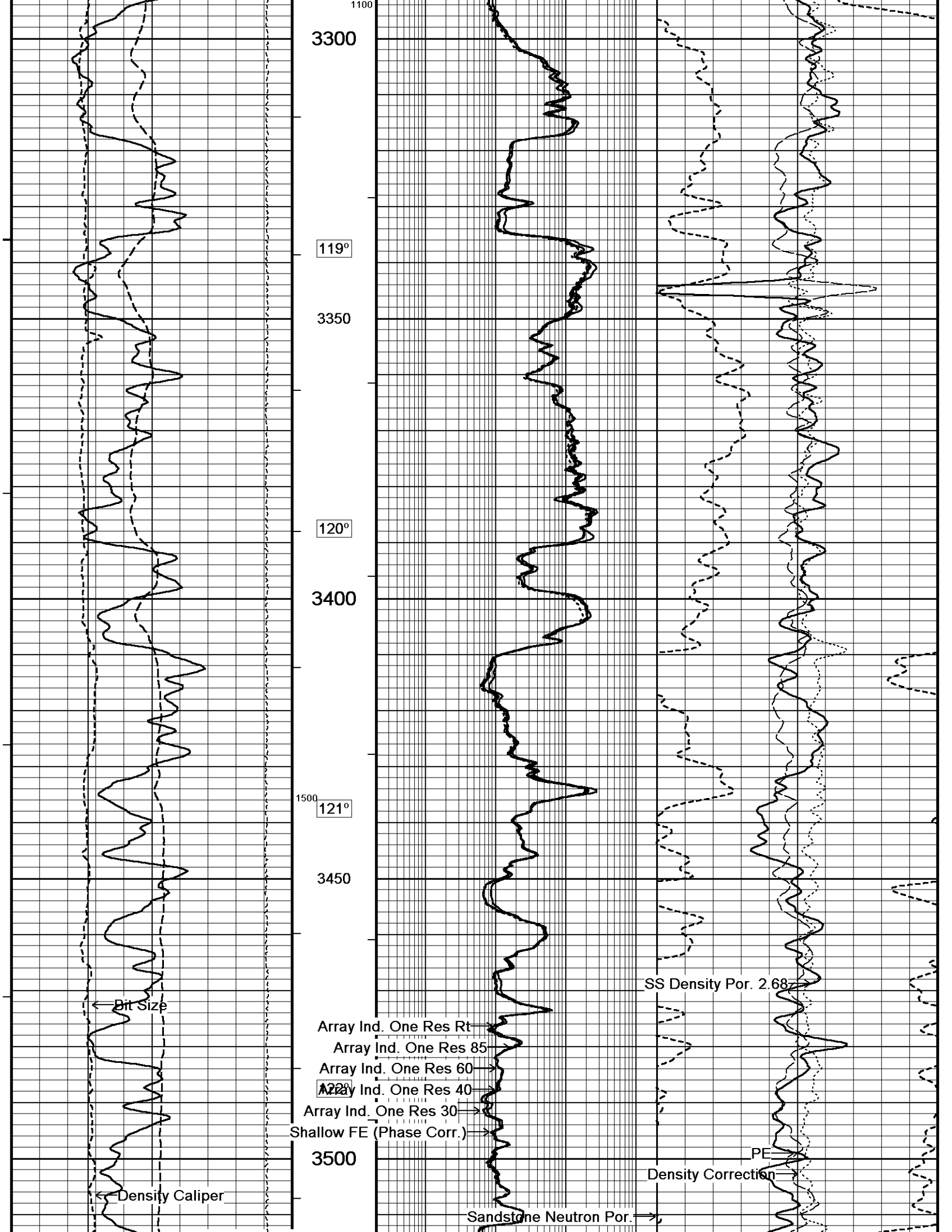


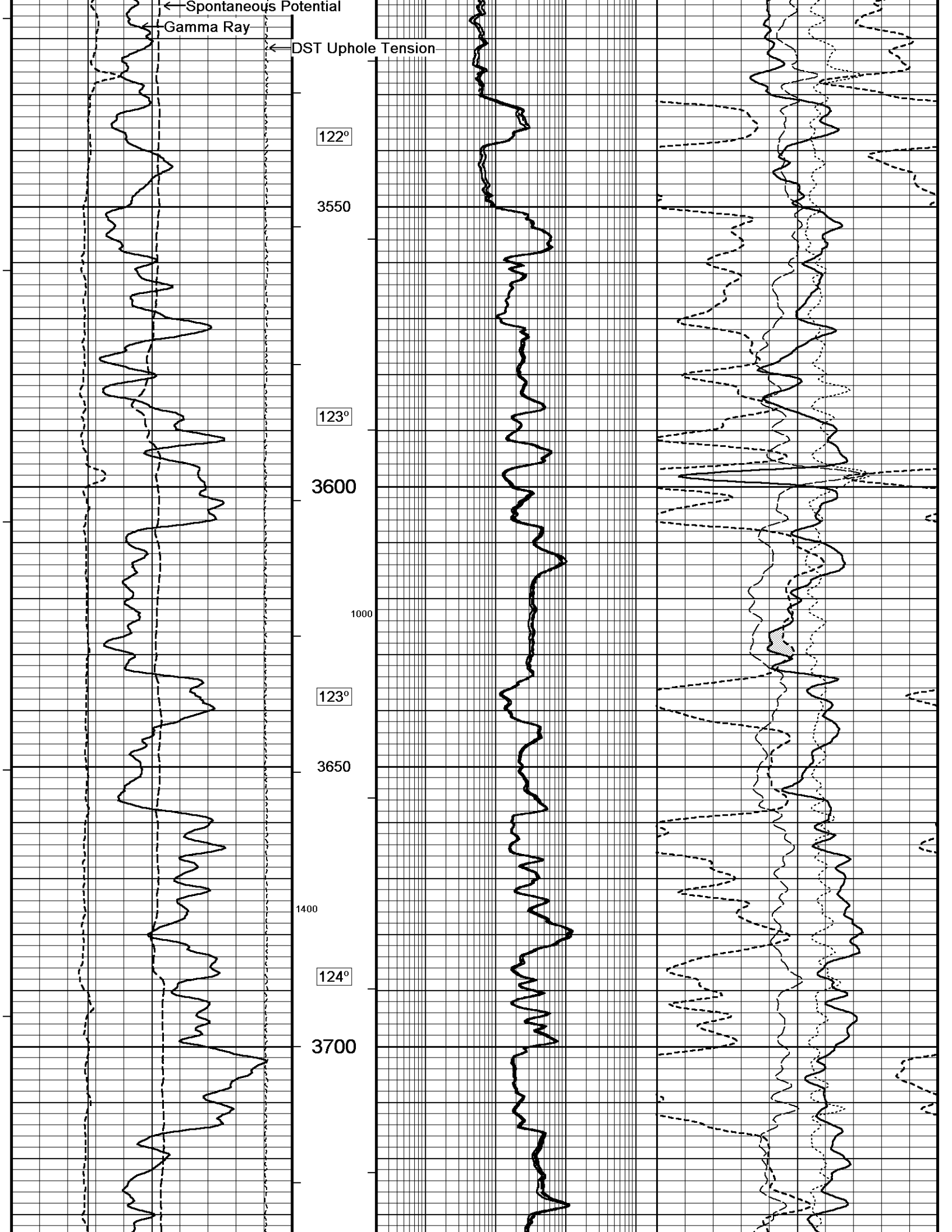


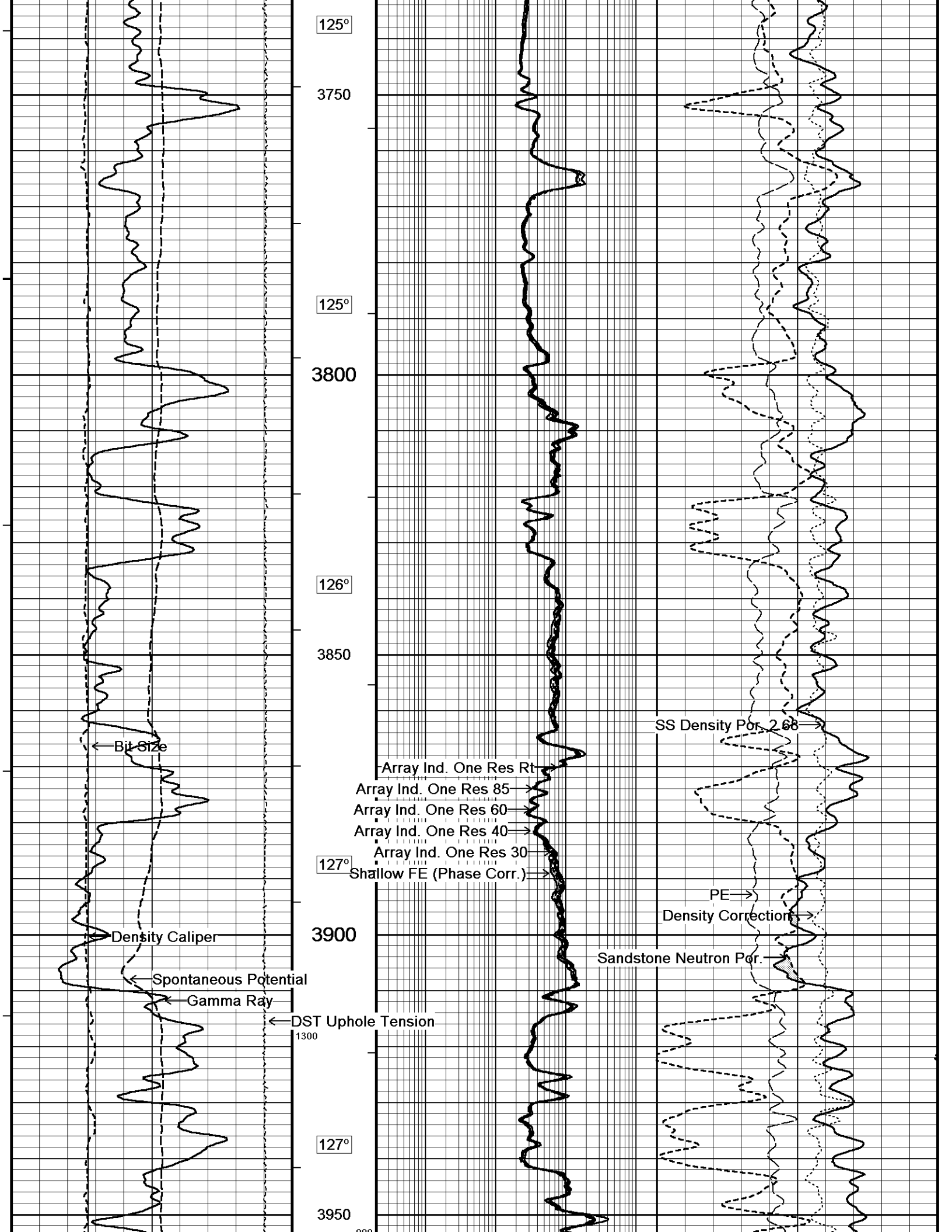


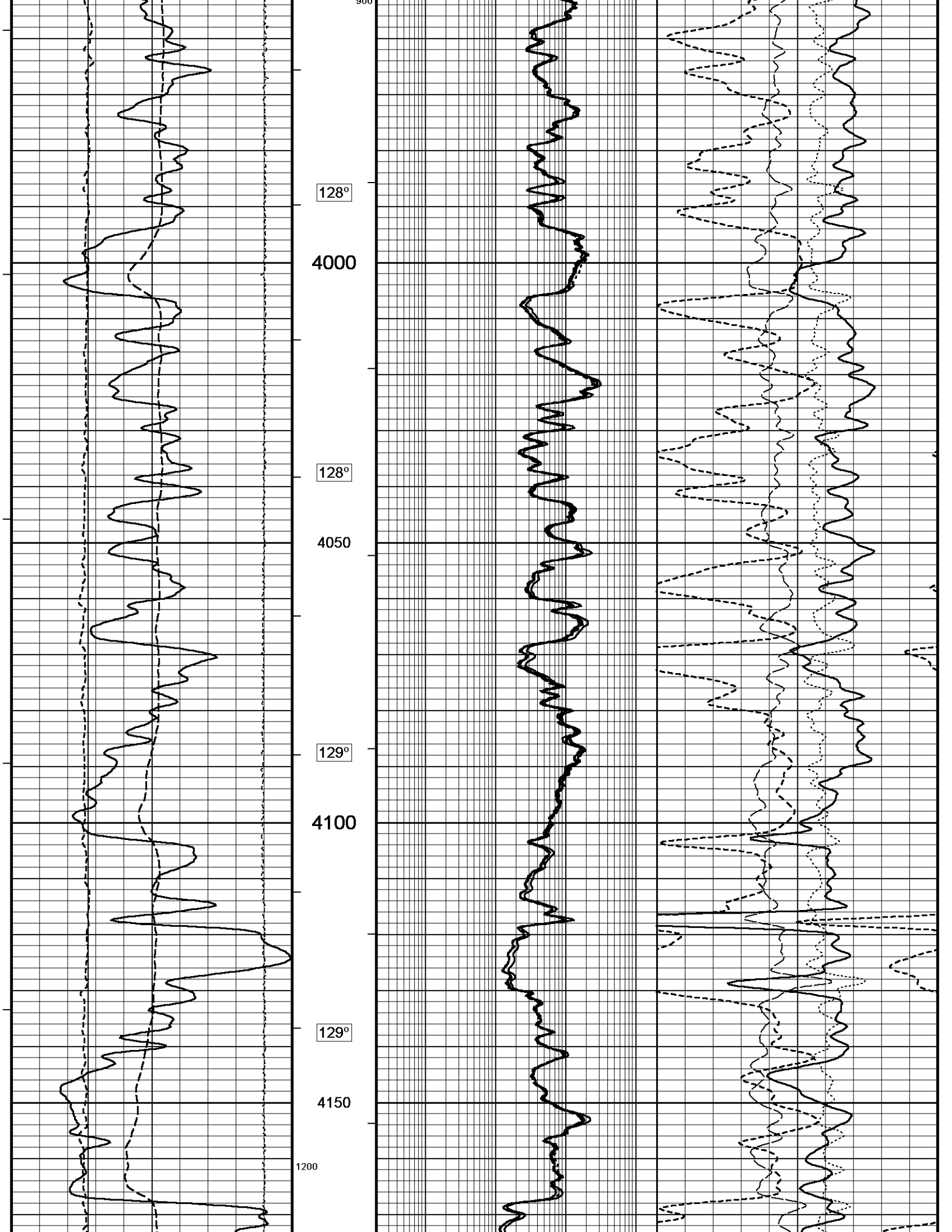


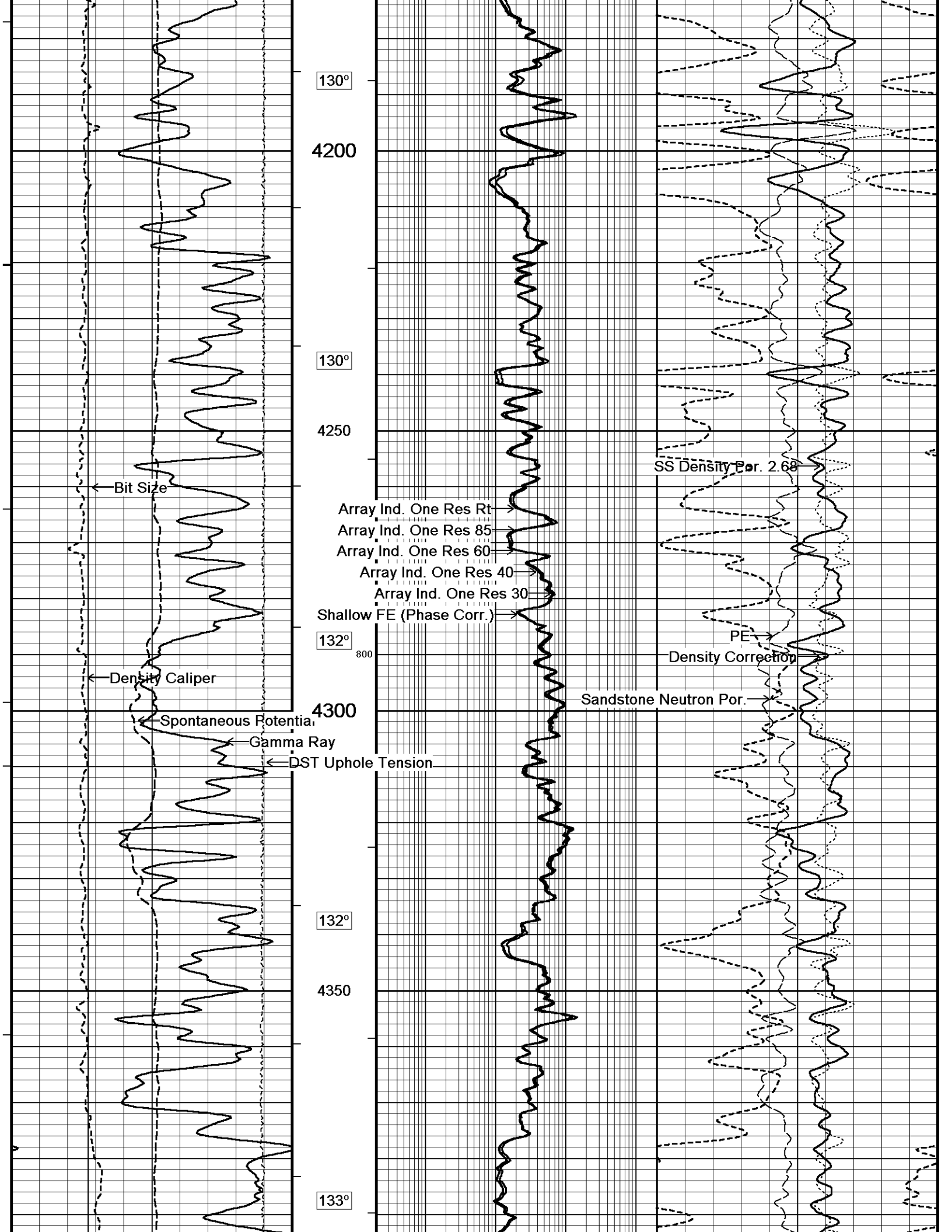


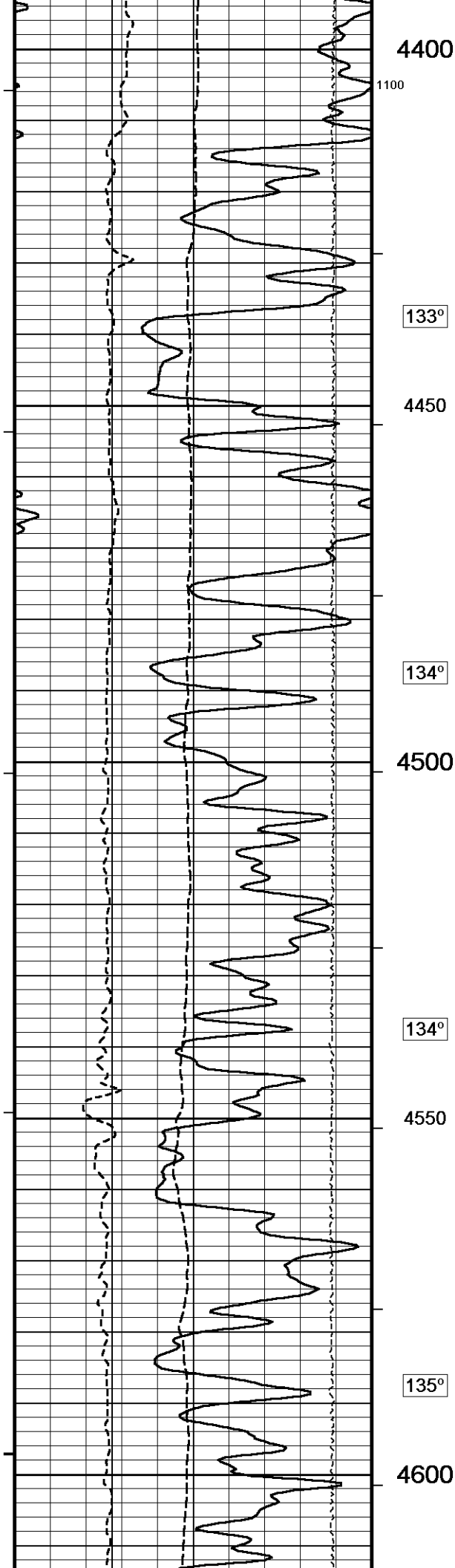












4400

1100

133°

4450

134°

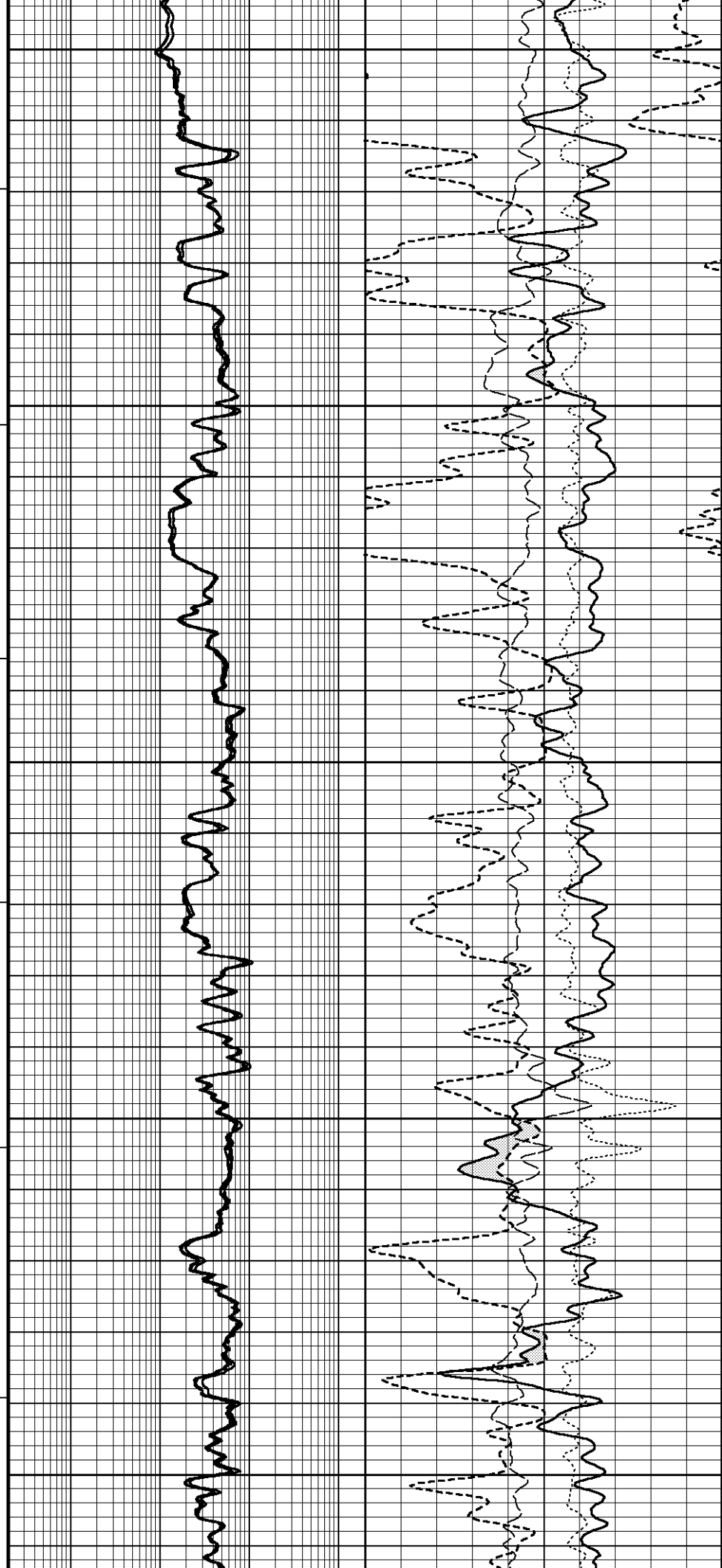
4500

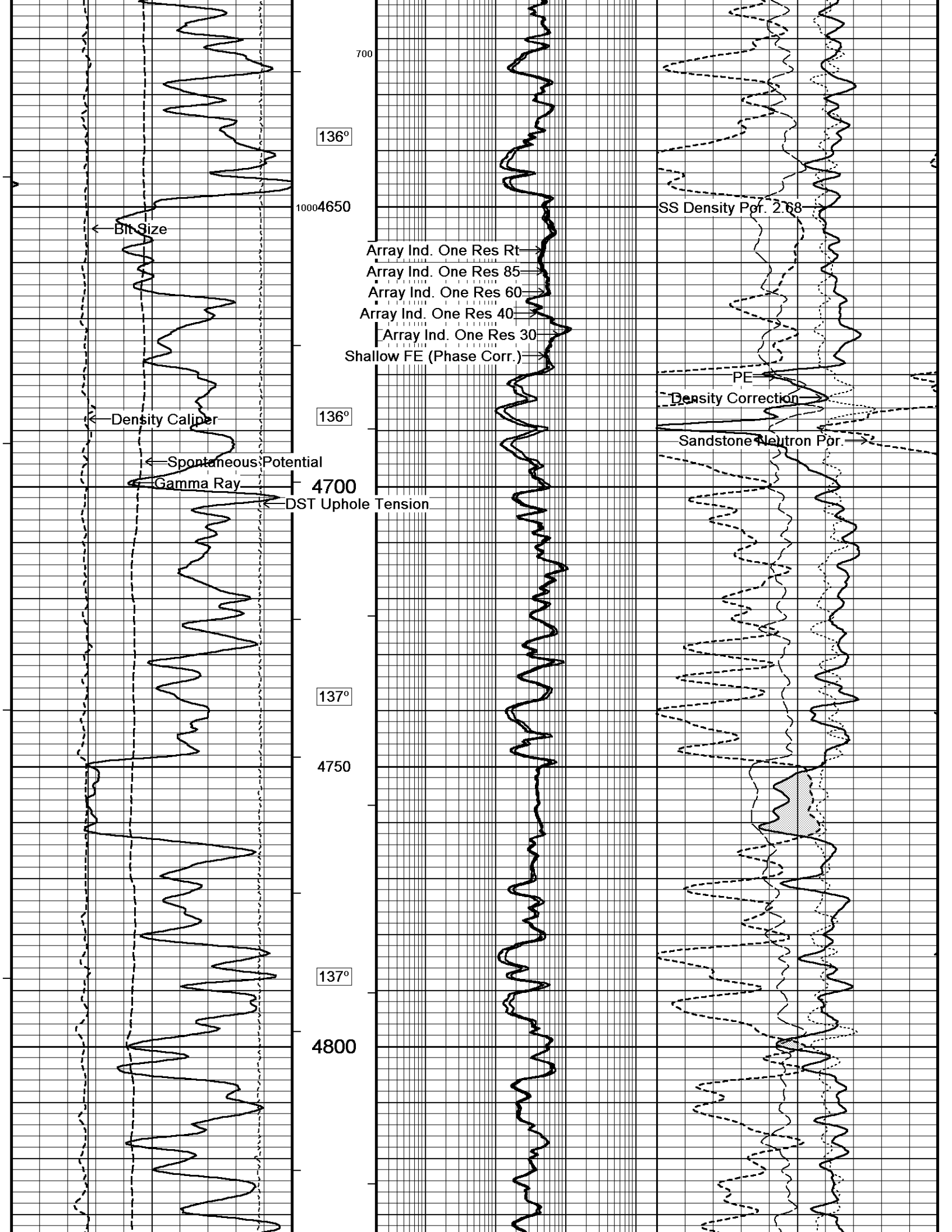
134°

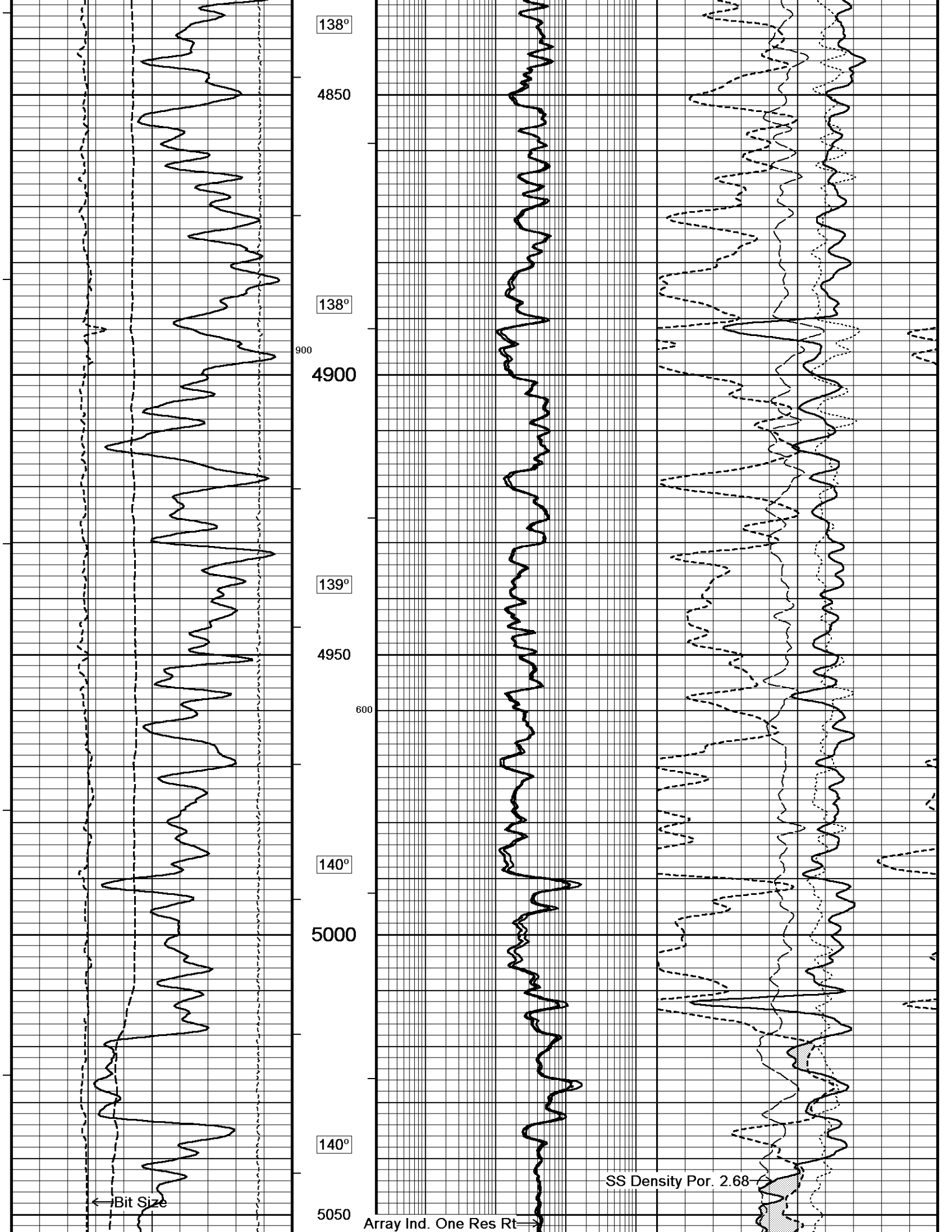
4550

135°

4600







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

PE
Density Correction

Sandstone Neutron Por. →

Density Caliper

Spontaneous Potential

Gamma Ray

DST Uphole Tension

141°

5100

141°

800

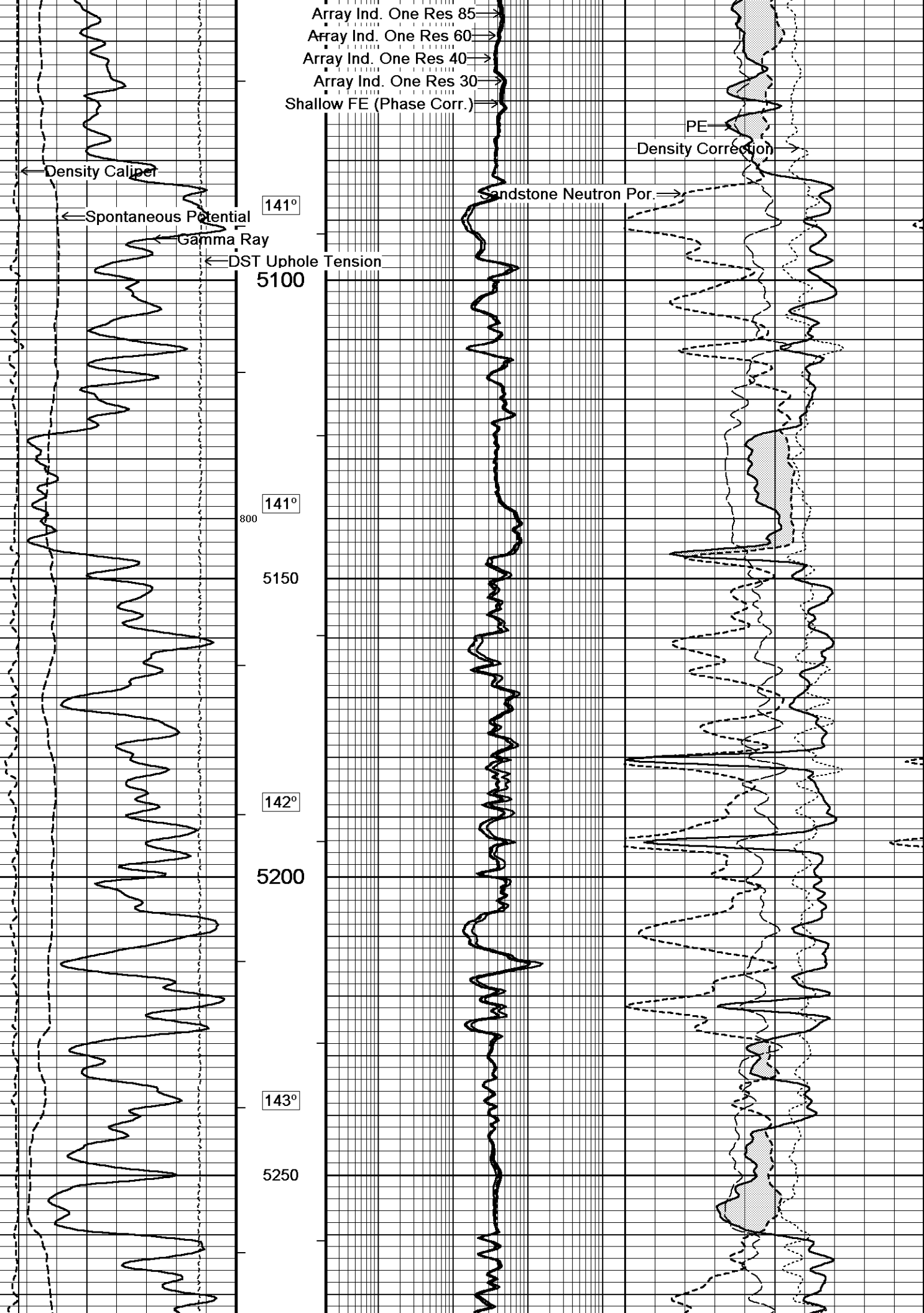
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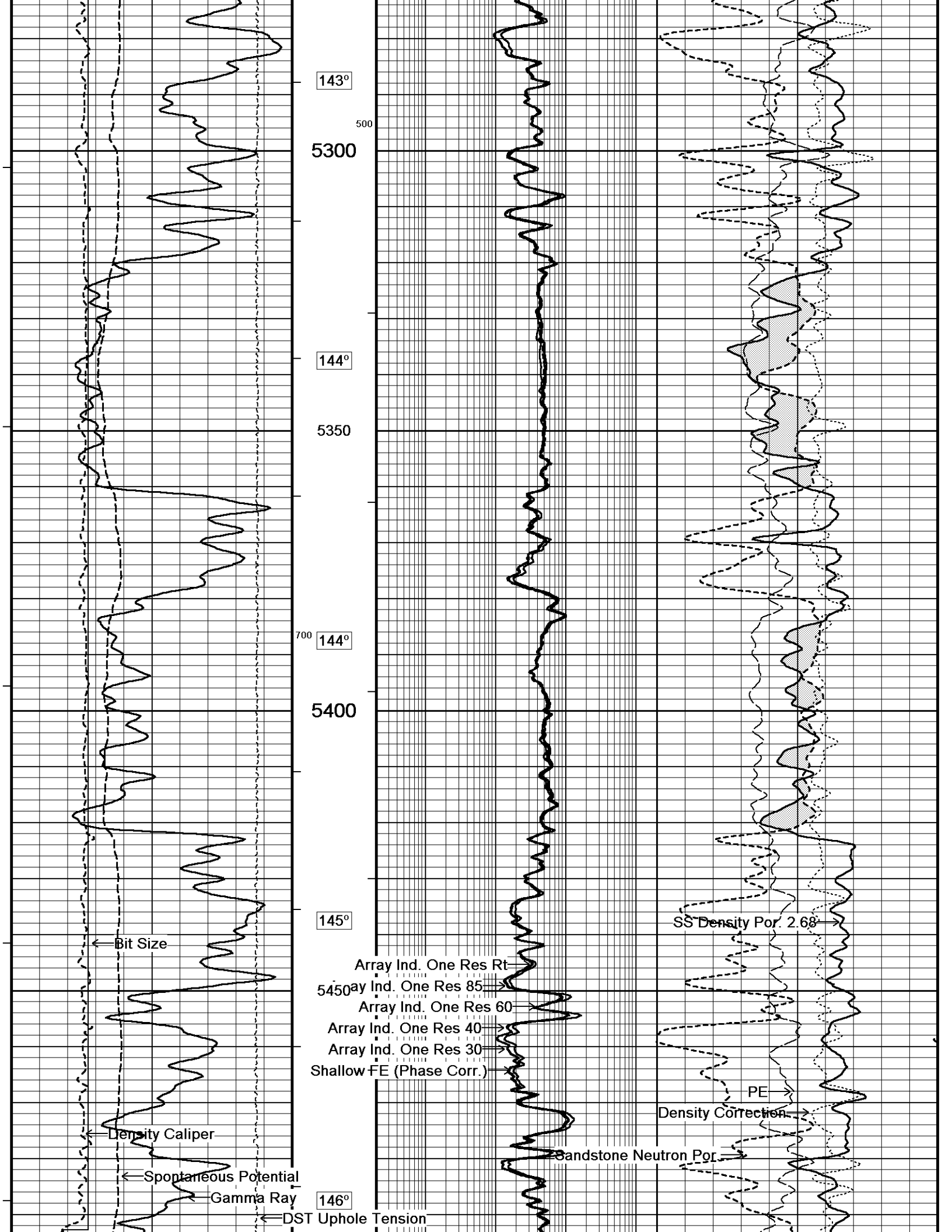
142°

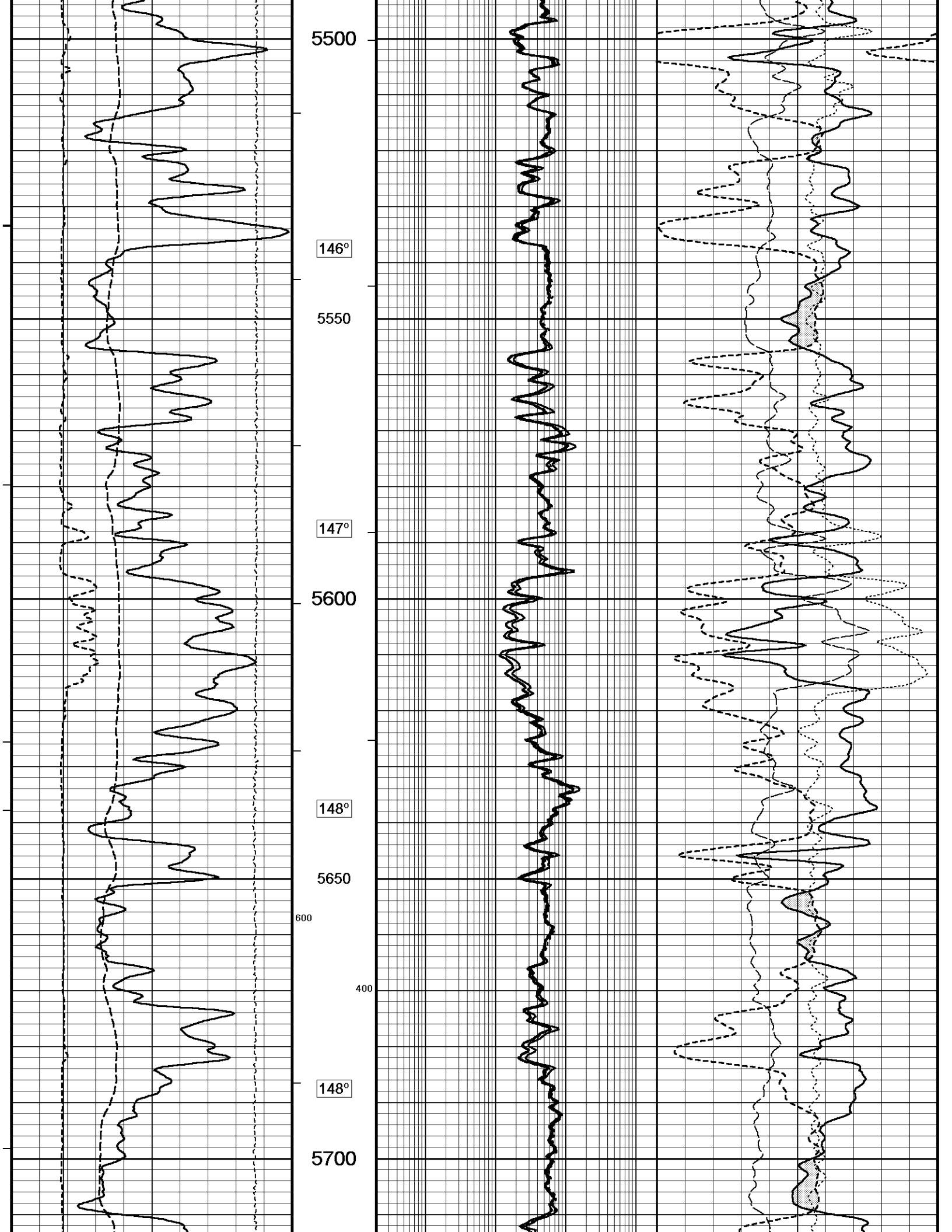
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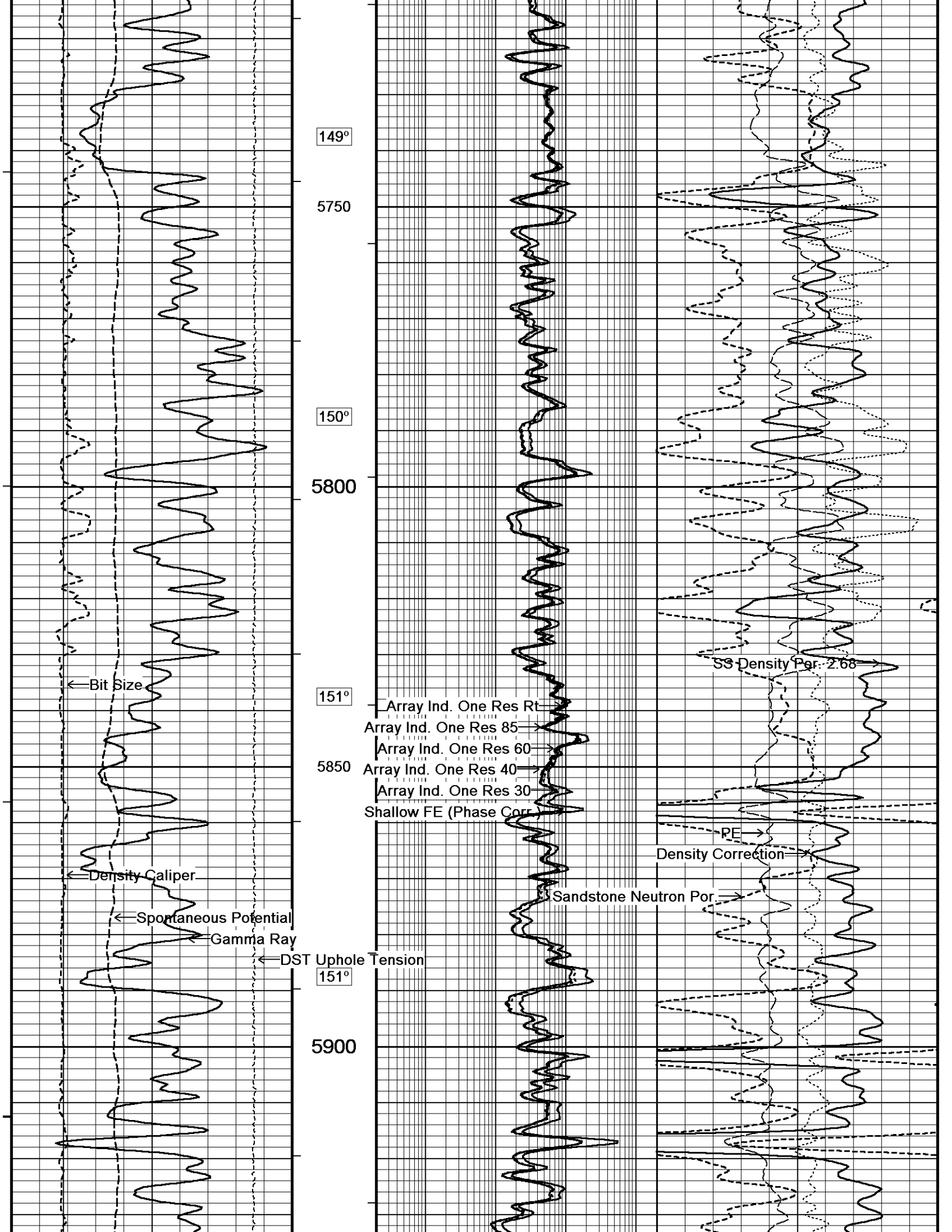
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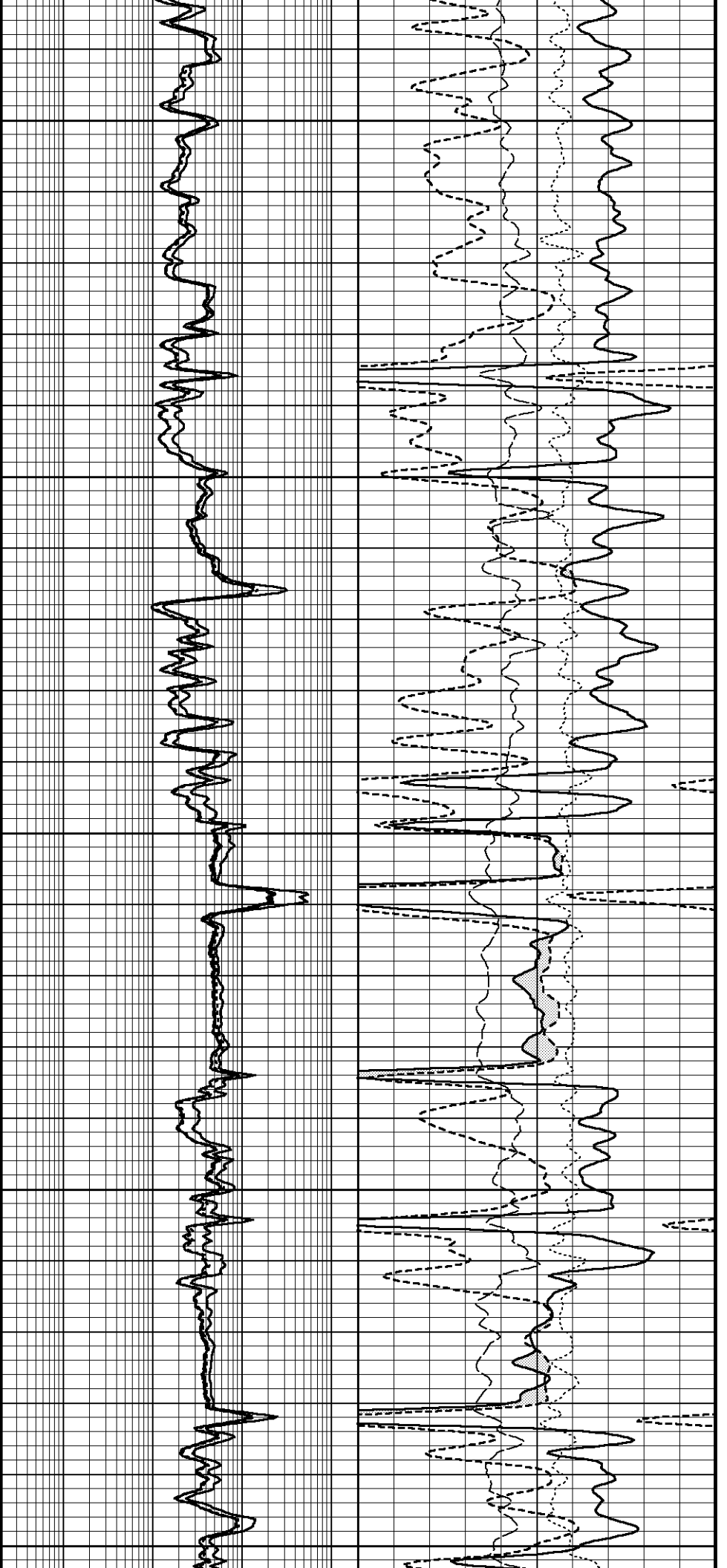
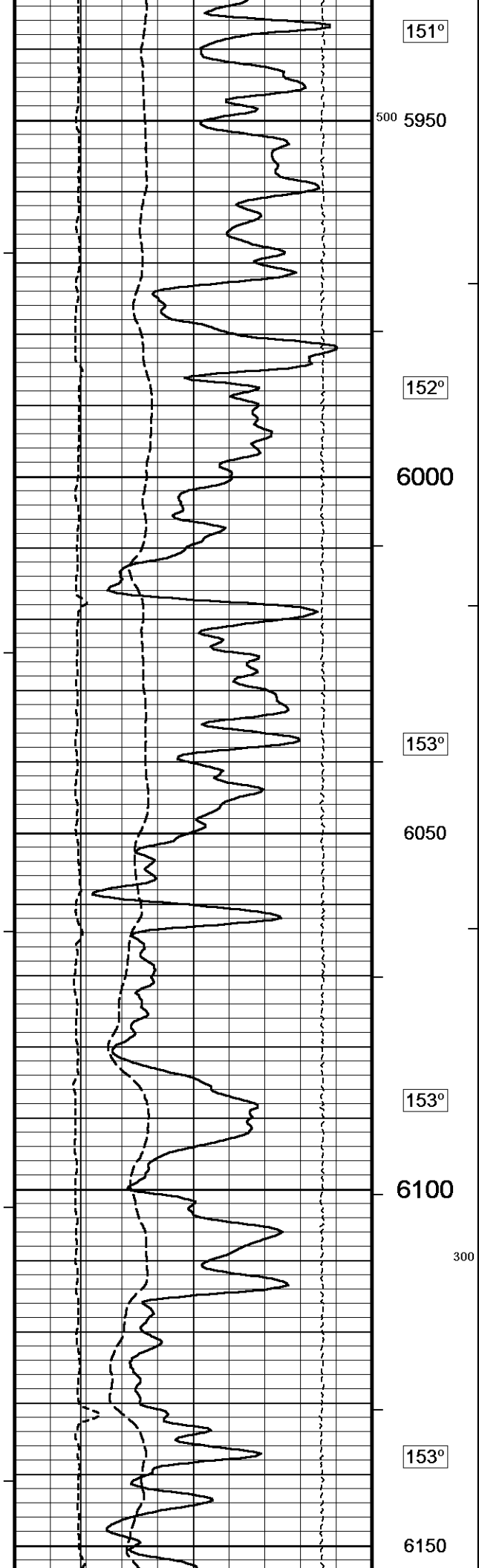
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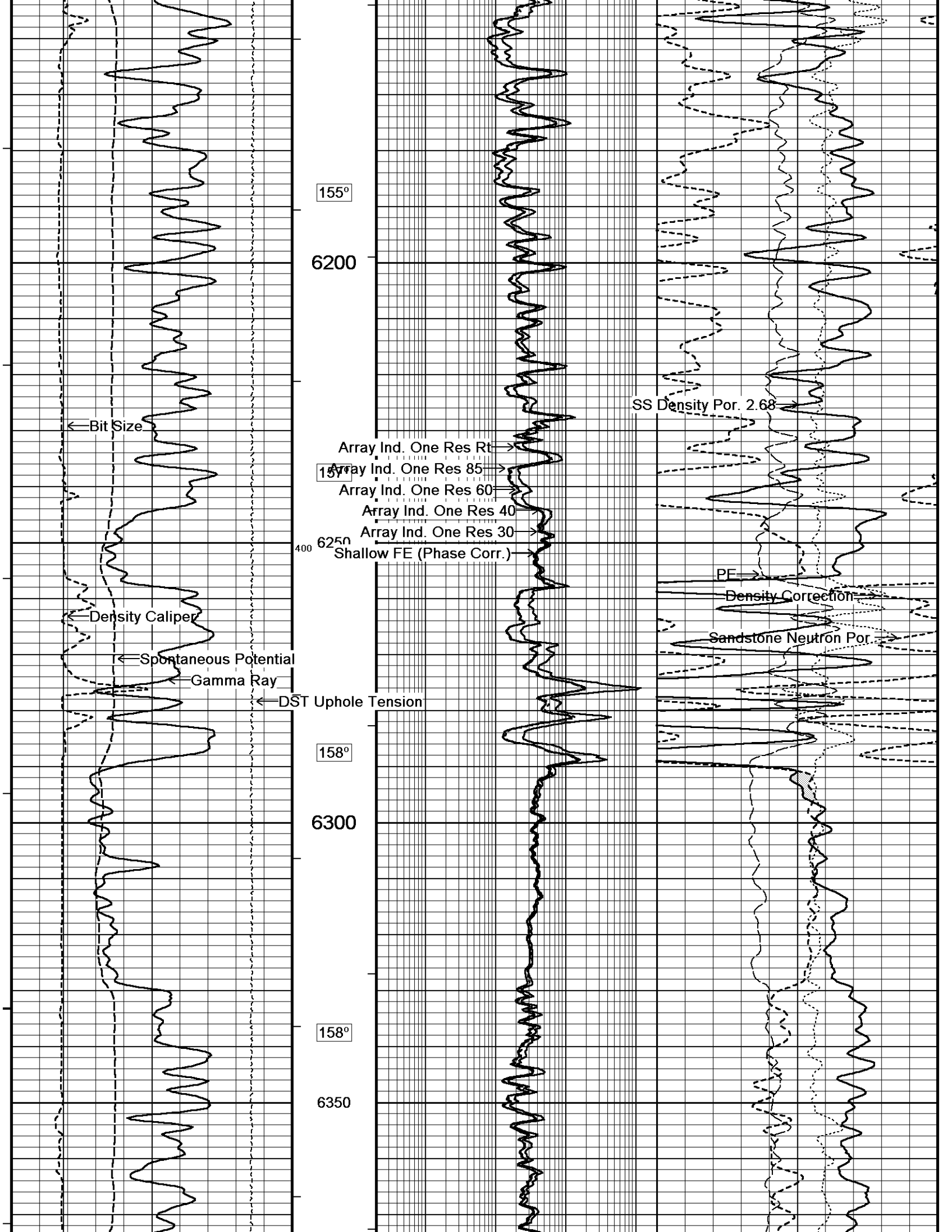


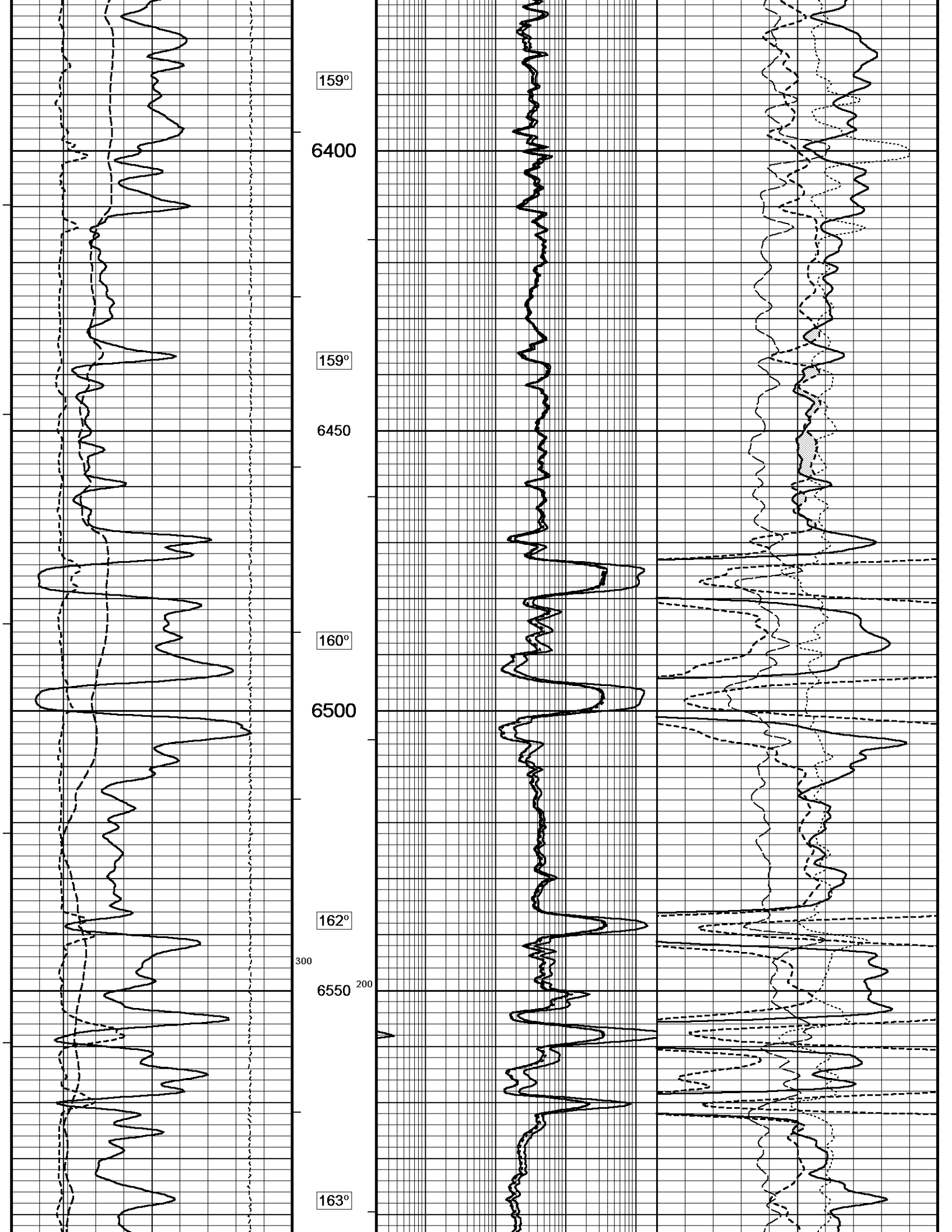


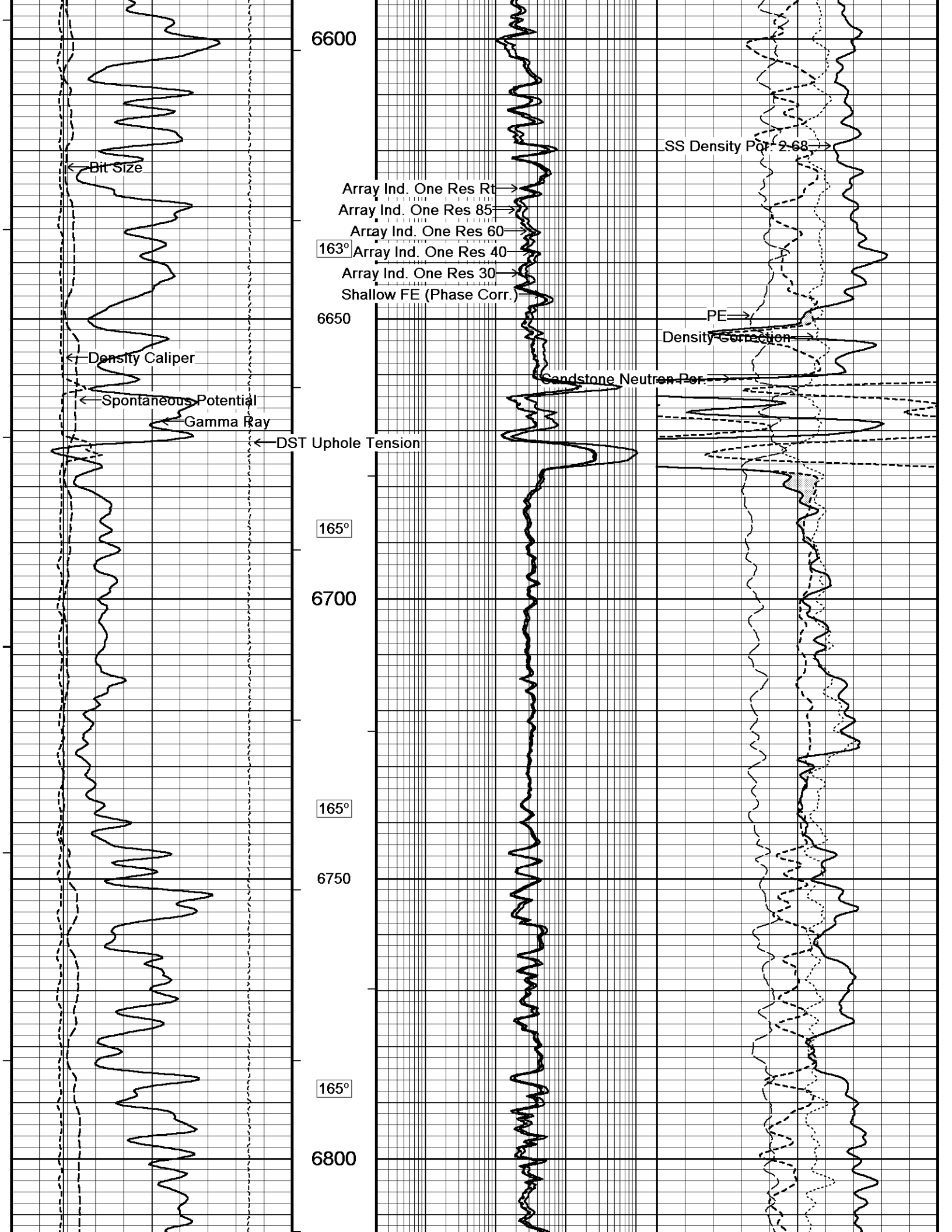


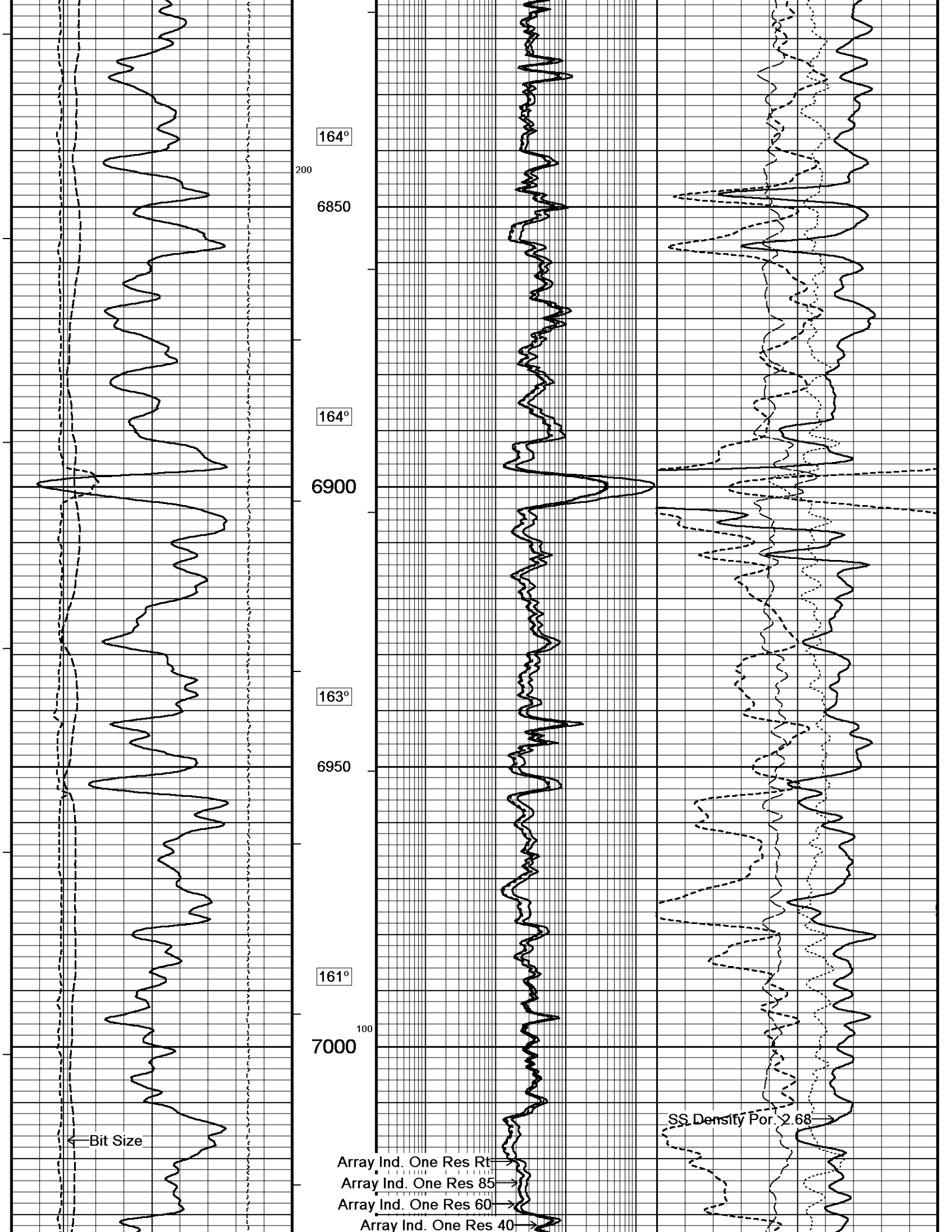


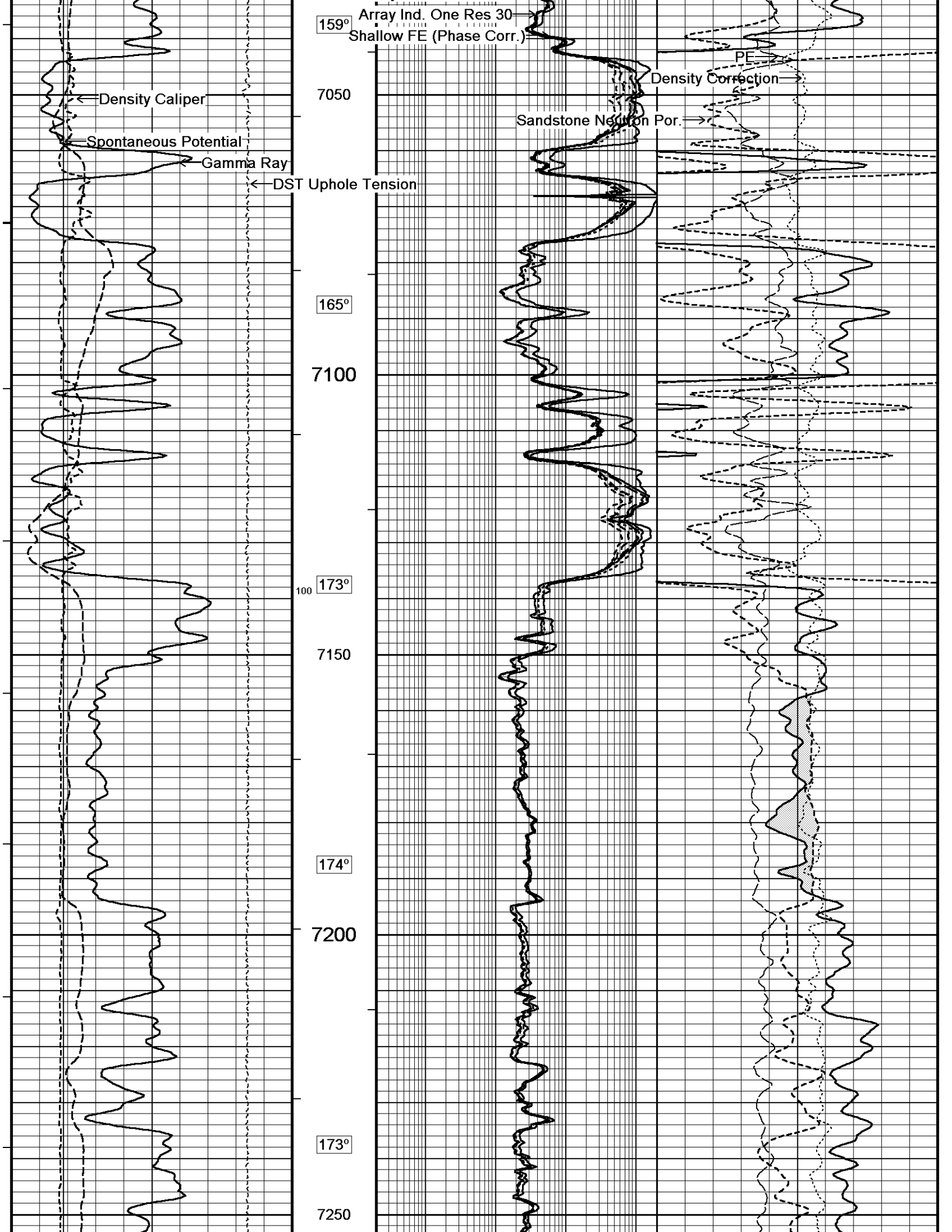


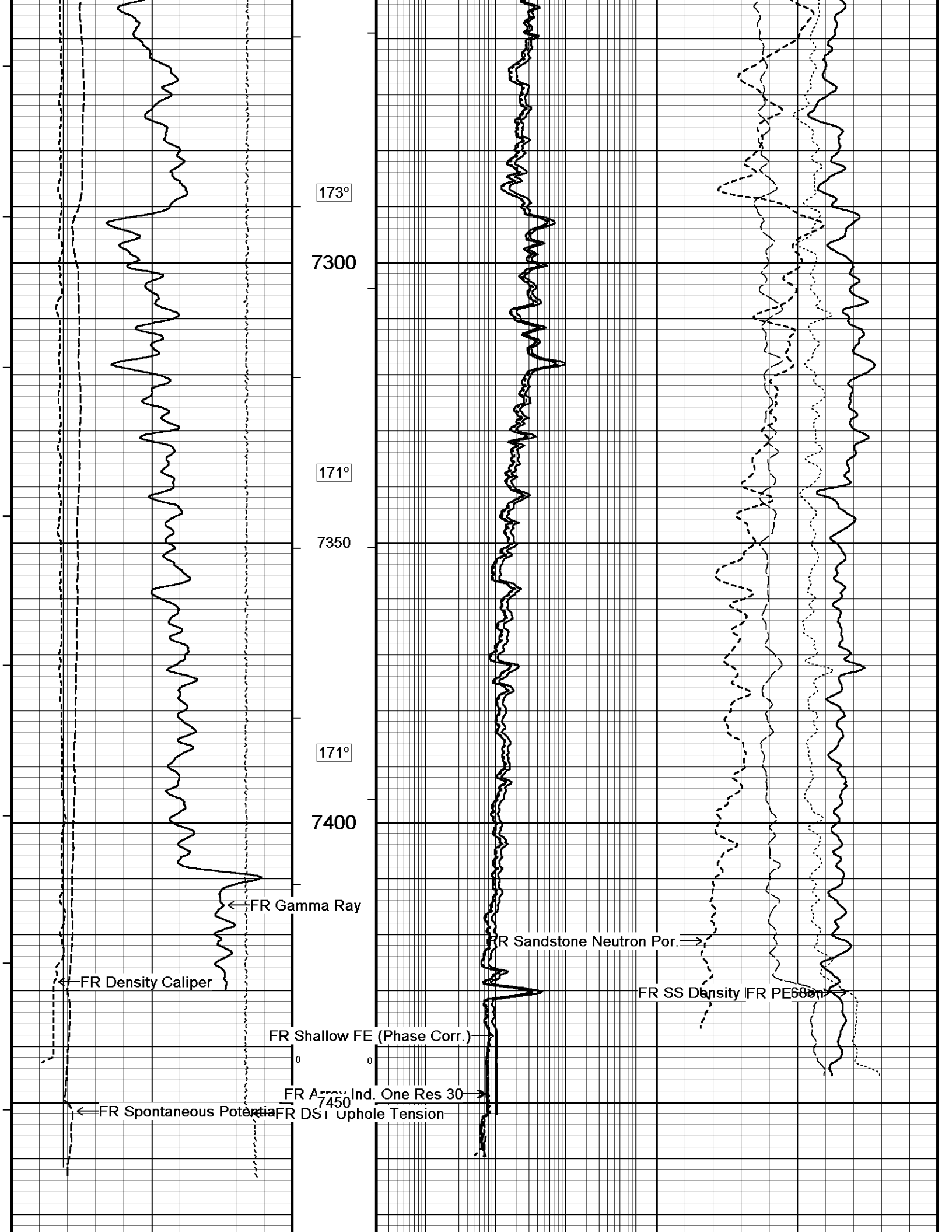


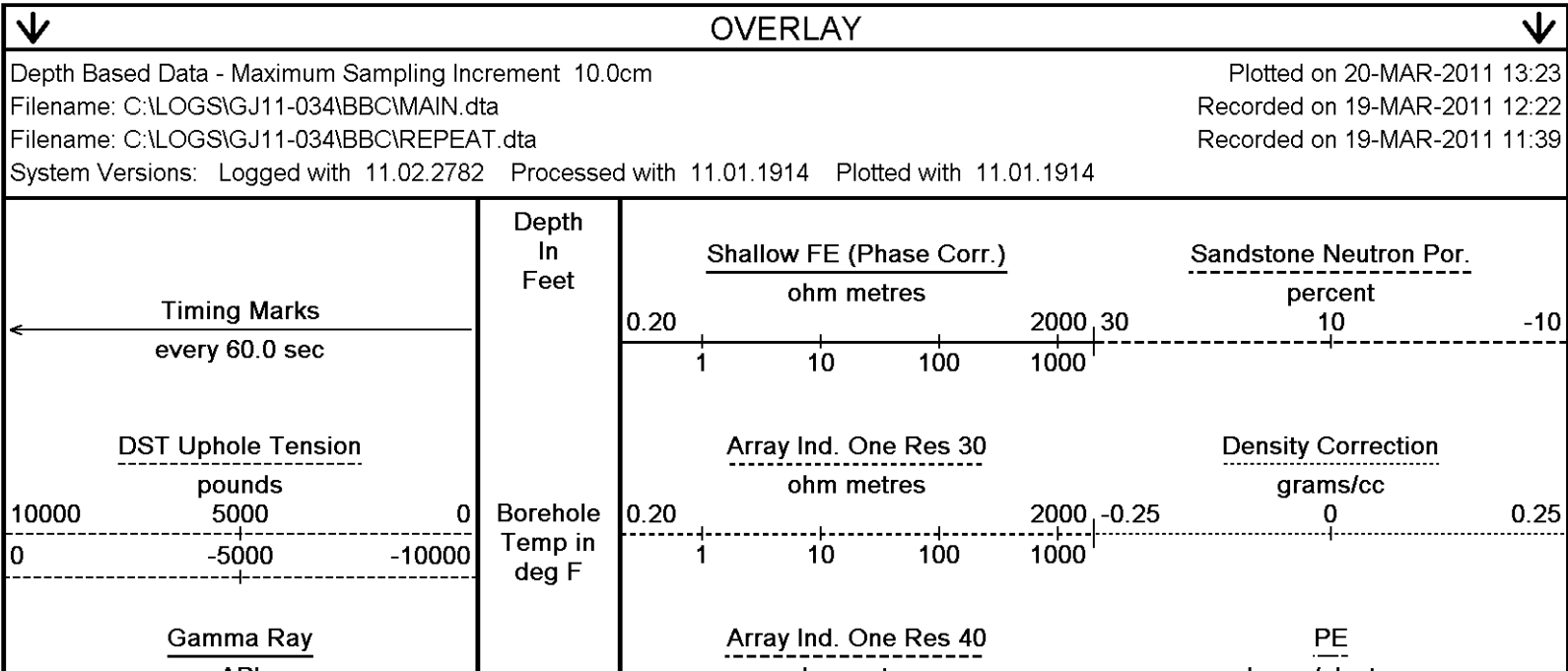
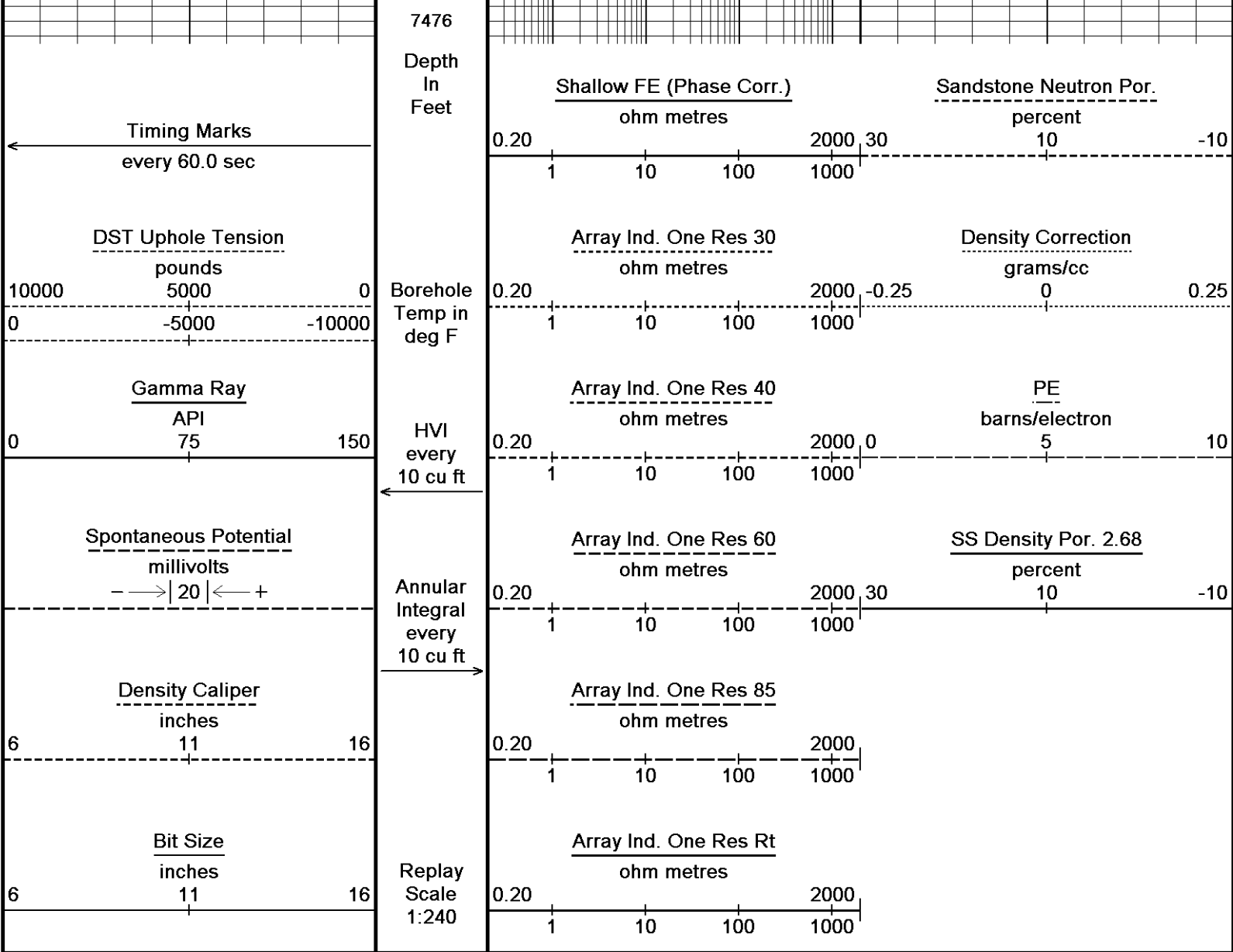


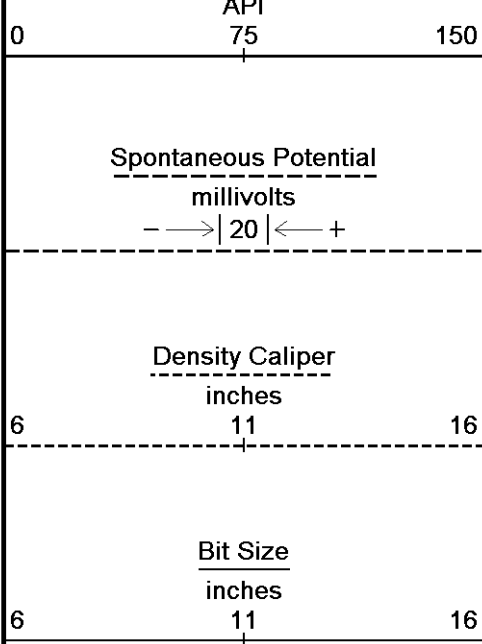








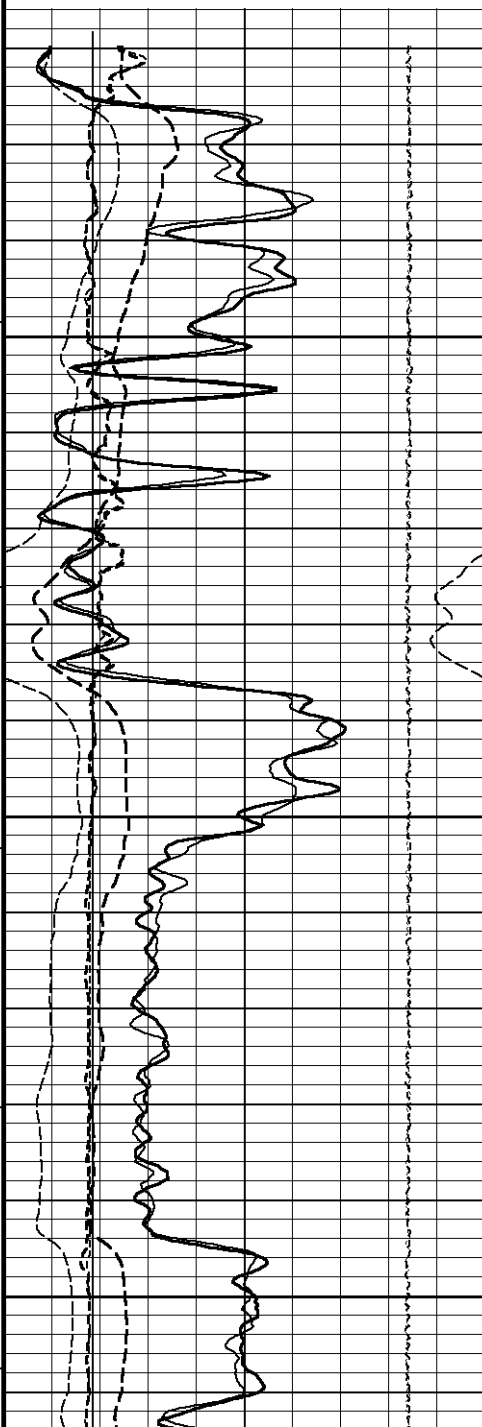
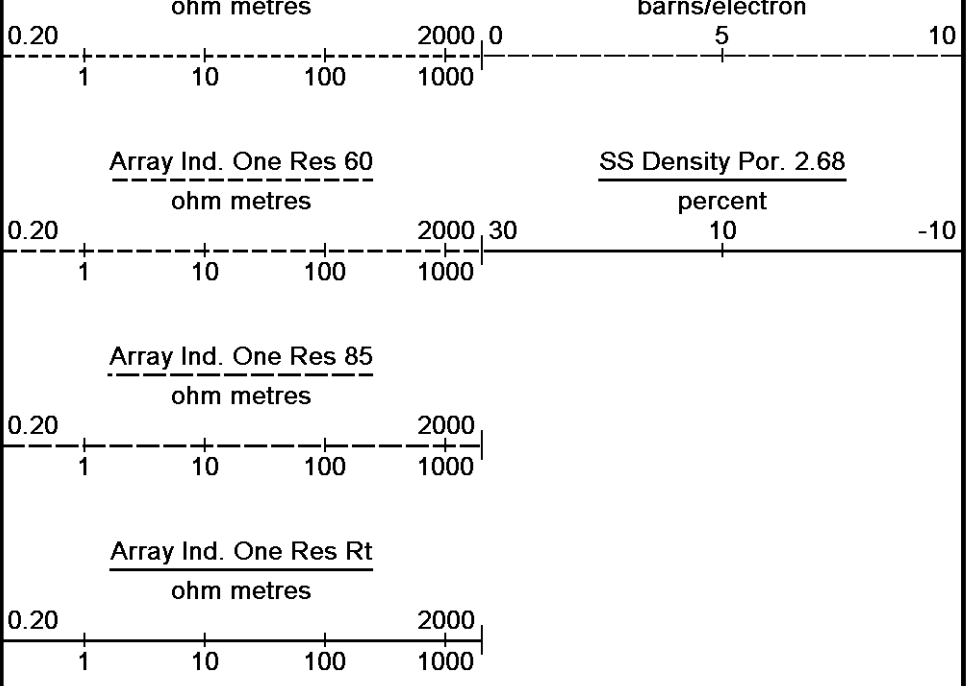




HVI every 10 cu ft

Annular Integral every 10 cu ft

Replay Scale 1:240



7068

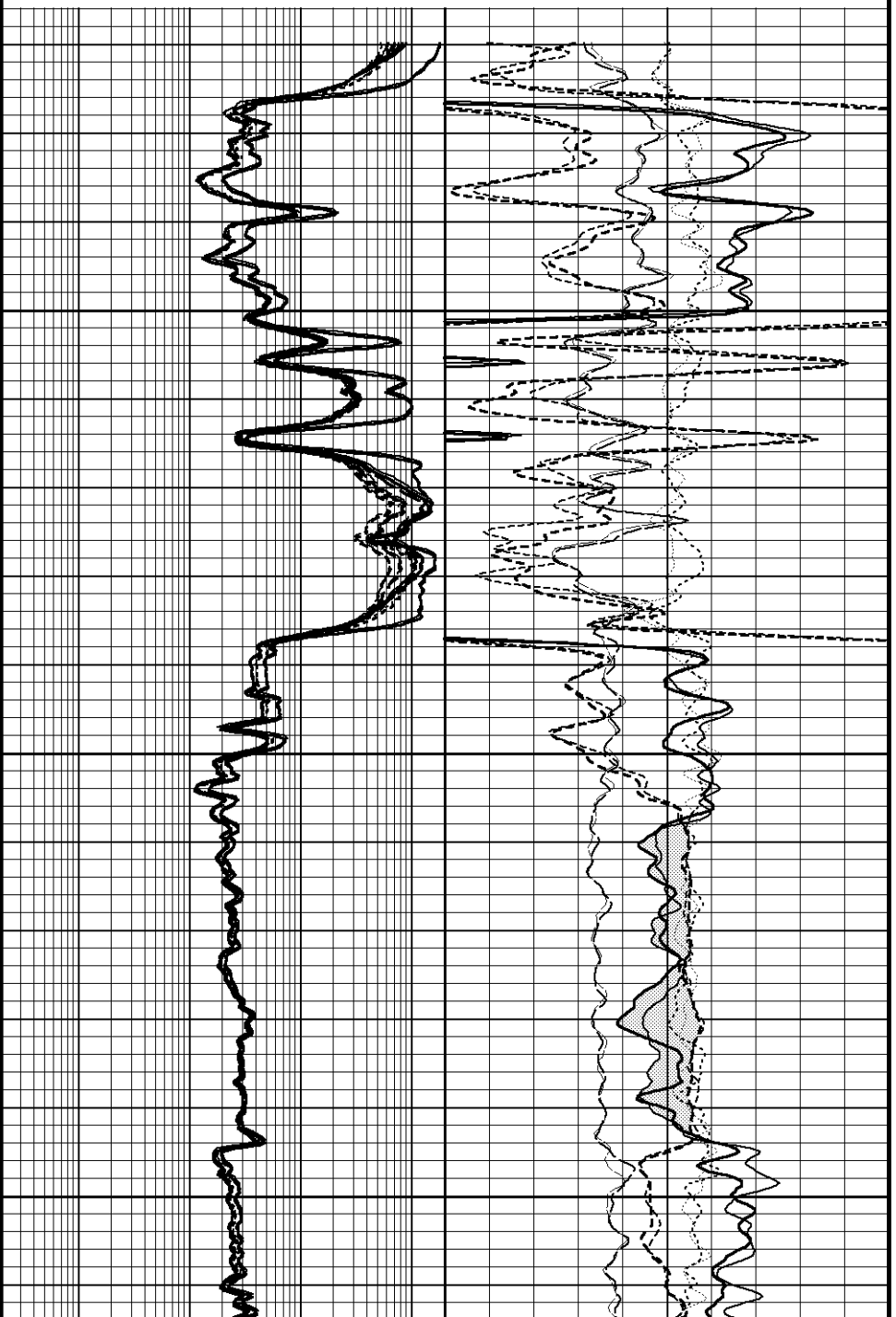
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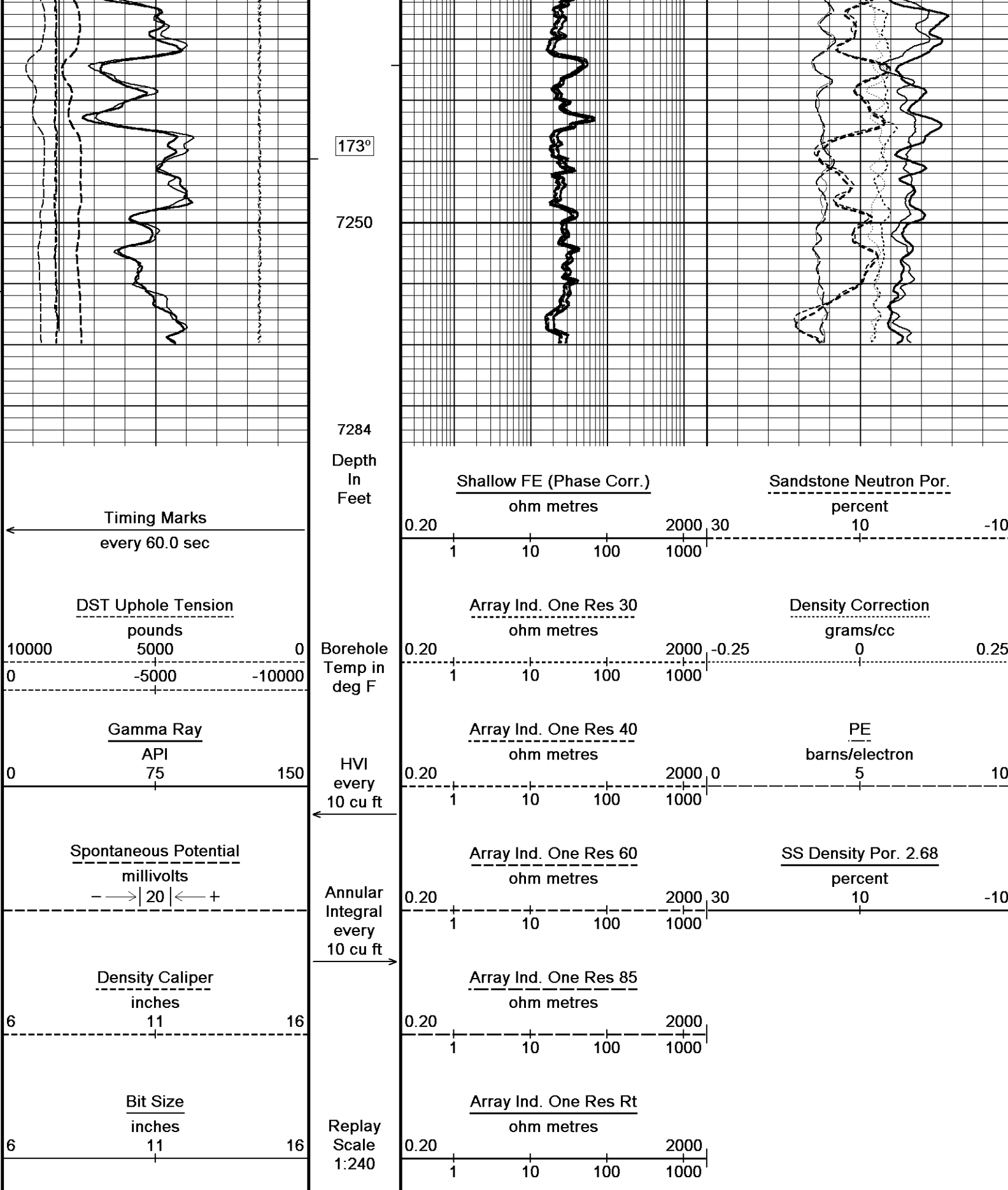
173°

7150

174°

7200





Depth Based Data - Maximum Sampling Increment 10.0cm
Filename: C:\LOGS\GJ11-034\BBC\MAIN.dta
Filename: C:\LOGS\GJ11-034\BBC\REPEAT.dta
System Versions: Logged with 11.02.2782 Processed with 11.01.1914 Plotted with 11.01.1914

Plotted on 20-MAR-2011 13:23
Recorded on 19-MAR-2011 12:22
Recorded on 19-MAR-2011 11:39

BEFORE SURVEY CALIBRATION

C:\LOGS\GJ11-034\BBC\MAIN.dta

General Constants All 000

Last Edited on 19-MAR-2011,12:19

General Parameters

Mud Resistivity	2.350	ohm-metres
Mud Resistivity Temperature	76.800	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	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-MAR-2011 23:51

Reading No	Measured	Calibrated (lbs)
1	15465.32	0.00
2	16422.17	350.00

Gamma Calibration MCG-D.J 422

Field Calibration on 18-MAR-2011,23:05

	Measured	Calibrated (API)
Background	144	80
Calibrator (Gross)	1091	607
Calibrator (Net)	947	527

Gamma Constants MCG-D.J 422

Last Edited on

Gamma Calibrator Number	grc 2005	
Mud Density	1.00	gm/cc
Caliper Source for Processing	Bit Size	
Tool Position	Eccentred	
Concentration of KCl	0.00	kppm

SP Calibration MCG-D.J 422

Field Calibration on 18-MAR-2011,23:05

	Measured	Calibrated (mV)
Reference 1	102.1	100.0
Reference 2	-98.4	-100.0

High Resolution Temperature Calibration MCG-D.J 422

Field Calibration on 18-MAR-2011,23:05

	Measured	Calibrated(Deg F)
Lower	10.00	10.00
Upper	75.00	75.00

High Resolution Temperature Constants MCG-D.J 422

Last Edited on

Pre-filter Length	11
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Neutron Calibration MDN-B.A 216

Base Calibration on 03-MAR-2011 18:35

Field Check on 18-MAR-2011,23:07

Base Calibration

	Measured		Calibrated (cps)	
	Near	Far	Near	Far
Ratio	3045	95	3714	110
	32.055		33.764	

Field Calibrator at Base

	Calibrated (cps)	
Ratio	1630	2338
	0.697	

Field Check	Calibrated (cps)	
	1542	2231
Ratio	0.692	

Neutron Constants MDN-B.A 216			Last Edited on 18-MAR-2011,23:06		
Neutron Source Id	271				
Neutron Jig Number	6531				
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	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.J 313			Base Calibration on 03-MAR-2011 14:41 Field Check on 18-MAR-2011 23:56		
Base Calibration					
	Measured	Calibrated (ohm-m)			
Reference 1	9.7	1.3			
Reference 2	963.8	126.8			
Base Check			281.8		
Field Check			282.0		

FE Constants MFE-B.J 313			Last Edited on 18-MAR-2011,23:08		
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	Constant Value				
Temp. for Rm Corr.	N/A				
Stand-off	0.5	inches			

Induction Calibration MAI-B.A 286			Base Calibration on Field Check on 18-MAR-2011 23:58		
Base Calibration					
Test Loop Calibration		Measured	Calibrated (mmho/m)		
Channel	Low	High	Low	High	
1	17.8	471.4	9.3	966.2	
2	6.8	387.0	7.6	821.4	
3	3.2	259.6	5.2	566.0	
4	2.0	136.1	2.6	279.2	
Array Temperature	75.3		Deg F		
Channel		Base Check (mmho/m)	Field Check (mmho/m)		
	Low	High	Low	High	
1	0.0	0.0	11.3	3855.3	
2	0.0	0.0	28.6	3483.3	
3	0.0	0.0	29.2	3043.6	
4	0.0	0.0	19.1	2028.3	
Deep	0.0	0.0	18.7	1995.5	
Medium	0.0	0.0	43.1	4025.0	
Shallow	0.0	0.0	41.3	5127.6	
Array Temperature	0.0		60.4 Deg F		

Induction Constants MAI-B.A 286			Last Edited on		
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 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 157

Base Calibration on 16-MAR-2011 16:13
Field Calibration on

Base Calibration		
Reading No	Measured	Calibrator Size (in)
1	18020	4.00
2	26272	5.96
3	34207	7.98
4	42325	9.86
5	51344	11.88
6	N/A	N/A

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

Photo Density Calibration MPD-B 157

Base Calibration on 16-MAR-2011,16:31
Field Check on 18-MAR-2011 23:55

Density Calibration				
Base Calibration		Measured	Calibrated (sdu)	
	Near	Far	Near	Far
Reference 1	47064	17563	52994	19128
Reference 2	22378	2528	25185	2558

Field Check at Base		
	1018.0	1227.9

Field Check		
	1016.2	1226.4

PE Calibration				
Base Calibration		Measured	Calibrated	
	WS	WH	Ratio	Ratio
Background	182	895		
Reference 1	14782	46895	0.317	0.309

Field Check at Base

181.7 894.5

Field Check

178.7 884.0

Density Constants MPD-B 157

Last Edited on 18-MAR-2011,23:03

Density Source Id	271	
Nylon Calibrator Number	507	
Aluminium Calibrator Number	507	
Density Shoe Profile	8 inch	
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	0.00

DOWNHOLE EQUIPMENT

C:\LOGS\GJ11-034\BBC\SONDE PICTURE.dta

SHA-J.A Compact Swivel Head Adaptor

SHA-J.A 316 LG: 2.30 ft WT: 22.0 lb OD: 2.24 in

Compact Comms Gamma

MCG-D.J 422 LG: 8.70 ft WT: 63.9 lb OD: 2.24 in

Compact Neutron

MDN-B.A 216 LG: 5.04 ft WT: 50.7 lb OD: 2.24 in

Compact Density/Caliper

MPD-B 157 LG: 9.59 ft WT: 90.4 lb OD: 2.45 in

SKJ-D.A Compact Knuckle Joint

SKJ-D.A 115 LG: 2.17 ft WT: 24.3 lb OD: 2.24 in

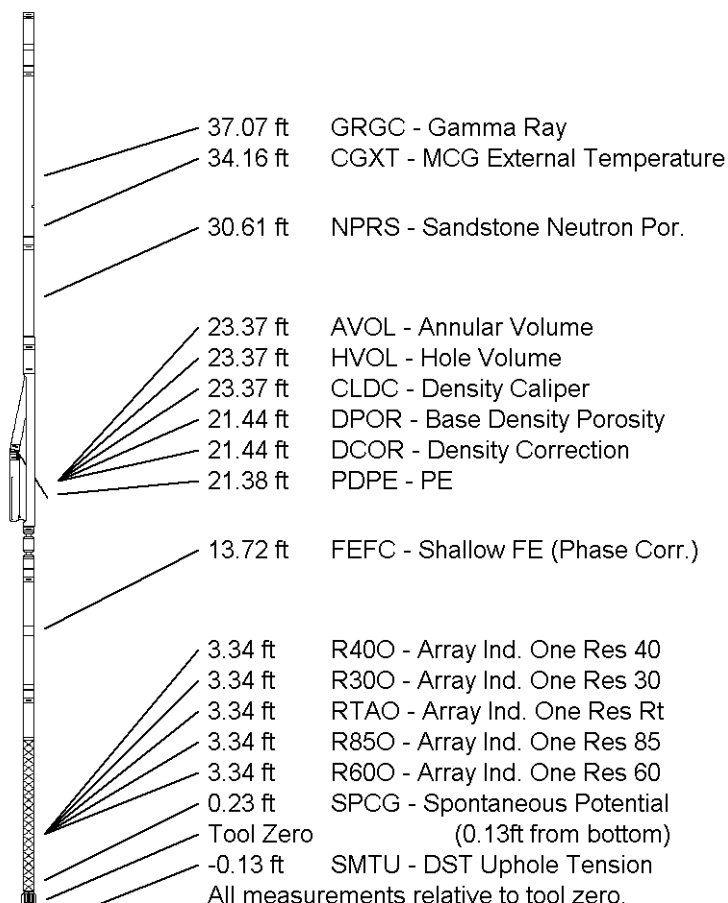
Compact Focussed Electric

MFE-B.J 313 LG: 6.05 ft WT: 48.5 lb OD: 2.24 in

Compact Induction

MAI-B.A 286 LG: 10.81 ft WT: 48.5 lb OD: 2.24 in

Total Length: 44.66 ft Weight: 348.3 lb



COMPANY	BILL BARRETT CORPORATION		
WELL	GGU FEDERAL 31B-29-691		
FIELD	GIBSON GULCH		
PROVINCE/COUNTY	GARFIELD		
COUNTRY/STATE	U.S.A. / COLORADO		

Elevation Kelly Bushing	6127.00	feet	First Reading	7447.00	
Elevation Drill Floor		feet	Depth Driller	7453.00	feet
Elevation Ground Level	6104.00	feet	Depth Logger	7450.00	feet


Weatherford[®]

COMPACT TRIPLE COMBO
QUICKLOOK
LOG