



Weatherford[®]

ARRAY INDUCTION
SHALLOW FOCUSED
ELECTRIC LOG

COMPANY					O'BRIEN ENERGY RESOURCES CORP.				
WELL					VAIL OFFSET #4-30				
FIELD					SINGLEY				
PROVINCE/COUNTY					MEADE				
COUNTRY/STATE					U.S.A. / KANSAS				
LOCATION					2305' FSL & 2305' FEL				
SEC	TWP	RGE	Other Services			MML			
30	33S	29W	MPD/MDN						
API Number			15-119-21322						
Permit Number									
Permanent Datum GL, Elevation 2672 feet						Elevations: KB 2684.00 DF 2682.00 GL 2672.00			
Log Measured From KB									
Drilling Measured From KB									
Date	17-AUG-2012								
Run Number	ONE								
Depth Driller	6354.00				feet				
Depth Logger	6358.00				feet				
First Reading	6355.00				feet				
Last Reading	1494.00				feet				
Casing Driller	1493.00				feet				
Casing Logger	1494.00				feet				
Bit Size	7.875				inches				
Hole Fluid Type	WBM								
Density / Viscosity	9.00		lb/USg		65.00		CP		
PH / Fluid Loss	12.00				7.00		ml/30Min		
Sample Source	FLOWLINE								
Rm @ Measured Temp	0.98 @ 96.0				ohm-m				
Rmf @ Measured Temp	0.78 @ 96.0				ohm-m				
Rmc @ Measured Temp	1.18 @ 96.0				ohm-m				
Source Rmf / Rmc	CALC				CALC				
Rm @ BHT	0.74 @130.0				ohm-m				
Time Since Circulation	5 HOURS								
Max Recorded Temp	130.00				deg F				
Equipment Name	COMPACT								
Equipment / Base	13057				LIB				
Recorded By	ADAM SILL				WITNESS-PAUL WIEMANN				
Witnessed By	ROGER PEARSON				PETER DEBENHAM				
S.O. # / JOB #	3537827				LB12-218				

BOREHOLE RECORD

Last Edited: 17-AUG-2012 03:50

Bit Size inches	Depth From feet	Depth To feet
7.875	1493.00	6354.00

CASING RECORD

Type	Size inches	Depth From feet	Shoe Depth feet	Weight pounds/ft
SURFACE	8.625	0.00	1493.00	24.00

REMARKS

- SOFTWARE ISSUE: WLS 13.02.6600.
- MCG, MML, MDN, MPD, MFE, MAI RAN IN COMBINATION.
 - HARDWARE: DUAL BOWSPRING USED ON MDN.
 - 0.5 INCH STANDOFF USED ON MFE.
 - 0.5 INCH STANDOFF USED ON MAI.
- 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.
- TOTAL HOLE VOLUME FROM TD TO SURFACE CASING: 1961 CU. FT.
- ANNULAR HOLE VOLUME WITH 4.5 INCH PRODUCTION CASING FROM TD TO 4000 FT: 565 CU. FT.
- SERVICE ORDER # 3537827

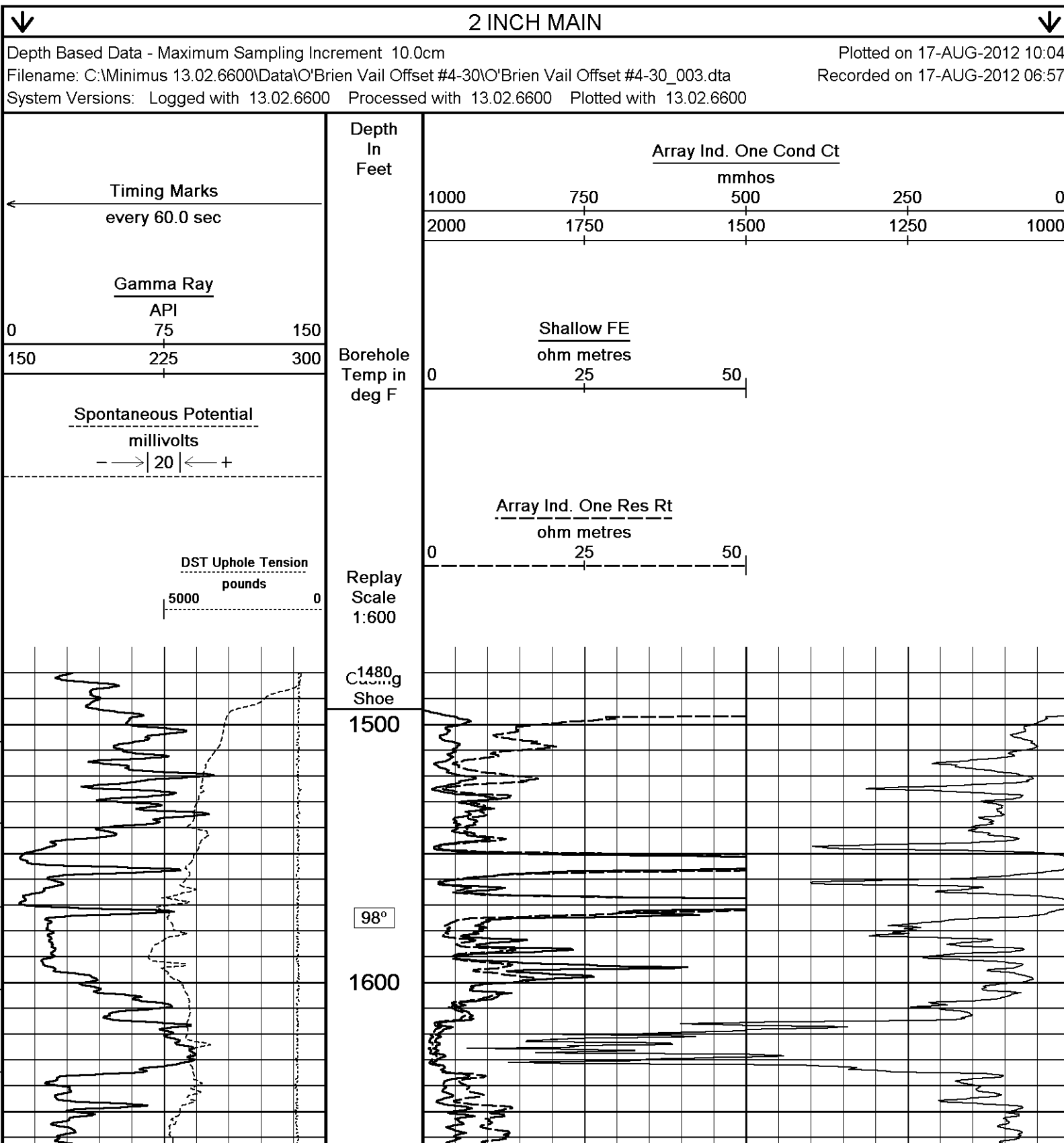
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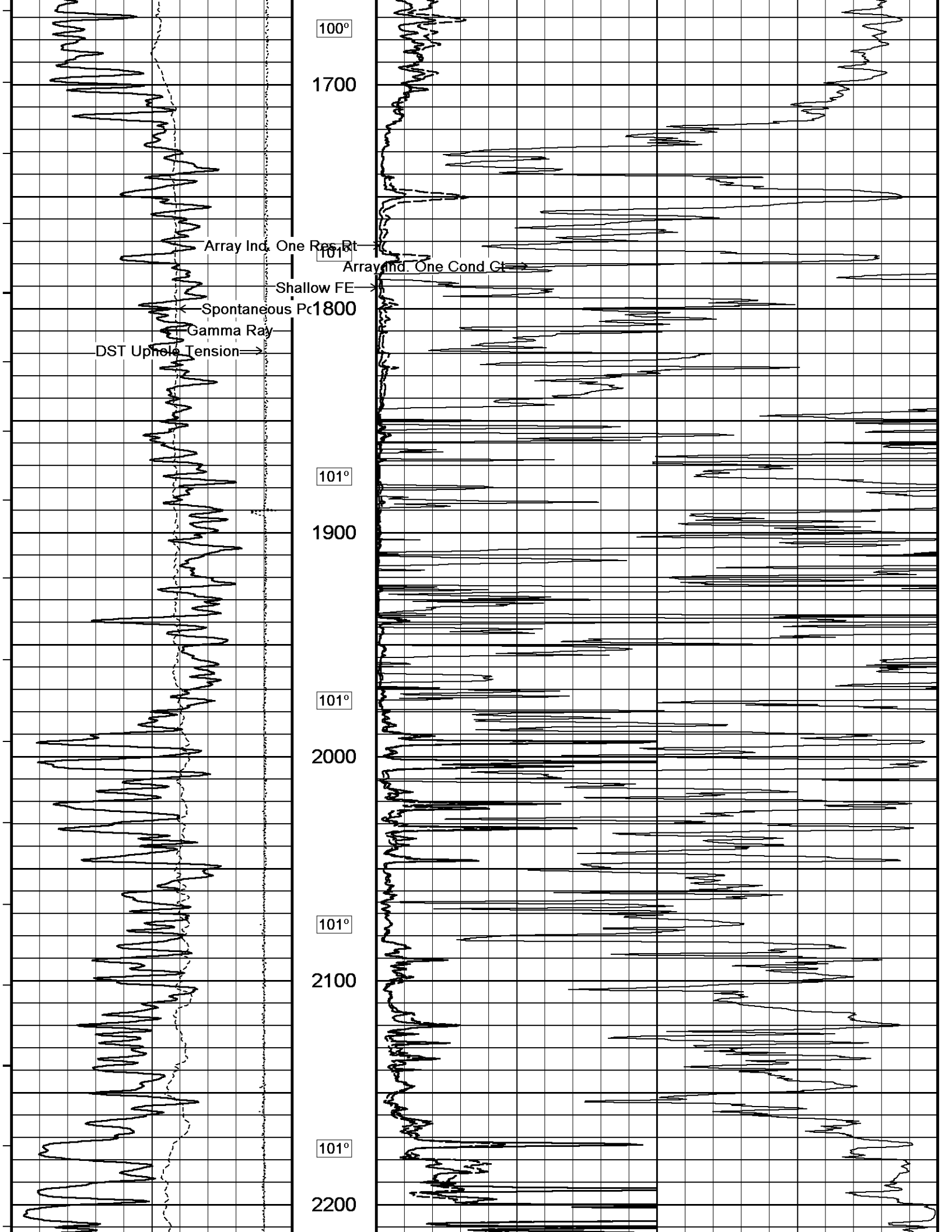
- RIG: DUKE #6.

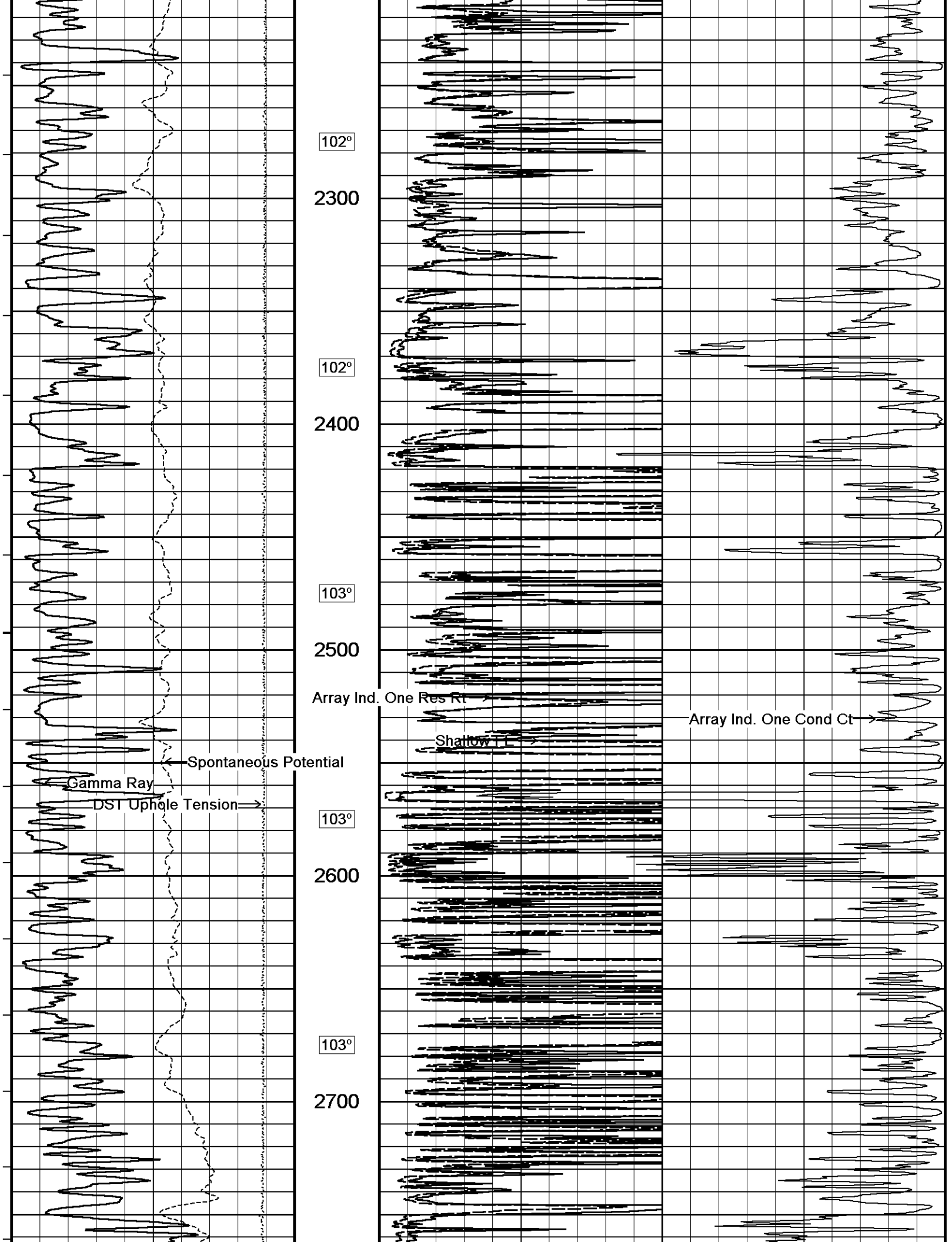
- ENGINEER: A. SILL.

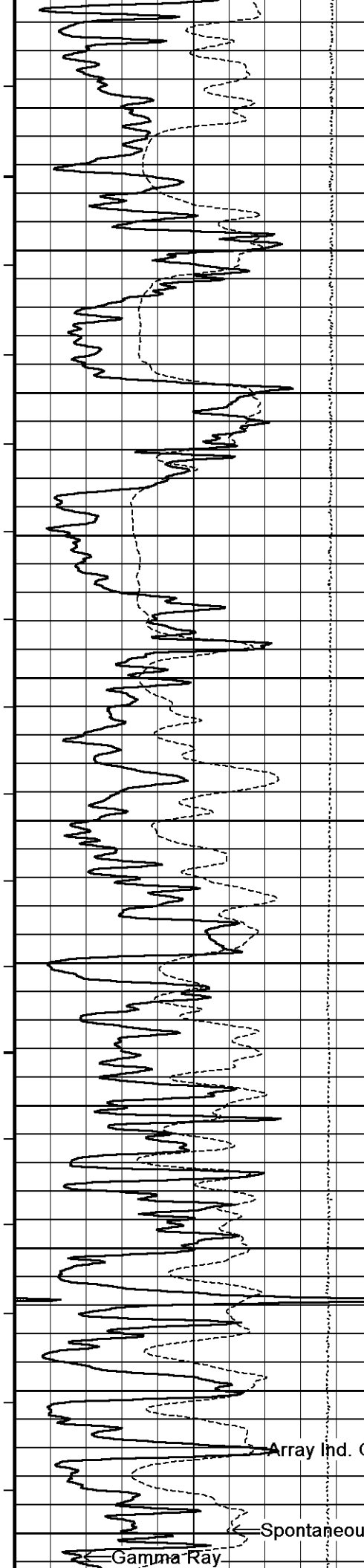
- OPERATOR(S): B. REEVES.

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.









104°

2800

105°

2900

106°

3000

106°

3100

107°

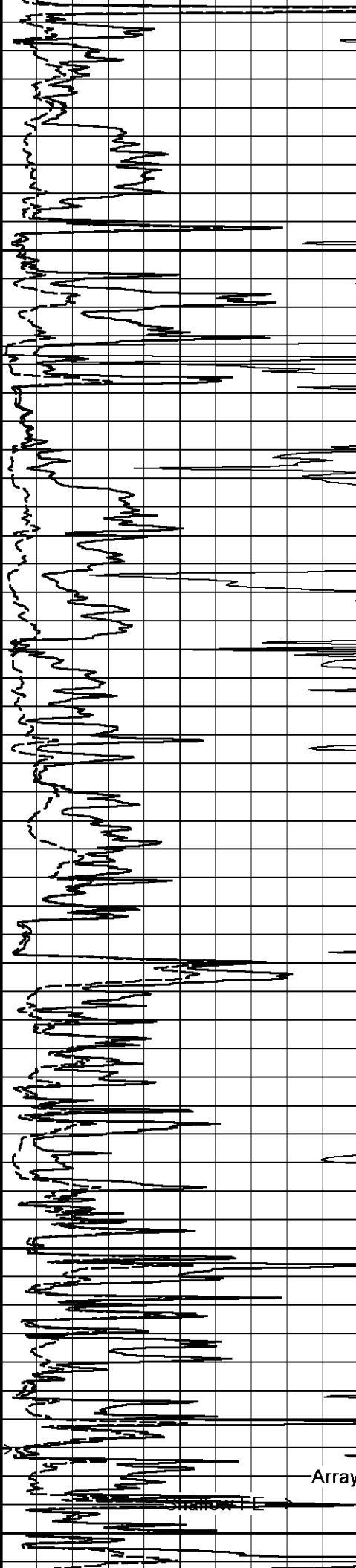
3200

108°

Array Ind. One Res Rt

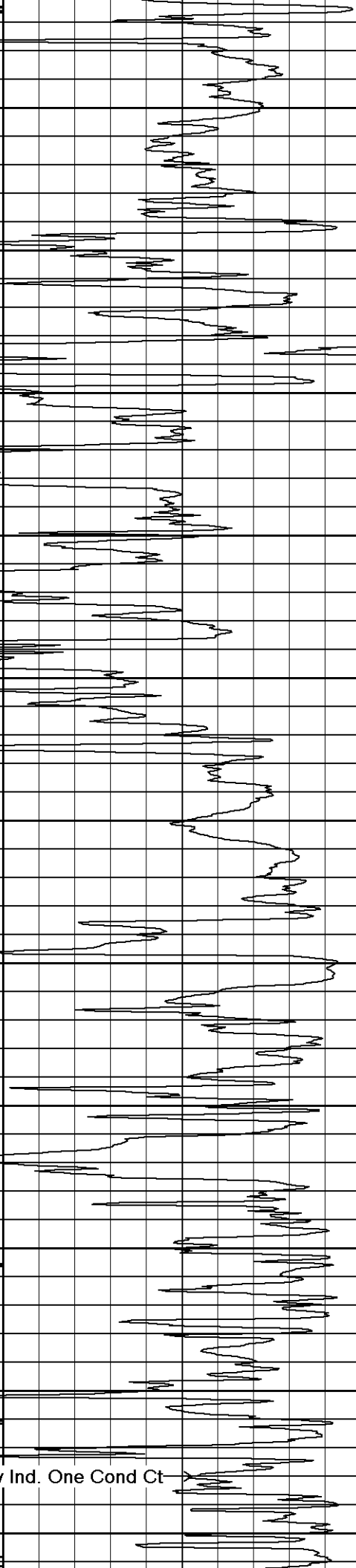
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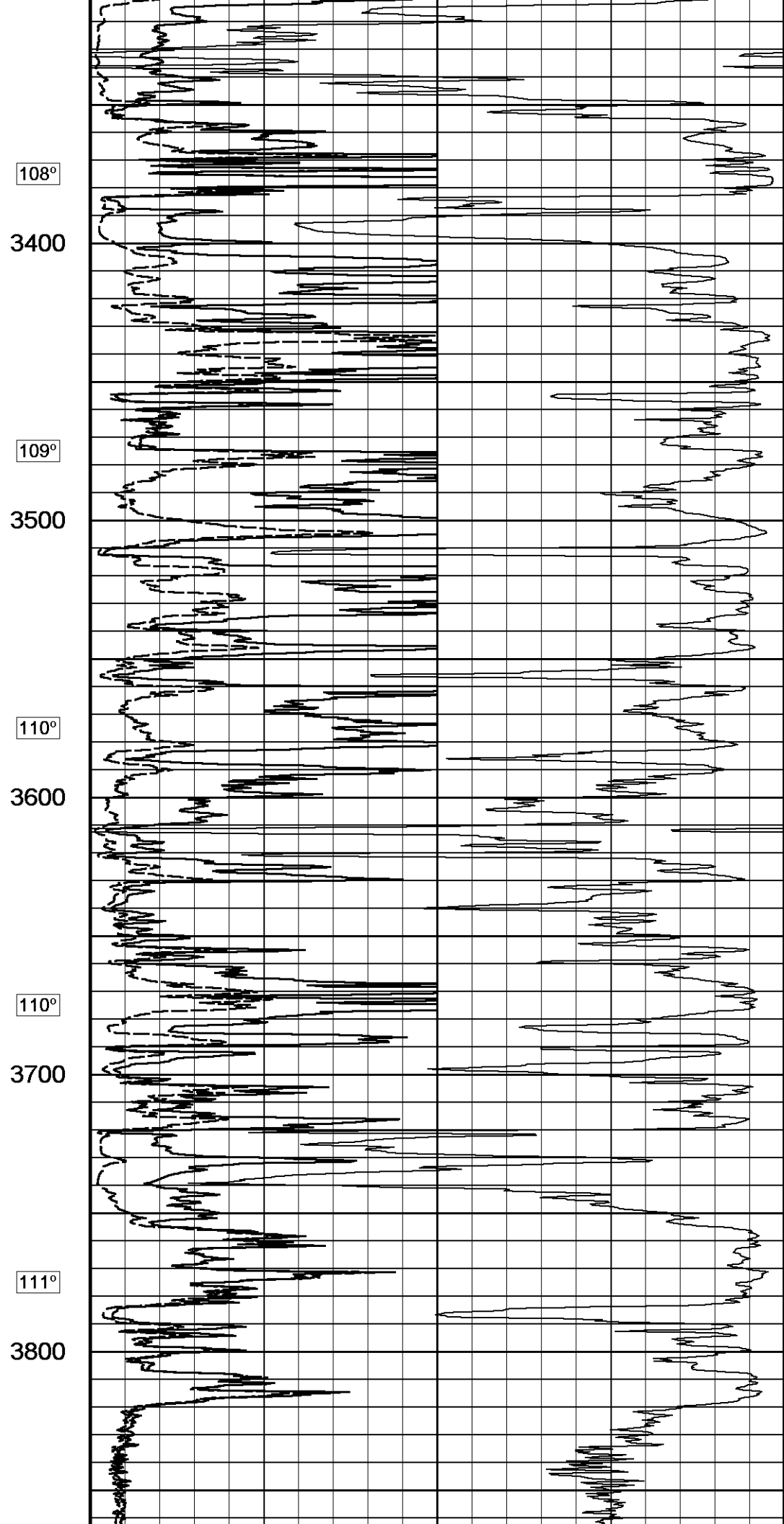
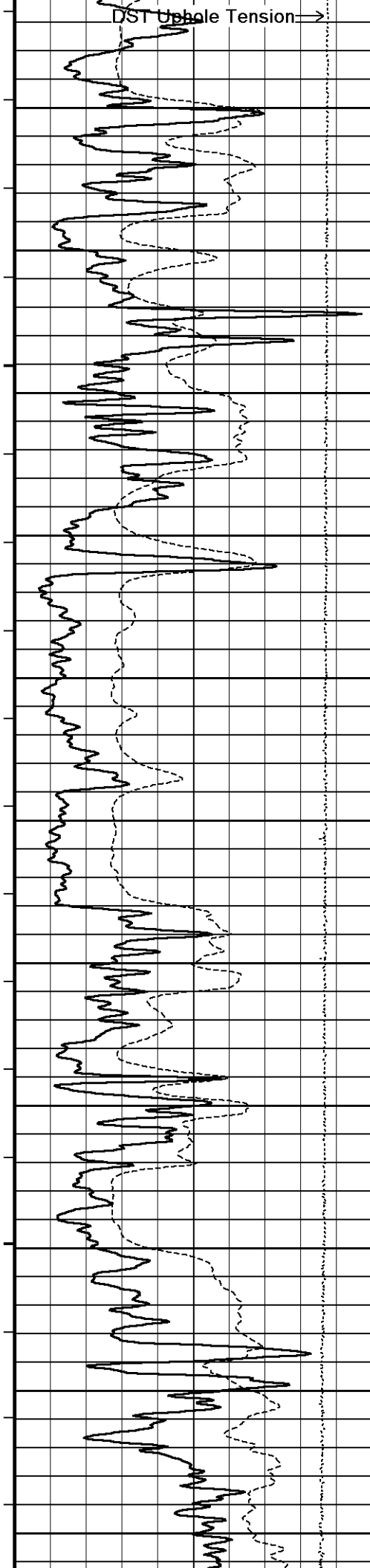
Gamma Ray

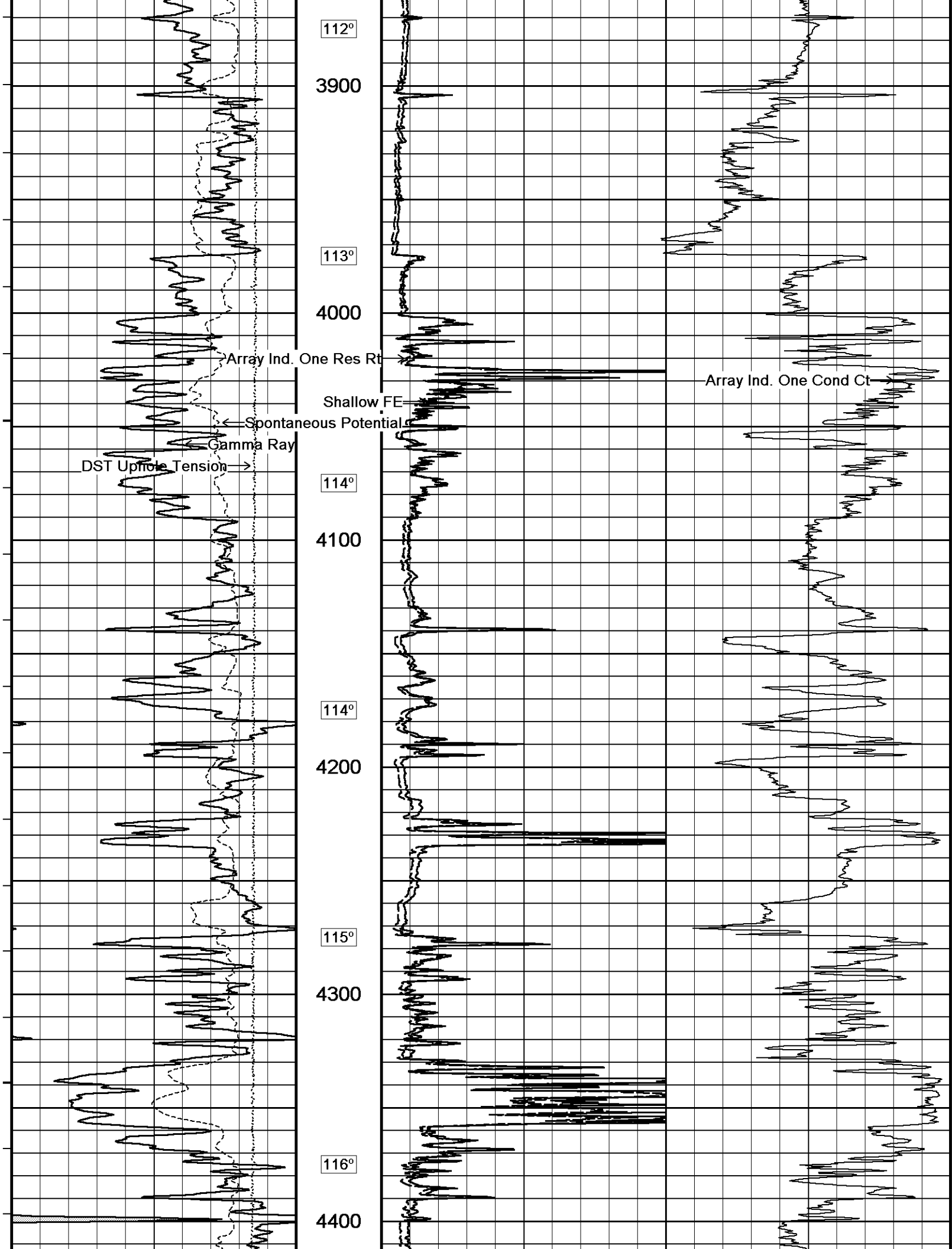


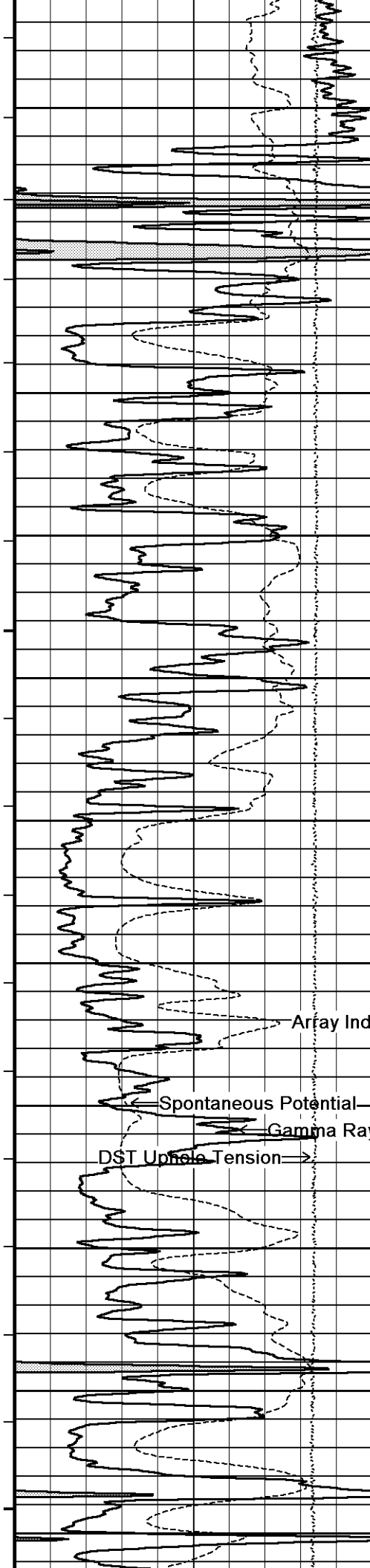
Array Ind. One Cond Ct

Shallow TE









117°

4500

118°

4600

118°

4700

119°

4800

120°

4900

Array Ind.

One Res Rt

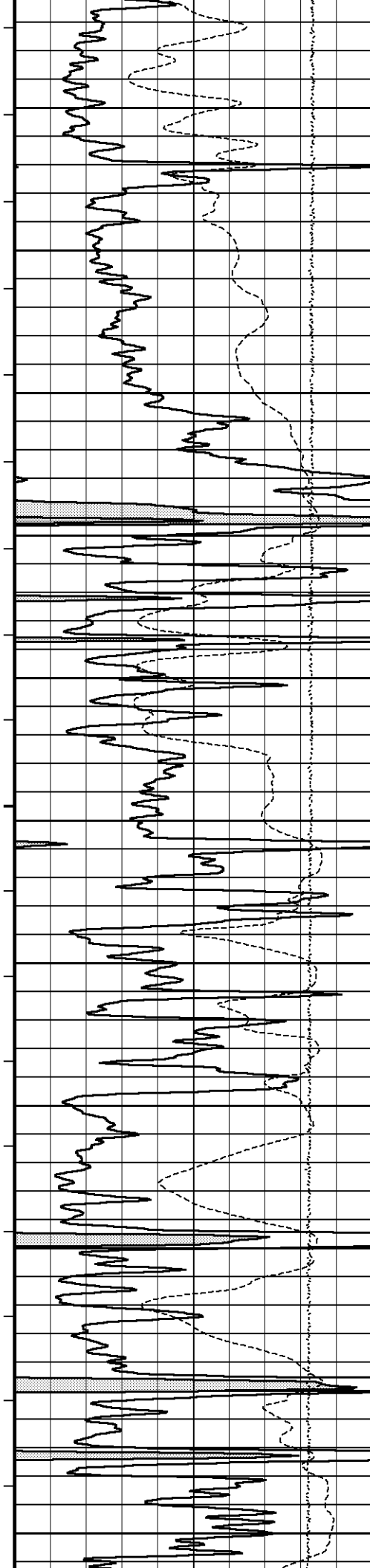
Array Ind. One Cond St

Shallow FF

Spontaneous Potential

Gamma Ray

DST Uphole Tension



120°

5000

121°

5100

122°

5200

122°

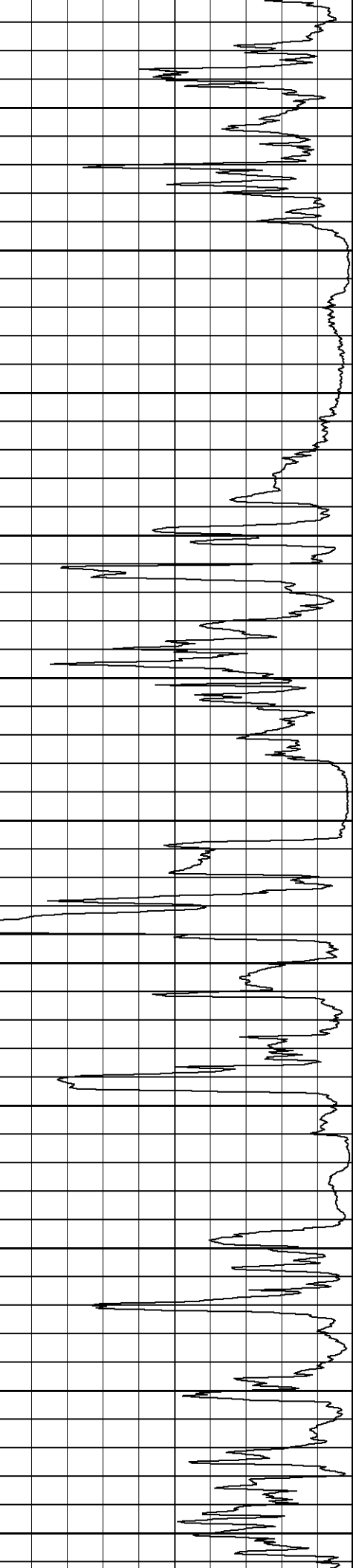
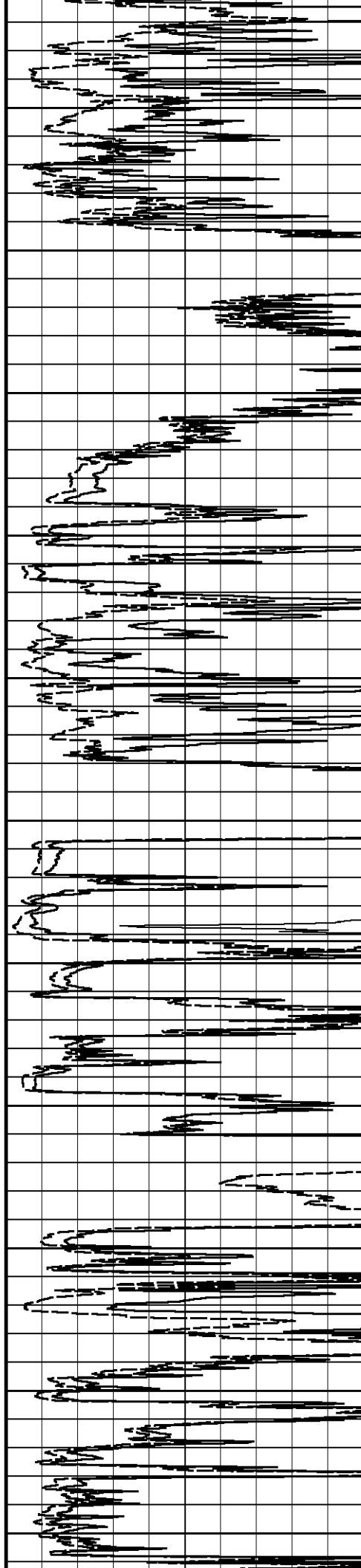
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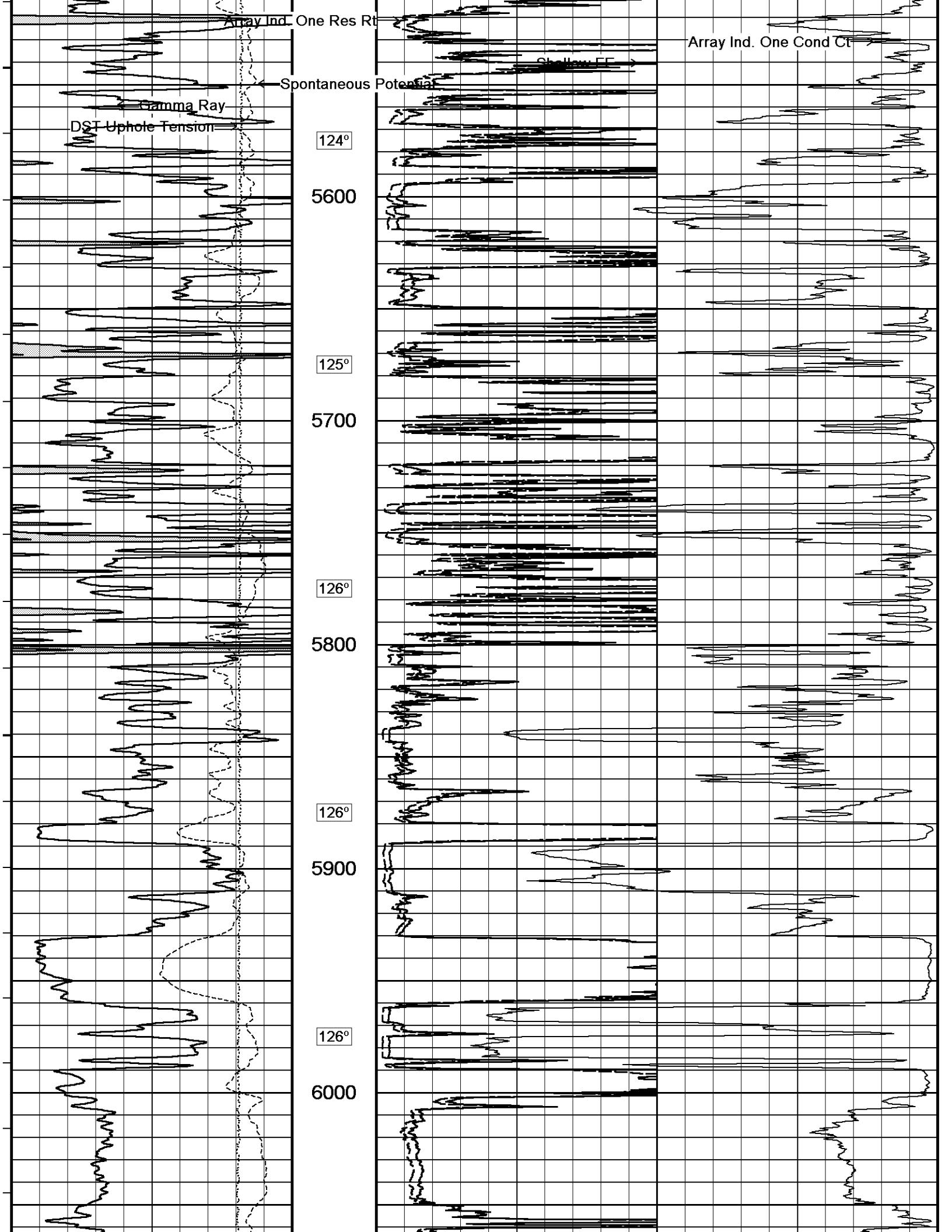
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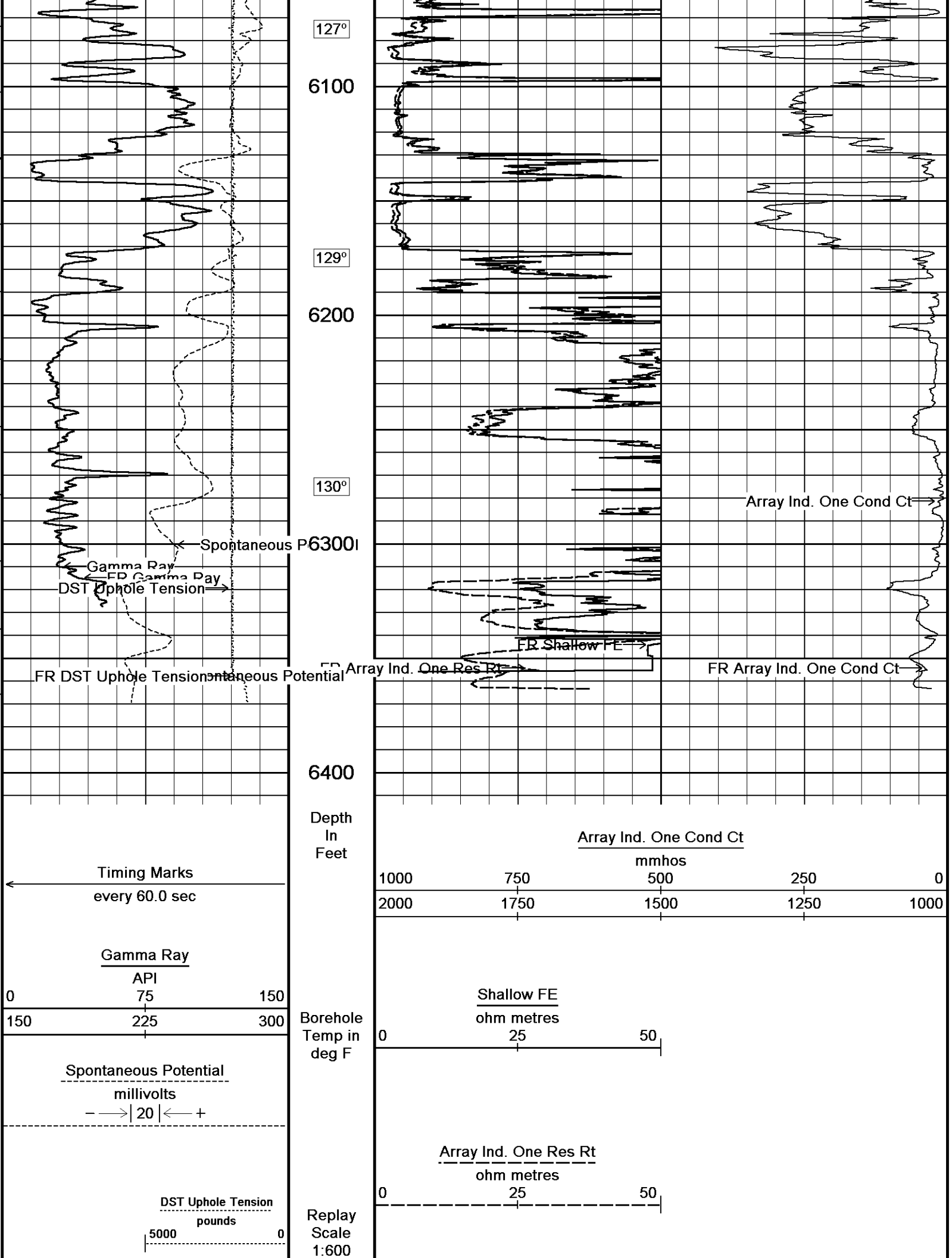
5400

124°

5500







↑

2 INCH MAIN

↑

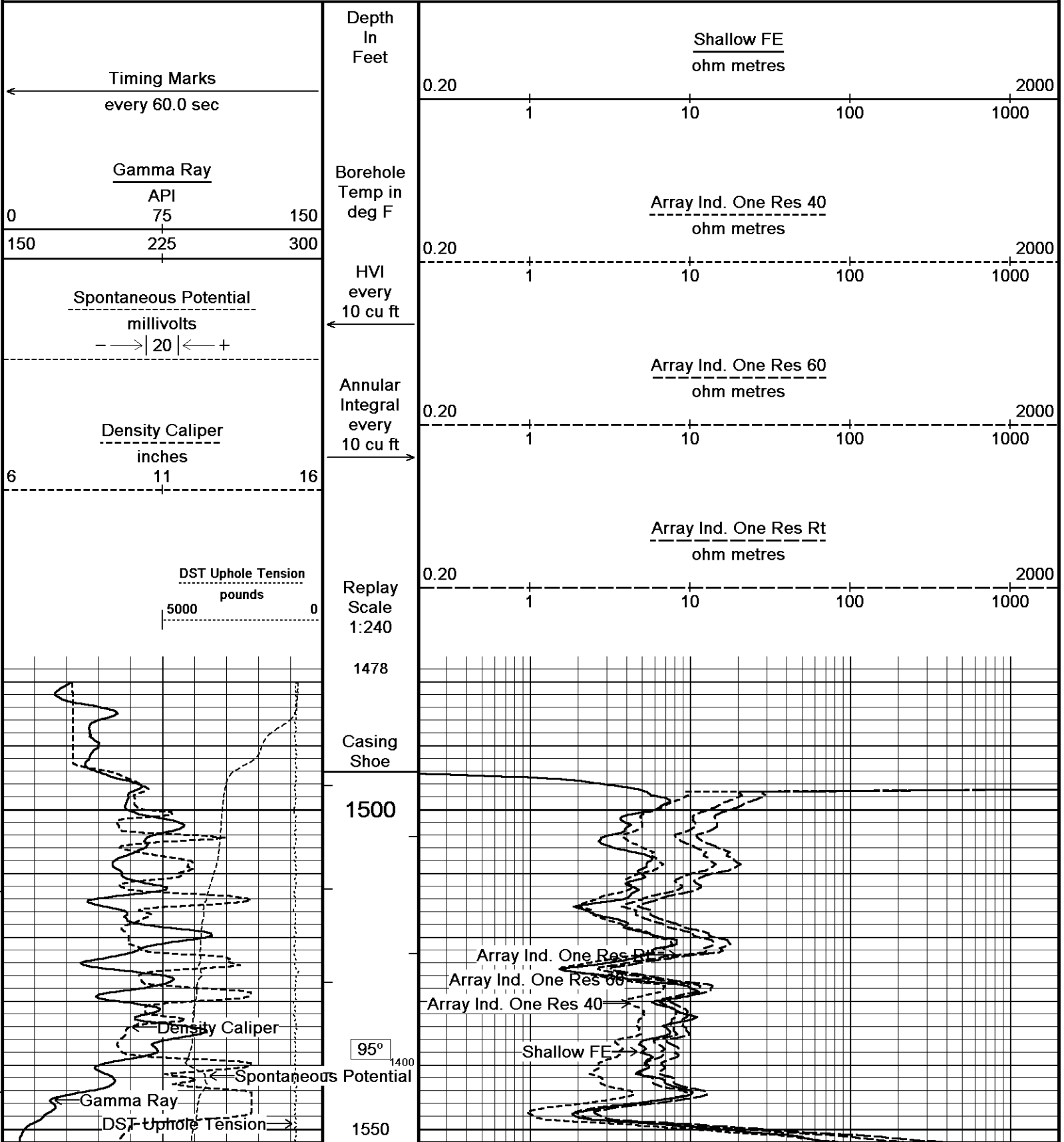
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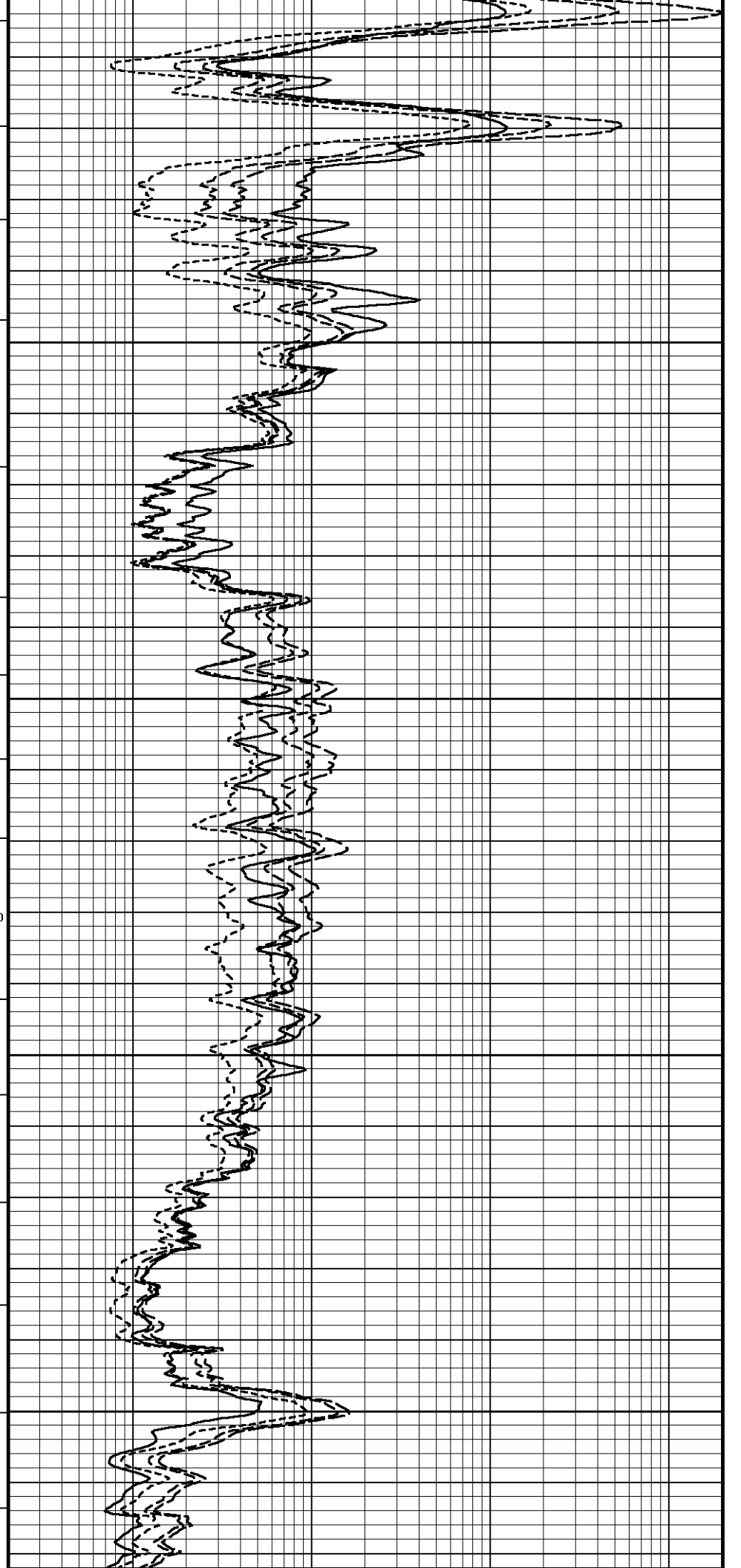
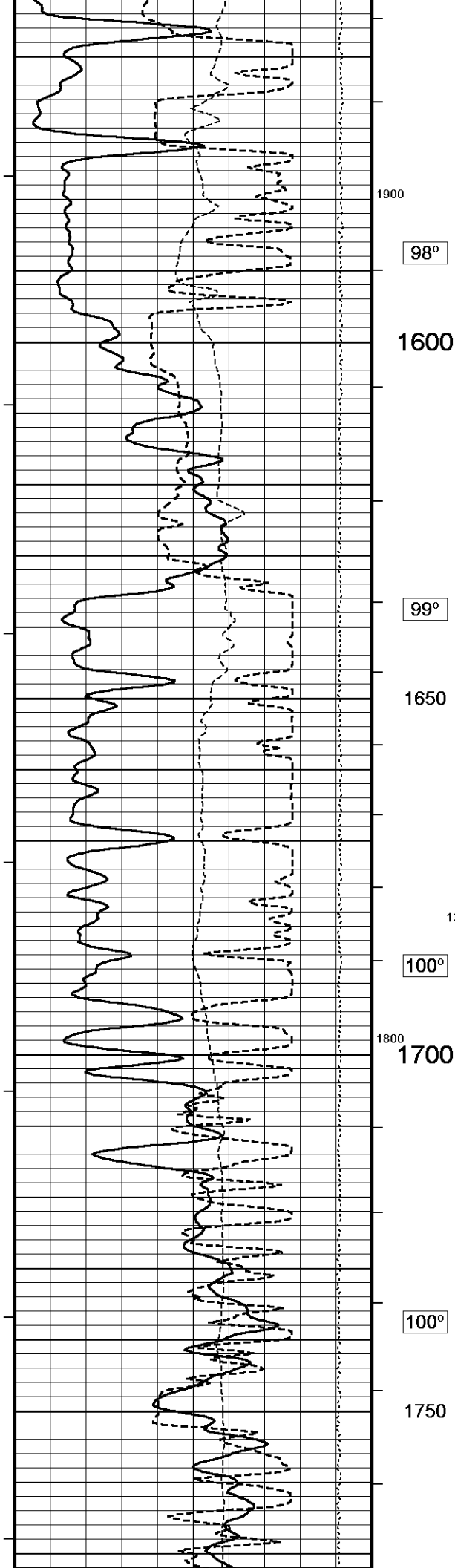
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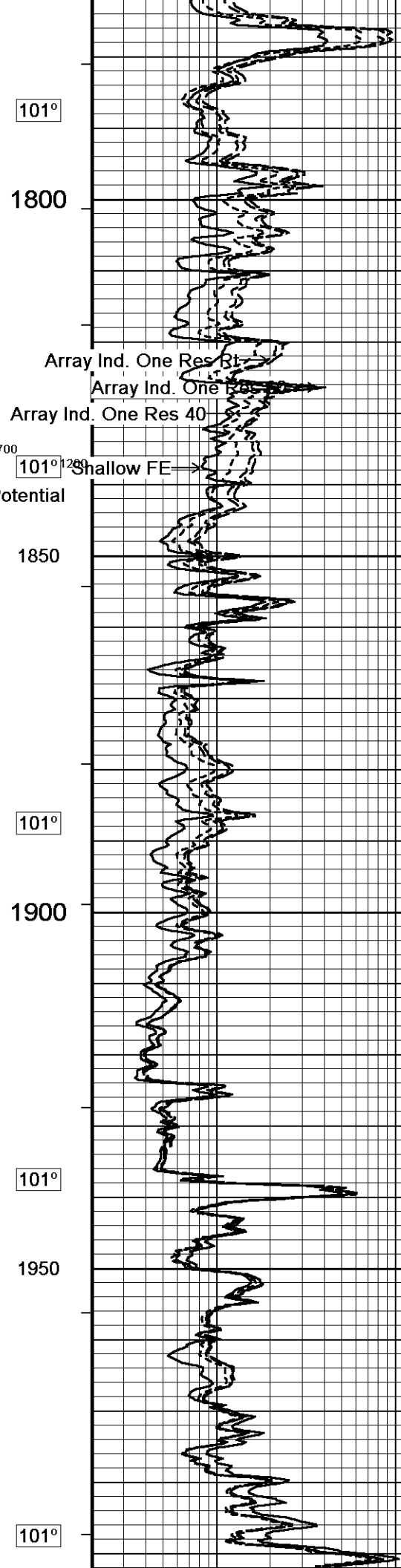
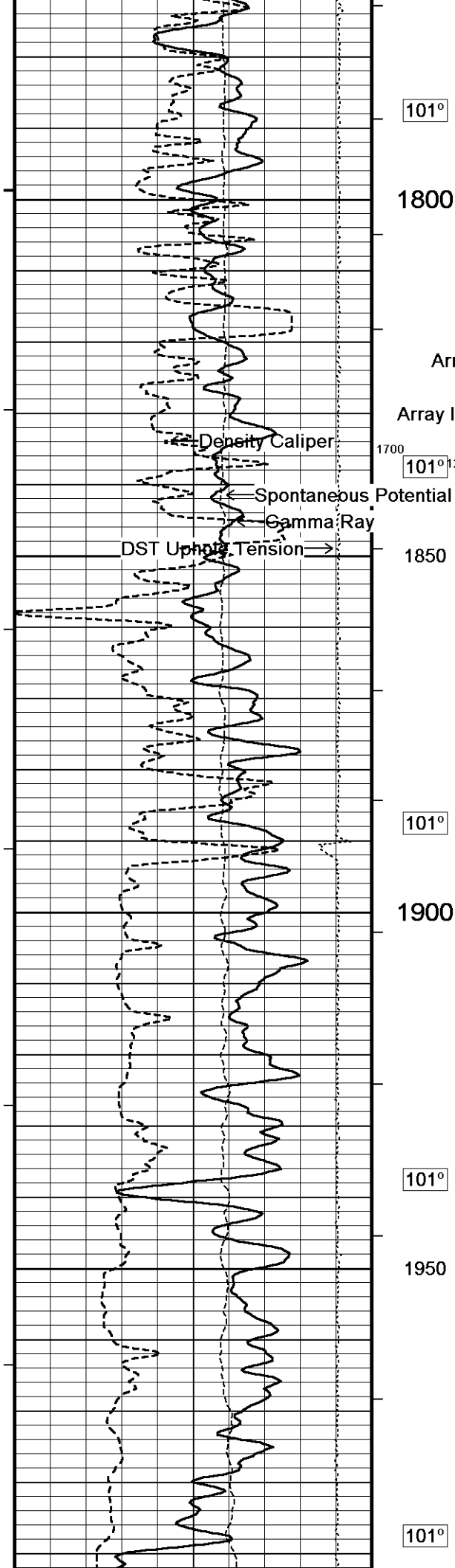
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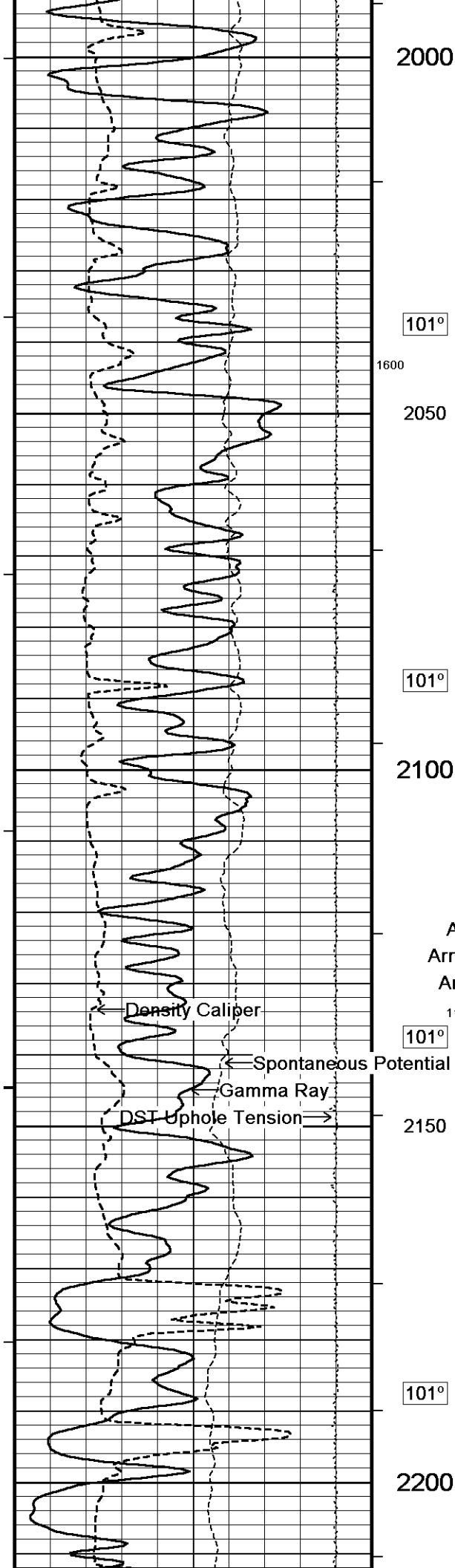
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Filename: C:\Minimus 13.02.6600\Data\O'Brien Vail Offset #4-30\O'Brien Vail Offset #4-30_003.dta
System Versions: Logged with 13.02.6600 Processed with 13.02.6600 Plotted with 13.02.6600

Plotted on 17-AUG-2012 10:05
Recorded on 17-AUG-2012 06:57









2000

101°

1600

2050

101°

2100

Array Ind. One Res Rt

Array Ind. One Res 60

Array Ind. One Res 40

1100

101°

Shallow F

Spontaneous Potential

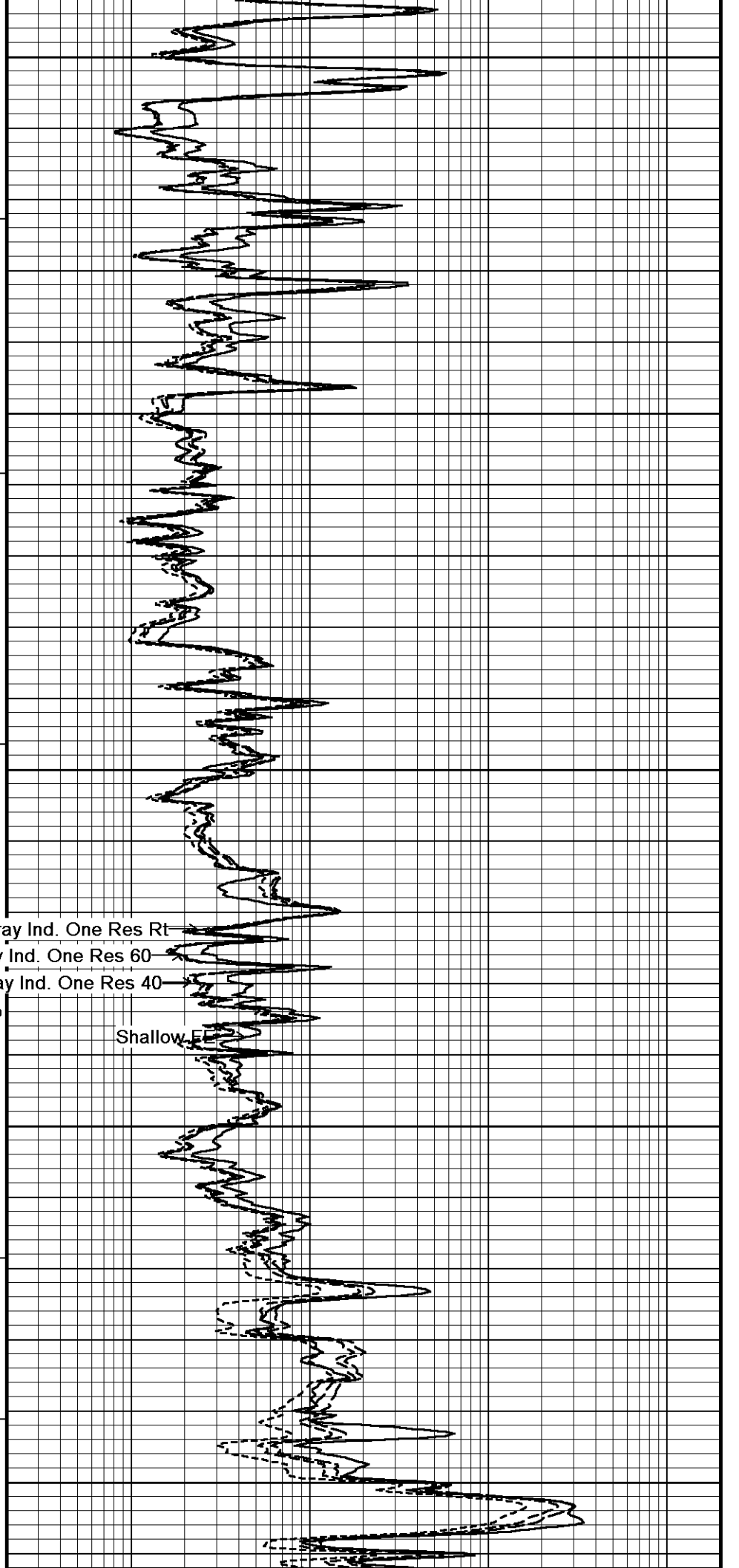
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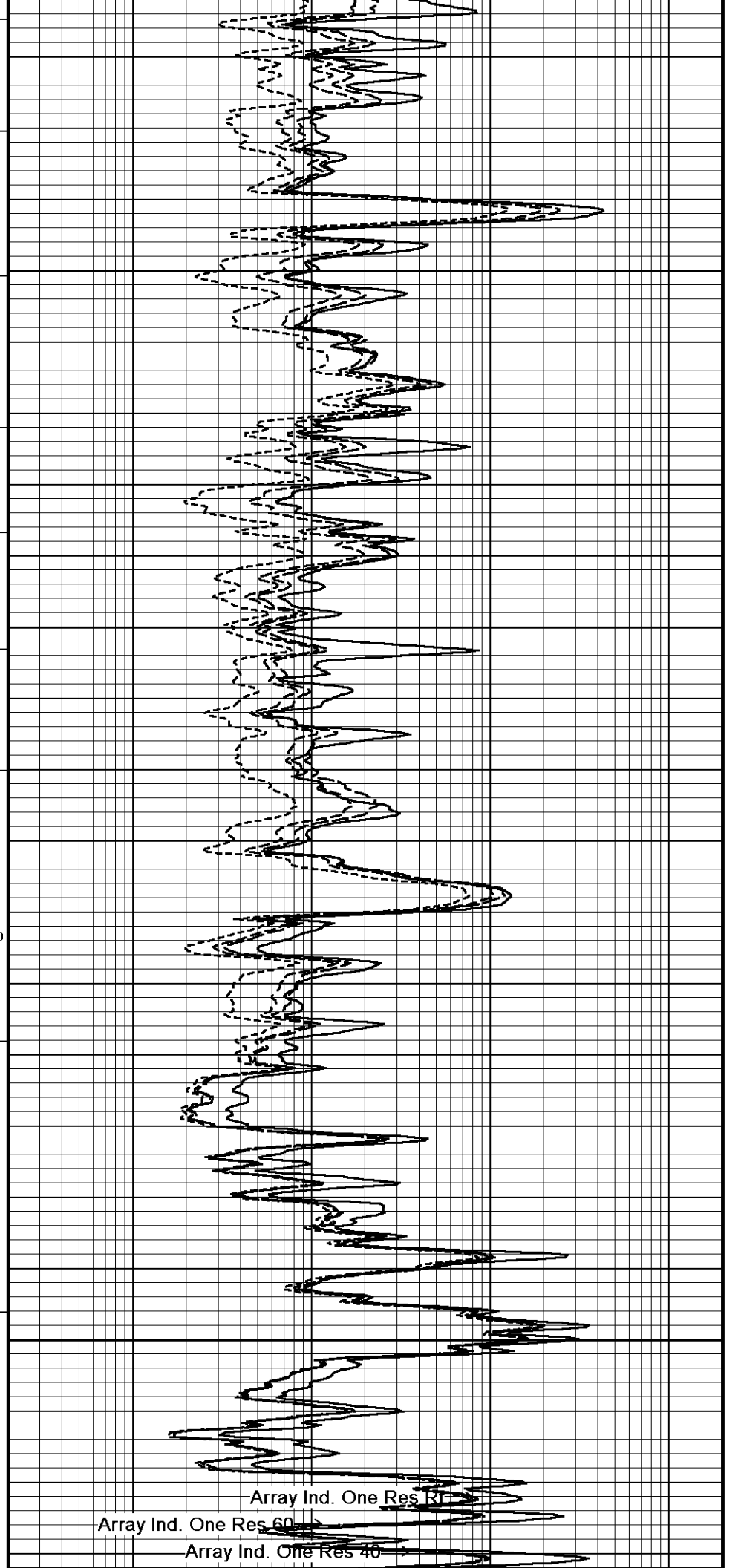
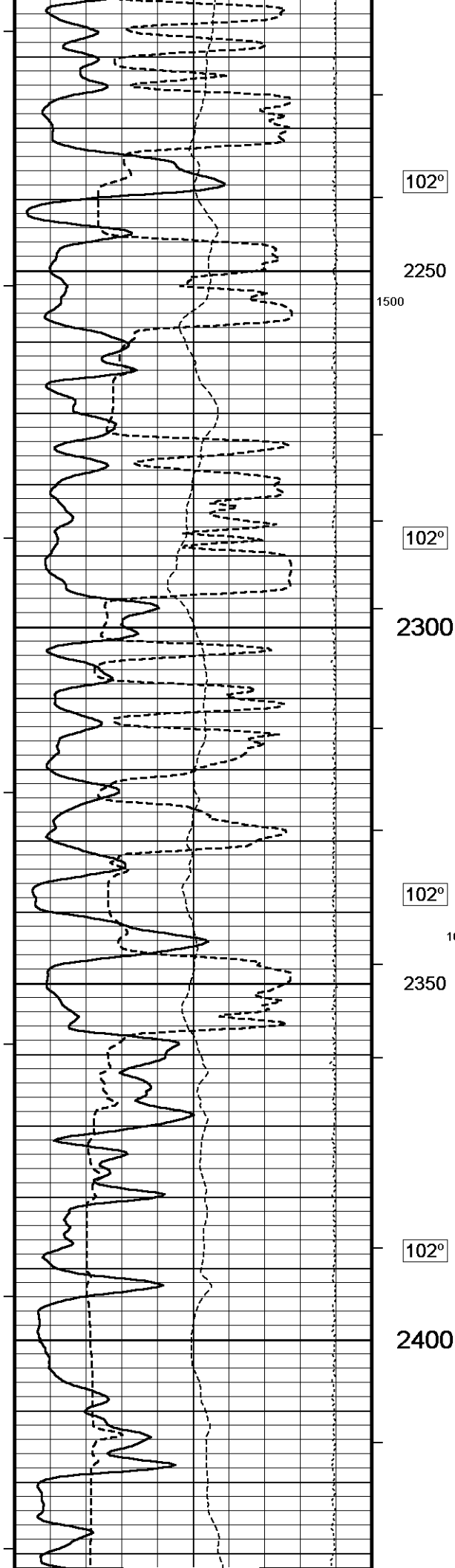
DST Uphole Tension

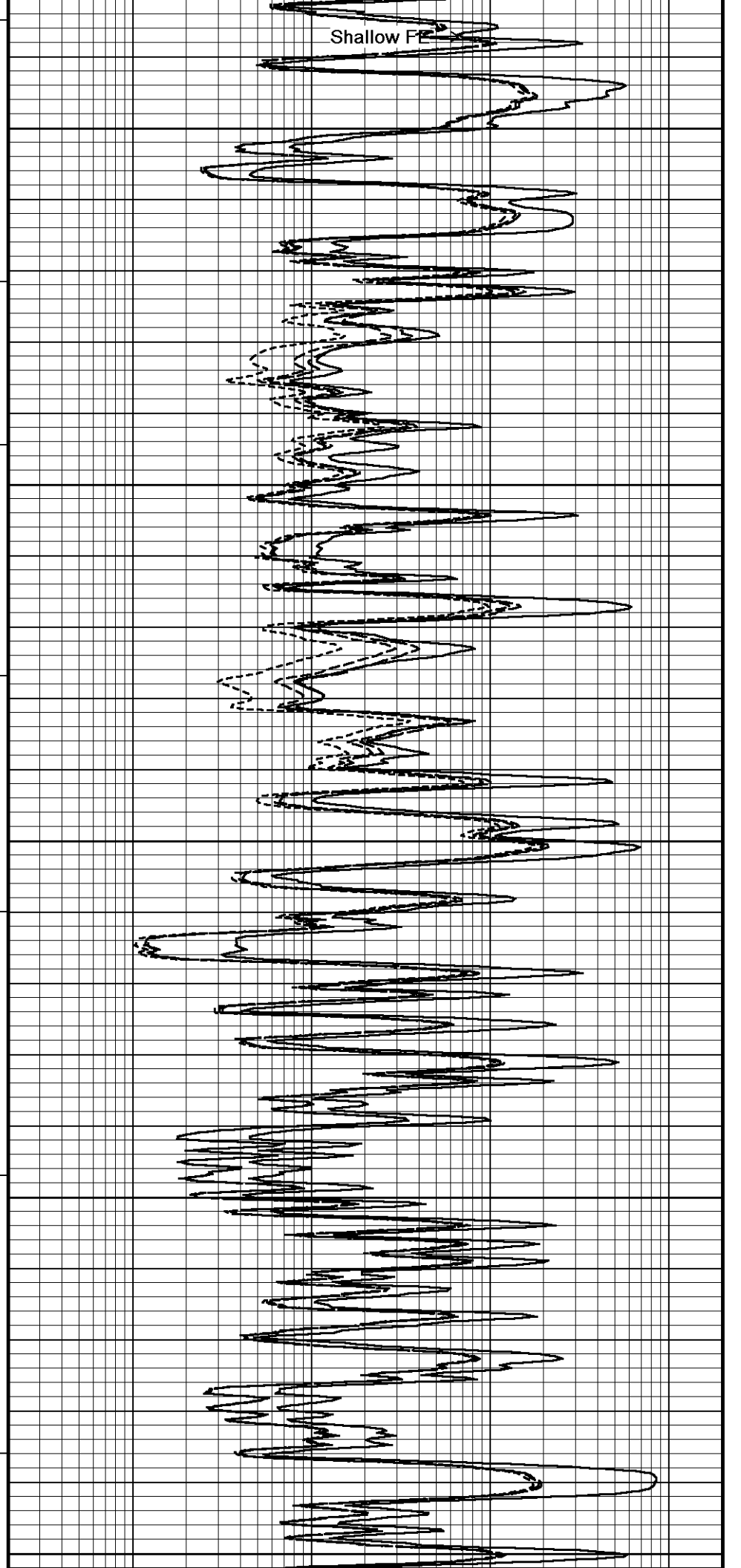
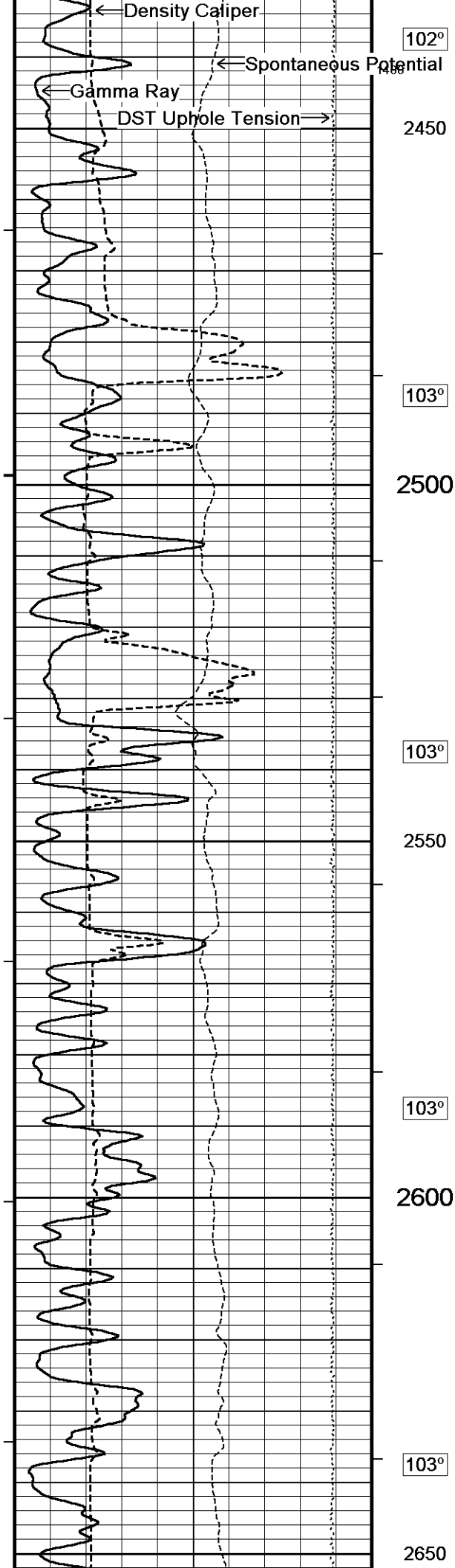
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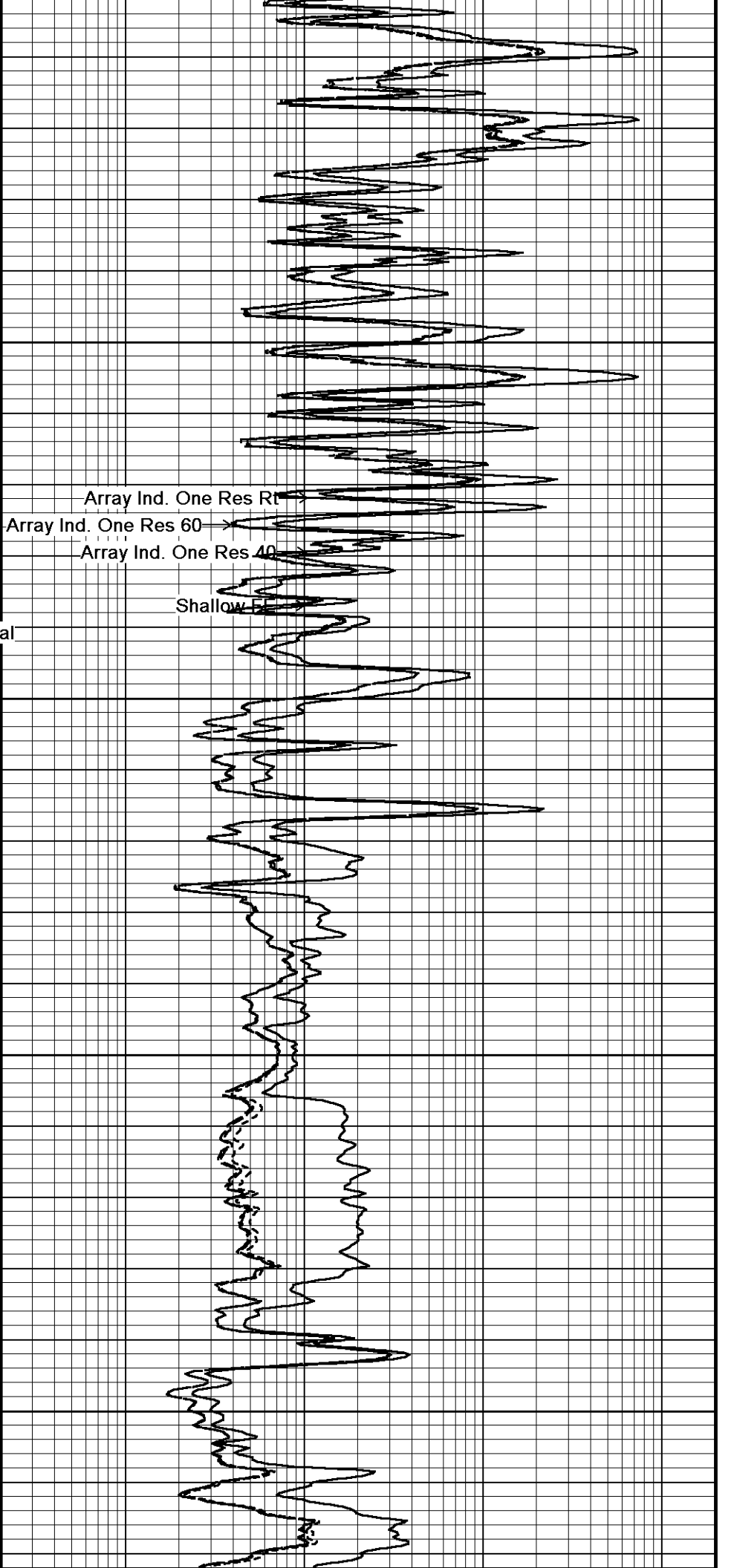
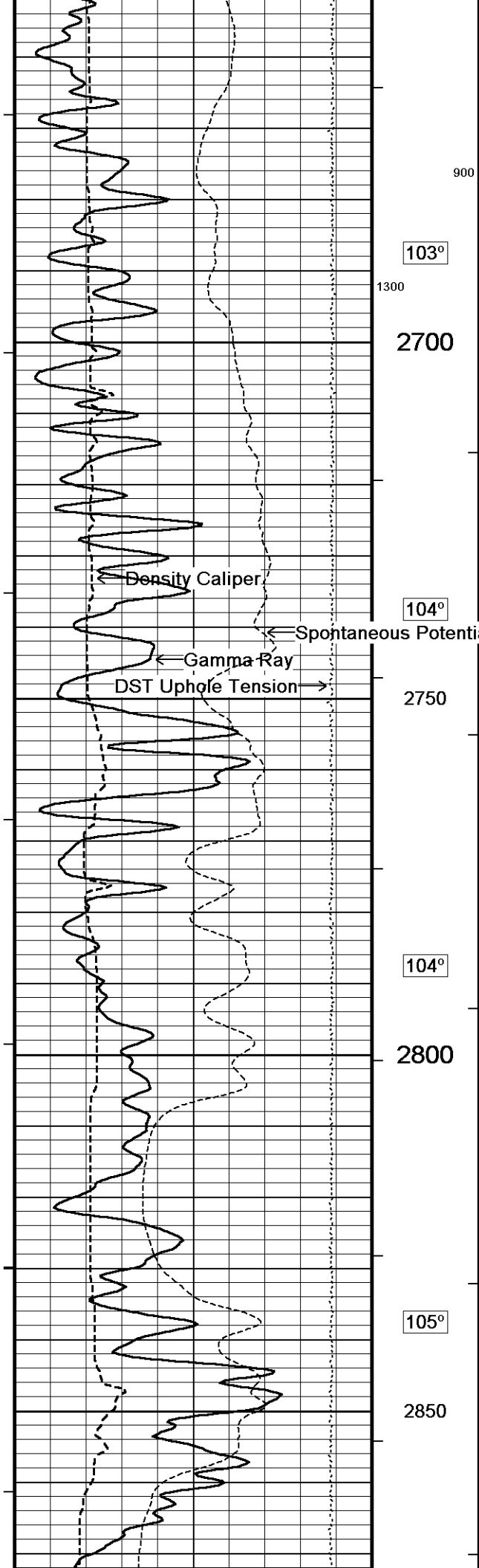
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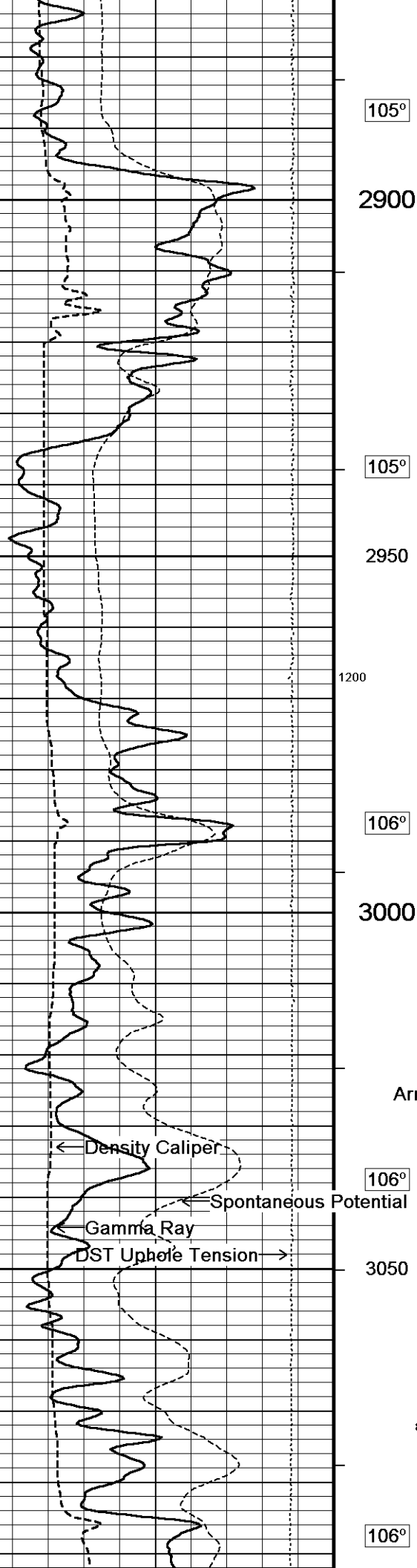
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105°

2900

105°

2950

1200

106°

3000

106°

3050

800

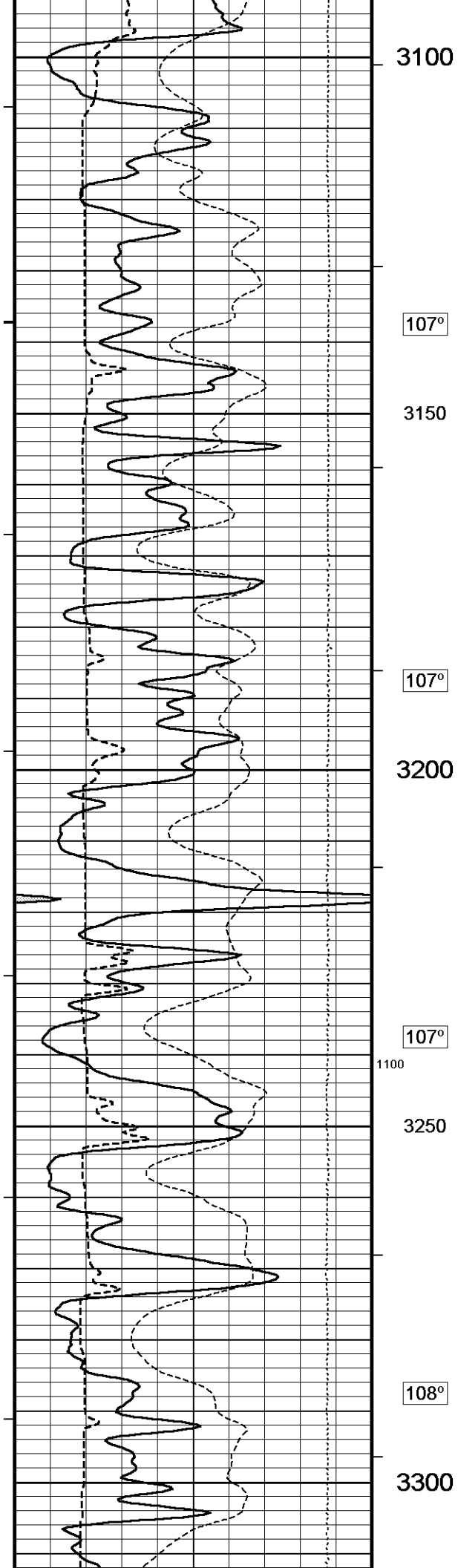
106°

Array Ind. One Res RI

Array Ind. One Res 60

Array Ind. One Res 40

Shallow FE



3100

107°

3150

107°

3200

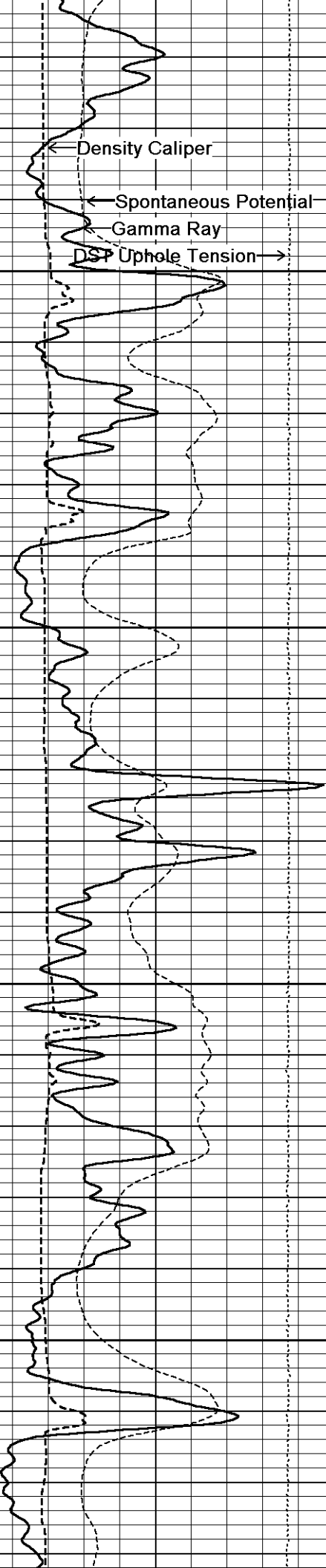
107°

1100

3250

108°

3300



Array Ind. One Res Rt
Array Ind. One Res 60
Array Ind. One Res 40

108°

3350

108°

3400

109°

3450

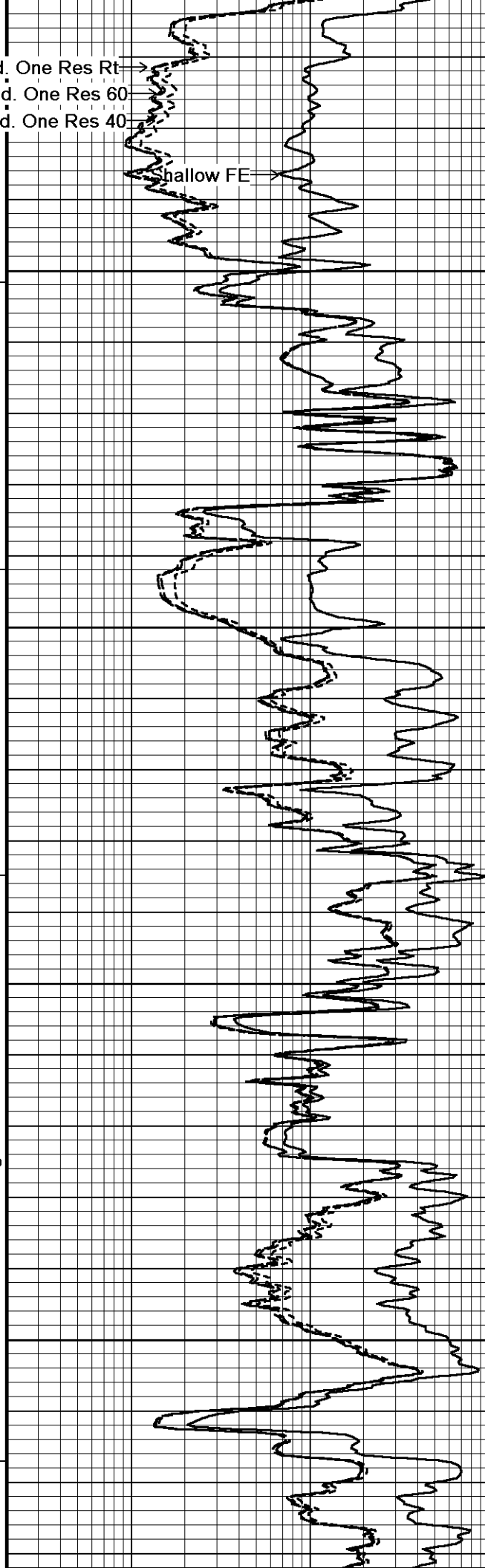
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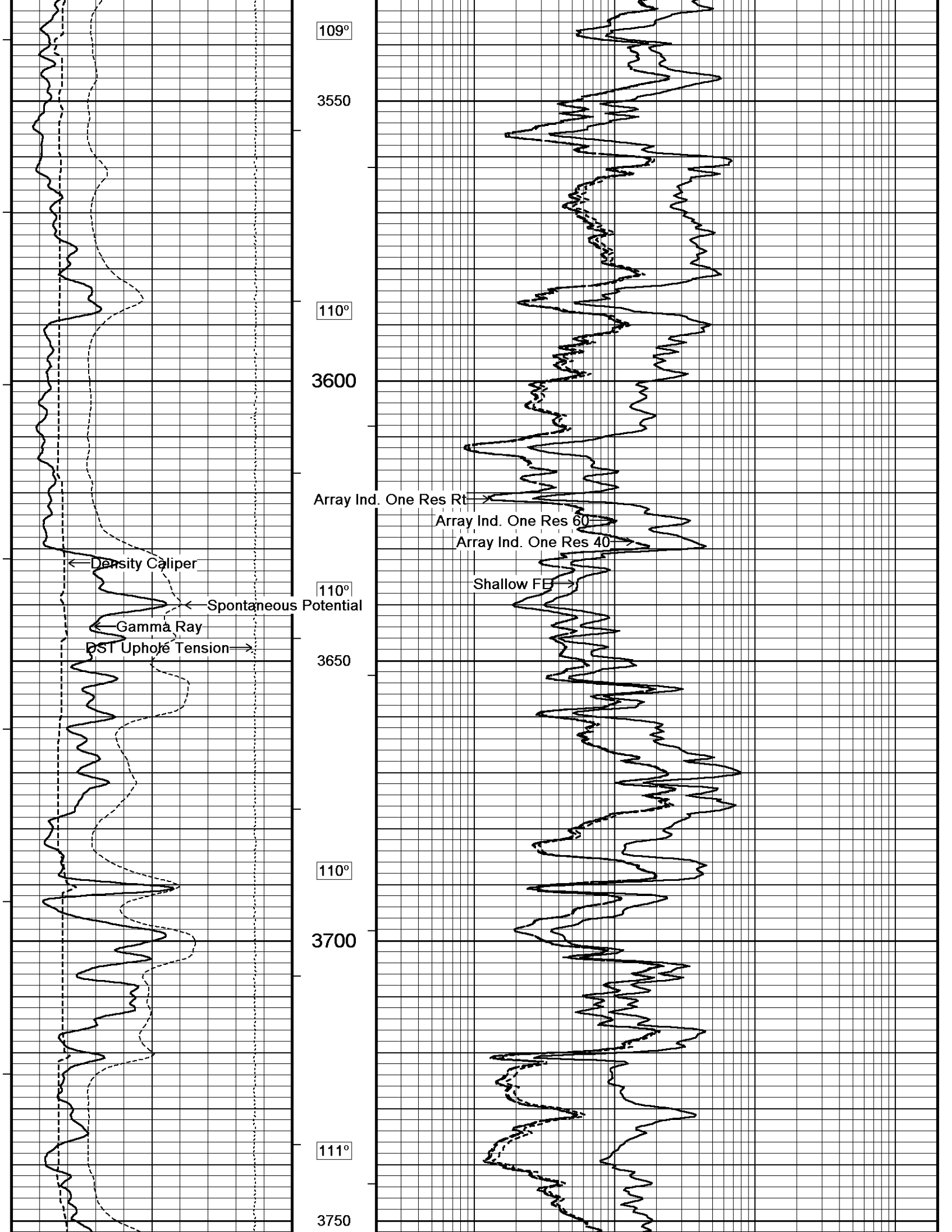
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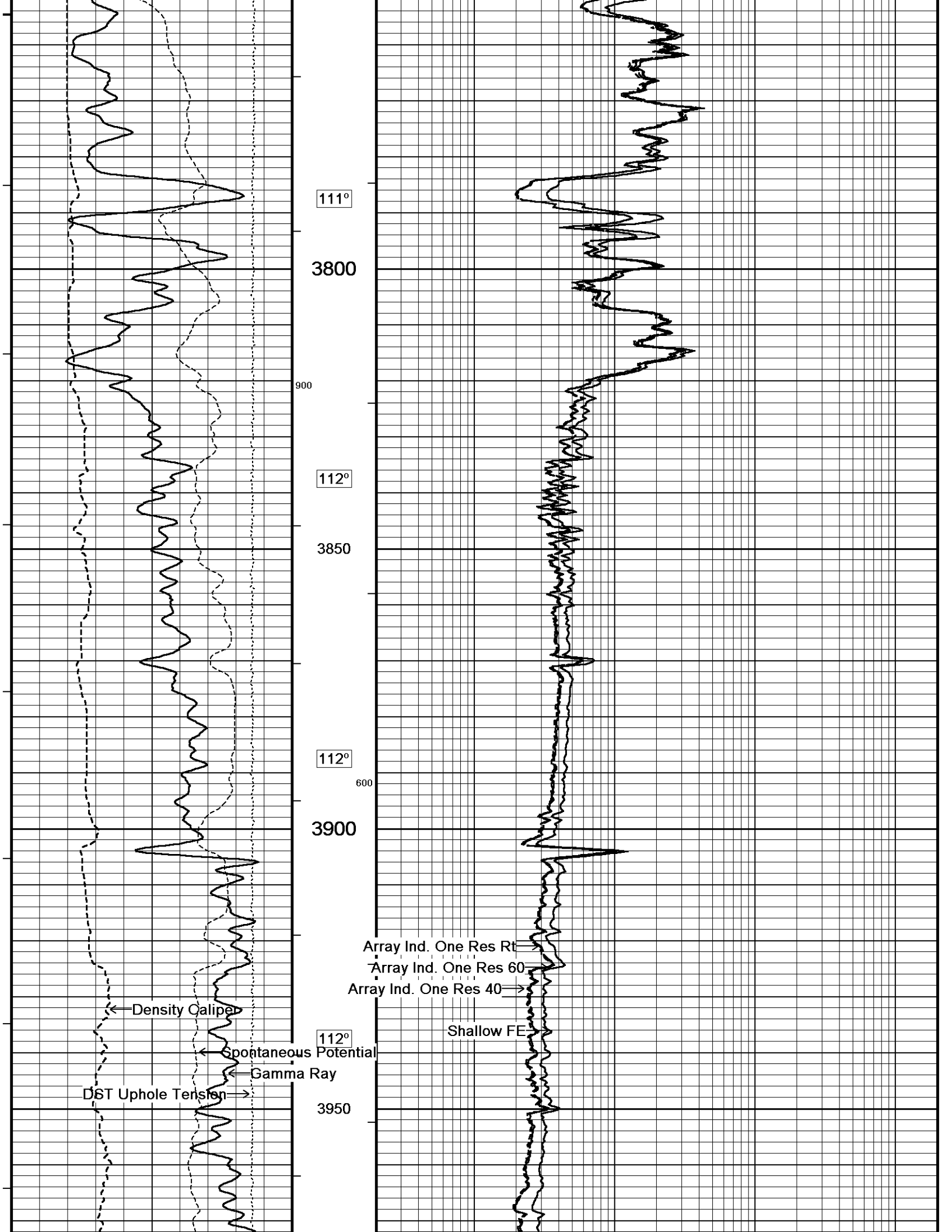
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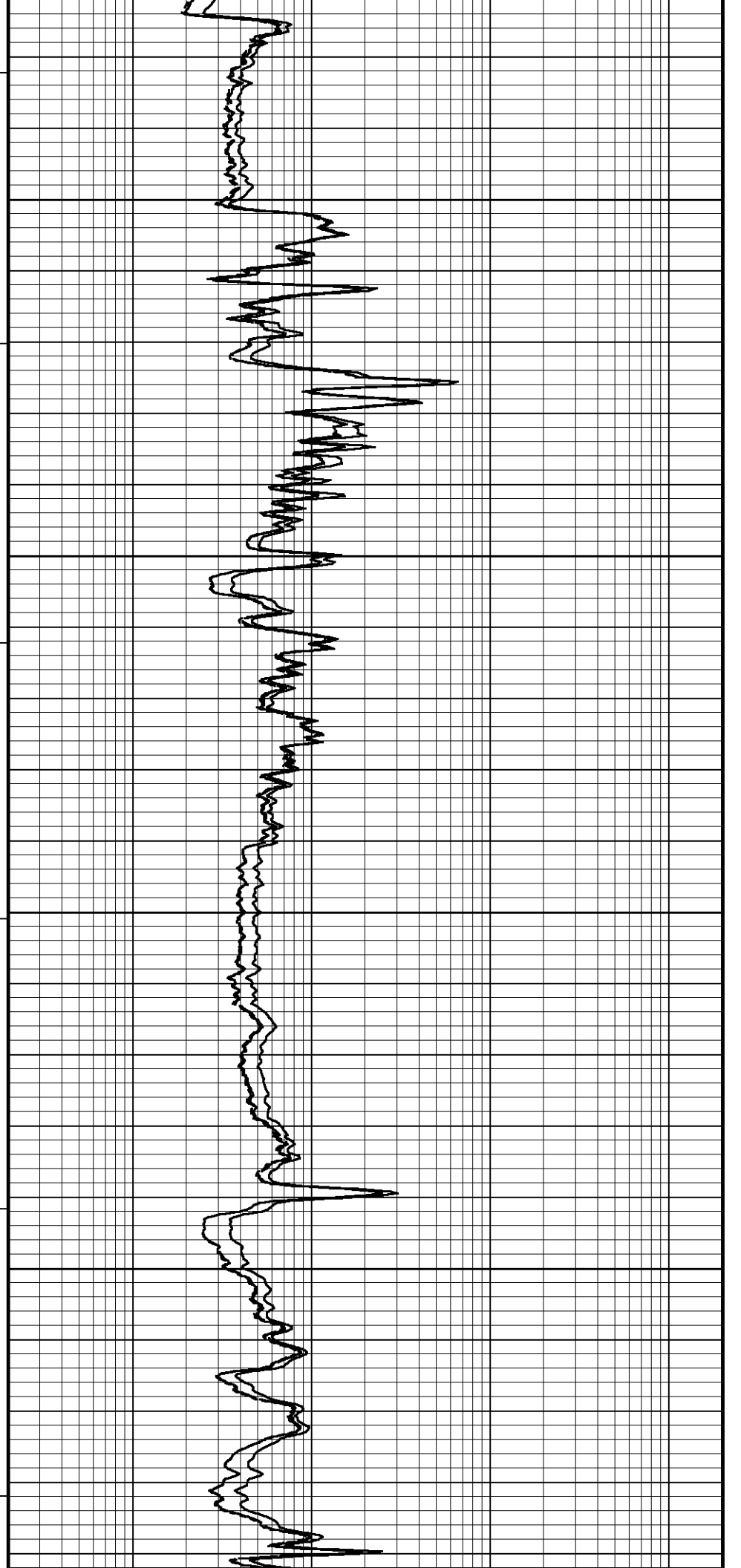
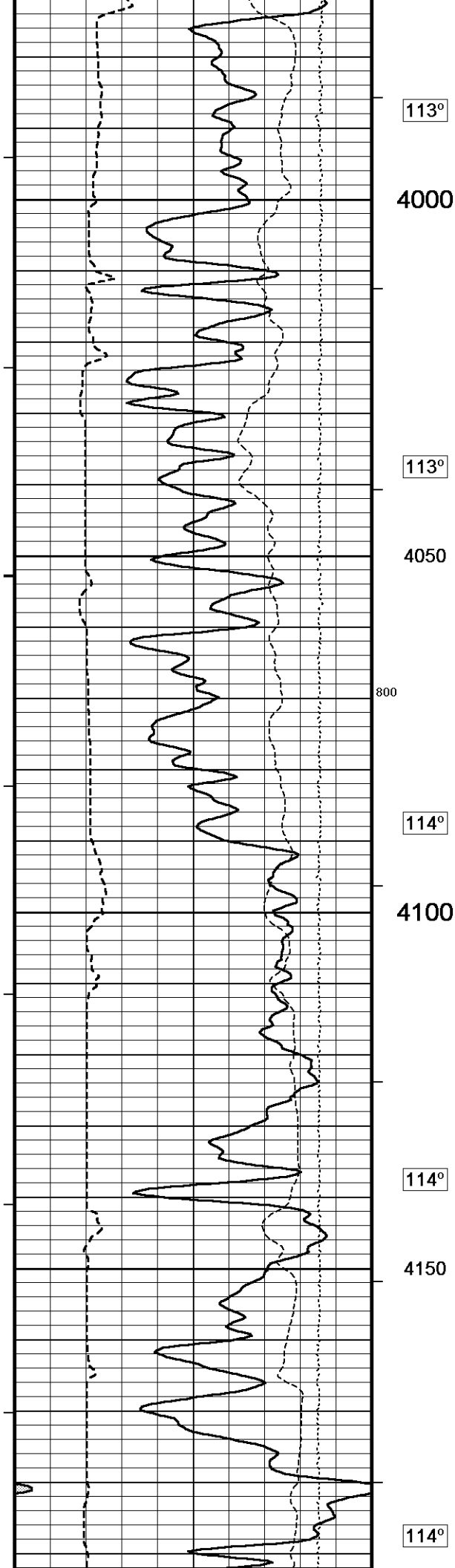
Shallow FE

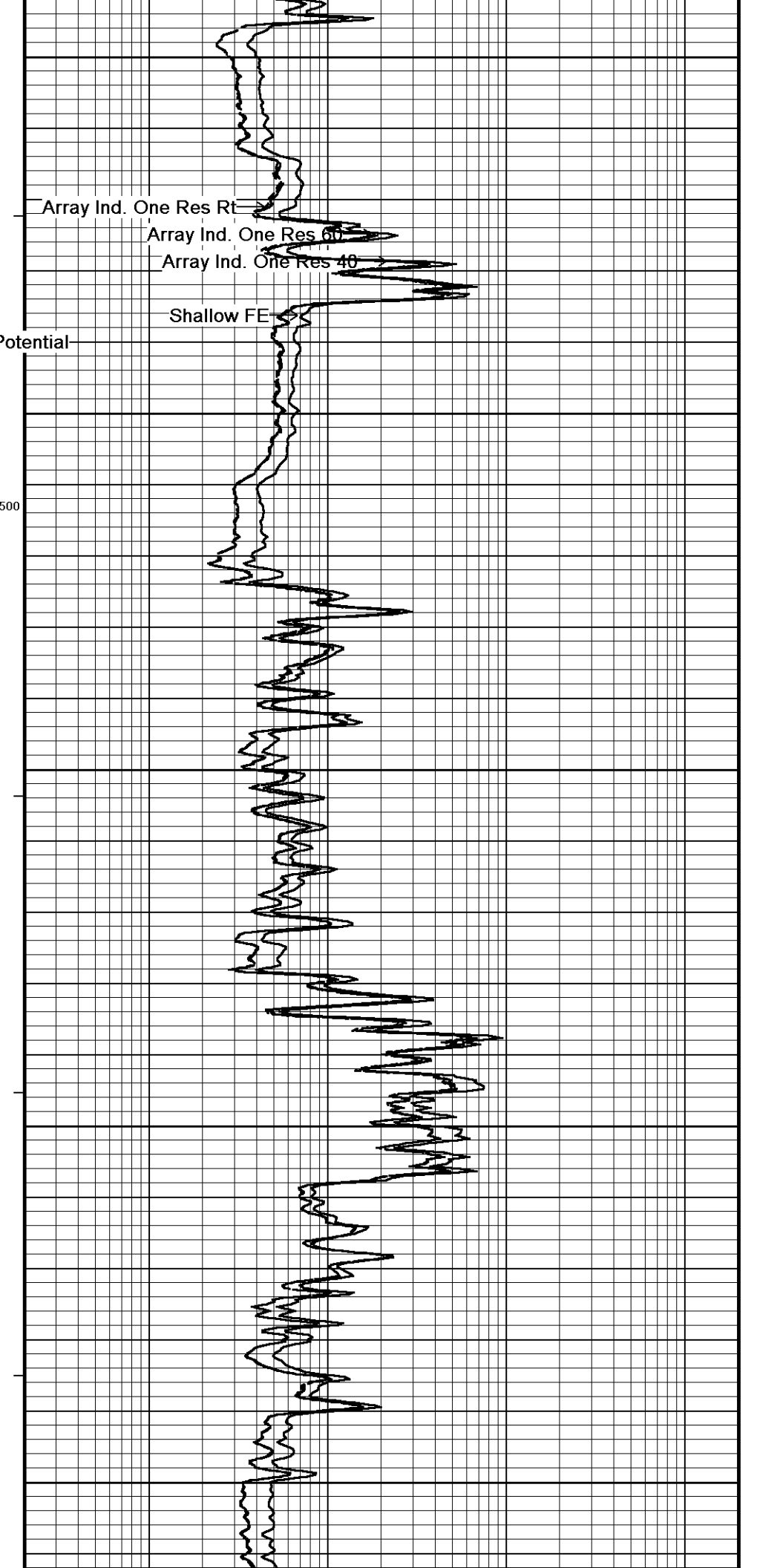
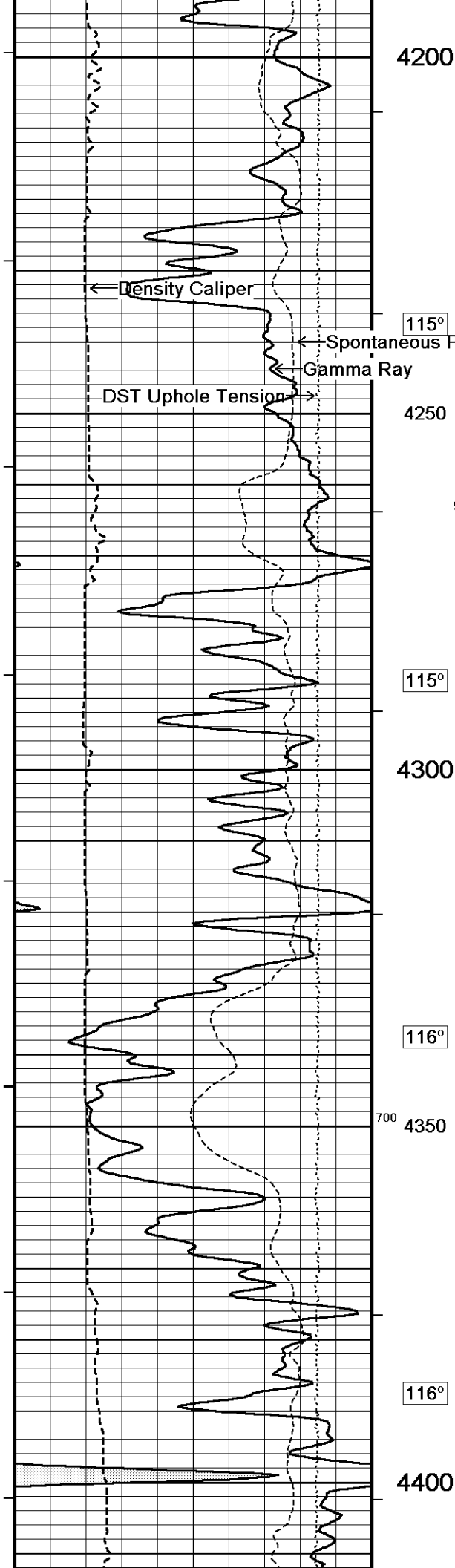
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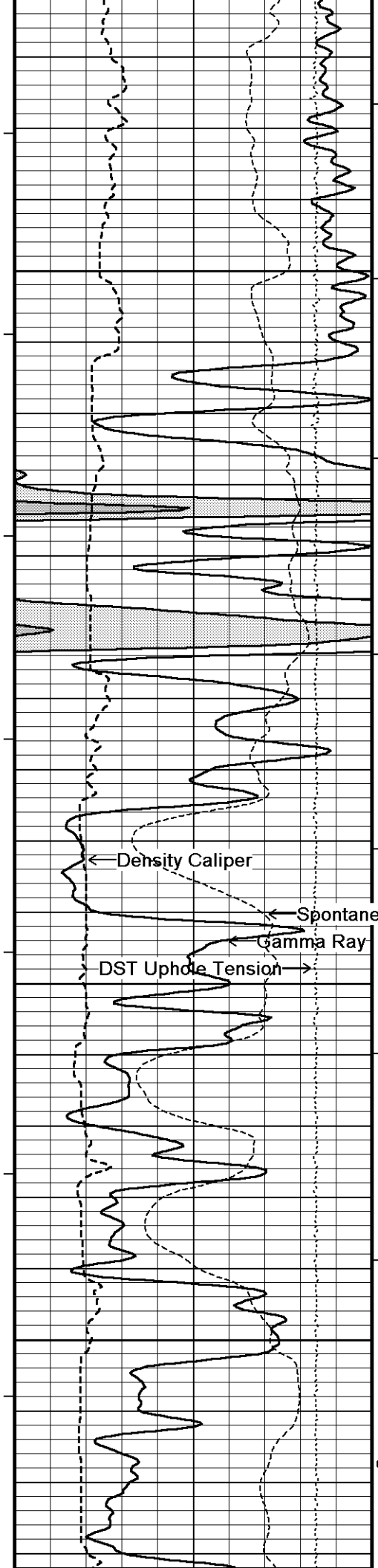












117°

4450

117°

4500

117°

4550

118°

4600

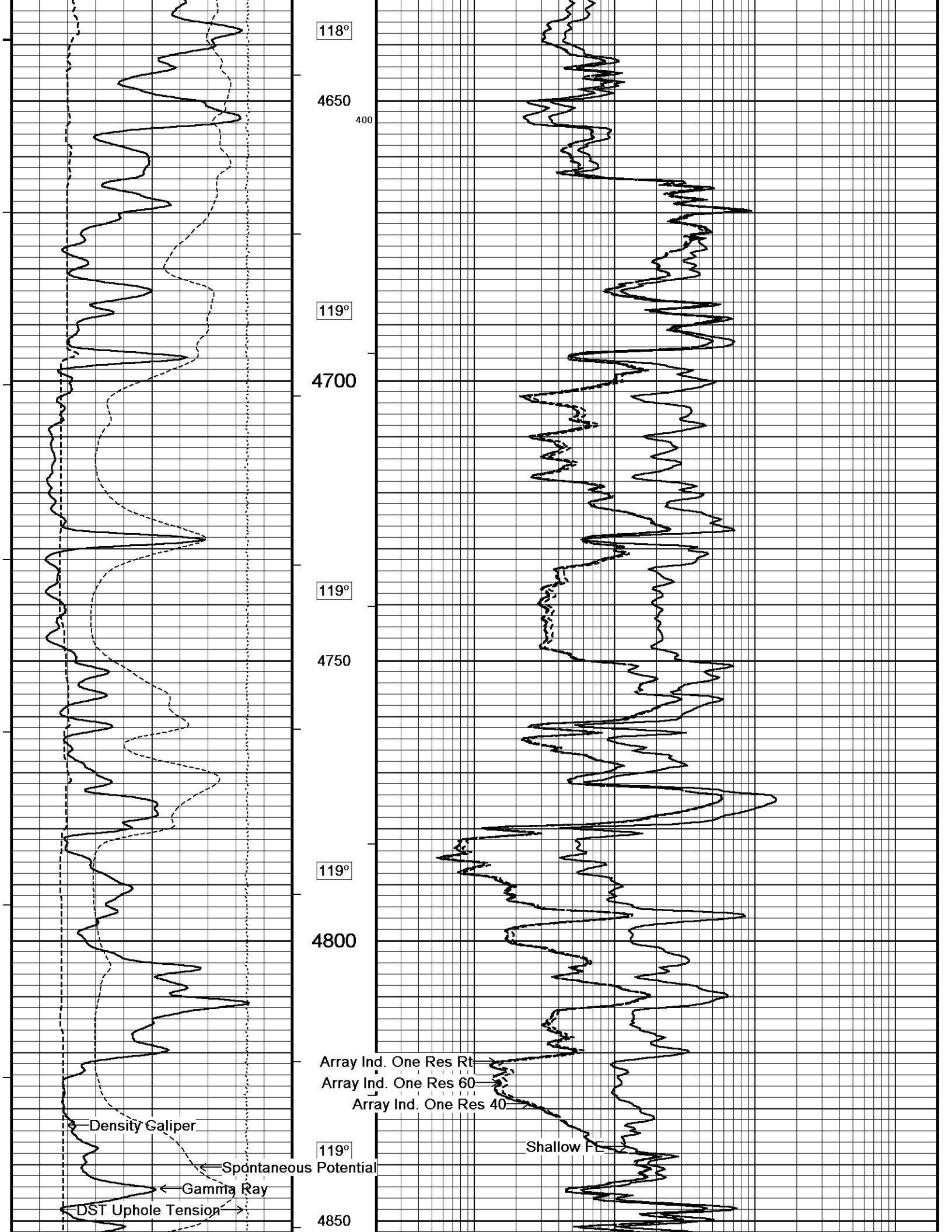
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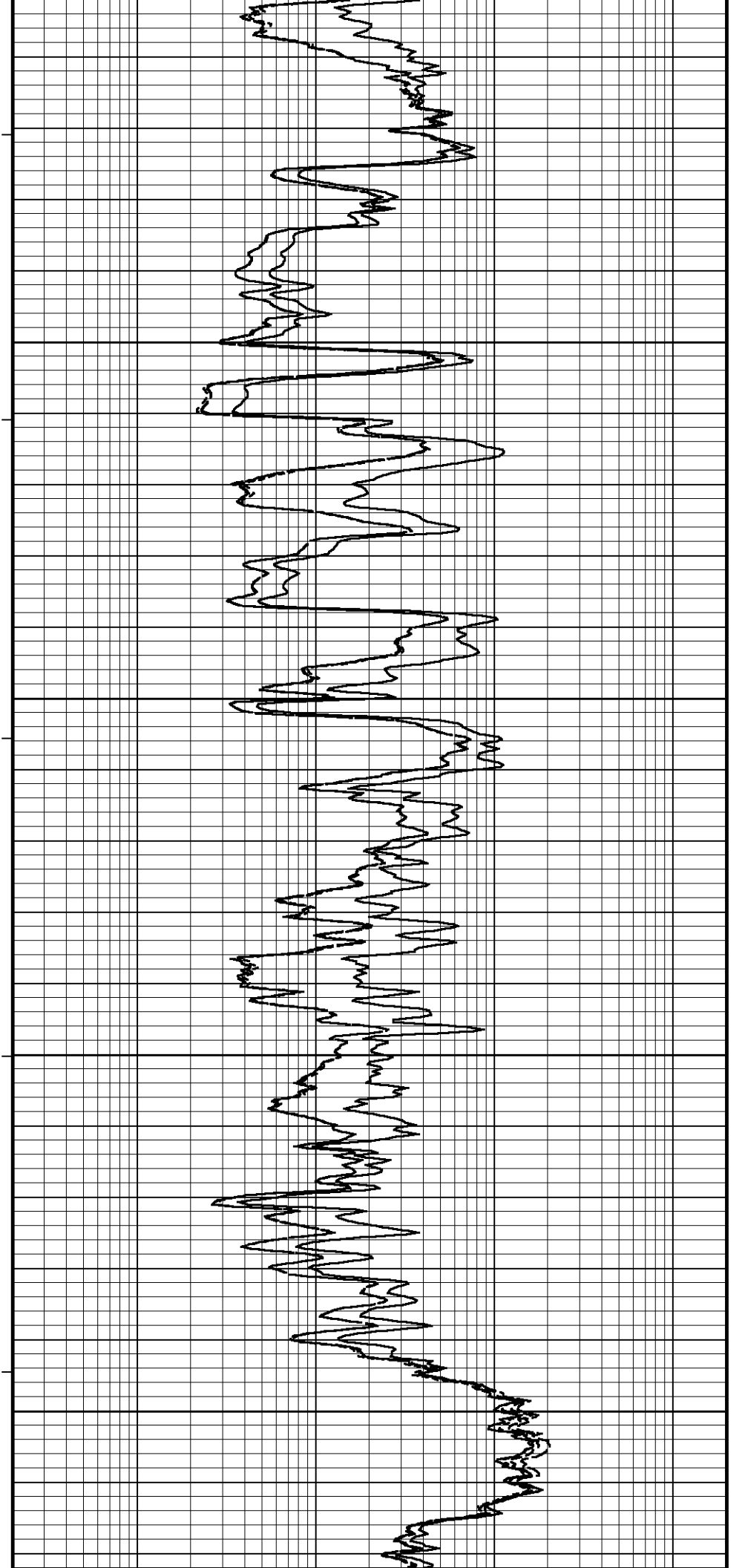
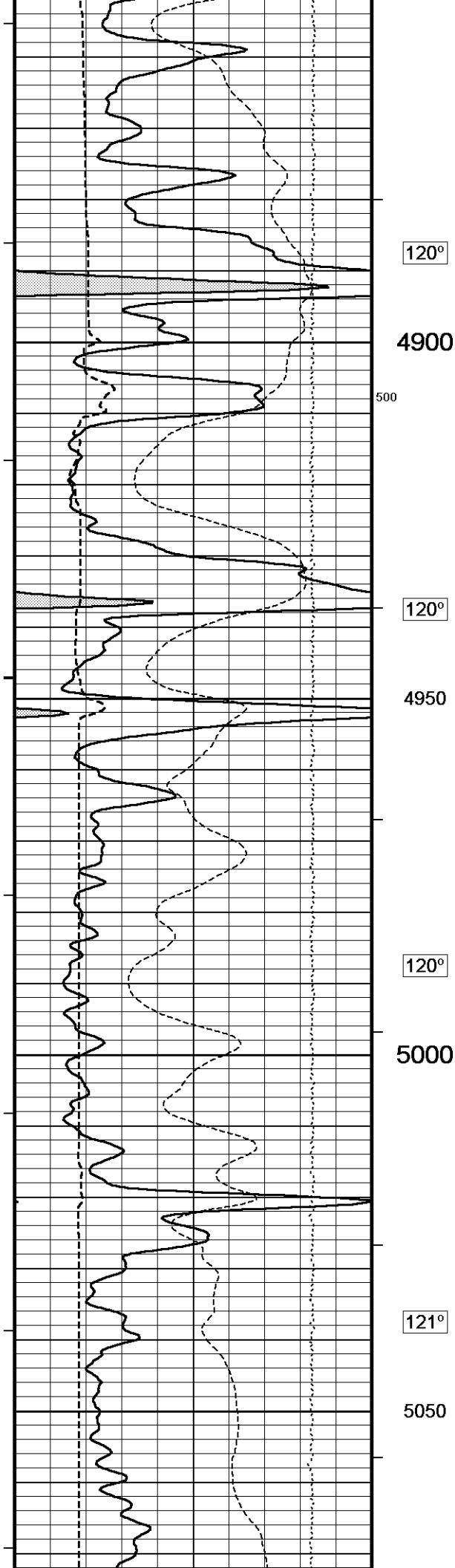
Array Ind. One Res Rt

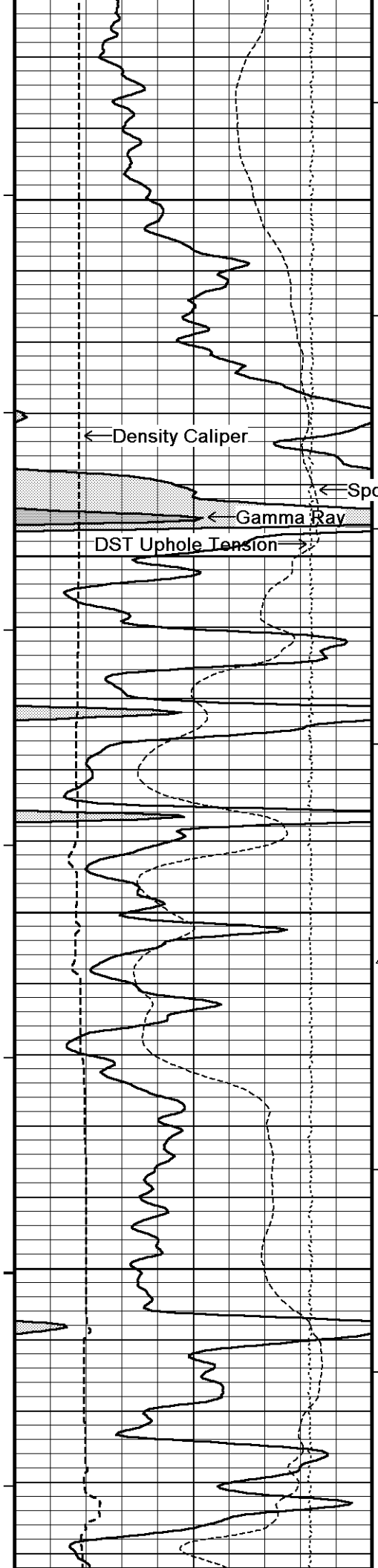
Array Ind. One Res 60

Array Ind. One Res 40

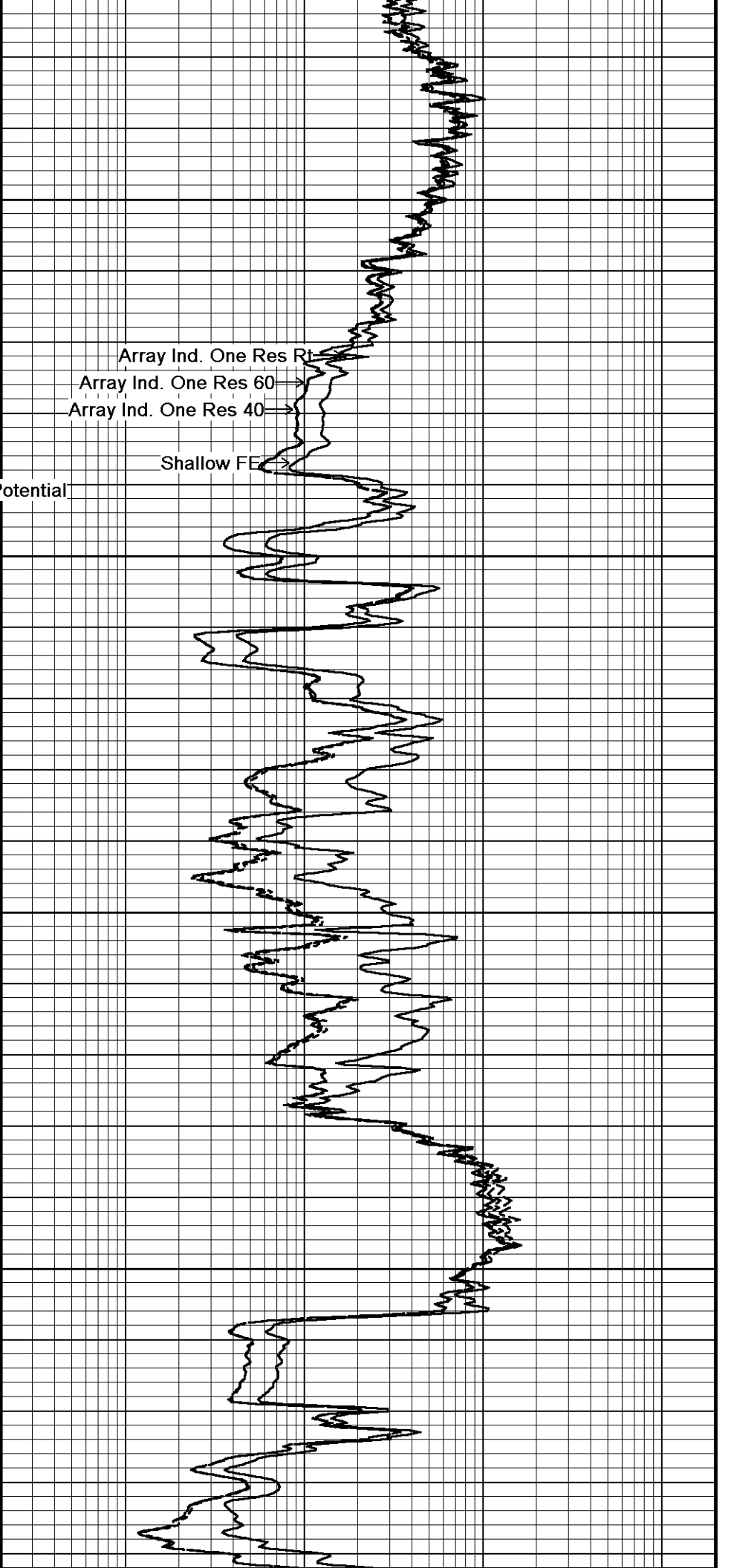
Shallow FE

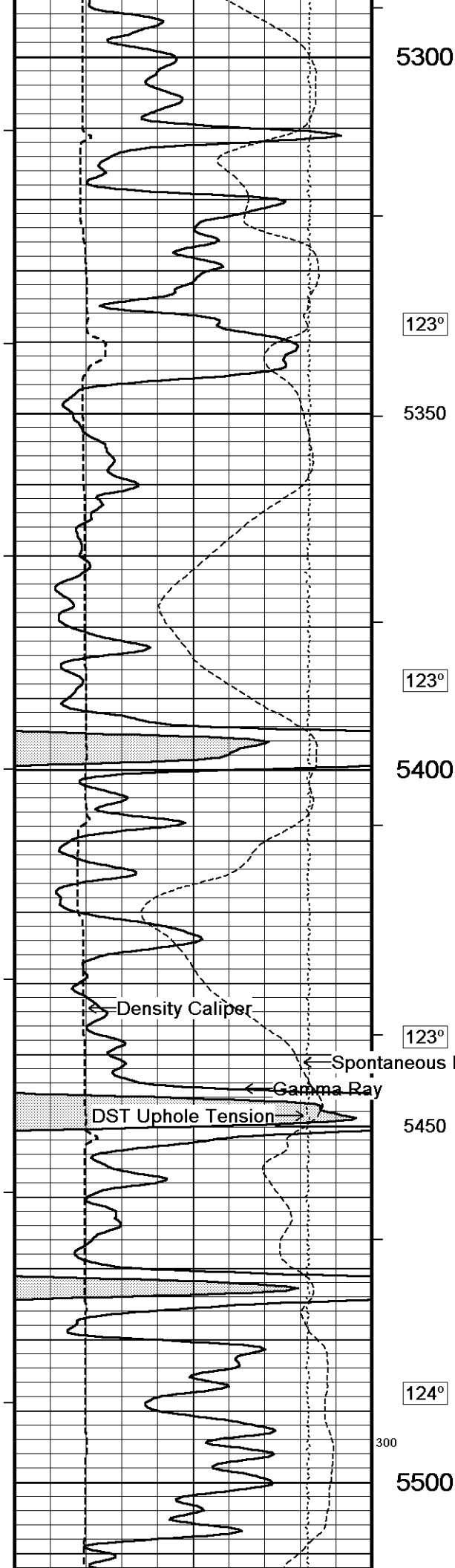






121° 300
5100
121°
5150
122°
5200 400
122°
5250
122°





5300

123°

5350

123°

5400

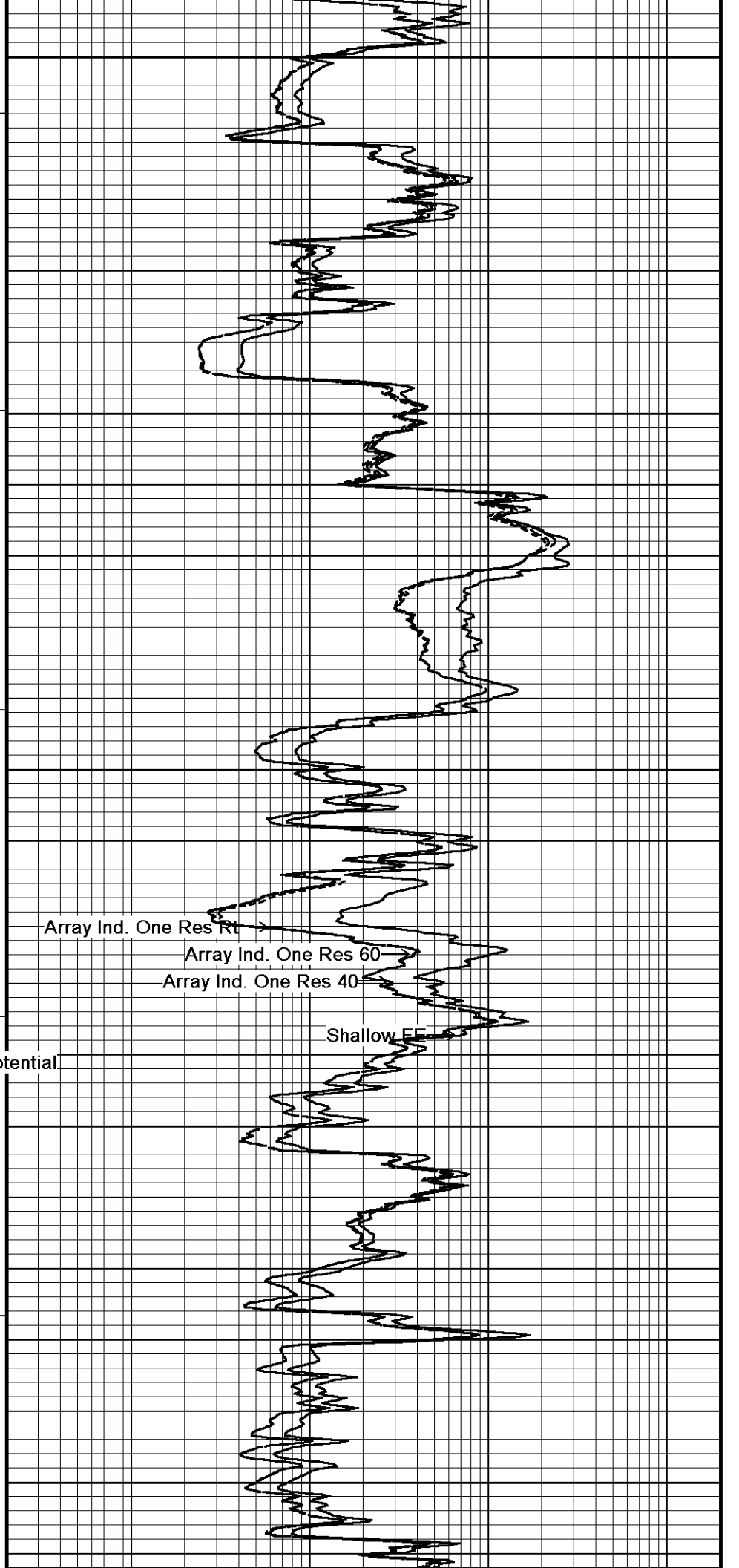
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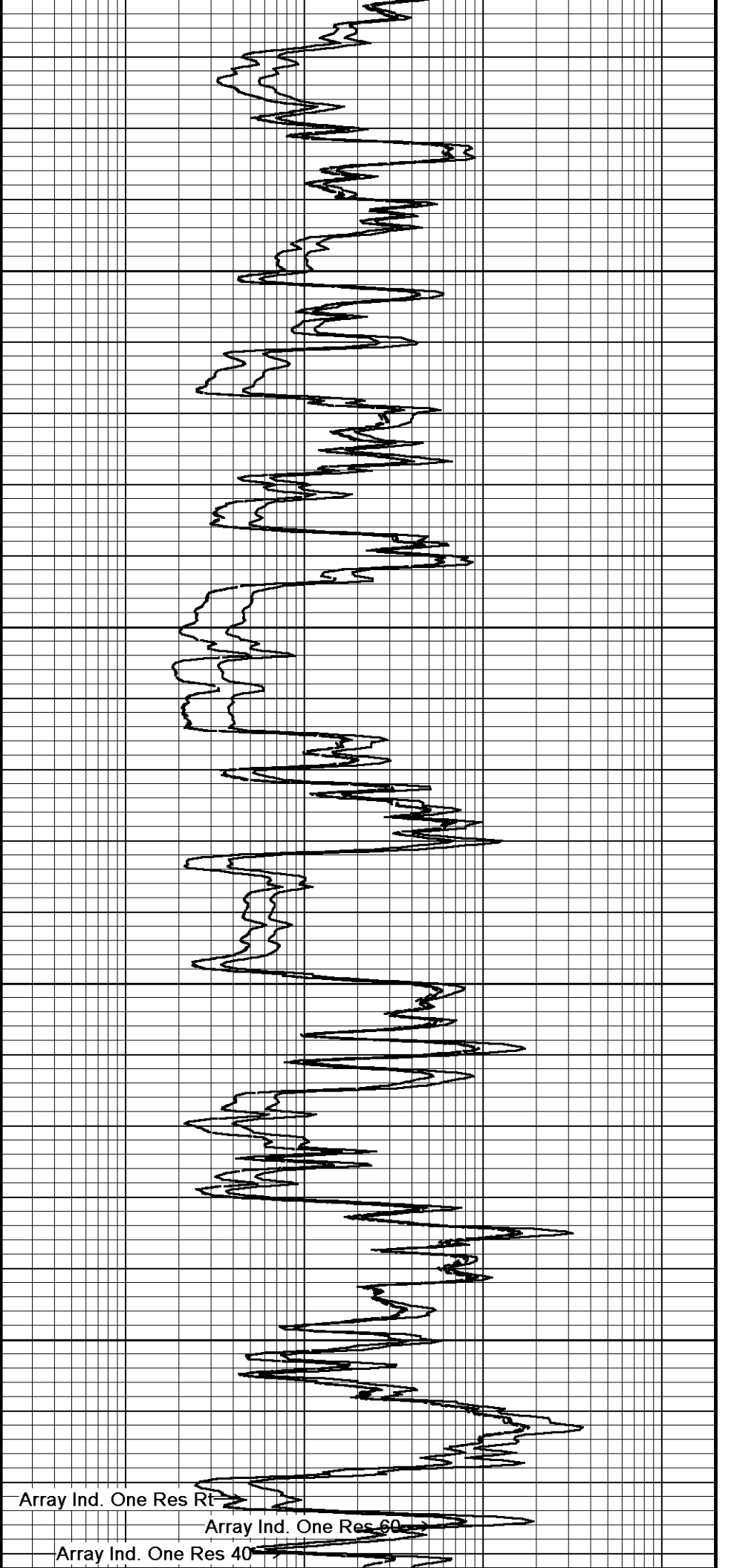
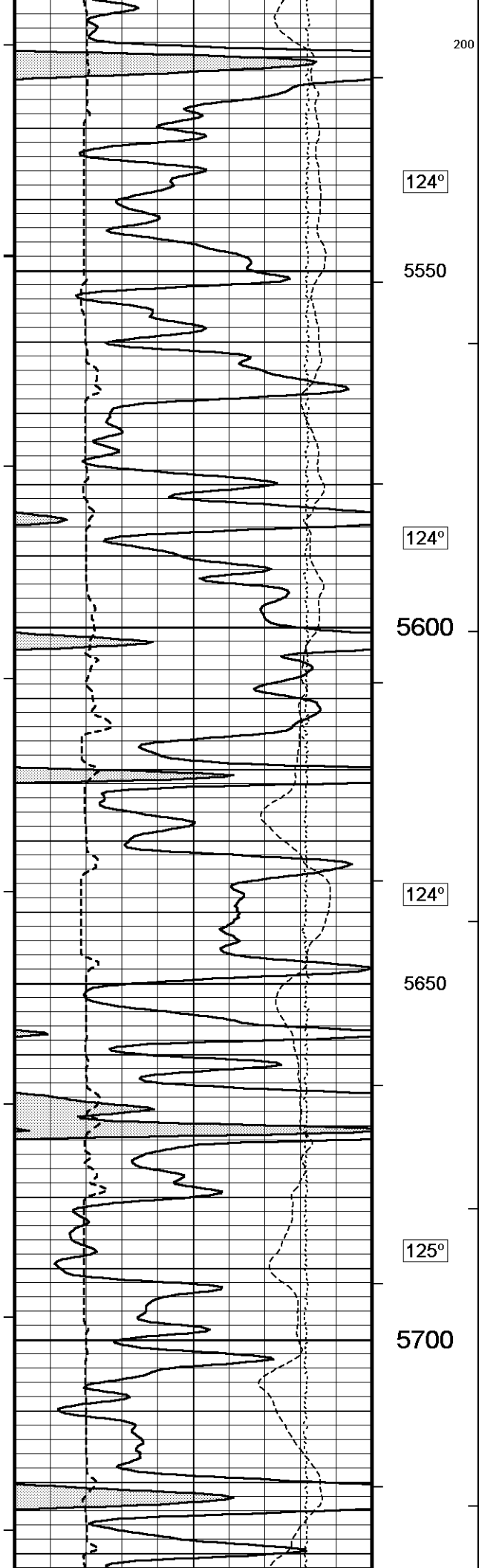
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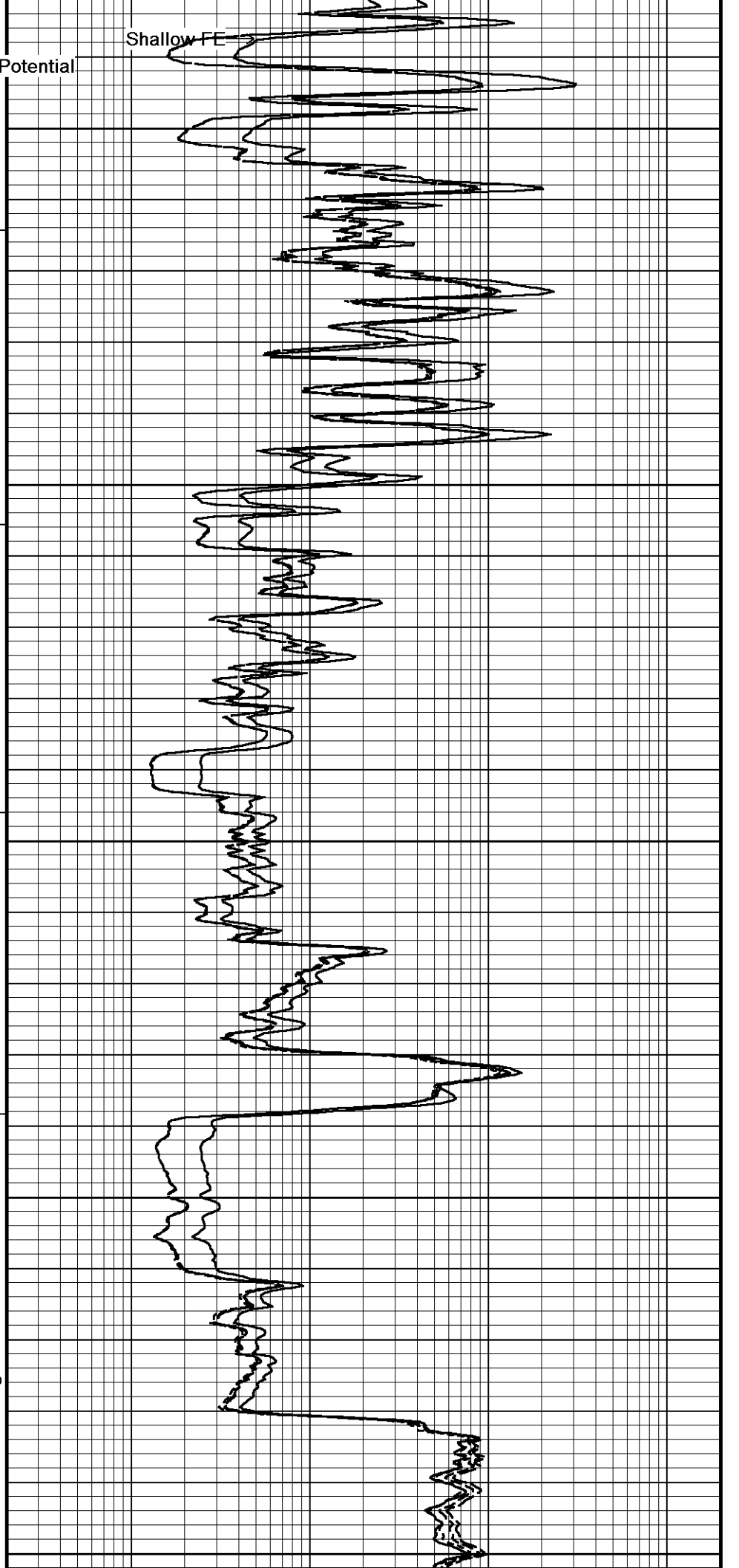
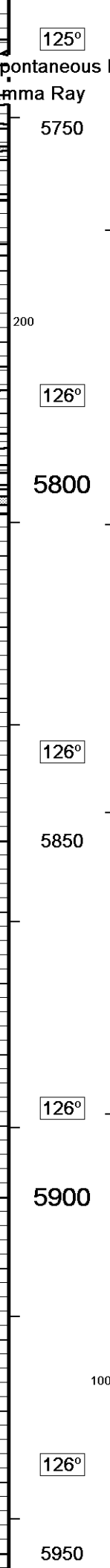
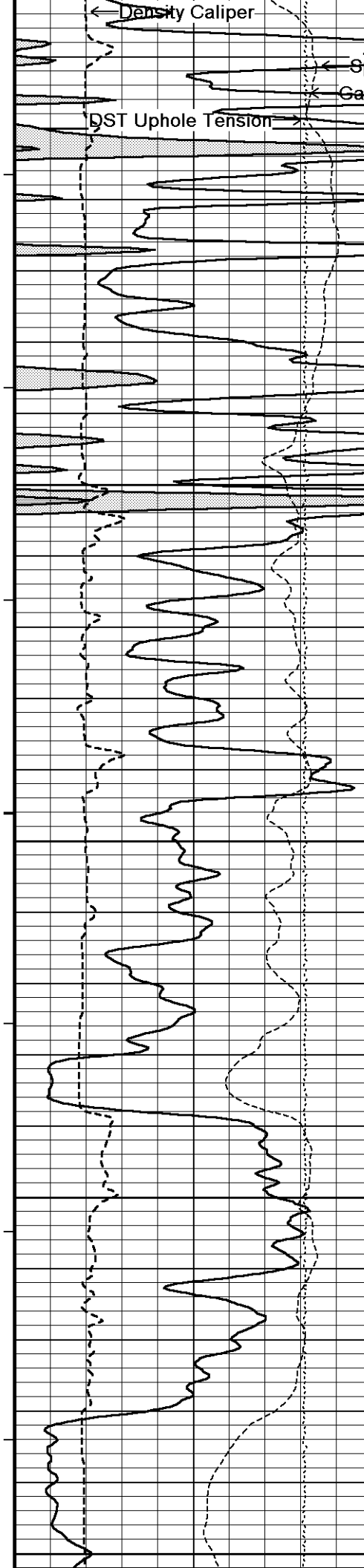
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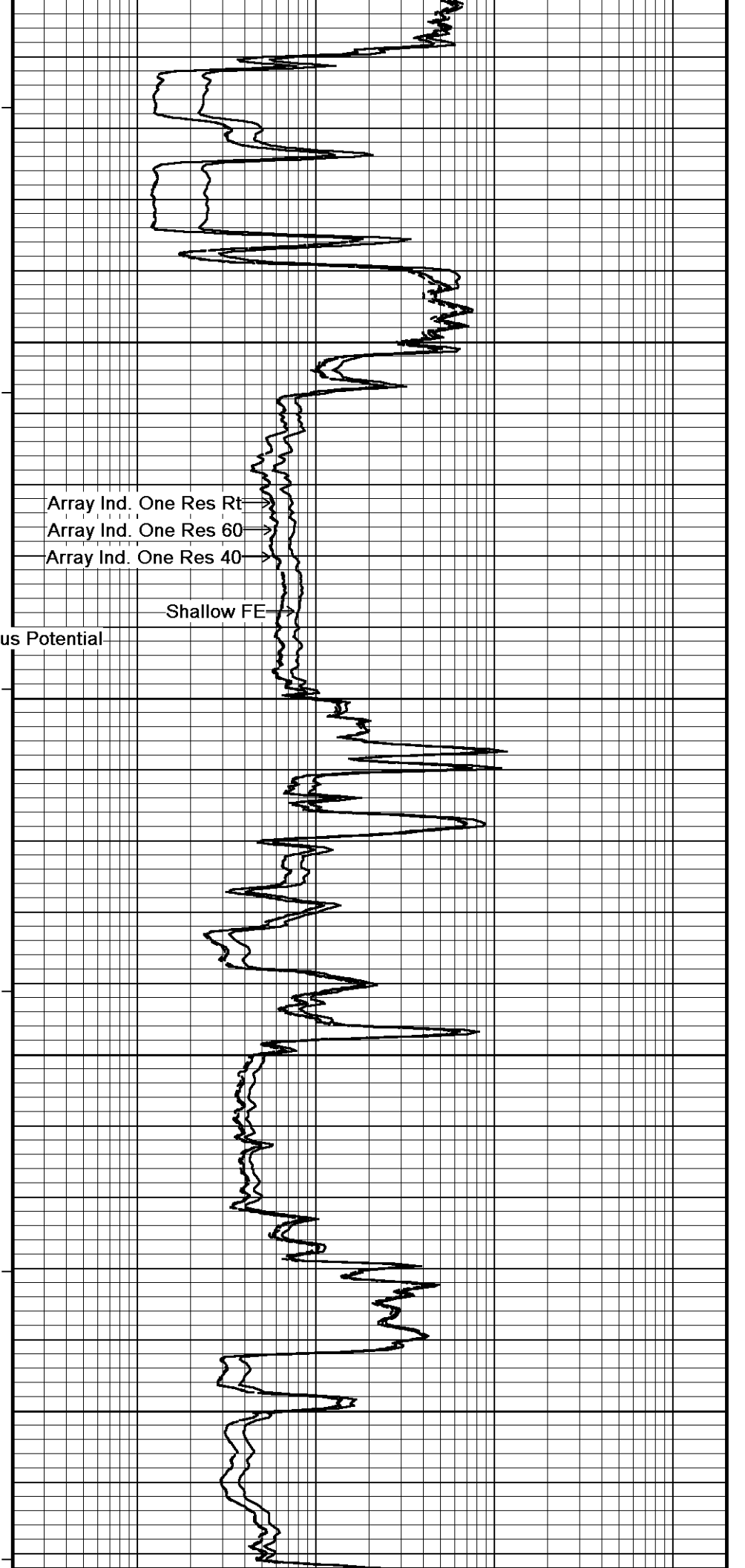
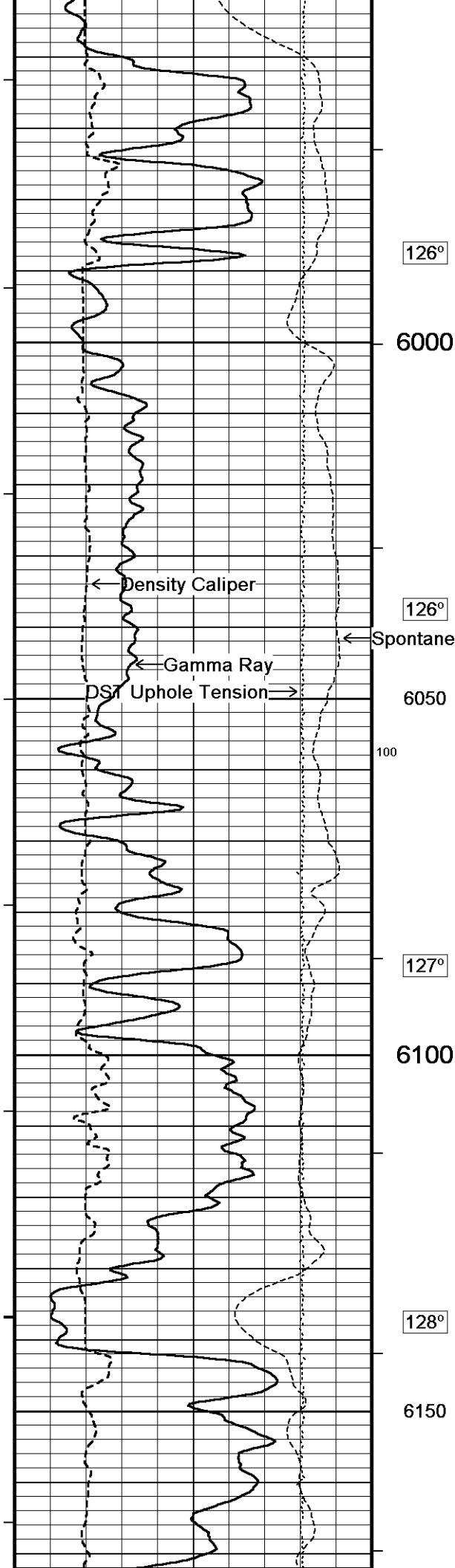
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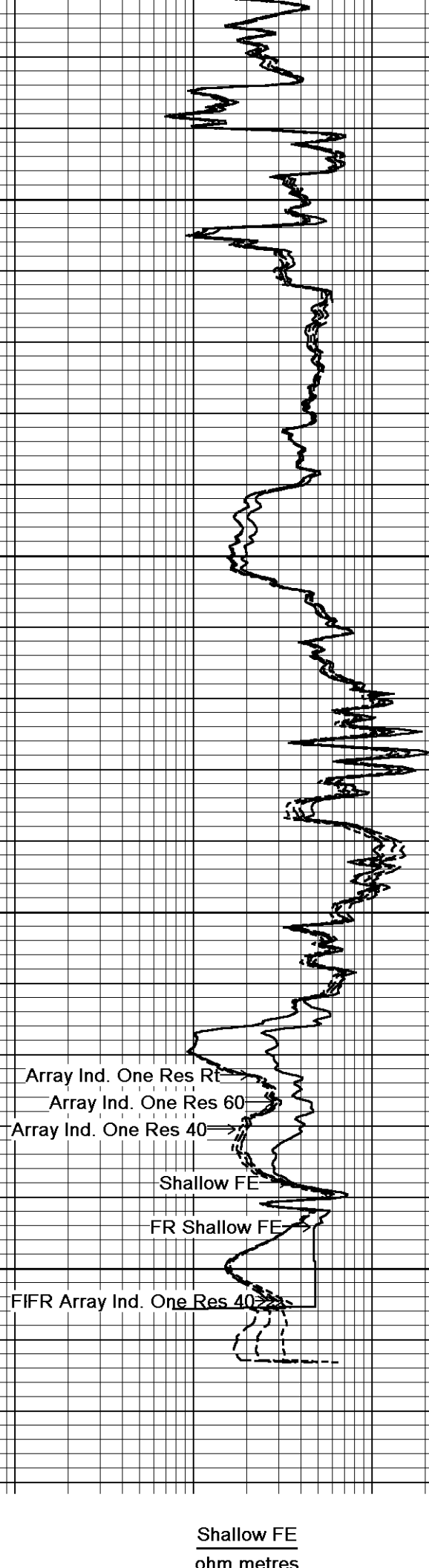
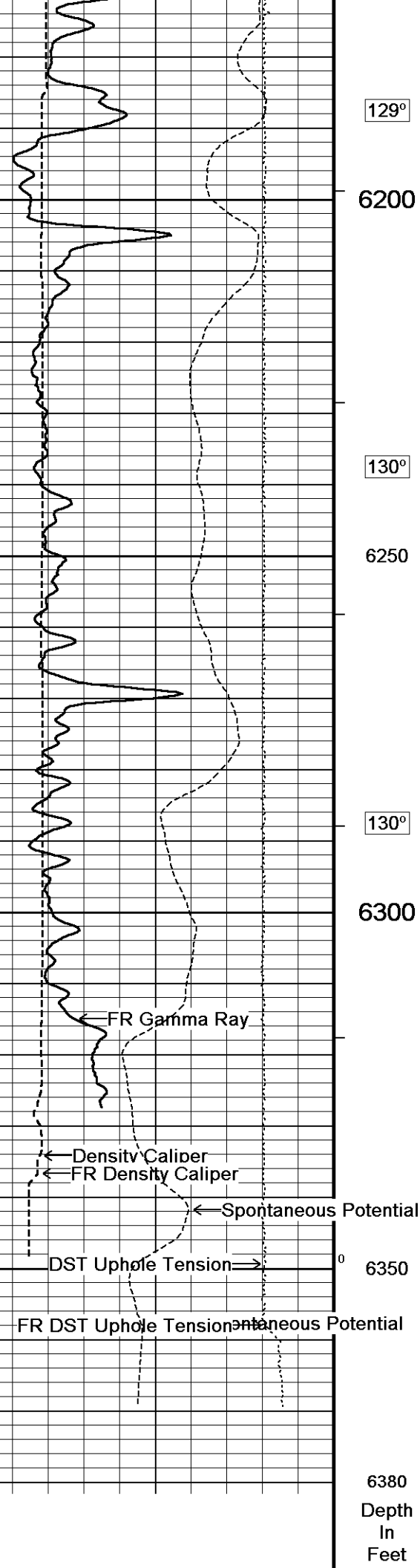
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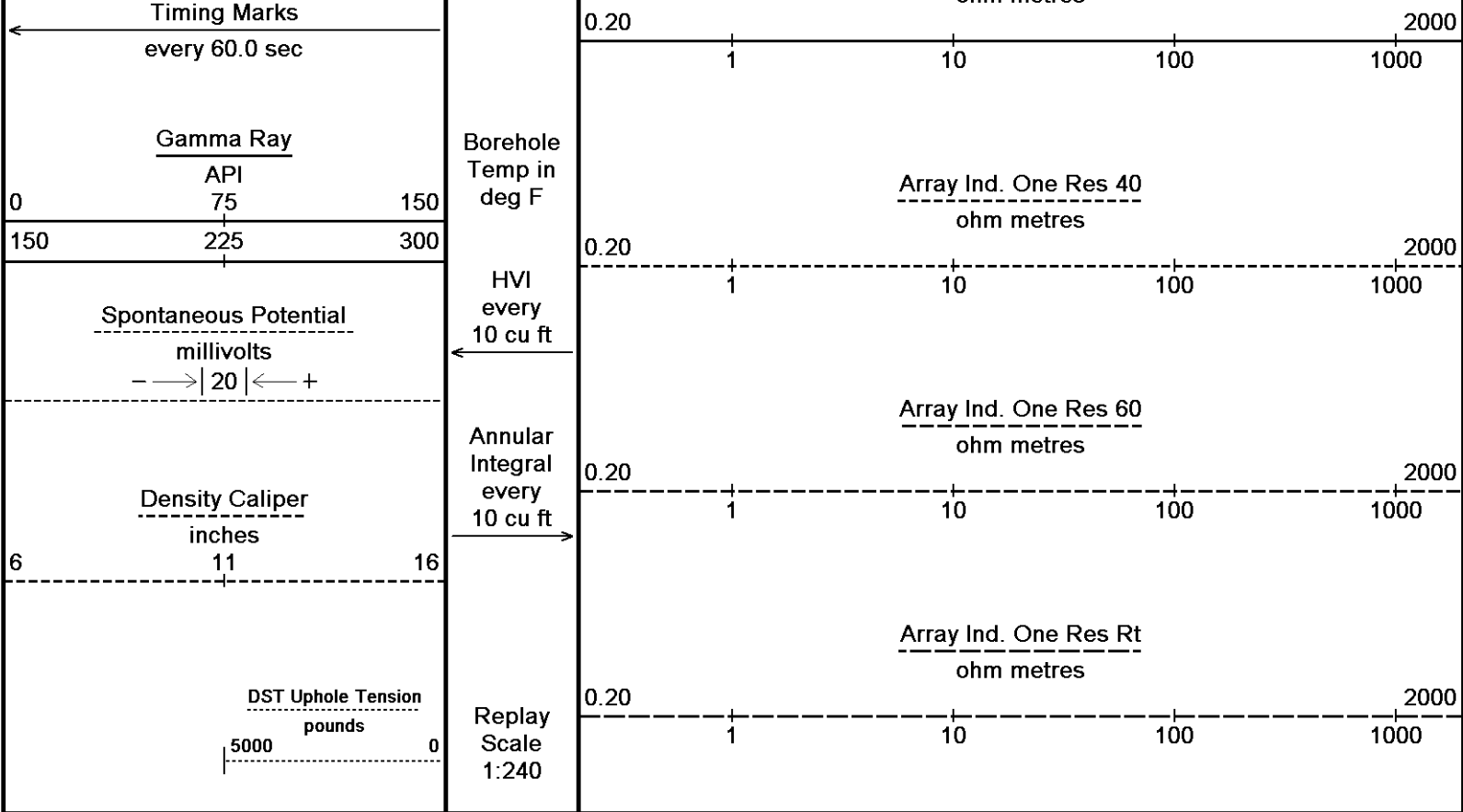










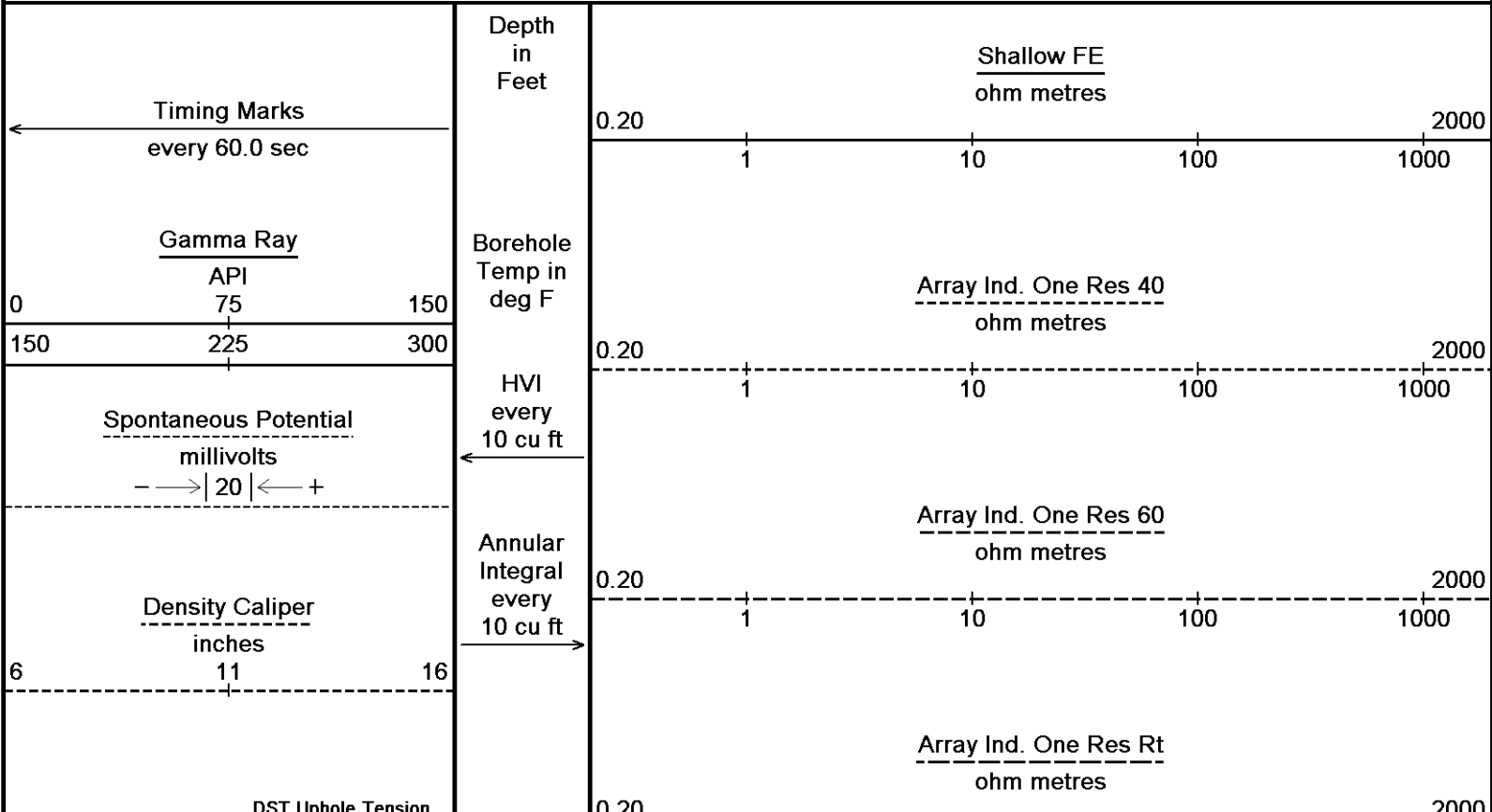


Depth Based Data - Maximum Sampling Increment 10.0cm	Plotted on 17-AUG-2012 10:05
Filename: C:\Minimus 13.02.6600\Data\O'Brien Vail Offset #4-30\O'Brien Vail Offset #4-30_003.dta	Recorded on 17-AUG-2012 06:57
System Versions: Logged with 13.02.6600 Processed with 13.02.6600 Plotted with 13.02.6600	

↑	5 INCH MAIN	↑
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↓	10 INCH HI-RES	↓
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Depth Based Data - Maximum Sampling Increment 2.5cm	Plotted on 17-AUG-2012 10:05
Filename: C:\Minimus 13.02.6600\Data\O'Brien Vail Offset #4-30\O'Brien Vail Offset #4-30_001.dta	Recorded on 17-AUG-2012 05:52
System Versions: Logged with 13.02.6600 Plotted with 13.02.6600	



5000 pounds 0

Replay
Scale
1:120

5724

5750

ray Ind. One Res Rt
Array Ind. One Res 60
Array Ind. One Res 40

Density Caliper

Spontaneous Potential

Gamma Ray

DST Uphole Tension

200

125°

5800

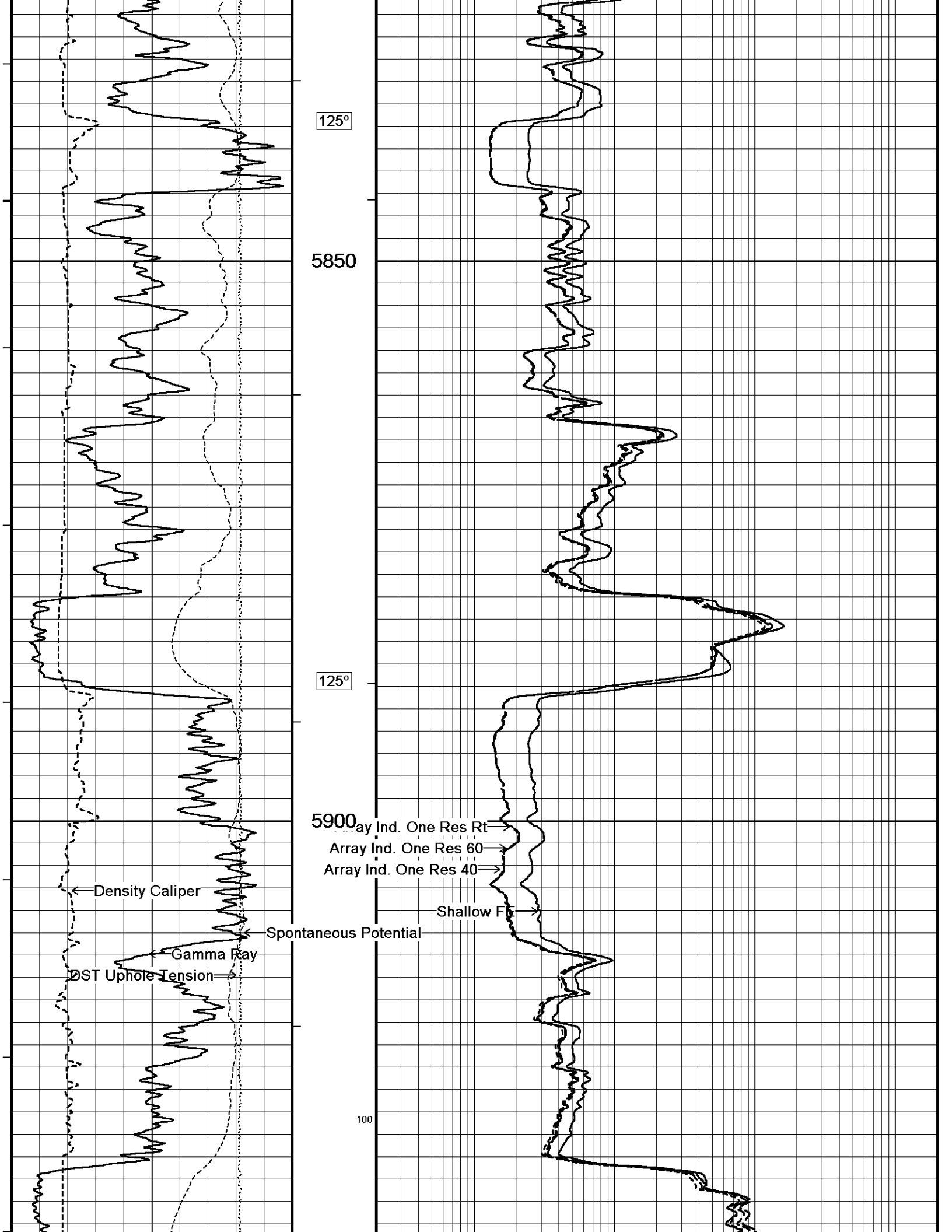
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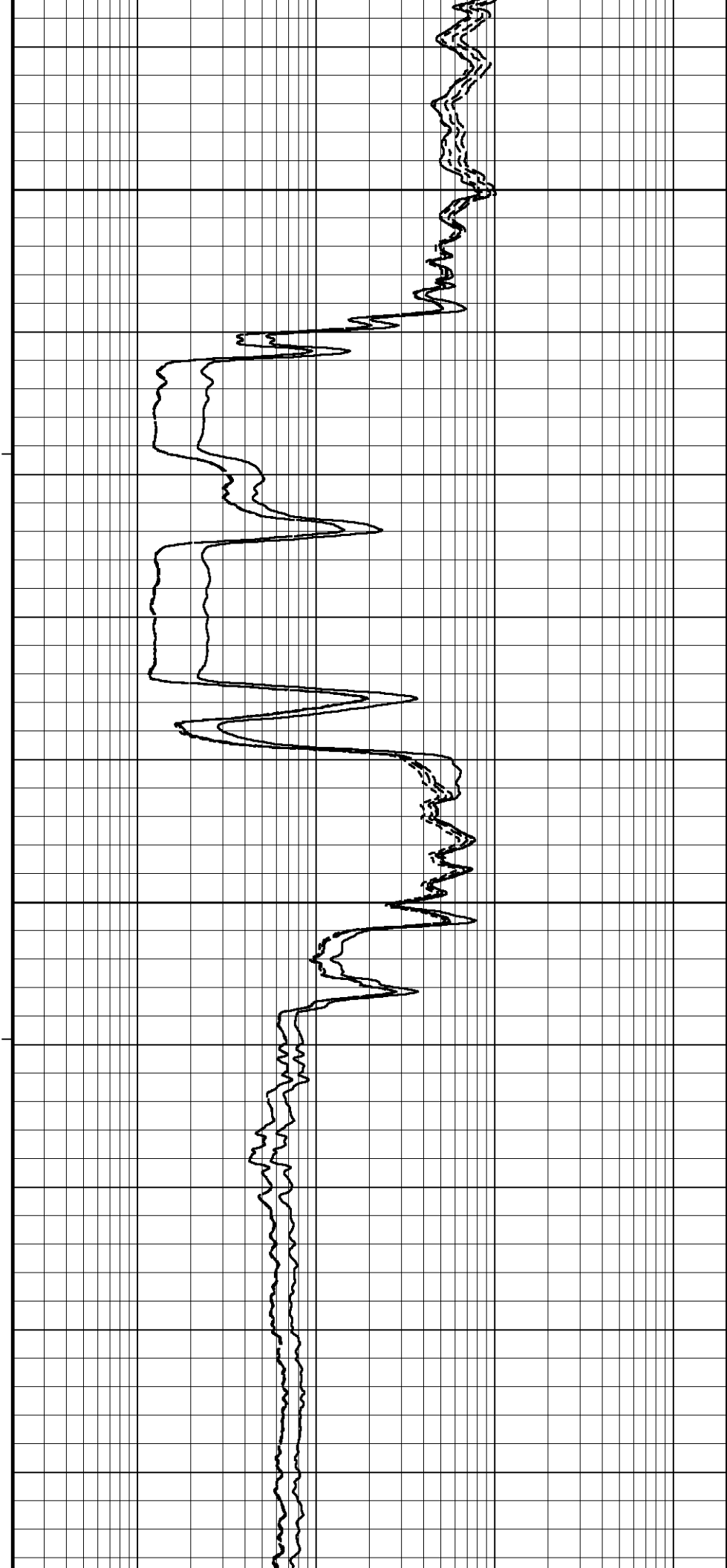
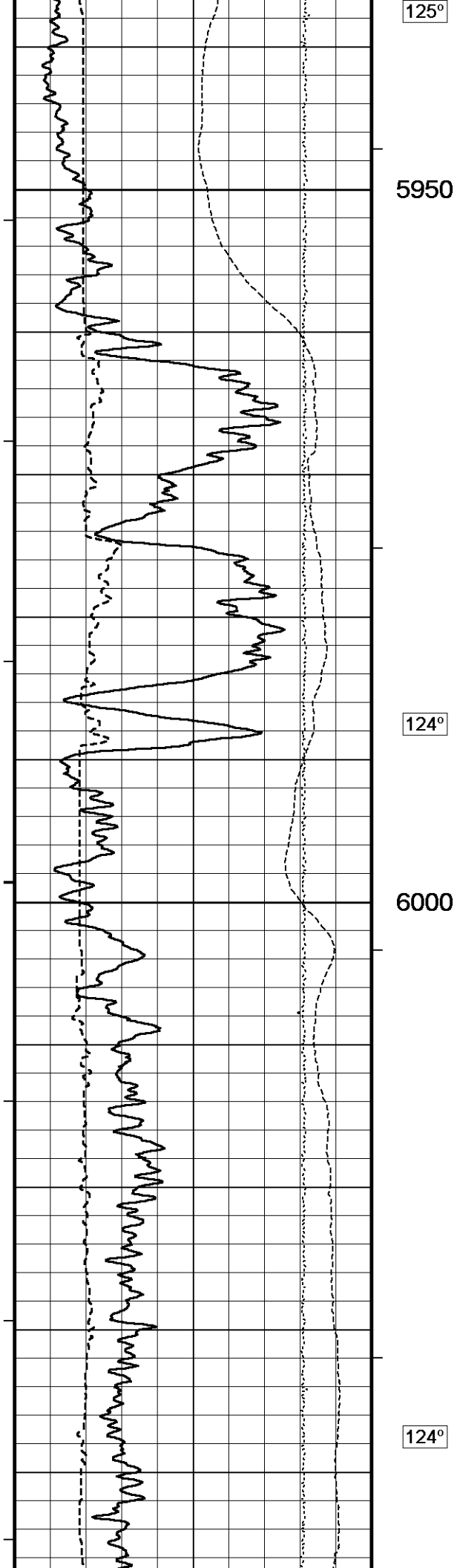
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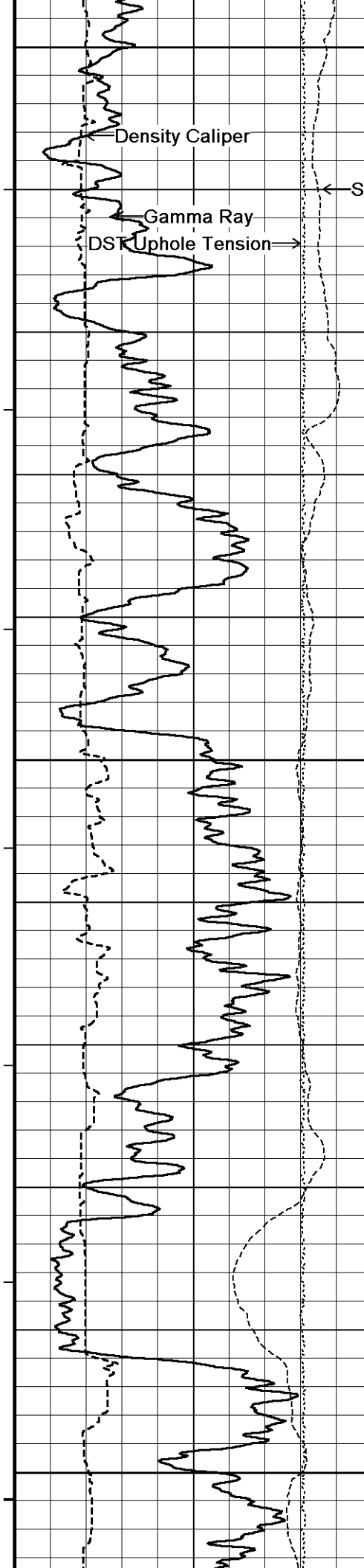
100

1000

Shallow FE







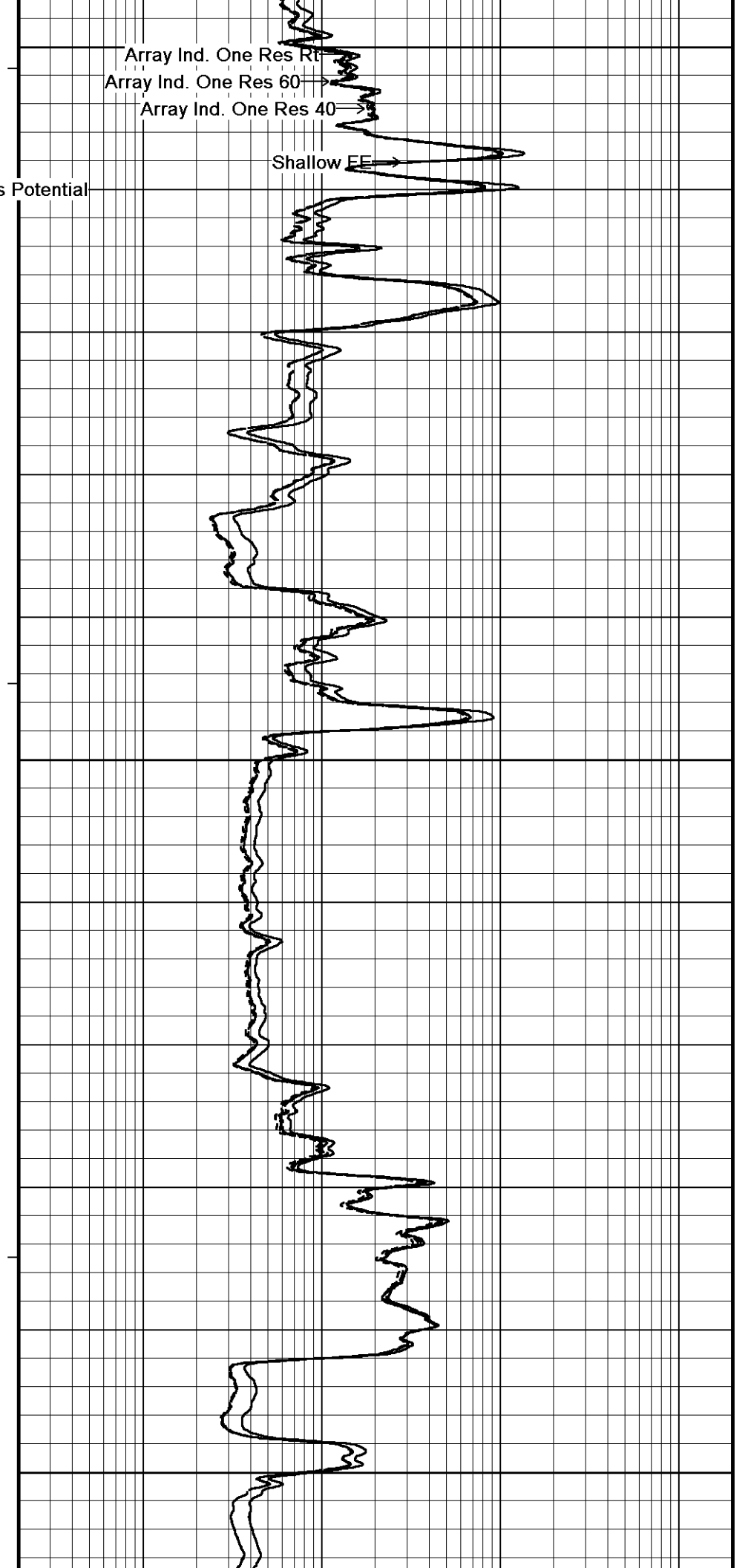
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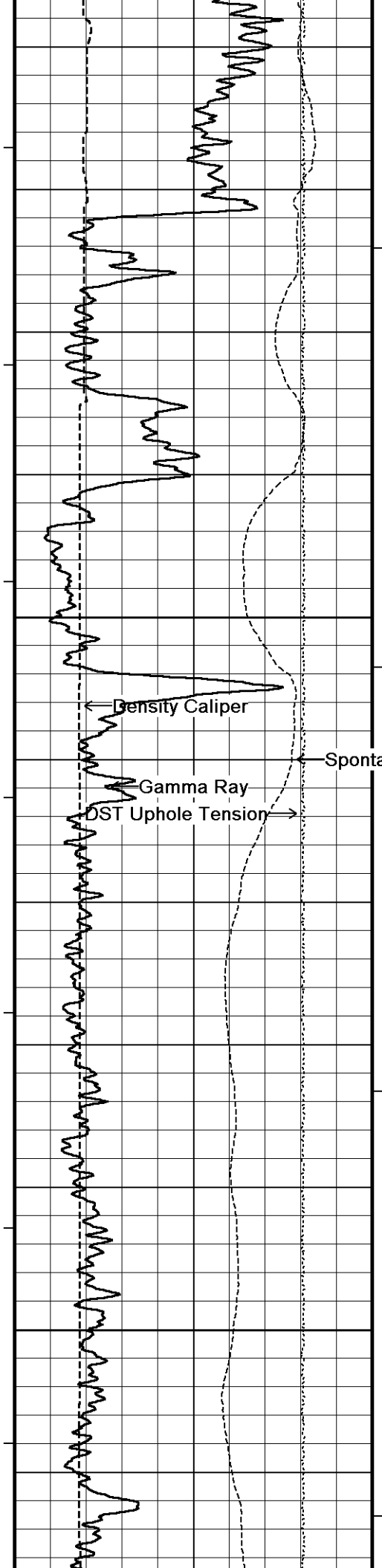
124°

6100

125°

6150



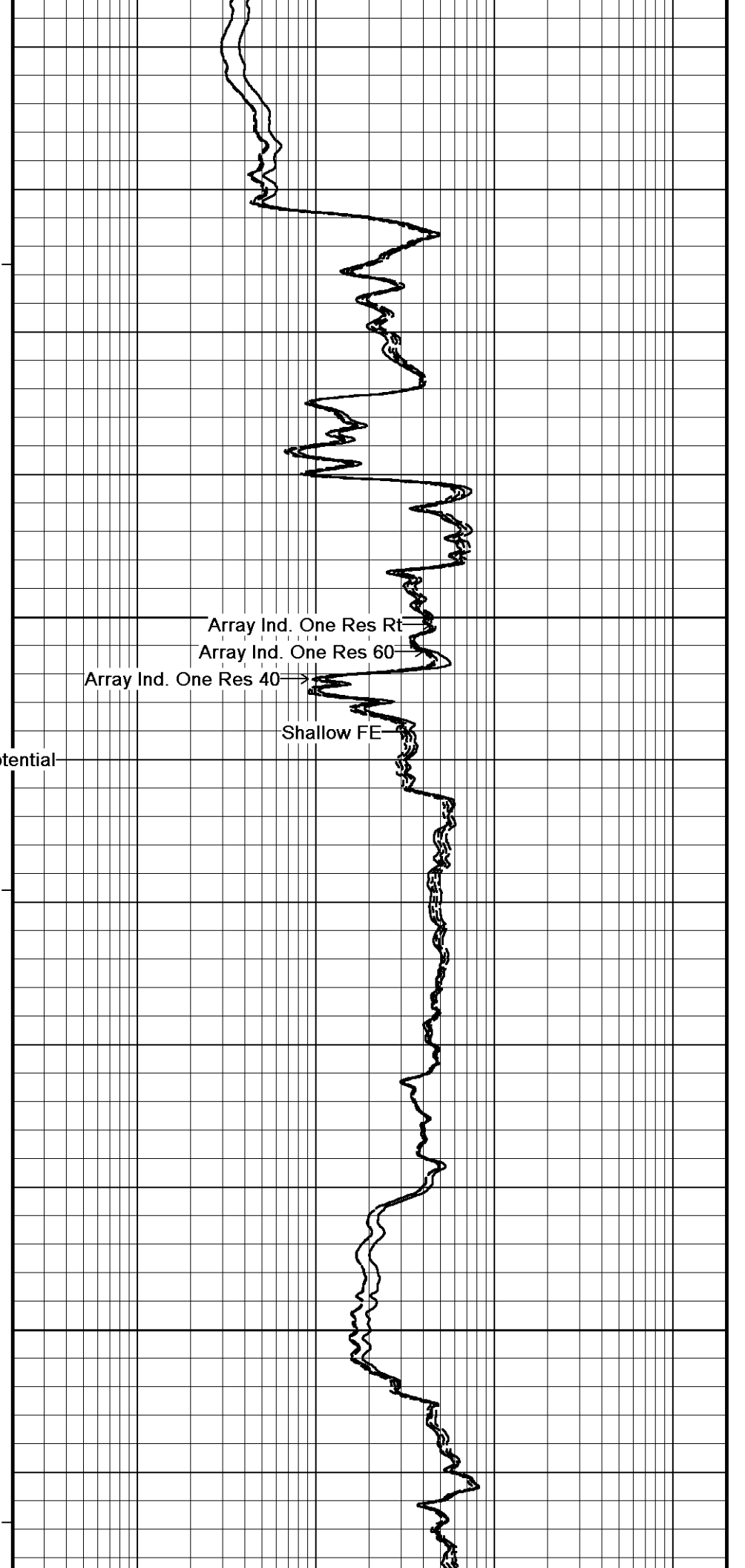


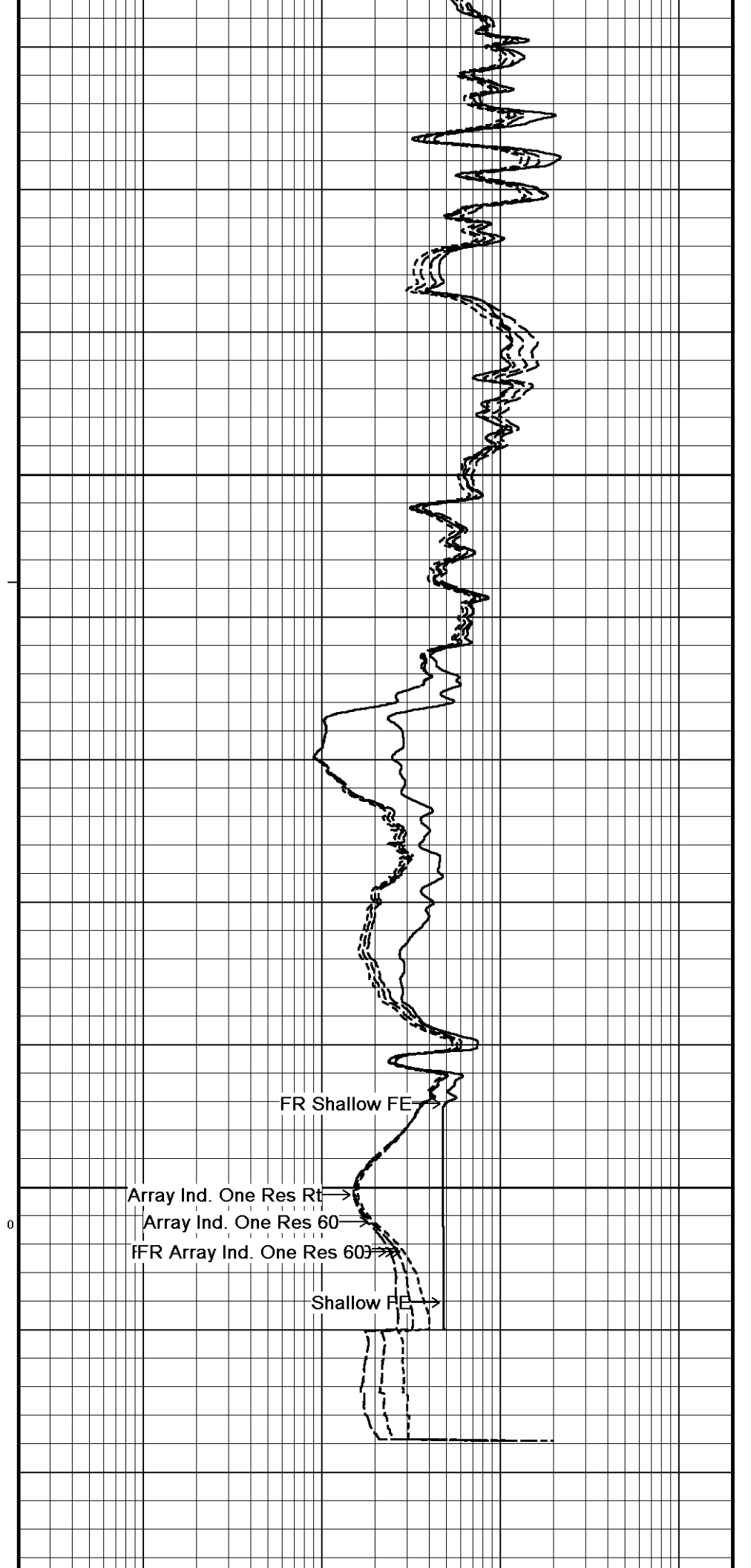
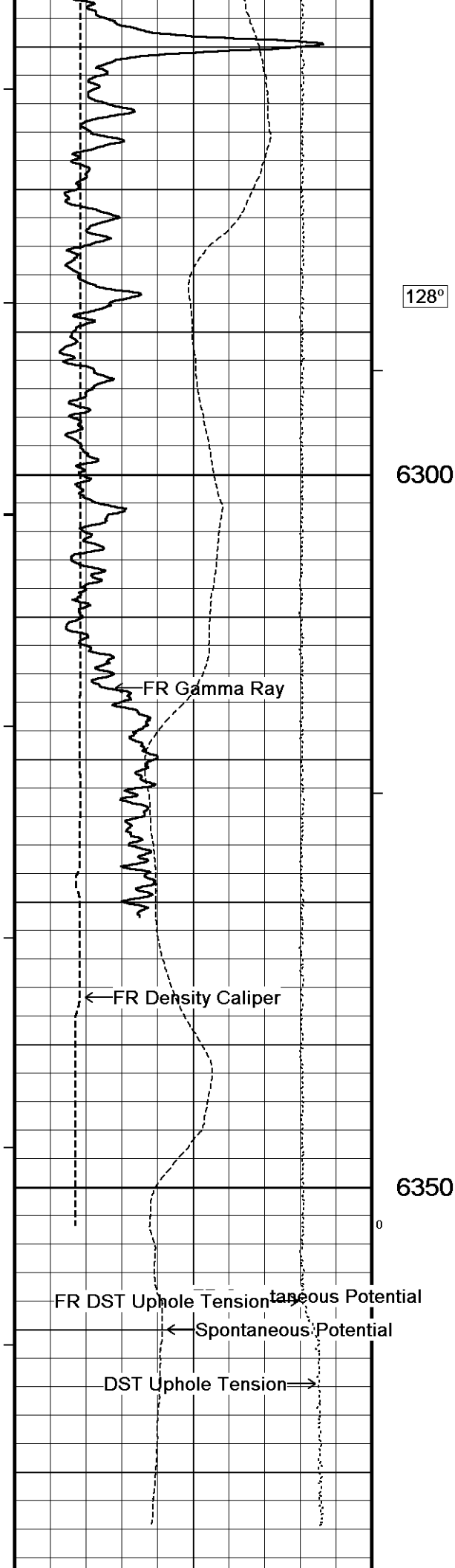
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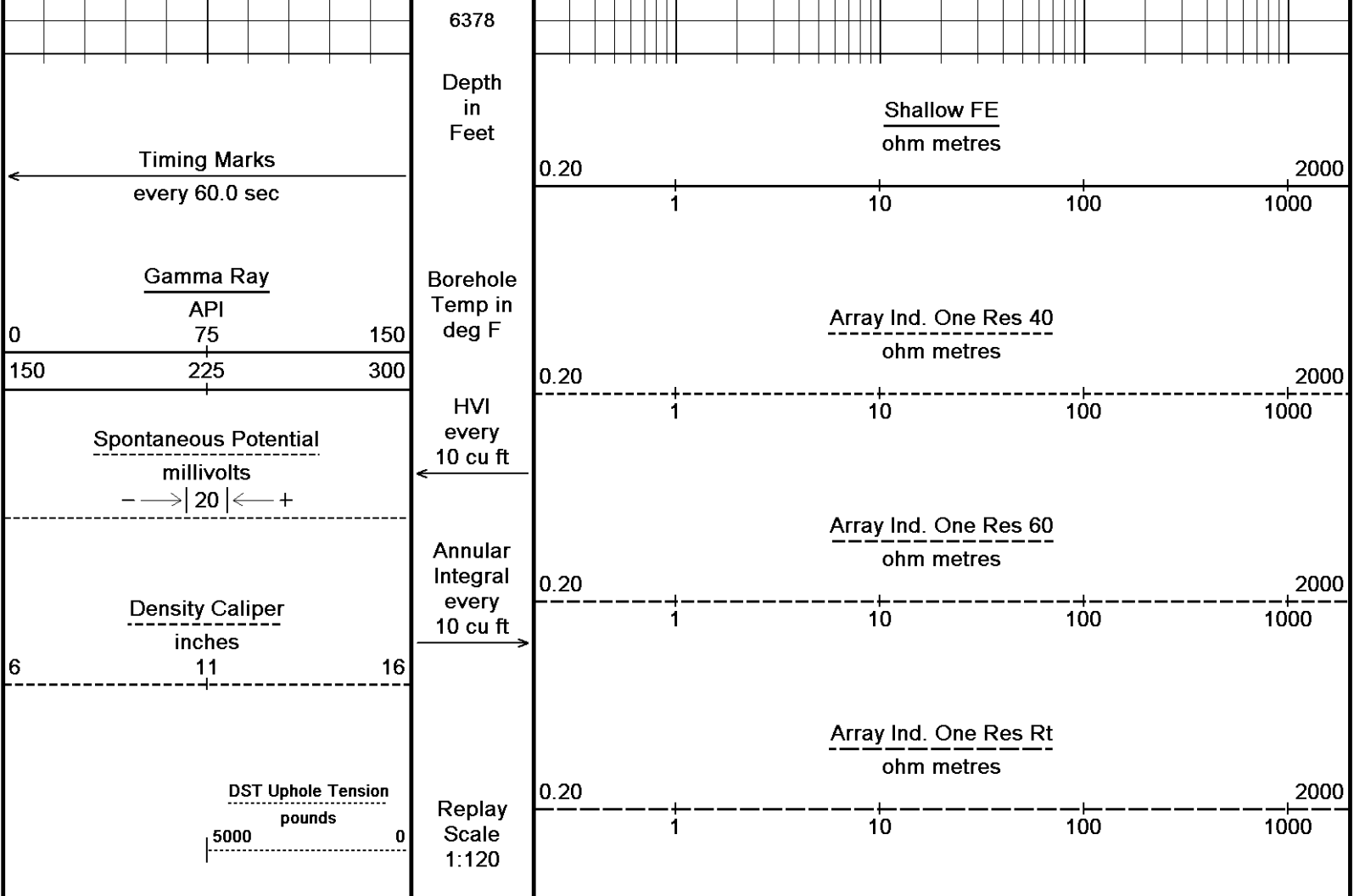
6200

128°

6250



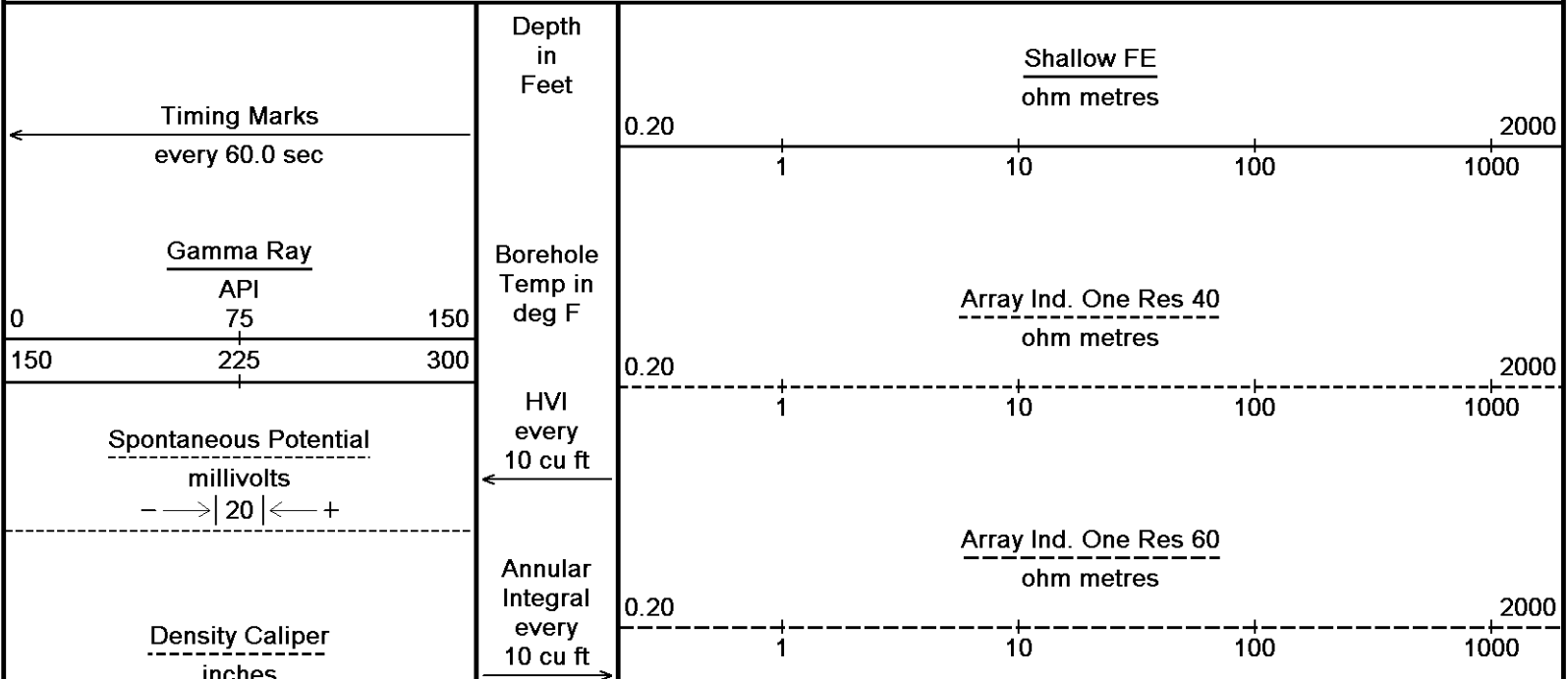


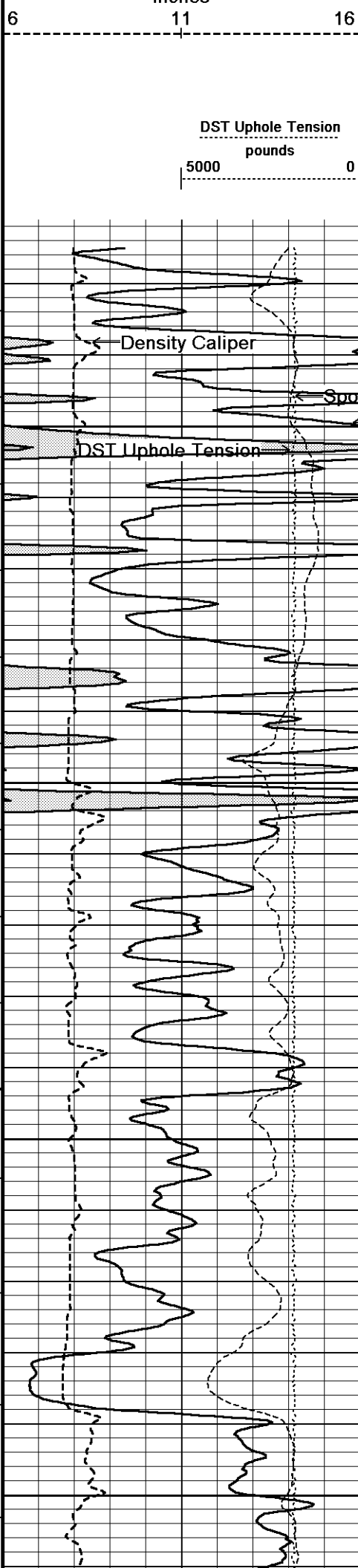


Depth Based Data - Maximum Sampling Increment 2.5cm	Plotted on 17-AUG-2012 10:05
Filename: C:\Minimus 13.02.6600\Data\O'Brien Vail Offset #4-30\O'Brien Vail Offset #4-30_001.dta	Recorded on 17-AUG-2012 05:52
System Versions: Logged with 13.02.6600 Plotted with 13.02.6600	

↑	10 INCH HI-RES	↑
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↓	REPEAT SECTION	↓
Depth Based Data - Maximum Sampling Increment 10.0cm		
Plotted on 17-AUG-2012 10:05		
Filename: C:\Minimus 13.02.6600\Data\O'Brien Vail Offset #4-30\O'Brien Vail Offset #4-30_002.dta		
Recorded on 17-AUG-2012 05:52		
System Versions: Logged with 13.02.6600 Processed with 13.02.6600 Plotted with 13.02.6600		





Replay
Scale
1:240

5724

200

125°

5800

125°

5850

125°

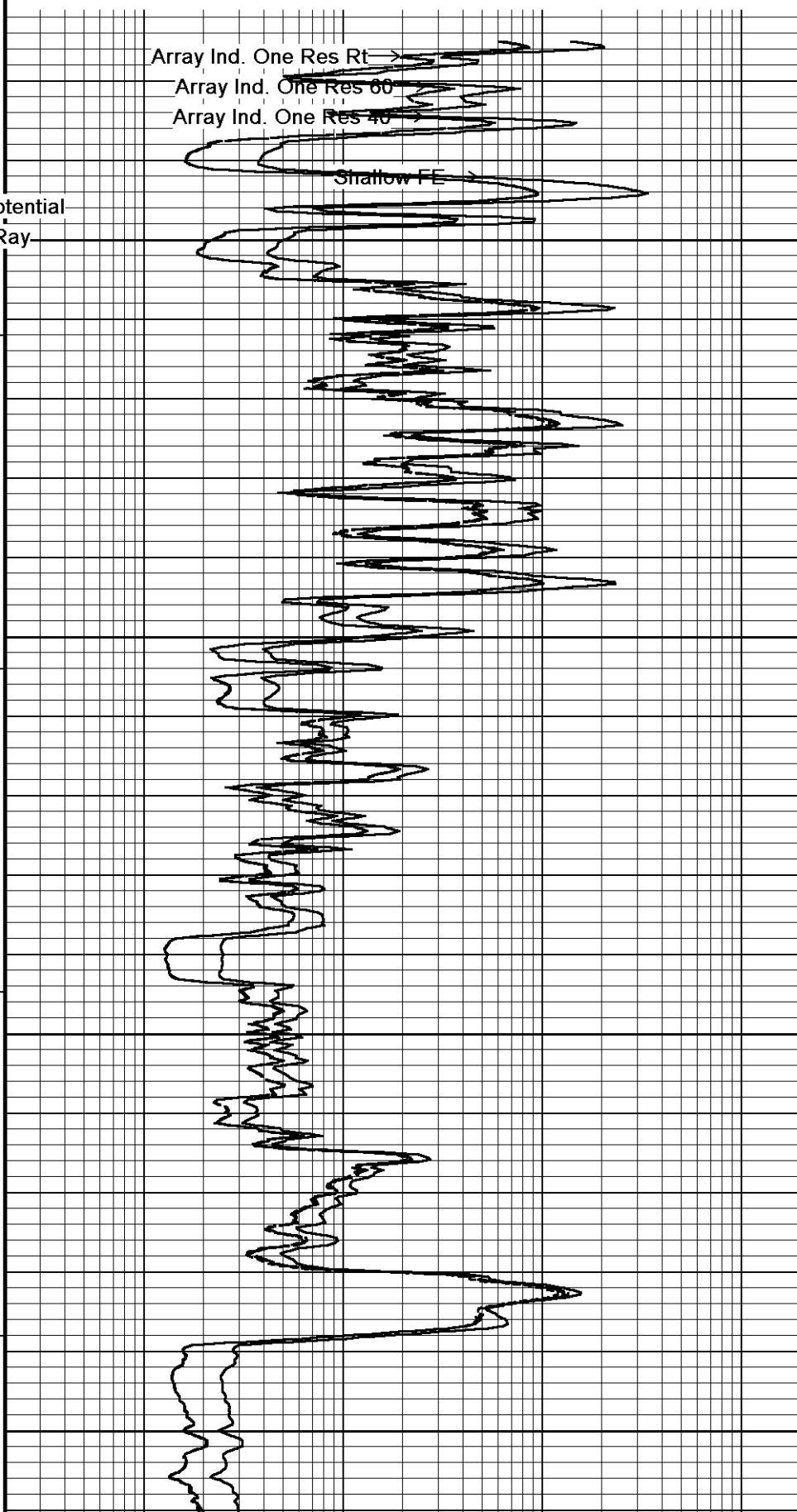
5900

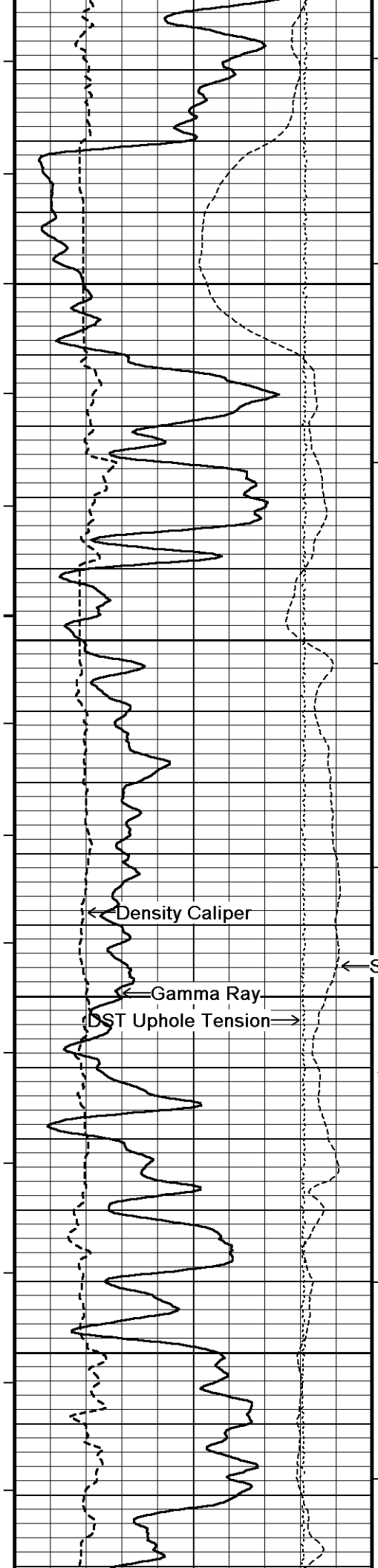
Array Ind. One Res Rt
ohm metres

0.20 1 10 100 1000 2000

Array Ind. One Res Rt →
Array Ind. One Res 80 →
Array Ind. One Res 40 →
Shallow FE →

C5750a Ray





125°

5950

124°

6000

124°

6050

100

124°

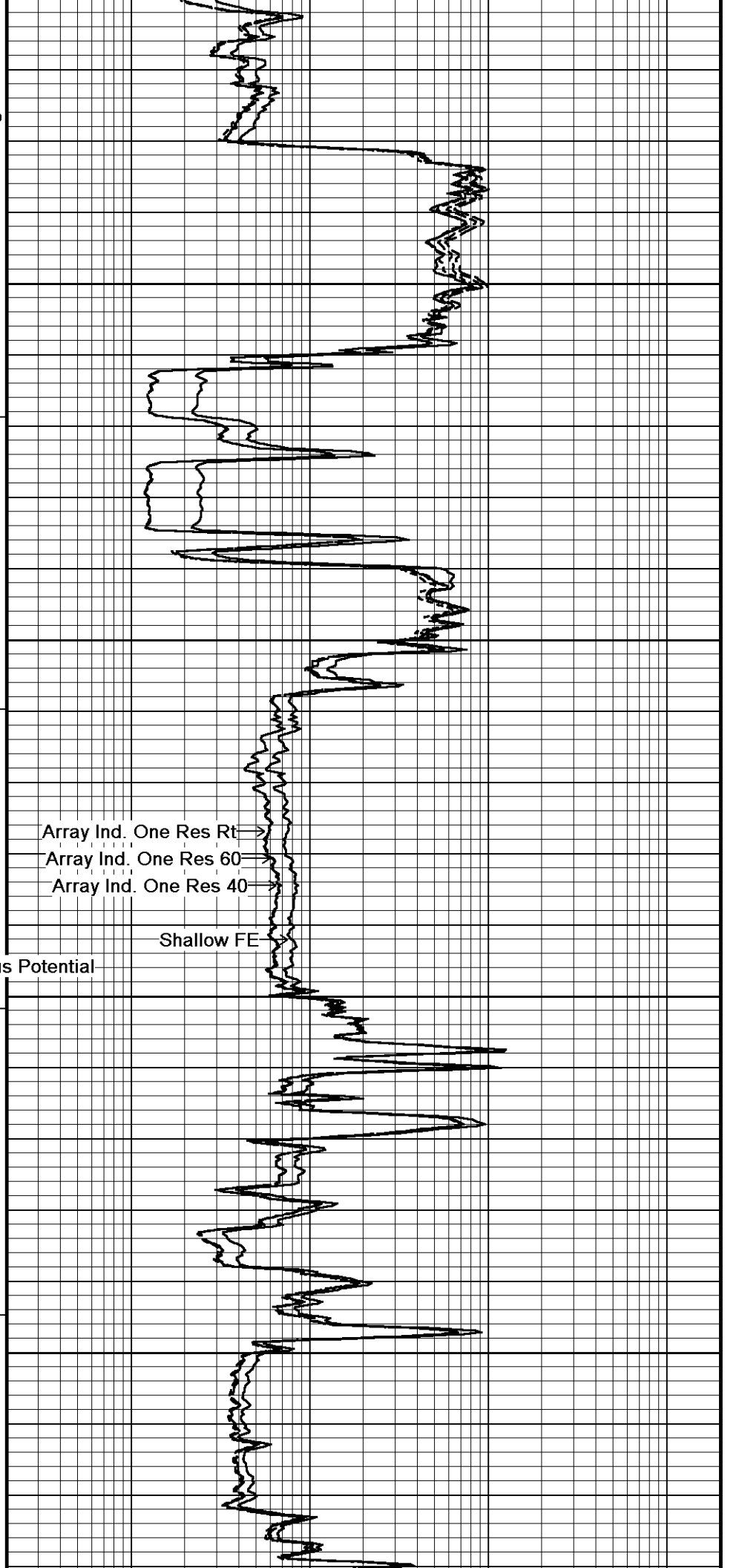
6100

Density Caliper

Gamma Ray

DST Uphole Tension

Spontaneous Potential



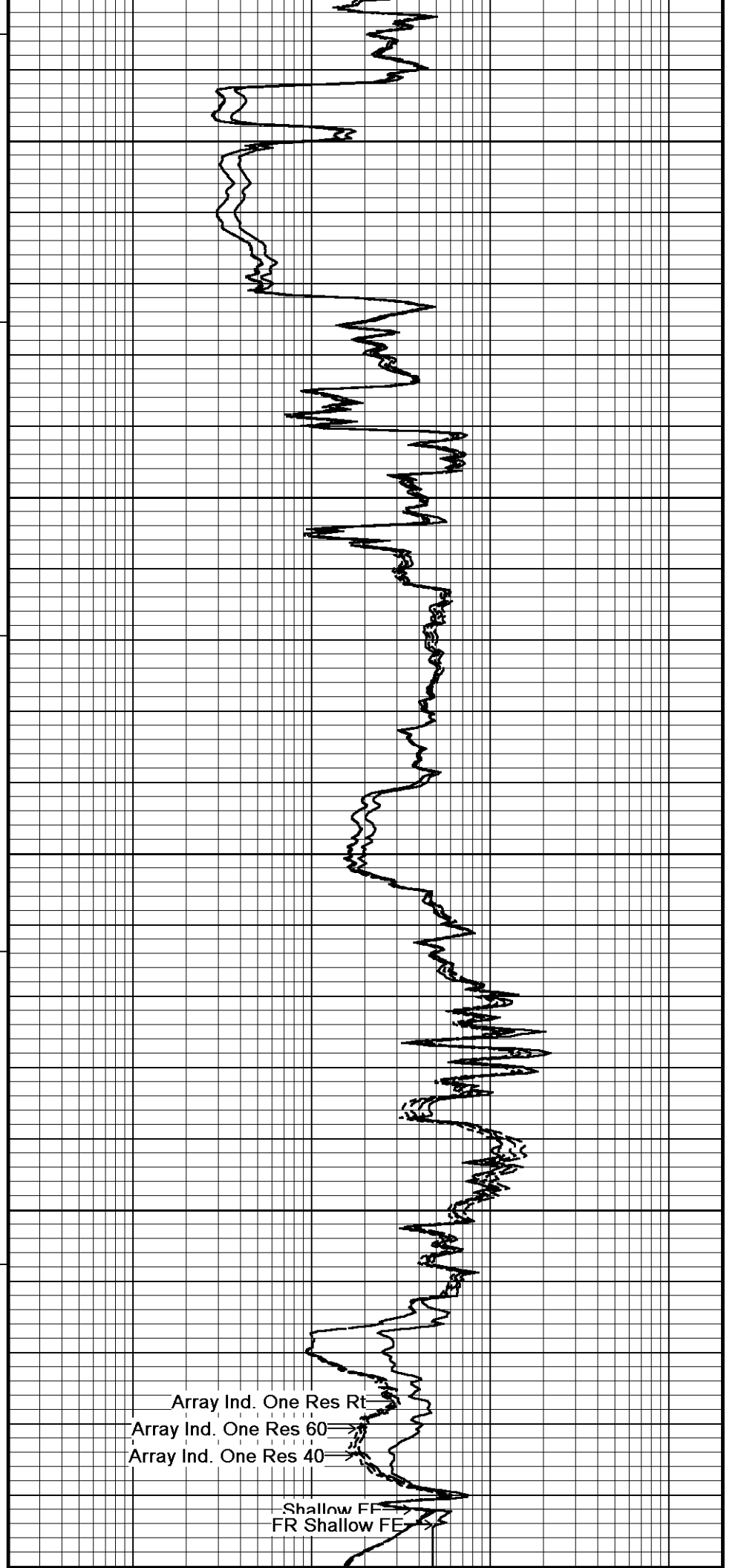
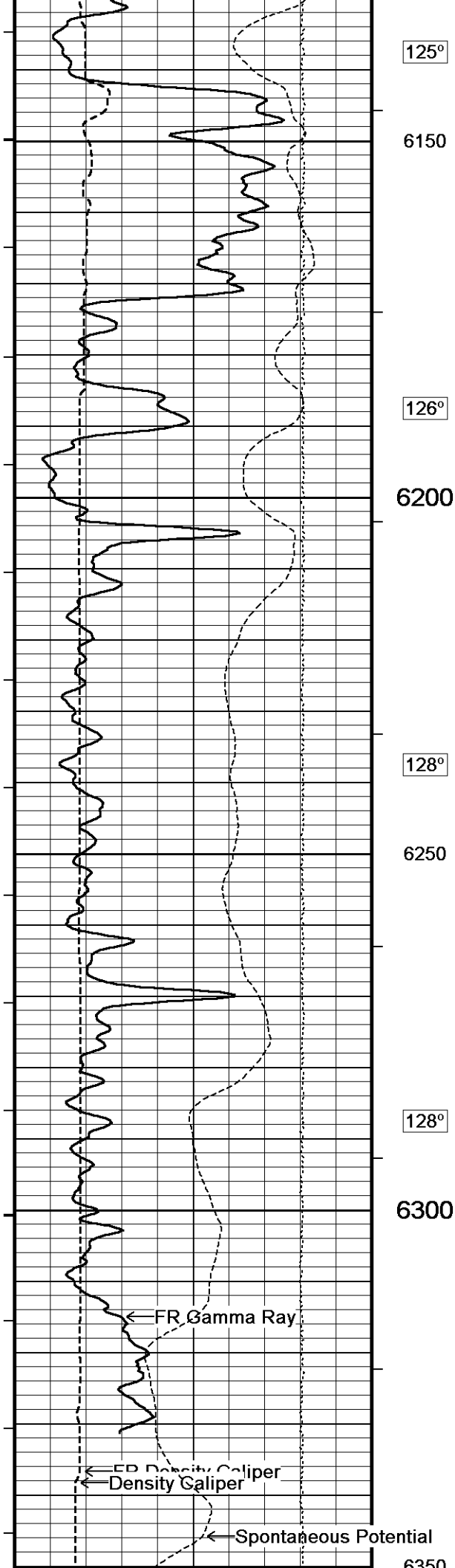
100

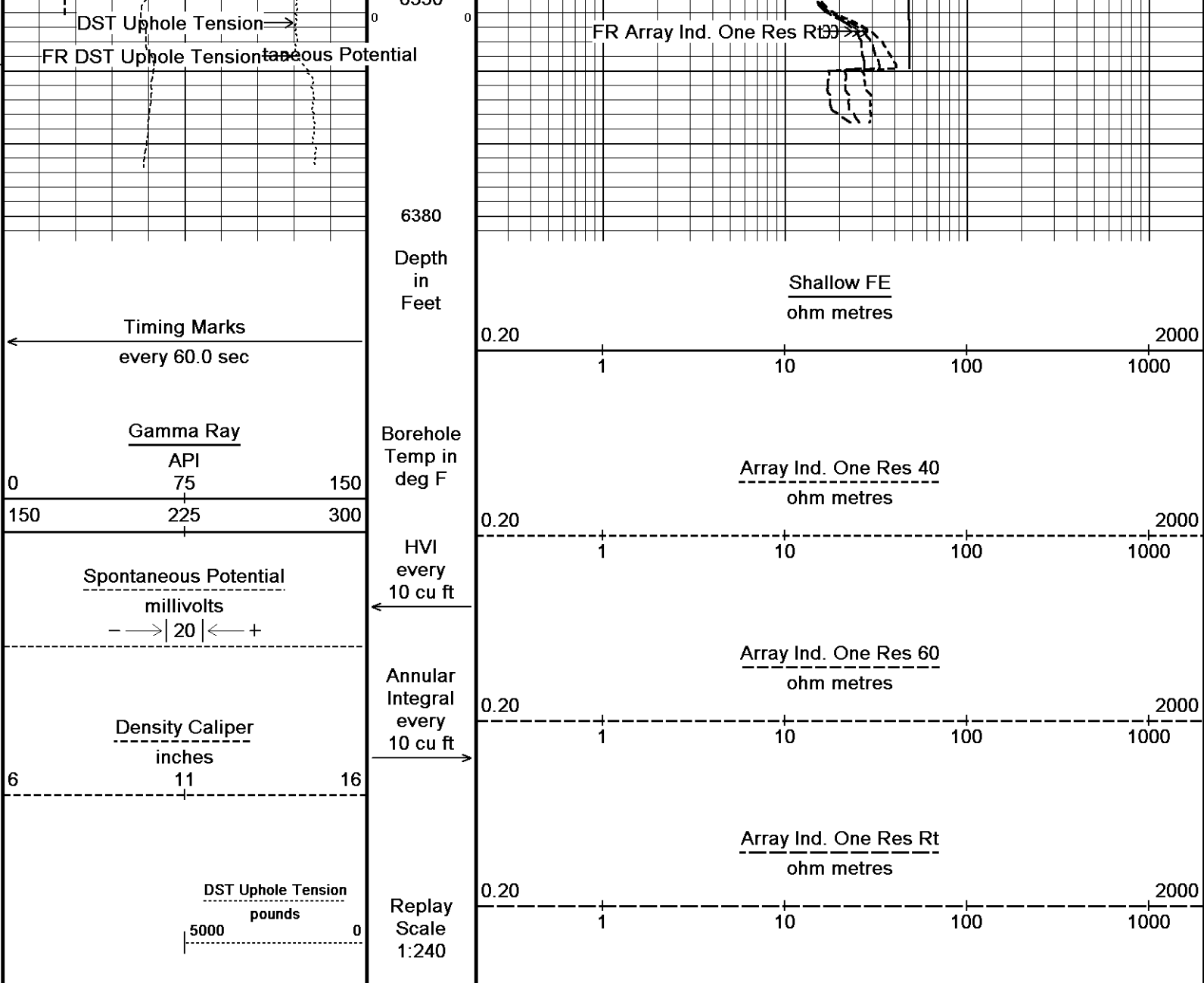
Array Ind. One Res Rt

Array Ind. One Res 60

Array Ind. One Res 40

Shallow FE





Depth Based Data - Maximum Sampling Increment 10.0cm
Filename: C:\Minimus 13.02.6600\Data\O'Brien Vail Offset #4-30\O'Brien Vail Offset #4-30_002.dta
System Versions: Logged with 13.02.6600 Processed with 13.02.6600 Plotted with 13.02.6600

↑ REPEAT SECTION ↑

BEFORE SURVEY CALIBRATION

C:\Minimus 13.02.6600\Data\O'Brien Vail Offset #4-30\O'Brien Vail Offset #4-30_003.dta

General Constants All 000 Last Edited on 17-AUG-2012,03:22

General Parameters		
Mud Resistivity	0.980	ohm-metres
Mud Resistivity Temperature	96.000	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	

Porosity used		Base Density Porosity	
Resistivity used		Array Ind. Four Res Rt	
RWA Constant A		0.610	
RWA Constant M		2.150	
Down-hole Tension Calibration SMS 0			
Reading No		Measured	Calibrated (lbs)
1		16092.12	0.00
2		16514.94	399.00
Field Calibration on 07-AUG-2012 11:13			
Gamma Calibration MCG-C 208			
		Measured	Calibrated (API)
Background		60	42
Calibrator (Gross)		1092	767
Calibrator (Net)		1032	725
Field Calibration on 16-AUG-2012 15:15			
Gamma Constants MCG-C 208			
Last Edited on 17-AUG-2012,03:22			
Gamma Calibrator Number		GR38	
Mud Density		1.08	gm/cc
Caliper Source for Processing		Density Caliper	
Tool Position		Eccentred	
Concentration of KCl		0.00	kppm
SP Calibration MCG-C 208			
		Measured	Calibrated (mV)
Reference 1		100.2	101.0
Reference 2		-101.3	-101.0
Field Calibration on 03-AUG-2012 22:37			
High Resolution Temperature Calibration MCG-C 208			
		Measured	Calibrated(Deg F)
Lower		50.00	50.00
Upper		75.00	75.00
Field Calibration on 03-AUG-2012,16:18			
High Resolution Temperature Constants MCG-C 208			
Last Edited on			
Pre-filter Length		11	
Caliper Calibration MML-A 16			
Base Calibration		Base Calibration on 11-AUG-2012 21:31	
Field Calibration		Field Calibration on 16-AUG-2012 15:01	
Reading No		Measured	Calibrator Size (in)
1		14022	5.98
2		17220	7.97
3		20419	9.86
4		24325	11.92
5		0	0.00
6		N/A	N/A
Field Calibration		Measured Caliper (in)	Actual Caliper (in)
		6.02	5.98
Micro Normal and Micro Inverse Calibration MML-A 16			
Base Calibration		Base Calibration on 11-AUG-2012 21:40	
Field Check		Field Check on 16-AUG-2012 15:03	
		Measured	Calibrated (ohm-m)
Channel		Resistor 1	Resistor 2
Micro Normal		12.3	60.3
Micro Inverse		15.6	78.4
		5.0	25.0
		5.0	25.0
Channel		Base Check (ohm-m)	Field Check (ohm-m)
Micro Normal		62.8	62.8
Micro Inverse		48.2	48.2
Micro Normal and Micro Inverse Constants MML-A 16			
Last Edited on 17-AUG-2012,03:22			
Pad Type		8-12 in Soft Rubber Inflatable 006-9011-159	
Micro Normal K Factor		1.0000	
Micro Inverse K Factor		1.0000	
Standoff Offset		N/A	inches

Neutron Calibration MDN-A.B 65

Base Calibration on 26-JUL-2012 11:25
Field Check on 16-AUG-2012 15:18

Base Calibration

	Measured		Calibrated (cps)	
	Near	Far	Near	Far
	3179	99	3714	110
Ratio	32.263		33.764	

Field Calibrator at Base

	Calibrated (cps)
	1621 2347
Ratio	0.691

Field Check

	Calibrated (cps)
	1612 2343
Ratio	0.688

Neutron Constants MDN-A.B 65

Last Edited on 17-AUG-2012,03:22

Neutron Source Id	PN-521
Neutron Jig Number	5824NE
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	Constant Value
Formation Pressure	0.00 kpsi
Temperature Source	Constant Value
Temperature	68.00 degrees F
Mud Salinity	0.00 kppm
Salinity Correction	Not Applied
Formation Fluid Salinity Source	Constant Value
Formation Fluid Salinity	0.00 kppm
Barite Mud Correction	Not Applied

FE Calibration MFE-A.A 55

Base Calibration on 24-JUL-2012 09:23
Field Check on 16-AUG-2012 15:00

Base Calibration

	Measured	Calibrated (ohm-m)
Reference 1	0.0	0.0
Reference 2	968.0	126.8

Base Check	276.7
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Field Check	276.6
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FE Constants MFE-A.A 55

Last Edited on 17-AUG-2012,03:22

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-A.A 45

Base Calibration on 26-JUL-2012,09:22
Field Check on 16-AUG-2012 14:58

Base Calibration

Test Loop Calibration		Measured		Calibrated (mmho/m)	
Channel		Low	High	Low	High
1		14.4	472.6	9.3	966.2
2		5.7	374.0	7.6	821.4
3		3.4	261.2	5.2	566.0
4		2.5	133.9	2.6	279.2

Array Temperature	78.4	Deg F
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Channel	Base Check (mmho/m)	Field Check (mmho/m)
	Low High	Low High

	Low	High	Low	High
1	0.0	0.0	19.6	3852.9
2	0.0	0.0	32.1	3630.0
3	0.0	0.0	28.8	3050.0
4	0.0	0.0	18.4	2079.5
Deep	0.0	0.0	16.2	1911.6
Medium	0.0	0.0	42.7	4061.2
Shallow	0.0	0.0	50.2	5484.1
Array Temperature		0.0	78.2	Deg F

Induction Constants MAI-A.A 45

Last Edited on 17-AUG-2012,03:22

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	

High Resolution Temperature Calibration MAI-A.A 45

Field Calibration on 26-JUL-2012,09:09

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

High Resolution Temperature Constants MAI-A.A 45

Last Edited on

Pre-filter Length	11
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Caliper Calibration MPD-B 31

Base Calibration on 26-JUL-2012 09:16
Field Calibration on 16-AUG-2012 15:10

Base Calibration		
Reading No	Measured	Calibrator Size (in)
1	17567	3.99
2	26416	5.98
3	35056	7.97
4	43488	9.86
5	52816	11.92
6	N/A	N/A

Field Calibration

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

Photo Density Calibration MPD-B 31

Base Calibration on 26-JUL-2012 10:02

Field Check on 16-AUG-2012 15:07

Density Calibration

Base Calibration

	Measured		Calibrated (sdu)	
	Near	Far	Near	Far
Reference 1	48085	24200	59556	30836
Reference 2	19674	1989	24941	2541

Field Check at Base

692.2 849.9

Field Check

690.5 849.2

PE Calibration

Base Calibration

	WS	Measured WH	Ratio	Calibrated Ratio
Background	127	608		
Reference 1	19234	47953	0.404	0.371
Reference 2	5695	19580	0.293	0.272

Field Check at Base

126.7 608.3

Field Check

127.1 604.7

Density Constants MPD-B 31

Last Edited on 17-AUG-2012,03:21

Density Source Id	254
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	1.08 gm/cc
Mud Density Z/A Multiplier	1.13
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 (m)
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

C:\Minimus 13.02.6600\Data\O'Brien Vail Offset #4-30\O'Brien Vail Offset #4-30_003.dta

Compact Comms Gamma
MCG-C 208 LG: 8.70 ft WT: 63.9 lb OD: 2.24 in



42.87 ft GRGC - Gamma Ray
39.96 ft CGXT - MCG External Temperature

Compact Micro-log
MML-A 16 LG: 7.97 ft WT: 81.6 lb OD: 2.24 in

33.24 ft MINV - Micro-inverse
33.24 ft MNRL - Micro-normal
34.24 ft MI TC - MMI Caliper

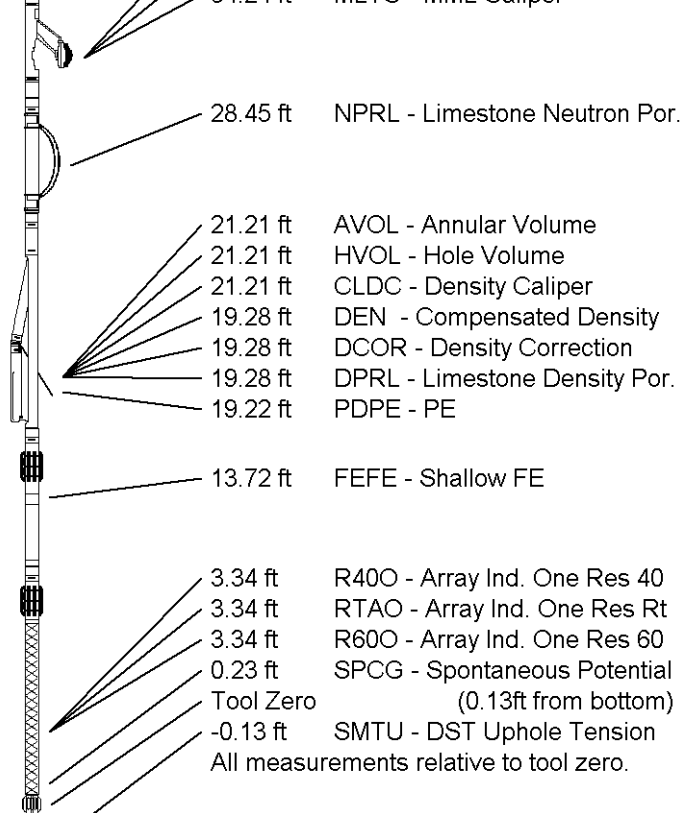
Compact Neutron
MDN-A.B 65 LG: 5.04 ft WT: 50.7 lb OD: 2.24 in

Compact Density/Caliper
MPD-B 31 LG: 9.59 ft WT: 90.4 lb OD: 2.45 in

Compact Focussed Electric
MFE-A.A 55 LG: 6.05 ft WT: 48.5 lb OD: 2.24 in

Compact Induction
MAI-A.A 45 LG: 10.81 ft WT: 48.5 lb OD: 2.24 in

Total Length: 48.16 ft Weight: 383.6 lb



COMPANY O'BRIEN ENERGY RESOURCES CORP.
WELL VAIL OFFSET #4-30
FIELD SINGLEY
PROVINCE/COUNTY MEADE
COUNTRY/STATE U.S.A. / KANSAS

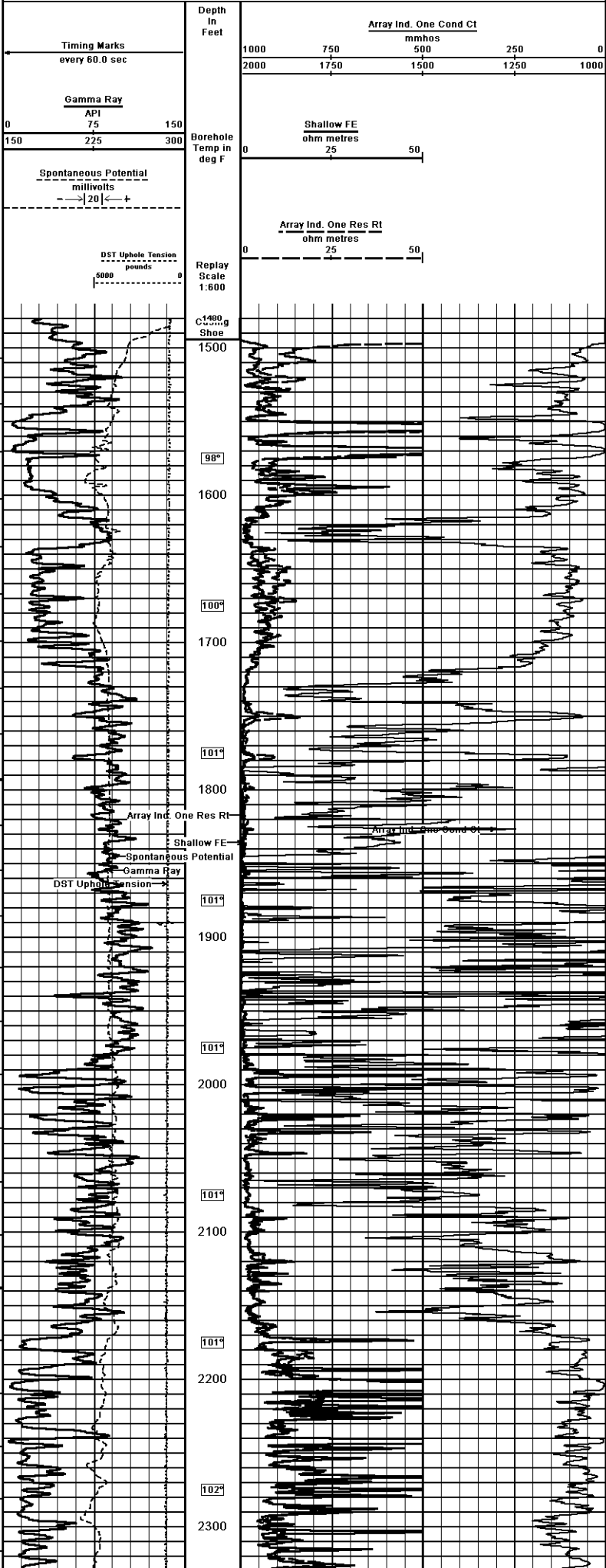
Elevation Kelly Bushing	2684.00	feet	First Reading	6355.00	feet
Elevation Drill Floor	2682.00	feet	Depth Driller	6354.00	feet
Elevation Ground Level	2672.00	feet	Depth Logger	6358.00	feet

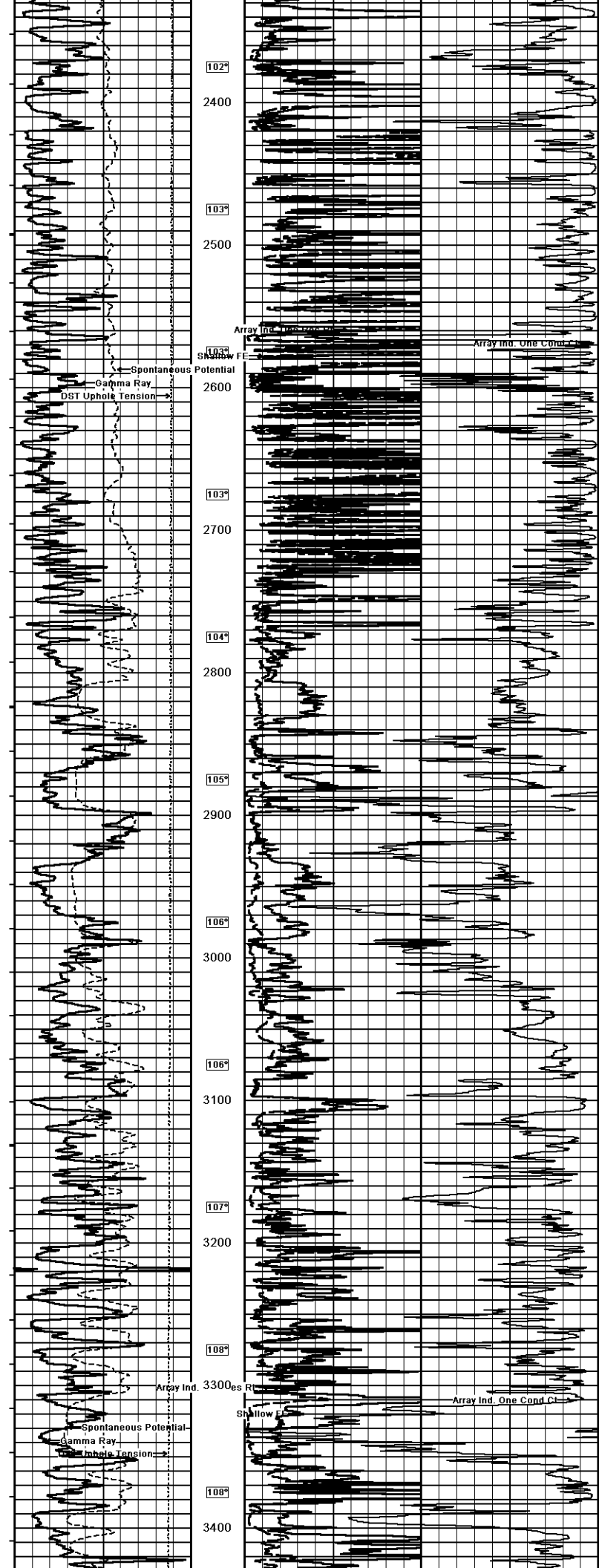


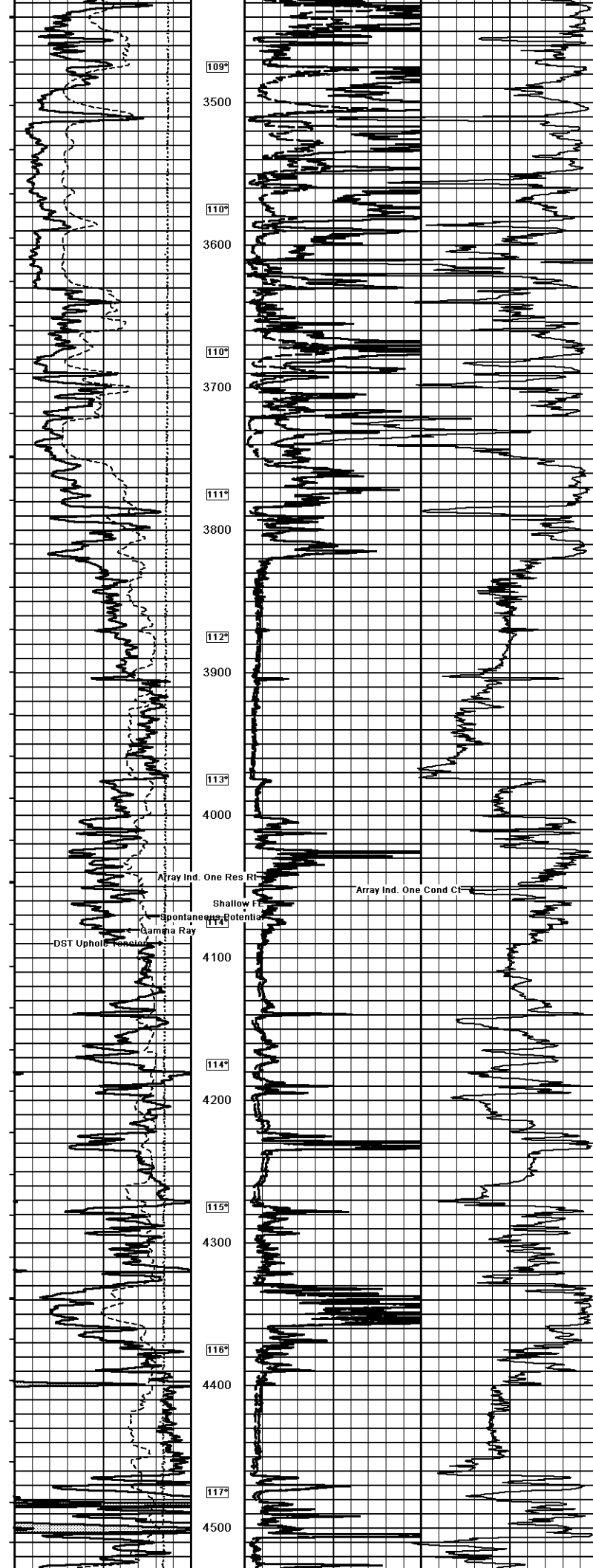
**ARRAY INDUCTION
SHALLOW FOCUSED
ELECTRIC LOG**

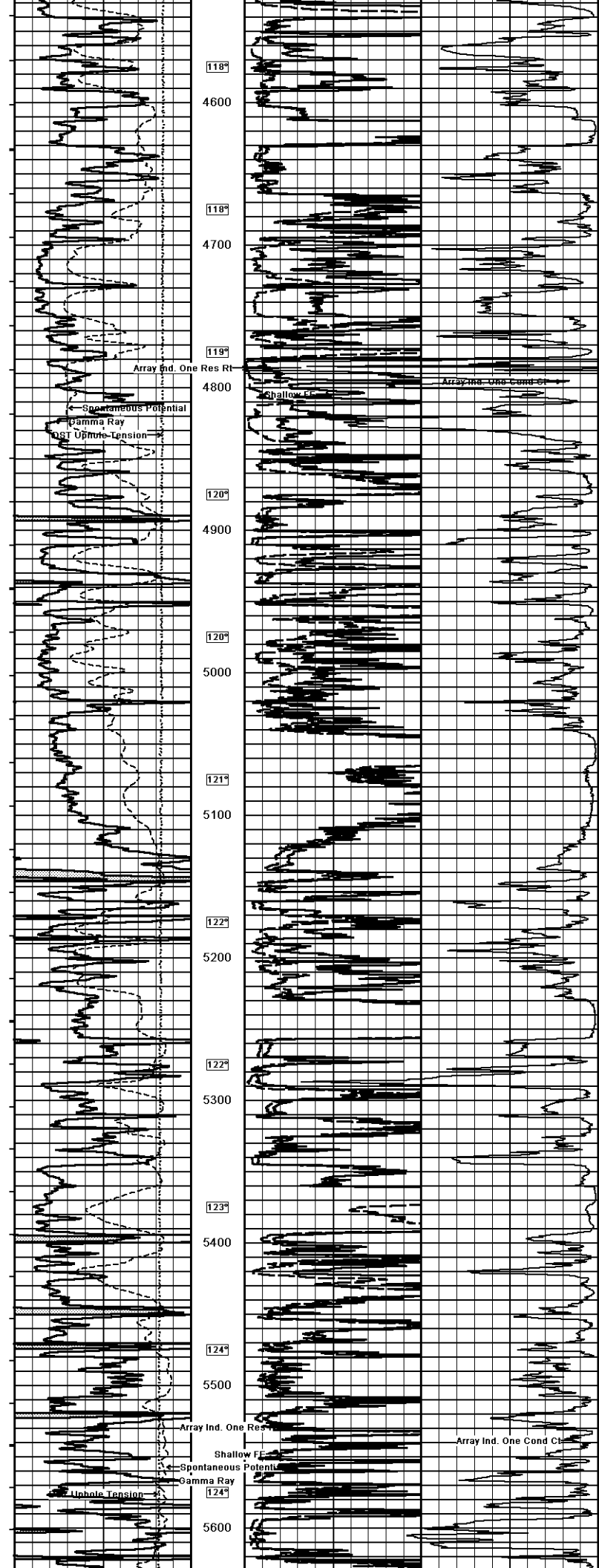
Weatherford®

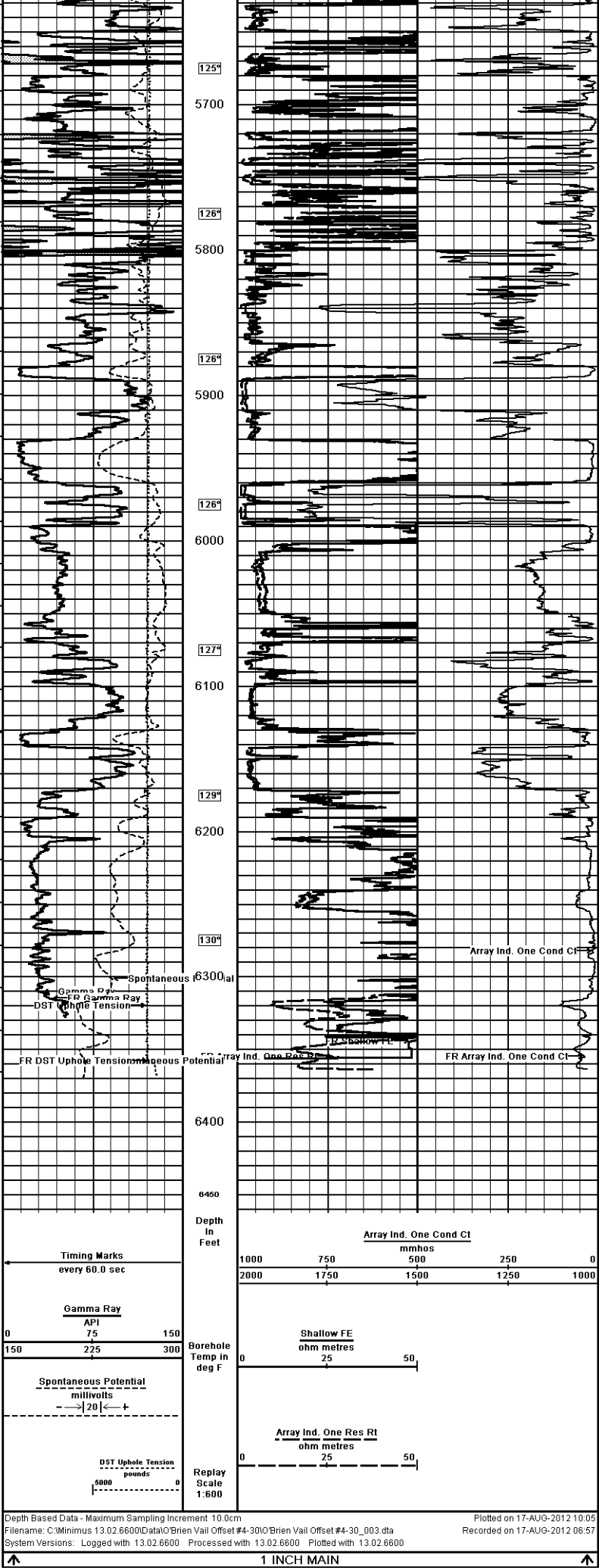
Weatherford		ARRAY INDUCTION SHALLOW FOCUSED ELECTRIC LOG	
COMPANY O'BRIEN ENERGY RESOURCES CORP.			
WELL VAIL OFFSET #4-30			
FIELD SINGLEY			
PROVINCE/COUNTY MEADE			
COUNTRY/STATE U.S.A. / KANSAS			
LOCATION 2305' FSL & 2305' FEL			
SEC 30	TWP 33S	RGE 28W	Other Services MFL
Serial Number 15-119-21022			
Permanant Datum G.L. Elevation 2672.00 feet			
Log Measured From KB			
Drilling Measured From KB			
Date 11-AUG-2012	Run Number ONE		
Depth Driller	6354.00	feet	Elevations:
Depth Logger	6358.00	feet	KB 2684.00
First Reading	6355.00	feet	DP 2682.00
Last Reading	1494.00	feet	GL 2672.00
Casing Driller	1493.00	feet	
Casing Logger	1494.00	feet	
Bit Size	7.875	inches	
Hole Fluid Type	WBEM		
Density/Viscosity	9.00	lbm/gal	CP
PH/Fluid Loss	12.00	inches	mi/30min
Sample Source	FLOWLINE		
Flow @ Measured Temp	0.98 @ 98.0	ohm-m	
Flow @ Measured Temp	0.73 @ 98.0	ohm-m	
Flow @ Measured Temp	1.18 @ 98.0	ohm-m	
Source Rmt/Rinc	CALC		
Rm @ BHT	0.74 @ 30.0	ohm-m	
Time Since Circulation	5 HOURS		
Max Recorded Temp	130.00	deg F	
Equipment Name	COMPACT		
Equipment Base	13057	LIB	
Recorded By	ADAM BILL		
Witnessed By	ROGER PEARSON	WITNESS: PAUL WIEMANN	
CO # 1005 #	3537827	PETER DEBENHAM	LIB 2218











WELL			VAIL OFFSET #4-30		
FIELD			SINGLEY		
PROVINCE/COUNTY			MEADE		
COUNTRY/STATE			U.S.A. / KANSAS		
Elevation Kelly Bushing	2684.00	feet	First Reading	6355.00	feet
Elevation Drill Floor	2682.00	feet	Depth Driller	6354.00	feet
Elevation Ground Level	2672.00	feet	Depth Logger	6358.00	feet
			ARRAY INDUCTION		
			SHALLOW FOCUSED		
			ELECTRIC LOG		