



Weatherford[®]

**ARRAY INDUCTION
SHALLOW FOCUSED
ELECTRIC LOG**

COMPANY **O'BRIEN ENERGY RESOURCES CORP.**
WELL **CLAYTON #1-33**
FIELD **MOHLER**
PROVINCE/COUNTY **MEADE**
COUNTRY/STATE **U.S.A. / KANSAS**
LOCATION **990' FNL & 1650' FEL**
SE SW NE

SEC 33 TWP 33S RGE 29W Other Services MPPD/MDN MML
API Number 15-119-21334
Permit Number
Permanent Datum G.L., Elevation 2566 feet
Log Measured From KB
Drilling Measured From K.B.

Date	20-JAN-2013	Elevations:	KB 2578.00
Run Number	ONE	DF 2577.00	GL 2566.00
Service Order	3537848		
Depth Driller	6413.00	feet	
Depth Logger	6412.00	feet	
First Reading	6409.00	feet	
Last Reading	1480.00	feet	
Casing Driller	1480.00	feet	
Casing Logger	1480.00	inches	
Bit Size	7.875		
Hole Fluid Type	CHEMICAL	lb/USg	
Density / Viscosity	9.20 lb/USg	55.00 CP	
PH / Fluid Loss	9.50	9.50	
Sample Source	FLOWLINE		
Rm @ Measured Temp	0.96 @ 84.0	ohm-m	
Rmf @ Measured Temp	0.77 @ 84.0	ohm-m	
Rmc @ Measured Temp	1.15 @ 84.0	ohm-m	
Source Rmf / Rmc	CALC	CALC	
Rm @ BHT	0.65 @124.0	ohm-m	
Time Since Circulation	5 HOURS		
Max Recorded Temp	124.00	deg F	
Equipment / Base	13057	LIB	
Recorded By	LYNN SCOTT		
Witnessed By	PETER DEBENHAM		
IOB#	LB13-017		ROGER PEARSON

BOREHOLE RECORD			Last Edited: 20-JAN-2013 18:36
Bit Size inches	Depth From feet	Depth To feet	
7.875	1480.00	6412.00	

CASING RECORD			
Type	Size inches	Depth From feet	Shoe Depth feet
SURFACE	8.625	0.00	1480.00
			Weight pounds/ft
			24.00

REMARKS

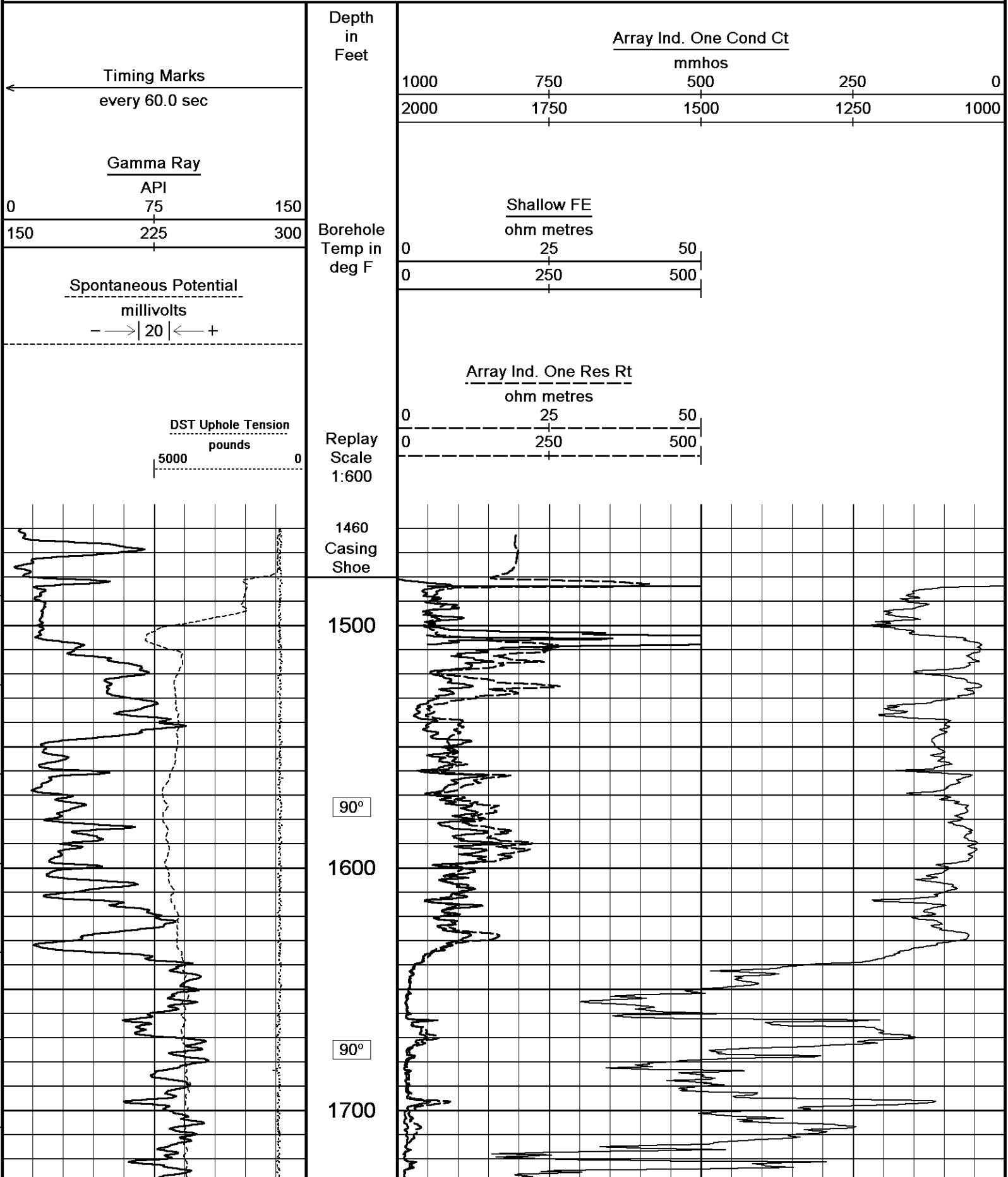
Tools Ran: MCG, MML, MDN, MPD, MFE, MAI ran in combination.
Hardware Used: MDN Dual bowspring used. MPD 8 inch profile plate used. MAI and MFE 0.5 Inch standoffs used.
2.71 g/cc Limestone Density Matrix used to calculate porosity.
All intervals logged and scaled per customer's request.
Tight pulls, washouts and borehole rugosity will affect data quality.
Total hole volume from TD to Surface Casing= 1917 cu. ft.
Annular volume with 4.5 inch production casing from TD to 4000 ft.= 573 cu. ft.
Service order: #3537848
Rig: Duke #6
Engineer: L. Scott
Operator(s): B. Reeves

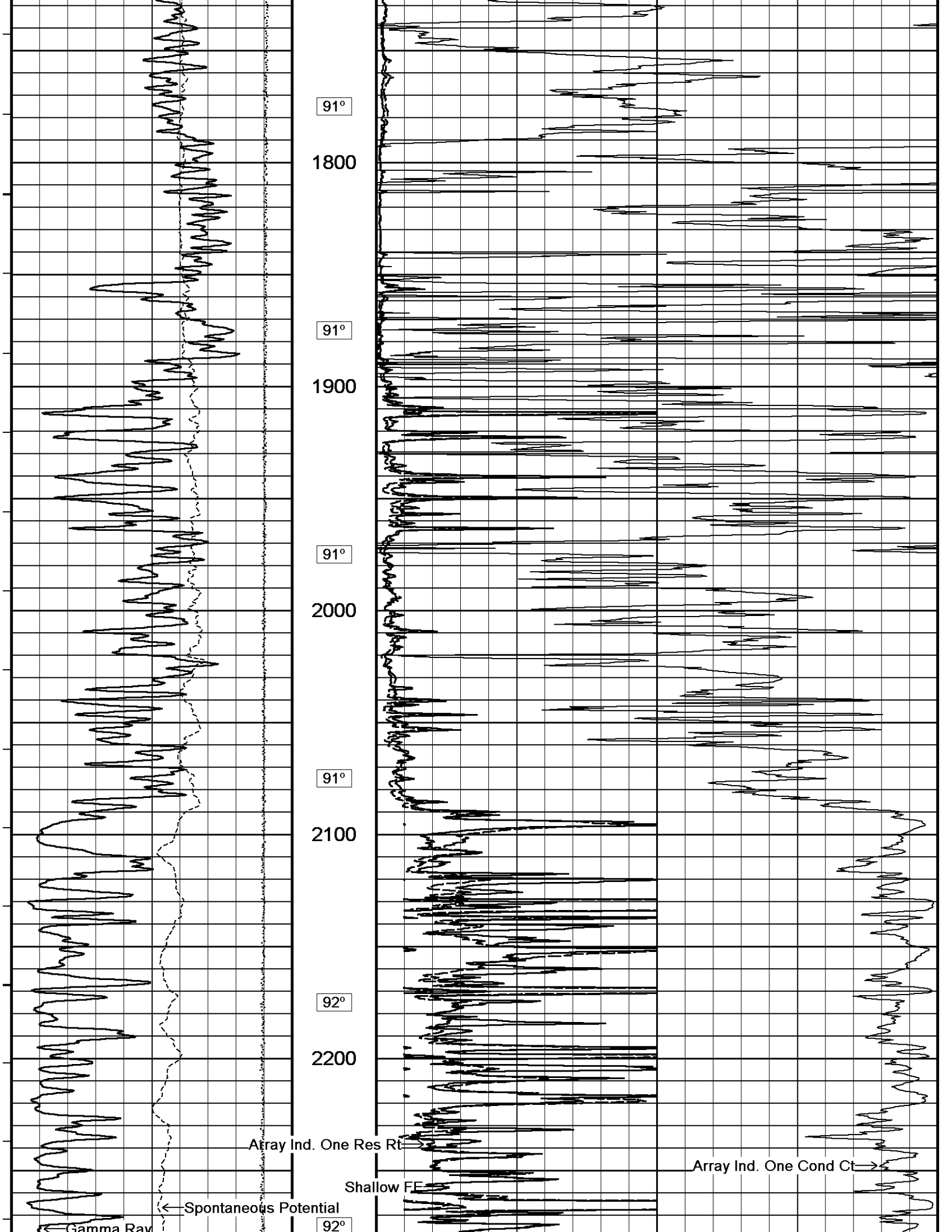
Software duplicates the pH onto the fluid loss. The fluid loss is 6.0.

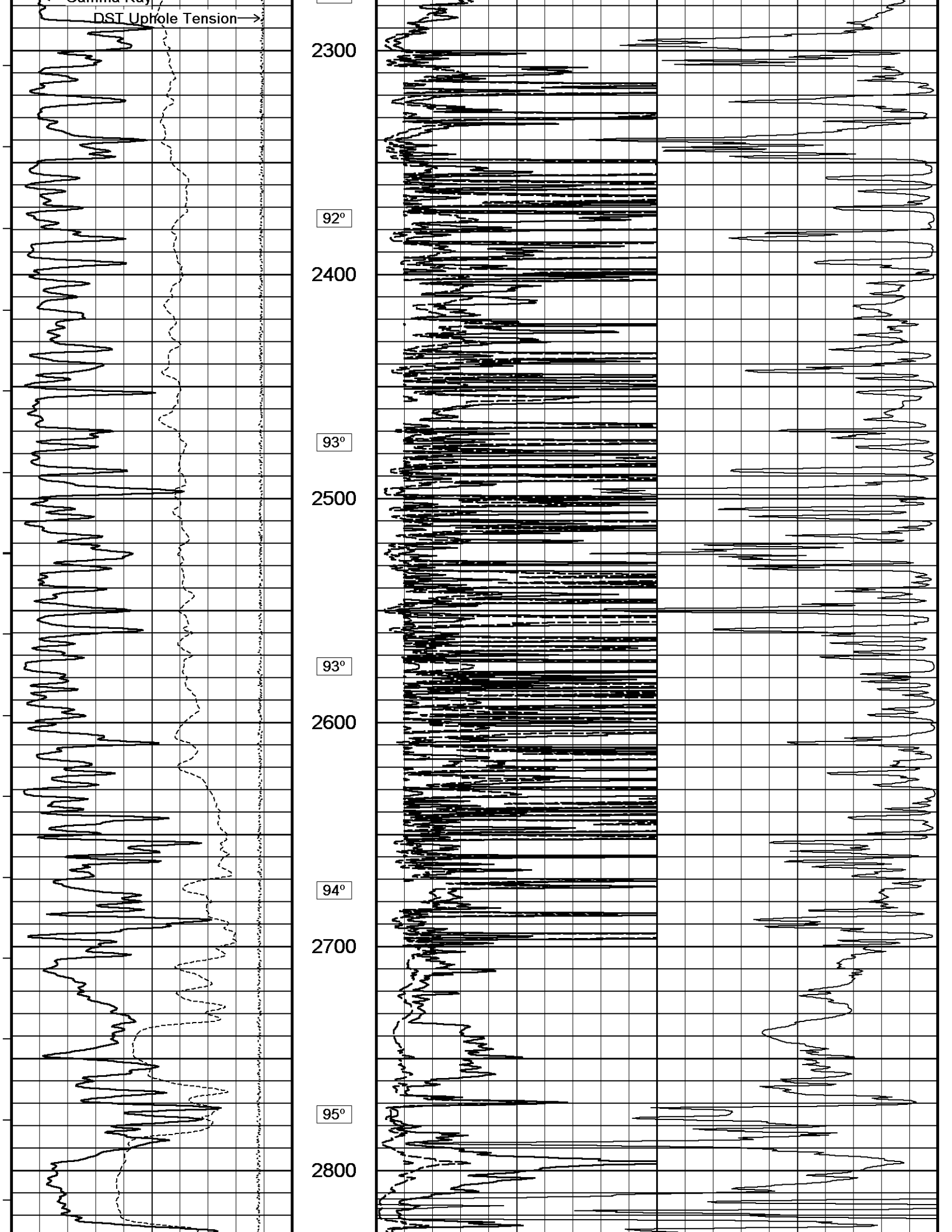
All interpretations are opinions based on inferences from electrical or other measurements and we cannot, and do not, guarantee the accuracy or correctness of any interpretations, and we shall not, except in the case of gross or wilful negligence on our part, be liable or responsible for any loss, costs, damages or expenses incurred or sustained by anyone resulting from any interpretation made by any of our officers, agents or

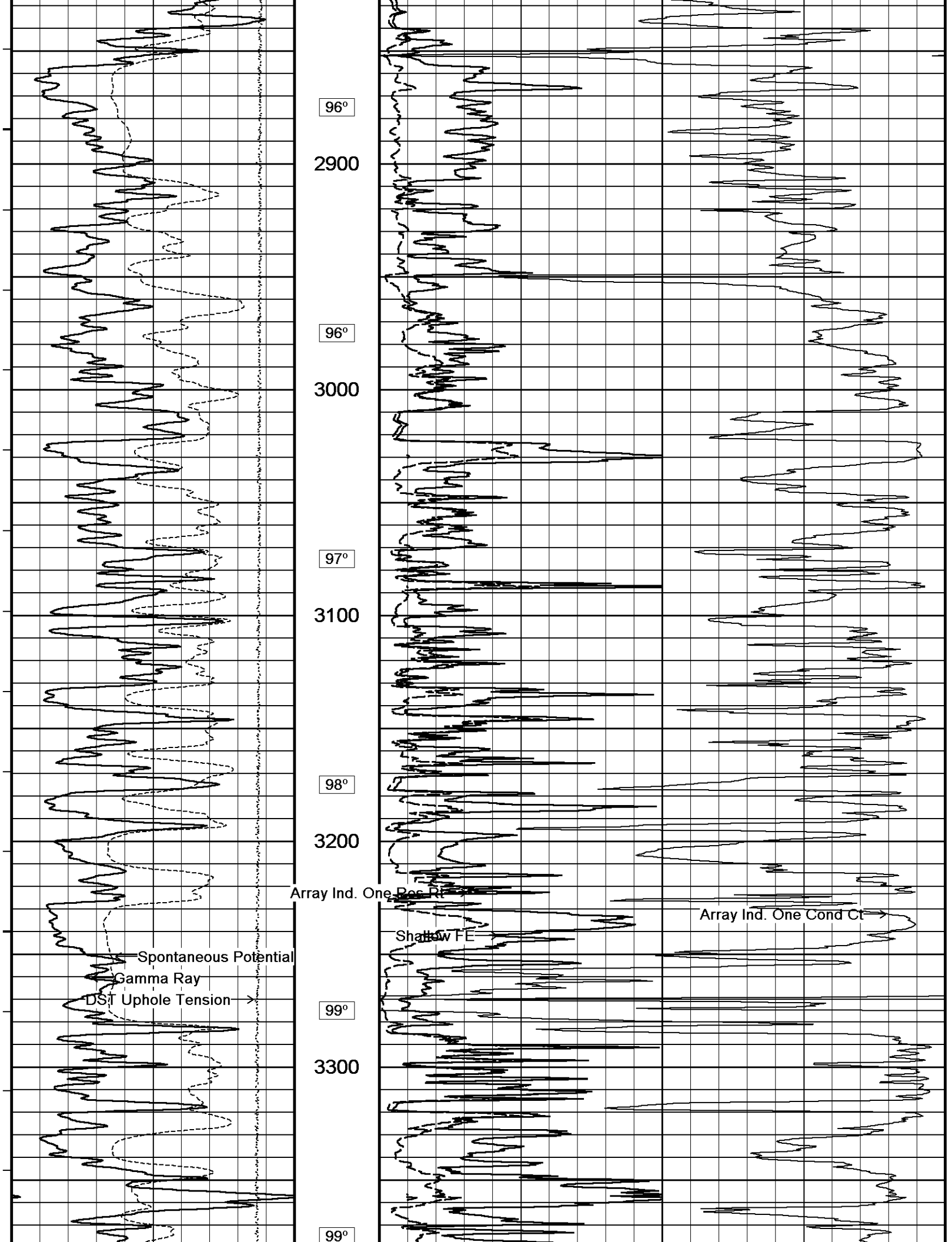
2 INCH MAIN

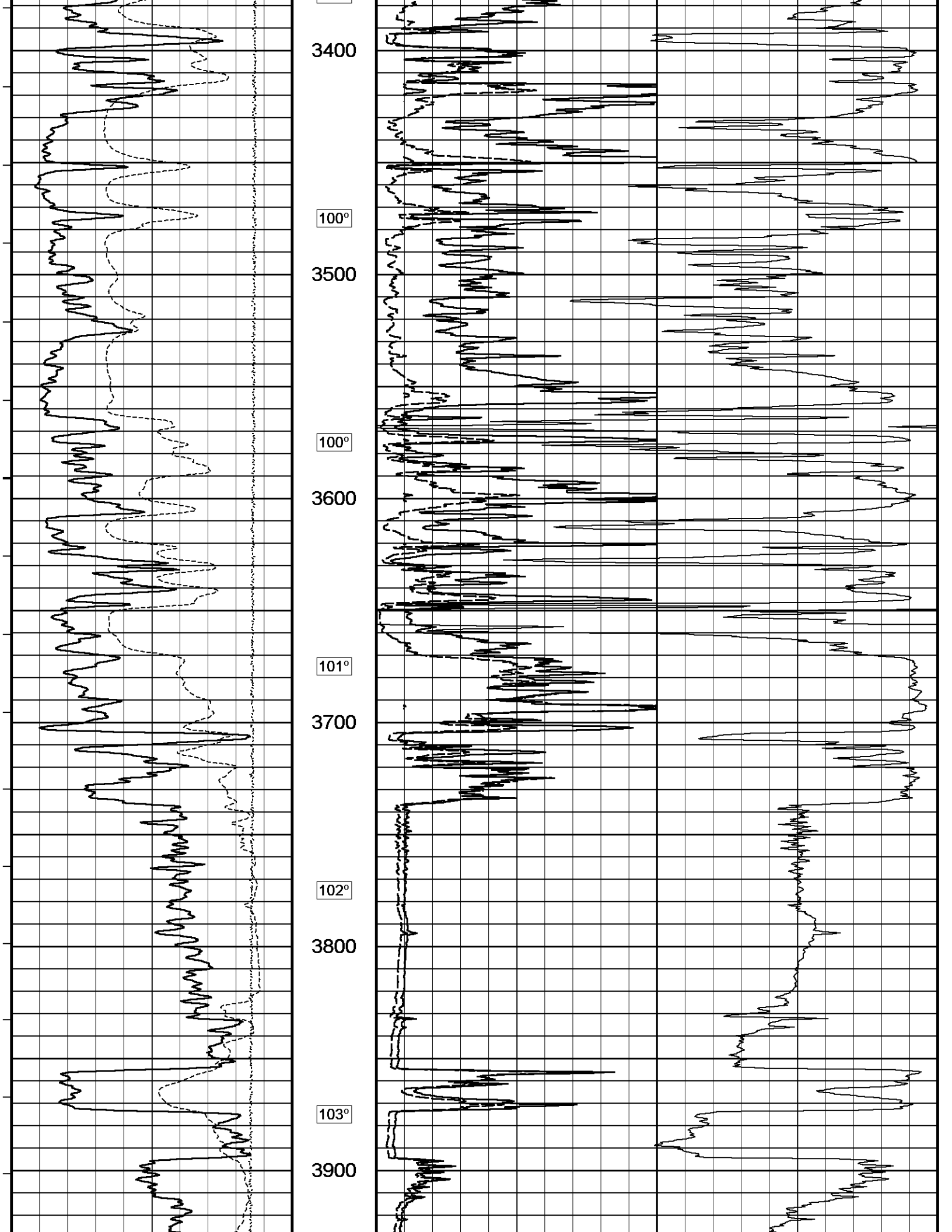
Depth Based Data - Maximum Sampling Increment 10.0cm
 Plotted on 20-JAN-2013 21:56
 Filename: C:\Minimus 13.04.8492\Data\O'Brien Clayton #1-33\O'Brien Clayton 1-33_003.dta
 Recorded on 20-JAN-2013 19:23
 System Versions: Logged with 13.04.8492 Processed with 13.04.8492 Plotted with 13.04.8492

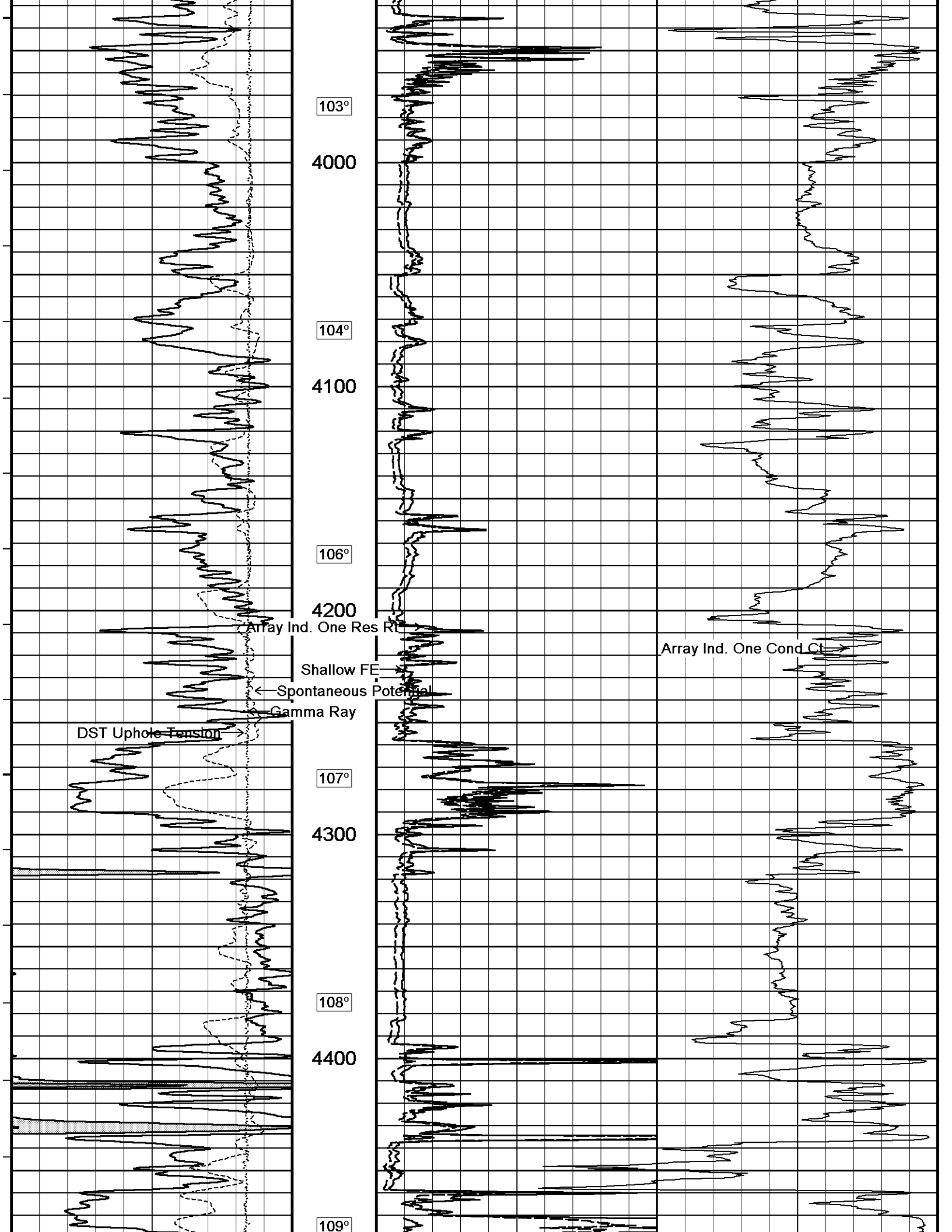


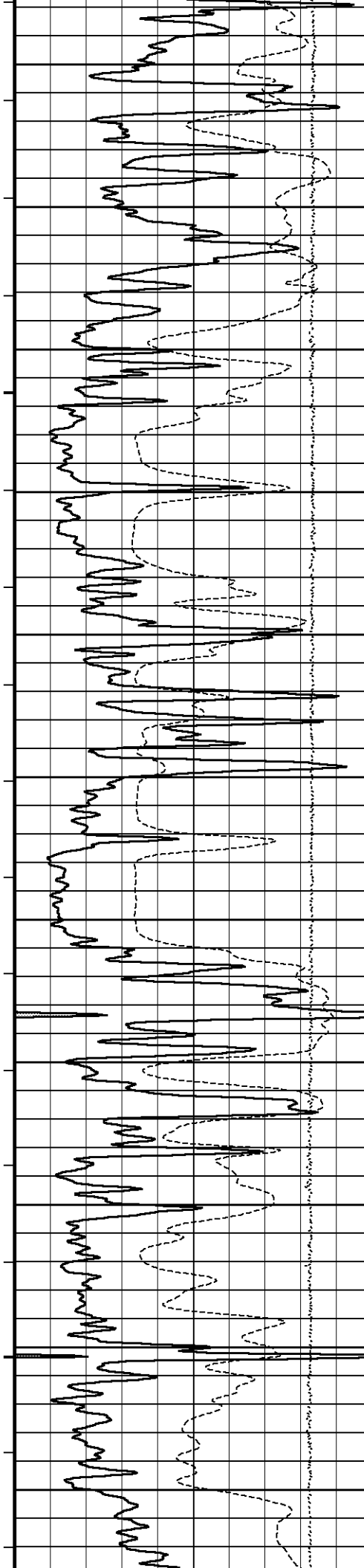












4500

109°

4600

110°

4700

111°

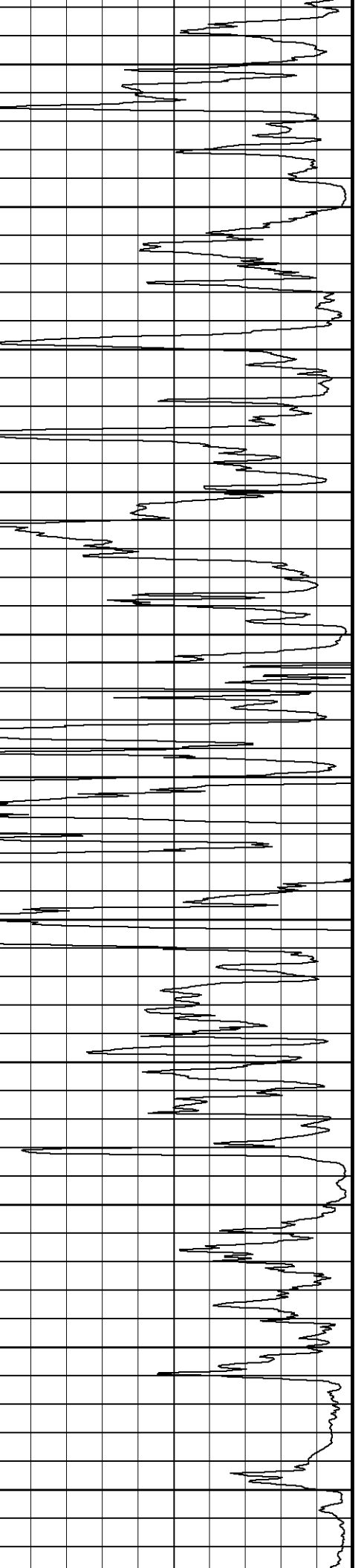
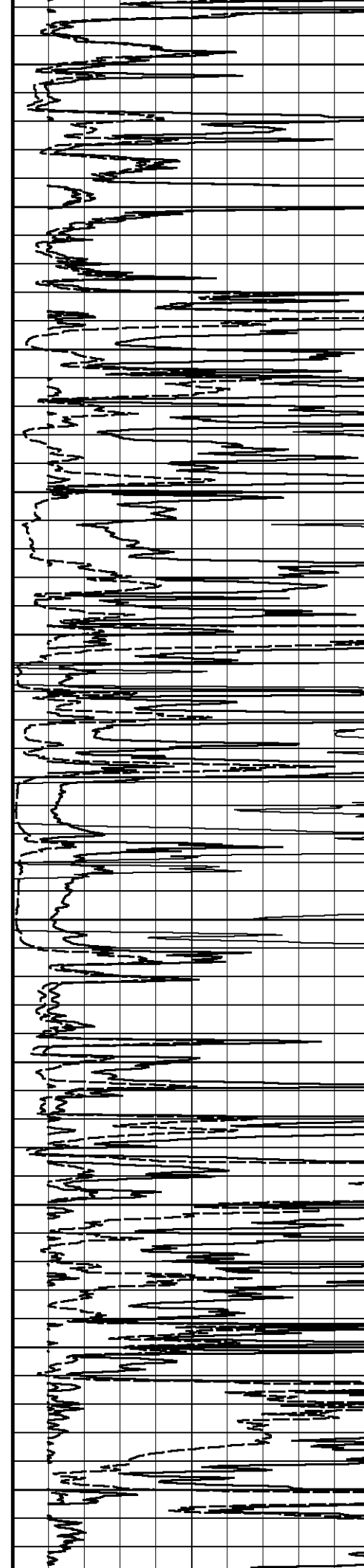
4800

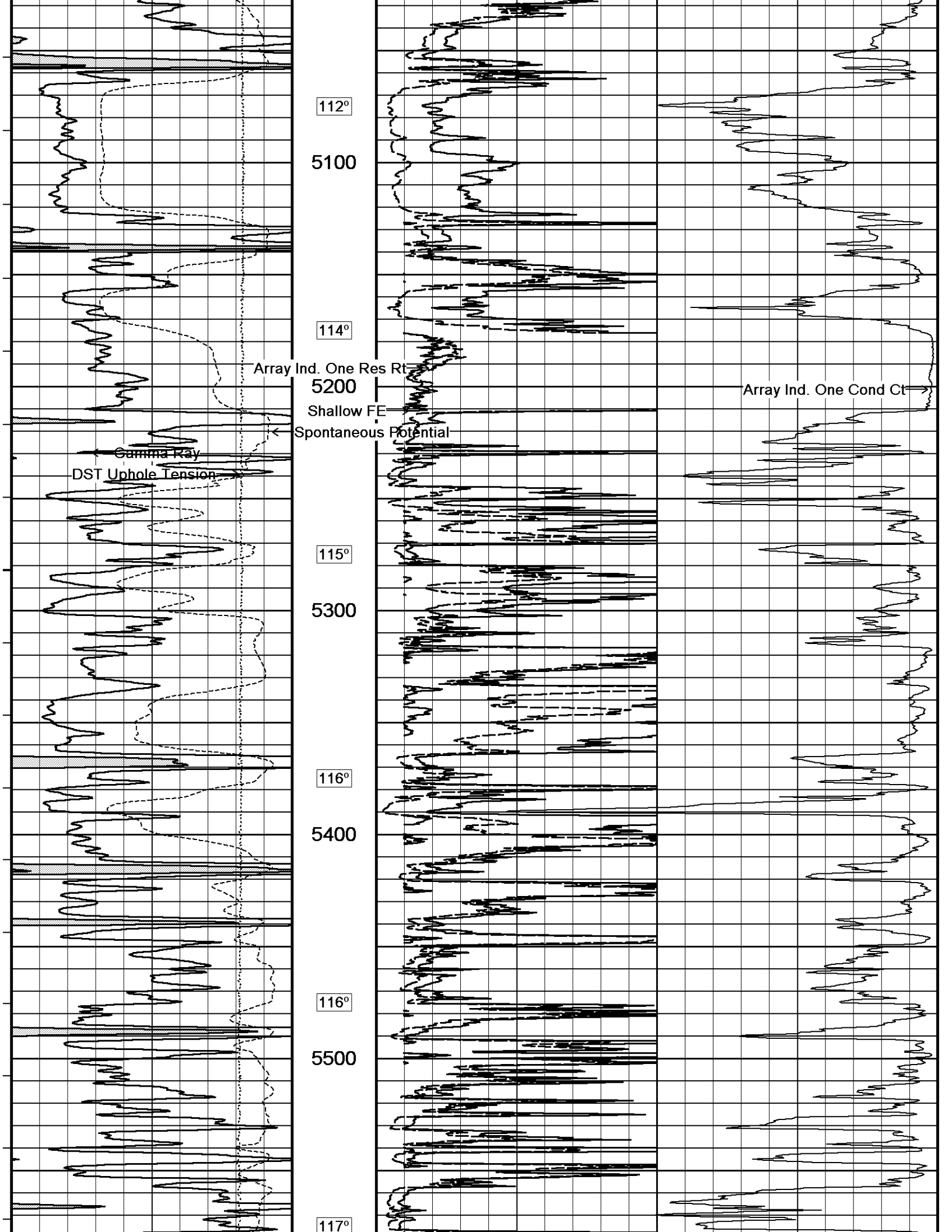
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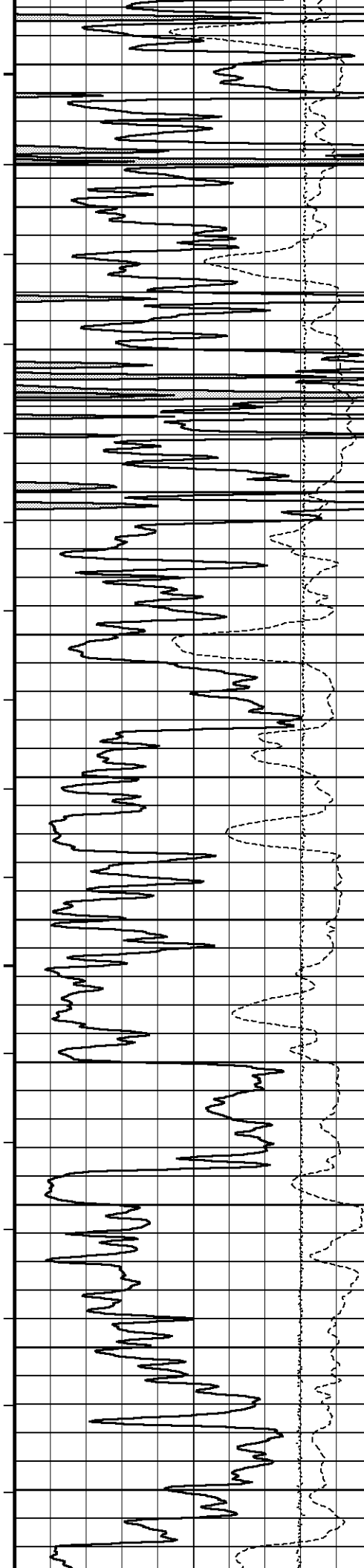
4900

112°

5000







5600

118°

5700

120°

5800

120°

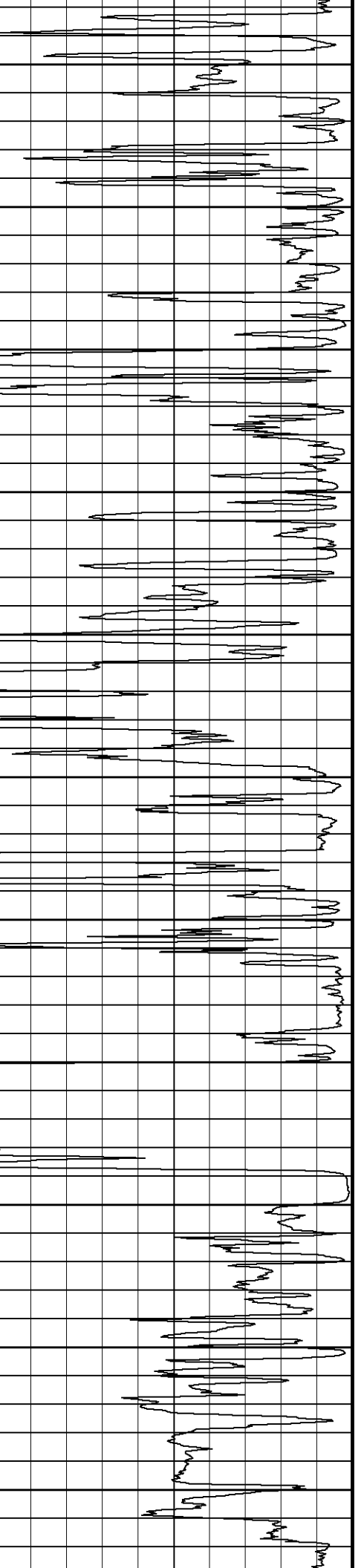
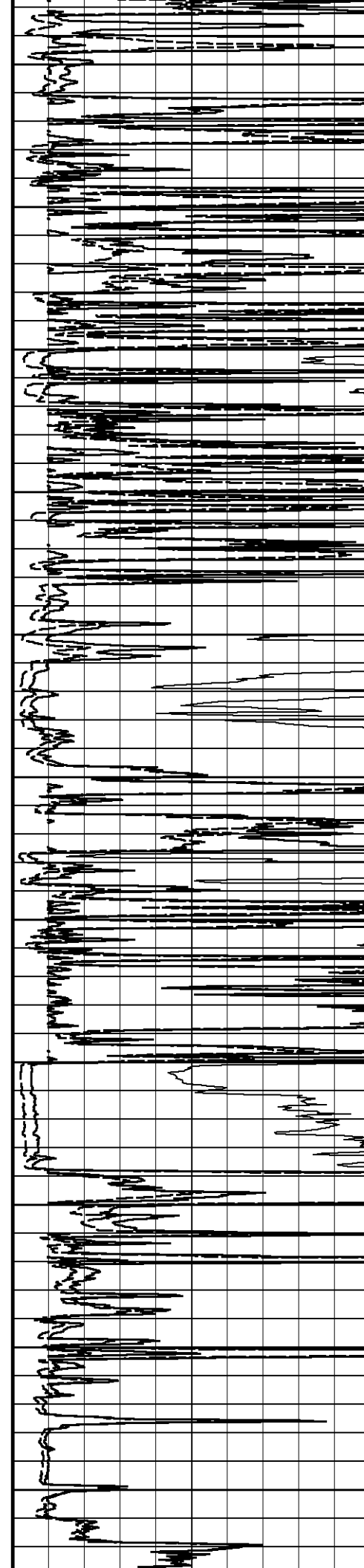
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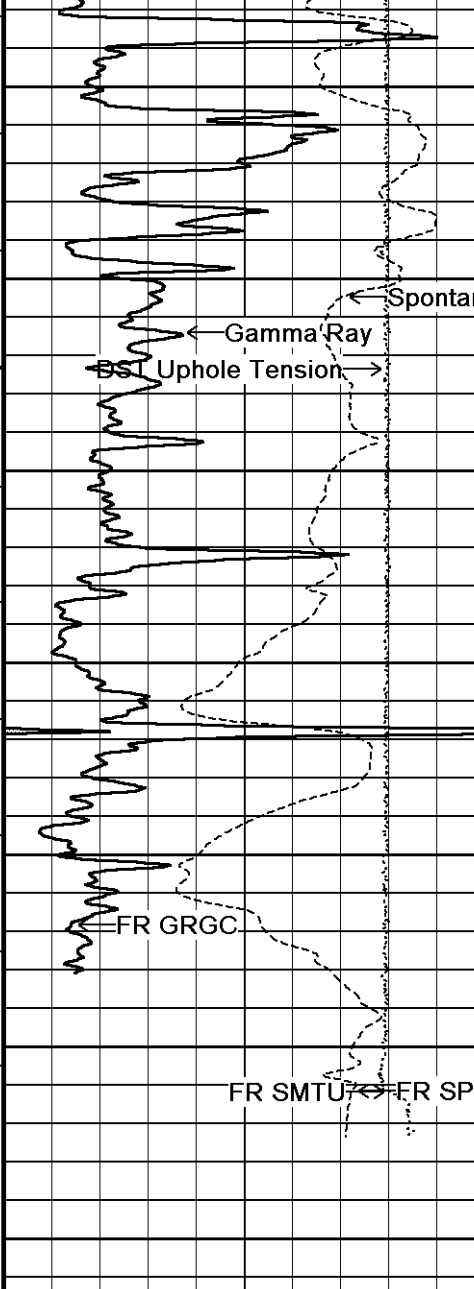
121°

6000

123°

6100





124°

6200

124°

6300

124°

6400

6460

Depth
in
Feet

Borehole
Temp in
deg F

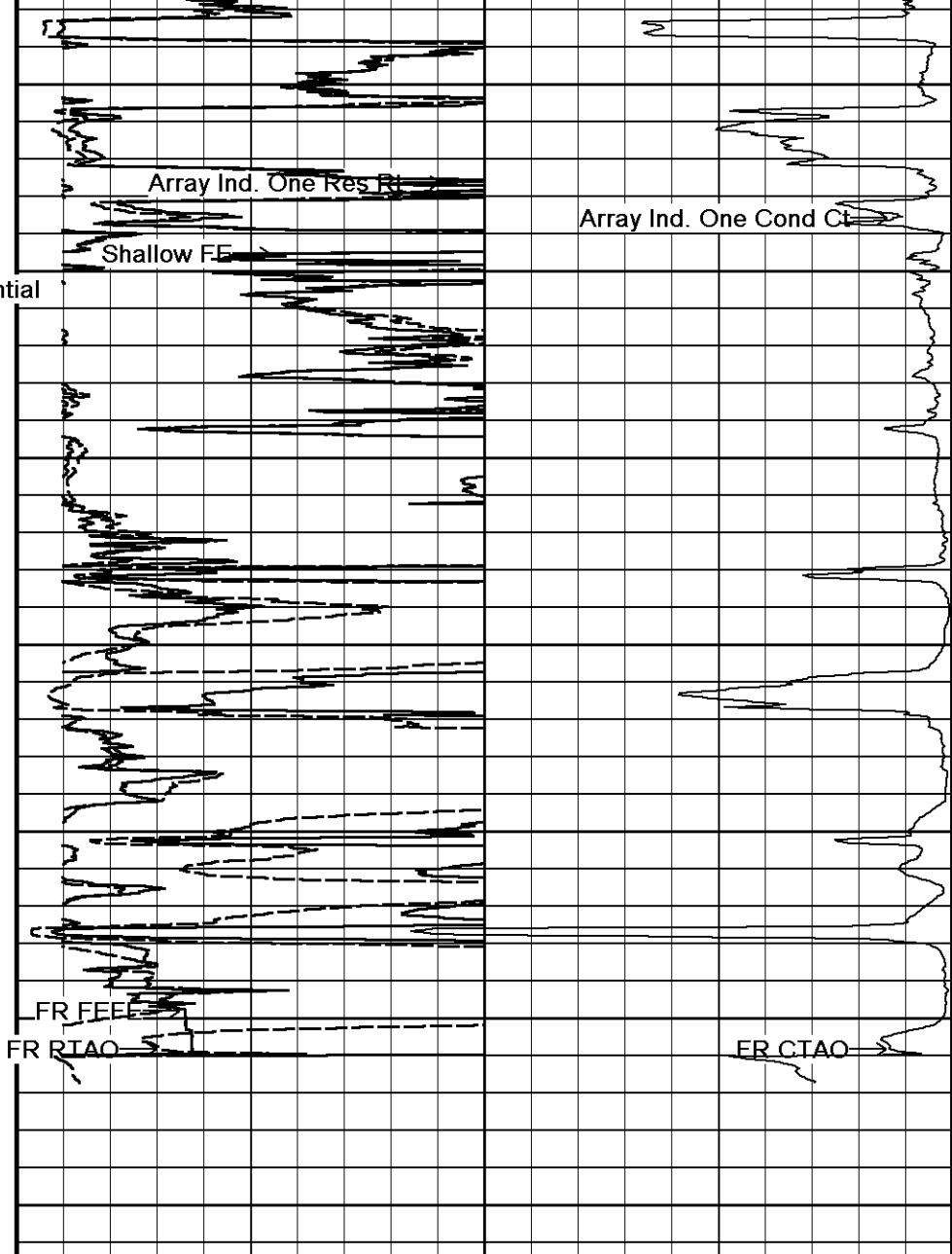
Replay
Scale
1:600

Timing Marks
every 60.0 sec

Gamma Ray
API
0 75 150
150 225 300

Spontaneous Potential
millivolts
- -> | 20 | <- +

DST Uphole Tension
pounds
5000 0



Array Ind. One Cond Ct

mmhos

1000	750	500	250	0
2000	1750	1500	1250	1000

Shallow FE
ohm metres

0	25	50
0	250	500

Array Ind. One Res Rt
ohm metres

0	25	50
0	250	500

2 INCH MAIN

5 INCH MAIN

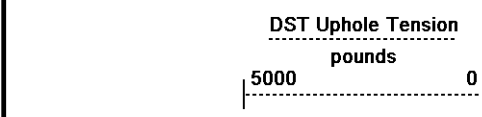
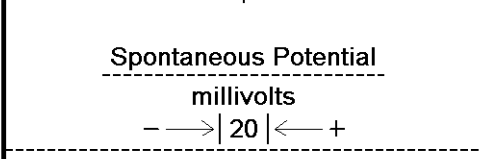
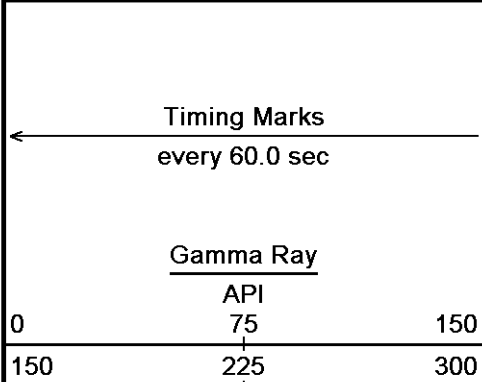
Depth Based Data - Maximum Sampling Increment 10.0cm

Plotted on 20-JAN-2013 21:56

Filename: C:\Minimus 13.04.8492\Data\O'Brien Clayton #1-33\O'Brien Clayton 1-33_003.dta

Recorded on 20-JAN-2013 19:23

System Versions: Logged with 13.04.8492 Processed with 13.04.8492 Plotted with 13.04.8492

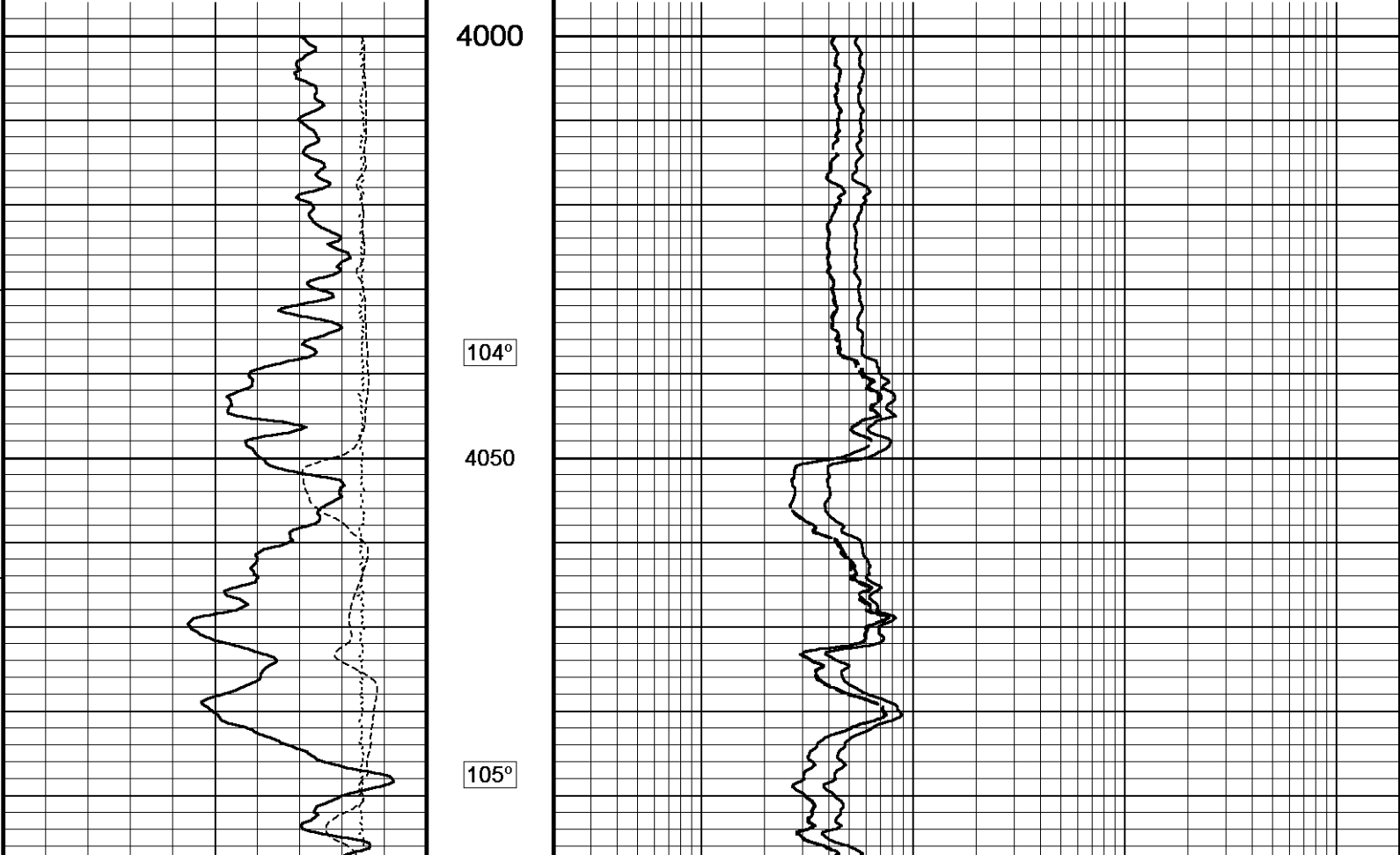
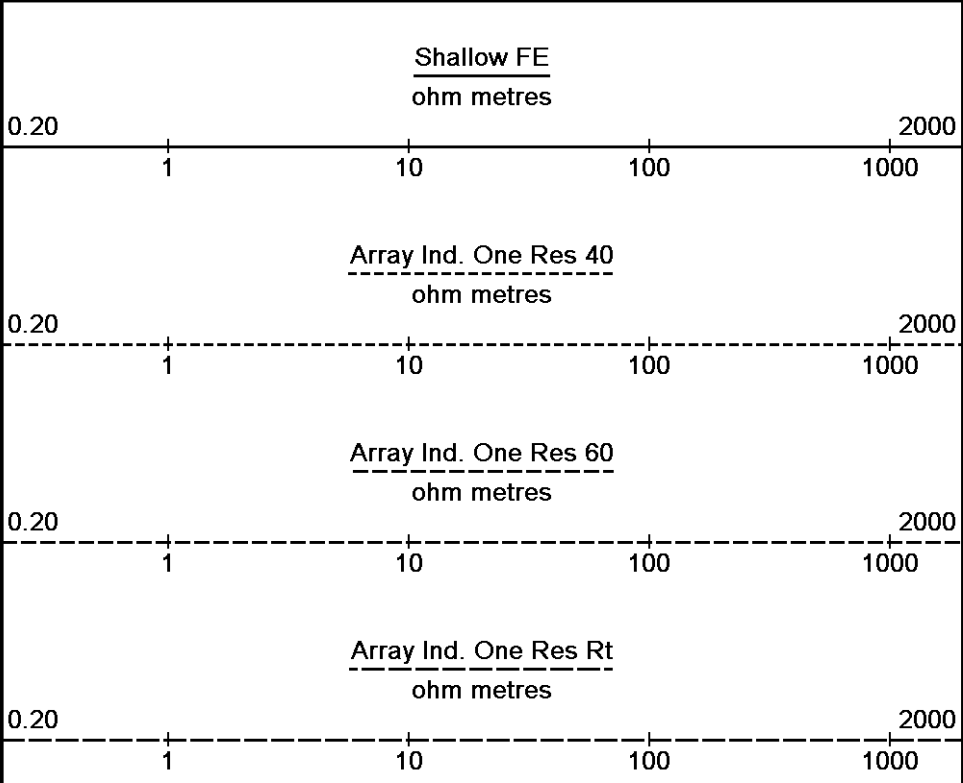


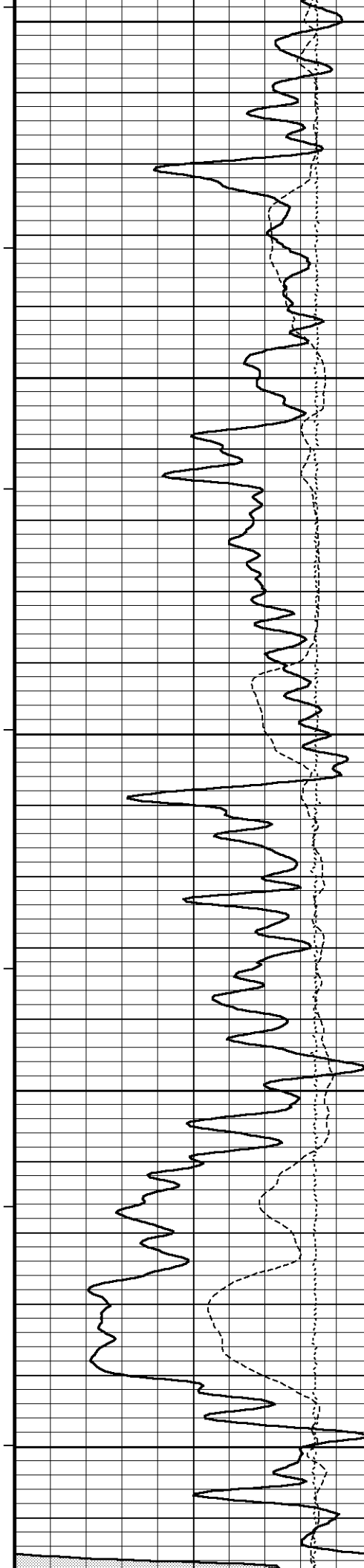
Depth in Feet

Borehole Temp in deg F

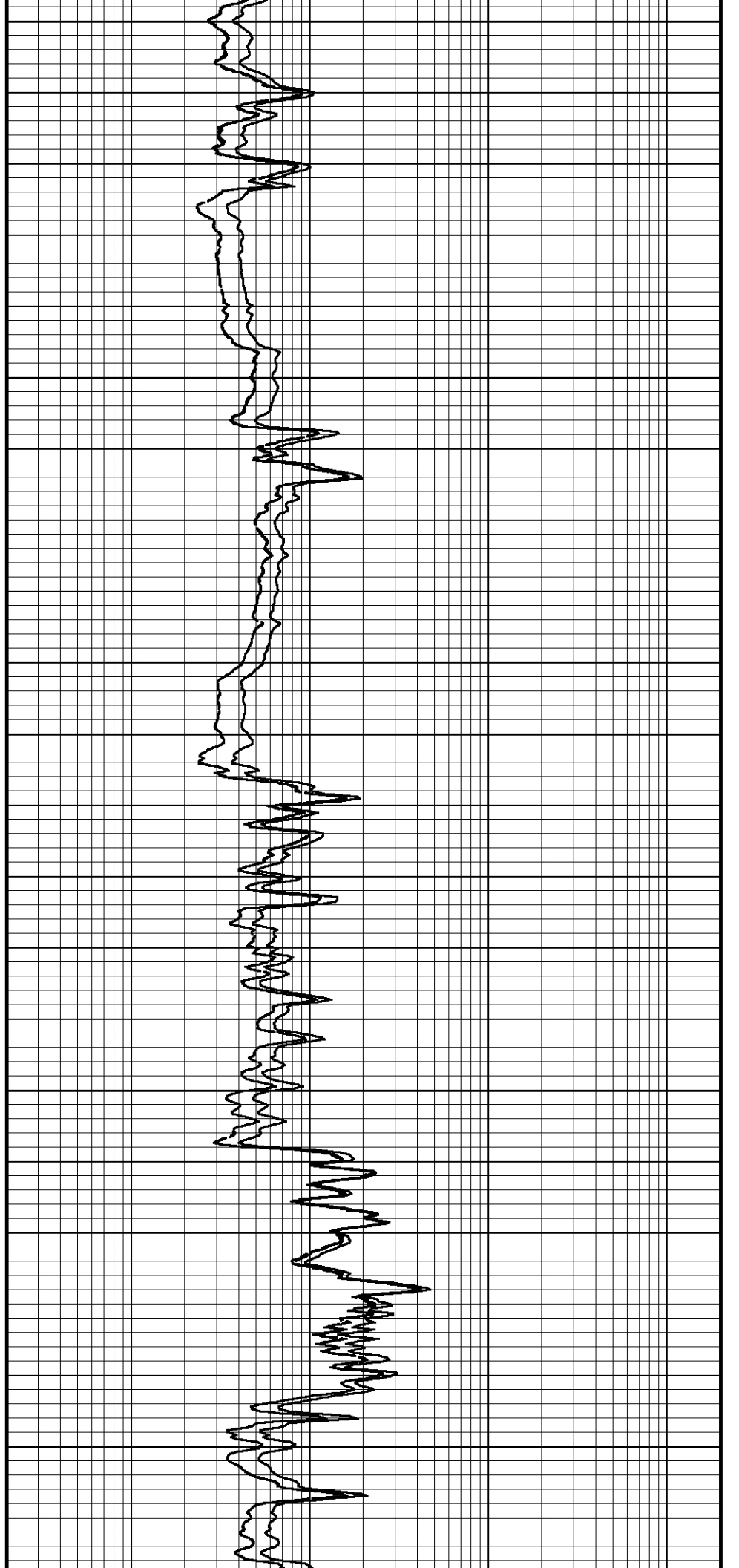
Replay Scale 1:240

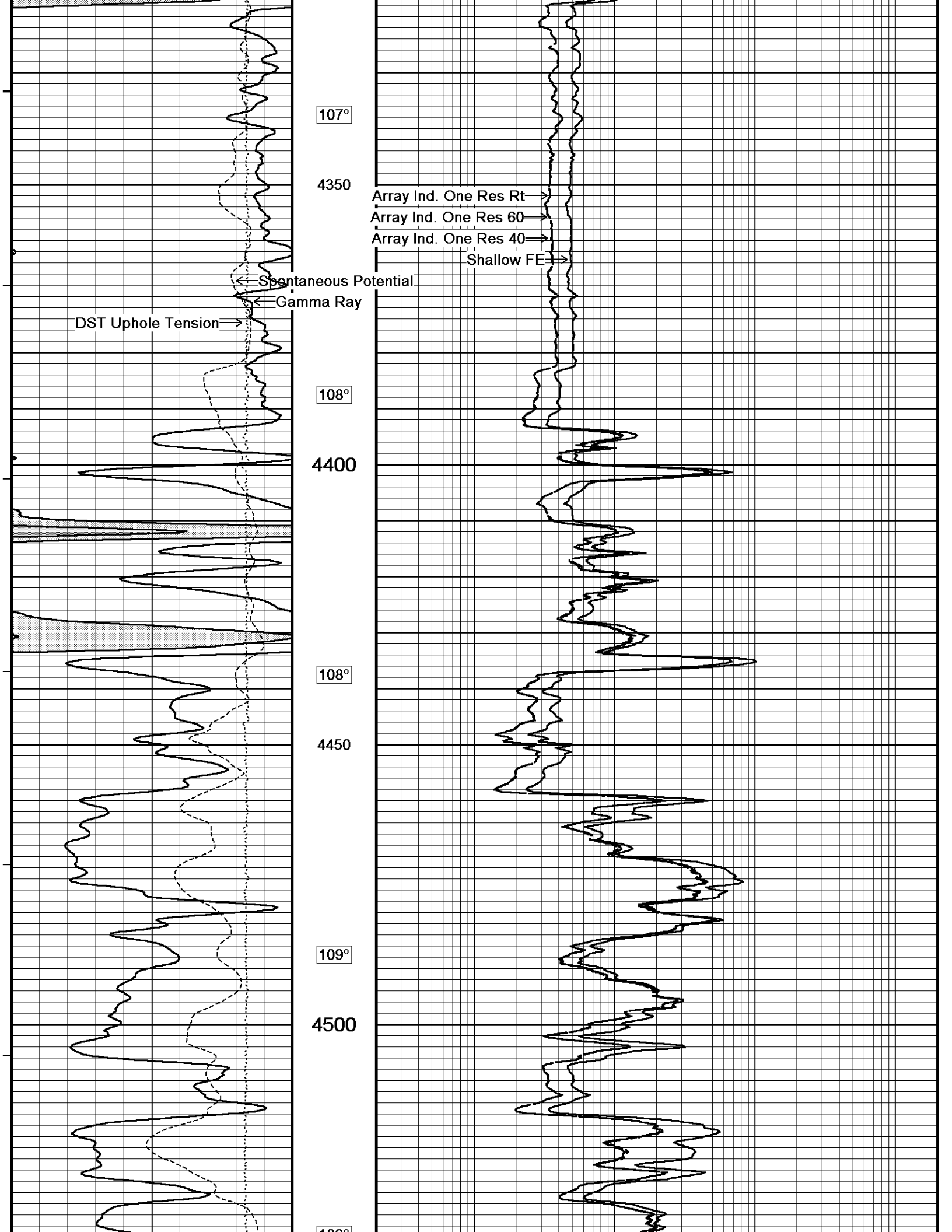
4000
104°
4050
105°





4100
105°
4150
106°
4200
106°
4250
107°
4300





107°

4350

Array Ind. One Res Rt →
Array Ind. One Res 60 →
Array Ind. One Res 40 →
Shallow FE →

← Spontaneous Potential
← Gamma Ray

DST Uphole Tension →

108°

4400

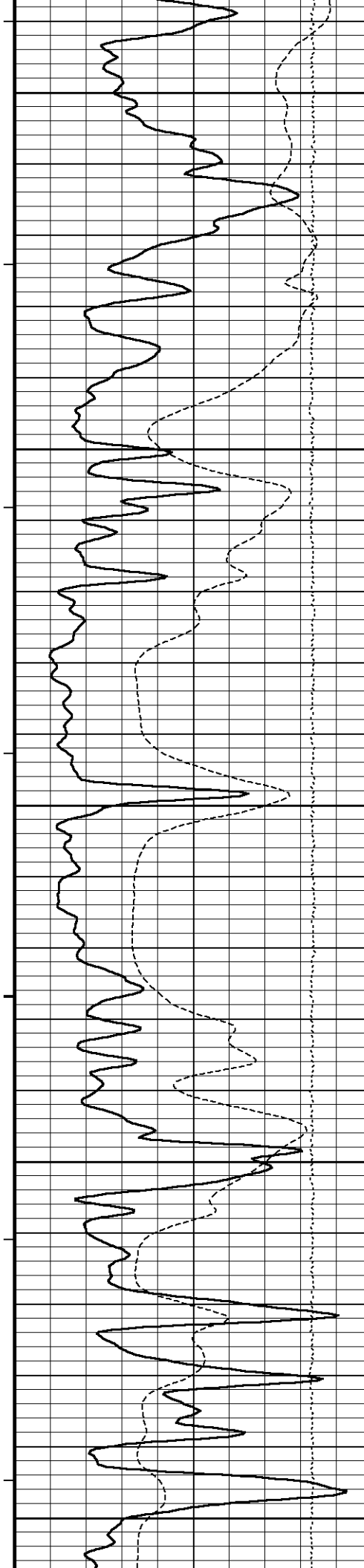
108°

4450

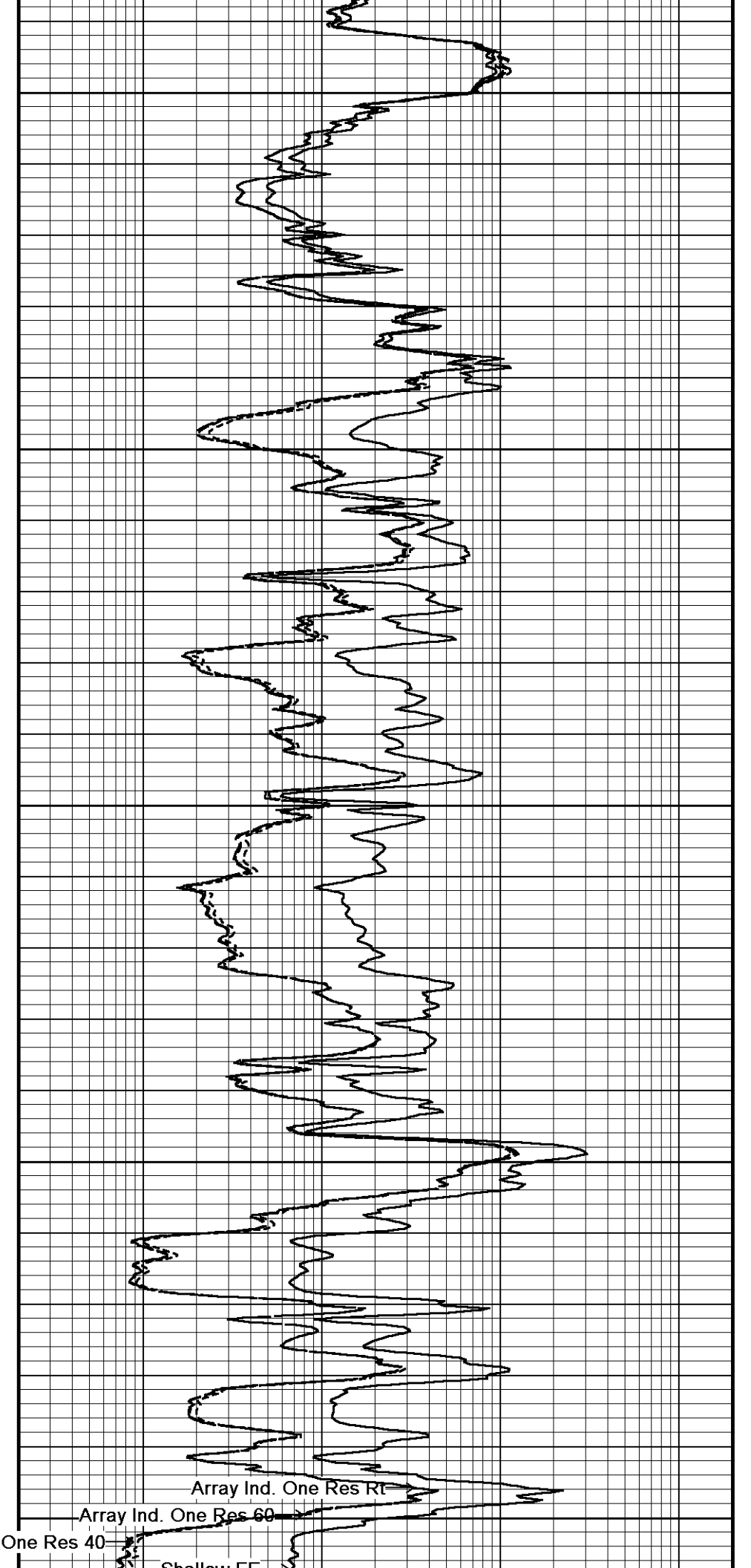
109°

4500

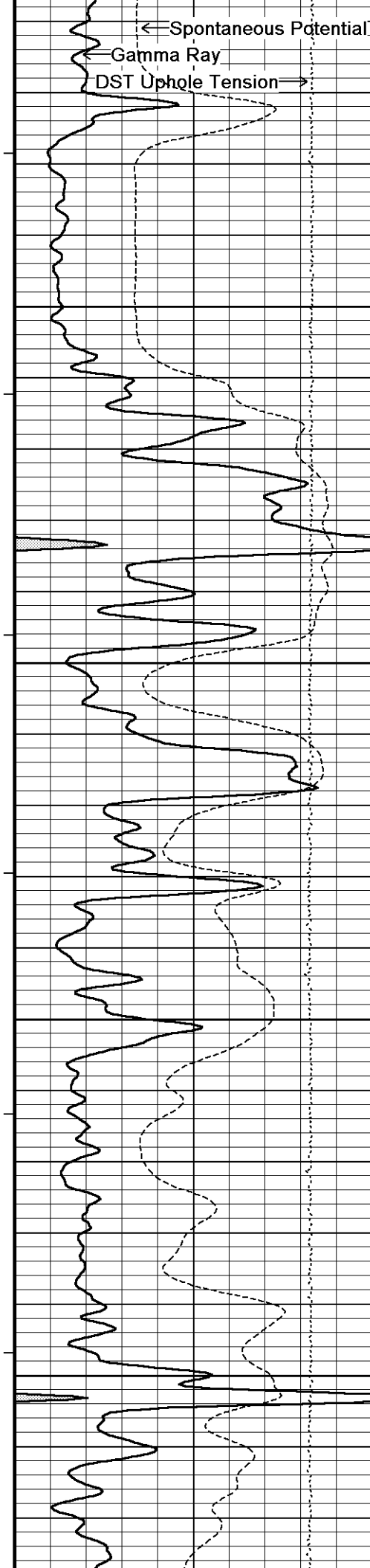
109°



109°
4550
109°
4600
110°
4650
110°
4700
111°
4750



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



111°

4800

111°

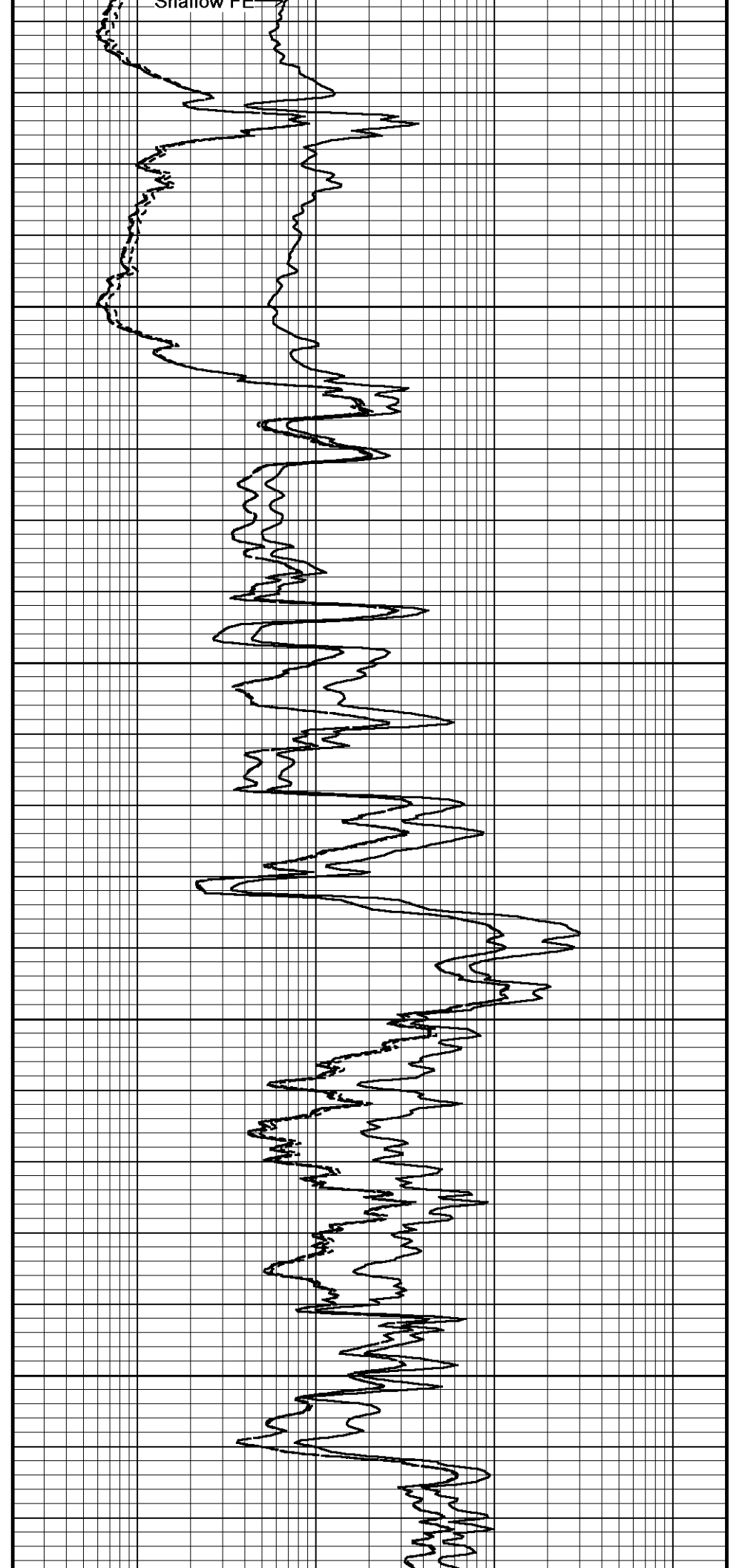
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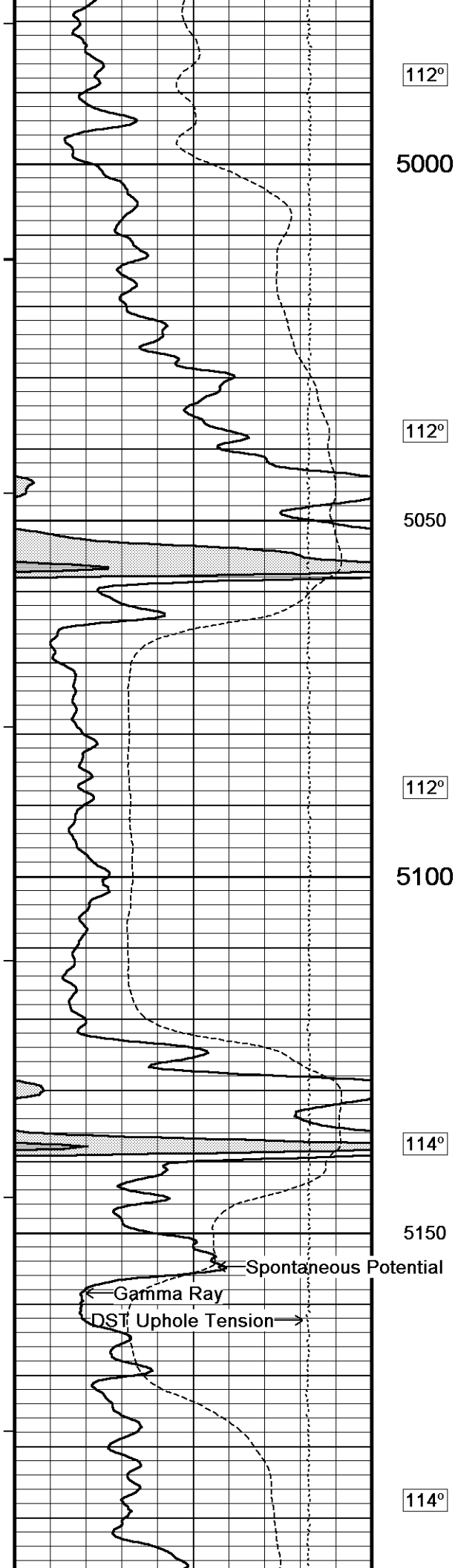
112°

4900

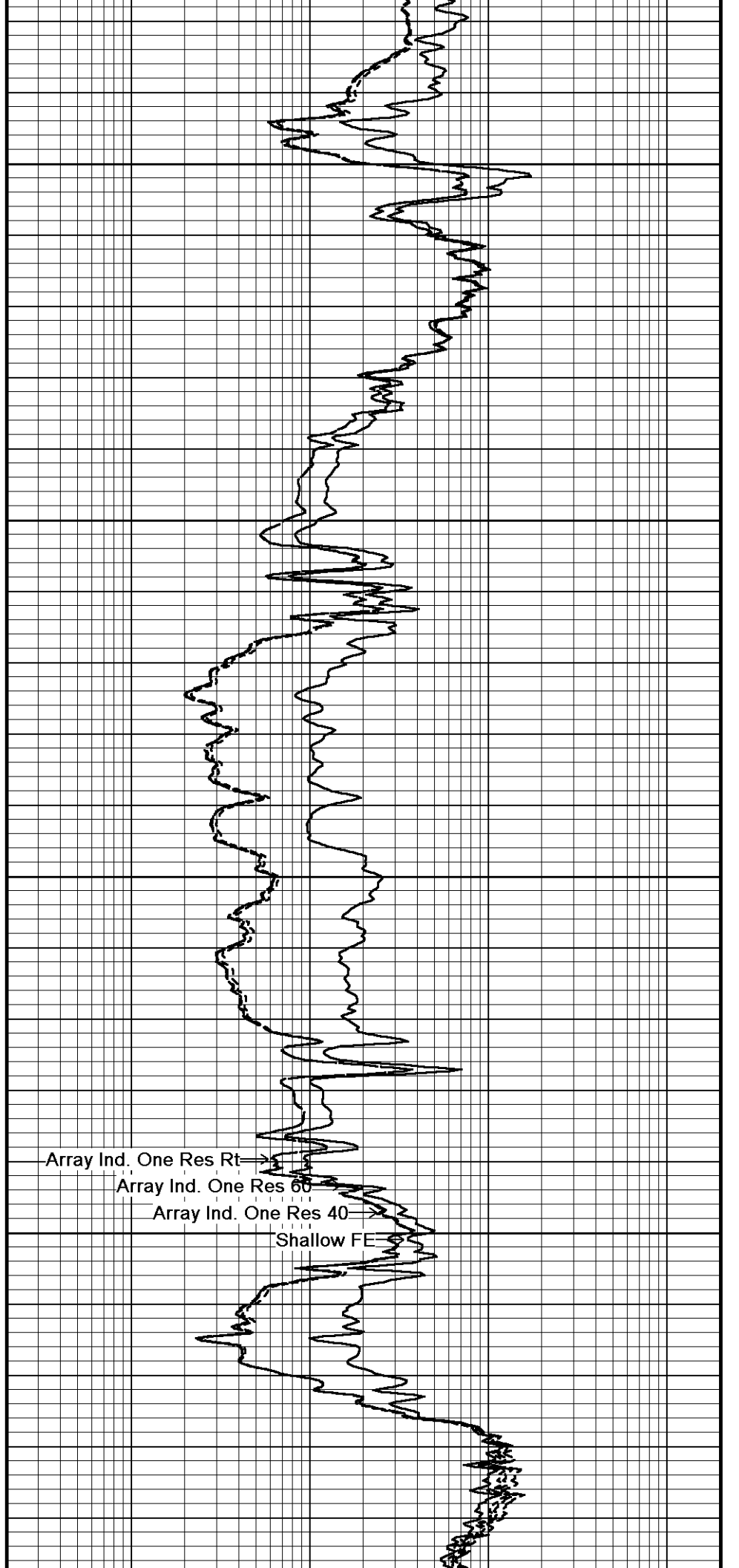
112°

4950

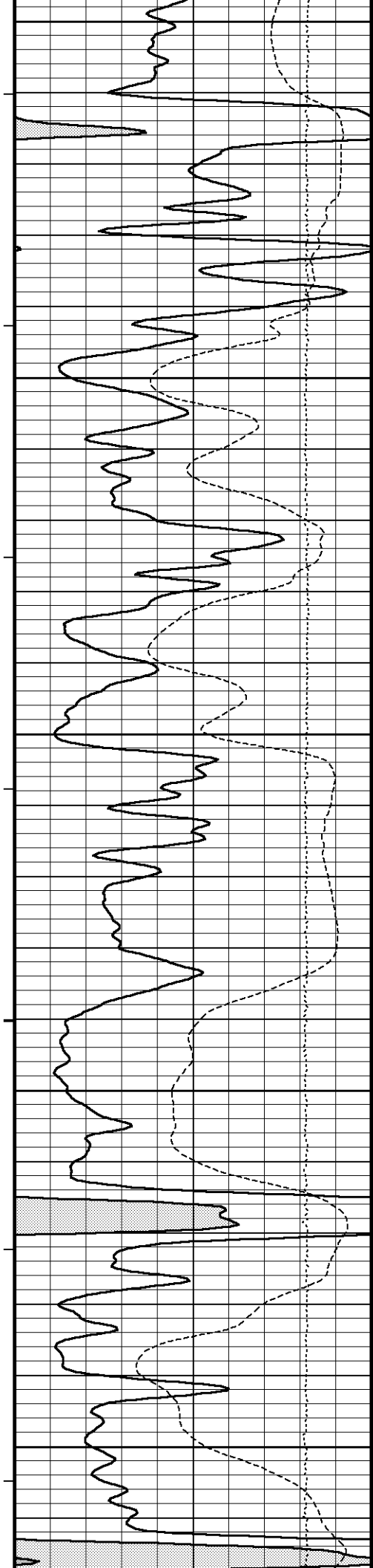




112°
5000
112°
5050
112°
5100
114°
5150
114°



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



5200

115°

5250

115°

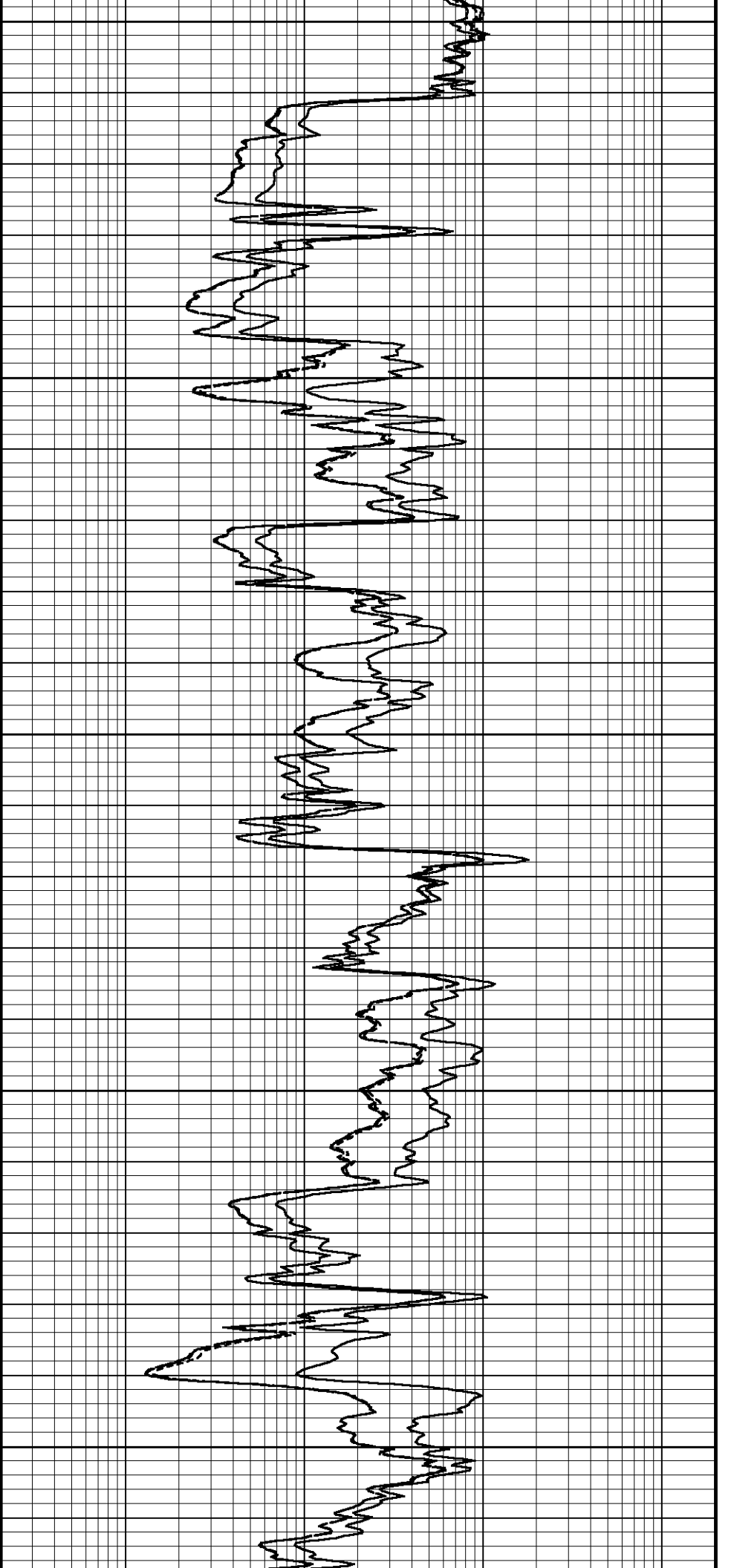
5300

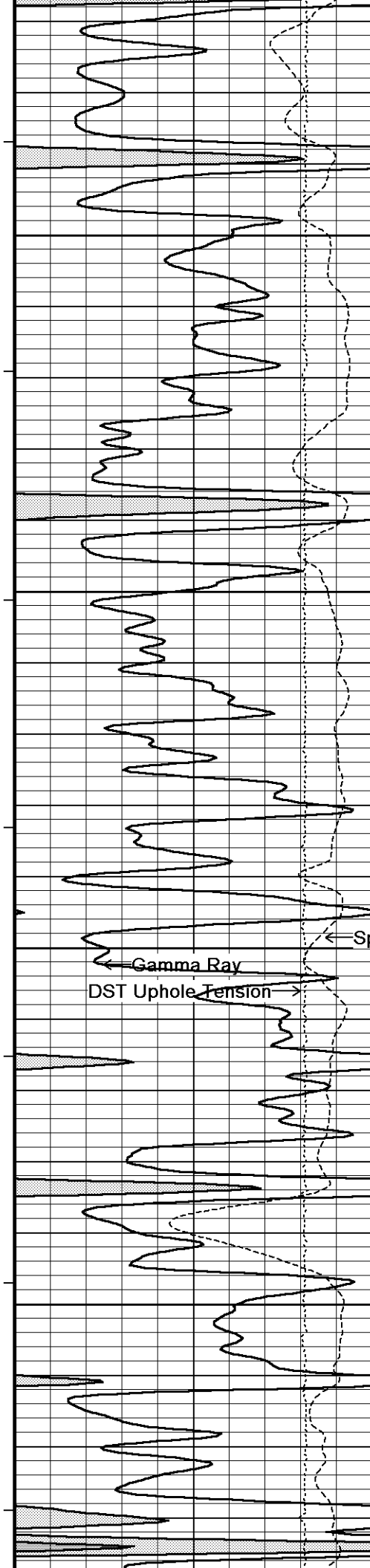
115°

5350

116°

5400





116°

5450

116°

5500

117°

5550

117°

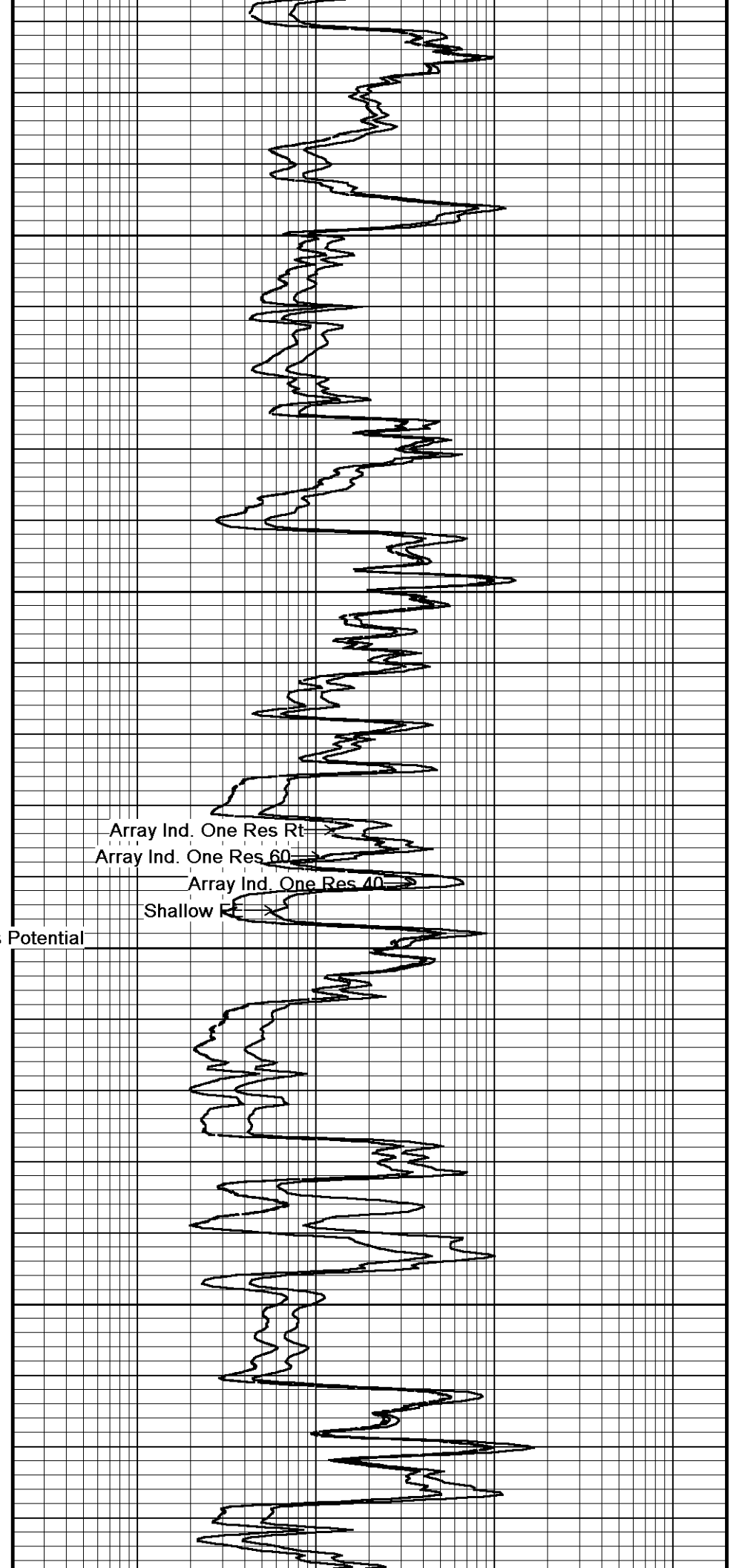
5600

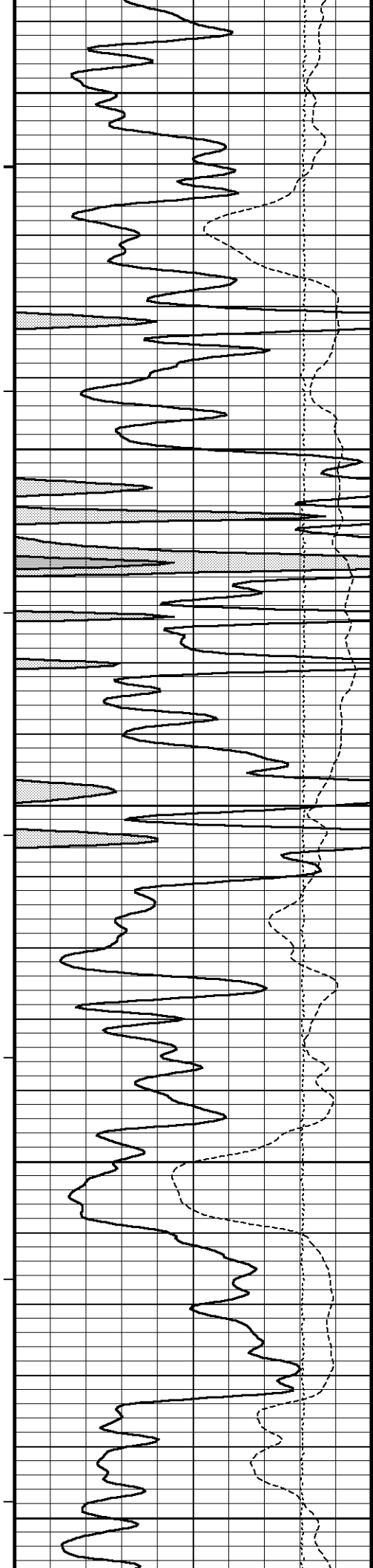
118°

← Gamma Ray
DST Uphole Tension →

← Spontaneous Potential

Array Ind. One Res Rt →
Array Ind. One Res 60 →
Array Ind. One Res 40 →
Shallow F →





118°

5650

118°

5700

119°

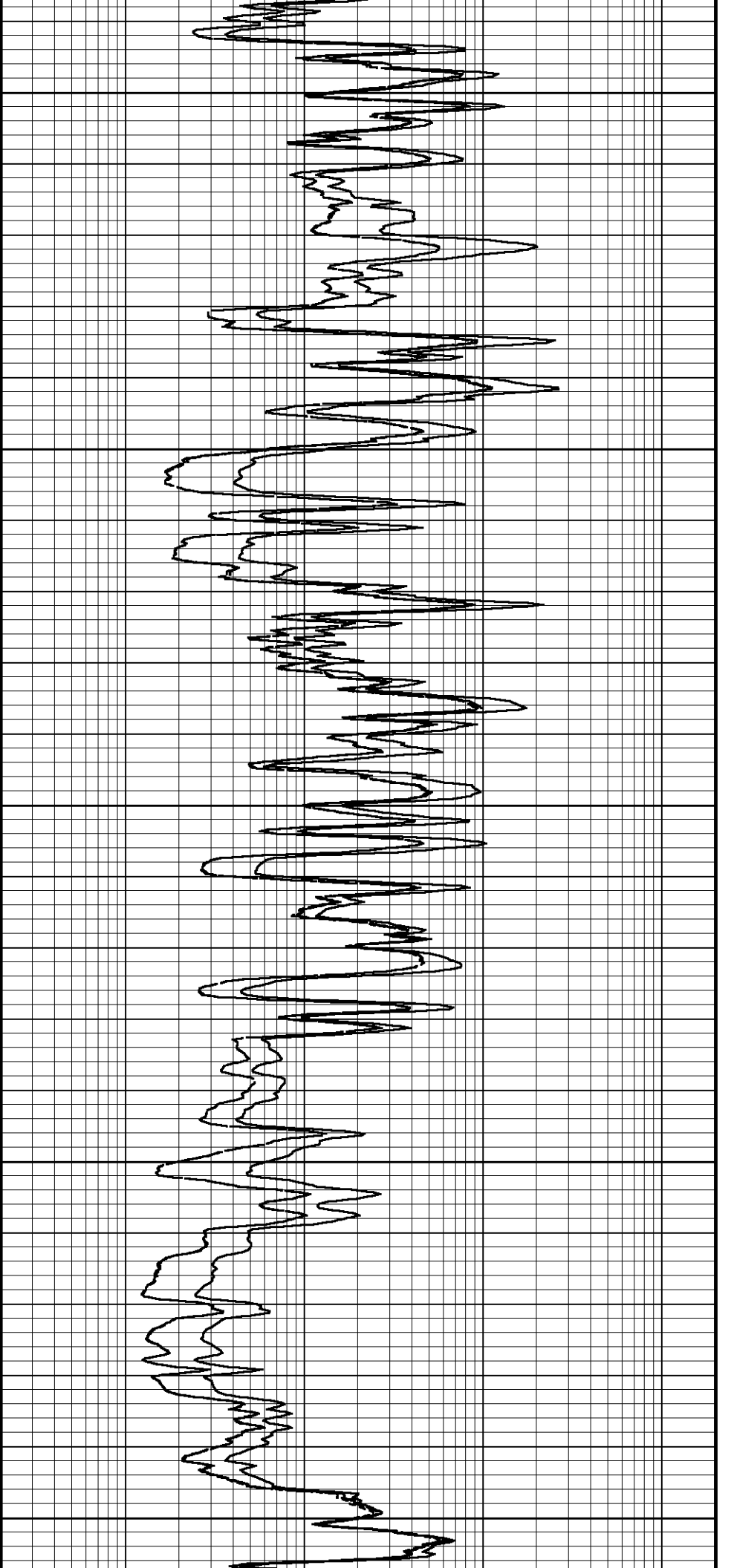
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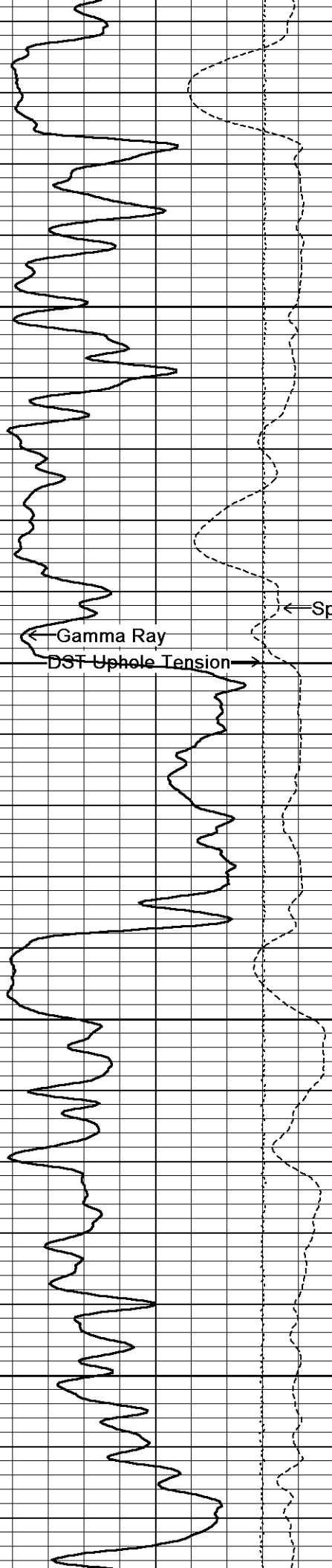
120°

5800

120°

5850





121°

5900

121°

5950

121°

6000

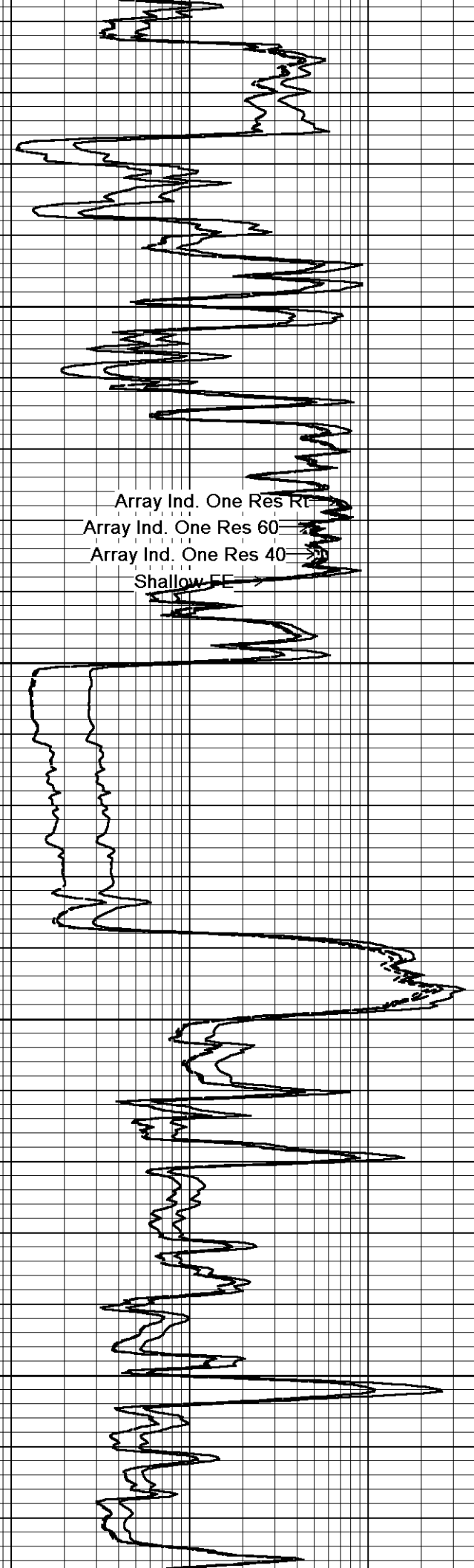
122°

6050

← Spontaneous Potential

← Gamma Ray

DST Uphole Tension →

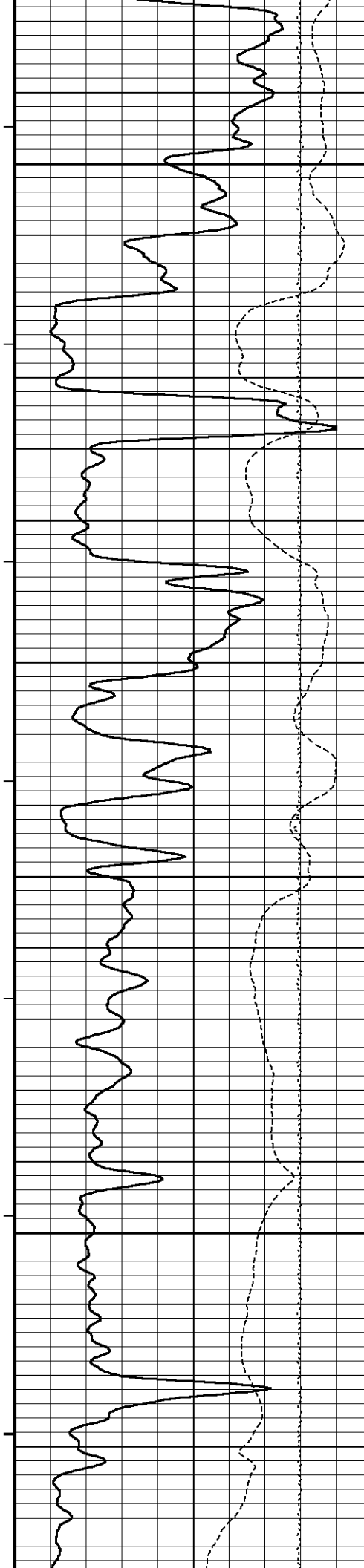


Array Ind. One Res Rt

Array Ind. One Res 60

Array Ind. One Res 40

Shallow FE



123°

6100

124°

6150

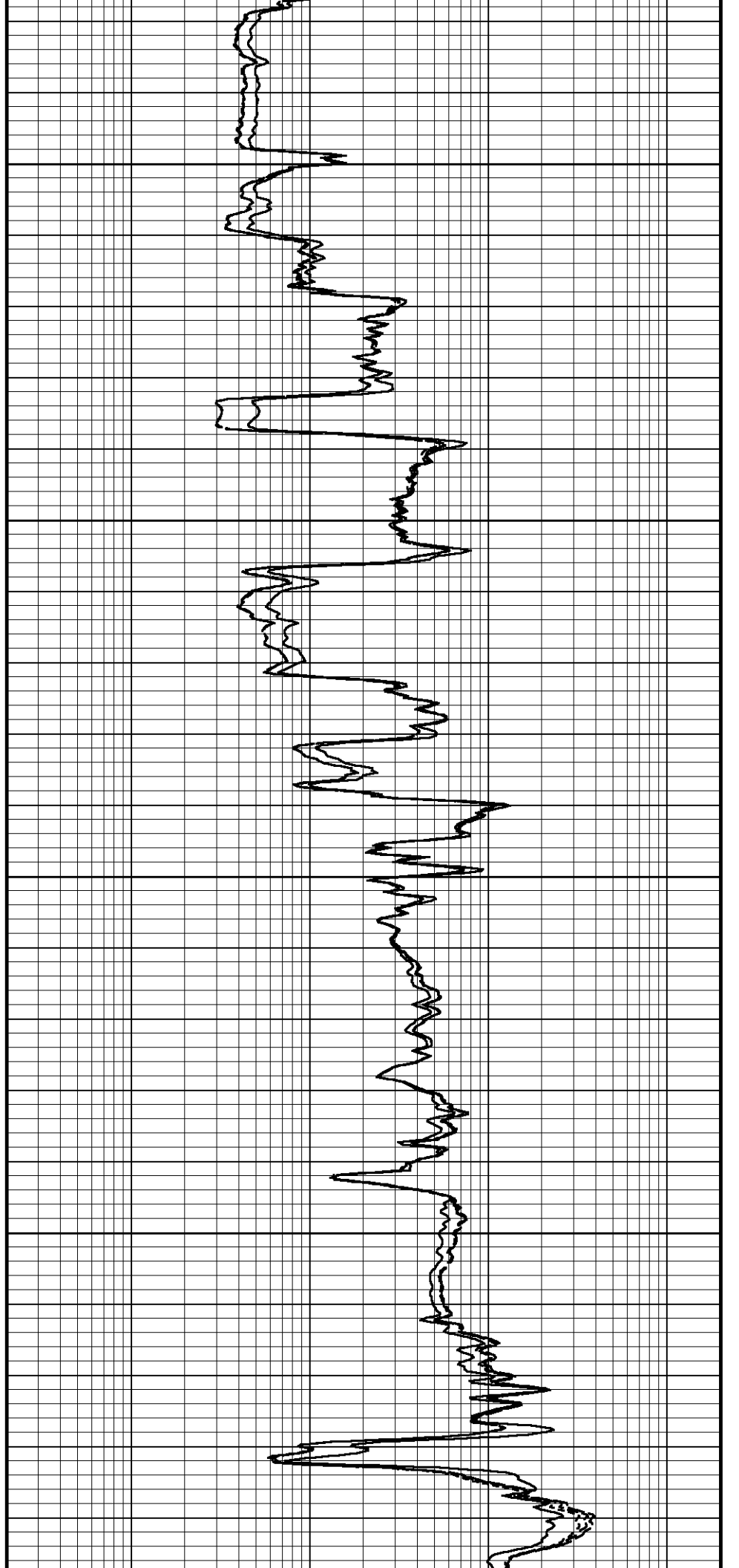
125°

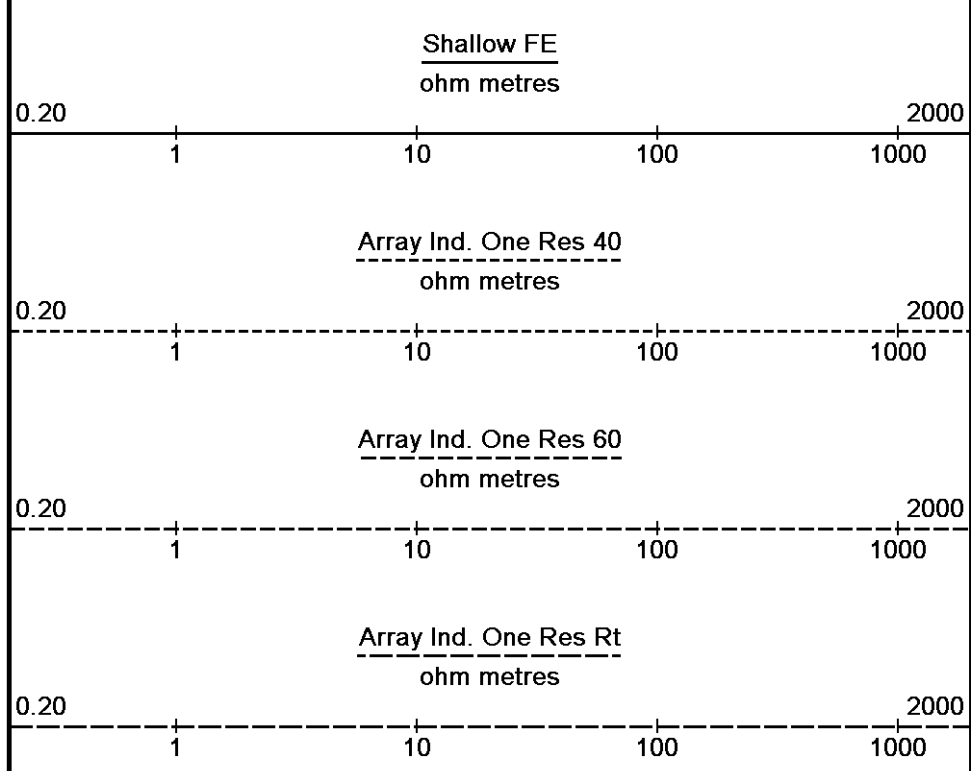
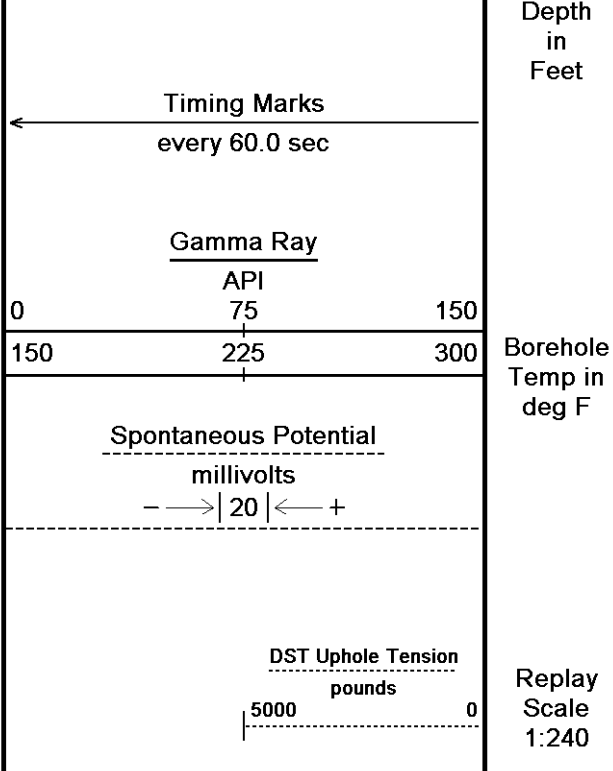
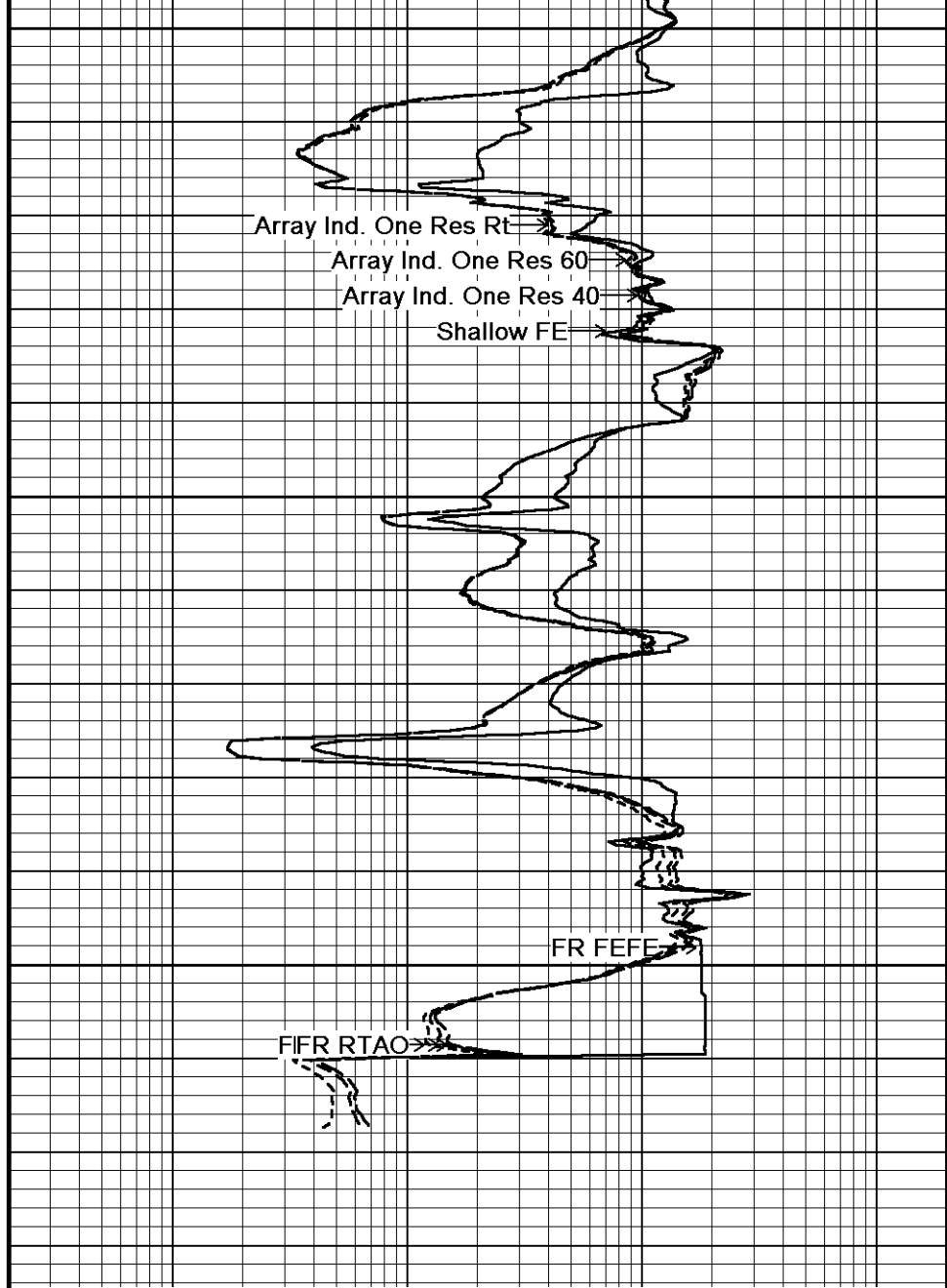
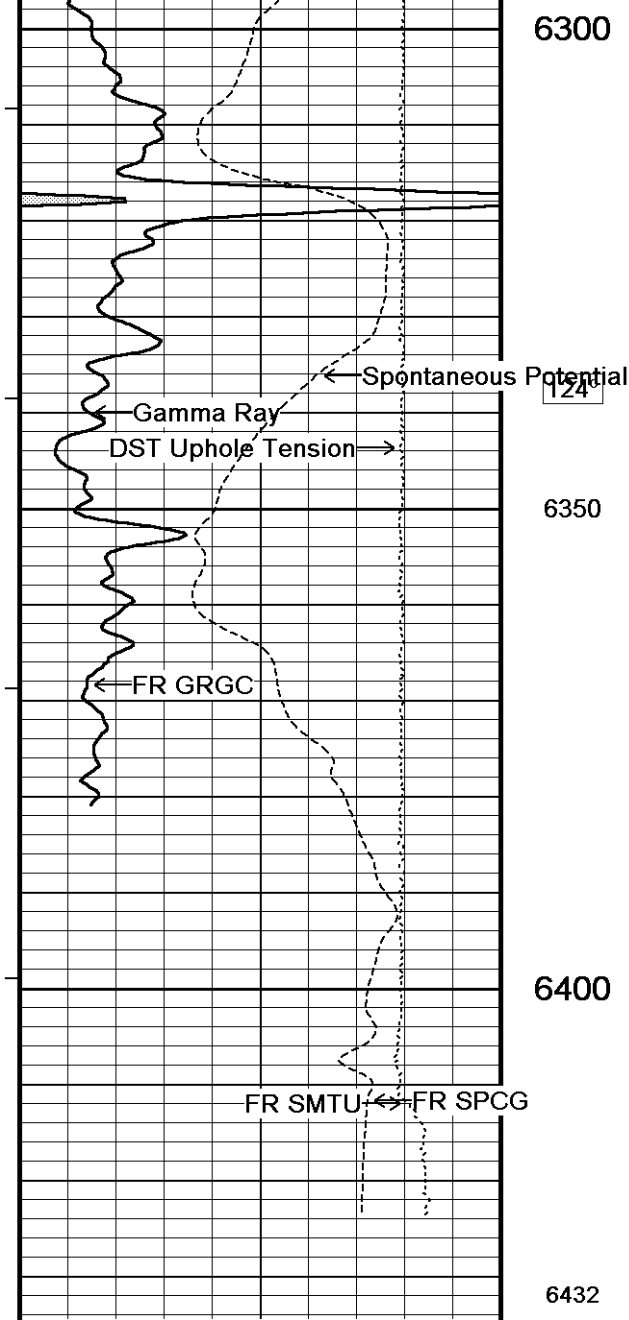
6200

124°

6250

124°





5 INCH MAIN

10 INCH HI-RES

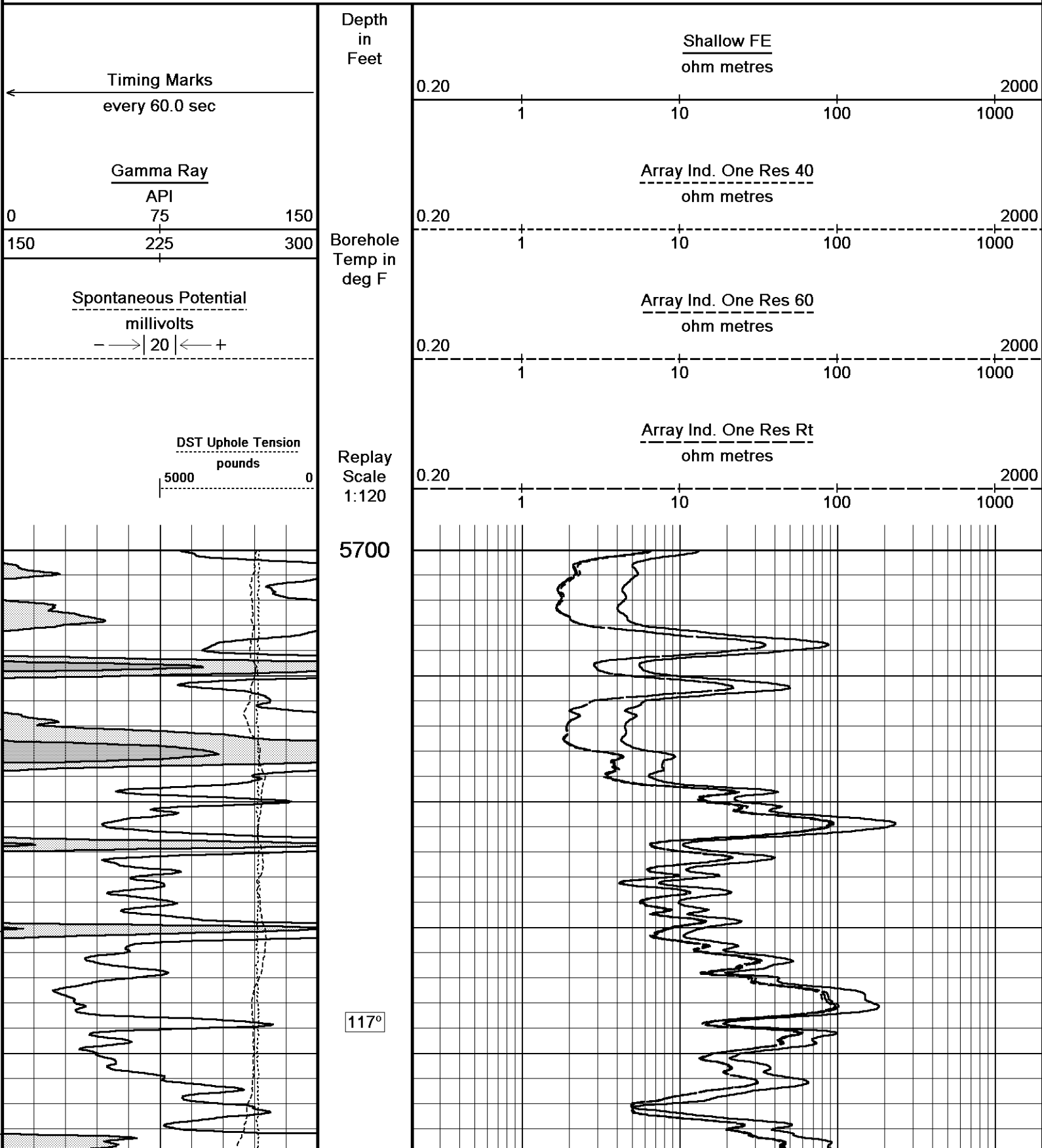
Depth Based Data - Maximum Sampling Increment 2.5cm

Plotted on 20-JAN-2013 21:56

Filename: C:\Minimus 13.04.8492\Data\O'Brien Clayton #1-33\O'Brien Clayton 1-33_001.dta

Recorded on 20-JAN-2013 18:24

System Versions: Logged with 13.04.8492 Plotted with 13.04.8492



5750

118°

5800

118°

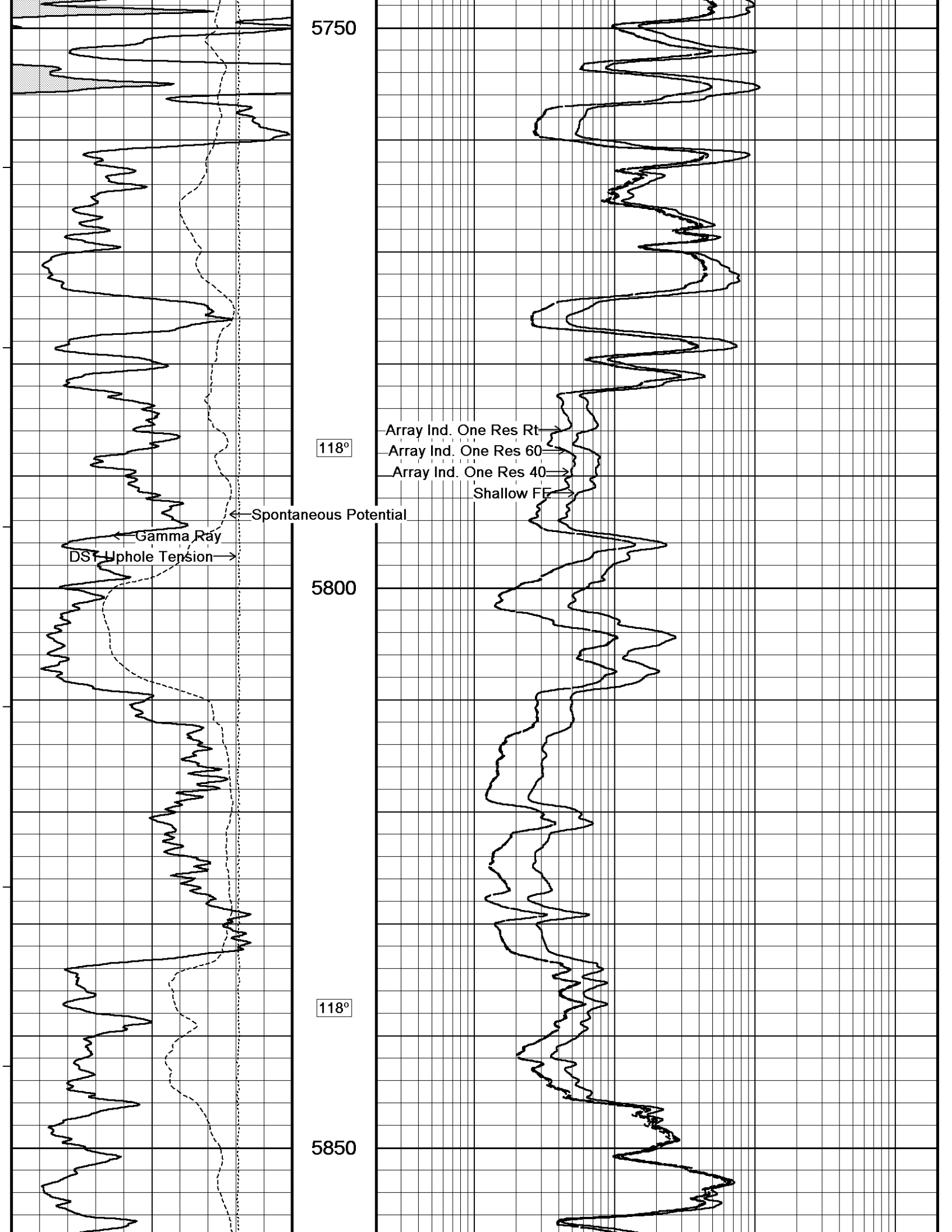
5850

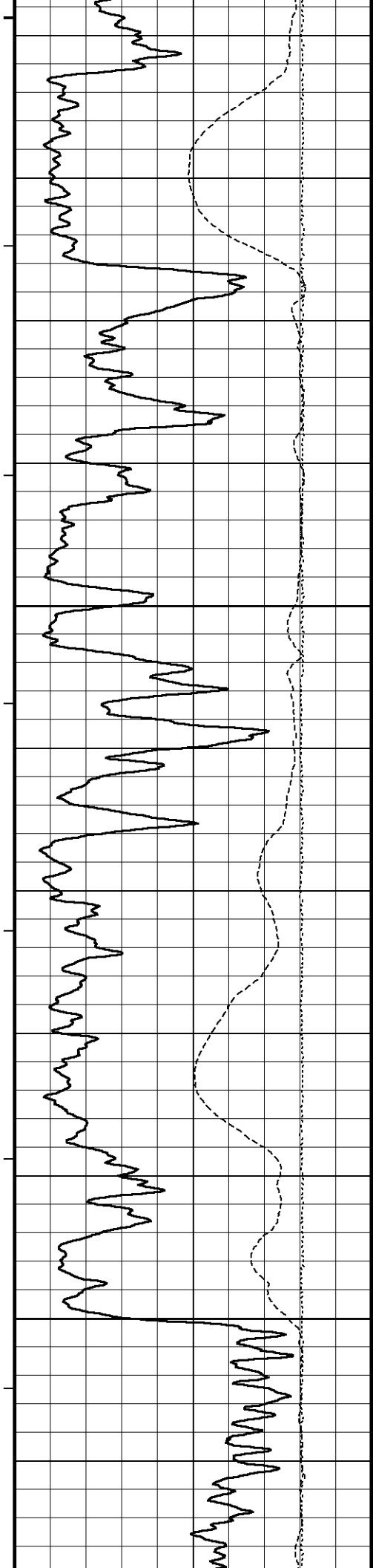
Array Ind. One Res Rt
Array Ind. One Res 60
Array Ind. One Res 40
Shallow FF

Spontaneous Potential

Gamma Ray

DST Uphole Tension



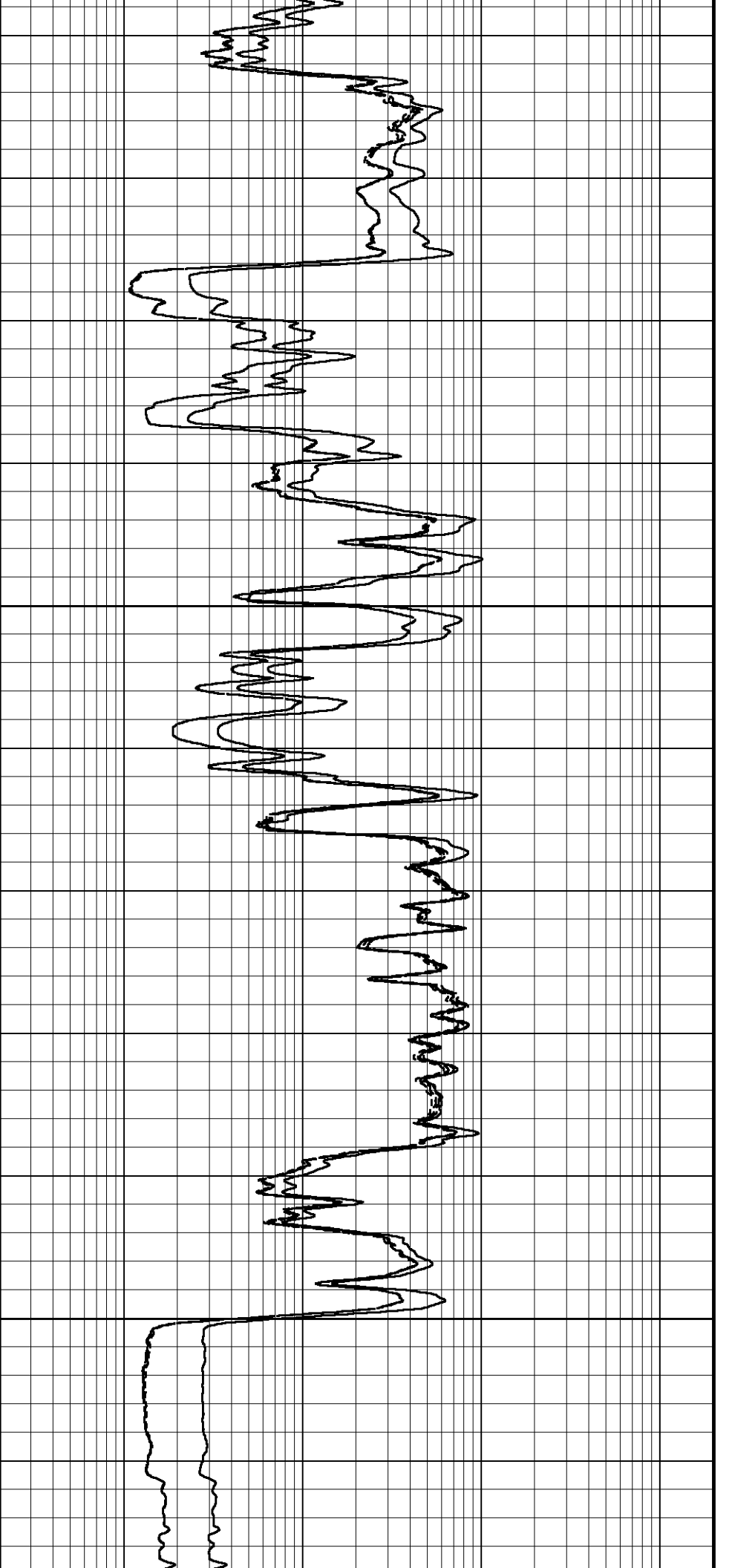


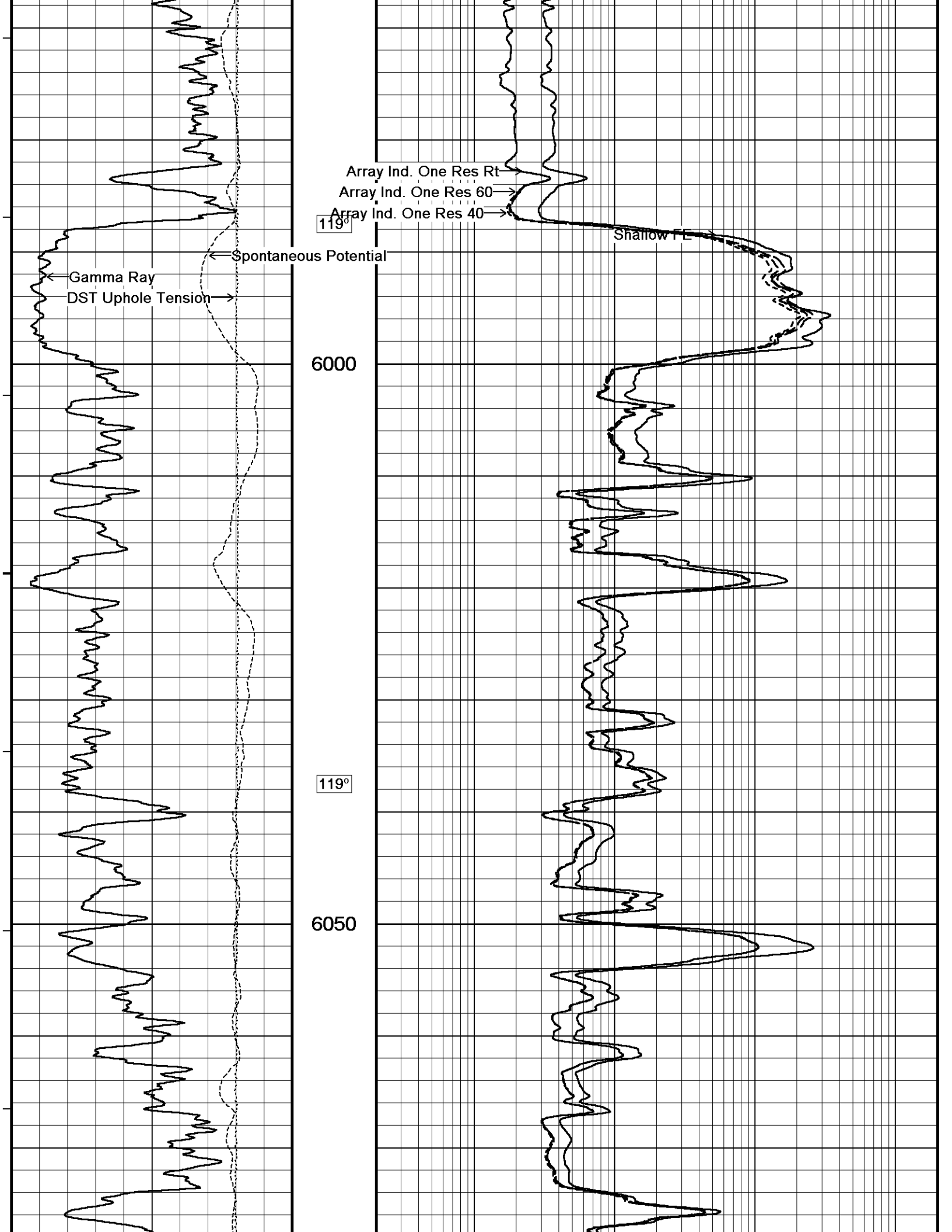
118°

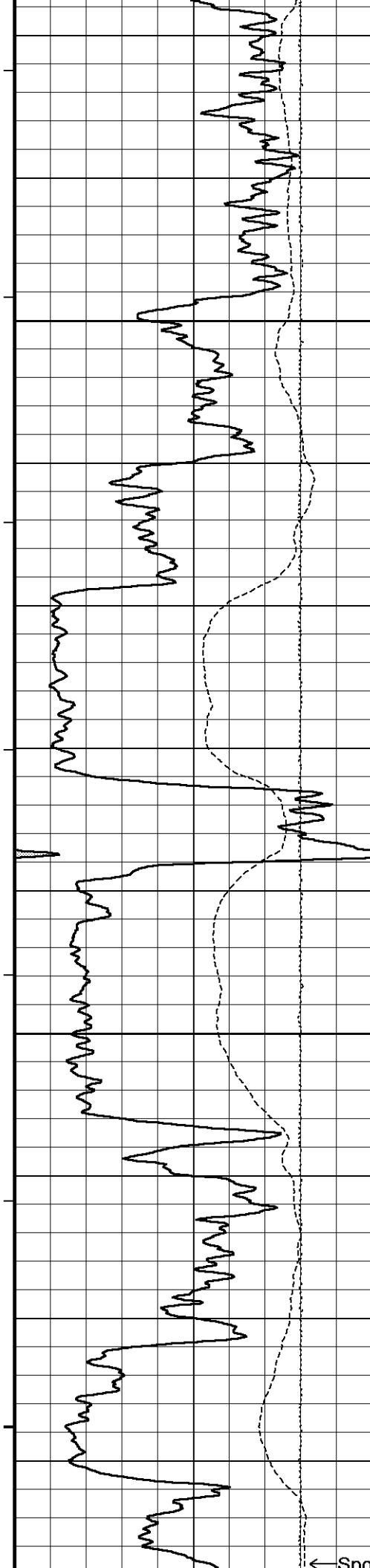
5900

119°

5950







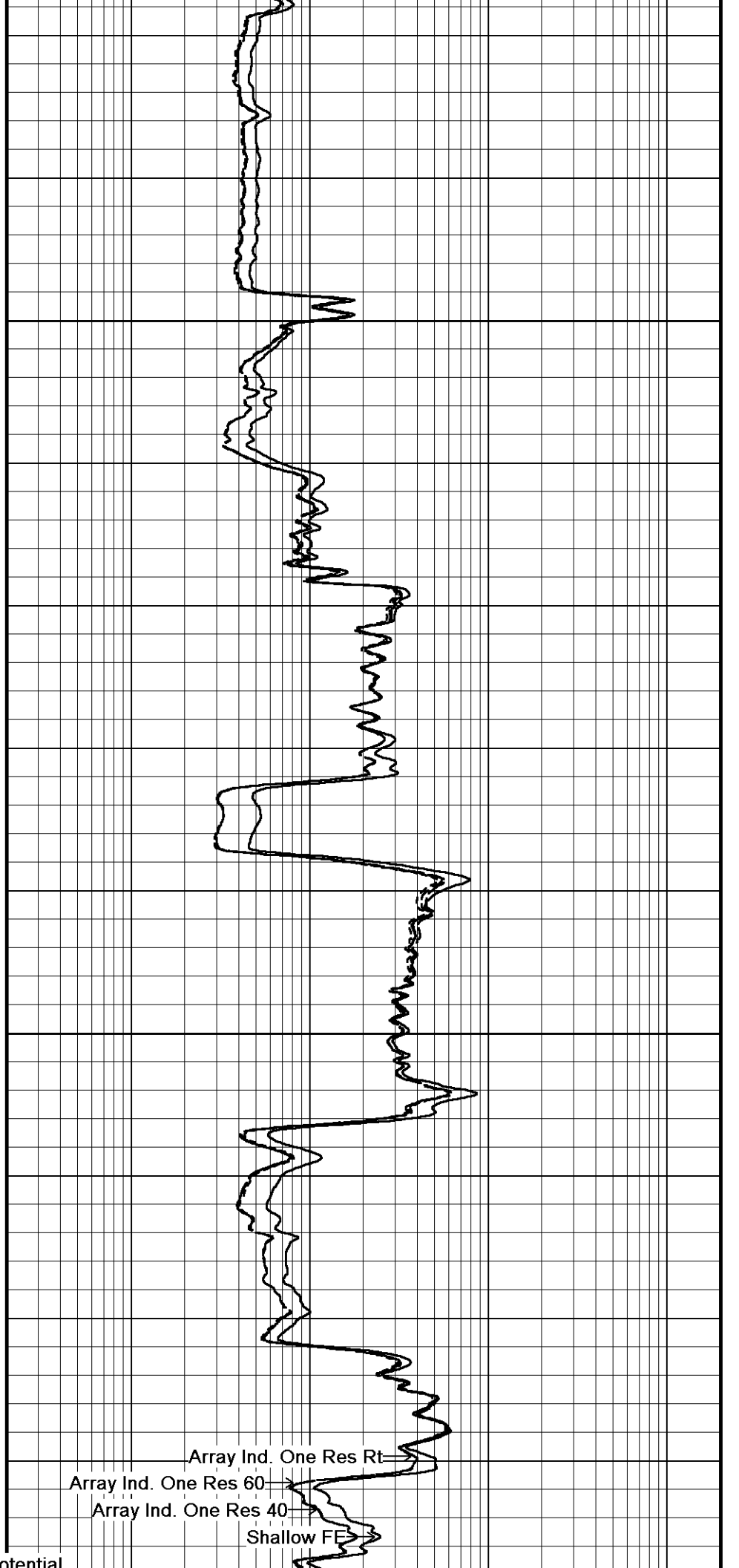
120°

6100

122°

6150

← Spontaneous Potential

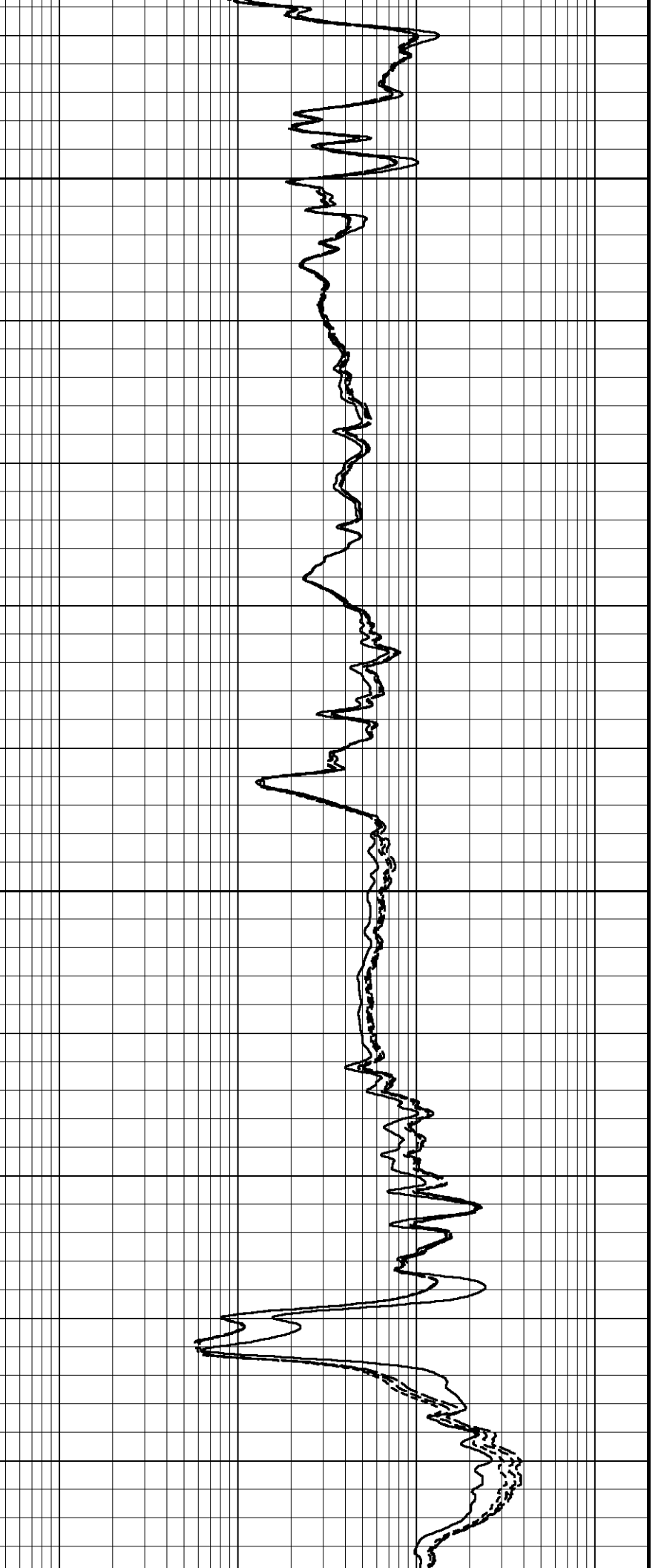
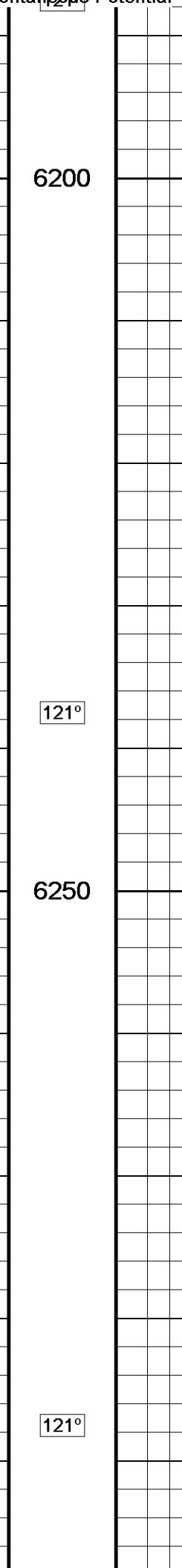
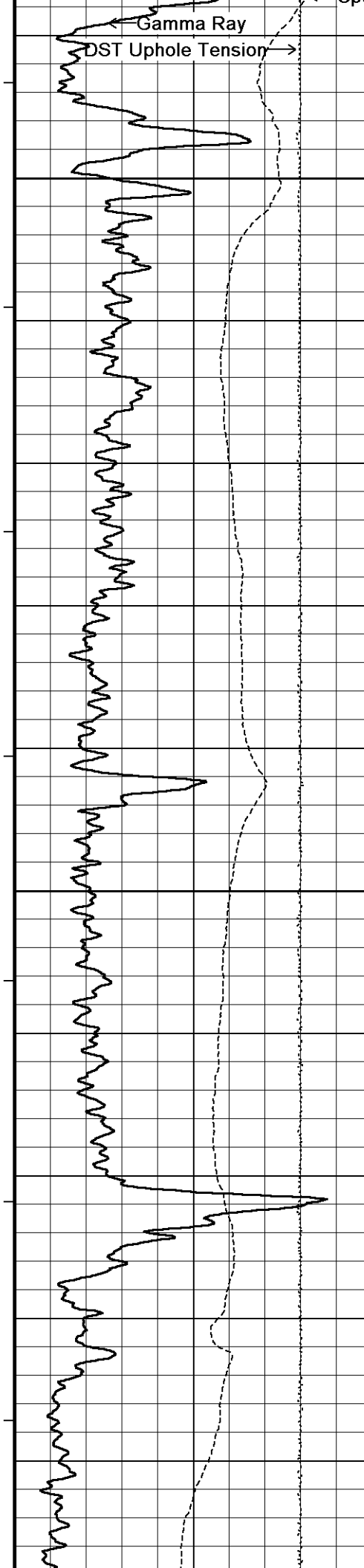


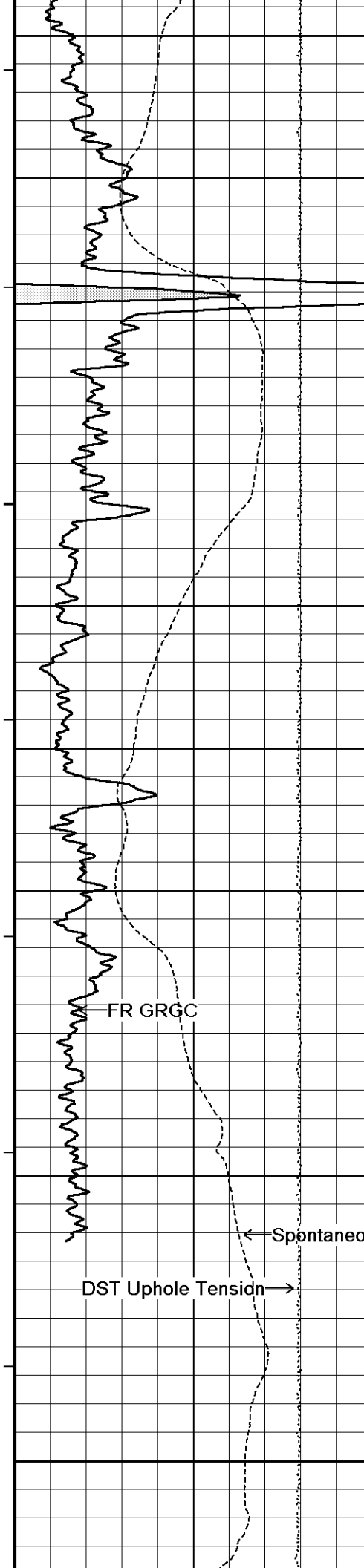
Array Ind. One Res Rt

Array Ind. One Res 60

Array Ind. One Res 40

Shallow FE





6300

121°

6350

FR GRGC

Spontaneous Potential

DST Uphole Tension

6400

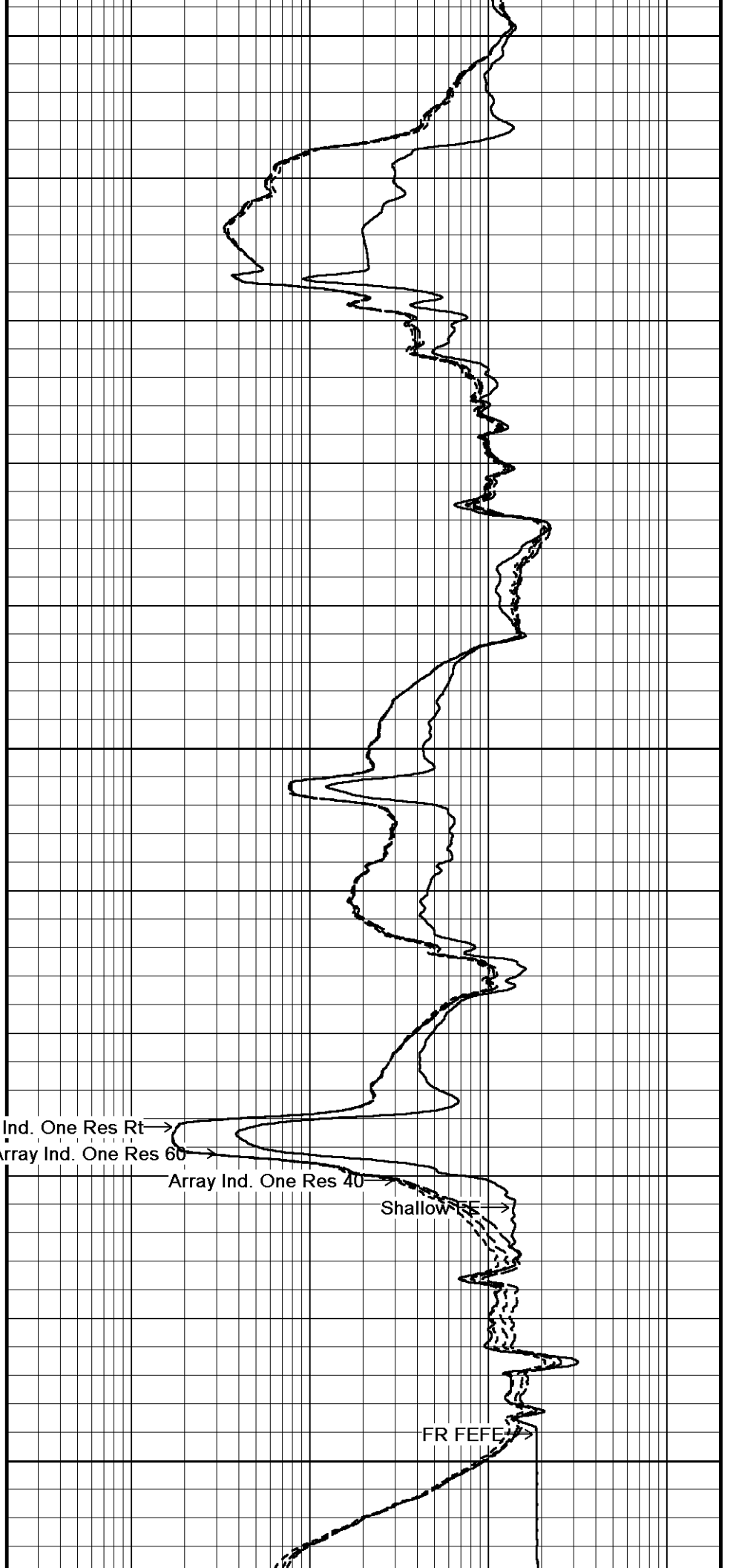
Array Ind. One Res Rt

Array Ind. One Res 60

Array Ind. One Res 40

Shallow

FR FEFE



FR SMTU—FR SPCG

FR R4000

6436
Depth
in
Feet

Timing Marks
every 60.0 sec

Gamma Ray
API

0 75 150
150 225 300

Spontaneous Potential
millivolts
— —> | 20 | <— +

DST Uphole Tension
pounds
5000 0

Borehole
Temp in
deg F

Replay
Scale
1:120

Shallow FE
ohm metres

0.20 1 10 100 1000 2000

Array Ind. One Res 40
ohm metres

0.20 1 10 100 1000 2000

Array Ind. One Res 60
ohm metres

0.20 1 10 100 1000 2000

Array Ind. One Res Rt
ohm metres

0.20 1 10 100 1000 2000

Depth Based Data - Maximum Sampling Increment 2.5cm

Plotted on 20-JAN-2013 21:56

Filename: C:\Minimus 13.04.8492\Data\O'Brien Clayton #1-33\O'Brien Clayton 1-33_001.dta

Recorded on 20-JAN-2013 18:24

System Versions: Logged with 13.04.8492 Plotted with 13.04.8492



10 INCH HI-RES



REPEAT SECTION



Depth Based Data - Maximum Sampling Increment 10.0cm

Plotted on 20-JAN-2013 21:56

Filename: C:\Minimus 13.04.8492\Data\O'Brien Clayton #1-33\O'Brien Clayton 1-33_002.dta

Recorded on 20-JAN-2013 18:24

System Versions: Logged with 13.04.8492 Processed with 13.04.8492 Plotted with 13.04.8492

Depth
in
Feet

Timing Marks
every 60.0 sec

Gamma Ray
API

0 75 150
150 225 300

Borehole

Shallow FE
ohm metres

0.20 1 10 100 1000 2000

Array Ind. One Res 40
ohm metres

0.20 1 10 100 1000 2000

Spontaneous Potential

millivolts

- -> | 20 | <- +

DST Uphole Tension

pounds

5000

0

Temp in deg F

Replay Scale 1:240

Array Ind. One Res 60

ohm metres

0.20

1

10

100

1000

2000

Array Ind. One Res Rt

ohm metres

0.20

1

10

100

1000

2000

5700

117°

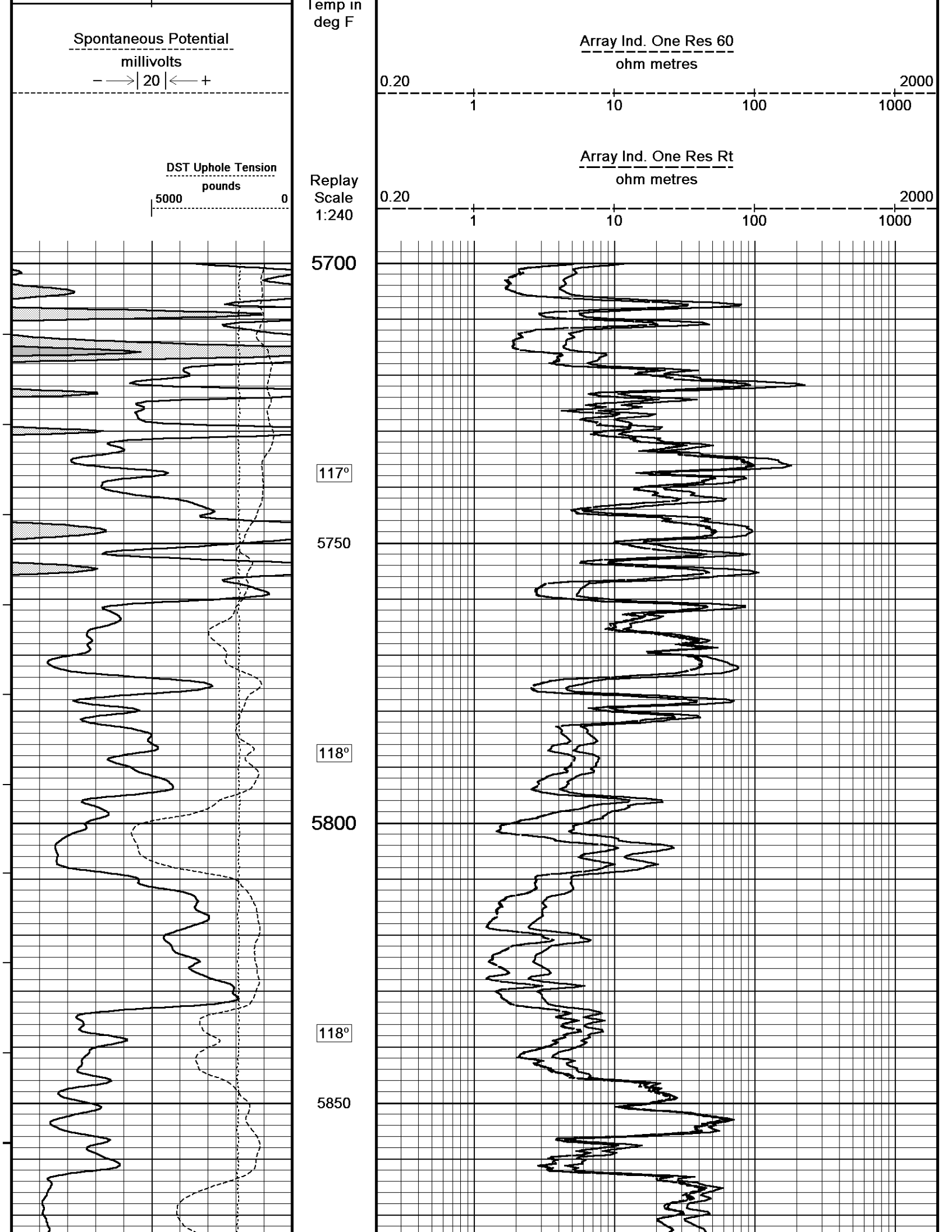
5750

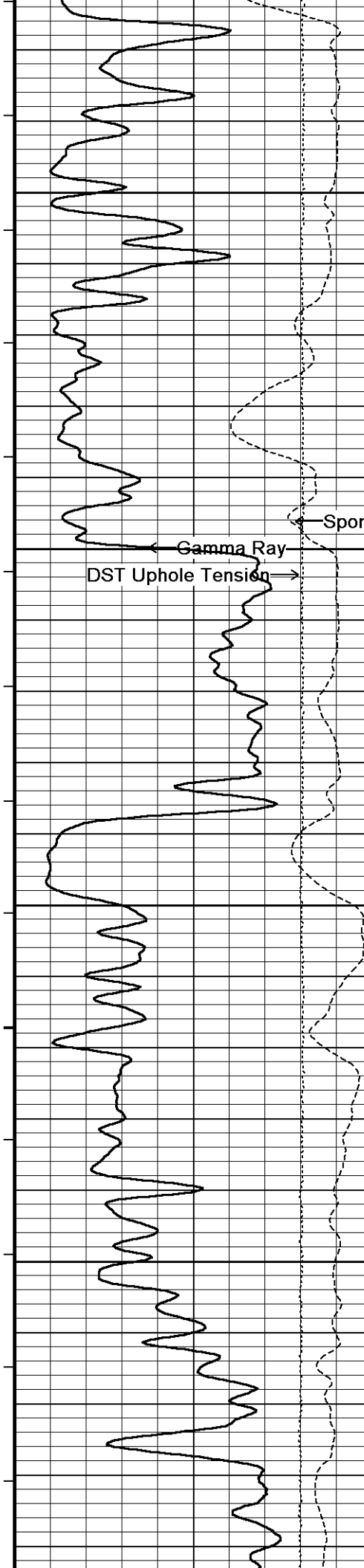
118°

5800

118°

5850

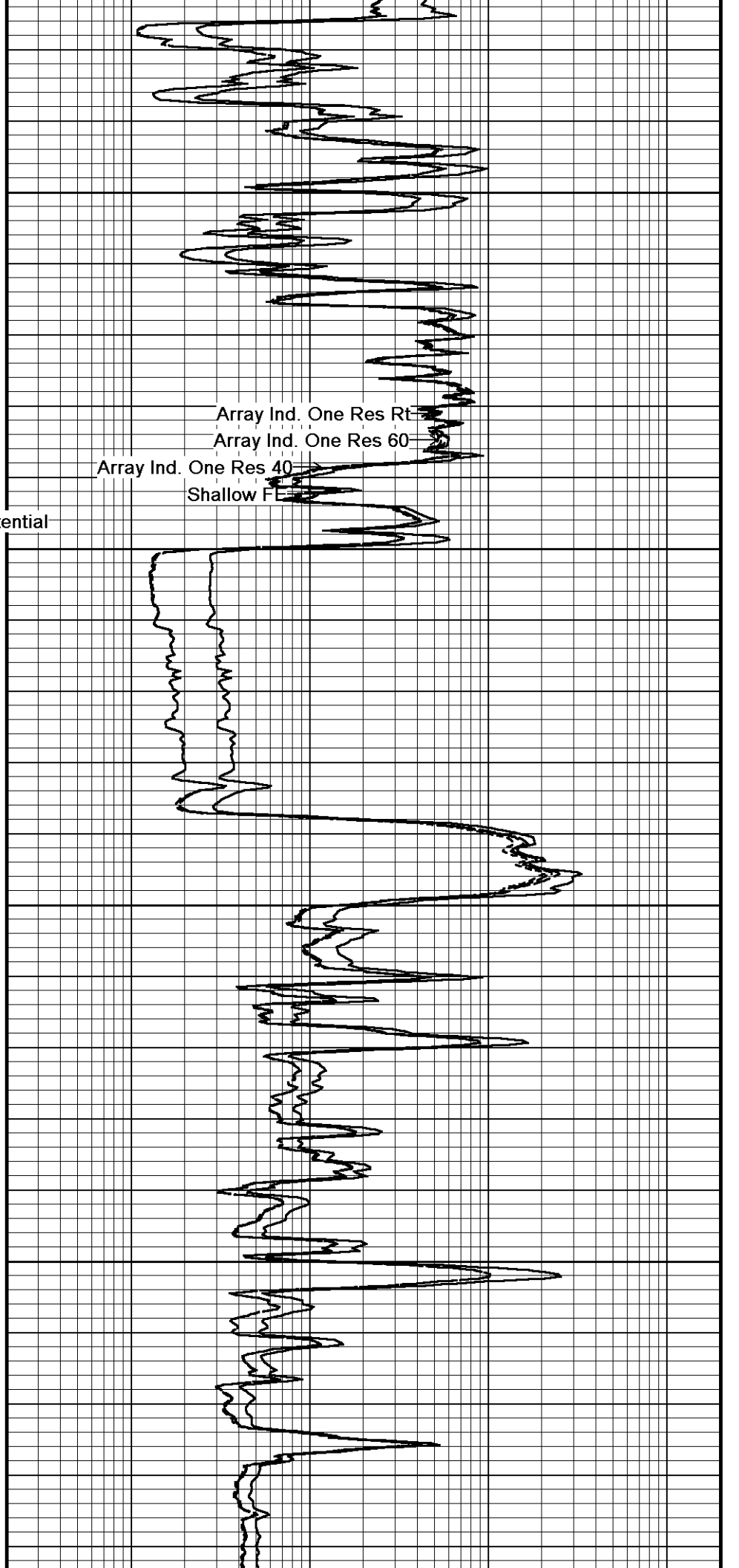




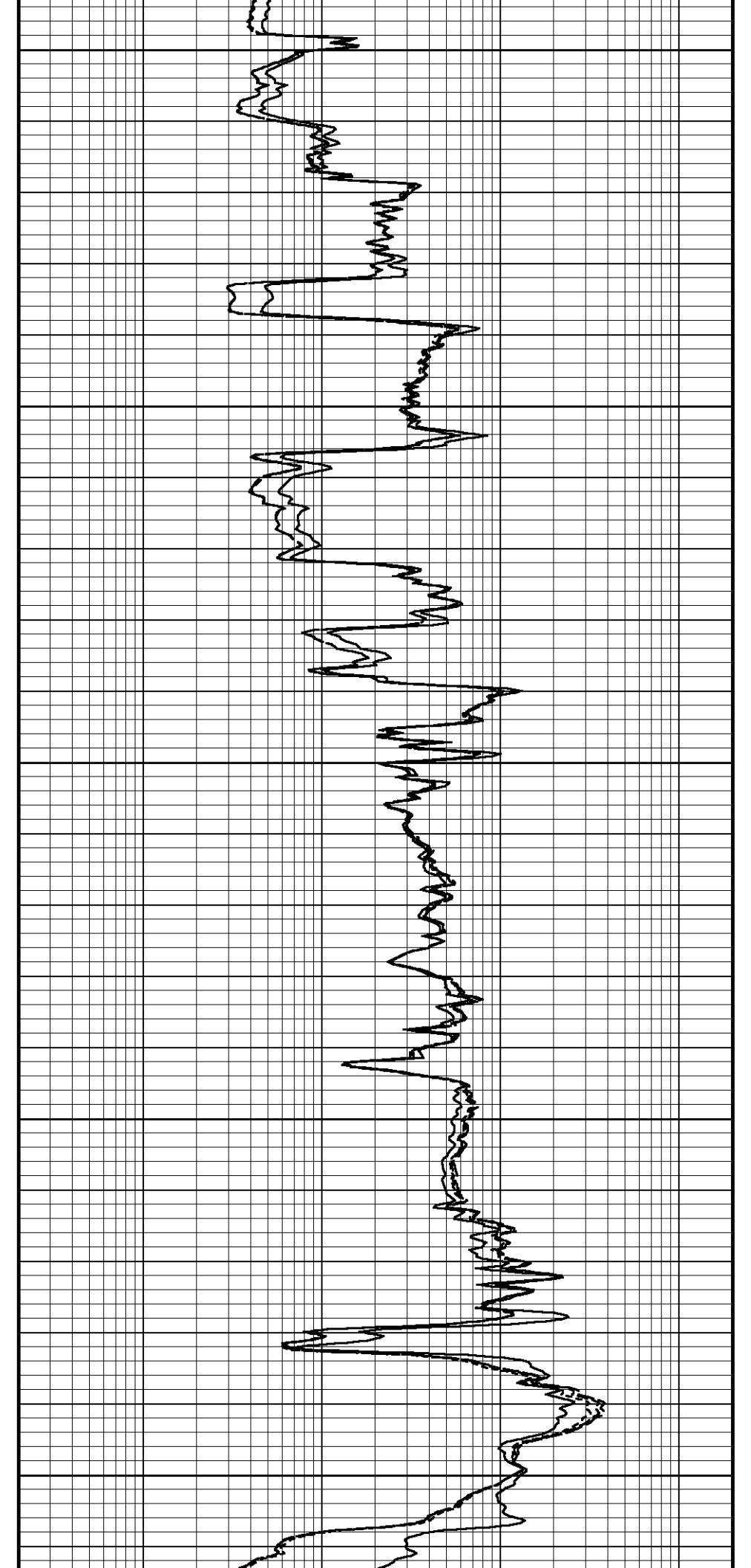
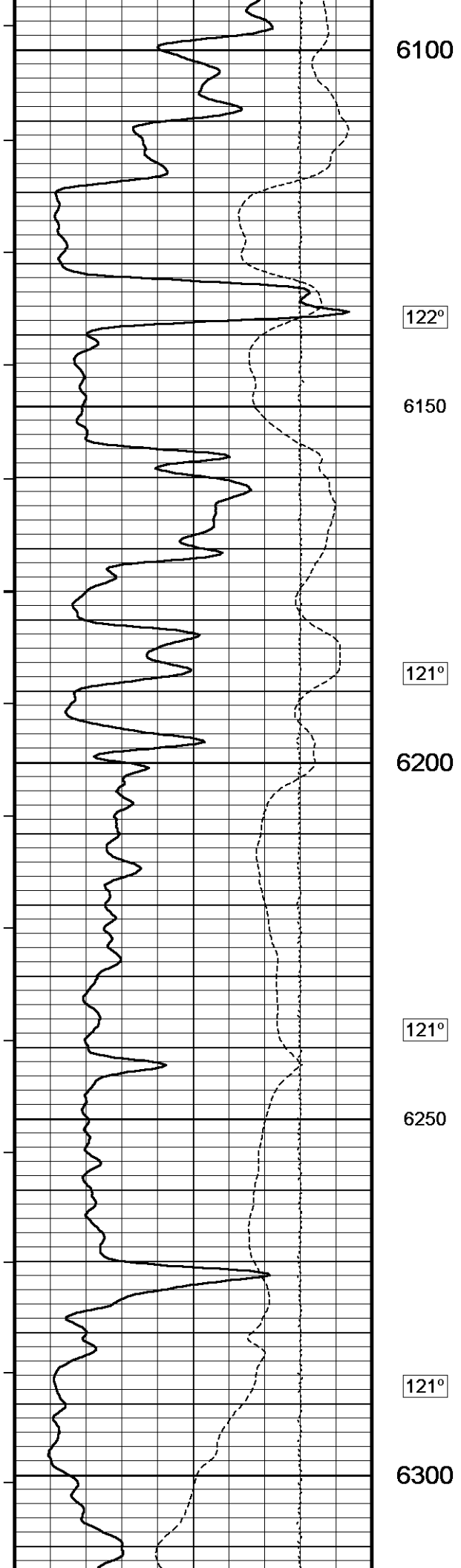
118°
5900
119°
5950
119°
6000
119°
6050
120°

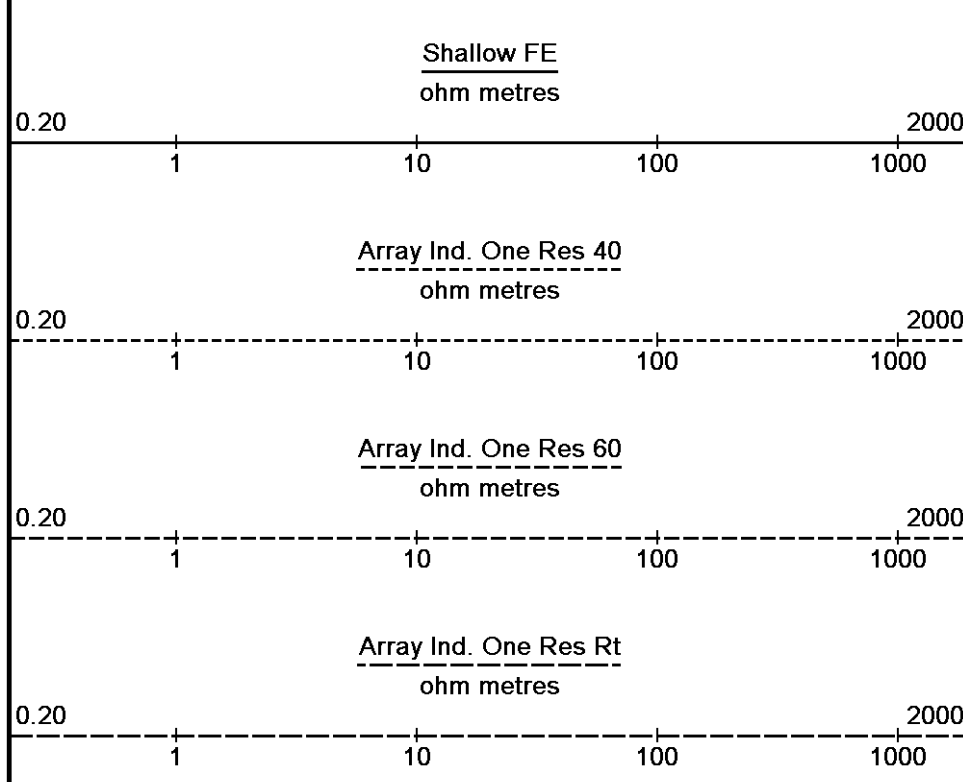
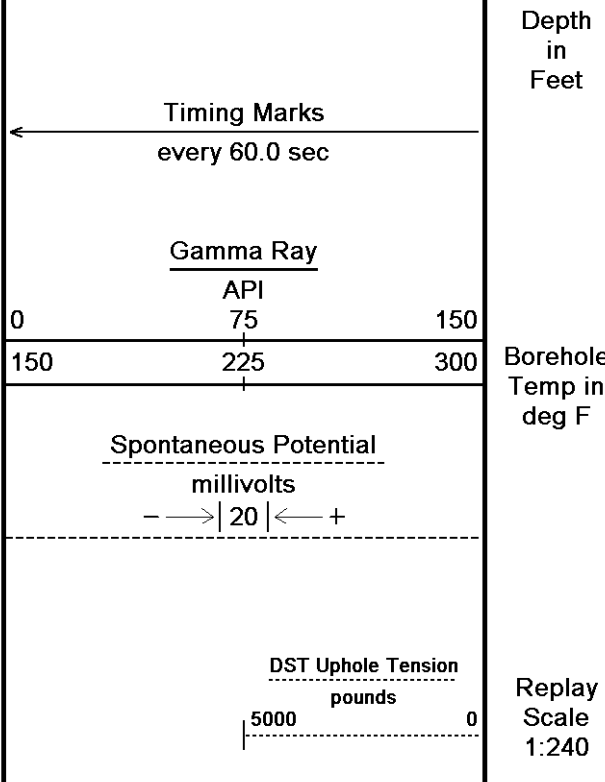
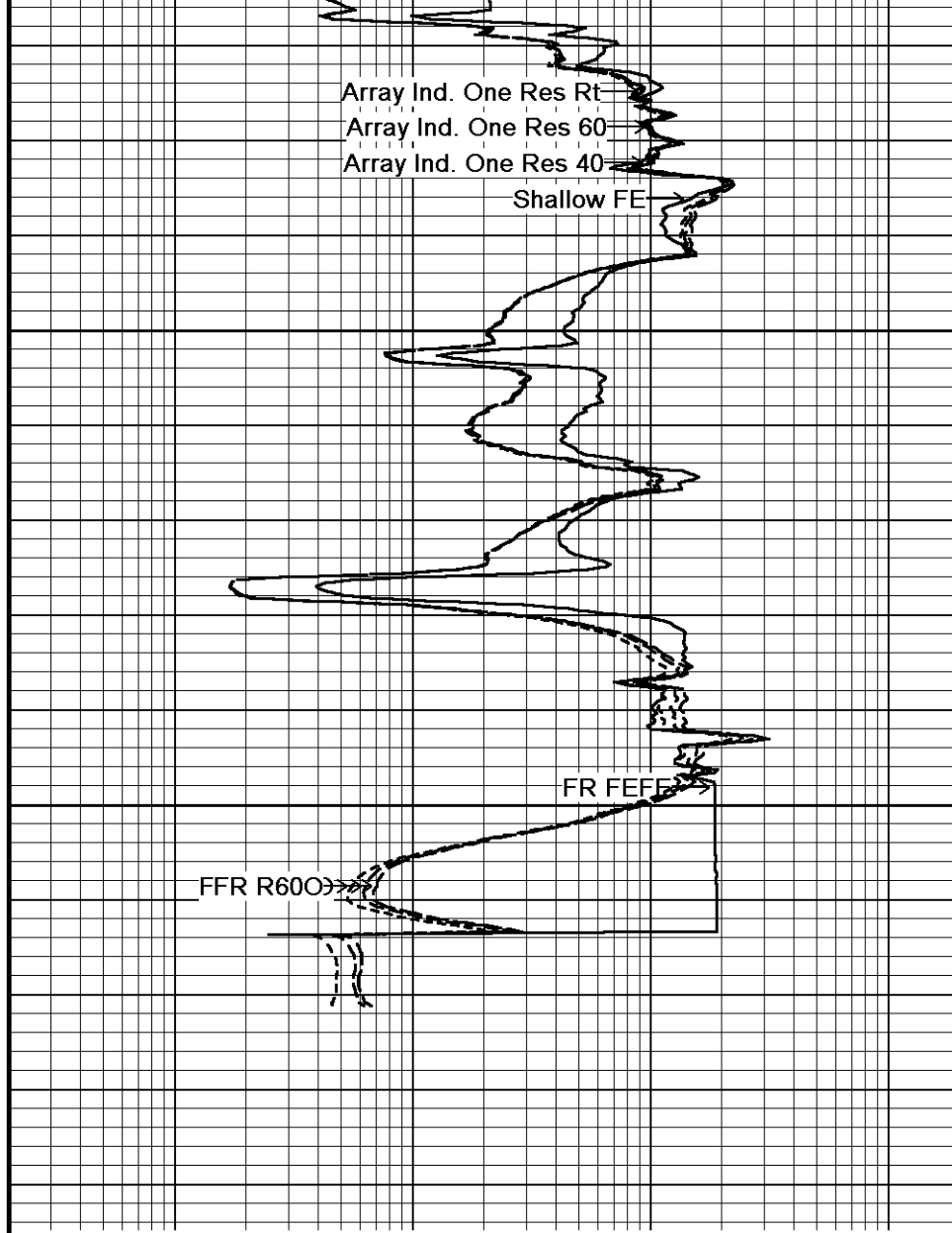
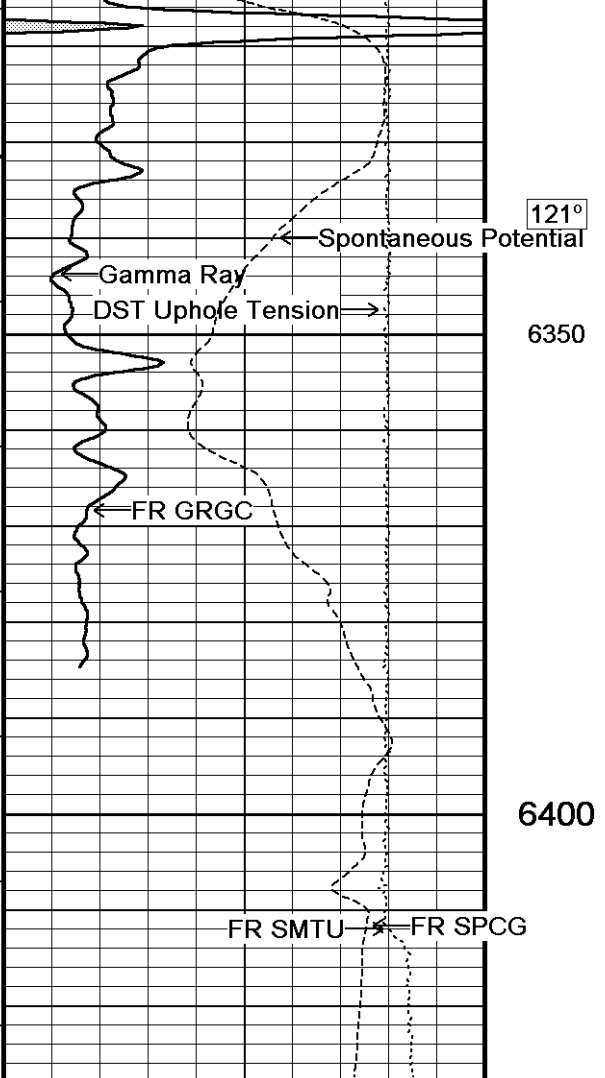
Spontaneous Potential

← Gamma Ray
DST Uphole Tension →



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





↑ REPEAT SECTION ↑

BEFORE SURVEY CALIBRATION

C:\Minimus 13.04.8492\Data\O'Brien Clayton #1-33\O'Brien Clayton 1-33_002.dta

General Constants All 000 Last Edited on 20-JAN-2013,16:54

General Parameters
 Mud Resistivity 0.960 ohm-metres
 Mud Resistivity Temperature 84.000 degrees F
 Water Level 0.000 feet
 Borehole Fluid 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
 Resistivity used Array Ind. Four Res Rt
 RWA Constant A 1.000
 RWA Constant M 2.000

Down-hole Tension Calibration SMS 0 Field Calibration on 18-JAN-2013 01:57

Reading No	Measured	Calibrated (lbs)
1	15220.96	0.00
2	15827.69	390.00

SP Calibration MCG-C 208 Field Calibration on 27-DEC-2012 10:06

	Measured	Calibrated (mV)
Reference 1	100.9	100.0
Reference 2	-100.6	-100.0

High Resolution Temperature Calibration MCG-C 208 Field Calibration on 05-NOV-2012,14:26

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

High Resolution Temperature Constants MCG-C 208 Last Edited on 05-NOV-2012,14:25

Pre-filter Length 11

Gamma Calibration MCG-C 208 Field Calibration on 20-JAN-2013 14:04

	Measured	Calibrated (API)
Background	71	50
Calibrator (Gross)	1115	775
Calibrator (Net)	1044	725

Gamma Constants MCG-C 208 Last Edited on 20-JAN-2013,16:54

Gamma Calibrator Number GR38
 Mud Density 1.10 gm/cc
 Caliper Source for Processing Density Caliper
 Tool Position Eccentred
 Concentration of KCl 0.00 kppm

Micro Laterolog Calibration MMR-A 11 Base Calibration on 31-DEC-1999 00:00
Field Check on 31-DEC-1999 00:00

Base Calibration

	Measured		Calibrated (ohm-m)	
	Ref 1	Ref 2	Ref 1	Ref 2
	0.0	0.0	0.0	0.0

Base Check (ohm-m) 0.0 Field Check (ohm-m) 0.0

Micro Laterolog Constants MMR-A 11

Last Edited on 12-NOV-2012,01:59

Pad Type 6 in Solid Nylon B23059
 Micro Laterolog K Factor 0.0128
 Standoff Offset 0.0000 inches

Mudcake Thickness Correction Constants

Mud Cake Source Constant Value
 Mud Cake Thickness 0.4000 inches
 Mud Cake Thickness Caliper N/A
 Mud Cake Resistivity 0.1500 ohm-m
 Mud Cake Resistivity Temp. 68.00 Deg F
 Mud Cake Resistivity Source Constant Value
 Temp. Source Rmc Correc. N/A

Caliper Calibration MMR-A 11

Base Calibration on 16-JAN-2013 10:32
 Field Calibration on 20-JAN-2013 13:49

Base Calibration

Reading No	Measured	Calibrator Size (in)
1	13881	5.98
2	17138	7.97
3	20398	9.86
4	24351	11.92
5	0	0.00
6	N/A	N/A

Field Calibration

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

Micro Normal and Micro Inverse Calibration MMR-A 11

Base Calibration on 16-JAN-2013 10:36
 Field Check on 20-JAN-2013 13:50

Base Calibration

Channel	Measured		Calibrated (ohm-m)	
	Resistor 1	Resistor 2	Resistor 1	Resistor 2
Micro Normal	12.3	59.9	5.0	25.0
Micro Inverse	15.5	77.5	5.0	25.0

Channel	Base Check (ohm-m)	Field Check (ohm-m)
Micro Normal	76.3	76.3
Micro Inverse	58.7	58.7

Micro Normal and Micro Inverse Constants MMR-A 11

Last Edited on 05-NOV-2012,13:54

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 0.0000 inches

Neutron Calibration MDN-A.B 65

Base Calibration on 13-DEC-2012 16:03
 Field Check on 20-JAN-2013 14:00

Base Calibration

Ratio	Measured		Calibrated (cps)	
	Near	Far	Near	Far
	2945	91	3714	110
	32.377		33.764	

Field Calibrator at Base

Ratio	Calibrated (cps)	
	Near	Far
	1743	2519
	0.692	

Field Check

Ratio	Calibrated (cps)	
	Near	Far
	1729	2508
	0.691	

Neutron Constants MDN-A.B 65

Last Edited on 20-JAN-2013,13:56

Neutron Source Id PN-521
 Neutron Jig Number 5824NE
 Epithermal Neutron No

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-B.J 352

Base Calibration on 16-JAN-2013 10:20
Field Check on 20-JAN-2013 13:39

Base Calibration			
	Measured	Calibrated (ohm-m)	
Reference 1	0.0	0.0	
Reference 2	964.3	126.8	
Base Check		281.2	
Field Check		281.4	

FE Constants MFE-B.J 352

Last Edited on 20-JAN-2013,16:54

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 20-JAN-2013 13:34

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		
Channel	Base Check (mmho/m)		Field Check (mmho/m)		
	Low	High	Low	High	
1			18.5	3849.8	
2			31.7	3628.2	
3			28.6	3048.8	
4			18.3	2079.0	
Deep			16.1	1911.2	
Medium			42.5	4059.5	
Shallow			49.5	5480.8	
Array Temperature			61.2	Deg F	

Induction Constants MAI-A.A 45

Last Edited on 20-JAN-2013,16:55

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 13-DEC-2012,10:54

	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 13-DEC-2012,10:53

Pre-filter Length	11
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Caliper Calibration MPD-B 31

Base Calibration on 13-DEC-2012 14:11
Field Calibration on 20-JAN-2013 13:40

Base Calibration			
Reading No	Measured	Calibrator Size (in)	
1	15472	3.99	
2	24160	5.98	
3	32703	7.97	
4	41008	9.86	
5	50231	11.92	
6	N/A	N/A	

Field Calibration			
	Measured Caliper (in)	Actual Caliper (in)	
	5.97	5.98	

Photo Density Calibration MPD-B 31

Base Calibration on 13-DEC-2012 14:32
Field Check on 20-JAN-2013 13:48

Density Calibration				
Base Calibration				
	Measured	Calibrated (sdu)		
	Near	Far	Near	Far
Reference 1	46489	23675	59556	30836
Reference 2	18873	1941	24941	2541

Field Check at Base			
	683.9	844.6	

Field Check			
	684.3	844.8	

PE Calibration				
Base Calibration				
	Measured	Calibrated		
	WS	WH	Ratio	Ratio
Background	126	608		

Background	126	608		
Reference 1	18821	46368	0.409	0.371
Reference 2	5566	18789	0.299	0.272

Field Check at Base
125.8 608.0

Field Check
126.2 608.8

Density Constants MPD-B 31

Last Edited on 20-JAN-2013,16:54

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	1.10	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)	
2.71	0.00	
0.00	0.00	
0.00	0.00	
0.00	0.00	
0.00	0.00	
0.00	0.00	
0.00	0.00	
0.00	0.00	
0.00	0.00	

DOWNHOLE EQUIPMENT

C:\Minimus 13.04.8492\Data\O'Brien Clayton #1-33\O'Brien Clayton 1-33_002.dta

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

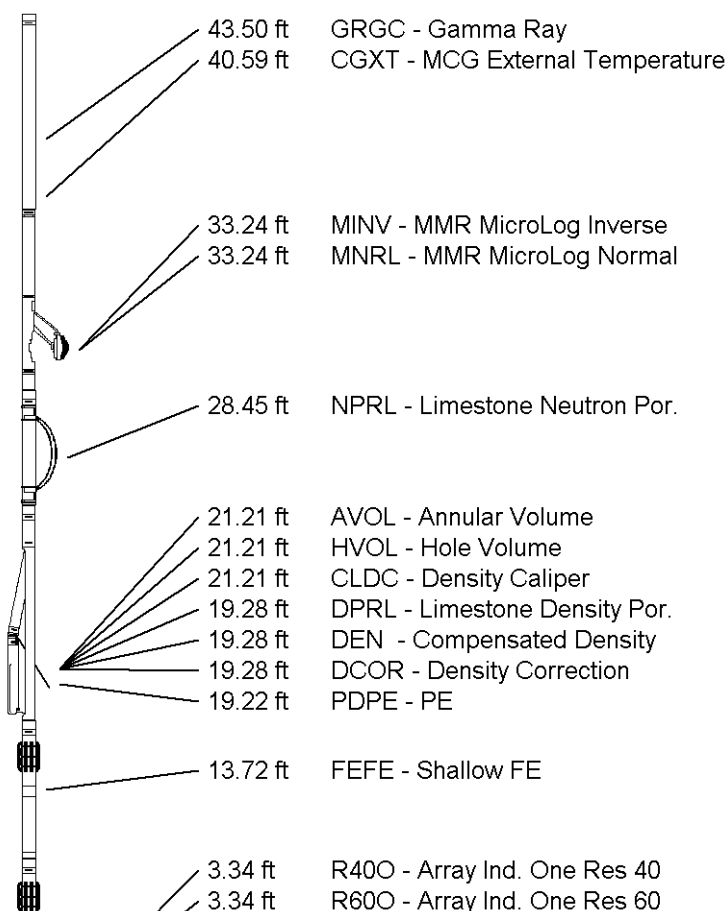
Compact Micro-Resistivity
MMR-A 11 LG: 8.59 ft WT: 81.6 lb OD: 4.88 in

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

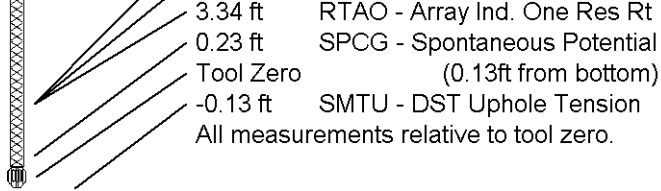
Compact Density/Caliper
MPD-B 31 LG: 9.59 ft WT: 90.4 lb OD: 2.45 in

Compact Focussed Electric
MFE-B.J 352 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: 48.78 ft Weight: 383.6 lb



COMPANY O'BRIEN ENERGY RESOURCES CORP.
WELL CLAYTON #1-33
FIELD MOHLER
PROVINCE/COUNTY MEADE
COUNTRY/STATE U.S.A. / KANSAS

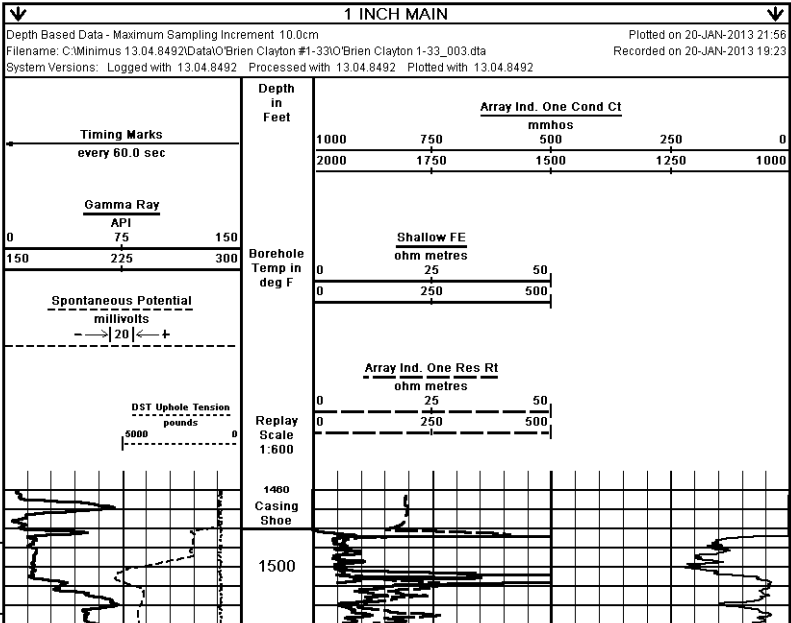
Elevation Kelly Bushing	2578.00	feet	First Reading	6409.00	feet
Elevation Drill Floor	2577.00	feet	Depth Driller	6413.00	feet
Elevation Ground Level	2566.00	feet	Depth Logger	6412.00	feet

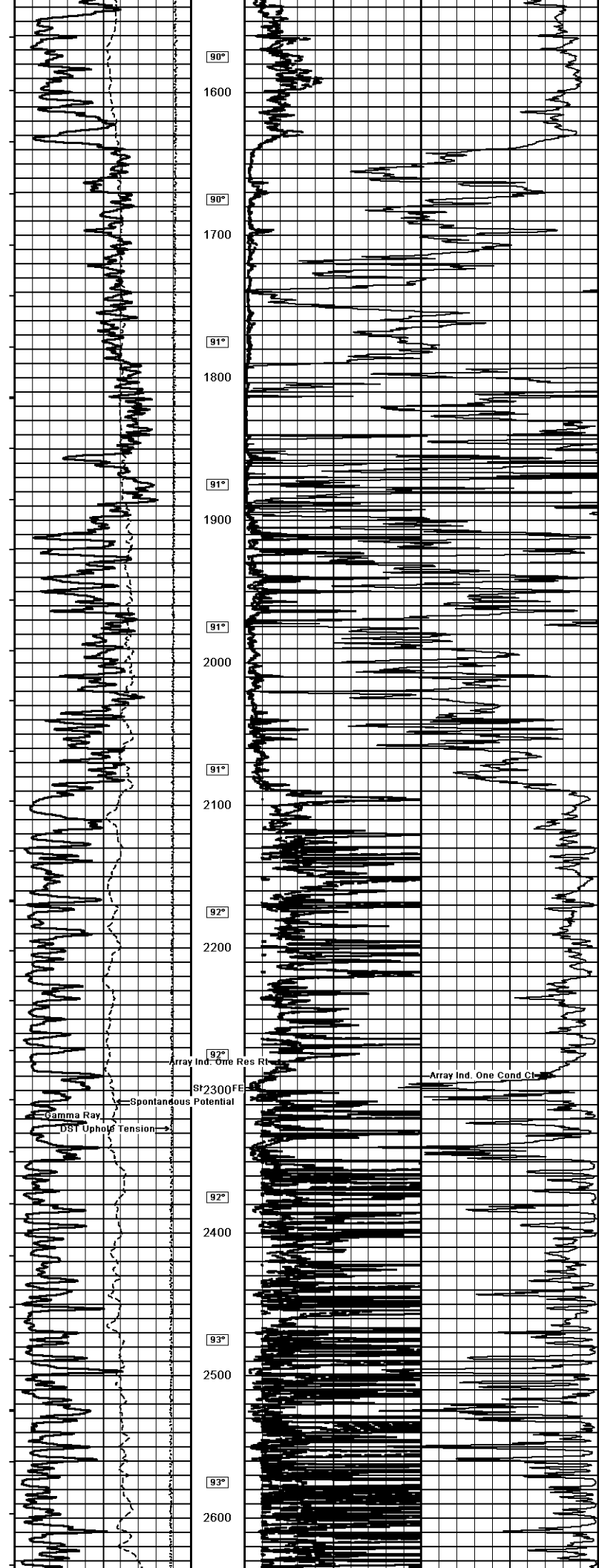


Weatherford[®]

**ARRAY INDUCTION
 SHALLOW FOCUSED
 ELECTRIC LOG**

Weatherford		ARRAY INDUCTION SHALLOW FOCUSED ELECTRIC LOG	
COMPANY: O'BRIEN ENERGY RESOURCES CORP.		WELL: CLAYTON #1-33	
FIELD: MOHLER		PROVINCE/COUNTY: MEADE	
COUNTRY/STATE: U.S.A. / KANSAS		LOCATION: 990' FNL & 1650' FEL	
SE SW NE		MML	
SEC 33	TWP 23S	RANGE 28W	Other Services: MFD/MDMN
APN Number: 15-119-21334	Permanent Datum G.L., Elevation: 2566 feet		
Log Measured From KB			
Drilling Measured From K-B			
Date: 20-JAN-2013	Run Number: ONE	Service Order: 3527848	Depth Driller: 6413.00 feet
Depth Driller: 6413.00 feet	Depth Logger: 6417.00 feet	First Reading: 6409.00 feet	Second Reading: 6413.00 feet
Casing Driller: 1480.00 feet	Casing Logger: 1480.00 feet	BH Size: 7.875	Fluid Type: CHEMICAL
Density/Viscosity: 9.20 lb/USg	PH/Fluid Loss: 9.50	Sample Source: FLOWLINE	Flowline: 0.98 @ 84.0 ohm-m
Rm @ Measured Temp: 0.77 @ 84.0 ohm-m	Rm @ Measured Temp: 1.15 @ 84.0 ohm-m	Source Rm/Fr/Rmc: CALC	Rm @ BH: 0.65 @ 24.0 ohm-m
Time Since Circulation: 5 HOURS	Max Recorded Temp: 124.00 deg F	Equipment Base: 13067	Recorded by: LARRY SCOTT
Witnessed by: PETER DEBENHAM	Checked by: LARRY SCOTT	Reviewed by: PETER DEBENHAM	Witnessed by: ROGER PEARSON
Log#	BR13017		





Array Ind. One Res Rt

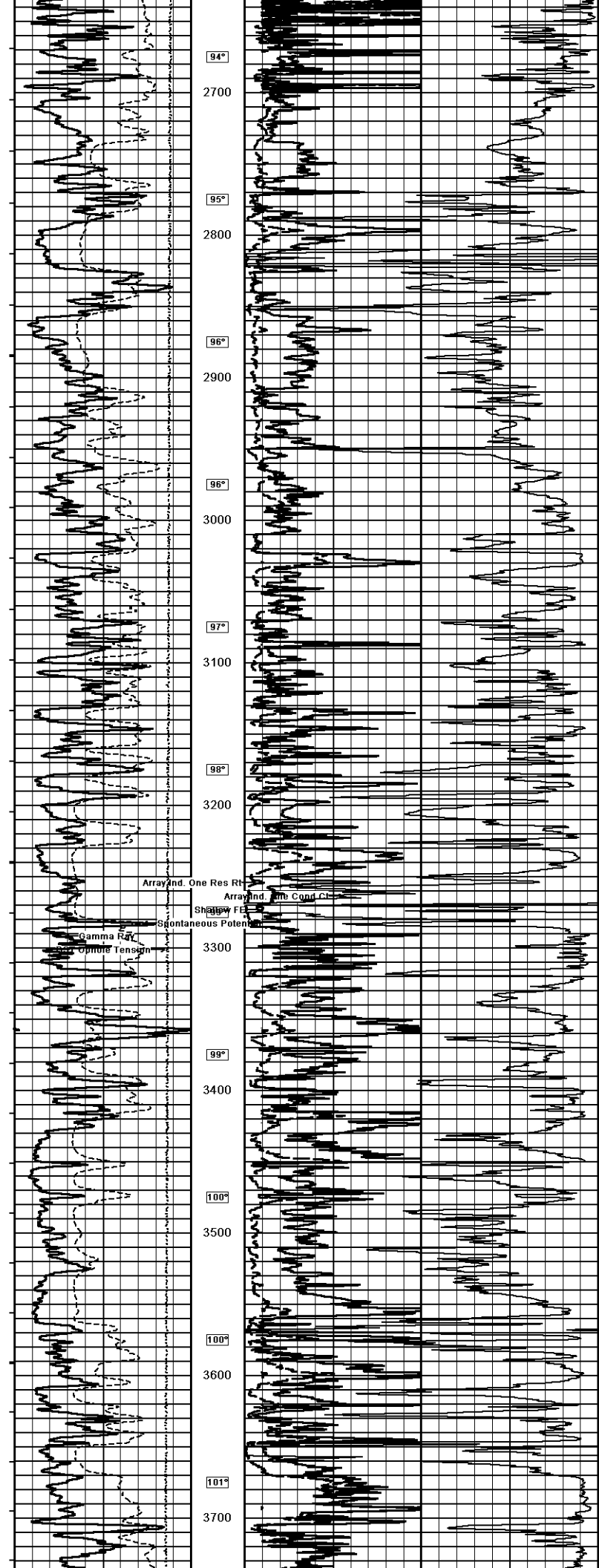
Spontaneous Potential

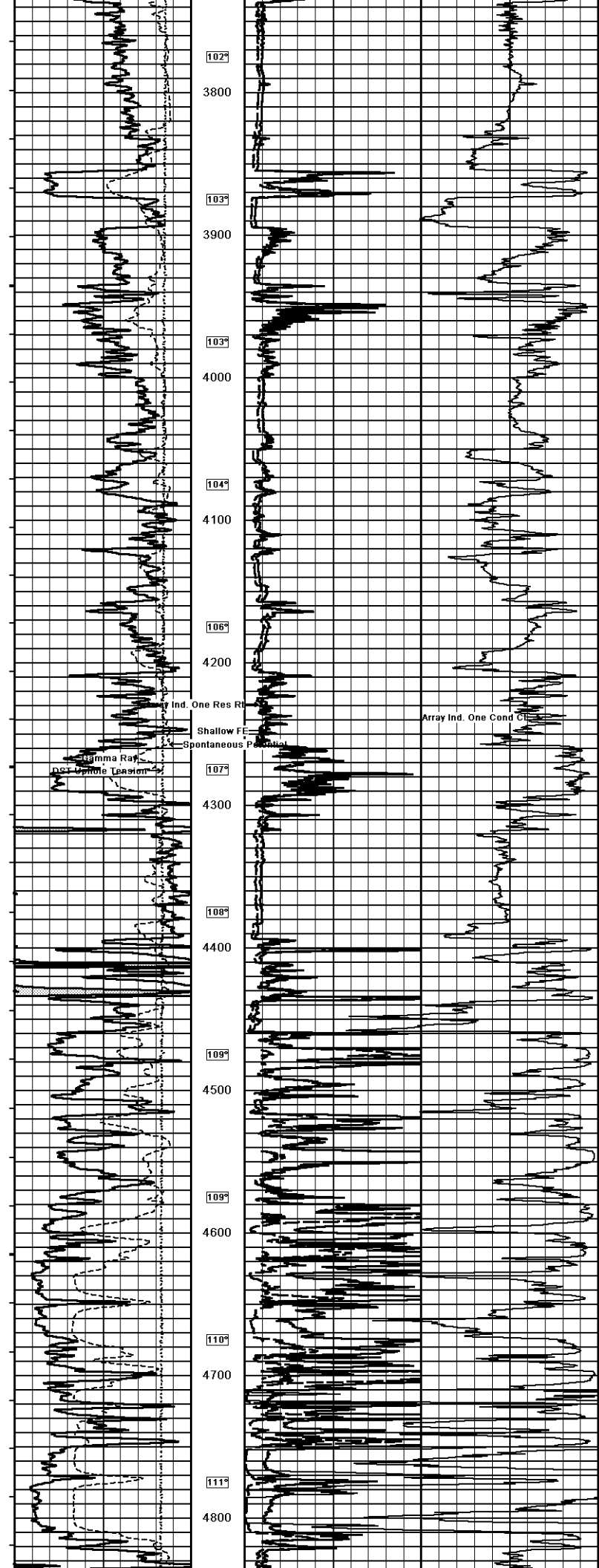
Gamma Ray

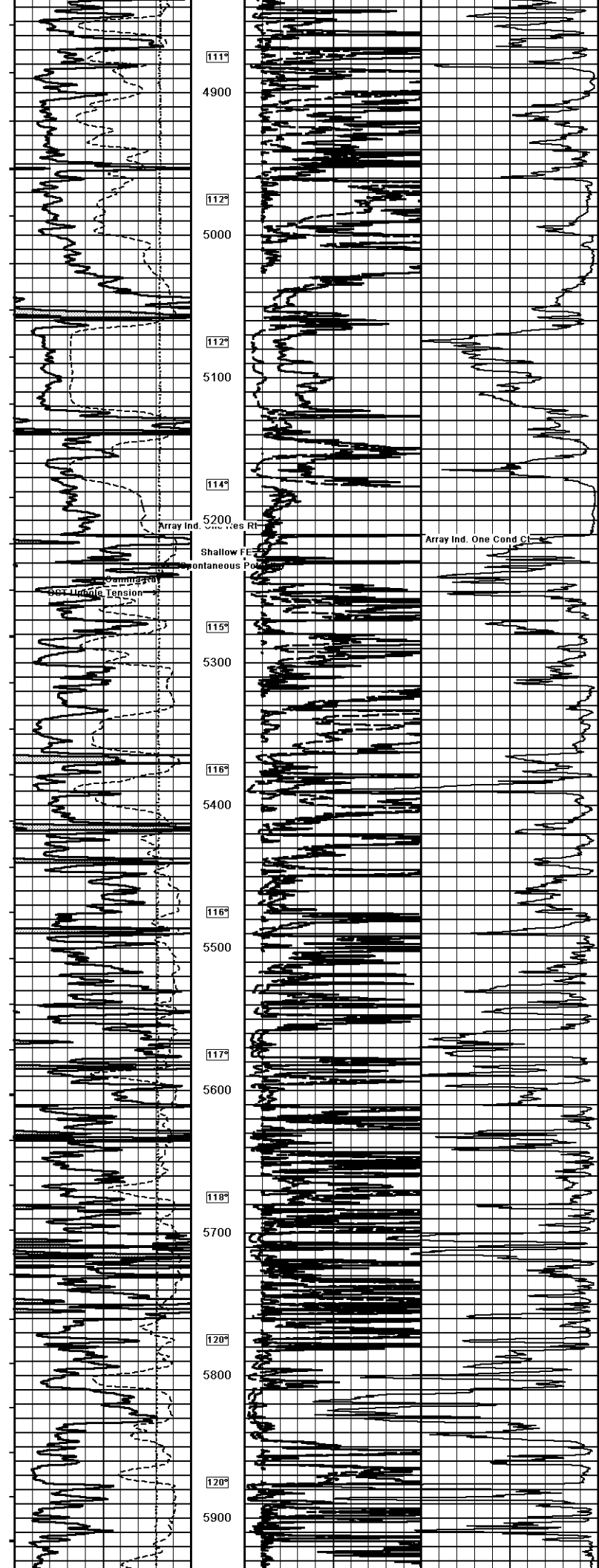
DST Uphol Tension

Array Ind. One Cond Ct

ST2300FE







1119

4900

1129

5000

1129

5100

1149

5200

1159

5300

1169

5400

1169

5500

1179

5600

1189

5700

1209

5800

1209

5900

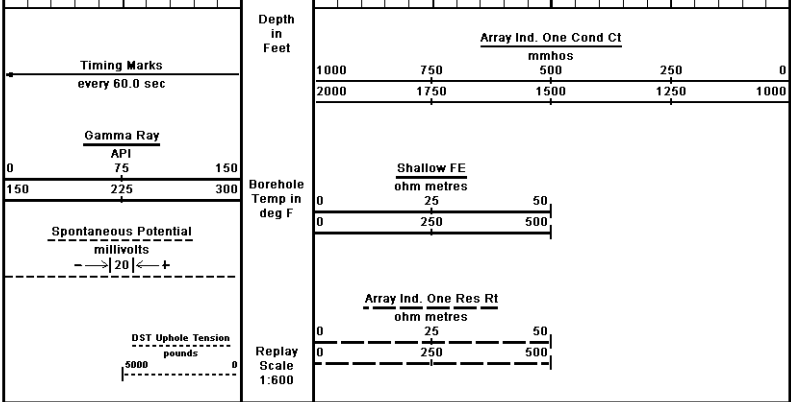
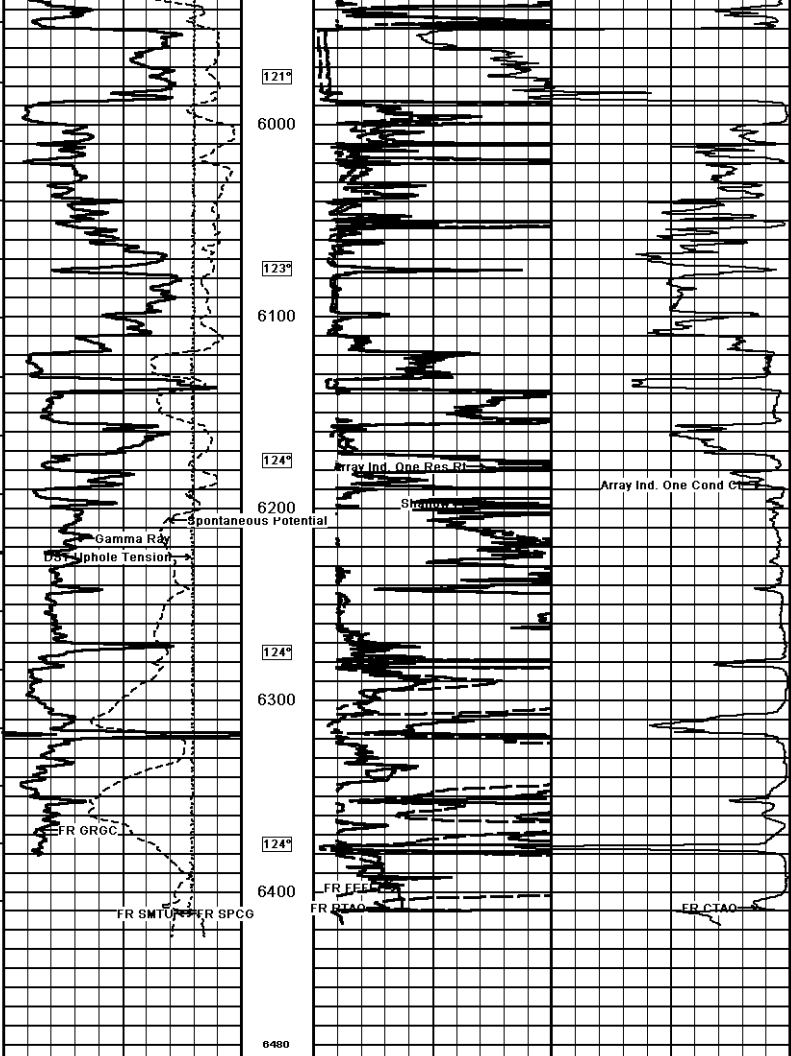
Array Ind. One Cond Ct

Array Ind. One Cond Ct

Shallow FE

Spontaneous Pot

Log Uplink Tension



Depth Based Data - Maximum Sampling Increment 10.0cm
 Plotted on 20-JAN-2013 21:56
 Filename: C:\Minimus 13.04.8492\Data\O'Brien Clayton #1-33\O'Brien Clayton 1-33_003.dta
 Recorded on 20-JAN-2013 19:23
 System Versions: Logged with 13.04.8492 Processed with 13.04.8492 Plotted with 13.04.8492

1 INCH MAIN

COMPANY	O'BRIEN ENERGY RESOURCES CORP.				
WELL	CLAYTON #1-33				
FIELD	MOHLER				
PROVINCE/COUNTY	MEADE				
COUNTRY/STATE	U.S.A. / KANSAS				
Elevation Kelly Bushing	2578.00	feet	First Reading	6409.00	feet
Elevation Drill Floor	2577.00	feet	Depth Driller	6413.00	feet
Elevation Ground Level	2566.00	feet	Depth Logger	6412.00	feet

Weatherford ARRAY INDUCTION
SHALLOW FOCUSED
ELECTRIC LOG