

**Weatherford****ARRAY INDUCTION
SHALLOW FOCUSED
ELECTRIC LOG**

COMPANY				MCELVAIN ENERGY, INC.			
WELL				WALZ 31-8			
FIELD				WILDCAT			
PROVINCE/COUNTY				GRAHAM			
COUNTRY/STATE				U.S.A./KANSAS			
LOCATION				2230' FNL & 330' FEL N2 SE SE NE			
SEC	TWP	RGE	Other Services				
31	10S	21W	MPD/MDN				
API Number		15-065-23995		MML			
Permit Number				MSS			
Permanent Datum GL, Elevation 2221 feet							
Log Measured From KB					Elevations:		
Drilling Measured From KB @ 2231					KB 2231.00		
					DF 2229.00		
					GL 2221.00		
Date	15-DEC-2013						
Run Number	ONE						
Service Order	3547680						
Depth Driller	4000.00			feet			
Depth Logger	3995.00			feet			
First Reading	3992.00			feet			
Last Reading	0.00			feet			
Casing Driller	352.00			feet			
Casing Logger	352.00			feet			
Bit Size	7.875			inches			
Hole Fluid Type	CHEMICAL						
Density / Viscosity	9.40	lb/USg	56.00	CP			
PH / Fluid Loss	10.50		7.60	ml/30Min			
Sample Source	FLOWLINE						
Rm @ Measured Temp	1.32 @ 82.0			ohm-m			
Rmf @ Measured Temp	1.06 @ 82.0			ohm-m			
Rmc @ Measured Temp	1.58 @ 82.0			ohm-m			
Source Rmf / Rmc	CALC		CALC				
Rm @ BHT	1.01 @ 107.0			ohm-m			
Time Since Circulation	4 HOURS						
Max Recorded Temp	107.00	deg F					
Equipment / Base	13244	LIB					
Recorded By	JOHN LAPPOINT						
Witnessed By	CHRIS MITCHELL						
IOB#	LB13-354						

BOREHOLE RECORD

Last Edited: 15-DEC-2013 07:19

Bit Size inches	Depth From feet	Depth To feet
7.875	352.00	4000.00

CASING RECORD

Type	Size inches	Depth From feet	Shoe Depth feet	Weight pounds/ft
SURFACE	8.625	0.00	352.00	24.00

REMARKS

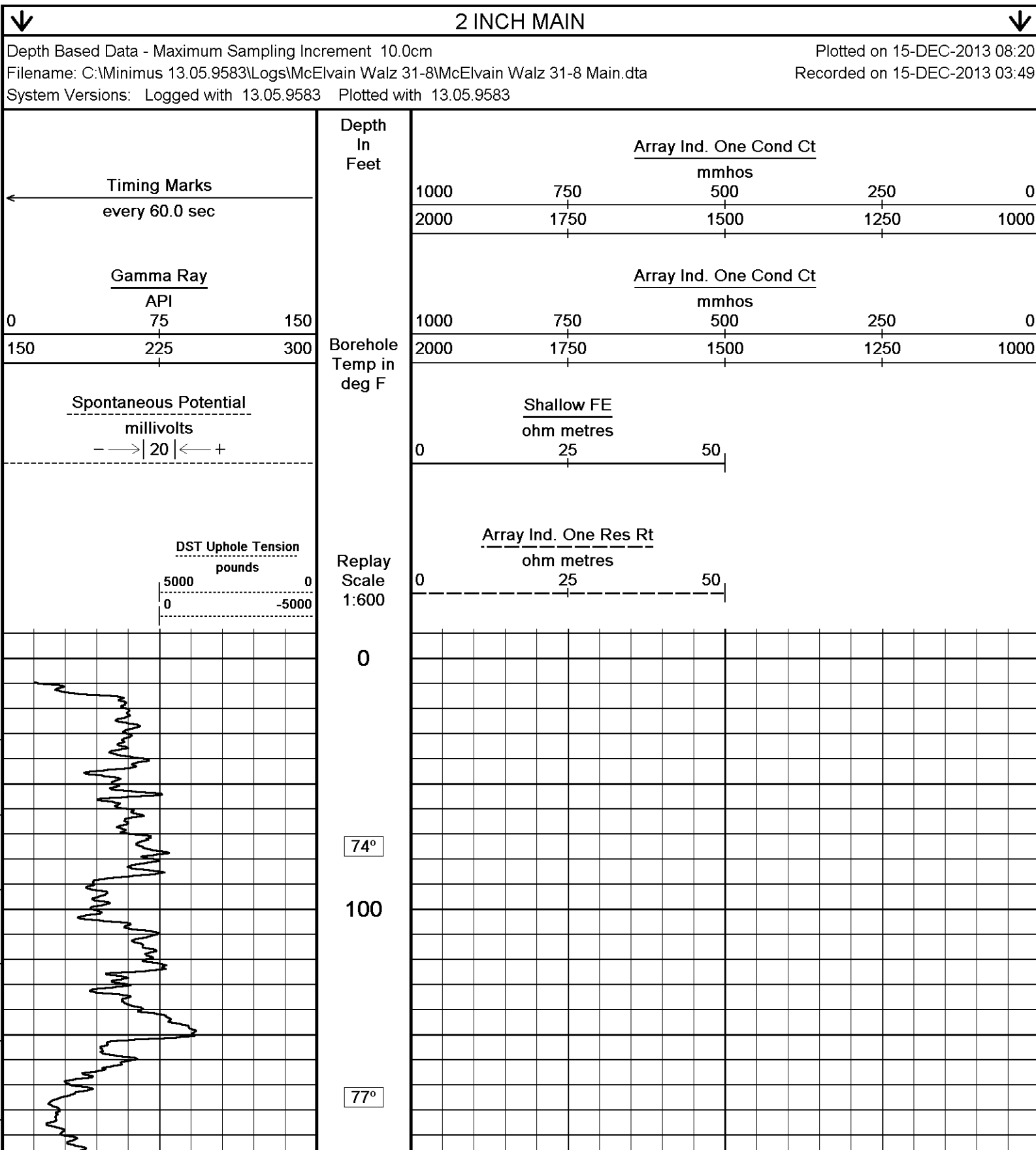
- SOFTWARE ISSUE: WLS 13.05.9583.
- MCG, MML, MDN, MPD, MFE, MSS, MAI RUN IN COMBINATION.
HARDWARE: DUAL BOWSPRING USED ON MDN.
0.5 INCH STANDOFF USED ON MFE.
0.5 INCH STANDOFF USED ON MSS.
0.5 INCH STANDOFF USED ON MAI.
- 2.71 G/CC LIMESTONE DENSITY MATRIX USED TO CALCULATE POROSITY.
- BOREHOLE RUGOSITY, 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 AT 352 FEET: 1415 CU. FT.
- ANNULAR HOLE VOLUME WITH 5.5 INCH CASING FROM TD TO SURFACE CASING AT 352 FEET: 819 CU. FT.
- DRILLING RIG: VAL RIG 6

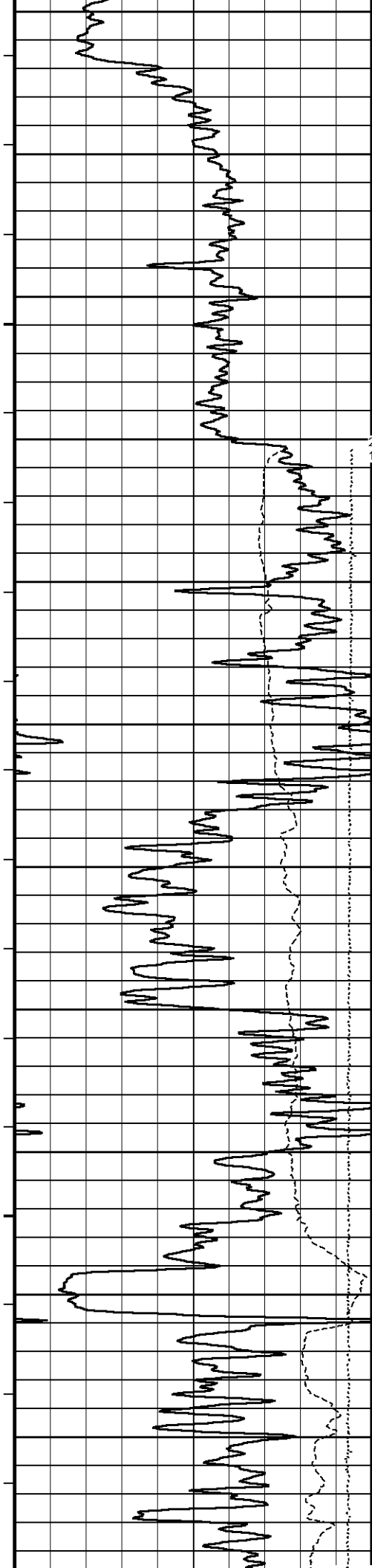
- DRILLING RIG: VALERIO S.

- ENGINEER: J. LAPOINT AND R. HOFFMAN.

- OPERATOR(S): N. ADAME.

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.





200

78°

300

Casing
Shoe

80°

400

81°

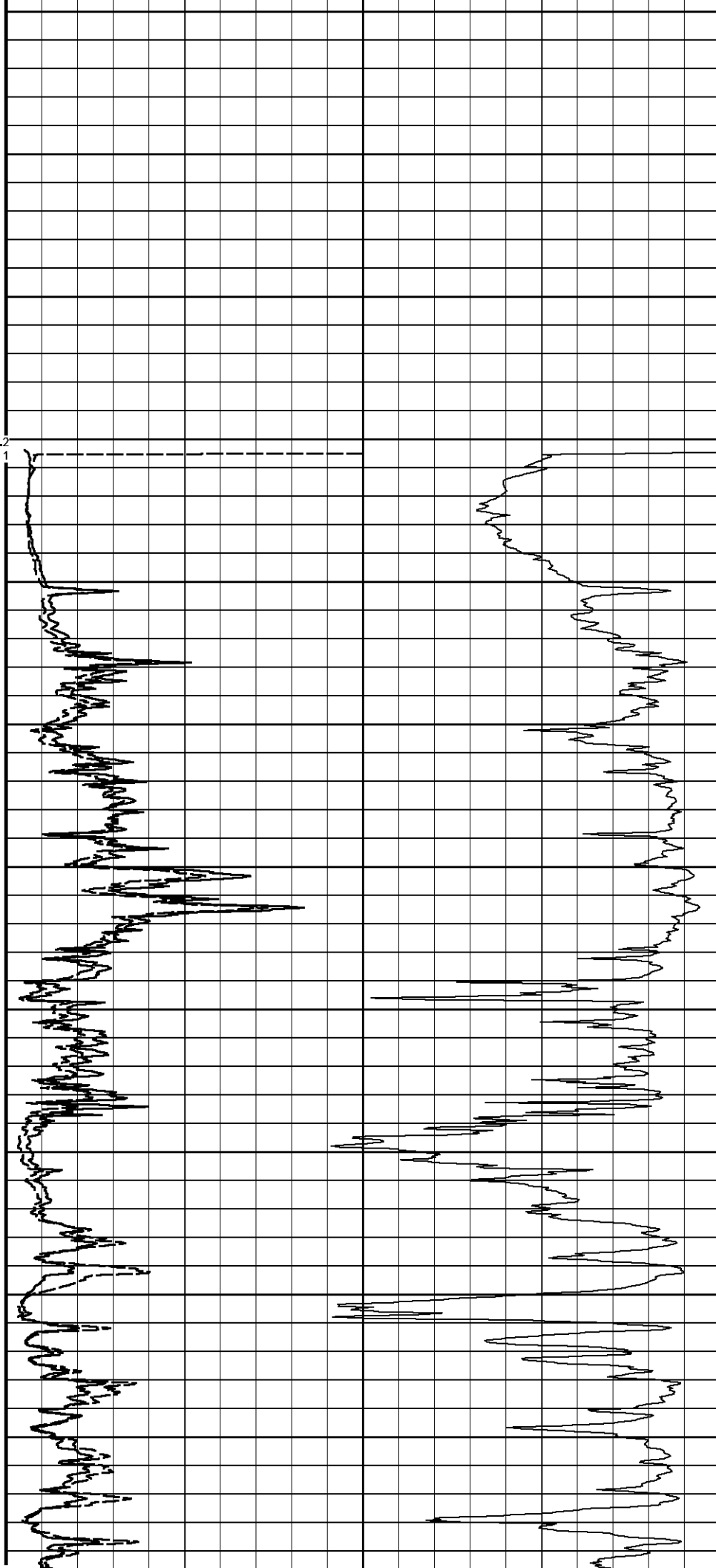
500

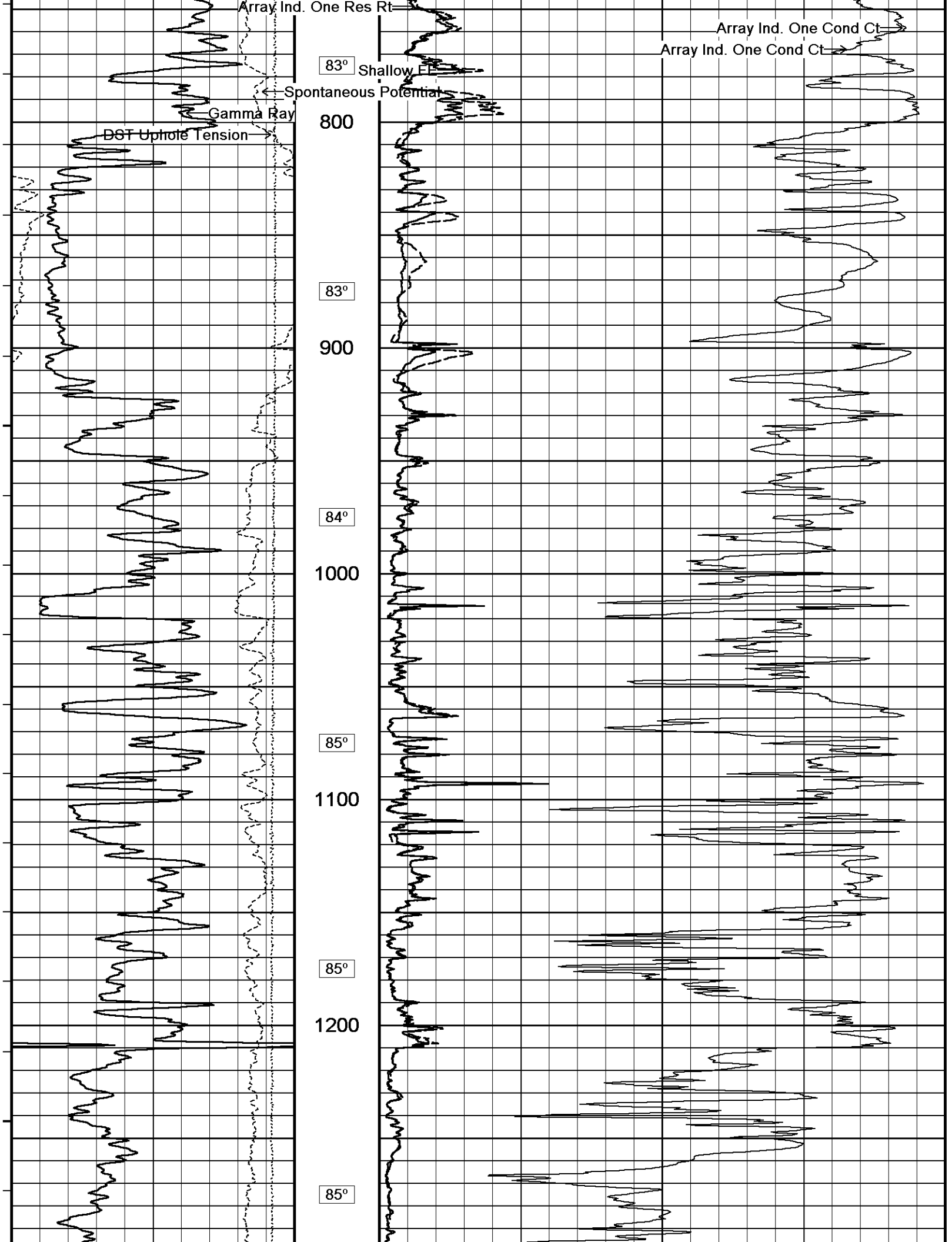
82°

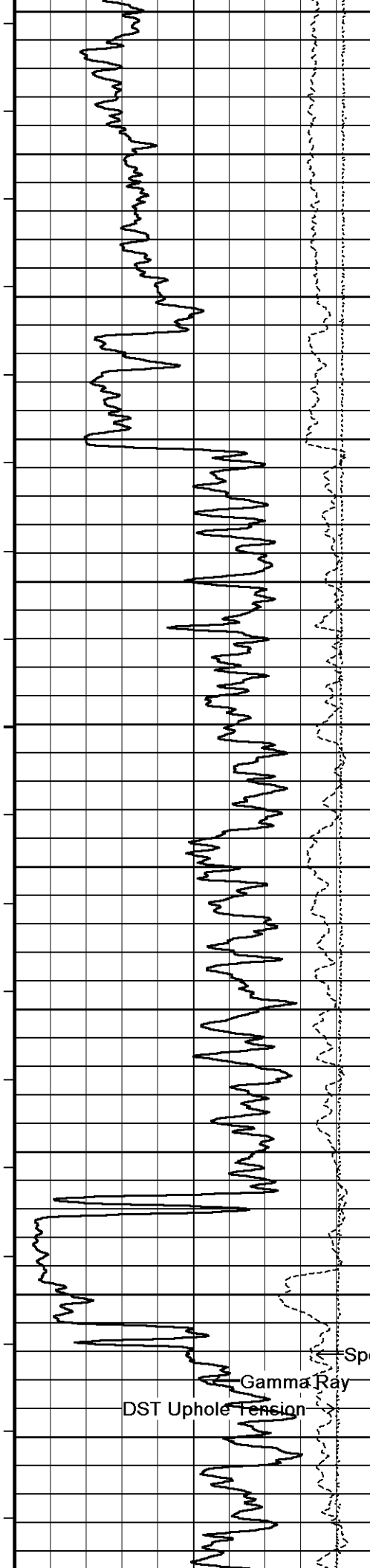
600

83°

700







1300
1400
1500
1600
1700
1800

87°

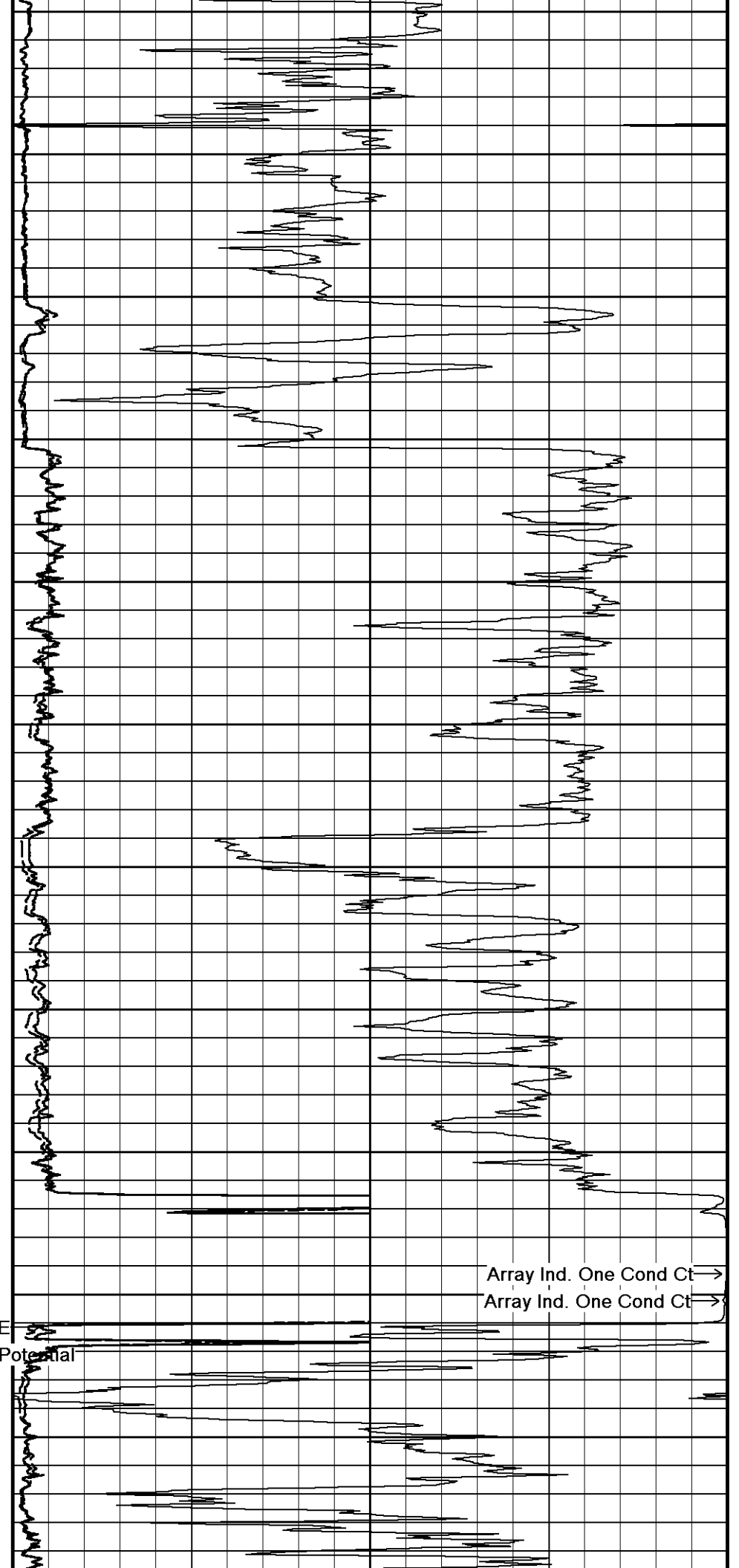
88°

88°

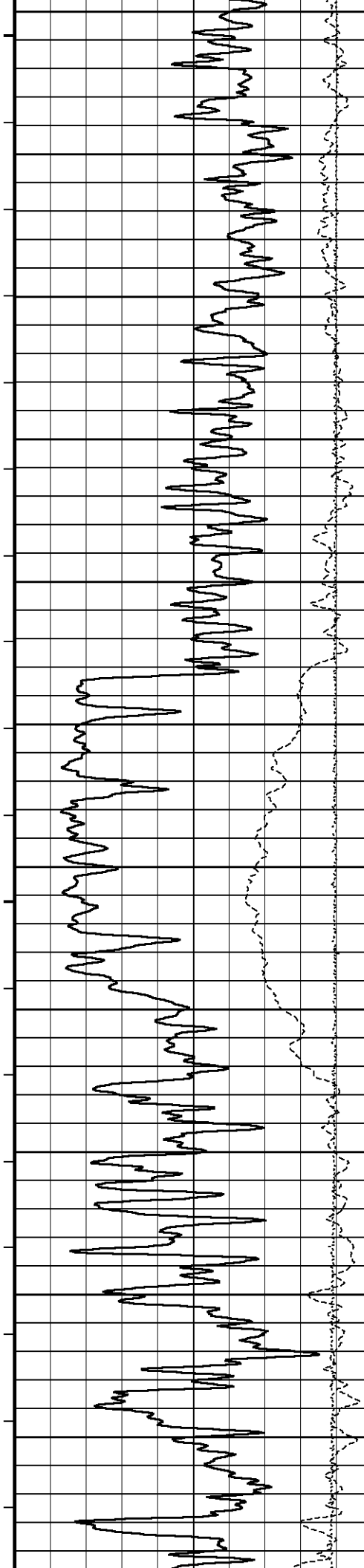
89°

89°

Shallow FE
Spontaneous Potential



Array Ind. One Cond Ct
Array Ind. One Cond Ct



90°

1900

91°

2000

92°

2100

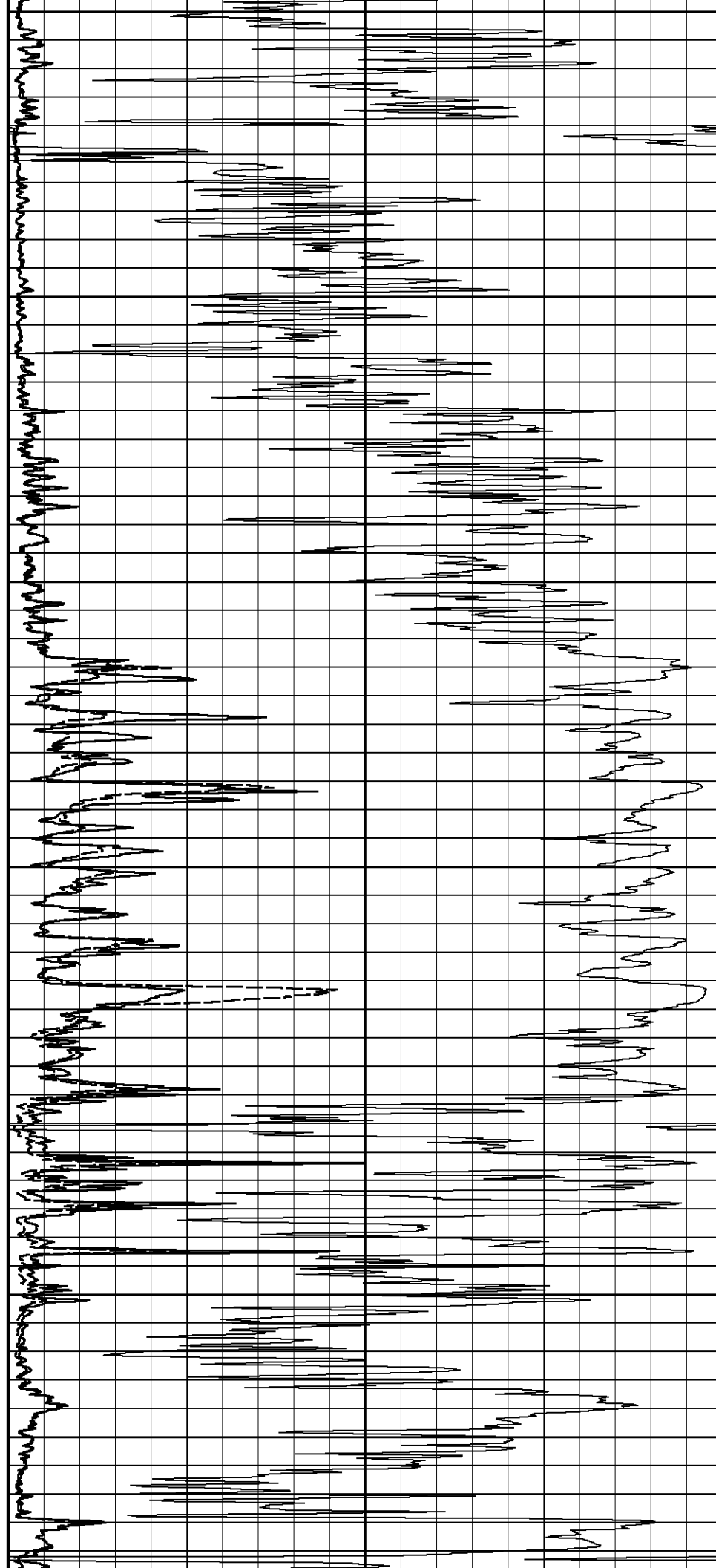
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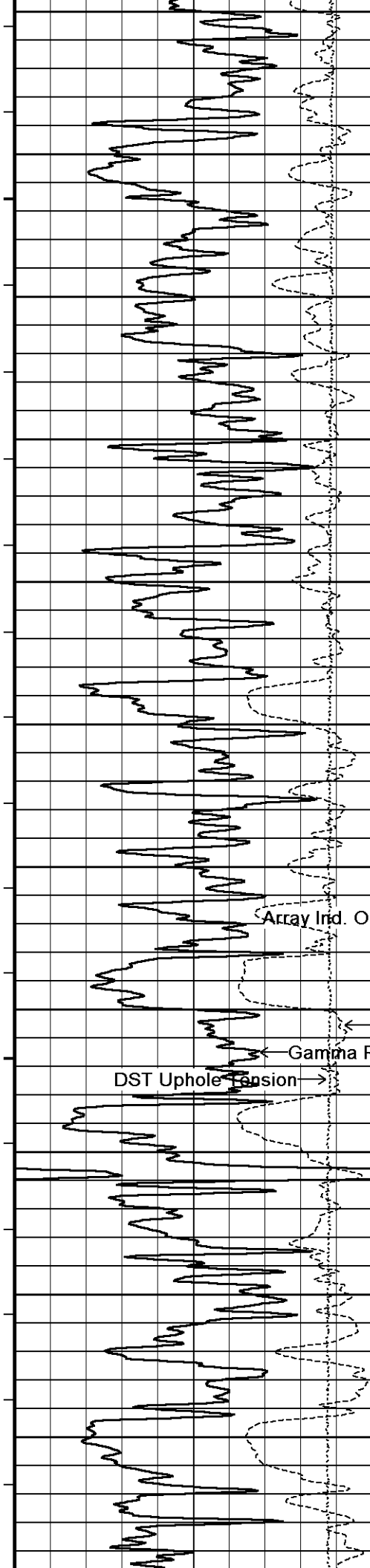
2200

93°

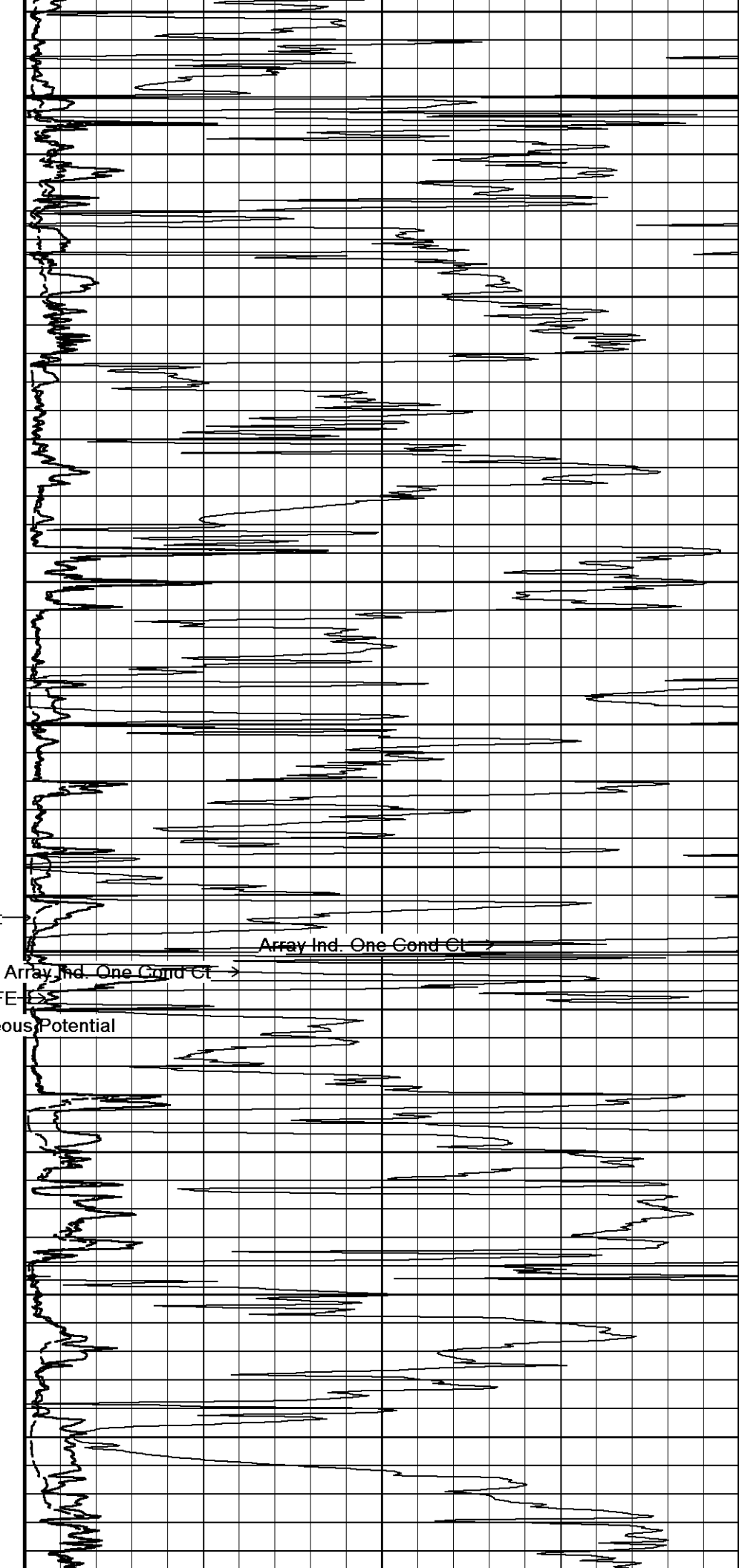
2300

94°





2400
94°
2500
95°
2600
95°
2700
96°
2800
97°
2900



Array Ind. One Res Rt

Array Ind. One Cond Ct

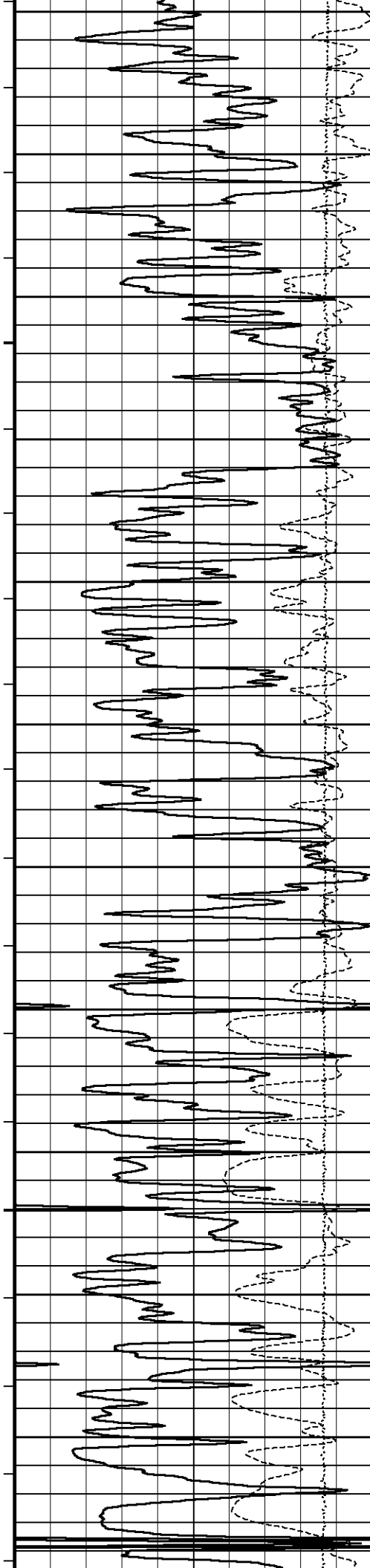
Array Ind. One Cond Ct

Shallow FE

Spontaneous Potential

Gamma Ray

DST Uphole Tension



98°

3000

99°

3100

100°

3200

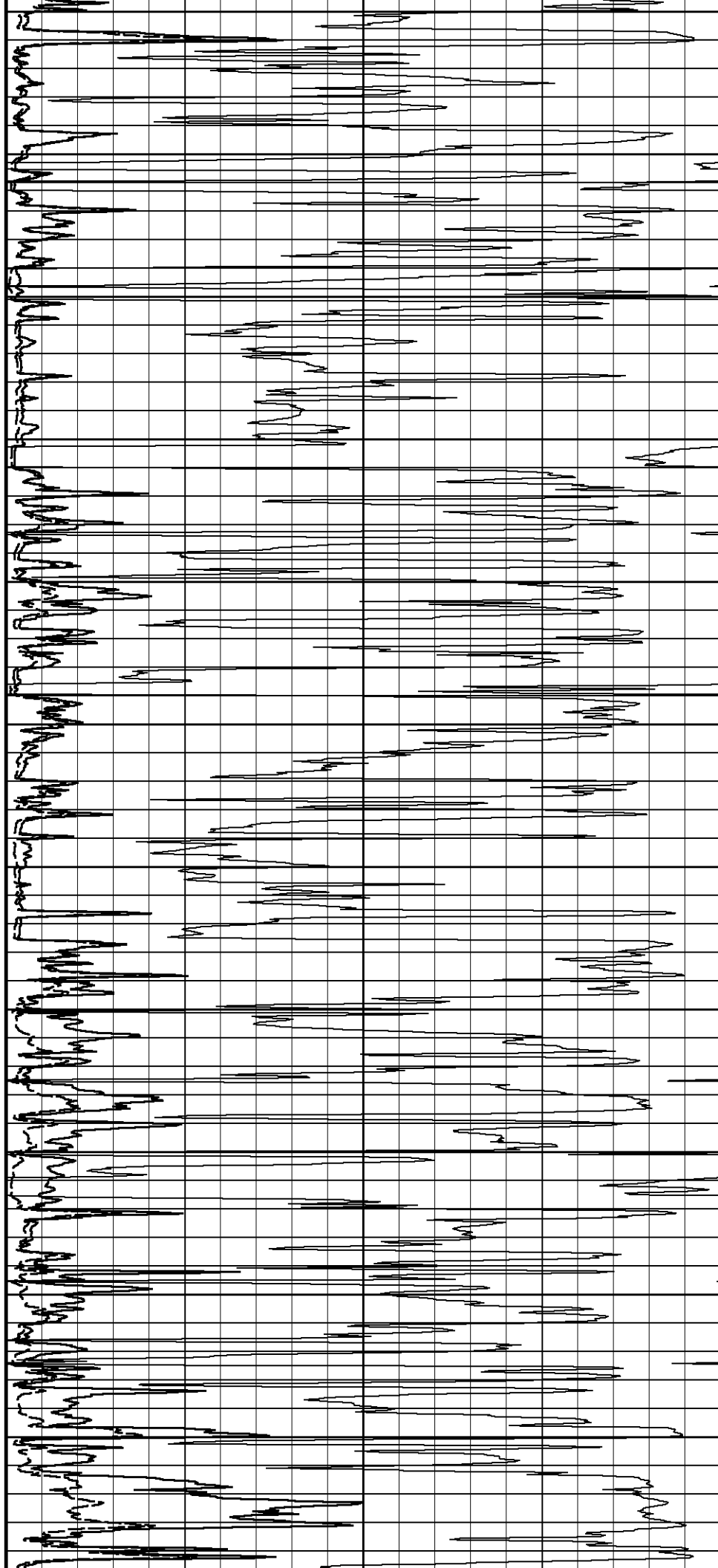
101°

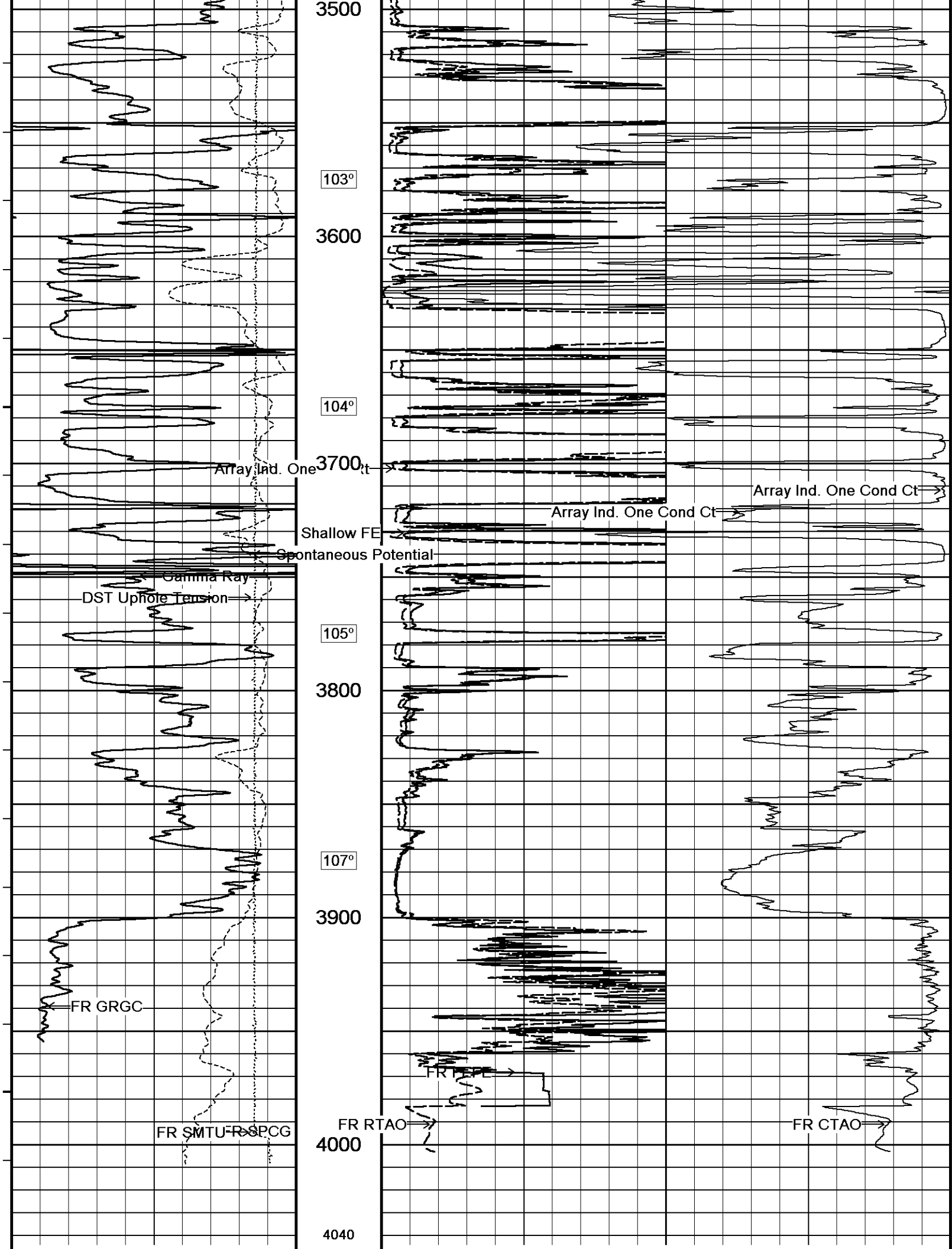
3300

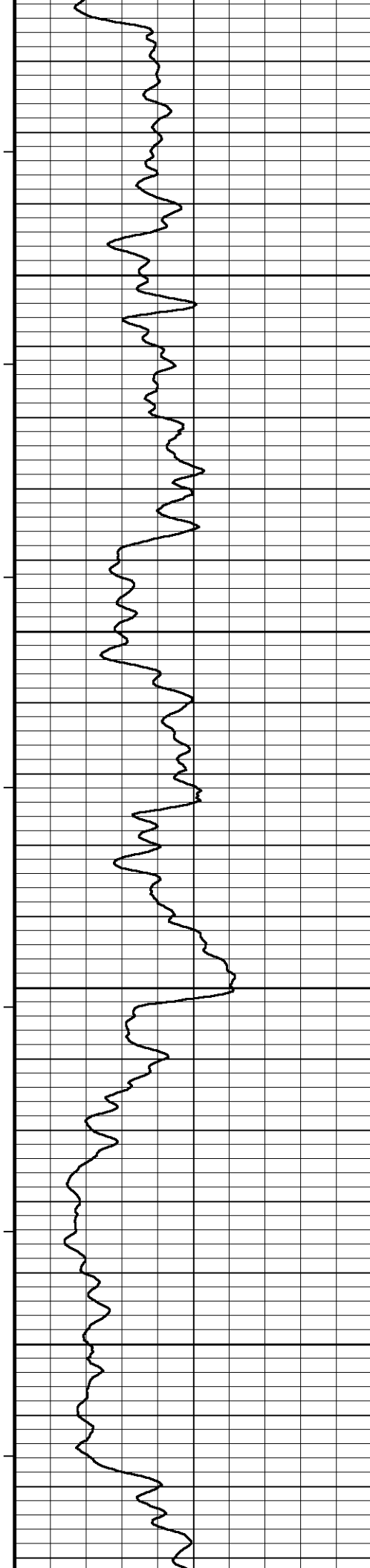
101°

3400

102°







70°

50

75°

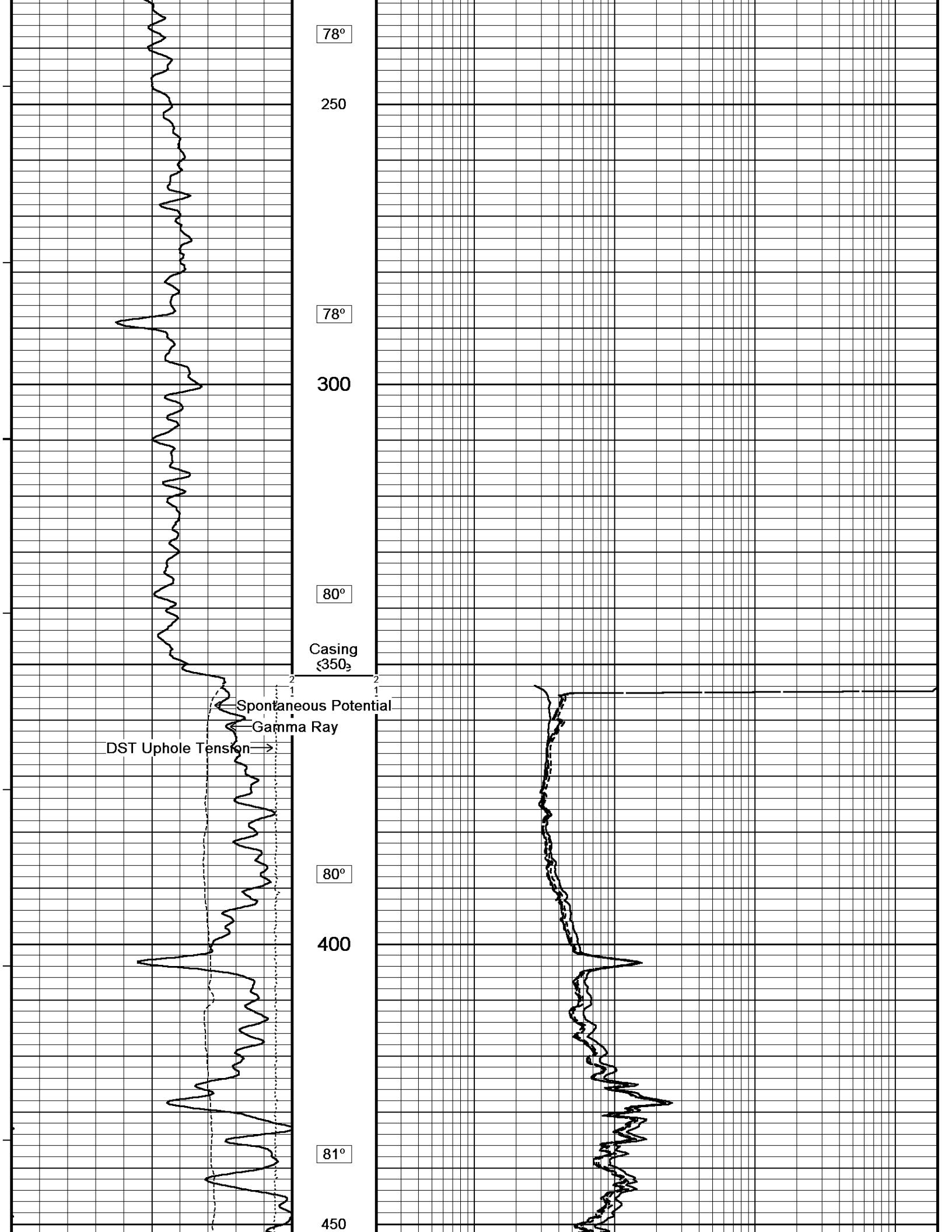
100

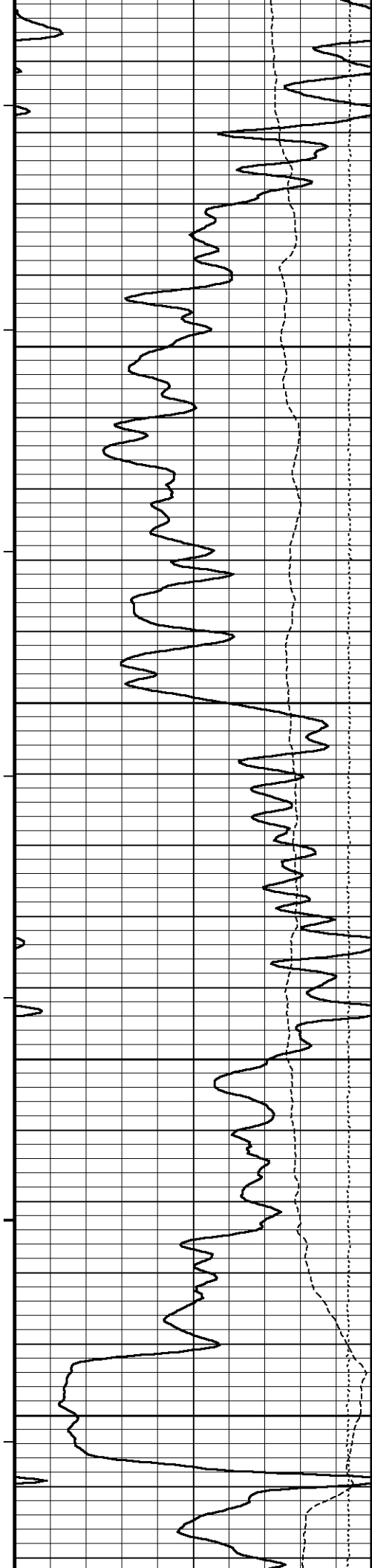
76°

150

77°

200





82°

500

82°

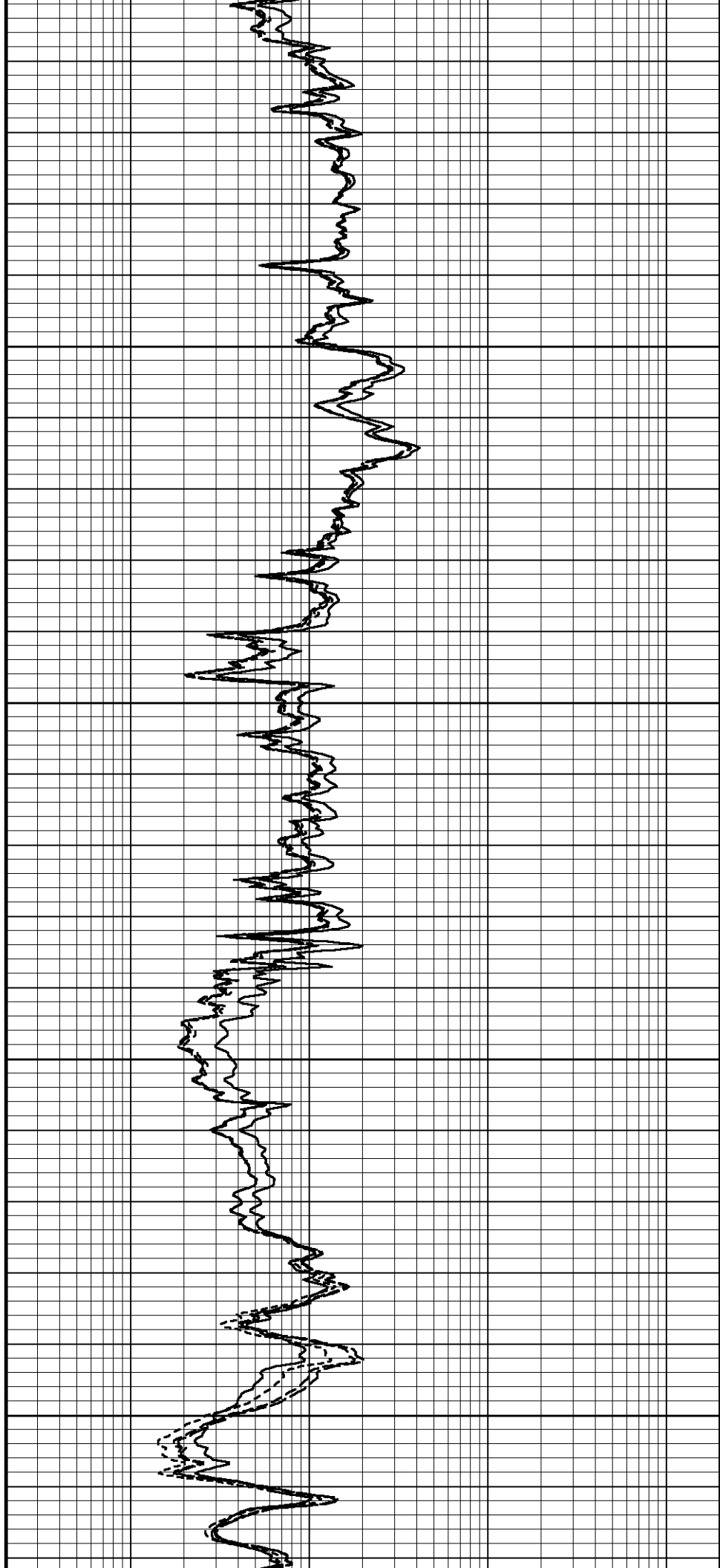
550

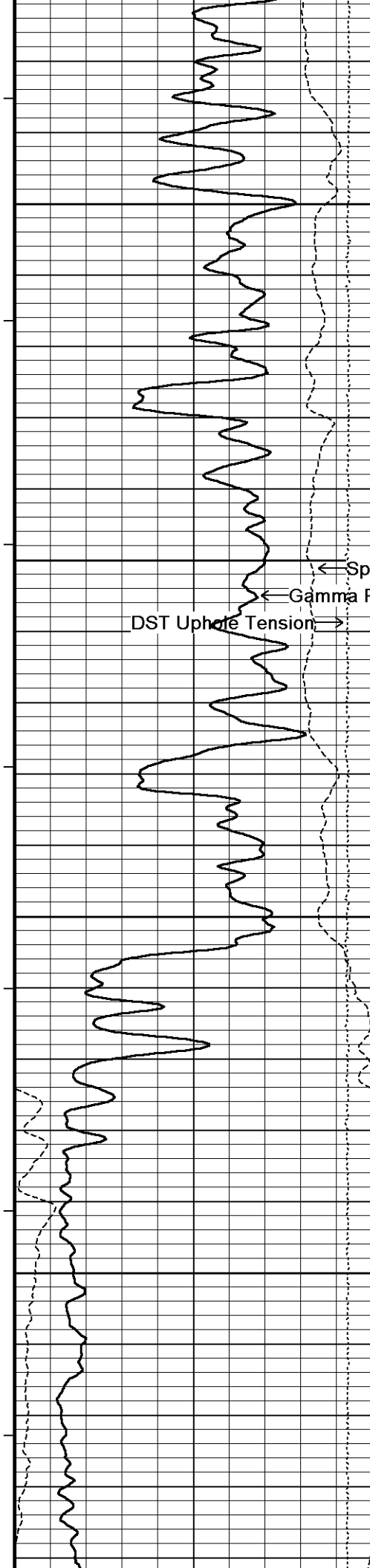
82°

600

82°

650





83°

700

83°

750

← Spontaneous Potential

← Gamma Ray

DST Upflow Tension →

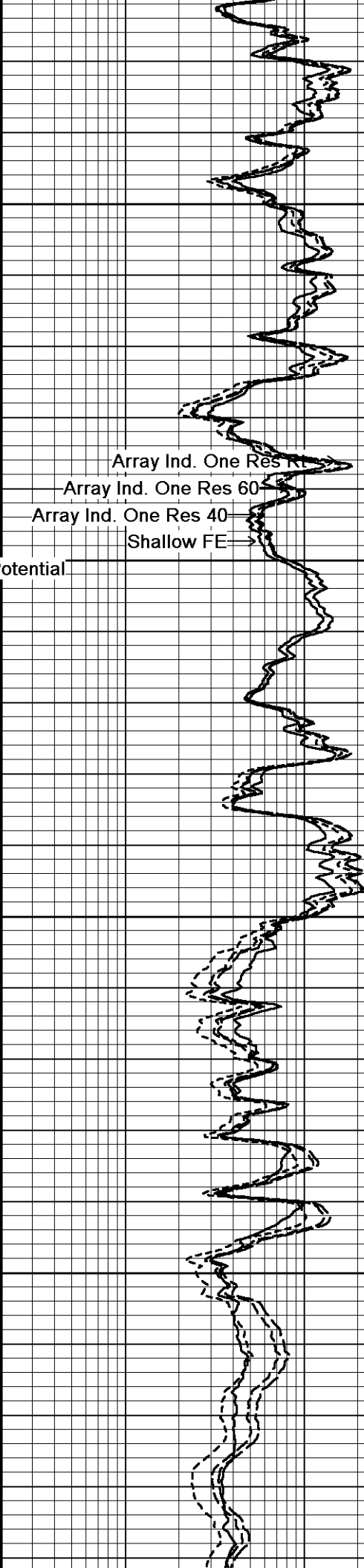
83°

800

83°

850

83°

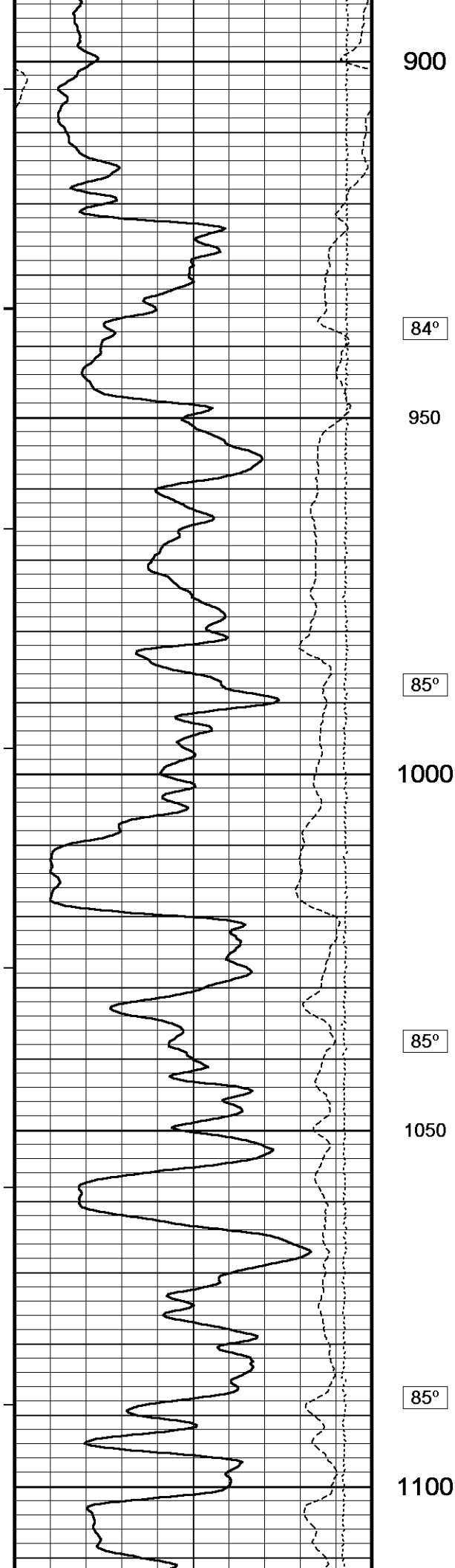


Array Ind. One Res 10

Array Ind. One Res 60

Array Ind. One Res 40

Shallow FE



900

84°

950

85°

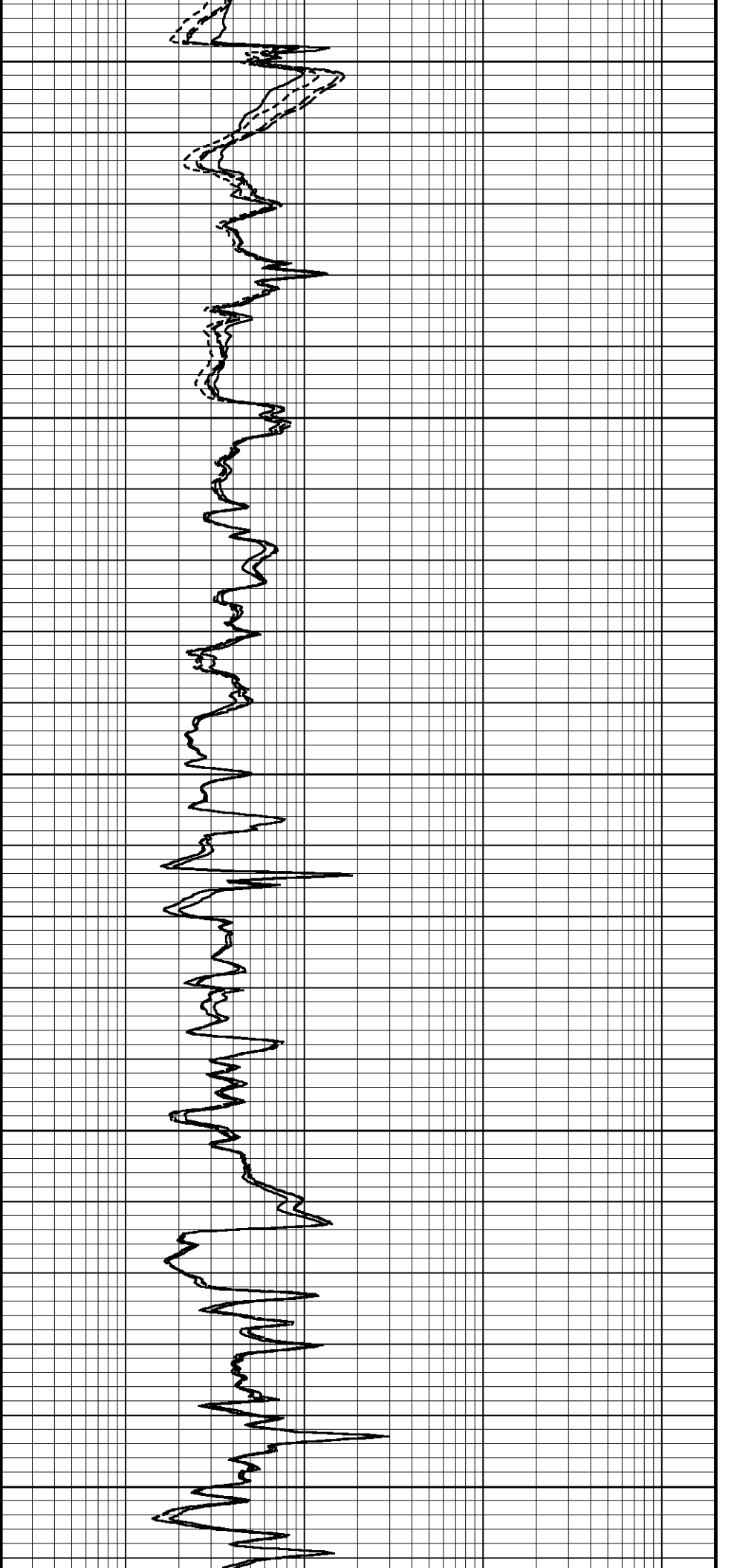
1000

85°

1050

85°

1100





85°

1150

85°

1200

85°

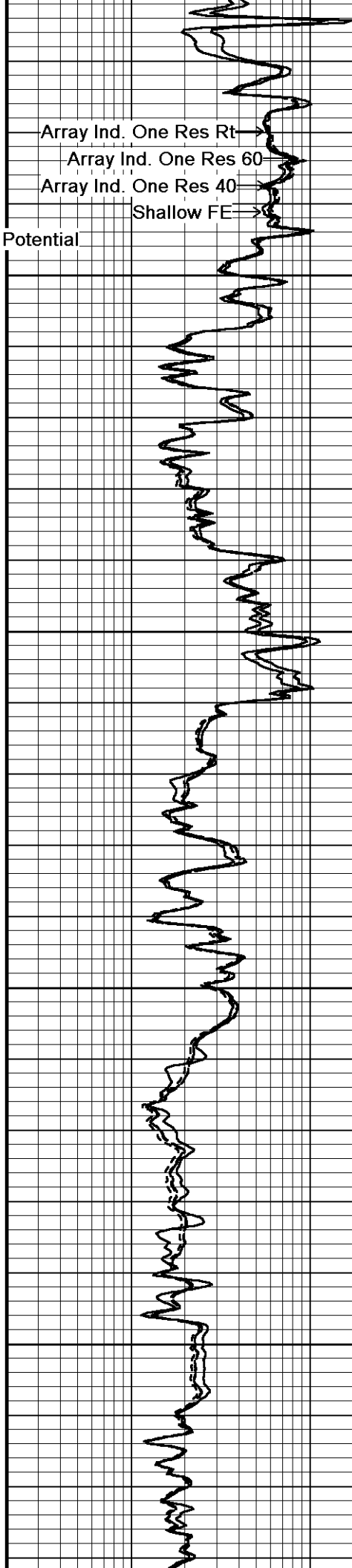
1250

86°

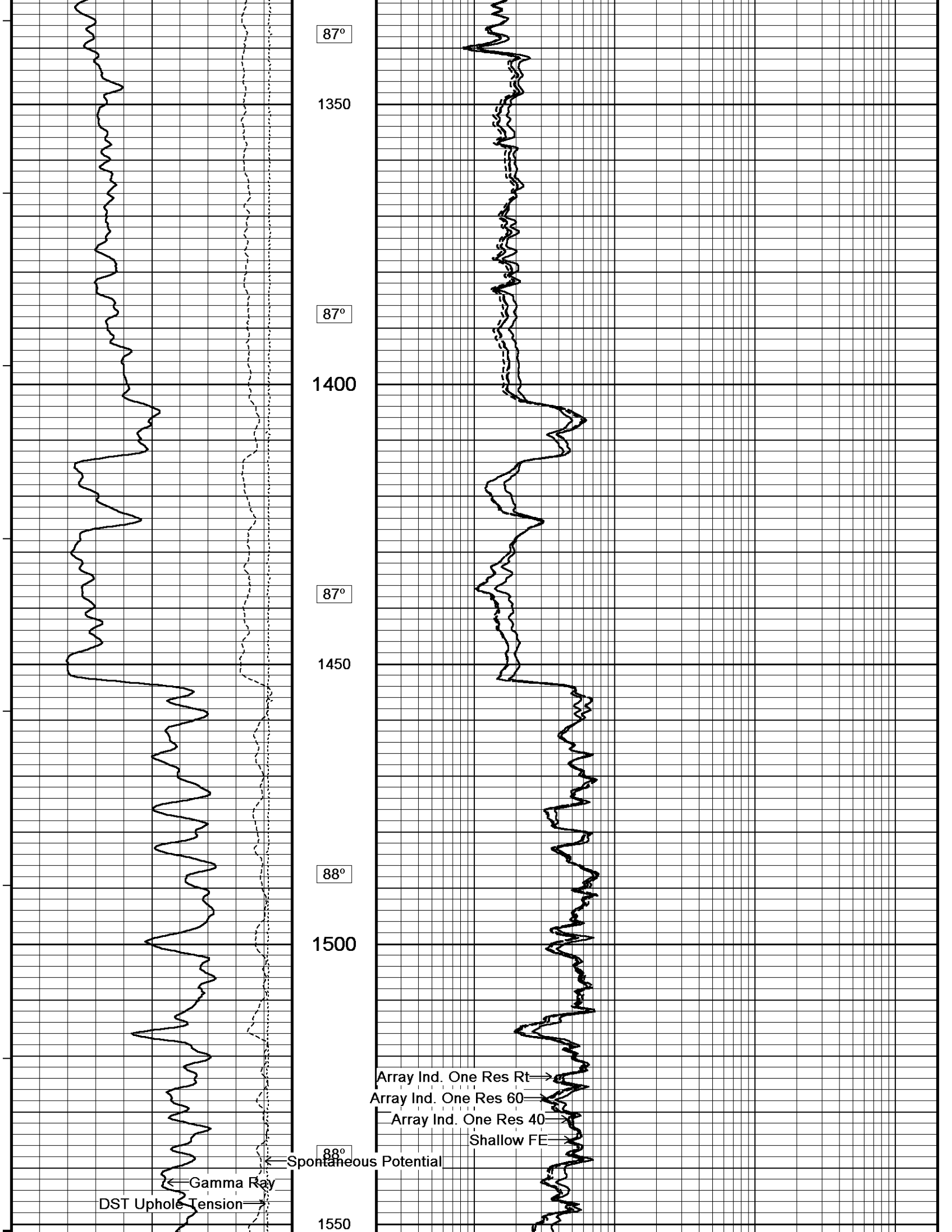
1300

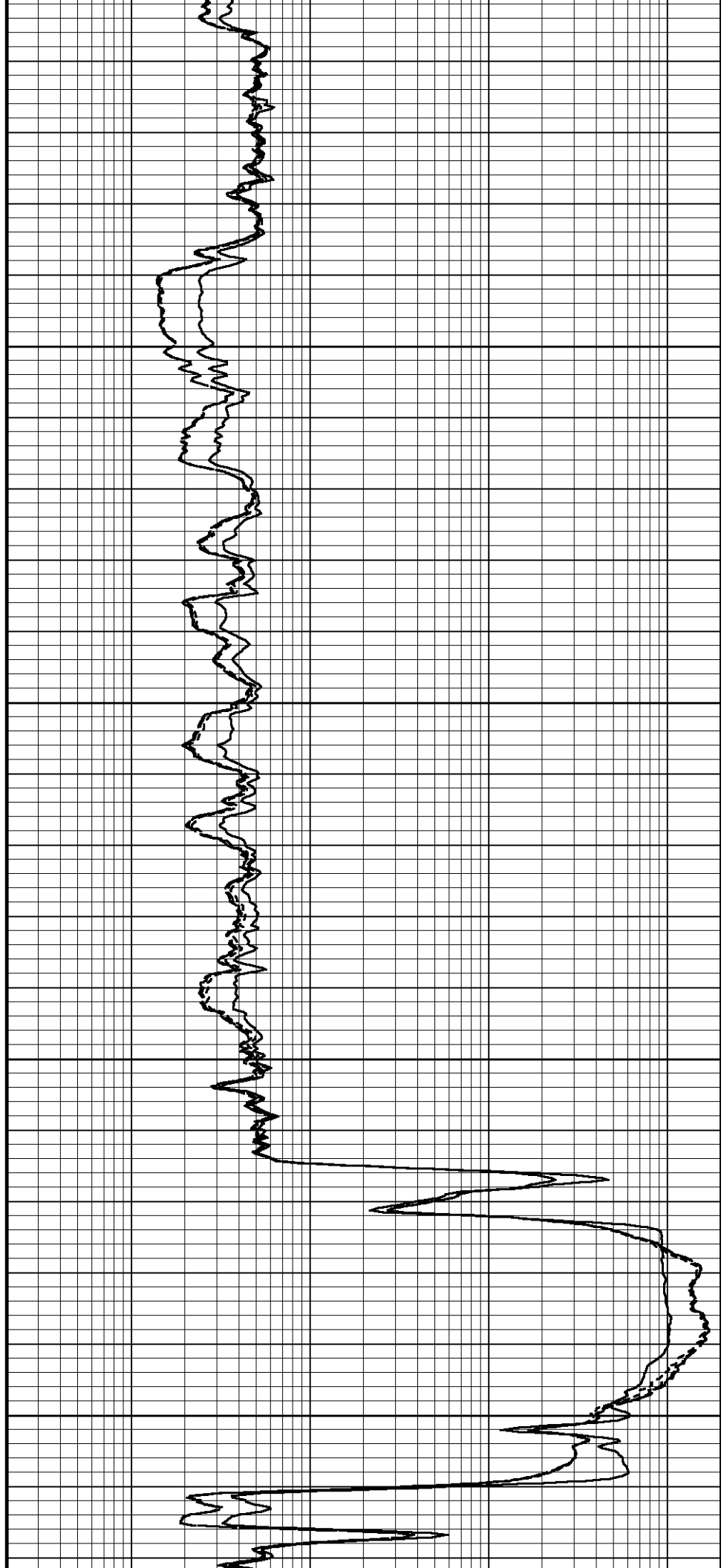
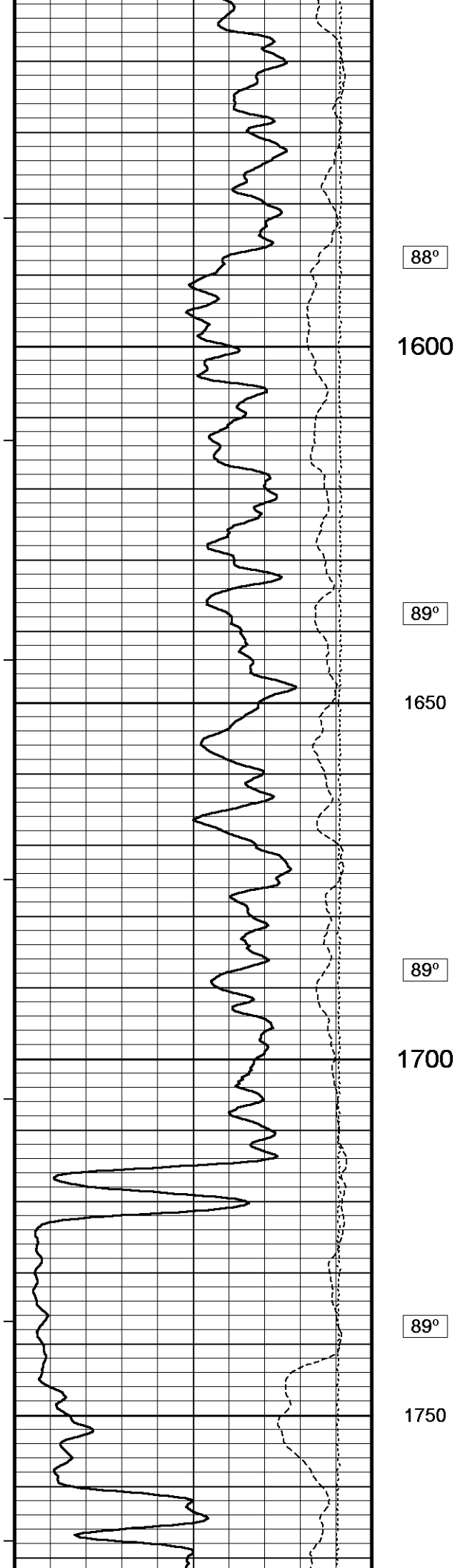
Spontaneous Potential

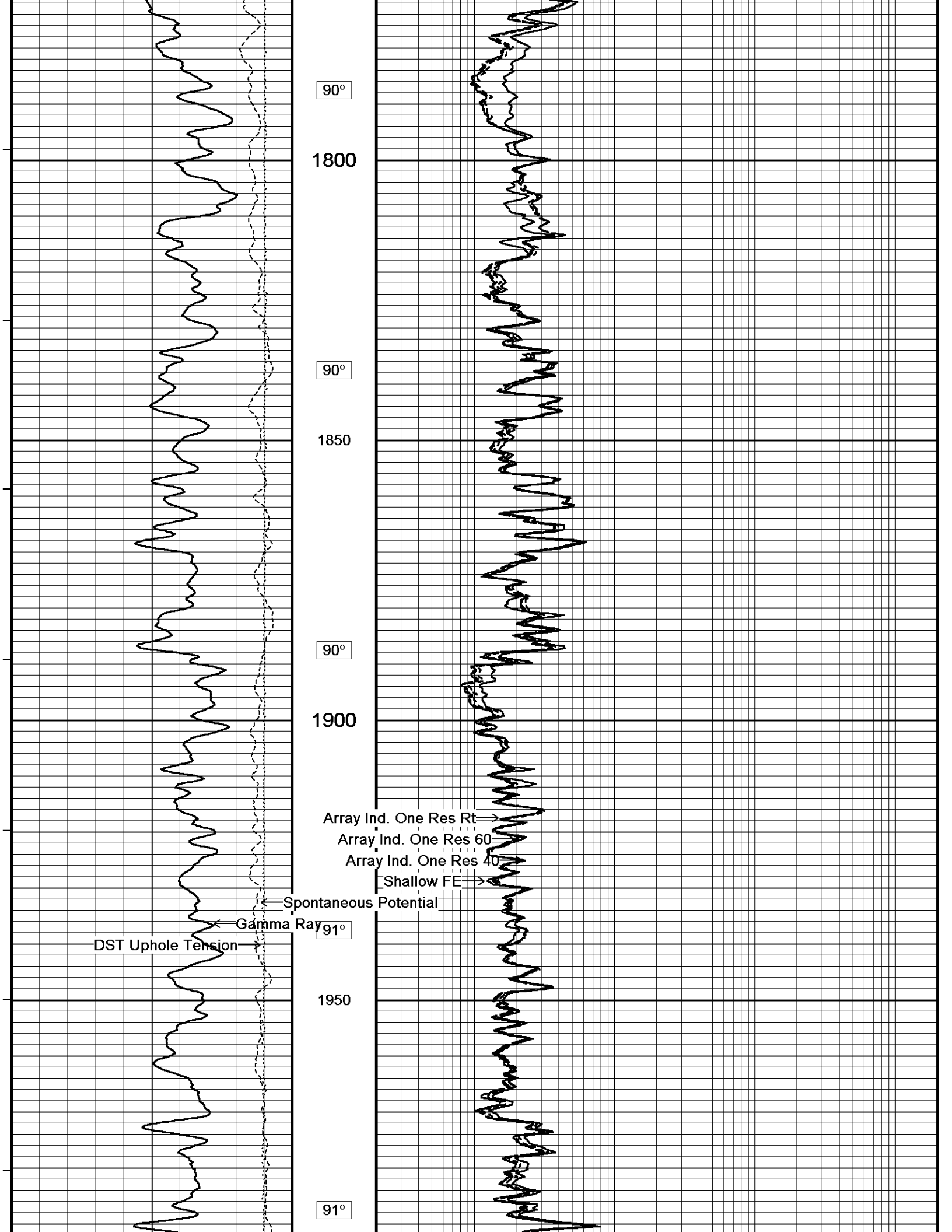
Gamma Ray
DST Uphole Tension

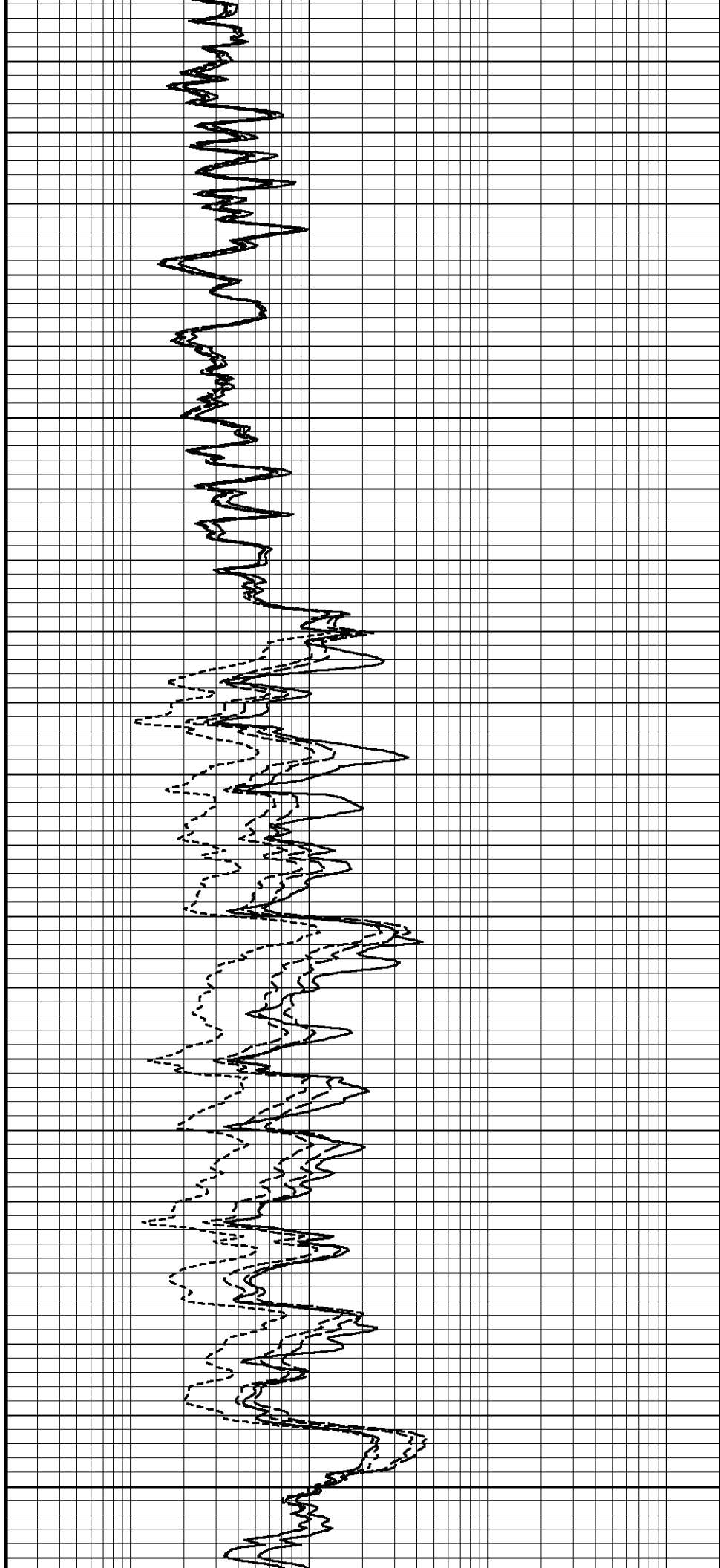
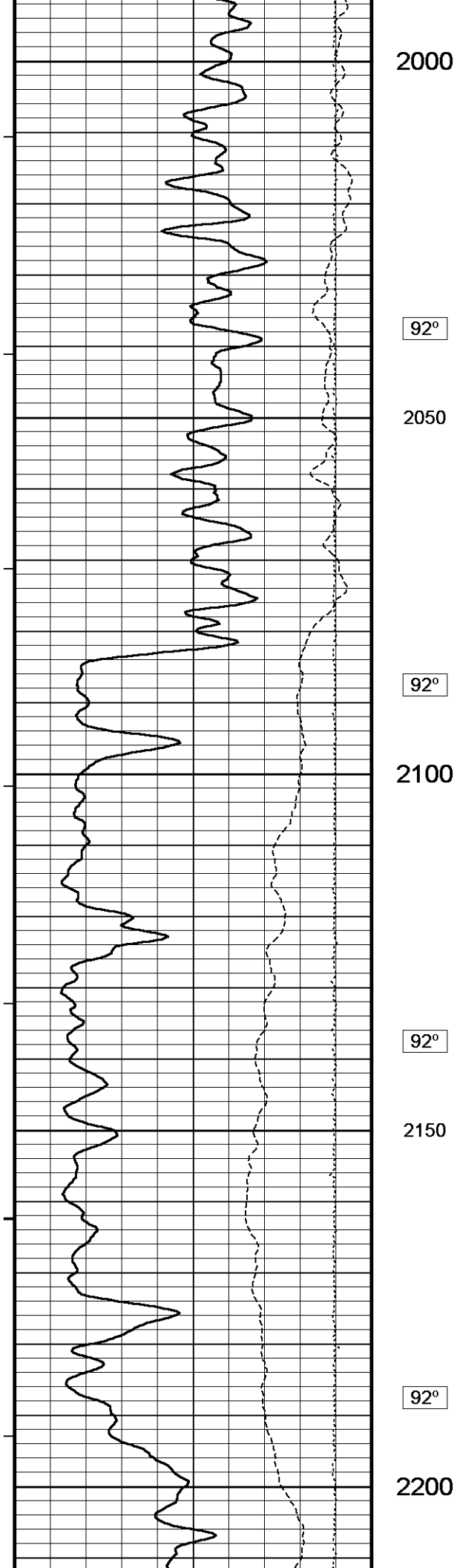


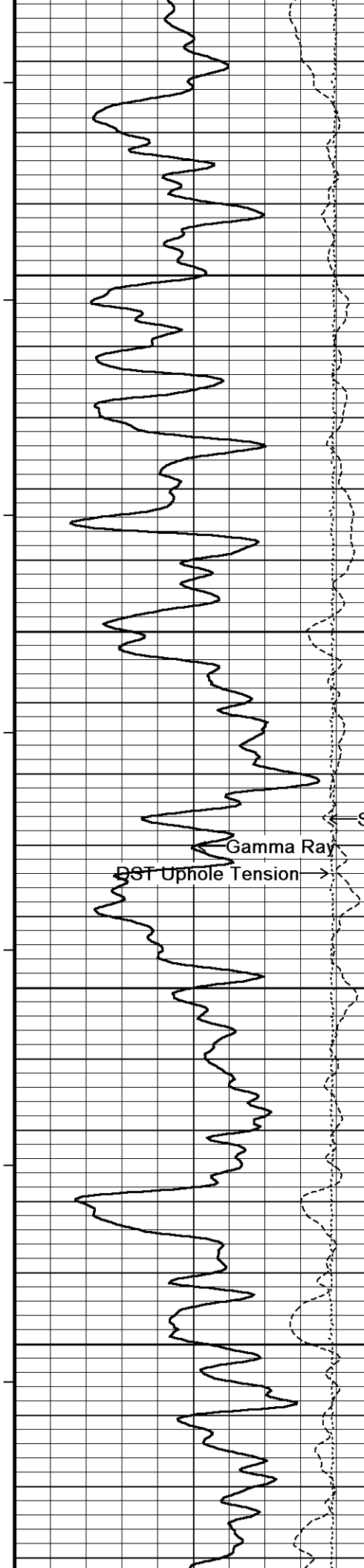
Array Ind. One Res Rt
Array Ind. One Res 60
Array Ind. One Res 40
Shallow FE











93°

2250

93°

2300

Array Ind. One Res Rt

Array Ind. One Res 60

Array Ind. One Res 40

Shallow F

Spontaneous Potential

Gamma Ray

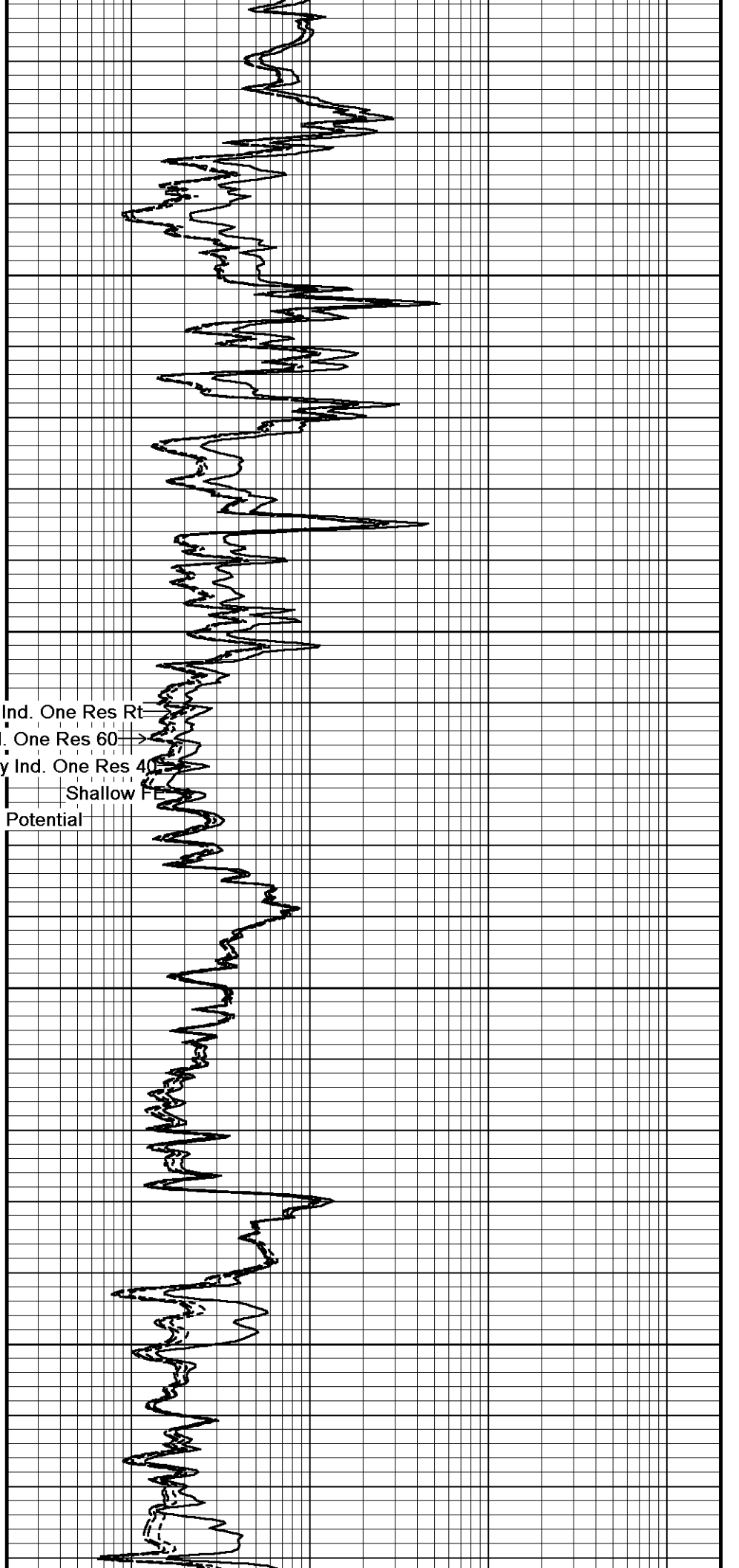
DST Uphole Tension

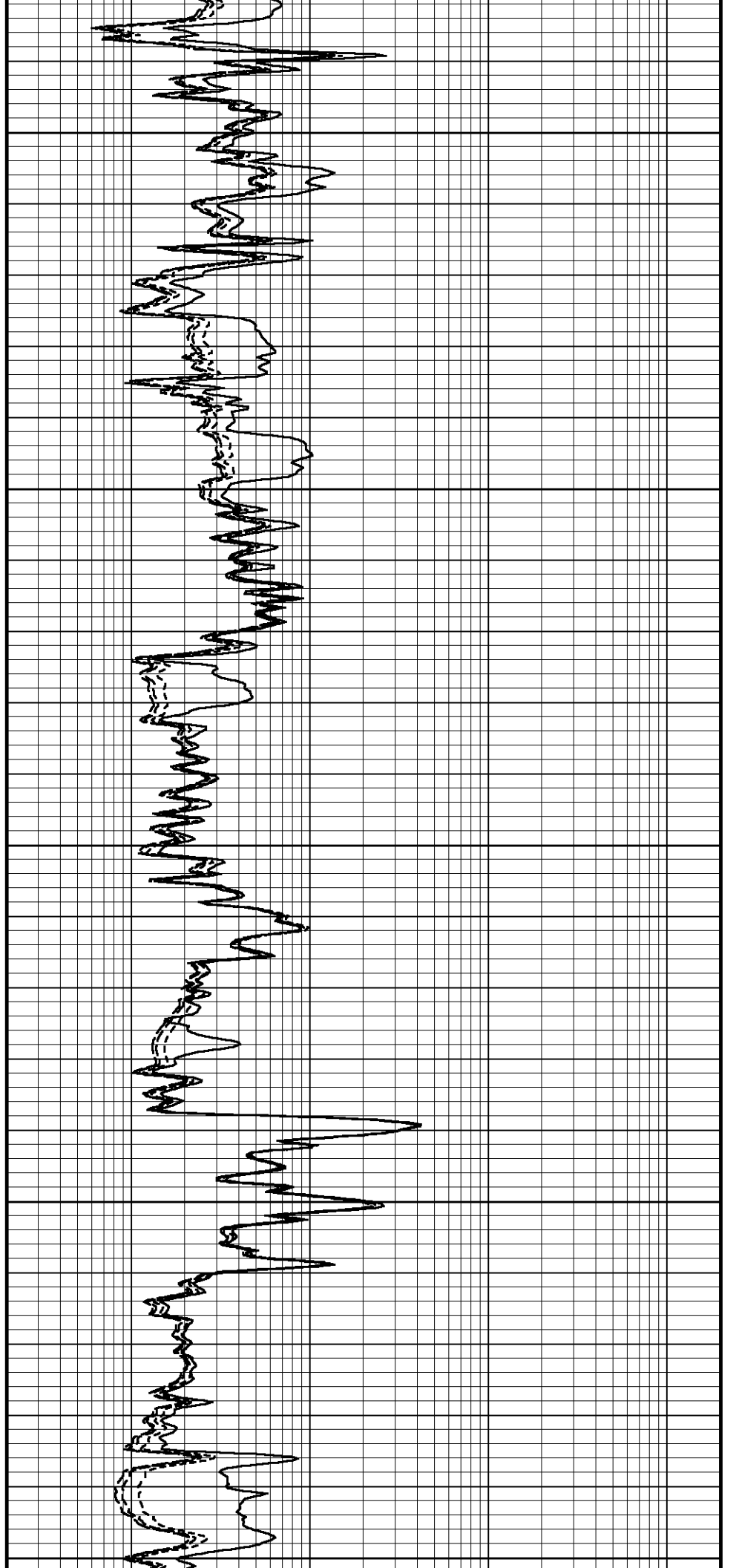
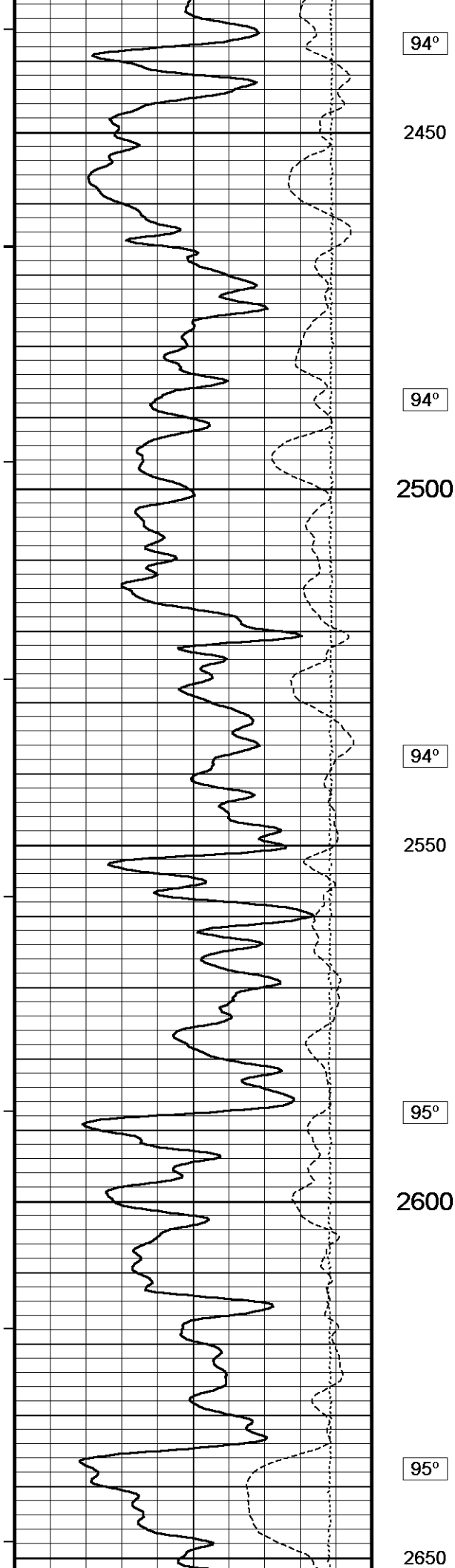
93°

2350

94°

2400







96°

2700

Array Ind. One Res Rt

Array Ind. One Res 60

Array Ind. One Res 40

Shallow FE

Spontaneous Potential

Gamma Ray

DST Up-hole Tension

96°

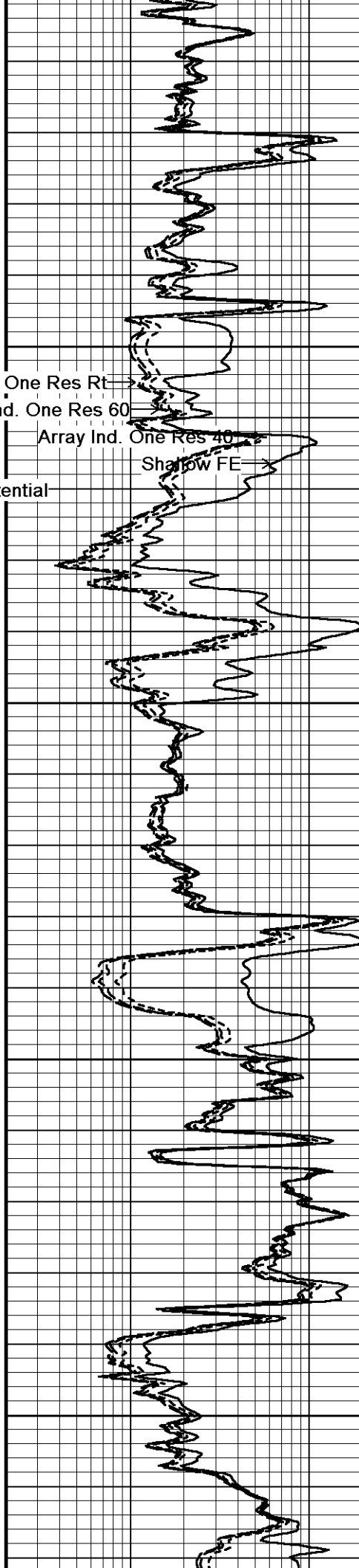
2750

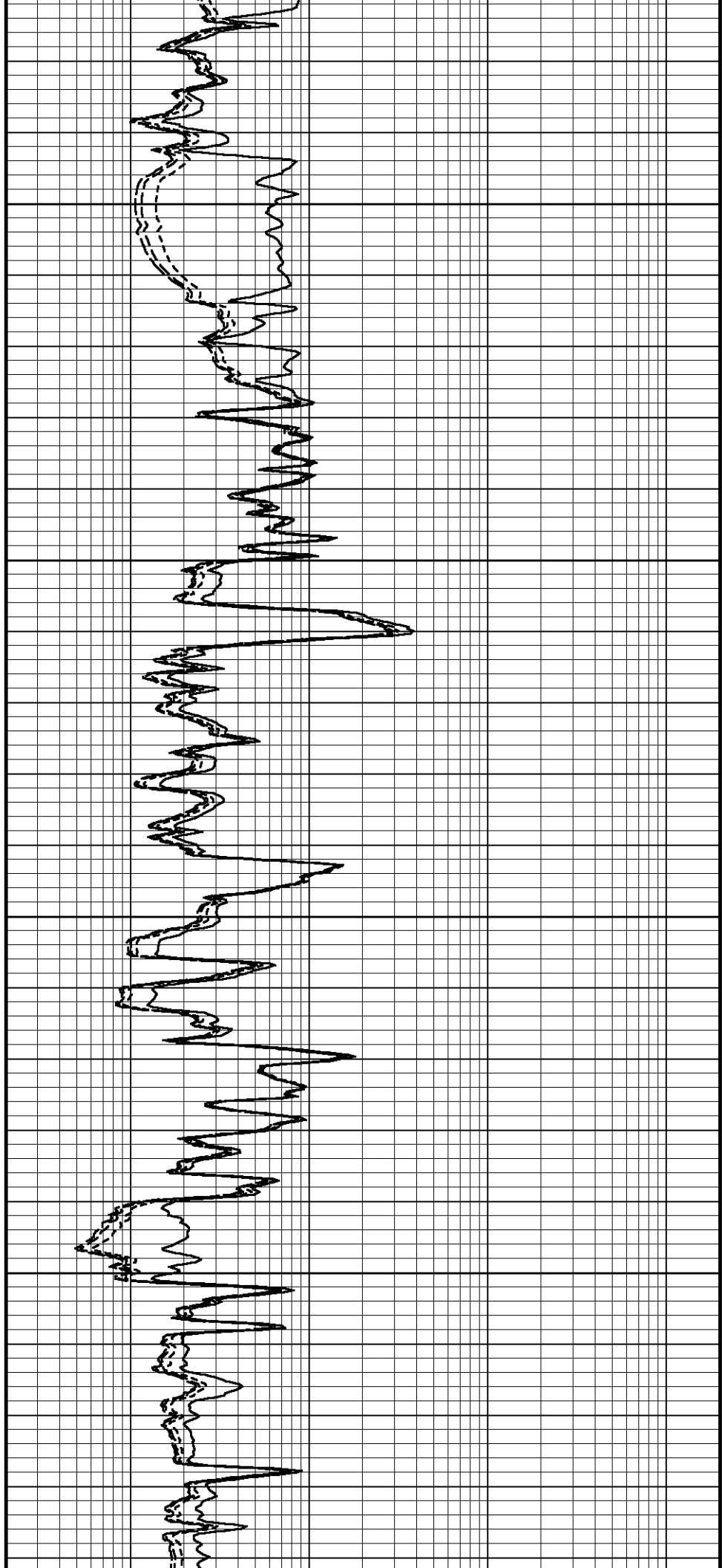
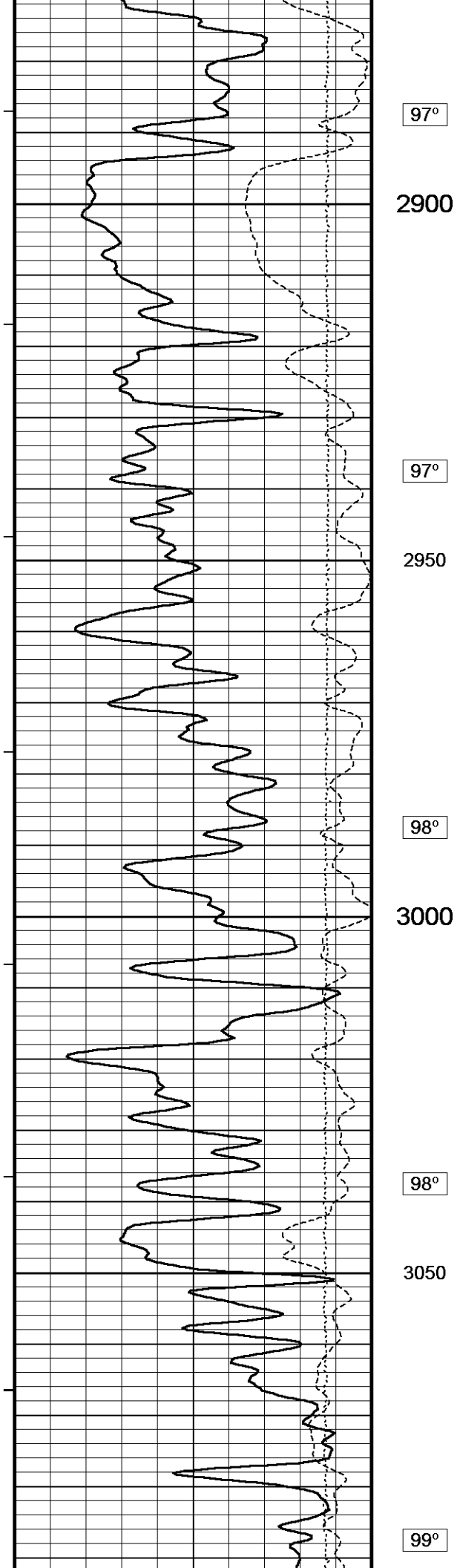
96°

2800

97°

2850





3100' Ind. One Res Rt
Array Ind. One Res 60
Array Ind. One Res 40
Shallow FE

Spontaneous Potential

Gamma Ray

DST Uphole Tension

99°

3150

100°

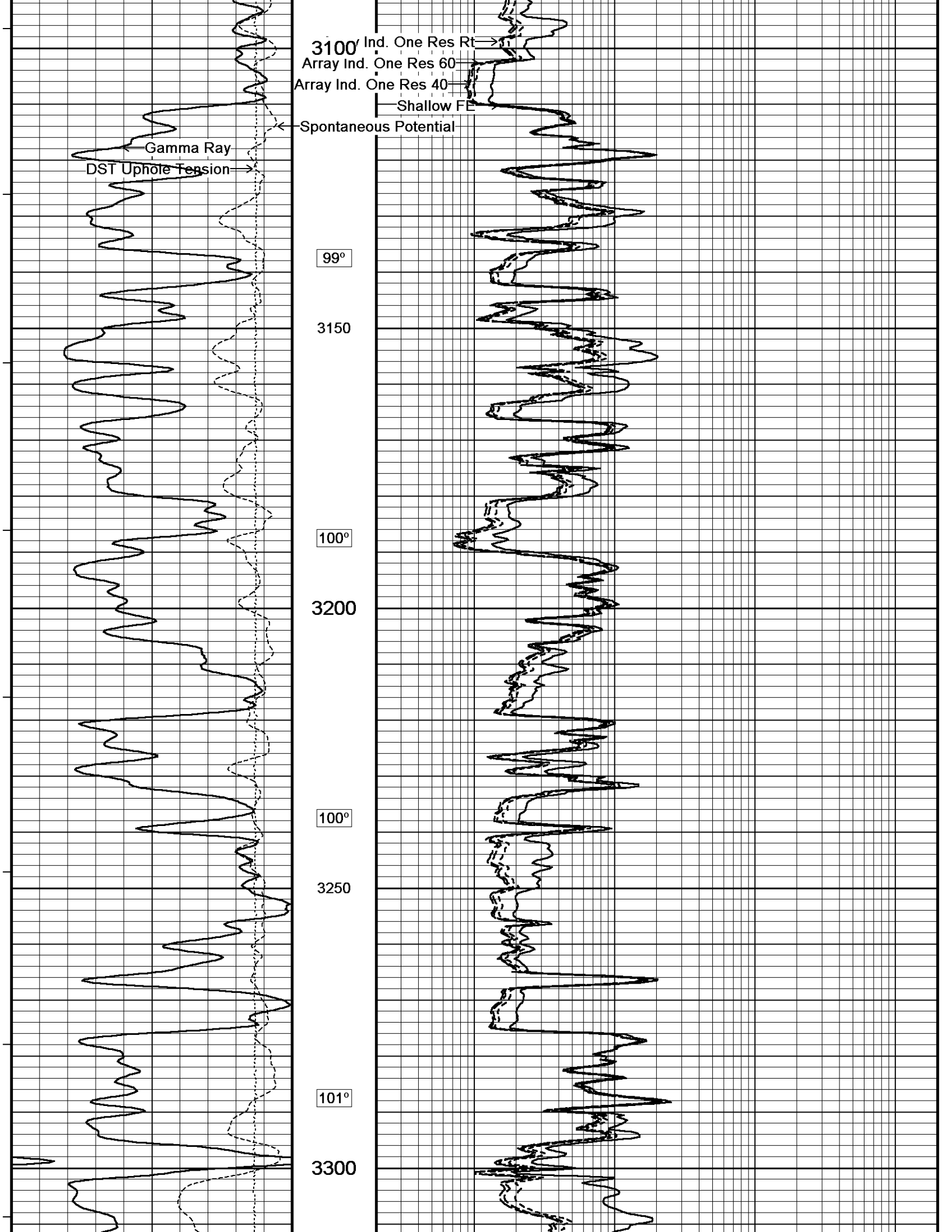
3200

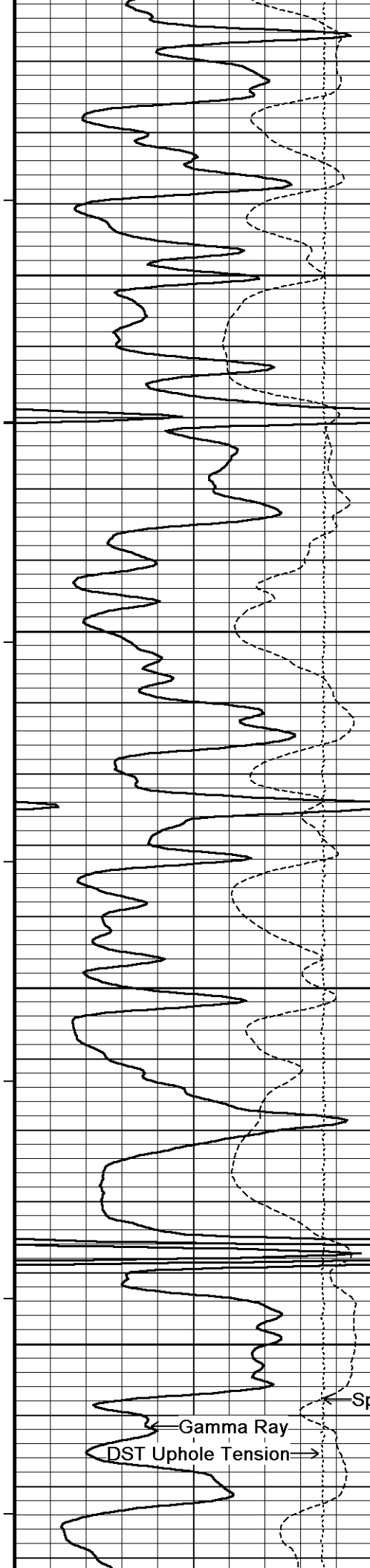
100°

3250

101°

3300





101°

3350

101°

3400

102°

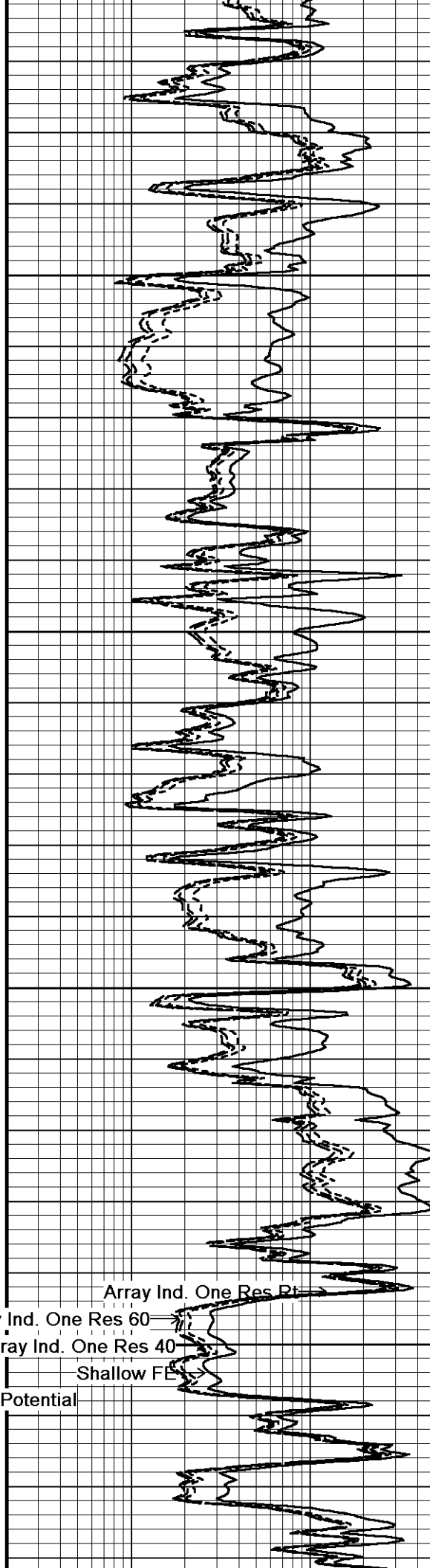
3450

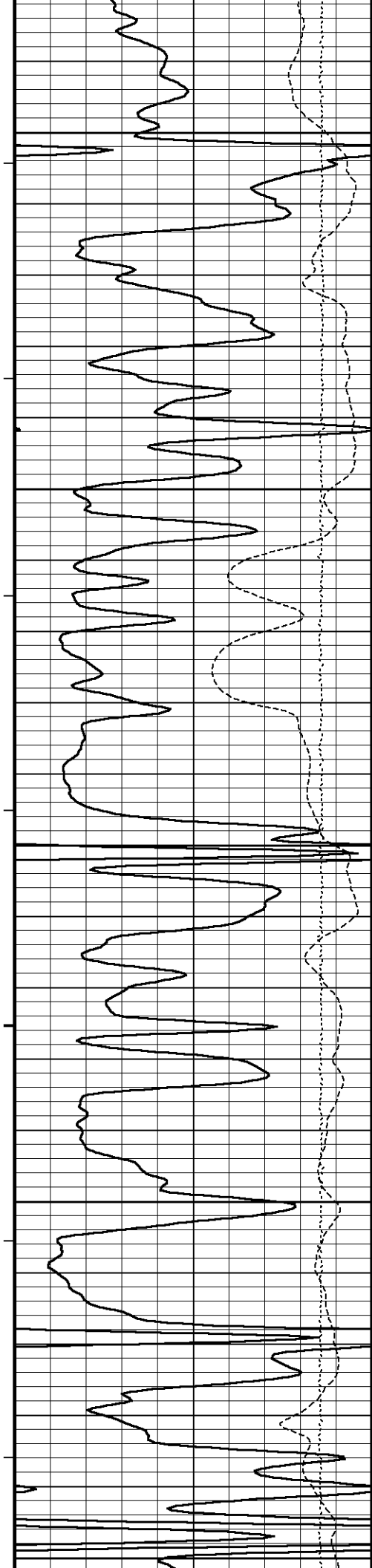
102°

Array Ind. One Res Pt
Array Ind. One Res 60
3500 Array Ind. One Res 40
Shallow FE

Spontaneous Potential

Gamma Ray
DST Uphole Tension





103°

3550

103°

3600

104°

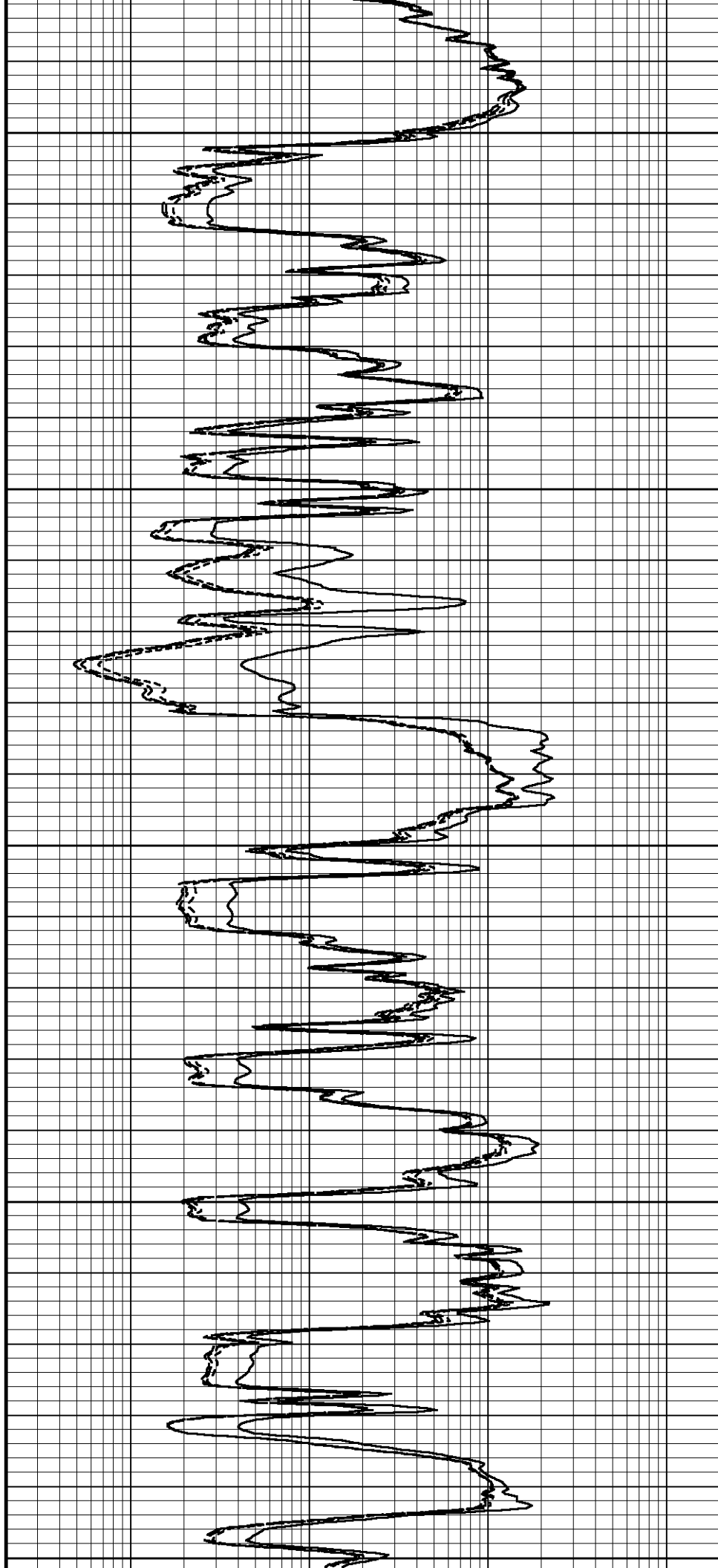
3650

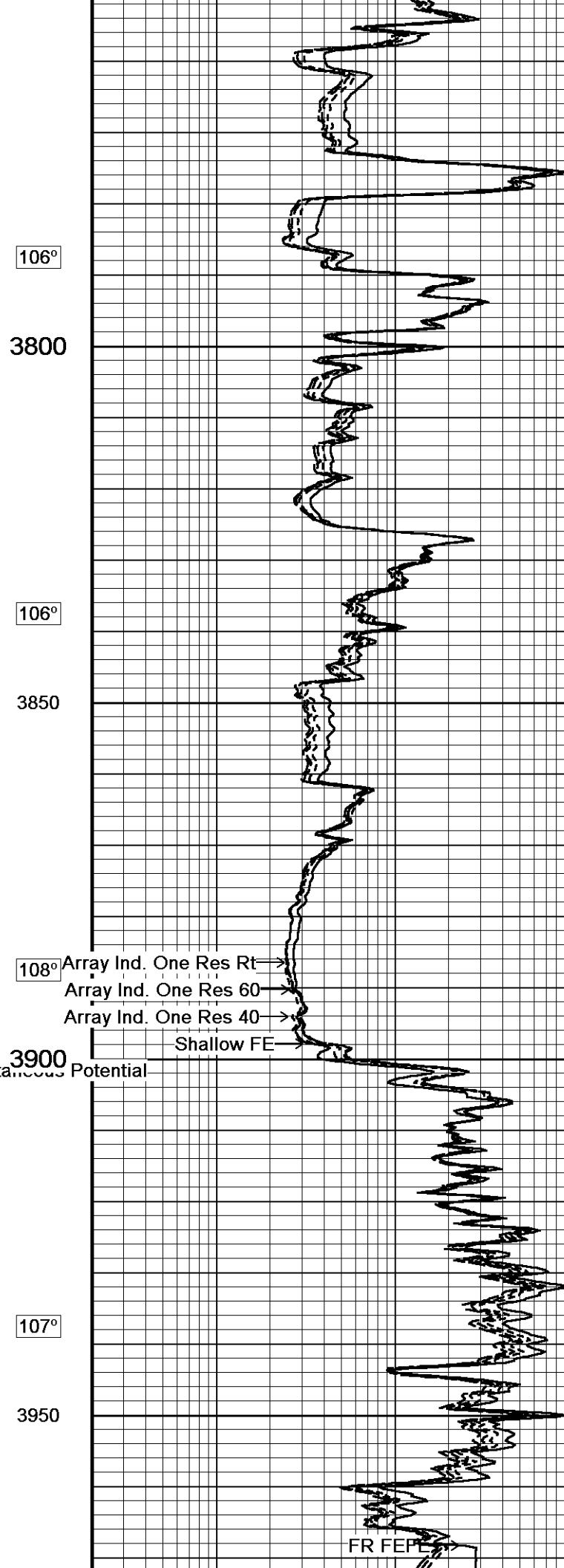
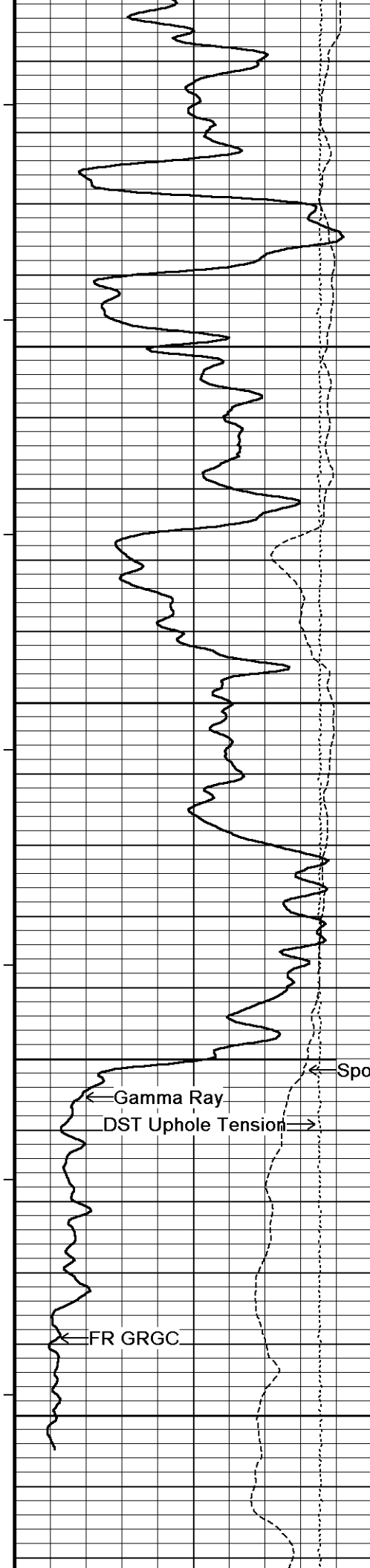
105°

3700

105°

3750





FR SMTU-R-SPCG

4000

4024
Depth
In
FeetTiming Marks
every 60.0 sec

Gamma Ray

API
75

0 150

150 225 300

Spontaneous Potential
millivolts
- - - - - 20 - - - - - +DST Uphole Tension
pounds
5000 0Borehole
Temp in
deg FReplay
Scale
1:240

FR RTAO

Shallow FE
ohm metres

0.20

2000

1

10

100

1000

Array Ind. One Res 40
ohm metres

0.20

2000

1

10

100

1000

Array Ind. One Res 60
ohm metres

0.20

2000

1

10

100

1000

Array Ind. One Res Rt
ohm metres

0.20

2000

1

10

100

1000

Depth Based Data - Maximum Sampling Increment 10.0cm

Plotted on 15-DEC-2013 08:20

Filename: C:\Minimus 13.05.9583\Logs\McElvain Walz 31-8\McElvain Walz 31-8 Main.dta

Recorded on 15-DEC-2013 03:49

System Versions: Logged with 13.05.9583 Plotted with 13.05.9583



5 INCH MAIN



REPEAT SECTION



Depth Based Data - Maximum Sampling Increment 10.0cm

Plotted on 15-DEC-2013 08:20

Filename: C:\Minimus 13.05.9583\Logs\McElvain Walz 31-8\McElvain Walz 31-8 Repeat.dta

Recorded on 15-DEC-2013 03:12

System Versions: Logged with 13.05.9583 Plotted with 13.05.9583

Depth
in
FeetTiming Marks
every 60.0 sec

Gamma Ray

API
75

0 150

150 225 300

Borehole
Temp in
deg FShallow FE
ohm metres

0.20

2000

1

10

100

1000

Array Ind. One Res 40
ohm metres

0.20

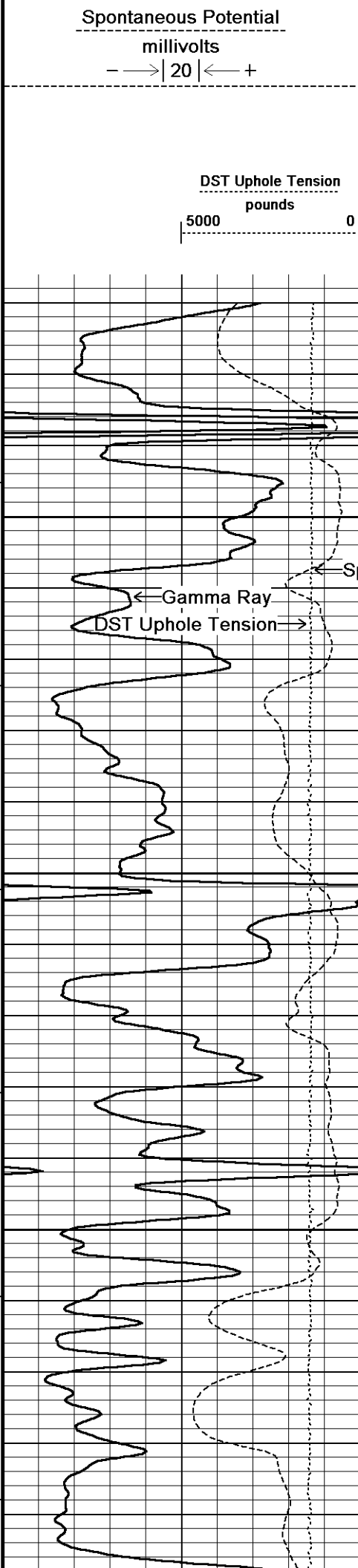
2000

1

10

100

1000



Replay
Scale
1:240

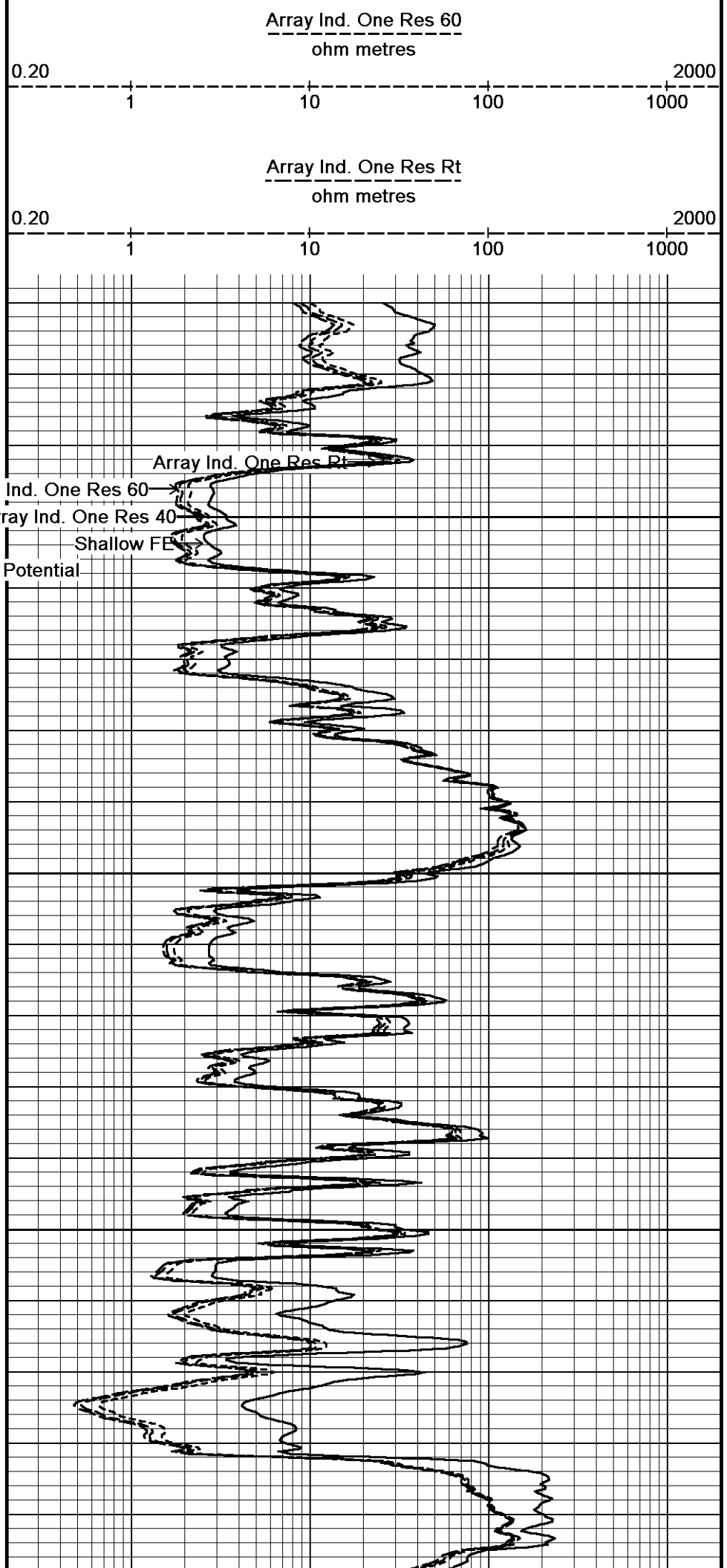
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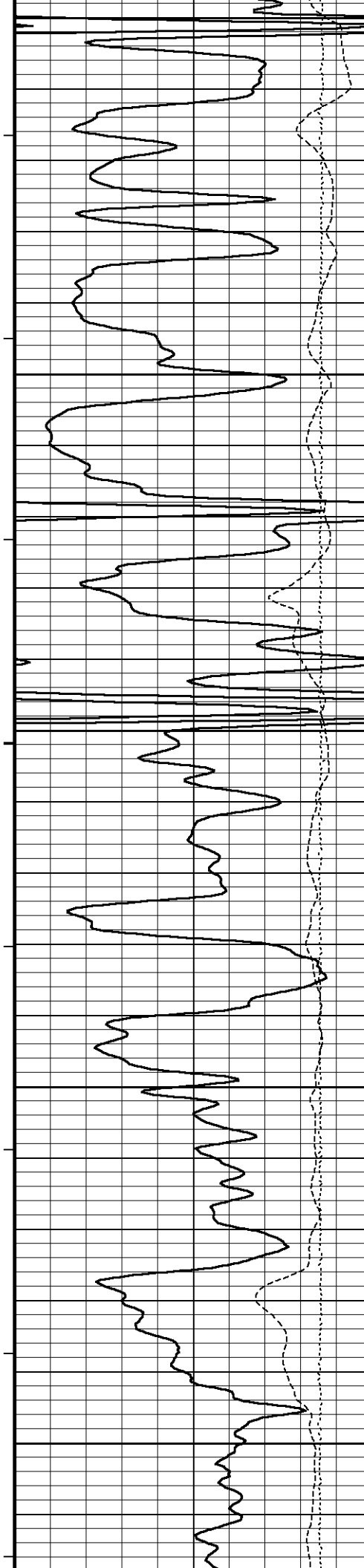
3500

3550

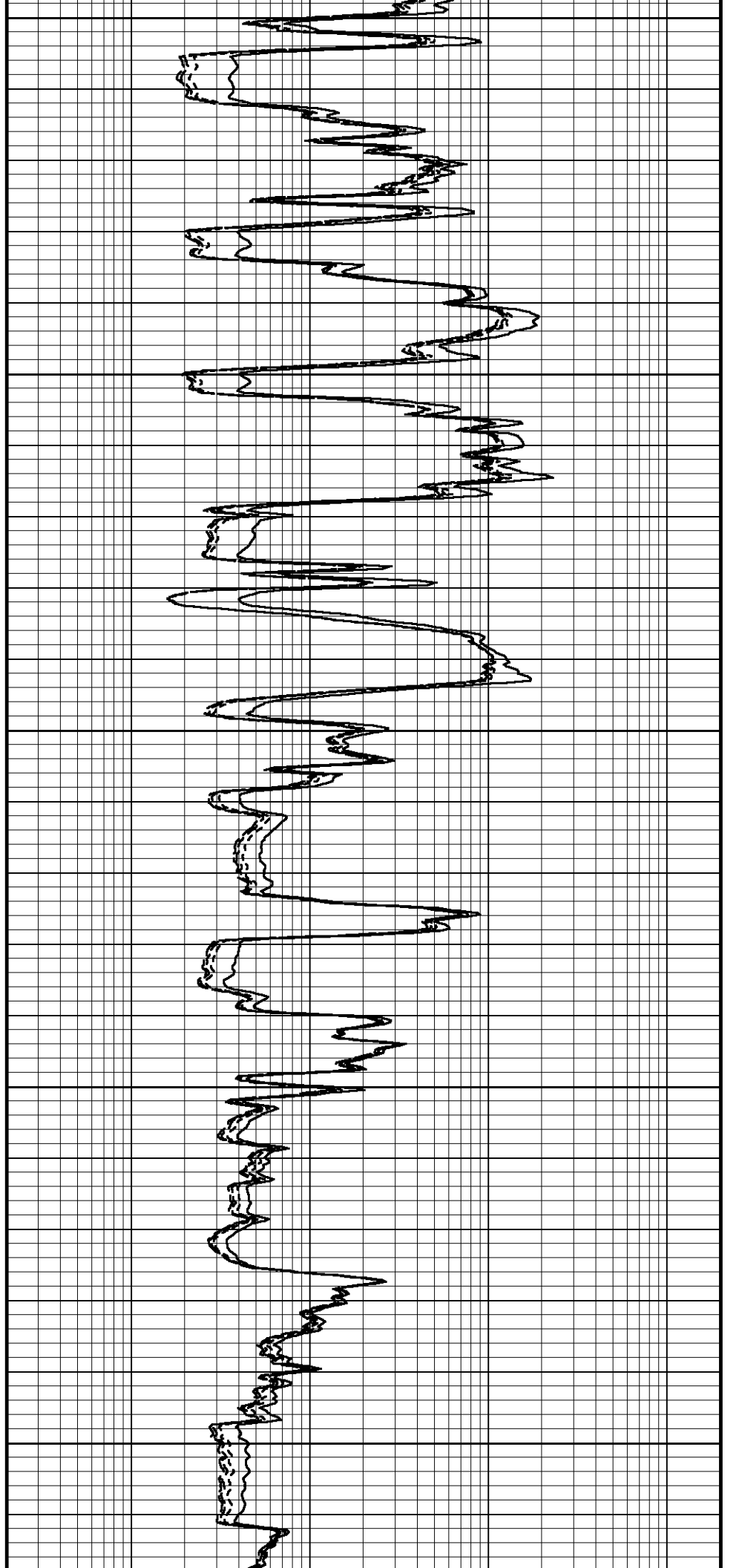
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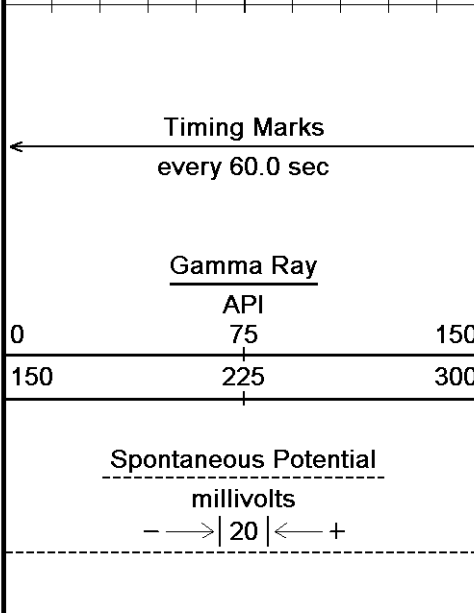
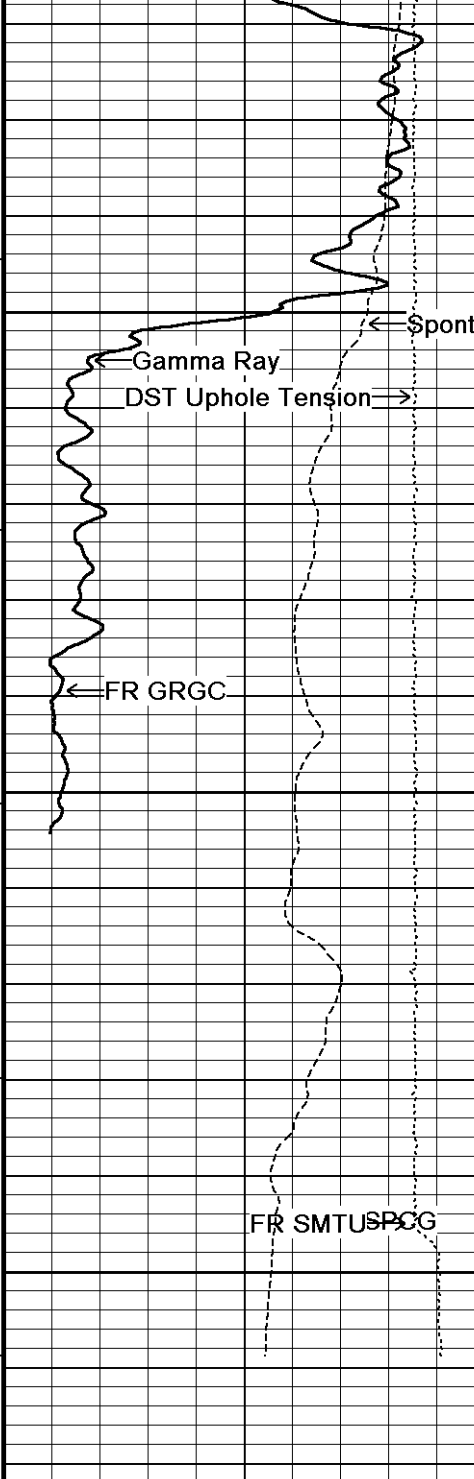
103°



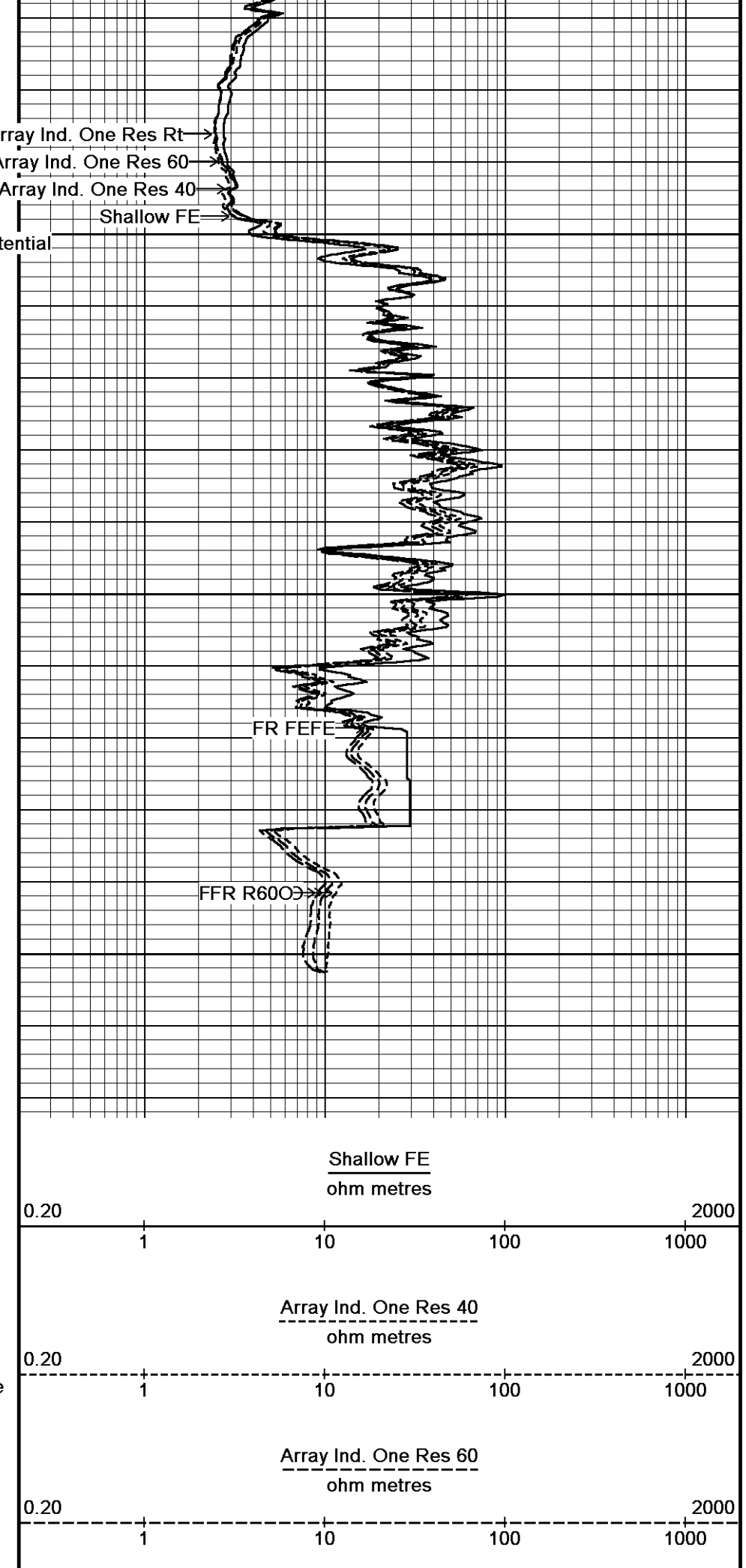


3650
104°
3700
104°
3750
104°
3800
105°
3850





3900
106°
3950
4000
4020
Depth in Feet
Borehole Temp in deg F



DST Uphole Tension
pounds
5000 0

Replay
Scale
1:240

Array Ind. One Res Rt
ohm metres

0.20 1 10 100 1000 2000

Depth Based Data - Maximum Sampling Increment 10.0cm

Plotted on 15-DEC-2013 08:20

Filename: C:\Minimus 13.05.9583\Logs\McElvain Walz 31-8\McElvain Walz 31-8 Repeat.dta

Recorded on 15-DEC-2013 03:12

System Versions: Logged with 13.05.9583 Plotted with 13.05.9583



REPEAT SECTION



BEFORE SURVEY CALIBRATION

C:\Minimus 13.05.9583\Logs\McElvain Walz 31-8\McElvain Walz 31-8 Main.dta

General Constants All 000

Last Edited on 15-DEC-2013,01:31

General Parameters

Mud Resistivity	1.320	ohm-metres
Mud Resistivity Temperature	83.000	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	5.500	inches
Caliper for Differential Caliper	Density Caliper	

Rwa Parameters

Porosity used	Crossplot Porosity
Resistivity used	Array Ind. One Res Rt
RWA Constant A	0.610
RWA Constant M	2.150
SW/APOR Tool Source	0.000

Down-hole Tension Calibration SMS 0

Field Calibration on 15-DEC-2013 02:26

Reading No	Measured	Calibrated (lbs)
1	14592.41	0.00
2	15135.27	456.40

Gamma Calibration MCG-C 208

Field Calibration on 14-DEC-2013 06:42

	Measured	Calibrated (API)
Background	72	49
Calibrator (Gross)	1139	774
Calibrator (Net)	1067	725

Gamma Constants MCG-C 208

Last Edited on 15-DEC-2013,01:30

Gamma Calibrator Number	GRC038	
Mud Density	1.13	gm/cc
Caliper Source for Processing	Density Caliper	
Tool Position	Eccentred	
Concentration of KCl		kppm
K Mud Type	Chloride	
K Mud Concentration	0.00	%

SP Calibration MCG-C 208

Field Calibration on 11-NOV-2013 16:06

	Measured	Calibrated (mV)
Reference 1	99.8	98.8
Reference 2	-97.8	-98.9

High Resolution Temperature Calibration MCG-C 208

Field Calibration on 12-JUN-2013,14:22

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

Pre-filter Length 11

Caliper Calibration MML-A 16

Base Calibration on 26-NOV-2013 15:59

Field Calibration on 14-DEC-2013 06:37

Base Calibration

Reading No	Measured	Calibrator Size (in)
1	14048	5.98
2	17183	7.97
3	20399	9.86
4	24282	11.92
5	0	0.00
6	N/A	N/A

Field Calibration

Measured Caliper (in)	Actual Caliper (in)
7.97	7.97

Micro Normal and Micro Inverse Calibration MML-A 16

Base Calibration on 26-NOV-2013 15:45

Field Check on 14-DEC-2013 06:34

Base Calibration

Channel	Resistor 1	Measured		Calibrated (ohm-m)	
		Resistor 2	Resistor 1	Resistor 2	
Micro Normal	12.2	60.2	5.0	25.0	
Micro Inverse	15.7	78.4	5.0	25.0	

Channel	Base Check (ohm-m)	Field Check (ohm-m)
Micro Normal	62.9	62.9
Micro Inverse	48.2	48.2

Micro Normal and Micro Inverse Constants MML-A 16

Last Edited on 15-DEC-2013,01:30

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-B.J 387

Base Calibration on 20-NOV-2013 14:17

Field Check on 14-DEC-2013 06:46

Base Calibration

	Measured		Calibrated (cps)	
	Near	Far	Near	Far
Ratio	2899	88	3714	110
	32.794		33.764	

Field Calibrator at Base

	Calibrated (cps)
Ratio	1704 2522
	0.676

Field Check

	Calibrated (cps)
Ratio	0.681

Neutron Constants MDN-B.J 387

Last Edited on 15-DEC-2013,01:30

Neutron Source Id	P58125B
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	None
Formation Pressure	N/A kpsi
Temperature Source	Constant Value
Temperature	68.00 degrees F
Mud Salinity	0.00 kppm
Salinity Correction	Not Applied
Formation Fluid Salinity Source	None

Formation Fluid Salinity	N/A	kppm			
Barite Mud Correction	Not Applied				
FE Calibration MFE-A.A 55		Base Calibration on 26-NOV-2013 15:32 Field Check on 14-DEC-2013 06:25			
Base Calibration					
	Measured	Calibrated (ohm-m)			
Reference 1	0.0	0.0			
Reference 2	951.3	126.8			
Base Check		281.6			
Field Check		281.7			
FE Constants MFE-A.A 55		Last Edited on 15-DEC-2013,01:29			
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			
Sonic Constants MSS-C.K 368		Last Edited on 15-DEC-2013,01:29			
Maximum Boundary Contrast	100.00	micro-sec/ft			
Fluid Transit Time	189.00	micro-sec/ft			
Limestone Transit Time	47.60	micro-sec/ft			
Sandstone Transit Time	55.50	micro-sec/ft			
Dolomite Transit Time	43.50	micro-sec/ft			
Sonic used for Porosities	3-5' Compensated Sonic				
Correction for Sonde Skew	Applied				
Cycle Stretch Algorithm	Applied				
MN3FT	N/A	micro-sec			
MX3FT	N/A	micro-sec			
Hunt-Raymer Constant	83.13	micro-sec/ft			
Sonde Mode	Compensated				
Hole Type	Open Hole				
Sonde Parameters					
	Measured	Calibrated			
Offset	N/A	0.0000			
Free Pipe	N/A	N/A			
Peak Amplitude Source	N/A				
Waveform	Start Time (micro-sec)	Width (micro-sec)	Pre Gain	Start Gain	Discriminator (mV)
3'	N/A	N/A	N/A	N/A	N/A
4'	N/A	N/A	N/A	N/A	N/A
5'	N/A	N/A	N/A	N/A	N/A
6'	N/A	N/A	N/A	N/A	N/A
Processed Fixed Gate Parameters					
Waveform Used For Processing	N/A				
Start Time (micro-sec)	End Time (micro-sec)	Discriminator (mV)	N/A		
N/A	N/A	N/A			
N/A	N/A	N/A	N/A		
N/A	N/A	N/A	N/A		
N/A	N/A	N/A	N/A		
N/A	N/A	N/A	N/A		
Full Waveform Parameters					
Use 3' Waveform to derive TR	N/A				
Use 4' Waveform to derive TR	N/A				
Use 5' Waveform to derive TR	N/A				
Use 6' Waveform to derive TR	N/A				
3' Waveform Discriminator Level	N/A	mV			
4' Waveform Discriminator Level	N/A	mV			
5' Waveform Discriminator Level	N/A	mV			

6' Waveform Discriminator Level	N/A	mV
3' Waveform Filter	N/A	
4' Waveform Filter	N/A	
5' Waveform Filter	N/A	
6' Waveform Filter	N/A	
Semblance Level	N/A	
Semblance Window Width	N/A	micro-sec
Sonic 1 Despiker	N/A	N/A
Sonic 2 Despiker	N/A	N/A

Induction Calibration MAI-A.A 5

Base Calibration on 10-JUN-2013,14:52
Field Check on 14-DEC-2013 06:24

Base Calibration

Test Loop Calibration

Channel	Measured		Calibrated (mmho/m)	
	Low	High	Low	High
1	16.3	470.8	9.3	966.2
2	5.6	376.1	7.6	821.4
3	2.6	266.1	5.2	566.0
4	1.6	130.0	2.6	279.2

Array Temperature 71.1 Deg F

Channel	Base Check (mmho/m)		Field Check (mmho/m)	
	Low	High	Low	High
1			14.9	3864.0
2			31.8	3591.9
3			29.8	2972.2
4			20.8	2126.8
Deep			18.4	1912.7
Medium			43.1	3862.3
Shallow			47.3	5374.5

Array Temperature 67.8 Deg F

Induction Constants MAI-A.A 5

Last Edited on 15-DEC-2013,01:29

Induction Model

Caliper for Borehole Corr.	RtAP-WBM	
Hole Size for Borehole Correction	Density Caliper	
Tool Centred	N/A	inches
Stand-off Type	No	
Stand-off	Fins	
Number of Fins on Stand-off	0.00	inches
Stand-off Fin Angle	8.0000	
Stand-off Fin Width	60.00	degrees
Borehole Corr. Rm Source	0.5000	inches
Temp. for Rm Corr.	Temperature Corr	
Squasher Start	MCG External Temperature	
Squasher Offset	0.0020	mhos/metre
	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 5		
	Measured	Calibrated(Deg F)
Lower	50.00	50.00
Upper	75.00	75.00
High Resolution Temperature Constants MAI-A.A 5		
Pre-filter Length	11	
Photo Density Calibration MPD-B 64		
Density Calibration		Base Calibration on 20-NOV-2013 16:18
Base Calibration		Field Check on 14-DEC-2013 06:32
	Measured	Calibrated (sdu)
	Near	Far
Reference 1	54813	28391
Reference 2	22141	2599
	59556	30836
	24941	2541
Field Check at Base		
	1158.1	1339.6
Field Check		
	1152.5	1334.2
PE Calibration		
Base Calibration		
	Measured	Calibrated
	WS	WH
	Ratio	Ratio
Background	209	1029
Reference 1	20544	54619
Reference 2	5974	22004
	0.379	0.371
	0.275	0.272
Field Check at Base		
	208.8	1029.0
Field Check		
	207.1	1024.2
Density Constants MPD-B 64		
		Last Edited on 15-DEC-2013,01:29
Density Source Id	P50557B	
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	1.13	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	
Caliper Calibration MPD-B 64		
		Base Calibration on 20-NOV-2013 16:00
		Field Calibration on 14-DEC-2013 06:27
Base Calibration		
Reading No	Measured	Calibrator Size (in)
1	16386	3.99
2	25312	5.98

3	33872	7.97
4	42289	9.86
5	51520	11.92
6	N/A	N/A

Field Calibration

Measured Caliper (in)
7.98

Actual Caliper (in)
7.97

DOWNHOLE EQUIPMENT

C:\Minimus 13.05.9583\Logs\McElvain Walz 31-8\McElvain Walz 31-8 Main.dta

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

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

Compact Neutron
MDN-B.J 387 LG: 5.04 ft WT: 50.7 lb OD: 2.24 in

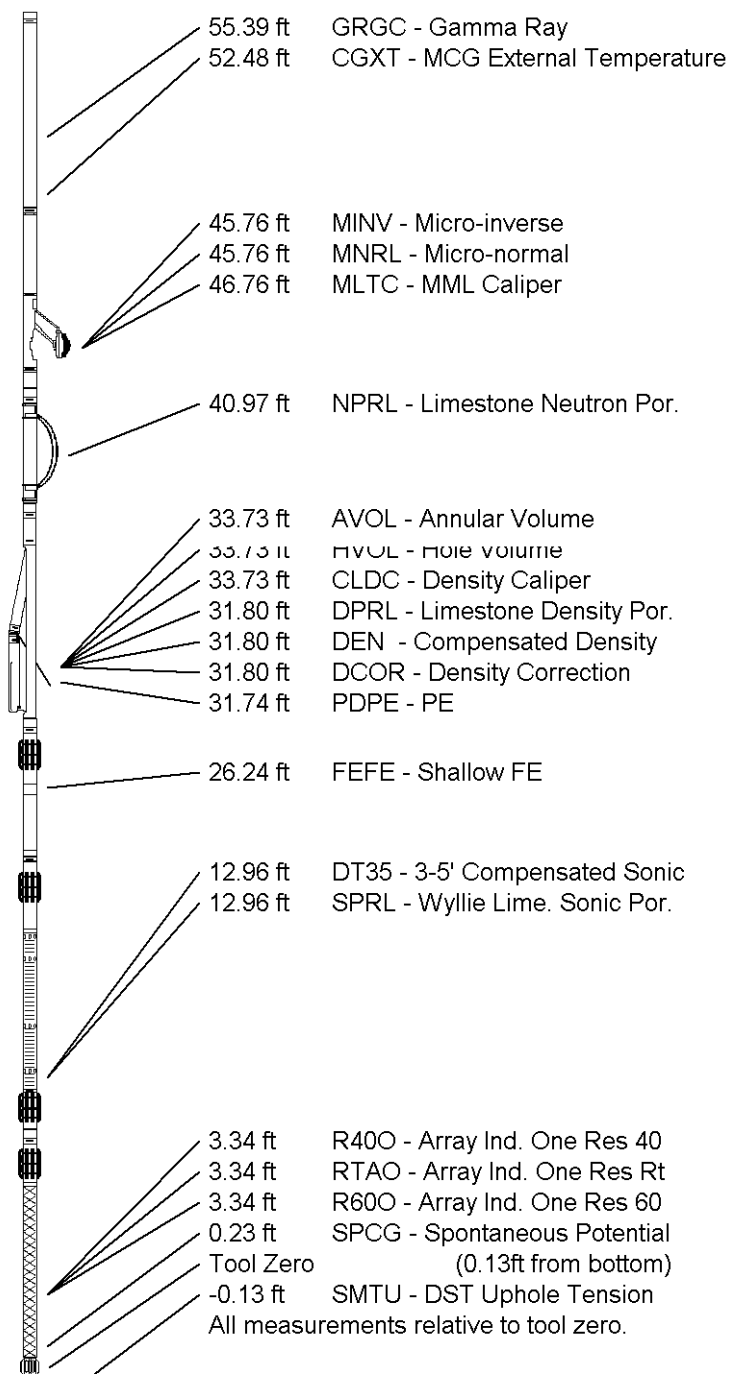
Compact Density/Caliper
MPD-B 64 LG: 9.59 ft WT: 90.4 lb OD: 2.45 in

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

Compact Sonic
MSS-C.K 368 LG: 12.52 ft WT: 72.8 lb OD: 2.24 in

Compact Induction
MAI-A.A 5 LG: 10.81 ft WT: 48.5 lb OD: 2.24 in

Total Length: 60.68 ft Weight: 456.4 lb



COMPANY

MC ELVAIN ENERGY, INC.

WELL

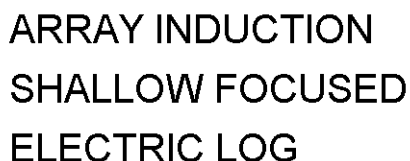
WALZ 31-8

FIELD

WILDCAT

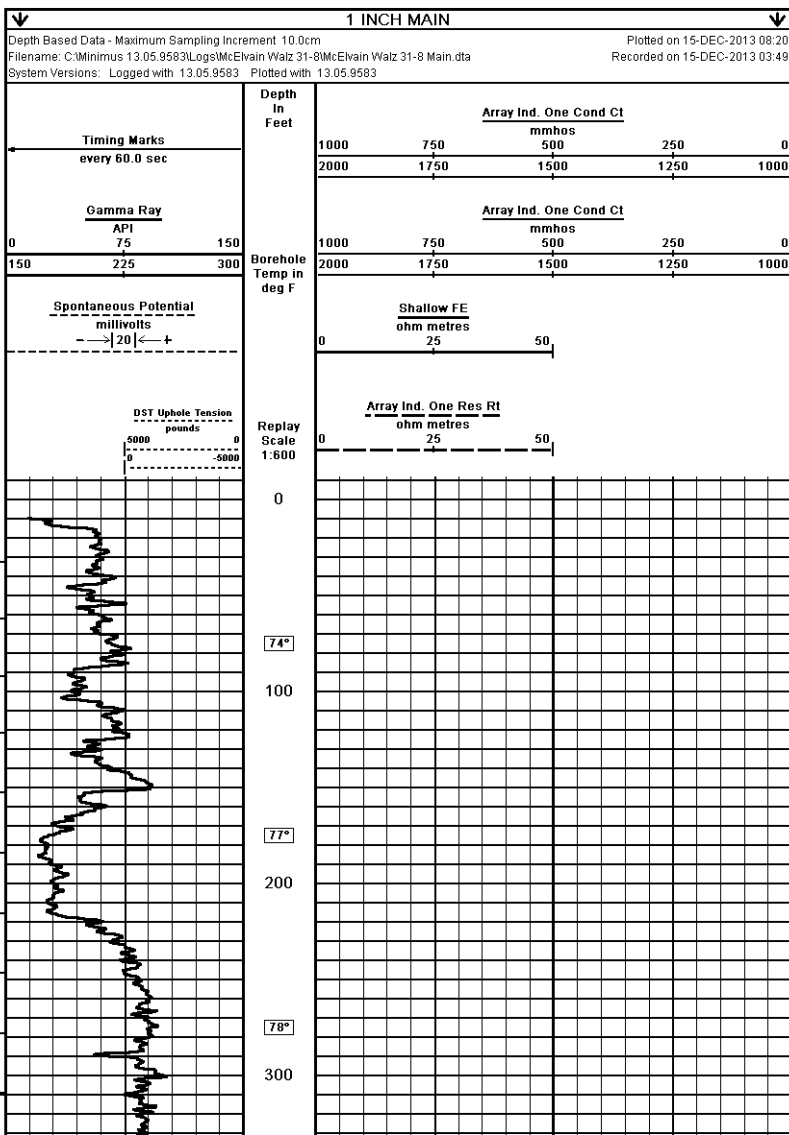
PROVINCE/COUNTY

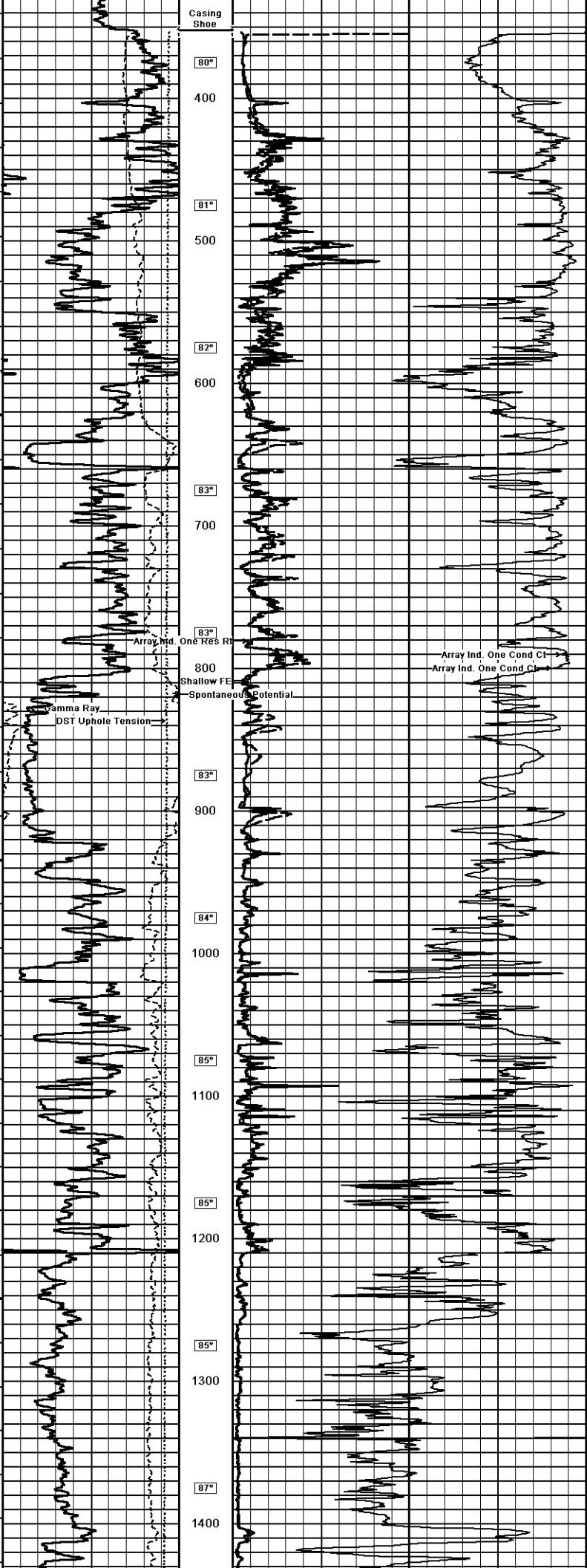
GRAHAM

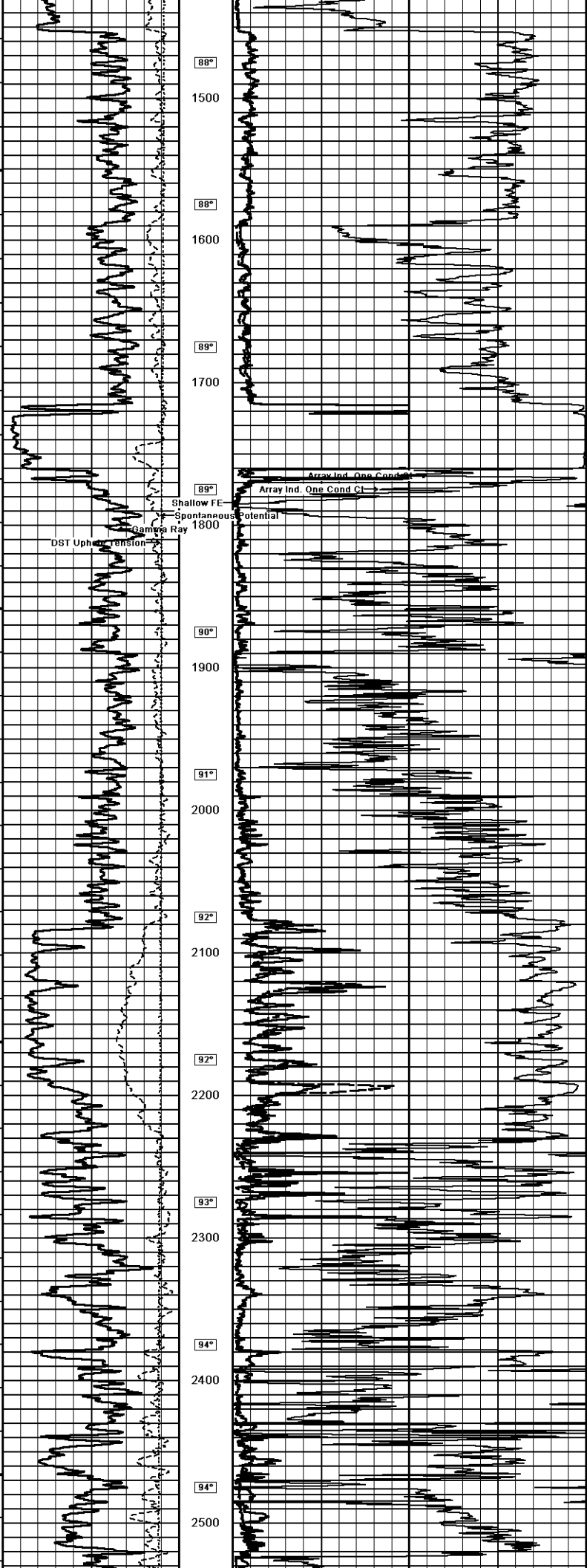


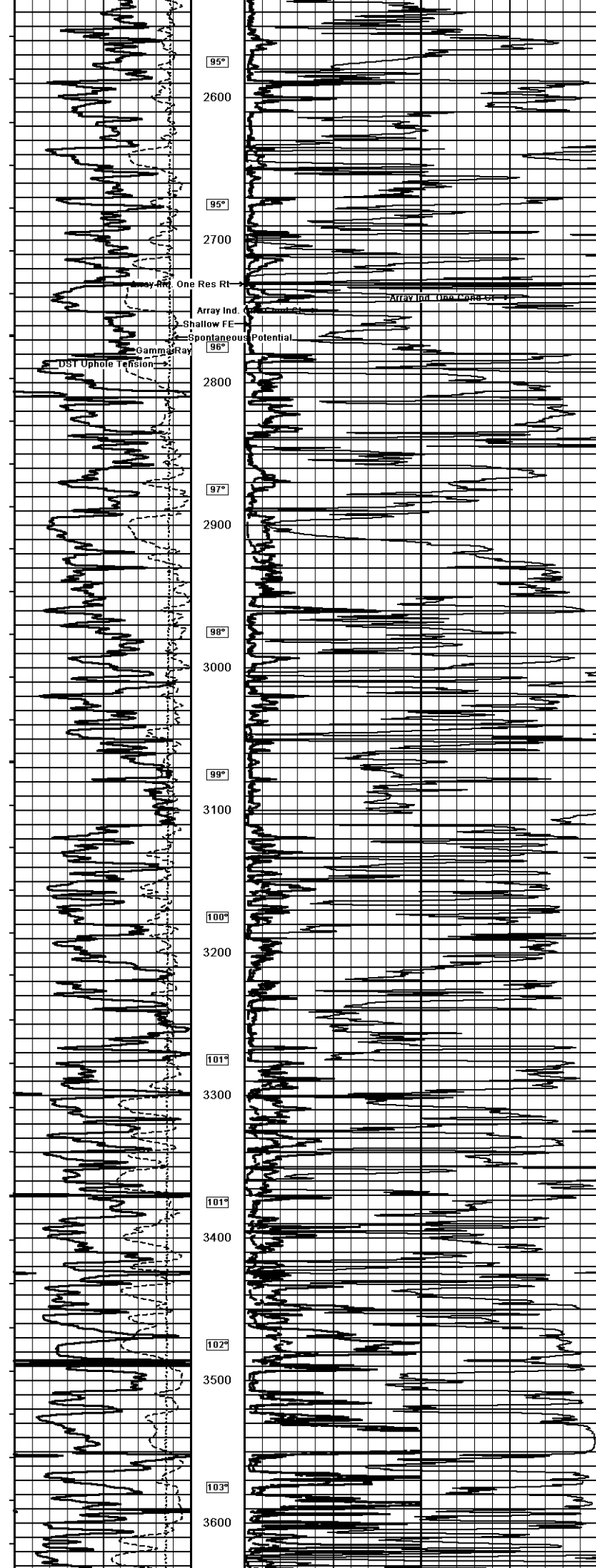
Weatherford®

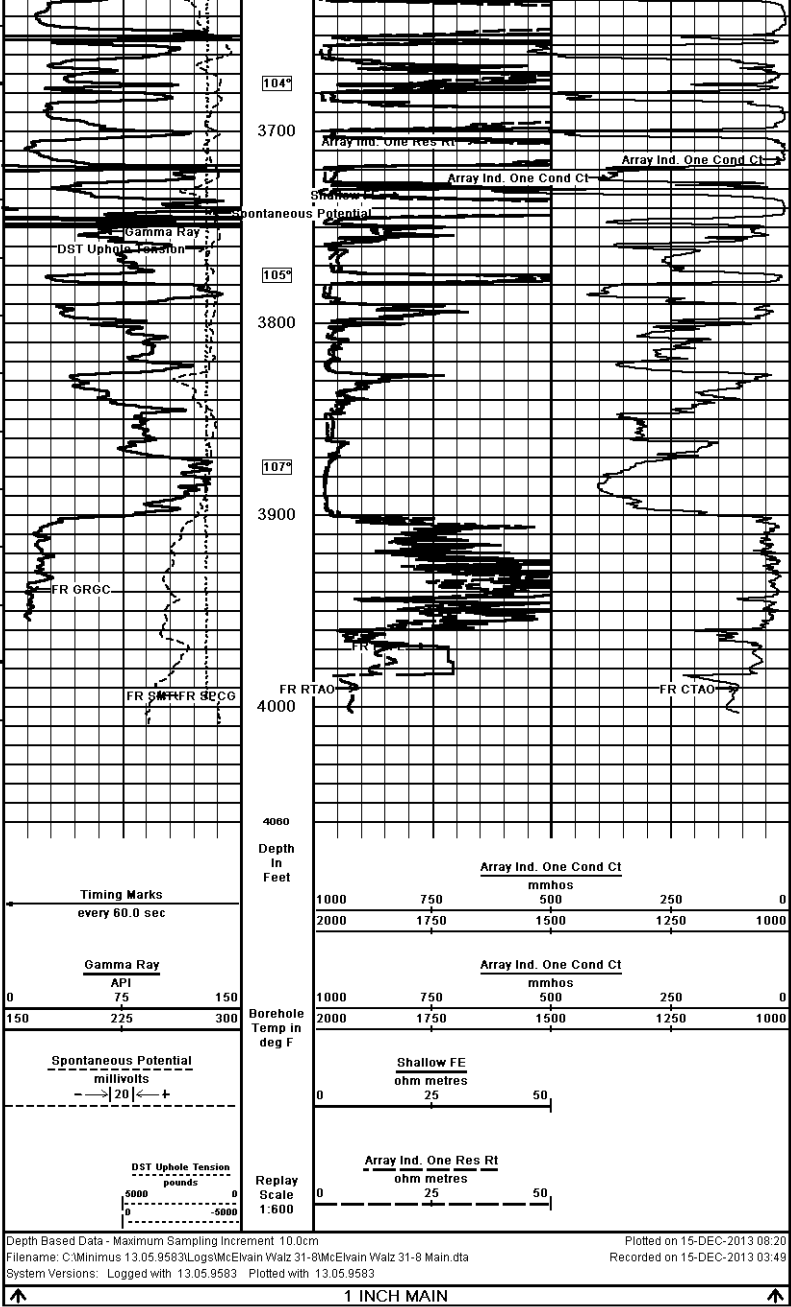
Weatherford		ARRAY INDUCTION SHALLOW FOCUSED ELECTRIC LOG	
COMPANY MCELVAIN ENERGY, INC.			
WELL WALZ 31-8			
FIELD WILDCAT			
PROVINCE/COUNTRY UTAH			
COUNTY/STATE UTAH			
LOCATION U.S.A./KANSAS 2230' FNL & 330' FEL N2 SE SE NE			
SEC	TWP	RSE	Other Services
31	10S	21W	MP/DMDN
Lot Number	15-065-2995	MML	
Serial Number		MSS	
Permanent Datum (L, Elevation 2221 feet Log Measured from 108 Drilling Measured from 108 @ 2231		Elevations: feet 2231.00 2229.00 2228.00 2221.00	
Date	ONE	15-DEC-2013	GL
Run Number	35477680	feet	
Service Order	4000.00	feet	
Depth Driller	3995.00	feet	
Depth Logger	3992.00	feet	
First Reading	0.00	feet	
Last Reading	352.00	feet	
Casing Driller	352.00	feet	
Casing Logger	352.00	feet	
Bit Size	7.875	inches	
Core Fluid Type	CHEMICAL		
Density/Viscosity	9.40 lbm/5g	56.00 CP	
PH/Fluid Loss	10.50	7.60 ml/50min	
Sample Source	FLOWLINE		
Run @ Measured Temp	1.32 @ 82.0	ohm-m	
Run @ Measured Temp	1.06 @ 82.0	ohm-m	
Run @ Measured Temp	1.58 @ 82.0	ohm-m	
Source Rmt/Frc	CALC		
Run @ BHT	1.01 @107.0	ohm-m	
Time Since Circulation	4 HOURS		
Max Record Temp	107.00	deg F	
Equipment Base	13234		
Recorded By	JOHN LAPOINT	LIB	
Unassessed By	CHRIS MITCHELL		
DOB#	LB13-354		











COMPANY		MCELVAIN ENERGY, INC.			
WELL		WALZ 31-8			
FIELD		WILDCAT			
PROVINCE/COUNTY		GRAHAM			
COUNTRY/STATE		U.S.A./KANSAS			
Elevation Kelly Bushing	2231.00	feet	First Reading	3992.00	feet
Elevation Drill Floor	2229.00	feet	Depth Driller	4000.00	feet
Elevation Ground Level	2221.00	feet	Depth Logger	3995.00	feet
		ARRAY INDUCTION			
Weatherford		SHALLOW FOCUSED			
		ELECTRIC LOG			