

ARRAY INDUCTION

COMPANY			PARAMOUNT RESOURCES LTD		
WELL			PARA ET AL CAMERON E-72		
FIELD			CAMERON HILLS		
PROVINCE/COUNTY			NORTHWEST TERRITORIES		
COUNTRY/STATE			CANADA		
LOCATION			300/E-72-60-10-117-15/00		
			FIELD PRINT		
LSD	SEC	TWP	RGE	Other Services	
				COMPENSATED SONIC	
API Number				MICROLOG	
Permit Number 2048				XY CALIPERS	
Permanent Datum GROUND LEVEL, Elevation 729.00 metres				PHOTO DENSITY	
Log Measured From K.B., 5.40M above Permanent Datum				DUAL SPACED NEUTRON	
Drilling Measured From KELLY BUSHING				Elevations:	
Date	02-MAR-2007			KB	metres
				DF	734.40
				GL	729.00
Run Number	1				
Depth Driller	1408.00			metres	
Depth Logger	1406.30			metres	
First Reading	1405.00			metre	
Last Reading	434.00			metre	
Casing Driller	435.00			metres	
Casing Logger	434.00			metres	
Bit Size	200.00			mm	
Hole Fluid Type	GELCHEM				
Density / Viscosity	1120.0 kg/M3			65.00 sec/L	
PH / Fluid Loss	10.50			12.00 ml/30Min	
Sample Source	FLOWLINE				
Rm @ Measured Temp	1.25 @ 25.0			ohm-m	
Rmf @ Measured Temp	0.95 @ 25.0			ohm-m	
Rmc @ Measured Temp	1.43 @ 25.0			ohm-m	
Source Rmf / Rmc	PRESS			FILTER	
Rm @ BHT	0.85 @ 46.0			ohm-m	
Time Since Circulation	7.0 HRS				
Max Recorded Temp	46.00			deg C	
Equipment Name	13131				
Equipment / Base	QUINT			GPR	
Recorded By	ADAM SMITH				
Witnessed By	BRAD POWELL				
CIRC STOP	09:45 MAR-02			Last Line	

BOREHOLE RECORD

Last Edited: 2-MAR-2007 13:39

Bit Size millimetres	Depth From metres	Depth To metres
311.000	0.00	435.00
200.000	435.00	1408.00

CASING RECORD

Type	Size millimetres	Depth From metres	Shoe Depth metres	Weight pounds/ft
SURFACE	219.100	0.00	435.00	24.00

REMARKS

- 1) SOFTWARE ISSUE: WLS 7.01.0195.
- 2) CUSTOMER SCALES AND LOGGED INTERVALS USED
- 3) TOOLS RUN: MAI, MSS, MPD, MDN, MML, ISC, MGS, MTC, MFE, MCG RUN IN COMBINATION
- 4) HARDWARE: MAI: TWO 25.4 MM STANDOFFS
MSS: THREE 25.4 MM STANDOFFS
MDN: DUAL BOWSPRING
MTC: ONE SIX LEAF CENTRALIZER

6) RIG: PD #220

7) HOLE AND CEMENT VOLUMES CALCULATED USING DENSITY AND 2-ARM CALIPERS :

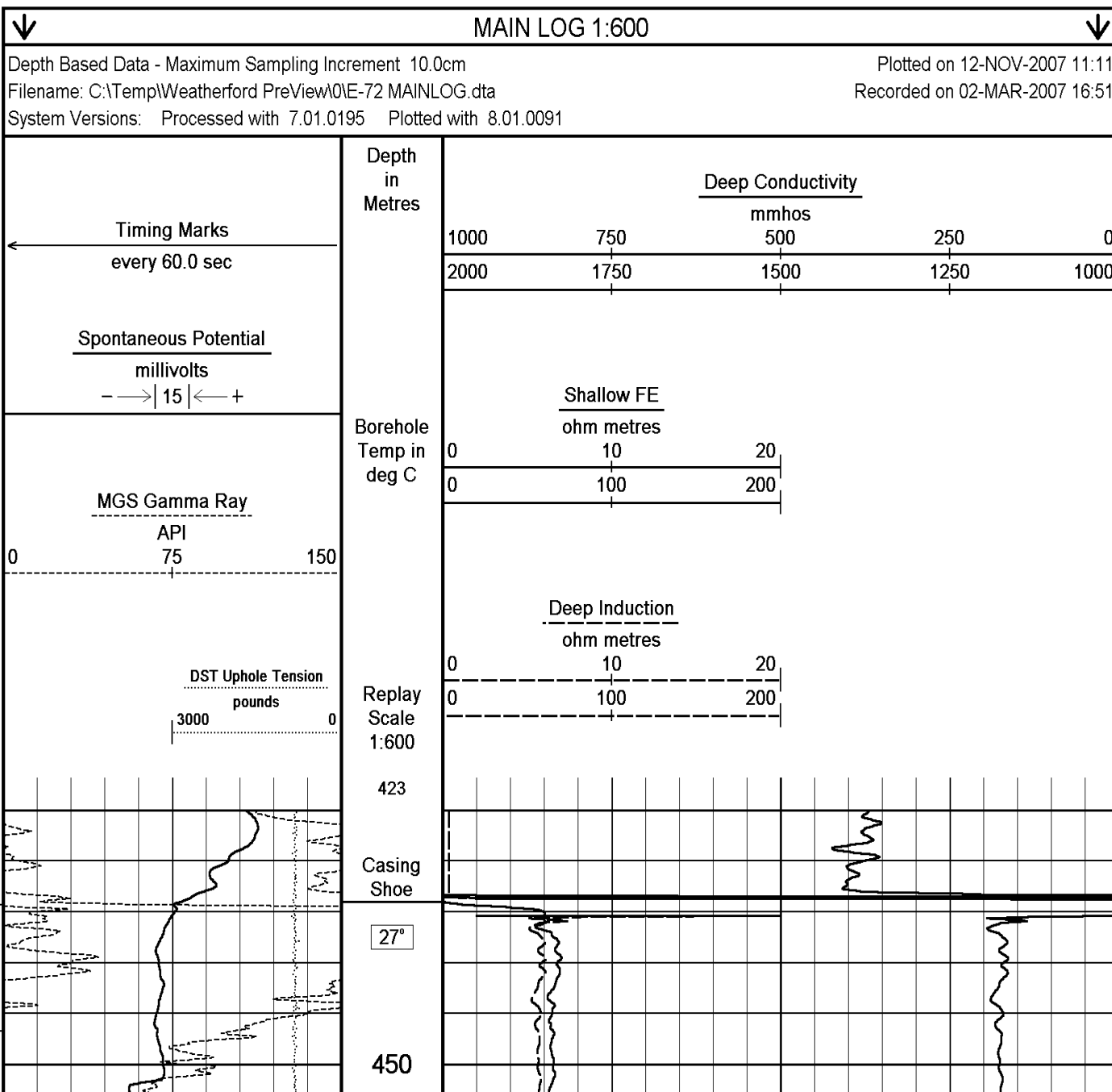
OPEN HOLE VOLUME = 36.8 CU.M.

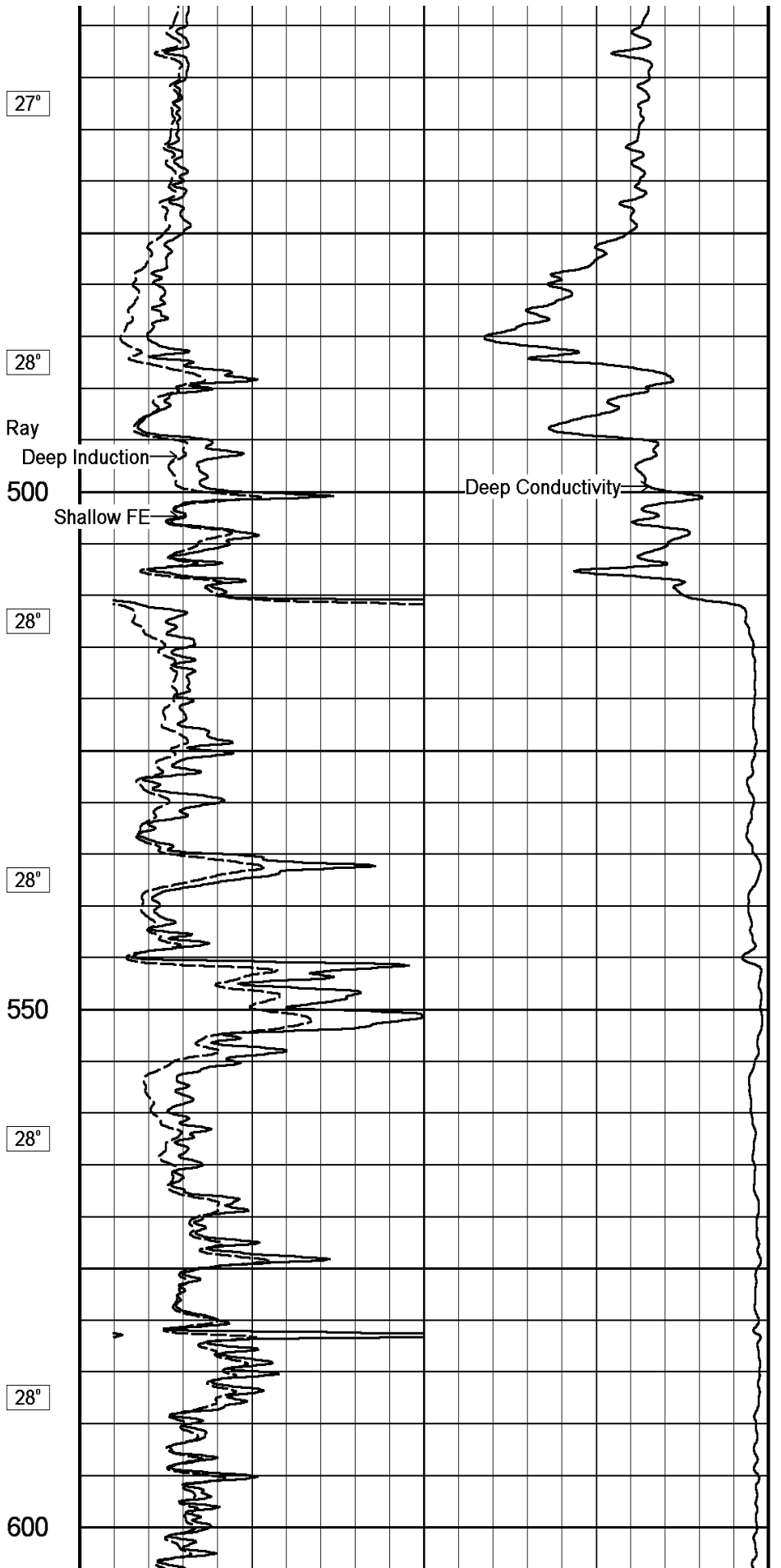
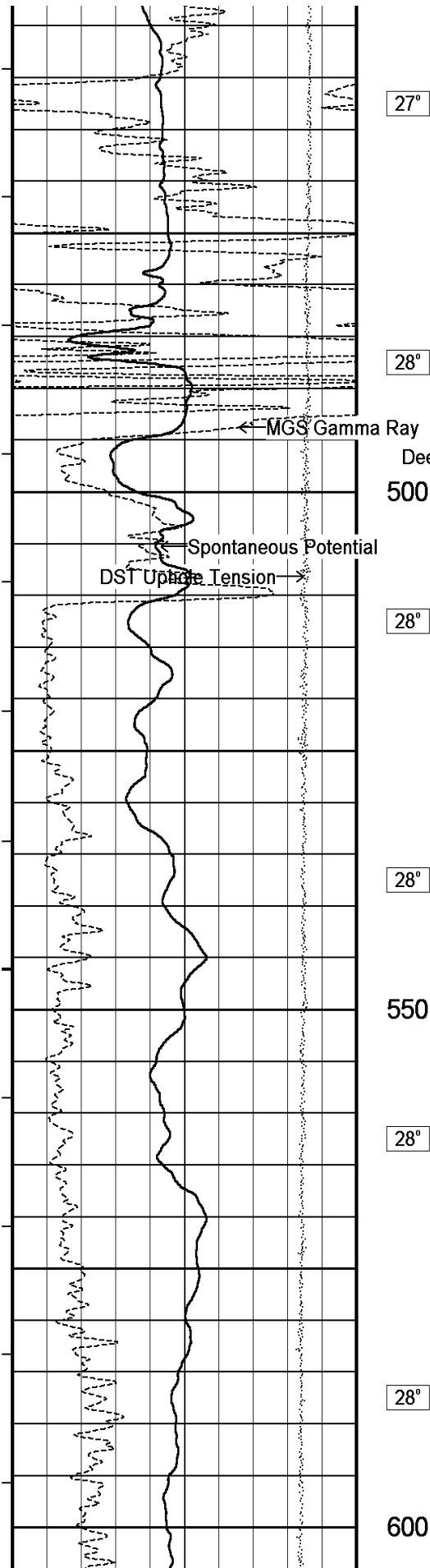
ANNULAR VOLUME USING 139.7 MM PRODUCTION CASING = 22.0 CU.M

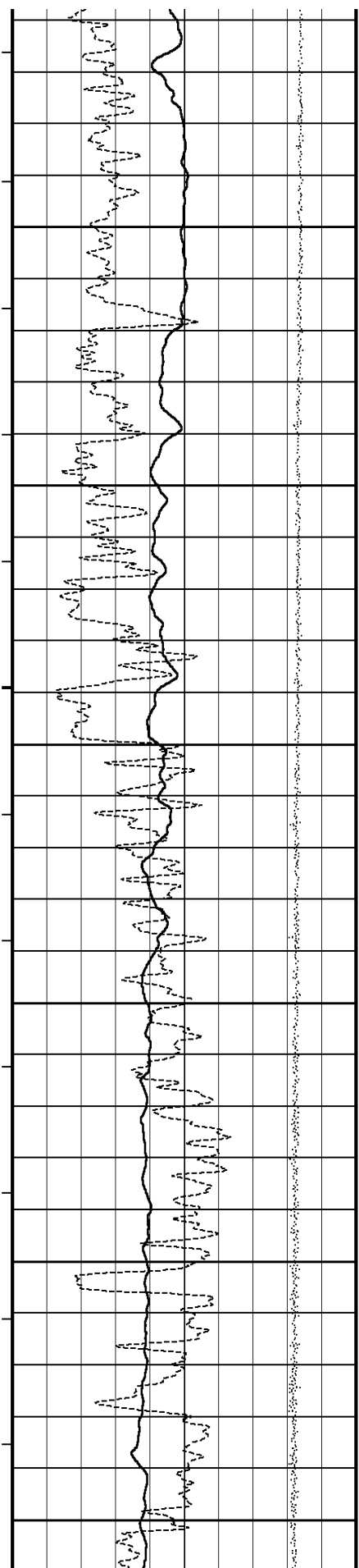
8) AREAS OF BOREHOLE RUGOSITY MAY CAUSE POOR DENSITY PAD CONTACT AND THUS HIGH DENSITY CORRECTION.
DENSITY POROSITY DATA MAY BE SKEWED AT THOSE INTERVALS.

9) ADDITIONAL PASS MADE TO IMPROVE SONIC OVERLAY. DATA LOOKS GOOD BUT IS A LITTLE NOISY IN SOME SECTIONS.
ADDITIONAL REPEAT SHOWN TO FURTHER VERIFY RESPONSE.

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.







29°

29°

650

30°

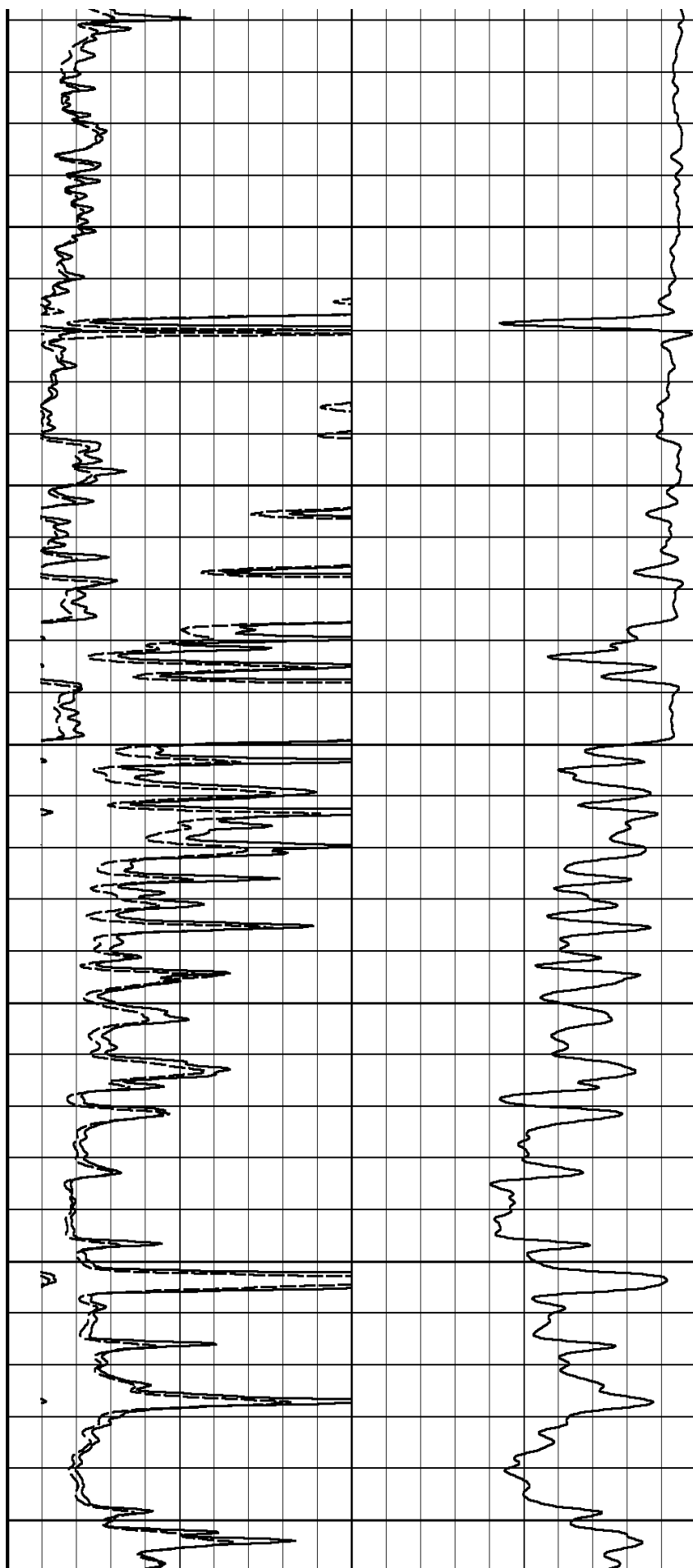
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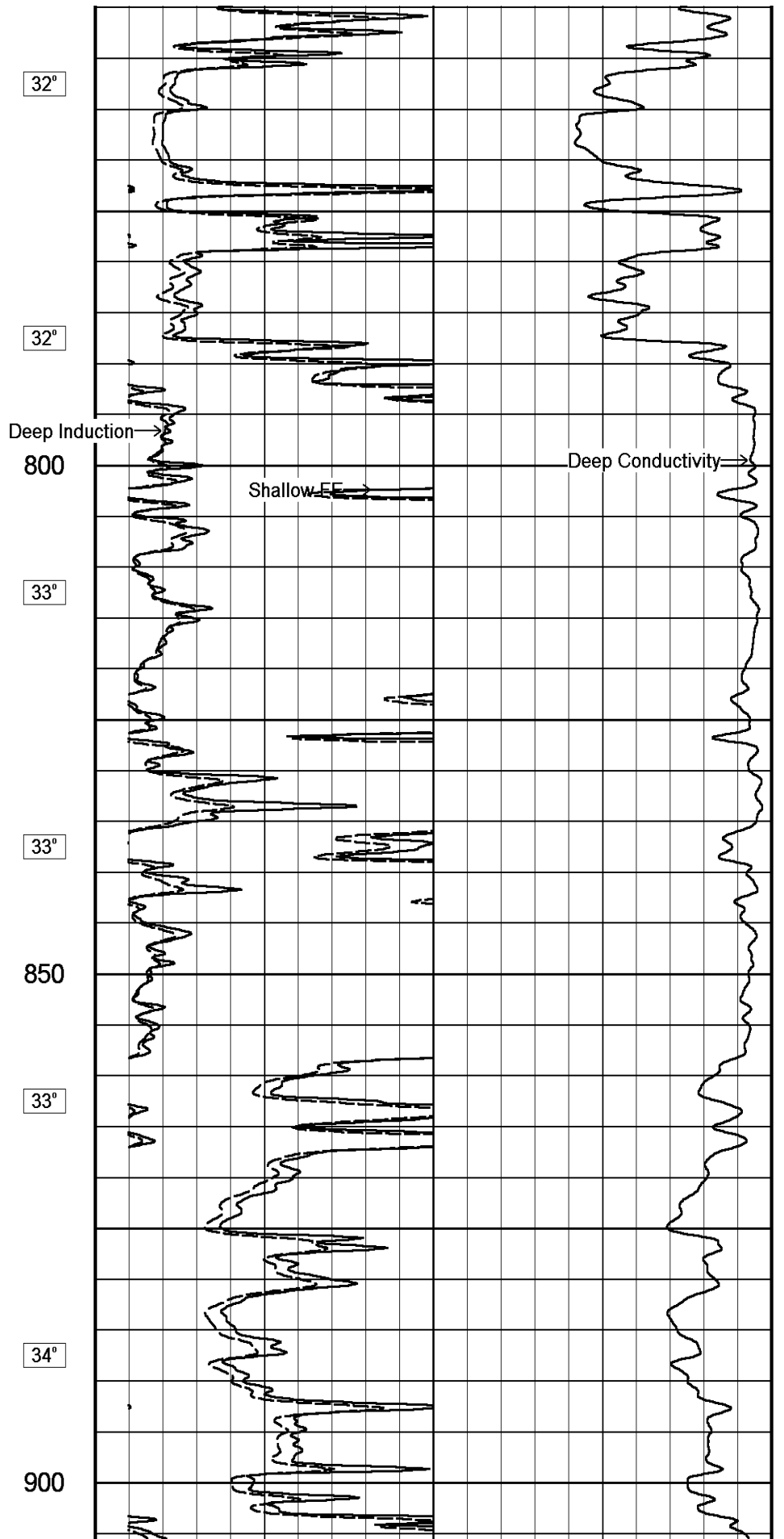
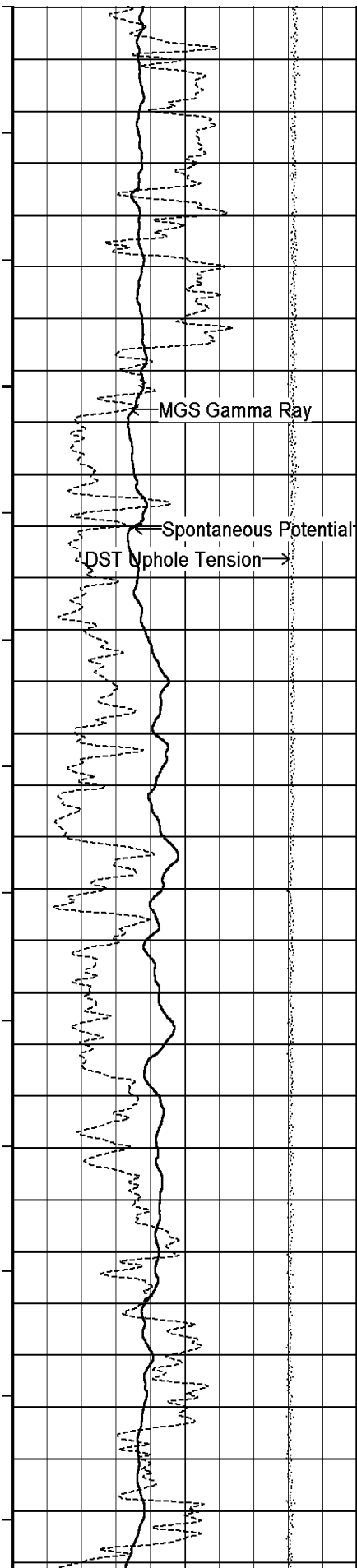
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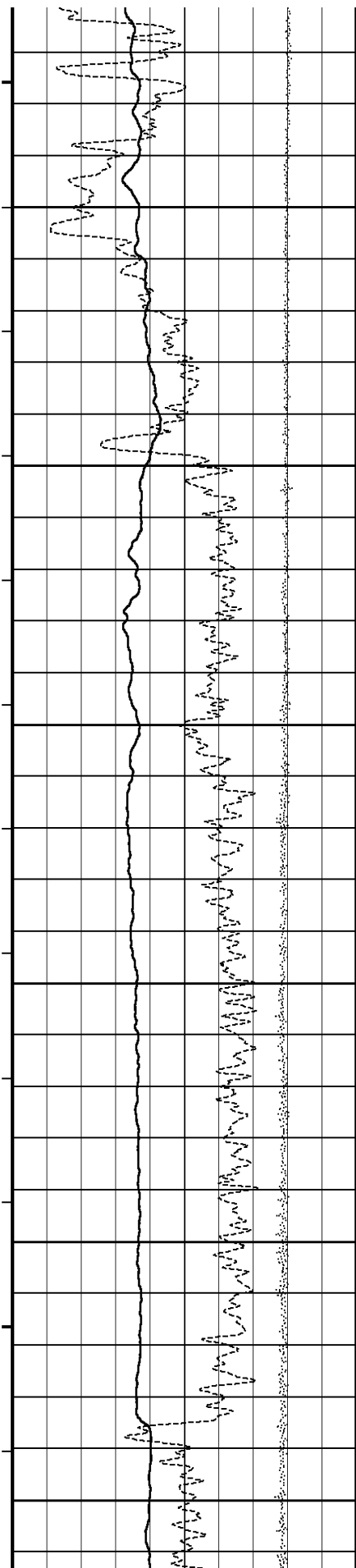
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32°

750







34°

35°

950

35°

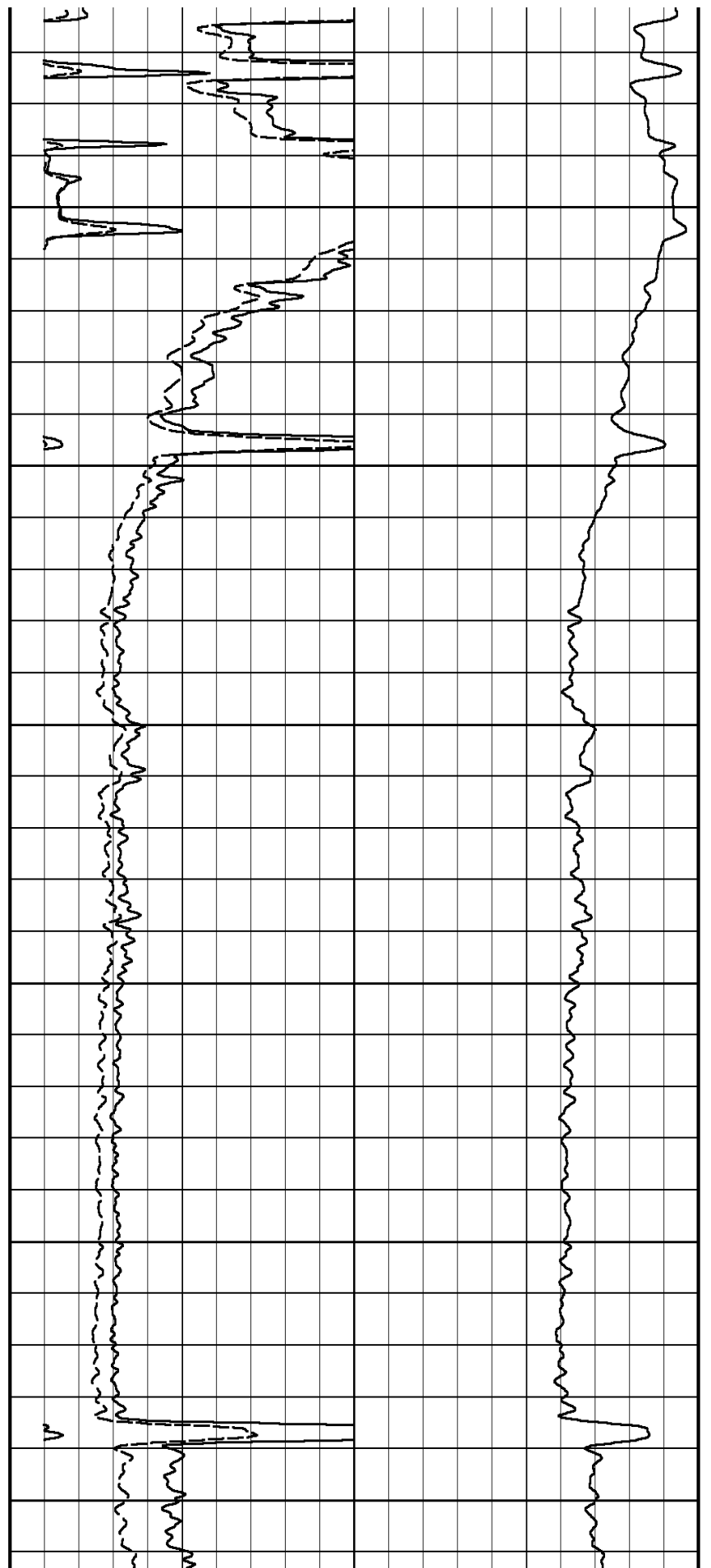
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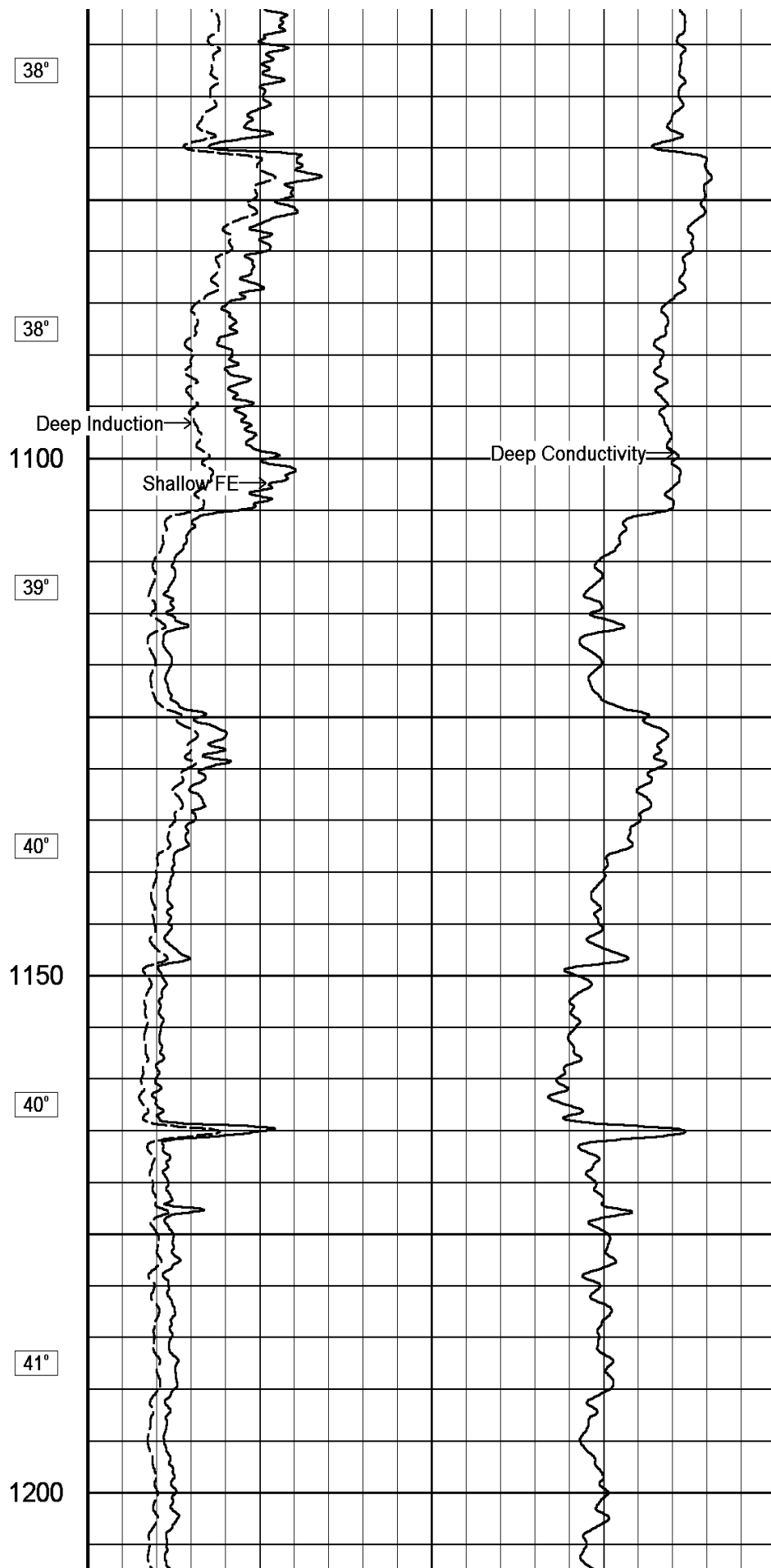
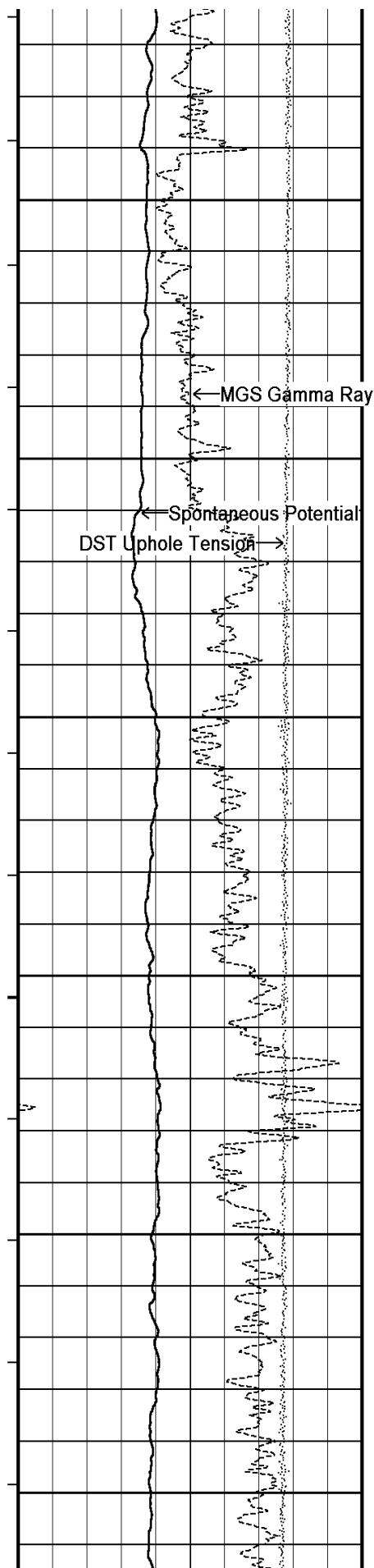
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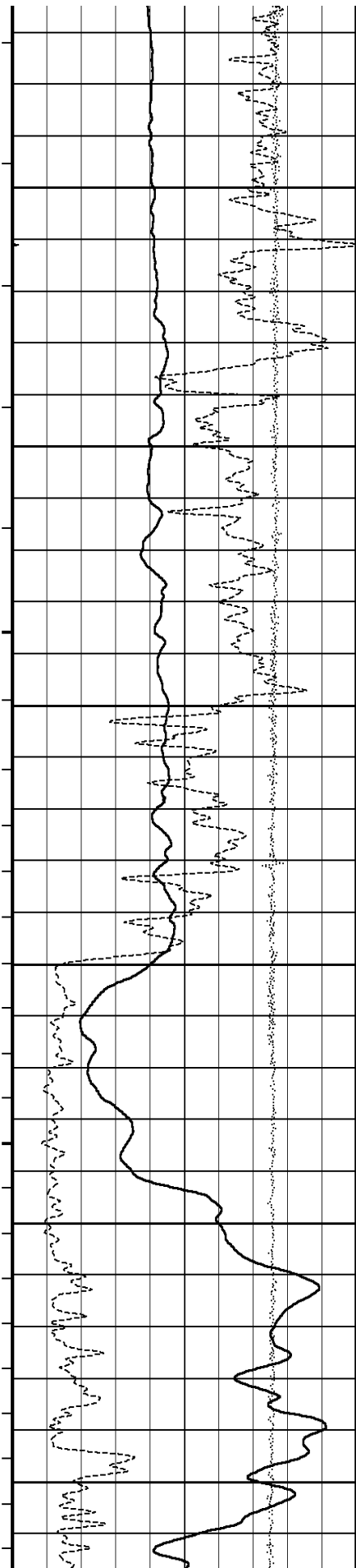
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37°

1050







42°

43°

1250

44°

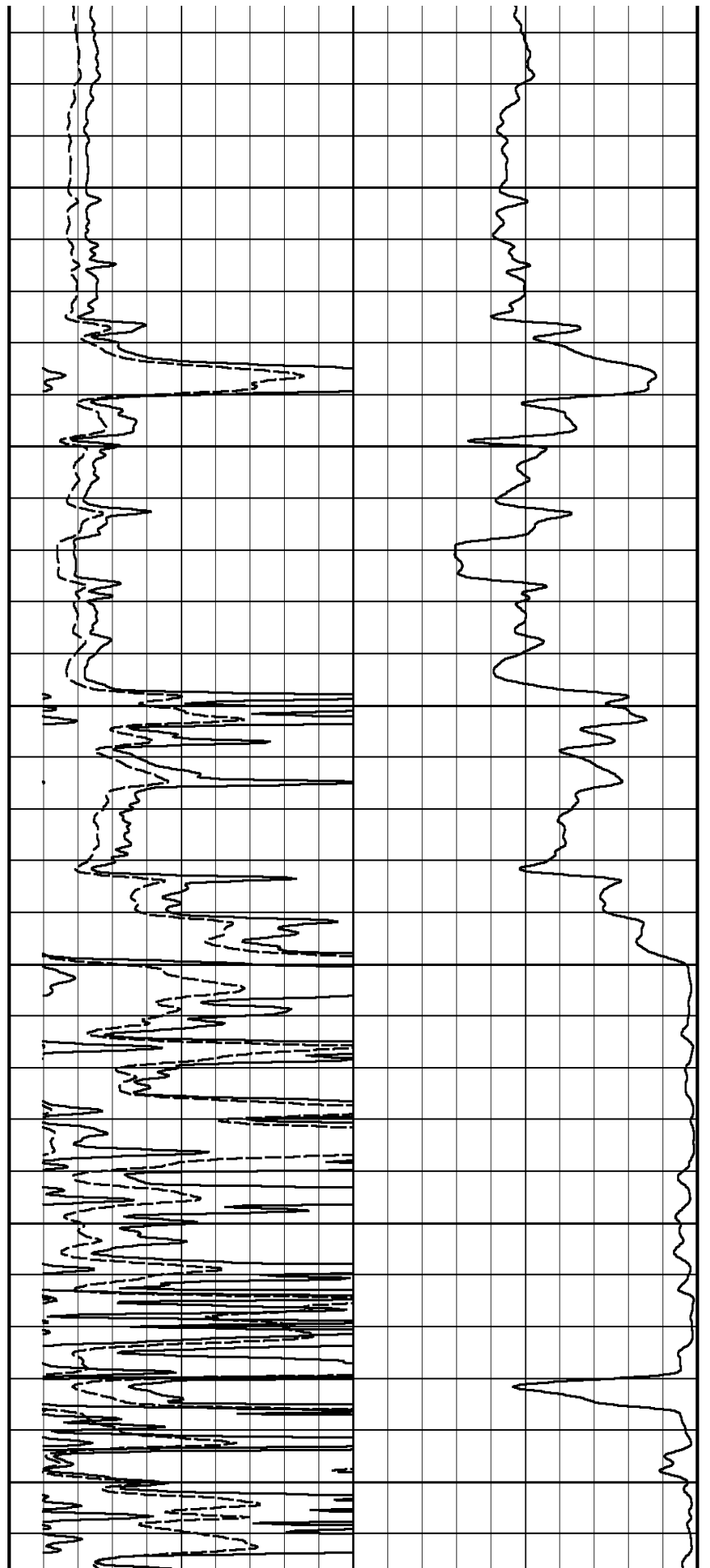
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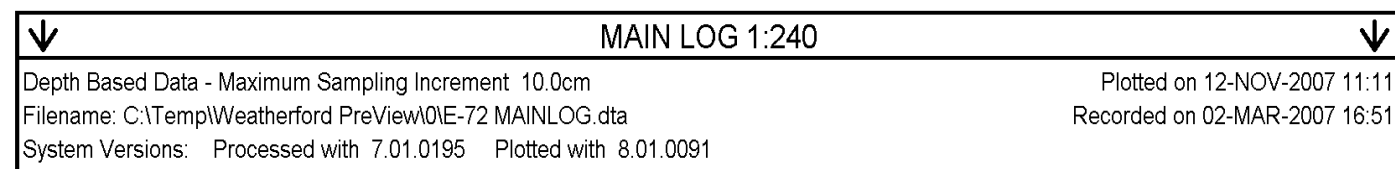
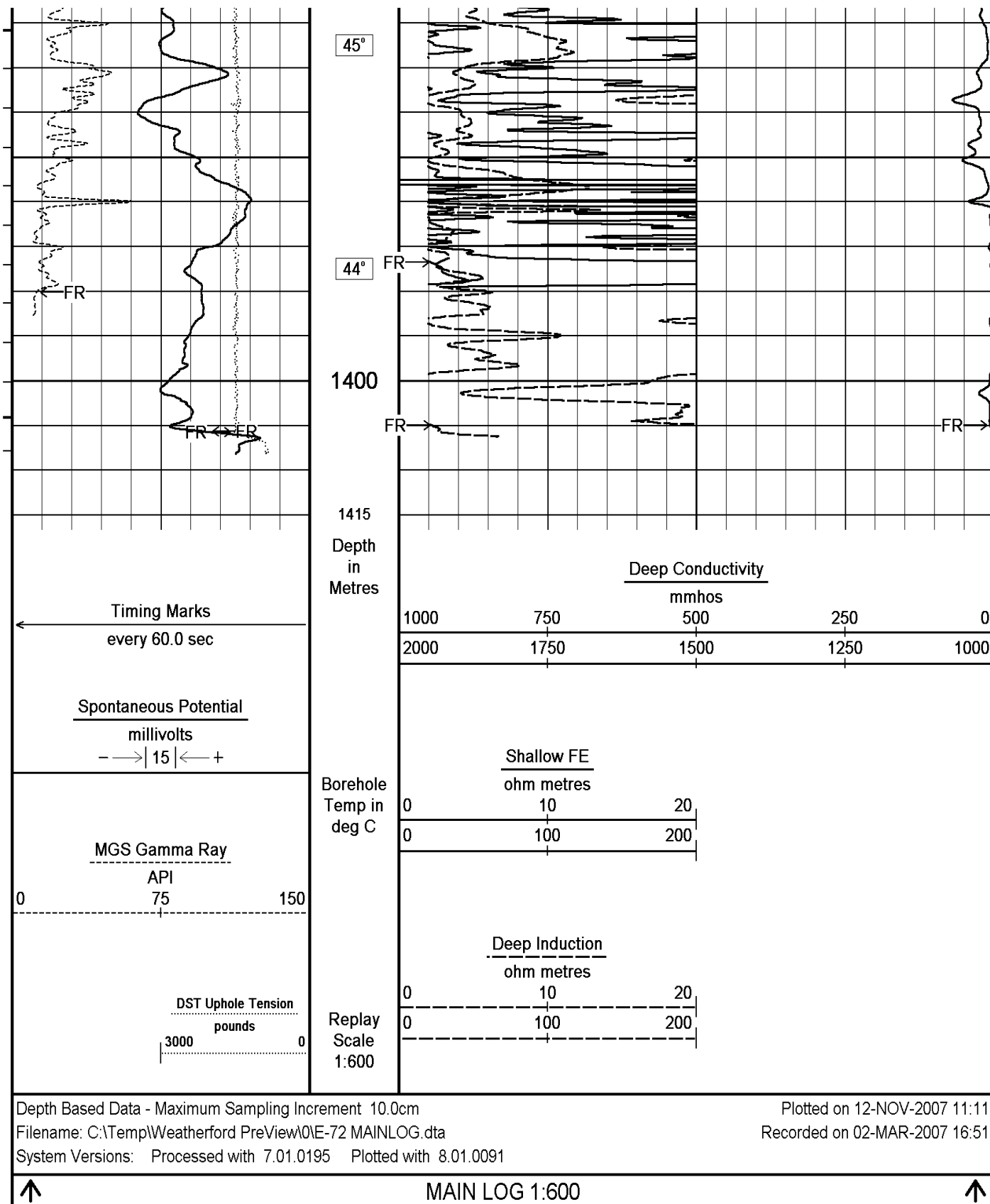
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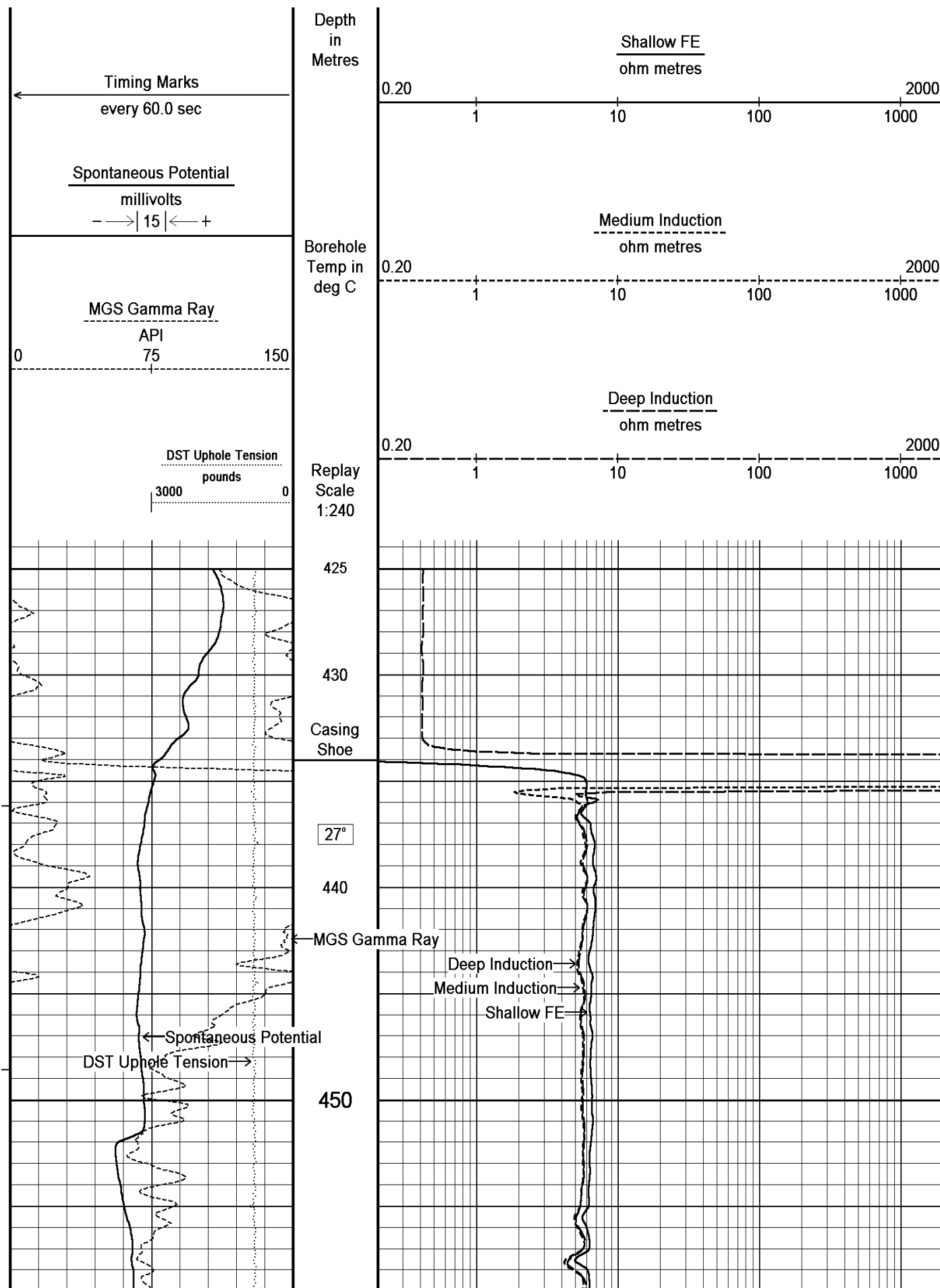
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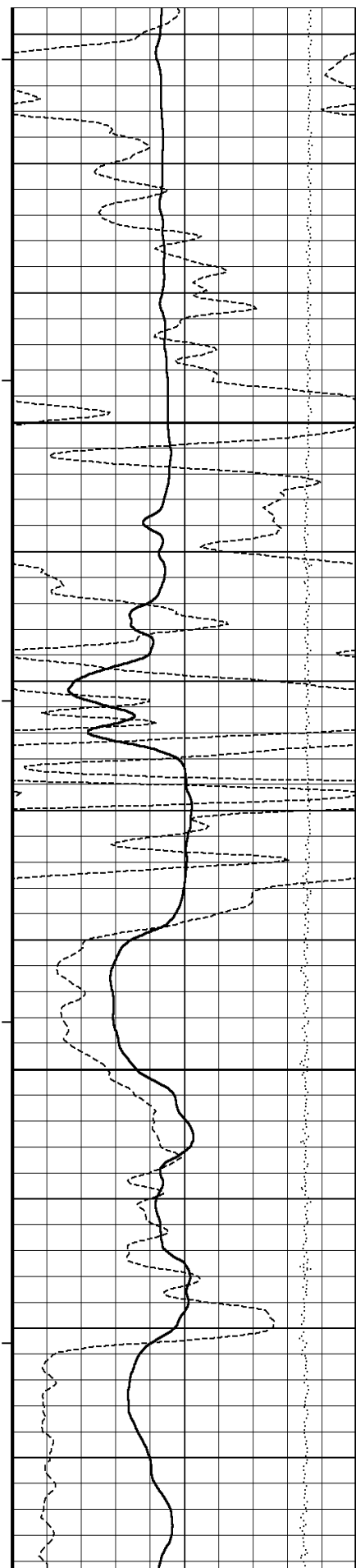
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1350









460

27°

470

480

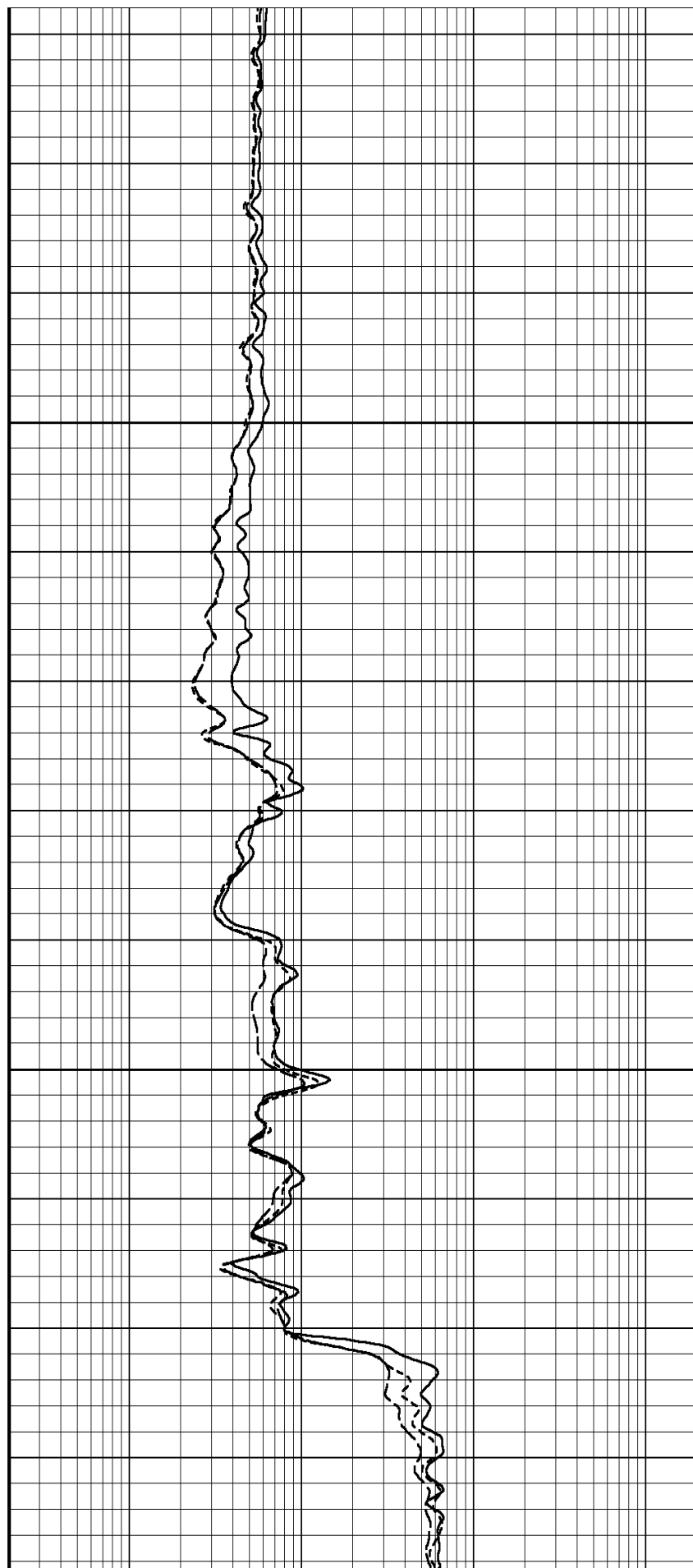
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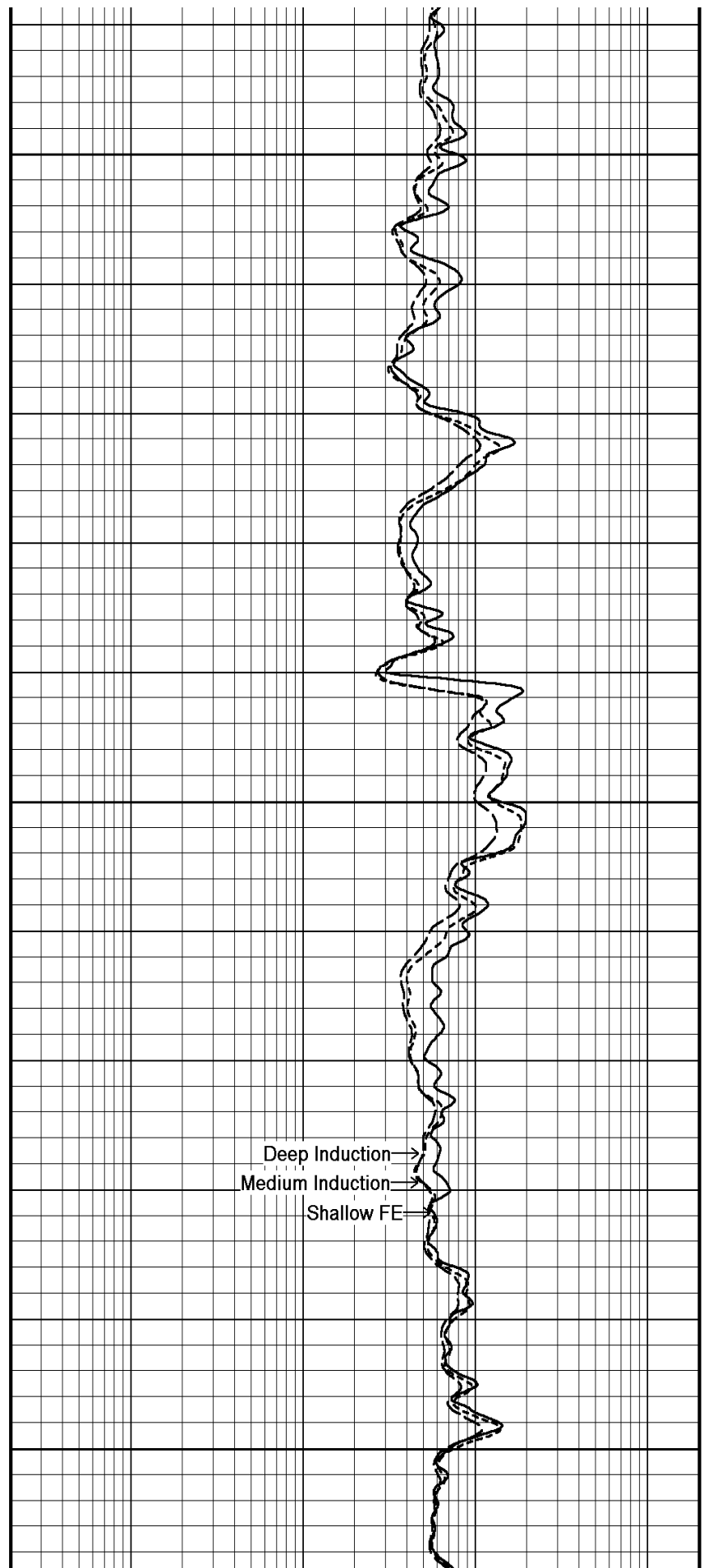
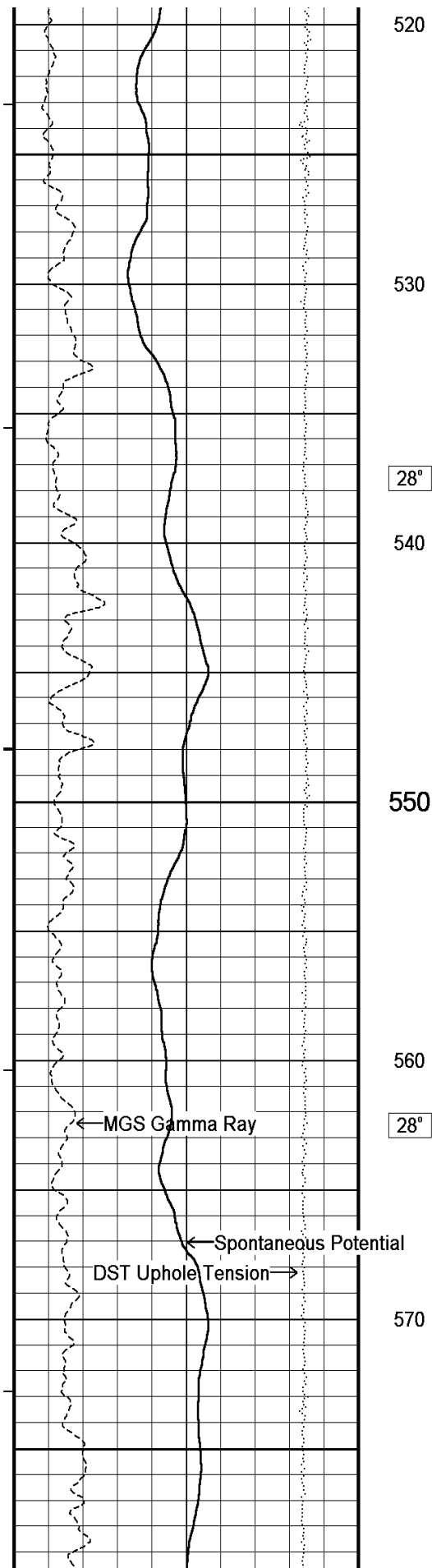
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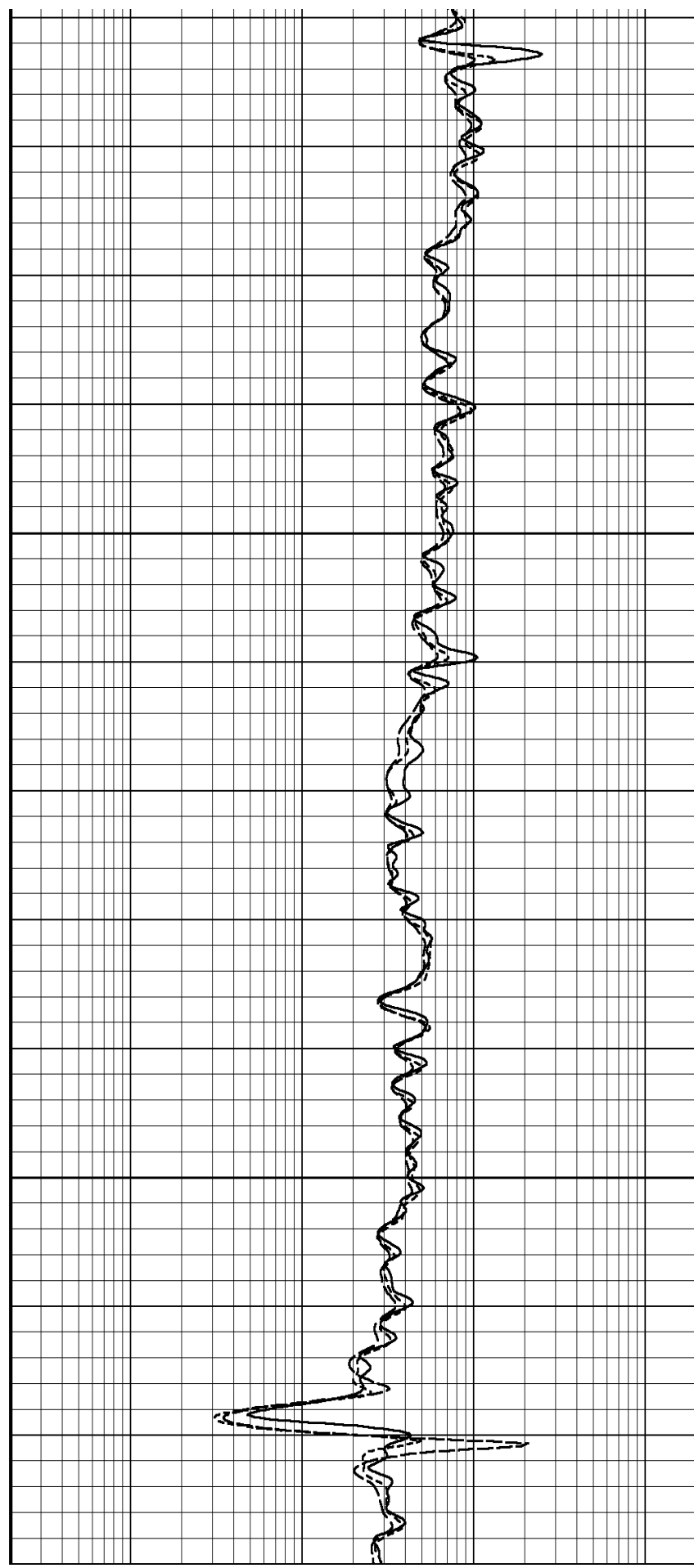
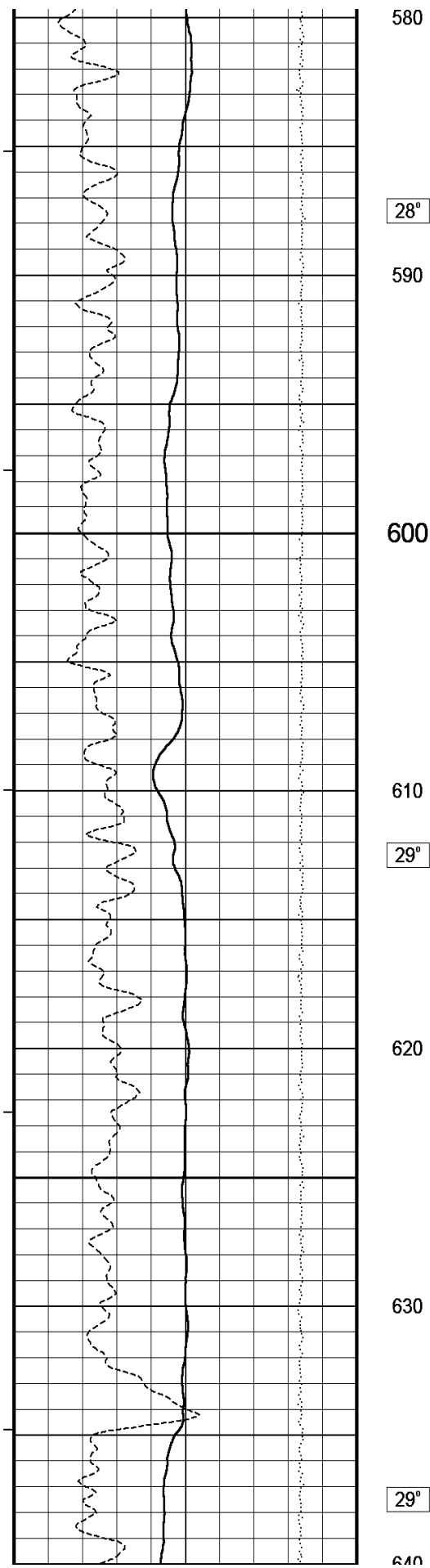
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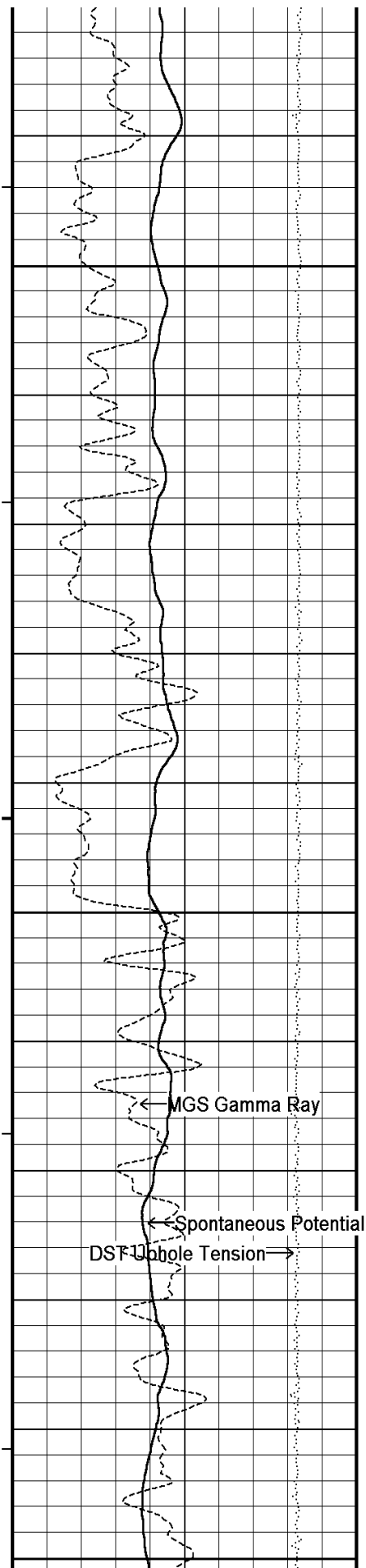
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28°

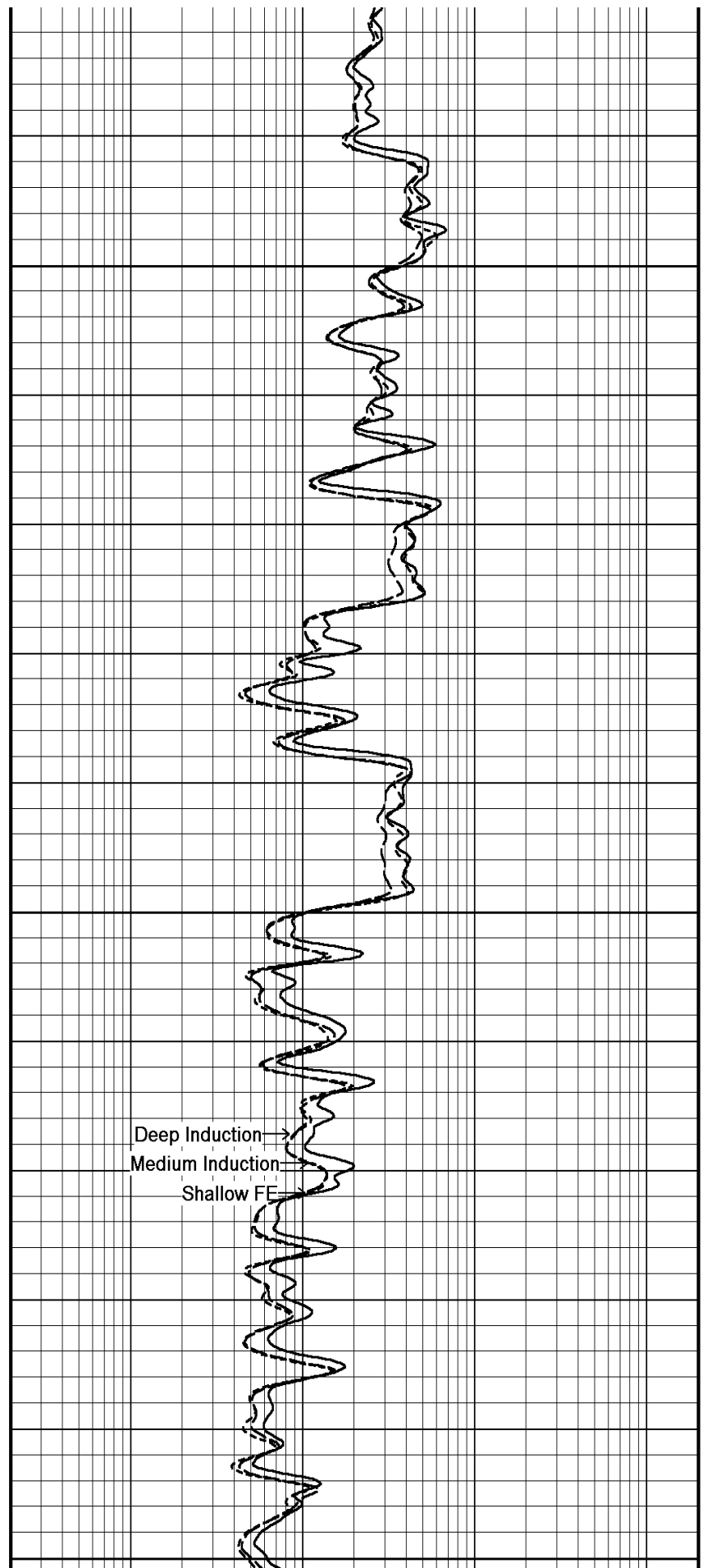


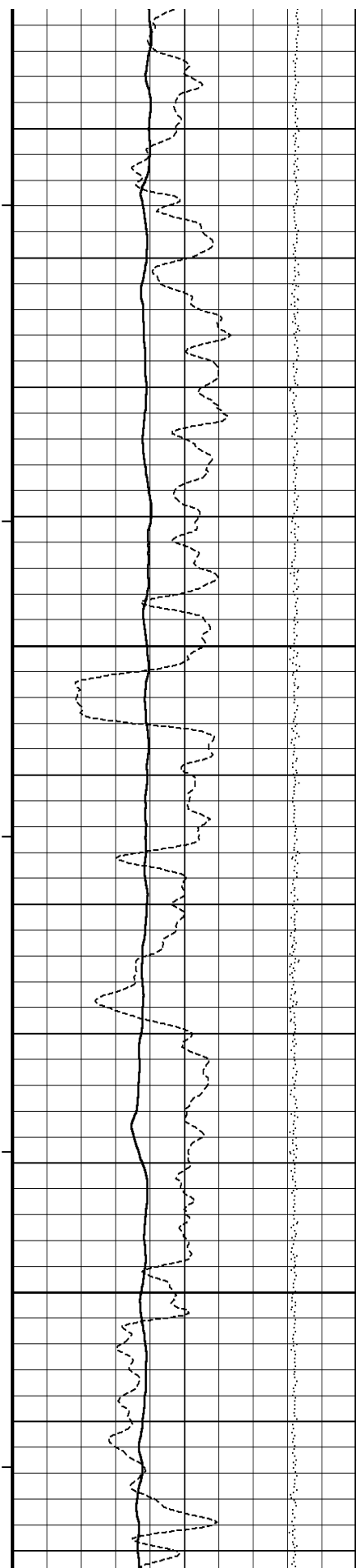






650
660
30°
670
680
31°
690
700





710

31°

720

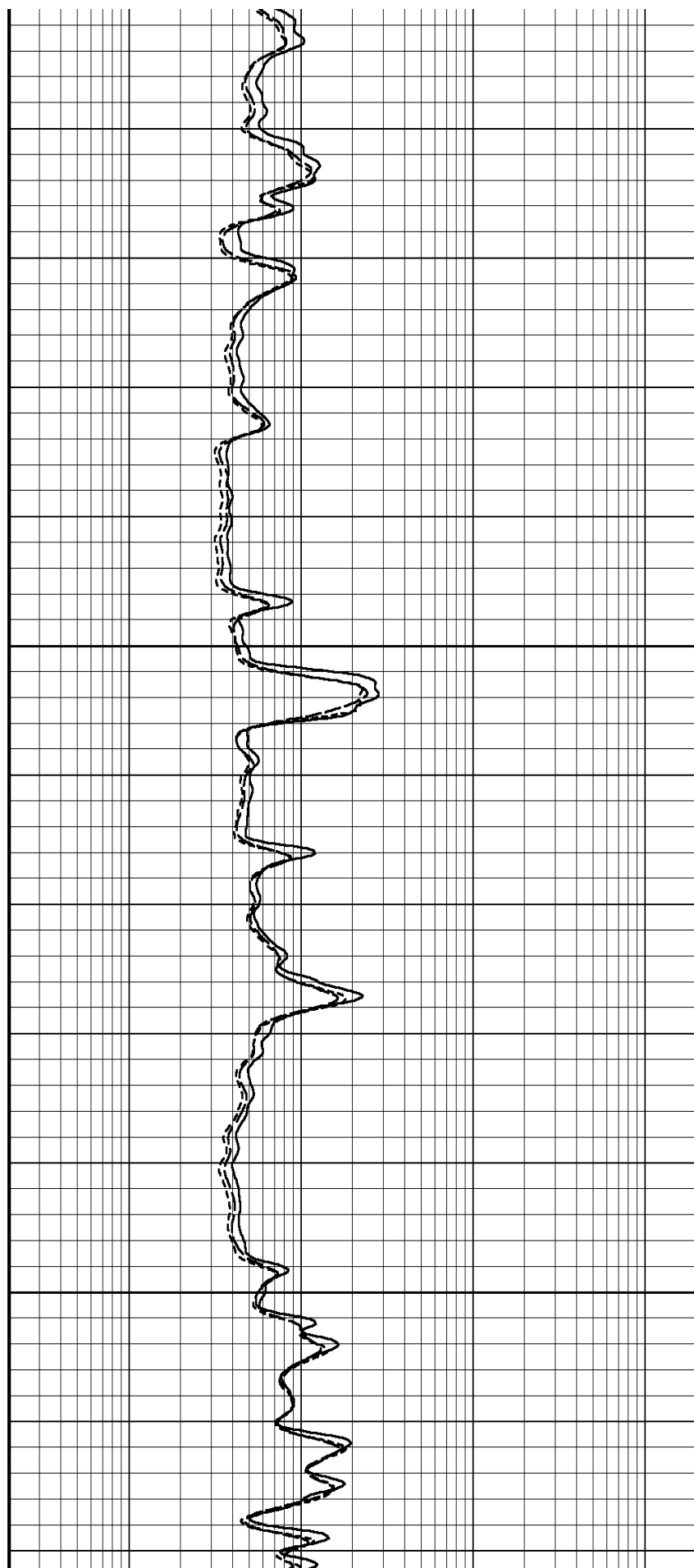
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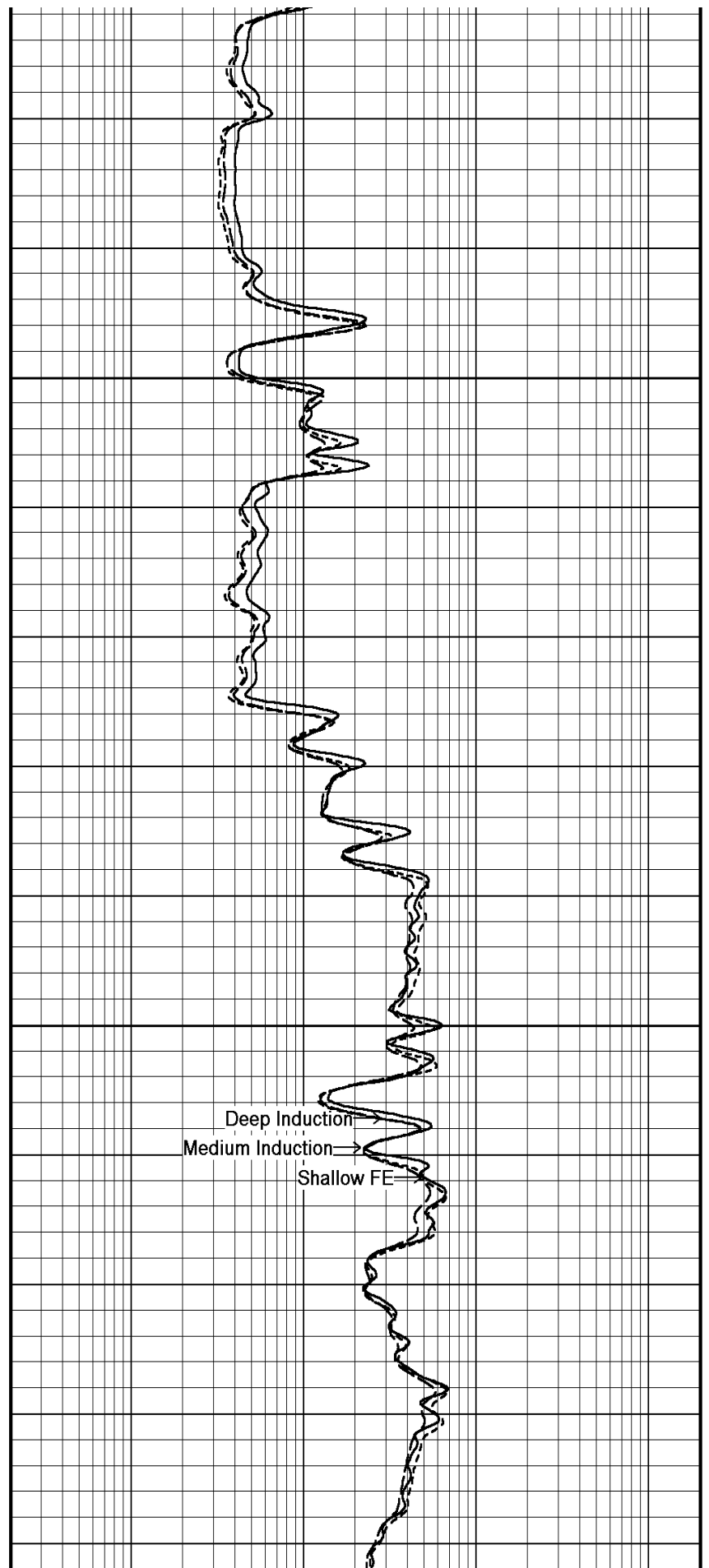
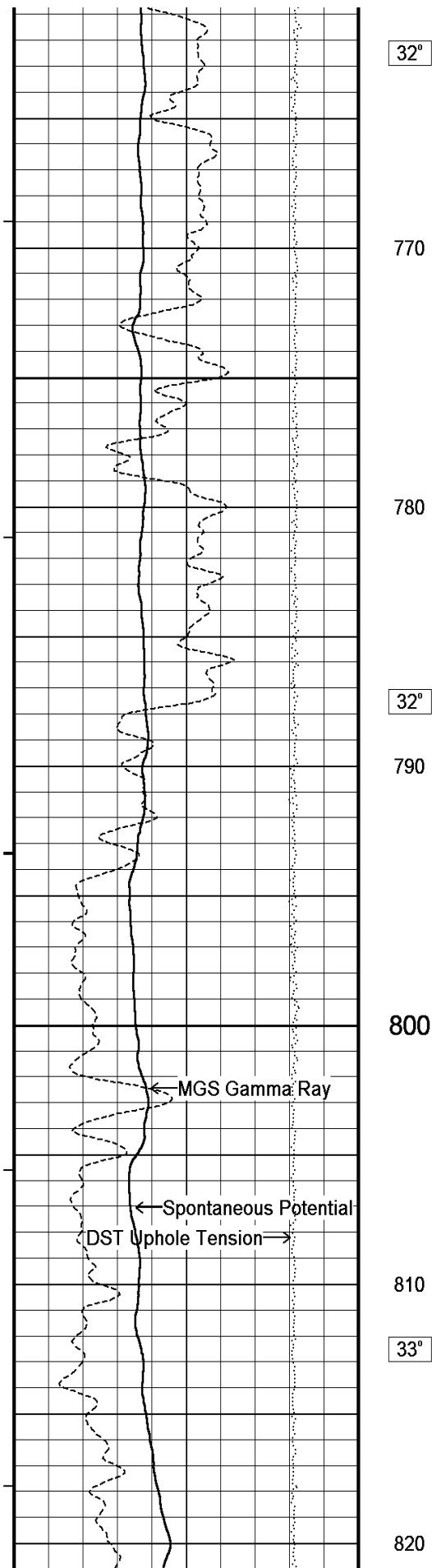
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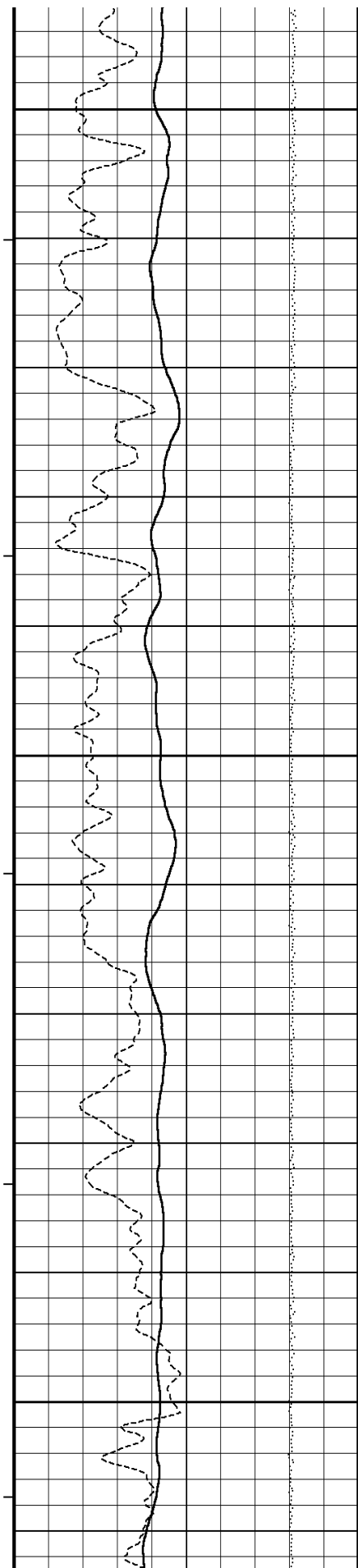
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750

760







830

33°

840

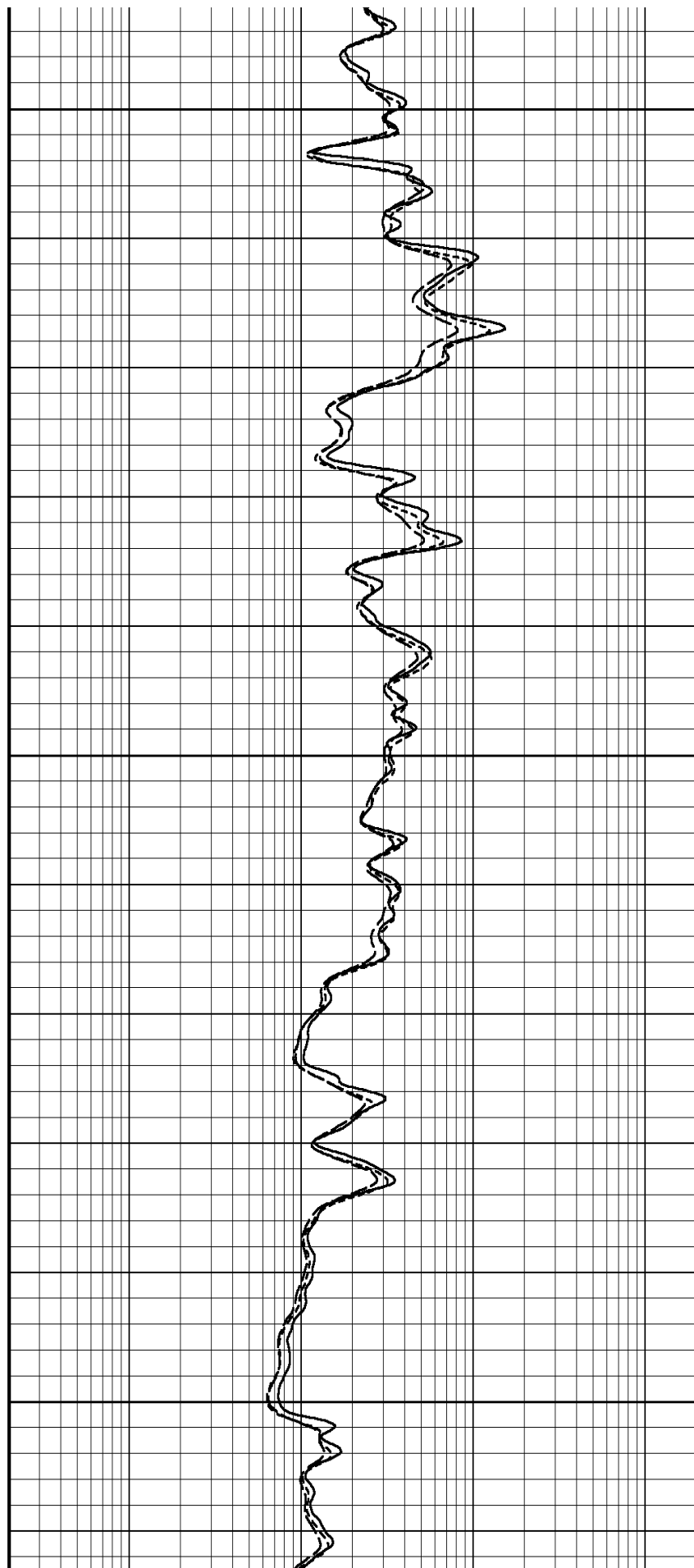
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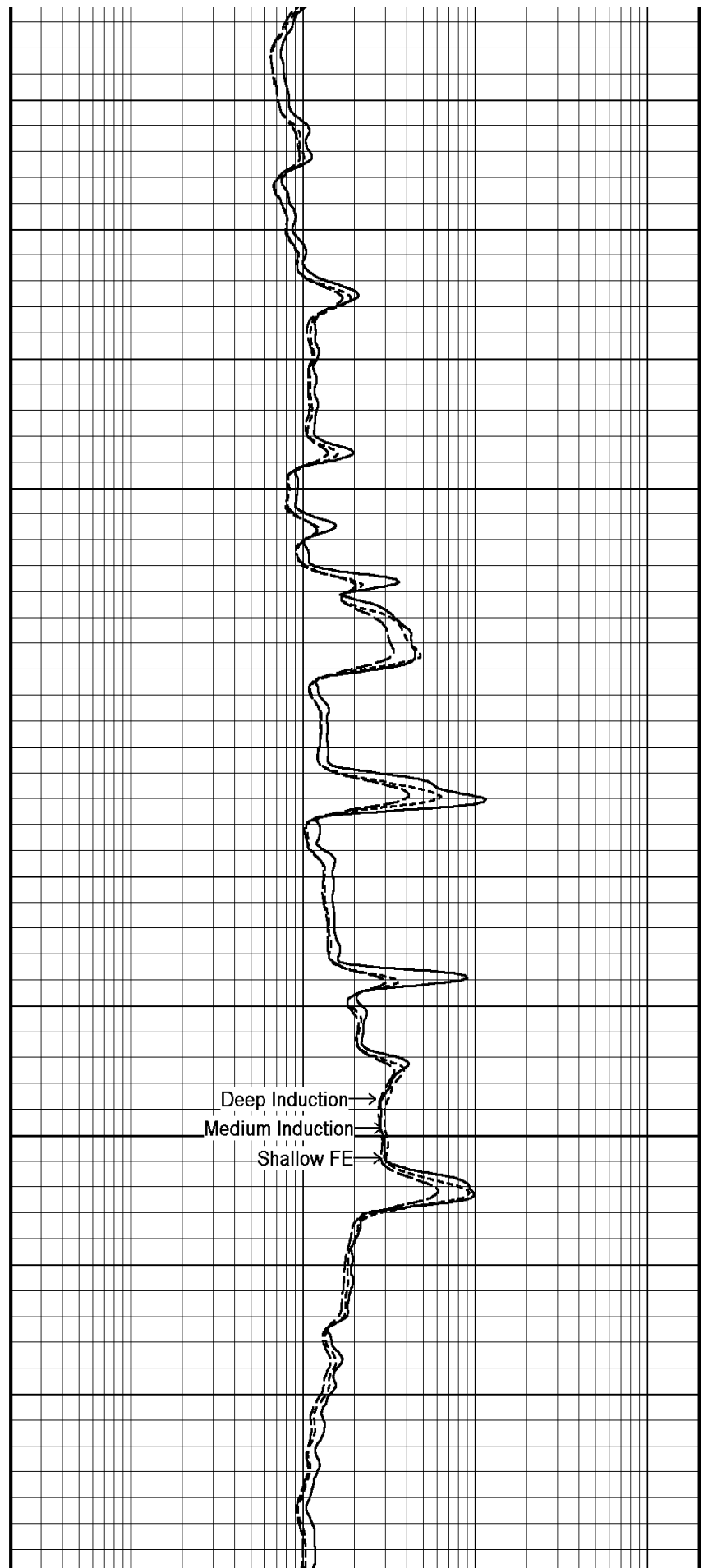
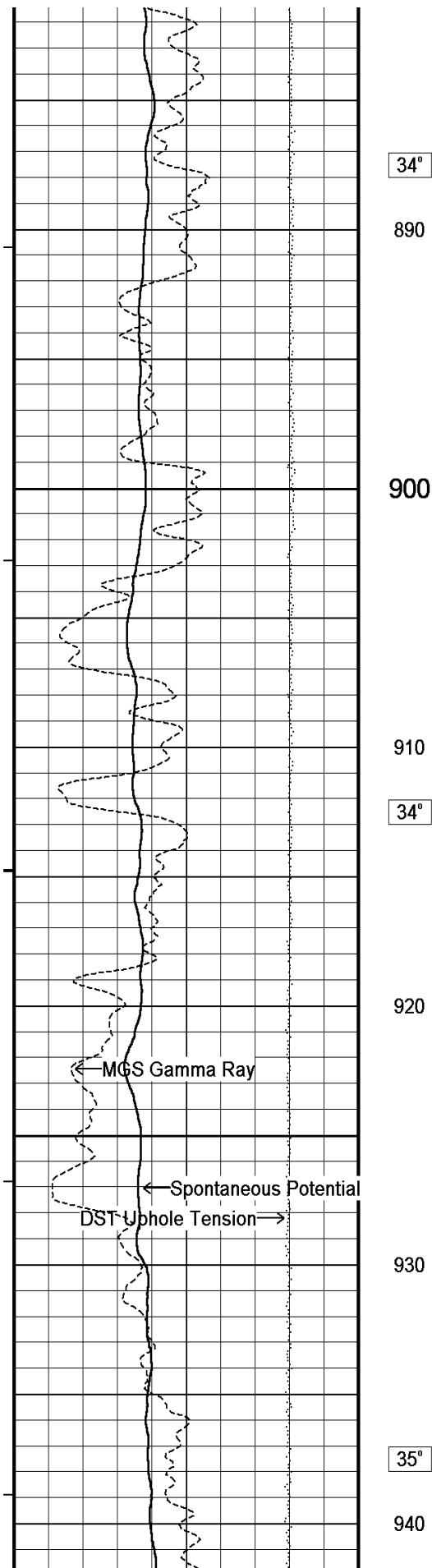
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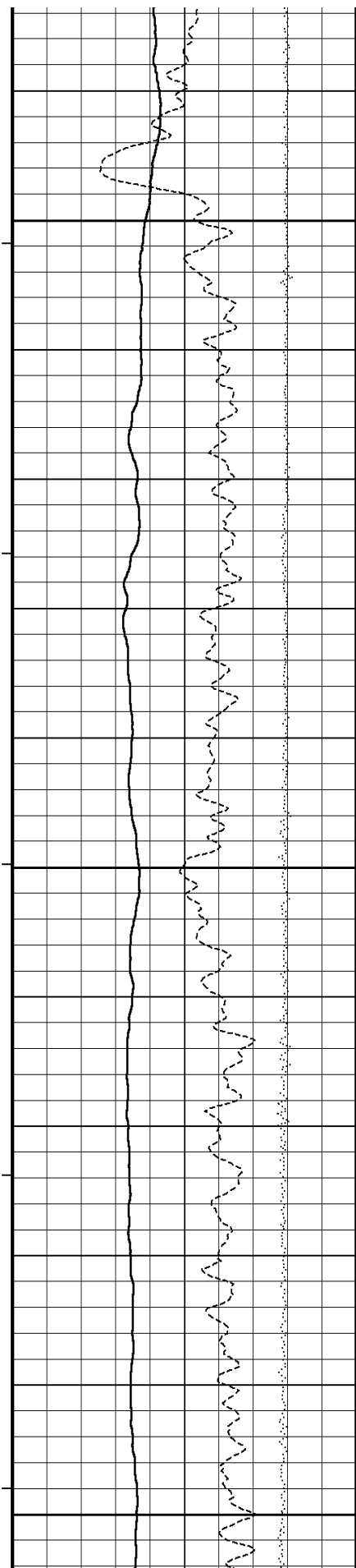
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870

880







950

960

35°

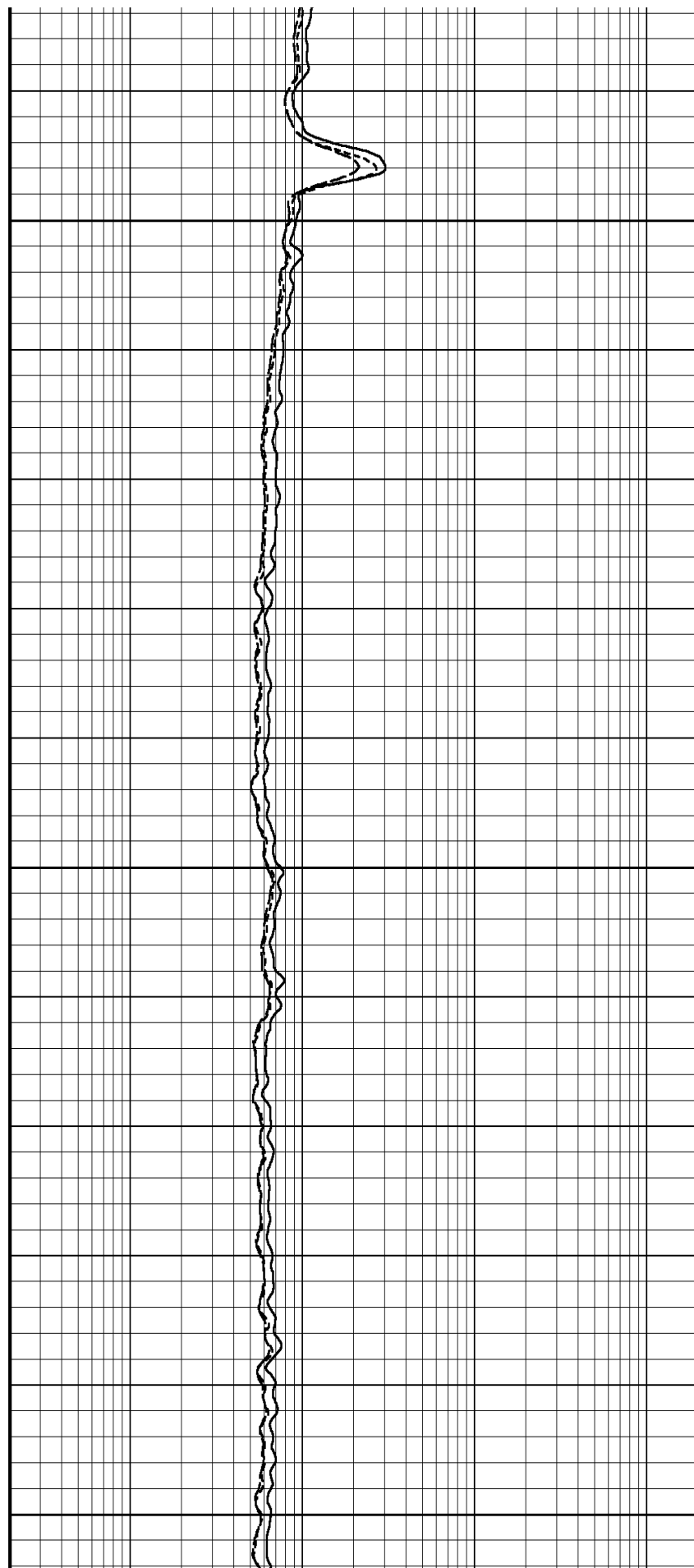
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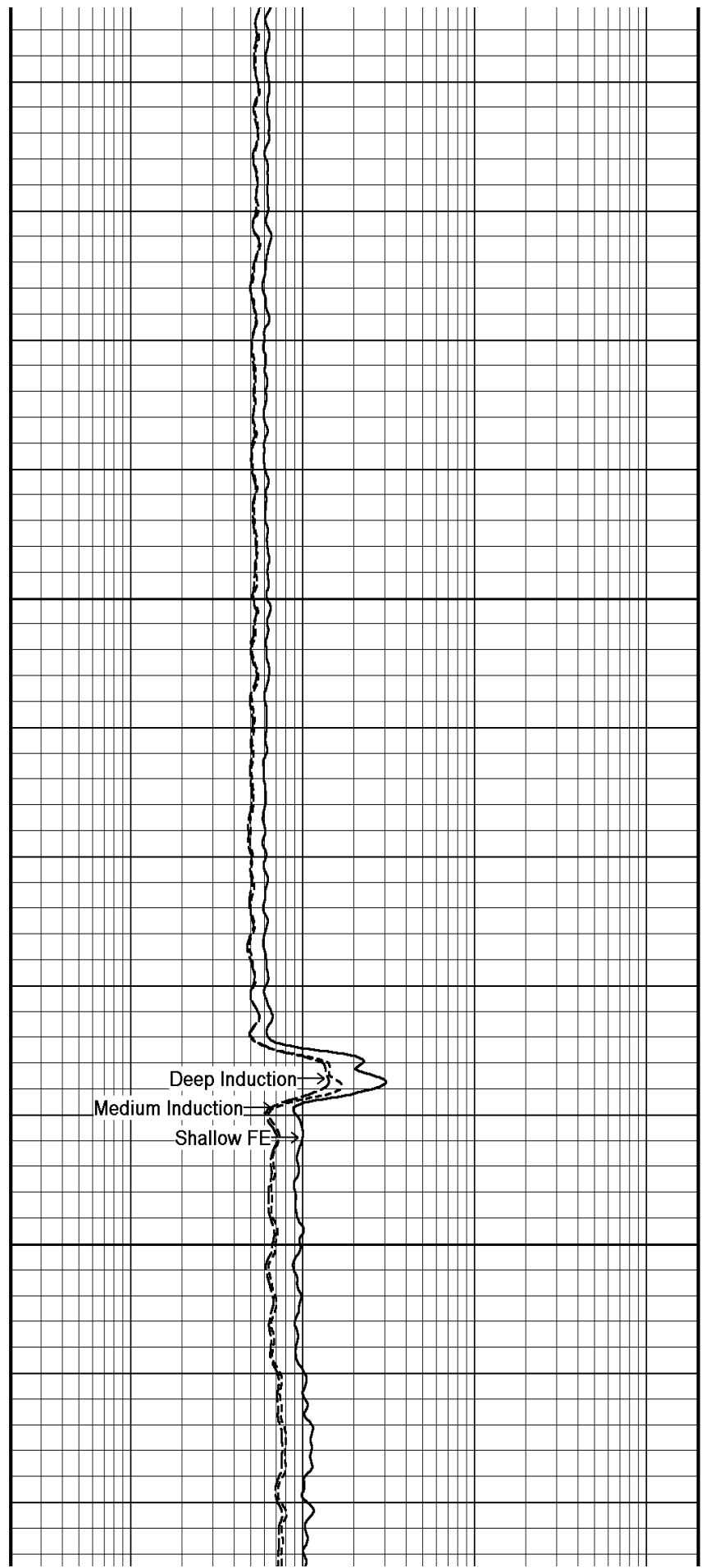
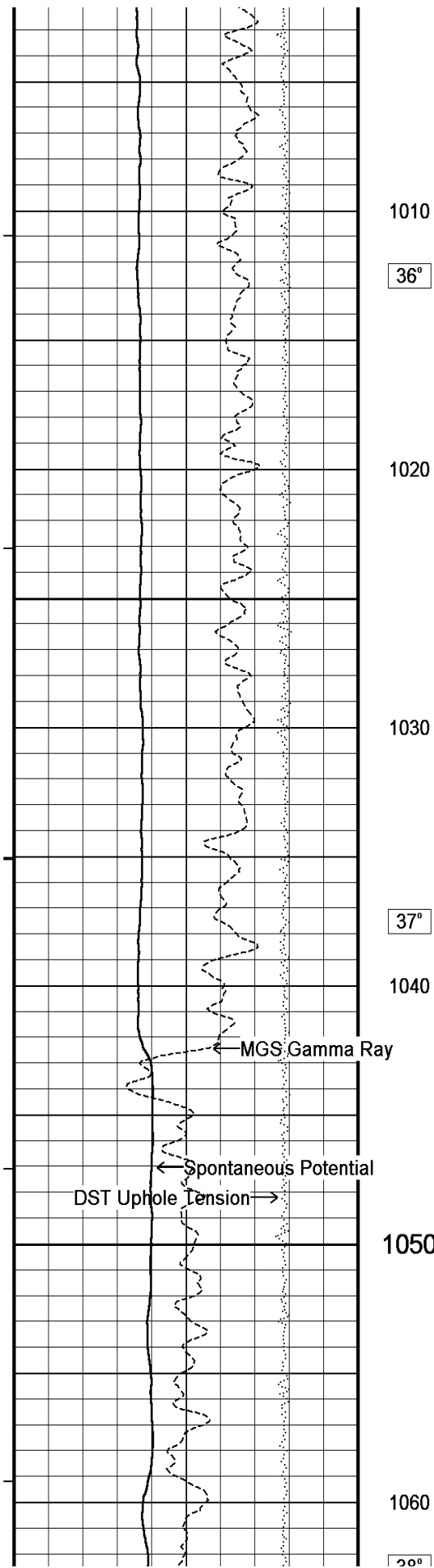
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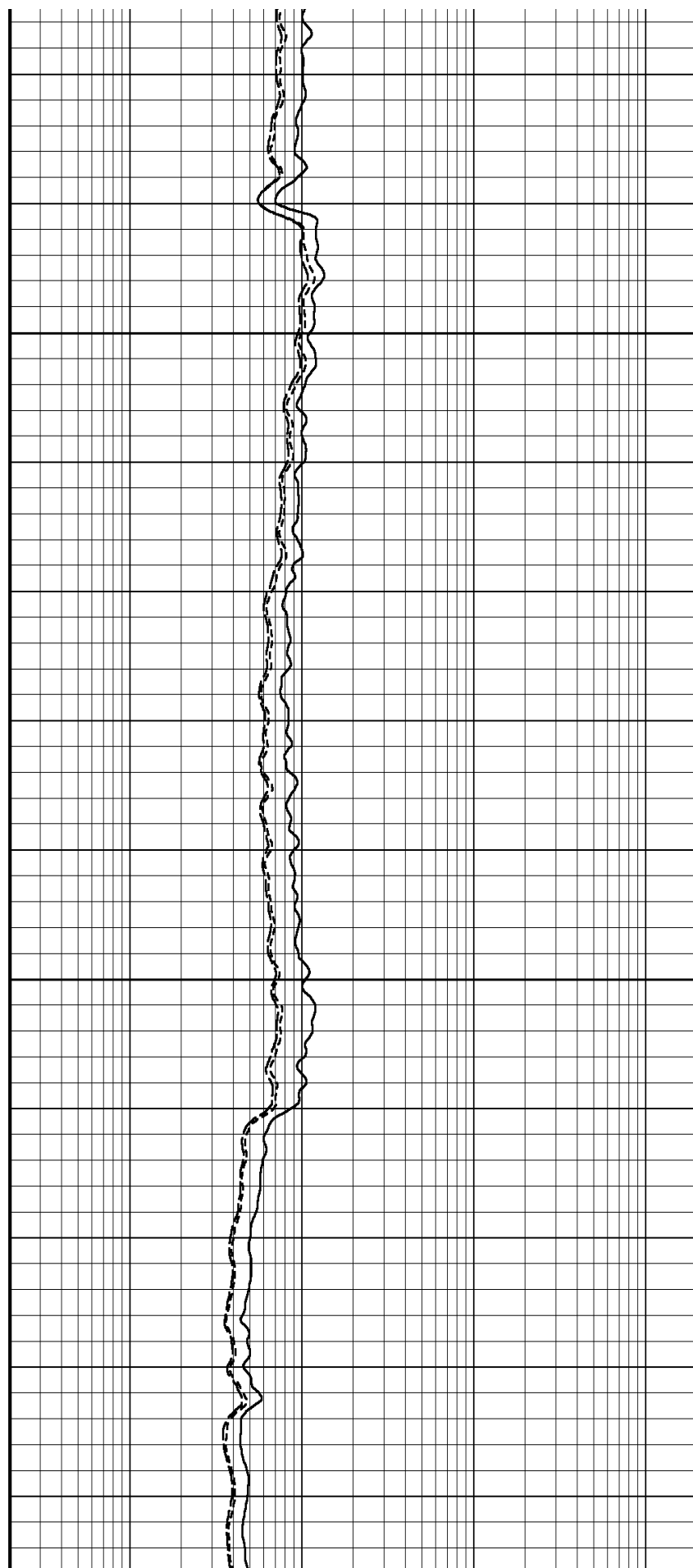
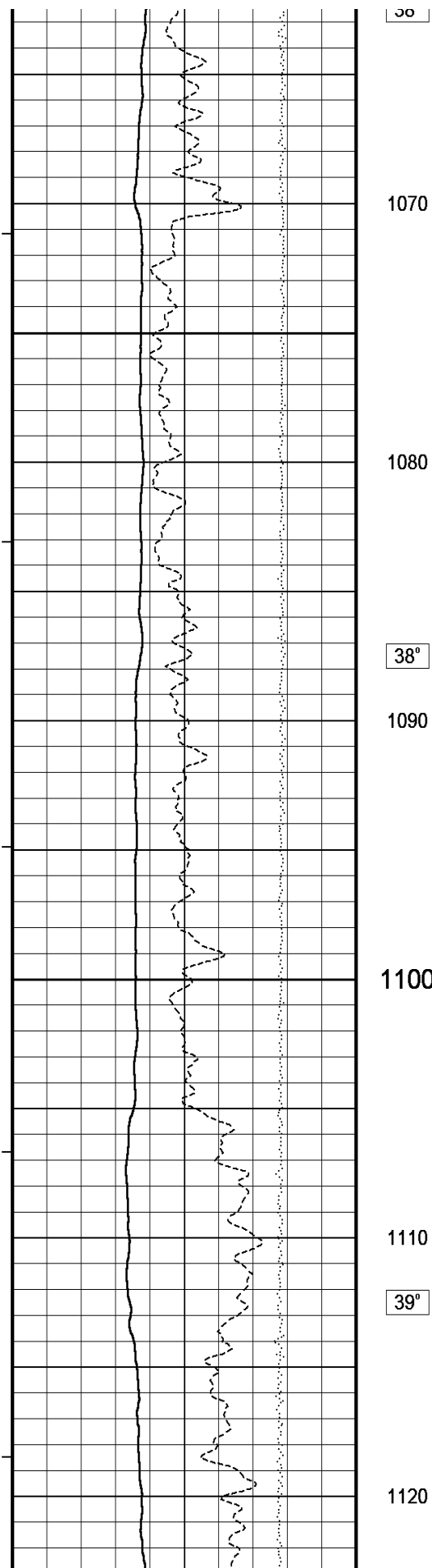
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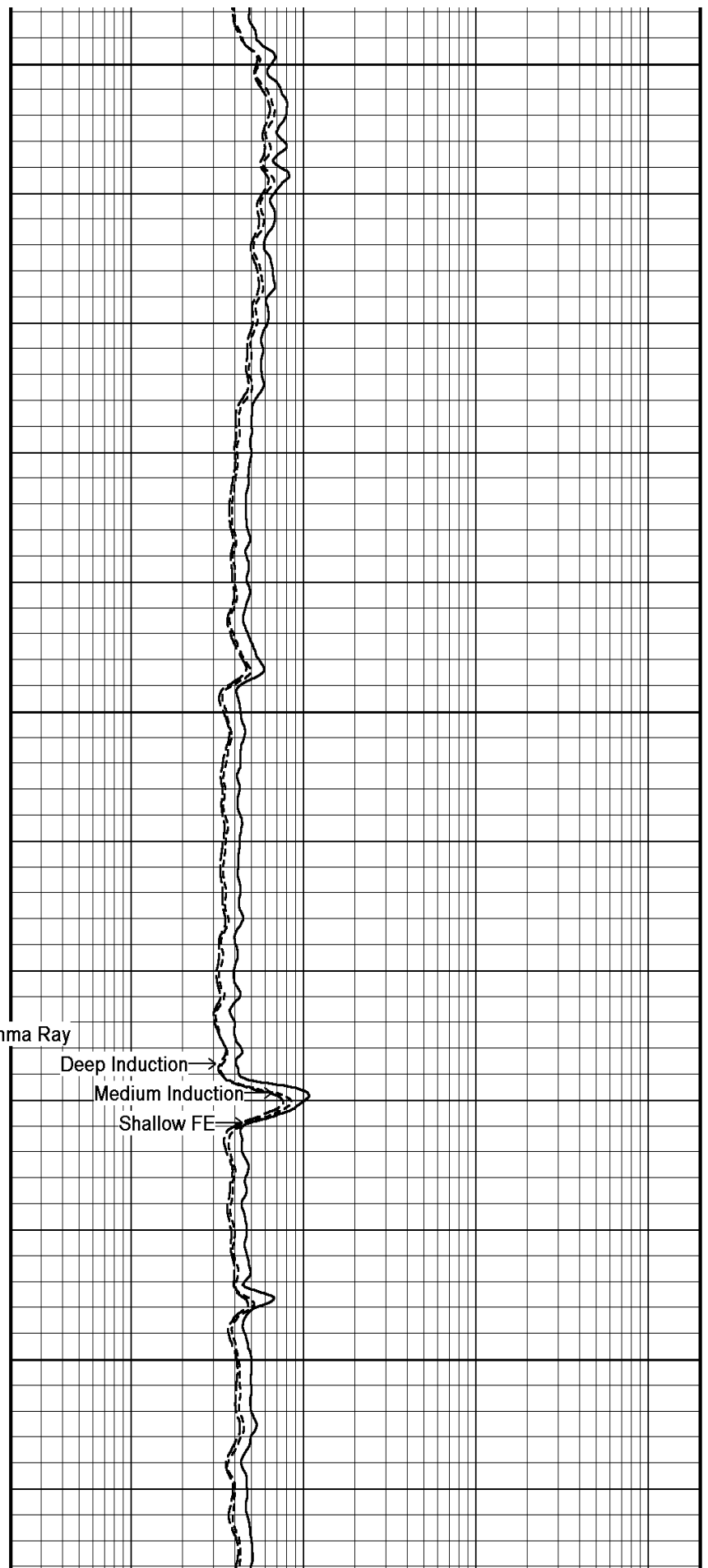
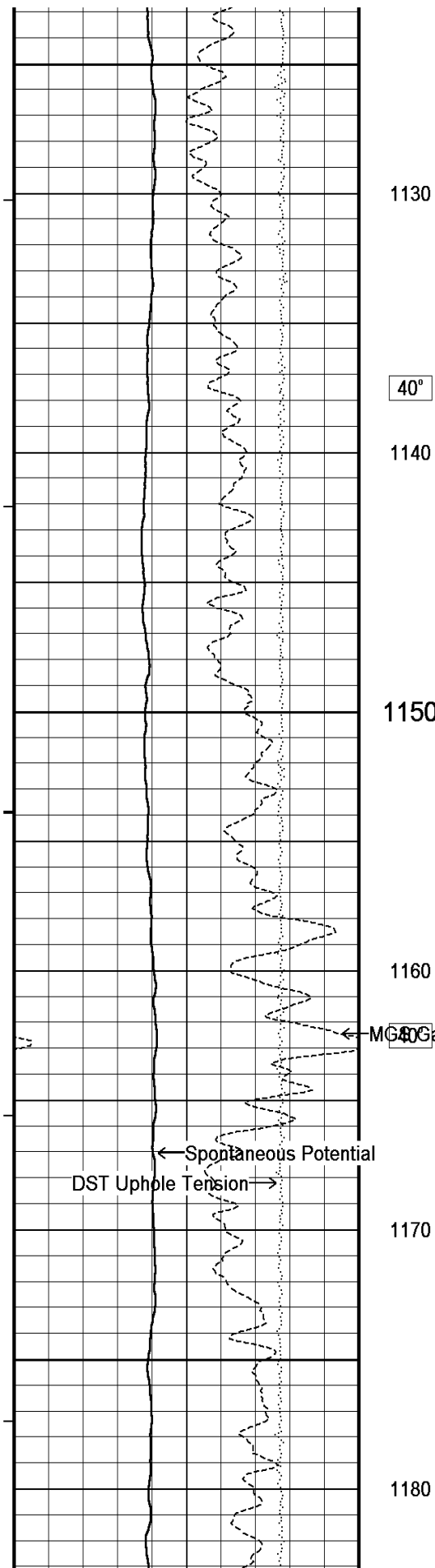
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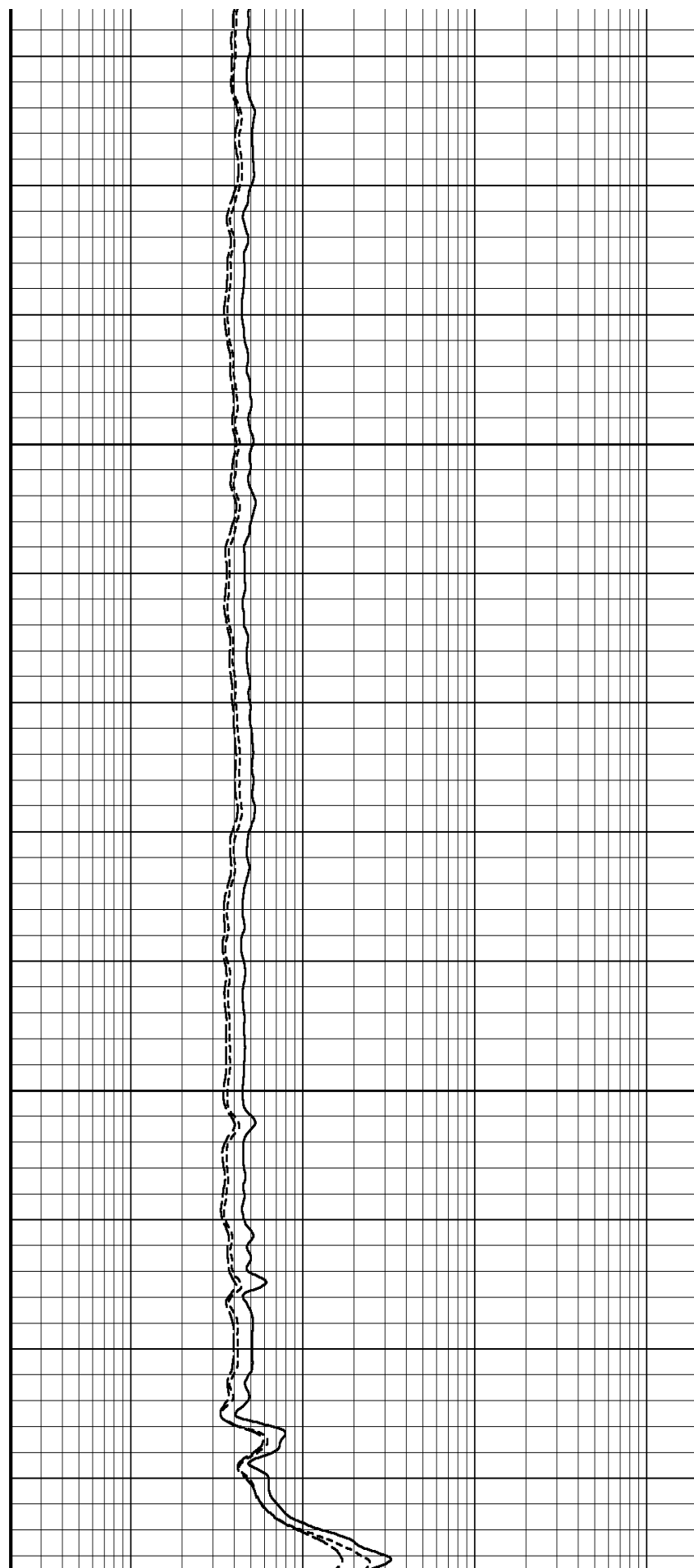
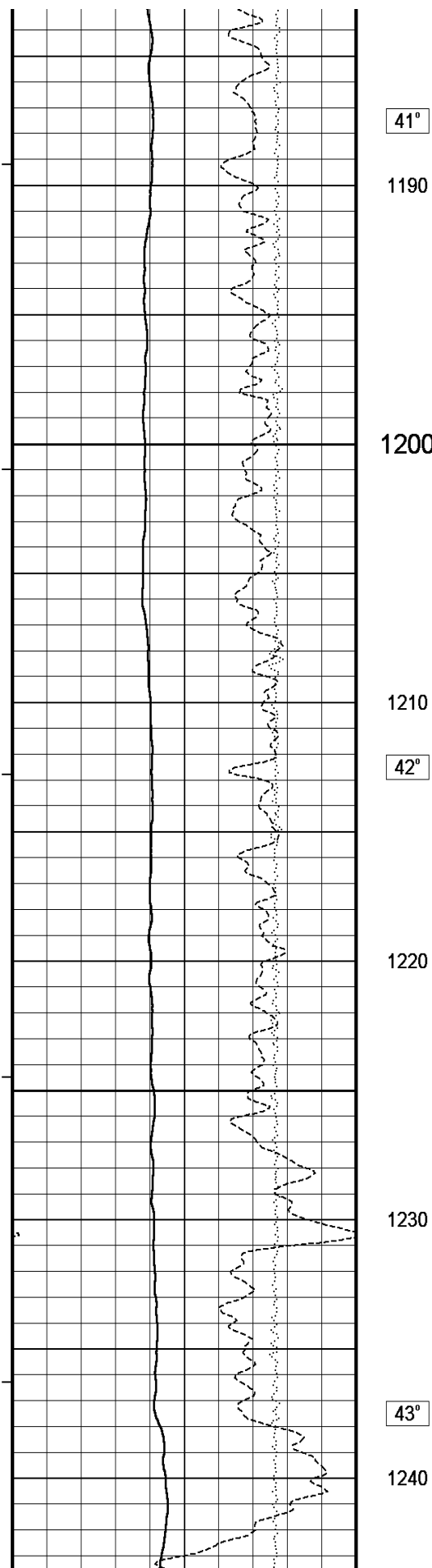
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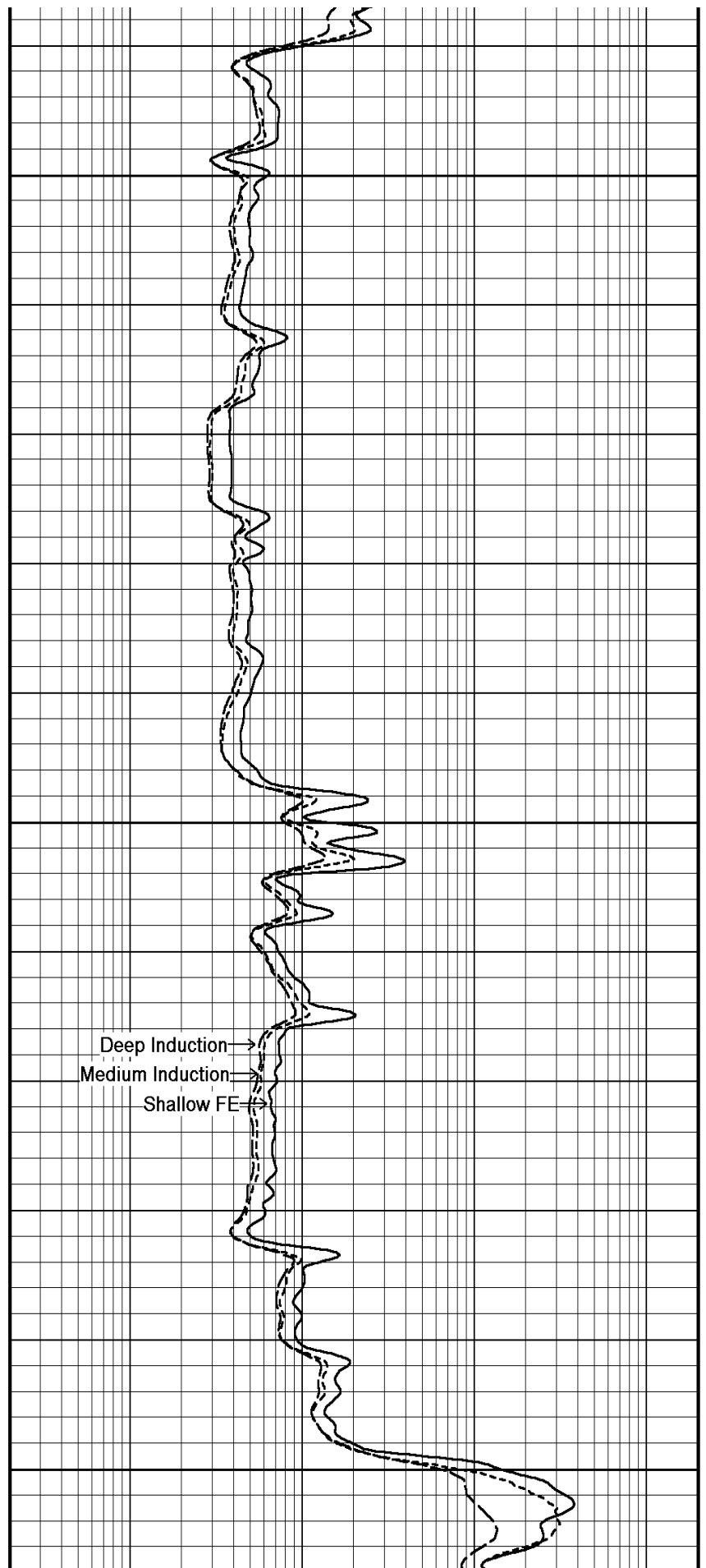
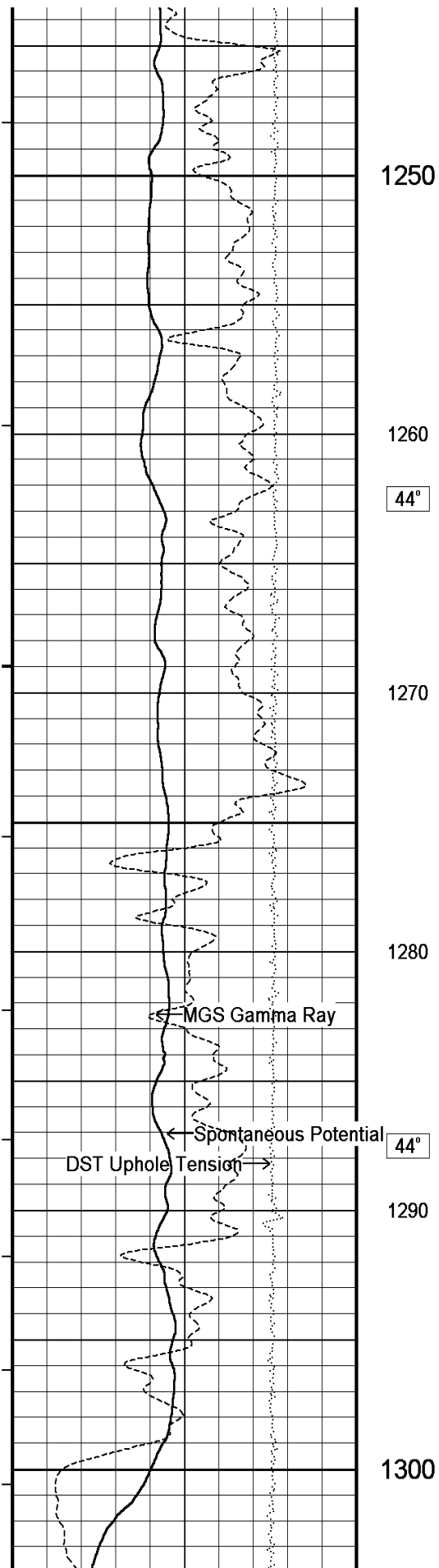


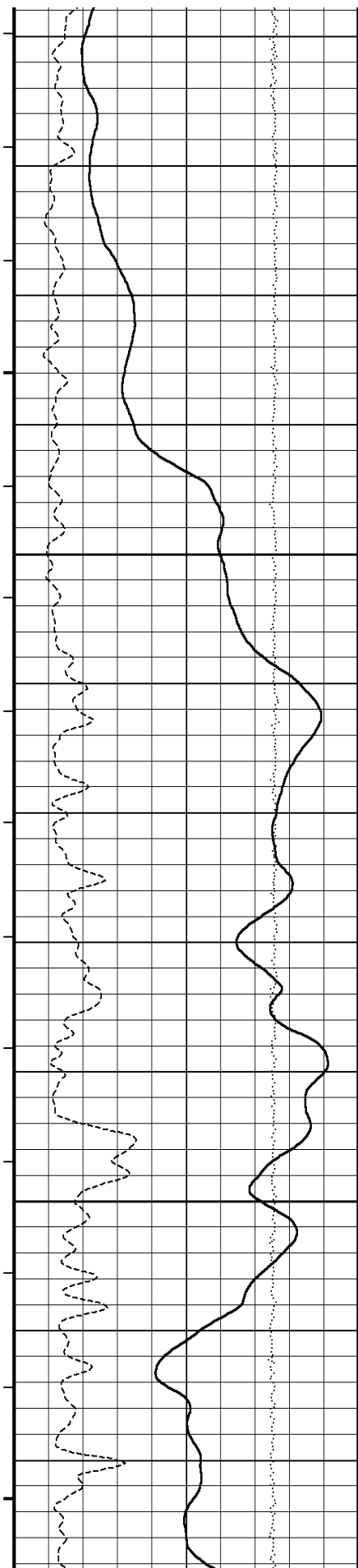












1310

44°

1320

1330

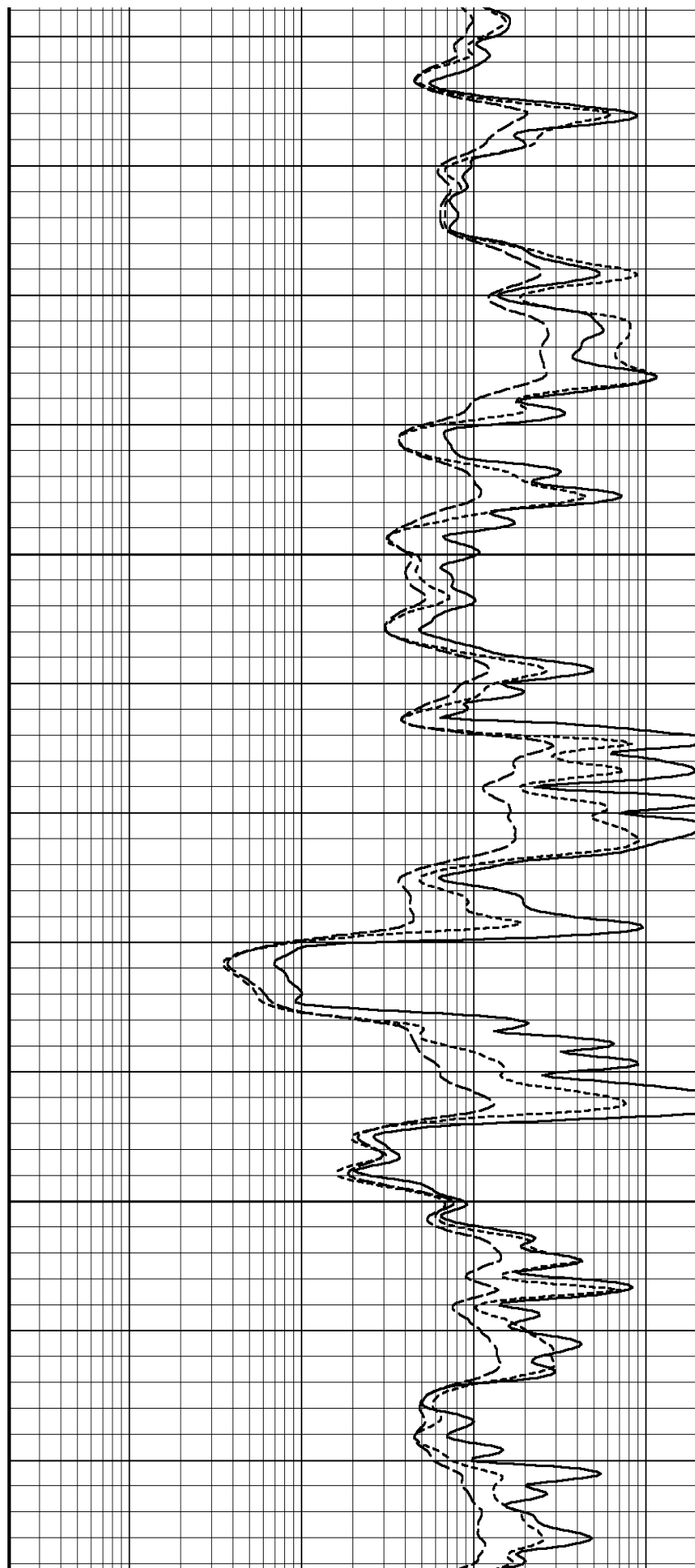
44°

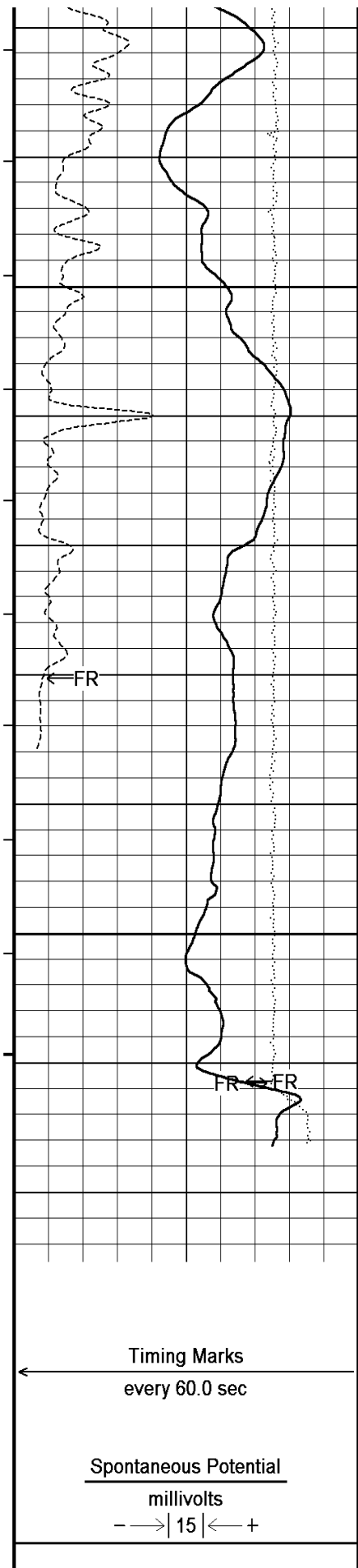
1340

1350

1360

45°





1370

1380

44°

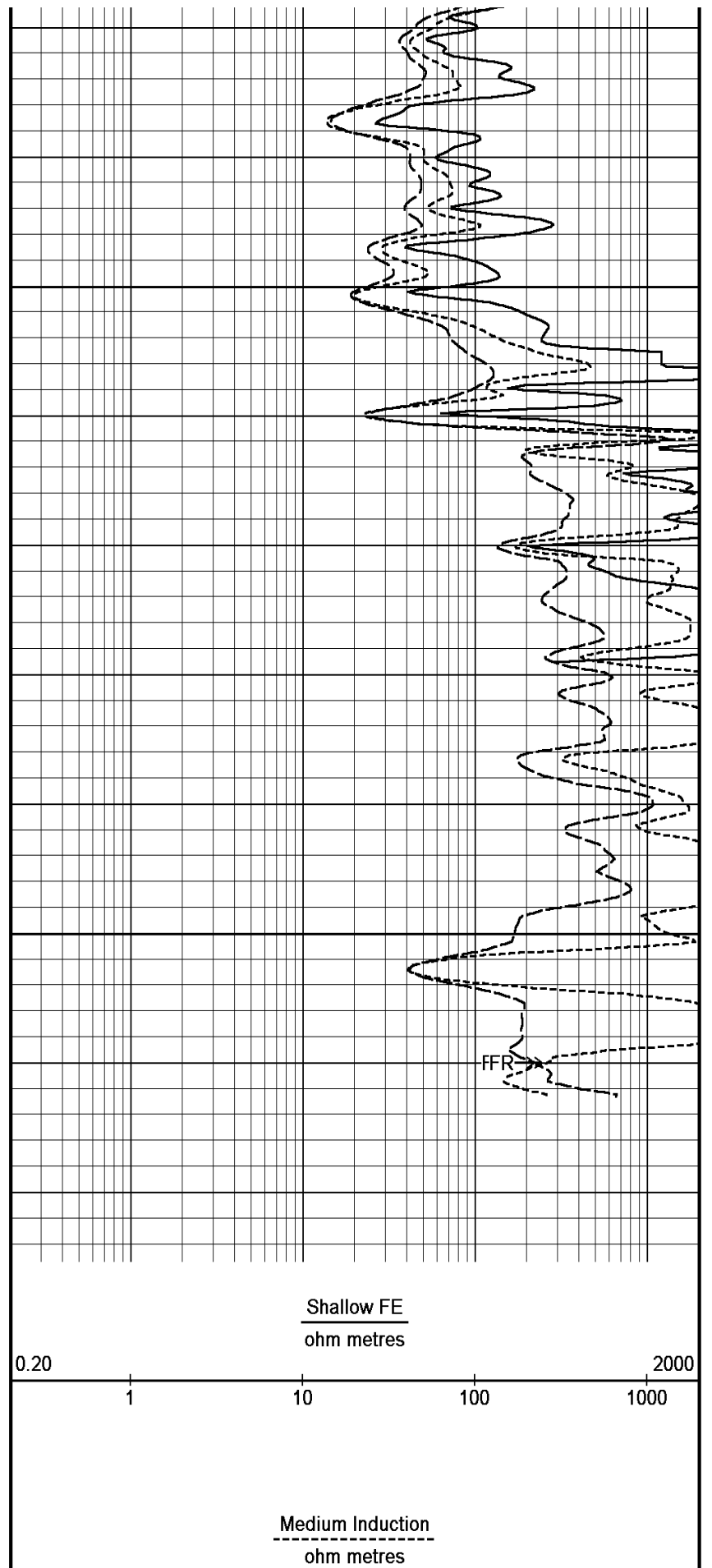
1390

1400

1410

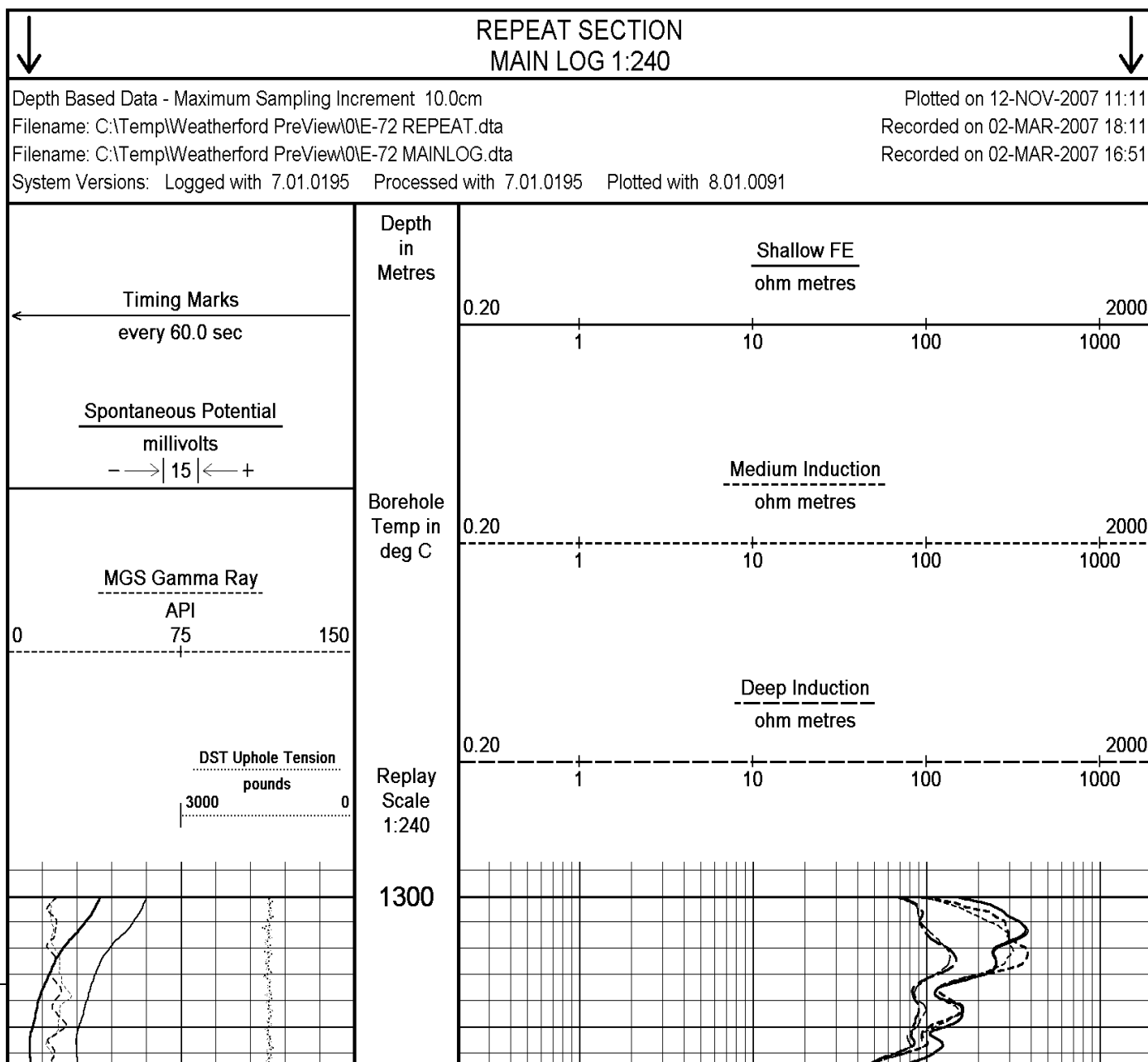
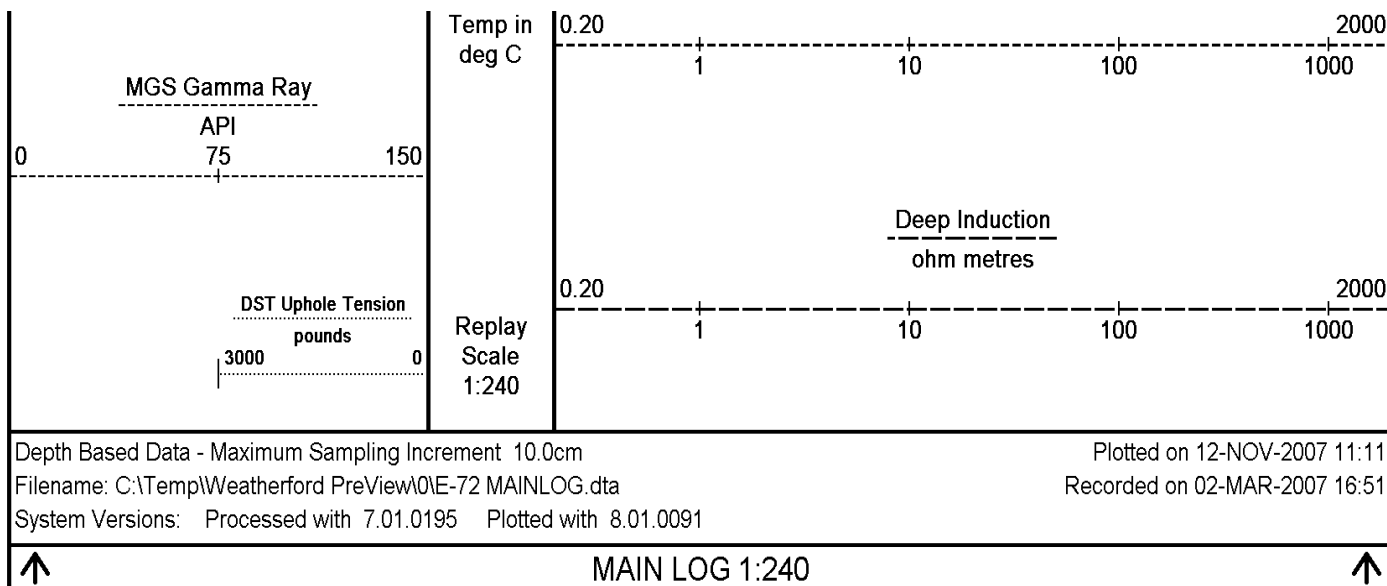
Depth in
Metres

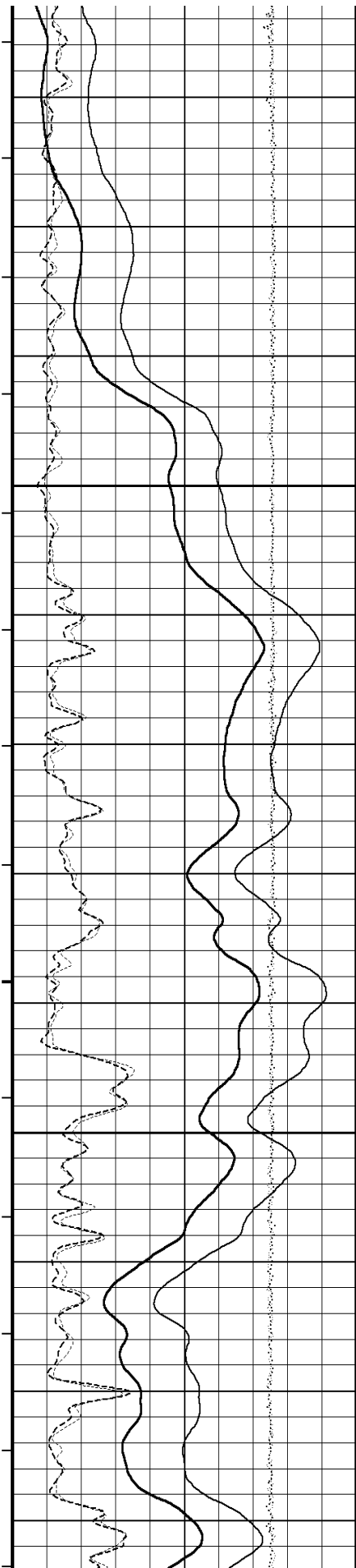
Borehole



Shallow FE
ohm metres

Medium Induction
ohm metres





1310

46°

1320

1330

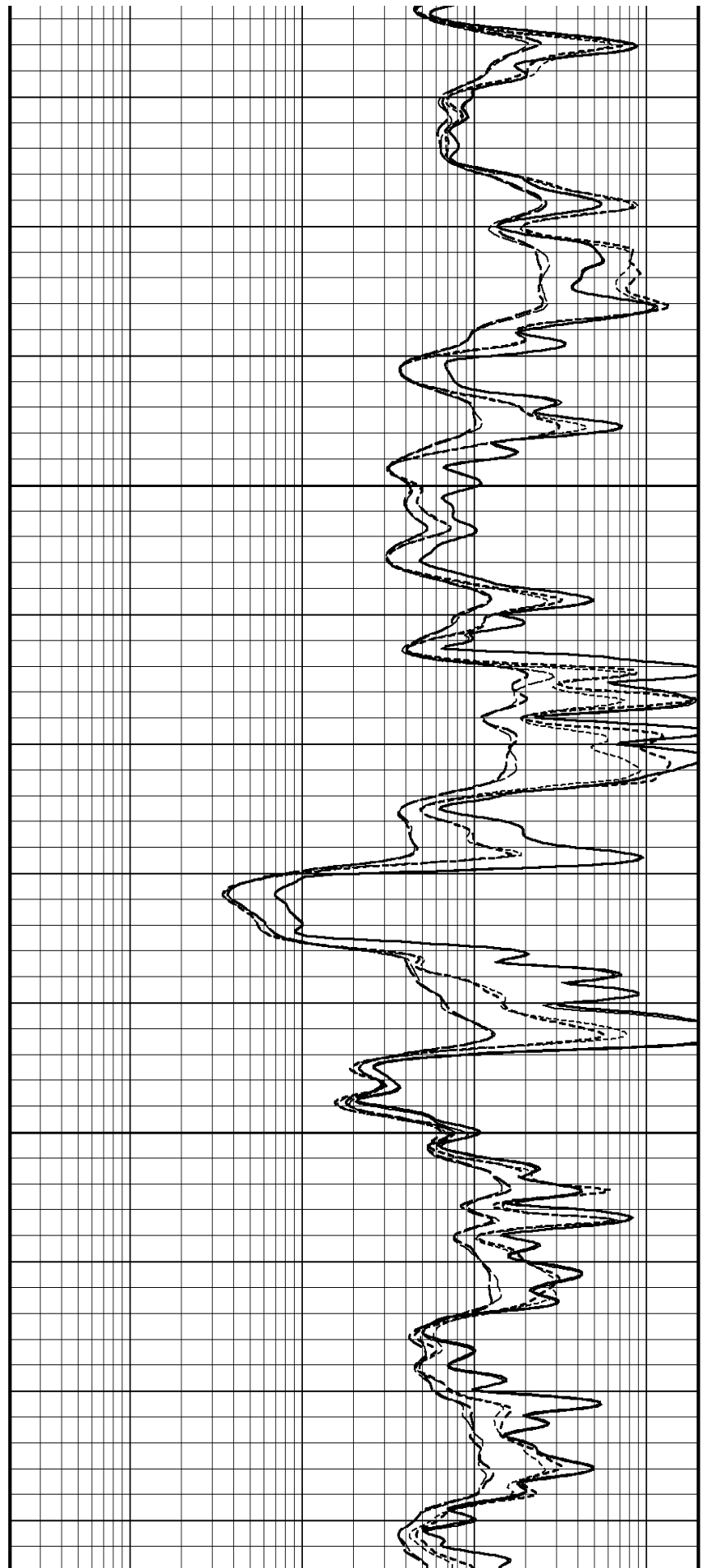
46°

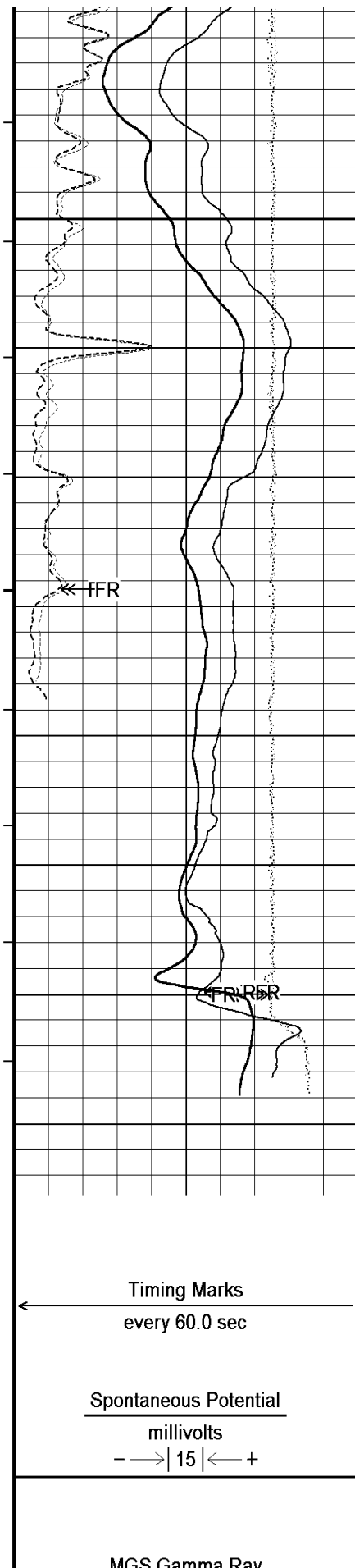
1340

1350

1360

47°





1370

1380

46°

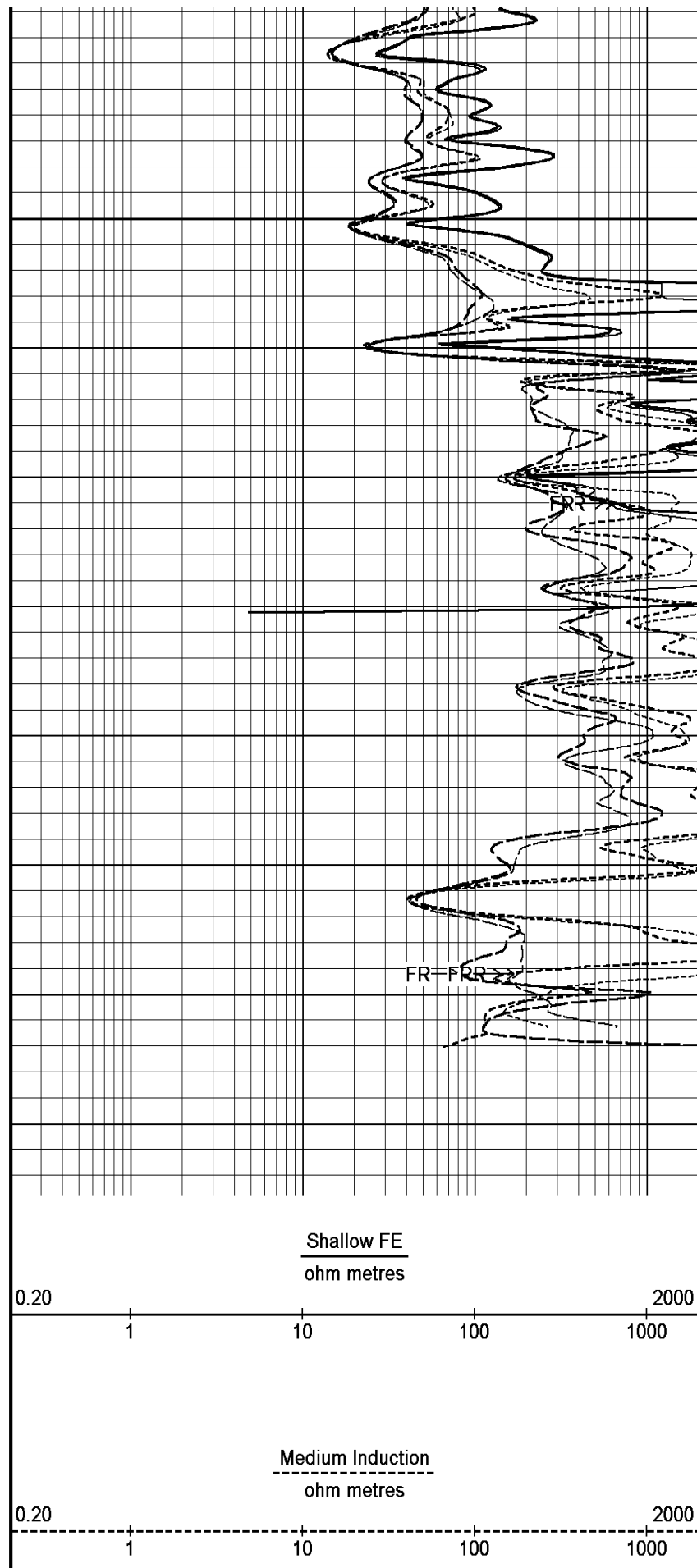
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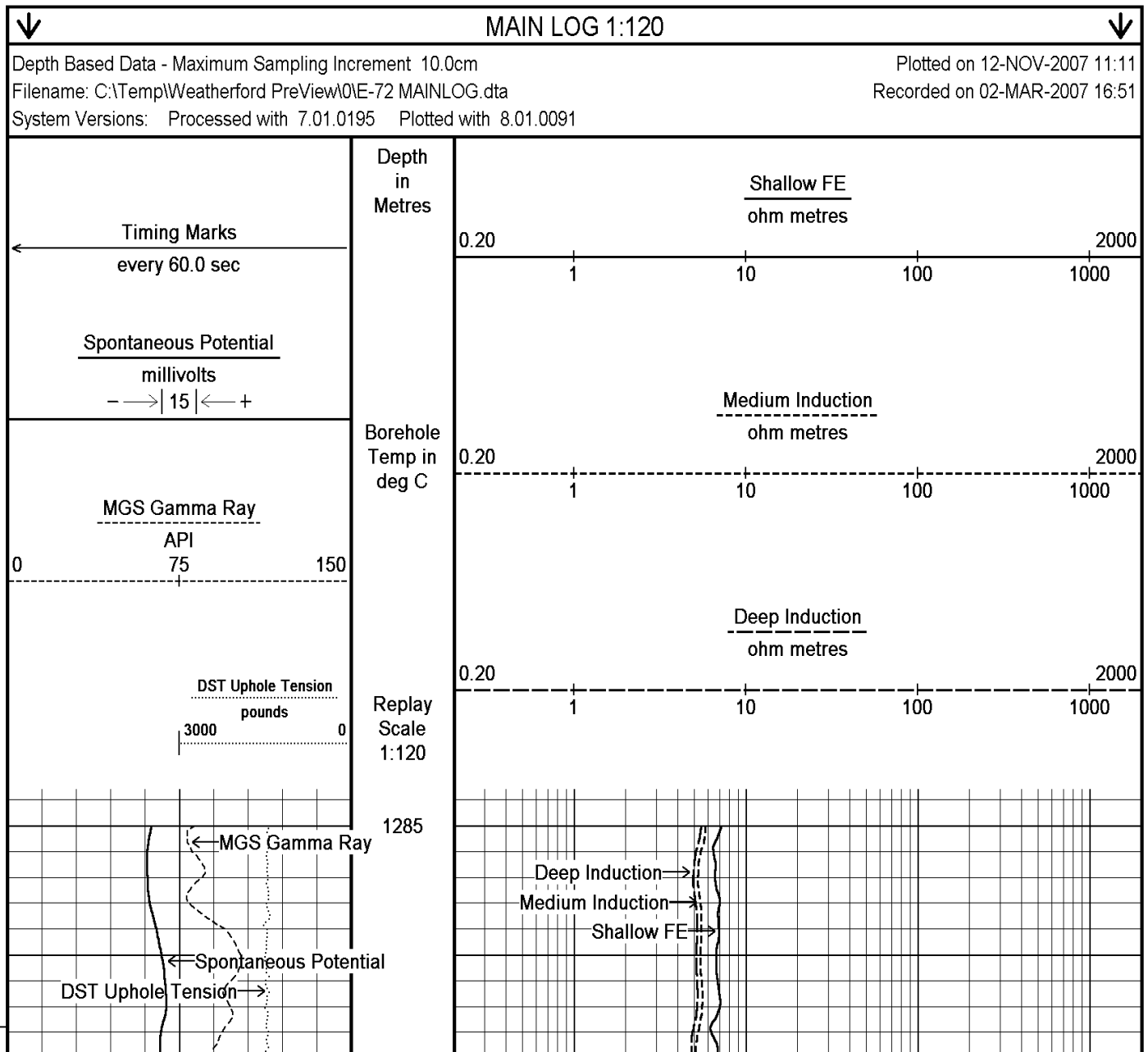
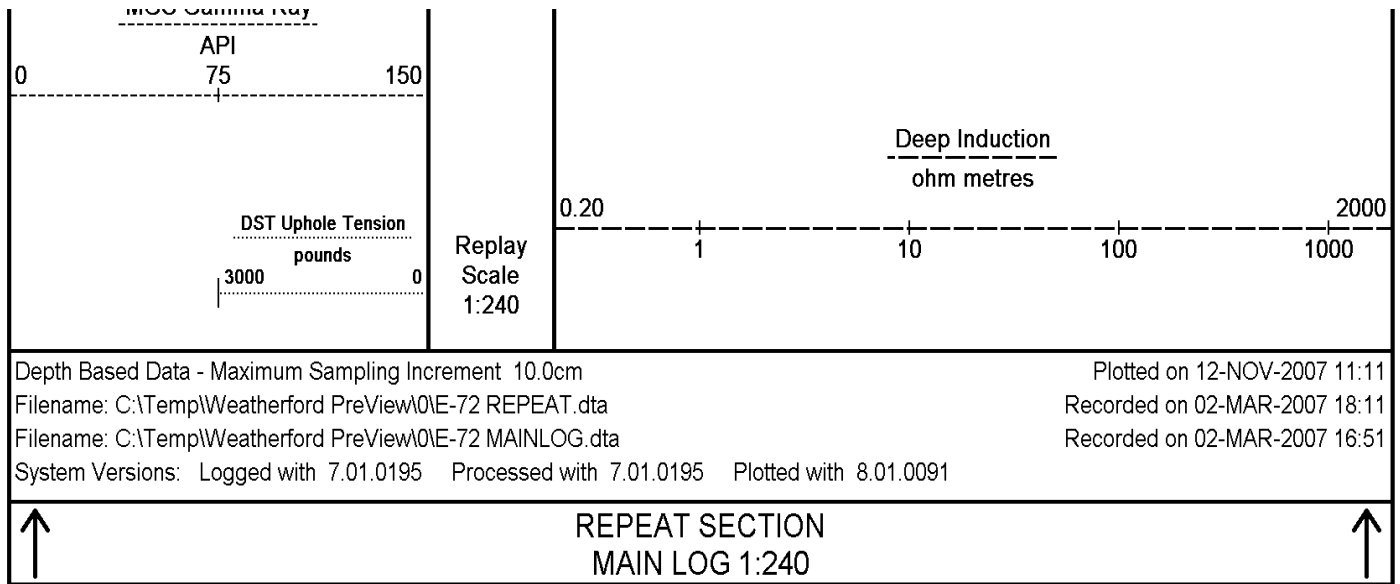
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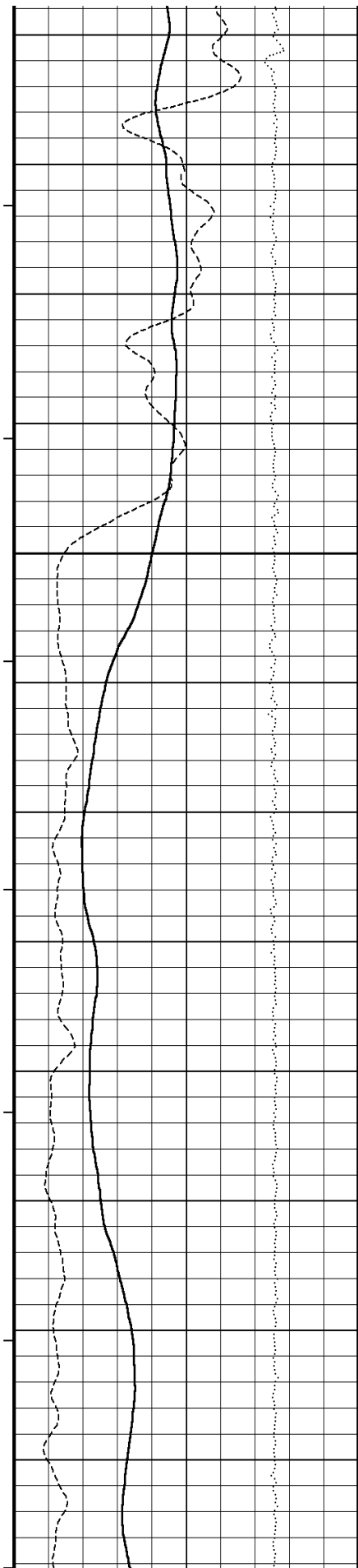
1410

Depth in Metres

Borehole Temp in deg C







1290

44°

1295

1300

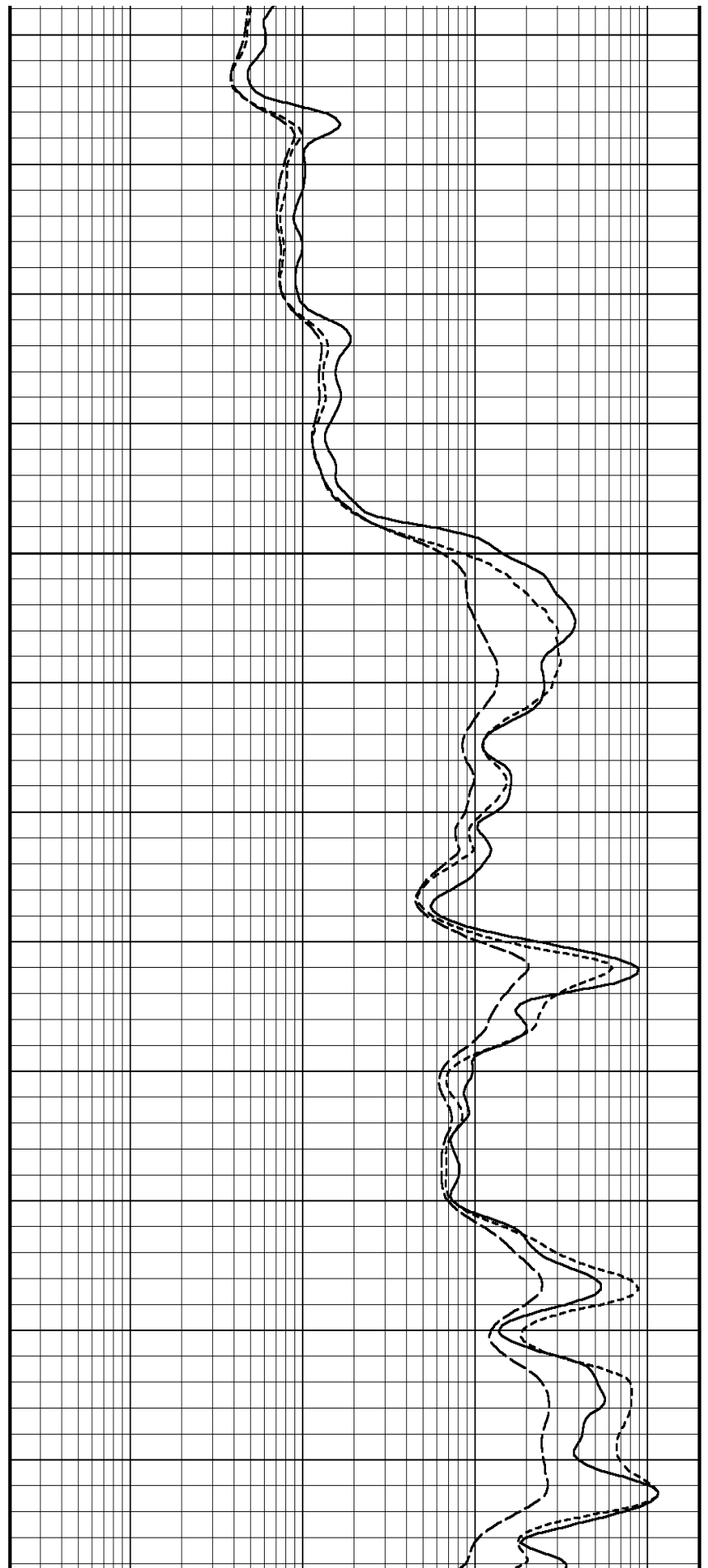
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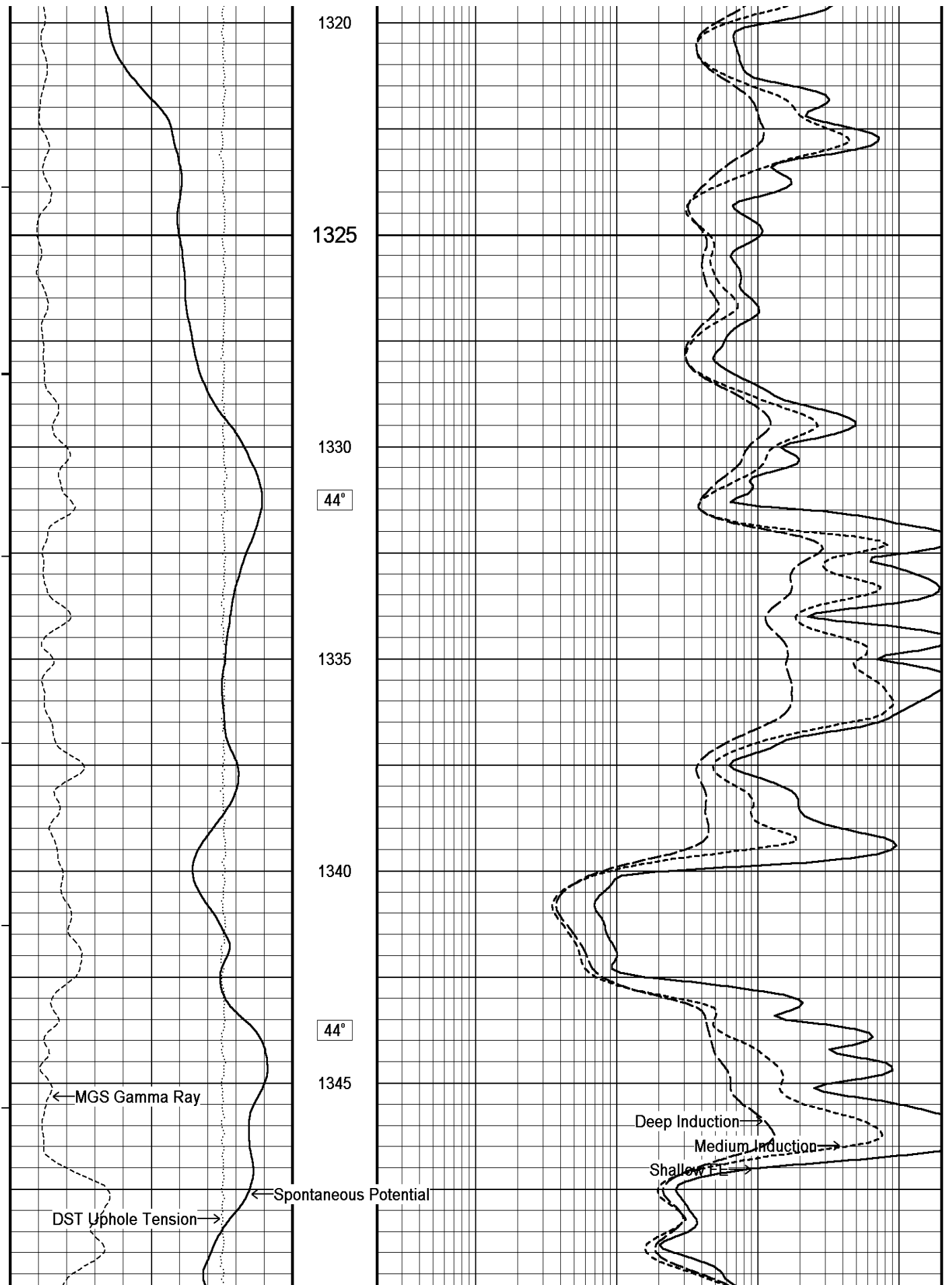
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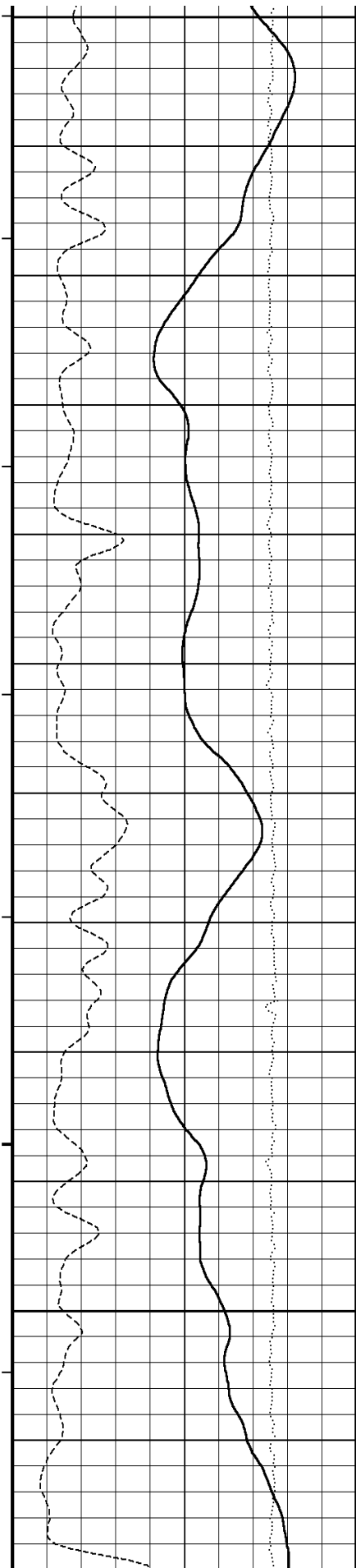
1310

1315

44°







1350

1355

45°

1360

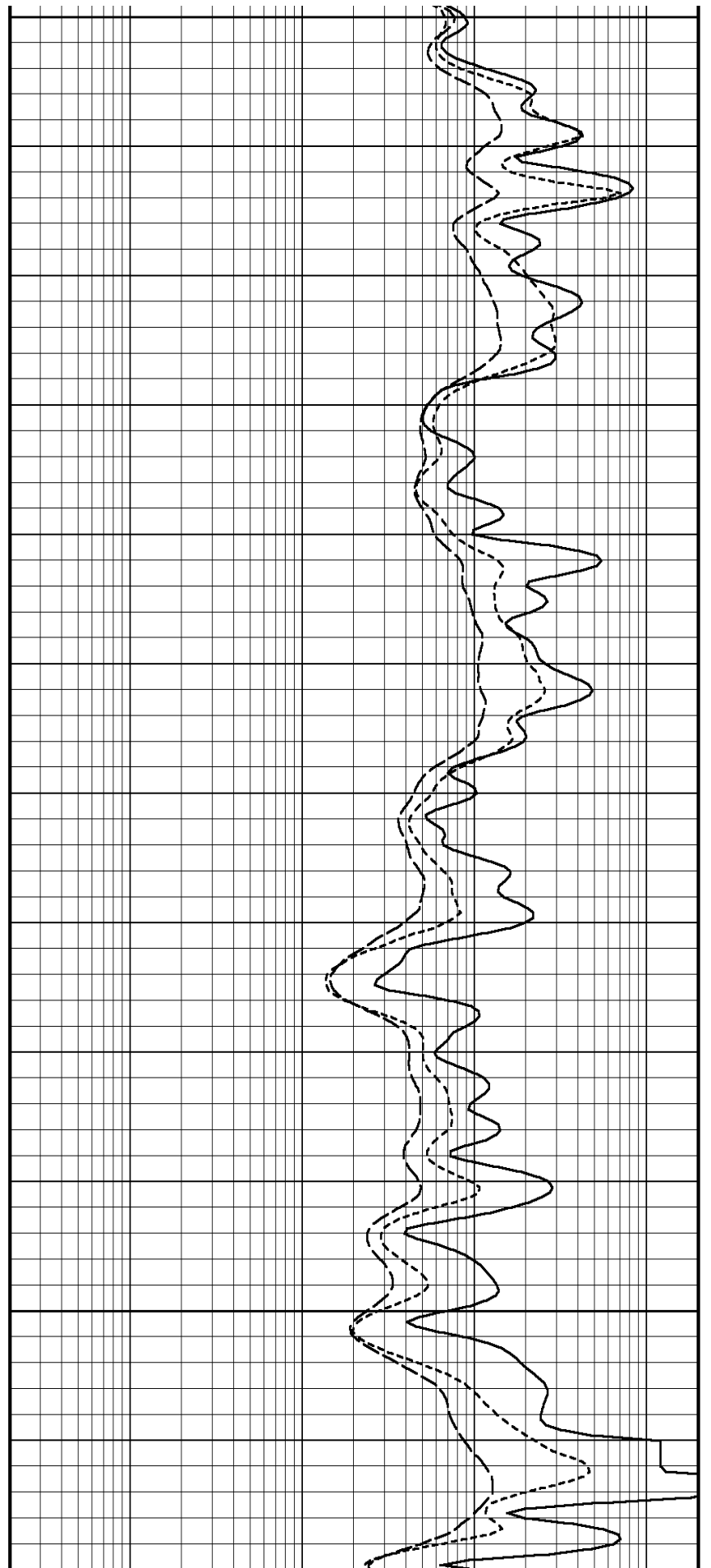
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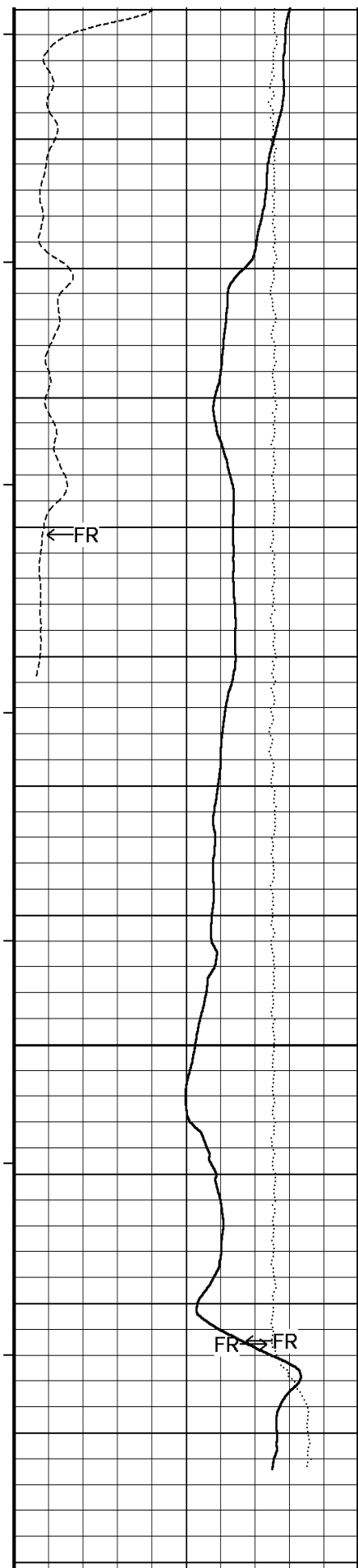
45°

1370

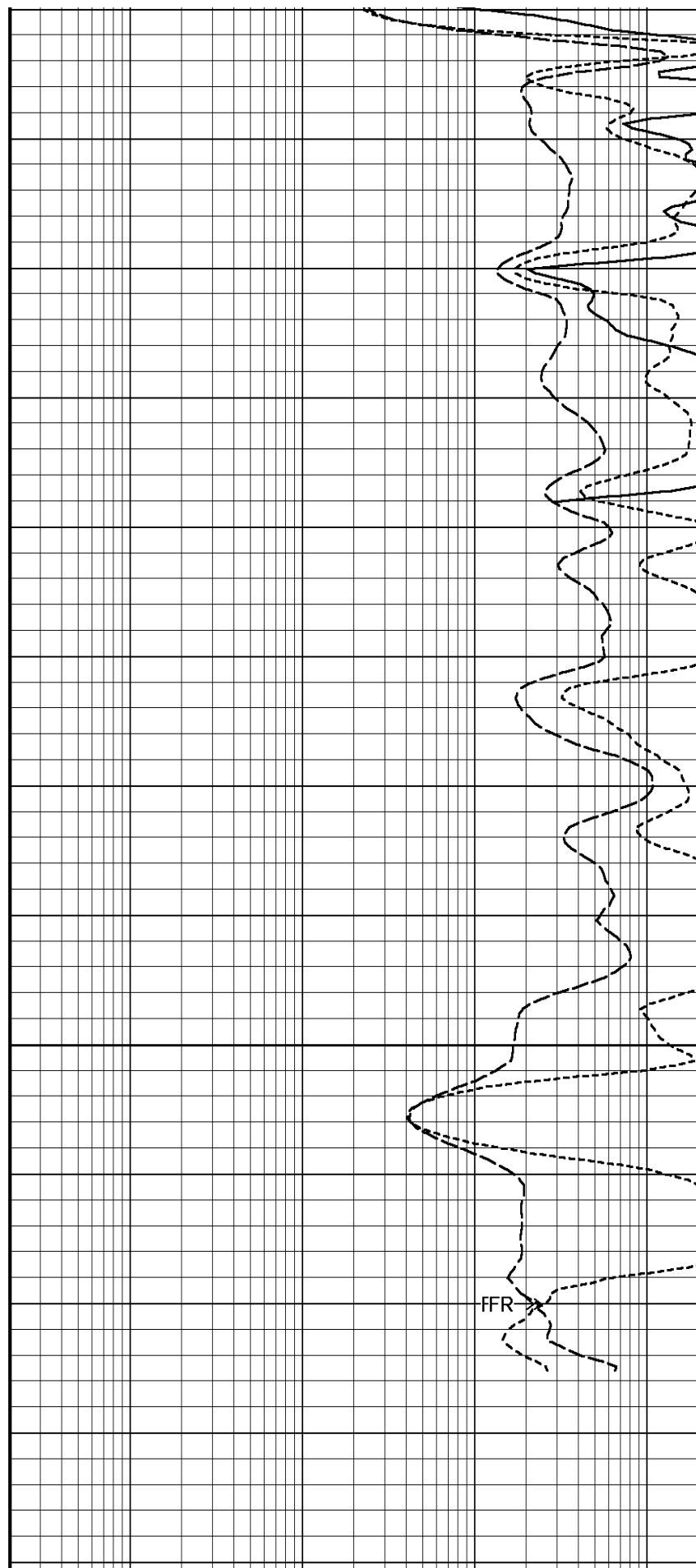
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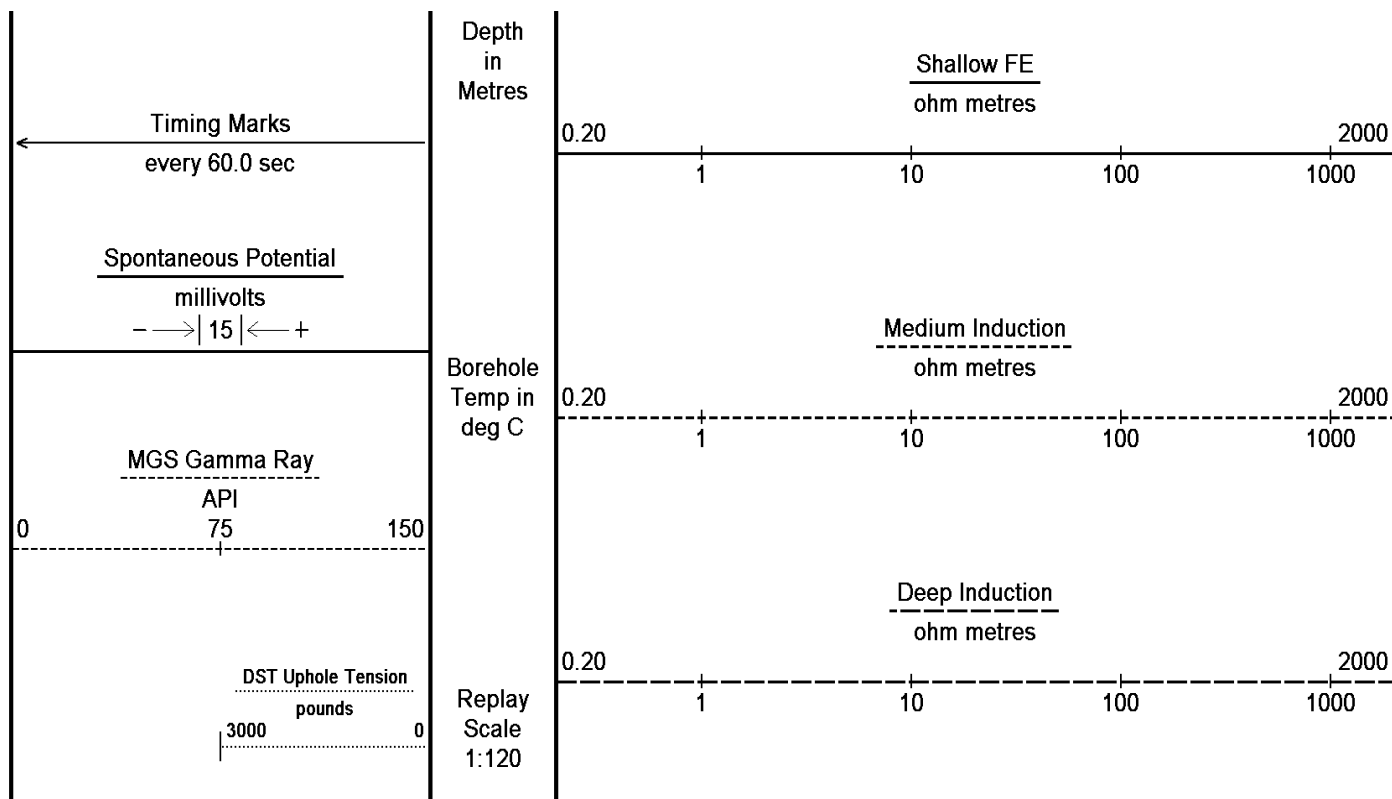
1380





1380
 44°
1385
1390
1395
1400
1405
1410





Depth Based Data - Maximum Sampling Increment 10.0cm

Plotted on 12-NOV-2007 11:11

Filename: C:\Temp\Weatherford PreView\01E-72 MAINLOG.dta

Recorded on 02-MAR-2007 16:51

System Versions: Processed with 7.01.0195 Plotted with 8.01.0091

↑ MAIN LOG 1:120 ↑

BEFORE SURVEY CALIBRATION

C:\Temp\Weatherford PreView\01E-72 REPEAT.dta

General Constants All 000

Last Edited on 2-MAR-2007,16:03

General Parameters

Mud Resistivity	1.250	ohm-metres
Mud Resistivity Temperature	25.000	degrees C
Water Level	0.000	metres
Density/Neutron Processing	Wet Hole	

Hole/Annular Volume and Differential Caliper Parameters

HVOL Caliper 1	Density Caliper	
HVOL Caliper 2	Y Two Arm Caliper	
Annular Volume Diameter	139.700	mm
Caliper for Differential Caliper	Density Caliper	

Rwa Parameters

Porosity used	Base Density Porosity
Resistivity used	Deep Induction
RWA Constant A	0.610
RWA Constant M	2.150

High Resolution Temperature Calibration MCG 173

Field Calibration on 4-FEB-2007,23:25

	Measured	Calibrated(Deg C)
Lower	1.00	1.00
Upper	11.00	11.00

High Resolution Temperature Constants MCG 173

Last Edited on 4-FEB-2007 23:25

Pre-filter Length		11	
FE Calibration MFE 123		Base Calibration on 3-FEB-2007 20:03 Field Check on 28-FEB-2007,20:49	
Base Calibration			
	Measured	Calibrated (ohm-m)	
Reference 1	0.0	0.0	
Reference 2	966.6	126.8	
Base Check		280.2	
Field Check		280.5	
FE Constants MFE 123		Last Edited on 3-FEB-2007,05:24	
Caliper Source for FE correction		Density Caliper	
Rm Source for FE correction		Temperature Corr	
Temp. for Rm Corr.		MCG External Temperature	
Stand-off		Centred millimetres	
Gamma Calibration MGS 012		Field Calibration on 2-MAR-2007,13:10	
	Measured	Calibrated (API)	
Background	119	78	
Calibrator (Gross)	847	552	
Calibrator (Net)	728	474	
Gamma Constants MGS 012		Last Edited on 2-MAR-2007,13:09	
Gamma Calibrator Number		GRC-107	
Mud Density		1120.00 kg/m3	
Caliper Source for Processing		Density Caliper	
Tool Position		Centred	
Concentration of KCl		0.00 kppm	
Induction Calibration MAI 137		Base Calibration on 13-SEP-2006,17:16 Field Check on 27-FEB-2007 13:58	
Base Calibration			
Test Loop Calibration			
Channel	Low	Measured High	Calibrated (mmho/m) Low High
1	17.6	482.4	9.3 966.2
2	6.3	390.5	7.6 821.4
3	3.8	262.7	5.2 566.0
4	2.1	132.9	2.6 279.2
Array Temperature		25.7 Deg C	
Channel			
	Base Check (mmho/m) Low High	Field Check (mmho/m) Low High	
1	11.7 3784.8	13.4 3786.8	
2	29.4 3471.4	29.8 3471.6	
3	27.8 3030.7	28.1 3030.6	
4	19.3 2095.3	19.5 2094.9	
Deep	16.9 2034.6	17.2 2034.3	
Medium	40.7 3951.1	40.8 3951.0	
Shallow	44.0 5049.2	44.5 5050.0	
Array Temperature		16.9 33.1 Deg C	
Induction Constants MAI 137		Last Edited on 2-MAR-2007,13:09	
Induction Model		VECTAR	
Caliper for Borehole Corr.		Density Caliper	
Hole Size for Borehole Correction		N/A millimetres	
Stand-off		25.40 millimetres	

Number of Fins on Stand-off	5.0000	
Stand-off Fin Width	12.7000	millimetres
Borehole Corr. Rm Source	Temperature Corr	
Temp. for Rm Corr.	MCG External Temperature	
Squasher Start	0.0020	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

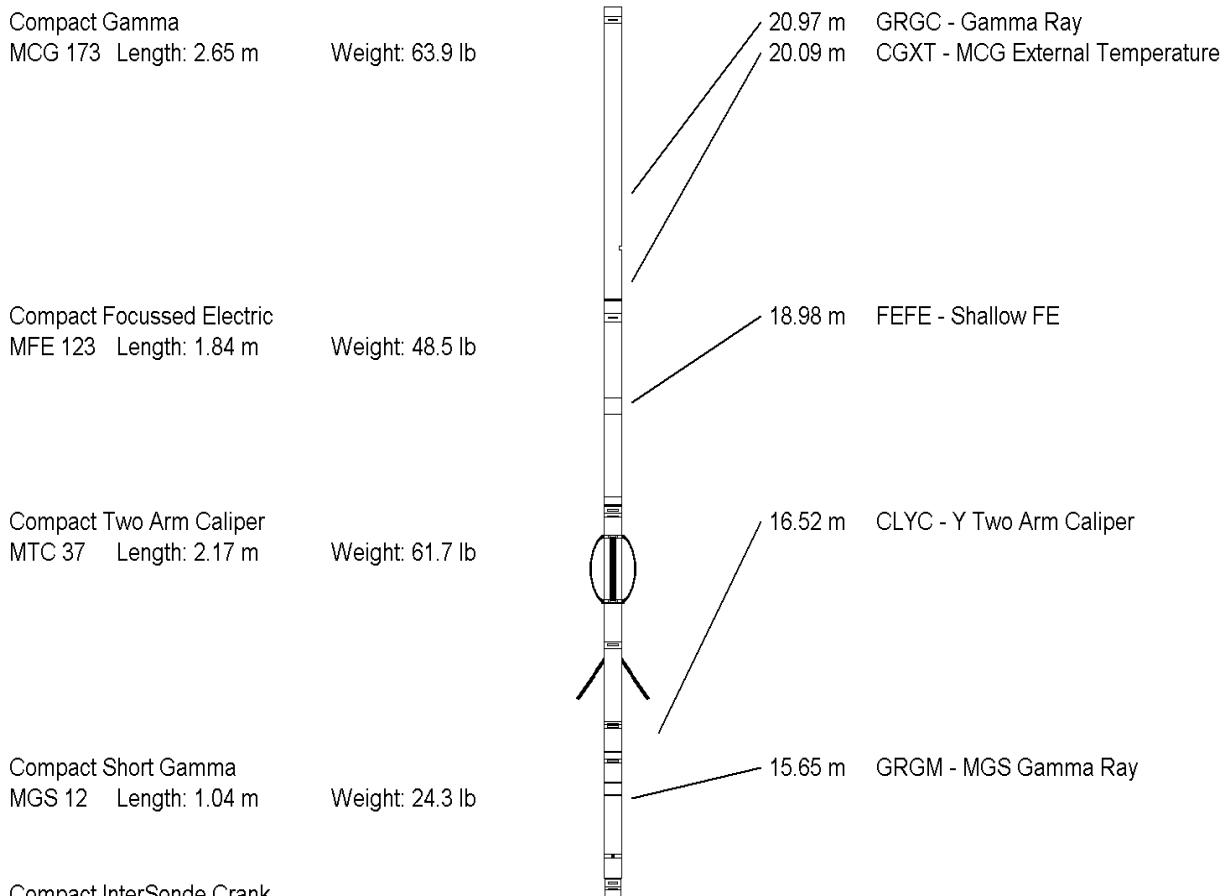
Channel 1	0.00	mmhos/metre
Channel 2	0.00	mmhos/metre
Channel 3	0.00	mmhos/metre
Channel 4	0.00	mmhos/metre

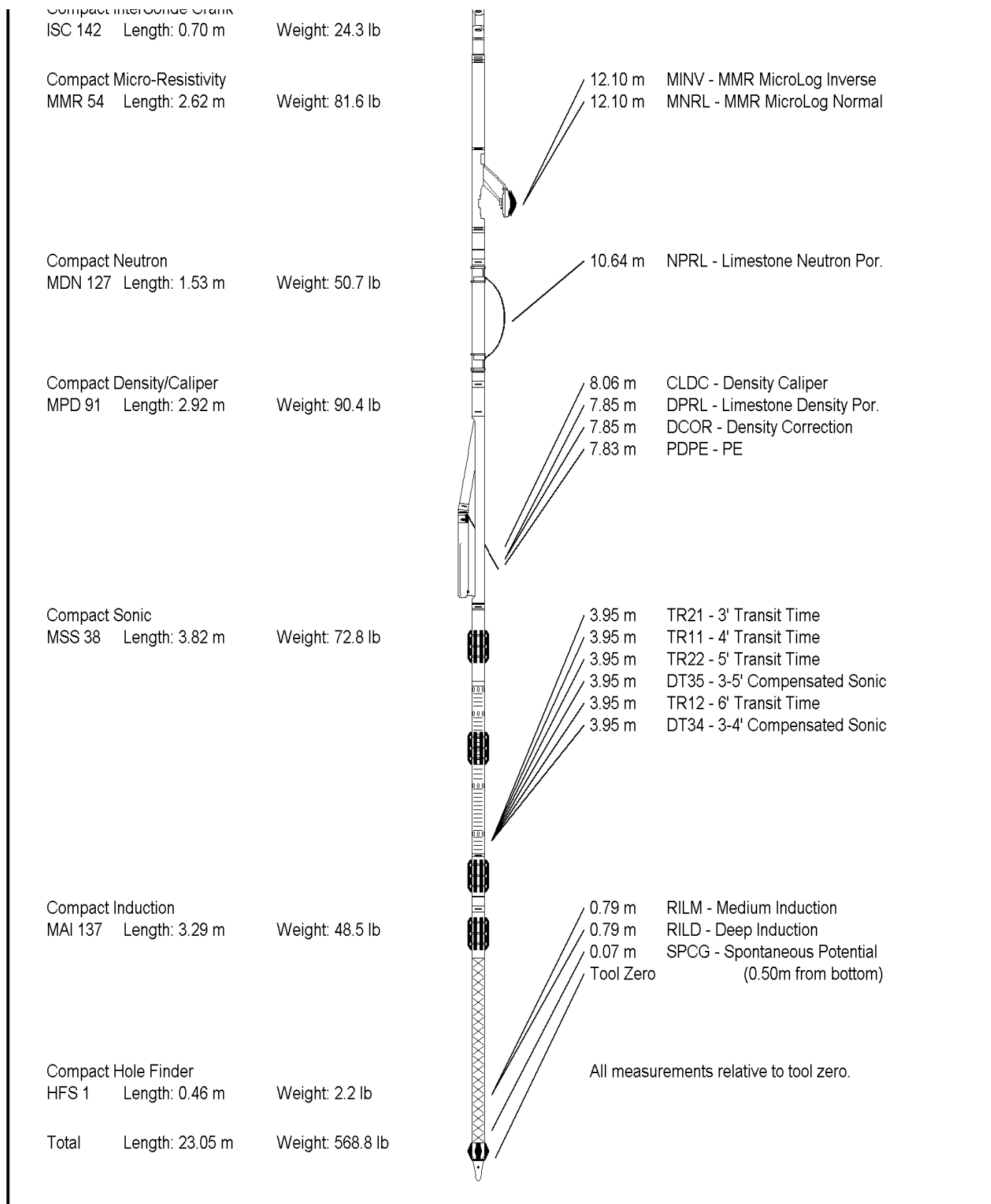
Apparent Porosity and Water Saturation Constants

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

DOWNHOLE EQUIPMENT

C:\Temp\Weatherford PreView\0\E-72 REPEAT.dta





COMPANY	PARAMOUNT RESOURCES LTD
WELL	PARA ET AL CAMERON E-72
FIELD	CAMERON HILLS
PROVINCE/COUNTY	NORTHWEST TERRITORIES

COUNTRY/STATE	CANADA
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Elevation Kelly Bushing	734.40	metres	First Reading	1405.00	metre
Elevation Drill Floor		metres	Depth Driller	1408.00	metres
Elevation Ground Level	729.00	metres	Depth Logger	1406.30	metres



Weatherford®

ARRAY INDUCTION