



DUAL LATEROLOG - MLL  
COMPENSATED SONIC  
1:200

COMPANY	ORIGIN ENERGY LIMITED		
WELL	PETERBOROUGH - 1ST1		
FIELD	OTWAY BASIN		
PROVINCE/COUNTY	VICTORIA		
COUNTRY/STATE	AUSTRALIA		
LOCATION	38° 35' 11.98" S, 142° 51' 34.06" E		
LSD	SEC	TWP	RGE
API Number	Other Services		
Permit Number	COMPENSATED NEUTRON		
Permanent Datum MSL	Elevation 0.0 metres		
Log Measured From KB @	14.95 above Permanent Datum		
Drilling Measured From	PHOTO DENSITY		
Date	05-SEP-2004		
Run Number	1		
Depth Driller	2070.00	metres	
Depth Logger	2052.55	metres	
First Reading	2051.70	metres	
Last Reading	30.00	metres	
Casing Driller	495.60	metres	
Casing Logger	495.40	metres	
Bit Size	8.50	inches	
Hole Fluid Type	KCL POLYMER		
Density / Viscosity	1.14 g/cc	45.00 CP	
PH / Fluid Loss	9.50	4.40 ml/30Min	
Sample Source	FLOWLINE		
Rm @ Measured Temp	0.30 @ 22.2	ohm-m	
Rmf @ Measured Temp	0.53 @ 22.3	ohm-m	
Rmc @ Measured Temp	0.12 @ 22.1	ohm-m	
Source Rmf / Rmc	FILTER	PRESS	
Rm @ BHT	0.14 @ 74.0	ohm-m	
Time Since Circulation	19.5 HRS		
Max Recorded Temp	74.00	deg C	
Equipment Name	SCOMBO		
Equipment / Base	8		
Recorded By	SHAWN STASIUK		
Witnessed By	JOHN HOBDAV		
Circ. Stop	01:00-SEP 05		

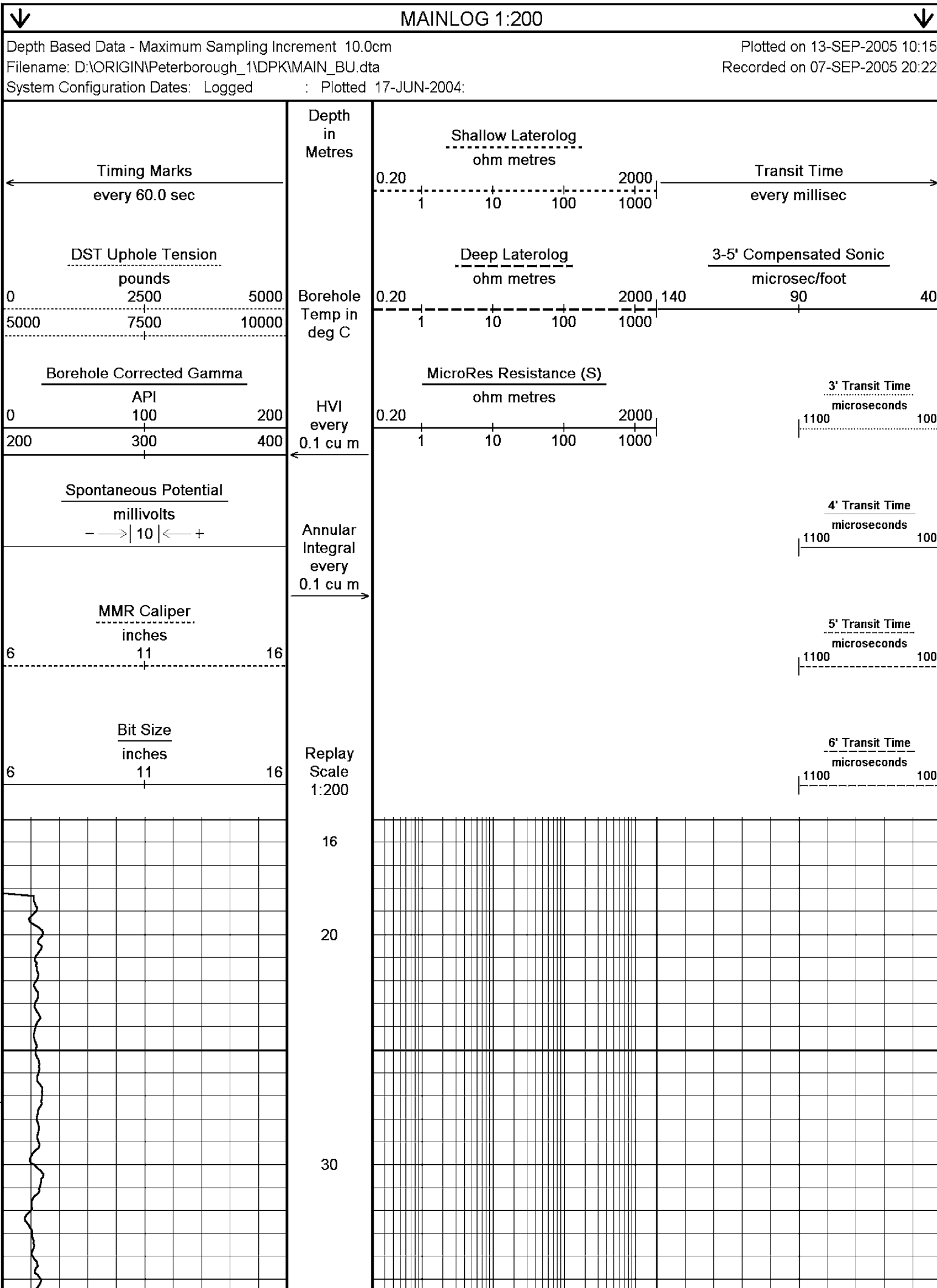
BOREHOLE RECORD		
Bit Size inches	Depth From metres	Depth To metres
8.500	495.00	2070.00

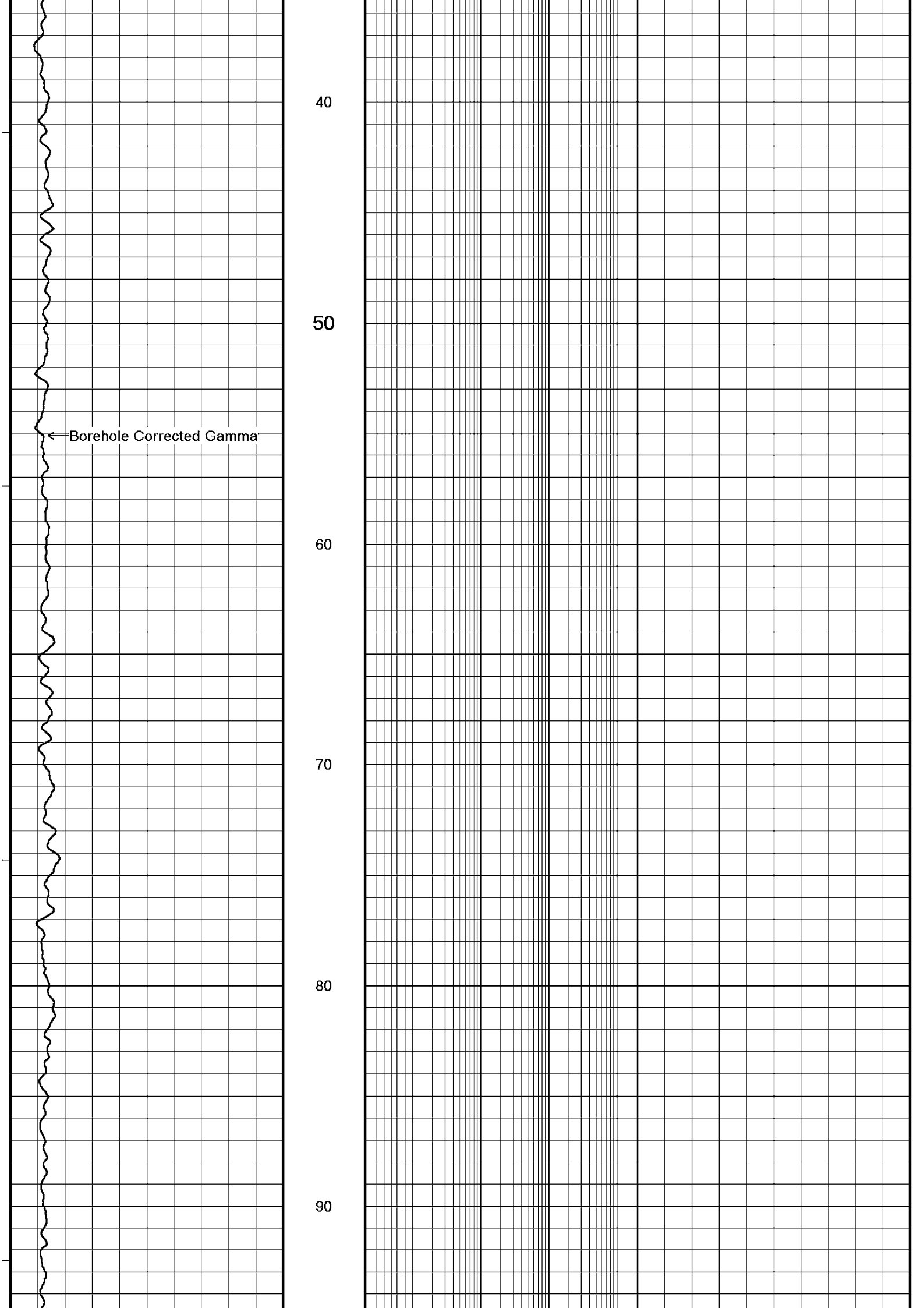
CASING RECORD				
Type	Size inches	Depth From metres	Shoe Depth metres	Weight pounds/ft
K55	9.625	0.00	495.00	36.00

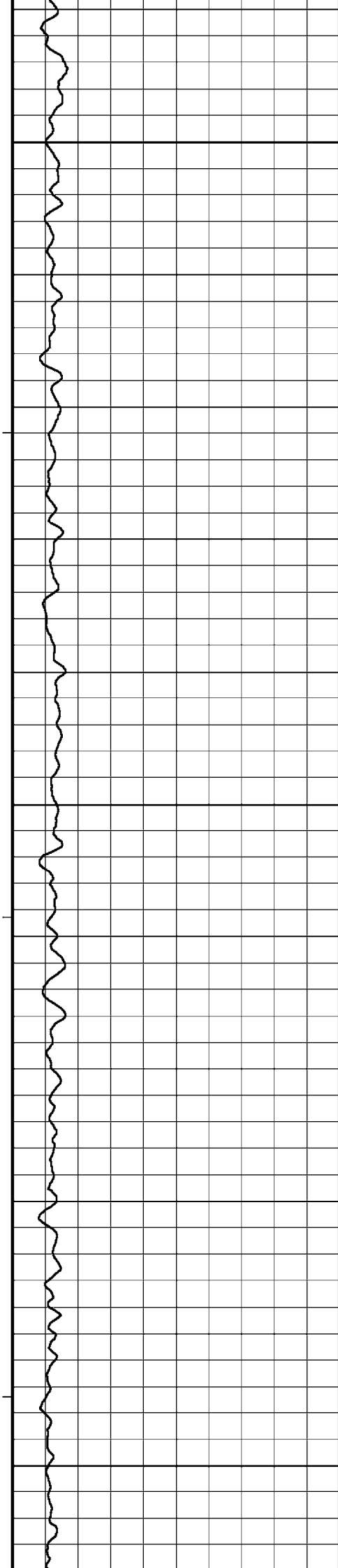
REMARKS	
1) SOFTWARE ISSUE: JUN 17, 2004. 2) CUSTOMER SCALES AND INTERVALS LOGGED. 3) HFS, MMR, MLE, MUG, MSS, MCG, MBE RAN IN COMBINATION. 4) HARDWARE: MMR: ONE 25.4MM STANDOFF MSS: TWO 25.4MM STANDOFF MUG: ONE 25.4MM STANDOFF MBE: ONE 25.4MM STANDOFF  5) SERVICE ORDER:2391 6) RIG:CENTURY 7  7) TOTAL HOLE VOLUME FROM TD TO SURFACE CASING = 70 CU.M. 8) TOTAL ANNULAR VOLUME WITH 7 INCH CASING = 31.5 CU.M.  9) SONIC CASING SIGNAL AT 284.6 M. 10) PARTIAL CEMENT IN THE HOLE BETWEEN 925 AND 980M. 11) LOGGING TOOLS WERE REPEATEDLY HUNG UP FROM 720 TO 1354M. 12) UNABLE TO MAKE IT PAST 2049M. SEVERAL ATTEMPTS WERE MADE. 13) SONIC DOES NOT REPEAT AT 1985. DISCRIMINATORS WERE ADJUSTED TO TRY AND CLEAN UP THE SONIC REPEATABILITY WITH NO SUCCESS.	

All interpretations are opinions based on inferences from electrical or other measurements and we cannot, and do not, guarantee the accuracy

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.







100

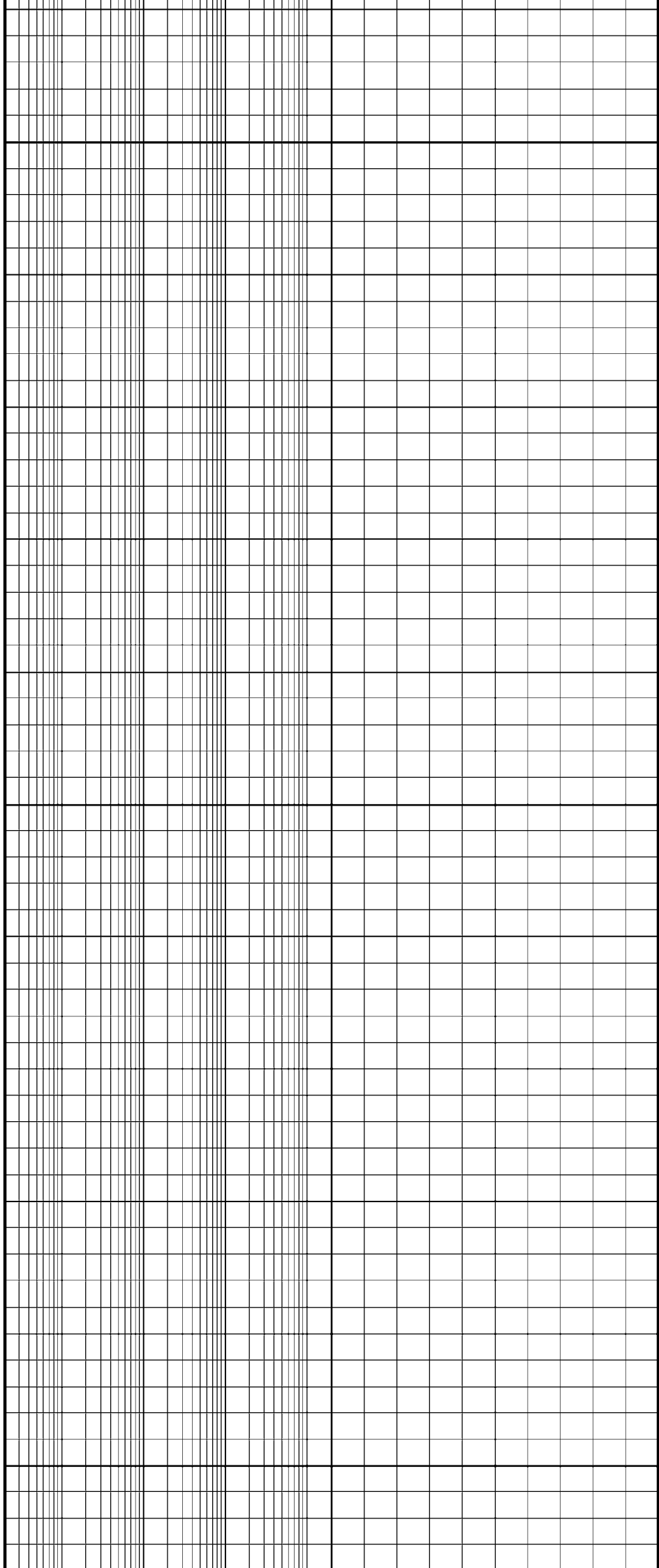
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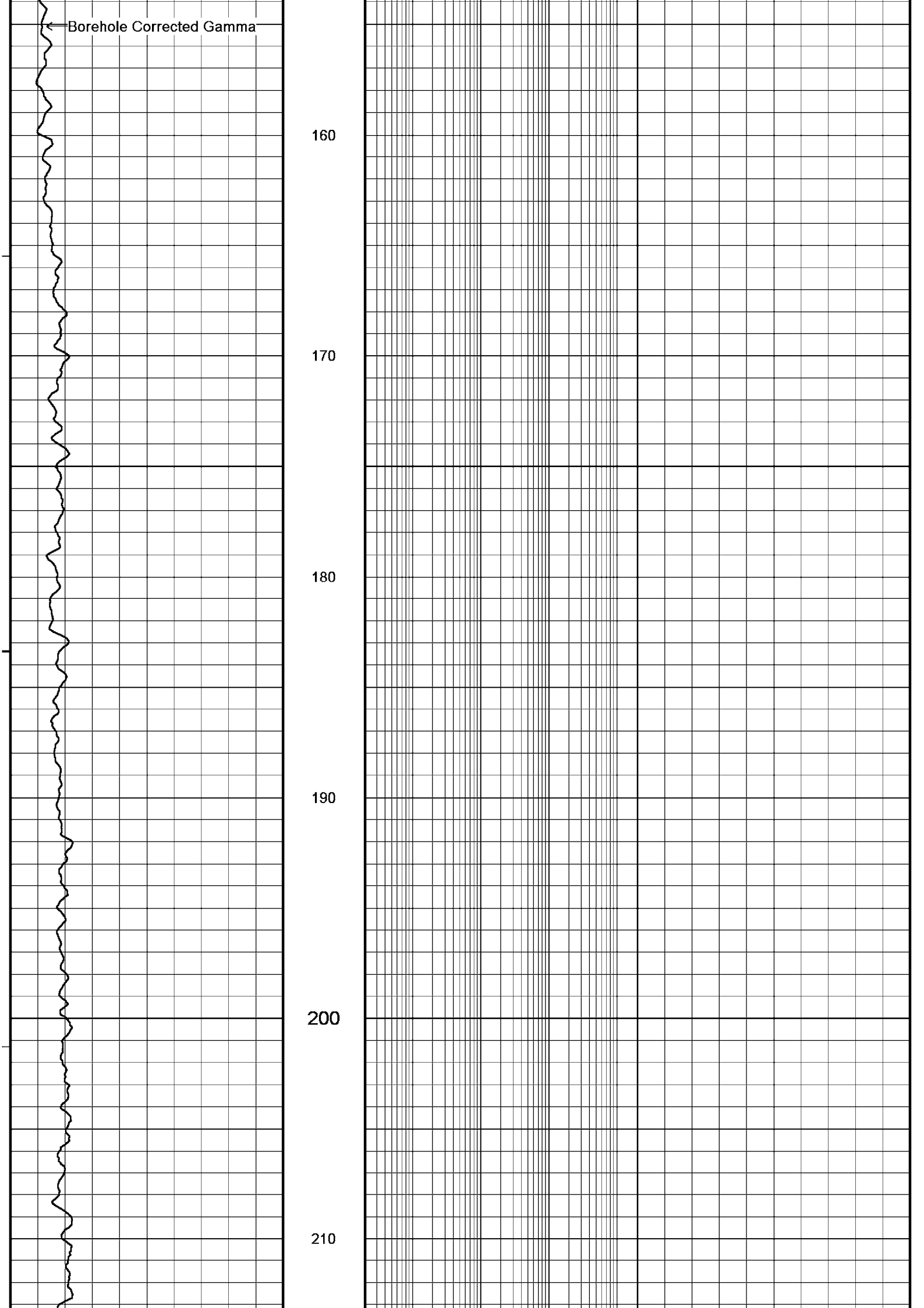
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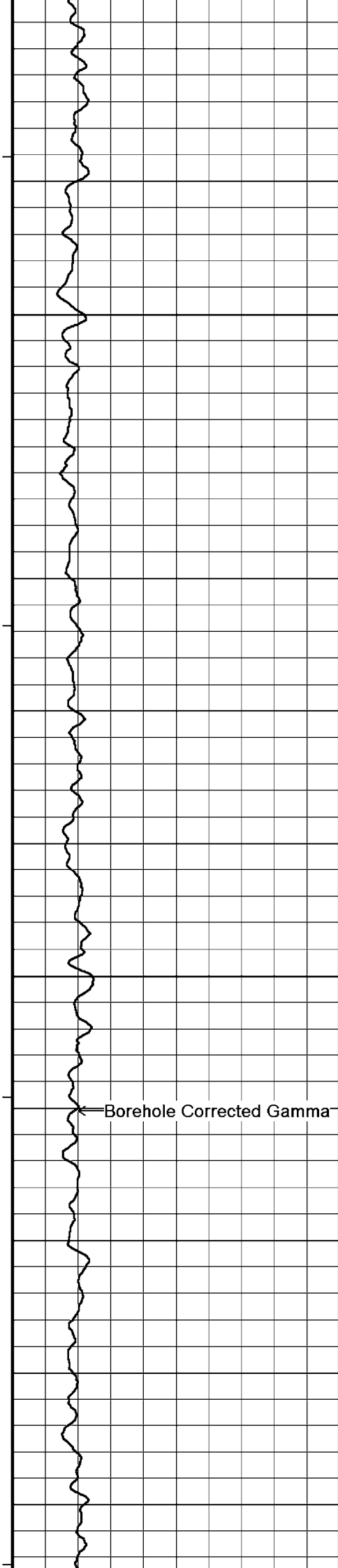
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140

150







220

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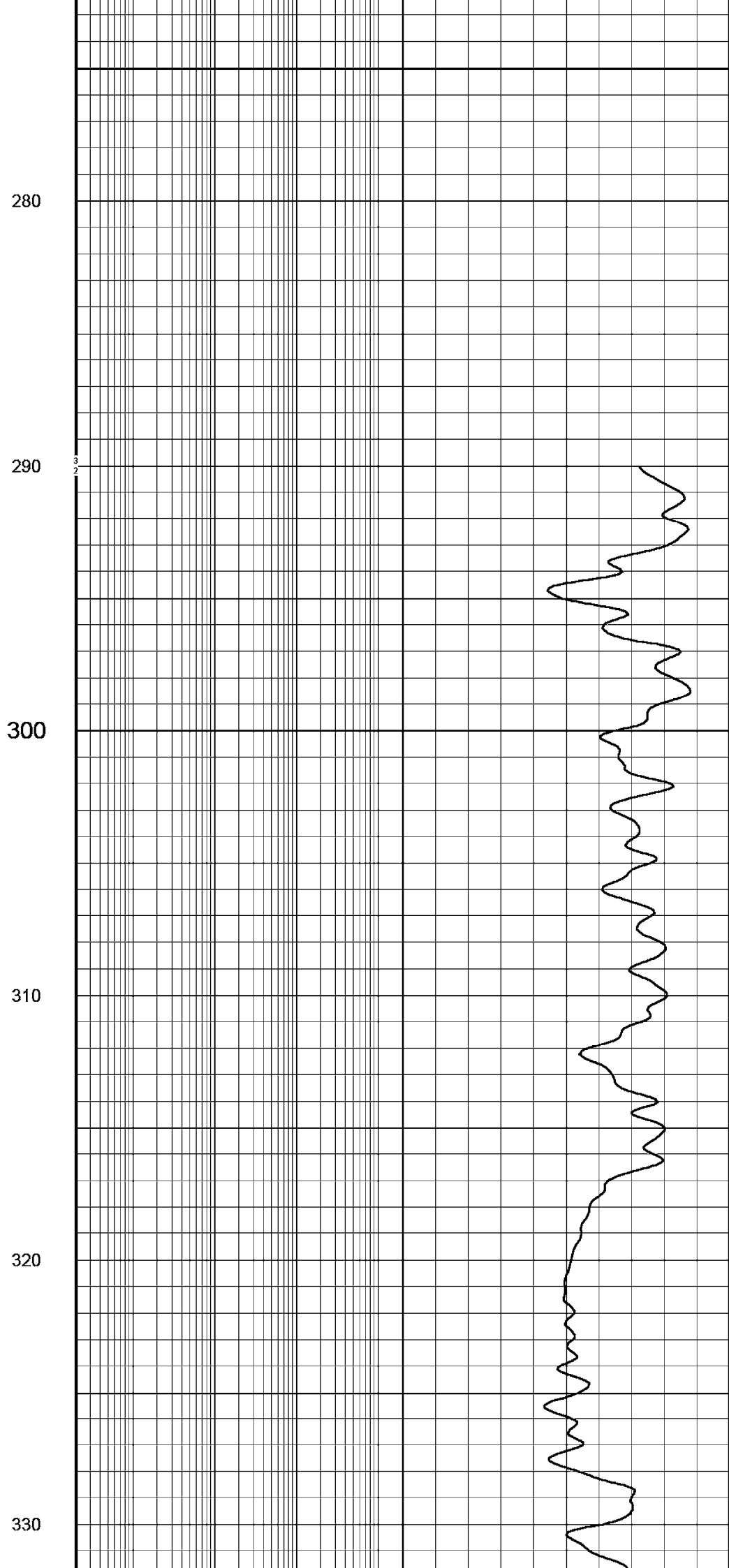
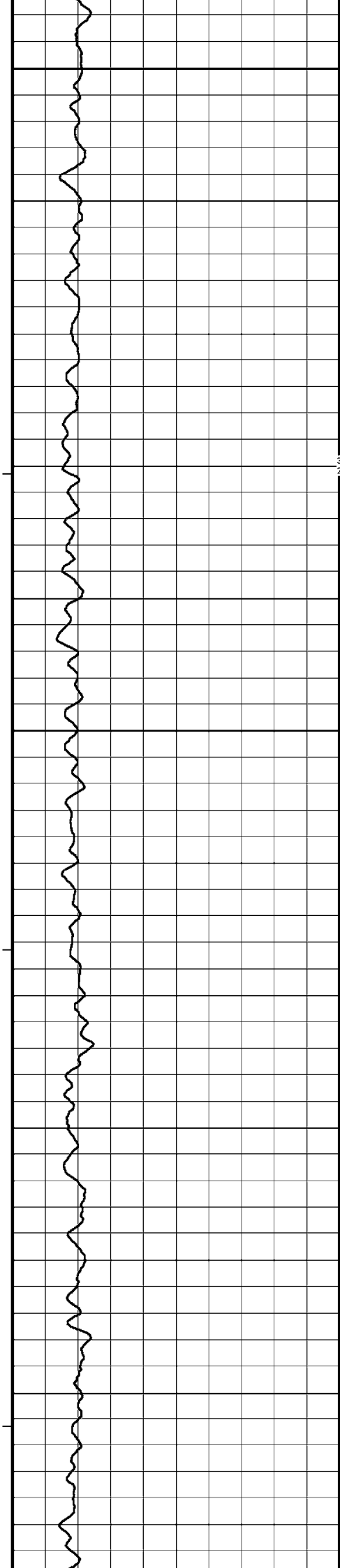
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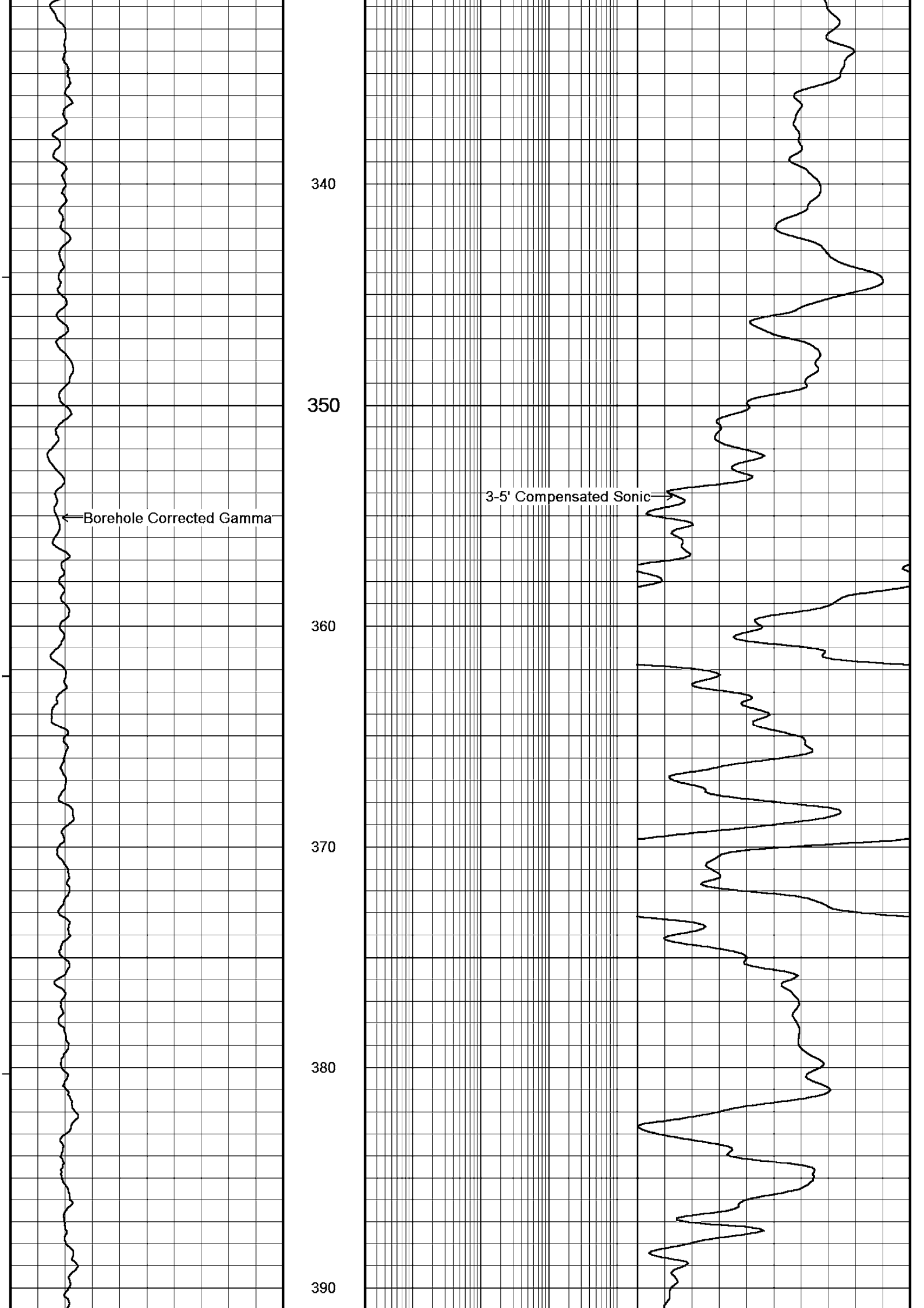
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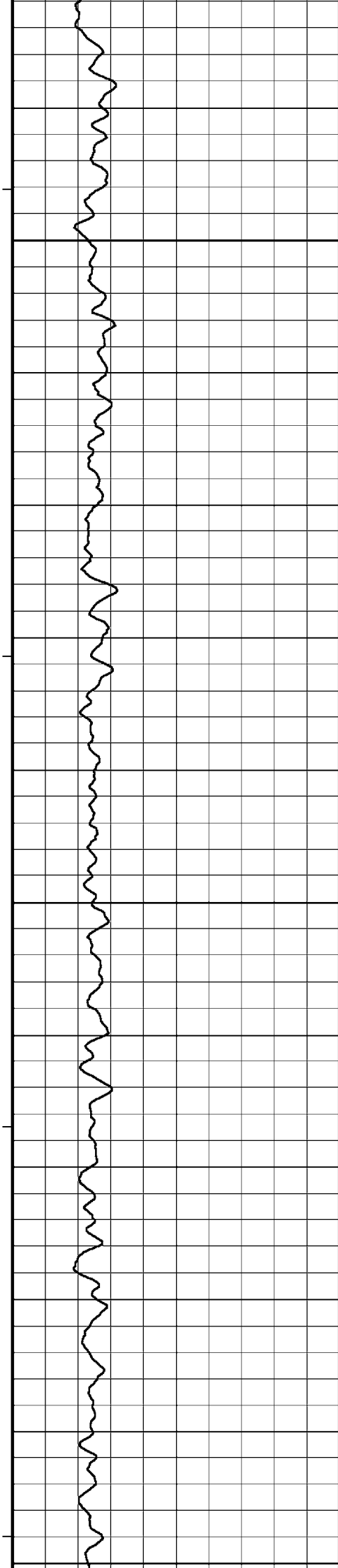
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← Borehole Corrected Gamma









400

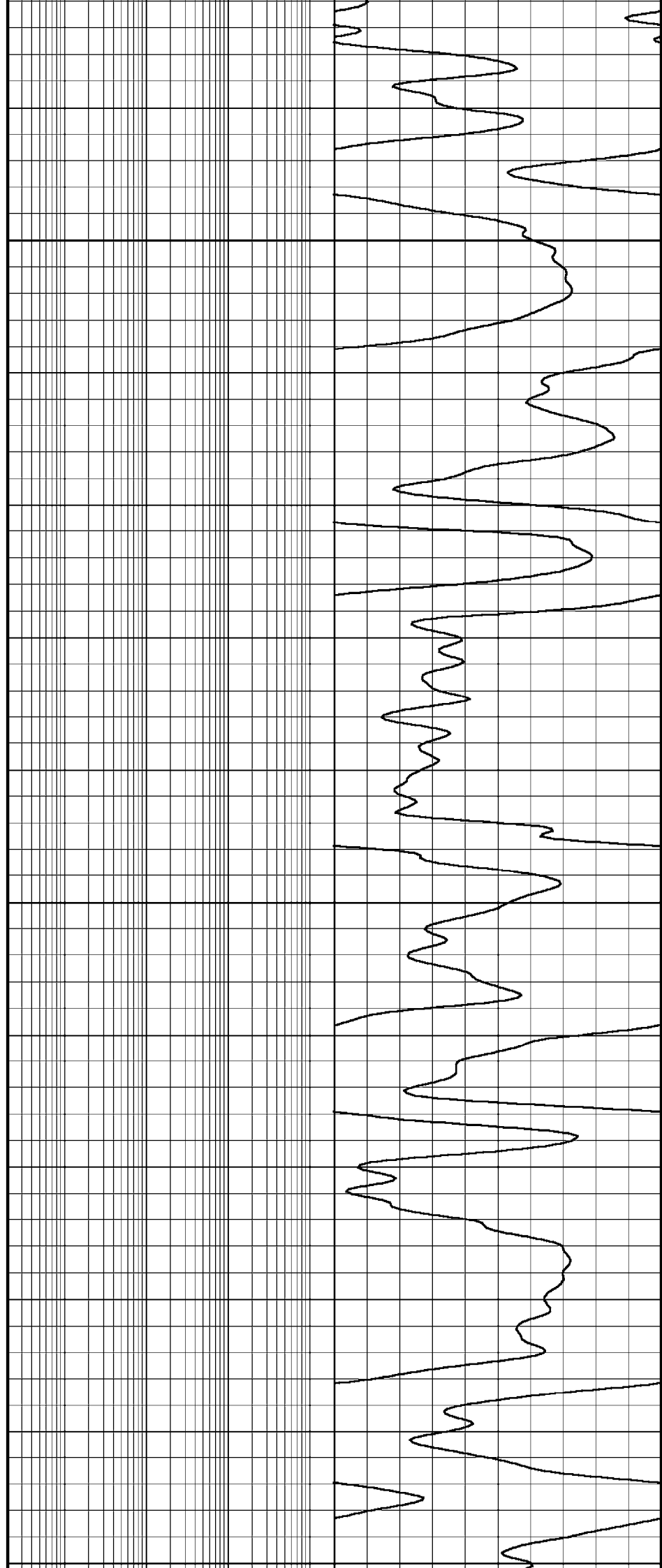
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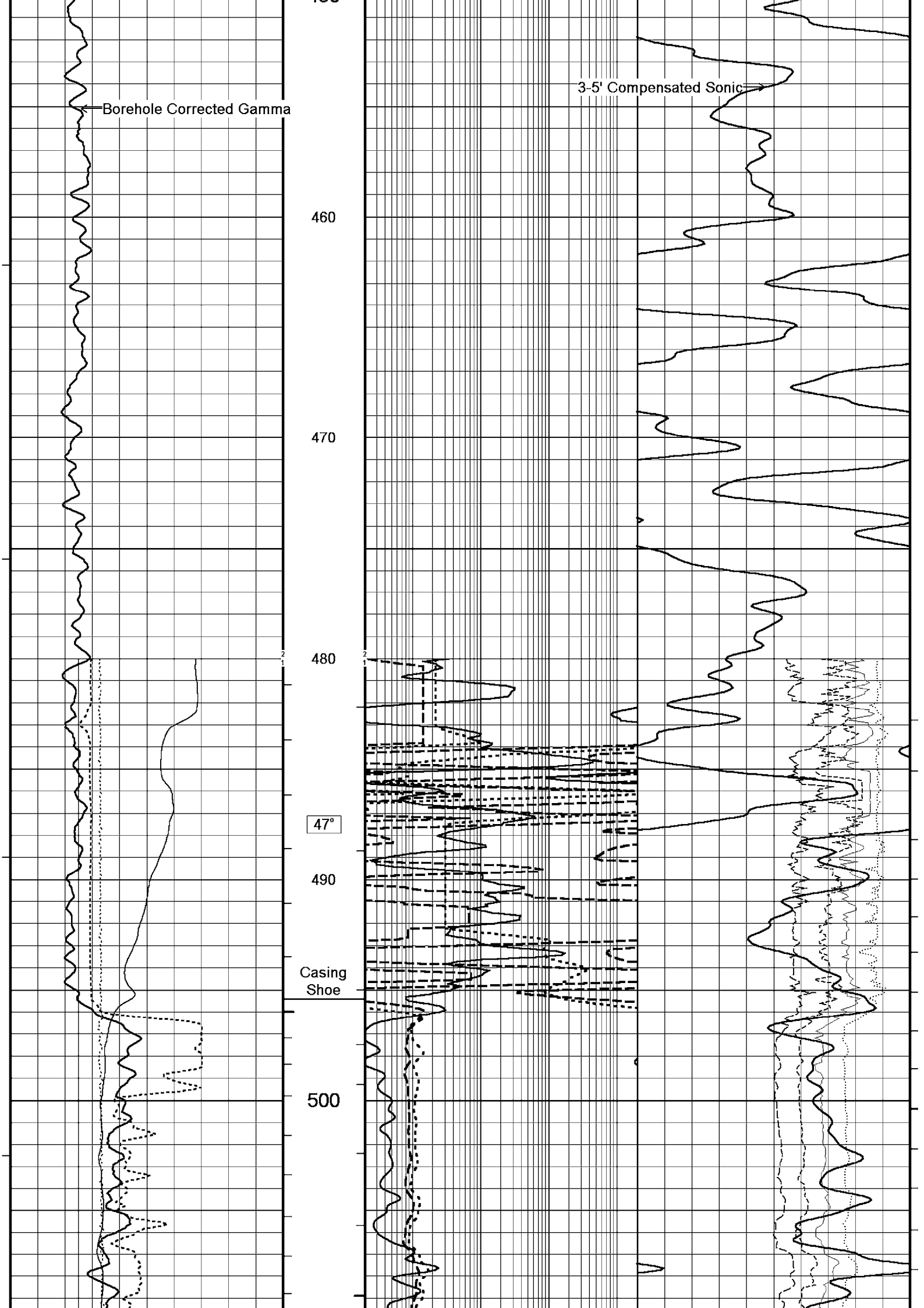
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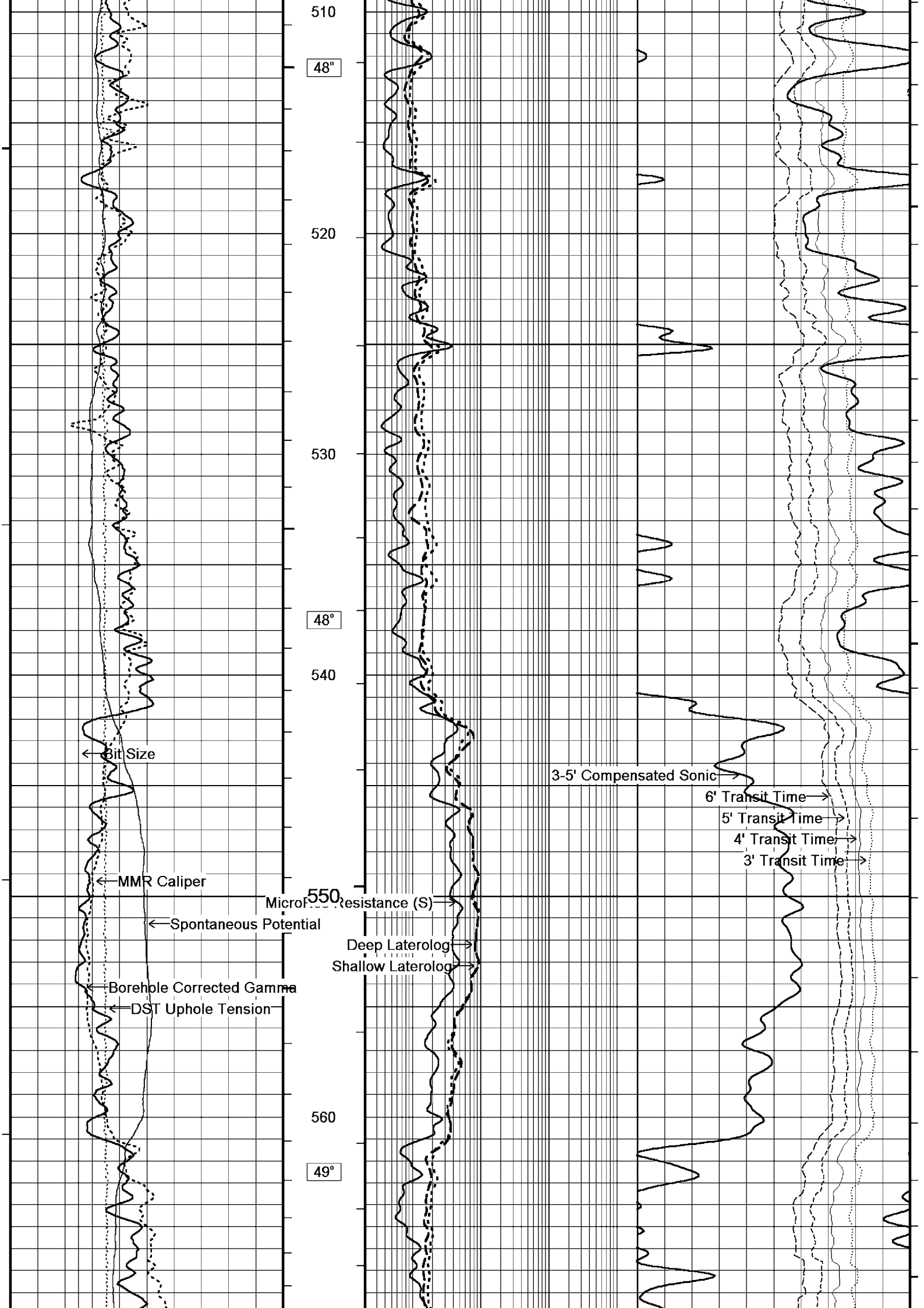
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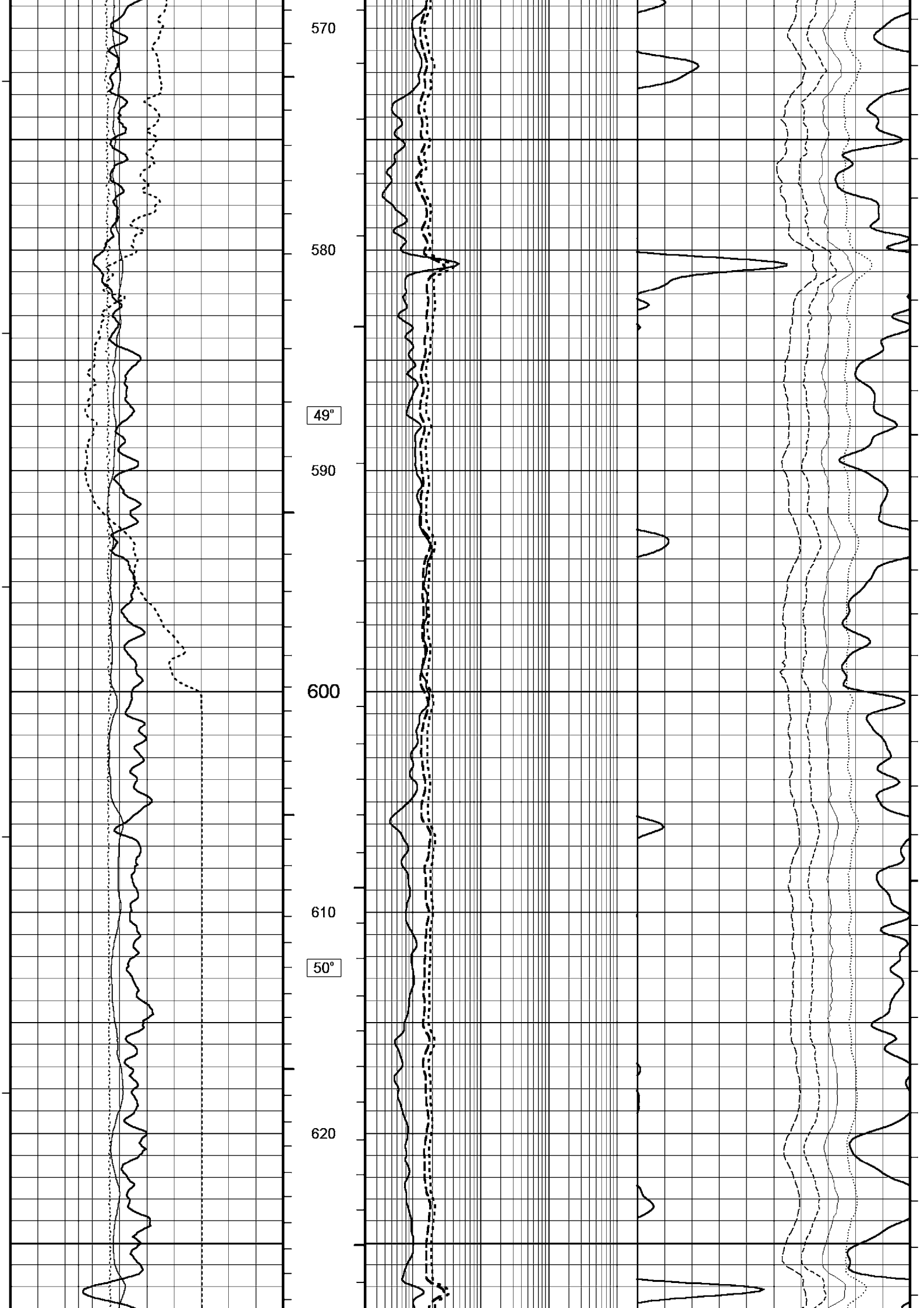
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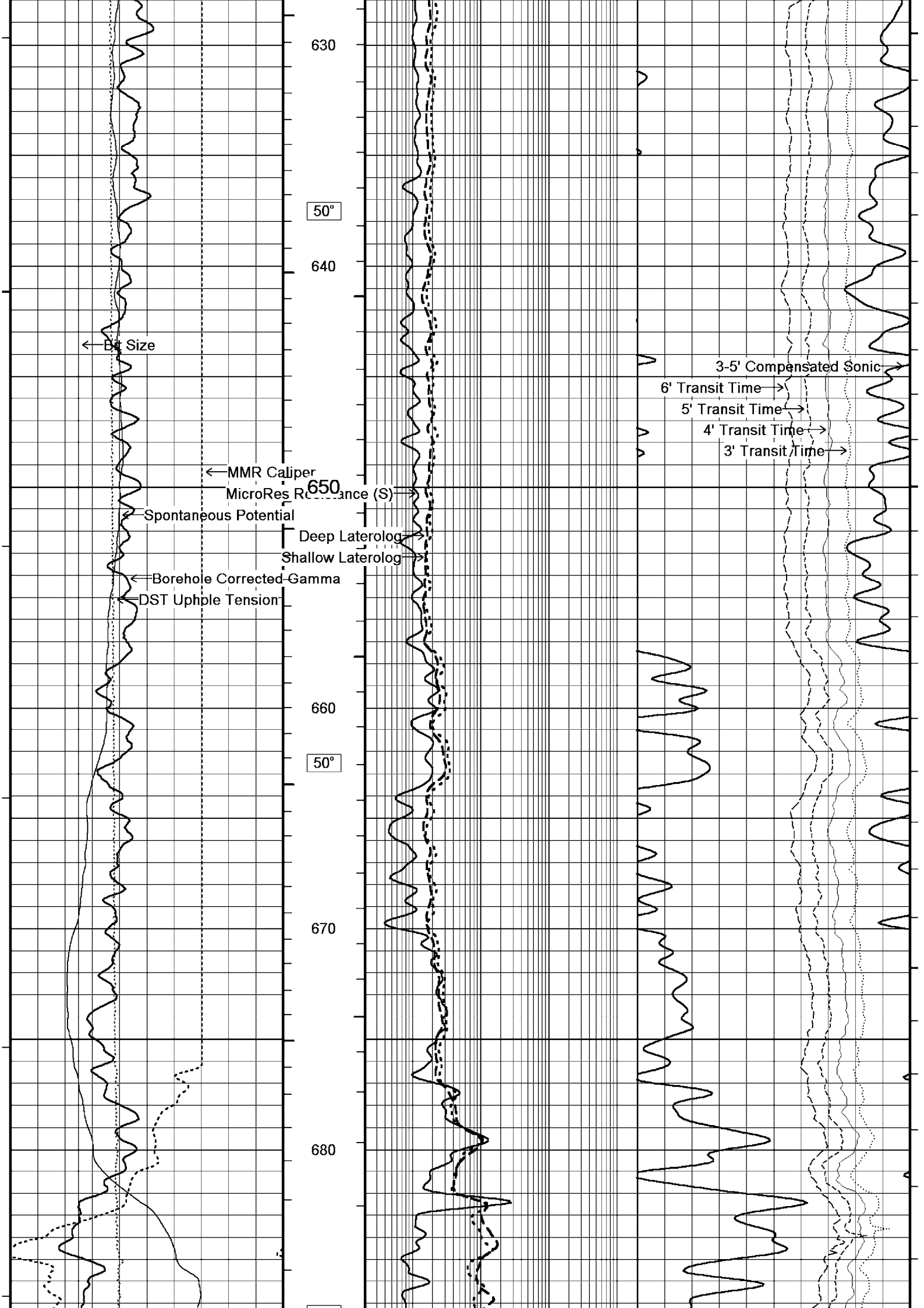
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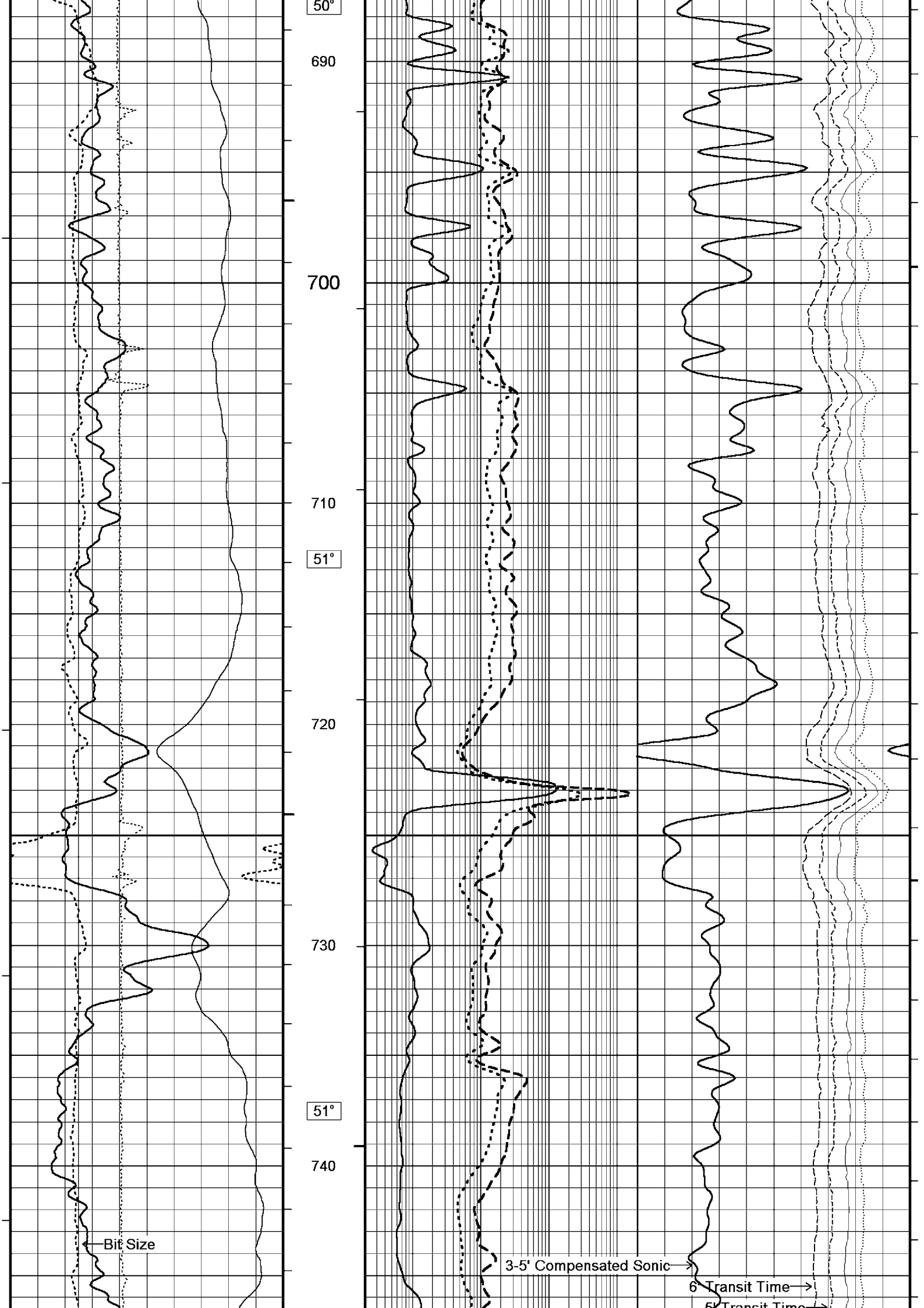


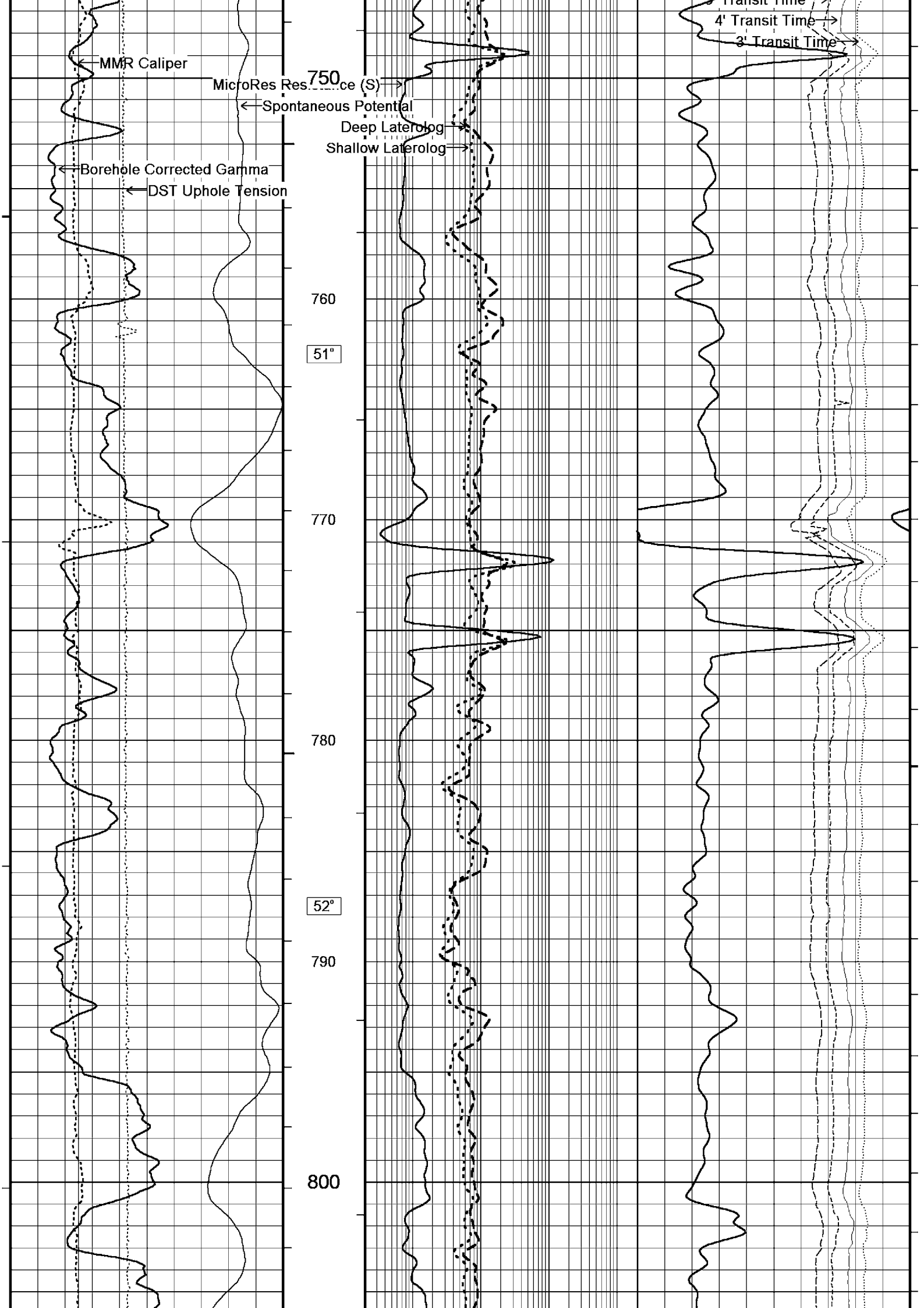


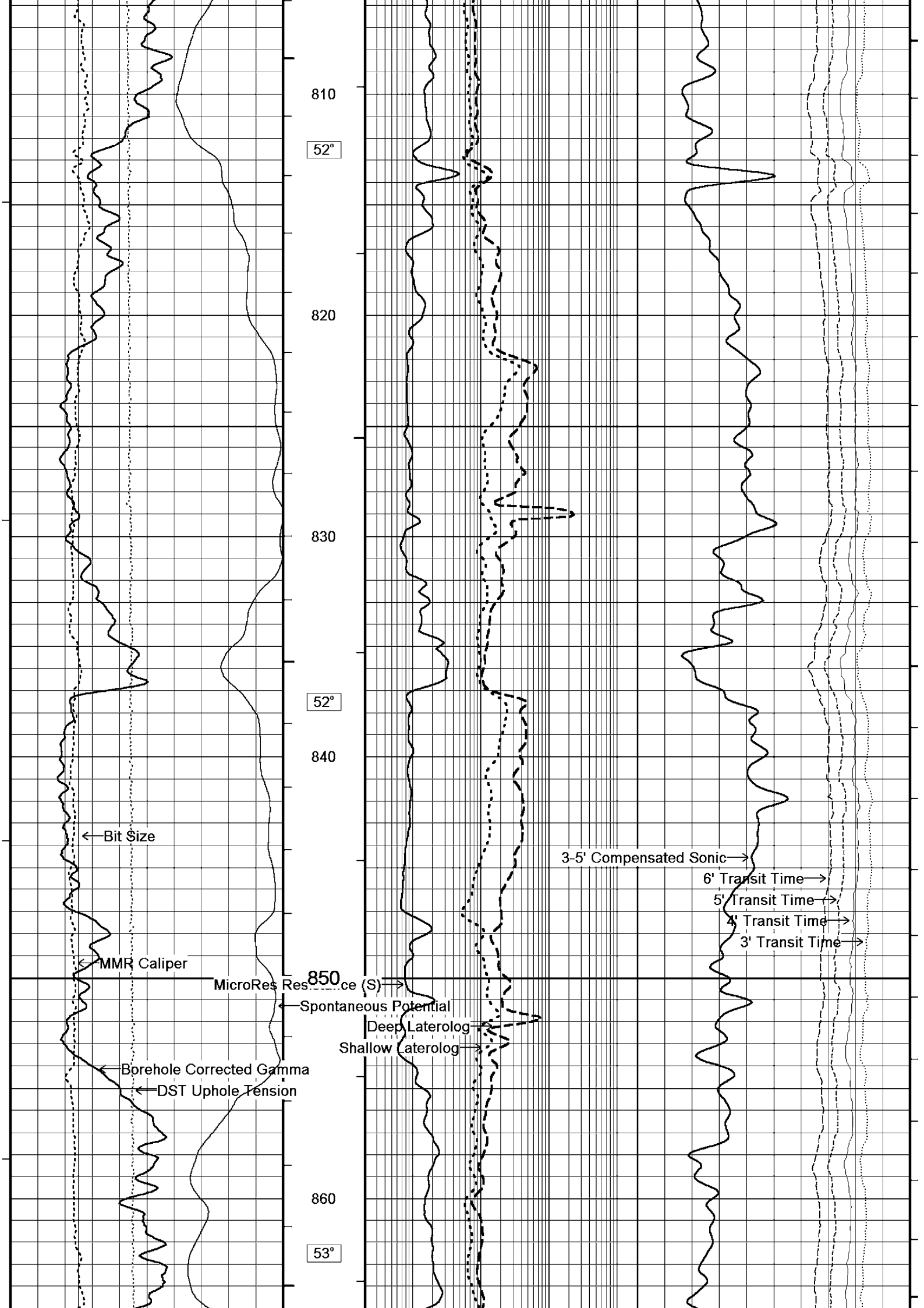




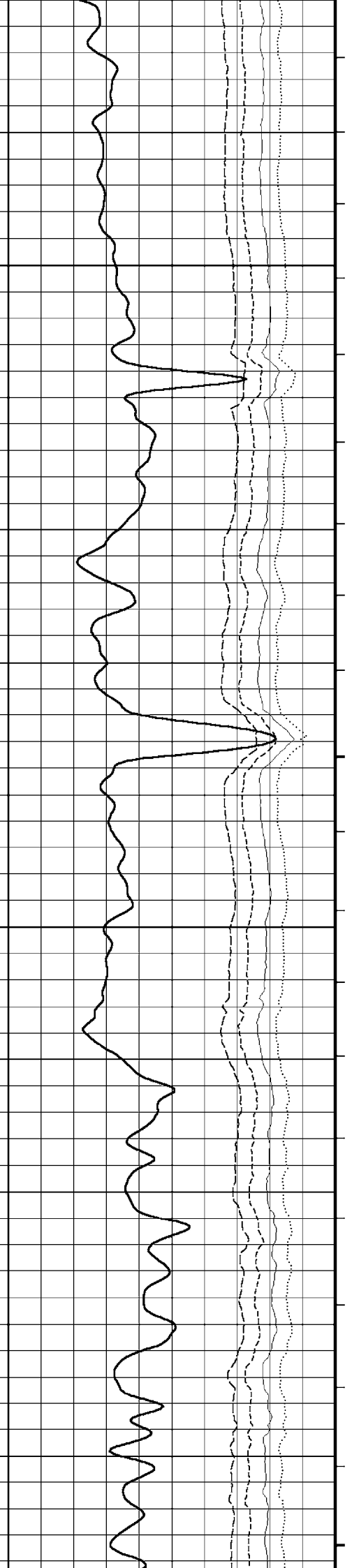
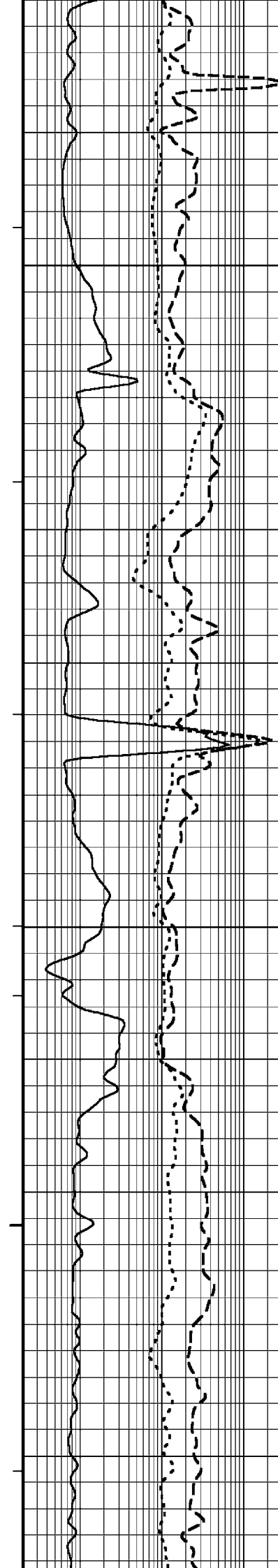
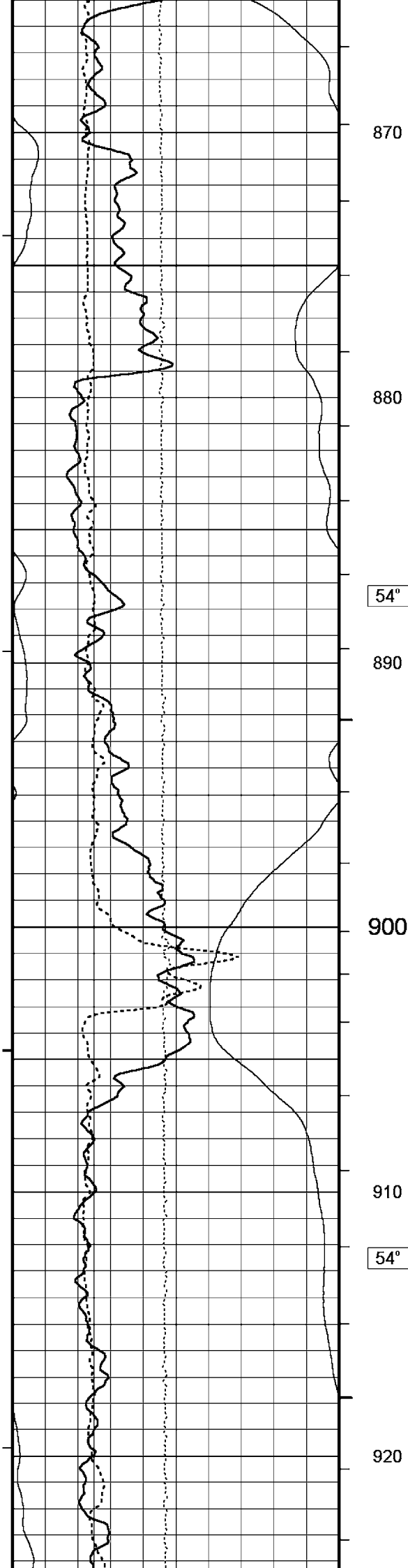


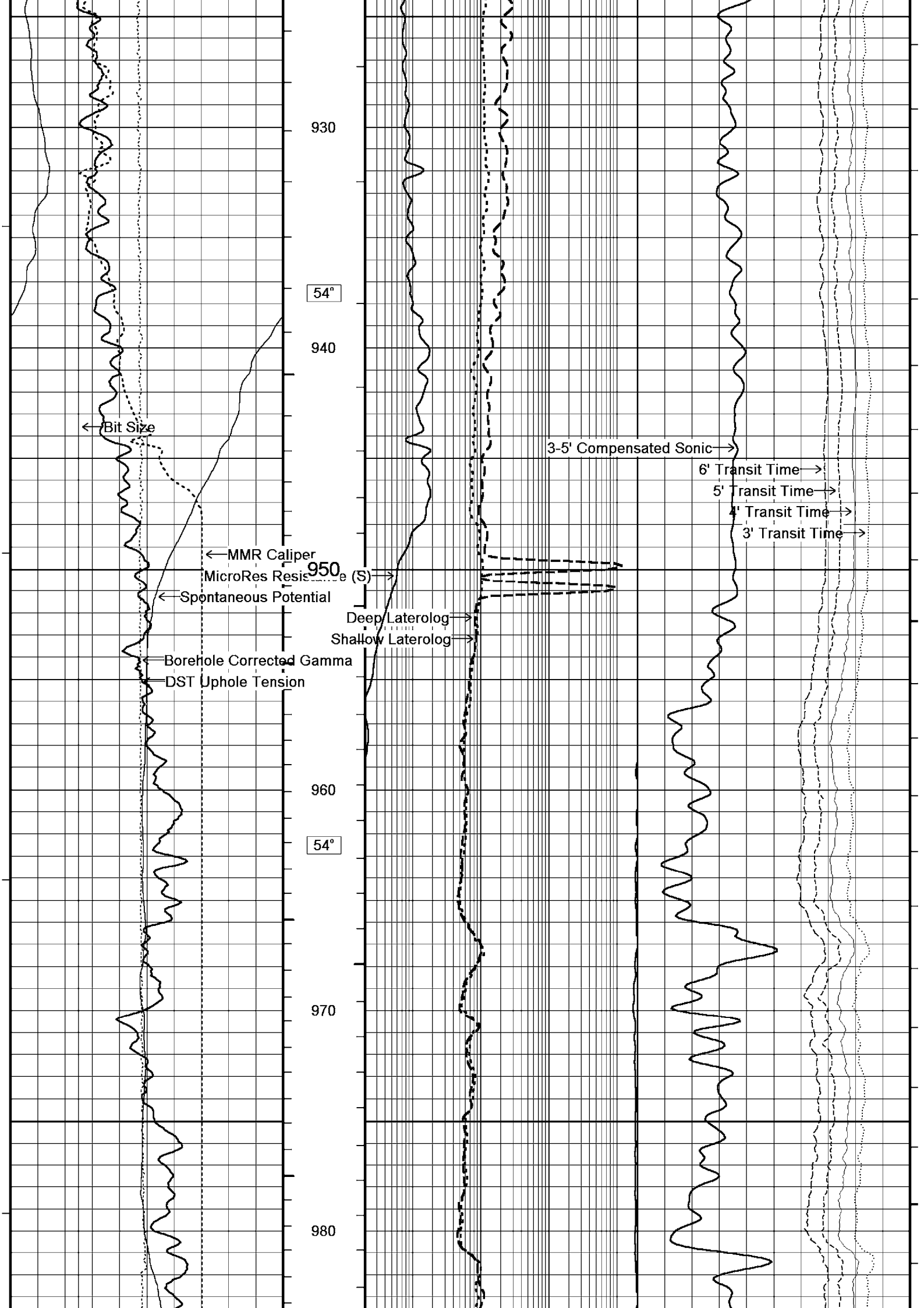


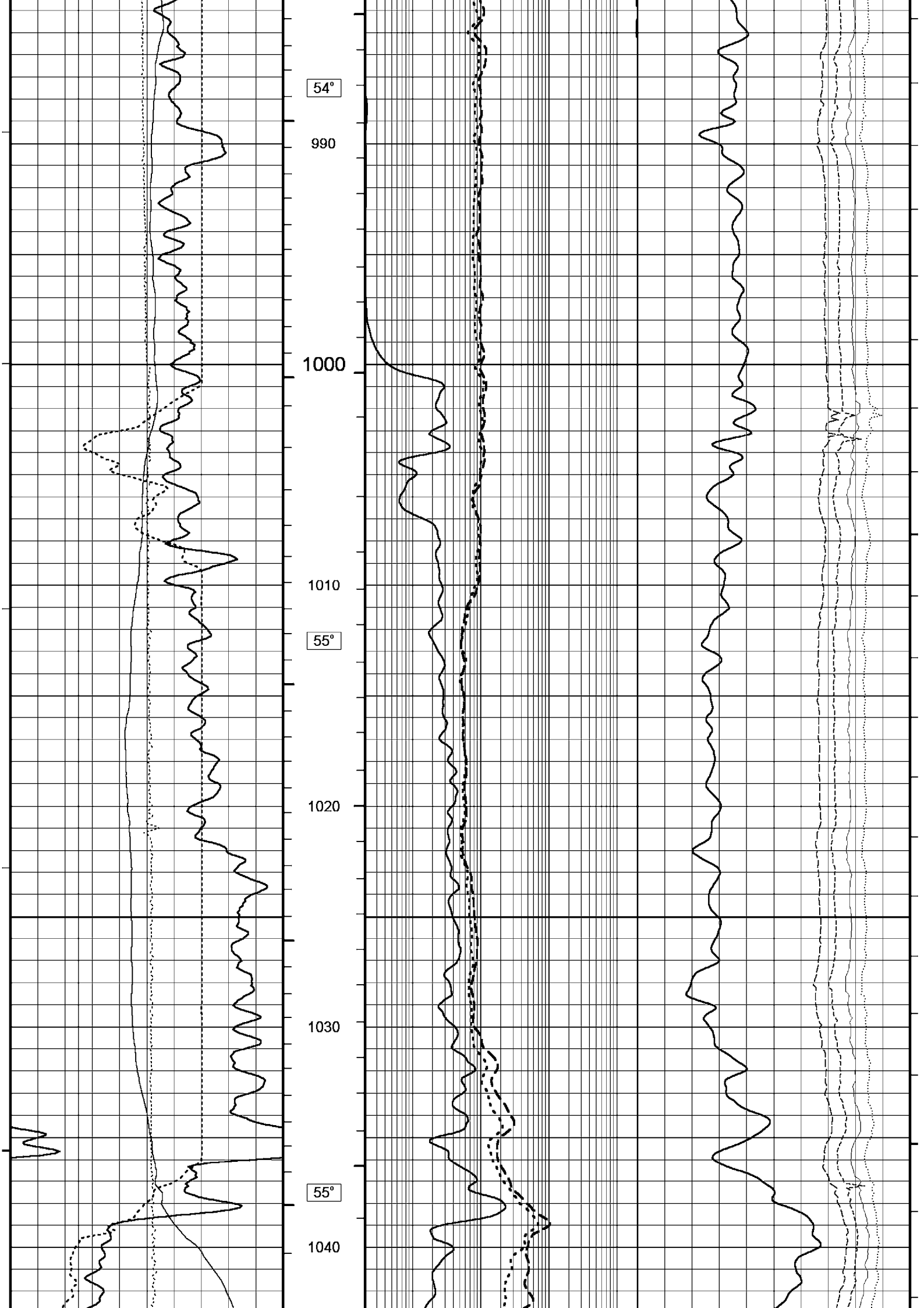


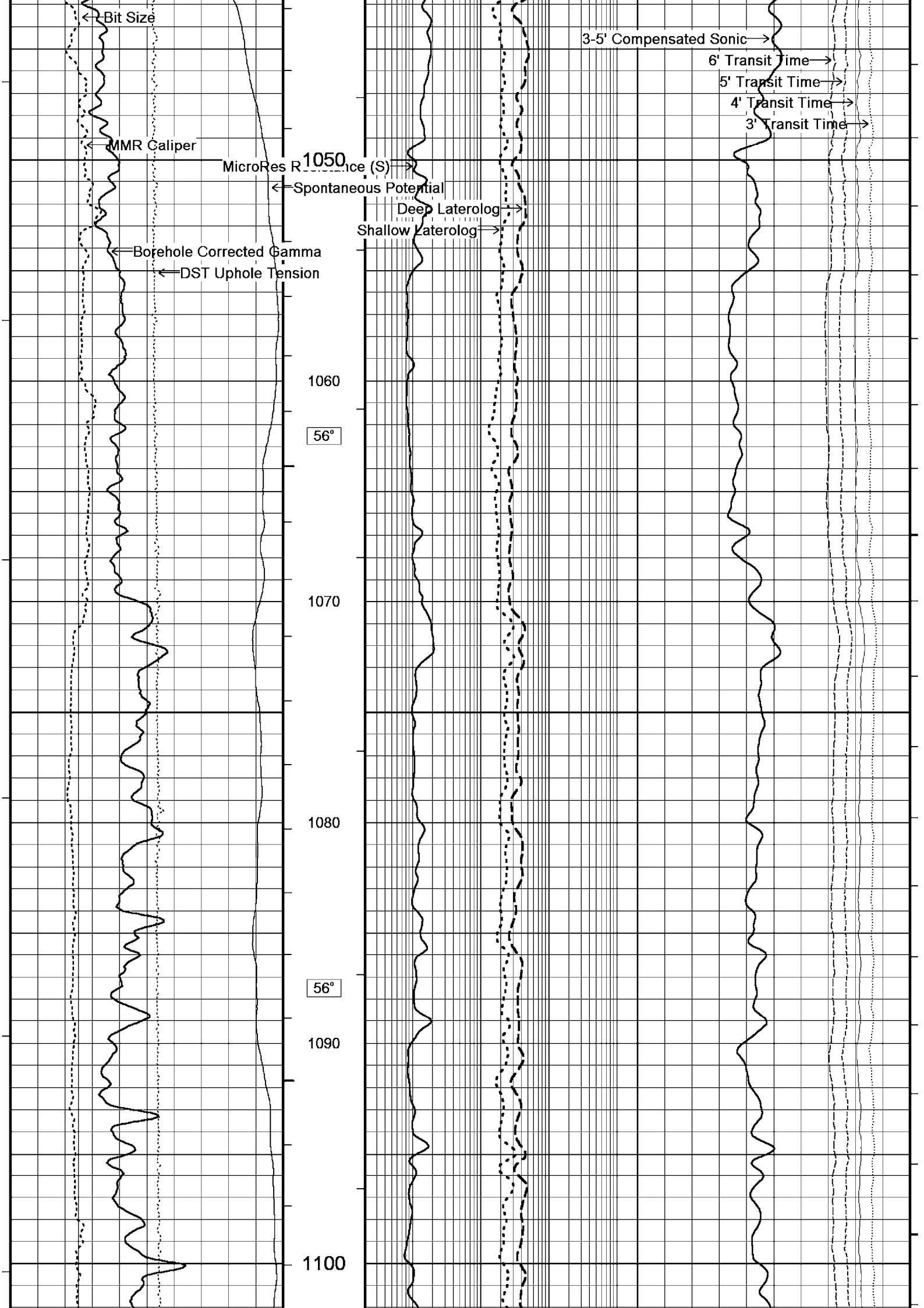


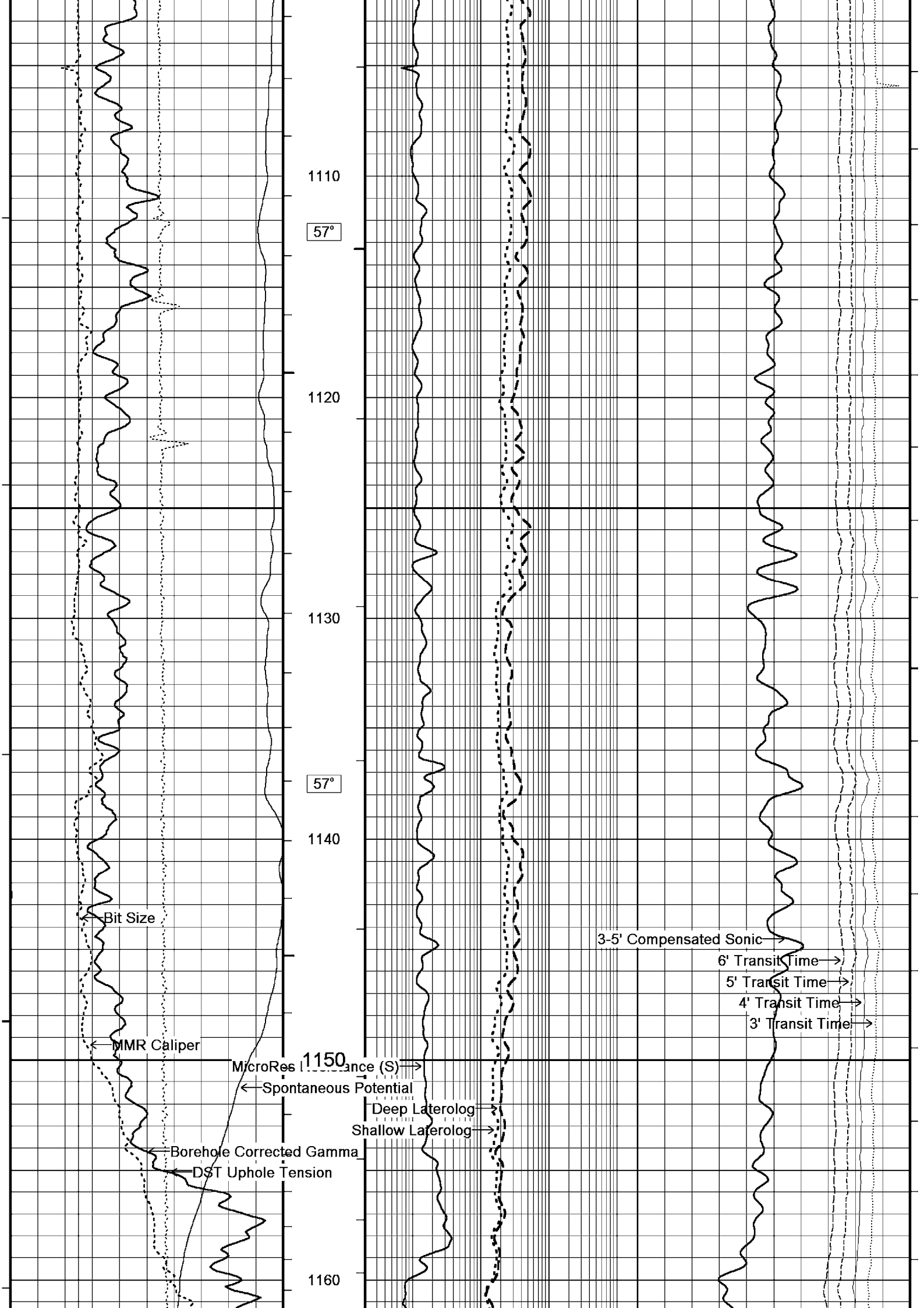


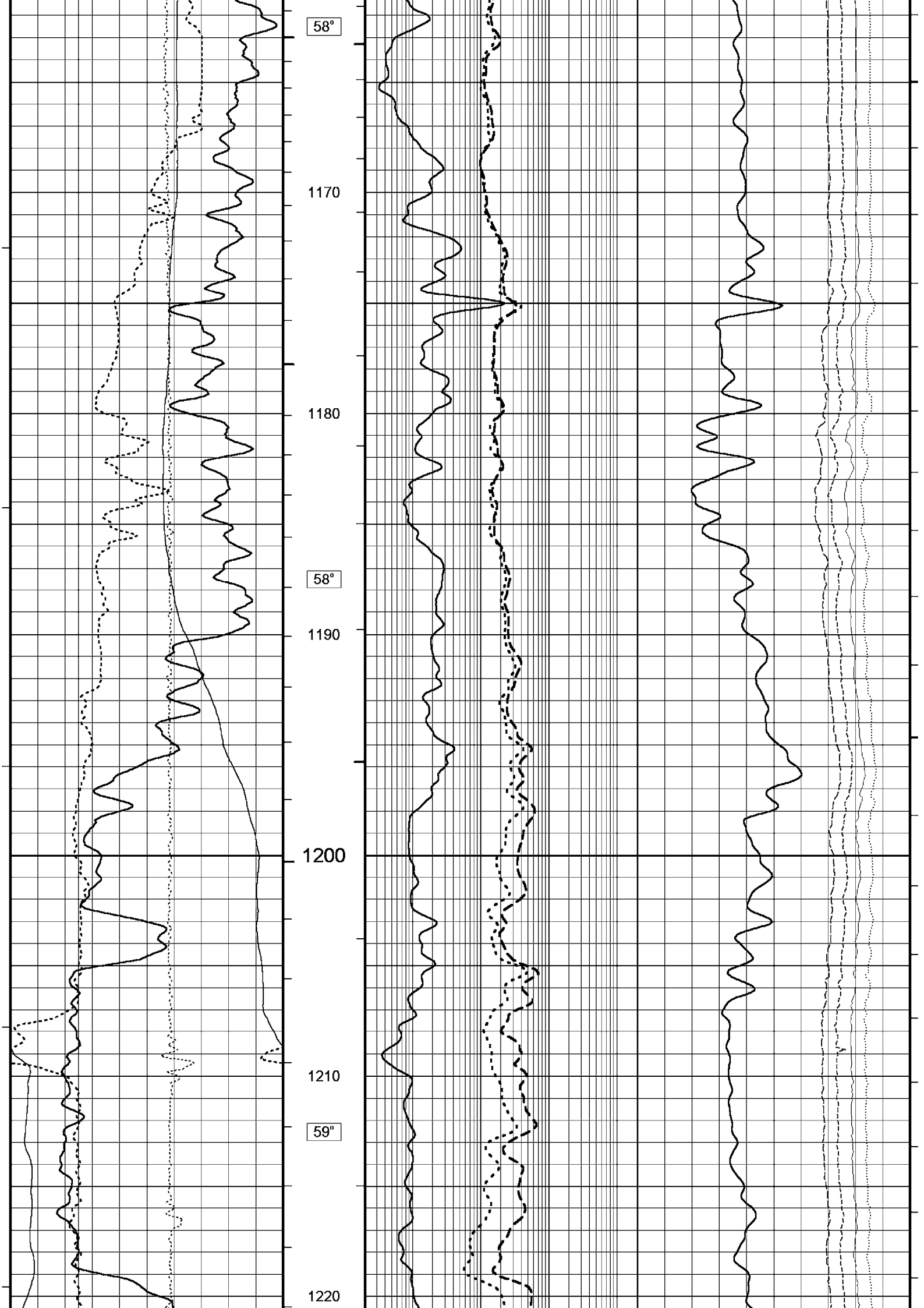


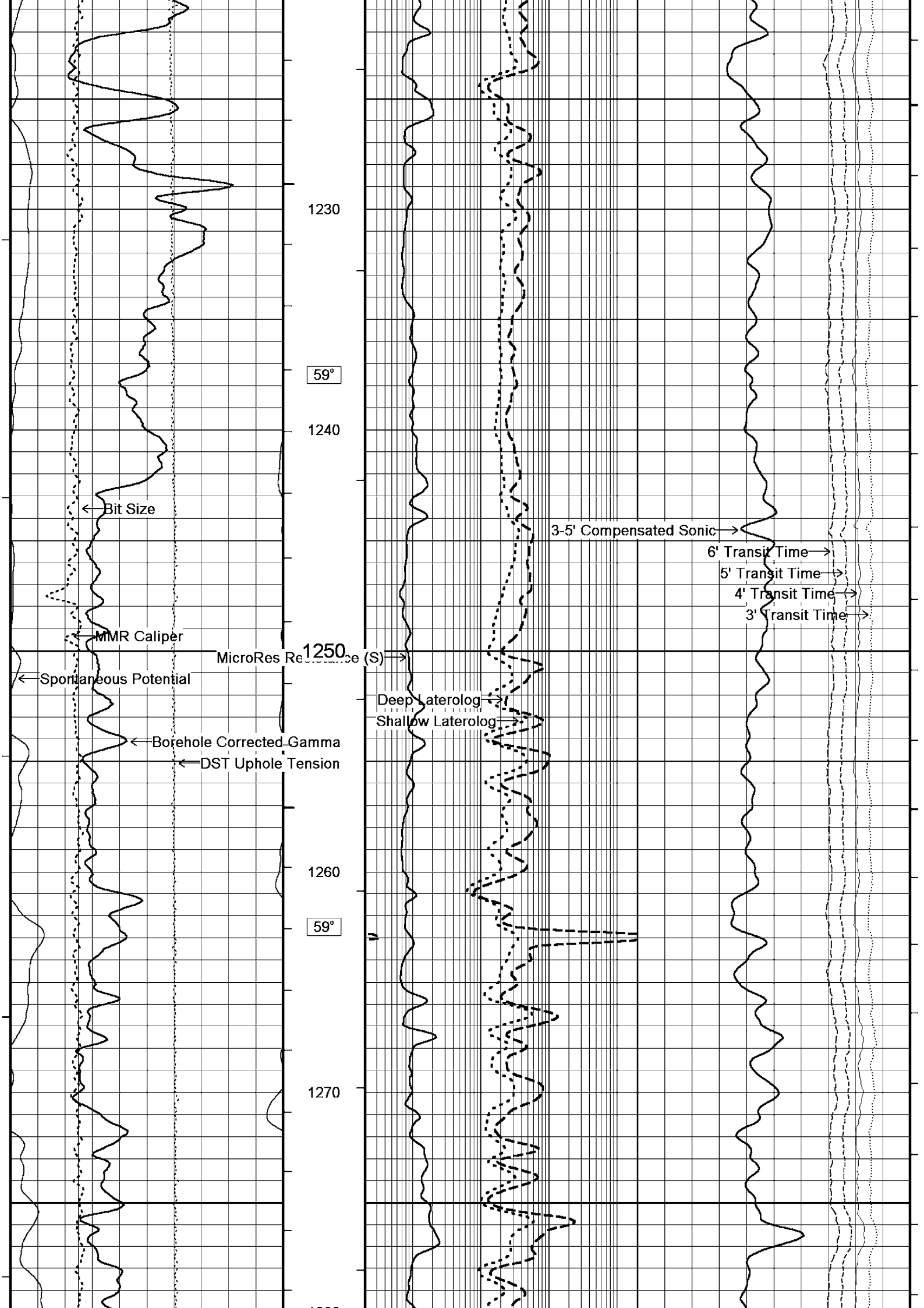


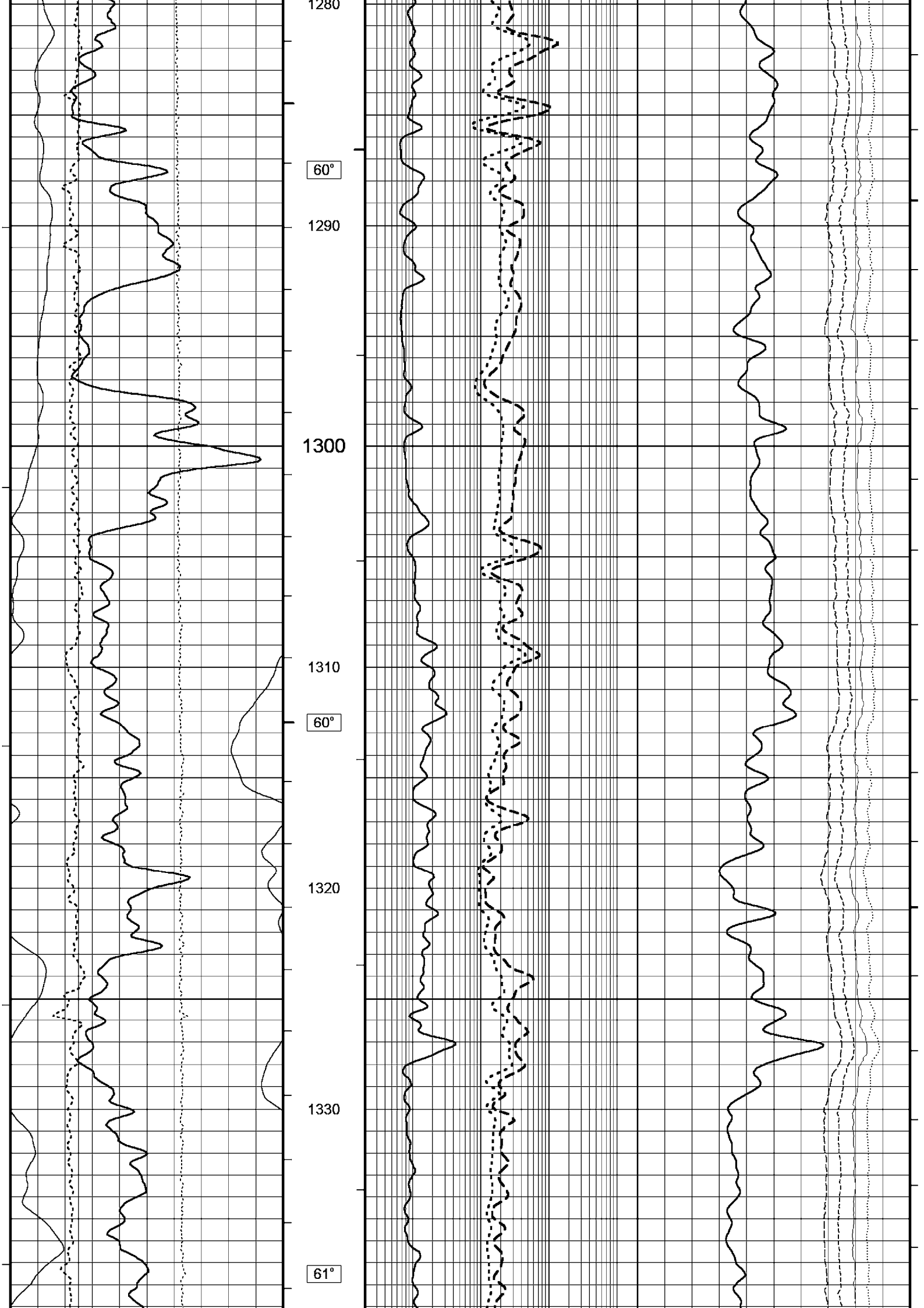




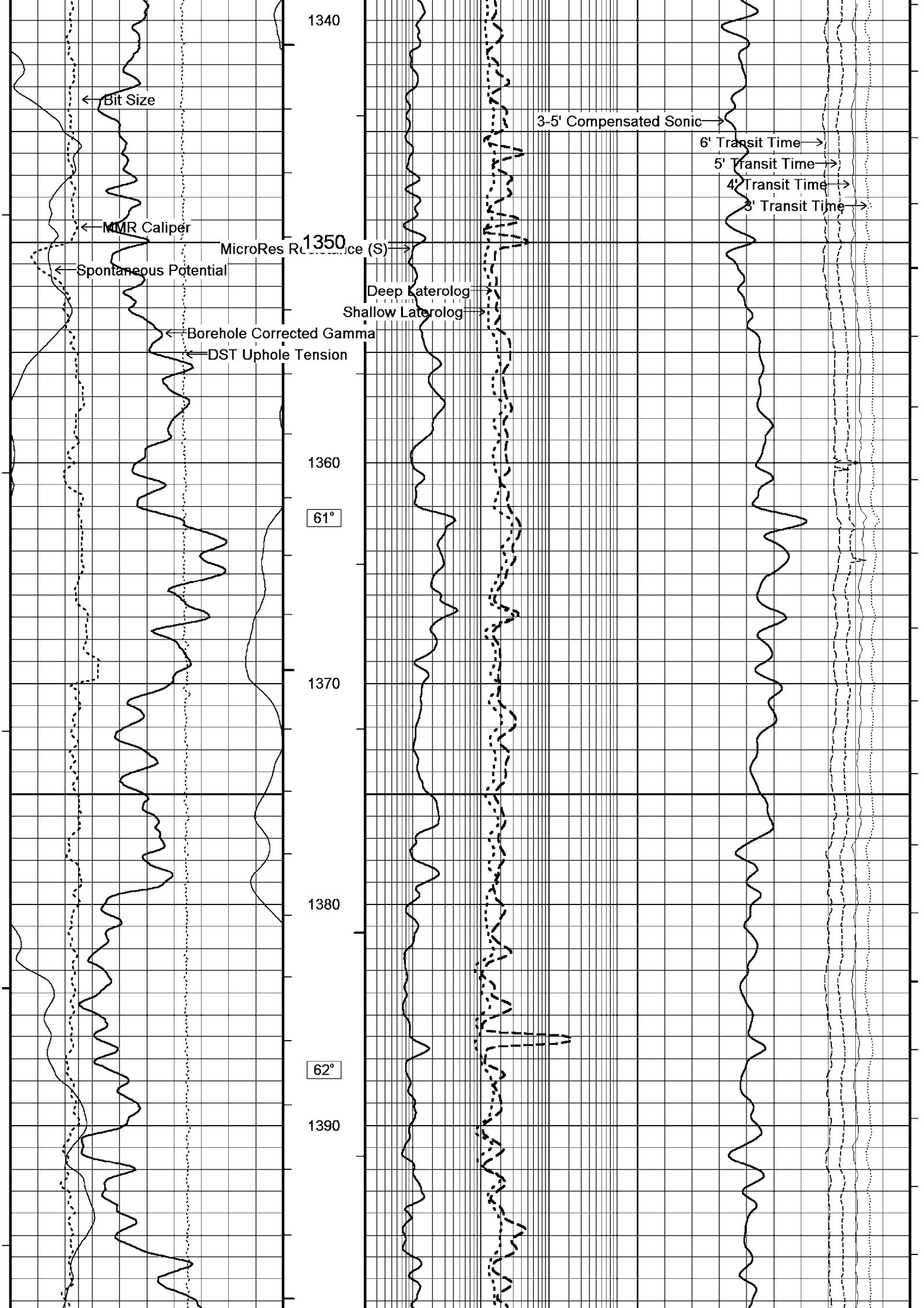


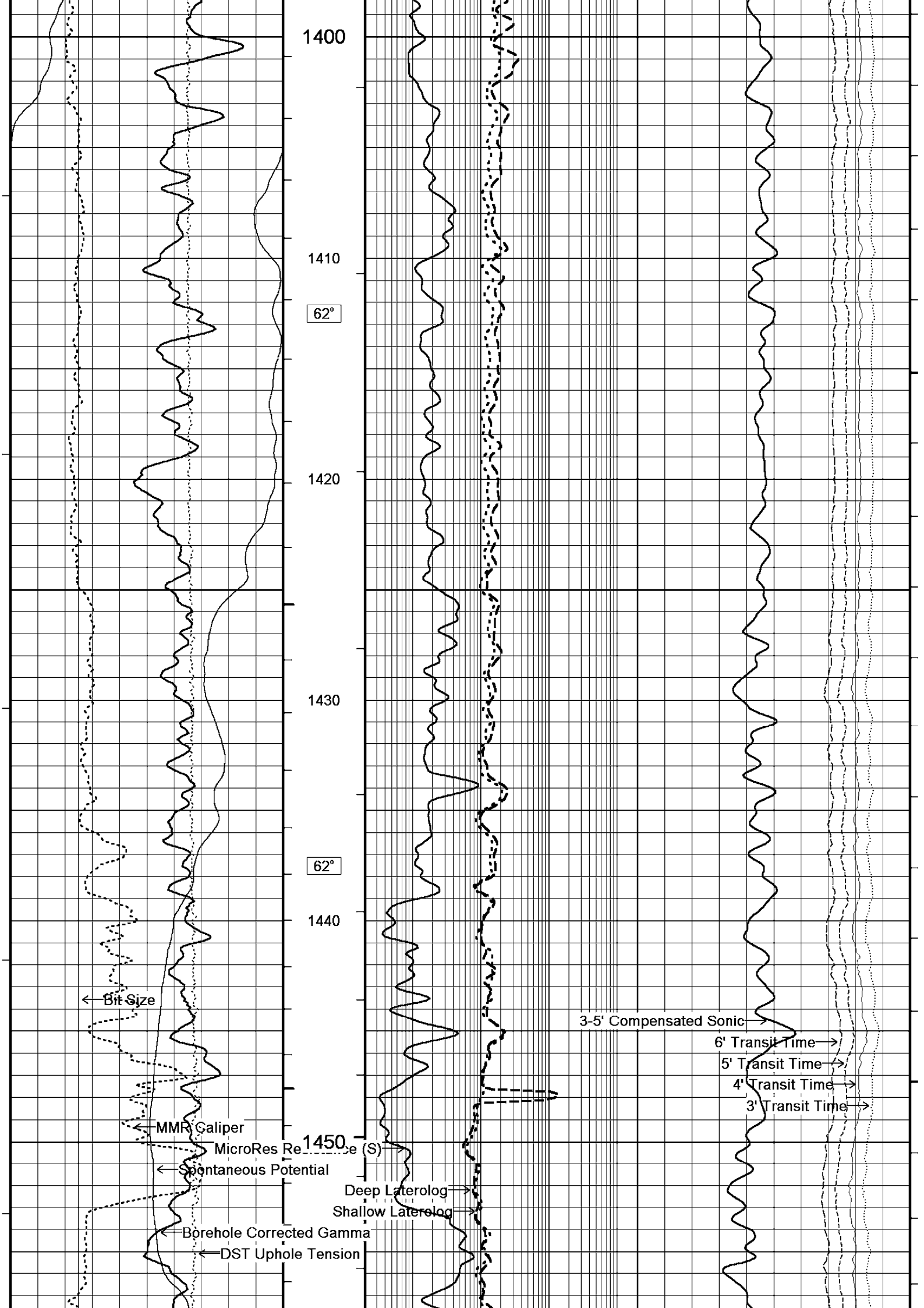


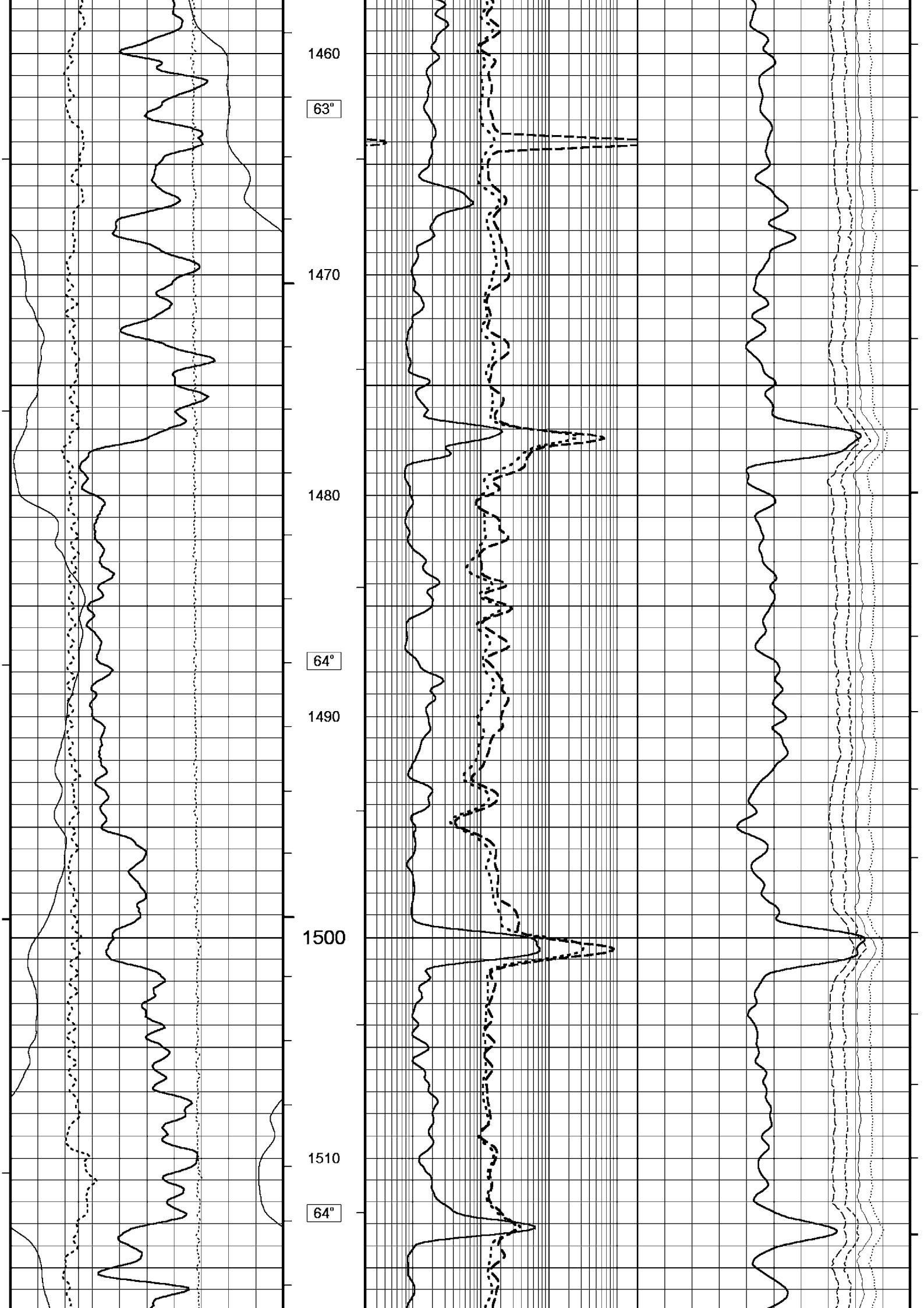


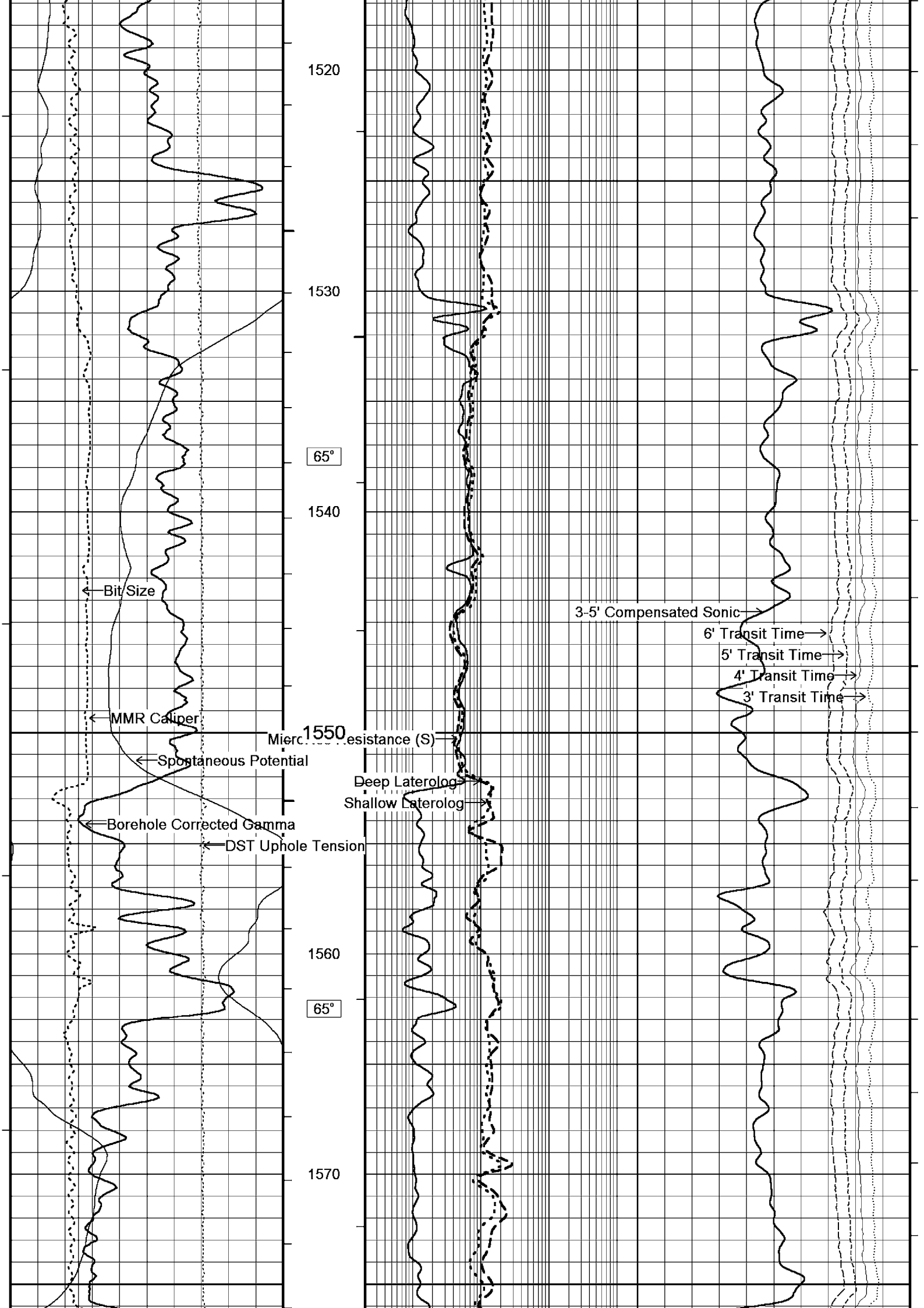


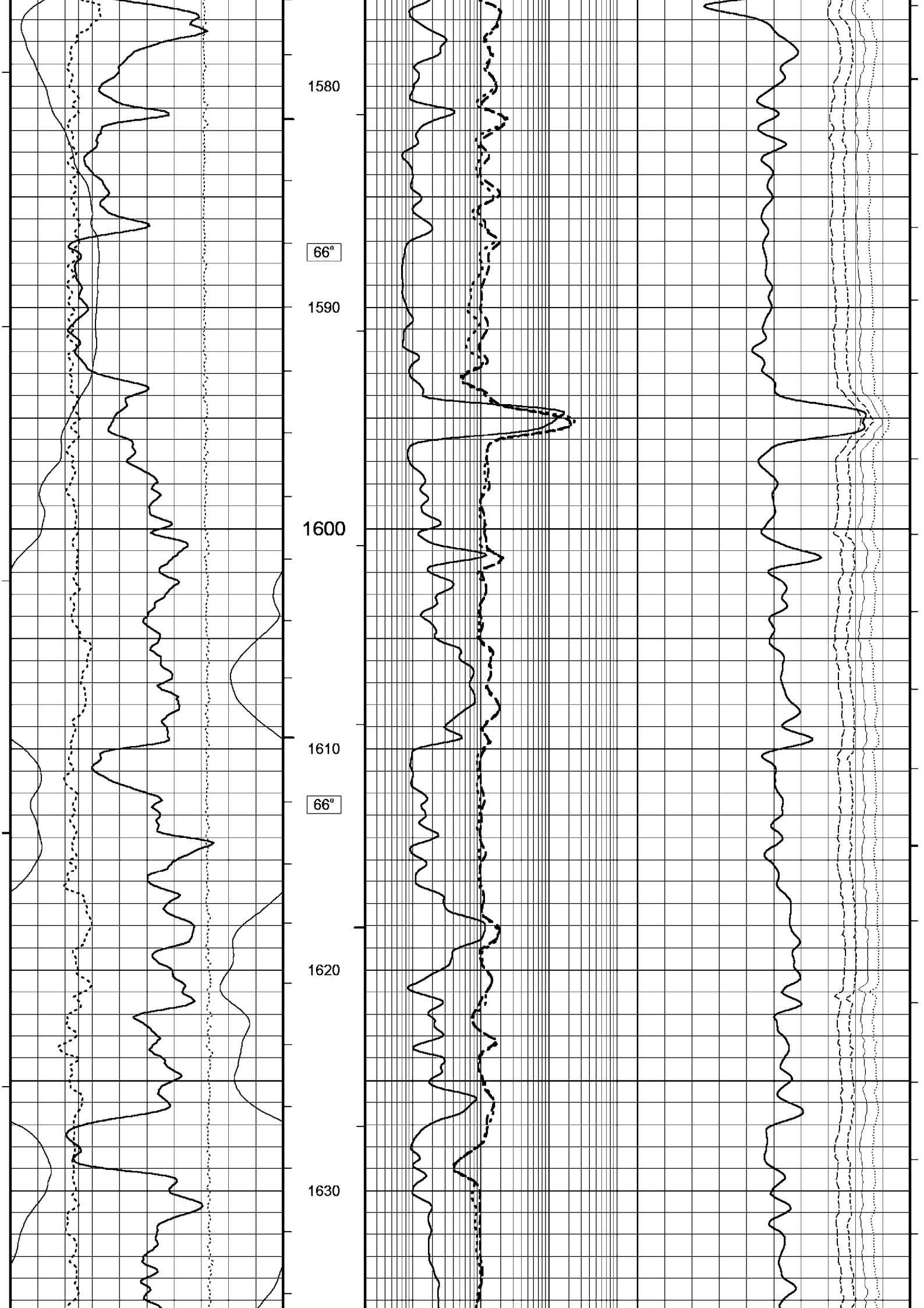


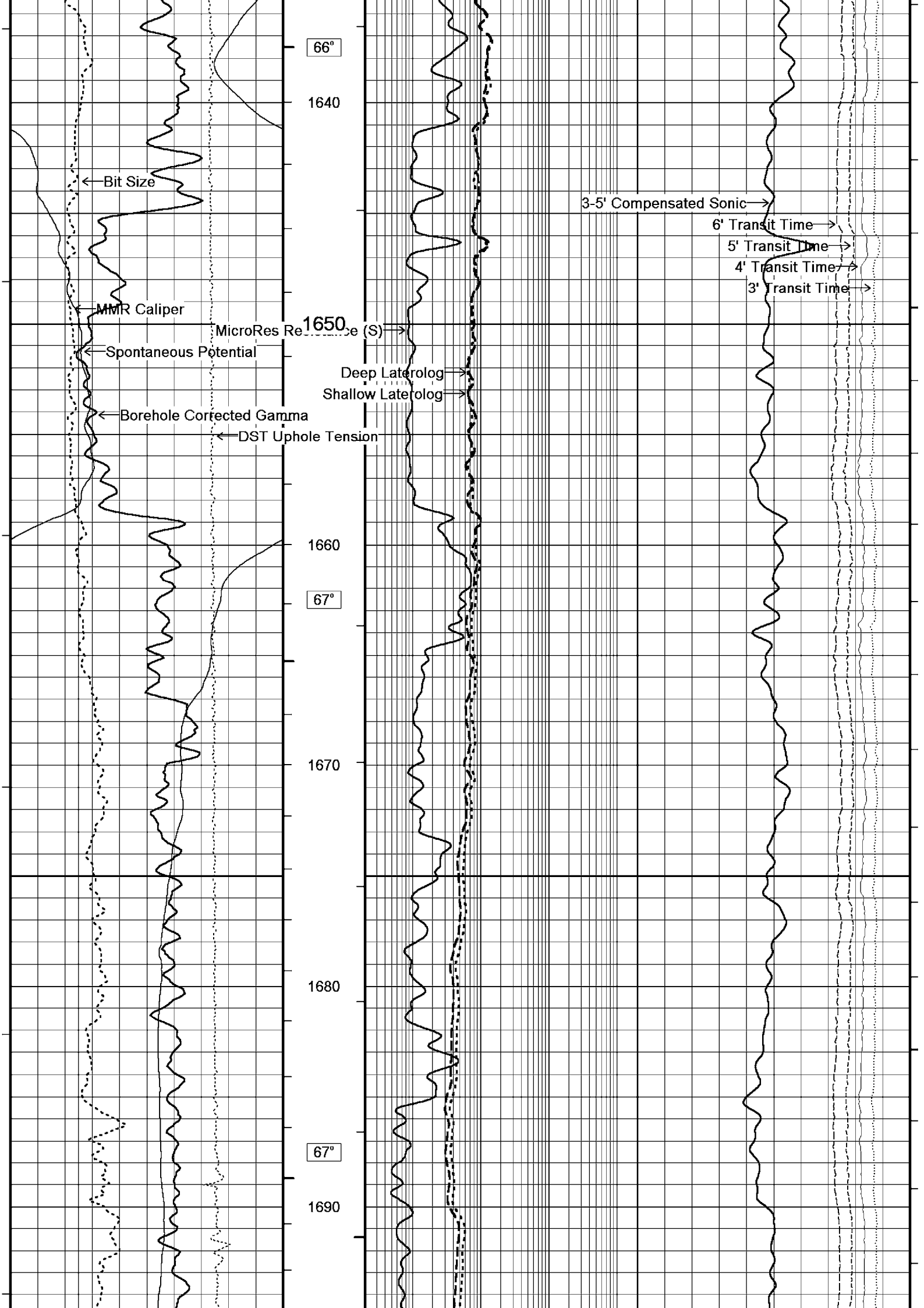


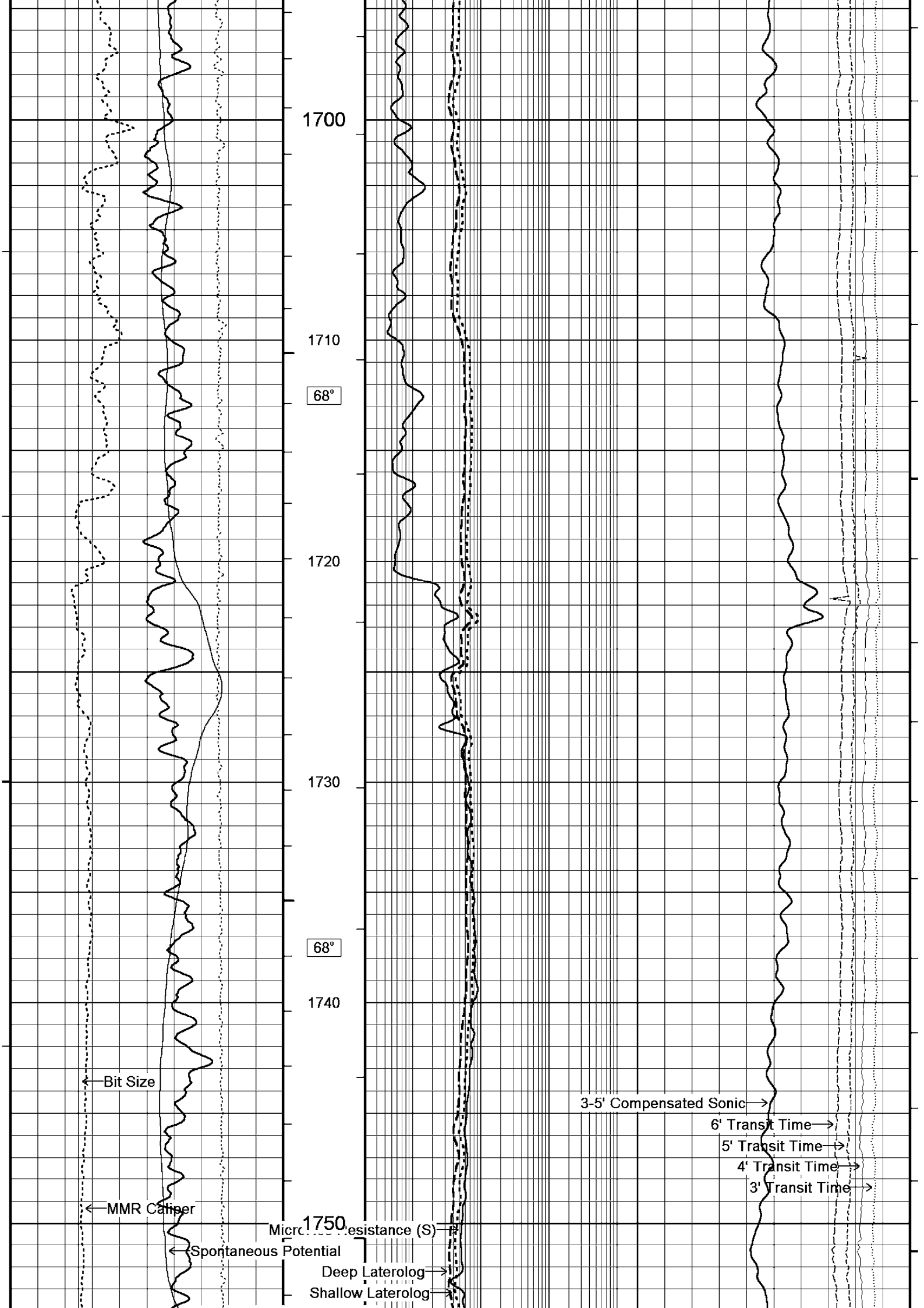


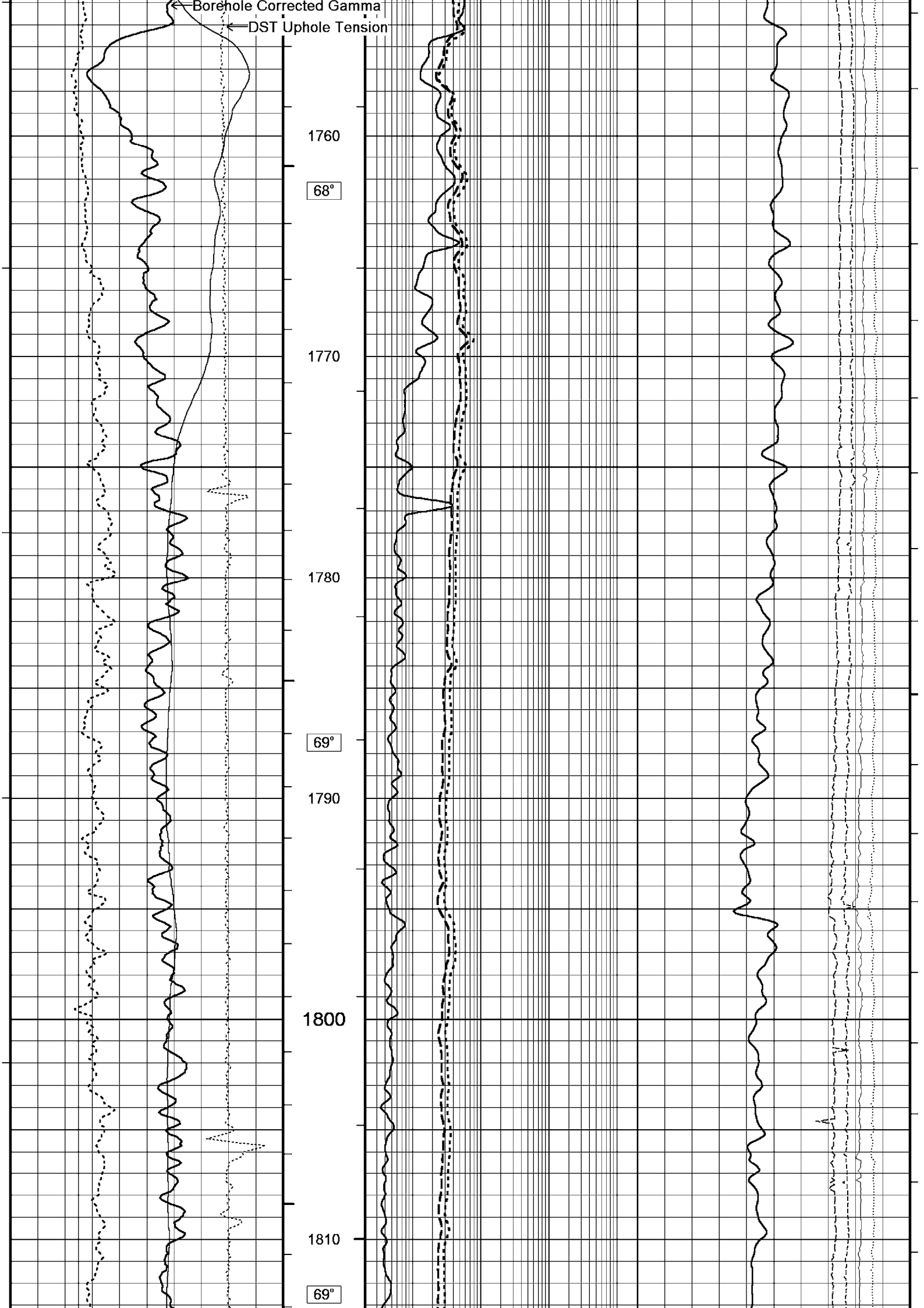




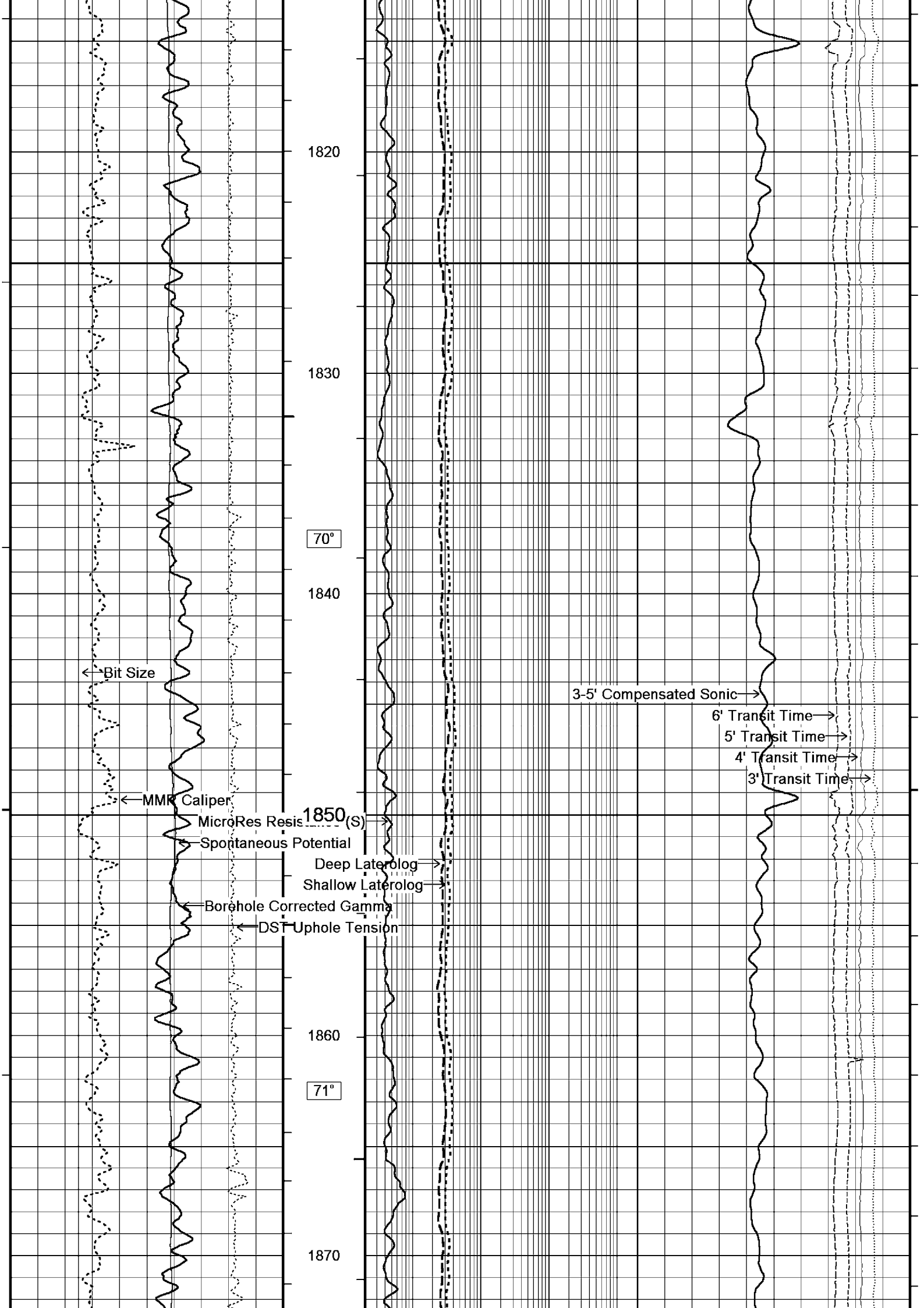


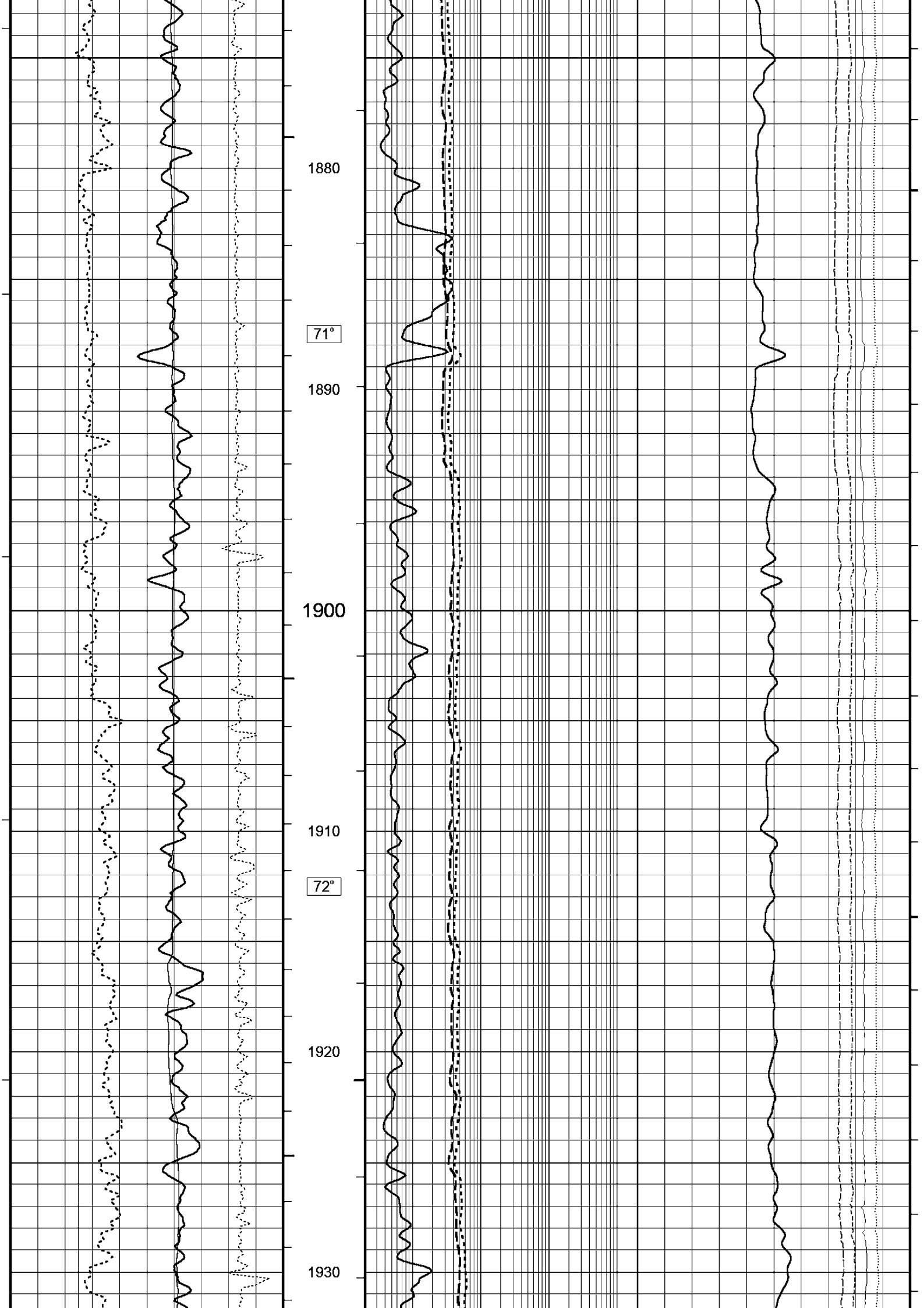


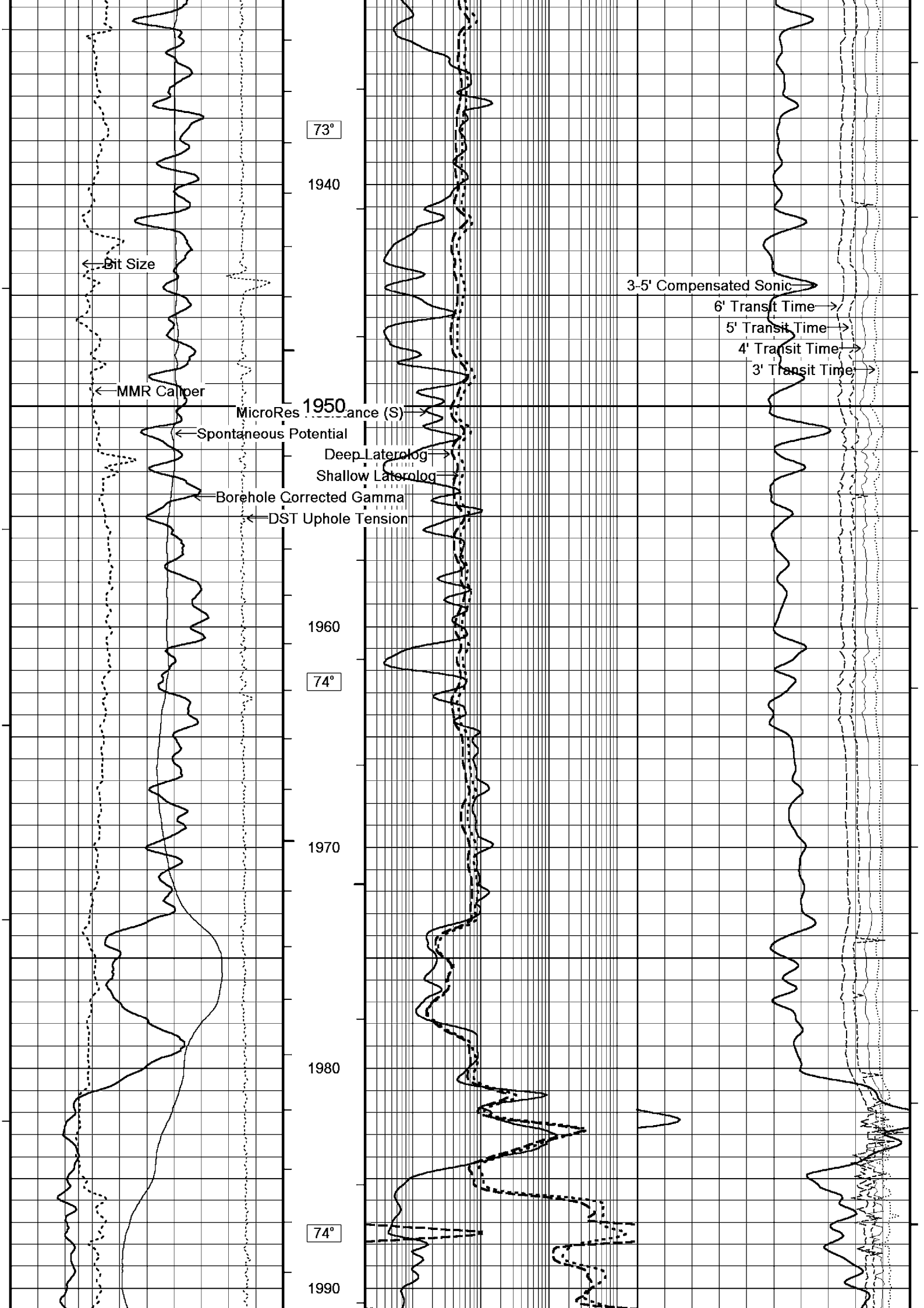


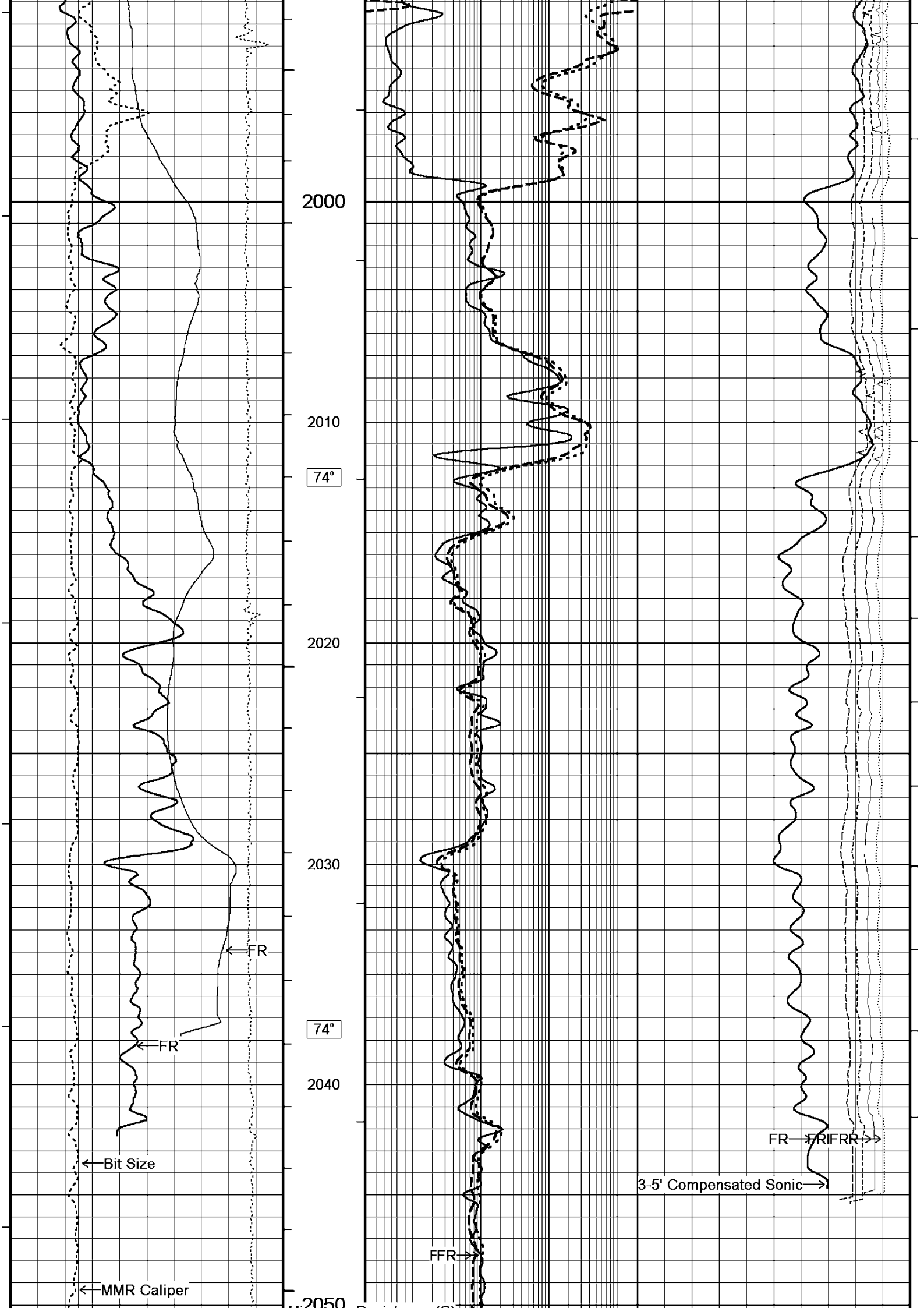


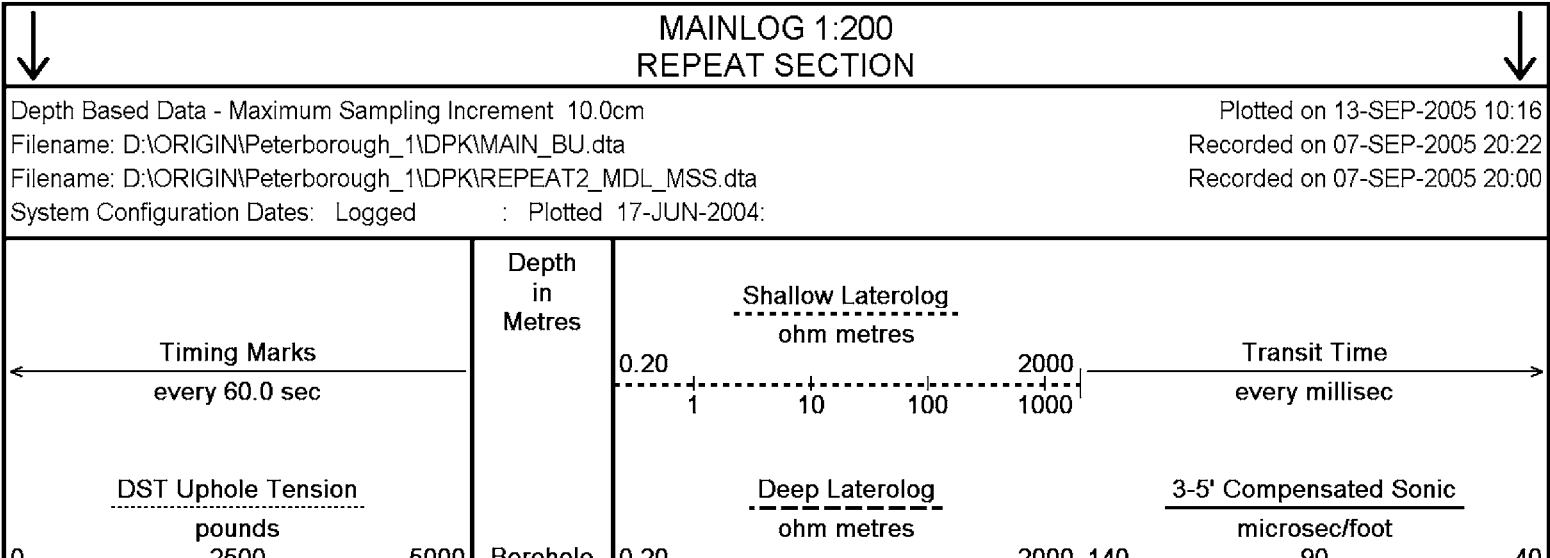
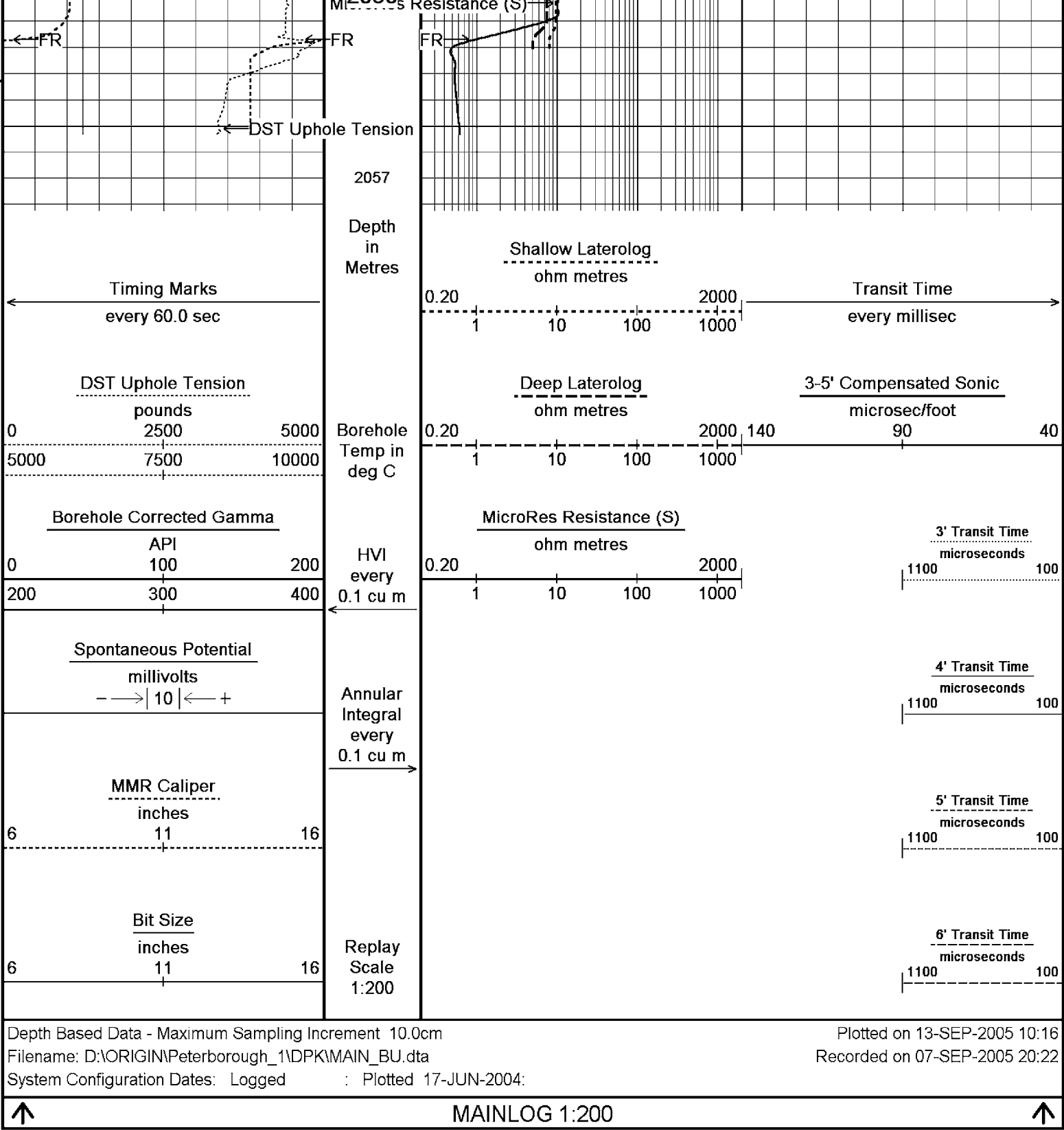


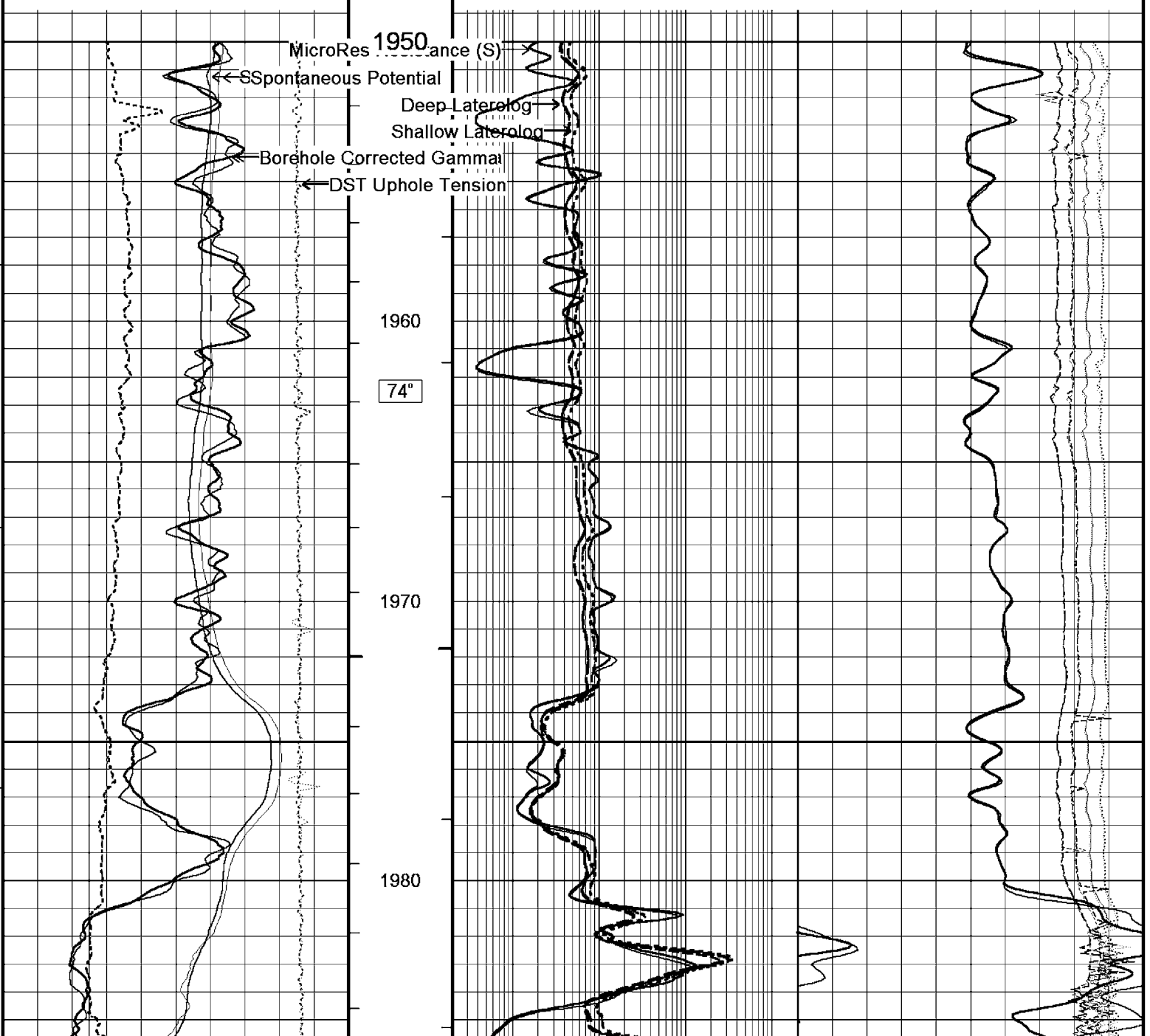
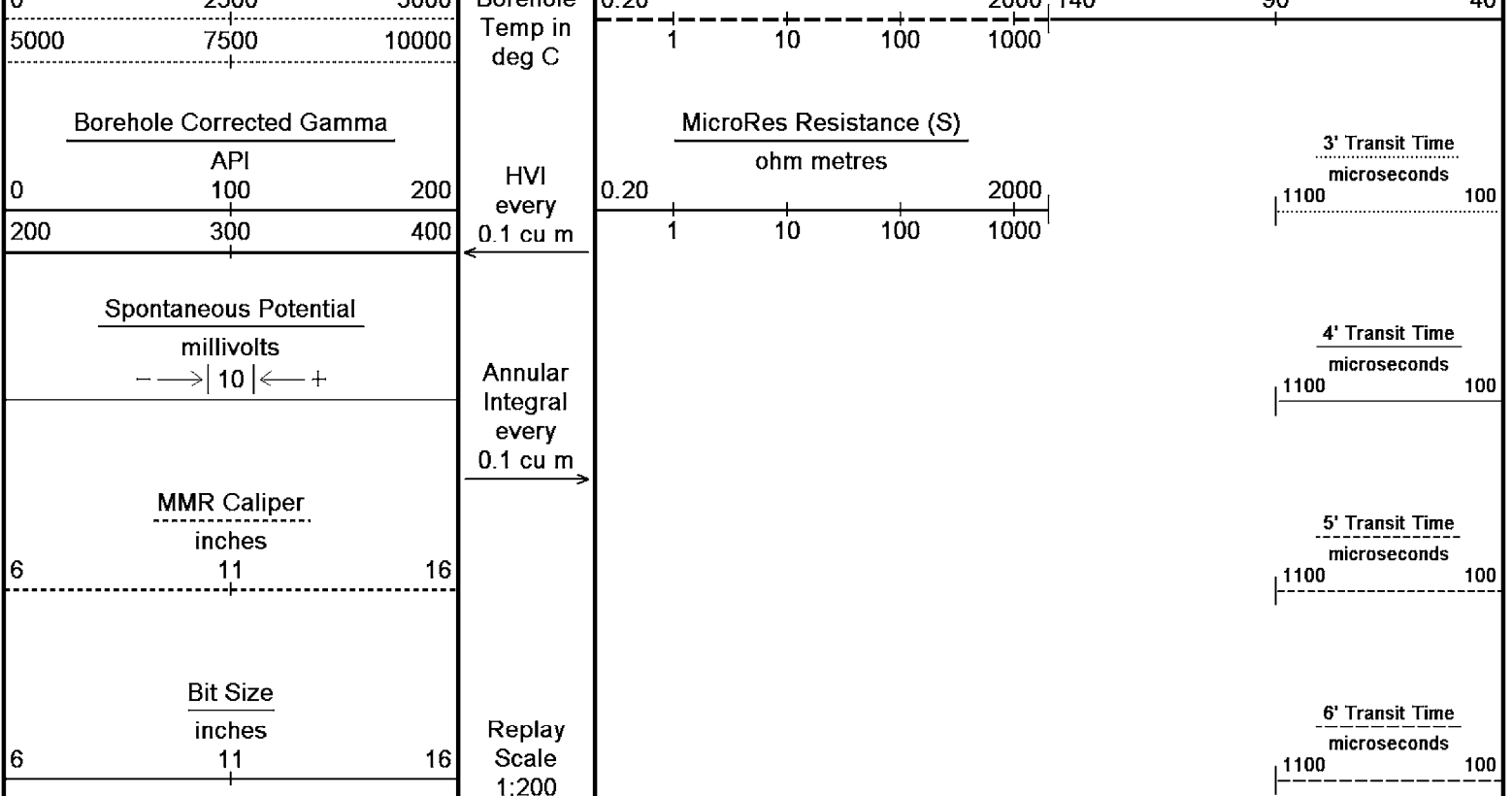


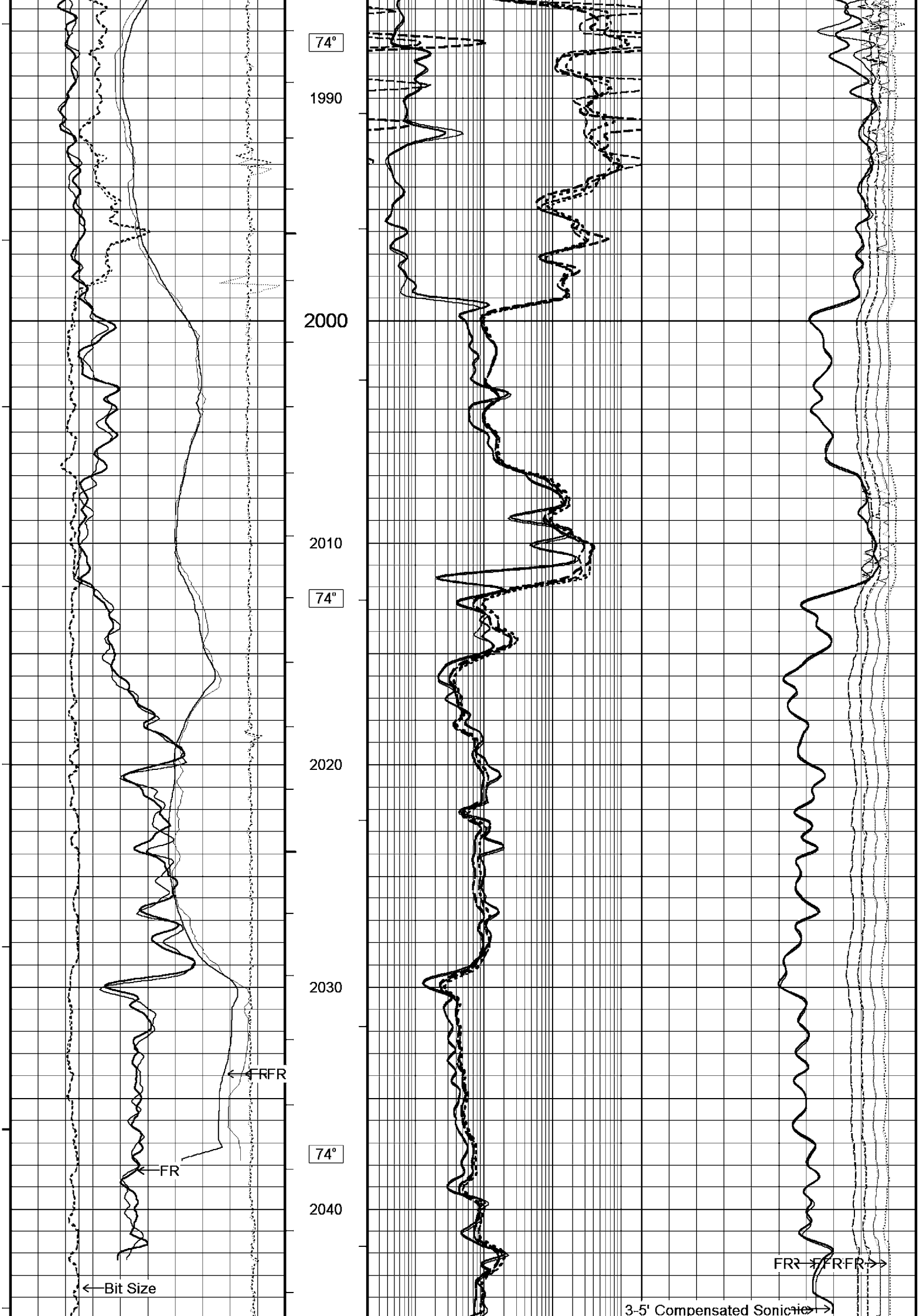


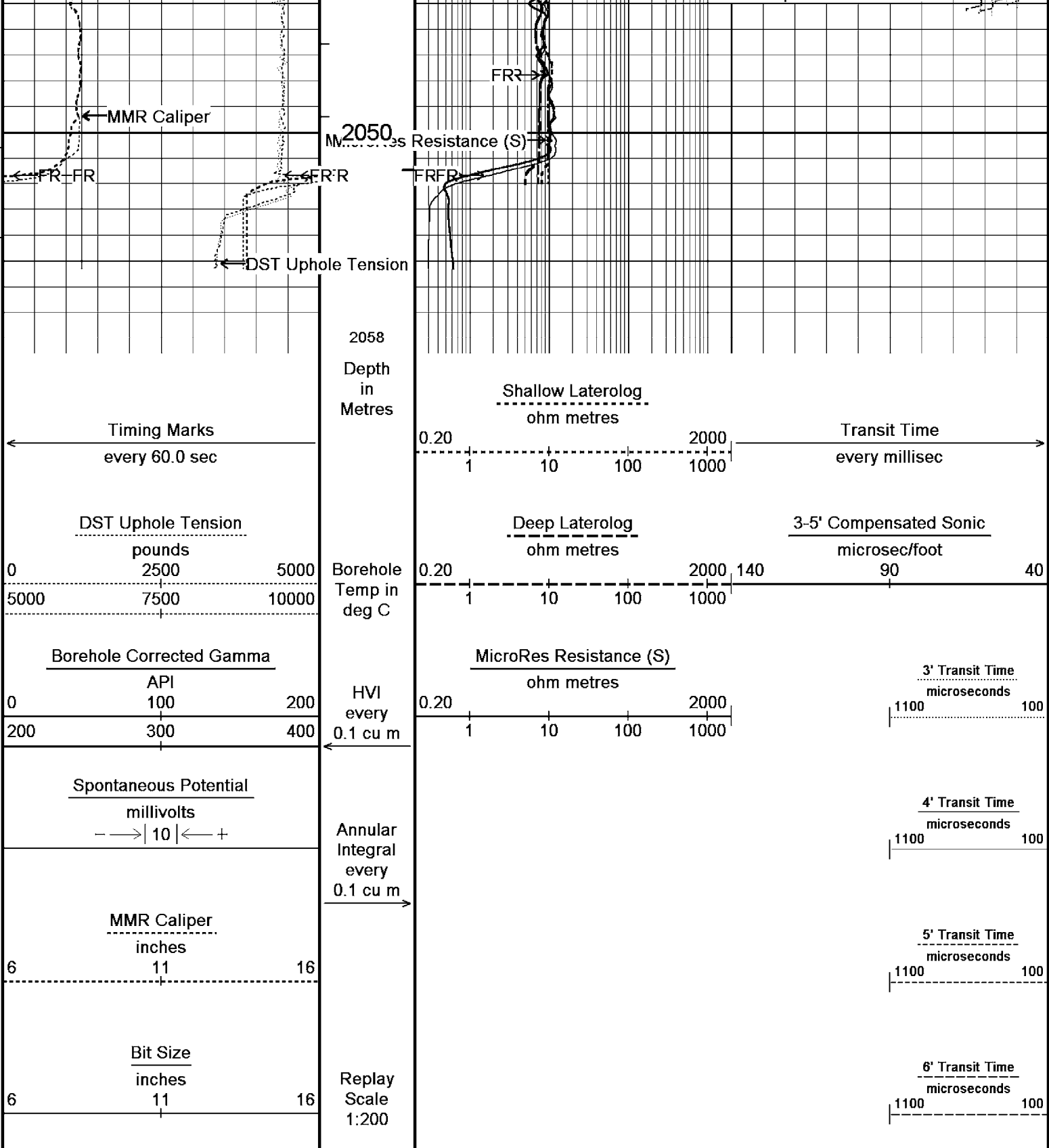












Depth Based Data - Maximum Sampling Increment 10.0cm  
Filename: D:\ORIGIN\Peterborough\_1\DPK\MAIN\_BU.dta  
Filename: D:\ORIGIN\Peterborough\_1\DPK\REPEAT2\_MDL\_MSS.dta  
System Configuration Dates: Logged : Plotted 17-JUN-2004:

Plotted on 13-SEP-2005 10:16  
Recorded on 07-SEP-2005 20:22  
Recorded on 07-SEP-2005 20:00

↑ MAINLOG 1:200 REPEAT SECTION ↑

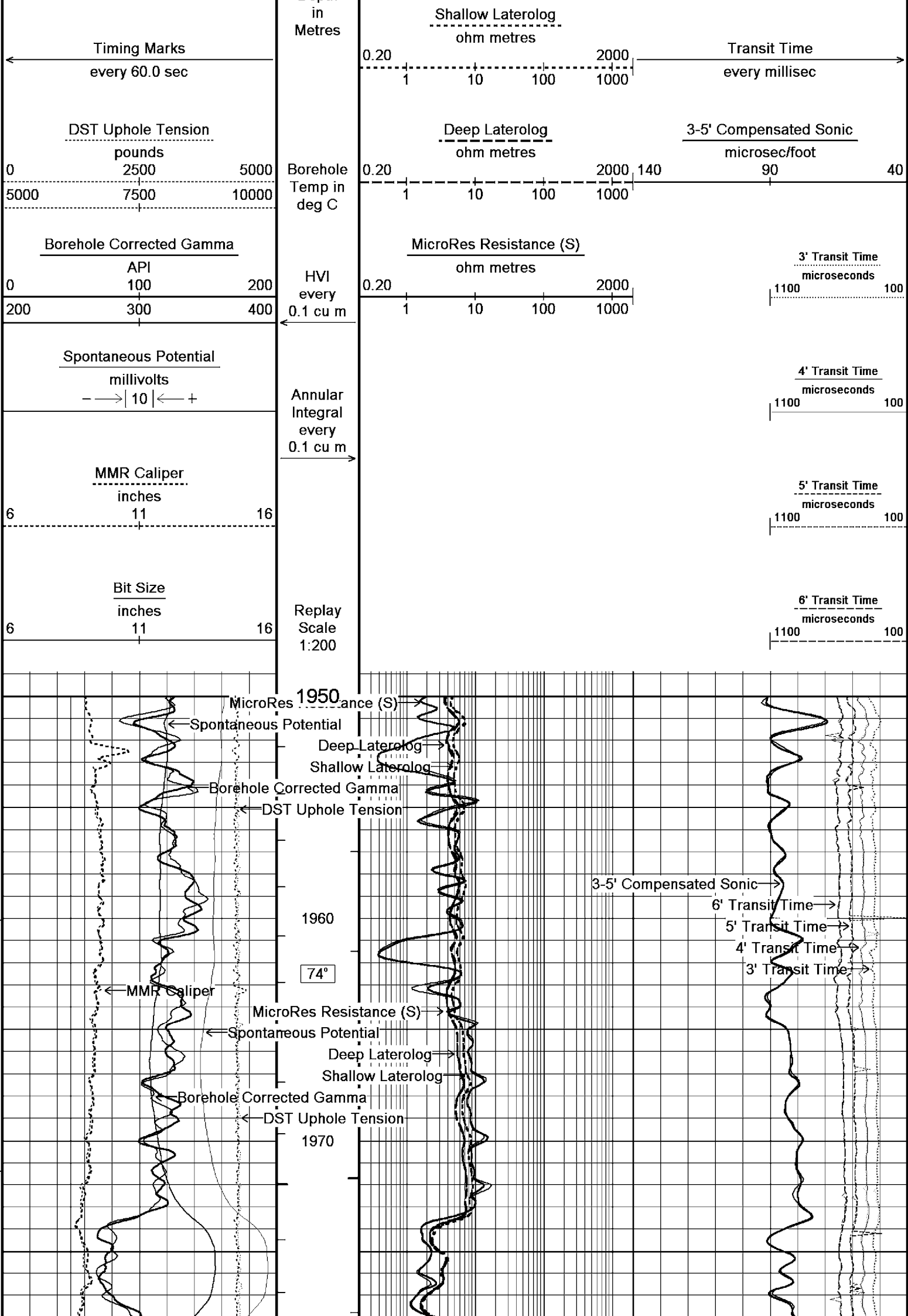
↓ MAINLOG 1:200 REPEAT SECTION ↓

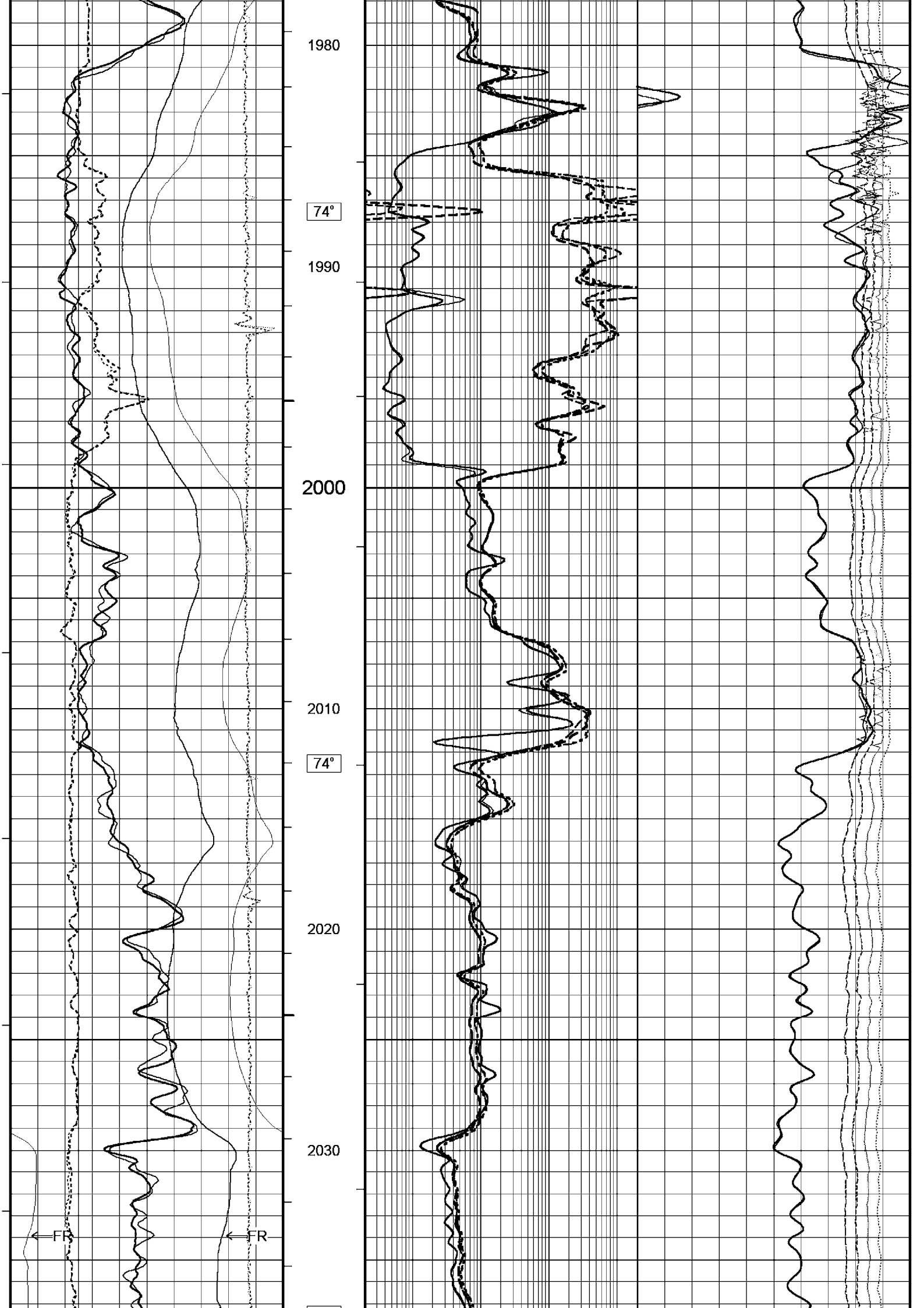
Depth Based Data - Maximum Sampling Increment 10.0cm  
Filename: D:\ORIGIN\Peterborough\_1\DPK\MAIN\_BU.dta  
Filename: D:\ORIGIN\Peterborough\_1\DPK\REPEAT\_MDL\_MSS3.dta  
System Configuration Dates: Logged : Plotted 17-JUN-2004:

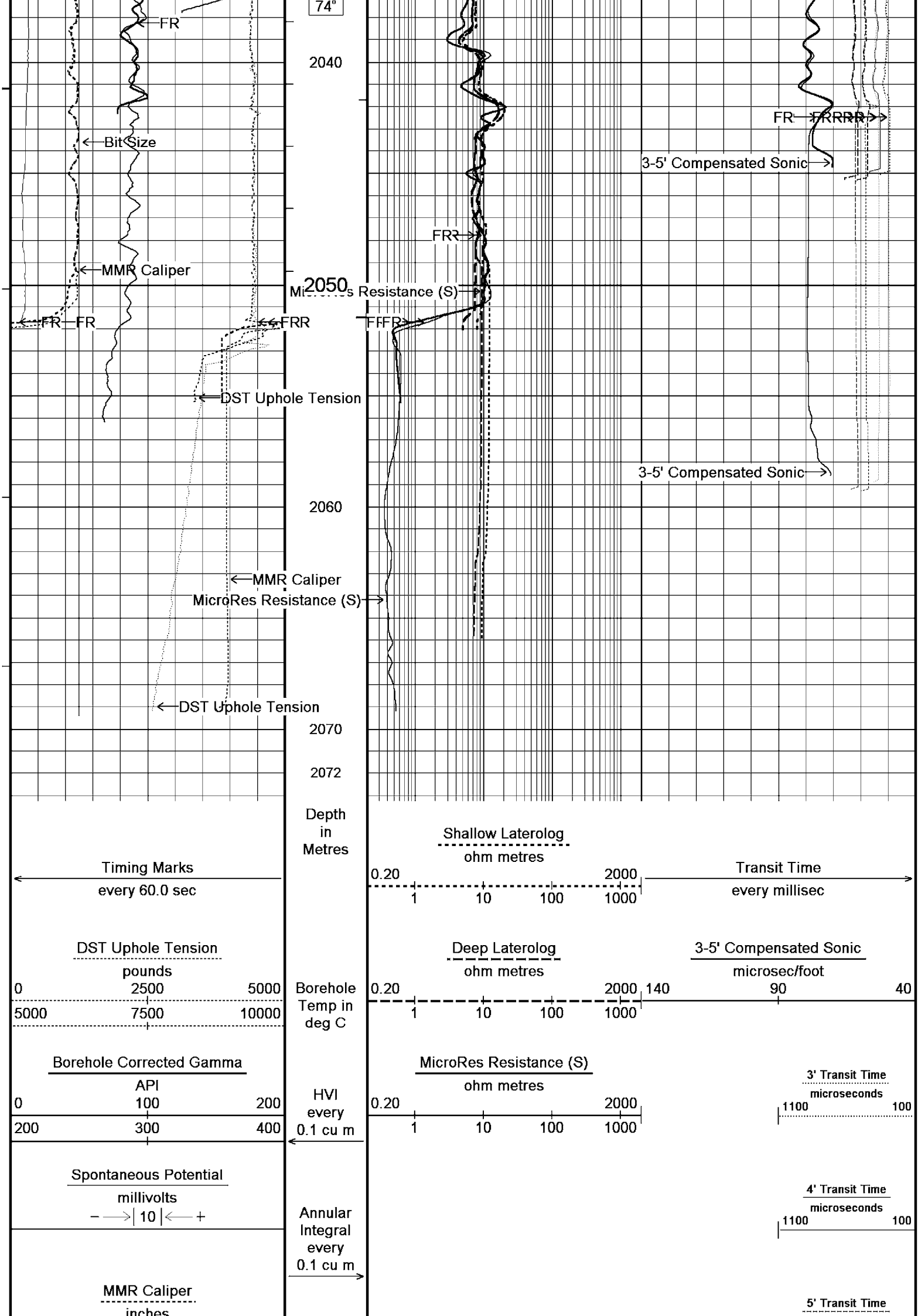
Plotted on 13-SEP-2005 10:16  
Recorded on 07-SEP-2005 20:22  
Recorded on 07-SEP-2005 19:07

Depth











Depth Based Data - Maximum Sampling Increment 10.0cm	Plotted on 13-SEP-2005 10:16
Filename: D:\ORIGIN\Peterborough_1\DPK\MAIN_BU.dta	Recorded on 07-SEP-2005 20:22
Filename: D:\ORIGIN\Peterborough_1\DPK\REPEAT_MDL_MSS3.dta	Recorded on 07-SEP-2005 19:07
System Configuration Dates: Logged : Plotted 17-JUN-2004:	

↑	MAINLOG 1:200 REPEAT SECTION	↑
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BEFORE SURVEY CALIBRATION
D:\ORIGIN\Peterborough_1\DPK\MAIN_SPLICE_MDN_MPD.dta

General Constants All 000		
General Parameters		
Mud Resistivity	0.300	ohm-metres
Mud Resistivity Temperature	20.000	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	Density Caliper	
Annular Volume Diameter	7.000	inches
Caliper for Differential Caliper	Density Caliper	
Rwa Parameters		
Porosity used	N/A	
Resistivity used	N/A	
RWA Constant A	N/A	
RWA Constant M	N/A	

Gamma Calibration MCG 098			Field Calibration on 23-AUG-2005 10:33
	Measured	Calibrated (API)	
Background	48	35	
Calibrator (Gross)	1070	784	
Calibrator (Net)	1022	749	

Gamma Constants MCG 098		
Gamma Calibrator Number	30	
Mud Density	1.14	gm/cc
Caliper Source for Processing	Density Caliper	
Tool Position	Eccentred	
Concentration of KCl	0.00	kppm

High Resolution Temperature Calibration MCG 098			Field Calibration on 23-AUG-2005,10:33
	Measured	Calibrated(Deg C)	
Lower	0.00	0.00	
Upper	100.00	100.00	

High Resolution Temperature Constants MCG 098	
Pre-filter Length	11

SP Calibration MCG 098			Field Calibration on 9-JAN-2005,00:41
	Measured	Calibrated (mV)	
Reference 1	1604.7	1599.0	
Reference 2	-1599.8	-1599.0	

Neutron Calibration MDN 043		Base Calibration on 22-AUG-2005 15:53 Field Check on 4-SEP-2005 20:27
Base Calibration		

	Measured		Calibrated (cps)	
	Near 3021	Far 94	Near 3714	Far 110
Ratio	32.071		33.764	
Field Calibrator at Base			Calibrated (cps)	
			1674	2333
Ratio			0.717	
Field Check			Calibrated (cps)	
			1645	2338
Ratio			0.703	

#### Neutron Constants MDN 043

Neutron Source Id	NSNE-747	
Neutron Jig Number	31	
Epithermal Neutron	No	
Caliper Source for Processing	Density Caliper	
Stand-off	0.00	inches
Mud Density	1.14	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	20.00	degrees C
Mud Salinity	21.14	kppm
Formation Fluid Salinity Source	Constant Value	
Formation Fluid Salinity	0.00	kppm
Barite Mud Correction	Not Applied	

#### Photo Density Calibration MPD 066

Base Calibration on 22-AUG-2005,12:13  
Field Check on 4-SEP-2005 20:33

Density Calibration					
Base Calibration		Measured		Calibrated (sdu)	
		Near	Far	Near	Far
	Reference 1	49825	17938	53111	19310
	Reference 2	23308	2480	24951	2530
Field Check at Base					
		918.0	1089.7		
Field Check					
		921.8	1085.1		
PE Calibration					
Base Calibration		Measured		Calibrated	
	WS	WH	Ratio	Ratio	
	Background	176	793		
	Reference 1	15856	49650	0.321	0.320
	Reference 2	6240	23176	0.271	0.273
Field Check at Base					
		176.0	793.2		
Field Check					
		175.6	798.1		

#### Density Constants MPD 066

Density Source Id	NSDL250		
Nylon Calibrator Number	DNC-D-536		
Aluminium/Fe Calibrator Number	DAC-D-536		
Density Shoe Profile	8 inch		
Caliper Source for Processing	Density Caliper		
PE Correction to Density	Not Applied		
Mud Density	1.14	gm/cc	
Mud Density Z/A Correction	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	
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	0.00

Caliper Calibration MPD 066

Base Calibration on 22-AUG-2005 11:11  
Field Calibration on 8-SEP-2005,03:44

Base Calibration		
Reading No	Measured	Calibrator Size (in)
1	11983	4.01
2	20446	5.99
3	29120	7.98
4	37568	9.94
5	47008	12.01
6	N/A	N/A

Field Calibration		
	Measured Caliper (in)	Actual Caliper (in)
	8.37	8.92

DOWNHOLE EQUIPMENT

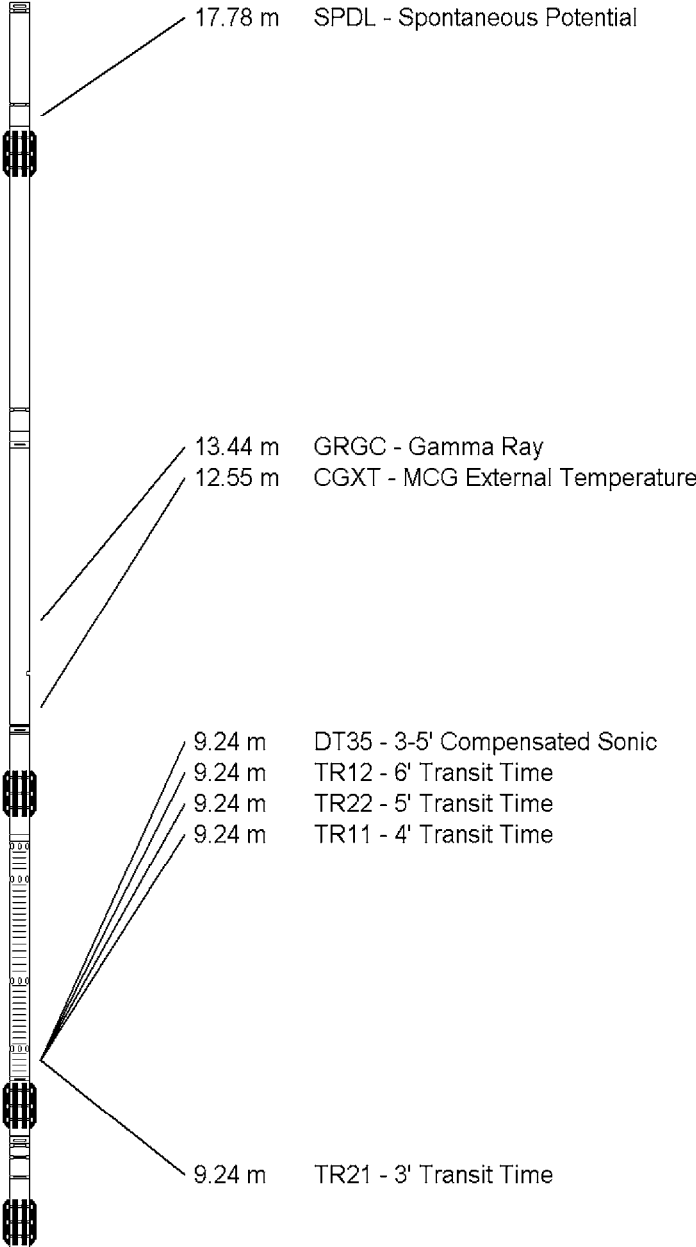
D:\ORIGIN\Peterborough\_1\DPK\MAIN\_SPLICE\_MDN\_MPD.dta

Compact Stiff Bridle Electrode Sub.  
MBE 22    Length: 3.76 m    Weight: 94.8 lb

Compact Gamma  
MCG 98    Length: 2.65 m    Weight: 63.9 lb

Compact Sonic  
MSS 47    Length: 3.82 m    Weight: 72.8 lb

Compact Upper Guard Sub.  
MUG 20    Length: 2.74 m    Weight: 68.3 lb



Compact Laterolog Electrode Sub.  
MLE 16 Length: 3.76 m Weight: 92.6 lb

Compact Micro-Resistivity  
MMR 5 Length: 2.62 m Weight: 81.6 lb

Pressure Bung + Hole Finder  
HFS 3 Length: 0.28 m Weight: 6.6 lb

Total Length: 19.62 m Weight: 480.6 lb



3.93 m DDLL - Deep Laterolog  
3.93 m DSLL - Shallow Laterolog

0.00 m MRRS - MicroRes Resistance (S)  
0.00 m MATC - MMR Caliper  
0.00 m HVOL - Hole Volume  
0.00 m AVOL - Annular Volume  
Tool Zero (0.85m from bottom)

All measurements relative to tool zero.

COMPANY	ORIGIN ENERGY LIMITED
WELL	PETERBOROUGH - 1ST1
FIELD	OTWAY BASIN
PROVINCE/COUNTY	VICTORIA
COUNTRY/STATE	AUSTRALIA

Elevation Kelly Bushing	14.95	metres	First Reading	2051.70	metres
Elevation Drill Floor		metres	Depth Driller	2070.00	metres
Elevation Ground Level	9.65	metres	Depth Logger	2052.55	metres



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