



DUAL LATEROLOG - GR
DENSITY - NEUTRON

Compact

1:200 TVD

COMPANY				ESSO AUSTRALIA PTY.LTD			
WELL				WKF W27A			
FIELD				KINGFISH GDA94			
PROVINCE/COUNTY				BASS STRAIT, VICTORIA			
COUNTRY/STATE				AUSTRALIA			
LOCATION				S 38 35 34.851, E 148 6 20.022			
				N 5727806.021 m, E 596279.875 m			
				FIELD PRINT			
LSD	SEC	TWP	RGE	Other Services			
				COMPENSATED SONIC			
API Number							
Permit Number							
Permanent Datum MSL				, Elevation 0.0 metres		Elevations:	
Log Measured From DF @ 33.43m				above Permanent Datum		KB	metres
Drilling Measured From DF						DF	33.43 metres
						GL	-76.13 metres
Date	26-JUL-2006						
Run Number	ONE						
Depth Driller	2366.00			metres			
Depth Logger	2366.00			metres			
First Reading	2362.00			metres			
Last Reading	803.60			metres			
Casing Driller	803.60			metres			
Casing Logger	803.60			metres			
Bit Size	8.50			inches			
Hole Fluid Type	KCL/PHPA						
Density / Viscosity	1.16 g/cc		26.00 CP				
PH / Fluid Loss	9.50		2.80 ml/30Min				
Sample Source	FLOWLINE						
Rm @ Measured Temp	0.105 @ 25.0			ohm-m			
Rmf @ Measured Temp	0.08 @ 25.0			ohm-m			
Rmc @ Measured Temp	0.081 @ 25.0			ohm-m			
Source Rmf / Rmc	MEAS		MEAS				
Rm @ BHT	0.046 @ 87.1			ohm-m			
Time Since Circulation	28 HOURS						
Max Recorded Temp	93.80			deg C			
Equipment Name	CML						
Equipment / Base	1		SALE				
Recorded By	R L TENCH, B J R MOSS						
Witnessed By	T LOBO						
AST CIRC.	12:25 24/07			Last Line			

BOREHOLE RECORD				
Bit Size inches		Depth From metres		Depth To metres
8.500		895.00		3095.00
CASING RECORD				
Type	Size inches	Depth From metres	Shoe Depth metres	Weight pounds/ft
K-55	10.750	0.00	895.00	40.50

REMARKS
RIG: NABORS 453
5" SHUTTLE/MEMORY COMPACT OPERATION. CREW: R TENCH , B MOSS , J.BLESSING, M KOLCZE.
FIELD FINAL LOGS TO BE CORRELATED TO ANADRILL GAMMA LOG.
MAX. TEMPERATURE: 93.8 DEG C AT 3041m MD MAX. INCLINATION: 46.10 DEG AT 3095 m MD MAX. DOGLEG SEVERITY: 5.03 DEG/30m AT 993.08 m MD DEPLOYMENT ANGLE: 46.10 DEG
HVOL: 3285 FT^3 AVOL: 1382 FT^3
LOGGING SPEED 6M/MIN FROM TD TO 2791.52 M MD LOGGING SPEED 12 M/MIN FROM 2791.52 TO 1297.42 M MD LOGGING SPEED 6 M/MIN FROM 1297.42 TO 1125.7 M MD LOGGING SPEED 12 M/MIN FROM 1125.7 TO 866.87 M MD
BRIDGED OFF AT 2364M MD, REQUIRED 3BBLS FLOW TO PASS BRIDGE.

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.

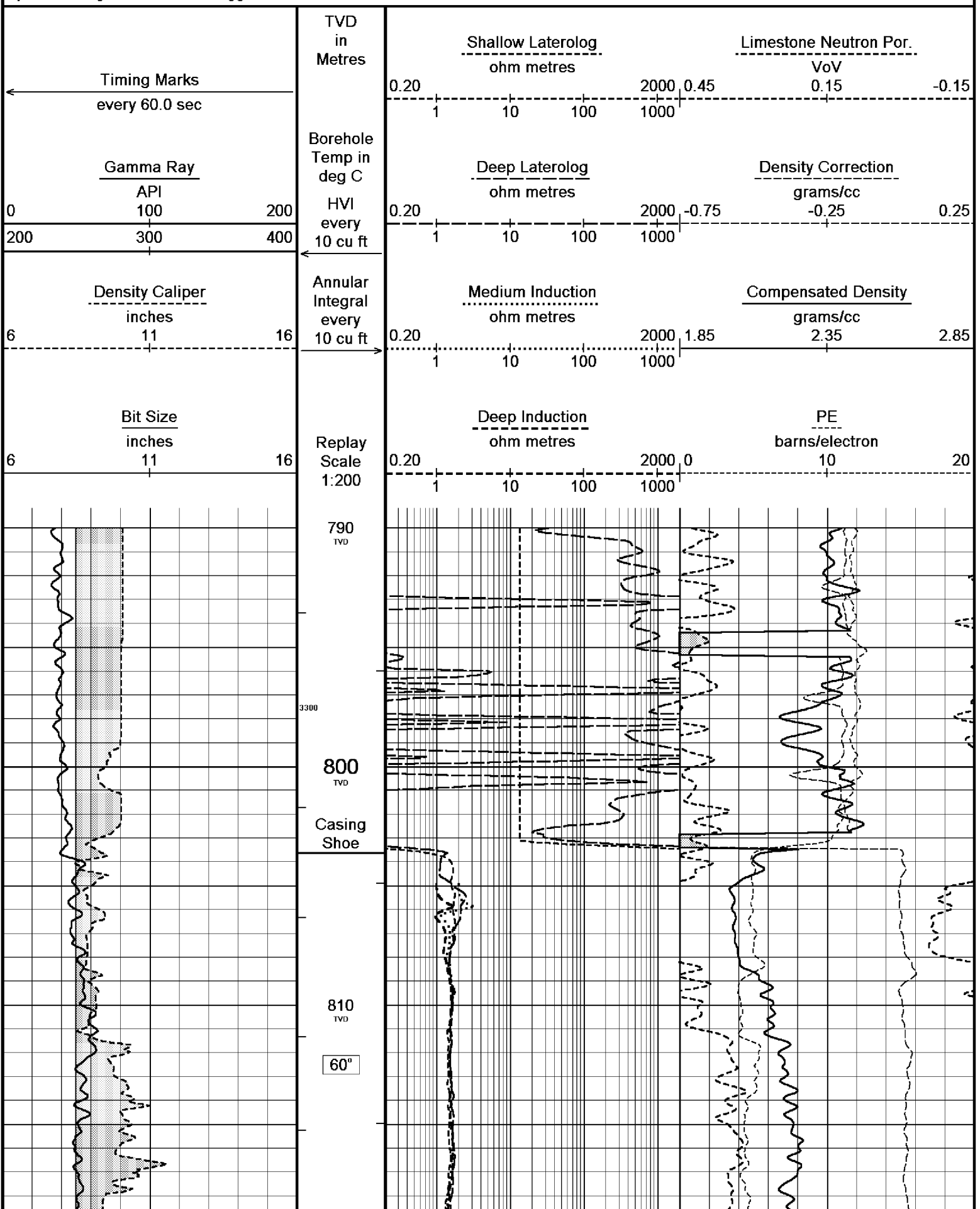
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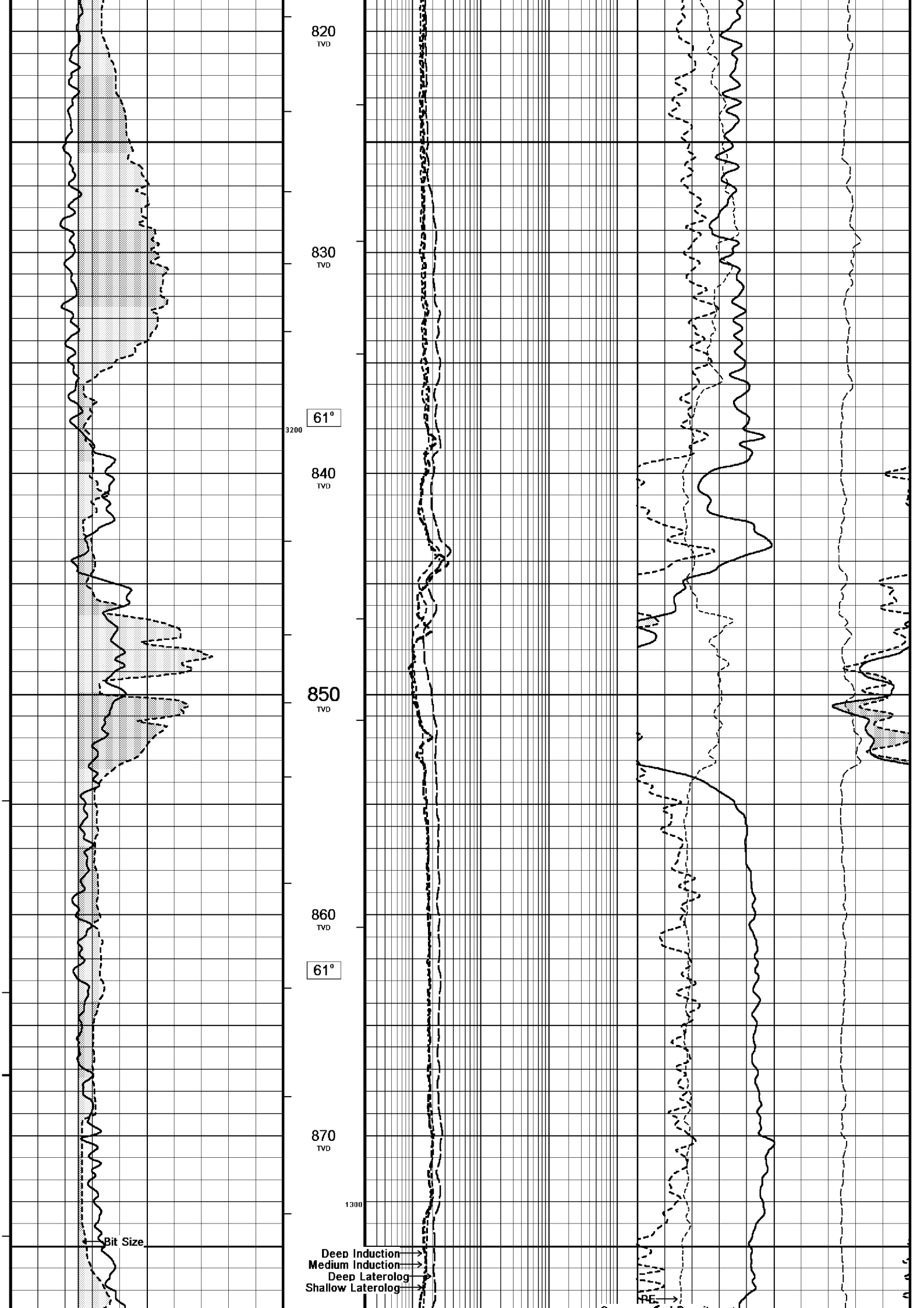
MAIN LOG 1:200

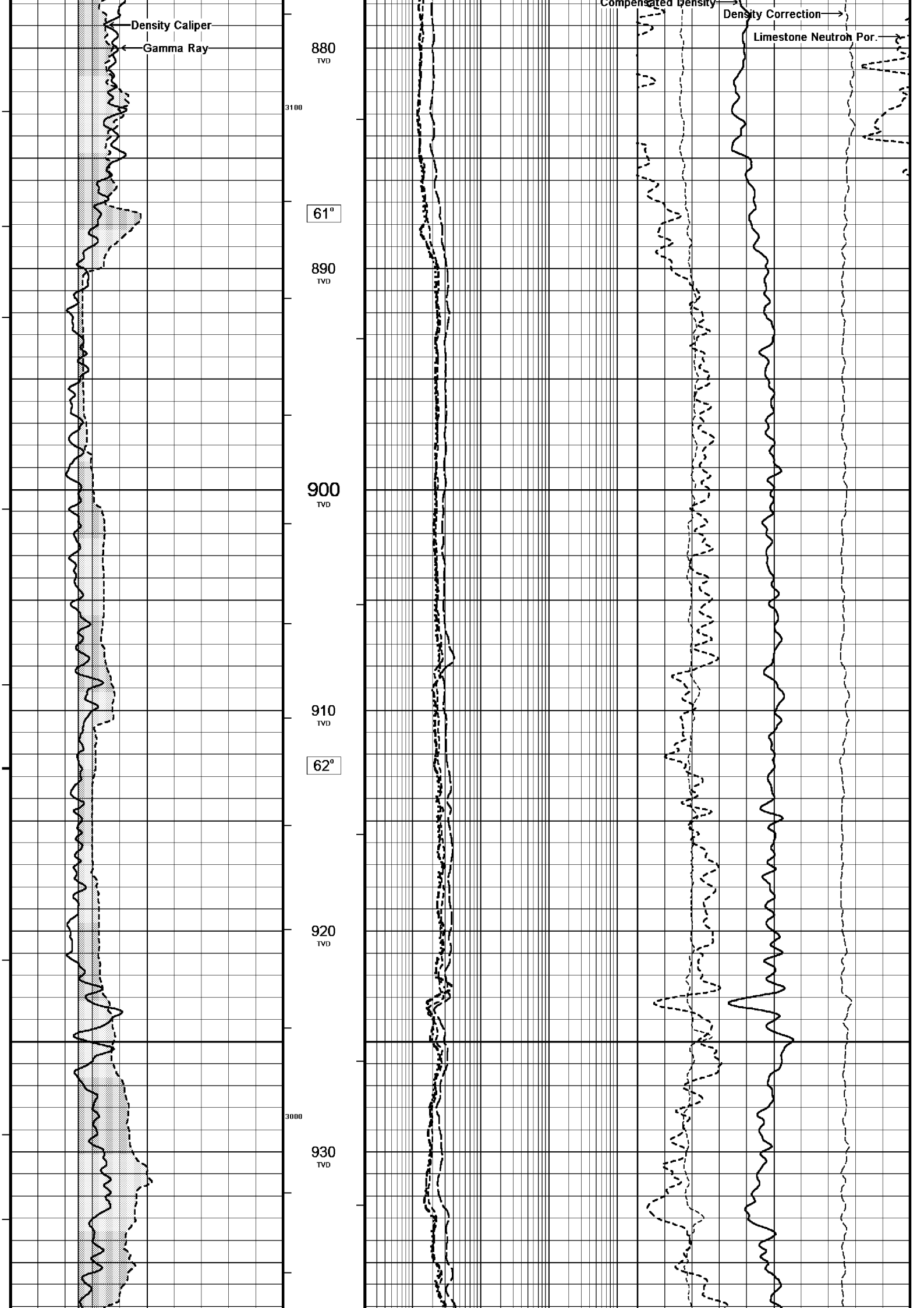
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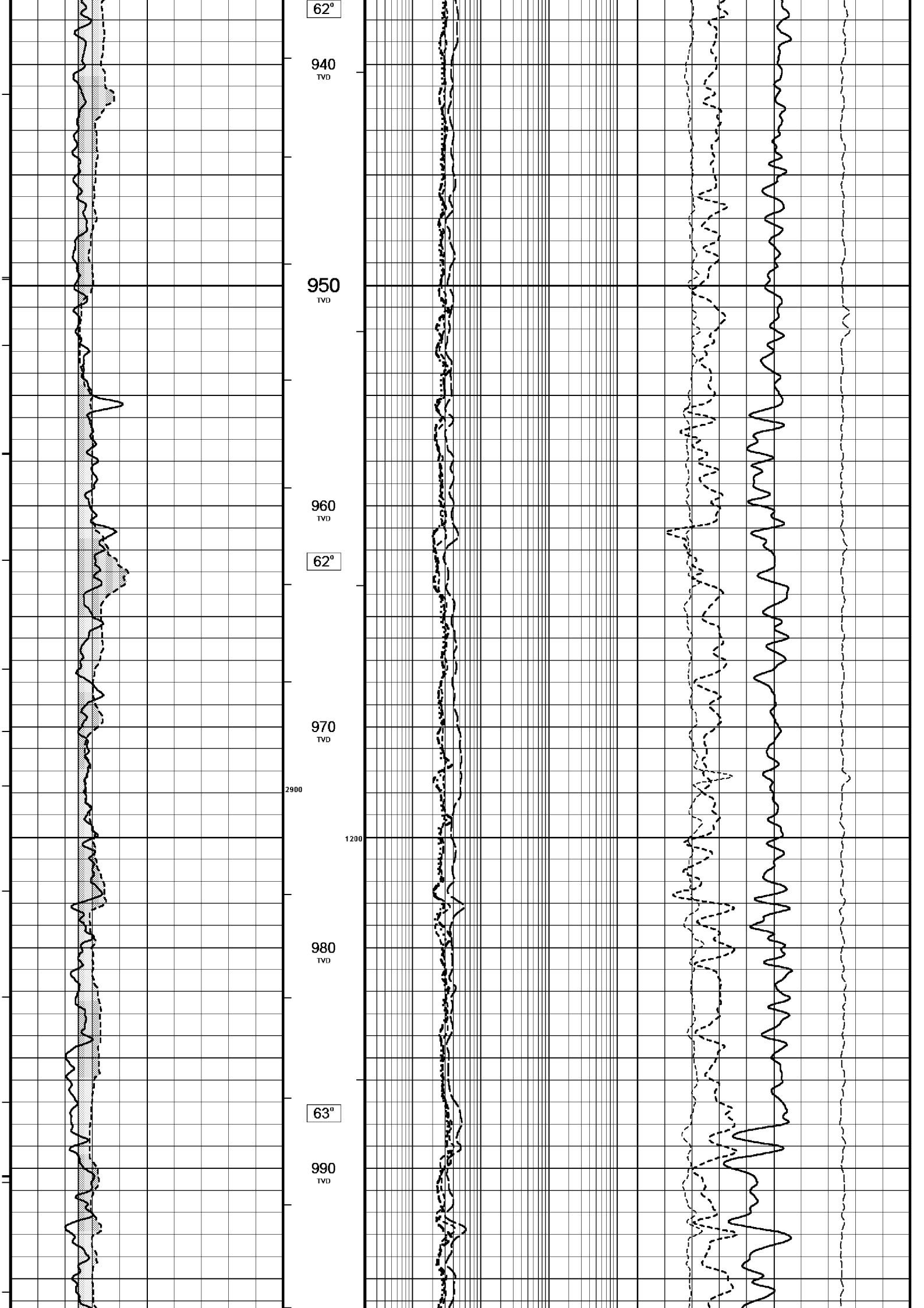
Depth Based Data - Maximum Sampling Increment 10.0cm
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System Configuration Dates: Logged : Plotted 17-JUN-2004:

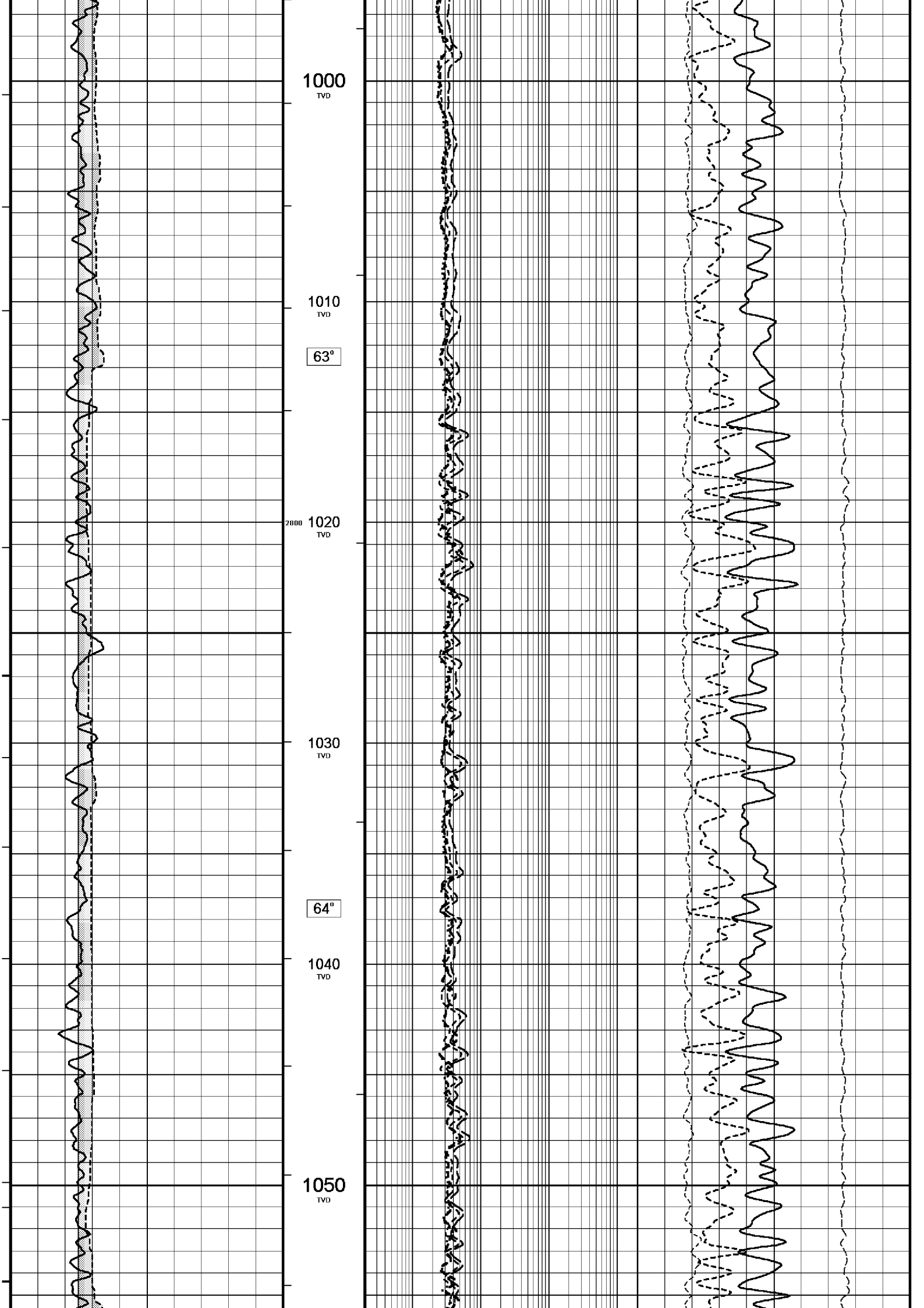
Plotted on 26-JUL-2006 13:40
Recorded on 26-JUL-2006 03:12

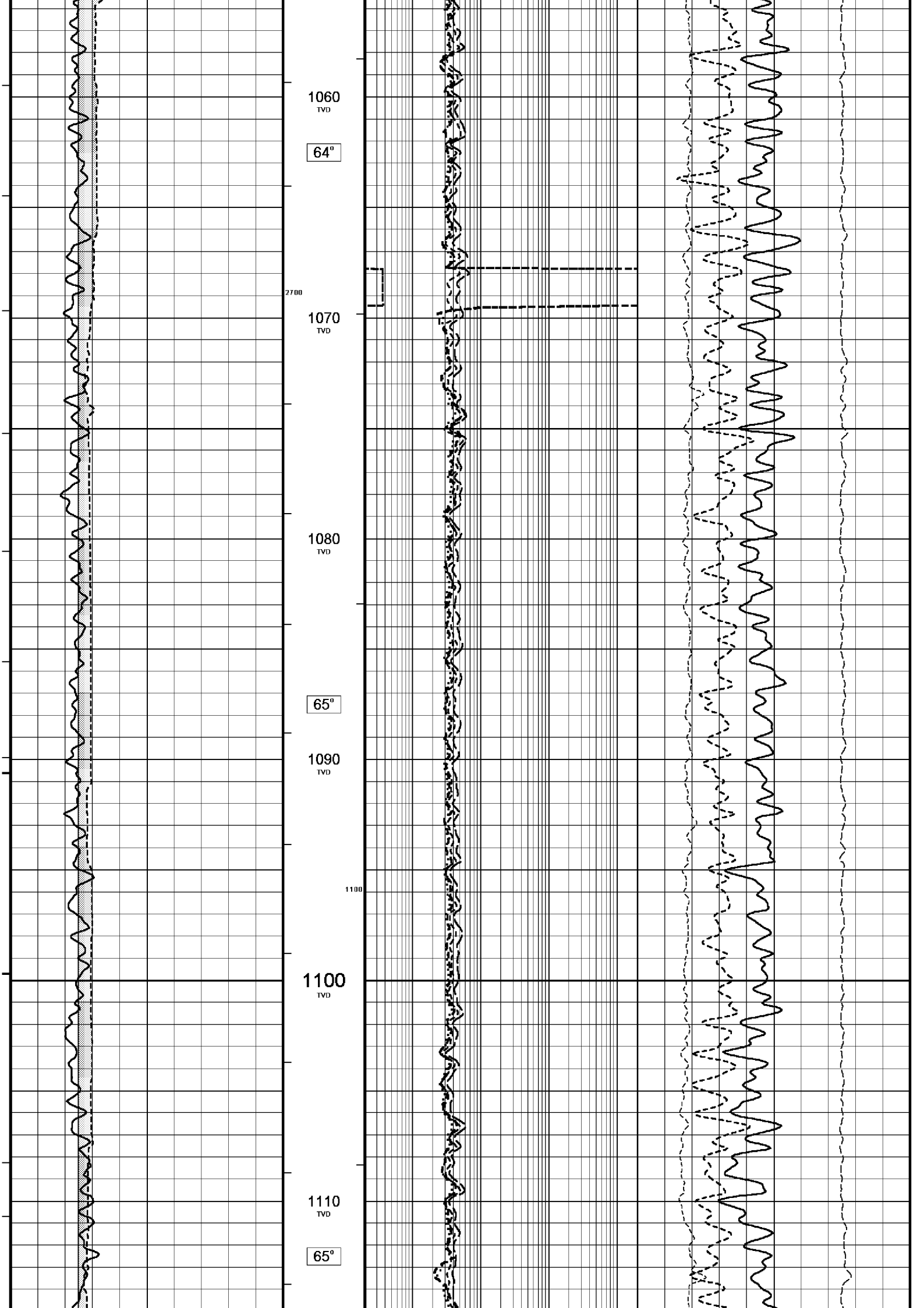


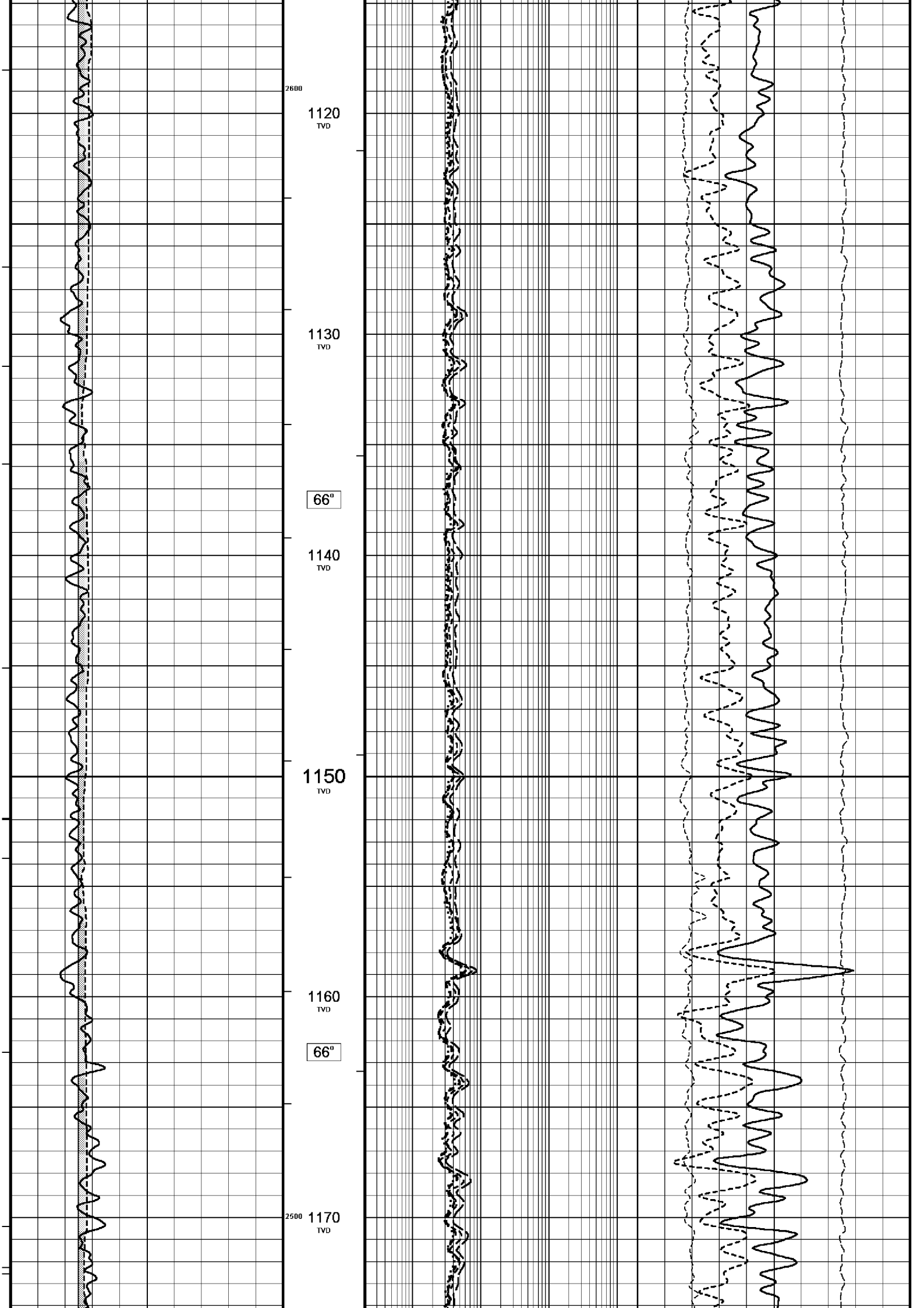


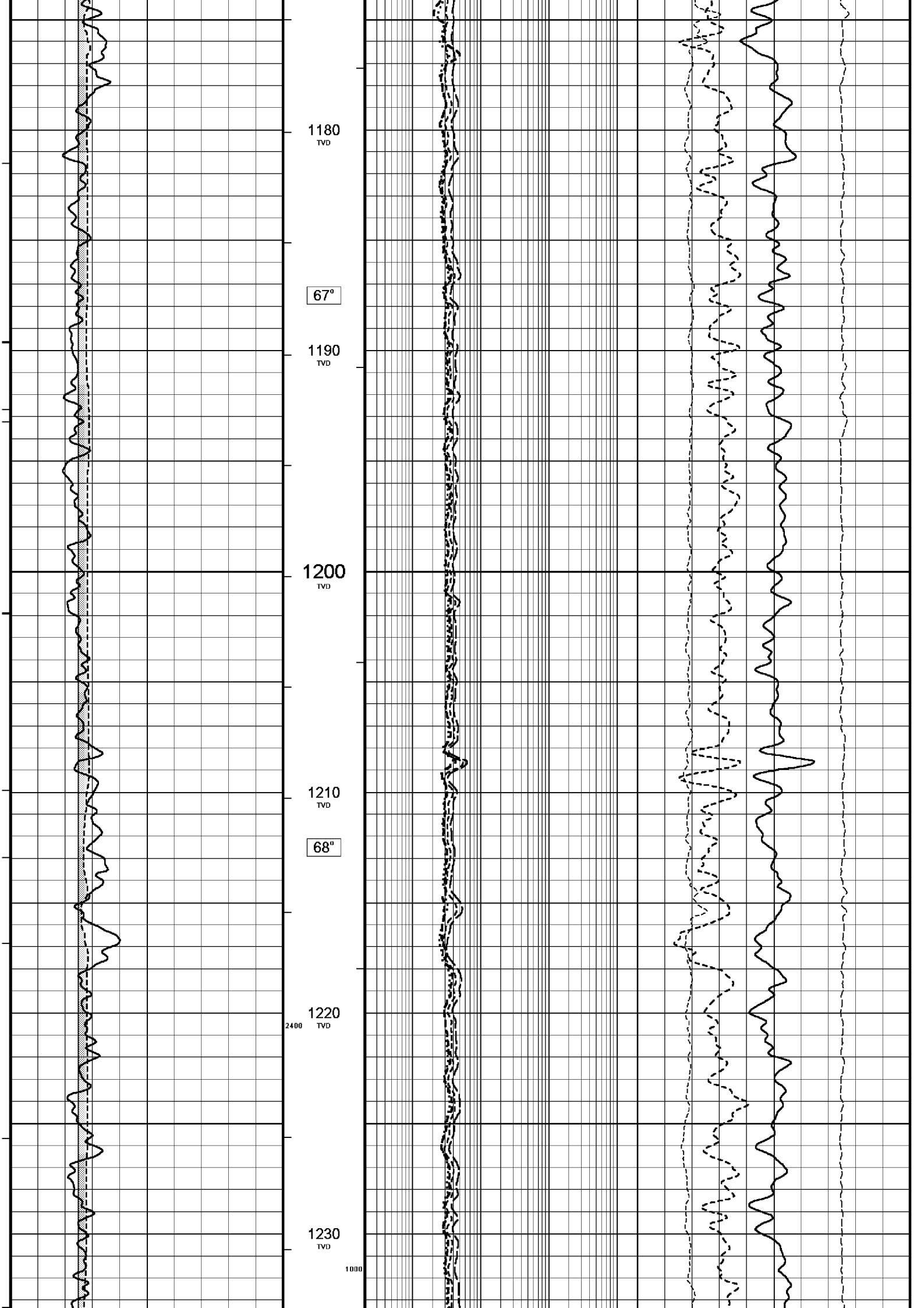


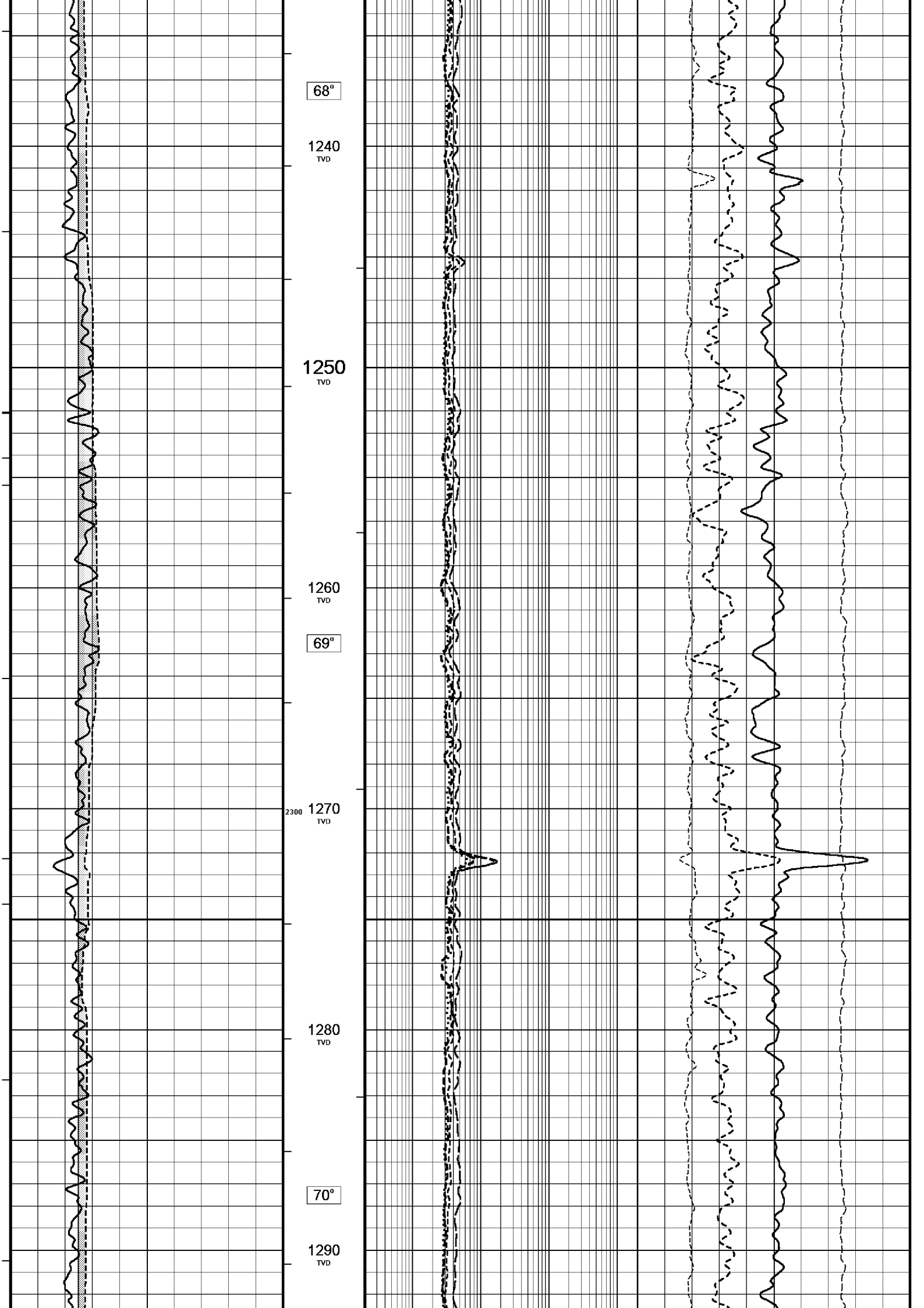


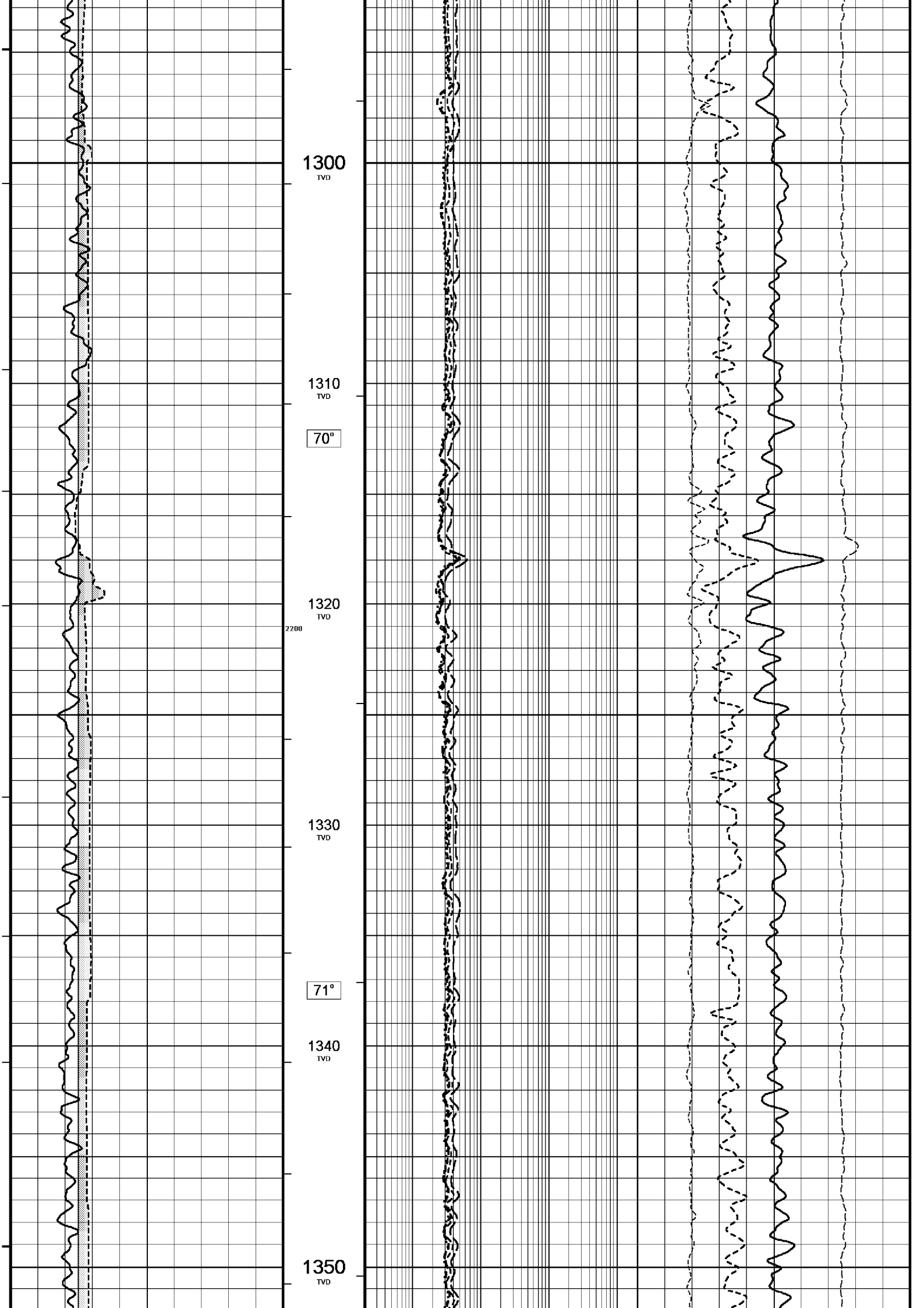


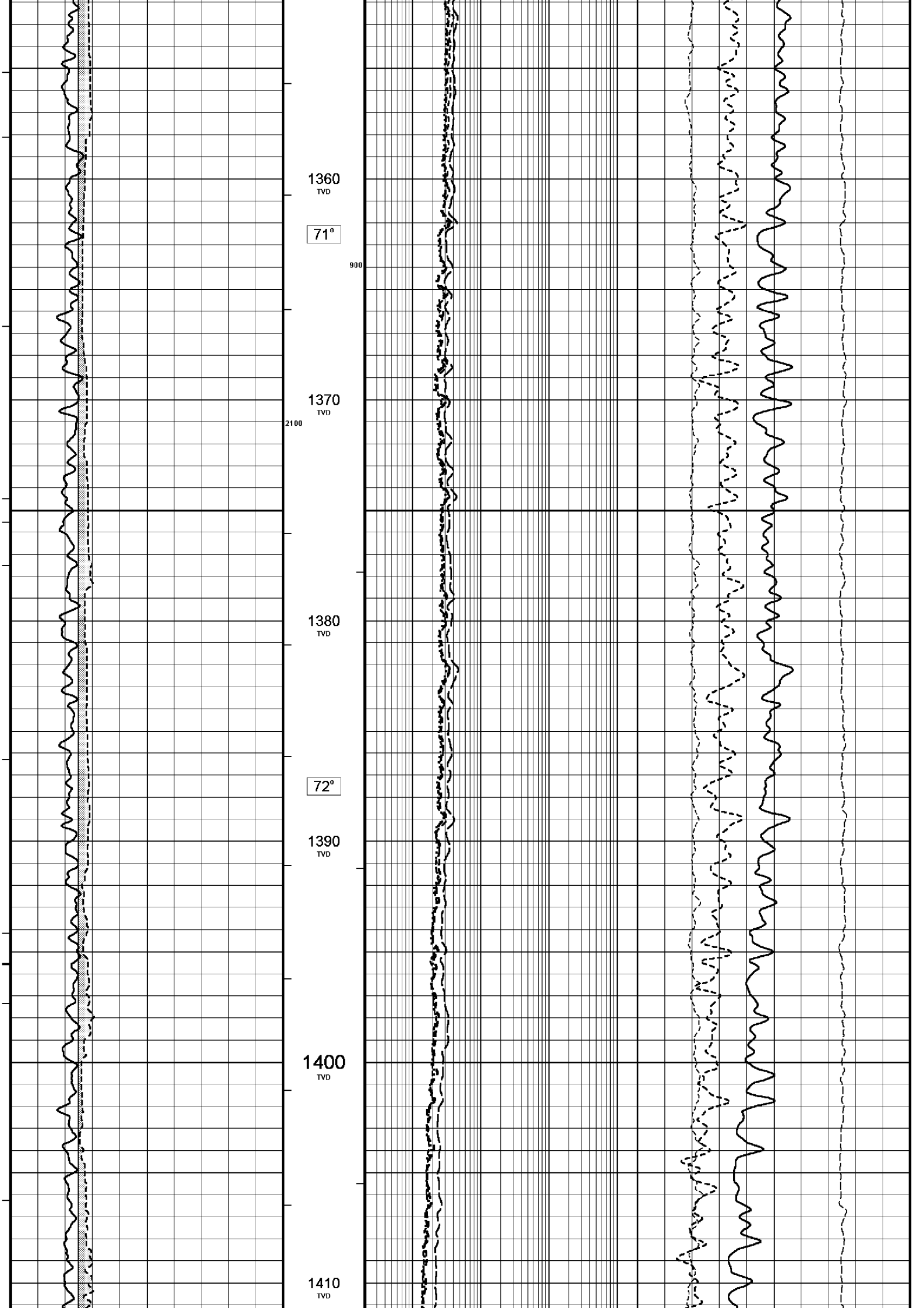


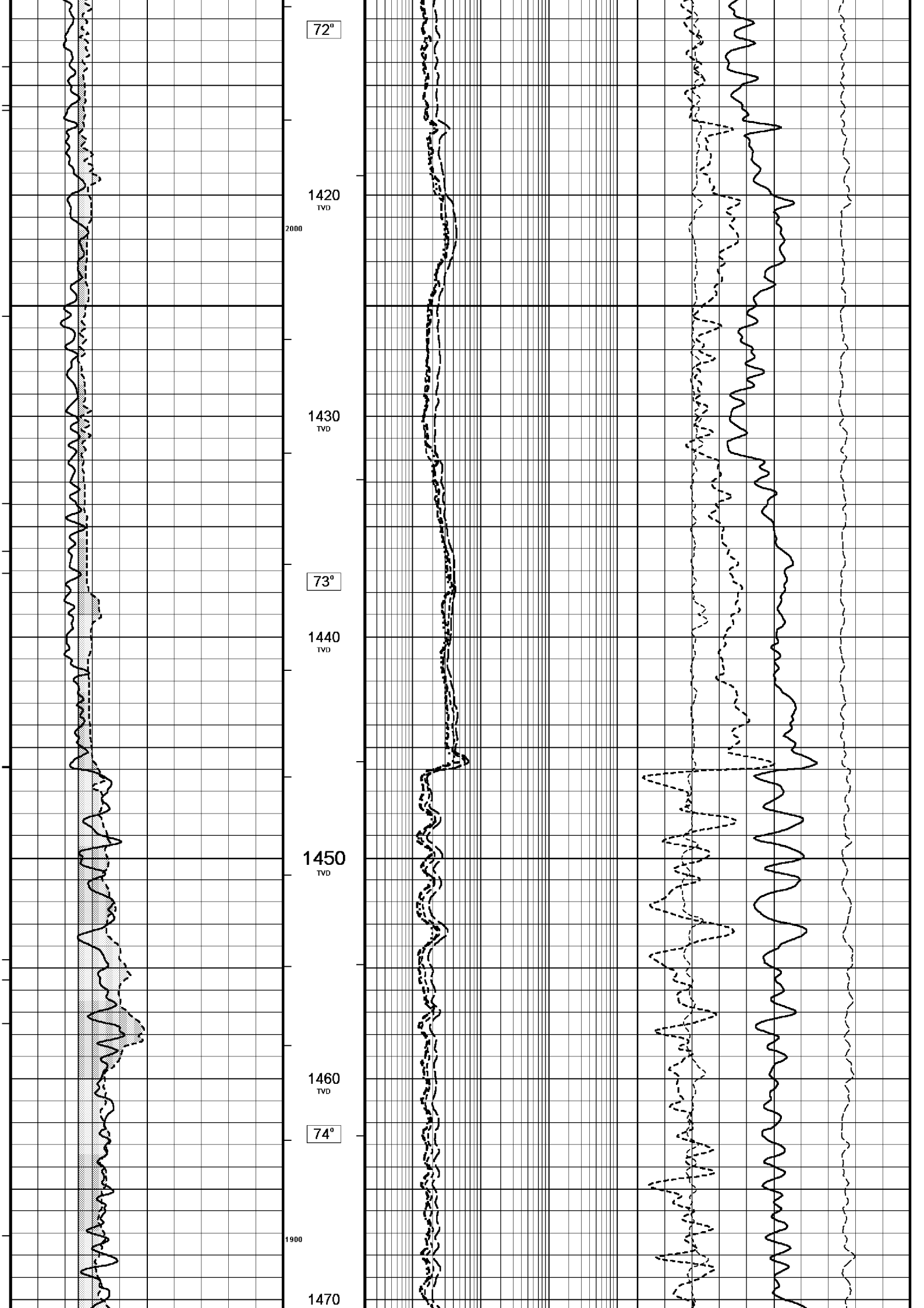


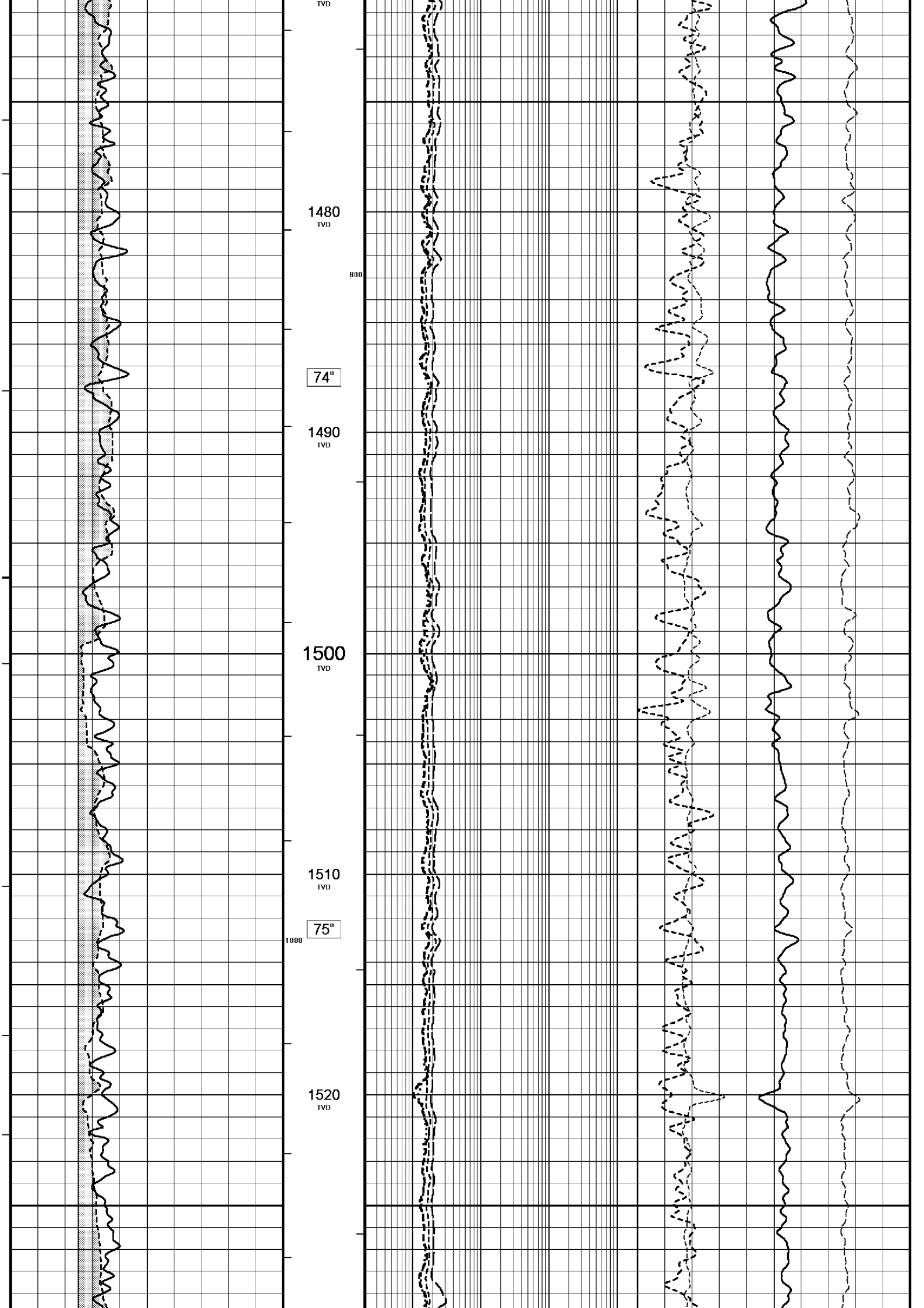


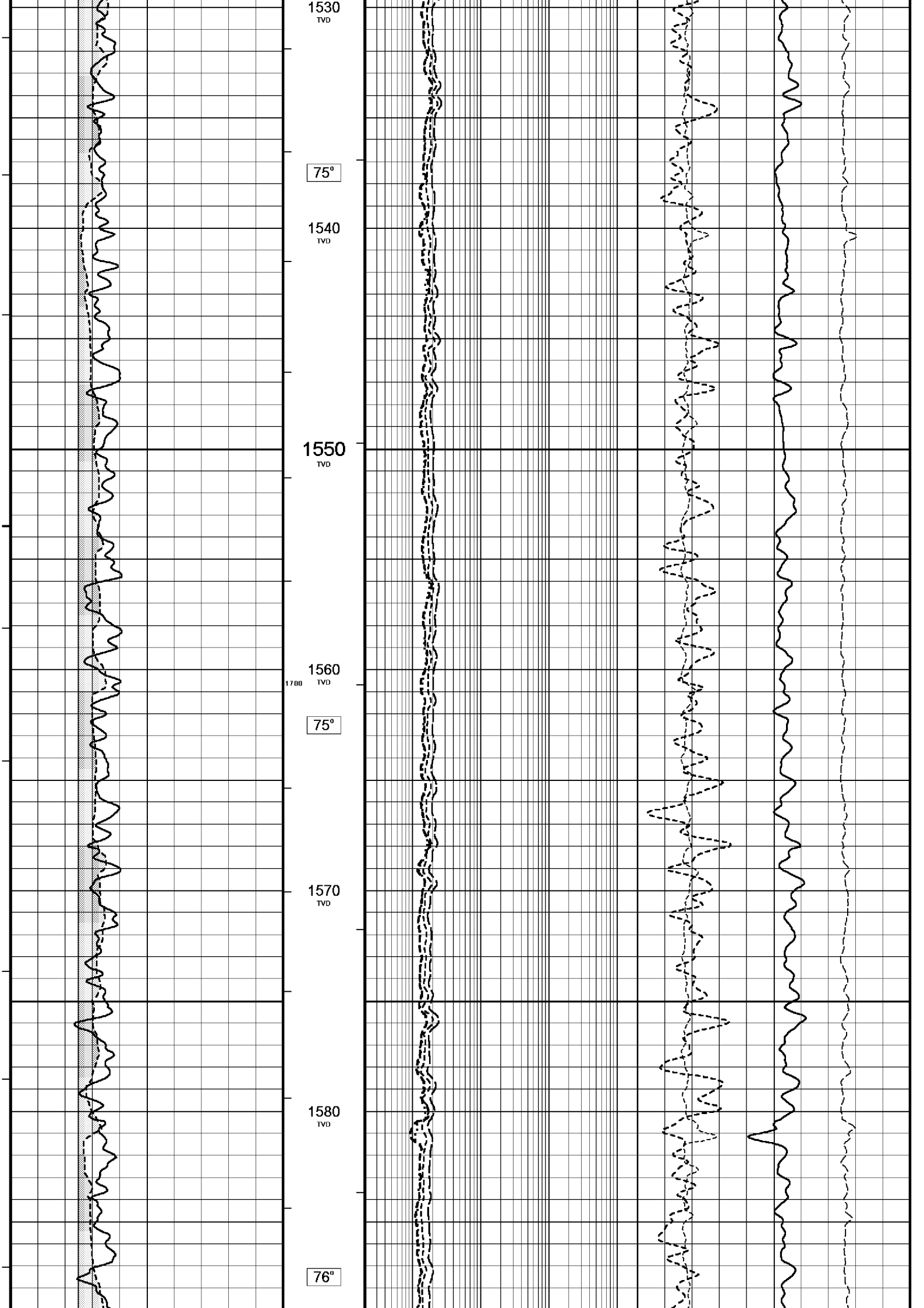


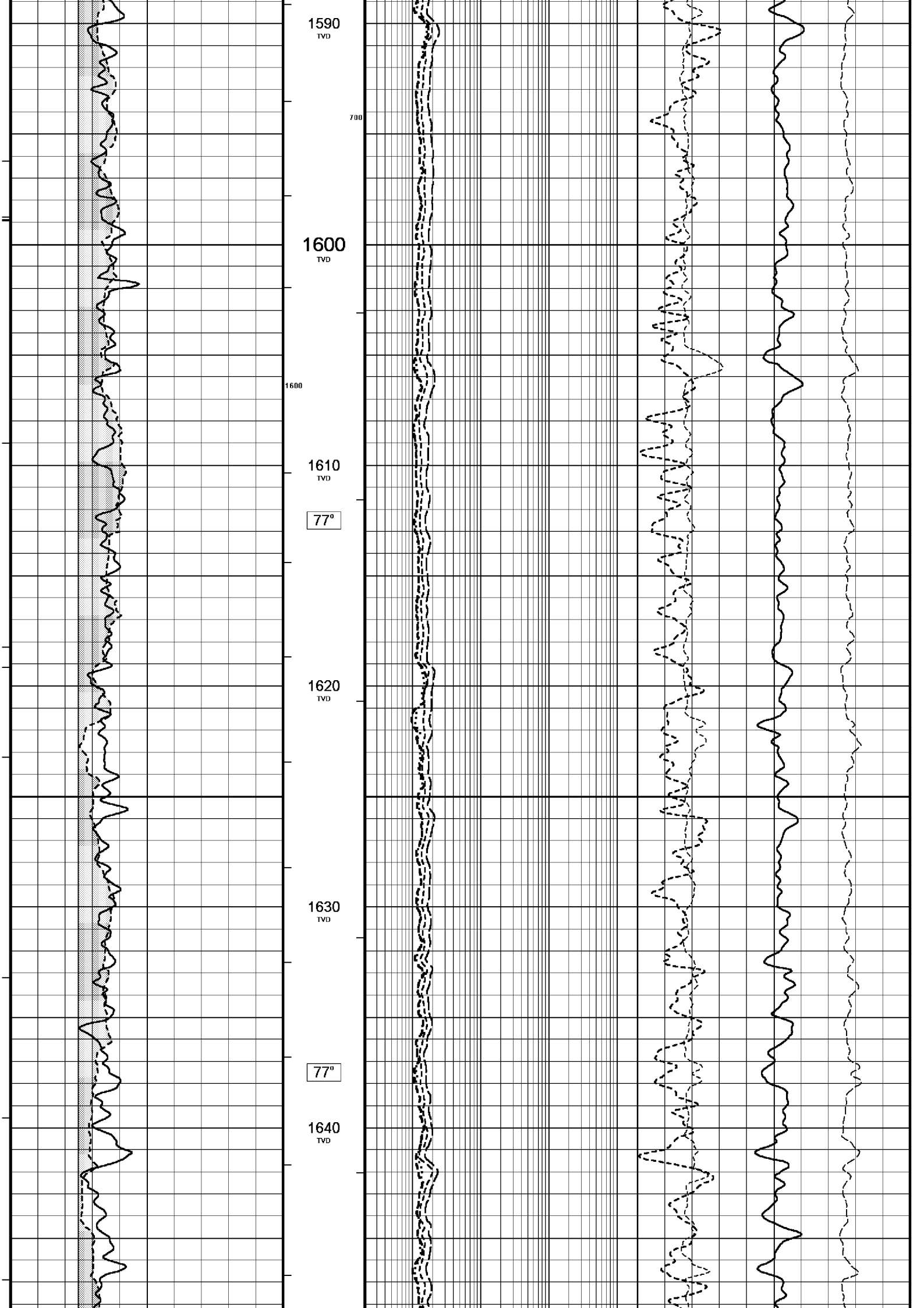


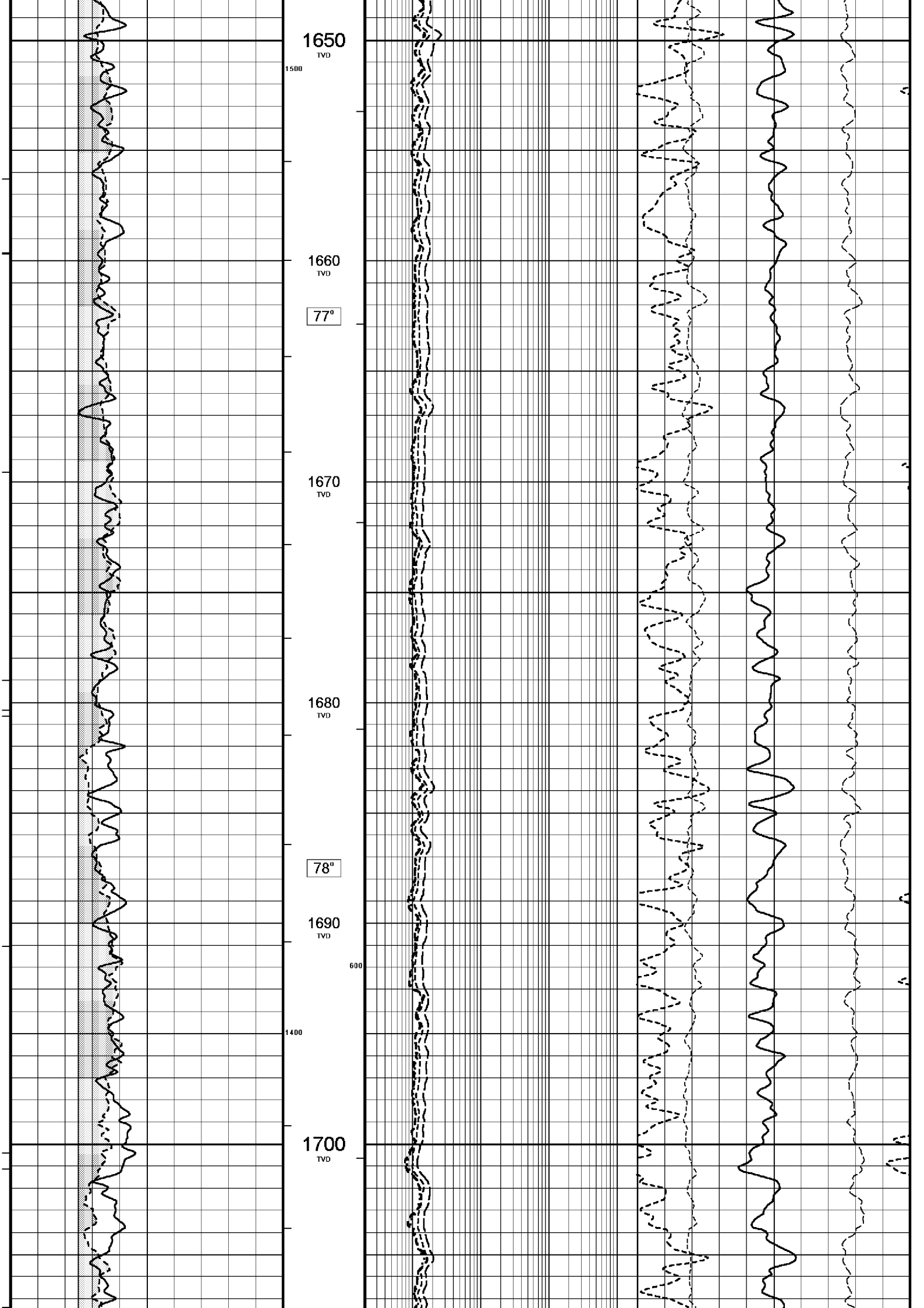


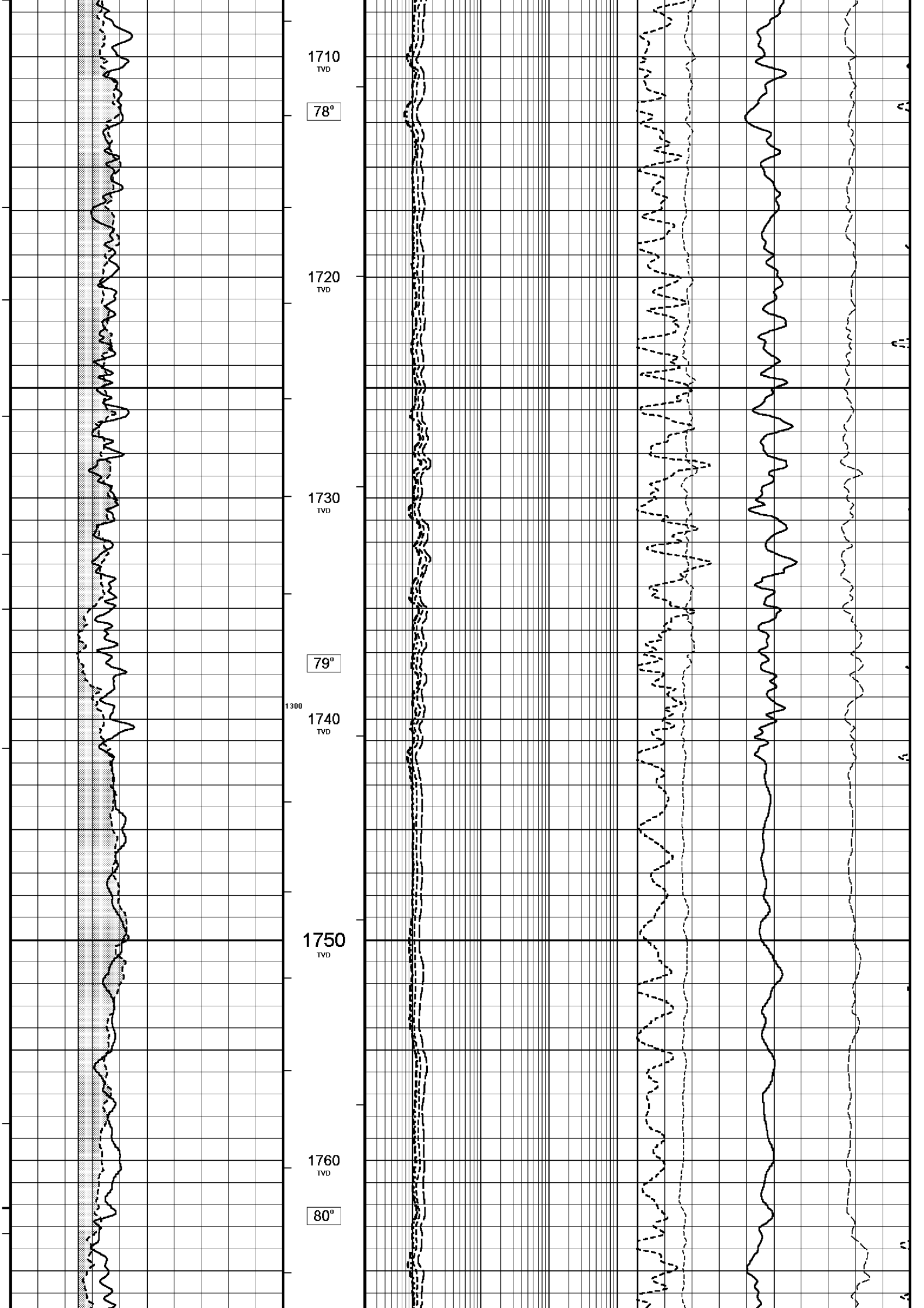


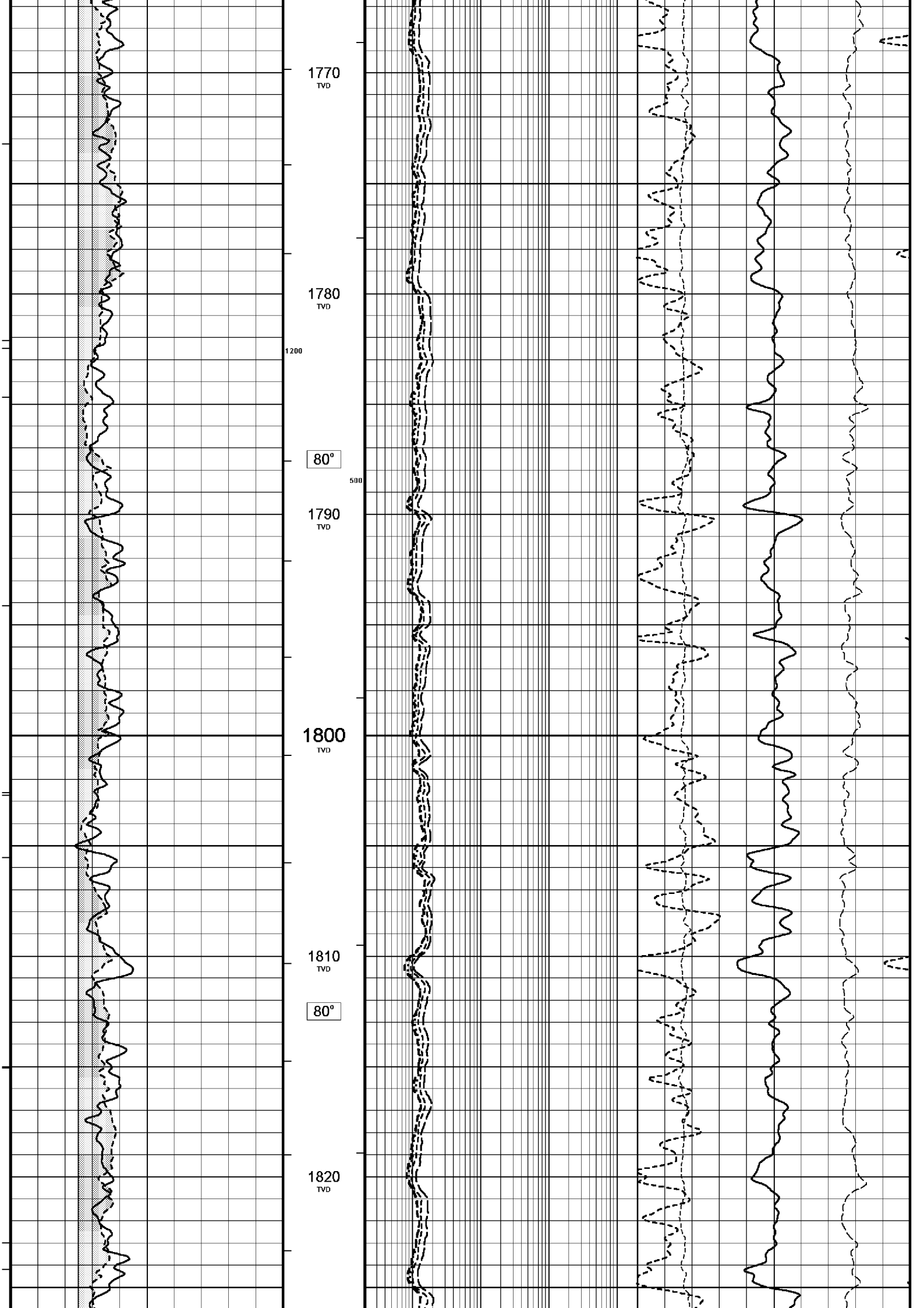


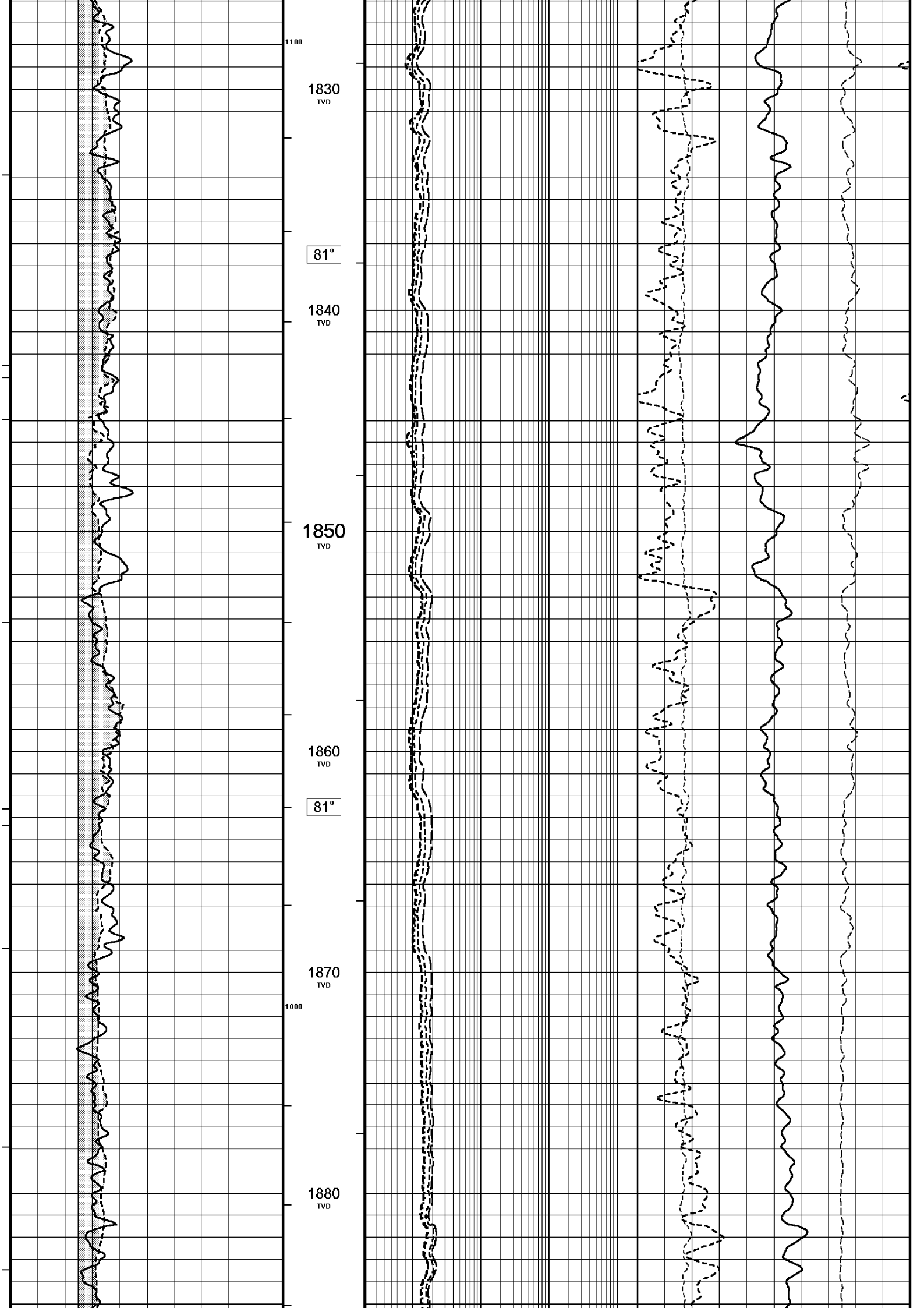


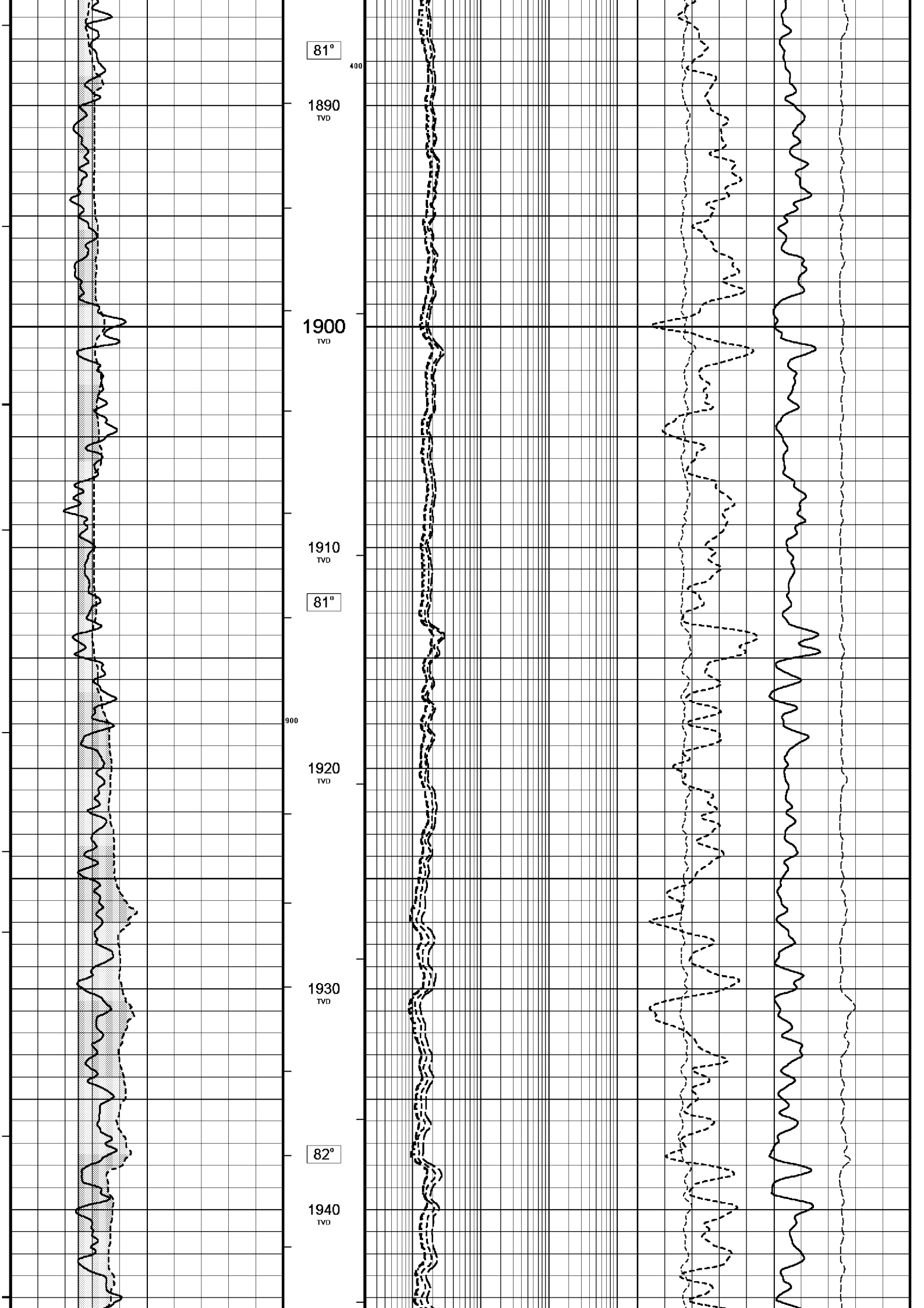


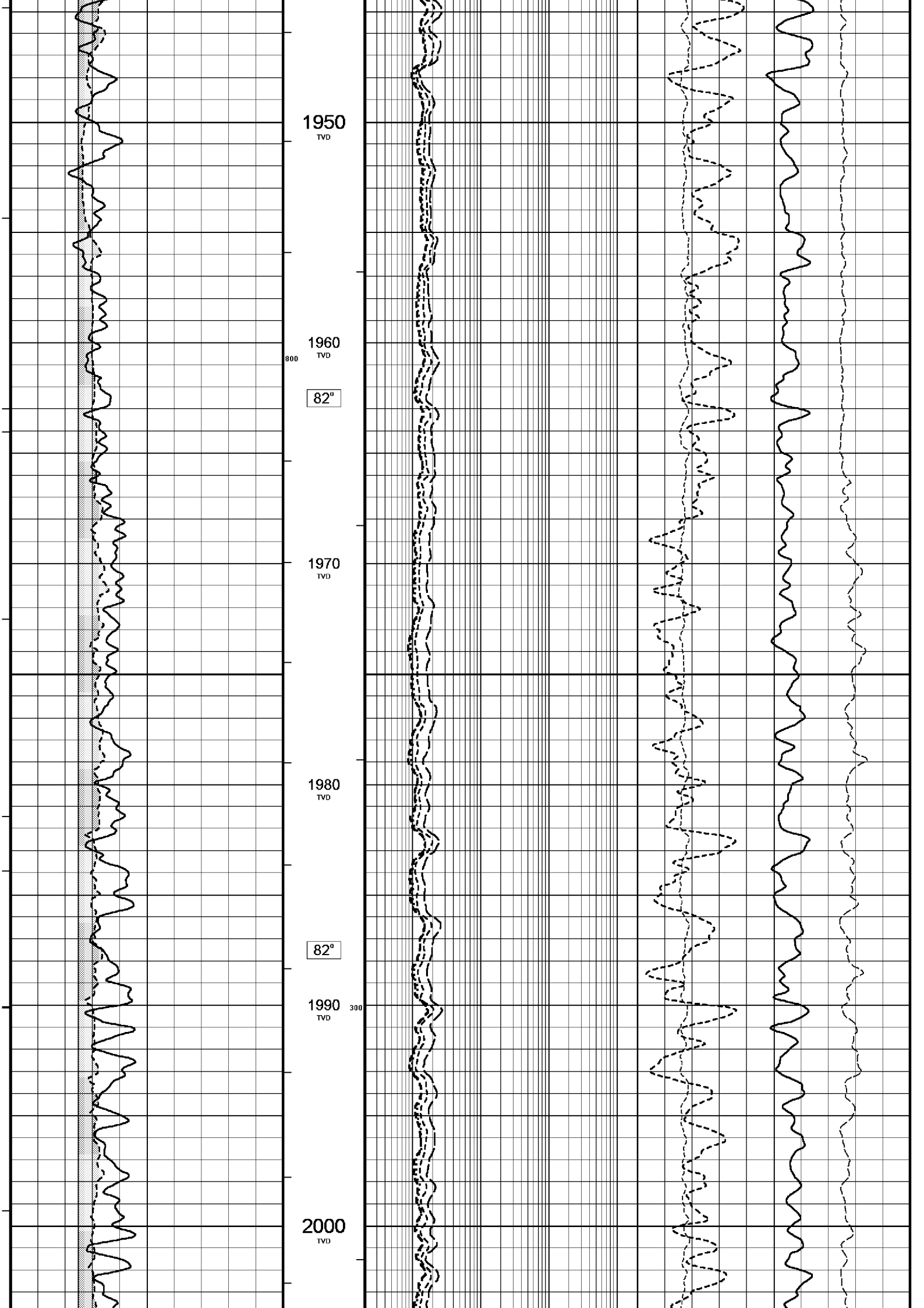


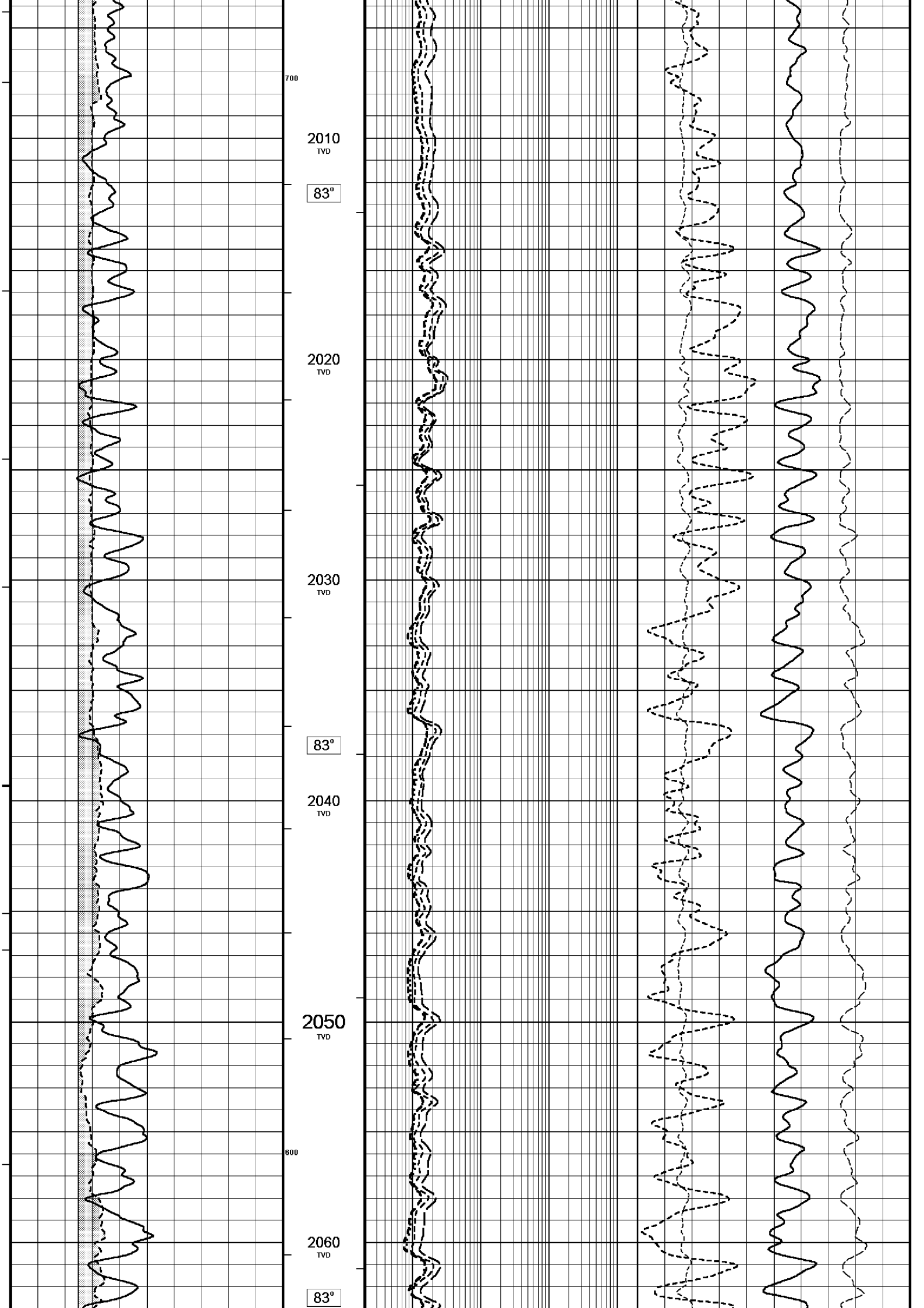


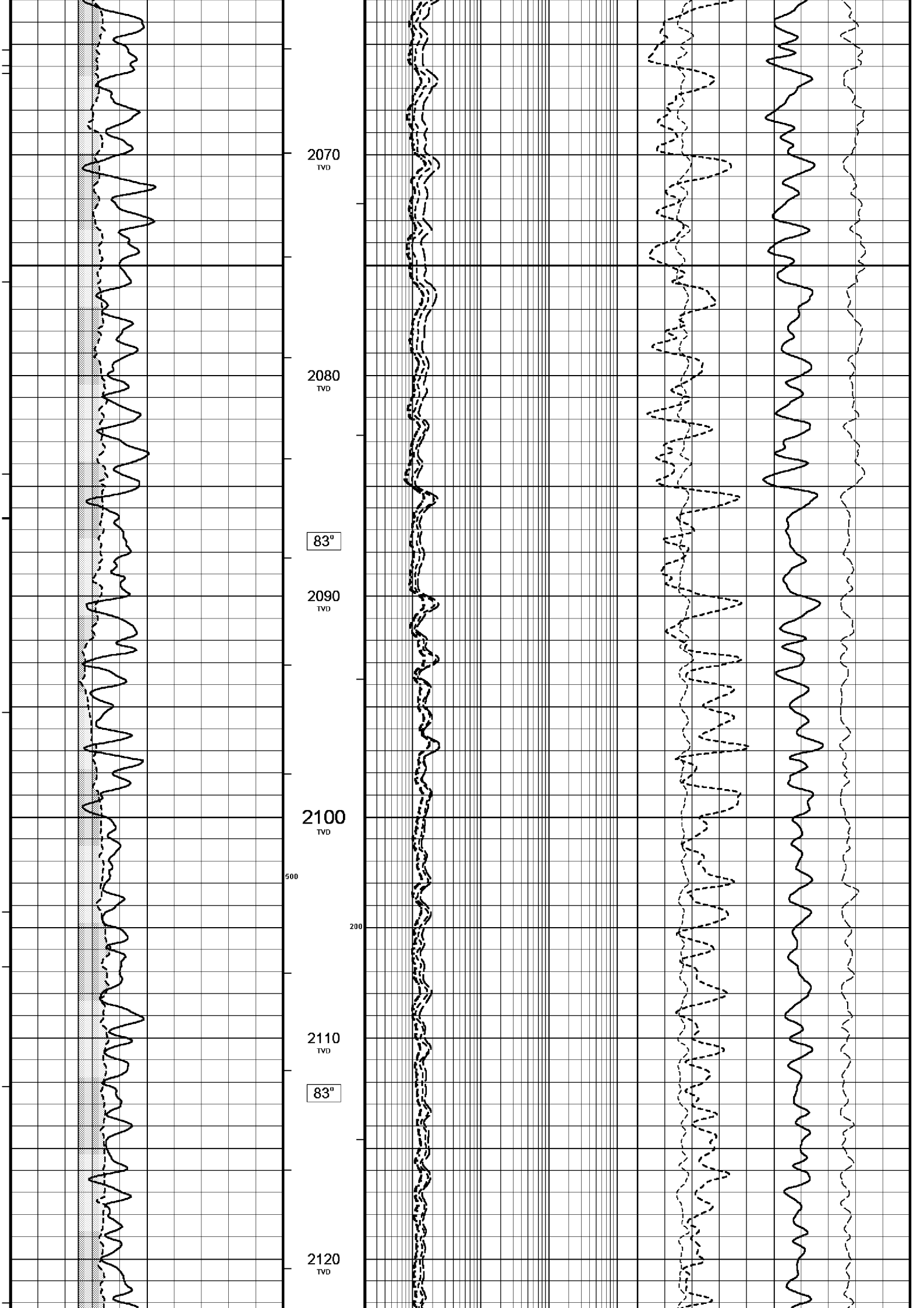


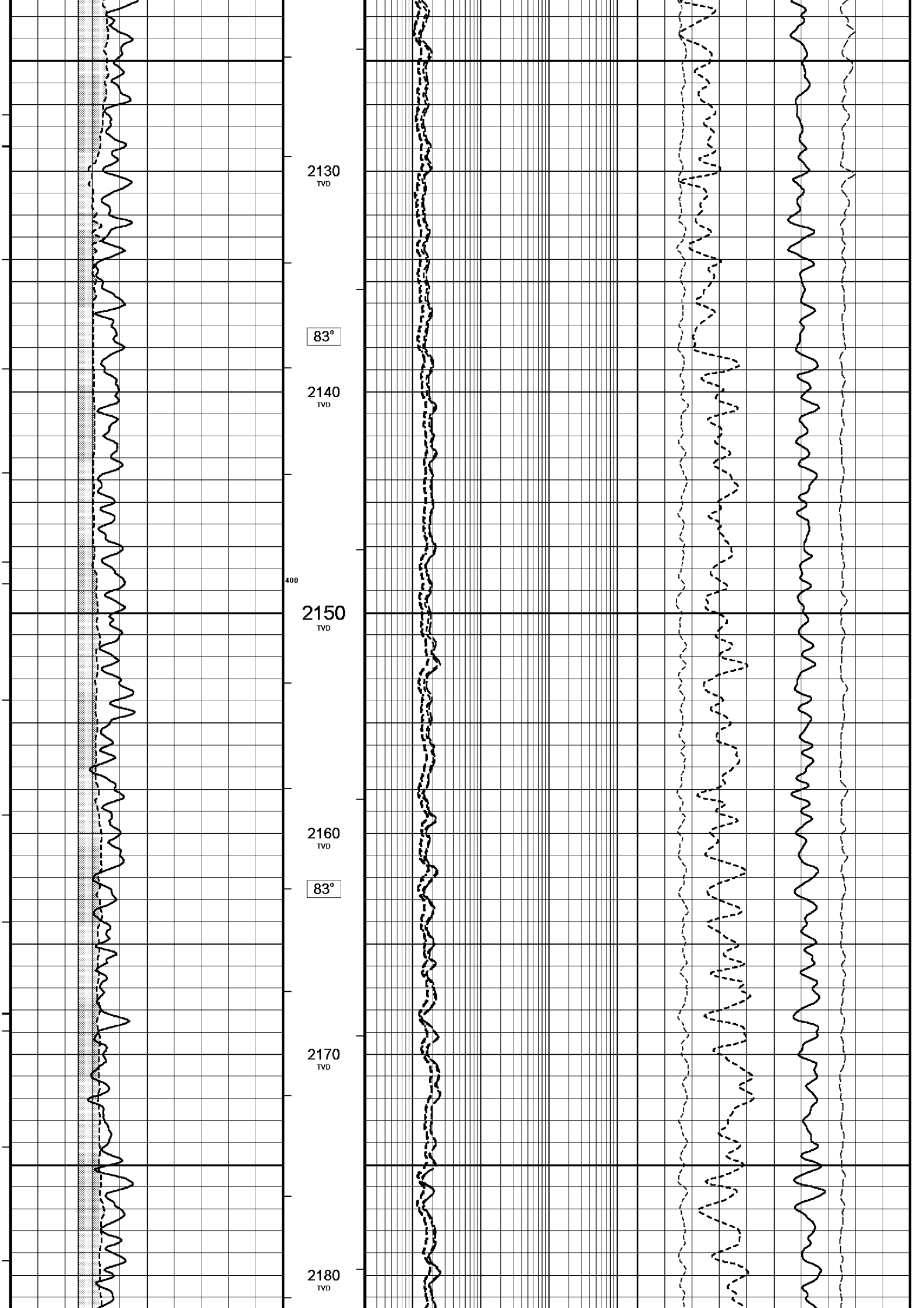


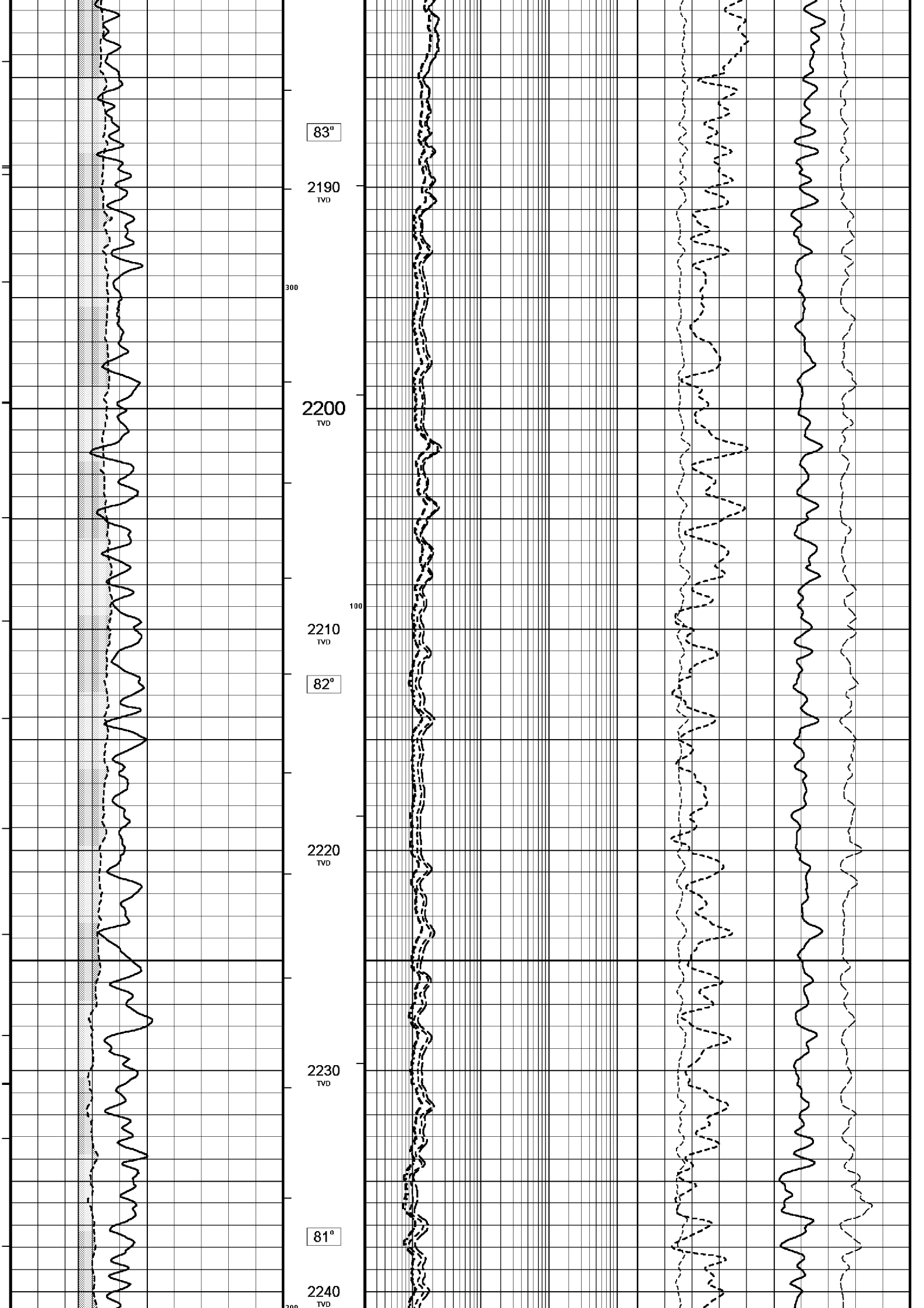


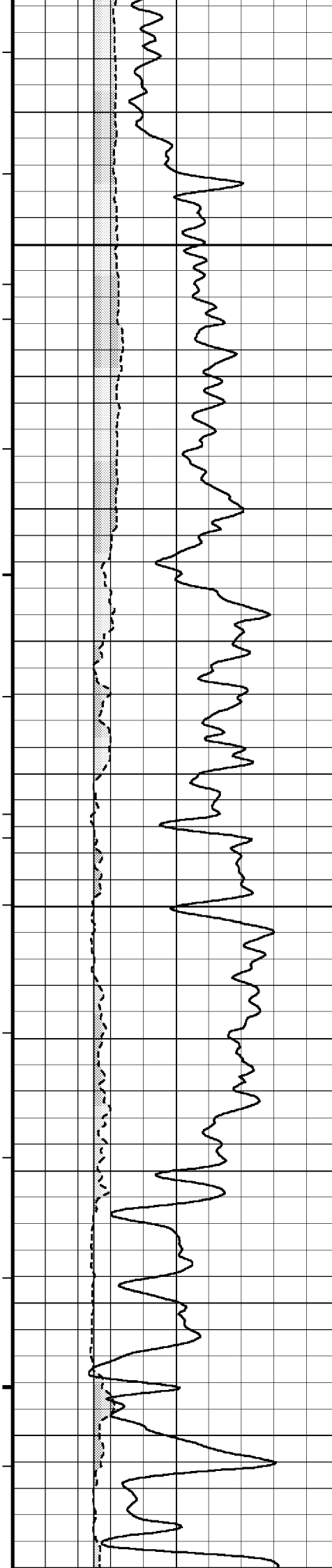












2250
TVD

2260
TVD

81°

2270
TVD

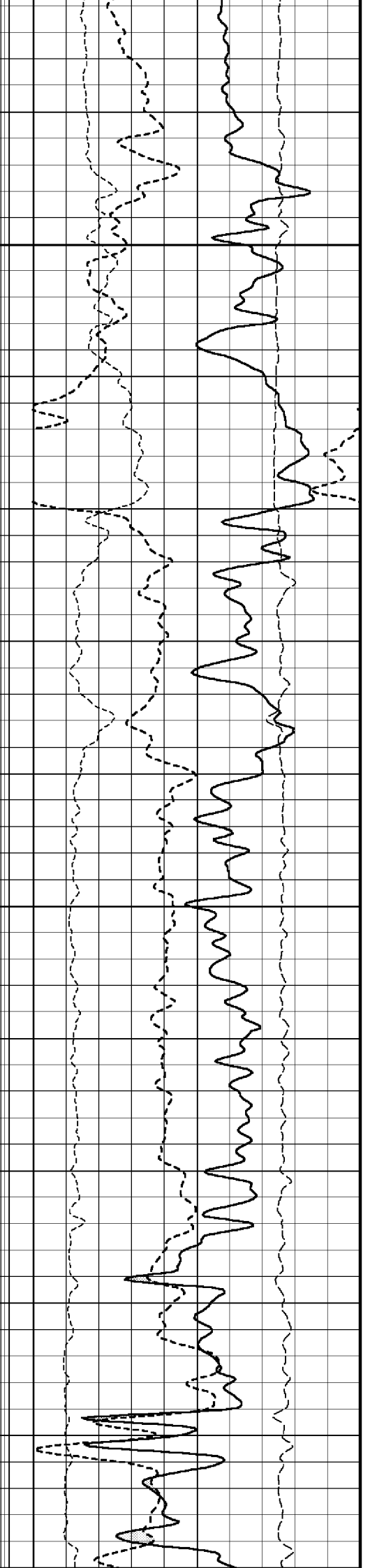
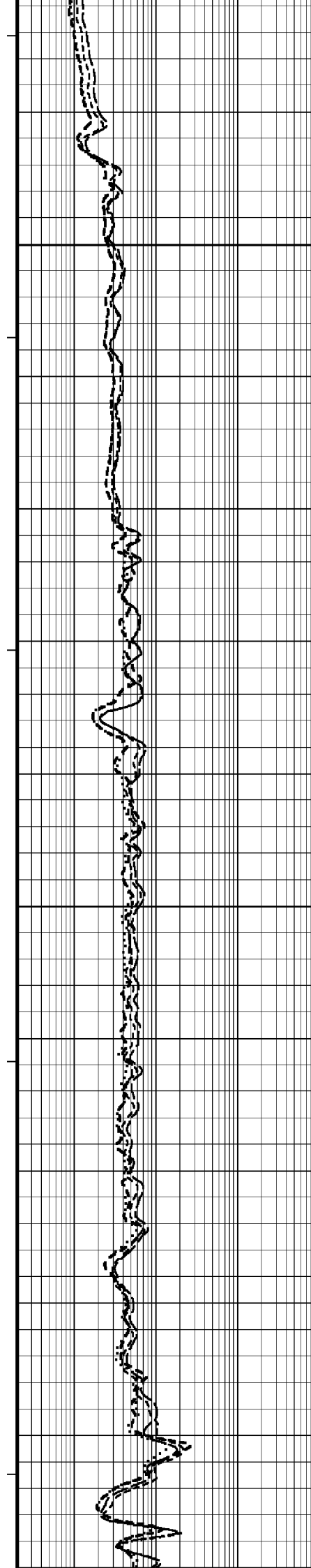
2280
TVD

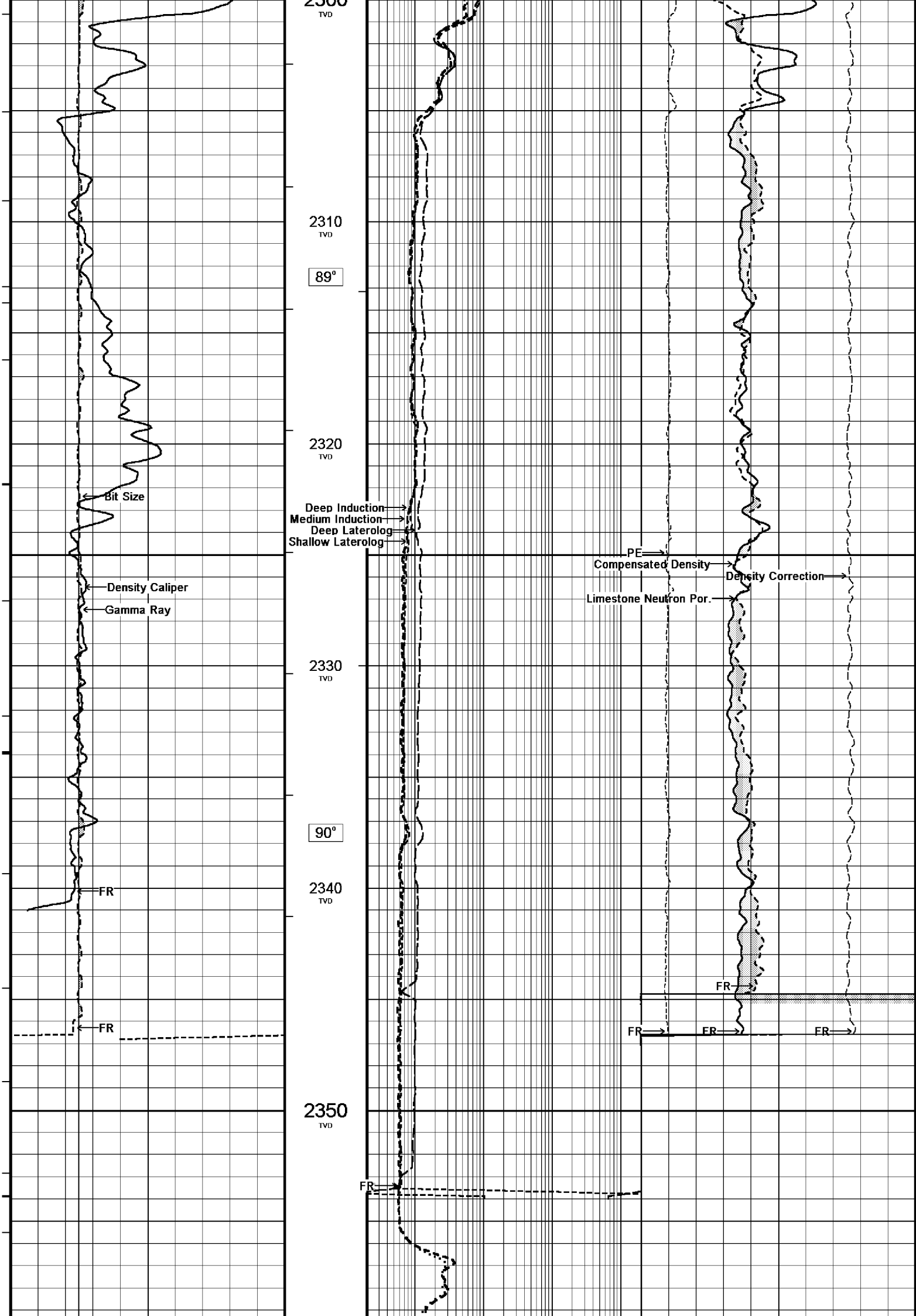
82°

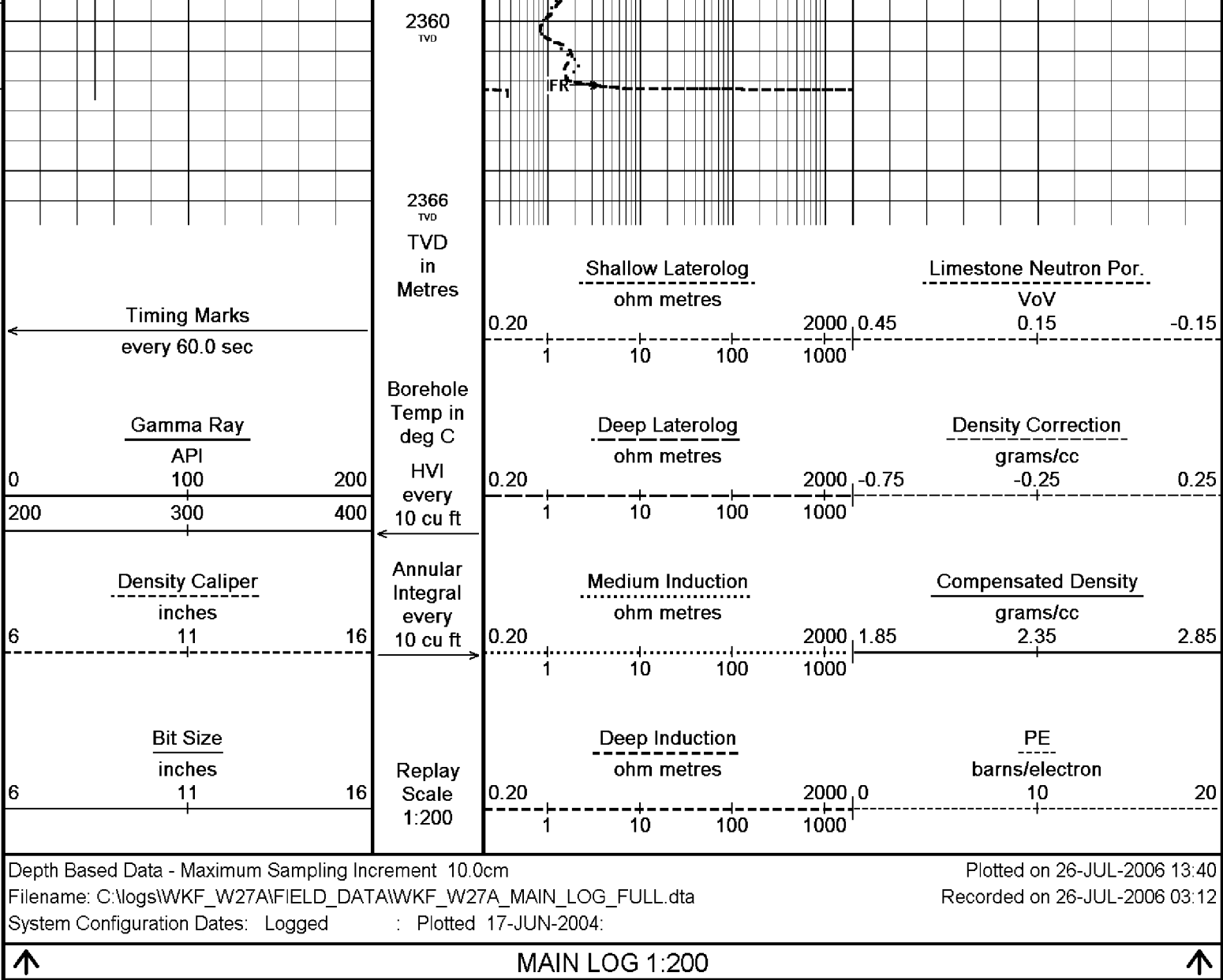
2290
TVD

100

2300







BEFORE SURVEY CALIBRATION			
C:\logs\WKF_W27A\FIELD_DATA\WKF_W27A_MAIN_LOG.dta			
General Constants All 000			
General Parameters			
Mud Resistivity	0.105	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	Density Caliper		
Annular Volume Diameter	7.000	inches	
Caliper for Differential Caliper	None		
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 142			
			Field Calibration on 21-JUN-2006,15:43
	Measured	Calibrated(Deg C)	
Lower	0.00	0.00	
Upper	100.00	100.00	
High Resolution Temperature Constants MCG 142			

Gamma Calibration MCG 142

Field Calibration on 24-JUL-2006 01:45

	Measured	Calibrated (API)
Background	22	15
Calibrator (Gross)	1363	924
Calibrator (Net)	1341	909

Gamma Constants MCG 142

Gamma Calibrator Number	60	
Mud Density	1.16	gm/cc
Caliper Source for Processing	Density Caliper	
Tool Position	Eccentred	
Concentration of KCl	0.00	kppm

Neutron Calibration MDN 085

Base Calibration on 19-JUL-2006 16:31

Field Check on 24-JUL-2006 02:09

Base Calibration

	Measured		Calibrated (cps)	
	Near	Far	Near	Far
	3105	96	3714	110
Ratio	32.405		33.764	

Field Calibrator at Base

	Calibrated (cps)	
	1634	2400
Ratio	0.681	

Field Check

	Calibrated (cps)	
	1575	2369
Ratio	0.665	

Neutron Constants MDN 085

Neutron Source Id	NSN-E-739	
Neutron Jig Number	NEC-E-052	
Epithermal Neutron	No	
Caliper Source for Processing	Bit Size	
Stand-off	0.00	inches
Mud Density	1.16	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	MCG External Temperature	
Temperature	N/A	degrees C
Mud Salinity	64.90	kppm
Formation Fluid Salinity Source	None	
Formation Fluid Salinity	N/A	kppm
Barite Mud Correction	Not Applied	

Caliper Calibration MPD 083

Base Calibration on 19-JUL-2006 12:33

Field Calibration on 24-JUL-2006,02:04

Base Calibration

Reading No	Measured	Calibrator Size (in)
1	15377	4.01
2	22794	5.99
3	31114	7.98
4	39638	9.94
5	48896	12.01
6	N/A	N/A

Field Calibration

Measured Caliper (in)	Actual Caliper (in)
7.98	7.98

Photo Density Calibration MPD 083

Base Calibration on 19-JUL-2006 11:18

Field Check on 24-JUL-2006 01:57

Density Calibration

Base Calibration	Measured		Calibrated (sdu)	
	Near	Far	Near	Far
Reference 1	55597	18484	53111	19310
Reference 2	26161	2451	24951	2530

Field Check at Base

937.1 1075.9

Field Check

934.2 1074.1

PE Calibration

Base Calibration

	WS	Measured WH	Ratio	Calibrated Ratio
Background	176	801		
Reference 1	17753	55402	0.322	0.320
Reference 2	6997	26014	0.270	0.273

Field Check at Base

176.5 800.7

Field Check

176.6 801.2

Density Constants MPD 083

Density Source Id	NSDL 242
Nylon Calibrator Number	DNC-D-536
Aluminium/Fe Calibrator Number	DAC-D-536
Density Shoe Profile	4 inch
Caliper Source for Processing	Density Caliper
PE Correction to Density	Not Applied
Mud Density	1.16 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

Laterolog Calibration MLE 031

Base Calibration on 17-JUL-2006,15:10

Field Check on 24-JUL-2006,02:22

Base Calibration

	Measured Resistor 1	Measured Resistor 2	Calibrated (ohm-m) Resistor 1	Calibrated (ohm-m) Resistor 2
Channel				
Shallow	9.8	976.4	13.2	1321.0
Deep	9.8	976.6	7.5	755.0
Groningen	9.8	976.7	8.5	854.0

Channel	Base Check (ohm-m)	Field Check (ohm-m)
Shallow	48.6	48.6
Deep	27.8	27.8
Groningen	251.6	251.6

Laterolog Constants MLE 031

Squasher Start	40000 ohm-m
Shallow Laterolog K Factor	1.3210
Deep Laterolog K Factor	0.7550
Groningen Laterolog K Factor	0.8540
Interference Rejection	50 Hz
SP Connection	SP Bridle Electrode
Groningen Connection	None

Induction Calibration MAI 039

Base Calibration on 17-JUL-2006 14:13

Field Check on 24-JUL-2006 01:52

Base Calibration

Test Loop Calibration	Measured	Calibrated (mmho/m)
Channel	Low High	Low High
1	15.5 457.6	9.3 966.2
2	5.1 365.2	7.6 821.4
3	2.3 249.2	5.2 566.0
4	1.3 128.5	2.6 279.2

Array Temperature

23.4

Deg C

Channel	Base Check (mmho/m)		Field Check (mmho/m)		
	Low	High	Low	High	
1	15.5	3964.9	15.9	3966.5	
2	33.2	3692.1	33.5	3692.8	
3	31.8	3169.9	32.0	3170.1	
4	21.2	2147.8	21.4	2147.8	
Deep	19.4	2040.7	19.6	2040.4	
Medium	46.5	4203.2	46.8	4203.5	
Shallow	49.6	5495.1	49.9	5496.7	
Array Temperature		12.5	13.9	Deg C	

Induction Constants MAI 039

Induction Model		ENHANCED	
Caliper Source for Borehole Correction		BIT	
Hole Size for Borehole Correction		N/A	inches
Stand-off		1.00	inches
Number of Fins on Stand-off		6.0000	
Stand-off Fin Width		0.5000	inches
Rm Source for Borehole Correction		Temperature Corr	
Squasher Start		0.0020	mmhos/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:\logs\WKF_W27A\FIELD_DATA\WKF_W27A_MAIN_LOG.dta

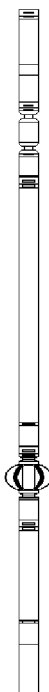
Compact Swivel Head Adaptor F
SHA 71 Length: 0.83 m Weight: 26.5 lb

Compact Knuckle Joint
SKJ 100 Length: 0.66 m Weight: 24.3 lb

Compact Battery Sub.
MBS 99 Length: 4.41 m Weight: 44.1 lb

Compact Inline Standoff B
MIS 31 Length: 0.65 m Weight: 15.4 lb

Compact Stiff Bridle Electrode Sub.
MBE 18 Length: 3.76 m Weight: 94.8 lb



Compact Inline Standoff B
MIS 141 Length: 0.65 m Weight: 15.4 lb

Compact Stiff Bridle Electrode Sub.
MBE 19 Length: 3.76 m Weight: 94.8 lb

Compact Inline Standoff B
MIS 129 Length: 0.65 m Weight: 15.4 lb

MBE 21 Compact Stiff Bridle Electrode
MLK 111 Length: 3.76 m Weight: 94.8 lb

Compact Inline Standoff B
MIS 135 Length: 0.65 m Weight: 15.4 lb

Compact Gamma
MCG 142 Length: 2.65 m Weight: 63.9 lb

Compact Memory Sub A.C
MMS 38 Length: 0.95 m Weight: 30.9 lb

Compact Inline Bowspring A
MIS 95 Length: 1.74 m Weight: 33.1 lb

Compact Swivel Head Adaptor F
SHA 64 Length: 0.83 m Weight: 26.5 lb

Compact Knuckle Joint
SKJ 101 Length: 0.66 m Weight: 24.3 lb

Compact Neutron
MDN 85 Length: 1.53 m Weight: 50.7 lb

Compact Density/Caliper
MPD 83 Length: 2.92 m Weight: 90.4 lb



32.22 m GGCE - Borehole Corrected Gamma
31.33 m CGXT - MCG External Temperature

26.17 m NPRL - Limestone Neutron Por.

23.48 m AVOL - Annular Volume
23.48 m HVOL - Hole Volume
23.48 m CLDC - Density Caliper
23.27 m DEN - Compensated Density

Compact Knuckle Joint
SKJ 46 Length: 0.66 m Weight: 24.3 lb

Compact Swivel Head Adaptor F
SHA 73 Length: 0.83 m Weight: 26.5 lb

Compact Inline Bowspring A
MIS 24 Length: 1.74 m Weight: 33.1 lb

Compact Inline Standoff B
MIS 132 Length: 0.65 m Weight: 15.4 lb

Compact Upper Guard Sub.
MUG 30 Length: 2.74 m Weight: 68.3 lb

Compact Inline Standoff B
MIS 139 Length: 0.65 m Weight: 15.4 lb

Compact Laterolog Electrode Sub.
MLE 31 Length: 3.76 m Weight: 92.6 lb

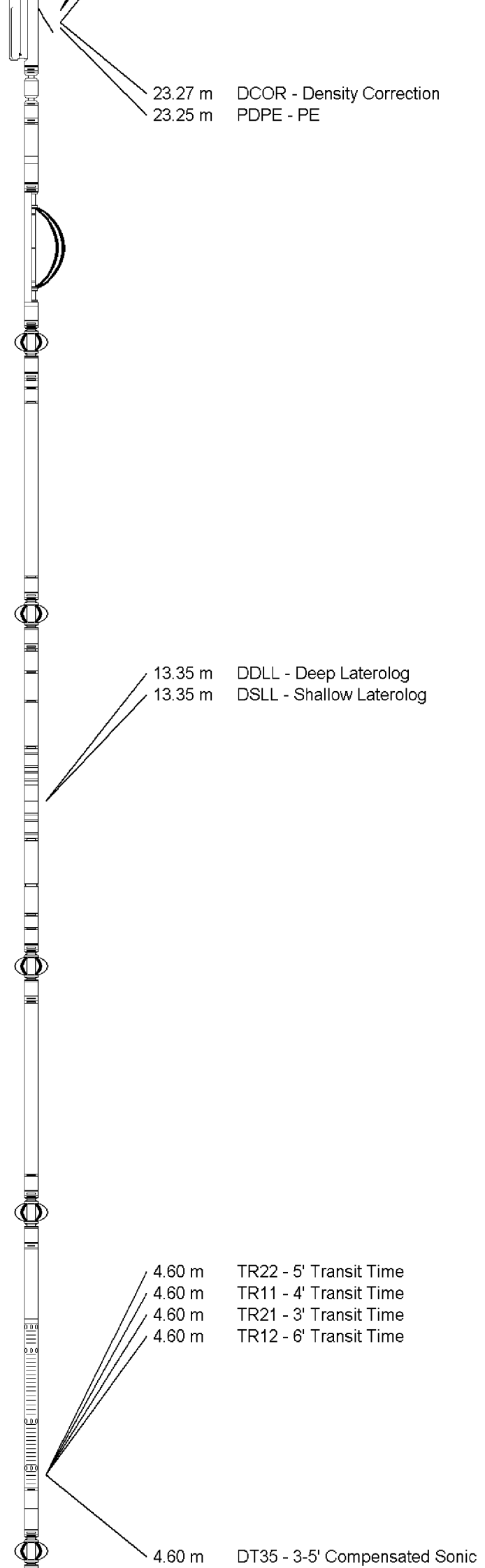
Compact Inline Standoff B
MIS 138 Length: 0.65 m Weight: 15.4 lb

Compact Lower Guard Sub.
MLG 7 Length: 2.44 m Weight: 55.1 lb

Compact Inline Standoff B
MIS 73 Length: 0.65 m Weight: 15.4 lb

Compact Sonic
MSS 66 Length: 3.82 m Weight: 72.8 lb

Compact Inline Standoff B
MIS 127 Length: 0.65 m Weight: 15.4 lb



Compact Induction
MAI 39 Length: 3.29 m Weight: 48.5 lb

Pressure Bung + Hole Finder
HFS 4 Length: 0.40 m Weight: 6.6 lb

Total Length: 54.01 m Weight: 1265.5 lb



Tool Zero (0.44m from bottom)

All measurements relative to tool zero.

COMPANY	ESSO AUSTRALIA PTY.LTD
WELL	WKF W27A
FIELD	KINGFISH GDA94
PROVINCE/COUNTY	BASS STRAIT, VICTORIA
COUNTRY/STATE	AUSTRALIA

Elevation Kelly Bushing	metres	First Reading	2362.00	metres
Elevation Drill Floor 33.43	metres	Depth Driller	2366.00	metres
Elevation Ground Level -76.13	metres	Depth Logger	2366.00	metres

 **PRECISION**
Compact

DUAL LATEROLOG - GR
DENSITY - NEUTRON
1:200 TVD