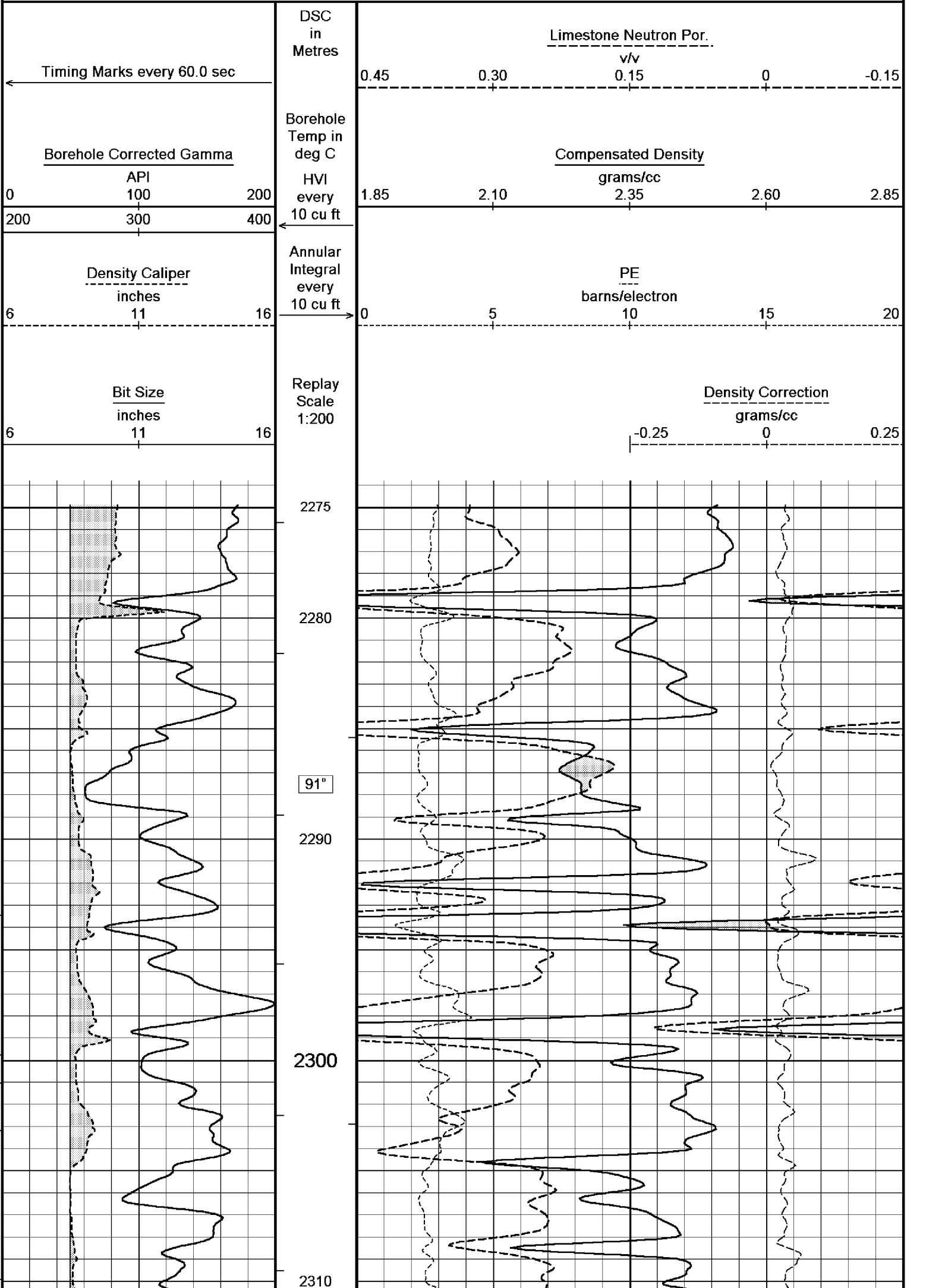
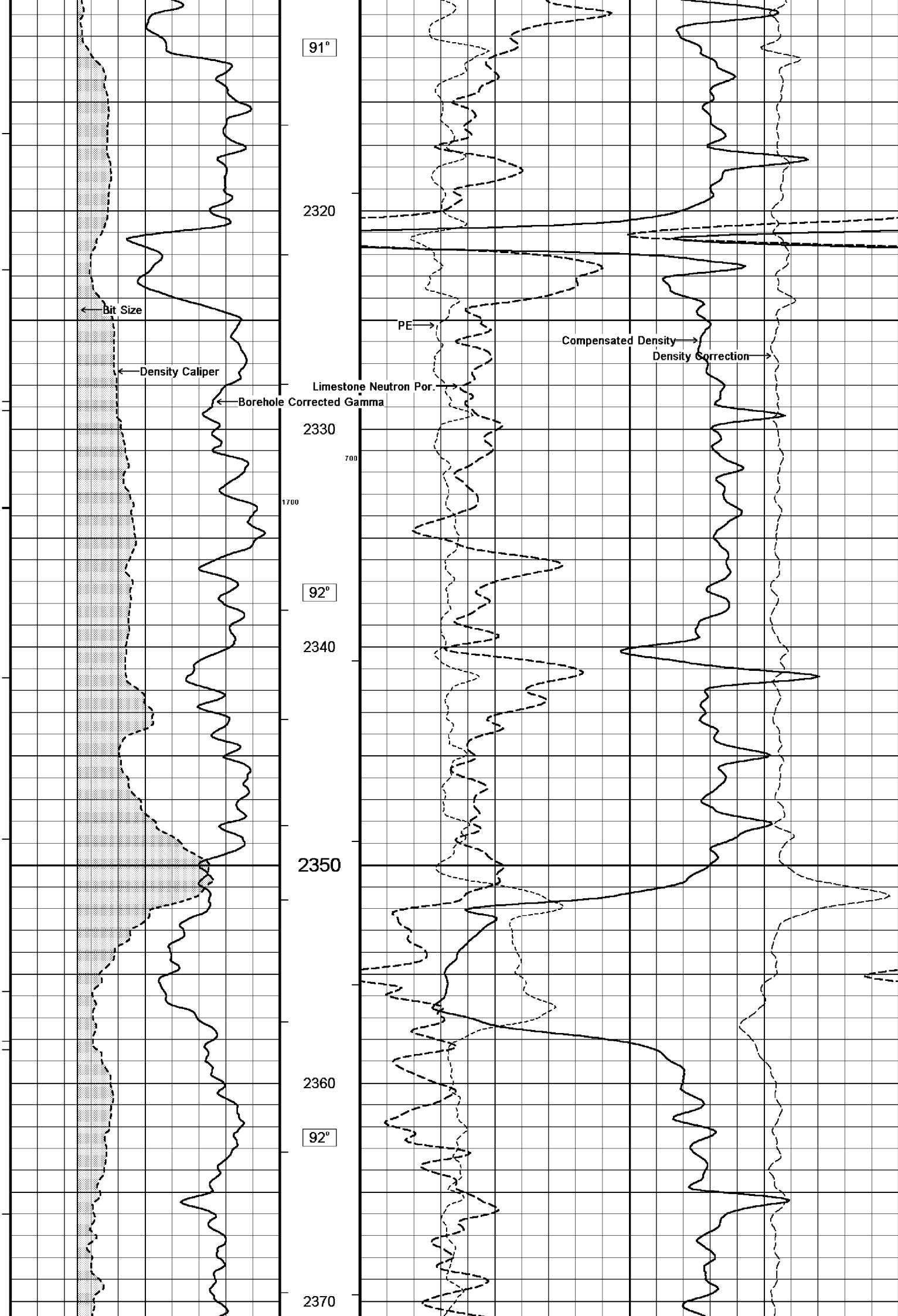


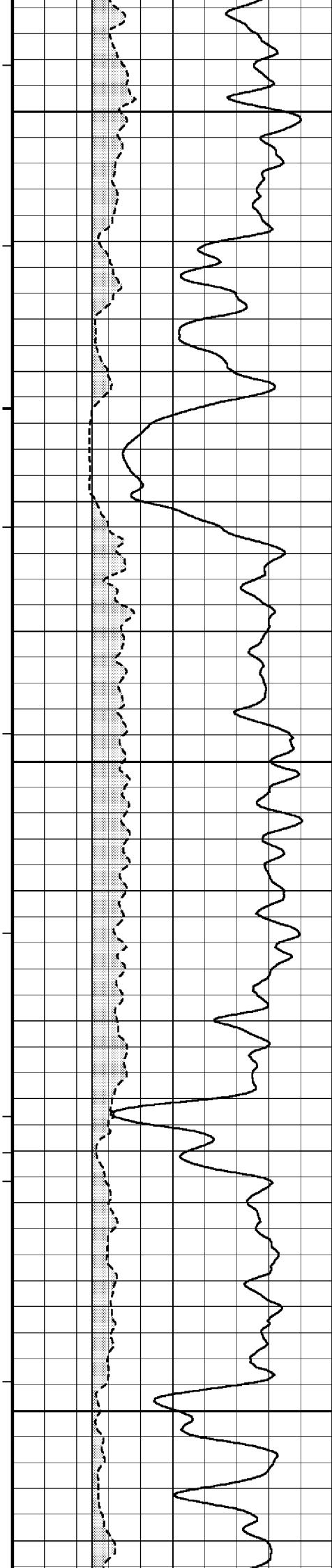
<div>Reeves</div> <div>Compact</div>			PHOTO DENSITY COMPENSATED NEUTRON 1:200 MD		
COMPANY			Esso Australia Pty Ltd		
WELL			Marlin A10a ST		
FIELD			Turrum		
PROVINCE/COUNTY			Bass Strait		
COUNTRY/STATE			Australia		
LOCATION			38 13 49.320E , 148 13 15.712S N 5767920.060 m , E 606868.950 m		
			[FINAL PRINT]		
LSD	SEC	TWP	RGE	Other Services	
				COMPENSATED SONIC DUAL LATEROLOG	
API Number			Permit Number VIC L3/L4		
Permanent Datum M.S.L.			, Elevation 0.00 metres		
Log Measured From R.T.			@ 27.91m above Permanent Datum		
Drilling Measured From R.T.					
Date	15-SEP-2004		Elevations: KB DF GL 27.91 -59.00 metres metres metres		
Run Number	One				
Depth Driller	3491.00		metres		
Depth Logger	3484.50		metres		
First Reading	3479.45		metres		
Last Reading	2275.00		metres		
Casing Driller	642.00		metres		
Casing Logger					
Bit Size	8.50		inches		
Hole Fluid Type	KC/PPH/PA/GLY				
Density / Viscosity	9.90 lb/USg		77.00 CP		
PH / Fluid Loss	9.10		2.80 ml/30Min		
Sample Source	Flow Line				
Rm @ Measured Temp	0.135 @ 25.0		ohm-m		
Rmf @ Measured Temp	0.098 @ 25.0		ohm-m		
Rmc @ Measured Temp	0.168 @ 25.0		ohm-m		
Source Rmf / Rmc	Press		Press		
Rm @ BHT	0.047 @ 114.0		ohm-m		
Time Since Circulation	23.5 Hrs				
Max Recorded Temp	114.00		deg C		
Equipment Name	CWS/CML				
Equipment / Base	1		Sale		
Recorded By	G. McManus, R. Tench				
Witnessed By	C. MENHENITT				
Circ Stopped	2200 14-Sep				

BOREHOLE RECORD				
Bit Size inches		Depth From metres		Depth To metres
8.500		642.000		3491.000
CASING RECORD				
Type	Size inches	Depth From metres	Shoe Depth metres	Weight pounds/ft
J-55	13.375	0.000	642.000	54.40
REMARKS				
Drilling Rig: Nabors 453				
Crew: G McManus; R Tench; B Goodwin; M Susa				
Open hole well logged using Reeves COMPACT logging tools and 5" Shuttle conveyed Memory logging techniques. Logs depth corrected and quality controlled with Anadrill gamma log. Caliper reading inside casing: 12.688 In. Inside diameter of casing: 12.615 In.				
Max Inclination: 45.1 deg at 2884.87mMDRT Max Dogleg Severity: 4.32 deg at 3229.06mMDRT Max Temperature: 114.0 deg C at 3429.90mMDRT				
Hole Volume to Last Read: 1790 ft^3 Annular Volume to Last Read: 735 ft^3				

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.







2380

92°

1600 2390

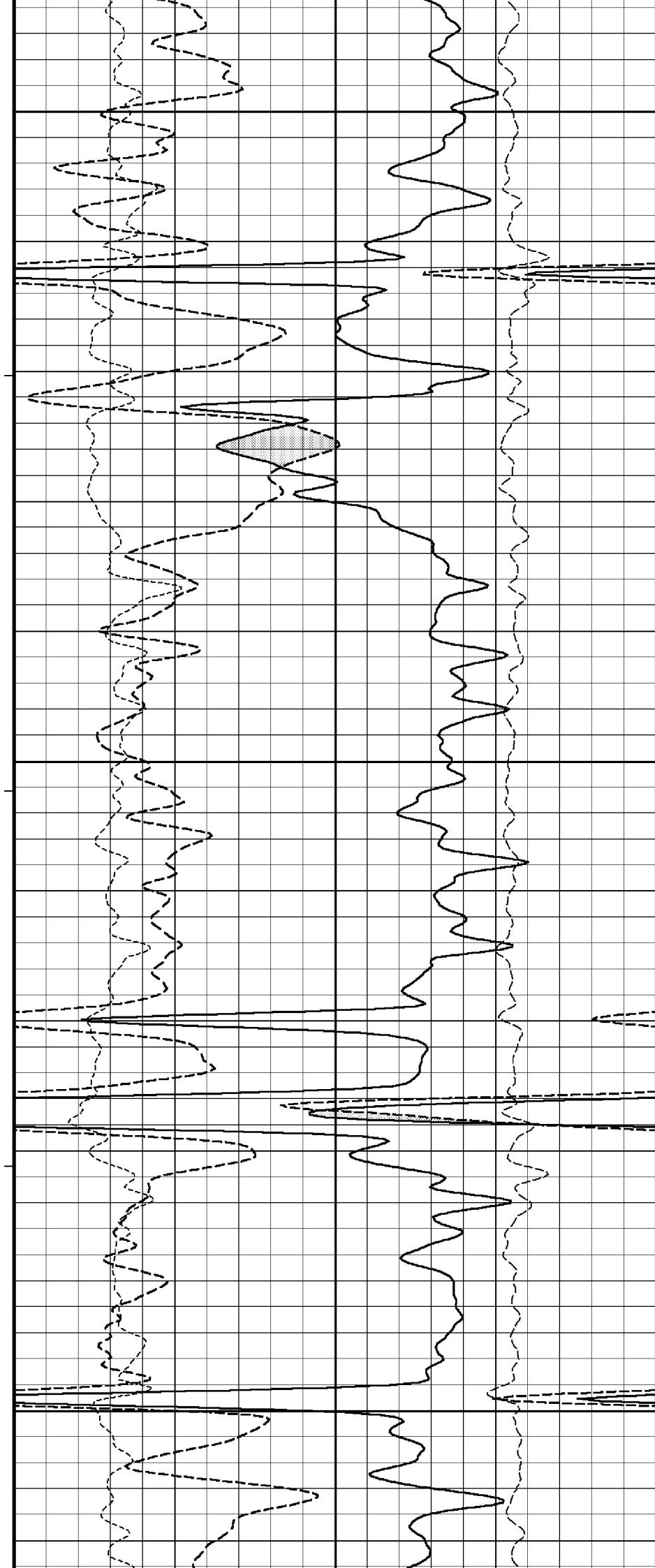
2400

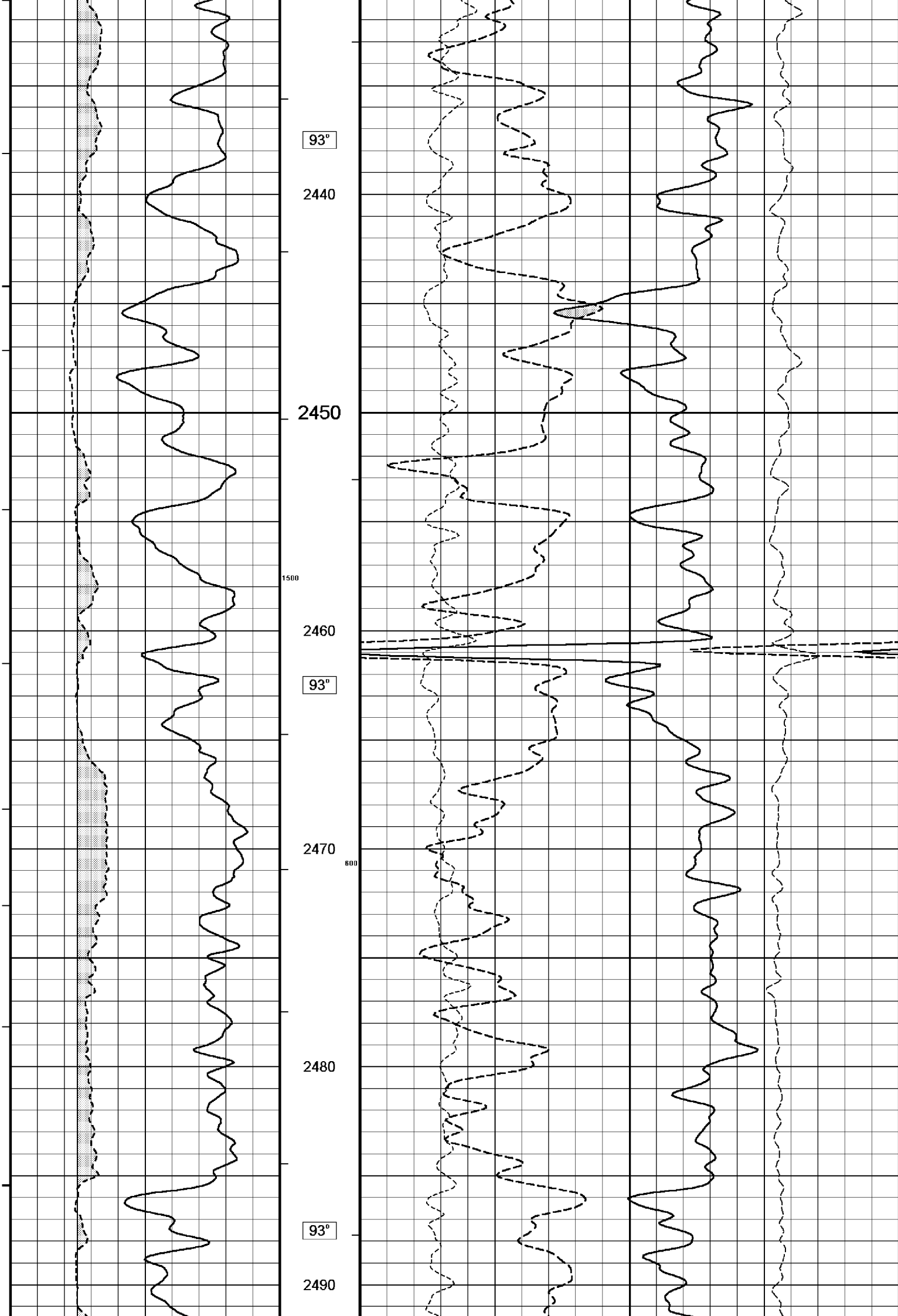
2410

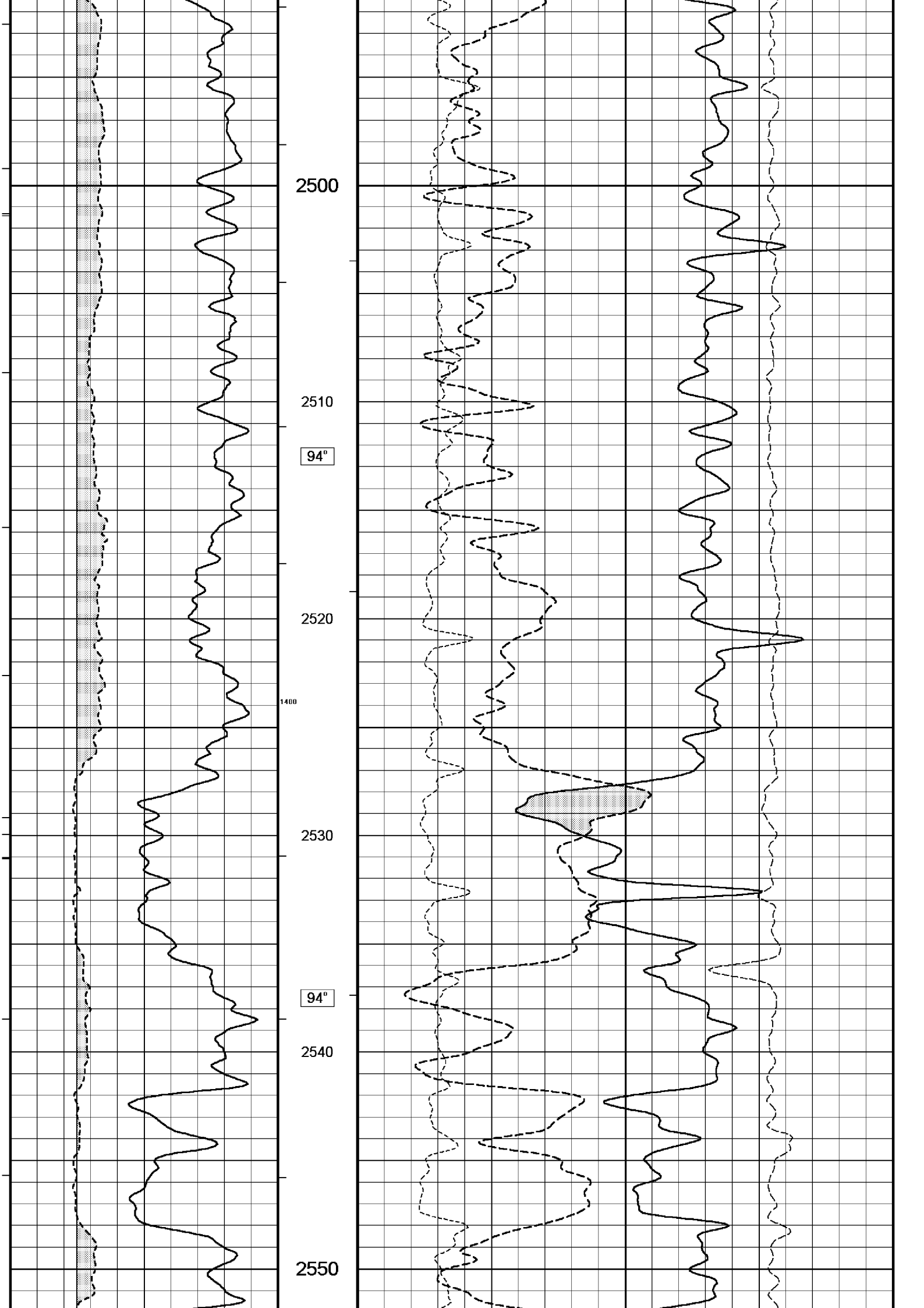
92°

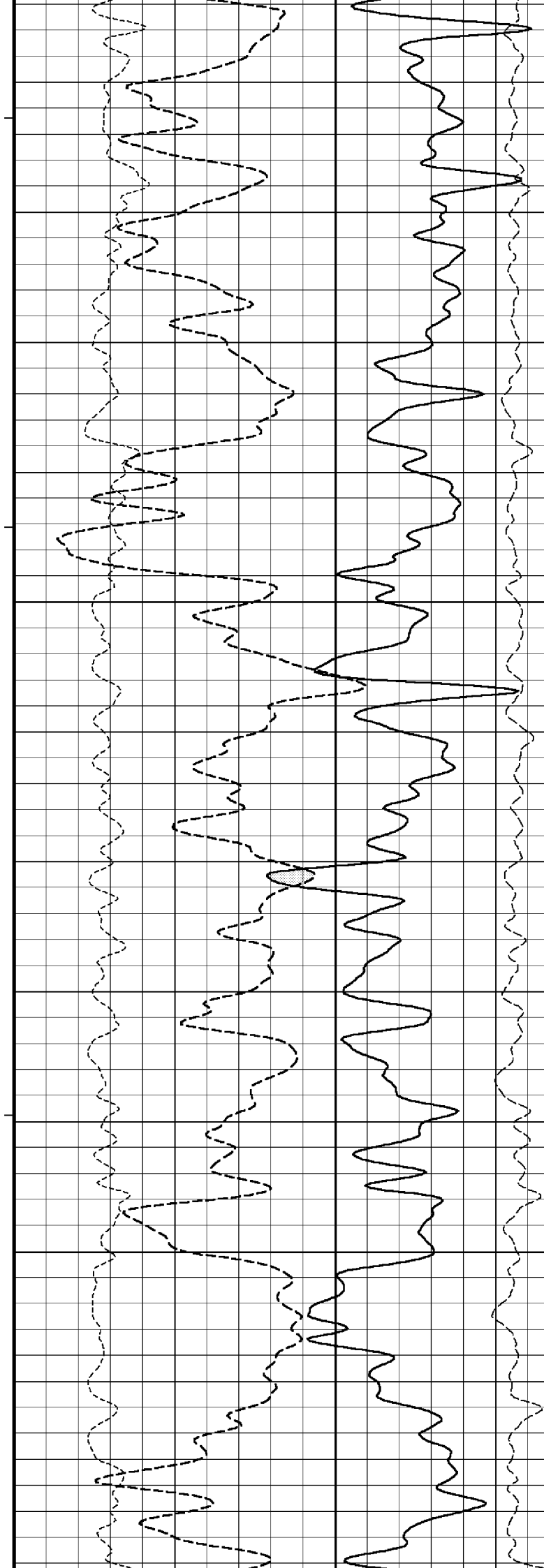
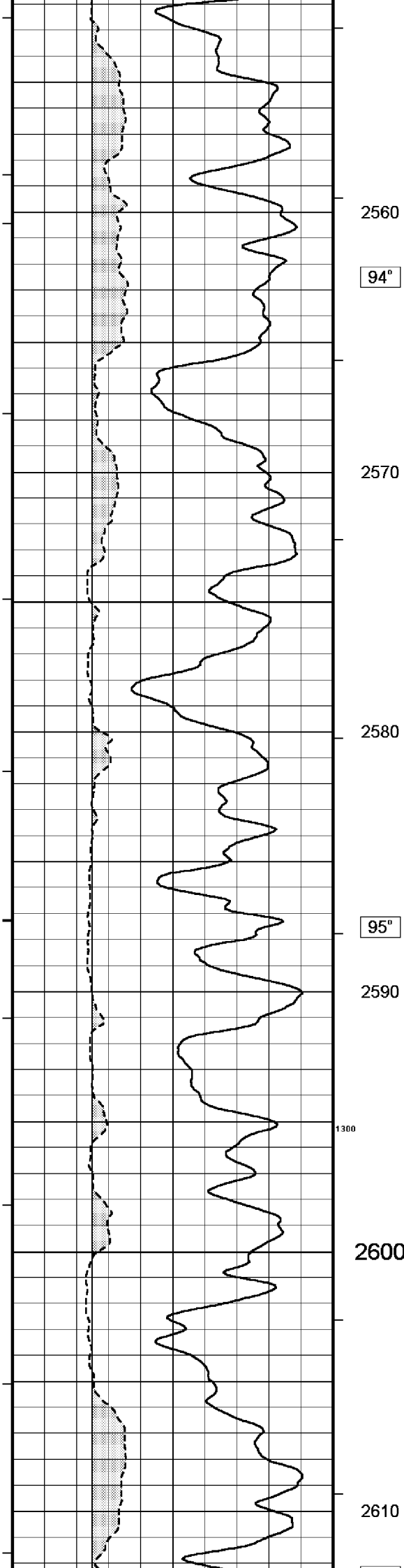
2420

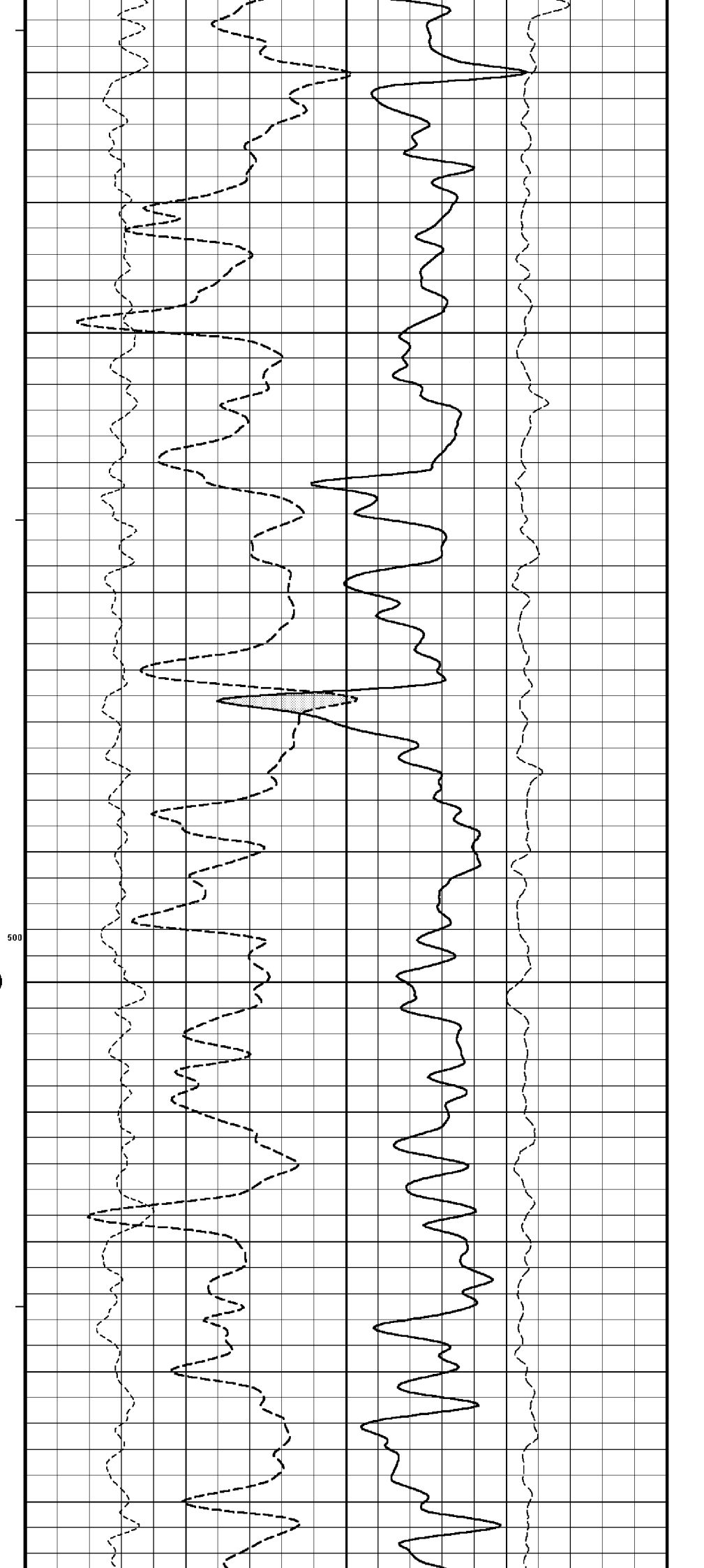
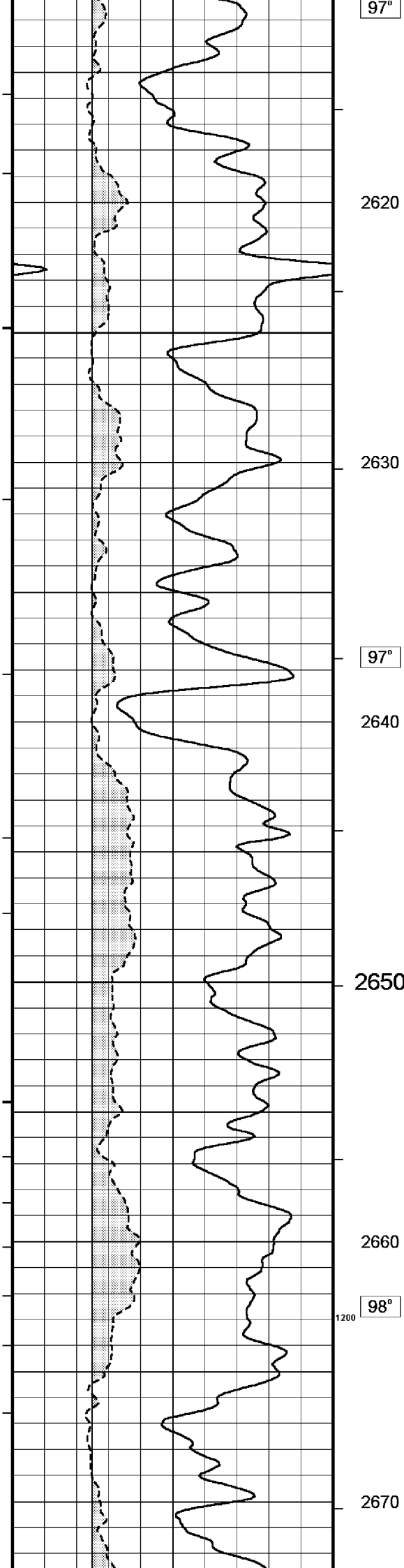
2430



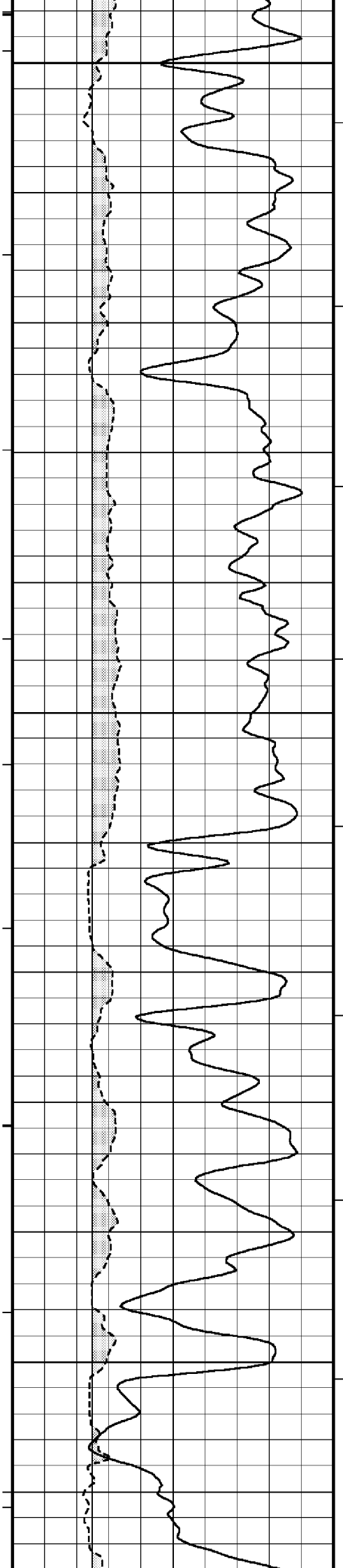












2680

98°

2690

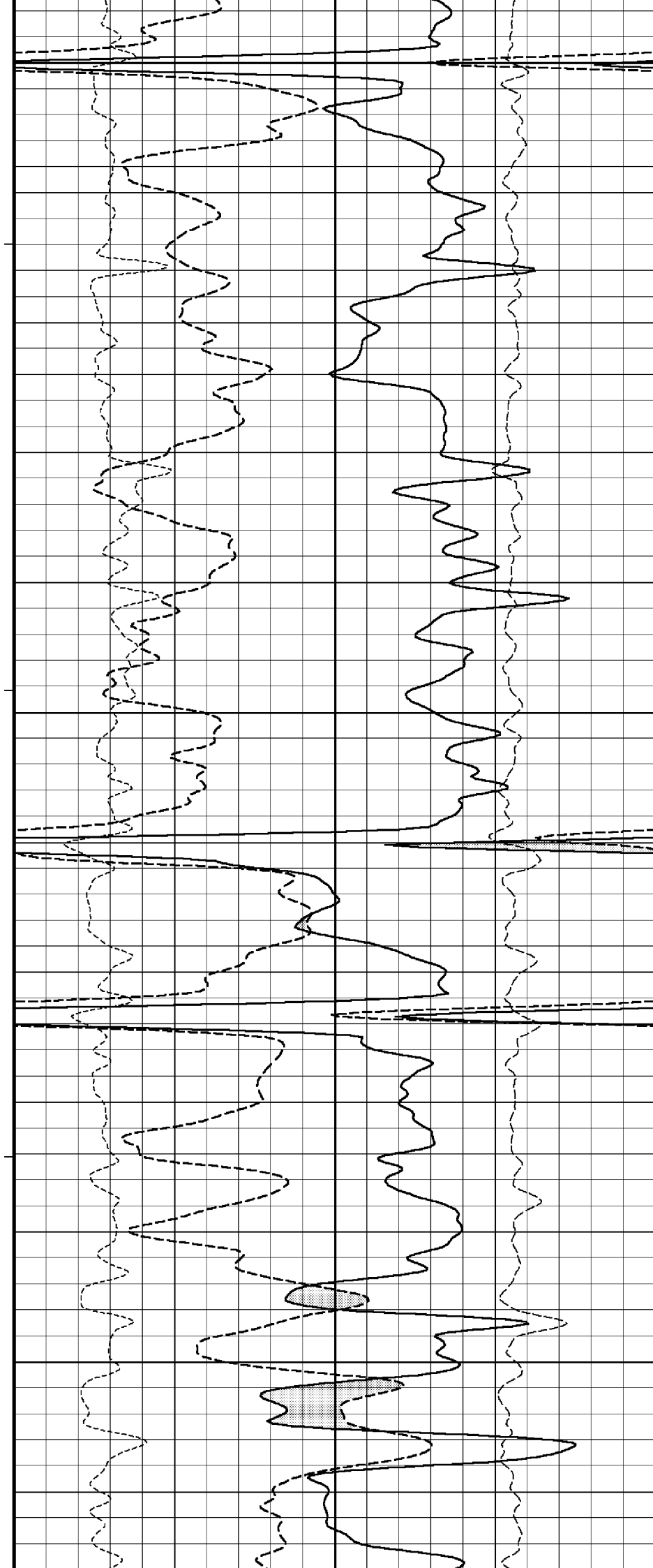
2700

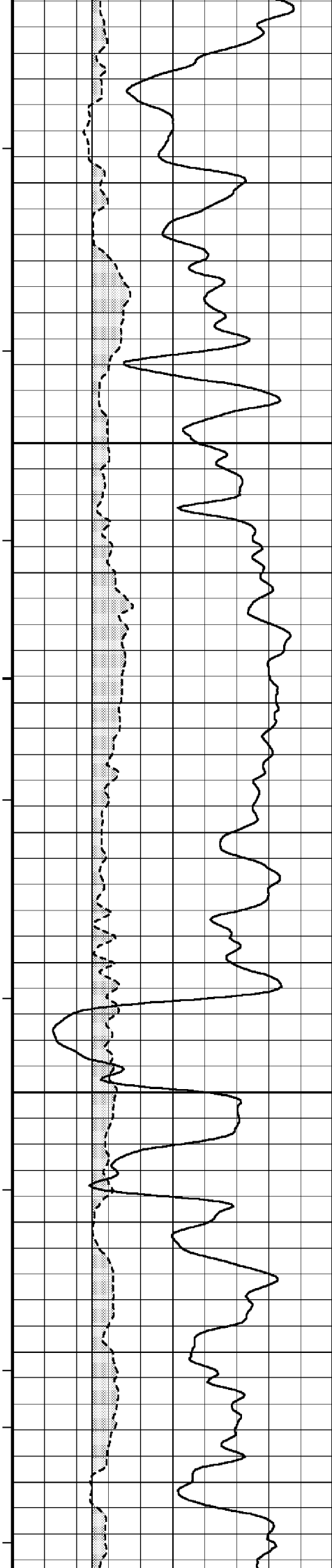
2710

99°

2720

2730





1100

99°

2740

2750

2760

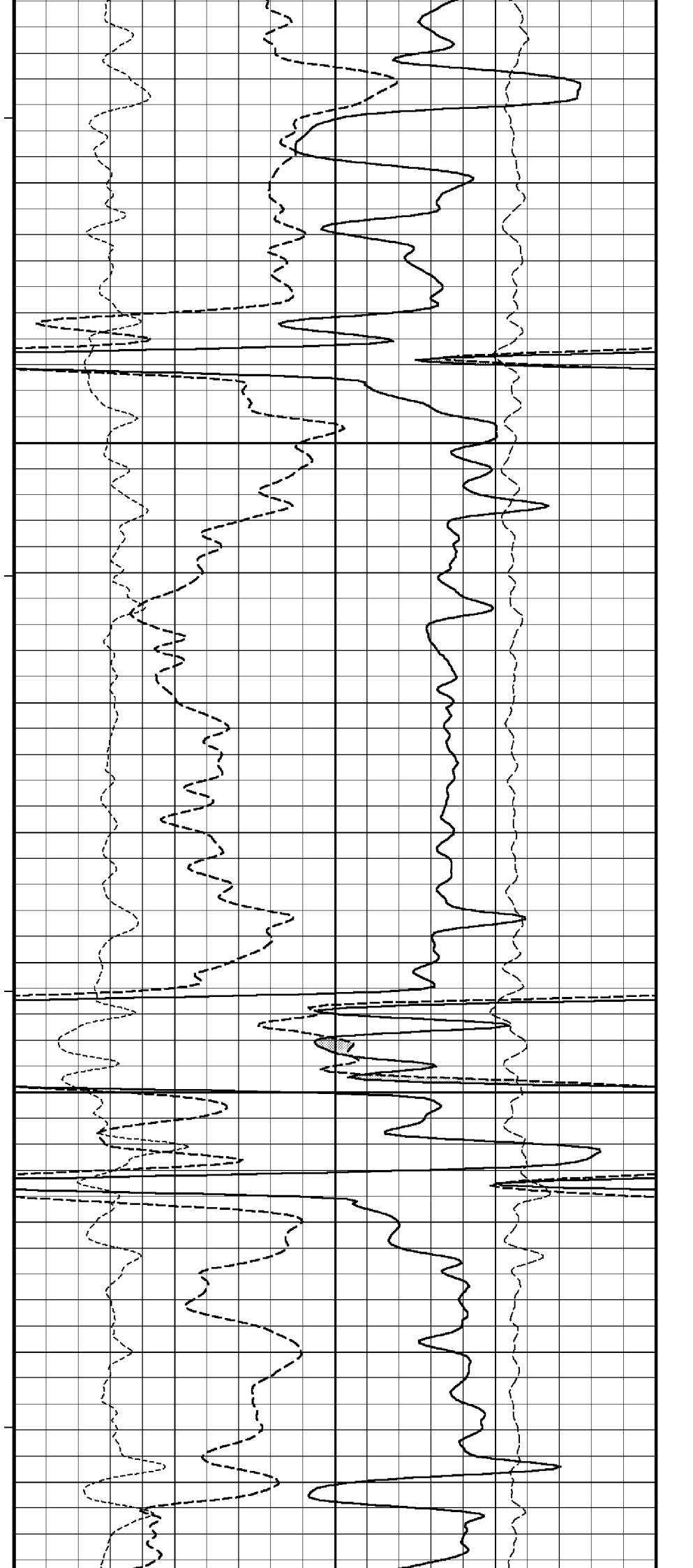
99°

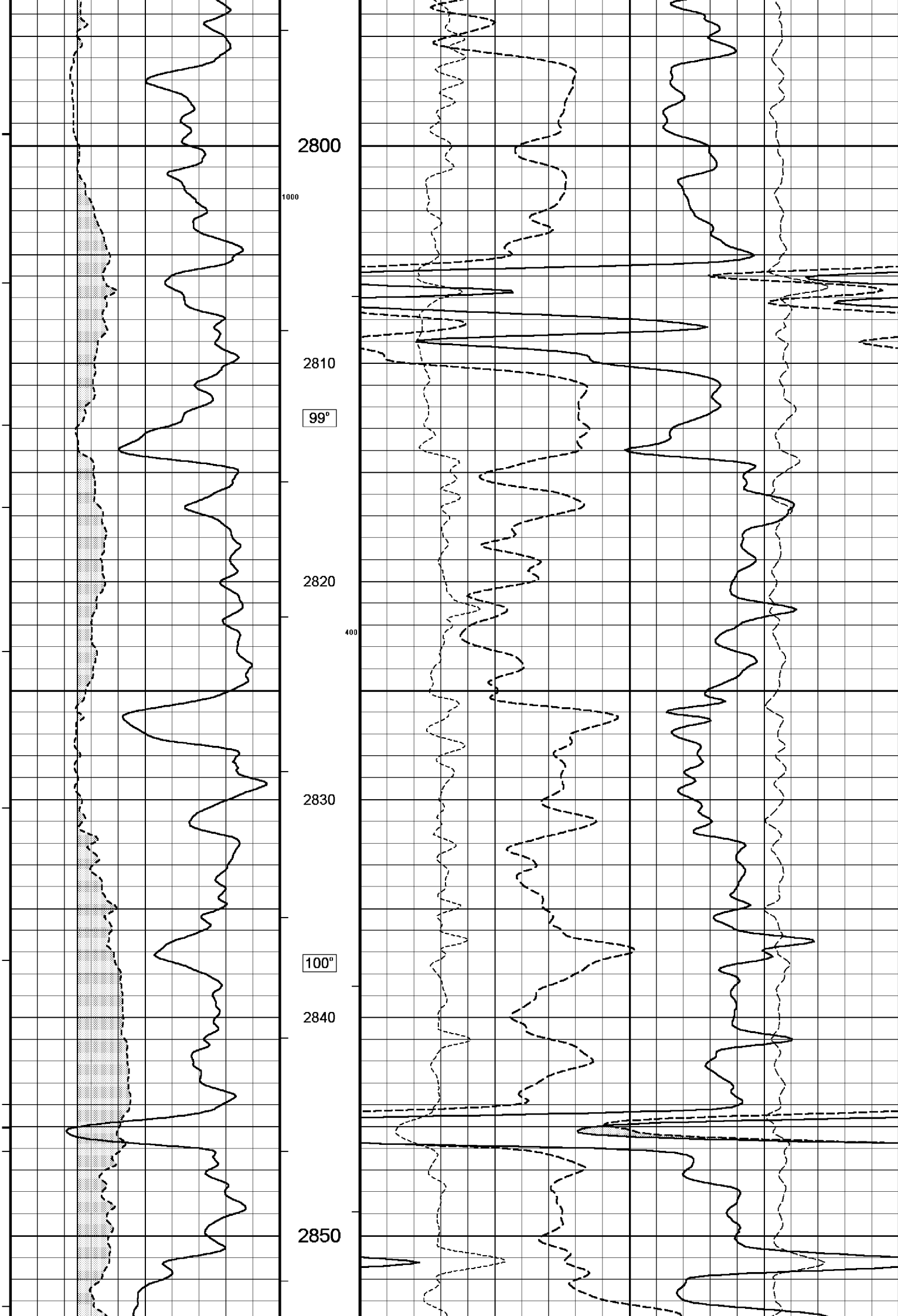
2770

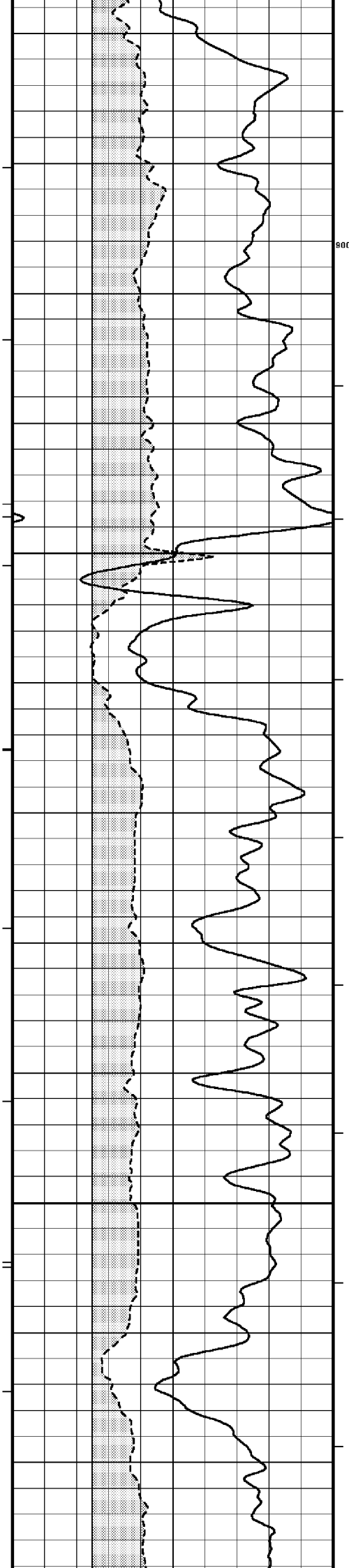
2780

99°

2790







2860

100°

2870

2880

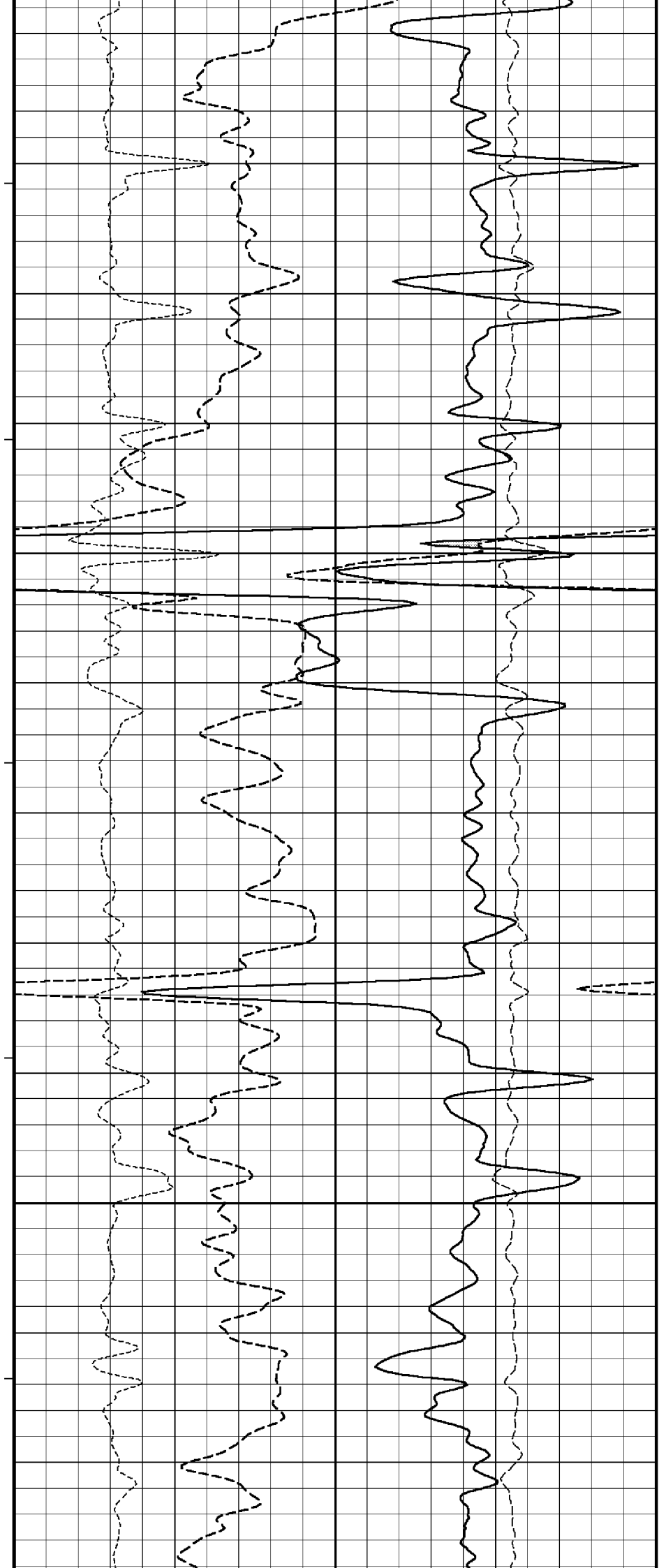
100°

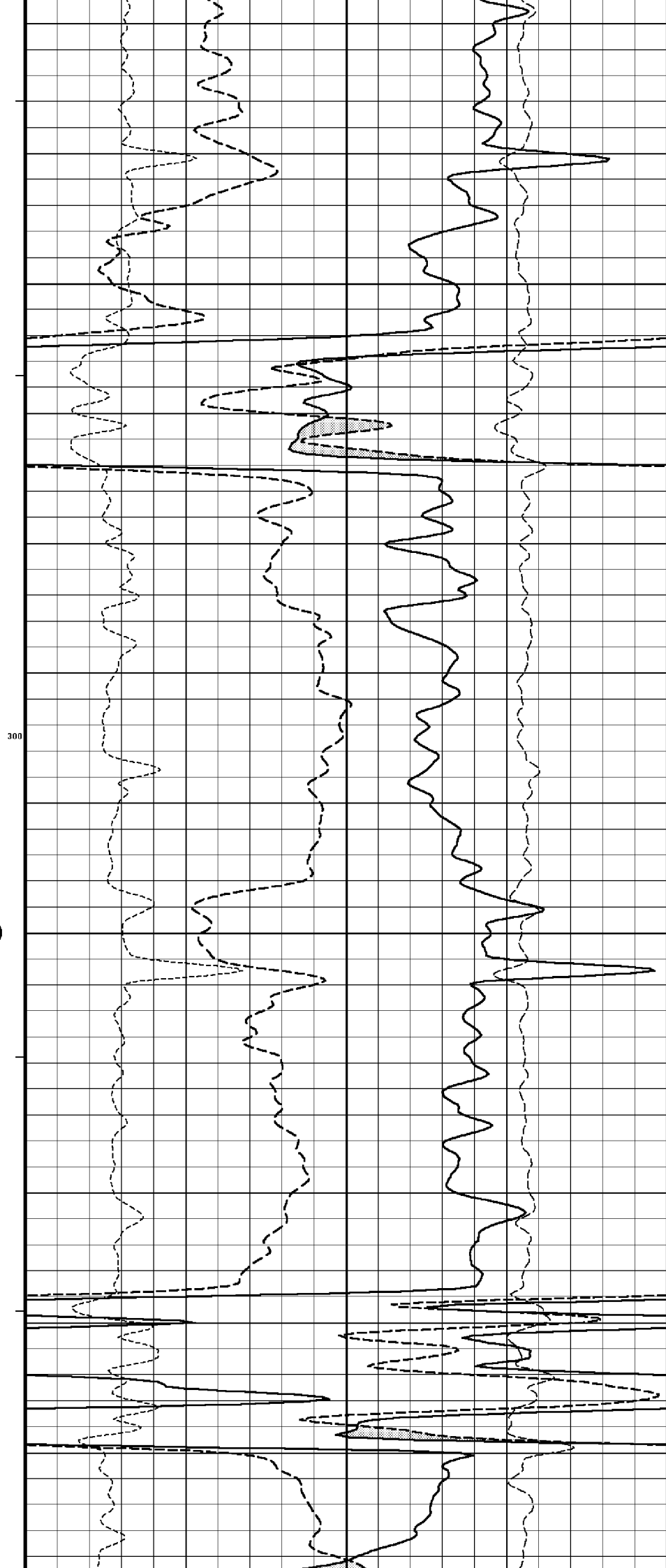
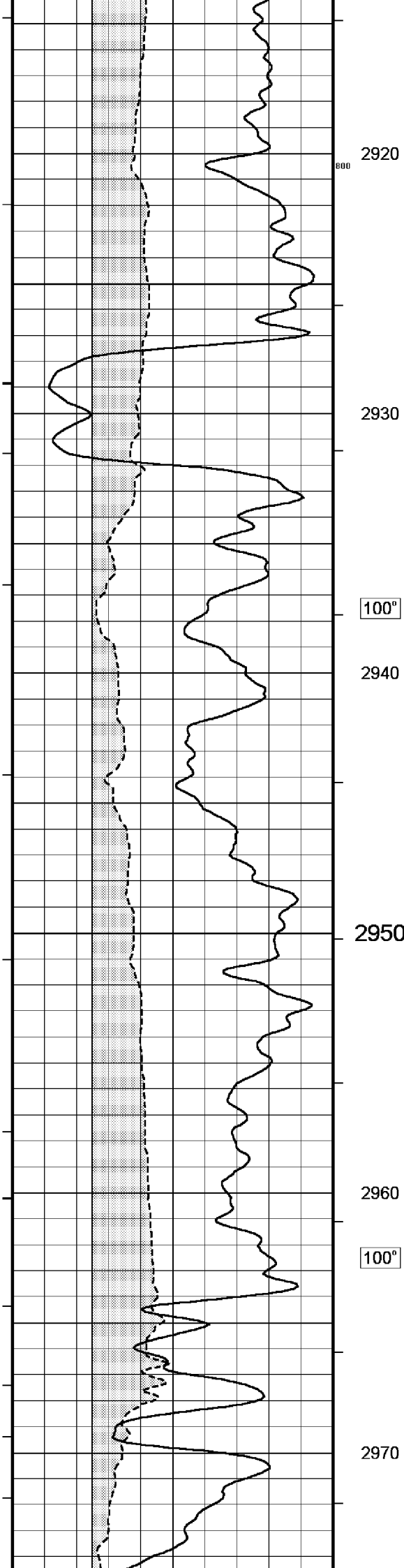
2890

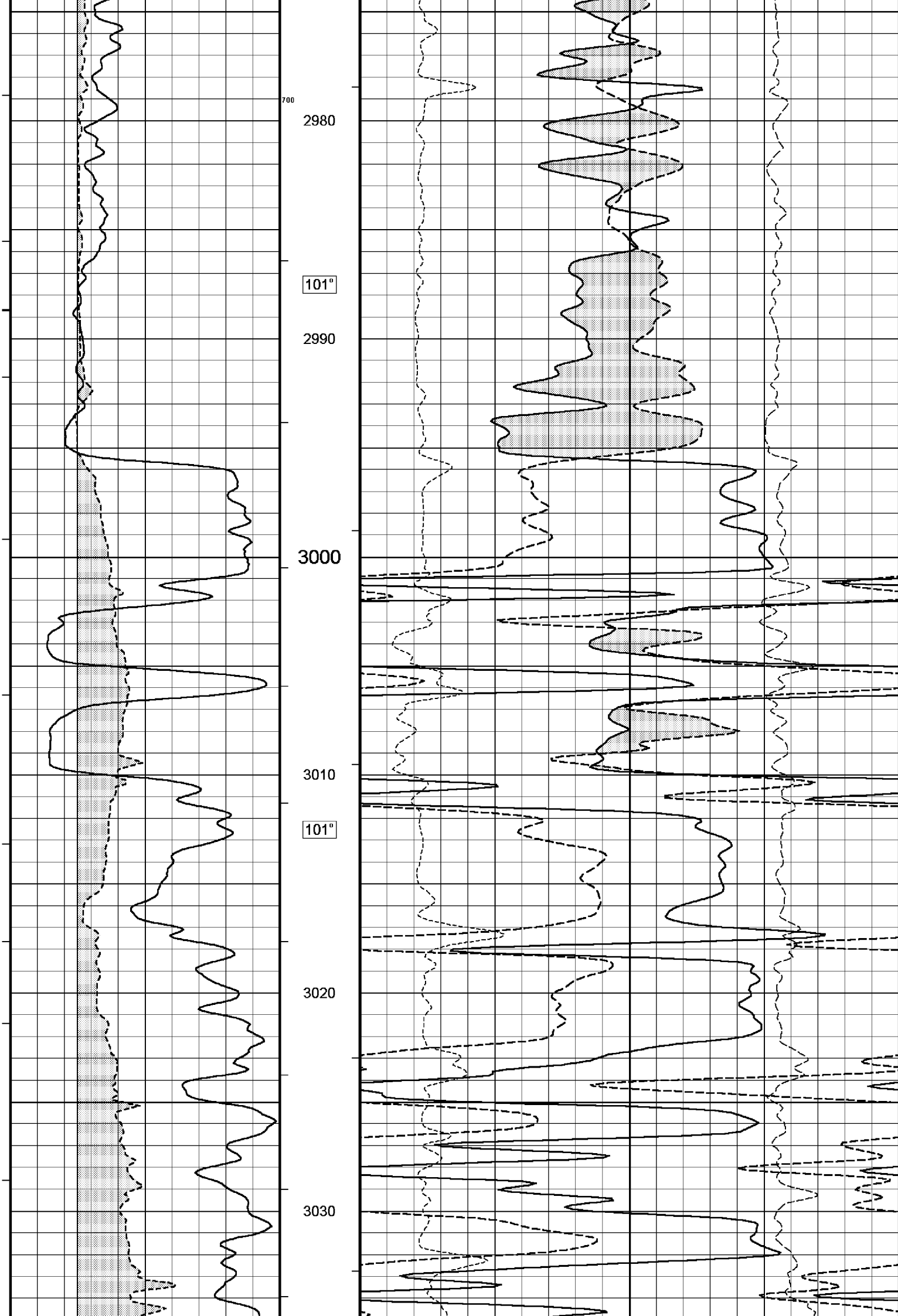
2900

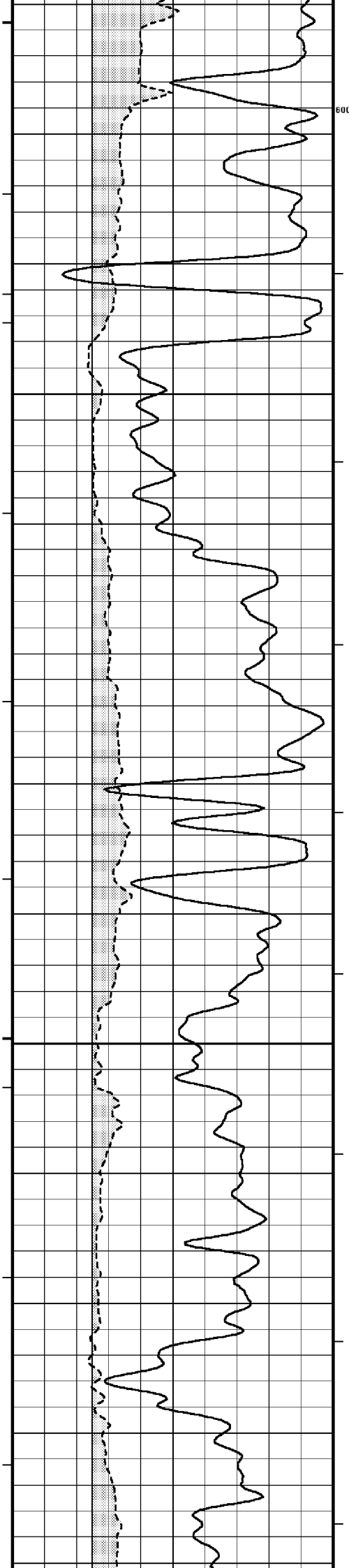
2910

100°









101°

3040

3050

3060

101°

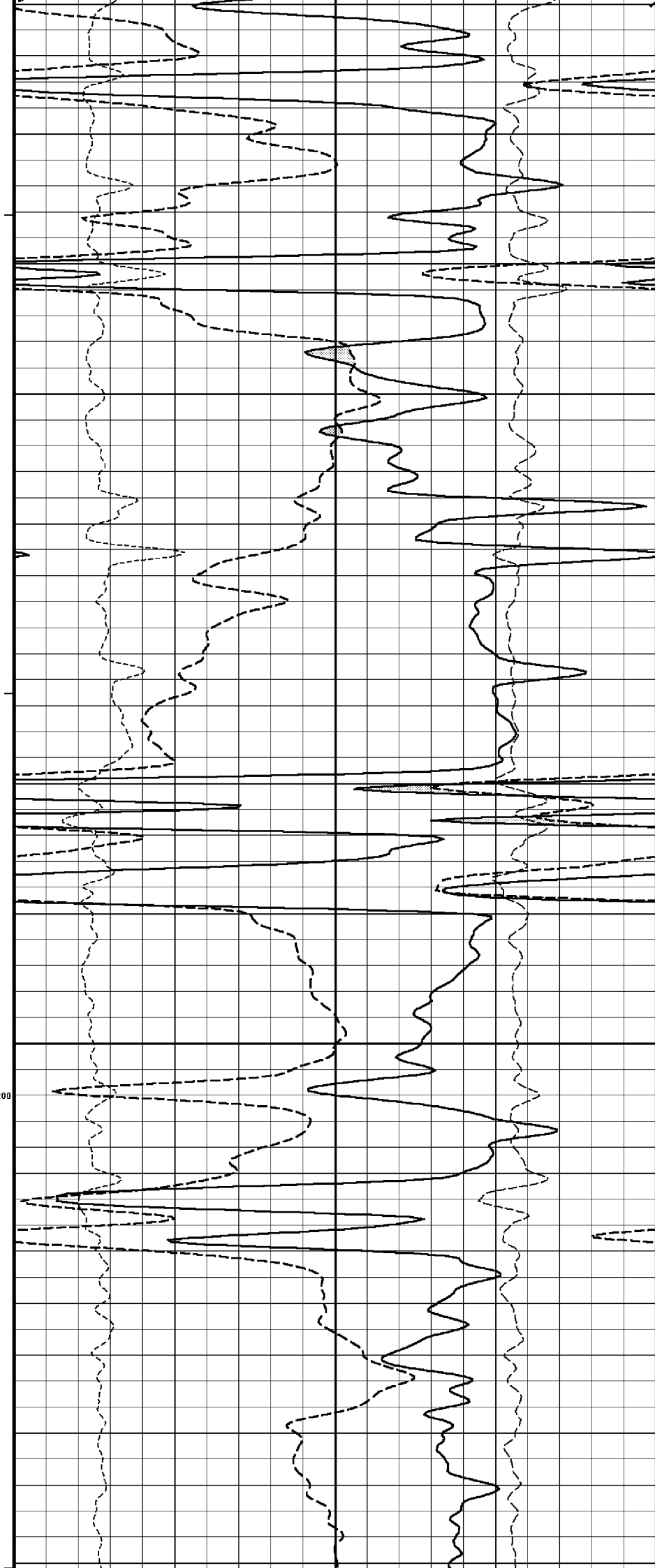
3070

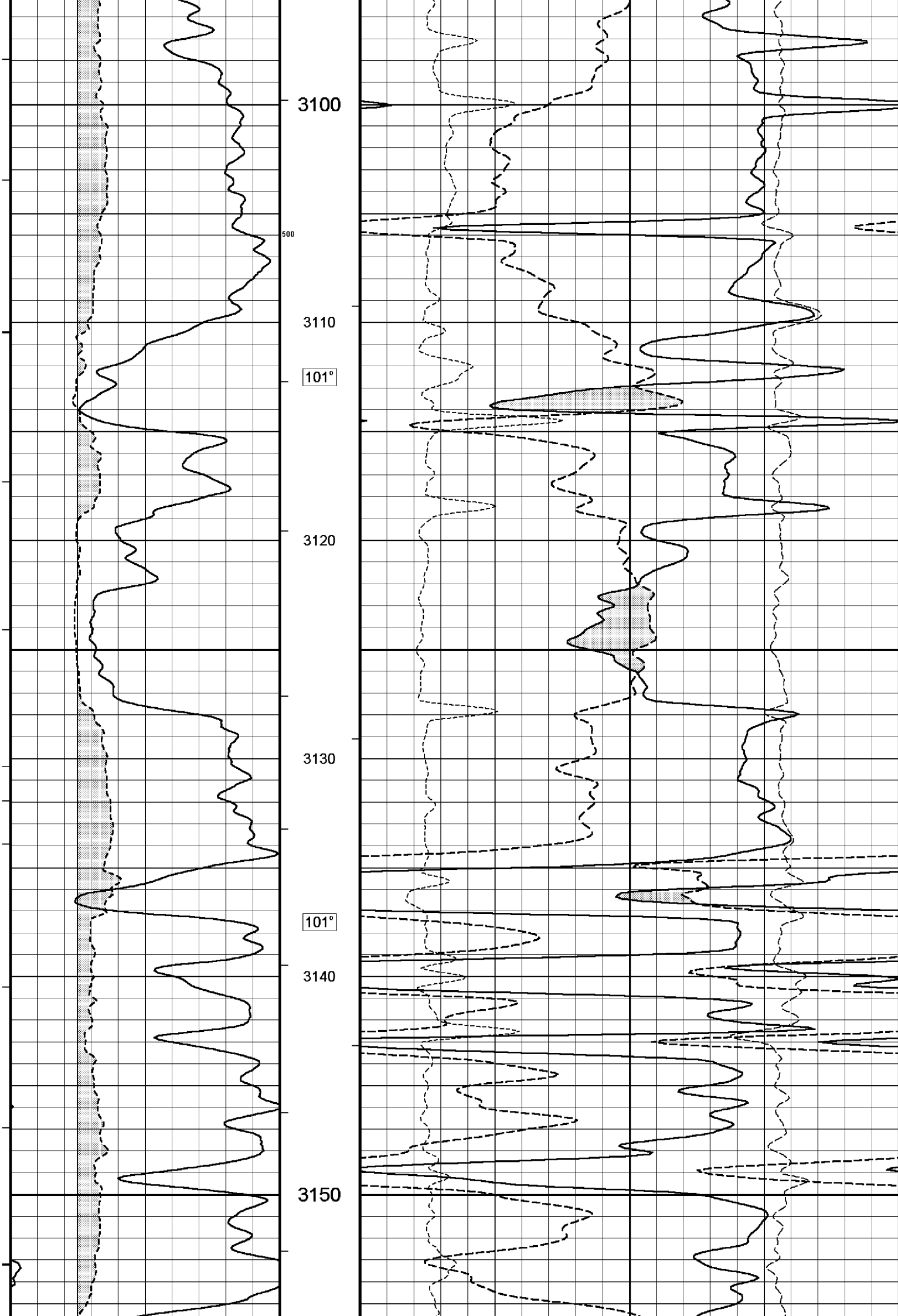
200

3080

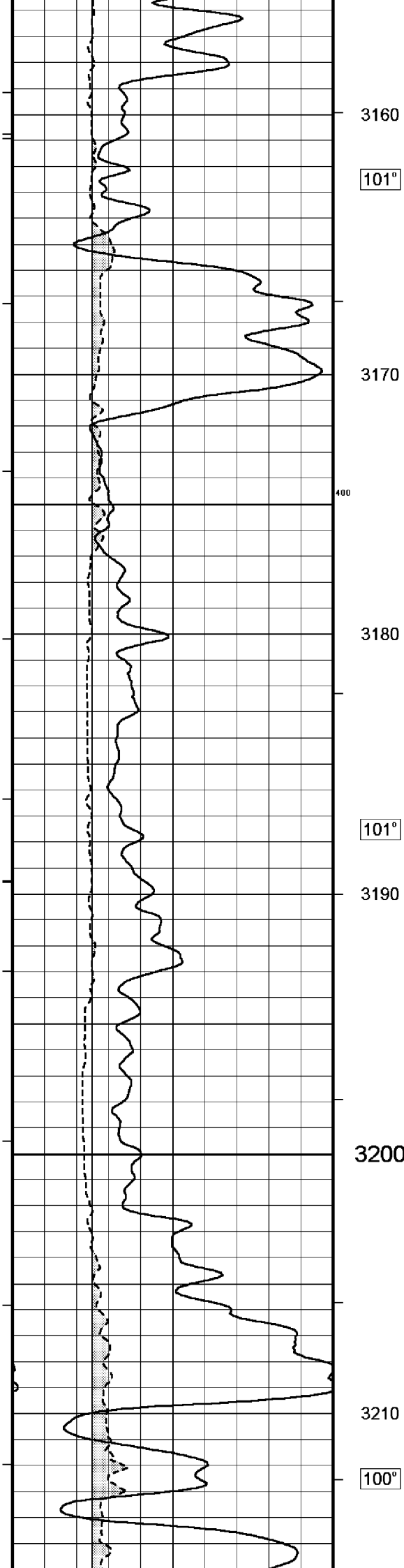
102°

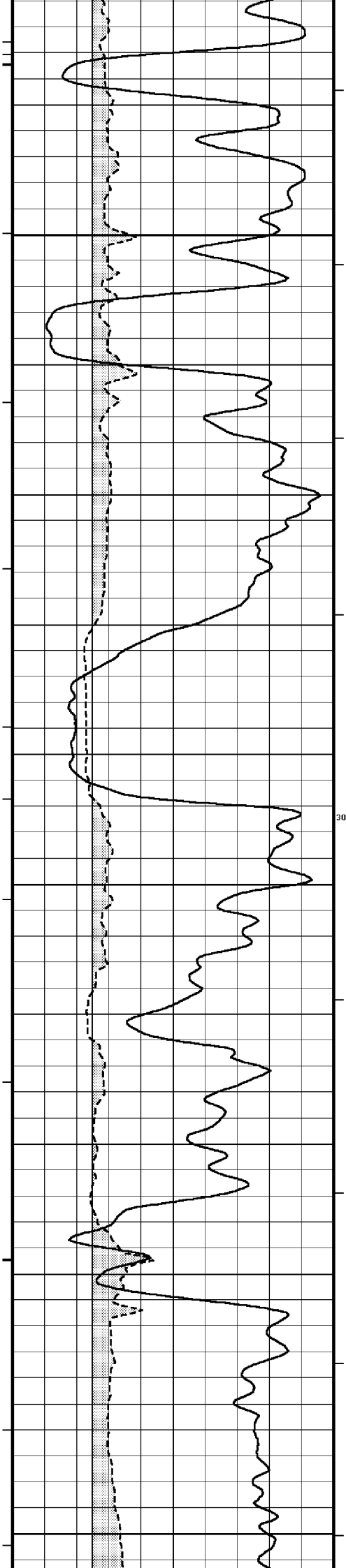
3090











3220

3230

100°

3240

300

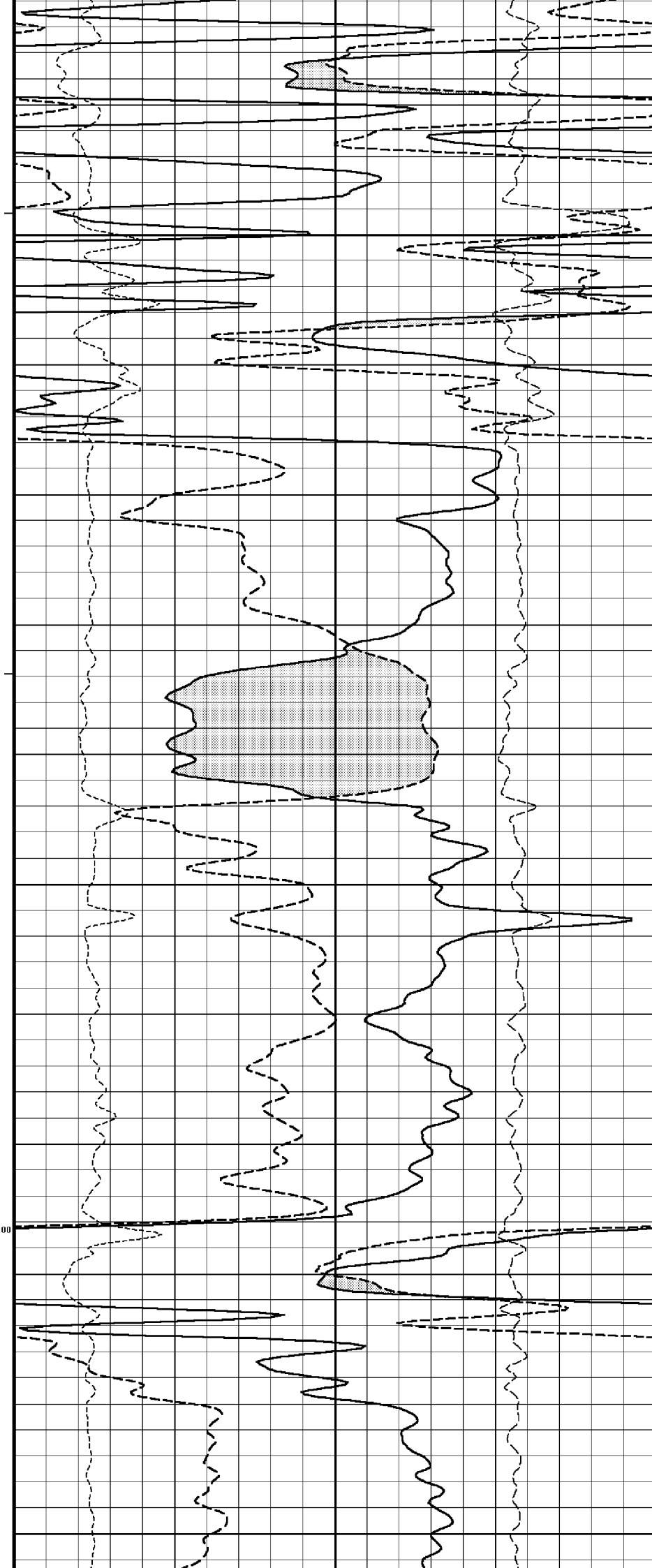
3250

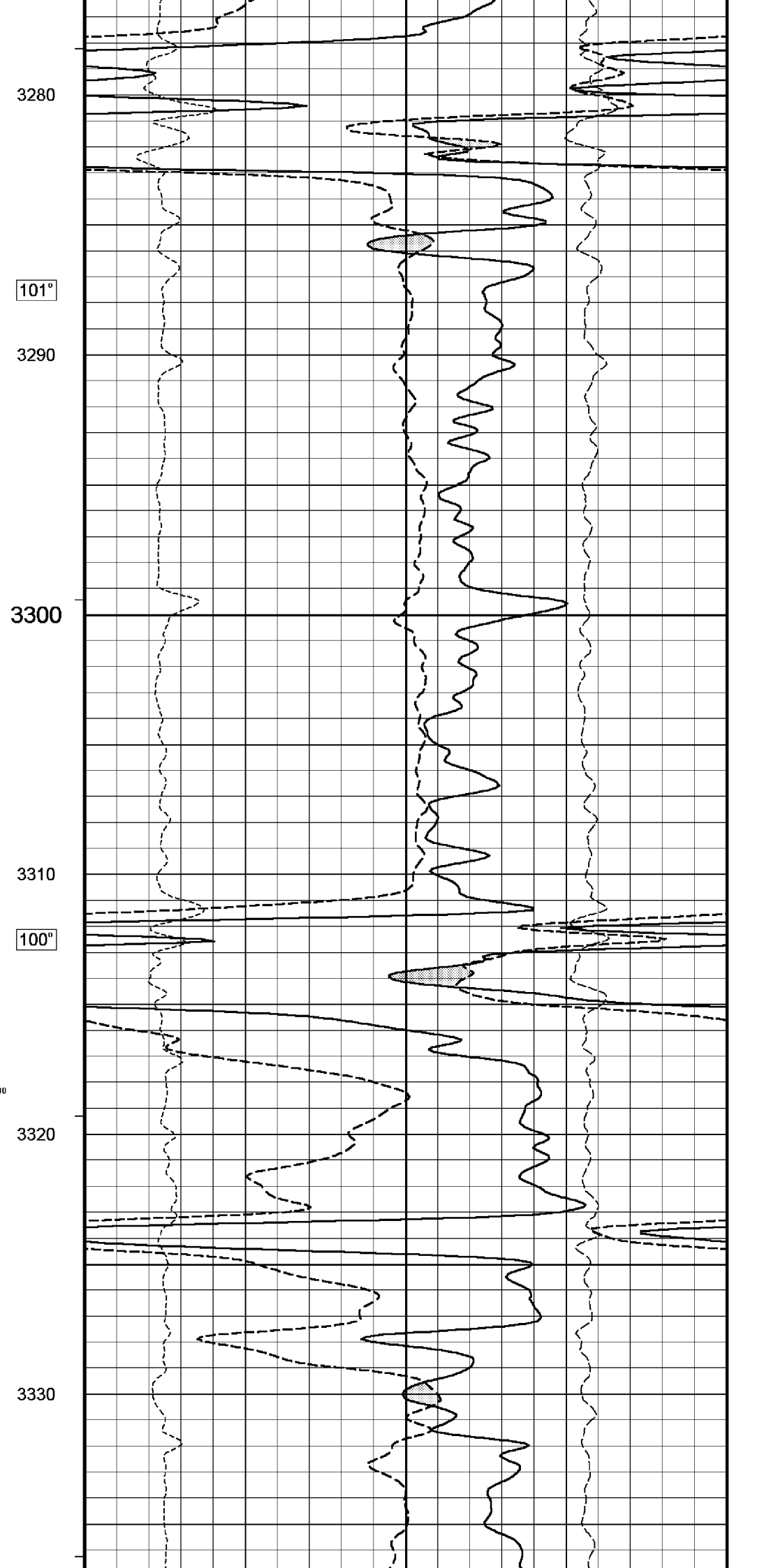
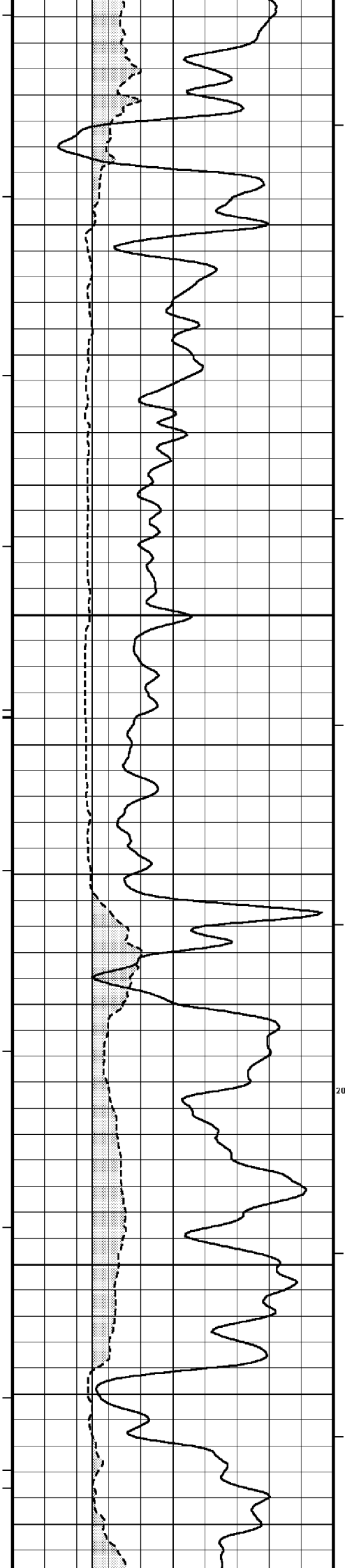
3260

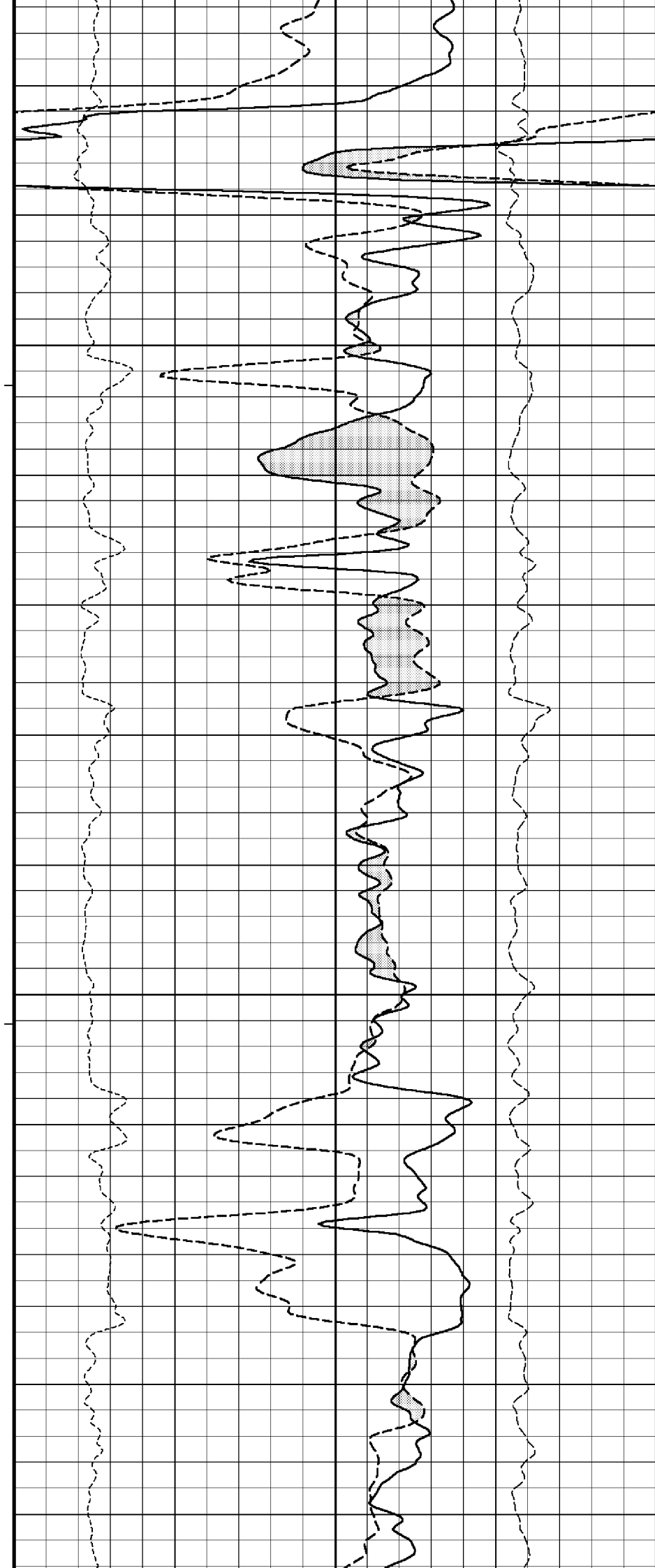
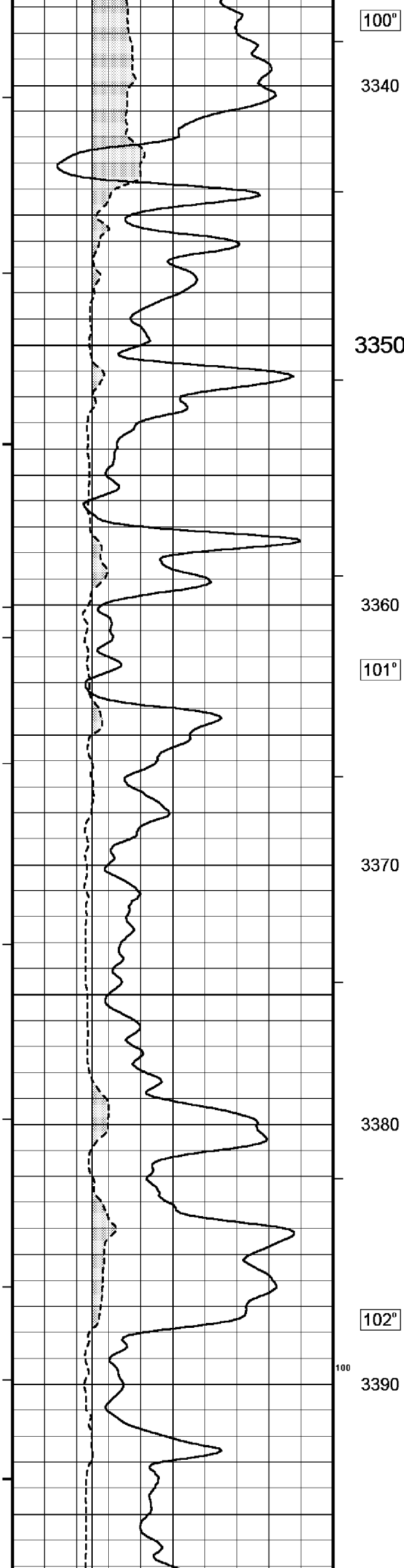
100°

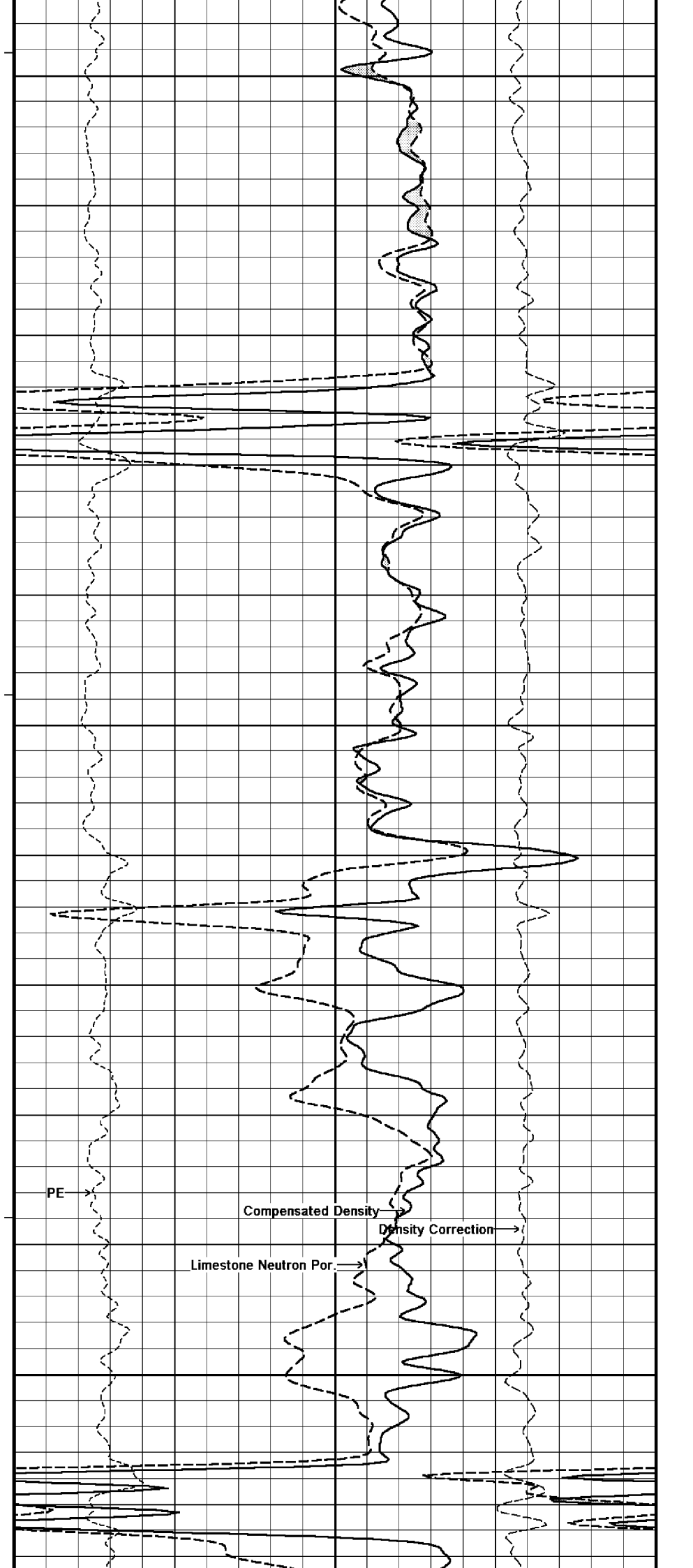
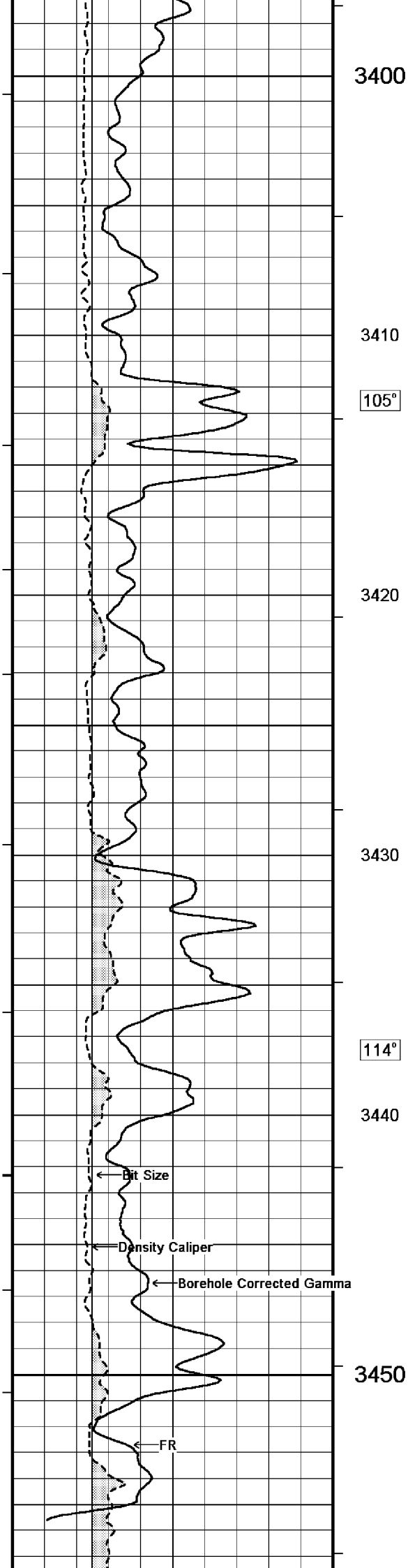
100

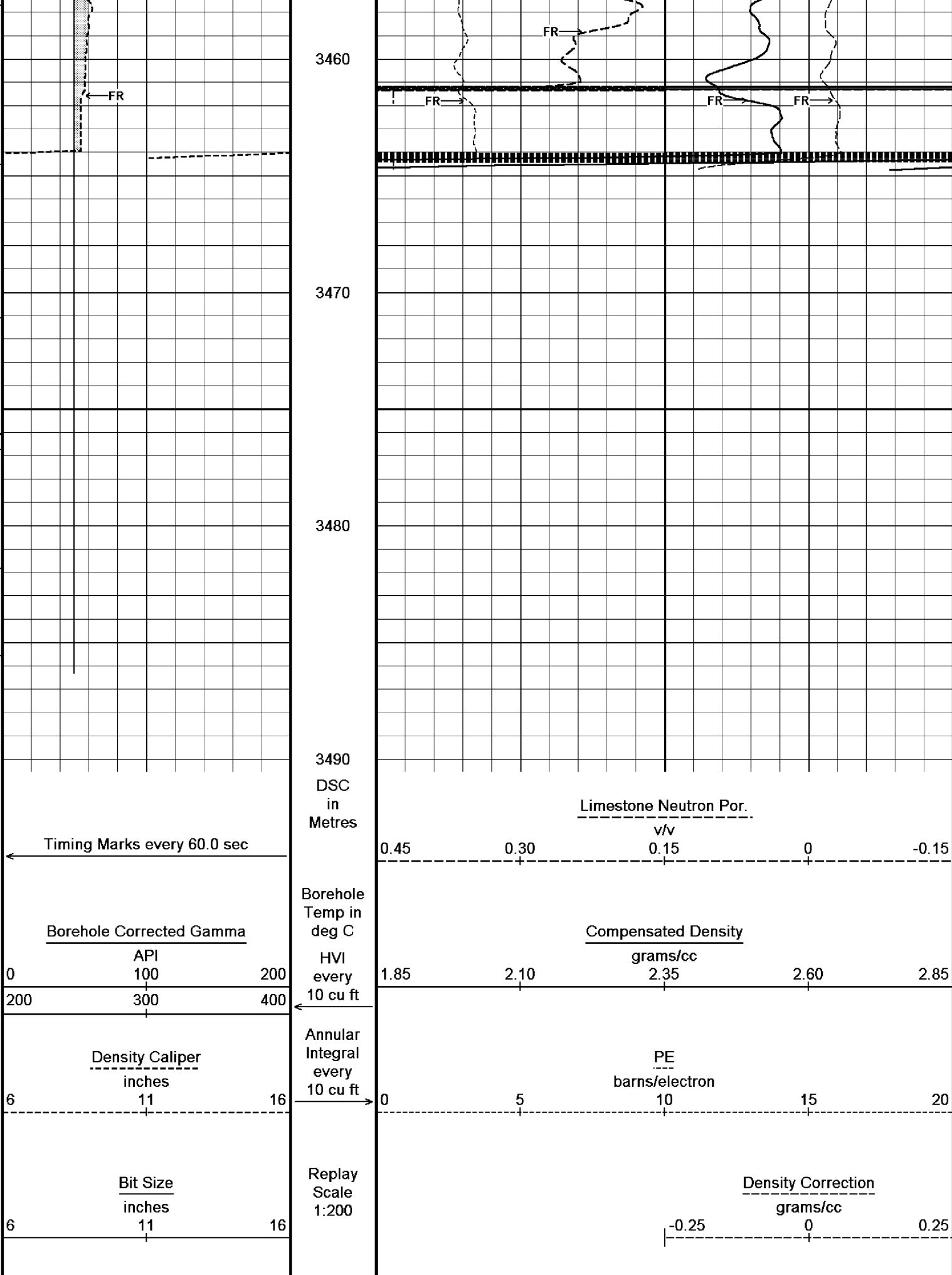
3270











Depth Based Data - Maximum Sampling Increment 10.0cm  
Filename: C:\MLA A10AST\FINALS\...MLA\_A10AST\_Main\_Log\_MPD.dta  
System Configuration Dates: Logged 09-SEP-2003; Processed 09-SEP-2003; Plotted 25-JUN-2003;  
Plotted on 03-NOV-2004 11:57  
Recorded on 16-SEP-2004 08:56

## BEFORE SURVEY CALIBRATION

C:\MLA A10AST\FINALS\BLACK AND WHITE PRESENTATIONS\MLA\_A10AST\_Main\_Log\_MPD.dta

## General Constants All 000

## General Parameters

Mud Resistivity	0.135	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	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 043

Field Calibration on 10-FEB-2004,09:37

	Measured	Calibrated(Deg C)
Lower	0.00	0.00
Upper	100.00	100.00

## High Resolution Temperature Constants MCG 043

Pre-filter Length	11
-------------------	----

## Gamma Calibration MCG 043

Field Calibration on 13-SEP-2004 17:13

	Measured	Calibrated (API)
Background	7	4
Calibrator (Gross)	1404	913
Calibrator (Net)	1397	909

## Gamma Constants MCG 043

Gamma Calibrator Number	60	
Mud Density	1.18	gm/cc
Caliper Source for Processing	Density Caliper	
Tool Position	Eccentred	
Concentration of KCl	0.00	kppm

## Neutron Calibration MDN 085

Base Calibration on 1-SEP-2004 13:09

Field Check on 13-SEP-2004 18:47

## Base Calibration

	Measured	Calibrated (cps)
	Near Far	Near Far
	3144 98	3714 110
Ratio	32.224	33.764

## Field Calibrator at Base

Calibrated (cps)
1597 2306
Ratio 0.692

## Field Check

Calibrated (cps)
1571 2298
Ratio 0.684

## Neutron Constants MDN 085

Neutron Source Id	NSN-E-739	
Neutron Jig Number	NEC-C-052	
Epithermal Neutron	No	
Caliper Source for Processing	Density Caliper	
Stand-off	0.00	inches
Mud Density	1.18	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	20.00	degrees C
Mud Salinity	48.30	kppm
Formation Fluid Salinity Source	None	
Formation Fluid Salinity	N/A	kppm
Barite Mud Correction	Not Applied	

### Caliper Calibration MPD 083

Base Calibration on 1-SEP-2004 10:37  
Field Calibration on 13-SEP-2004 18:41

#### Base Calibration

Reading No	Measured	Calibrator Size (in)
1	13072	4.01
2	21358	5.99
3	29792	7.98
4	38288	9.94
5	47695	12.01
6	N/A	N/A

#### Field Calibration

Measured Caliper (in)	Actual Caliper (in)
7.95	7.98

### Photo Density Calibration MPD 083

Base Calibration on 1-SEP-2004 10:28  
Field Check on 13-SEP-2004 18:40

#### Density Calibration

Base Calibration	Measured		Calibrated (sdu)	
	Near	Far	Near	Far
Reference 1	54422	18790	53111	19310
Reference 2	25713	2533	24951	2530

#### Field Check at Base

981.2 1133.8

#### Field Check

980.1 1130.8

#### PE Calibration

Base Calibration	WS	Measured		Calibrated Ratio
		WH	Ratio	
Background	186	847		
Reference 1	16823	54230	0.312	0.320
Reference 2	6734	25569	0.265	0.273

#### Field Check at Base

185.5 846.9

#### Field Check

186.9 844.2

### Density Constants MPD 083

Density Source Id	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	1.18	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	

### DOWNHOLE EQUIPMENT

C:\MLA A10AST\FINALS\BLACK AND WHITE PRESENTATIONS\MLA\_A10AST\_Main\_Log\_MPD.dta



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

Compact Knuckle Joint  
SKJ 111    Length: 0.66 m    Weight: 24.3 lb

Compact Battery Sub.  
MBS 99    Length: 4.34 m    Weight: 88.2 lb

Compact Inline Standoff B  
MIS 144    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 142    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 141    Length: 0.65 m    Weight: 15.4 lb

Thrid Bridle MBE 20  
MLK 111    Length: 3.76 m    Weight: 94.8 lb

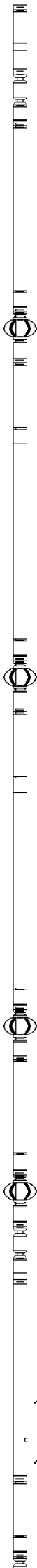
Compact Inline Standoff B  
MIS 140    Length: 0.65 m    Weight: 15.4 lb

Compact Knuckle Joint  
SKJ 110    Length: 0.66 m    Weight: 24.3 lb

Compact Gamma  
MCG 43    Length: 2.65 m    Weight: 63.9 lb

Compact Memory Sub.  
MMS 24    Length: 0.95 m    Weight: 22.0 lb

Compact Knuckle Joint



31.38 m    GGCE - Borehole Corrected Gamma  
30.50 m    CGXT - MCG External Temperature

SKJ 100 Length: 0.66 m Weight: 24.3 lb

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

Compact Inline Bowspring A  
MIS 94 Length: 1.74 m Weight: 33.1 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

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

Compact Knuckle Joint  
SKJ 102 Length: 0.66 m Weight: 24.3 lb

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

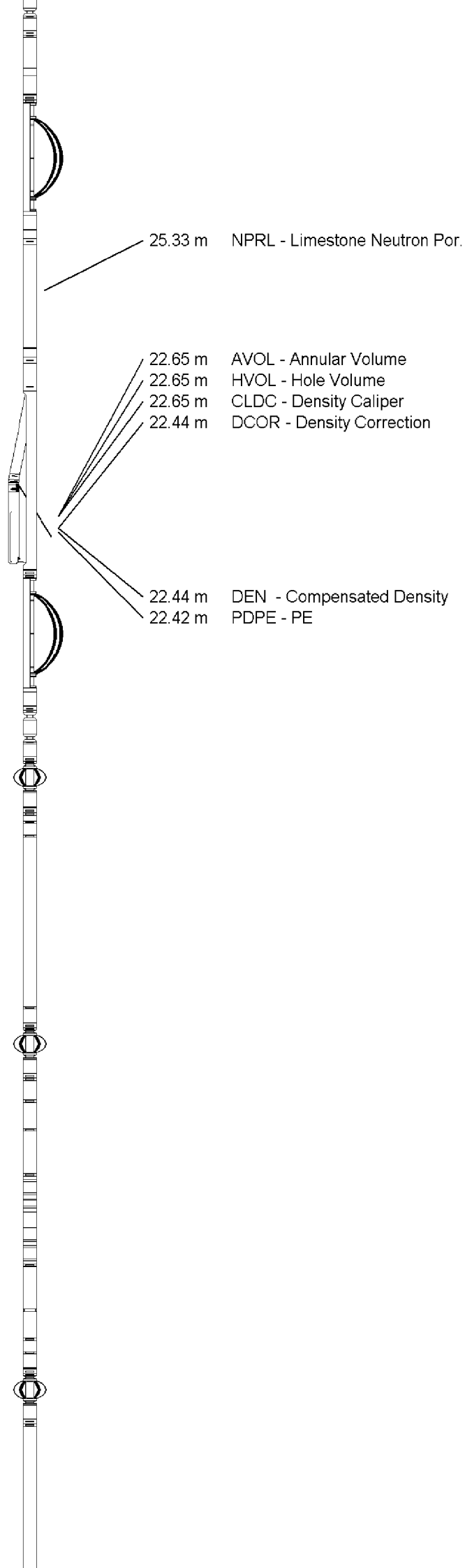
Compact Upper Guard Sub.  
MUG 5 Length: 2.74 m Weight: 68.3 lb

Compact Inline Standoff B  
MIS 136 Length: 0.65 m Weight: 15.4 lb

Compact Laterolog Electrode Sub.  
MLE 17 Length: 3.76 m Weight: 92.6 lb

Compact Inline Standoff B  
MIS 133 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 130 Length: 0.65 m Weight: 15.4 lb

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

Compact Inline Standoff B  
MIS 132 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 3 Length: 0.40 m Weight: 6.6 lb

Total Length: 53.77 m Weight: 1298.5 lb



COMPANY Esso Australia Pty Ltd  
WELL Marlin A10a ST  
FIELD Turrum  
PROVINCE/COUNTY Bass Strait  
COUNTRY/STATE Australia

Elevation Kelly Bushing	metres	First Reading	3479.45	metres
Elevation Drill Floor 27.91	metres	Depth Driller	3491.00	metres
Elevation Ground Level -59.00	metres	Depth Logger	3484.50	metres

**Reeves**  
**Compact**

PHOTO DENSITY  
COMPENSATED NEUTRON  
1:200 MD