



**Compact**

**COMPENSATED SONIC**

**1:500 MD**

COMPANY **ESSO AUSTRALIA PTY LTD**

WELL **BREAM A6A**

FIELD **BREAM**

PROVINCE/COUNTY **BASS STRAIT**

COUNTRY/STATE **AUSTRALIA**

LOCATION **38DEG 29' 58.784"S 147DEG 46' 20.421" E**

**5738461 490 N 567347.120 E** **FIELD PRINT**

LSD SEC TWP RGE Other Services  
DUAL LATEROLOG

API Number PHOTO DENSITY  
Permit Number COMPENSATED NEUTRON

Permanent Datum MSL , Elevation 0.0 metres

Log Measured From RT @ 32.82 M above Permanent Datum

Drilling Measured From RT Elevations: KB 32.82 metres  
DF -59.40 metres  
GL metres

Date 14-FEB-2006

Run Number ONE metres

Depth Driller 3256.00 metres

Depth Logger 3253.00 metres

First Reading 3246.00 metres

Last Reading 850.50 metres

Casing Driller 850.50 metres

Casing Logger 850.50 metres

Bit Size 8.50 inches

Hole Fluid Type KCL/GYL/POLY

Density / Viscosity 10.05 lb/USg 59.00 CP

PH / Fluid Loss 9.30 2.90

Sample Source FLOWLINE

Rm @ Measured Temp 0.108 @ 25.0 ohm-m

Rmf @ Measured Temp 0.086 @ 25.0 ohm-m

Rmc @ Measured Temp 0.153 @ 25.0 ohm-m

Source Rmf / Rmc PRESS ohm-m

Rm @ BHT 0.046 @ 88.0 ohm-m

Time Since Circulation 45.3 hrs

Max Recorded Temp 91.20 deg C

Equipment Name 5" CWS/CML

Equipment / Base 1 SALE

Recorded By R. TENCH, B. MOSS

Witnessed By TREVOR LOBO

CIRC STOPPED 12:10 12/02

**BOREHOLE RECORD**

Bit Size inches	Depth From metres	Depth To metres
8.500	850.50	3256.00

**CASING RECORD**

Type	Size inches	Depth From metres	Shoe Depth metres	Weight pounds/ft
K-55	10.750	0.00	850.50	40.50

**REMARKS**

RIG: NABORS 453

5" SHUTTLE/MEMORY COMPACT OPERATION.  
CREW: R TENCH , B MOSS , B GOODWIN, M KOLCZE.

FIELD FINAL LOGS TO BE CORRELATED TO ANADRILL GAMMA LOG.

MAX. TEMPERATURE: 91.2 DEG C AT 3211.7 m MD  
MAX. INCLINATION: 68.2 DEG AT 1656.24m MD  
MAX. DOGLEG SERVERITY: 7.6 DEG/30m AT 881.48 m MD  
DEPLOYMENT ANGLE: 67.28 DEG

HVOL: 5444 FT^3  
AVOL: 3342 FT^3

HVOL (TO 2200mMD): 2015 FT^3  
AVOL (TO 2200mMD): 1106 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



# MAIN LOG 1:500



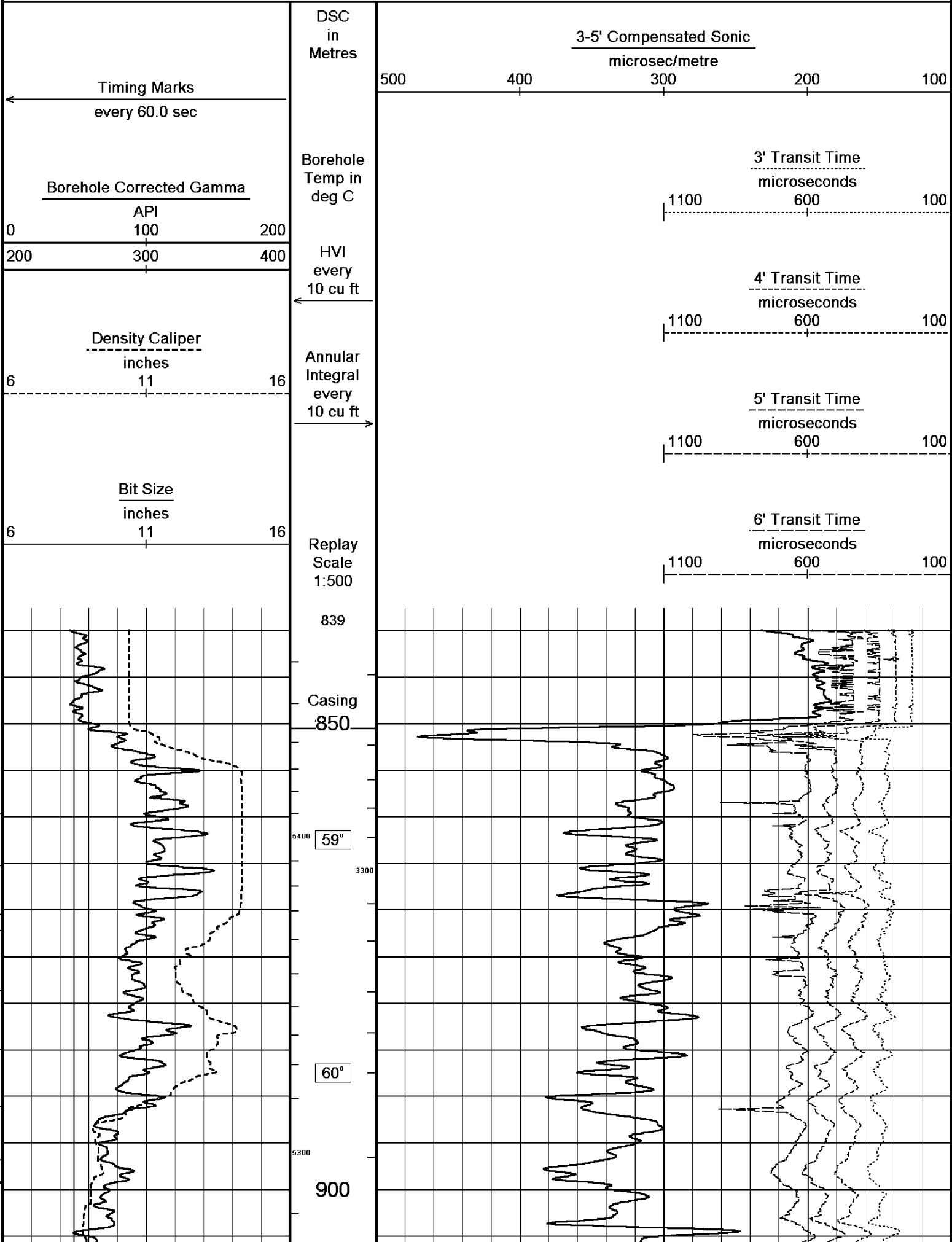
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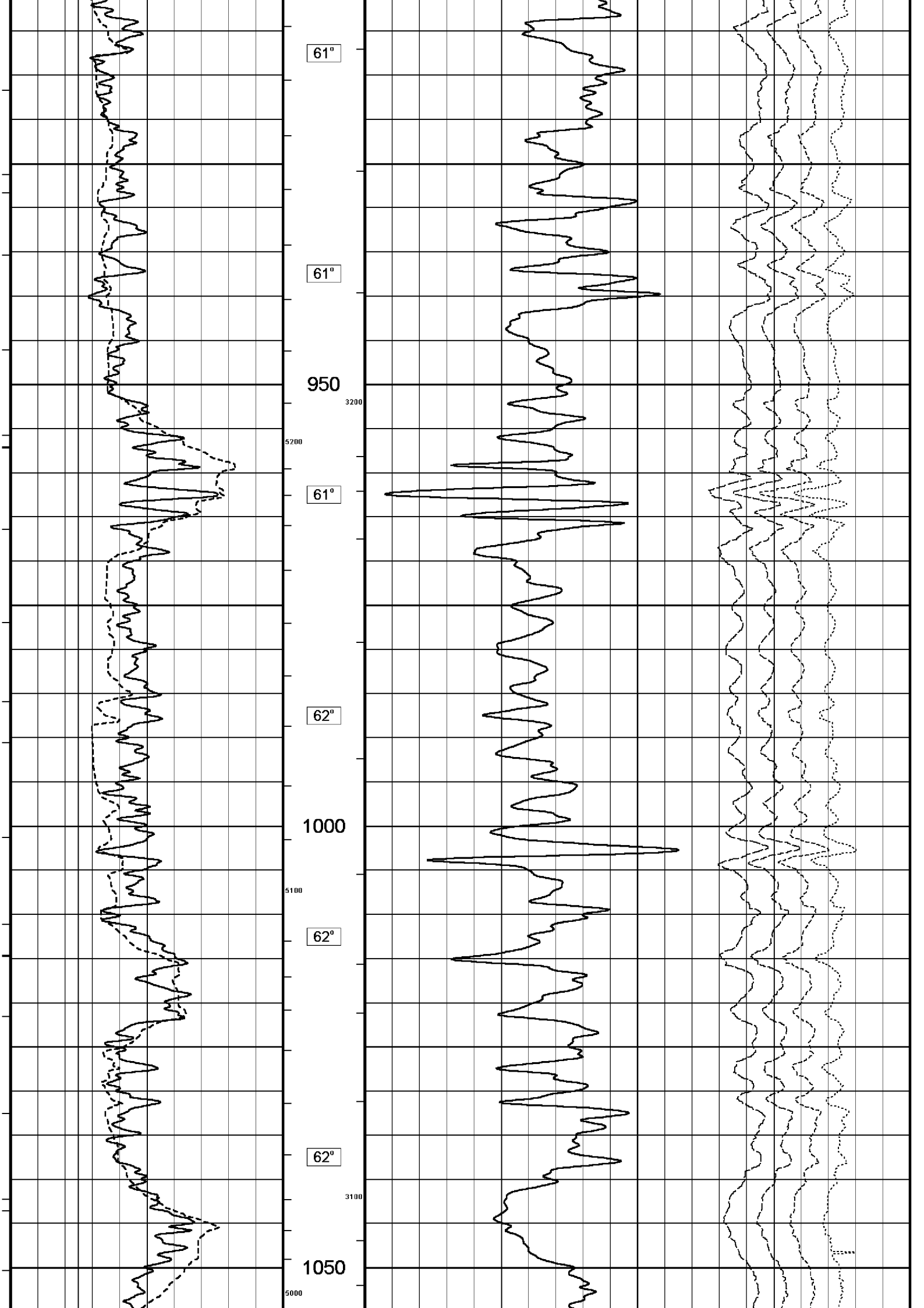
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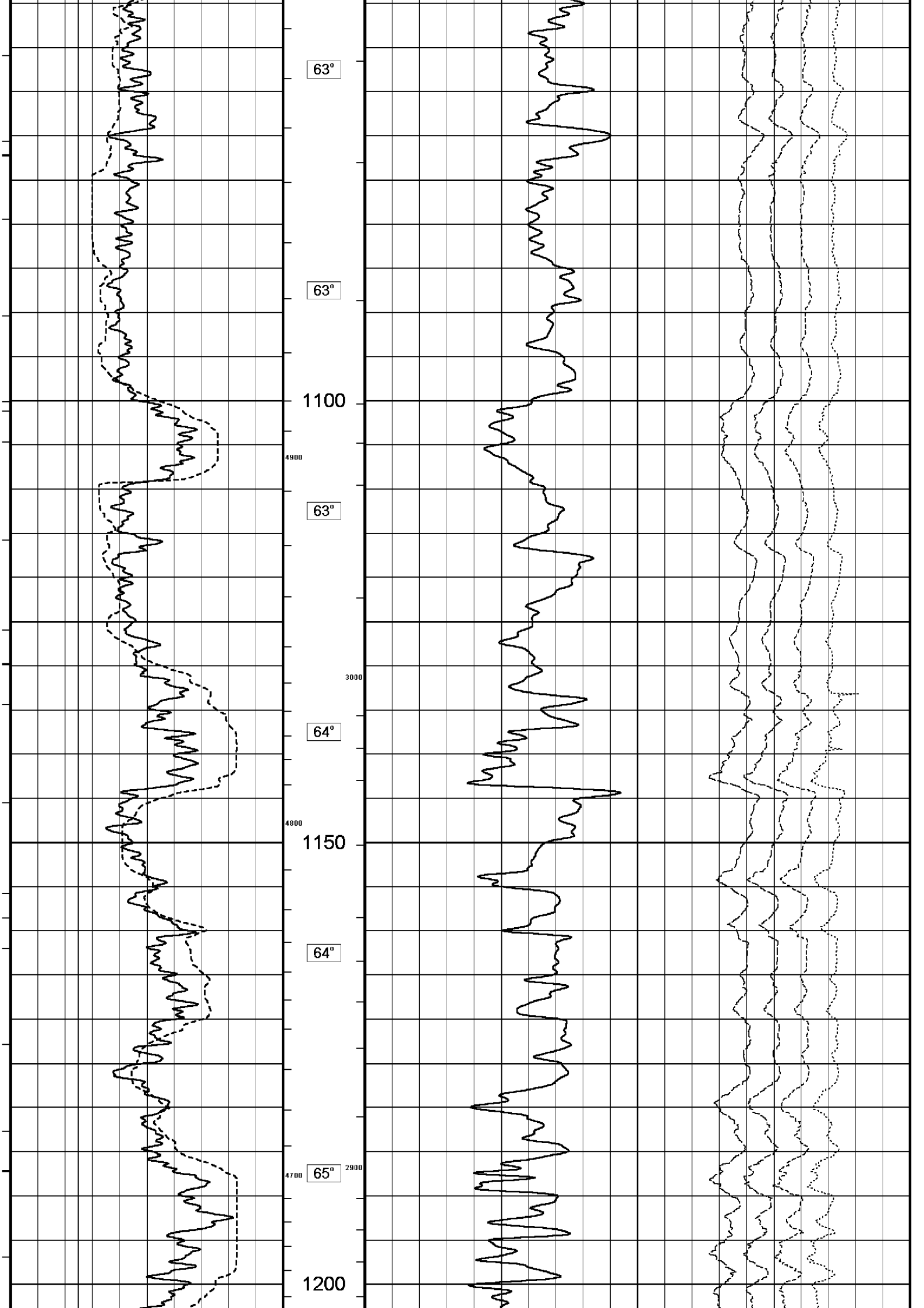
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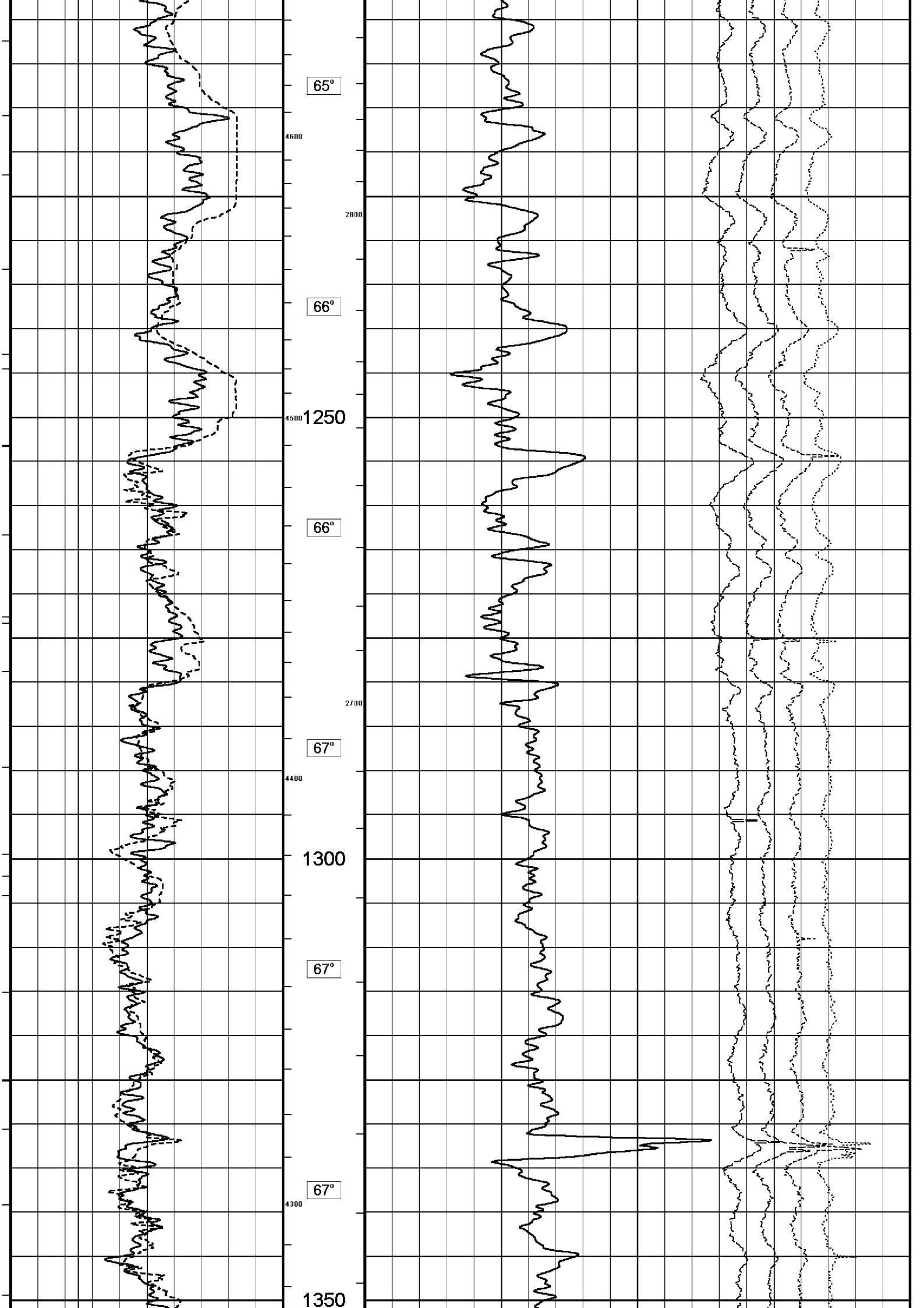
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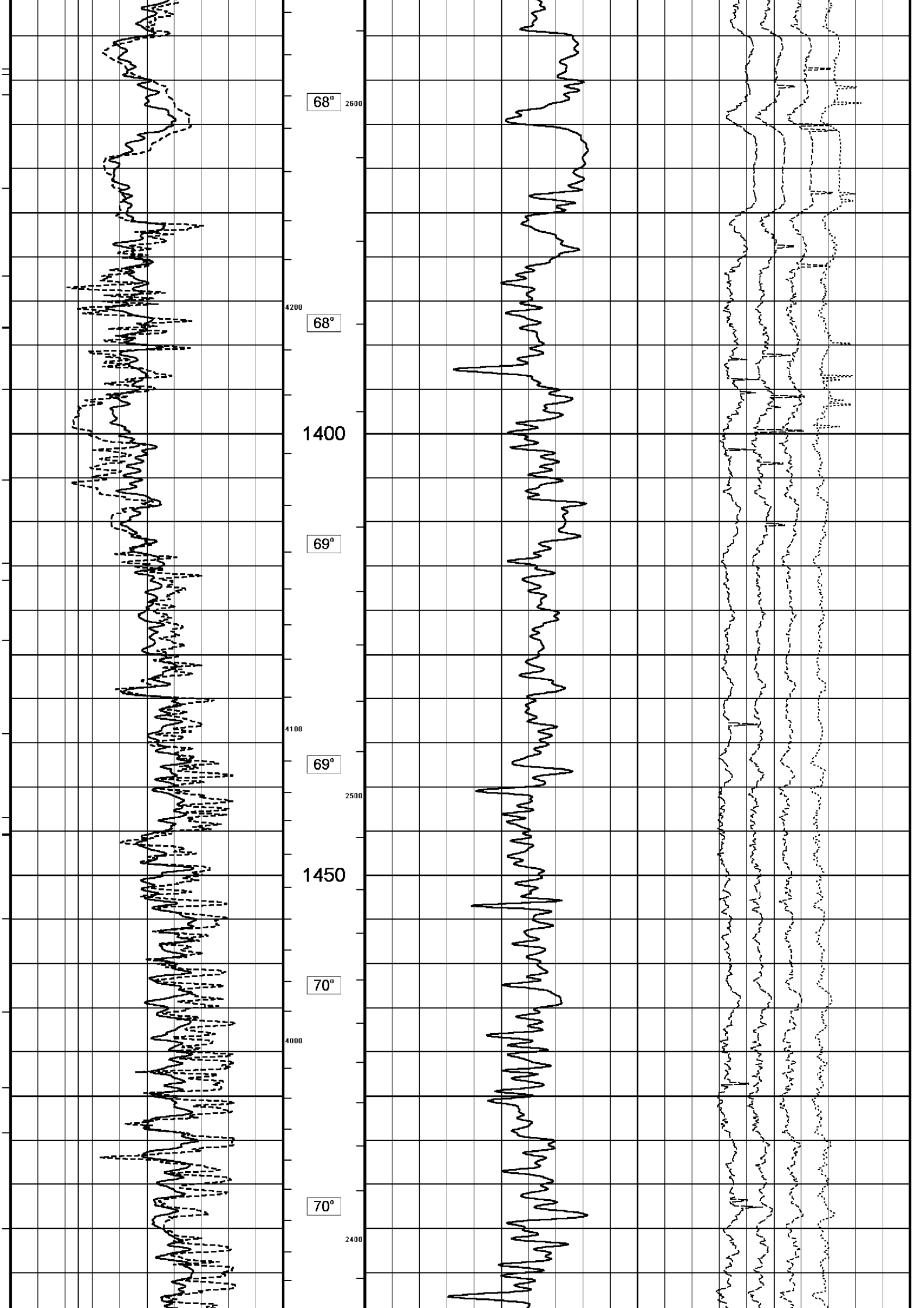
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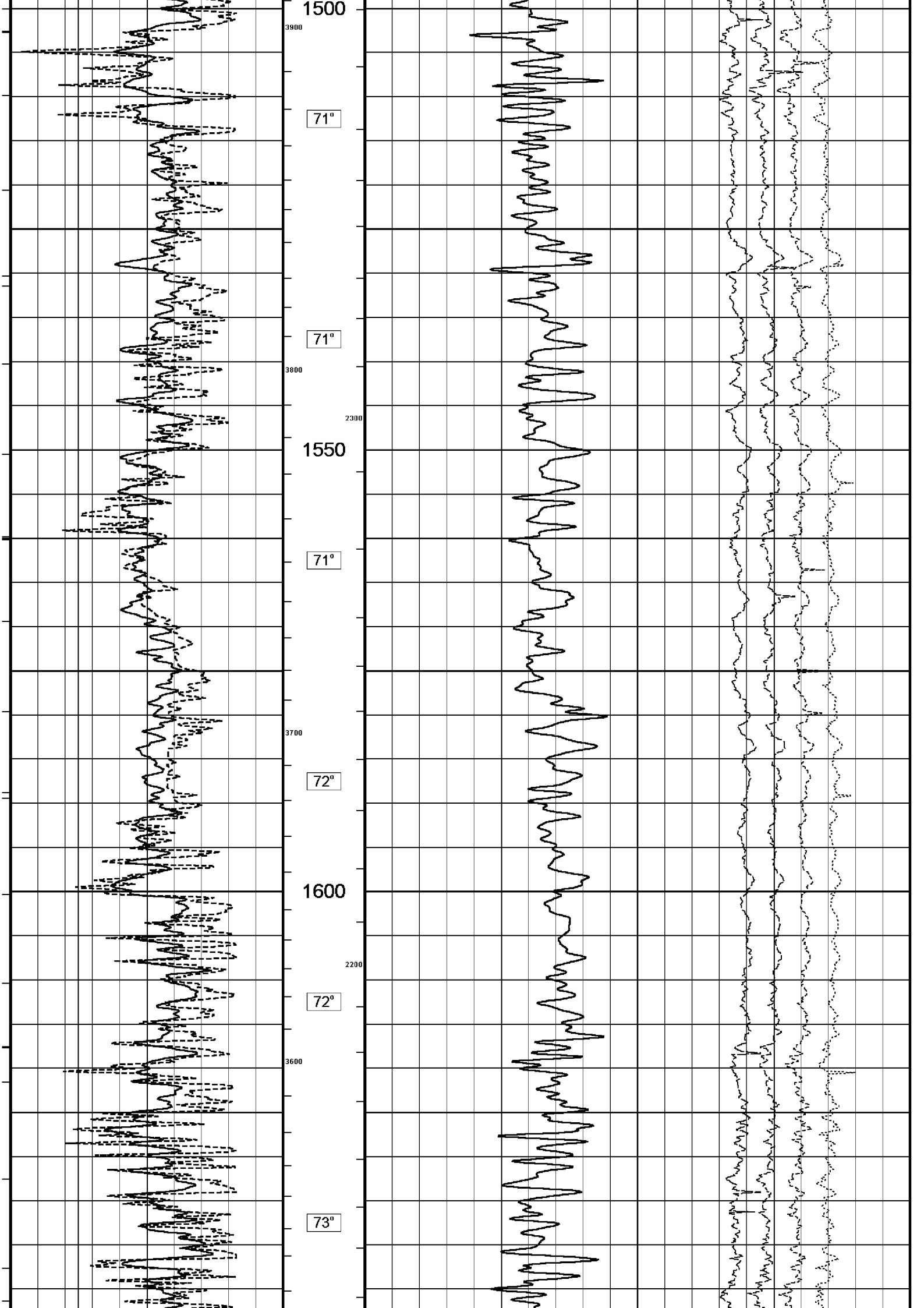


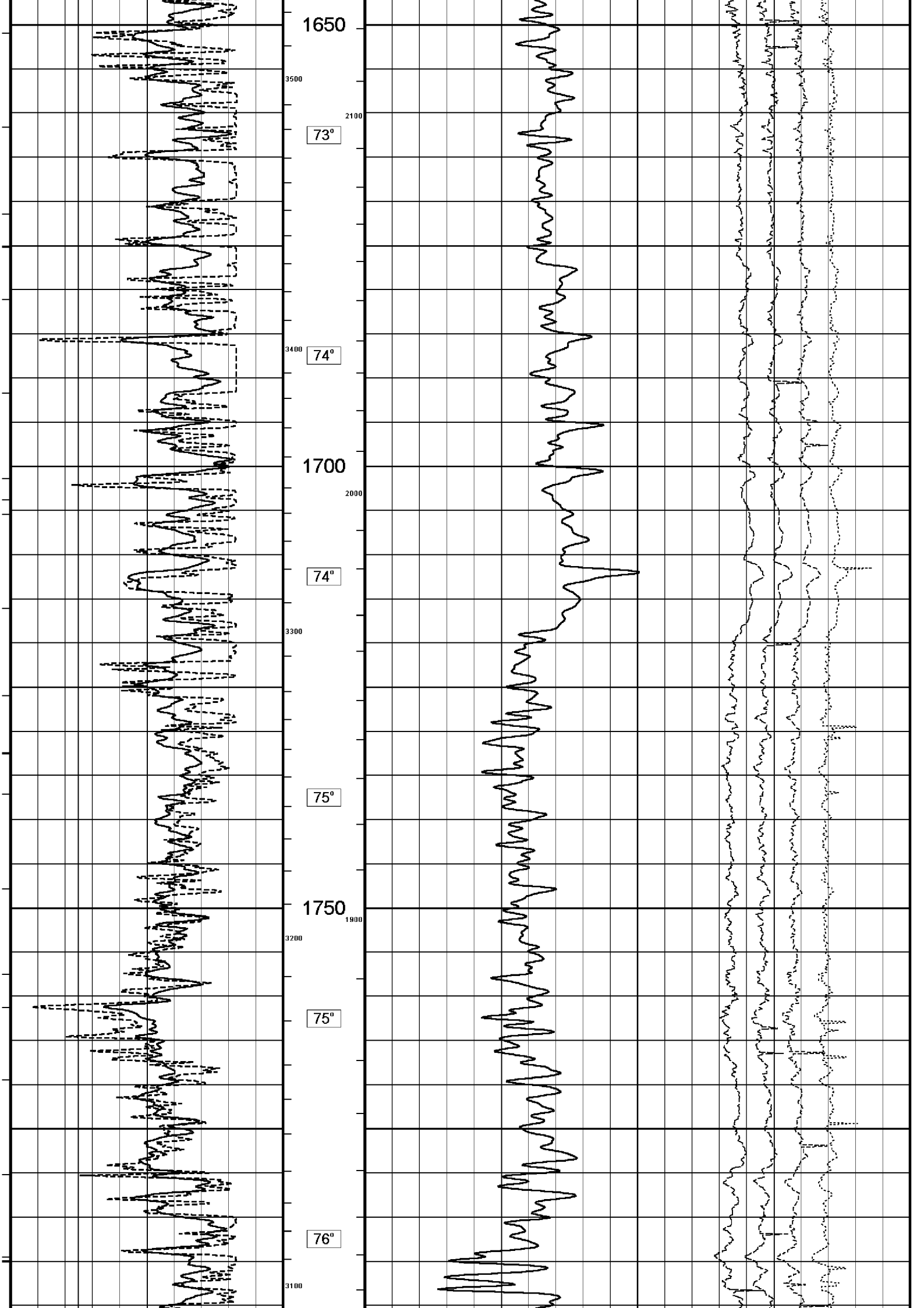




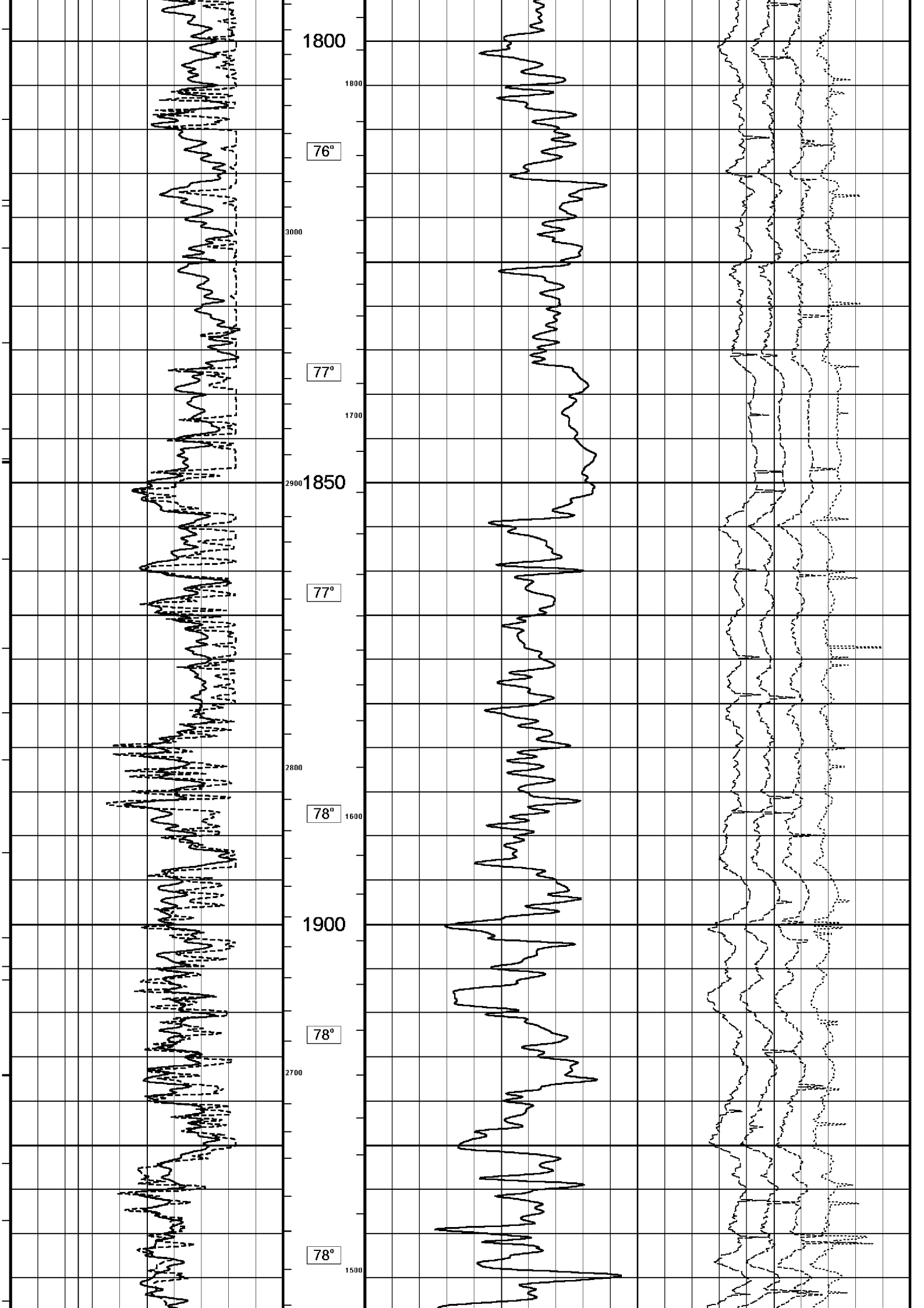


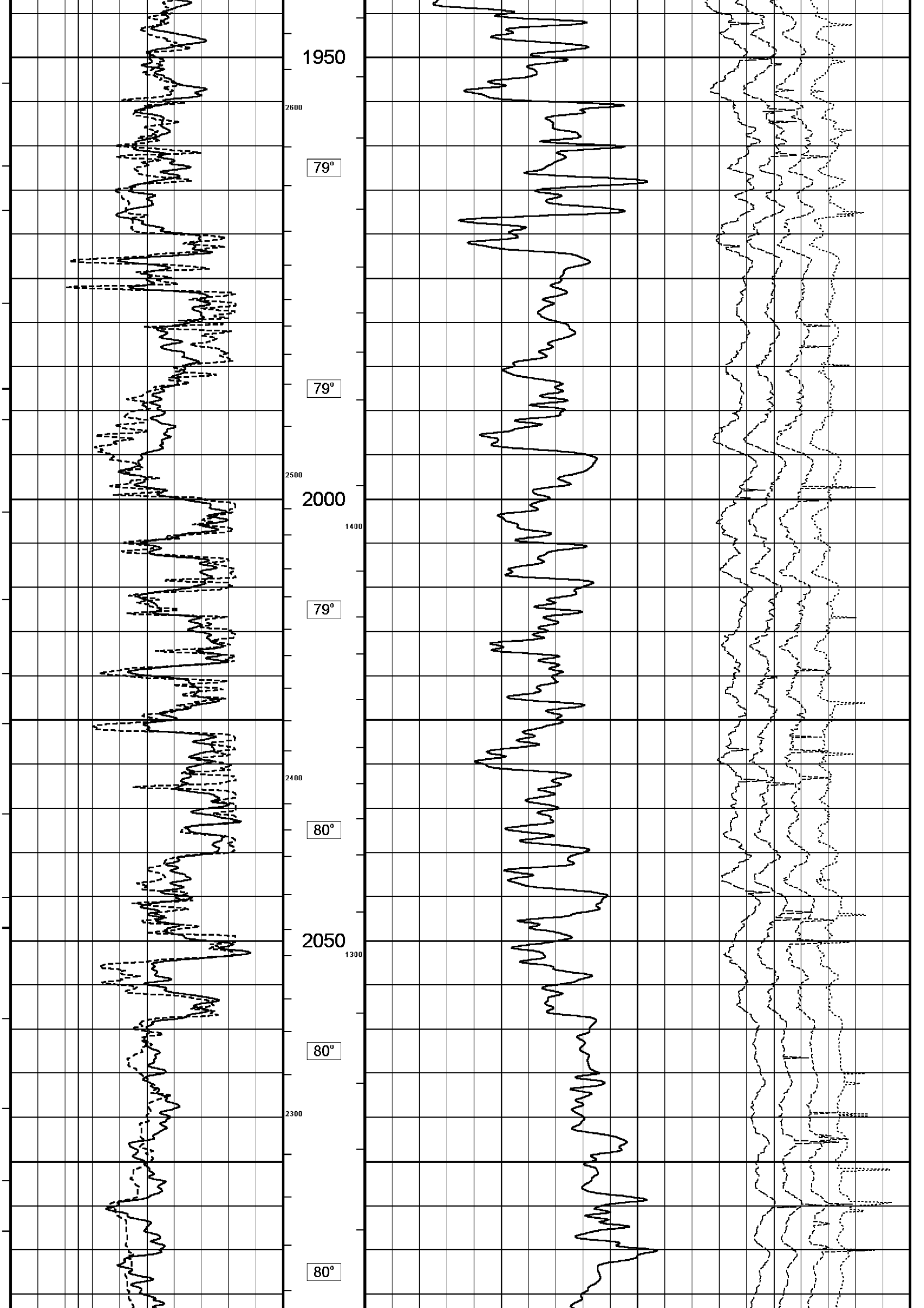


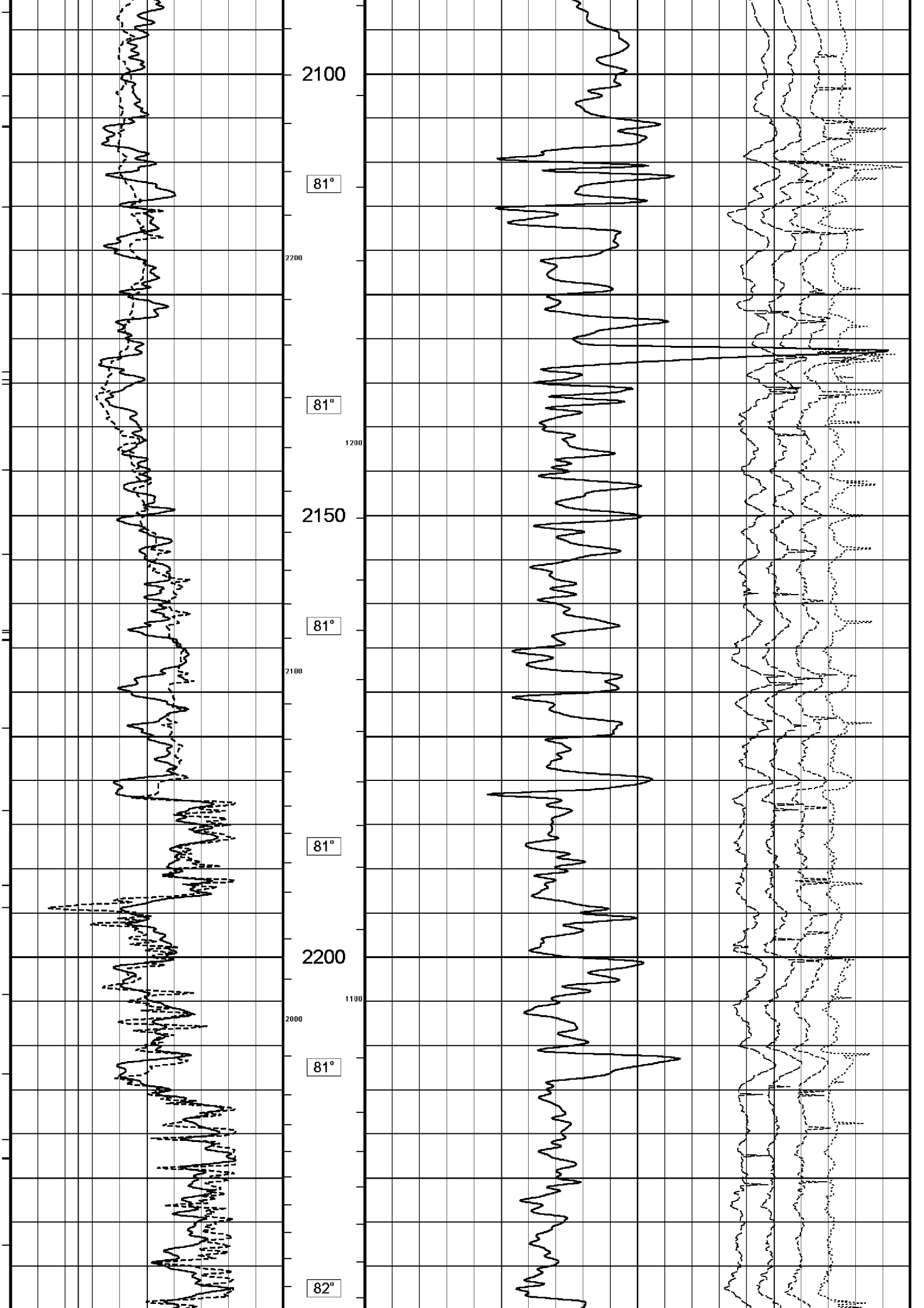


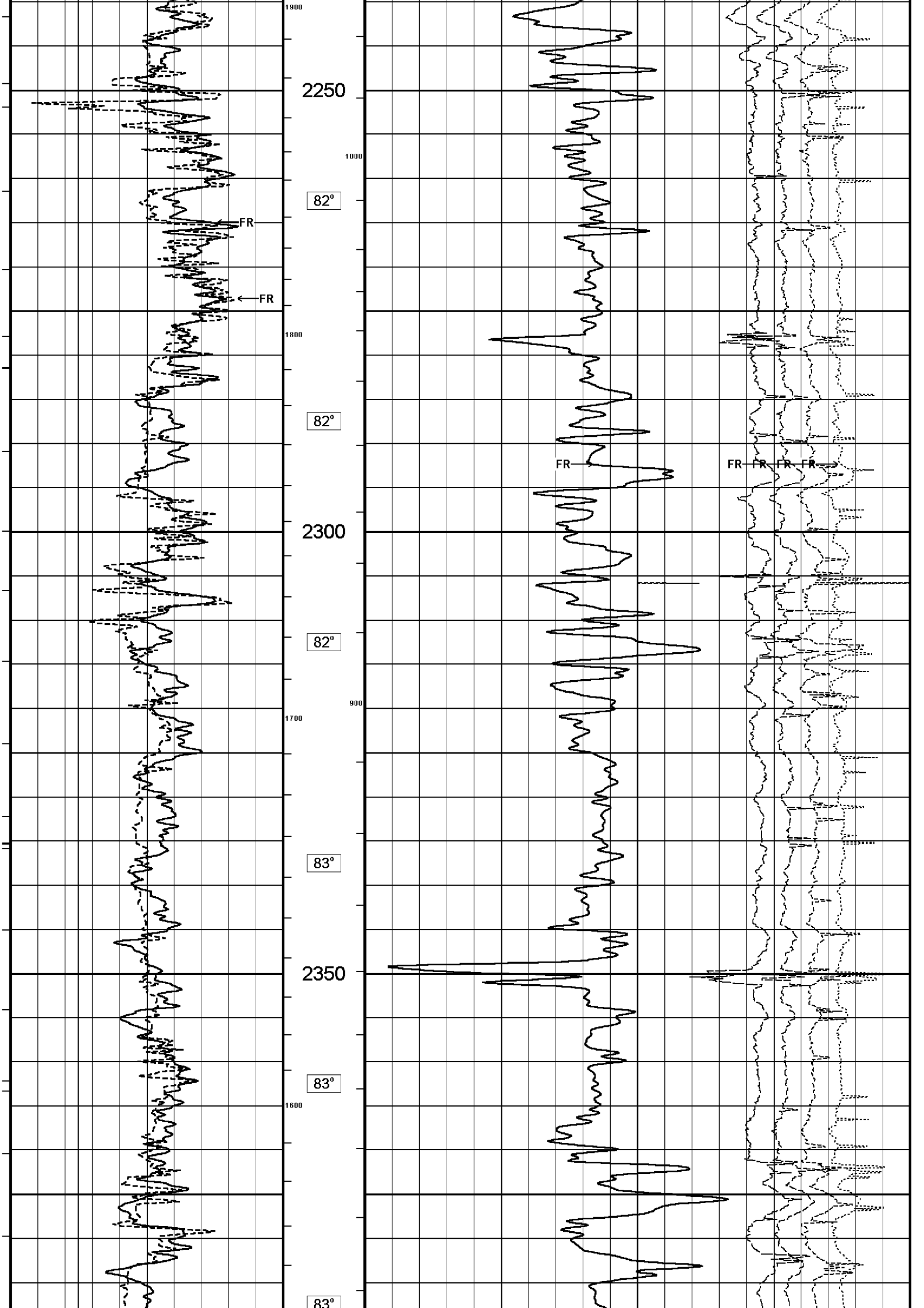


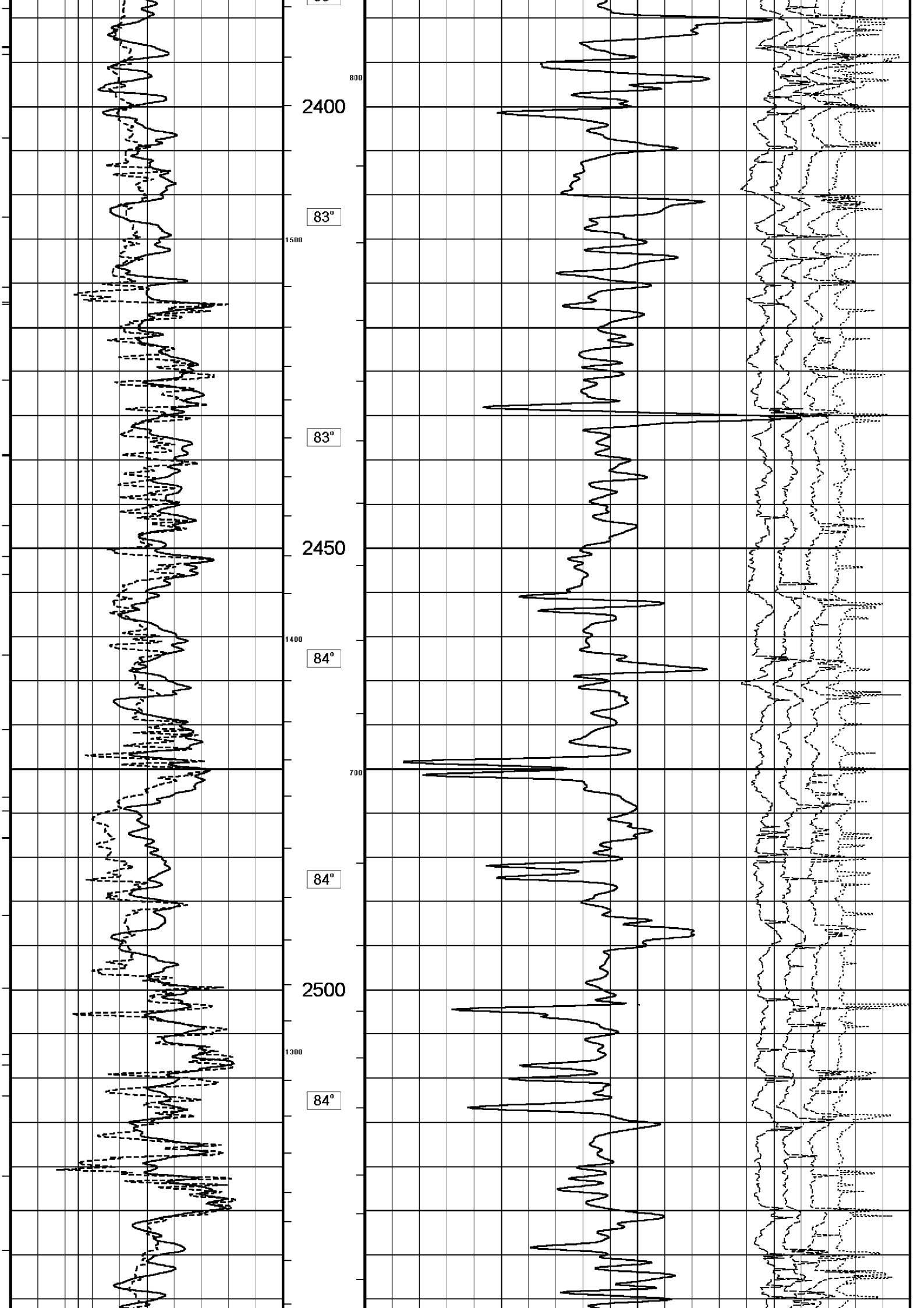


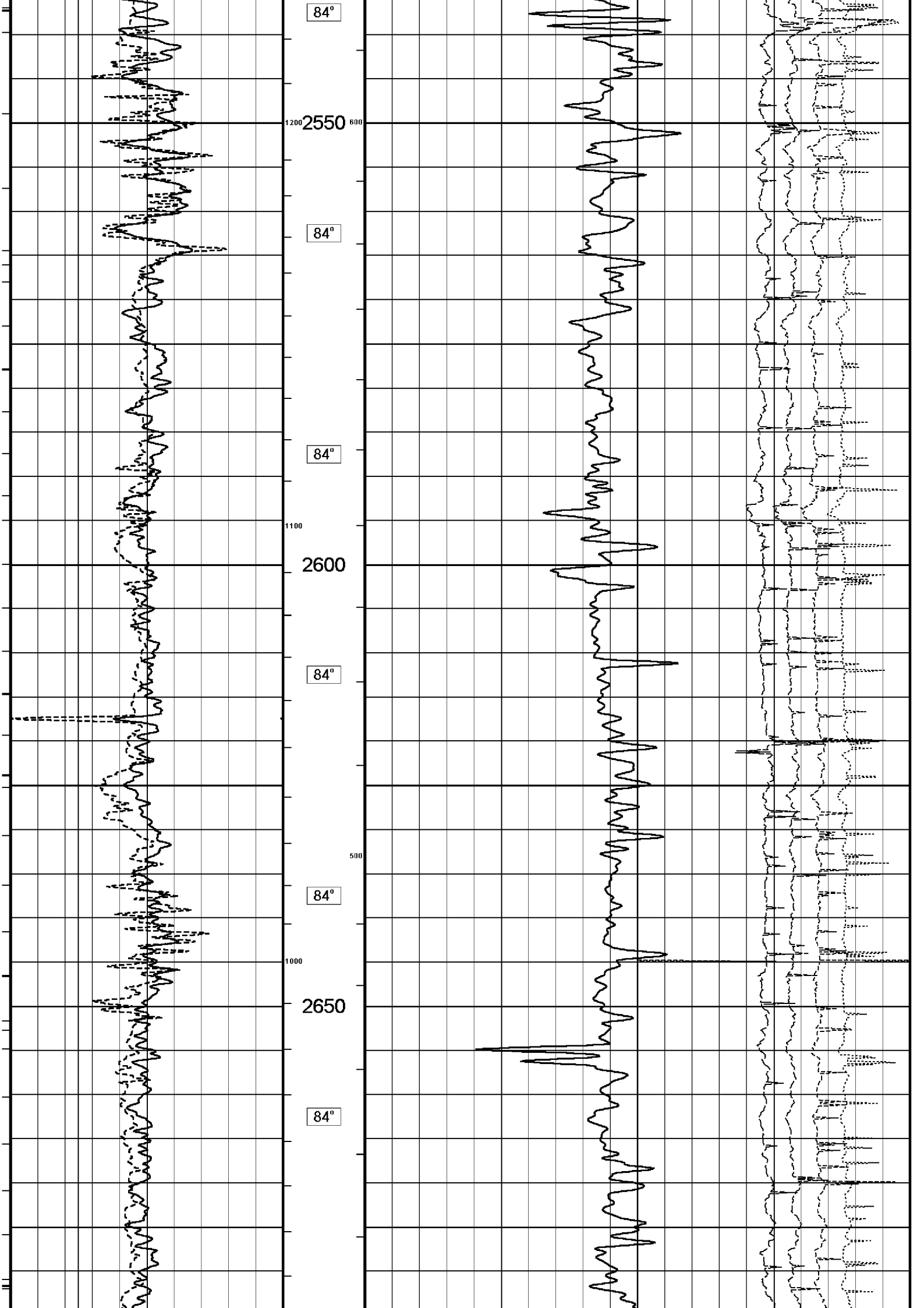


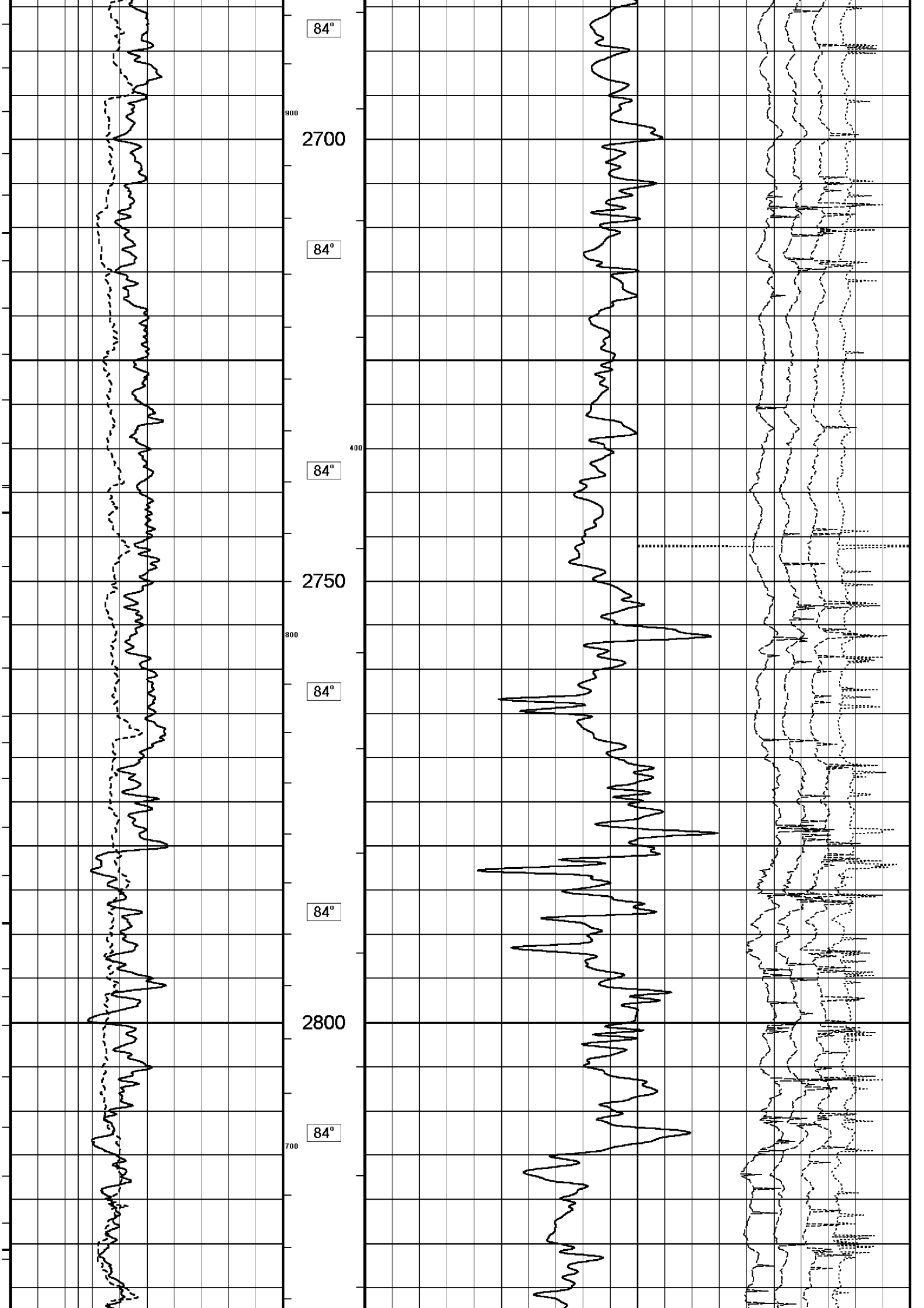


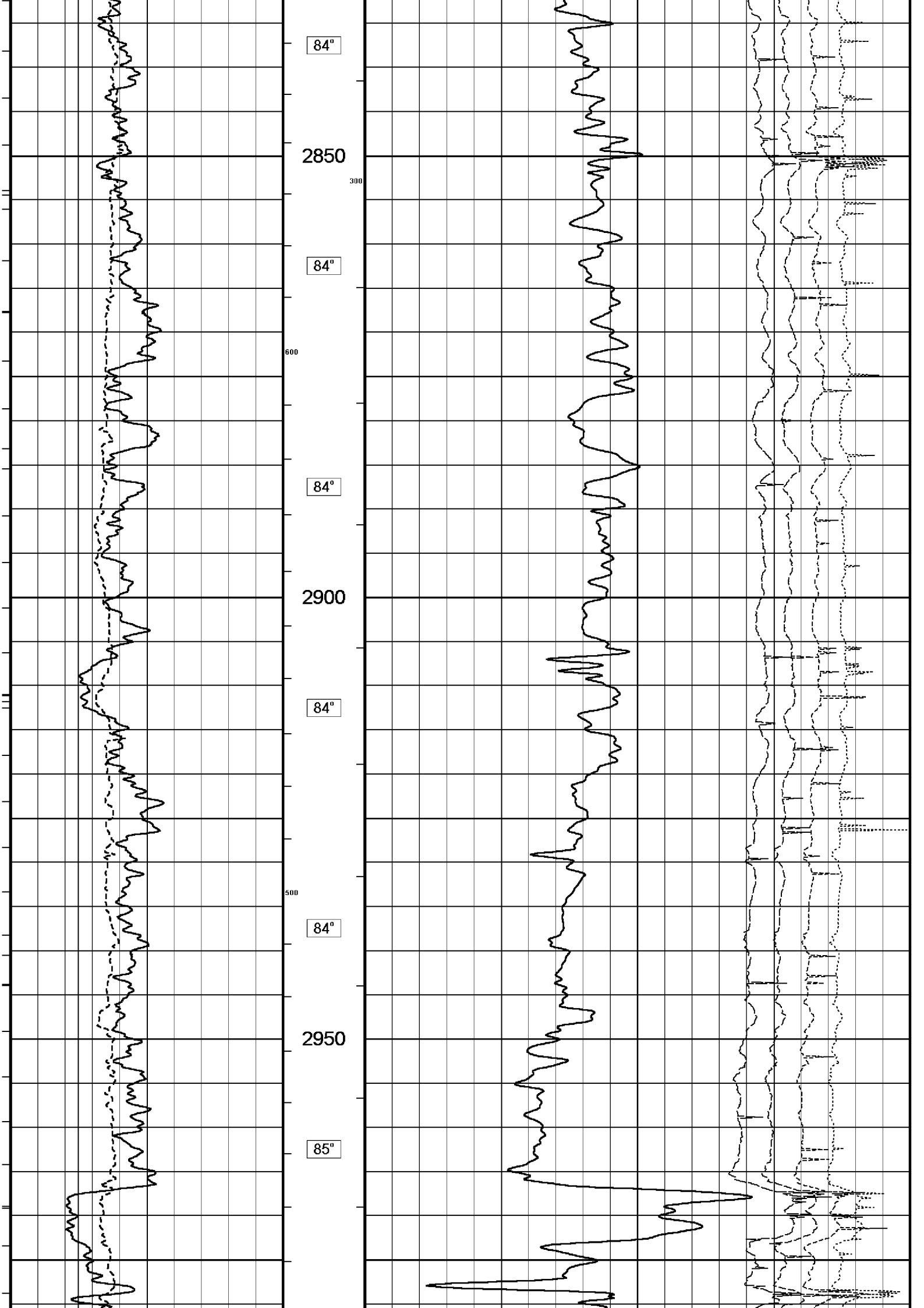




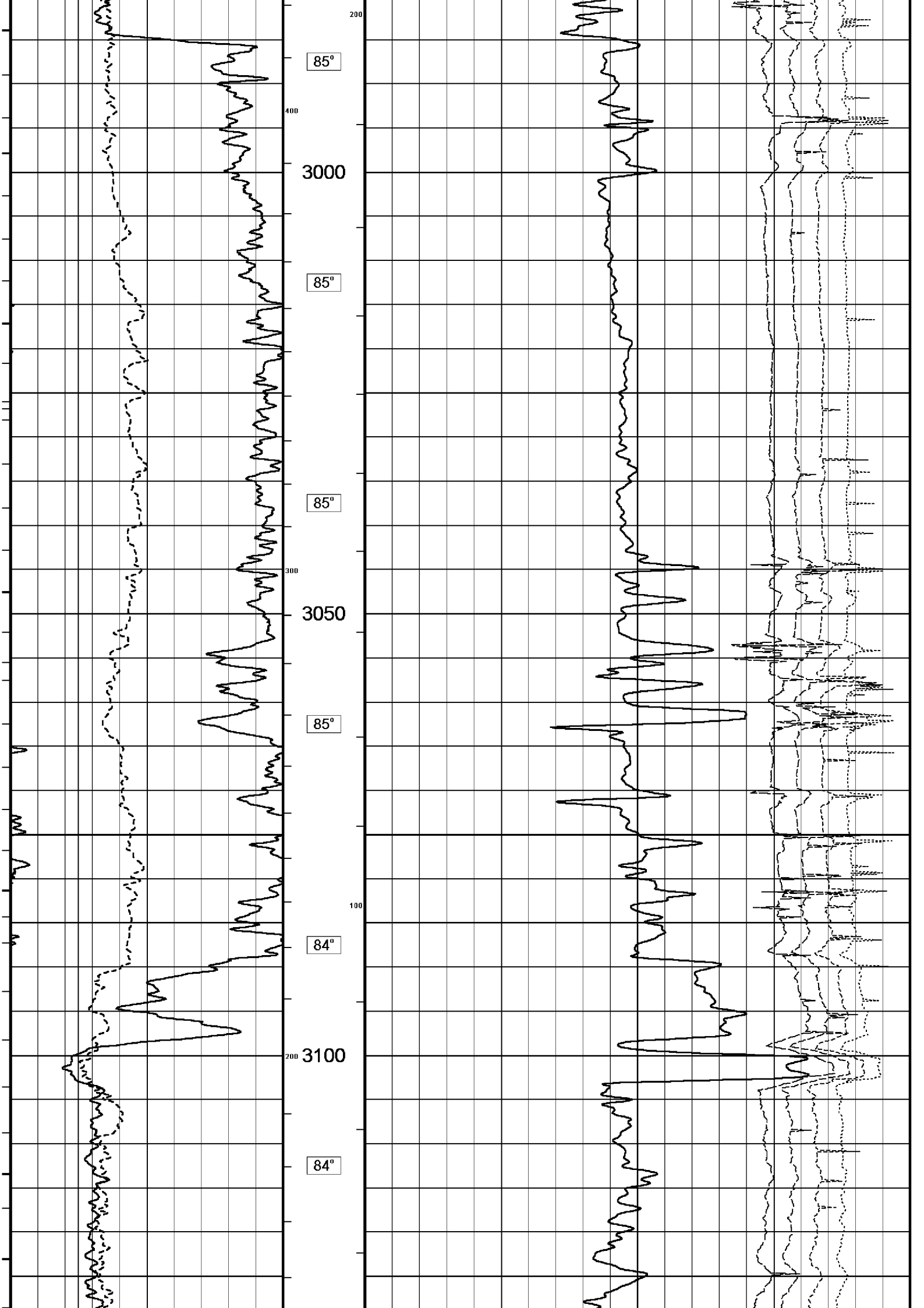


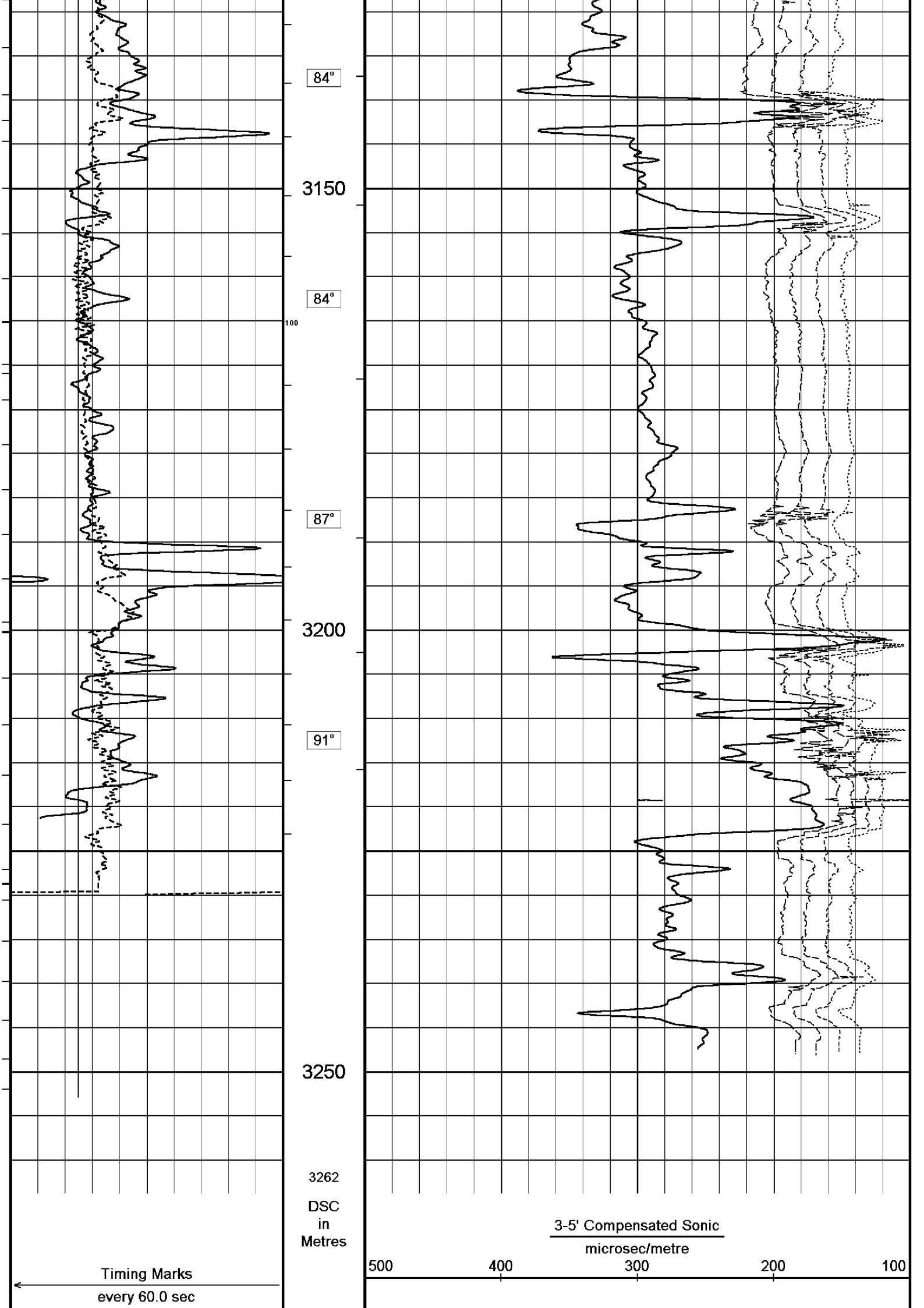












<u>Borehole Corrected Gamma</u>		Borehole Temp in deg C	3' Transit Time microseconds	
0	API 100		200	1100      600      100
200		HVI every 10 cu ft	4' Transit Time microseconds	
	300		400	1100      600      100
<u>Density Caliper</u> inches		Annular Integral every 10 cu ft	5' Transit Time microseconds	
6	11		16	1100      600      100
<u>Bit Size</u> inches		Replay Scale 1:500	6' Transit Time microseconds	
6	11		16	1100      600      100

Depth Based Data - Maximum Sampling Increment 10.0cm  
 Plotted on 15-FEB-2006 06:24  
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↑ MAIN LOG 1:500 ↑

### BEFORE SURVEY CALIBRATION

C:\logs\BMA\_A6A\FIELD DATA\BMA\_A6A\_MAIN\_LOG.dta

#### General Constants All 000

General Parameters  
 Mud Resistivity 0.108 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 Limestone Sonic Porosity  
 Resistivity used Deep Induction  
 RWA Constant A 0.610  
 RWA Constant M 2.150

#### High Resolution Temperature Calibration MCG 142

Field Calibration on 11-FEB-2006,19:18

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

#### High Resolution Temperature Constants MCG 142

Pre-filter Length 11

#### Gamma Calibration MCG 142

Field Calibration on 11-FEB-2006 19:18

	Measured	Calibrated (API)
Background	14	9
Calibrator (Gross)	1390	918
Calibrator (Net)	1376	909

#### Gamma Constants MCG 142

Gamma Calibrator Number	060	
Mud Density	1.20	gm/cc
Caliper Source for Processing	Density Caliper	
Tool Position	Centred	
Concentration of KCl	0.00	kppm

Caliper Calibration MPD 083

Base Calibration on 2-FEB-2006 16:03  
Field Calibration on 11-FEB-2006 20:04

Base Calibration

Reading No	Measured	Calibrator Size (in)
1	13840	4.01
2	22033	5.99
3	30543	7.98
4	38960	9.94
5	48464	12.01
6	N/A	N/A

Field Calibration

Measured Caliper (in)	Actual Caliper (in)
7.79	7.98

Sonic Constants MSS 066

Maximum Boundary Contrast	100.00	micro-sec/ft
Fluid Transit Time	189.00	micro-sec/ft
Limestone Transit Time	47.50	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

Fixed Gate Parameters

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	N/A

Down Hole Fixed Gate Parameters

Gate Start	N/A	micro-sec
Gate Width	N/A	micro-sec
Initial Discriminator Level	0.0000	mVolts

Full Waveform Parameters

Use 3' Waveform to derive TR	No	
Use 4' Waveform to derive TR	No	
Use 5' Waveform to derive TR	No	
Use 6' Waveform to derive TR	No	
3' Waveform Discriminator Level	0.45	mV
4' Waveform Discriminator Level	0.45	mV
5' Waveform Discriminator Level	0.35	mV
6' Waveform Discriminator Level	0.35	mV
3' Waveform Filter	None	
4' Waveform Filter	None	
5' Waveform Filter	None	
6' Waveform Filter	None	
Semblance Level	0.50	
Semblance Window Width	120.00	micro-sec
Sonic 1 Despiker	100.00	micro-sec/ft
Sonic 2 Despiker	100.00	micro-sec/ft

DOWNHOLE EQUIPMENT

C:\logs\BMA\_A6A\FIELD DATA\BMA\_A6A\_MAIN\_LOG.dta

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



Compact Knuckle Joint

SKJ 100 Length: 0.65 m Weight: 24.3 lb

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

Compact Inline Standoff B  
MIS 73 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 138 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 136 Length: 0.65 m Weight: 15.4 lb

MBE21 - THIRD BRIDLE  
MLK 111 Length: 3.76 m Weight: 30.9 lb

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

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

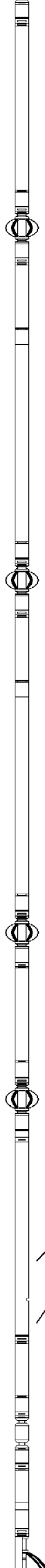
32.22 m GGCE - Borehole Corrected Gamma  
31.33 m CGXT - MCG External Temperature

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

Compact Knuckle Joint  
SKJ 45 Length: 0.66 m Weight: 24.3 lb

Compact Swivel Head Adaptor F  
SHA 64 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 Swivel Head Adaptor  
SHA 28 Length: 0.83 m Weight: 26.5 lb

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

Compact Inline Standoff B  
MIS 72 Length: 0.65 m Weight: 15.4 lb

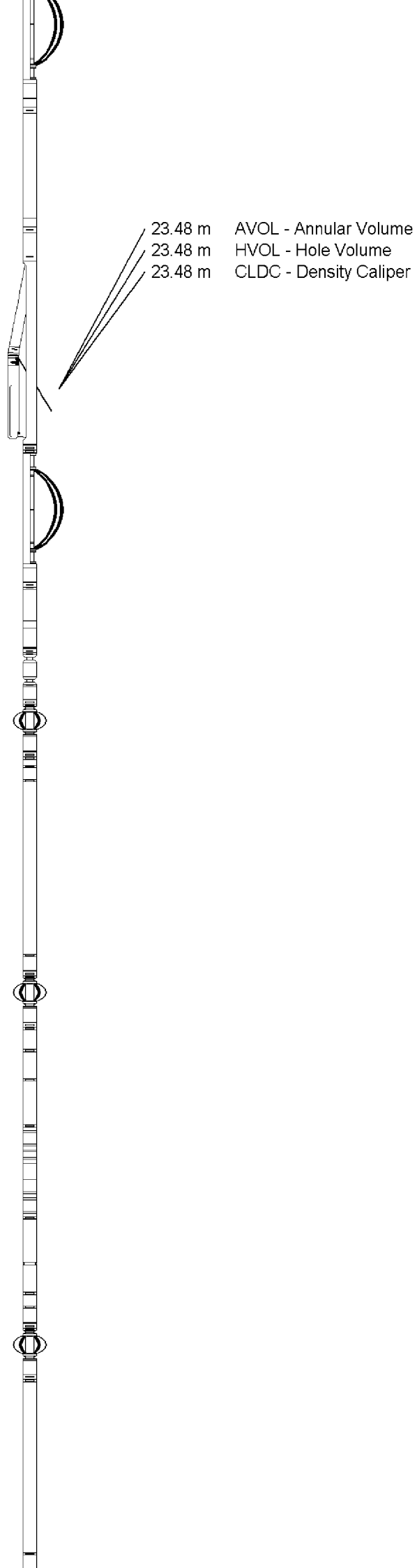
Compact Upper Guard Sub.  
MUG 30 Length: 2.74 m Weight: 68.3 lb

Compact Inline Standoff B  
MIS 141 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 127 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 129 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 126 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: 1201.5 lb



4.60 m TR21 - 3' Transit Time  
4.60 m TR12 - 6' Transit Time  
4.60 m TR22 - 5' Transit Time  
4.60 m TR11 - 4' Transit Time

4.60 m DT35 - 3-5' Compensated Sonic

Tool Zero (0.44m from bottom)

All measurements relative to tool zero.

COMPANY ESSO AUSTRALIA PTY LTD  
WELL BREAM A6A  
FIELD BREAM  
PROVINCE/COUNTY BASS STRAIT  
COUNTRY/STATE AUSTRALIA

Elevation Kelly Bushing		metres	First Reading	3246.00	metres
Elevation Drill Floor	32.82	metres	Depth Driller	3256.00	metres
Elevation Ground Level	-59.40	metres	Depth Logger	3253.00	metres



COMPENSATED SONIC  
1:500 MD