

# Reeves

## DUAL LATEROLOG

GAMMA RAY  
1:500 MD

COMPANY		ESSO AUSTRALIA PTY. LTD.	
WELL		FLOUNDER A12a	
FIELD		GIPPSLAND BASIN	
PROVINCE/COUNTY		BASS STRAIT	
COUNTRY/STATE		AUSTRALIA	
LOCATION		5758709.11 m N, 625849.47 m E 38°18'39.173" S, 148°26'21.833" E	
LSD	SEC	TWP	RGE
API Number		Other Services	
Permit Number		PHOTO DENSITY	
Permanent Datum MSL		Elevation 0 metres	
Log Measured From RT @ 33.85 metres		above Permanent Datum	
Drilling Measured From RT		COMPENSATED NEUTRON	
Date		12-APR-2003	
Run Number		1	
Depth Driller		2920.00 metres	
Depth Logger		2921.00 metres	
First Reading		2920.50 metres	
Last Reading		1250.00 metres	
Casing Driller		856.25 metres	
Casing Logger		856.00 metres	
Bit Size		8.50 inches	
Hole Fluid Type		KC/PHPA/GLY	
Density / Viscosity		9.90 lb/USg 68.00 sec/cst	
PH / Fluid Loss		9.40 2.50 ml/30Min	
Sample Source		FLOWLINE	
Rm @ Measured Temp		0.124 @ 25.0 ohm-m	
Rmf @ Measured Temp		0.113 @ 25.0 ohm-m	
Rmc @ Measured Temp		0.179 @ 25.0 ohm-m	
Source Rmf / Rmc		PRESS ohm-m	
Rm @ BHT		0.048 @ 100.0 ohm-m	
Time Since Circulation		17:45 HRS	
Max Recorded Temp		100.00 deg C	
Equipment Name		COMPACT	
Equipment / Base		1	
Recorded By		M. Barnes, R. Tench	
Witnessed By		E. Espiritu	
Circ. Stopped		08:00 11-APR	

BOREHOLE RECORD				
Bit Size inches		Depth From metres		Depth To metres
8.500		0.00		2920.00
CASING RECORD				
Type	Size inches	Depth From metres	Shoe Depth metres	Weight pounds/ft
K-55	10.750	0.00	856.25	40.50
REMARKS				
DRILLING RIG: NABORS (ISDL) 453.				
TOP OF WINDOW: 856.25m				
TOP OF WHIPSTOCK: 856.75m				
BTM OF WINDOW: 863.25m				
REEVES COMPACT WIRELINE TOOLS RUN ON SCHLUMBERGER UNIT.				
MPD CALIPER AND MMR CALIPER ARE INDEPENDENT OF EACH OTHER, DUE TO SWIVALS ABOVE AND BELOW DENSITY/NEUTRON SECTION.				
SPIKES IN DEEP LATEROLOG @ 2094m MD AND 2113m MD ARE INVALID.				
HTHP: 11.2 ml/30 min @ Deg 121 deg C.				
MAX DEVIATION: 53.8 DEGREES AT 2137.0 m.				
DOGLEG AT 892 M, WITH DLS > 6.0 DEGREES/30 m.				
REEVES CREW: M.BARNES, R.TENCH, G.MCMANUS.				
SCHLUMBERGER CREW: B.GLOVER, B.TAYLOR, J.LIGHT, R.DEGROOT.				

# AFTER SURVEY CALIBRATION

C:\Fla a12a\Dpk\MAIN LOG A DSC.dta

## Gamma Check MCG 076

Field Calibration on 7-APR-2003,14:34  
After Survey Check on 12-APR-2003,07:31

	Before (API)	After (API)
Background	10	6
Calibrator (Gross)	919	915
Calibrator (Net)	909	909

## Laterolog Check MLE 015

Before Survey Check on 12-APR-2003,01:32  
After Survey Check on 12-APR-2003,06:46

Channel	Before Survey (ohm-m)	After Survey (ohm-m)
Shallow	49.1	49.1
Deep	31.5	31.5
Groningen	246.3	246.3

## Micro Laterolog Check MMR 005

Before Survey Check on 12-APR-2003,01:31  
After Survey Check on 12-APR-2003,06:47

Before Survey (ohm-m)	After Survey (ohm-m)
8.0	8.0

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.

# MAIN LOG B 1:500

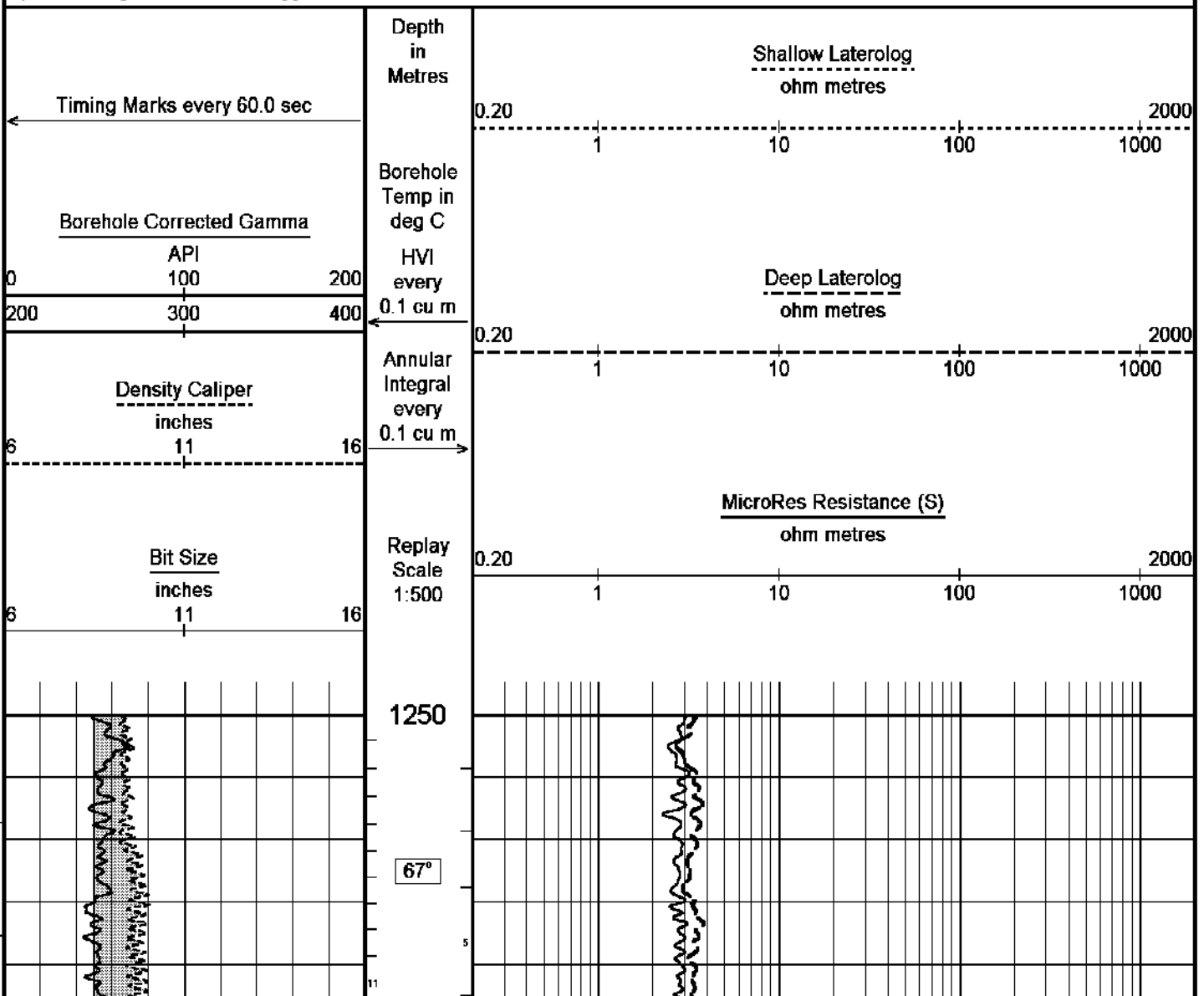
Depth Based Data - Maximum Sampling Increment 10.0cm

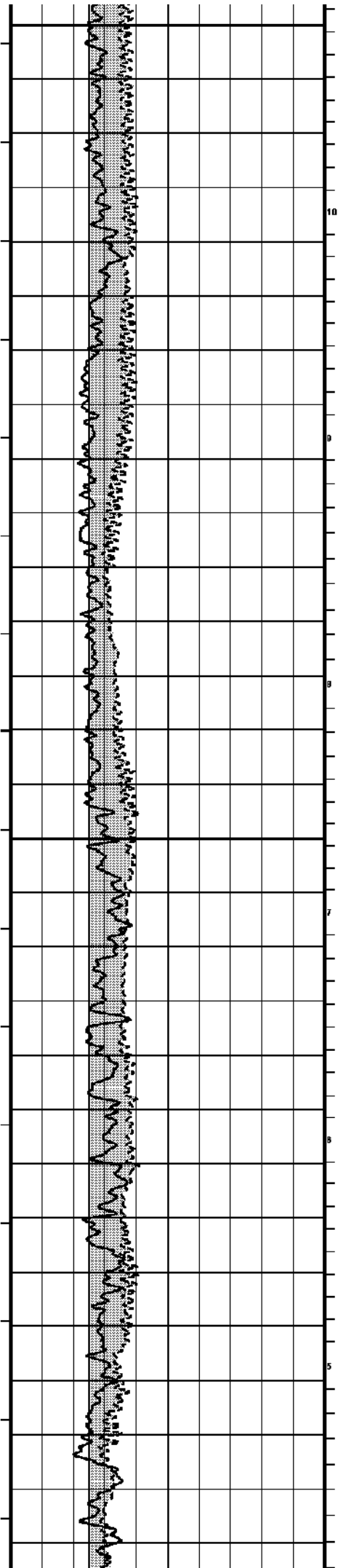
Plotted on 26-MAY-2003 10:58

Filename: C:\Fla a12a\Dpk\MAIN LOG B DSC.dta

Recorded on 12-APR-2003 04:49

System Configuration Dates: Logged 23-OCT-2002: Processed 23-OCT-2002: Plotted 23-OCT-2002:





67°

10

1300

67°

6

68°

8

1350

68°

3

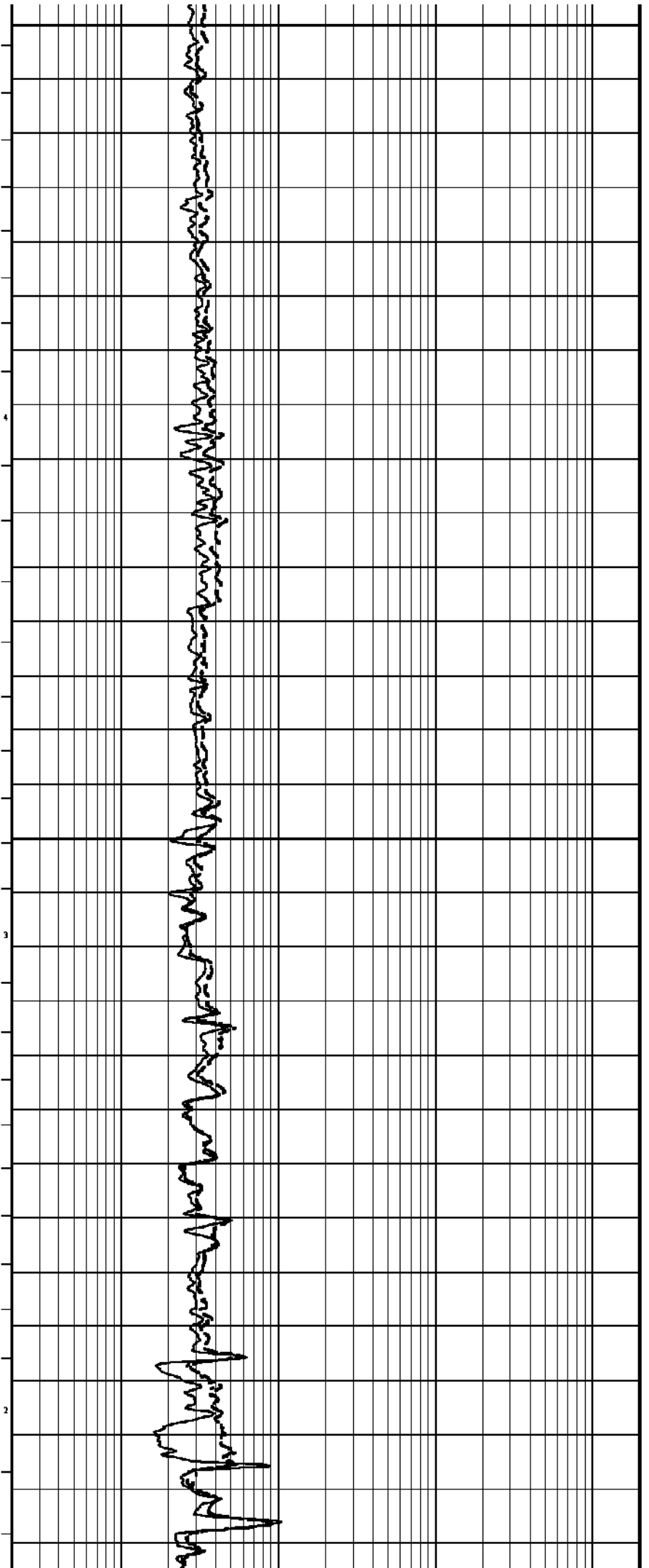
69°

8

1400

69°

5



67°

10

1300

67°

6

68°

8

1350

68°

3

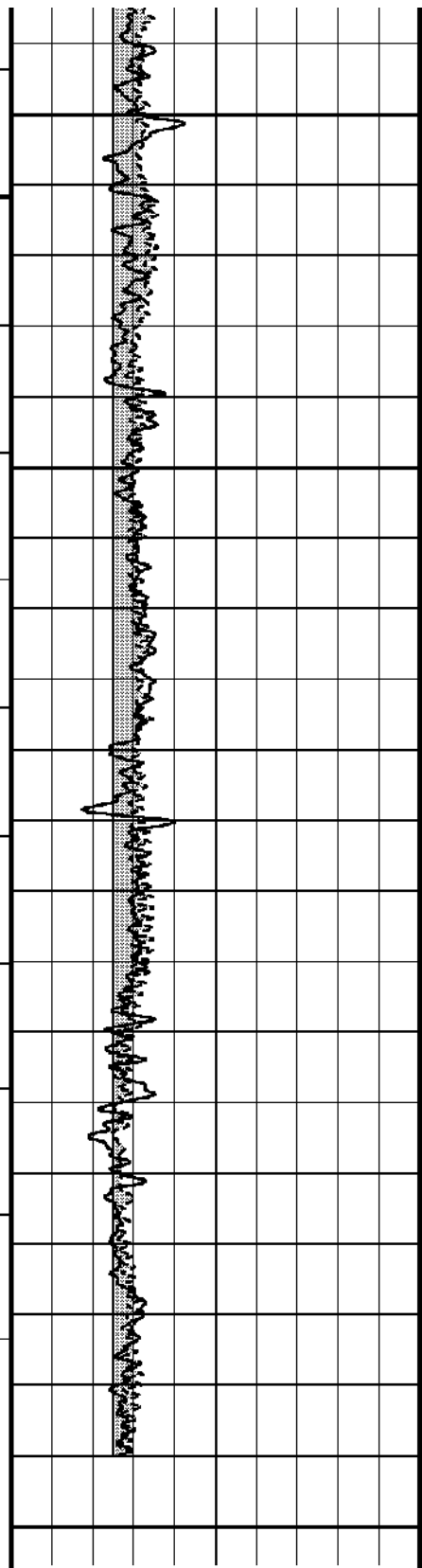
69°

8

1400

69°

5



70°

1450

70°

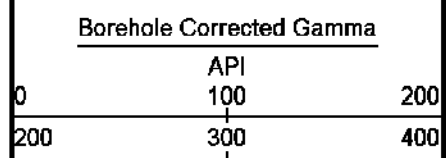
71°

1500

71°

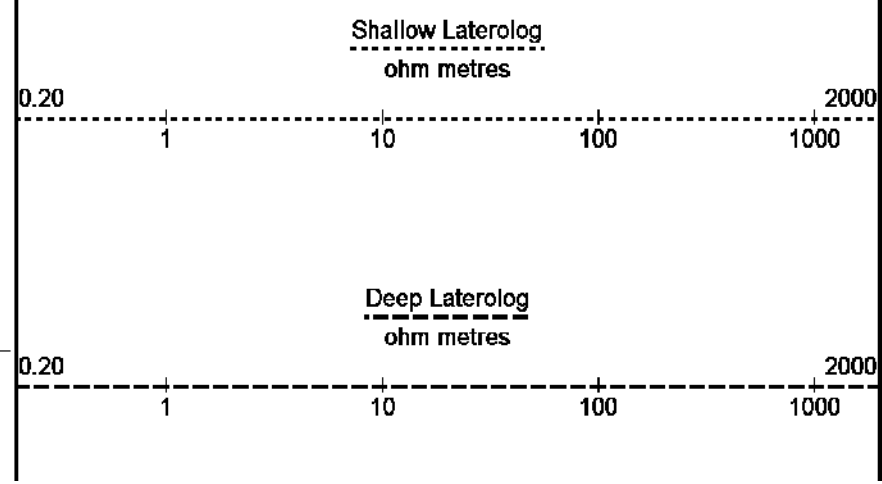
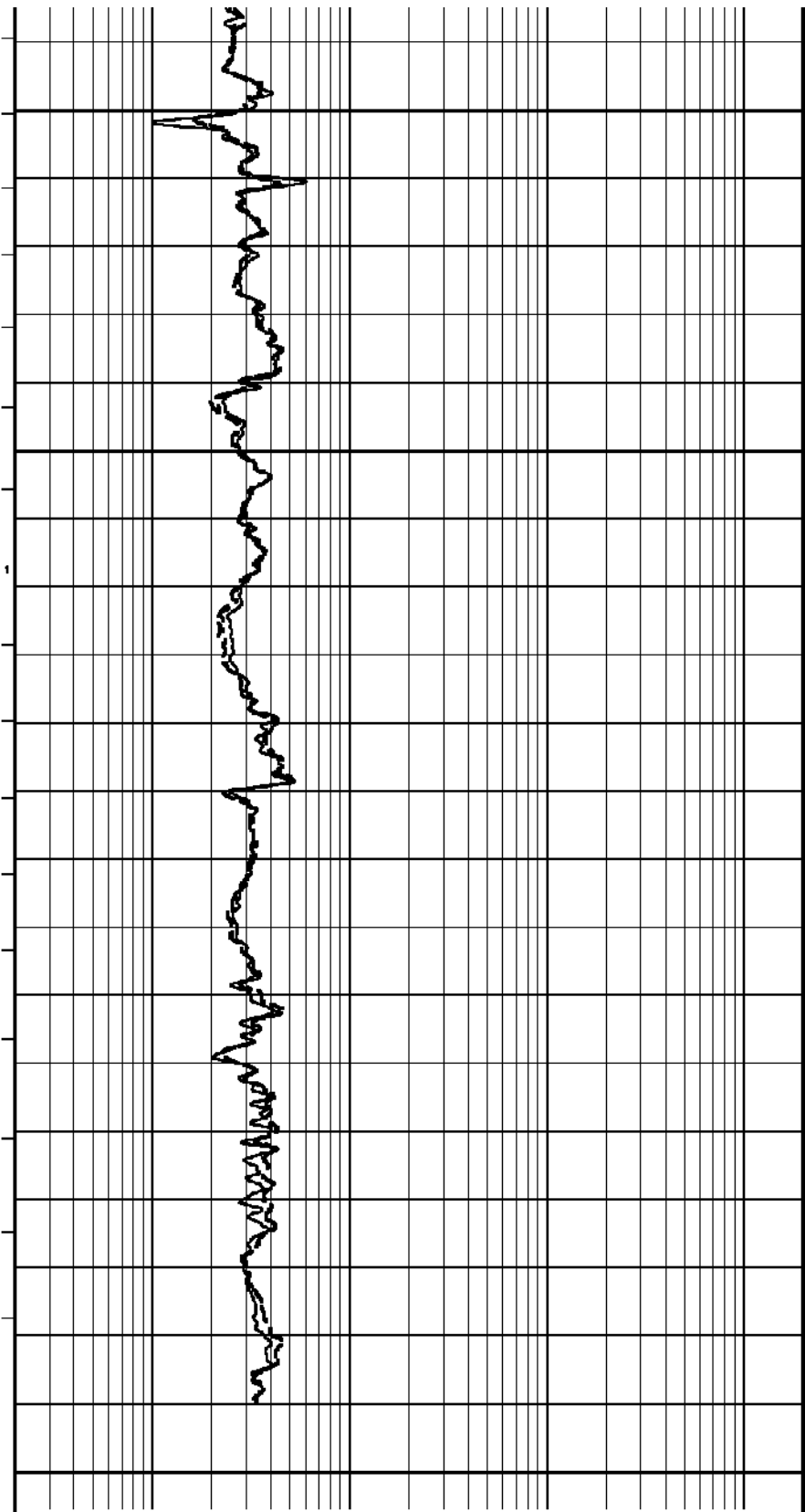
Depth  
in  
Metres

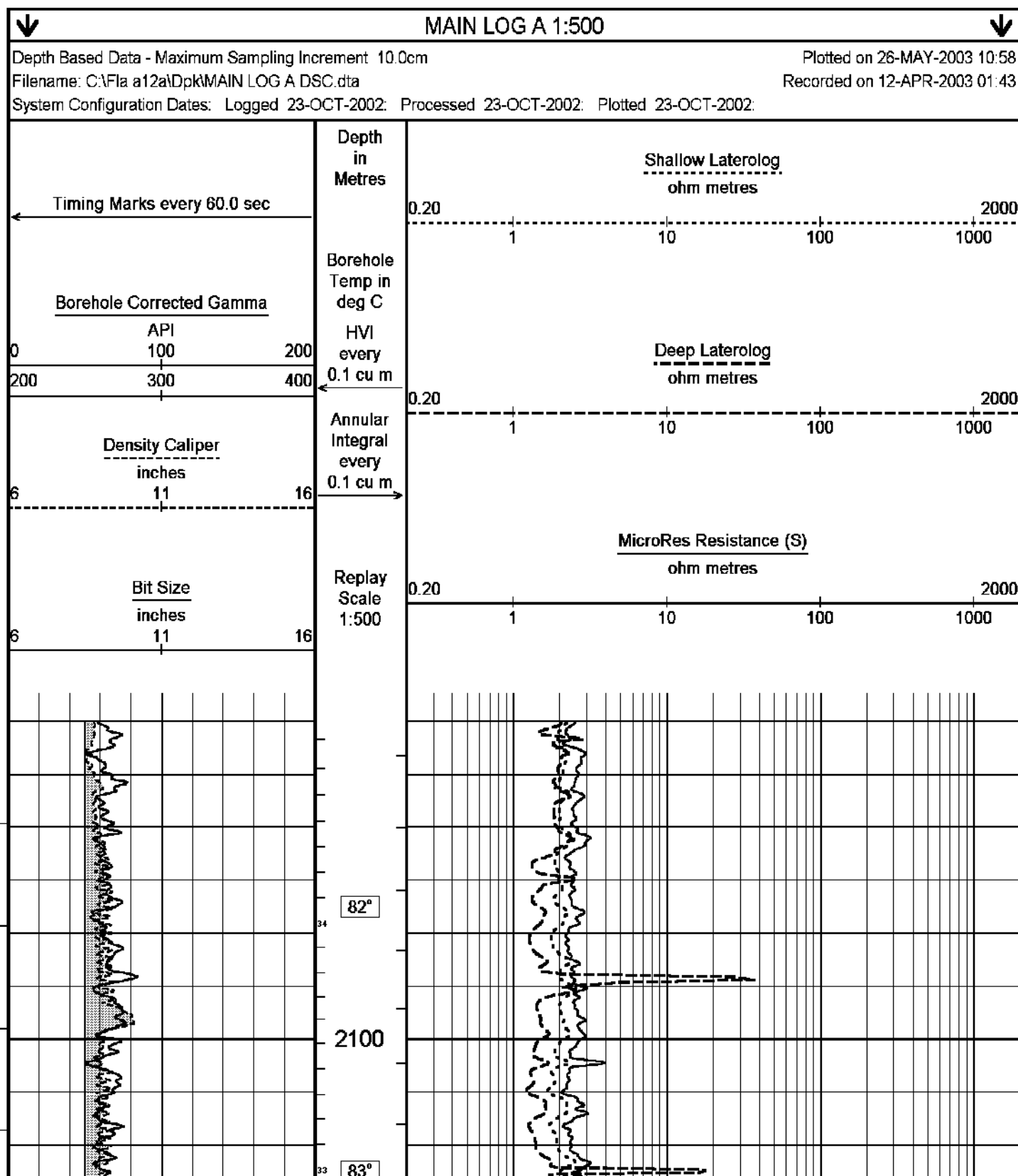
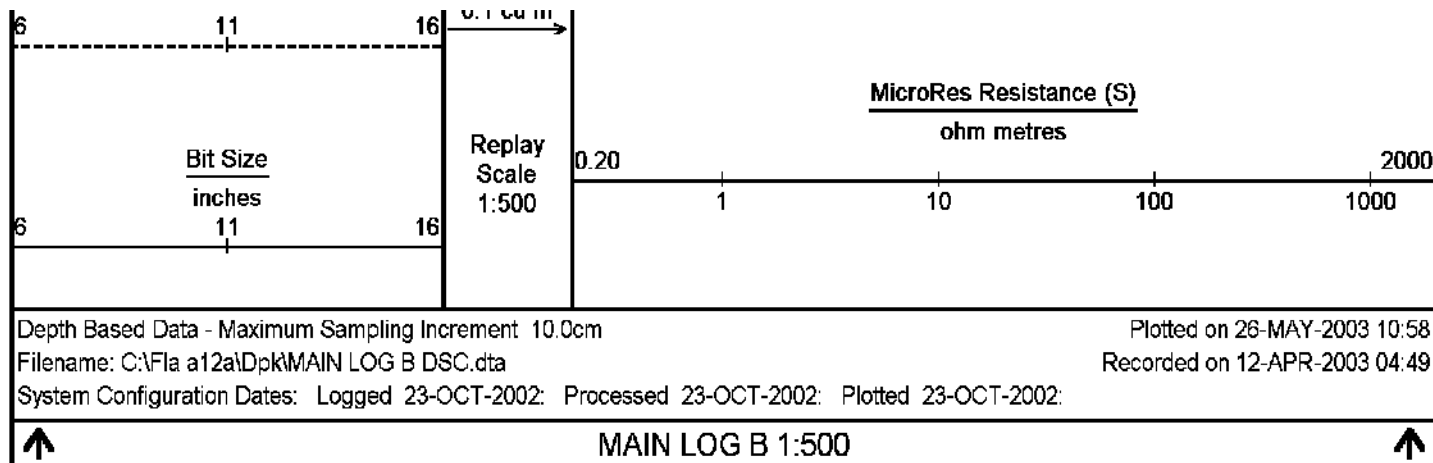
← Timing Marks every 60.0 sec

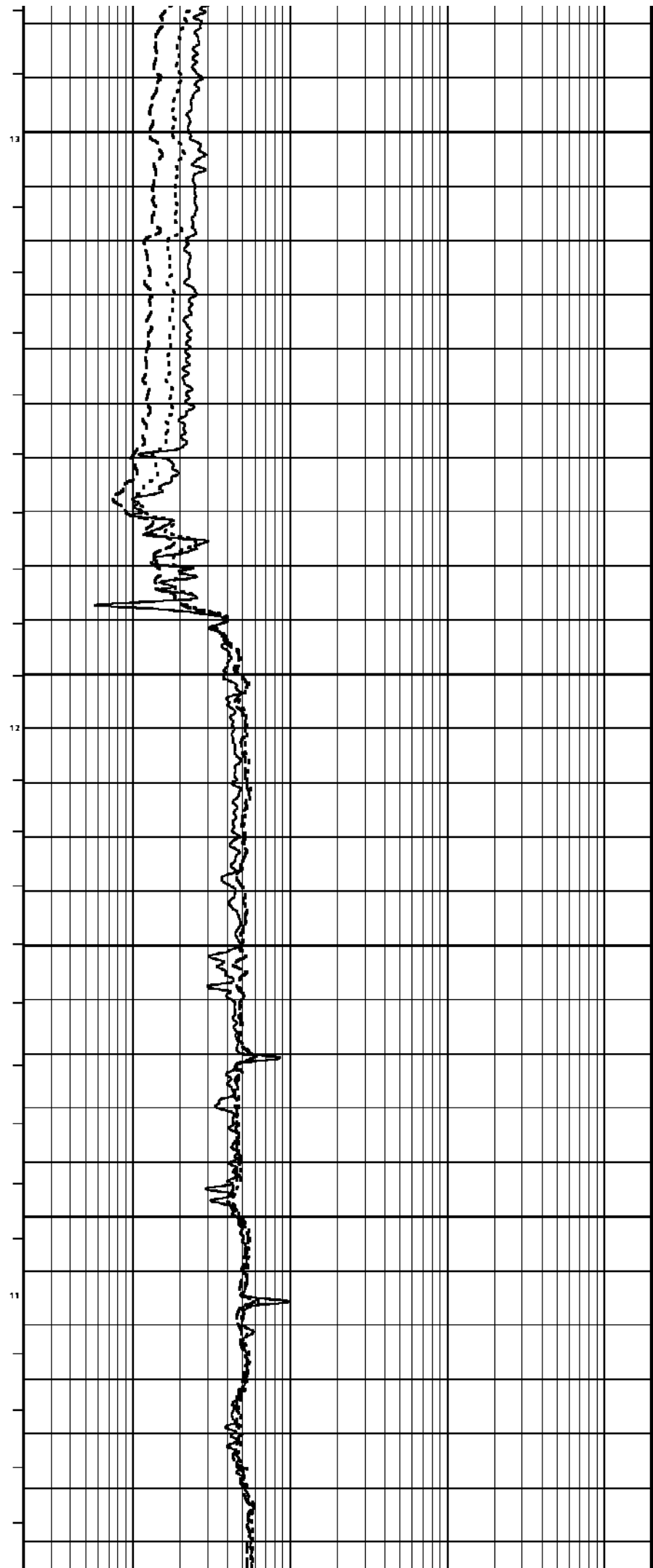
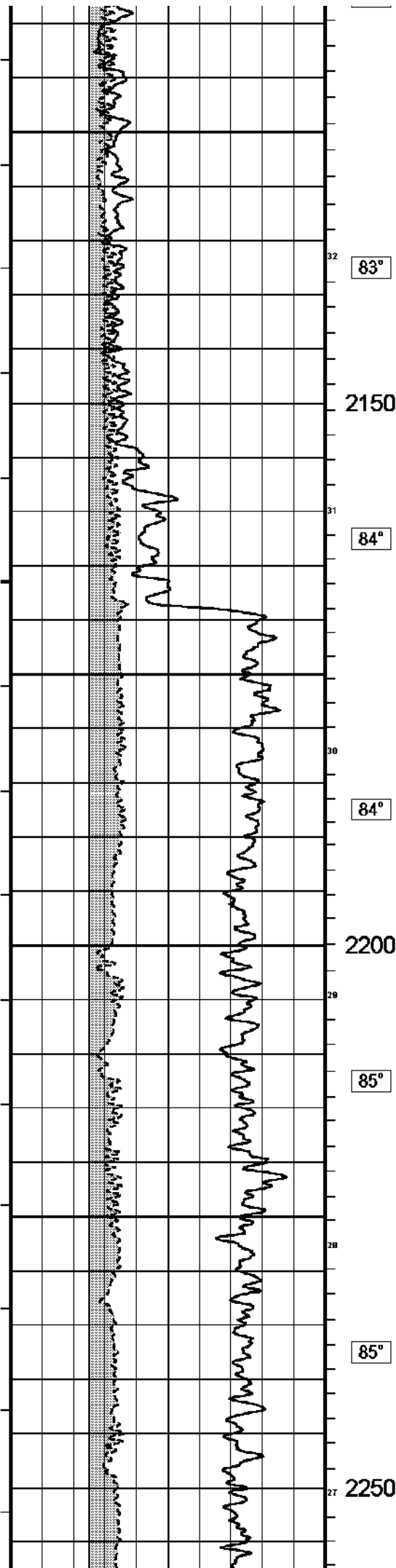


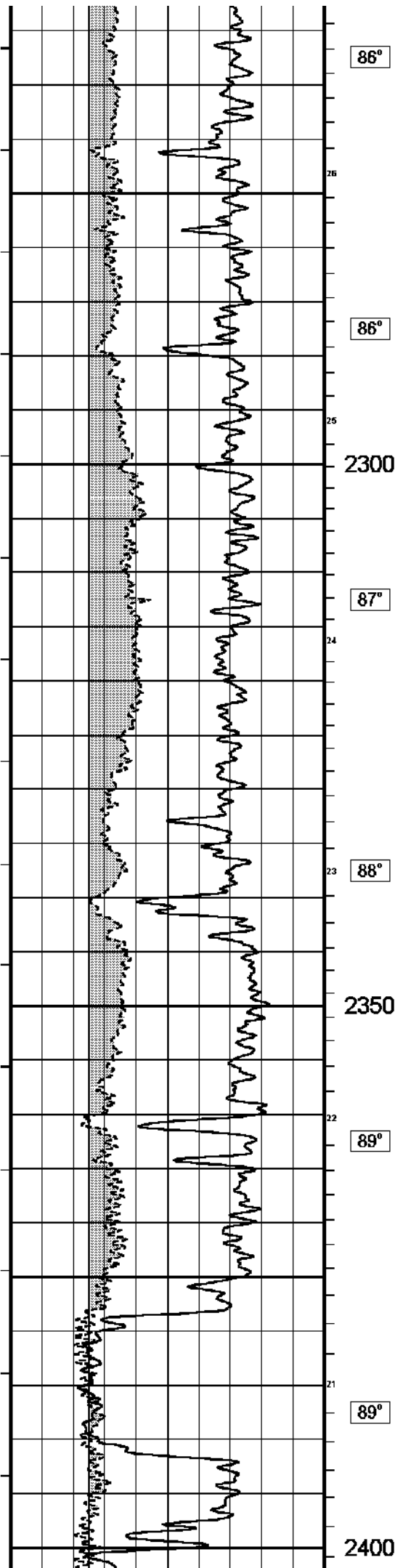
Density Caliper  
inches

Borehole  
Temp in  
deg C  
HVI  
every  
0.1 cu m  
Annular  
Integral  
every  
0.1 cu m









86°

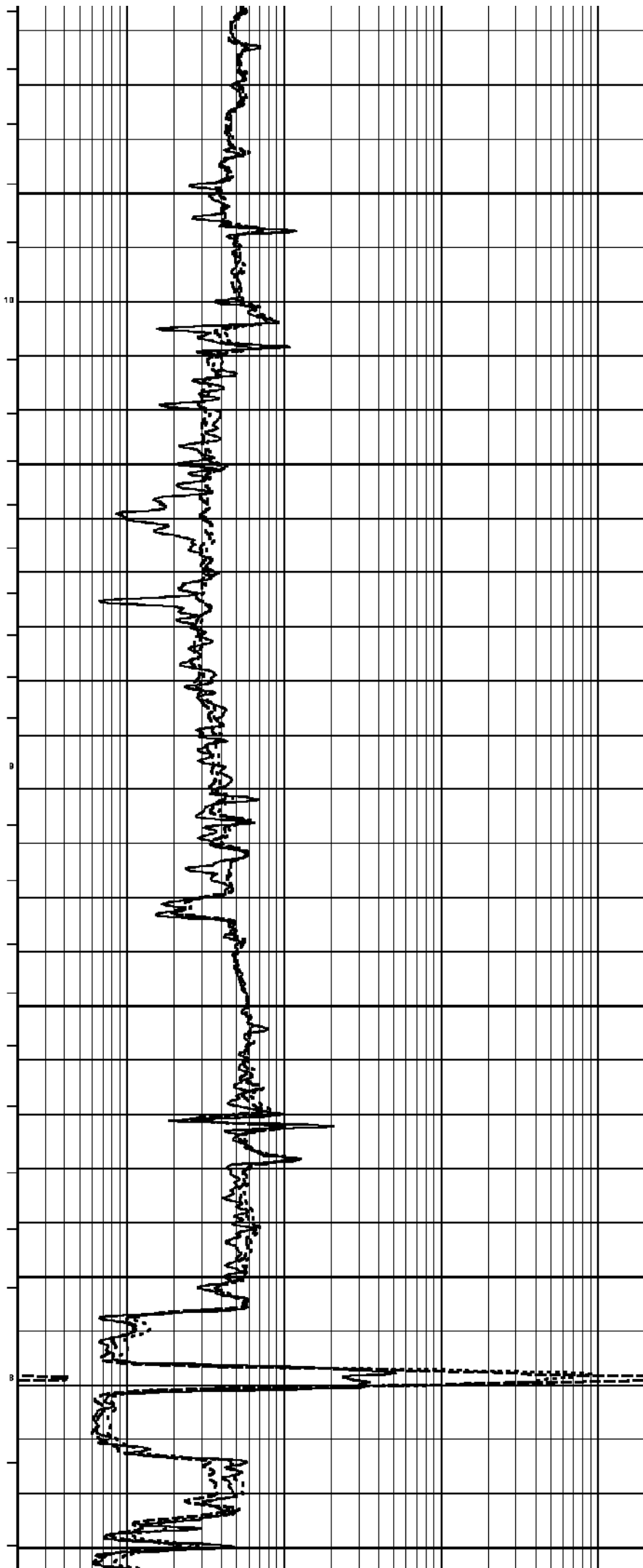
86°

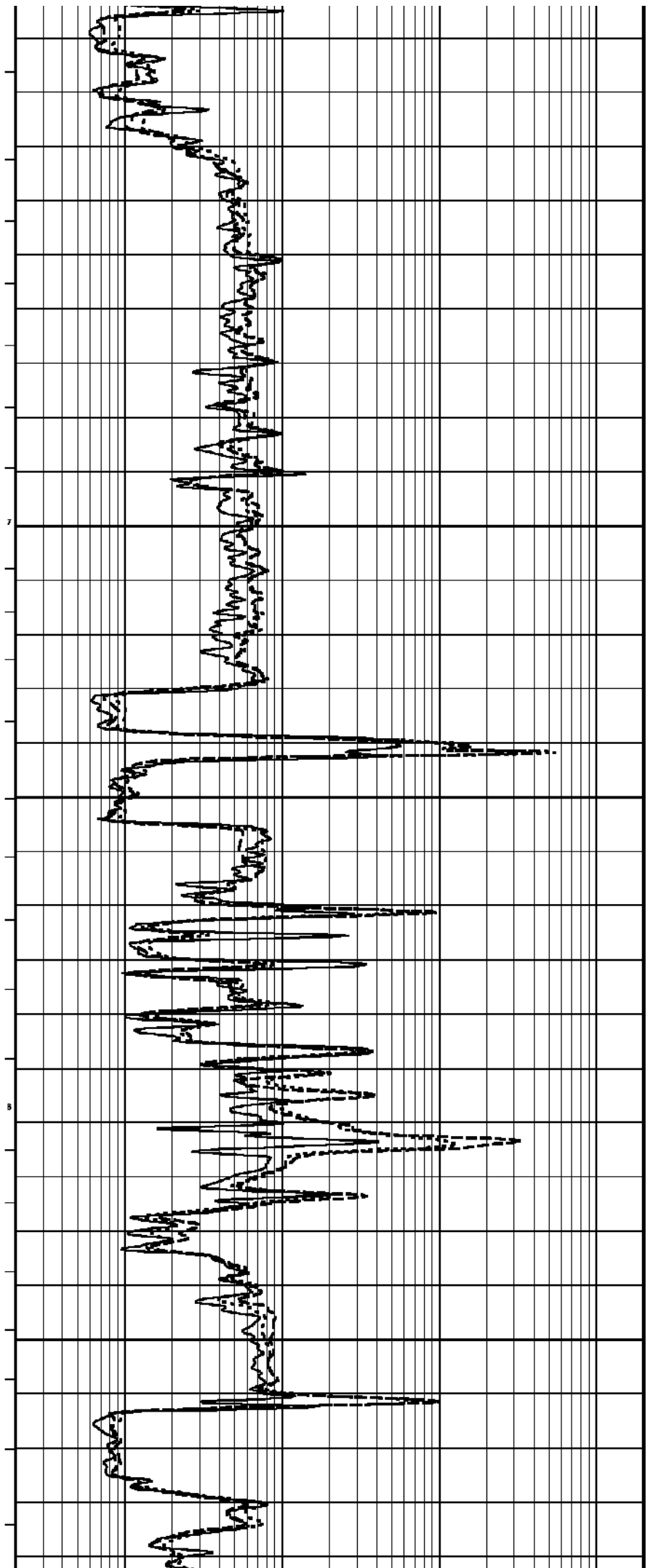
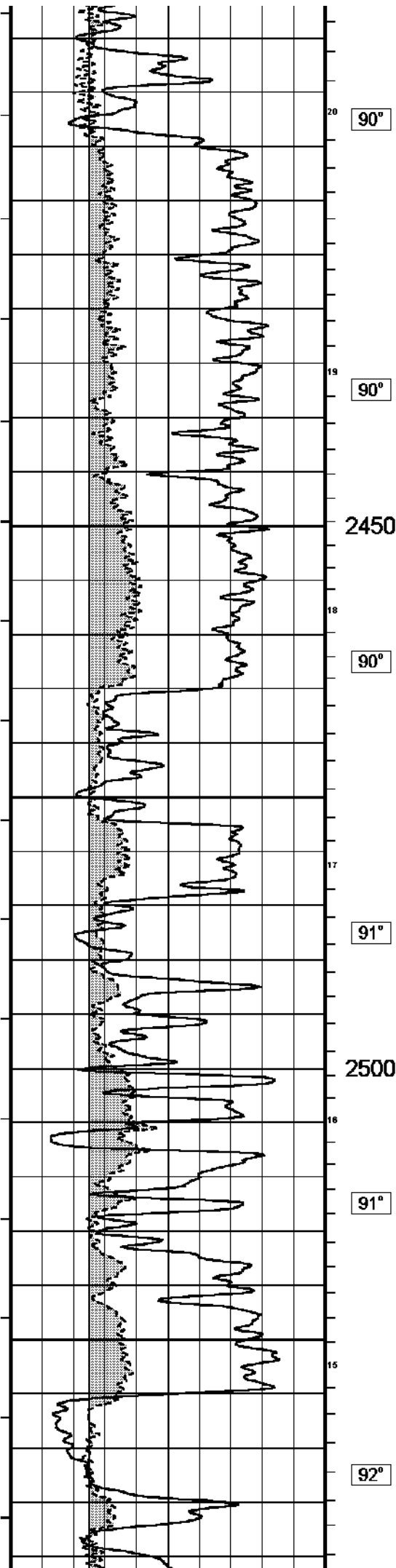
87°

88°

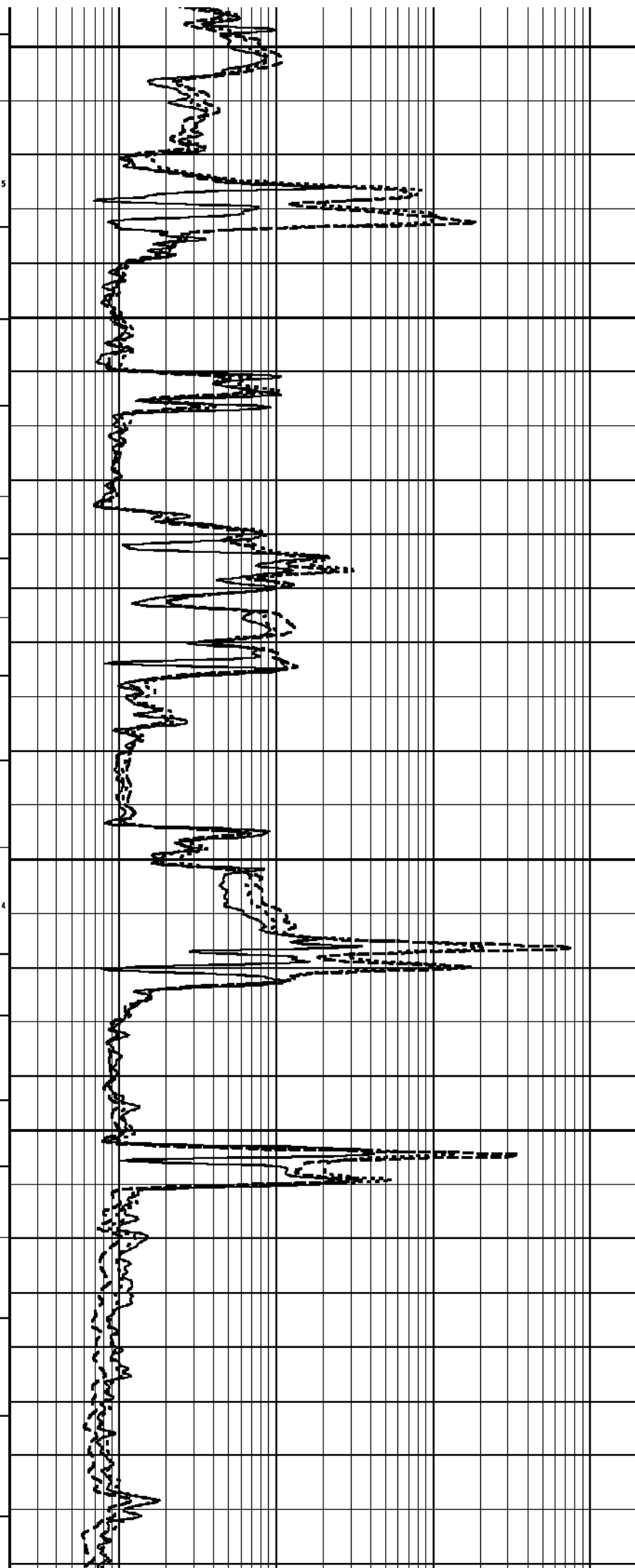
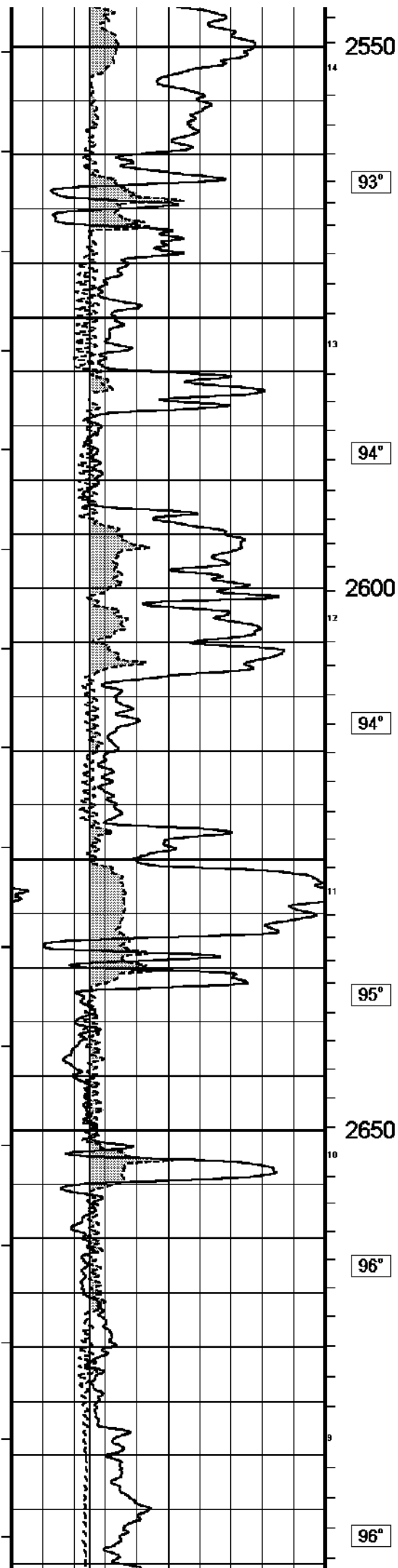
89°

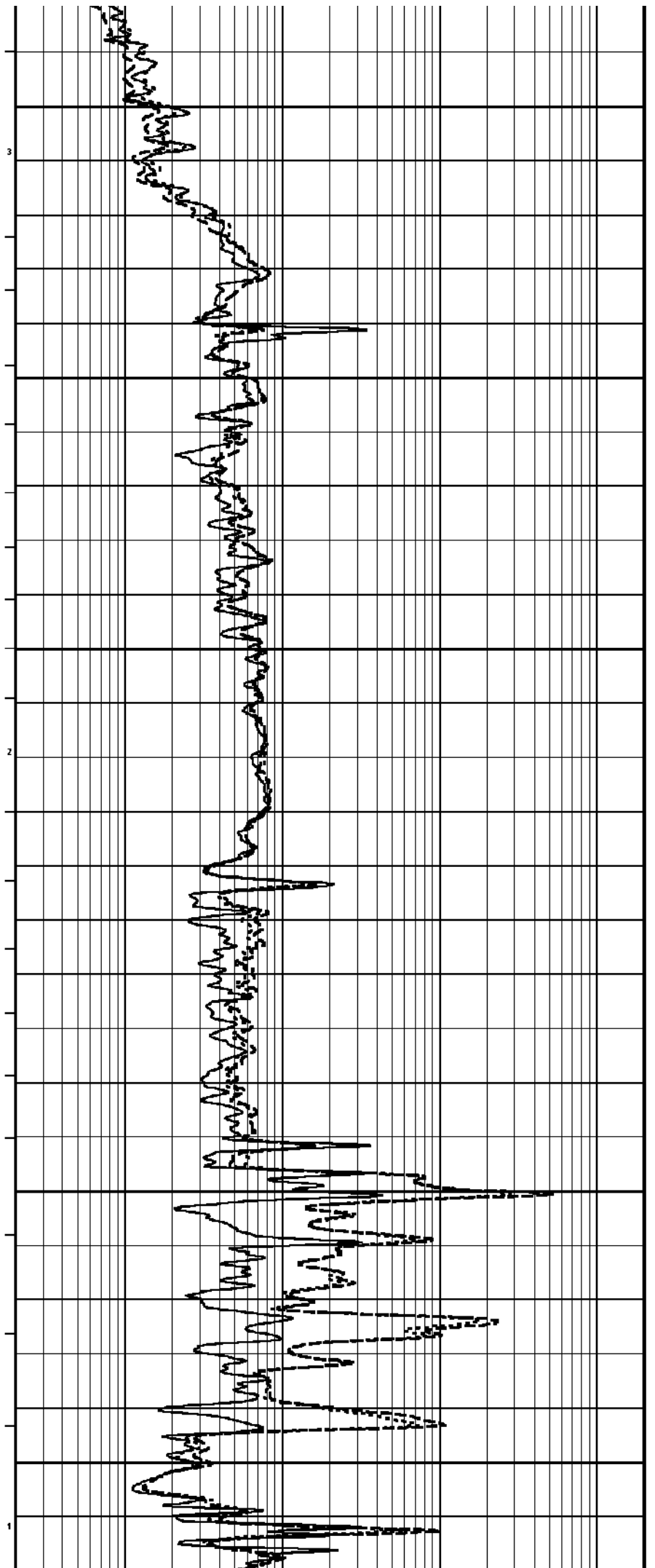
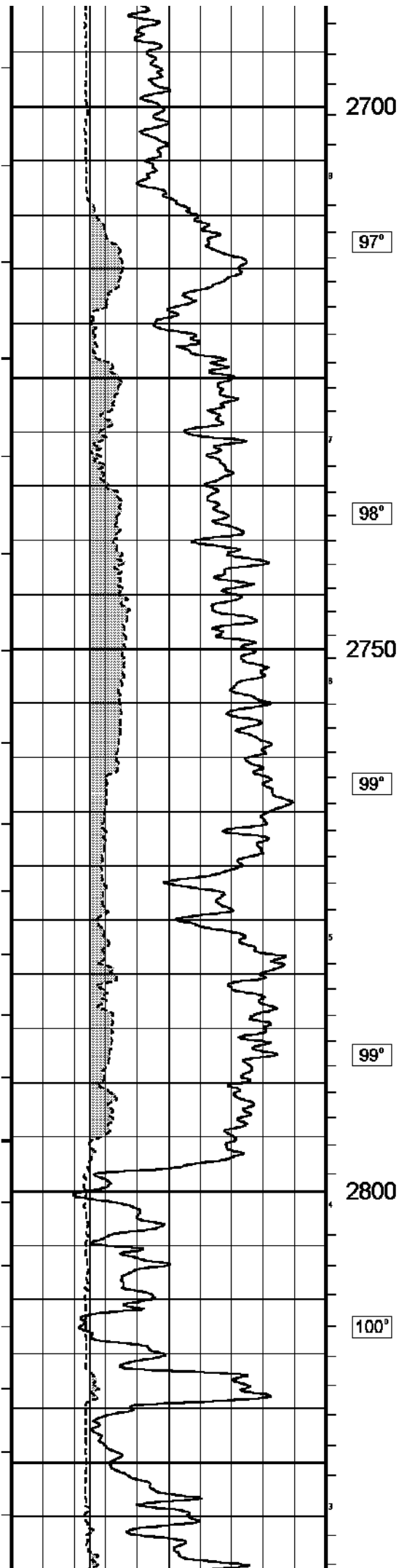
89°

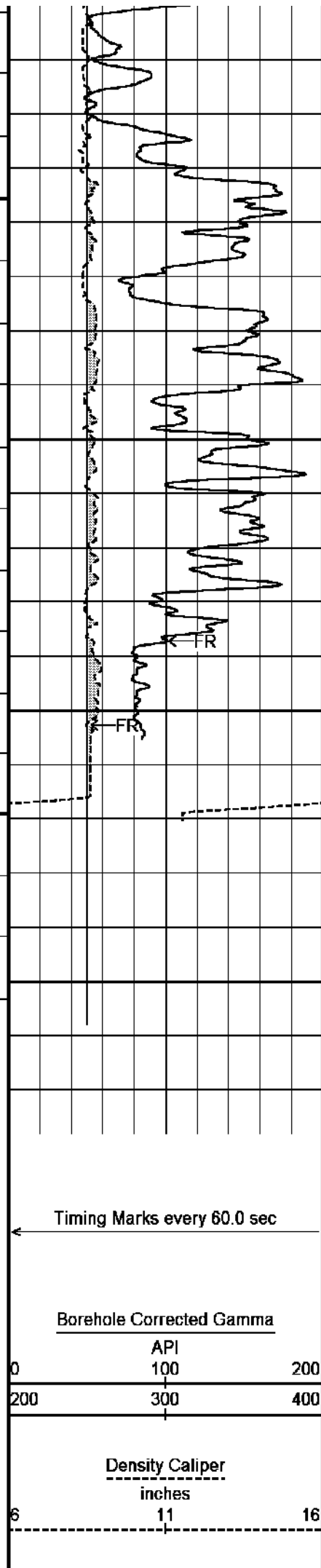












100°

2850

100°

100°

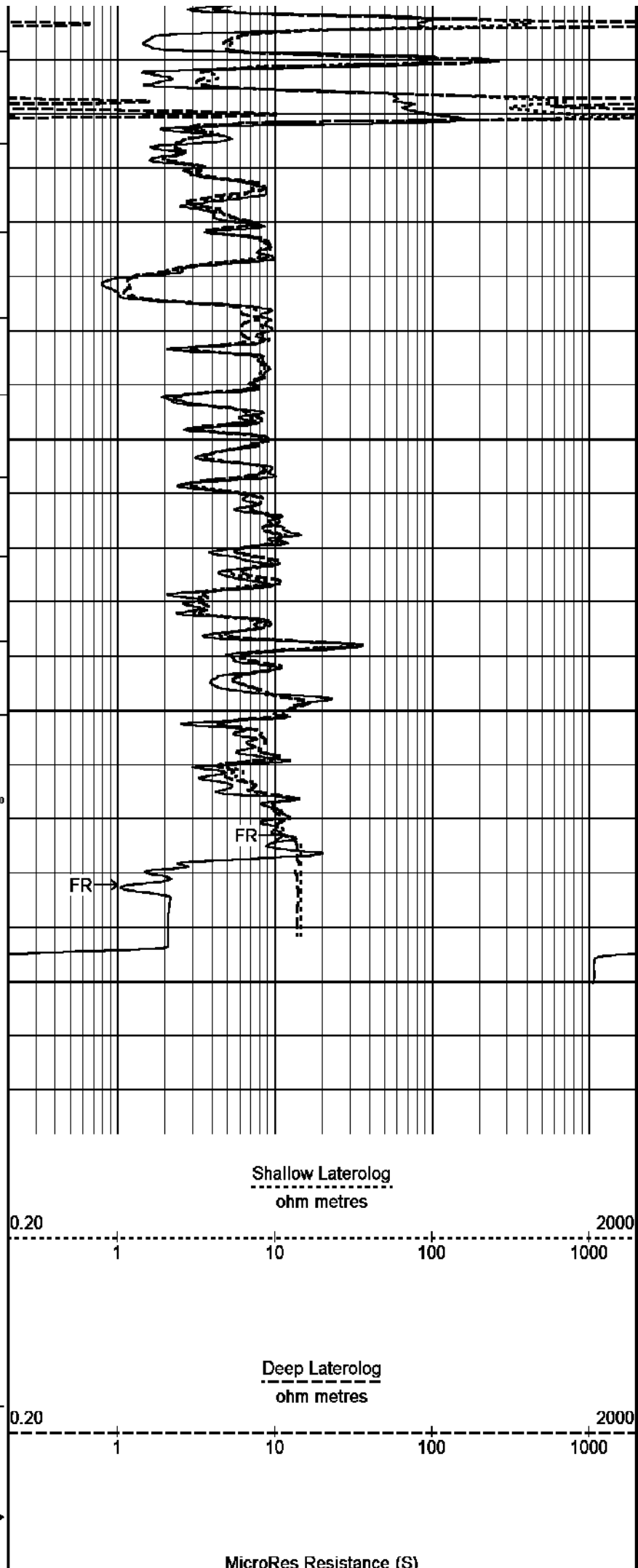
2900

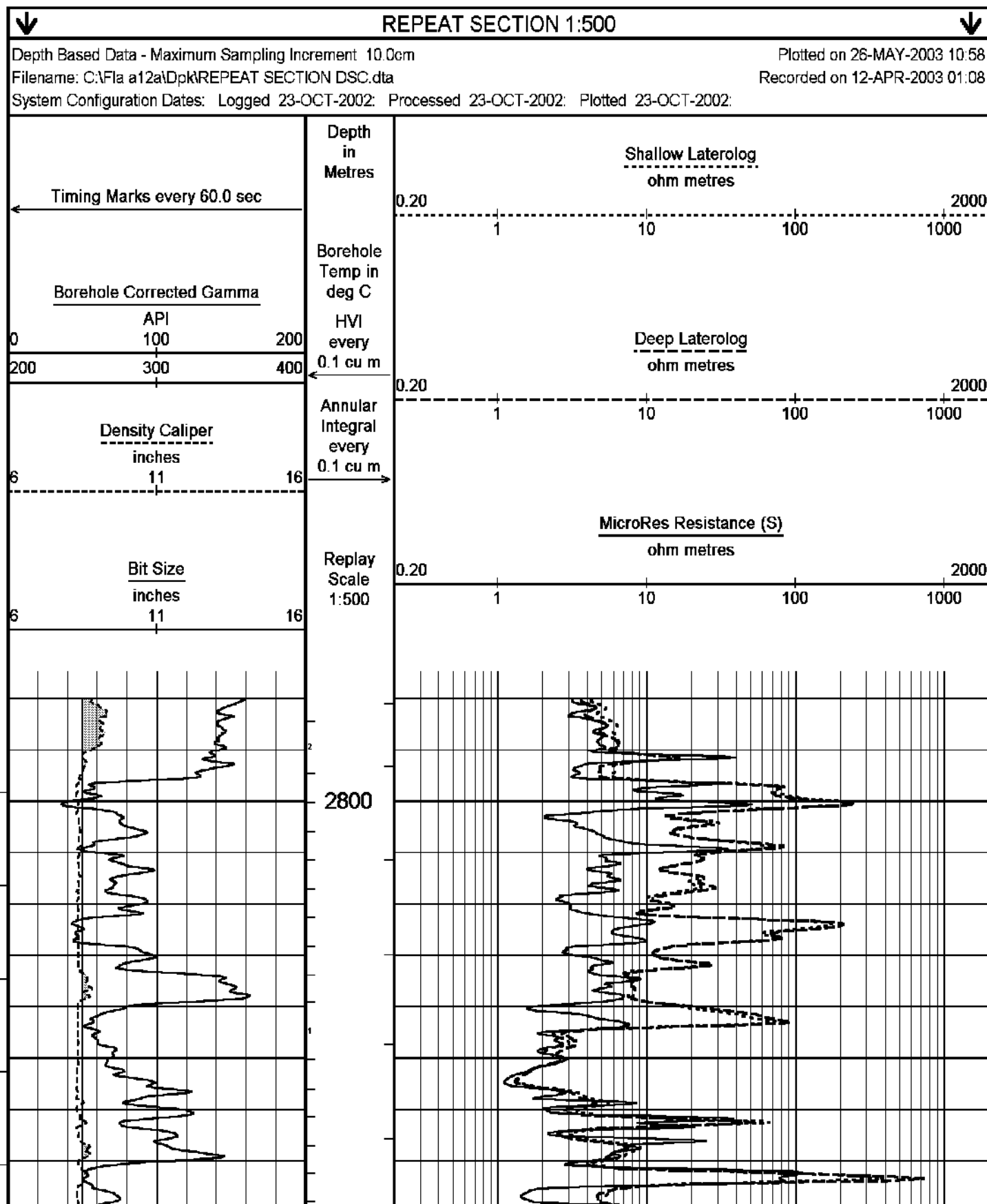
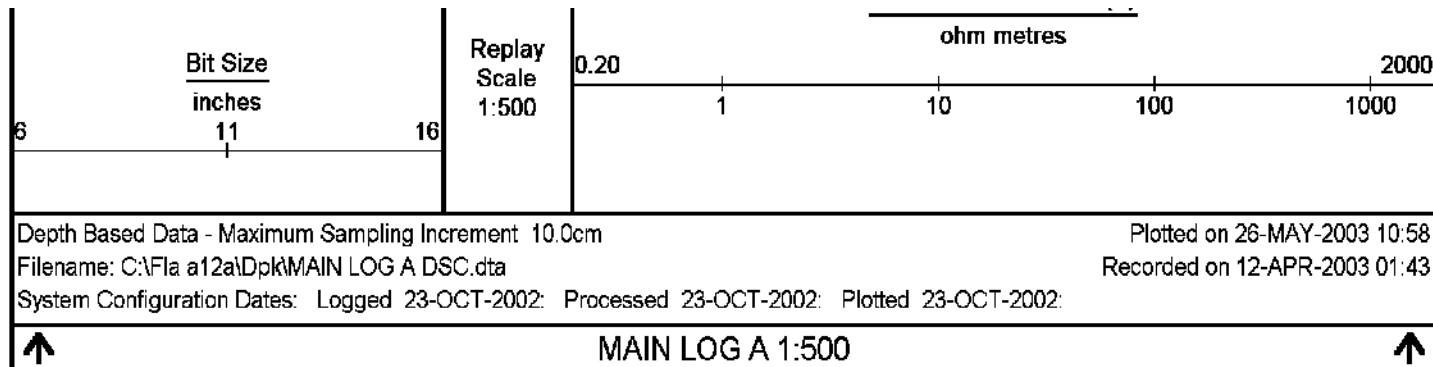
Depth in Metres

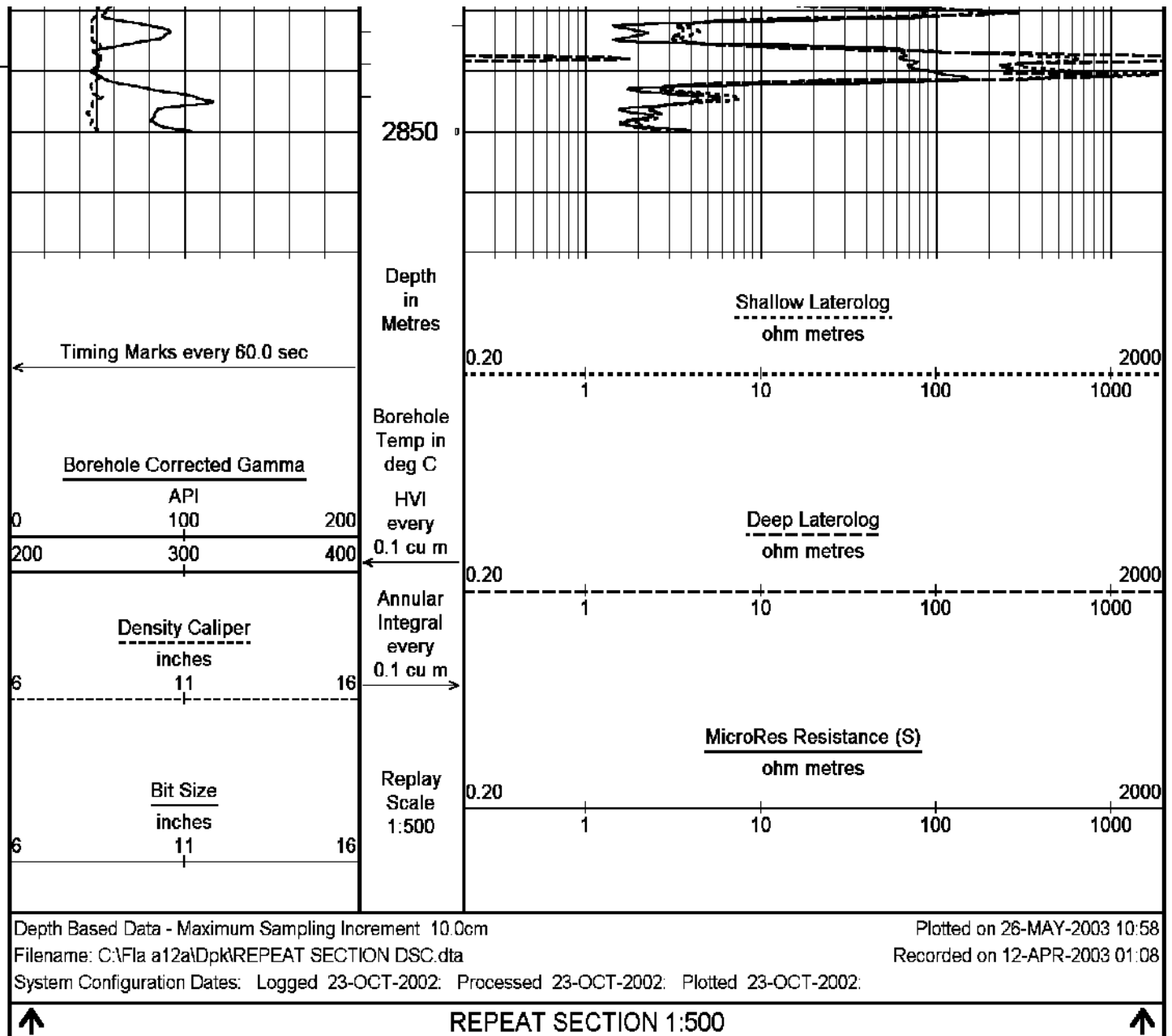
Borehole Temp in deg C

HVI every 0.1 cu m

Annular Integral every 0.1 cu m







## BEFORE SURVEY CALIBRATION

C:\Fla a12a\Dpk\MAIN LOG A DSC.dta

### General Constants All 000

#### General Parameters

Mud Resistivity	0.05	ohm-metres
Mud Resistivity Temperature	100.00	degrees C
Water Level	0.00	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	7.00	inches
Caliper for Differential Caliper	Density Caliper	

#### Rwa Parameters

Porosity used	Limestone Sonic Porosity
Resistivity used	Deep Laterolog
RWA Constant A	0.61
RWA Constant M	2.15

### Gamma Calibration MCG 076

Field Calibration on 7-APR-2003,14:34

	Measured	Calibrated (API)
Background	16	10
Calibrator (Gross)	1432	919

Calibrator (Net)	1416	909	
Gamma Constants MCG 076			
Gamma Calibrator Number	60		
Mud Density	1.19	gm/cc	
Caliper Source for Processing	Density Caliper		
Tool Position	Eccentred		
Concentration of KCl	0.00	kppm	
High Resolution Temperature Calibration MCG 076			
			Field Calibration on 19-FEB-2003,09:40
	Measured	Calibrated(Deg C)	
Lower	0.00	0.00	
Upper	100.00	100.00	
High Resolution Temperature Constants MCG 076			
Pre-filter Length	11		
Caliper Calibration MPD 067			
			Base Calibration on 12-APR-2003,03:34
			Field Calibration on
Base Calibration			
Reading No	Measured	Calibrator Size (in)	
1	14809	4.61	
2	24384	6.59	
3	34304	8.58	
4	44327	10.54	
5	55504	12.61	
6	N/A	N/A	
Field Calibration			
	0	0	
	0.00	0.00	
Laterolog Calibration MLE 015			
			Base Calibration on 7-APR-2003,15:42
			Field Check on 12-APR-2003,01:32
Base Calibration			
Channel	Resistor 1	Measured Resistor 2	Calibrated (ohm-m) Resistor 1 Resistor 2
Shallow	0.0	972.3	0.0 1327.3
Deep	0.0	972.9	0.0 852.7
Groningen	0.0	996.2	0.0 852.7
Channel	Base Check (ohm-m)	Field Check (ohm-m)	
Shallow	49.1	49.1	
Deep	31.5	31.5	
Groningen	246.3	246.3	
Laterolog Constants MLE 015			
Squasher Start	40000	ohm-m	
Shallow Laterolog K Factor	1.3273		
Deep Laterolog K Factor	0.8527		
Groningen Laterolog K Factor	0.8527		
Interference Rejection	50 Hz		
SP Connection	SP Bridle Electrode		
Groningen Connection	Groningen Electrode		
Micro Laterolog Calibration MMR 005			
			Base Calibration on 1-APR-2003,17:03
			Field Check on 12-APR-2003,01:31
Base Calibration			
	Measured	Calibrated (ohm-m)	
Ref 1 Ref 2	Ref 1 Ref 2		
0.0 9843.5	0.0 196.0		
Base Check (ohm-m)	Field Check (ohm-m)		
8.0	8.0		
Micro Laterolog Constants MMR 005			
Micro Laterolog K Factor	0.0196		
Standoff Offset	N/A	inches	

All measurements relative to tool zero.

Compact Inline Standoff B  
MIS 52    Length: 0.65 m    Weight: 15.43 lb

Compact Stiff Bridle Electrode Sub.  
MBE 9    Length: 3.76 m    Weight: 94.80 lb

Compact Inline Standoff B  
MIS 77    Length: 0.65 m    Weight: 15.43 lb

Compact Stiff Bridle Electrode Sub.  
MBE 5    Length: 3.76 m    Weight: 94.80 lb

31.84 m    SPDL - Spontaneous Potential

Compact Inline Standoff B



MIS 31 Length: 0.65 m Weight: 15.43 lb

Compact Gamma  
MCG 76 Length: 2.65 m Weight: 63.93 lb

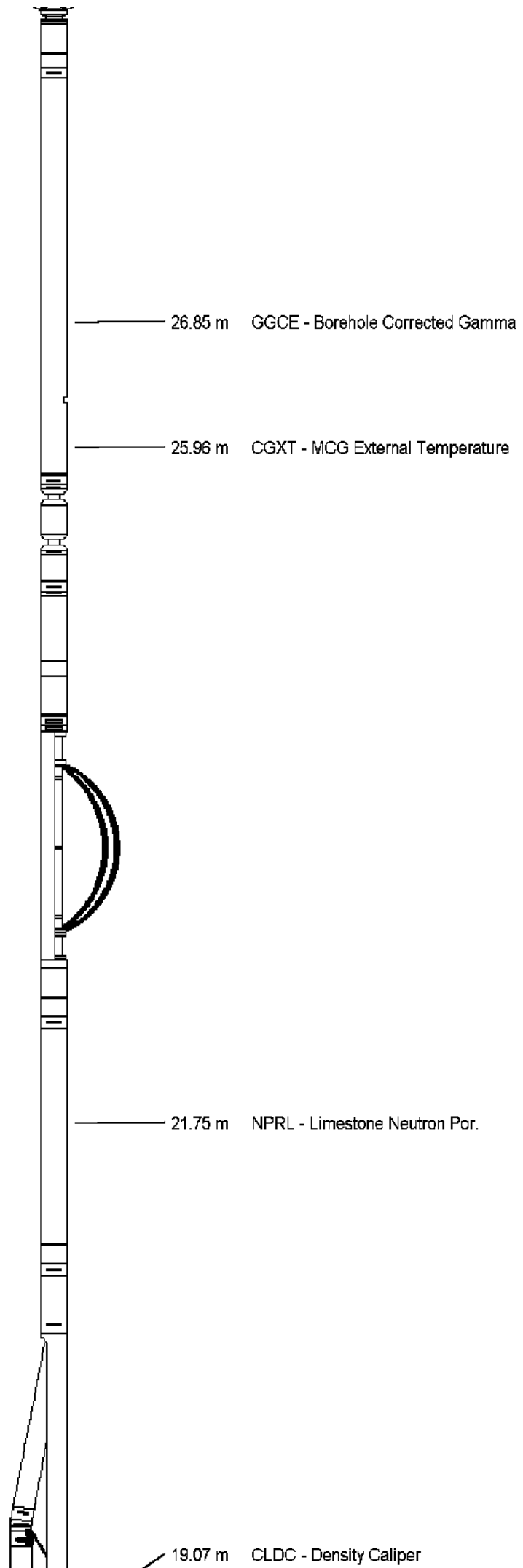
Compact Knuckle Joint  
SKJ 46 Length: 0.66 m Weight: 24.25 lb

Compact Swivel Head Adaptor  
SHA 27 Length: 0.83 m Weight: 26.46 lb

Compact Inline Bowspring A  
MIS 24 Length: 1.74 m Weight: 33.07 lb

Compact Neutron  
MDN 69 Length: 1.53 m Weight: 50.71 lb

Compact Density/Caliper  
MPD 67 Length: 2.92 m Weight: 90.39 lb





18.85 m DCOR - Density Correction  
 18.85 m DEN - Compensated Density  
 18.83 m PDPE - PE

Compact Inline Bowspring A  
 MIS 25 Length: 1.74 m Weight: 33.07 lb

Compact Swivel Head Adaptor  
 SHA 28 Length: 0.83 m Weight: 26.46 lb

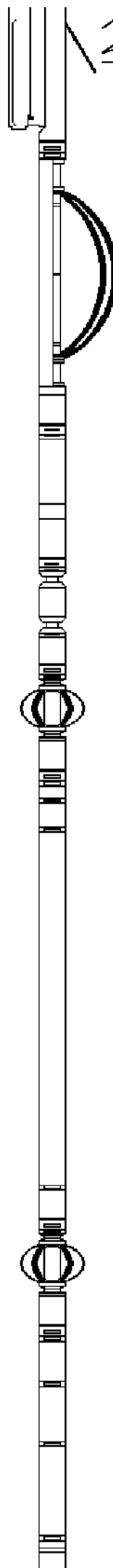
Compact Knuckle Joint  
 SKJ 45 Length: 0.66 m Weight: 24.25 lb

Compact Inline Standoff B  
 MIS 53 Length: 0.65 m Weight: 15.43 lb

Compact Upper Guard Sub.  
 MUG 17 Length: 2.74 m Weight: 68.34 lb

Compact Inline Standoff B  
 MIS 49 Length: 0.65 m Weight: 15.43 lb

Compact Laterolog Electrode Sub.  
 MLE 15 Length: 3.76 m Weight: 92.59 lb

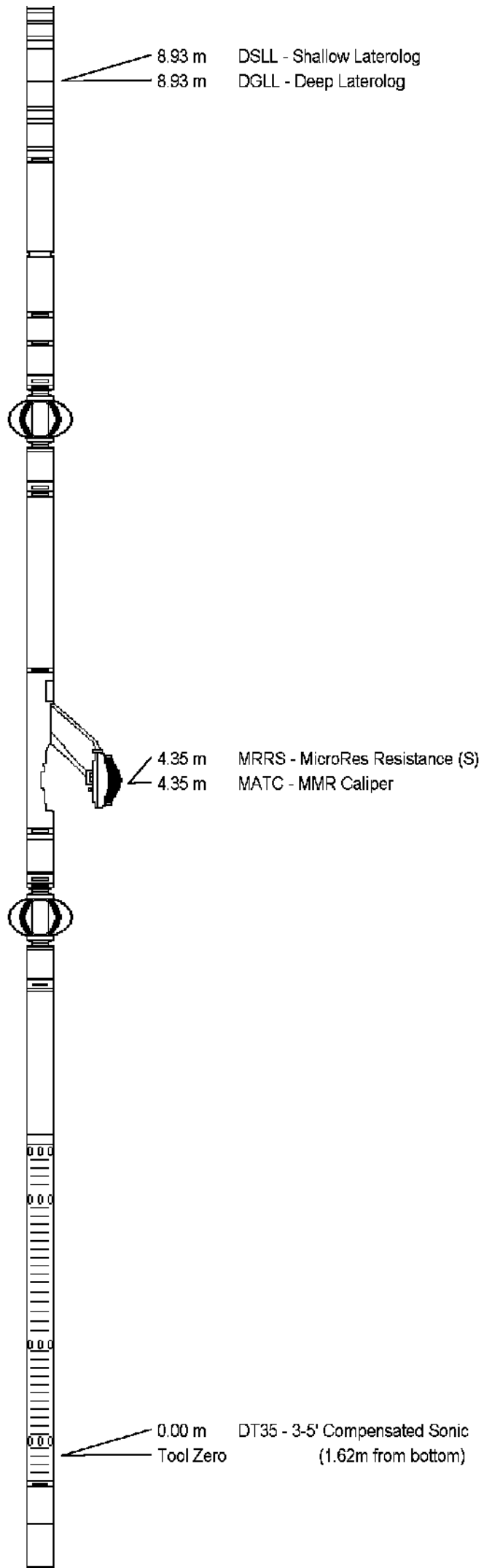


Compact Inline Standoff B  
MIS 76    Length: 0.65 m    Weight: 15.43 lb

Compact Micro-Resistivity  
MMR 5    Length: 2.62 m    Weight: 81.57 lb

Compact Inline Standoff B  
MIS 73    Length: 0.65 m    Weight: 15.43 lb

Compact Sonic  
MSS 28    Length: 3.82 m    Weight: 72.75 lb



Compact Inline Standoff B  
MIS 30      Length: 0.65 m      Weight: 15.43 lb

Pressure Bung + Hole Finder  
HFS 3      Length: 0.28 m      Weight: 6.61 lb



Total Length: 39.51 m      Total Weight: 1007.51 lb

COMPANY	ESSO AUSTRALIA PTY. LTD.
WELL	FLOUNDER A12a
FIELD	GIPPSLAND BASIN
PROVINCE/COUNTY	BASS STRAIT
COUNTRY/STATE	AUSTRALIA

Elevation Kelly Bushing		metres	First Reading	2920.50	metres
Elevation Drill Floor	33.85	metres	Depth Driller	2920.00	metres
Elevation Ground Level	-93.00	metres	Depth Logger	2921.00	metres



DUAL LATEROLOG  
GAMMA RAY  
1:500 MD