

# Reeves

## DUAL LATEROLOG

GAMMA RAY  
1:500 TVD

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	Other Services		COMPENSATED SONIC	
API Number				PHOTO DENSITY			
Permit Number				COMPENSATED NEUTRON			
Permanent Datum MSL , Elevation 0 metres						Elevations:	
Log Measured From RT@33.85 metres above Permanent Datum						KB	metres
Drilling Measured From RT						DF	33.85 metres
						GL	-93.00 metres
Date	12-APR-2003						
Run Number	1						
Depth Driller	2636.40					metres	
Depth Logger	2637.40					metres	
First Reading	2636.90					metres	
Last Reading	1084.00					metres	
Casing Driller	754.70					metres	
Casing Logger	754.50					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					PRESS	
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					G.McMannus	
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

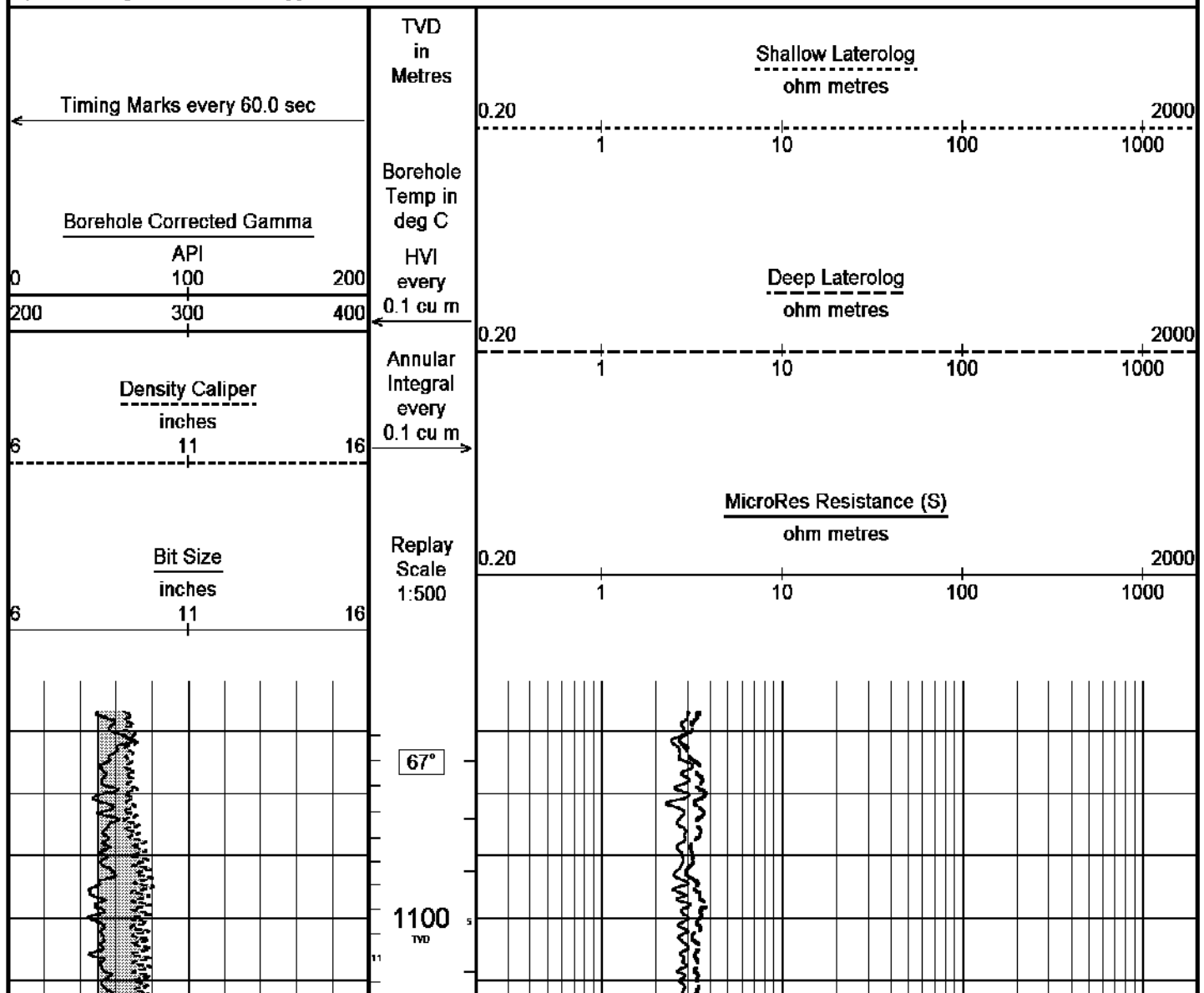
Depth Based Data - Maximum Sampling Increment 10.0cm

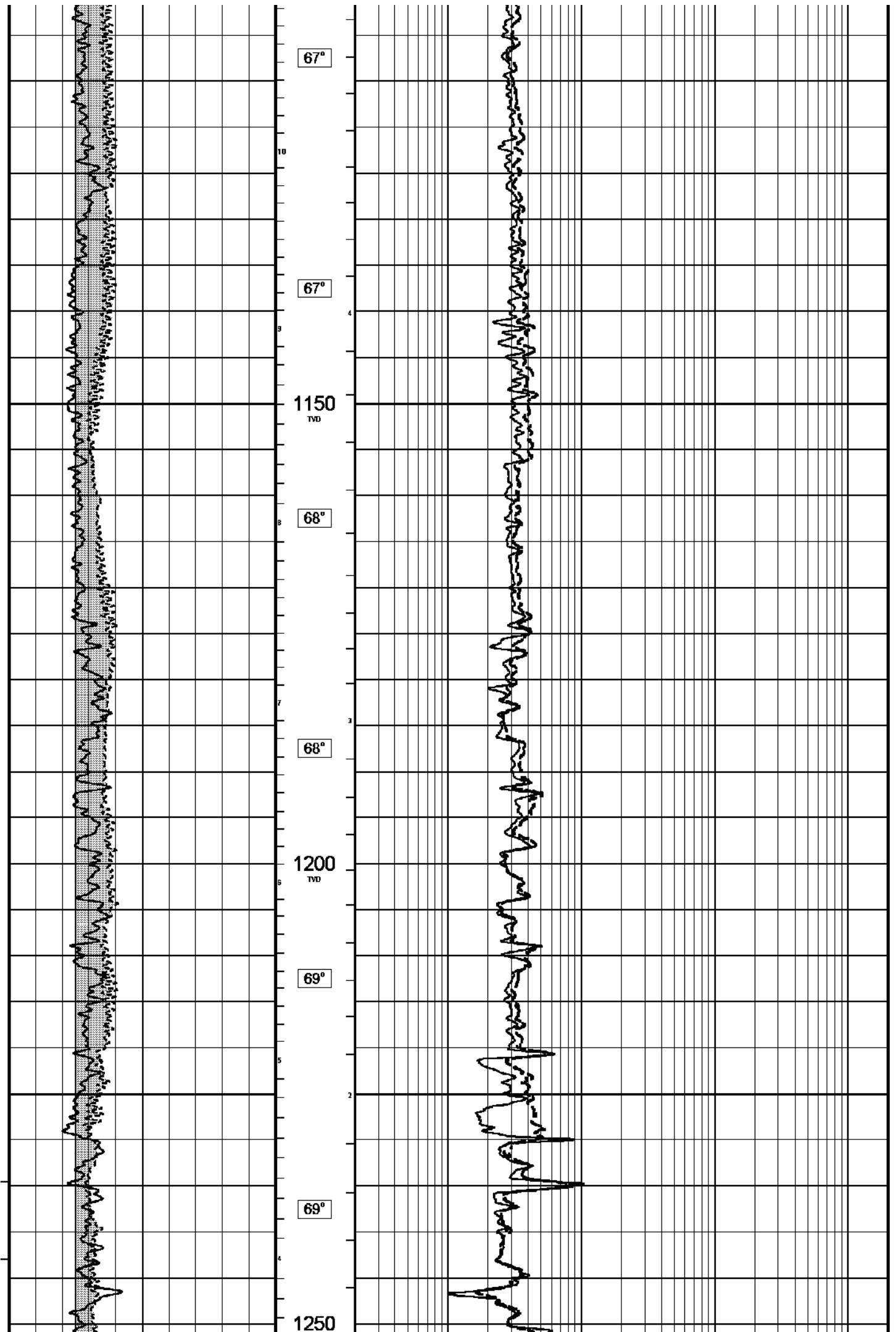
Plotted on 26-MAY-2003 11:23

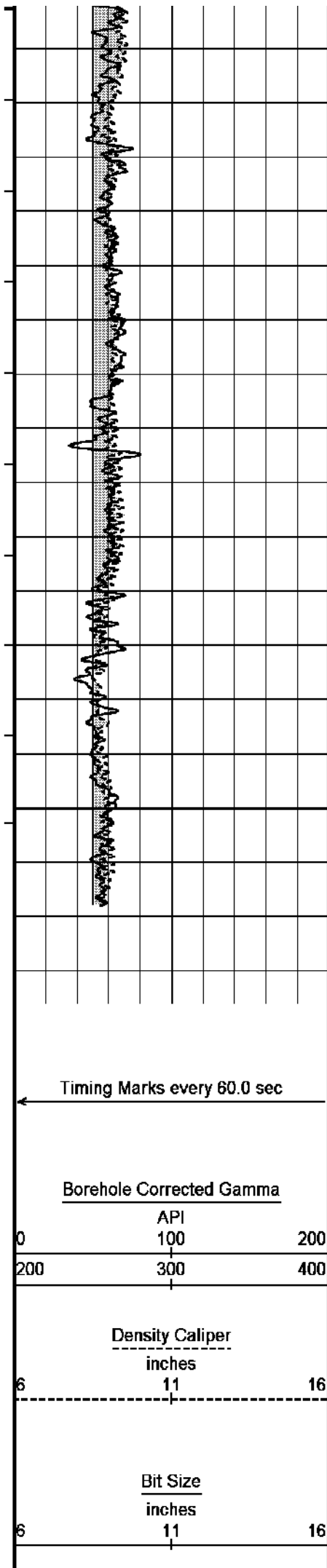
Filename: C:\Fla a12a\Dpk\MAIN LOG B DSC.dta

Recorded on 12-APR-2003 04:49

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







TVD

70°

70°

1300  
TVD

71°

71°

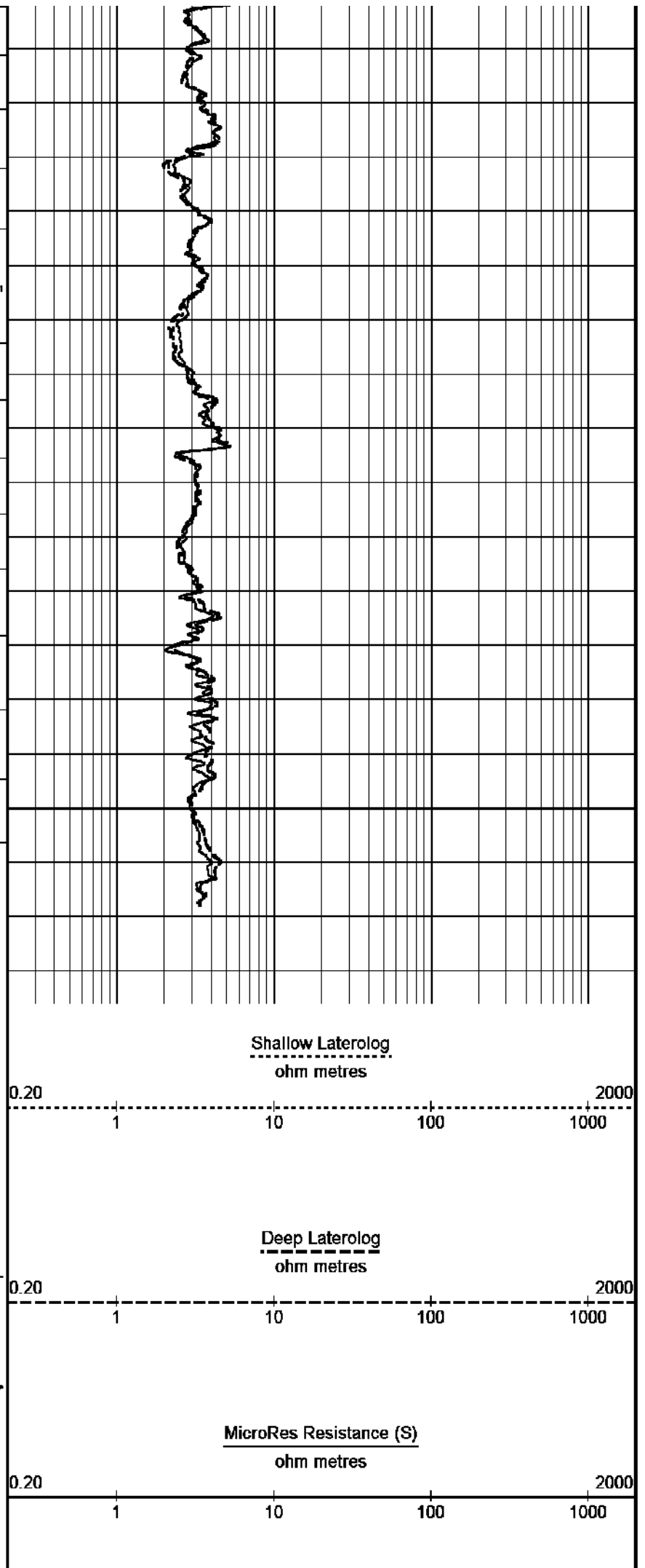
TVD  
in  
Metres

Borehole  
Temp in  
deg C

HVI  
every  
0.1 cu m

Annular  
Integral  
every  
0.1 cu m

Replay  
Scale  
1:500



Depth Based Data - Maximum Sampling Increment 10.0cm

Plotted on 26-MAY-2003 11:23

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:

## MAIN LOG B 1:500

## MAIN LOG A 1:500

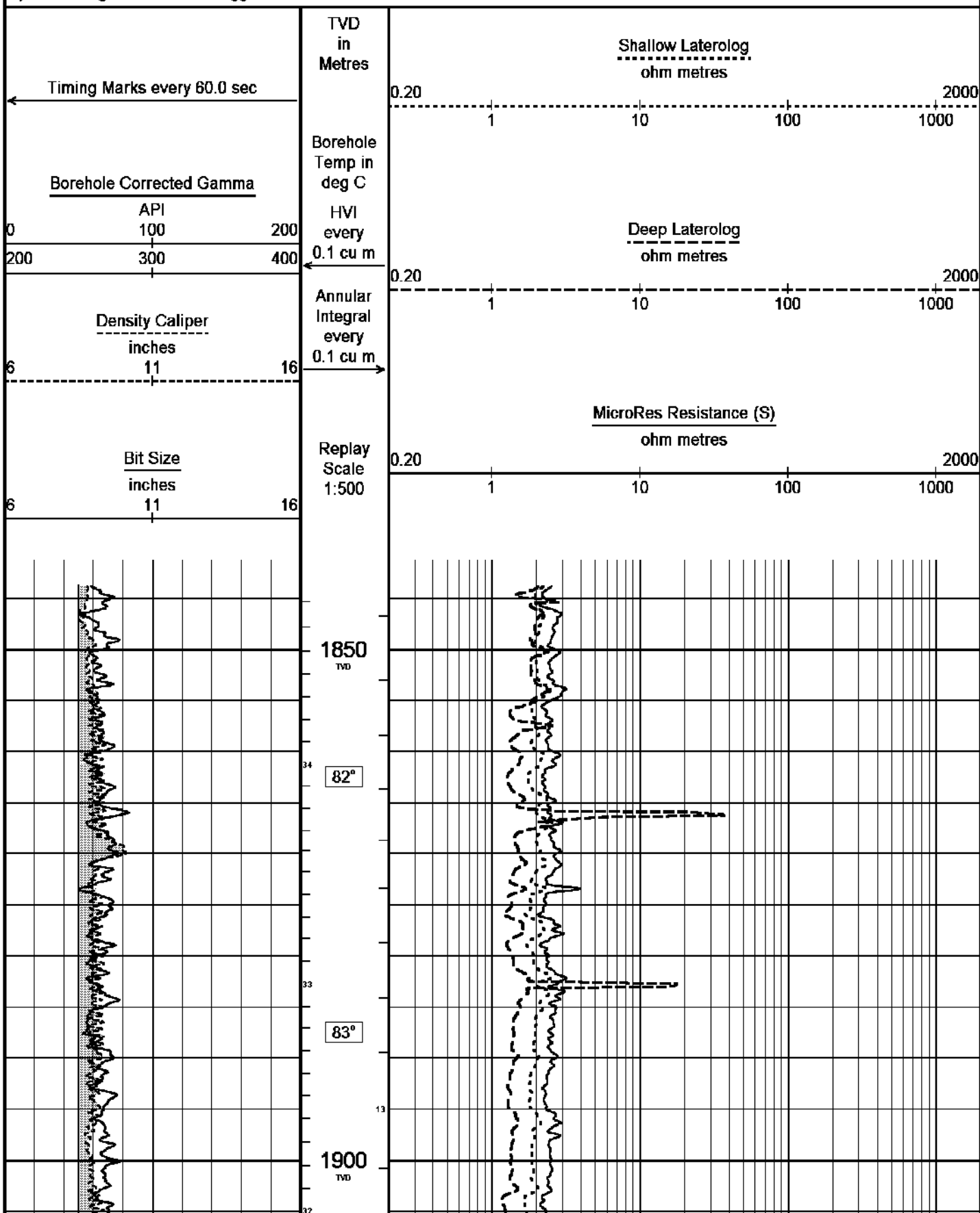
Depth Based Data - Maximum Sampling Increment 10.0cm

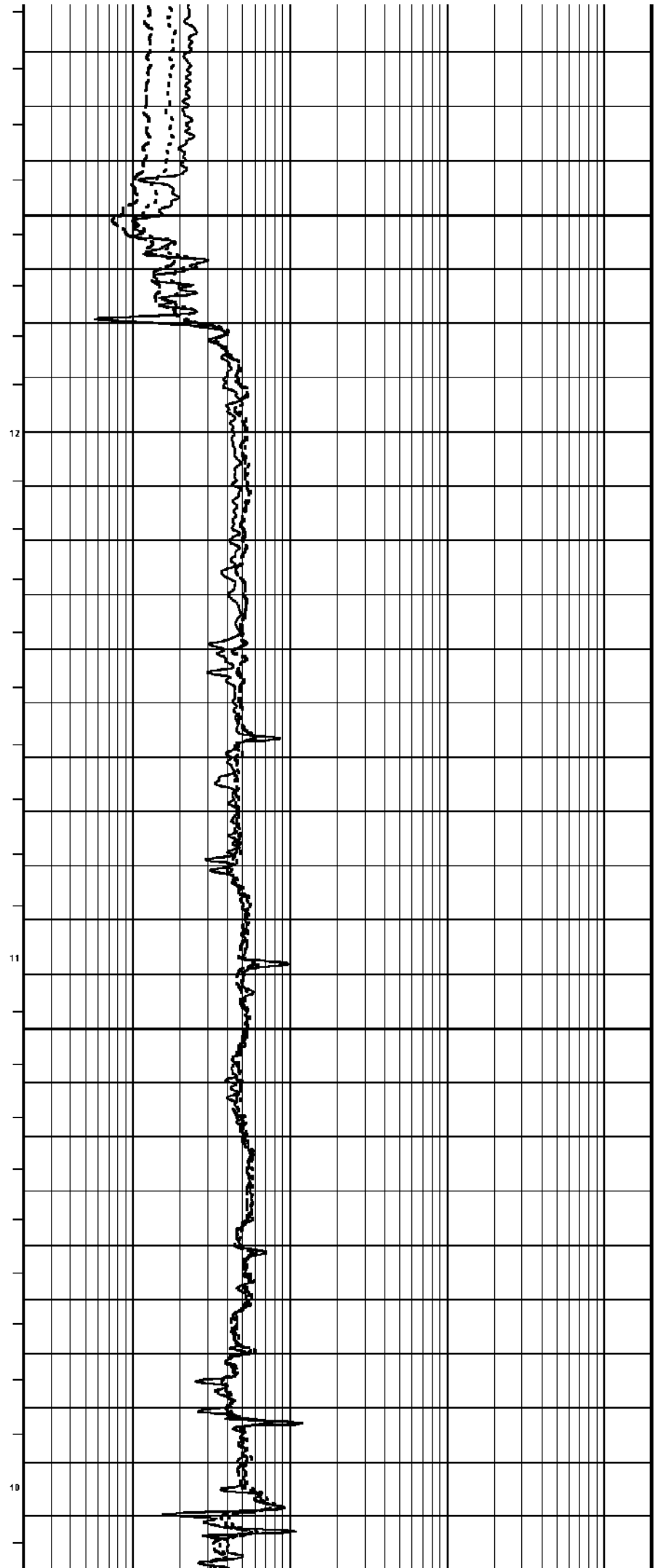
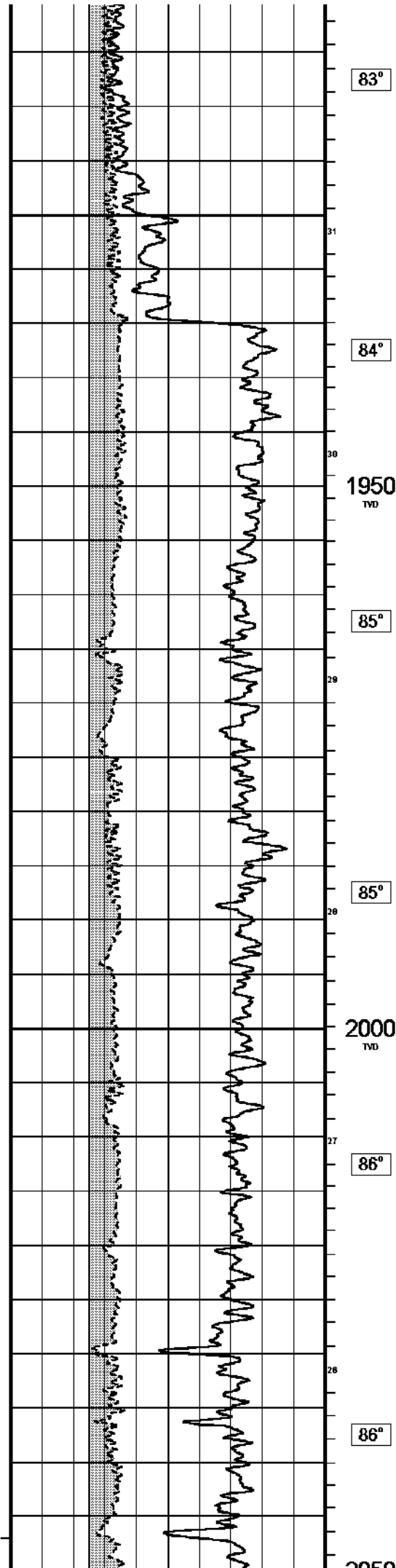
Plotted on 26-MAY-2003 11:23

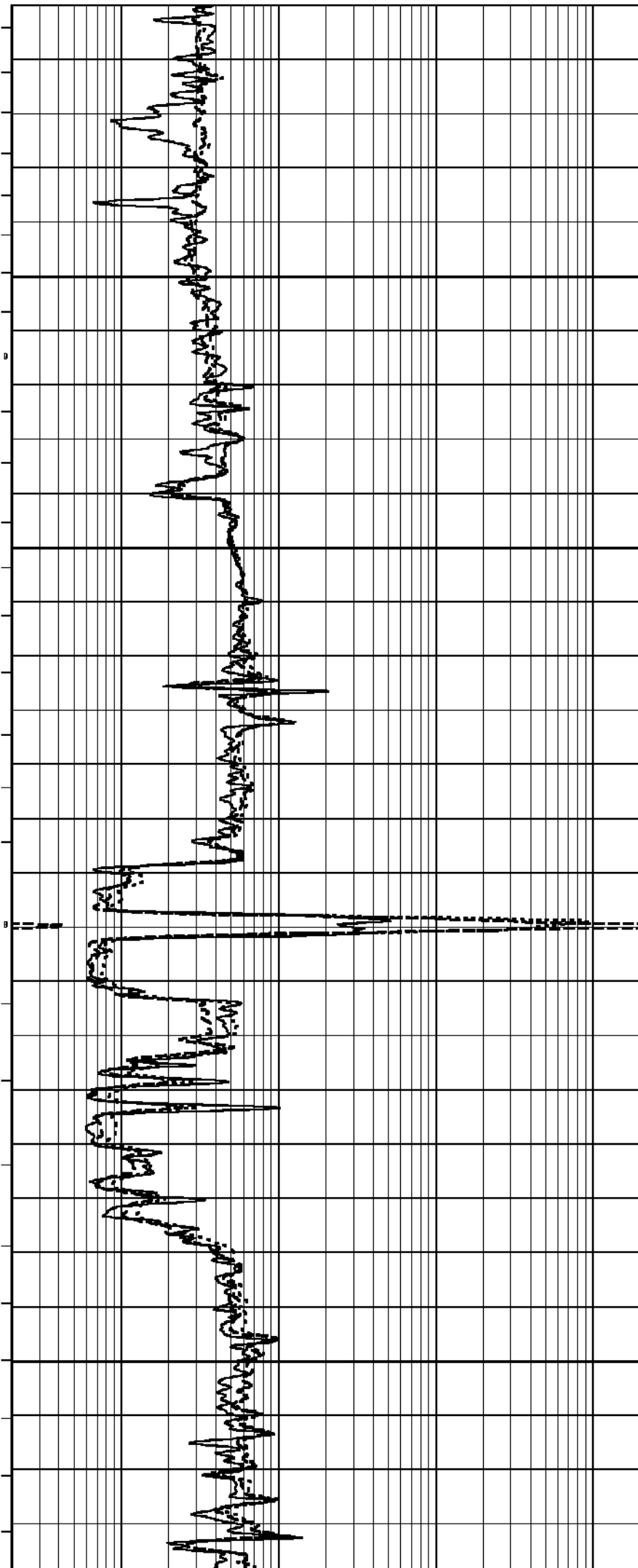
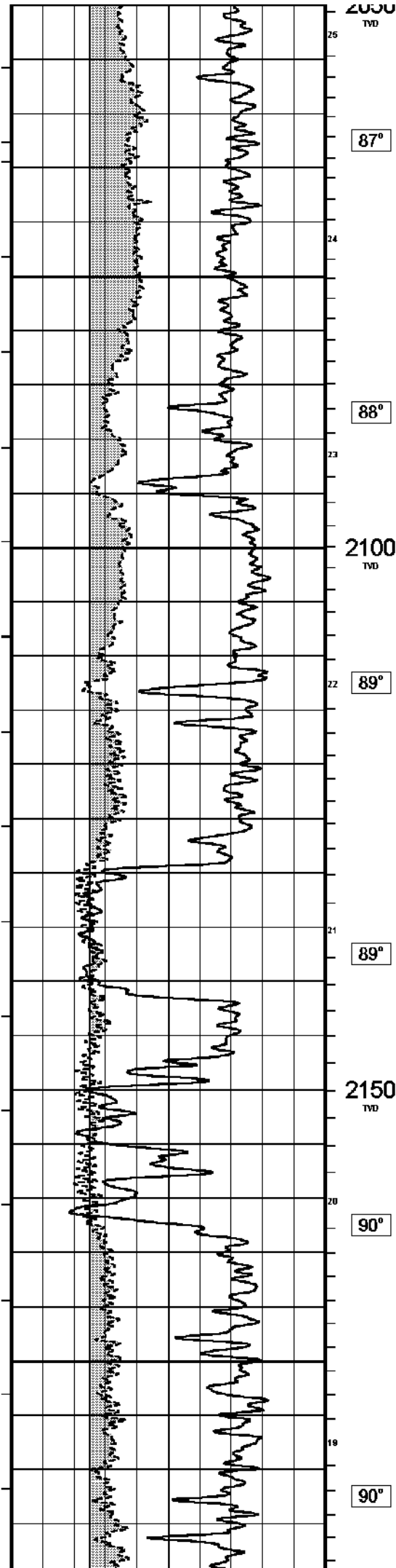
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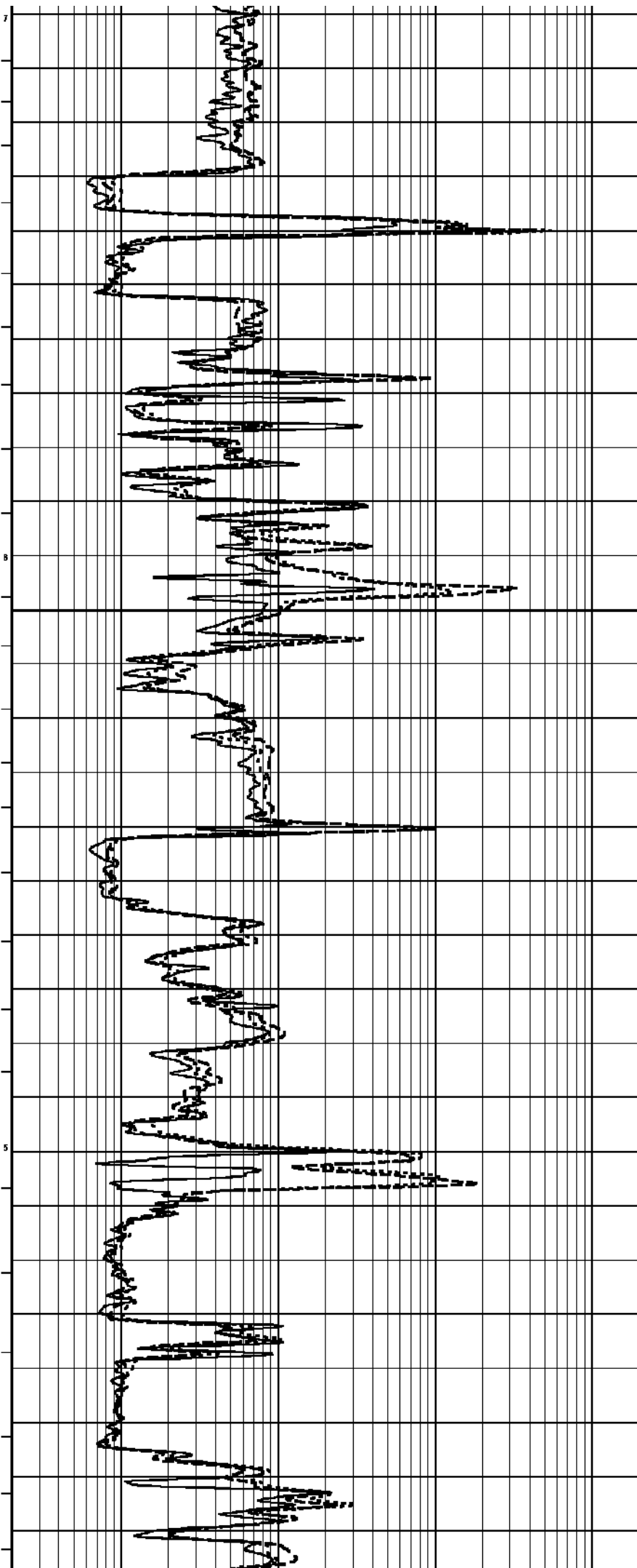
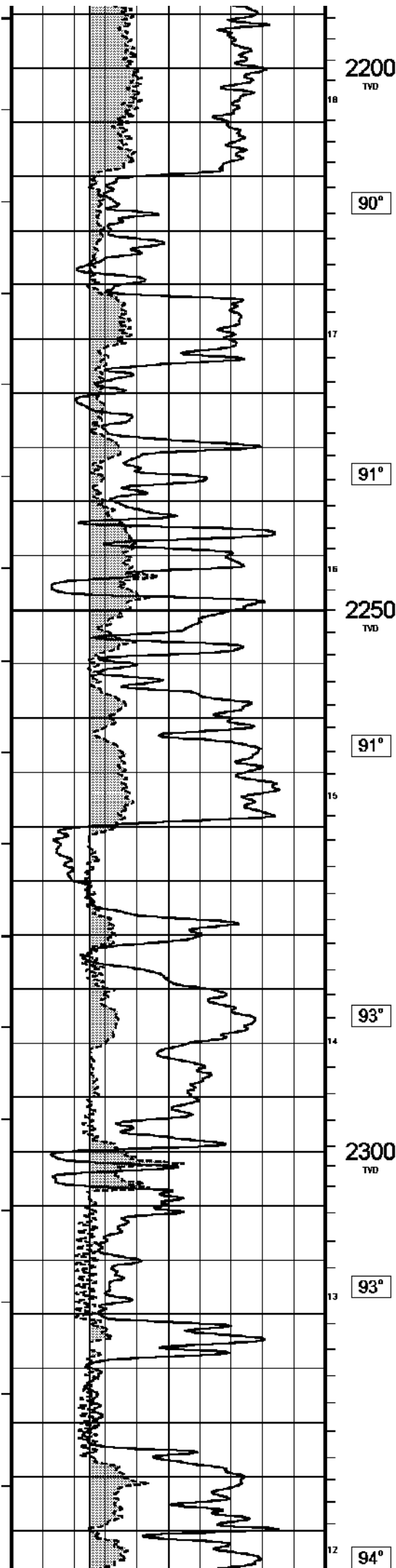
Recorded on 12-APR-2003 01:43

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

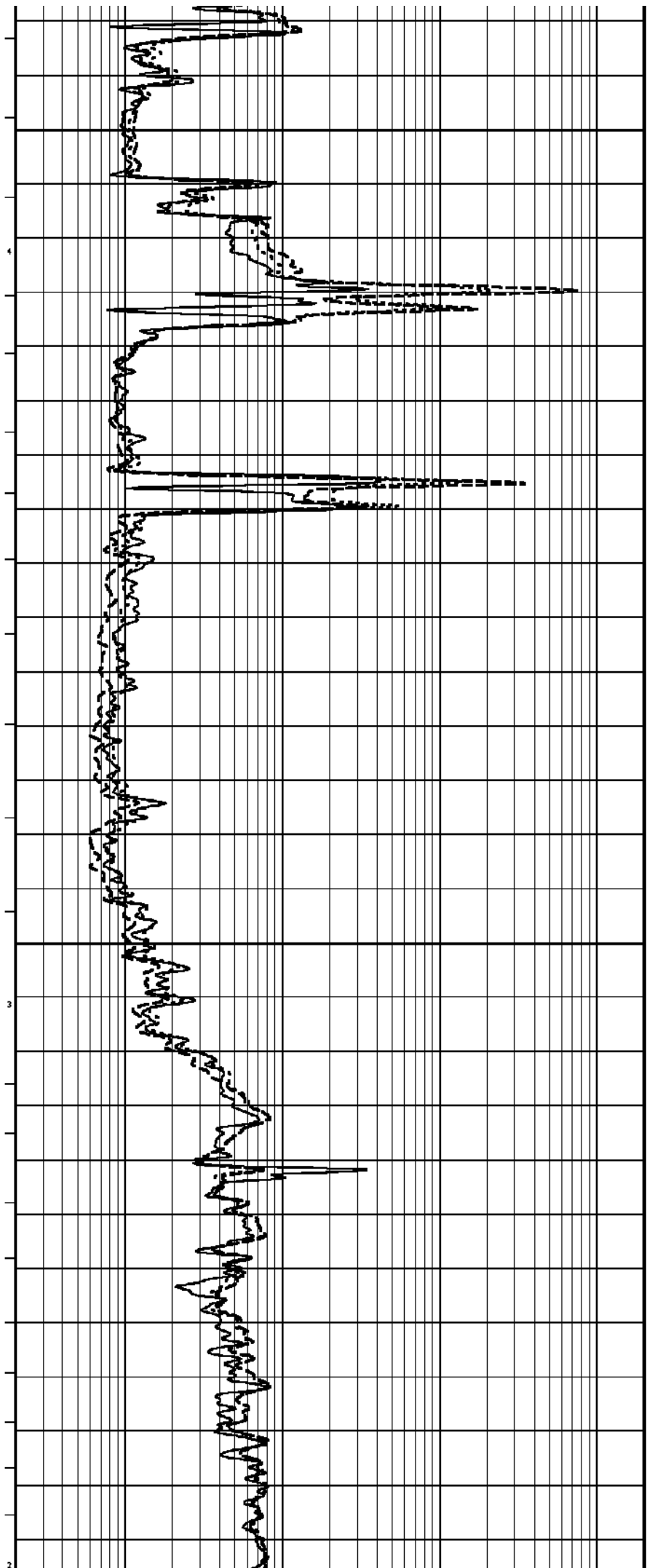
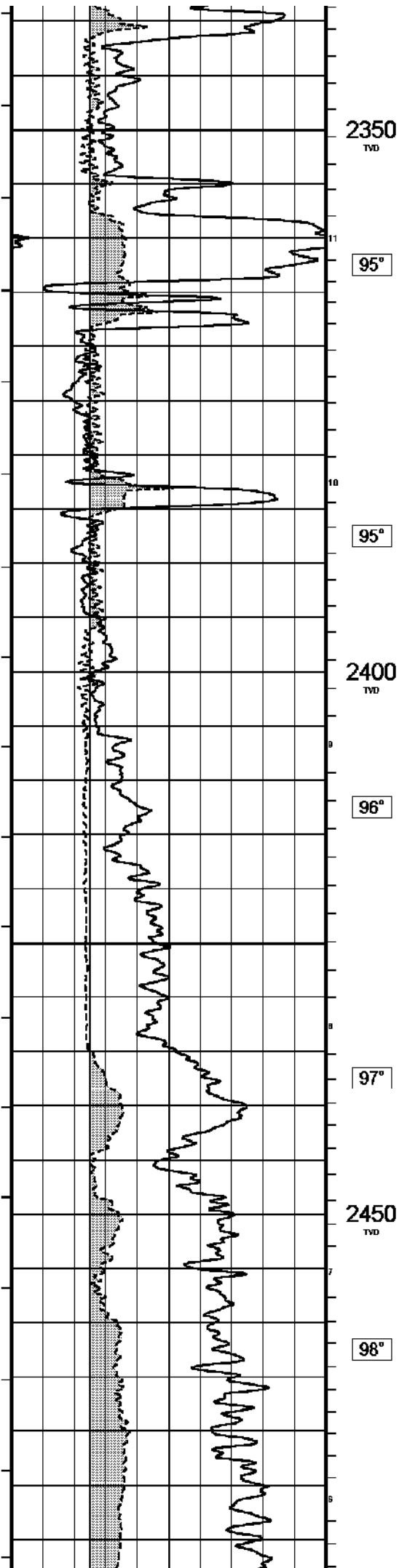


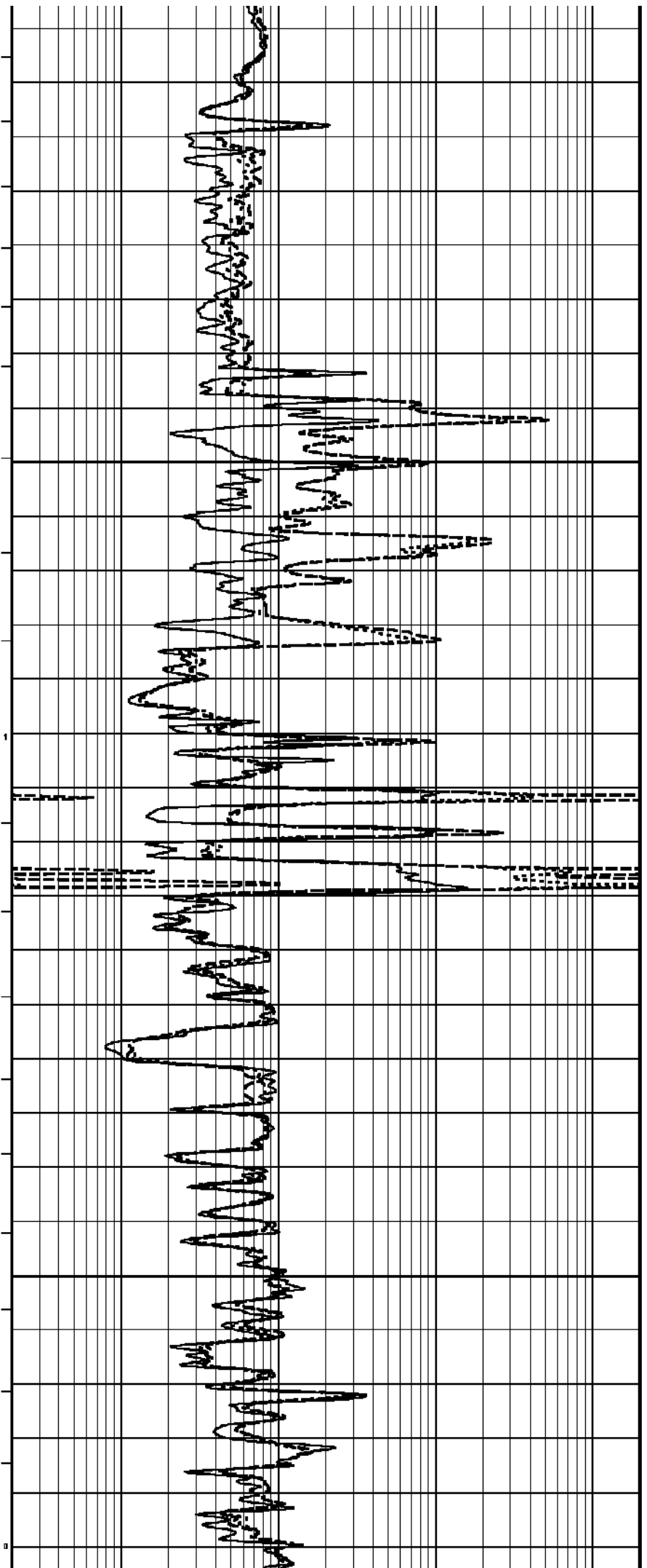
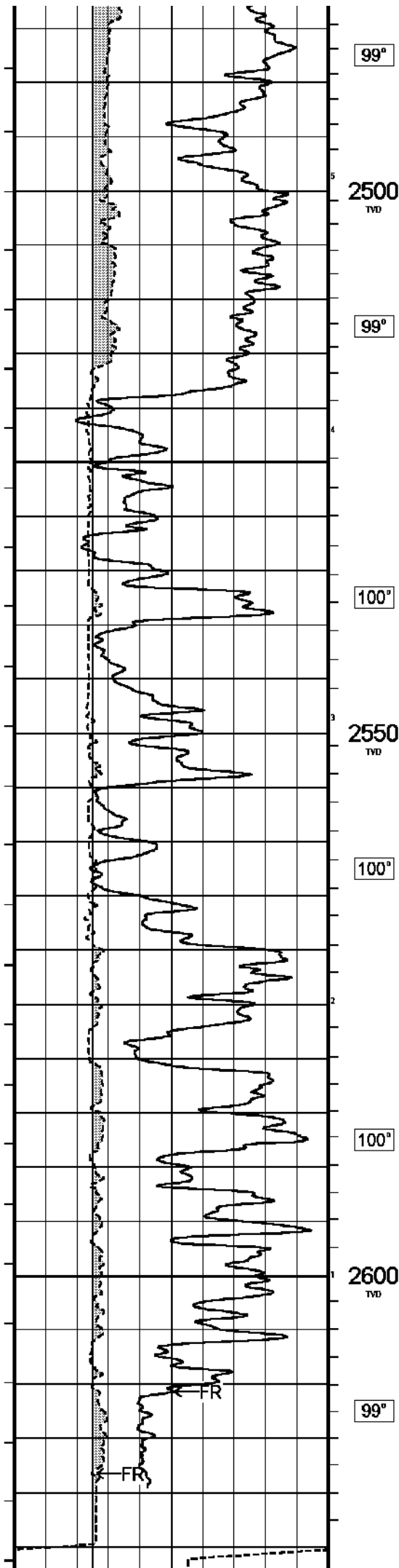




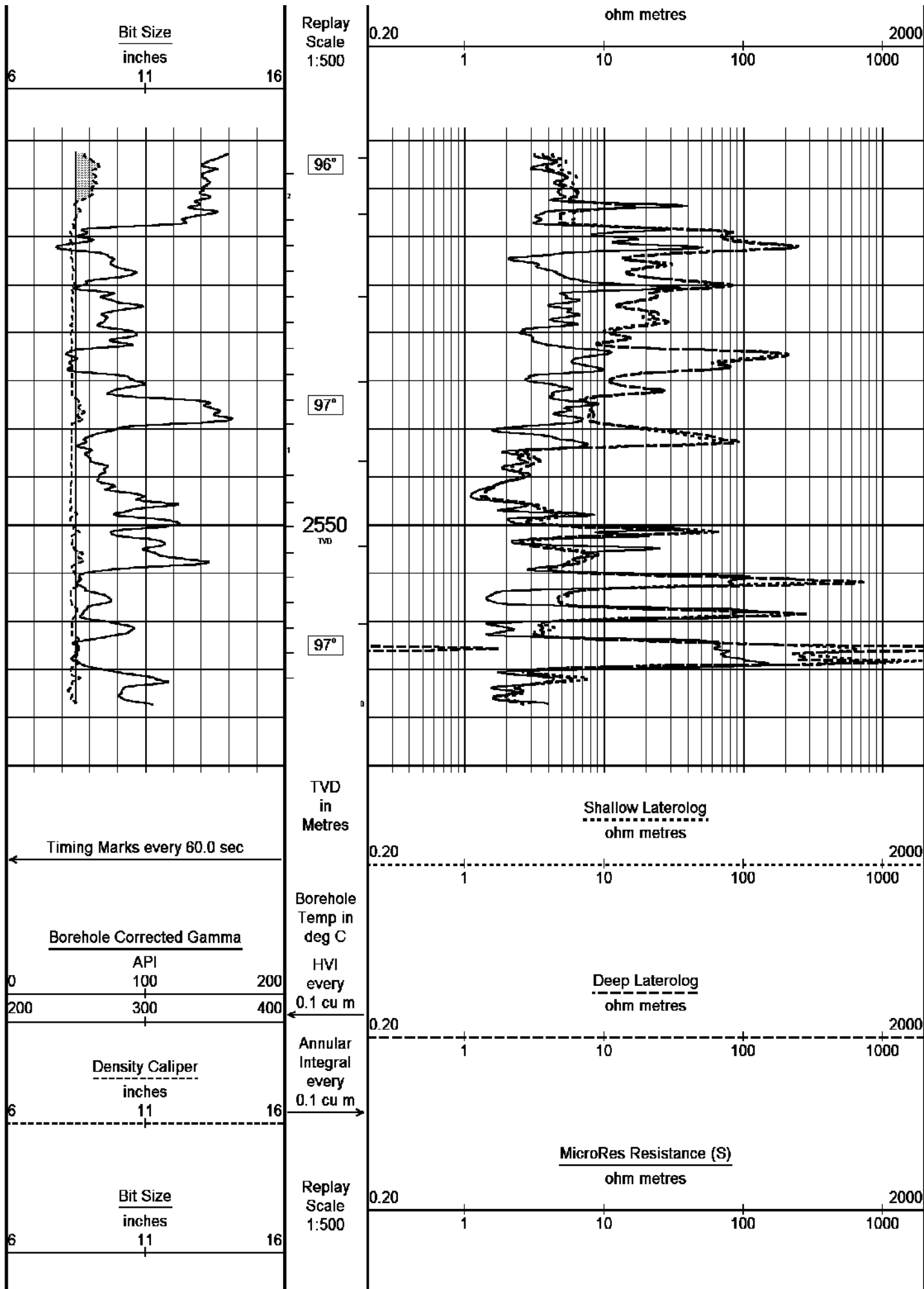












Depth Based Data - Maximum Sampling Increment: 10.0cm

Filename: C:\Fla a12a\Dpk\REPEAT SECTION DSC.dta

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

Plotted on 26-MAY-2003 11:23

Recorded on 12-APR-2003 01:08

REPEAT SECTION 1:500

## 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
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## 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

	Measured		Calibrated (ohm-m)	
Channel	Resistor 1	Resistor 2	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)
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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

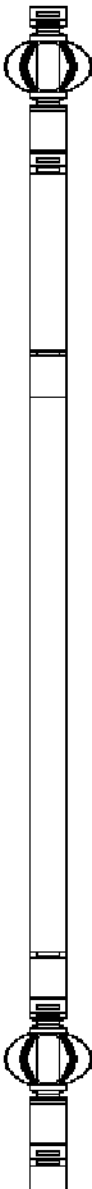
Micro Laterolog K Factor	0.0196	
Standoff Offset	N/A	inches

DOWNHOLE EQUIPMENT  
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

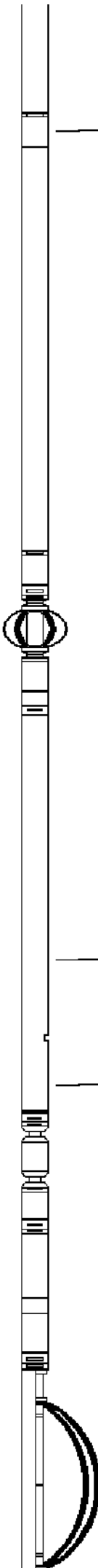
26.85 m    GGCE - Borehole Corrected Gamma

25.96 m    CGXT - MCG External Temperature

Compact Knuckle Joint  
SKJ 48    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

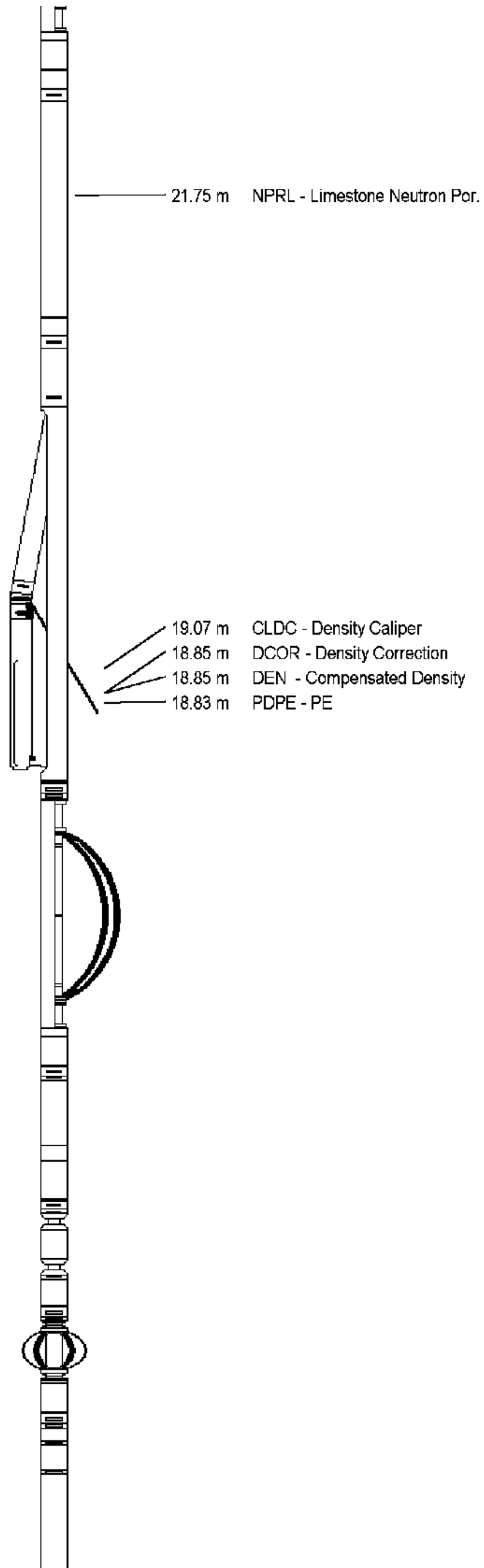
Compact Inline Bowspring A  
MIS 25    Length: 1.74 m    Weight: 33.07 lb

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





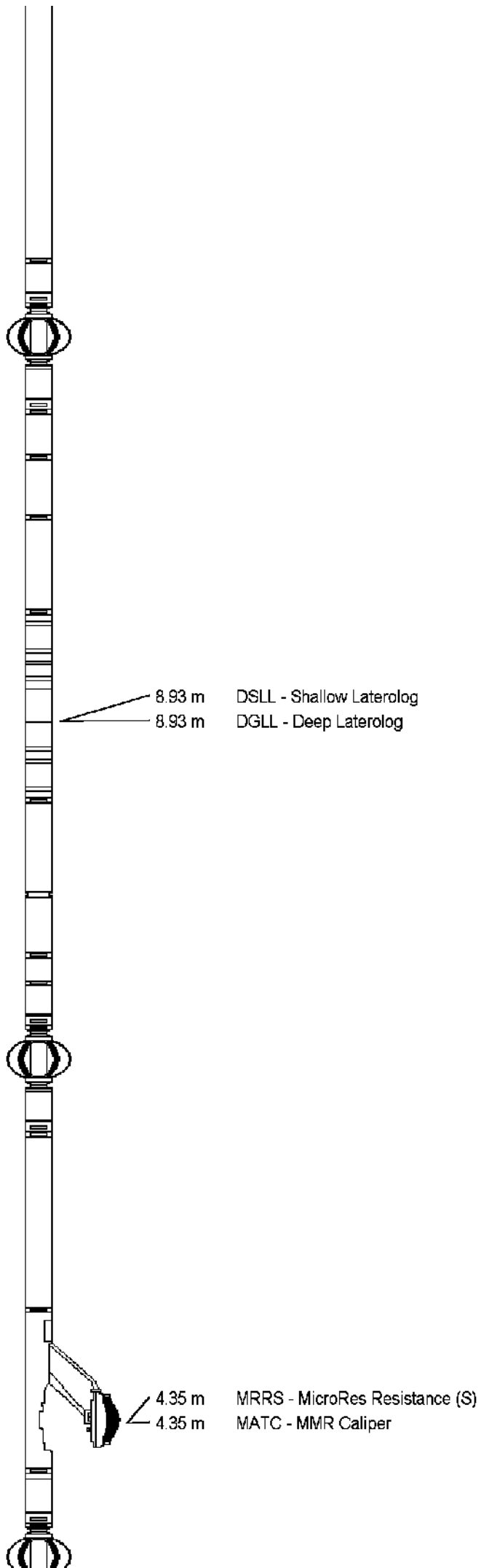
Compact Inline Standoff B  
MIS 49    Length: 0.65 m    Weight: 15.43 lb

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



0.00 m      DT35 - 3-5' Compensated Sonic  
Tool Zero      (1.62m from bottom)

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	2636.90	metres
Elevation Drill Floor      33.85	metres	Depth Driller	2636.40	metres
Elevation Ground Level      -93.00	metres	Depth Logger	2637.40	metres

**Reeves**

DUAL LATEROLOG  
GAMMA RAY  
1:500 TVD