

Reeves

COMPENSATED SONIC 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 | Other Services DUAL LATEROLOG PHOTO DENSITY | | | |
| API Number | | | | COMPENSATED NEUTRON | | | |
| Permit Number | | | | | | | |
| Permanent Datum MSL | | | | , Elevation 0 metres | | Elevations: KB metres DF 33.85 metres GL -93.00 metres | |
| Log Measured From RT@33.85 metres above Permanent Datum | | | | | | | |
| Drilling Measured From RT | | | | | | | |
| 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 | | | 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.McManus | | | |
| 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

BTTM 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.

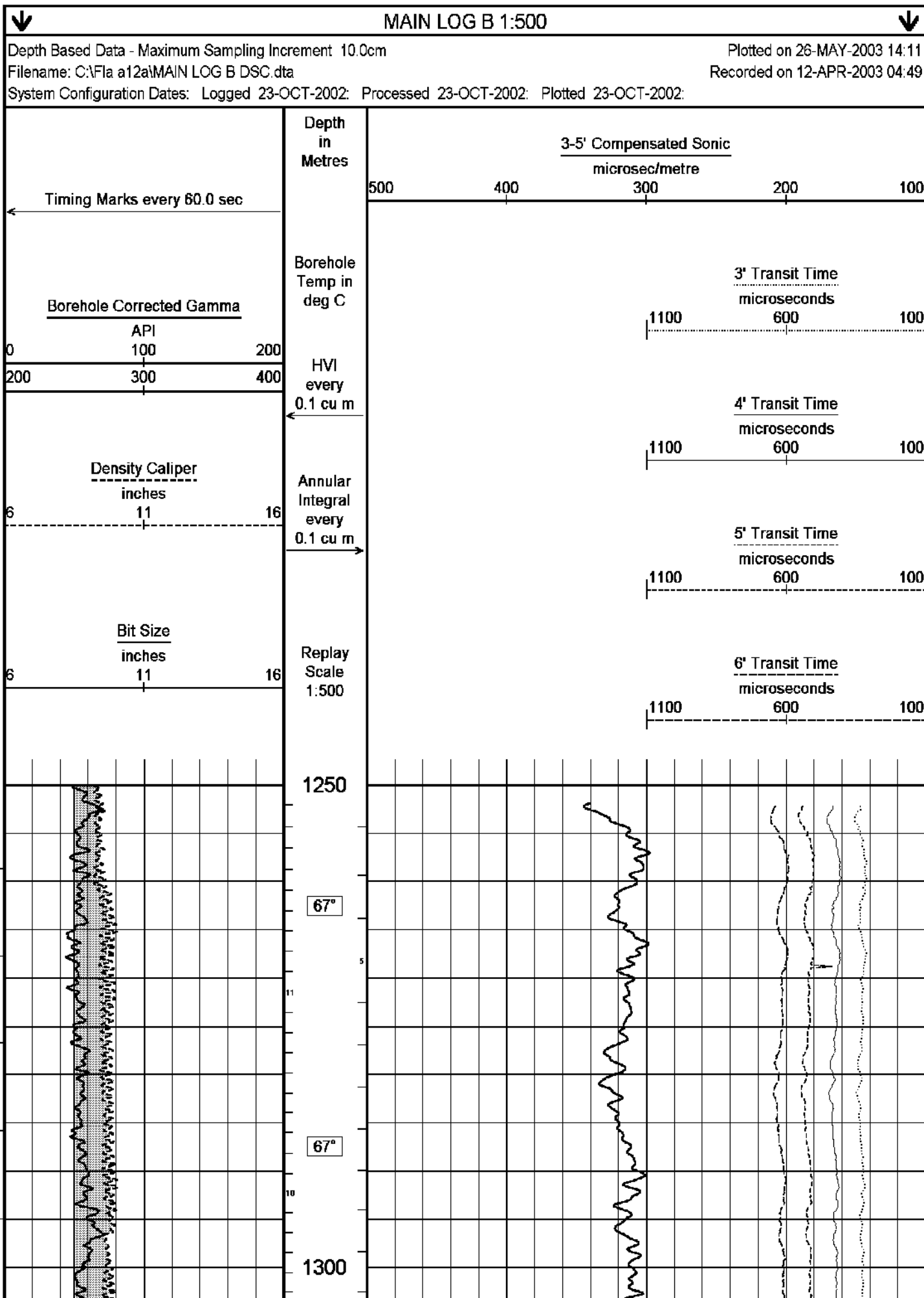
MAX DEVIATION: 53.8 DEGREES AT 2137.0 m.

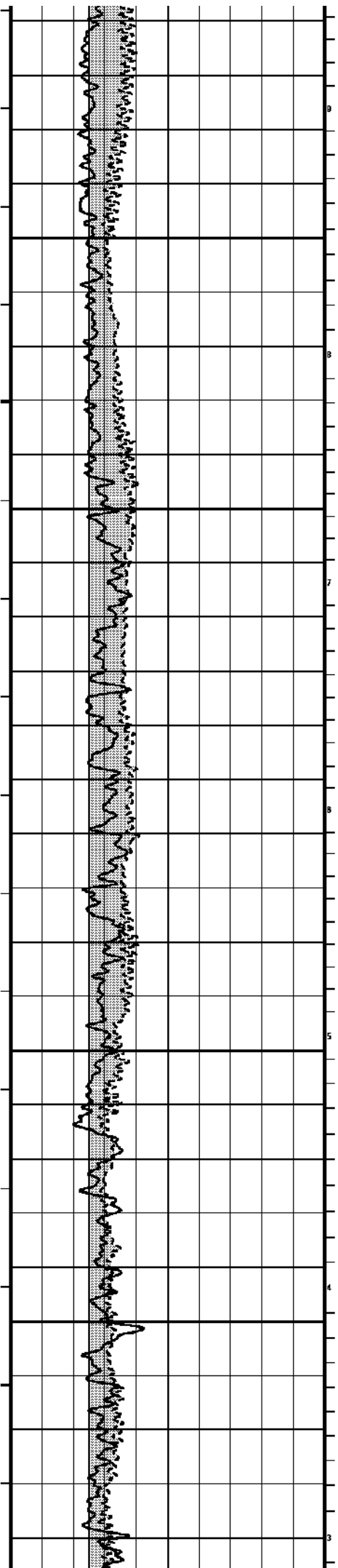
DOGLEG AT 892 M, WITH DLS > 6.0 DEGREES/30 m.

REEVES CREW: M.BARNES, R.TENCH, G.MCMANUS.

SCHLUMBERGER CREW: B.GLOVER, B.TAYLOR, J.LIGHT, R.DEGROOT.

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.





67°

68°

1350

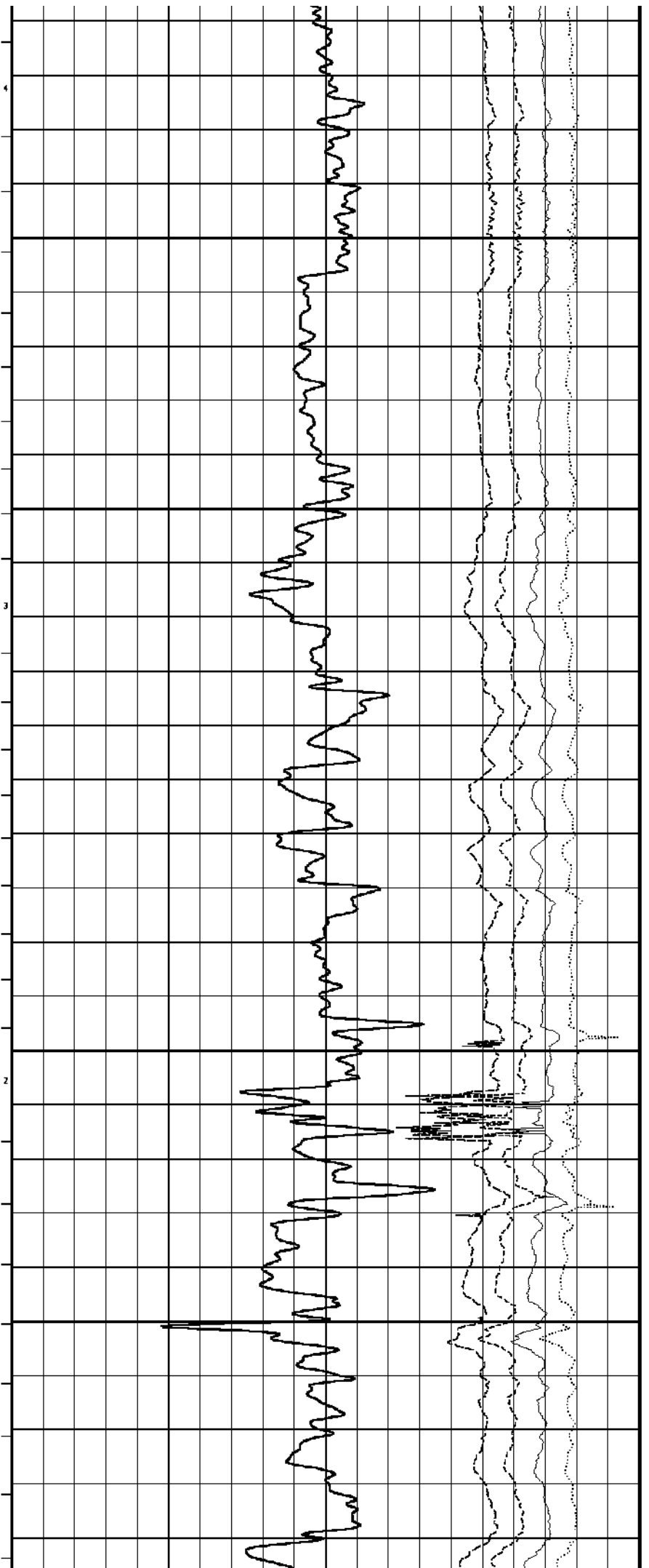
68°

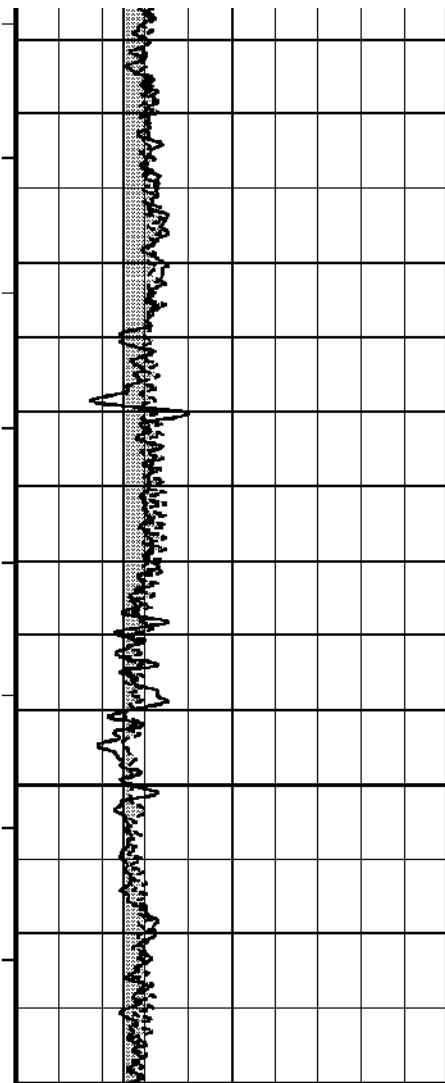
69°

1400

69°

70°





1450

70°

71°

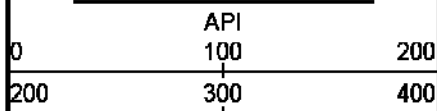
1500

71°

Depth
in
Metres

Timing Marks every 60.0 sec

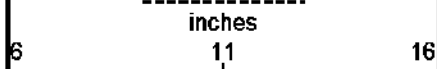
Borehole Corrected Gamma



Borehole
Temp in
deg C

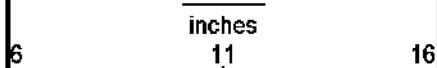
HVI
every
0.1 cu m

Density Caliper

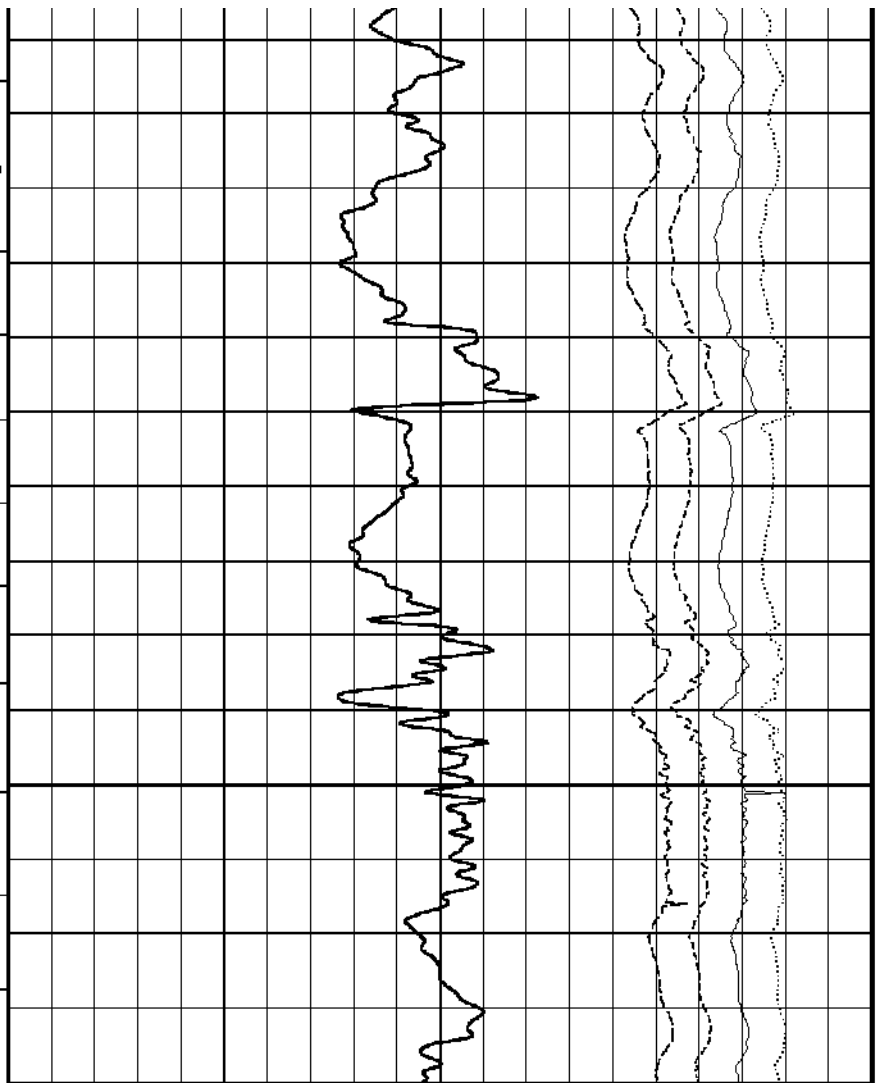


Annular
Integral
every
0.1 cu m

Bit Size



Replay
Scale
1:500



3-5' Compensated Sonic

microsec/metre

500 400 300 200 100

3' Transit Time

microseconds

1100 600 100

4' Transit Time

microseconds

1100 600 100

5' Transit Time

microseconds

1100 600 100

6' Transit Time

microseconds

1100 600 100

Depth Based Data - Maximum Sampling Increment: 10.0cm

Plotted on 26-MAY-2003 14:11

Filename: C:\Fla a12a\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



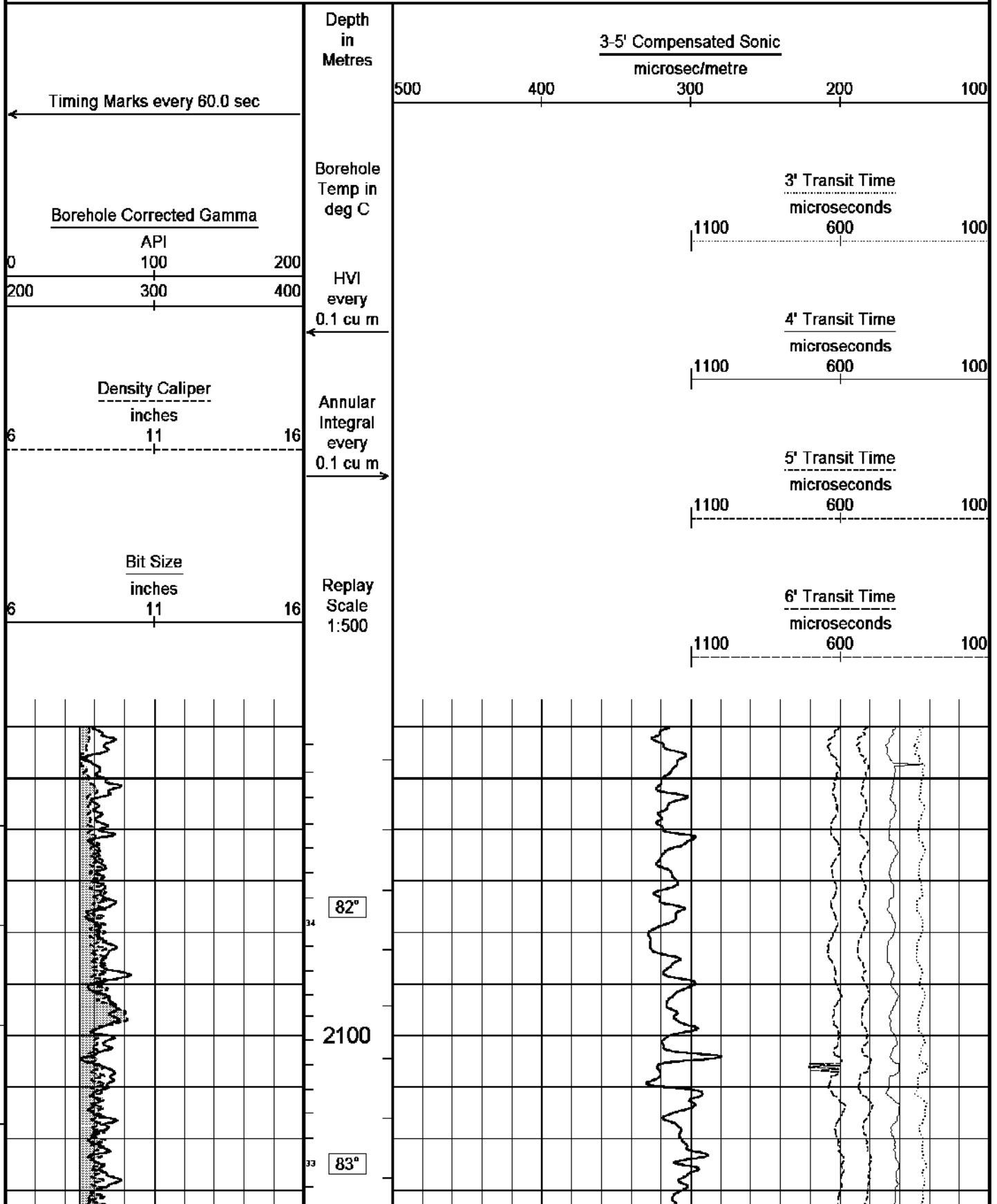
Depth Based Data - Maximum Sampling Increment: 10.0cm

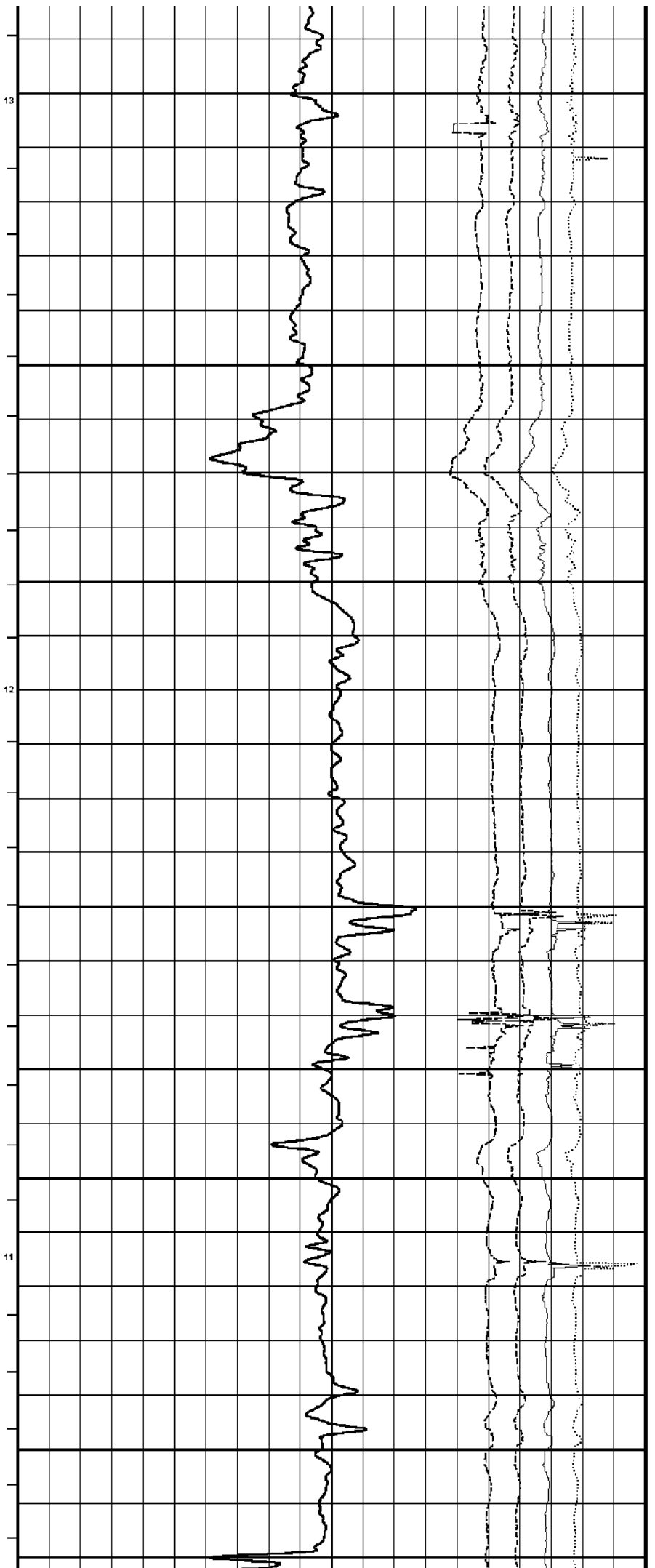
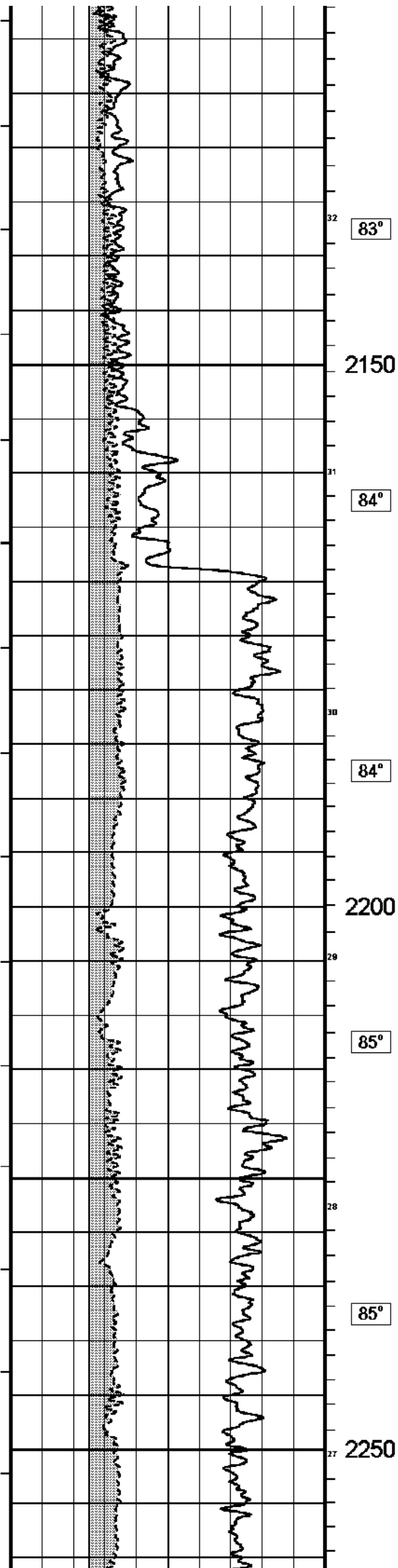
Plotted on 26-MAY-2003 14:11

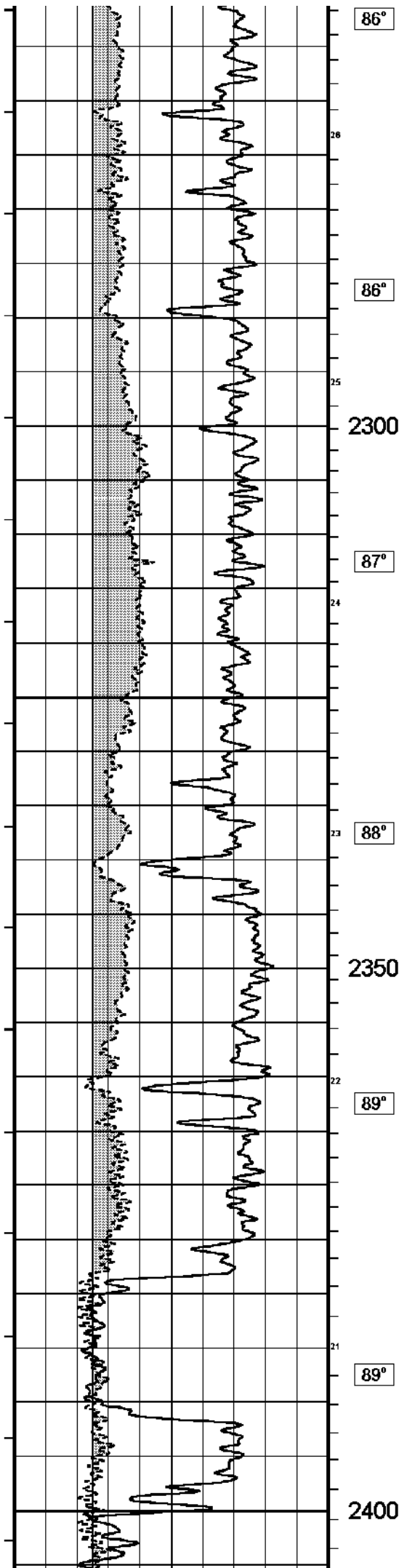
Filename: C:\Fla a12a\MAIN LOG A DSC.dta

Recorded on 12-APR-2003 01:43

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







86°

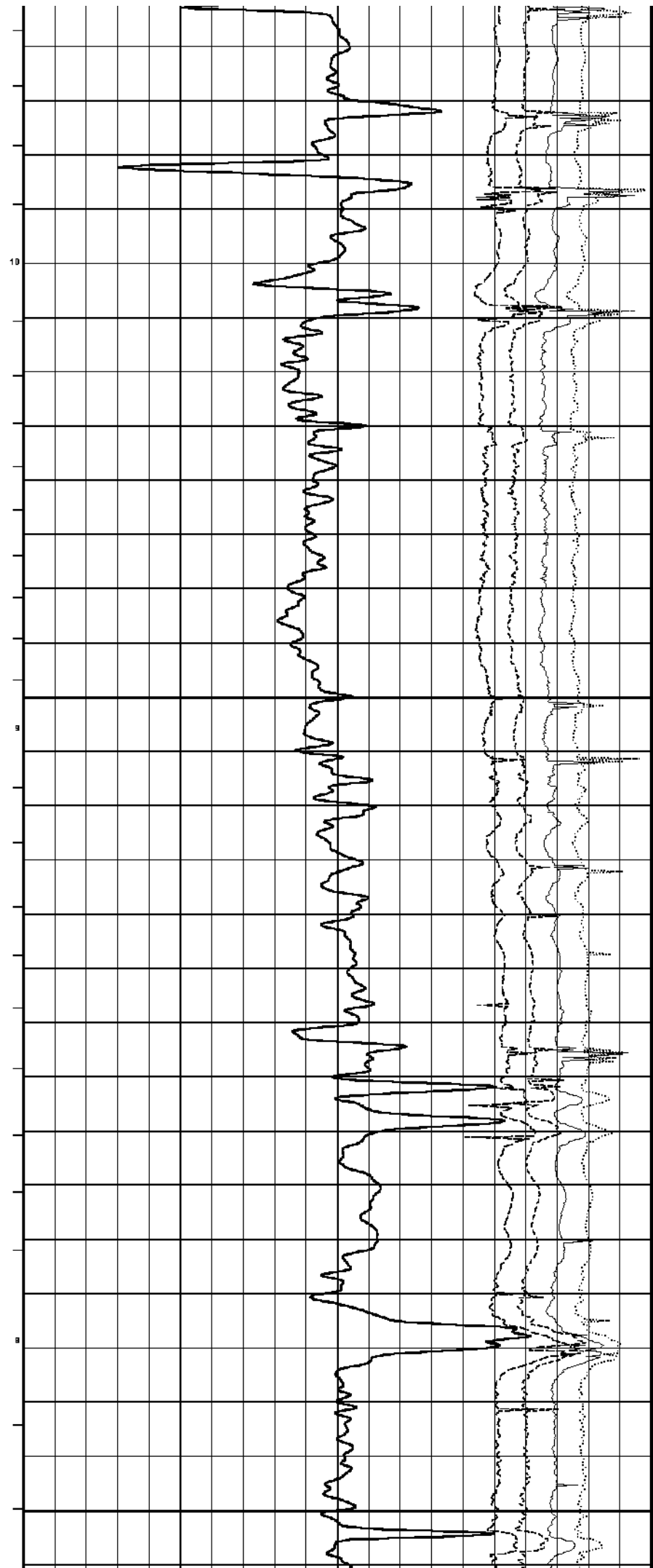
86°

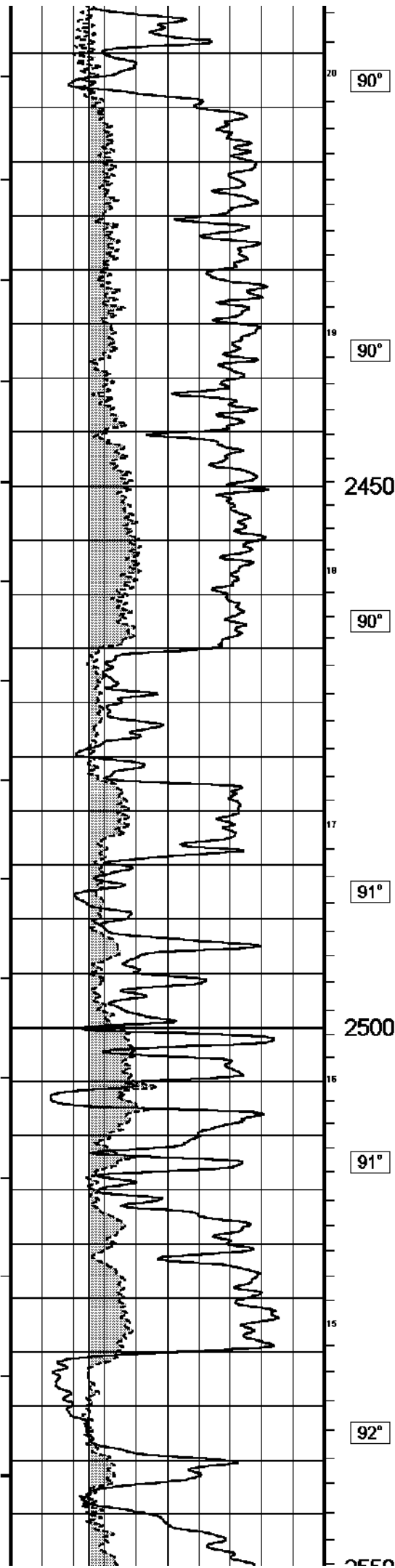
87°

88°

89°

89°





90°

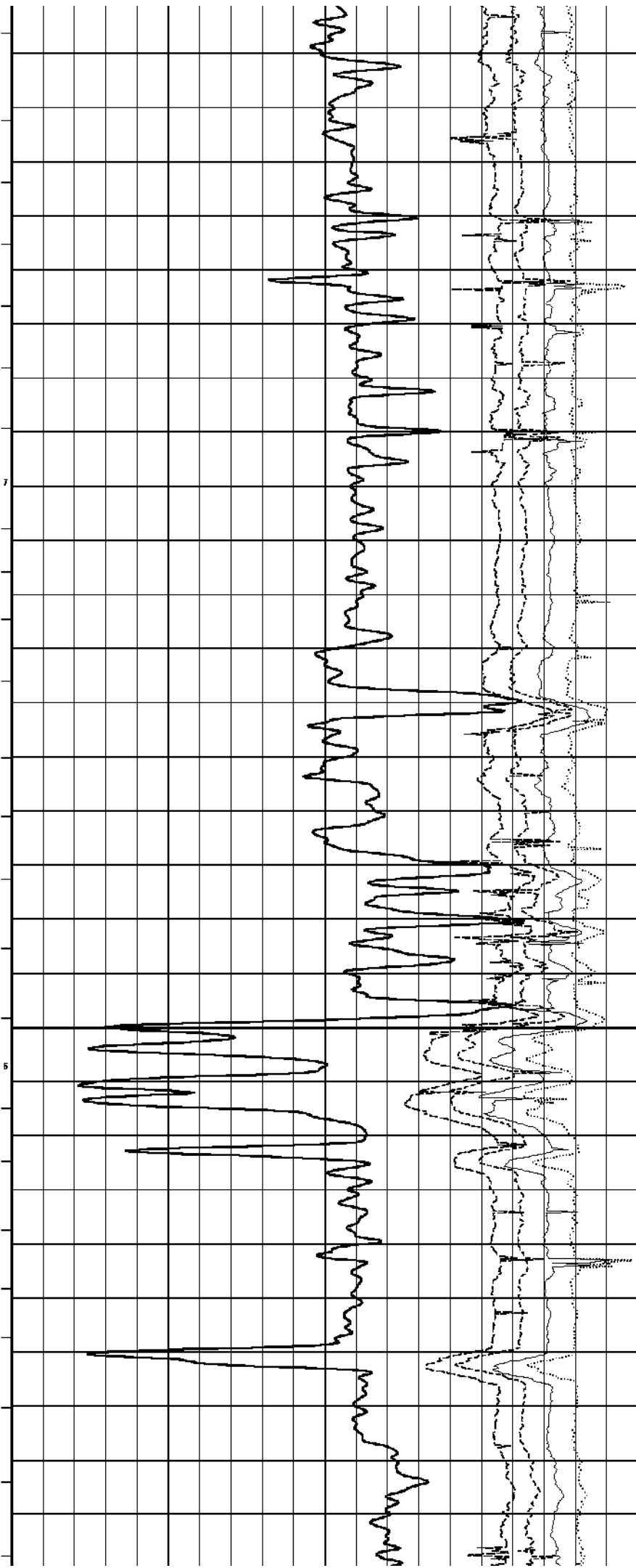
90°

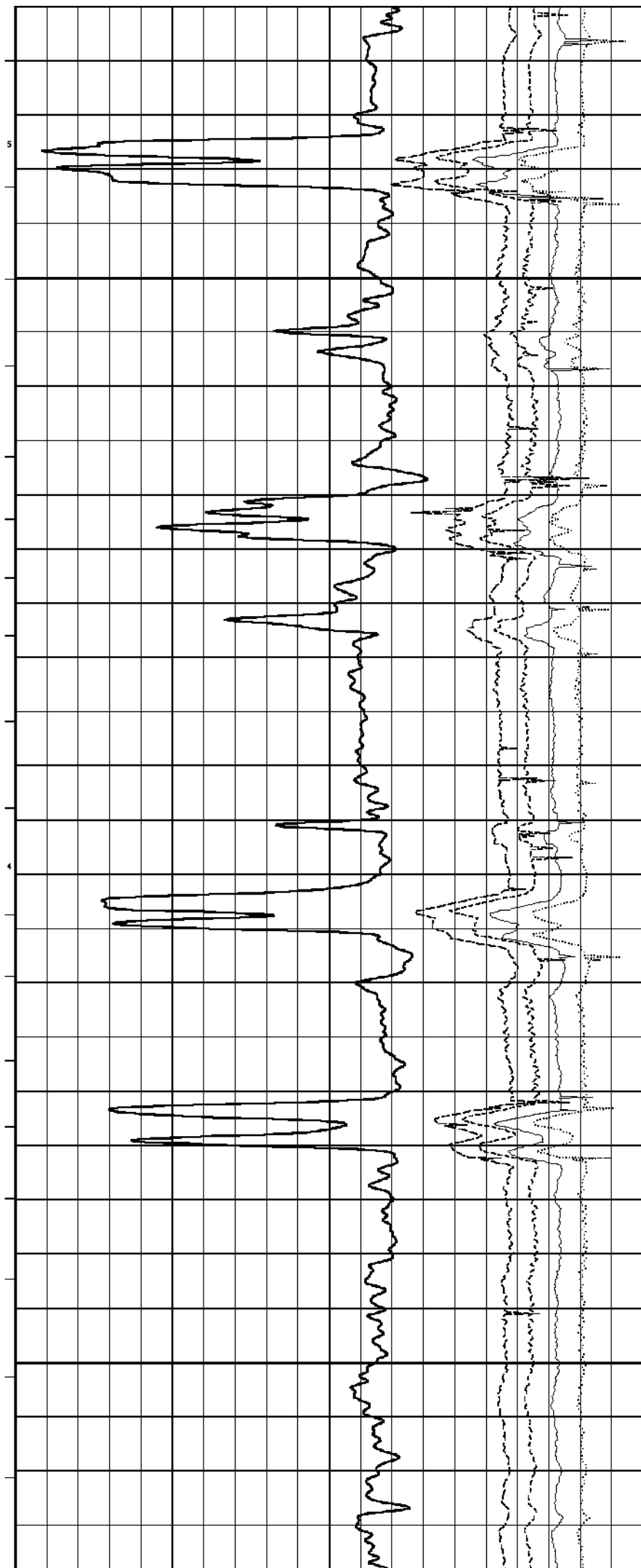
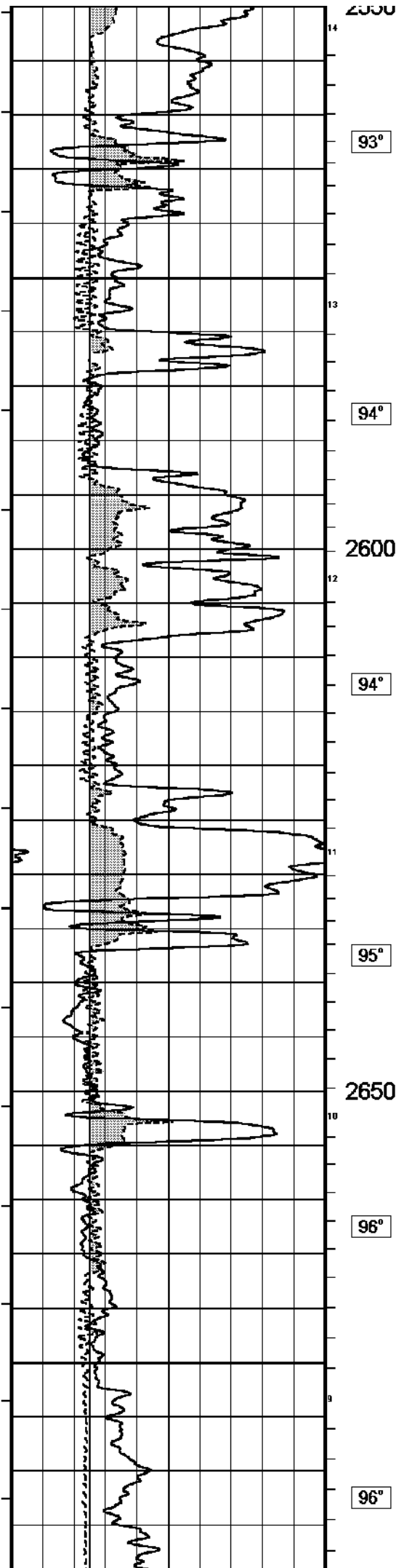
90°

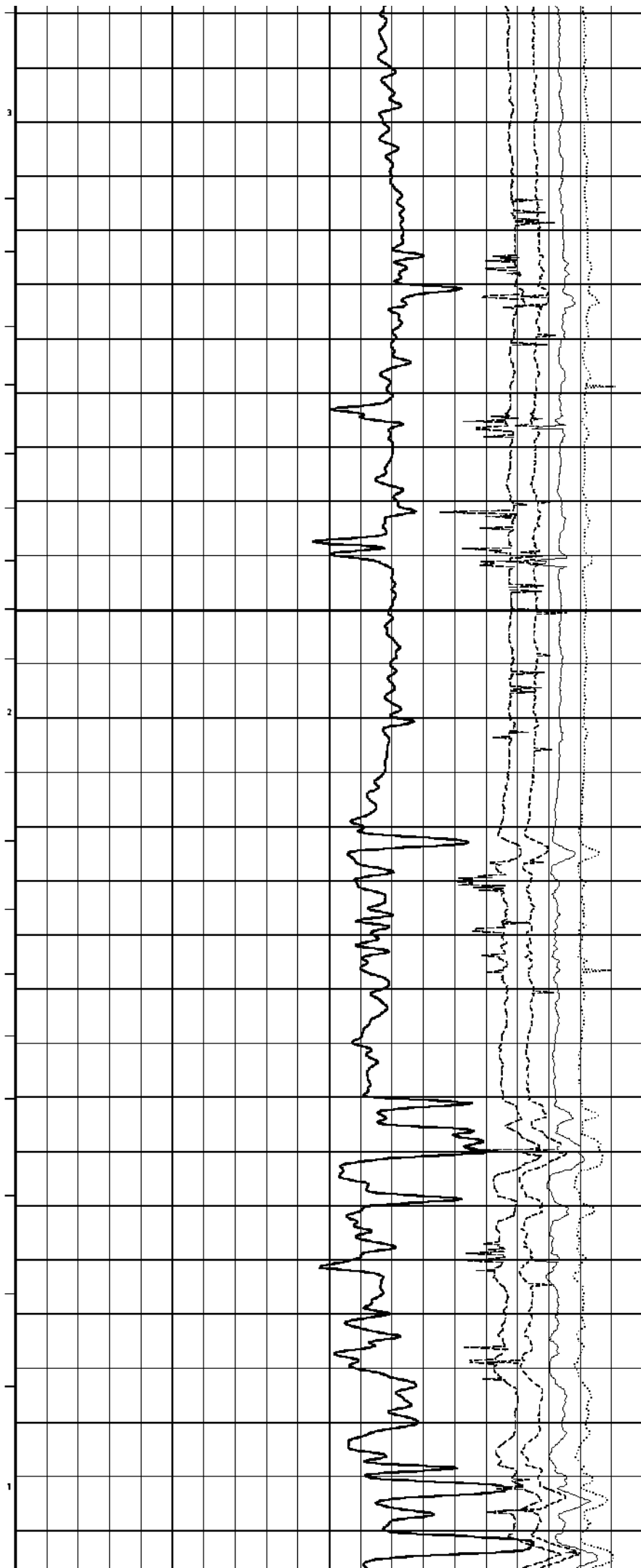
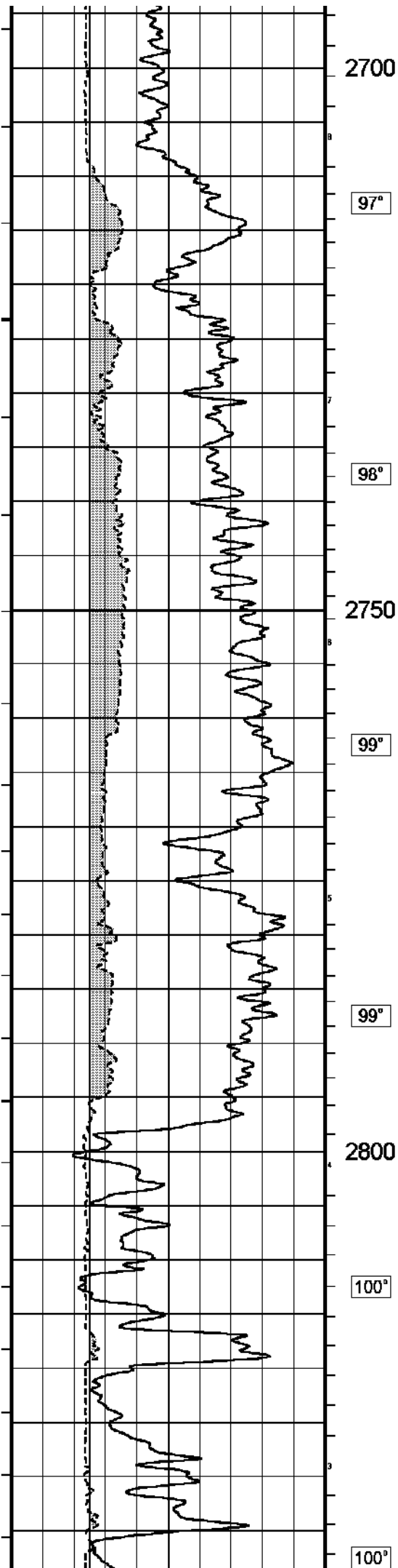
91°

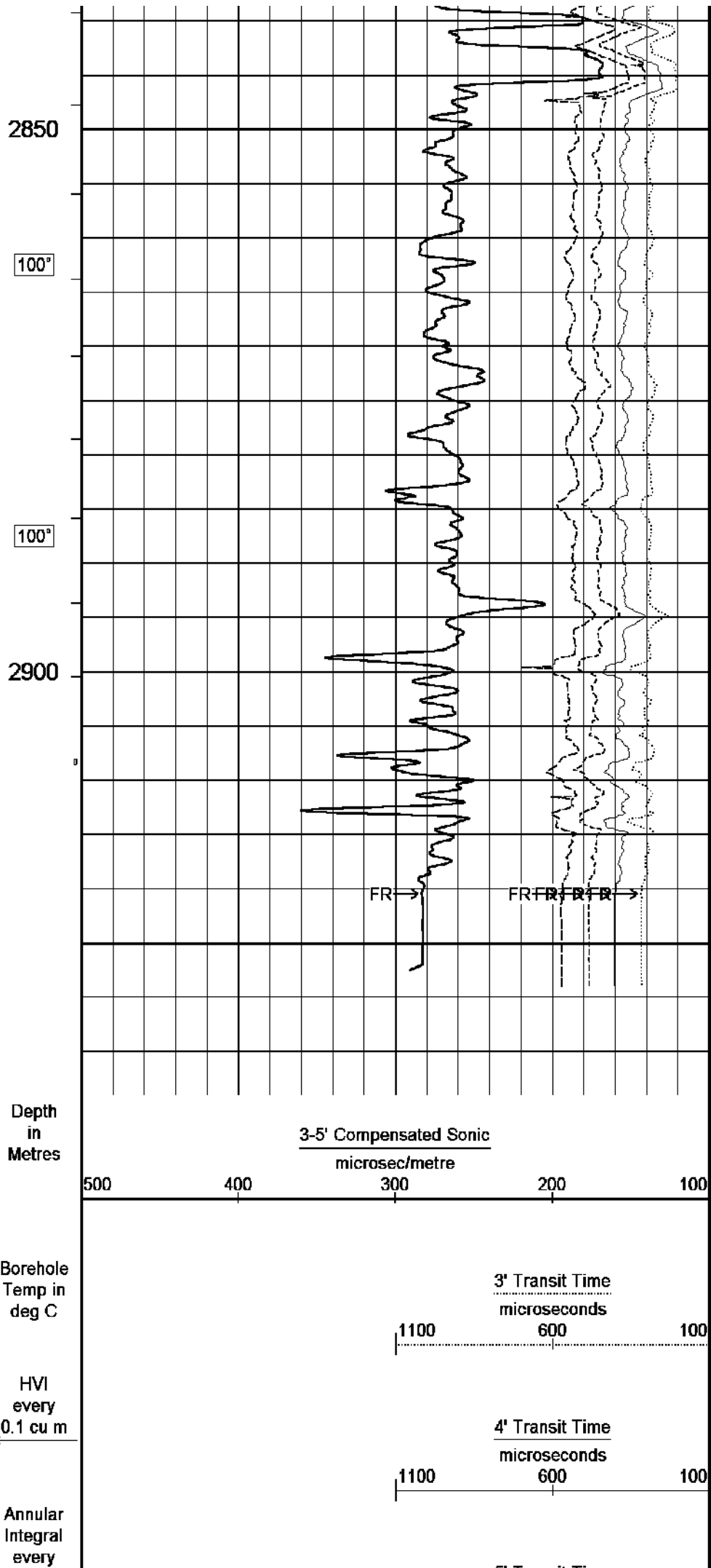
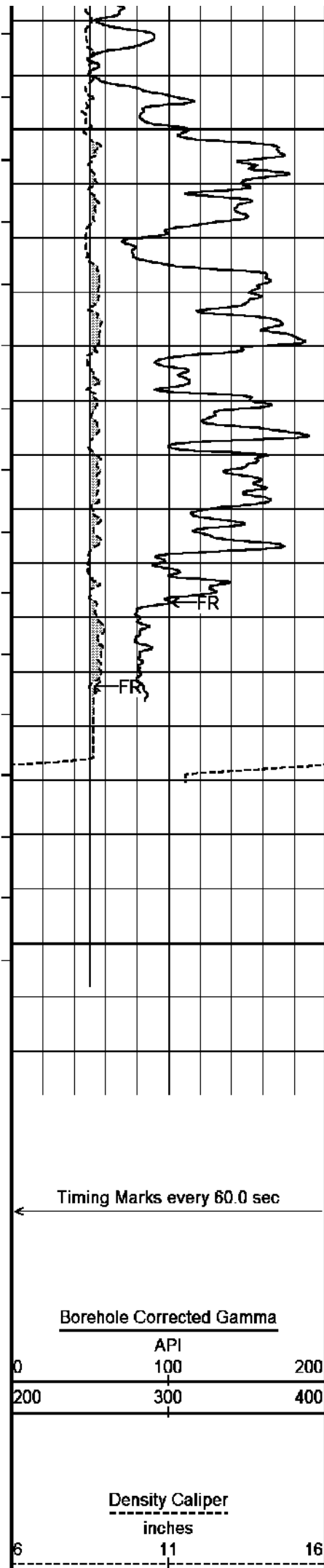
91°

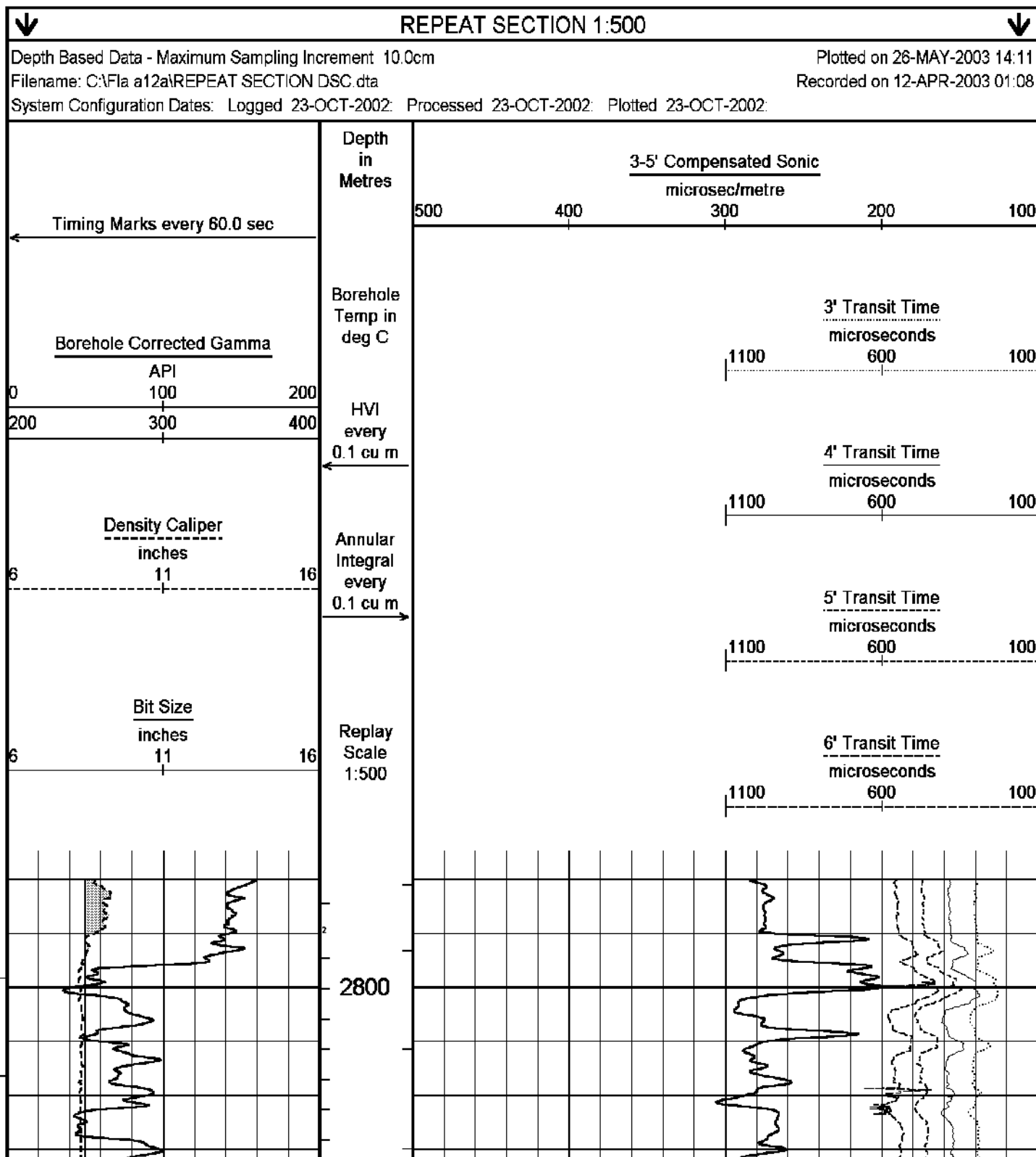
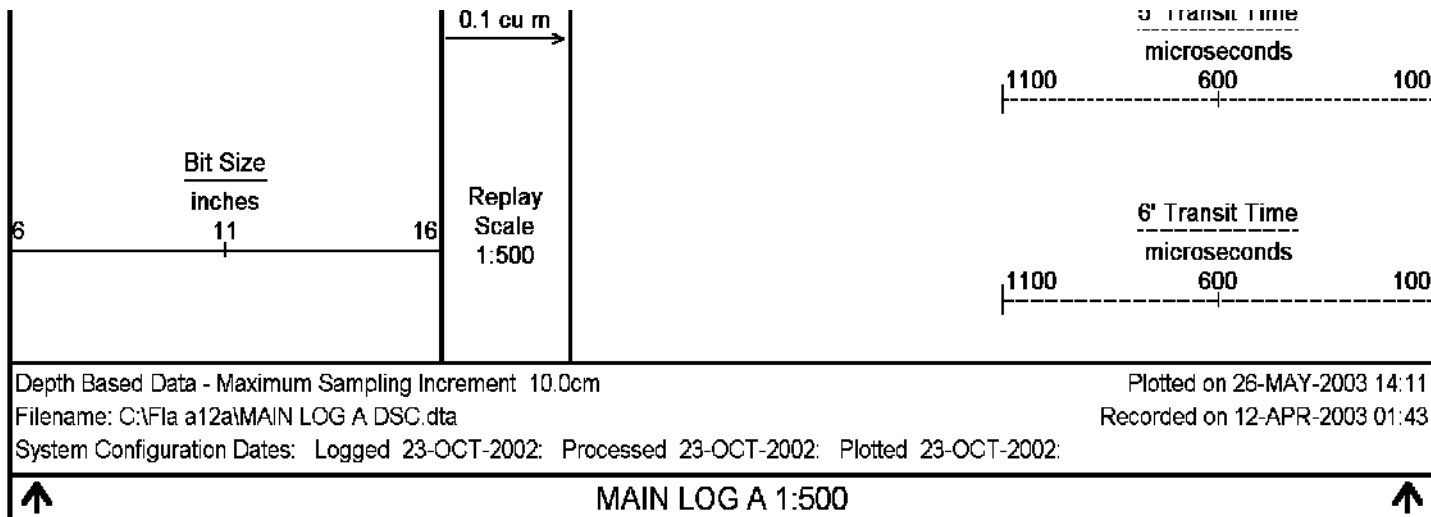
92°

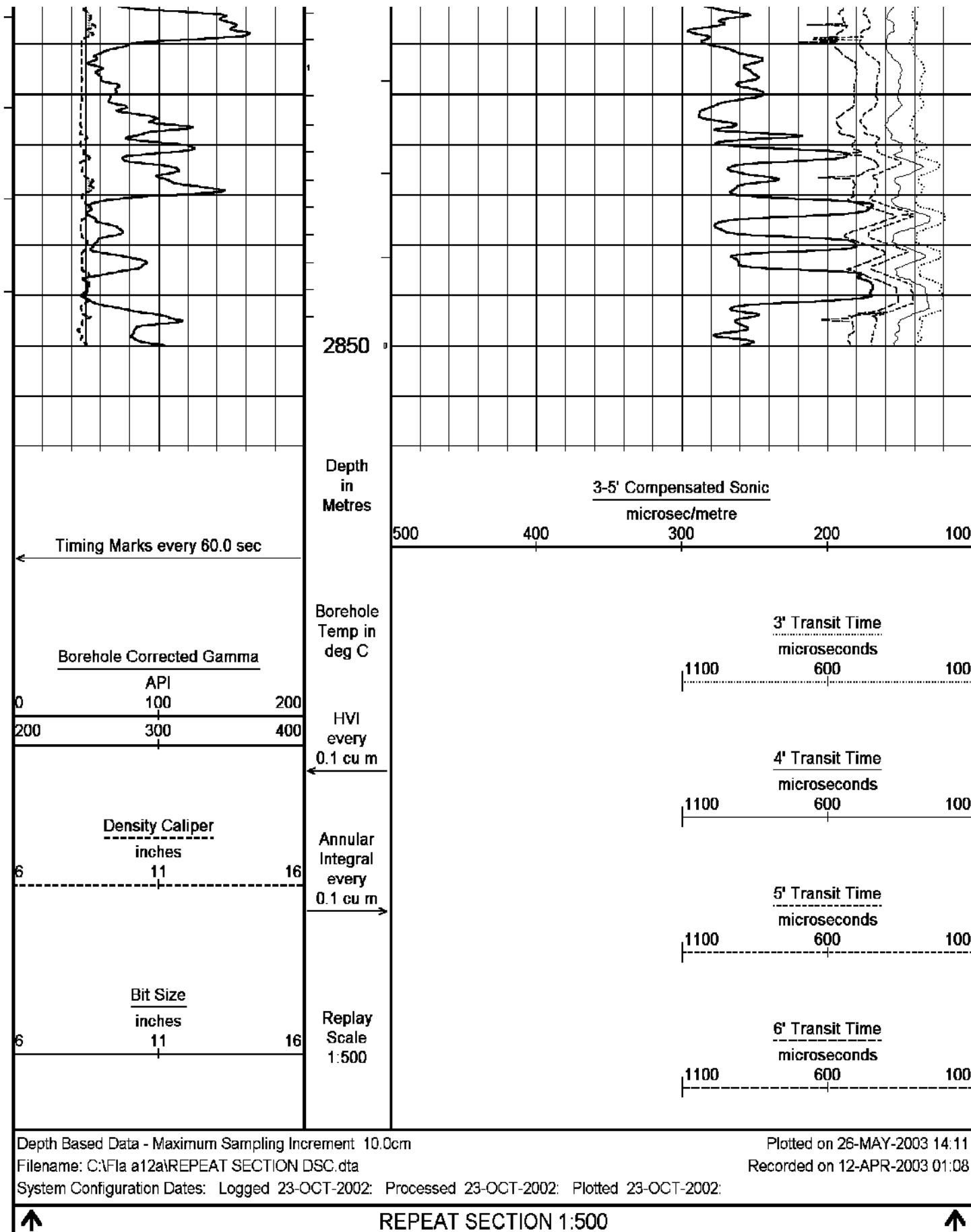












BEFORE SURVEY CALIBRATION

C:\Fla a12a\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 | |
| Sonic Constants MSS 028 | | | |
| Maximum Boundary Contrast | 328.08 | micro-sec/m | |
| Fluid Transit Time | 620.08 | micro-sec/m | |
| Limestone Transit Time | 155.84 | micro-sec/m | |
| Sandstone Transit Time | 182.09 | micro-sec/m | |
| Dolomite Transit Time | 142.72 | micro-sec/m | |
| 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 | | | |

Down Hole Fixed Gate Parameters

| | | |
|------------|-----|-----------|
| Gate Start | N/A | micro-sec |
| Gate Width | N/A | micro-sec |

Full Waveform Parameters

| | | |
|---------------------------------|-----|----|
| Use derived TR for 3' Waveform | N/A | |
| Use derived TR for 4' Waveform | N/A | |
| Use derived TR for 5' Waveform | N/A | |
| Use derived TR for 6' Waveform | N/A | |
| 3' Waveform Discriminator Level | N/A | mV |
| 4' Waveform Discriminator Level | N/A | mV |
| 5' Waveform Discriminator Level | N/A | mV |
| 6' Waveform Discriminator Level | N/A | mV |
| 3' Waveform Filter | N/A | |
| 4' Waveform Filter | N/A | |
| 5' Waveform Filter | N/A | |
| 6' Waveform Filter | N/A | |

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.

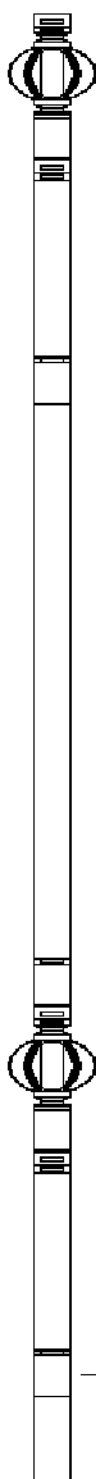
MBE 9 Length: 3.76 m Weight: 94.80 lb

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

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



26.85 m GGCE - Borehole Corrected Gamma

25.96 m CGXT - MCG External Temperature



21.75 m NPRL - Limestone Neutron Por.

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



19.07 m CLDC - Density Caliper
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

8.93 m DSL - Shallow Laterolog
8.93 m DGL - Deep Laterolog

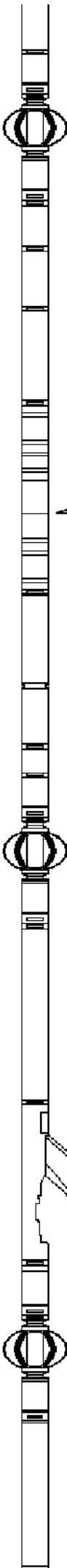
Compact Inline Standoff B
MIS 76 Length: 0.65 m Weight: 15.43 lb

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

4.35 m MRRS - MicroRes Resistance (S)
4.35 m MATC - MMR Caliper

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 | 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 |



COMPENSATED SONIC
1:500 MD