# Reeves Compact

## Photo Density
## Compensated Neutron
## 1:500 TVD

| | |
|---|---|
| COMPANY | ESSO AUSTRALIA PTY. LTD. |
| WELL | MARLIN A24A |
| FIELD | TURRUM |
| PROVINCE/COUNTY | BASS STRAIT |
| COUNTRY/STATE | AUSTRALIA |
| LOCATION | 38Deg13'49.203"S; 148Deg13'15.554"E |
| | N 5767923.720 m, E 606865.170 m **FINAL PRINT** |

| LSD | SEC | TWP | RGE | Other Services |
|---|---|---|---|---|
| | | | | Dual Laterolog |
| | | | | Compensated Sonic |

API Number
Permit Number VIC/L11

Permanent Datum MSL , Elevation 0.0 metres
Log Measured From RT@27.91 m above Permanent Datum
Drilling Measured From RT

Elevations:

| | | |
|---|---|---|
| KB | | metres |
| DF | 27.91 | metres |
| GL | -59.00 | metres |

| | | | | |
|---|---|---|---|---|
| Date | 5-MAY-2004 | | | |
| Run Number | ONE | | | |
| Depth Driller | 2676.90 | metres | | |
| Depth Logger | 2672.90 | metres | | |
| First Reading | 2672.50 | metres | | |
| Last Reading | 1702.40 | metres | | |
| Casing Driller | 633.50 | metres | | |
| Casing Logger | | | | |
| Bit Size | 8.50 | inches | | |
| Hole Fluid Type | KCL/GLY/PHPA | | | |
| Density / Viscosity | 10.15 lb/USg | 30.00 CP | | |
| PH / Fluid Loss | 8.90 | 3.00 ml/30Min | | |
| Sample Source | PRESS | | | |
| Rm @ Measured Temp | 0.137 @ 25.0 | ohm-m | | |
| Rmf @ Measured Temp | 0.098 @ 25.0 | ohm-m | | |
| Rmc @ Measured Temp | 0.236 @ 25.0 | ohm-m | | |
| Source Rmf / Rmc | FLOW | FLOW | | |
| Rm @ BHT | 0.066 @ 75.0 | ohm-m | | |
| Time Since Circulation | 36 HRS | | | |
| Max Recorded Temp | 90.60 | deg C | | |
| Equipment Name | CWS/CML | | | |
| Equipment / Base | 1 | SALE | | |
| Recorded By | G. MCMANUS, N. PATMAN | | | |
| Witnessed By | C. MENHENNIT, L CULLEN | | | |
| Circ.Stopped | 1400 4-MAY | | | |

### BOREHOLE RECORD

| Bit Size inches | Depth From metres | Depth To metres |
|---|---|---|
| 8.500 | 653.000 | 3275.000 |

### CASING RECORD

| Type | Size inches | Depth From metres | Shoe Depth metres | Weight pounds/ft |
|---|---|---|---|---|
| SURFACE | 13.375 | 0.000 | 653.000 | 0.00 |
| L80 | 9.625 | 0.000 | 653.000 | 47.00 |

### REMARKS

***Miss Run - No data collected above 2008.5 m MD Due To Battery Failure***

Rig Nabors 453

5" SHUTTLE - MEMORY LOGGING
5-MAY-04
Crew: G McManus, N Patman, M Susa, B Goodwin

Logs depth corrected -1.1m to correlate with Anadrill gamma log.

AVERAGE INCLINATION: 38° FROM WINDOW TO TD
MAXIMUM INCLINATION: 42.38° @ 3162.70 mMD
MAXIMUM DOGLEG SERVERITY: 5.53°/30m @ 780.54
MAXIMUM TEMPERATURE: 90.6°C @ 2654.30 mMD

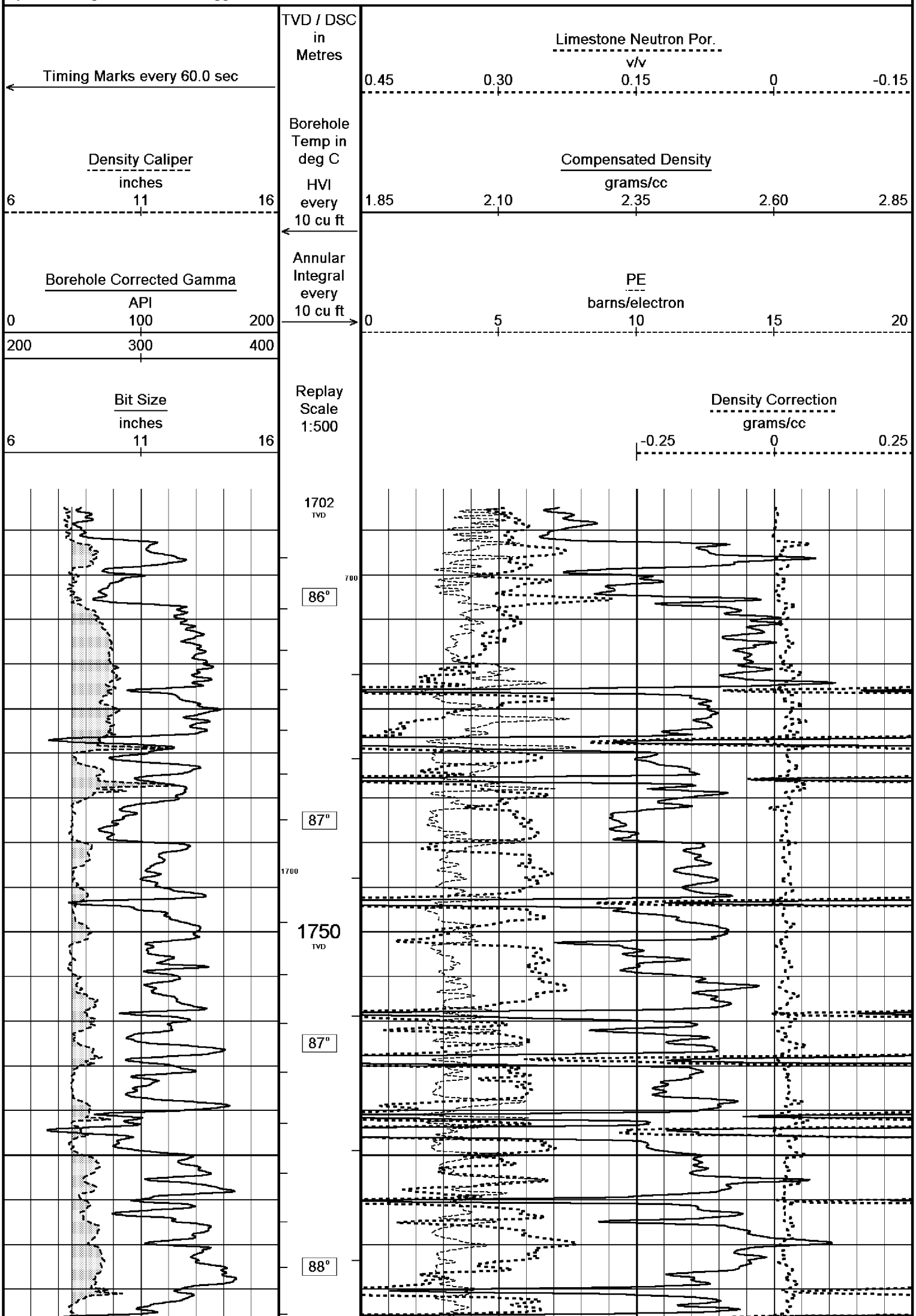


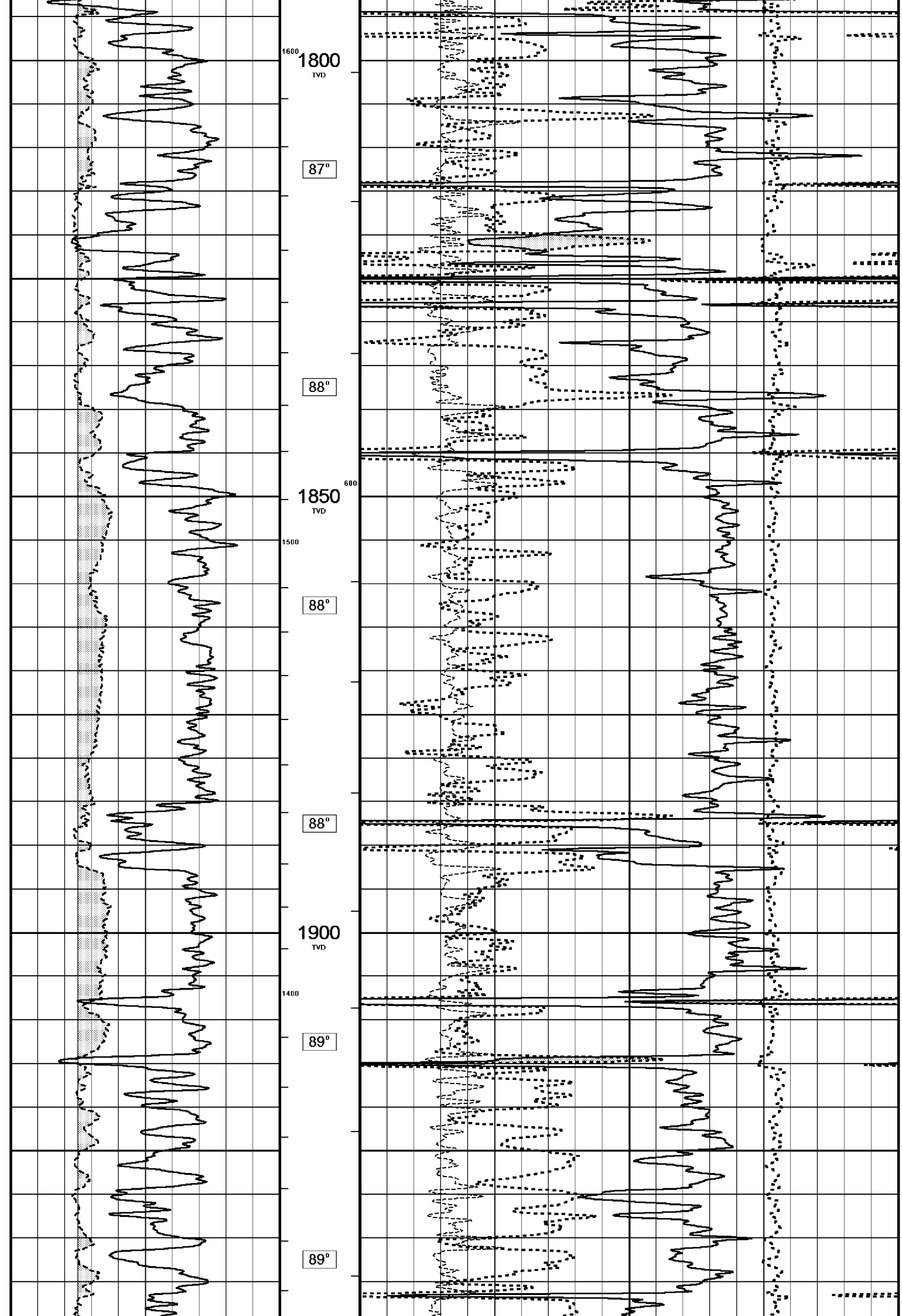
MAIN LOG 1:500

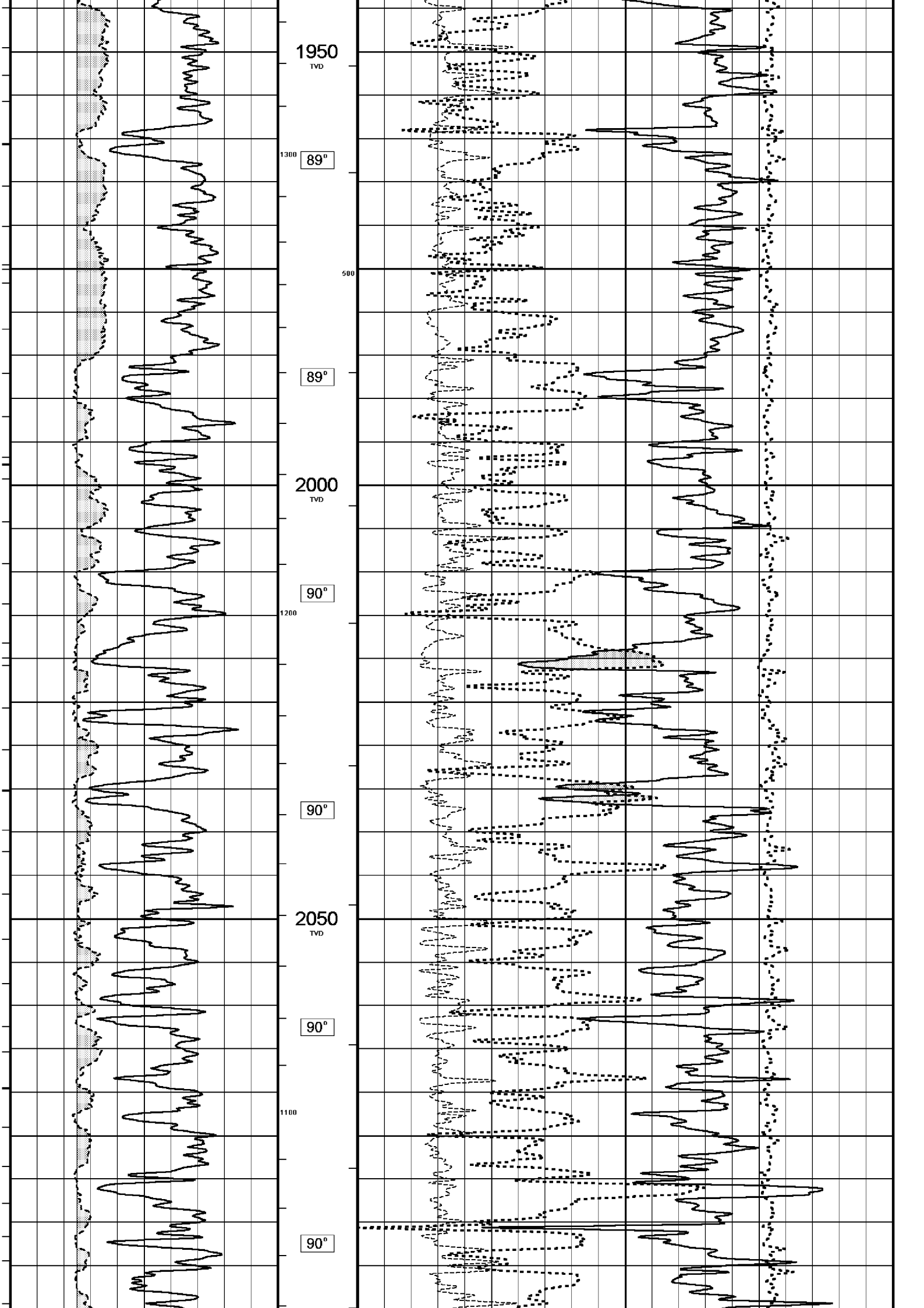
Depth Based Data - Maximum Sampling Increment 10.0cm

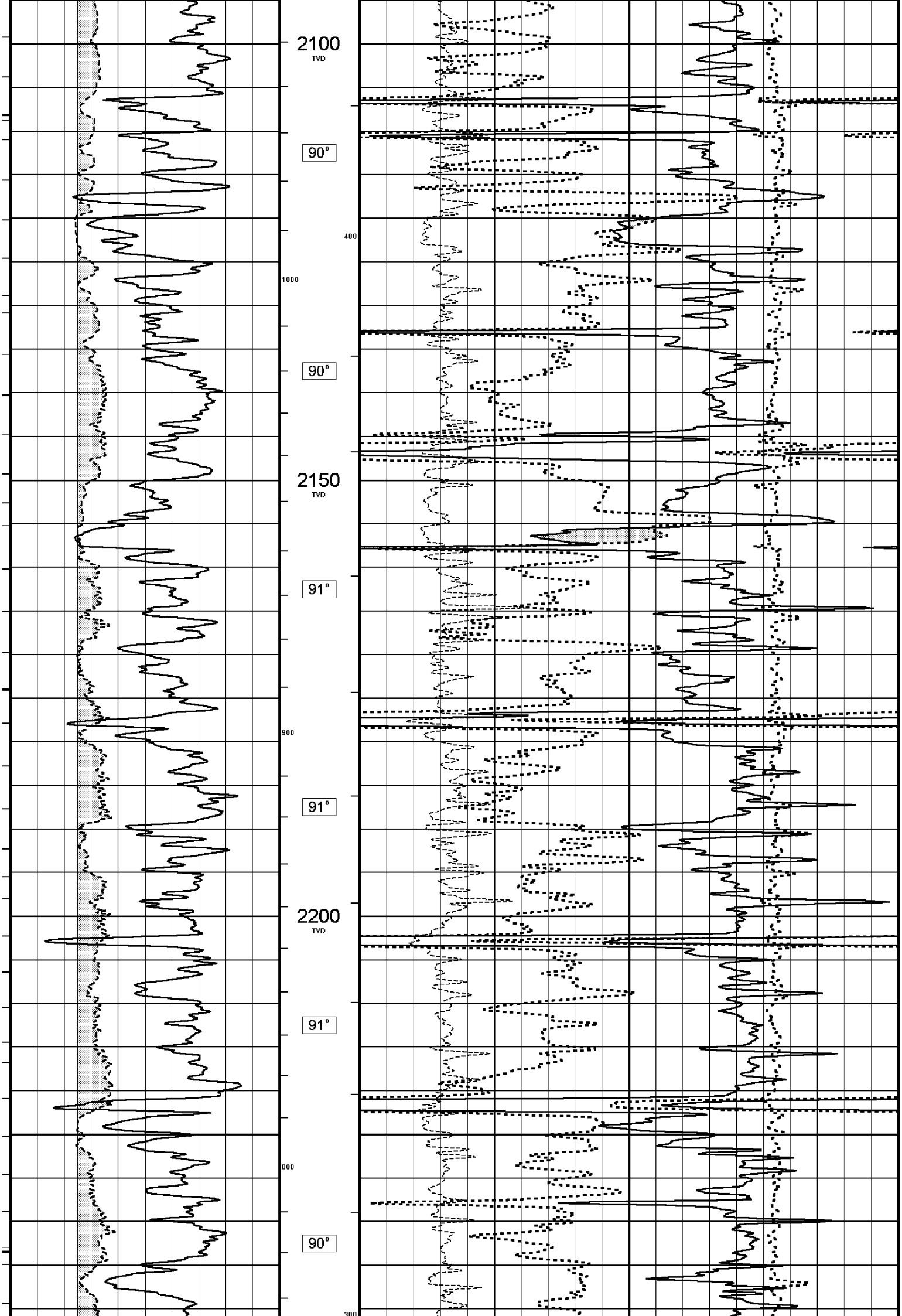
Plotted on 24-SEP-2004 13:15

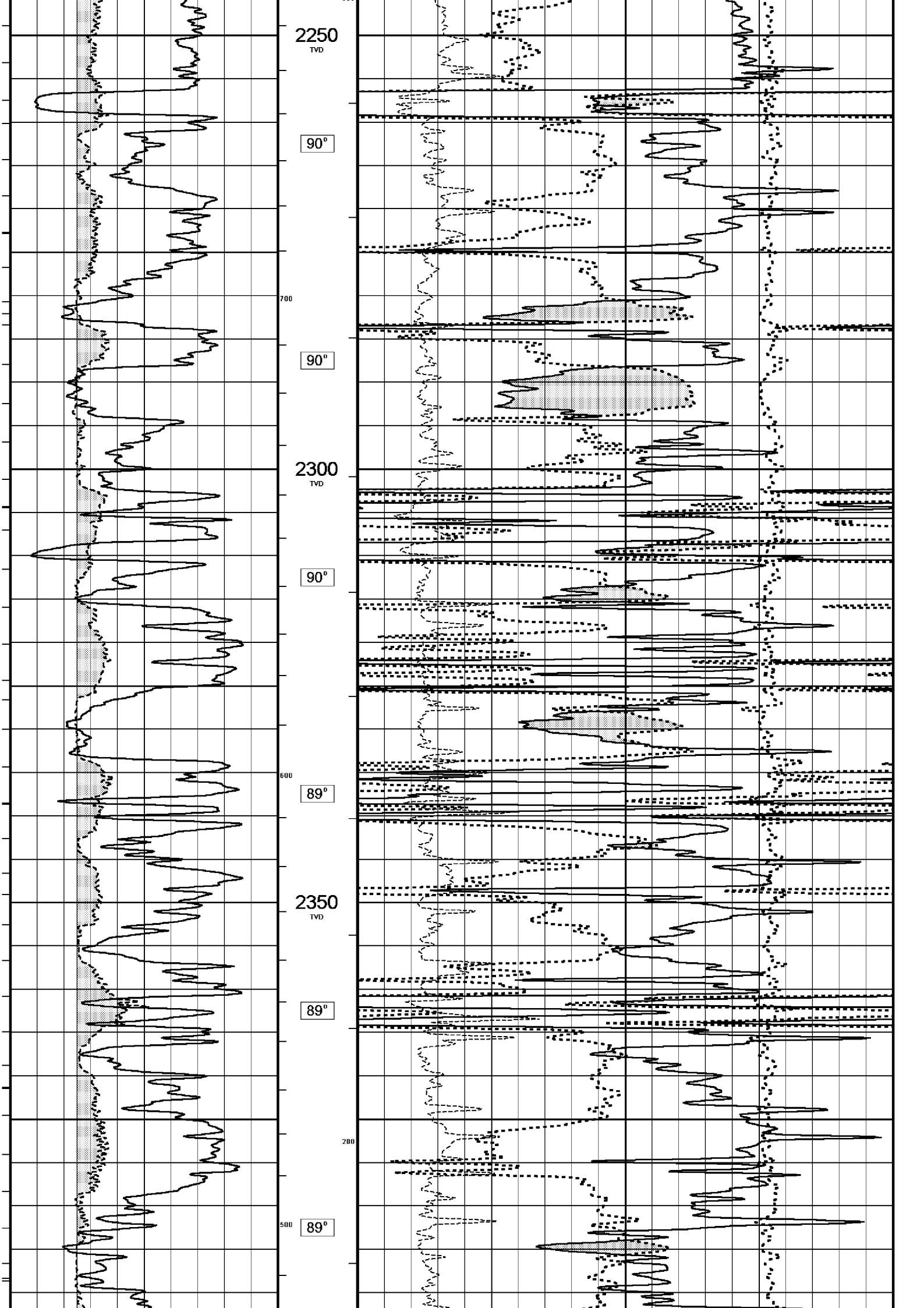
Filename: C:\Marlin\MLA A24a\Final Data Presentations\...\MLA A24A MAIN LOG MPD.dta Recorded on 06-MAY-2004 16:05
System Configuration Dates: Logged 09-SEP-2003: Processed 09-SEP-2003: Plotted 25-JUN-2003:

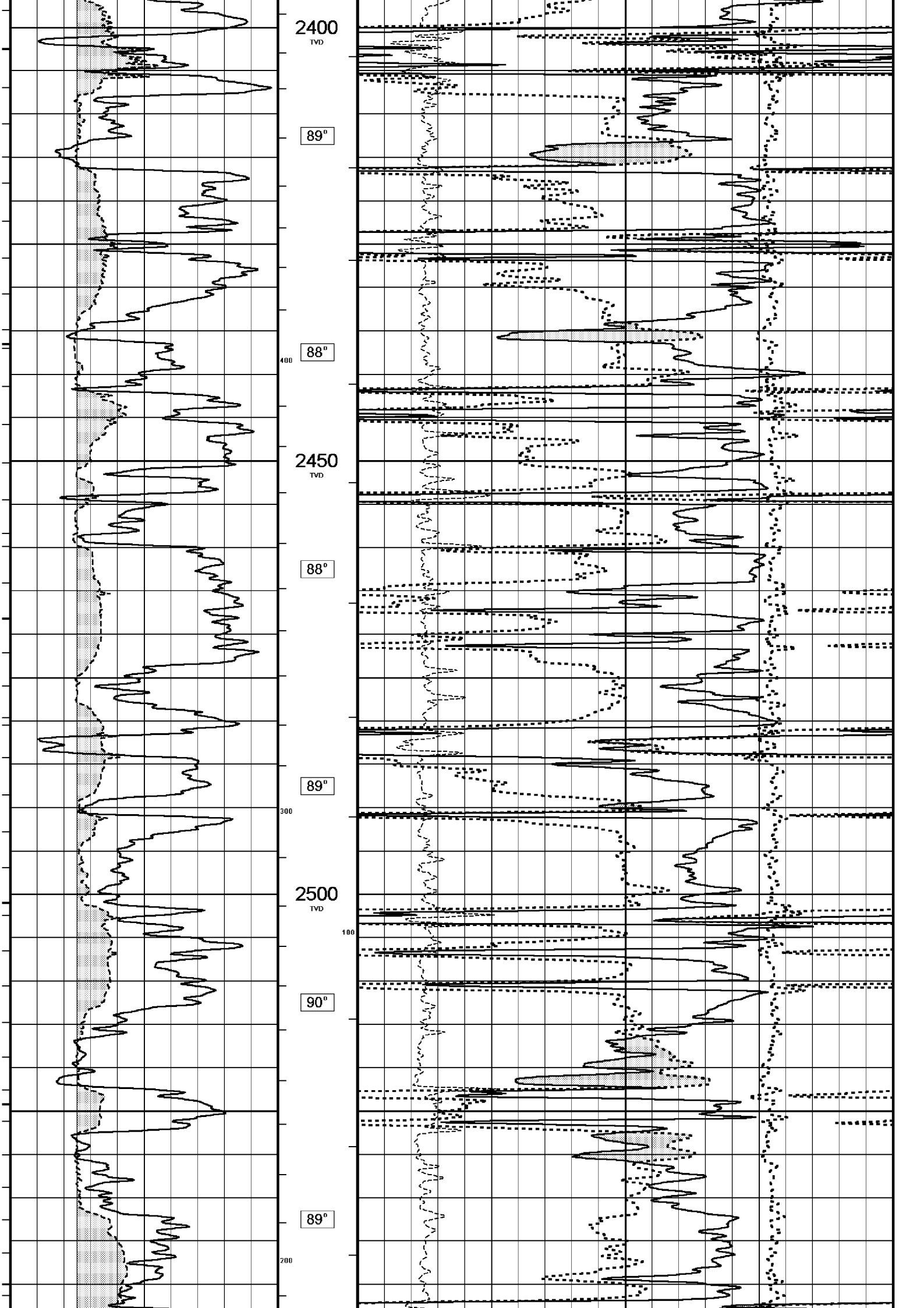


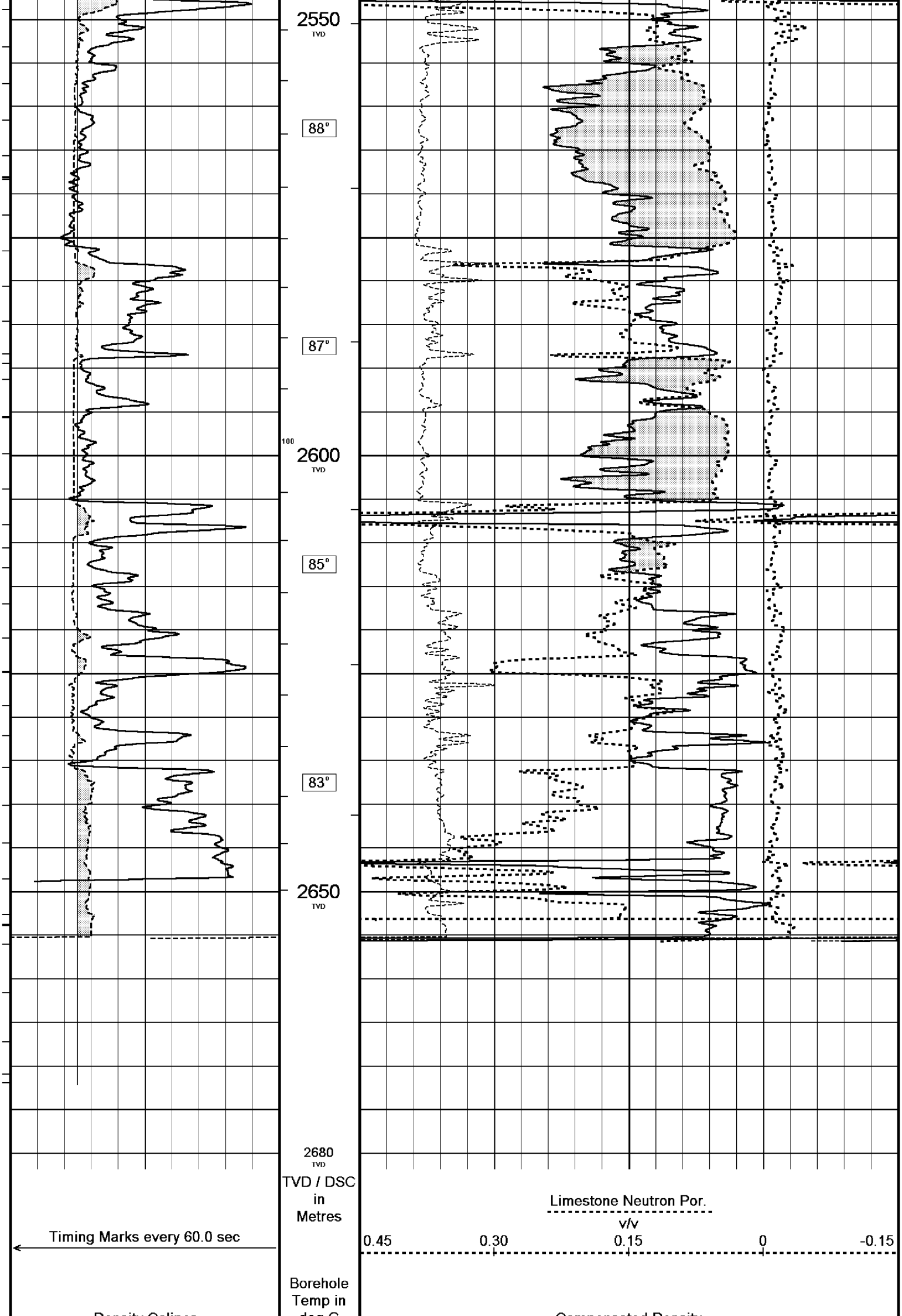

1600
1800
TVD
87°
88°
600
1850
TVD
1500
88°
88°
1900
TVD
1400
89°
89°

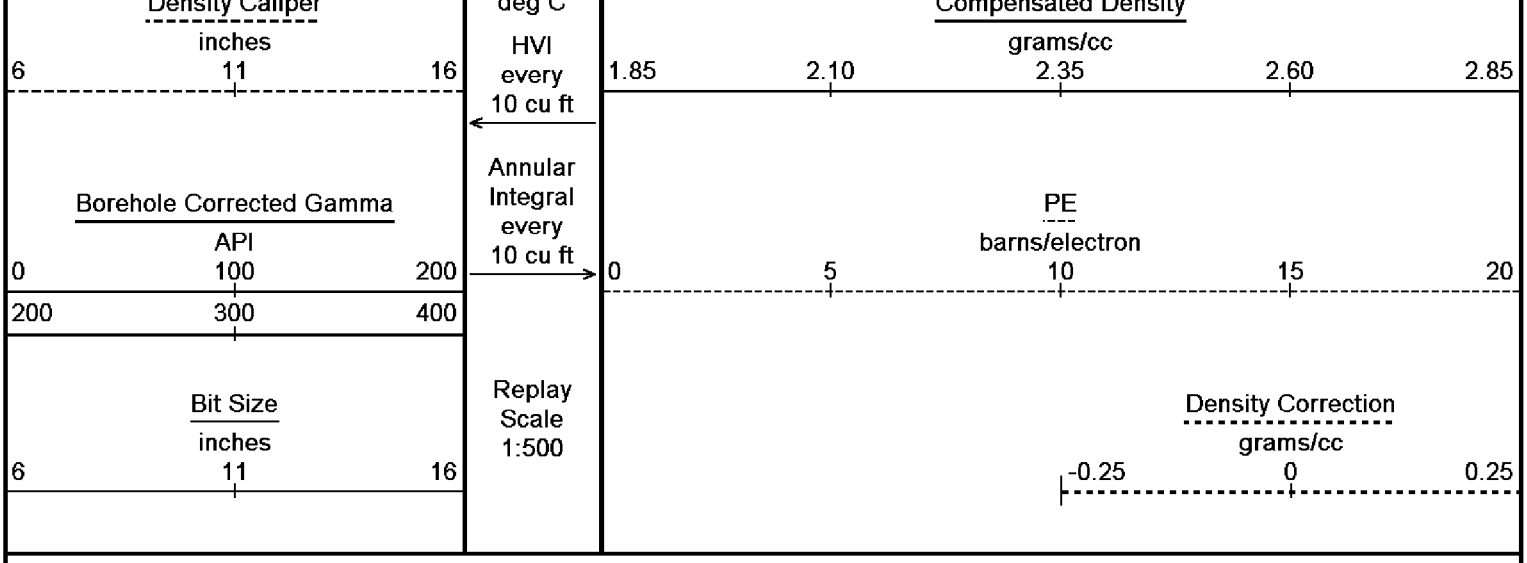

1950
TVD
1300
89°
500
89°
2000
TVD
90°
1200
90°
2050
TVD
90°
1100
90°


2100
TVD
90°
400
1000
90°
2150
TVD
91°
900
91°
2200
TVD
91°
800
90°
300


2250
TVD
90°
700
90°
2300
TVD
90°
600
89°
2350
TVD
89°
200
500
89°


2400
TVD
89°
88°
400
2450
TVD
88°
89°
300
2500
TVD
100
90°
89°
200


2550
TVD
88°
87°
100
2600
TVD
85°
83°
2650
TVD
2680
TVD
TVD / DSC
in
Metres
Limestone Neutron Por.
v/v
0.45
0.30
0.15
0
-0.15
Timing Marks every 60.0 sec
Borehole
Temp in




Depth Based Data - Maximum Sampling Increment 10.0cm — Plotted on 24-SEP-2004 13:15
Filename: C:\Marlin\MLA A24a\Final Data Presentations\...\MLA A24A MAIN LOG MPD.dta — Recorded on 06-MAY-2004 16:05
System Configuration Dates: Logged 09-SEP-2003: Processed 09-SEP-2003: Plotted 25-JUN-2003:

MAIN LOG 1:500

## BEFORE SURVEY CALIBRATION

C:\Marlin\MLA A24a\Final Data Presentations\Black & White Prints\MLA A24A MAIN LOG MPD.dta

### General Constants All 000

| | | |
|---|---|---|
| **General Parameters** | | |
| Mud Resistivity | 0.119 | 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 | |

### Gamma Calibration MCG 098

Field Calibration on 3-MAY-2004 11:25

| | Measured | Calibrated (API) |
|---|---|---|
| Background | 8 | 5 |
| Calibrator (Gross) | 1371 | 914 |
| Calibrator (Net) | 1363 | 909 |

### Gamma Constants MCG 098

| | | |
|---|---|---|
| Gamma Calibrator Number | 60 | |
| Mud Density | 1.00 | gm/cc |
| Caliper Source for Processing | Bit Size | |
| Tool Position | Eccentred | |
| Concentration of KCl | 0.00 | kppm |

### High Resolution Temperature Calibration MCG 098

Field Calibration on 3-MAY-2004,11:21

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

### High Resolution Temperature Constants MCG 098

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

### Neutron Calibration MDN 085

Base Calibration on 20-APR-2004 10:18
Field Check on 3-MAY-2004 10:35

Base Calibration

| | Measured | Calibrated (cps) |
|---|---|---|

| | Near | Far | Near | Far |
|---|---|---|---|---|
| | 3167 | 98 | 3714 | 110 |
| Ratio | 32.172 | | 33.764 | |

| Field Calibrator at Base | Calibrated (cps) | |
|---|---|---|
| | 1647 | 2404 |
| Ratio | 0.685 | |

| Field Check | Calibrated (cps) | |
|---|---|---|
| | 1635 | 2387 |
| Ratio | 0.685 | |

## 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 | 1.19 | 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 | 42.00 | kppm |
| Formation Fluid Salinity Source | None | |
| Formation Fluid Salinity | N/A | kppm |
| Barite Mud Correction | Not Applied | |

## Photo Density Calibration MPD 083

Base Calibration on 20-APR-2004 12:19
Field Check on 3-MAY-2004 10:28

Density Calibration

| Base Calibration | Measured | | Calibrated (sdu) | |
|---|---|---|---|---|
| | Near | Far | Near | Far |
| Reference 1 | 54734 | 19093 | 53111 | 19310 |
| Reference 2 | 25855 | 2558 | 24951 | 2530 |

| Field Check at Base | | |
|---|---|---|
| | 991.1 | 1147.4 |

| Field Check | | |
|---|---|---|
| | 992.2 | 1143.0 |

PE Calibration

| Base Calibration | Measured | | | Calibrated |
|---|---|---|---|---|
| | WS | WH | Ratio | Ratio |
| Background | 186 | 857 | | |
| Reference 1 | 17122 | 54541 | 0.315 | 0.320 |
| Reference 2 | 6855 | 25709 | 0.268 | 0.273 |

| Field Check at Base | | |
|---|---|---|
| 186.1 | 857.3 | |

| Field Check | | |
|---|---|---|
| 184.8 | 857.7 | |

## 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 | 1.19 | 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 | |

Caliper Calibration MPD 083

Base Calibration on 20-APR-2004 12:25
Field Calibration on 3-MAY-2004 10:29

Base Calibration

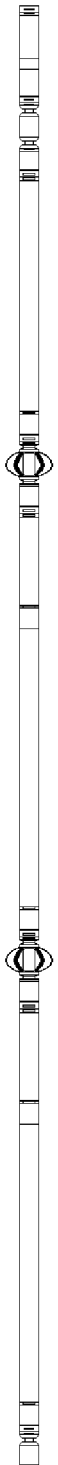
| Reading No | Measured | Calibrator Size (in) |
|---|---|---|
| 1 | 13792 | 4.01 |
| 2 | 23424 | 5.99 |
| 3 | 33363 | 7.98 |
| 4 | 43344 | 9.94 |
| 5 | 54608 | 12.01 |
| 6 | N/A | N/A |

Field Calibration

| Measured Caliper (in) | Actual Caliper (in) |
|---|---|
| 7.96 | 7.98 |

## DOWNHOLE EQUIPMENT

C:\Marlin\MLA A24a\Final Data Presentations\Black & White Prints\MLA A24A MAIN LOG MPD.dta



Compact Swivel Head Adaptor
SHA 63 Length: 0.83 m Weight: 26.5 lb

Compact Knuckle Joint
SKJ 49 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 141 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 127 Length: 0.65 m Weight: 15.4 lb

Compact Stiff Bridle Electrode Sub.
MBE 19 Length: 3.76 m Weight: 94.8 lb

Compact Knuckle Joint

SKJ 110 Length: 0.66 m Weight: 24.3 lb

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

Compact Gamma
MCG 98 Length: 2.65 m Weight: 63.9 lb

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

Compact Knuckle Joint
SKJ 48 Length: 0.66 m Weight: 24.3 lb

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

Compact Inline Bowspring A
MIS 95 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 94 Length: 1.74 m Weight: 33.1 lb

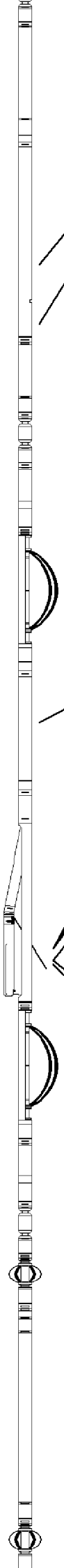
Compact Swivel Head Adaptor
SHA 71 Length: 0.83 m Weight: 26.5 lb

Compact Knuckle Joint
SKJ 44 Length: 0.66 m Weight: 24.3 lb

Compact Inline Standoff B
MIS 128 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 135 Length: 0.65 m Weight: 15.4 lb



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

26.17 m NPRL - Limestone Neutron Por.

23.48 m AVOL - Annular Volume
23.48 m HVOL - Hole Volume
23.48 m CLDC - Density Caliper
23.27 m DCOR - Density Correction

23.27 m DEN - Compensated Density
23.25 m PDPE - PE

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

Compact Inline Standoff B
MIS 31 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 140 Length: 0.65 m Weight: 15.4 lb

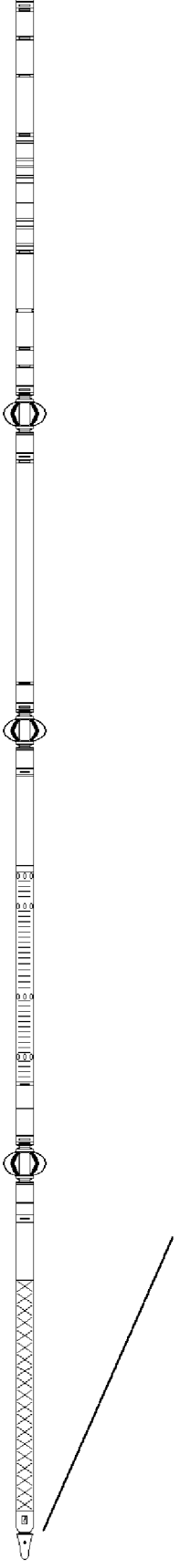
Compact Sonic
MSS 47 Length: 3.82 m Weight: 72.8 lb

Compact Inline Standoff B
MIS 73 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: 0.28 m Weight: 6.6 lb

Total Length: 53.18 m Weight: 1294.1 lb



Tool Zero (0.32m from bottom)

All measurements relative to tool zero.

| | |
|---|---|
| COMPANY | ESSO AUSTRALIA PTY. LTD. |
| WELL | MARLIN A24A |
| FIELD | TURRUM |
| PROVINCE/COUNTY | BASS STRAIT |
| COUNTRY/STATE | AUSTRALIA |

| | | | | | |
|---|---|---|---|---|---|
| Elevation Kelly Bushing | | metres | First Reading | 2672.50 | metres |
| Elevation Drill Floor | 27.91 | metres | Depth Driller | 2676.90 | metres |
| Elevation Ground Level | -59.00 | metres | Depth Logger | 2672.90 | metres |

Reeves

Photo Density

Compensated Neutron

Compact

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1:500 TVD