

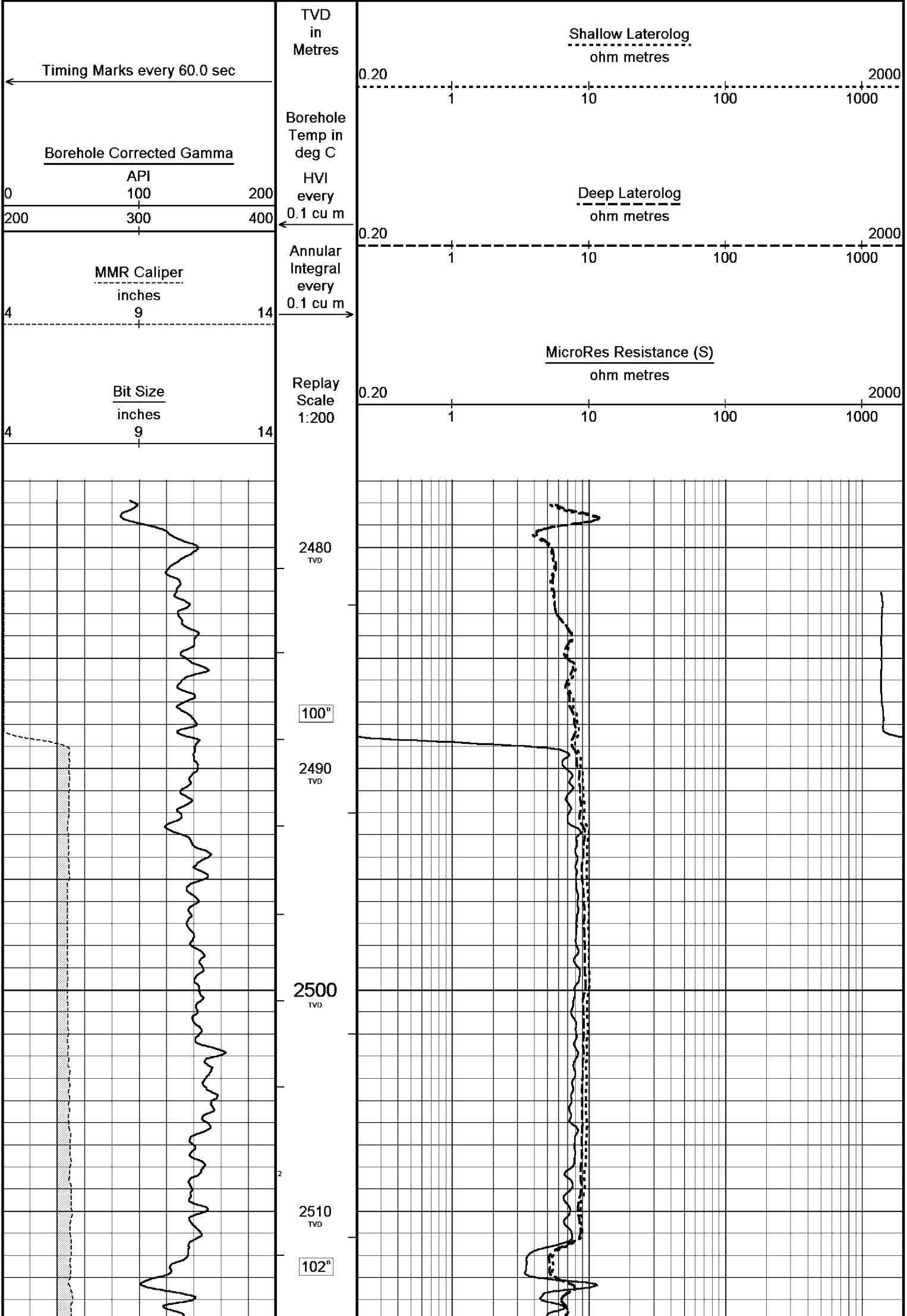
# Reeves

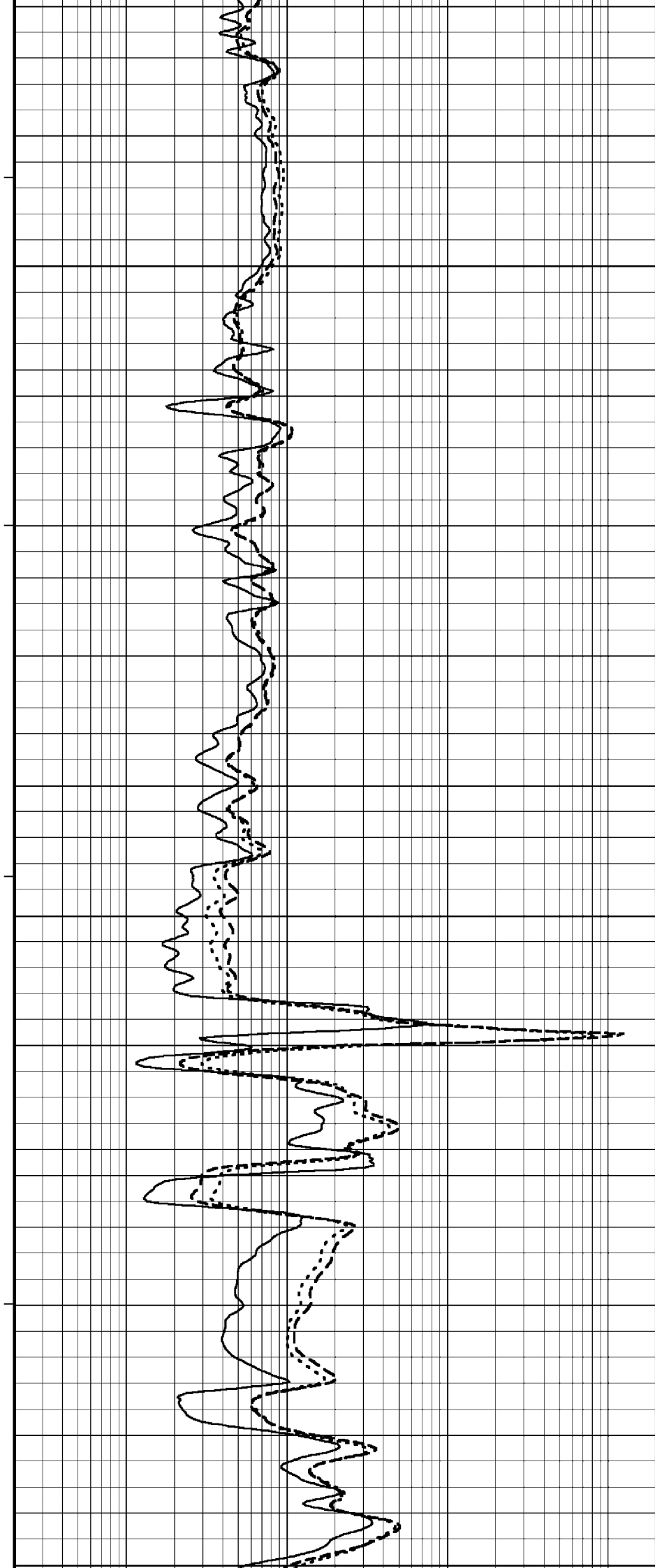
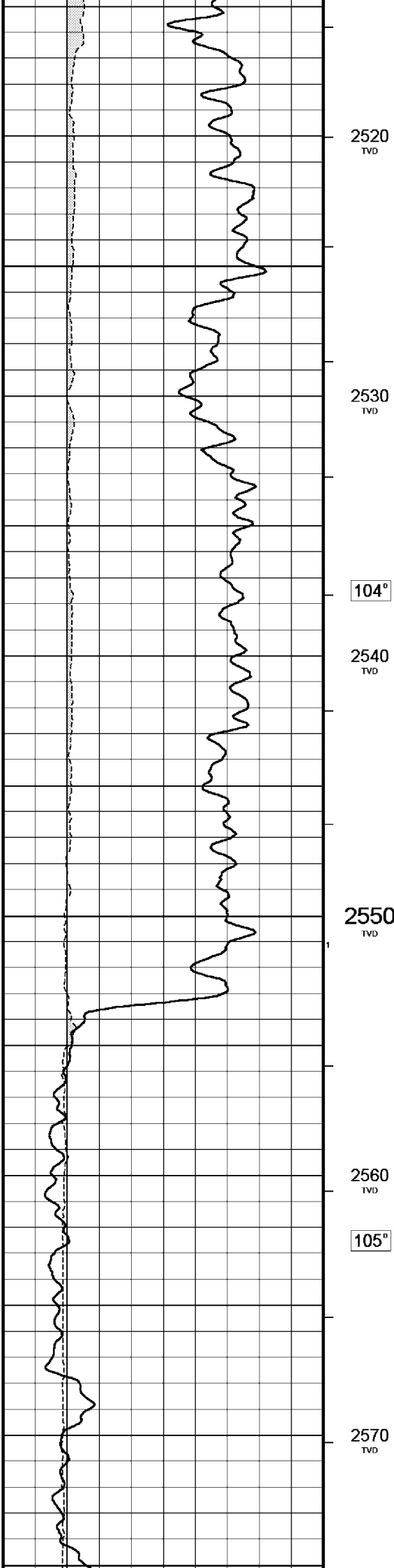
## DUAL LATEROLOG - GR MICRO-LATEROLOG 1:200 TVD

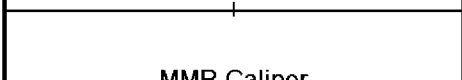
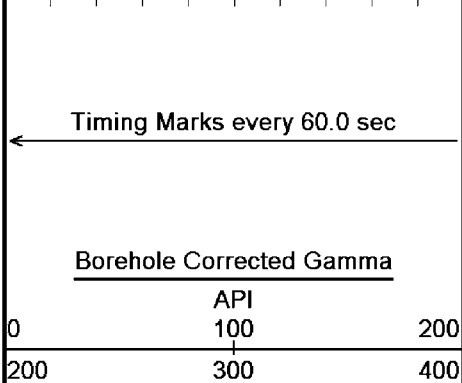
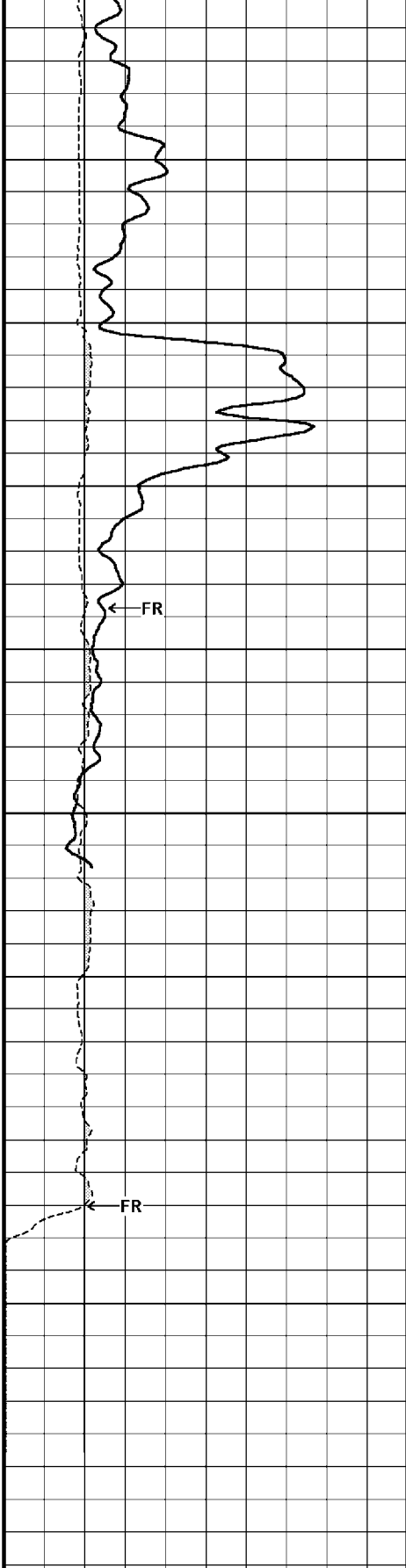
|                                   |  |     |     |
|-----------------------------------|--|-----|-----|
| COMPANY                           | ESSO AUSTRALIA PTY. LTD.   |     |     |
| WELL                              | FLOUNDER A-18a   |     |     |
| FIELD                             | GIPPSLAND BASIN  |     |     |
| PROVINCE/COUNTY                   | BASS STRAIT  |     |     |
| COUNTRY/STATE                     | AUSTRALIA  |     |     |
| LOCATION                          | 5758711.43 m N, 625855.81 m E<br>38°18'39.155" S, 148°26'22.358" E |     |     |
| LSD                               | SEC  | TWP | RGE |
| API Number                        | Other Services<br>PHOTO DENSITY                                    |     |     |
| Permit Number                     | COMPENSATED NEUTRON<br>COMPENSATED SONIC                           |     |     |
| Permanent Datum MSL               | , Elevation 0 metres   |     |     |
| Log Measured From RT@33.85 metres | above Permanent Datum  |     |     |
| Drilling Measured From RT         |  |     |     |
| Date                              | 30-Jun-2003  |     |     |
| Run Number                        | 2  |     |     |
| Depth Driller                     | 2612.90 metres   |     |     |
| Depth Logger                      | 2612.76 metres   |     |     |
| First Reading                     | 2612.03 metres   |     |     |
| Last Reading                      | 2427.10 metres   |     |     |
| Casing Driller                    | 2264.06 metres   |     |     |
| Casing Logger                     | 2263.63 metres   |     |     |
| Bit Size                          | 6.00 inches  |     |     |
| Hole Fluid Type                   | KCl/PHPA/GLY   |     |     |
| Density / Viscosity               | 9.90 lb/USg 75.00 sec/qt   |     |     |
| PH / Fluid Loss                   | 9.00 2.60 ml/30Min   |     |     |
| Sample Source                     | FLOWLINE   |     |     |
| Rm @ Measured Temp                | 0.118 @ 25.0 ohm-m   |     |     |
| Rmf @ Measured Temp               | 0.103 @ 25.0 ohm-m   |     |     |
| Rmc @ Measured Temp               | 0.28 @ 25.0 ohm-m  |     |     |
| Source Rmf / Rmc                  | PRESS ohm-m  |     |     |
| Rm @ BHT                          | 0.044 @ 106.5 ohm-m  |     |     |
| Time Since Circulation            | 15 HRS   |     |     |
| Max Recorded Temp                 | 106.50 deg C   |     |     |
| Equipment Name                    | COMPACT  |     |     |
| Equipment / Base                  | 1 SALE   |     |     |
| Recorded By                       | M. Barnes, P. Hodges   |     |     |
| Witnessed By                      | E. Espiritu  |     |     |
| Circ. Stopped                     | 2300 29Jun03   |     |     |
|                                   |  |     |     |

| BOREHOLE RECORD   |                |                      |                      |                     |
|---|----------------|----------------------|----------------------|---------------------|
| Bit Size<br>inches                                      |                | Depth From<br>metres |                      | Depth To<br>metres  |
| 8.500   |                | 1225.00              |                      | 3337.40             |
| 6.000   |                | 3329.50              |                      | 3736.00             |
| CASING RECORD   |                |                      |                      |                     |
| Type  | Size<br>inches | Depth From<br>metres | Shoe Depth<br>metres | Weight<br>pounds/ft |
| K-55  | 10.750         | 0.00                 | 1225.00              | 0.00                |
| R3  | 7.000          | 0.00                 | 3329.50              | 26.00               |
| REMARKS   |                |                      |                      |                     |
| DRILLING RIG: NABORS (ISDL) 453.                        |                |                      |                      |                     |
| REEVES COMPACT WIRELINE TOOLS RUN ON SCHLUMBERGER UNIT. |                |                      |                      |                     |
| HTHP: 9.2 ml/30 min @ 121°C                             |                |                      |                      |                     |
| MAX DEVIATION: 57.5° @ 1307 m MD.                       |                |                      |                      |                     |
| MAX DOG LEG SEVERITY: 5.57°/30 m MD.                    |                |                      |                      |                     |
| REEVES CREW: M.BARNES, G.MCMANUS, S.MOONEY, P.HODGES.   |                |                      |                      |                     |

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.







2580  
TVD

106°

2590  
TVD

2600  
TVD

2610  
TVD

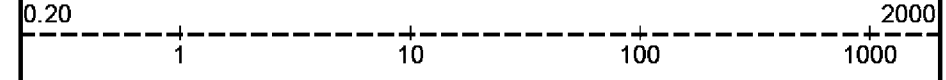
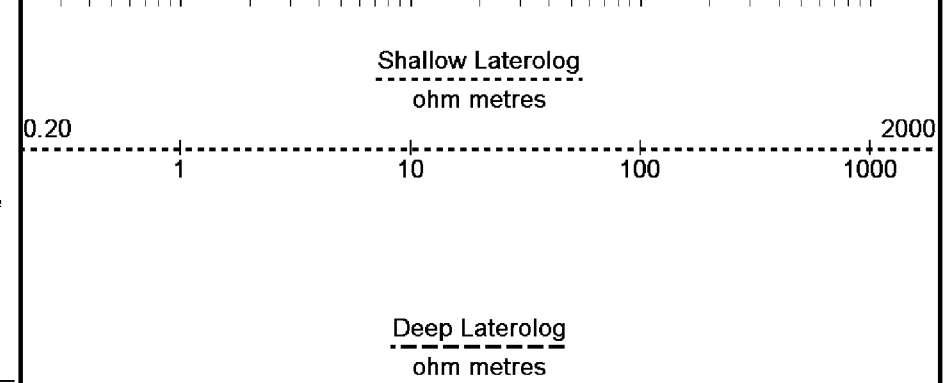
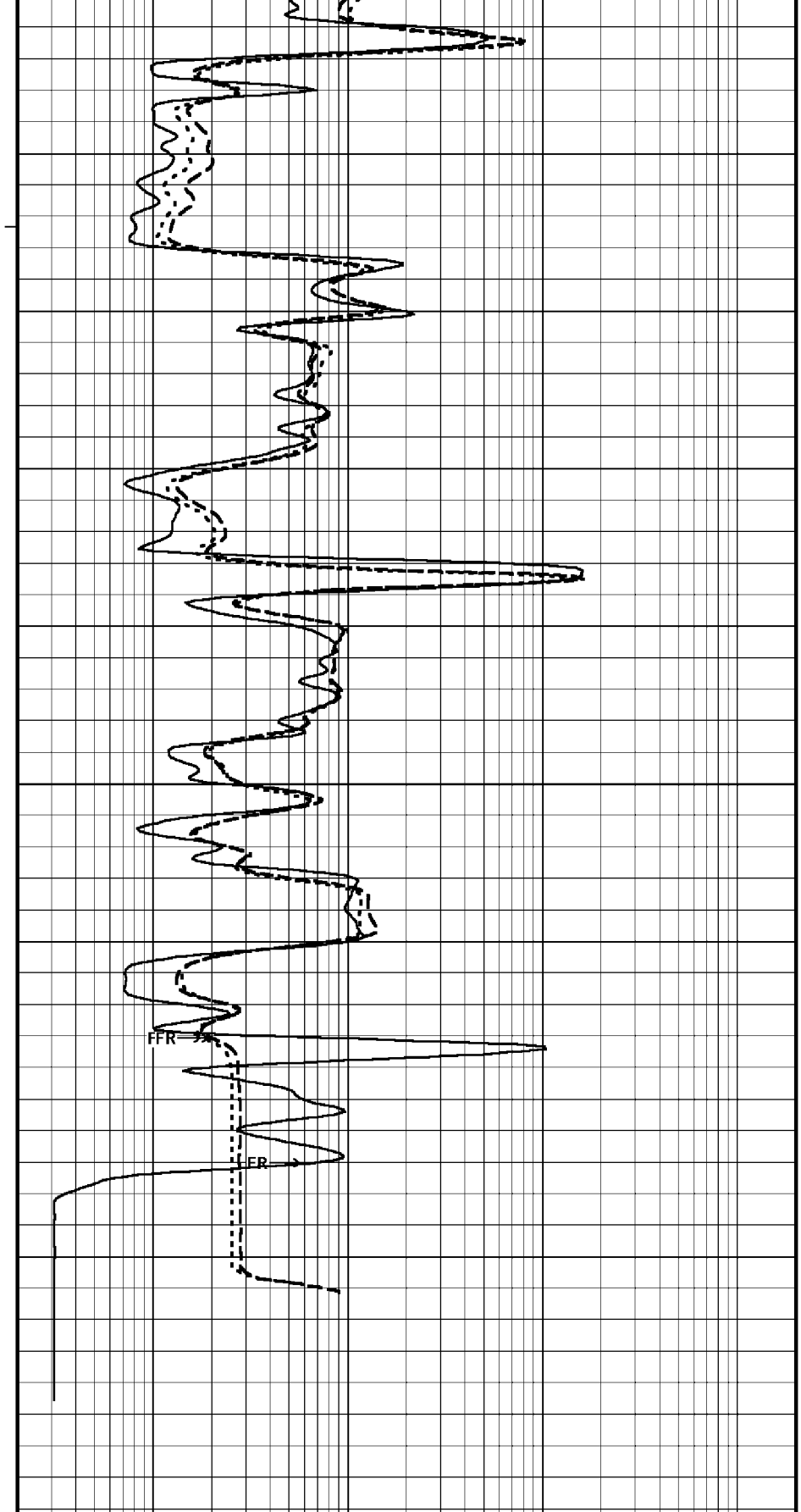
2620  
TVD

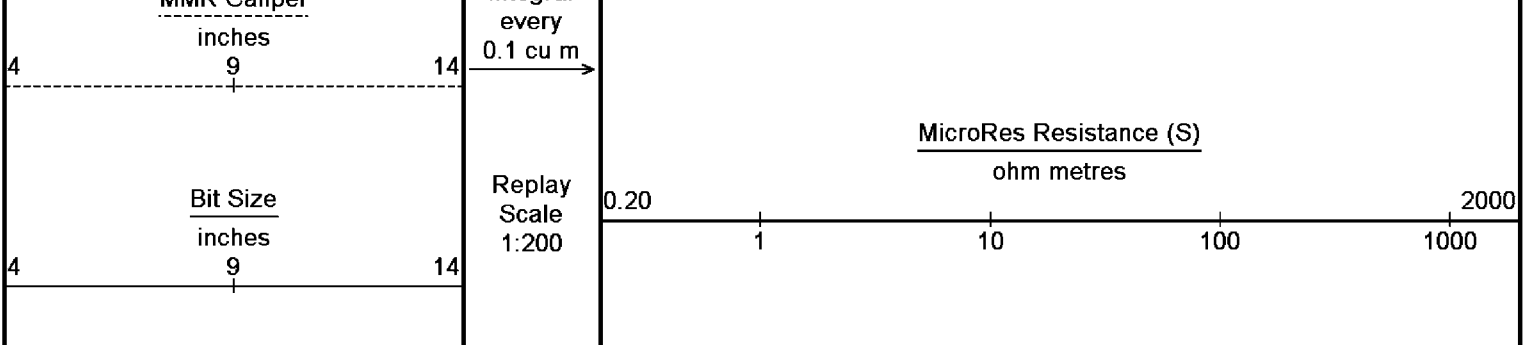
TVD in Metres

Borehole Temp in deg C

HVI every 0.1 cu m

Annular Integral





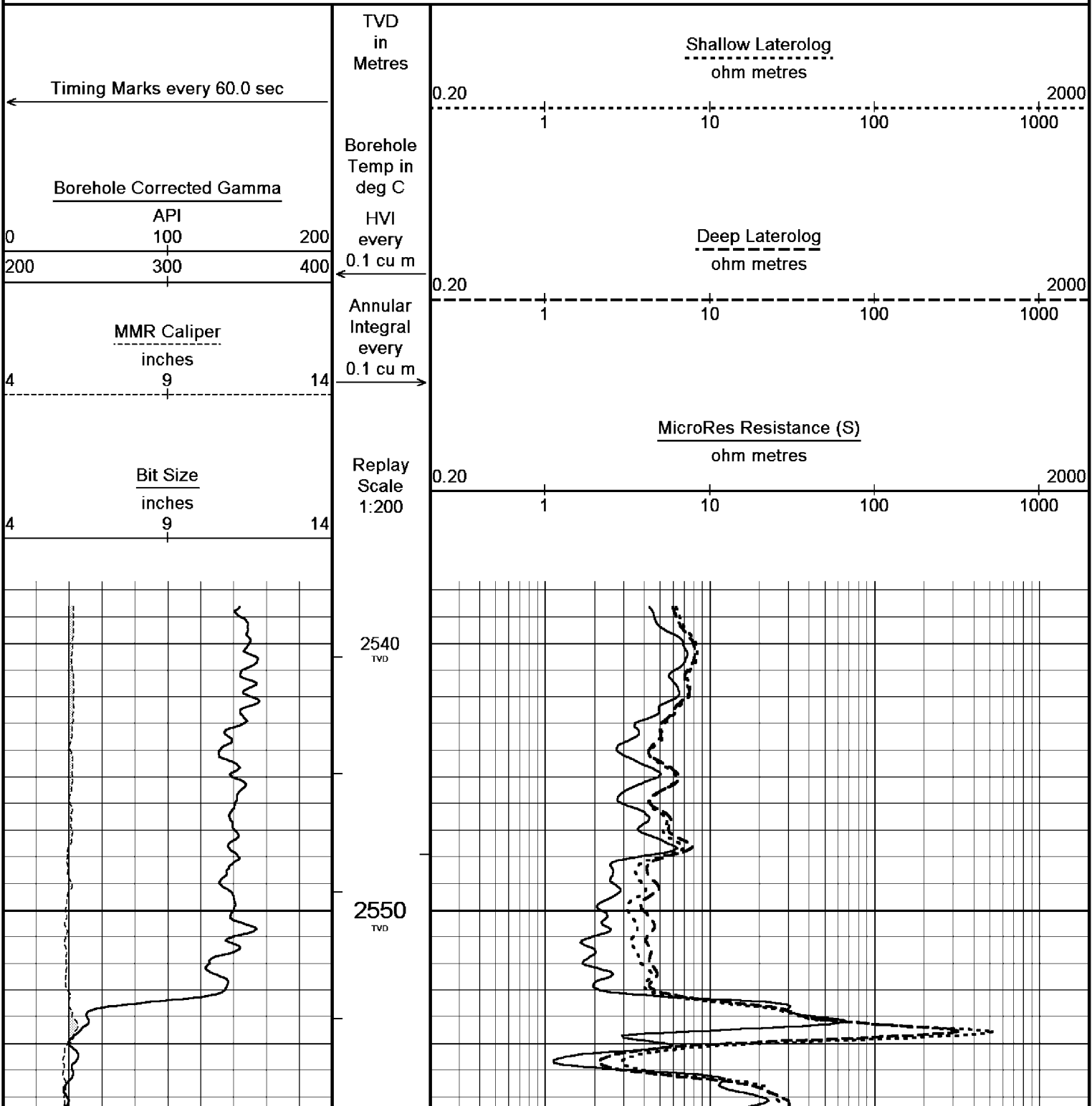
|   |   |
|---|---|
| Depth Based Data - Maximum Sampling Increment 10.0cm<br>Filename: C:\Data\FLA A18a TD\B & W Replay\Md\FLA_A18a_Main_Log.dta<br>System Configuration Dates: Logged 23-OCT-2002: Plotted 23-OCT-2002: | Plotted on 12-AUG-2003 12:13<br>Recorded on 30-JUN-2003 14:31 |
|---|---|

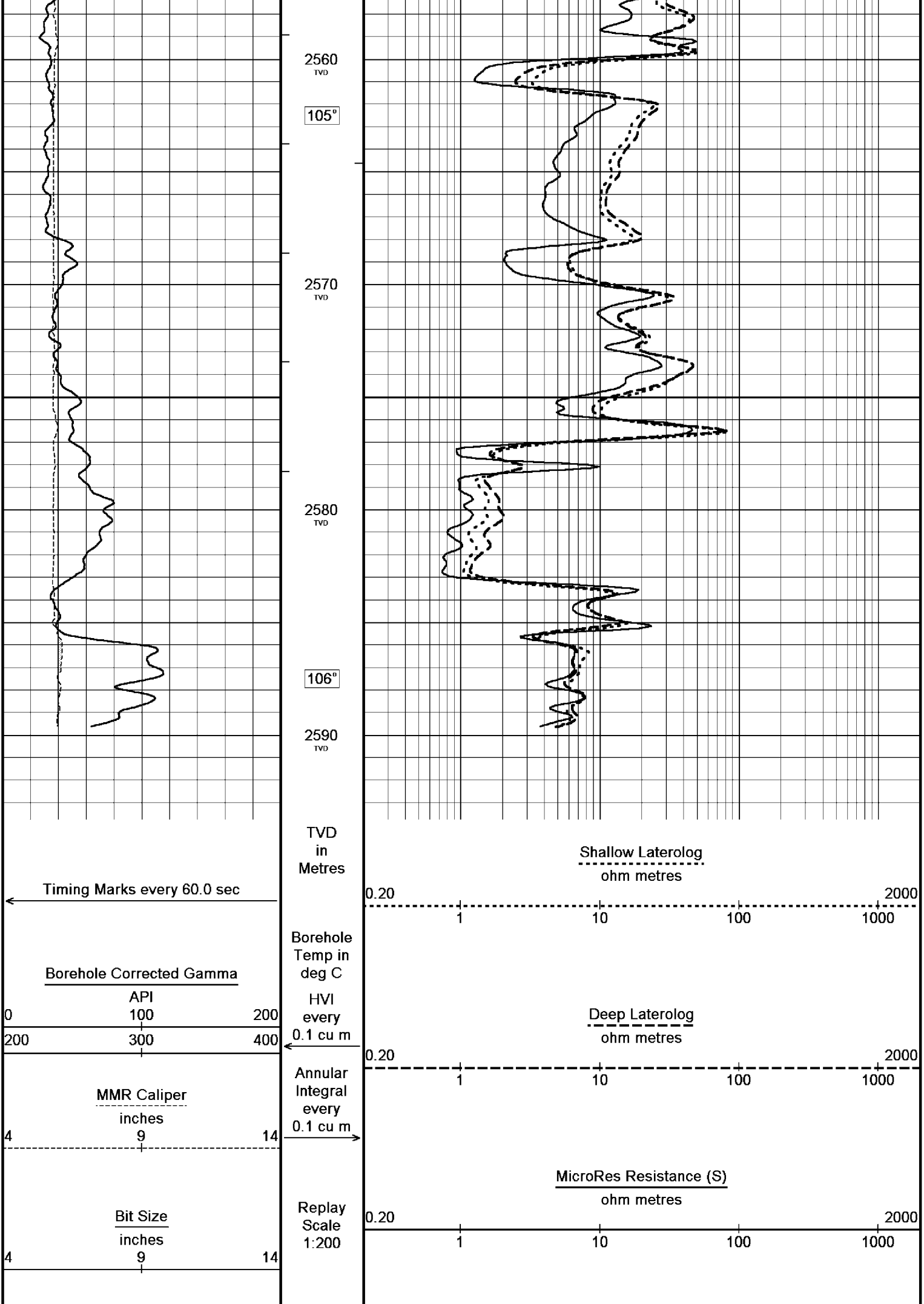
↑

MAIN LOG 1:200

↑

|   |   |
|---|---|
| Depth Based Data - Maximum Sampling Increment 10.0cm<br>Filename: C:\Data\FLA A18a TD\B & W Replay\Md\FLA_A18a_Repeat.dta<br>System Configuration Dates: Logged 23-OCT-2002: Plotted 23-OCT-2002: | Plotted on 12-AUG-2003 12:13<br>Recorded on 30-JUN-2003 14:04 |
|---|---|







## BEFORE SURVEY CALIBRATION

C:\Data\FLA A18a TD\B &amp; W Replay\Md\FLA\_A18a\_Main\_Log.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          | 5.00            | inches |
| Caliper for Differential Caliper | None            |        |

## Rwa Parameters

|                  |                       |
|------------------|-----------------------|
| Porosity used    | Base Density Porosity |
| Resistivity used | Deep Laterolog        |
| RWA Constant A   | 0.61                  |
| RWA Constant M   | 2.15                  |

## High Resolution Temperature Calibration MCG 044

Field Calibration on 28-MAR-2003,17:35

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

## High Resolution Temperature Constants MCG 044

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

## Gamma Calibration MCG 044

Field Calibration on 26-JUN-2003 23:43

|                    |          |                  |
|--------------------|----------|------------------|
|                    | Measured | Calibrated (API) |
| Background         | 13       | 8                |
| Calibrator (Gross) | 1453     | 917              |
| Calibrator (Net)   | 1439     | 909              |

## Gamma Constants MCG 044

|                               |                 |       |
|-------------------------------|-----------------|-------|
| Gamma Calibrator Number       | 060             |       |
| Mud Density                   | 1.19            | gm/cc |
| Caliper Source for Processing | Density Caliper |       |
| Tool Position                 | Eccentred       |       |
| Concentration of KCl          | 0.00            | kppm  |

## Caliper Calibration MPD 067

Base Calibration on 30-JUN-2003,13:57

Field Calibration on 30-JUN-2003,13:58

## Base Calibration

|            |          |                      |
|------------|----------|----------------------|
| Reading No | Measured | Calibrator Size (in) |
| 1          | 14801    | 4.61                 |
| 2          | 24384    | 6.59                 |
| 3          | 34288    | 8.58                 |
| 4          | 44305    | 10.54                |
| 5          | 55264    | 12.61                |
| 6          | N/A      | N/A                  |

## Field Calibration

|                       |                     |
|-----------------------|---------------------|
| Measured Caliper (in) | Actual Caliper (in) |
| 5.99                  | 5.99                |

## Laterolog Calibration MLE 015

Base Calibration on 6-MAY-2003,20:42

Field Check on 27-JUN-2003,00:20

## Base Calibration

|           |            |            |                       |
|-----------|------------|------------|-----------------------|
|           |            | Measured   | Calibrated (ohm-m)    |
| Channel   | Resistor 1 | Resistor 2 | Resistor 1 Resistor 2 |
| Shallow   | 0.0        | 973.0      | 0.0 1327.3            |
| Deep      | 0.0        | 973.0      | 0.0 852.7             |
| Groningen | 0.0        | 973.4      | 0.0 852.7             |

|         |                    |                     |
|---------|--------------------|---------------------|
| Channel | Base Check (ohm-m) | Field Check (ohm-m) |
| Shallow | 49.0               | 49.1                |
| Deep    | 21.5               | 21.5                |

|           |       |       |
|-----------|-------|-------|
| Deep      | 51.5  | 51.5  |
| Groningen | 252.0 | 252.0 |

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 015

Base Calibration on 15-JUN-2003,10:23  
Field Check on 27-JUN-2003 00:41

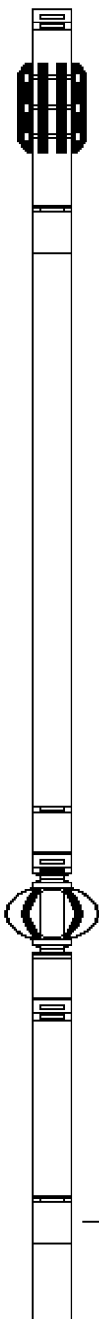
|                  |                    |                     |       |       |
|------------------|--------------------|---------------------|-------|-------|
| Base Calibration |                    |                     |       |       |
|                  | Measured           | Calibrated (ohm-m)  |       |       |
|                  | Ref 1              | Ref 2               | Ref 1 | Ref 2 |
|                  | 0.0                | 9883.0              | 0.0   | 196.0 |
|                  | Base Check (ohm-m) | Field Check (ohm-m) |       |       |
|                  | 7.9                | 0.0                 |       |       |

Micro Laterolog Constants MMR 015

|                          |        |        |
|--------------------------|--------|--------|
| Micro Laterolog K Factor | 0.0196 |        |
| Standoff Offset          | 0.5000 | inches |

DOWNHOLE EQUIPMENT  
All measurements relative to tool zero.

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

27.65 m    SPDL - Spontaneous Potential



Compact Inline Standoff B  
MIS 31    Length: 0.65 m    Weight: 15.43 lb

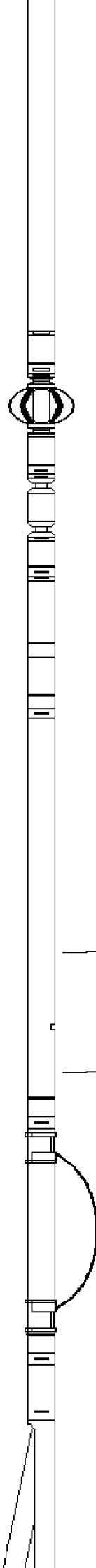
Compact Knuckle Joint  
SKJ 46    Length: 0.66 m    Weight: 24.25 lb

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

Compact Gamma  
MCG 44    Length: 2.65 m    Weight: 63.93 lb

Compact Neutron  
MDN 68    Length: 1.53 m    Weight: 50.71 lb

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



21.16 m    GGCE - Borehole Corrected Gamma

20.28 m    CGXT - MCG External Temperature

19.30 m    NPRL - Limestone Neutron Por.

16.61 m CLDC - Density Caliper  
16.61 m HVOL - Hole Volume  
16.61 m AVOL - Annular Volume  
16.40 m DCOR - Density Correction  
16.40 m DEN - Compensated Density  
16.38 m PDPE - PE



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

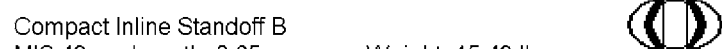
Compact Sonic  
MSS 45 Length: 3.82 m Weight: 72.75 lb



Compact Inline Standoff B  
MIS 75 Length: 0.65 m Weight: 15.43 lb

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

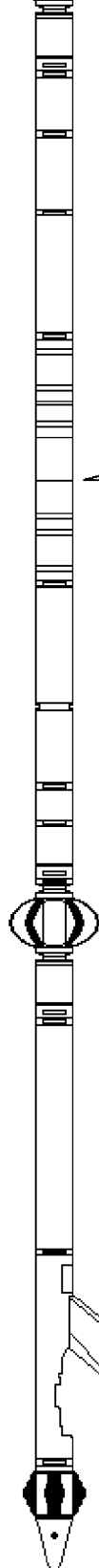
Compact Inline Standoff B  
MIS 12 Length: 0.65 m Weight: 15.43 lb



11.19 m TR11 - 4' Transit Time  
11.19 m TR12 - 6' Transit Time  
11.19 m DT35 - 3-5' Compensated Sonic  
11.19 m TR22 - 5' Transit Time  
11.19 m TR21 - 3' Transit Time

MIS 49 Length: 0.65 m Weight: 15.43 lb

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



4.58 m DSL - Shallow Laterolog  
4.58 m DDL - Deep Laterolog

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

Compact Micro-Resistivity  
MMR 15 Length: 2.62 m Weight: 81.57 lb

0.00 m MRRS - MicroRes Resistance (S)  
0.00 m MATC - MMR Caliper  
Tool Zero (0.85m from bottom)

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

Total Length: 33.90 m Total Weight: 884.05 lb

|                 |                          |
|-----------------|--------------------------|
| COMPANY         | ESSO AUSTRALIA PTY. LTD. |
| WELL            | FLOUNDER A-18a           |
| FIELD           | GIPPSLAND BASIN          |
| PROVINCE/COUNTY | BASS STRAIT              |
| COUNTRY/STATE   | AUSTRALIA                |

|                         |               |               |         |        |
|-------------------------|---------------|---------------|---------|--------|
| Elevation Kelly Bushing | metres        | First Reading | 2612.03 | metres |
| Elevation Drill Floor   | 33.85 metres  | Depth Driller | 2612.90 | metres |
| Elevation Ground Level  | -93.00 metres | Depth Logger  | 2612.76 | metres |

DUAL LATEROLOG - GR  
MICRO-LATEROLOG



1:200 TVD