

Reeves

DUAL LATEROLOG - GR DENSITY - NEUTRON 1:500 TVD

COMPANY				ESSO AUSTRALIA PTY LTD			
WELL				FLOUNDER A24A			
FIELD				GIPPSLAND BASIN			
PROVINCE/COUNTY				BASS STRAIT			
COUNTRY/STATE				AUSTRALIA			
LOCATION				5758709.11 m N, 625849.47 m E 38°18'39.233" S, 148°26'22.099" E			
LSD	SEC	TWP	RGE	Other Services COMPENSATED SONIC			
API Number							
Permit Number							
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	16-MAR-2003						
Run Number	1						
Depth Driller	2626.97			metres			
Depth Logger	2628.90			metres			
First Reading	2627.30			metres			
Last Reading	1889.70			metres			
Casing Driller	597.60			metres			
Casing Logger	596.20			metres			
Bit Size	8.50			Inches			
Hole Fluid Type	KC/PHPA/GLY						
Density / Viscosity	9.50 lb/USg			68.00 sec/ct			
PH / Fluid Loss	9.00			2.50 ml/30Min			
Sample Source	FLOWLINE						
Rm @ Measured Temp	0.119 @ 25.0			ohm-m			
Rmf @ Measured Temp	0.089 @ 25.0			ohm-m			
Rmc @ Measured Temp	0.119 @ 25.0			ohm-m			
Source Rmf / Rmc	PRESS			PRESS			
Rm @ BHT	0.048 @ 96.0			ohm-m			
Time Since Circulation	15hr 40min						
Max Recorded Temp	98.00			deg C			
Equipment Name	CWS/CIS						
Equipment / Base	1						
Recorded By	G. McManus, D. Woodward			W. Arnold, C. Burton			
Witnessed By	G. Smith						
Circ. Stopped	22:10 15-MAR						

BOREHOLE RECORD				
Bit Size inches		Depth From metres		Depth To metres
8.510		662.60		3193.00
CASING RECORD				
Type	Size inches	Depth From metres	Shoe Depth metres	Weight pounds/ft
Conduct.	20.000	0.00	202.65	133.00
Surface	10.750	202.65	662.60	54.50
REMARKS				
DRILLING RIG: NABORS (ISDL) 453.				
COMPACT WIRELINE TOOLS LOGGED CONVENTIONALLY VIA SCHLUMBERGER WIRELINE UNIT.				
DUAL NEUTRON / PHOTO DENSITY ECCENTRALISED				
COMPENSATED SONIC / LATEROLOG FITTED WITH 1/2" STANDOFF				
BARITE CONTENT 1.65%				

AFTER SURVEY CALIBRATION			C:\FLA A24A\FLA_A24A_Sonde_Picture.dta	
Gamma Check MCG 044			Field Calibration on 14-MAR-2003 09:40 After Survey Check on 17-MAR-2003 00:08	
	Before (API)	After (API)		
Background	10	13		
Calibrator (Gross)	919	922		
Calibrator (Net)	909	909		
Photo Density Check MPD 067			Before Survey Check on 14-MAR-2003 03:49	

Density Check

	Near		Far	
	Before	After	Before	After
	959.8	957.8	1151.7	1156.6

PE Check

	Before	After
WS	178.7	179.7
WH	833.1	834.3

Laterolog Check MLE 015

Before Survey Check on 14-MAR-2003,03:10

After Survey Check on 17-MAR-2003,00:56

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

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 1:500

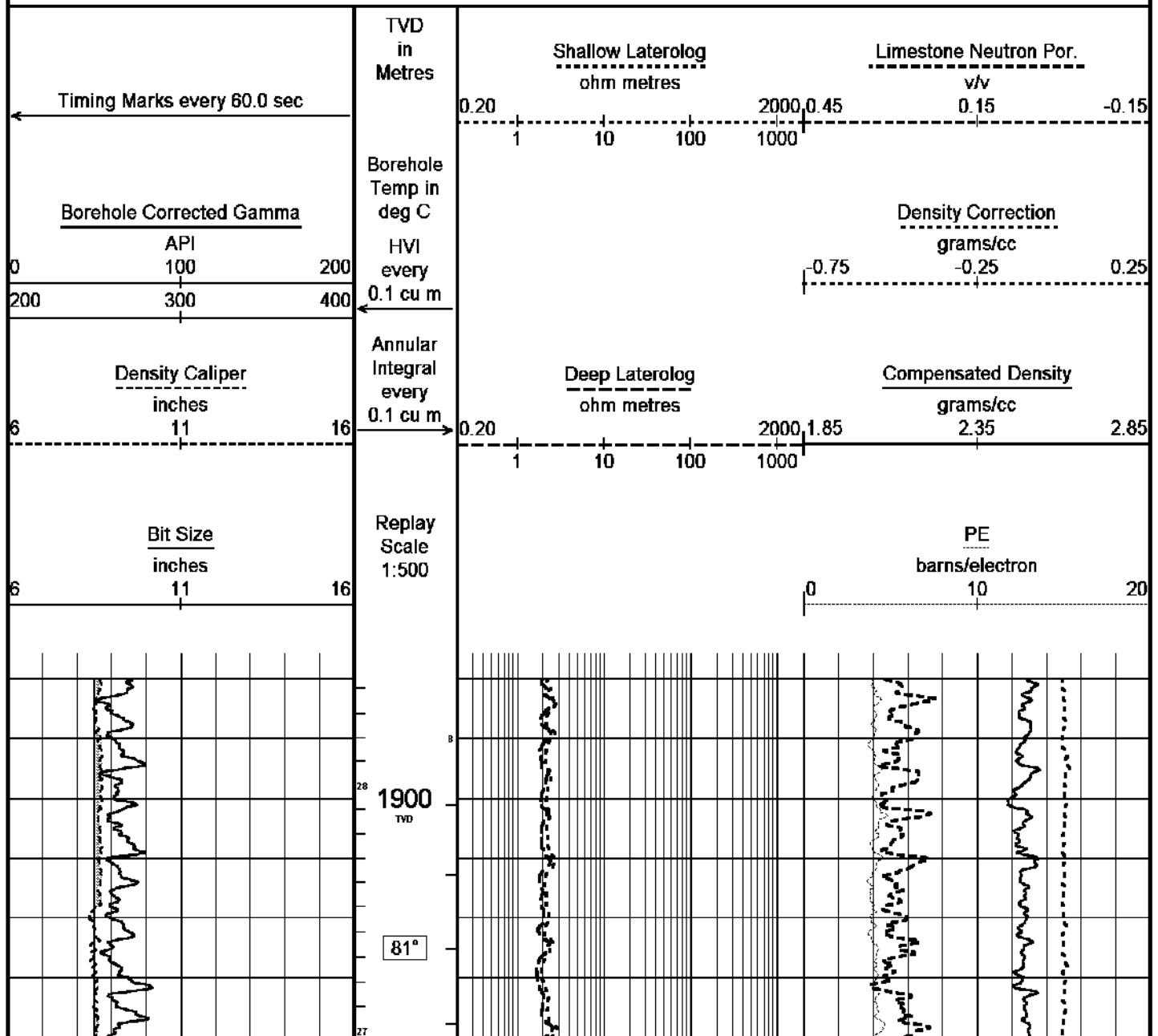
Depth Based Data - Maximum Sampling Increment 10.0cm

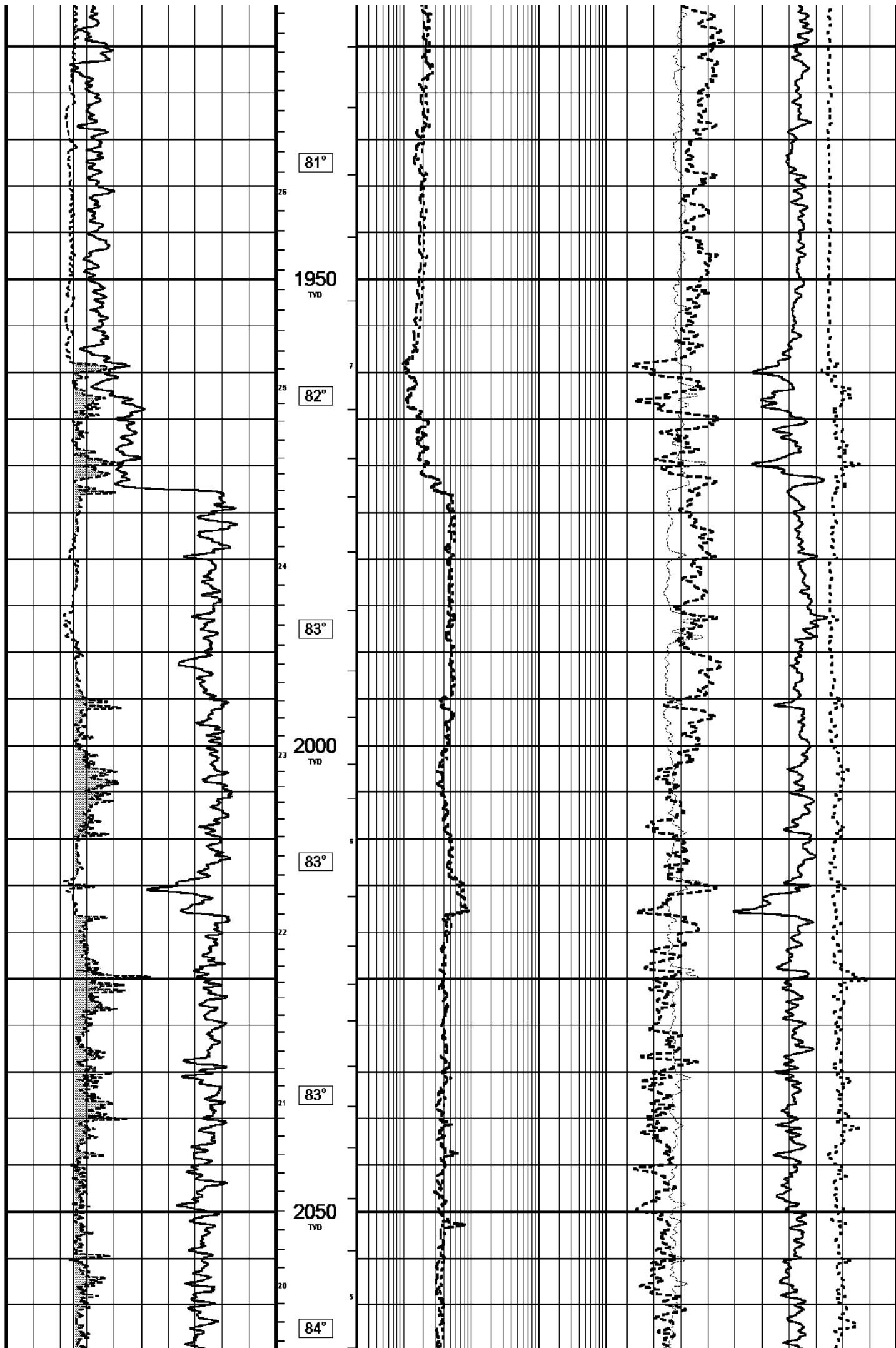
Plotted on 16-MAY-2003 12:51

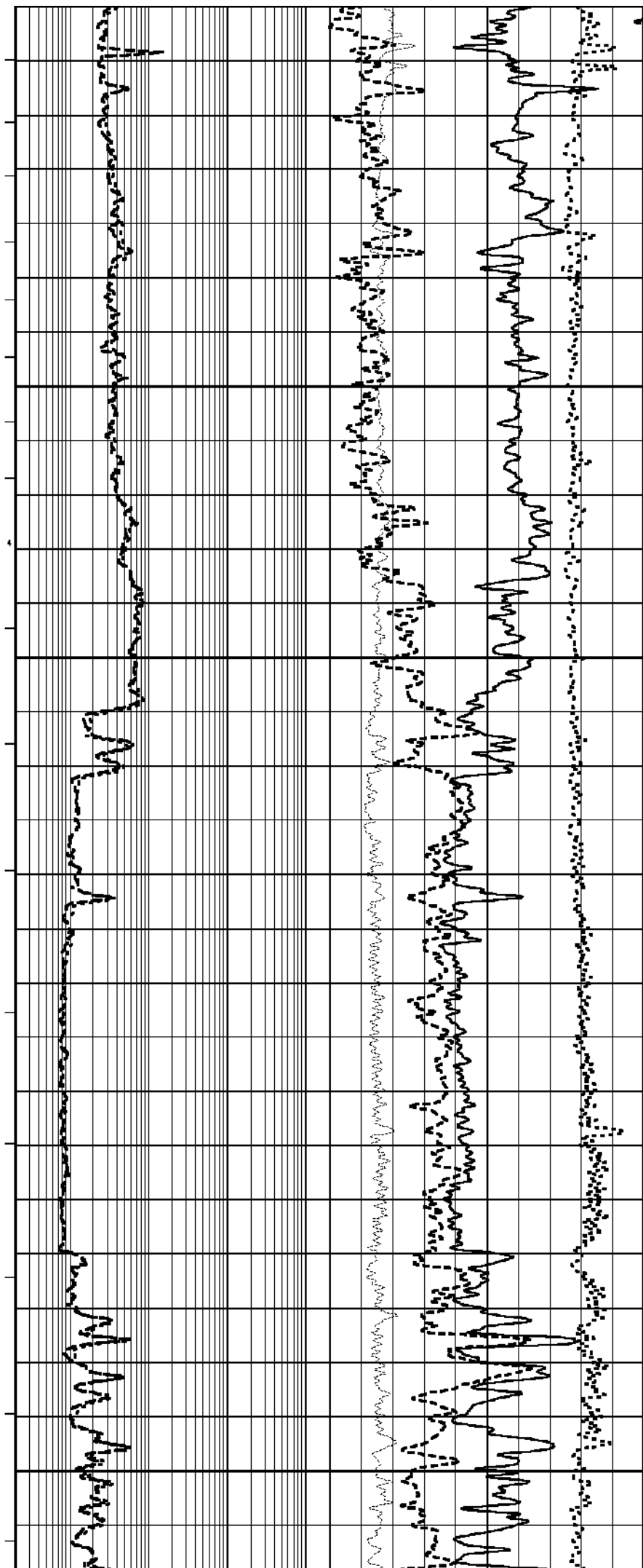
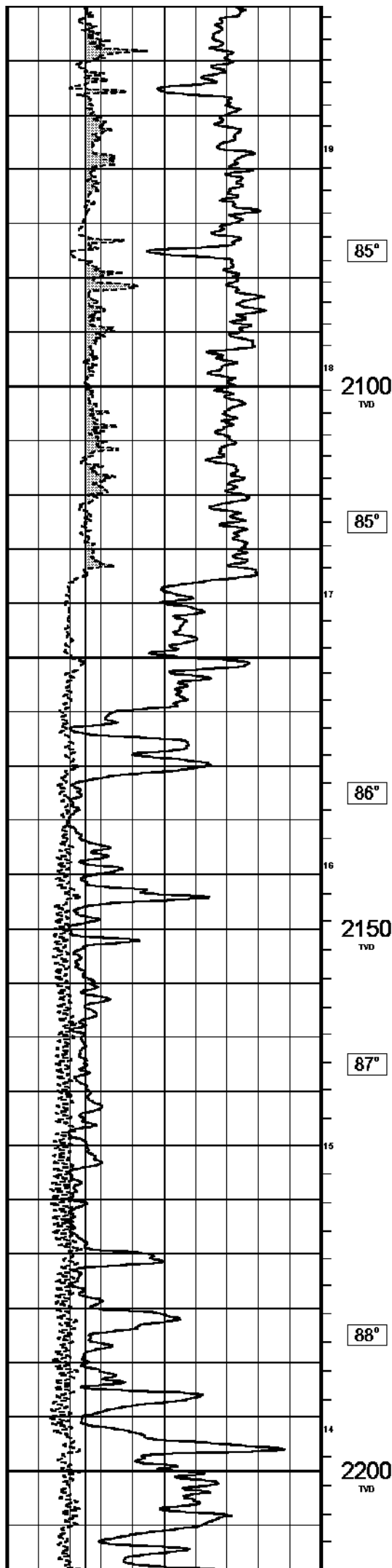
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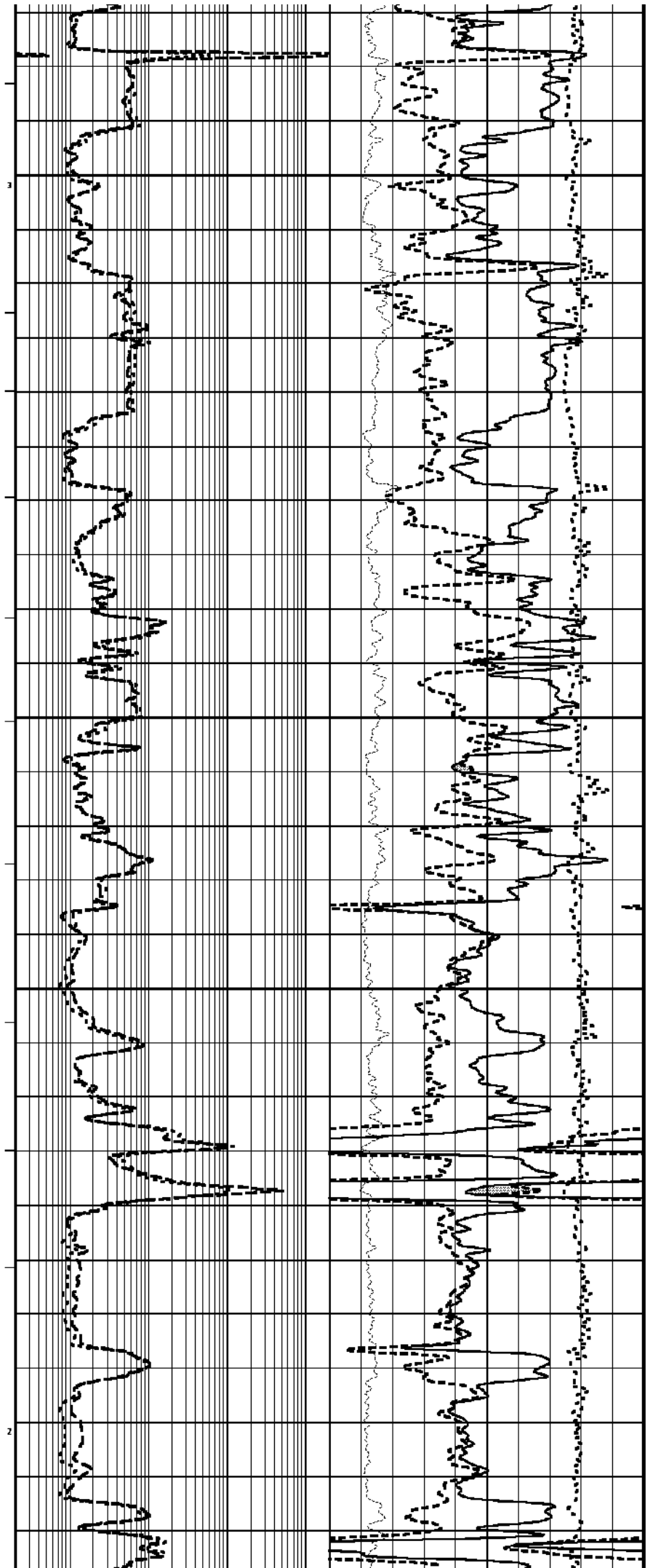
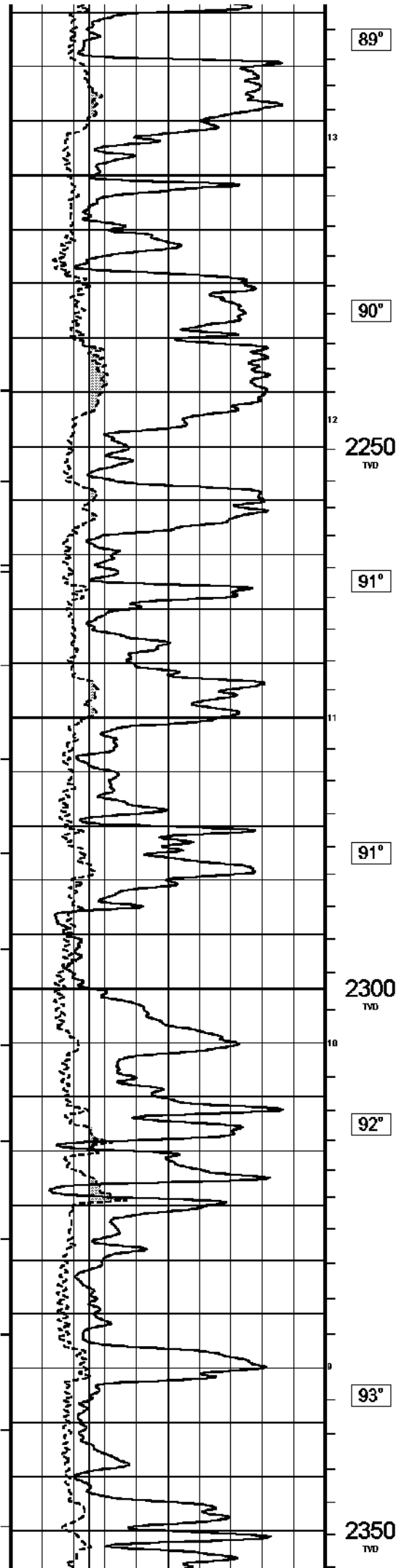
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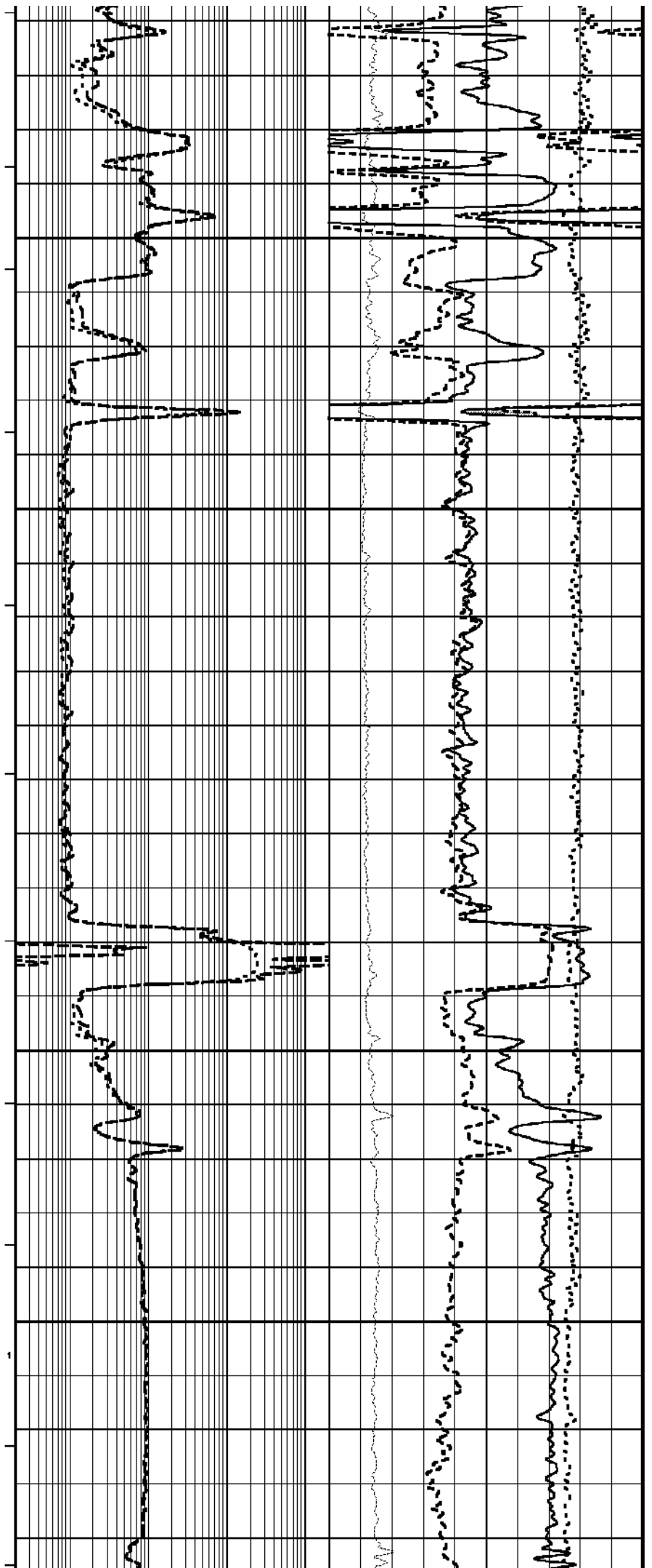
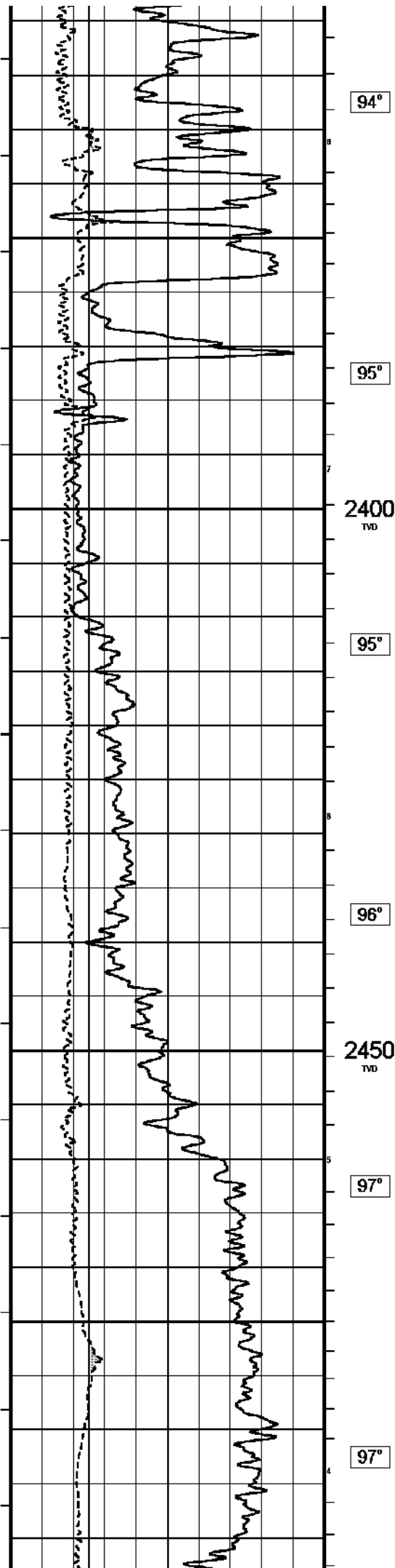
System Configuration Dates: Logged 23-OCT-2002: Processed 23-OCT-2002: Plotted 23-OCT-2002:

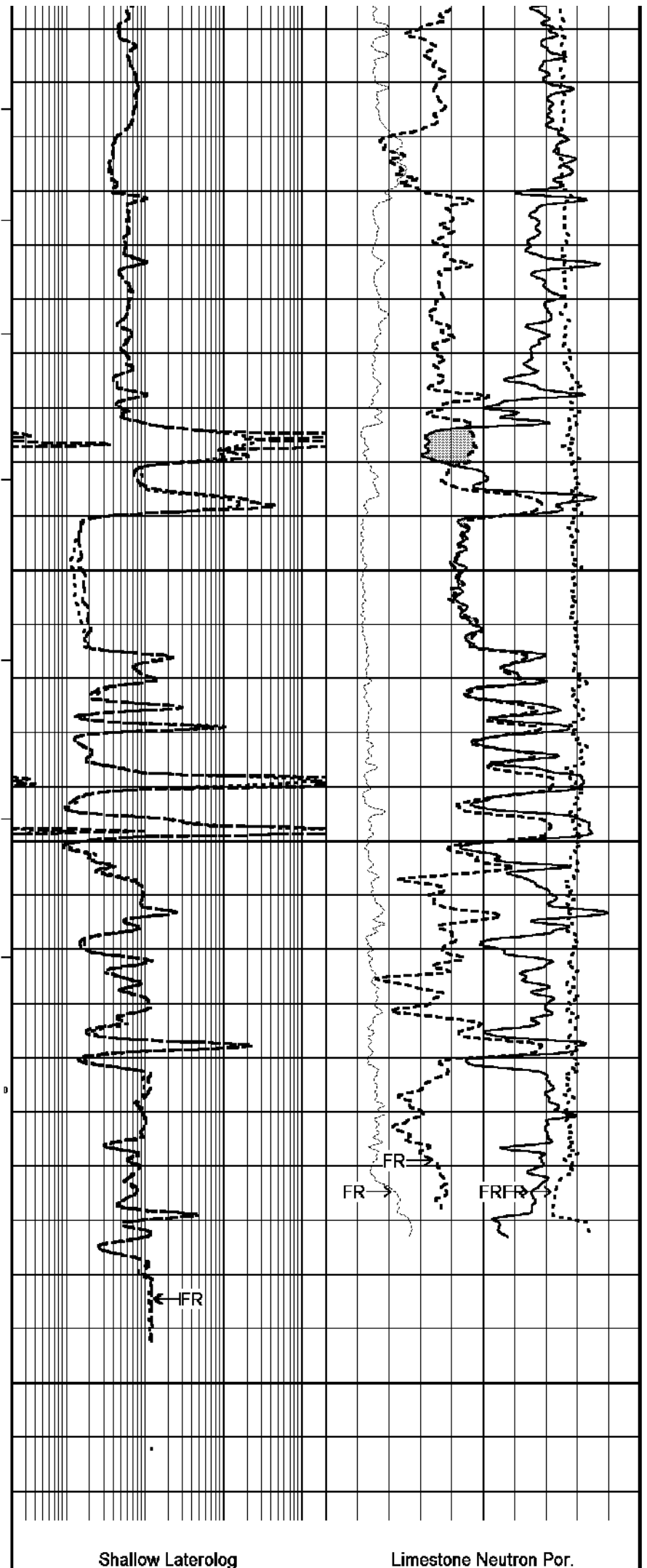
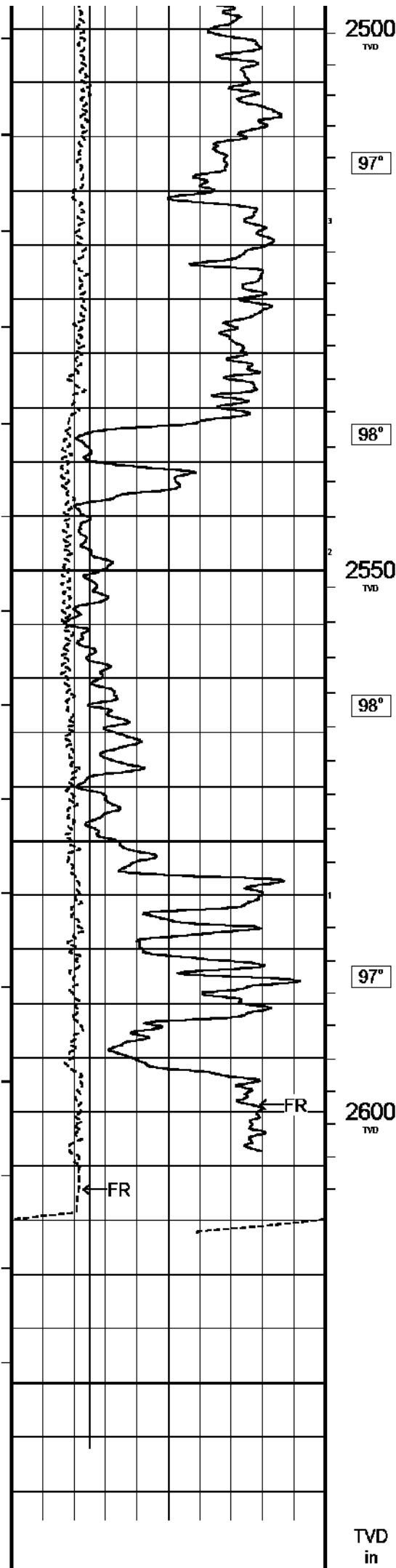


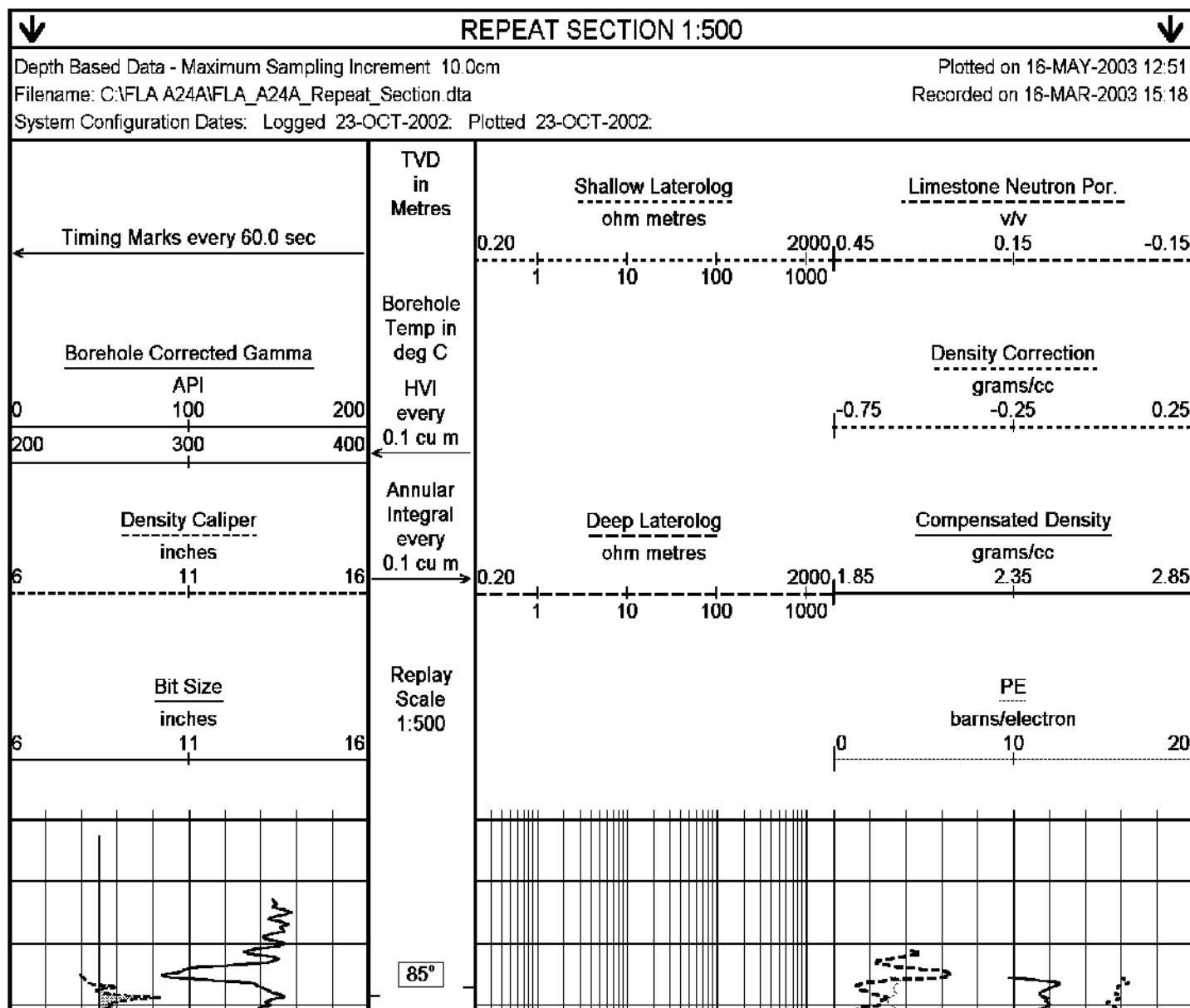
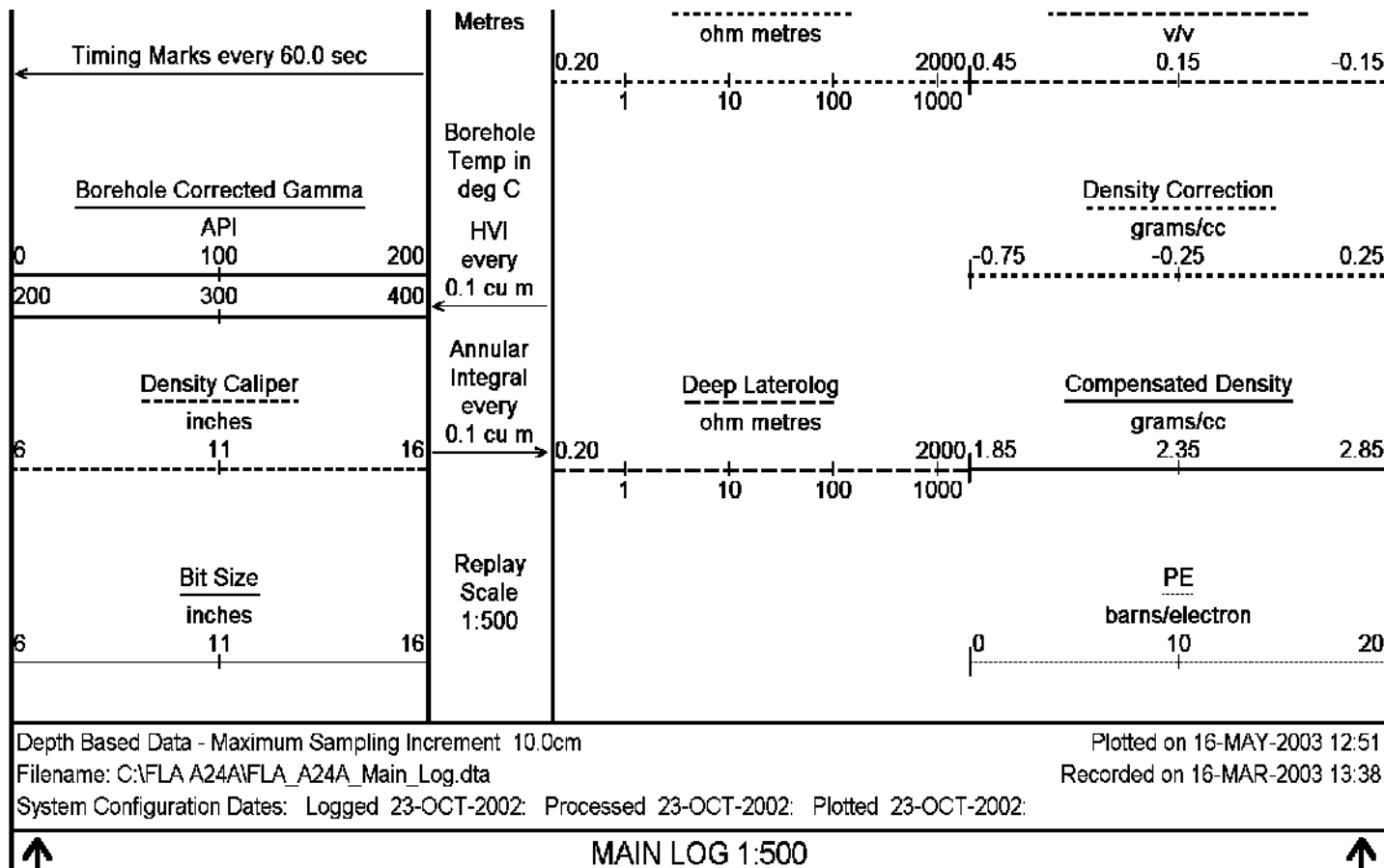


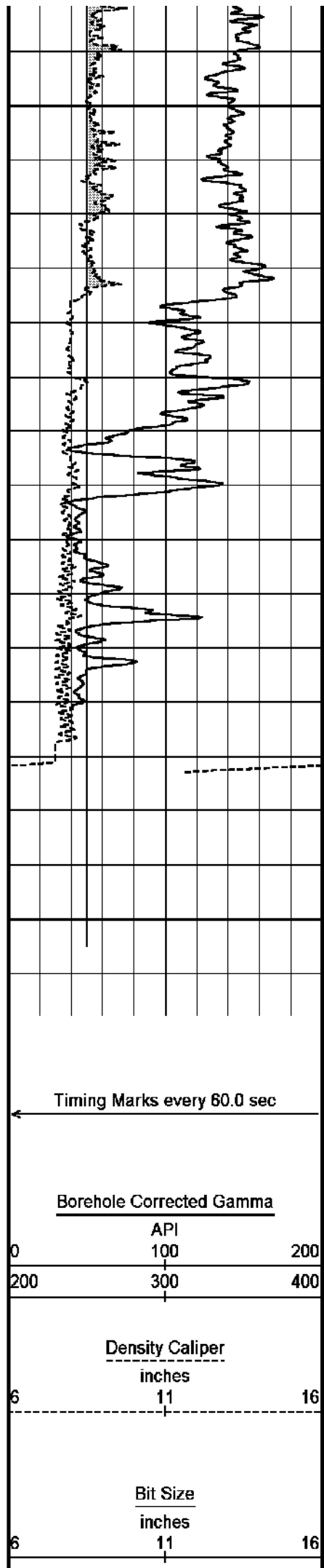












2100 TVD

86°

86°

2150 TVD

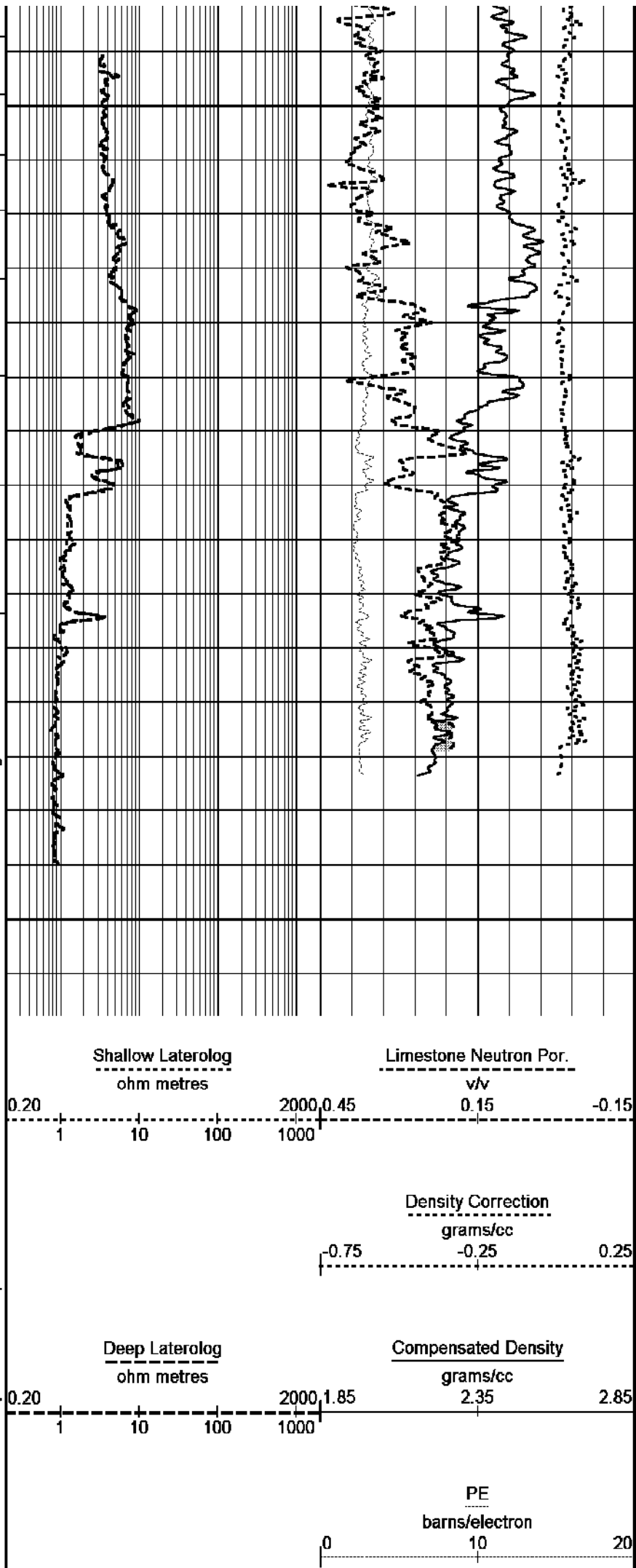
TVD in Metres

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 16-MAY-2003 12:51

Filename: C:\FLA A24\FLA_A24A_Repeat_Section.dta

Recorded on 16-MAR-2003 15:18

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



REPEAT SECTION 1:500



BEFORE SURVEY CALIBRATION

C:\FLA A24\FLA_A24A_Main_Log.dta

General Constants All 000

General Parameters

Mud Resistivity	0.12	ohm-metres
Mud Resistivity Temperature	25.00	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	None	
Annular Volume Diameter	7.00	inches
Caliper for Differential Caliper	Density Caliper	

Rwa Parameters

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

Gamma Calibration MCG 044

Field Calibration on 14-MAR-2003 09:40

	Measured	Calibrated (API)
Background	16	10
Calibrator (Gross)	1435	919
Calibrator (Net)	1419	909

Gamma Constants MCG 044

Gamma Calibrator Number	060	
Mud Density	1.14	gm/cc
Caliper Source for Processing	Density Caliper	
Tool Position	Eccentred	
Concentration of KCl	0.00	kppm

High Resolution Temperature Calibration MCG 044

Field Calibration on 4-SEP-2002,14:58

	Measured	Calibrated(Deg C)
Lower	1.00	1.00
Upper	150.00	150.00

High Resolution Temperature Constants MCG 044

Pre-filter Length	11
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Neutron Calibration MDN 068

Base Calibration on 17-JAN-2003 15:32

Field Check on 14-MAR-2003 04:20

Base Calibration

	Measured		Calibrated (cps)	
	Near	Far	Near	Far
Ratio	2859	89	3714	110
	32.108		33.764	

Field Calibrator at Base

	Calibrated (cps)
Ratio	1878 2704
	0.695

Field Check

	Calibrated (cps)
Ratio	1788 2640
	0.677

Neutron Constants MDN 068

Neutron Source Id

774

Neutron Jig Number	52	
Epithermal Neutron	No	
Caliper Source for Processing	Density Caliper	
Stand-off	0.00	inches
Mud Density	1.14	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	56.00	kppm
Formation Fluid Salinity Source	None	
Formation Fluid Salinity	N/A	kppm
Barite Mud Correction	Not Applied	

Caliper Calibration MPD 067

Base Calibration on 19-FEB-2003,13:48

Field Calibration on 14-MAR-2003 03:53

Base Calibration		
Reading No	Measured	Calibrator Size (in)
1	14847	4.01
2	24400	5.99
3	34321	7.98
4	44338	9.94
5	55648	12.01
6	N/A	N/A

Field Calibration		
	Measured Caliper (in)	Actual Caliper (in)
	7.98	7.98

Photo Density Calibration MPD 067

Base Calibration on 19-JAN-2003 12:40

Field Check on 14-MAR-2003 03:49

Density Calibration					
Base Calibration		Measured		Calibrated (sdu)	
		Near	Far	Near	Far
Reference 1	58595	20350	53282	19349	
Reference 2	27401	2638	25298	2555	

Field Check at Base	960.1	1164.2
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Field Check	959.8	1151.7
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PE Calibration				
Base Calibration		Measured		Calibrated
	WS	WH	Ratio	Ratio
Background	180	835		
Reference 1	18645	58403	0.321	0.318
Reference 2	7313	27257	0.270	0.273

Field Check at Base	179.8	835.5
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Field Check	178.7	833.1
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Density Constants MPD 067

Density Source Id	226	
Nylon Calibrator Number	517	
Aluminium/Fe Calibrator Number	517	
Density Shoe Profile	4 inch	
Caliper Source for Processing	Density Caliper	
PE Correction to Density	Not Applied	
Mud Density	1.14	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	0.00

Laterolog Calibration MLE 015

Base Calibration on 4-SEP-2002,14:40
Field Check on 14-MAR-2003,03:10

Base Calibration

Channel	Measured		Calibrated (ohm-m)	
	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)
Shallow	49.1	49.1
Deep	31.5	31.5
Groningen	246.3	246.3

Laterolog Constants MLE 015

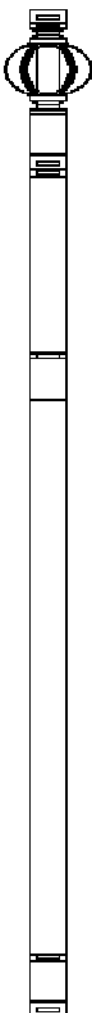
Squasher Start	40000	ohm-m
Shallow Laterolog K Factor	1.3273	
Deep Laterolog K Factor	0.8527	
Groningen Laterolog K Factor	0.8527	
Interference Rejection	50 Hz	
SP Connection	SP Bridle Electrode	
Groningen Connection	Groningen Electrode	

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

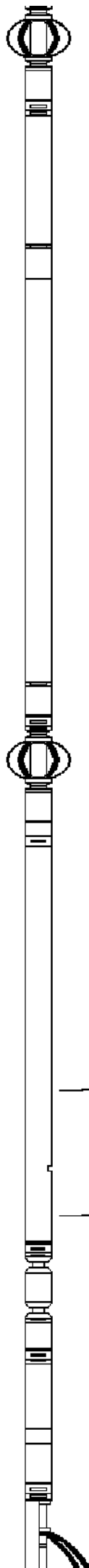
Compact Inline Standoff B
MIS 31 Length: 0.65 m Weight: 15.43 lb

Compact Gamma
MCG 44 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

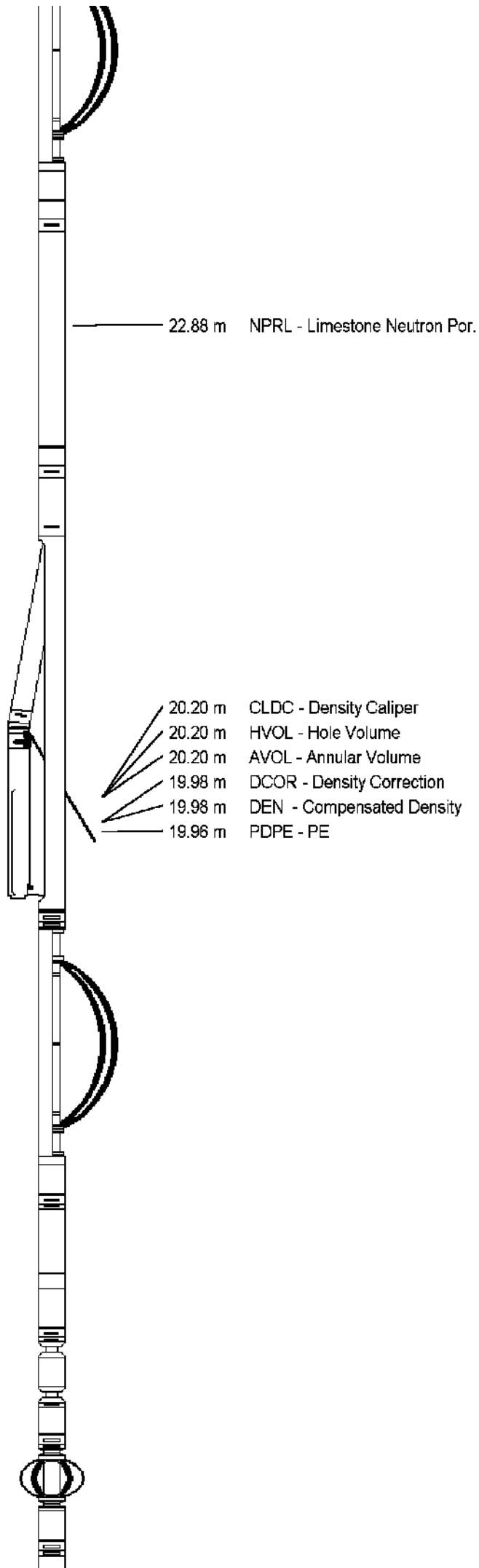
Compact Density/Caliper
MPD 67 Length: 2.92 m Weight: 90.39 lb

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

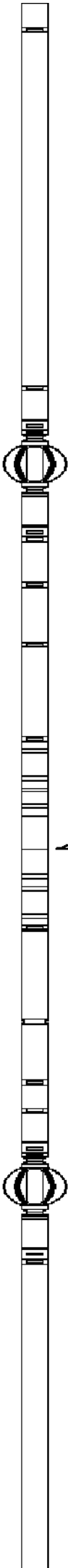
Compact Inline Standoff B
MIS 49 Length: 0.65 m Weight: 15.43 lb

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

10.06 m DSLL - Shallow Laterolog
10.06 m DDLL - Deep Laterolog

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

Compact Lower Guard Sub.
MLG 7 Length: 2.44 m Weight: 55.12 lb



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

Compact Knuckle Joint
SKJ 48 Length: 0.66 m Weight: 24.25 lb

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

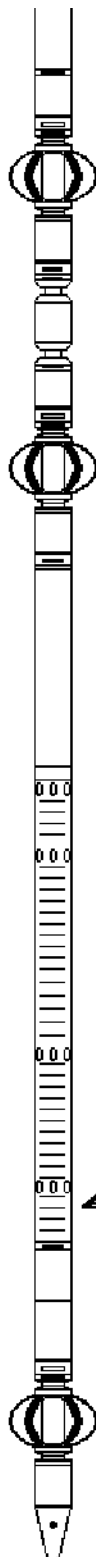
Compact Sonic
MSS 28 Length: 3.82 m Weight: 72.75 lb

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

Compact Hole Finder
HFS 1 Length: 0.24 m Weight: 2.20 lb

Total Length: 40.60 m

Total Weight: 1016.33 lb



0.00 m TR21 - 3' Transit Time
0.00 m TR22 - 5' Transit Time
0.00 m DT35 - 3-5' Compensated Sonic
Tool Zero (1.58m from bottom)

COMPANY	ESSO AUSTRALIA PTY LTD
WELL	FLOUNDER A24A
FIELD	GIPPSLAND BASIN
PROVINCE/COUNTY	BASS STRAIT
COUNTRY/STATE	AUSTRALIA

Elevation Kelly Bushing	metres	First Reading	2627.30	metres
Elevation Drill Floor	33.85 metres	Depth Driller	2626.97	metres
Elevation Ground Level	-93.00 metres	Depth Logger	2628.90	metres



DUAL LATEROLOG - GR
DENSITY NEUTRON

