

Reeves

DUAL LATEROLOG

GAMMA RAY
1:200 MD

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 PHOTO DENSITY COMPENSATED NEUTRON	
Permanent Datum MSL , Elevation 0 metres					
Log Measured From RT@33.85 metres above Permanent Datum					
Drilling Measured From RT					
Date			16-MAR-2003		
Run Number			1		
Depth Driller			3193.00 metres		
Depth Logger			3195.00 metres		
First Reading			3193.40 metres		
Last Reading			2355.00 metres		
Casing Driller			662.60 metres		
Casing Logger			660.20 metres		
Bit Size			8.50 inches		
Hole Fluid Type			KC/PHPA/GLY		
Density / Viscosity			9.50 lb/USg 68.00 sec/qt		
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		
Witnessed By			G. Smith W. Arnold, C. Burton		
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 ½" 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 1:200

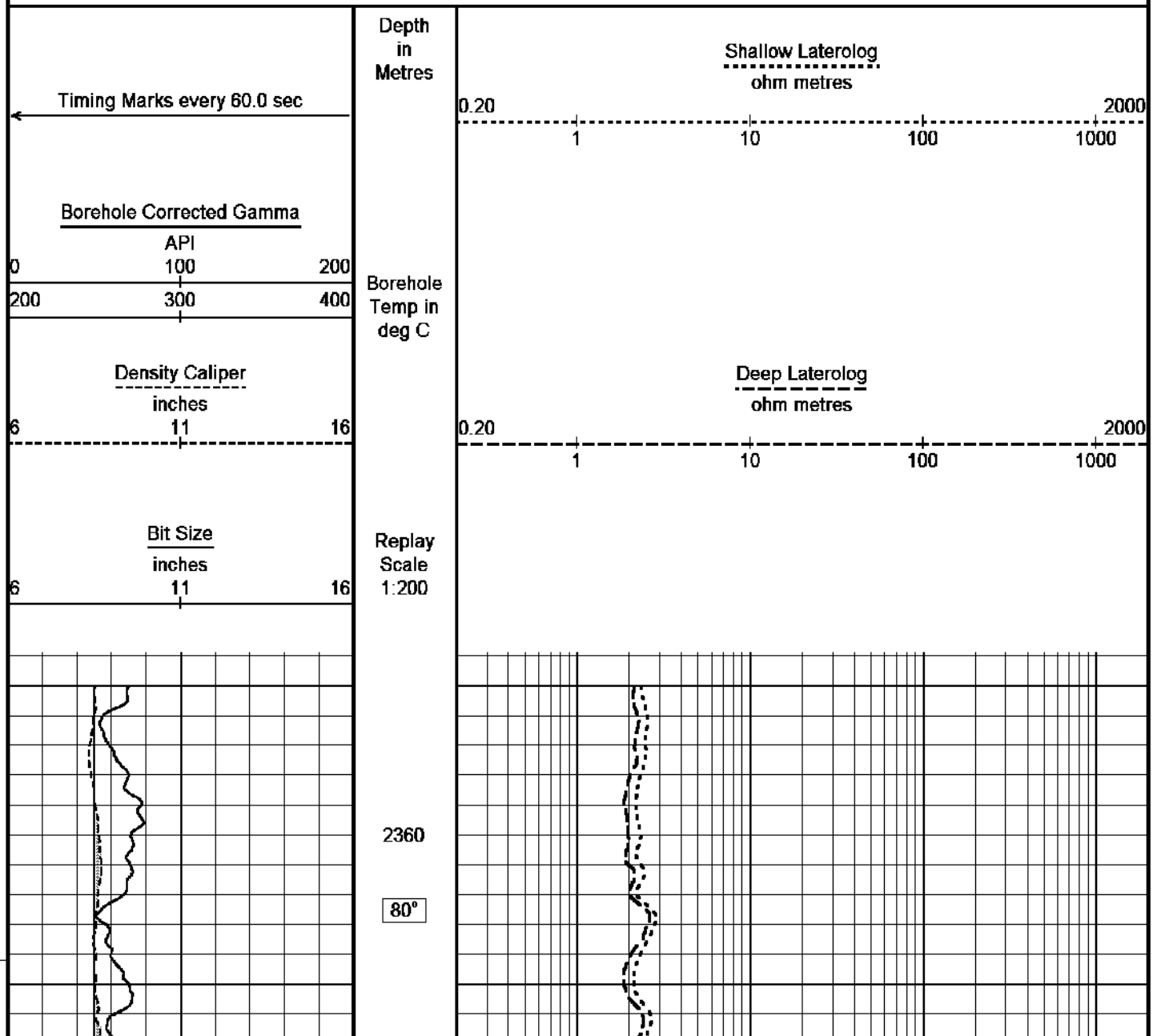
Depth Based Data - Maximum Sampling Increment: 10.0cm

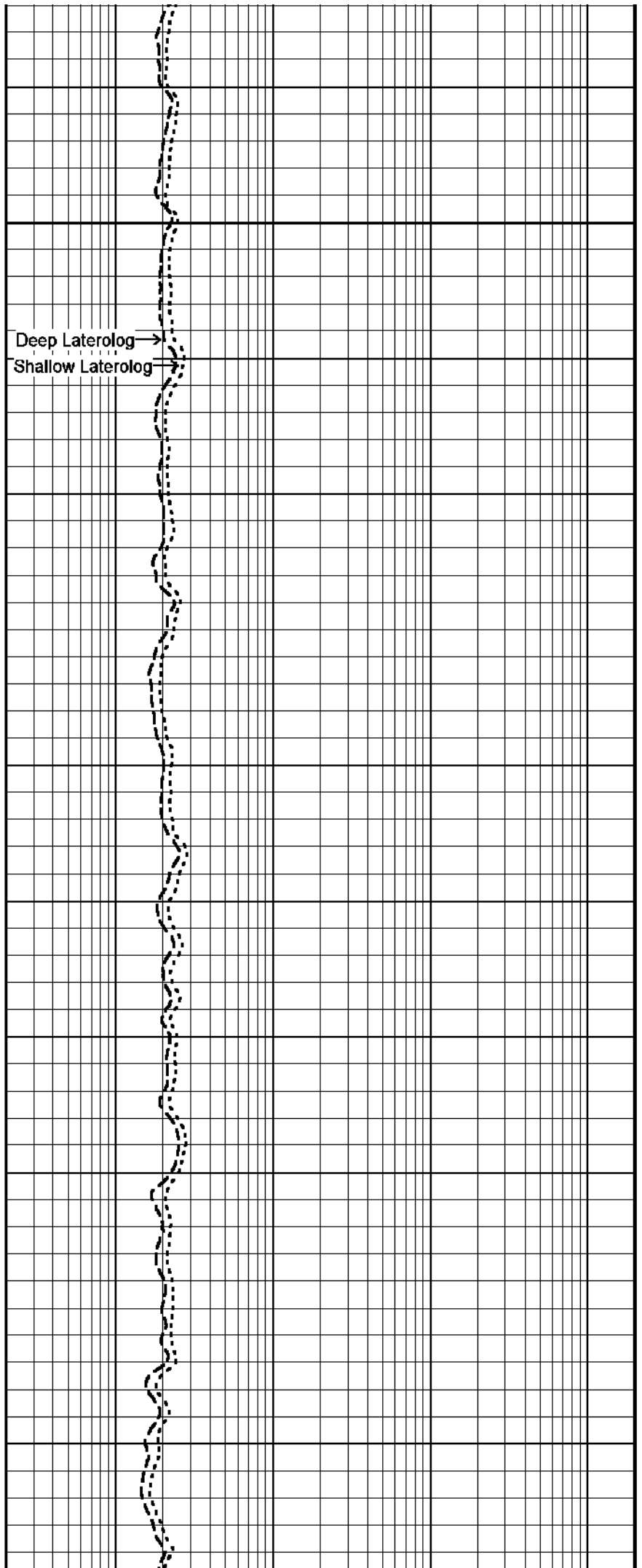
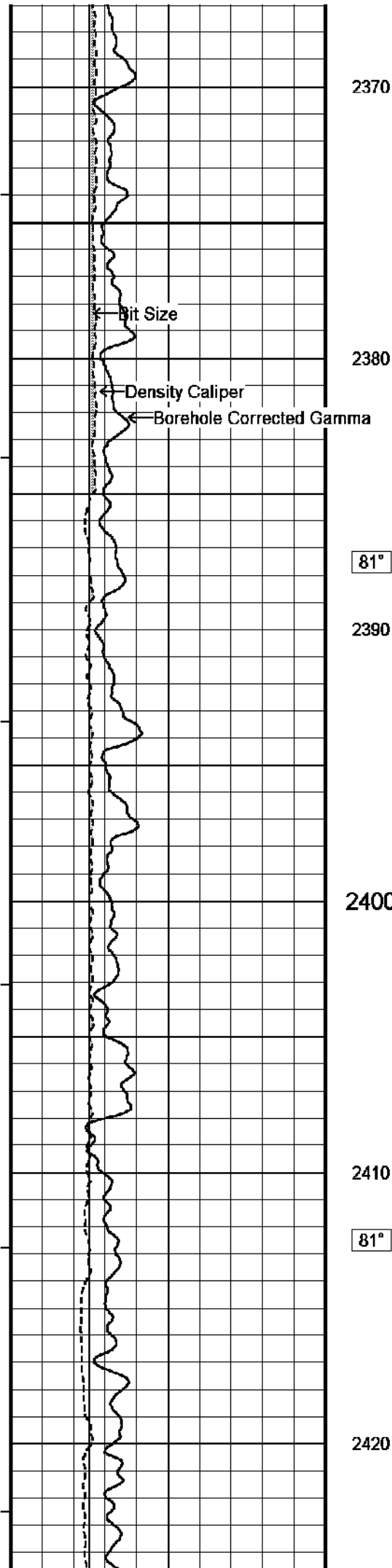
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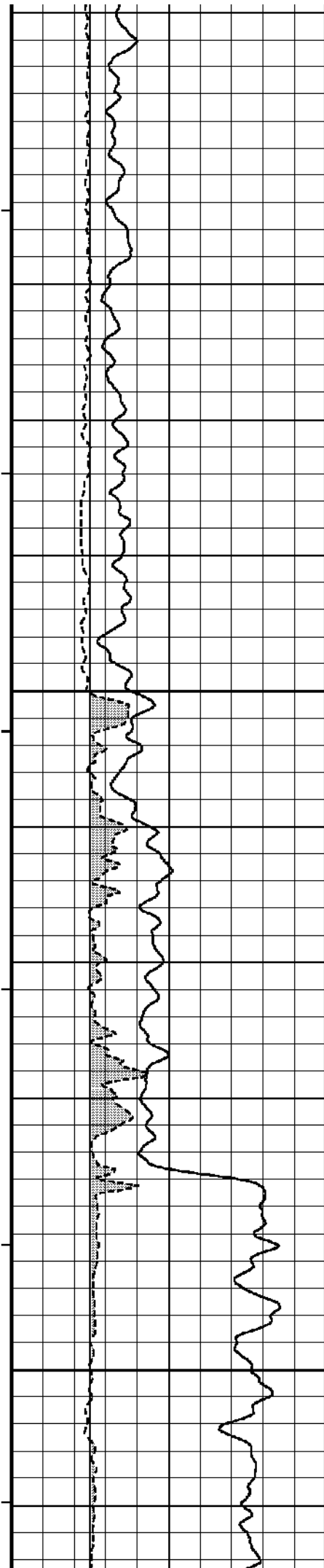
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Recorded on 16-MAR-2003 13:38

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







2430

82°

2440

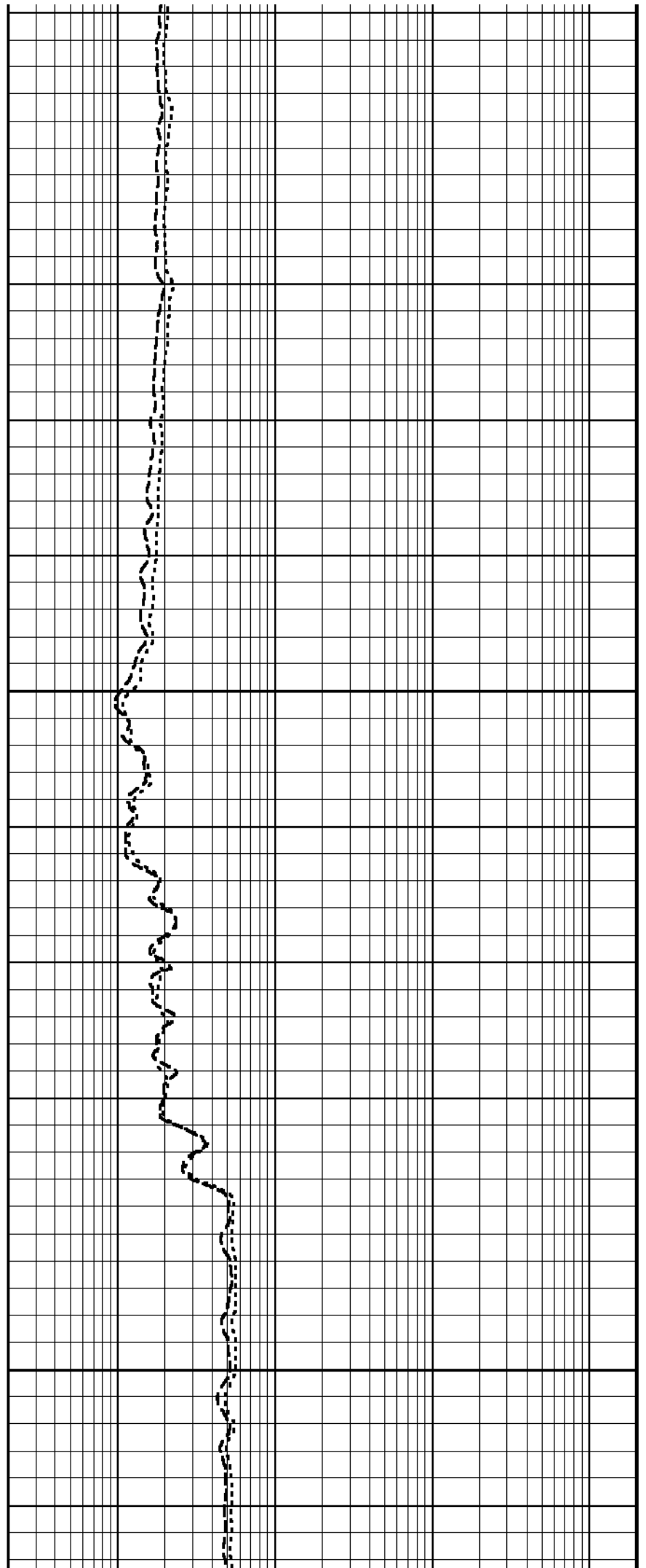
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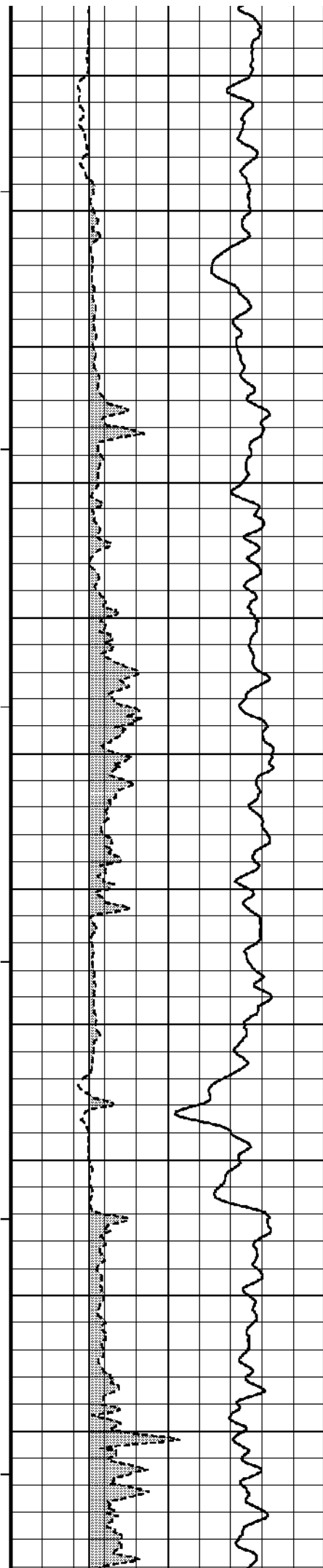
2460

82°

2470

2480





83°

2490

2500

2510

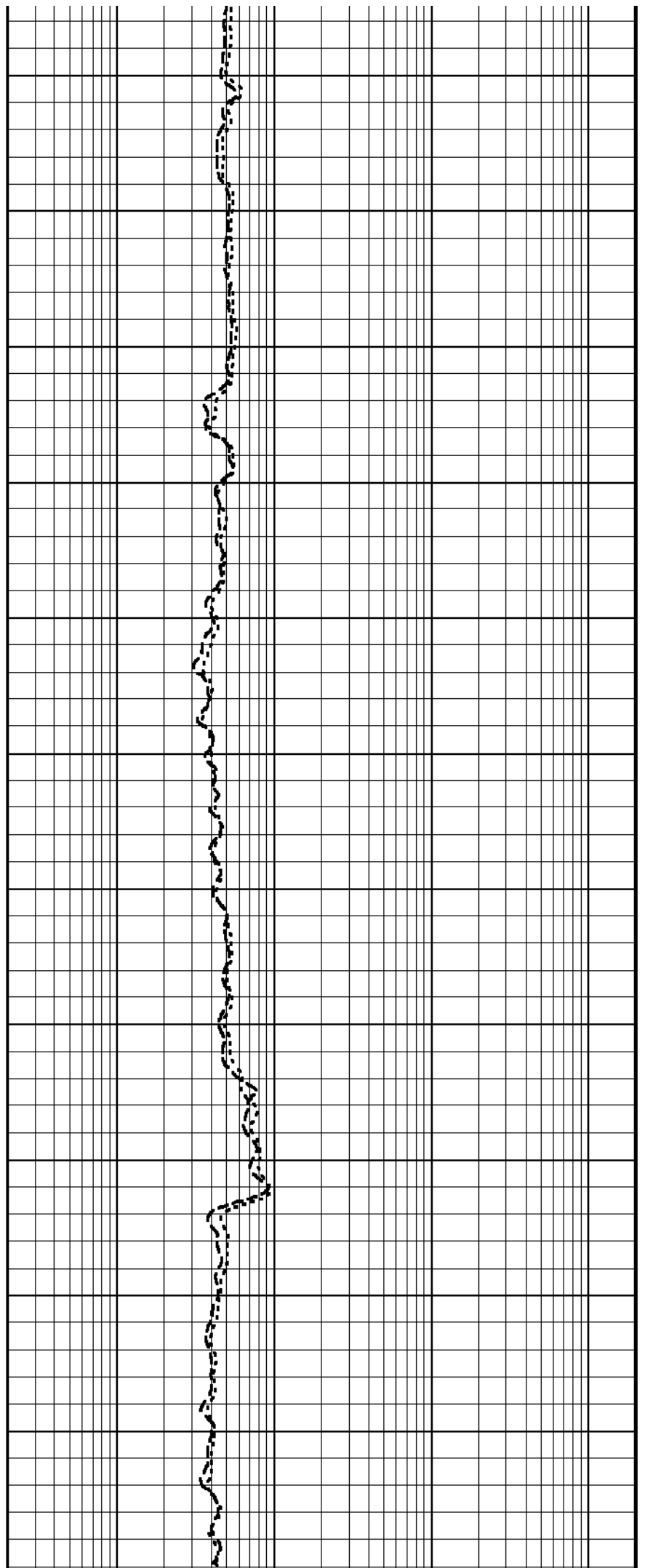
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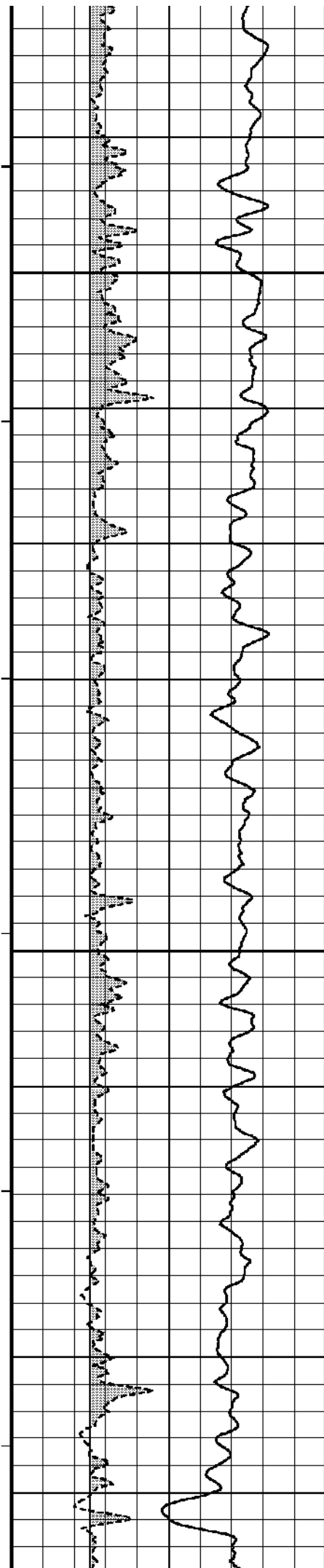
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2530

83°

2540





2540

2550

2560

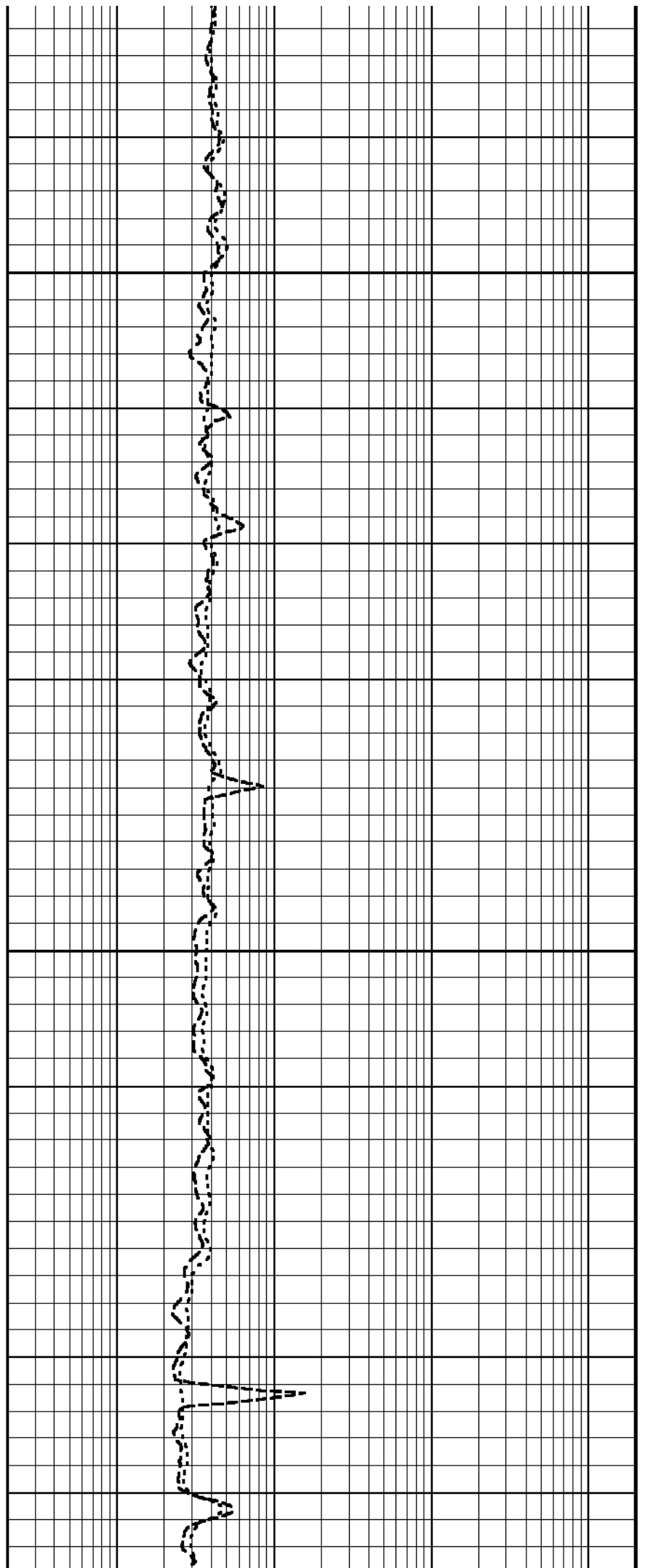
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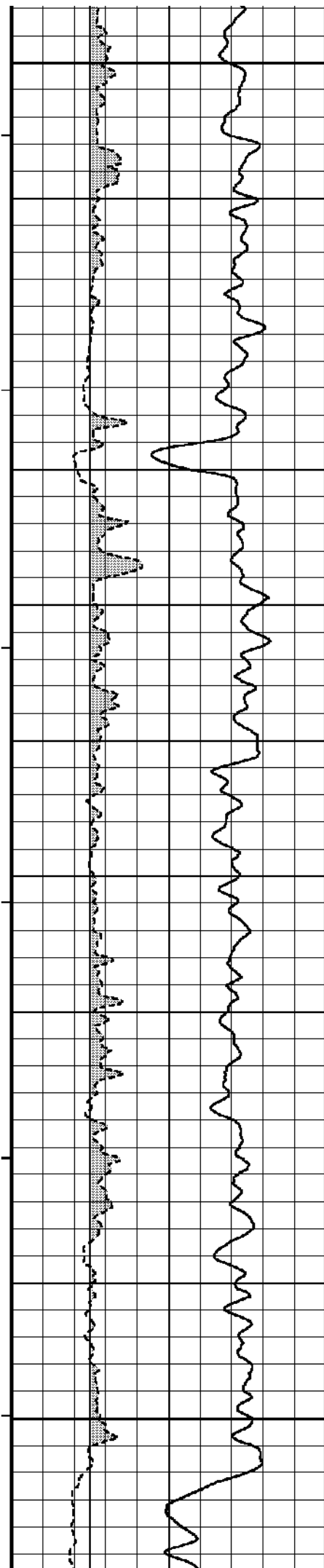
2570

2580

84°

2590





2600

2610

84°

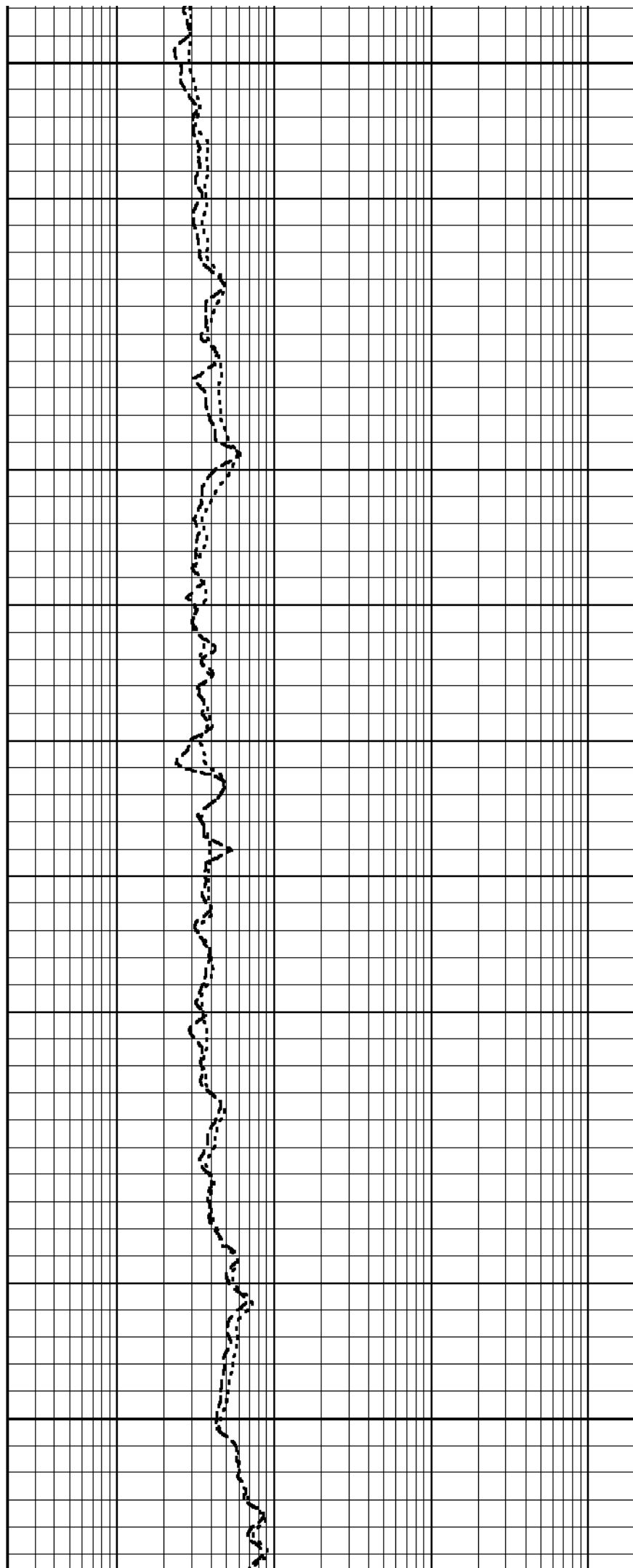
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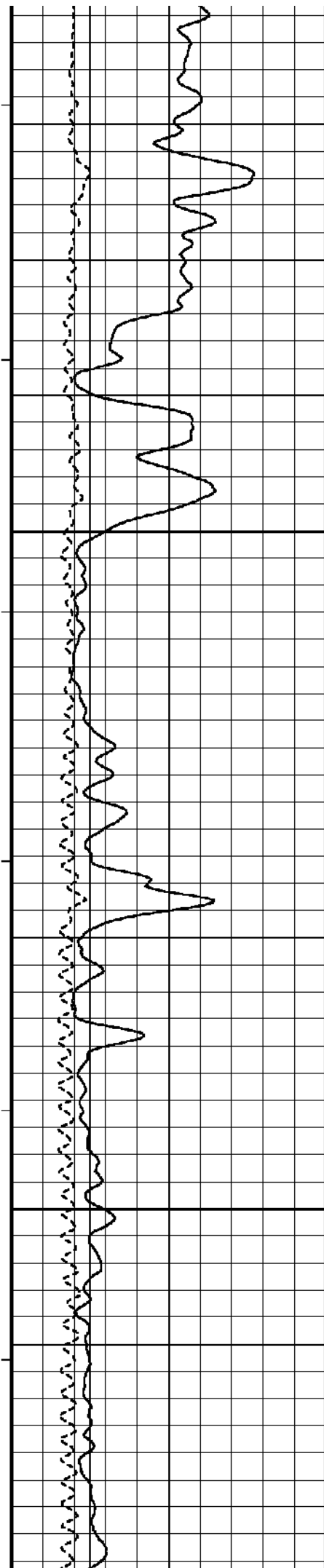
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85°

2640

2650





2660

86°

2670

2680

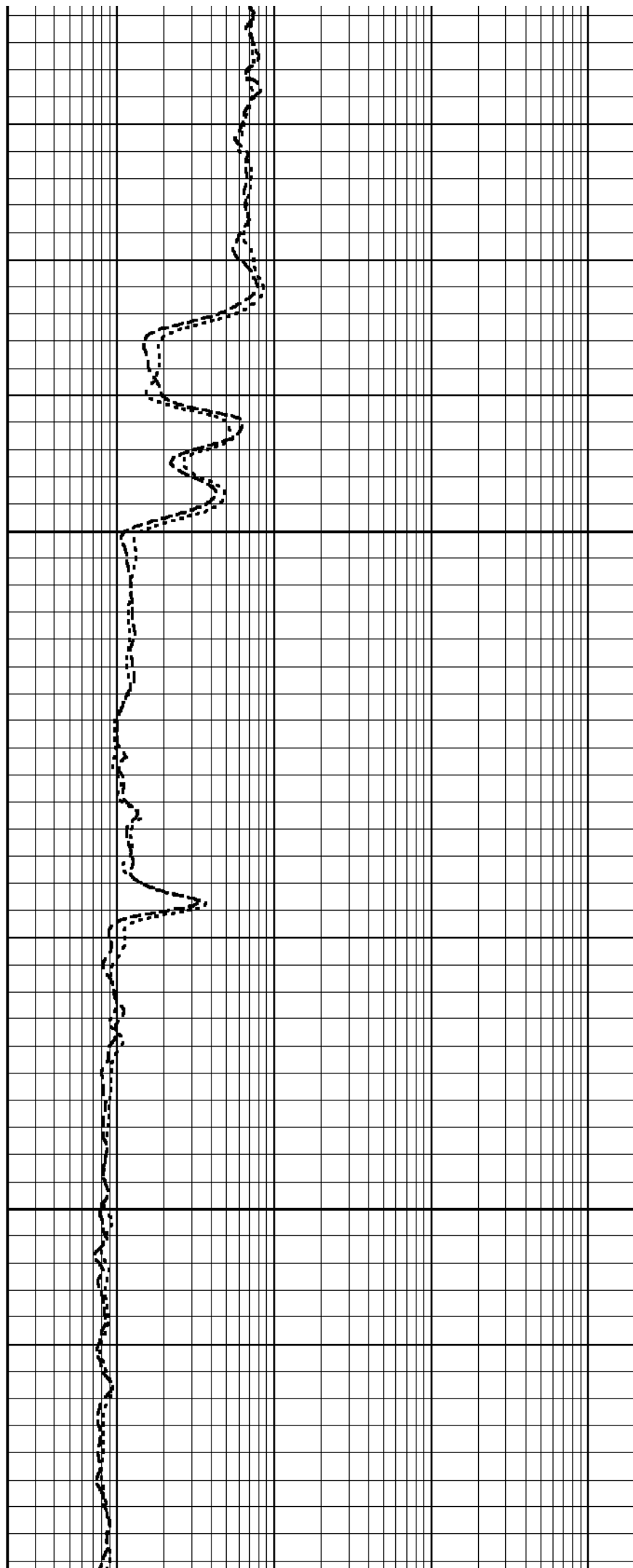
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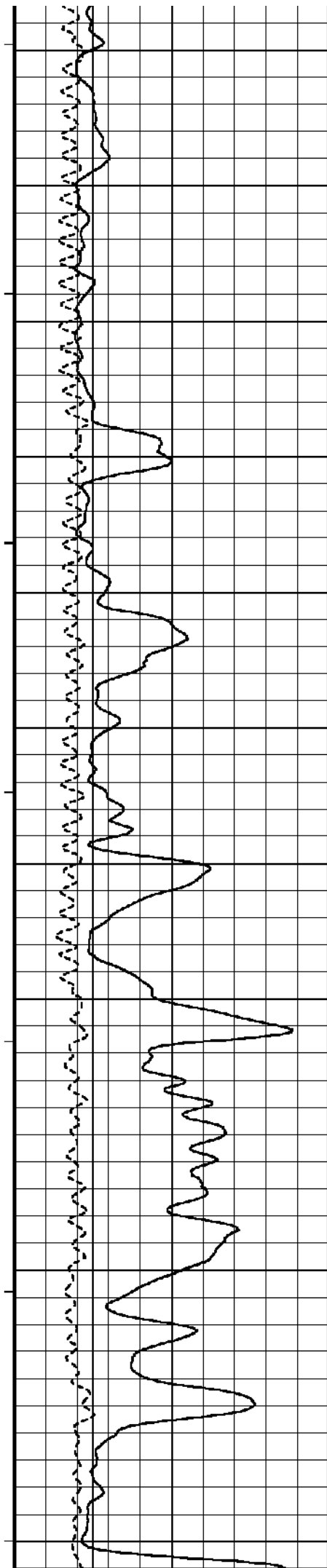
2690

2700

2710

87°





2720

2730

88°

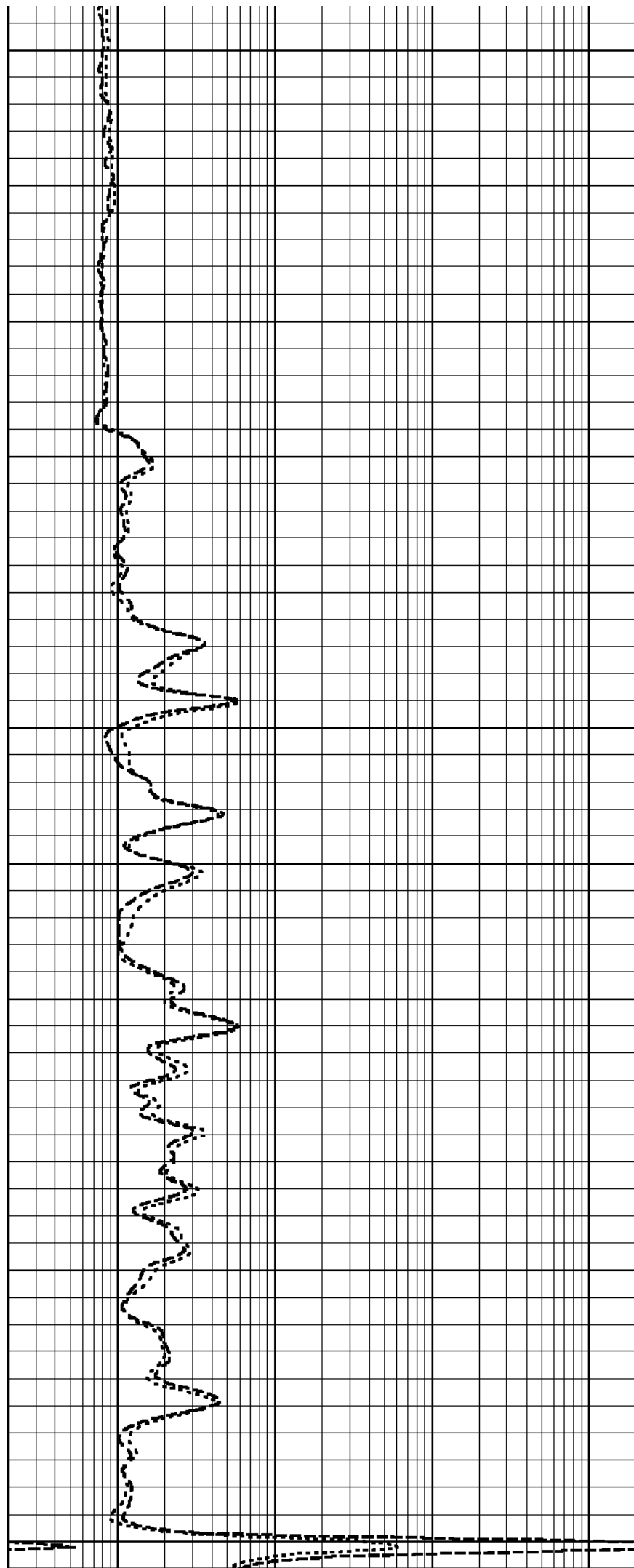
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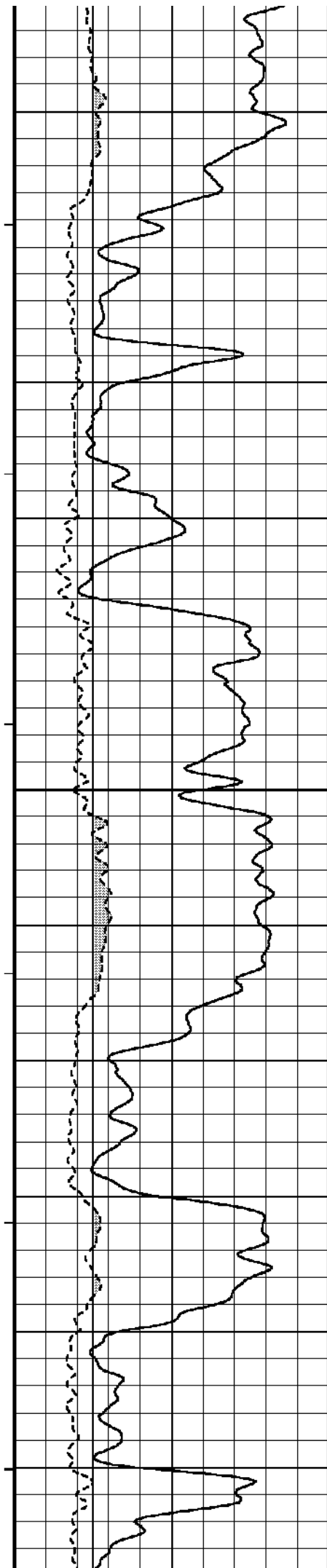
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2760

89°

2770





2780

90°

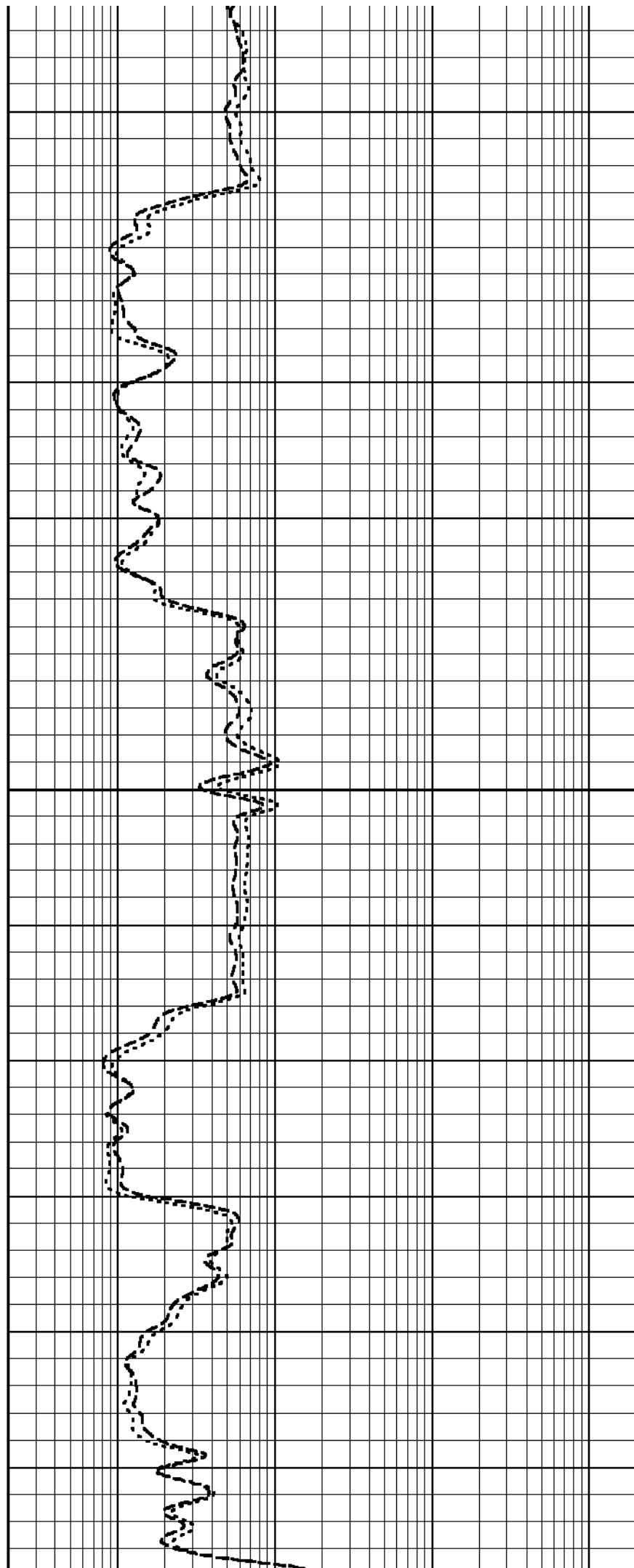
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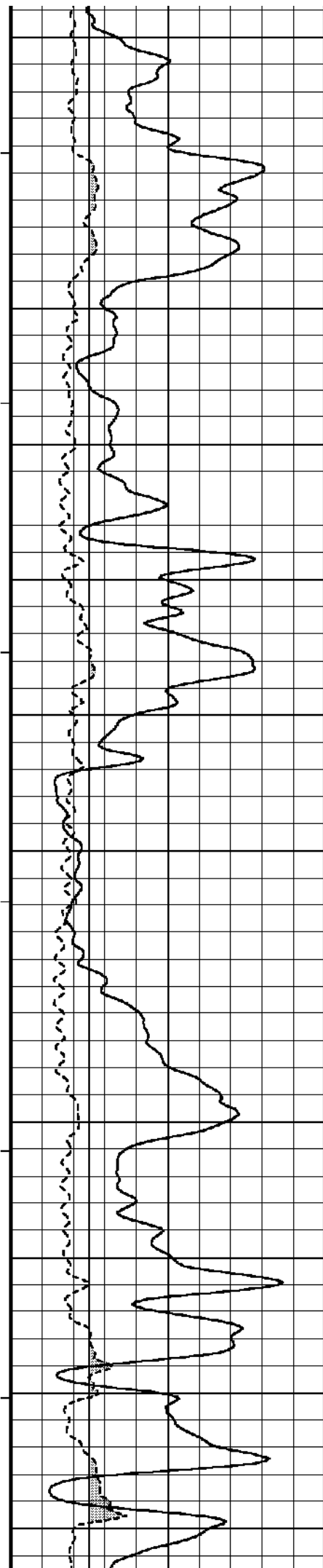
2800

2810

90°

2820





2830

91°

2840

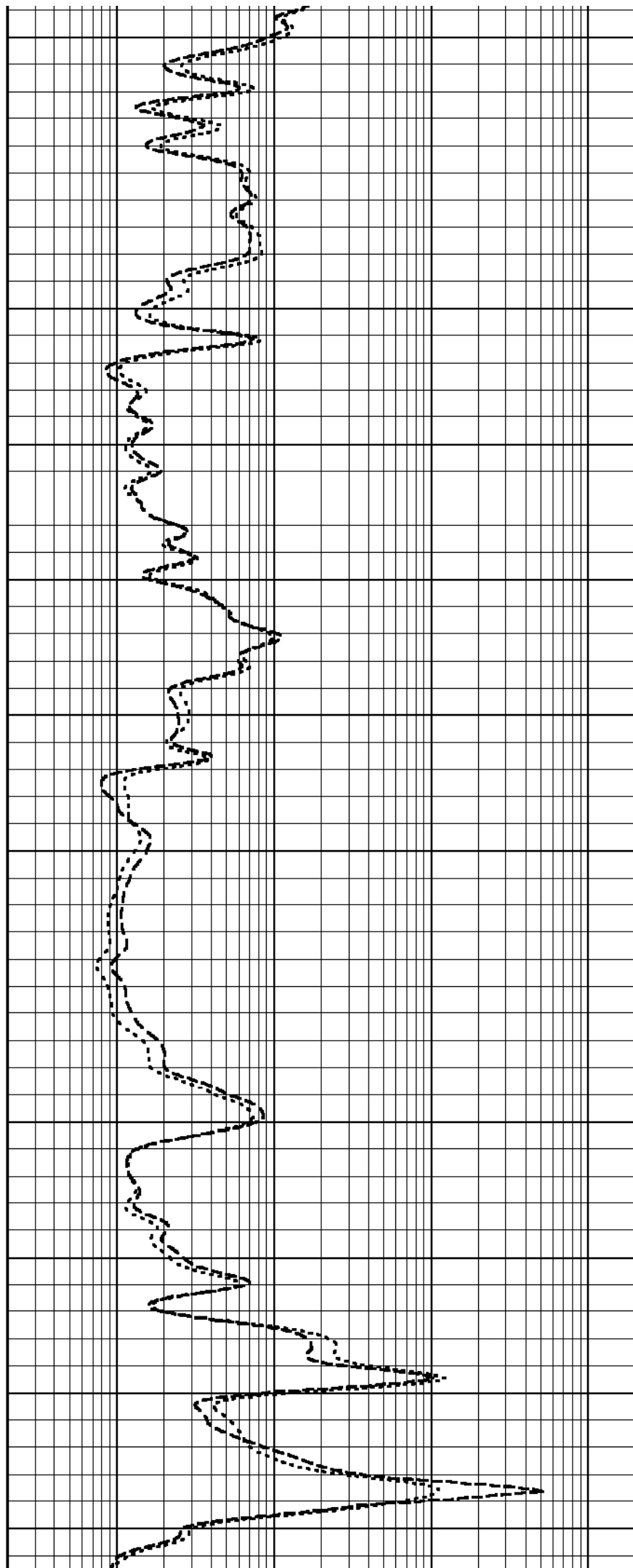
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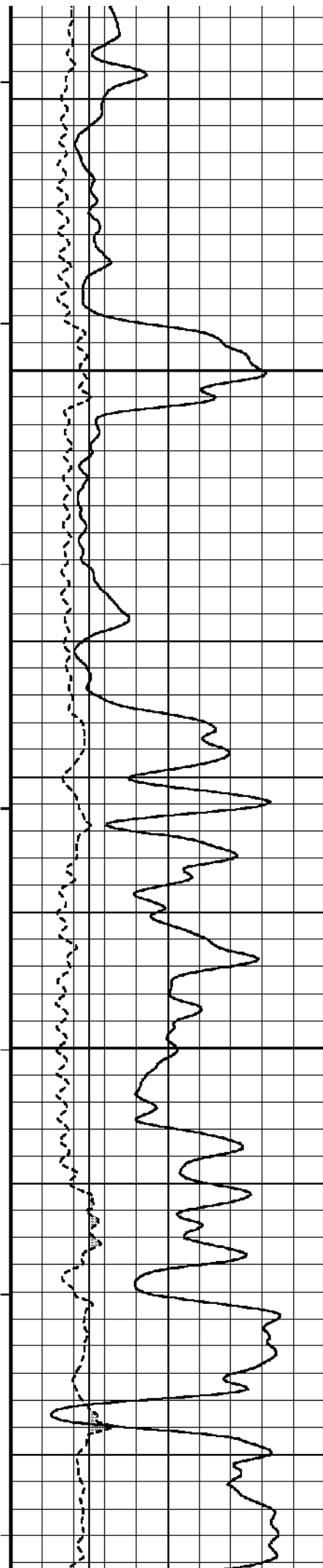
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92°

2870

2880





92°

2890

2900

2910

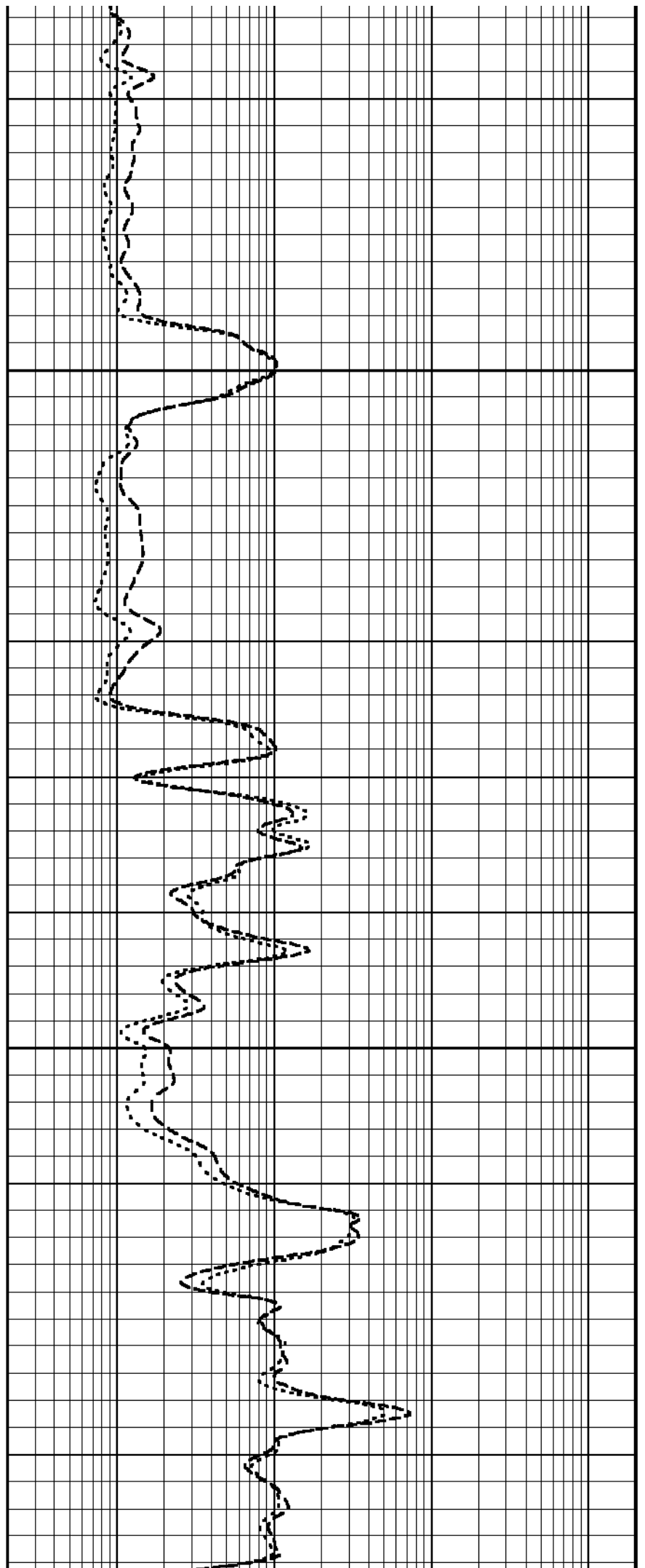
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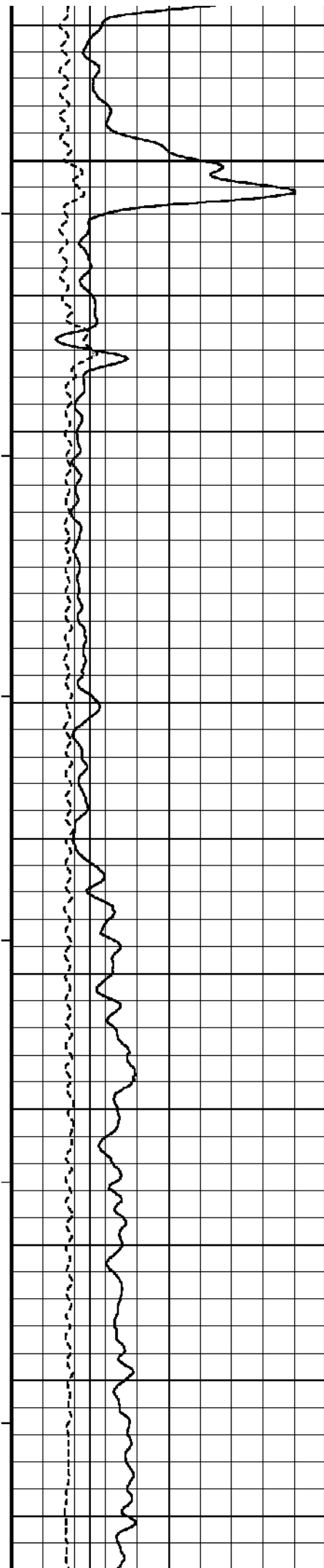
2920

2930

94°

2940





2950

2960

95°

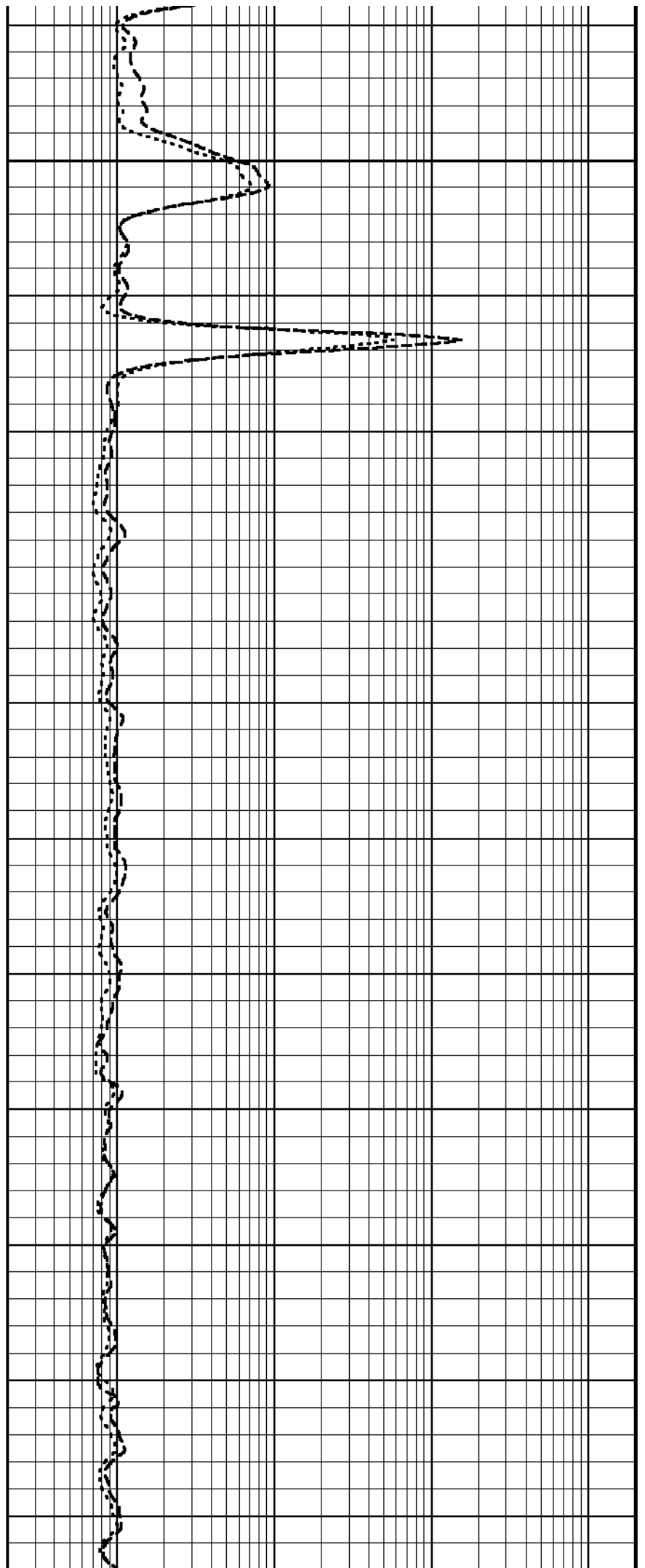
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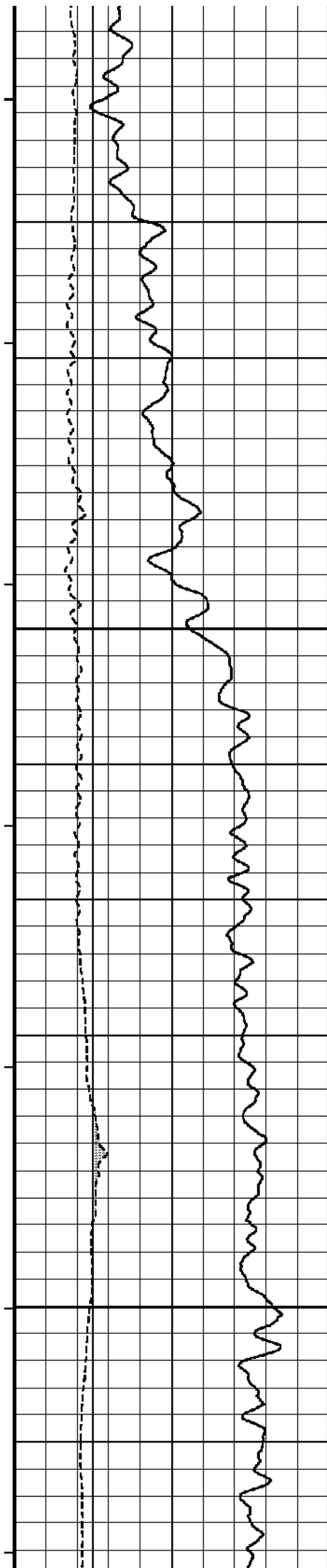
2980

95°

2990

3000





3010

96°

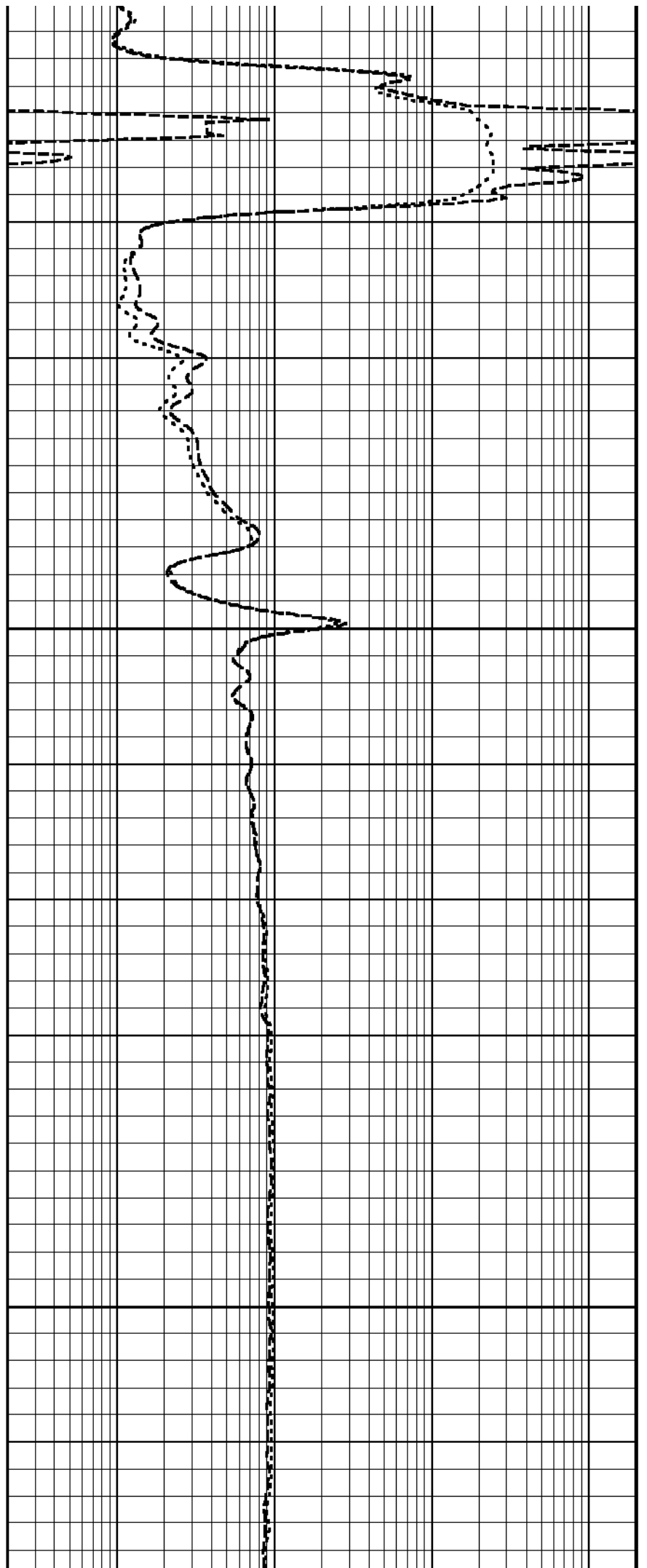
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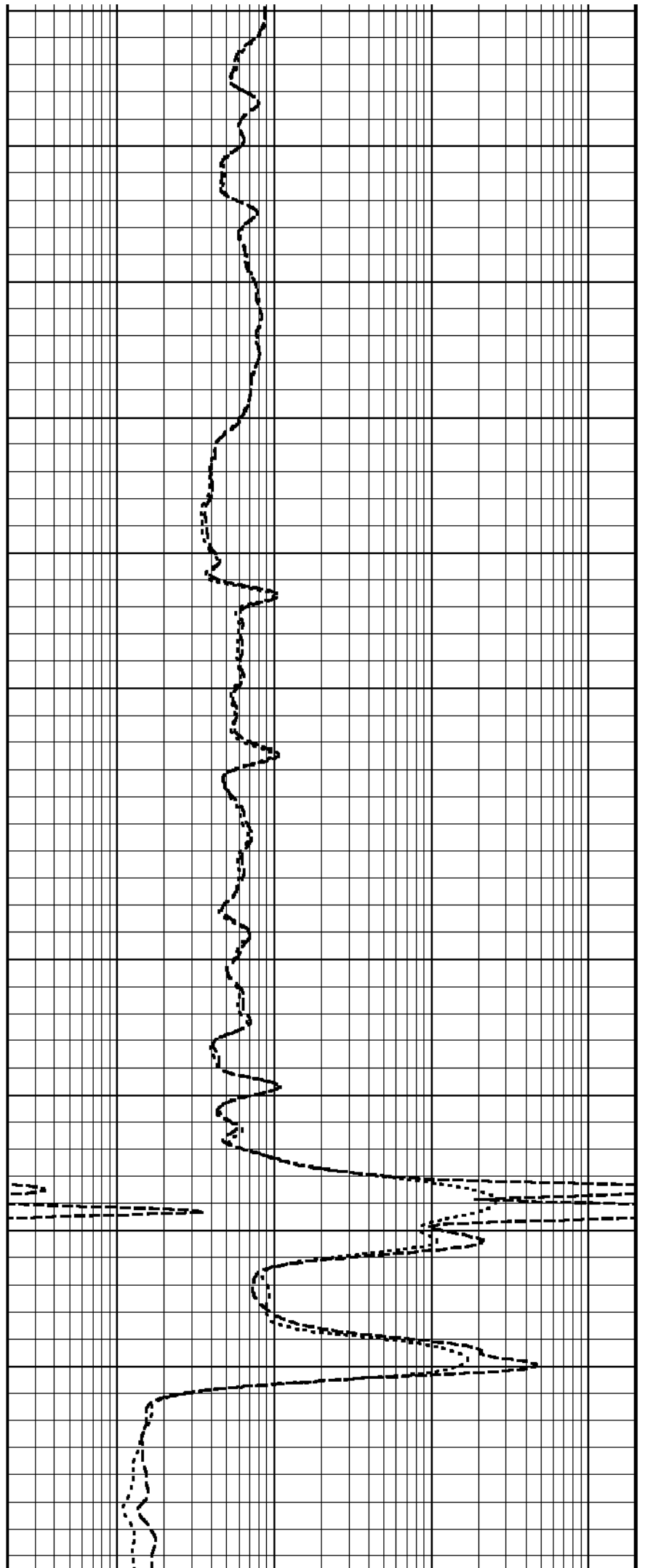
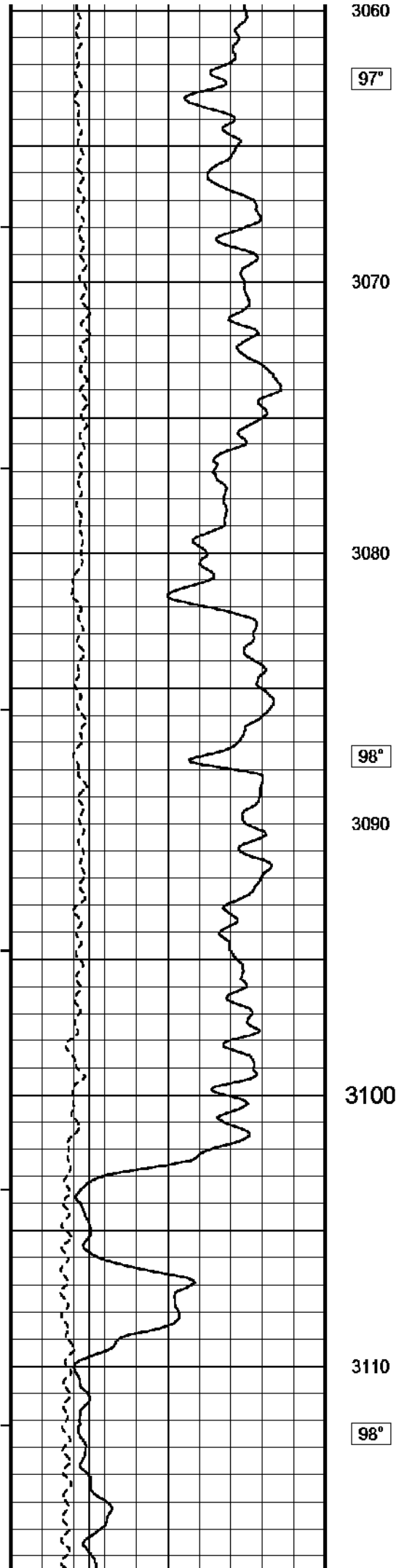
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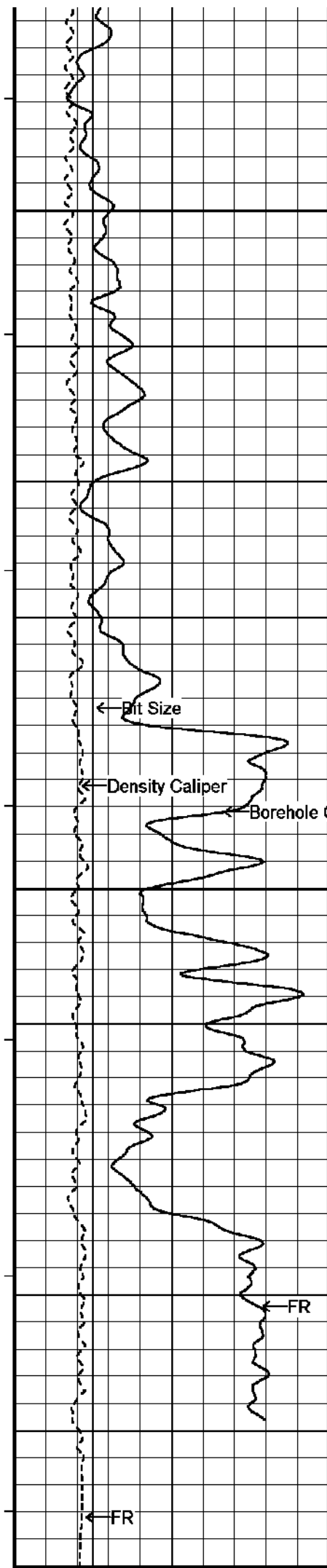
97°

3040

3050







3120

3130

98°

3140

3150

3160

97°

3170

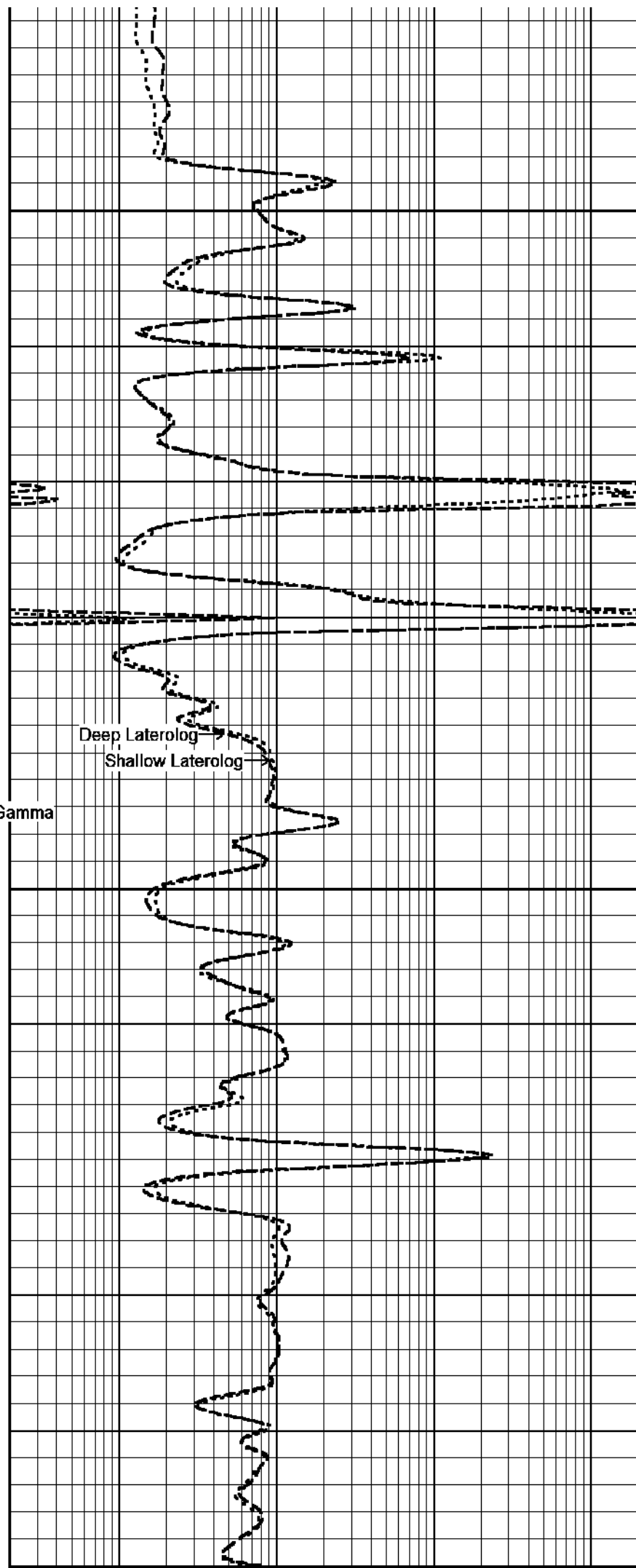
← Bit Size

← Density Caliper

← Borehole Corrected Gamma

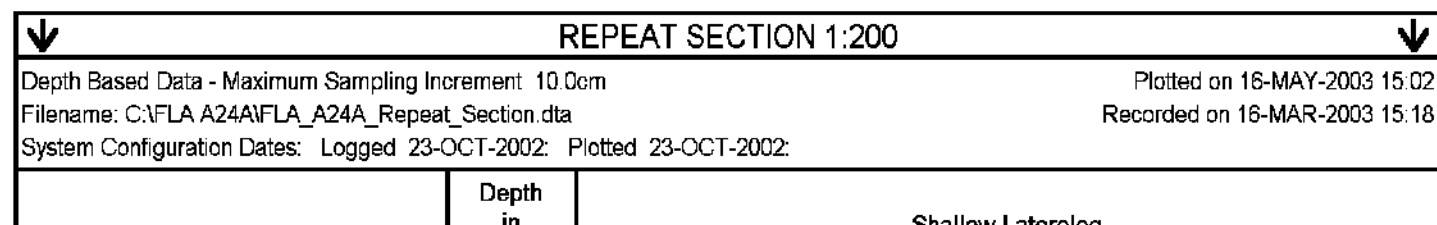
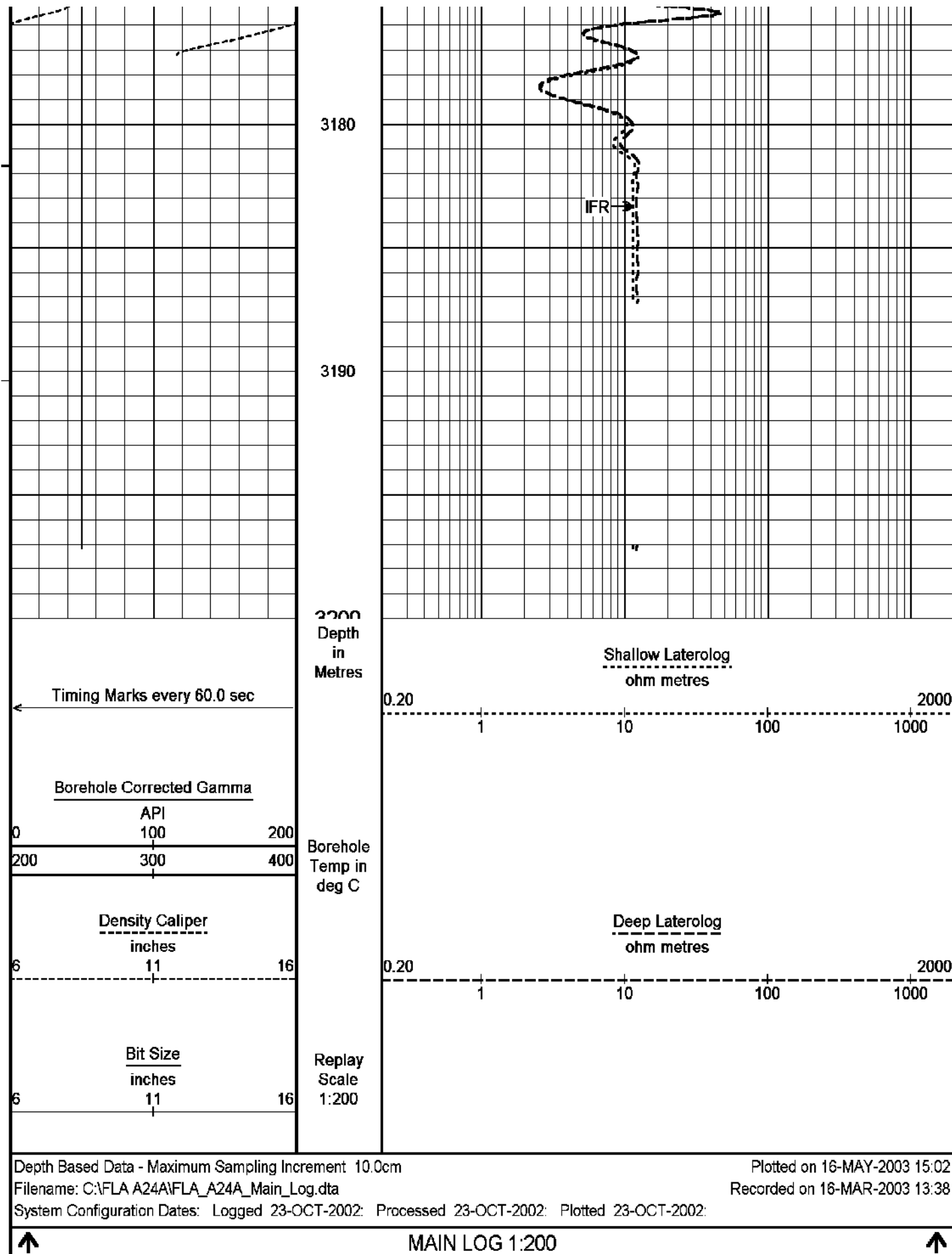
← FR

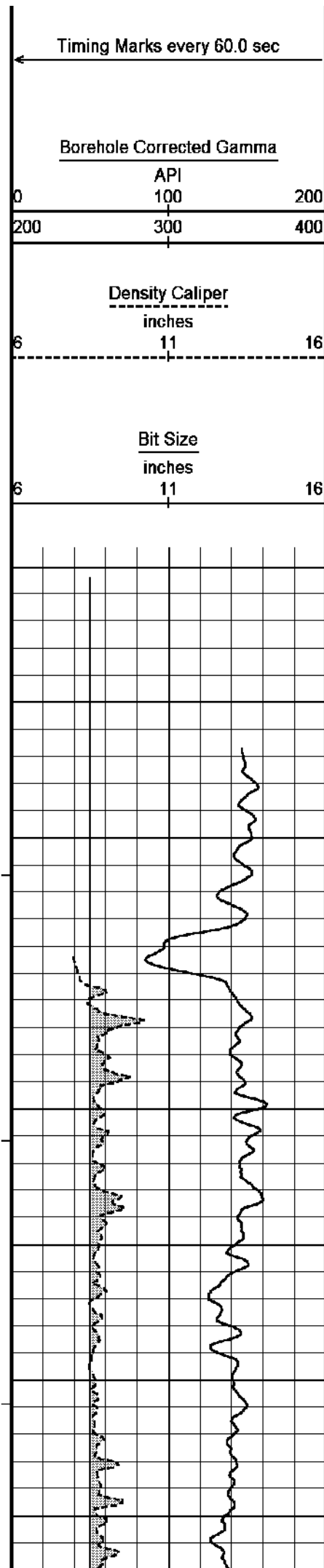
← FR



← Deep Laterolog

← Shallow Laterolog





Metres

Borehole Temp in deg C

Replay Scale 1:200

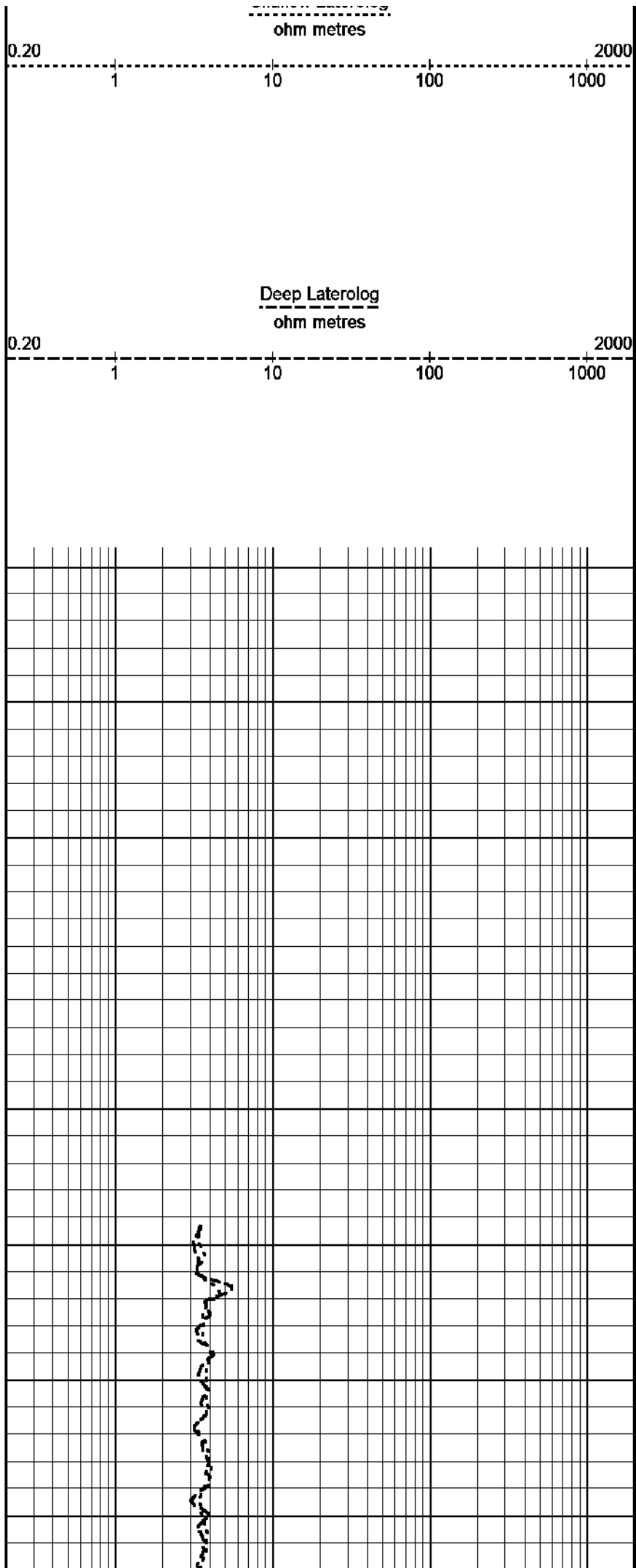
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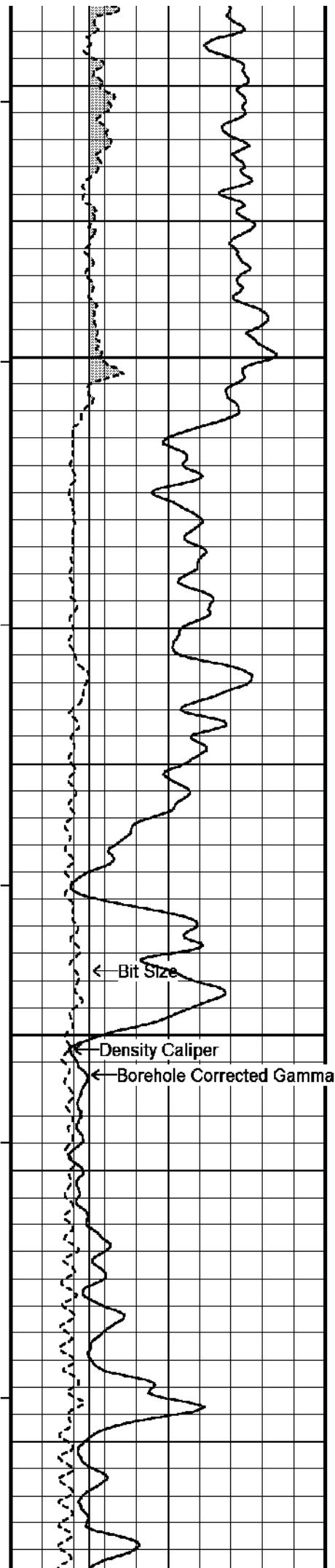
2610

85°

2620

2630





86°

2640

2650

2660

86°

2670

← Bit Size

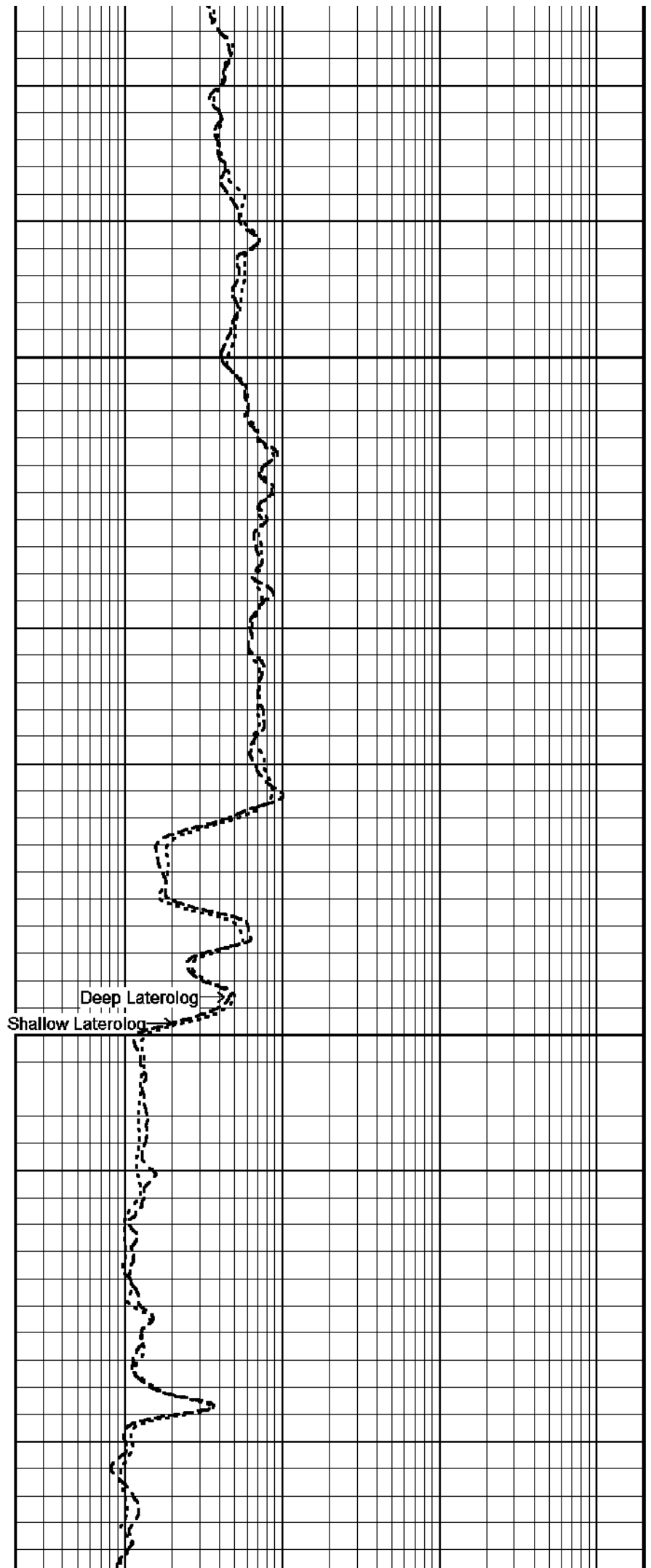
← Density Caliper

← Borehole Corrected Gamma

2680

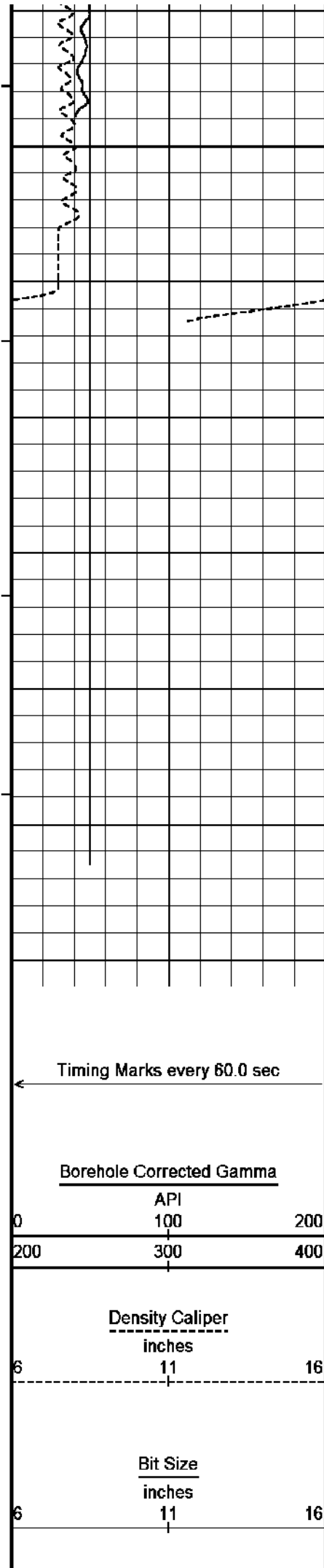
85°

2690



Deep Laterolog

Shallow Laterolog



2700

2710

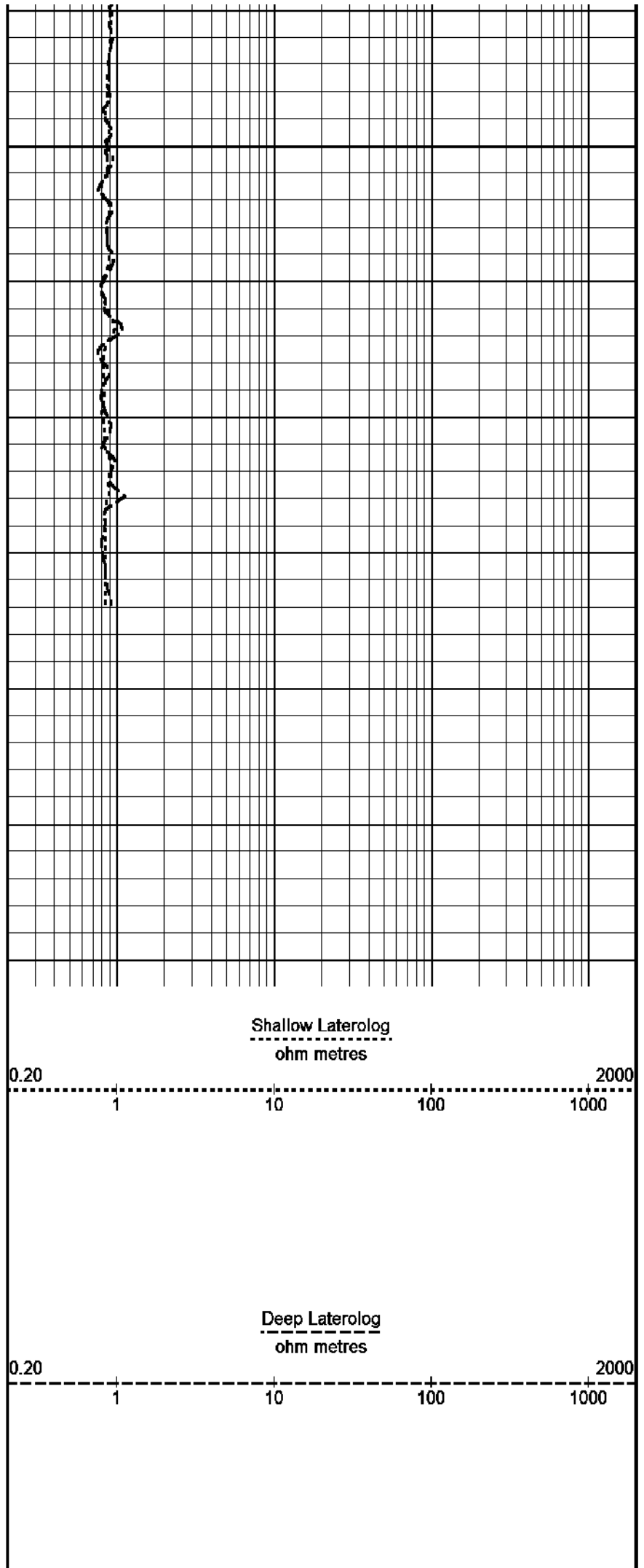
2720

2730

Depth
in
Metres

Borehole
Temp in
deg C

Replay
Scale
1:200





REPEAT SECTION 1:200



BEFORE SURVEY CALIBRATION

C:\FLA A24A\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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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

Laterolog Calibration MLE 015

Base Calibration on 4-SEP-2002,14:40

Field Check on 14-MAR-2003,03:10

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)
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

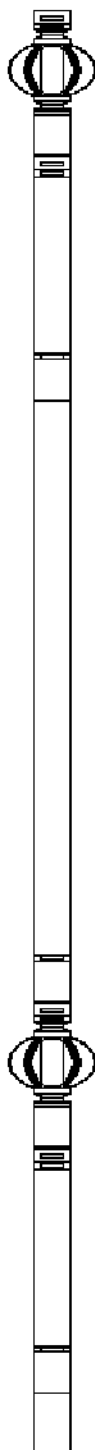
All measurements relative to tool zero.

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

27.98 m GRGC - Gamma Ray

27.09 m CGXT - MCG External Temperature

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

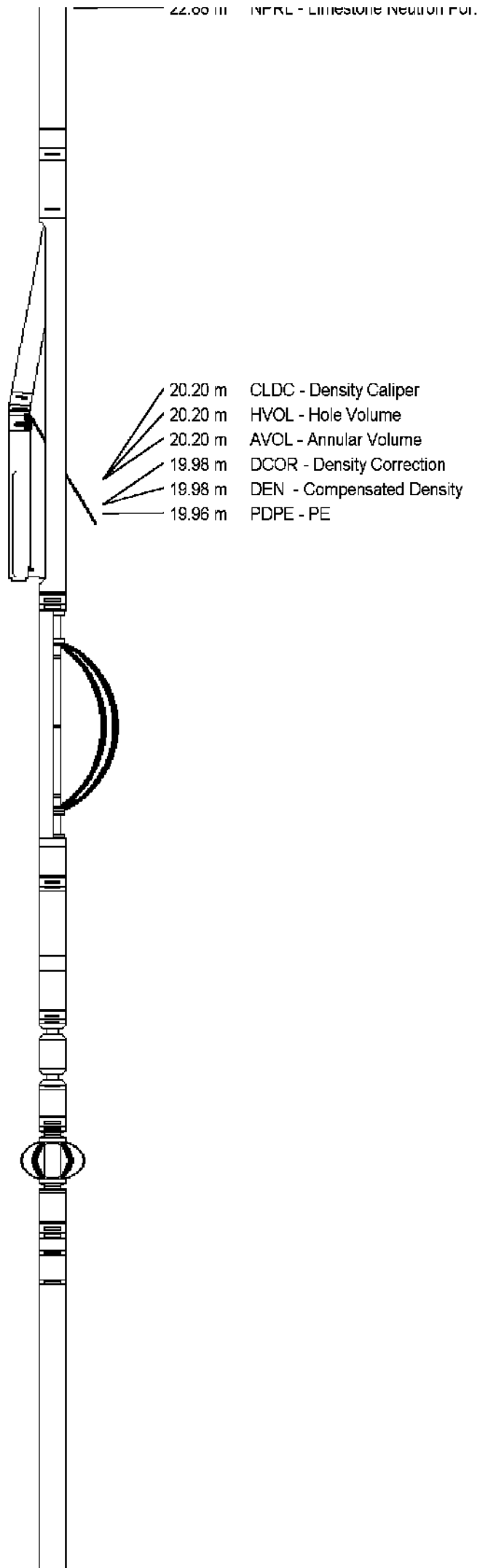
Compact Inline Bowspring A
MIS 25 Length: 1.74 m Weight: 33.07 lb

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

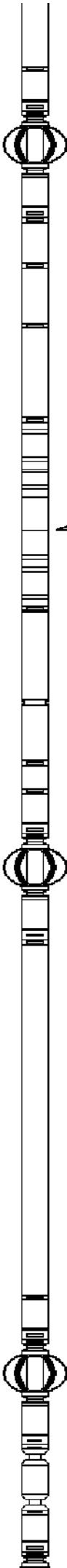
10.06 m DSLL - Shallow Laterolog
10.06 m DDLL - Deep Laterolog

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



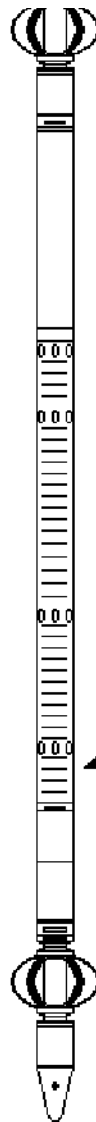
Compact Inline Standoff B
MIS 75 Length: 0.65 m Weight: 15.43 lb

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	3193.40	metres
Elevation Drill Floor	33.85	metres	Depth Driller	3193.00	metres
Elevation Ground Level	-93.00	metres	Depth Logger	3195.00	metres

Reeves

DUAL LATEROLOG
GAMMA RAY
1:200 MD