



SUPERIOR
Hays,
Kansas

**DUAL
INDUCTION
LOG**

Company BLACK DIAMOND OIL, INC.
Well PETTIJOHN #1
Field WILDCAT
County ROOKS
State KANSAS

Company BLACK DIAMOND OIL, INC.
Well PETTIJOHN #1
Field WILDCAT
County ROOKS State KANSAS

Location: 1535' FNL & 1945' FWL
API # : 15-163-24012-0000
Permanent Datum GROUND LEVEL Elevation 1987
Log Measured From KELLY BUSHING 5' A.G.L.
Drilling Measured From KELLY BUSHING
SEC 30 TWP 7S RGE 19W
Other Services
CDL/CNL
MEL
Elevation
K.B. 1992
D.F. 1990
G.L. 1987

Date	3/3/12		
Run Number	ONE		
Depth Driller	3441		
Depth Logger	3444		
Bottom Logged Interval	3442		
Top Log Interval	00		
Casing Driller	8 5/8" @ 217		
Casing Logger	218		
Bit Size	7 7/8		
Type Fluid in Hole	CHEMICAL MUD	CHLORIDES 1000 PPM	
Density / Viscosity	9.1/45		
pH / Fluid Loss	10.5/8.0		
Source of Sample	FLOWLINE		
Rin @ Meas. Temp	1.2 @ 71F		
Rmf @ Meas. Temp	.90 @ 71F		
Rmc @ Meas. Temp	1.44 @ 71F		
Source of Rmf / Rmc	MEASURED		
Rin @ BHT	.76 @ 111F		
Time Circulation Stopped	2 HOURS		
Time Logger on Bottom			
Maximum Recorded Temperature	111F		
Equipment Number	680		
Location	HAYS, KS.		
Recorded By	JASON CAPPELLUCCI		
Witnessed By	JEFF LAWLER		

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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 interpretation, and we shall not, except in the case of gross or willful 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 set out in our current Price Schedule.

Comments

THANK YOU FOR USING SUPERIOR WELL SERVICE (785) 628-6395
DIRECTIONS
WEBSTER DAM & HWY 24 - 3 W. TO RD 8 - 3/4 N. TO RD K.
3/4 W. - S. INTO



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MAIN SECTION

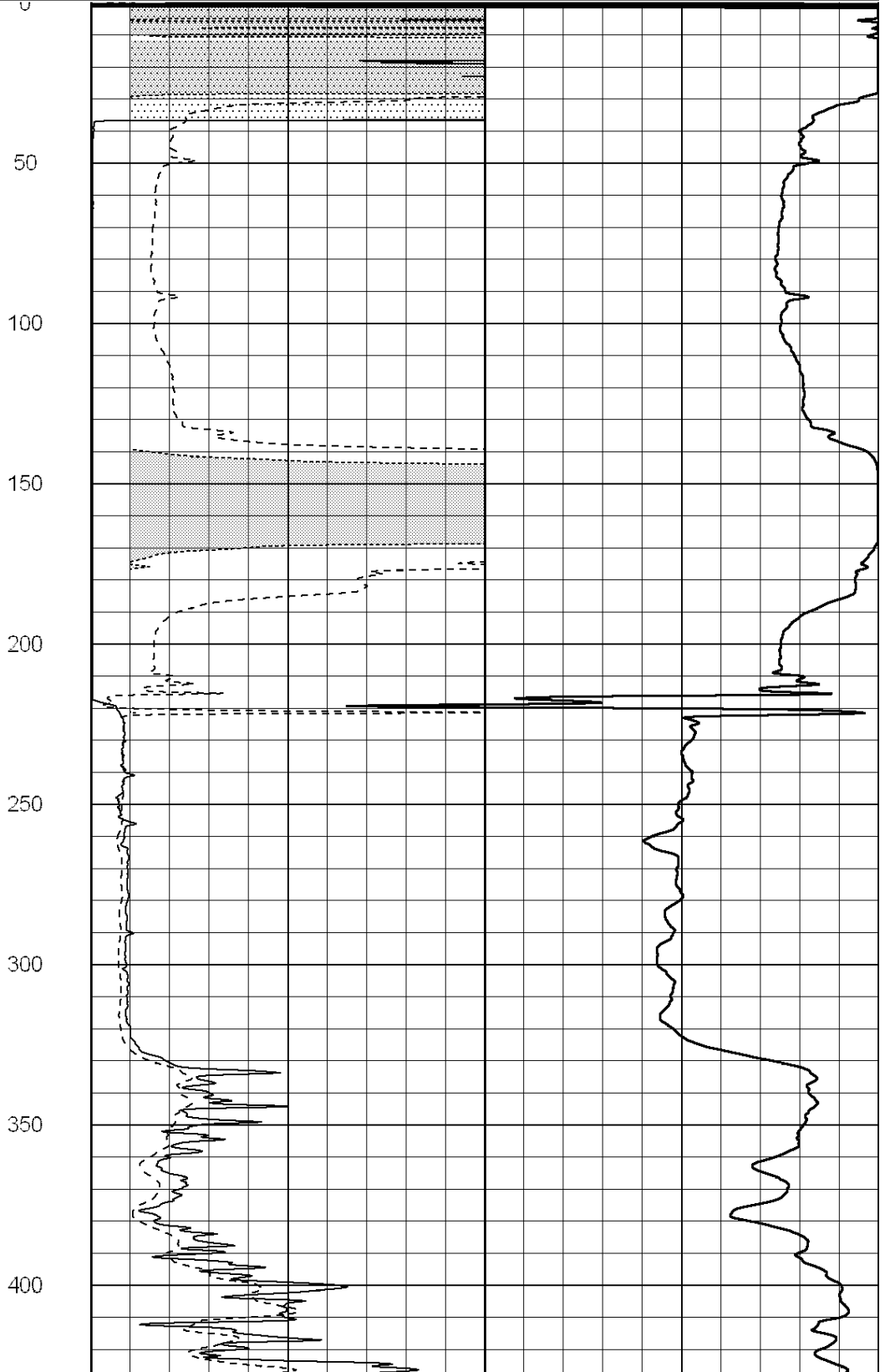
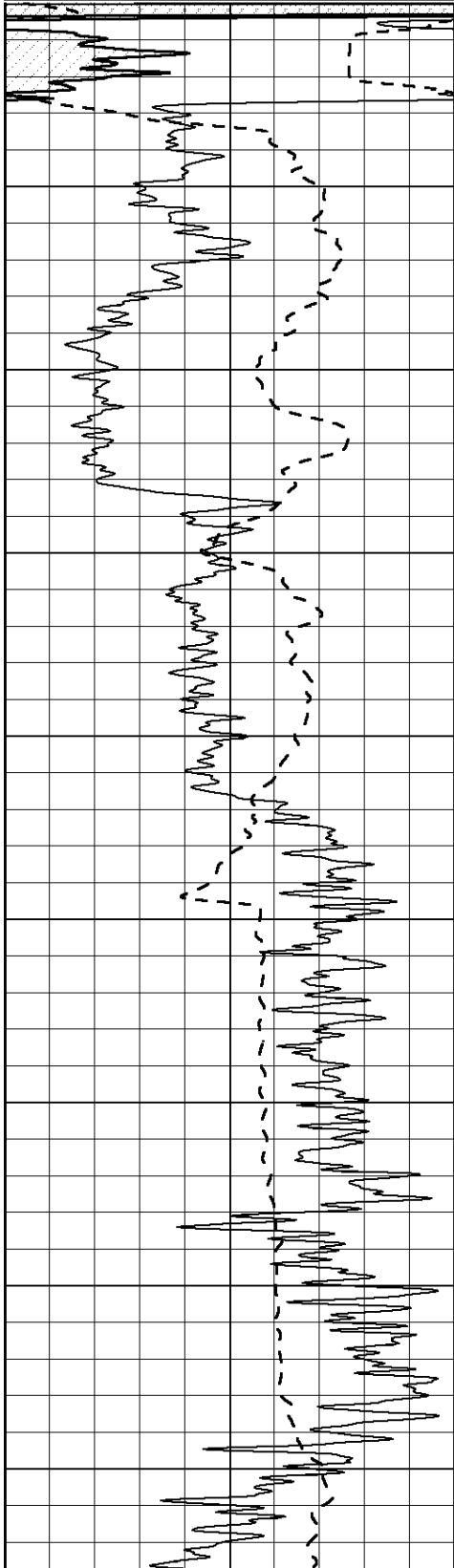
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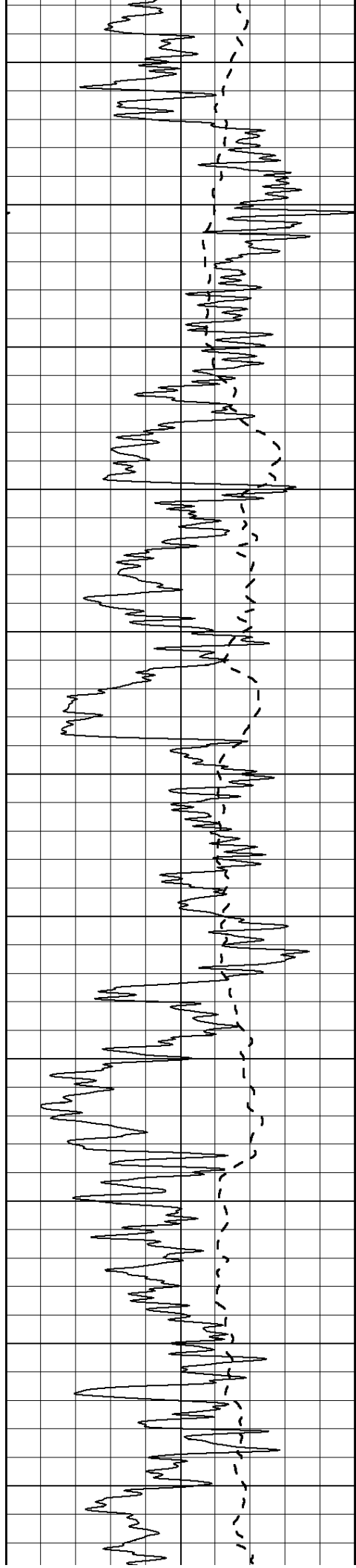
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-100	SP (mV)	100

0	RLL3 (Ohm-m)	50
0	Deep Induction (Ohm-m)	50

1000	CILD (mmho/m)	0
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50	RILD X10 (Ohm-m)	500
50	RLL3 X10 (Ohm-m)	500





450

500

550

600

650

700

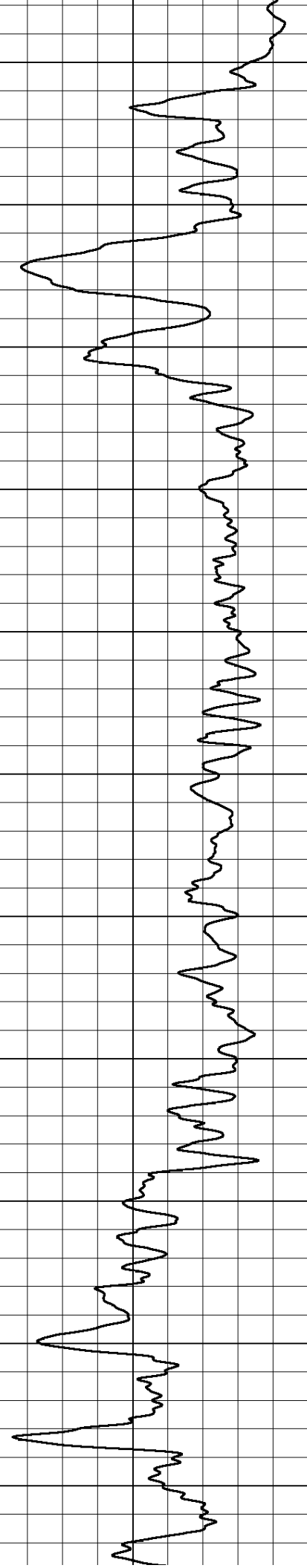
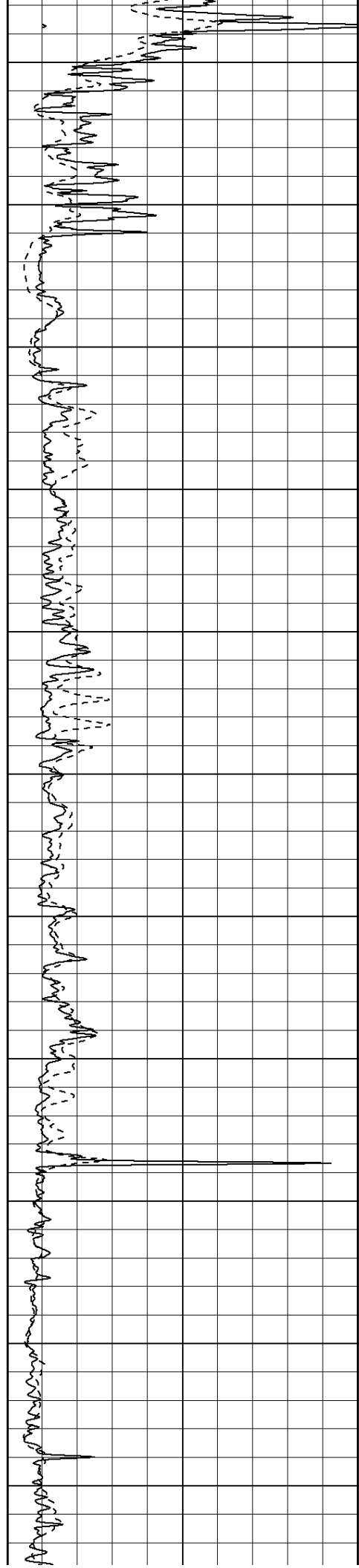
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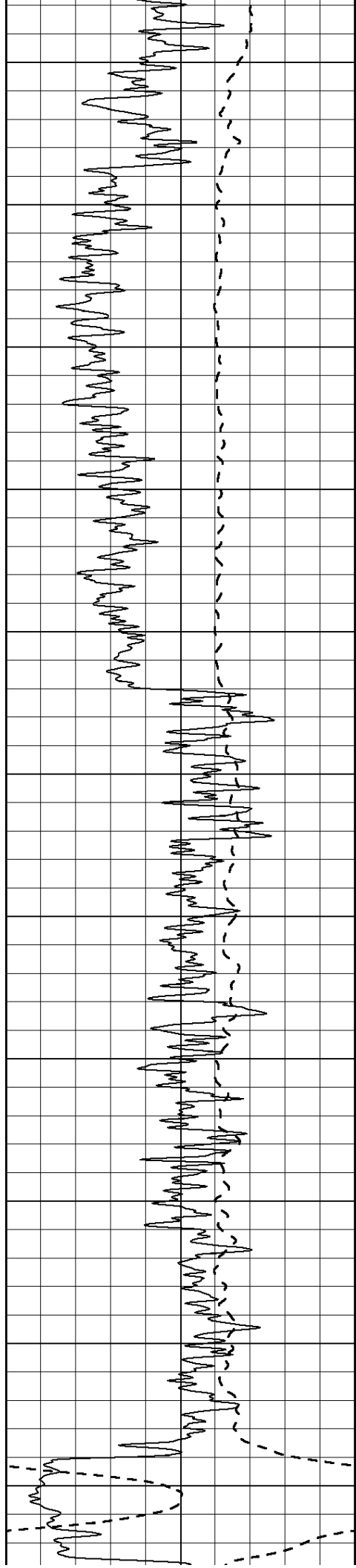
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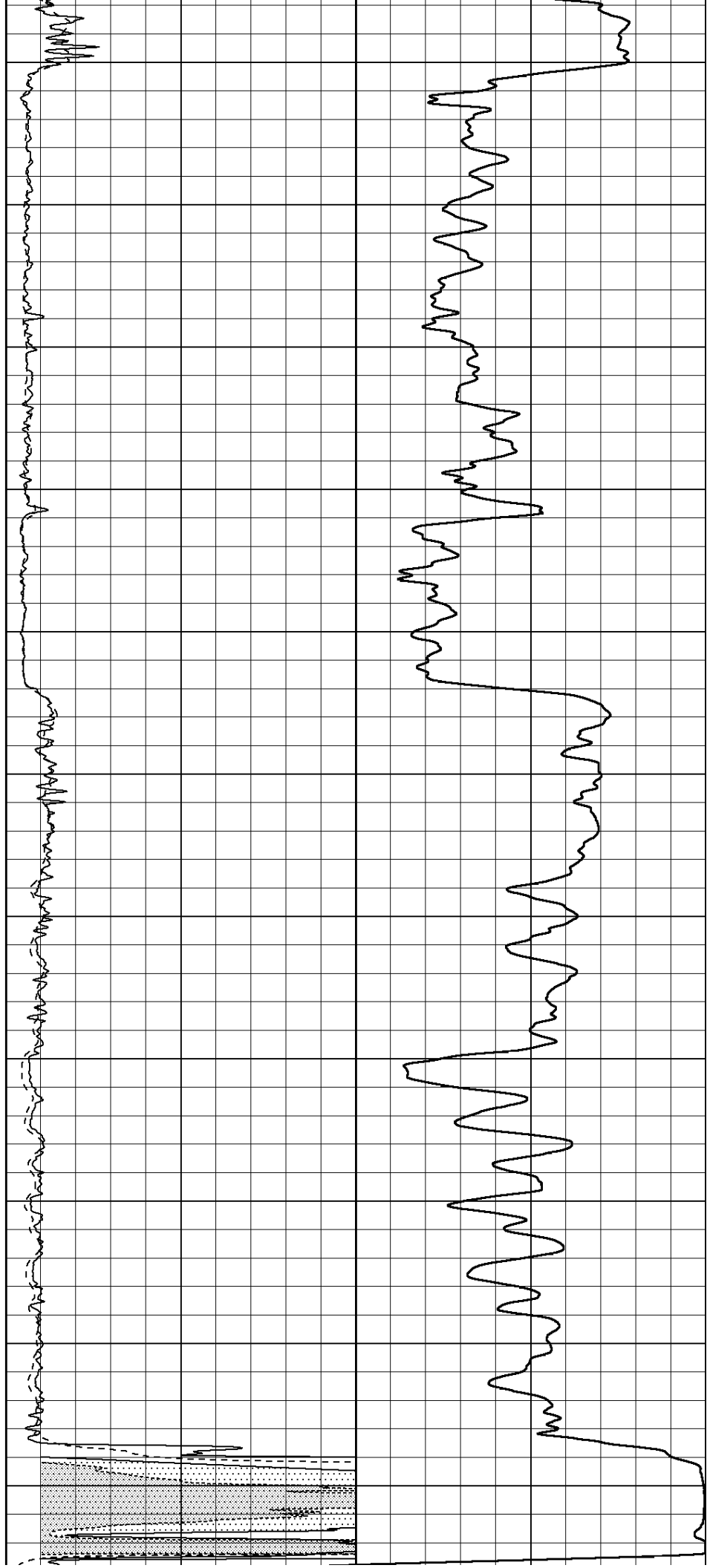
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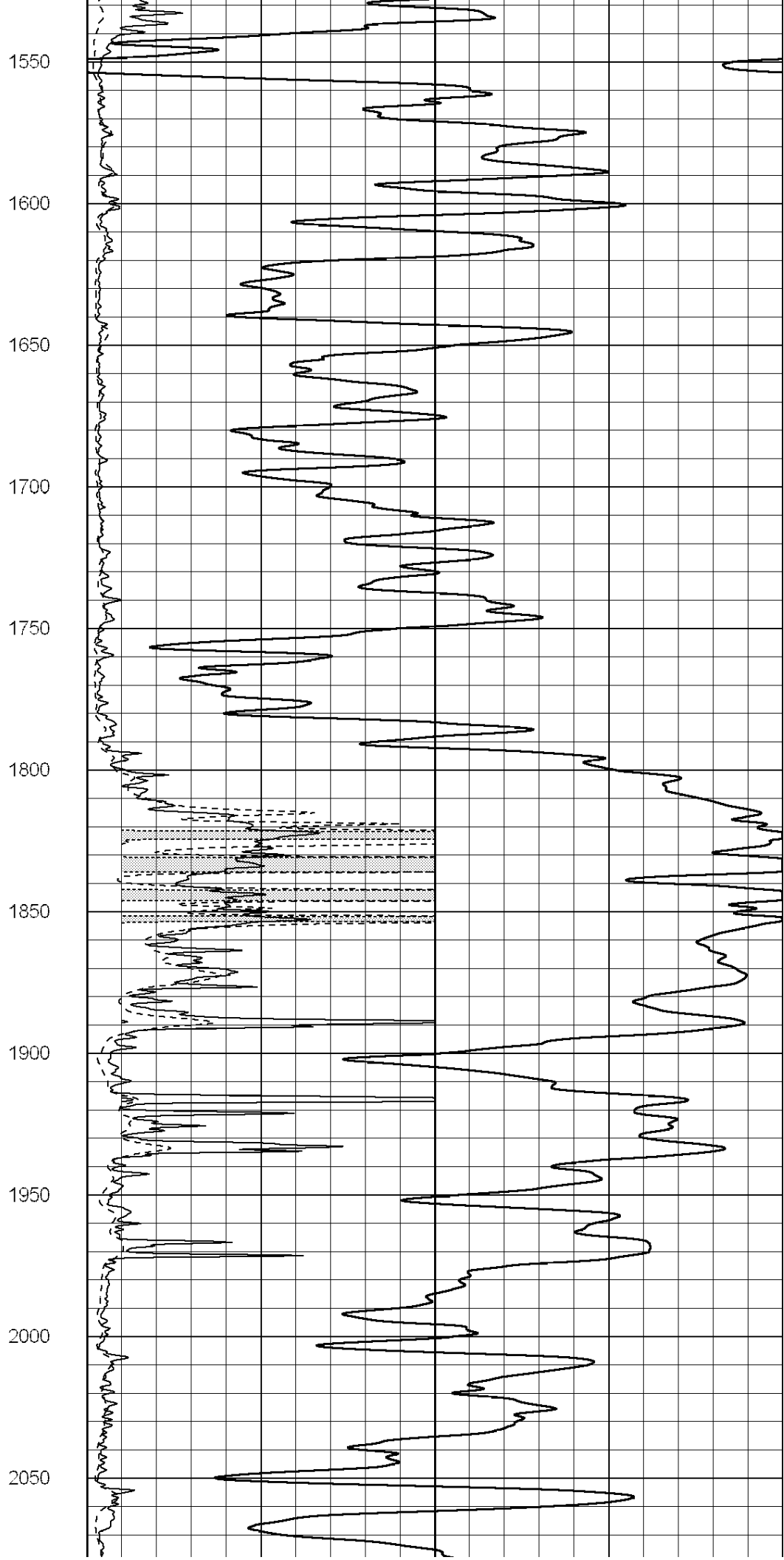
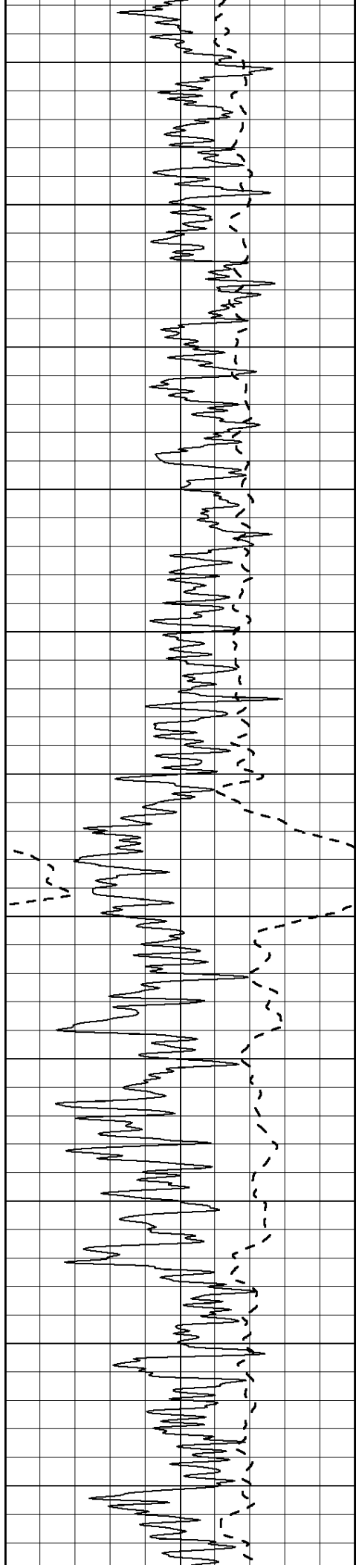
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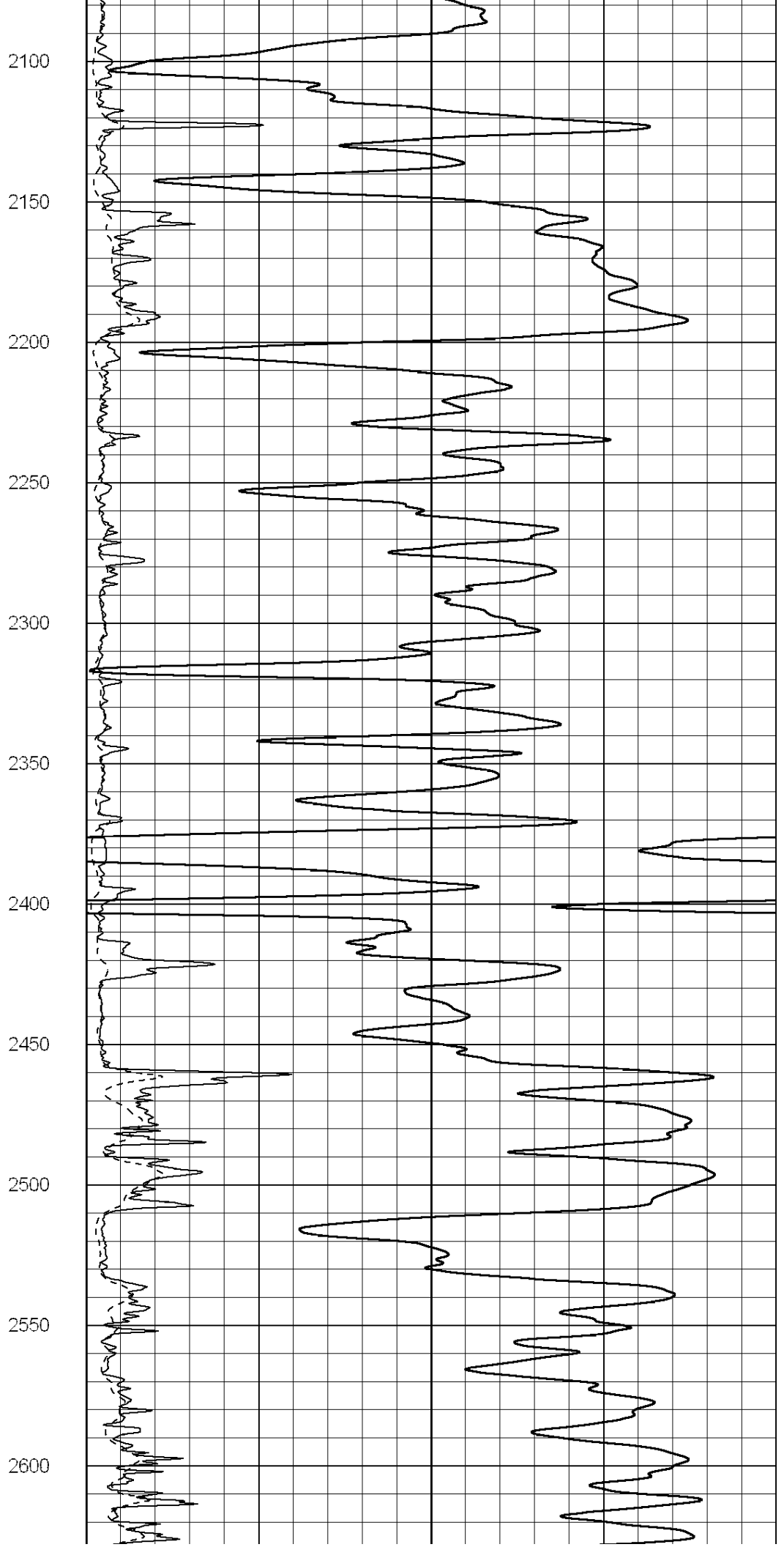
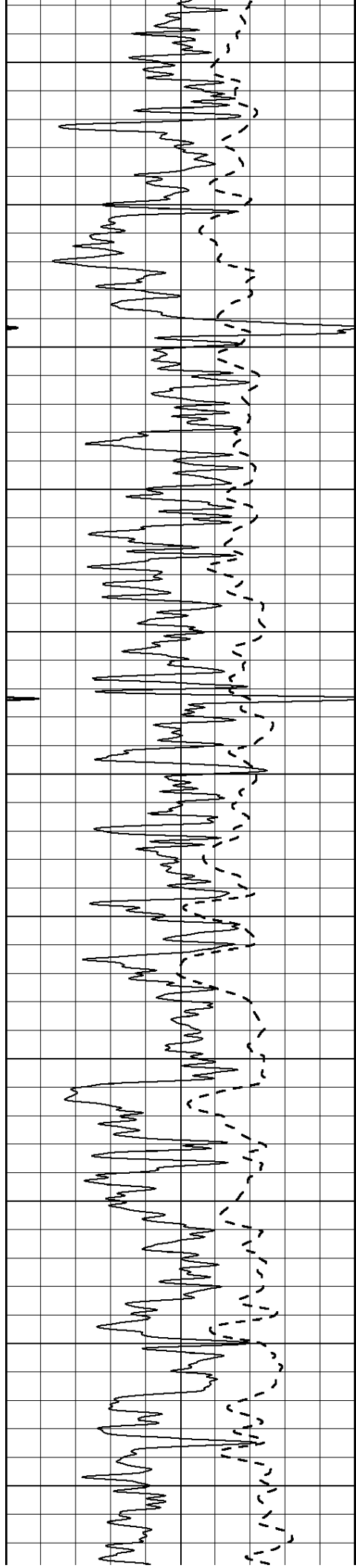


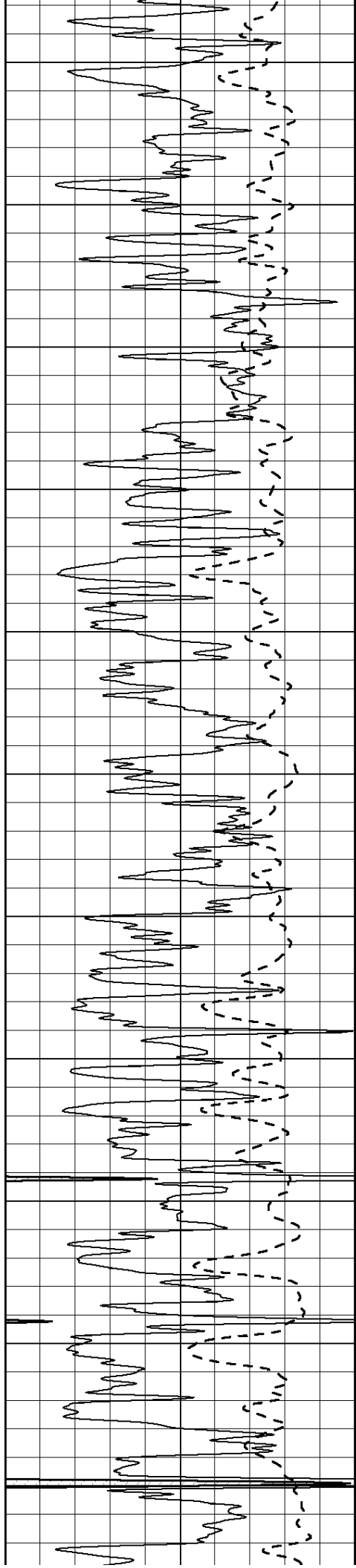


1000
1050
1100
1150
1200
1250
1300
1350
1400
1450
1500

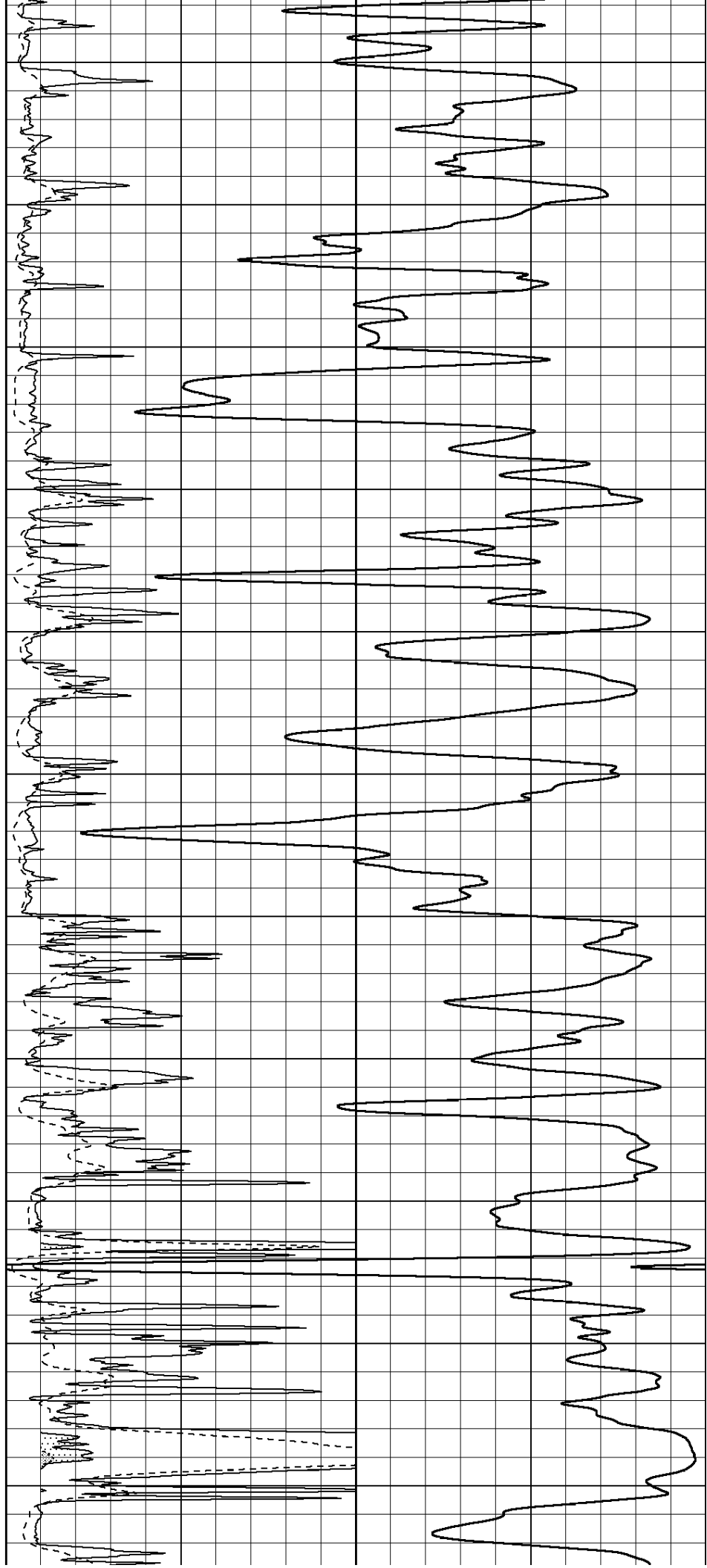


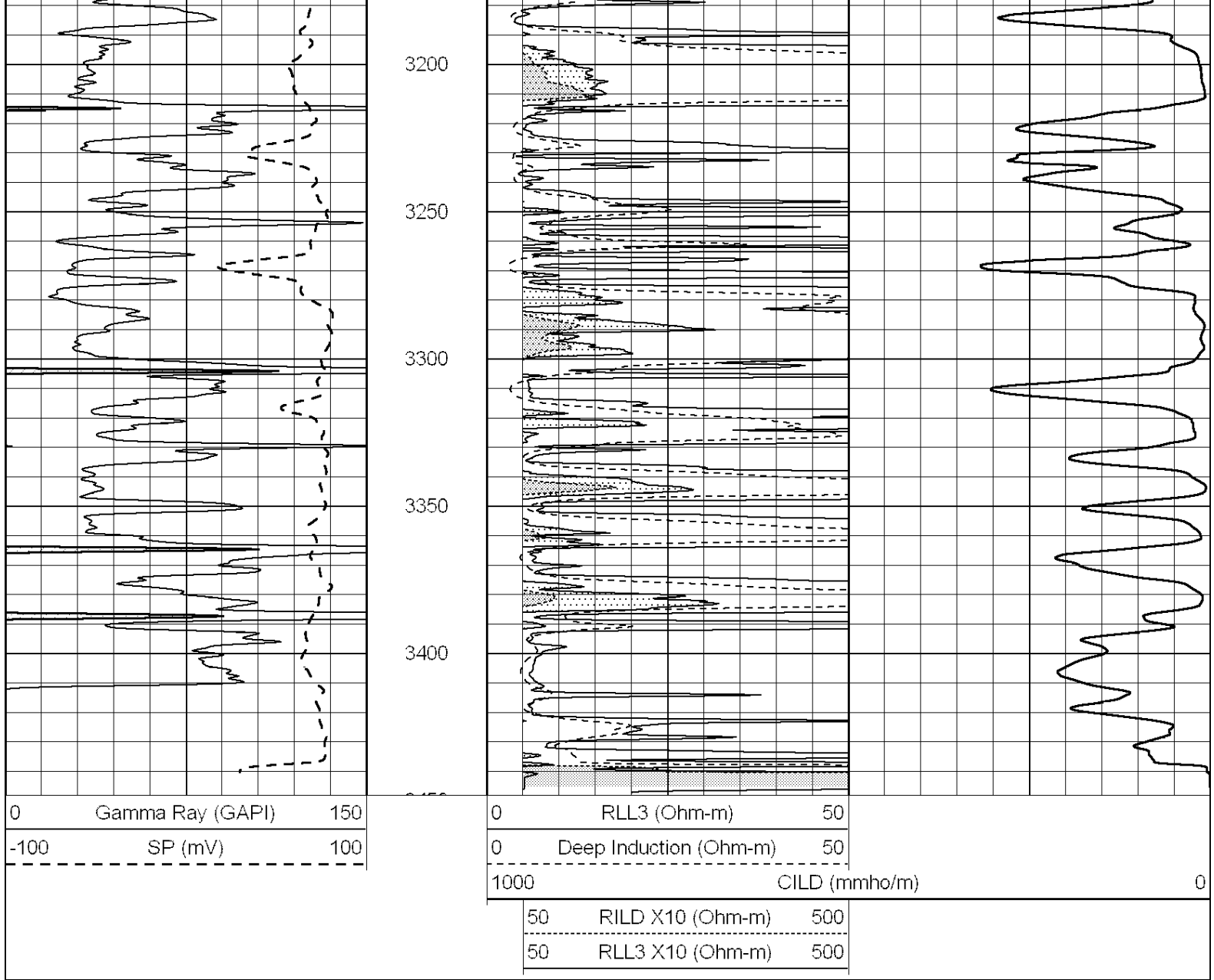






2650
2700
2750
2800
2850
2900
2950
3000
3050
3100
3150

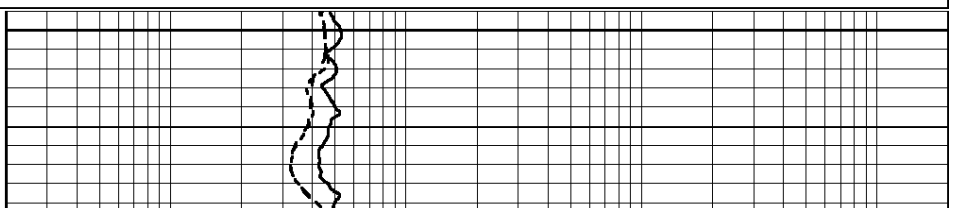
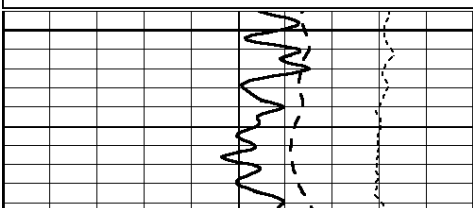
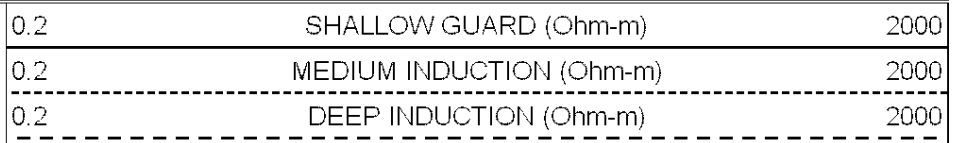
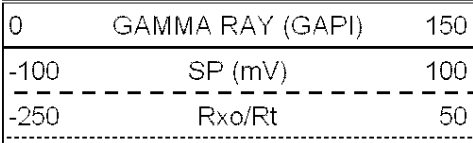


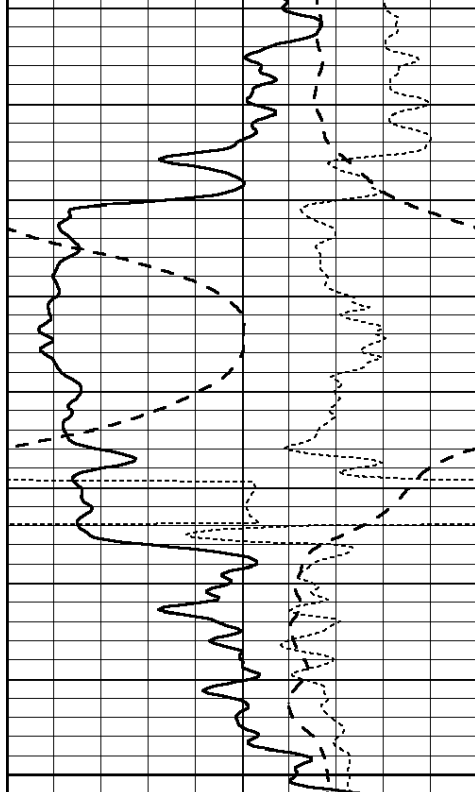


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ANHYDRITE

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 Charted by: Depth in Feet scaled 1:240

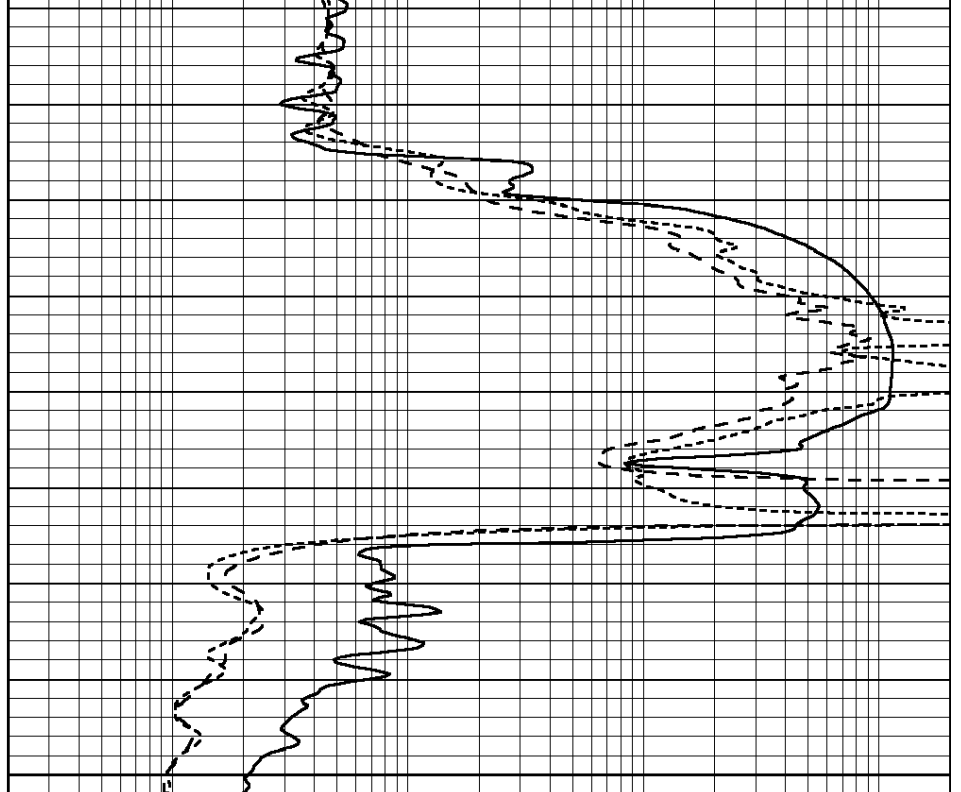




1500

1550

0	GAMMA RAY (GAPI)	150
-100	SP (mV)	100
-250	Rxo/Rt	50



0.2	SHALLOW GUARD (Ohm-m)	2000
0.2	MEDIUM INDUCTION (Ohm-m)	2000
0.2	DEEP INDUCTION (Ohm-m)	2000



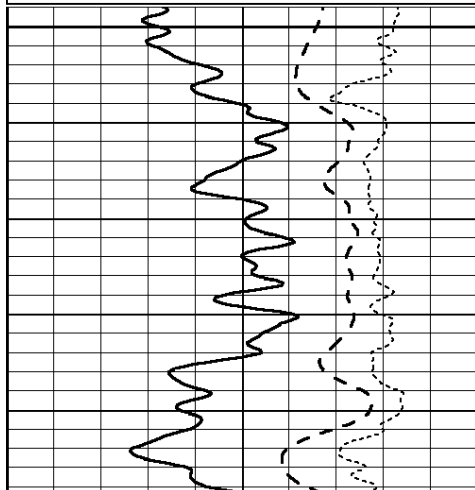
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MAIN SECTION

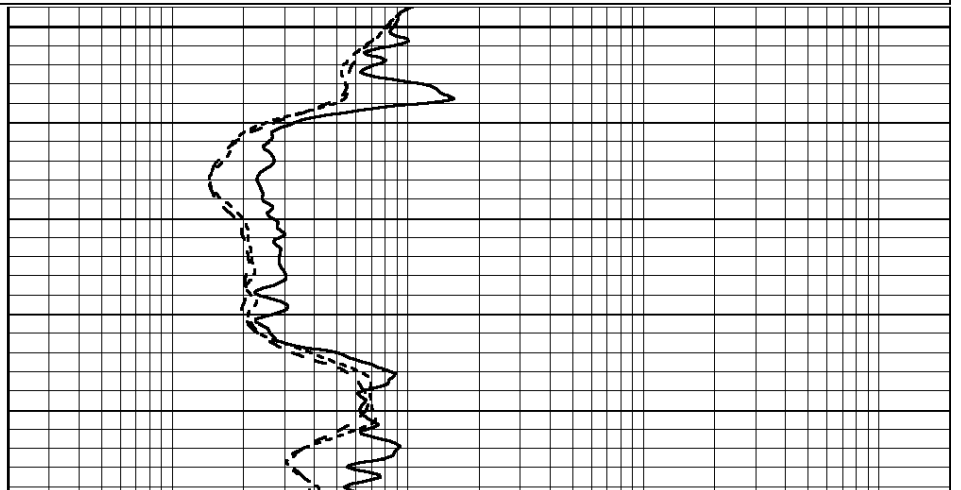
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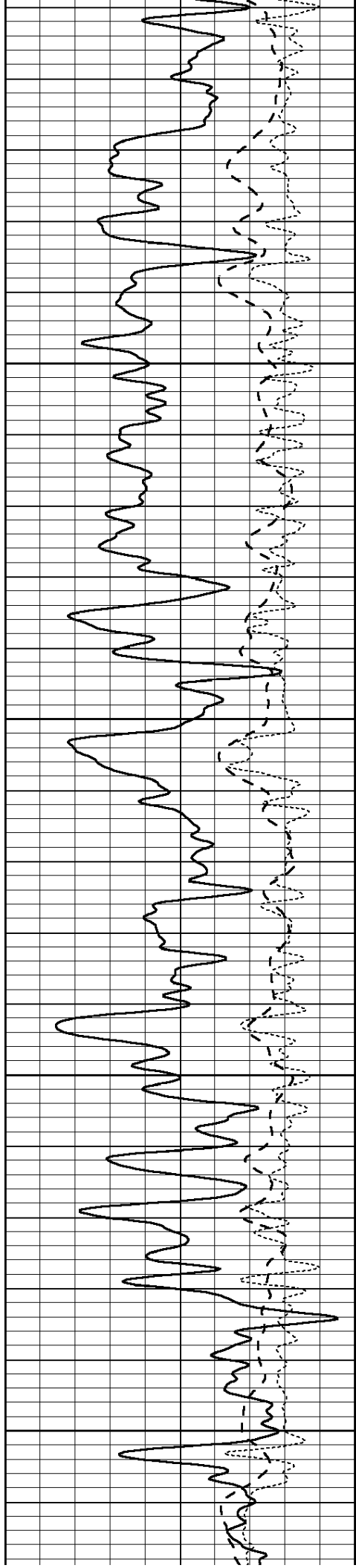
0	GAMMA RAY (GAPI)	150
-100	SP (mV)	100
-250	Rxo/Rt	50

0.2	SHALLOW GUARD (Ohm-m)	2000
0.2	MEDIUM INDUCTION (Ohm-m)	2000
0.2	DEEP INDUCTION (Ohm-m)	2000



2500





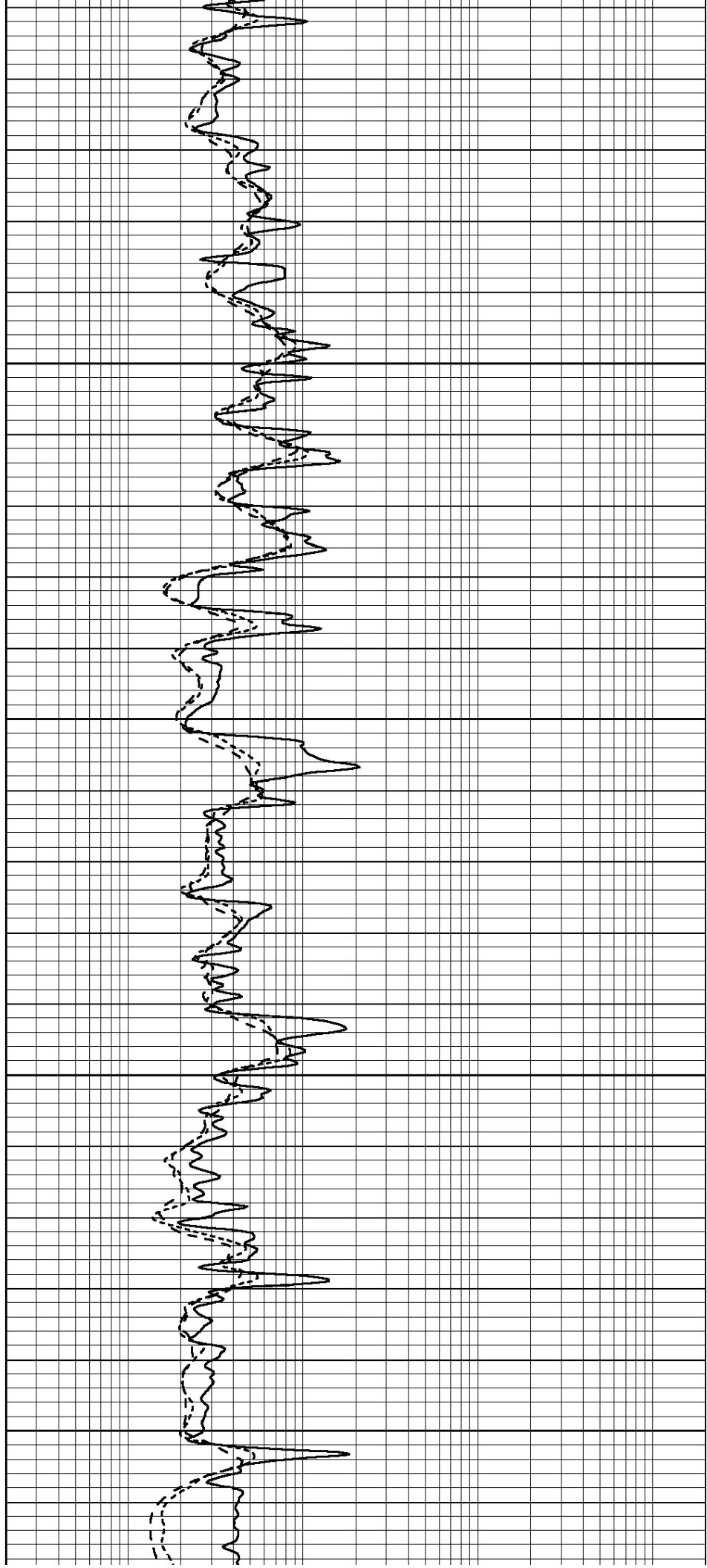
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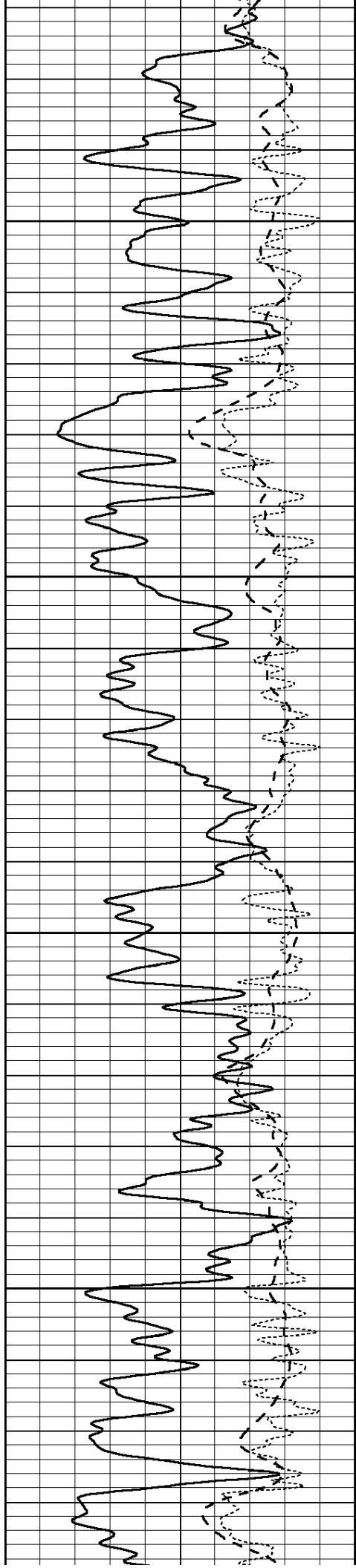
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2650

2700

2750



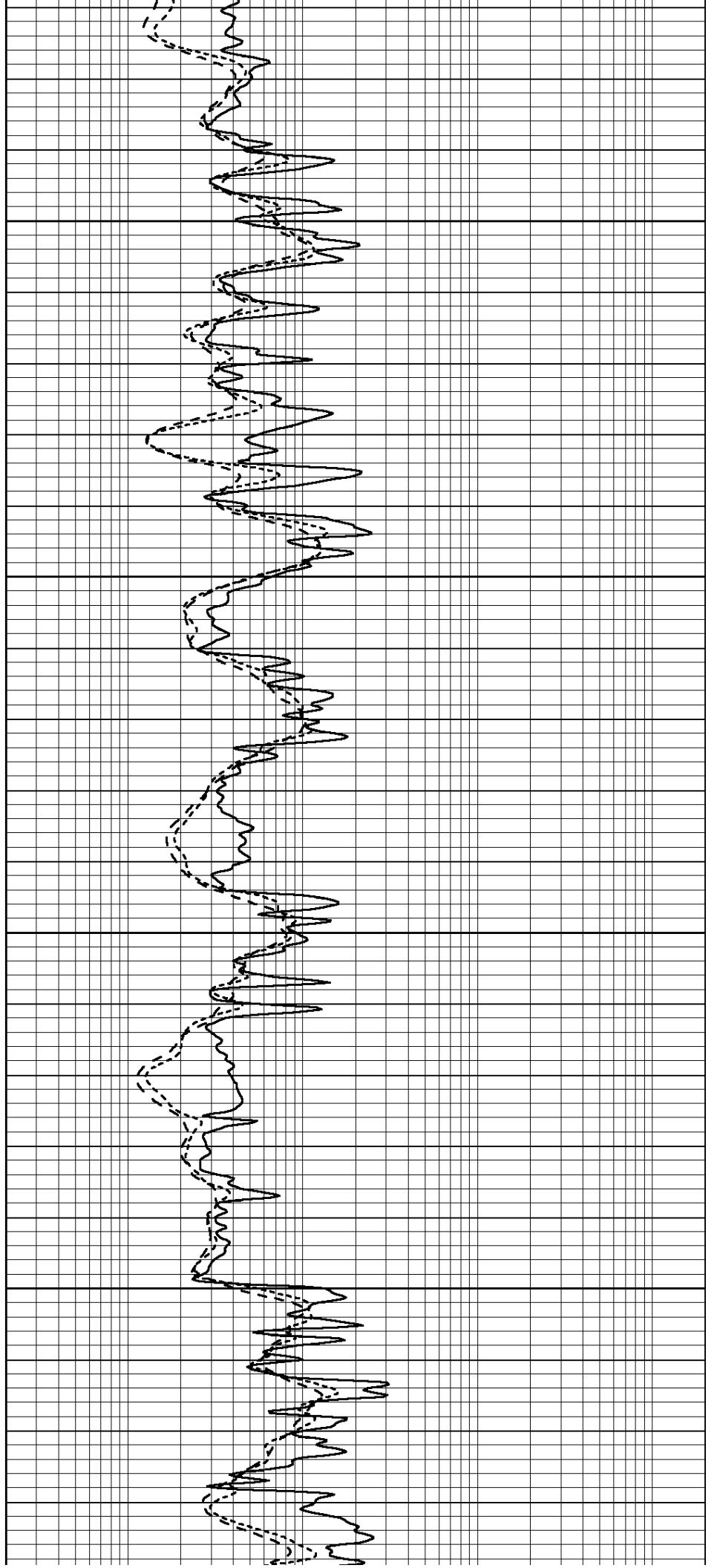


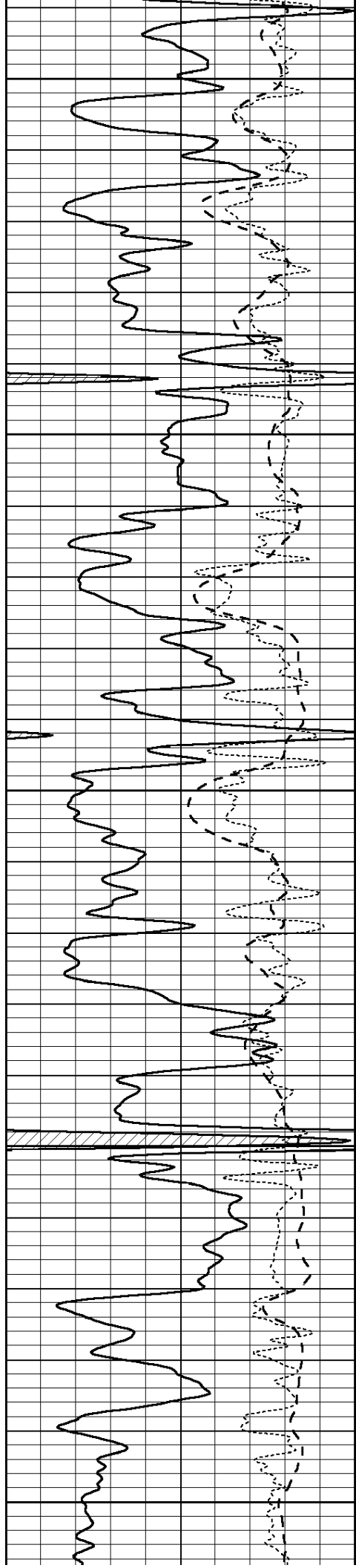
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2850

2900

2950





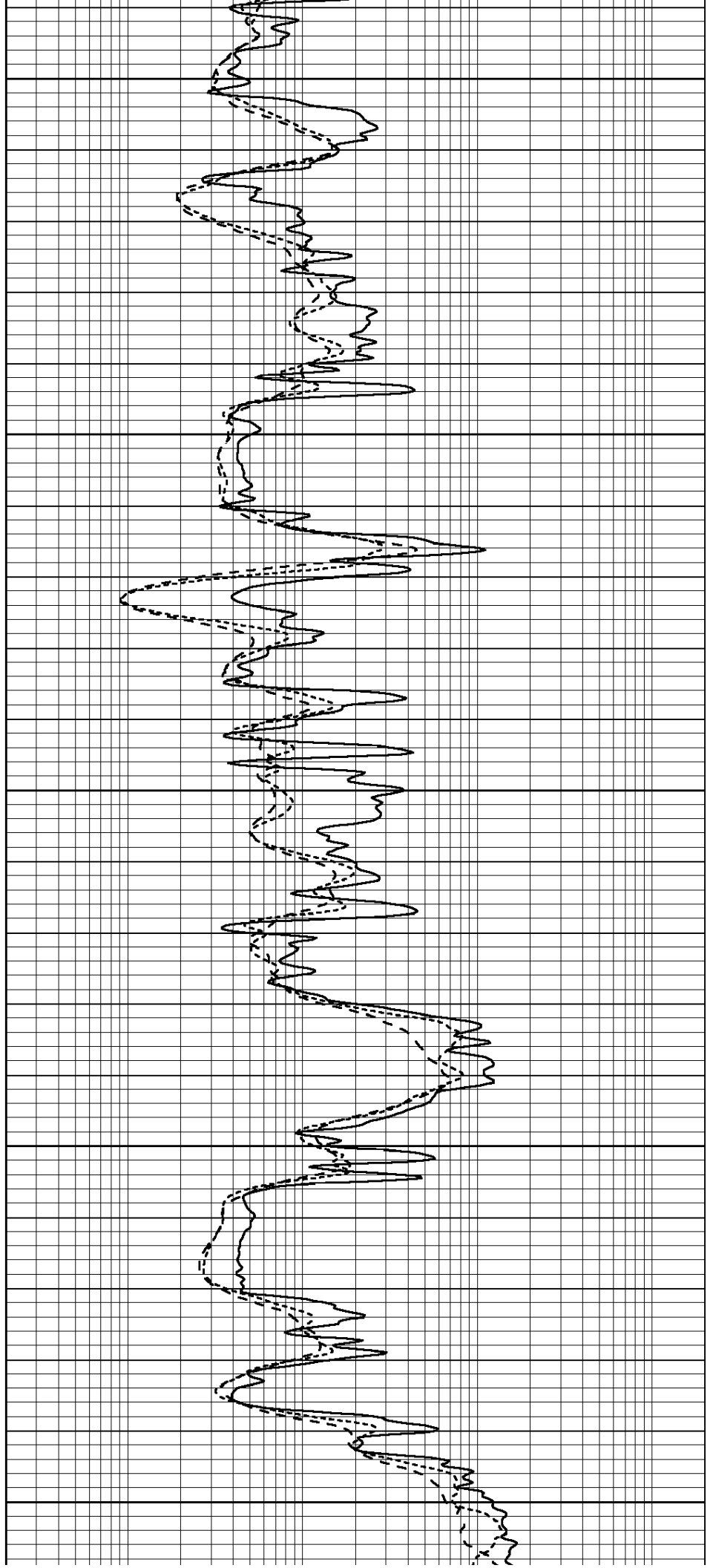
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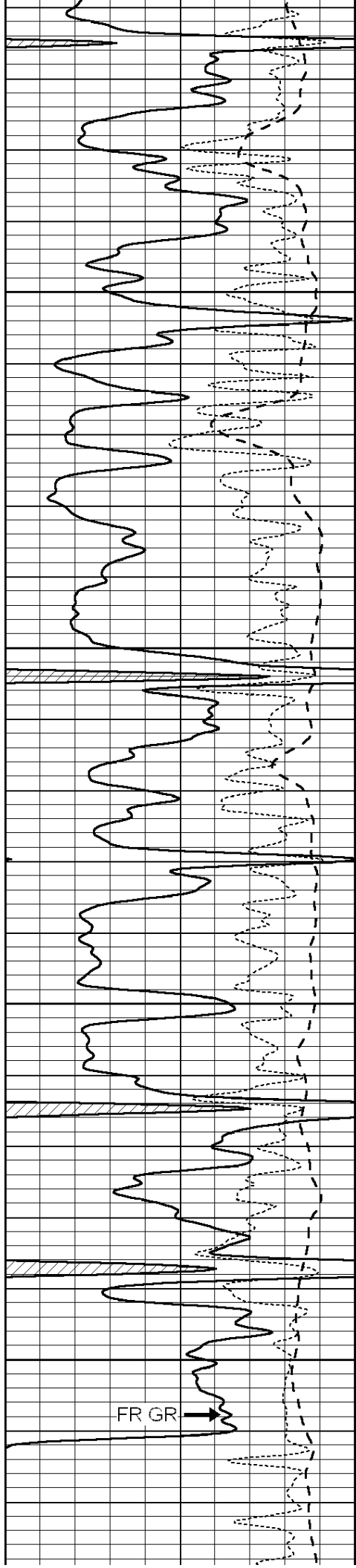
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3100

3150

3200





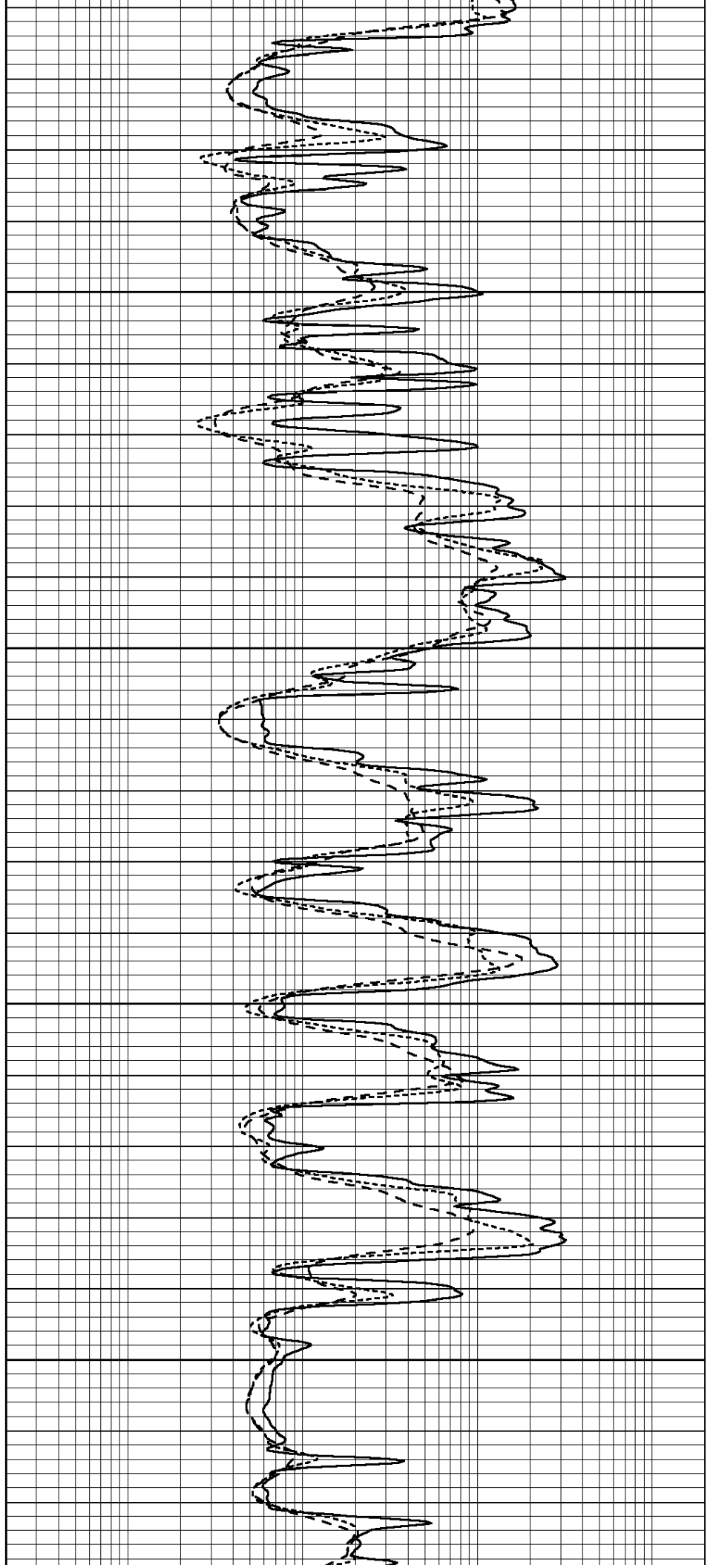
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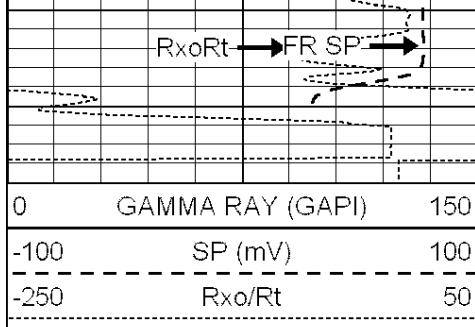
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3350

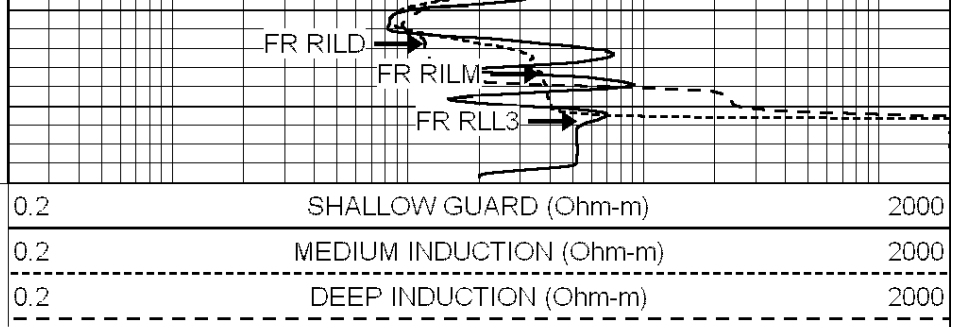
3400

FR GR →





LTD 3444



0	GAMMA RAY (GAPI)	150
-100	SP (mV)	100
-250	Rxo/Rt	50

0.2	SHALLOW GUARD (Ohm-m)	2000
0.2	MEDIUM INDUCTION (Ohm-m)	2000
0.2	DEEP INDUCTION (Ohm-m)	2000



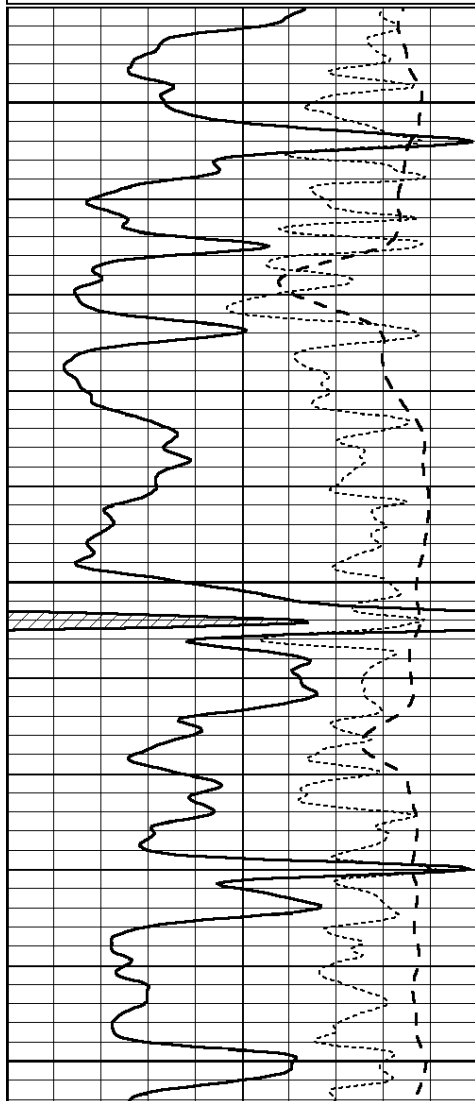
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Kansas

REPEAT SECTION

Database File: 008058ddn.db
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 Charted by: Depth in Feet scaled 1:240

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-100	SP (mV)	100
-250	Rxo/Rt	50

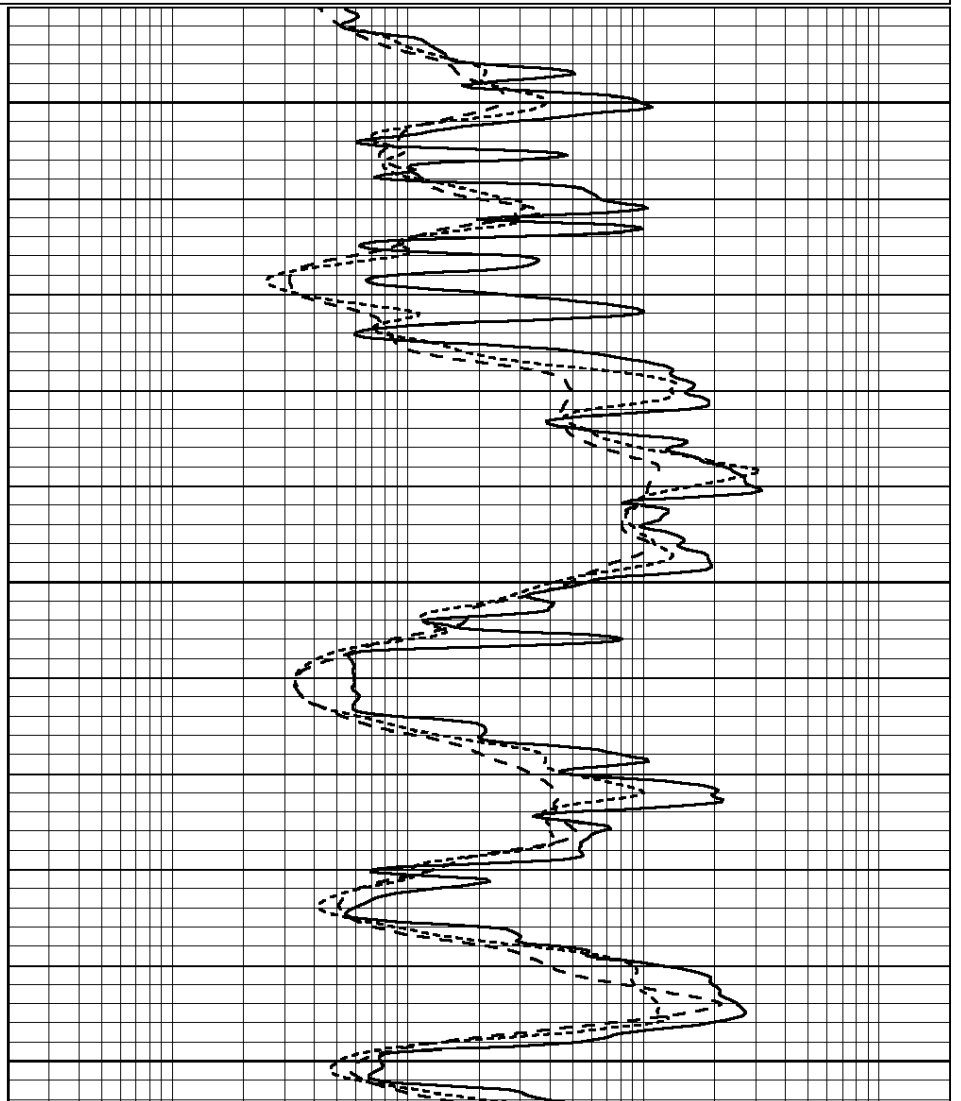
0.2	SHALLOW GUARD (Ohm-m)	2000
0.2	MEDIUM INDUCTION (Ohm-m)	2000
0.2	DEEP INDUCTION (Ohm-m)	2000

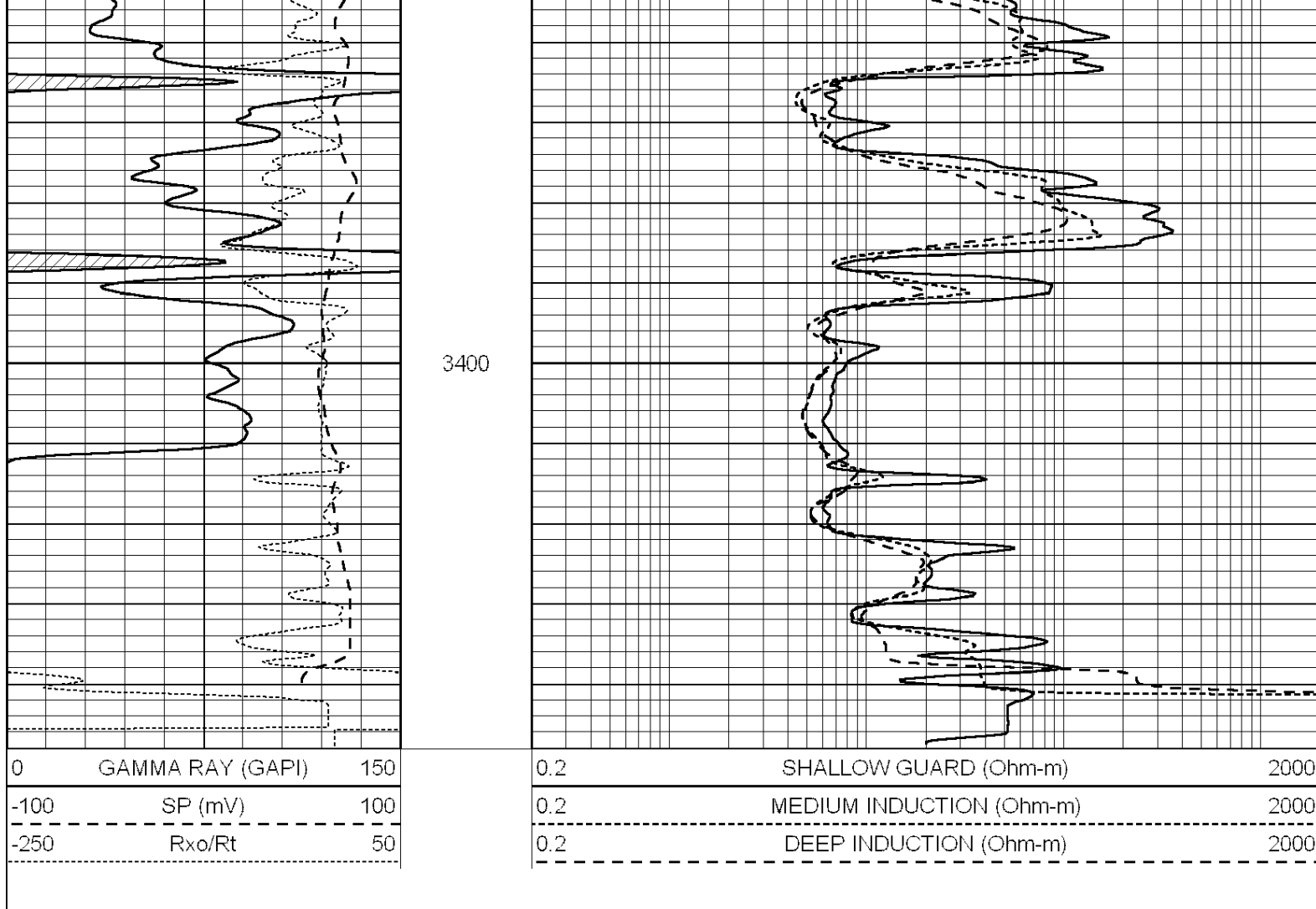


3250

3300

3350





Calibration Report

Database File: 008058ddn.db
 Dataset Pathname: pass3.1
 Dataset Creation: Sat Mar 03 13:35:28 2012 by Calc Open-Cased 090629

Dual Induction Calibration Report

Serial-Model: PROBE8-DILG
 Surface Cal Performed: Fri Aug 01 06:33:19 2008
 Downhole Cal Performed: Mon Jul 28 11:08:27 2008
 After Survey Verification Performed: Mon Jul 28 11:08:27 2008

Surface Calibration

Loop:	Readings			References			Results	
	Air	Loop	V	Air	Loop	mmho/m	m	b
Deep	0.015	0.648	V	0.000	400.000	mmho/m	632.616	-9.730
Medium	0.029	0.796	V	0.000	464.000	mmho/m	605.049	-17.680
Internal:	Zero	Cal		Zero	Cal		m	b
Deep	0.017	0.657	V	0.000	400.000	mmho/m	625.153	-10.619
Medium	0.016	0.757	V	0.000	464.000	mmho/m	625.992	-9.739

Downhole Calibration

	Readings			References			Results	
	Zero	Cal	mmho/m	Zero	Cal	mmho/m	m'	b'
Deep	0.000	0.000	mmho/m	2.011	405.777	mmho/m	1.000	0.000
Medium	0.000	0.000	mmho/m	7.500	500.000	mmho/m	1.000	0.000

Medium	0.000	0.000	mmho/m	7.590	303.393	mmho/m	1.000	0.000
LL3		7.500	V		1500.000	Ohm-m		
		0.000	V		20.000	Ohm-m		
		-7.200	V		3800.000	mmho-m		

After Survey Verification								
	Readings			Targets			Results	
	Zero	Cal		Zero	Cal		m'	b'
Deep	0.000	0.000	mmho/m	0.000	0.000	mmho/m	0.000	0.000
Medium	0.000	0.000	mmho/m	0.000	0.000	mmho/m	0.000	0.000
LL3		1.000	Ohm-m		1.000	Ohm-m		
		0.000	Ohm-m		0.000	Ohm-m		
		1.000	mmho-m		1.000	mmho-m		

Compensated Density Calibration Report

Serial-Model:	GEAR4-GEARHART
Source / Verifier:	143 / 143
Master Calibration Performed:	Fri Jan 06 21:06:59 2012

Master Calibration						
	Density		Far Detector		Near Detector	
	Magnesium	1.710	g/cc	1015.91	497.51	cps
Aluminum	2.580	g/cc	227.67	350.20	cps	
Spine Angle = 76.79			Density/Spine Ratio = 0.566			
	Size		Reading			
Small Ring	8.00	in	2.25	V		
Large Ring	14.00	in	4.37	V		

Compensated Neutron Calibration Report

Serial Number:	6I
Tool Model:	G

CALIBRATION						
Detector	Readings		Target		Normalization	
Short Space	1.00	cps	1.00	cps	1.0000	
Long Space	1.00	cps	1.00	cps	1.0000	

Gamma Ray Calibration Report

Serial Number:	#8	
Tool Model:	OPEN	
Performed:	Mon Jun 13 16:56:43 2011	
Calibrator Value:	150.0	GAPI
Background Reading:	0.0	cps
Calibrator Reading:	175.0	cps
Sensitivity:	0.8371	GAPI/cps