



SUPERIOR
Hays,
Kansas

**DUAL INDUCTION
LOG**

Company PHILLIPS EXPLORATION CO., L.C.
Well FLAX #1-7
Field WILDCAT
County TREGO
State KANSAS

Company PHILLIPS EXPLORATION COMPANY, L.C.
Well FLAX #1-7
Field WILDCAT
County TREGO State KANSAS

Location: API # : 15-195-22799-0000
1400' FSL & 2090' FEL
SE - SW - NW - SE
SEC 7 TWP 11S RGE 23W
Permanent Datum GROUND LEVEL Elevation 2272
Log Measured From KELLY BUSHING 5' A.G.L.
Drilling Measured From KELLY BUSHING
Other Services
CDL/CNL
MEL
Elevation
K.B. 2277
D.F. 2275
G.L. 2272

Date	8/9/12		
Run Number	ONE		
Depth Driller	3950		
Depth Logger	3951		
Bottom Logged Interval	3949		
Top Log Interval	00		
Casing Driller	8 5/8"@217'		
Casing Logger	217		
Bit Size	7 7/8"		
Type Fluid in Hole	CHEMICAL MUD	CHLORIDES 1,300 PPM	
Density / Viscosity	9.2/54		
pH / Fluid Loss	10.5/6.8		
Source of Sample	FLOWLINE		
Rin @ Meas. Temp	2.80@92F		
Rmf @ Meas. Temp	2.10@92F		
Rmc @ Meas. Temp	3.36@92F		
Source of Rmf / Rmc	MEASUREMENT		
Rin @ BHT	2.22@116F		
Time Circulation Stopped	2 HOURS		
Time Logger on Bottom	5:00 A.M.		
Maximum Recorded Temperature	116F		
Equipment Number	0836		
Location	HAYS, KANSAS		
Recorded By	JEFF LUEBBERS		
Witnessed By	JIM PHILLIPS		

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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 HAYS, KANSAS (785) 628-6395
DIRECTIONS
WAKEENY, KS. 8N. ON HWY 283 TO "RD. B", 2W. TO "RD. 240", 1S., W. INTO



SUPERIOR
Hays,
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MAIN SECTION

Database File: 407997ddn.db
 Dataset Pathname: pass3.13
 Presentation Format: dil2
 Dataset Creation: Thu Aug 09 08:10:58 2012
 Charted by: Depth in Feet scaled 1:600

0	Gamma Ray (GAPI)	150
-100	SP (mV)	100

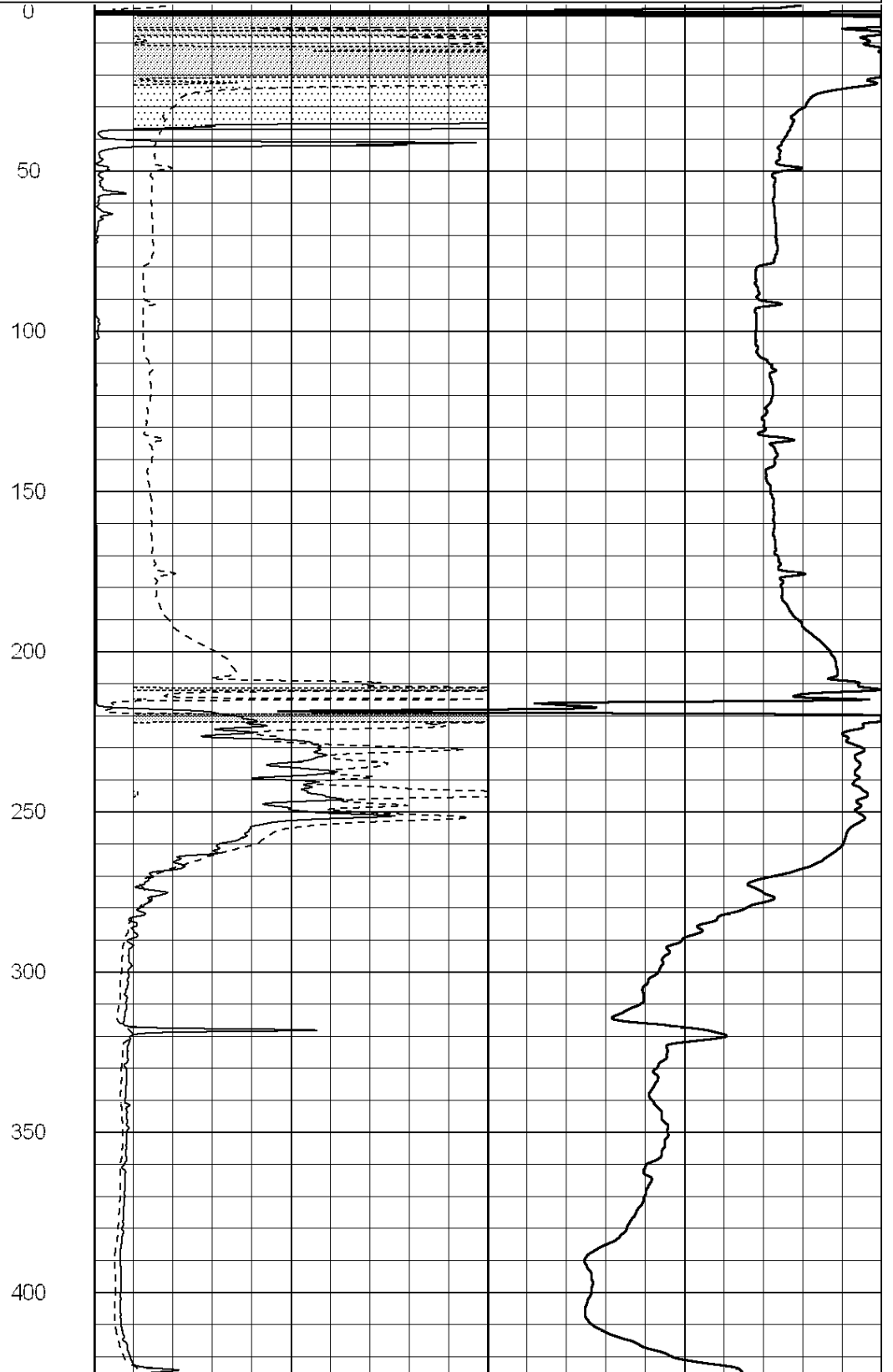
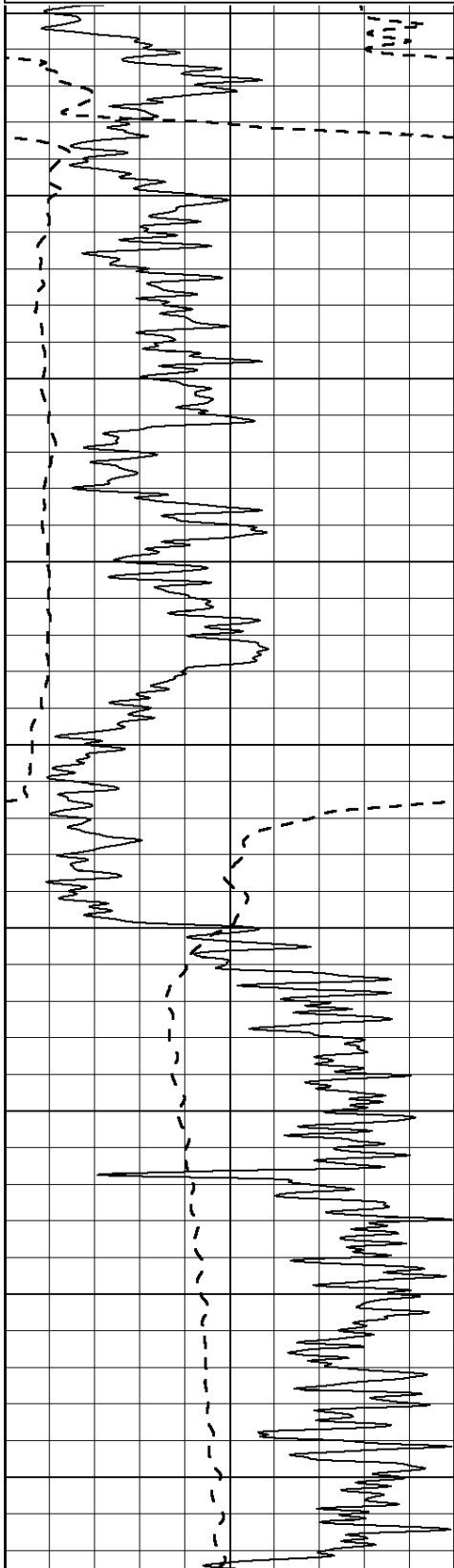
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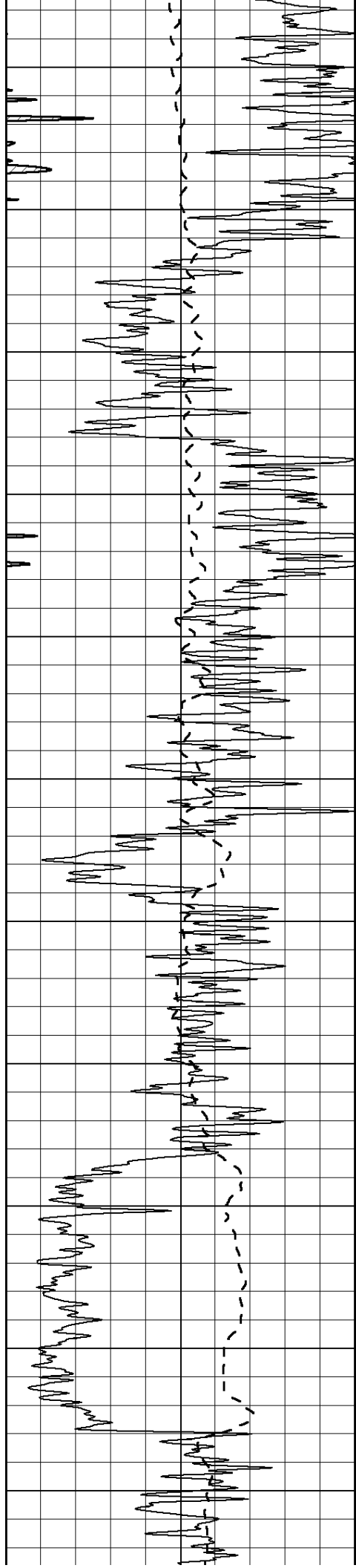
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1000	CILD (mmho/m)	0
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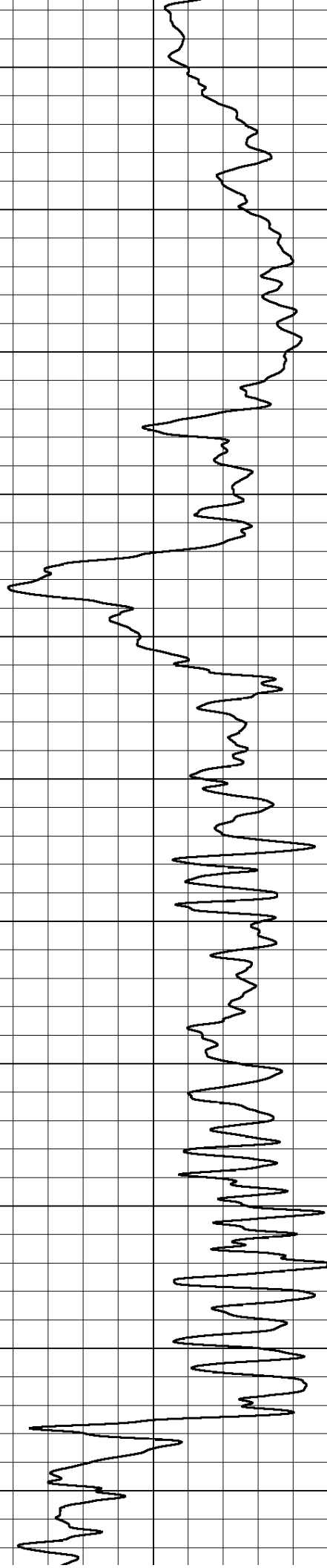
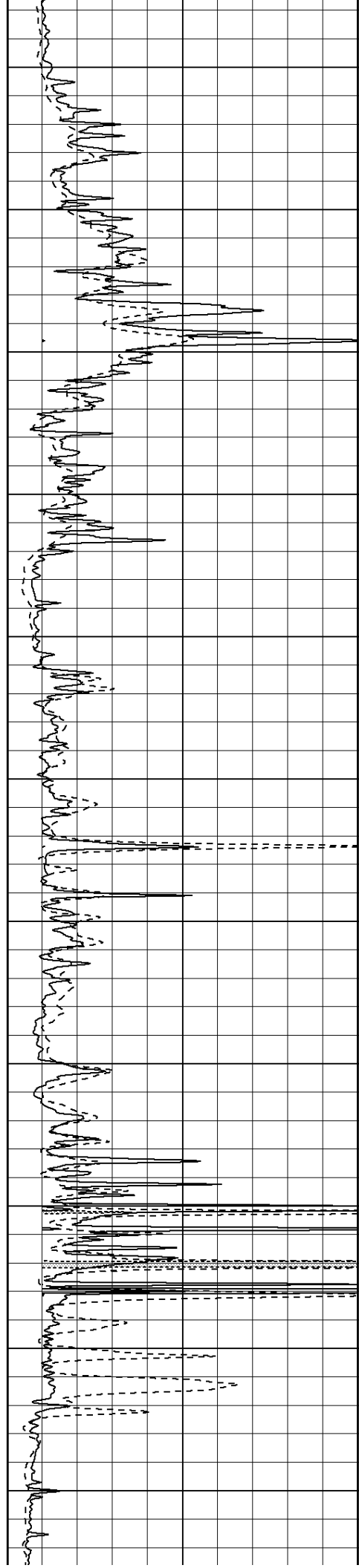
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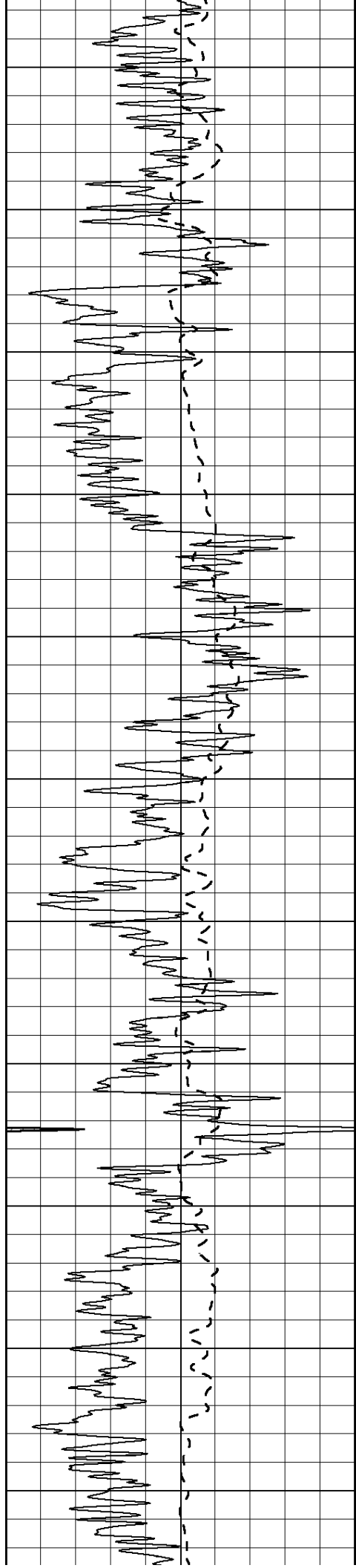
50	RLL3 X10 (Ohm-m)	500
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450
500
550
600
650
700
750
800
850
900
950





1000

1050

1100

1150

1200

1250

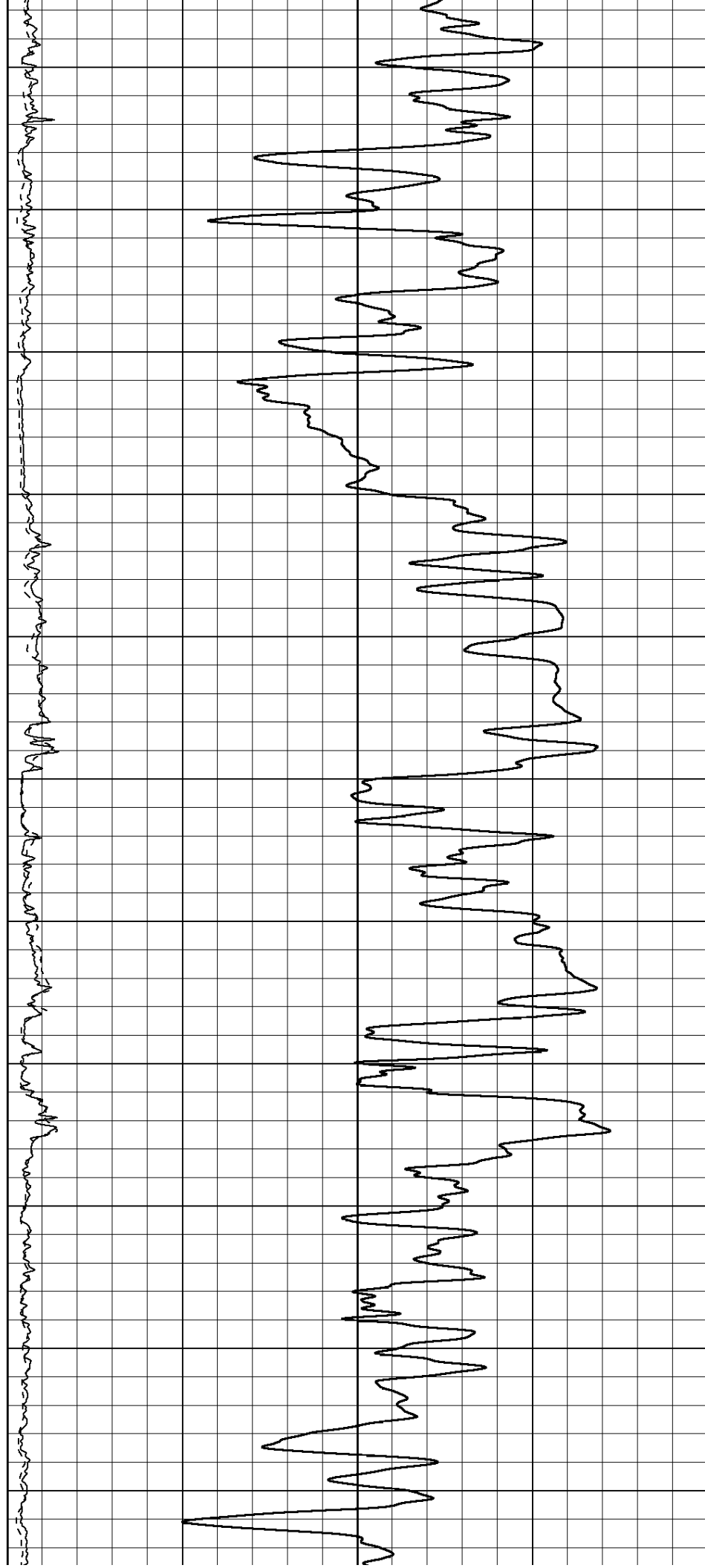
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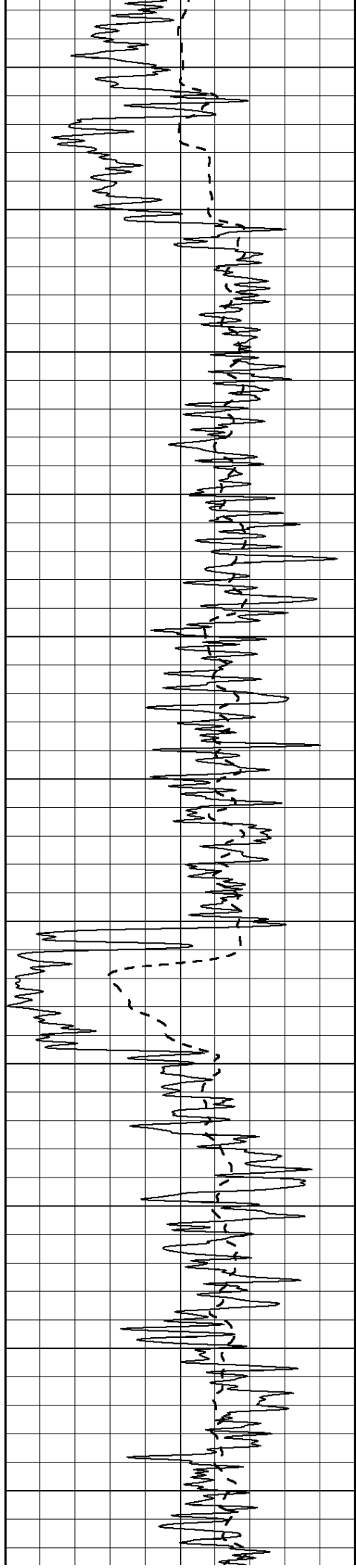
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1400

1450

1500





1550

1600

1650

1700

1750

1800

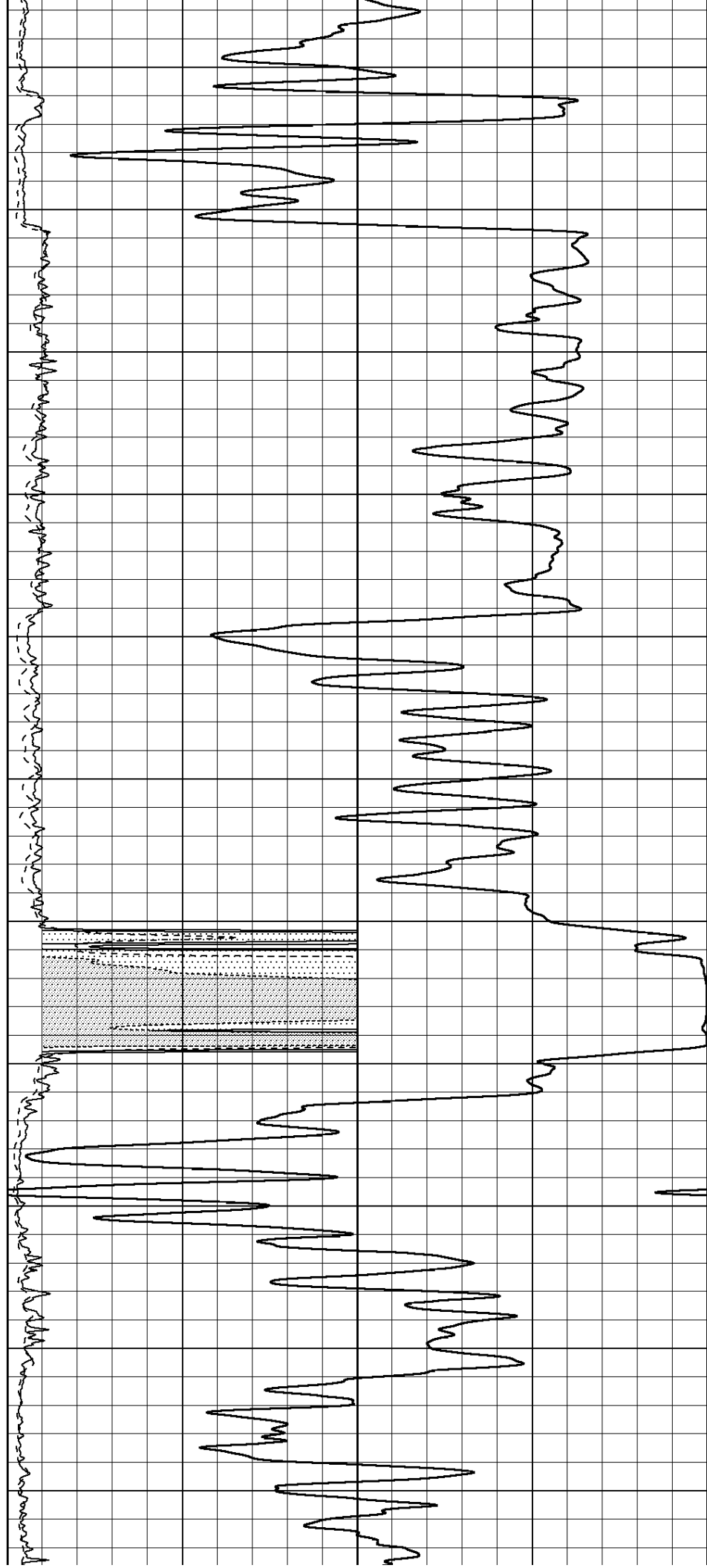
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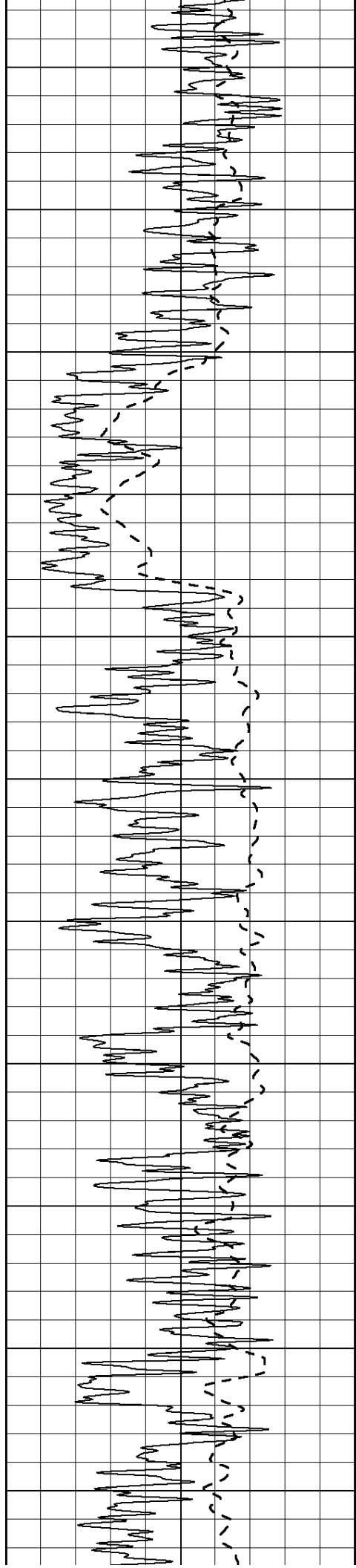
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1950

2000

2050





2100

2150

2200

2250

2300

2350

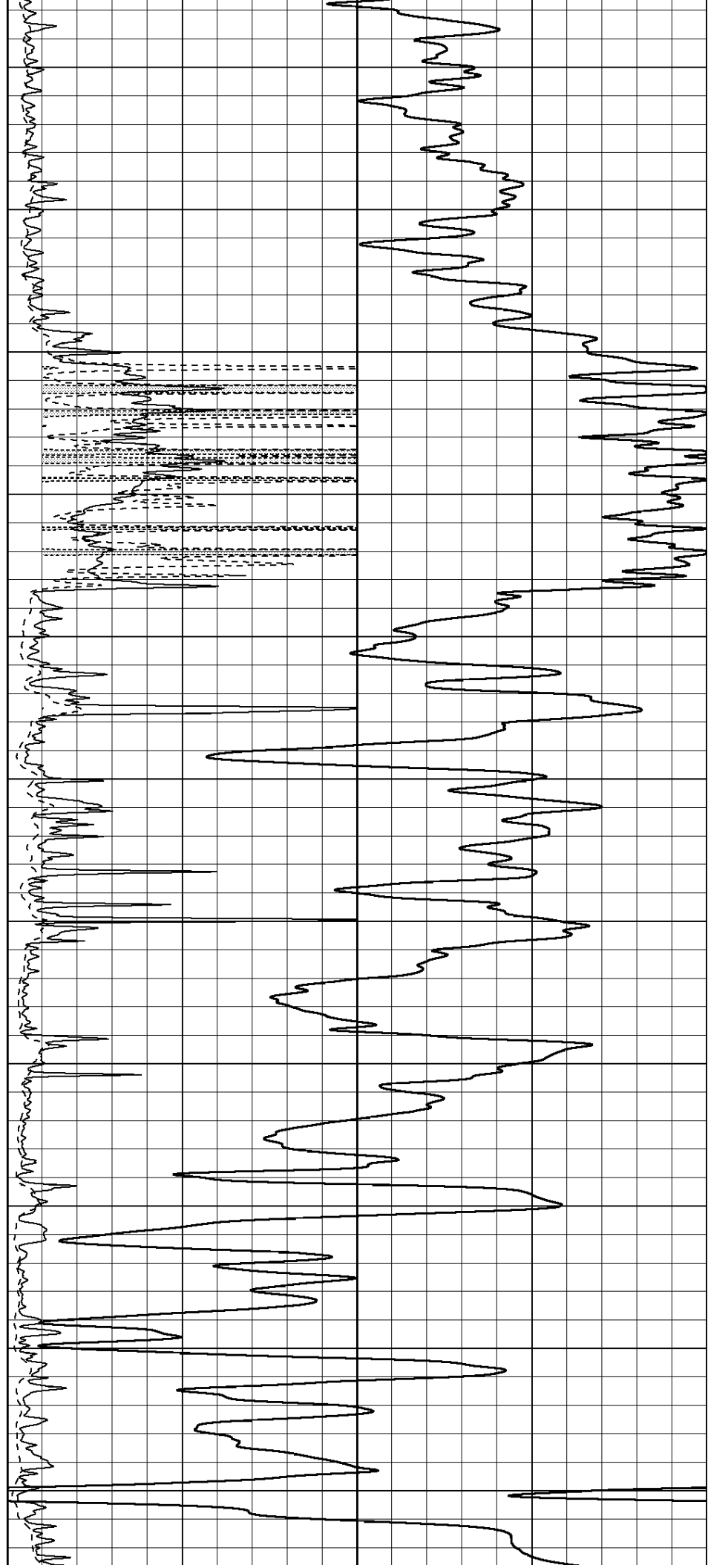
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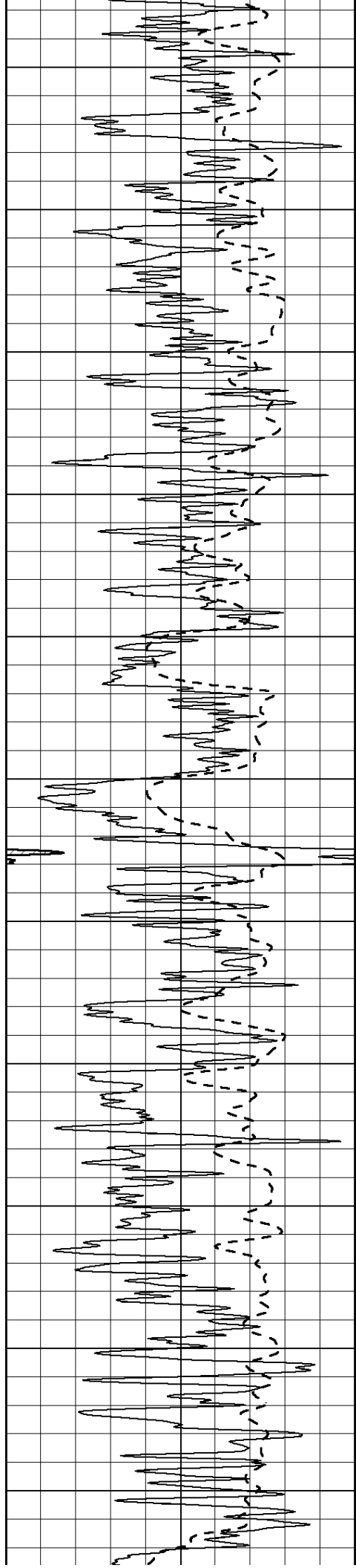
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2500

2550

2600





2650

2700

2750

2800

2850

2900

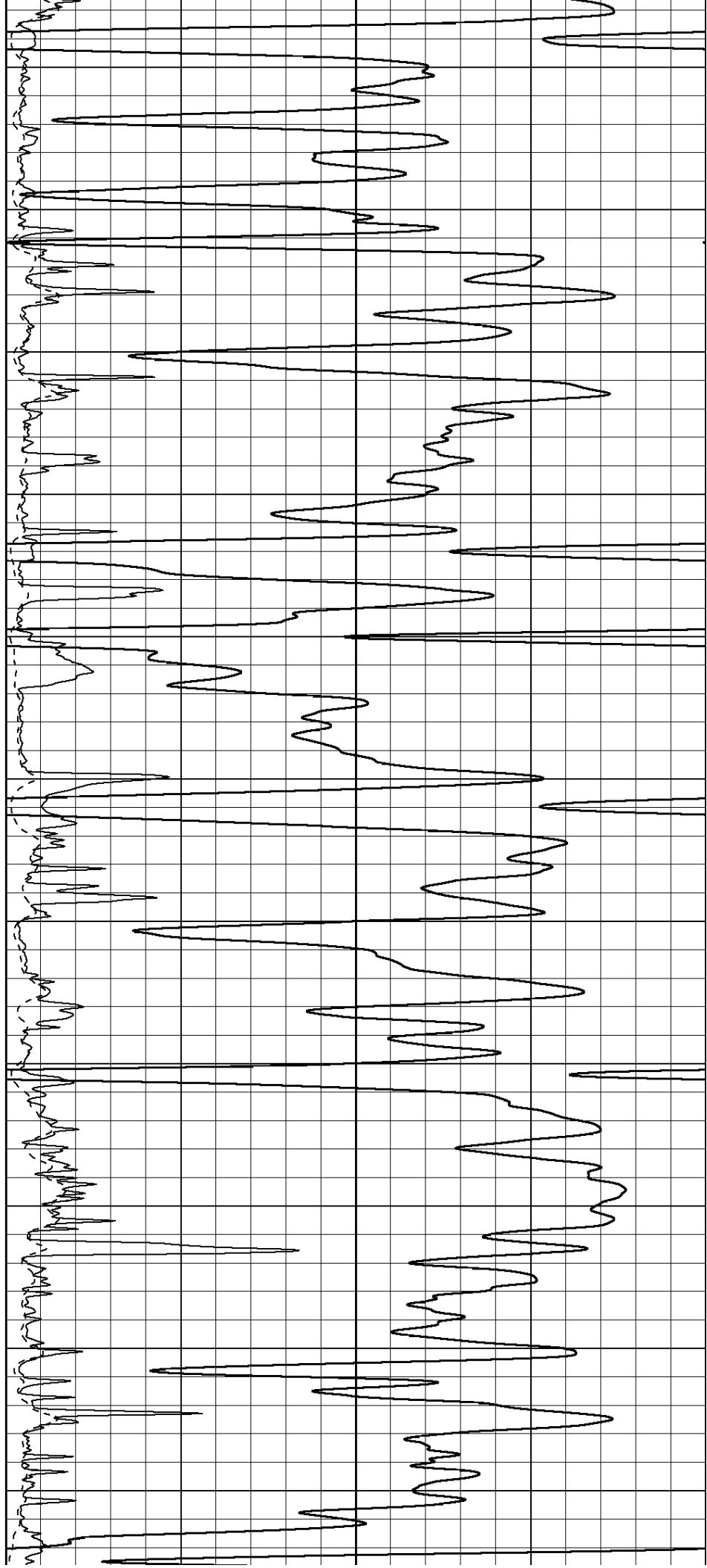
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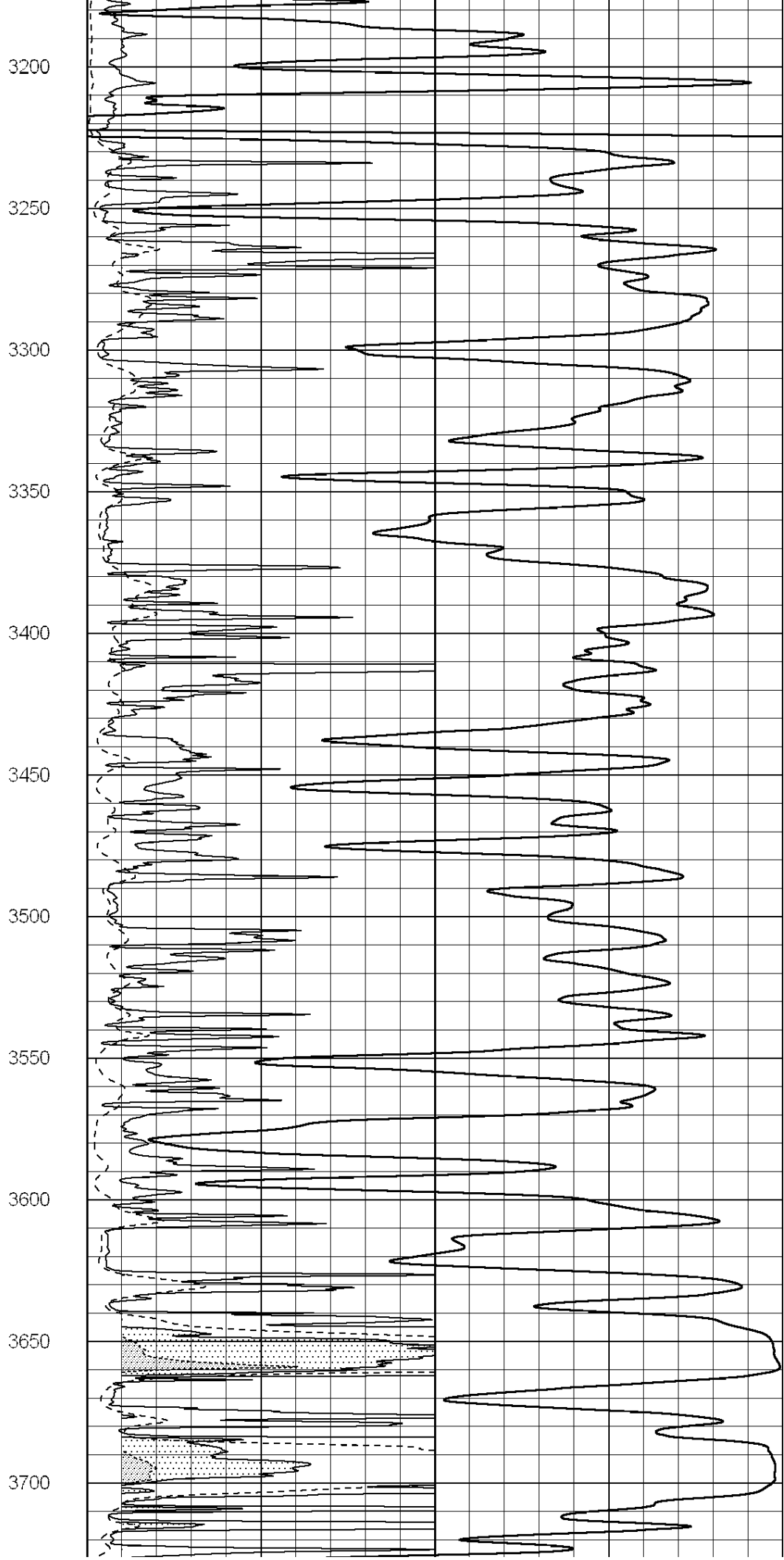
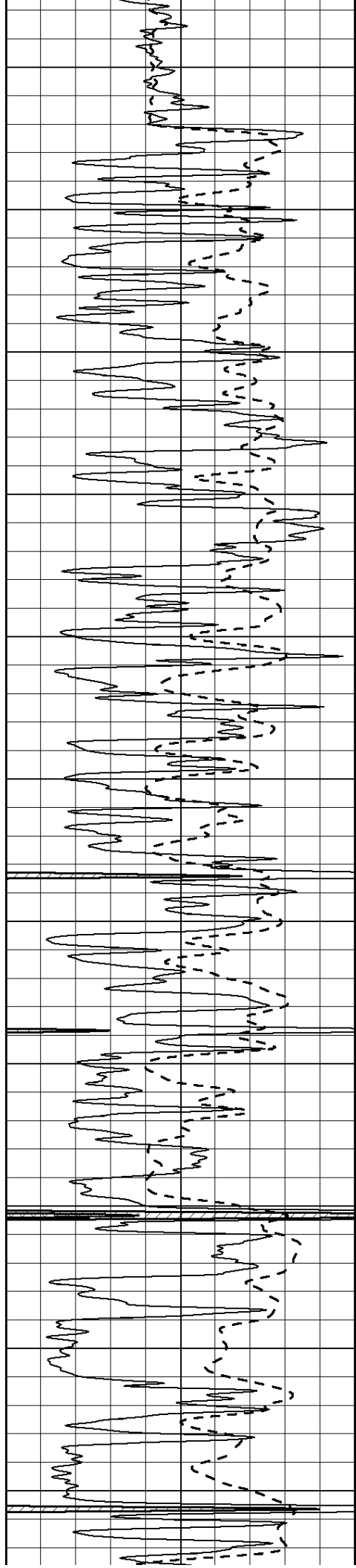
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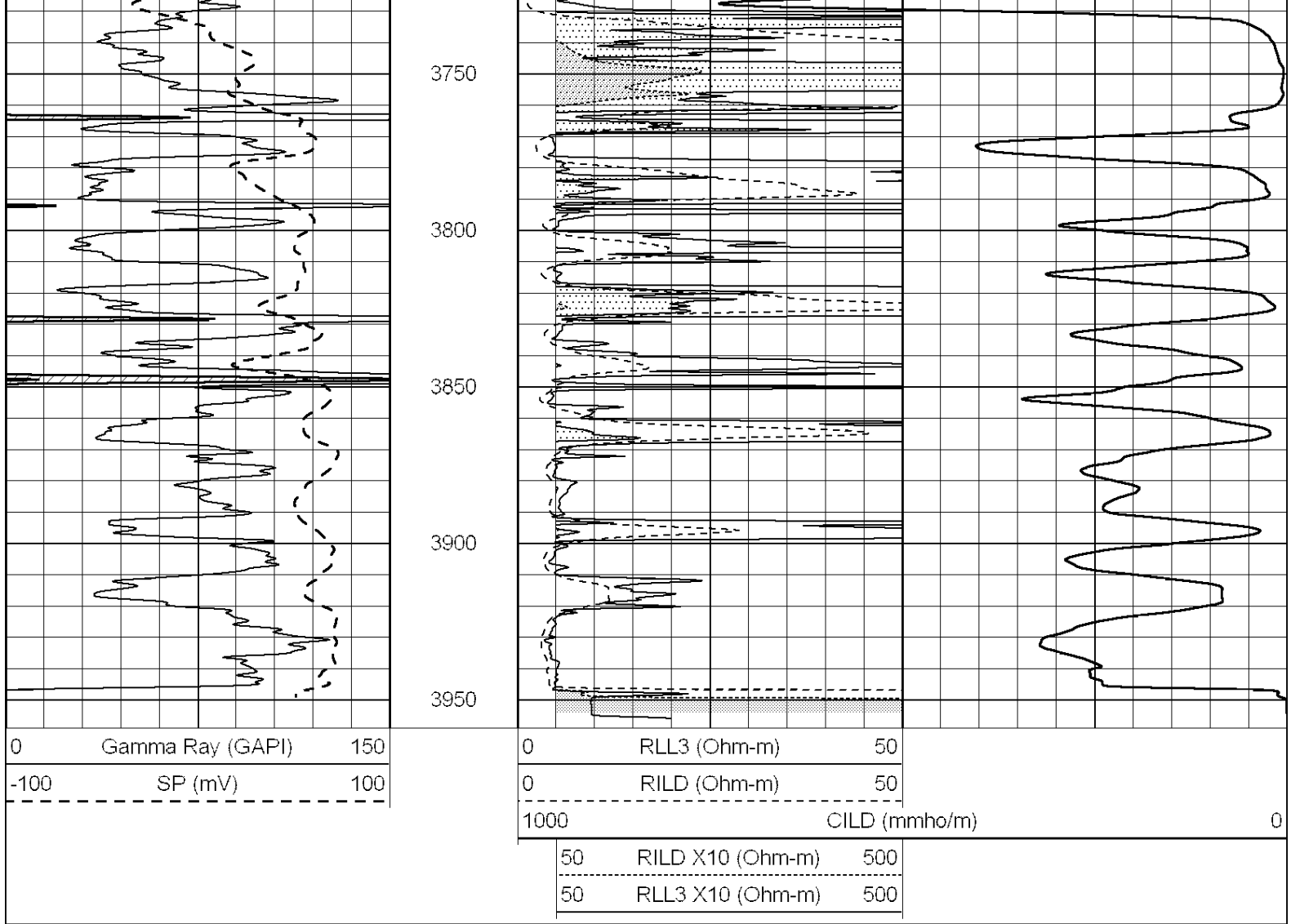
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3100

3150







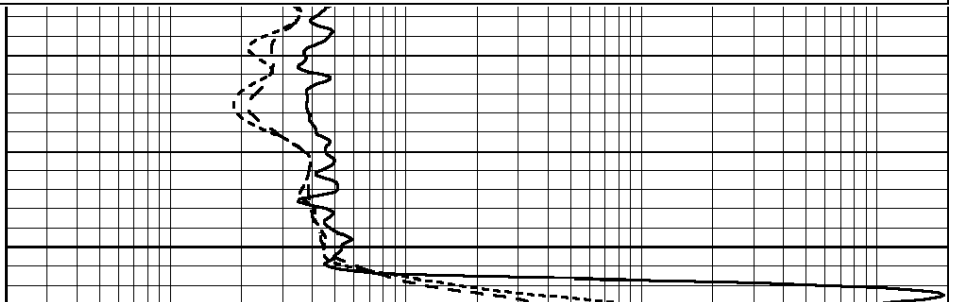
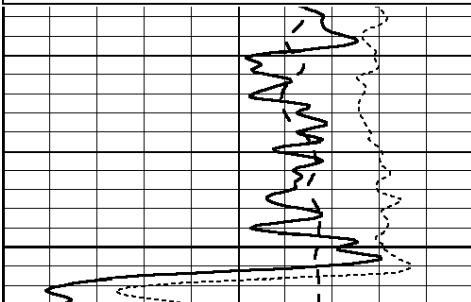
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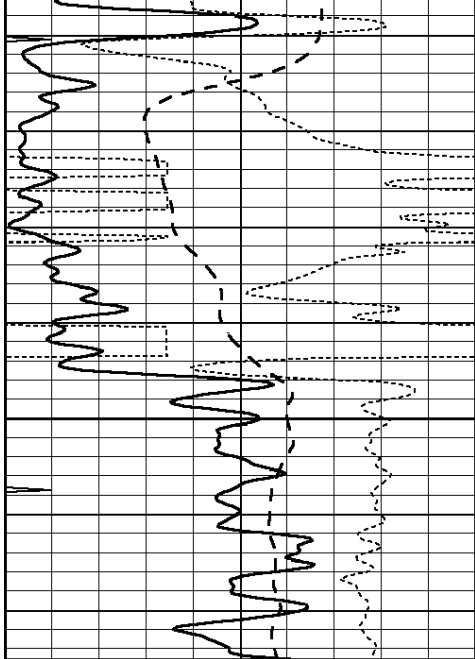
ANHYDRITE

Database File: 407997ddn.db
 Dataset Pathname: pass3.14
 Presentation Format: dil
 Dataset Creation: Thu Aug 09 08:11:09 2012
 Charted by: Depth in Feet scaled 1:240

0	GAMMA RAY (GAPI)	150
-100	SP (mV)	100
-250	Rxo/Rt	50
0	MINMK	10

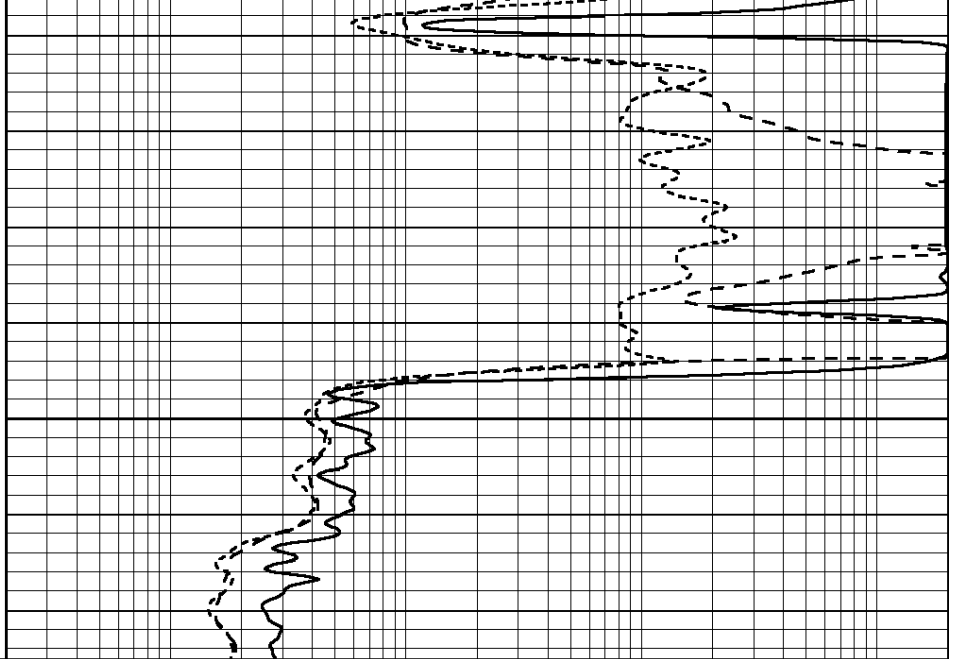
0.2	SHALLOW GUARD (Ohm-m)	2000
0.2	DEEP INDUCTION (Ohm-m)	2000
0.2	MEDIUM INDUCTION (Ohm-m)	2000





0	GAMMA RAY (GAPI)	150
-100	SP (mV)	100
-250	Rxo/Rt	50
0	MINMK	10

1900



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



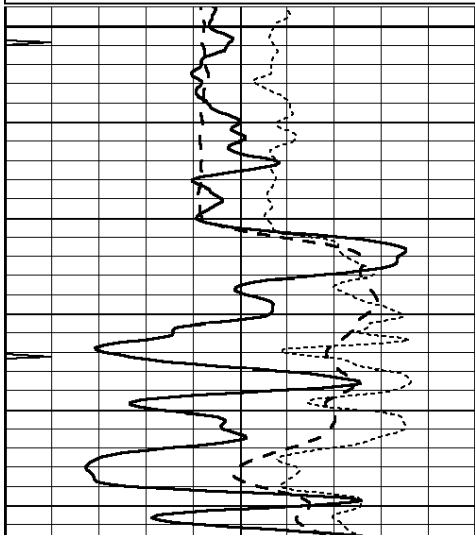
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MAIN SECTION

Database File: 407997ddn.db
 Dataset Pathname: pass3.13
 Presentation Format: dil
 Dataset Creation: Thu Aug 09 08:10:58 2012
 Charted by: Depth in Feet scaled 1:240

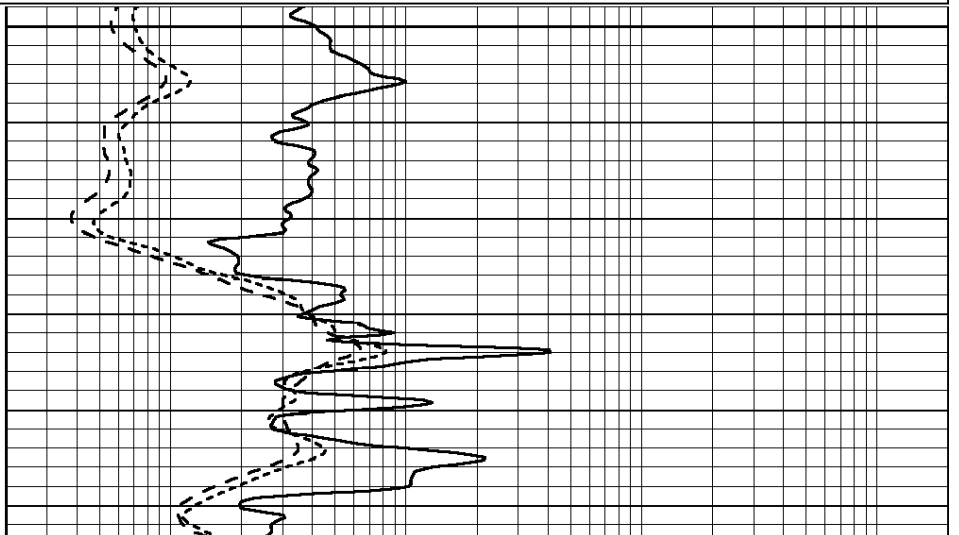
0	GAMMA RAY (GAPI)	150
-100	SP (mV)	100
-250	Rxo/Rt	50
0	MINMK	10

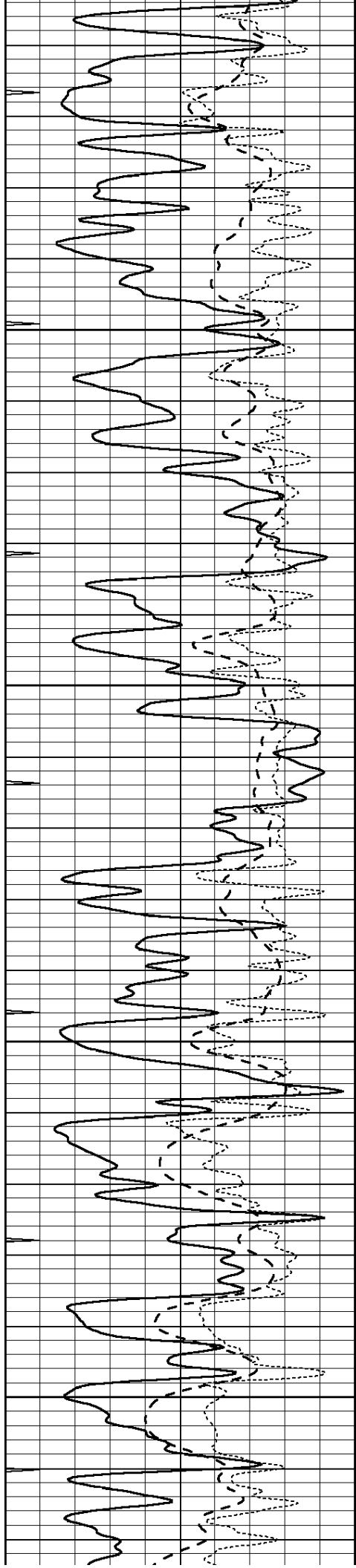
0.2	SHALLOW GUARD (Ohm-m)	2000
0.2	DEEP INDUCTION (Ohm-m)	2000
0.2	MEDIUM INDUCTION (Ohm-m)	2000



3200

3250



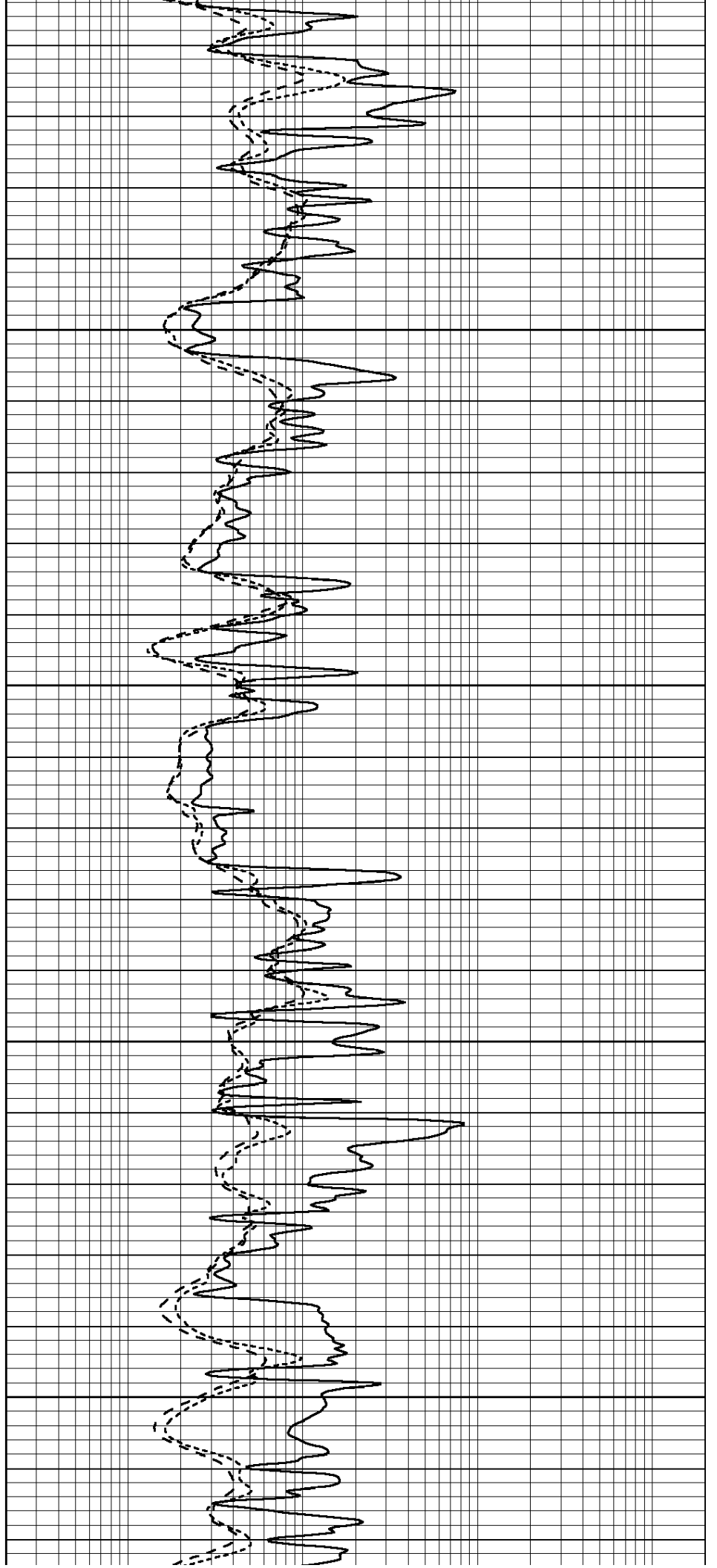


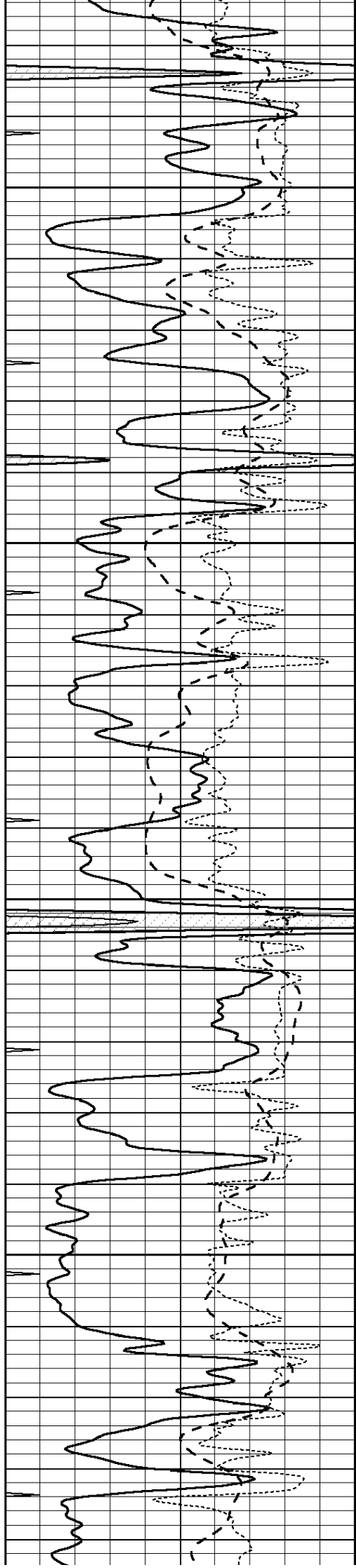
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3350

3400

3450



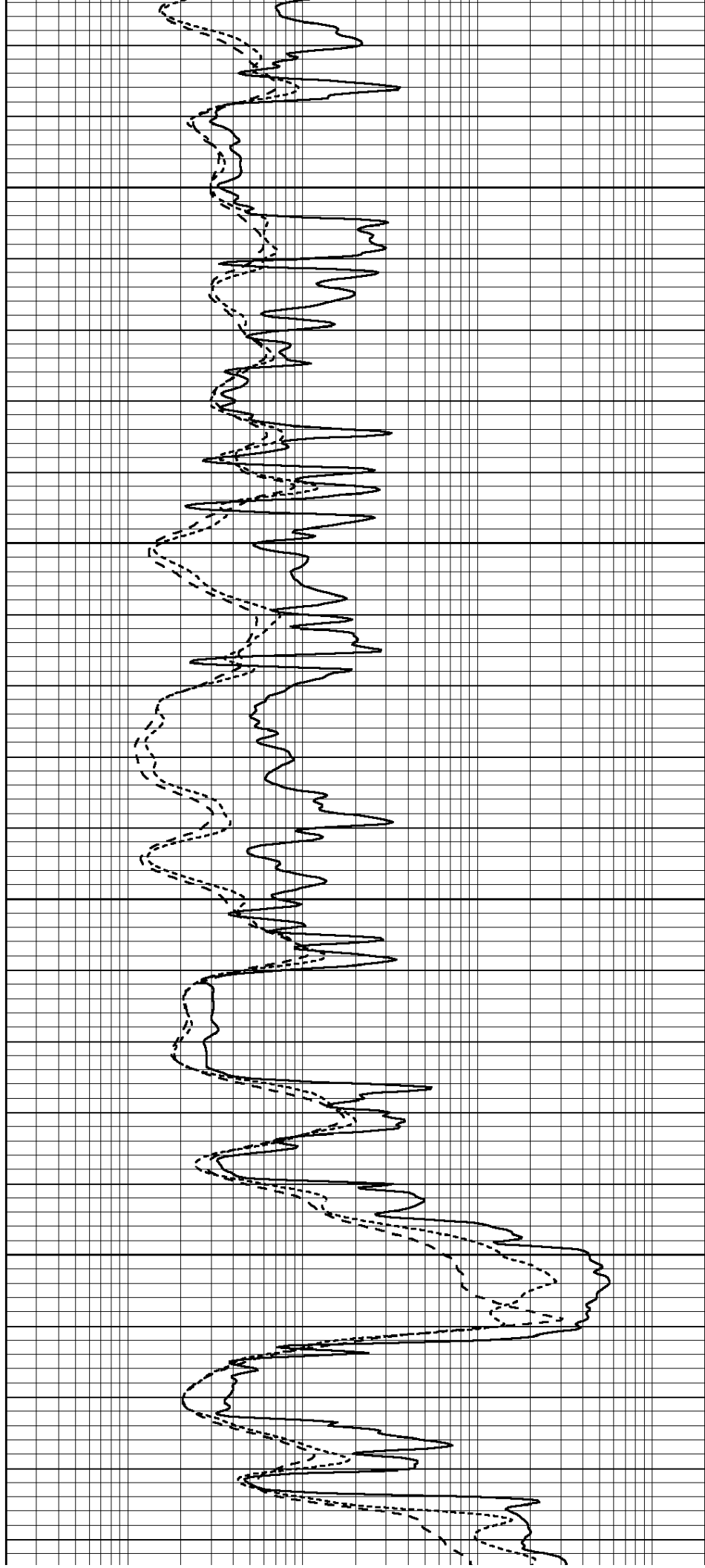


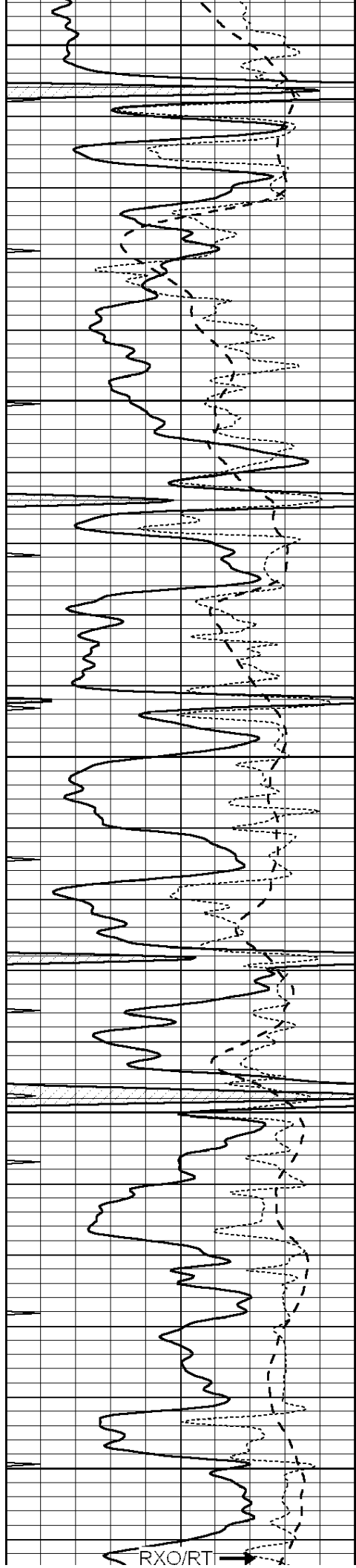
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3550

3600

3650





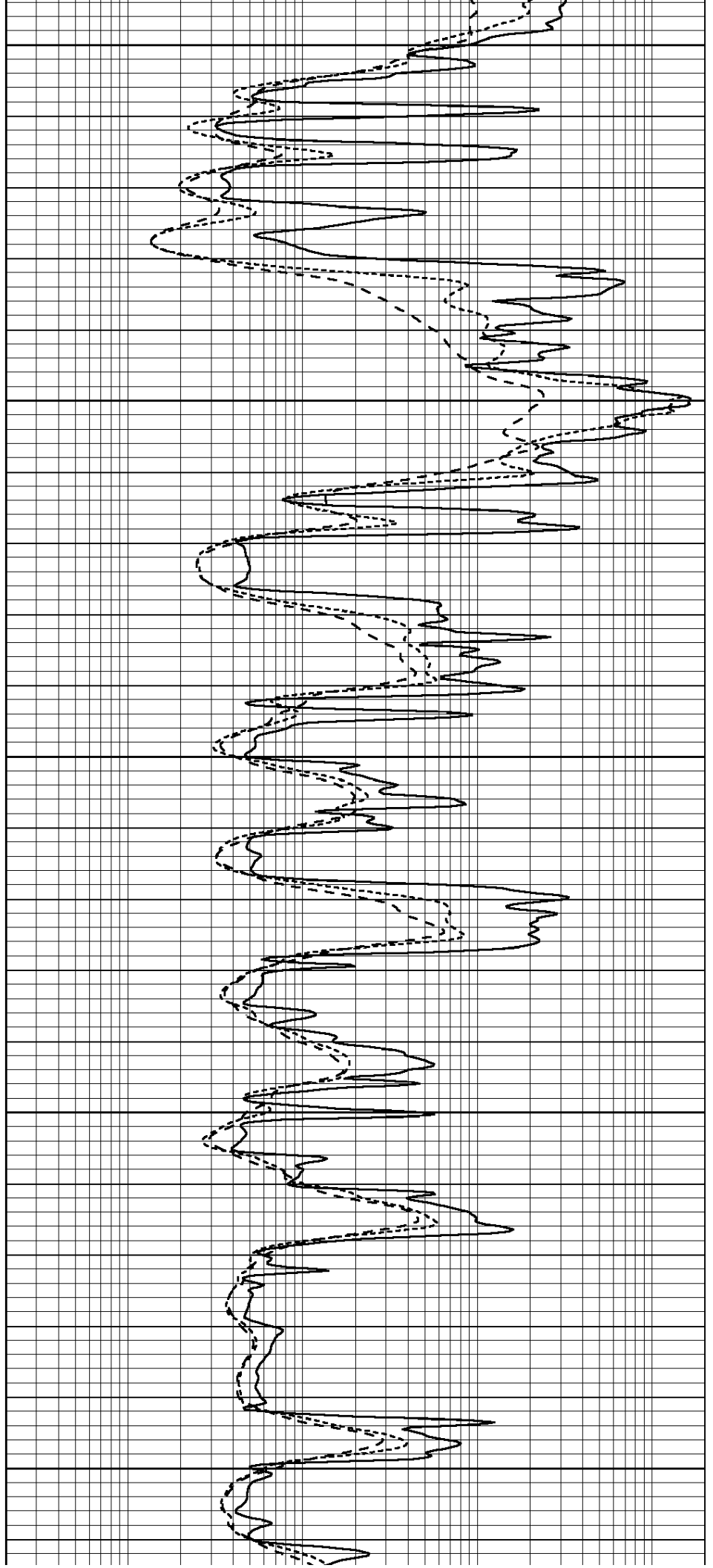
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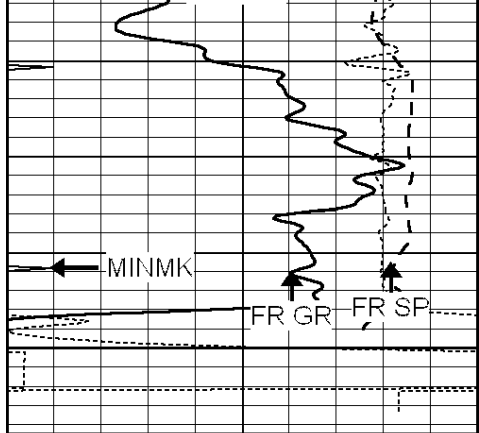
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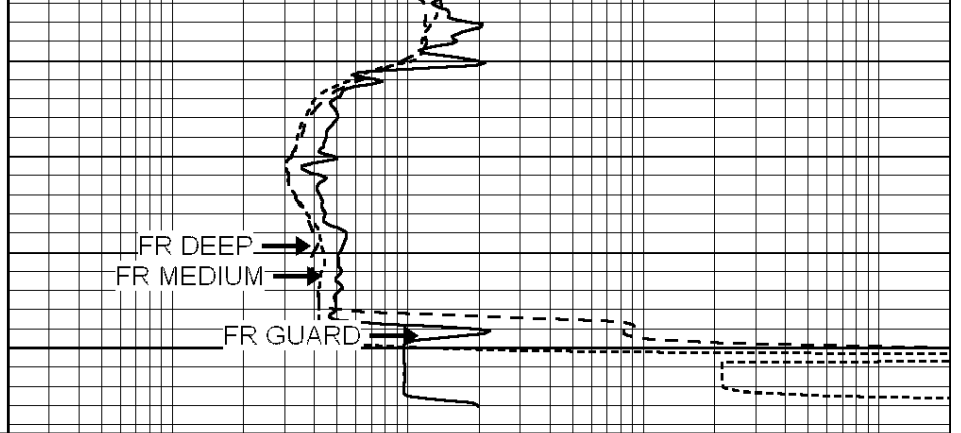
3850

3900





3950
LTD 3951



0	GAMMA RAY (GAPI)	150
-100	SP (mV)	100
-250	Rxo/Rt	50
0	MINMK	10

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



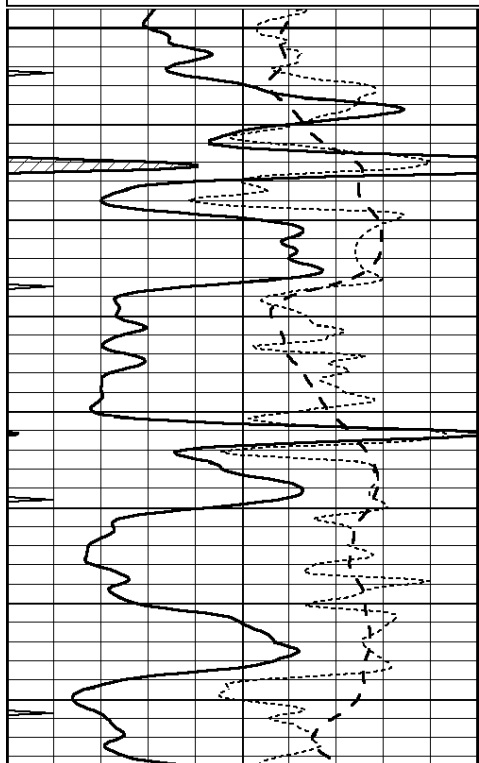
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REPEAT SECTION

Database File: 407997ddn.db
 Dataset Pathname: pass2.7
 Presentation Format: dil
 Dataset Creation: Thu Aug 09 08:00:29 2012
 Charted by: Depth in Feet scaled 1:240

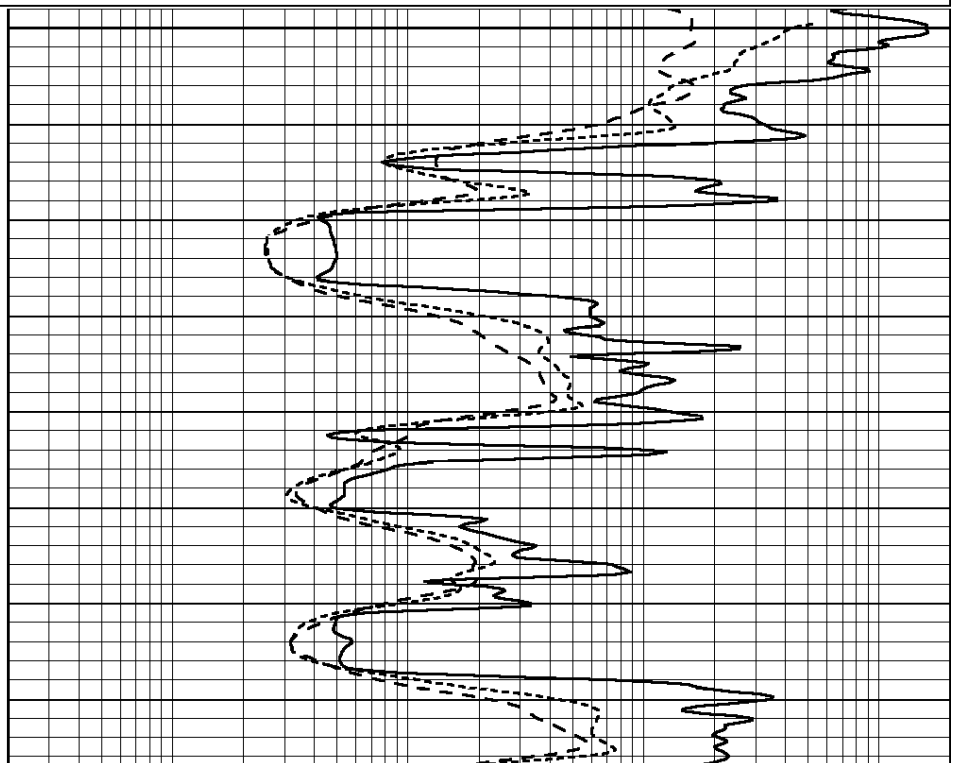
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-100	SP (mV)	100
-250	Rxo/Rt	50
0	MINMK	10

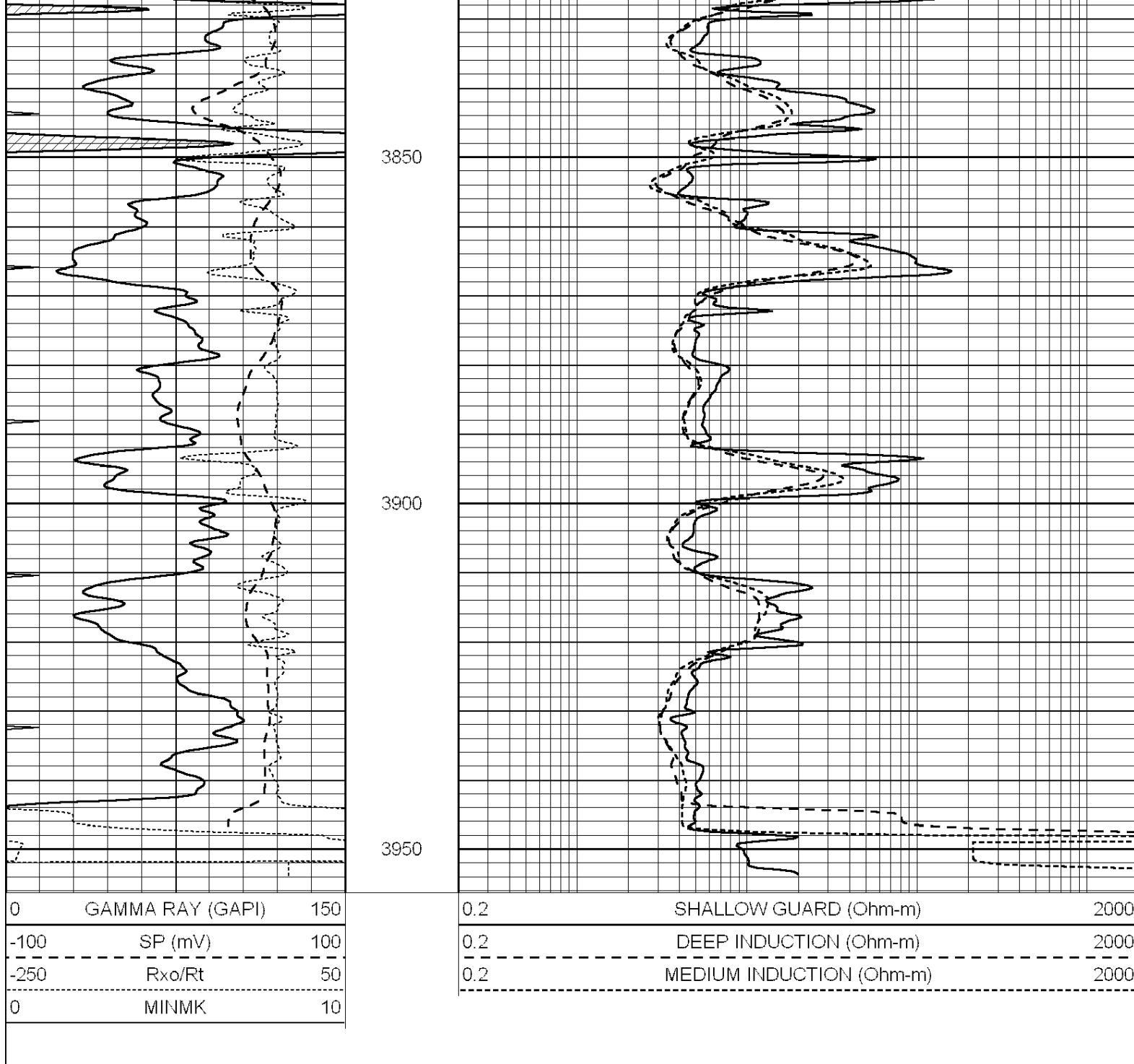
0.2	SHALLOW GUARD (Ohm-m)	2000
0.2	DEEP INDUCTION (Ohm-m)	2000
0.2	MEDIUM INDUCTION (Ohm-m)	2000



3750

3800





Calibration Report

Database File: 407997ddn.db
 Dataset Pathname: pass3.13
 Dataset Creation: Thu Aug 09 08:10:58 2012

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		Zero	Cal		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	7.590	503.393	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:	Mon Mar 19 19:07:19 2012

Master Calibration						
	Density		Far Detector	Near Detector		
Magnesium	1.710	g/cc	1015.91	497.51	cps	
Aluminum	2.600	g/cc	227.67	350.20	cps	
Spine Angle = 76.79			Density/Spine Ratio = 0.579			
	Size		Reading			
Small Ring	8.00	in	2.96	V		
Large Ring	16.00	in	5.40	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:	Thu Aug 09 04:48:28 2012
Calibrator Value:	150.0 GAPI
Background Reading:	0.0 cps

Calibrator Reading: 175.0 cps

Sensitivity: 6.0000 GAPI/cps