



NABORS

**COMPLETION
& PRODUCTION
SERVICES CO.**

DUAL INDUCTION LOG

Company		PFEIFER EXPLORATIONS, LLC.	
Well	GROSS #1		
Field	WILDCAT		
County	ELLIS	State	KANSAS
Location:	API # : 15-051-26419-0000 2060' FSL & 855' FEL SE - NW - NE - SE		Other Services CDL/CNL MEL
Permanent Datum	GROUND LEVEL	Elevation	2125
Log Measured From	KELLY BUSHING 9' A.G.L.		
Drilling Measured From	KELLY BUSHING		
Date	11/12/12		
Run Number	ONE		
Depth Driller	3820		
Depth Logger	3822		
Bottom Logged Interval	3820		
Top Log Interval	00		
Casing Driller	8 5/8"@230'		
Casing Logger	220		
Bit Size	7 7/8"		
Type Fluid in Hole	CHEMICAL MUD	CHLORIDES 9,000 PPM	
Density / Viscosity	9.1/52		
pH / Fluid Loss	10.5/8.0		
Source of Sample	FLOWLINE		
Rim @ Meas. Temp	.500@85F		
Rmf @ Meas. Temp	.375@85F		
Rmc @ Meas. Temp	.600@85F		
Source of Rmf / Rmc	MEASUREMENT		
Rim @ BHT	.373@114F		
Time Circulation Stopped	2.5 HOURS		
Time Logger on Bottom	12:00 P.M.		
Maximum Recorded Temperature	114F		
Equipment Number	4854		
Location	HAYS, KANSAS		
Recorded By	JEFF LUEBBERS		
Witnessed By	DUANE STECKLEIN	JAY PFEIFER	

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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 "NABORS" HAYS, KANSAS (785) 628-6395
 DIRECTIONS
 HAYS, KS., W. ON GOLF COURSE RD. TO "RD. 170", 3 1/2S., W. INTO

Database File:

010011ddn.db

Dataset Pathname:

pass3.7

Presentation Format:

dil2

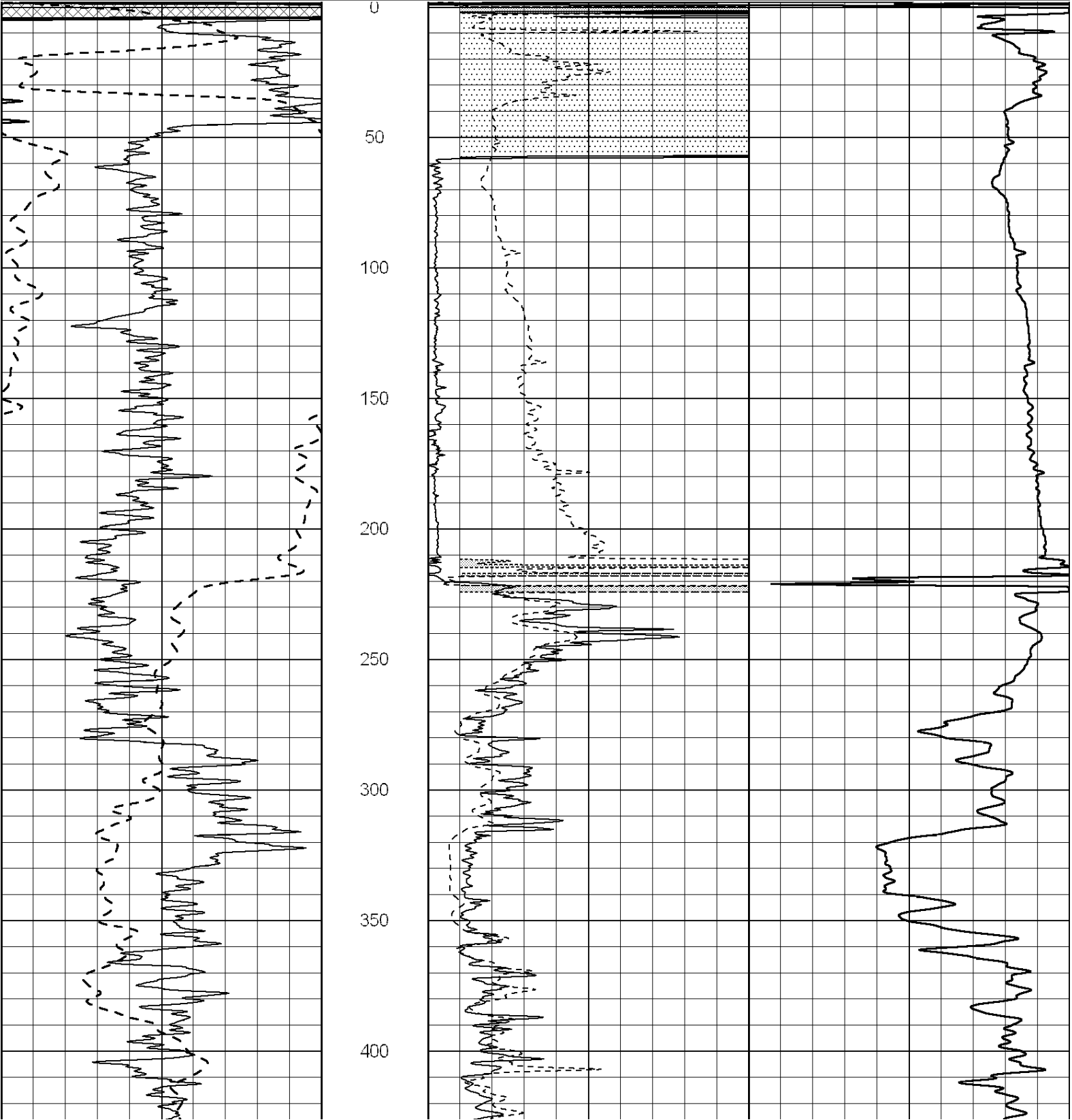
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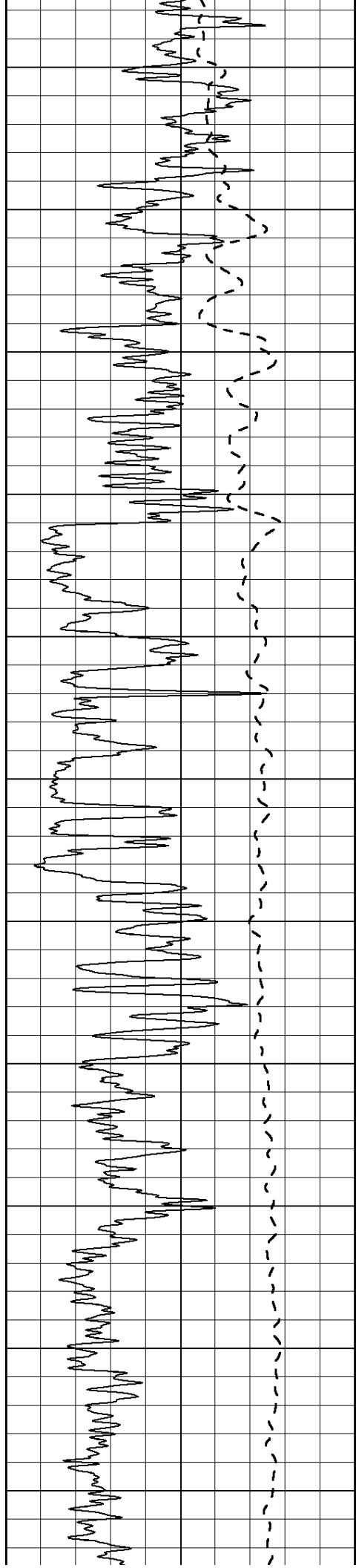
Mon Nov 12 13:16:49 2012

Charted by:

Depth in Feet scaled 1:600

0	Gamma Ray (GAPI)	150	0	RLL3 (Ohm-m)	50	
-100	SP (mV)	100	0	RILD (Ohm-m)	50	
-----			1000			CILD (mmho/m)
			50	RILD X10 (Ohm-m)	500	
			50	RLL3 X10 (Ohm-m)	500	





450

500

550

600

650

700

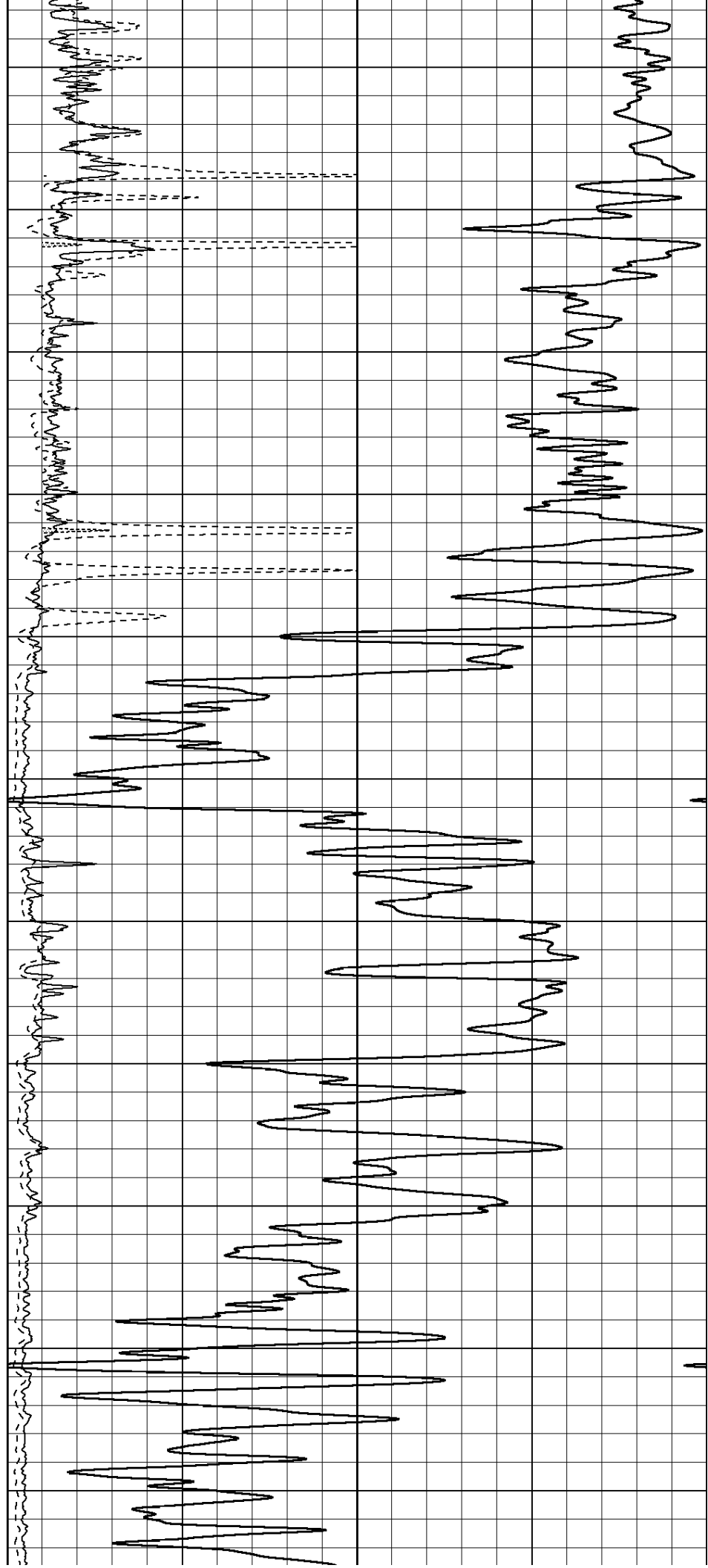
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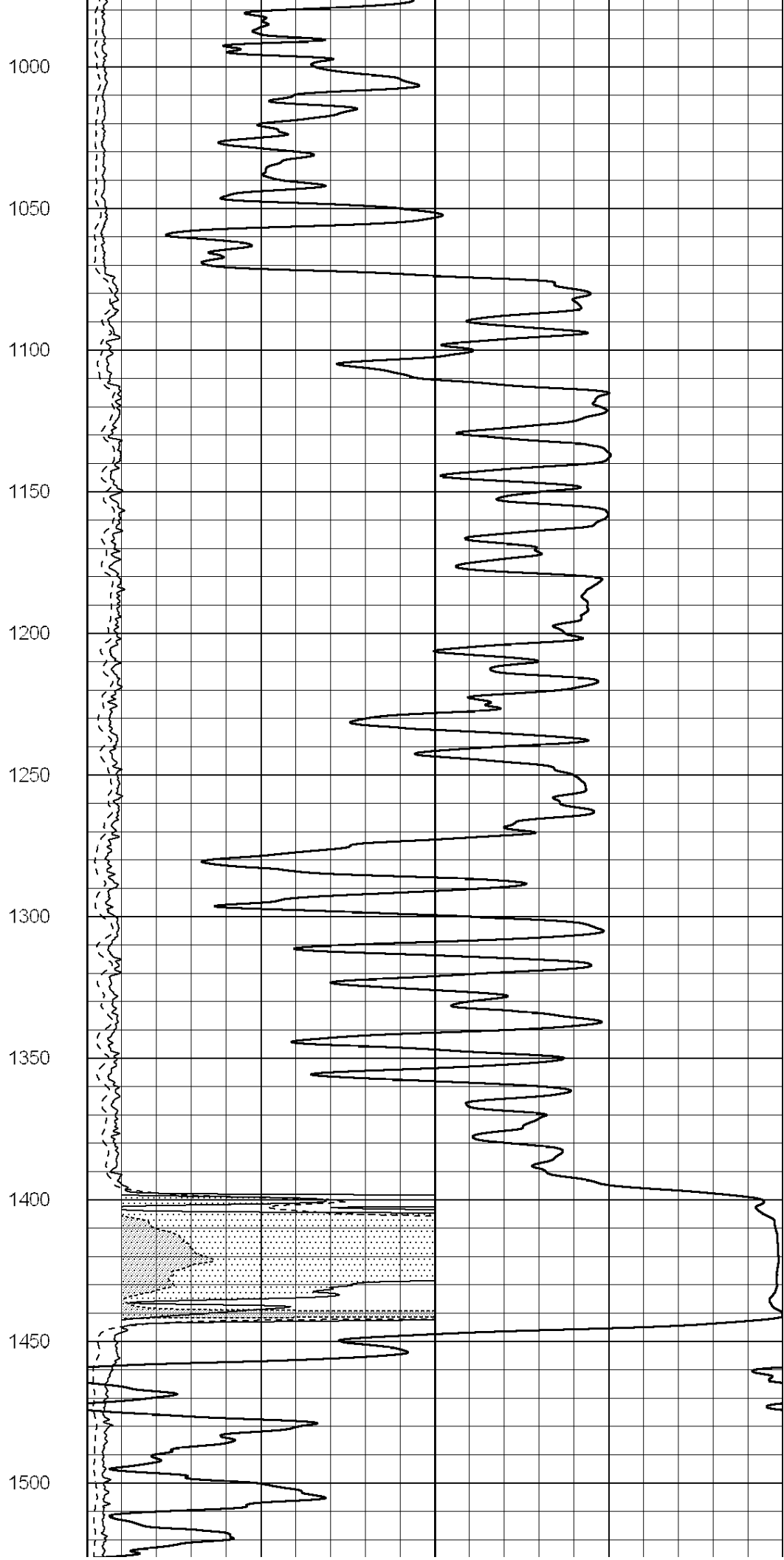
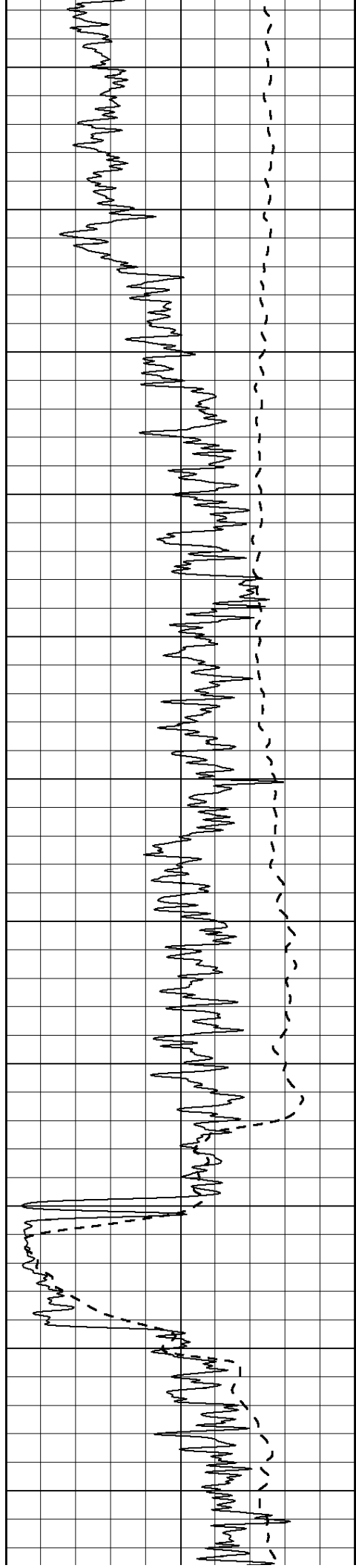
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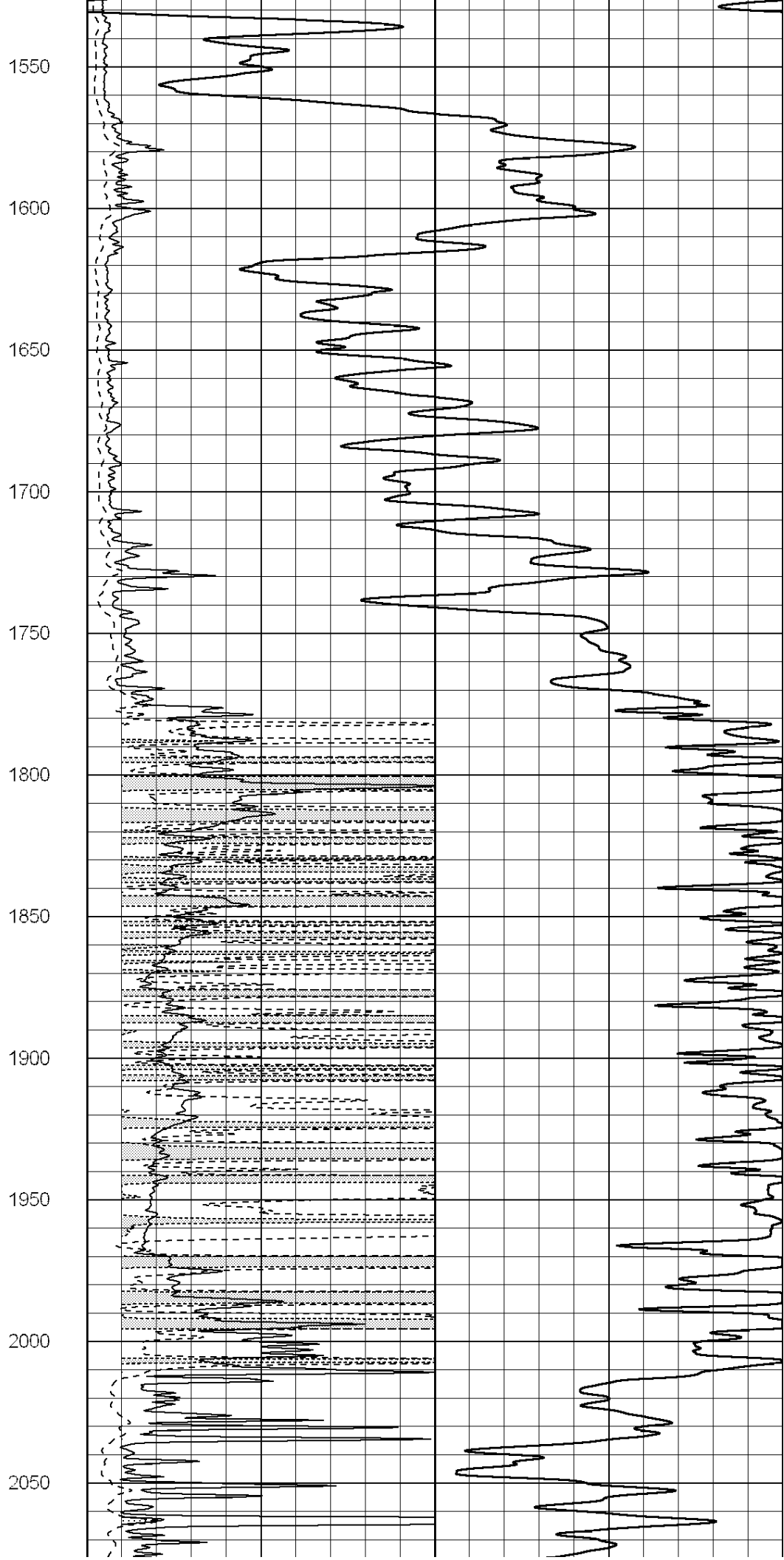
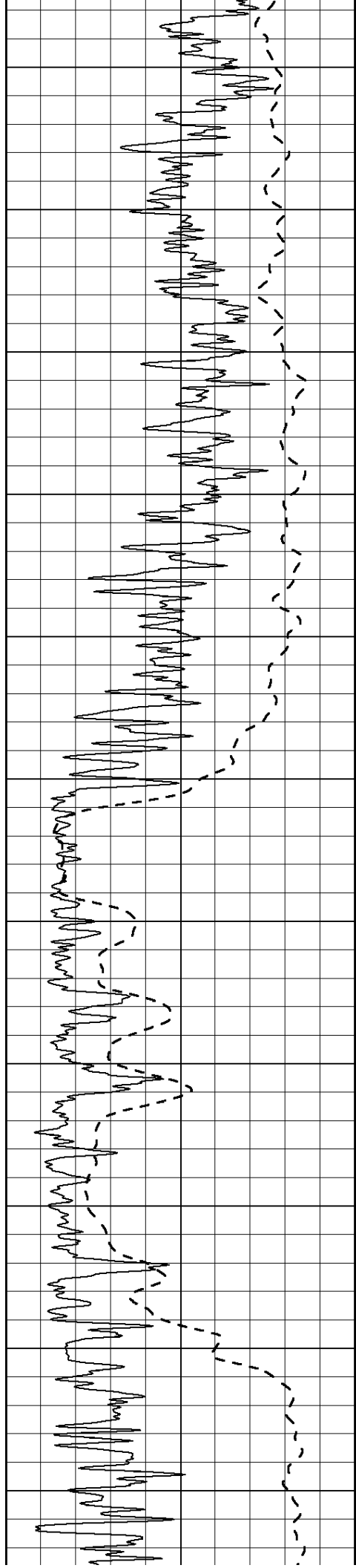
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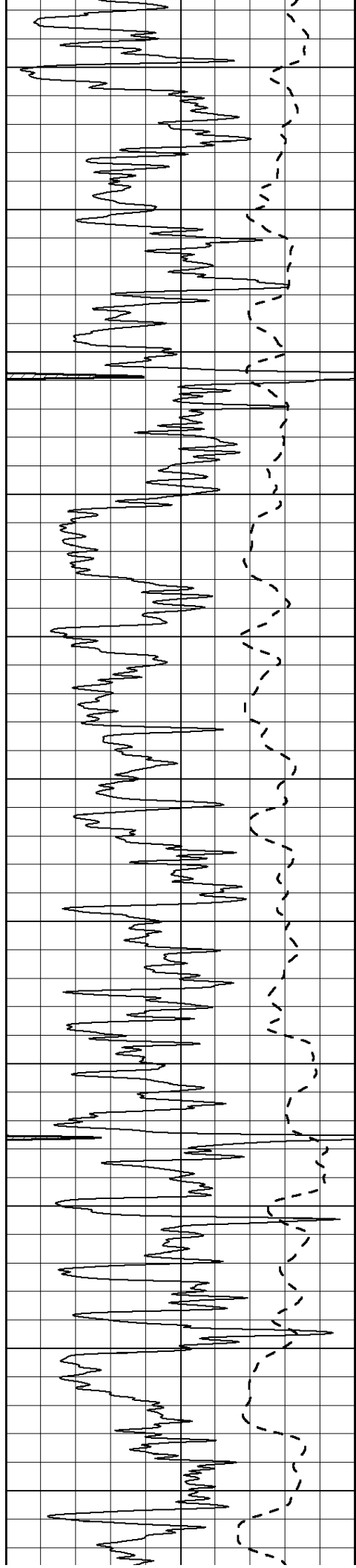
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950









2100

2150

2200

2250

2300

2350

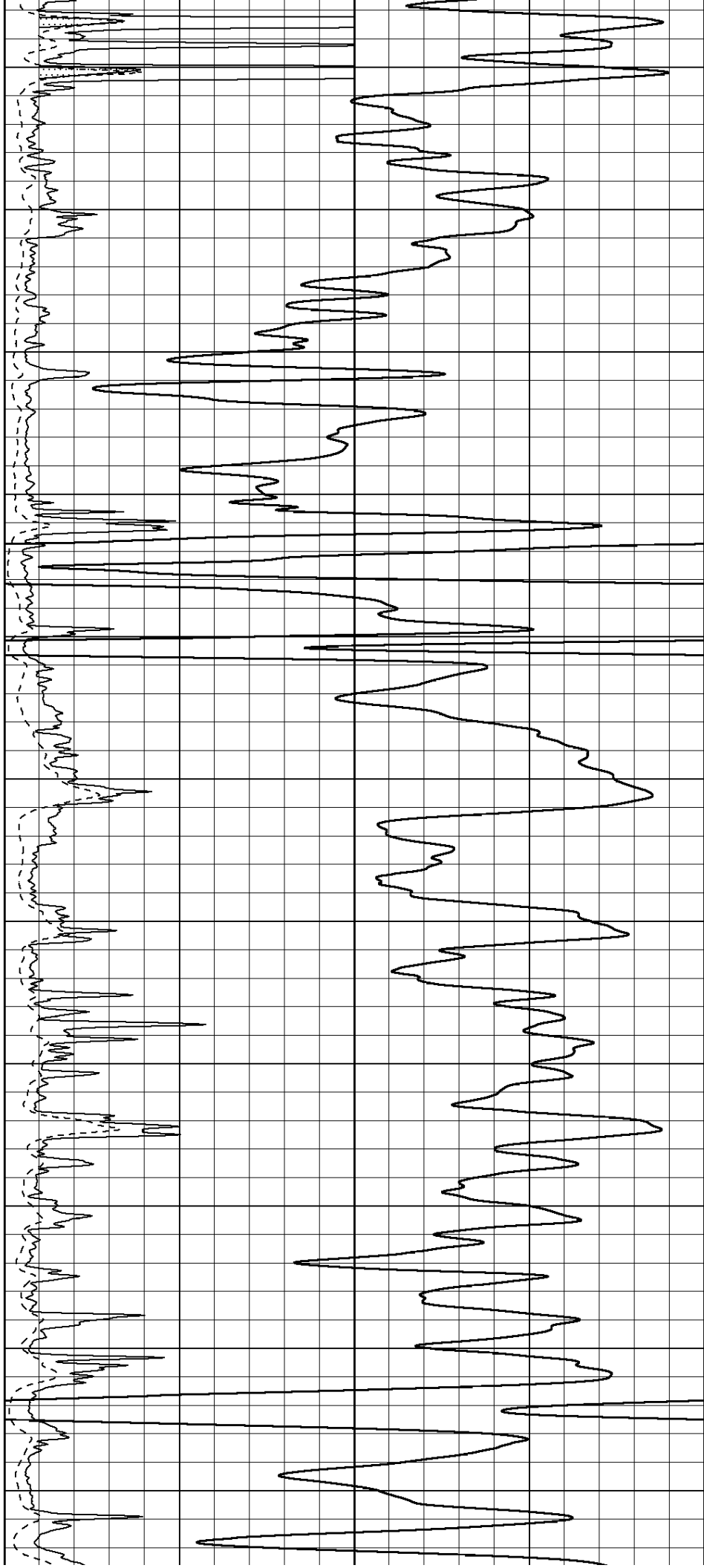
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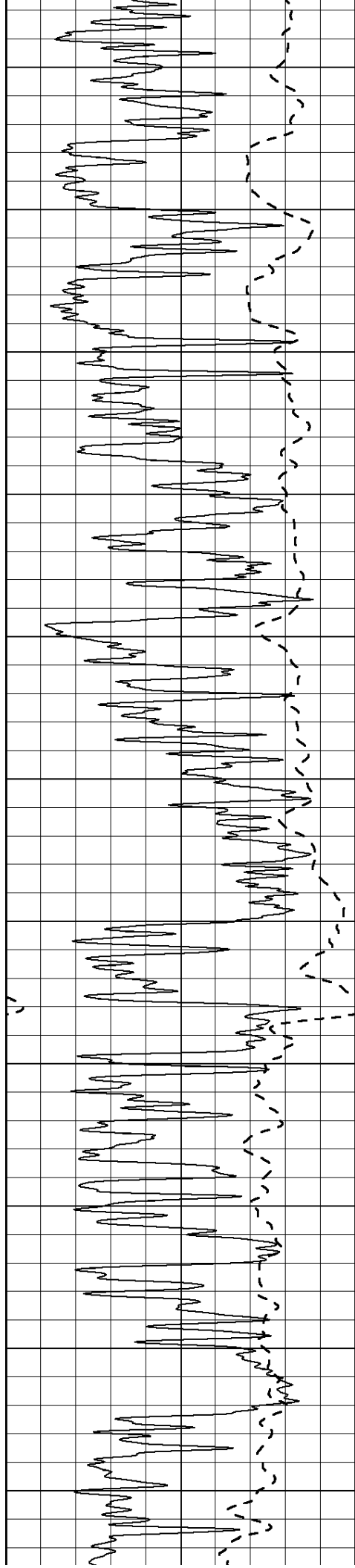
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2500

2550

2600





2650

2700

2750

2800

2850

2900

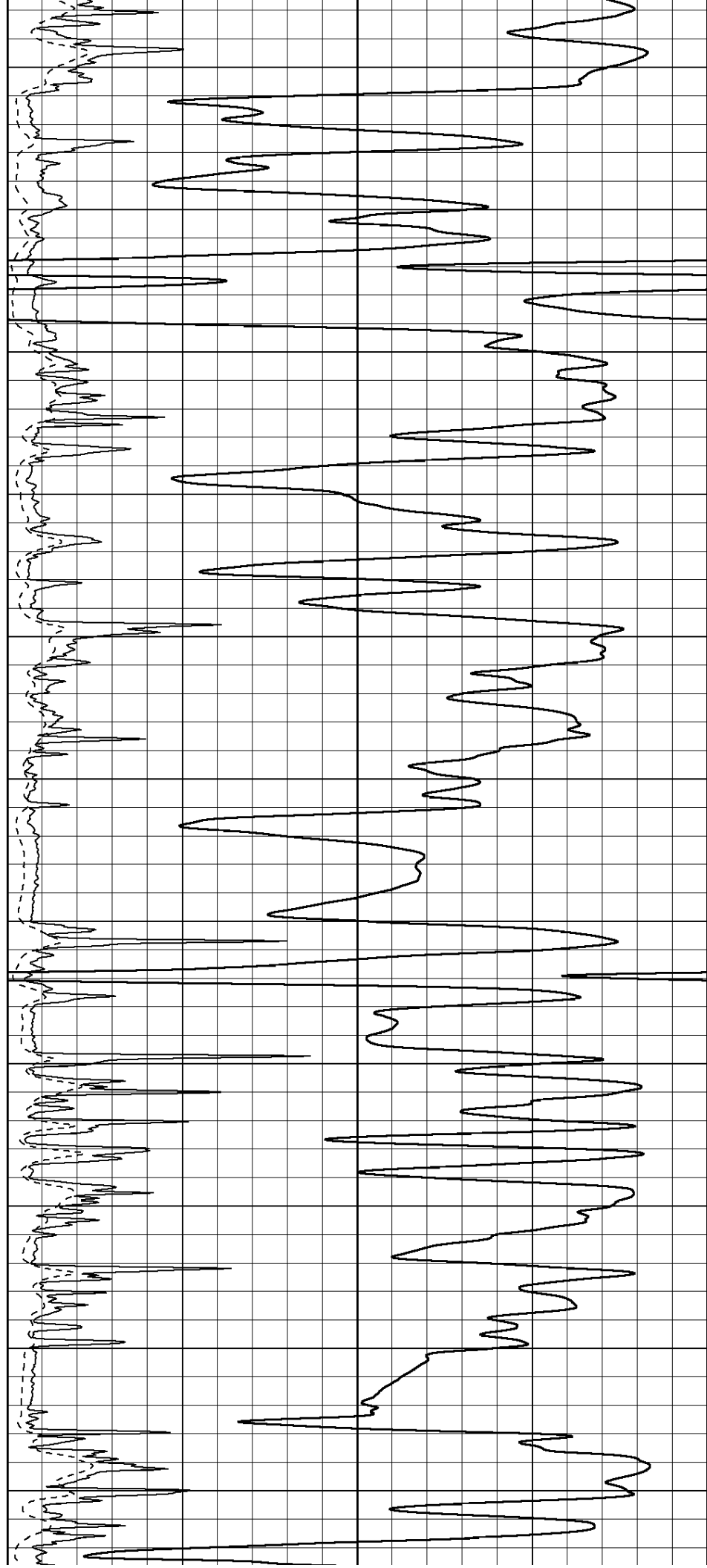
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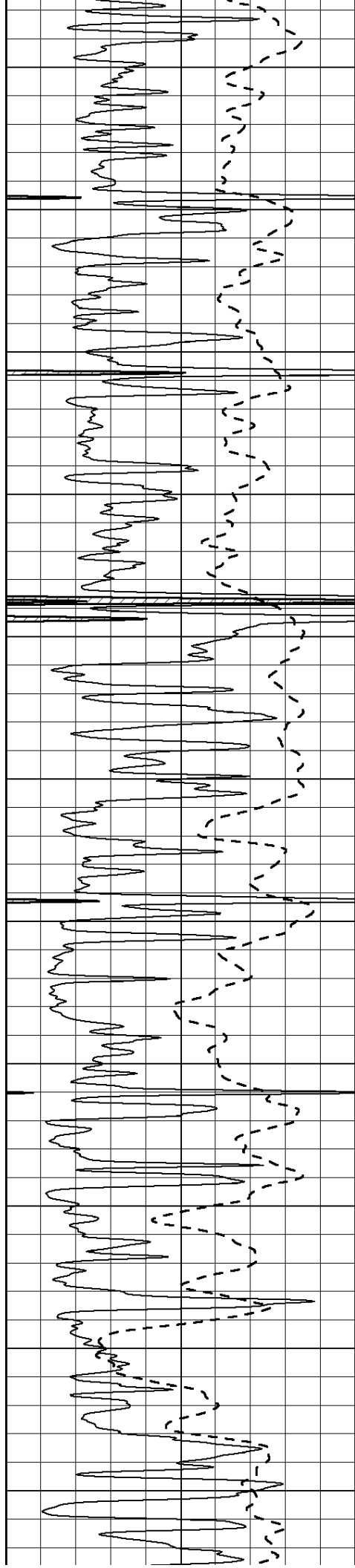
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3050

3100

3150





3200

3250

3300

3350

3400

3450

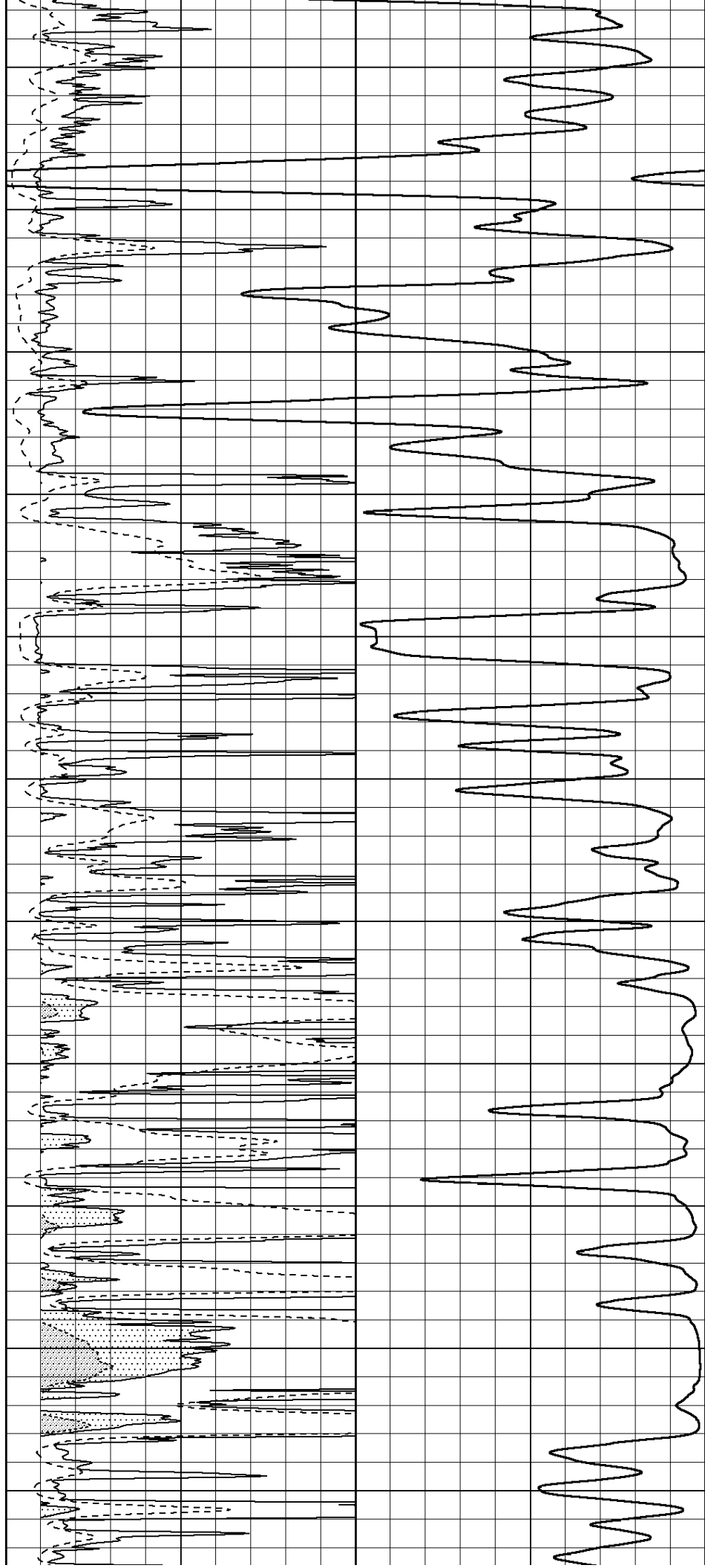
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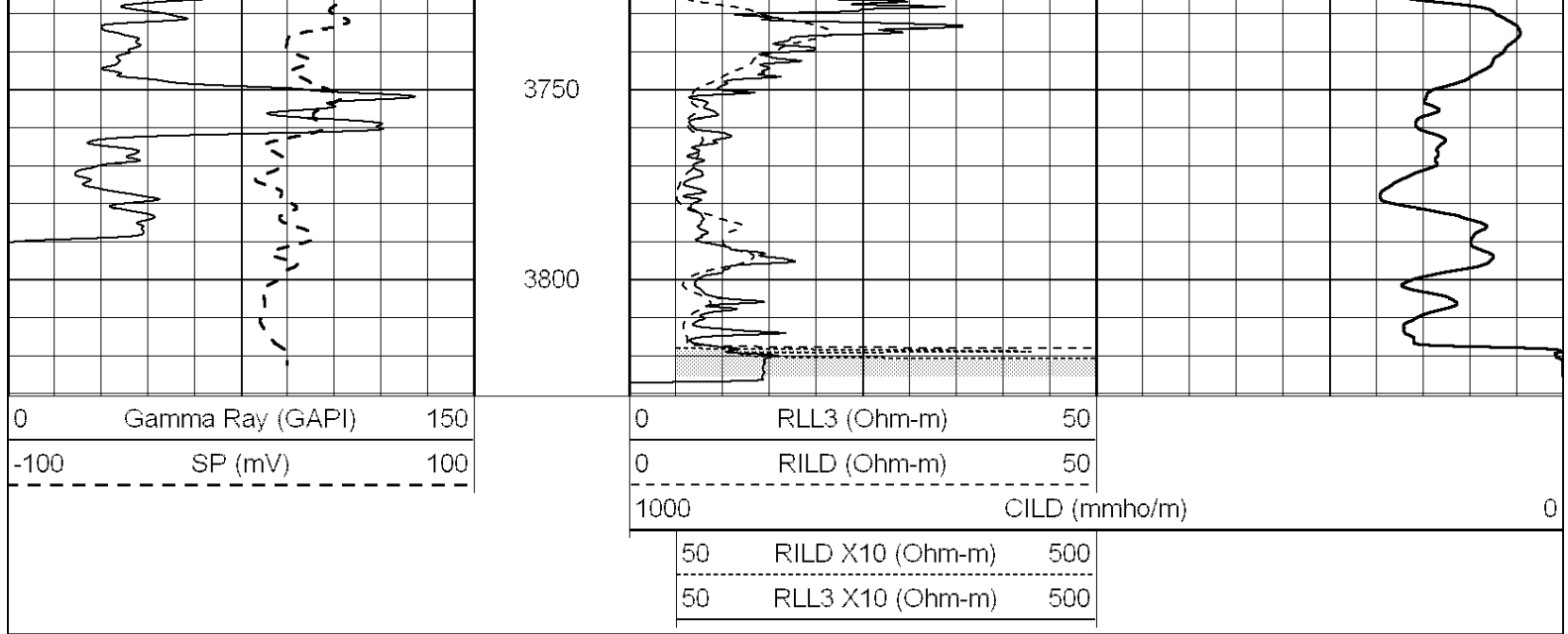
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3600

3650

3700





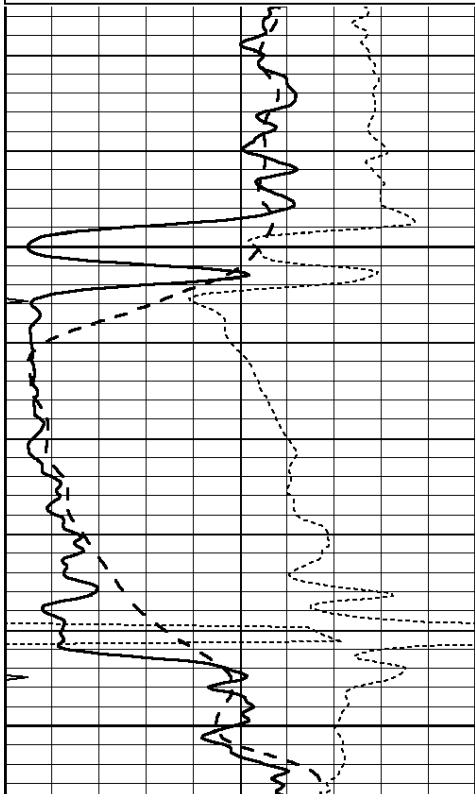
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ANHYDRITE

Database File: 010011ddn.db
Dataset Pathname: pass3.8
Presentation Format: dil
Dataset Creation: Mon Nov 12 13:17:08 2012
Charted by: Depth in Feet scaled 1:240

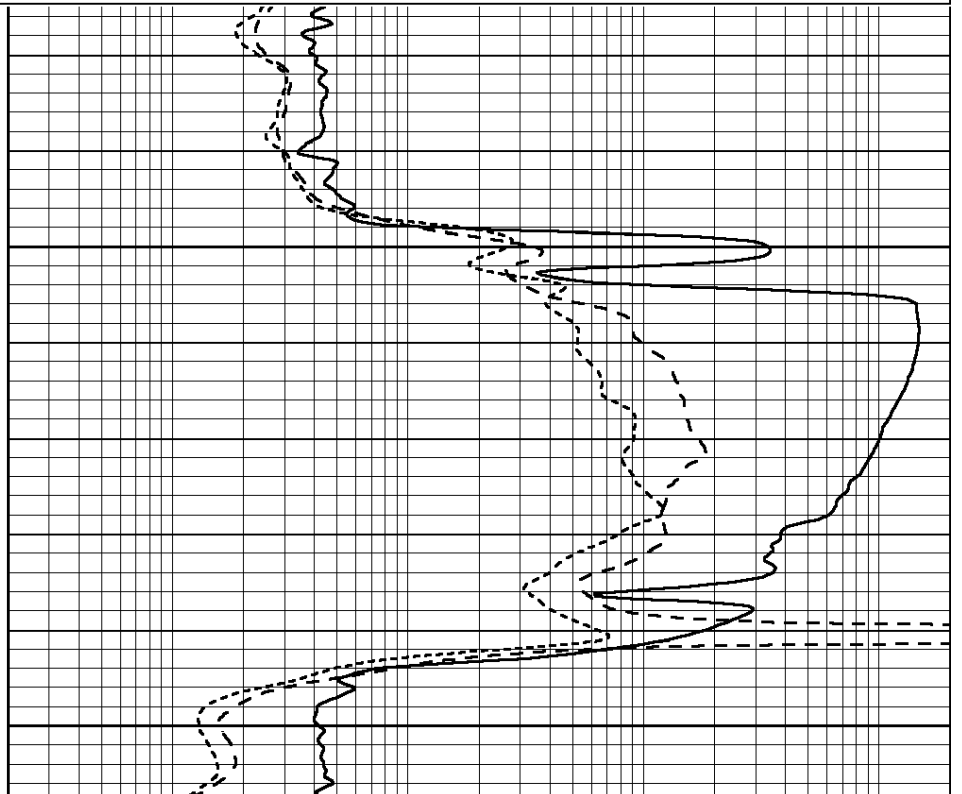
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-100	SP (mV)	100
-250	Rxo/Rt	50
0	MINMK	20

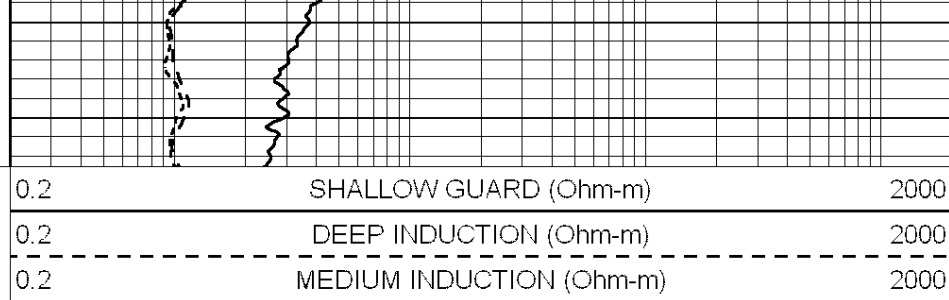
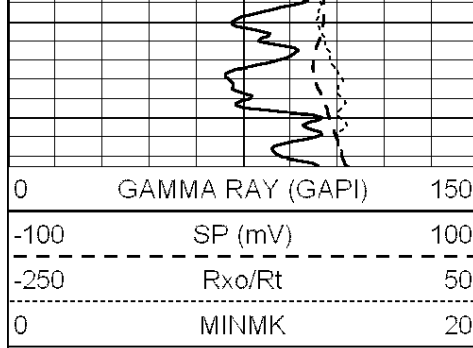
0.2	SHALLOW GUARD (Ohm-m)	2000
0.2	DEEP INDUCTION (Ohm-m)	2000
0.2	MEDIUM INDUCTION (Ohm-m)	2000



1400

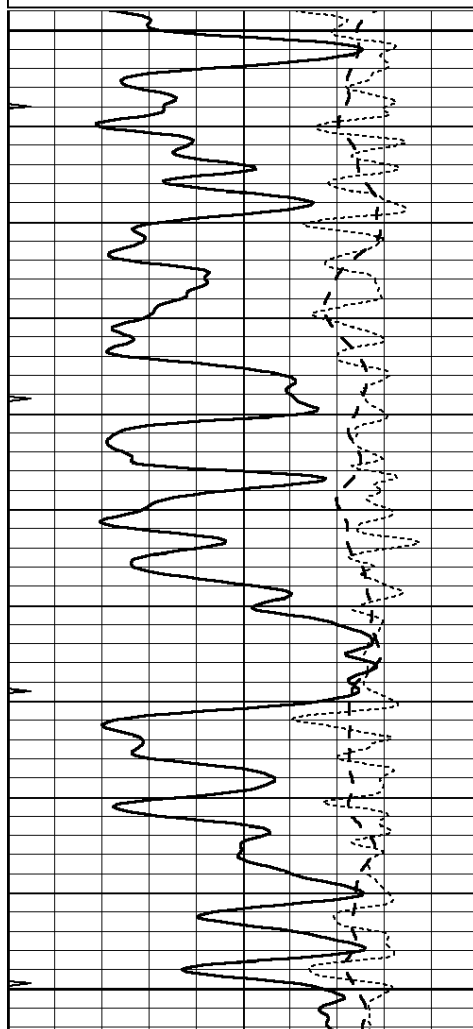
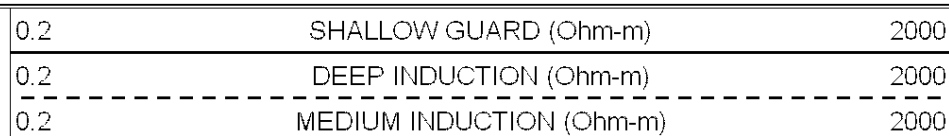
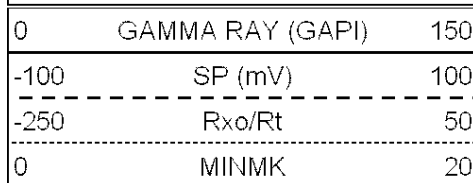
1450





MAIN SECTION

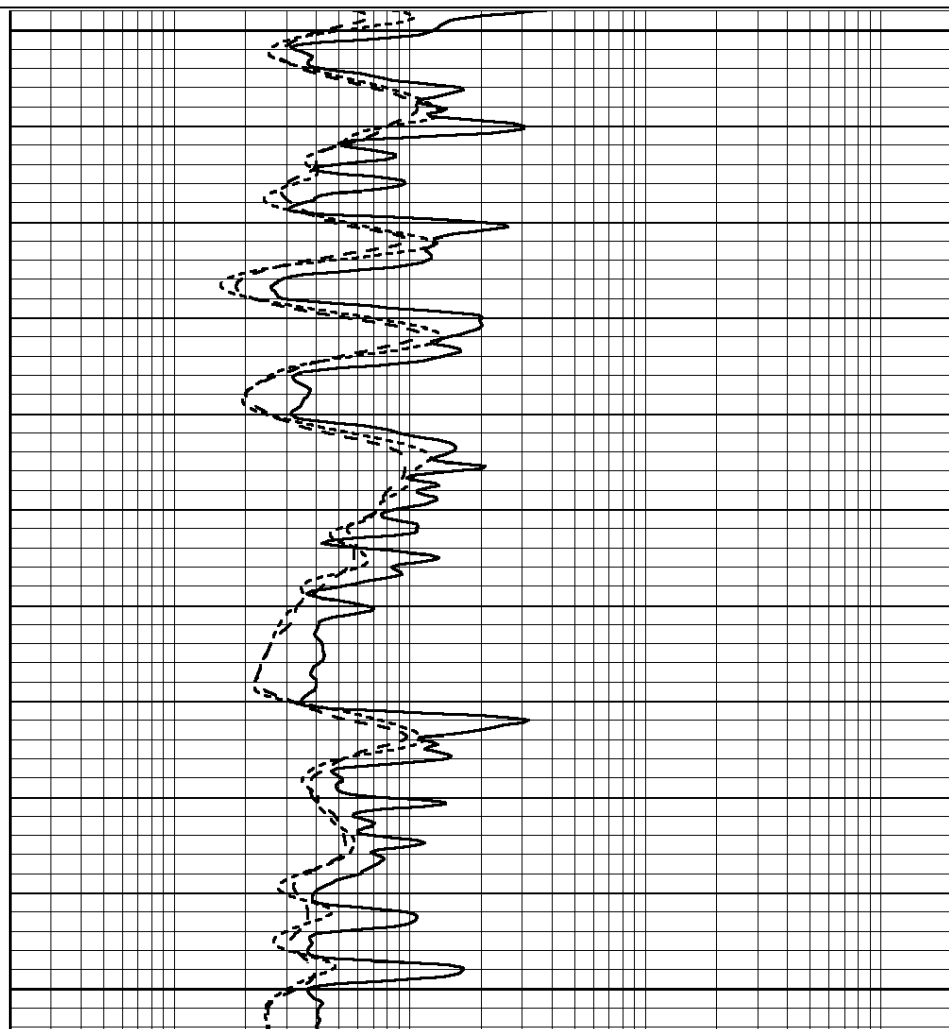
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 Dataset Pathname: pass3.7
 Presentation Format: dil
 Dataset Creation: Mon Nov 12 13:16:49 2012
 Charted by: Depth in Feet scaled 1:240

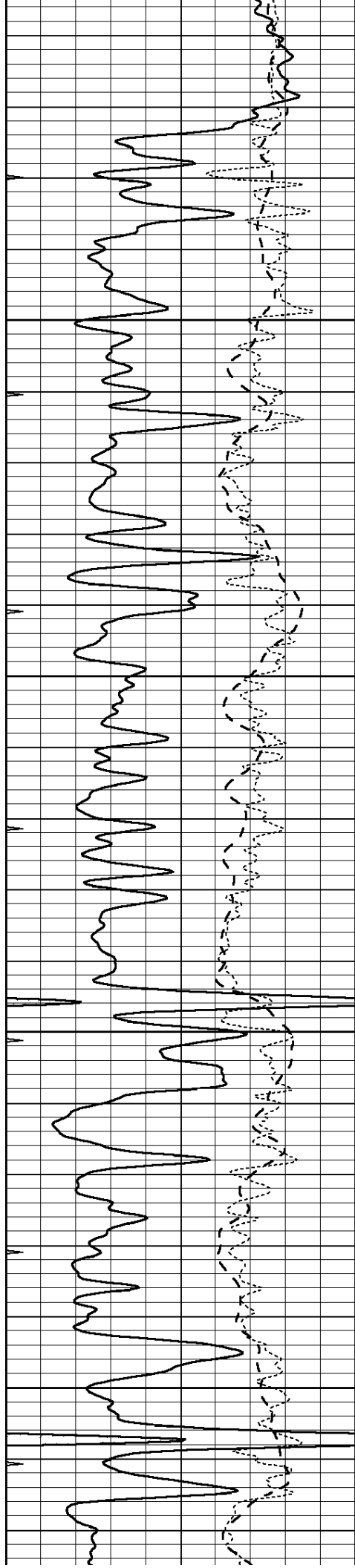


3000

3050

3100



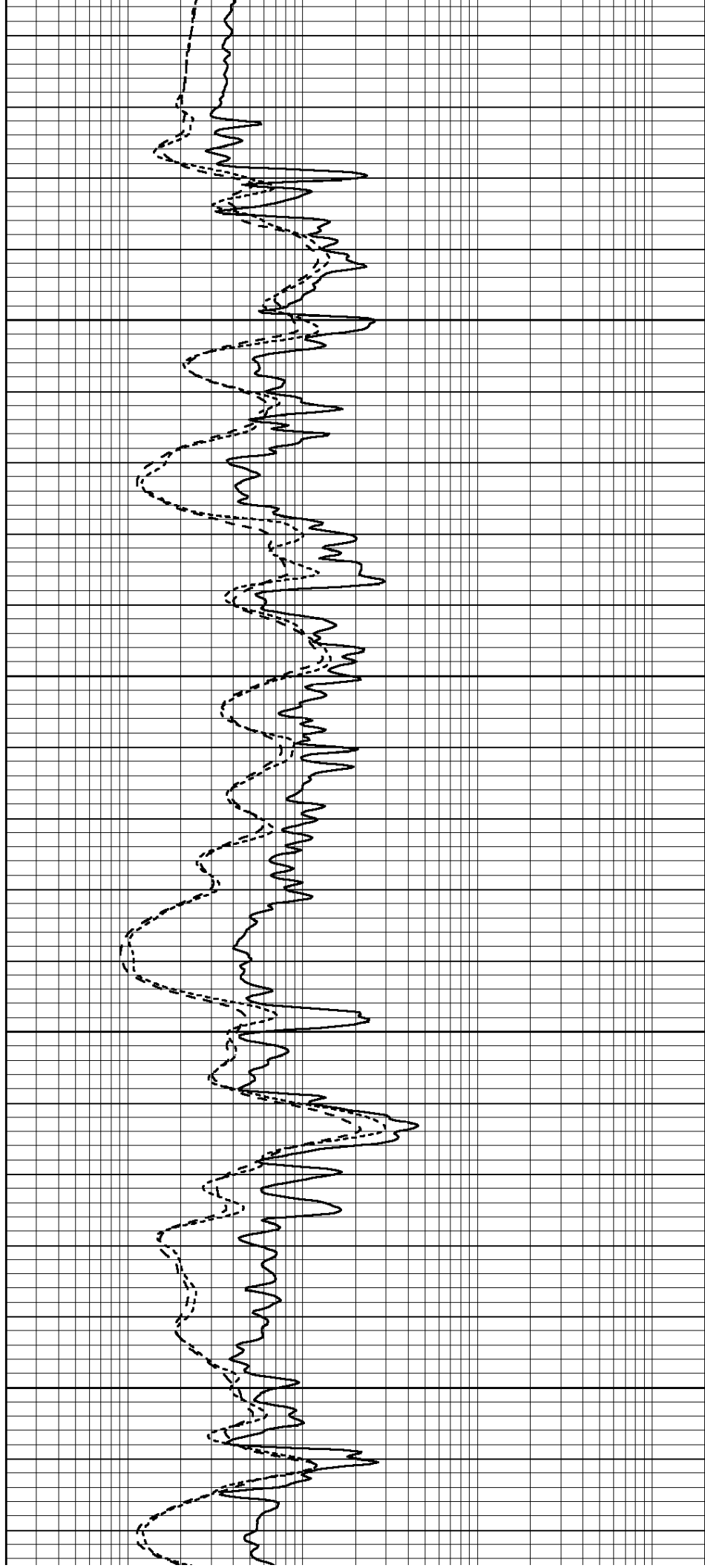


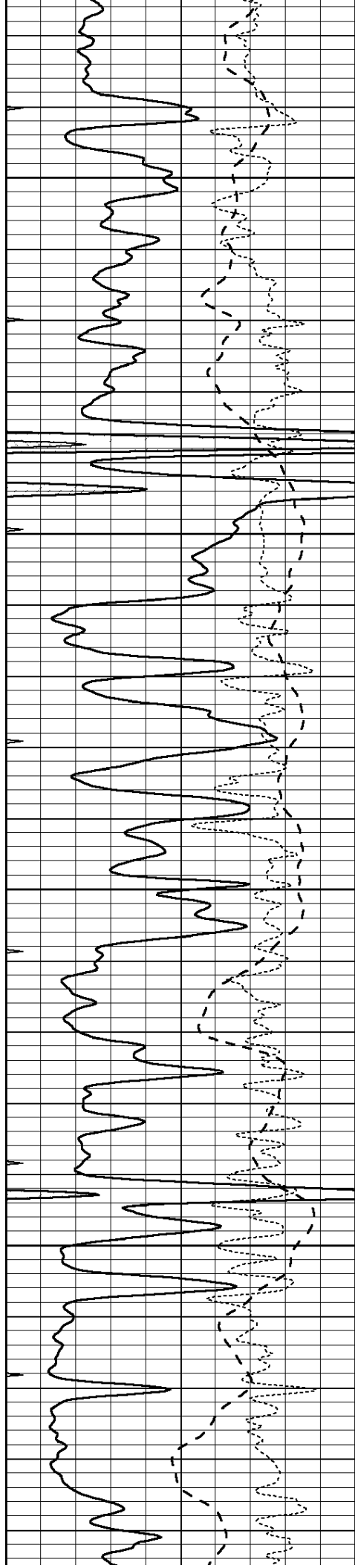
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3200

3250

3300



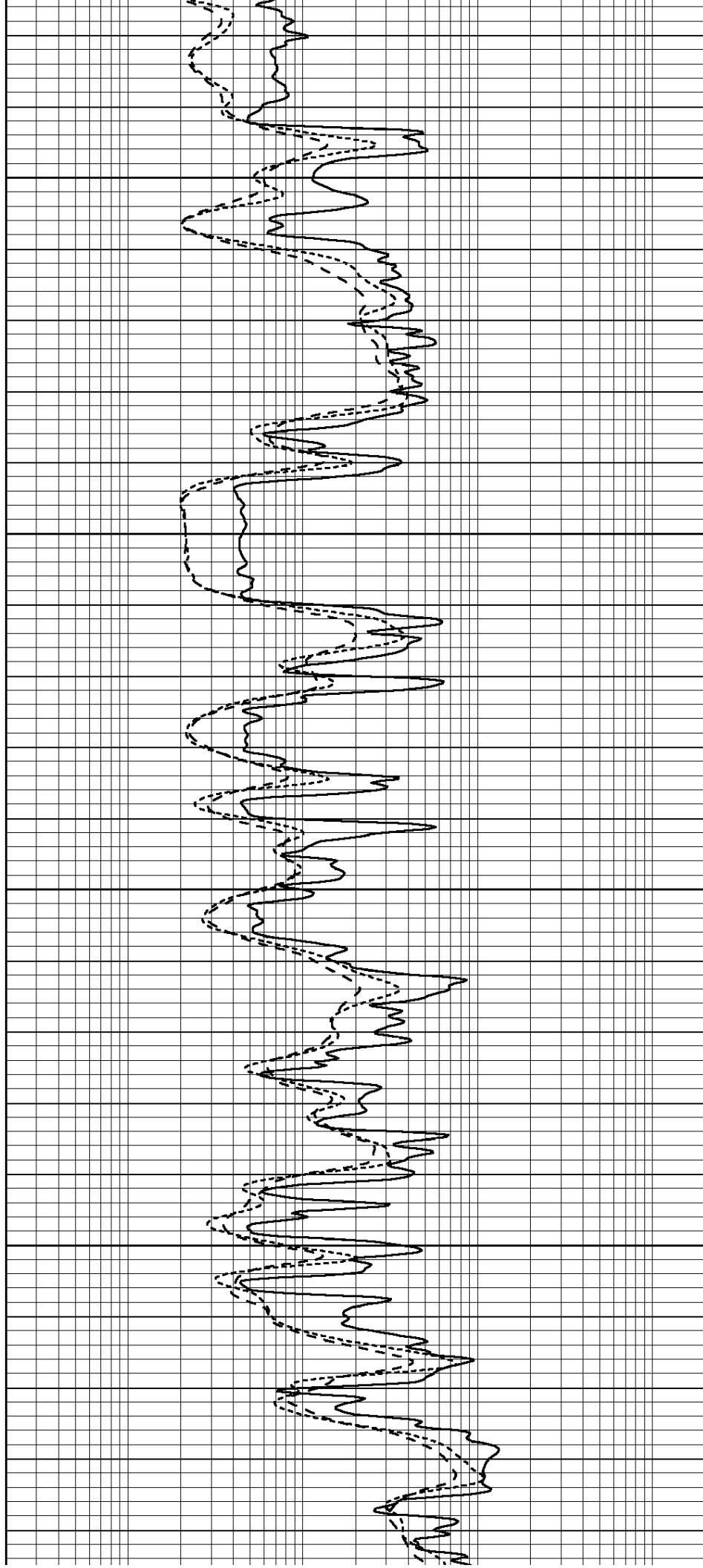


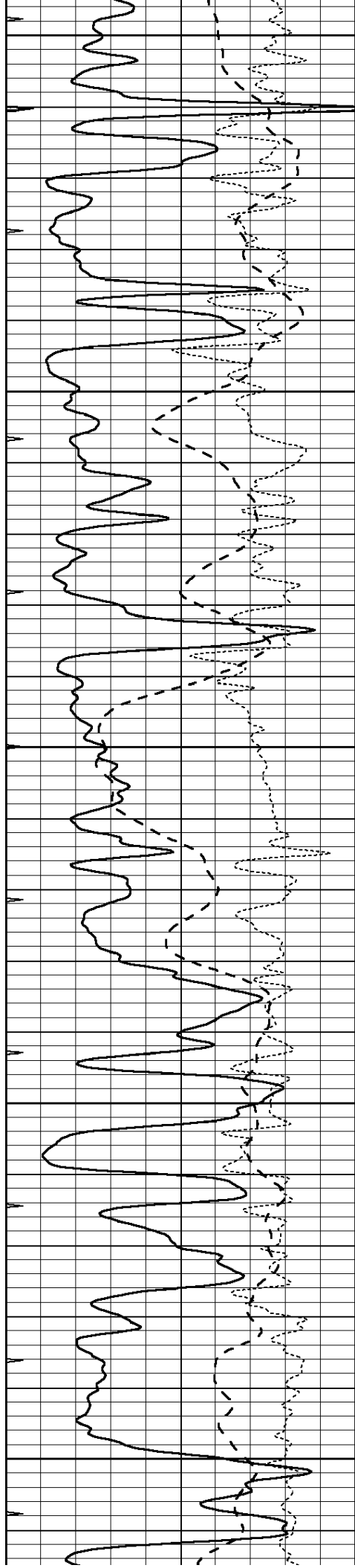
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3400

3450

3500





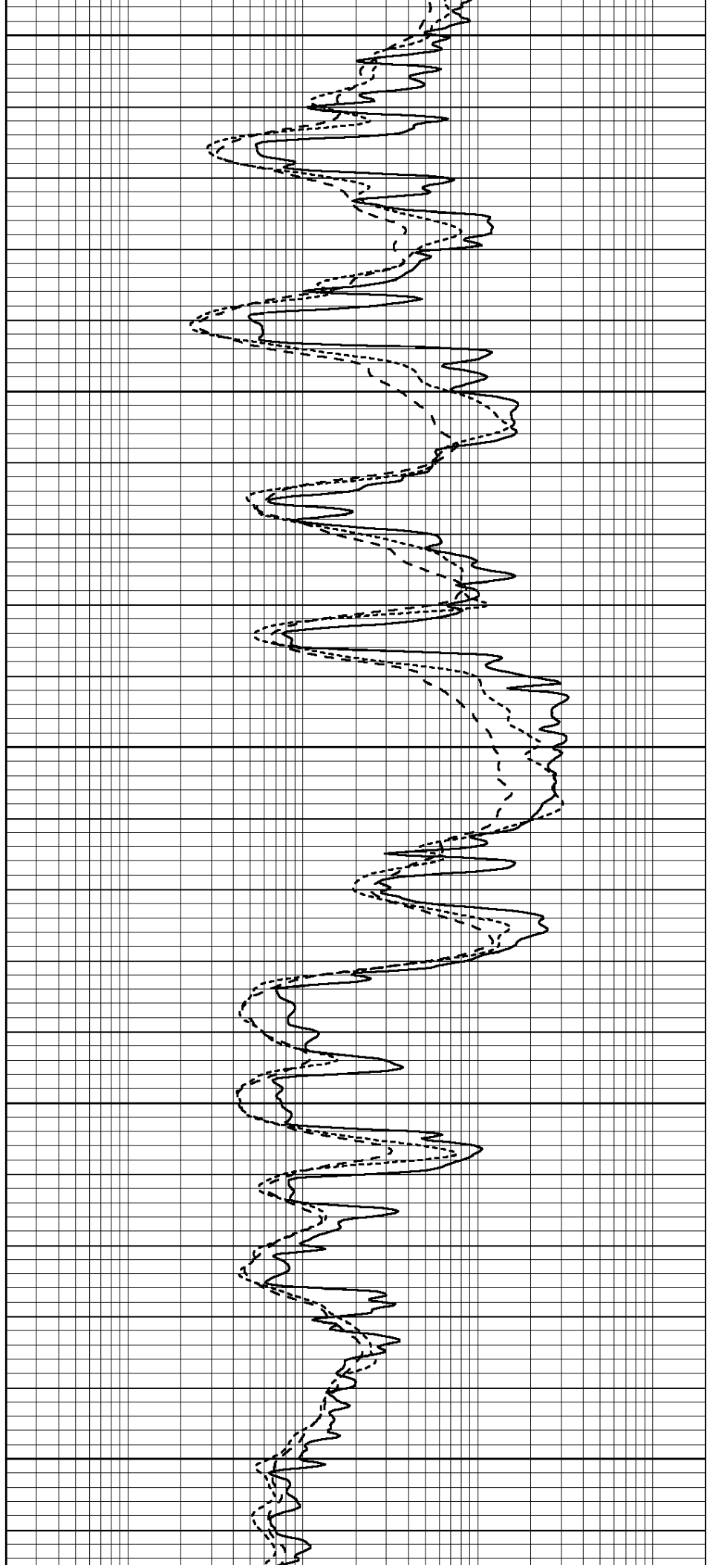
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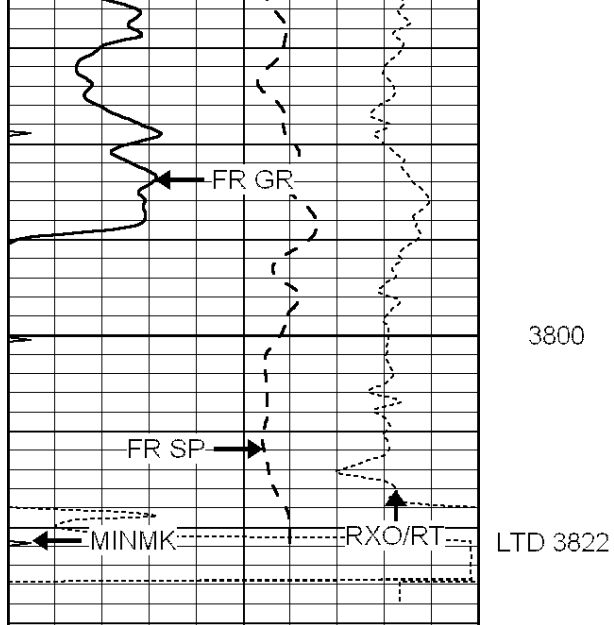
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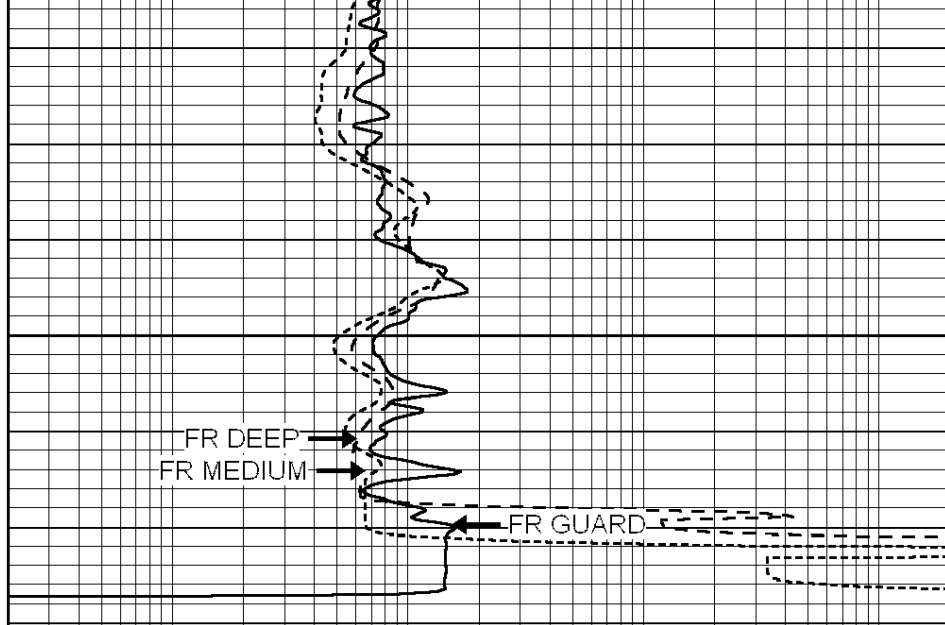
3700

3750





0	GAMMA RAY (GAPI)	150
-100	SP (mV)	100
-250	Rxo/Rt	50
0	MINMK	20



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

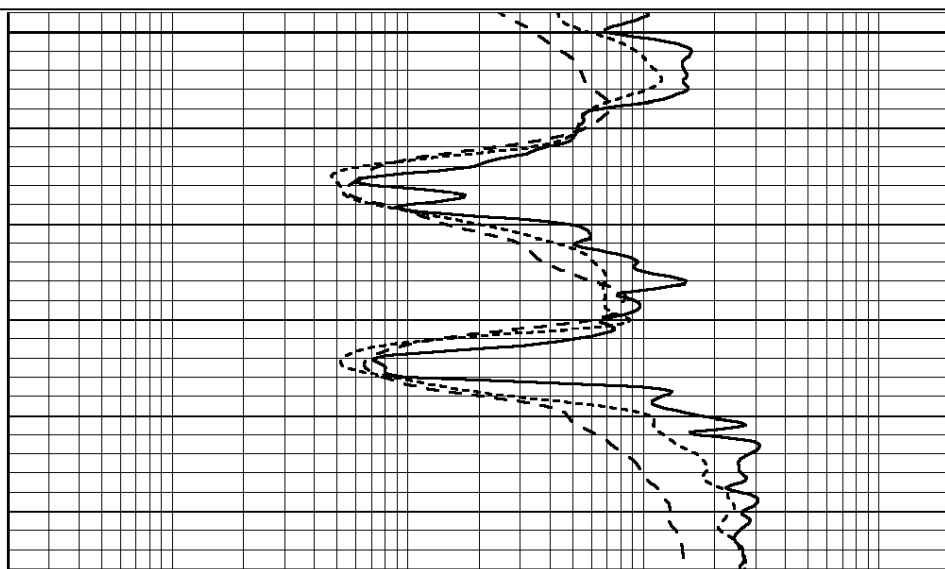
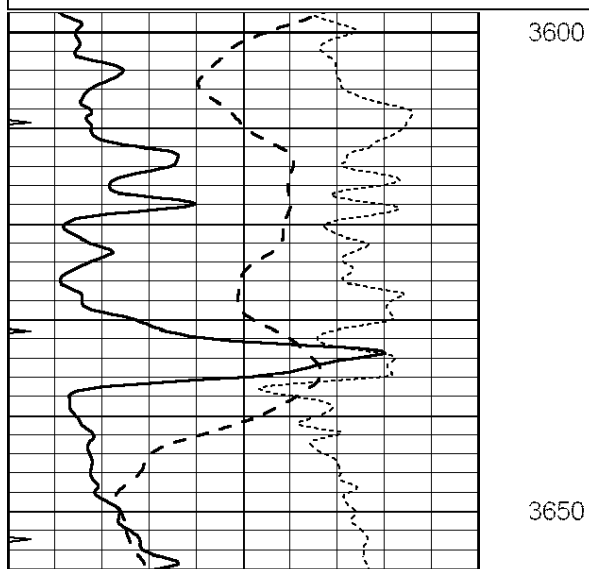


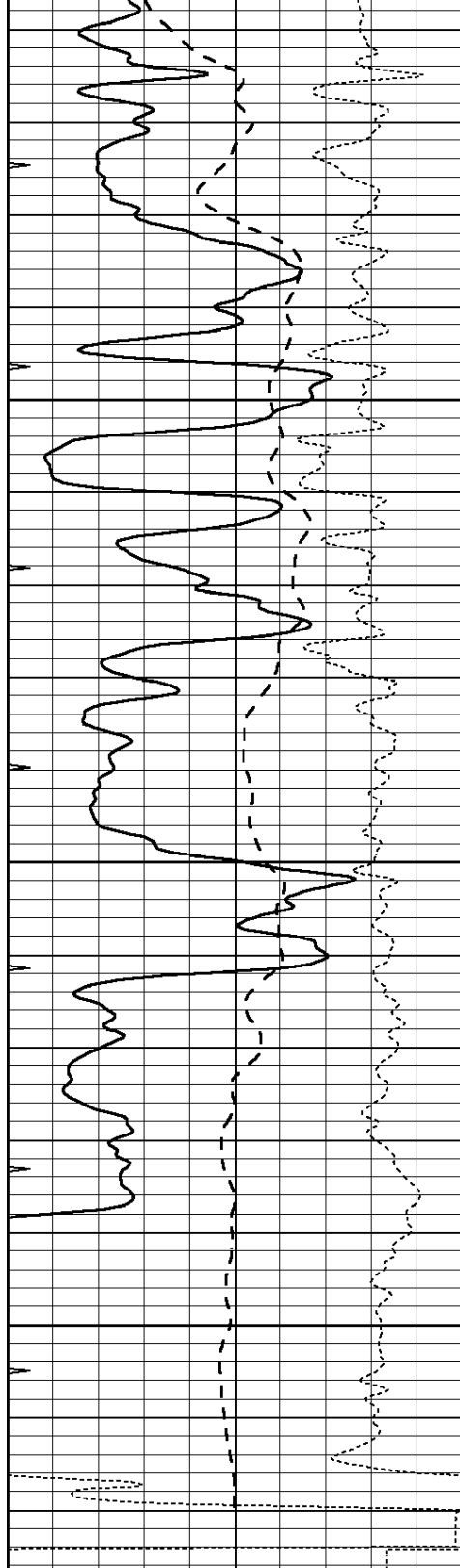
REPEAT SECTION

Database File: 010011ddn.db
 Dataset Pathname: pass2.3
 Presentation Format: _dil
 Dataset Creation: Mon Nov 12 12:35:34 2012 by Calc SOC 120430
 Charted by: Depth in Feet scaled 1:240

0	GAMMA RAY (GAPI)	150
-100	SP (mV)	100
-250	Rxo/Rt	50
0	MINMK	20

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



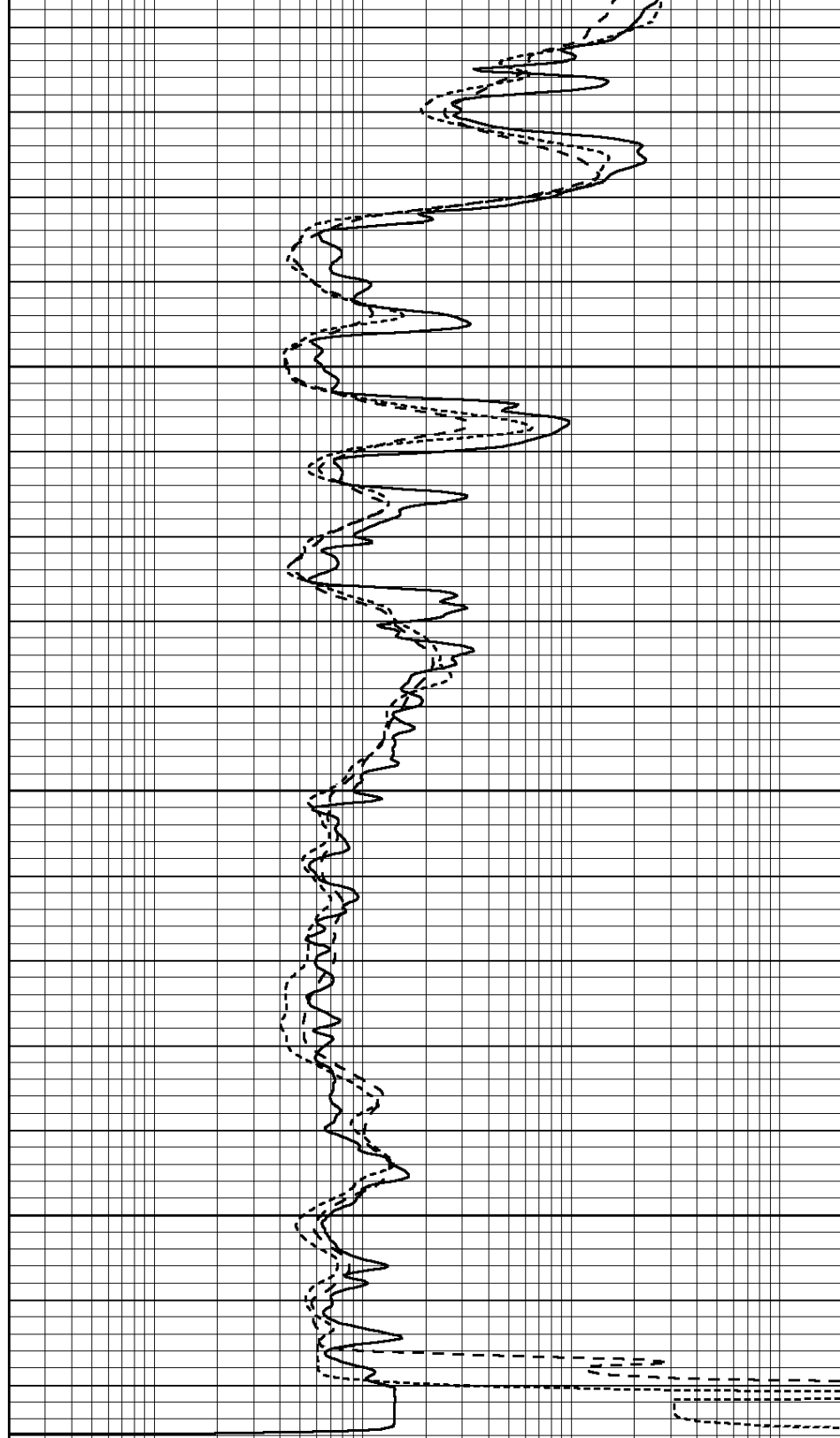


0	GAMMA RAY (GAPI)	150
-100	SP (mV)	100
-250	Rxo/Rt	50
0	MINMK	20

3700

3750

3800



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

Calibration Report

Database File: 010011ddn.db
 Dataset Pathname: pass3.7
 Dataset Creation: Mon Nov 12 13:16:49 2012

Serial-Model:
Performed:DIL4-GEAR
Mon Nov 12 12:13:39 2012

Readings				References			Results	
Loop:	Air	Loop		Air	Loop		m	b
Deep	0.008	0.666	V	0.000	400.000	mmho/m	570.000	-6.000
Medium	-0.003	0.769	V	0.000	462.500	mmho/m	560.000	-6.000
Internal:	Zero	Cal		Zero	Cal		m	b
Deep	0.013	0.651	V	0.000	400.000	mmho/m	627.541	-8.365
Medium	0.020	0.754	V	0.000	462.500	mmho/m	630.311	-12.549

Litho Density Calibration Report
 Serial: 003N Model: PRB
 Performed Tue Sep 08 14:14:44 2009

Litho Density Calibration

	Background	Magnesium	Aluminum	Sandstone	
Window 1	2042.6	12312.8	4225.8	13758.4	cps
Window 2	1855.8	10134.7	3624.2	11113.1	cps
Window 3	1639.4	6760.2	2716.3	7260.3	cps
Window 4	466.4	469.2	466.1	476.5	cps
Long Space	0.0	8278.9	1768.4	9257.4	cps
Short Space	2.2	2377.3	1544.1	2574.2	cps
Rho		1.7100	2.5900	1.3800	g/cc
Pe			2.5700	1.5500	
Rib Angle	: 44.4	Rib Slope	: 0.979	Density/Spine Ratio	: 0.549
Spine Angle	: 74.4	Spine Slope	: 3.577	Spine Intercept	: -18.8

Caliper

	Readings	Reference
Low Ref	3.4	8.0
High Ref	5.0	15.0
	Gain: 4.5	Offset: -7.1

Compensated Neutron Calibration Report

Serial Number: 070808
 Tool Model: Probe

PRE-SURVEY VERIFICATION

Detector	Readings	Measured	Target
Short Space	cps		
Long Space	cps	pu	pu

POST-SURVEY VERIFICATION

Detector	Readings	Measured	Target
Short Space	cps		
Long Space	cps	pu	pu

Gamma Ray Calibration Report

Serial Number: 070559
 Tool Model: OPEN_GR
 Performed: Wed Sep 19 15:58:00 2012

Calibrator Value: 1.0 GAPI

Background Reading:

0.0

cps

Calibrator Reading:

1.0

cps

Sensitivity:

0.3000

GAPI/cps