



DUAL INDUCTION LOG

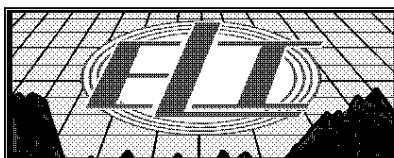
Company	L. D. DRILLING, INC.		
Well	#2-26 CRAIG MYERS		
Field	MINER		
County	NESS	State	KANSAS
Location:	API # : 15-135-25918-0000		Other Services CDL/CNL MEL
Permanent Datum	GROUND LEVEL	Elevation	2456
Log Measured From	KELLY BUSHING 5' A.G.L.		
Drilling Measured From	KELLY BUSHING		
Date	8/10/16		
Run Number	ONE		
Depth Driller	4600		
Depth Logger	4600		
Bottom Logged Interval	4598		
Top Log Interval	00		
Casing Driller	8 5/8"@329'		
Casing Logger	328		
Bit Size	7 7/8"		
Type Fluid in Hole	CHEMICAL MUD	CHLORIDES 8,000 PPM	
Density / Viscosity	9.5/55		
pH / Fluid Loss	8.0/14.2		
Source of Sample	FLOWLINE		
Rin @ Meas. Temp	.500@90F		
Rinf @ Meas. Temp	.375@90F		
Rinc @ Meas. Temp	.600@90F		
Source of Rinf / Rinc	MEASUREMENT		
Rin @ BHT	.369@122F		
Time Circulation Stopped	2.5 HOURS		
Time Logger on Bottom	11:15 A.M.		
Maximum Recorded Temperature	122F		
Equipment Number	922339		
Location	HAYS, KANSAS		
Recorded By	JEFF LUEBBERS		
Witnessed By	KIM SHOEMAKER		

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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 ELI WIRELINE HAYS, KANSAS (785) 628-6395
DIRECTIONS
RANSOM, KS., (HWY 4 & RD. Q) 6 1/2S., 1/2W. INTO AT TANK BATTERY



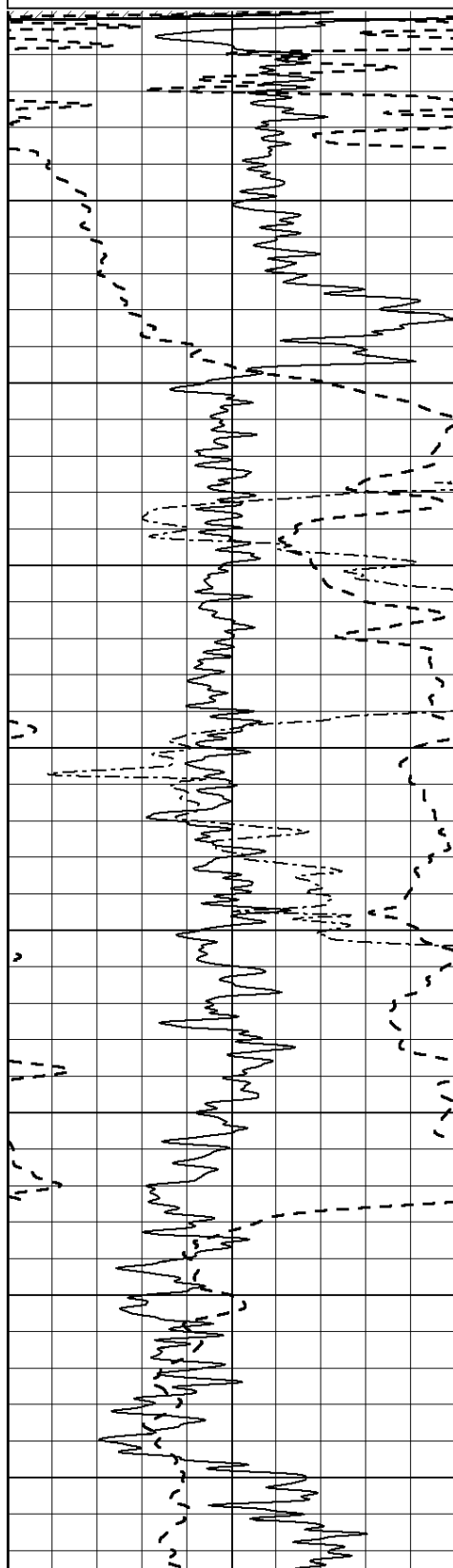
MAIN SECTION

Database File: 30757ddn.db
 Dataset Pathname: pass3.5
 Presentation Format: dil2
 Dataset Creation: Wed Aug 10 12:41:31 2016 by Calc SOC 120430
 Charted by: Depth in Feet scaled 1:600

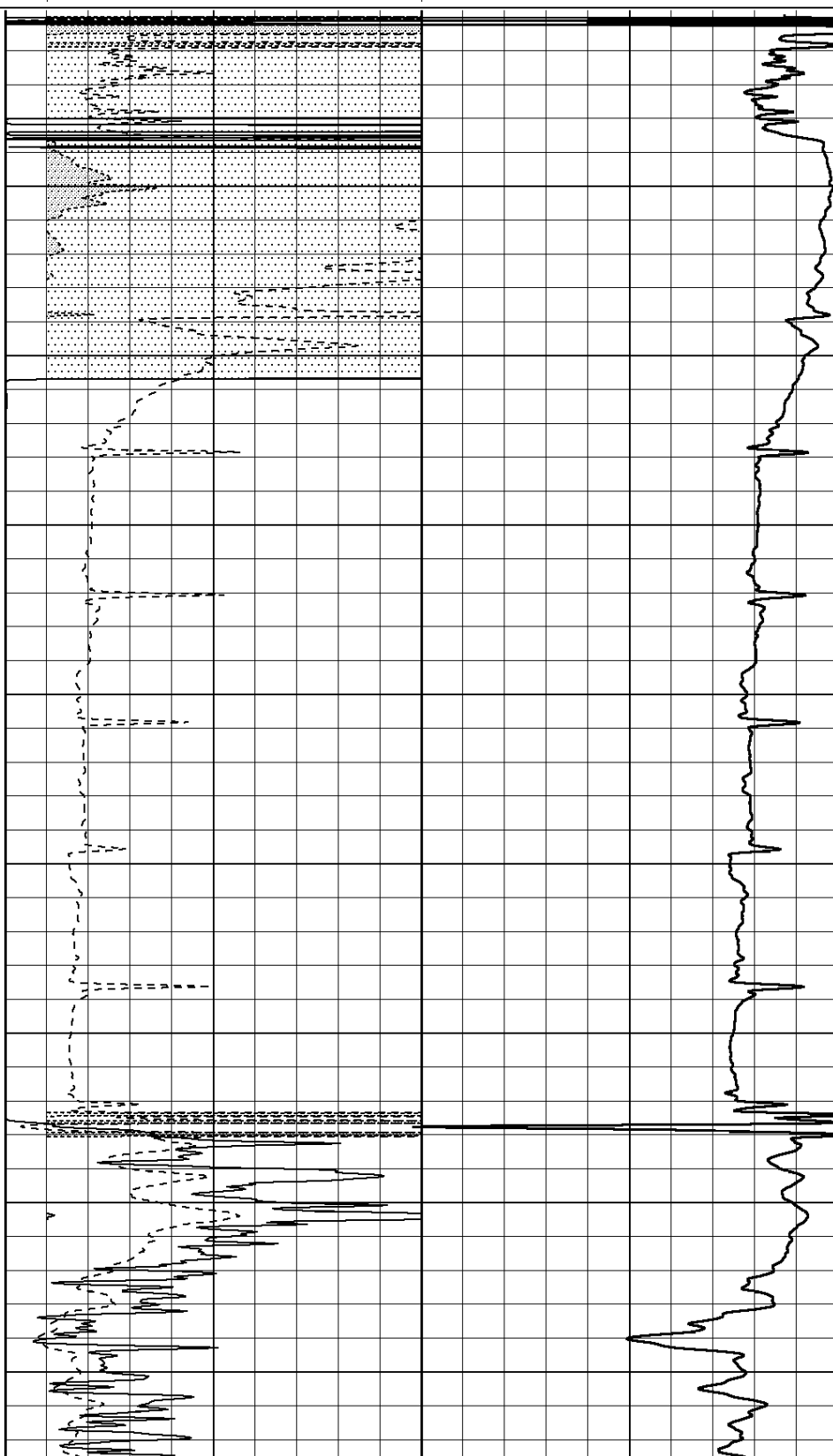
0	Gamma Ray (GAPI)	150
-100	SP (mV)	100
0	RWA (Ohm-m)	1

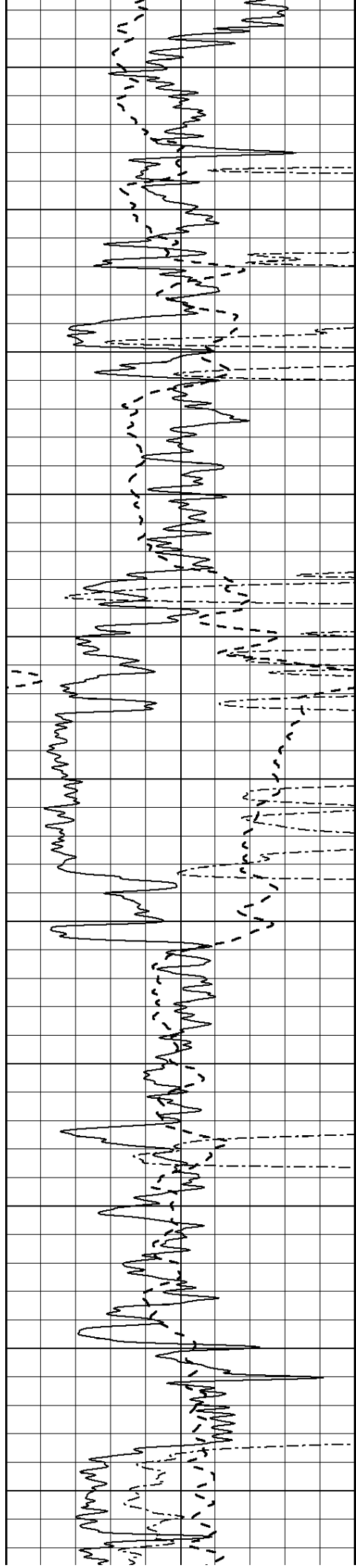
0	RLL3 (Ohm-m)	50
0	RILD (Ohm-m)	50
1000	CILD (mmho/m)	0

50	RILD X10 (Ohm-m)	500
50	RLL3 X10 (Ohm-m)	500



0
50
100
150
200
250
300
350
400





450

500

550

600

650

700

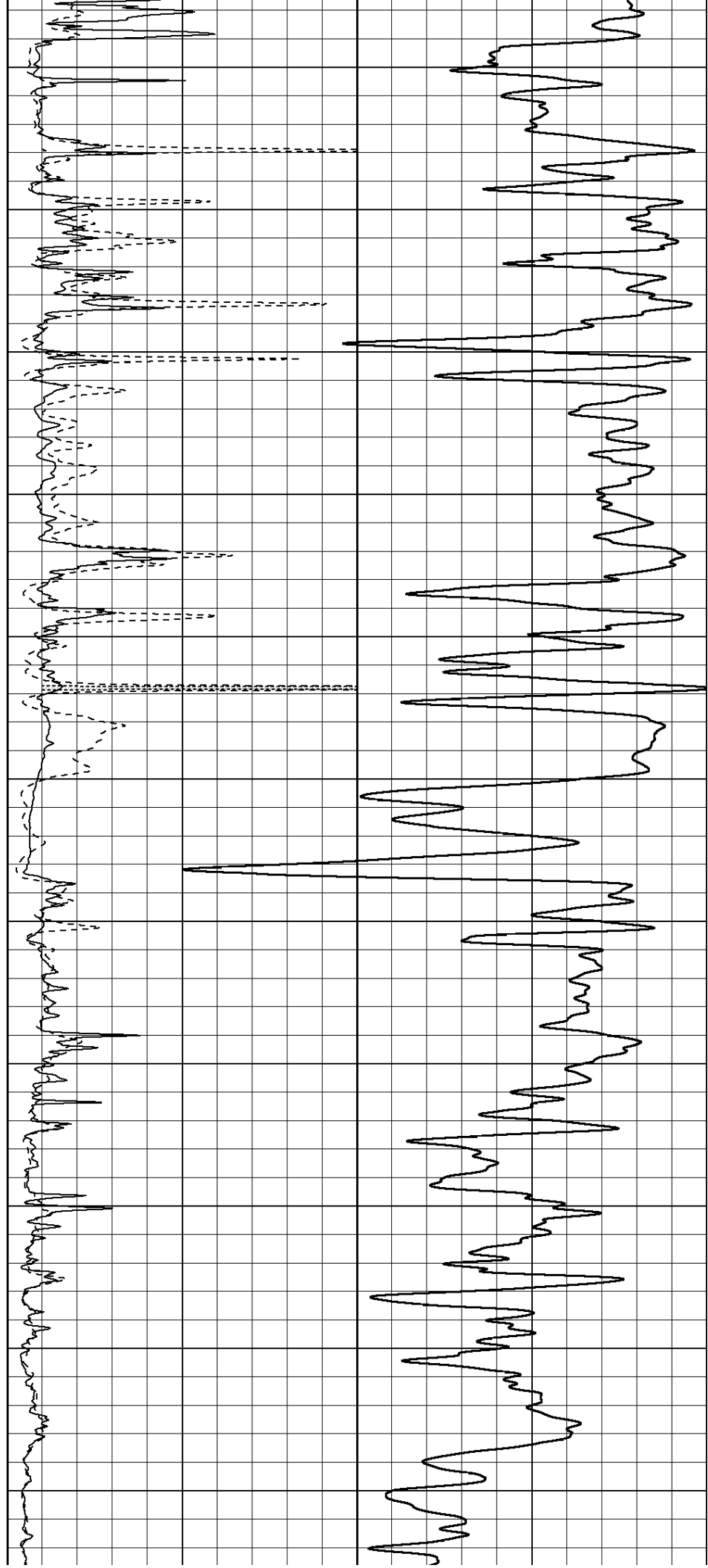
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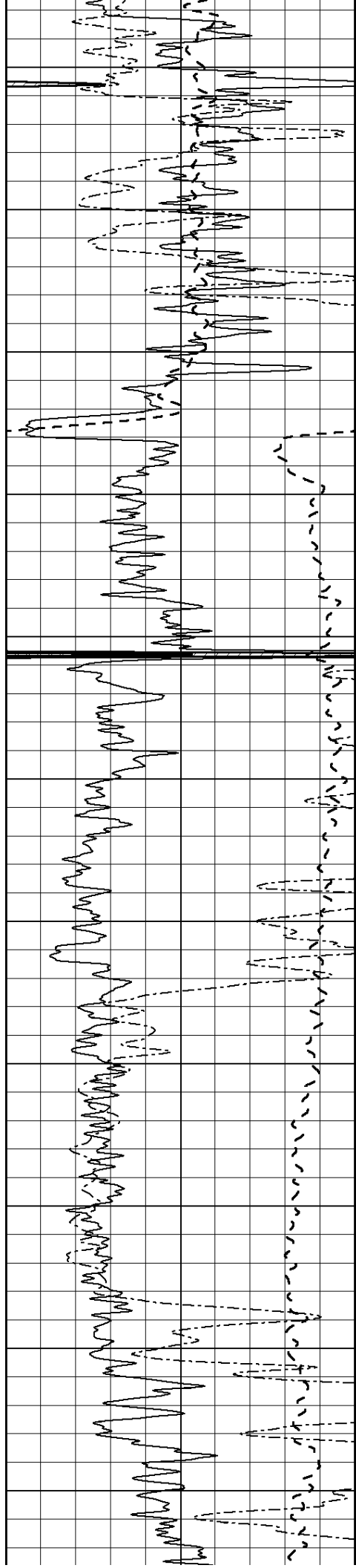
800

850

900

950





1000

1050

1100

1150

1200

1250

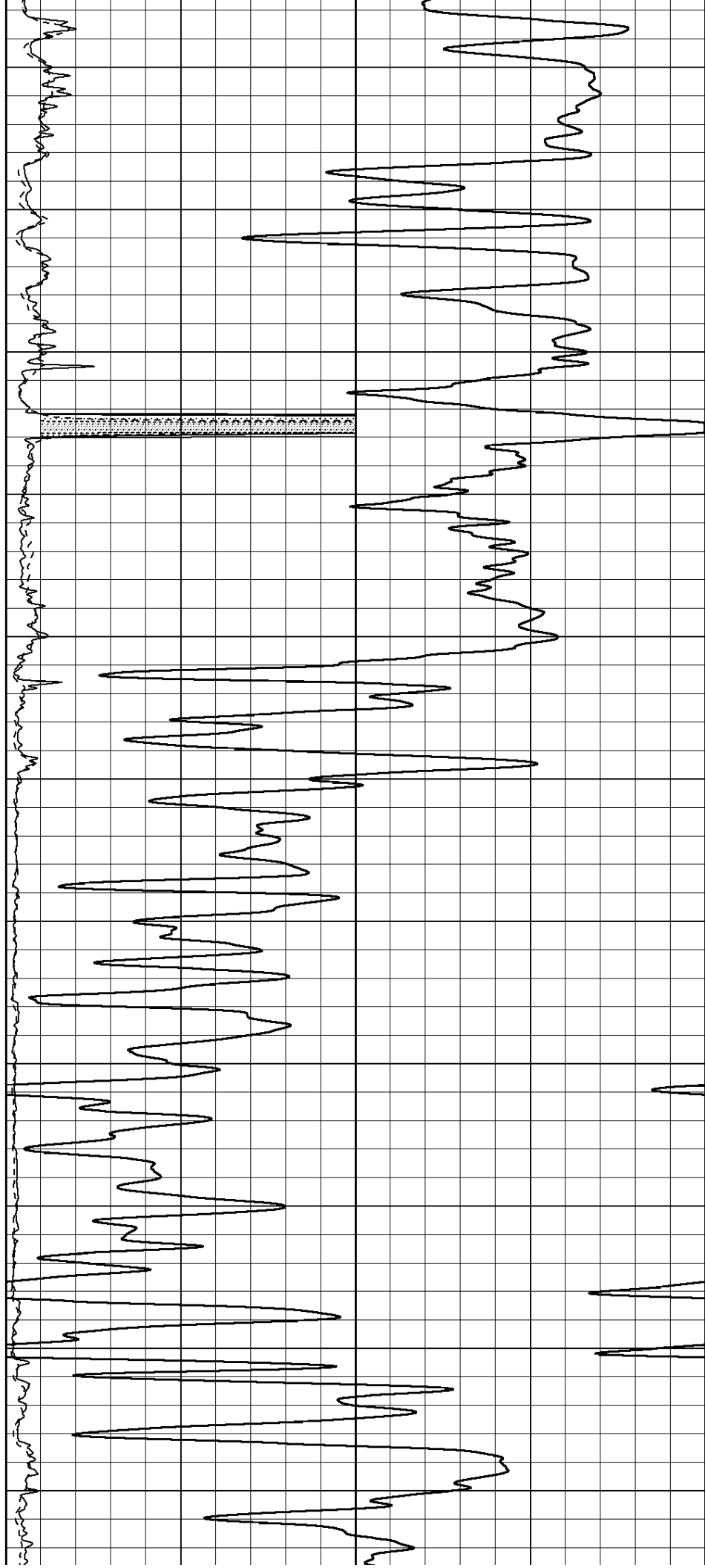
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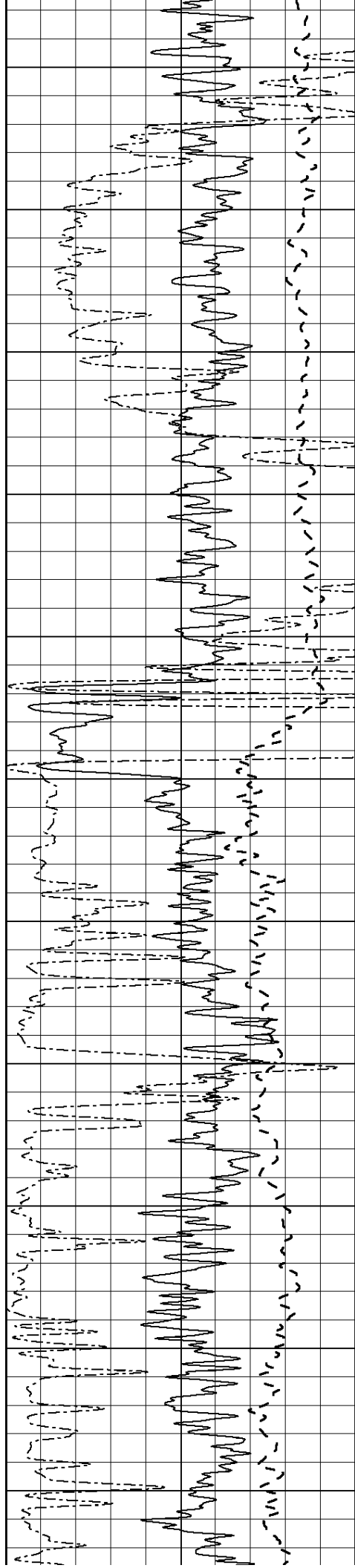
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1400

1450

1500





1550

1600

1650

1700

1750

1800

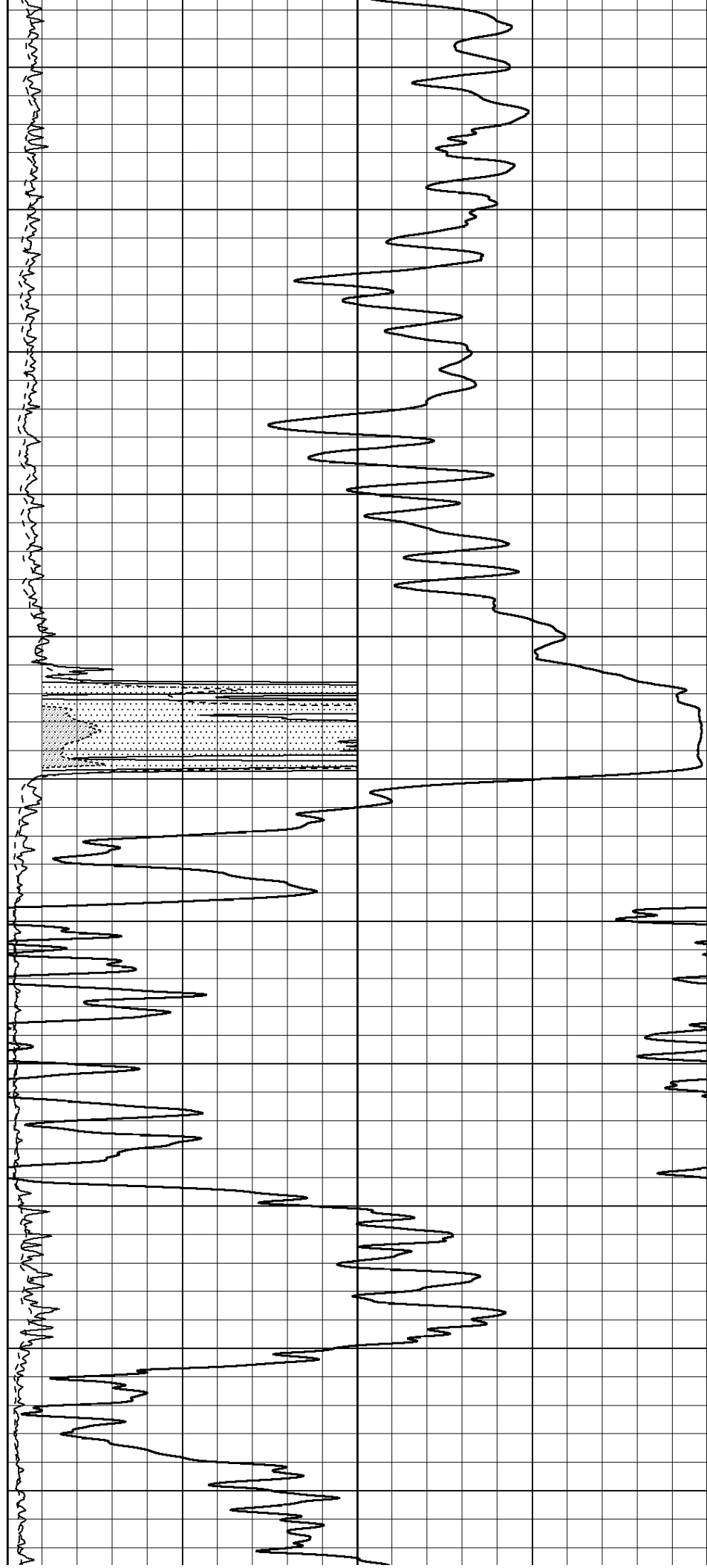
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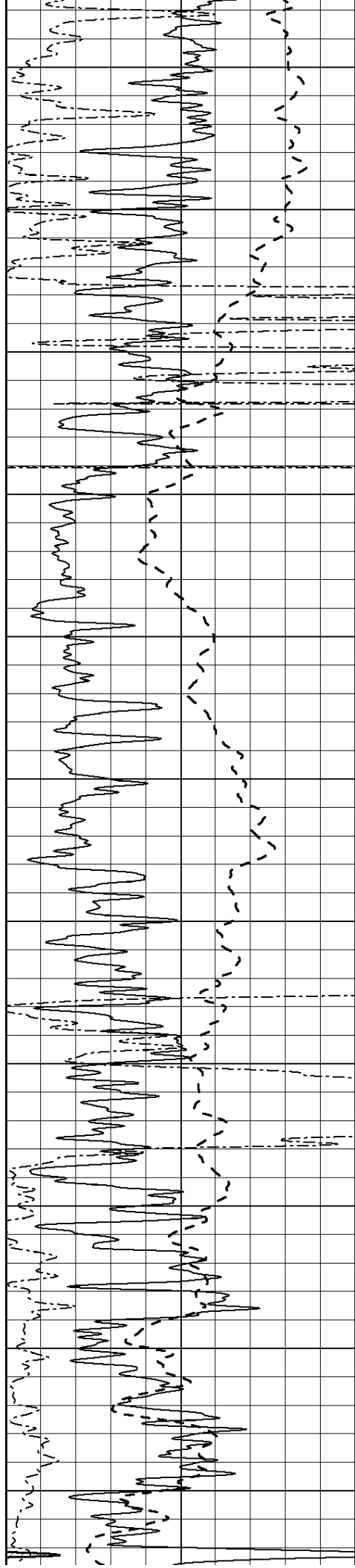
1900

1950

2000

2050





2100

2150

2200

2250

2300

2350

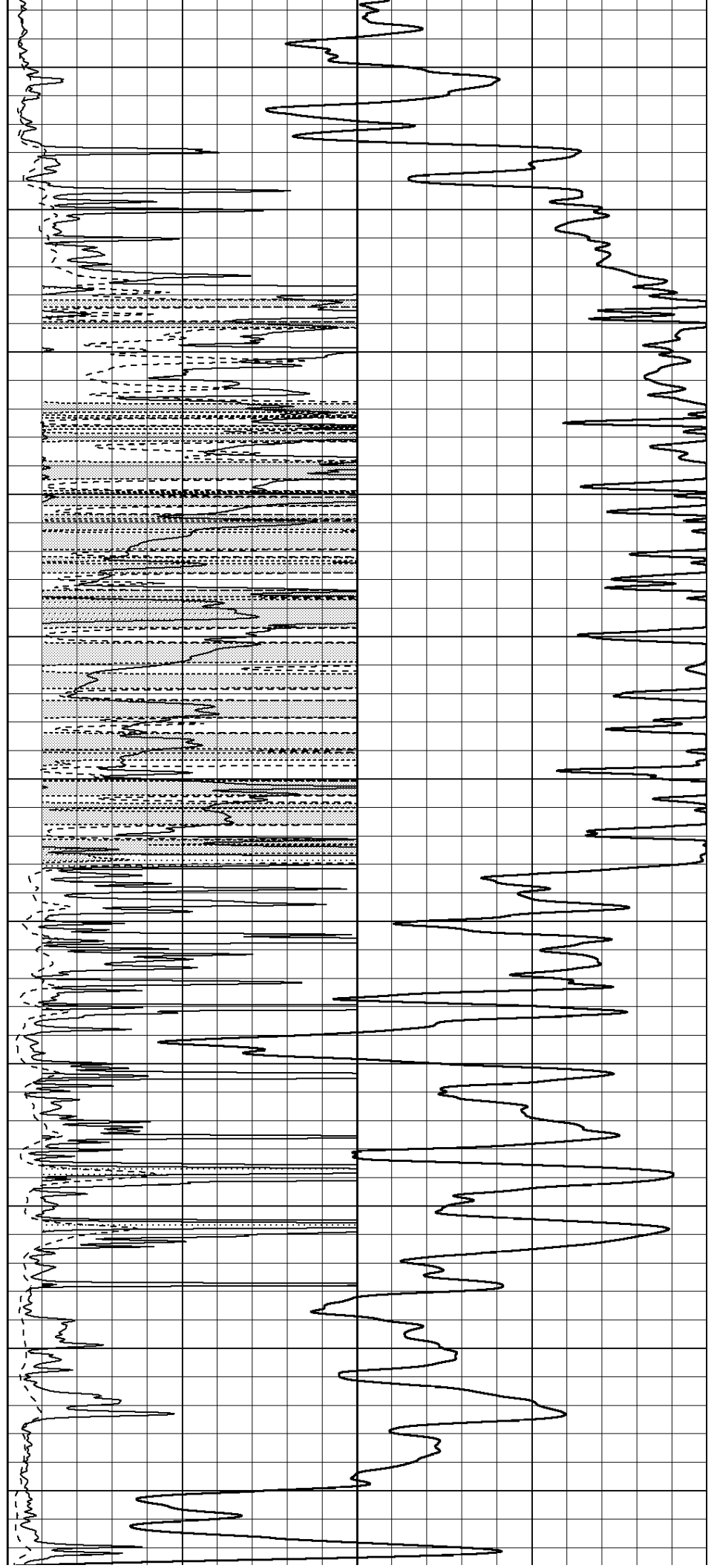
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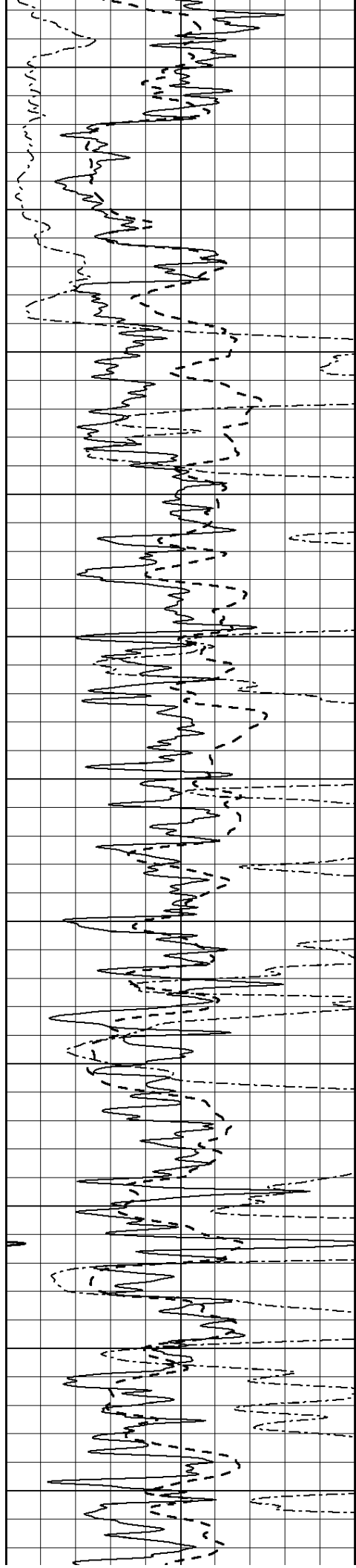
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2500

2550

2600





2650

2700

2750

2800

2850

2900

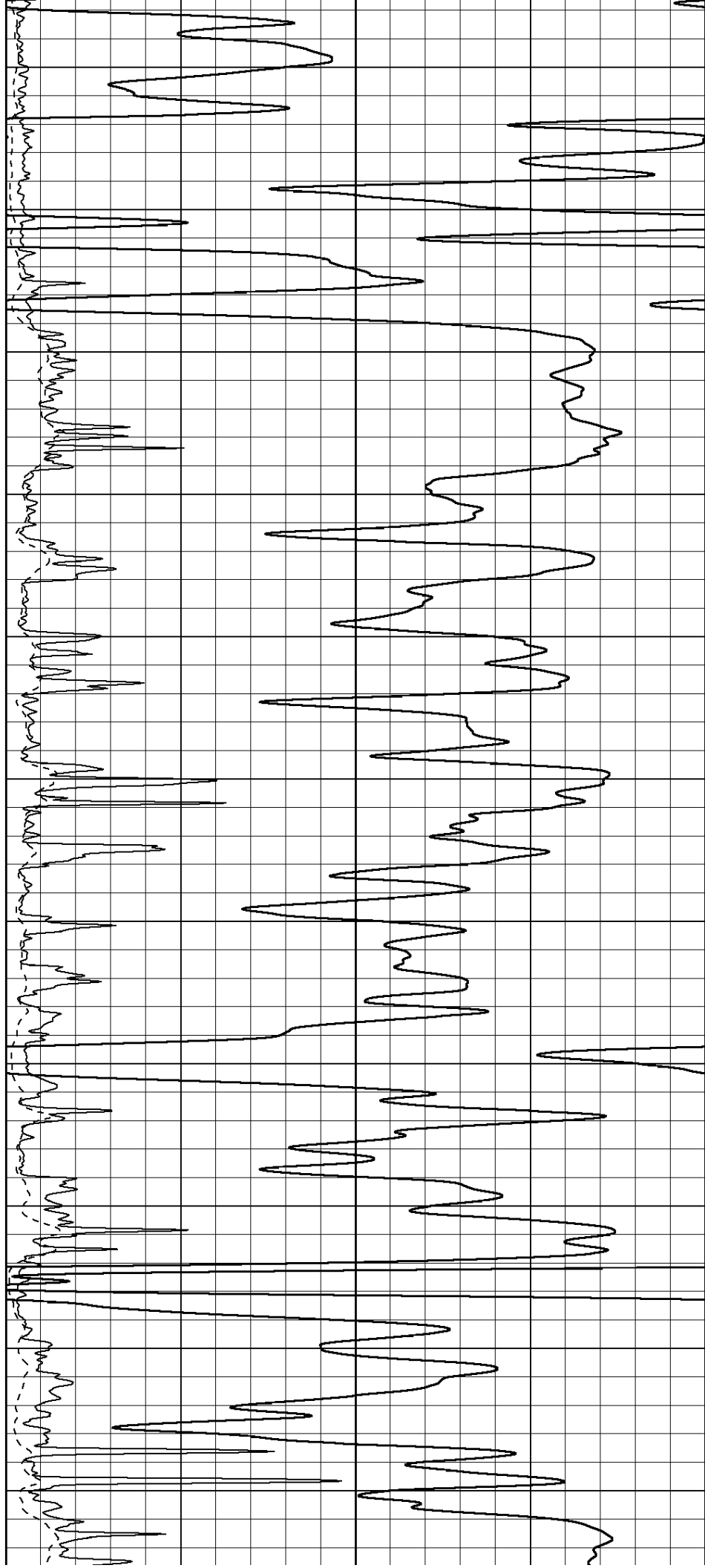
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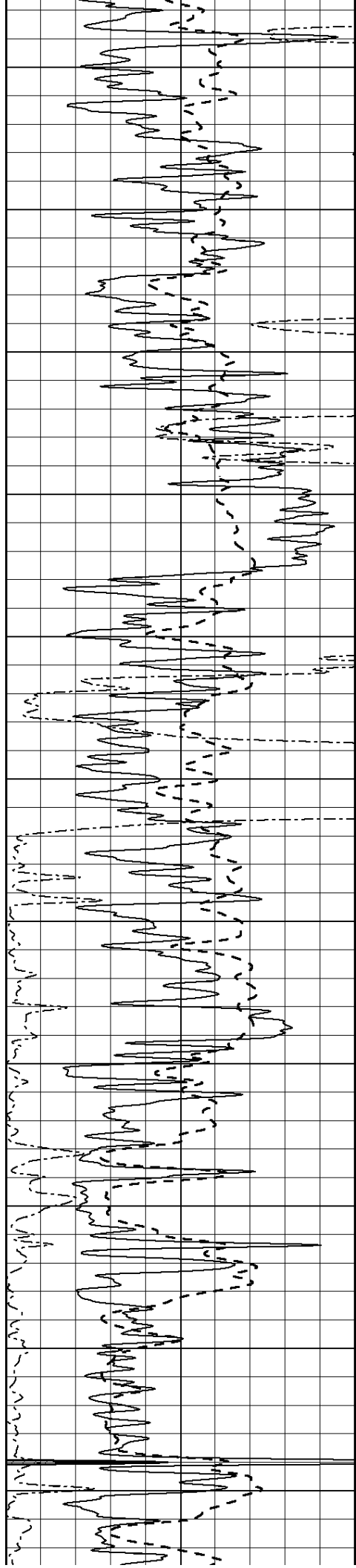
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3050

3100

3150





3200

3250

3300

3350

3400

3450

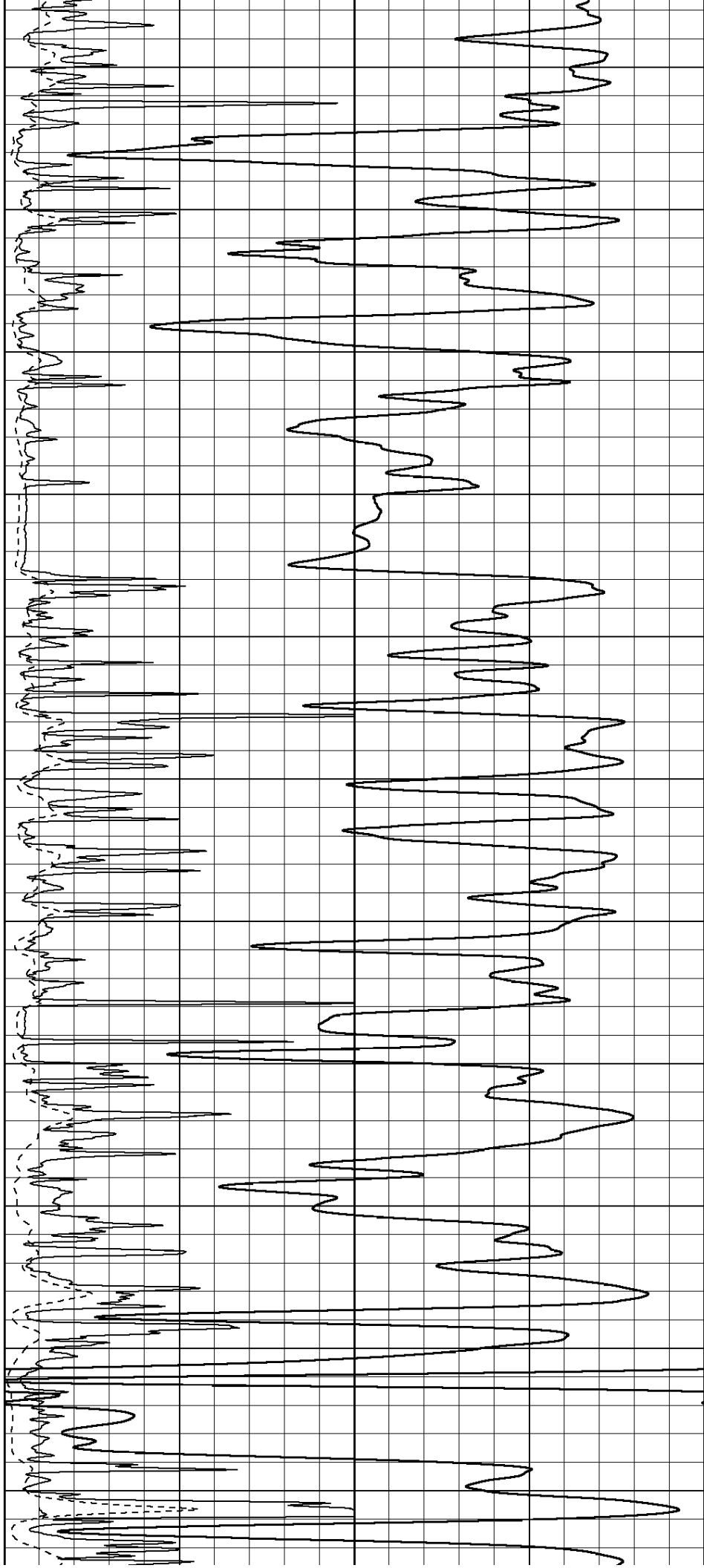
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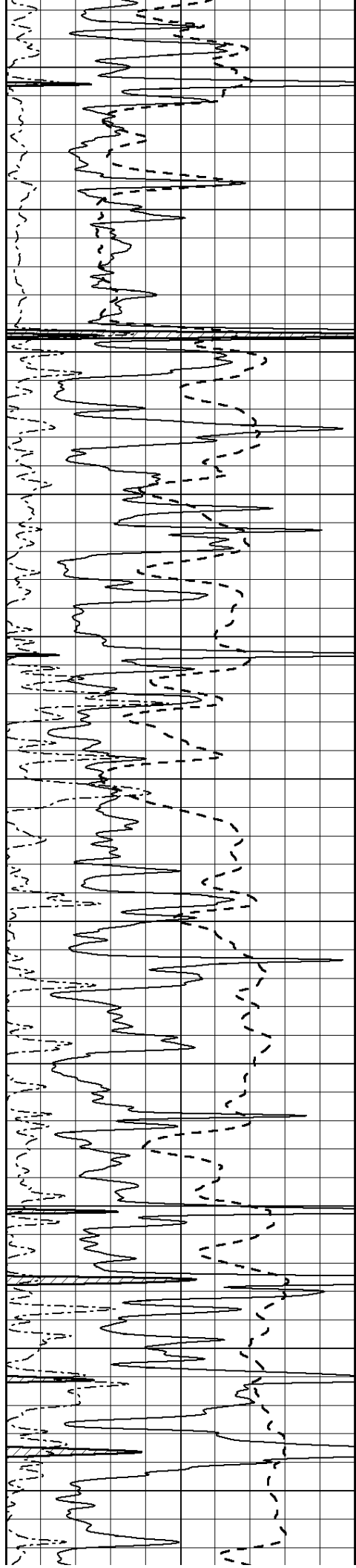
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3600

3650

3700





3750

3800

3850

3900

3950

4000

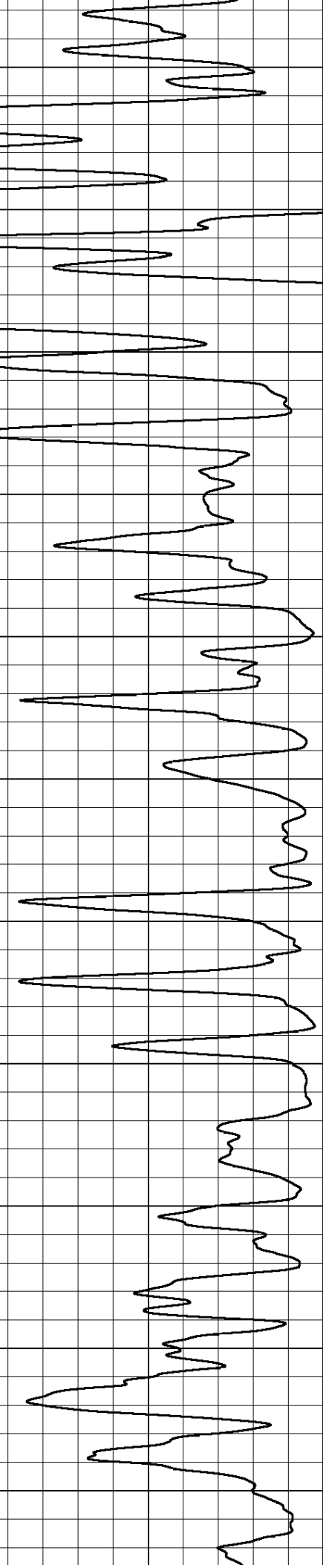
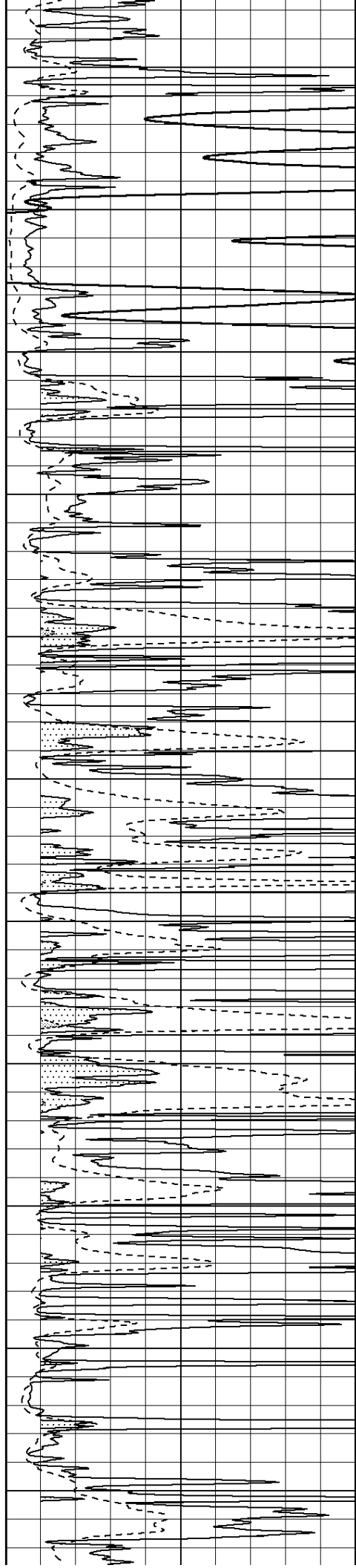
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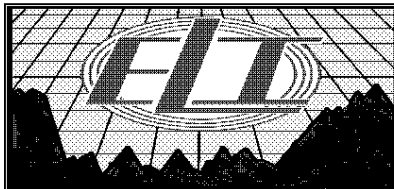
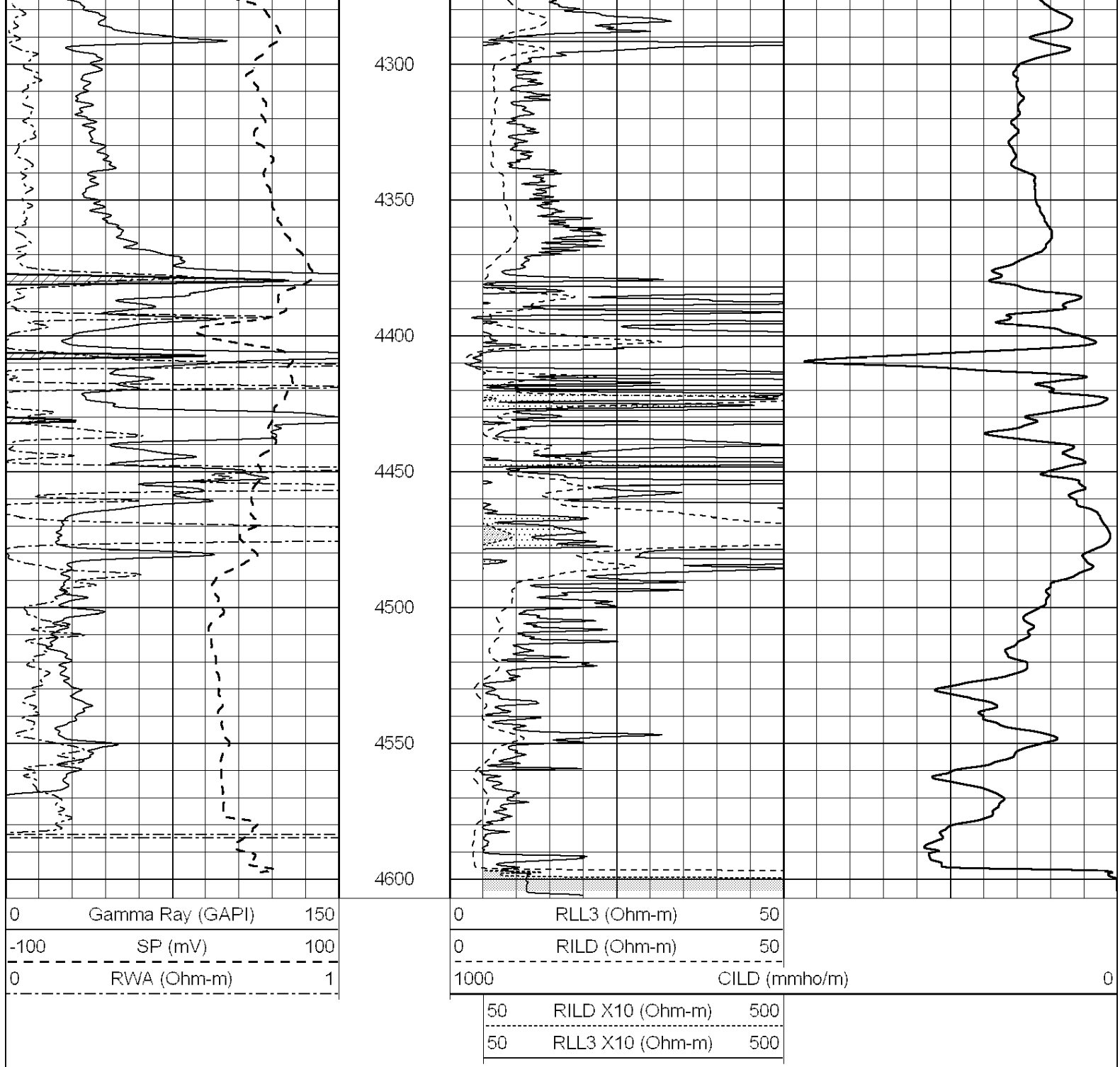
4100

4150

4200

4250

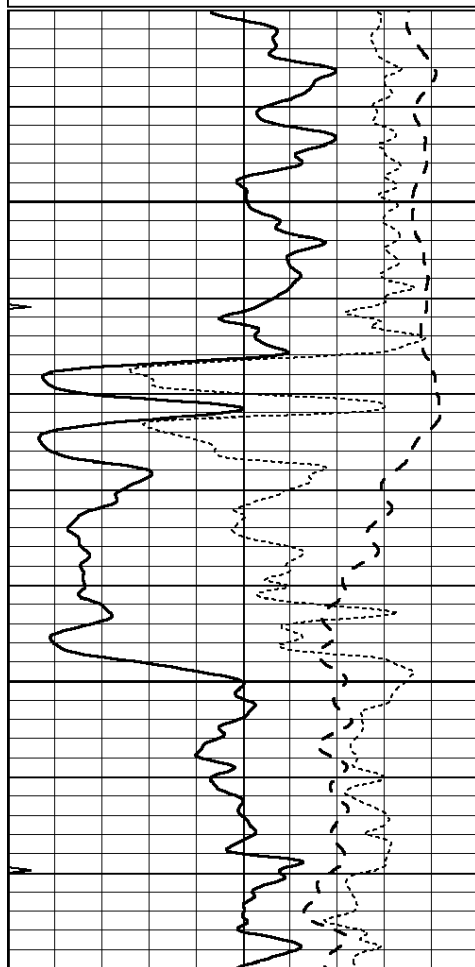




ANHYDRITE

Database File: 30757ddn.db
 Dataset Pathname: pass3.6
 Presentation Format: _dil
 Dataset Creation: Wed Aug 10 12:41:52 2016 by Calc SOC 120430
 Charted by: Depth in Feet scaled 1:240

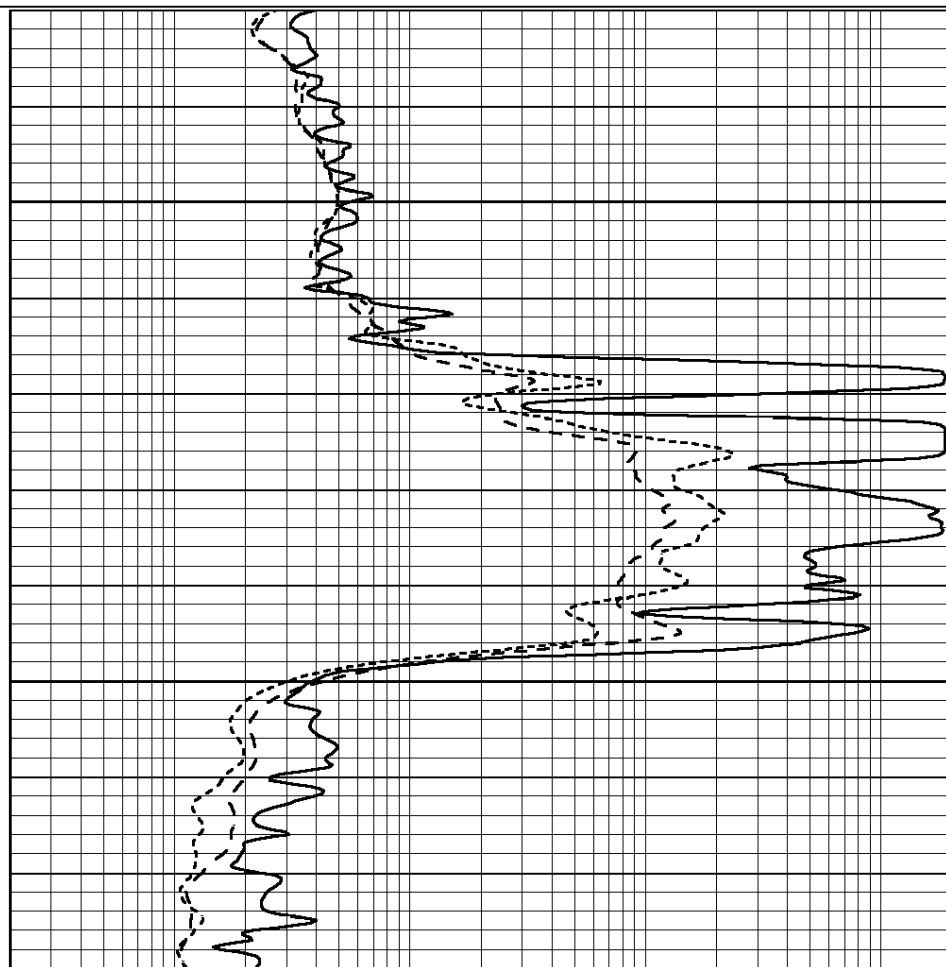
0	GAMMA RAY (GAPI)	150	0.2	SHALLOW GUARD (Ohm-m)	2000
-100	SP (mV)	100	0.2	DEEP INDUCTION (Ohm-m)	2000
-250	Rxo/Rt	50	0.2	MEDIUM INDUCTION (Ohm-m)	2000
0	MINMK	20			



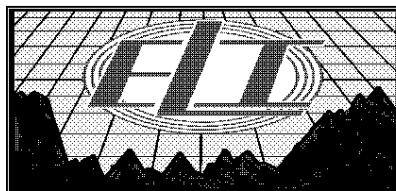
0	GAMMA RAY (GAPI)	150
-100	SP (mV)	100
-250	Rxo/Rt	50
0	MINMK	20

1750

1800



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



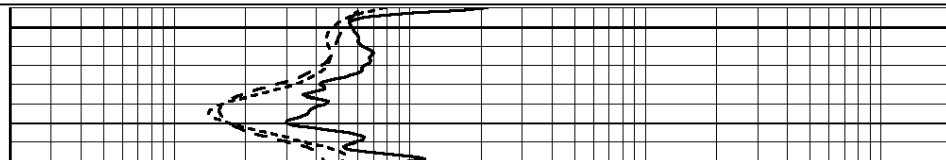
MAIN SECTION

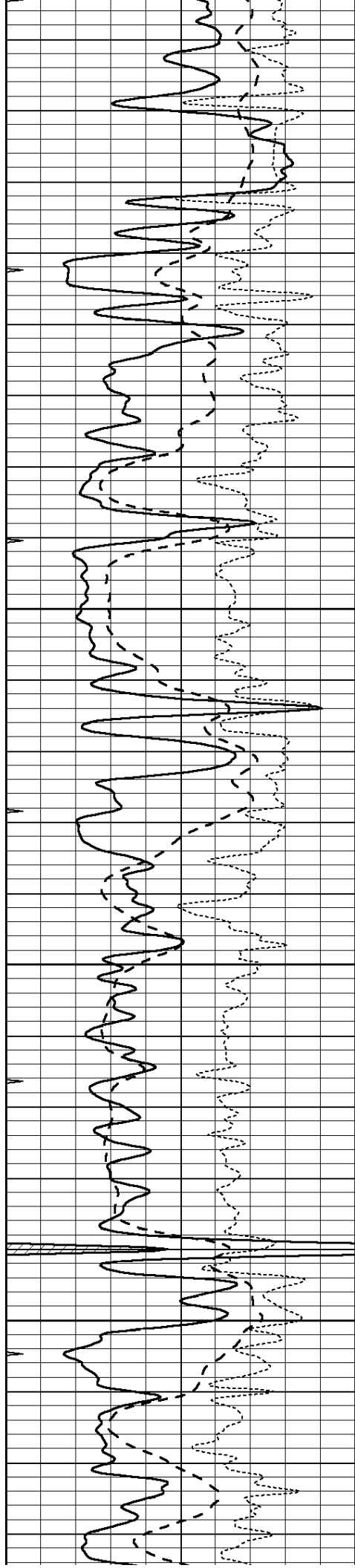
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 Dataset Pathname: pass3.5
 Presentation Format: _dil
 Dataset Creation: Wed Aug 10 12:41:31 2016 by Calc SOC 120430
 Charted by: Depth in Feet scaled 1:240

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

3500



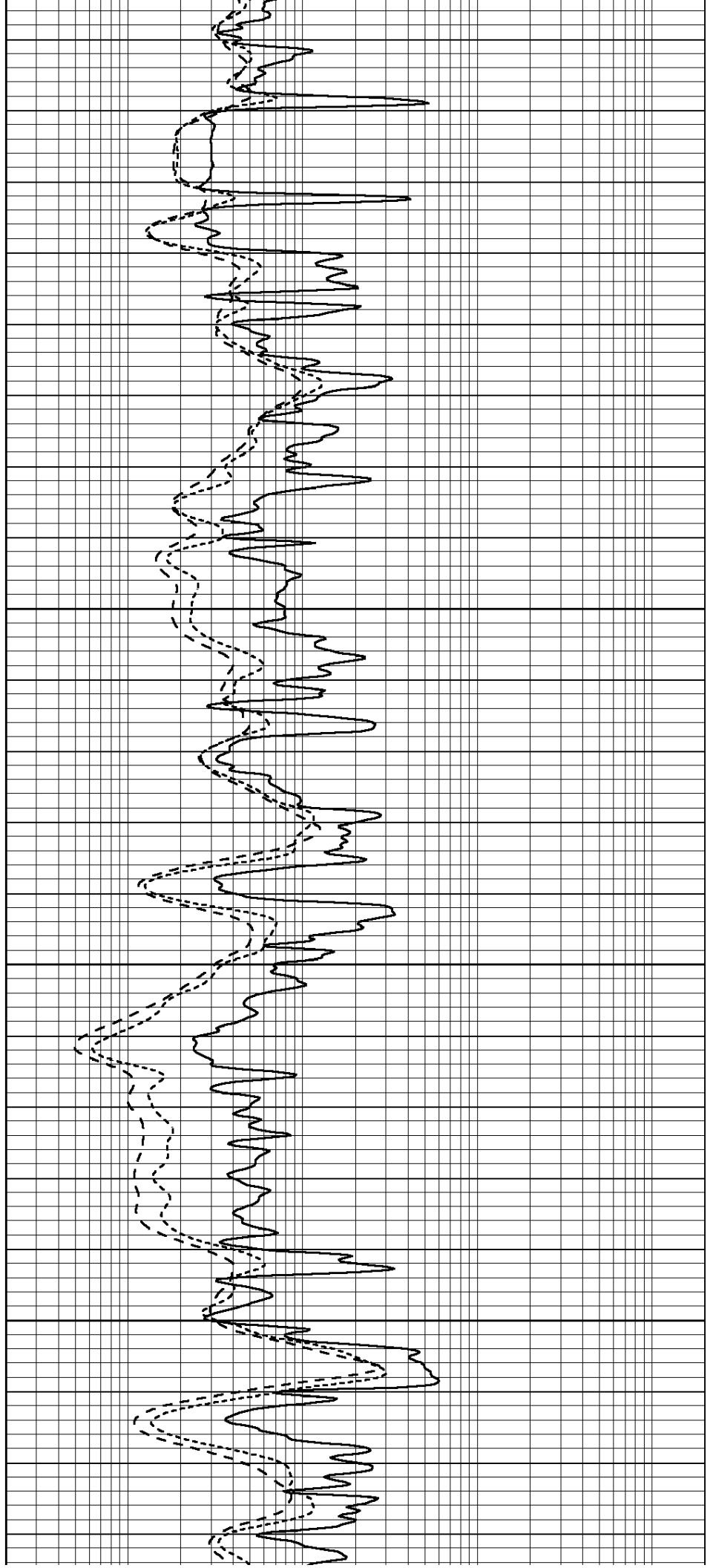


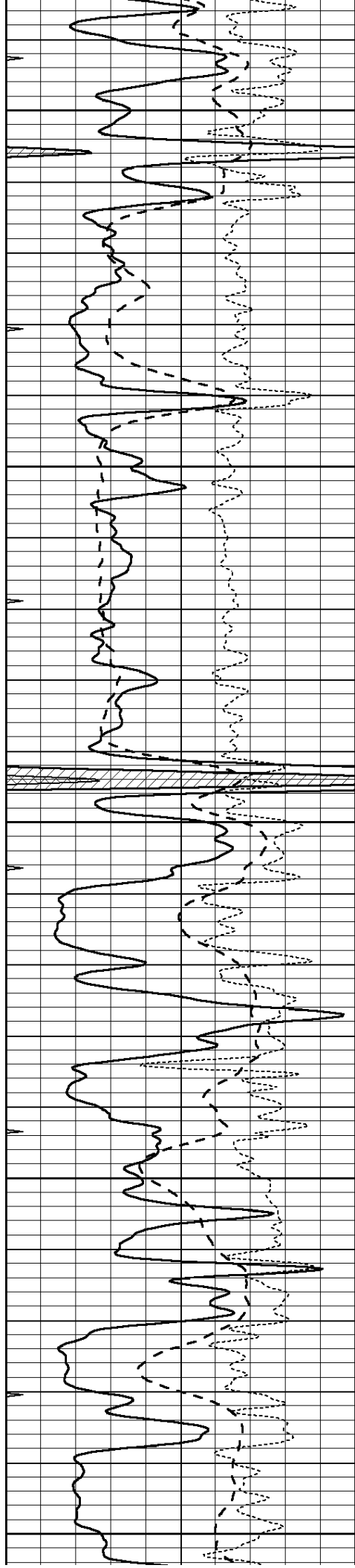
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3600

3650

3700





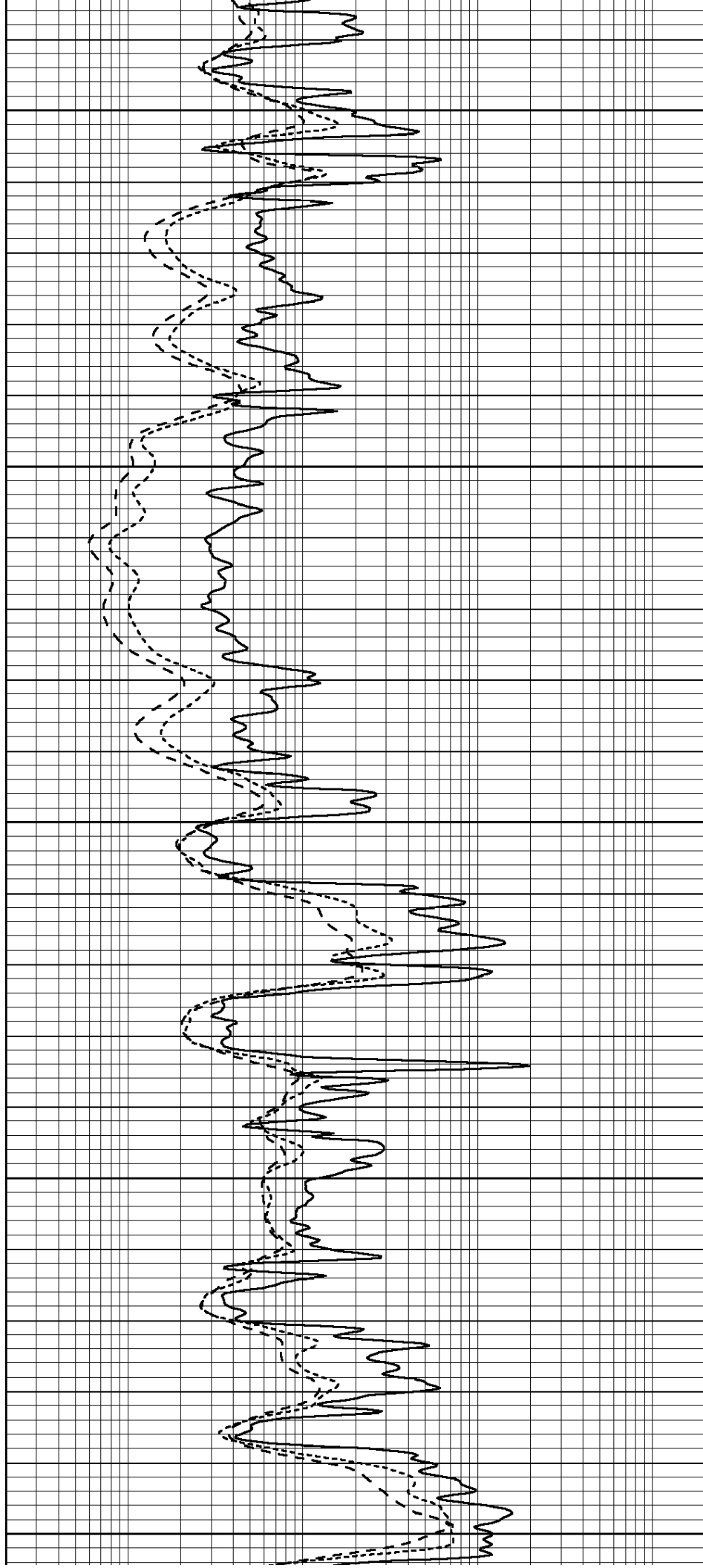
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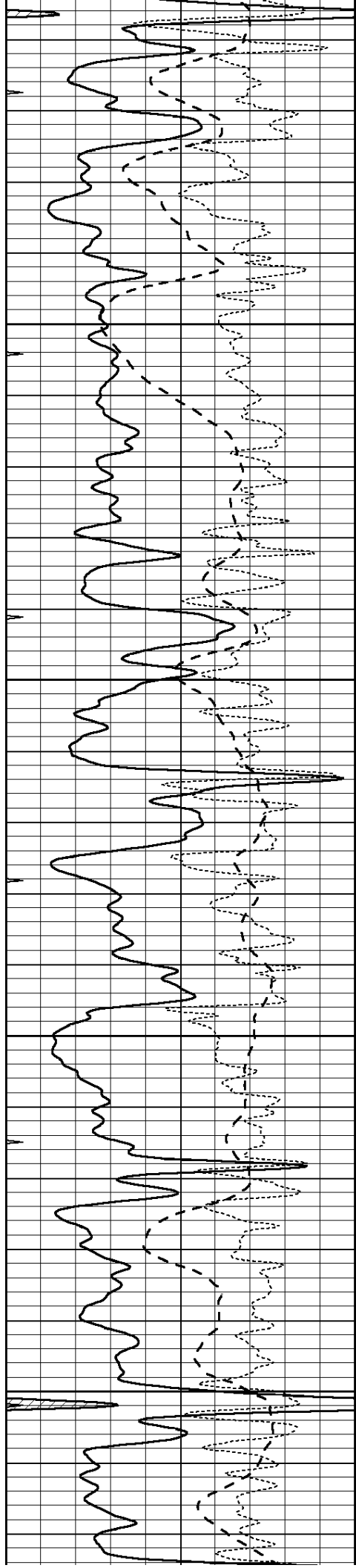
3800

3850

3900

3950



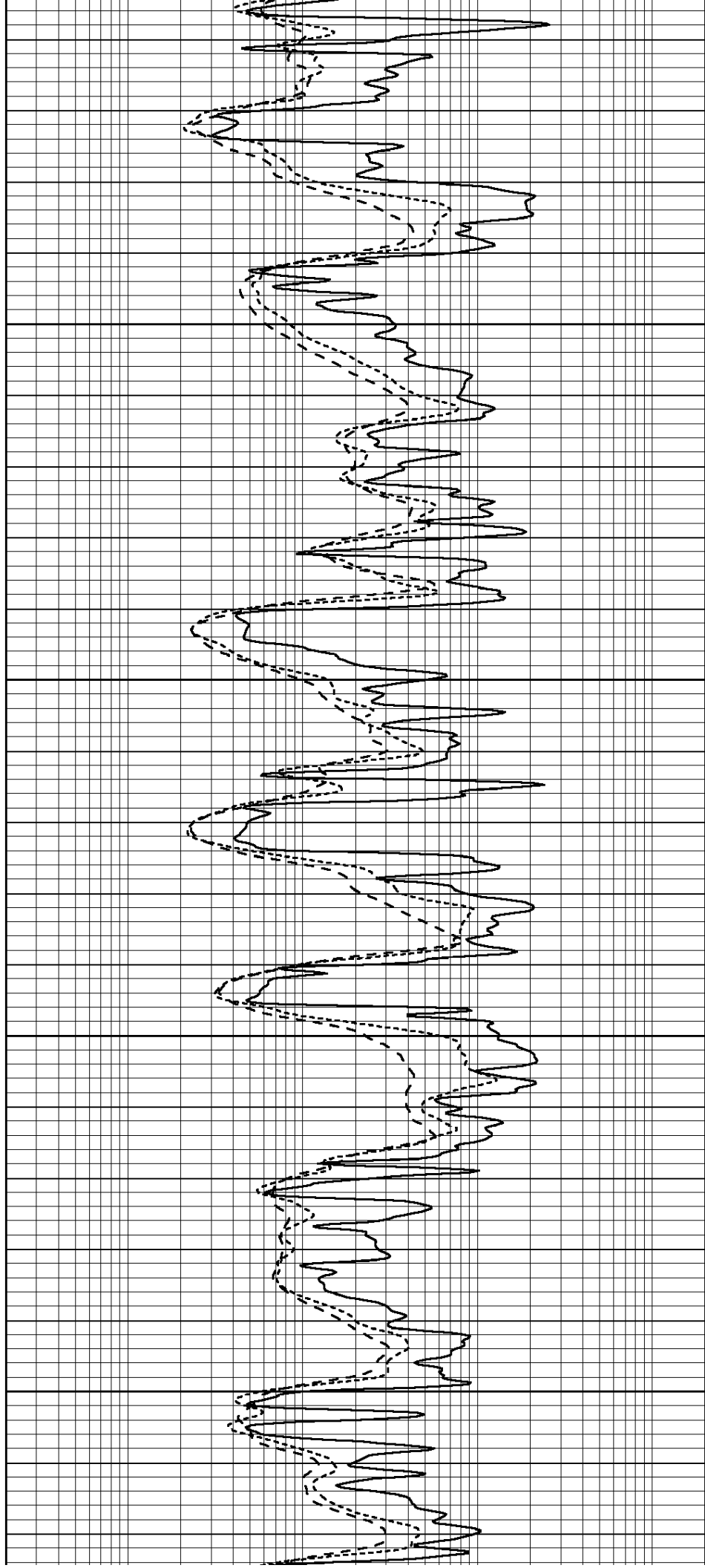


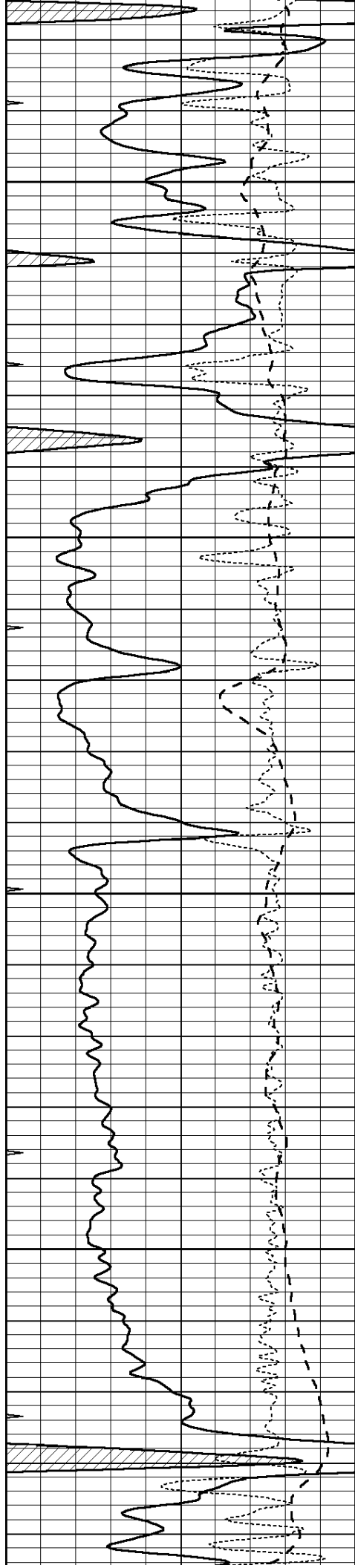
4000

4050

4100

4150



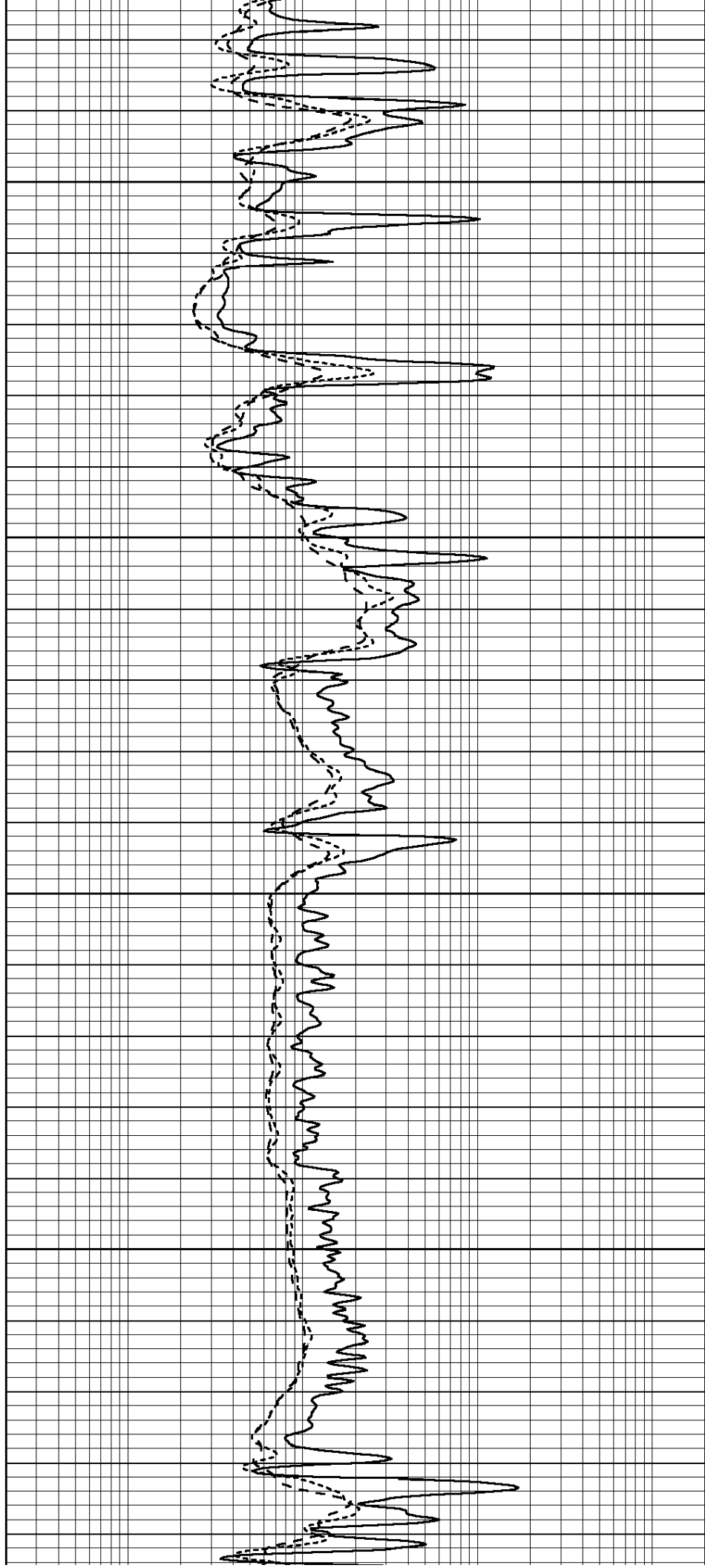


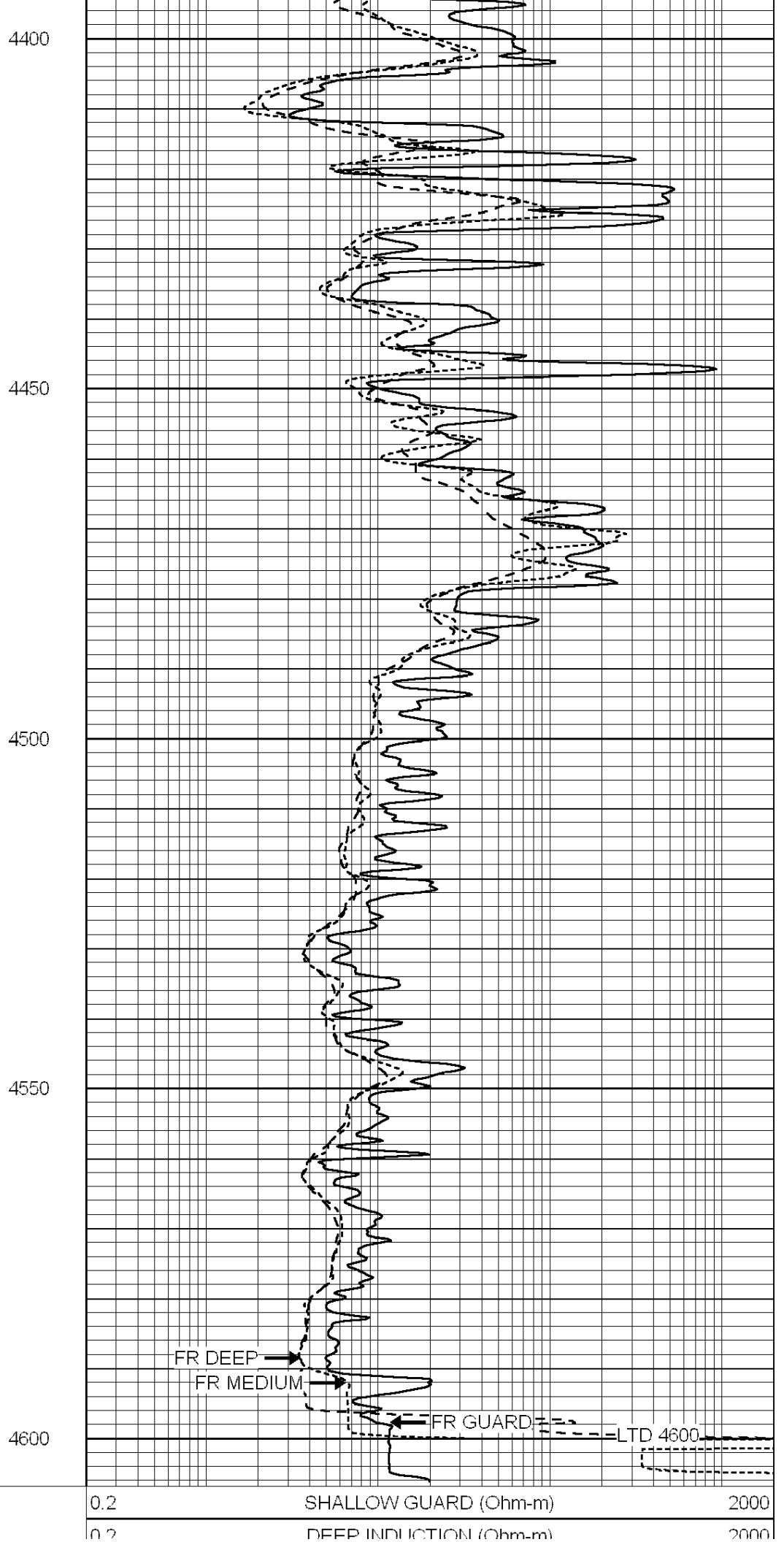
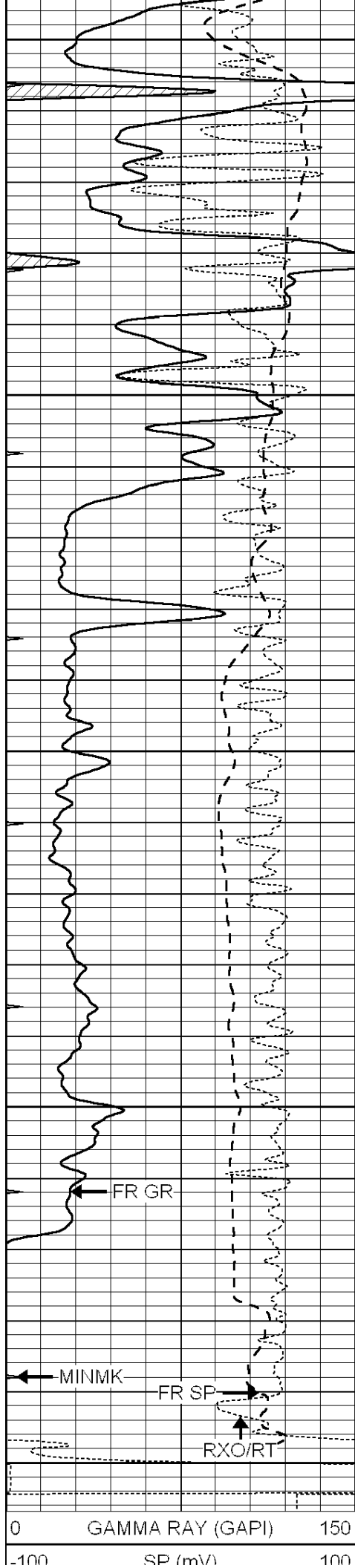
4200

4250

4300

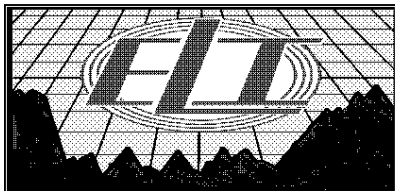
4350





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

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

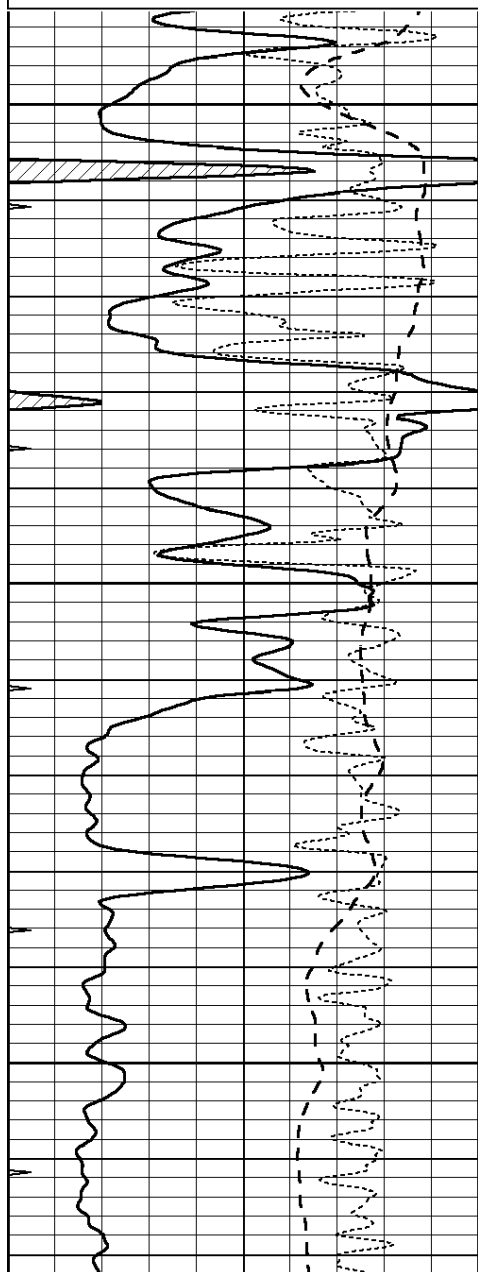


REPEAT SECTION

Database File: 30757ddn.db
 Dataset Pathname: pass2.4
 Presentation Format: _dil
 Dataset Creation: Wed Aug 10 12:06:14 2016 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

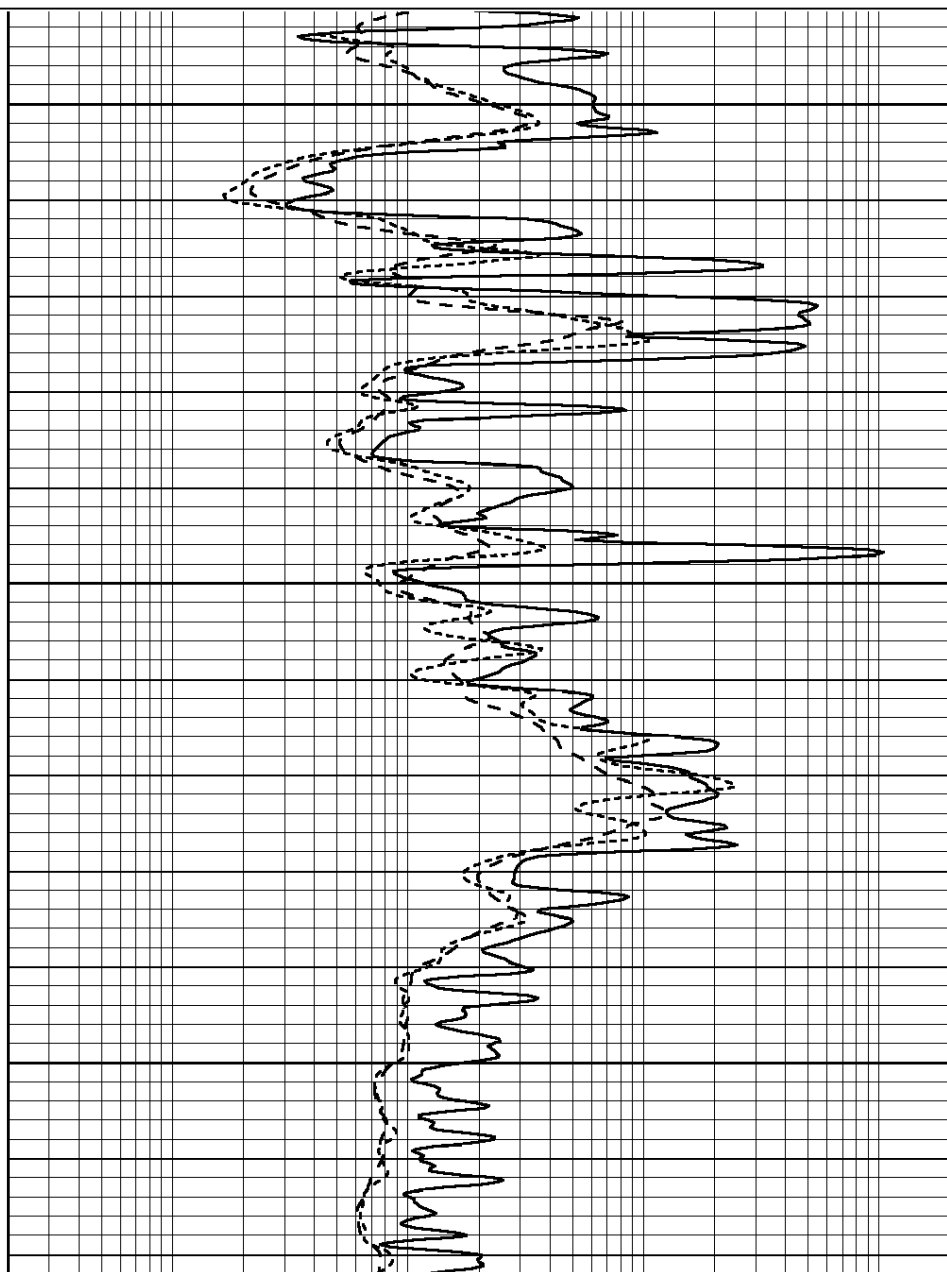
0.2	SHALLOW GUARD (Ohm-m)	2000
0.2	DEEP INDUCTION (Ohm-m)	2000
0.2	MEDIUM INDUCTION (Ohm-m)	2000

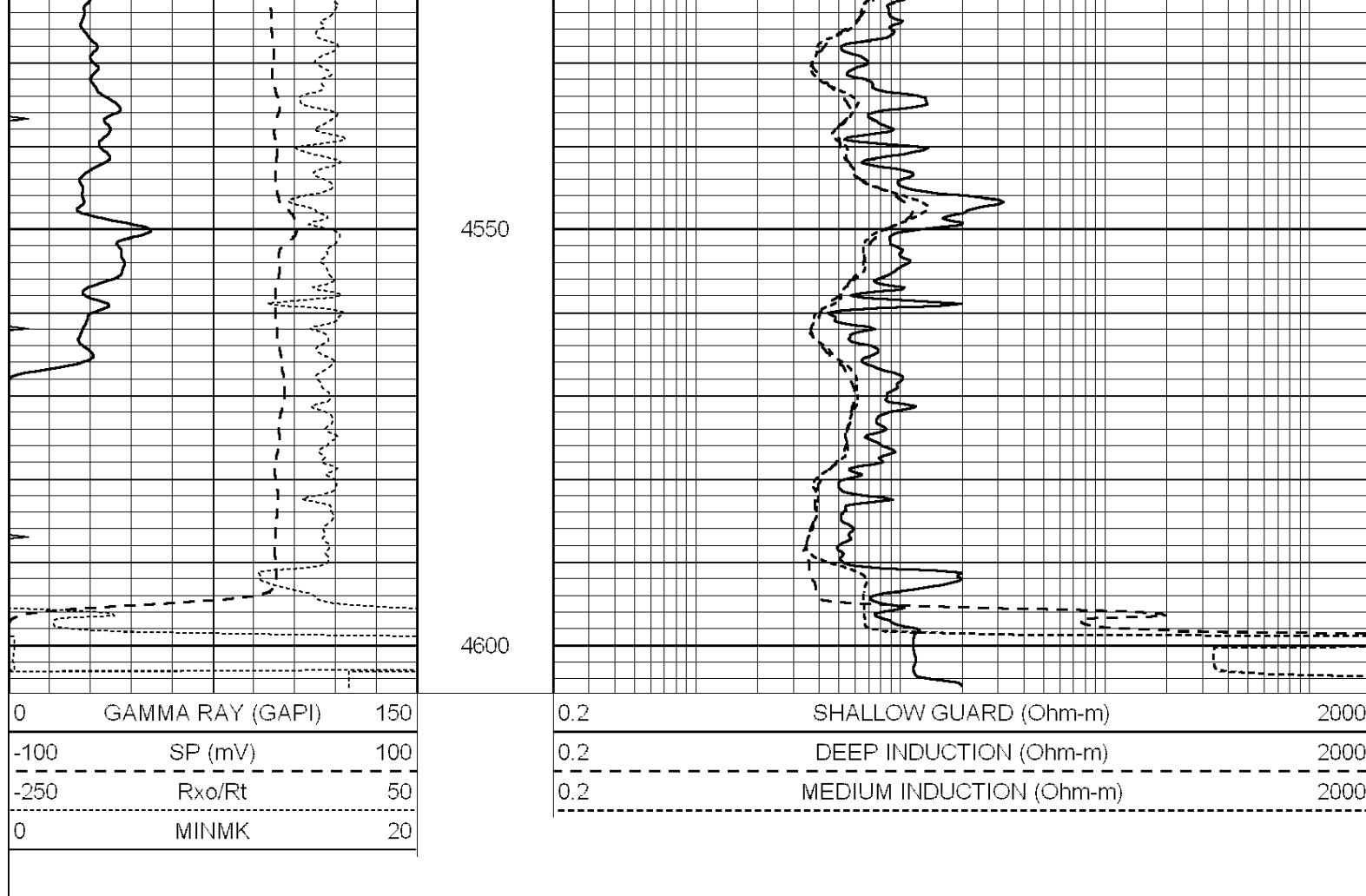


4400

4450

4500





Calibration Report

Database File: 30757ddn.db
 Dataset Pathname: pass3.5
 Dataset Creation: Wed Aug 10 12:41:31 2016 by Calc SOC 120430

Dual Induction Calibration Report

Serial-Model: PROBE7-DILG
 Surface Cal Performed: Fri Jul 22 21:44:44 2016
 Downhole Cal Performed: Mon Jul 28 12:02:56 2008
 After Survey Verification Performed: Mon Jul 28 12:02:56 2008

Surface Calibration

Loop:	Readings			References			Results	
	Air	Loop		Air	Loop		m	b
Deep	-0.014	0.629	V	0.000	400.000	mmho/m	625.000	-6.000
Medium	0.039	0.728	V	0.000	464.000	mmho/m	675.000	-52.000
Internal:	Zero	Cal		Zero	Cal		m	b
Deep	0.011	0.610	V	0.000	400.000	mmho/m	667.135	-7.256
Medium	0.005	0.712	V	0.000	464.000	mmho/m	655.677	-3.102

Downhole Calibration

	Readings			References			Results	
	Zero	Cal		Zero	Cal		m'	b'
Deep	0.000	0.000	mmho/m	14.508	388.384	mmho/m	1.000	0.000
Medium	0.000	0.000	mmho/m	166.367	504.400	mmho/m	1.000	0.000
LL3		7.500	V		1400.000	Ohm-m		

	0.000	V	20.000	Ohm-m
	-7.200	V	4000.000	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		

Litho Density Calibration Report								
Serial: 004N			Model: PRB					

Master Calibration					Performed Fri May 30 11:01:00 2014			
	Background	Magnesium	Aluminum	Sandstone				
Window 1	1378.8	10804.6	3492.0	12453.4	cps			
Window 2	1262.4	9313.5	3076.7	10594.7	cps			
Window 3	1077.6	5668.7	2076.0	6314.8	cps			
Window 4	306.4	313.0	306.4	315.6	cps			
Long Space	0.0	8051.0	1814.3	9332.3	cps			
Short Space	1.9	1706.1	1146.0	1707.6	cps			
Rho		1.7100	2.5900	1.3800	g/cc			
Pe		0.0000	2.5700	1.5500				
Rib Angle	: 45.0	Rib Slope	: 1.002	Density/Spine Ratio	: 0.571			
Spine Angle	: 75.0	Spine Slope	: 3.745	Spine Intercept	: -18.9			

Before Survey Verification					Performed Wed Dec 31 18:00:00 1969			
Window 1	0.0	0.0	0.0	0.0	cps			
Window 2	0.0	0.0	0.0	0.0	cps			
Window 3	0.0	0.0	0.0	0.0	cps			
Window 4	0.0	0.0	0.0	0.0	cps			
Long Space	0.0	0.0	0.0	0.0	cps			
Short Space	0.0	0.0	0.0	0.0	cps			
Measured Rho		0.0000	0.0000	0.0000	g/cc			
Measured Correction		0.0000	0.0000	0.0000	g/cc			
Measured Pe			0.0000	0.0000				

After Survey Verification					Performed Wed Dec 31 18:00:00 1969			
Window 1	0.0	0.0	0.0	0.0	cps			
Window 2	0.0	0.0	0.0	0.0	cps			
Window 3	0.0	0.0	0.0	0.0	cps			
Window 4	0.0	0.0	0.0	0.0	cps			
Long Space	0.0	0.0	0.0	0.0	cps			
Short Space	0.0	0.0	0.0	0.0	cps			
Measured Rho		0.0000	0.0000	0.0000	g/cc			
Measured Correction		0.0000	0.0000	0.0000	g/cc			
Measured Pe			0.0000	0.0000				

Compensated Neutron Calibration Report								
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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:	070558		
Tool Model:	OPEN_GR		
Performed:	Fri Aug 05 02:18:33 2016		
Calibrator Value:	1.0	GAPI	
Background Reading:	0.0	cps	
Calibrator Reading:	1.0	cps	
Sensitivity:	0.2800	GAPI/cps	