

DUAL
INDUCTION
LOG

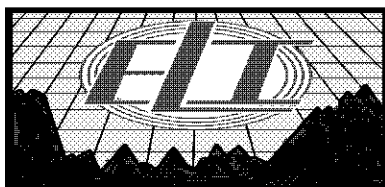
Company	PICKRELL DRILLING COMPANY, INC.	Company	PICKRELL DRILLING COMPANY, INC.
Well	#1 THISSEN "D"	Well	#1 THISSEN "D"
Field	HEDRICK	Field	HEDRICK
County	KINGMAN	County	KINGMAN
State	KANSAS	State	KANSAS
Location:	AP1 #: 15-095-22322-0000 2263' FSL & 900' FEL	Permanent Datum Log Measured From Drilling Measured From	GROUND LEVEL Elevation 1437 KELLY BUSHING 7' A.G.L KELLY BUSHING
	SEC 24 TWP 28S RGE 6W		
		Other Services CDL/CNL/PE MEL	Elevation K.B. 1444 D.F. 1442 G.L. 1437
Date	6/14/18		
Run Number	ONE		
Depth Driller	4000		
Depth Logger	4000		
Bottom Logged Interval	3998		
Top Log Interval	00		
Casing Driller	8 5/8" @ 220		
Casing Logger	220		
Bit Size	7 7/8		
Type Fluid in Hole	CHEMICAL MUD	CHLORIDES 8000 PPM	
Density / Viscosity	9.3/57		
pH / Fluid Loss	9.0/9.6		
Source of Sample	FLOWLINE		
Rm @ Meas. Temp	.44 @ 88F		
Rmf @ Meas. Temp	.33 @ 88F		
Rmc @ Meas. Temp	.52 @ 88F		
Source of Rmf / Rmc	MEASUREMENT		
Rm @ BHT	.33 @ 116F		
Time Circulation Stopped	2 HOURS		
Time Logger on Bottom	////		
Maximum Recorded Temperature	116F		
Equipment Number	3802		
Location	HAYS, KANSAS		
Recorded By	JASON CAPPELLUCCI		
Witnessed By	AARON YOUNG		

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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 SERVICES, HAYS, KS. (785) 628-6395
DIRECTIONS
MURDOCK, KS. - 1 1/2 SOUTH TO RD. 40 - 1/2 EAST - NORTH INTO

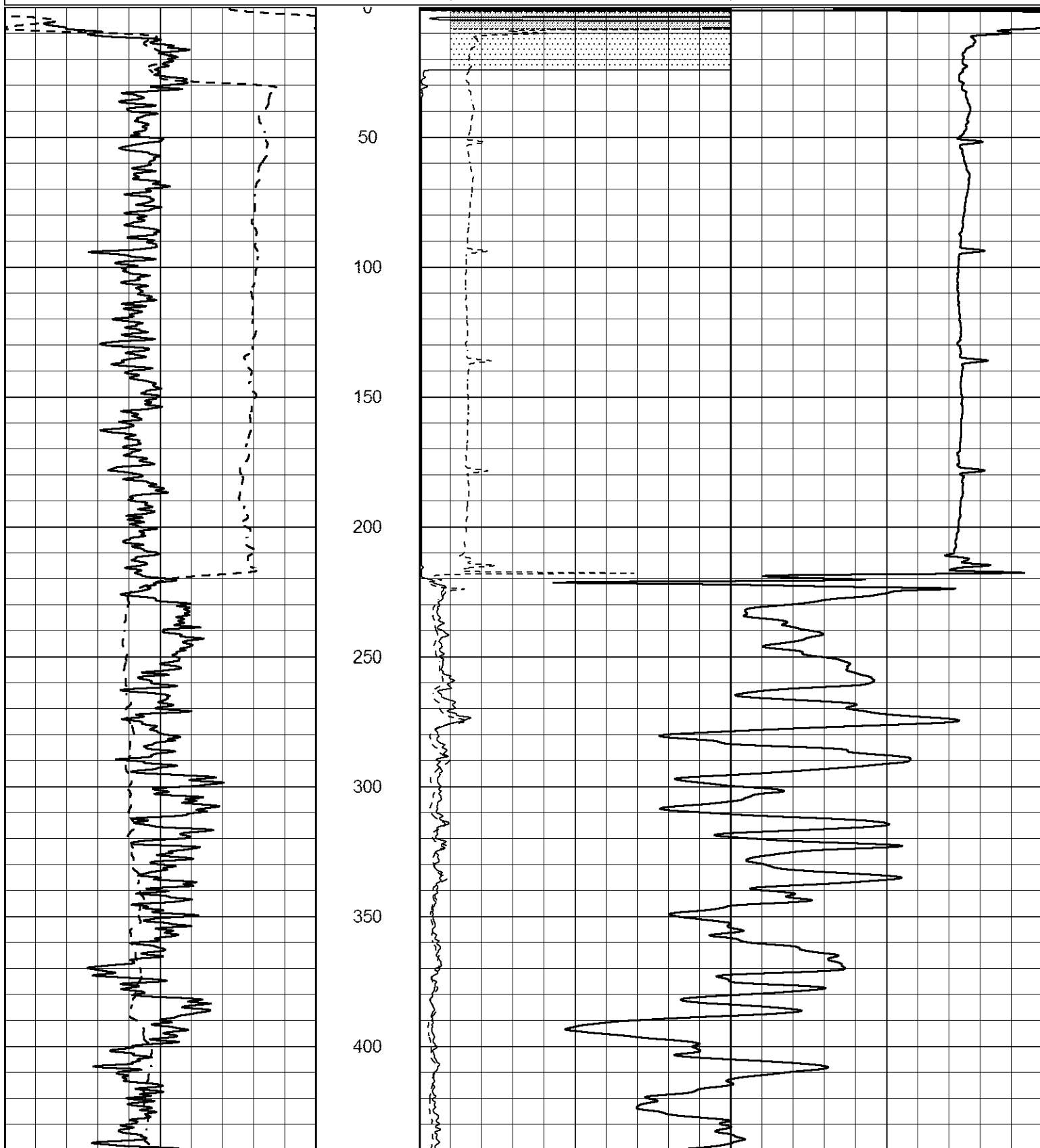


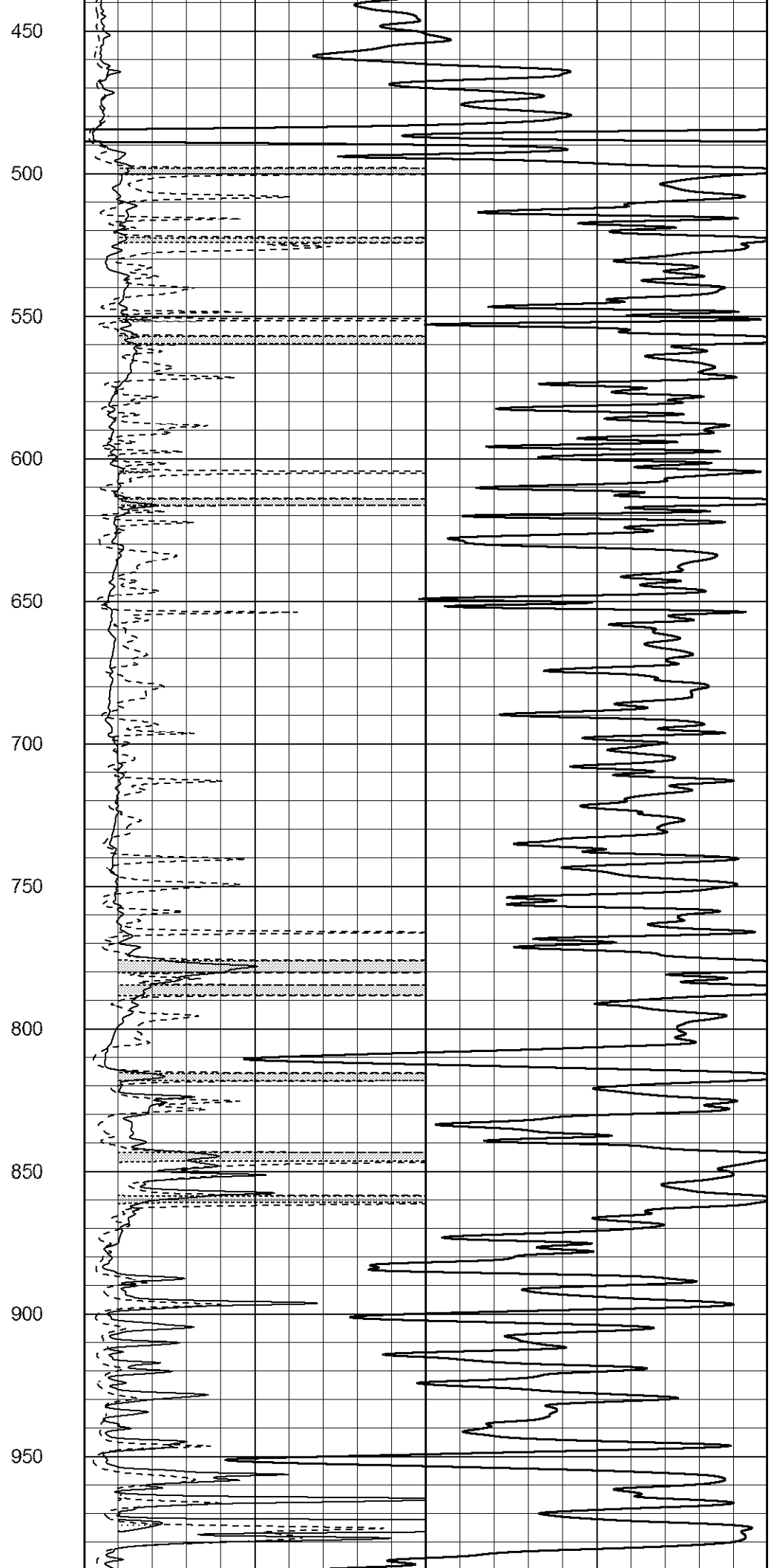
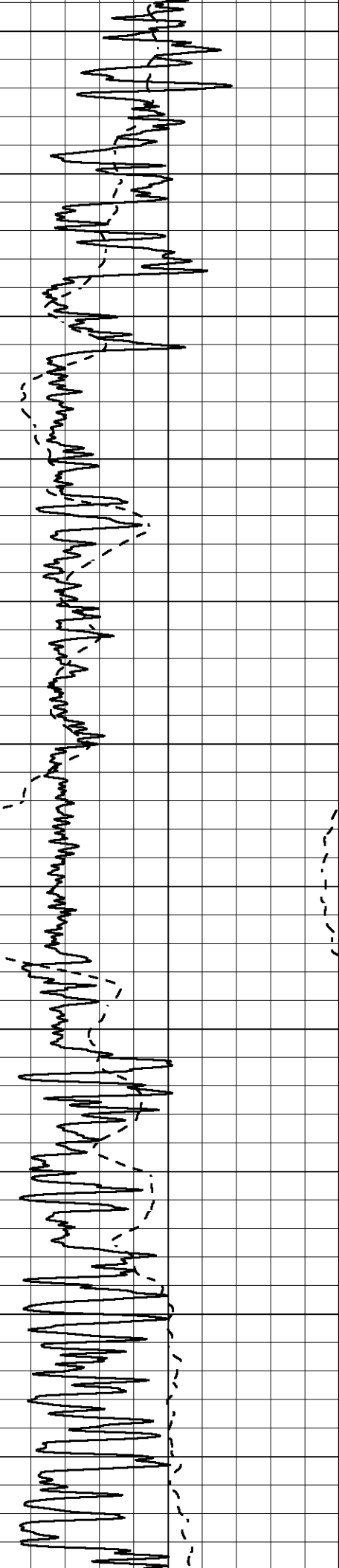
MAIN SECTION

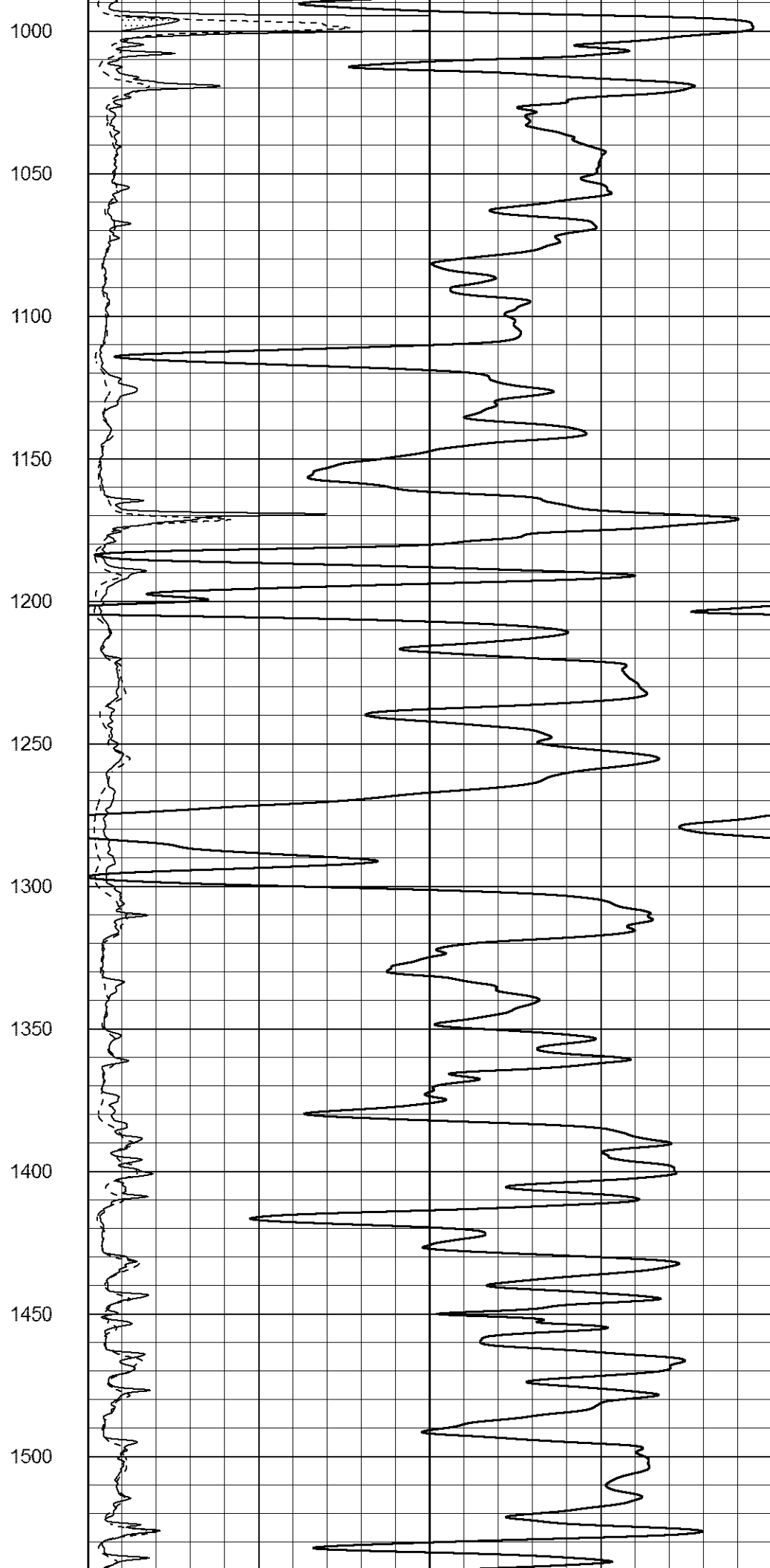
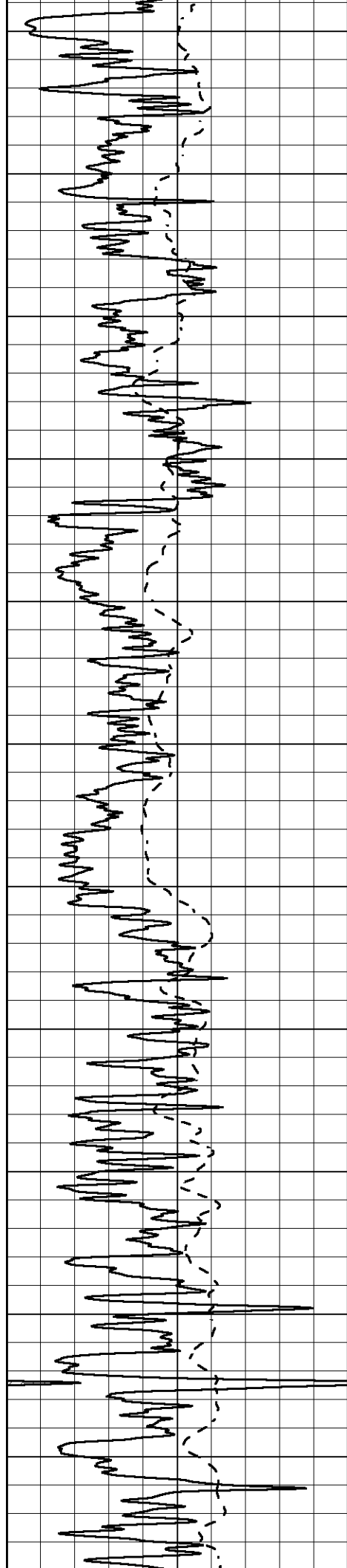
Database File 2506ddn8.db
Dataset Pathname pass3.2
Presentation Format _dil2
Dataset Creation Thu Jun 14 08:13:28 2018
Charted by Depth in Feet scaled 1:600

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

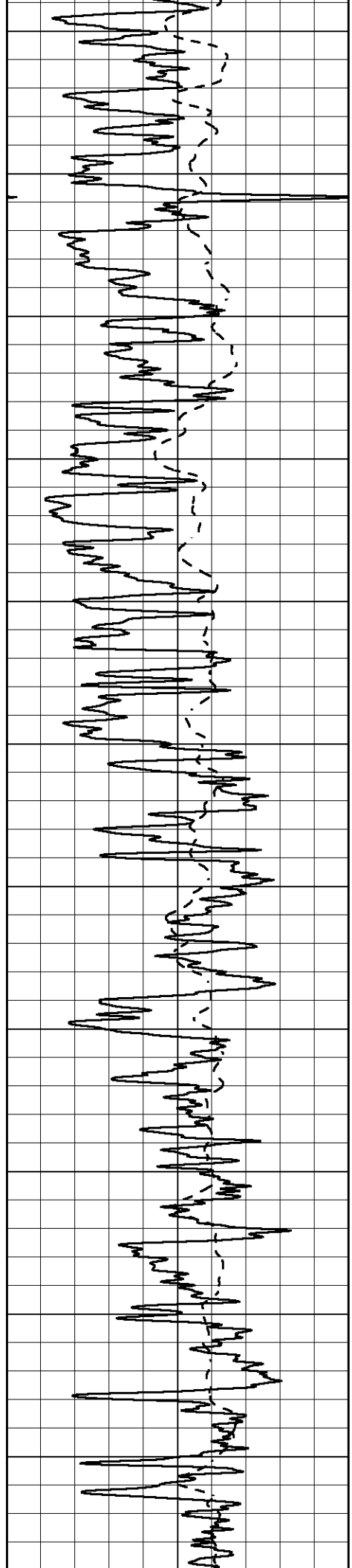
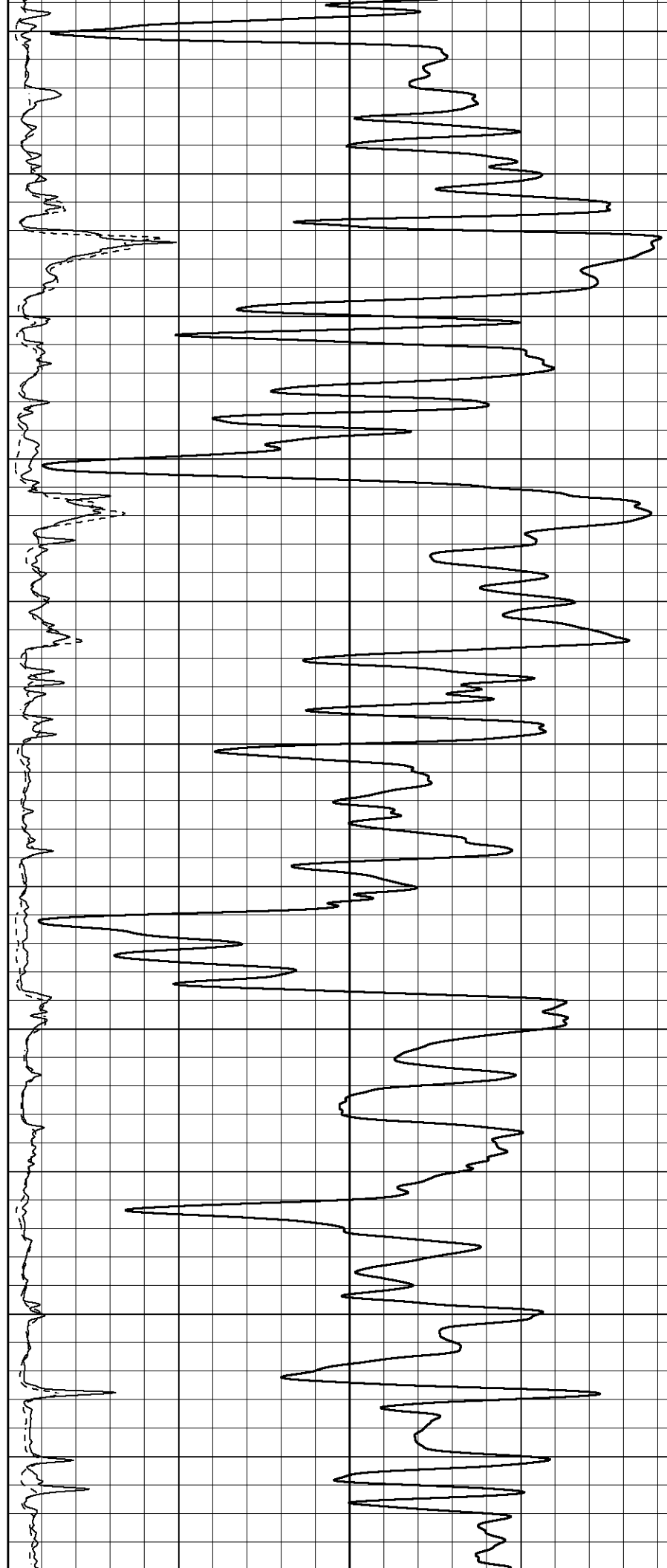
1000	CILD (mmho/m)	0
0	RLL3 (Ohm-m)	50
0	Deep Induction (Ohm-m)	50
50	RILD X10 (Ohm-m)	500
50	RLL3 X10 (Ohm-m)	500

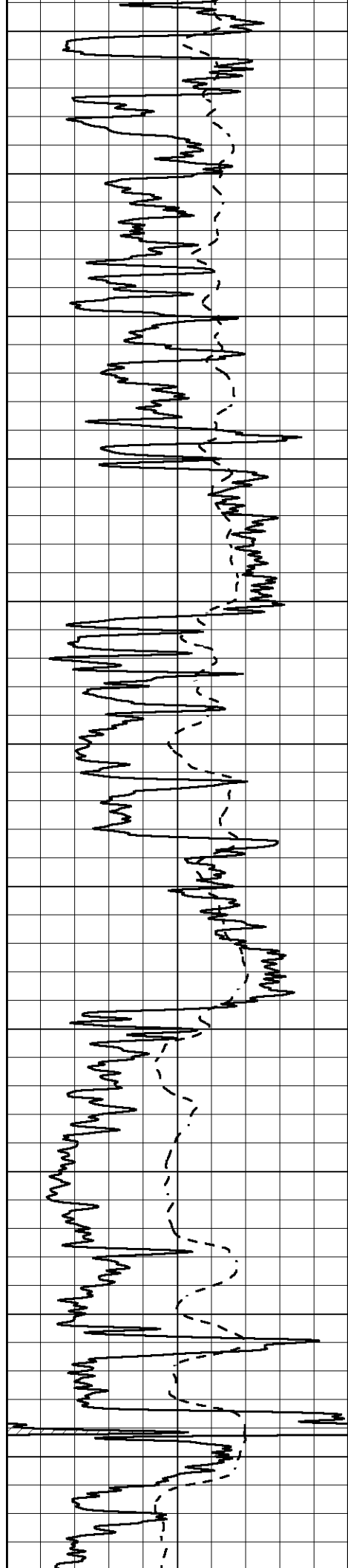




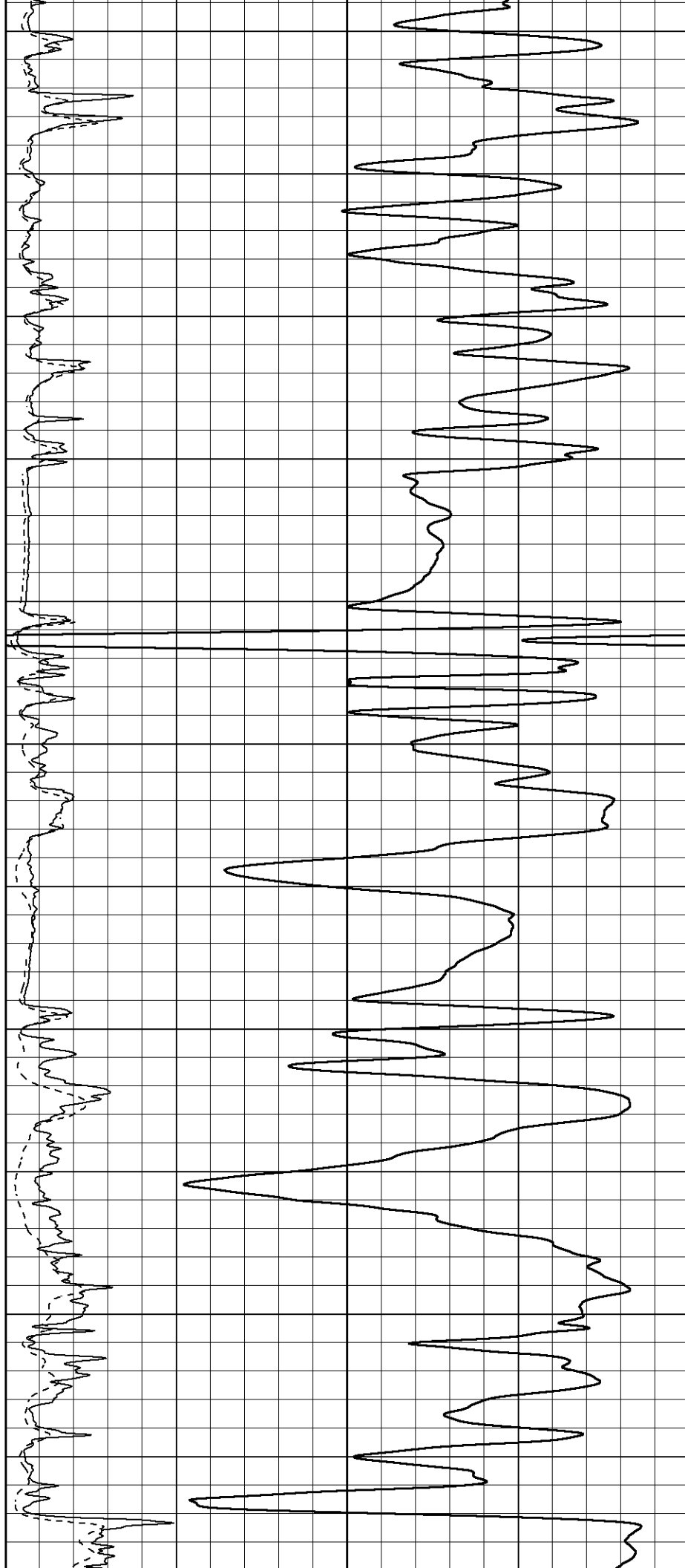


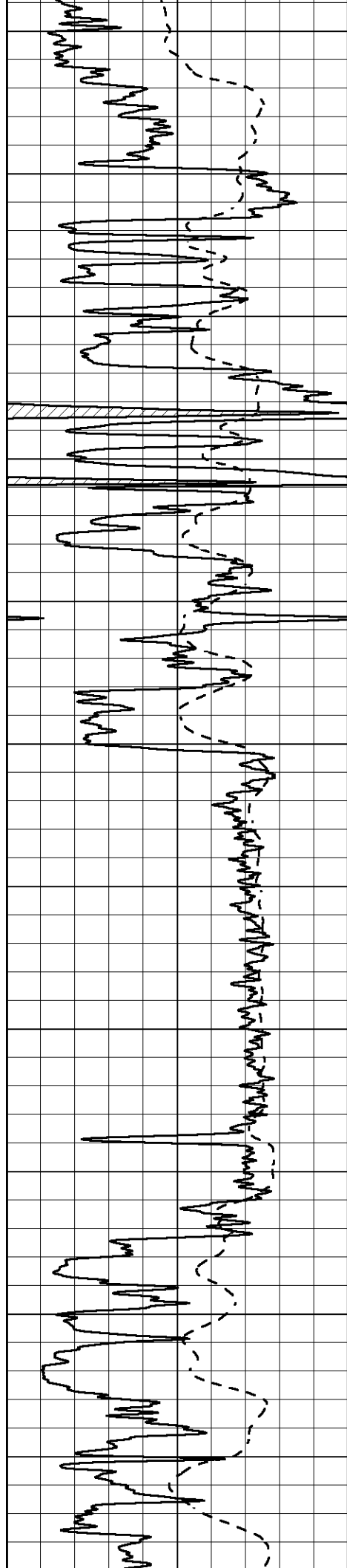
1550
1600
1650
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1750
1800
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1900
1950
2000
2050





2100
2150
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2500
2550
2600





2650

2700

2750

2800

2850

2900

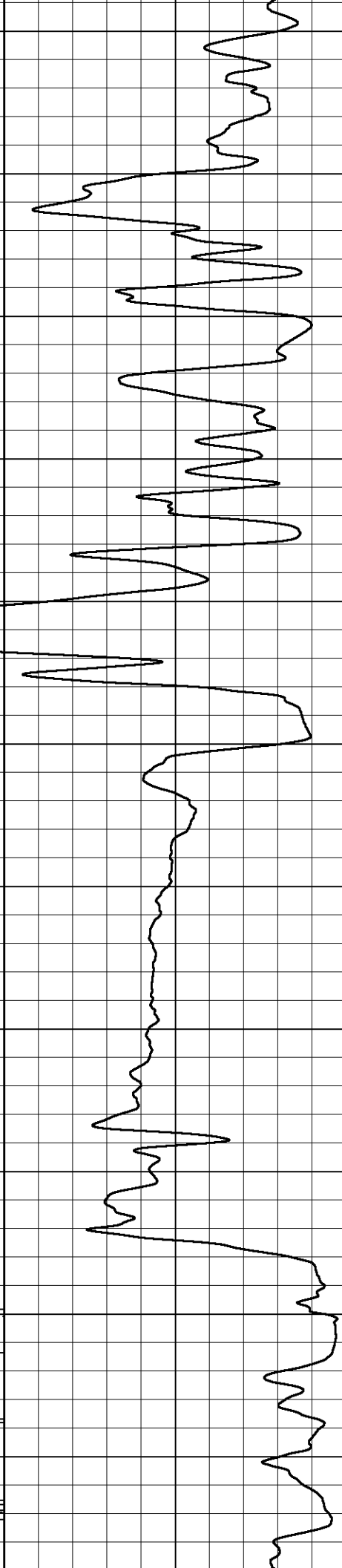
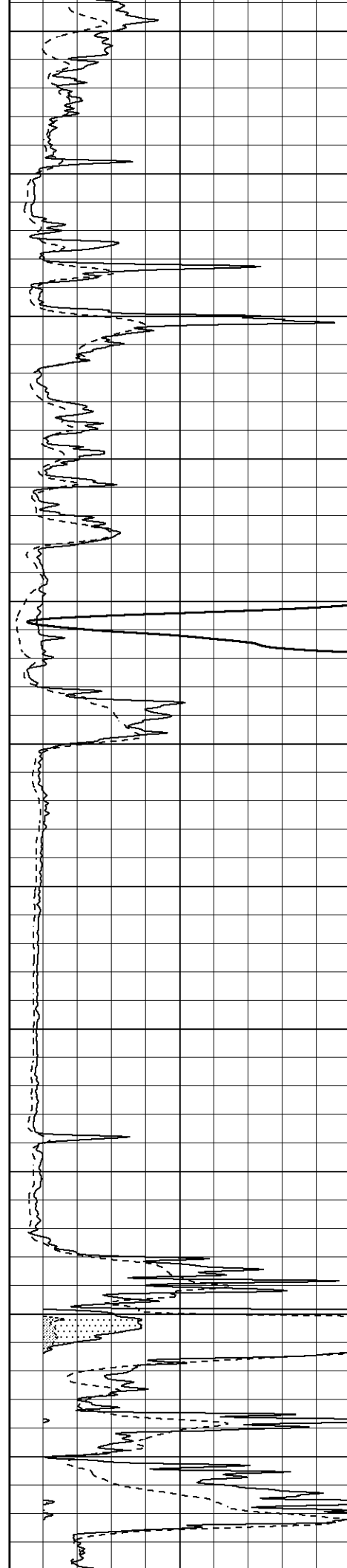
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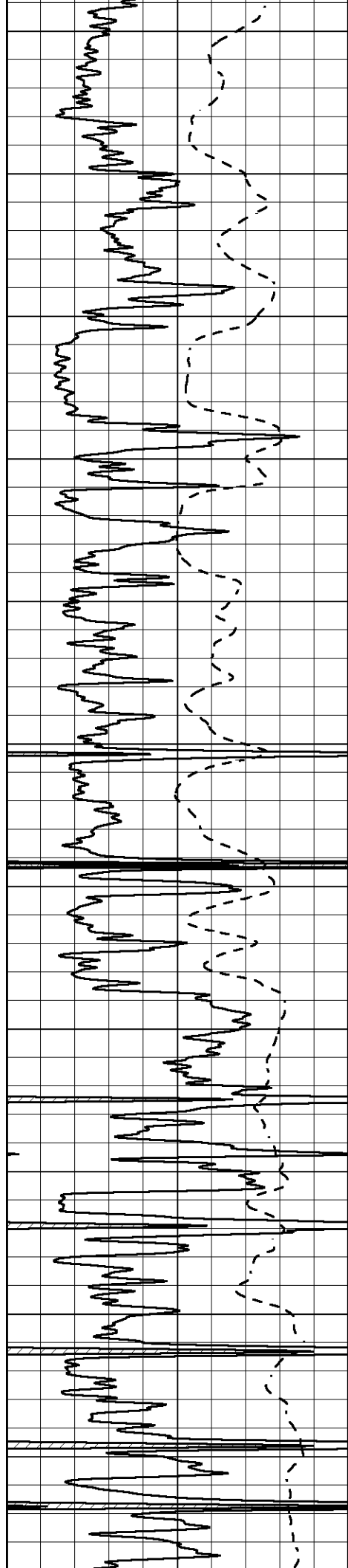
3000

3050

3100

3150





3200

3250

3300

3350

3400

3450

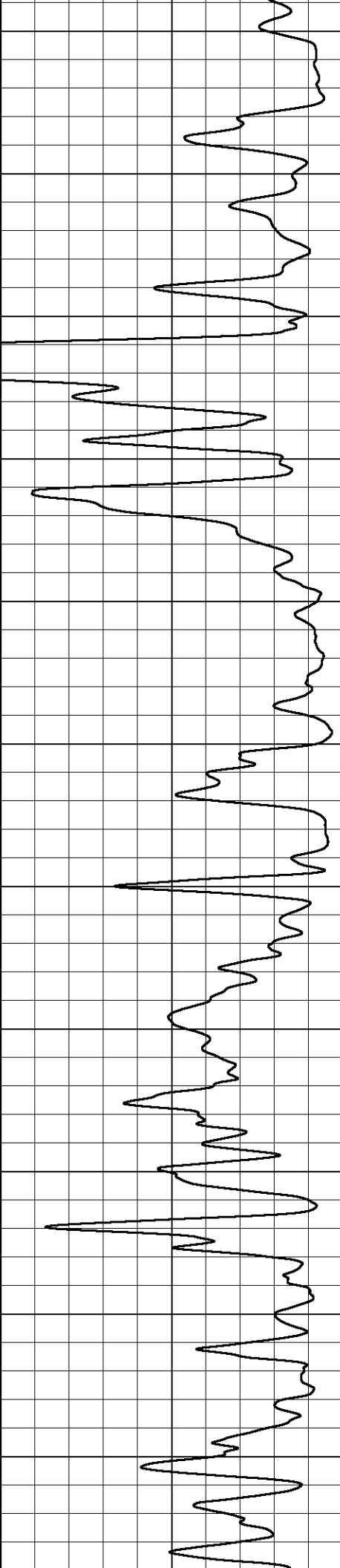
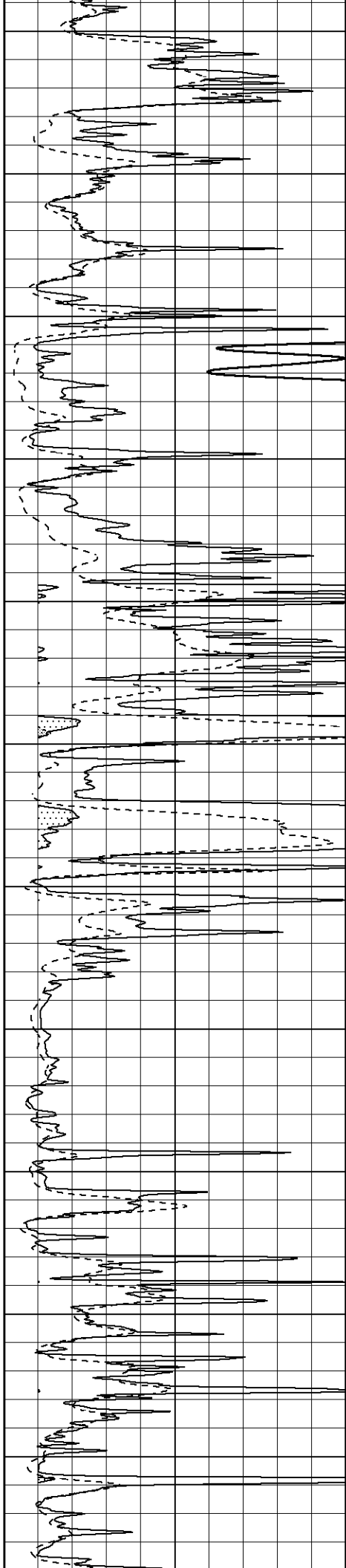
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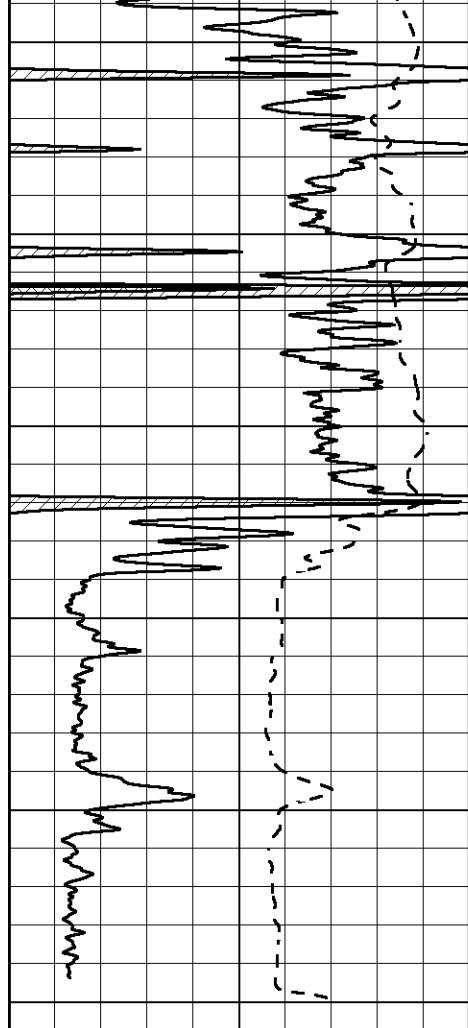
3550

3600

3650

3700





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

3750

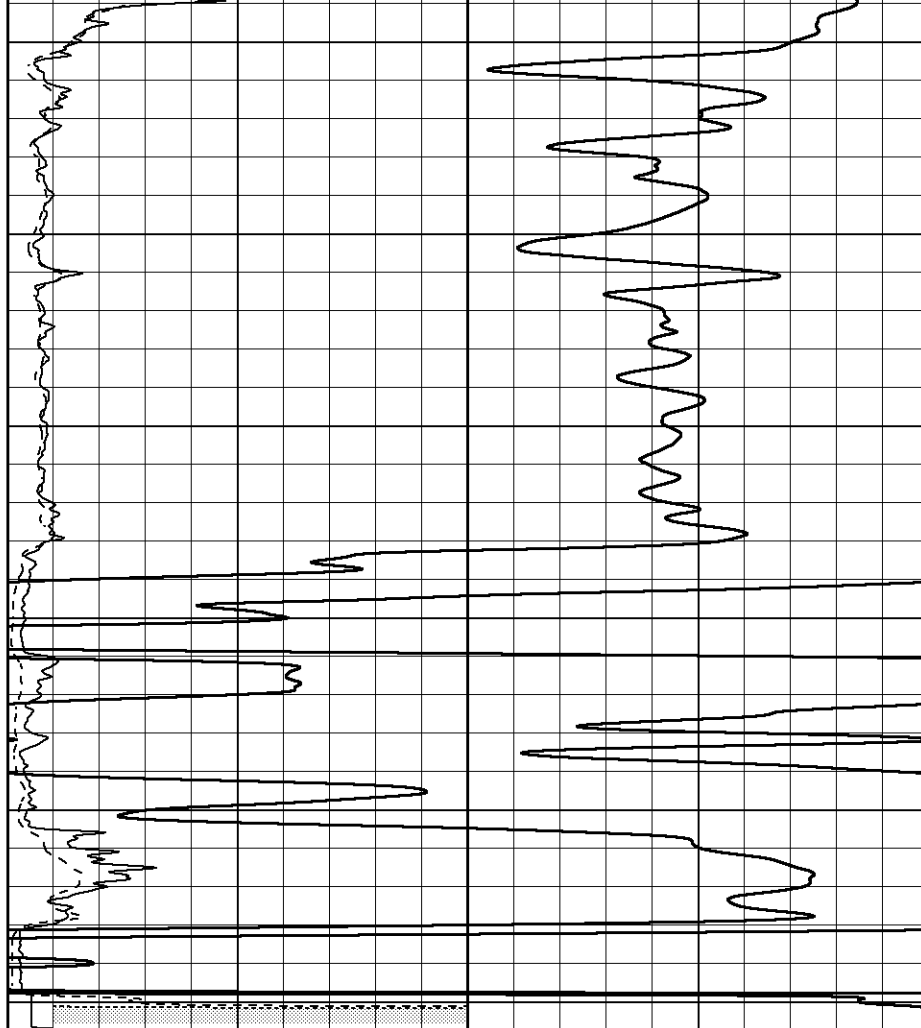
3800

3850

3900

3950

4000



1000 CILD (mmho/m) 0

0 RLL3 (Ohm-m) 50

0 Deep Induction (Ohm-m) 50

50 RILD X10 (Ohm-m) 500

50 RLL3 X10 (Ohm-m) 500



MAIN SECTION

Database File 2506ddn8.db
 Dataset Pathname pass3.1
 Presentation Format _dil
 Dataset Creation Thu Jun 14 06:39:18 2018
 Charted by Depth in Feet scaled 1:240

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

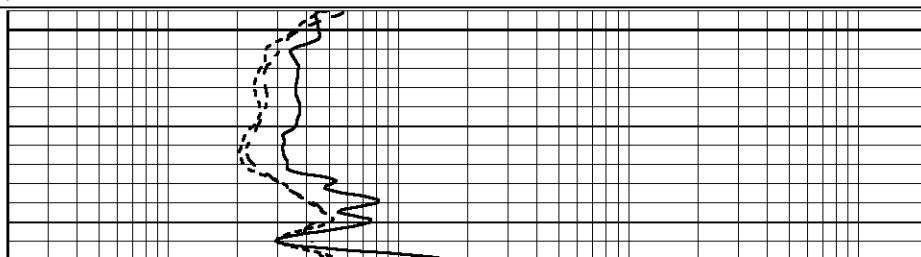
0.2 SHALLOW GUARD (Ohm-m) 2000

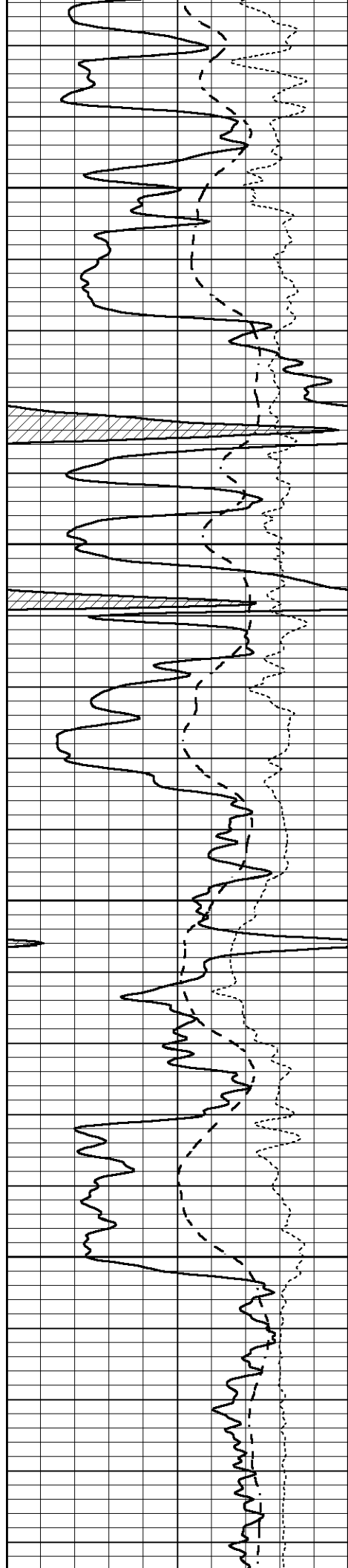
0.2 MEDIUM INDUCTION (Ohm-m) 2000

0.2 DEEP INDUCTION (Ohm-m) 2000



2700



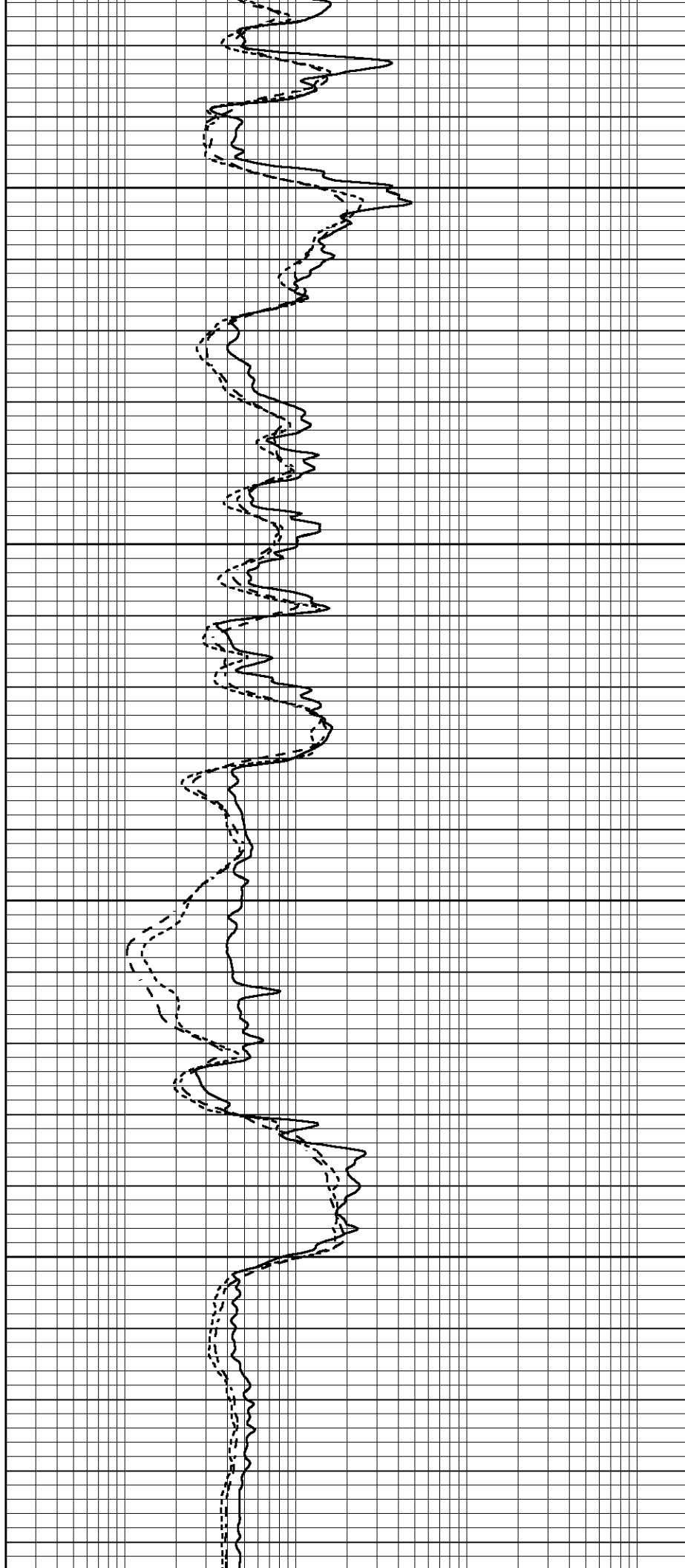


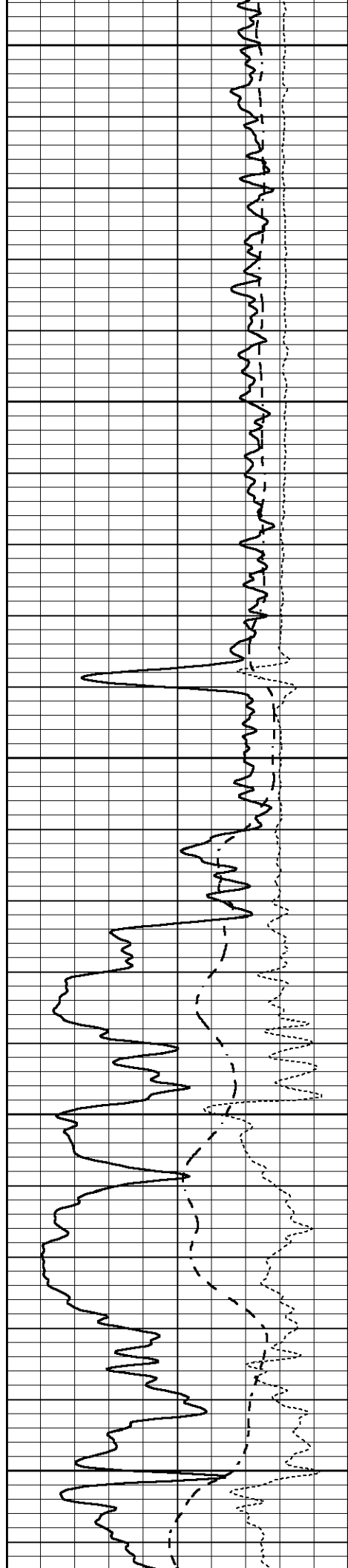
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2800

2850

2900





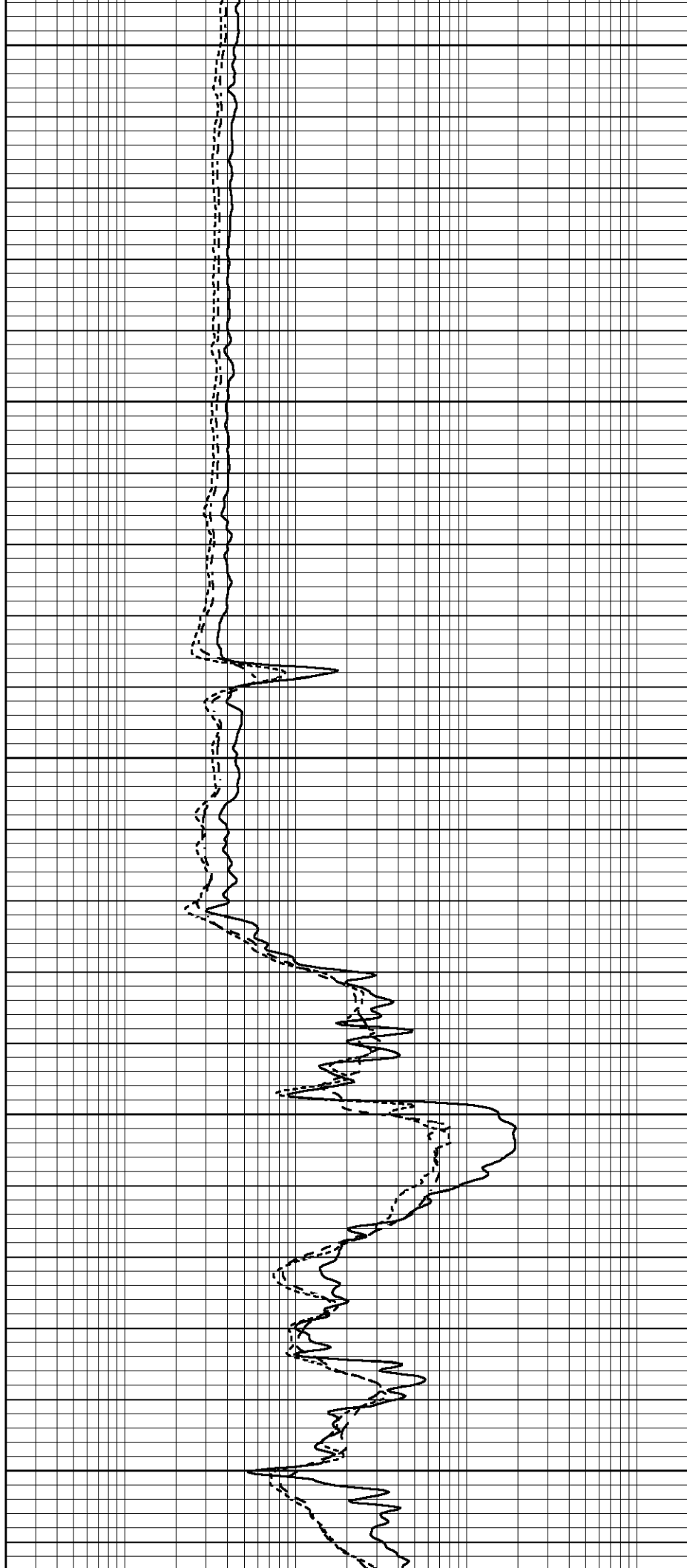
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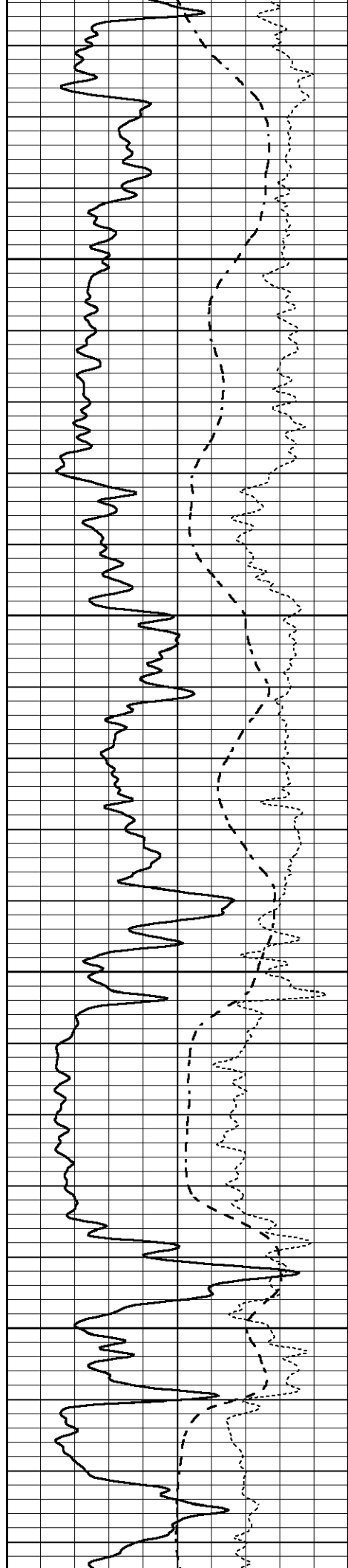
3000

3050

3100

3150



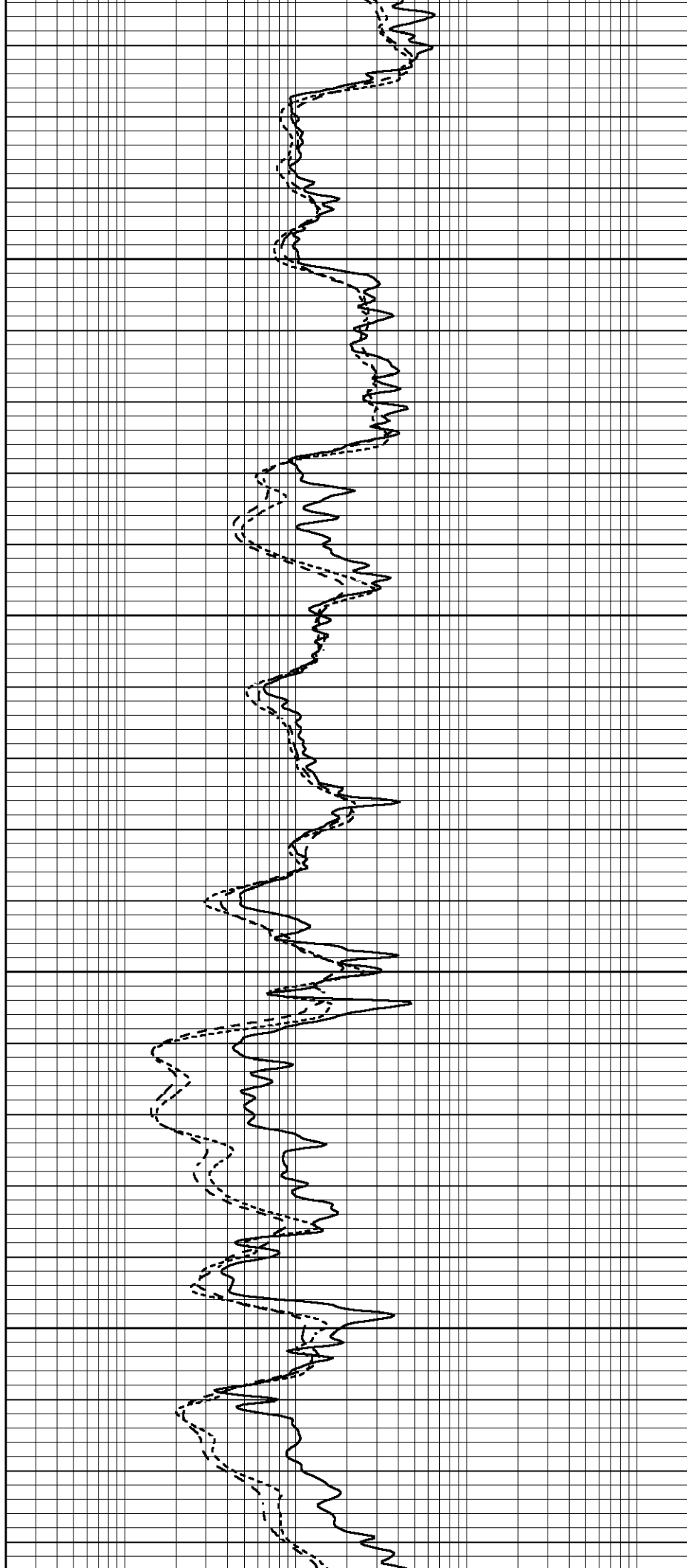


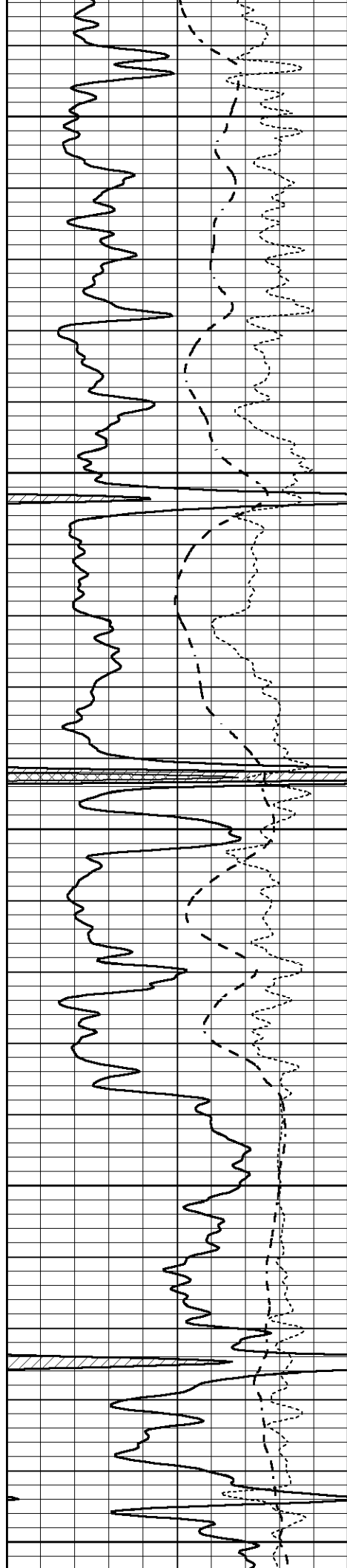
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3250

3300

3350





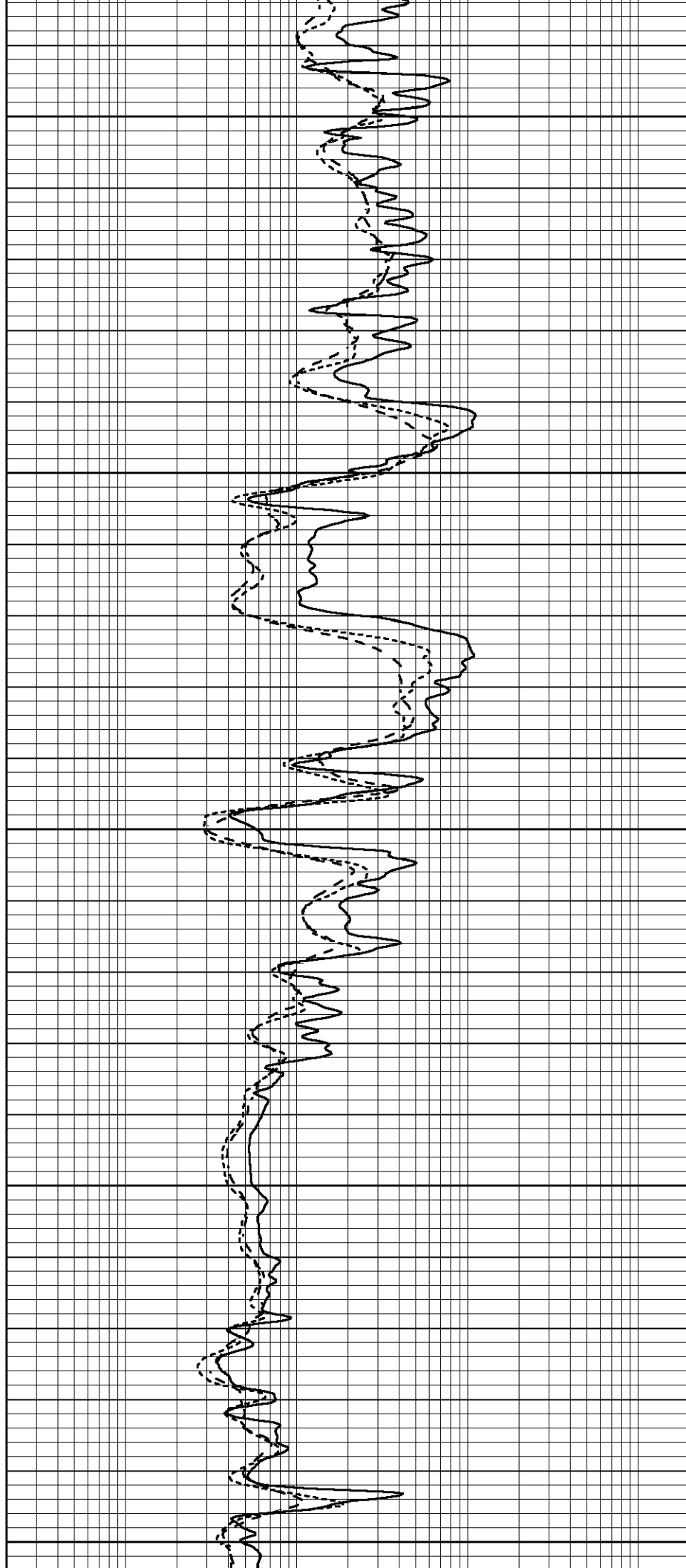
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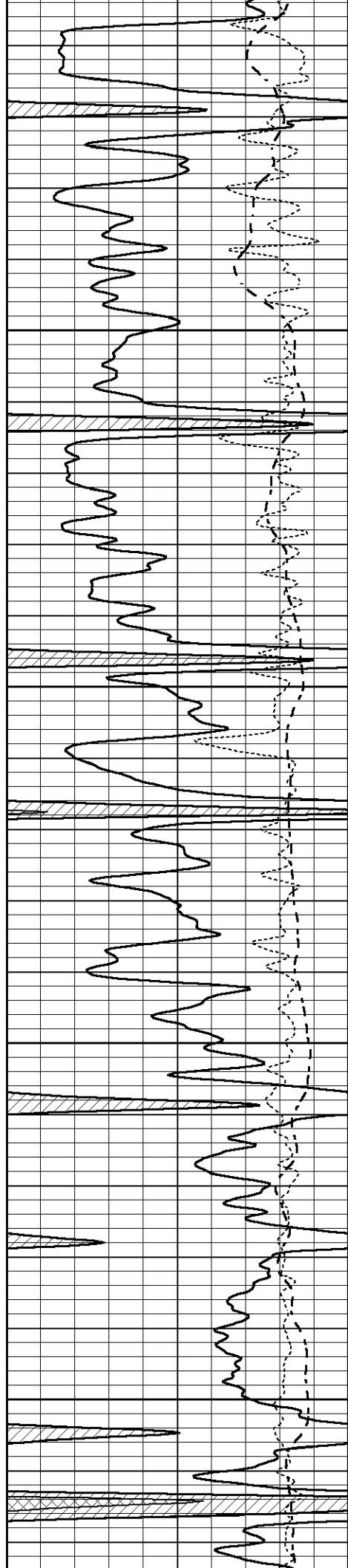
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3500

3550

3600



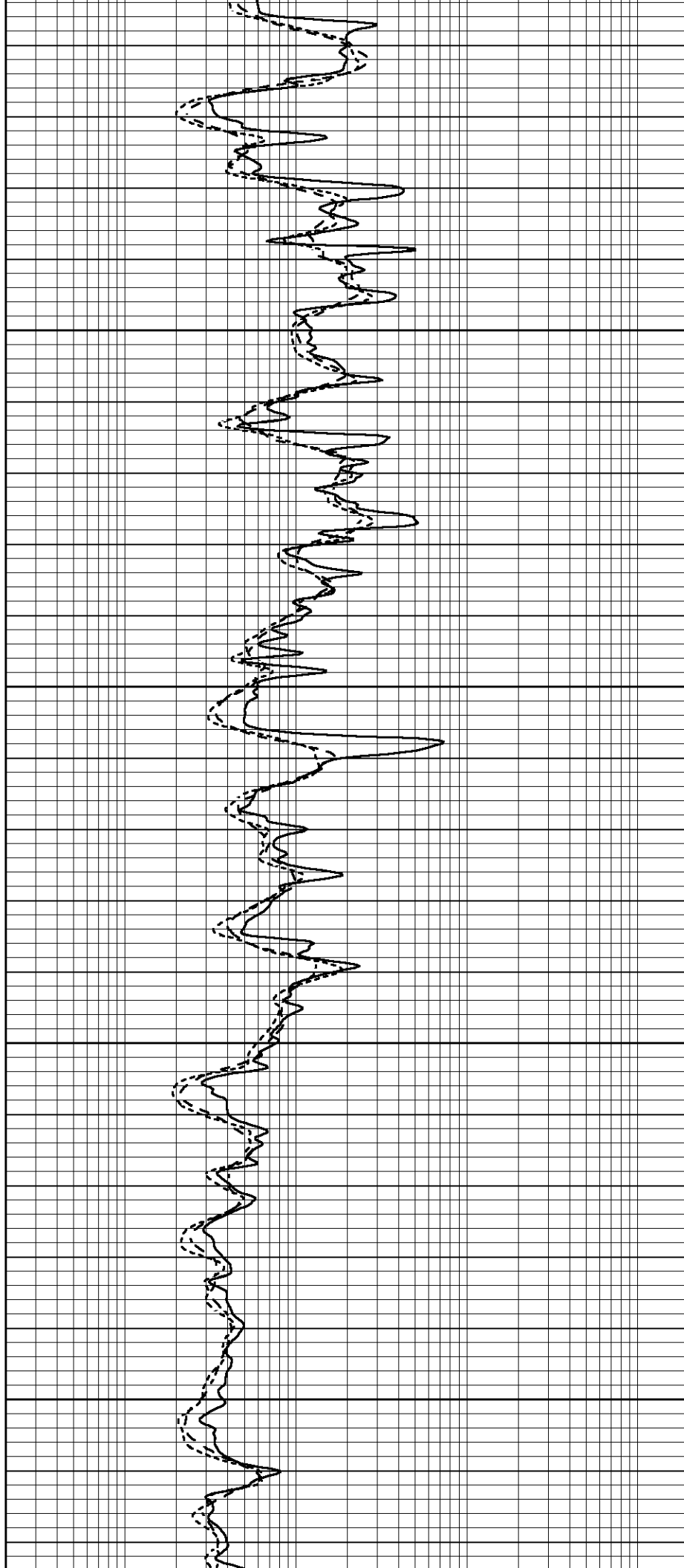


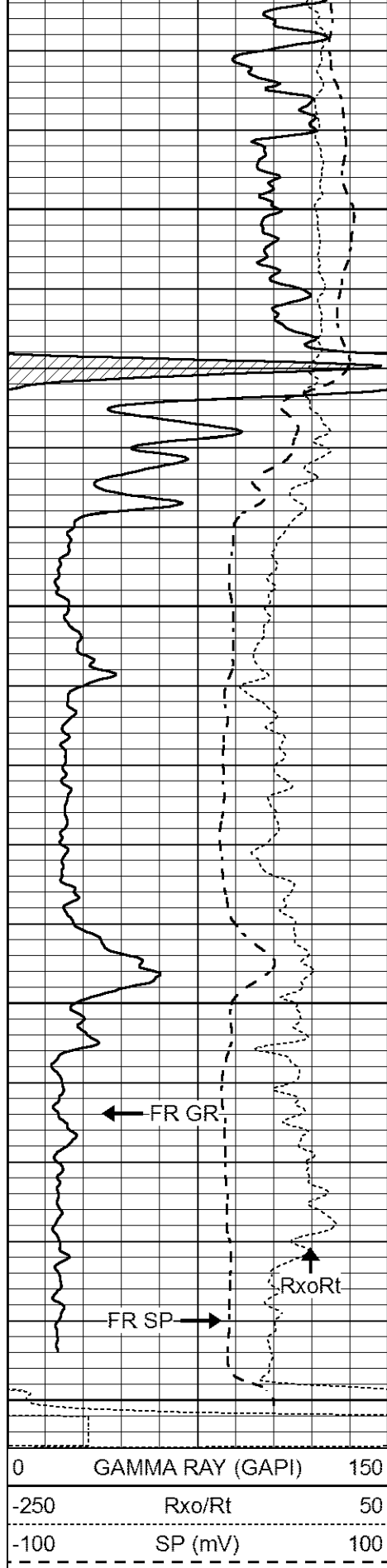
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3700

3750

3800





3850

3900

3950

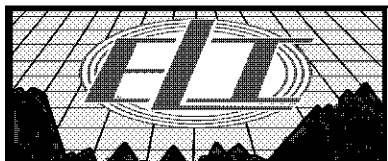
LTD 4000

FR RILD

FR RILM

FR RLL3

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

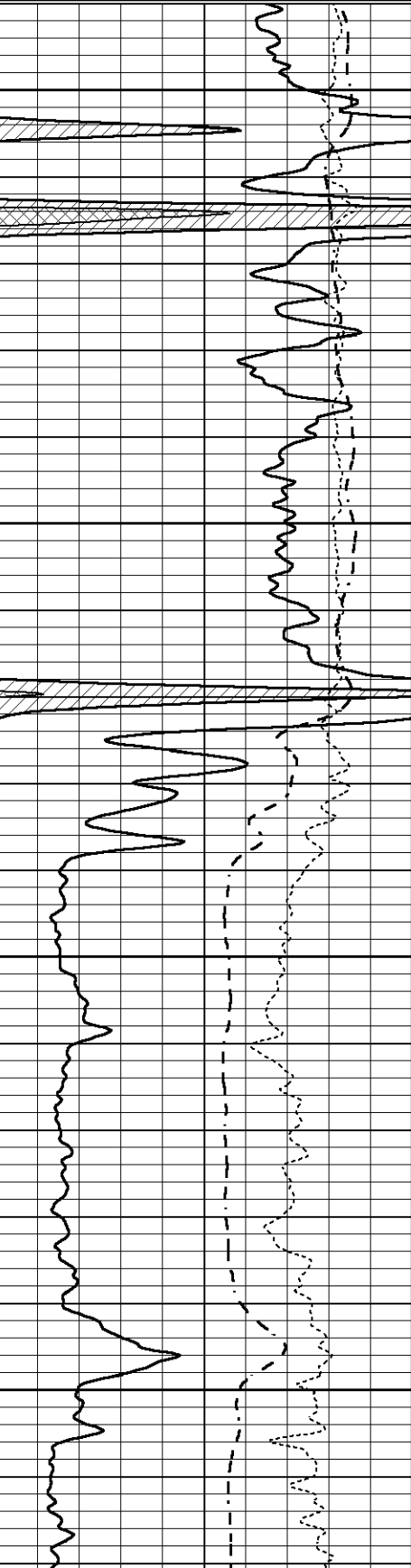


REPEAT SECTION

Database File 2506ddn8.db
Dataset Pathname pass2.2
Presentation Format _dil
Dataset Creation Thu Jun 14 06:32:49 2018
Charted by Depth in Feet scaled 1:240

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

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

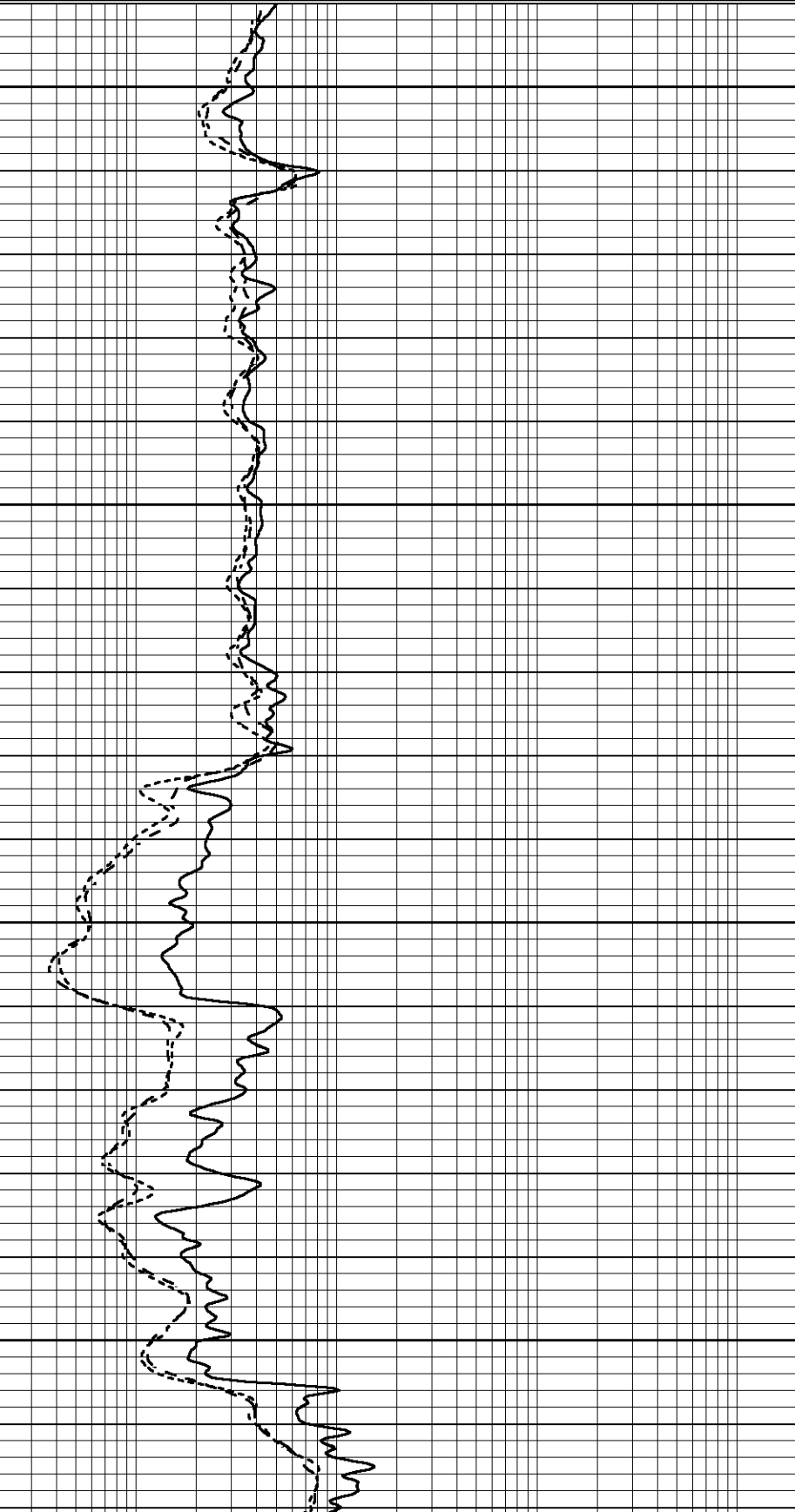


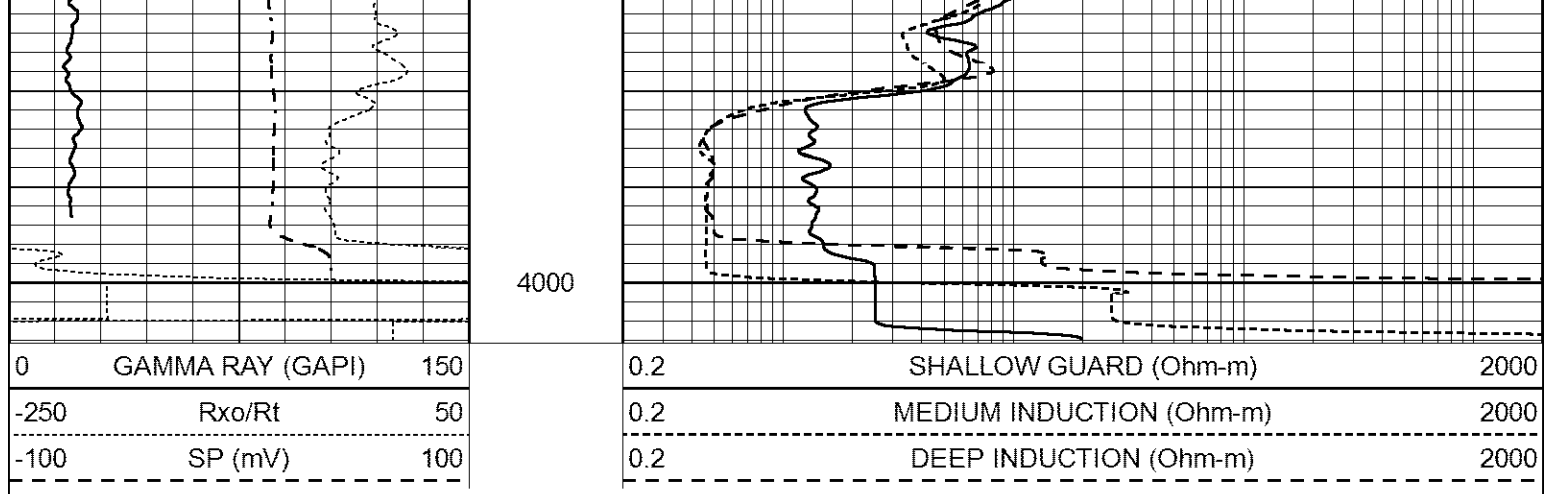
3800

3850

3900

3950





Calibration Report

Database File 2506ddn8.db
 Dataset Pathname pass2.2
 Dataset Creation Thu Jun 14 06:32:49 2018

Dual Induction Calibration Report

Serial-Model: FW1410-55-Probe
 Surface Cal Performed: Mon May 22 14:23:32 2017
 Downhole Cal Performed: Thu Mar 12 09:29:20 2015
 After Survey Verification Performed: Thu Mar 12 09:29:20 2015

Surface Calibration

Loop:	Readings			References			Results	
	Air	Loop		Air	Loop		m	b
Deep	0.011	0.656	V	1.000	400.000	mmho/m	618.595	-5.524
Medium	-0.000	0.731	V	1.000	464.000	mmho/m	632.856	1.197
Internal:	Zero			Cal			m	
							b	
Deep	0.007	0.649	V	0.000	400.000	mmho/m	623.784	-4.595
Medium	0.004	0.743	V	0.000	464.000	mmho/m	627.284	-2.251

Downhole Calibration

	Readings			References			Results	
	Zero	Cal		Zero	Cal		m'	b'
Deep	-0.824	395.917	mmho/m	-0.976	397.550	mmho/m	1.004	-0.149
Medium	3.565	471.327	mmho/m	3.468	471.590	mmho/m	1.001	-0.099
LL3		7.503	V		3500.000	Ohm-m		
		0.001	V		20.000	Ohm-m		
		-7.481	V		3000.000	mmho-m		

After Survey Verification

	Readings			Targets			Results	
	Zero	Cal		Zero	Cal		m'	b'
Deep	0.000	0.000	mmho/m	-0.824	395.917	mmho/m	1.000	0.000
Medium	0.000	0.000	mmho/m	3.565	471.327	mmho/m	1.000	0.000
LL3		0.000	Ohm-m		1500.000	Ohm-m		
		0.000	Ohm-m		20.000	Ohm-m		
		0.000	mmho-m		3745.000	mmho-m		

Compensated Neutron Calibration Report

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:	Probe1	
Performed:	Tue Jul 25 12:16:33 2017	
Calibrator Value:	1.0	GAPI
Background Reading:	0.0	cps
Calibrator Reading:	1.0	cps
Sensitivity:	0.4000	GAPI/cps