



DUAL INDUCTION LOG

Company	EAGLE CREEK CORPORATION	Company	EAGLE CREEK CORPORATION
Well	JOHNSON-RAPIER #1-24	Well	JOHNSON-RAPIER #1-24
Field	WILDCAT	Field	WILDCAT
County	WICHITA	County	WICHITA
State	KANSAS	State	KANSAS
Location:	API # : 15-203-20320-00-00 1929' FSL & 2846' FEL	Other Services CDL/CNL MEL	
Permanent Datum Log Measured From Drilling Measured From	GROUND LEVEL KELLY BUSHING 5' A.G.L. KELLY BUSHING	Elevation K.B. 3146 D.F. 3144 G.L. 3141	
Date	07/18/17		
Run Number	ONE		
Depth Driller	4700		
Depth Logger	4702		
Bottom Logged Interval	4700		
Top Log Interval	00		
Casing Driller	@ 220		
Casing Logger	220		
Bit Size	7 7/8"		
Type Fluid in Hole	CHEMICAL MUD	CHLORIDES 6200 PPM	
Density / Viscosity	9.3/59		
pH / Fluid Loss	10.0/9.6		
Source of Sample	FLOWLINE		
Rm @ Meas. Temp	.40@80		
Rmt @ Meas. Temp	.30@80		
Rmc @ Meas. Temp	.48@80		
Source of Rmt / Rmc	MEASURED		
Rm @ BHT	.26@122		
Time Circulation Stopped	2 HOURS		
Time Logger on Bottom	///		
Maximum Recorded Temperature	112F		
Equipment Number	4010		
Location	HAYS, KANSAS		
Recorded By	GUS PFANENSTIEL		
Witnessed By	ROCKY MILFORD		

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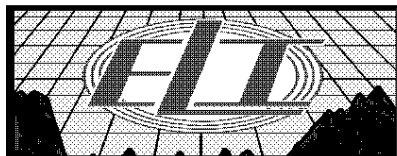
All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs, 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, KS. (785) 628-6395

DIRECTIONS

INTERSECTION OF HW 96 AND HW 83 IN SCOTT CITY,
12 W TO COUNTY LINE, S 13 MILES TO CC RD.,
1/2 W, NORTH INTO.



MAIN PASS

Database File: 1805ddn.db
Dataset Pathname: pass3M
Presentation Format: _dil2
Dataset Creation: Tue Jul 18 04:54:42 2017
Charted by: Depth in Feet scaled 1:600

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

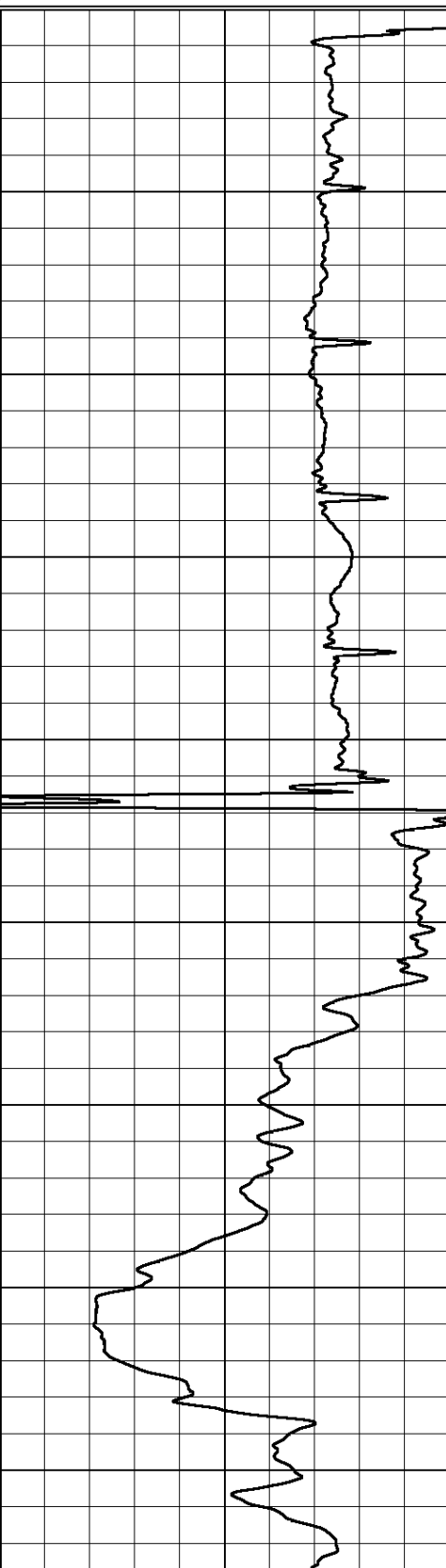
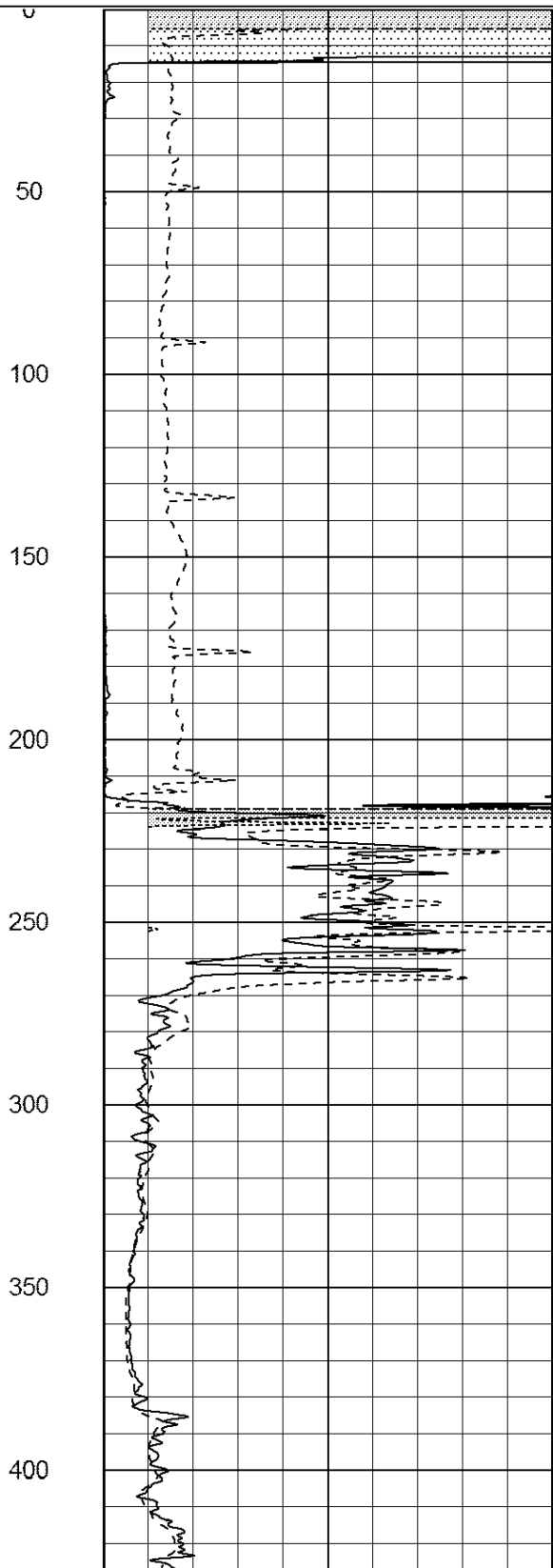
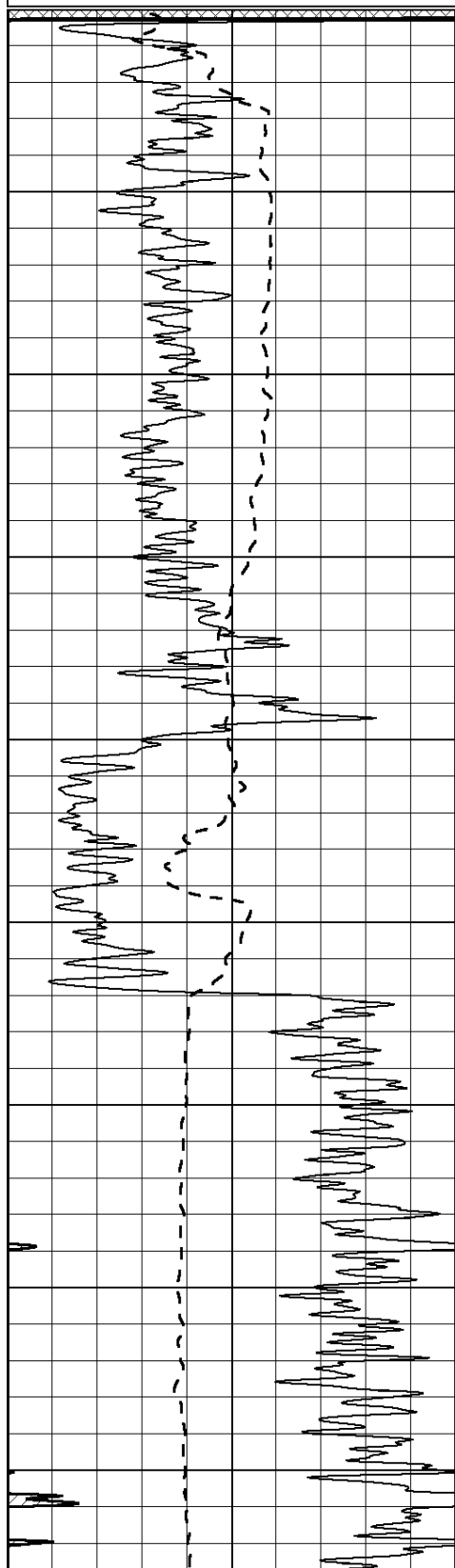
0	RLL3 (Ohm-m)	50
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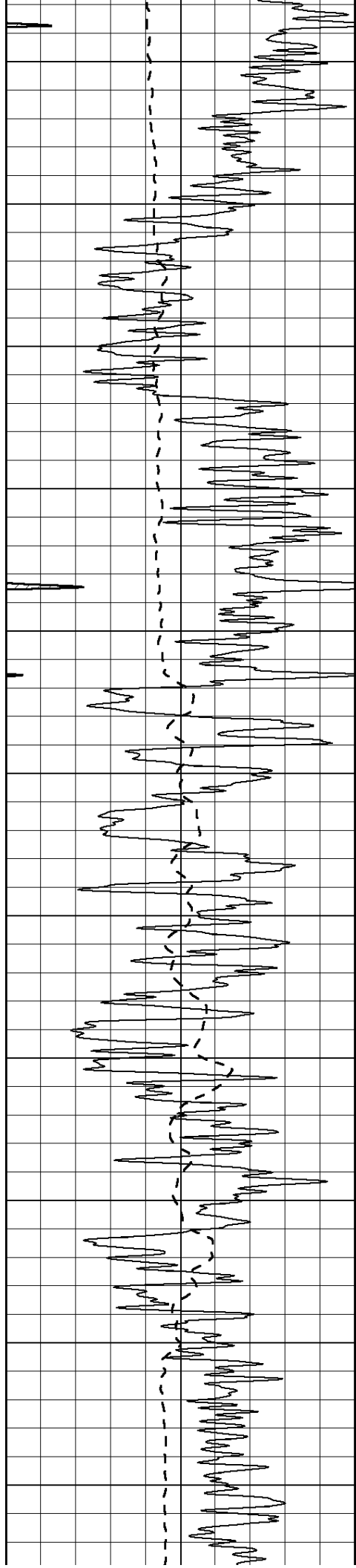
0	RILD (Ohm-m)	50
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1000	CILD (mmho/m)	0
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50	RILD X10 (Ohm-m)	500
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50	RLL3 X10 (Ohm-m)	500
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450

500

550

600

650

700

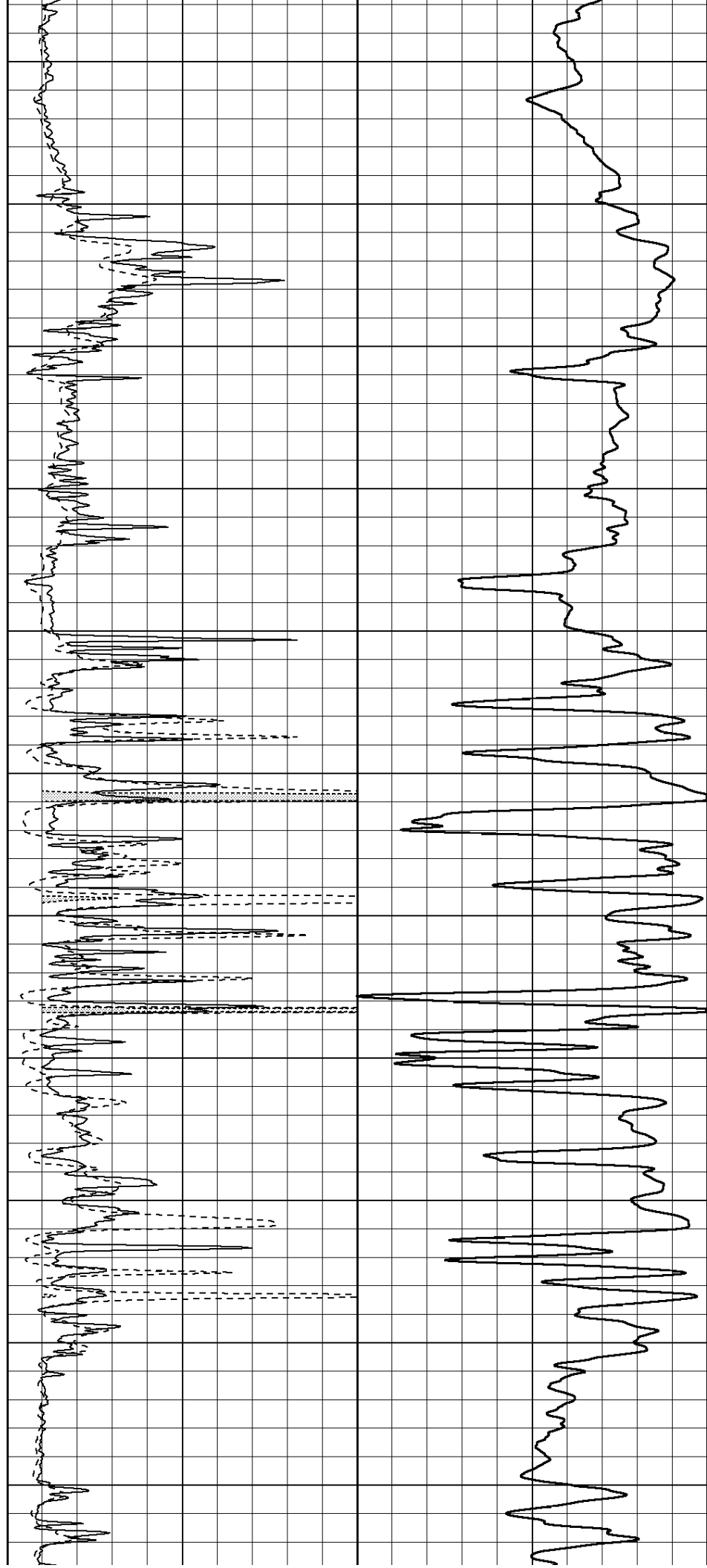
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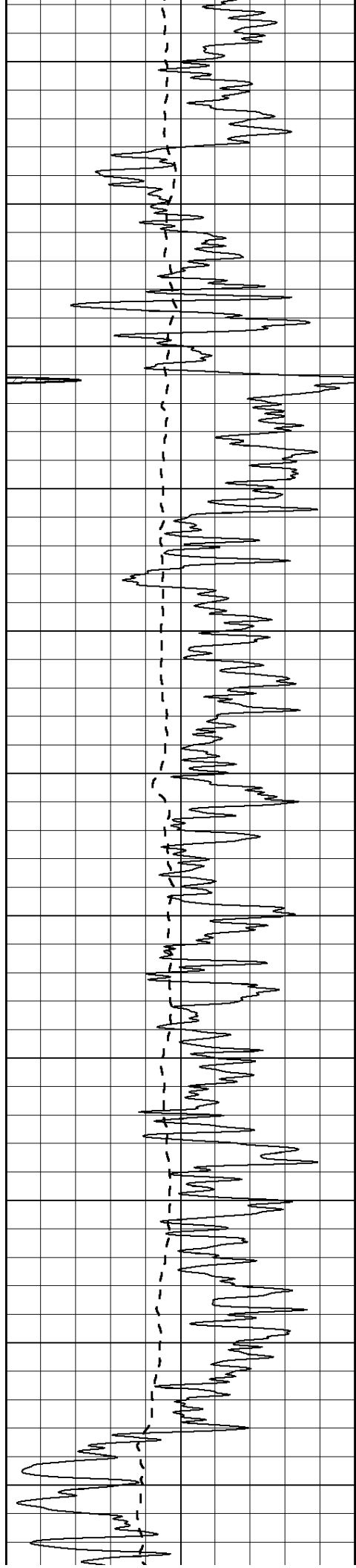
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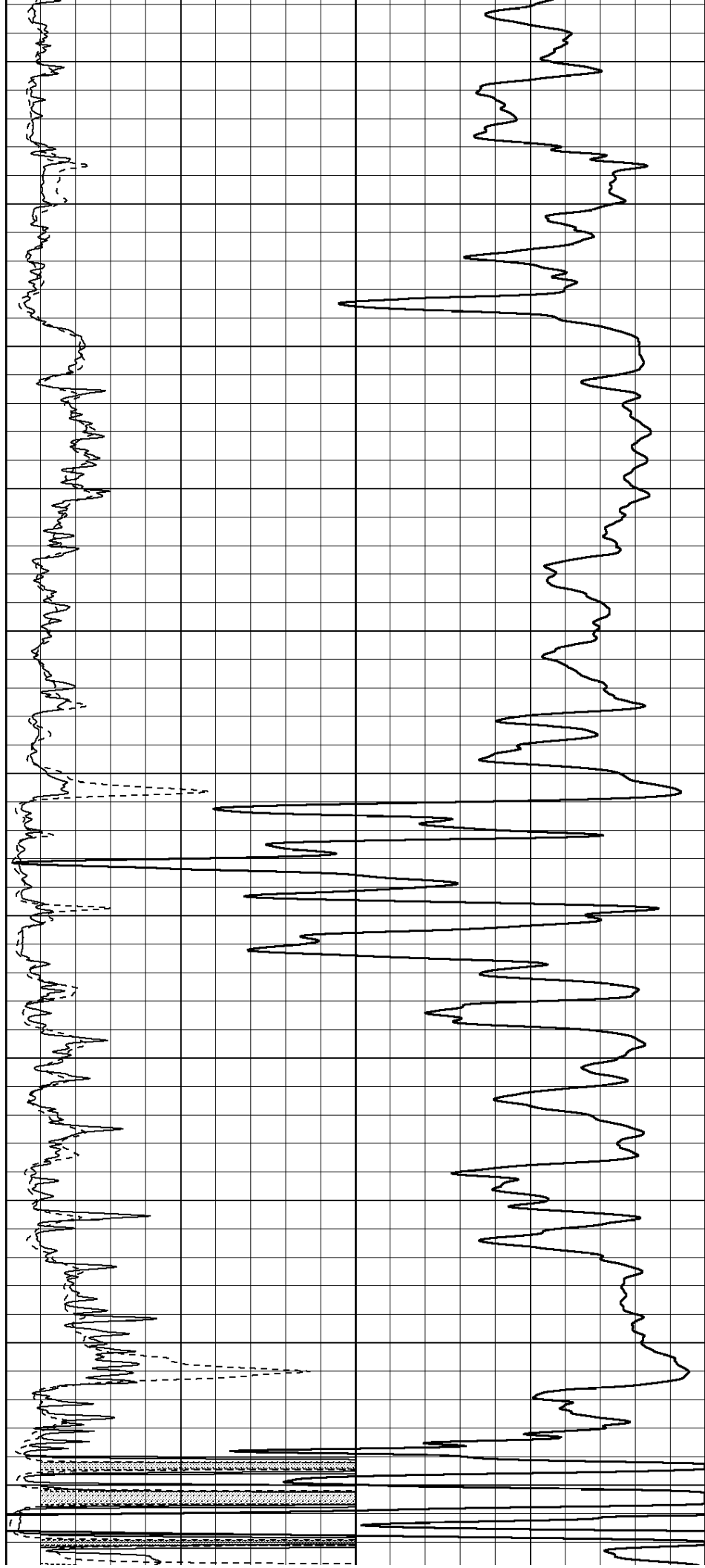
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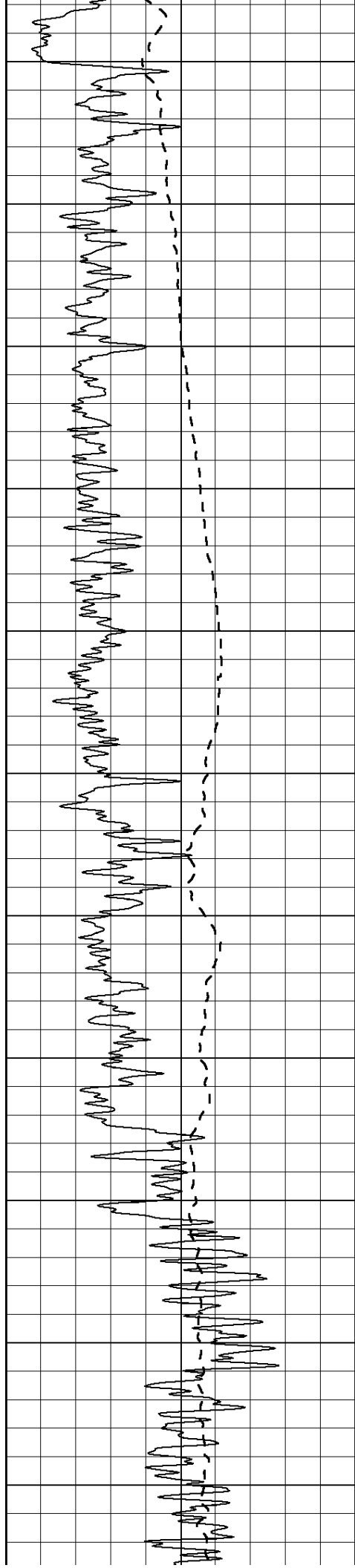
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1000
1050
1100
1150
1200
1250
1300
1350
1400
1450
1500





1550

1600

1650

1700

1750

1800

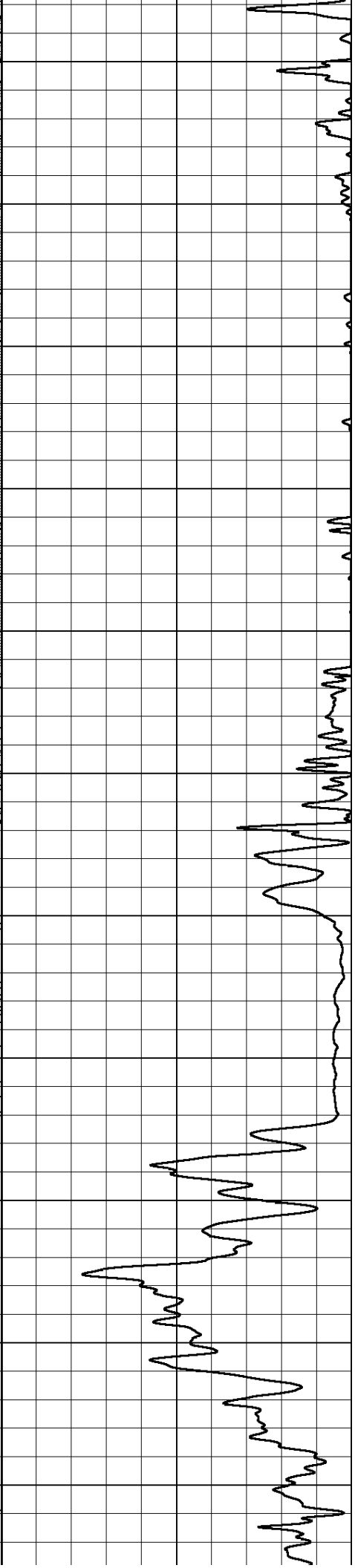
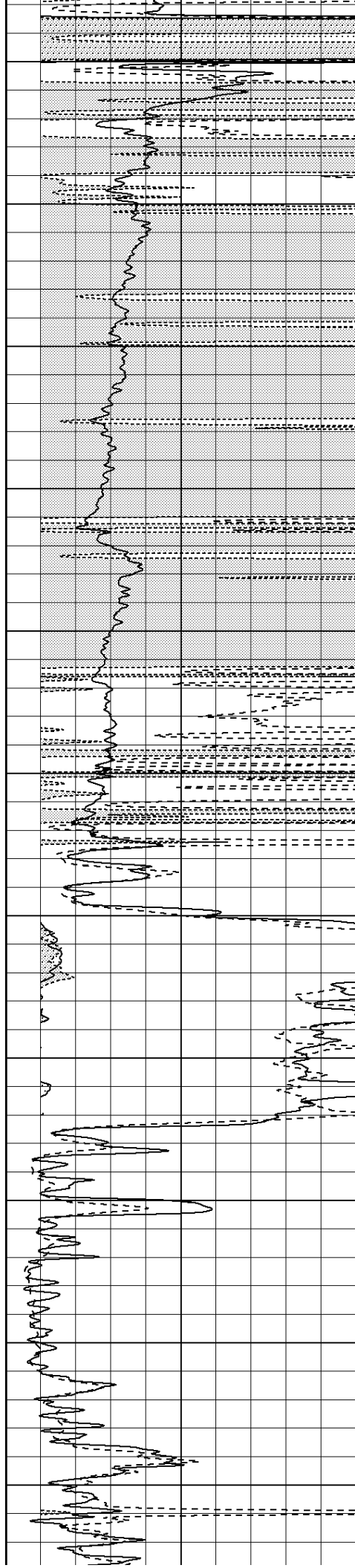
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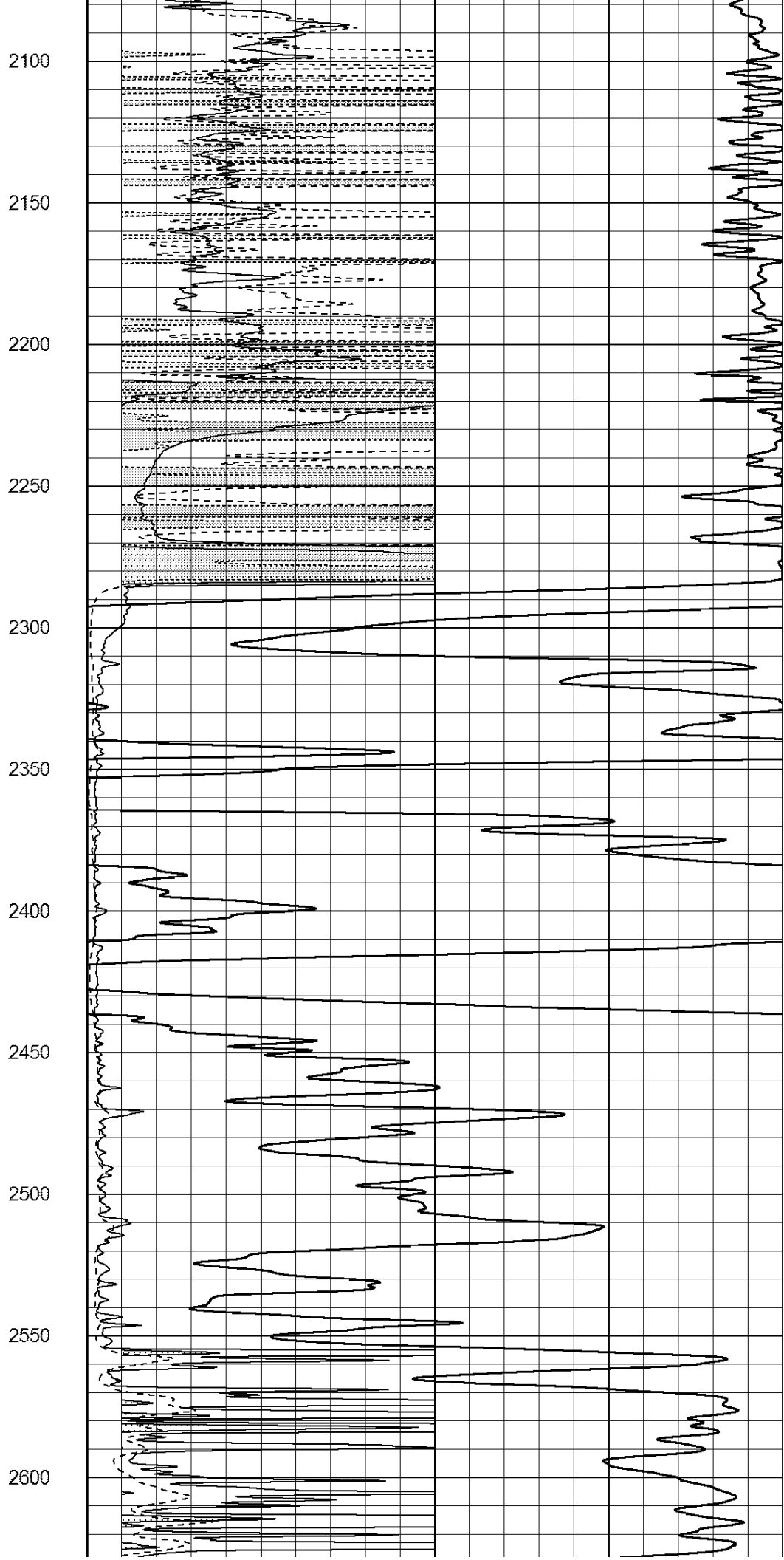
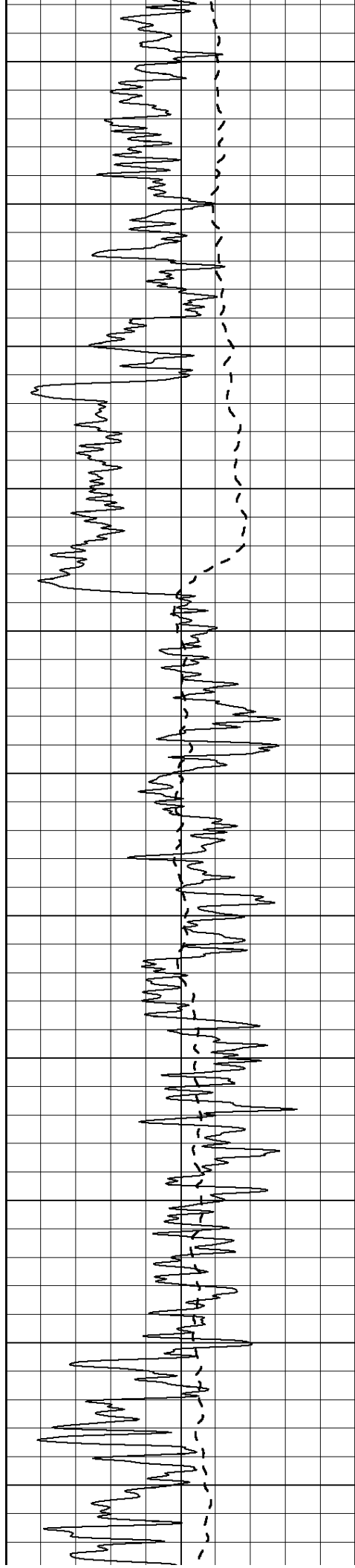
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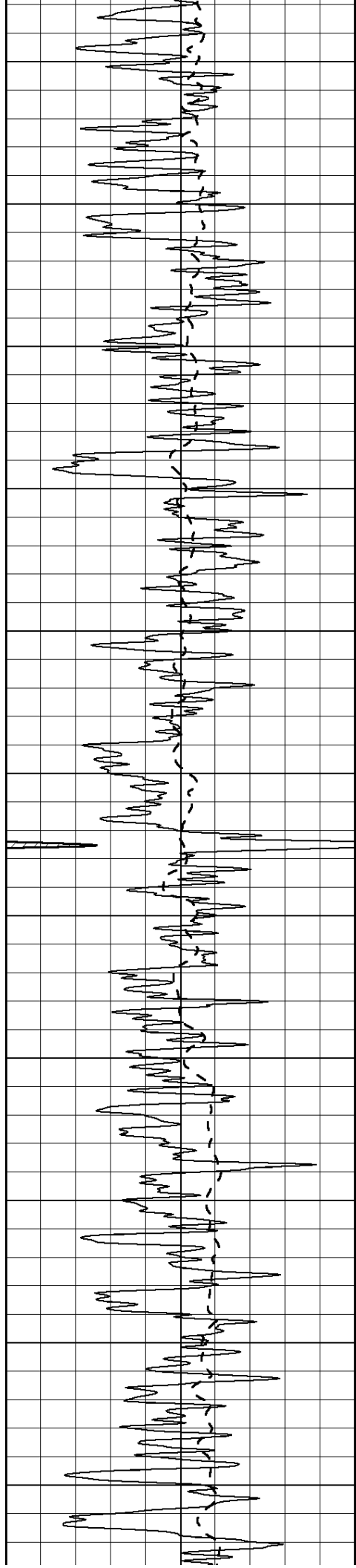
1950

2000

2050







2650

2700

2750

2800

2850

2900

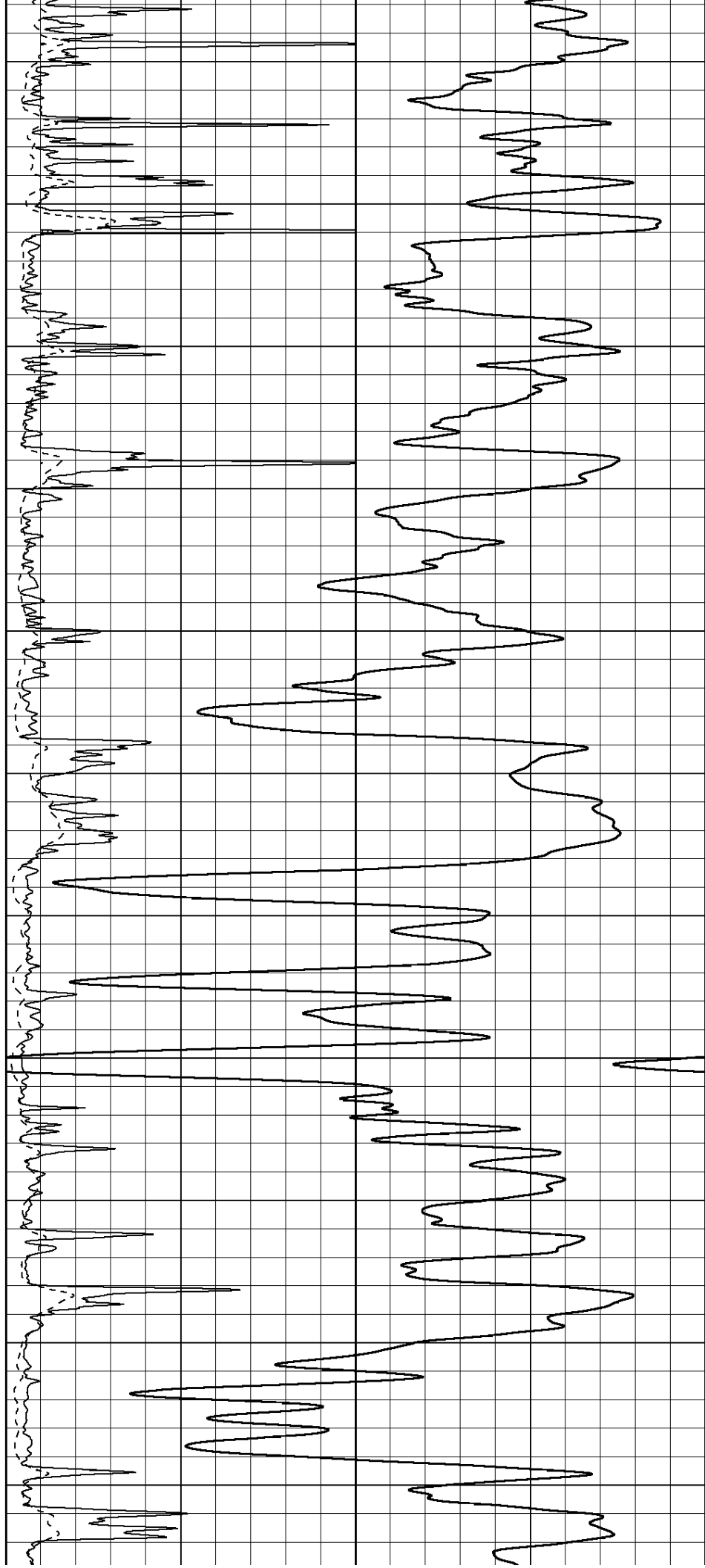
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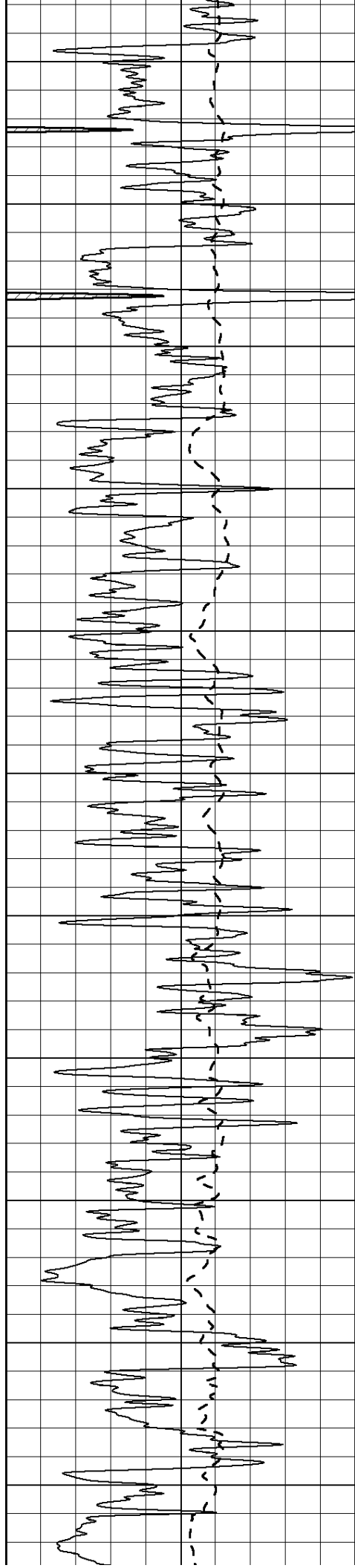
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3050

3100

3150





3200

3250

3300

3350

3400

3450

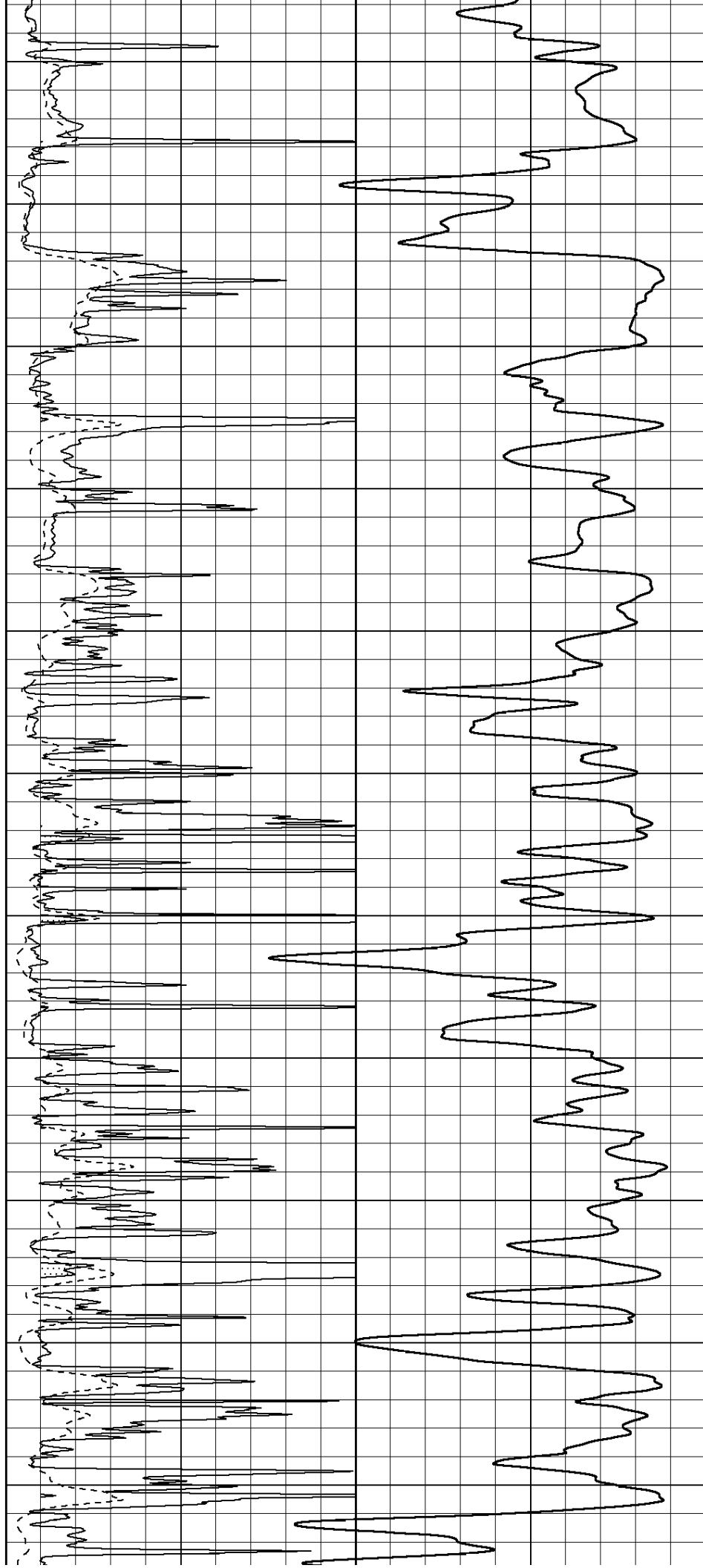
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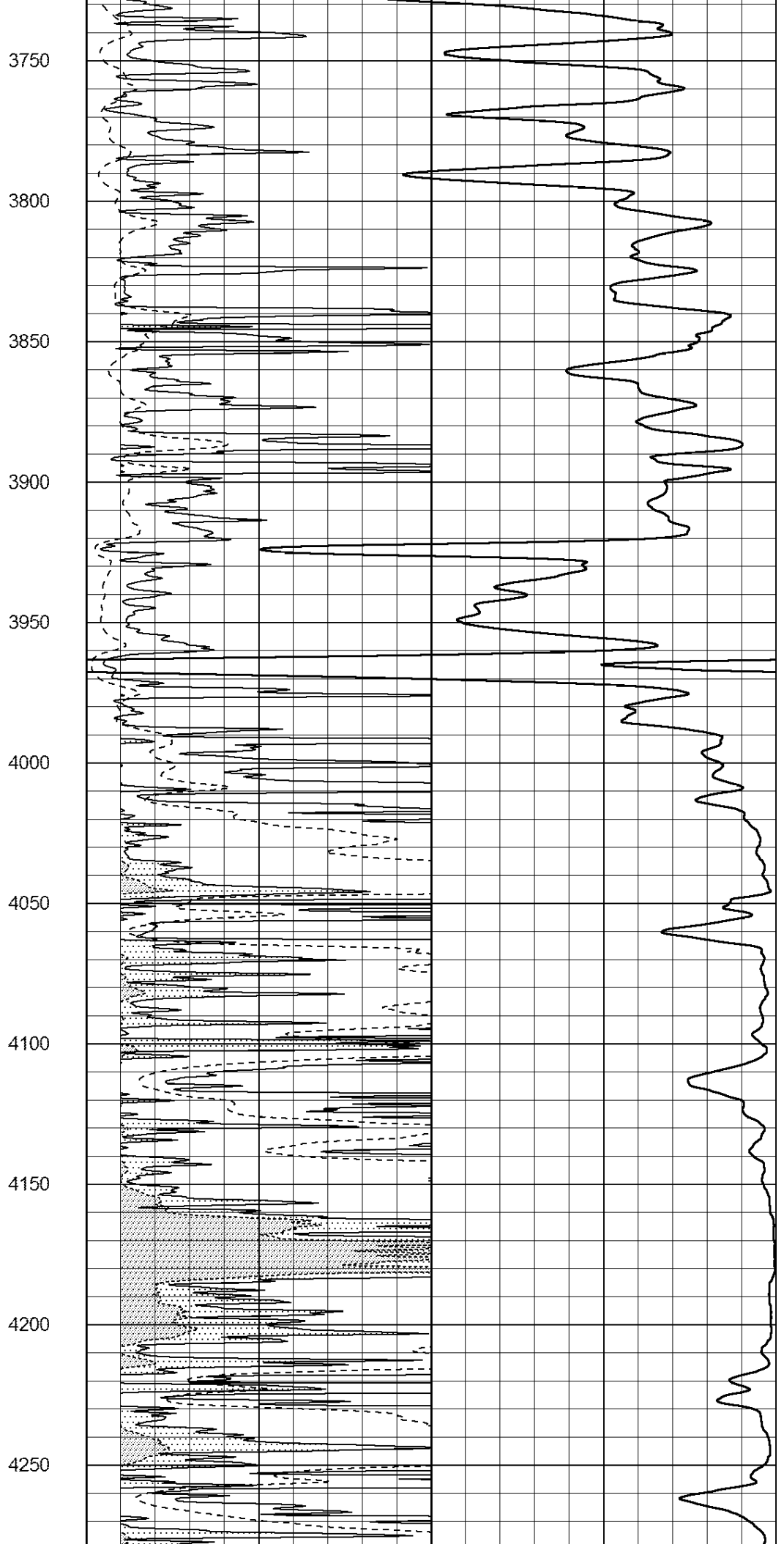
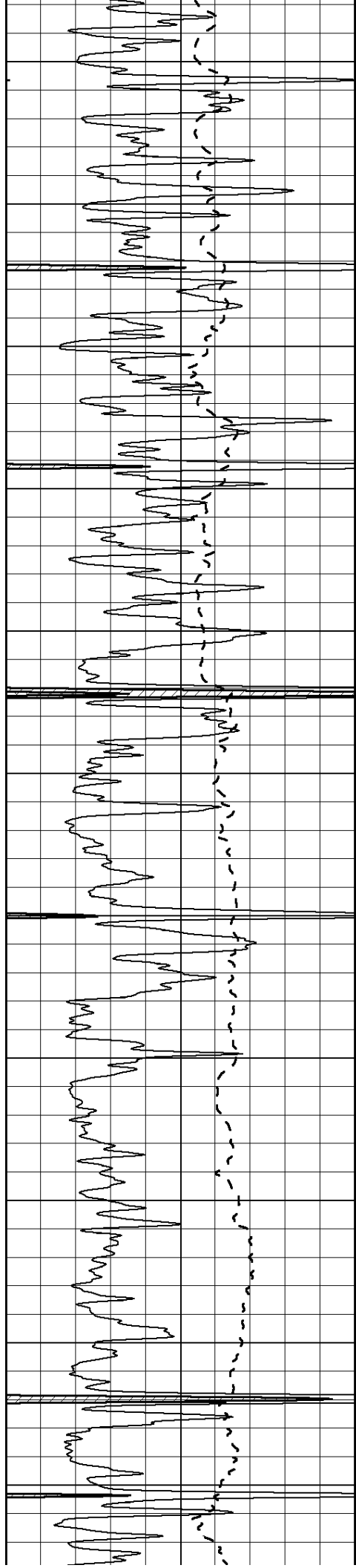
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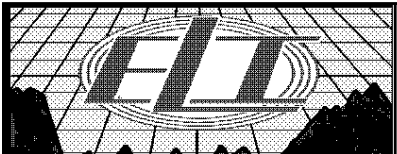
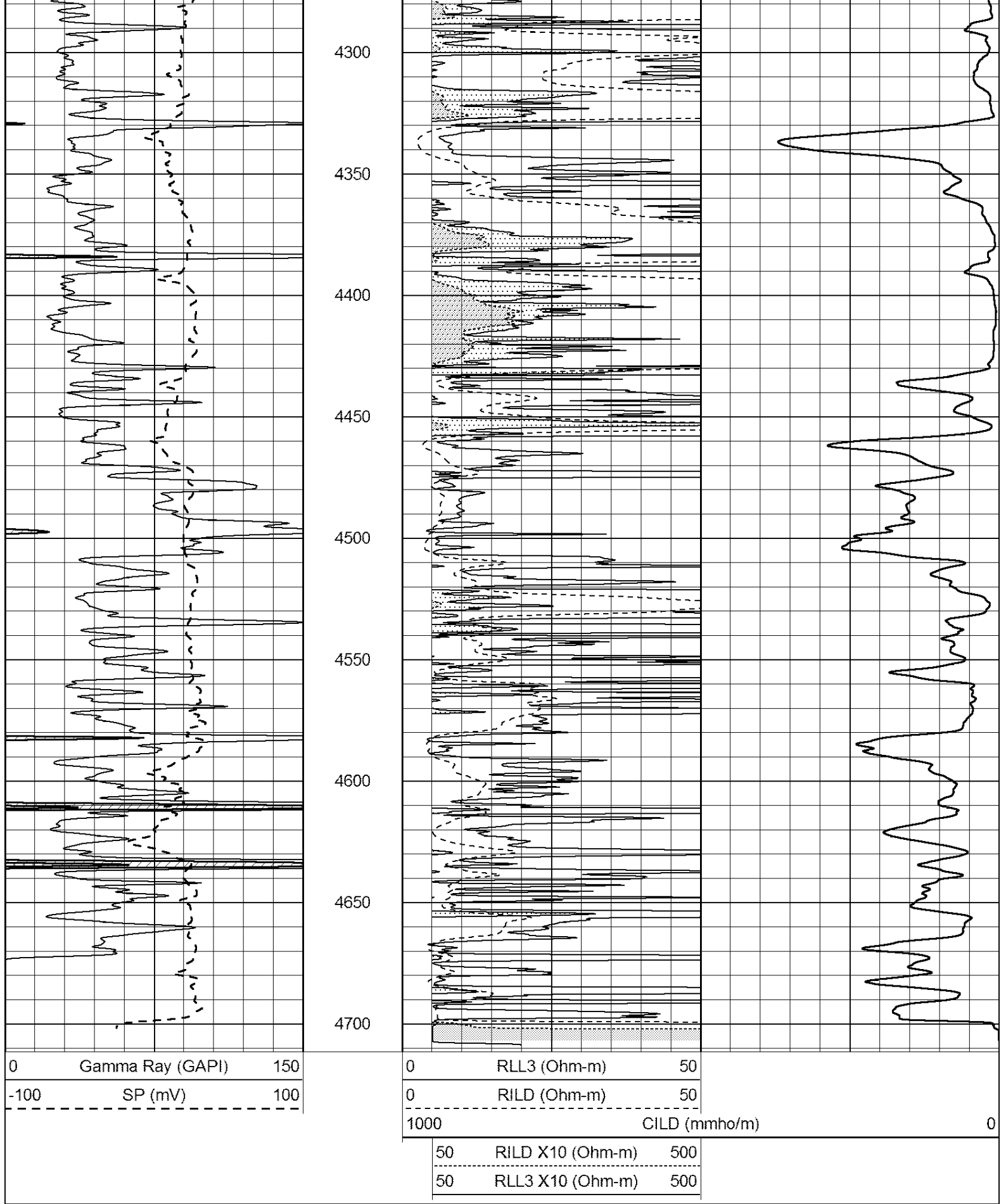
3600

3650

3700





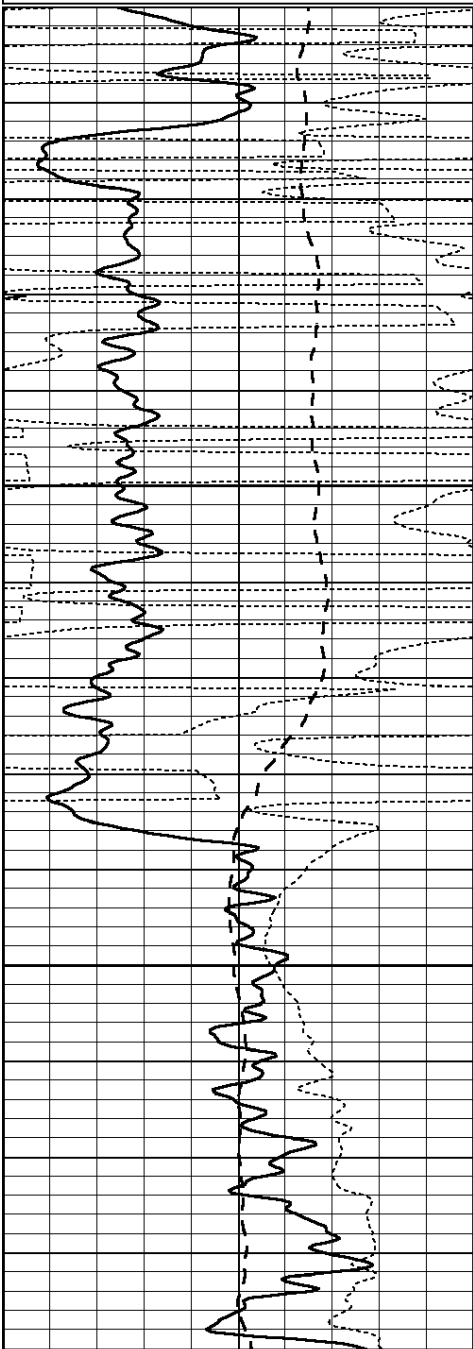


MAIN PASS

Database File: 1805ddn.db
Dataset Pathname: pass3M
Presentation Format: _dil
Dataset Creation: Tue Jul 18 04:54:42 2017
Charted by: Depth in Feet scaled 1:240

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

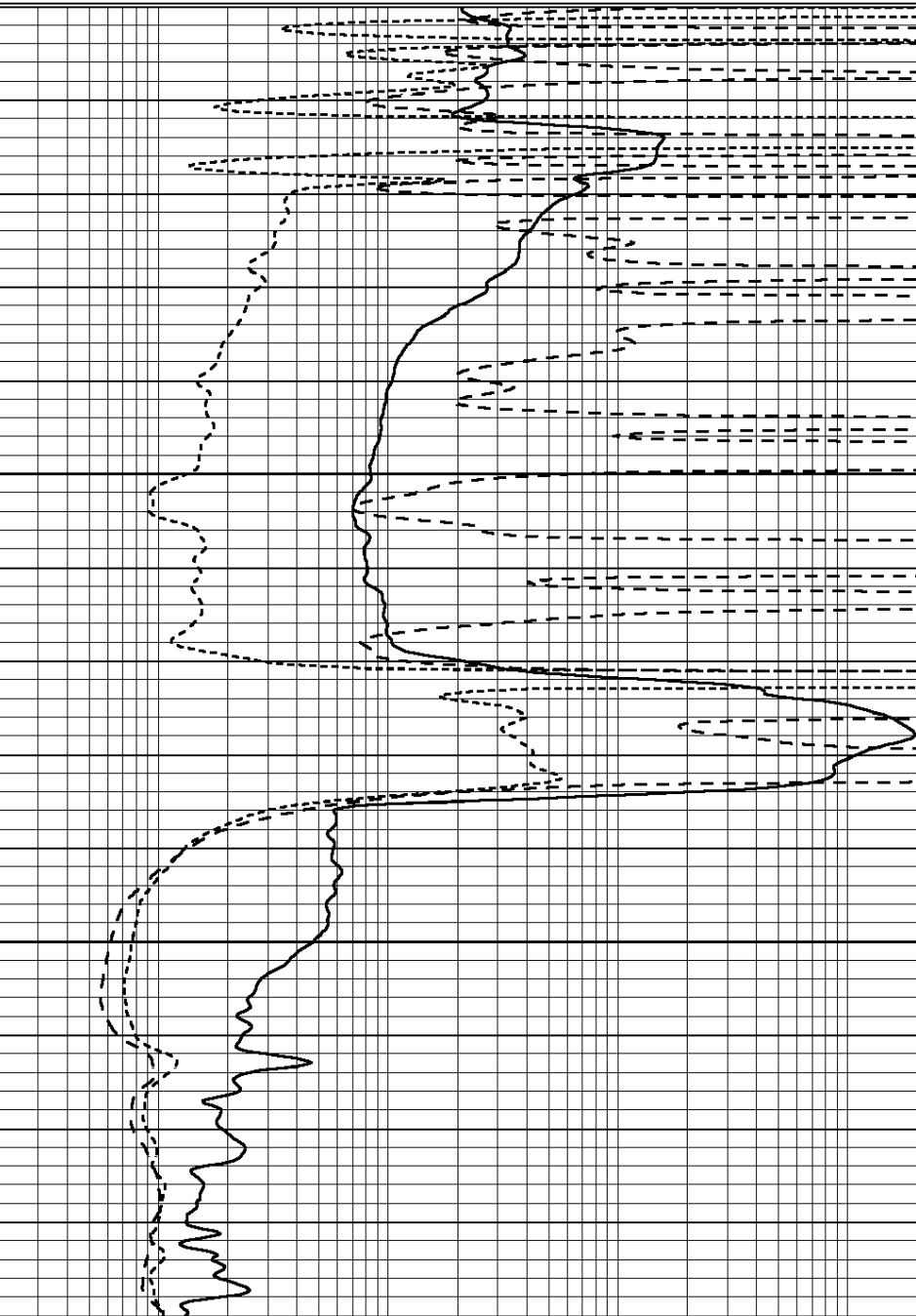
0.2	SHALLOW GUARD (Ohm-m)	2000
0.2	DEEP INDUCTION (Ohm-m)	2000
0.2	MEDIUM INDUCTION (Ohm-m)	2000



2200

2250

2300



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

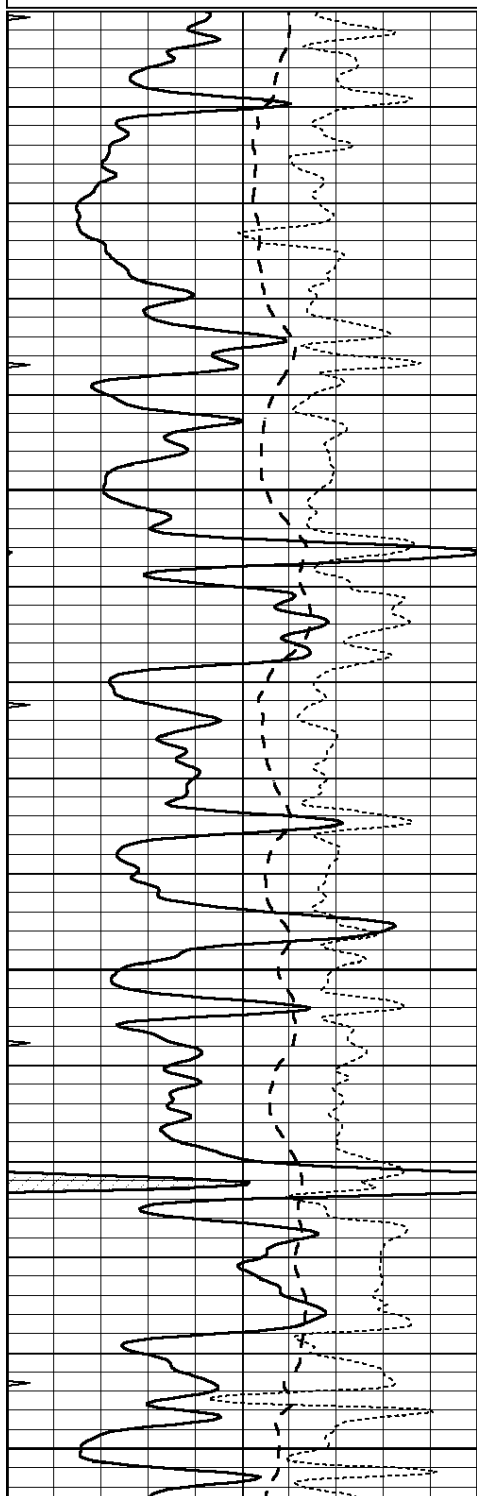


MAIN PASS

Database File: 1805ddn.db
Dataset Pathname: pass3M
Presentation Format: _dil
Dataset Creation: Tue Jul 18 04:54:42 2017
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

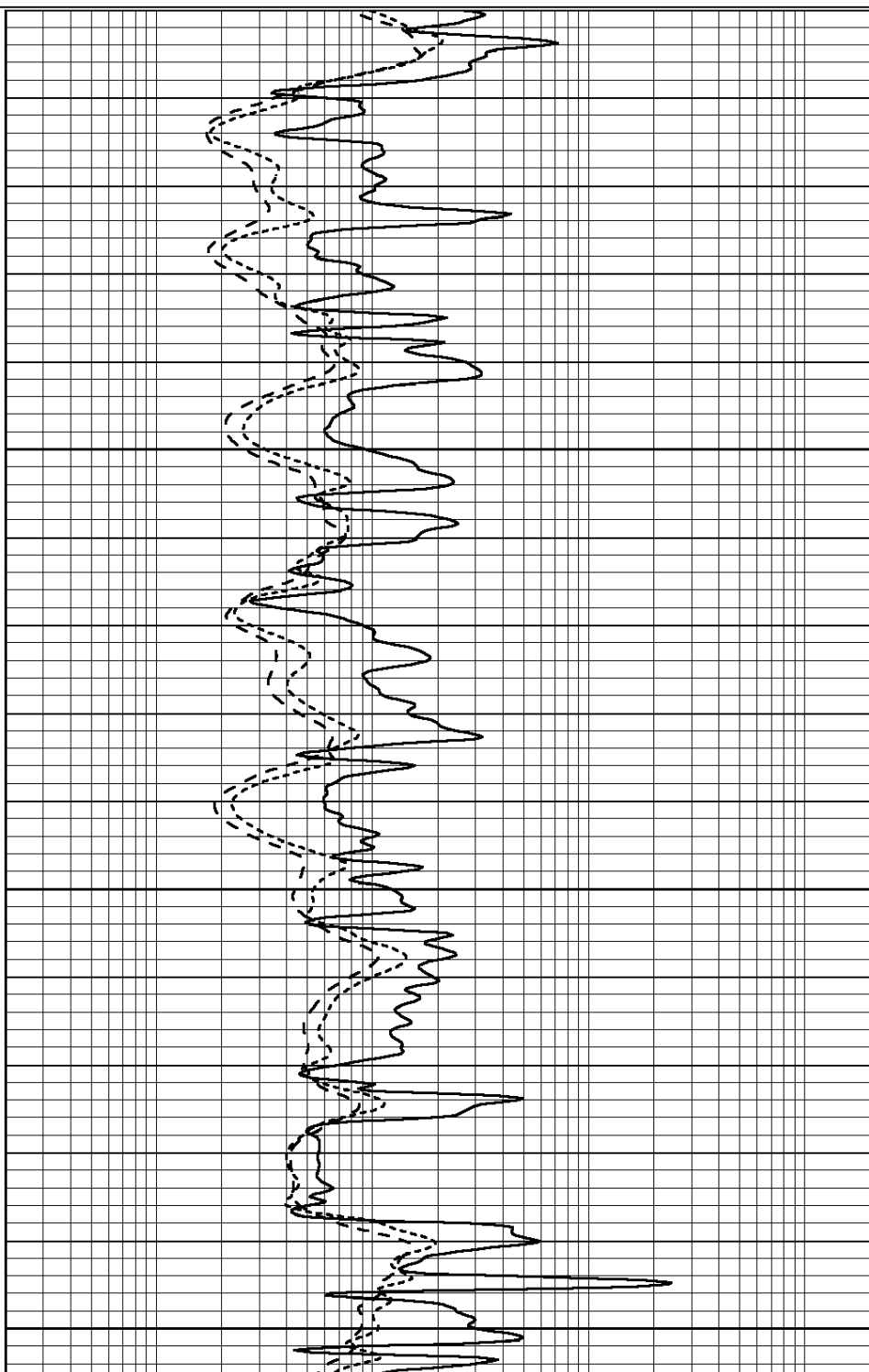


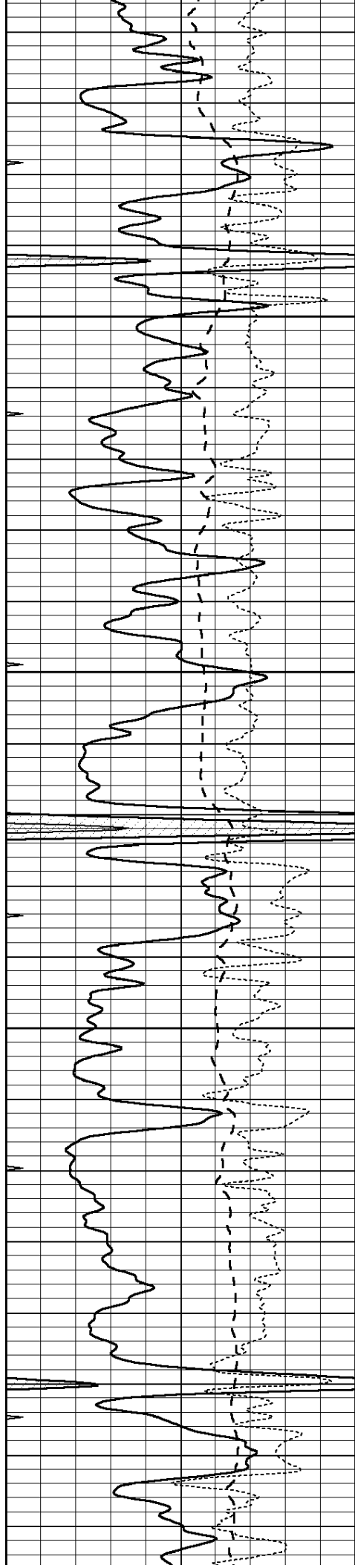
3700

3750

3800

3850



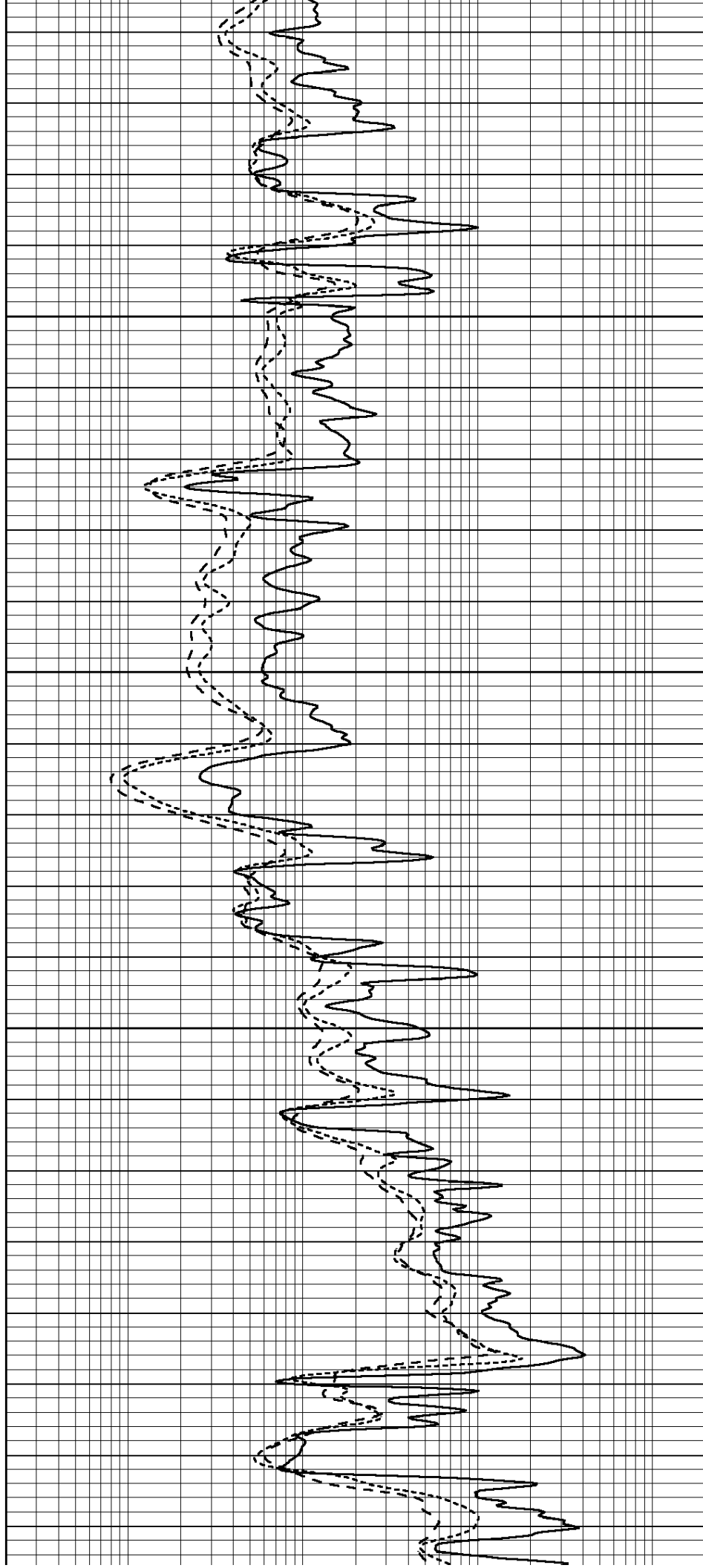


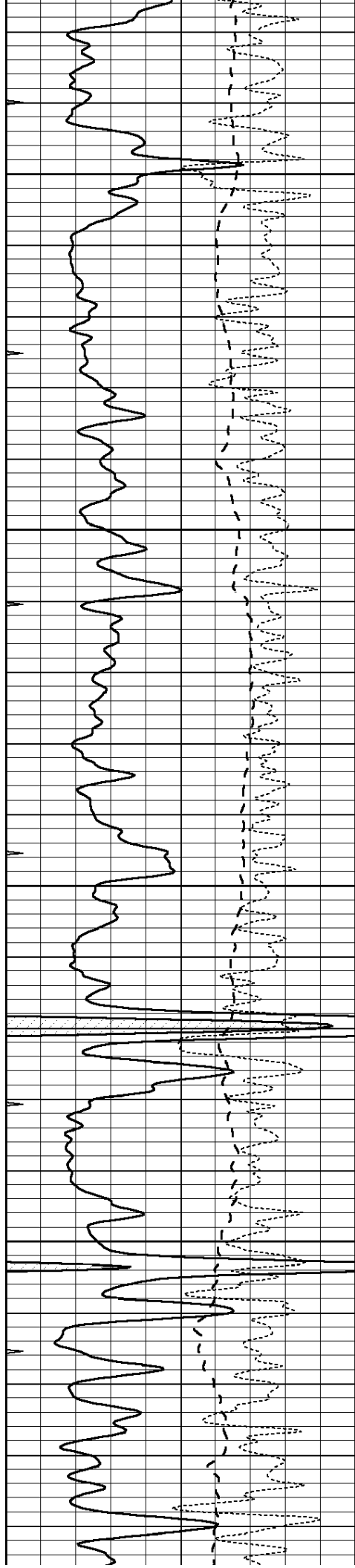
3900

3950

4000

4050



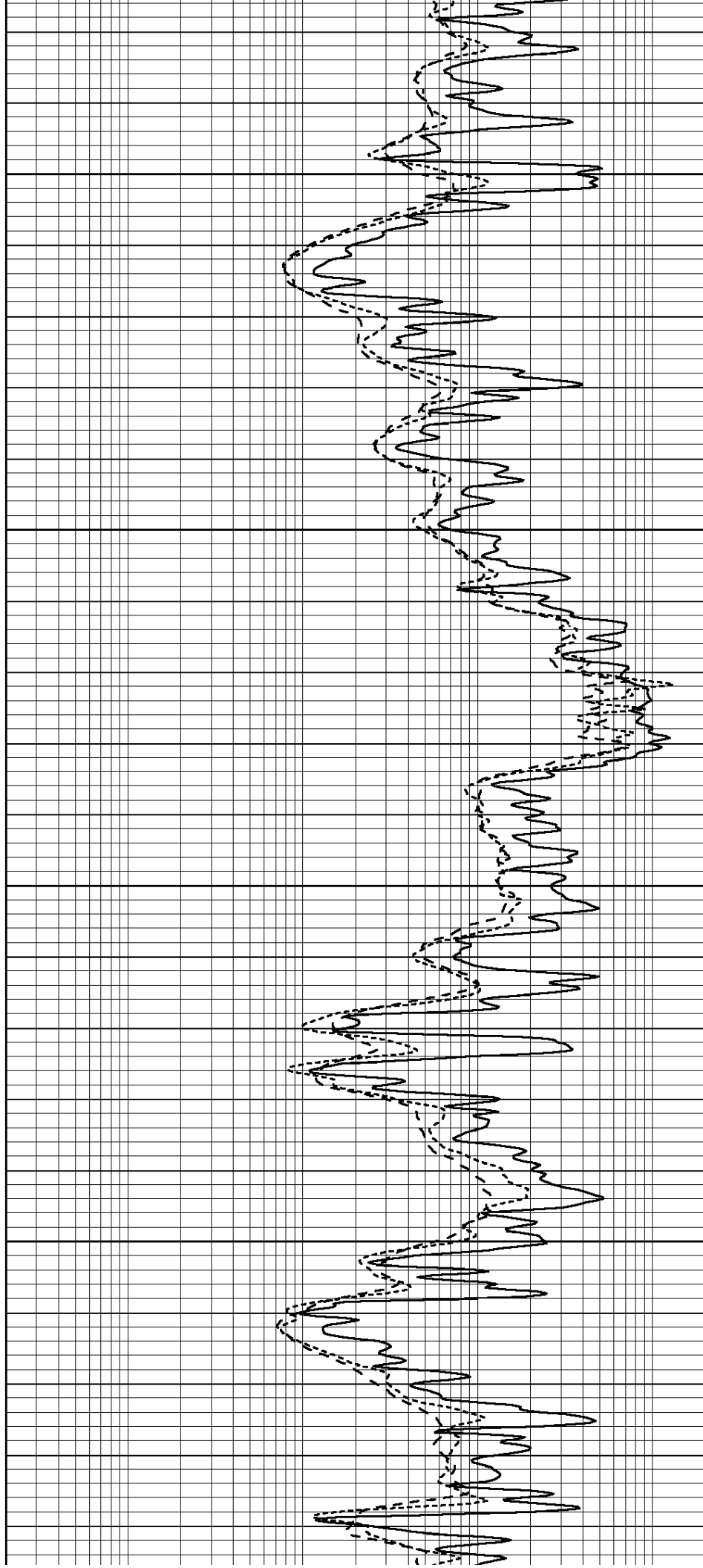


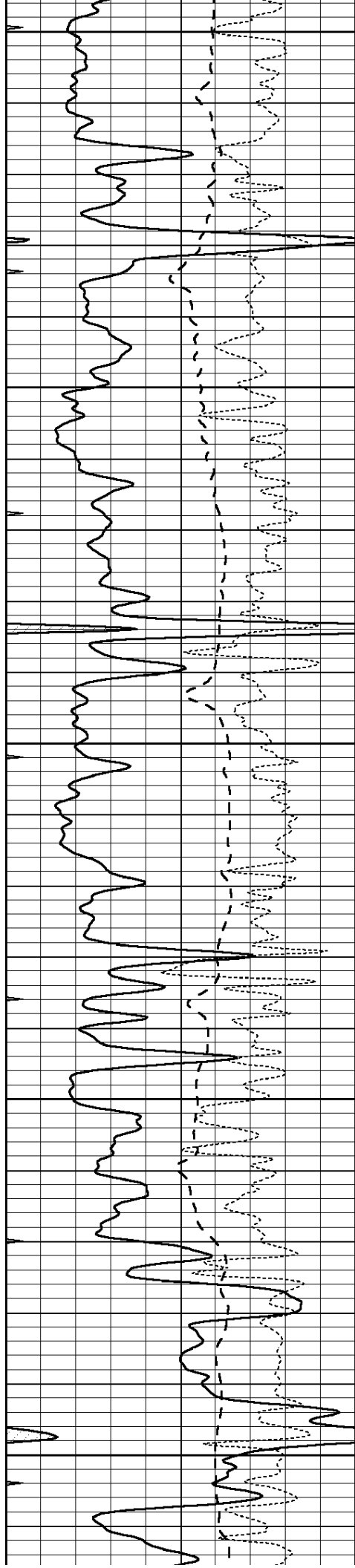
4100

4150

4200

4250





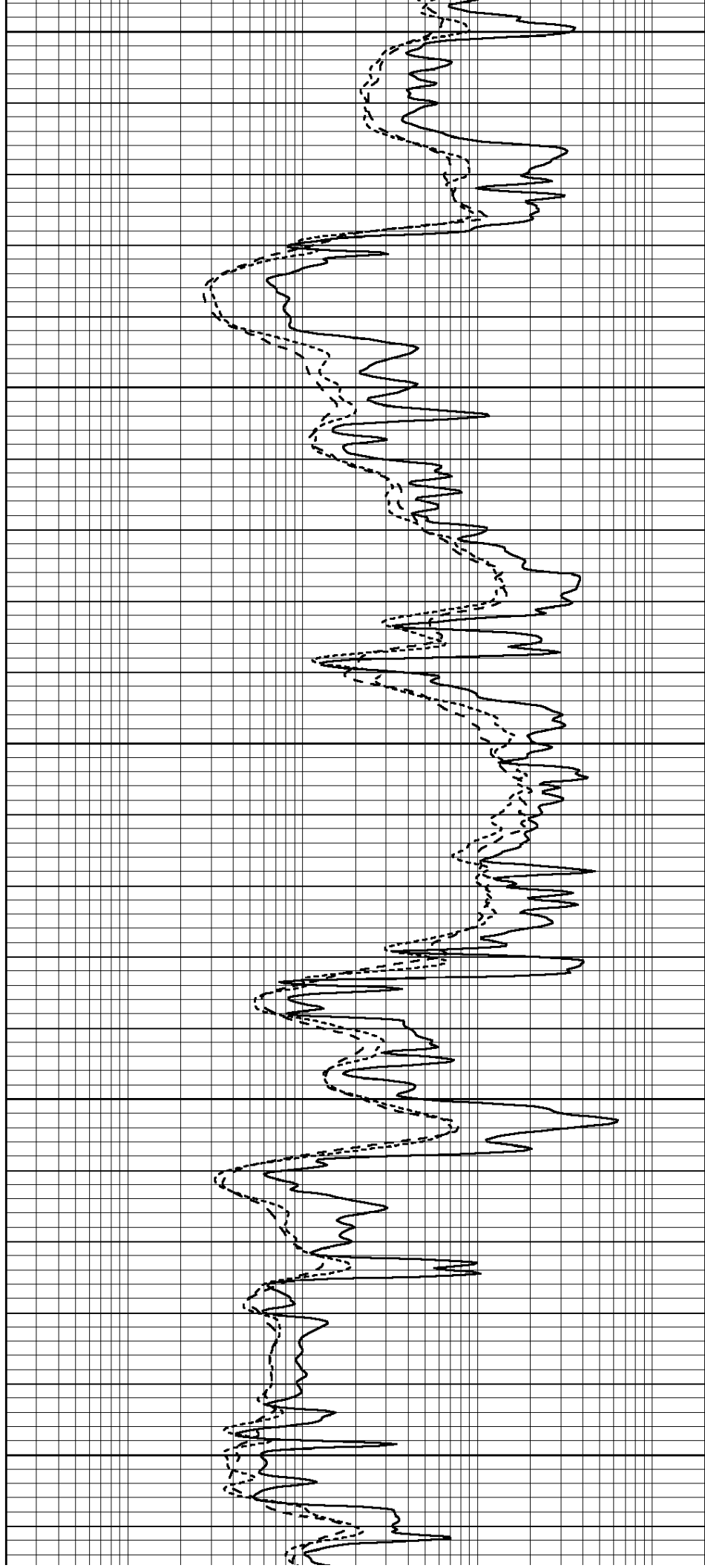
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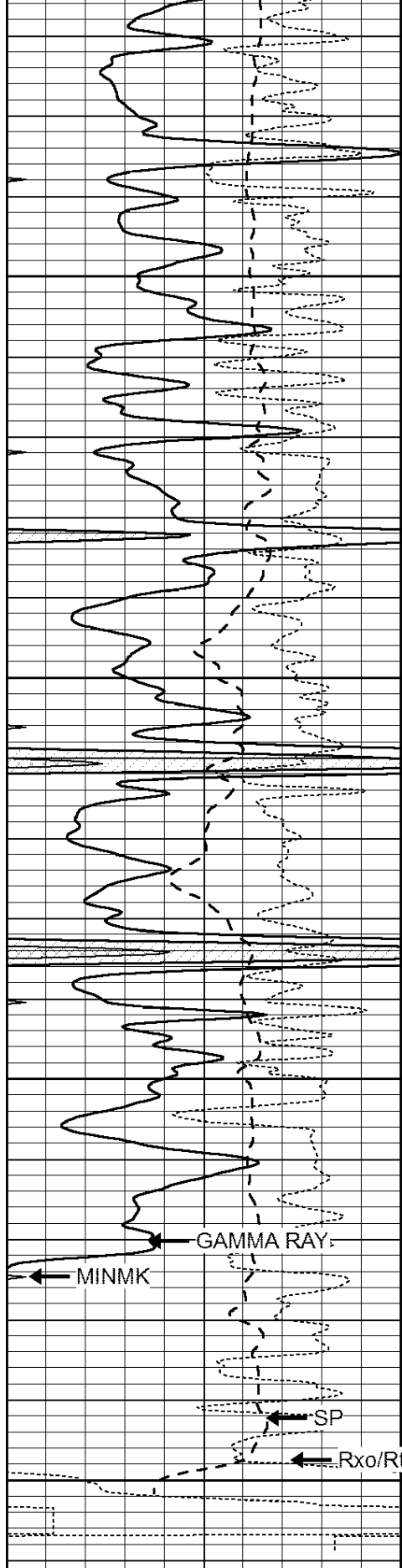
4350

4400

4450

4500





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

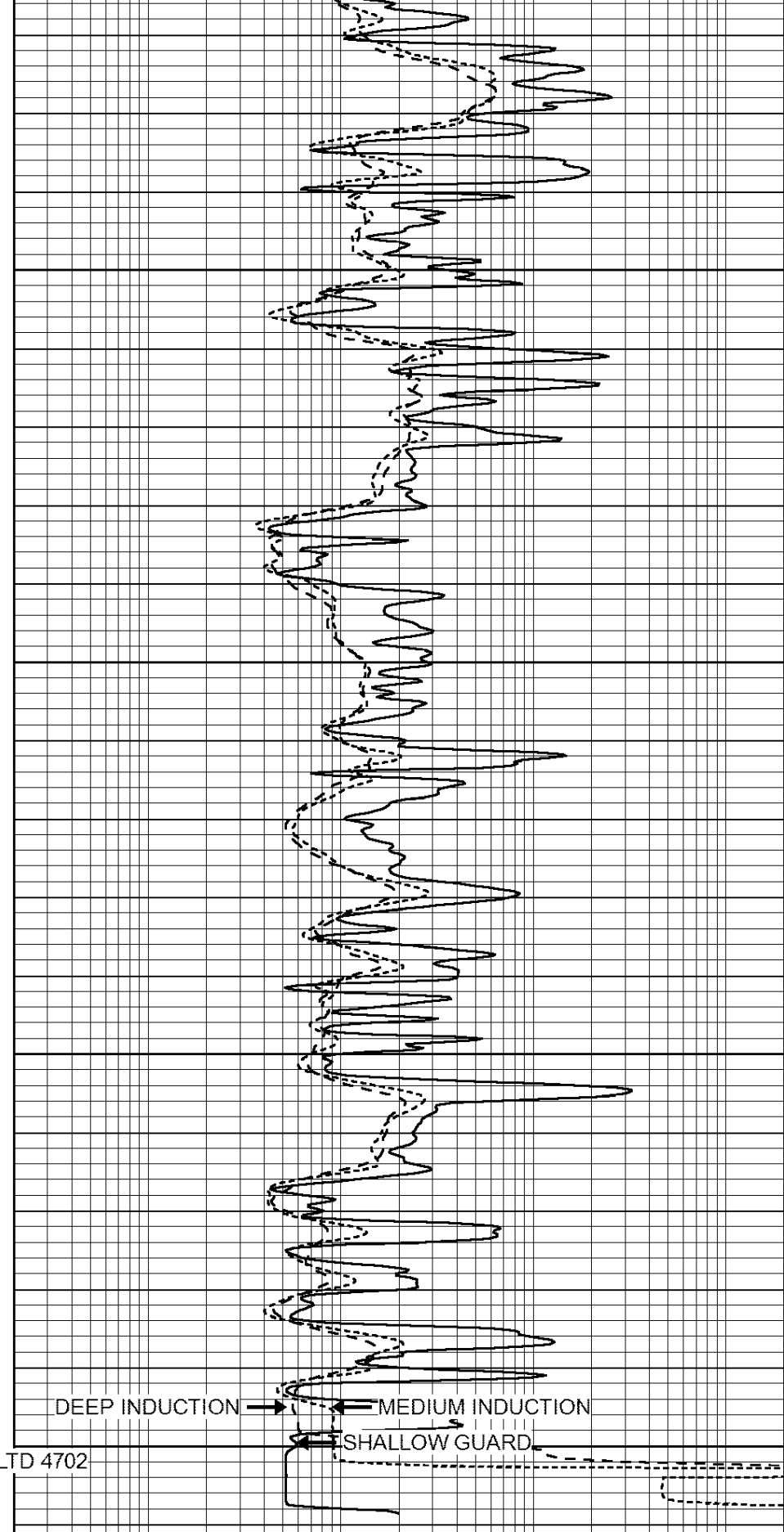
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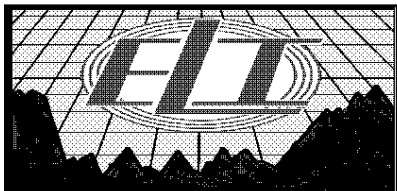
4650

4700

LTD 4702



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

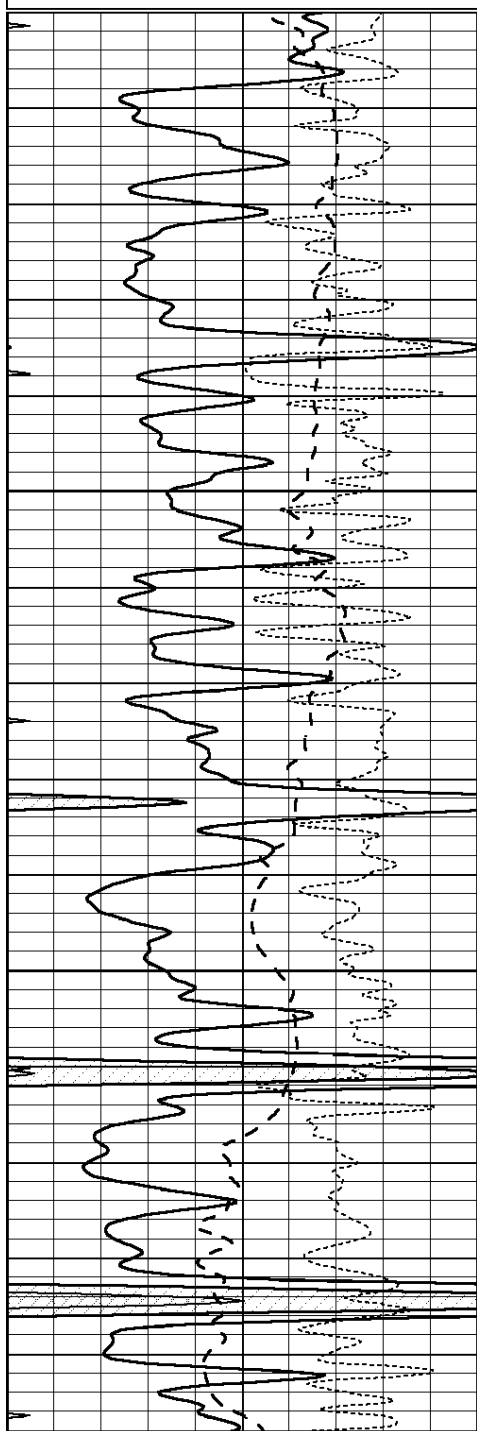


REPEAT SECTION

Database File: 1805ddn.db
Dataset Pathname: pass2.1
Presentation Format: _dil
Dataset Creation: Tue Jul 18 04:00:21 2017 by Calc Open-Cased 090629
Charted by: Depth in Feet scaled 1:240

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

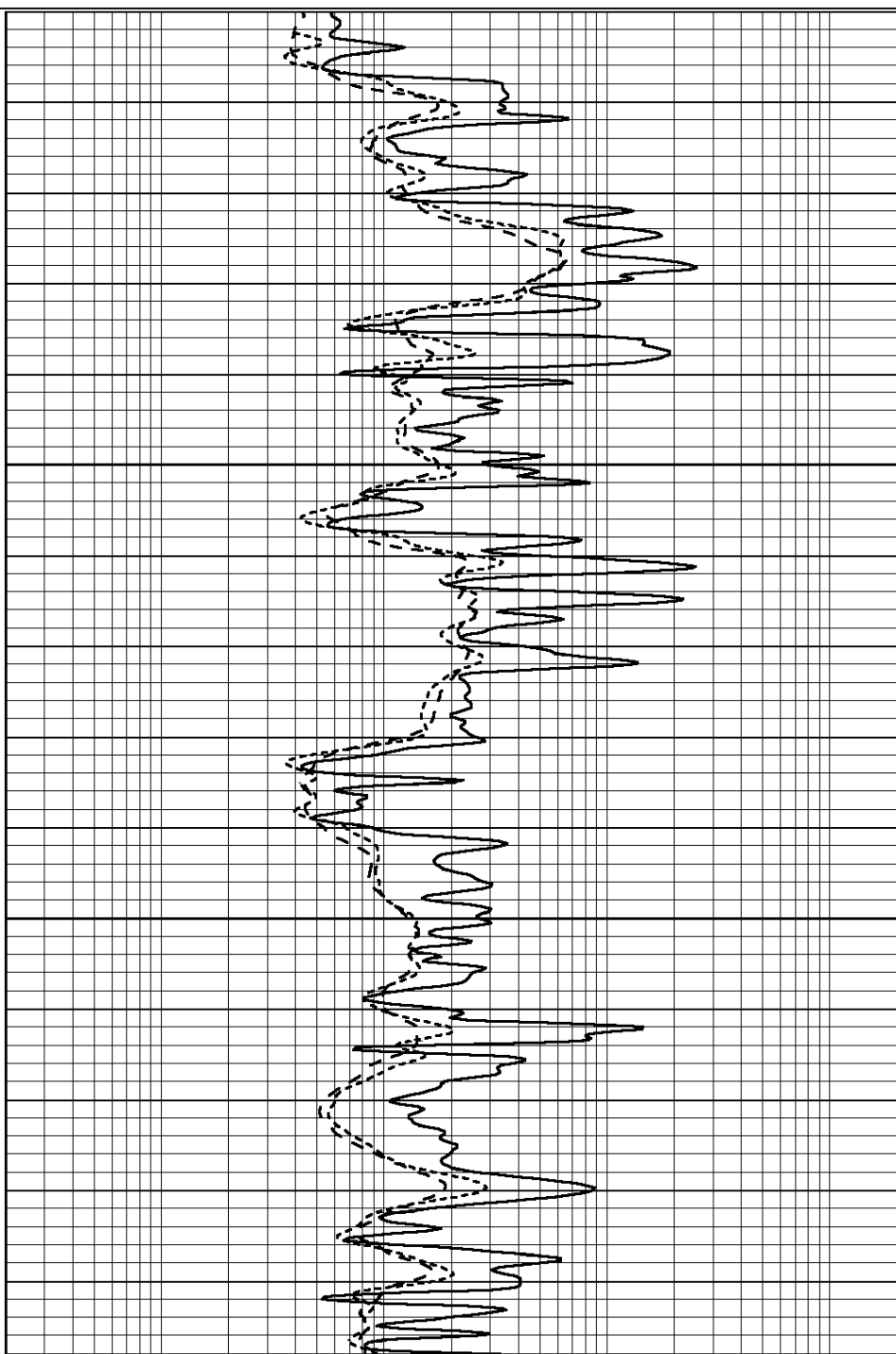
0.2	SHALLOW GUARD (Ohm-m)	2000
0.2	DEEP INDUCTION (Ohm-m)	2000
0.2	MEDIUM INDUCTION (Ohm-m)	2000

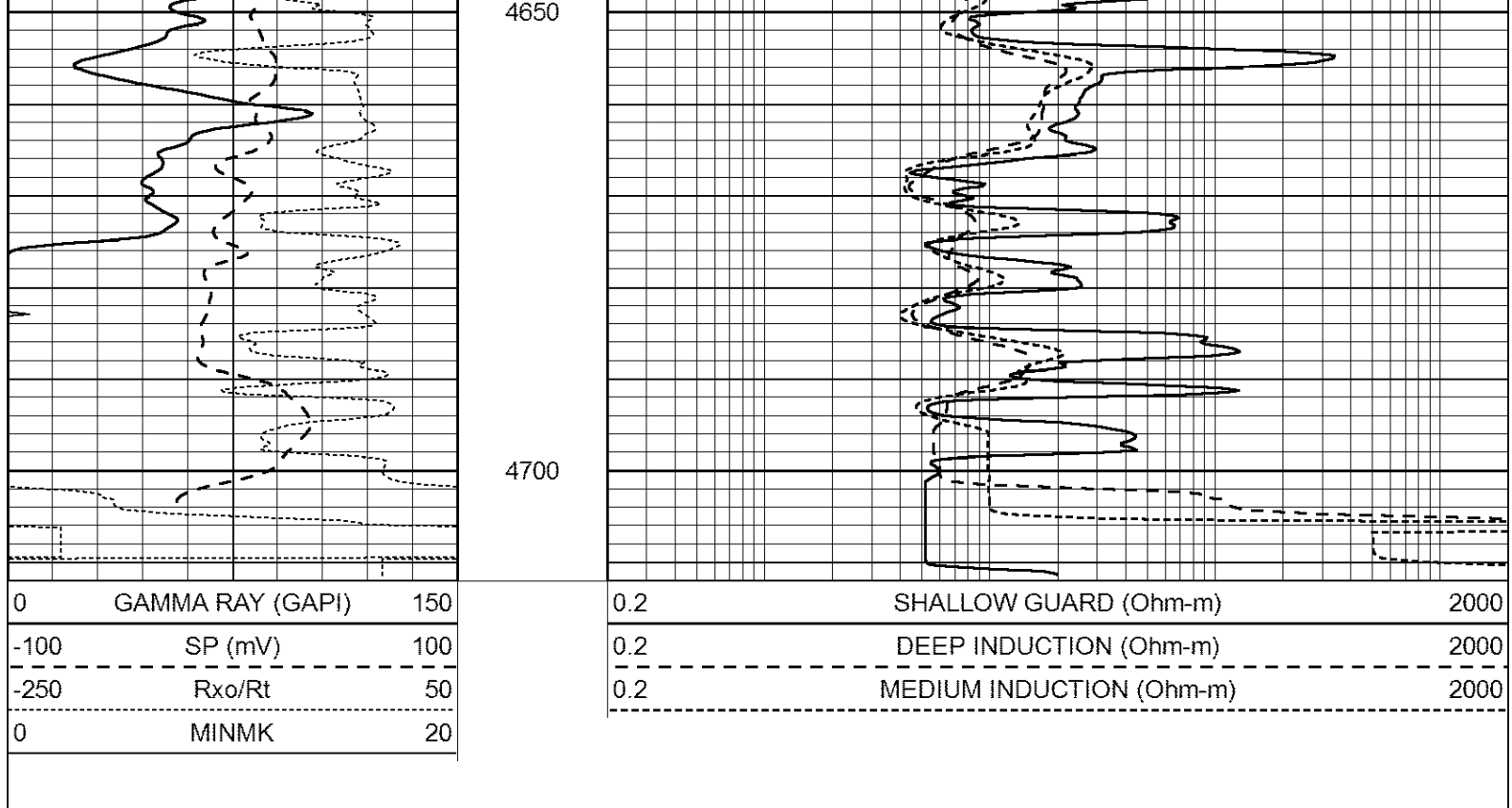


4500

4550

4600





Calibration Report

Database File: 1805ddn.db
 Dataset Pathname: pass2.1
 Dataset Creation: Tue Jul 18 04:00:21 2017 by Calc Open-Cased 090629

Dual Induction Calibration Report

Serial-Model: PROBE8-DILG
 Surface Cal Performed: Tue Mar 21 18:55:38 2017
 Downhole Cal Performed: Tue Mar 21 18:55:43 2017
 After Survey Verification Performed: Tue Mar 21 18:55:45 2017

Surface Calibration

Readings				References			Results	
Loop:	Air	Loop		Air	Loop		m	b
Deep	0.015	0.648	V	0.000	400.000	mmho/m	620.000	0.000
Medium	0.029	0.796	V	0.000	464.000	mmho/m	590.000	-12.000
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'

	Zero	Cal		Zero	Cal		in	g
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:	GEAR5-GEARHART
Source / Verifier:	/
Master Calibration Performed:	Tue Mar 21 18:56:14 2017
Before Survey Verification Performed:	
After Survey Verification Performed:	

Master Calibration						
	Density			Far Detector		Near Detector
Magnesium	1.710	g/cc		798.83	465.02	cps
Aluminum	2.570	g/cc		178.16	318.19	cps
	Spine Angle = 75.81			Density/Spine Ratio = 0.556		
	Size			Reading		
Small Ring	7.15	in		1.47	V	
Large Ring	14.00	in		3.01	V	

Before Survey Verification						
	Target			Measured		
		g/cc			g/cc	
		g/cc			g/cc	
		g/cc			g/cc	

After Survey Verification						
	Target			Measured		
		g/cc			g/cc	
		g/cc			g/cc	
		g/cc			g/cc	

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

PRE-SURVEY VERIFICATION						
	Detector	Readings		Measured		Target
1)	Short Space		cps			
	Long Space		cps	pu		pu
2)	Short Space		cps			
	Long Space		cps	pu		
3)	Short Space		cps			
	Long Space		cps	pu		

POST-SURVEY VERIFICATION				
	Detector	Readings	Measured	Target
1)	Short Space	cps		
	Long Space	cps	pu	pu
2)	Short Space	cps		
	Long Space	cps	pu	pu
3)	Short Space	cps		
	Long Space	cps	pu	pu
Gamma Ray Calibration Report				
Serial Number:		GR6		
Tool Model:		OPEN		
Performed:		Tue Mar 21 18:56:51 2017		
Calibrator Value:		150.0	GAPI	
Background Reading:		0.0	cps	
Calibrator Reading:		276.0	cps	
Sensitivity:		0.6000	GAPI/cps	