



SUPERIOR
Hays,
Kansas

DUAL
INDUCTION
LOG

Company	MULL DRILLING CO, INC.	Company	MULL DRILLING COMPANY, INC.
Well	COBERLY #1-2	Well	COBERLY #1-2
Field	WILDCAT	Field	WILDCAT
County	GOVE	County	GOVE
State	KANSAS	State	KANSAS
Location:	API # : 15-063-21759-0000	Other Services	
	2008'FSL & 1388'FEL SE NE NW/SE	CDL/CNL MEL/SONIC	
	SEC 2 TWP 15S RGE 28W	Elevation	
Permanent Datum	GROUND LEVEL	Elevation	2514
Log Measured From	KELLY BUSHING 5' A.G.L.	K.B. 2519 D.F. 2517 G.L. 2514	
Drilling Measured From	KELLY BUSHING		
Date	25 NOV 08		
Run Number	ONE		
Depth Driller	4400		
Depth Logger	4402		
Bottom Logged Interval	4400		
Top Log Interval	0		
Casing Driller	8 5/8" @ 225'		
Casing Logger	224'		
Bit Size	7 7/8"		
Type Fluid in Hole	CHEMICAL MUD		
Density / Viscosity	9.3/49	CHLORIDES 4500	
pH / Fluid Loss	10.0/8.0		
Source of Sample	FLOWLINE		
Rm @ Meas. Temp	1.20 @ 73		
Rmf @ Meas. Temp	0.90 @ 73		
Rmc @ Meas. Temp	1.44 @ 73		
Source of Rmf / Rmc	CAL/CAL		
Rm @ BHT	0.73 @ 120		
Time Circulation Stopped	2 HOURS		
Time Logger on Bottom	0715		
Maximum Recorded Temperature	120		
Equipment Number	860		
Location	HAYS, KS.		
Recorded By	JOE CRATHORNE		
Witnessed By	KEVIN KESSLER		

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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 SERVICES, INC.
HAYS, KS.
785-628-6395

DIRECTIONS: PENNDENNIS; WEST TO PAWNEE RD, 5 MILES NORTH TO COUNTY LINE, 5 MILES NORTH TO ROAD 'G', 1 MILE WEST, SOUTH INTO

Charted by:

Depth in Feet scaled 1:600

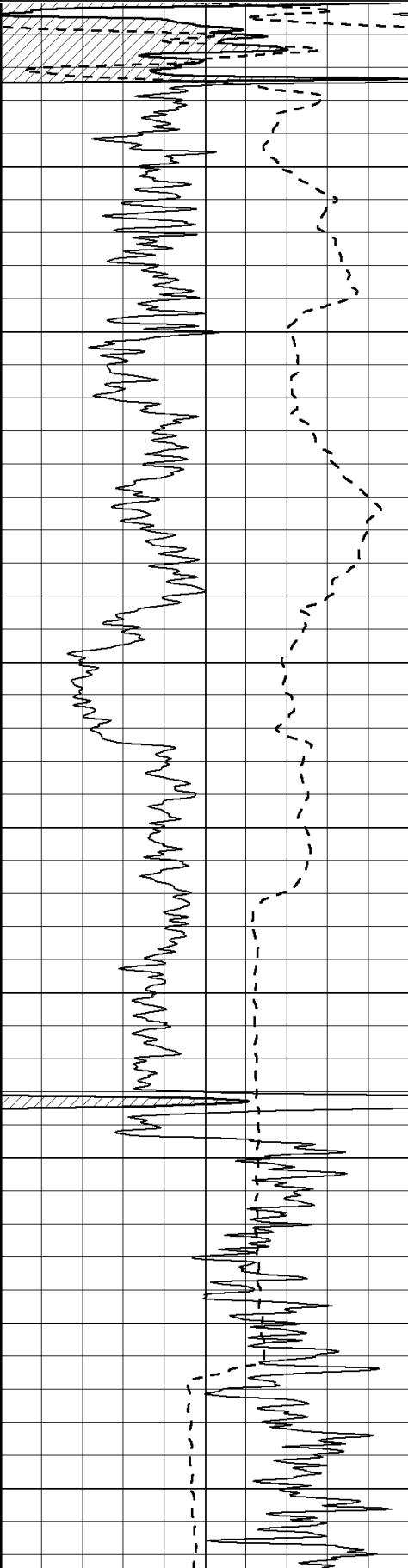
0	Gamma Ray (GAPI)	150
-100	SP (mV)	100

0	RLL3 (Ohm-m)	50
0	Deep Induction (Ohm-m)	50

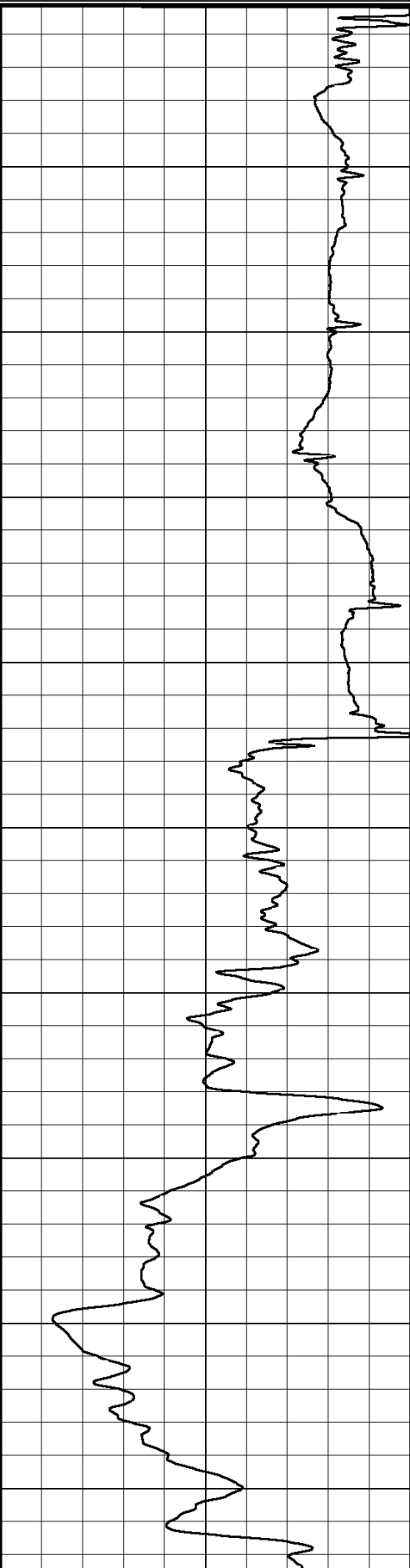
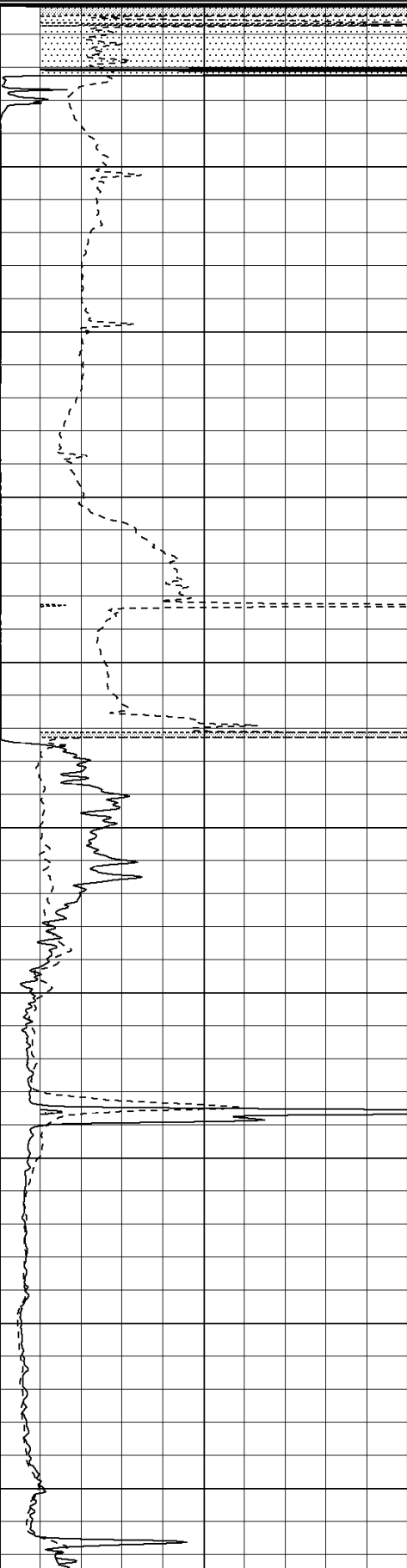
1000	CILD (mmho-m)	0
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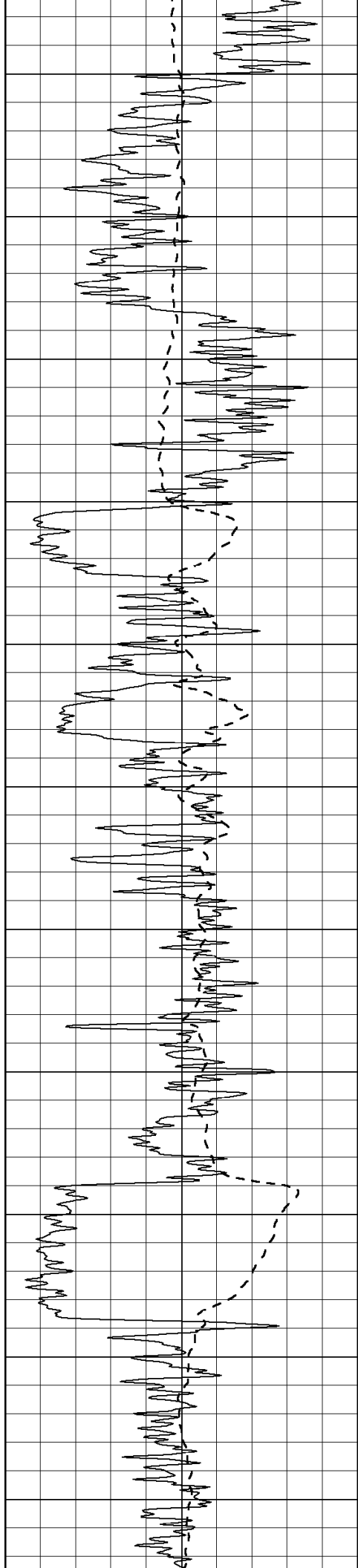
50	RILD X10 (Ohm-m)	500
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50	RLL3 X10 (Ohm-m)	500
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0
50
100
150
200
250
300
350
400
450





500

550

600

650

700

750

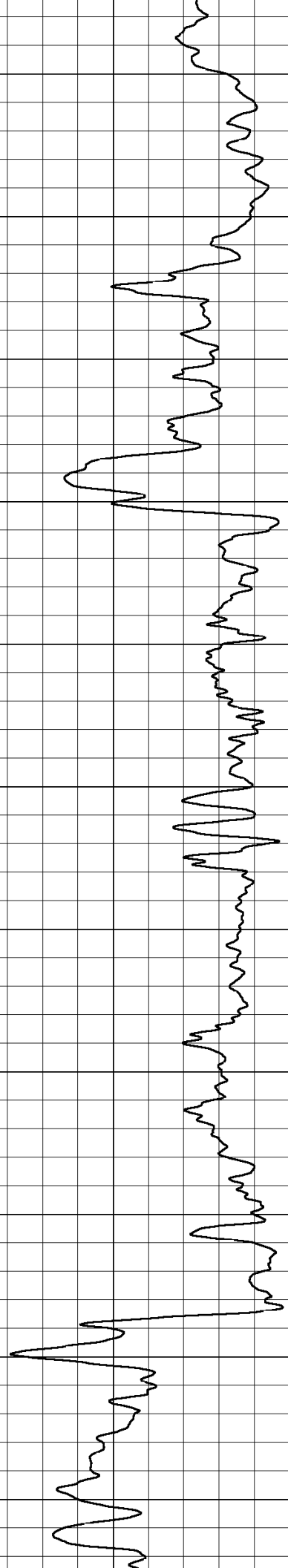
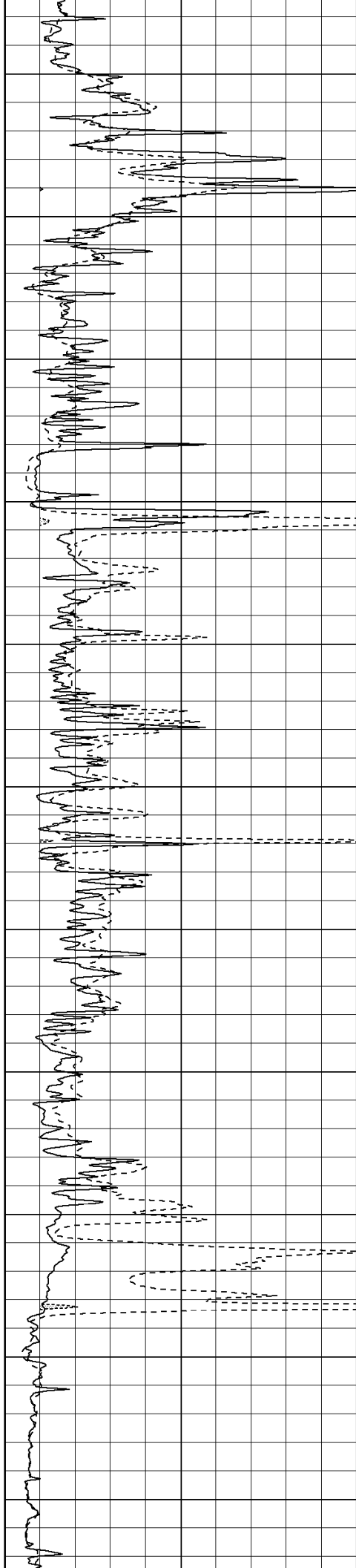
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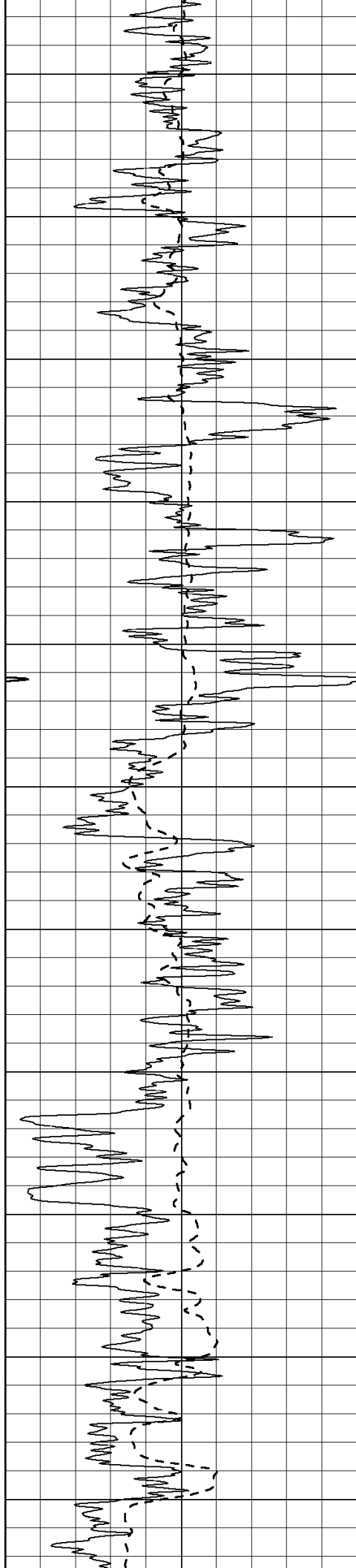
850

900

950

1000





1050

1100

1150

1200

1250

1300

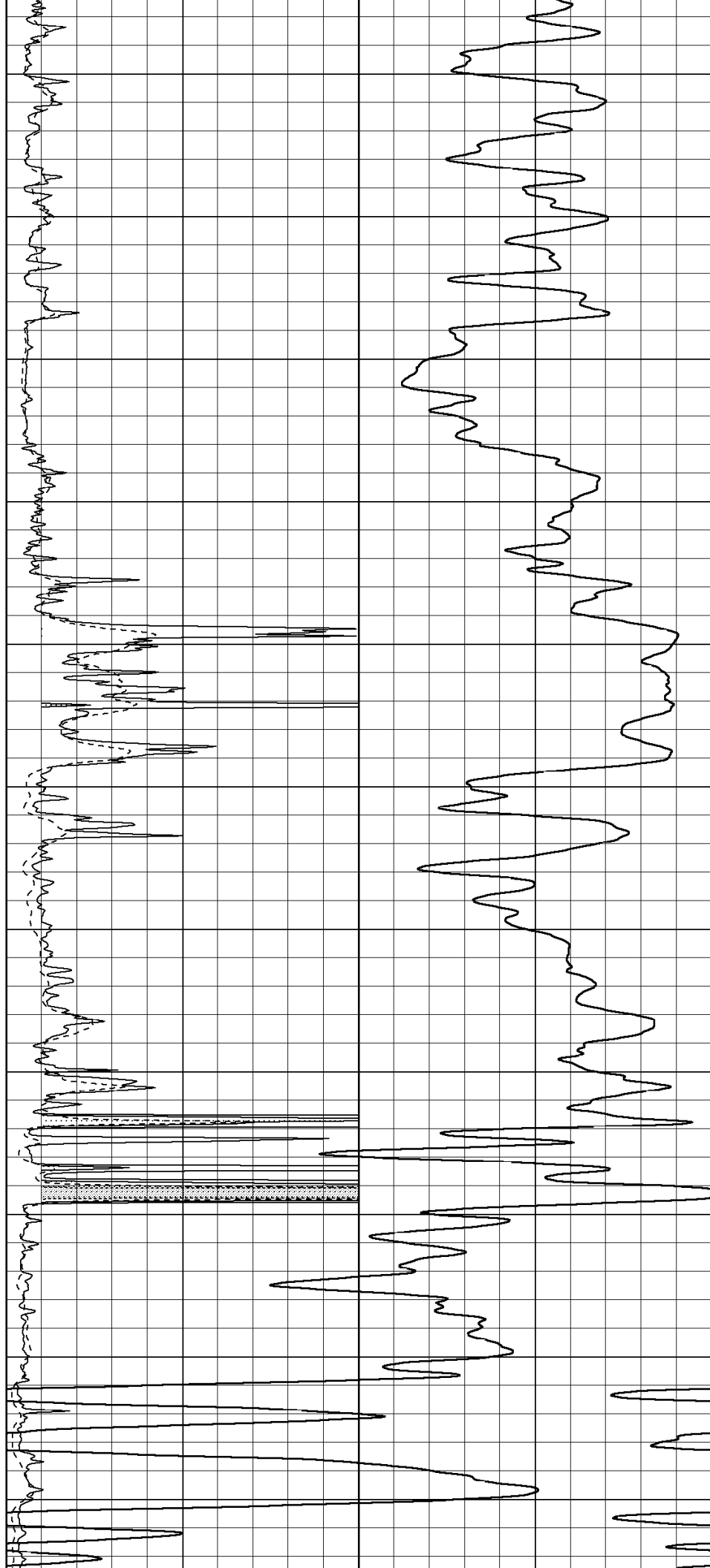
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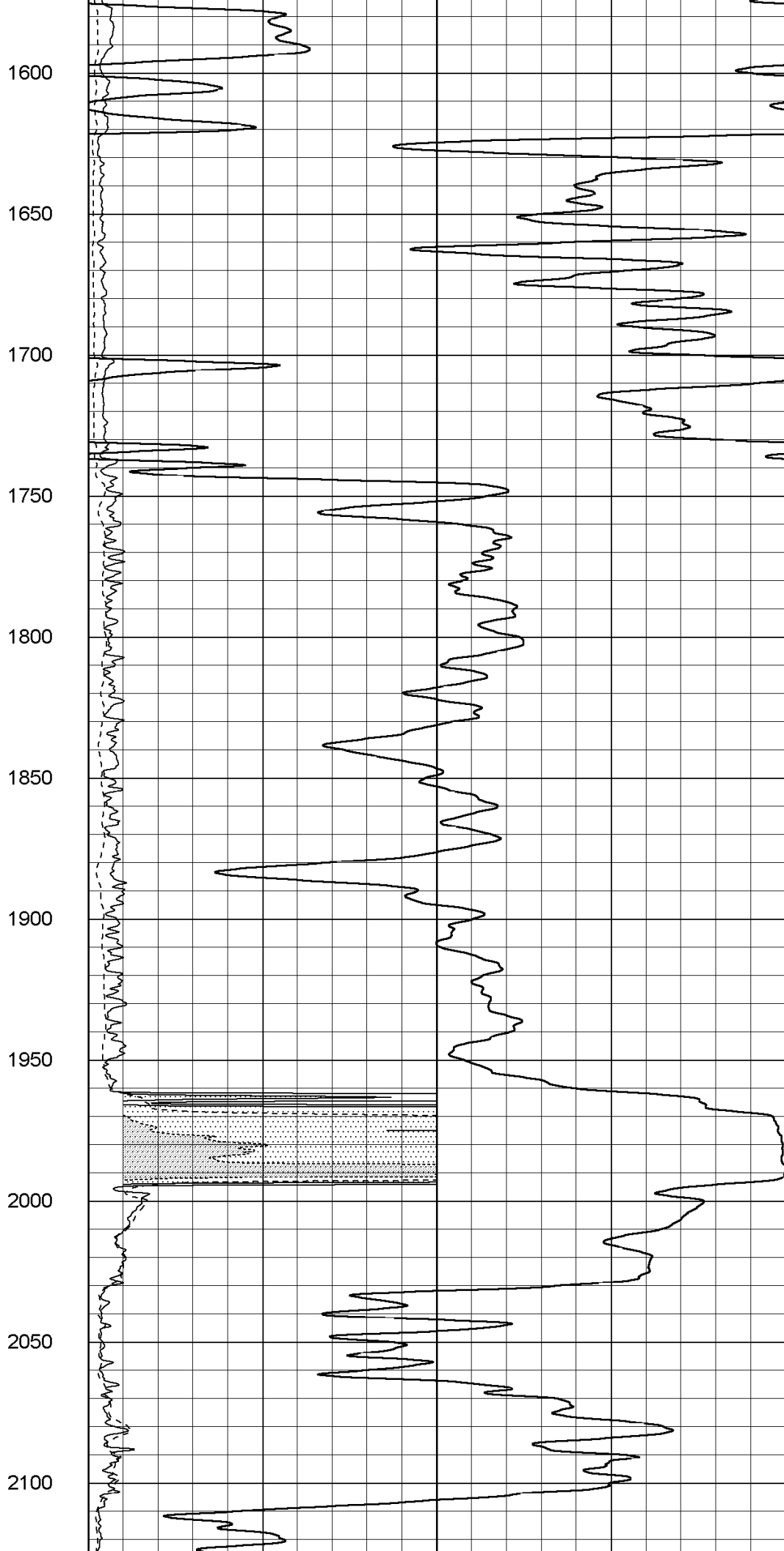
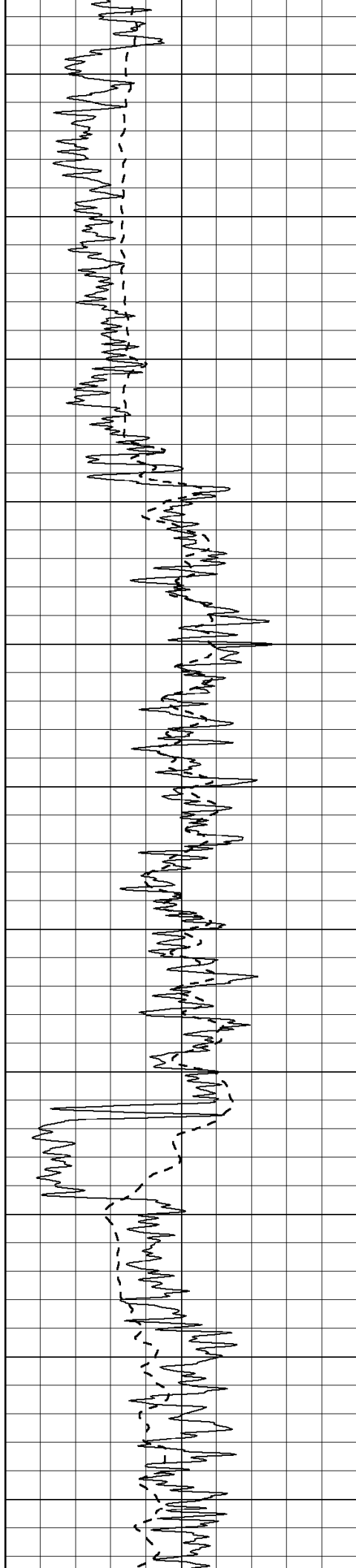
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1450

1500

1550





2150

2200

2250

2300

2350

2400

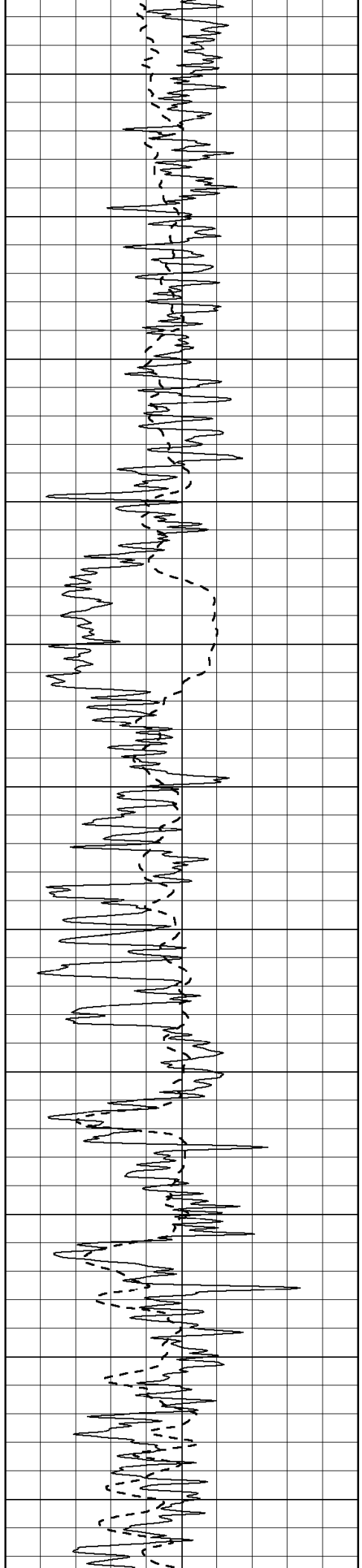
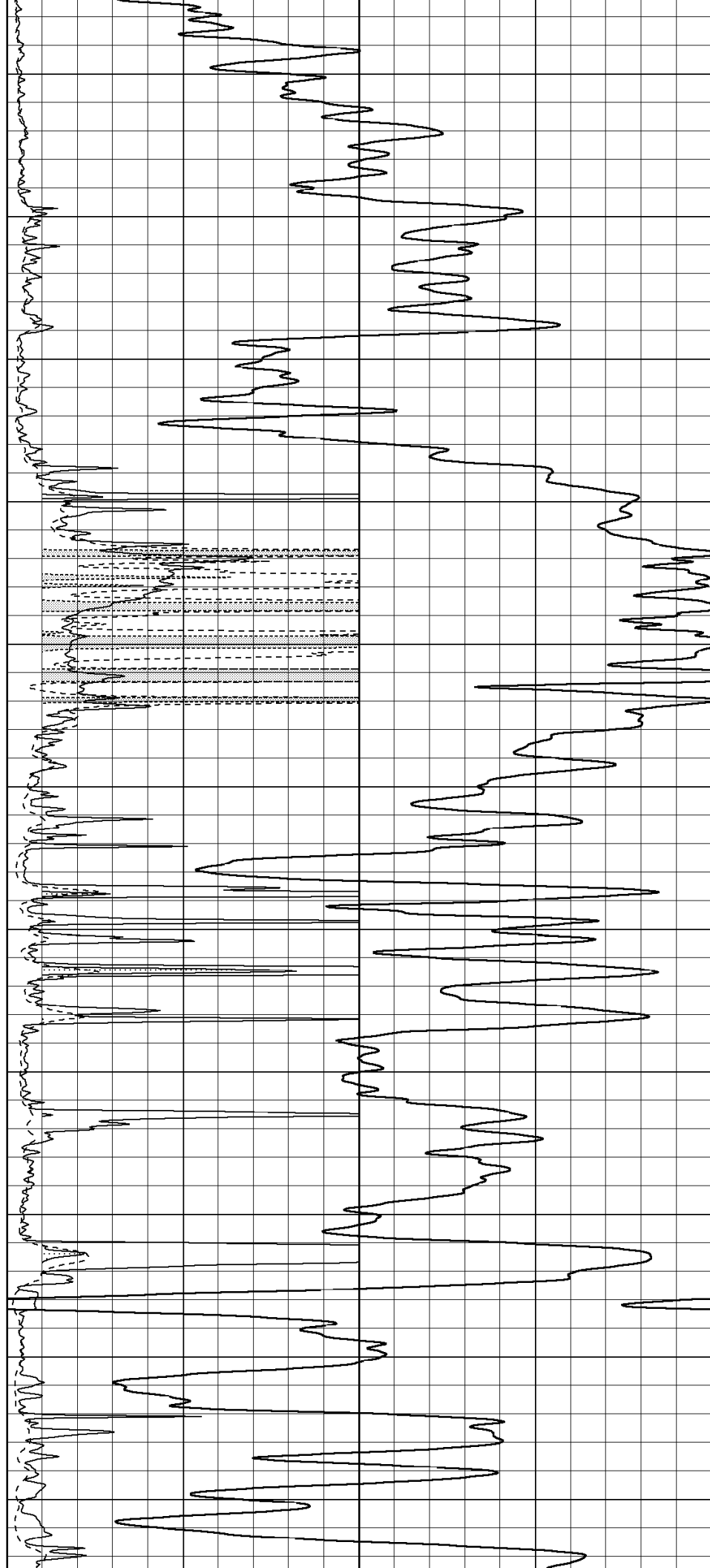
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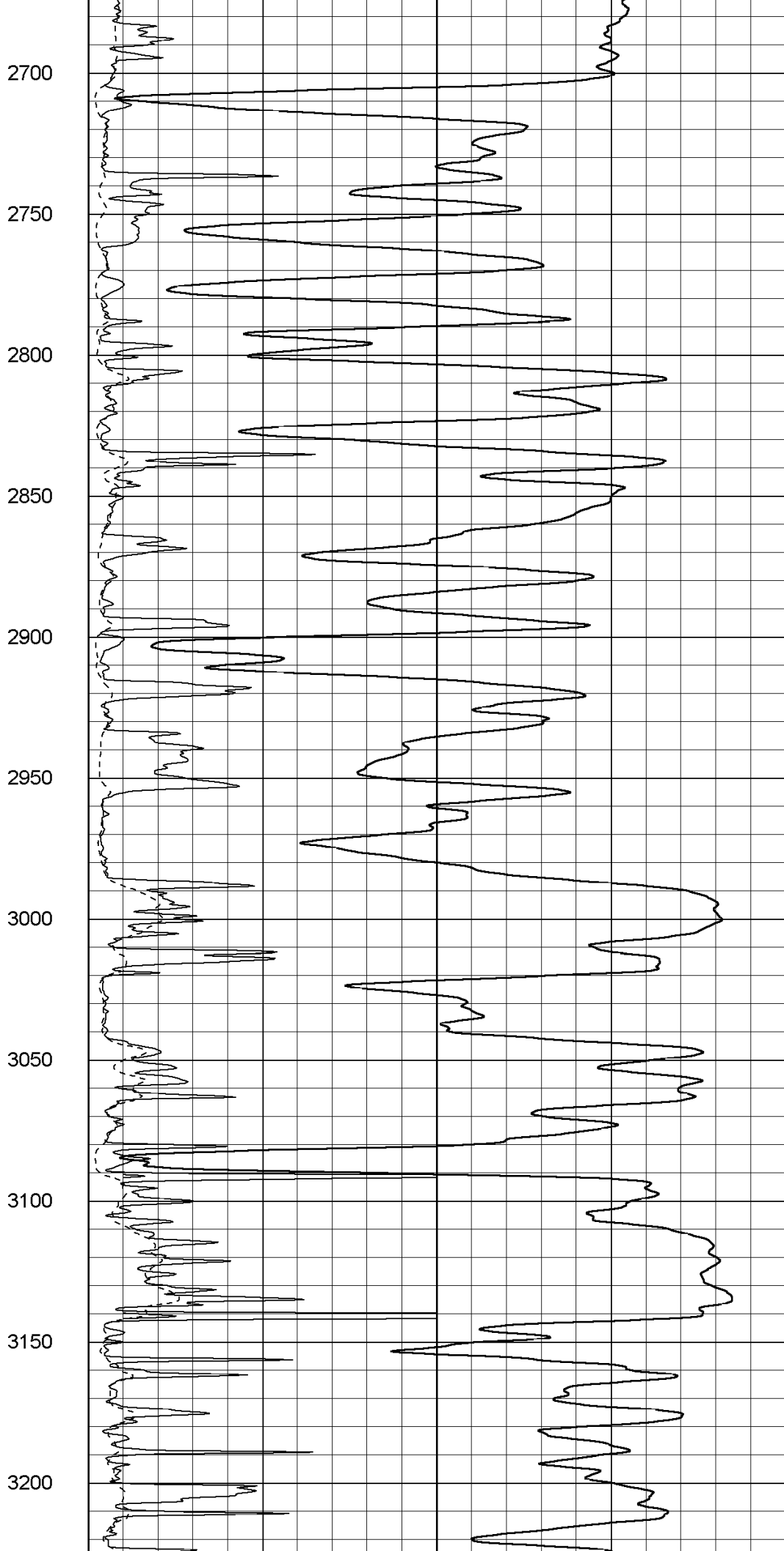
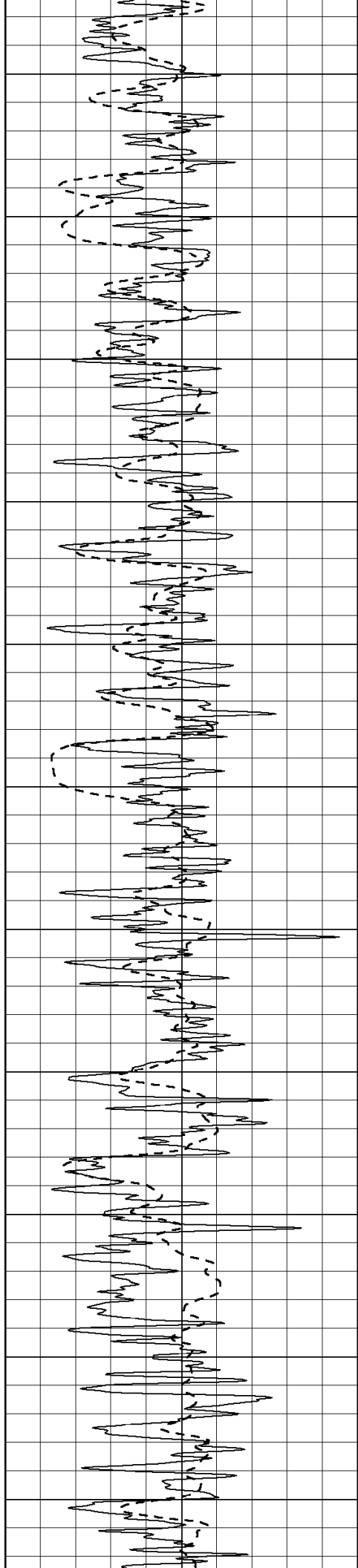
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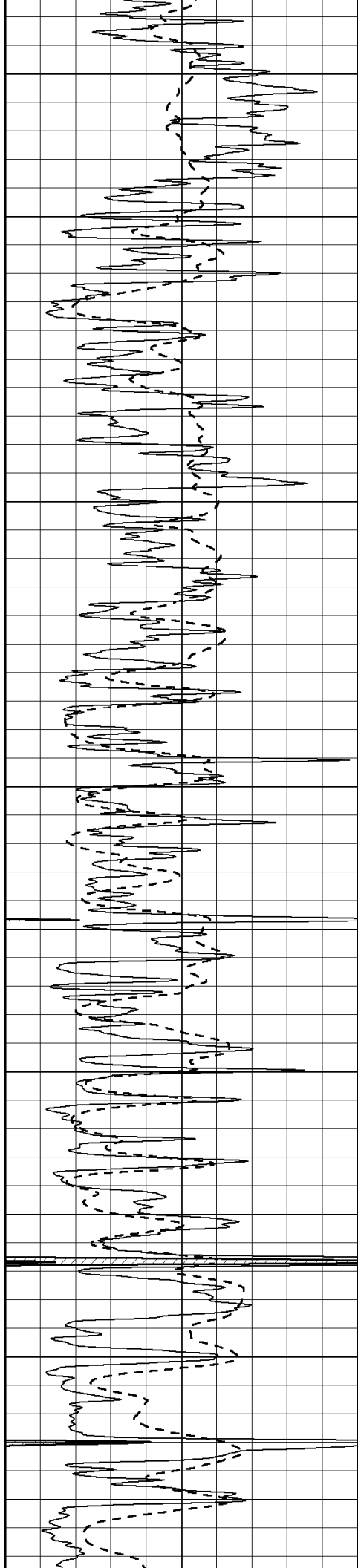
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2600

2650







3250

3300

3350

3400

3450

3500

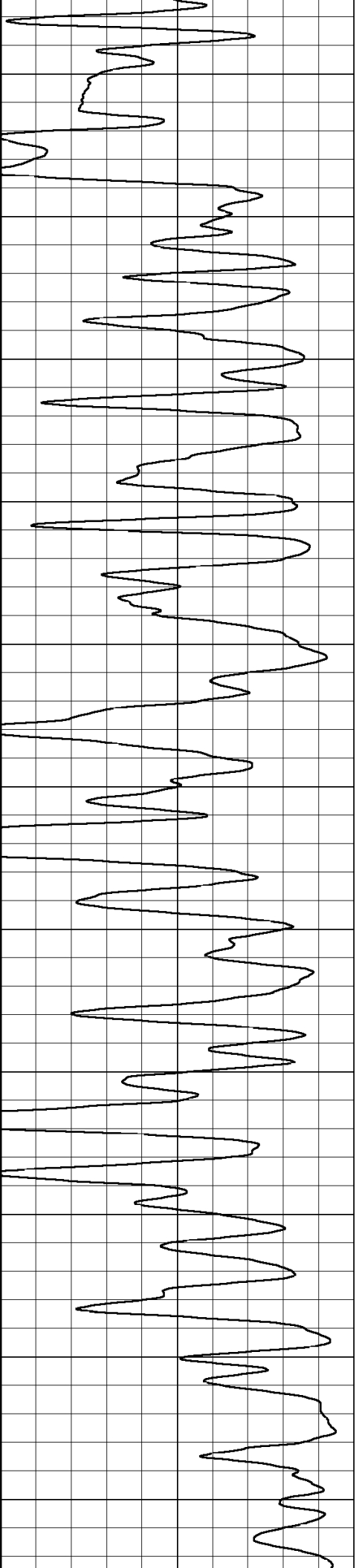
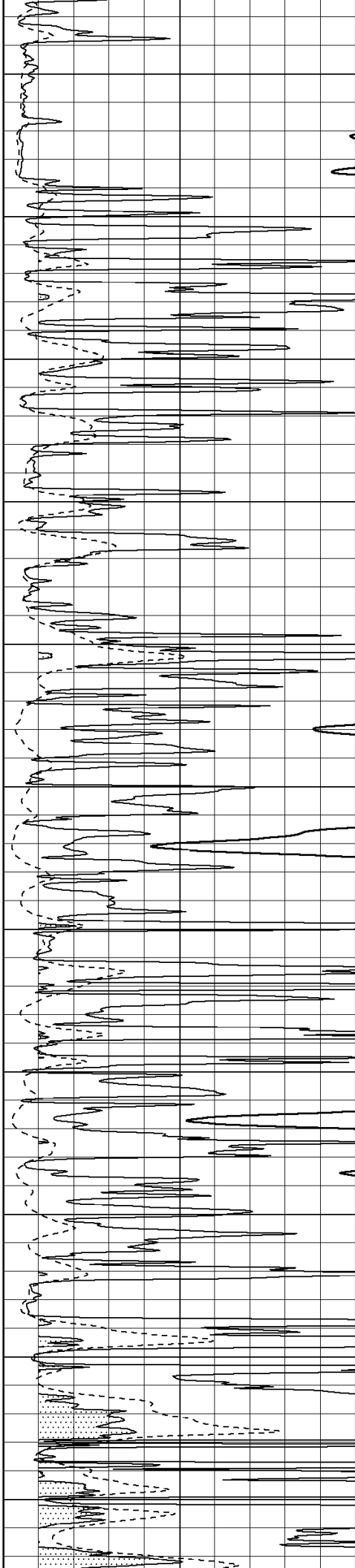
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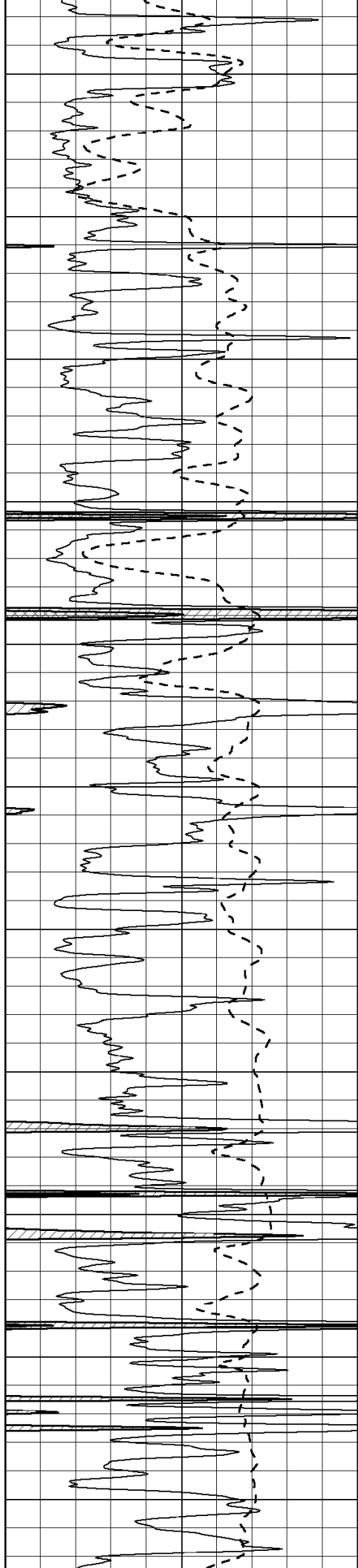
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3650

3700

3750





3800

3850

3900

3950

4000

4050

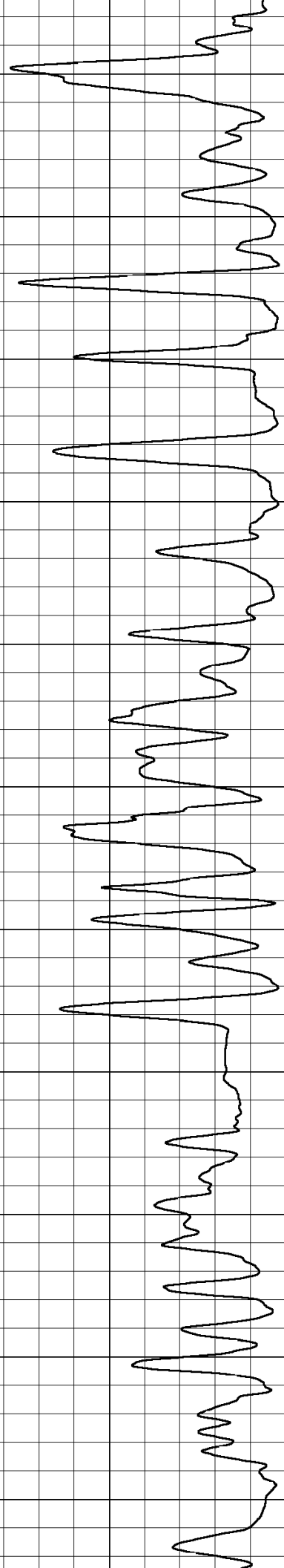
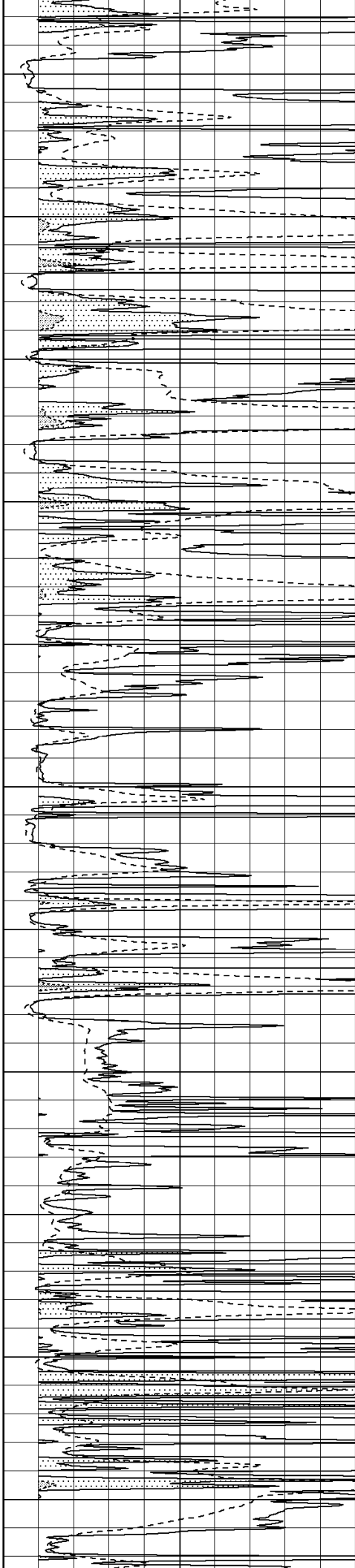
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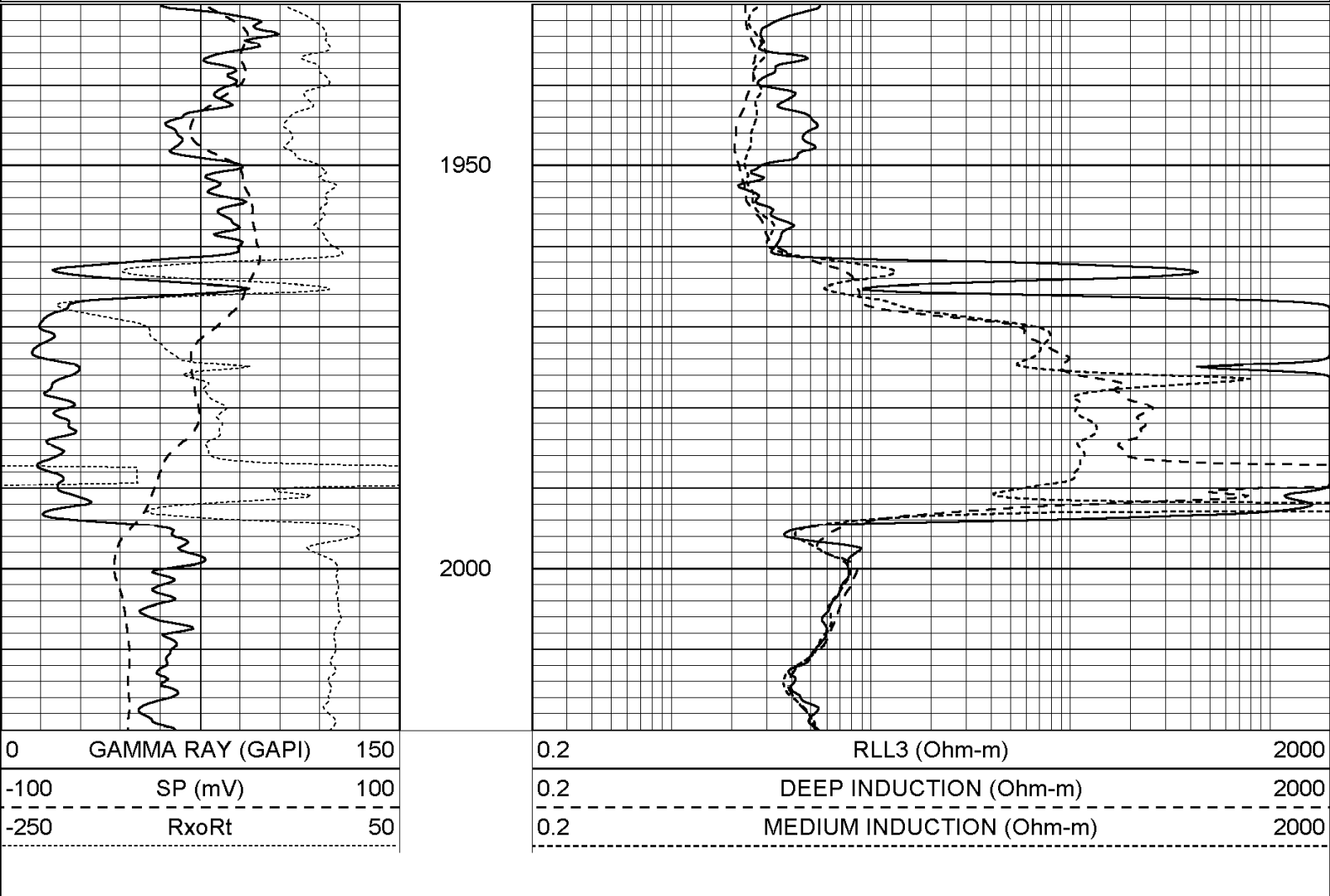
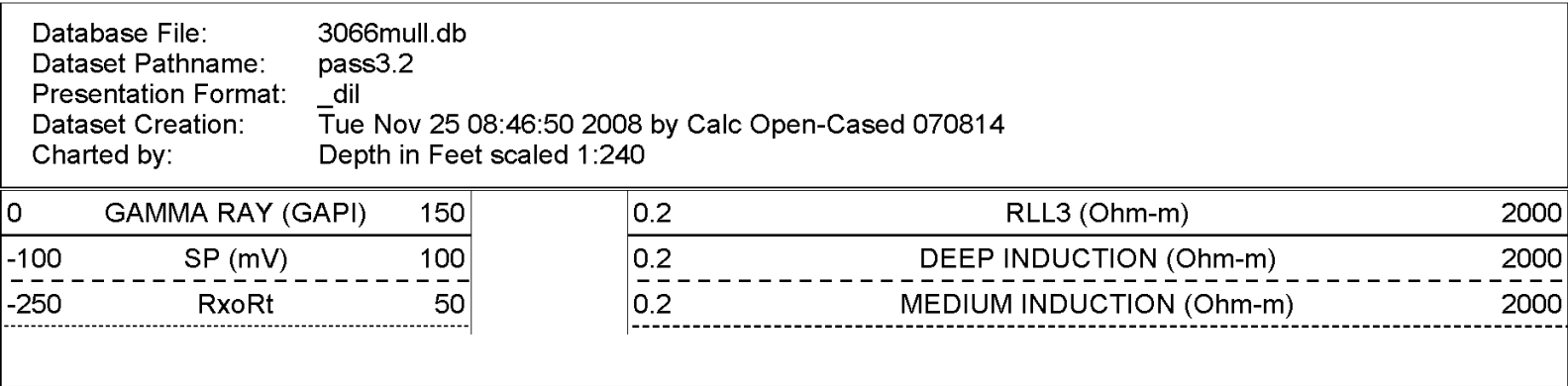
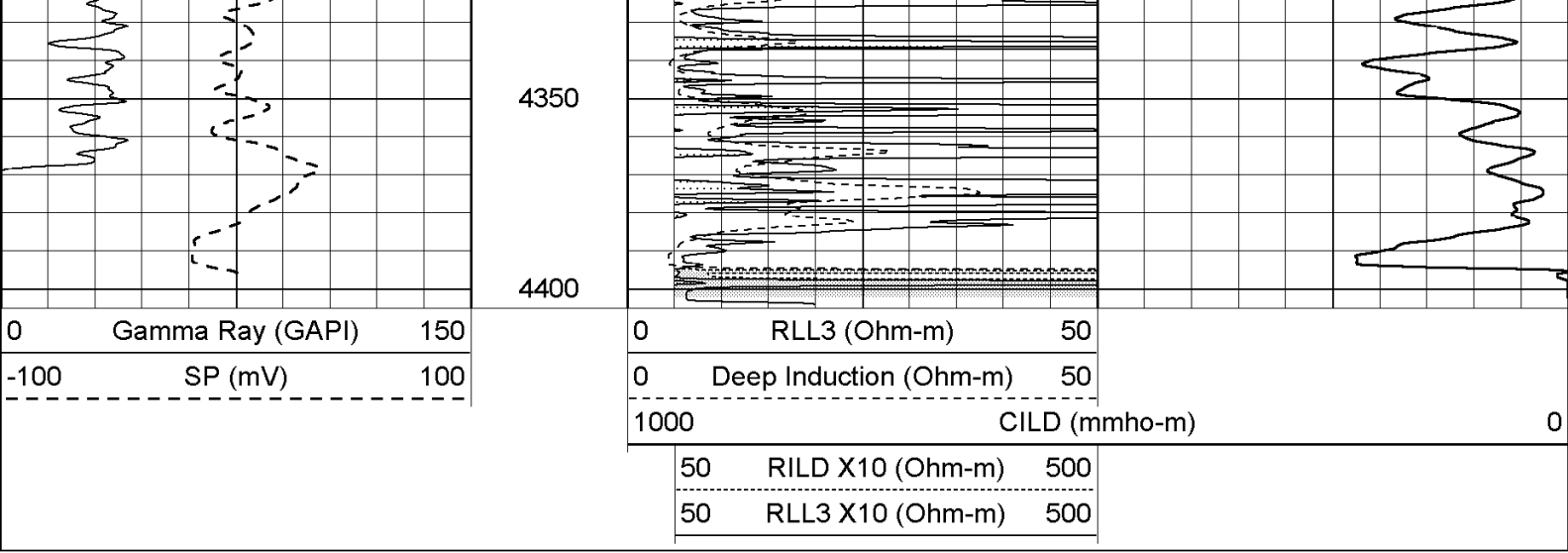
4150

4200

4250

4300

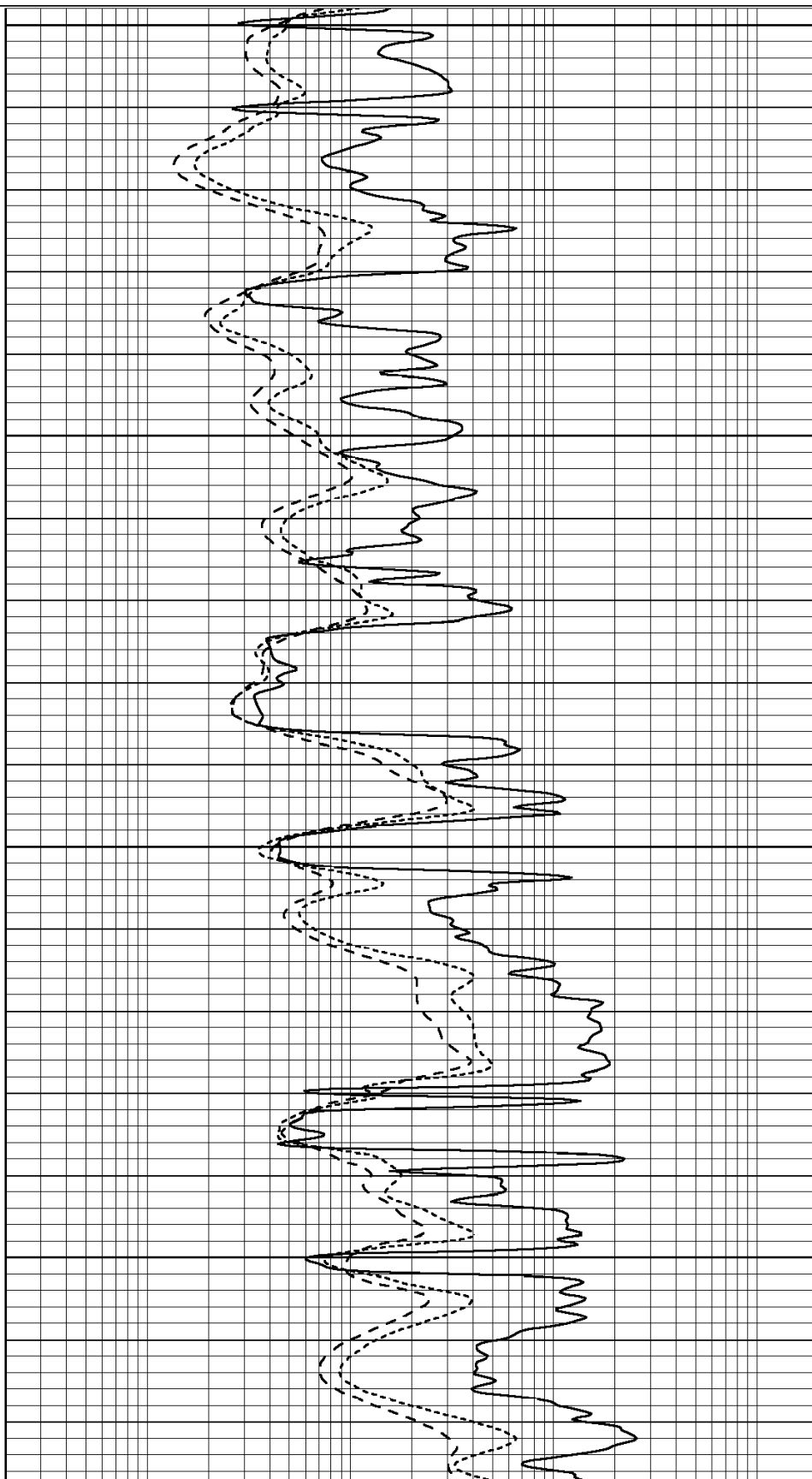
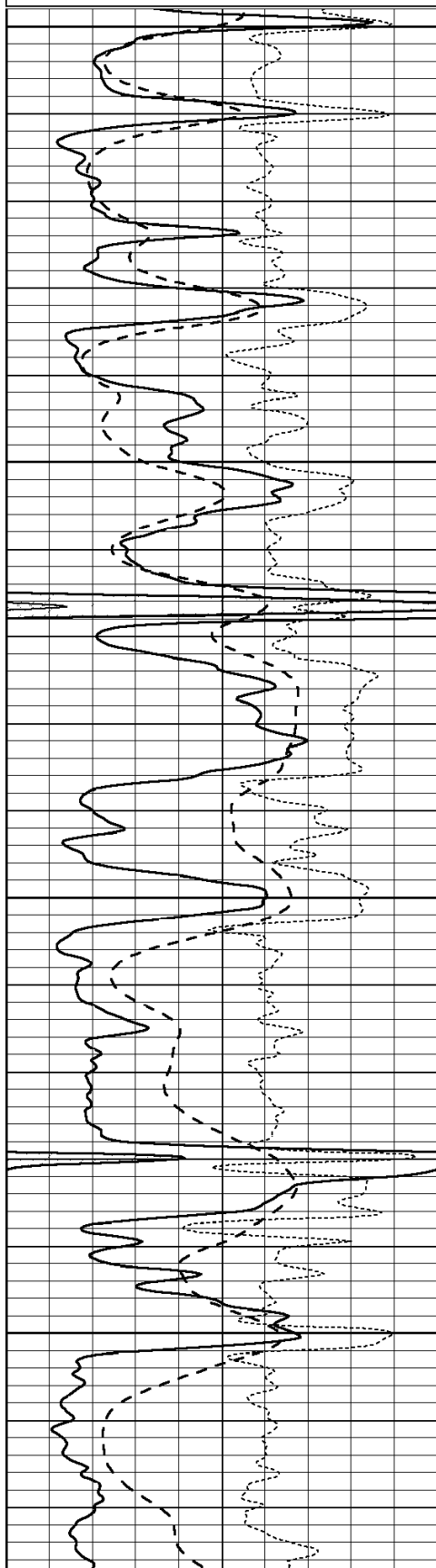


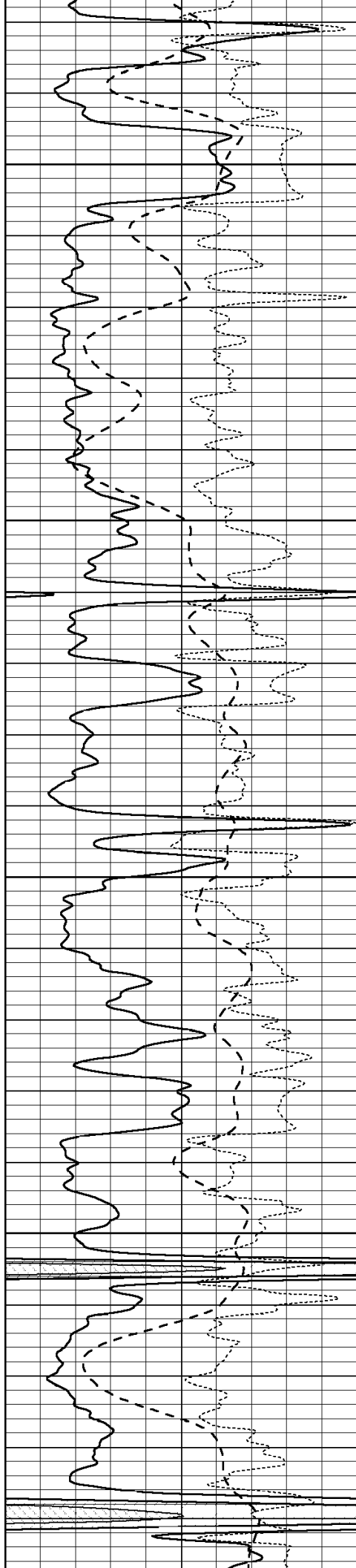


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Dataset Pathname: pass3.2
Presentation Format: _dil
Dataset Creation: Tue Nov 25 08:46:50 2008 by Calc Open-Cased 070814
Charted by: Depth in Feet scaled 1:240

0	GAMMA RAY (GAPI)	150
-100	SP (mV)	100
-250	RxoRt	50

0.2	RLL3 (Ohm-m)	2000
0.2	DEEP INDUCTION (Ohm-m)	2000
0.2	MEDIUM INDUCTION (Ohm-m)	2000



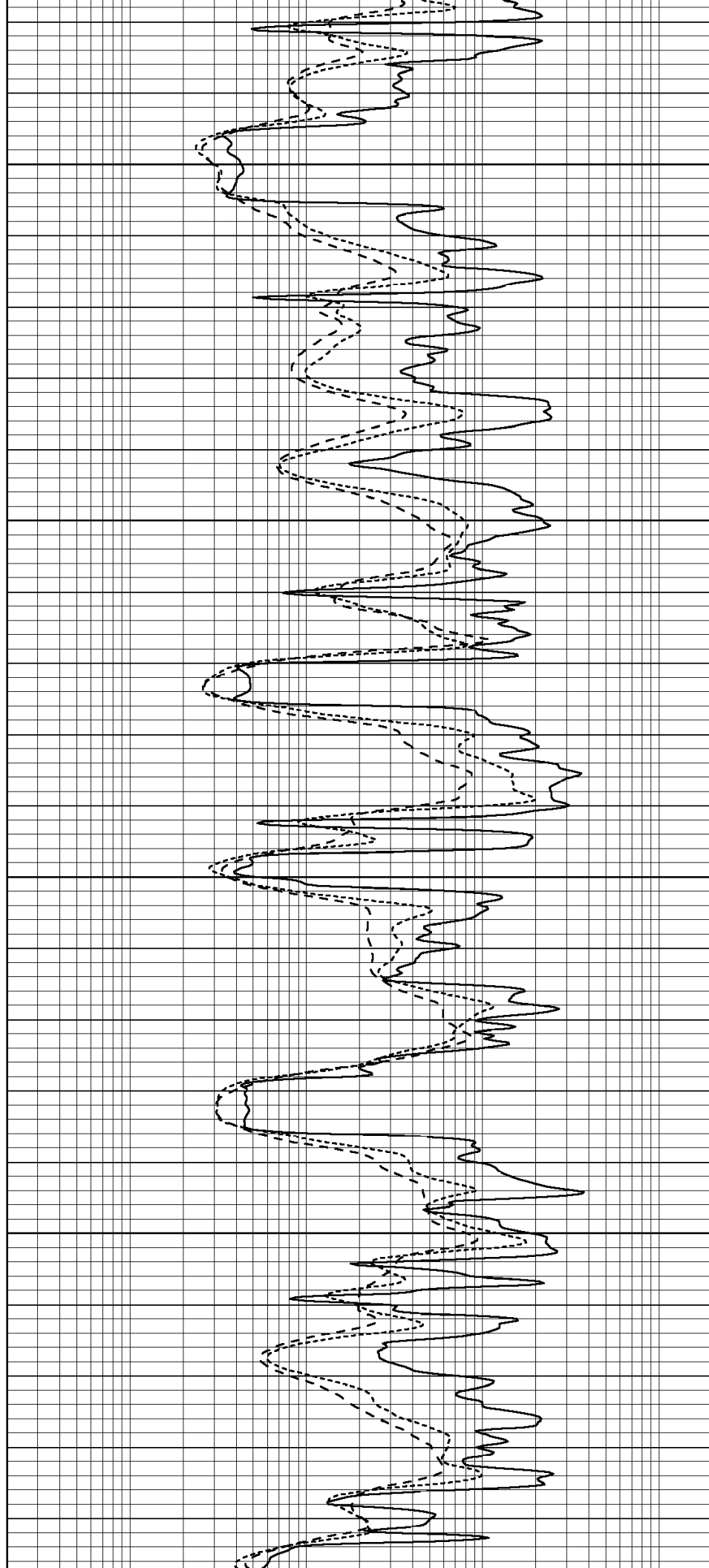


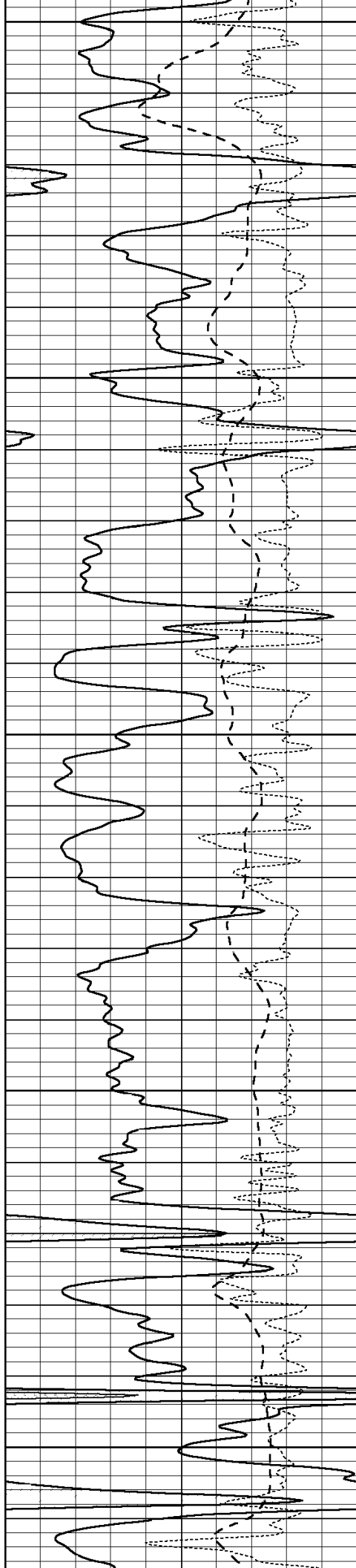
3800

3850

3900

3950





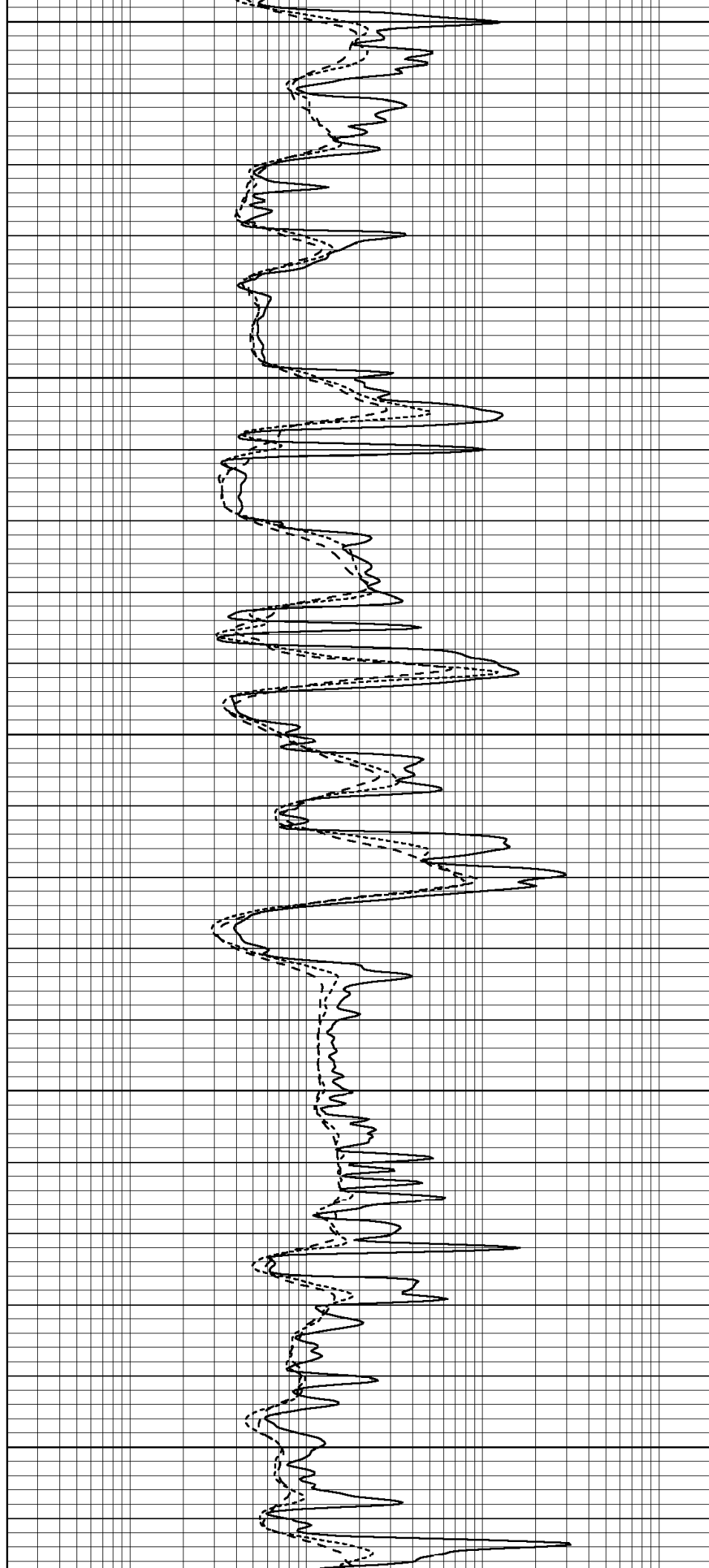
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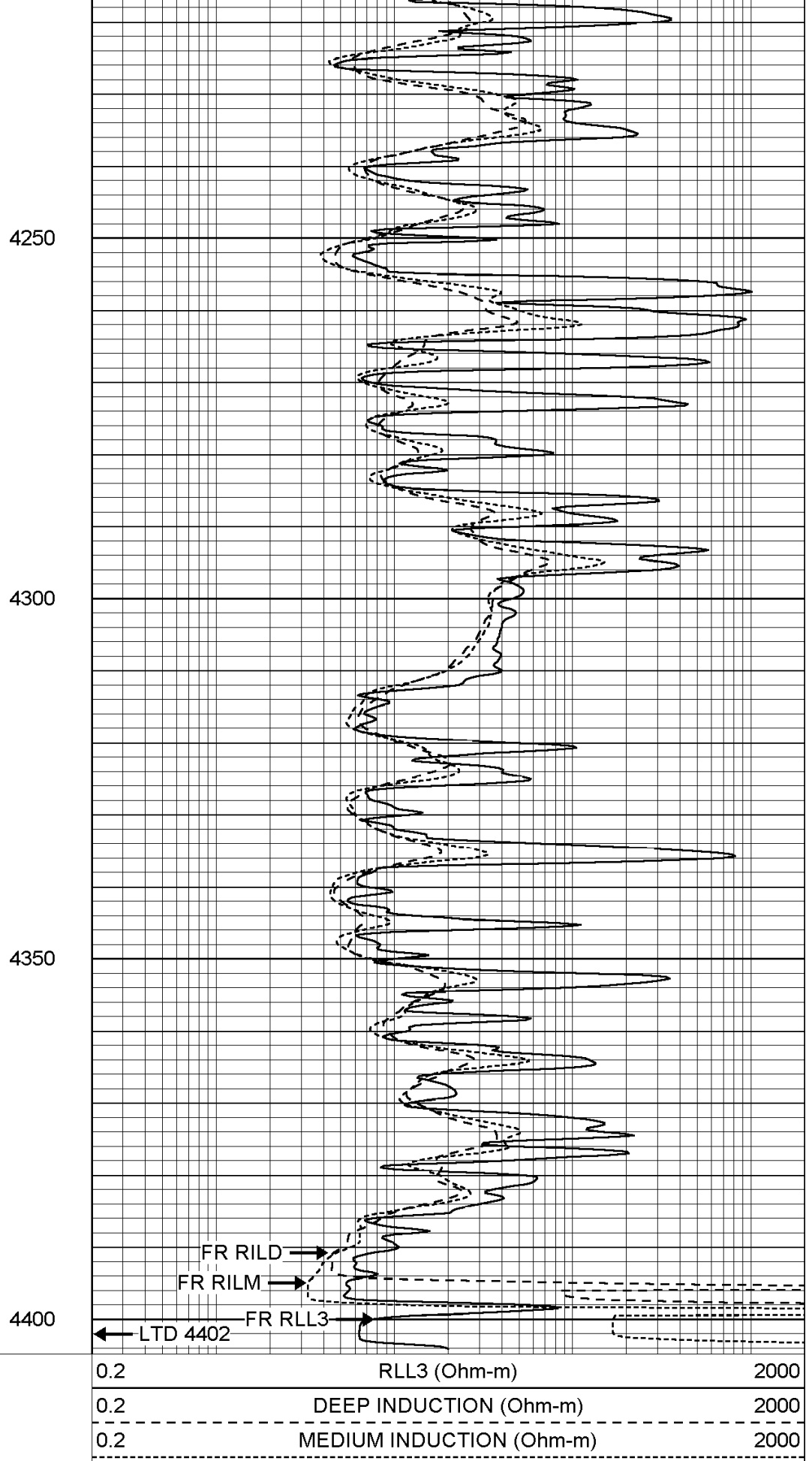
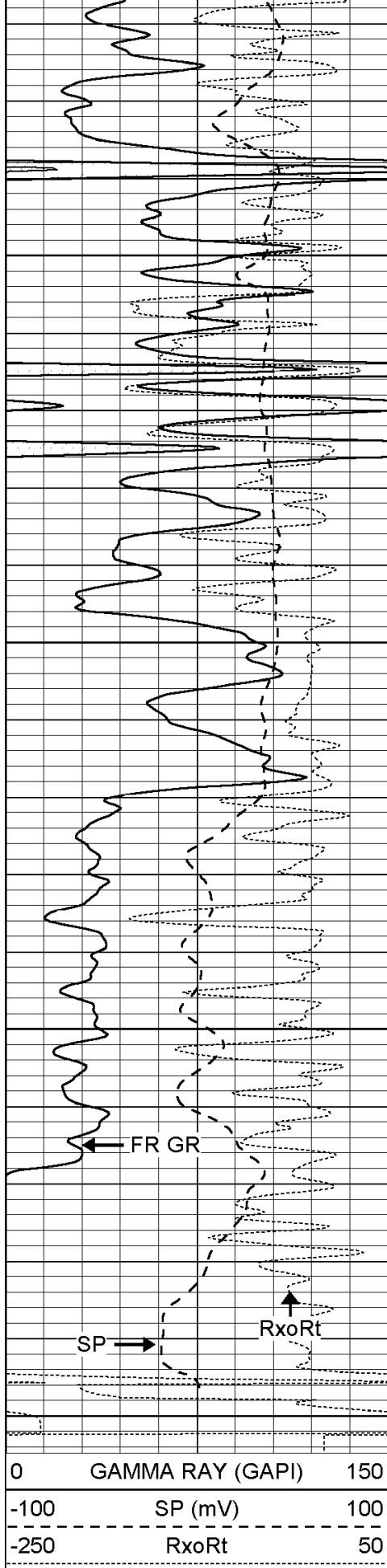
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4100

4150

4200







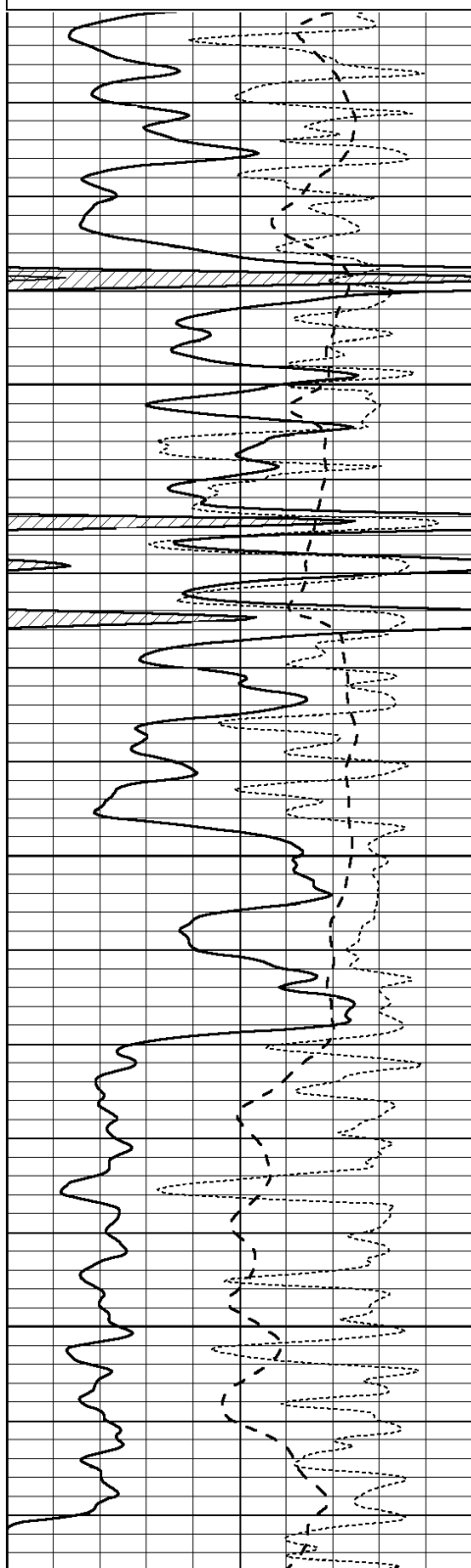
Hays,
Kansas

REPEAT SECTION

Database File: 3066mull.db
Dataset Pathname: pass2.3
Presentation Format: _dil
Dataset Creation: Tue Nov 25 07:22:31 2008 by Calc Open-Cased 070814
Charted by: Depth in Feet scaled 1:240

0	GAMMA RAY (GAPI)	150
-100	SP (mV)	100
-250	RxoRt	50

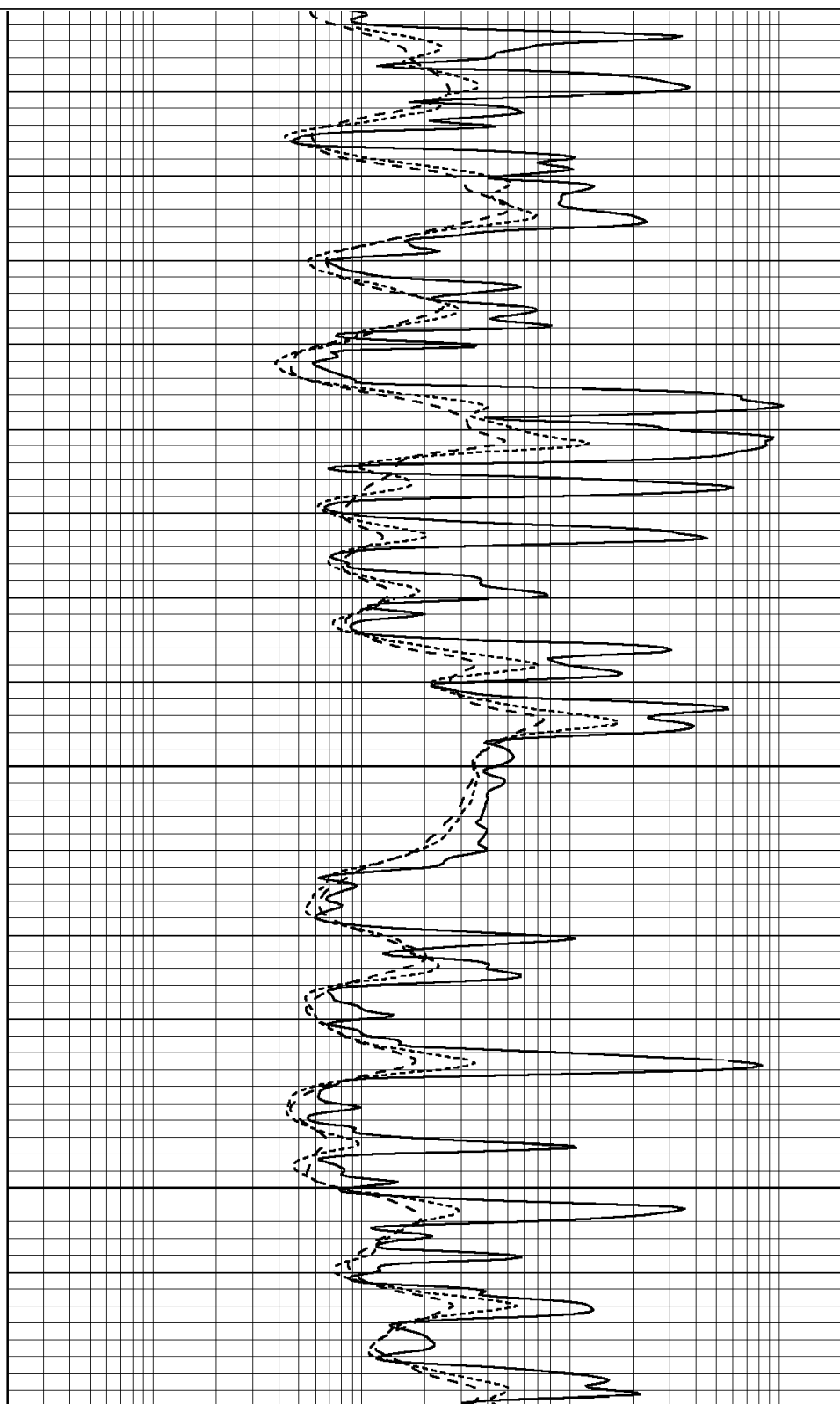
0.2	RLL3 (Ohm-m)	2000
0.2	DEEP INDUCTION (Ohm-m)	2000
0.2	MEDIUM INDUCTION (Ohm-m)	2000

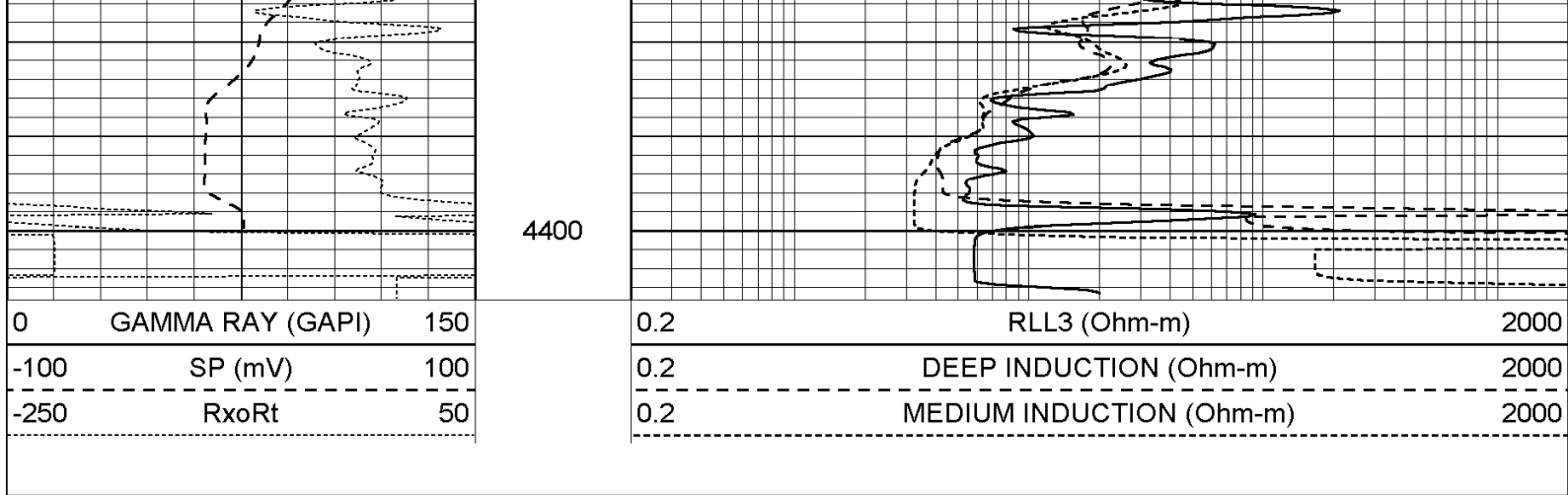


4250

4300

4350





Calibration Report

Database File: 3066mull.db
Dataset Pathname: pass3.2
Dataset Creation: Tue Nov 25 08:46:50 2008 by Calc Open-Cased 070814

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

Readings				References			Results	
Loop:	Air	Loop		Air	Loop		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	605.128	-17.682
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		
		-6.500	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		

Compensated Density Calibration Report

Serial-Model: GEAR4-GEARHART

Master Calibration

	Density			Far Detector		Near Detector	
Magnesium	1.710	g/cc		1358.55		649.93	cps
Aluminum	2.580	g/cc		302.11		449.52	cps
Spine Angle = 76.22				Density/Spine Ratio = 0.562			
	Size			Reading			
Small Ring	7.90	in		3.26		V	
Large Ring	14.25	in		5.41		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: GR6
Tool Model: OPEN
Performed: Thu Jan 24 17:24:37 2008

Calibrator Value: 150.0 GAPI

Background Reading: 0.0 cps
Calibrator Reading: 350.0 cps

Sensitivity: 0.5586 GAPI/cps