



**COMPLETION
& PRODUCTION
SERVICES CO.**

**DUAL
INDUCTION
LOG**

Company	RITCHIE EXPLORATION, INC.		
Well	WEISENSEE 1B #1		
Field	WILDCAT		
County	PAWNEE	State	KANSAS
Location:	API # : 15-145-21787		Other Services SONIC CDL/CNL
1500' FNL & 1500' FWL			
SEC 1 TWP 21S RGE 18W		Elevation	
Permanent Datum	GROUND LEVEL	Elevation	2108
Log Measured From	KELLY BUSHING 8' A.G.L.		K.B. 2115
Drilling Measured From	KELLY BUSHING		D.F. G.L. 2108
Date	10-24-14		
Run Number	ONE		
Depth Driller	4250		
Depth Logger	4252		
Bottom Logged Interval	4250		
Top Log Interval	00		
Casing Driller	1174		
Casing Logger	1178		
Bit Size	7.875		
Type Fluid in Hole	CHEMICAL MUD		
Density / Viscosity	9.1 / 60		
pH / Fluid Loss	8.0 / 12.4		
Source of Sample	FLOWLINE		
Rm @ Meas. Temp	0.80 @ 66F		
Rmf @ Meas. Temp	0.60 @ 66F		
Rmc @ Meas. Temp	0.96 @ 66F		
Source of Rmf / Rmc	MEASURED		
Rm @ BHT	.451 @ 117F		
Time Circulation Stopped	2 HOURS		
Time Logger on Bottom	11:45 P.M.		
Maximum Recorded Temperature	117F		
Equipment Number	3802		
Location	HAYS, KS.		
Recorded By	RUPP		
Witnessed By	ADAM ELDANI		

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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

NABORS COMPLETION & PRODUCTION SERVICES
785-628-6395
THANK YOU FOR YOUR BUSINESS
DIRECTIONS: SANFORD, 5N TO THE CURVE, 3E, N INTO.



**COMPLETION
& PRODUCTION**

MAIN SECTION

Database File: 26244ddn.db
 Dataset Pathname: pass3.1A
 Presentation Format: _dil2
 Dataset Creation: Sat Oct 25 01:58:22 2014
 Charted by: Depth in Feet scaled 1:600

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

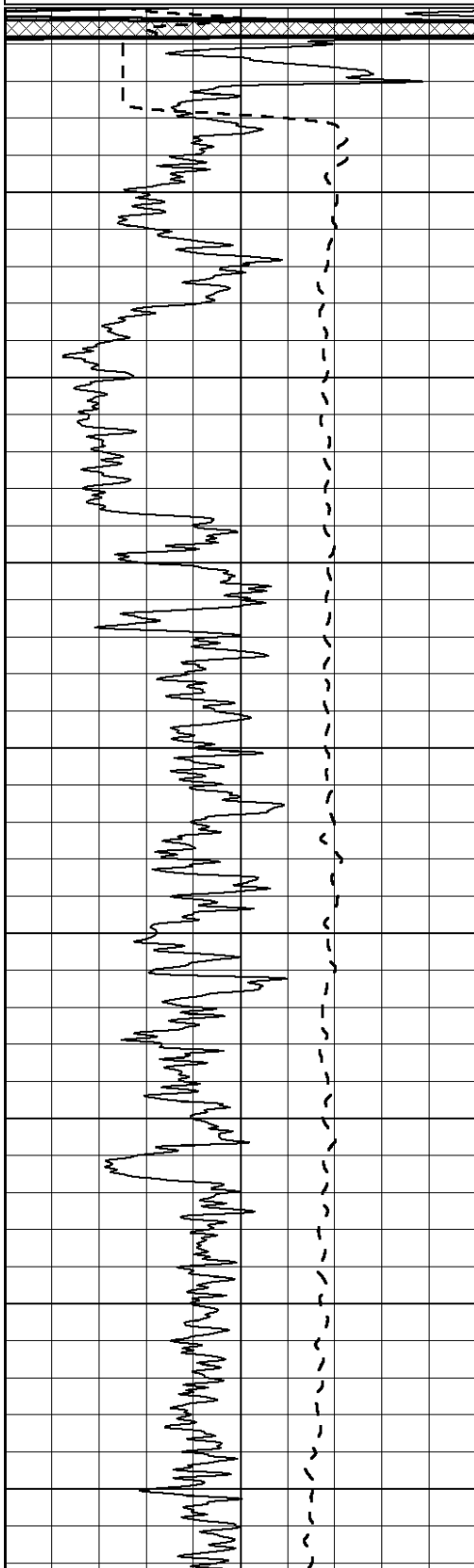
0	RLL3 (Ohm-m)	50
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0	Deep Induction (Ohm-m)	50
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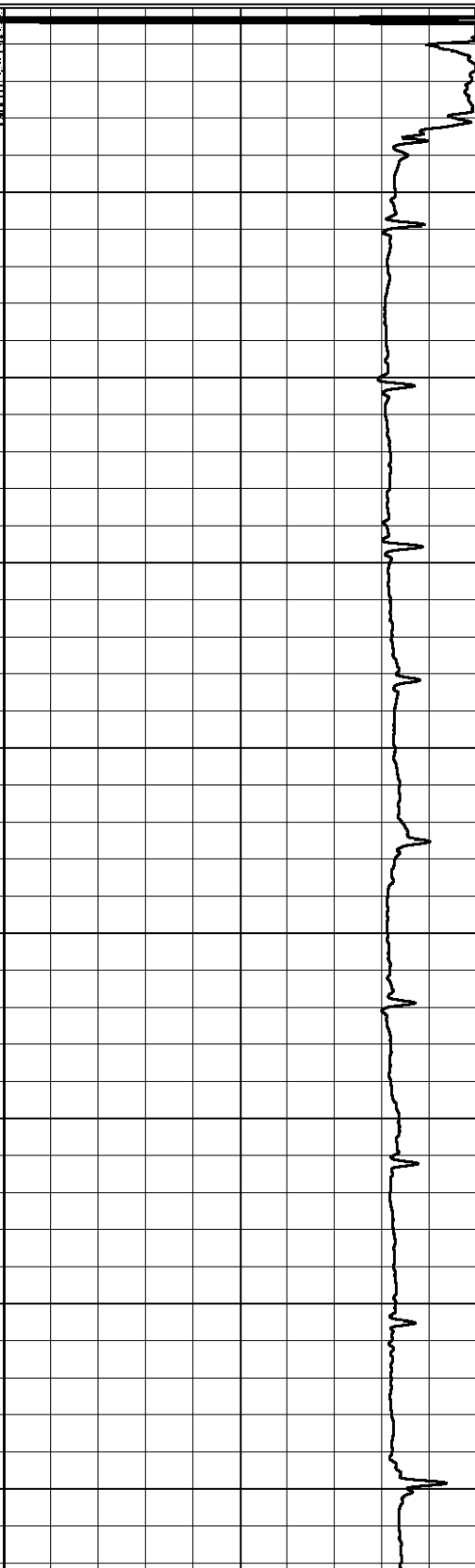
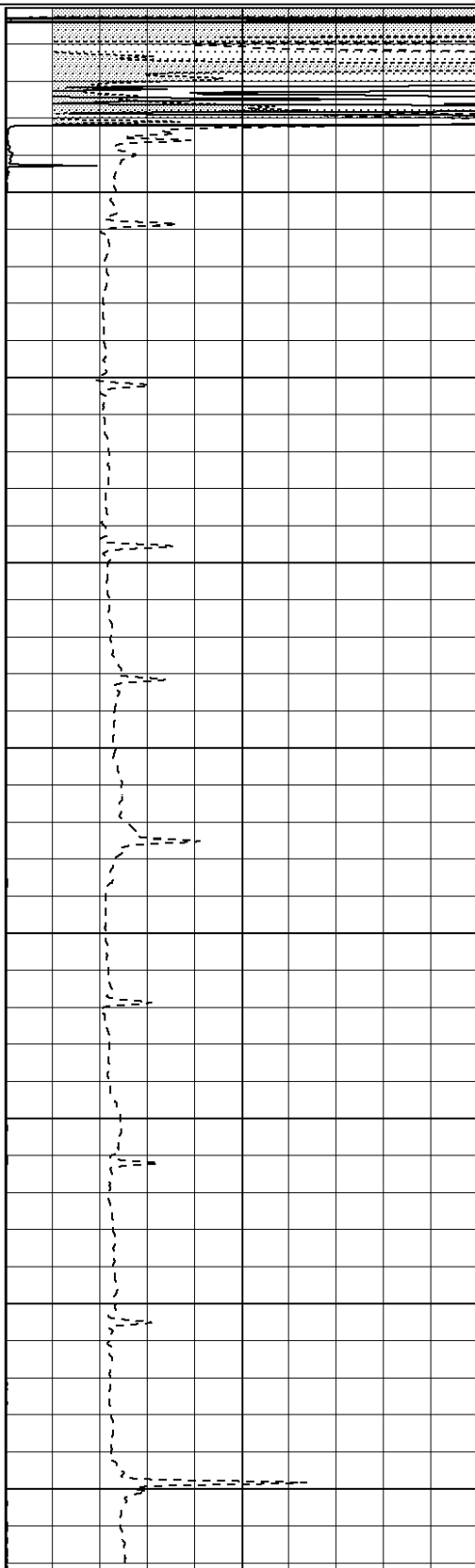
1000	CILD (mmho/m)	0
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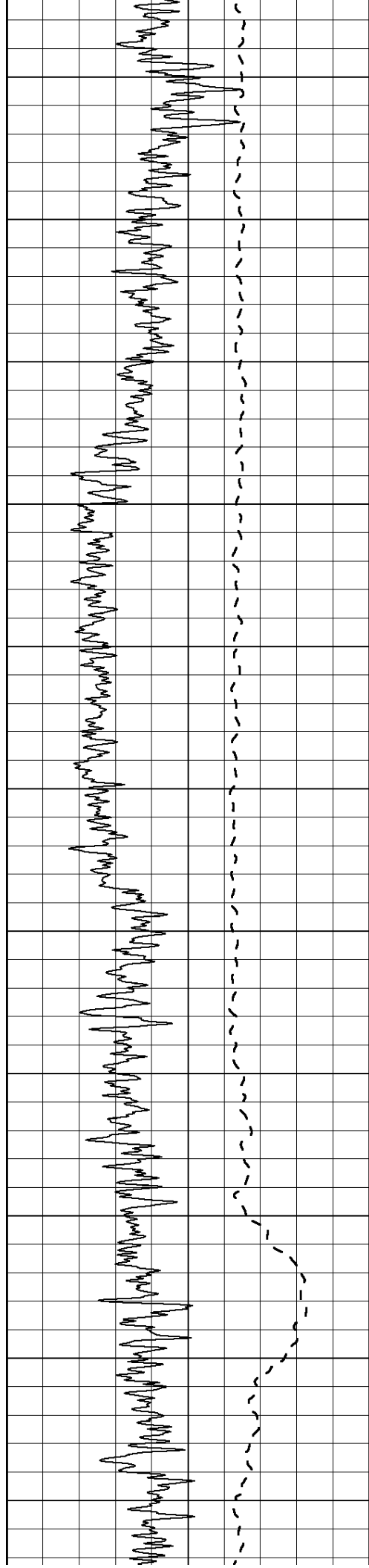
50	RILD X10 (Ohm-m)	500
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50	RLL3 X10 (Ohm-m)	500
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0
50
100
150
200
250
300
350
400





450

500

550

600

650

700

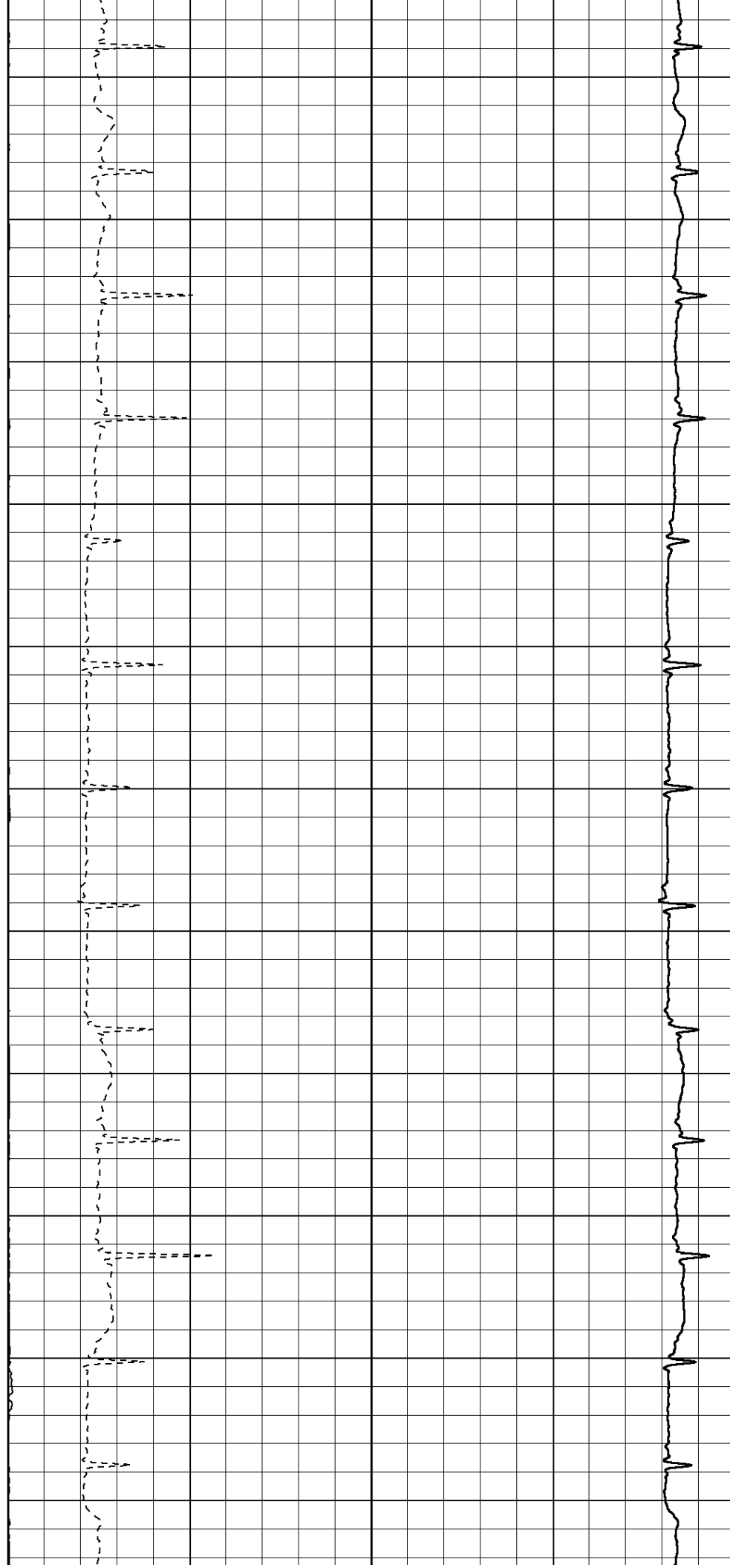
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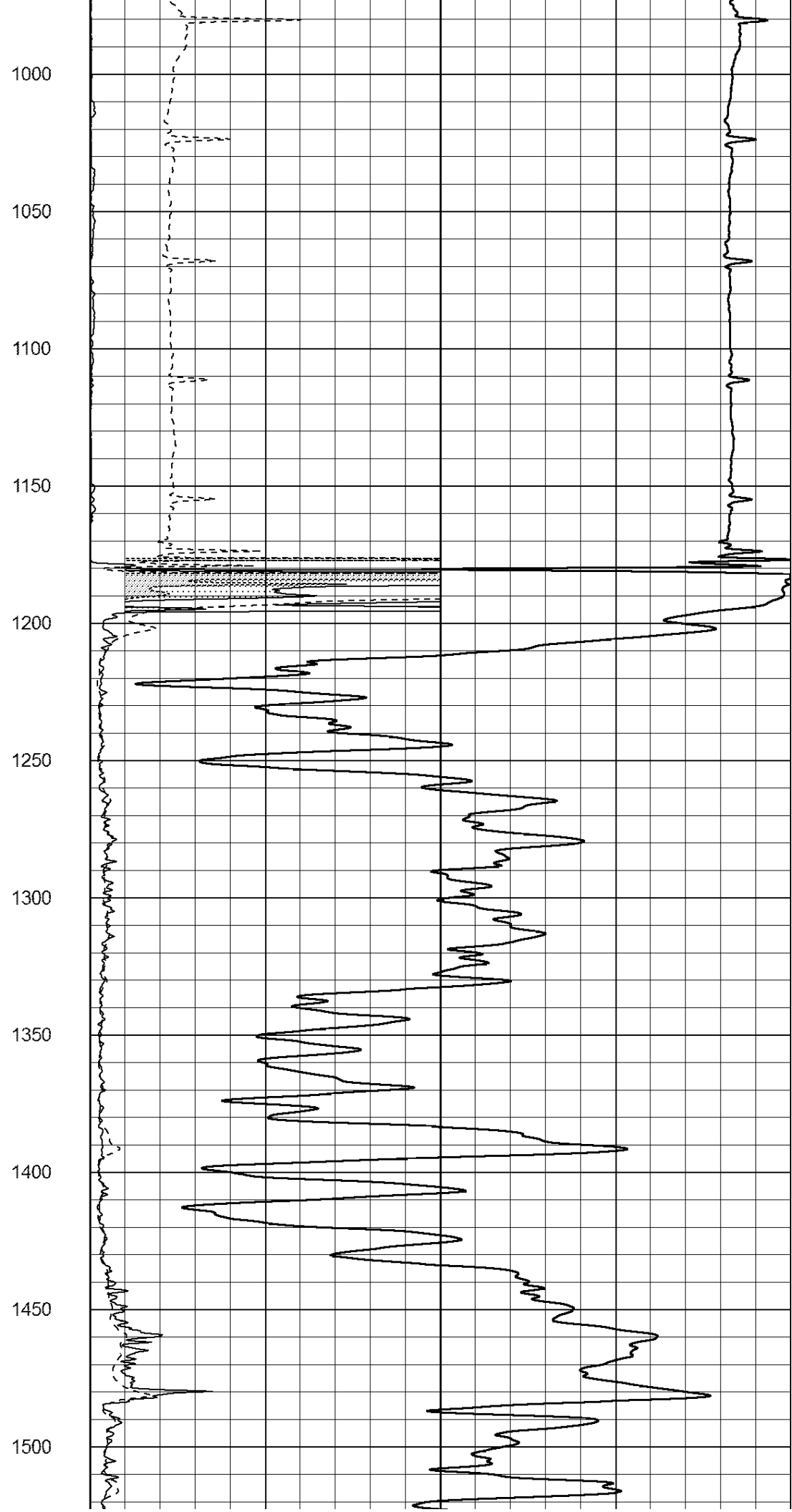
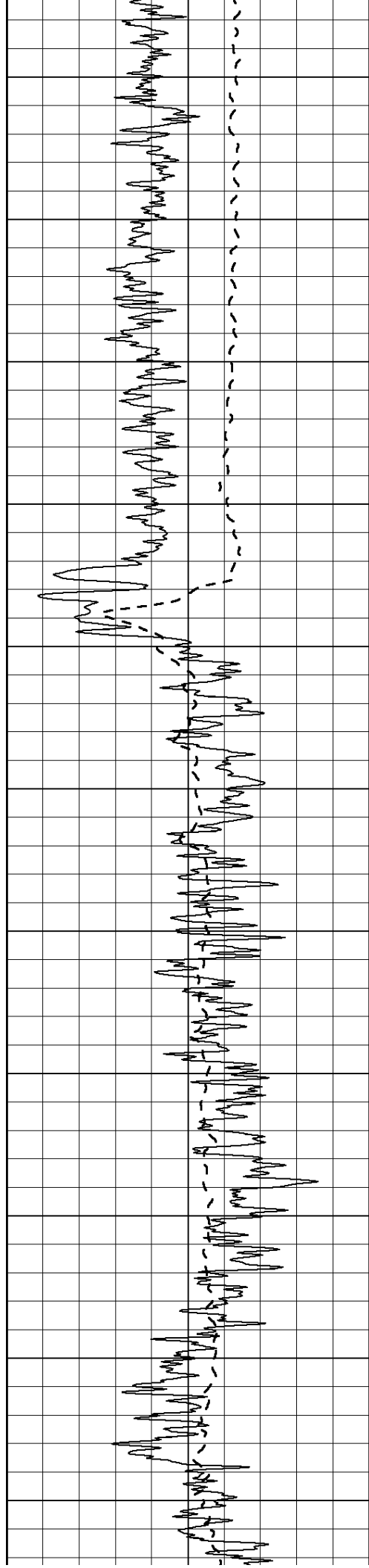
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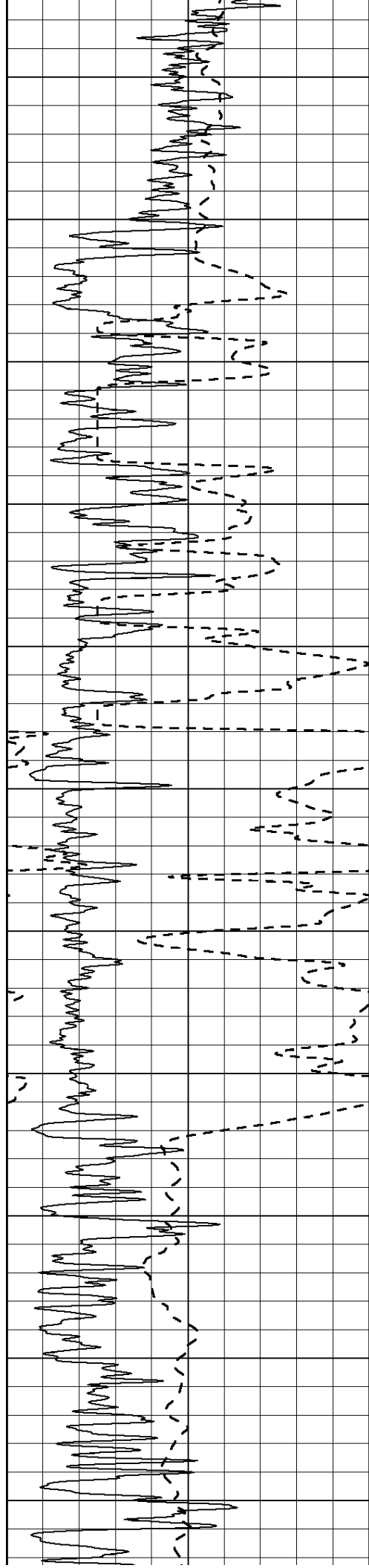
850

900

950







1550

1600

1650

1700

1750

1800

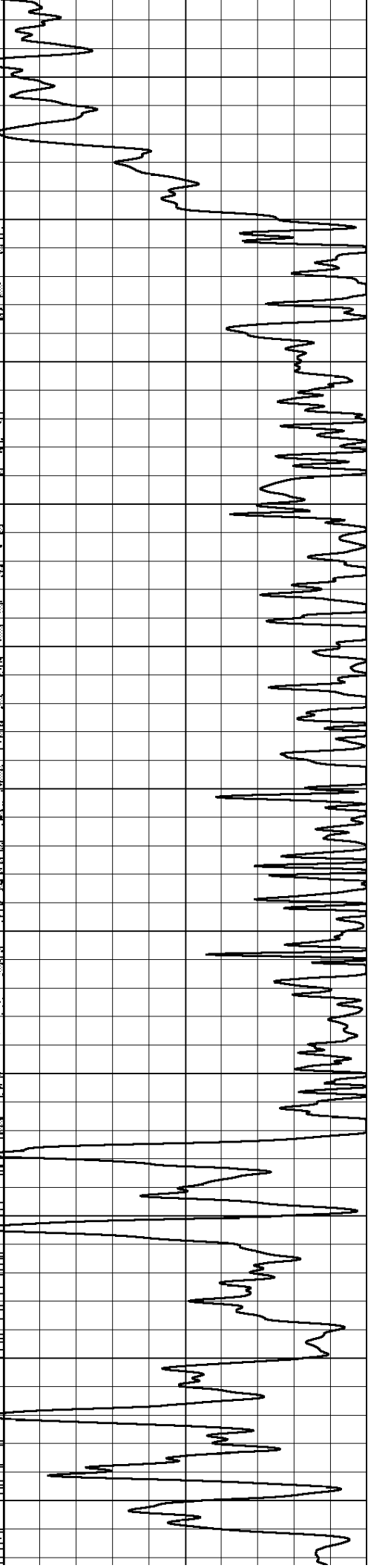
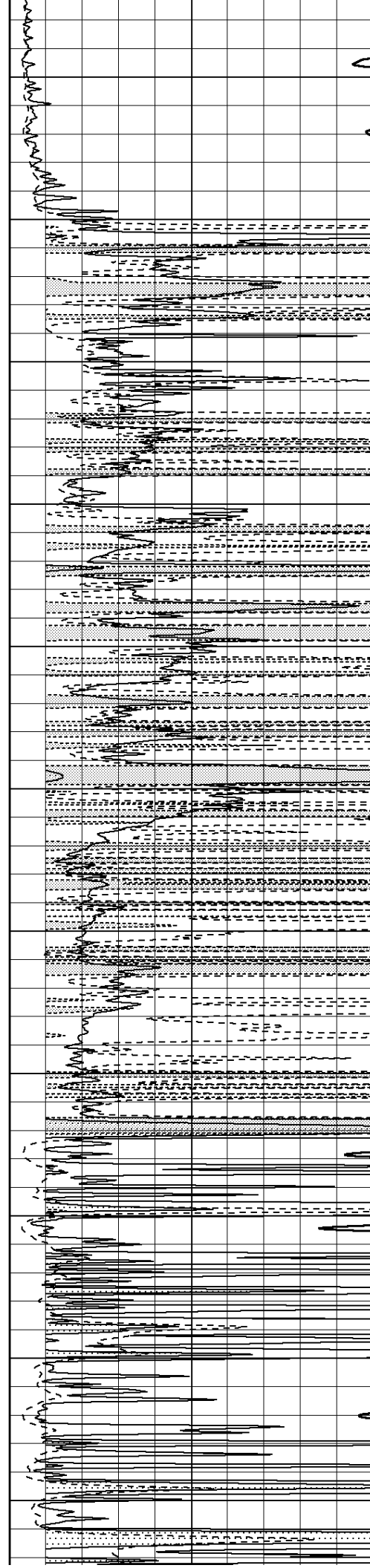
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1900

1950

2000

2050



2100

2150

2200

2250

2300

2350

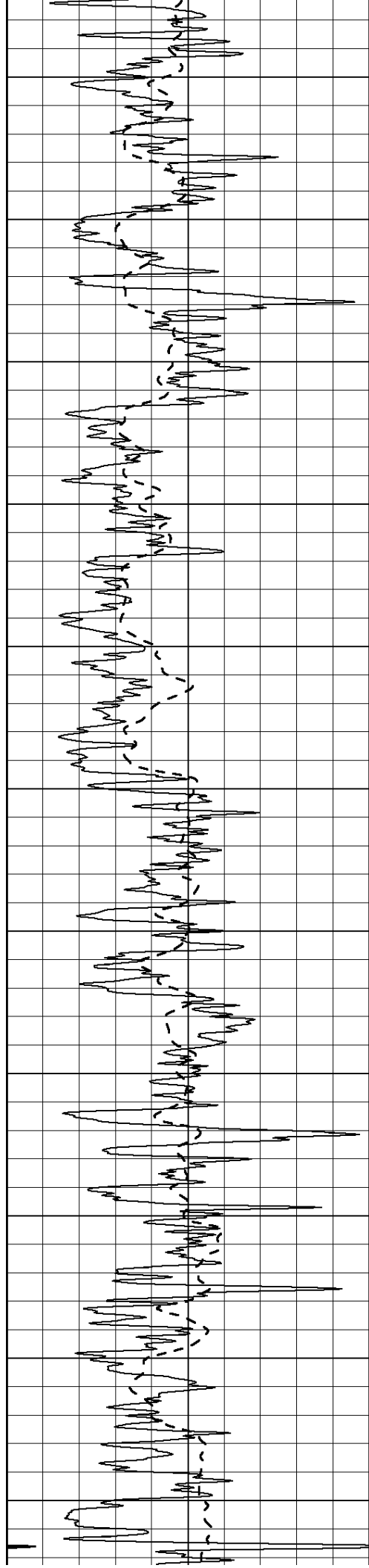
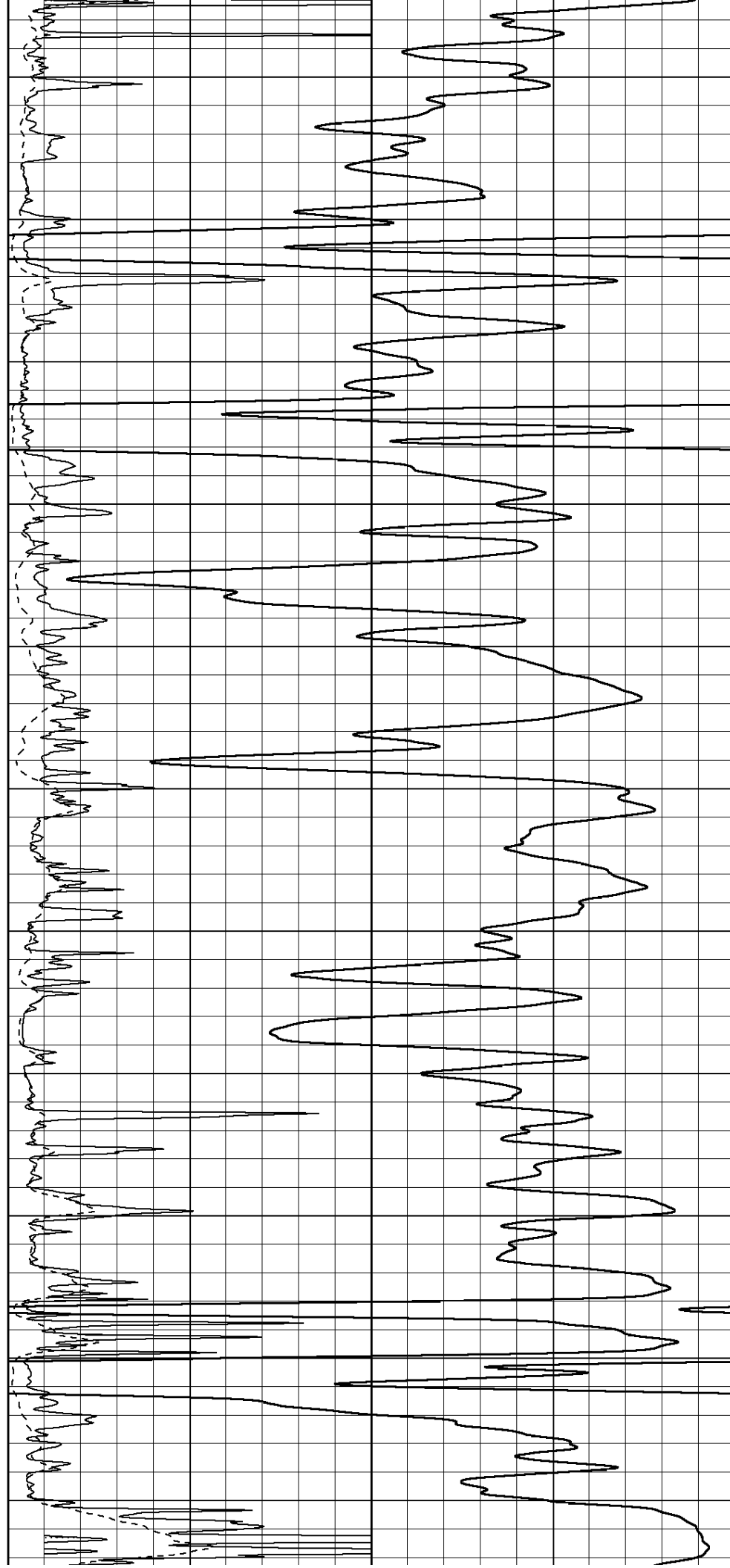
2400

2450

2500

2550

2600



2650

2700

2750

2800

2850

2900

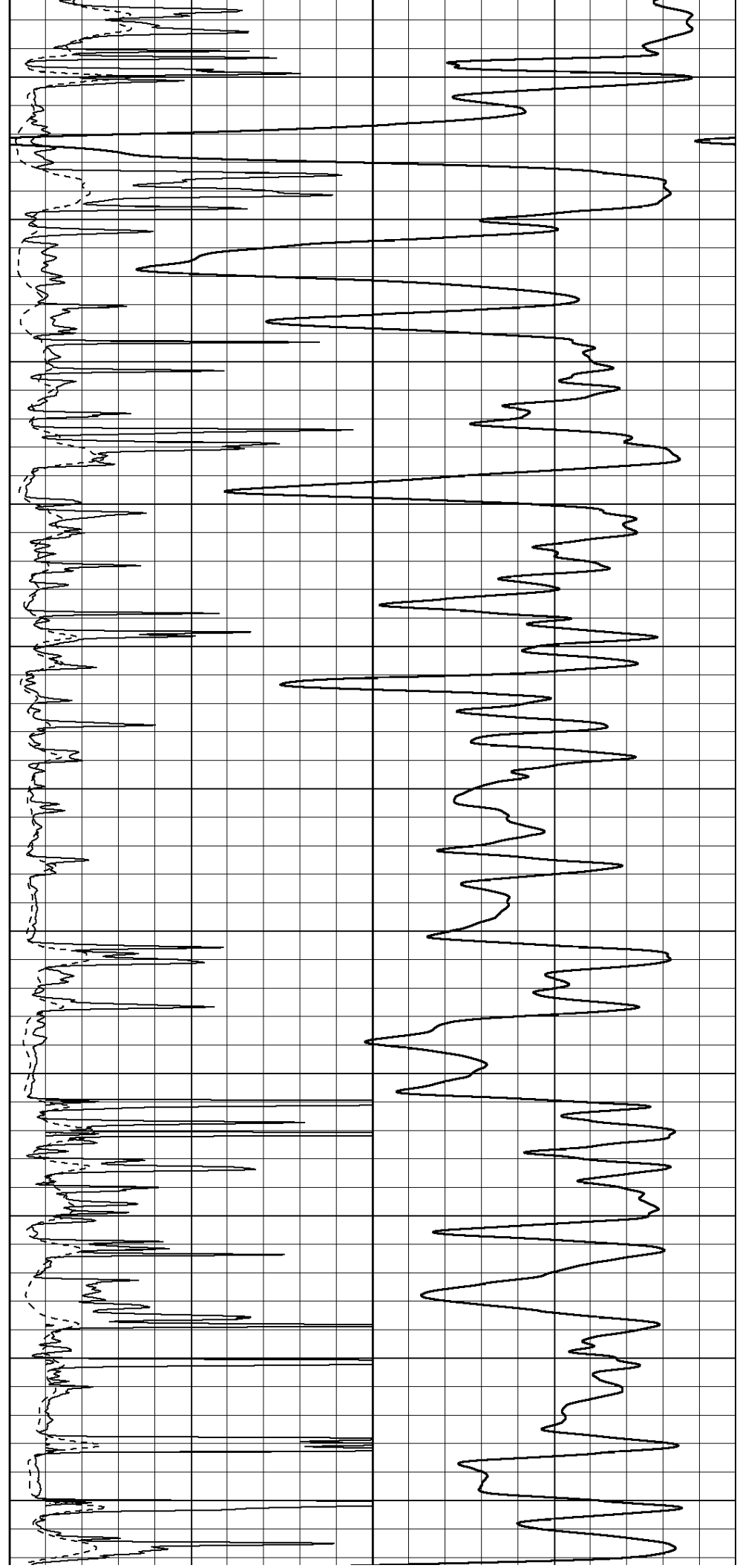
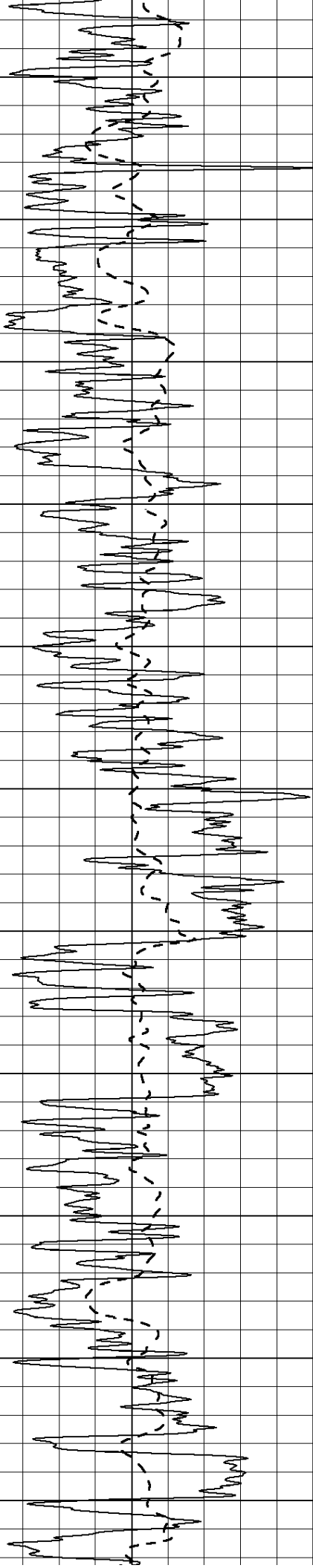
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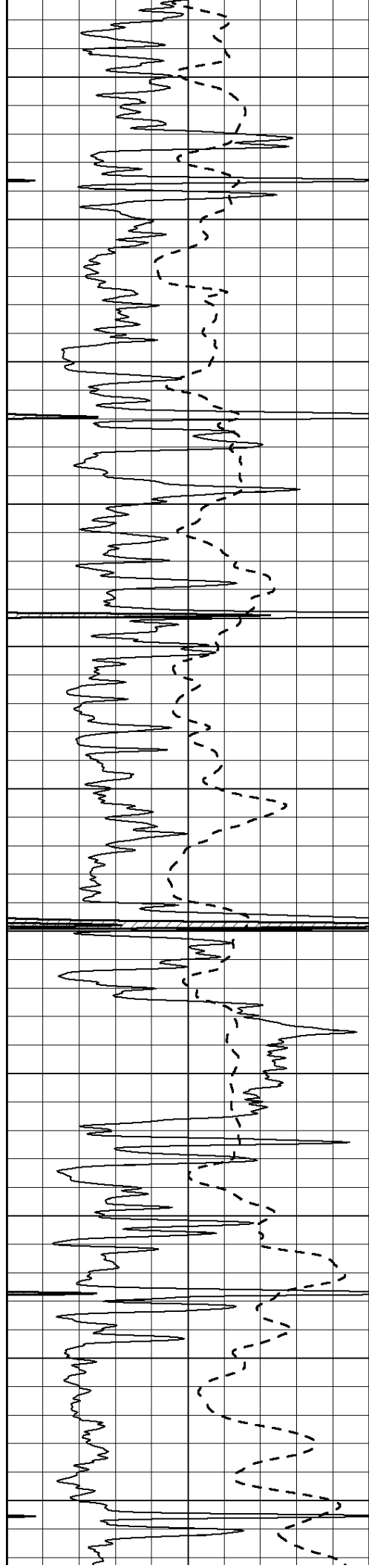
3000

3050

3100

3150





3200

3250

3300

3350

3400

3450

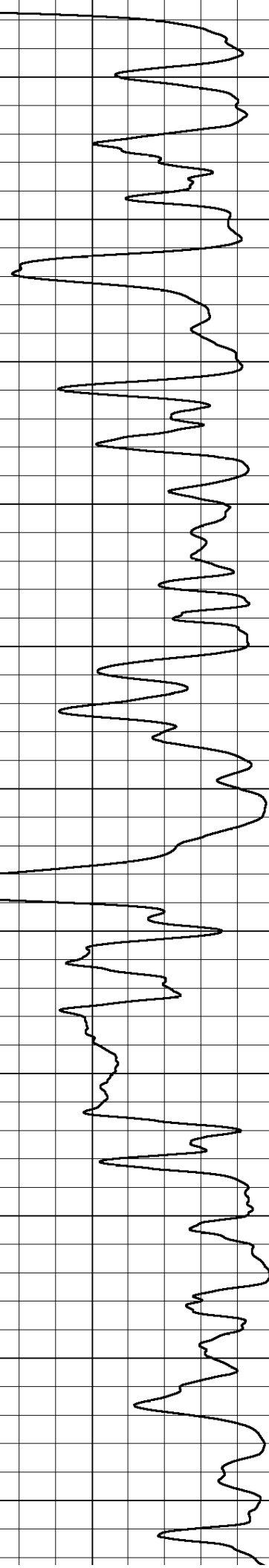
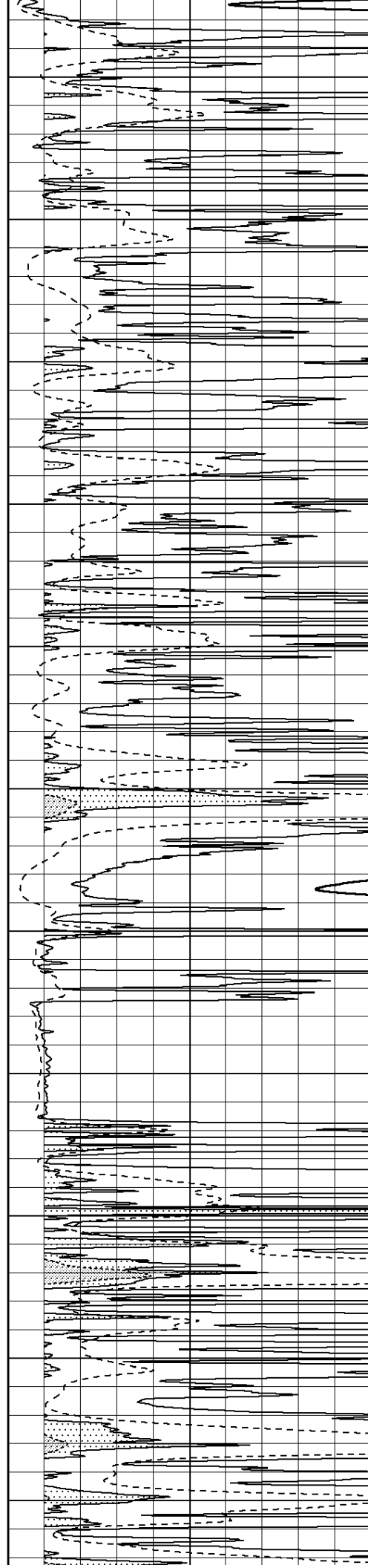
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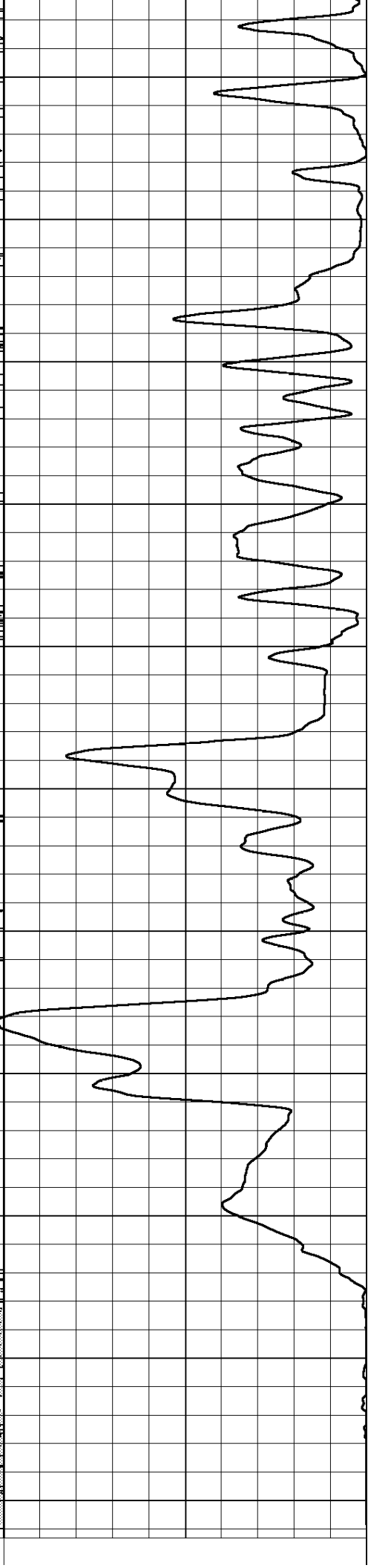
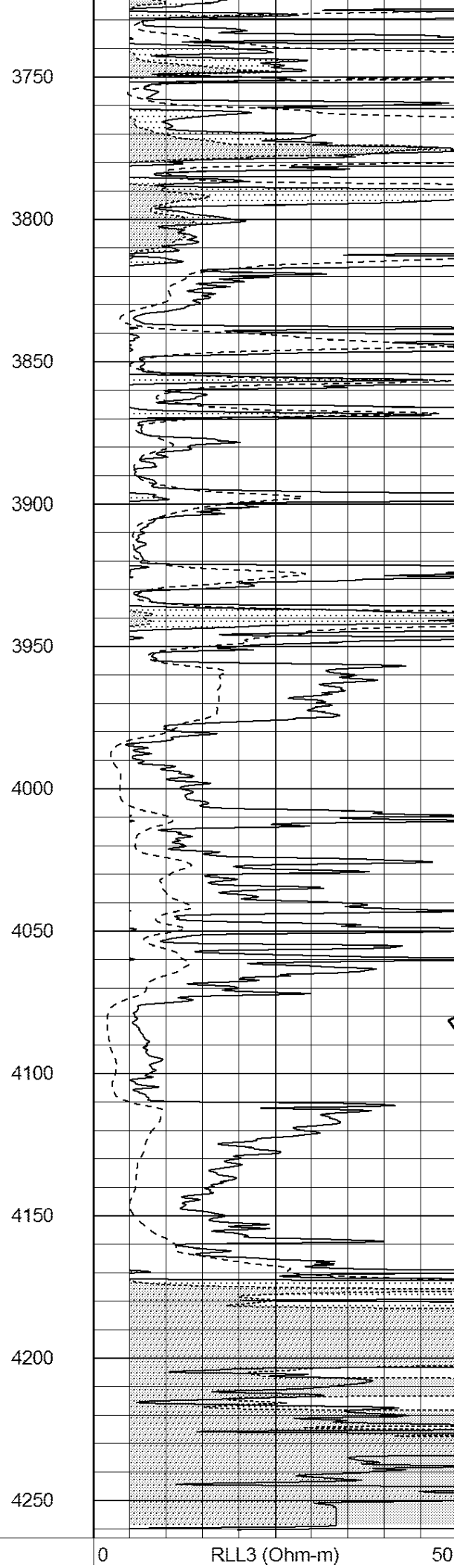
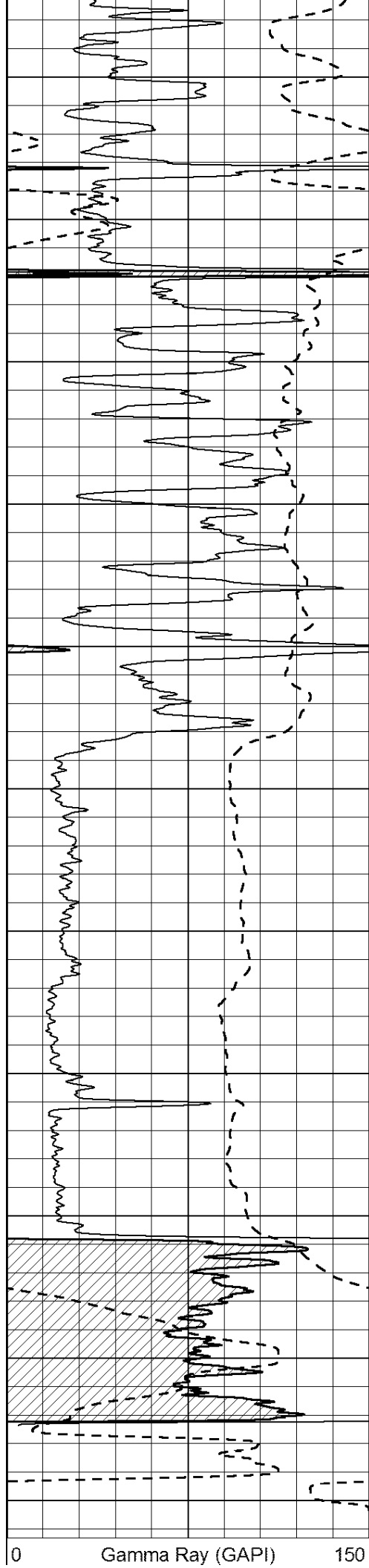
3550

3600

3650

3700





-100	SP (mV)	100
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0	Deep Induction (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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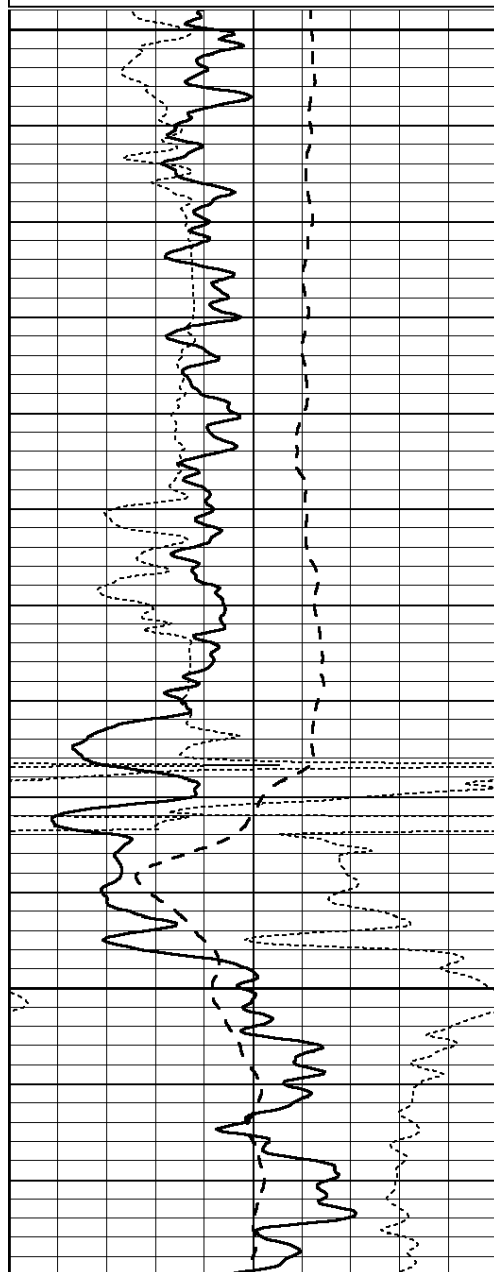
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MAIN SECTION

Database File: 26244ddn.db
Dataset Pathname: pass3.1A
Presentation Format: _dil
Dataset Creation: Sat Oct 25 01:58:22 2014
Charted by: Depth in Feet scaled 1:240

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

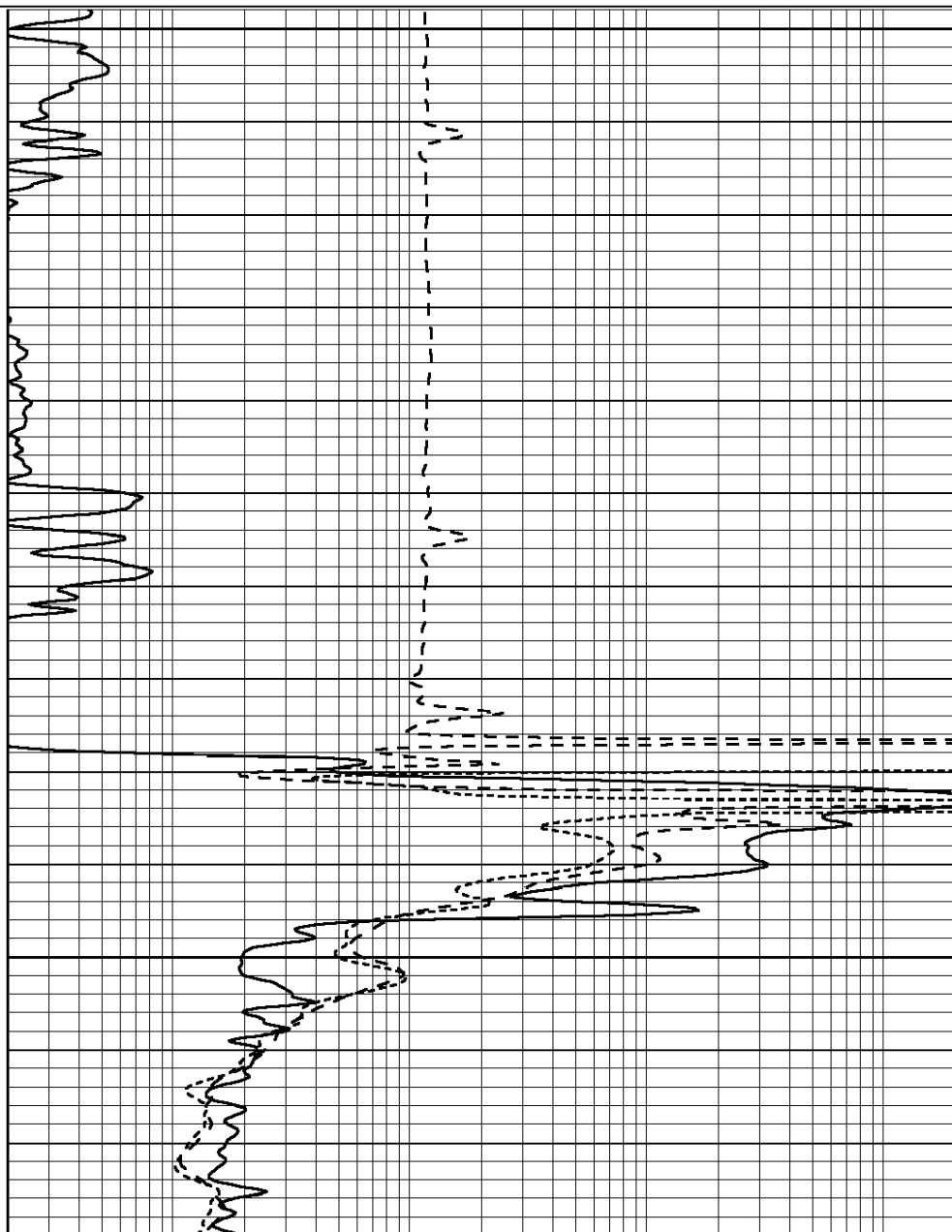
0.2	SHALLOW GUARD (Ohm-m)	2000
0.2	MEDIUM INDUCTION (Ohm-m)	2000
0.2	DEEP INDUCTION (Ohm-m)	2000

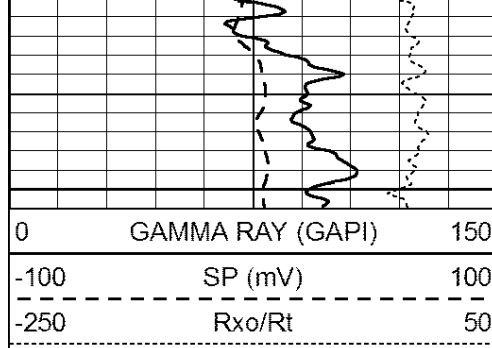


1100

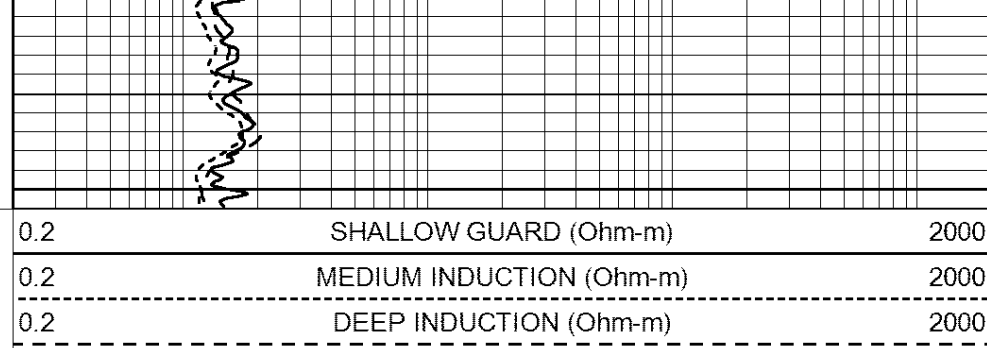
1150

1200





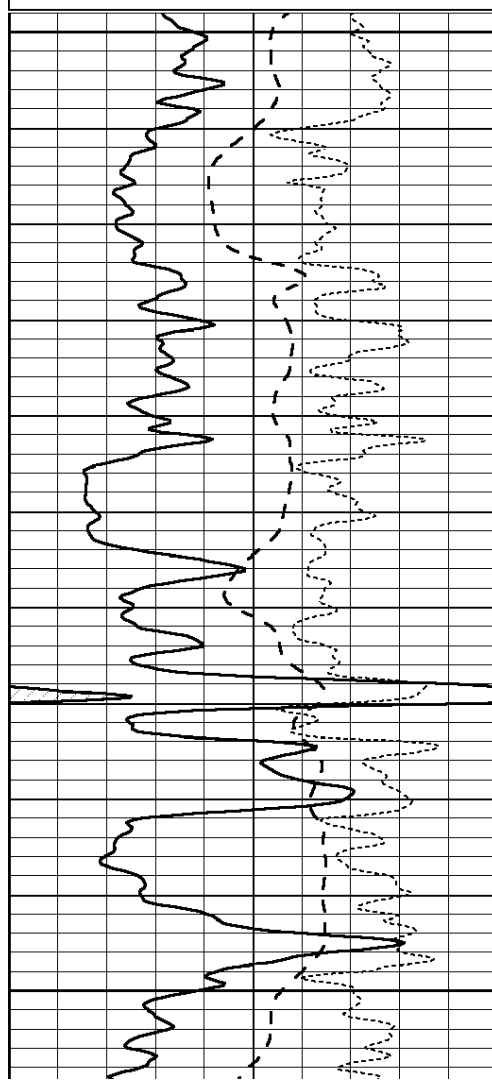
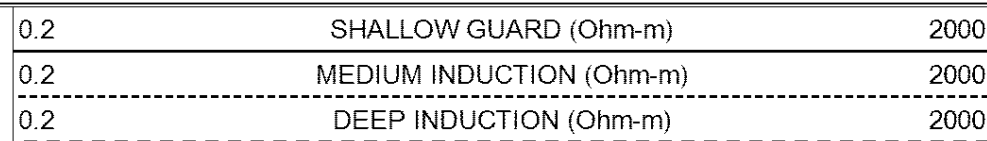
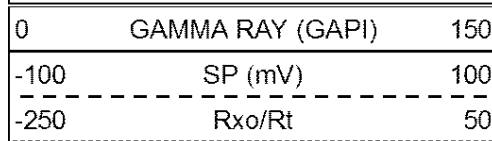
1250



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MAIN SECTION

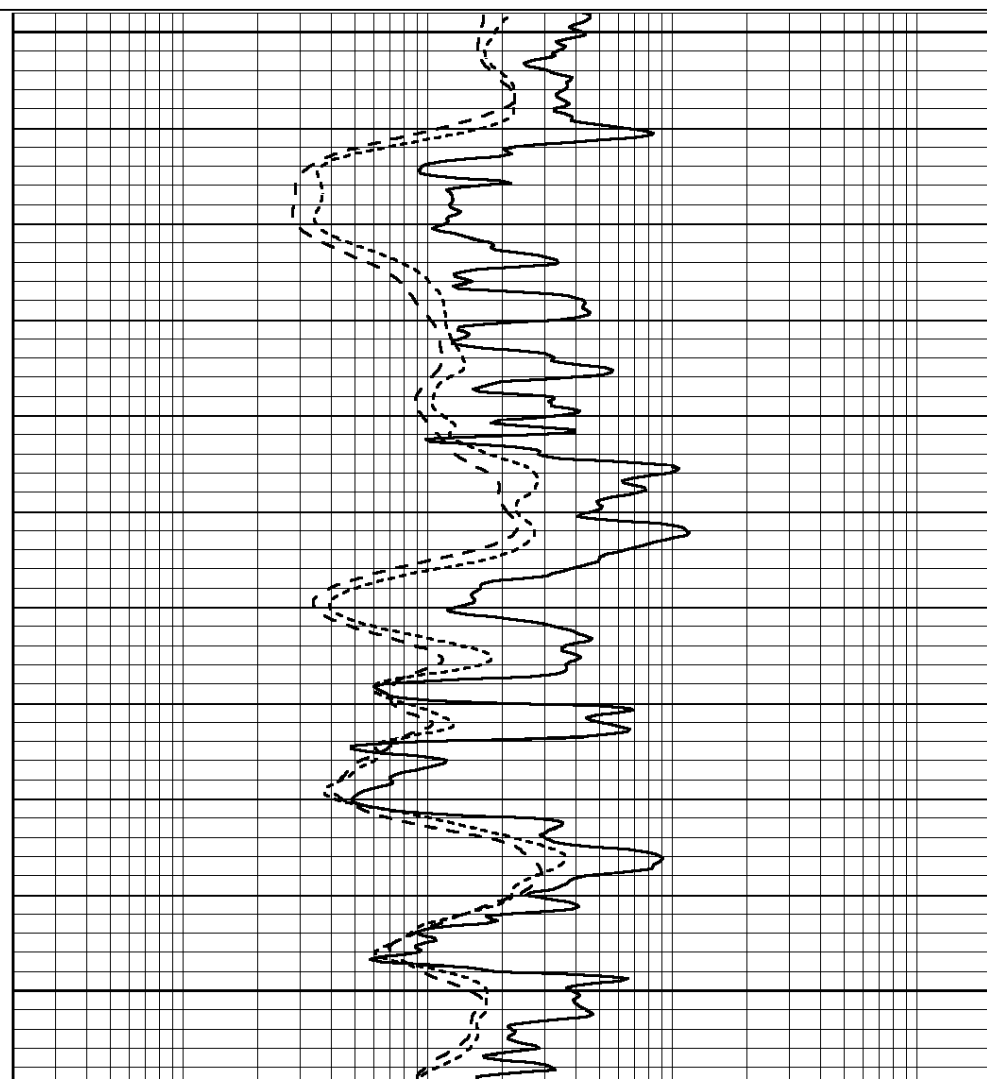
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 Dataset Pathname: pass3.1A
 Presentation Format: _dil
 Dataset Creation: Sat Oct 25 01:58:22 2014
 Charted by: Depth in Feet scaled 1:240

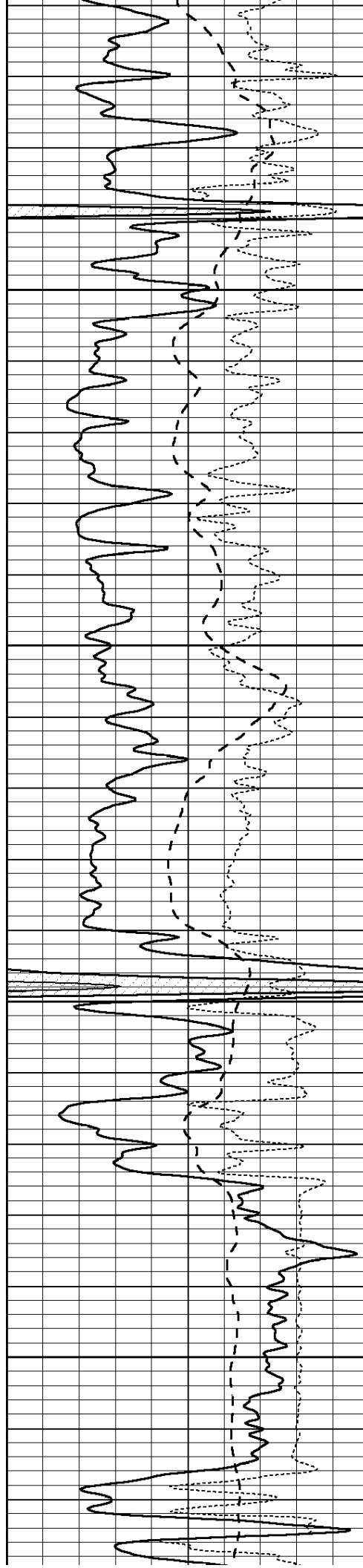


3250

3300

3350



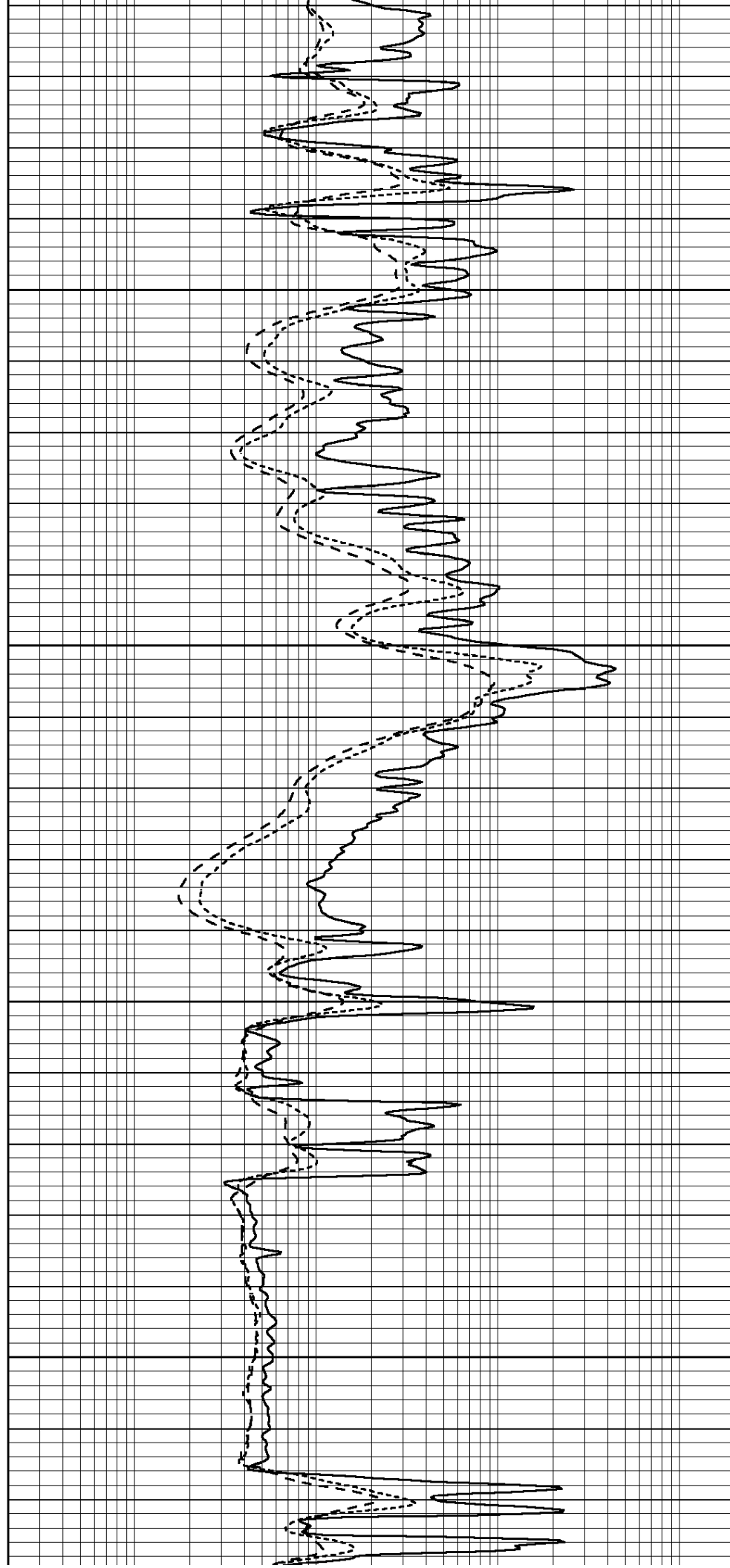


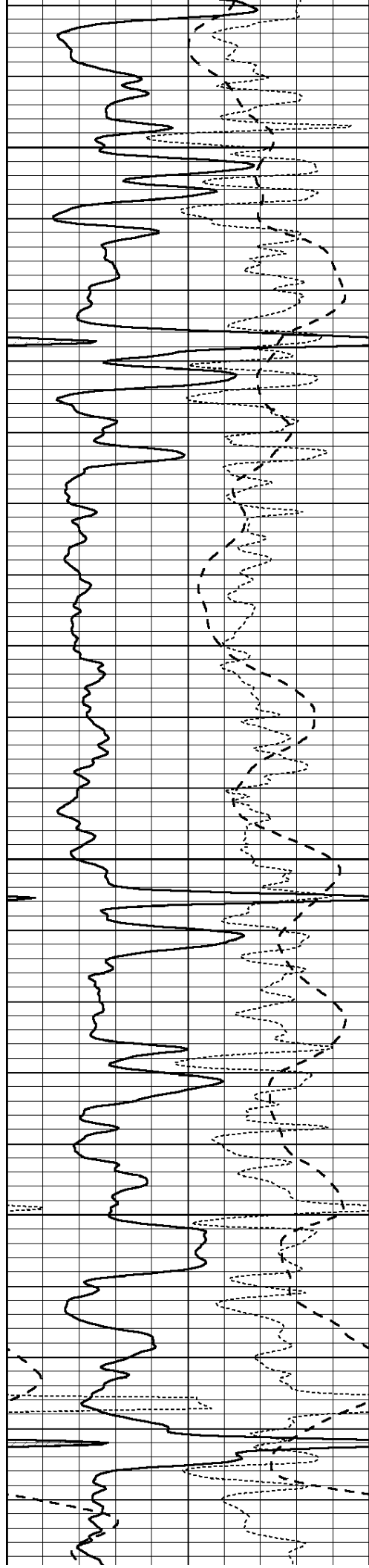
3400

3450

3500

3550



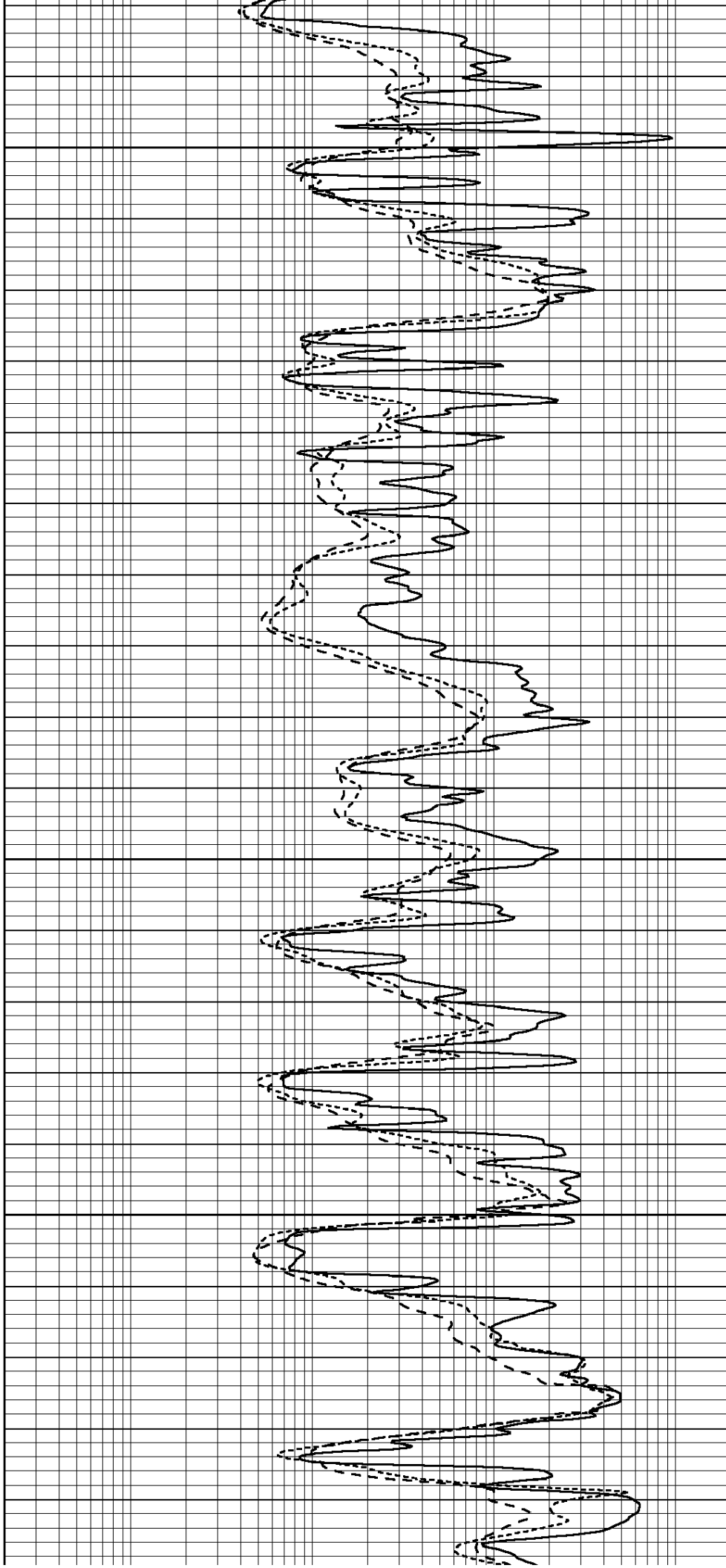


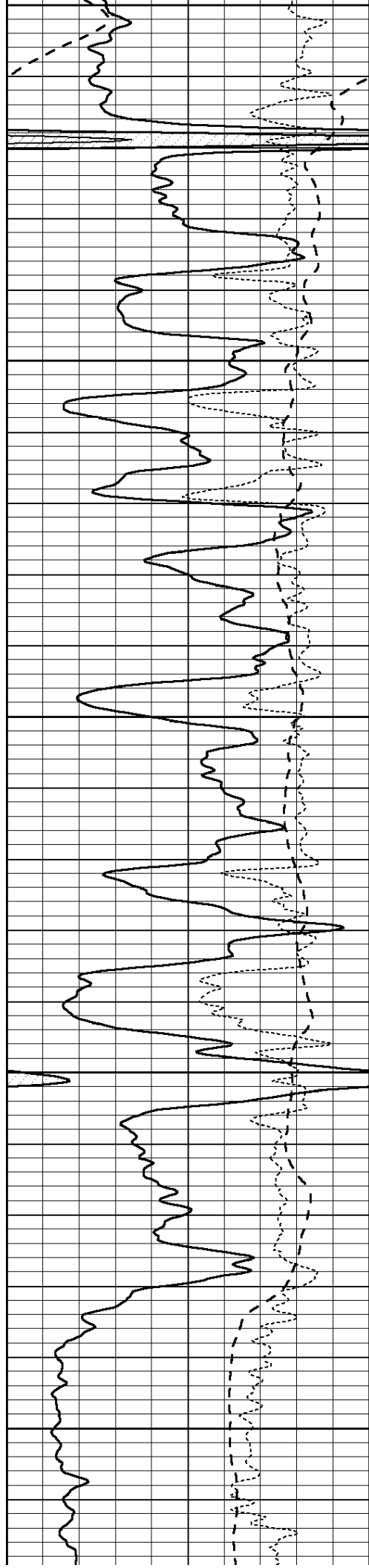
3600

3650

3700

3750





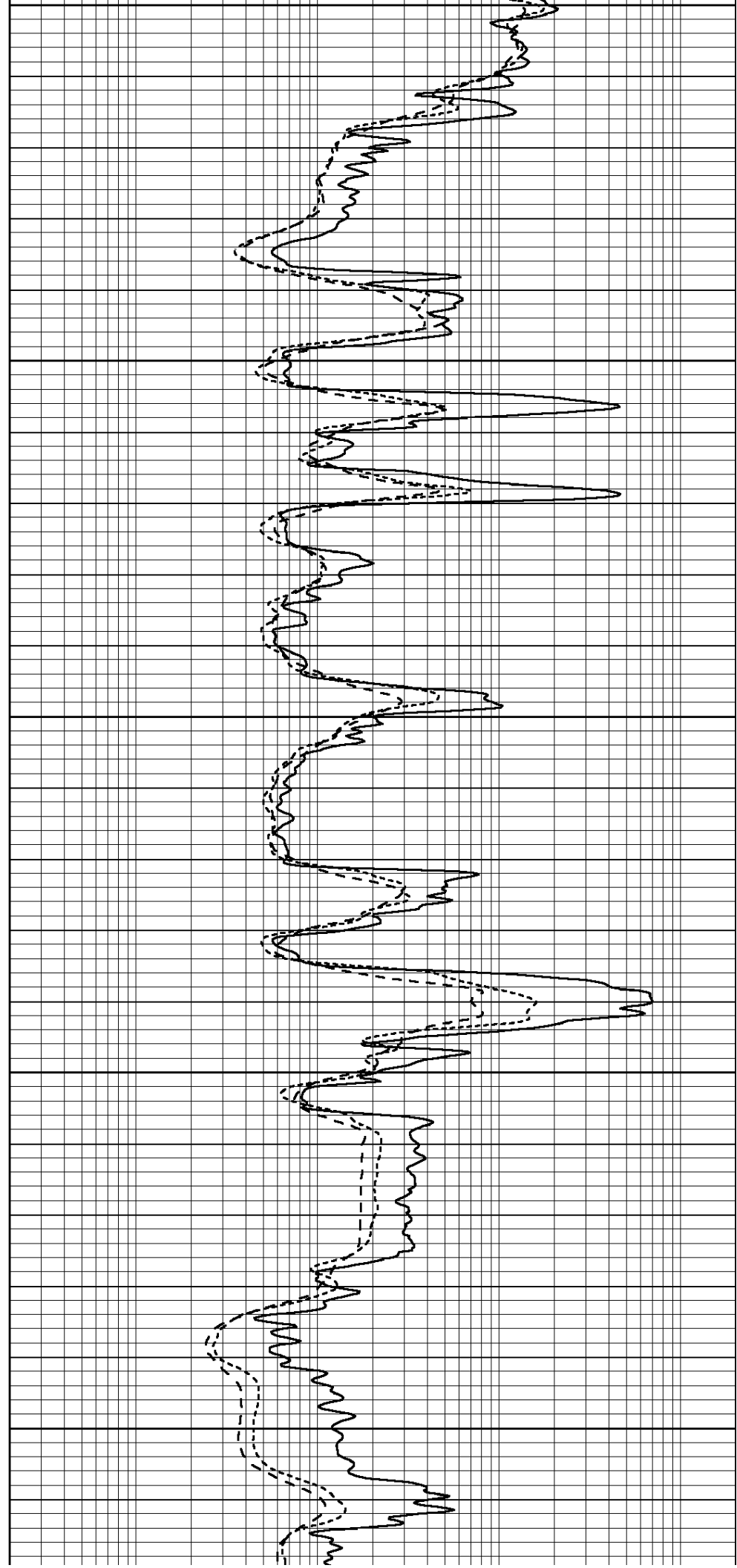
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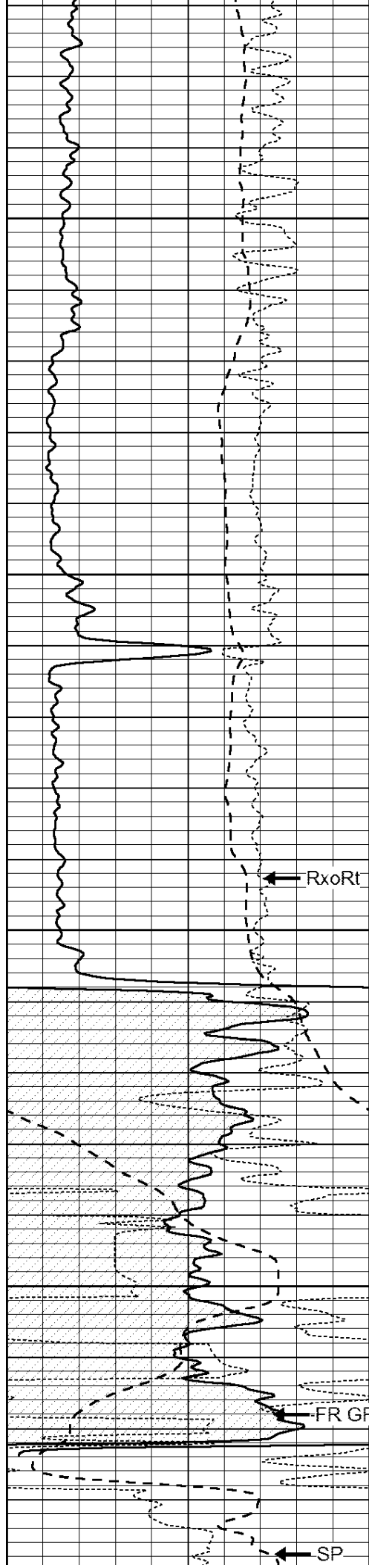
3850

3900

3950

4000



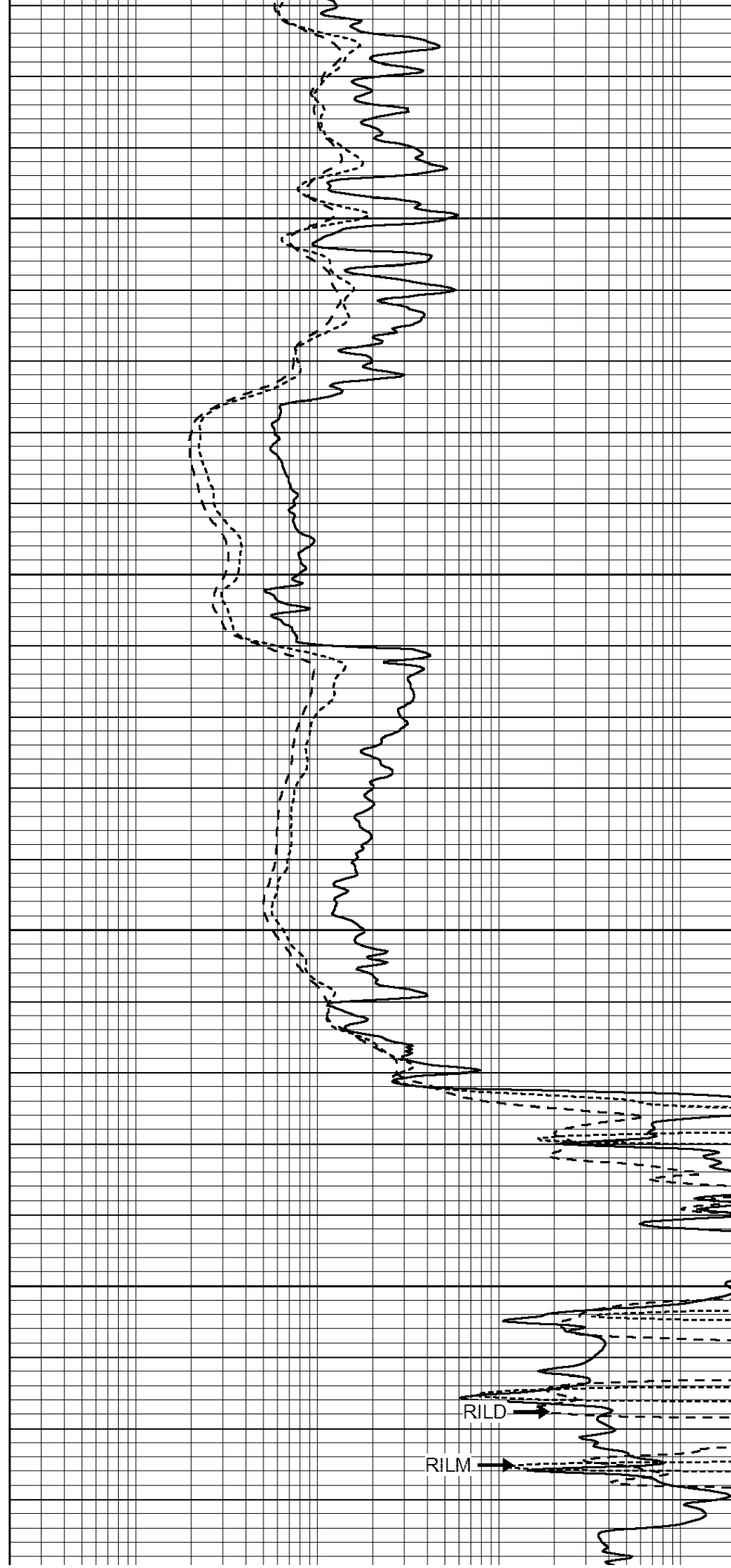


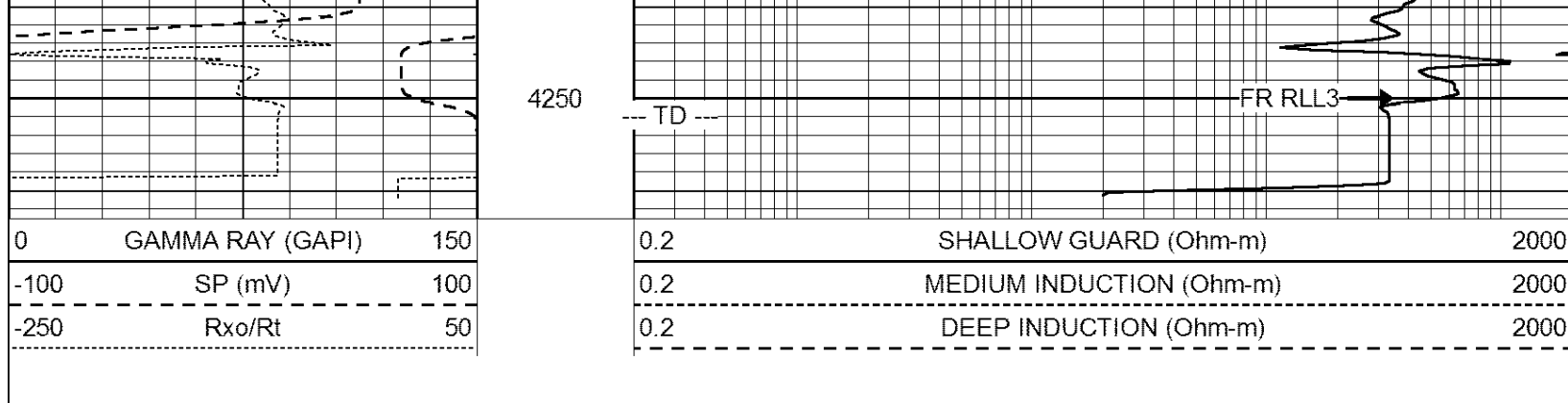
4050

4100

4150

4200

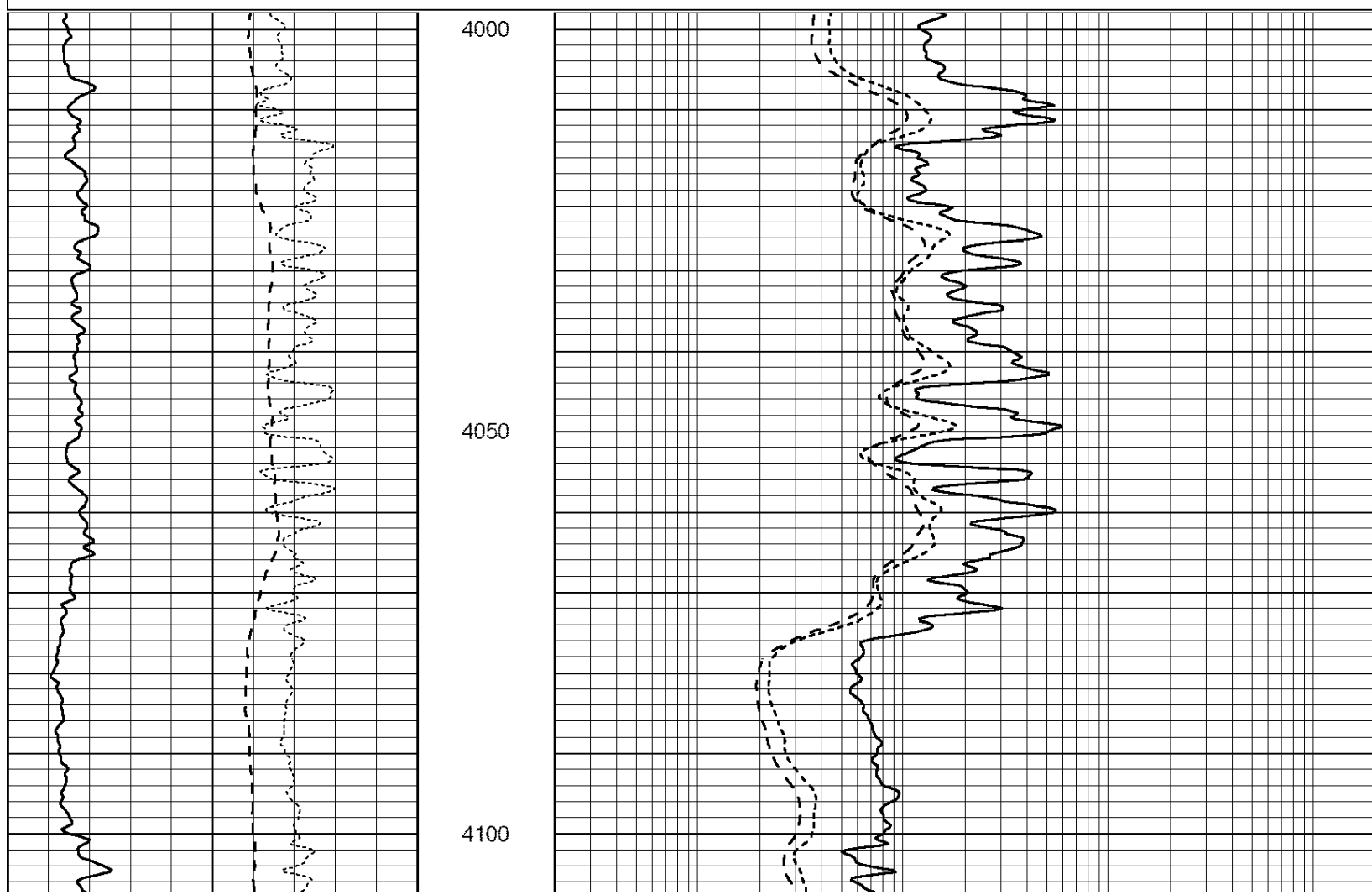
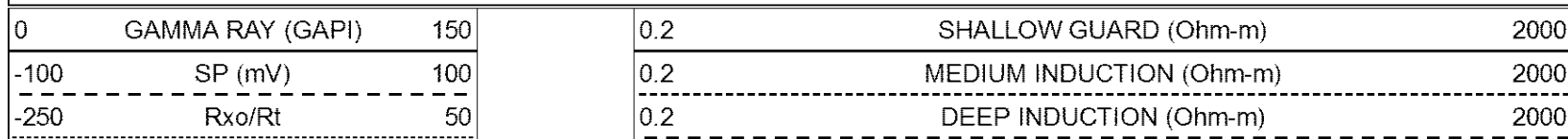


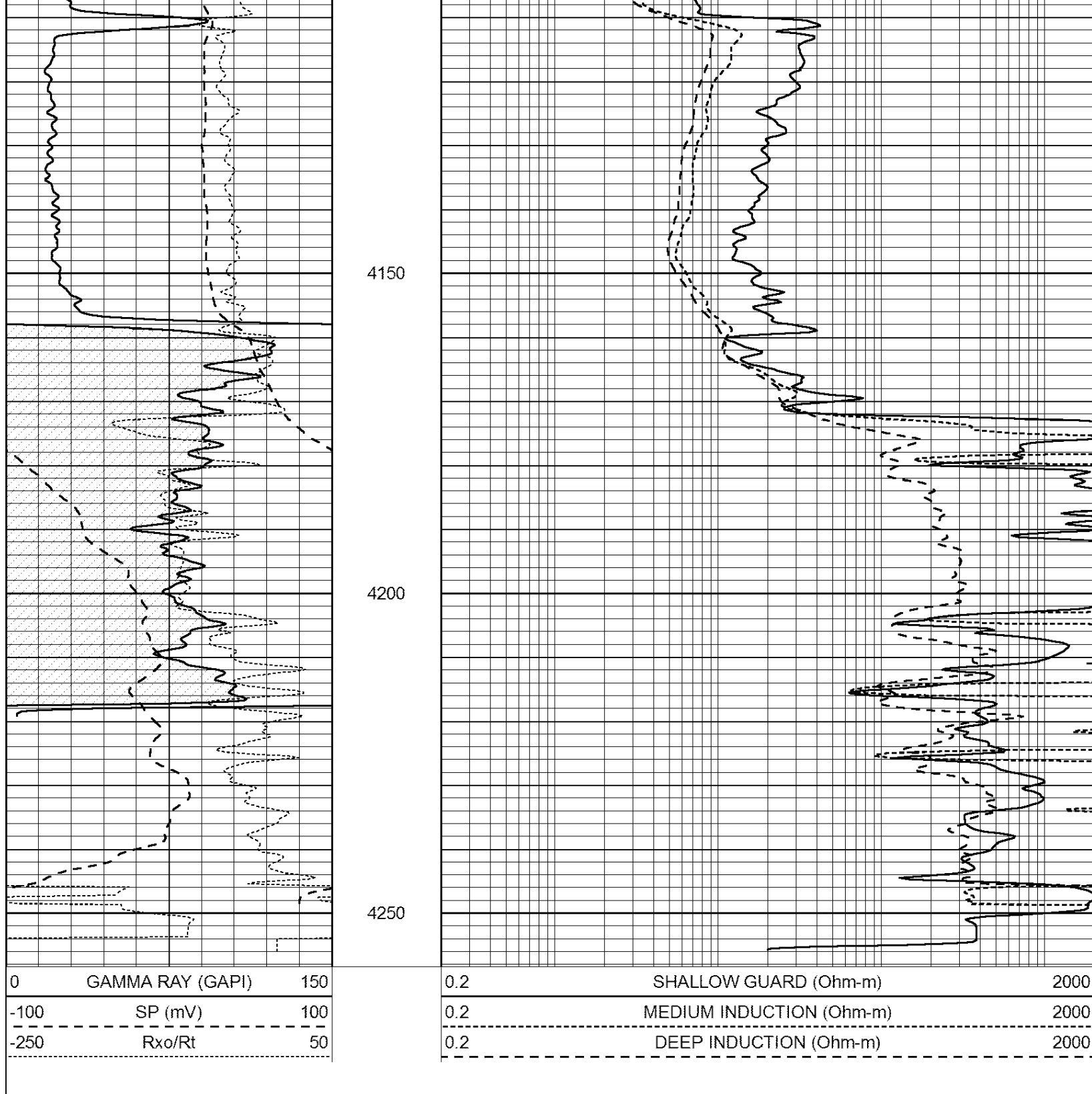


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REPEAT SECTION

Database File: 26244ddn.db
 Dataset Pathname: pass2.2
 Presentation Format: _dil
 Dataset Creation: Sat Oct 25 01:46:50 2014 by Calc Open-Cased 090629
 Charted by: Depth in Feet scaled 1:240





Calibration Report

Database File: 26244ddn.db
Dataset Pathname: pass3.1A
Dataset Creation: Sat Oct 25 01:58:22 2014

Dual Induction Calibration Report

Serial-Model:	PROBE7-DILG
Surface Cal Performed:	Fri Oct 24 23:37:35 2014
Downhole Cal Performed:	Sat Jan 19 19:51:38 2013
After Survey Verification Performed:	Sat Jan 19 19:51:38 2013

Surface Calibration

Readings				References			Results	
Loop:	Air	Loop		Air	Loop		m	b
Deep	0.793	0.790	V	0.000	400.000	mmho/m	550.000	10.000
Medium	0.992	1.002	V	0.000	464.000	mmho/m	580.000	-34.000
Internal:	Zero	Cal		Zero	Cal		m	b
Deep	0.041	0.642	V	0.000	400.000	mmho/m	664.874	-27.011
Medium	0.035	0.802	V	0.000	464.000	mmho/m	604.936	-21.367

Downhole Calibration								
Readings				References			Results	
	Zero	Cal		Zero	Cal		m'	b'
Deep	135384.000	27094.500	mmho/m	135400.000	27082.400	mmho/m	1.000	-19.259
Medium	-47330.100	-9381.740	mmho/m	-47327.100	-9389.280	mmho/m	1.000	-10.154
LL3		7.322	V		1400.000	Ohm-m		
		0.038	V		20.000	Ohm-m		
		-7.273	V		4000.000	mmho-m		

After Survey Verification								
Readings				Targets			Results	
	Zero	Cal		Zero	Cal		m'	b'
Deep	0.000	0.000	mmho/m	135384.000	27094.500	mmho/m	1.000	0.000
Medium	0.000	0.000	mmho/m	-47330.100	-9381.740	mmho/m	1.000	0.000
LL3		0.000	Ohm-m		1400.000	Ohm-m		
		0.000	Ohm-m		20.000	Ohm-m		
		0.000	mmho-m		4000.000	mmho-m		

Compensated Density Calibration Report								
Serial-Model:				GEAR5-GEARHART				
Source / Verifier:				147 / 147				
Master Calibration Performed:				Fri Oct 24 23:45:57 2014				

Master Calibration					
	Density		Far Detector	Near Detector	
Magnesium	1.710	g/cc	943.83	576.01	cps
Aluminum	2.590	g/cc	212.01	399.19	cps
Spine Angle = 76.20			Density/Spine Ratio = 0.572		
	Size		Reading		
Small Ring	8.40	in	1.64	V	
Large Ring	14.00	in	2.93	V	

Compensated Neutron Calibration Report								
Serial Number:				080620				
Tool Model:				Probe				

PRE-SURVEY VERIFICATION								
Detector	Readings		Measured		Target			
Short Space	cps		pu		pu			
Long Space	cps							

POST-SURVEY VERIFICATION								
Detector	Readings		Measured		Target			

Short Space	cps		
Long Space	cps	pu	pu
Gamma Ray Calibration Report			
Serial Number:	46001		
Tool Model:	Probe1		
Performed:	Fri Oct 24 22:56:55 2014		
Calibrator Value:	1.0	GAPI	
Background Reading:	0.0	cps	
Calibrator Reading:	1.0	cps	
Sensitivity:	0.2600	GAPI/cps	