

# DUAL INDUCTION LOG

Company	KUENZLER & FLORA RESERVE COMPANY		
Well	BAUGHMAN #2		
Field	SHERIDAN LAKE		
County	KIOWA	State	COLORADO
Location:	API # : 05-061-06891-0000		Other Services CDL/CNL
605' FSL & 2106' FWL			
Permanent Datum	SEC 32 TWP 18S. RGE 44W		
Log Measured From	GROUND LEVEL	Elevation	4404
Drilling Measured From	KELLY BUSHING	K.B. 4049 D.F. 4047 G.L. 4044	
Date	7/16/19		
Run Number	ONE		
Depth Driller	4180		
Depth Logger	4178		
Bottom Logged Interval	4176		
Top Log Interval	00		
Casing Driller	8 5/8" @ 346'		
Casing Logger	346'		
Bit Size	7 7/8		
Type Fluid in Hole	CHEMICAL MUD	CHLORIDES 3600 PPM	
Density / Viscosity	8.9/57		
pH / Fluid Loss	11.5/7.2		
Source of Sample	FLOWLINE		
Rm @ Meas. Temp	.75 @ 90F		
Rmf @ Meas. Temp	.56 @ 90F		
Rmc @ Meas. Temp	.90 @ 90F		
Source of Rmf / Rmc	MEASUREMENT		
Rm @ BHT	.57 @ 118F		
Time Circulation Stopped	2 HOURS		
Time Logger on Bottom	////		
Maximum Recorded Temperature	118F		
Equipment Number	3802		
Location	HAYS, KANSAS		
Recorded By	JASON CAPPELLUCCI		
Witnessed By	JAKE FLORA	ZANE KUENZLER	

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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.

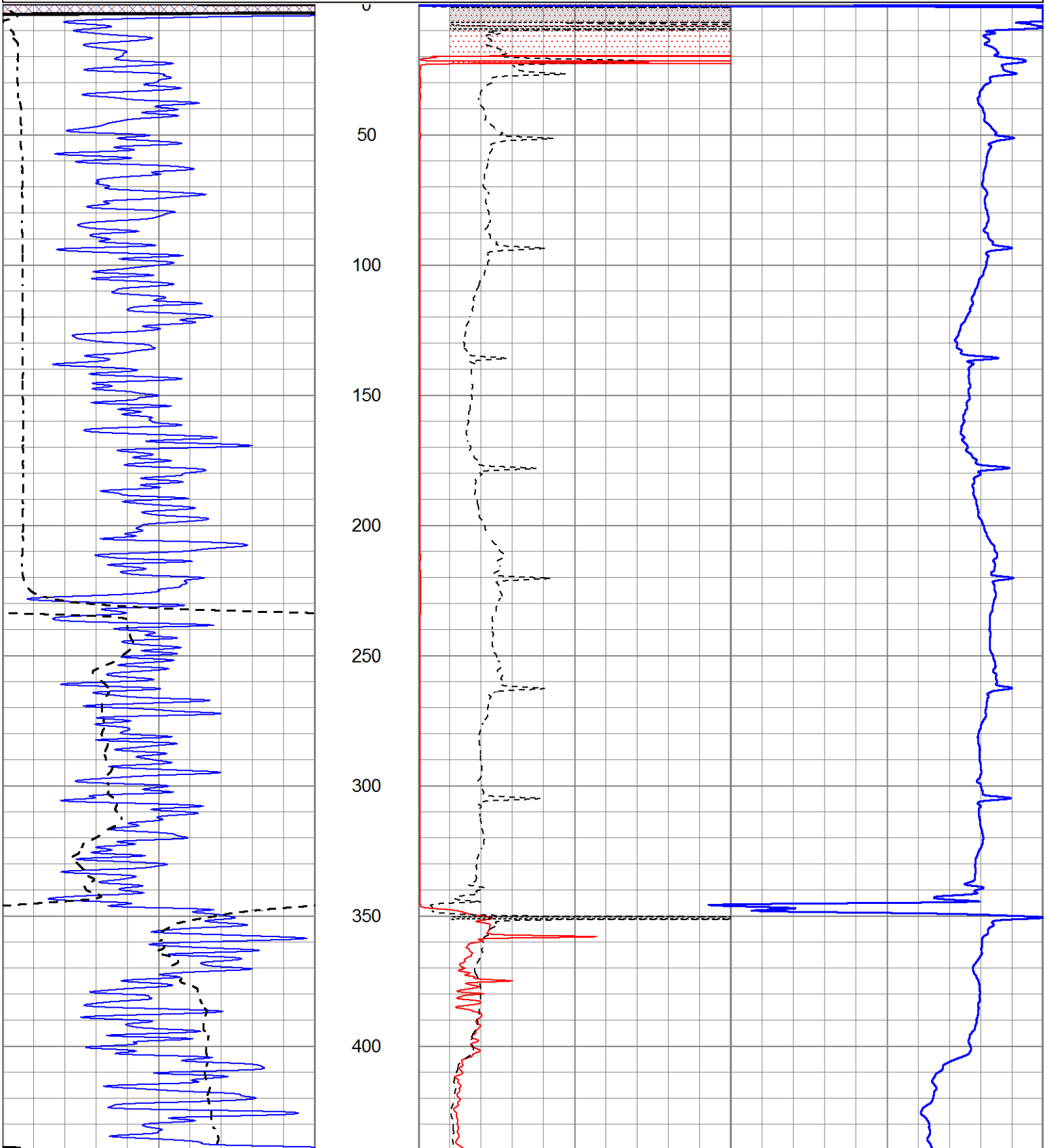
## Comments

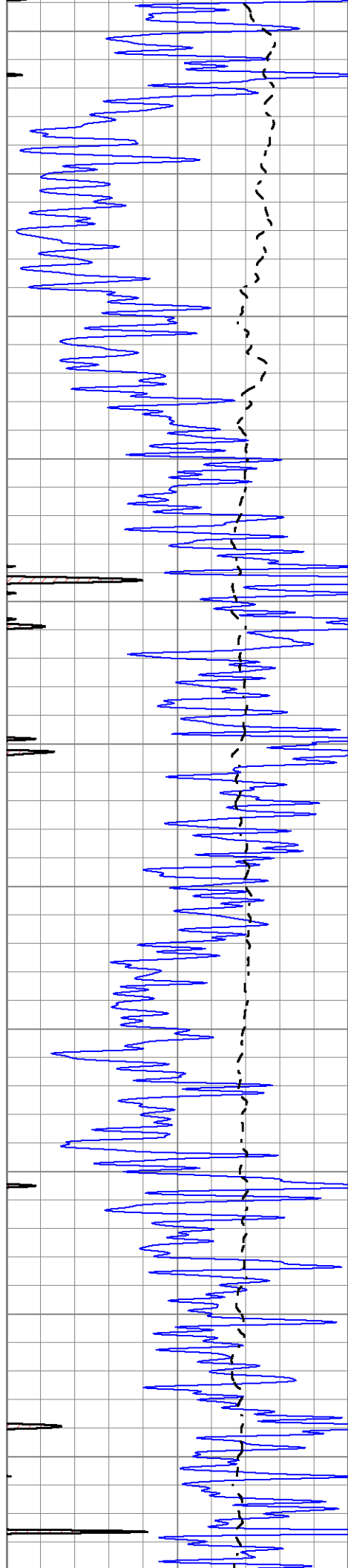
THANK YOU FOR USING ELI WIRELINE SERVICES, HAYS, KS. ( 785 ) 628-6395  
DIRECTIONS  
SHERIDAN LAKE, CO. - 5 MILES WEST TO MM 189 - 1 SOUTH - 1/2 EAST & NORTH INTO



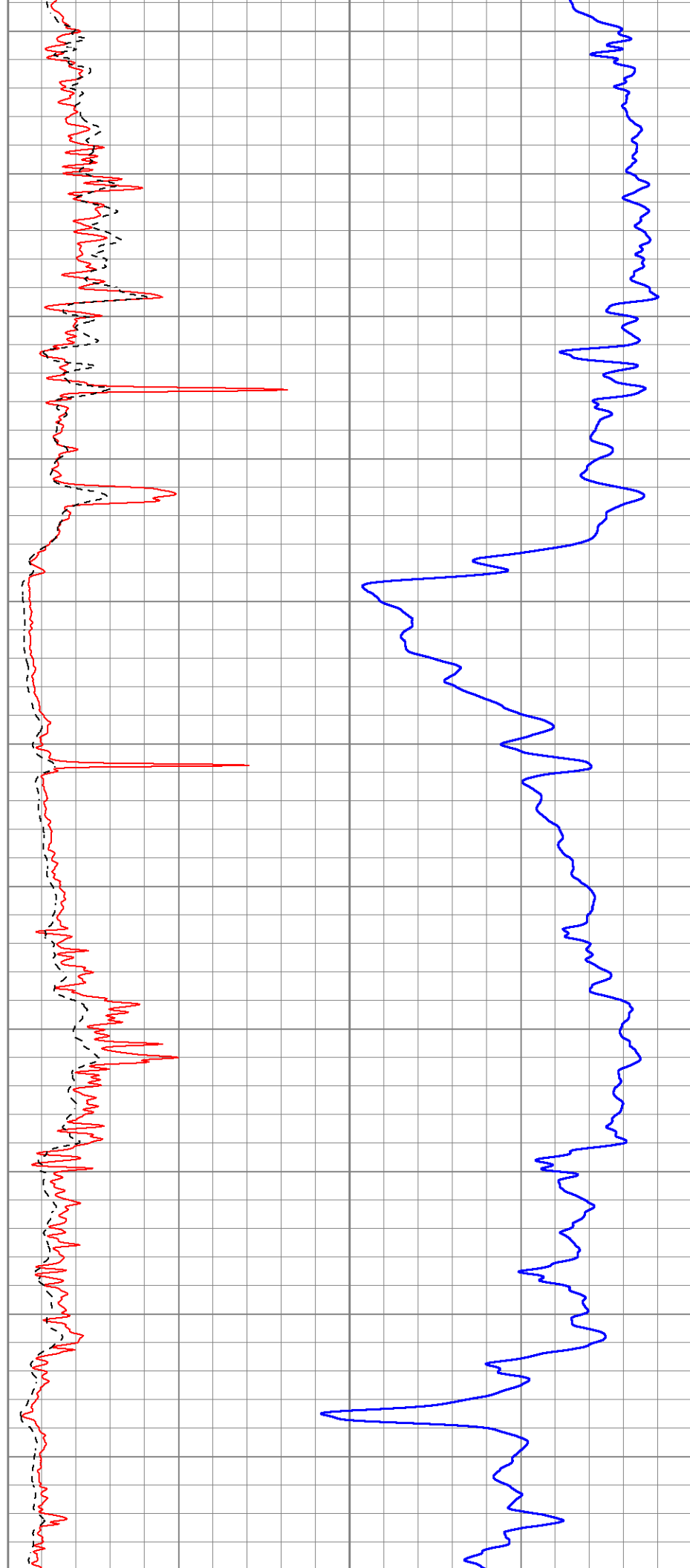
# MAIN SECTION

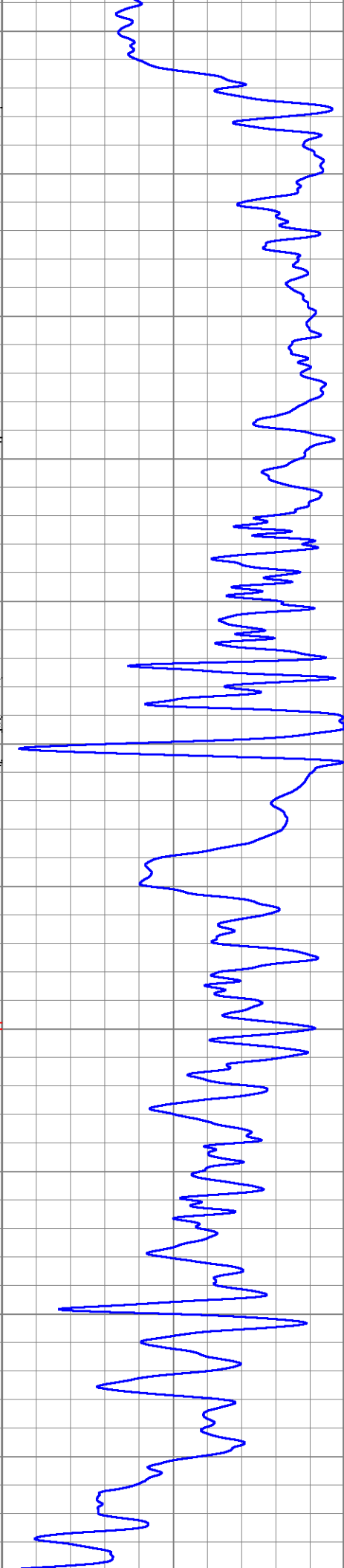
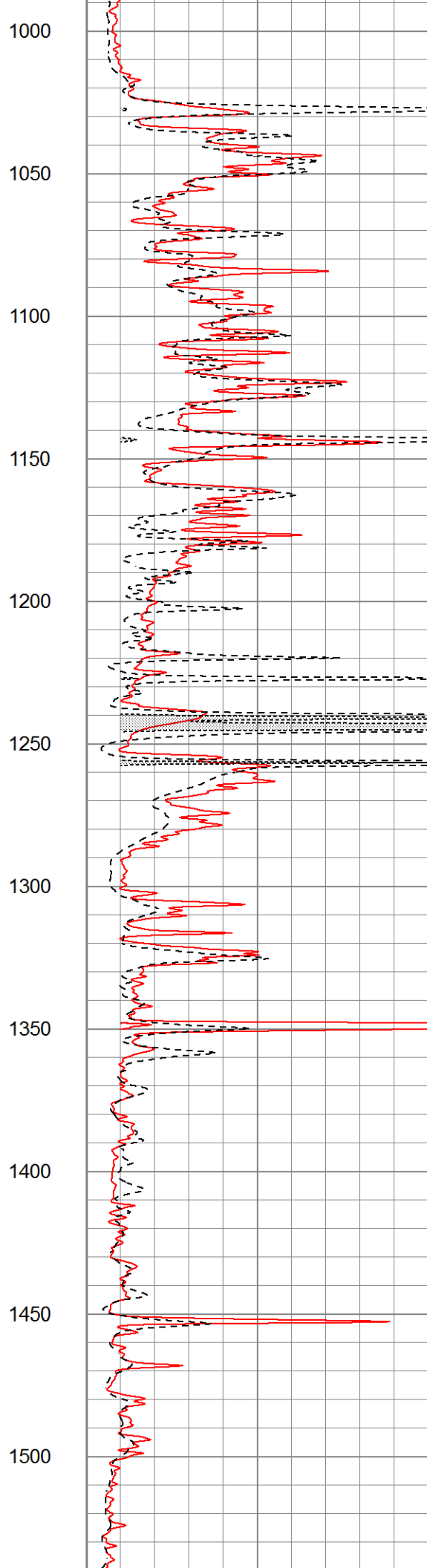
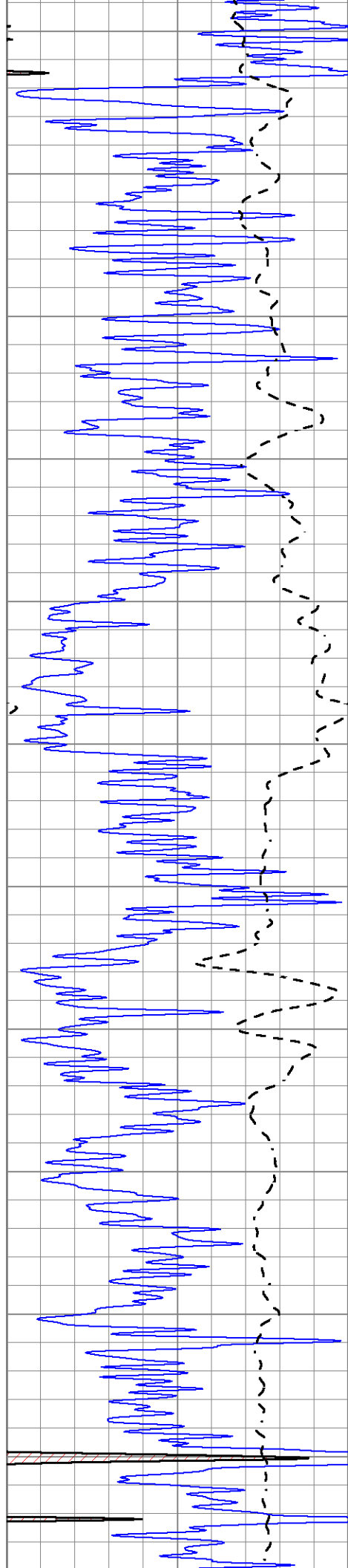
0	Gamma Ray (GAPI)	150	1000	CILD (mmho/m)	0
-100	SP (mV)	100	0	RLL3 (Ohm-m)	50
-----			0	Deep Induction (Ohm-m)	50
			50	RILD X10 (Ohm-m)	500
			50	RLL3 X10 (Ohm-m)	500

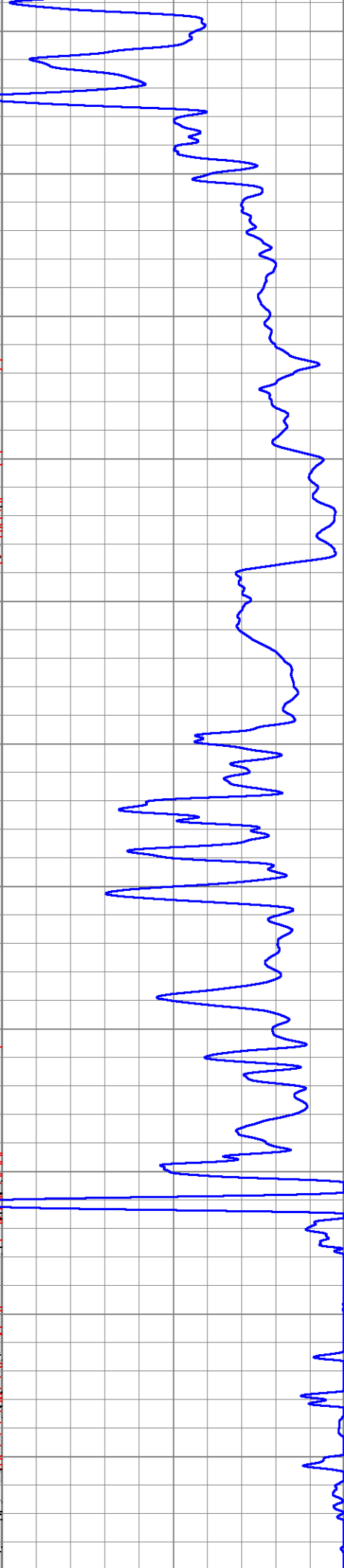
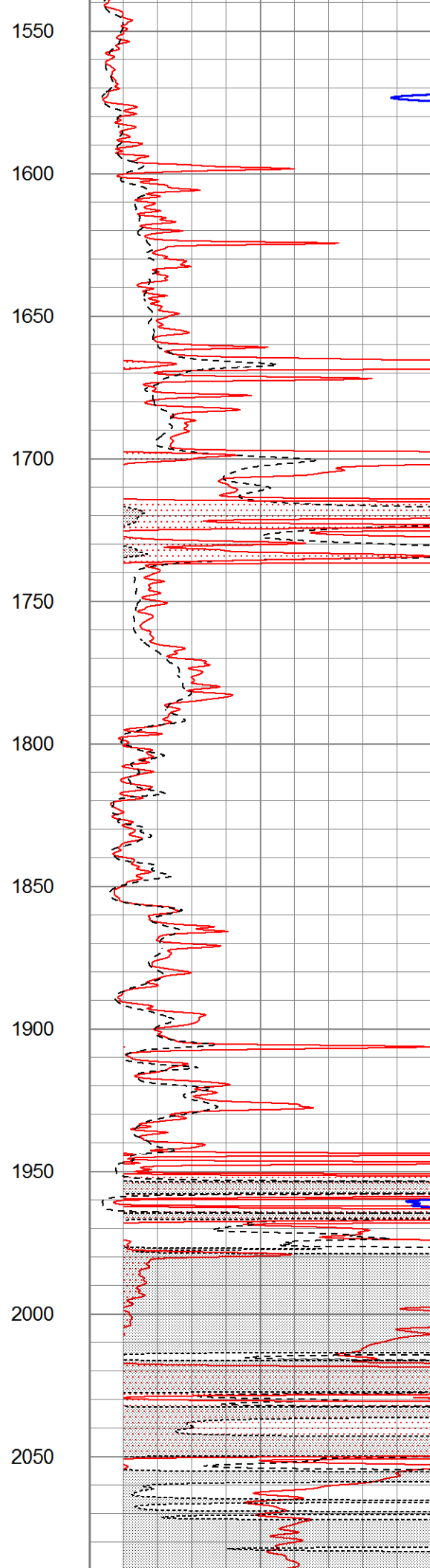
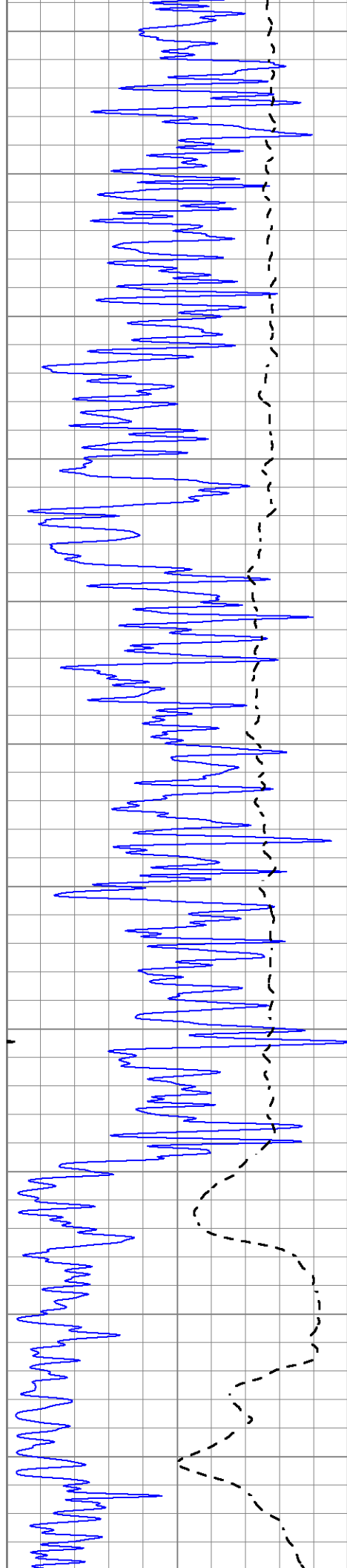


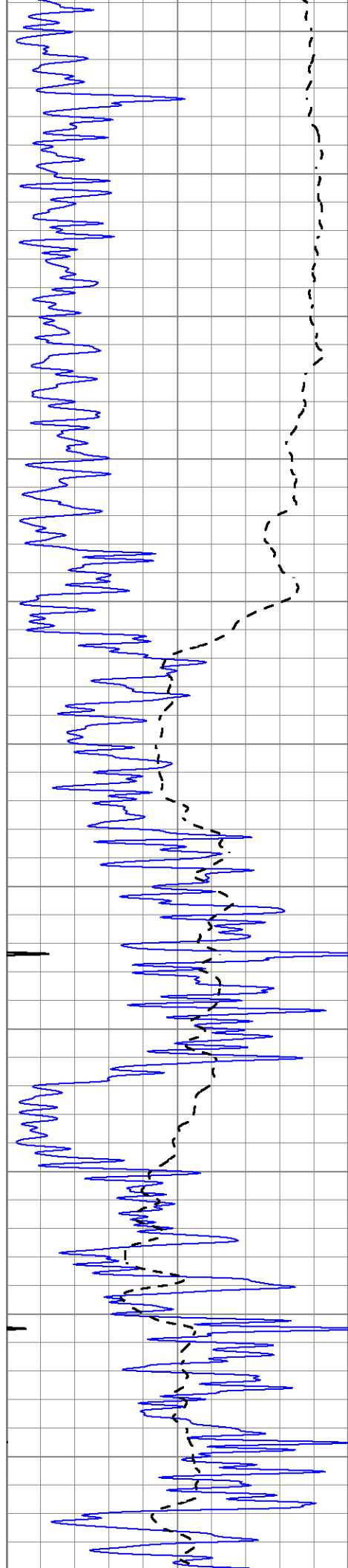


450  
500  
550  
600  
650  
700  
750  
800  
850  
900  
950









2100

2150

2200

2250

2300

2350

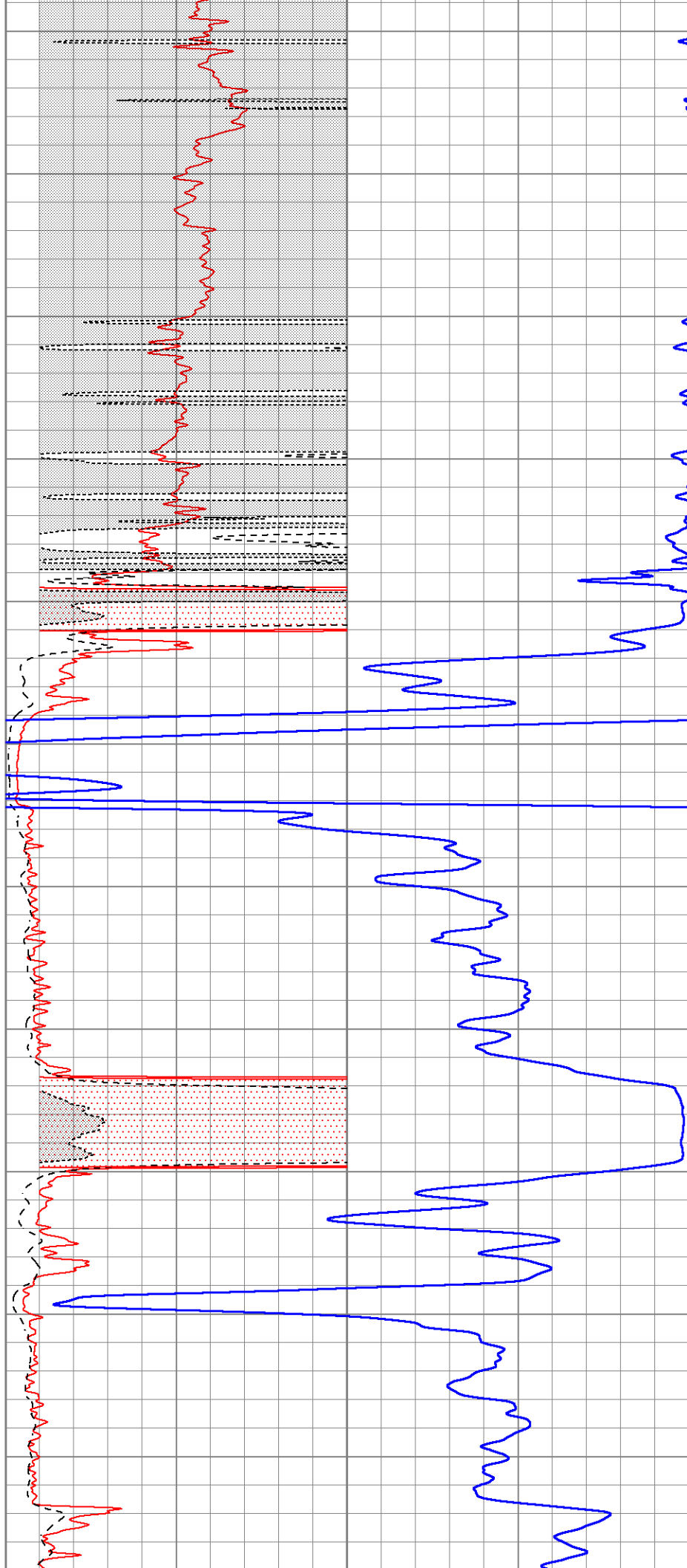
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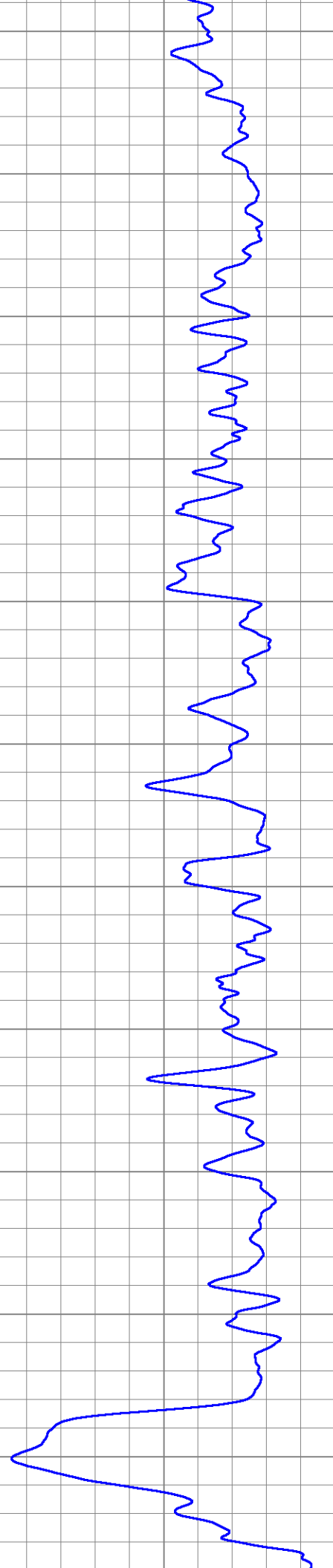
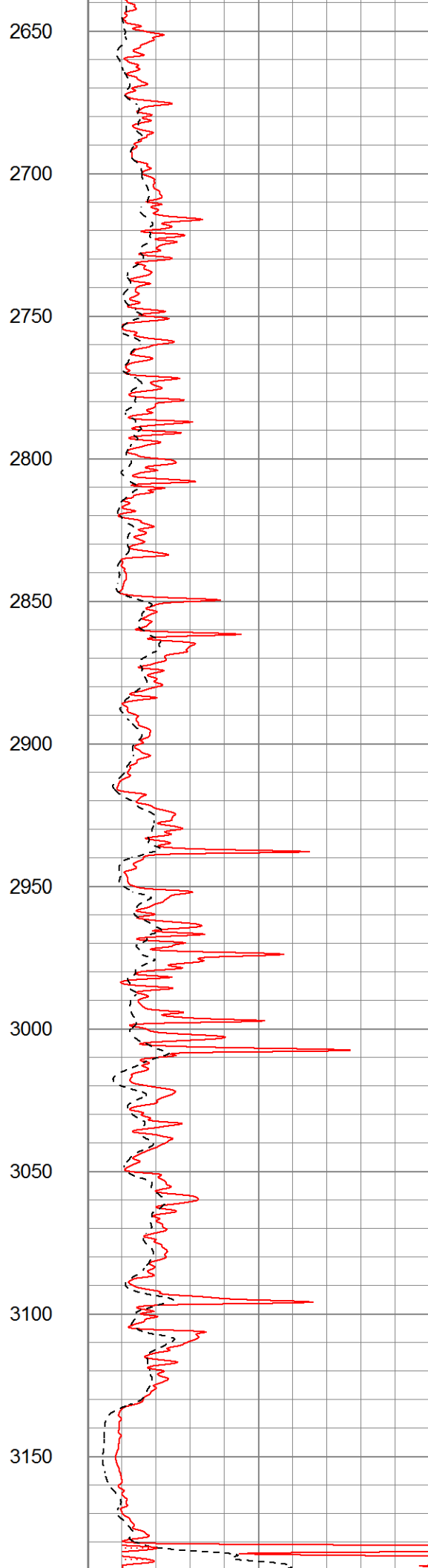
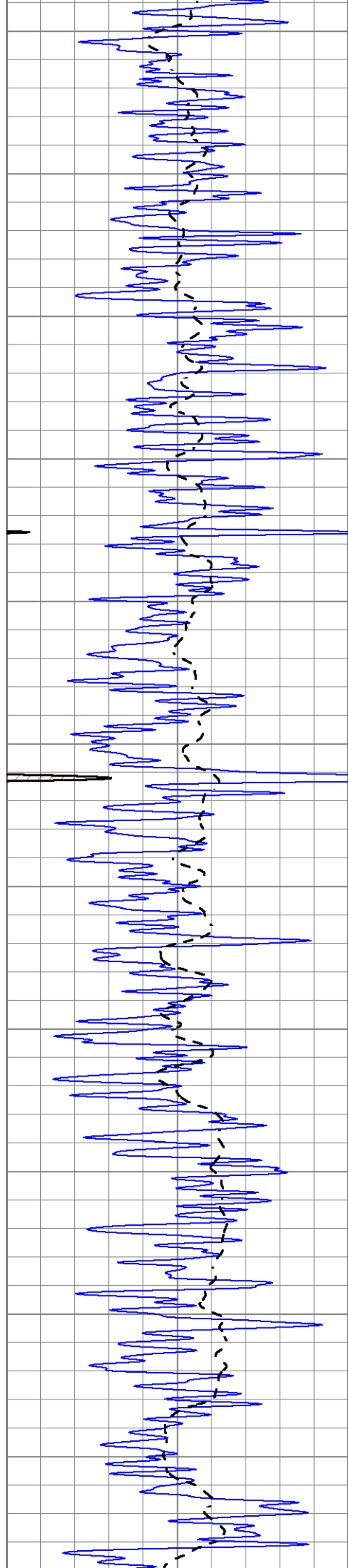
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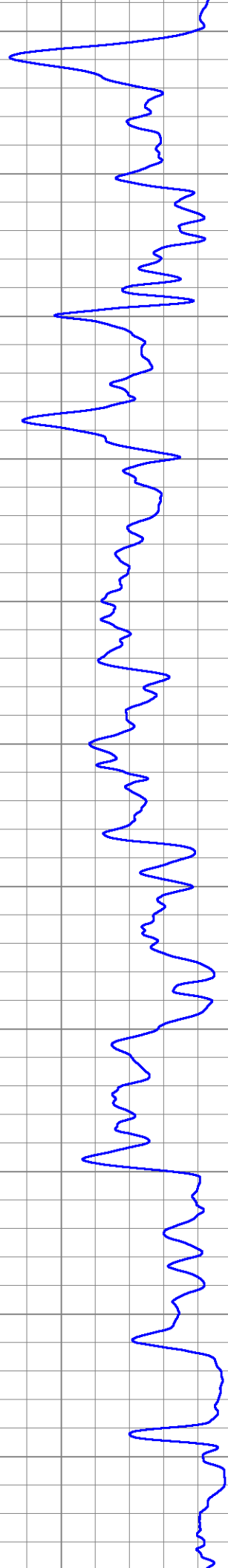
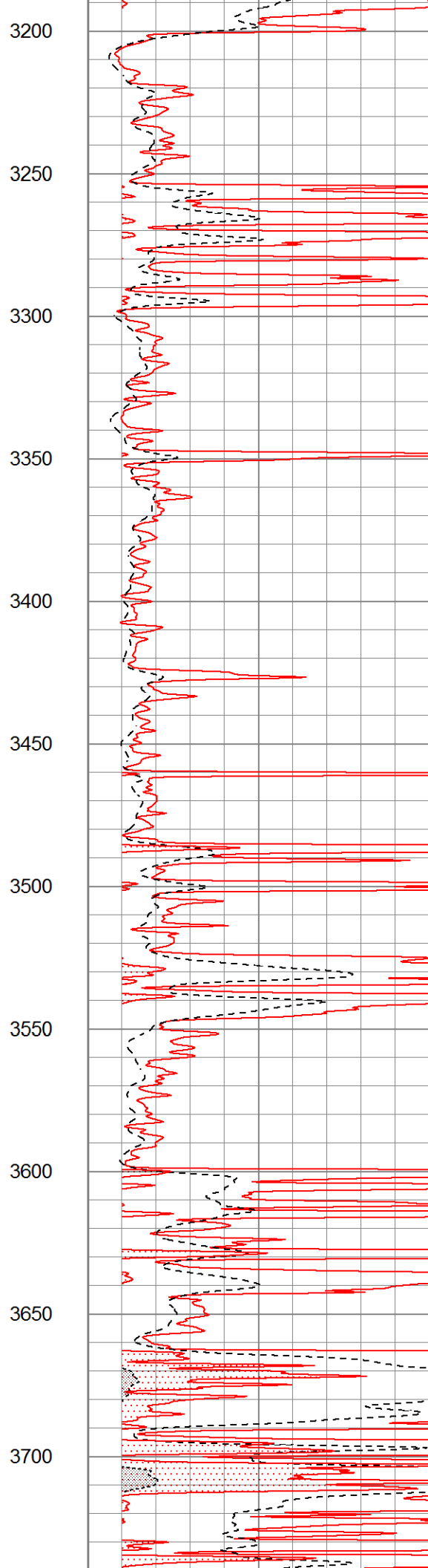
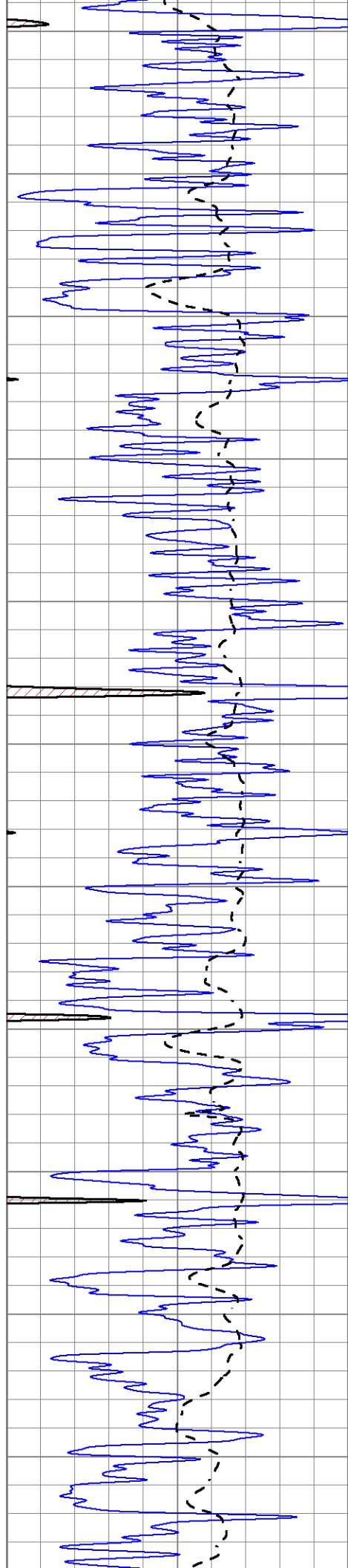
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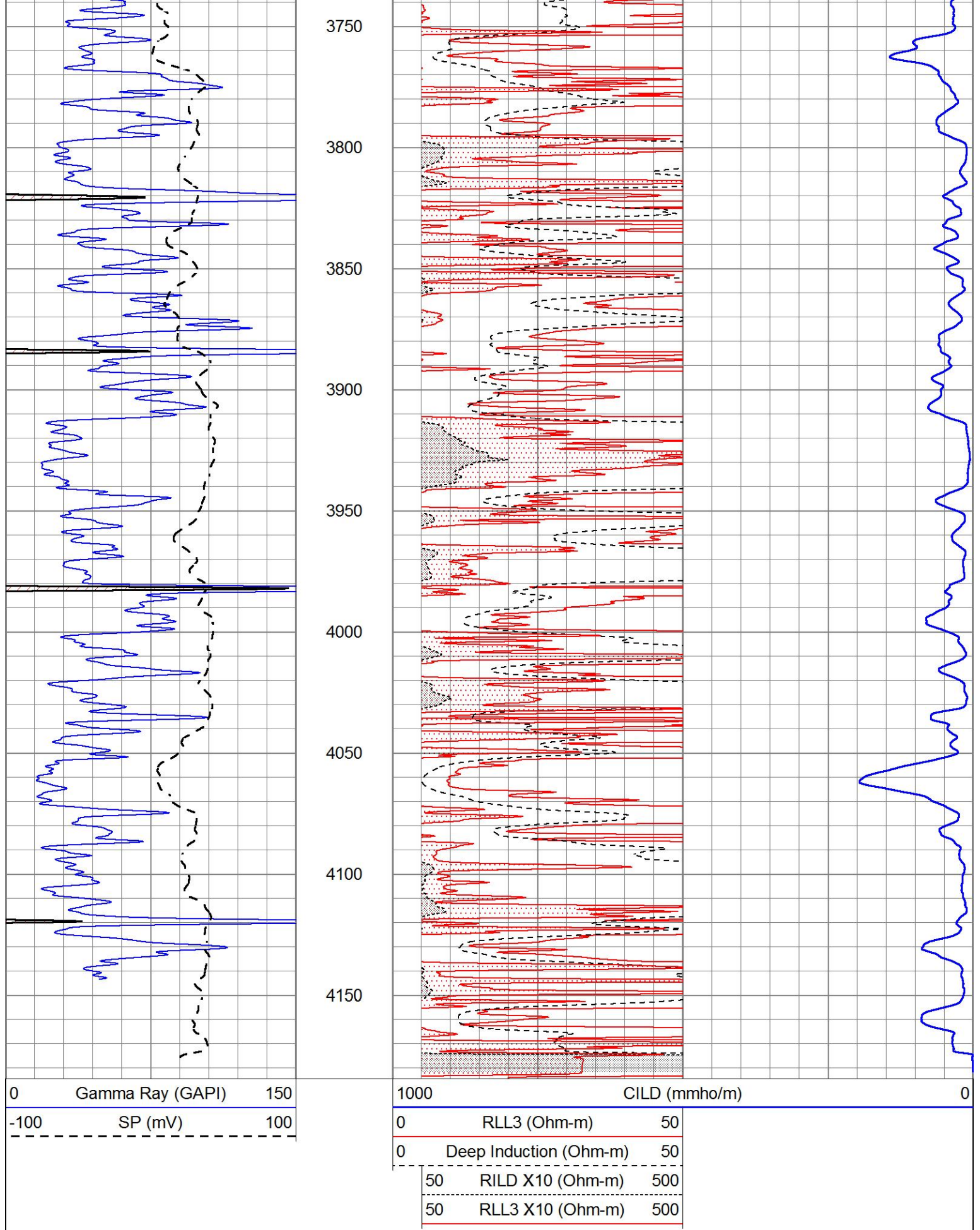
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2600









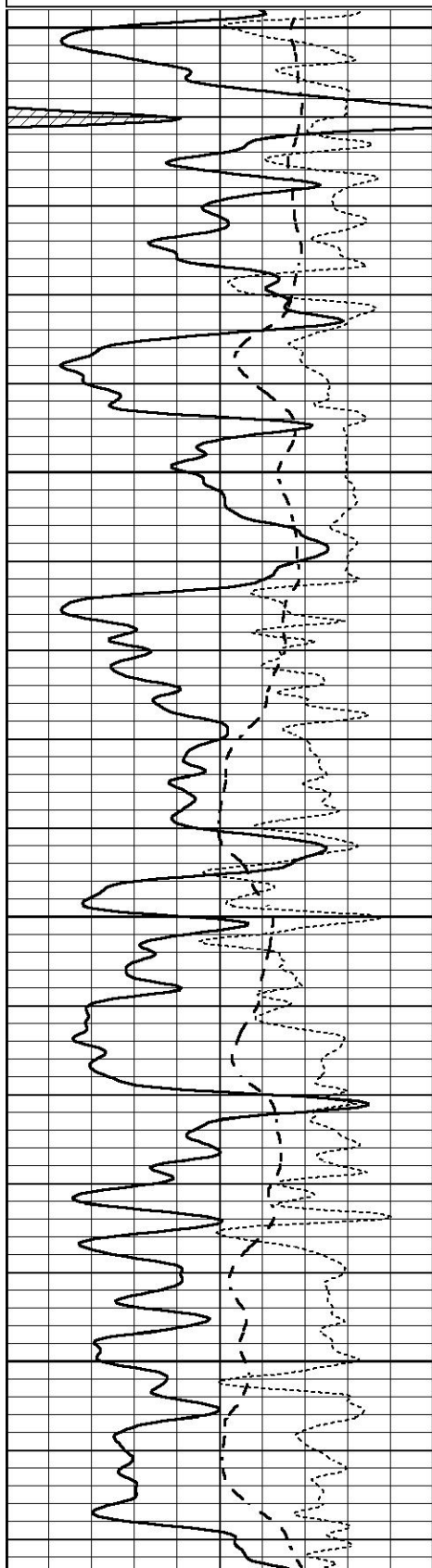
# MAIN SECTION

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Database File 3977ddn8.db  
 Dataset Pathname pass3.1  
 Presentation Format \_dil  
 Dataset Creation Tue Jul 16 01:29:45 2019  
 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

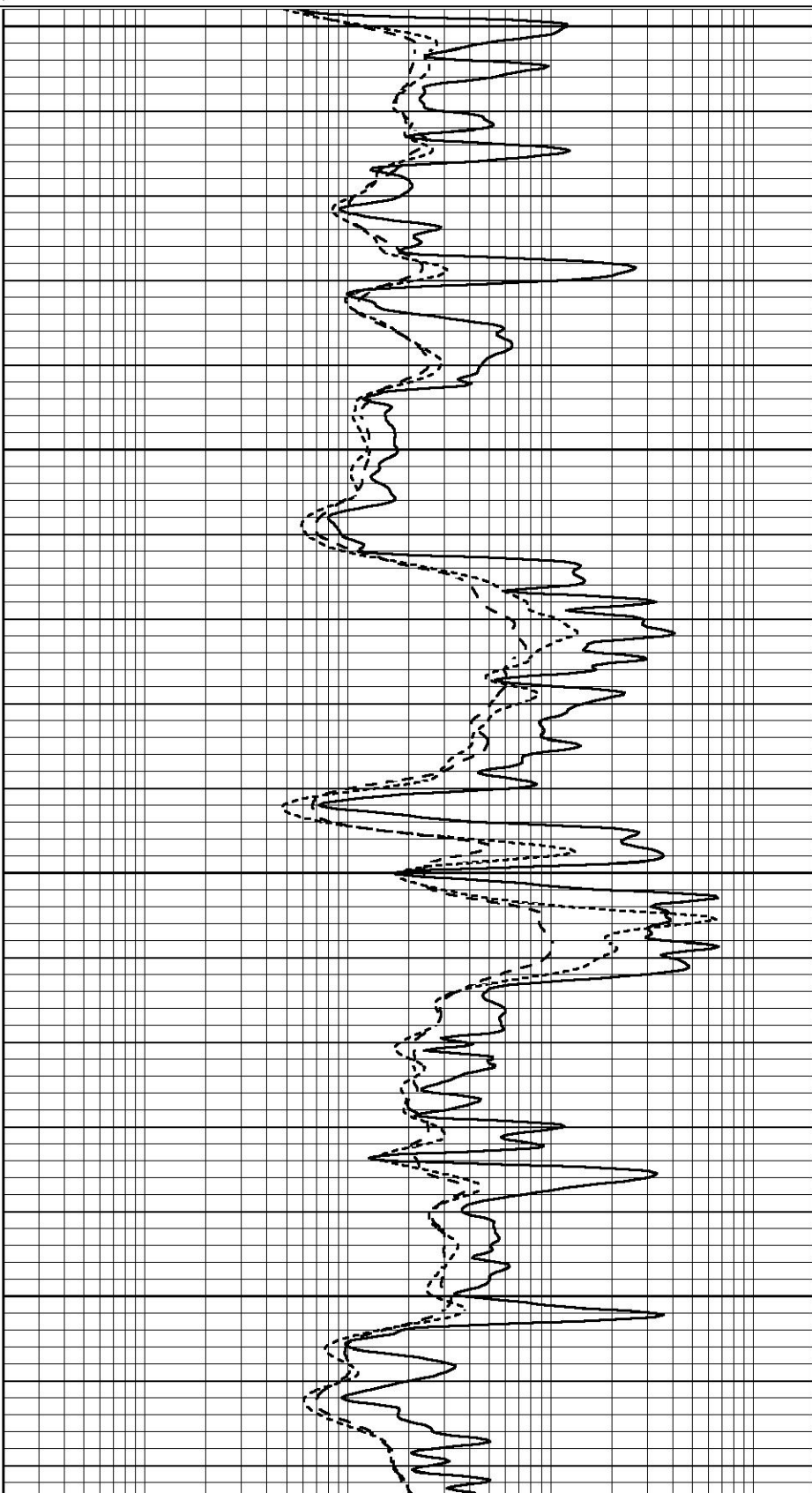


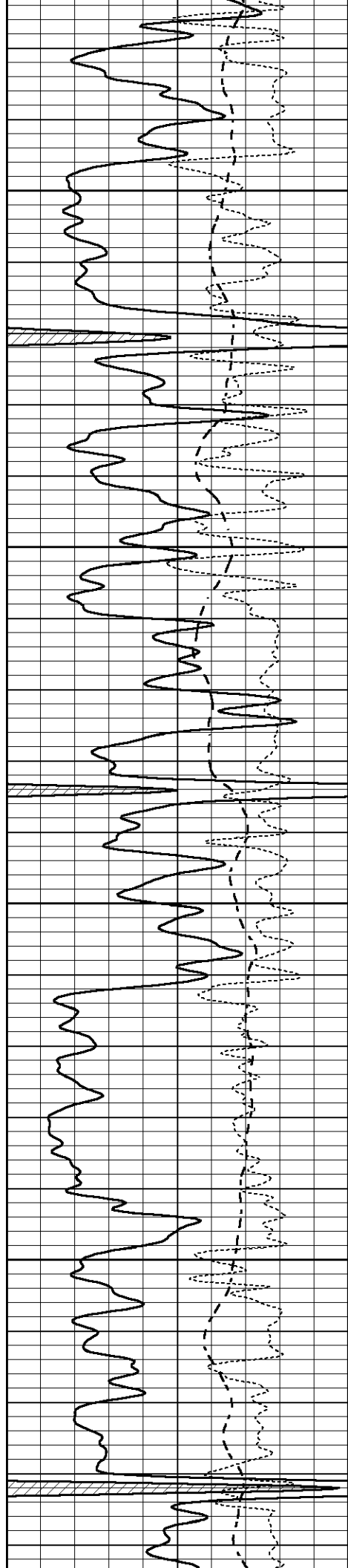
3600

3650

3700

3750



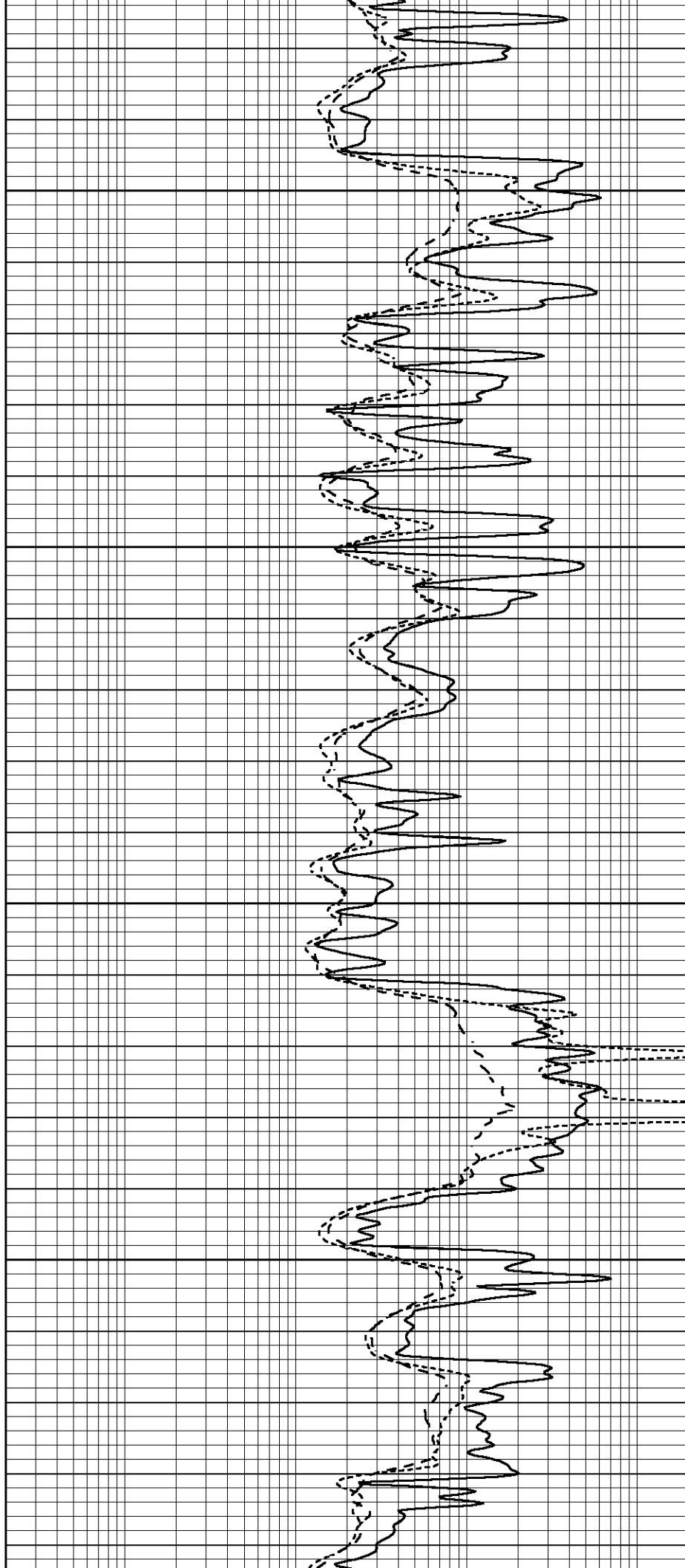


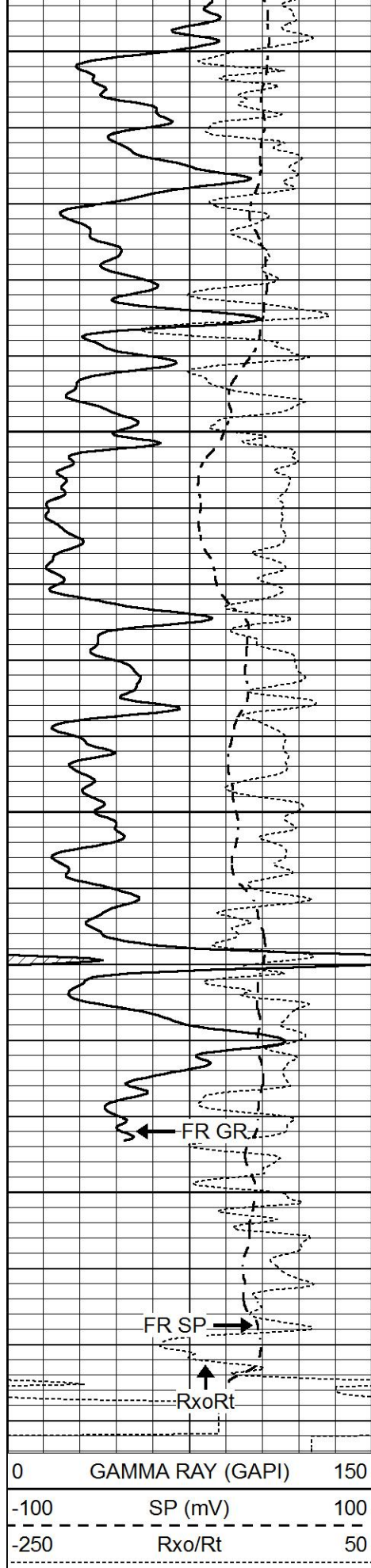
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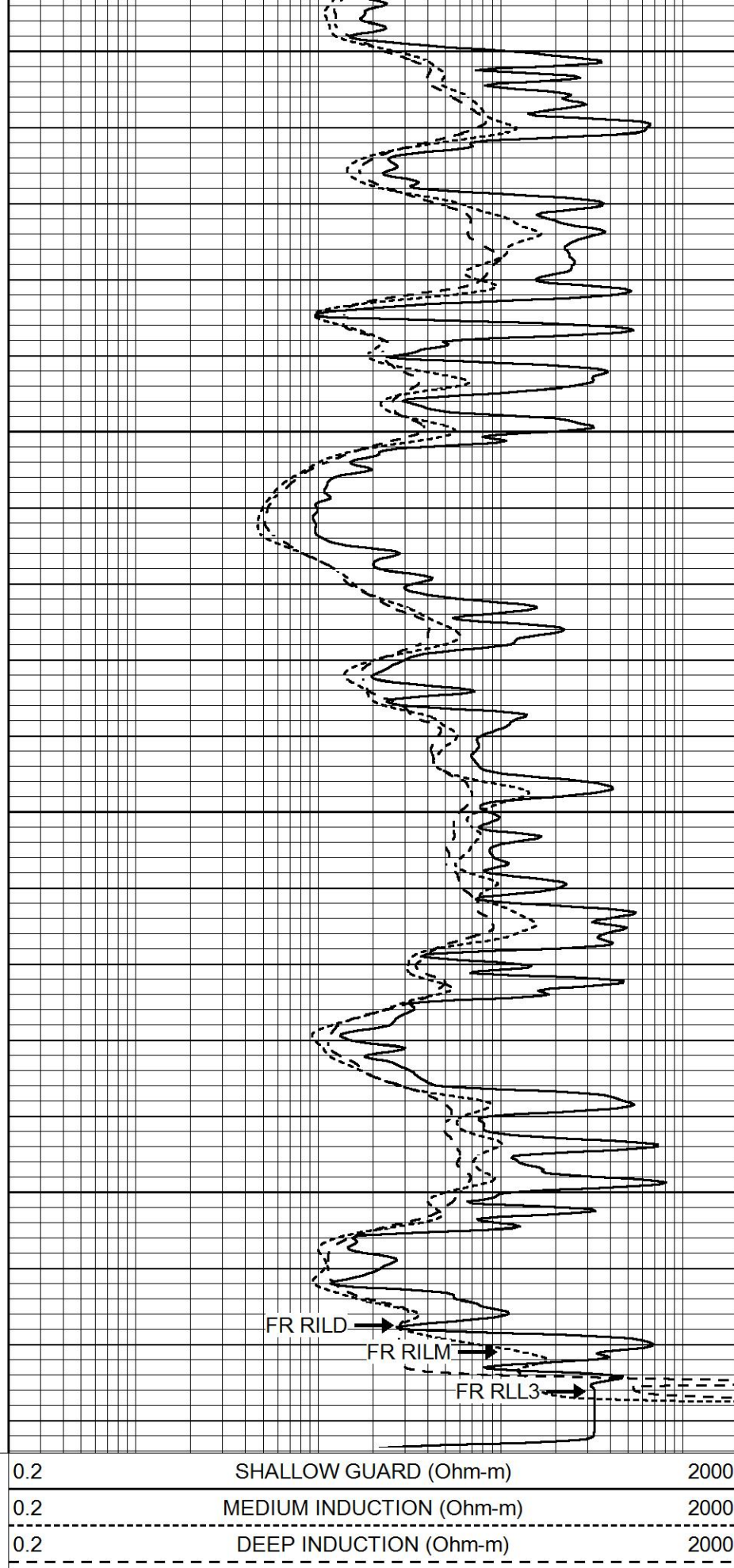
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4050

4100

4150

LTD 4178



REPEAT SECTION

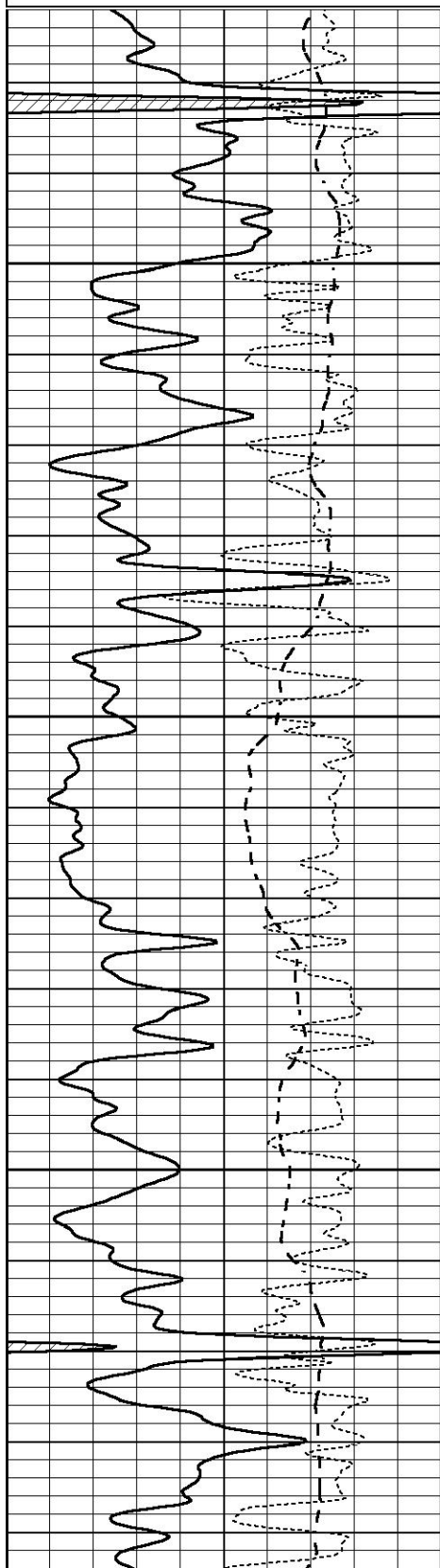


# REPEAT SECTION

Database File 3977ddn8.db  
Dataset Pathname pass2.1  
Presentation Format \_dil  
Dataset Creation Tue Jul 16 01:29:14 2019  
Charted by Depth in Feet scaled 1:240

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

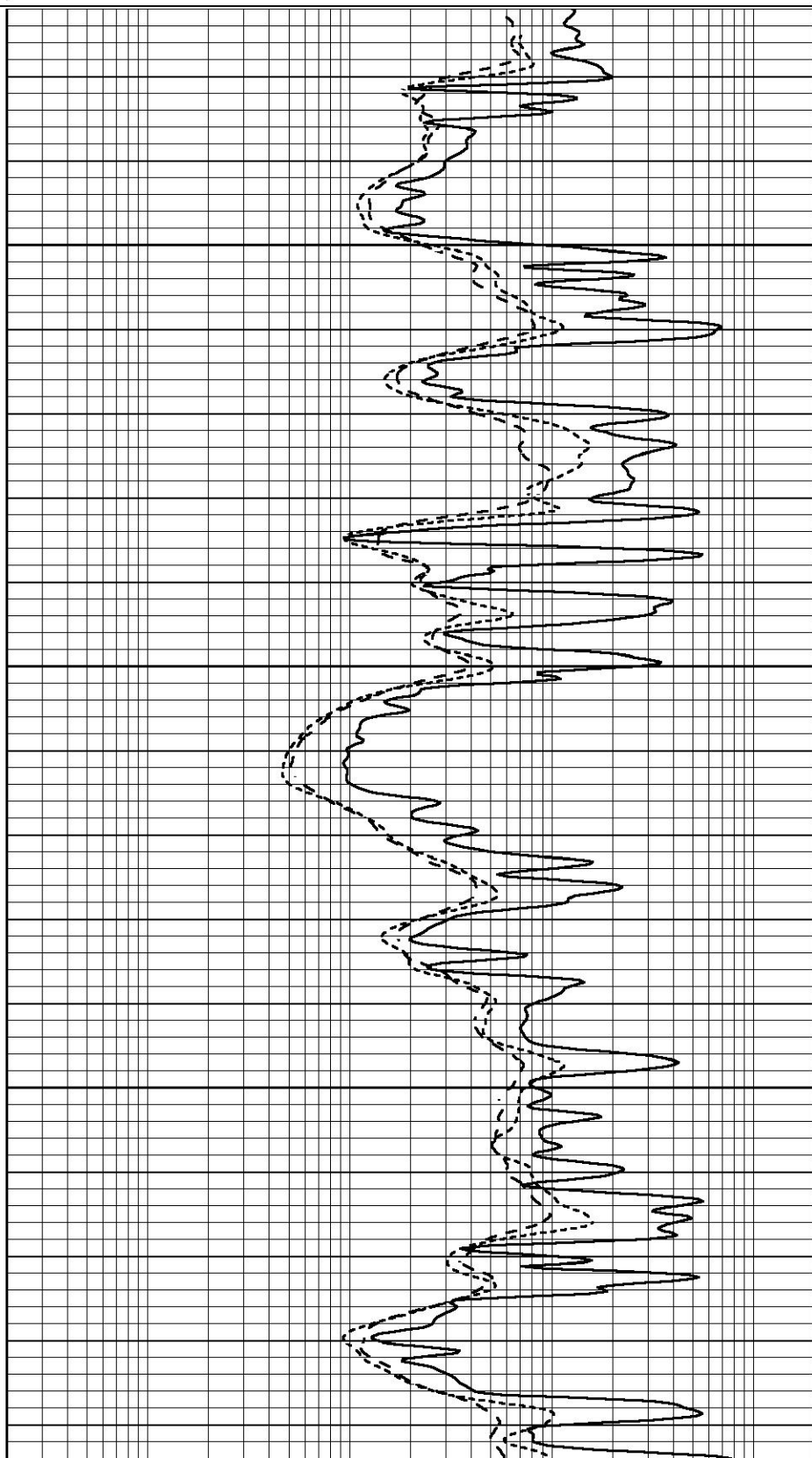
0.2	SHALLOW GUARD (Ohm-m)	2000
0.2	MEDIUM INDUCTION (Ohm-m)	2000
0.2	DEEP INDUCTION (Ohm-m)	2000

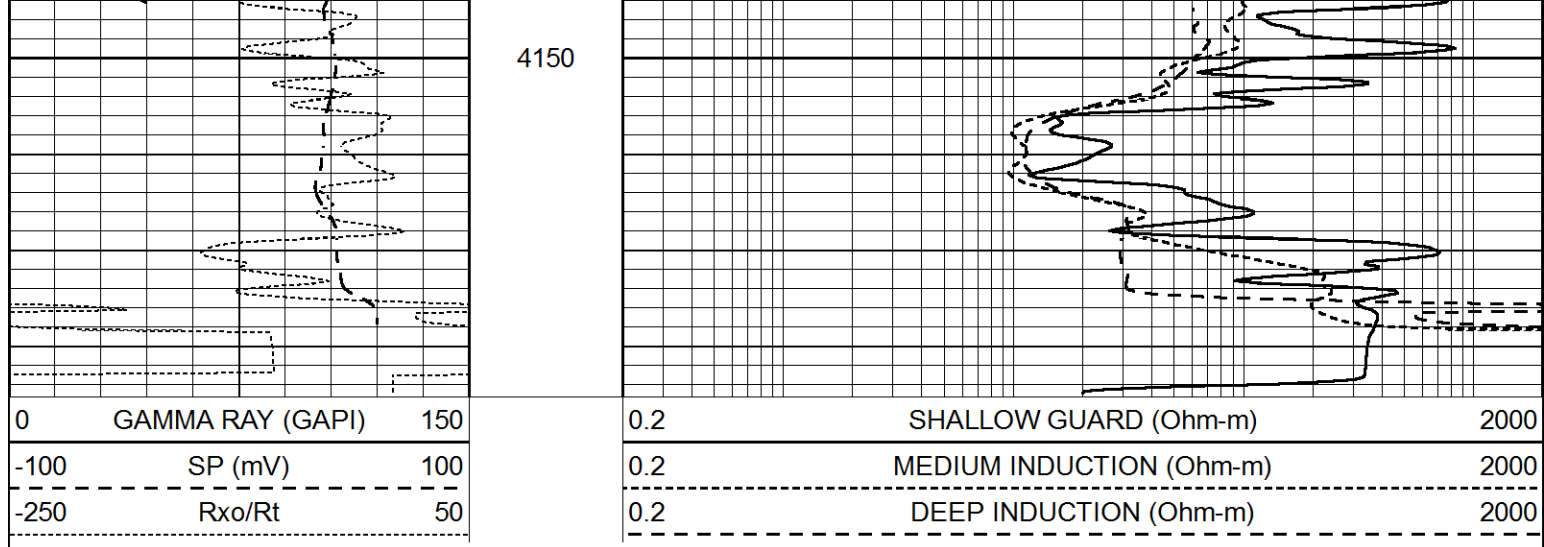


4000

4050

4100





Calibration Report									
Database File		3977ddn8.db							
Dataset Pathname		pass2.1							
Dataset Creation		Tue Jul 16 01:29:14 2019							
Dual Induction Calibration Report									
		Serial-Model:				FW1410-55-Probe			
		Surface Cal Performed:				Tue Feb 19 11:44:18 2019			
		Downhole Cal Performed:				Tue Feb 19 11:44:24 2019			
		After Survey Verification Performed:				Tue Feb 19 11:44:27 2019			
Surface Calibration									
		Readings			References			Results	
Loop:	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		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		1500.000	Ohm-m			
		0.001	V		20.000	Ohm-m			
		-7.481	V		3745.000	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

		Serial Number: Tool Model:	080621PMC NABORS
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:	7		
Tool Model:	Probe1		
Performed:	Tue Feb 19 11:45:10 2019		
Calibrator Value:	1.0	GAPI	
Background Reading:	0.0	cps	
Calibrator Reading:	1.0	cps	
Sensitivity:	0.4300	GAPI/cps	