

DUAL INDUCTION LOG

Company	DARRAH OIL CO, LLC.	
Well	PANTHER MADDEN UNIT #1	
Field	UNNAMED	
County	CHASE	State KANSAS
Location:	API #: 15-017-20930-0000 244' FSL & 2463' FWL SW - SW - SW - SE	
Permanent Datum	GROUND LEVEL	Elevation 1452
Log Measured From	KELLY BUSHING 6' A.G.L.	
Drilling Measured From	KELLY BUSHING	
SEC 30 TWP 19S RGE 6E		
Other Services CDL/CNL/MEI PE/SONIC		
Elevation K.B. 1458 D.F. 1456 G.L. 1452		
Date	4/24/22	
Run Number	ONE	
Depth Driller	2270	
Depth Logger	2267	
Bottom Logged Interval	2265	
Top Log Interval	00	
Casing Driller	8 5/8"@237'	
Casing Logger	246'	
Bit Size	7 7/8"	
Type Fluid in Hole	CHEMICAL MUD	CHLORIDES 1,200 PPM
Density / Viscosity	9.3/45	
pH / Fluid Loss	9.5/8.4	
Source of Sample	FLOWLINE	
Rm @ Meas. Temp	2.20@70F	
Rmf @ Meas. Temp	1.65@70F	
Rmc @ Meas. Temp	2.64@70F	
Source of Rmf / Rmc	MEASUREMENT	
Rm @ BHT	1.54@100F	
Time Circulation Stopped	2.5 HOURS	
Time Logger on Bottom	7:30 A.M.	
Maximum Recorded Temperature	100F	
Equipment Number	922339	
Location	HAYS, KANSAS	
Recorded By	JEFF LUEBBERS	COLE ROBBEN
Witnessed By	JARRED LEIS	

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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.

15-017-20930-0000

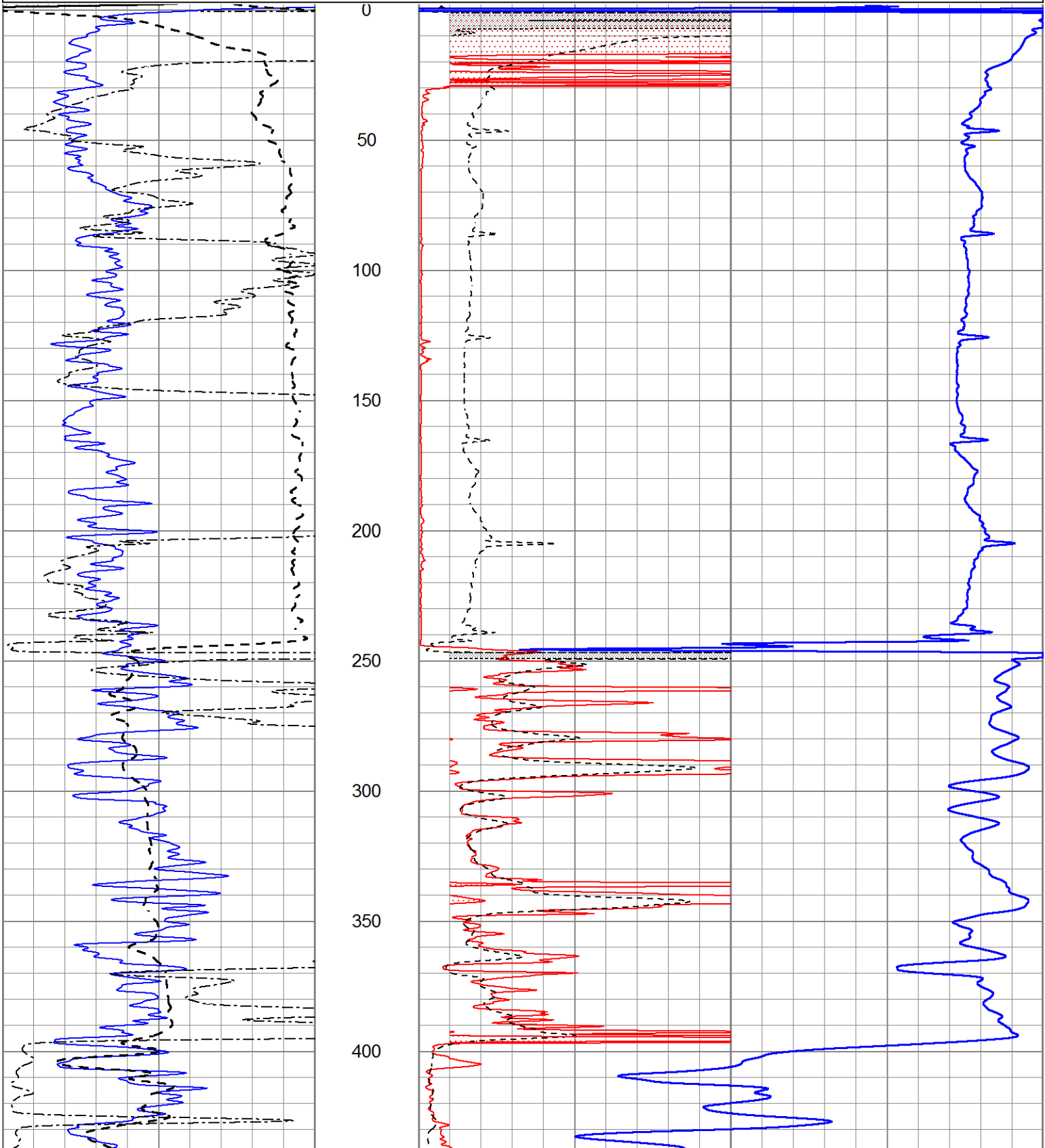
Comments

THANK YOU FOR USING ELI WIRELINE HAYS, KANSAS (785) 628-6395
DIRECTIONS
MARION, KS. JUNCTION 150&77, 8 E, NORTH INTO

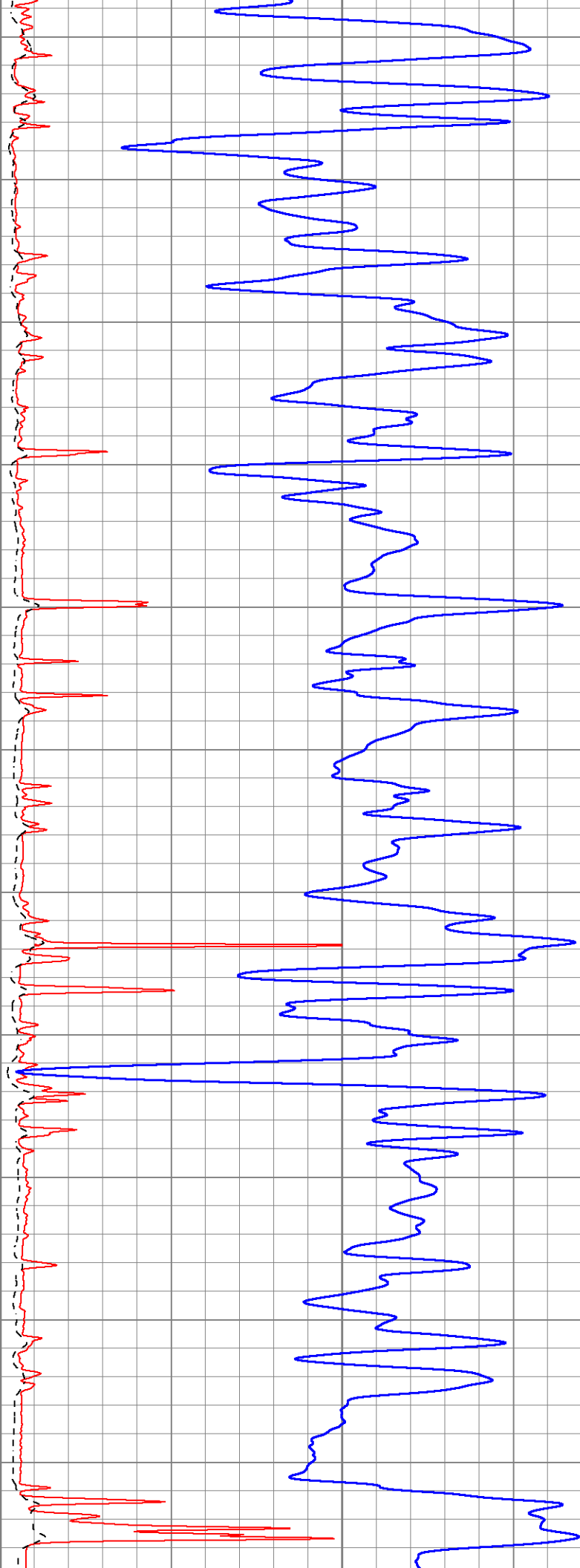
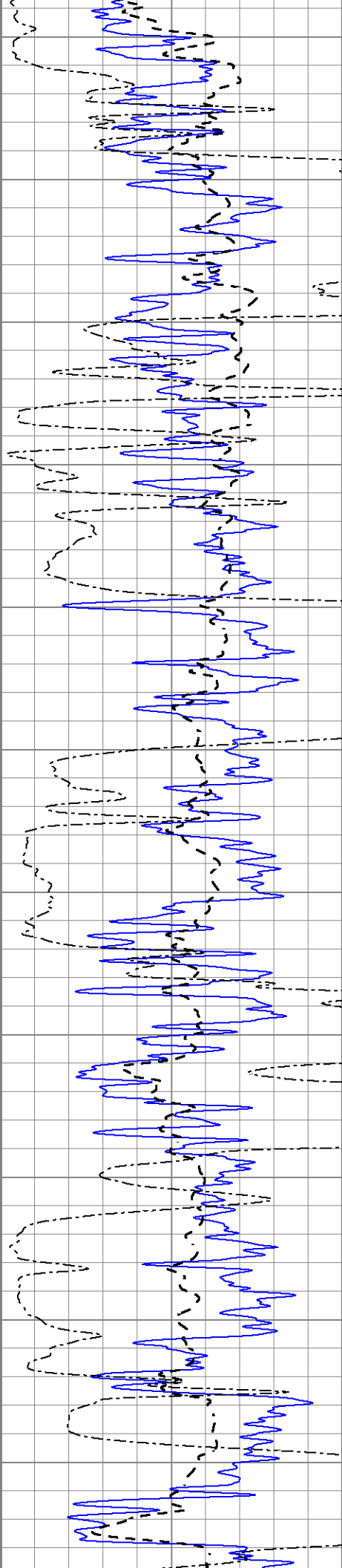


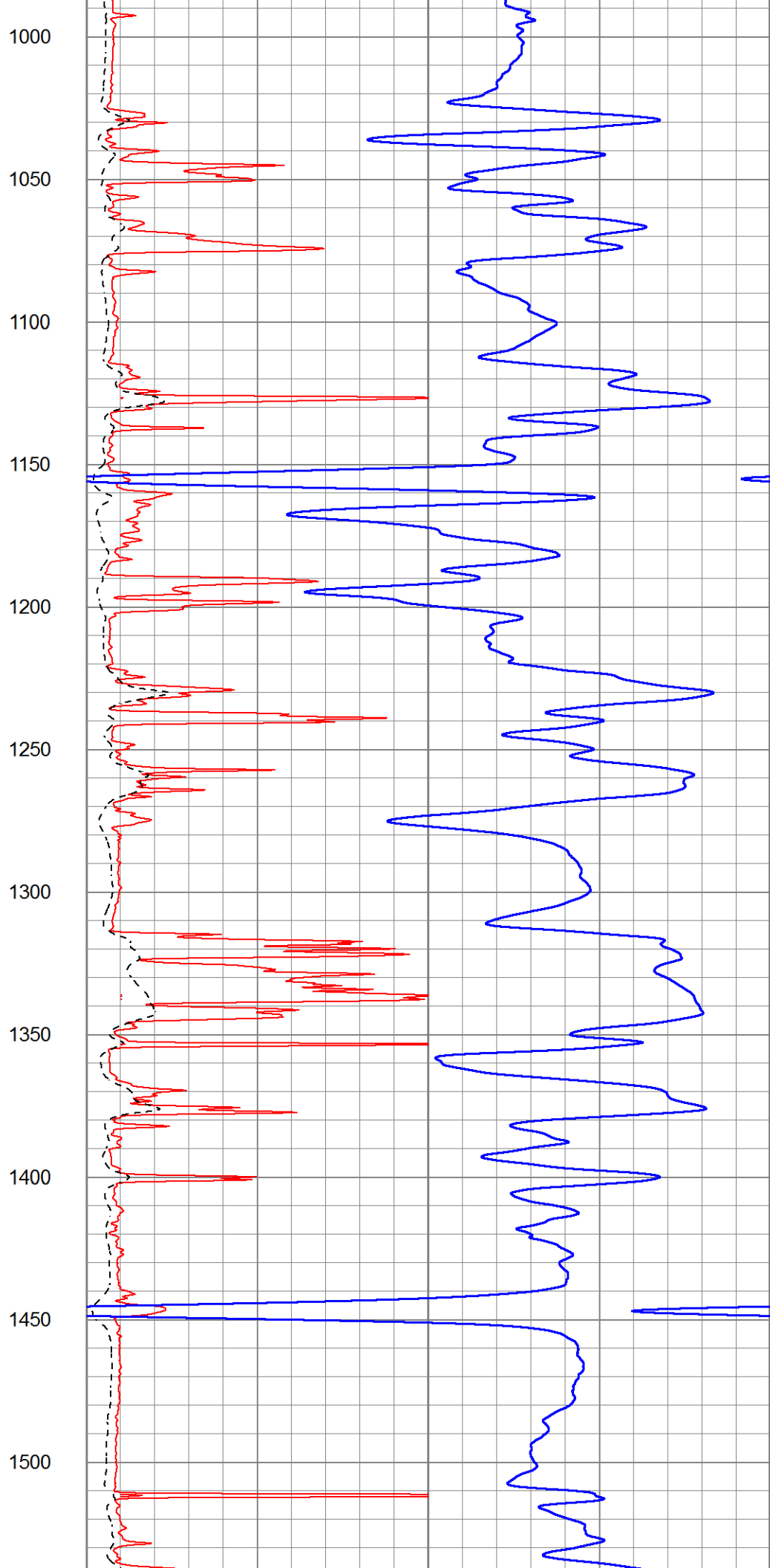
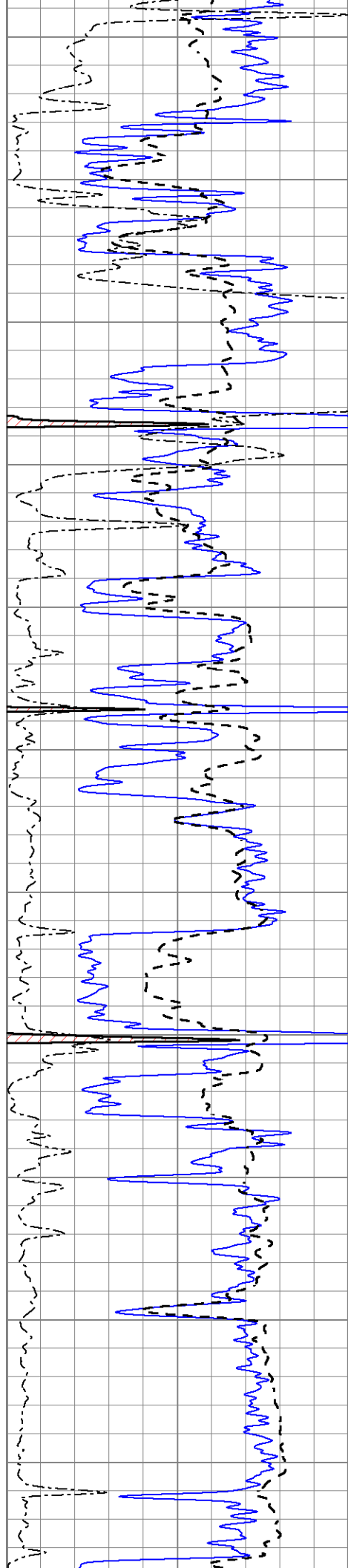
MAIN SECTION

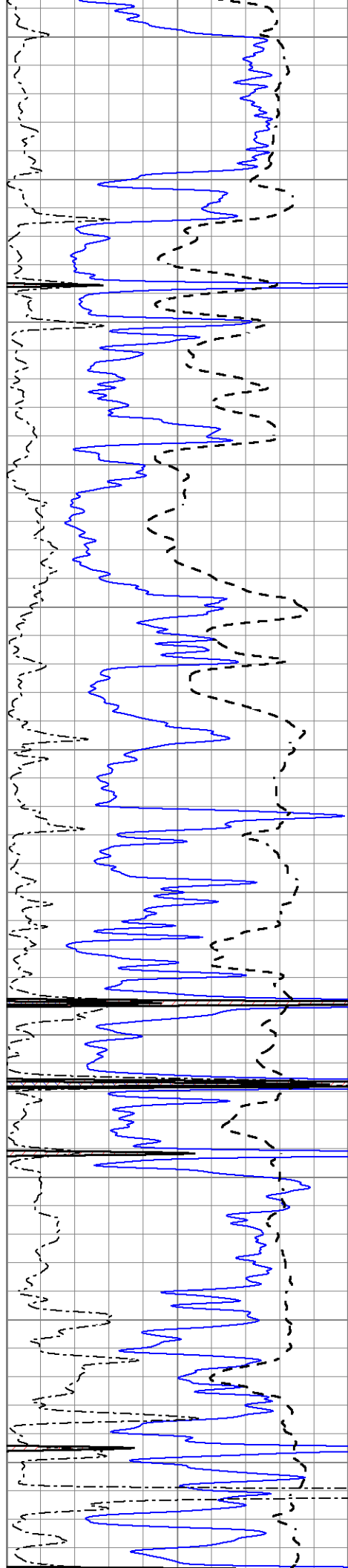
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-100	SP (mV)	100	0	RLL3 (Ohm-m)	50
0	RWA (Ohm-m)	1	0	RILD (Ohm-m)	50
			50	RILD X10 (Ohm-m)	500
			50	RLL3 X10 (Ohm-m)	500



450
500
550
600
650
700
750
800
850
900
950







1550

1600

1650

1700

1750

1800

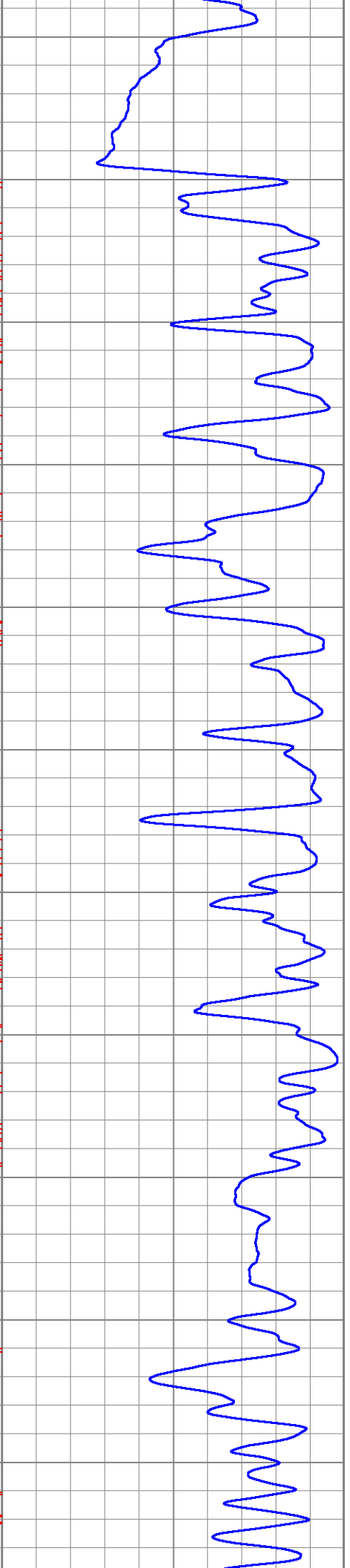
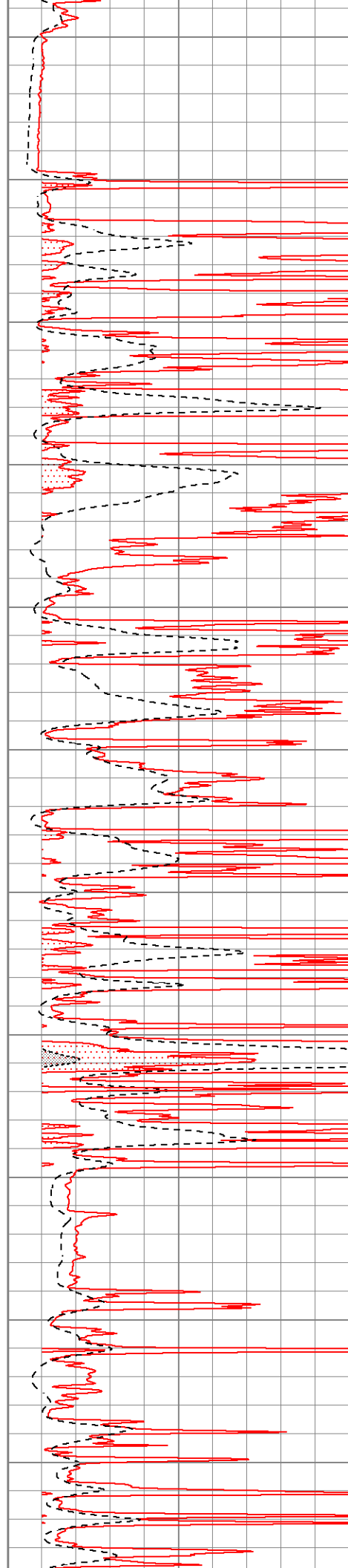
1850

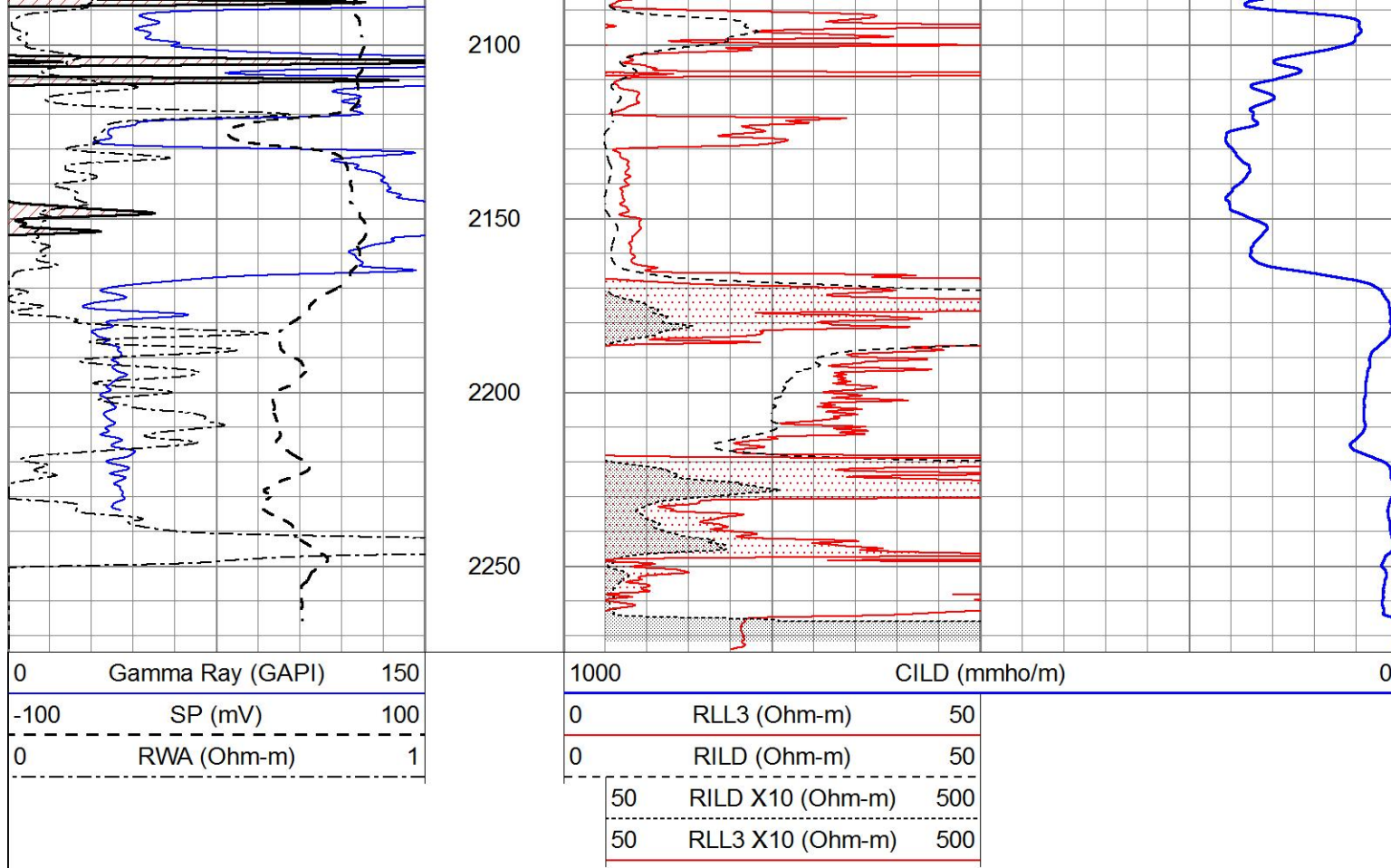
1900

1950

2000

2050

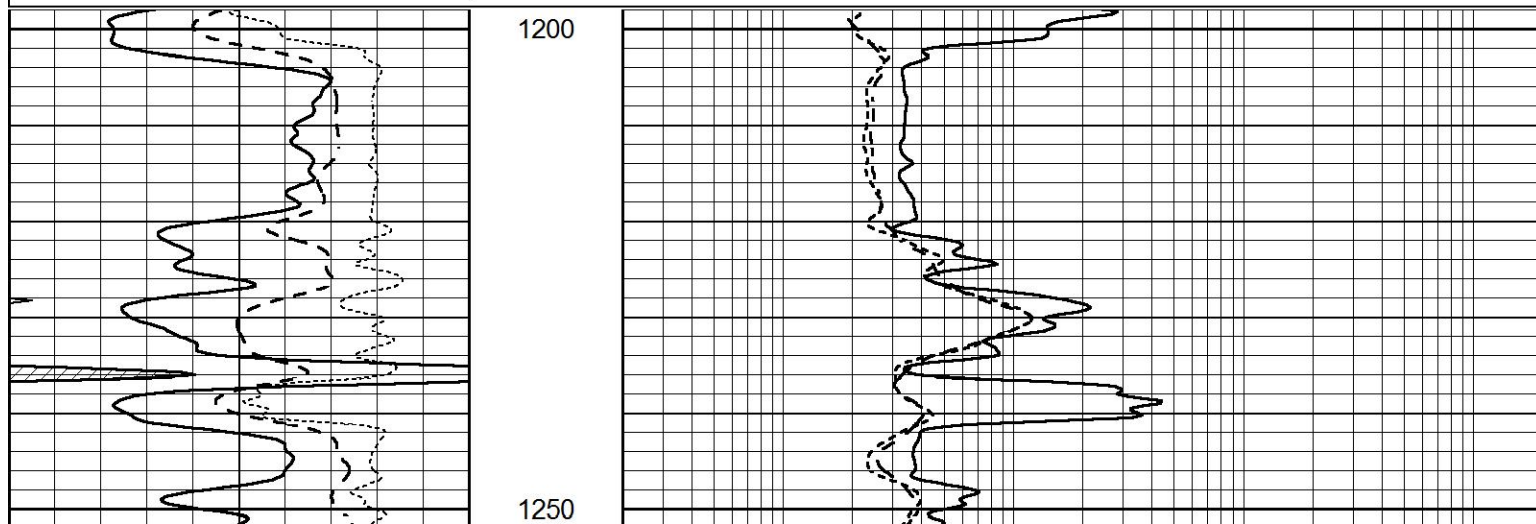


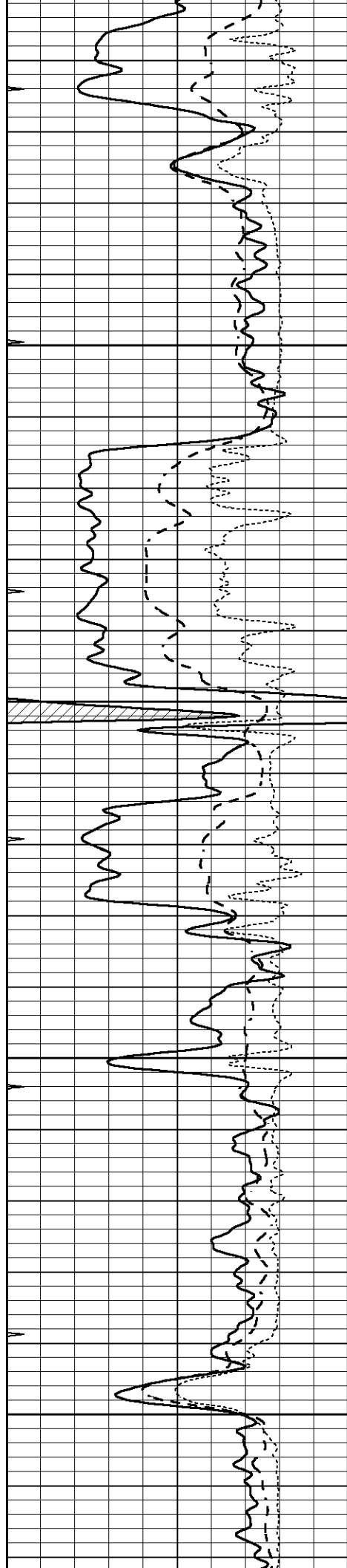


MAIN SECTION

Database File 6335pe.db
 Dataset Pathname pass3.1M
 Presentation Format _dil
 Dataset Creation Sun Apr 24 09:09:38 2022
 Charted by Depth in Feet scaled 1:240

0	GAMMA RAY (GAPI)	150	0.2	SHALLOW GUARD (Ohm-m)	2000
-100	SP (mV)	100	0.2	DEEP INDUCTION (Ohm-m)	2000
-250	Rxo/Rt	50	0.2	MEDIUM INDUCTION (Ohm-m)	2000
0	MINMK	20			



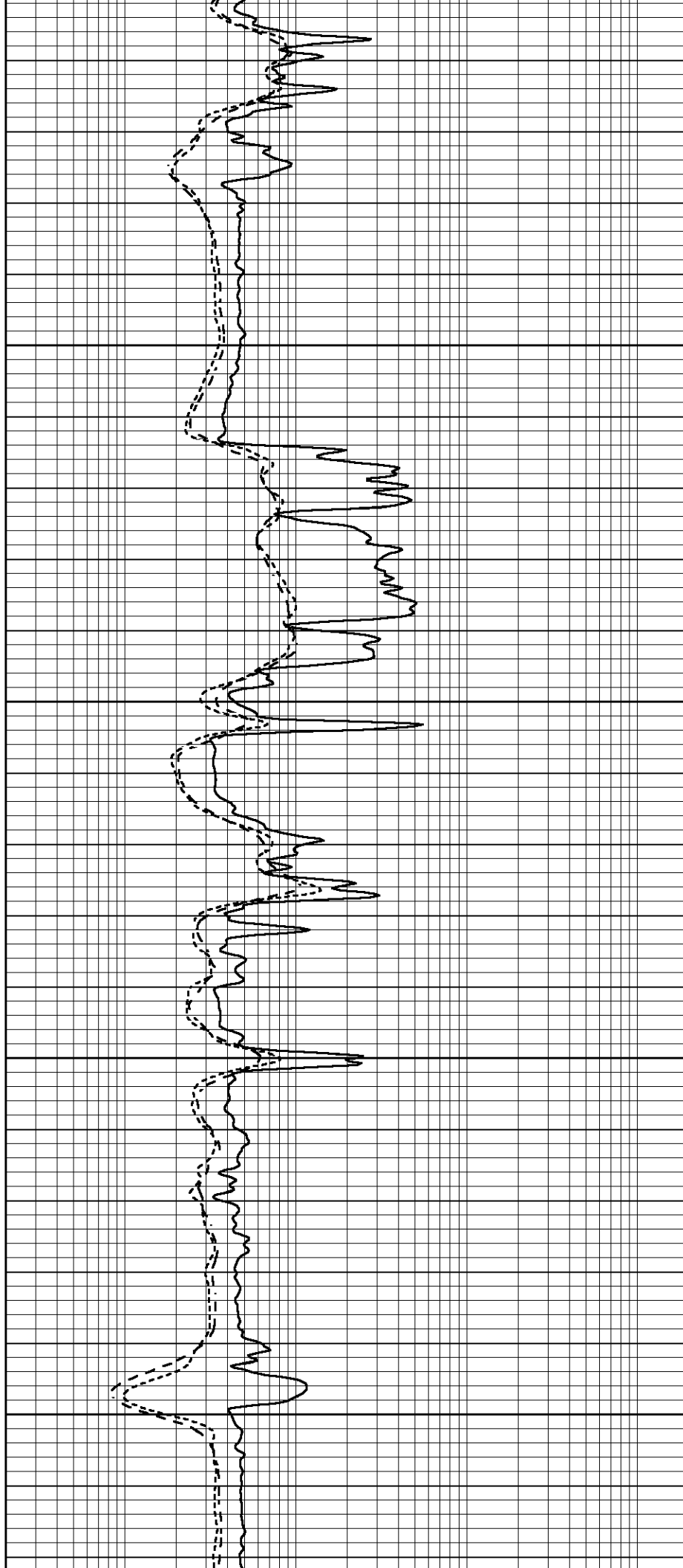


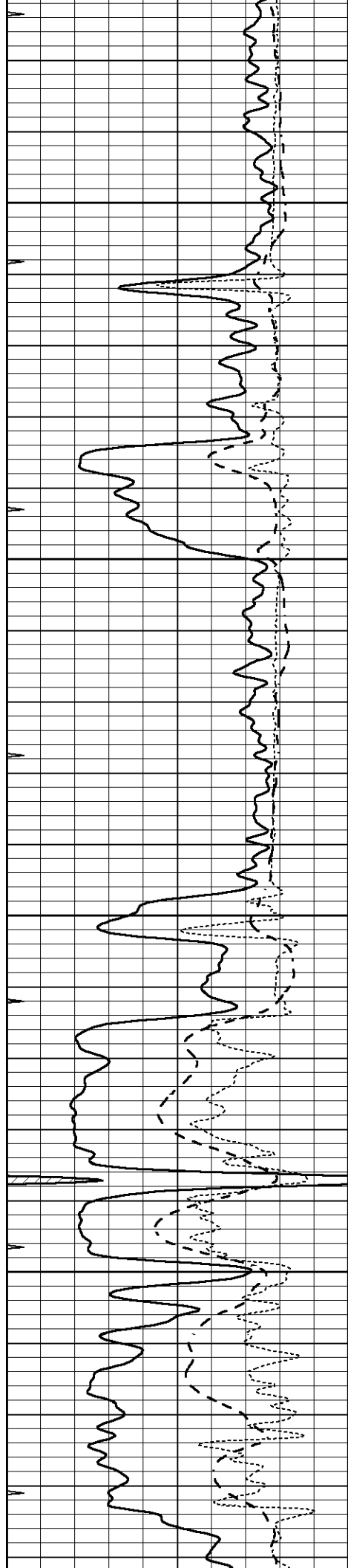
1300

1350

1400

1450



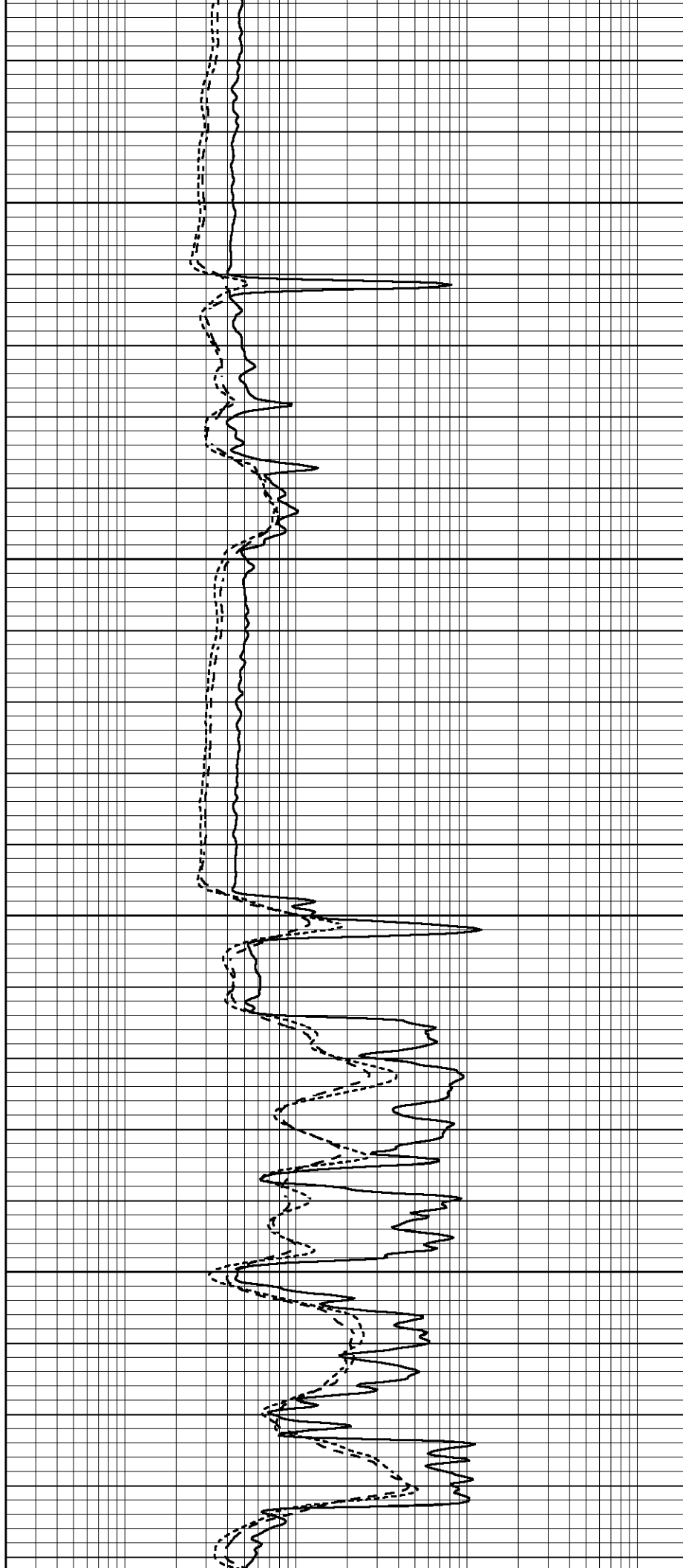


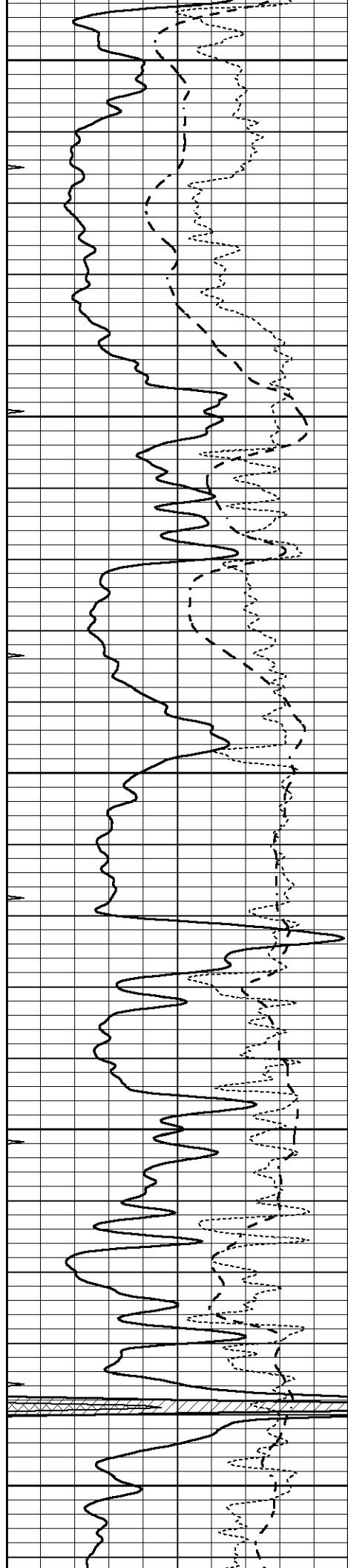
1500

1550

1600

1650





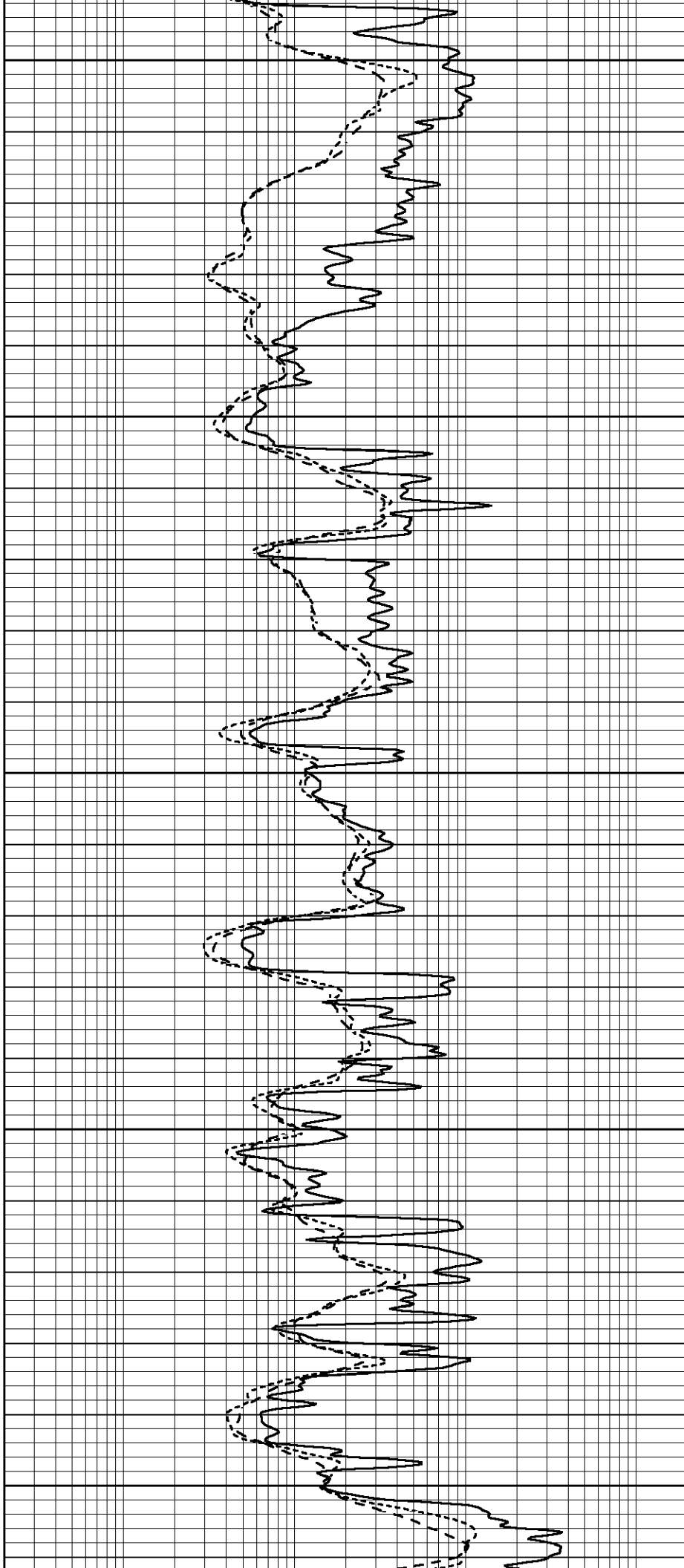
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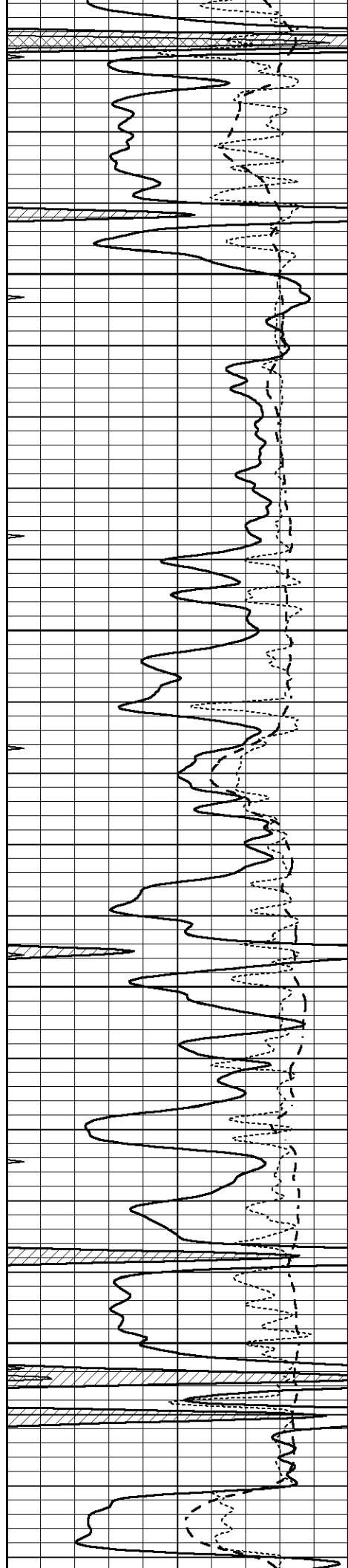
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1800

1850

1900



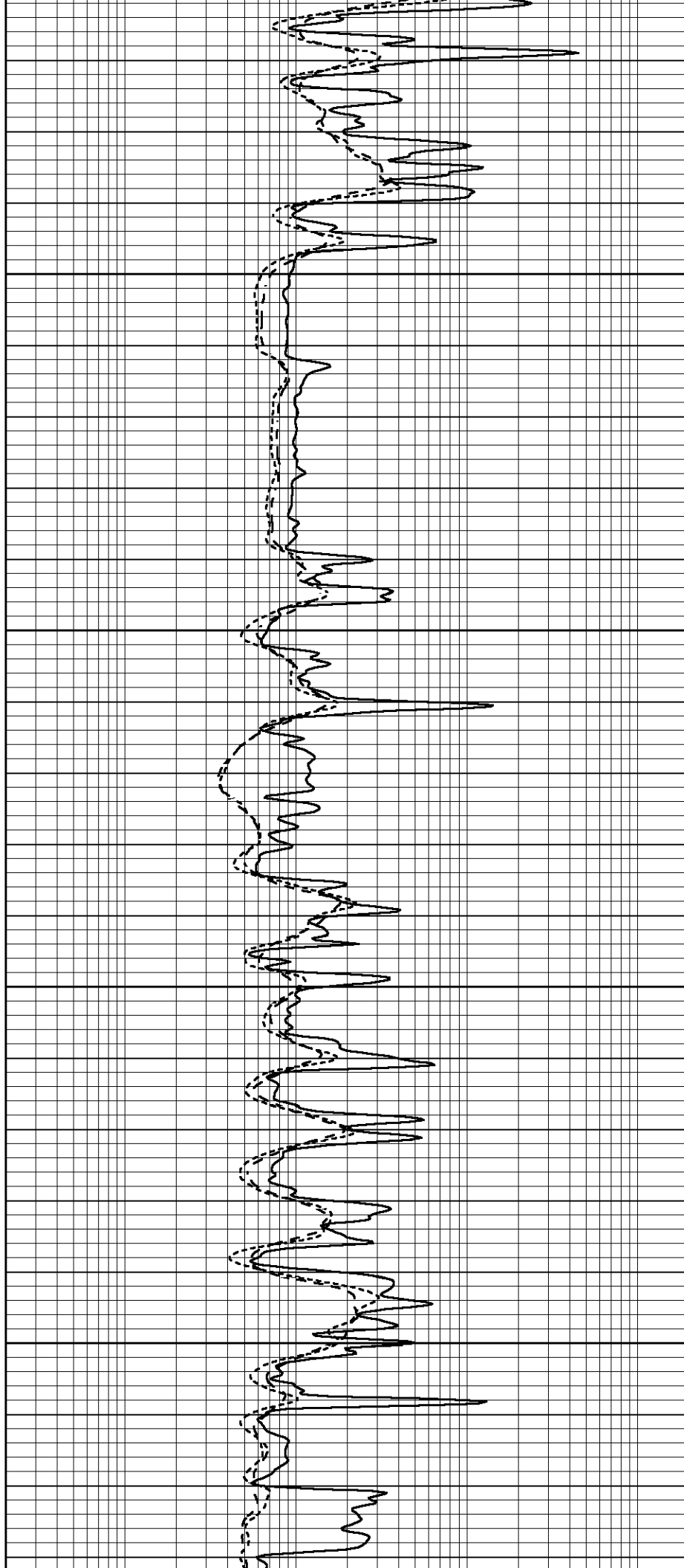


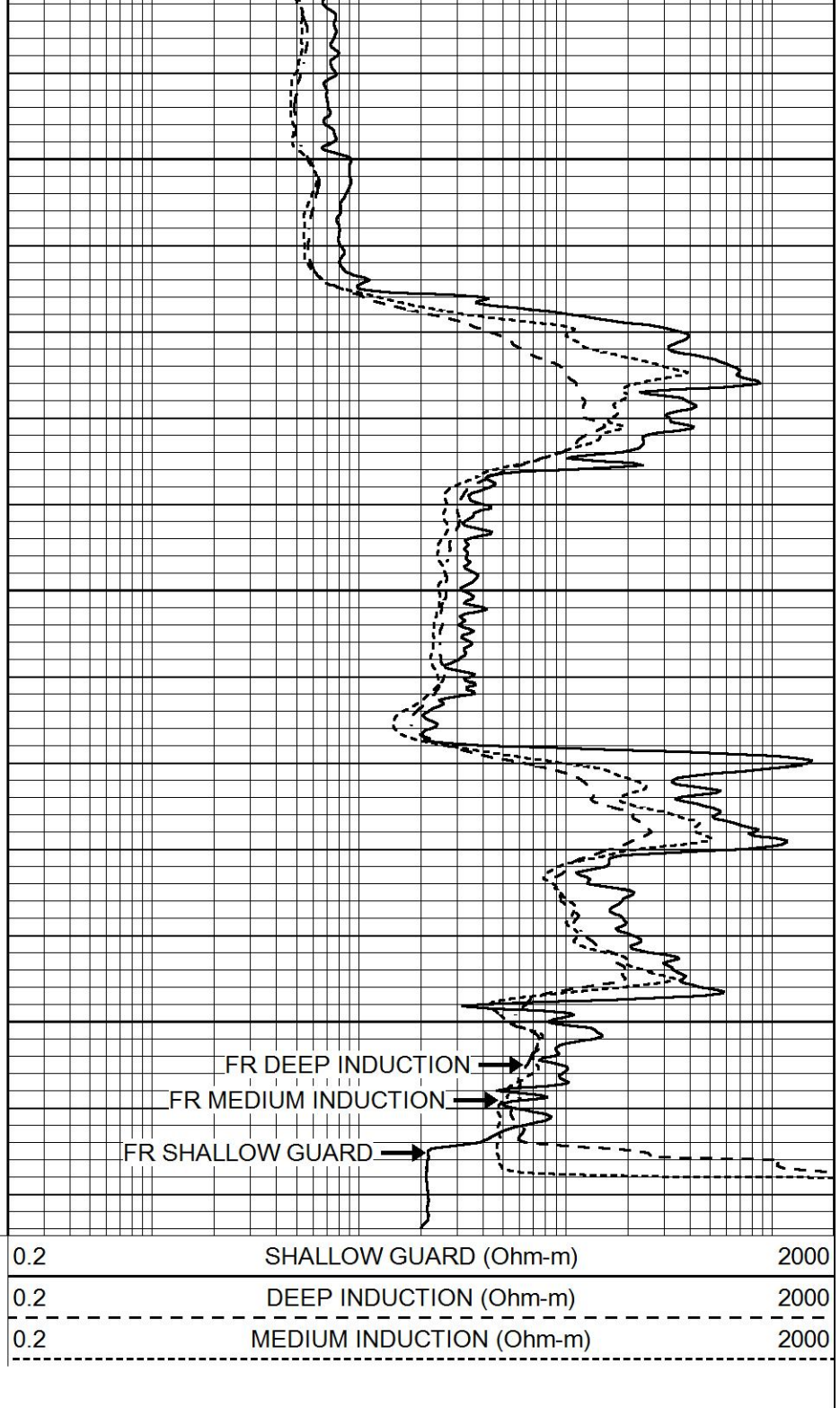
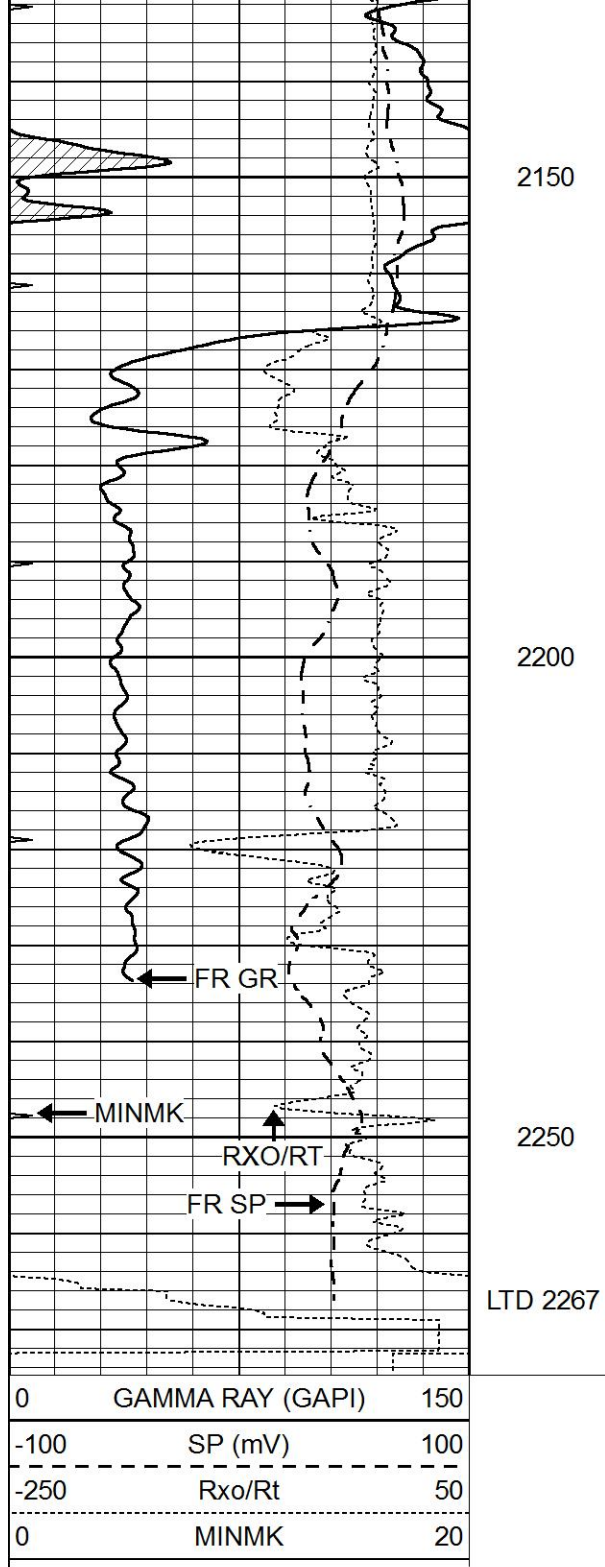
1950

2000

2050

2100





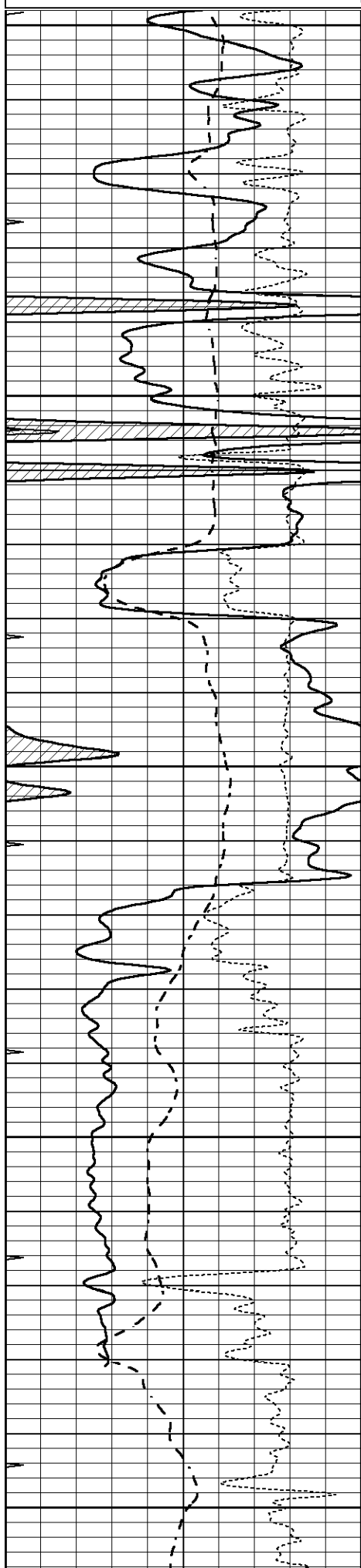
REPEAT SECTION

Database File 6335pe.db
 Dataset Pathname pass2.1R
 Presentation Format _dil
 Dataset Creation Sun Apr 24 09:11:34 2022
 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

-250 Rxo/Rt 50
0 MINMK 20



2050

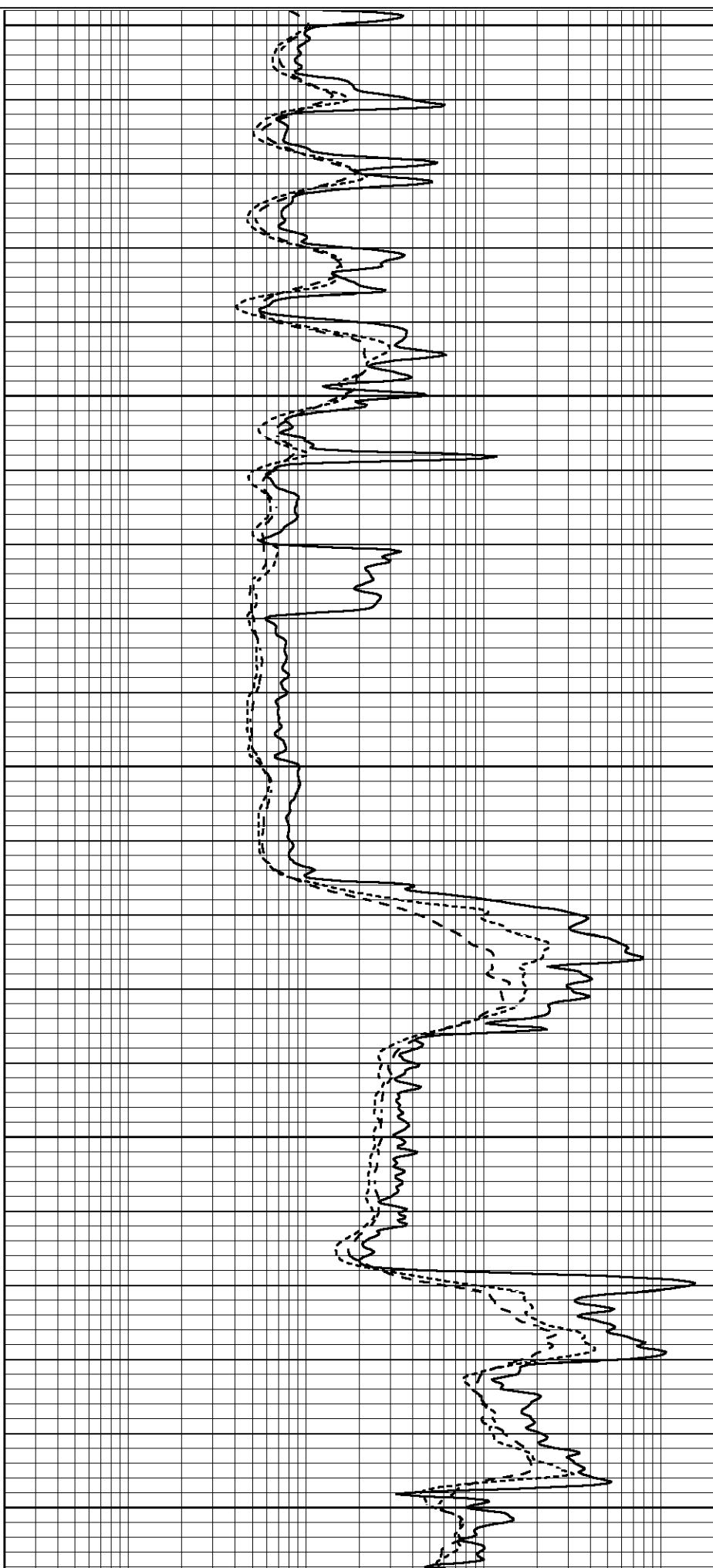
2100

2150

2200

2250

0.2 MEDIUM INDUCTION (Ohm-m) 2000



0	GAMMA RAY (GAPI)	150	0.2	SHALLOW GUARD (Ohm-m)	2000
-100	SP (mV)	100	0.2	DEEP INDUCTION (Ohm-m)	2000
-250	Rxo/Rt	50	0.2	MEDIUM INDUCTION (Ohm-m)	2000
0	MINMK	20			

Calibration Report	
Database File	6335pe.db
Dataset Pathname	pass3.1M
Dataset Creation	Sun Apr 24 09:09:38 2022

Dual Induction Calibration Report

Serial-Model:	PROBE8-DILG
Surface Cal Performed:	Sat Jan 29 12:57:54 2022
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	640.000	3.000
Medium	0.029	0.796	V	0.000	464.000	mmho/m	650.000	-8.000
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'
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		

Litho Density Calibration Report	
Serial: 001	Model: PRB

Master Calibration		Performed Mon May 11 11:33:29 2020			
	Background	Magnesium	Aluminum	Aluminum+Fe	
Window 1	1593.8	10211.9	3449.0	3132.1	cps
Window 2	1486.7	8824.2	3065.6	2829.4	cps

Window 2	1206.8	4705.7	1944.6	1871.7	cps
Window 3	361.0	367.9	364.8	363.1	cps
Window 4	0.0	7337.5	1578.9	1342.7	cps
Long Space	2.7	2543.4	1657.9	1382.7	cps
Short Space		1.7100	2.5900	0.0000	g/cc
Rho		2.0000	2.7500	5.7900	
Pe					
Rib Angle	: 44.4	Rib Slope	: 0.980	Density/Spine Ratio	: 0.552
Spine Angle	: 74.4	Spine Slope	: 3.590	Spine Intercept	: -19.2

Before Survey Verification			Performed Wed Dec 31 18:00:00 1969		
Window 1	0.0	0.0	0.0	0.0	cps
Window 2	0.0	0.0	0.0	0.0	cps
Window 3	0.0	0.0	0.0	0.0	cps
Window 4	0.0	0.0	0.0	0.0	cps
Long Space	0.0	0.0	0.0	0.0	cps
Short Space	0.0	0.0	0.0	0.0	cps
Measured Rho		0.0000	0.0000	0.0000	g/cc
Measured Correction		0.0000	0.0000	0.0000	g/cc
Measured Pe			0.0000	0.0000	

After Survey Verification			Performed Wed Dec 31 18:00:00 1969		
Window 1	0.0	0.0	0.0	0.0	cps
Window 2	0.0	0.0	0.0	0.0	cps
Window 3	0.0	0.0	0.0	0.0	cps
Window 4	0.0	0.0	0.0	0.0	cps
Long Space	0.0	0.0	0.0	0.0	cps
Short Space	0.0	0.0	0.0	0.0	cps
Measured Rho		0.0000	0.0000	0.0000	g/cc
Measured Correction		0.0000	0.0000	0.0000	g/cc
Measured Pe			0.0000	0.0000	

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Compensated Neutron Calibration Report

Serial Number:	070808PMC
Tool Model:	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:	070558
Tool Model:	OPEN_GR
Performed:	Sat Apr 23 03:38:55 2022
Calibrator Value:	1.0
	GAPI

Background Reading:

0.0

cps

Calibrator Reading:

1.0

cps

Sensitivity:

0.2800

GAPI/cps