

DUAL INDUCTION LOG

Company SHAKESPEARE OIL COMPANY INC.

Well TRACTOR #2-13

Field BECKLEY

County SCOTT State KANSAS

Location: API #: 15-171-21286-0000
1070' FNL & 1220' FEL
SW - SW - NE - NE

Other Services
CNL/CDL
PE/MEL

SEC 13 TWP 18S RGE 32W

Permanent Datum GROUND LEVEL Elevation 2960
Log Measured From KELLY BUSHING 11' A.G.L.
Drilling Measured From KELLY BUSHING

Elevation
K.B. 2971
D.F. 2969
G.L. 2960

Date 4/10/22

Run Number ONE

Depth Driller 4640

Depth Logger 4640

Bottom Logged Interval 4638

Top Log Interval 00

Casing Driller 8 5/8" @ 265'

Casing Logger 265'

Bit Size 7 7/8"

Type Fluid in Hole CHEMICAL MUD

Density / Viscosity 9.3/67

pH / Fluid Loss 10.5/8.0

Source of Sample FLOWLINE

Rm @ Meas. Temp 1.30 @ 70F

Rmf @ Meas. Temp 0.98 @ 70F

Rmc @ Meas. Temp 1.56 @ 70F

Source of Rmf / Rmc MEASUREMENT

Rm @ BHT 0.75 @ 122F

Time Circulation Stopped 3 HOURS

Time Logger on Bottom 5.00 A.M.

Maximum Recorded Temperature 122F

Equipment Number 922339

Location HAYS, KANSAS

Recorded By JEFF LUEBBERS

Witnessed By KENT MATSON

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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.

15-171-21286-0000

Comments

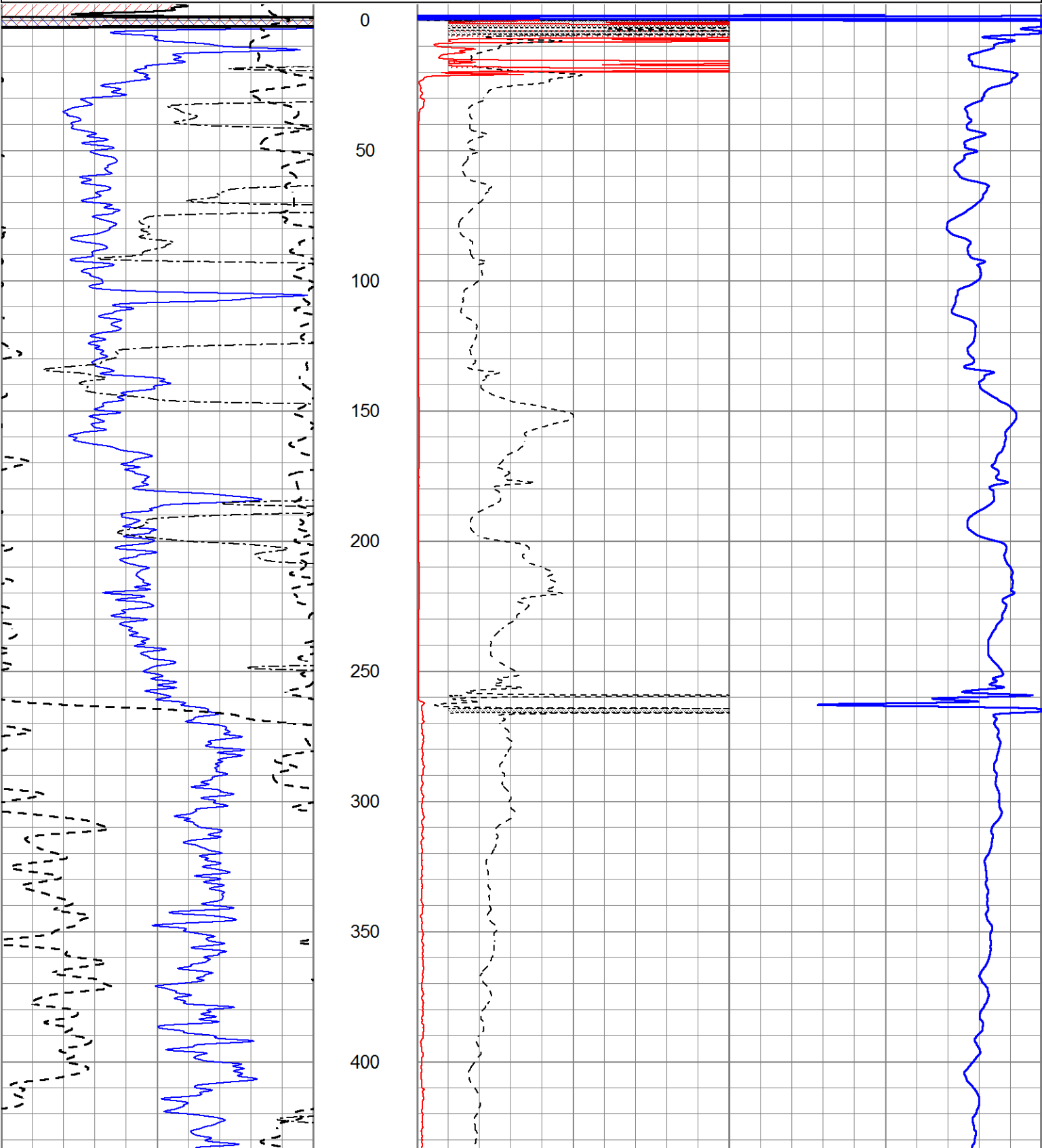
THANK YOU FOR USING ELI WIRELINE HAYS, KANSAS (785) 628-6395
DIRECTIONS
SCOTT CITY KS. 5 E ON HWY 96 TO RODEO RD, 3/4 N AND W INTO

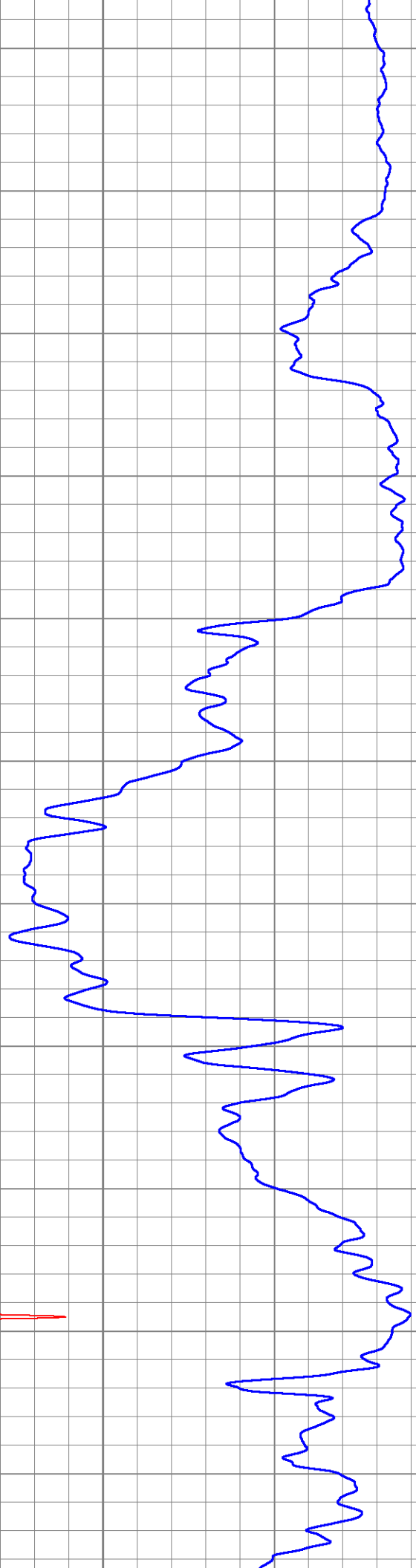
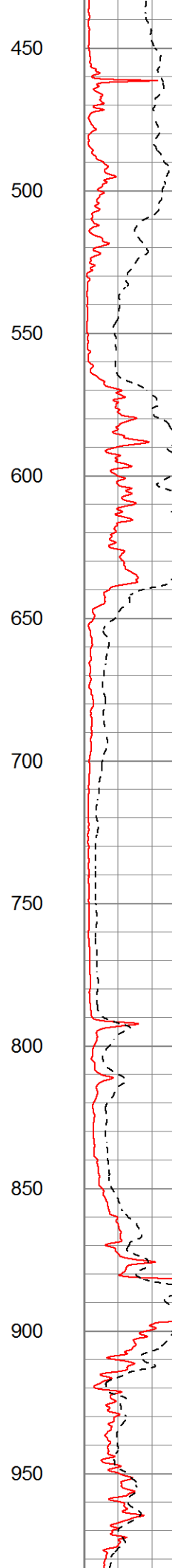
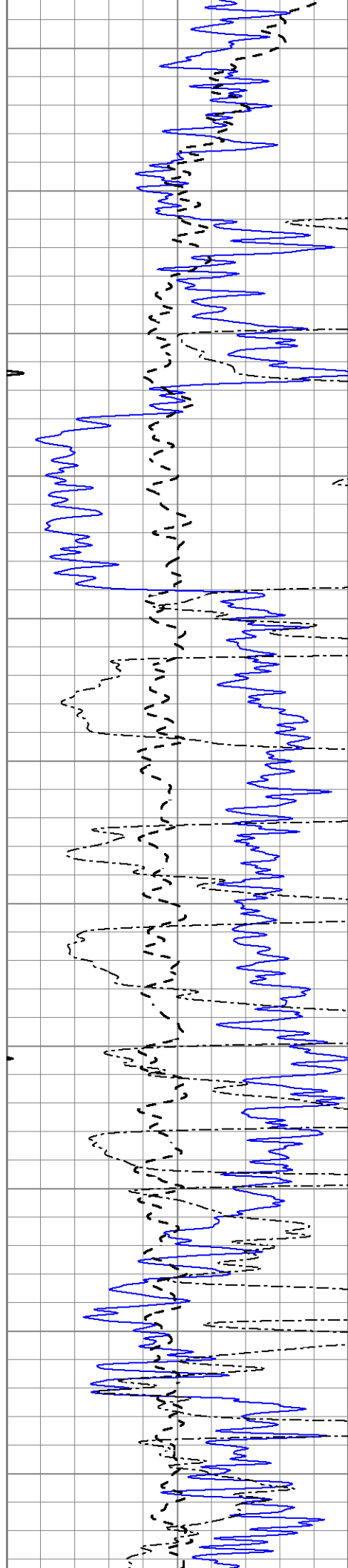


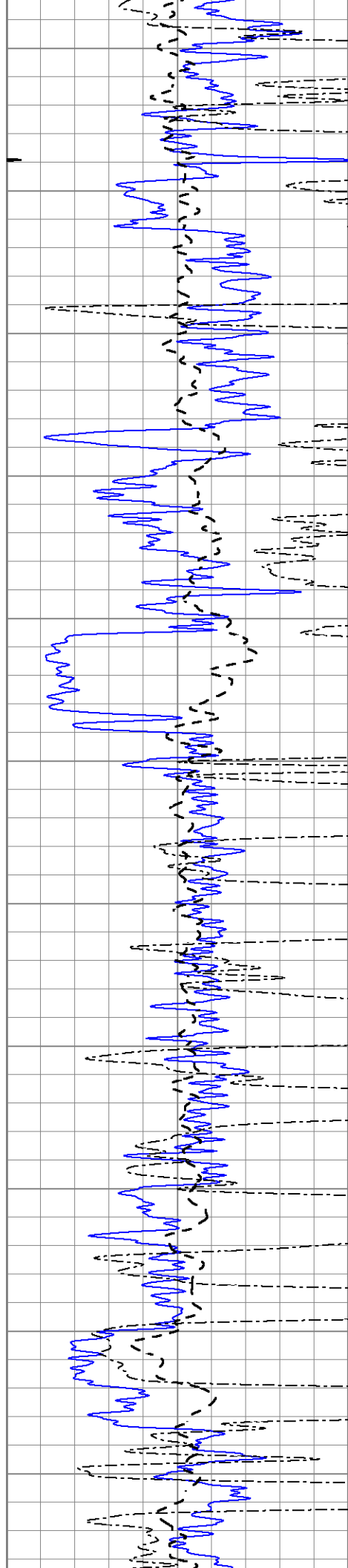
MAIN SECTION

Database File	6326pe.db
Dataset Pathname	pass3.1M
Presentation Format	_dil2
Dataset Creation	Sun Apr 10 06:58:07 2022
Charted by	Depth in Feet scaled 1:600

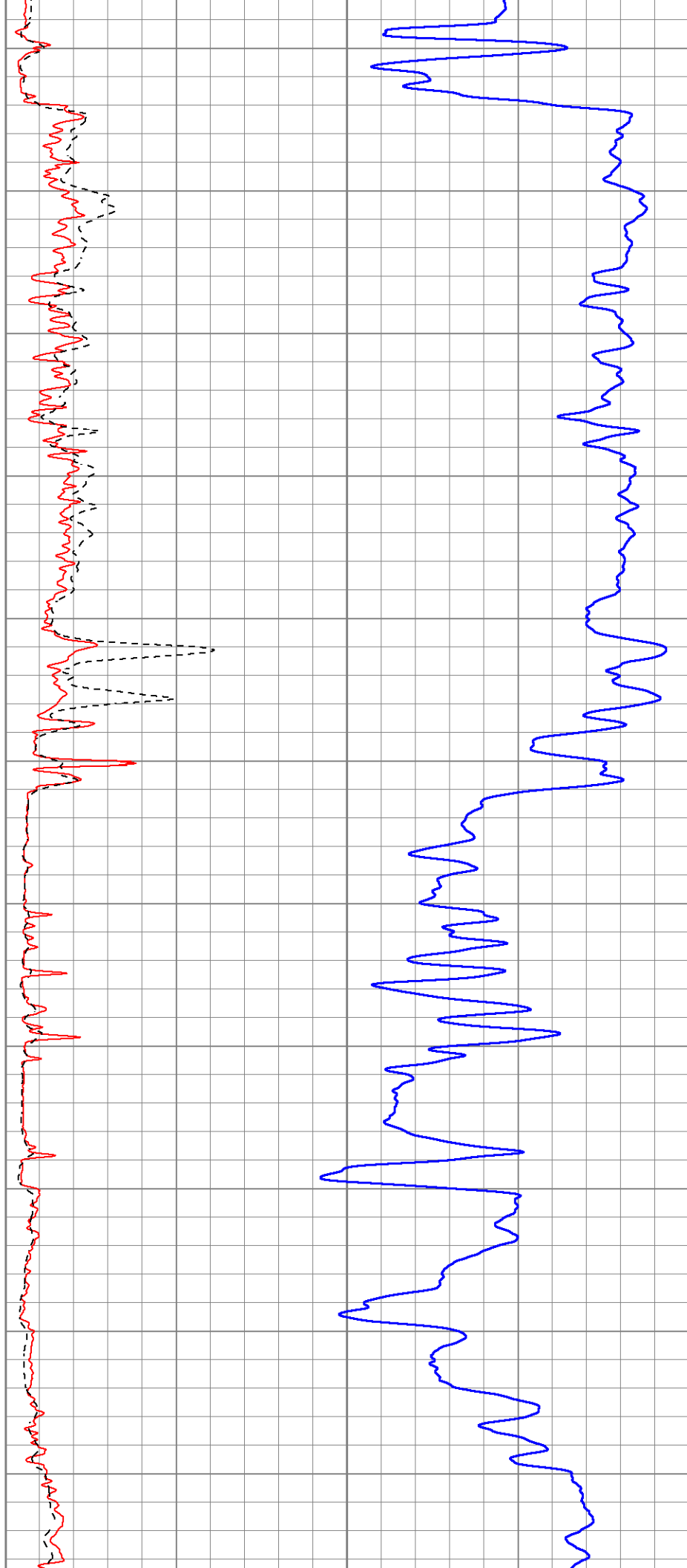
0	Gamma Ray (GAPI)	150	1000	CILD (mmho/m)	0
-100	SP (mV)	100	0	RLL3 (Ohm-m)	50
0	RWA (Ohm-m)	1	0	RILD (Ohm-m)	50
			50	RILD X10 (Ohm-m)	500
			50	RLL3 X10 (Ohm-m)	500

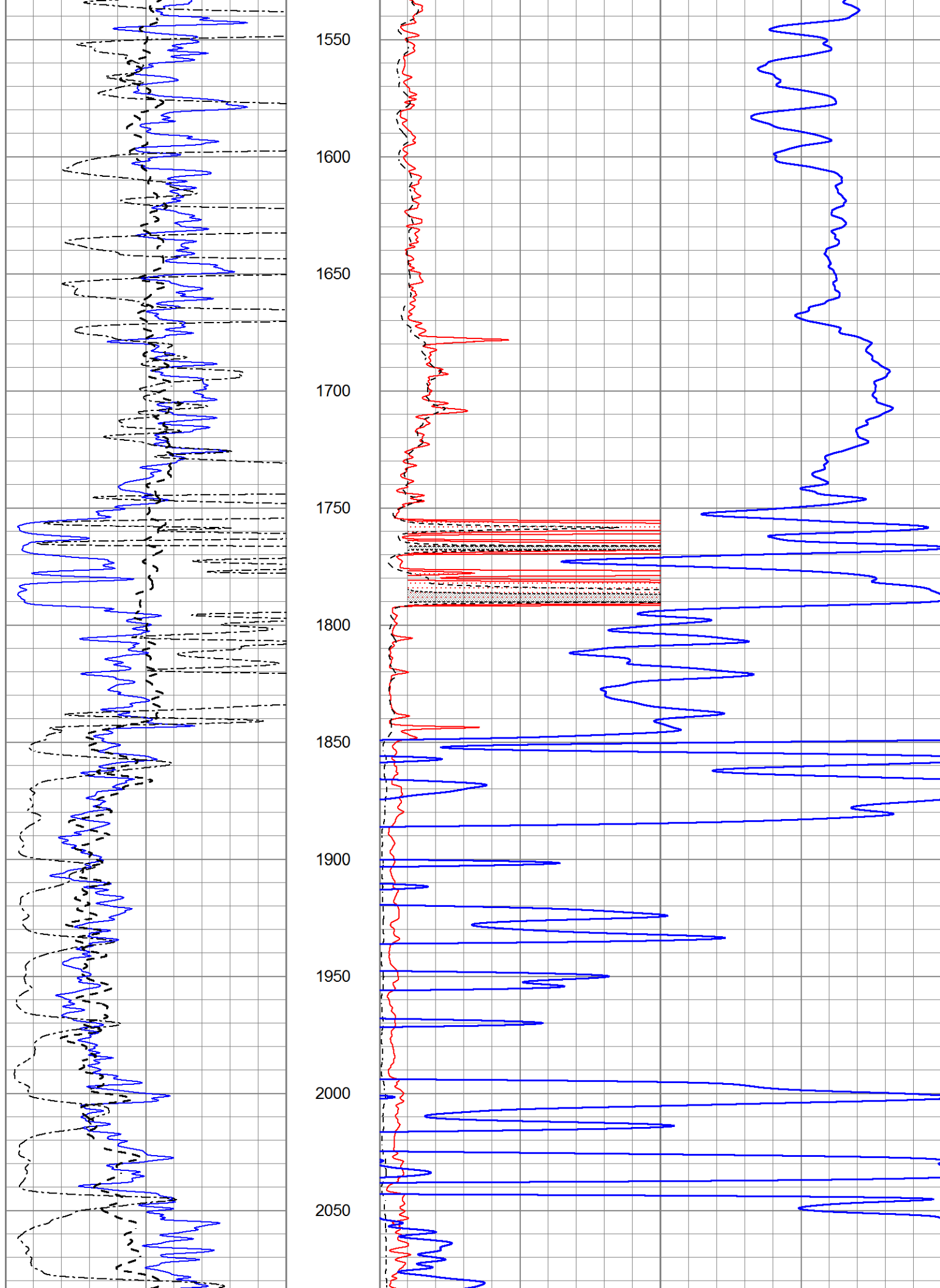


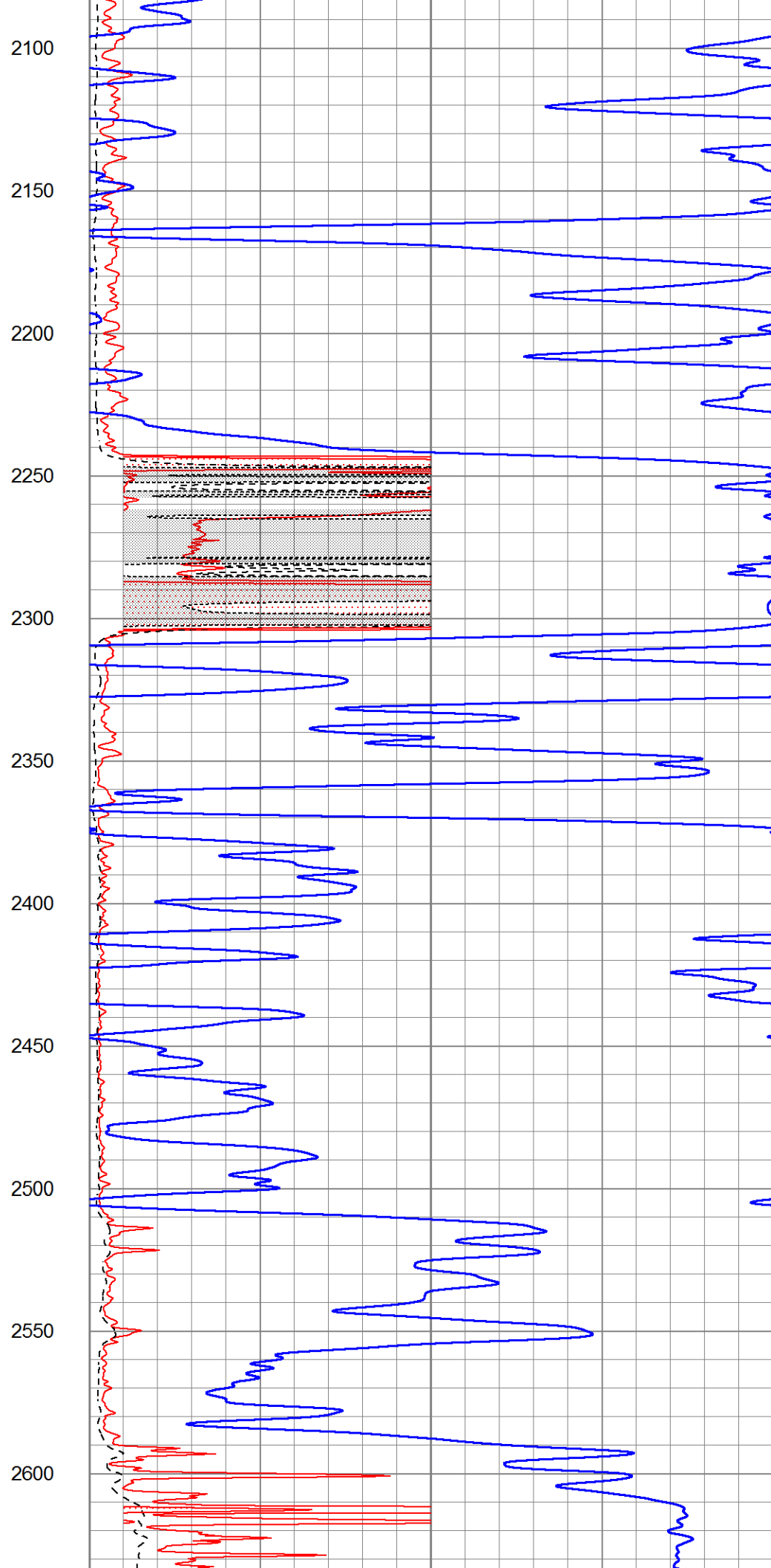
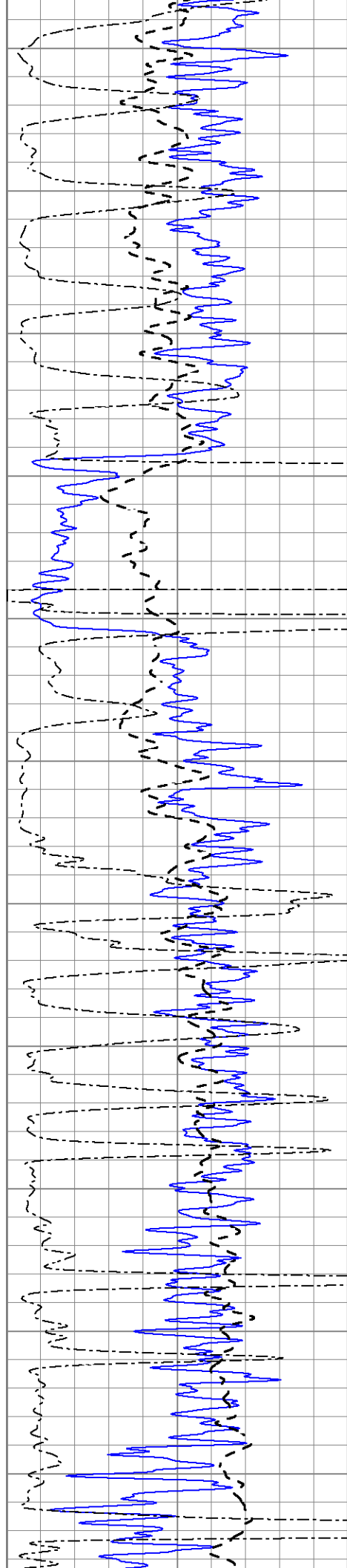


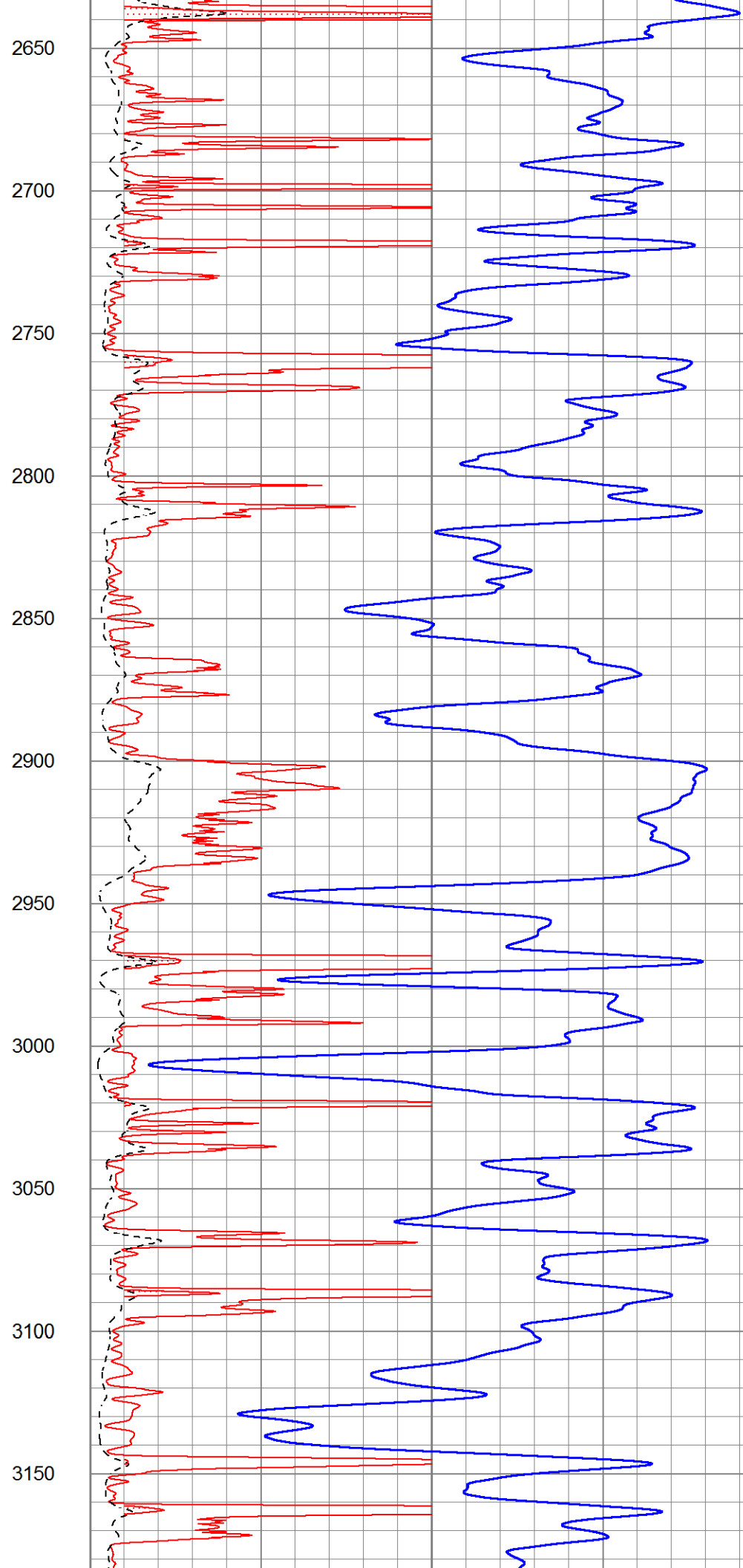
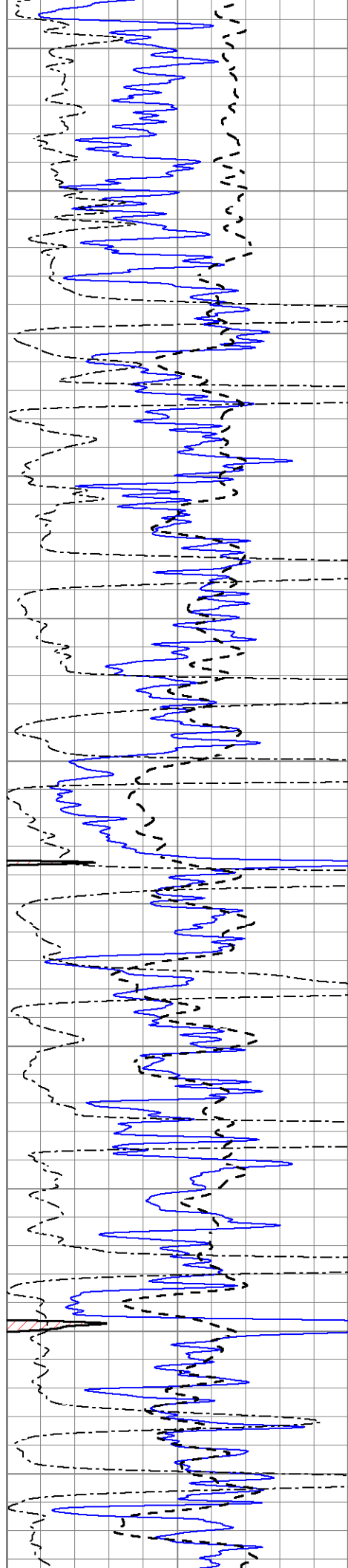


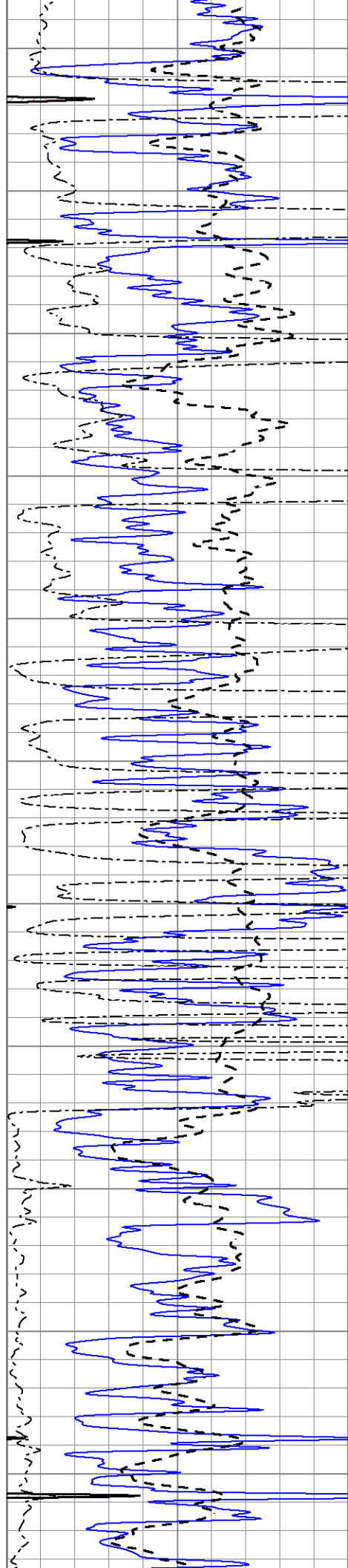
1000
1050
1100
1150
1200
1250
1300
1350
1400
1450
1500











3200

3250

3300

3350

3400

3450

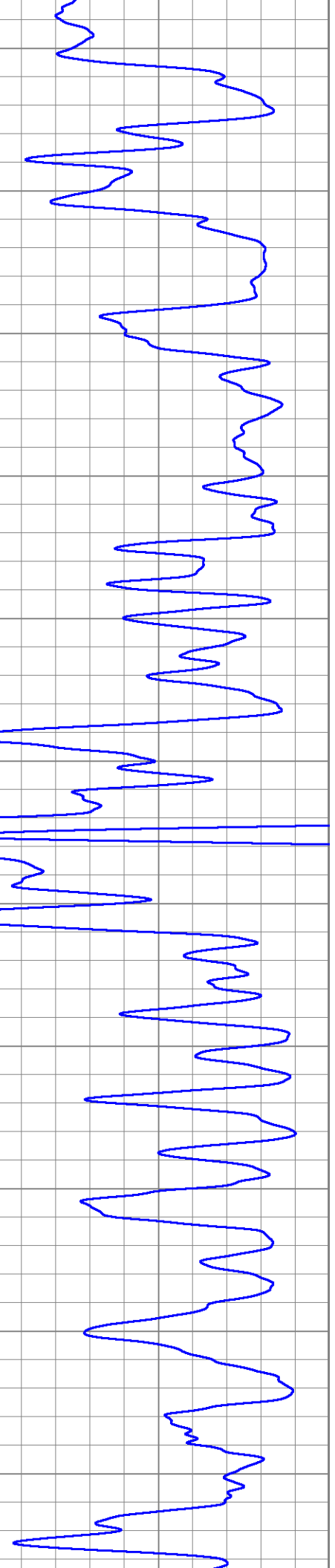
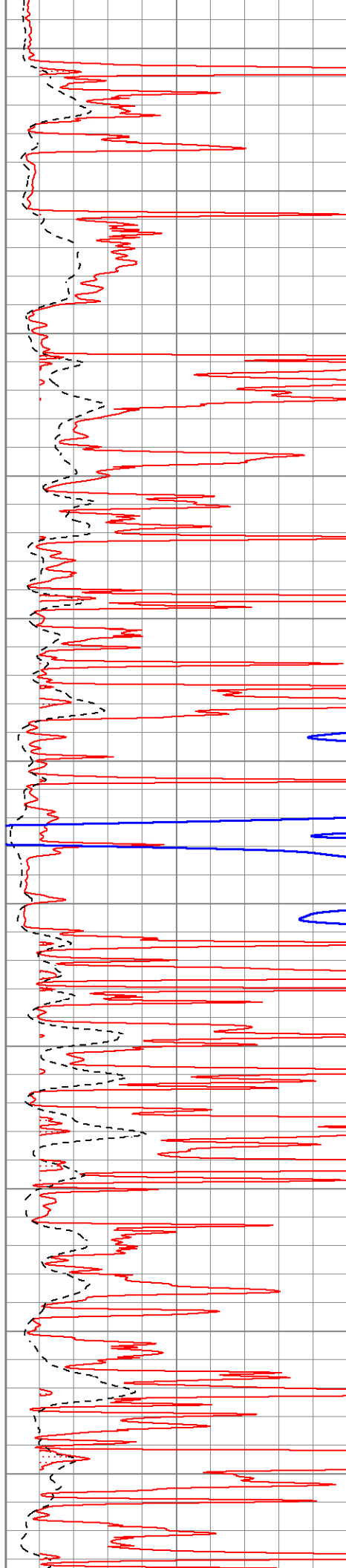
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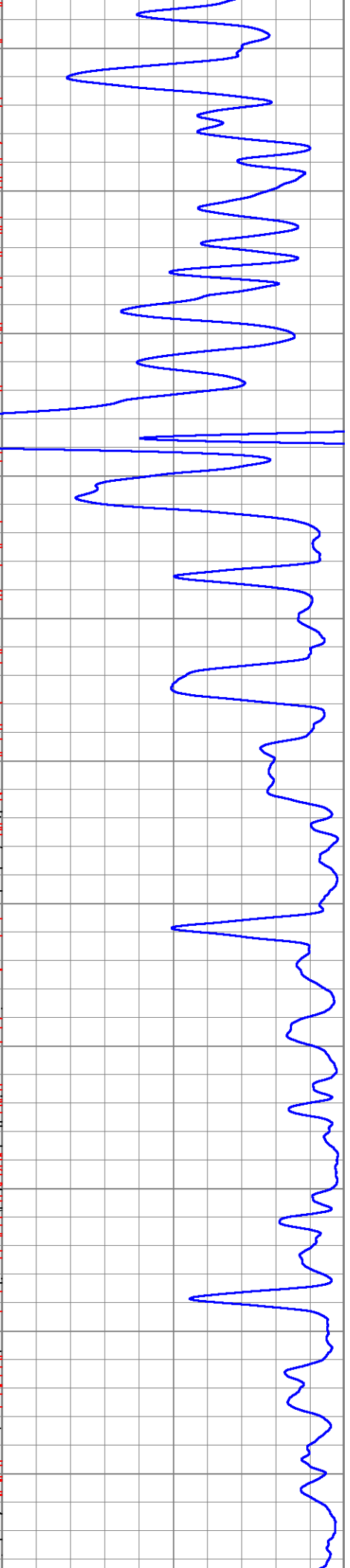
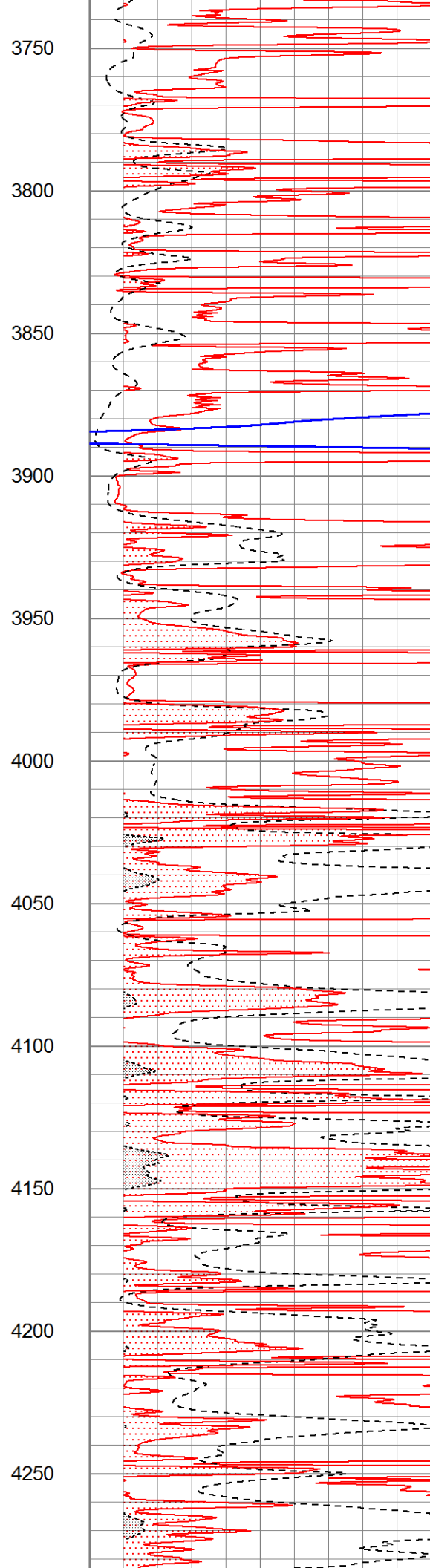
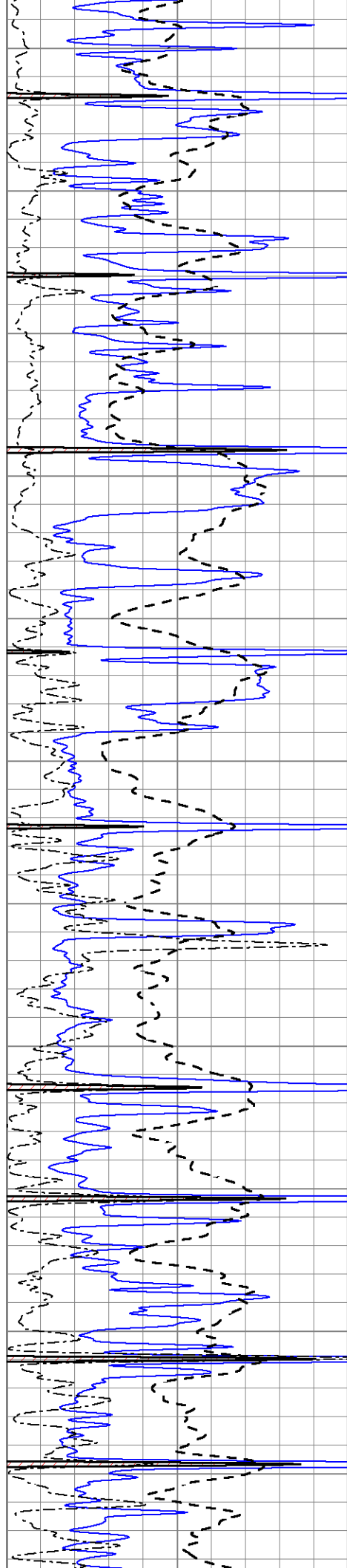
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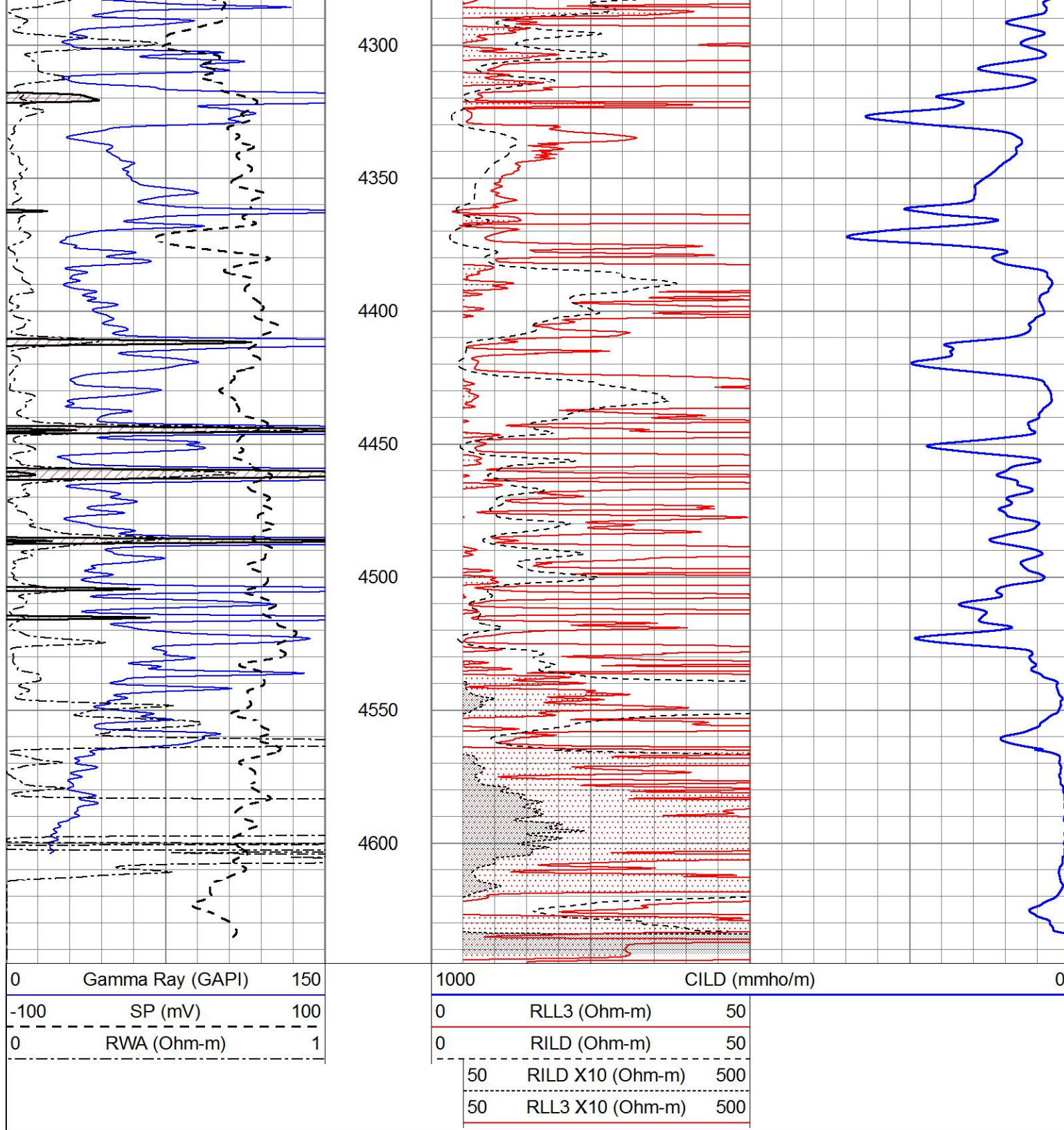
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3650

3700







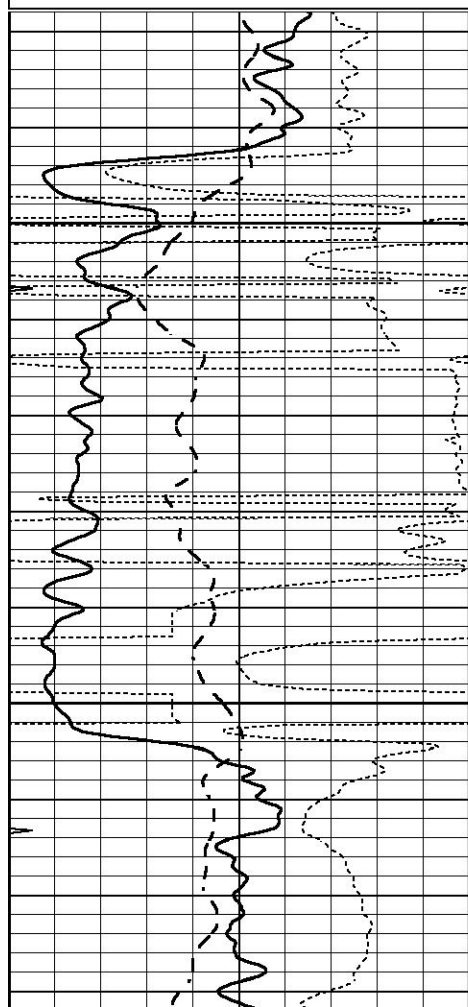
ANHYDRITE

Database File 6326pe.db
Dataset Pathname pass3.1A
Presentation Format _dil
Dataset Creation Sun Apr 10 07:00:40 2022
Charted by Depth in Feet scaled 1:240

0 150 GAMMA RAY (GAPI)

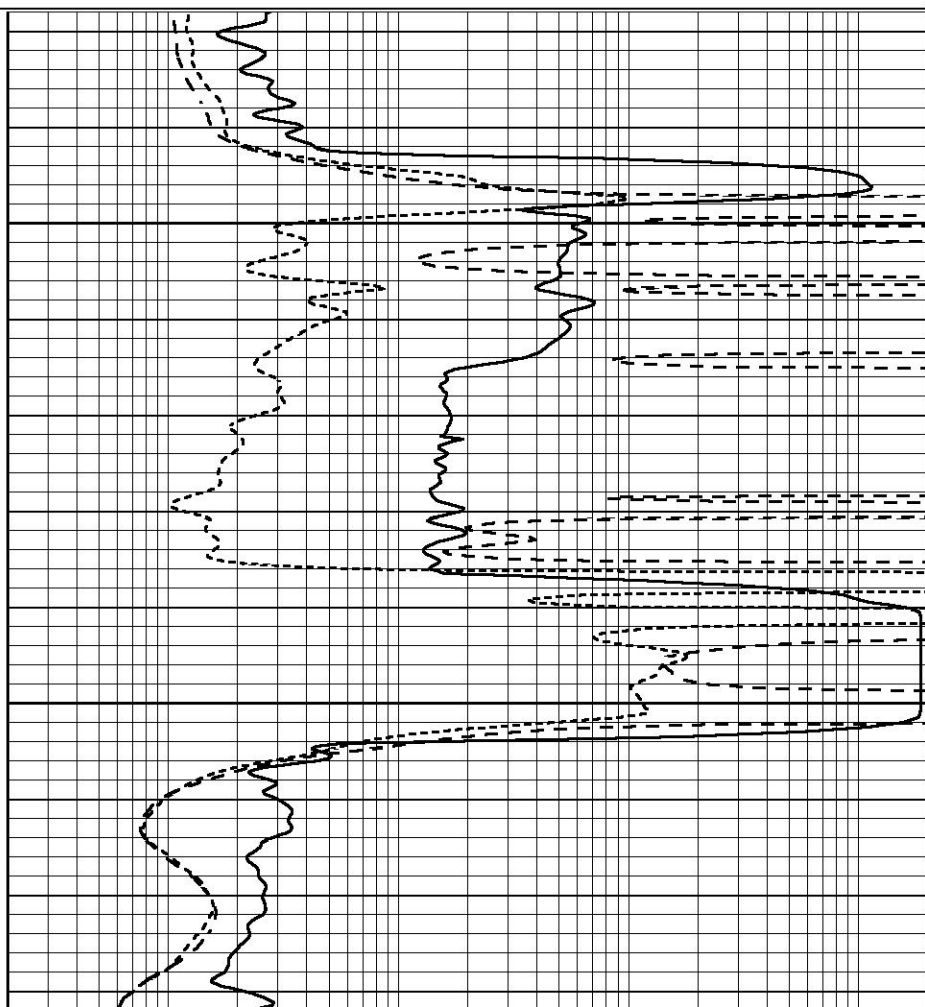
0.2 2000 SHALLOW GUARD (Ohm-m)

-100	SP (mV)	100
-250	Rxo/Rt	50
0	MINMK	20



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

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



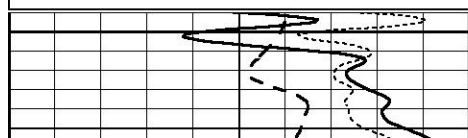
0.2	SHALLOW GUARD (Ohm-m)	2000
0.2	DEEP INDUCTION (Ohm-m)	2000
0.2	MEDIUM INDUCTION (Ohm-m)	2000



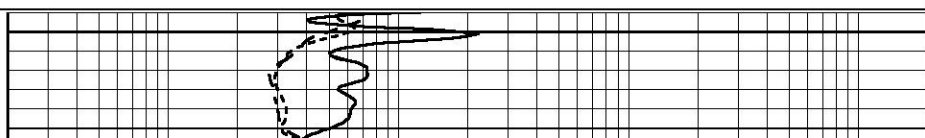
MAIN SECTION

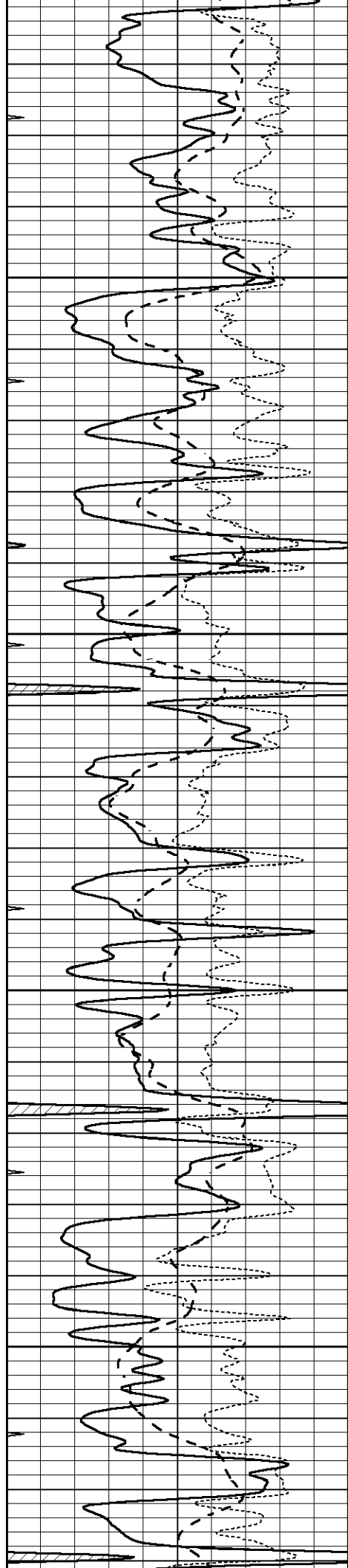
Database File 6326pe.db
Dataset Pathname pass3.1M
Presentation Format _dil
Dataset Creation Sun Apr 10 06:58:07 2022
Charted by Depth in Feet scaled 1:240

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



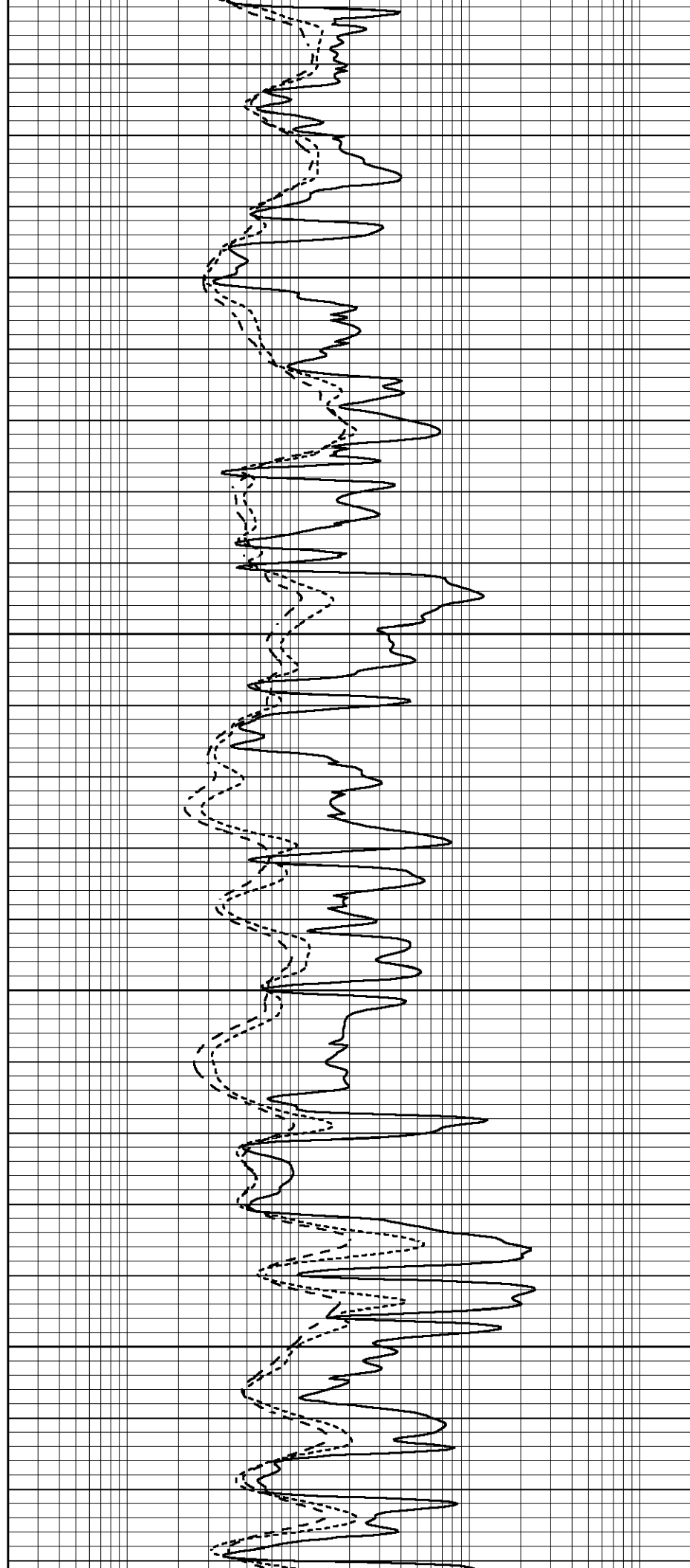


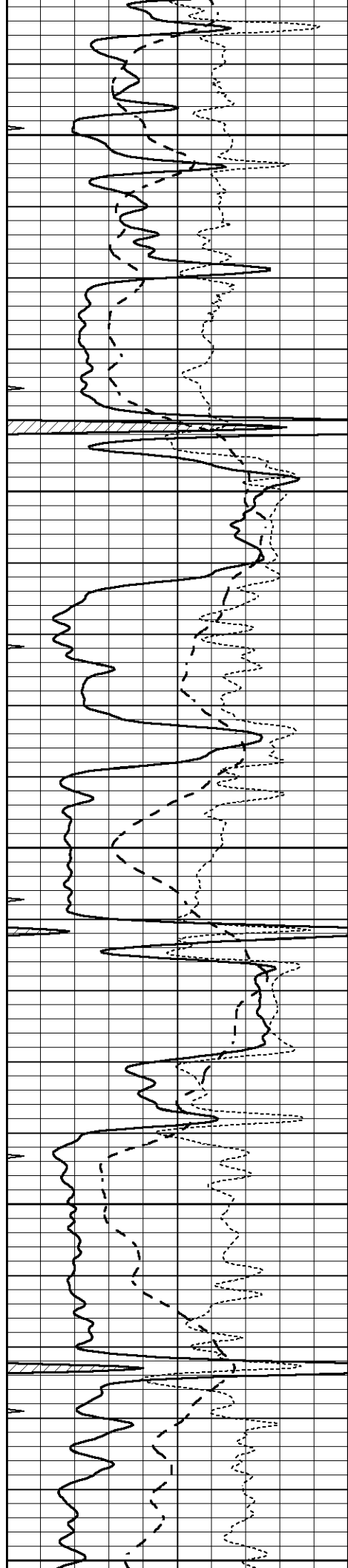
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3750

3800





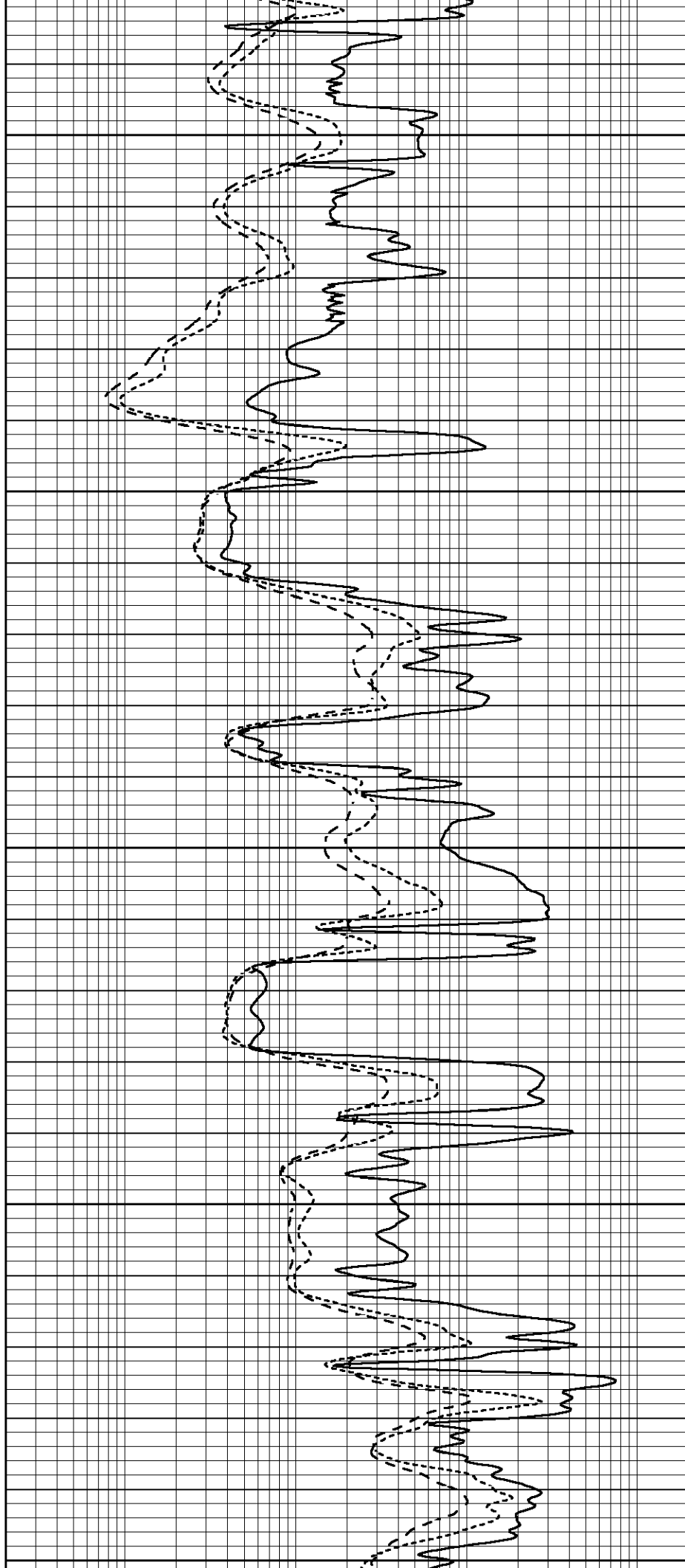
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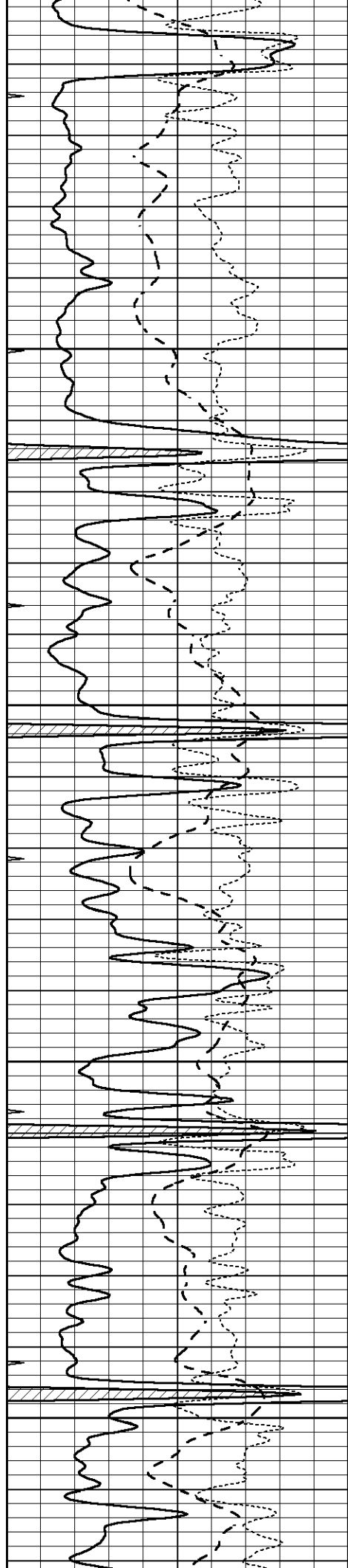
3900

3950

4000

4050



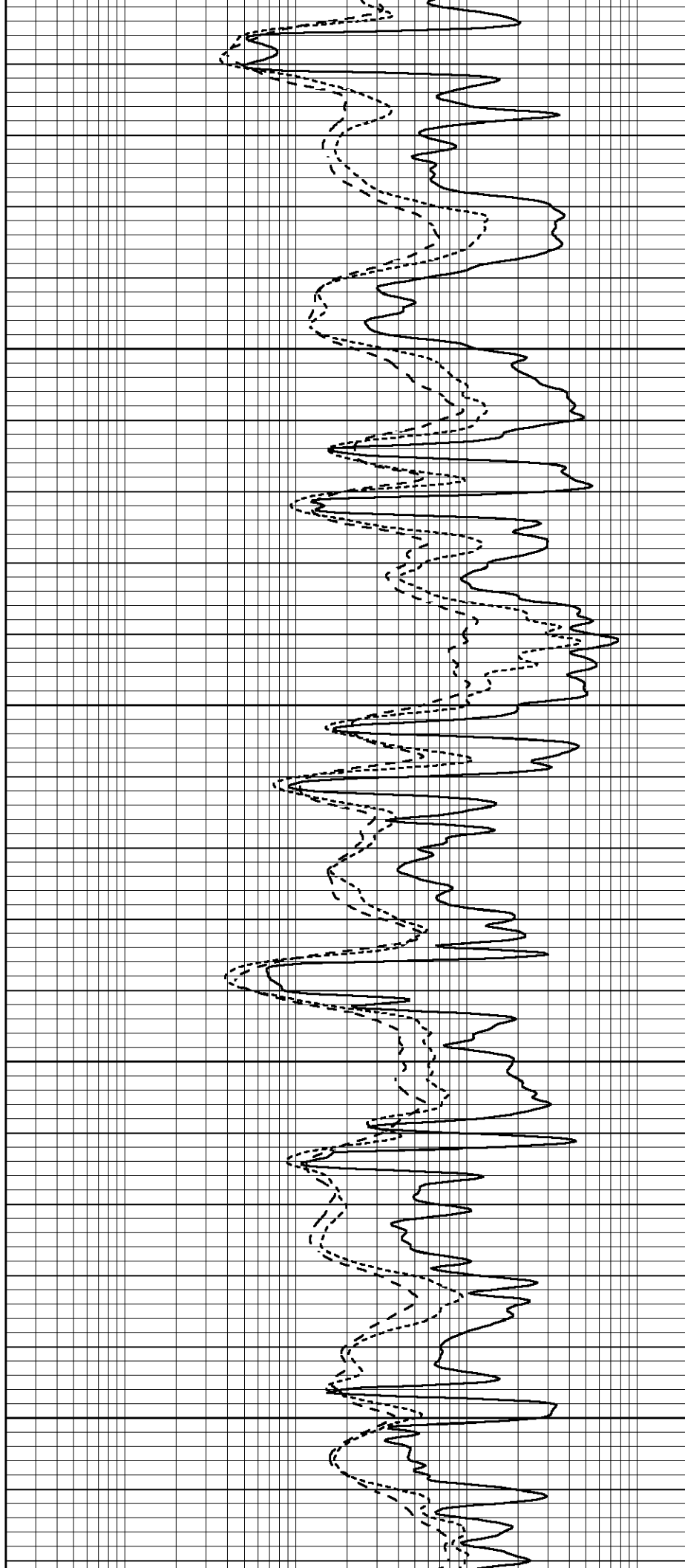


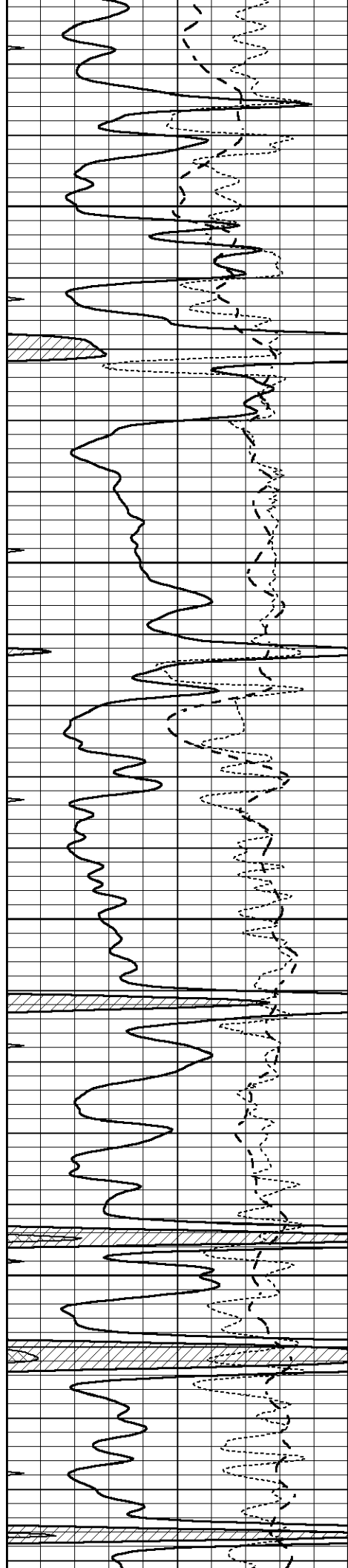
4100

4150

4200

4250



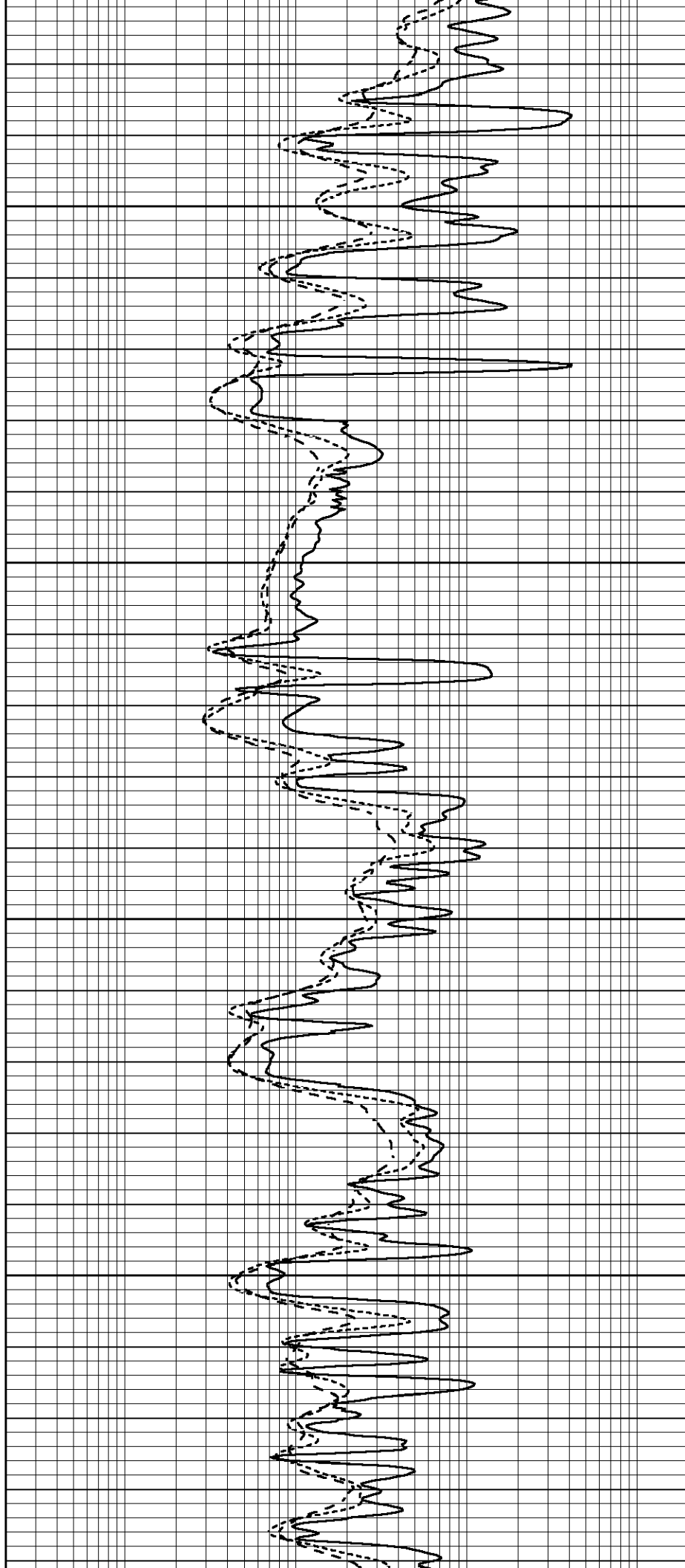


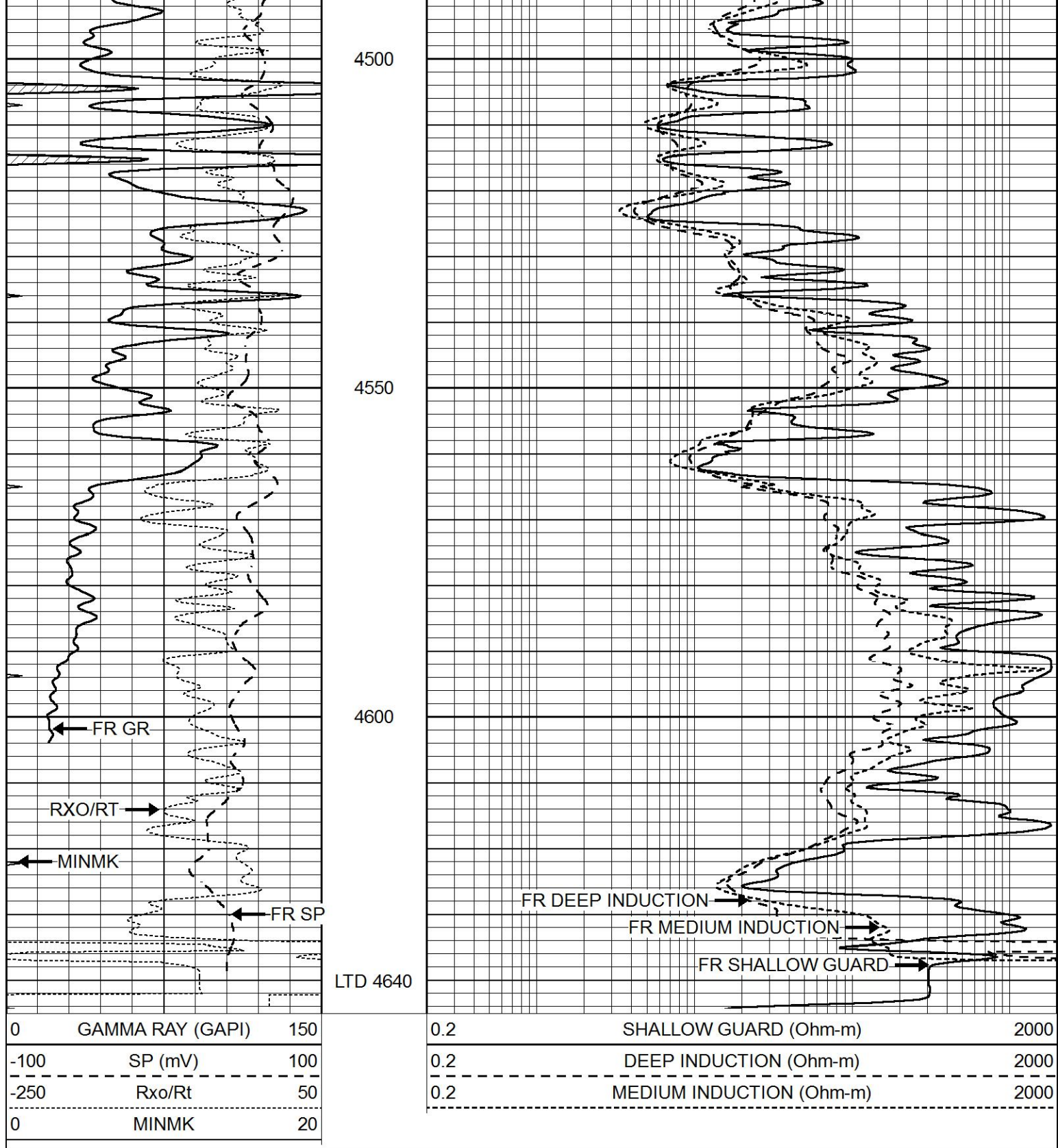
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4400

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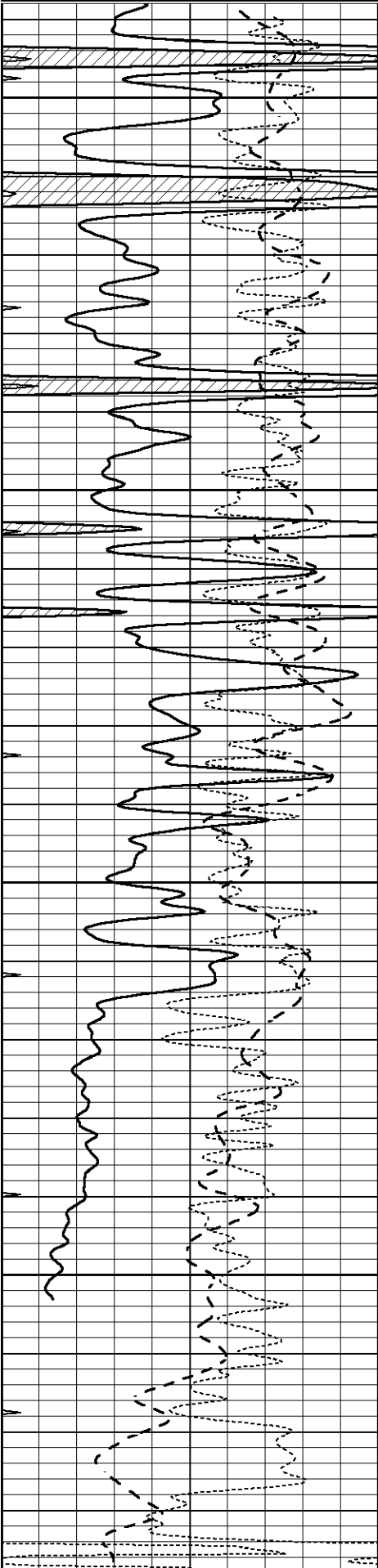




REPEAT SECTION

Database File 6326pe.db
Dataset Pathname pass2.3
Presentation Format _dil
Dataset Creation Sun Apr 10 05:49:42 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



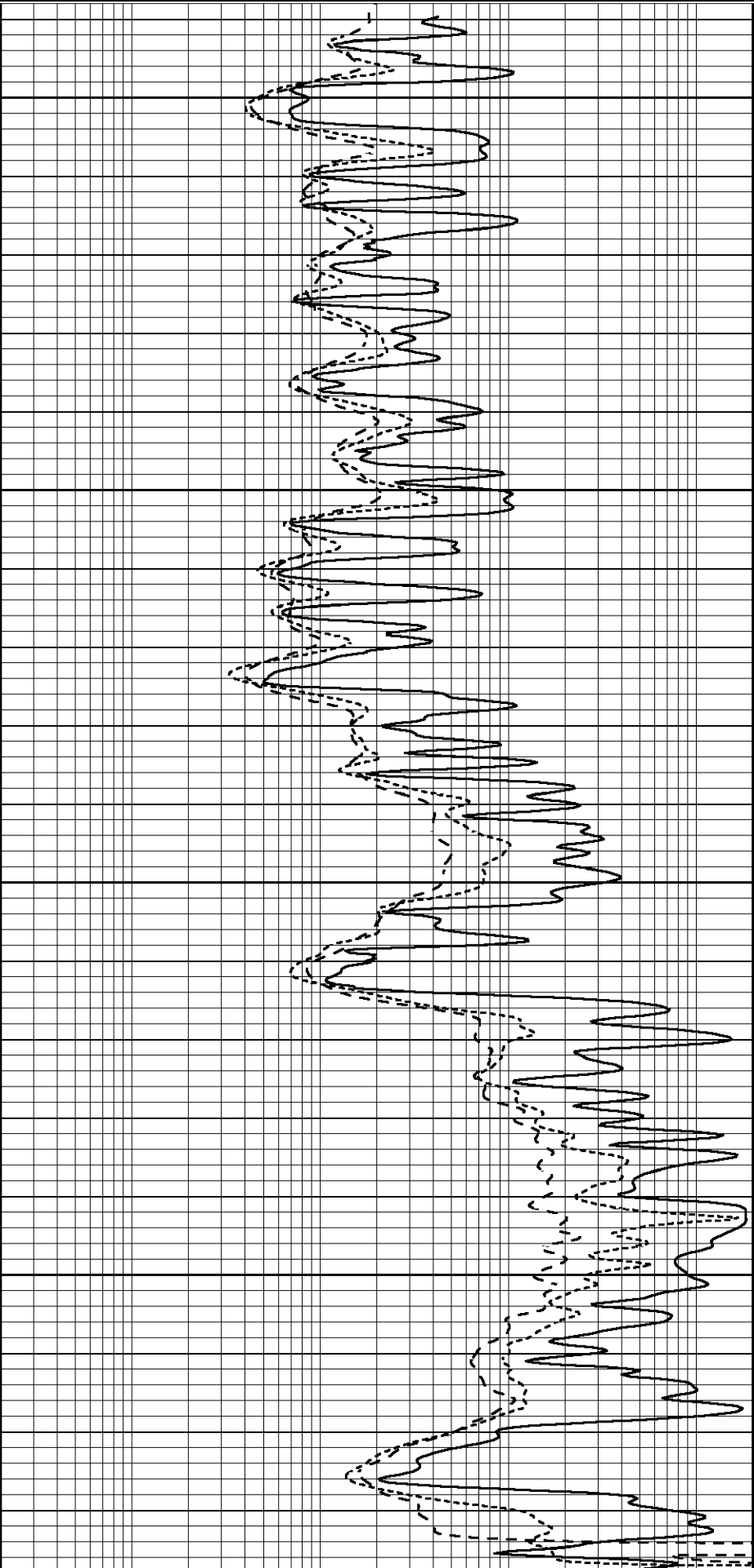
4450

4500

4550

4600

0.2	SHALLOW GUARD (Ohm-m)	2000
0.2	DEEP INDUCTION (Ohm-m)	2000
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	6326pe.db
Dataset Pathname	pass3.1M
Dataset Creation	Sun Apr 10 06:58:07 2022

Dual Induction Calibration Report	
Serial-Model:	PROBE9-DILG
Surface Cal Performed:	Sun Apr 10 05:33:57 2022
Downhole Cal Performed:	Wed Mar 11 11:31:19 2020
After Survey Verification Performed:	Wed Mar 11 11:31:22 2020

Surface Calibration		Readings		References			Results	
Loop:	Air	Loop		Air	Loop		m	b
Deep	-0.014	0.629	V	0.000	400.000	mmho/m	720.000	-12.000
Medium	0.039	0.728	V	0.000	464.000	mmho/m	720.000	-12.000
Internal:	Zero	Cal		Zero	Cal		m	b
Deep	0.011	0.610	V	0.000	400.000	mmho/m	667.135	-7.256
Medium	0.005	0.712	V	0.000	464.000	mmho/m	655.677	-3.102

Downhole Calibration		Readings		References			Results	
	Zero	Cal		Zero	Cal		m'	b'
Deep	0.000	0.000	mmho/m	14.508	388.384	mmho/m	1.000	0.000
Medium	0.000	0.000	mmho/m	166.367	504.400	mmho/m	1.000	0.000
LL3		7.500	V		1400.000	Ohm-m		
		0.000	V		20.000	Ohm-m		
		-7.200	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		

Litho Density Calibration Report	
Serial: 002	Model: PRB

Master Calibration		Performed Mon May 11 12:00:22 2020			
	Background	Magnesium	Aluminum	Aluminum+Fe	
Window 1	787.5	10229.8	2775.7	2400.0	cps
Window 2	729.6	8732.5	2418.3	2137.0	cps
Window 3	603.0	4606.3	1428.3	1320.0	cps
Window 4	173.7	178.2	174.1	173.1	cps

Window 4	173.7	178.2	174.1	173.1	cps
Long Space	0.0	8002.9	1688.7	1407.4	cps
Short Space	1.1	1870.8	1208.3	1030.3	cps
Rho		1.7100	2.5900	0.0000	g/cc
Pe		2.0000	2.7500	5.7900	
Rib Angle	: 44.3	Rib Slope	: 0.976	Density/Spine Ratio	: 0.545
Spine Angle	: 74.3	Spine Slope	: 3.559	Spine Intercept	: -17.8

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:	Tue Mar 22 20:25:25 2022	
Calibrator Value:	1.0	GAPI
Background Reading:	0.0	cps

Calibrator Reading: 1.0 cps

Sensitivity: 0.3000 GAPI/cps