



DUAL INDUCTION LOG

Company CHARTER ENERGY, INC.

Well HIPP #1

Field TRAPP

County BARTON State KANSAS

Location: API #: 15-009-26312-0000

1272' FNL & 1256' FWL

SEC 27 TWP 16S RGE 13W

Permanent Datum GROUND LEVEL Elevation 1959
Log Measured From KELLY BUSHING 10' A.G.L.
Drilling Measured From KELLY BUSHING

Other Services
CDL/CNL
MEL
Elevation
K.B. 1969
D.F. 1967
G.L. 1959

Date 8/20/21

Run Number ONE

Depth Driller 3432

Depth Logger 3434

Bottom Logged Interval 3432

Top Log Interval 00

Casing Driller 8 5/8" @ 449

Casing Logger 449

Bit Size 7 7/8

Type Fluid in Hole CHEMICAL MUD CHLORIDES 5100 PPM

Density / Viscosity 9.0/60

pH / Fluid Loss 11.0/5.4

Source of Sample FLOWLINE

Rm @ Meas. Temp .65 @ 80F

Rmf @ Meas. Temp .48 @ 80F

Rmc @ Meas. Temp .78 @ 80F

Source of Rmf / Rmc MEASUREMENT

Rm @ BHT .46 @ 111F

Time Circulation Stopped 2 HOURS

Time Logger on Bottom 111F

Maximum Recorded Temperature 111F

Equipment Number 3802

Location HAYS, KANSAS

Recorded By JASON CAPPELLUCCI

Witnessed By BOB O'DELL

<<< Fold Here >>>

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

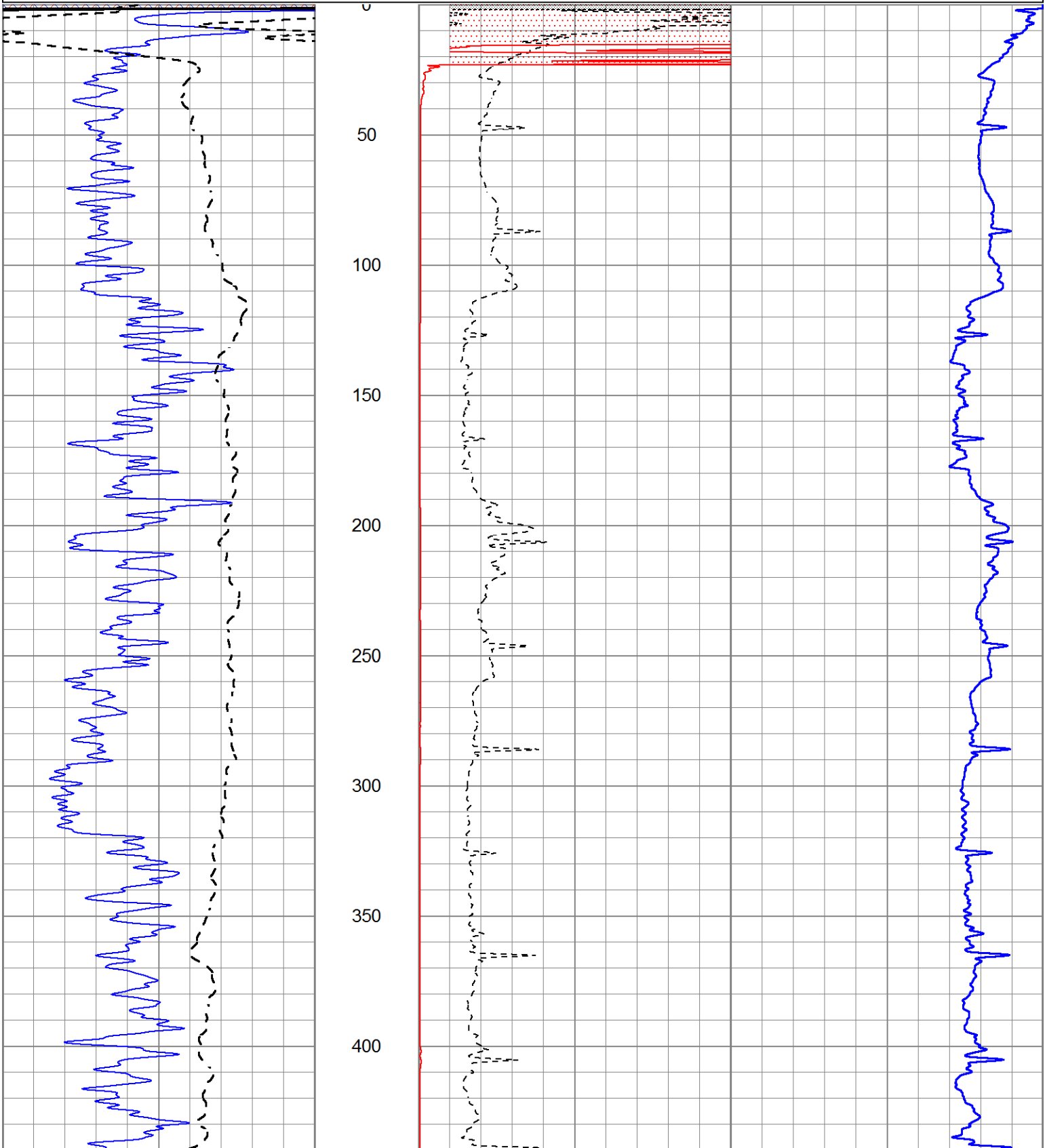
THANK YOU FOR USING ELI WIRELINE SERVICES, HAYS, KS. (785) 628-6395
DIRECTIONS
SUSANK, KS. - 1 1/8 EAST - SOUTH INTO

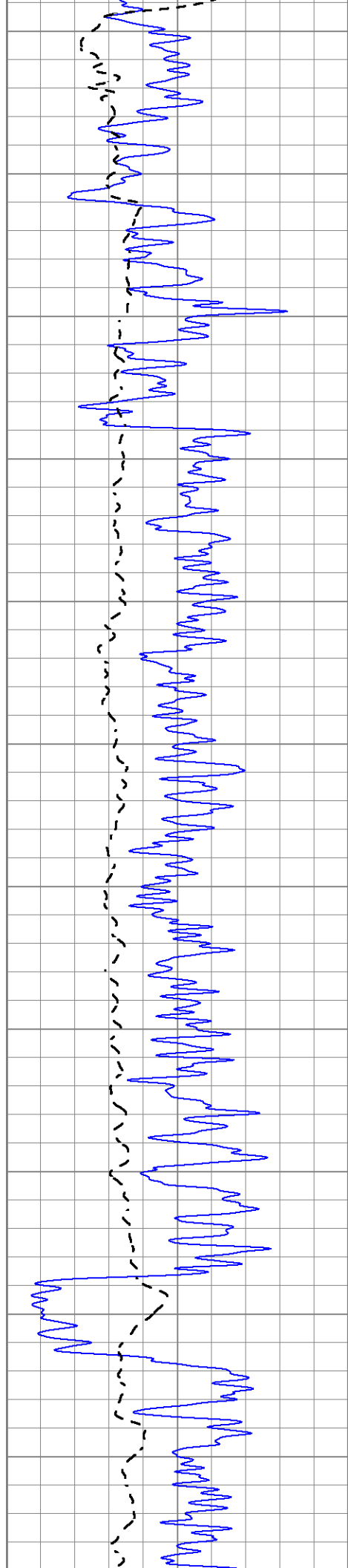
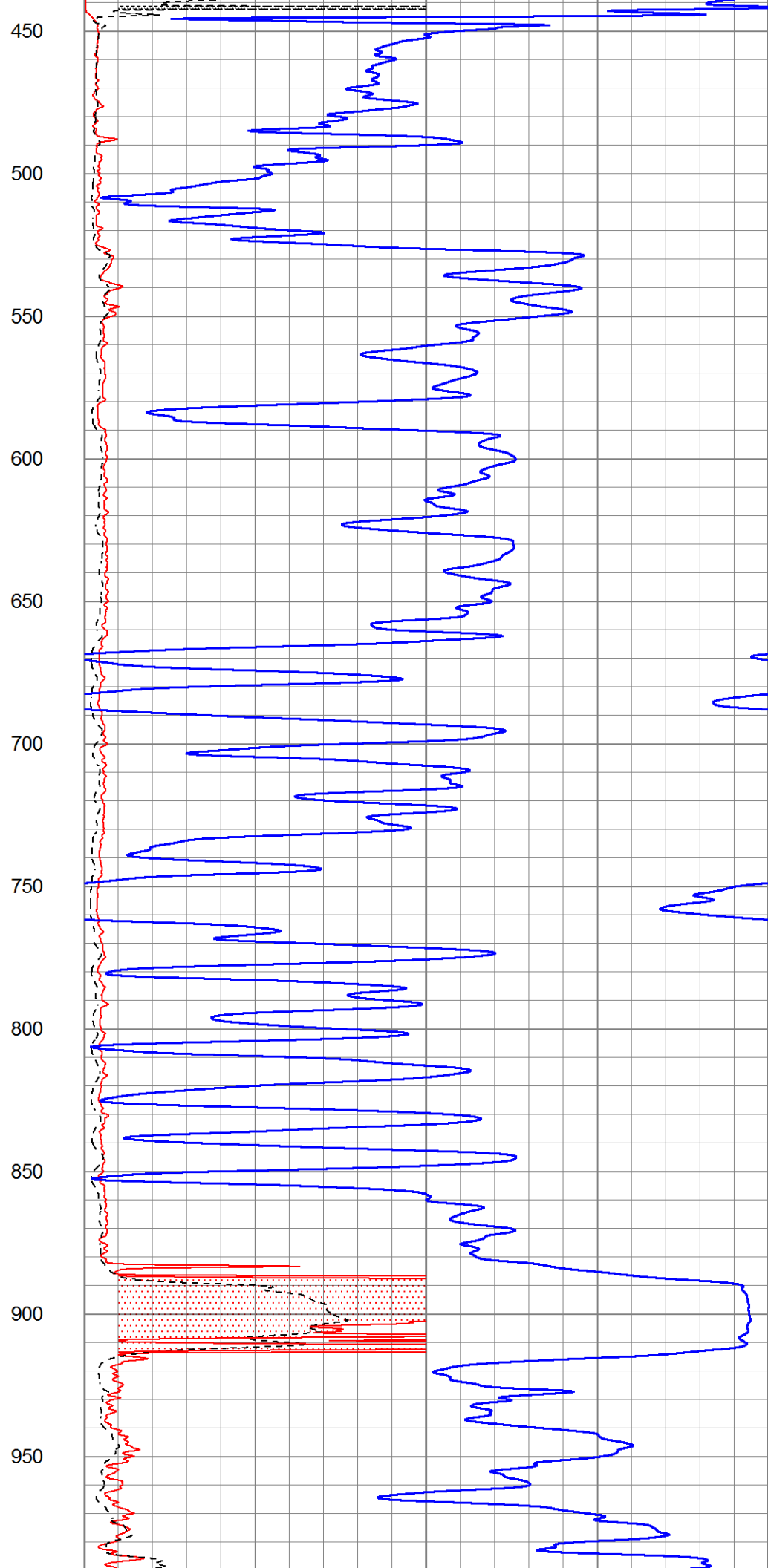


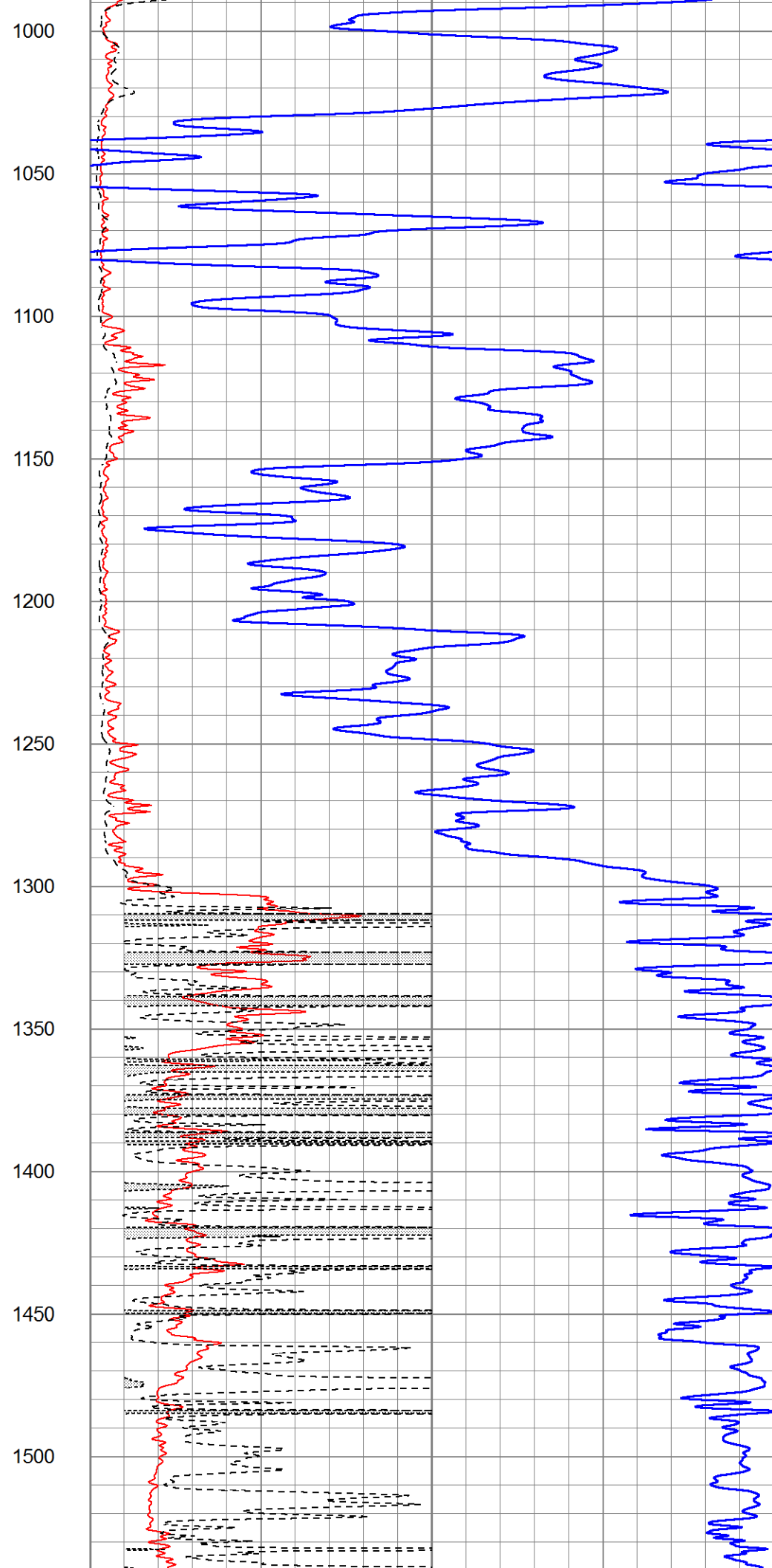
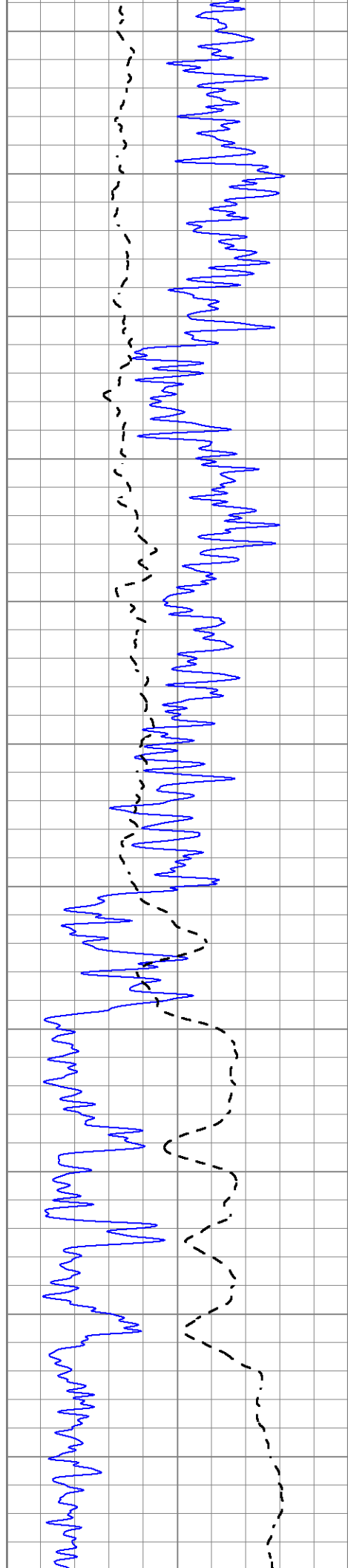
MAIN SECTION

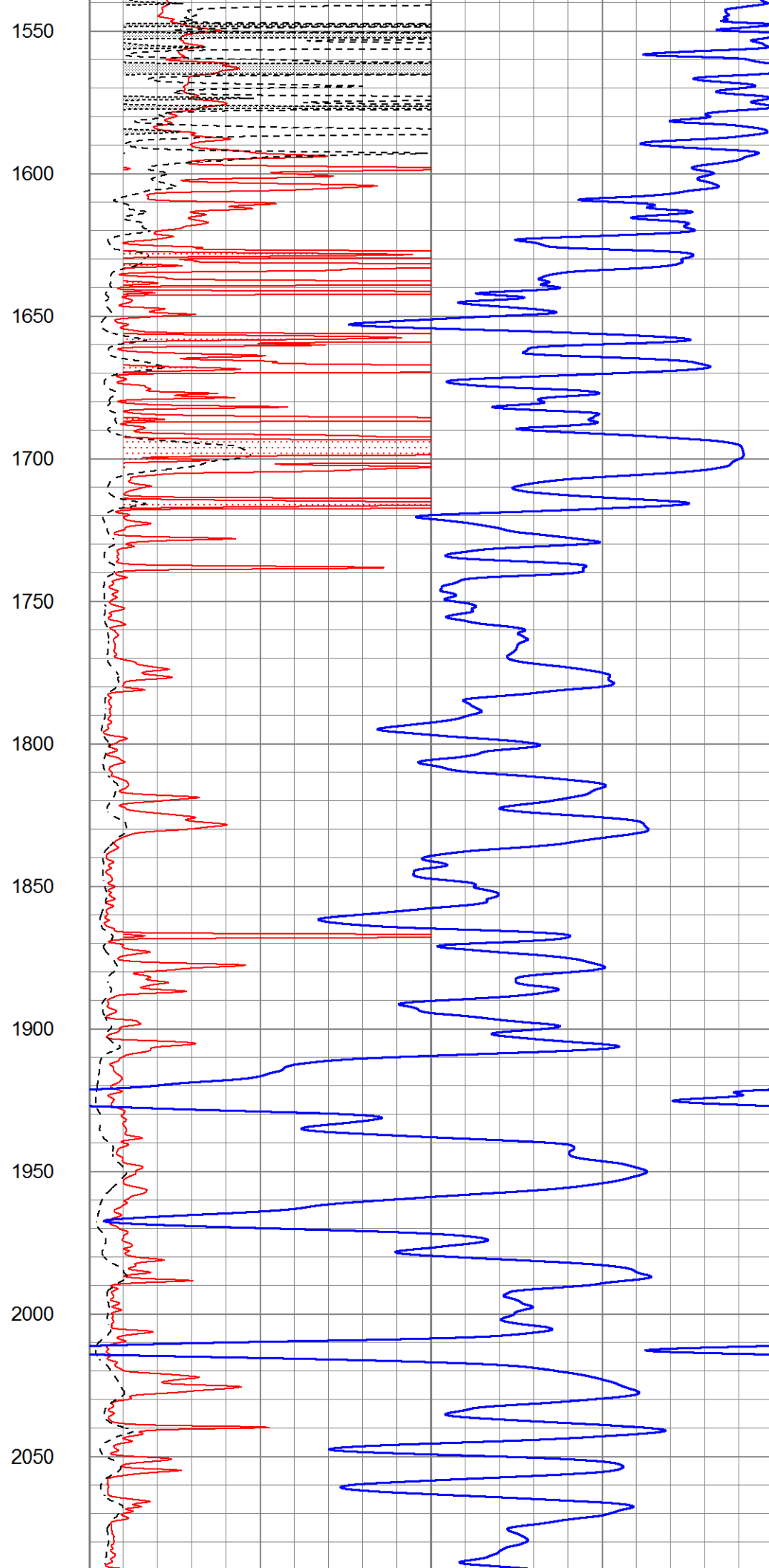
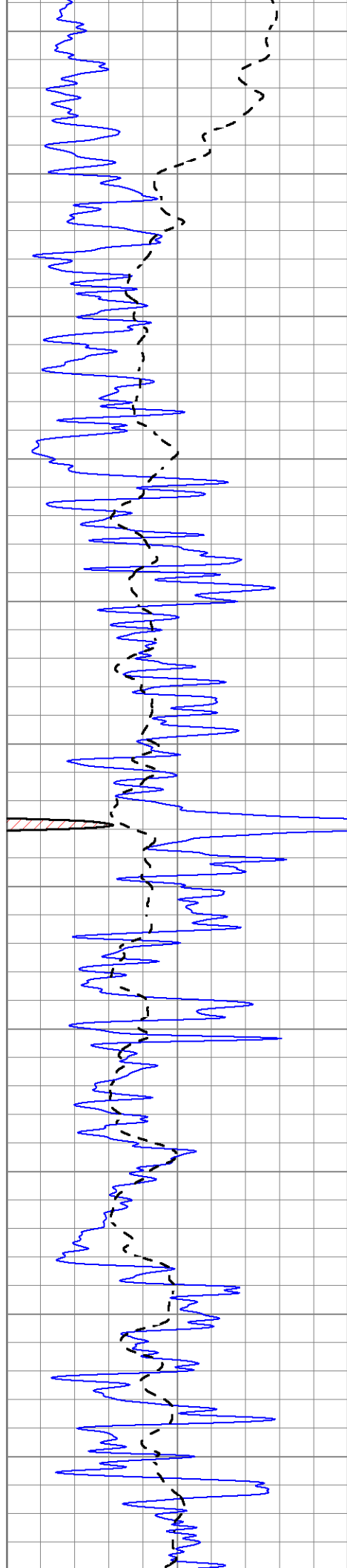
Database File	5643ddn.db
Dataset Pathname	pass3.3
Presentation Format	_dil2
Dataset Creation	Fri Aug 20 07:55:34 2021
Charted by	Depth in Feet scaled 1:600

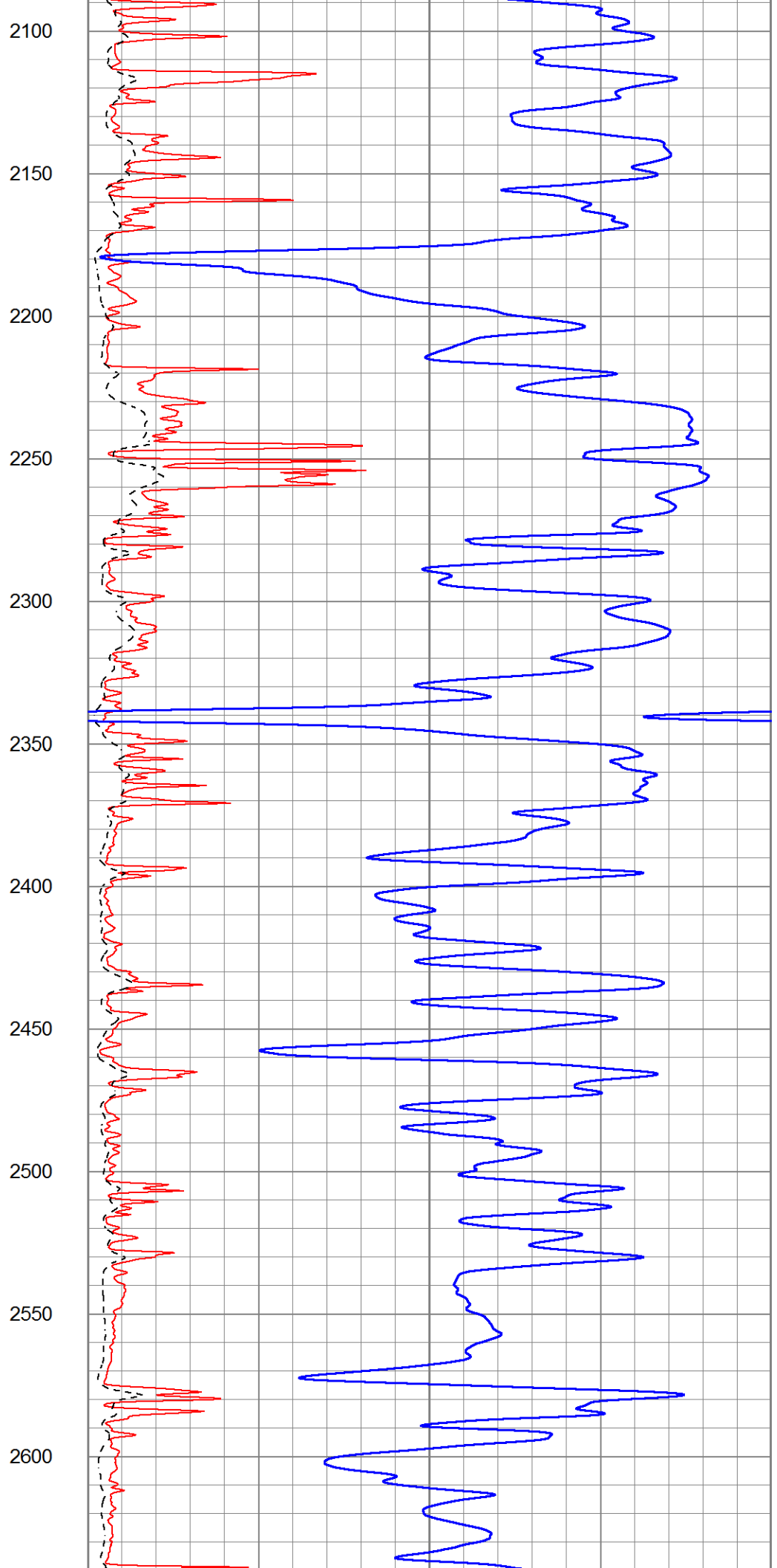
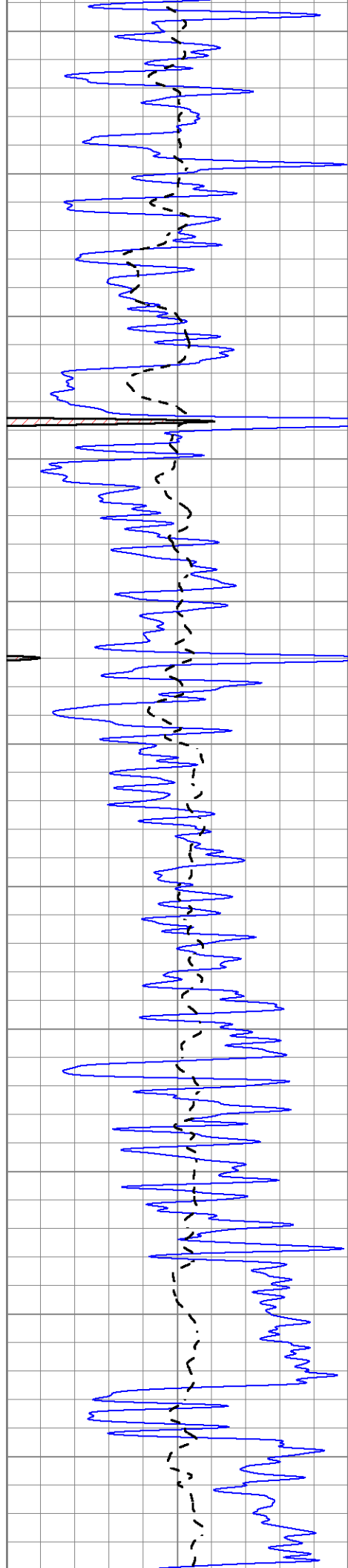
0	Gamma Ray (GAPI)	150	1000	CILD (mmho/m)	0
-100	SP (mV)	100	0	RLL3 (Ohm-m)	50
-----			0	Deep Induction (Ohm-m)	50
			50	RILD X10 (Ohm-m)	500
			50	RLL3 X10 (Ohm-m)	500

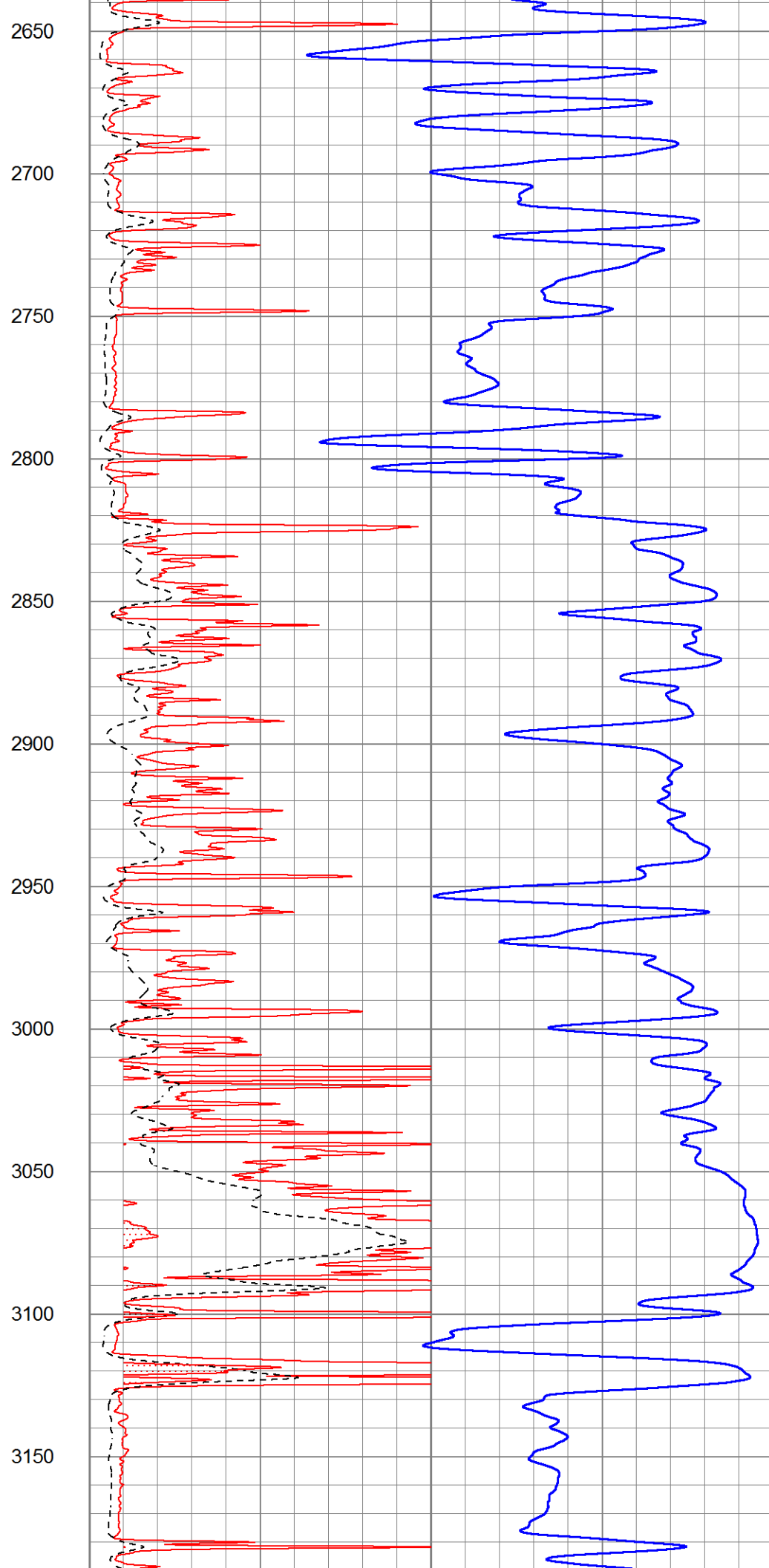
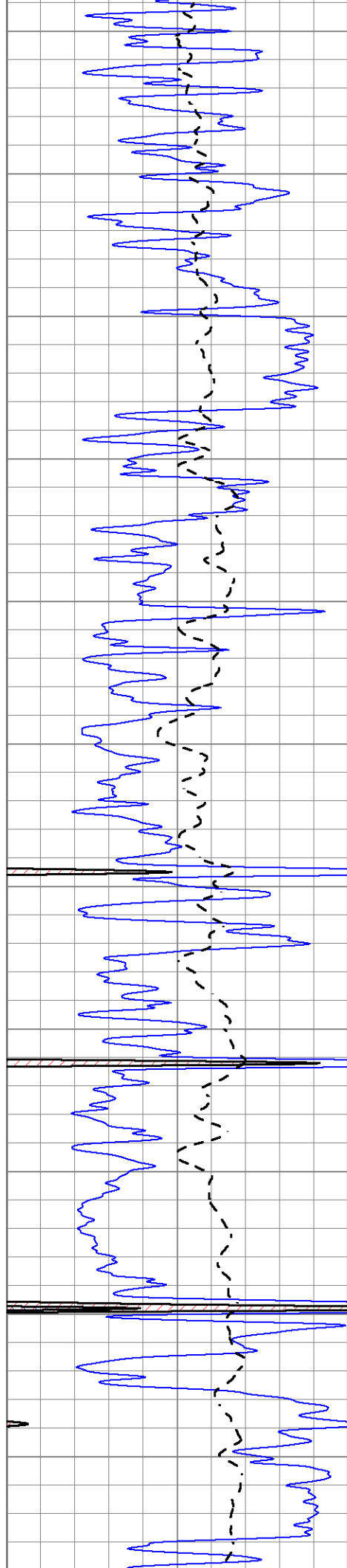


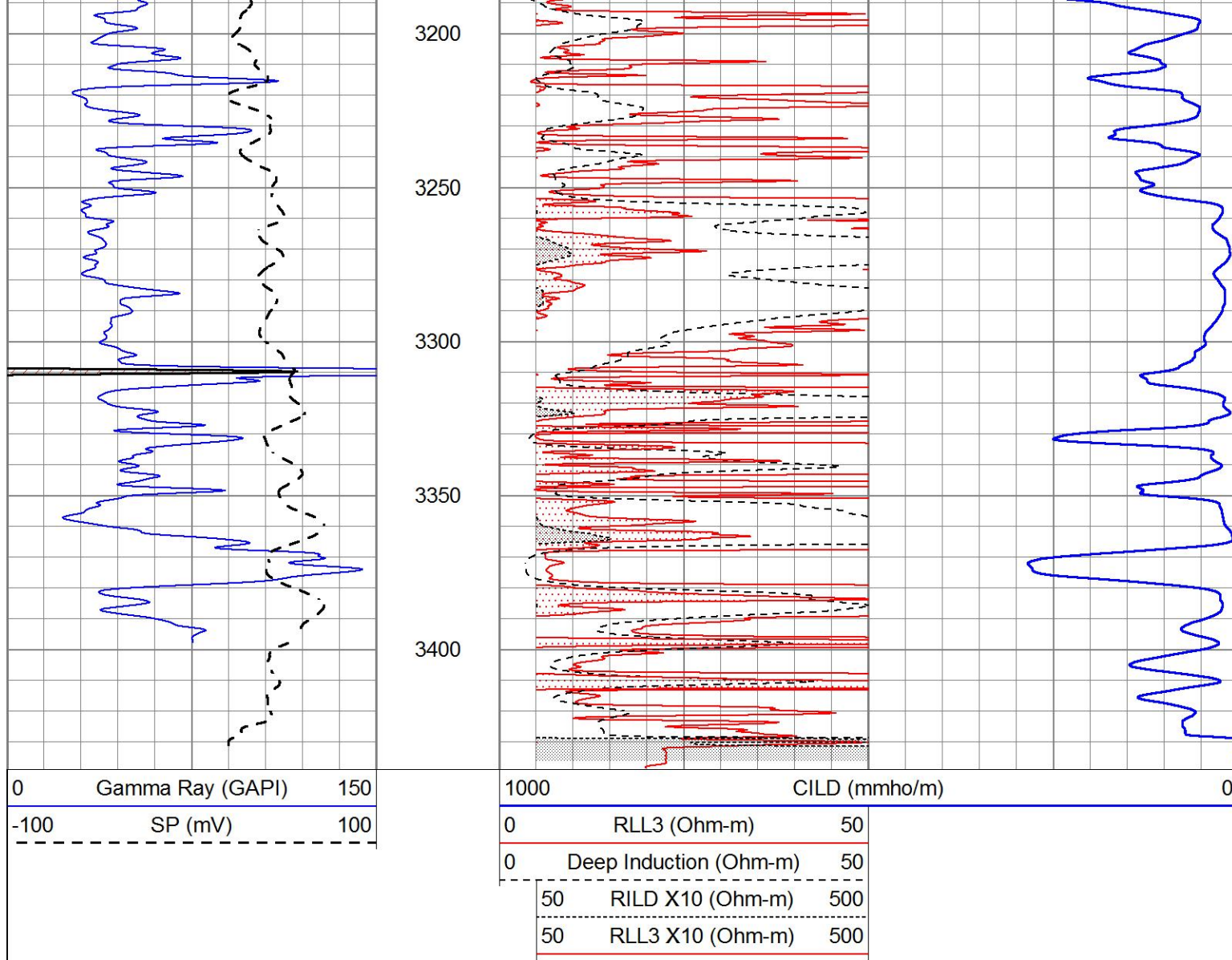








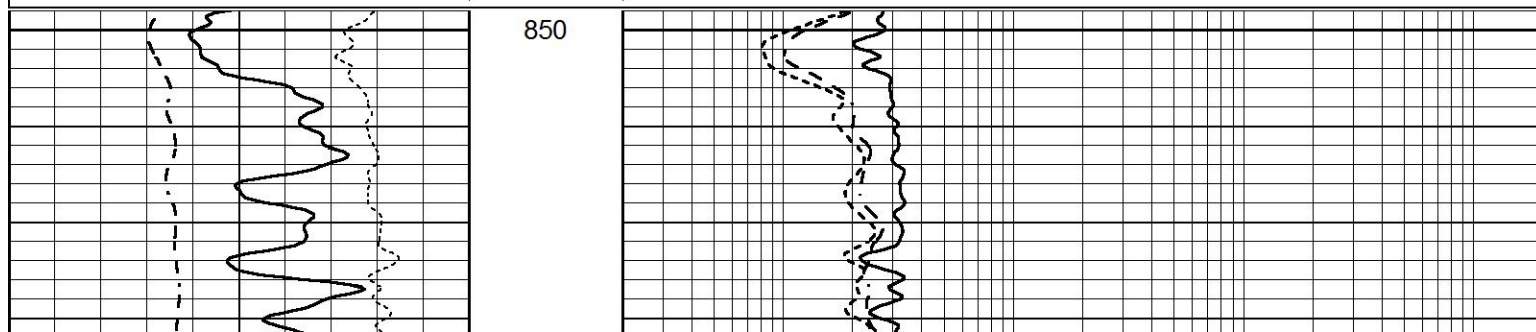


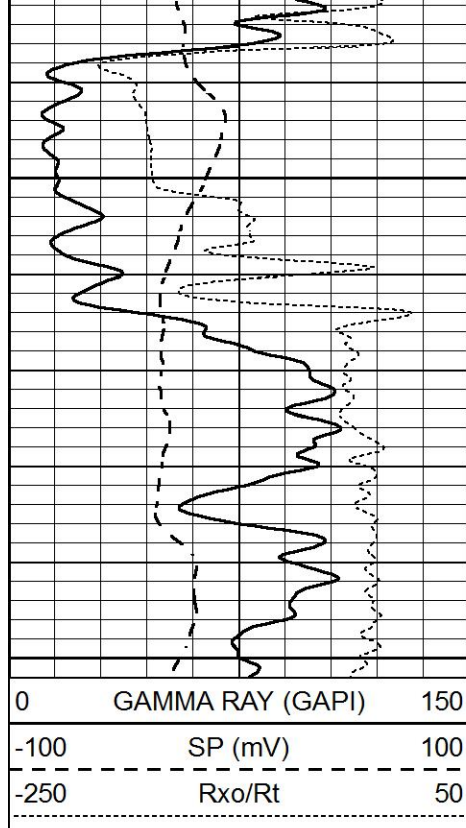


ANHYDRITE

Database File 5643ddn.db
Dataset Pathname pass3.2
Presentation Format _dil
Dataset Creation Fri Aug 20 07:20:29 2021
Charted by Depth in Feet scaled 1:240

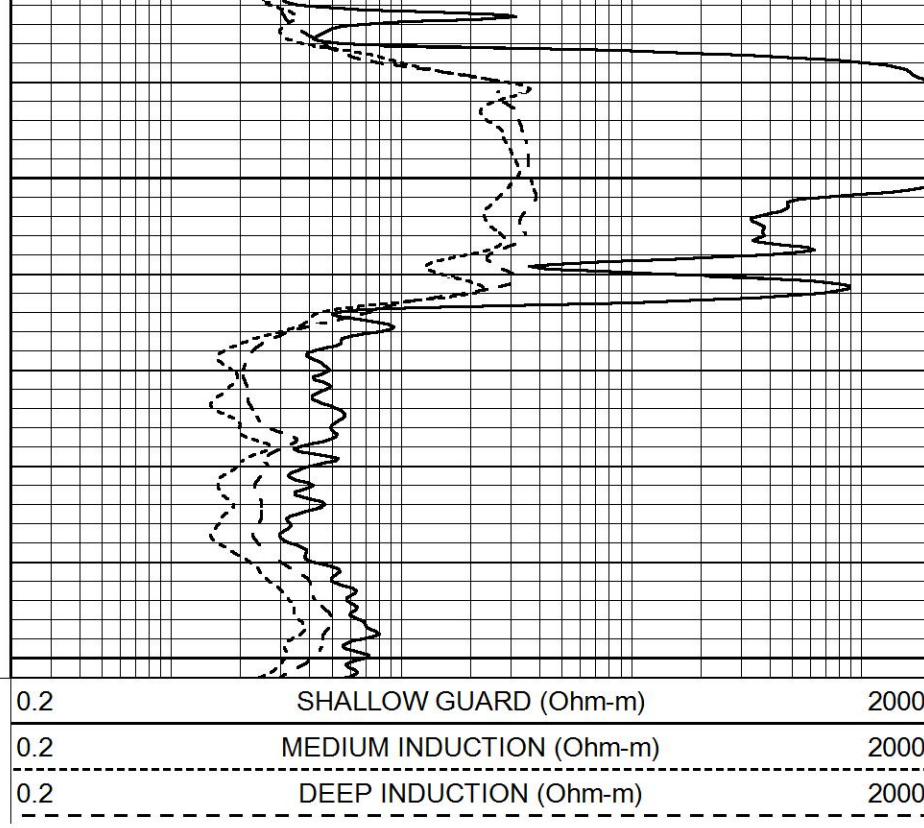
0	GAMMA RAY (GAPI)	150	0.2	SHALLOW GUARD (Ohm-m)	2000
-100	SP (mV)	100	0.2	MEDIUM INDUCTION (Ohm-m)	2000
-250	Rxo/Rt	50	0.2	DEEP INDUCTION (Ohm-m)	2000





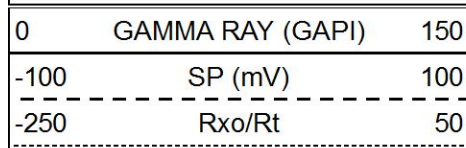
900

950



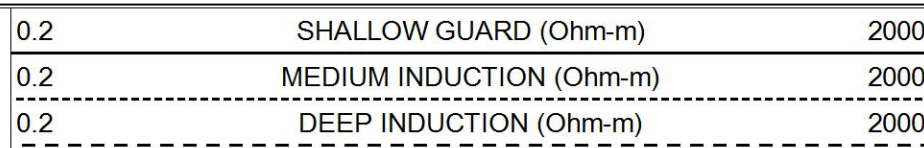
MAIN SECTION

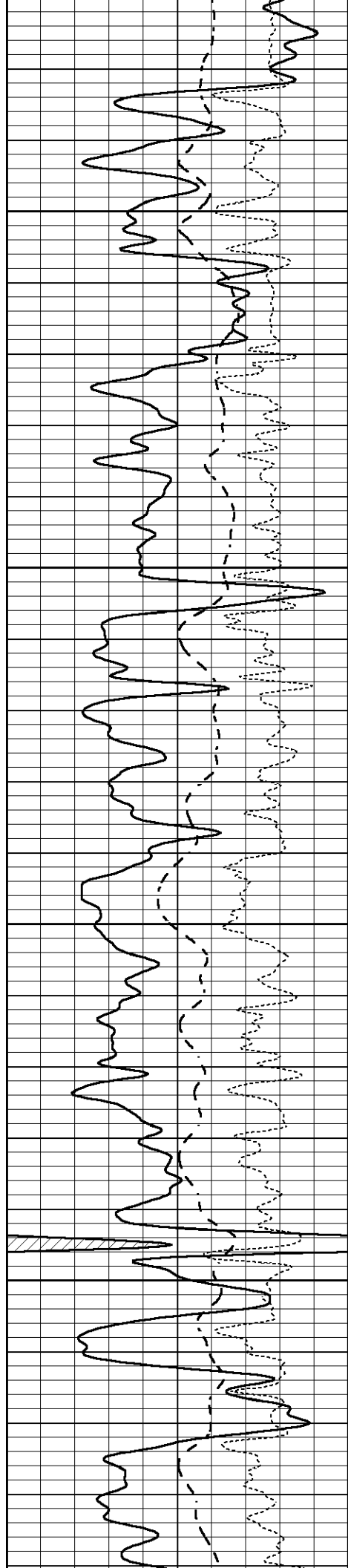
Database File 5643ddn.db
 Dataset Pathname pass3.1
 Presentation Format _dil
 Dataset Creation Fri Aug 20 07:05:05 2021
 Charted by Depth in Feet scaled 1:240



2700

2750



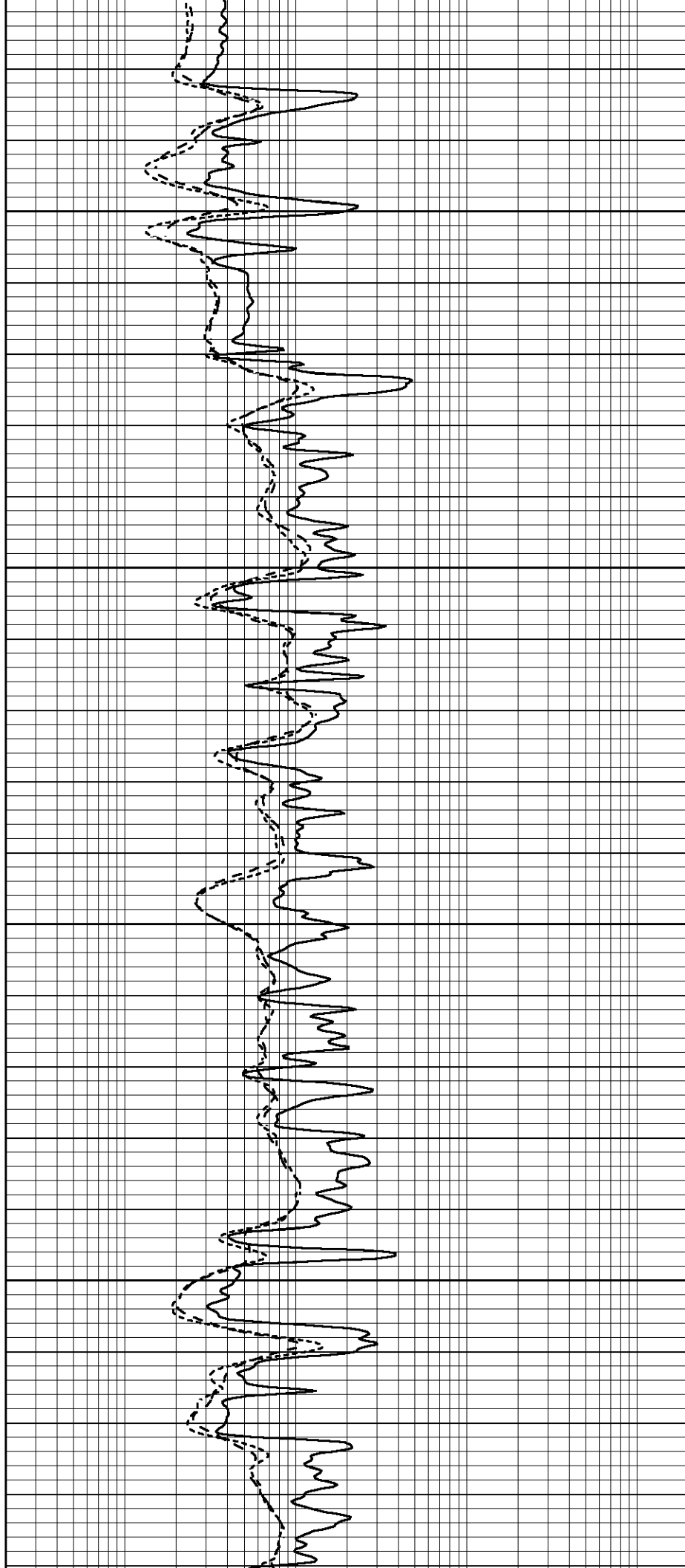


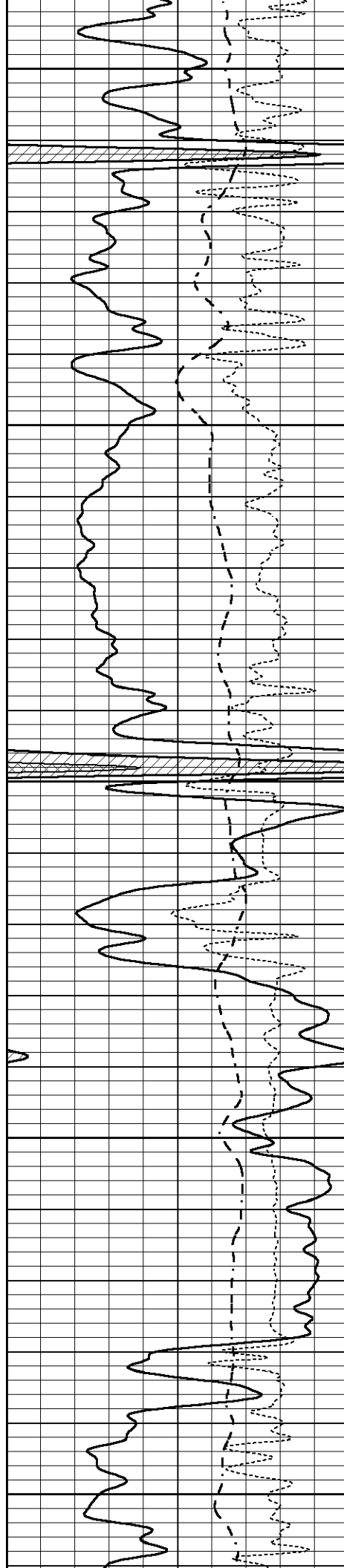
2800

2850

2900

2950





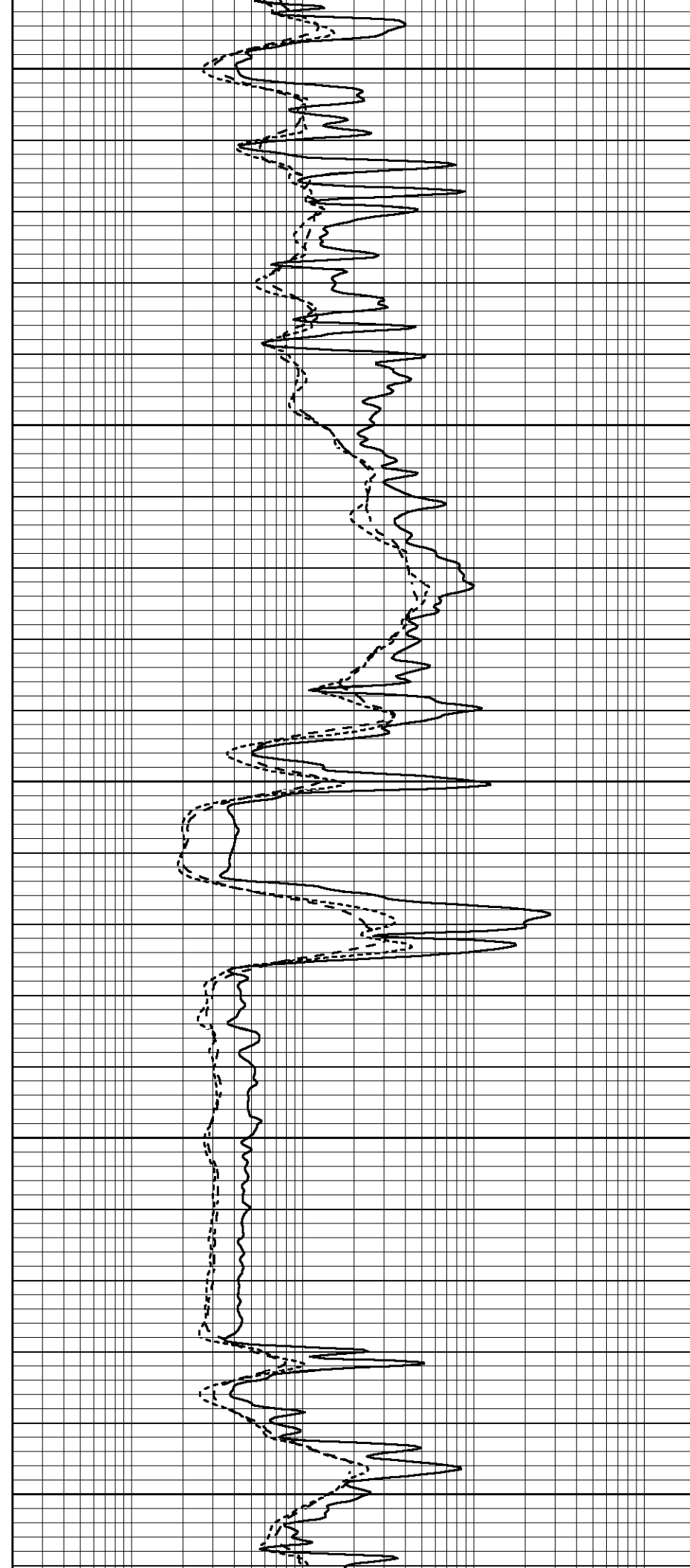
3000

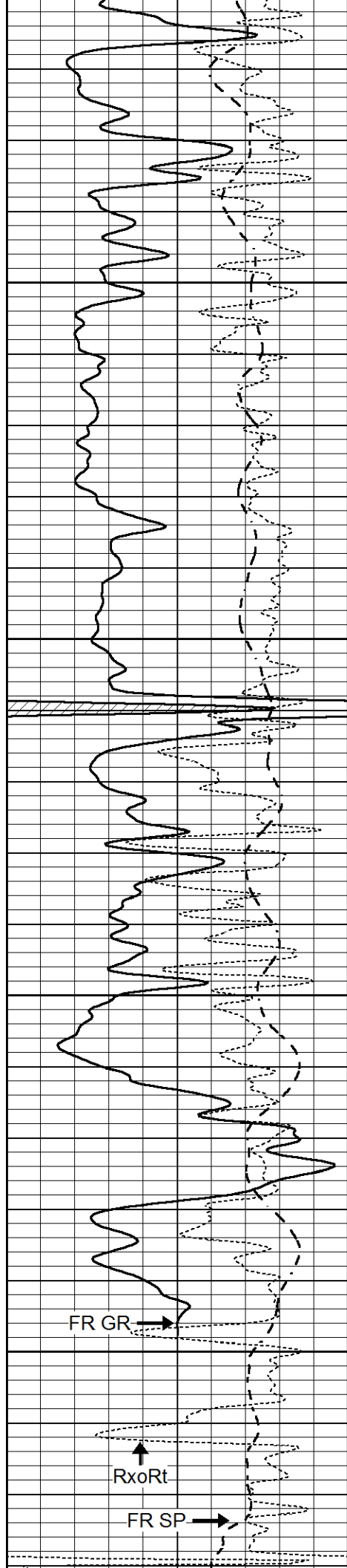
3050

3100

3150

3200





3250

3300

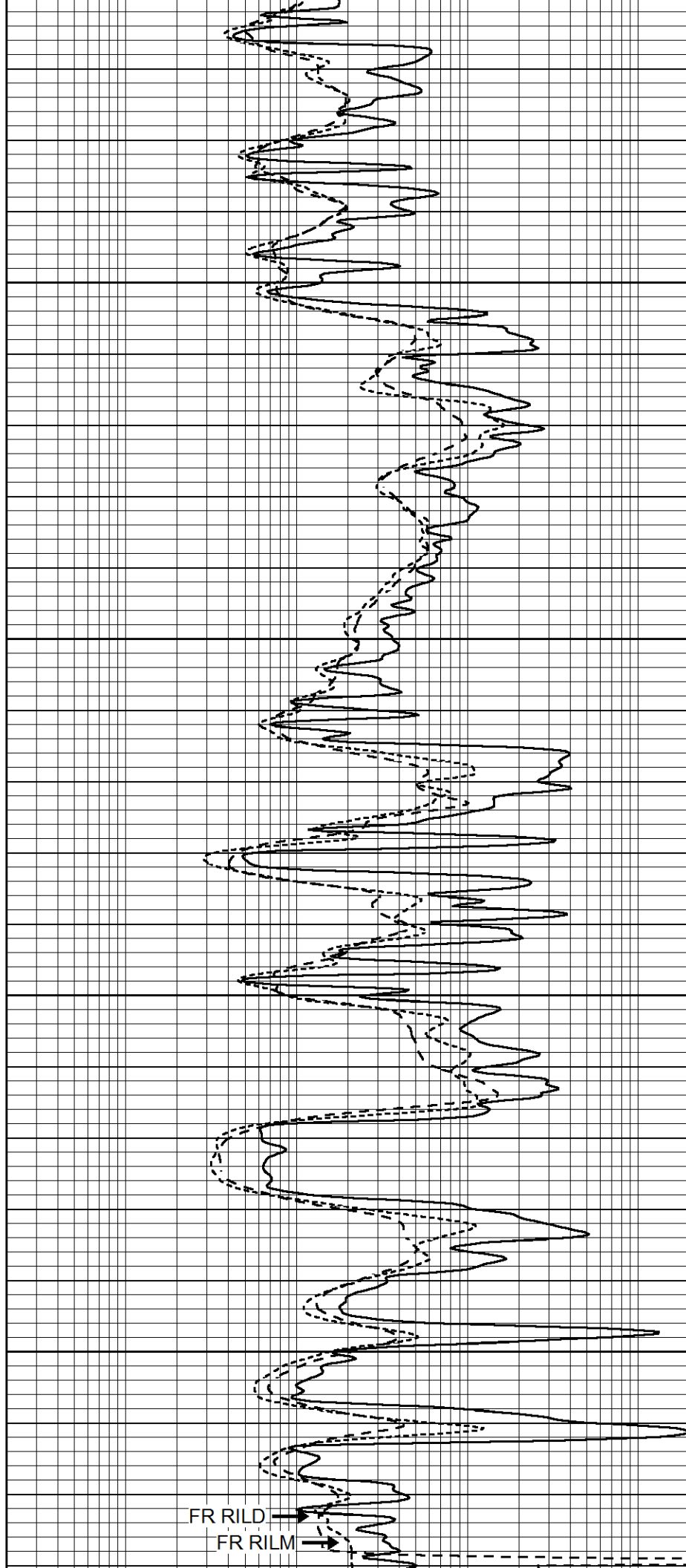
3350

3400

FR GR

Rx0Rt

FR SP



FR RILD

FR RILM

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

LTD 3434

FR RLL3 →

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

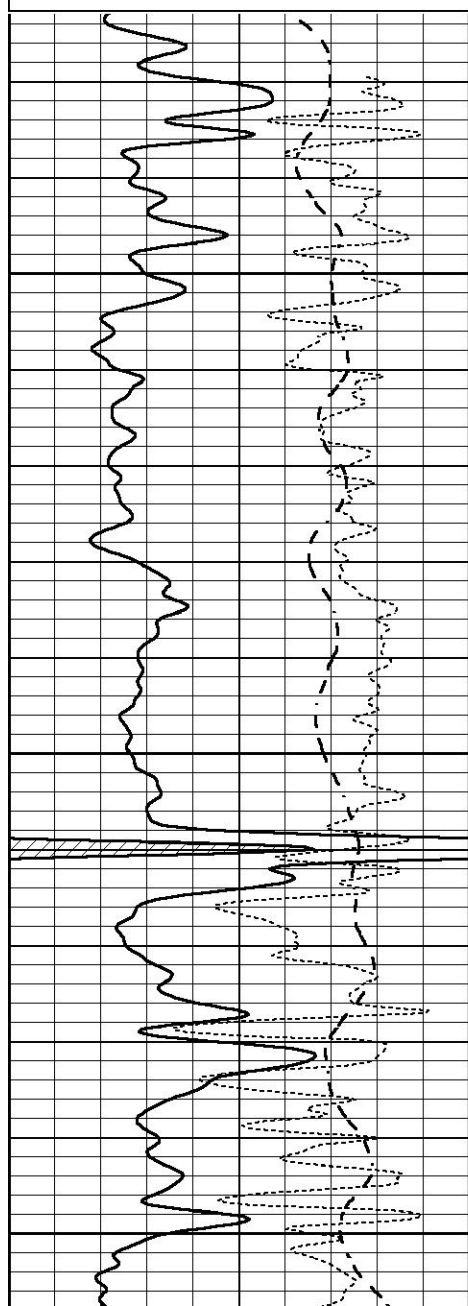


REPEAT SECTION

Database File 5643ddn.db
 Dataset Pathname pass2.1
 Presentation Format _dil
 Dataset Creation Fri Aug 20 07:06:54 2021
 Charted by Depth in Feet scaled 1:240

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

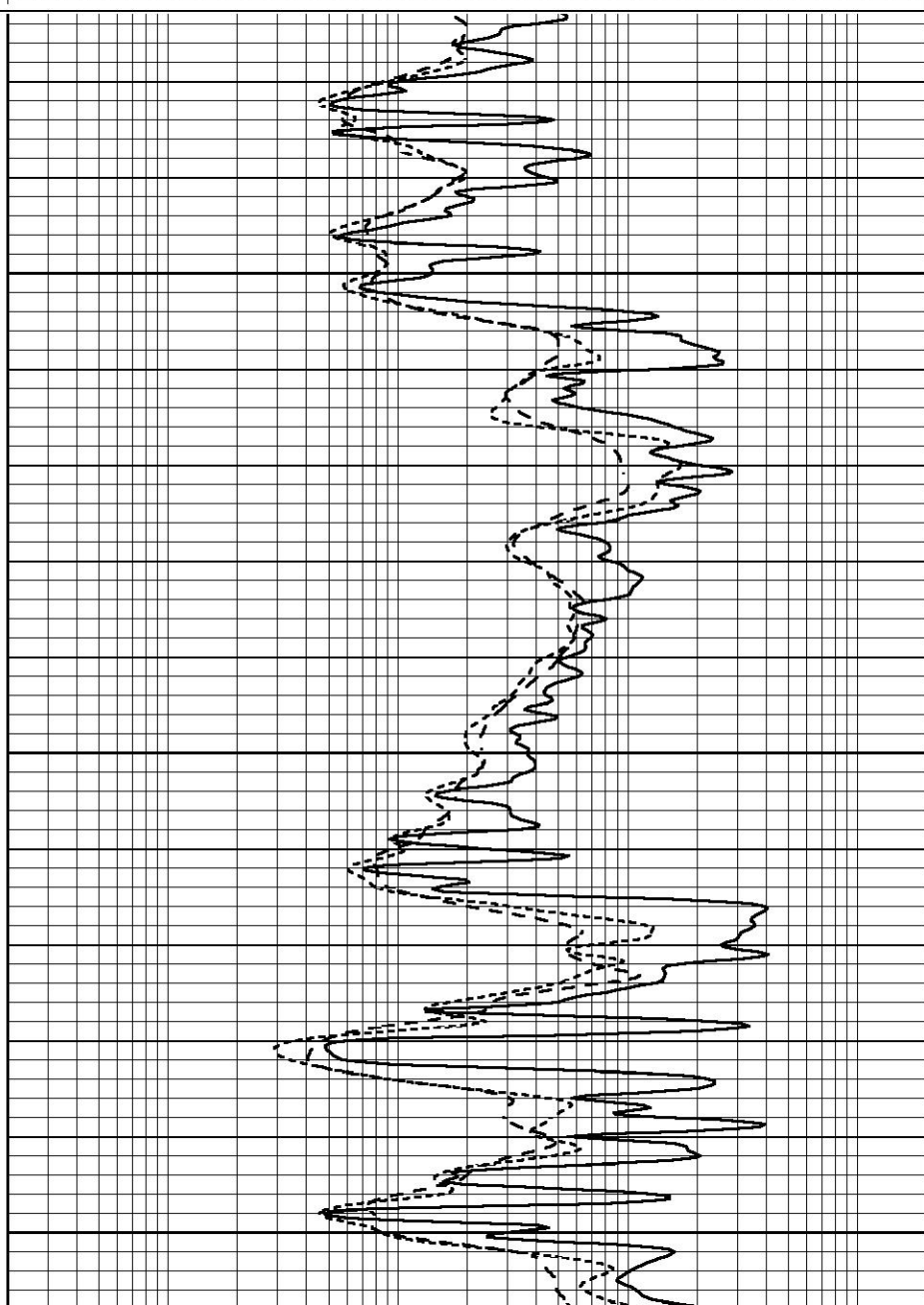
0.2	SHALLOW GUARD (Ohm-m)	2000
0.2	MEDIUM INDUCTION (Ohm-m)	2000
0.2	DEEP INDUCTION (Ohm-m)	2000

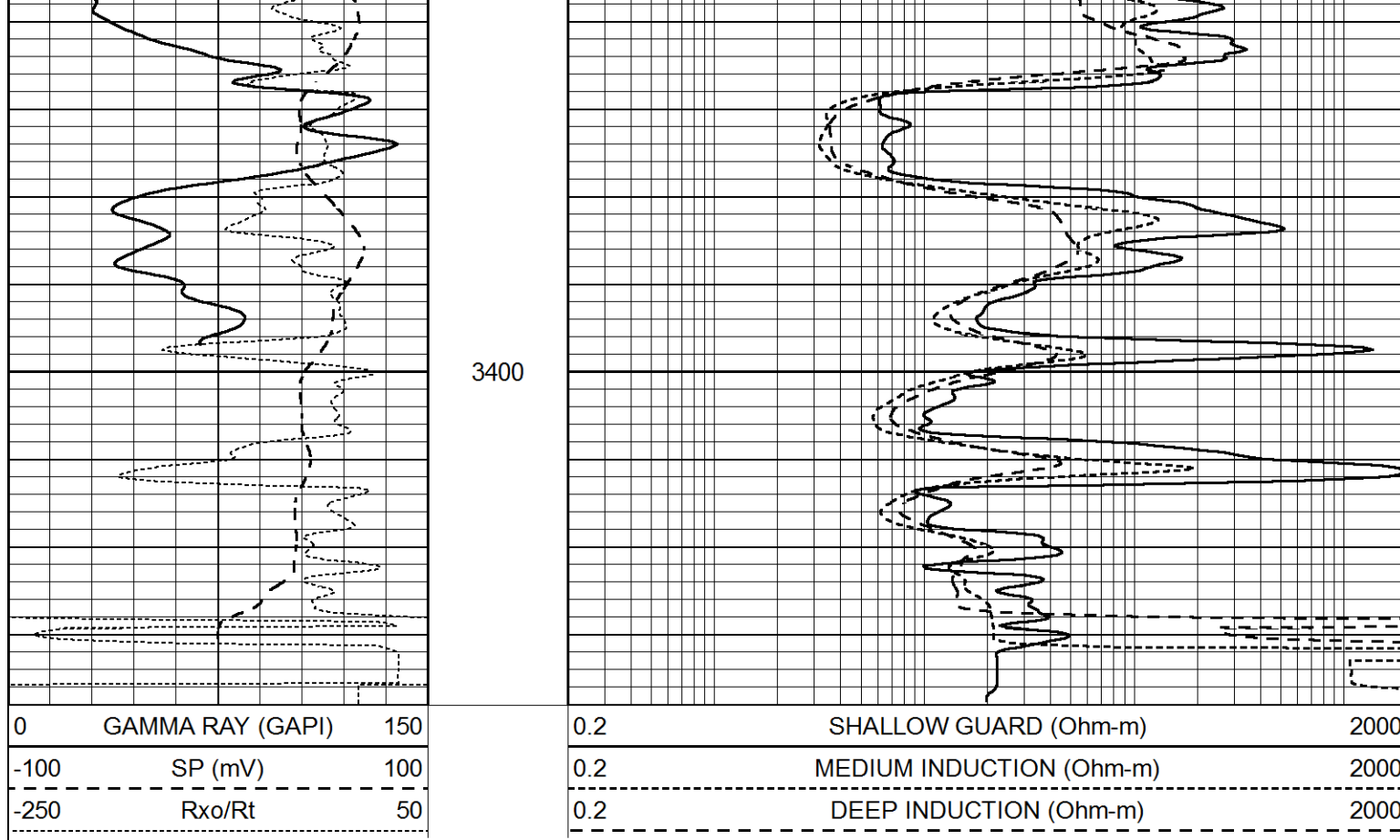


3250

3300

3350





Calibration Report									
Database File	5643ddn.db								
Dataset Pathname	pass2.1								
Dataset Creation	Fri Aug 20 07:06:54 2021								
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		

Litho Density Calibration Report Serial: 140703 Model: V4_10P Source Number: 74GBq-19								
--	--	--	--	--	--	--	--	--

Master Calibration				Performed: Wed Dec 02 12:04:44 2020				
	Background		Aluminum	Magnesium				
Window 1	595.38		5386.50	23898.92		cps		
Window 2	52.78		1248.21	5993.75		cps		
Window 4	251.36		1200.30	5155.55		cps		
Window 5	545.15		9066.30	17240.12		cps		
Window 6	43.35		1491.73	2929.24		cps		
Window 8	258.76		2917.82	5450.26		cps		
Bulk Density	-		2.6020	1.6830		g/cc		
Pe	-		3.0000	2.5070		b/e		
LS Alpha:	: -1.8726		SS Alpha:	: -0.7656		LS CPE:	: 1.0742	
LS Beta:	: 127345.0723		SS Beta:	: 20293.3834		SS CPE:	: 1.5427	

Before Survey Background Counts Verification				Performed: Wed Dec 31 18:00:00 1969				
Window 1	0.00		cps					
Window 2	0.00		cps					
Window 4	0.00		cps					
Window 5	0.00		cps					
Window 6	0.00		cps					
Window 8	0.00		cps					

After Survey Background Counts Verification				Performed: Wed Dec 31 18:00:00 1969				
Window 1	0.00		cps					
Window 2	0.00		cps					
Window 4	0.00		cps					
Window 5	0.00		cps					
Window 6	0.00		cps					
Window 8	0.00		cps					

Lithodensity Caliper Calibration				Performed: Wed Dec 02 12:04:44 2020				
Results	Readings		References (in)					
	Low	High	Low	High	Gain		Offset	
	8005.3	11087.2	8.0	14.0	0.0		-7.5	

Before Survey Caliper Verification				Performed:				
	Reference		Reading					

Caliper (in)				
After Survey Caliper Verification		Performed:		
	Reference	Reading		
Caliper (in)	_____	_____		
Compensated Neutron Calibration Report				
		Serial Number:	080621PMC	
		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:	7			
Tool Model:	Probe1			
Performed:	Tue Jan 19 17:50:08 2021			
Calibrator Value:	1.0	GAPI		
Background Reading:	0.0	cps		
Calibrator Reading:	1.0	cps		
Sensitivity:	0.5300	GAPI/cps		