

DUAL INDUCTION LOG

Company	DARRAH OIL COMPANY, LLC	
Well	YOUNKIN #1-12	
Field	UNNAMED	
County	LOGAN	State KANSAS
Location:	API #: 15-109-21672-0000	
Permanent Datum	GROUND LEVEL	Elevation 2868
Log Measured From	KELLY BUSHING 11' A.G.L	
Drilling Measured From	KELLY BUSHING	
Other Services CDL/CNL/PE MEL/SONIC	Elevation K.B. 2879 D.F. 2877 G.L. 2868	
Date	4/12/24	
Run Number	ONE	
Depth Driller	4540	
Depth Logger	4541	
Bottom Logged Interval	4539	
Top Log Interval	00	
Casing Driller	8.625@222	
Casing Logger	222	
Bit Size	7.785	
Type Fluid in Hole	CHEMICAL MUD	CHLORIDES 7.000 PPM
Density / Viscosity	9.2/50	
pH / Fluid Loss	10.5/8.8	
Source of Sample	FLOWLINE	
Rm @ Meas. Temp	.850@65F	
Rmf @ Meas. Temp	.638@65F	
Rmc @ Meas. Temp	1.02@65F	
Source of Rmf / Rmc	MEASUREMENT	
Rm @ BHT	.457@121F	
Time Circulation Stopped	2 HOURS	
Time Logger on Bottom	12:00 A.M.	
Maximum Recorded Temperature	121F	
Equipment Number	922339	
Location	HAYS, KANSAS	
Recorded By	JEFF LUEBBERS	JEREMEY PASEK
Witnessed By	JARRED LEIS	

<<< 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.

15-109-21672-0000

Comments

THANK YOU FOR USING ELI WIRELINE HAYS. KANSAS (785) 628-6395

DIRECTIONS

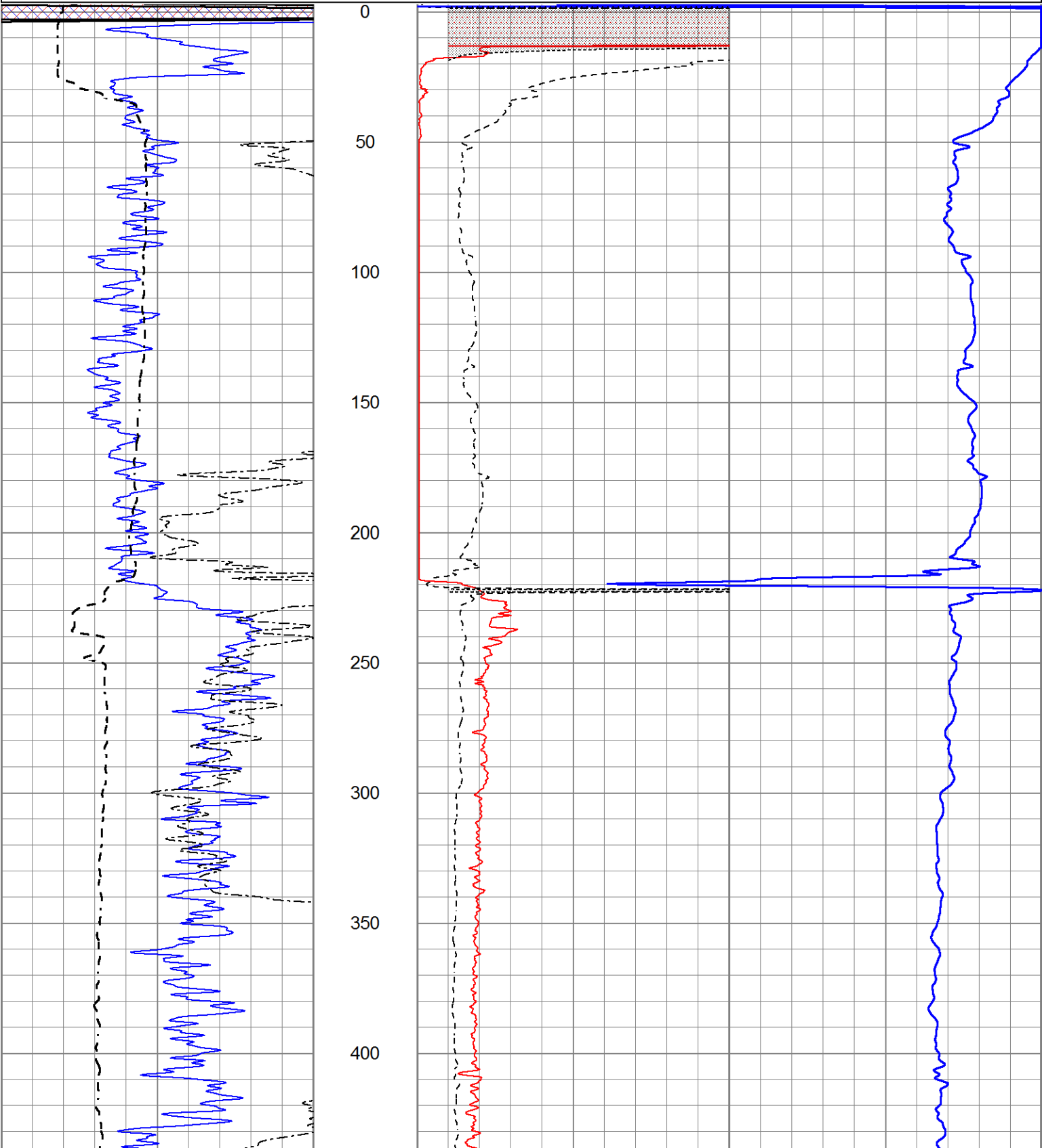
MONUMENT, KS. & OLD 40, W. SIDE, TAKE "RD. 350" 17S. TO "LARIAT RD.", 1W. TO CURVE, S. ACROSS CATTLE GUARD, W. ON TRAIL ACROSS SECOND CATTLE GUARD THEN S. ALONG FENCELINE AND BACK WEST

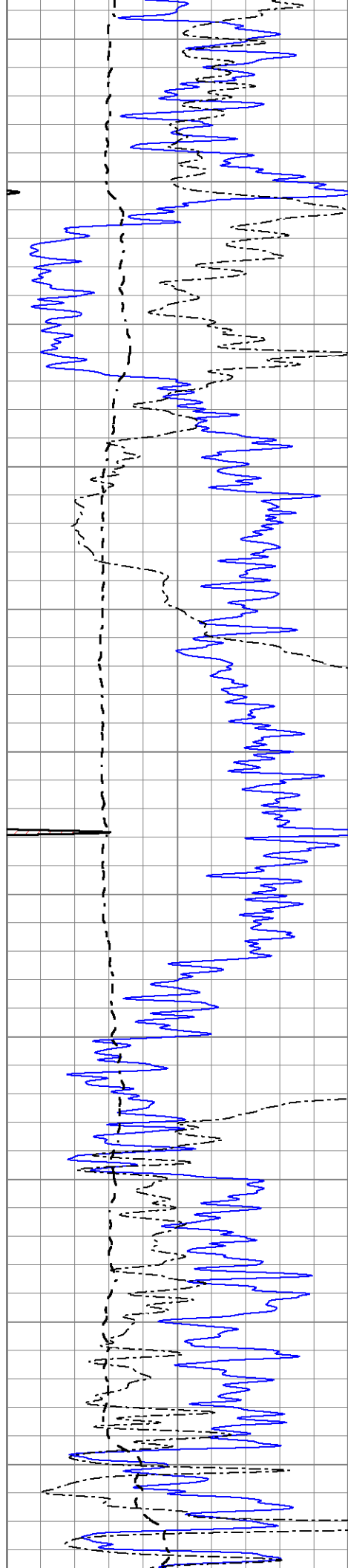


MAIN SECTION

Database File	8485pe.db
Dataset Pathname	pass4.1M
Presentation Format	_dil2
Dataset Creation	Fri Apr 12 02:22:14 2024
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





450

500

550

600

650

700

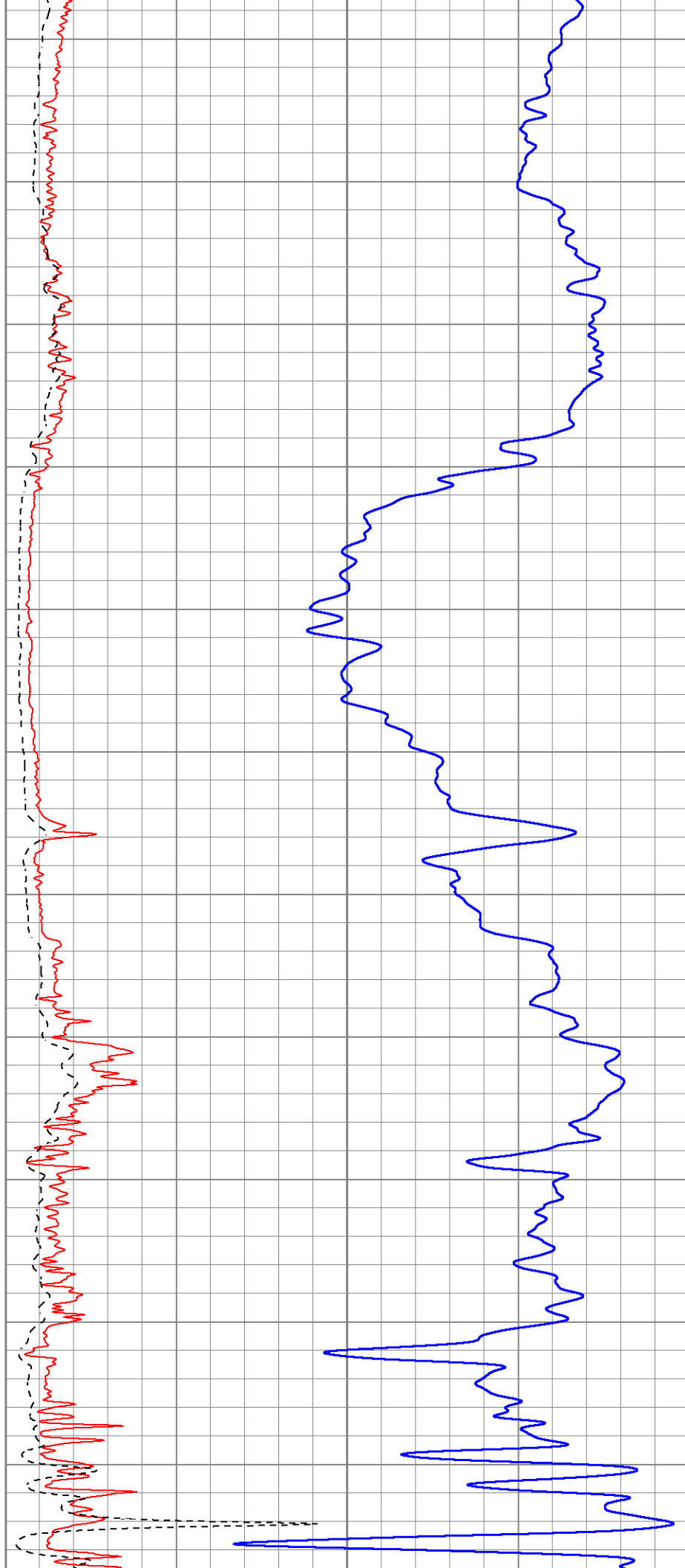
750

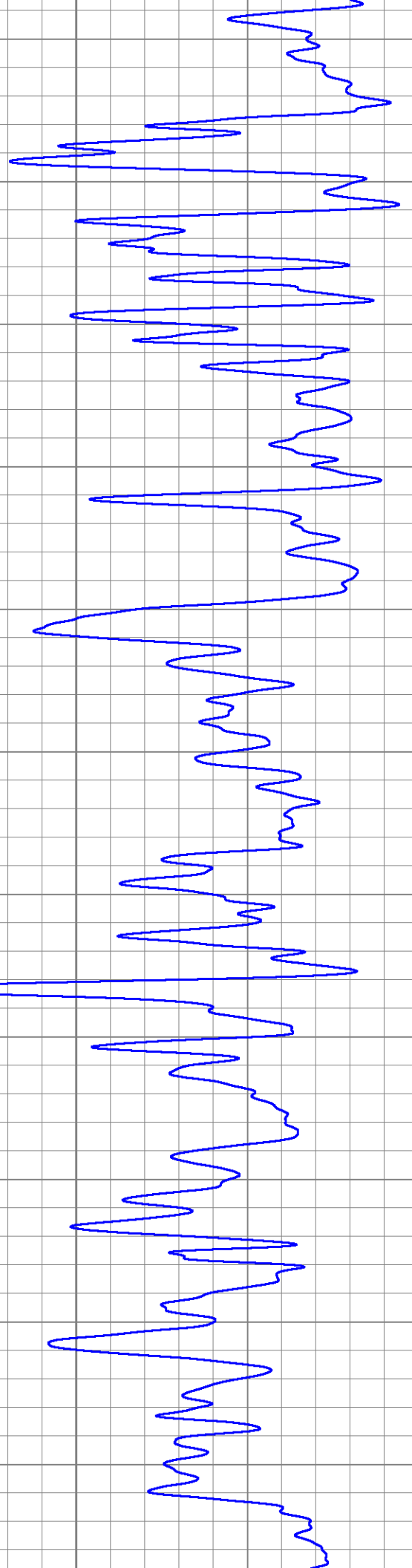
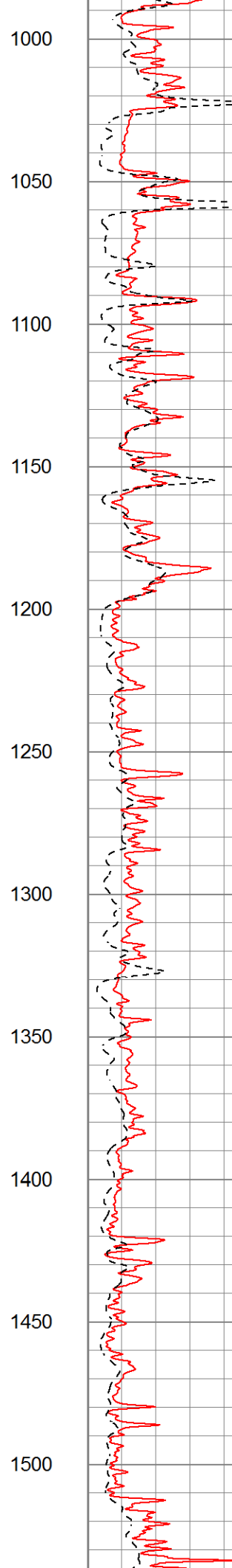
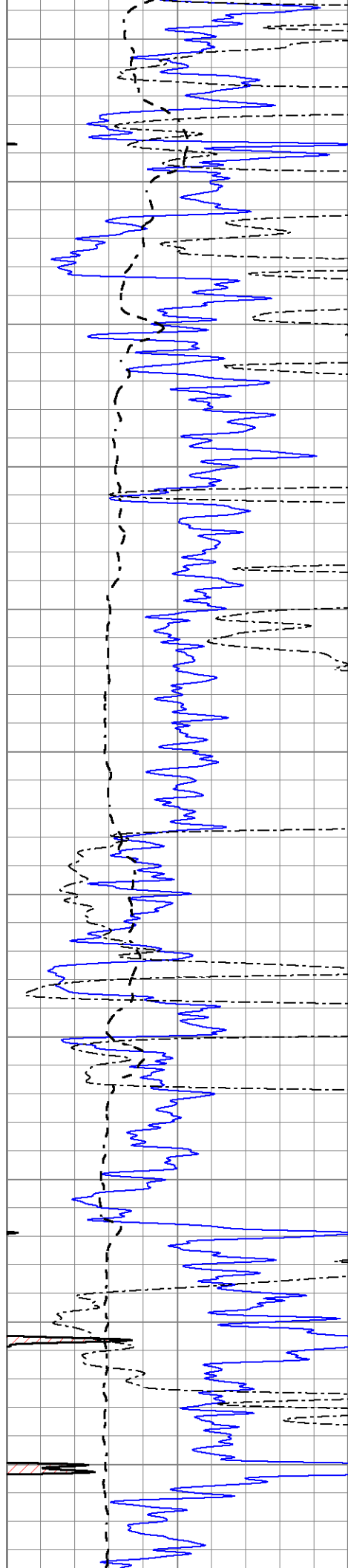
800

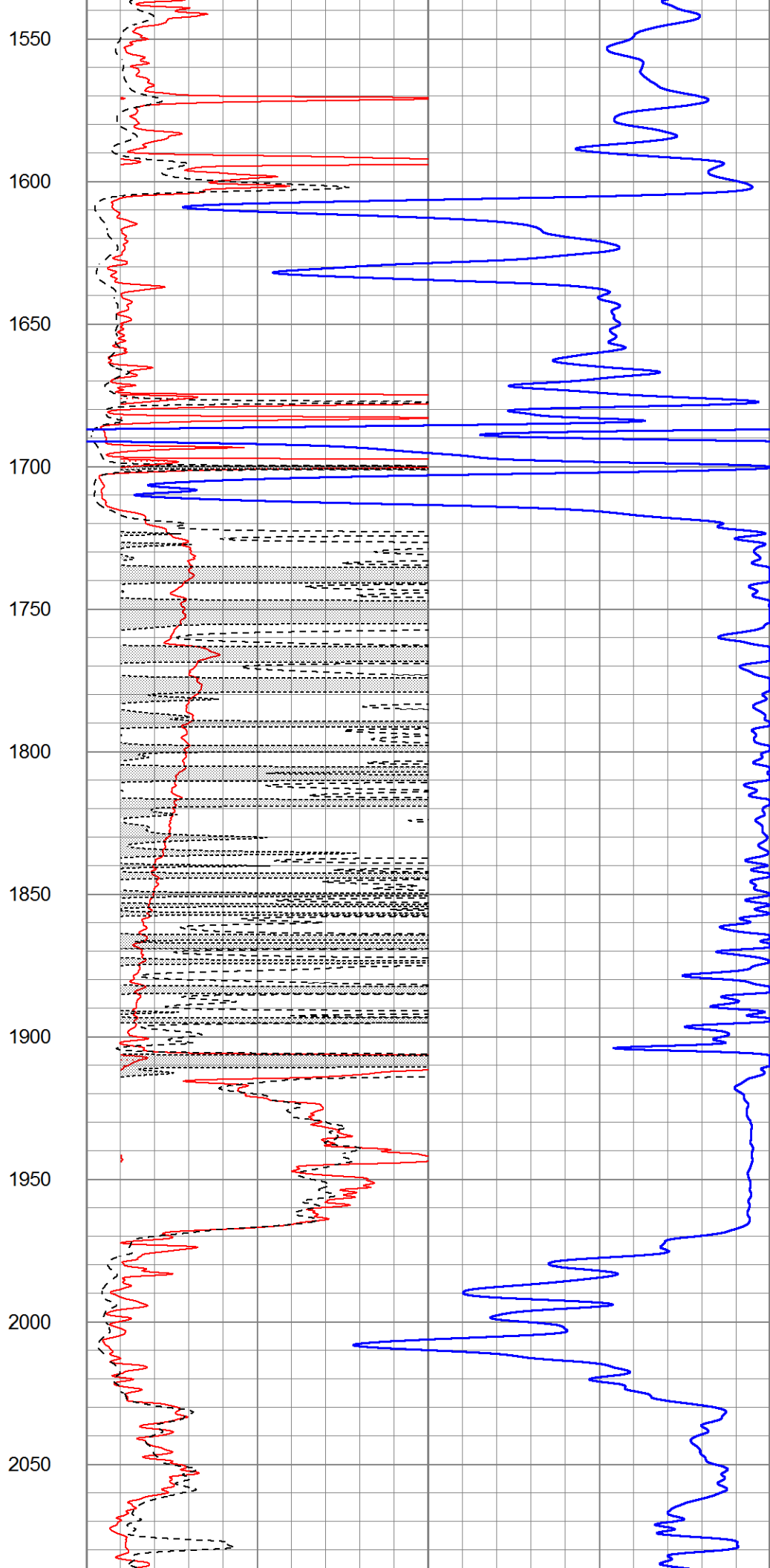
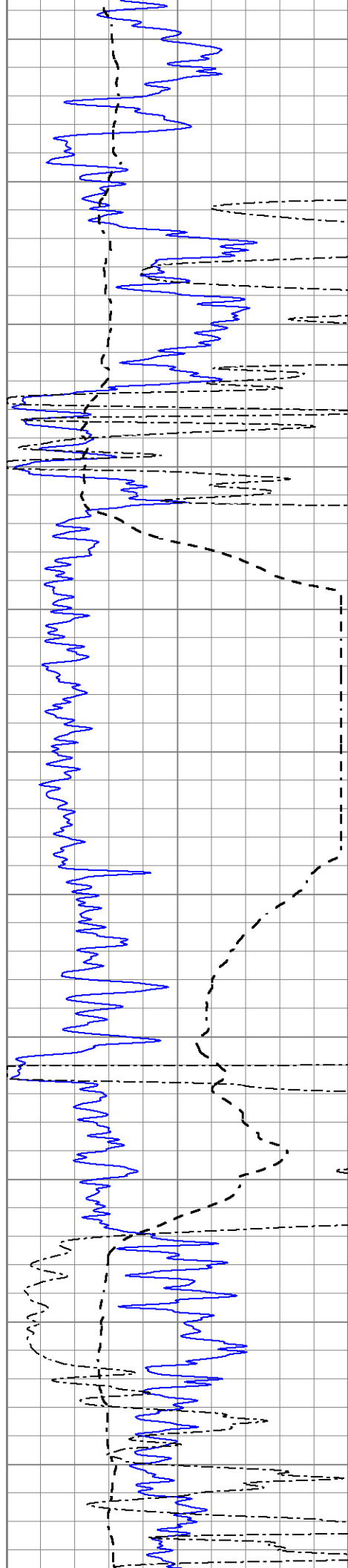
850

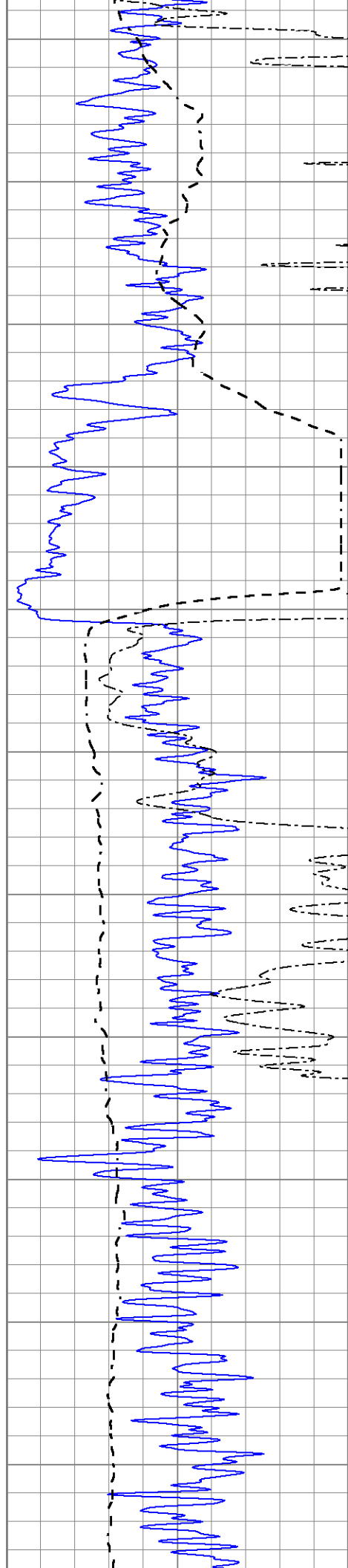
900

950









2100

2150

2200

2250

2300

2350

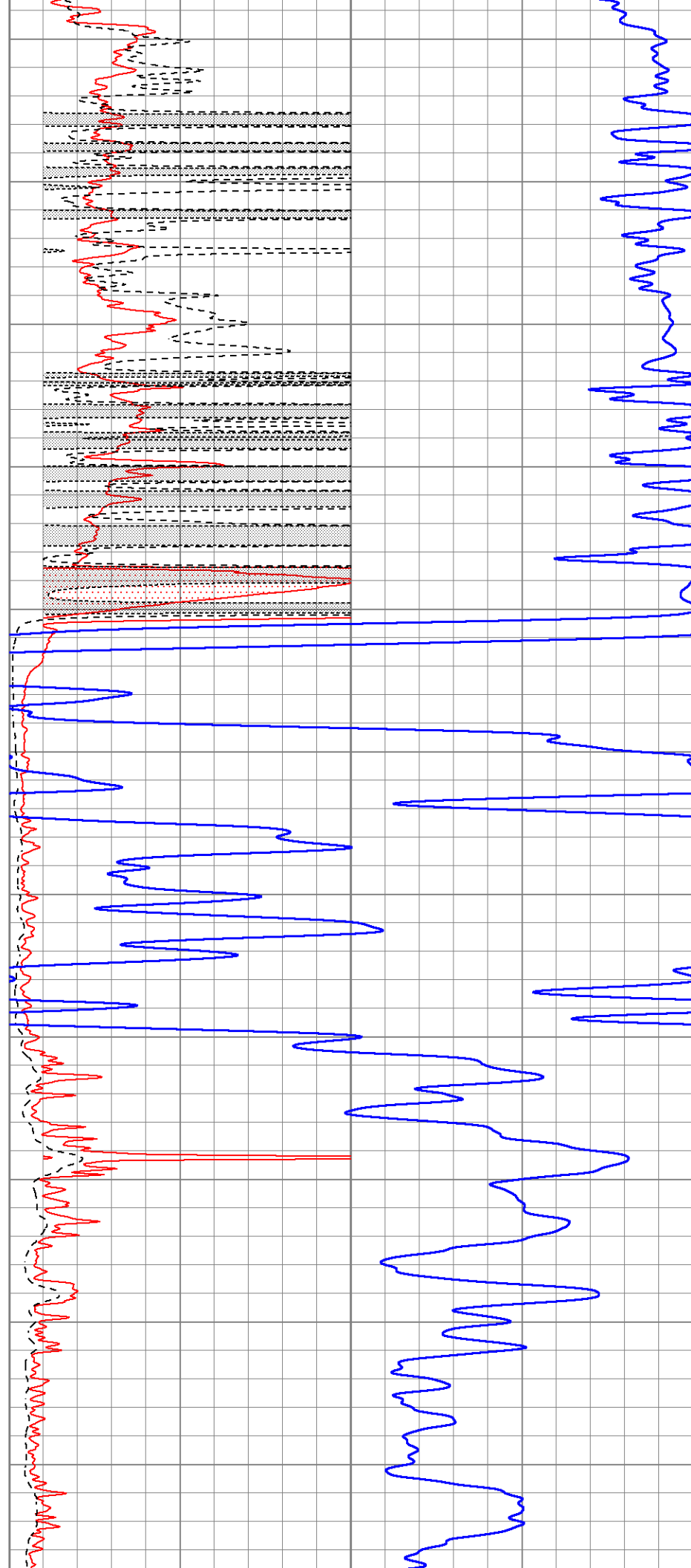
2400

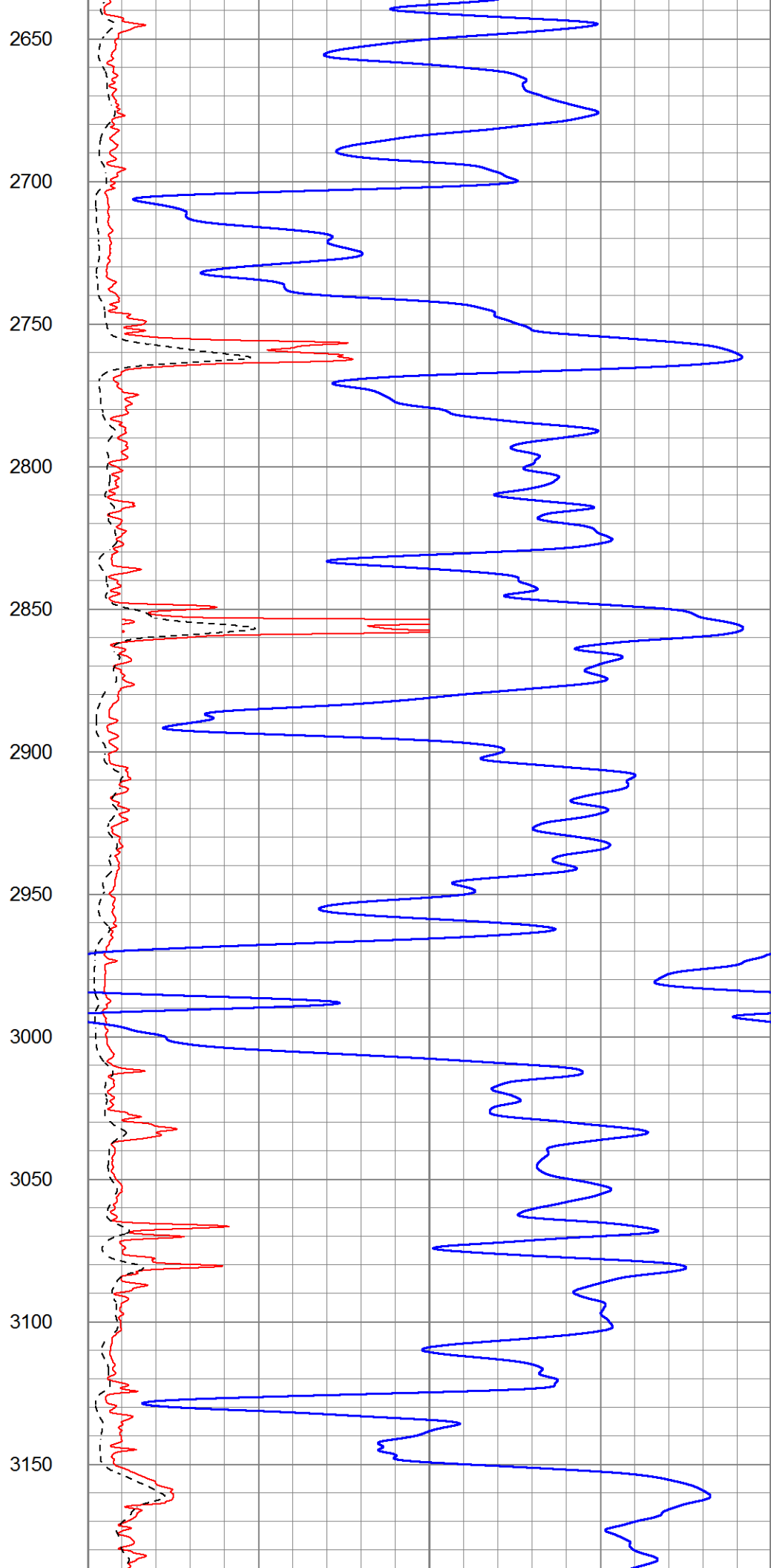
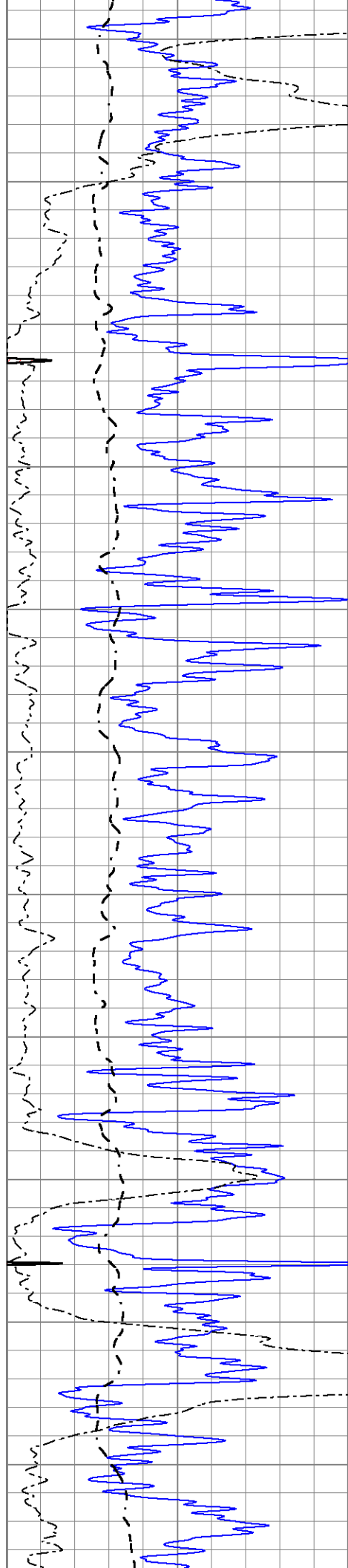
2450

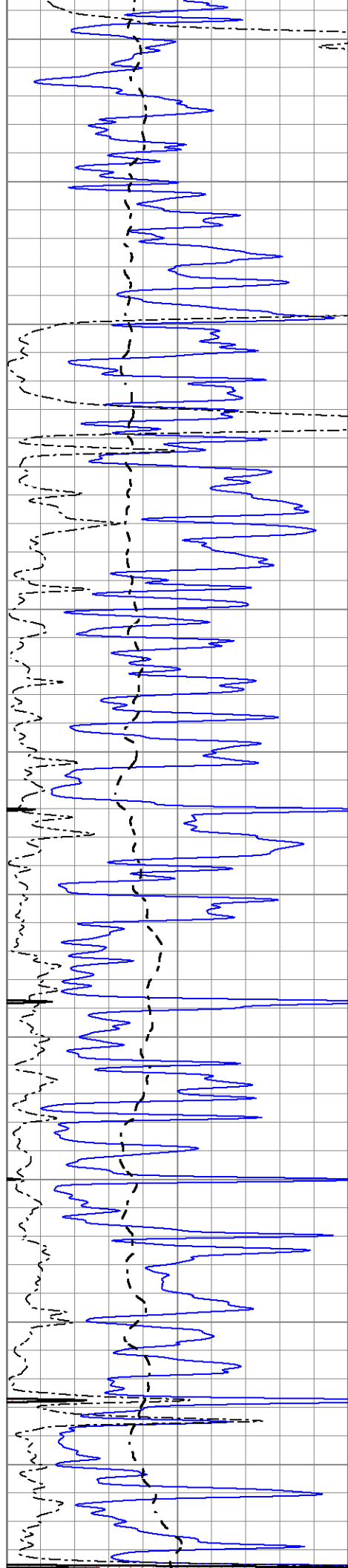
2500

2550

2600







3200

3250

3300

3350

3400

3450

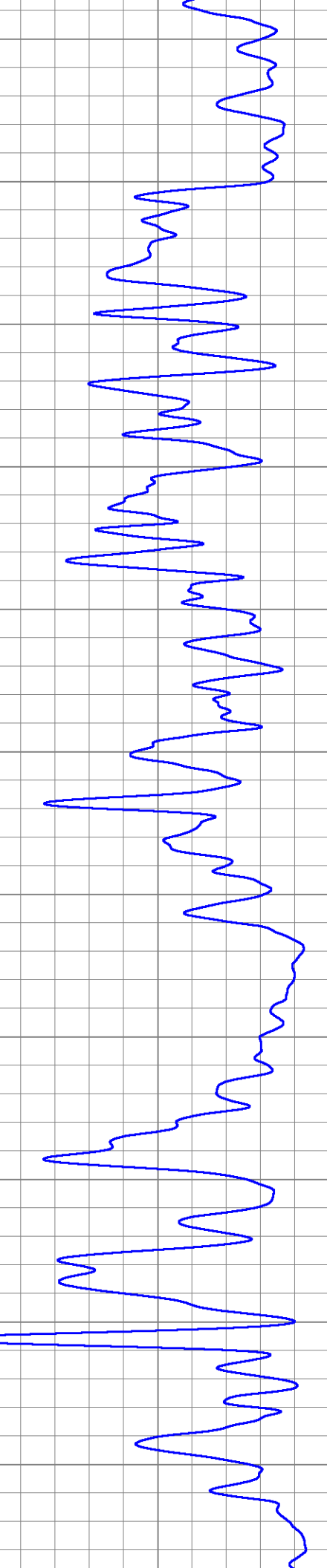
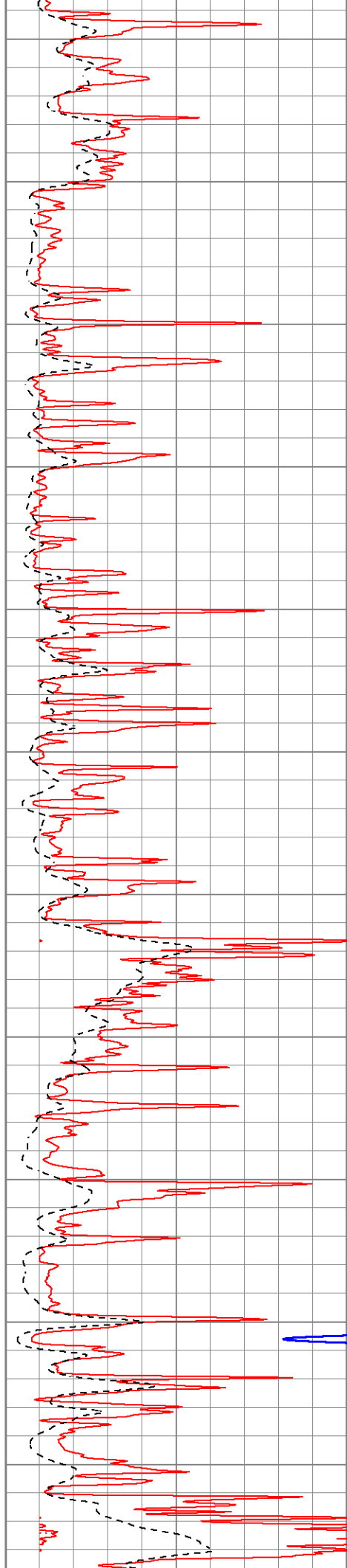
3500

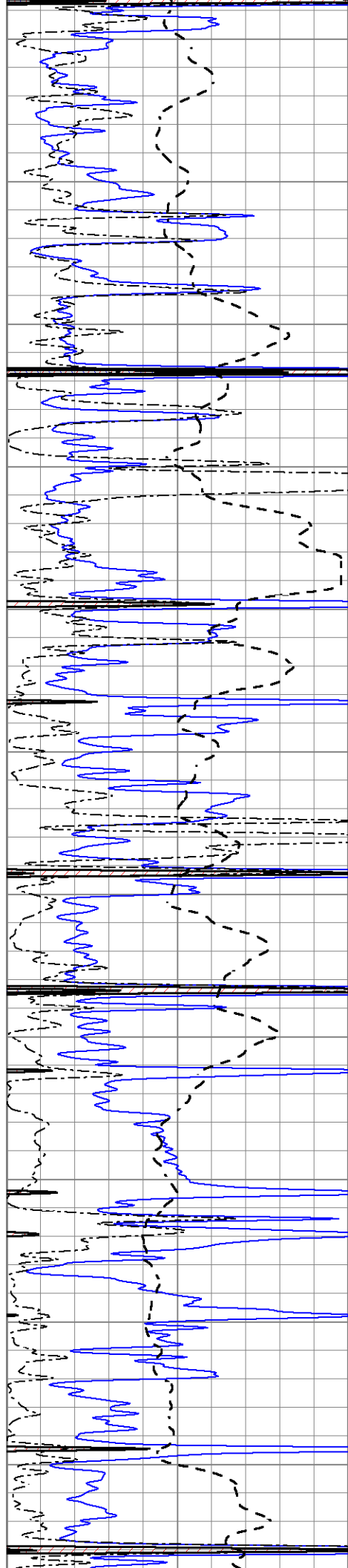
3550

3600

3650

3700





3750

3800

3850

3900

3950

4000

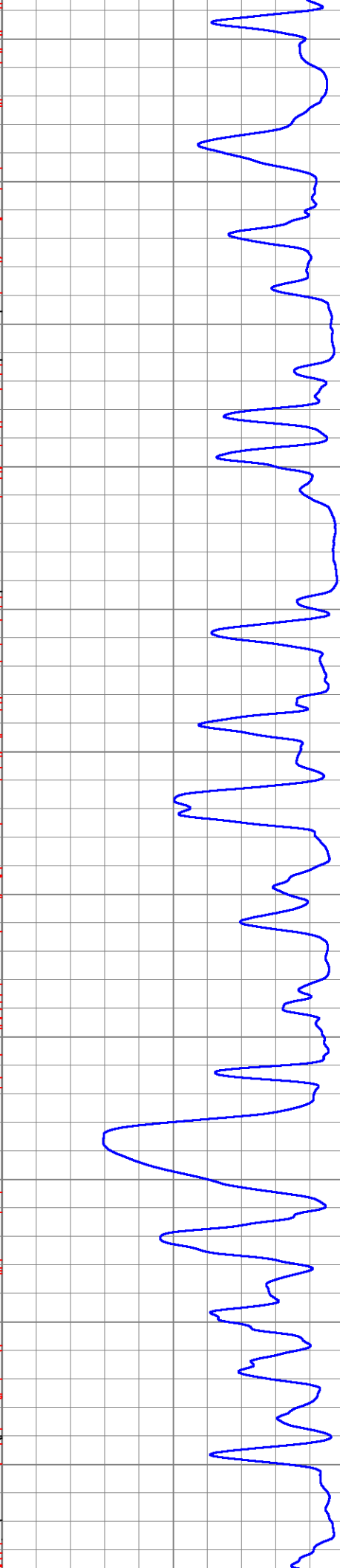
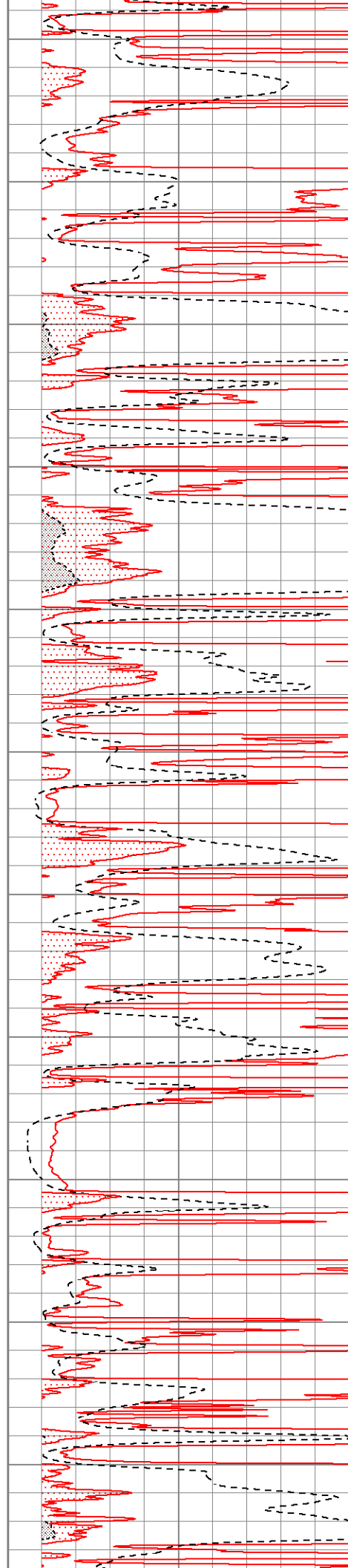
4050

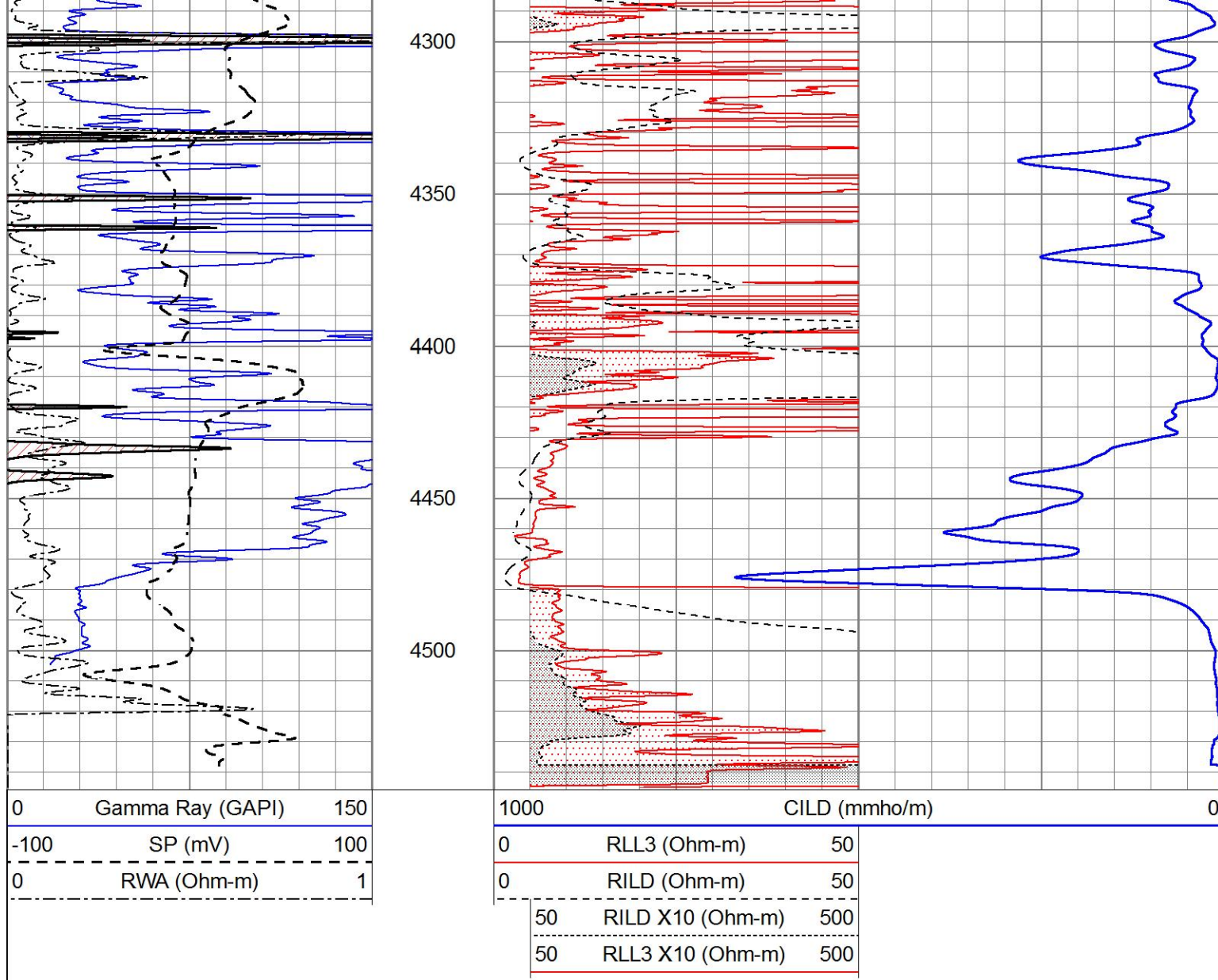
4100

4150

4200

4250

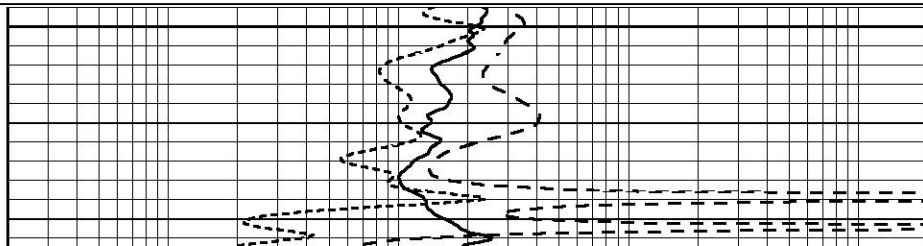
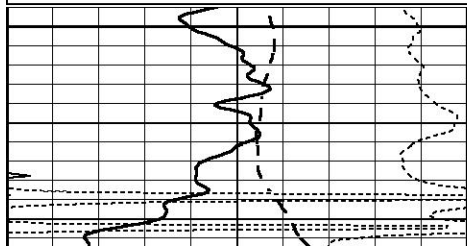


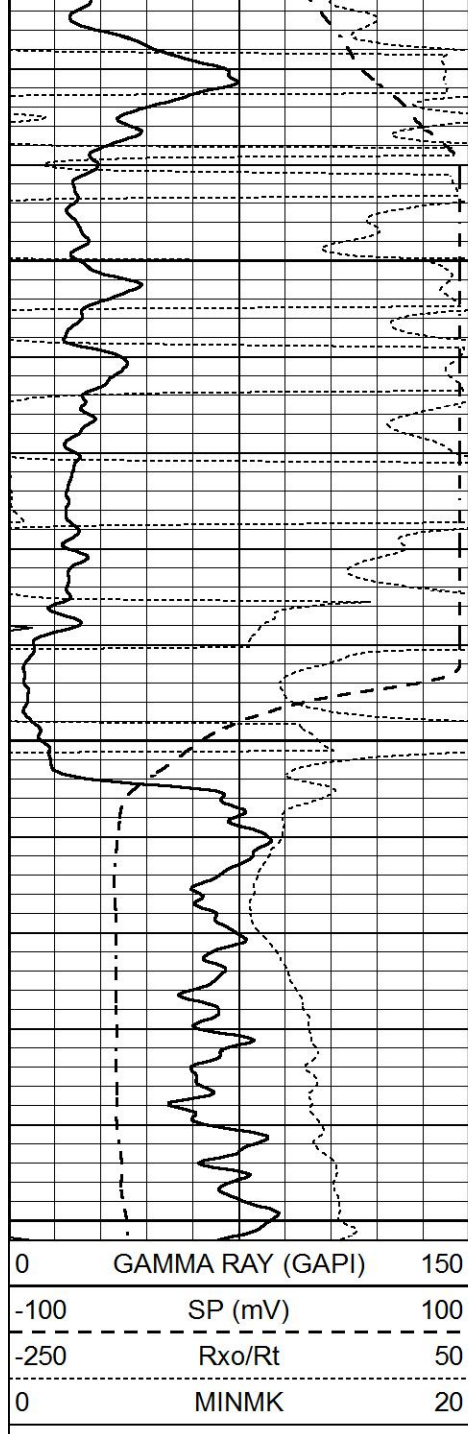


ANHYDRITE

Database File 8485pe.db
 Dataset Pathname pass4.1A
 Presentation Format _dil
 Dataset Creation Fri Apr 12 02:24:13 2024
 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			

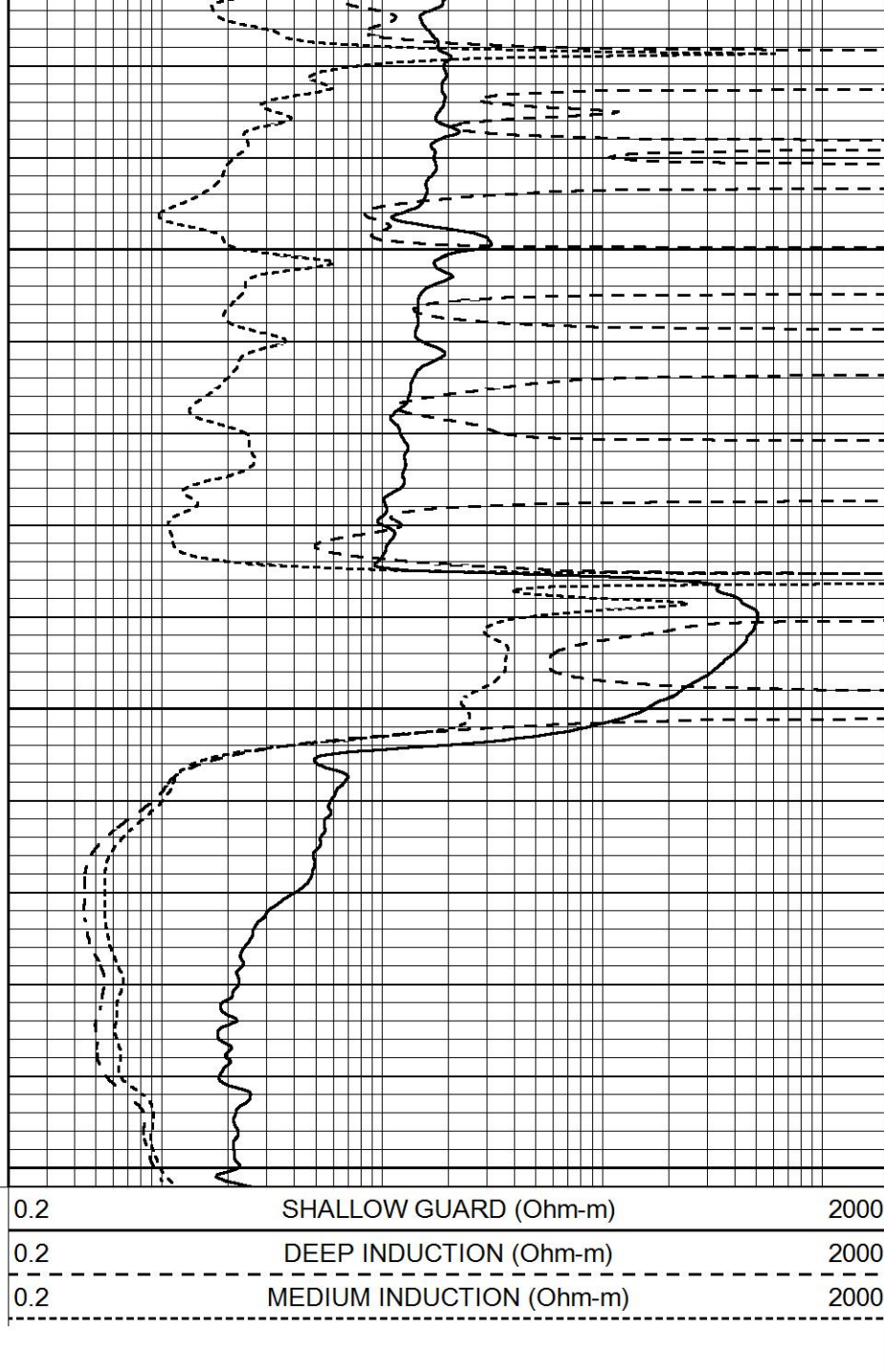




2250

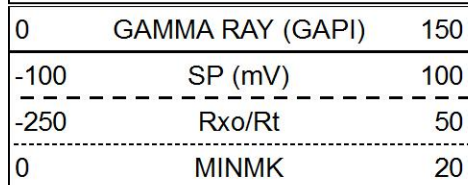
2300

2350

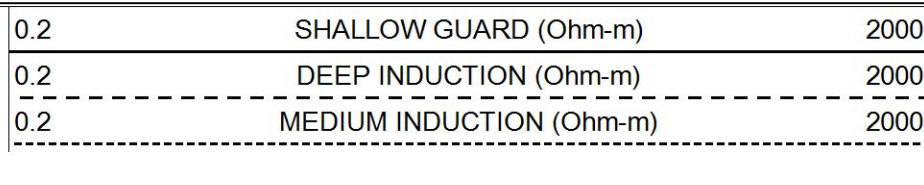


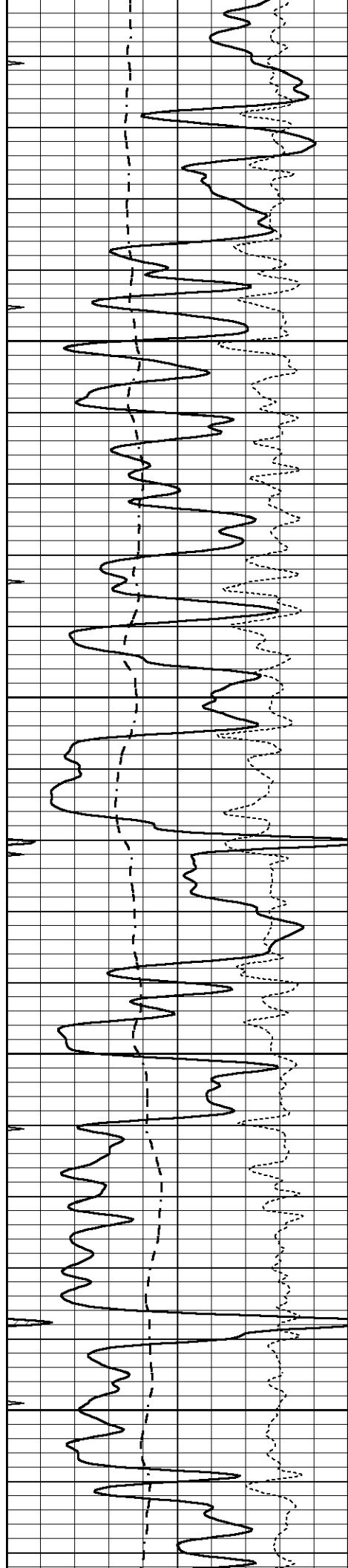
MAIN SECTION

Database File 8485pe.db
 Dataset Pathname pass4.1M
 Presentation Format _dil
 Dataset Creation Fri Apr 12 02:22:14 2024
 Charted by Depth in Feet scaled 1:240



3350



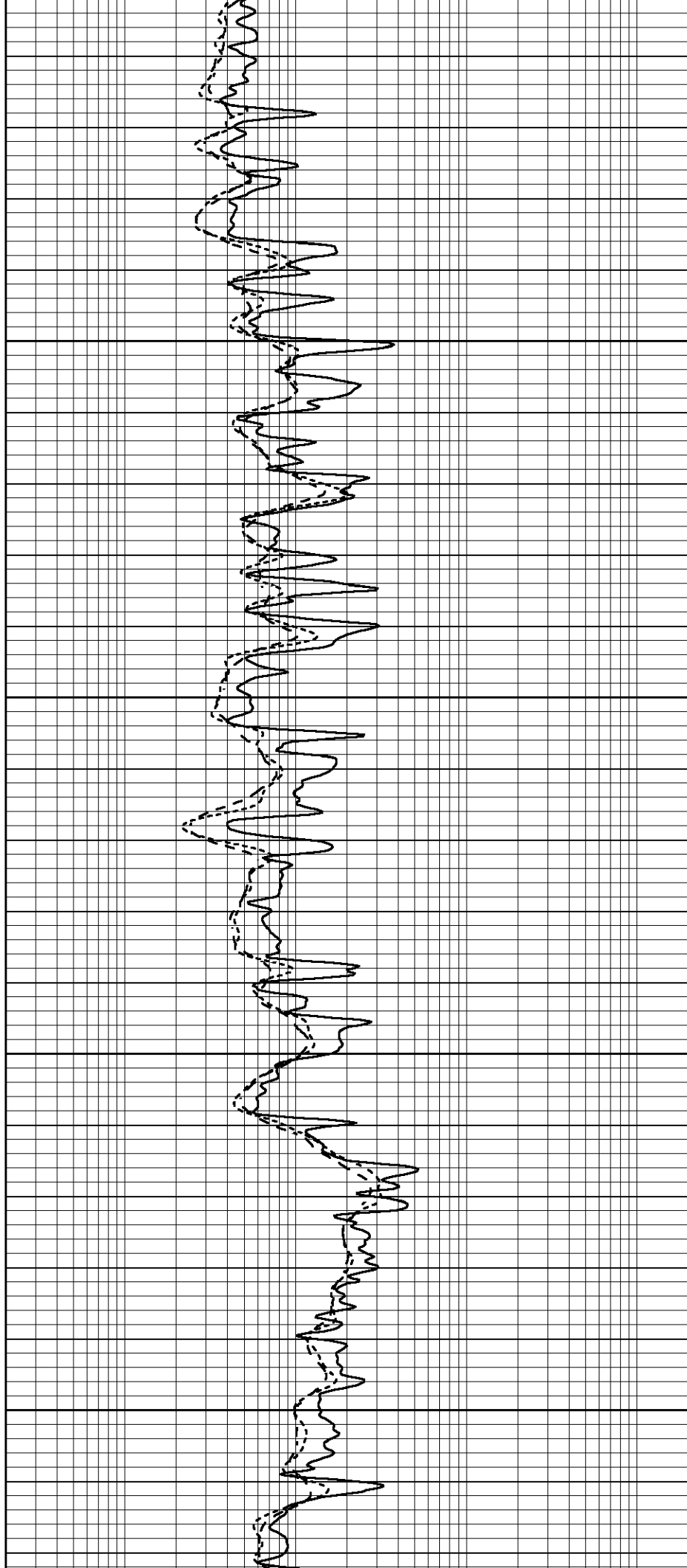


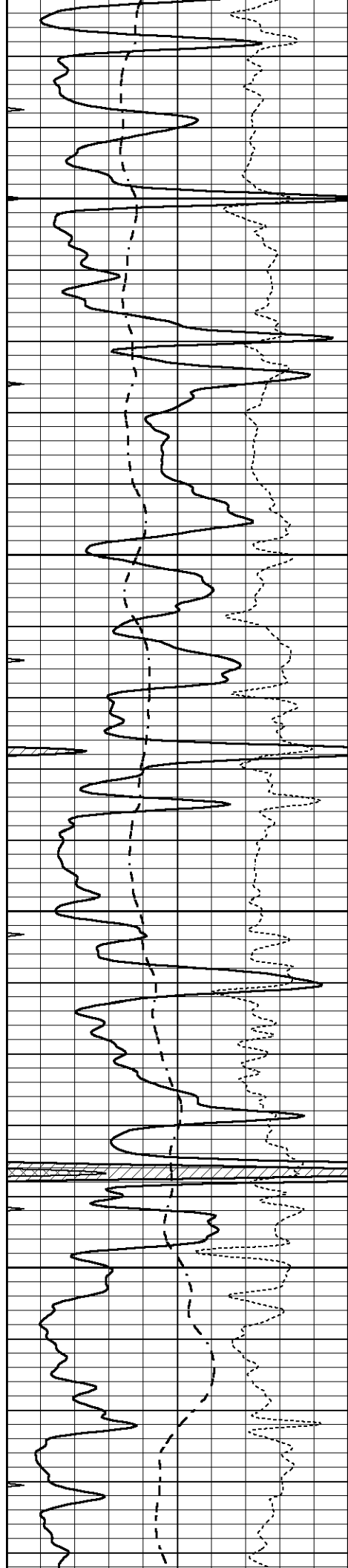
3400

3450

3500

3550



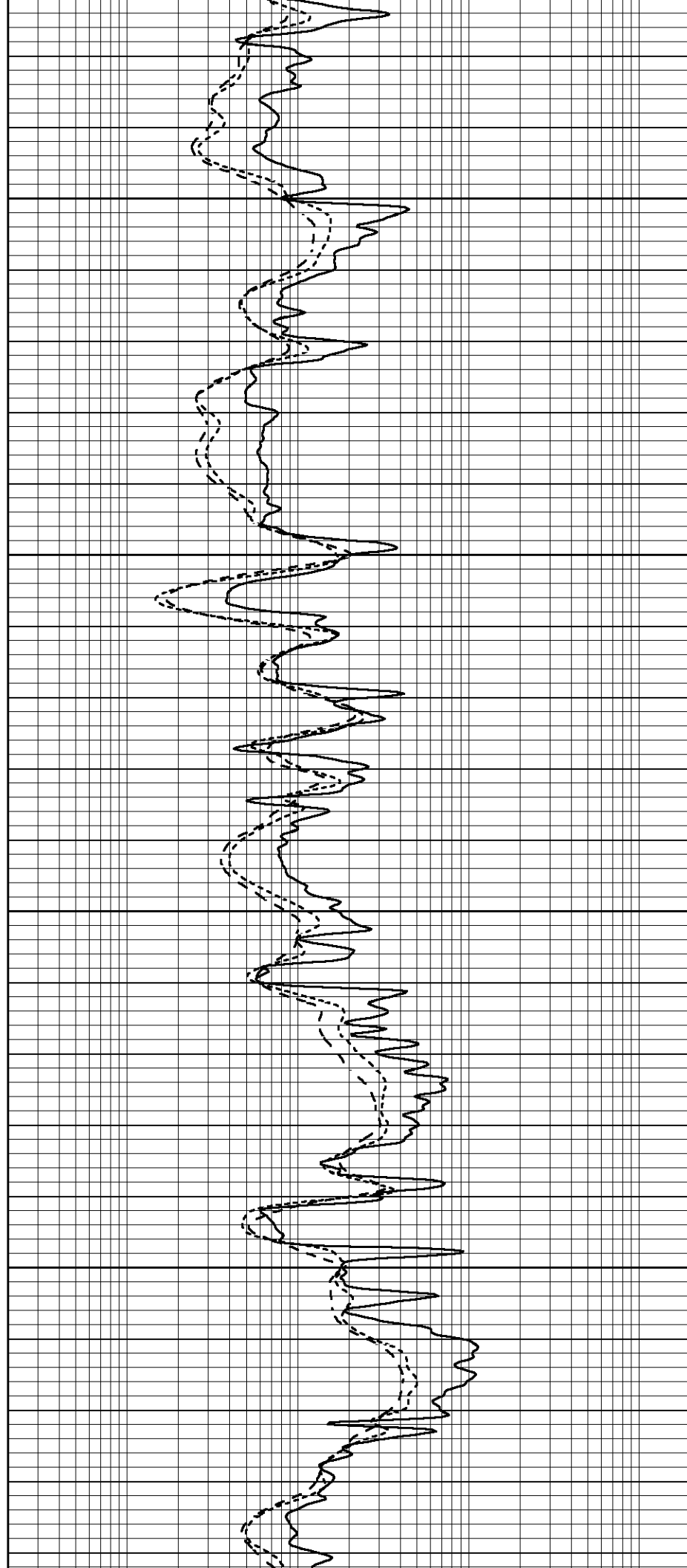


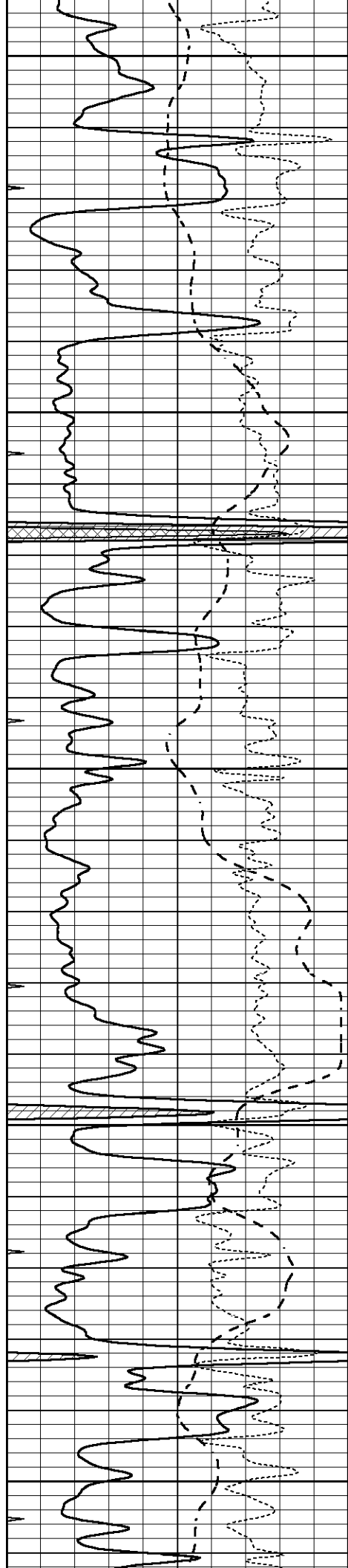
3600

3650

3700

3750





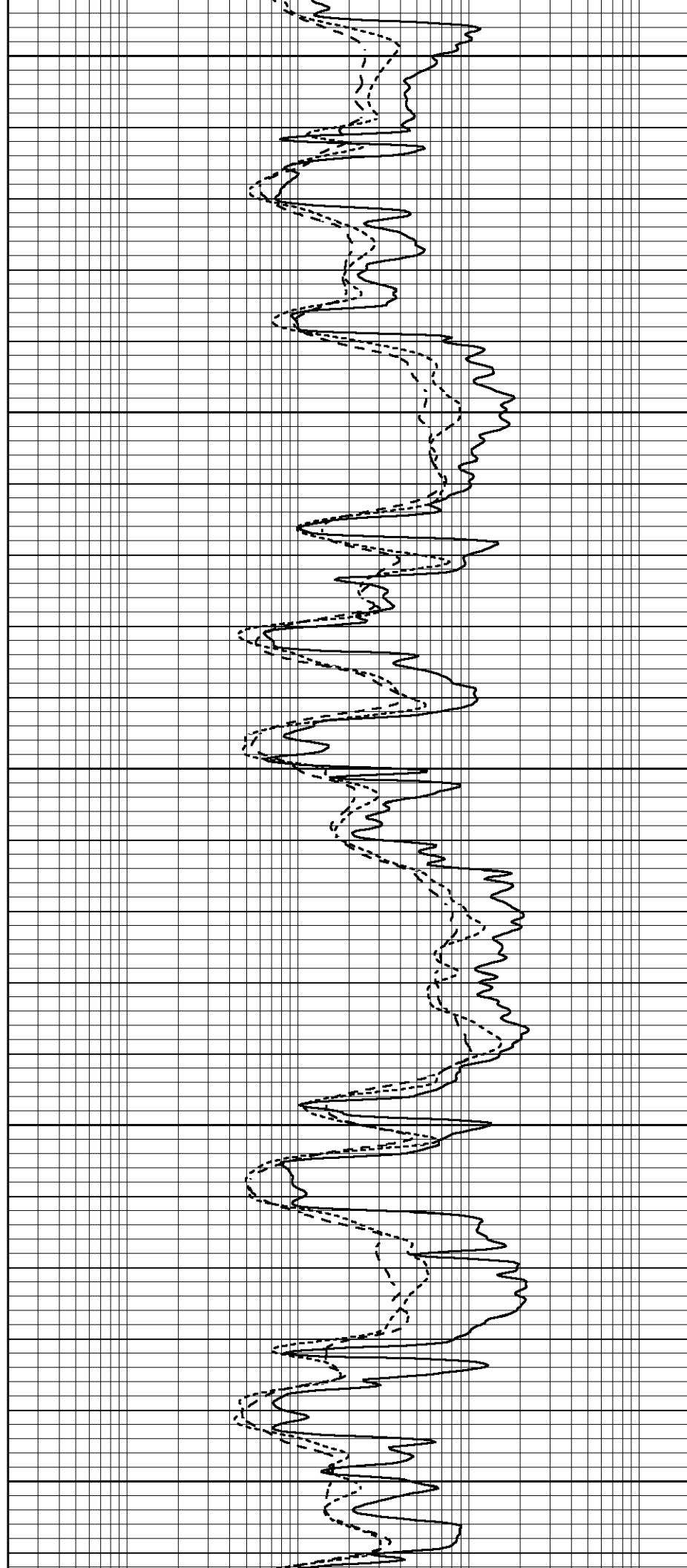
3800

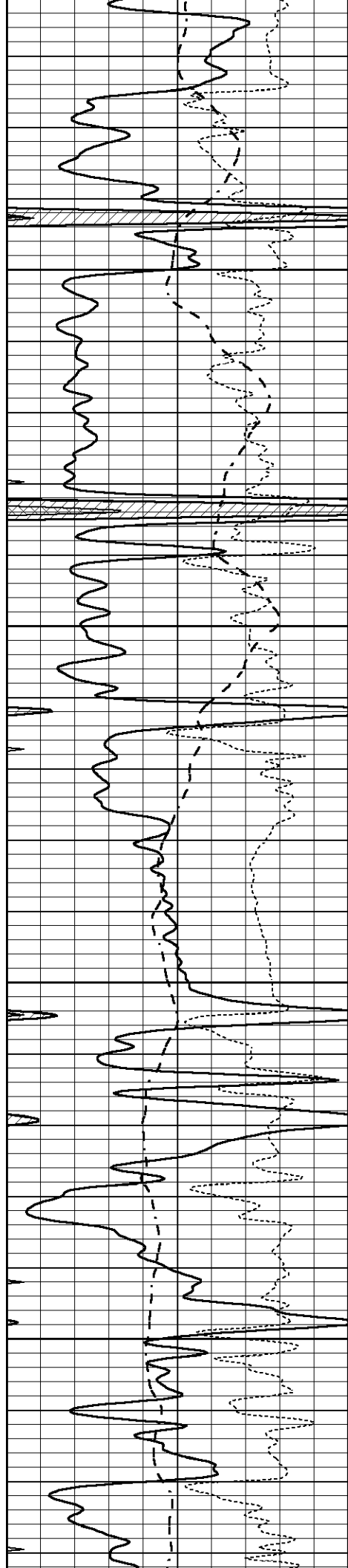
3850

3900

3950

4000



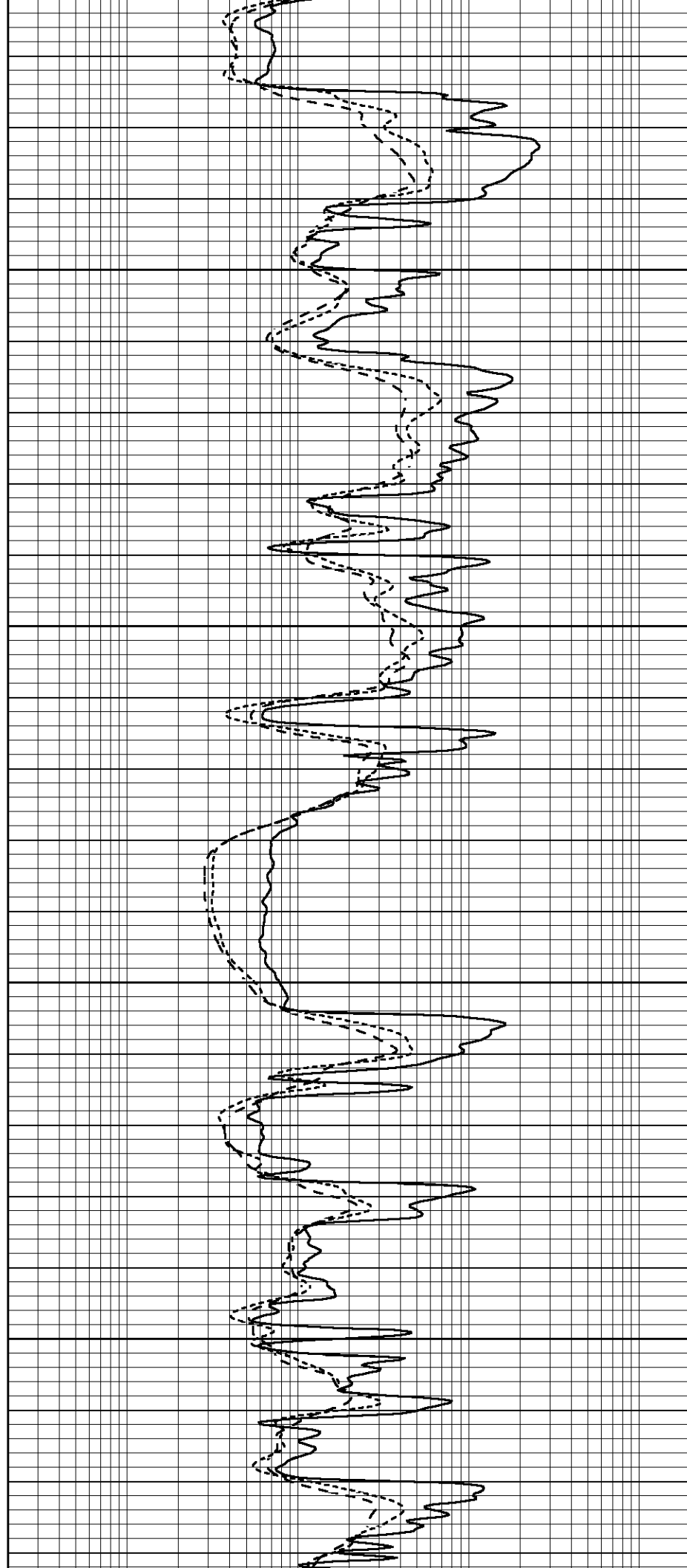


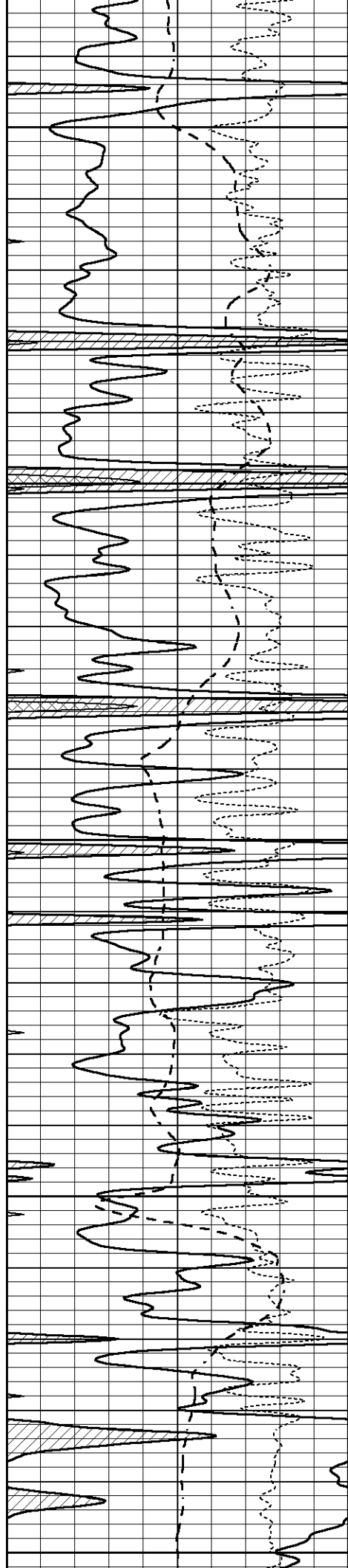
4050

4100

4150

4200





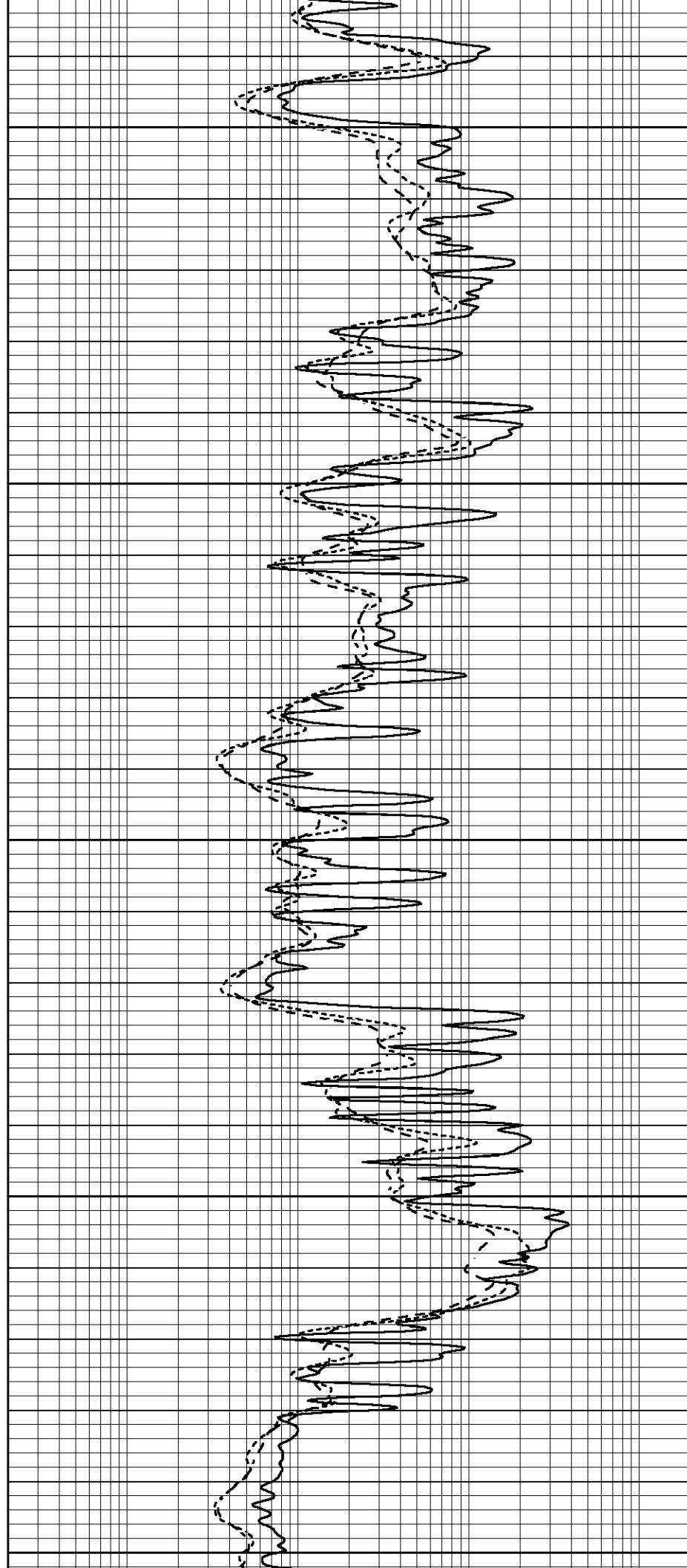
4250

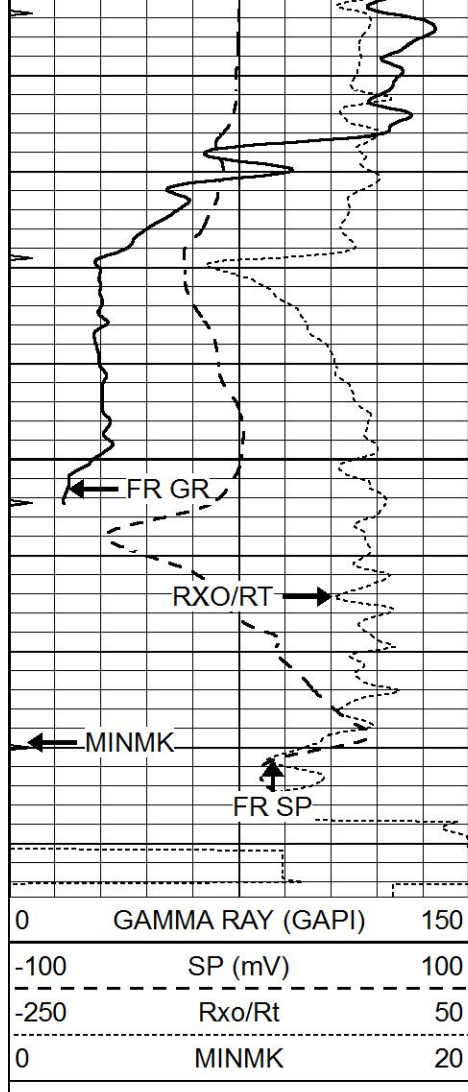
4300

4350

4400

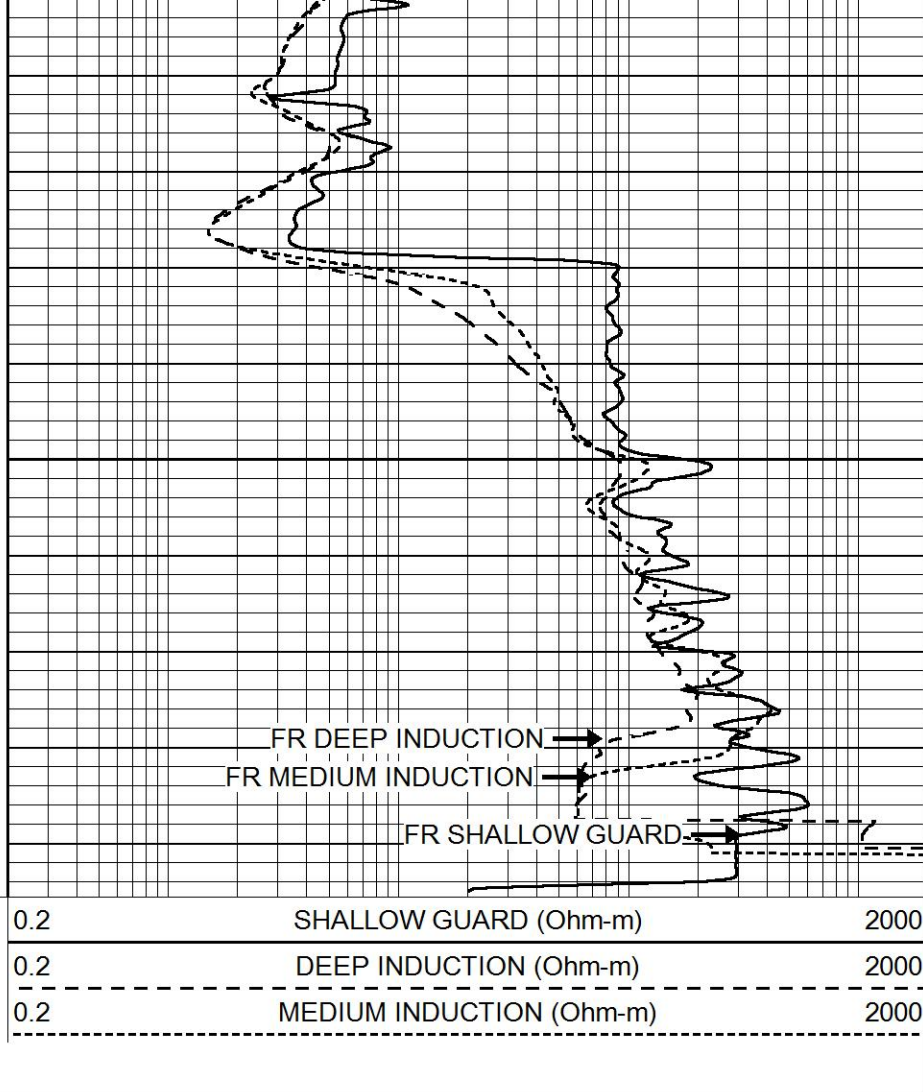
4450





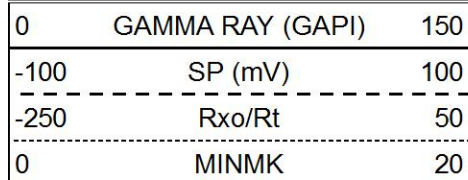
4500

LTD 4541

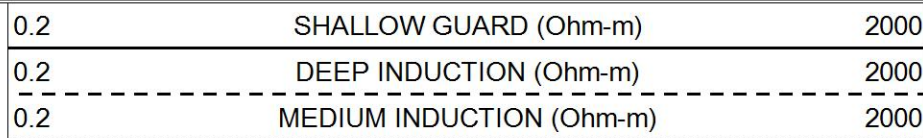


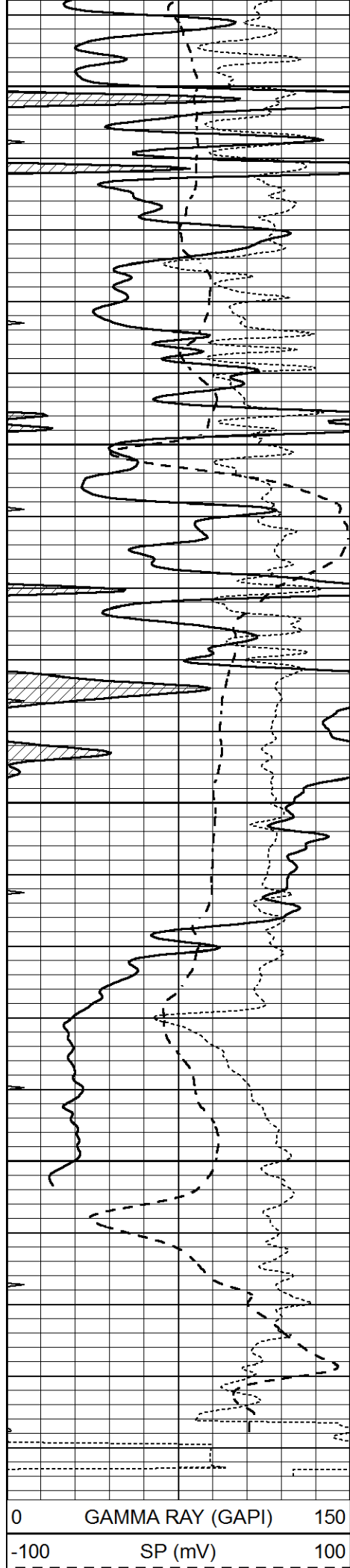
REPEAT SECTION

Database File 8485pe.db
 Dataset Pathname pass3.1R
 Presentation Format _dil
 Dataset Creation Fri Apr 12 01:17:40 2024
 Charted by Depth in Feet scaled 1:240



4300



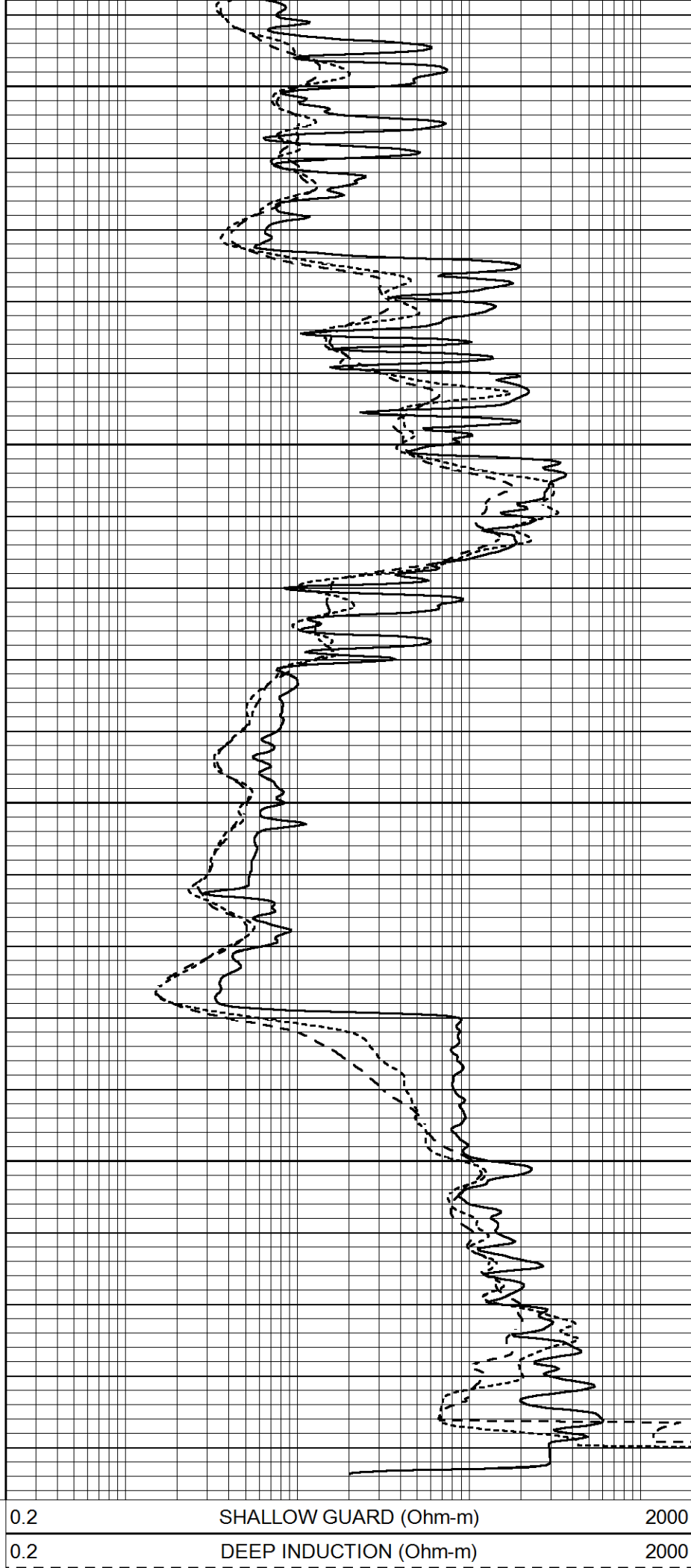


4350

4400

4450

4500



-250	Rxo/Rt	50	0.2	MEDIUM INDUCTION (Ohm-m)	2000
0	MINMK	20			

Calibration Report		
Database File	8485pe.db	
Dataset Pathname	pass4.1M	
Dataset Creation	Fri Apr 12 02:22:14 2024	

Dual Induction Calibration Report		
Serial-Model:	PROBE8-DILG	
Surface Cal Performed:	Fri Apr 12 01:07:11 2024	
Downhole Cal Performed:	Mon Aug 14 00:39:25 2023	
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	660.000	16.000		
Medium	0.029	0.796	V	0.000	464.000	mmho/m	650.000	4.000		
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: 004	Model: PRB	

Master Calibration			Performed Tue Aug 02 11:29:35 2022		
	Background	Magnesium	Aluminum	Aluminum+Fe	
Window 1	1154.2	10019.5	3137.9	2795.6	cps
Window 2	1054.4	8597.6	2733.4	2469.5	cps
Window 3	902.3	5241.4	1832.1	1719.3	cps
Window 4	251.9	261.1	255.8	252.9	cps
Long Space	0.0	7543.2	1679.0	1415.0	cps
Short Space	4.4	2049.3	1321.7	1116.8	cps
Rho		1.7100	2.5900	0.0000	g/cc
Pe		2.0000	2.7500	5.7900	

Rib Angle	: 43.7	Rib Slope	: 0.957	Density/Spine Ratio	: 0.562
Spine Angle	: 73.7	Spine Slope	: 3.426	Spine Intercept	: -17.2
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	

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:	Wed Mar 20 11:08:27 2024			
Calibrator Value:	1.0	GAPI		
Background Reading:	0.0	cps		
Calibrator Reading:	1.0	cps		
Sensitivity:	0.3000	GAPI/cps		